

# **The Mapping of Our National Forests**

By Peter L. Stark

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## ACKNOWLEDGMENTS

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Library of Congress, Geography and Map Division  
National Archives at College Park  
National Archives at Seattle  
National Agriculture Library  
University of Arizona  
University of California, Berkeley  
University of California, Irvine  
Stanford University, Branner Earth  
Sciences Library, California  
University of Chicago Library  
Colorado School of Mines  
University of Idaho  
University of Maryland, College Park  
University of Michigan  
University of Montana  
Montana Historical Society  
University of New Mexico  
University of Oregon

Oregon State University  
University of Washington  
University of Wisconsin, Univ. of Wisconsin  
Libraries, American Geographical  
Society Library  
Grey Towers Heritage Association  
U.S. Forest Service, Grey Towers National  
Historic Site  
U.S. Forest Service, Washington Office,  
Lands Staff  
U.S. Forest Service, Region One  
Missoula  
Montana  
U.S. Geological Survey Library, Reston,  
Virginia  
U.S. Geological Survey Library, Denver,  
Colorado

It is the author's hope that this work on the historic geography of the National Forest System will broaden the user's understanding of the slow but deliberate ways in which the System came into being and was enlarged and modified over the decades to meet changing circumstances, policies, and needs of the American people. It is also hoped that this work will deepen the user's appreciation of the System as it exists today by seeing that its growth and development has been far from arbitrary and accidental, but instead, the product of many careful, dedicated hands and thoughtful and creative minds over many decades. Finally, the hope is that it will encourage the user to investigate more thoroughly the unanswered questions that arise from consulting this work, thereby enlarging the body of research and scholarship on this remarkable legacy of American conservation.

# THE MAPPING OF OUR NATIONAL FORESTS

By Peter L. Stark

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## I. The Mapping of Our National Forests <sup>1</sup>

*“Accurate maps of the national forests are essential to every activity conducted by the service.”*

-- Forester William B. Greeley, 1922. <sup>2</sup>

A compelling connection exists between a given national forest’s administrative history and its map record that argues in favor of linking a forest’s history to its cartography. This idea of connection is the theme found in the nine Forest Service Regional Chapters elsewhere on this website. This essay on the mapping of our national forests serves to introduce the cartographic side of the equation, while the essay on the administrative history of the National Forest System, also on this website, introduces the laws, policies, events that shaped the System over time, which in turn would affect the production of maps of the federal forest reserves and the national forests.

On January 23, 1925, President Calvin Coolidge signed presidential proclamation No. 1728 that transferred the southern half, or the Clifton Division, of the Apache National Forest to the Crook National Forest. The proclamation also reassigned the northern portion of the Datil National Forest in New Mexico to the Apache, or the area now referred to as the Quemado Ranger District. This action immediately rendered the existing maps of the Apache National Forest, not to mention the Crook and Datil National Forests, obsolete and led to the compilation of new editions. The first new map issued for the Apache National Forest was the one that accompanied the text of Proclamation 1728, or the “Diagram forming part of Proclamation 1728” at 1:253,440-scale. This four miles to the inch-scale map was closely followed by new administrative maps of the Apache National Forest dated 1925 and 1926 and a folded map for the forest visitor in 1926. This 1925 boundary change was the most significant event in the Apache National Forest’s history up to that point and maps produced by the Forest Service, both before and after 1925, document this important land exchange between three national forests. Maps illustrate and document and therefore should be linked to the administrative history of the National Forest System. From the 1925 boundary changes in this area of Arizona and New Mexico, one can surmise that the Forest Service had determined that administrative efficiencies could be achieved by transferring the lands of the Apache National Forest south of the Mogollon Rim to the Crook National Forest for management and to unify the administration under the Apache National Forest of the Blue Range and the Mangas and Tularosa Mountains in both states. Indeed, the beginning sentence of the president’s proclamation of January 23, 1925 states, “Whereas, in the interest of economy of administration...”<sup>3</sup> Such boundary changes for the economy of administration were not uncommon and resulted in new mapping activities by the Forest Service.

Significantly, it was a Forest Service cartographer, Salvatore Lo Jacono, who, nearing the end of his 40-year career with the agency’s Engineering Division in Washington, D.C., compiled the first reference work detailing in chronological order the administrative history of the National Forest System. His work recorded official government actions that established, modified, or altered the status and the boundaries of individual forest reserves and national forests. His 1959 work, *Establishment and Modification of National Forest Boundaries: A Chronological Record, 1891-1959* has been recognized by the Forest Service as a valuable resource by the fact that the title has been maintained and reissued periodically since its first appearance in 1959, first by the Engineering Division and later by the Lands Staff of the Forest Service. Lo Jacono’s cartographic experience over the course of his long career led him to recognize the need for, and the importance of, a convenient reference work detailing the changes in names and boundaries of the many units in the National Forest System. However, he did not include in his reference the important role played by the purchase program conducted under the Weeks Law by the National Forest Reservation Commission in building the National Forest System.<sup>4</sup> By combining the administrative history of each forest reserve and

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<sup>1</sup> When addressing the Regions of the Forest Service, the term used to describe the administrative units will be the one that was used at the time being examined in the essay. When discussing maps issued to 1919, “District” with its numerical designation will be used; from 1919 to 1929, the name of the District, such as the “Alaska District” and/or its numerical designation will be used; after 1930, “Region” will be used along with its name, such as the Eastern Region and/or its numerical designation.

<sup>2</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1922), p. 43.

<sup>3</sup> *United States Statutes at Large*, vol. 43, (Washington, D.C.: Government Printing Office, 1925), p. 1984. (Proclamation No. 1728).

<sup>4</sup> Important dates concerning the establishment, modification, and elimination of National Forest Purchase Areas/Units are included under each national forest as required in the Regional Chapters elsewhere on this website, thus providing the essential underlying information about the national forests, primarily in the eastern and southern United States, that were rooted in the Weeks Law of March 1 1911 (Public Law 61-435 / 36 Stat. 961).

national forest, including, where appropriate, actions taken by the National Forest Reservation Commission under its acquisition program, with that of its map record enhances the usefulness of Lo Jacono's original work.

In addition to documenting administrative changes, Forest Service maps are essential to the understanding of environmental and human history of the national forests, as both physical and cultural features change over time. For example, the construction of Libby Dam on the Kootenai River on the Kootenai National Forest flooded an entire river valley and forced the relocation of people, roads, and railroads. The physical as well as administrative features surrounding Mt. St. Helens (Gifford Pinchot National Forest) are quite different now than before the 1980 eruption. Older maps can show what the land looked like and in some instances, the forest characteristics at a particular point in time. Because national forests were located in high, remote areas, at times they can be the only trustworthy maps of some unmapped mountainous regions, until the U.S. Geological Survey could survey and publish its topographic maps. Vintage Forest Service maps have been used to locate old forest lookouts, abandoned CCC installations, public roads that over time became private and gated, logging railroads and their names, resorts and ranches that have come and gone, mines, and pioneer trails. Former names of forest reserves and national forests appear on U.S. Geological Survey topographic and other federal maps as well as commercially produced maps of the same era. Knowing the administrative history of a forest will help determine when a commercial map was published if the map does not carry a publication date which many did not. Forest Service maps can show the beginnings and development of special areas, such as national monuments, primitive, wild, and wilderness areas, scenic areas, recreation areas, and experimental forests. Boundaries and names of special areas and ranger districts have changed just as much as have the names of the national forests. Maps record those changes.

The monumental task of mapping the millions of acres in the new forest reserves was begun by the U.S. General Land Office. The U.S. Geological Survey investigated and mapped the forest reserves under a congressional mandate and appropriations between 1897 and 1905. Even with this beginning, drawing boundaries and evaluating the new forest reserves remained an enormous challenge awaiting Gifford Pinchot's Forest Service when the agency was created and given the responsibility of managing the national forests in 1905. Initially, the Forest Service was dependent on the mapping produced by the federal government dating as far back to the four post-Civil War Surveys of the West <sup>5</sup> in addition to the General Land Office and the Geological Survey. Thus, the early maps and atlases produced by the Forest Service were largely derivative in nature, or compilations from previous maps carrying very little new information except what was supplied by Forest Service staff from the field. Map accuracy was also dependent upon these earlier maps. With the introduction of aerial photography for mapping and resource management in the late 1920s early 1930s, the derivative period of Forest Service mapping ended. Aerial photography, together with the technology and equipment necessary to process images, allowed the agency to make its own original and highly accurate maps from its own reliable base data.

The decentralized nature of the Forest Service led to many differences between districts (after May 1, 1930, regions) in the appearance of the maps issued for the public. But for administrative mapping, there were national standards, which were uniformly applied throughout the cartographic history of the Forest Service. Decentralization at the regional level led to an innovative program of recreation map production in the California District from 1911 to 1918, which was copied to a lesser degree by other Forest Service Districts, but incorporating the initial purpose of the maps for fire prevention and sanitation. Decentralization also allowed the District 1 (Northern District) to improve upon its folios of the *Forest Atlas of the National Forests of the United States* through the addition of topography to the atlas sheets, while other Districts decided not to update their *Forest Atlas* folios. At the same time, centralizing influences guaranteed that district and regional mapping initiatives met certain system-wide standards. The interplay of these two dynamic forces within the Forest Service is well illustrated through an examination of the agency's mapping program.

The course taken by Forest Service cartography closely follows larger 20<sup>th</sup> century themes in map making and use. Already mentioned is the change brought about by gathering map data from aerial photography. This technological innovation in mapping had been advanced by the exigencies of and innovations made during World War I. From managing the national forests to managing large urban programs of zoning, land valuation, transportation, parks, or utilities, governments became ever more dependent on maps. Maps also began to serve a wider array of day-to-day uses in people's lives. New purposes include the rise of the road map and nautical and aeronautical charts to serve travelers in the land, sea, and air, weather maps to predict weather conditions, and maps for outdoor recreation. The new purposes to which maps were put also highlight the

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<sup>5</sup> U.S. National Park Service, *Exploring the American West, 1803-1879*, (Washington: Government Printing Office, 1982), pages 83-99. These pages provide an excellent overview of the four great post-Civil War surveys of the American West conducted by Ferdinand V. Hayden, Clarence King, George Wheeler, and John Wesley Powell, 1867-1879.

democratization of cartography itself. To varying degrees, the mapping program of the Forest Service shared in these 20th Century cartographic themes, including the most significant of all, the transition to computerized cartography.<sup>6</sup>

The major responsibilities of the National Forest System are to protect, manage, and develop the natural resources of all System lands, to actively cooperate with other federal, state, local, and private interests in the practice of good forest, grassland, and range conservation, and to conduct research directed toward more efficient management, protection, and use of the renewable resources of timber, grass, wildlife, and water as well as recreation on System lands. Mapping the land base of the National Forest System is largely a supportive activity to these major responsibilities, and, over the years, has not been given the scholarly attention that other areas of study have enjoyed, such as forest management policy, fire protection, and silviculture. There have been many histories of the Forest Service at the national, regional, individual forest, and even at the ranger district level, but none of these have addressed Forest Service cartography or the cartographers that have been engaged in this vital function. The reason may be the lack of original source material documenting Forest Service cartography. Outside of a reasonably adequate collection of letters and documents covering the early efforts to compile the *Forest Atlas of the National Forests of the United States* for each of the national forests between the years 1906-1910, the National Archives and Records Administration, College Park, holds very little that documents Forest Service map standards, procedures, publishing, printing, and policies governing the making and distribution of Forest Service mapping from the agency's Engineering Division. What is available to the researcher from the National Archives is a very large and significant gathering of Forest Service maps, many of which have been hand annotated with helpful information on printing, type of editions, and quantities printed. This fact points to a fundamental aspect of the following introduction to Forest Service cartography: it is largely based on the actual cartographic output of the Forest Service as well as any and all text and hand-made annotations found on the maps themselves at the National Archives and whatever primary and secondary supporting materials that have been uncovered.

There has been a great deal of time, expertise, and funds expended over many years to establish the Public Land Survey System of corners and land lines in the national forests. Cadastral surveying is an extremely important part of the Forest Service cartographic program. Much effort has also been made at the regional level in the making of operational maps for timber sales, fire management, road construction, environmental and recreation planning. However, the guiding principle behind the listing of maps and this essay on Forest Service mapping is that the maps being listed and discussed are ones that are generally available to the public and are found in research libraries, archives, and other repositories. With this in mind, some space has been devoted here to explain how Forest Service mapping has been distributed over the years to the public as well as to libraries.

The cartobibliographies found under each Forest Reserve and/or National Forest in the Regional Chapters elsewhere on this website, are arranged in chronological order, but with the very important exception that the maps most associated with the forest's administrative history, those that accompanied presidential proclamations and executive orders, will appear first, immediately below that history. Following these are any maps published by the U.S. General Land Office when that agency was administratively responsible for the forest reserves, or the years 1891-1905. Of course, only the earliest forest reserves will have maps issued by the G.L.O. Also, only the earliest of forest reserves will have maps compiled and published by the U.S. Geological Survey, the next group of maps that follow G.L.O. mapping. Moving forward in time, the cartobibliographies present citations for the forest atlases produced for that forest followed by general Forest Service administrative and forest visitor mapping produced after 1905. Because of constant reorganization of the forest reserves and national forests in their first 75 years, users are encouraged to follow the administrative histories of newer national forests of today back to their predecessor forests guided by the administrative history of each forest and to follow forests established before 1908 forward to discover additional cartographic resources for a particular land area.

## **II. Early Federal Forest Mapping, 1891 to 1908**

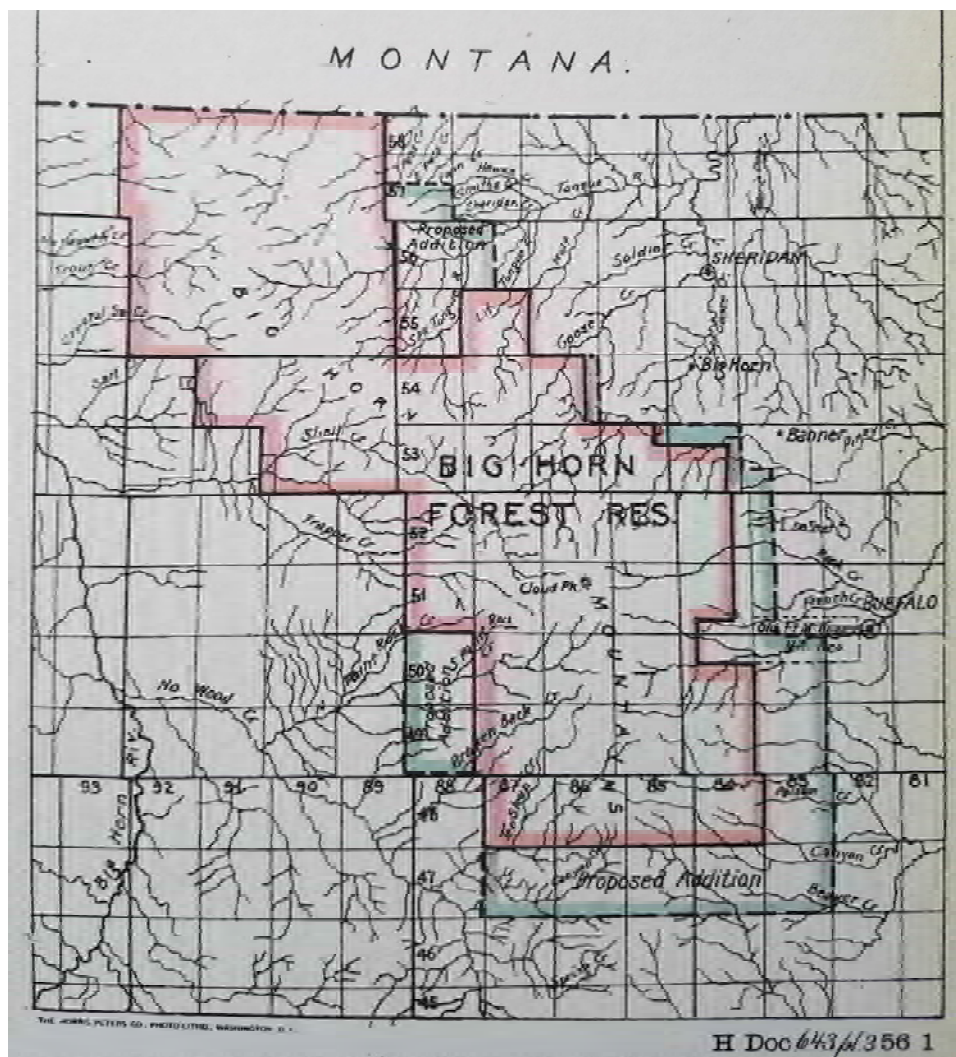
### **A. U.S. General Land Office Mapping**

The General Land Office, because of its authority over the public lands as well as the early forest reserves, made the first maps of our national forests. These were compiled using the bureau's principal cartographic product, the 1-mile to 1-inch township plat. The G.L.O. maps covering the forest reserves constructed during the decade of the 1890s and into the first years of the new century were few in number and drawn at a small-scale. Division "E" or the Surveying Division of the General Land

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<sup>6</sup> These themes were voiced by Professor Mark Monmonier (Syracuse University), at a keynote address, given May 15, 2014 at the Library of Congress, as part of the program, "*From Terra to Terabytes: The History of 20<sup>th</sup> Century Cartography and Beyond.*" They can also be found in Volume 6, "Cartography in the Twentieth Century" edited by Mark Monmonier and published in 2015 by the University of Chicago Press, as part of the monumental "The History of Cartography" project.

Office produced the maps for Division “P” the Special Services Division. On November 15, 1901, the Special Services Division was renamed the Division of Forestry. These G.L.O. maps were later used extensively as in-house base maps by the U.S. Geological Survey and the Bureau of Forestry of the U.S. Department of Agriculture and its successor, the Forest Service, in tracking boundary changes and for constructing thematic maps, such as timber type and timber density maps. The National Archives holds examples of these early maps today. There is little evidence that General Land Office maps of the Forest Reserves were distributed to libraries or to the public. Research institutions have cataloged very few. Separately published base maps of the forest reserves compiled by the G.L.O. appear in the cartobibliography sections of the Regional Chapters elsewhere on this website immediately following the maps illustrating Presidential Proclamations and Executive Orders.



**Figure 1:** General Land Office map dated 1900, showing the Big Horn Forest Reserve and proposed additions. General Land Office maps emphasized the public land grid of Township & Range lines and land withdrawals, such as the one shown here for Old Fort McKinney Military Reservation outside Buffalo, Wyoming on the Powder River. The proposed land additions (shown outlined in blue) were advanced by the Director of the U.S. Geologic Survey to the Secretary of the Interior on July 12, 1898 after his agency had made a thorough examination of the original Big Horn Forest Reserve (shown within the red boundary lines) and by the Forest Superintendent, C. W. Garbutt of the General Land Office.<sup>7</sup> 53,120 acres were added to the Bighorn Forest Reserve by presidential proclamation of June 29, 1900 (31 Stat. 1976), which redescribed the boundaries of the entire Big Horn National Forest and included portions of the areas outlined in blue on the eastern margins of this map.

<sup>7</sup> U.S. House. Committee on the Public Lands, *Forest Reserves, Letter from the Secretary of the Interior...*, (H. Doc. 56-643, Part 2), (Washington: U.S. Government Printing Office, 1900), page 13.

The state maps issued irregularly by the General Land Office (since 1946 the Bureau of Land Management) to show the progress of public land surveying, important federal land withdrawals, administrative organization, and growth of state and territorial infrastructure, can prove to be important spatial records for the researcher in the history of the national forests. The G.L.O. state maps show military and Indian Reservations in red and yellow respectively, national parks, monuments, and game and bird refuges in purple, and water features and federal water projects in blue. Federal forests are shown in green while state and county boundaries, status of public land surveys, towns and cities, locations of United States land offices, roads and railroad lines are rendered in standard black. These state maps, issued until 1944, provide a unique and essential state context for the national forests that maps of individual national forests lack. The General Land Office also produced a wall map of the United States and its territories using the same colors to show the same features as described above for the state maps. In some instances, the G.L.O. maps of the United States, that were issued on a nearly annual basis, can be the only cartographic representation of a few, early, short-lived forest reserves, such as New Mexico's Portales National Forest (1906). Many research libraries have cataloged these state and national maps which would indicate that these maps were widely distributed. G.L.O. state maps are listed in each Regional Chapter for states in that region; maps of the United States and its territories are described in a special section within the Alaska Regional Chapter: "Part IX, Mapping of North America and United States."

## **B. U.S. Geological Survey Mapping 1897 to 1905**

One of the many recommendations issued by the National Academy of Sciences Commission in its final report on a forest policy for the United States dated May 1, 1897 (see the essay, "Field Organization and Administrative History of the National Forest System" elsewhere on this website), one suggested that the U.S. Geological Survey be charged with the examination and inventory of the forest reserves with a focus on discovering which lands should be eliminated and which lands should be included in the nation's forest reserves. The Commission noted: "Only a small portion of the White River Plateau Timber Land Reserve in Colorado...is forest land, the remainder being covered with grasses and scattered clumps of oak bushes. Such land is, of course, most valuable for pasturage and its withdrawal from use cripples the important cattle industry of the region."<sup>8</sup> Commission members believed that the U.S. Geological Survey was the only federal bureau at the time capable of performing examinations and mapping of the forest reserves and that the agency should be appointed with an adequate budget to perform the necessary work. This recommendation found its way into the Sundry Civil Appropriations Act of June 4, 1897 for the year ending June 30, 1898 (also known as the "Organic Act" for federal forestry). The Geological Survey was given the responsibility to evaluate and map the forest reserves and given an annual appropriation of \$150,000 to conduct its examination.

A year later, on July 18, 1898, the Director of the U.S. Geological Survey, Charles D. Walcott, officially transmitted for publication as Part 5 of the Survey's *Nineteenth Annual Report, 1897 – 1898*, a 400-page volume on "Forest Reserves" with 110 maps and illustrated by a large number of photographs. For the next two years, the U.S. Geological Survey's substantial *Annual Report* included a Part 5, a bound volume with an additional map case, devoted to an examination of the Forest Reserves. The maps from these annual reports are listed whenever possible under the forest reserve in the cartobibliography under "U.S. Geological Survey Mapping" and include both loose maps found in an accompanying map case to Part 5, as well as those bound into the text volume of the report. Maps with state or regional coverage are listed under a section on maps of the Forest Service region. The text of these reports tends to be organized around the standard 36 square mile township with a description of the timber resources in that township. Gifford Pinchot continued to use this organizing principal in his *Forest Atlas of the National Forests of the United States*.

After the publication of its *Twenty-First Annual Report, 1899 – 1900*, the Geological Survey's examinations and mapping of the forest reserves found a new outlet in the Survey's *Professional Papers* series, launched in 1902. Thirteen early numbers of *Professional Papers* were dedicated to an assessment of the forest conditions found in states, regions, and for individual forests between 1902 and 1905. For instance, *Professional Paper No. 4* (1902) surveyed the forests of Oregon, while *Professional Papers No. 29* and *No. 30*, both issued in 1904, examined the Absaroka and the Little Belt Mountains Forest Reserves respectively in Montana. Maps illustrating these reports are found under these two forest reserves in the chapter on Region One.

The thematic maps produced by the U.S. Geological Survey in both its *Annual Reports* and its *Professional Papers* series, often become separated from their parent publications, and so, it is hoped that by providing full citations for each map and including

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<sup>8</sup> National Academy of Sciences, *Report of the Committee appointed by the National Academy of Sciences upon the Inauguration of a Forest Policy for the Forested Lands of the United States...*, (Washington: Government Printing Office, 1897), p. 27.



in that citation a full description of the parent report, a researcher can, if necessary, unite map with text. Much of the color thematic data found in the forestry reports of the U.S. Geological Survey as well as the topographic information later made its way onto the future pages of the *Forest Atlas* series.

The Geological Survey left a large and remarkable body of written, photographic, and cartographic work on the early forest reserves for today's researcher. The Survey's forest mapping legacy is fully described in the pages of this reference work in its regional chapters. Henry Gannett, in charge of the U.S. Geological Survey's Division of Geography and Forestry summarized his Division's efforts in the agency's 1905/06 annual report:

"During the spring [of 1905] the work of examining forest reserves, etc., together with the men employed upon it, was transferred to the Bureau of Forestry of the Department of Agriculture. As this closes the work of the Geological Survey in the examination of forest lands, it may be well to make a brief résumé of the results accomplished. The work was committed to this office by act of Congress in 1897, and has therefore been carried on for eight years."<sup>9</sup>

Gannett then provides a state-by-state listing of the 34 forest reserves that had been examined and which had reports written as well as the frequent comment of the Geological Survey that: "The names [of the forest reserves] given above are in most cases those which were in use at the time of the examinations. Many of them have since been changed through consolidation."<sup>10</sup> He continues, "Besides these reserves, large areas were examined with a view to the formation of new reserves or their inclusion in existing reserves. The total area examined during the eight years amounts to 110,000 square miles."<sup>11</sup>

Even after the transfer of responsibility for mapping the forest reserves to the Forest Service in 1905, the Geological Survey continued to state in its annual reports where its topographic surveys were being conducted in areas wholly within the forest reserves and in areas where the U.S. Geological Survey was engaged in forest boundary surveys. The Survey's 1906/07 annual report, for instance, noted that topographic surveys were being conducted on the Priest River Reserve in Idaho, the Hellgate Reserve in Montana, and for a proposed reserve in Idaho in that state's Kootenai and Shoshone counties, along with describing topographic work accomplished in several other western states.<sup>12</sup> These surveys later resulted in the publication of topographic quadrangles by the Geological Survey, conforming to the geographic grid and not to forest reserve boundaries. Along with its topographic work, the Geological Survey was also instrumental in surveying and marking the boundaries of the forest reserves. Such boundaries later appeared as important lines on the agency's published topographic maps and on Forest Service maps as well. Henry Gannett, writing, again in the 1906/1907 annual report, stated that during the past year, one of his duties as Chief Geographer of the U.S. Geological Survey was "Assisting the Forest Service, particularly in matters relating to geography and topography and in the organization of its reserve force."<sup>13</sup> Also, Henry Gannett was assisting Gifford Pinchot, F. E. Olmstead, and Coert DuBois in organizing the western forest reserves into administrative districts also called "inspection" districts, the precursors of the Forest Service regional organization. The U.S. Geological Survey also continued its role of engraving and printing maps for the Forest Service and indicated in its annual reports well into the 1920s the number and type of maps printed. All issues of the *Forest Atlas of the National Forests of the United States* were engraved and printed by the U.S. Geological Survey. (See Part X below: Union List of the Forest Atlases of the National Forests of the United States)

The Geological Survey's *Annual Reports* and *Professional Paper* series are readily available in most major university, public libraries, and state historical societies. These book publications were widely distributed through the Government Printing Office's depository library program and included in the Serial Set of United States government publications.<sup>14</sup>

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<sup>9</sup> Henry Gannett, *Twenty-Sixth Annual Report of the Director of the U.S. Geological Survey to the Secretary of the Interior for the fiscal year ending June 30, 1906*, (Washington: Government Printing Office, 1906), p. 159-160.

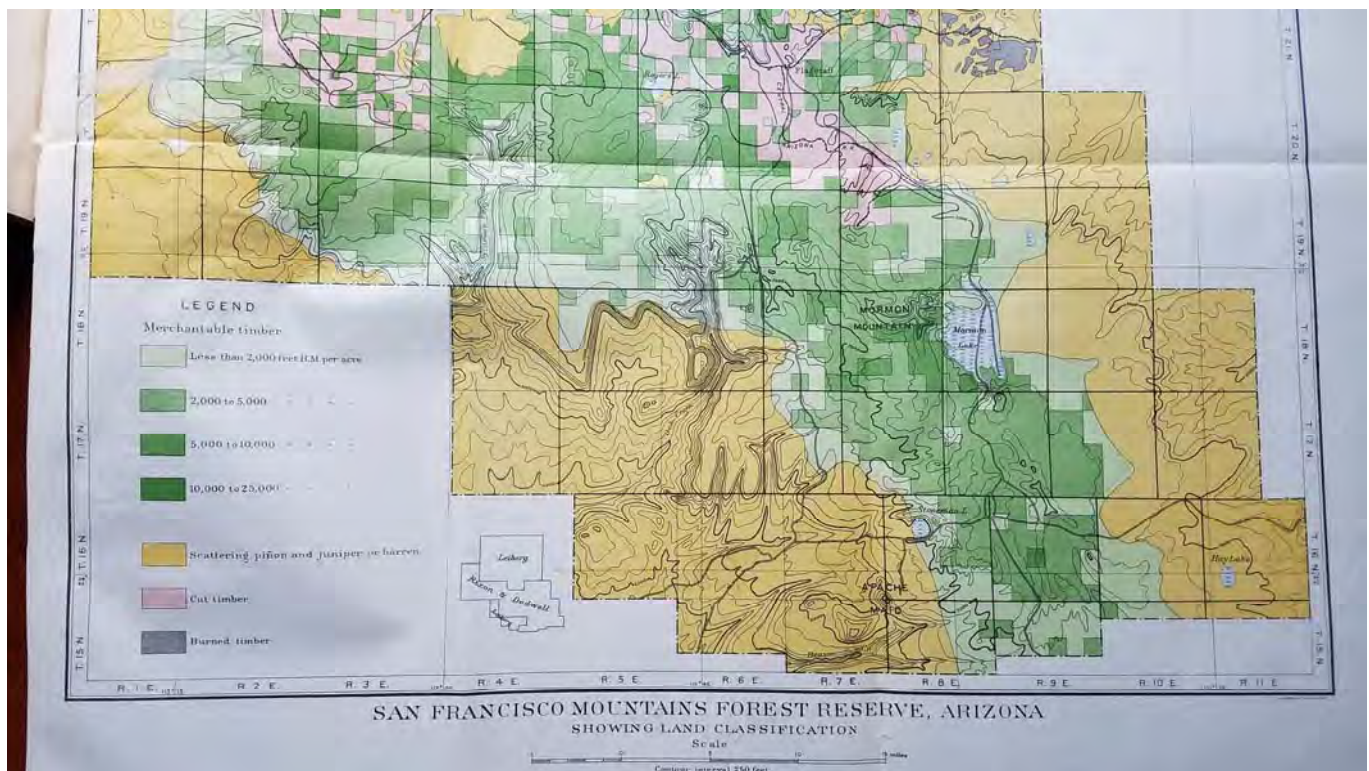
<sup>10</sup> Ibid, p. 160. The name and boundary changes of the forest reserves during this time (1897-1905) presented the Geological Survey with an administrative geography in constant flux, as when the Absaroka Forest Reserve (*Professional Paper No. 29*) was absorbed into the Yellowstone Forest Reserve before the report could be published.

<sup>11</sup> Ibid, p. 160. 110,000 square miles = 70,400,000 acres.

<sup>12</sup> U.S. Geological Survey, *Twenty-Seventh Annual Report of the Director of the U.S. Geological Survey to the Secretary of the Interior for the fiscal year ending June 30, 1907*, (Washington: Government Printing Office, 1907), p. 50.

<sup>13</sup> Ibid, 54.

<sup>14</sup> See the excellent index to all maps included in the Serial Set, including forest maps (but not *Forest Atlases*) constructed by the Geological Survey, *CIS US Serial Set Index, Part XIV, Index and Carto-Bibliography of Maps, 1789-1969*, edited by Donna P. Koepp, (Silver Spring, Md.: Congressional Information Service, 1995).



**Figure 2:** Southern portion of Plate 1 “San Francisco Mountains Forest Reserve, Arizona, showing land classification” made to illustrate, John B. Leiberg, Theodore F. Rixon, and Arthur Dodwell’s, *Forest Conditions in the San Francisco Mountains Forest Reserve, Arizona*. (Washington, D.C.: Government Printing Office, 1904), U.S. Geological Survey Professional Paper No. 22. Data from this map (land classification, forest type and density, etc.) were later used for the prototype for the *Forest Atlas of the National Forests of the United States* series as described below. Flagstaff, Arizona can be found in the top-center of the map surrounded by pink or “Cut Timber” land classification. Accessible through the U.S. Geological Survey Publications Warehouse address: <https://pubs.usgs.gov/pp/0022/report.pdf>

### C. Proclamation Diagrams and Executive Order Maps

Until the fall of 1905, the boundaries of newly created forest reserves were expressed in the text of the Presidential Proclamations according to the public land survey system of the General Land Office – numbered townships north and south, and numbered ranges east and west according to meridians and baselines established for the area by G.L.O. surveyors. These descriptions could be quite lengthy, some taking up to three or more pages of their proclamations. No map accompanied these early proclamations. However, Forest Service cartographers, retrospectively, took the public land descriptions from these proclamations and, by hand, drew boundaries and boundary changes onto copies of the early G.L.O. maps of the forest reserves, or onto G.L.O. state maps, and retained these maps in the agency’s “Boundary Atlas” map files, now in the possession of the National Archives. President Theodore Roosevelt issued the first published presidential proclamation for a forest reserve with a “diagram” or map attached on the October 12, 1905 proclamation creating the Jemez Forest Reserve in New Mexico, now the western portion of the Santa Fe National Forest. The addition of a map/diagram to the proclamation eliminated the need for the lengthy public land narrative description of the forest reserve boundary. General Land Office maps served as the base maps for these map/diagrams, and thus almost all of these early map diagrams were devoid of any detail, as in the 1906 example supplied below (Figure 4) of the Goose Lake Forest Reserve in Oregon, now parts of the Fremont and Winema National Forests. Once the Forest Service initiated its own cartographic data gathering and presentation, proclamation diagrams and executive order maps after the year 1908 include much more detail. After 1912, they are on a par with any separately published administrative forest map for the time. In two instances, proclamation diagrams compiled for California’s Cleveland and Sierra National Forests dated 1915, showing land eliminations were re-issued as folded forest visitor maps in the same year. Presidential proclamations and their diagrams printed at a reduced size also appeared in the volumes of the *United States Statutes at Large*; texts and maps of presidential executive orders do not. Citations found in the cartobibliography for maps (“diagrams”), accompanying proclamations are for those that are separately published and not for those page-sized maps reprinted in the *U.S. Statutes at Large*. Executive order maps, since they were not reprinted in the *U.S. Statutes at Large*, are all described as issued.

GOOSE LAKE FOREST RESERVE.  
OREGON.

By the President of the United States of America.

A Proclamation.

WHEREAS, it is provided by section twenty-four of the act of Congress, approved March third, eighteen hundred and ninety-one, entitled, "An act to repeal timber-culture laws, and for other purposes," "That the President of the United States may, from time to time, set apart and reserve, in any State or Territory having public land bearing forests, in any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations, and the President shall, by public proclamation, declare the establishment of such reservations and the limits thereof";

And whereas, the public lands, in the State of Oregon, which are hereinafter indicated, are in part covered with timber, and it appears that the public good would be promoted by setting apart said lands as a public reservation;

Now, therefore, I, THEODORE ROOSEVELT, President of the United States of America, by virtue of the power in me vested by section twenty-four of the aforesaid act of Congress, do proclaim that there are hereby reserved from entry or settlement and set apart as a Public Reservation, for the use and benefit of the people, all the tracts of land, in the State of Oregon, shown as the Goose Lake Forest Reserve on the diagram forming a part hereof;

This proclamation will not take effect upon any lands withdrawn or reserved, at this date, from settlement, entry, or other appropriation, for any purpose other than forest uses, or which may be covered by any prior valid claim, so long as the withdrawal, reservation or claim exists.

Warning is hereby given to all persons not to make settlement upon the lands reserved by this proclamation.

In Witness Whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this 21 day of August, in the year of our Lord one thousand nine hundred and six, and of the Independence of the United States the one hundred and thirty-first.

[SEAL.]

THEODORE ROOSEVELT

By the President:  
ROBERT BACON  
*Acting Secretary of State.*

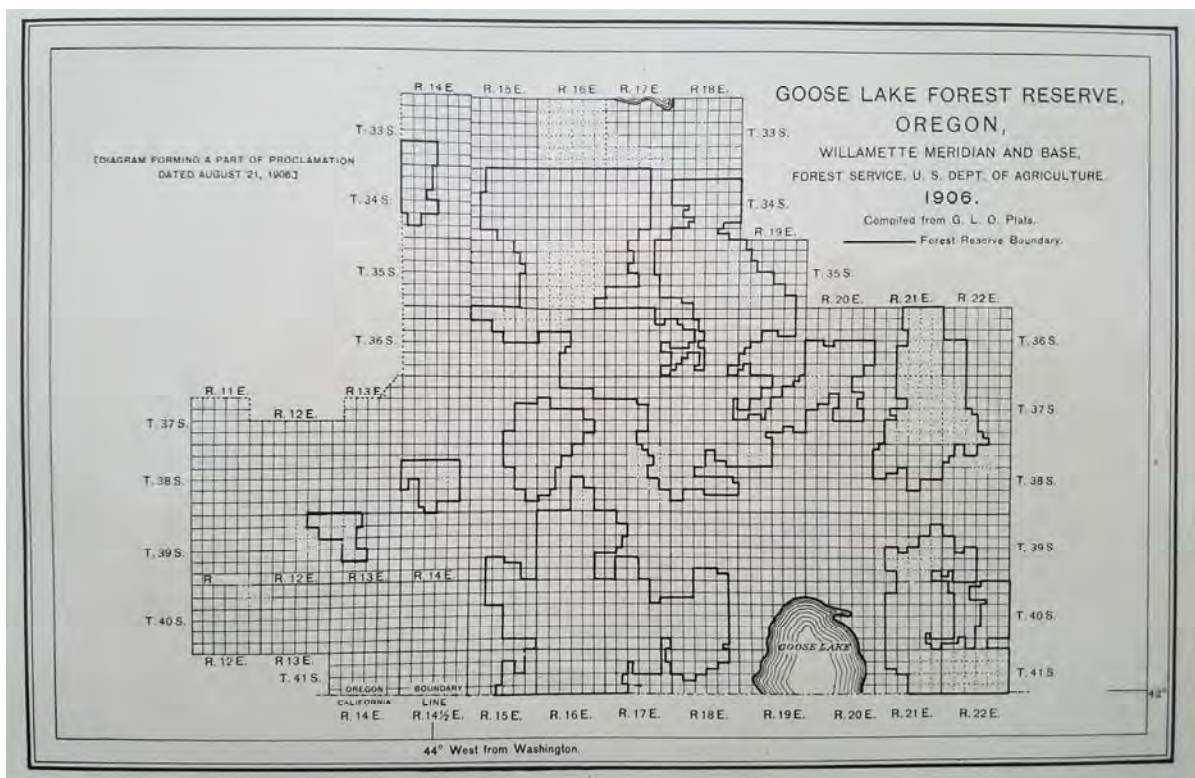
**Figure 3:** Text to the unnumbered proclamation of August 21, 1906 establishing the Goose Lake Forest Reserve in Oregon. The text refers to an accompanying "diagram forming a part hereof" or map (see Figure 4). The Goose Lake Forest Reserve was made a part of the Fremont National Forest with the issuance of Executive Order 817 on June 13, 1908, as part of the "Redistricting" effort of the Forest Service between 1907 and 1909. At this time, the Secretary of State had responsibility of witnessing, receiving, recording, and distributing Presidential Proclamations and Executive Orders.

Early proclamation diagrams and executive order maps were constructed by the Forest Service, but engraved and printed by the U.S. Geological Survey in press runs of just over 1000 copies each. In a letter from the Geological Survey's Chief Engraver,



Stephen J. Kubel to Fred G. Plummer, the Forest Service's Geographer, dated July 6, 1908, Kubel informs Plummer that, "The following sheets are printed and boxed, and are ready for shipment, 500 to go to the State Department and the balance to your office. Kindly have your wagon call for them as soon as possible."<sup>15</sup> The Department of State received 500 copies because it was responsible for witnessing, recording, and distributing presidential proclamations and executive orders, and had, by the Fall of 1907, established a formal numbering system for both kinds of presidential actions. The remainder of the print run was sent on to the U.S. Forest Service, often with an overage for waste of about 20 copies each.

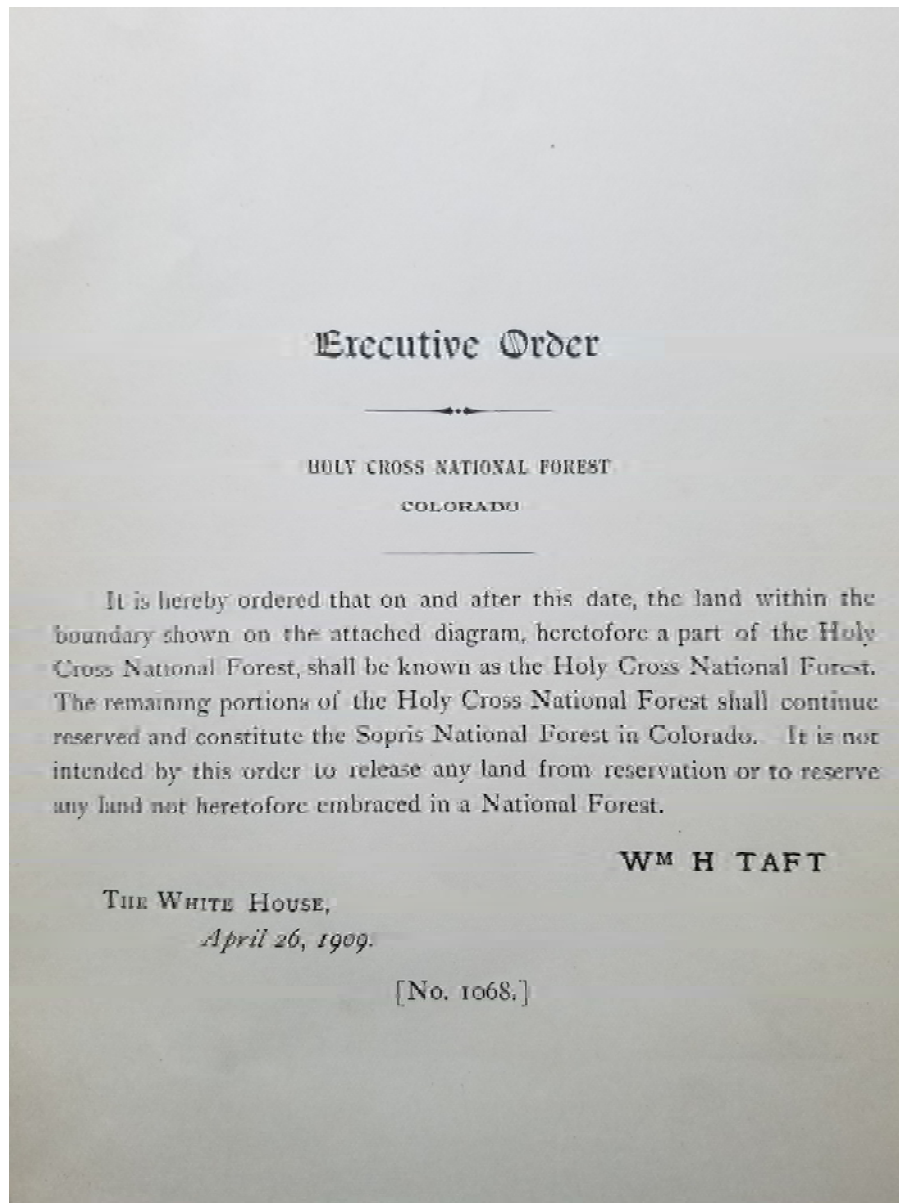
Over time, the number of maps illustrating presidential proclamations and executive orders fell dramatically, most likely due to cost. Their existence became the exception rather than the rule, quite unlike the early period between 1905-1920 when such maps accompanied nearly every proclamation and many executive orders. Most proclamations establishing new national forests in the east and south in the mid- to late 1930s included only sketch maps to illustrate boundaries or had reverted to a narrative of township, range, and section numbers in public land states to describe boundaries as in the period 1891 to 1905. A few proclamations simply noted that a map was on file in the offices of the Forest Service. After March 14, 1936, full texts of Presidential Proclamations and Executive Orders along with any maps or diagrams appeared in the pages of the *Federal Register*, now easily accessible and searchable on the <https://www.govinfo.gov> web site.



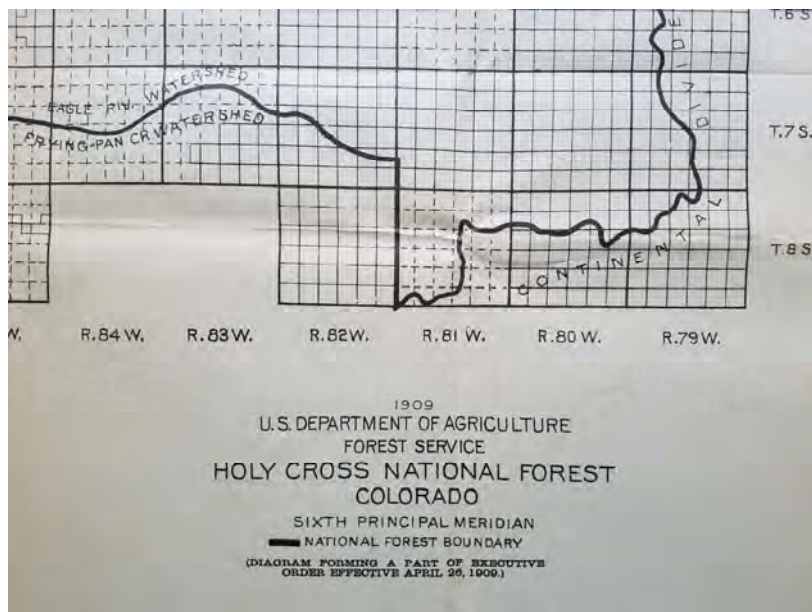
**Figure 4:** "Diagram forming a part of proclamation dated August 21, 1906" attached to the text of the proclamation as shown in Figure 3. The map, compiled by the Forest Service, spliced together General Land Office plat maps (1:63,360-scale plat maps covering 36 square miles, or one Township each). The southern shoreline of Summer Lake can be seen on this map in T. 33 S., R. 17 E., Willamette Meridian. The California-Oregon state line runs east and west south of Township 41 South.

When in 1942, the Public Land Order was initiated in lieu of presidential actions, accompanying maps, with a few exceptions, vanished. Public land descriptions took their place, but were fully presented in the *Federal Register*. Proclamation diagrams and Executive Order maps are important early examples of Forest Service cartography that should not be overlooked by the researcher. They provide the first boundary information on newly established forests and indicate subsequent boundary adjustments as well as land eliminations and additions to existing forests in fulfillment Forest Service policies. They should be used with the understanding that the public land survey system (PLSS) grid, on which they are based, were, in many instances, constructed by merely projecting the PLSS grid from known survey lines into mountainous and remote areas that had not yet been adequately surveyed by the General Land Office.

<sup>15</sup> Kubel to Plummer, 1908, RG 95.4.1, Records of the Engineering Division, Forest Service.



**Figure 5:** Entire text to Executive Order No. 1068. Nearly identical in appearance to the printed proclamations of the time, the order measures 13 x 8 inches with a folded map attached (see Figure 6). Along with Executive Order 1069 issued the same day, the orders together reduced the area of the Holy Cross National Forest (No. 1068) and established the Sopsris National Forest from the southern half of the Holy Cross National Forest (No. 1069). The redistricting effort conducted by the Forest Service between 1907 and 1909 was largely accomplished by the use of the executive order. The last sentence in the executive order indicates compliance with the Fulton Amendment of 1907. The Forest Service discontinued the Sopsris National Forest on August 7, 1920 when the forest's entire area was added back to the Holy Cross National Forest in Executive Order 3317.



**Figure 6:** Title portion of the map attached to Executive Order No. 1068 (text above in Figure 5).

#### **D. “Type & Title” Mapping by the U.S. Department of Agriculture, Bureau of Forestry**

Pinchot wrote in the first edition of his “Use Book” that,

“In 1903, the need of better choice of reserve boundaries led to the establishment of a force of trained men devoted exclusively to this [boundary] work, under a uniform and complete system of field study and report. The results were satisfactory, and the system remains in effect. Before any new forest reserve is created, or any change is made in the boundary of an existing reserve, a member of the Forest Service familiar with the work and with western conditions makes a careful investigation not only of the lands, but also of the interests involved.”<sup>16</sup>

Pinchot called his “force of trained men” “Forest Arrangers” like Elers Koch (see the essay, “Field Organization and Administrative History of the National Forest System,” elsewhere on this website). The Foresters in the Department of Agriculture’s Division of Forestry (after 1901 to 1905, the Bureau of Forestry) were responsible for examining the reserves. Establishing boundaries, evaluating resources, and investigating forested areas in the West for potential new forest reserves became a high priority for the Bureau headed since 1898 by Gifford Pinchot. Again, Pinchot:

“Most of the forest reserves created since January 1, 1904, were examined and mapped by the Forest Service. These maps were made in duplicate on a scale of one-half inch to the mile [1:126,720-scale]. One showed the classification of lands and the other the patented and entered claims. These type and title maps, as they are called, will be furnished to every supervisor and as rapidly as possible to every ranger. Blank prints [without thematic information and used by rangers in the field] are available now for distribution among the reserve officers and the supervisor will be responsible that his rangers are furnished with adequate maps of their districts.”<sup>17</sup>

The type and title maps created by Pinchot’s trained men were in almost every case, drawn on a General Land Office base annotated in applied color, as for example, these two manuscript maps held by the National Archives:

<sup>16</sup> U.S. Forest Service, *The Use of the National Forest Reserves: Regulations and Instructions*, Issued by the Secretary of Agriculture to take effect July 1, 1905, (Washington, D.C.: Government Printing Office, 1905), p. 96.

<sup>17</sup> U.S. Forest Service, *The Use Book: Regulations and Instructions for the Use of the National Forest Reserves*, (Washington, D.C.: Government Printing Office, 1906), p. 132.

### **Bear Paw Forest Reserve, Montana.**<sup>18</sup>

Forest Service, U.S. Dept. of Agriculture; base map in part from G.L.O. maps.

1904. Scale, ca. 1:126,720. No geographic coordinates. Public land (Township & Range) grid. Black & white.

38 x 43 cm. Relief shown by hachures.

Shows boundaries of the proposed Bear Paw Forest Reserve along with the boundaries of Fort Assiniboine Military Reservation, roads, trails, ranches, and streams. "Montana Principal Meridian." National Archives has two copies of this map both with hand-applied color showing, 1) Land use and vegetation (Type) on one map and, 2) Land ownership status (Title).

Many of these type and title maps of the forest reserves mentioned by Pinchot are found in the National Archives "Boundary Atlas" files. Many have hand drawn boundaries illustrating proclamations from this early (1891 to 1905) period. Each forest supervisor was given the responsibility to keep the type and title maps made for their forest up to date and report any corrections to the Washington Office. These type and title maps were never distributed to the public and so are quite difficult to locate, but their construction, the type of information they presented, and the methods used to update them became the basis for the Forest Service's first major national mapping project, the *Forest Atlas* series.

### **E. Forest Atlas of the National Forests of the United States**

In his Annual Report to the Secretary of Agriculture for the fiscal year 1907 (July 1, 1906-June 30, 1907) and published on December 3, 1907, Gifford Pinchot wrote to Secretary James Wilson that:

"During the year a radical change was made in the methods of recording, classifying, and making available for reference upon maps the information concerning the forests of the country, and especially the National Forests, gathered by the Service. A scheme was adopted which improved and standardized the methods employed, both in field and in office work. By the use of graphic symbols like those of the U.S. Geological Survey and the Coast and Geodetic Survey, record is made of the character of the land and of the forest, its ownership, grazing conditions, and other matters. To take charge of the maps on which appear the data thus gathered and to keep them always up to date, a special section, that of "The Forest Atlas," was created."

"Folios of the more important Forests are being printed for the use of the field men. Others are duplicated by photography, and copies are furnished to supervisors. The work of preparing these maps of the National Forests was done in cooperation with the U.S. Geological Survey, which already had carefully prepared topographic maps of much of the country now included within the National Forests." <sup>19</sup>

The mapping plan envisioned by Pinchot was "radical" in the sense that the new section on his administrative chart called "Atlas" was attempting a task no less ambitious than to compile a complete set of standard maps in portfolio for each national forest that carried all the information needed by the supervisor and ranger alike to fulfill their managerial duties. The plan must have appeared at the time as tremendously ambitious since many of the new national forests were located in the most isolated and unmapped areas of the west. However, the idea and scope of the project was not entirely unprecedented. An earlier, initial expression of a similar atlas project can be found in John Wesley Powell's *Geologic Atlas of the United States*, originally planned by the U.S. Geological Survey as one atlas for each topographic quadrangle. The Survey's *Geological Atlas*, published in 227 folios between 1894 and 1945, included a descriptive text, topographic reference map, geologic map, geologic cross-section sheet, and, if warranted, special large-scale topographic maps of mining districts, underground maps of mines, and maps of mineral and water resources (see Figure 8). In format, Pinchot's *Forest Atlas* and Powell's *Geologic Atlas* measured the same at 21 inches tall and 18 inches wide, with title, agency name, and an index map giving the location of the area covered in the atlas on the front panel (see Figure 7). The *Geologic Atlas* had maps bound in; the *Forest Atlas* was unbound, because Pinchot's plan called for the atlas to be continually updated. The idea of a *Forest Atlas* also appealed to Pinchot's and the Progressive Era's belief in what has been called the "Gospel of Efficiency," in that his vision of the *Forest Atlas* called for all spatial and thematic information needed by his bureau to carry out their duties was to be found in one publication, kept current by professional foresters in the field. <sup>20</sup> It was not only an efficient administrative tool, but it also fit into Pinchot's

<sup>18</sup> The Bear Paw Forest Reserve was never proclaimed due to the fact that far too much forest land within its proposed boundaries had passed into private hands and were no longer in federal ownership.

<sup>19</sup> U.S. Forest Service, *Report of the Forester for 1907*, (Washington: Government Printing Office, 1908), p. 29-30.

<sup>20</sup> Samuel P. Hayes, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920*, (New York, Atheneum, 1975), p. 266.

decentralized organizational model: professional forest service staff at the local level objectively acting on real forest conditions, while reporting to a central administrative office, which, in turn, supplied standards and support services.

The existence of a single atlas sheet for the San Francisco Mountains National Forest held by the American Geographical Society Library at the University of Wisconsin, Milwaukee indicates that Pinchot and the Forest Service sought input in advance from respected scientists of the time on the content and format of the proposed *Forest Atlas*. This sheet has not been found in any other library or repository.<sup>21</sup> The AGS example has a note that reads, “Acquired by Gift Jul 16, 1921 from Dr. I. Bowman” that is Dr. Isaiah Bowman (1878-1950), director of the American Geographical Society from 1915 to 1935 and author of the landmark work, *Forest Physiography* (New York: Wiley, 1911). Ink handwriting on this sheet states, “Part of Forest Atlas of U.S.A. (issued for use of Forest Officers only)” and on the back of the sheet in crayon, “Forest Atlas Sample Page.” Extensive typescript descriptive notes on the sheet address map standards, suggest ways to deal with non-conforming legend symbols, and the general size of sheets. The format, geographic coverage, and symbols presented on this single sheet later became the standard for every sheet that followed in the *Forest Atlas*.

A full descriptive citation of this review sheet is provided below:<sup>22</sup>

**[Forest Atlas of the National Forests of the United States: San Francisco Mountains Folio].**

[U.S. Department of Agriculture, Forest Service]; [land] Title from U.S.G.S. twp. maps; compiled by H.S. Meekham; [traced by] G. T. T. – 1907.

1907. Scale, ca. 1:63,360. W112°22' – W112°10'/N35°05' – N35°20'. Public land (Township & Range) grid. Color. 1 numbered sheet without portfolio, 54 x 46 cm. Relief shown by contours and spot heights (contour interval 250 feet). Shows national forest and county boundaries, towns and settlements, roads, trails, railroads, Forest Service facilities, rivers, lakes, and streams. General land classification shown in color and the type of alienated land within national forest boundaries shown by letter, both keyed to a separate legend sheet. Sheet is titled, *San Francisco Mtn's.* and designated as [sheet number] 5. Map is centered on the Bill Williams Mountains, provides full coverage of Townships 20, 21 & 22 North, and 1 & 2 East, Gila and Salt River Meridian, and includes the town of Williams, Arizona.

Even though the U.S. Geological Survey ceased to have responsibility for examining the forest reserves after 1905, its staff of cartographers and engravers continued to work with the Forest Service on the compilation and printing of the multi-sheet 1:63,360-scale *Forest Atlas*. In its 1910 *Annual Report* the Survey's Topographic Branch reported that in order to compile the *Forest Atlas of the National Forests of the United States*,

“All the work of the United States Geological Survey, the General Land Office, and the Hayden Transcontinental, and Wheeler surveys, as well as work done by the Forest Service, was incorporated in these maps. The Forest Service furnished the status of all lands inside forest boundaries. Where the timber classification was considered up to date, it was shown in color on the maps.”<sup>23</sup>

Henry Gannett provided more information about the atlas project, now that certain procedures had been put in place. In the 30<sup>th</sup> Annual Report of the U.S. Geological Survey, Gannett wrote:

“The work of preparing the folios of the atlas of the national forests was continued under the direction of A[rthur]. C. Roberts. The maps were made on the scale of 1 mile to the inch and published with 6 townships to the page.”<sup>24</sup>

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<sup>21</sup> Fred G. Plummer Chief of Geography for the Forest Service wrote to Frank Pooler, District Forester for District No. 3 (Southwest) transmitting “one advance folio of San Francisco Mtns. which is no longer needed at Washington and may be disposed of or destroyed as you think best.” Fred G. Plummer to Frank C.W.Pooler, October 25, 1909, RG 95.4.1, Records of the Engineering Division, Forest Service.

<sup>22</sup> Thematic information on forest type and density was readily available in the U.S. Geological Survey's *Professional Paper* No. 22, “Forest Conditions in the San Francisco Mountains Forest Reserve,” (Washington: Government Printing Office, 1904). See Figure 2.

<sup>23</sup> U.S. Geological Survey, *Thirty-First Annual Report of the Director of the United States Geological Survey to the Secretary of the Interior for the fiscal year ending June 30, 1910*, (Washington: U.S. Government Printing Office, 1910), p. 279.

<sup>24</sup> U.S. Geological Survey, *Thirtieth Annual Report of the Director of the United States Geological Survey to the Secretary of the Interior for the fiscal year ending June 30, 1909*, (Washington: U.S. Government Printing Office, 1909), p. 256.



Many of the folios were published only in a black & white edition, without thematic timber type, density, or land classification, either because there was no such information available at the time of compilation or the thematic information was out of date. The same was true for topographic information, which was added to the atlas sheets only when available. It was decided that thematic information could be applied on the black & white maps by the foresters in the field at a later date. In fact, both a black and white edition and, if available, a colorized folio was sent to the District headquarters for distribution along with a set of colored crayons corresponding to the colors used for timber density.

The U.S. Geological Survey's role in compiling the *Forest Atlas of the National Forests of the United States* ended in 1910. Mary C. Rabbitt in her history of the U.S. Geological Survey wrote that in 1910:

“A disagreement with the Forest Service about control of the work led the Survey to discontinue the preparation of the atlas of the national forests. [In 1910] Folios of 36 forests had been completed; four partly finished folios, on Director [of the U.S. Geological Survey George Otis] Smith's orders, were turned over to the Forest Service.”<sup>25</sup>

However, because the Forest Service lacked its own printing facility, the Geological Survey continued to prepare plates and print new editions of the *Forest Atlas* well into the 1920s.

The *Forest Atlas of the National Forests of the United States* comprises over 5,000 atlas sheets within 158 individual National Forest titles, 25 revised editions, and 6 grazing atlases, with some 3,800 black & white and colored sheets produced between 1907 and 1910 alone (See Part X below: Union List of the Forest Atlases of the National Forests of the United States). Each folio was separately sub-titled and contained map sheets covering one national forest. Folios for the 1908 Luquillo (Puerto Rico) and the 1907 Wichita (Oklahoma) National Forests have only one oversized sheet in folio. The largest folios were the Lewis & Clark National Forest in Montana at 56 sheets and the Blue Mountains National Forest in Oregon with 50 sheets. The first folios came off the presses in 1907; the last, the third edition of the Caribou National Forest atlas for the Intermountain District (4), was issued in 1929. As administrative boundaries shifted or as larger forests were divided into new, more manageable forests, atlas sheets were reshuffled into new combinations, such as the Nez Perce Folio of 1909 or the Deschutes Folio of 1910. When two or more forests combined to form another, as in the case of the Angeles National Forest, the resulting folio carried a collection of sheets in two numbering systems. Ten atlas sheets were made for the San Gabriel National Forest and another ten for the San Bernardino National Forest, both sets were numbered 1 to 10. In 1908, when the two forests were combined into the new Angeles National Forest, the two separate folios were in the final preparations for printing. It was too late to change the sheet numbers, but a new folio folder was designed for the Angeles National Forest atlas. The resulting map index on the folder carried the original sheet numbering sequence of 1 through 10 for the eastern (San Bernardino) and western (San Gabriel) portions of the new Angeles National Forest. The forest atlases were being compiled during a time of rapid reorganization, or redistricting, of the national forests between 1907 and 1910 and atlas compilers were constantly confronted with the unsettled nature of national forest names and boundaries.

A colored legend sheet came with each atlas folio whether or not the atlas sheets themselves were issued in a colored edition. The legend indicates with various colors, five classes of timber densities, six other land cover classes, three types of burned over lands, windfalls, bug infested timber, three types of old cut-over areas, three types of timber sale areas, cultivated land and irrigated lands. Tree species are also identified. With data gathered by the General Land Office, the atlas sheets show 14 different types of land entries, such as cash and desert entries, state lands, and the limits of railroad and wagon road land grants, as well as “in lieu” lands granted to states as compensation for state school sections within national forest boundaries. Atlas sheets show four types of mining claims together with the claim's four-digit file number. File numbers can then be taken to find the text of the actual claim.<sup>26</sup> In regard to alienated lands within national forest boundaries, most map sheets identify landowners by name. And from various topographic surveys, contour lines were transferred onto atlas sheets whenever they were available. Finally, the legend has conventional signs for a wide array of cultural features, such as boundaries, roads and trails, telegraph/telephone lines, structures, and all manner of forestry related improvements, like skidways, flumes, log driving routes, and sawmills. The colors and symbols found on the legend sheet applied to all forest atlases. The legend sheet later formed the basis for the standardized symbols used by the Forest Service for its administrative maps.

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<sup>25</sup> Rabbitt, Mary C., *Minerals, Lands, and Geology for the Common Defence and General Welfare*, Volume 3, 1904-1939, (Washington: Government Printing Office, 1986), p. 97 and op cit. *USGS Annual Report for FY 1910*. (Washington: Government Printing Office, 1911) p. 279 that states that partially completed atlases “were turned over to the Forest Service by order of the Director [of the U.S.G.S.]”

<sup>26</sup> Staff members at the National Archives have reported that researchers interested in mining claims have been, by far, the heaviest users of their set of forest atlases.

From 1906 to 1909, the pages of the periodical issued by the Forest Service, *Field Program for [Month – Year]*, reported on the progress of the *Forest Atlas* indicating the importance of the project. Notices about the *Forest Atlas* began in the November 1906 issue on such subjects as enlarging U.S. Geological Survey topographic maps so that contours could be transferred onto sheets of the *Forest Atlas* and staff employed on the atlas project. It was announced that six colorists were employed in the July, 1907 issue of the *Field Program*, to advance the work on the atlases, and, in the same month, it was noted that Fred G. Plummer was put in charge of the *Forest Atlas*. Plummer was promoted in July of 1908 to Chief, Office of Geography under the Branch of Lands with G. B. Bruce in charge of the Forest Atlas, C. A. Kolb, Drafting, J. B. Satterlee, Alienation, A. G. Varela, Photography, and Dabney C. Harrison, topography (Bruce and Kolb are pictured in Figure 28). The *Field Program for October 1908* carried a report from the Office of Geography, on the progress of the *Folio Atlas* progress:

“A number of requests for the complete status of lands [alienated or private land holdings] within the National Forests are being received by the Office of Geography. In order to anticipate requests along this line, Forest officers are informed that in the course of the present fiscal year (1909) it is contemplated to issue Atlas folios for all of the National Forests which have not already been covered, and that these folios will include the status of lands within the Forests. The order in which they will be issued has been determined to an extent, but depends upon various conditions and the status will be compiled in the same order. Status for lands in small areas or in special cases, can, however, be supplied on request.”<sup>27</sup>

A separate atlas series and legend sheet for grazing purposes was begun according to the same plan at about the same time as the responsibility for the compilation of the *Forest Atlas* was being transferred from the U.S. Geological Survey to the Forest Service. Few grazing atlases were compiled; most being made between 1910 and 1914 for range lands in Idaho, Montana, Wyoming, and northern Arizona, which were initiated by District Offices to meet that District’s needs. Most are quite incomplete, but are listed here whenever encountered.

At the height of *Forest Atlas* production, in December, 1908, the Assistant Forester, Charles S. Chapman, sent a letter to all District (Regional) Foresters informing them that the Forest Service’s Office of Geography was preparing a history of the national forests to be included with the forest atlases then being issued. Chapman wrote to the Foresters,

“It is evident that much of the information required for this work [history of the national forests] must be secured through such personal knowledge of local conditions as only the officers in direct charge of the Forests are in a position to obtain. I will, therefore, be very glad if you will take this matter up with each of your Supervisors and secure from them the necessary reports upon their Forests, and forward the reports to this office before the first of February [1909], if possible. In order to assist you, I have sent you, under separate cover a supply of a form of Report, entitled, *Report for Forest Atlas* indicating in a general way, the substance of the information desired. I will also send as soon as possible, copies of a bulletin containing a History of the Teton National Forest which will serve as a sample sketch.”<sup>28</sup>

In response, William B. Greeley, then the District Forester for District No. 1, sent a letter to his Forest Supervisors later in December of 1908 asking that historical information on native inhabitants, early explorers, settlement, major fires, economy, etc. be gathered by the rangers in the field. Along with this request, Greeley sent a copy of *Report for Forest Atlas*, received from Chapman earlier.<sup>29</sup> Unfortunately, no *Forest Atlas* could be located anywhere that included a national forest history, nor could a history be found that was published separately and issued for the *Forest Atlas*. Further, no copies of the *Report for Forest Atlas*, nor the bulletin containing a history of the Teton National Forest have been found. Perhaps the press of ordinary business dictated that this call for a history of each national forest to be included in every *Forest Atlas* became a low priority for Forest Supervisors. Such historic information on the early history of the national forests would have proved invaluable not only for the Forest Service itself but for many others throughout the 20<sup>th</sup> century through to our times. It is possible, but there is no way of knowing, if the historic information called for by Assistant Forester Chapman in 1908 was actually written, saved, and later found its way onto forest visitor maps.

This singular achievement in the history of federal mapping has gone almost completely unrecognized because the atlases were never allowed to be released to anyone other than Forest Service employees. Pinchot wrote to Forest Service staff in 1908 that,

<sup>27</sup> U.S. Forest Service, *Field Program for October 1908*, (Washington, D.C.: U.S. Forest Service, 1908), p. 88.

<sup>28</sup> C. S. Chapman to William B. Greeley, December 4, 1908, RG 95.4.1, Records of the Engineering Division, Forest Service.

<sup>29</sup> William B. Greeley to District 1 forest supervisors, December 22, 1908, RG 95.4.1, Records of the Engineering Division, Forest Service.

“Forest Officers are cautioned that the *Forest Atlas Folios*, which are being issued as rapidly as possible, are confidential records for the use of the Service only, and under no circumstances are to become the property of or be loaned to people outside of the Forest Service.”

Although the first editions of folios will necessarily be subject to revision, they will be of greater value, both in the field and office, if they contain no errors which are known by supervisors to exist on the maps now in use. Supervisors should report all errors in the maps of the Forests under their charge that may come to their notice, either in spelling, location, or wrong use of names, in order that the Forest Atlas Folios may be issued as nearly correct as possible...It is expected that with the active cooperation of the field men the data relating to each forest will be quickly brought to a high state of excellence.”<sup>30</sup>

The 1912 booklet, *Instructions for Making Forest Surveys and Maps*, issued by the Office of Geography also prohibited Forest Service staff from sharing pages of the *Forest Atlas Folios* with the public:

“Whenever Forest Atlas folios have been duplicated by photolithography or otherwise for a National Forest, the officers have been supplied with copies, but under no circumstances are copies of any atlas folio be sold or given away. They are strictly for the use of forest officers in the administration of the National Forests. Copies for distribution are not published.”<sup>31</sup>

And a note inside the Forest Atlas of the Wichita National Forest of 1907 held by the American Geographical Society acquired from the Forest Service’s Washington, D.C. Headquarters on January 31, 1921, states that, “Forest Service cannot supply us with copies of other Nat. Forests in this form – issued for use of Forest Officers only.” So even into the 1920s, Forest Atlases were still being withheld from public view.

The Forester did not explain the reasoning behind the order to keep the atlases from the public, but one must assume that the atlases carried sensitive and/or proprietary information (mining claims, names of landowners, locations of the best stands of timber, etc.) that the Forest Service did not want to make generally available. The result of the policy has been, however, that the atlases have never been fully examined and brought to the attention of modern day scholars and researchers. The most complete collections of these atlases are held by the National Archives in College Park, Maryland, the National Agricultural Library in Beltsville, Maryland and Yale University’s Graves Forestry and Environmental Sciences Library. Large, but not fully complete, sets of atlases can be found at the University of Wisconsin Milwaukee Libraries, American Geographical Society Library and at the Geography and Map Division of the Library of Congress in Washington, D.C. The set of atlases held by the Geography and Map Division (G & M) has some large gaps in its collection, noticeably folios for the forests of the Pacific Northwest. This might be due to the fact that the G & M collection was formerly a working set transferred during World War II from the offices of the Forest Service in Washington, D.C. The American Geographical Society’s collection consists of about half of the atlases printed and were transferred to the Society in the spring of 1935 by individual Foresters in Regions 1, 3, 4, 5, and 6 about the time when the Forest Atlases ceased to be used in the administration of the national forests, when new forest type maps were being compiled and printed, and when the Forest Service began to use aerial photography as its primary tool for resource inventory, management, and mapping. A few atlases have made their way into academic and State historical society libraries as gifts or bequests from former employees of the Forest Service and their families, such as the Umpqua Folio (see Figure 7) held by the University of Oregon Library. Other collections may be found in some regional offices of the Forest Service such as Region One in Missoula and in a few State historical societies.

The U.S. Geological Survey printed the folios of the *Forest Atlas* in limited quantities. In a letter from Fred G. Plummer to Arthur C. Roberts of the Geological Survey, 1907, Plummer asks that “Unless otherwise specified, please print 200 folios of each of the National Forests which you have under preparation, and in all cases where classification is to be shown, one-half of the edition will be colored and the other half black base maps.” Where colored land classification information was not available, the Geological Survey was instructed to print 200 black & white copies of each the *Forest Atlas*.<sup>32</sup> Information on the distribution of the 200 copies has not been located, but from known distribution of Forest Service maps, one can gather that quantities of atlases were shipped to Forest Service offices in Washington, D.C. where a few copies were held for the files,

<sup>30</sup> U.S. Forest Service, *Field Program for January, 1908*, (Washington, D.C.: U.S. Forest Service, 1908), p. 15.

<sup>31</sup> U.S. Forest Service, Office of Geography, *Instructions for Making Forest Surveys and Maps*, revised December 1911, (Washington: Government Printing Office, 1912), p. 67.

<sup>32</sup> Fred G. Plummer to Arthur C. Roberts (USGS) August 3, 1907, RG 95.4.1, Records of the Engineering Division, Forest Service.

while most were then sent on to District Foresters in the District Offices and to Forest Supervisors who were charged with keeping the atlas folio up to date. Here is the typical distribution letter from Fred G. Plummer addressed to Forest Supervisors:

Mr. V. Gifford Lantry  
April 20, 1909  
Absaroka National Forest  
Livingston, Montana

Dear Sir:

There has been forwarded to you from Washington a lithograph edition of the Absaroka National Forest Folio of the Forest Atlas, together with such extra sheets as were received from the engraver.

The sheets comprising this folio were compiled from the best data at hand and will serve as a working basis for a more accurate edition which may be issued at a later date. They are not for sale nor for distribution to the public, but are confidential records to be used by you and by your rangers in any way in which they will be of service.

At least once in three months you should forward to the District Forester sheets showing any corrections or additions according to the Atlas legend. Such data will be posted upon the District Atlas and forwarded to Washington, and will serve as a basis for a future edition, and in the meantime as a record of the available information.

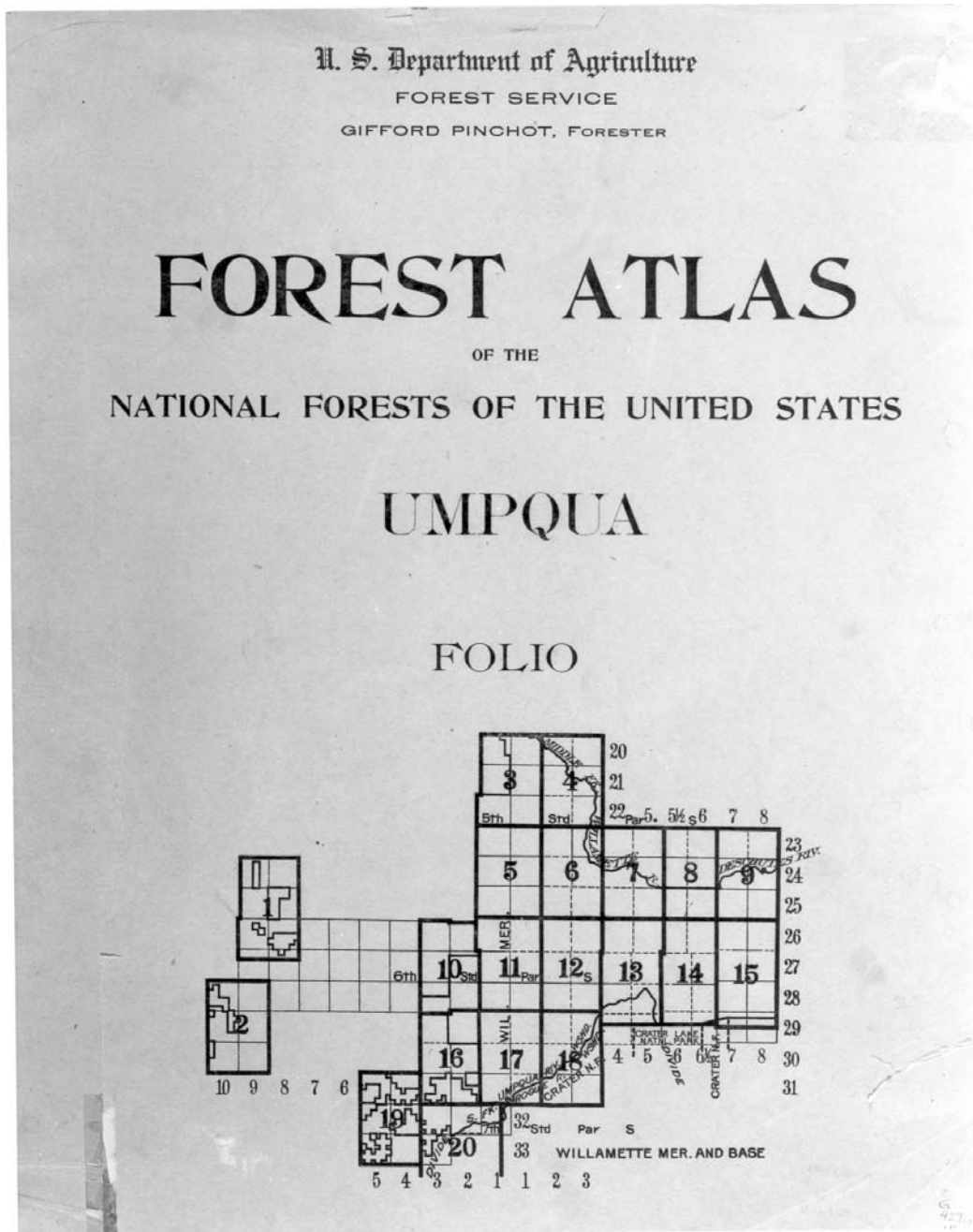
Very truly yours,  
[Signature] Fred G. Plummer  
Chief of Geography <sup>33</sup>

Every Region had a different experience with the *Forest Atlas*, largely because, before the project could be fully completed, the program's major advocate, Gifford Pinchot, left the Forest Service. His overall plan for the *Forest Atlas* -- professional foresters in the field being supplied with best available maps of their forest from Forest Service Headquarters; foresters noting changes and corrections to sheets from first-hand observation; revised maps being returned to Washington, D.C. for corrections and updating; new atlas sheets being printed with the new information and returned to foresters in the field -- still existed but it appeared not to be fully enforced largely because of Pinchot's other vision of a decentralized administrative arrangement for the Forest Service. From the publication record, a few districts, like the Rocky Mountain District, did not continue with Pinchot's vision for the *Forest Atlas*. Others, such as the Northern and California Districts (now Pacific Southwest Region) tried to keep their *Forest Atlas* series relevant and up-to-date, but did so to meet their own specific requirements apart from Pinchot's uniform national plan.

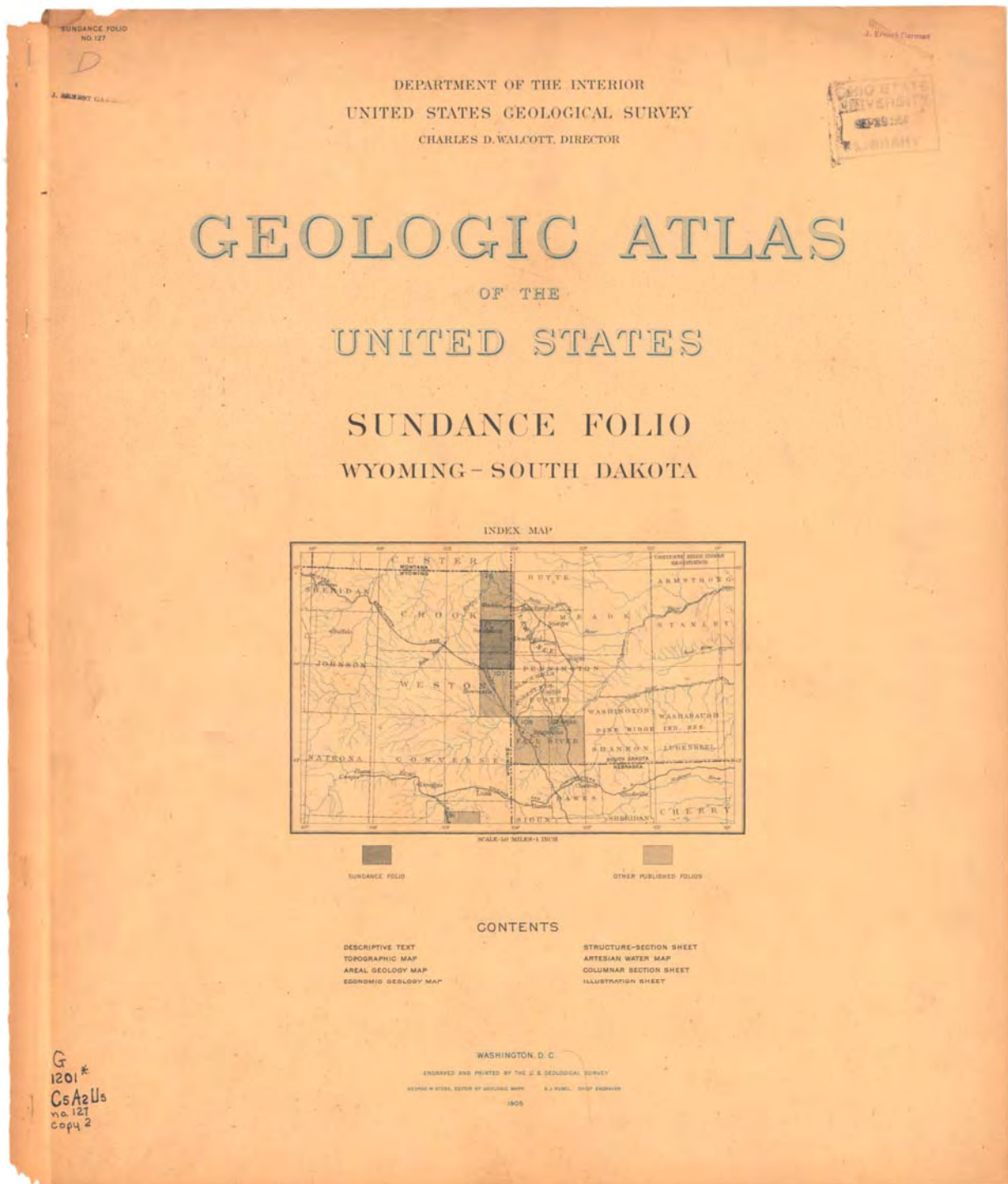
A complete listing of all 158 titles in the *Forest Atlas* series and all various editions including grazing atlas editions, can be found in Section X (below, page ) "Union List of the Forest Atlases of the National Forests of the United States."

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<sup>33</sup> Fred G. Plummer to V. Gifford Lantry, April 20, 1909, RG 95.4.1, Records of the Engineering Division, Forest Service.



**Figure 7:** Standard front cover of the *Forest Atlas of the National Forests of the United States*, in this case the cover of the Umpqua Folio [Oregon] of 1911 with sheet arrangement diagram. Each sheet covered a maximum of six townships. Even though dated 1911 when Henry S. Graves was serving as Forester, the agency head identified on the atlas cover is Gifford Pinchot, the force behind the *Forest Atlas* project.



**Figure 8:** U.S. Geological Survey, Geologic Folio No. 127, the *Sundance Folio*, Wyoming-South Dakota, dated 1905. This *Folio* provides geologic, artesian water resources, and economic geology data for the Sundance 125,000-scale 30 minute, topographic quadrangle. The area covered includes the future (1907) Sundance National Forest and portions of the Black Hills National Forest, now the Bearlodge Ranger District of the Black Hills National Forest. The Atlas title page is pictured here to show the similarity with the *Forest Atlas of the National Forests of the United States* in folio format. All 227 U.S. Geological Survey Geologic Folios have been scanned in color and are available on the Survey's "USGS Publications Warehouse" at the URL below. Doing the same for numbers in the *Forest Atlas* would make an invaluable resource for Forest Service history and for American Forestry. <https://pubs.er.usgs.gov/browse/Report/USGS%20Numbered%20Series/Folios%20of%20the%20Geologic%20Atlas/>

### III. Defining a Cartographic Program for the National Forests, 1908-1922

#### A. The Decentralized Administrative Organization and its Effect on Early Forest Service Mapping

While singularly focused on the ambitious and complex mapping endeavor of compiling, printing, and distributing the folios of the *Forest Atlas*, Gifford Pinchot and his able Associate Forester, Overton W. Price, were moving the Forest Service's overall administrative organization in a different direction, one that would become a hallmark of the agency. This was their concept of decentralization. Historian Robert W. Cermak has identified the principal reasons behind the adoption of a decentralized administrative structure by the Forest Service:

"This concept recognized three important facts: the forest reserves differed widely from one another in resources, problems and opportunities; administration of the forest reserves had to be responsive to local needs for both practical and political reasons, and people work best when given responsibility for a job and the authority needed to get the job done."<sup>34</sup>

Cermak continues and states that decentralization embraced the practical goals of hiring the best people available, both experienced local woodsmen who had good standing in their communities and professional foresters, all governed by federal Civil Service rules, to manage the forests. Finally, it was important to provide a few but vital controls over field operations by issuing standards and policies in an overall supportive atmosphere from Washington. The principal of a decentralized administration was fully embraced by Pinchot's successor, Henry S. Graves, when he was appointed Forester in 1910 and has been a notable feature of the Forest Service ever since. However, when Graves assumed his post as Forester, most mapping was still done in Washington: "While a certain amount of drafting and map work is conducted in the district offices, and a small amount necessarily on the Forests, the greater part is concentrated in Washington for reasons of economy."<sup>35</sup>

The few centralized controls over local operations were expressed in such early publications as the *Use Book* and *National Forest Manual*. Controls clearly meant standardization. To provide cartographic standards the Forest Service issued the manual, *Instructions for making Forest Surveys and Maps*, first published in 1907 with a second edition released in 1910. The first edition of the *Instructions* booklet served as a manual of surveying and map-making in the field. The edition of 1910 added a chapter on preparing sheets for the *Forest Atlas*. An enlarged third edition appeared in 1912 with a supplement, *Signs, Symbols, and Colors*, prepared by the Office of Geography. This third edition of the *Instructions* had grown to 85 pages over the second edition's 51 not counting its supplement and represented a significant advance over the previous editions of the map manual. The 1912 edition of the *Instructions* explained the role standards played as a centralizing influence in Forest Service for cartography, when it asserted that, "These simple Instructions are issued to members of the Forest Service in order that forest surveys and maps may be as nearly uniform as practicable."<sup>36</sup>

The 1912 *Instructions for Making Forest Surveys and Maps* allowed a certain measure of regional variation.

"It should be borne in mind that the National Forests are established in widely different regions; as far north as Alaska and as far south as Florida and Porto Rico. On no two forests will the data suggested on the legend page be of equal importance, and it may be necessary or convenient to adopt additional symbols or colors to show unusual conditions. This is quite permissible..."<sup>37</sup>

Forest Service mapping from the period 1910 to 1922 varied greatly from district to district. District 1 produced a wide array of topographic maps and atlases but only one map specifically for the forest visitor. In contrast, by 1918, districts 5 and 6 had produced many folded forest visitor maps for the national forests in California, Oregon, and Washington, but only a few revisions to their editions of *Forest Atlas*. Other districts issued a mix of administrative maps and forest visitor maps based on the district's needs. All districts produced administrative maps of individual national forests and all, to a varying degree, relied on the Washington Office to compile their District's maps. In short, each District had the autonomy to respond to their local needs using their local resources in order to provide maps in support of Forest Service staff in the field and to a lesser degree,

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<sup>34</sup> Robert W. Cermak, *Fire in the Forest: A History of Forest Fire Control on the National Forests in California, 1898-1956*. ([Vallejo, Calif.]: USDA Forest Service, California; Washington: Government Printing Office, 2005), p. 40.

<sup>35</sup> Henry S. Graves, *Report of the Forester for 1911*, (Washington: Government Printing Office, 1912), p. 7.

<sup>36</sup> U.S. Forest Service, Office of Geography, *Instructions for Making Forest Surveys and Maps, 1912*, (Washington: Government Printing Office, 1912), p. 5.

<sup>37</sup> U.S. Forest Service, Office of Geography, *Instructions for Making Forest Surveys and Maps, 1912*, (Washington: Government Printing Office, 1912), p. 71.

for forest visitors. Assistance in the form of compilation, control, editing, and printing services were available from the Washington Office. By 1910 with most forest atlases now complete and with responsibilities for their maintenance placed at the district level, it became necessary for each district to recruit and hire cartographers and draftsmen capable of making and revising maps as well as making township and control surveys in the field. In Missoula, like other district foresters, District Forester William B. Greeley began forming an Office of Geography within the District's Branch of Operation by hiring a recent graduate of the University of Montana, Frank Edward Bonner, to be his Chief of Geography. Soon, one more cartographer, Charles F. Farmer joined the staff. Other cartographers and draftsmen followed. Another University of Montana graduate, Frank J. Cool, along with James Blaine Yule and Kenneth Dupee Swan came on board shortly after 1911. Together, the team of Bonner, Farmer, Cool, Swan, and Yule produced much of the cartographic work between 1910 and 1920 for the Northern District. Their names appear on many *Forest Atlas* sheets and individual forest maps for these years and beyond and signaled a transition to a time of less dependence on the Washington Office for map compilation. Other Districts, notably the 3<sup>rd</sup> and 4<sup>th</sup> Districts (later the Southwestern and Intermountain Districts respectively) still had most of their map work done by the Washington Office. Districts 5 and 6 (California and North Pacific Districts) had moved even faster than District 1 on hiring cartographers and draftsmen, compiling maps and atlas sheets in house as early as 1911. By 1920, all district offices had a productive cartographic staff in place, now working within a district Engineering Office, although each district, continued to rely on the Washington Office for map reproduction and distribution services. Washington Office cartographers, who up to the early 1920s had been compiling most of the maps for the western districts of the Forest Service, became more involved with making maps for the new national forests being proclaimed in the eastern United States. With consistent policies, procedures and controls and with competent civil service cartographers on staff, as well as the ability of supervisors to respond to local needs, decentralization with centralizing standards had been realized in Forest Service cartography.

## **B. Forest Service Mapping, 1910-1922**

With the publication of the 3<sup>rd</sup> edition of the *Instructions for Making Forest Surveys and Maps* in 1912, single sheet maps as well as proclamation diagrams produced by the Forest Service from 1912 onwards began to take on a more uniform and distinctive "Forest Service" look. The third edition now included an expanded page of "Conventional Signs" together with examples of bar scales, map corners, neat lines, and a standardized typeface. For the *Forest Atlas*, a signs, symbols, and color legend sheet had been issued inside every folio, but not all *Forest Atlas* sheets had been compiled using standard line weights for borders and neat lines, uniform bar scales, or a standard typeface. Compared to the maps made by the Forest Service after 1912 using the new standards, the older and hastily constructed maps in the *Forest Atlas* exhibited a somewhat unfinished character.

The overall general appearance of Forest Service maps resulted from the adaptation of map features, functions, and symbols derived from mapping programs of other federal agencies. Between 1891 and 1911, three federal agencies had been responsible for mapping the national forests and each agency influenced the way in which forest mapping would evolve. The General Land Office mapping emphasized its Public Land Survey System of township range and section lines, also called the rectangular grid. The GLO had also adopted standardized engineering scales of 1:31,680 or ½ mile to the inch and 1:63,360 or 1 mile to the inch, for its maps and favored hachuring over contour lines to show relief. By 1910 the Forest Service had officially embraced the 1:63,360 scale as its own standard scale, and if smaller scale maps were called for, they were constructed in even multiples of that scale: 2 inches (1:126,720), 4 inches (1:253,440) or 8 inches (1:506,880) to the mile. Because ownership of the land was so essential to both the GLO and the Forest Service, every administrative map made and the vast majority of forest visitor maps for public land states carries the Public Land Survey System grid lines. Forest Service maps also generally used hachuring to depict relief. Topographic maps compiled by the Forest Service were the exception in the early years. When land exchanges grew in importance, land ownership information was added in the form of maps showing alienated lands within the boundaries of the national forests. The Public Land grid outranked the geographic grid in importance in these early years of Forest Service cartography, for even if the General Land Office had not yet surveyed areas of a given forest, the Public Land Survey System was projected into the unsurveyed area using dashed lines.

From the maps of the U.S. Geological Survey, Forest Service cartographers borrowed many of the Survey's signs and symbols. Topographic, geographic, and elevation data from Geological Survey topographic maps were highly valued and used by Forest Service cartographers in administrative map construction. Topography expressed by contour lines of equal value enhanced a map's usefulness, especially in fighting fire, planning timber sales, and building roads, and whenever topography was available, contours were included on the sheets of the *Forest Atlas*. Also, Forest Service cartographers used the navigation charts of the U.S. Coast and Geodetic Survey, often the most accurate maps available, as base maps for their early map work on the Tongass



and Chugach National Forests in Alaska and borrowed symbols from this chart-making agency as well. A few mapping symbols and even soundings crept into and remained on maps of the Alaskan forests from the Coast & Geodetic Survey. To a certain but perhaps unknown extent, the maps produced by the Four Great Surveys of the West (1867-1880) influenced the final appearance of Forest Service mapping, in that the cartographers working on *Forest Atlas* sheets used these older maps in the absence of newer data. All of these influences can be found in varying degrees on the sheets of the *Forest Atlas* and later on the single sheet maps produced by the Forest Service.

As the agency began the first years of this period, Forest Service cartography was firmly based on the sheets of the *Forest Atlas*, which had been compiled using every obtainable map then available to staff cartographers. The folios of the *forest Atlas* were described in the 1912 *Instructions* manual with great respect:

“The folios are the “mother maps” which furnish the bases from which further map making will proceed in the Forest Service. They correspond to the mother maps of other countries in this respect – that they are compiled from official data upon a standard scale, 1 inch to 1 mile, and upon a uniform legend. They are not always sufficiently accurate for forest work, and the sheets must, therefore, be corrected whenever new data have been obtained in the field.”<sup>38</sup>

Early Forest Service single sheet maps covering an entire national forest relied upon data found in the folios of the *Forest Atlas* – the mother maps. Only a few, however, indicate their source material. The 1912 administrative maps for the Sequoia, Malheur, and Siuslaw National Forests, however all state their origins. In the case of the 1:126,720-scale map of the Siuslaw National Forest of 1912, its authority statement reads: “Compiled by assembling atlas pages corrected by the Supervisor, February, 1912.”<sup>39</sup> This map includes information found on the sheets of the *Forest Atlas* for the Siuslaw National Forest from which it was derived, such as land and mining claims that would not appear on later administrative maps.

To illustrate this dependence on sheets of the *Forest Atlas*, the 1912 *Instructions* booklet prescribed the procedure to be used by the districts in regard to mapping:

“General maps, showing an entire Forest or region are compiled at Washington from data on the corrected Atlas sheets, and are issued for the use of forest officers. The usual process is photolithography. Every request for the issuance of a map should be submitted to the Forester with a recommendation regarding the data to be shown or omitted, scale, kind of paper, and number of copies required. Any project for the issuance of a “three-color map” with blue drainage, brown contours, and black culture should be taken up by correspondence with the Forester before the final tracings are prepared in order that the manuscript may be in good shape for the engraver.”<sup>40</sup>

Each Forest Service District could determine its mapping priorities, but Washington enforced map standards and arranged for engraving and printing services. Of the over 800 administrative maps produced by the Forest Service during the 1910-1924 period, approximately 54% were compiled by the Washington office with the remainder compiled by cartographers in the Districts. And of the 54% of maps compiled in Washington on behalf of the Districts, some 85% of these were made in the 1910-1916 period. After 1916, District cartographers were more often cited on Forest Service maps as responsible for the compilation of the maps. The Washington office continued to arrange for engraving and printing work. Because of the district’s early dependence upon the Washington Office for the compilation, editing, and printing maps needed in the field, map standardization was readily and rapidly adopted. The maps generated from the atlas folios quickly began to lose their unfinished appearance and assumed a more polished and uniform look with each passing year as symbols and typefaces, geographic grid lines and values, corners, and neat lines were applied to every map being issued, including proclamation diagrams.

The Forest Service did not have its own printing plant and relied during this period almost exclusively on the engraving and printing services of the U.S. Geological Survey for its map production and, to a lesser extent, on the services of the Government Printing Office, both in Washington, D.C. In the Geological Survey’s *Annual Reports* issued from 1910 to 1920, the agency described the number of maps it produced on behalf of other federal agencies including the Forest Service under the activities of its Division of Engraving and Printing. After 1920, the Survey’s *Annual Reports* were reduced in size by about half and the

<sup>38</sup> U.S. Forest Service, Office of Geography, *Instructions for Making Forest Surveys and Maps*, 1912, (Washington: Government Printing Office, 1912), p. 67-68.

<sup>39</sup> U.S. Forest Service, *Siuslaw National Forest, Oregon*, [map] 1:126,720-scale, (Washington: U.S. Forest Service; printed by the U.S. Geological Survey), 1912.

<sup>40</sup> Op sit, *Instructions*, 1912, p. 71.

in-depth reporting on printing done for other government agencies became merely a listing of those federal bureaus for which maps had been printed. The following table summarizes the printing work performed by the Geological Survey on behalf of the Forest Service. The “Miscellaneous” category on the table below included maps printed for the reports of the National Forest Reservation Commission, as well as sheets for the *Forest Atlas*, and other atlases, such as the Forest Service’s 1913 atlas, *Geographic Distribution of North American Trees*, and other special maps. The administrative maps listed are maps covering one entire national forest at the scales of 1:126,720 and 1:253,440. Quite often a “two-inch” and “four-inch” administrative map were issued simultaneously. Making a map at the same scale as the sheets of the *Forest Atlas*, 1 mile to 1 inch, for the most part, proved to be impractical due to the sheer size of the resulting sheet. However, this scale was used for smaller forests in the eastern United States and for topographic maps of individual ranger districts in the West. The table reveals an increase in the production of administrative maps during World War I.

<u>Fiscal Year</u>	<u>Administrative Maps</u>	<u>Forest visitor Maps or “fire maps”</u>	<u>Proclamation Diagrams</u>	<u>Miscellaneous (Inc. Atlas sheets)</u>	<u>FY Total</u>
1910	46	0	27	3	76
1911	63	0	39	4	106
1912	13	0	0	2	15
1913	59	0	33	43	135
1914	17	7	12	26	62
1915	17	11	5	10	43
1916	30	24	15	12	81
1917	29	15	9	3	56
1918	61	4	16	6	87
1919	76	0	13	12	101
1920	59	7	14	26	106
<b>Total Type</b>	<b>470</b>	<b>68</b>	<b>183</b>	<b>147</b>	<b>868</b>

**Table 1:** Maps printed for the U.S. Forest Service by the U.S. Geological Survey July 1, 1909 to June 30, 1920. <sup>41</sup>  
Chart does not include approximately 20 forest visitor maps printed by the Government Printing Office 1910-1920

Quantities of administrative maps printed were generally small compared to those of forest visitor maps. Letters from District Foresters formally requesting maps usually included the number of maps requested based on anticipated need, such as the request for 500 copies of the 1914 Pecos National Forest “fire map” and 2000 copies of the 1915 Gila National Forest “fire map” the following year. Turnaround time was rather fast. For instance, the District 2 Forester’s letter requesting 150 copies of an administrative map of the Arapaho National Forest dated November 9, 1911, was received in Washington on November 15<sup>th</sup>. The U.S. Geological Survey supplied the maps on February 21, 1912 and all were shipped to Denver on the 24<sup>th</sup> of February. Quantities requested increased over time due to increased demand. 500 black and white, 1:253,440-scale administrative maps of the Clearwater National Forest in Idaho were ordered, printed, received, shipped, and delivered all within the month of March 1915 at a cost of \$12.20.<sup>42</sup>

### C. Origin and Character of Early Forest Visitor Maps

It could well be argued that the Forest Service began issuing maps for the general public as a fire protection measure after the disastrous fire season of 1910 throughout the West. The first separately published forest visitor maps, as opposed to Forest Service book-type publications with foldout maps bound into the text, appeared in 1913. In the U.S. Geological Survey’s annual report for fiscal year 1914 (July 1, 1913 to June 30, 1914), the Survey reported that it had produced, “7 fire folder and tourist maps” <sup>43</sup> and continued to refer to forest visitor maps in this way for two more years. For fiscal year 1917, the description changed to “recreation maps and fire folders” and, in the years following, simply as “recreation maps,” despite the

<sup>41</sup> U.S. Geological Survey, *31<sup>st</sup> – 41<sup>st</sup> Annual Report of the Director*, (Washington: Government Printing Office, 1910-1920).

<sup>42</sup> \$12.20 in 1915 dollars would equal about \$321.00 in March of 2022. Quantities and types of maps printed and distributed along with a record of correspondence can often be found written by hand on many of the maps held by the National Archives and Records Administration for the period 1910 to about 1935.

<sup>43</sup> U.S. Geological Survey, *Thirty-Fifth Report of the Geological Survey*, (Washington: Government Printing Office, 1915), p. 148.

fact that the purpose of the folded map did not change from year to year. Through these maps and their texts, the Forest Service hoped to reduce the twin threats associated with having the public roam free in the national forests: the threat of fire and the threat of pollution of municipal water supplies. In his agency's annual report for 1923, Forester Greeley pointed to the usefulness of the recreation map as a vehicle to communicate fire control information to the public: "A number of forest maps were also used for recreation folders, which, with printed information and fire precautions on the reverse side, are issued to the public."<sup>44</sup> Text publications in the form of numbered and unnumbered Department of Agriculture bulletins, circulars, and brochures as well as tourist maps helped to educate the public on fire prevention and sanitation. District 5 led the way in the production and distribution of maps for the forest visitor. This was no doubt due to the fact that fire control was given top priority by Coert DuBois, the District Forester in California from 1911 to 1919.<sup>45</sup>

The devastating California forest fires of 1910 focused the energies of District 5 and the entire Forest Service on fire control and prevention. It also launched a significant production program of forest visitor maps covering the national forests in District 5. Robert W. Cermak in his book, *Fire in the Forest: A history of forest fire control on the National Forests in California, 1898-1956*, writes that during the 1910 fire season, 519,000 acres had burned, the worst in recent memory, of which 320,000 acres were national forest lands. Associate District Forester, Coert DuBois serving under Frederick E. "Fritz" Olmstead in District 5, was put in charge of the Stony Creek fire on the California National Forest (now the Mendocino National Forest) during the 1910 fire season and encountered several logistical and staffing problems. "This fire was pivotal in the history of fire control in District 5, for it made DuBois aware of the urgent need for a more systematic approach to fire control."<sup>46</sup>

At a December, 1910 meeting of California forest supervisors in San Francisco, District Forester Olmstead told the supervisors that after the terrible 1910 fire season, the District had failed to meet the challenge posed by wildfire. Two days later at the same meeting, Associate District Forester DuBois, fresh from his experience on the Stony Creek fire, went further and told the supervisors that, it was time to put fire control on a war footing. DuBois had recently assembled a fire plan for one ranger district on the Stanislaus National Forest in preparation for the December meeting. "The plan stimulated discussion, and several ideas came from the assembled forest supervisors: pay a trained fire crew to be ready (stand by) in case of fire, give the ranger a fire assistant, urge the state to require burning permits during fire season, require campfire permits, and develop forest maps with fire prevention messages printed on them."<sup>47</sup> Coert DuBois became District Forester of District 5 upon the resignation of Olmstead in mid-1911, and remained until June of 1919, thereby guaranteeing that a high priority would be given to wildfire planning, control, and prevention in the District as well as being highlighted throughout the Forest Service.

Just as the massive wildfires of 1910 in Idaho and Montana caused the Northern District to embark on the production of topographic maps and atlases of its national forests to be used as tools in fire control, the 1910 fires in California and the increasing numbers of public visitors to the forests motivated the California District to initiate a mapping program that would produce maps for the forest visitor to promote fire prevention. Previous to being named District 5 Forester, DuBois, in his 1911 essay, *National Forest Fire-Protection Plans*, suggested that Forest Service rangers establish a camper's registration system located at ranger stations or along the main traveled roads leading to camping grounds as a fire-preventative measure.

"It has been found in California that the names and plans of campers are easily secured if only the ranger has something to give in exchange. Camper's maps have therefore been prepared showing roads, trails, meadows where feed may be obtained and other data of interest to the camper. Rules for care with fires and a short summary of the game and fire laws are printed on the margin of the map. The fact that his name, address, and destination are on record with the ranger is no slight restraint to prevent a camper from being careless with his fires."<sup>48</sup>

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<sup>44</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1923), p. 45.

<sup>45</sup> DuBois (1881-1960) had been educated at the Biltmore Forestry School and began his career with the Forest Service in 1900 under Gifford Pinchot. In 1917 he became an officer in the U.S. Army and returned to the Forest Service as District Forester in February of 1919 only to resign in June of 1919. In 1920 he joined the United States Consular Service serving as a diplomat until his retirement in 1948. See chapter V in Robert W. Cermak, *Fire in the Forest: A History of Forest Fire Control on the National Forests in California, 1898-1956*, (Vallejo, Calif.: USDA Forest Service, Southwestern Region, 2005), p. 57-74.

<sup>46</sup> Robert W. Cermak, *Fire in the Forest: A History of Forest Fire Control on the National Forests in California, 1898-1956*, [Vallejo, Calif.]: USDA Forest Service, California; Washington, D.C.: Government Printing Office, 2005, p. 54.

<sup>47</sup> Ibid, p. 57.

<sup>48</sup> Coert DuBois, *National Forest Fire-Protection Plans*, (Washington; Government Printing Office, 1911), p. 2-3

“DuBois’ *plan* also called for maps showing transportation systems, telephone lines, location of residents, and tool caches.”<sup>49</sup> When DuBois became District 5 Forester in 1911, he put into effect these ideas by instituting camper registration at forest camps and launching a series of detailed maps of California forests for the recreational user.

Initially, the maps expressing the District’s emphasis on fire control were actually administrative maps with text added. Appropriately, in light of DuBois first fire plan made for the Stanislaus, the first such administrative map was produced in 1912 for the Stanislaus National Forest on two sheets (North & South sheets) at 2 miles to the inch (1:126,720) and included a text on fire prevention under the banner, “Every citizen can help in preventing forest fires.” Another set of maps in the same format and messaging was issued in 1914 for the Stanislaus. In 1913 three more such maps came out, one for the Angeles, another for the Shasta National Forest at 1:253,440-scale, and a map of the states of California and Nevada showing national forest boundaries with the text, “The Six Rules for the prevention of fires in the mountains.” These maps were suitable for both administrative uses and for the public. To the North, District 6 cartographers took two administrative maps dated 1912, placed fire prevention text on the verso and title panels and produced folded forest visitor maps for the Columbia and Oregon (Gifford Pinchot & Mt. Hood respectively) National Forests. The two maps reveal their heritage in the sheets of the *Forest Atlas* in the four different pattern overlays showing land alienations and claims, features that were later either eliminated or shown with color.

In the years 1914 and 1915, District 5 followed District 6 and introduced folded maps with text on the back. These were produced in Washington, D.C. and printed by the Geological Survey for several Forest Service Districts in the West with the exception of District 1. This type of map is illustrated in Figure 11 – Payette National Forest in Idaho and in Figure 13 – Eldorado National Forest. Most came with a scale of 1:253,440. The 1915 Forest Service booklet, *Handbook for Campers in the National Forests in California*, large portions of which serve as a fire-prevention manual, advertised that “Maps are published of many of the National Forests, showing in some detail the roads, trails, and streams, and giving information regarding distances, camping grounds, etc. These maps may be obtained free on application at any Forest Service office.”<sup>50</sup> Map makers in Washington, D.C. used the 1915 Proclamation diagrams for the Cleveland and Sierra National Forests as base maps for the 1915 forest visitor maps for the same forests, making these unique in the history of Forest Service cartography. District 5 ordered between 2,000 and 3,000 of these early folded forest visitor maps of 1914 and 1915 depending on the number of annual visitors experienced by each forest.

The compilation of a second edition of forest visitor maps began in 1916. These maps carried a significant increase in information useful to the forest visitor over the first versions issued in 1914 and 1915. This type of forest visitor map was made in color for national forests in nearly all Districts, but District 5 had, by 1918, issued detailed maps for the visitor for each of its national forests, with the exception of the Monterey National Forest.<sup>51</sup> Press runs of 10,000 copies each were the rule for 1916 dated maps while the number produced in 1917 and 1918 were reduced by half to 5,000 copies, perhaps due to the exigencies of World War I. In January of 1916, District Forester, Coert DuBois addressed a circular to all federal forest officers about increasing recreational use of the national forests. DuBois stated that the most important task of the District Forester and Forest Supervisors was to communicate to forest visitors the information they would need to have for an enjoyable, safe, and successful visit. Those citizens,

“...going on a summer vacation will be looking for hunting or fishing grounds; for chances to live and sleep in the open – to camp; for impressive or beautiful scenery; for opportunities for swimming or boating, or for regions where he can explore unknown country or regions of scientific interest. Our job is to facilitate the accomplishment of these objects by the prospective vacationist. The most obvious road to it is publicity.

What is wanted is to tell as many prospective visitors as possible all they would want to know about a trip into the mountains. A map is probably the most effective and useful means of conveying this information. Suppose each Forest starts systematically to work this winter preparing the very best “Recreation Map” possible. The information is all collected – it is either in the files or in the heads of one or more officers. It remains only to get it into useable shape... These maps when completed should show to the prospective visitor everything of interest or value...”<sup>52</sup>

<sup>49</sup> Op. cit. Robert W. Cermak, p. 61.

<sup>50</sup> U.S. Forest Service, *Handbook for Campers in the National Forests in California*, (Washington: Government Printing Office, 1915). “Misc. O-5.” p. 3-4.

<sup>51</sup> The Klamath and Modoc National Forests were mapped at 1:253,440-scale in 1915, but not at the larger 1:126,720-scale during the 1916-1918 period.

<sup>52</sup> Coert DuBois, “Development of the Recreation Use of the National Forests: A Circular Letter to Forest Officers,” *Sierra Club Bulletin*, Vol. 10, No. 1 (January 1916), page 117-118.

In his circular, DuBois then organizes the type of information each map should deliver in five broad categories: 1) Outfitting points; 2) Routes of travel; 3) Horse feed; 4) Particularly good campgrounds; 5) Interesting areas and scenic points. One of the purposes of DuBois' circular was to ask forest officers what other thematic information they would want to see on these new maps besides those listed and to motivate forest officers to think of the forest visitor not as a fire risk or a simple nuisance. He wanted his forest officers to believe that each citizen visiting the national forests is becoming a better citizen for doing so. In addition, DuBois wanted every forest visitor upon leaving the national forest to be "convinced of the fact that the pine-tree badge, whenever seen, means courtesy, friendliness, and helpfulness – and does not mean surveillance or officiousness."<sup>53</sup>

Forest visitor maps of California and most other districts issued between 1916 and 1918 carried a tremendous amount of "Information for Mountain Travelers" as each map stated in its subtitle (see cover of the Sierra National Forest map in Figure 13 below). Unfolded, the maps used red and green overlays to show thematic information useful to hunters, campers, tourists, and mountain travelers, and follow the advice given by the District Forester in his circular of January 1916. The Inyo National Forest map of 1917 was typical (see Figure 12). Shown in red, were symbols for roads, post offices, areas of geographic interest, "particularly attractive" campsites, and large letters "S," "G," and "R" standing for places where one could obtain Supplies, Gasoline, and Ranches where butter, eggs, milk, etc. can be purchased. Lastly, over Mono Lake, the map reader finds written in red, "Ducks." In green, large letters "P," "G," and "M" standing for locations where one can obtain Pack and saddle stock, can find a trail Guide, and a Meat. Other symbols show four types of stock meadows, good fishing streams, and stocked streams or lakes. And on the maps of the Sierra and Klamath National Forest maps, the Forest Service was not afraid to simply write "unexplored" over remote areas. The publication of the forest visitor maps from the 1916-1918 period stands as a singular achievement of District 5 unmatched by any other District of the Forest Service, although other Districts did produce maps of this type for their most visited national forests (see Figure 11 – Boise National Forest). The few forest visitor maps issued by districts 2, 3, 4 and 6 were most often closely associated with an urban area, such as the maps of the Pike National Forest near Denver, the Pecos National Forest near Santa Fe, and the Cache, Uinta, and Wasatch National Forest close to the bench cities of Utah. These maps set a high standard for information delivery for the time and now serve as a remarkable window to the pursuit of outdoor recreation in the national forests during the early part of the 20<sup>th</sup> century.

"Another thing needed is a district poster with some such title as "The National Forests – California's Recreation Grounds" showing the location of the national forests in relation to the cities and railroads of the State and terminals and routes of all auto and horse stage-lines reaching from railroad points into the National Forests."<sup>54</sup> District 5 produced several maps of California as a whole with the title suggested by DuBois showing national forests with the roads and highways leading to them. The District also actively promoted visitation to the national forests of California through colorful, eye-catching poster maps with titles such as *The National Forests, California's Recreation Grounds* circa 1916 and *Camping? Visit California's Recreation Grounds, the National Forests*, and *California's Recreation Grounds* circa 1920. DuBois suggested that these posters be sent to railroad and stage depots throughout California.<sup>55</sup>

In 1918, the Washington office compiled, and the U.S. Geological Survey printed a uniform color map of each of the six Forest Service districts of the West in two editions; one with and one without a red highway overlay. District 5 composed text for the verso of the map and had it printed and folded in a third version for the public, the first such map to include photographic illustrations. But other districts did not follow California's example. After 1918 and until about 1924 the uniformity of forest visitor maps ended as national forest districts produced a wide variety of non-standard maps and publications for their visitors with more printing done by the Government Printing Office. District 5 created a series of small-scale road maps for the national forests of California similar in size and format to the "in and out" maps that the Automobile Club of Southern California published at the time for western cities (see Figure 14). This series used the common title of "*Automobile Route Map of the.... National Forest [or] Forests*" as the case may be, on the map's title panel. All were printed on a sheet 20 x 27 cm., tri-folded to 20 x 9 cm. by the Government Printing Office in 1919. The maps represented a significant departure from the large-scale folded forest visitor maps published between 1914 and 1918. Districts 3, 4, and 7 each issued recreation maps covering their districts as a whole, as in the 1922 map, *National Forests, District 3, Showing Main Highways*, or maps of a large portion of their territory, such as District 4's *Recreation map of the National Forests of South Central Idaho* also issued in 1922. In 1919, District 2 issued nine forest visitor booklets for its Colorado national forests complete with text, photographs, and a sketch map folded and inserted at the back of the booklet, all printed by the Government Printing Office (see Figure 15). These booklet-style publications were later expanded and improved during the 1930s and 1940s. District 6 also produced a number of booklets with maps for the forest visitor folded inside the back cover. These were included in the Department of Agriculture's, *Departmental Circular* series as "Contribution from the Forest Service." Finally, the Northern District produced

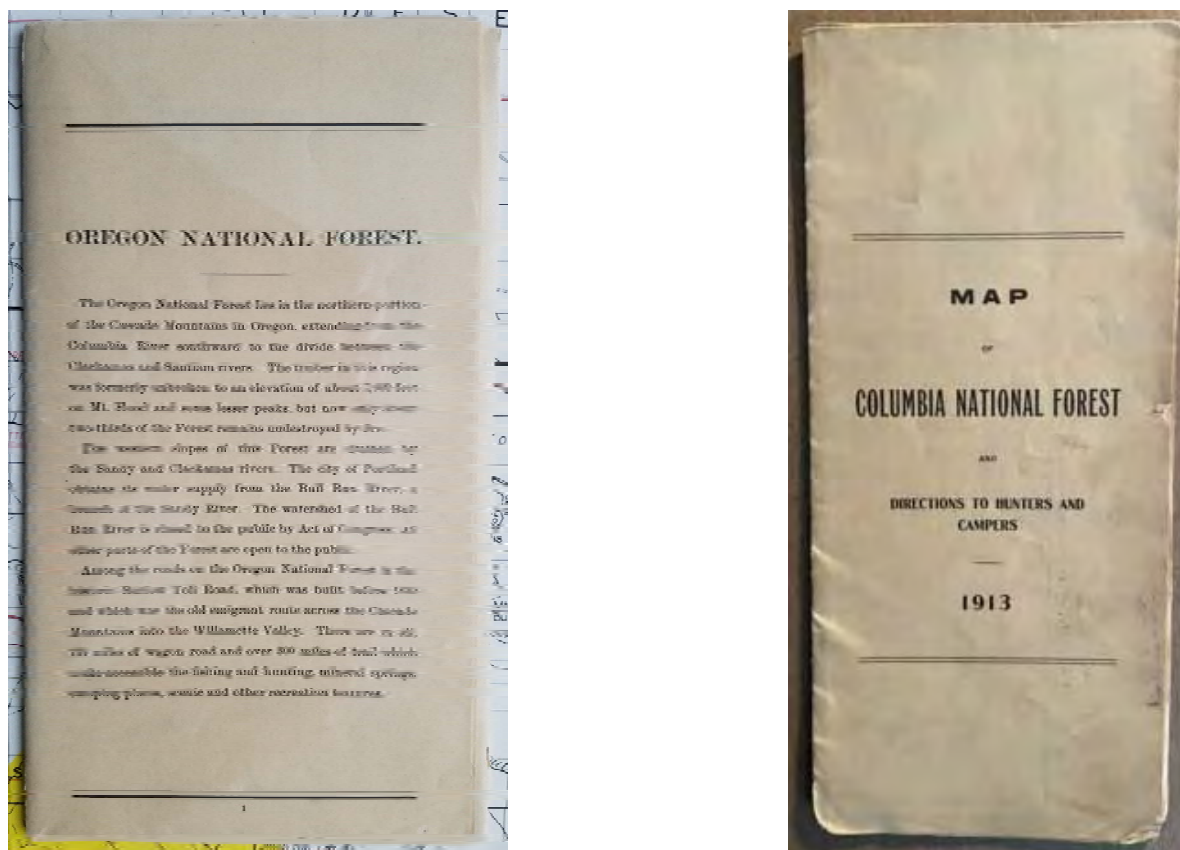
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<sup>53</sup> Ibid, p. 120.

<sup>54</sup> Ibid, p. 119.

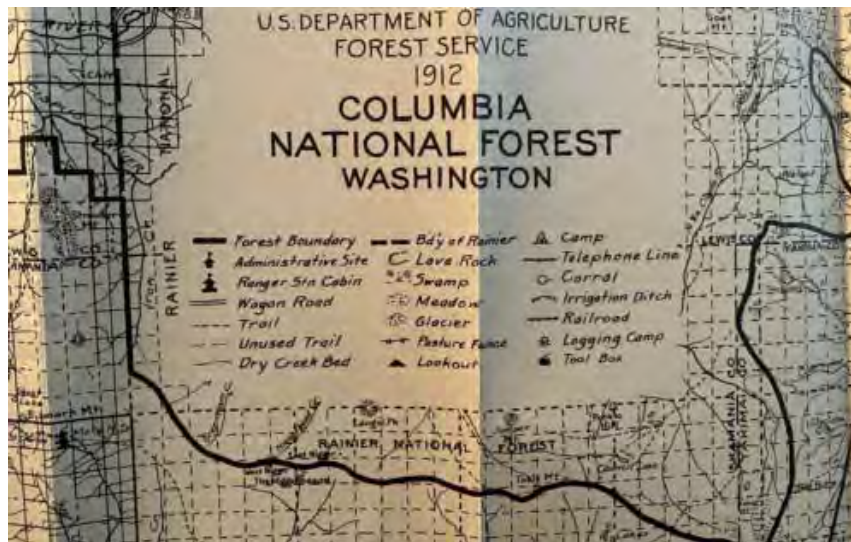
<sup>55</sup> Ibid, p. 119.

a series of four, 1:500,000-scale “Quadrangle” maps for the public covering the heart of the northern Rocky Mountains between 1920 and 1922 – Rocky Mountain Quadrangle dated 1920, and in 1922, the Clark Fork Quadrangle, the Continental Divide Quadrangle, and, shown in Figure 11, the Yellowstone Quadrangle. District 1 did produce one, flat, specialized map for the sportsman in 1912, extracted from administrative maps issued in 1911. This unique map was entitled, *Map of National Forest Lands in the Vicinity of Missoula, Montana Showing Roads, Trails, Fishing, Hunting, Camping Grounds* and is quite rare. The goals of wildfire prevention, education, and safety in the forest initiated by the Forest Service’s recreation map program has been continued to this day.



**Figure 9:** Front covers of two of the earliest forest visitor maps made and issued by District 6. On the left is the 1913 map of the Oregon National Forest (since 1924 the Mount Hood National Forest). The map itself was constructed from sheets of the Oregon Folio (1909) of the *Forest Atlas of the National Forests of the United States*. On the right is the Columbia National Forest map of 1913 (since 1949 the Gifford Pinchot National Forest). Unfolded, the map is dated 1912 (see Figure 10). It too reveals its heritage in the plates of the Columbia Folio (1908) of the *Forest Atlas*. Both have extensive text on their backs and employ the standard Forest Service scale of 1:253,440, or 4 miles to the inch. Being closest to the population center of Portland, Oregon and closest to the District Supervisor’s Headquarters, the two forests were obvious candidates for the first maps made for the forest visitor in District 6. In addition to these two maps, District 6 produced folded forest visitor maps dated 1913 for the Chelan and Wallowa National Forests. The next year, 1914, covers conformed to national standards (see Figure 11 – Payette National Forest map – below).

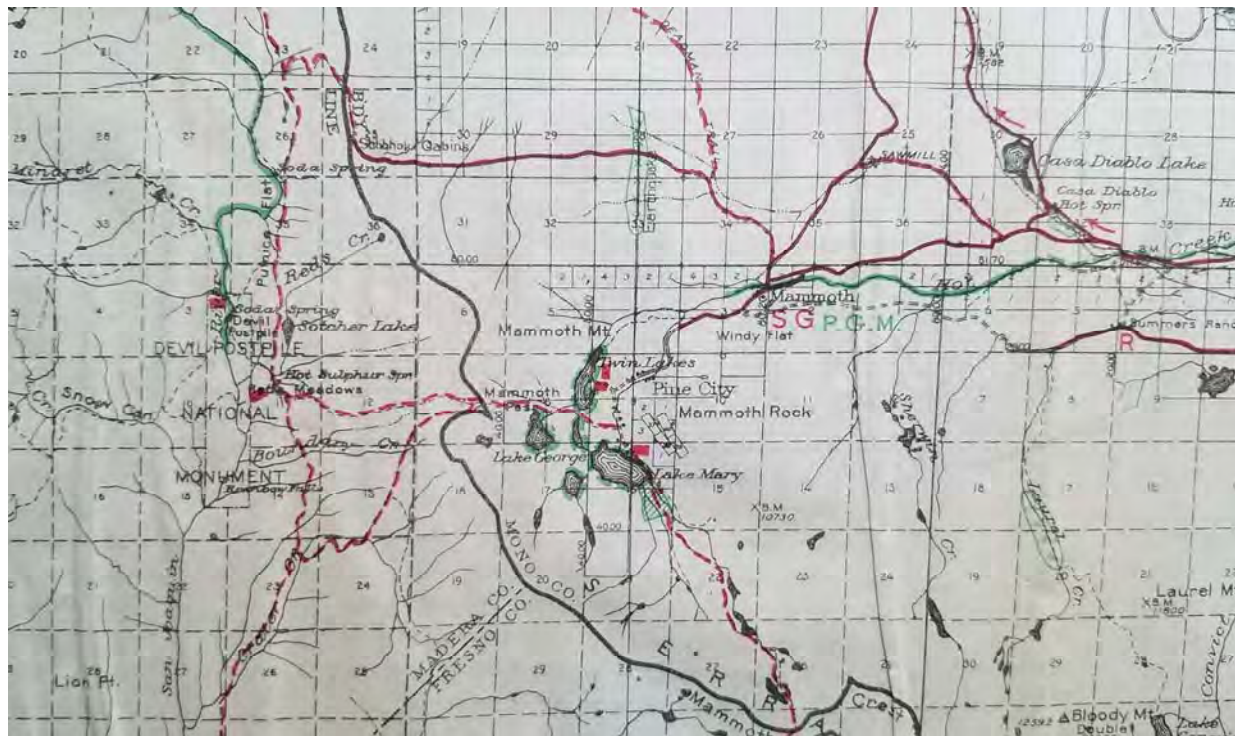




**Figure 10:** Title cartouche and legend for the 1913 Columbia National Forest map (shown folded in Figure 9). Map information is dated 1912 from the Columbia National Forest administrative map at 1:253,440-scale; cover dated 1913. Note the symbols for “Tool Box” and “Telephone Line,” two important features of fire prevention and control.

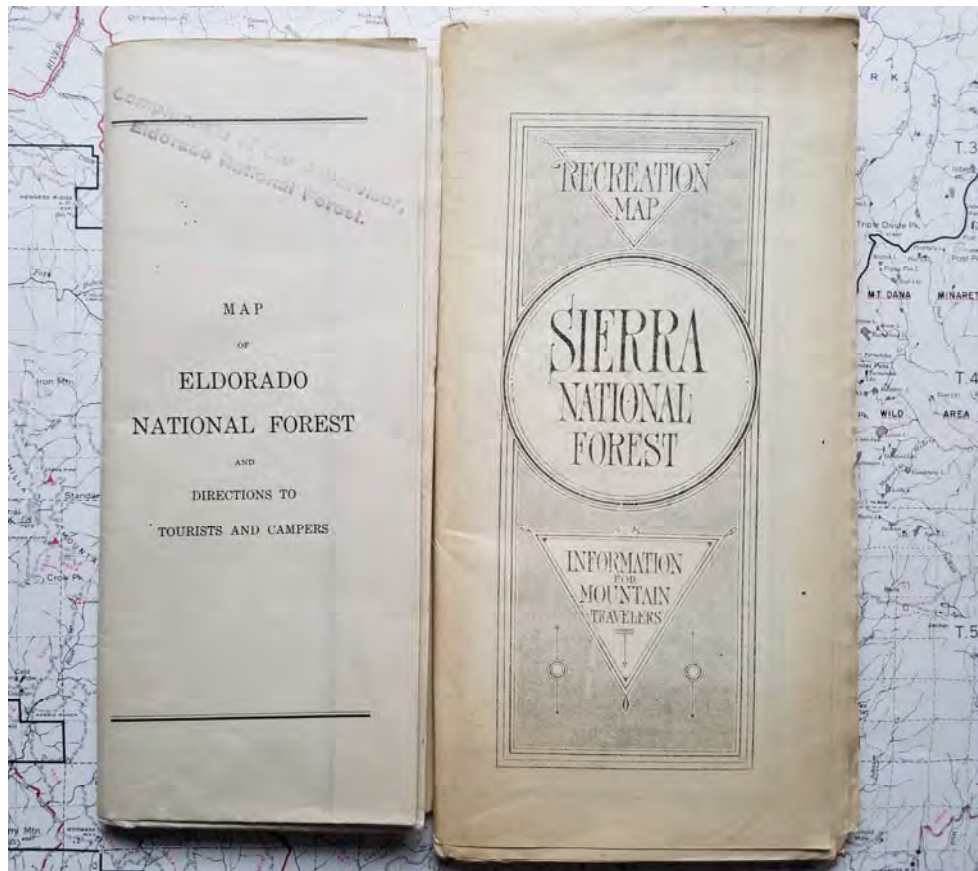


**Figure 11:** Examples of early forest visitor maps from districts other than the Districts 5 & 6. The first on the left is of the Payette National Forest of 1914 and the middle map is the front cover of the Boise National Forest of 1917. These were issued by District 4 conforming to national standards and illustrate map covers produced between 1914-1915 and the next edition issued from 1916 to 1918, similar to the visitor maps shown for District 5 shown in Figure 13. The map on the right is an example of one of the four “Quadrangle” maps made by District 1 between 1920 and 1922, the first type of folded visitor made by the District. All three maps had text on their versos describing fire safety, game laws, and other information for forest users. The U.S. Geological Survey printed the Idaho maps; the Government Printing Office printed the Montana map.

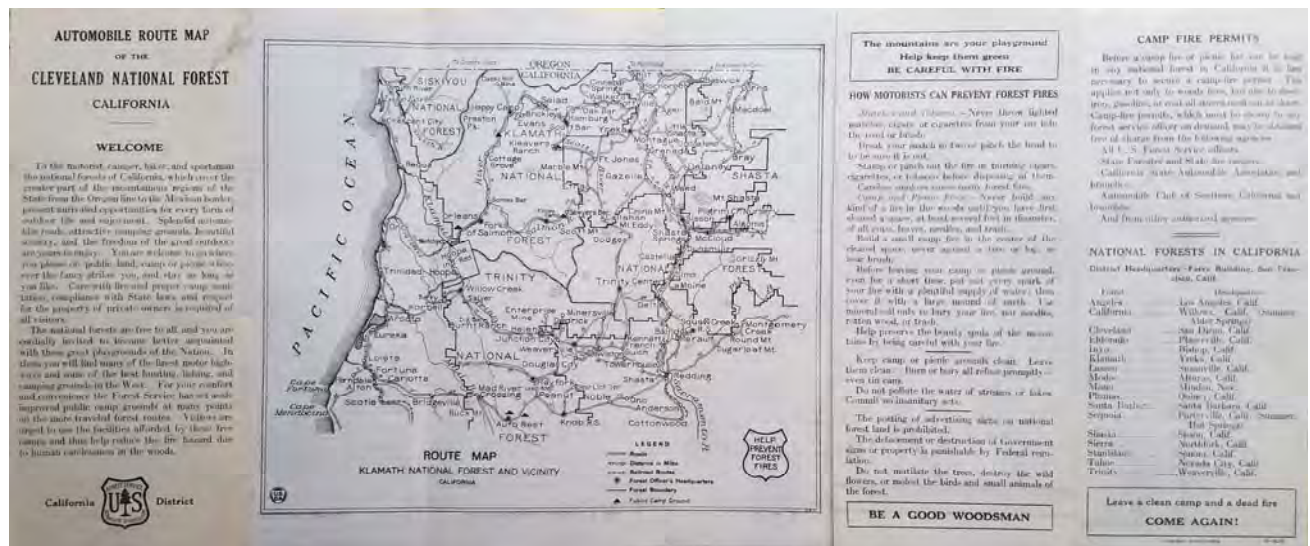


**Figure 12:** Detail of the Mammoth Lakes area from the 1917 map of the Inyo National Forest (North Half), an example of visitor maps produced between 1916 and 1918. Solid red lines represent passable auto roads and dashed red lines are "Auto Stage Routes." Green around lakes and along streams indicate "Good fishing stream or lake." Red squares identify "Particularly attractive camping sites," and red letters "S" show where camping supplies may be obtained, "G" gasoline stations and "R" "ranch where butter, milk, eggs, etc. can be had." Green letters near the town of Mammoth tells the map reader that "P" pack and saddle stock, "G" guides and packers, and "M" meals and lodging can be obtained there. The map also has a public land grid, and shows county and state lines, lakes and streams, meadows for stock grazing, telephone stations, and geographically interesting areas. Bench marks (BM) are provided as the only indication of relief.

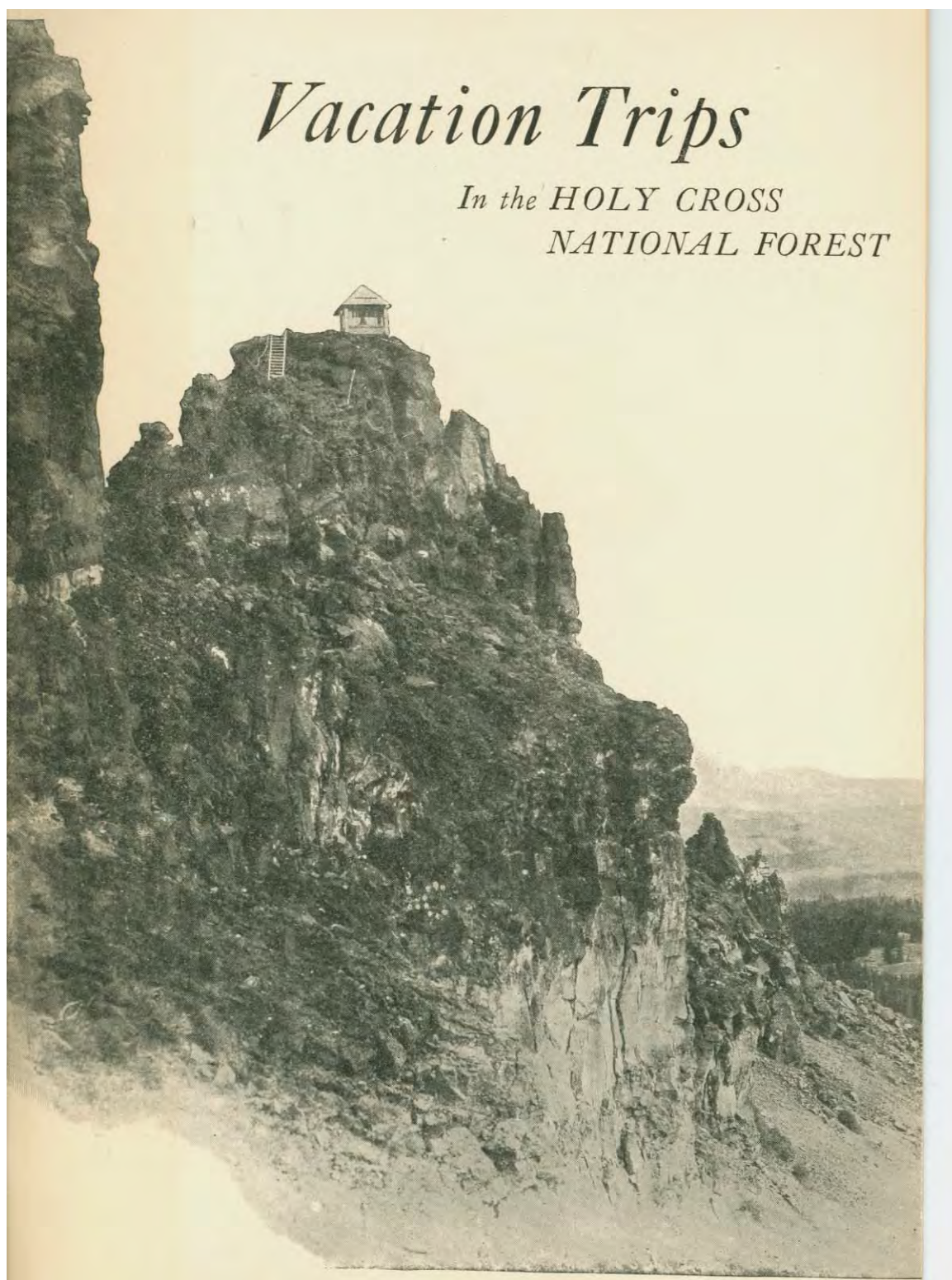




**Figure 13:** Examples of forest visitor maps issued for California forests showing the two types of standardized maps issued between 1914 and 1918. The Eldorado National Forest, dated 1914, illustrates the first type, or those forest visitor maps from the 1914-1915 period. These maps came with a scale of either 1:126,720, like the Eldorado map, or 1:253,440 and most were uncolored. The purple ink stamp on the cover reads, “Compliments of the Supervisor, Eldorado National Forest.” The Sierra National Forest dated 1916 illustrates the second type of forest visitor map made and issued from 1916 and 1918. All maps of this later type were produced with many subjects of interest to visitors in color at 1:126,720-scale as shown in Figure 12.



**Figure 14:** Four California “Automobile Route Maps” from 1919: From left to right, Cleveland National Forest (folded, front panel); Route Map, Klamath National Forest and Vicinity (all 3 panels fully opened); California National Forest (folded, back panel) on fire prevention; and on the far right, the folded middle back panel of the Trinity National Forest map with text on campfire permits and directory of National Forest Headquarters in California. These were the first maps to name District 5 the “California District.”



**Figure 15:** An example of a front cover of an early booklet-type forest visitor publication issued in 1919 by District 2 for the national forests of Colorado, plus one uniform to the series for the Superior National Forest in Minnesota, which, at the time, was part of and administered by District 2. Printed by the Government Printing Office, the booklets included a basic map of the forest inserted behind the booklet's back cover. The Holy Cross National Forest was discontinued in 1945 and all its lands transferred to the White River National Forest.



#### IV. Forest Service Mapping Between the Wars, 1922-1941

For the first time, beginning in 1922, the Forester included a section in the annual reports of the Forest Service dedicated the agency's cartography in a section captioned, "Maps and Surveys." Until 1941, when the Forest Service along with the rest of the federal government transitioned to a war footing, this section of the agency's annual report charted the shift from its reliance upon traditional surveying and mapping techniques based upon ground methods in the early 1920s to cartographic practices increasingly reliant upon aerial photography. Paper administrative maps continued to be produced at the standard engineering scales, while the Forest Service, for the most part, settled upon a scale of 1:253,440 for its forest visitor maps. As the public made more use of the national forests for recreation purposes the Forest Service issued not only more fully edited forest visitor maps complete with text and photographs, but also more ephemeral recreation folders, especially in the 1930s. Sheets of the *Forest Atlas* continued to be produced to fulfill the needs of District Offices, but remained hidden from the public. The Forest Service's 1930 annual report contains the last mention of any atlas sheets being produced, while, tellingly, the 1931 report was the first to optimistically state that "Two contracts were awarded to airplane companies to obtain mapping data required for the preparation of Forest Service maps. This method of obtaining survey data should prove economical for large-scale maps."<sup>56</sup>

Map accuracy steadily improved during this period even as Forester William B. Greeley lamented the fact that in 1922 only 20% of the national forest area of 181,799,997 acres was "accurately mapped." In this he was addressing the need for precise, detailed topographic surveys by the U.S. Geological Survey on which to base his agency's maps. Even so, map output by the Forest Service continued to expand as cartographic staff in the Districts and in Washington stabilized after World War I and staff in the field grew more accustomed to the routine of map revision. As Greeley wrote:

"Ordinarily, maps are printed upon three scales—one-quarter, one-half, and one inch to the mile, depending upon the available and desired detail. All Forest Service men on field work carefully checkup errors which appear upon the maps, note corrections which come to their attention, recommend to the United States Geographic Board names for unnamed topographic features, and currently gather new and more detailed data for inclusion upon the maps. After sufficient information has been secured to warrant a revision, new maps are prepared and published."<sup>57</sup>

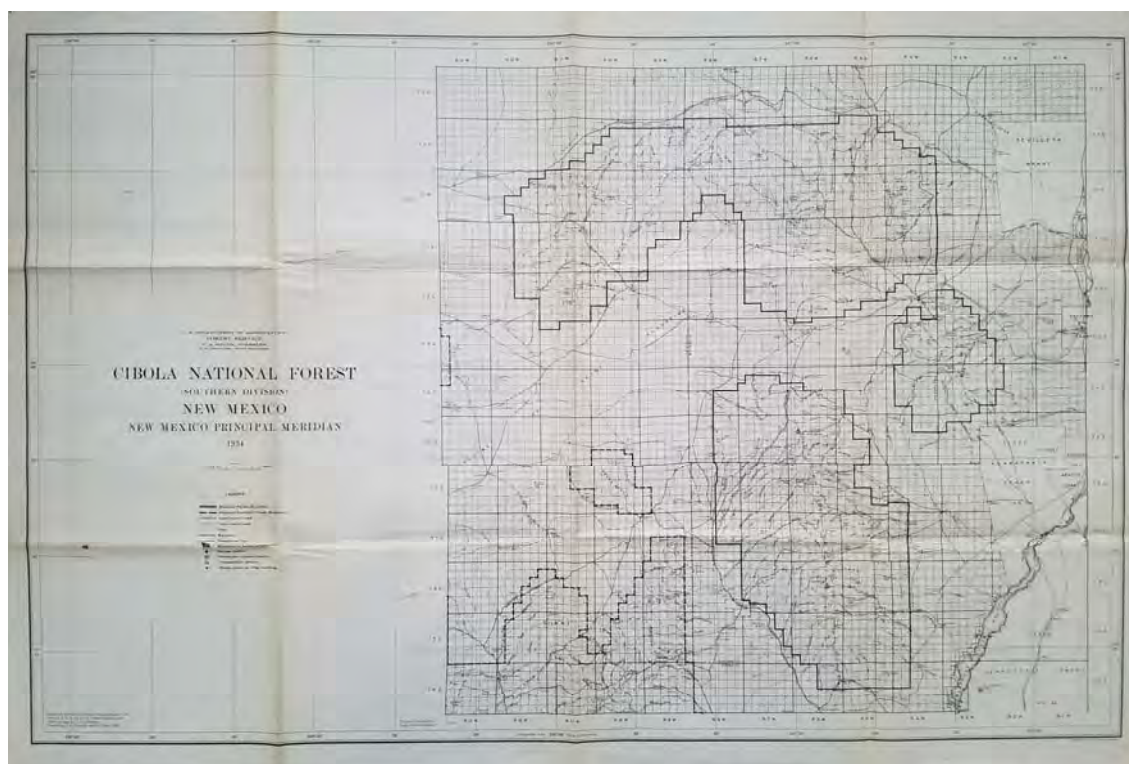
Forest Service annual reports supplied consistent production numbers of administrative maps, proclamation diagrams, executive order maps and, on the other hand, quite inconsistently, gave quantities of an assortment of miscellaneous maps produced between 1926 and 1936. The reports did not include numbers on forest visitor or recreation map production. Map production numbers ceased being reported after 1936 just as aerial photography began to make a difference in the mapping program of the Forest Service.

<u>Fiscal Year</u>	<u>Administrative Maps 1:253,440</u>	<u>Administrative Maps 1:126,720</u>	<u>Administrative Maps 1:63,360</u>	<u>Proclamation Diagrams Executive Order maps</u>	<u>FY Total</u>
1924	45 total – all kinds				45
1925	59 total – all kinds				59
1926	30	23	0	0	53
1927	25	17	0	7	49
1928	28	18	2	5	53
1929	26	13	2	6	47
1930	13	12	3	10	38
1931	17	11	5	7	40
1932	18	25	6	11	60
1933	19	19	4	2	44
1934	17	17	3	5	42
1935	27	17	0	0	44
1936	39	65	5	0	109
Total Type	363	237	30	53	<b>683</b>

**Table 2:** Administrative and special map production, 1924 to 1936 as reported in Forest Service annual reports.

<sup>56</sup> U.S. Forest Service, *Report of the Forester*, (Washington, D.C.: Government Printing Office, 1931), p. 56

<sup>57</sup> U.S. Forest Service, *Report of the Forester*, (Washington, D.C.: Government Printing Office, 1922), p. 43-44.



**Figure 16:** Typical administrative map made during the interwar period, this 1934 map at 1:253,440-scale is one of a set of five maps made in that year for the newly created (December 3, 1931) and widely dispersed Cibola National Forest in New Mexico. In addition to the three divisional maps (Eastern, Western, and Southern – Southern Division shown here), the Southwestern Region constructed maps showing the entire forest (1:253,440-scale) as well as a new forest visitor map (1:500,000-scale) that showed all divisions of the Cibola National Forest in their true geographic relationship.

From manuscript notations found on administrative maps in the National Archives' collections, the Forest Service ordered maps printed in a variety of editions. Based on the requirements of the District or, after 1930, the Regional Offices, some maps were printed only in black & white, like the 1,040 copies of the 1930 1:253,440-scale administrative map of the Datil National Forest in New Mexico. A green color overlay on a black and white base map, first used in 1910 on some administrative maps and proclamation diagrams to show Forest Service owned lands, came to be more regularly applied to maps in the 1920s. Another type of map that was introduced in the 1920s was the "gray & white" edition. The lighter grey, rather than the bold black, served as a better base map on which to draw thematic information. The 1932 order by the Northern Region for 823, 1:126,720-scale maps for the Western portion of the Jefferson Division, Lewis & Clark National Forest in Montana called for 290 maps with green overlay on black & white base, 263 black & white maps, and 270 copies in gray and white.

With the passage in 1922 of the law to consolidate national forest lands ("General Exchange Act"), more administrative maps and *Forest Atlas* sheets were printed with a color overlay showing private or "alienated" lands within the boundaries of the national forests on a black & white base. Alienated lands were typically shown with the color pink or red. In addition, administrative maps also identified specific exchange areas within individual national forests authorized by congressional action that permitted land exchanges for private forest lands outside national forest boundaries. An example of this type of law was "An Act for the exchange of lands adjacent to the national forests of Montana" of January 30, 1929 (Public Law 70-694 – 45 Stat. 1145). For fire control, administrative maps of the 1930s were sometimes printed with red compass roses centered on forest lookouts to aid in locating fires. Compass roses, called "protractors" by the Forest Service, were quite common on the maps of the forests in the Intermountain and California Regions. From the mid-1920s forward, automobile highways and roads shown in red made their appearance to become a permanent feature of administrative maps. Most 1:63,360-scale administrative maps included contour lines and were issued for certain ranger districts, particularly in the Southwestern Region, for smaller portions of the national forest, or, up to 1930, sheets in the *Forest Atlas*. Finally, Forest Service maps were being printed on a wider variety of papers, from tracing paper to card stock to clay coated papers. In the course of compiling the carto-bibliography, two black & white administrative maps were discovered printed on cotton cloth as well as on paper. Cloth editions of 1:253,440-scale administrative maps of the 1927 St. Joe National Forest in Idaho and the 1928 Deschutes National Forest in Oregon have been identified. More of these noteworthy, perhaps experimental, cloth maps may exist.

In 1936, the Chief of the Forest Service's Division of Engineering, T. W. Norcross, issued a 31-page booklet entitled, *Forest Service Map Standards*. These standards represented a modern advance over the 1912 *Instructions for Making Forest Service Surveys and Maps* with its 10-page supplement *Signs, Symbols, and Colors*. Without text or even page numbers, the 1936 *Map Standards* booklet presented a greatly expanded array of signs and symbols for cultural and physical features, boundaries, standard lettering, a fire legend, abbreviations, a standard map title, and legend boxes for administrative maps. Also included for the first time were signs and symbols for the production of special maps covering range management, recreation, forest management, forest roads, proclamation diagrams and maps, federal land ownership, and for the first time, an "Air Navigation Map Legend" to be used on administrative maps. Most administrative maps issued after the release of the 1936 standards incorporated the conventional signs and symbols as well as the lettering and framing conventions found in the *Standards* booklet. The result was a more modern and elegant appearing map. Even maps issued before 1936 exhibited the newly enlarged repertoire of signs and symbols, as well as the newly formatted text blocks. Many of these had been used before they were all brought together in the 1936 *Map Standards* booklet.

The North Pacific Region (Region 6 - since 1949 the Pacific Northwest Region) pioneered the publication of maps of individual ranger districts in the 1930s. A ranger district map was made by extracting a portion of the latest edition of an administrative map, either the ½-inch (1:126,720) or the ¼-inch (1:253,440) maps as a base and reprinting that portion to cover a ranger district. Only a few national forests of Oregon and Washington lacked full sets of ranger district maps and a few forests, like the Columbia, Mt. Hood, Siuslaw, Snoqualmie, and Wenatchee, had two different editions of maps published before the start of World War II. These ranger district maps were most often issued in black & white, however the Malheur National Forest issued a set of ranger district maps with forest visitor information printed in a red overlay. Forest Supervisors used ranger district maps of their forest to show thematic information for the public, such as areas closed to entry during the fire season. All were issued on small sheets measuring 8 ½ by 11 inches. The Northern Region constructed ranger district maps for its Coeur d'Alene (1940) and Deerlodge (1939) national forests, but it was the North Pacific Region that produced the most pre-war ranger district mapping. It is important to note the beginnings of ranger district maps as their production quickly spread to other regions after the war to become important parts of the cartographic program of the Forest Service.

While the U.S. Geological Survey continued to be the agency that printed the most Forest Service maps during this period, federal government printing capacity released after the end of World War I through demobilization allowed more maps to be printed by the presses of the U.S. Army Corps of Engineers. The first maps printed by the Corps of Engineers between the years 1920 and 1934, were noted as being printed by the "Engineer Reproduction Plant, U.S. Army, Washington Barracks, DC." The plant was located on the grounds of what is now known as Ft. Belvoir in Virginia. Maps being printed from 1935 to 1939 carried the notation, "Engineer Reproduction Plant, U.S. Army, Fort Humphreys, DC," and from 1939 to 1942 as the "Engineer Reproduction Plant, The Army War College, Washington, DC." The Government Printing Office and a variety of its contractors printed forest visitor maps for the public. Besides the GPO itself, these contractors included The Columbia Planograph Co., The Norris Peters Co., Lithographers, Williams-Webb Co., and Williams & Heintz Co., of Washington, DC and the lithographer, A. Hoen & Co., of Baltimore, Maryland. Williams & Heintz and A. Hoen were also contracted by the Forest Service to print administrative maps as well. Foreshadowing a move of the Regional Offices to arrange their own printing, quite common after World War II, the Southwestern Region contracted with the Smith-Brooks Press of Denver, Colorado to print six administrative maps for the Region all dated 1941. After the war, the Forest Service increasingly turned to local commercial printers for map printing.

### **A. Topographic Mapping**

If there was one theme found throughout William B. Greeley's reports on Forest Service mapping in the 1920s, it was the need for accurate topographic surveys of the national forests. Using accurate U.S. Geological Survey topographic quadrangle maps in the making of Forest Service maps resulted in a more useful, reliable, and versatile spatial tool, especially when geodetic control points came as standard feature of the Geological Survey quadrangle map. As Forester Greeley wrote in 1922:

"The foundation essentials for accurate maps are precise, detailed topographic surveys. These surveys are executed by the United States Geological Survey after the Coast and Geodetic Survey has extended the necessary judiciary control. Small fragmentary sections of the forests have from time to time been mapped by the Forest Service in connection with timber sales or other activities which require immediate data. The service cooperates with and assists the Geological Survey in every possible way, including financial aid whenever available, in surveying and mapping the national forests."<sup>58</sup>

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<sup>58</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1922), p. 43.

According to Greeley, despite the surveys conducted by the Forest Service, the basic need remained for accurate topographic maps produced by the Geological Survey. In 1924 the Congress considered increasing topographic map production with the Temple Act or “An Act to provide for the completion of the topographical survey of the United States.” The law called for the completion of topographic mapping of the United States in twenty years with adequate horizontal and vertical control and the publication of the resulting maps by the federal agencies that then existed. It also allowed the federal mapping agencies to enter into cooperative agreements with the states or municipalities to complete topographic mapping within their borders. The Temple Act passed and was signed into law on February 27, 1925 with the support of the Forest Service, the Geological Survey and other agencies. However, it was never funded. Greeley noted:

“After passage of the Temple Act (Public Law 68-498 – 43 Stat. 1011) in February, 1925, it was hoped that considerable progress would be made in mapping the national forests. The bill authorized but did not appropriate funds. Subsequent appropriations by Congress have been insufficient to permit of any new mapping of Federal projects other than those on which State cooperation is obtainable. This has excluded all new national forest projects. It is estimated that 46 per cent of the area of the national forests has been topographically surveyed to a standard which is at present satisfactory. The remaining 54 per cent, or approximately 99,000,000 acres, is in need of accurate topographic surveys. Topographic maps of the forest constitute an essential administrative tool in connection with plan-wise development and satisfactory utilization of resources, and efficient protection, and some way for making more rapid progress in obtaining these maps is an urgent need.”<sup>59</sup>

The Forest Service continued to make its own topographic surveys covering individual projects, such as timber sales, land exchange, road projects, and river basin mapping. The agency also continued to gather new topographic mapping as produced by other federal or state agencies. For instance, in the same annual report for 1926, Greeley noted that a cooperative agreement between the state of Montana and the General Land Office was initiated to produce a standard topographic survey of each township whenever the GLO made a new or revised township plat. The state and the GLO shared this new mapping with the Forest Service.

## **B. The Beginnings of the Forest Service Aerial Photography Program**

Aerial mapping had its beginnings in World War I when topographers serving with the U.S. Expeditionary Forces in France made use of airplane photographs in correcting old maps and making new ones along the changing battle fronts. In 1919, the Schoolcraft, Michigan area was photographed from the air using a K-1 single-lens camera by the Army Air Corps and, by using a variety of improvised methods, U.S. Geological Survey topographers were able to reduce the photographs to a uniform scale of 1:48,000, map all two dimensional or planimetric features, and finally add topographic contours to the 15-minute quadrangle. The Schoolcraft Quadrangle became the first USGS topographic map to be produced from aerial photographs. The methods used were still experimental, but aerial photography held the promise of becoming a faster and more efficient method of obtaining field data for mapping and for other resource management purposes.

Indeed, during World War I, the Forest Service had been experimenting with aerial photography in the Pacific Northwest. On the front cover of the 1920 edition of the *Columbia Folio* in the series of the *Forest Atlas of the National Forests of the United States*, includes this annotation: “About half of the sheets are partially compiled from “photo-topographic surveys by Lage Wernstedt, Forest Examiner in 1917.” The 1920 edition of the *Columbia Folio* held 15 sheets, 7 or 8 of which were compiled from photo-topographic surveys.

Disappointed by the failure of Congress to appropriate funds to fulfill the promise of the Temple Act, yet remaining steadfast in support of topographic mapping done by the U.S. Geological Survey, Greeley, in his annual report for the 1927 fiscal year, his last, cited another cooperative means to obtain accurate data for forest mapping:

“The photographic survey made by the Navy Department by airplane embraced practically all of southeastern Alaska except Baranof and Chichagof Islands. The photographs were taken at an altitude of approximately 10,000 feet, and are on a horizontal scale of approximately 1,660 feet to the inch [about 1:20,000-scale]. Arrangements have been made with the Navy Department and the Geological

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<sup>59</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1926), p. 40.

Survey whereby prints of these photographs may be purchased by the public. The map that is being compiled by the Alaskan branch of the Geological Survey from these photographs will be on a horizontal scale of 1:180,000, or approximately 15,000 feet to the inch.”

“In connection with the aerial fire patrol in Idaho, an aerial photographic survey covering about 64 square miles in the Kaniksu National Forest was conducted for experimental purposes. A K-3 single-lens camera was borrowed from the Army Air Corps. The area was photographed from an altitude of approximately 10,000 feet. A serviceable mosaic map on the scale of 6 inches to the mile was made from the photographs.”<sup>60</sup>

The data collected by the pioneering aerial photography project of the Navy was later used by the Alaska Region of the Forest Service as baseline data to produce a set of blue-line photomaps of the Tongass National Forest between 1934 and 1938. The smaller photographic survey of the Kaniksu in Idaho was extended to the Nezperce National Forest in 1929. Robert Y. Stuart, who succeeded Greeley as Forester in 1928, did not lament the lack of U.S. Geological Survey topographic mapping of the national forests in his annual reports as Greeley had done. Rather, he seemed energized in his first annual report for the 1928 fiscal year to write that,

“An aerial survey of a portion of the Nezperce National Forest in Idaho was started, but inclement weather and condemnation of the airplane used for the work shortly after it was initiated forced its abandonment. The results secured, however, gave evidence that this method of mapping forest areas has decided promise.”<sup>61</sup> (see Figure 17)

In 1931, the Forester announced in the annual report that two contracts were awarded to airplane companies to obtain mapping data required for the preparation of Forest Service maps and to support other tasks assigned to the agency. Not only did the Forest Service rapidly adopt the use of aerial photography in the 1930s, but so did most every mapping and resource agency of the federal government. This was especially true for the U.S. Department of Agriculture, whose county-based aerial photography projects were the most extensive federal remote sensing projects of the 1930s. In its need for highly accurate and large-scale mapping, the Tennessee Valley Authority, created in May of 1933, turned to the U.S. Geological Survey for assistance. Time limitations and the extensive area involved gave the Geological Survey an opportunity for an all-out test of aerial photography on behalf of this monumental mapping project. Technological advancements in stereo and multiplex mapping equipment led to a complete revolution in mapmaking procedures for the Survey and for other federal map making agencies. It was no coincidence that the American Society of Photogrammetry incorporated in Washington, D.C. in 1934, with leadership drawn from the ranks of the federal civil service, notably, from the Geological Survey’s Topographic Branch.

Because of its remarkable versatility, the Forest Service quickly embraced aerial photography. Aerial photography was not solely for mapping purposes. In 1936, Chief Silcox noted:

“In compiling the maps the available data of other government agencies are used. Where adequate data are not available and cannot be supplied within a reasonable time by the regular mapping agencies of the government, the necessary surveys are made by the Forest Service. Aerial photographs are being used extensively. They are valuable also for determining fuel and forest type in fire-control studies, for range investigations, and for studying slopes in erosion control; and they are used by lookouts, rangers, and others to aid in locating reported fires and to determine the cover type and topographic conditions where a fire is reported. All flying has been done under contract with private concerns. In some cases the cameras and photographers belong to the Forest Service.”<sup>62</sup>

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<sup>60</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1927), p. 39.

<sup>61</sup> Robert Y. Stuart, *Report of the Forester*, (Washington: Government Printing Office, 1928), p. 47.

<sup>62</sup> Ferdinand A. Silcox, *Report of the Chief of the Forest Service, 1936*, (Washington: Government Printing Office, 1936), p. 21.





verso of each quadrangle carried numbered photo centers identifying the aerial photographs used in the map's compilation, creating a ready-made index to the aerial photography. The numbers were printed backwards in blue, so when the map was placed face up on a light table, the photo center number was readable through the map. In November of 1941, the Surveys and Maps Branch of Region 2 "constructed" a pair of controlled photo mosaics of the two units of the Nebraska National Forest, the Bessey and the Niobrara Divisions. Applied to the photomaps in lines and symbols show national forest boundaries, public land grid, roads, trails, railroads, Forest Service administrative facilities and other structures, windmills, camps, ranches, walls, and lookout stations. These two examples of mapping from aerial photographs from the Rocky Mountain Region clearly show how far and how fast the Forest Service had adopted aerial photography.

Laboratories and other support facilities as well as technology for processing the huge quantities of photography kept pace with the agency's increased reliance upon aerial photography. The Forest Service was clearly on the cutting edge of adapting aerial photography to their mission. Chief Silcox proudly stated in his 1936 annual report:

"The Forest Service has one of the best equipped photographic laboratories in Washington, and has photostat, blueprint, and multilith equipment in most of the regional offices. In addition to Forest Service work, most of the photographic work for the Resettlement Administration has been done in Washington and some of the regional offices. The photographic work accomplished during the year comprised 995,904 square feet of blueprints, 558,197 square feet of blue-line prints, and 600,284 square feet of black-line prints; 173,213 square feet of Van Dykes; 30,596 square feet of solar bromide prints; 434,466 square feet of photostats; 100,013 square feet of map mounting; and 153,096 prints of photo views."

And that:

"At Forest Service photographic laboratories in Washington, in addition to the regular work, photographic requisitions are filled for 12 other government bureaus."<sup>64</sup>

Technological advances made by the federal government, especially involving stereo photographic plotting machines and multiplex projectors, made mapping of land features independent of elevation (planimetric elements) and topographic mapping faster and more accurate. The American Society of Photogrammetry developed standard specifications for aerial photography, which were adopted as standard government specifications by the U.S. Treasury Department's Procurement Division. These standards made aerial photography contracting easier and more efficient. The Society also issued precision mapping camera specifications and map accuracy standards that were also adopted by the profession. The stage had been set for photogrammetry to assume an even larger presence in mapping and resource management. The Forest Service had positioned itself well with facilities, equipment, and trained staff to take advantage of these advances before the advent of World War II.

### C. Maps for the Forest Visitor

Maps made by the Forest Service for the forest visitor were an important part of the recreation policy of the agency. The maps were both practical, showing roads, trails, campgrounds, and other visitor facilities, as well as instructional, communicating the policies, priorities and the conservation philosophy of the Forest Service. The Forest Service produced a variety of maps for the visitor, the most common being the folded recreation map of an individual forest using the standard 1:253,440-scale "¼ inch" base map. A surge in the production of visitor maps began in mid-1920s. All Districts Forest Service saw an increase in this type of map, the reasons for which are not difficult to find. Forester William B. Greeley wrote in his annual report for the fiscal year ending June 30, 1924 that, "The number of people visiting the national forests for recreation is estimated each year by the local forest officers...The total number of visitors reported last year exceeded 10,500,000. In less than ten years the number has more than tripled."<sup>65</sup> The increase in recreation use was due to the greater accessibility to the national forests made possible by more and better roads and expanding automobile ownership. Greeley continued by writing that the estimate of the number of people visiting the national forests can only be an approximate one, but that, "The main point is that recreational use of the forests has assumed staggering proportions, and is rapidly increasing. A corresponding administrative responsibility is involved."<sup>66</sup>

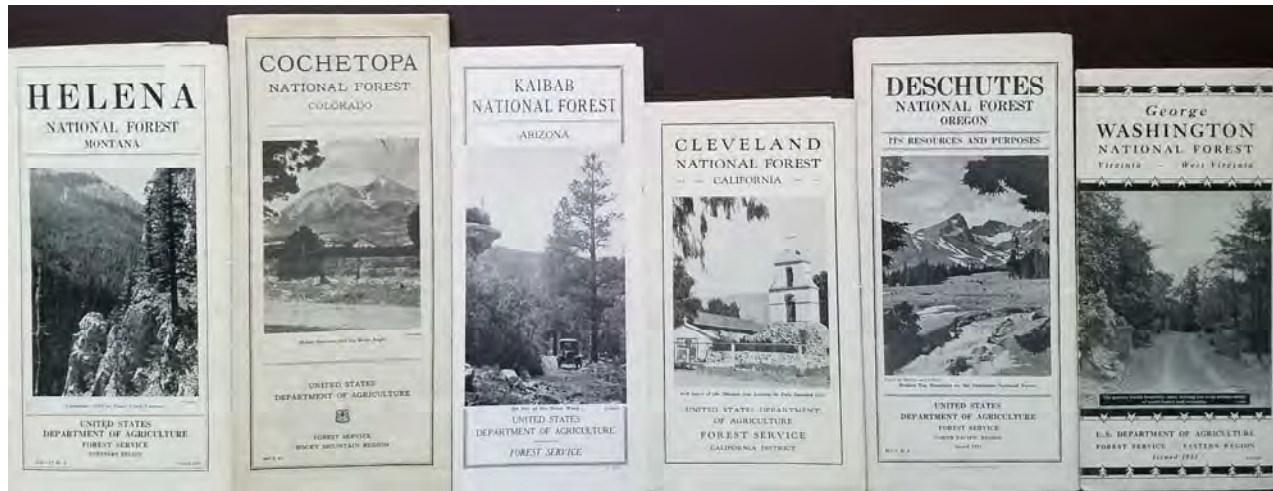
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<sup>64</sup> Ferdinand A. Silcox, *Report of the Chief of the Forest Service, 1936*, (Washington: Government Printing Office, 1936), p. 7 & p. 16.

<sup>65</sup> William B. Greeley, *Report of the Forester*, (Washington: Government Printing Office, 1924, p. 25.

<sup>66</sup> *Ibid.*

An appropriate and corresponding action by the Forest Service to the increase public use of the national forests was to issue more information about the national forests along with the rules and regulations to insure their proper use. What better vehicle than the folded forest map with descriptive text, rules, and illustrations on the back. In the same annual report, under the heading “Maps and Surveys” Greeley wrote, “Forty-five maps of national forests, on various scales were compiled and printed. Though made primarily for administrative use these maps are of considerable value to the public, with a resulting demand for them often greater than can be met. Authority to sell maps and use the receipts to meet the cost of printing larger supplies would be advantageous.”<sup>67</sup> Lacking a forest visitor map, administrative maps were often given away despite modest print runs.



**Figure 18:** A lineup of forest visitor maps from various Forest Service Regions: Helena National Forest, Montana (1935 – Region 1); Cochetopa National Forest, Colorado (1931 – Region 2); Kaibab National Forest, Arizona (1930 – Region 4 and after 1934, Region 3); Cleveland National Forest, California (1926 – Region 5); Deschutes National Forest, Oregon (1931 – Region 6); and the George Washington National Forest, Virginia-West Virginia (1933 – Region 7). These maps used the Forest Service 1:253,440-scale administrative maps as their base and display a measure of uniformity.

The First National Conference on Outdoor Recreation held in Washington, D.C. from May 22<sup>nd</sup> to May 24<sup>th</sup>, 1924 did not specifically recommend an increase in recreation map publishing, but it did draw the public’s attention to the need for more tourist facilities, public education, and coordination among various government agencies in the use of the federal, state, and local public lands. Table 3 details the jump in forest visitor map production beginning in 1924, which was sustained, right into the early years of the Depression era when numbers began to fall and then rise again after 1936.

Forest Service cartographers most often enhanced the “4-inch” black & white administrative maps with color overprinting detailing roads, campgrounds, picnic areas and other attractions. The decentralized administrative structure of the Forest Service insured variations would occur, based on local conditions. Not every forest visitor map from this period was based on the 1:253,440-scale base map. For instance, the Southwestern District opted for a sketch map of the forest highlighting recreation information alongside a smaller-scale vicinity map of a larger area showing the forest in a context of highways, railroads, and cities. A small forest relative to the others in the Southwestern District, the Sitgreaves issued a forest visitor map in 1930 at 1:253,440-scale, but due to large average size and dispersed nature of the national forests in Arizona and New Mexico, smaller scale maps were initially chosen by cartographers in Albuquerque. To map the relatively small 312,659-acre Chippewa National Forest, Region 9 used the scale of 1:126,720. This scale was also frequently used by Region 7 for the national forests of the northeast and south.

<sup>67</sup> *Ibid*, p. 33. Department of Agriculture sales of aerial and other photographs, photomosaics, and maps were authorized under the Agricultural Adjustment Act of February 16, 1938 (Public Law 75-430).

REGION /YEAR	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN	EIGHT	NINE	TEN	TOTAL
1922	3	1	1	1	0	4	0	n/a	n/a	0	10
1923	0	1	0	0	2	14	0	n/a	n/a	0	17
1924	2	10	7	1	0	9	3	n/a	n/a	0	32
1925	3	11	0	1	1	8	1	n/a	n/a	0	25
1926	5	0	3	1	6	3	3	n/a	n/a	0	21
1927	2	4	2	0	3	3	4	n/a	n/a	0	18
1928	5	6	3	0	7	5	4	n/a	n/a	0	30
1929	1	1	3	1	4	0	4	n/a	0	0	14
1930	2	4	4	2	3	6	4	n/a	0	0	25
1931	1	3	2	4	3	11	2	n/a	0	0	26
1932	1	4	1	3	3	4	2	n/a	1	0	19
1933	0	2	0	2	3	2	1	n/a	1	0	11
1934	0	4	2	3	0	4	0	0	0	0	13
1935	3	2	1	4	3	1	0	0	0	1	15
1936	0	0	0	5	2	0	3	3	1	0	14
1937	3	2	0	3	2	1	0	11	5	1	28
1938	0	4	1	1	1	3	4	5	6	1	26
1939	1	4	1	2	3	1	2	4	2	1	21
1940	1	3	1	1	7	5	3	3	3	1	28
1941	0	6	2	3	2	0	1	2	2	0	18
1942	0	2	1	1	3	1	0	0	1	0	9
TOTAL	33	74	35	39	58	85	41	28	22	5	<b>420</b>

**Table 3:** Number of visitor maps published for entire forests, states, or regions in a folded format by region and by year of publication. Excludes ephemeral and recreation guide maps. Region 2 included the national forests of Minnesota, Michigan, and Wisconsin until 1929. Region 7 included the southern states (Region 8) until 1934. Region 9 was established in 1929.

Each Region also had its own array of special maps issued together with its maps of the national forests. Region 6 produced a series of state highway maps for Oregon and for Washington as did Region 5 for California. There were also maps issued for the various national monuments administered by the Forest Service at that time, such as Oregon Caves, Bryce Canyon, and Chiricahua. The Government Printing Office printed the majority of these folded national forest and special maps and as such, the maps were automatically included in the depository library program run by the GPO affording the maps wide distribution.

The ever-changing boundaries and names of the national forests challenged Forest Service staff facing the question of what to do with their stock of forest visitor maps after a national forest had changed its name or had been merged with another. During this period a number of national forest visitor maps bore hand stamped corrections or pasted paper overlays over map titles, both inside and out, to account for name or boundary changes, as when the Colorado National Forest became the Roosevelt, or the Crater National Forest became the Rogue River. The supply of forest visitor maps of the Lewis and Clark National Forest issued in 1930 was corrected in 1932 by a glued typescript half sheet over page two in the text stating that the map only covered a portion of today's Lewis and Clark because the Jefferson National Forest to the east had been added to the Lewis and Clark National Forest. The 1930 map only presented the Rocky Mountain portion of the merged forests. After such changes, administrative maps were often quickly revised and reissued. But supplies of recreation maps first had to be exhausted before new editions were prepared, thus the necessity of these improvised measures at updating. The geography of the national forests was, even during the interwar period, still very much a work in progress.

#### **D. Recreation Maps and Map Booklets**

The coming of the New Deal brought innovations to the agency's forest visitor map program, as the Forest Service and other bureaus of the federal government sought to promote domestic travel, tourism and recreation and, in so doing, increase economic activity. To that end, several regions of the Forest Service issued a host of recreational maps in addition to the folded forest visitor maps dedicated to covering one national forest. These were much less finished in appearance than the standard national forest visitor map. The recreation maps came printed on a lighter weight paper, were easily revised, and

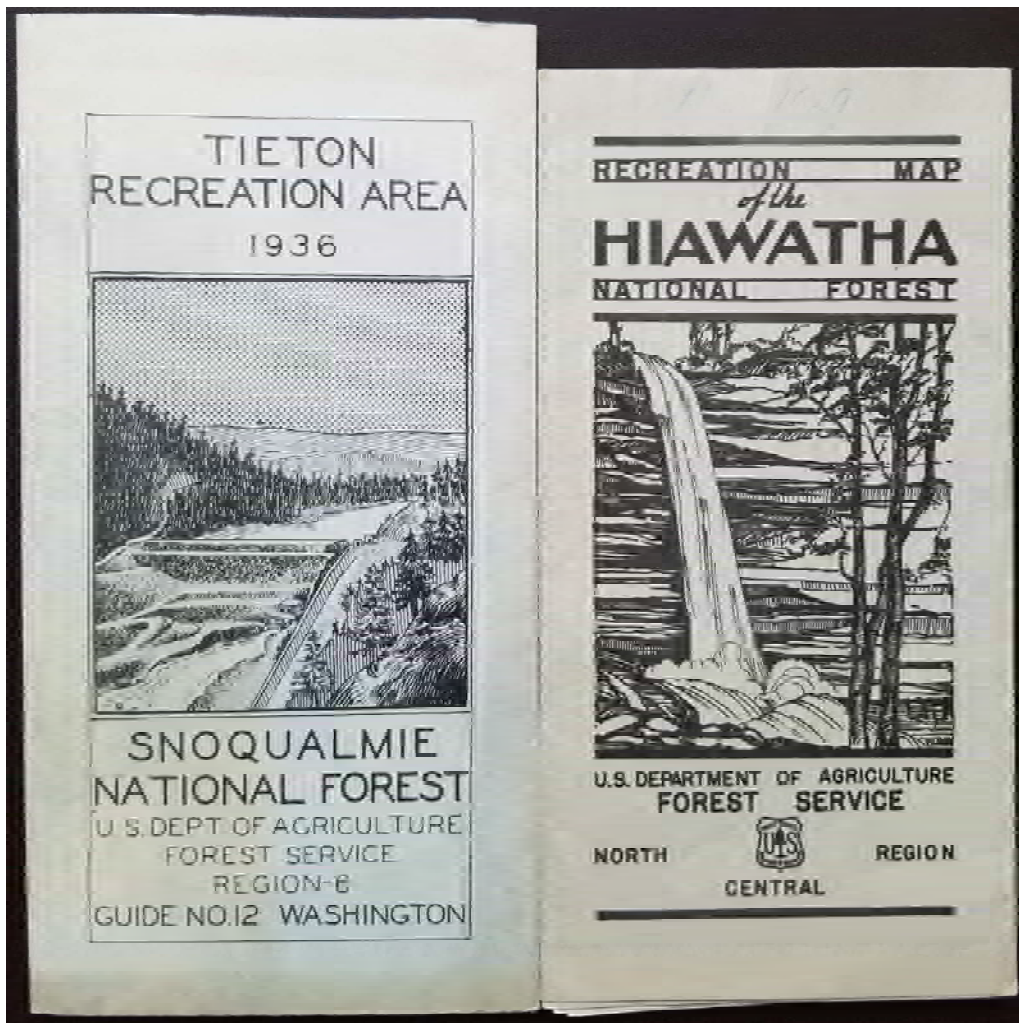
often reprinted. However, not all regions issued an ephemeral recreation map series. The most extensive was the “Recreation Guide Series” published by Region 6 out of its Portland, Oregon headquarters. The North Pacific Region issued two sets of guides, a series of 29 folders for recreation areas of Washington State and another series of 41 folders for those areas in Oregon (see Figure 19). The Southern and the North Central Regions also published their own recreation guide series often simply because fully edited ¼-inch scale national forest maps had not yet been issued by the Regional Office for every national forest in Regions Eight and Nine (see Figures 19 & 21). The ambitious and rapid pace of the purchase program under the Weeks Law of 1911 and its amendments in Regions Eight and Nine presented cartographers with ever changing boundaries. Any map issued for the national forests in these regions almost instantly became out of date. Therefore, forest visitor maps of the national forests in these regions during the 1930s were best quickly drawn then revised and reissued. The California Region did not have a stand-alone recreation map series, but many of the maps issued for the public covering one, entire national forest during the 1930s were entitled “Recreation Map...” and carried a sketchier smaller scale map within a much larger text section. While several of these appeared to be similar to the earlier standard folded forest visitor maps, they were actually issued in a booklet-style format with a map stapled into the center of the booklet. The Northern Region issued only a few recreation maps, and these carried lively drawings of game animals and natural features. The Alaska Region too, published at least five 8.5 x 11-inch mimeographed recreation guides for the Tongass National Forest with maps drawn by Region 10 cartographer, Florence I. Shafer, during the 1930s. The Southwestern Region produced several travel publications for the forest visitor to the region’s national forests, especially the Carson and Santa Fe. These mimeographed publications contained road logs, a sketch map, and text addressing the history of the area traversed by the tours. These tours were later combined with other tours for all forests in the Southwestern Region, and printed together in the 1940 publication, “*Short Trips to – National Forests in the Land of Coronado.*” This publication was issued for the occasion of the 400th anniversary of the explorations of Francisco Vázquez de Coronado into what became the southwestern United States in 1540-1542.<sup>68</sup>

The less polished recreation maps of the 1930s stand in contrast to another form for forest visitor publication, the booklet style publication. These booklets grew out of the earlier Forest Service publications issued between 1910 and 1925 in one or more of the U.S. Department of Agriculture publication series, such as USDA *Departmental Circulars* or Forest Service *Bulletins*, which were chiefly text publications with a simple map. The booklets issued by the Rocky Mountain District between 1917 and 1919 (see Figure 15) which were discontinued in favor of the ¼-inch scale folded forest visitor maps, can also be seen as part of the booklet style tradition that was carried into the 1930s. The first of this period’s national forest booklets came from the Eastern Region in 1932. Entitled, *Eastern and Southern National Forests: Timber Farms – Outdoor Playgrounds – Watershed Protection*, the booklet had 18 pages of descriptive text and black & white illustrations with a map of Region 7 inside the back cover. The Government Printing Office printed every one of the forest visitor booklets and as a consequence, all were widely distributed to the nation’s depository libraries. (see Figure 20)

Due to size restrictions, the map found folded in the back of the booklets carry a smaller scale and appear less finished in contrast to the ¼-inch scale folded forest visitor maps. By editing out information not useful to the tourist and highlighting the features and forest improvements that were important to the visitor, these maps were a practical and effective geographic tool for the auto camper or tourist, but not for avid hikers to the back country. Over the years, the maps often became separated from the booklet, which makes them less useful without the supporting text. This style of booklet ceased publication in 1943 with the publication of the Cache National Forest booklet, but was resurrected after the war, especially by the Intermountain and Eastern Regions. The last booklets issued came in 1952 with the publication of the Wasatch National Forest booklet by the Intermountain Region and the 1957 reprint of the 1950 booklet for the George Washington National Forest by the Eastern Region. In 1948 the Intermountain Region published a 17-page information booklet for the Caribou National Forest without the customary map tipped in behind the back cover. In the same year a separate folded forest visitor map resembling those found in the typical map booklet with a blank reverse and no folded panel title, was issued for the Caribou. The large and dispersed nature of the Caribou National Forest yielded a very large map that could not easily fit or be supported behind the paper back cover of the typical booklet publication. Thus, both text and map were published separately. Booklet style publications were printed and distributed by all Forest Service regions except for the Northern, California, and North Pacific Regions. The Southern and North Central Regions issued a single booklet for all national forests in the states of Florida and Michigan respectively. The Forest Service published a booklet on the Caribbean National Forest in Puerto Rico in 1936 and again in 1940, the only forest visitor publications and maps issued for this tropical national forest.<sup>69</sup> There would have been more of the booklet style publications for individual national forests had not World War II intervened.

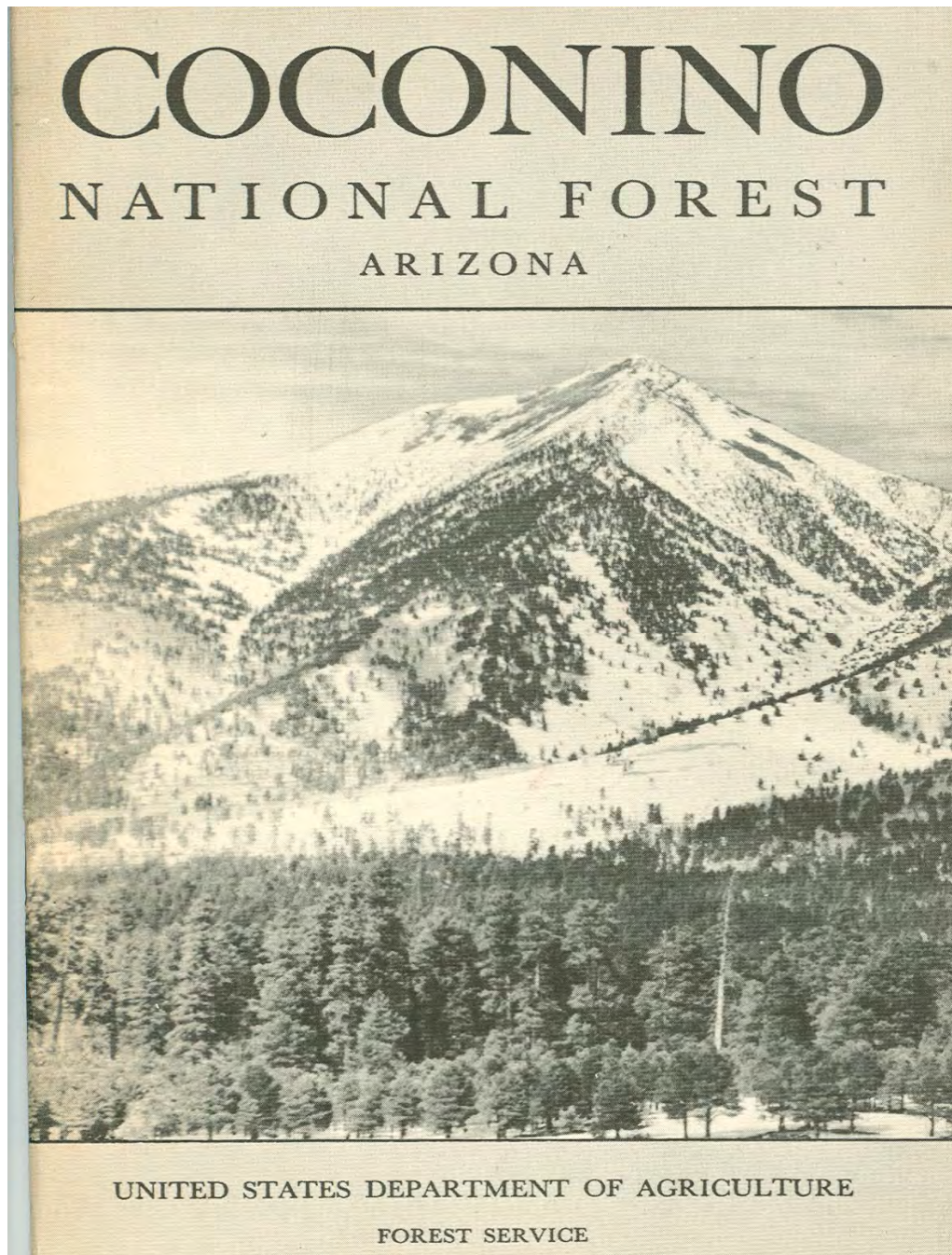
<sup>68</sup> These special regional recreation series of maps and publications are examined in detail in each of the Regional Chapters found elsewhere on this website.

<sup>69</sup> In 1905, the Bureau of Forestry under Gifford Pinchot published its Bulletin 54, a 52-page description of the Luquillo Forest Reserve, the predecessor to the Caribbean National Forest, with a map folded inside the back cover.



**Figure 19:** Examples of two recreation maps issued during the 1930s. The Tieton Recreation Area (1936), recreation Guide No. 12 on the Snoqualmie National Forest (Region 6), included a typescript text and map centered on the U.S. Bureau of Reclamation's Rimrock Lake behind Tieton Dam, which is depicted on the folder's cover. The map does not provide names or initials of its creator. On the right is the *Recreation Map of the Hiawatha National Forest* dated 1937 with pen and ink drawings by Region 9 illustrator, Phillip F. Heim.





**Figure 20:** An example of the booklet-style publication with a map tipped in behind the back cover produced for the forest visitor. This 1939 example for the Coconino National Forest carries a photograph of the San Francisco Peaks north of Flagstaff, Arizona on its front cover. All ten Forest Service Regions issued booklets like this one, except the Northern, California, and North Pacific Regions.

## E. Two Noteworthy Forest Service Illustrators

Two illustrator-cartographers hired by the Forest Service in 1937 deserve particular mention, Harry L. Rossoll and Thomas Speiden Culverwell. Rossoll began his career as an illustrator in the Forest Service's Southern Regional office in Atlanta, Georgia, adding drawings to the Region's *Recreation Guide* series. Examples of his pre-war work for the Region's recreation guide series are shown in Figure 21. Like many Forest Service employees, Rossoll joined the armed forces at the outbreak of World War II, serving in the Navy until 1944, when he rejoined the Forest Service in Atlanta. He is most famous for his more than 1000 "Smokey Says" newspaper cartoons which helped make Smokey Bear an almost universally recognized symbol of forest fire safety in one of the most successful public relations campaigns ever conducted by a federal agency. While he is most remembered for his Smokey Bear illustrations, his artwork can be found on many of the panel illustrations decorating the covers of forest visitor maps of national forests of the Southern Region. His one map credit was a pictorial map he drew of the Ouachita National Forest, Arkansas, in 1940. In 1967, Rossoll drew a notable pictorial guide map of the Kiamichi Mountain area, including the Kiamichi Division of the Ouachita National Forest for the Talihina Lions Club of Oklahoma. After retiring from his position as "Visual Information Specialist" with the Forest Service in 1971, he was asked to paint 14, 7 x 25-foot dioramas for the Forest Heritage Center Museum in Beavers Bend State Park near Broken Bow, Oklahoma. The murals, which required 12 years to complete, illustrate such subjects as prehistoric forests, the local Caddo Indians, 1940s lumbering, papermaking in the South, and forest appreciation. Harry Rossoll died in 1999 at his home in Atlanta at age 89.

The Eastern Region also hired an illustrator-cartographer about the same as the Southern Region hired Rossoll. Thomas Speiden Culverwell (b. 1902) had put his artistic gifts to use well before joining the Forest Service by regularly supplying illustrations, comics, and political cartoons for Washington, D.C. newspapers, particularly the *Washington Daily News*. Culverwell created and brought to life such memorable characters as Senator Fuller Bunk and a young mischievous lad, Tim Tinker, in an early comic strip. A 1937 entry in the Washington city directory recorded his occupation as that of a draftsman working for the Forest Service for the first time. Culverwell was responsible for several remarkable pictorial maps of the national forests of the Eastern Region. His pictorial maps of the Allegheny, George Washington (see below Figure 22), Green Mountain, Monongahela, and White Mountain National Forests reached a high stage of refinement and artistic accomplishment for the genre not seen before or since in Forest Service recreation maps. All were all drawn before World War II, and a few remained in print long afterward. The last printing of one of his pictorial maps was the White Mountain National Forest pictorial map published in 1962.<sup>70</sup> Culverwell served with the Office of Strategic Services, the predecessor of the Central Intelligence Agency, in China, India, and Washington, D.C., preparing topographic models and military maps during World War II. He returned to the Forest Service after the war as an illustrator and created many posters promoting on the job safety. He also made safety-themed illustrations for Forest Service calendars in the 1950s. He retired to the coast of Maine in 1956 where he drew maps for the Potomac Appalachian Trail Club. Culverwell was a long-time member of the Club. Culverwell will be remembered for his forest visitor maps and for his 1969 tourist map of Mount Desert Island, which was distributed for many years by the Bar Harbor Chamber of Commerce. He died in his home at Southwest Harbor on Mount Desert Island in 1977.

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<sup>70</sup> The George Washington National Forest was part of the Eastern Region (Region 7) at the time Culverwell drew his pictorial map.





**Figure 21:** Two map covers by the artist Harry Rossoll for the Southern Region's Recreation Guide Series. Recreation Guide No. 1 of 1937 introduces the national forests in the Southern Region with map and text and an impressionistic depiction of a grand oak deep in the forest with rays of sunshine filtering through. Rossoll's cover for the Juniper Springs Recreation Area on the Ocala National Forest in Florida (1938) demonstrates the artist's exceptional talent. The Juniper Springs development was a Civilian Conservation Corps project and the mill shown on the cover, also built by the CCC, generated electric power for the recreation area. It is numbered 3-B, while the Recreation Guide for the Ocala National Forest where Juniper Springs is located, is numbered 3-A.





**Figure 22:** Northern portion of the George Washington National Forest, open & flat, and the cover of the forest's southern portion, folded, undated, by Thomas Culverwell. Culverwell worked in the offices of the Eastern Region of the Forest Service in Washington, D.C. The maps shown were issued circa 1938 and were revised and reprinted combining the two halves into a single map printed back to back dated 1950 and reprinted in 1957.

## V. Cartographic Contributions made by the Forest Service in World War II

With the attack on Pearl Harbor, Hawaii, on December 7, 1941, all duties and responsibilities assigned to the Forest Service for managing the national forests were instantly transformed into essential elements of the nation's overall war and defense efforts. Fire-prevention activities protected vital wood resources needed for wartime and served an important role in civil defense. The forest-fire lookout network became a major feature of the Army's air-raid detection system. Forest product research turned to efficient ways to box and crate war material destined for the armed forces and our allies overseas, while alternative sources of rubber were explored on California's Cleveland National Forest. Human resources of the Forest Service were also mobilized for the war. The Chief of the Forest Service, Lyle F. Watts stated in his annual report for 1945 that, during the war period, 1,825 men and women in the Forest Service left their regular jobs to serve in the military forces, at a significant sacrifice to the agency.<sup>71</sup> About 500,000 acres of national forest land in nine states and territories had been transferred to the War and Navy Departments or made available through cooperative agreements for military reservations, artillery ranges, maneuver areas, or proving grounds. Forest Service engineering and cartographic staff and facilities were enlisted almost immediately for war work. As Acting Chief, Earle H. Clapp wrote, "The engineering facilities of the Forest Service were called upon by the Army Corps of Engineers for aerial photography, photogrammetry, and topographic-mapping work covering more than 4,000 square miles in California."<sup>72</sup> In 1943, Chief Watts reported:

"Practically all regular surveying and mapping were suspended to expedite delivery to the War Department of large-scale, precise, topographic maps of two tracts in California, aggregating 4,345 square miles. Additional work of this kind in the East is now being undertaken for the War Department. A large amount of aeronautical-approach mapping and of photograph and map-enlargement work has been done for the Air Service.

"Accumulated demands for aerial photography and accurate maps needed for the protection, development, and administration of the national forests, and the extraordinary maintenance and betterment that will be required to bring forest roads and trails up to a satisfactory standard, will call for resumption of regular work on a much larger scale as soon as the situation permits."<sup>73</sup>

The Engineering Department continued to concentrate on work assignments related to the war in 1944 and throughout 1945. Engineering work done in the past by the Forest Service documenting the construction of bridges, fire towers, signs, water development and other Forest Service structures for the national forests was put into technical handbooks for the use of the armed forces. War work also occupied most of the time of Forest Service cartographers, as in 1944:

"The war-mapping project was terminated upon completion of precision topographic maps from aerial photographs for 2,750 square miles in Pennsylvania, Maryland, and Virginia. This job required more than 100 skilled surveyors and mappers. Twenty-one stereoscopic plotting machines, invented in the Forest Service, were used in turning out more than 100 quadrangles. Other confidential work on theater-of-war maps has been completed and additional work is being undertaken."

"Specialists of the Forest Service photographic laboratory have devoted over 20,000 man-hours to aeronautical approach charts, foreign and domestic war mapping, and photostat and enlargement work for the Office of Scientific Research and Development."<sup>74</sup>

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<sup>71</sup> Lyle F. Watts, *Forests and Employment, Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1946), p. 34. At the height of World War One, Forester Henry Graves in his fiscal year 1918 annual report of June 30, 1918, reported that 1,179 Forest Service employees left the agency to serve in the Army or Navy, to serve the military in a civil capacity, or left for higher pay in forestry or other endeavors. Cartographers or special cartographic projects were not specifically mentioned by Graves. Henry S. Graves, *Report of the Forester*, (Washington, D.C.: Government Printing Office, 1919), p. 3.

<sup>72</sup> Earle H. Clapp, *Forestry in Wartime, Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1942), p. 14.

<sup>73</sup> Lyle F. Watts, *Forests in War and Peace, Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1943), p. 21. Because of the need to map these parts of the California coast, the War Mapping Project was headquartered in San Francisco.

<sup>74</sup> Lyle F. Watts, *Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1944), p. 17. The Office of Scientific Research and Development (OSRD) was an agency of the United States federal government created in 1941 to coordinate scientific research for military purposes during World War II and was terminated in 1947. The topographic work in the east and the completion of the California work resulted in the transfer of the War Mapping Project to Gettysburg, Pennsylvania.

And in 1945:

“Last year, the War Department terminated the topographic mapping on which the Forest Service had been engaged. However, the Navy Department requested similar assistance and, when the war with Japan was speeded up, a large increase in personnel was required.”

“The job involved making maps of war areas with as much accuracy as possible from whatever information was available. Sometimes, there were no maps at all; in other instances recent aerial photographs permitted changes on existing maps. Ordinarily, the source material would not be sufficiently accurate or adequate for good mapping. Great ingenuity was called for in finding practicable and satisfactory ways of using available data. The morale of the organization was high; each man realized the importance of the work in the Pacific War.”<sup>75</sup>

Through these efforts the Forest Service cartographers made their own unique and essential contributions to the war effort, however, they came at a cost to the agency. At the end of the war the general condition of the mapping of the national forests was dismal. Most maps were old and outdated. There existed a very large cartographic deficit with which the agency had to contend.

## VI. A New Generation of Mapping, 1947-1975

It took over a year before the Forest Service could complete the transition from war to peace time conditions. Nearly one thousand Forest Service personnel who had served in the armed forces had returned for work by June 30, 1946, while only 27 former Forest Service staff did not take advantage of their reemployment rights.<sup>76</sup> These returning veterans were all welcomed back into the workforce, and all began the process of returning to their peacetime roles within the agency. Even in the midst of the transition, the Forest Service furnished the War Department with five technical employees to assist in organizing the forestry program for the occupation of Japan and Korea. A forester was also made available to administer civilian forestry projects in the American zone in occupied Germany.

As for the situation of the Forest Service's post-war mapping effort, Chief Watts wrote:

“During the war the Forest Service's Engineering Division was engaged in special war-mapping projects for the Army and Navy. After VJ-day, the Navy Department requested continuation of Forest Service assistance in the preparation of maps by photogrammetric methods. Most of this work has now been completed, and the Division is shifting from war activities to preparation of maps needed for regular Forest Service work. Maps adequate in scale, accuracy, and detail are available for only about 15 percent of the national forests. Most maps in use are obsolete. Contracts were awarded in 1946 for aerial photography of approximately 34,000 square miles. New methods and equipment, such as a camera transit, photo transit, and radial-line plotter have been developed to obtain greater accuracy and increased production in mapping work.”<sup>77</sup>

After the War, all Forest Service regions faced the need to produce a new generation of ever more accurate administrative maps while having to contend with a shortage of staff and funding for aerial photography acquisition. Also, new National Map Accuracy Standards had been issued by the Bureau of the Budget in 1947. These standards would be the dominating influence on Forest Service administrative mapping for the next several decades. The California Region issued the first such example of a more accurate map meeting national standards with its 1947 administrative map for the Tahoe National Forest. Aerial photography acquisition and staffing would eventually improve to the point when, by the end of the 1970s, all national

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<sup>75</sup> Lyle F. Watts, *Forests and Employment, Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1946), p. 33.

<sup>76</sup> The issues of the *Directory, Forest Service*, for 1943, 1944, 1945, and 1946 carry an “Honor Role - Forest Service Personnel in the Armed Forces” in the back pages. The listing is arranged by Forest Service Region, beginning with the Washington Office followed by Experiment Stations and other research facilities, and indicates the name, branch of service, and if the staff member had been killed in the line of duty.

<sup>77</sup> Lyle F. Watts, *Timber Shortage or Timber Abundance, Report of the Chief of the Forest Service*, (Washington: Government Printing Office, 1947), p. 21. The Navy War Mapping Project was based in Gettysburg, Pennsylvania.

forests, except for those in the Intermountain and Alaska regions <sup>78</sup> had their own comparable versions of a highly accurate “Class A” administrative map based on aerial photography and meeting National Map Accuracy Standards for all of its national forests.

The 1947 Tahoe National Forest map introduced the “Forest Series” administrative map-type with a scale of 1:126,720, or a new standard 2-inch map. As stated on the map itself, the 1947 Tahoe map was constructed in the San Francisco Regional Office “from Forest Service planimetric maps constructed by photogrammetric methods from aerial photographs,” with vertical and horizontal control points established by the Forest Service, U.S. Coast and Geodetic Survey and the U.S. Geological Survey. As a transition map, the 1947 map does not appear very different from the 1:126,720-scale administrative maps that were produced by the California Region in the previous decade or from the older maps then being revised and reprinted.

All Forest Service maps were still governed by the 1936 mapping standards, which determined the format, symbols, and overall appearance of Forest Service administrative maps. The difference is found in the 1947 map’s accuracy, demanded by the new National Map Accuracy Standards, based on primary source data, and not compiled from existing maps. The 1947 Tahoe map and the new administrative maps that followed were produced from Forest Service planimetric maps which were constructed directly from aerial photographs or from recent U.S. Geological Survey quadrangles that had been made from aerial photographs. Maps in the “Forest Series” became the Forest Service’s flagship map series and after 1951, when the map classification ratings were first applied, they were given the highest map accuracy designation of “Class A.” Until the advent of aerial photography, the Forest Service had used cartographic data from other agencies of the federal government with field checking by their own staff, to produce their maps. Aerial photography offered a steady source of accurate and reliable base material. With the equipment, technology, and staff on hand to translate the photography into maps, the Forest Service was for the first time able to make its own maps in greater quantity and with greater accuracy than in the past.

There was, however, an immediate need for maps after the war by resource managers and foresters as well as the public, and while the new Forest Series maps was a milestone event, constructing the new generation of administrative maps was projected to take years, especially in light of small budgets for aerial photography acquisition. Chief Lyle F. Watts wrote in his 1950 report that, “Mapping funds available to the Forest Service continue to fall short of financing the standard maps needed for management of the forests. In the meantime, planning sheets prepared in developing standard maps have to suffice as forest administrative maps.” <sup>79</sup> In other words, advance or preliminary maps were used in-house as a substitute until final “Class A” mapping could be produced. To make up for the lack of funding, the Forest Service cooperated as often as it could with other federal agencies in the acquisition of aerial photographs, as in 1949 when through the cooperation of the United States Navy, 25,000 square miles of aerial photography was obtained for national forest areas in Alaska.<sup>80</sup>

Even though there was an overwhelming need for maps, Forest Service cartographers were justifiably reluctant to put much effort into updating older maps whose base data was unreliable or unknown. This led regional office staff to quickly make limited revisions or simply reprint many older maps. Some administrative maps were revised and issued only in blue line editions so they could be reproduced on demand until newer maps could be printed, conserving their region’s resources. The resulting mix of older map stock, slightly revised, and new mapping from aerial photographs then in use prompted the Division of Engineering to introduce a map classification system, whereby a map designated “Class A” was the most accurate, being compiled from recent aerial photography by photogrammetric methods with geodetic control, all the way down to “Class EE” for maps of unknown accuracy. The Northern Region reprinted the 1936 Cabinet National Forest topographic map in 1956 under a new title, *Parts of the Kaniksu, Kootenai and Lolo National Forests (former Cabinet National Forest), Montana*, out of necessity.<sup>81</sup> This reprint was given an accuracy rating of Class EE.

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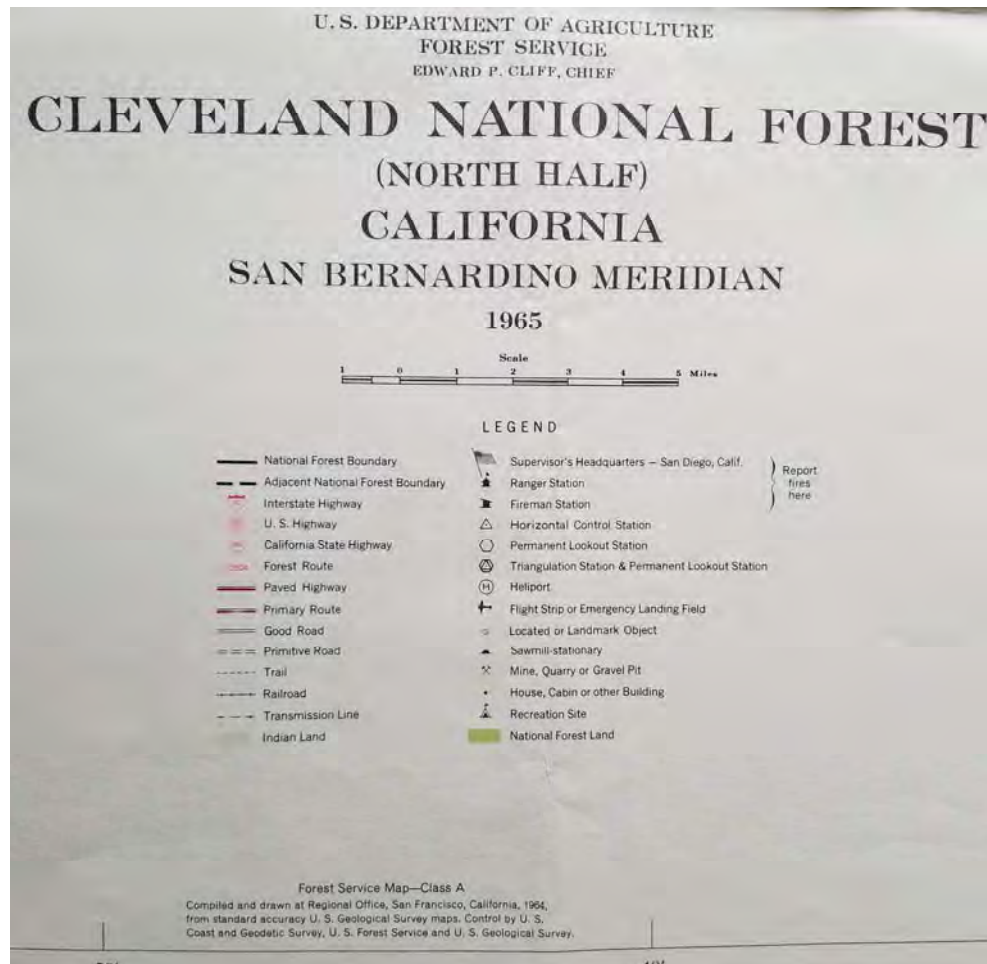
<sup>78</sup> By 1975 the Intermountain Region had issued 1:126,720-scale administrative maps for all its forests with a map accuracy of “Class C” which reflects this region’s dependency on high altitude aerial photographs flown by the U.S. Army. Alaska issued only one Class A map up to 1975. This was the 1963 Sitka Ranger District map at 1:253,440-scale.

<sup>79</sup> Lyle F. Watts, *1950 Report of the Chief of the Forest Service: Cooperation in Forestry*. (Washington: Government Printing Office, 1950). p. 51.

<sup>80</sup> Lyle F. Watts, *Report of the Chief of the Forest Service, 1949: New Knowledge in Forestry*. (Washington: Government Printing Office, 1949). p. 55.

<sup>81</sup> The new title on this 20 year old map illustrates how the lands of the former Cabinet National Forest were divided among existing national forests on May 19, 1954 (Public Land Order 965, 19 *Federal Register* 3007).

When the map held a mix of cartographic base data, an authority diagram was often added in the margin of the map to indicate the accuracy at any given point on the map. For instance, the administrative 1:126,720-scale maps of the 1953 Deerlodge and 1954 St. Joe National Forest carry such diagrams. One class of data might predominate, yet because of the assortment of accuracy, no overall map class designation could be assigned to these maps. When one such map class designation could be applied to the entire map, the maps were given that class. These began to appear on Forest Service maps beginning in 1951 and the practice endured well into the 1980s. By then, most every map produced by the Forest Service was a Class A map.



**Figure 23:** Title cartouche for the “Forest Service Map – Class A” Cleveland National Forest (North Half) conforming to National Map Accuracy Standards and based on U.S. Geological Survey Quadrangle maps made from aerial photography. Linear and pictorial symbols shown on this map are standard on all Class A Forest Service maps throughout the system. By 1961 names of Forest Service cartographers were no longer included in the map’s compilation statement.

Topographic mapping prepared by the Forest Service was limited to national forest areas that were unlikely to be mapped by the United States Geological Survey in time to meet urgent forest management requirements. Aerial photography was acquired for the Prescott National Forest in 1946. By using stereo-photogrammetric methods with the KEK plotter and with field checking, 15 topographic maps were prepared by the Forest Service on the scale of 1:62,500.<sup>82</sup> These standard 15-minute topographic quadrangle maps were then turned over to the U.S. Geological Survey for printing in 1948. The topographic quadrangles were folded into the Geological Survey’s topographic mapping program, noted as being available on the U.S.G.S. topographic map index for Arizona, and distributed by the Survey. Some of the sheets made by the Forest

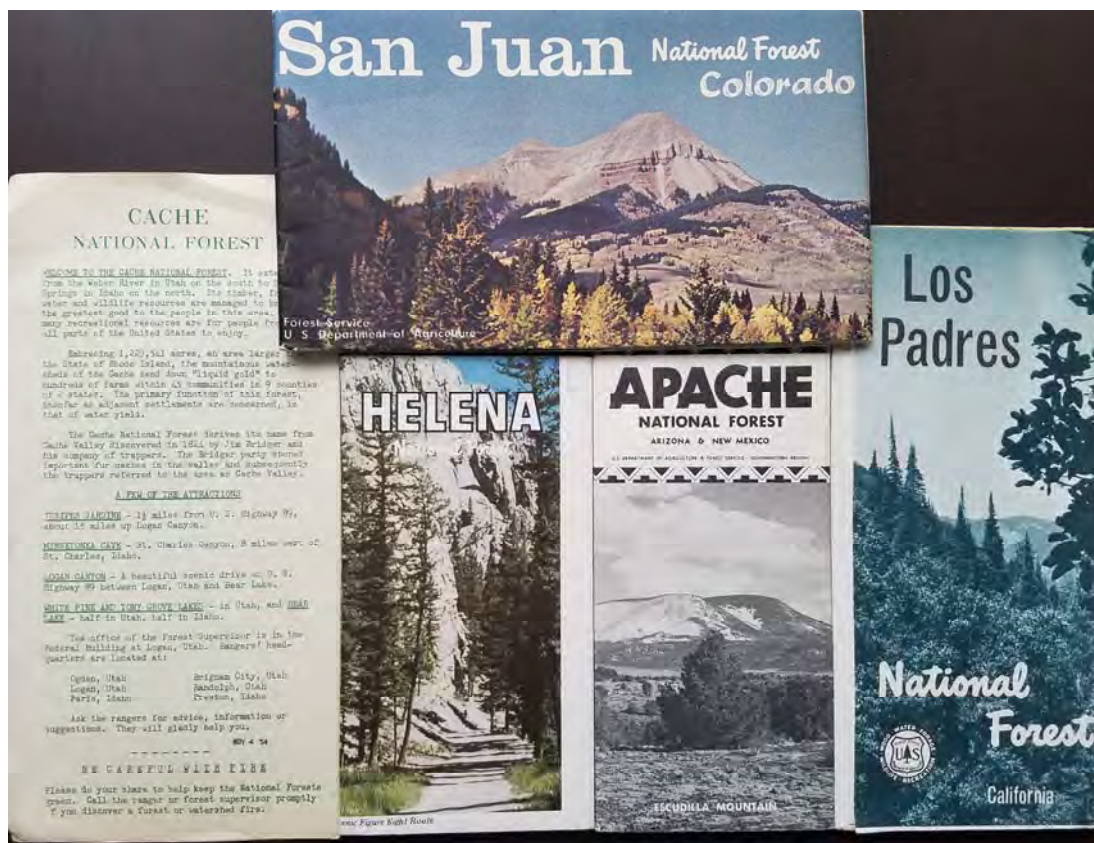
<sup>82</sup> The K.E.K. Stereoplotter had been designed in Region 2 of the Forest Service in Denver, Colorado by Jasper E. King, John W. Elliott, and Philip B. Kail, the name “K.E.K.” come from the first letter of each of the developer’s names.



Service and printed by the Geological Survey did not cover the entire 15-minute area, only the area within national forest boundaries. Other topographic mapping projects pursued by the Forest Service were ones based on the Public Land Survey System for the Shawnee National Forest in Illinois from 1971-1982 and a planimetric quadrangle series covering the Clark and Mark Twain National Forests in Missouri. Maps in these series were published at a scale of 1:24,000. The Forest Service's contribution to the national post-war topographic mapping efforts has largely gone unacknowledged.

In an example of decentralization, between 1949 and 1960 the North Central Region of the Forest Service, the predecessor to the Eastern Region in the Great Lake states, compiled a set of timber survey maps covering the national forests in Michigan, Wisconsin, and Minnesota, based on aerial photographs. Sheets in the series were entitled, *[Year] Timber Survey, ... National Forest...* and were "compiled at the Office of the North Central Region, Milwaukee, Wisconsin" between the years 1948 and 1959 and issued between 1949 and 1960. The color sheets, each covering one Township or 36 square miles at 1:31,680-scale show dominate vegetation/land cover types, such as scrub oak, cottonwood, non-productive swamp, etc., with notes as to tree size and density. Production of these thematic maps was a priority of the North Central Region and so much cartographic effort was placed into producing them that their production accounts for the fact that other more ordinary administrative and forest visitor maps were not issued for these forests by Region 9 during this time. Production of new editions of forest visitor maps for the region's national forests resumed in 1958 and for Class A administrative maps in 1959.

For the public, very few new maps were issued for their use until close to the end of the 1950s. Production of planimetric base maps from aerial photographs that were later used to construct Class A administrative maps had a higher priority as did "Timber Survey" maps that were based on aerial photographs. When issued, forest visitor maps were highly variable in quality and appearance. They embraced a wide array of scales, had accuracy ratings lower than "A" or no rating at all due to the mix of data used in their compilation, and were not as detailed as the administrative maps. Some were downright sketchy. There was a very real divergence between forest visitor maps and administrative maps from 1946 to the mid-1970s, whereas before World War II, the Forest Service, for the most part, used its standard 4-mile administrative maps as the base for forest visitor maps.



**Figure 24:** This figure and Figure 25 illustrate the remarkable variety of forest visitor maps issued by various regional map offices from 1946 to 1975. This figure shows the covers of five forest visitor maps issued by Forest Service Regions One through Five: Cache National Forest (1953, Region 4); Helena National Forest (1971, Region 1); San Juan National Forest (1974 – Class A map – Region 2); Apache National Forest (1964, Region 3); Los Padres National Forest (1969, Region 5). As more forest visitor maps were constructed from Class A maps, the more uniform they became, exchanging variety and local design for accuracy.

The decentralized administrative model was on full display in regard to forest visitor mapping by the various regional units of the Forest Service after the war. During this time, the Forest Service emphasized the creation of accurate administrative maps and gave a lower priority to maps for the public. In the late 1960s and the following decade, there began a convergence of administrative maps and maps made for the forest visitor. The decade of the 1970s saw an increasing number of forest visitor maps being issued based on the Forest Series administrative maps at 1:126,720-scale with a Class A accuracy rating. These initial maps were not the traditional folded map with an illustrated panel title and extensive text on the verso, but were folded administrative maps with abbreviated tourist information, such as a table of recreation sites. In some cases “Travel Plans” or forest visitor maps issued to serve brief time periods were issued, frequently on a black and white base. As the decade of the 1970s progressed, better more accurate and detailed forest visitor maps based on the Class A Forest Series in the traditional folded format with panel title, text, and photographs became the Forest Service standard map for the public, such as the Class A, San Juan National Forest map shown in Figure 24.



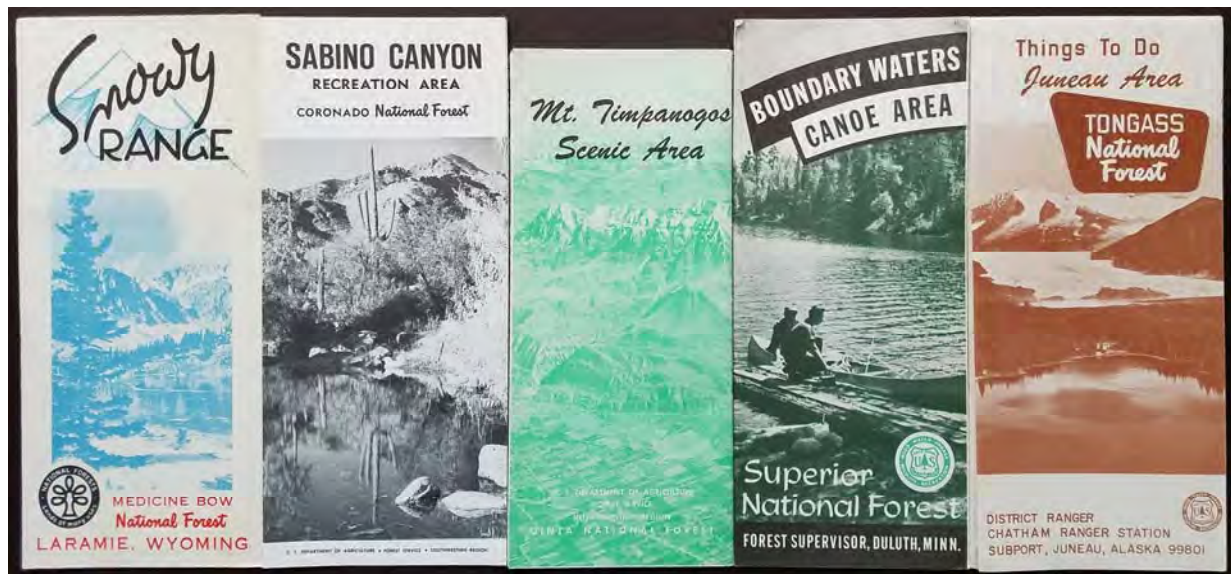
**Figure 25:** This figure illustrates forest visitor maps from Forest Service Regions Six through Nine. Siskiyou National Forest (1968 – Region 6); Croatan National Forest (1973 – Region 8); Huron National Forest (1966 – Region 9); George Washington National Forest (1964 – Region 7, the last forest visitor map made by Region 7 before it was discontinued in FY 1966).

During the 1960s and early 1970s, ranger district mapping formed a significant part of the mapping program of the Northern, California, and Pacific Northwest Regions and to a lesser extent to the Intermountain Region. Ranger district maps were extracted from the most current Class A, 1:126,720-scale administrative maps then available, or in the case of the Intermountain Region, the most current Class C administrative maps. The geographic extent of an individual ranger district was made to fit a particular paper size and thus many were issued at a smaller scale than 2 miles to the inch. The California Region added text and photographs on a select number of its ranger district maps and distributed them as forest visitor maps. A few of these ranger district/forest visitor maps were issued folded such as those for the Mendocino and Six Rivers National Forests, and others, like a few of the ranger districts of the Shasta National Forest which received heavy recreation use, were issued flat. For the national forests of Southern California, ranger district maps were revised annually as “Fire Prevention” editions showing areas closed to the public. These fire management maps were issued for the Angeles, Cleveland, Los Padres, and San Bernardino National Forests as well as for the forests of the Pacific Northwest Region. In Region Six, ranger district maps also were published folded as forest visitor maps as in the case of the Snoqualmie National Forest. Ranger district maps of the Northern Region were primarily used as administrative maps because of the Region’s adequate series of public maps. With the exception of the Angeles and the San Bernardino National Forests, the California Region stopped issuing folded forest visitor maps covering one single national forest from 1952 to 1966 which made the Region’s ranger district maps the only maps available. The ranger district map proved to be a useful and versatile cartographic product serving several



purposes. However, because ranger district names and boundaries were easily and often changed, tracking them over time can be a challenge.

The mapping of Forest Service special areas for the outdoor recreationist accelerated in the 1960s with the same wide variety of formats and scales as found in forest visitor maps of entire national forests. Maps of wilderness, wild, and primitive areas were made and issued by the Forest Service often for the first time, along with maps of special areas noted for their recreation opportunities, such as Priest Lake in Idaho and the Mammoth – High Sierra region in California. Trail maps of all sorts from the Cascade Crest Trail in Oregon to small day hike trails on the Hoosier National Forest were mapped and issued, as were detailed river running maps for the Salmon River in Idaho and the Feather River in California. A high priority was placed on the production of special area mapping by the Forest Service, especially maps covering the scores of wilderness, recreation, and scenic areas.



**Figure 26:** A selection of special recreation area maps made by various Forest Service Regions. *Snowy Range*, *Medicine Bow National Forest*, Wyoming circa 1965 – Region 2; *Sabino Canyon Recreation Area*, *Coronado National Forest*, Arizona circa 1966 – Region 3; *Mt. Timpanogos Scenic Area*, *Uinta National Forest*, Utah circa 1963 – Region 4; *Boundary Waters Canoe Area*, *Superior National Forest*, Minnesota 1958 – Region 9; *Things To Do*, *Juneau Area*, *Tongass National Forest*, Alaska circa 1965 – Region 10.

After World War II, the Forest Service found a wider variety of federal government agencies willing to print the agency's maps. The Engineer Reproduction Plant at The Army War College in Washington, DC had changed its name during the war to become the U.S. Army Map Service. The Army Map Service printed many large administrative maps for the Forest Service in the years immediately after the war. The printer of nautical and aeronautical charts also was called upon to print Forest Service maps. Many of the administrative maps for the national forests in the South were printed by the U.S. Coast and Geodetic Survey. The Intermountain Region depended heavily on the printing plant of the Defense Printing Service or DPS located in the same city as its Regional Offices, Ogden, Utah. The Northern Region also used the Defense Printing Service and its successor, the Air Force Printing Service or AFPS, to print some of its forest visitor maps and special mapping, but not to the extent that the Intermountain Region employed its printing services. Otherwise, local printers of all sorts were contracted by the Regional Offices to print maps, such as the Rumford Press of Concord, New Hampshire or the Delzer Lithograph Company of Waukesha, Wisconsin. Many maps were printed locally but by unidentified printers. Printing notations on maps most often do not identify the actual printer, but simply state "Agriculture – Forest Service – San Francisco" or "Agriculture – Forest Service – Missoula." Large format printers such as Geological Survey and the private firms of Williams & Heintz Company of Washington, DC and A. Hoen & Company of Baltimore, Maryland, continued to print the large sheet administrative maps, but in most cases, did not identify their company on the maps sheets they printed.

In summary, this thirty-year post-war period presented a paradox: system-wide policies and national standards being handed down from Washington, D.C. to produce more accurate administrative mapping and the decentralized, regional production of largely obsolete administrative maps as a stop-gap measure and a wide variety of recreation maps for the forest visitor. Each

region of the Forest Service followed its own path in regard to the design, scale, information content, area priorities, and format of its folded recreation maps. Despite these two contradictory themes, Forest Service mapping made great advances in accuracy due to the use of aerial photography, while the public was served an ever-widening assortment of maps of National Forest System lands.

As the system expanded, so did its mapping responsibilities. The Forest Service added 3.8 million acres of new National Grasslands in 1960 as well as several new national forests proclaimed in the Southern Region and the Winema National Forest in Oregon, which was created in 1961 largely from lands of the former Klamath Indian Reservation. Also the Environmental Policy Act of 1969, which mandated environmental impact statements, made large and constant demands on the cartographic staff of the Forest Service for maps for both draft and final Environmental Impact Statements detailing proposed changes and various management alternatives. Towards the end of the period, the Class A administrative map became the new “mother map” of the Forest Service from which came maps of ranger districts, wilderness areas, and, seen first in the California, Northern, and somewhat later in the other regions, the Class A forest visitor map. The same quality and accuracy of the Forest Service Class A administrative map had now been extended to the maps used by the public from the 1970s to the present day.

## **VII. Into the Future**

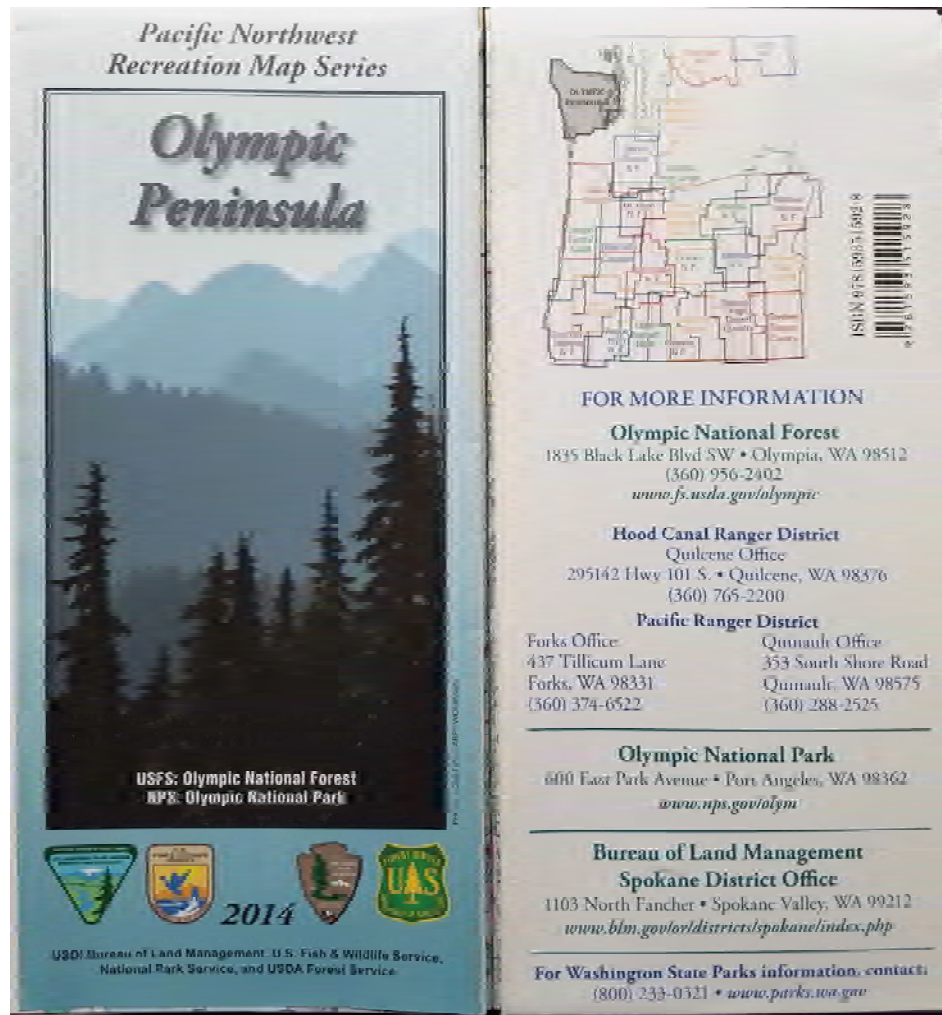
Digitization has revolutionized mapping not only for the Forest Service but also for anyone or any organization creating or using spatial information. There has been so much change in the field, from GPS, to personal computer mapping tools, to Geographic Information Systems, that the technology used to make maps in 1975 would seem completely foreign to those coming into cartography today. A big part of this change has been the ever-increasing capacity of computers to hold larger amounts of data in smaller and smaller spaces. Advances in computer memory have made it possible to input, store, and work with vast amounts of data to make highly accurate, well-designed, and informative maps. Today, the Forest Service, like many other map making organizations, has a large and diverse array of cartographic capabilities in support of its management goals as well as offering the public a wider and increasing number of maps for the forest visitor. And since scale and accuracy of Forest Service administrative maps match those maps made for the public, the distinction between the two, so apparent in Forest Service mapping before 1975, has vanished.

In 1992, the U.S. Geological Survey officially announced the completion of its 7.5-minute, 1:24,000-scale topographic map series for the lower 48 states and soon thereafter made plans to digitize over 50,000 quadrangles and make them available free to anyone who could download them from the internet. Soon, the Geological Survey and the Forest Service were producing in paper an interagency version of the 7.5-minute topographic map for national forest areas with enhanced information showing national forest boundaries, special area boundaries, campgrounds, Forest Service administrative facilities, and other information supplied by the Forest Service. The resulting dual agency map carried much more information than an ordinary 7.5-minute map issued previously by the Geological Survey in a well-designed manner using unobtrusive symbols and color to convey important national forest information. These newer editions of topographic quadrangle maps improved upon the 7.5-minute maps produced for the national forests of the Eastern Region in the early 1980s and printed by the Government Printing Office. When digitized, the 7.5-minute topographic maps almost instantly opened the door to a wide variety of uses in Geographic Information Systems operated by other agencies and the private sector. For instance, the Southwestern Region and the Pacific Southwest Region have been making topographic map atlases for various forests in a spiral bound “book” by reducing the 1:24,000-scale 7.5-minute quadrangles to 1:63,360-scale to fit the atlas format. And as with any digitally based map, these can quickly be updated and reissued.

Much map work is still done in each of the Regional Offices of the Forest Service including some landmark map sets, such as the set of five topographic maps of the Lolo National Forest based on Ranger Districts. This map set had been “constructed in 2009 by digital means at the Regional Office in Missoula, Montana from Forest Service Primary Base Series Cartographic Features File quadrangles with field review by the Northern Region.” However, map production for the Forest Service has largely been centralized at the “Geospatial Service and Technology Center” in Salt Lake City, Utah, formerly the Geomtronics Services Center.

There has been much more cooperation with states and other federal agencies in the production of recreation maps. The Pacific Northwest Region has, for a number of years, been working with the states of Oregon and Washington and with several agencies within the federal Department of Interior in the production of the “Pacific Northwest Recreation Map Series.” The maps are issued for a unified region, such as the Oregon Coast, or the Southern Oregon Cascades and some are based on

an individual national forest, but include much more territory. In general, the public does not set out to visit only a national forest, but seeks to enjoy the public lands in a specific region, like Washington's Olympic Peninsula not just the Olympic National Forest. The maps in this series are built with that idea in mind with all relevant agencies contributing data to make a true interagency map. Excepting the wheat and range lands of Morrow and Umatilla counties, the entire state of Oregon is covered in maps from this series while Washington state has seven maps covering about 60% of its land area. The maps are produced in full color, on plasticized paper, often with shaded relief, and are beautiful products of the digital age.



**Figure 27:** Front and back of the 2014 map of the Olympic Peninsula produced by the Forest Service as the lead agency with the cooperation of four federal land management agencies and the State of Washington. The back of the map includes a map index to the “Pacific Northwest Recreation Map Series” showing the names of the sheets in the series and their geographic extent – all similarly produced through interagency cooperation. The area covered by the Olympic Peninsula map is shown shaded on the map index. A map covering the San Juan Islands was produced in 2015 making the seventh map in the series for Washington State.

Maps today can be more specialized than ever before. Recently, the Forest Service, cooperating with the state of California, issued a folded visitor map entitled, “Lakes Basin Sierra Buttes & Plumas-Eureka State Park, map and recreation guide” on the Plumas National Forest showing both federal and state recreation areas with topography at a large scale of 1:31,680, or a half mile to the inch. This map is particularly good at showing trails throughout the whole area not just in the lands administered by the Forest Service or California State lands. Forest Service trails connect with those in the Plumas-Eureka State Park. The Alaska Region has also moved away from the traditional style of map production of issuing just one map for one national forest. Region 10 has created a new series of maps called “Specialty Maps” for the Tongass National Forest which focus on smaller areas such as the Juneau Area, or on a particular island like Wrangell or Chichagof, or an administrative area such as the Admiralty Island National Monument or Petersburg Ranger District. These maps carry a much larger scale than would be otherwise possible and are displayed on a topographic base. The 21<sup>st</sup> century has been marked by ever more cooperation, detail, and variety of products.



The Forest Service continues to keep pace with the changing technology. Newer maps have been issued with a QR (Quick Response) code, so a smart phone's QR reader app can scan the code and download more information about the forest or special area. In 2013, the Forest Service announced that the public can now access a variety of visitor maps using their Android and iOS devices via a mobile application. "This mobile app makes it easier than ever to plan your visit to a national forest or grassland," said U.S. Forest Service Chief Tom Tidwell. "By putting important forest information right at your fingertips, it will encourage more Americans to get outside and explore their forests."<sup>83</sup> The PDF Mobile App, developed by Avenza Systems Inc., is available as a free download from iTunes and the Android Play Store. The app provides access to Forest Service maps, such as motor-vehicle-use maps, which are free while pages from national forest atlases are available for a minor charge. This development offers users the advantage of being able to instantly download recreation site information when needed.

## VIII. Map Distribution and Map Collections

It is important to identify the policies of the Forest Service regarding the distribution of its maps to the public because these policies determined which Forest Service maps can now be found by researchers in libraries and repositories today. Laws governing the distribution of documents and maps by the Government Printing Office also played a central role in determining the size and scope of map collections built by depository and other libraries over time throughout the nation.

### A. The Perspective of the Forest Service

Because the Forest Service is primarily a land management agency, there has been and continues to be a constant demand for cartographic products and services from both inside and outside the agency. Internal cartographic needs have included maps and surveys for land acquisition, timber appraisals and sales, land exchanges, homestead entries, roads and other improvements, boundaries, general administration, and recreation. Early in its history however, with its public face, the Forest Service has been somewhat ambivalent as to its identity and role as a federal map maker. In the 1913 edition of the *Use Book*, in its section on maps, it reads:

"Special maps are issued for the use of Forest Service officers, or as special publications for the dissemination of information which can be best expressed graphically. Such maps are not for general distribution, though some are sold, and they may even be given away under certain circumstances. A general map of a National Forest may be given to a user when it is necessary or convenient to show thereon the lands covered by a transaction."<sup>84</sup>

This paragraph goes on to say that general maps of the United States as a whole showing the national forests are available to the public as are maps of North America showing natural forest areas and regional maps are available either from the Superintendent of Documents (Government Printing Office) or can be viewed at "first-class" libraries.<sup>85</sup> By 1913 only a very few maps had been made by the Forest Service expressly for the public and these presumably are the maps noted as being available for sale by the Government Printing Office. Administrative maps of national forests were not generally available outside the agency, unless needed by timber sale participants, contractors for road or building construction, or for other transactions, such as a land exchange.

Despite the steady improvement in map accuracy and the increase in the numbers of maps produced by the Forest Service from 1910 to the early 1920s, the agency sought to distinguish itself from other federal agencies that actively made and distributed maps for the nation, such as the U.S. Geological Survey or the U.S. Coast and Geodetic Survey. On the Forest Service's 1924 map of the United States, entitled, "*National Forests, State Forests, National Parks, National Monuments and*

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<sup>83</sup> U.S. Forest Service, *News Release*, November 20, 2013. <http://www.fs.fed.us/news/2013/releases/11/e-maps.shtml>

<sup>84</sup> U.S. Forest Service, *The Use Book: A Manual for Users of the National Forests*, 1913, (Washington: Government Printing Office, 1913), p. 83.

<sup>85</sup> See the narrative found in Section "IX. Mapping of North America and the United States – Part 3. U.S. Forest Service Mapping" in the chapter on the Alaska Region (Region 10) elsewhere on this website for a discussion of early Forest Service maps of the United States as a whole.

*Indian Reservations*” and subsequent editions of this map prepared and issued until 1951, the Forest Service included an accurate, yet guarded statement concerning its mapping program:

“The Forest Service is not primarily a mapping Bureau. The maps are prepared for use in the administration, development, and protection of the National Forests and they are not issued for sale and distribution to the public in the sense that the maps of Bureaus whose primary function is mapping are issued. In many instances, so few copies of the maps are required that the cost of the preparation of a press edition is not justified; in other instances small press editions suffice, such maps are not available for distribution to the public, although they may be consulted in the files of the Forest Service.”

The Forest Service is not primarily a mapping bureau, but it does make and issue maps for the public:

“For certain of the Forests which have attracted a great number of tourists and campers, informational maps are printed primarily for public distribution. These maps are usually a reissue of the administrative map on the scale of one-fourth inch equals one mile [1:253,440], to which text is added giving general information including the forest regulations. To a limited extent these maps are distributed free upon request; that is, as many as five maps may be furnished free, but a charge of 15 cents each is made for all maps above that number, to cover the cost of lithography.”

For national forests close to population centers, there was likely to be a map available for distribution to the public. There is evidence that the Forest Service supplied state tourist offices outside the state with maps. A 1928 *Road and Information Map for the National Forests of Oregon* seen in an academic library’s collection had stamped on its front cover “Oregon Inf. & Tourist Bureau, 115 W. 9<sup>th</sup> St. - Los Angeles.” This indicates that folded Forest visitor maps were officially distributed farther and wider than one might expect.

Continuing with the Forest Service’s statement on its United States map, concerning the agency’s most detailed administrative maps:

“Editions are issued of an administrative map for each Forest usually on the scale of one-fourth inch equals one mile. Although these maps are prepared mainly for use of Forest Service officials, the edition is made large enough to permit furnishing a limited number of copies to persons cooperating in Forest Service work, or having legitimate interests in the Forests in cases where informational maps have not been published. To a limited extent these maps are distributed free upon request; that is, as many as five maps may be furnished free, but a charge of 15 cents each is made for all maps above that number, to cover the costs of lithography.”

“Civic organizations cooperating with the Forest Service may purchase maps in large quantities for free distribution. Further information upon this subject will be furnished upon request.”<sup>86</sup>

These careful statements originated in Forest Service headquarters in Washington which was responsible for making and distributing this 1924 edition of the United States map and so must be seen once more in the context of the bureau’s decentralized administrative structure and the printing laws. The local offices involved could interpret, for instance, “persons cooperating in Forest Service work” quite broadly or narrowly as they determined. In one example, the famous University of Oregon anthropology professor, Luther S. Cressman, was able to gather a large collection of Forest Service administrative maps of the national forests of Oregon and California from the 1920s and 1930s that he then used in his field work.<sup>87</sup> Professor Cressman was obviously seen as a cooperative person by the Forest Service. While not secret documents, as were the sheets of the *Forest Atlas*, distribution of administrative maps was well regulated. Only a token number of maps were retained by the Washington Office after printing; most were sent to the Regional Offices and to the forest supervisors and it must be assumed that most distribution decisions were more often made at the forest supervisor level.

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<sup>86</sup> The four paragraphs of quoted references are from the U.S. Forest Service map entitled, *National Forests, State Forests, National Parks, National Monuments and Indian Reservations, 1924*, Washington, D.C. : Engraved and printed by the U.S. Geological Survey, 1924. Scale 1:7,000,000.

<sup>87</sup> The Anthropology Department at the University of Oregon transferred its departmental map collection to the University Library in 1990. The majority of the Forest Service administrative maps from this collection were autographed “Luther S. Cressman.”

Professor Cressman's cooperation with the Forest Service proved to be a boon to the University of Oregon's Map Library as his maps, with others gathered by the faculty of the Geology Department, were later transferred to the University Library. Undoubtedly, this kind of transfer occurred many times throughout the country as academics, business owners, outdoor organizations, and others donated their collections of both administrative and forest visitor maps to map libraries and archives.

The Congress first gave the Department of Agriculture and other federal agencies the legal authority to sell maps and aerial photography in 1938. Under the Agricultural Adjustment Act of February 16, 1938 (Public Law 75-430), the Secretary of Agriculture was allowed to sell "such aerial or other photographs, mosaics, and maps as have been obtained in connection with the authorized work of the Department to farmers and government agencies at the estimated costs of furnishing such reproductions, and to persons other than farmers at such prices (not less than estimating cost of furnishing such reproductions) as the Secretary may determine, the money received from such sales to be deposited in the Treasury to the credit of the appropriation charged with the cost of making such reproductions."<sup>88</sup> Sale of finished maps and base data was the funding mechanism that allowed the Forest Service to revise and produce maps for the public in an ongoing basis.

Regional offices of the Forest Service retained copies of the maps that their Engineering departments had produced for their reference well into the 1960s. With government funding cutbacks and the early 1970s and 1980s, regional offices considered eliminating or drastically reducing their map collections.<sup>89</sup> Office space cost the regional offices of the Forest Service money, collected by the federal government's landlord, the General Services Administration. Reducing the amount of rented space reduced rental costs. Regions 1, 2, and 4 still have collections of maps, though smaller in size, covering the national forests in their region, while other regions let their collections go to colleges, universities, or historical societies or have distributed their map files to national forest supervisor's offices and ranger districts. Upon examination of the map collection held by the Northern Region, the collection in Missoula holds the only publicly available copies of some national forest maps, such as the 1913 topographic map of the Lolo National Forest. Institutions that hold any given map are found listed at the end of each map citation as found in the Regional Chapters elsewhere on this website.

## **B. The Role of the Government Printing Office**

The Government Printing Office in fulfilling its obligations under the authority of the Printing Act of 1895 (28 Stat. 601) and later under Depository Library Act of 1962 (76 Stat. 352) operates a public oriented depository program, shipping to member libraries the output of its presses and those of its contractors. The 1895 law provided for the appointment of a Superintendent of Documents and directed the Superintendent to, "receive and care for all surplus documents in the possession of Government offices; assort and catalog them; supervise their distribution and sale; catalog and index monthly and annually all documents published; in fine to render accessible to librarian and the public generally the vast store of Government Publications."<sup>90</sup> Also, "A catalogue of Government Publications shall be prepared...on the first day of each month, which shall show the documents printed during the preceding month, where obtainable, the price thereof"<sup>91</sup> became part of the Superintendent of Documents' responsibilities. The Government Printing Office distributed to its network of depository libraries such important documents as the annual reports of the U.S. Forest Service, National Forest Reservation Commission, the U.S. Geological Survey including those volumes on the forest reserves, as well as U.S. Department of Agriculture publications on forestry, USDA numbered series, and folded forest visitor maps that the Government Printing Office contracted to be printed. Exempted from this obligation to distribute to depository libraries were those publications, "...printed for the special official use of the Executive Departments..."<sup>92</sup> Thus, the folios of the *Forest Atlas* series and administrative maps were not distributed, because these were considered by the Forest Service to be primarily administrative in nature. The 1962 Depository Library Act also carried this exemption for administrative publications: "Government publications, except those determined by their issuing components to be required for official use only or those required for strictly administrative or security, shall be made available to depository libraries..."<sup>93</sup>

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<sup>88</sup> *United States Statutes at Large*, Volume 52, page 31, specifically page 68. The Soil Conservation Service had earlier been given permission to sell reproductions of aerial photographs, mosaics, and maps to the public at the cost of reproduction in the June 29, 1937, Department of Agriculture and Farm Credit Administration Appropriation Act of fiscal year 1938 (Public Law 75-173 (50 Stat. 395, specifically 50 Stat. 429).

<sup>89</sup> After visiting Region 1 in Missoula, the cartographic engineer told the author that in the 1980s much of the map collection in the basement of the federal building was distributed to the Region's individual national forests and their Ranger Districts or discarded. What was left in the basement were Atlas Folios, large scale forest maps, and a large quantity of 1:506,880-scale administrative maps.

<sup>90</sup> *100 GPO Years, 1861-1961: A History of United States Public Printing*, Sesquicentennial Ed., (Washington: Government Printing Office, 2010), page 75.

<sup>91</sup> *United States Statutes at Large*, Volume 28, page 612.

<sup>92</sup> *United States Statutes at Large*, Volume 28, page 610.

<sup>93</sup> *United States Statutes at Large*, Volume 76, page 352.

The 1962 law extended the network of depository libraries and the reach of the program. Each agency of the federal government was now required to furnish the Superintendent of Documents with a listing of its publications that the agency had issued in the previous month, not produced by the Government Printing Office. Once this listing was received, the GPO then asked the agency to furnish enough copies of the publication(s) to distribute to depository libraries. In practice, however, many forest visitor maps, and other maps made for the public and printed by local printers, which should have been distributed to depository libraries, were not, in spite of the 1962 law. This was due largely because of short staffing at GPO for enforcement, the equivocal nature of the term “administrative,” and the Superintendent of Documents’ reliance on the public and government documents librarians to inform the GPO of the existence of publications and maps that should have been included in the depository distribution system but were not. This issue of federal government agencies printing their maps and other publications locally and not following the distribution rules of the depository laws affected not only the Forest Service but many other federal agencies as well. Several of the forest visitor maps made by the Northern Region office, but printed in Missoula or at the Defense Printing Plant in Ogden, Utah from 1951 into the 1970s, were never distributed by the Government Printing Office. Many special public recreational maps and brochures issued by the Forest Service throughout the nation were also not included in the depository library program. Thus, unless actively sought by librarians, or received as gifts and placed into library collections, libraries will often lack many Forest Service maps.

Whenever a *Monthly Catalog* citation has been found for a Forest Service map, that *Monthly Catalog* citation will be included in the map description, in each Regional Chapter. The fact that the map has a citation in the *Monthly Catalog*, means that the map had been distributed by the Government Printing Office. The opposite is true if there is no *Monthly Catalog* citation. Some Forest Service maps were issued without a date, or with a date much older than when the map was actually printed and distributed. Providing a *Monthly Catalog* citation can help with the dating of some maps, particularly for forest visitor maps produced by the Rocky Mountain District from 1919 to 1926, which lack accurate publication dates.

### **C. Forest Service Maps in Libraries**

Besides the Forest Service maps that entered depository library collections through the distribution network of the Government Printing Office, how does one account for the many administrative maps and forest visitor maps not distributed by the government now found in libraries? Two methods have already been revealed: one being gifts from academics on the faculty of colleges and universities and to a lesser extent, donations from Regional and Supervisors’ Headquarters of national forests of surplus maps. Perhaps the most important part of building a library of maps is the librarian or the staff professional who recognizes the value of Forest Service mapping to their educational institution. Without a resource person on watch for relevant maps, a map library suitable for research cannot be built.

Forest Service maps can come into libraries by soliciting gifts from the public at large. Map librarians travelling to regional and national conferences held at libraries can often review quantities of surplus maps available for the taking or can ask their colleagues about surplus maps needing new homes. Gifts from individuals and exchanges between libraries can be a major source of historic maps. Very few Forest Service maps have appeared in map dealer catalogs, yet this has been improving in our time. When they do appear in map dealer’s catalogs, their prices seem excessive, no doubt due to lack of sale prices of comparable items. It has only been since the mid-1990s when internet auction houses such as eBay have allowed the average citizen the chance to market collectables, including Forest Service maps, to the general public. Internet auction sites have become an important place to search for Forest Service maps and for price information. The highest price realized on eBay that the author has seen for a Forest Service map occurred on a May, 2005 eBay of a 1915 proclamation diagram for the Sierra National Forest in California for \$100.00. Undoubtedly there have been other maps sold for higher prices, but on average, Forest Service maps from the 1910s have been sold from \$50 to \$100; the 1920s and 1930s, in the \$30 to \$60 range; and more modern maps less than that, although competition among bidders can move the price of an individual map much higher. As with any vintage item considered “collectible,” prices vary depending largely on condition and attractiveness of the subject.

Many older Forest Service maps were de-accessioned by libraries once a newer edition had been received through the depository library program. This replacement process can account for the lack of historic Forest Service maps in many collections. Discarding older maps should never be made in isolation, but in relation to other libraries in the area. Once gone from the collection it will be quite difficult to find another copy. The spread of internet-based searchable library catalogs such as WorldCat, can help make determinations about the scarcity of a particular map and can supply information about other libraries map holdings. Often in libraries, forest visitor maps distributed by the Government Printing Office were cataloged as books, bound between boards, and placed into the general circulating collection. Library staff should be aware of this past practice and attempt to retrieve these historic Forest Service maps and store them flat in map cabinets. Should these bound maps shelved with the general collections ever be considered for de-accessioning, they should be examined by library professionals before they are allowed to leave the library.

## IX. Index to Names Found on U.S. Forest Service Mapping



**Figure 28:** The Engineering Staff of the Washington Office, U.S. Forest Service, March 1924. Cartographers identified below in the photograph that appear in **bold type** can be found in the following alphabetical listing. Photo courtesy of the Forest History Society, Durham, N.C.

*Back Row:* W.E. Dodson, H.A. Walsh, **Hofer S. Meekham**, R.E. Lee, Miss Flanagan, W.H. Morin, W.P. Pyne, Miss Barksdale;

*Upper Middle Row:* A.L. Barber, W.H. Shaffer, **Charles L. Taylor**, **Miss Sara Lillian Acker**, Miss M. Stewart, Mrs. Walter, **Miss Francene E. Sizer**, J.M. Witherow, C.A. Kolb;

*Lower Middle Row:* **Miss Helen B. Smith**, **Salvatore S. LoJacono**, Miss Malcolm, G.H. Lautz, Theodore W. Norcross, Chief Engineer, M.S. Wright, **R. Ray Sabine**, N.C. Tanner, **George P. Hilton**, P.W. Faunce, G.B. Bruce;

*Front Row:* Mrs. Hoyle, Miss L. Stewart, Miss Murphy, Miss Mowbray, Miss Walter, Mrs. Webb, **Miss Ellen L. Mehurin**, **Miss Clare B. Noyes**, **Mrs. Rose S. Shaw**, Miss Shinn.

The following is a union list of the 381 names that have appeared on U.S. Forest Service maps from 1907 to the early 1960s, when the agency's practice of including the names of Forest Service personnel involved in the production of a particular map came to an end. The list should not in any way be seen as an attempt to serve as a comprehensive directory of all Forest Service personnel that have contributed to the agency's mapping effort. These are names of individuals that compiled, traced, drafted, revised, checked, surveyed, illustrated, and composed text for Forest Service maps and are specifically credited for their work on these maps. Some regions of the Forest Service stopped the practice of adding names of responsible persons to its maps (apart from revisions of older maps) much earlier than other Regions. Region 6 had discontinued adding names to its maps in the early 1950s; the Eastern Region into the late 1960s.

It was customary for engineering staff, not just in the Forest Service, to identify themselves with initial letters of their first and middle names and then with their full last names. Even the veteran Forest Service engineer who served as Chief of the Engineering Division from 1920 to 1947, Theodore W. Norcross, expressed his name as T.W. Norcross on all Forest Service publications, directories, and maps. One will never see his first or middle names on any of his work. Importantly, this custom not only disguised the full identity of the cartographer, but the custom also hid the identity of women cartographers. There are 37 examples listed here of names of cartographers that have been expressed entirely with initials and could not be identified.

To obtain the most complete name possible for this index of map makers, city directories for Washington, D.C. and for all the cities where regional offices or forest supervisor's headquarters are located were consulted. Even so, approximately 16%, or 61 names that have appeared on Forest Service maps could not be found in any urban directories or other references, such as



Forest Service directories, that were also consulted. It can be safely assumed that several of these 61 unknowns were women employees of the Forest Service. However, of the 61 names that could not be found in reference works, 24 had at least a last name. 37 remained anonymous with only their initials, which means that about 59% remain completely unknown, most from the decade of the 1930s. An \* by the cartographer's name indicates that this name could not be fully identified by consulting reference works.

Also, Forest Service staff directories were helpful in identifying the names of cartographers and their careers with the Forest Service. Employee listings first began to appear in the July, 1905 *Field Programs* until 1920 when the Forest Service replaced its *Field Programs* publication with a *Directory*. However, these early Forest Service staff directories issued by the agency did not reach down to fully list the rank and file and so are of limited use in identifying its cartographers up to about 1938. After this date most permanent Forest Service staff were listed in the agency's *Directory*. Initials continued to be used in place of full first and middle names even in official directories. And there are gaps. There were no directories published in 1947, 1955, 1956, and 1959, just as names began to disappear from Forest Service maps. Temporary workers or persons hired on work relief were never listed in agency's directories.

A percentage of the 61 unknown map makers can be partially explained by the fact that some of them were stationed not in the Washington Headquarters Office or in Regional Offices, but in Forest Supervisor's Headquarters or in Ranger District offices, while they worked on their national forest or ranger district maps. Most of these locations did not have city directories, like Susanville, California headquarters for the Lassen National Forest or Quincy, California, headquarters for the Plumas National Forest. It is inferred that some 17 unidentified cartographers fall into this category. Also, as the Forest Service cartographer Easurk Emsen Charr reminded us in his autobiography, many temporary workers had been hired by the Works Progress Administration and other federal temporary employment programs during the Great Depression and assigned to the Forest Service. Initially, Charr was hired by the Forest Service as a WPA worker. He helped construct forest models in the San Francisco Headquarters of Region 5 that would later be exhibited at the Golden Gate International Exposition in 1939 before finding permanent work with the Department of Agriculture in Berkeley, California. Several draftsmen/graphic artists who produced over 70 Oregon and Washington State recreation guides for Region 6 in the 1930s were identified on the guides only with their initials. These were probably temporary workers, and their presence can be inferred on maps throughout most regions of the Forest Service during the 1930s.

A more complete picture of the work of women cartographers of the Forest Service has been revealed by this study. This examination of names on Forest Service maps revealed 30 women or about 8% of the total names identified working on cartographic projects from 1907 to the 1960s, most stationed in the Washington Headquarters Office. It was also discovered that three women were married and changed their names while working for the Forest Service: Inez V. Adams became Inez V. Corn in Ogden, Utah; Fabiola R. Gillmore married and changed her name to Fabiola R. Rawlins in Albuquerque, and Rosemarie Reuter met and married an engineer named Bowman and became Rosemarie Bowman in Milwaukee. The latter two women identified themselves with initials for their first and middle names: F.R. Gilmore/F.R. Rawlins and R. Reuter/R. Bowman. Several women cartographers are well known, such as the highly productive Sara L. Acker, Ellen L. Mehurin, Rose S. Shaw, and Helen B. Smith all assigned to the Washington Headquarters Office. Additional women cartographers have now been identified working in the regional offices.

Some cartographers identified here have only one or two maps credited to their names. This does not mean that they were unproductive staff. For draftsmen and draftswomen working for the Forest Service's Engineering Departments, which is where map making is centered, there were many other tasks that required a draftsman's talents, such as architectural drawings, plans for campgrounds and campground structures, roads, and bridge elevations to name only a few. They were sure to have been kept busy even if they only drew or revised a map or two during their careers with the Forest Service.

Part of the cataloging process in libraries is identifying the person or persons responsible for the map's content and map catalogers will always want to have as complete a name as possible when cataloging maps. No matter which way the cartographer's name is expressed on the map, his or her name can be uniformly expressed in the catalog record for all the maps made by that person. This is called an "authority record." Hopefully, map catalogers will find this union list helpful in their endeavors.

As for the cartographers who drew maps of the forest reserves and national forests while employed by the U.S. Geological Survey and the U.S. General Land Office, consult the "Cartographers" section in each of the Regional Chapters found elsewhere on this website. The following compilation only includes cartographers employed by the Forest Service.

## Sample Citation:

**Klemme, George W.** Geo. Klemme. G. W. Klemme, or (by mistake) G. W. Clemme. (Pacific Northwest Region, Portland, Oregon; Rocky Mountain Region, Denver, Colorado) In 1921, Klemme compiled and traced an administrative map of the Siuslaw National Forest for the North Pacific District before being employed as a “draftsman” on the Rocky Mountain District. His name first appears in the Denver city directory for 1921 as a Forest Service employee, but by 1924 he had left the federal government for Denver Water, a public utility established in 1918. The public utility was then engaged in the ambitious task of building an aqueduct that would carry water and the main line of the Denver, Rio Grande and Western Railroad from the western slope of the Continental Divide to Denver on the eastern slope. The centerpiece for this marvel of engineering was the Moffat Tunnel that carried both water and the railroad through the Rockies. **Regions 2 & 6**

### *Rocky Mountain Region*

Holy Cross National Forest, 1922, traced by

San Isabel National Forest, 1924, compiled and traced by (spelled on this map “Clemme”)

White River National Forest, 1923, compiled by

### *Pacific Northwest Region*

Siuslaw National Forest, 1921, compiled and traced by (1924, 1932, 1937 – North Half only)

## Explanation:

**Klemme, George W.** = Fullst version of the name as discovered in directories and other resources, but not necessarily on the map. If only one name or only initials are listed, then the cartographer’s full name could not be discovered and the name listed in bold/underline is the form of the name found on the cartographic material itself. An \* by the cartographer’s name indicates that this person could not be located in any directories or reference works consulted.

**Geo. Klemme. G. W. Klemme, or (by mistake) G. W. Clemme.** = Form of name found on maps themselves. If full name is given, that was the way it appeared on the maps made by that cartographer.

**(Pacific Northwest Region, Portland, Oregon; Rocky Mountain Region, Denver, Colorado)** = Duty Station. If more than one duty station is listed for a given cartographer, the first station provided is the first location where they served. “Washington Headquarters Office” is used to distinguish between the Eastern District/Region (Region 7) of the Forest Service also located in Washington, D.C. until 1941. When a name could not be found in a city directory where a Regional Headquarters was located, then only the Forest Service Region is identified without the city reference. If a cartographer worked in the Washington Headquarters Office and produced maps for one or more regions (Helen B. Smith for example), then those regions are referenced in bold following the citation to direct the reader to the appropriate Regional chapter.

**Short narrative of cartographer’s working career** -- by no means comprehensive -- based on the maps made and information found in directories and other sources.

**Regions 2 & 6** = Regional chapter or chapters where the cartographer’s maps can be found. Regional references to maps refer to the contemporary regional arrangement of the Forest Service.

**Listing of maps where the cartographer’s name appears.** If the cartographer has been credited for maps for areas found in more than one district or region, then the listing is arranged by the number assigned to the present day region in numeric order. The order of the maps under each regional name is determined by the order in which the maps are presented in the corresponding Regional Chapter. “Region 7” is not used. Rather, Region 8 or Region 9 are used instead, depending on which region administers the national forest today. A map of the Jefferson National Forest made by a Region 7 cartographer in 1937 is found listed under Region 8, the Southern Region where this forest is now administered. The date in parentheses represents a reissue of the map and a repeat of the cartographer’s name in the authority statement. In the case above, the 1921 map that credited G. W. Klemme was reissued in 1924, 1932 and again in 1937, all reissues also credit Klemme, although no new map work was performed by the cartographer.

## A

**\*R. A.** (Washington Headquarters Office) These initials could stand for either Richard Ackroyd or Raymond Archibald, both engineers, employed by the Department of Agriculture, and found in the 1939 edition of Polk's Washington, D.C. city directory. **Region 4**

Portion of Salmon National Forest, Executive Order map, 1940, [drawn by]

**Acker, Sara Lillian.** S. L. Acker. S. L. A. or (by mistake) S. Lacker. (Washington Headquarters Office) Active from 1912 to 1941, she was assigned cartographic work for all Forest Service Regions except Alaska. Her name is found in the 1910 and following editions of the Washington, D.C. city directory. Later editions of the city directory list her name as "S. Lillian Acker," but in all cases, employed as "draftsman" for the Forest Service. Her last map credit can be found on the 1941 Sequoia National Forest map which she traced. Forest Service directories indicated that Acker retired circa 1948. **Regions 1, 2, 3, 4, 5, 6, 8 & 9**

### *Northern Region*

Cabinet Executive Order map of 1931, traced by  
Cabinet National Forest, 1926, traced by (1931)  
Coeur d'Alene National Forest, 1925, administrative map, revised by  
Coeur d'Alene National Forest, 1925, forest visitor map, revised by

### *Rocky Mountain Region*

Grand Mesa National Forest, 1927, traced by  
Medicine Bow Folio, 1913, traced by

### *Southwestern Region*

Coconino Grazing Atlas, 1912, traced by  
Kaibab Forest Type Folio, 1913, traced by  
Tusayan Grazing Atlas, 1914, traced by  
Zuni Folio, 1910, traced by

### *Intermountain Region*

Boise National Forest, 1923, traced by (1925)  
Cache National Forest, 1926, traced by  
Caribou Folio, 1929, compiled and traced by  
Caribou Grazing Atlas, 1915, traced by  
Fillmore Proclamation diagram, 1922, traced by  
Fillmore National Forest, 1921, traced by  
Lemhi Folio, 1909, traced by  
Nevada Folio, 1910, traced by  
Wyoming National Forest, 1925, compiled and traced by  
Kaibab Forest Type Folio, 1913, traced by

### *Pacific Southwest Region*

California National Forest, 1919, 1:253,440-scale administrative map, compiled and traced by (1920)  
Cleveland Proclamation diagram, 1925, compiled and traced by  
Cleveland National Forest, 1920, compiled and traced by (1924)  
Inyo Proclamation diagrams of 1919 and 1923, traced by  
Inyo National Forest, 1917, traced by (1923, 1926)  
Klamath National Forest, 1940, [drawn by], name misspelled as "S. Lacker."  
Sequoia National Forest, 1941, traced by  
Shasta National Forest, 1920, traced by (1922, 1924)

### *Pacific Northwest Region*

Columbia Folio, 1920, traced by  
Deschutes Folio, 1910, traced by  
Fremont National Forest, 1940, retraced by (1942)

Minam Folio, 1913, traced by  
Santiam National Forest, 1918, traced by  
Wallowa Folio, 1917, traced by

*Southern Region*

Cherokee National Forest, 1931, traced by  
Cherokee Purchase Unit, 1934, traced by  
Nantahala National Forest, 1924, traced by  
Ocala National Forest, 1930, traced by  
Pisgah National Forest, French Broad Division, 1931, traced by

*Eastern Region*

Monongahela Proclamation diagram, 1928, revised by  
Monongahela National Forest, 1928, revised by  
Superior National Forest Folio, traced by  
White Mountain Proclamation diagram, 1929, traced by  
White Mountain National Forest, 1924, traced by (1929)

**Adams, Clarence M.** (Pacific Northwest Region, Olympia National Forest, Olympia, Washington) The city directory for Olympia, Washington, the Supervisor's Headquarters for the Olympic National Forest, lists Adams as being employed by the U.S. Department of Agriculture as a clerk. The 1910 and 1920 federal Census rolls has Adams' occupation as a clerk for the Forest Service and by the 1930s, city directories describe him as serving as an "Executive Assistant" with the Forest Service in Olympia. **Region 6**

Olympic National Forest, 1912, compiled by

**Adams, Herbert E.** H. E. A. (Eastern Region, White Mountain National Forest, Ammonoosuc Ranger District, Littleton, New Hampshire) Adams is listed in the November 1936 edition of the *Directory* issued by the U.S. Forest Service as being a district ranger on the Ammonoosuc Ranger District of the White Mountain National Forest. In 1936, the ranger district had changed its name from the Twin Mountain Ranger District to the Ammonoosuc Ranger District, the same year that Adams joined the Forest Service. Adams is credited with two maps in the map portfolio covering the Pinkham Notch area from North Conway along state route 16 to Gorham. **Region 9**

White Mountain National Forest, Section Maps, 1936, compiled by

**Adams, Inez V.** (Intermountain Region, Ogden, Utah) Adams began her service on the staff of the Intermountain District in 1919 as a clerk, having previously served as the Weber County (Utah ) Assessor (1908/09), as the Weber County Treasurer (1910/11), and as the Assistant Librarian at the local Carnegie Library. In 1923 she met and married Thompson Corn, a railroad ticket agent in Ogden. She continued her career with the Forest Service under the name of Mrs. Inez A. Corn. A separate listing of her later maps is found below under her married name. **Region 4**

Lemhi Proclamation diagram, 1923, compiled by  
Lemhi National Forest, 1923, compiled by

**Aldous, Alfred Evan.** A. E. Aldous. (Intermountain Region) Employed on Forest Service range reconnaissance who provided base map information and grazing classification for the 1913 Targhee Folio atlases. **Region 4**

Targhee Folio, [1913], base map by  
Targhee Grazing Atlas, [1913], Grazing classification and base map by

**Allen, Gerrard W.** G. W. Allen. G. W. A. (Southern Region, Atlanta, Georgia) Allen's name can first be found in the Atlanta city directory for 1936 and the November 1936 Forest Service *Directory*, both of which list his occupation as a draftsman. He continued to work for the Forest Service until 1942, draftsman, when he joined the U.S. Marine Corps at the start of World War II. The Atlanta city directory of 1947 includes his name as being a civil engineer for the Department of the Navy. **Region 8**

Cherokee National Forest, Unaka Division, 1938, compiled by

Cherokee National Forest, Unaka Division, 1946, compiled and revised by  
 Cherokee National Forest, Cherokee Division, Hiawassee and Tellico Ranger Districts, 1939, compiled by  
 Cherokee National Forest, Cherokee Division, Hiawassee and Tellico Ranger Districts, 1946, compiled and revised by  
 (1960)  
 Croatan National Forest, 1946, revised by  
 De Soto National Forest, Delta Purchase Unit, 1935, traced by  
 De Soto National Forest, Delta Purchase Unit, 1939, traced and revised by  
 Francis Marion National Forest, 1945, revised by (1957)  
 Holly Springs National Forest, 1940, compiled by (1950)  
 Homochitto National Forest, 1937, boundary corrected by  
 Kisatchie National Forest, Vernon Unit, 1936, revised by  
 Ouachita National Forest (Arkansas Division), Arkansas, 1945, revised by  
 Ozark National Forest, Sylamore Ranger District, 1941, compiled by  
 Ozark National Forest, Main Division, 1946, compiled and traced by  
 Pisgah National Forest, Mt. Mitchell Ranger District, 1945, revised by  
 Sumter National Forest, General Pickens Ranger District, 1941, compiled by (1952)  
 Sumter National Forest, Enoree Division, 1947, revised by  
 Talladega National Forest, Oakmulgee Division – West Half, 1938, [drawn by]

\***Allison, J. H.** (Southwestern Region) Allison could have been based in Snowflake, Arizona, the forest supervisor's headquarters for the Sitgreaves National Forest at the time he or she compiled the 1912 topographic map, but there are no city directories of small towns published for this time period that would allow confirmation. The name was not found in Albuquerque city directories of the era. **Region 3**

Sitgreaves National Forest, Arizona, 1912, (Topographic map), compiled by

**Amidon, Roger E.** Amidon, R. E. (Pacific Southwest Region) This name was found on the Big Trees Precinct, Calaveras County (California) voter's role for the November 5, 1940 general election. He is described as being a "Government Engineer" with an address of "Camp Connell" near the California Big Tree State Park. It would appear Amidon, like his colleague Kenneth S. Fitch, were both based on the Stanislaus National Forest, as they are credited for the topography on the same 1941 map. **Region 5**

Stanislaus National Forest, 1941, topographic map, topography by

**Anderson, Arval L.** A. L. Anderson. (Intermountain Region, Ogden, Utah) Anderson had a remarkable career with the Forest Service. He is first mentioned in the Ogden city directory as a "surveyor" for the U.S. Forest Service in 1928 moving on to the job of Assistant Road Surveyor for the Intermountain Region in 1932. In 1935 he had moved to the Washington Office of the Forest Service serving as the Assistant Associate Engineer under the Chief T. W. Norcross in charge of structures. By 1938 Anderson had moved back to Ogden into the office of Assistant Regional Forester as Chief of Region Four's Engineering Division. During the war, Anderson served in the U.S. Army as the supervisor of the Utah Quartermaster Depot in Ogden before resuming his career with the Forest Service as Assistant Regional Forester. He remained on staff of Region 4 as Chief of the Engineering Division until 1960. **Region 4**

Boise National Forest, 1929, compiled by (1933, 1934, 1936)  
 Payette National Forest, 1928, revised by  
 Uinta Proclamation diagram, 1929, compiled by  
 Uinta National Forest, 1927, compiled by (1938)

**Anderson, Burton D.** B. D. Anderson. B. D. A. (Southwestern Region, Albuquerque, New Mexico) Anderson is first listed in the 1930 edition of the city directory of Albuquerque. His occupation is listed as "Draftsman, U.S. Forest Service." For three years thereafter, the directory states that he worked for the Forest Service as a "Blueprinter," then back as a draftsman in 1935 onward. Anderson's absence from the Albuquerque city directories and in Forest Service directories during the war years indicates war-time service elsewhere, but his name did not appear in the "Honor Role of Forest Service Personnel in the Armed Forces. His name returned to Forest Service and to city directories in 1946 working in the Drafting Section of the Engineering Division of Region 3 until 1956. **Region 3**

Carson National Forest, 1948, compiled by



Cibola National Forest (Sandia Division), 1936, Topographic map, compiled by  
Coronado National Forest, 1939 (East Half & West Half), revised by  
Gila National Forest, 1948 (North & South sheets), revised by in 1947  
Kaibab National Forest, 1942, compiled by (1949)  
Lincoln National Forest, 1941, compiled by (1949)  
Prescott National Forest, 1940, compiled by (1945)  
Santa Fe National Forest, 1946, compiled by (1948)  
Santa Fe National Forest, Eastern and Western Sheets, 1950, 1:126,720-scale administrative maps, compiled by  
Santa Fe National Forest, Jemez and Pecos Divisions, 1954, 1:126,720-scale administrative maps, compiled by

**Anderson, Mark.** Employed on Forest Service range reconnaissance. **Region 4**

Caribou Grazing Atlas, 1915, grazing classification by

**Anderton, William C.** W. C. Anderton. (Intermountain Region, Ogden, Utah) 1961 was the last year cartographers were given credit on the maps on which they had worked on Region 4. Anderton, along with his colleague Paul S. Bieler, were the last cartographers to be so recognized. Anderton is first mentioned in the 1958 edition of Polk's Ogden city directory as a "draftsman" for the Mountain Fuel Supply Company and was a production engineer for Hill Air Force Base in 1959, before starting his career with the Forest Service. **Region 4**

Recreation Map, Bridger National Forest, 1961, revised by

**\*Andrews, W. F.** Andrews. The topographic maps of the Klamath National Forest of the 1930s carry references in their statement of responsibility to "Eldridge, Galeneau, Andrews, 1908" crediting them with compiling the map's topography along with several other Forest Service surveyors. The map's "Authority Diagram" indicates that the three were responsible for the topography within the boundaries of the Hoopa Indian Reservation. While it has not been seen, a reference has been found to a 1908 publication, bound together with other "pamphlets on forestry," entitled, *Estimate for Hoopa Valley Indian Reservation, in cooperation with the Indian Service*, by I. F. Eldredge, D. C. A. Garlarneau, W.F. Andrews, and N.B. Eckbo. This publication must have included a topographic map later used by Forest Service cartographers, in the compilation of their topographic maps of the Klamath National Forest. However, the Forest Service maps misspell Eldredge's and Garlarneau's names and leave out Eckbo's name entirely. An asterisk appears next to Andrews' name because his name has not been found in any directory of the time. **Region 5**

Klamath National Forest (Orleans District), California, 1932, (topography of the Hoopa Indian Reservation, 1908)  
Klamath National Forest, 1934, topographic maps (1942) (topography of the Hoopa Indian Reservation, 1908)

## **B**

**\*C. R. B.** (Pacific Northwest Region). Unknown cartographer. **Region 6**

Newberry Crater, Deschutes National Forest, [1968, drawn by]

**\*G. I. B.** (Eastern Region) Unknown Civilian Conservation Corps enrollee whose duty station is also unknown. **Region 9**

Huron National Forest, 1936, drawn by

**Baker, Ralph J.** R. J. B. (Pacific Northwest Region, Portland, Oregon) Baker served as a draftsman for the Forest Service from 1935 until 1939 when he transferred to the Portland based Bonneville Power Administration and later, during the war years, to the U.S. Army Corps of Engineers in Portland, Oregon. In May, 1938, Baker revised the Olympic National Forest map one month before the creation of the Olympic National Park. **Region 6.**

Oakridge – Willamette River Recreation Area, 1935, Willamette National Forest, Recreation Guide No. 10 – Oregon, [drawn by]

Diamond Lake – North Umpqua Recreation Area, 1935, Umpqua National Forest, Recreation Guide No. 15 - Oregon, [drawn by]

Olympic National Forest, Recreation Guide No. 24 - Washington, revised by  
Cascade Crest Trail, Washington, (North & South Halves), 1938, revised by

**Ball, Donald R.** D. R. Ball. (Eastern Region, Nicolet National Forest, Moquah Ranger District, Washburn, Wisconsin) Donald R. Ball served from 1929 to 1933 as the ranger in charge of the Moquah Purchase Unit headquartered in Washburn, Wisconsin. When the Nicolet National Forest was proclaimed on March 2, 1933, the Moquah Purchase Unit became the Moquah Ranger District of the Nicolet National Forest, where Ball served as its first District Ranger. On November 13, 1933, the Moquah Ranger District was transferred to the newly established Chequamegon National Forest, whereupon Ball's name no longer appears in Forest Service directories. Ball later served as the Forest Supervisor of Nicolet National Forest in Rhinelander, Wisconsin in the late 1940s and, in the 1950s, as Chief of the Division of Operations (Assistant Regional Forester) for the California Region. **Region 9**

Moquah Purchase Unit [Nicolet National Forest], 1931, compiled by  
Nicolet National Forest, Moquah Division, 1933, compiled by

**Banks, Kenneth E.** K. E. Banks. K. E. B. (Pacific Northwest Region, Portland, Oregon) According to the Portland city directory, Banks began his career with the Forest Service in 1928 as a "clerk" and the next year as a "draftsman." Directories from 1929 to 1941 list his name as serving in this capacity with the Forest Service. His name is found in Forest Service directories as working in "Maps and Surveys" in the North Pacific Region in the 1930s. **Region 6**

Rainier National Forest, 1930, compiled by (1931)  
Umpqua National Forest, 1929, revised by  
Wenatchee National Forest, 1931, correction (1929) by  
Oregon Skyline Trail, 1931, revised by  
Forest Camps, Naches Highway, Rainier National Forest, 1931, compiled by  
Recreation Guide, Oregon Coast Highway, Florence Gardiner Section, Siuslaw National Forest and Vicinity, Dec. 10, 1934  
Recreation Guide A [1] - Oregon, [drawn by]

**Bartruff, Chester B.** C. E. B. (Pacific Northwest Region, Portland, Oregon) In 1935, when Bartruff was revising the Chelan National Forest map, he was listed in the Portland city directory as a "clerk" working for the Forest Service. The next year the directory had his name followed by his occupation, "draftsman." 1937 found this draftsman employed by the U.S. Army Corps of Engineers in Portland, Oregon. **Region 6**

Chelan National Forest, 1935, revised by (1934 revision)

**Bassett, Charles C.** C. C. Bassett. (Washington Headquarters Office) Bassett began his career in surveying and mapping in 1882 under Gilbert Thompson of the U.S. Geological Survey as Thompson's aide. Bassett was attached to Thompson's 1882 summer field assignment to California. When Bassett transferred to the Forest Service from the Geological Survey is not clear, but Bassett held a position under Fred G. Plummer in the Forest Atlas section and worked on four folios during the years 1907-1908. He was appointed as one of the instructors to teach Forest Service Rangers in the field the surveying and mapping skills they would need to keep the Forest Atlases up to date. Washington, D.C. city directories from 1910 to 1915 indicate that Bassett worked for the Department of Agriculture as a "draftsman" as well as a "soil cartographer." **Regions 3, 4, 6 & 8**

*Southwestern Region*  
Manzano Folio, 1908, compiled by

*Intermountain Region*  
Salt Lake Folio, 1908, compiled by

*Pacific Northwest Region*  
Rainier Folio, 1908, compiled by

*Southern Region*  
Wichita Folio, 1907, compiled by

**Bates, Frank D.** The 1954 Billings, Montana city directory notes that Bates worked as a “cartographer” with the U.S. Bureau of Reclamation, Yellowstone District, headquartered in the city. The 1954 map of the Beartooth High Country names Bates, along with Farrell W. Woodard, and Robert F. Jamieson as cartographers. Woodard and Jamieson were also on the staff of the Bureau of Reclamation in Billings. **Regions 1 & 2**

The High Country Showing the Beartooth Primitive Area in the Gallatin and Custer National Forests...1954, compiled by

**Bell, Arthur I.** A. I. Bell. (Pacific Southwest Region, San Francisco, California) Bell was first listed in the San Francisco city directory as a “draftsman” with the U.S. Forest Service in 1914, but it wasn’t until 1924 that he received his first map credit for his work on the map of the Calaveras Big Tree Groves. He worked for the Forest Service well into the 1950s making him one of the longest serving and most productive cartographers in the California Region. **Region 5**

Angeles National Forest, 1931, topographic map, revised by  
Angeles National Forest, 1931, 1:253,440-scale administrative map, revised by  
Angeles National Forest, 1943, revised by  
North and South Calaveras Big Tree Groves, Stanislaus National Forest, 1924, draftsman  
Cleveland National Forest, 1930, revised by (1934)  
Cleveland National Forest, 1944, revised by  
Eldorado National Forest, 1925, 1:253,440-scale, administrative map, traced by  
Eldorado National Forest, 1926, forest visitor map, traced by  
Eldorado National Forest, 1929, 1:126,720-scale, administrative map revised by  
Eldorado National Forest, 1929, 1:253,440-scale, administrative map, traced and revised by (1934, 1937, 1943)  
Eldorado National Forest, 1939, administrative map, compiled and traced by  
Eldorado National Forest, 1939, forest visitor map, traced, revised and [drawn] by  
Inyo National Forest, 1934, traced by (1935, 1941, 1949)  
Klamath National Forest, 1928, compiled and traced by (1929, 1931, 1934-administrative map)  
Klamath National Forest, Orleans District, 1932, traced by  
Klamath National Forest, 1943, revised by  
Lassen National Forest, 1930, compiled, traced and revised by  
Lassen National Forest, 1947, topographic map, revised by  
Los Padres National Forest, 1937, traced by  
Los Padres National Forest, 1944, traced and revised by  
Mendocino National Forest, 1950, revised by  
Modoc National Forest, 1927, revised by  
Modoc National Forest, East and West Halves, 1949, revised by  
Plumas National Forest, 1925, revised by  
Plumas National Forest, 1930, topographic map, traced by (1938)  
Plumas National Forest, 1932, traced by (1938, 1940)  
Plumas National Forest, 1945, traced and revised by  
Plumas National Forest, 1947, topographic map, revised by  
San Bernardino National Forest, 1943, revised by  
Santa Barbara National Forest (Monterey Division), 1928, revised by  
Santa Barbara National Forest (Except the Monterey Division), 1934, administrative map, traced by (1935)  
Shasta National Forest, 1927, administrative maps, traced by (1932, 1934)  
Shasta National Forest, 1927, forest visitor map, traced by  
Shasta National Forest, 1932, forest visitor map, traced and revised by  
Shasta National Forest, 1940, revised and traced by  
Shasta National Forest, 1946, topographic maps, revised by  
Sierra National Forest, 1942, revised by (1953)  
Stanislaus National Forest, 1950, revised by  
Tahoe National Forest, 1930, traced by (1932)  
Tahoe National Forest, 1944, revised by  
Trinity National Forest, 1941, topographic map, revised by  
Trinity National Forest, 1950, administrative map, revised by  
Northern Redwood Purchase Unit, 1931, compiled, traced, and revised by  
Lava Beds National Monument, Modoc National Forest, 1931, traced by

**Beuttel, Ray H.** R. H. Beuttel. (Northern Region, Missoula, Montana) Beuttel was an active cartographer from 1935 to 1948 associated primarily with topographic work. He is found in both Forest Service staff directories and the Missoula city directories as employed as a draftsman by the Forest Service. **Region 1**

Bitterroot National Forest, topographic map, 1950, East & West halves, compiled by [in 1945]  
Deerlodge National Forest, 1938, topographic & administrative maps, compiled by  
Flathead National Forest, 1938, topographic map (Blackfoot & Flathead Divisions), compiled by  
Flathead National Forest, 1939, compiled by (1948)  
Helena National Forest, 1939, topographic map, compiled by (1947)  
Helena National Forest, 1939, administrative map, compiled by (1947, 1959)  
Kaniksu National Forest, West Half, 1939, compiled and traced by  
Kaniksu National Forest, East Half, 1941, topographic map, compiled by (1955)  
Kaniksu National Forest, West Half, 1942, topographic map, compiled by  
Kaniksu National Forest, 1942, compiled by  
Kootenai National Forest, 1937, topographic map, compiled by  
Kootenai National Forest, 1937, administrative map, compiled by (1942)  
Lewis & Clark National Forest (Lewis & Clark Division), 1938, topographic map, compiled by (1956)  
Lewis & Clark National Forest (Lewis & Clark Division), 1938, administrative map, compiled by (1949)  
Lewis & Clark National Forest (Jefferson Division), 1939, East & West Portions, topographic map, compiled by  
Lewis & Clark National Forest (Jefferson Division), 1939, administrative map, compiled by  
Lolo National Forest (Western Portion), 1937, topographic map, compiled by  
Lolo National Forest (East Half), 1939, topographic map, compiled by (1956)  
Lolo National Forest, 1939, administrative map, compiled by

**Bieler, Paul S.** P. S. Bieler. Bieler. P. S. B. P. B. (Intermountain Region, Ogden, Utah) Bieler began his professional career as a draftsman for the Southern Pacific Railroad based in Ogden in 1924. The difficult economic times might have led to his being either terminated or transferred by the railroad, because the 1933 edition of the Ogden city directory does not carry his name. By 1934 he has returned to the pages of the Ogden city directory as working as a “draftsman” for the U.S. Bureau of Reclamation. According to the 1938 Ogden city directory, Bieler had become a Forest Service draftsman in the Intermountain Region’s Engineering Division in that year. Bieler remained on the staff of Region Four well into the 1960s and was one of the last cartographers, along with newcomer William C. Anderton, to have his work recognized on a national forest map of Region 4, the 1961 Bridger National Forest recreation map.

#### **Region 4**

National Forests Region 4, 1938 [drawn by]  
National Forests Region 4, 1947 [drawn by]  
National Forests of the Intermountain Region, 1950, [drawn by]  
National Forests of the Intermountain Region, 1954, [drawn by]  
Ashley National Forest, 1945, revised by  
Recreation map, Ashley National Forest, 1955, traced by  
~~Wyoming~~ [Bridger] National Forest, Wyoming, 1940, revised by  
Bridger National Forest, Bridger Division, 1946, revised [1940] by (1954, 1960)  
Bridger National Forest, Wyoming Division, 1946, compiled by (1954)  
Recreation Map, Bridger National Forest, 1951, traced by  
Recreation Map, Bridger National Forest, 1958, traced by  
Recreation Map, Bridger National Forest, 1961, traced by  
Cache National Forest, 1941, forest visitor map, traced by  
Challis National Forest, 1940, forest visitor map, traced by  
Recreation Map, Fishlake National Forest, 1953, [drawn by]  
Recreation Map, Humboldt National Forest, 1959, revised by (1962)  
Idaho National Forest, 1940, forest visitor map, traced by  
Manti National Forest Recreation map, 1949, [drawn by]  
Recreation Map, Manti-La Sal National Forest, Manti Division, 1954, [drawn by]  
Sawtooth National Forest, 1938, forest visitor map, traced by  
Recreation Map, Sawtooth National Forest, 1951, traced by  
Recreation Map, Sawtooth National Forest, Sawtooth Division, 1954, traced by (1960)  
Targhee National Forest, 1939, tracing revised by

Toiyabe National Forest, Mono Division, 1946, compiled by (1951)  
 Toiyabe National Forest, North Half, Mono Division, 1957, compiled by (1960)  
 Toiyabe National Forest, South Half, Mono Division, 1957, compiled by (1960)  
 Wyoming National Forest, 1938, traced by  
 Wyoming National Forest, 1940, revised by  
 Idaho Primitive Area, 1956, [drawn by] (1959)

**Bird, Merrill W.** M. W. Bird. M. W. B. (Intermountain Region, Ogden, Utah) Bird joined the Intermountain District in 1929 as a “draftsman” and had a long career with the Forest Service alternately being listed as a draftsman, chief draftsman, cartographic engineer, or simply, cartographer in the Ogden city directories. Bird continued as a cartographer for Region Four well into the 1960s. **Region 4**

Boise National Forest, 1933, revised by (1934, 1936)  
 Bridger National Forest, Bridger Division, 1946, revised by (1954, 1960)  
 Challis National Forest, 1930, revised by (1935, 1936, 1937)  
 Challis National Forest, 1946, revised by (1952, 1958)  
 Dixie National Forest, 1933, compiled and traced by (1937, 1944, Powell Division, 1950)  
 Humboldt National Forest, Humboldt Division, 1937, compiled by (1942, 1953)  
 Idaho National Forest, 1938, revised by  
 La Sal Division [Uinta National Forest], 1944, compiled by  
 Lemhi National Forest, 1934, revised by (1936)  
 Manti-La Sal National Forest, La Sal Division, 1952, compiled by  
 Minidoka National Forest, 1933, traced by  
 Minidoka National Forest, 1936, traced and revised by  
 Payette National Forest, 1934, revised by  
 [Weiser Division] ~~Weiser~~ [Payette] National Forest, Idaho, 1943, revised by  
 Powell National Forest, 1931, traced by  
 Powell National Forest, 1937, [traced and revised by]  
 Powell National Forest, 1944, traced and revised by  
 Salmon National Forest (West Half), 1934, revised by  
 Salmon National Forest, 1937, revised by  
 Sawtooth Executive Order map, 1932, compiled and traced by  
 Sawtooth National Forest, 1932, compiled and traced by (1938, 1942) (1955 & 1960 – North Division)  
 Targhee National Forest, 1932, traced by (1939)  
 Teton National Forest, 1934, revised by  
 Teton National Forest, 1944, revised by (1949, 1955)  
 Uinta National Forest, 1938, revised by  
 Wasatch National Forest, 1929, compiled by (1931, 1934)  
 Wasatch National Forest, 1935, compiled and revised by  
 Weiser National Forest, 1943, revised by

**Blakelock, David H.** D. H. Blakelock. D. H. B. (Pacific Northwest Region, Portland, Oregon) The first listing for Blakelock in the Portland city directory can be found in the 1910 edition which describes him as being a “draftsman” for the U.S. Reclamation Service, a position he kept until at least 1915. For the following two years, the Portland city directory includes Blakelock and indicates that he is a draftsman by profession, but does not list his employer. 1918 is the first and last time that he is listed as being a draftsman for the U.S. Forest Service. After an absence from the Portland directory for five years, he reappears in 1925 as a draftsman without an employer provided, but in 1927 Blakelock can be found on the staff of Portland’s Bureau of Public Works. **Region 6**

Columbia National Forest, 1917, compiled by (1920, 1922, 1924, 1925)  
 Colville National Forest, 1918, traced by (1922, 1928)  
 Fremont National Forest, 1918, traced by (1923)  
 Okanogan National Forest, 1918, compiled and traced by  
 Whitman National Forest, 1918, traced by (1923, 1937)  
 Whitman National Forest, 1927, traced and lettered by



**Bleckley, Kenneth L.** K. L. Bleckley. K. B. (Southern Region, Atlanta, Georgia) First listed in the 1937 Atlanta city directory, Bleckley is described as being an “engineering draftsman” with the Forest Service holding this position until 1940. His name is absent from the Atlanta city directories from 1941 forward. **Region 8**

Croatan National Forest, 1937, assembled and traced by (1946)

Francis Marion National Forest, 1939, traced by (1945, 1957)

**Bonner, Frank Edward.** F. E. Bonner. (Northern Region, Missoula, Montana and California Region, San Francisco, California) A student at the University of Montana in 1909 and a draftsman for the Forest Service beginning in 1910, Bonner became, by 1915, the Chief of Geography for District 1. He was active from 1911 to 1919 with folio and topographic map work. Bonner later transferred to San Francisco to become the District Engineer for the California District until the summer of 1929, however, Bonner is not credited with any California District map. Both the October 1929 Forest Service *Directory* and the 1930 San Francisco city directory no longer record his name. **Region 1**

National Forests [of District 1], 1911, compiled under the direction of

Bitterroot Folio, 1910, compiled by

Clearwater Folio, 1915, control by

Clearwater National Forest, 1915 topographic map, control by (1926)

Coeur d’Alene Folio, 1917, compiled by

Coeur d’Alene National Forest, topographic map, 1918, compiled by (1929, 1934)

Dakota Folio, 1912, compiled by

Kaniksu Folio, 1915, compilation control & topography (1927)

Kaniksu National Forest, 1916, compiled by

Kaniksu National Forest, 1919, topographic map, compiled by (1927)

Pend Oreille Folio, 1914, compilation control & topography

Pend Oreille National Forest, 1916, topographic map, compiled by (1919, 1930)

Selway Folio, 1915, compilation control

Selway National Forest, 1918, topographic map, compiled by (1928)

Selway National Forest, 1918, topographic map, compiled by (1928)

**Borgfeldt, Robert E. Lee.** R. E. L. Borgfeldt. (Pacific Southwest Region, San Francisco, California) Borgfeldt went largely uncredited for his map work. He was first listed in the San Francisco city directory in 1909 as being a “draftsman” for the U.S. Forest Service. However, his first map credit came in 1927. Subsequent city directories and Forest Service directories have him working for the Forest Service through the war years. **Region 5**

Klamath National Forest, 1931, revised by (1934-administrative map)

Sierra National Forest, 1932, revised by

[Stanislaus National Forest, 1927, administrative maps, compiled by] (1934, 1936)

Trinity National Forest, 1930, 1:253,440-scale administrative map, revised by (1931 forest visitor map)

Trinity National Forest, 1931, 1:126,720-scale administrative map, compiled by

Northern Redwood Purchase Unit, 1931, revised by

**Bowe, Richard M.** R. M. B. (Pacific Northwest Region, Portland, Oregon) The January 1951 issue of the Forest Service’s *Organizational Directory* lists Bowe as serving in the Recreation Section of the Recreation and Lands Department of the Pacific Northwest Region. **Region 6**

Timberline – Government Camp Winter Sports Area, 1951, drawn by

**Bowman, Rosemarie.** R. Bowman. (Eastern Region, Milwaukee, Wisconsin) Between the publication of the 1953/54 edition and the 1955 edition of *Wright’s Milwaukee (Wisconsin) City Directory*, the former Ms. Rosemarie Reuter, a draftsman with the U.S. Forest Service, married Mr. William T. Bowman, an engineer. The 1955 edition of the Milwaukee city directory calls attention to this change by adding “Mrs.” to Bowman’s name. By 1957 her name was no longer recorded in the Milwaukee city directory. A separate listing of her earlier maps is found below under Rosemarie Reuter. **Region 9**

Chequamegon National Forest (Medford Ranger District), Wisconsin, 1955, drafted by

**Bradford, Frederick D.** F. D. Bradford. F. D. B. (Washington Headquarters Office) Bradford was active from 1912 to 1919, primarily with proclamation diagrams for all districts of the Forest Service except those national forests in today's Eastern Region. His name is found in the 1910 Washington, D.C. city directory as being employed by the Forest Service. **Regions 1, 2, 3, 4, 5, 6, 8 & 10**

*Northern Region*

Absaroka Proclamation diagram, 1912, traced by

*Rocky Mountain Region*

Cochetopa Proclamation diagram, 1913, traced by

*Southwestern Region*

Coronado National Forest Proclamation diagram, 1912, traced by

Jemez National Forest Proclamation diagram, 1913, compiled and traced by

Kaibab National Forest, Proclamation diagram, 1913, traced by

Kaibab National Forest, 1917, forest visitor map, traced by

*Intermountain Region*

Cache Proclamation diagram, 1912, [traced by]

Cache National Forest, 1914, [traced by]

Fishlake Proclamation diagram, 1913, traced by (1917)

Fishlake National Forest, 1915, traced by

Lemhi Proclamation diagram, 1913, [traced by]

Manti Proclamation diagram, 1913, traced by

Salmon Proclamation diagram, 1913, [traced by]

Kaibab Proclamation diagram, 1913, traced by

Kaibab National Forest, 1917, forest visitor map, traced by

*Pacific Southwest Region*

Eldorado National Forest, 1918, compiled by

Eldorado National Forest, 1920, compiled by

Lassen Folio [1916?], compiled by

*Pacific Northwest Region*

Chelan National Forest, 1913, traced by

*Southern Region*

Florida National Forest, Proclamation diagrams of 1920 and 1926, Choctawhatchee Division, compiled by

Florida National Forest, Western [Choctawhatchee] Division, 1917, compiled by (1926)

Florida National Forest, Choctawhatchee Division, 1918, compiled by

*Alaska Region*

Old Kasaan National Monument..., Tongass National Forest, proclamation diagram, 1916, [drawn by]

**Bradley, William Cecil.** Wm. C. Bradley. W. C. Bradley. (Southern Region, Atlanta, Georgia) Bradley was listed as being a draftsman with the Forest Service in the 1940 – 1942 editions of the Atlanta city directory. **Region 8**

Holly Springs National Forest, 1940, compiled by (1950)

Ozark National Forest, Sylamore Ranger District, 1941, compiled by

Pisgah National Forest, French Broad Ranger District, 1938, traced by (1954)

Pisgah National Forest, Mt. Mitchell Ranger District, 1938, traced by (1945)

Pisgah National Forest, Pisgah Ranger District, 1938, traced by (1941)

Pisgah National Forest, Grandfather Ranger District, 1939, traced by (1949)

Sumter National Forest, General Pickens Ranger District, 1941, compiled by (1952)

**Brechbill, R. Etta.** R. Etta Brechbill. (Northern Region, Missoula, Montana) Brechbill was one of the most productive cartographers of the Northern Region based simply on the number of times her name is credited on the maps issued. Listed as a “student” in 1915/16 edition of the Missoula city directory and, more specifically, as a student at the University of Montana in the 1917/18 edition of the directory, the first mention of Brechbill working for the Forest Service as a draftsman came in the 1922/23 city directory. According to the map record, she worked on tracing and compiling maps from 1922 to 1941. The last entry for Brechbill can be found in the 1943 Missoula city directory, “Died, Feb. 15, 1941, Age 44.” None of the sources consulted have provided her full first name, only the initial “R.”

#### **Region 1**

National Forests, District 1, 1923 (1932), traced by  
National Forests, Region 1, 1936, compiled and traced by  
St. Joe & Clearwater NF, 1936, traced by  
Beaverhead National Forest, 1934, East & West Halves, revised by  
Beaverhead National Forest, 1940, East & West Halves, revised by (1947)  
Beaverhead National Forest, 1940, revised and traced by (1947)  
Clearwater National Forest, 1930, traced by  
Clearwater National Forest, 1936, topographic map, traced by (1942)  
Clearwater National Forest, 1942, traced by  
Coeur d’Alene National Forest, 1932, administrative & forest visitor maps, traced by (1939)  
Coeur d’Alene National Forest, 1934, topographic map, traced by  
Deerlodge National Forest, 1925, topographic map, traced by  
Flathead National Forest, 1938, topographic map (Flathead Division), traced by  
Gallatin National Forest, 1934, revised by  
Kaniksu National Forest, East Half, 1941, topographic map, traced by (1955)  
Kaniksu National Forest, West Half, 1942, topographic map, traced by  
Kaniksu National Forest, 1942, traced by  
Kootenai National Forest, 1942, revised and traced by  
Lewis & Clark National Forest, 1926, topographic map, traced by  
Lewis & Clark National Forest (Jefferson Division), 1939, East & West Portions, topographic map, traced by  
Lewis & Clark National Forest (Jefferson Division), 1939, administrative map, traced by  
Lolo Folio, 1927, traced by  
Lolo, topographic map, 1927 [partial map of the forest], traced by  
Lolo National Forest, 1928, topographic map, traced by (later known as the West Half)  
Lolo National Forest, 1928, administrative and forest visitor maps, traced by  
Lolo National Forest, 1932, topographic map, East Half, traced by  
Lolo National Forest, 1939, administrative map, revised by  
Lolo National Forest (East Half), 1939 – [1956], topographic map, traced by  
Missoula Proclamation diagram, 1929, traced by  
Missoula National Forest, 1920, traced by (1922, 1929)  
Nezperce Proclamation diagram, 1931, traced by  
Nezperce National Forest, 1920, traced by (1923, 1927)  
Nezperce National Forest, 1931, topographic, administrative, & forest visitor maps, traced by  
Nezperce National Forest, 1935, traced by (1940)  
St. Joe Folio, 1919, traced by  
St. Joe National Forest, 1935, administrative map, traced by (1940)

**Bright, George A.** Geo. A. Bright. (Pacific Northwest Region, Portland, Oregon) Early in his Forest Service career, Bright most likely worked out of Heppner, Oregon, the Forest Supervisor’s headquarters for the Umatilla National Forest when he compiled the map listed below. The 1918 Portland city directory carries Bright’s name and lists his occupation as a “Examiner” with the U.S. Forest Service as does the Forest Service’s *January Field Program, 1918* that served as an early staff directory. Beginning in the early 1920s to 1945, Forest Service directories identify Bright first as the “Forest Examiner” on the Columbia National Forest, thereafter, serving in various administrative positions, such as “Technical Assistant,” “Forest Resource Survey,” “Timber Sales,” “Recreation and Planting,” and simply “In Charge” from 1940 to 1941, under Forest Supervisor Kirk P. Cecil. **Region 6**

Umatilla National Forest, 1913, compiled by

**Brind, Frederick & Brind, Ivor J.** R. J. Brind. (Intermountain Region, Ogden, Utah) In 1919, two men by the name of Brind joined the Intermountain District as draftsmen, Frederick and Ivor J. Brind. By 1921, only Frederick was listed in the Ogden city directory and the next year both Brinds were gone. There is only one map credit for Brind, recorded on the 1921 Challis National Forest map as “R. J. Brind.” One could speculate that this could be a typographical error in that the name should have been recorded as “I. J. Brind,” but this cannot be confirmed. **Region 4**

Challis National Forest, 1921, compiled by

**Brinton, Mary C.** M. C. Brinton. (Pacific Southwest Region, San Francisco, California) Brinton comes to the Forest Service in 1959 as a draftsman according to the map record and the city directories for San Francisco. **Region 5**

Lassen National Forest, 1960, compiled and drawn by  
Plumas National Forest, 1959, compiled and drawn by

**Broadbent, Sam R.** (Southern Region) Broadbent had been serving as the Forest Supervisor on the Unaka National Forest in Bristol, Tennessee from 1926 to 1930, when he wrote the text for the back of the 1929 Unaka National Forest visitor map. The October 1930 edition of the Forest Service Directory shows that he had moved to Pensacola, Florida as supervisor for the Choctawhatchee National Forest. By April 1933 he transferred to Athens, Tennessee as supervisor for the Cherokee National Forest. The 1936 Forest Service Directory finds Broadbent in the Washington, D.C. Headquarters Office in charge of Programs in the Division of Information and Education, rising to Alternate Chief of the Division of Operations, Administrative Management and Information Group in 1938. Forest Service Directories after June of 1938 do not carry his name. **Region 8**

Unaka National Forest, Virginia, North Carolina, and Tennessee, 1929, (forest visitor map), text by

**Buckingham, Earl M.** E. M. Buckingham. (Pacific Southwest Region) This name was found in the 1931 Sacramento city directory where his is listed as an “Engineer” working for the U.S. Geological Survey and in the 1933 directory as simply a “civil engineer.” Directory resources could not establish a relationship with the U.S. Forest Service, but it would have been possible that Buckingham worked on the Lassen National Forest, perhaps at the forest’s supervisor’s headquarters in Susanville, California. **Region 5**

Lassen National Forest, 1938, topographic map, topography by (1947)

**Buckman, Louis H.** L. H. Buckman. L. H. B. (Washington Headquarters Office) The first time Buckman’s name can be found in the Washington, D.C. city directory was in 1914 when he was listed as being a “clerk” with the Forest Service. By 1917, clerk had been replaced with “draftsman” as his occupation. Between 1919 and 1922 Buckman was employed once again as a “clerk,” but this time working for the Census Office with the federal Department of Commerce. Between 1923 and 1926 he disappeared from the pages of the Washington, D.C. city directory only to reappear in 1927 as a “draftsman” with the Department of Agriculture. He continued in this capacity well into the 1940s as the map record shows with map credits for forests in **Regions 4, 6, 8, and 9.**

#### *Intermountain Region*

Cache National Forest, 1941, traced by (1948)

#### *Pacific Northwest Region*

Deschutes National Forest, 1940, traced by

#### *Southern Region*

Kisatchie National Forest (Catahoula Division), Grant and Rapides Parishes, 1930, compiled and traced by  
Kisatchie Purchase Unit, Natchitoches, Rapides and Vernon Parishes, [1933, drawn by]  
Ouachita Proclamation diagram, 1931, Arkansas Division, traced by  
Ouachita National Forest, Arkansas and Oklahoma (Arkansas Division), 1931, traced by

#### *Eastern Region*

Huron National Forest, 1940, lettered by  
Superior National Forest, 1938, compiled and traced by (1951)

White Mountain Proclamation diagram, 1918, compiled and traced by  
White Mountain Proclamation diagram, 1929, revised by  
White Mountain National Forest, 1920, compiled by  
White Mountain National Forest, 1929, revised by

**Burgess, Jasper W.** J. W. Burgess. (Northern Region, Missoula, Montana) Burgess was primarily involved in compiling and tracing 2-inch (1:126,720-scale) administrative maps from 1952 to 1958. The 1958 map of the Colville National Forest, that he compiled and traced, was made at the time the Colville was part of the Northern Region (1943-1973). According to the 1952 edition of Polk's Missoula city directory, he was employed as a draftsman by the Forest Service. Later city directories record his position with the Northern Region as an "engineer," or "mechanical engineer," or simply "supervisor." He retired from the Forest Service in 1974. **Regions 1 & 6**

*Northern Region*

Deerlodge National Forest, 1953, traced by  
Kootenai National Forest, 1958, compiled and traced by  
Lewis & Clark National Forest (Jefferson Division), 1952, East & West Halves, administrative map, prepared by  
St. Joe National Forest, 1954, compiled and traced by

*Pacific Northwest Region*

Colville National Forest, 1953, compiled and traced by

**Burgess, John.** (Rocky Mountain Region, Denver, Colorado) Burgess began work with the Forest Service's Denver District Office as a surveyor in 1919 and ended in 1924 when he became a "draftsman" for Denver Water, a public utility established in 1918. The public utility was then engaged in building an aqueduct and railroad tunnel that would carry water and the Denver Rio Grande and Western Railroad from the western slope of the Continental Divide to Denver on the eastern slope. The centerpiece of this engineering marvel was the Moffat Tunnel. **Region 2**

Colorado National Forest, 1924, compiled by  
Holy Cross National Forest, 1922, compiled by  
San Juan National Forest, 1921, compiled by  
Shoshone National Forest, 1921, compiled by

**Burklund, Egon.** E. Burklund. (Pacific Northwest Region, Portland, Oregon) The 1917 issue of the Portland city directory lists Burklund simply as a "draftsman." The directory for 1918 has this draftsman working for the firm of Camp & DuPuy, Inc., architects and builders. Subsequent city directories for Portland do not carry his name. **Region 6**

Siskiyou National Forest, 1922, revised by (1924, 1926, 1927)

**Burnett, Bruce B.** (Pacific Southwest Region, San Francisco, California) Burnett was a California Region engineer most closely associated with road building and transportation planning. He is first listed in the San Francisco directory of 1924 as being with the U.S. Forest Service, when it was headquartered in the city's Ferry Building. **Region 5**

Shasta National Forest, 1933, topographic maps, topography by (1936)

**Burnett, F. Grady.** F. G. Burnett. F. G. B. (Southern Region, Atlanta, Georgia) Burnett was first listed in the 1937 edition of the Atlanta city directory as a draftsman without an employer; 1938 to 1942, a draftsman with the Forest Service, and in 1943 as a Captain in the U.S. Army. Until 1948, city directories continued to record his name as a citizen of Atlanta and as a serviceman in the U.S. Army. **Region 8**

Nantahala National Forest, 1938, traced by (1942)  
Talladega National Forest, Oakmulgee Division, 1937, revised by

**Burns, Findley.** (Washington Headquarters Office) Issues of the Forest Service's monthly *Field Program* from 1907 to 1909, which also included directory information, lists Burns as "Chief, Office of Publications." The 1908 Directory for Washington, D.C. has an entry for Burns and nominally lists his occupation as a "Clerk" for the Department of Agriculture and the 1910 Census describes Burns, a lifetime resident of Baltimore, more accurately as "Forester" with



the U.S. Government. Subsequent directories for Washington, D.C. continue to list his occupation as a “Clerk” with the Department of Agriculture. From 1914, he is described as an employee of the Forest Service. Between 1941 and 1945, Burns was employed by the Maryland Department of State Forests and Parks as a “Forester” the same occupation found on the 1940 Census form. Findley was born in Baltimore on December 1, 1879. **Region 6**

The Crater National Forest: Its Resources and Their Conservation. 1911. (forest visitor booklet and map), text by  
The Olympic National Forest: Its Resources and Their Management. 1911. (forest visitor booklet and map), text by

**Burrus, Robert F.** R. F. Burrus. R. F. B. (Rocky Mountain Region, Denver, Colorado) Burrus was first listed as a “draftsman” for the Forest Service in the 1924 Denver city directory and went on to build one of the most impressive records of mapping in the Rocky Mountain Region. He left federal service around 1950. In 1928, the date of the Superior National Forest map which Burrus traced, the Superior National Forest was a part of the Rocky Mountain District. **Region 2 & 9**

#### *Rocky Mountain Region*

Black Hills National Forest, 1955, compiled by  
Grand Mesa National Forest, 1936, compiled and drawn by (1941)  
Grand Mesa National Forest, 1941, forest visitor map, compiled by (1952)  
Gunnison National Forest, 1931, compiled and traced by  
Gunnison National Forest, 1937, compiled and drawn by (1941, 1949)  
Gunnison National Forest, 1949, drawn by (1955, 1959, forest visitor map 1960?)  
Harney National Forest, 1935, compiled and drawn by (1938, 1942, 1951)  
Holy Cross National Forest, 1935, compiled and traced by (1939)  
Medicine Bow Proclamation diagram, 1929, compiled and traced by  
Medicine Bow National Forest, 1928, compiled and traced by (1929)  
Medicine Bow National Forest, Laramie Peak Division, 1929, compiled by  
Medicine Bow National Forest, 1930, forest visitor map, compiled by (1934)  
Medicine Bow National Forest, 1935, compiled and traced by (1940)  
Medicine Bow National Forest, Laramie Peak Division, 1938, drawn by  
Montezuma National Forest, 1935, traced by  
Pike National Forest, 1931, traced by  
Pike National Forest, 1938, compiled by  
Rio Grande National Forest, 1947, compiled and drawn by  
Routt National Forest, 1932, compiled and traced by (1933)  
San Isabel National Forest, 1930, compiled by (1937)  
San Isabel National Forest, 1942, compiled and drawn by (1947)  
San Juan National Forest, 1951, compiled and drawn by  
Shoshone National Forest, 1929, compiled and traced by  
Shoshone National Forest, 1936, traced by (1940)  
Shoshone National Forest, 1952, compiled and drawn by  
Superior National Forest, 1928, traced by (1934)  
Uncompahgre National Forest, 1929, compiled and traced by (1935)  
Uncompahgre National Forest, 1951, compiled and drawn by  
Washakie National Forest, 1927, compiled and drawn by  
White River National Forest, 1933, compiled by  
White River National Forest, 1934, compiled and traced by (1939)

#### *Eastern Region*

Superior National Forest, 1928, traced by (1934)

**Burton, Walde E.** W. E. Burton. (Southwestern Region) The 1940 census records for Silver City, New Mexico identifies Walde E. Burton as a Civil Engineer working as a topographer. The name could not be found in the Albuquerque or Phoenix Directories. Burton’s skills as a topographer could have led him to a position on a New Deal employment program such as the W.P.A. **Region 3**

Sierra Ancha Experimental Forest: Southwestern forest and range experimental station Parker Creek branch, 1938, compiled from surveys by

**Byers, Virgil A.** V. A. Byers. V. A. B. (Pacific Northwest Region, Portland, Oregon) Byers was first listed in the 1926 edition of the Portland city directory as a “draftsman” without an employer. After working as draftsman with the Willamette Iron & Steel Company in 1927, he hired on with the Forest Service in 1928 as a draftsman in the Maps and Surveys Section of the Engineering Division of District 6 and served in that Division well into the 1950s. **Region 6**

Road and Recreation map of State of Oregon, 1931, revised by  
Cascade National Forest, 1930, revised by  
Chelan National Forest, 1935, revised by  
Crater National Forest, 1930, compiled and traced by  
Deschutes National Forest, 1928, revised by  
Malheur National Forest, 1930, compiled and traced by (1931)  
Mt. Baker National Forest, 1931, traced by (1932, 1935, 1936, 1939)  
Mt. Baker Region, 1934, compiled by – the map in the booklet: *A Mountain Vacation Land, Mount Baker National Forest*.  
Mt. Baker National Forest, 1941, traced and revised by (1942)  
Olympic National Forest, 1930, revised by  
Olympic National Forest, 1941, topographic map compiled and traced by (1948)  
Olympic National Forest, 1942, revised by (1948)  
Rogue River ~~Crater~~ National Forest, 1930, compiled and traced by  
Rogue River National Forest, 1933, compiled and traced by  
Santiam National Forest, 1931, forest visitor map, revised by  
Siskiyou National Forest, 1940, revised by (1942)  
Snoqualmie National Forest, 1927, revised by (1928)  
Umatilla National Forest (North Half), 1940, compiled and traced by  
Wenatchee National Forest, 1931, corrections (1927, 1928, & 1930) by  
Mt. Hood Recreation Area, 1929, compiled by  
Forest Camps, Naches Highway, Rainier National Forest, 1931, compiled by  
Rogue River Recreation Area, Siskiyou National Forest, Oregon, Recreation Guide No. 14 – Oregon, [drawn by]  
Murderers Cr. and Deer Cr. Hunting Area, Malheur National Forest, Oregon, Recreation Guide No. 18 – Oregon, [drawn by]  
Wenatchee Lake Recreation Area, Wenatchee National Forest, Washington, Recreation Guide No. 20 – Washington, [drawn by]

**Bynes, Henry L.** H. L. Bynes. (Rocky Mountain Region, Denver, Colorado) Denver city directories for the late 1920s into the early 1930s lists Bynes as a “draftsman for the Denver, Rio Grande and Western Railroad until 1933. In 1934 he went to work for the Forest Service as a draftsman and worked in that capacity until 1938. **Region 2**

Pike National Forest, 1936, revised by  
Pike National Forest, 1937, revised by  
Rio Grande National Forest, 1937, forest visitor map, compiled and drawn by

## C

**Cain, Hubert C.** Cain, H. C. H. C. C. (Southern Region, Atlanta, Georgia) Cain first finds a place in the 1935 edition of the Atlanta city directory and in the November 1936 Forest Service *Directory*, both sources listing his occupation as a draftsman. References indicate he remained with the Forest Service until the outbreak of World War II. **Region 8**

National Forests and Purchase Units, Region 8, 1936 [drawn by]  
Holly Springs National Forest, 1940, compiled by (1950)  
Ozark National Forest, Sylamore Ranger District, 1941, compiled by  
Ozark National Forest, Main Division, 1946, compiled by  
Sumter National Forest, General Pickens Ranger District, 1941, compiled by (1952)

**Calvert, Wallace R.** W. R. Calvert. W. Calvert. (Region 5, San Francisco, California, Washington, D.C. Headquarters Office, Region 10, Juneau, Alaska) The 1937 edition of the San Francisco city directory lists Calvert as being a “draftsman” for the Forest Service. An earlier San Francisco listing, 1931, has Calvert working as a lithographer. Later, Calvert’s name is carried in the 1940 census as living in Washington D.C. and working as a “mapmaker” for the Department of Agriculture. His name also appears only once in the Washington, D.C. city directory for the year 1940 as

a draftsman with the Forest Service. The map record indicates that it was during his 1940 stay in Washington, D.C. that he compiled and traced the map of the Pisgah National Forest and the Tongass National Forest map, both dated 1940. The statement of responsibility on these two maps indicate that he was working from Washington, D.C. Interestingly, the Forest Service Directory dated May 1941 lists Calvert as the Principal Engineering Draftsman for Region 10. Since the May 1941 entry, Forest Service Directories do not include his name at all. Calvert could have arrived in Juneau to work as a draftsman in time to complete his tracing of the 1940 of the Tongass National Forest administrative map. The 1940 map of the Tongass was an entirely new compilation. Social Security records indicate he died in Albuquerque, New Mexico in 1998, age 88. **Regions 5, 8 & 10**

*Pacific Southwest Region*

Lassen National Forest, 1939, administrative map, traced by (1950)  
Lassen National Forest, 1940, forest visitor map, traced by  
Sierra National Forest, 1938, traced by

*Southern Region*

Pisgah National Forest, 1940, compiled and traced by (1948)

*Alaska Region*

Tongass National Forest, 1940, traced by  
Tongass National Forest, 1946, compiled and traced by (1951, 1957 & 1960)

**Caps, Stephen R.** (Washington Headquarters Office) Listed in the 1912 Washington, D.C. city directory as employed by the U.S. Geological Survey, the agency that engraved and printed the 1913 map of District 6 cited below that carried his name. **Region 6**

National Forests, District 6, 1913, additions and corrections by

**Caraway, Arthur C., Jr.** A. C. Caraway, Jr. (Southern Region, Atlanta, Georgia) Caraway was first listed in the Atlanta City directory as a draftsman for the Georgia Pacific Company in 1941 and, in the years following, as a draftsman without an employer listed. Subsequent city directories indicate that he served in the U.S. Army during World War II and by 1948, had joined the staff of Region 8's Engineering Division as a draftsman. **Region 8**

Conecuh National Forest, 1951, revised by  
Ozark National Forest, Magazine Mountain Ranger District, 1951, revised by  
Talladega National Forest, Oakmulgee Division, 1951, revised by

**Carrier, Ralph E.** Ralph Carrier. (Eastern Region, Washington, D.C.) Carrier was listed in the 1932 edition of the Washington, D.C. city directory as being a "transitman" with the Department of Agriculture. This was his only listing. However, in the Forest Service directories, his first entry was recorded in 1932 as a transitman in the Engineering Division's Acquisition Surveys Section. He moved from Region 7 headquarters in Washington, D.C. to the George Washington National Forest to do survey work as an acquisition assistant in 1934. During World War II he moved to Region 7 headquarters in Philadelphia to work in maps and surveys in the Engineering Division. There, Carrier would become the Chief, Maps and Surveys Section, Division of Engineering for the Eastern Region, working in Upper Darby until his retirement in 1966. His name does not appear on any map produced by the Eastern Region, yet he was fundamentally important in establishing the map and survey office in the Engineering Division for Region 7 after its move out of Washington, D.C. in 1941. **Region 8**

Ouachita Proclamation diagram, 1931, Arkansas Division, compiled by  
Ouachita National Forest, 1931, Arkansas Division, compiled by  
Pisgah National Forest, Grandfather Division, 1933, compiled by

**Carson, Walter G.** W. G. Carson. (Pacific Southwest Region, San Francisco, California) Listed as being a "topographer" for the Forest Service in the 1937 San Francisco city directory along with a listing in the November, 1936, U.S. Forest Service Directory as working for the Maps the Surveys Section of the Engineering Division of Region 5. The 1941 city directory gives his occupation as a "Forester" working with the U.S. Forest Service. The 1941 entry is the last. **Region 5**

Lassen National Forest, 1938, topographic map, topography by (1947)  
Stanislaus National Forest, 1941, topographic map, topography and compilation by  
Stanislaus National Forest, 1943, compiled by (1946, 1950, 1951)

**Charr, Easurk Emsen.** E. E. Charr. (Pacific Southwest Region, San Francisco, California) Charr was a Korean immigrant who was first listed in the 1936 edition of the San Francisco city directory as a “Barber.” Because he was a veteran of World War I and honorably discharged, he was granted United States citizenship in 1936. In the 1937 edition of the city directory for San Francisco Charr’s name is recorded as working as an “employee” of the U.S. Forest Service. From Charr’s autobiography, we know that his position was with the Works Progress Administration working as a draftsman on the Forest Modeling Project. The project made forestry models for San Francisco’s Golden Gate International Exposition of 1939. The 1939 city directory lists his occupation as a “draftsman.” This position was with the Department of Agriculture’s Soil Conservation Service, a cartographic position he kept for over ten years. The 1939 city directory was a bit behind the times as it states that Charr’s position was with the Forest Service, not the Soil Conservation Service. His two map credits indicate that the Soil Conservation Service sometimes was assigned Forest Service mapping work at the Agriculture Department’s Berkeley offices. Charr, along with P. Tourjee were credited with the tracing of the 1938 map, “Eshom Creek Unit, Pinehurst Project, Sequoia National Forest, California” which only appeared in a blue line print. **Region 5**

Mendocino National Forest, 1939, compiled by at 1:63,360-scale in a blue line print  
Mendocino National Forest, 1940, revised by (1950)

**Cheatham, Chester W.** C. W. Cheatham. (Northern Region, Missoula, Montana) Early city directories of Missoula encompassed surrounding counties, cities, and farms, including Ravalli County and its principal city, Hamilton, Montana. There, one can find the name of Chester W. Cheatham in 1909 working for the engineering firm of Lord & Cheatham. In 1911 Cheatham had established a new engineering firm of Cheatham and Blakeslee in Hamilton, specializing in civil, mining, and hydraulic engineering. By 1915 Cheatham had moved to Missoula continuing his career as a civil engineer. His map credits clearly show him working on Forest Service maps during this period, but the Missoula city directory never identified him as an employee of the Forest Service. His entry in the 1917/18 city directory provided only his name and no occupation or employer. The Forest Service’s *January Field Program 1918* also failed to include Cheatham’s name. He had left Missoula by the time the next city directory was published in 1922. **Region 1**

Kaniksu Folio, 1915, topography by (1927)  
Kaniksu National Forest, 1916, compiled by  
Kaniksu National Forest, 1919, topographic map, compiled by (1927)  
Pend Oreille Folio, 1914, topography  
Pend Oreille National Forest, 1916, topographic map, compiled by (1919, 1930)

**Christensen, Viggo.** V. Christensen. (Rocky Mountain Region, Denver, Colorado; Northern Region, Missoula, Montana; Southern Region, Atlanta, Georgia) Christensen is most associated with topographic work for Northern Region from 1926 to 1934. Christensen served as a “draftsman” with the Forest Service according to Polk’s Missoula city directory. Prior to 1926, he worked as a draftsman for the Rocky Mountain District. In 1934 he moved to Atlanta, the headquarters for the newly created Southern Region (Region 8) and by 1936 he is listed in the Forest Service Directory as the “Chief, Drafting” for Region 8. However, he has no map credits to his name during his service in the Southern Region, 1934 to 1941. **Regions 1, 2 and 8**

#### *Northern Region*

St. Joe & Clearwater National Forest, 1936, compiled by  
Blackfeet National Forest, 1928, topographic map, revised by  
Coeur d’Alene National Forest, 1929, topographic map, revised by  
Coeur d’Alene National Forest, 1934, topographic map, revised by  
Flathead National Forest, 1933, topographic map, revised by  
Kaniksu National Forest, 1927, topographic map, revised by  
Lewis & Clark National Forest, 1926, topographic map, revised by  
Lolo Folio, 1927, compiled by  
Lolo National Forest, 1928, topographic map, compiled by (later known as the West Half)  
Lolo National Forest, 1928, administrative map, compiled by  
Lolo National Forest, 1932, topographic map, East Half, compiled by

Nezperce Proclamation diagram, 1931, compiled by  
Nezperce National Forest, 1931, topographic (1936, 1942), administrative, & forest visitor maps, compiled by  
Selway National Forest, 1928, topographic map, second revision compiled by

*Rocky Mountain Region*

Arapaho National Forest, 1924, compiled and traced by  
Colorado National Forest, 1924, compiled and traced by  
Nebraska Proclamation diagram, 1925, compiled by  
Nebraska National Forest, 1925, compiled by

**Claffin, Frederick F.** F. Claffin. F. F. Claffin. F. F. C. F. C. (Southern Region, Atlanta, Georgia) The Forest Service *Directory* for July 1934 lists Claffin as being a draftsman under Viggo Christensen and Atlanta city directory first recorded his name the next year, 1935, until 1938. **Region 8**

Apalachicola Proclamation diagram, 1936, prepared by  
Apalachicola National Forest, 1935, traced by  
Apalachicola National Forest, 1936, prepared by  
Apalachicola National Forest, 1938, traced by (1949, 1968)  
Chattahoochee National Forest, 1937, assembled and traced by (1944, 1954, 1960, 1964)  
De Soto National Forest, Homochitto Purchase Unit, 1935, traced by  
De Soto National Forest, Leaf River Div. – West Half Leaf River Ranger Dist., 1937, revised by  
Homochitto National Forest, 1937, traced and boundary corrected by  
Nantahala National Forest, 1935, revised by  
Sumter National Forest, Enoree Division, 1938, compiled by (1947)  
Sumter National Forest, Long Cane Division, 1938, compiled by (1947)

**Clayton, Alfred G.** A. G. Clayton. (Washakie National Forest, Sheridan Ranger District, Dubois, Wyoming) While not strictly a cartographer, Clayton drew the portrait of Chief Washakie found on the cover of the 1938 forest visitor map. **Region 2**

Washakie National Forest, Wyoming, 1938, forest visitor map, artist of the map cover drawing of Chief Washakie.

**Clover, Wilbur B.** Wilbur B. Clover. (Northern Region, Missoula, Montana) Clover, a long-time Missoula resident, specialized in preparing the small scale forest visitor maps of the 1950s and is recorded as being an “engineer” in the 1955 edition of Polk’s Missoula city directory. In 1962 Clover had left the Forest Service and had become an air traffic controller for the Federal Aviation Administration working at the Missoula airport. **Region 1**

Beaverhead National Forest, 1956, prepared by  
Coeur d’Alene National Forest, 1958, prepared by  
Deerlodge National Forest, 1955, prepared by  
Helena National Forest, 1955, prepared by (1960)  
Kootenai National Forest, 1955, prepared by

**Cohoon, Anson E.** (Pacific Northwest Region) Cohoon served as the Forest Supervisor for the Siuslaw National Forest from 1908 to 1913. **Region 6**

Siuslaw National Forest, 1913, corrected by

**Colton, Clara A.** C. A. Colton. C. A. C. (Eastern Region, Washington, D.C.) Map credits indicate that Colton joined the Forest Service as a draftsman in 1936, but she first appeared in the Forest Service staff *Directory* in 1934 and in the 1937 edition of the Washington, D.C. city directory. She specialized in transferring land status data onto maps. During the time Colton was active, the national forests of Kentucky and Virginia were a part of the Eastern Region (Region 7), but her cartographic record is split below to reflect the current Forest Service Regional arrangement. **Regions 8 & 9**

*Southern Region*

Cumberland National Forest (Red River Ranger District), 1937, North Half, land status entered by  
Cumberland National Forest, 1937, 1:253,440-scale administrative map, land status entered by



George Washington National Forest, Dry River Ranger District, 1938, land status entered by  
George Washington National Forest, Warm Springs Ranger District, 1938, land status entered by  
Jefferson National Forest, Glenwood Ranger District, 1938, land status entered by

*Eastern Region*

Allegheny National Forest, 1937, land ownership status by  
Green Mountain National Forest, 1936, land ownership status and checked by  
Green Mountain National Forest, Northern Ranger District, 1936, land ownership status and checked by (1959)

**Colyar, Raymond R.** R. R. Colyar. (Rocky Mountain Region, Denver, Colorado) Early Denver city directories beginning in 1910 list Colyar as being a “show card writer” and after 1916 as a “commercial artist.” One can presume that his single, 1918, map credit was owing to staff shortages caused by World War I. **Region 2**

Sopris National Forest, 1918, traced by

**Cook, Harold J.** Cook, H. J. H. J. C. (Eastern Region, Washington, D.C.) Cook came to the Forest Service’s Eastern Region in 1933 as a draftsman and worked with the agency until 1938. In that year he transferred to the War Department working in the same capacity for the Navy as a draftsman. **Region 9**

Green Mountain National Forest, 1936, compiled and traced by (1937, 1959)  
Green Mountain National Forest, Northern Ranger District, 1936, compiled and traced by  
Grand Lake Purchase Unit, Maine, 1936, compiled and traced by

**Cool, Frank J.** F. J. Cool. (Northern Region, Missoula, Montana) A student at the University of Montana in Missoula in 1911, Cool was first listed as a draftsman for the Forest Service in the 1915/1916 edition of the Missoula city directory, but did not have an entry in the Forest Service’s *January Field Program 1918*, where one would expect one to appear. The map record indicates that Cool first worked as a technician then moved on to folio and topographic work in the mid-1920s. Forest Service staff directories note that he was put in charge of the Drafting Section of the Northern District’s Engineering Division in 1923 and held that position until about 1960. **Region 1**

National Forests, District 1, 1923, compiled by (1932)  
Blackfeet Folio, 1918, traced by  
Clearwater Folio, 1915, traced by  
Coeur d’Alene Folio, 1917, traced by  
Coeur d’Alene National Forest, 1918, topographic map, traced by (1929 & 1934)  
Deerlodge National Forest, 1925, topographic map, compiled by  
Deerlodge National Forest, 1926, compiled by, administrative & forest visitor maps (1933)  
Flathead Proclamation diagram, 1918, revised by  
Flathead Folio, 1916, traced by  
Flathead National Forest, 1917, revised by  
Flathead National Forest, 1925, topographic map, traced in part by (1933)  
Kaniksu Folio, 1915, traced by (1927)  
Kaniksu National Forest, 1919, topographic map, traced by (1927)  
Lewis & Clark Folio, 1916, traced by (1926 topographic map)  
Lewis & Clark National Forest, 1918, compiled by  
Pend Oreille Folio, 1914, traced by  
Pend Oreille National Forest, 1916, topographic map, traced by (1919)  
Selway National Forest, 1918, topographic map, traced by

**Corn, Inez A.** I. A. Corn. (Intermountain Region, Ogden, Utah) The former Inez V. Adams, who married Thompson Corn in 1923, continued her career with the Forest Service as a draftsman for the Intermountain District begun in 1919. Polk’s Ogden city directory for 1931 and 1932 lists her as the wife of Thompson Corn and not affiliated with the Forest Service, however, the April 1932 edition of the *Forest Service Directory* through the Nov. 1936 edition includes her name as a staff member of Region 4 under “drafting.” Ogden city directories after 1937 do not indicate that she continued as a Forest Service employee. A separate listing of her earlier maps is found above under Inez V. Adams. **Region 4**

Caribou National Forest, 1928, traced by  
Dixie National Forest, Portion of (Cedar Breaks), 1929, [map by]  
Idaho National Forest, 1930, traced by (1936, 1938)  
Minidoka National Forest, 1925, compiled and traced by  
Salmon Proclamation diagram 1926, traced by  
Salmon National Forest, 1926, traced by (1927 – East Half)  
Sawtooth National Forest, 1924, traced by  
Targhee National Forest, 1925, revision traced by  
Weiser National Forest, 1931, traced by (1938, 1943)  
Kaibab National Forest, 1930, traced by (1934)  
Mirror Lake Recreation Area, 1931 [traced by?]

**Cox, Frances C.** F. C. C. (Washington Headquarters Office) Washington D.C. directories during the time when an “F.C.C.” was active tracing atlas folio pages list a Frances C. Cox working for the Department of Agriculture as a “clerk” but not identified with any particular bureau. **Regions 4 & 6**

*Intermountain Region*

Caribou Folio, 1916, traced by  
Caribou Grazing Atlas, 1915, traced by

*Pacific Northwest Region*

Wallowa Folio, 1917, traced by

**Crawford, John L.** J. L. C. (Southern Region, Atlanta, Georgia) The 1937 edition of the Atlanta city directory is the first to record Crawford living in the city. In that year, it is noted that he was working for the Forest Service as a “messenger/clerk.” 1938 finds him working as a draftsman for the Warren Company of Atlanta, a refrigerator manufacturer. **Region 8**

Recreation map of Pisgah National Forest, 1937, [drawn by]

**Crebbin, Alfred K.** A. K. Crebbin. (Pacific Southwest Region) This name could not be found in San Francisco or U.S. Forest Service directories because he was based on the Klamath National Forest in northern California. His name is found in the book, *Stories of the Klamath National Forest: The First 50 Years: 1905-1955*, where we learn that in May of 1931, “Al K. Crebbin was transferred from the Sierra National Forest to the Klamath National Forest. Al became a long-time employee of the Forest Service, retiring as Deputy Forest Supervisor of the Klamath National Forest in 1968. His main job for that first summer (1931) was surveying fire damage throughout the forest.” (page 198) and that in 1932, “A special topog mapping project under a crew headed by T. L. Littlefield [see below] operated on the Klamath all season. Al Crebbin helped complete it in late fall and winter in the Blue Creek Area. This map was finally published in 1934 to give the best map the Klamath had up to that time.” (p. 201) His map credits below document his early survey work. **Region 5**

Klamath National Forest, Orleans District, 1932, topography by  
Klamath National Forest, 1934, topographic maps, topography by (1942)

**Cuff, Ivan A.** I. A. Cuff. (Pacific Southwest Region) Cuff served as the District Ranger for the Happy Camp Ranger District on the Modoc National Forest during the 1920s and well into the 1930s. **Region 5**

Happy Camp Ranger District, Modoc National Forest, California, 1927, [compiled by]

**Culverwell, Thomas Speiden.** Tom Culverwell. (Eastern Region, Washington, D.C.) Culverwell had been annually listed in the Washington, D.C. city directory from the 1920s onward as an artist, illustrator, or commercial artist until joining the Forest Service in 1936 in the same capacity. Previous to his Forest Service employment, he regularly supplied illustrations and comics for Washington, D.C. newspapers, particularly the *Washington Daily News*. His 1937 entry in the city directory recorded his occupation as that of a draftsman working for the Forest Service. He was responsible for the memorable pictorial maps of the National Forests of the Eastern Region and for many public service posters featuring Smokey Bear as well as illustrations for Forest Service calendars that emphasized job safety. He retired to the coast of Maine in 1956. The George Washington National Forest was part of the Eastern Region at the

time Culverwell drew his pictorial maps of the area. During the time Culverwell was active, the national forests of Kentucky and Virginia were a part of the Eastern Region (Region 7), but his cartographic record is split below to reflect the current Forest Service Regional arrangement. Two of his map covers can be found above in Figure 22. **Regions 8 & 9**

#### *Southern Region*

Map of the Northern Portion of the George Washington National Forest, [1938, drawn by] (see Figure 22)

Map of the Southern Portion of the George Washington National Forest, [1938, drawn by] (see Figure 22)

George Washington National Forest, 1950, [drawn by] (1956)

#### *Eastern Region*

Allegheny National Forest, 1940, (pictorial map), drawn by

Map of the Northern & Southern portions, Green Mountain National Forest, Vermont, 1938, (pictorial maps), drawn by

Green Mountain National Forest, 1939, (pictorial map) drawn by

Green Mountain National Forest, 1940, (pictorial map) drawn by

Green Mountain National Forest, 1953, (pictorial map) drawn by

Monongahela National Forest, Northern portion, 1936, (pictorial maps) drawn by

Monongahela National Forest, Southern portion, 1938? (pictorial maps) drawn by

Monongahela National Forest, Northern & Southern portions, 1939, (pictorial maps) drawn by

White Mountain National Forest, 1936, (pictorial map) drawn by

White Mountain National Forest, 1938, (pictorial map) drawn by

White Mountain National Forest, 1956? (pictorial map) drawn by (and two reprints)

**Curtis, Asahel.** (Northern Region and Pacific Northwest Region) Curtis, (1874–1941) was a photographer who worked primarily in the Pacific Northwest. He is most famous for his photographs documenting the Klondike Gold Rush and the natural landscapes of the northwest and the built environments of the Seattle region, most notably the Chicago, Milwaukee, St. Paul and Pacific Railroad and its electrification project through the Rocky Mountains and the Cascade Range. **Regions 1 & 6**

#### *Northern Region*

Flathead National Forest, Montana, 1927, folded map cover photograph by

#### *Pacific Northwest Region*

Snoqualmie National Forest, Washington, 1935, folded map cover photograph by

## **D**

**\*C. W. D.** (Pacific Northwest Region) Of the several sets of initials found printed on maps of the Recreation Guide Series issued by Region 6 in the 1930s, C. W. D was the most prolific. These initials could be associated with a man or a woman on work relief projects such as the WPA during the Depression and assigned to the Forest Service, but they could not be linked to a name in any of the directories or data bases consulted for this project. It has been suggested that C.W.D. might have been working from the Washington, D.C. Forest Service Headquarters Office, but there is no listing anywhere in Forest Service directories of the time that would provide names for the initials. It is remarkable that a reference to this person, so critical to the overall success of the Recreation Guide project of the North Pacific Region did not merit recognition in the official Forest Service staff directories of the 1930s. **Region 6**

#### *Oregon Guides*

McKenzie Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 3 – Oregon, corrected by

Olallie Lakes Recreation Area, Mount Hood National Forest, Oregon, Recreation Guide No. 7 – Oregon, [corrected by]

Box Canyon Loop Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 9 – Oregon, [compiled and] corrected by

Oakridge – Willamette River Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 10 – Oregon, corrected by

Sisters Recreation Area, Deschutes National Forest, Oregon, Recreation Guide No. 11 – Oregon, [compiled and] corrected by

North Santiam Recreation Area, Willamette National Forest, Oregon, Recreation guide No. 12 – Oregon, corrected by

Bend Recreation Area, Deschutes National Forest, Oregon, Recreation Guide No. 13 – Oregon, [compiled and] corrected by

Fall Creek Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 16 – Oregon, [compiled by]

Crescent Recreation Area, Deschutes National Forest, Oregon, Recreation Guide No. 17 – Oregon, [compiled by]  
 Murderers Cr. and Deer Cr. Hunting Area, Malheur National Forest, Oregon, Recreation Guide No. 18 – Oregon, [compiled by]  
 Canyon Creek Game Reserve, Open to Hunting with Bow and Arrow Only, Malheur National Forest, Oregon, Recreation Guide No. 19 – Oregon, [compiled by]  
 Mount Hood National Forest Winter Sports Area, South Side Unit, Recreation Guide No. 21 – Oregon, [compiled by]  
 Steamboat – Little River Recreation Guide, Umpqua National Forest, Oregon, Recreation Guide No. 22 – Oregon, [compiled by]  
 Bohemia Recreation Area, Umpqua National Forest, Oregon, Recreation Guide No. 23 – Oregon, [compiled by]  
 Ukiah Recreation Area, Umatilla National Forest, Oregon, Recreation Guide No. 27 – Oregon, [compiled by]  
 North End Recreation Area, Siskiyou National Forest, Oregon, Recreation Guide No. 28 – Oregon, [compiled by]  
 Oregon Coast Highway Section, Siskiyou National Forest, Recreation Guide No. 29 – Oregon, [compiled by]  
 Oregon Coast Highway Recreation Areas, Siuslaw National Forest, Recreation Guide No. 31 – Oregon, [compiled by]  
 La Grande – Tollgate Recreation Area, Umatilla National Forest, Oregon, Recreation Guide No. 32 – Oregon, [compiled by]  
 Fremont Recreation Area, Fremont National Forest, Oregon, Recreation Guide No. 33 – Oregon, [compiled by]  
 Detroit – Breitenbush Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 34 – Oregon, [compiled by]  
 Oregon Skyline Trail: Pacific Crest System, Oregon, Recreation Guide No. 35 – Oregon, [compiled by]  
 Breitenbush Loop Recreation Area, Mt. Hood & Willamette National Forests, Oregon, Recreation Guide No. 39 – Oregon, [compiled by]  
 Index to Recreation Maps, Western Oregon, Unnumbered sheet, [compiled by]

#### *Washington State Guides*

Cariboo Trail Recreation Area, Tonasket Sector, Colville National Forest, Washington, Recreation Guide No. 1 – Washington, [compiled by]  
 Republic Recreation Area, Colville National Forest Washington, Recreation Guide No. 2 – Washington, [compiled by]  
 Kettle Falls Recreation Area, Colville National Forest, Washington, Recreation Guide No. 3 – Washington, [compiled by]  
 Packwood Recreation Area, Columbia National Forest, Washington, Recreation Guide No. 7 – Washington, [compiled by]  
 Goat Rocks Recreation Area, Columbia and Snoqualmie National Forests, Recreation Guide No. 9 – Washington, [compiled by]  
 Leavenworth Recreation Area, 1936, Wenatchee National Forest, Washington, Recreation Guide No. 11 – Washington, [compiled by]  
 Lake Wenatchee Recreation Area, Wenatchee National Forest, Washington, Recreation Guide No. 20 – Washington, [compiled by]  
 Lake Chelan Recreation Area, Chelan National Forest, Washington, Recreation Guide No. 21 – Washington, [compiled by]  
 Cle Elum Recreation Area, Wenatchee National Forest Washington, Recreation Guide No. 26 – Washington, [compiled by]  
 Trail Riders Trip, Olympic National Forest, Washington, Recreation Guide No. 27 – Washington, [compiled by]  
 Leavenworth Winter Sports Area, Wenatchee National Forest, Washington, Recreation Guide No. 28 – Washington, [compiled by]

**Danielson, W. C.** W. C. Danielson. (Northern Region) Danielson served as a map draftsman in the early years of District One. An entry in the 1912 edition of the Spokane, Washington city directory lists a W. C. Danielson as being a “Draftsman” employed by the Spokane [city] Engineering Department. Other information could not be found on Danielson including his connection to the U.S. Forest Service and his full first and middle names. All three of his maps credits were for Idaho National Forests, in proximity to Spokane, Washington. **Region 1**

Clearwater Folio, 1915, traced by  
 Selway Folio, 1915, traced by  
 Selway National Forest, 1918, topographic map, traced by (1928)

**Darcy, William M.** W. M. Darcy. (Washington Headquarters Office) Darcy was described as a “draftsman” with the Department of Agriculture in the 1940 edition of Polk’s Washington, D.C. city directory. **Region 4**

Cache National Forest, 1941, traced by (1948)

**Daves, Lee C.** L. C. Daves, or (by mistake) L. C. Davis. (Southwestern Region, Albuquerque, New Mexico) The name was misspelled as “L. C. Davis” on the 1923 proclamation diagrams for the Coconino and Tonto National Forests and on the 1927 Tonto National Forest administrative map. Between 1916 and 1919, Daves was listed as being a “Surveyor, U.S. Forest Service” according to Hudspeth’s city directory for Albuquerque, thereafter, the name vanishes from the directory. **Region 3**

Apache National Forest, 1918, compiled by (1921)  
Carson National Forest, 1919, compiled by  
Coconino Proclamation diagrams of 1919 and 1923, compiled by  
Coconino National Forest, 1919, compiled by (1921, 1924)  
Santa Fe Proclamation diagram, 1923, compiled by  
Santa Fe National Forest, 1918, compiled by (1921, 1924 Administrative map)  
Santa Fe National Forest, West Half, 1920, compiled by (1921)  
Sitgreaves National Forest, East Half – West Half, 1921, 1:126,720-scale administrative map, compiled by  
Sitgreaves National Forest, 1924, compiled by  
Tonto Proclamation diagram, 1923, compiled by  
Tonto National Forest, 1919, compiled by (1921, 1924, 1927)  
Tusayan National Forest, 1919, compiled by  
Tusayan National Forest (Williams Division), 1921, compiled by

**Davidson, Charles A.** C. A. Davidson. (Pacific Southwest Region, San Francisco, California) Davidson is listed in the San Francisco city directories of 1936 and 1937 as being a “forester” for the U.S. Forest Service. 1938 finds him employed by the Shell Oil Company. **Region 5**

Shasta National Forest, 1936, topographic maps, topography by

**Davison, Theodore E.** T. E. Davison. (Pacific Southwest Region, San Francisco, California) Davison joined the California District engineering staff in 1929 as a topographer. He has only one more San Francisco city directory reference in 1931. **Region 5**

Klamath National Forest, Orleans District, 1932, topography by  
Klamath National Forest, 1934, topographic maps, topography by (1942)  
Shasta National Forest, 1933, topographic maps, topography by (1936)  
Trinity National Forest, 1936, topographic map, topography by (1941, 1950 administrative map)

**Dennee, Phyllis I.** P. I. Dennee. (Rocky Mountain Region, Denver, Colorado with service in the Alaska Region, Juneau, Alaska) Dennee first appeared in the 1918 Denver city directory as employed by the Denver Phone Company as a “draftsman” and the very next year in the same capacity for the Forest Service. She left the Rocky Mountain District in 1922 for the newly established Alaska District (then District 8), where, with another experienced cartographer from the Intermountain District, Florence I. Shafer, she set up the drafting unit in the Engineering Division in Juneau. The October 1922 *Forest Service Directory* has Dennee listed among the staff with the Alaska District under “Drafting.” Unlike Shafer who stayed in Juneau well into the 1940s, Dennee returned to Denver in 1927 to work as a draftsman with the U.S. Supervisor of Surveys (General Land Office), Department of the Interior until the beginning of Second World War. Dennee’s only map credit with the General Land Office is her 1926 of the State of Utah. The Michigan and Superior National Forests were administered as part of the Rocky Mountain District at the time when Dennee traced maps for these national forests. **Regions 2 & 9**

#### *Rocky Mountain Region*

Cochetopa National Forest, 1919, traced by [1924]  
Hayden National Forest, 1919, traced by  
Montezuma National Forest, 1921, compiled and traced by  
Routt National Forest, 1921, traced by (1924, 1925)  
San Isabel National Forest, 1920, compiled and traced by  
San Juan National Forest, 1921, traced by  
Uncompahgre National Forest, 1920, traced by  
White River National Forest, 1919, traced by  
Cochetopa National Forest, 1919, traced by [1924]



Hayden National Forest, 1919, traced by  
Montezuma National Forest, 1921, compiled and traced by  
Routt National Forest, 1921, traced by (1924, 1925)  
San Isabel National Forest, 1920, compiled and traced by  
San Juan National Forest, 1921, traced by  
Uncompahgre National Forest, 1920, traced by  
White River National Forest, 1919, traced by

*Eastern Region*

Michigan National Forest, 1919, traced by (1920)  
Superior Proclamation diagram, 1927, traced by  
Superior National Forest, 1920, traced by (1924)

**Diaz, Antonio B.** A. B. Diaz. (Eastern Region, Washington, D.C.) Diaz is listed in the 1939 and 1940 editions of the Washington, D.C. city directory as a draftsman working for the Department of Agriculture. During the time Diaz was active, the national forests of Kentucky and Virginia were a part of the Eastern Region (Region 7), but his cartographic record is split below to reflect the current Forest Service Regional arrangement. **Regions 8 & 9**

*Southern Region*

George Washington National Forest, Warm Springs Ranger District, 1938, compiled by

*Eastern Region*

Monongahela National Forest, Gauley Ranger District, 1938, compiled by  
Monongahela National Forest, Cheat Ranger District, 1939 & 1940, compiled by  
Monongahela National Forest, White Sulphur Ranger District, 1939, compiled by  
Monongahela National Forest, Potomac Ranger District, 1940 & 1941, compiled by

**Doty, Wilbur I.** W. I. Doty. (Eastern Region, Washington, D.C. & Philadelphia, Pennsylvania) 1926 marks the first year that Doty is listed in the Washington, D.C. city directory. That year found him working as a draftsman for the Department of the Navy. The next year, the city directory indicates he switched employers and began working for the Department of Agriculture in the same capacity. Forest Service directories first included his name in the October 1928 edition as being the only person listed after “Drafting” for the Eastern District. His name does not appear again in a Forest Service Directory until the April 1932 edition and by the November 1935 edition he held the title as “Chief Draftsman” for the Eastern Region, a position he held well into the 1940s. Until 1965, the national forests of Kentucky and Virginia were a part of the Eastern Region (Region 7). **Regions 8 & 9**

*Southern Region*

Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1942, Eastern Section, checked by

*Eastern Region*

Allegheny National Forest, Northern & Southern Ranger Districts, 1942, land ownership status by  
White Mountain National Forest, 1942, revised by

**Douglas, Lynn H.** L. H. Douglas. The *January Field Program 1918* that served as an early personnel directory for the Forest Service identified Douglas as being the grazing examiner for District 2, and the Forest Service Directory of April, 1924, has Douglas listed as the “Inspector of Grazing.” He can also be found in the federal census of 1920 as living in Denver and working for the Forest Service. The 1920 census also reveals that Lynn Douglas was married to Martha Douglas. **Region 2**

Medicine Bow, Wyoming, Folio, 1913, base map by  
Medicine Bow, Wyoming, Grazing Atlas, 1913, grazing classification and base map by

**Douthitt, Fred D.** F. D. Douthitt. (Intermountain Region and California Region) Douthitt was involved in grazing issues with Districts Four and Five before transferring to the California District to become the Deputy Supervisor of the Klamath National Forest in 1924. He served as the Supervisor of the Klamath National Forest from 1926 to 1933. **Region 4**

Caribou Folio, 1916, base map by

**Dunstan, William E.** W. E. Dunstan. (Northern Region, Missoula, Montana) The 1936 edition of Polk's Missoula city directory was the first to include Dunstan's name. The directory noted that he worked for the Bureau of Public Roads, then a bureau within the Department of Agriculture, as a draftsman. Under a 1939 reorganization law, the responsibilities and functions of the Bureau of Public Roads were transferred to the Public Roads Administration under the Federal Works Agency. Dunstan continued to work for the federal road agency until the end of World War II. After the war, Dunstan was employed as a civil engineer by the Northern Pacific Railway and by 1951, began his career as a draftsman with the Forest Service. The 1953 map of the Colville National Forest which Dunstan traced, came at a time when the Colville National Forest in northeast Washington state was administered by the Northern Region. He retired from the Forest Service in 1968. **Regions 1 & 6**

*Northern Region*

Beaverhead National Forest, 1961, East Half, compiled and traced  
Deerlodge National Forest, 1953, compiled and traced by  
Flathead National Forest, 1951, prepared by (1954)  
Gallatin National Forest, 1961, West Half, compiled and traced by  
Kootenai National Forest, 1958, compiled and traced by  
Lewis & Clark National Forest (Rocky Mountain Division), 1954, prepared by  
St. Joe National Forest, 1954, traced by

*Pacific Northwest Region*

Colville National Forest, 1953, traced by

**Dwyer, Albertus W.** A. W. Dwyer. (Northern Region, Missoula, Montana) Dwyer had only one map credit to his name. He was listed in the 1917 edition of Polk's Missoula city directory as a "civil engineer and architect." The 1922/23 edition of the city directory gives his occupation as "student." The next edition of the city directory, 1925/26, includes his name and the words, "Died, June 15, 1923, Age 34." **Region 1**

Kootenai National Forest, 1922, compiled by (1924)

**E**

**\*R. C. E.** (Southwestern Region) These could be the initials of a draftsman working in Albuquerque in 1949 named Richard Elliott, but it cannot be confirmed that Elliott revised this map, or if he is related to Bertrand Elliott listed below. **Region 3**

Apache National Forest, 1948, revised by

**Eldredge, Inman F.** Eldridge [sic]. The topographic maps of the Klamath National Forest carry references in their statement of responsibility to "Eldridge, Galeneau, Andrews, 1908" crediting them with compiling the map's topography along with several other Forest Service surveyors. The map's "Authority Diagram" indicates that the three were responsible for the topography of the Hoopa Indian Reservation. While it has not been seen, a reference has been found to a 1908 publication, bound together with other "pamphlets on forestry," entitled, *Estimate for Hoopa Valley Indian Reservation, in cooperation with the Indian Service*, by I. F. Eldredge, D. C. A. Garlarneau, W.F. Andrews, and N.B. Eckbo. In the Forest Service serial publication, *Field Program for November, 1908* includes a notice (page 95) that under the auspices of the Office of Cooperation of the Forest Service, I. F. Eldredge was preparing a report on the Hoopa Valley Indian Reservation in cooperation with the Indian Service of the Department of the Interior. This report/publication must have included a topographic map used by Forest Service cartographers in the compilation of their topographic maps of the Klamath National Forest. However, the Forest Service maps misspell Eldredge's and Garlarneau's names and leave out Eckbo's name entirely. The 1920 Census lists Eldredge as living in Washington, D.C. and serving as the "Assistant District Forester, U.S. Government." "Washington, D.C. directories from the 1920s list Eldredge as, again, "Assistant District Forester, U.S. Department of Agriculture." The 1919 edition of the *Official Register* "Assistant District Forester, Office of Silviculture." Unlike W. F. Andrews, his complete name and his relationship with the Forest Service has been identified. **Region 5**

Klamath National Forest (Orleans District), California, 1932 (topography of the Hoopa Indian Reservation, 1908)  
Klamath National Forest, 1934, topographic maps (1942) (topography of the Hoopa Indian Reservation, 1908)

**Elliott, Bertrand.** B. Elliott. B. E. (Southwestern Region, Albuquerque, New Mexico) Elliott first appeared in the Albuquerque city directory in 1923, listed as a “draftsman, S.W. District, U.S. Forest Service.” The map record and city directories indicate he remained an active and productive cartographer working in the Albuquerque regional office of the Forest Service until about 1946. His name does not appear in the city directory after 1946. **Region 3**

National Forests, District 3, Showing Main Highways, 1925, revised by  
Apache National Forest, 1924, traced by  
Apache National Forest, 1926, forest visitor map, [drawn by]  
Apache National Forest (West Half), Arizona, 1929, topographic map, compiled, traced, and revised by  
Apache National Forest, 1932, topographic map, traced and revised by  
Apache National Forest, 1935, compiled and traced by (1938, 1941, 1948)  
Taos Division, Carson National Forest, 1924, traced by  
Carson National Forest, 1934, compiled and traced by (1935, 1937, 1941)  
Cibola Executive Order map, 1931, compiled and traced by  
Cibola National Forest, 1931, compiled and traced by  
Cibola National Forest, 1934, traced by – all administrative versions (1938, 1948)  
Cibola National Forest (Sandia Division), 1936, Topographic map, compiled and traced by  
Coconino National Forest, 1928, compiled and traced by (1931, 1935 administrative map, 1937, 1941, 1946, 1949)  
Coconino National Forest, Arizona, 1928, forest visitor map, [compiled by]  
Coconino National Forest, 1935, topographic map, compiled and traced by  
Coronado Folio (Animas Division), 1923, traced by  
Coronado National Forest, 1927, revision traced by (1931, 1934, 1937, 1940, 1953)  
Coronado National Forest (Santa Catalina Division), 1933, Topographic map, compiled and traced by (1938)  
Coronado National Forest (Chiricahua Division), 1938, Topographic map, revised by  
Crook Proclamation diagram, 1925, traced by  
Crook National Forest, 1925, traced by  
Crook National Forest, 1926, compiled and traced by  
Crook National Forest (Clifton Division), 1928, Topographic map, compiled and traced by (1938)  
Crook National Forest (Mt. Graham Division), 1932, Topographic map, compiled and traced by  
Datil National Forest, 1924, traced by  
Datil National Forest, 1930, compiled and traced by  
Gila Executive Order map, 1931, compiled and traced by  
Gila National Forest, 1928, drawn by  
Gila National Forest, 1929, compiled and traced by (1931, 1933, 1934, 1936, 1938, 1941)  
Gila National Forest (McKenna Park and Pinos Altos RDs), 1931, Topographic map, compiled and traced by  
Gila National Forest, 1946, compiled, traced, and revised by (1948, 1949, 1959)  
Kaibab National Forest, 1938, forest visitor map, compiled and traced by  
Lincoln National Forest, 1932, compiled and traced by (1935)  
Lincoln National Forest, 1941, 1:253,440-scale Administrative map, traced by  
Prescott Executive Order map, 1934, compiled and traced by  
Prescott National Forest, 1927, compiled and traced by (1931, 1934, 1938)  
Prescott National Forest, 1927, forest visitor map, [drawn by]  
Santa Fe National Forest, 1924, forest visitor map, traced by  
Santa Fe National Forest, 1927, compiled and traced by (1929-Administrative map, 1931, 1933, 1938, 1941)  
Santa Fe National Forest (East and West Halves), 1936, 1:126,720-scale admin. maps, compiled, traced, and revised by  
Santa Fe National Forest, 1936, 1:253,440-scale administrative maps, compiled, traced, and revised by  
Sitgreaves National Forest, 1935, compiled and traced by (1940, 1948, 1951)  
Tonto National Forest, 1933, revised by (1934)  
Tonto National Forest, 1943, compiled by  
Tonto National Forest, 1946, compiled, revised, and traced by (1950)

**Elliott, Frances.** F. E. (Pacific Northwest Region, Portland, Oregon) Portland city directories from the 1930s into the 1940s list Elliott first as a stenographer and later as a clerk with the Forest Service. **Region 6**

Oregon Skyline Trail, North Half, 1938, revised by  
Oregon Skyline Trail, South Half, 1938, revised by

**Elliott, John W.** J. W. Elliott. J. W. E. (Rocky Mountain Region, Denver, Colorado) Elliott began his cartographic career with Denver's Clason Map Company in 1927, moving on the next year to the Denver photo-engraving firm of Daniel-Smith Company where he remained until 1932. The 1933 Denver city directory simply lists his name and his occupation but not his employer, but the 1934 directory and those after indicates he was employed by the Forest Service from 1934 to 1941. **Region 2**

Rocky Mt. Region, 1935, compiled and checked by

Holy Cross National Forest, 1937, forest visitor booklet and map, compiled and drawn by

**Ennis, Martha W.** M. W. Ennis. (Eastern Region, Washington, D.C.) Washington, D.C. city directories first record Ennis as being employed as a draftsman in 1935 by the U.S. Geological Survey. Her map credit below indicates she Began work with the Forest Service in 1936 although the city directory of 1937 is the first to indicate she worked for the agency. By 1940 she had returned to the U.S. Geological Survey as a draftsman.

National Forests and Purchase Units in the Eastern Region (Region 7), 1936, spelling checked by

**Eunniff, Rod.** (Northern Region) Illustrator of forest visitor maps of the late 1950s to early 1960s but seldom given credit. His graphic of a welcoming Forest Service ranger gesturing towards a National Forest welcome sign with a backdrop of mountain scenery was often reproduced in full color or as a line graphic on forest visitor maps issued by the Northern Region between the 1960s and 1980s. Only one map actually gives him credit for his illustration and is listed below. His name cannot be found in city directories of the time. **Region 1**

Deerlodge National Forest, 1962, illustrator

**Evans, Oscar M.** O. M. Evans. (Pacific Southwest Region, San Francisco, California) Evans was first listed in the San Francisco city directory in 1918 as a "Forest Examiner" for the U.S. Forest Service and resided across the bay in Berkeley, California. 1929 finds him serving as the timber surveyor for the Forest Management (later Timber Management) Division of Region 5. **Region 5**

Maps of Calaveras Big Trees, 1924, Forest Examiner

**Ewen, Jean.** Jean Ewen. (Northern Region, Missoula, Montana) Ewen was involved in folio work during World War I and listed in the Missoula city directory of 1917 as a "Forest Ranger" for the Forest Service. By 1922/23, the city directory records that he was working as an independent surveyor. Thereafter, he is no longer listed in the Missoula city directories. **Region 1**

Blackfeet Folio, 1918, traced by

Sioux Folio, 1917, traced by

## **F**

\***E. F.** (Pacific Northwest Region) Unknown cartographer/graphic designer, responsible for one Oregon and one Washington map in the Recreation Guide Series. E.F. also drew a 1936 trail map of the Columbia Gorge, Mount Hood National Forest. However, these initials did not lead to a full name in any of the directories consulted. **Region 6**

Columbia Gorge Trail Map from Angel's Rest to Ruckel Cr., 1936, [drawn by]

Eagle Cap Primitive Area, Wallowa and Whitman National Forests, Oregon, Recreation Guide No. 25 – Oregon, [drawn by]

Olympic National Forest, Washington, Recreation Guide No. 24 – Washington, [drawn by]

\***E. W. F.** (Pacific Northwest Region) Initials could not be discovered using reference resources. An "E. W. F." was responsible for two Washington Recreation Guides. Nothing has been found to eliminate the possibility that E. F and E. W. F. could be the same person. **Region 6**

Spirit Lake Recreation Area, Columbia National Forest, Washington, Recreation Guide No. 6 – Washington, revised by  
Mount Adams Recreation Guide, Columbia National Forest, Washington, Recreation Guide No. 10 – Washington, revised by

**Fairfax, Randolph R.** R. R. Fairfax. R. R. F. (National Forests of Mississippi, Jackson, Mississippi) According to the Jackson, Mississippi city directory, Fairfax worked for the Forest Service as a “technician” at the time the following two maps were compiled. Jackson was the headquarters for the National Forests of Mississippi. **Region 8**

Bienville Ranger District (Bienville National Forest), 1935, compiled and traced by (1937, 1949)  
Holly Springs National Forest, 1937, compiled and traced by

**Farmer, Charles F.** C. F. Farmer, or (by mistake) D. F. Farmer. (Northern Region, Missoula, Montana; Southwestern Region) Farmer compiled folios as well as administrative maps and proclamation diagrams after his student years at the University of Montana.. He was also engaged in topographic work for the Northern District during the period 1910 to 1917. Two 1918 maps of the Lincoln National Forest in New Mexico were his last map credits. City directories of Albuquerque for the 1917-1925 period do not list Farmer as a resident. He might have received the Lincoln National Forest map assignments while working in Missoula, perhaps due to the staff shortages caused by the first World War. His name is recorded in the 1917/1918 Missoula city directory, although without occupation or employer. 1922 finds Farmer working as the manager for the American Wood Pipe Company in Missoula. Thereafter, he is no longer listed in the Missoula city directories. Farmer’s 1916 topographic map of the Pend Oreille National Forest in Idaho credits “D. F. Farmer” in error. **Region 1 & 3**

*Northern Region*

Bitterroot Folio, 1910, compiled by  
Blackfeet Folio, 1918, compiled by  
Blackfeet National Forest, 1920, topographic map, compiled by (1928)  
Coeur d’Alene Folio, 1917, compiled by  
Coeur d’Alene National Forest, topographic map, 1918, compiled by (1929 & 1934)  
Flathead Proclamation diagram, 1918, compiled by  
Flathead Folio, 1916, compilation and control by  
Flathead National Forest, 1917, compiled by  
Kaniksu Folio, 1915, topography & traced by (1927)  
Kaniksu National Forest, 1911, compiled and traced by  
Lewis & Clark Folio, 1916, compilation and control by  
Lewis & Clark National Forest, 1918, compiled by  
Pend Oreille Folio, 1914, topography and tracing by  
Pend Oreille National Forest, 1911, compiled and traced by  
Pend Oreille National Forest, 1916, topographic map, compiled and traced by (1919)  
Sioux Folio, 1917, compiled by

*Southwestern Region*

Lincoln Proclamation diagram, 1918, compiled by  
Lincoln National Forest, 1918, compiled by (1921)

**Fearn, Albert E.** A. E. F. (Washington Headquarters Office) The 1908 & 1910 editions of Polk’s Washington, D.C. directory lists Fearn as employed by the “Bur. of Print.” He worked exclusively on the National Forest Atlas folios between 1907 and 1909 for all six districts of the Forest Service. **Regions 1, 2, 3, 4, 5, & 6**

*Northern Region*

Helena Folio, 1907, traced by

*Rocky Mountain Region*

Leadville Folio, 1908, traced by

*Southwestern Region*

Coronado Folio, 1909, traced by  
Zuni Folio, 1910, traced by

*Intermountain Region;*

Sawtooth Folio, 1907, traced by



*Pacific Southwest Region*  
Shasta Folio, 1909, [traced by]

*Pacific Northwest Region*  
Columbia Folio, 1908, traced by  
Crater Folio, 1909, traced by  
Rainier Folio, 1908, traced by  
Wenatchee Folio, 1908, traced by

**Fenton, Katherine J.** K. J. F. (Washington Headquarters Office) The 1910 edition of Polk's Washington, D.C. city directory lists Fenton as being employed by the Forest Service. **Regions 6 & 8**

*Pacific Northwest Region*  
Fremont Folio, 1910, traced by

*Southern Region*  
Choctawhatchee Folio, 1910, [traced by]

**Ferguson, John A.** J. A. Ferguson. (Southwestern Region, Albuquerque, New Mexico) Ferguson appeared in the 1942 Albuquerque city directory as a "draftsman" for the U.S. Forest Service. The name does not appear either before or after this 1942 reference. **Region 3**

Kaibab National Forest, 1942, compiled by (1949)

**Fisher, William B.** W. B. Fisher. (Southwestern Region) His only map credit can be found on the Gila National Forest map of 1959 just before listing cartographer's names on their work on behalf of the Southwestern Region ceased. **Region 3**

Gila National Forest, 1959, boundary revision by

**Fitch, Kenneth S.** K. S. Fitch. (Pacific Southwest Region) This name could not be found in San Francisco city or U.S. Forest Service directories, but Fitch does appear on the November 8, 1938 Tulare County voting roll as an "Engineer." Most probably, Fitch, like Roger E. Amidon (see above), was based for a time on the Stanislaus National Forest, perhaps at the forest's supervisor's headquarters in Sonora, California, as they are credited for the topography on the same 1941 map of the Stanislaus National Forest. **Region 5**

Stanislaus National Forest, 1941, topographic map, topography by

**Flach, Victor H. W.** V. H. Flach. V. H. F. or (by mistake) V. H. Flack. (Pacific Northwest Region, Portland, Oregon) The 1920 edition of the Portland city directory is the first to list Victor H. Flach (misspelled as Flack) as a draftsman with the Forest Service. His name was also misspelled on the two maps dated 1922 of the Umpqua National Forest as "Flack." The Portland city directories continued to incorrectly spell his name as "Flack" throughout the 1920s until 1929 when it was finally spelled correctly as "Flach." Forest Service directories and maps (after 1922) spelled his name correctly. By 1930 Flach was the Chief Draftsman in the Engineering Division of Region 6 and between 1931 and 1935 he was alternately a draftsman or civil engineer according to the annual Portland city directory. The November, 1936 edition of the *Directory, Forest Service* lists Victor H. W. Flach as "Chief, Maps and Surveys" for the North Pacific Region as did his entry in the Portland city directory: "In charge, U.S. Forest Service, Division of Surveys and Maps" well into the 1950s. During 1943 he worked in the San Francisco Office of the War Mapping Project and in 1944/45 in the Gettysburg, Pennsylvania Office of the Project. **Region 6**

Road and Recreation map, state of Oregon, 1927, revised by (1931)  
Cascade National Forest, 1923, revised by  
Cascade National Forest, 1925, compiled by (1930)  
Chelan National Forest, 1928, traced by (1931, 1935)  
Columbia National Forest, 1922, corrected by (1925)  
Columbia National Forest, 1931, compiled by (1932, 1935, 1938)  
Crater National Forest, in Recreation in the Southern Cascades, guide map, 1917, [compiled] by  
Crater National Forest, 1930, compiled by

Malheur National Forest, 1930, compiled by (1931)  
 Mt. Baker National Forest, 1926, revised by  
 Ochoco National Forest, 1922, compiled and traced by (1924)  
 Rainier National Forest, 1920, in Mountain Outings on the Rainier National Forest, map compiled by  
 Rainier National Forest, 1930, compiled by (1931)  
 Rogue River ~~Crater~~ National Forest, 1930, compiled by (1933)  
 Siuslaw National Forest, 1921, compiled and traced by (1924, 1932, 1937 – North & South Halves)  
 Snoqualmie National Forest, 1923, compiled by (1932)  
 Snoqualmie National Forest, 1925, compiled and revised by (1927, 1928)  
 Umpqua National Forest, 1922, compiled and traced by  
 Wenaha National Forest, 1920, compiled and traced by  
 Wenatchee National Forest, 1931, correction (1924) by  
 Whitman National Forest, 1925, traced by (1935, 1937)  
 Mount Hood Loop Highway, 1926, compiled by (1930)

**Flack, Frank E.** Frank Flack. F. Flack. F. F. (Pacific Northwest Region, Portland, Oregon; Rocky Mountain Region, Denver, Colorado) Flack is first listed in the Portland, Oregon city directory in 1920 as a “draftsman” with the Forest Service. Flack remained with the North Pacific Region until 1937 when he transferred to the Rocky Mountain Region, working in its Engineering Division until about 1948. Portland city directories, 1931 to 1937 listed his name as being a draftsman, US Forest Service. **Regions 2 & 6**

#### *Rocky Mountain Region*

National Forests of the Rocky Mountain Region, Region 2, 1940, revised by  
 Black Hills and Harney National Forests, South Dakota and Wyoming, 1940, revised by  
 Arapaho National Forest, 1938, revised by  
 Arapaho National Forest, 1939, drawn by  
 Black Hills National Forest, 1939, compiled by (1953)  
 Cochetopa National Forest, 1940, Administrative map, revised by  
 Cochetopa National Forest, 1940, forest visitor map, drawn by  
 Grand Mesa National Forest, 1941, Administrative map, revised by  
 Grand Mesa National Forest, 1941, forest visitor map, revised by (1952)  
 Gunnison National Forest, 1937, drawn by (1941)  
 Gunnison National Forest, 1938, drawn by  
 Gunnison National Forest, 1941, drawn and revised by  
 Harney National Forest, 1938, revised by  
 Harney National Forest, 1942, revised by (1951)  
 Holy Cross National Forest, 1939, revised by  
 Medicine Bow National Forest, 1940, revised by  
 Medicine Bow National Forest, 1941, drawn by  
 Montezuma National Forest, 1938, drawn by  
 Montezuma National Forest, 1940, revised by  
 Pike National Forest, 1938, revised by  
 Pike National Forest, 1942, revised by  
 Rio Grande National Forest, 1942, revised by  
 Roosevelt National Forest, 1938, compiled by  
 Roosevelt National Forest, 1941, compiled and revised by  
 Routt National Forest, 1941, drawn by  
 San Isabel National Forest, 1937, revised by  
 San Isabel National Forest, 1947, revised by  
 San Isabel National Forest, 1948, drawn by  
 San Juan National Forest, 1942, prepared by  
 Shoshone National Forest, 1940, revised by  
 Shoshone National Forest, 1941, revised by  
 Uncompahgre National Forest, 1948, compiled and drawn by  
 Washakie National Forest, 1938, drawn by  
 Washakie National Forest, 1942, revised by

White River National Forest, 1939, revised by  
White River National Forest, 1941, revised by  
White River National Forest, 1947, revised by  
White River National Forest, 1949, compiled and drawn by

*Pacific Northwest Region*

District 6, 1930 (small scale administrative map), [compiled by]  
Region 6, 1936 (small scale administrative map), [compiled by]  
Fremont Proclamation diagram, 1935, traced by  
Fremont National Forest, Oregon, (North Half) 1927, traced by  
Fremont National Forest, Oregon, (South Half) 1927, traced by  
Fremont National Forest, Oregon, 1927, traced by (1935, 1938)  
Fremont National Forest, Oregon, 1927, (forest visitor map) traced by  
Mt. Hood National Forest, 1927, 1:253,440-scale administrative & forest visitor maps, revised by  
Siskiyou National Forest, 1926, revised by (1927)  
Wallowa National Forest, 1925, revised by  
Whitman National Forest, 1927, revised by  
Mount Baker Highway, Mt. Baker National Forest, 1931, compiled by  
North Santiam Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 12 – Oregon, [drawn by]  
Rogue River Recreation Area, Siskiyou National Forest, Oregon, Recreation Guide No. 14 – Oregon, [revised by]  
White River and Naches Recreation Area, Washington, Recreation Guide No. 13 – Washington, [drawn by]  
Wenatchee Lake Recreation Area, Wenatchee National Forest, Washington, Recreation Guide No. 20 – Washington, [drawn by]

**Fleming, Charles E.** C. E. Fleming. (Washington Headquarters Office) Listed in the Washington, D.C. city directory of 1914 as being on staff of the Department of Agriculture. **Region 6**

Minam Folio, 1913, grazing classification and base map by

**Flint, Howard Russel** H. R. Flint. (Northern Region, Missoula, Montana) The Forest Service publication, “January Field Program, 1918” that also served as the directory to Forest Service personnel, lists Flint as serving on the Flathead National Forest as a Forest Examiner in charge of timber sales. His World War I draft card confirms this and also his permanent address in Missoula, Montana. Flint was living in Newport, Washington (Kaniksu National Forest Headquarters) at the time of the 1920 Census and logged his occupation as a “Forest Supervisor” with the “U.S. Govt.” The Census of 1930 indicates that Flint returned as a resident of Missoula Montana with an occupation as a Forester working for the U.S. Forest Service. He is given credit for the aerial photography on the thematic map made from aerial photographs covering the northern part of the Nezperce National Forest. **Region 1**

Aerial Photographic Type and Drainage Map, North Area, Nezperce National Forest, Idaho, 1927-1928, aerial photography by (see Figure 17)

**Flynn, Theodore P.** T. P. Flynn. T. P. F. (Pacific Northwest Region, Portland, Oregon) According to the map record, Flynn began his cartographic career with the Forest Service in 1918, but was not listed in the Portland city directory that year. A directory for Portland was not published in 1919, so it was not until the 1920 edition when Flynn was identified as a “draftsman” with the Forest Service. By 1923, he was listed as a “civil engineer” for the Forest Service and from 1924 to 1926 as a Forest Service “examiner.” He became responsible for road design and construction in 1929 with the Forest Service and Portland city directories between 1931 and 1941 identified Flynn as an “Inspector” or as an “Engineer.” Directories indicate that he retired shortly after World War II. **Region 6**

Cascade National Forest, 1920, (Fishing, Hunting, and Camping on the), two maps, compiled by  
Malheur National Forest, 1918, traced by (1920, 1924)  
Minam National Forest, 1919, compiled and traced by  
Mount Baker National Forest, Renamed by U.S. Gov. Jan. 1924 ~~The Washington National Forest~~: A Mountain Vacation Land, maps compiled by (1923, new title added 1924)  
Rainier National Forest, 1920, in Mountain Outings on the Rainier National Forest, map compiled by  
Siskiyou National Forest, 1919, compiled by (1921, 1922, 1924, 1926, 1927)

Wallowa National Forest, 1919, compiled and traced by (1924, 1935)  
Wallowa National Forest, 1925, compiled and lettered by (1931)  
The Washington National Forest: A Mountain Vacation Land, maps compiled by (1920, 1923)  
Wenaha National Forest, 1920, compiled and traced by  
Whitman National Forest, 1921, compiled and traced by  
Oregon Skyline Trail, 1921, compiled by

**Forrest, Linn Argyle.** L. A. F (Region 10, Juneau, Alaska) The January 1939 edition of the Forest Service Directory lists Forrest's name as serving as an assistant architect in Region 10's Recreation and Lands Division. After brief service in the Region's Emergency Work Division during the summer of 1939, he returned to the Recreation and Lands Division in January 1940. Forrest was always identified as an architect in Forest Service Directories serving in various Forest Service Divisions of Region 10 until the January 1950 Forest Service Directory, where he was not only listed as an architect working in Engineering Division – Architecture and Building Improvement, but also as a Forester in recreation. The January 1951 and subsequent Forest Service Directories ceased to carry his name. His one map dated 1947 when he was working as an architect in the Recreation and Lands Division. **Region 10**

Admiralty Island Recreation Area, 1947, [drawn by]

**Francom, Harold W.** H. W. Francom. Francom. H. W. F. (Intermountain Region, Ogden Utah) Polk's Ogden city for 1934 first lists Francom as a draftsman without an employer. From 1938 to 1942, he is identified as a draftsman with the Forest Service, afterwards, he continues to be identified as a draftsman but without an employer, perhaps operating out of his own office in Ogden. Ogden city directories from 1952 to 1960 has Francom working as a draftsman at Hill Air Force Base south of Ogden, Utah. **Region 4**

Cache National Forest, 1941, forest visitor map, traced by  
Challis National Forest, 1940, compiled by (1946, 1952, 1958)  
Fishlake National Forest, 1941, compiled by (1944, 1951)  
Payette National Forest, 1941, revised by  
Payette National Forest, 1941, forest visitor map, [drawn by]  
Wasatch National Forest, 1942, compiled by (1950, 1955)

**Frankland, James.** J. Frankland. J. F. (Pacific Northwest Region, Portland, Oregon) Frankland's name comes up in the 1917 issue of the Portland city directory where he is identified as a "Ranger" for the U.S. Forest Service, but it was not until 1924 when the directory listed him as a "draftsman" for the Forest Service, a position he kept until 1926. The next year he was elevated to the role of Examiner, then Engineer (1929) and in 1930 as Assistant District (Regional) Engineer. By 1932, he had been promoted to Regional Engineer/Assistant Regional Forester, a position he held until 1952, as indicated by the January 1952 Forest Service *Organizational Directory*. In 1936 Frankland was also put in charge of the "Emergency Work Office," located organizationally within the Engineering Division of Region 6 and responsible for the Emergency Conservation Work (ECW) consisting of the Civilian Conservation Corps (CCC), the Emergency Relief Act (ERA), Works Progress (later Projects) Administration (WPA), and the Resettlement Program. **Region 6**

Fremont Proclamation diagram, 1935, compiled by  
Fremont National Forest, 1927, compiled by (1932, 1935, 1938)  
Okanogan National Forest, 1918, compiled by  
Rainier National Forest, 1918, compiled by (1923)  
Santiam National Forest, 1918, compiled by (1920)  
Whitman National Forest, 1918, compiled by (1923, 1927, 1931, 1937)  
Columbia Gorge Park Division, Oregon National Forest, 1916, compiled by

**Fredricksen, Grace J.** G. F. (Pacific Northwest Region, Portland, Oregon) According to the Portland city directory of 1937, Fredricksen was working as a "clerk" for the U.S. Forest Service and in 1938 as a "draftsman." **Region 6**

Mt. Hood National Forest, 1939, traced by (1952)  
Whitman National Forest, 1942, traced by (Minam Division).

**Friedhoff, William H.** Wm. H. Friedhoff. (Pacific Southwest Region, San Francisco, California) Friedhoff was the mineral examiner for the California District of the Forest Service and in 1926, Stuart B. Show, the District Forester added recreation to his responsibilities, perhaps from his early involvement in the mapping of the Laguna Mountains Recreation Area on the Cleveland National Forest, his only map credits. Friedhoff also was detailed from time to time to make special surveys, for instance, in 1920, he made a homestead survey of an in-holding on Wooley Creek on the Klamath National Forest. **Region 5**

Laguna Mountains Recreation Area, Cleveland National Forest, 1918, surveyed and mapped by  
Laguna Mountains Recreation Area, Cleveland National Forest, 1920, surveyed and mapped by

**Fromme, Rudo L.** R. L. F. (Pacific Northwest Region) In the July 1940 Forest Service Directory, Fromme's name can be found as the Assistant Supervisor on the Mount Baker National Forest. His initials can be found on two of the Recreation Guides for the Mount Baker National Forest. **Region 6**

Heather Meadows Winter Sports Area, Mt. Baker National Forest, 1936. Recreation Guide No. 25 Wash.  
Nooksack Recreation Area, Mt. Baker National Forest, Washington. 1941. Recreation Guide No. 26 Wash.

## G

\***R. B. G.** (Pacific Northwest Region) Unknown cartographer/graphic designer on maps found in the 1939 booklet for the Cascade Crest Trail in Washington State. **Region 6**

Cascade Crest Trail, Washington 1939, Pacific Crest Trail System, [drawn by]

**Gano, Warden W.** W. W. G. W. G. (Pacific Northwest Region, Portland, Oregon) Gano began his career with the Forest Service in 1934 and was the resident engineer for design and construction of Timberline Lodge on Mount Hood. Portland city directories list Gano as an engineer working for Region 6 of the Forest Service from the 1930s until 1952, when the Forest Service *Organizational Directory* records that he transferred to the Engineering Division of the Northern Region in Missoula, Montana in charge of "Roads, Trails, and Landing Fields." By 1958, Gano is working in the Washington, D.C. Office in the Civil Engineering Section, National Forest Resource Management. In 1963 he became the Regional Engineer for the Pacific Northwest Region in Portland, Oregon. Perhaps, during the Second World War, Gano was asked to stand in as a cartographer due to staff shortages. Later directories record his name as "Ward W. Gano." **Region 6**

Malheur National Forest, Lost Creek Ranger District, 1945, compiled and traced by  
Eagle Cap Primitive Area, Wallowa and Whitman National Forests, Oregon, Recreation Guide No. 25 - Oregon, [drawn by]  
Redwood Hw'y Recreation Area, Siskiyou National Forest, Oregon and California, Recreation Guide No. 26 – Oregon, [drawn by]

**Gardner, Paul H.** P. H. G. (Pacific Northwest Region, Portland, Oregon) Gardner is first listed as a "draftsman" with the U.S. Forest Service in the 1932 edition of the Portland city directory, although the map record indicates he started a year earlier in 1931. City directories continued to carry his name as a draftsman for the Forest Service throughout the 1930s. **Region 6**

Wenatchee National Forest, 1931, correction (1931) by

**Garlarneau, Dennis C.A.** Galerneau. Dennis C.A. Garlarneau graduated from the Yale's School of Forestry in its Class of 1906. The topographic maps of the Klamath National Forest carry references in their statement of responsibility to "Eldridge, Galeneau, Andrews, 1908" crediting them with compiling the map's topography along with several other Forest Service surveyors. The Forest Service map's "Authority Diagram" shows that the three were responsible for the topography of the Hoopa Indian Reservation. While it has not been examined, a reference has been found to a 1908 publication, bound together with other "pamphlets on forestry," entitled, *Estimate for Hoopa Valley Indian Reservation, in cooperation with the Indian Service*, by I. F. Eldredge, D. C. A. Garlarneau, W. F. Andrews, and N. B. Eckbo. This publication must have included a topographic map used by Forest Service cartographers in the compilation of their maps. However, the Forest Service maps of the Klamath National Forest misspell Eldredge's and Garlarneau's names and

leave out Eckbo entirely. Garlarneau spent most of his professional career as the Assistant State Forester of Massachusetts. Unlike W. F. Andrews, his complete name and career in forestry has been identified.

Klamath National Forest (Orleans District), California, 1932 (topography of the Hoopa Indian Reservation, 1908)  
Klamath National Forest, 1934, topographic maps (1942) (topography of the Hoopa Indian Reservation, 1908)

**Gay, Mills E.** M. E. Gay. M. E. G. (Eastern Region, Washington, D.C.; Southern Region, Atlanta, Georgia) The Washington, D.C. city directory first lists Gay in 1928 as being a “chainman” for the government of the District of Columbia and later, in 1931, as a “rodman” for the DC government. He began his drafting career in the Eastern Region’s Washington, D.C. office in 1932, but relocated to Atlanta in 1934, the year the Southern Region was established. All of his map credits are found on maps of national forests of the South dated after 1934, although he began his cartographic career in Washington, D.C. before that year. The Atlanta city directory of 1935 first lists his name as working for the Department of Agriculture as a draftsman up to 1941. Between 1942 and 1945 Gay’s name was not recorded in the Atlanta city directory indicating service in World War II. He returned in 1946 as an “engineering draftsman” with the Forest Service. He left Atlanta in 1953. **Region 8**

National Forests and Purchase Units of the Southern Region, Region 8, 1942, forest overlay assembled by  
Conecuh National Forest, 1935, revised by (1937)  
Davy Crockett National Forest, 1948, revised by  
Holly Springs National Forest, 1940, reduced and traced by (1950)  
Holly Springs National Forest, 1950, revised by  
Sam Houston National Forest, 1936, revised by  
Sam Houston National Forest, 1948, revised by  
Sumter National Forest, Enoree Division, 1947, revised by  
Sumter National Forest, Long Cane Division, 1947, revised by

**Gifford, John Clayton.** John C. Gifford. (Washington, D.C.) Dr. Gifford (1870-1949) served as an Agent of the U.S. Department of Agriculture, Bureau of Forestry and investigated the public lands of Puerto Rico in 1902. Gifford Pinchot later had his findings published as Bureau of Forestry *Bulletin* No. 54 in 1905. Earlier, he had left medical school at Johns Hopkins University to study forestry, and like Gifford Pinchot, he had had to travel to Europe for his degree. He was awarded a Doctorate in Economics from Munich University. Upon his return to the United States, he was appointed Assistant Professor of Economic Forestry at Cornell University’s School of Forestry in 1898. He settled in Florida in 1905 and was a noted expert in tropical forestry. His employment as an Agent in the Bureau of Forestry for the purpose of investigating the public lands and forests of Puerto Rico does not seem to have been, or led to, a permanent position with the Forest Service. **Region 8**

The Luquillo Forest Reserve, Porto Rico, 1905, booklet with map, text by

**Gilmore, Fabiola R.** F. R. Gilmore. (Southwestern Region, Albuquerque, New Mexico) Miss Gilmore is listed in the 1920 edition of Hudspeth’s city directory of Albuquerque as working as a “draftswoman” for the U.S. Forest Service. Directories for the years 1921 through 1923 described her simply as a “draftsman.” Between 1924 and 1930 she no longer appears in the city directory, but returned to her career as a draftsman for the Southwestern Region in 1930 under her married name, Fabiola G. Rawlins. A separate listing of her later maps is found below under her married name. **Region 3**

Taos Division, Carson National Forest, 1924, traced by  
Coronado Folio (Animas Division), 1923, traced by

**Goldsmith, Belknap C.** (Pacific Southwest Region) Goldsmith’s name could not be found in the San Francisco city directories issued during the 1910 to 1920 period. Perhaps he was located in the Supervisor’s Headquarters of the Modoc National Forest in the town of Alturas, California when he compiled and drew the only map credited to his name. **Region 5**

Modoc National Forest, 1915, compiled and drawn by (Forest Assistant)



**Good, Lewis S.** L. S. Good. L. S. G. (Region 2, Denver, Colorado; Region 8, Atlanta, Georgia) Good is first found in the Denver city directory in 1915 and is listed as a student. The next year finds him employed as a “draftsman” for the Clason Map Company in Denver. After a short hiatus from the Denver city directory, probably due to the war, Good returned to the Denver in 1919 as a “draftsman” for the U.S. Bureau of Public Roads, at that time an agency within the U.S. Department of Agriculture. By 1922 he had transferred to the Rocky Mountain District of the Forest Service as “draftsman.” The last entry for Lewis S. Good in the Denver city directory came in 1935, the next year he had transferred to the Southern Region in Atlanta and listed in the Atlanta city directory in 1937 to 1942.

### **Regions 2, 8 & 9**

#### *Rocky Mountain Region*

The Black Hills Region, South Dakota – Wyoming, 1927, drawn by  
The Black Hills Region, South Dakota – Wyoming, 1930, compiled and drawn by  
Arapaho National Forest, 1932, compiled and traced by (1938)  
Bighorn National Forest, 1926, compiled by  
Bighorn National Forest, 1932, compiled and traced by  
Bighorn National Forest, 1940, compiled by  
Black Hills National Forest, 1928, compiled and traced by (1934)  
Chippewa National Forest, 1924, compiled and traced by  
Cochetopa National Forest, 1925, compiled by  
Cochetopa National Forest, 1931, compiled and traced by  
Cochetopa National Forest, 1935, compiled and revised by (1940 Administrative map)  
Harney National Forest, 1924, revised by  
Holy Cross National Forest, 1927, traced by  
Montezuma National Forest, 1927, compiled and traced by  
Nebraska Proclamation diagram, 1925, traced by  
Nebraska National Forest, 1925, traced by  
Nebraska National Forest, 1932, compiled and traced by (1939)  
Pike National Forest, 1930, compiled and traced by (1931, 1936, 1937, 1942)  
Rio Grande National Forest, 1927, compiled and traced by (1932, 1937-administrative map, 1942)  
Roosevelt National Forest, 1932, compiled and traced by (1937)  
San Juan Proclamation diagram, 1928, compiled and drawn by  
San Juan National Forest, 1928, compiled and drawn by (1933 - administrative map, 1939)  
San Juan National Forest, 1933, forest visitor map, compiled by  
Shoshone National Forest, 1927, traced by  
Shoshone National Forest, 1936, compiled and traced by (1940)  
Uncompahgre National Forest, 1923, compiled and traced by  
Washakie National Forest, 1926, compiled and traced by  
White River National Forest, 1923, traced by  
White River National Forest, 1928, traced by

#### *Southern Region*

National Forests in the Southern Appalachians, 1939, drafted by  
Apalachicola National Forest, Wakulla Ranger District, 1941, redrafted by (1955, 1964)  
Caribbean National Forest, Puerto Rico, 1938, revised by  
Chattahoochee National Forest, Hitchiti Experimental Forest, 1938, compiled and traced by  
Chattahoochee National Forest, Armuchee Ranger District, 1940, compiled and traced by (1955)  
Chattahoochee National Forest, Tallulah Division (Toccoa Area), 1941, compiled and traced by  
Chattahoochee National Forest, [all three Ranger District maps], 1944, revised by  
De Soto National Forest, Leaf River Div. – East Half Leaf River Ranger Dist, 1937, revised by  
De Soto National Forest, 1938, traced by (1941)  
Francis Marion National Forest, 1939, traced by (1945, 1957)  
Kisatchie National Forest, 1938, revised by (1941)  
Ouachita National Forest, Magazine Mountain District, 1940, traced by  
Ozark National Forest, Sylamore Ranger District, 1941, traced by  
Ozark National Forest, Magazine Mountain Ranger District, 1951, traced by  
Sumter National Forest, General Pickens Ranger District, 1941, traced by (1952)

*Eastern Region* (while the national forests of the Great Lake states were part of the Rocky Mountain District)  
Chippewa National Forest, 1924, compiled and traced by  
Huron Proclamation diagram, 1928, compiled and traced by  
Michigan National Forest, 1925, compiled and traced by  
Minnesota National Forest, 1924, compiled and traced by  
Superior Proclamation diagram, 1927, revised by  
Superior National Forest, 1924, revised by

**Gordon, Helen W.** (Eastern Region) When the Forest Service attempted to widen the scope of its agency *Directories* to become a more comprehensive listing of all of its employees beginning in the mid-1930s, the July 1934 edition of the *Directory* identifies Helen Gordon as working as a “Clerk” on the George Washington National Forest, the successor to the Shenandoah National Forest, in Harrisburg, Virginia. Earlier directories did not include lower level or seasonal staff. By the time the November 1936 edition of the *Directory* was issued, Gordon was listed as a Clerk in the Education and Information section of Region 7, reporting to the Regional Forester in Washington, D. C., serving in that capacity until 1938. January of 1939 finds Gordon still with the renamed “Information and Education” section, of the Eastern Region, but with the specialization of “Women’s Activities.” She is the author, along with Inez S. Wharthen, of the seven-page pamphlet issued by the Forest Service in 1939 entitled, *Planting Trees to Observe the D.A.R. Golden Jubilee*. **Region 8**

Shenandoah National Forest, Virginia and West Virginia, 1927, (forest visitor map), text by

**Gosorn, Charles B.** C. B. Gosorn. C. B. G. (Rocky Mountain Region, Denver, Colorado) Gosorn is first found in the Denver city directory of 1909, identified as being a “Clerk, U.S. Forest Service” and in 1910, as the “Chief draftsman, U.S. Forest Service.” The 1914 through 1945 Denver directories lists Gosorn as working as the manager for the Commercial Copying Company, sometimes listed as the Commercial Copying and Map Company, perhaps his own business. He is not identified in the city directories after 1913 as an employee of the Forest Service, even though most of his map credits date from this time. It could be that he preferred to be identified with the business for financial reasons and not with the federal government in the pages of the commercially oriented Denver city directory. In the late 1940s Gosorn was employed by the U.S. Bureau of Reclamation’s Denver Office. **Region 2**

The Black Hills Region, South Dakota – Wyoming, 1915, [compiled and drafted by]  
Durango National Forest, 1917, compiled by  
Gunnison National Forest, 1918, compiled and traced by  
Harney National Forest, 1924, 1:126,720-scale Administrative map, compiled and traced by  
Hayden National Forest, 1919, compiled by  
Holy Cross National Forest, 1918, compiled by  
Pike National Forest, 1919, 1:126,720-scale Administrative map, compiled and traced by  
Pike National Forest, 1919, 1:253,440-scale Administrative map, compiled by (1925)  
Shoshone National Forest, 1913, [compiled and traced by]  
White River National Forest, 1919, compiled by

**Gowan, Charles W.** C. W. Gowan. C. W. G. (Pacific Northwest Region, Portland, Oregon) Gowan was hired by the Forest Service as a draftsman in 1929, a position he kept until the late 1930s when his title became “Civil Engineer.” The Portland, Oregon city directories indicate that he left the city during World War II. Forest Service directories indicated he had been assigned the duties of a map editor with the War Mapping Project first in San Francisco, California and then in Gettysburg, Pennsylvania, before returning to his former position as an engineer in Portland with the North Pacific Region in 1945. **Region 6**

Map of Automobile Roads, State of Washington, 1929, revised by  
Malheur National Forest, Lost Creek Ranger District, 1945, compiled by  
Siuslaw National Forest, 1937, South Half, compiled by

**Graff, Ulrich.** U. Graff. (Pacific Southwest Region, San Francisco, California) Graff was first identified as a draftsman for the Forest Service in the 1918 San Francisco directory and again in 1919, but in no other subsequent editions, consistent with his only map credit. **Region 5**

Plumas National Forest, 1919, compiled and traced by (1922, 1925)

**\*Grau, W. M.** (Superior National Forest, Kawishiwi Ranger District, Ely, Minnesota) Since Grau's one map was compiled at the Aerial Survey Office in Ely, Minnesota, it would be altogether possible that Grau had been stationed in that city, headquarters for the Kawishiwi District, when revising this map. Even so, his name could not be found nor his position with the Forest Service confirmed in any of the reference works and data bases consulted for this project  
**Region 9**

Superior National Forest, Kawishiwi District, Minnesota [1942], revised by

**\*Green, Willis A.** This name could not be found in San Francisco city or U.S. Forest Service directories. Perhaps he was employed on the Tahoe National Forest in Nevada City, California or a temporary employee. **Region 5**

Tahoe National Forest, Sierra Summit Recreation Area, 1936, draftsman

**Gregory, Dean. A.** D. A. Gregory. (Northern Region, Missoula, Montana) According to the 1922/23 edition of Polk's Missoula directory, Gregory was working as a "draftsman, Forest Service." This was the first time his name was recorded in the Missoula directory. He was involved in all types of cartographic work from 1922 when he was engaged in tracing maps, advancing in the 1930s to compiling and revising administrative and topographic maps, to 1942 when he compiled the maps of the Kaniksu National Forest. Gregory was one of the most productive cartographers on the Northern Region. Gregory retired from the Forest Service in 1945. His name is last recorded in the Missoula city directory of 1948, but without employer or occupation. **Region 1**

St. Joe & Clearwater NF, 1936, traced by  
Beaverhead National Forest, 1934, East Half, compiled by  
Beaverhead National Forest, 1934, compiled and traced by  
Bitterroot National Forest, topographic map, 1950, East & West Halves, traced by  
Blackfeet National Forest, 1928, topographic map, revised by  
Cabinet National Forest, 1936, topographic map, compiled by (1956 reprint)  
Cabinet National Forest, 1937, administrative map, traced by  
Clearwater National Forest, 1936, topographic map, traced by (1942)  
Clearwater National Forest, 1936, administrative map, traced by (1942)  
Clearwater National Forest, 1937, forest visitor map, traced by  
Coeur d'Alene National Forest, 1929, topographic map, revised by  
Coeur d'Alene National Forest, 1934, topographic map, traced by  
Coeur d'Alene National Forest, 1939, revised by  
Custer Proclamation diagram, 1931, Sioux Division, compiled and traced by  
Custer National Forest, 1932, Sioux Division, compiled and traced by  
Custer National Forest, 1938, Beartooth Division, revised and traced by  
Custer National Forest, 1938, Sioux Division, revised and traced by  
Deerlodge National Forest, 1925 topographic map, compiled by  
Deerlodge National Forest, 1926, administrative map, compiled by (1933)  
Deerlodge National forest, 1926, forest visitor map, compiled by  
Deerlodge National Forest, 1938 topographic & administrative maps, traced by  
Flathead National Forest, 1933, topographic map, traced in part by  
Flathead National Forest, 1938, topographic map (Blackfeet Division), traced by  
Helena National Forest, 1922, traced by (1926, 1929, 1934)  
Helena Proclamation diagram, 1929, traced by  
Helena National Forest, 1939, topographic map, traced by (1947)  
Helena National Forest, 1939, administrative map, traced by (1947, 1959)  
Jefferson National Forest, 1923, traced by  
Kaniksu National Forest, 1927, topographic map, traced by  
Kaniksu National Forest, 1938, traced by  
Kaniksu National Forest, East Half, 1941, topographic map, traced by (1955)  
Kaniksu National Forest, West Half, 1942, topographic map, traced by  
Kaniksu National Forest, 1942, traced by  
Kootenai National Forest, 1922, traced by (1924)  
Kootenai National Forest, 1937, topographic map, traced by  
Kootenai National Forest, 1937, administrative map, traced by  
Kootenai National Forest, 1942, revised and traced by

Lewis & Clark National Forest, 1926, topographic map, traced by  
 Lewis & Clark National Forest, Jefferson Division, East & West Portions, 1932, traced by  
 Lewis & Clark National Forest, Jefferson Division, 1933, traced by  
 Lolo Folio, 1927, traced by  
 Lolo National Forest, 1928, topographic map, traced by (later known as the West Half)  
 Lolo National Forest, 1932, topographic map, East Half, traced by  
 Lolo National Forest, 1935, traced by (1937 forest visitor map)  
 Lolo National Forest (West Half), 1937, topographic map, traced by  
 Lolo National Forest (East Half), 1939, topographic map, traced by (1956)  
 Madison National Forest, 1926, administrative & forest visitor maps, compiled and traced by  
 Nezperce Proclamation diagram, 1931, traced by  
 Nezperce National Forest, 1931, topographic, administrative, & forest visitor maps, traced by  
 St. Joe National Forest, 1935, topographic map, compiled by (1939)  
 St. Joe National Forest, 1940, administrative map, revised by  
 Selway National Forest, 1928, topographic map, second revision traced by

**Griffin, Robert H.** R. H. Griffin. (Pacific Southwest Region, San Francisco, California) Griffin's name can first be found in the April 1932 Directory of the Forest Service as employed in the California Region Engineering Division's Maps and Surveys Section. Only later did the San Francisco city directories of 1941 and 1942 list his name. In 1945 he transferred to the Federal Power Commission's San Francisco office. **Region 5**

Klamath National Forest, 1934, topographic maps, topography by (1942)  
 Lassen National Forest, 1938, topographic map, compiled by and topography by (1947)  
 Lassen National Forest, 1939, administrative map, compiled by (1950)  
 Lassen National Forest, 1940, forest visitor map, compiled by  
 Shasta National Forest, 1933, topographic maps, topography and compiled by (1936)  
 Stanislaus National Forest, 1941, topographic map, topography by  
 Trinity National Forest, 1936, topographic map, topography by (1941, 1950 administrative map)

## H

**\*G. H.** G. H. (Washington Headquarters Office) Directories were consulted but none shed light on the identity of this cartographer. These initials are not found on any other Forest Service map which might lead one to believe that "G.H." here is a printing error which should have been G. T. T. for Guy T. Trembly. Trembly was a highly productive tracer of maps and proclamation diagrams for the Forest Service at the same time the diagram of the Helena National Forest cited below was made. (see under Trembly, below). **Region 1**

Helena Proclamation diagram, 1912, [traced by]

**\*G. H.** (Pacific Northwest Region) Cartographer could not be identified. **Region 6**

Sky Lakes: Rogue River and Winema National Forests, 1975, [drawn by]

**\*C. T. H.** (Pacific Northwest Region) This cartographer/designer, identified on the 1938 Recreation Guide cited below as working in Portland, Oregon could not be identified using all available directories. **Region 6**

North Bend Recreation Area, Snoqualmie National Forest, Washington, Recreation Guide No. 20 – Washington, [drawn by]

**\*Hancock, H. C.** Employed on Forest Service range reconnaissance. Name not found in any directories consulted. **Region 4**

Caribou Grazing Atlas, 1915, grazing classification by

**Hanzlik, Edward J.** E. J. H. (Pacific Northwest Region) The city directory for Olympia, Washington, the Supervisor's Headquarters for the Olympic National Forest, lists Hanzlik as being a "Forest Examiner" for the U.S. Department of Agriculture at the time that his 1915 map of the forest was issued, continuing until 1919 in that capacity. City directories of Seattle, Washington from the 1920s list Hanzlik as a resident of that city working as a "Forest Examiner" for the U.S. Forest Service. The Snoqualmie National Forest had its Supervisor's Headquarters in Seattle. By 1940, according to the Census of that year, Hanzlik was living in Portland, Oregon working as "Forester" for the "Forest Service. **Region 6**

Olympic National Forest, 1915, [compiled and] traced by  
Olympic National Forest, 1920, compiled [and traced] by

**Harris, H. W.** (by mistake, W. H. Harris. (Pacific Northwest Region) Polk's Wallowa County Directory for 1917 carries the name, H. W. Harris, as a resident of the city of Wallowa. Harris is described as being the Supervisor of the Wallowa National Forest. Polk's Wallowa County Tax Lists for 1914 and 1917 also has a H. W. Harris living in the city of Wallowa. The "W. H." on the map Harris approved in 1913 is most likely is transposition error. **Region 6**

Wallowa National Forest, 1913, approved by the Forest Supervisor April 12, 1913

**Harrison, Dabney C.** D. C. Harrison. (Washington Headquarters Office) The 1910 Washington, D.C. directory lists Harrison as working for the Forest Service where he was assigned the task of compiling National Forest Atlas folios. Appointed to the U.S. Geological Survey in June of 1885 as a topographer, Harrison is credited with his work on the 1896 Indian Territory Survey and on the land classification and topography for the Sandpoint Quadrangle issued in the U.S. Geological Survey's 21<sup>st</sup> Annual Report of 1901. Harrison transferred to the Forest Service in the Spring of 1907, and soon thereafter, was appointed as one of the instructors to teach Forest Service Rangers in the field the surveying and mapping skills they would need to help keep the Forest Atlases up to date. **Region 2, 3, 4, 6, 8 & 9**

*Rocky Mountain Region*

Black Hills Folio, 1909, compiled by  
Harney Folio, 1912, compiled by

*Southwestern Region*

Coronado Folio, 1909, compiled by  
Zuni Folio, 1910, compiled by

*Intermountain Region*

Nevada Folio, 1910, compiled by

*Pacific Northwest Region*

Crater Folio, 1909, compiled by  
Fremont Folio, 1910, compiled by

*Southern Region*

Choctawhatchee Folio, 1910, compiled by  
Wichita Folio, 1907, compiled by

*Eastern Region*

Superior National Forest Folio, 1911, compiled by

**Hart, Marvin W.** M. W. H. (Pacific Northwest Region) Hart joined the Photogrammetric Unit of the Engineering Division in 1953 and moved to the Division's Cartographic Unit in 1954, according to Forest Service's Organizational Directories. He left the Forest Service shortly thereafter as his name does not appear in the agency's 1958 edition of the *Organizational Directory*. **Region 6**

Nooksack Recreation Area, Mt. Baker National Forest, Washington, Recreation Guide No. 26 – Washington, 1954 edition,  
[drawn by]

**Hartman, Hazel M.** H. M. H. (Washington, D.C. Headquarters Office) March 1953, Hartman is listed in the Forest Service Directory of March, 1953, as a draftsman in the Division of Engineering, Washington, D.C. Her name is found in the chapter on the Alaska Region, **Region 10**, where maps of the United States are also listed.

National Forests and Related Data, 1952, [drafted by]

\***Hayden, J. E.** (Southern Region) Hayden's name could not be found in the city directories for either Atlanta or for Tallahassee (headquarters of the National Forests in Florida) for this time period. He or she could very well have been working at the Ocala National Forest administrative offices in Ocala, Florida. **Region 8**

Ocala National Forest, 1938, compiled by (1949, 1956?)

**Hedden, Robert T.** R. T. Hedden. (Southern Region, Atlanta, Georgia) First listed in the 1938 edition of the Atlanta city directory as being a cadastral engineer working for the Forest Service, continuing in that capacity until 1941. The map record indicates he compiled a map of the Ozark National Forest in 1946, but his name could not be found listed in any of the post-war directories consulted. **Region 8**

Holly Springs National Forest, 1940, compiled by (1950)

Ozark National Forest, Sylamore Ranger District, 1941, compiled by

Ozark National Forest, Main Division, 1946, compiled by

Sumter National Forest, General Pickens Ranger District, 1941, compiled by (1952)

**Hedge, Herbert F.** H. F. Hedge. (Rocky Mountain Region, Denver, Colorado) Hedge was a student in 1914, an apprentice with the Clason Map Company of Denver during 1915-1916, and a draftsman for the Western Union Telegraph Company in 1917. The Denver city directories for 1918 and 1919 has him employed as a "draftsman" for the Forest Service. The directories after 1919 do not list his name, corresponding to his one map credit. **Region 2**

Washakie National Forest, 1919, traced by

**Heffner, Kelly B.** K. B. Heffner. (Southern Region, Atlanta, Georgia) Heffner is found in the Forest Service *Directory* of July 1934 as working as a draftsman for the Southern Region. The Atlanta city directory of 1935 mirrored the 1934 *Directory* and listed his name as working for the Department of Agriculture as a draftsman. References indicate he remained with the Forest Service's Southern Region through the war years to 1951 moving from being a draftsman to a civil engineer with a specialty in structures. During the 1960s, Heffner served as the Regional Engineer for the Southern Region. **Region 8**

Holly Springs National Forest, 1940, reduced and traced by (1950)

**Heim, Phillip Freeman.** P. Freeman Heim. P. F. Heim. (Eastern Region) Heim was a career Forest Service information officer listed in the Milwaukee city directories as being an illustrator (1937), Exhibits Director (1938-1941), and, after serving in the Army during World War II, returned to work for the Forest Service as an Information Specialist for the North Central Region. Heim was also a photographer. **Region 9**

Recreation Map of Chequamegon National Forest, Wisconsin, 1938, [drawings by]

Recreation Map of Chequamegon National Forest (Chequamegon Division), Wisconsin, 1938, [drawings by]

Recreation Map of Chippewa National Forest, Minnesota, 1938, [drawings by]

Recreation Map of Hiawatha National Forest, Michigan, 1937, [drawings by] (see Figure 19)

Recreation Map of Manistee National Forest, Michigan, 1938, [drawings by]

**Hendges, Matthew.** M. Hendges. Known primarily as a draftsman for the U.S. General Land Office. His name is found in the chapter on the Alaska Region, **Region 10**, where maps of the United States are also listed.

National Forests with Related Projects and Data [of the United States], 1910, draftsman



**\*Hensel, R. L.** (Washington, D.C. Headquarters Office) This name could not be found in Washington, D.C. or in Portland city directories of this time period. However, Washington, D.C. directories starting with the 1919 edition and continuing into the early 1920s list a Rudolph E. Hensel as being a draftsman with the Washington Navy Yard. There is the possibility that the “L” in R. L. Hensel was in error. The 1917 Wallowa (Oregon) Folio was prepared entirely by Washington, D.C. cartographers. **Region 6**

Wallowa Folio, 1917, base map by

**Herring, Charles M.** C. M. Herring. (Pacific Southwest Region, San Francisco, California) The 1923 edition of the San Francisco city directory as the first to list Herring’s name as being with the U.S. Forest Service serving as a draftsman. From 1927 to 1934 directories list him as being a draftsman for the Standard Oil Company. **Region 5**

Angeles National Forest, 1926, 1:253,440-scale maps, traced by (1931, 1937, 1943)

California National Forest, 1924, traced by (1926, 1928)

Los Padres ~~Santa Barbara~~ (except the Monterey Division) National Forest, 1926, 1:253,440-scale forest visitor map, traced by (1936)

Mendocino National Forest, 1934, traced by (1940, 1950)

Santa Barbara National Forest (Except the Monterey Division), 1926, traced by

**Hill, Robert R.** R. R. Hill (Southwestern Region, Albuquerque, New Mexico). Hill served as a Grazing Examiner for District 3 and by 1926, Inspector for Grazing in the Washington, D.C. Headquarters Office, Range Management Division. **Region 3**

Coconino Grazing Atlas, 1913, grazing classification and base map by

**Hilleary, Richard P.** R. P. Hilleary. (Northern Region, Missoula, Montana) Listed as a “draftsman” with the Forest Service in Polk’s 1925/26 Missoula city directory and in the April 1926 edition of the Forest Service Directory as a member of the Northern District, Engineering Division’s Roads Section. The Missoula city directory last carried his name in its 1934 edition. Between the 1925/26 and the 1934 editions of the Missoula city directory he was listed as a Forest Service employee, serving in the capacities at various times, of clerk, surveyor, and engineer. **Region 1**

Cabinet Executive Order Map of 1931, compiled by

Cabinet National Forest, 1925, compiled by (1926, 1931)

**Hilton, George P.** G. P. Hilton. (Eastern Region, Washington, D.C.) The U.S. Forest Service’s serial publication, *Field Program for November 1906*, reported that George Hilton had been appointed as a draftsman at \$900.00 per annum beginning in December of 1906. Washington, D.C. city directories indicate that Hilton worked as a draftsman in Washington, D.C. well before joining the Forest Service. His map credits include maps for the Eastern Region as well as for forests that would, in 1934, become part of the Southern Region. For three years, 1932-1934, Forest Service staff directories place him among the Eastern District’s Engineering Division in its Drafting Section. Washington, D.C. city directories carry his name from 1901 to 1935 and even though Hilton has map credits for two maps of southern national forests after the creation of the Southern Region in 1934 (Caribbean, 1938 and Nantahala, 1935), his name did not appear in the Atlanta city directory for this time period. **Region 8 & 9**

#### *Southern Region*

Caribbean National Forest, Puerto Rico, 1938, [drawn by]

Cherokee Proclamation diagram, 1928, compiled and traced by

Cherokee National Forest, 1928, compiled and traced by

Choctawhatchee National Forest, 1933, revised by

George Washington National Forest, 1932, compiled and traced by

McClellan Executive Order diagram, 1924, [drawn by]

Nantahala National Forest, 1935, revised by

Natural Bridge Proclamation diagrams of 1924 and 1927, compiled by

Natural Bridge National Forest, 1924, compiled by (1927, 1930)

Natural Bridge National Forest, 1933, compiled and revised by

Shenandoah Proclamation diagram, 1927, compiled and traced by

Shenandoah National Forest, 1927, compiled and traced by

### *Eastern Region*

Allegheny Proclamation diagram, 1923, compiled and traced by  
Allegheny National Forest, 1925, compiled by  
Allegheny National Forest, 1928, compiled and revised by  
Allegheny National Forest, 1932, compiled, traced, and revised by (1936, 1937, 1940, 1942)  
Monongahela Proclamation diagram, 1928, compiled and revised by (1936)  
Monongahela National Forest, 1924, compiled by

Monongahela National Forest, 1928, compiled and revised by  
Monongahela National Forest, 1931, compiled, revised, and traced by  
Monongahela National Forest, 1935, compiled by (1936)  
White Mountain National Forest, 1920, revised by

**Hinsch, Herbert S., Jr.** H. S. Hinsch, Jr. (Eastern Region, Milwaukee, Wisconsin) Hinsch can first be found in the 1934 edition of the *Wright's Milwaukee City Directory* as working as a "draftsman" for the U.S. Forest Service until 1939 when his job title changed to that of "civil engineer" for the Forest Service, a position he held into the 1950s.

### **Region 9**

Wappello Purchase Unit, Missouri, 1935, [Clark National Forest], revised by

**Hodgson, William R.** W. R. Hodgson. (Eastern Region Washington, D.C.) The first entry for Hodgson is found in the 1929 edition of the Washington, D.C. city directory. In that year he is listed as being a draftsman for the C & P Telephone Company, a local company based in the Columbia Heights neighborhood, Washington, D.C. After an absence from the Washington D.C. directory between 1931 and 1934, he reappears in 1935 as working for the U.S. Census Bureau as a draftsman until 1937. In that year, he joined the staff of the Eastern Region Engineering Division and made maps for national forests that would later become parts of the reorganized Eastern and Southern Regions in 1965. In 1940 the city directory indicates he left the Forest Service to become a draftsman for the local electric utility, Potomac Electric Power Company or Pepco. **Region 8 & 9**

### *Southern Region*

George Washington Proclamation diagram, 1938, checked by  
George Washington National Forest, Warm Springs Ranger District, 1938, checked by  
George Washington National Forest, Deerfield Ranger District, 1939, compiled by  
George Washington National Forest, Lee Ranger District, 1939, compiled and checked by  
Jefferson National Forest, Glenwood Ranger District, 1938, compiled and checked by  
Jefferson National Forest and Purchase Unit, Newcastle Ranger District, 1939, East & West Halves, checked by  
Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1940. Northern & Southern Sections, compiled by

### *Eastern Region*

Monongahela National Forest, Gauley Ranger District, 1938, (1;63,360) checked status to date by  
Monongahela National Forest, Greenbrier Ranger District, 1939 & 1940, compiled by  
Monongahela National Forest, White Sulphur Ranger District, 1939, checked by

**Hoffman, Don M.** D. M. Hoffman. (Pacific Southwest Region, San Francisco, California) The first mention of Hoffman being in San Francisco can be found in the 1920 city directory with the occupation of a "surveyor." He joined District 5 engineering staff in the Maps and Surveys section and later moved to the District's Roads section in 1924. **Region 5**

California National Forest, 1928, topographic map, topography under the direction of  
Klamath National Forest, 1934, topographic maps, topography by (1942)  
Shasta National Forest, 1933, topographic maps, topography by (1936)

**Hoffman, Irvin N.** I. N. H. (Intermountain Region, Ogden, Utah) Hoffman first joined District 4 as a "draftsman" in 1915. In the 1917 edition of Polk's Ogden city directory it is noted that Hoffman "moved to Washington, D.C." and the 1918 city directory of the nation's capital lists Hoffman as being a "draftsman" but without listing an employer. **Region 4**

District Four, District Headquarters, Ogden, Utah, 1915, drafted by  
Palisades Proclamation diagram, 1917, drafted by

**\*Hollenbeck, E. L.** (Pacific Southwest Region) This name could not be found in San Francisco city or U.S. Forest Service directories. It was rare to have map credits attached to ranger district maps, so perhaps Hollenbeck's duty station was the Plumas National Forest headquarters in the town of Quincy, or in Oroville, California, the location of the Ranger District office. **Region 5**

Map of La Porte Ranger District, Plumas National Forest, 1954, quadrangles by

**Hooyer, Harry P.** H. P. Hooyer. (Southwestern Region, Albuquerque, New Mexico) City directories indicate that Hooyer worked for the Forest Service's Southwestern Region from 1940 to 1942 as a "draftsman." **Region 3**

Kaibab National Forest, 1942, traced by (1949)

**Hopper, George T.** G. T. Hopper. (Pacific Southwest Region, San Francisco, California) An entry for Hopper can first be found in the San Francisco city directory for 1924 as being "with the U.S. Forest Service" and again in 1925. In 1926 he is listed as being a "draftsman" for the Forest Service and the next year as a "buyer" for the Emporium department store. He is back being a Forest Service draftsman in 1928 but by 1930 he had transferred to the National Park Service as an assistant engineer. **Region 5**

Klamath National Forest, 1934, topographic maps, topography by (1942)  
Shasta National Forest, 1933, topographic maps, topography by (1936)

**Hurt, Leon C.** L. C. Hurt. (Northern and Intermountain Regions) Early U.S. Forest Service directories list Hurt as a "Grazing Examiner" for the Northern District and later in the 1920s as a "Grazing Inspector" for the Northern District. His name is found in the Missoula city directories. He is also found in the Helena Montana city directory for 1929 and 1931, listed as the Supervisor of the Helena National Forest. He also lived for a time in Ogden and in Albuquerque. **Region 4**

Manti Grazing Atlas, 1915, grazing classification and base maps by

## I

**Iverson, Ray C.** R. C. Iverson. (Eastern Region, Nicolet National Forest, Argonne Ranger District, Eagle River, Wisconsin) Ray C. Iverson served from 1929 to 1933 as the ranger in charge of the Oneida Purchase Unit headquartered first in Three Rivers and then in Eagle River, Wisconsin. When the Nicolet National Forest was proclaimed in March of 1933 and the Oneida Purchase Unit was renamed the Argonne Ranger District, Iverson continued as its district ranger from 1933 to 1934. The next two years saw Iverson, a native Iowan, serving as the Assistant Supervisor of the Hawkeye Purchase Units stationed in Des Moines, Iowa. After his service in Iowa, he held administrative positions in the Regional Office in Milwaukee, Wisconsin and once again on the Nicolet National Forest in Rhinelander, Wisconsin. **Region 9**

Nicolet National Forest, Argonne Division, 1933, compiled by

## J

**\*C. E. J.** (Southern Region) These cartographer's initials could not be identified with standard directories. **Region 8**

Talladega Purchase Unit, Alabama, 1935, drawn by

**Jackson, Charles Donald Jr.** C. D. Jackson. C. J. (Rocky Mountain, Region, Denver, Colorado; Intermountain Region, Ogden, Utah; Pacific Southwest Region, San Francisco, California) Jackson's first duty station with the Forest Service was in Denver, Colorado with the Rocky Mountain District. The 1920 Denver city directory lists Jackson as a Forest Service "draftsman." After an absence from Denver city directories between 1922 and 1924, his map credits indicate he was employed during those years with the Intermountain District (his name never appeared in the Ogden city directories). Jackson reappeared in the 1925 Denver city directory as a "draftsman" for the Clason Map Company. In 1932 Jackson is once again listed as an employee of the Forest Service, this time working for the California Region. From that year until 1956, Jackson served as on the Engineering Division staff of Region 5. **Region 2, 4 & 5**

### *Rocky Mountain Region*

National Forests of the Rocky Mountain Region, Region 2, 1932, drawn and traced by (1940)  
Battlement National Forest, 1922, traced by  
Grand Mesa National Forest, 1922, traced by  
Routt National Forest, 1921, compiled by (1924, 1925)

### *Intermountain Region*

Ashley National Forest, 1923, compiled and traced by  
Challis National Forest, 1921, compiled and traced by  
Lemhi Proclamation diagram, 1923, compiled and traced by  
Lemhi National Forest, 1923, compiled and traced by  
Payette Proclamation diagram, 1926, compiled and traced by  
Payette National Forest, 1924, compiled and traced by (1926)  
Sawtooth National Forest, 1924, compiled by

### *Pacific Southwest Region*

Angeles National Forest, 1961, forest visitor map, [drawn by] (1967)  
Eldorado National Forest, 1939, 1:126,720-scale administrative map, compiled by  
Klamath National Forest, 1934, topographic maps, compiled and traced by (1942)  
Klamath National Forest, 1936, compiled by (1943)  
Lassen National Forest, 1932, 1:253,440-scale administrative map, compiled by (1933)  
Lassen National Forest, East & West Halves, 1933, 1:126,720-scale administrative map, compiled by  
Lassen National Forest, 1938, topographic map, compiled and traced by (1947)  
Lassen National Forest, 1939, administrative map, compiled by (1950?)  
Lassen National Forest, 1940, forest visitor map, compiled by  
Mendocino National Forest, 1932, topographic map, revised by  
Mendocino National Forest, 1950, revised by  
Modoc National Forest, 1932, 1:126,720-scale administrative map, compiled by (1936, 1941, 1949)  
Modoc National Forest, 1932, 1:253,440-scale administrative map, compiled and traced by (1936, 1941)  
Modoc National Forest, 1941, 1:415,000-scale administrative map, compiled and traced by  
Modoc National Forest, 1948, forest visitor map, compiled and traced by  
Santa Barbara National Forest (Except the Monterey Division), 1934, administrative map, revised by  
Santa Barbara National Forest (Except the Monterey Division), East & West Halves, 1935, revised by  
Sequoia National Forest, North & South Halves, 1940, administrative map, compiled by  
Sequoia National Forest, 1941, compiled by  
Sequoia National Forest, North Half, 1952, compiled by  
Sequoia National Forest..., California, 1952, forest visitor map, compiled by  
Shasta National Forest, 1933, topographic maps, topography, compiled, and traced by  
Shasta National Forest, 1936, topographic maps, topography, compiled, drawn, and revised by  
Sierra National Forest, 1937, administrative map, compiled and traced by (1938, 1942, 1953)  
Stanislaus National Forest, 1941, topographic map, planetable survey under the direction of  
Tahoe National Forest, 1939, compiled by (1940, 1944)  
Trinity National Forest, 1936, topographic map, compiled and traced by  
Trinity National Forest, 1941, topographic map, compiled by (1950 administrative map)

**Jaquith, Alfred Christian.** (by mistake) A. C. Jacquith. (Rocky Mountain Region, Denver, Colorado) Jaquith (1866-1927) appears to have spent only one year, 1917, as a draftsman for the U.S. Forest Service in Denver. Before that time he is found in the Cripple Creek and Denver city directories from 1888-1915 as an independent civil engineer and 1916 as a "Foreman" for the Denver and Pueblo Construction Company. From 1918 to 1926 he served as a "draftsman" for the U.S. Reclamation Service. He died in Mexico City in 1927. The dates on his two map credits do not conform to his employment history, but perhaps due to his earlier connection with the Forest Service, he was asked to work on these two national forest maps, possibly in connection with the work of the Bureau of Reclamation. His name was clearly misspelled on both maps (as Jacquith instead of Jaquith) with the addition of the one letter. **Region 2**

Black Hills National Forest, 1924, compiled by  
Shoshone National Forest, 1921, traced by

**Jamieson, Robert F.** The 1949 and 1955 Billings, Montana city directory notes that Jamieson worked as a “Draftsman” with the U.S. Bureau of Reclamation, Yellowstone District, headquartered in Billings. The 1954 map of the Beartooth High Country names Jamieson, along with Frank D. Bates and Farrell W. Woodard, as cartographers. Bates and Woodard were also on the staff of the Bureau of Reclamation in Billings. **Regions 1 & 2**

The High Country Showing the Beartooth Primitive Area in the Gallatin and Custer National Forests...1954, compiled by

**Jeffers, Norton L.** N. L. Jeffers. (Eastern Region, Washington, D.C.) Jeffers is first listed in the 1937 edition of the Washington, D.C. city directory as being a draftsman with the U.S. Department of Agriculture. In 1941 Jeffers transferred to the War Department. **Region 8**

Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1940 Northern & Southern Sections, checked by

**Jellett, William H.** (by mistake) U. H. Jellett. (Pacific Southwest Region, San Francisco, California) The “U. H. Jellett” map credit is a typographical error. It should read “W. H. Jellett.” The 1940 San Francisco city Directory clearly includes a **William H. Jellett** working as a “draftsman with the U.S. Forest Service.” Subsequent city directories from 1941 and 1942 carry his name as an independent cartographer. Jellett is an uncommon name and to find it matched with William as the first name and the initial “H” standing for the middle name in the city directories of the time, makes it even more credible that the “U” printed on these two maps with the same date is a mistake. **Region 5**

Los Padres National Forest, Monterey Division, 1940, administrative & topographic maps, revised by

**Jensen, Eloy W.** E. W. J. (Southwestern Region, Albuquerque, New Mexico) Jensen was listed in the 1950 Albuquerque city directory as being employed as a “draftsman” for the Forest Service, and later in 1952 and 1953, as a private surveyor and engineer. 1954 finds Jensen employed as a draftsman for the U.S. Bureau of Reclamation, Albuquerque Area Office. **Region 3**

Coconino National Forest, 1949, corrected by

Crook National Forest, 1949, corrected by

Santa Fe National Forest, 1948, corrected by

**Jensen, J. Bergithon.** (War Department, Washington, D.C.) The 1903 and 1904 editions of Polk’s Washington, D.C. city directory lists Bergithon as being employed by the War Department as a “draftsman” and living in Fairfax, Virginia. His map of the Luquillo Forest Reserve in Puerto Rico is found folded in the back of the 1905 U.S. Department of Agriculture, Bureau of Forestry, Bulletin No. 54 by John C. Gifford, *The Luquillo Forest Reserve, Porto Rico*. **Region 8**

The Luquillo Forest Reserve, 1905, drawn by

**Johnson, Clarence G.** C. G. Johnson. C. G. J. (Southwestern Region, Albuquerque, New Mexico) Clarence Johnson first appeared in the Albuquerque city directory in 1921 and was listed as a “stenographer” for the federal Bureau of Public Roads, then an agency of the U.S. Department of Agriculture. After an absence from the city directories of 1922 and 1923, he reappeared as a “draftsman” for the Albuquerque architectural and engineering firm of Trost & Trost. 1925 finds Johnson as a partner in the architectural firm of Williamson and Johnson, but by next year, he is listed as a Forest Service “employee” and in the years following, until 1935, as a “draftsman.” **Region 3**

Carson National Forest, 1930, forest visitor map, (drawn by)

Cibola National Forest, 1934, compiled by – all administrative versions (1938, 1948)

Coconino National Forest, 1935, topographic map, compiled by

Coronado National Forest, 1927, revision traced by (1931, 1934, 1937, 1940, 1953)

Crook National Forest, 1931, compiled by (1934, 1937, 1941, 1949)

Crook National Forest (Mt. Graham Division), 1932, Topographic map, compiled by

Lincoln National Forest, 1932, compiled and traced by (1935)

Prescott National Forest (Bradshaw Mountain Division), 1930, Topographic map, compiled and traced by

Prescott National Forest, 1931, revised by

Sitgreaves National Forest, 1933, Topographic map, compiled by

Sitgreaves National Forest, 1935, compiled by (1940, 1948, 1951)

Tonto National Forest, 1927, revised and traced by  
Tonto National Forest, 1932, compiled by (1933, 1934, 1937, 1939, 1941)  
Tusayan National Forest, 1932, [drawn by]

**Johnson, Elmer R.** E. R. Johnson. (Northern Region, Missoula, Montana) Johnson brought much experience with him to the Forest Service. By the time he was first listed in the 1915/16 edition of Polk's Missoula city directory as working as a "Surveyor, Forest Service" he had already been an independent surveyor (1909) and a Deputy County Surveyor (1911). The 1917/18 edition of the Missoula city directory indicates a job title as "Draftsman, Forest Service." His name is not recorded in subsequent editions of the directory. **Region 1**

Sioux Folio, 1917, compiled by

**Jones, Harold D.** H. D. J. (Eastern Region, Washington, D.C.) The name H. D. Jones first appears in the November 1936 edition of the *Directory* of the Forest Service as being employed by the Engineering Division, Eastern Region as a draftsman. In 1938, he is found in the Washington, D.C. city directory working as a civil engineer in the Department of Agriculture with no mention of specific USDA agency. **Region 9**

Green Mountain National Forest, 1936, compiled by (1937)

**Jones, Howard R.** H. R. Jones. (Pacific Southwest Region, San Francisco, California) The only listing for Jones in the San Francisco city directory came in 1931 when he was identified as being "with U.S. Forest Service." Perhaps he was later assigned to a national forest or to a field project. **Region 5**

Shasta National Forest, 1933, topographic maps, topography by (1936)

**Jones, Lawrence V.** L. V. Jones. (Northern Region, Missoula, Montana) The 1966 edition of the Missoula city directory listed a Lawrence V. Jones as working as a ranger for the Forest Service -- the only reference found for Jones. **Region 1**

Beaverhead National Forest, 1961, East Half, compiled and traced by  
Gallatin National Forest, 1961, West Half, compiled and traced by

## K

**Kadish, Walter.** W. Kadish. (Southwestern Region, Albuquerque, New Mexico) For a single year, 1922, the Albuquerque city directory lists Kadish as a "draftsman" for the U.S. Forest Service which aligns perfectly with his only map credit. **Region 3**

National Forests, District 3, Showing Main Highways, 1922, traced by (1925)

**Kaemmerling, William H.** W. H. Kaemmerling. (Pacific Southwest Region, San Francisco, California) Kaemmerling is listed in the 1936 and 1937 San Francisco city directories as working as a "forester" for the U.S. Forest Service, but is found in subsequent directories as simply as a "civil engineer" or as a "mapmaker." **Region 5**

Lassen National Forest, 1938, topographic map, topography by (1947)

**Keefer, Frank C.** Frank C. Keefer. (Washington Headquarters Office) Washington, D.C. directories list Keefer as being with the Department of Agriculture (1911), the Coast and Geodetic Survey (1912), then back with the Agriculture Department (1914). He drew maps primarily for the Southwestern District, which, when the 1912 map of District 3 was drawn, included proclaimed national forests that would eventually become a part of the Southern Region. **Region 3**

National Forest, District 3, 1912, drawn by  
Gila National Forest, New Mexico (Temporary Base Map), 1915, Administrative map, draftsman  
Manzano Proclamation diagram, Part 2, 1917, drawn by  
Sitgreaves National Forest, 1912, Topographic map, draftsman



\***Keer, R. F.** (Pacific Northwest Region) The only copy of this map cited below as compiled by R. F. Keer, has the note “Map reduced from ½” Dist. tracing” and sent to Washington, D.C. for duplication. Since Keer cannot be found in the Portland city directories for the time period in which the map was made, it is most likely that Keer was working from Roseburg, Oregon, the headquarters of the Umpqua National Forest. **Region 6**

Umpqua National Forest, 1916, compiled by

**Kelly, Arthur W.** A. W. K. (Pacific Northwest Region, Portland, Oregon) Kelly is first listed as being a “clerk” with the U.S. Forest Service in the 1935 edition of the Portland city directory and again in 1936. The 1937 city directory stated that his occupation had changed to that of a “draftsman” with the Forest Service and that he served in that capacity at least until July, 1954. The May, 1941 Forest Service Directory includes Kelly as a draftsman. His name does not appear in the 1958 Forest Service Directory. **Region 6**

Chelan National Forest, (6) Ranger District Maps of 1941, compiled and traced by  
Columbia National Forest, 1940, Topographic map compiled by (1949 – Gifford Pinchot National Forest)  
Columbia National Forest, 1940, forest visitor map revised by (1949 – Gifford Pinchot National Forest)  
Columbia National Forest, 1941, Administrative map revised by (1949 – Gifford Pinchot National Forest)  
Malheur National Forest, Lost Creek Ranger District, 1945, traced by  
Mt. Hood National Forest, 1939, compiled by (1952)  
Olympic National Forest, 1941, topographic map traced by (1948)  
Snoqualmie National Forest, Naches-Teiton Ranger Districts, 1941, compiled by  
Snoqualmie National Forest, North Bend Ranger District, 1941, compiled by  
Umatilla National Forest, Ranger District maps of 1940, compiled by  
Wallowa National Forest, 1942, compiled and traced by (1946)  
Eagle Cap Primitive Area, Wallowa and Whitman National Forests, Oregon, Recreation Guide No. 25 - Oregon, revised by

\***Kemp, Joan M.** Joan M. Kemp. (Northern Region) Kemp could not be found in Forest Service directories or in the 1943 to 1964 editions of Polk’s Missoula city directories. **Region 1**

Deerlodge National Forest, 1953, traced by

**Ketchum, V. L.** (Pacific Northwest Region, Portland, Oregon) Ketchum is listed in Portland city directories when this 1915 was published as a “surveyor” for the Forest Service and in 1918 as being a “draftsman” for the city’s Commission of Public Docks. The city directories, decennial census rolls, and early Oregon automobile registrations do not provide the full names for the initials “V. L.” **Region 6**

Whitman National Forest, 1915, drafted by

**Kinney, Alfred R.** A. R. Kinney, Jr. (Eastern Region, Washington, D.C.; Southern Region, Atlanta, Georgia) Kinney’s name never appeared in the Washington, D.C. city directory even though his name was carried from 1929 to 1934 as a survey examiner in the Eastern Region’s Engineering Division in the pages of Forest Service staff directories. Forest Service land acquisition activities took place in several locations throughout the Eastern Region. Most likely, Kinney worked in one of these outlying offices. By 1936, the Forest Service *Directory* locates Kinney in Asheville, North Carolina serving as the road superintendent on the Pisgah National Forest until 1937 when he transferred to the Cherokee National Forest serving as that forest’s Forest Engineer. Kinney was put in charge of Roads and Trails, Engineering Division and later as an Equipment manager in the Atlanta Regional Headquarters while the 1940 edition of the Atlanta city directory records his name and lists his occupation as an “assistant technician” with the Forest Service. By 1948, Kinney has transferred to Ashland, North Carolina as a Forest Engineer for the Pisgah National Forest, remaining in that position until 1954. **Region 8**

Holly Springs National Forest, 1940, compiled by (1950)  
Ozark National Forest, Sylamore Ranger District, 1941, compiled by

**Klamt, Henry.** H. Klamt. H. K. (Pacific Southwest Region, San Francisco, California) Klamt’s first mention in the San Francisco city directory came in 1926. From this year until 1932, he is listed as working as a draftsman for the civil engineering firm of F. H. Tibbitts. The April, 1932 edition of the Forest Service directory is the first to list Klamt as

being a Region 5 draftsman, followed by the same listing in the 1933 edition of the San Francisco city directory. The 1960 San Francisco city directory still has Klamt employed by the Forest Service as a draftsman making him one of the longest serving and most productive cartographers the region had known. **Region 5**

Angeles National Forest, 1933, forest visitor map revised by  
Angeles National Forest 1937, administrative map, revised by  
Palomar Ranger District, Palomar Recreation Area, Cleveland National Forest, 1938, [drawn by]  
Eldorado National Forest, 1939, forest visitor map, [drawn by]  
Eldorado National Forest, 1949, compiled and drawn by (1958)  
Inyo National Forest, 1935, revised by  
Inyo National Forest, 1941, revised by  
Inyo National Forest, 1949, revised by  
Inyo National Forest, North Half, 1958, 1:126,720-scale administrative map, compiled and drawn by  
Recreation map, Klamath National Forest, [1936, drawn by]  
Klamath National Forest, 1942, topographic maps, revised by  
Klamath National Forest, 1953, compiled and drawn by  
Lassen National Forest, 1960, compiled and drawn by  
Recreation map, Los Padres National Forest, Southern and Monterey Divisions, 1939, [drawn by]  
Los Padres National Forest, East & West Halves, 1950, 1:126,720-scale administrative maps, compiled and drawn by  
Los Padres National Forest, Main Division – East, 1950, [drawn by]  
Los Padres National Forest, Monterey Division, 1946, 1950, [drawn by]  
Recreation map, Mendocino National Forest, [1936, drawn by]  
Mendocino National Forest, 1950, revised by  
Mendocino National Forest, 1956, compiled and drawn by  
Modoc National Forest, 1941, forest visitor map, [drawn by]  
Modoc National Forest, 1948, forest visitor map, revised by  
Modoc National Forest, 1949, revised by  
Modoc National Forest, 1954, compiled and drawn by  
Plumas National Forest, 1950, [drawn by]  
Plumas National Forest, 1959, compiled and drawn by  
San Bernardino National Forest, 1931, forest visitor map, revised by  
San Bernardino National Forest, 1934, 1:126,720-scale administrative map, revised by (1938)  
San Bernardino National Forest, 1941, [drawn by]  
San Bernardino National Forest, 1959, compiled and drawn by  
Sequoia National Forest, North & South Halves, 1940, administrative map, compiled and traced by  
Recreation map, Sequoia National Forest, 1940, [drawn by]  
Sequoia National Forest, 1941, compiled by  
Sequoia National Forest, North & South Halves, 1952, compiled, drawn, and revised by  
Sequoia National Forest..., California, 1952, forest visitor map, compiled, drawn and revised by  
Shasta National Forest, 1932, forest visitor map, revised by  
Shasta National Forest, 1933, topographic maps, compiled by (1936)  
Shasta National Forest, North & South Halves, 1954, compiled and drawn by  
Recreation map, Sierra National Forest, 1937, [drawn by]  
Sierra National Forest, 1941, forest visitor map, [drawn by] (1952)  
Sierra National Forest, 1958, compiled and drawn by  
Six Rivers National Forest (North Half), 1954, compiled and drawn by  
Six Rivers National Forest (South Half), 1956, compiled and drawn by  
Stanislaus National Forest, 1934, revised by (1936, 1939)  
Stanislaus National Forest, 1935, forest visitor map, revised by  
Stanislaus National Forest, 1941, topographic map, drawn by  
Stanislaus National Forest, 1943, traced by (1946, 1950)  
Stanislaus National Forest, 1951, revised by  
Recreation map, Tahoe National Forest, 1937, [drawn by]  
Tahoe National Forest, 1947, compiled by  
Trinity National Forest, 1934, revised by  
Recreation map, Trinity National Forest, [1935], [drawn by]  
Trinity National Forest, 1956, compiled and drawn by

Salmon-Trinity Alps Wilderness Area and Trinity Lake Recreation Area, 1954, compiled and drawn by  
Donner Trail Recreation Area, Tahoe National Forest, 1940, [drawn by]  
Silver Lake Recreation Area, Eldorado National Forest, California Region, [1936], prepared by

**Klemme, George W.** Geo. Klemme. G. W. Klemme, or (by mistake) G. W. Clemme. (Pacific Northwest Region, Portland, Oregon; Rocky Mountain Region, Denver, Colorado) In 1921, Klemme compiled and traced an administrative map of the Siuslaw National Forest for the North Pacific District before being employed as a “draftsman” on the Rocky Mountain District. His name first appears in the Denver city directory for 1921 as a Forest Service employee, but by 1924 he had left the federal government for Denver Water, a public utility established in 1918. The public utility was then engaged in the ambitious task of building an aqueduct that would carry water and the main line of the Denver, Rio Grande and Western Railroad from the western slope of the Continental Divide to Denver on the eastern slope. The centerpiece for this marvel of engineering was the Moffat Tunnel that carried both water and the railroad through the Rockies. **Regions 2 & 6**

*Rocky Mountain Region*

Holy Cross National Forest, 1922, traced by  
San Isabel National Forest, 1924, compiled and traced by (spelled on this map “Clemme”)  
White River National Forest, 1923, compiled by

*Pacific Northwest Region*

Siuslaw National Forest, 1921, compiled and traced by (1924, 1932, 1937 – North Half only)

**Knightlie, Napier** N. Knightlie. (Northern Region, Missoula, Montana) Knightlie was engaged in folio and topographic work for District One between 1916 and 1919 and was listed in the 1915/16 edition of Polk’s Missoula city directory as “Draftsman, Forest Service.” This was the only time his name, occupation, and employer were recorded in the Missoula city directory. His map credit for the 1925 Flathead National Forest map was due to the fact that he is credited on the 1916 topographic folio of the Flathead National Forest. **Region 1**

Blackfeet Folio, 1918, traced by  
Coeur d’Alene Folio, 1917, traced by  
Coeur d’Alene National Forest, topographic map, 1918, traced by (1929 & 1934)  
Flathead Folio, 1916, traced by  
Flathead National Forest, 1925, topographic map, traced in part by (1933)  
Lewis & Clark Folio, 1916, traced by  
St. Joe Folio, 1919, traced by

**Knox, Edward R.** E. R. Knox. E. R. K. (Pacific Northwest Region, Portland, Oregon) Knox’s brief career with the Forest Service lasted two years. Only the 1921 edition of the Portland city directory identified him as a “draftsman” with the Forest Service. **Region 6**

Cascade National Forest, 1921, revised by (1923)  
Colville National Forest, 1922, revised by  
Crater National Forest, 1922, corrected by (1925)

**Koch, Elers** Koch. (Northern Region, Missoula, Montana) One of Gifford Pinchot’s original “Forest Arrangers” (see bibliography) appointed as the first Forest Supervisor for the Lolo, Bitterroot, and Missoula National Forests in December 1906, and long a fixture in the Northern Region and the city of Missoula. The Forest History Society has a biographical information file on Koch in its Research Center in Durham, North Carolina. **Region 1**

Little Missouri Forest Reserve (Dakota), 1904, field examiner

**Kuenzel, Paul E.** P. E. Kuenzel. P. E. K. (Pacific Northwest Region, Portland, Oregon) Kuenzel started his drafting career in Portland, Oregon in 1918 with the contracting firm of Michael Lynott, Inc. By 1920 he was working as a draftsman for the Forest Service's District 6 and continued until 1925 when he transferred to the city of Portland's Bureau of Construction (Dept. of Public Works) as a draftsman. **Region 6**

Map of Automobile Roads, State of Washington, 1922, drawn by  
Crater National Forest, 1919, corrected by (1922, 1925)  
Mt. Hood National Forest, 1924, compiled by (1927, 1931, 1935)  
Olympic National Forest, 1923, compiled by (1930)

**Kuphal, Herbert H.** H. H. Kuphal. H. Kuphal. (Rocky Mountain Region, Denver, Colorado; Northern Region, Missoula, Montana) Kuphal began work as a "draftsman" for the Forest Service's District 2 office in 1917 and was active from 1917 to 1919, when he transferred to District 1 in Missoula, Montana. His map credits for the Northern District began in 1921 and continued well into the 1930s. During 1915 and 1916, the Missoula city directory lists Kuphal as a student at the University of Montana and later, the Missoula city directory for 1922/23, as an "engineer, Forest Service." According to Polk's 1938 Missoula city directory, he later became the "Resident Engineer" working for the Montana State Highway Commission. **Region 1 & 2**

*Northern Region*

Beaverhead National Forest, 1921, compiled by (1926)  
Beaverhead National Forest, 1934, East Half, compiled by  
Beaverhead National Forest, 1934, compiled by  
Blackfeet Folio, 1918, traced by  
Helena National Forest, 1922, compiled by (1926, 1929, 1934)  
Helena Proclamation diagram, 1929, compiled by  
Missoula Proclamation diagram, 1929, compiled by  
Missoula National Forest, 1920, compiled by (1922, 1929)

*Rocky Mountain Region*

Cochetopa National Forest, 1919, compiled by [1924]  
Routt Proclamation diagram, 1918, traced by  
Sopris National Forest, 1918, compiled by

**L**

**\*E. L.** (Pacific Northwest Region) Unknown cartographer/graphic artist responsible for several early numbers in the Recreation Guide Series for areas in Oregon all dated 1935. **Region 6**

Recreation Guide, Oregon Coast Highway, Florence - Waldport, Siuslaw National Forest, Oregon, Recreation Guide No. 2 – Oregon, [drawn by]  
McKenzie Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 3 – Oregon, [drawn by]  
South Santiam – Fish Lake Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 4 – Oregon, [drawn by]  
Lake-of-the-Woods and Vicinity Recreation Area, Rogue River National Forest, Oregon, Recreation Guide No. 5 – Oregon, [drawn by]  
Olallie Lakes Recreation Area, Mount Hood National Forest, Oregon, Recreation Guide No. 7 – Oregon, [drawn by]

**\*V. H. L.** (Pacific Northwest Region) Unknown cartographer/graphic artist responsible for six numbers in the Washington Recreation Guide series all on the Columbia National Forest, which would indicate that this cartographer might have been assigned to the Forest Supervisor's Office in Vancouver, Washington. **Region 6**

Wind River Recreation Section/Area, Columbia National Forest, Washington, Recreation Guide No. 4 – Washington, [drawn by]  
Twin Buttes Huckleberry/Recreation Area, Columbia National Forest, Washington, Recreation Guide No. 5 – Washington, [drawn by]

Spirit Lake Recreation Guide/Area, Columbia National Forest, Washington, Recreation Guide No. 6 – Washington, [drawn by]  
 Packwood Lake Section/Area, Columbia National Forest, Washington, Recreation Guide No. 7 – Washington, [drawn by]  
 Randle Recreation Area, Columbia National Forest, Washington, Recreation guide No. 8 – Washington, [drawn by]  
 Mount Adams Recreation Guide, Columbia National Forest, Washington, Recreation Guide No. 10 – Washington, [drawn and corrected by]

**LaCasse, John B.** J. B. LaCasse. (Northern Region, Missoula, Montana) LaCasse first appears in Polk's 1929 Missoula city directory as a student at the University of Montana and the next year as a "sign writer" without employer. 1938 lists LaCasse as being a "draftsman," in 1955 as an "engineer," in 1958 as an "artist," and finally from 1959 to 1968 as an "illustrator" all with the Northern Region of the Forest Service. He retired in 1969. **Region 1**

Priest Lake Recreation Area, Kaniksu National Forest, 1939

**Landon, Frederick E.** Fred E. Landon. F. E. Landon. (Southwestern Region, Albuquerque, New Mexico) Landon's name first appeared in the 1916 Albuquerque city directory as Frederic C. Landon, but subsequent editions corrected this error giving his full name as Frederick E. Landon. Between 1916 and 1922, he is listed as being employed as a "draftsman, U.S. Forest Service." He is a "Lumberman, S.W. District, U.S. Forest Service" in the 1923 city directory, then back the next year as a "draftsman," and rising to "Chief Draftsman" in 1927. This long-serving and productive cartographer for the Southwestern Region left the employ of the Forest Service around 1948, retiring in Albuquerque. **Region 3**

Alamo Proclamation diagram, 1916, drafted by  
 Apache National Forest, 1918, compiled by (1921)  
 Apache National Forest, 1935, compiled by (1938, 1941, 1948)  
 Carson National Forest, 1919, compiled by  
 Cibola Executive Order map, 1931, compiled by  
 Cibola National Forest, 1931, compiled by  
 Coconino Proclamation diagrams of 1919 and 1923, compiled by  
 Coconino National Forest, 1919, compiled by (1921, 1924)  
 Coconino National Forest, 1928, compiled by (1931, 1935 administrative map, 1937)  
 Coronado Folio (Animas Division), 1923, chief draftsman  
 Crook Proclamation diagrams 1919 and 1925, compiled and traced by  
 Crook National Forest, 1921, compiled and traced by (1925)  
 Crook National Forest, 1926, compiled by  
 Crook National Forest (Clifton Division), 1928, Topographic map, compiled by (1938)  
 [Crook National Forest, 1949], traced by  
 Datil National Forest, 1930, compiled by  
 Gila Executive Order map, 1931, compiled by  
 Gila National Forest, 1929, compiled by (1931, 1933, 1934, 1936, 1938, 1941, 1946, 1948, 1949, 1959)  
 Lincoln Proclamation diagram, 1918, compiled by  
 Lincoln National Forest, 1918, compiled by (1921)  
 Manzano Proclamation diagram, Part 2, 1917, [compiled by]  
 Prescott Proclamation diagram, 1923, compiled and traced by  
 Prescott Executive Order map, 1934, compiled by  
 Prescott National Forest, 1920, compiled and traced by (1921)  
 Prescott National Forest, 1927, compiled by (1931, 1934, 1938)  
 Santa Fe Proclamation diagram, 1923, compiled by  
 Santa Fe National Forest, Pecos Division, 1915, drafted by  
 Santa Fe National Forest, 1918, compiled by (1921, 1924-Administrative map)  
 Santa Fe National Forest, West Half, 1920, compiled by (1921)  
 Santa Fe National Forest, 1927, compiled by (1929-Administrative map, 1931, 1933, 1936, 1938, 1941)  
 Santa Fe National Forest (East and West Halves), 1936, compiled, traced, and revised by  
 Sitgreaves Proclamation diagram, 1923, compiled by  
 Sitgreaves National Forest, 1918, compiled by (1921, 1924)  
 Sitgreaves National Forest, East Half – West Half, 1921, 1:126,720-scale administrative map, compiled by

Sitgreaves National Forest, 1921, compiled by (1924)  
Tonto Proclamation diagram, 1923, compiled by  
Tonto National Forest, 1919, compiled and traced by (1921, 1924)  
Tonto National Forest, 1927, compiled by  
Tonto National Forest, 1941, chief draftsman  
Tonto National Forest, 1943, compiled by (1946, 1950)  
Tusayan National Forest, 1919, compiled and traced by  
Tusayan National Forest (Williams Division), 1921, compiled and traced by

**Lansing, Harold H.** H. H. Lansing. (Northern Region, Missoula, Montana) Polk's Missoula city directory of 1917/18 lists Lansing as a "Ranger, Forest Service" and in 1922/23 as an "Instructor" at the University of Montana. The Missoula city directory for 1925/26 records that he had died, May 19, 1923 at age 29. **Region 1**

Blackfeet Folio, 1918, compiled by  
Blackfeet National Forest, 1920, topographic map, compiled by (1928)  
Custer Proclamation diagram, 1918, compiled by  
Custer Proclamation diagram, 1932, [Part Two] Ashland Division, compiled by  
Custer National Forest, 1928, (Ashland Division), administrative and forest visitor maps, compiled by (1938)  
Gallatin National Forest, 1919, compiled by (1923, 1927, 1934)  
Madison National Forest, 1919, compiled by  
Nezperce National Forest, 1920, compiled by (1923, 1927)  
St. Joe Folio, 1919, compiled by

**Last, Walter F.** W. F. Last. W. F. L. (Eastern Region, Milwaukee, Wisconsin) At the time the Lakes States District was created in January of 1929, Last was working as a draftsman with the Smith Engineering Works in Milwaukee, Wisconsin and directories of the city show that he continued to be affiliated with the Smith Works until 1932. At the depth of the Depression, his name can still be found in the Milwaukee city directory as a draftsman but without an employer after his name. That changed in 1934 when he began work compiling and revising maps for the Forest Service, continuing to do so until 1942. **Region 9**

Hoosier National Forest, 1936, Lost River, Patoka, and Lafayette Purchase Units, compiled and revised by  
Hoosier National Forest, 1936, Pleasant Run Purchase Unit, revised by  
Mark Twain National Forest, Table Rock Purchase Unit, 1936, compiled by  
Illini Purchase Unit [Shawnee National Forest], 1935, revised by  
Shawnee Purchase Unit [Shawnee National Forest, 1935, revised by  
Superior National Forest and Purchase Unit (small scale map), 1937, compiled by  
Chariton Purchase Unit, Iowa, 1935, compiled by

**Lautz, H. L.** H. L. L. (Eastern Region, Milwaukee, Wisconsin) H. L. Lautz appeared in four editions of the *Directory* issued by the Forest Service: June, 1938, January 1939, July 1939, and January 1940, where Lautz is listed as an employee of Region 9's Engineering Division, Drafting Section. This name is not found in the July 1940 *Directory*, but Lautz's listings in the *Directory* match the dates that appear on his map credits. All sources consulted do not reveal the full first and middle names. **Region 9**

Clark National Forest, 1939 (small scale administrative map), compiled by  
Hiawatha National Forest, 1939 (small scale administrative map), compiled by  
Manistee National Forest, 1938 (small scale administrative map), compiled by  
Mark Twain National Forest, 1939 (small scale administrative map), compiled by  
Shawnee National Forest (small scale map), 1938, compiled by

**Lawson, Aloysius L.** A. L. Lawson. (Pacific Southwest Region, San Francisco, California) Lawson began his career with the Forest Service in 1928 as a draftsman and is listed in the April, 1932 and April 1933 Forest Service directories. **Region 5**

Klamath National Forest, 1934, topographic maps, topography by (1942)  
Shasta National Forest, 1933, topographic maps, topography by (1936)  
Trinity National Forest, 1936, topographic map, topography by (1941, 1950 administrative map)

**Leonard, William J.** W. J. Leonard. (Pacific Southwest Region, San Francisco, California) Leonard began his cartographic career with the California District in 1929 and continued working there until after World War II. **Region 5**

Klamath National Forest, Orleans District, 1932, topography by  
Klamath National Forest, 1934, topographic maps, topography by (1942)  
Lassen National Forest, 1938, topographic map, topography by (1947)  
Shasta National Forest, 1933, topographic maps, topography and compiled by (1936)  
Stanislaus National Forest, 1941, topographic map, topography by  
Trinity National Forest, 1936, topographic map, topography by (1941, 1950 administrative map)

**Lewis, Melvin H.** M. H. Lewis. (Intermountain Region, Ogden, Utah) Lewis's name first appears in Polk's Ogden city directory for 1929 and lists Lewis as being employed as a "draftsman, U.S. Forest Service." His is employed by Region 4 in various capacities as a surveyor, transitman, employee, engineer, and clerk up until 1959. The *Official Register of the United States* has Lewis serving as the head of the Cartographic Section, Division of Engineering in Region Four throughout the 1950s. **Region 4**

Ashley National Forest, 1945, revised by  
Bridger National Forest, Bridger Division, 1946, revised [1936] by (1954, 1960)  
Cache National Forest, 1932, compiled by (1936, 1940)  
Dixie National Forest, 1933, compiled by (1937, 1944, Powell Division, 1950)  
Idaho National Forest, 1930, revised by  
Idaho National Forest, 1938, revised by  
Idaho National Forest, 1940, compiled by (1941)  
Lemhi National Forest, 1936, revised by  
Manti National Forest, 1941, compiled by (1952 – Manti Division, Manti-La Sal National Forest)  
Minidoka National Forest, 1933, compiled by (1936)  
Payette National Forest, East Division, 1947, compiled by (1952)  
Payette National Forest, West Division, 1948, compiled by (1960 – Administrative map)  
Powell National Forest, 1931, compiled by (1944)  
Salmon National Forest (Western Portion only), 1938, compiled by (1941)  
Salmon National Forest, East Half, 1941, compiled by  
Salmon National Forest, 1949, compiled by (1955, 1959)  
Sawtooth National Forest, 1938, revised by (1942) (1955 & 1960 – North Division)  
Teton National Forest, 1938, compiled and traced by (1944, 1949, 1955)  
Uinta National Forest, 1938, revised by  
Wasatch National Forest, 1929, compiled by (1931, 1934, 1935)  
Weiser National Forest, 1931, compiled by  
Weiser National Forest, 1938, compiled and revised by (1943)  
Kaibab National Forest, 1930, revised by

**Lint, Leigh B.** L. B. Lint. (Pacific Southwest Region, San Francisco, California) Lint first appears in the San Francisco city directory in 1936 as a "topographer" for the Forest Service. Lint worked in the Gettysburg Office of the War Mapping Project during World War II and he continued to work for the Forest Service after the war. **Region 5**

Lassen National Forest, 1938, topographic map, topography by (1947)  
Shasta National Forest, 1936, topographic maps, topography by  
Stanislaus National Forest, 1941, topographic map, topography by

**Littlefield, Theron R.** Littlefield, T. R. (Intermountain Region, Ogden, Utah; Pacific Southwest Region, San Francisco, California) Littlefield served in the U.S. Army during World War I before joining the Intermountain District staff in 1921 until 1928. Ogden city directories alternately list his occupation as a surveyor or as a draftsman, but in all instances, until 1928, as working for the Forest Service. The 1928 Ogden city directory includes the note under Littlefield's name: "Moved to Berkeley, California." The 1928 San Francisco city directory confirms the move as well as the fact that he began work for the California District as an "engineer" that same year until the mid-1950s. **Regions 4 & 5**

#### *Intermountain Region*

Idaho Proclamation diagram, 1926, compiled by



Idaho National Forest, 1926, compiled by (1929, 1936, 1938)  
Payette Proclamation diagram, 1926, compiled by  
Payette National Forest, 1924, compiled by (1926, 1928, 1934)  
Salmon Proclamation diagram 1926, compiled by  
Salmon National Forest, 1926, compiled by (1927 – East Half)  
Sawtooth National Forest, 1924, compiled by  
Uinta Proclamation diagram, 1929, compiled by  
Uinta National Forest, 1927, compiled by (1938)  
Weiser National Forest, 1925, revised and traced by

#### *Pacific Southwest Region*

Klamath National Forest, Orleans District, 1932, planetable survey under the direction of  
Klamath National Forest, 1934, topographic maps, planetable surveys under the direction of (1942)  
Lassen National Forest, 1938, topographic map, planetable surveys under the direction of (1947)  
Shasta National Forest, 1933, topographic maps, planetable surveys under the direction of (1936)  
Stanislaus National Forest, 1941, topographic map, planetable survey under the direction of  
Trinity National Forest, 1936, topographic map, planetable surveys under the direction of (1941, 1950 – administrative map)

**Lockhard, Oliver C.** O. C. Lockhart. O. C. L. (Intermountain Region, Ogden, Utah) The 1916 edition of Polk's Ogden city directory is the first time Lockhard is listed as being an employee of the Forest Service. In 1916 through 1918 his occupation is noted as being a "surveyor," then as an "engineer" in 1919. In 1920 he had transferred to the U.S. Bureau of Public Roads, then an agency of the Department of Agriculture, serving as an engineer. **Region 4**

Cache National Forest, 1919, compiled by (1921)  
Caribou Proclamation diagram, 1919, revised by  
Humboldt Proclamation diagram, 1919, compiled and traced by  
Nevada National Forest, 1919, compiled by  
Wyoming National Forest, 1919, compiled by

**Lo Jacono, Salvatore** S. Lo Jacono, S. LoJ. (Washington Headquarters Office, Eastern Region, Washington, D.C.) Lo Jacono is first listed in the 1920 edition of the Washington, D.C. city directory as being a "draftsman" for the Department of Agriculture. Forest Service directories first recorded his name in the April, 1932 edition and Lo Jacono's name last appeared in the January 1960 issue. Early in his career, he drafted maps for western forests which indicates he worked for Headquarters Office before moving over to the Eastern Region – Region 7. There, he drafted maps for national forests in the eastern United States including those that would, in 1934, become part of the Southern Region. The May, 1941 issue of the Forest Service directory has Lo Jacono as serving in the Engineering Division of Region 7 and in the next edition of the directory, April, 1942, has him being part of the Washington Headquarters Office, indicating that Lo Jacono did not move with Region 7 from Washington, D.C. to its new headquarters in Philadelphia in 1941. Perhaps his final project for the Engineering Division was compiling the first edition of the reference work, *Establishment and Modification of National Forest Boundaries: A Chronological Record, 1891-1959* published by the Forest Service in September of 1959. His last name is seen printed both as LoJacono and Lo Jacono. **Region 4, 8 & 9**

#### *Intermountain Region*

Idaho Proclamation diagram, 1919, traced by  
Payette Proclamation diagram, 1919, traced by

#### *Southern Region*

Alabama National Forest, 1924, compiled by  
Caribbean National Forest and Purchase Unit (Luquillo Division), Puerto Rico, 1945, compiled by  
Caribbean National Forest and Purchase Unit (Toro Negro Division), Puerto Rico, 1946, compiled by  
George Washington National Forest, Pedlar Ranger District, 1942, compiled by  
Humphreys National Forest, 1925, Executive Order diagram, [drawn by]  
Jackson National Forest, 1924, Executive Order diagram, [drawn by]  
Jefferson National Forest and Purchase Unit, Newcastle Ranger District, 1939, East & West Halves, land status by  
Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1940, Northern & Southern Sections, land status by  
Jefferson National Forest and Purchase Unit, Wythe Ranger District, 1941, North & South Halves, checked and land status by

Nantahala Proclamation diagram, 1929, compiled and traced by  
Nantahala National Forest, Georgia, North Carolina, and South Carolina, 1924, compiled by  
Nantahala National Forest, 1929, compiled and traced by (1935)  
Osceola National Forest, 1931, compiled and traced by  
Ozark National Forest, Central Division, 1932, compiled by  
Ozark National Forest, Eastern Division, 1933, compiled by (1938)  
Ozark National Forest, Western Division, 1933, compiled by  
Unaka Proclamation diagram, 1927, compiled and traced by  
Unaka National Forest, 1927, compiled and traced by  
Unaka National Forest, 1929, forest visitor map, compiled and traced by

#### *Eastern Region*

Dix National Forest Executive Order diagram, 1925, compiled by  
Green Mountain National Forest, 1932, compiled and traced by  
Monongahela National Forest, Cheat Ranger District, 1939 & 1940, status checked by  
Monongahela National Forest, Greenbrier Ranger District, 1939 & 1940, status checked by  
Monongahela National Forest, White Sulphur Ranger District, 1939, status checked by  
Monongahela National Forest, Potomac Ranger District, 1940 & 1941, status checked by  
White Mountain Proclamation diagram, 1929, revised by  
White Mountain National Forest, 1924, compiled by  
White Mountain National Forest, 1929, revised by  
White Mountain National Forest, 1934, compiled by (1937 & 1942)  
White Mountain National Forest, 1942, compiled and revised by  
Grand Lake Purchase Unit, Maine, 1936, compiled by

**Lord, Cecil A.** C. A. Lord. C. A. L. C. A. (Pacific Northwest Region, Portland, Oregon) Lord first appears in the 1917 edition of the Portland city directory as a draftsman but without an employer listed. That changed in 1918 when he began work in District 6's Engineer Division as noted in the city directory. After 1918, he was listed in the city directory alternately as a "surveyor" or as a "civil engineer" and in 1926 as a "clerk." The Forest Service directories from 1924 to 1926 list Lord in the Engineering Section of District 6 working on roads. City directories of Portland after 1926 do not include his name. **Region 6**

Cascade National Forest, 1919, compiled by (1921, 1923)  
Colville National Forest, 1918, compiled by (1922, 1928)  
Fremont National Forest, 1918, compiled by  
Malheur National Forest, 1918, compiled by (1920, 1924)  
Minam National Forest, 1919, compiled and traced by  
Santiam National Forest, 1918, compiled by (1920)  
Siskiyou National Forest, 1919, compiled by (1921, 1922, 1924, 1926, 1927)  
Wallowa National Forest, 1919, compiled and traced by (1924, 1925, 1931, 1935)  
Wenaha National Forest, 1920, compiled and traced by  
Whitman National Forest, 1918, compiled by (1923, 1927, 1931, 1937)  
Whitman National Forest, 1921, compiled and traced by

**Lubeck, Ernest A.** Ernest Lubeck. E. Lubeck. E. A. L. E. L. (Intermountain Region, Ogden, Utah) There were three men named Lubeck on staff with District 4 in 1912: Anton I., Ernest A., and Harold Lubeck. Anton served as a watchman and later as a janitor leaving, after 1919; Harold was a packer, but left the Forest Service in 1914; Ernest remained until 1920, first as a printer, and from 1916 to 1920 as a "draftsman." Ogden city directories from 1920 onwards list Ernest A. Lubeck as a draftsman and later as an engineer for the U.S. Bureau of Public Roads, then an agency of the Department of Agriculture. **Region 4**

Bridger National Forest, 1920, compiled and traced by  
Cache National Forest, 1919, compiled and traced by (1921)  
Dixie National Forest, Utah Division, 1915, [traced by]  
Fillmore Proclamation diagram, 1922, compiled by  
Fillmore National Forest, 1921, compiled by  
Fishlake National Forest, 1919, compiled and traced by

Manti Proclamation diagram, 1917, [drafted by]  
Manti National Forest, 1920, compiled and traced by  
Powell Executive Order map, 1922, compiled and traced by  
Powell National Forest, 1916, compiled and traced by  
Sevier National Forest, 1919, compiled by  
Toiyabe Proclamation diagram, 1921, compiled by  
Toiyabe National Forest, 1920, compiled by  
Wyoming National Forest, 1919, compiled and traced by

**Lund, Albert W.** A. W. L. (Pacific Southwest Region) Lund joined the California Region of the Forest Service as a hydrologist assigned to the Flood Control/Water Management Section of the Engineering Division in 1939 (July 1939 Forest Service Directory. The May 1941 Directory lists Lund working in Flood Control for the California Region but also in “Flood Control Structures” with the California Forest and Range Experiment Station. During the War years, Lund served as a Design Engineer with the Design and Construction Section of the Engineering Division in 1942, a financial officer for the War Mapping Office in San Francisco in 1943, a highway engineer in the Forest Highways and Transportation Planning for Region 5 in April of 1944, and by 1945 his name was included in the “Honor Role of Forest Service Personnel in the Armed Forces” after joining the Navy. His name once again surfaces as a Region 5 cartographer in January 1948 until 1959 when his name no longer is listed in the Forest Service Directory. **Region 5**

National Forests of California, 1953 [drawn by], administrative map  
National Forests of California, 1955 [drawn by], forest visitors map

## M

\***B. E. M.** B. M. (Pacific Northwest Region) These initials could not be found in the Portland city or Forest Service directories of the late 1930s when this cartographer/graphic artist was active drawing and correcting maps in Region Six’s Recreation Guide Series and for the Oregon Skyline Trail and Washington State’s Cascade Crest Trail, both later components of the Pacific Crest Trail. He or she could have lived outside of Portland or had been a temporary employee of the Forest Service during the Depression. **Region 6**

Summer Homes in the National Forests of Oregon and Washington, 1938 [revised by]  
Fishing and Scenic Caravan, Western Oregon, Annual N.A.S.A.C. Tournament, August 17 – 23, 1936, compiled by  
Oregon Skyline Trail, (North & South Halves), 1937, compiled by (1938)  
Cascade Crest Trail, Washington, (North & South Halves), 1937, compiled by (1938)  
Cascade Crest Trail, Washington 1939, Pacific Crest Trail System, compiled by  
South Santiam – Clear Lake Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 4 – Oregon, corrected by  
Diamond Lake – North Umpqua Recreation Area, Umpqua National Forest, Oregon, Recreation Guide No. 15 – Oregon, [corrected by]  
Murderers Cr. and Deer Cr. Hunting Area, Malheur National Forest, Oregon, Recreation Guide No. 18 – Oregon, corrected by  
Steamboat – Little River Recreation Guide, Umpqua National Forest, Oregon, Recreation Guide No. 22 – Oregon, corrected by  
Anthony Lakes Recreation Area, Whitman National Forest, Oregon, Recreation Guide No. 24 – Oregon, corrected by  
Eagle Cap Primitive Area, Wallowa and Whitman National Forests, Oregon, Recreation Guide No. 25 – Oregon, [compiled by]  
Detroit – Breitenbush Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 34 – Oregon, [compiled by]  
South Umpqua Recreation Area, Umpqua National Forest, Oregon, Recreation Guide No. 36 – Oregon, [compiled by]  
Ochoco Recreation Area, Ochoco National Forest, Oregon, Recreation Guide No. 37 – Oregon, [compiled by]  
Index to Recreation Maps, Western Oregon, Unnumbered sheet, [compiled by]  
Packwood Recreation Area, Columbia National Forest, Washington, Recreation Guide No. 7 – Washington, corrected by  
White River and Naches Recreation Area, Washington, Recreation Guide No. 13 – Washington, corrected by  
North Bend Recreation Area, Snoqualmie National Forest, Washington, Recreation Guide No. 29 – Washington, compiled by  
Index to Recreation Maps, Washington, Unnumbered sheet, [compiled by]

\***C. E. M.** (Pacific Southwest Region) Using San Francisco directories for the years 1917 to 1925, these initials could not be identified. **Region 5**

Route map, Trinity National Forest (1919), [drawn by]

\***D. E. M.** (Southern Region) Cartographer could not be identified with standard directories. **Region 8**

Ozark National Forest, Arkansas. (forest visitor booklet and map), 1952, revised by (1956)

\***V. J. M.** (Eastern Region) The name could not be found in any directory. This cartographer's one map credit is for a sketch map of the Boulder Lake Forest Trail, and the assumption here, without certainty, is that V. J. M. most likely worked on the Nicolet National Forest. **Region 9**

Boulder Lake Forest Trail, Nicolet National Forest, 1963, [drawn by]

\***W. M.** (Pacific Northwest Region) Unidentified cartographer whose initials appear on two special visitor maps of the Deschutes National Forest. It is odd that a cartographer's initials would be included on a map at this late a date for the Pacific Northwest Region. **Region 6**

Lava Butte Geologic Area, 1962, [drawn by]

Newberry Crater, Deschutes National Forest, [1963, drawn by]

\***A. McQ.** (Washington Headquarters Office) This name could not be found in Washington, D.C. or Ogden Utah directories of the time. **Region 4**

Lehman Cave National Monument, Proclamation diagram, 1922, Nevada National Forest, [drawn by]

**Maca, Leon Francis.** Leon F. Maca. (Intermountain Region, Ogden, Utah) Maca's name was located in the Denver city directories from 1940 onwards with an occupation of Civil Engineer working for the U.S. Bureau of Reclamation. His middle name comes from a copy of his World War II draft card. References establishing his connection with the Forest Service could not be found other than his name appearing on two Region Four maps. **Region 4**

Payette National Forest, 1938, revised by

Uinta National Forest, 1938, revised by

**Marquez, Daniel C.** D. C. M. (Southwestern Region, Albuquerque, New Mexico) First listed as an "employee" of the Forest Service in the 1937 edition of the Albuquerque city directory, then as a "draftsman" in 1938, Marquez can no longer be found in subsequent editions, which matches the date of his single recorded map credit. **Region 3**

Tonto National Forest, 1937, revised by

**Marston, Richard.** R. Marston. (Intermountain Region, Ogden, Utah) Marston was first found in the 1940 Ogden city directory as being a "Ranger" for the Forest Service, but by 1942, the directory notes that he had "moved to Layton" a town south of Ogden near the rapidly expanding Hill Air Force Base. Marston reappears in the Ogden city directory in 1946. His entry for that year indicates that he was working for the Forest Service as a "Conservationist." Thereafter, Marston no longer appears in the Ogden city directories. **Region 4**

Toiyabe National Forest, Mono Division, 1946, compiled by (1951, 1957, 1960)

Toiyabe National Forest, North Half, Mono Division, 1957, compiled by (1960)

Toiyabe National Forest, South Half, Mono Division, 1957, compiled by (1960)

**Massie, Edmund S.** E. S. Massie. E. M. (Washington Headquarters Office) Forest Service staff directories for this time period include Massie within the Engineering Division's Technical Services branch. This branch included the atlas, drafting, photography and reports section.

Region 7 (U.S.F.S., W.O.; 1950 – [compiled by] E. M.

**Mathis, Russell L.** R. L. Mathis. R. L. M. (Southern Region, Atlanta, Georgia) Mathis came to the Forest Service in 1954 as a highly experienced draftsman and served until 1958. He is first found in the 1942 edition of the Atlanta city directory working for the National Resources Planning Board as a draftsman and the next year in the same capacity for its successor agency the U.S. Planning Board. In 1944 he transferred to the U.S. Civil Aeronautics Administration as a draftsman and later became an airport engineer. In the early 1950s he served as a draftsman with the Public Health Service and its successor agency the Federal Security Administration. He left the Atlanta area in 1958, but later returned and by 1973 Russell was in charge of the Cartography Section of the Forest Service's Southern Region, Engineering Division. **Region 8**

The National Forests of the Southern Appalachians, Recreation map, 1954, [drafted by]  
Apalachicola National Forest, Wakulla Division, 1955, revised by  
Francis Marion National Forest, 1957, revised by  
Recreation map, Kisatchie National Forest, 1957, [drawn by]  
Nantahala National Forest, 1956, revised by  
Recreation map, Ocala National Forest, 1955, [drawn by]  
Recreation map, Osceola National Forest, 1955, [drawn by]  
Recreation map, Pisgah National Forest, 1957, [drawn by]

**McConnell, Harold P.** H. P. McConnell. H. P. M. (Rocky Mountain Region, Denver, Colorado; Eastern Region, Milwaukee, Wisconsin) McConnell made his first appearance in the 1924 Denver city directory, employed as a "draftsman" for the Forest Service and continued in that capacity until 1929 when he transferred from Denver to the newly created Lakes States District (District 9 – later the North Central Region) to be in charge of the Maps and Surveys Section until 1933 when Frank F. Kemp replaced him as Chief Draftsman. The 1928 map of the Superior National Forest cited below was compiled by McConnell in Denver, when the forests of the upper mid-west were administered by the Rocky Mountain District. The 1929 map of the Huron National Forest was compiled after McConnell had arrived in Milwaukee, Wisconsin. McConnell's name can be found in the Milwaukee city directories beginning in 1929 continuing to 1933 first as chief draftsman for the U.S. Forest Service's Region 9, then as an "engineer." In 1934, McConnell transferred from the Engineering Division to the Lands Division of the North Central Region where he was placed in charge of land acquisition. The Division later took on the name of the "Division of Recreation and Lands, Wildlife and Range Management." **Regions 2 & 9**

*Rocky Mountain Region*

Bighorn National Forest, 1926, traced by  
Bighorn National Forest, 1927, compiled by  
Black Hills National Forest, 1924, compiled and traced by  
Cochetopa National Forest, 1925, traced by  
Cochetopa National Forest, 1928, compiled and drawn by  
Hayden National Forest, 1926, compiled and traced by  
Holy Cross National Forest, 1927, compiled and traced by  
Medicine Bow National Forest, 1928, compiled by (1929)  
Nebraska National Forest, 1928, compiled and drawn by  
Pike National Forest, 1925, revised and traced by  
Shoshone National Forest, 1927, compiled and traced by  
White River National Forest, 1928, compiled by

*Eastern Region*

Huron National Forest, 1929, compiled and traced by (1933)  
Superior National Forest, 1928, compiled by (1934)

\***McCullough, T. E.** (Southwestern Region) McCullough might have been a staff member on the Coconino National Forest based in Flagstaff. Unfortunately, city directories do not go back this far for Flagstaff and other smaller cities. He is not listed in any Albuquerque, New Mexico directory, thus a full name and confirmation of a Forest Service connection could not be made. **Region 3**

Fire Map, Coconino National Forest, 1913, compiled by

**MacDaniels, Everett H.** E. H. MacDaniels. (Pacific Northwest Region, Portland, Oregon) Early in his Forest Service career, MacDaniels most likely worked out of Medford, Oregon, the Forest Supervisor's headquarters for the Crater (later Rogue River) National Forest when he compiled the map listed below. The 1926 Portland city directory records his name and lists his occupation as an "Inspector" with the U.S. Forest Service. The 1927 edition of the directory provided his full first name. **Region 6**

Crater National Forest, 1919, compiled by (1922, 1924, 1925, 1926)

**McGuire, Francis D.** McGuire, F. D. F. D. M. (Eastern Region, Milwaukee, Wisconsin) McGuire began his career as a draftsman for the Forest Service in Milwaukee, Wisconsin in 1934 but left the agency in 1942. **Region 9**

Hoosier National Forest, 1934, Lafayette Unit, Crawford and Perry Counties, compiled by  
Hoosier National Forest, 1934, Patoka Unit, Martin, Dubois, Orange, and Crawford Counties, compiled by  
Ottawa National Forest and Purchase Unit (small scale map), 1936, compiled by  
Grand River Purchase Unit, Iowa, 1935, compiled by  
Keosauqua Purchase Unit, Iowa, 1935, compiled by

**Mangel, John J.** J. J. Mangel. (Southwestern Region, Albuquerque, New Mexico) Mangel became a draftsman for the Forest Service's Southwestern District in 1921. He is last listed in the Albuquerque city directory in 1925 as "Senior compiler, U.S. Forest Service." Thereafter, he is no longer listed as a resident of the city of Albuquerque. **Region 3**

Apache National Forest (West Half), Arizona, 1929, topographic map, compiled and traced by  
Apache National Forest, 1932, topographic map, traced by  
Carson Proclamation diagram, 1923, compiled and traced by  
Carson Proclamation diagram, 1925, compiled and traced by  
Carson National Forest, 1923, compiled and traced by (1925, 1926)  
Coronado Folio (Animas Division), 1923, compiled by  
Crook Proclamation diagram, 1925, compiled and traced by  
Crook National Forest, 1925, compiled and traced by  
Lincoln Proclamation diagram, 1924, compiled and traced by  
Lincoln National Forest, 1923, compiled and traced by (1925, 1931)

**Meekham, Hofer S.** H. S. Meekham. (Washington Headquarters Office) Perhaps the most productive cartographer throughout the first three decades of the Forest Service, compiling folios for all Districts beginning in 1907, producing proclamation diagrams from 1910 to 1915, and moving on to administrative maps, especially for the national forests of the Eastern District after 1920. His output is listed below by district. Initially, Meekham worked on folio mapping for all Districts other than the Eastern and Alaska Districts, proclamation diagrams between 1912-1918, administrative maps for all Districts up to the early 1920s, then, as District cartographic operations in the district offices came up to speed, his name disappears from administrative maps. He continued to work on proclamation diagrams and administrative maps of the Eastern District (including southern forests) until about 1932 when the Washington, D.C. city directory ceases to record his name. Meekham was first listed in the Washington, D.C. city directory of 1910 as being with the "Dept. of Agr." **Regions 1, 2, 3, 4, 5, 6, 8, 9 & 10**

#### *Northern Region*

Absaroka Proclamation diagram, 1912, compiled by  
Beaverhead Proclamation diagram, 1913, compiled by  
Beaverhead Folio, 1909, compiled by  
Blackfeet Proclamation diagram, 1912, compiled by  
Cabinet Proclamation diagram, 1918, compiled by  
Cabinet Folio, 1910, compiled by  
Cabinet National Forest, 1918, compiled by  
Custer Proclamation diagram, 1912, compiled by  
Flathead Proclamation diagram, 1912, compiled by  
Gallatin Proclamation diagram, 1912, compiled by  
Helena Proclamation diagram, 1912, compiled by  
Helena Folio, 1907, compiled by  
Jefferson Proclamation diagram, 1912, compiled by

Kootenai Proclamation diagram, 1912, compiled by  
Lewis & Clark Proclamation diagram, 1912, compiled by  
Missoula Proclamation diagram, 1912, compiled by  
Selway National Forest, 1921, compiled by (1928)

*Rocky Mountain Region*

National Forests of Western Colorado, 1930, compiled by  
Arapaho Proclamation diagram, 1913, compiled by  
Arapaho Proclamation diagram, 1930, compiled by  
Battlement Proclamation diagram, 1913, compiled by  
Cochetopa Proclamation diagram, 1913, compiled by  
Cochetopa Proclamation diagram, 1930, compiled by  
Grand Mesa National Forest, 1927, compiled by  
Gunnison Proclamation diagram, 1930, compiled by  
Leadville Proclamation diagram 1913, compiled by  
Leadville Folio, 1908, compiled by  
Medicine Bow, Wyoming, Folio, 1913, compiled by  
Medicine Bow, Wyoming, Grazing Atlas, 1913, compiled by  
Pike Proclamation diagram, 1930, compiled by  
Pike Folio, 1908, compiled by  
Rio Grande Folio, 1909, compiled by  
Routt Proclamation diagram, 1930, compiled by  
San Isabel National Forest, 1920, projections and land lines by  
San Juan Folio, 1909, compiled by  
White River Proclamation diagram, 1912, compiled by

*Southwestern Region*

Coconino Grazing Atlas, 1912, compiled by  
Coronado Proclamation diagram, 1912, compiled by  
Kaibab Forest Type Folio, 1913, compiled by  
Lincoln Folio, 1910, compiled by  
Manzano Proclamation diagrams, 1923 and 1924, compiled by  
Manzano Folio, 1908, compiled by  
Manzano National Forest (Eastern & Western Divisions), 1922, compiled by (1924) (1926)  
[San Francisco Mountains Folio], 1907, compiled by  
Tusayan Grazing Atlas, 1914, compiled by

*Intermountain Region*

Boise National Forest, 1923, compiled by (1925)  
Cache Proclamation diagram, 1912, compiled by  
Cache National Forest, 1914, compiled by  
Cache National Forest, 1926, compiled by  
Caribou Folio, 1916 and 1929, compiled by  
Caribou Grazing Atlas, 1915, compiled by  
Caribou National Forest, 1921, compiled by  
Fillmore Proclamation diagram, 1914, compiled by  
Humboldt National Forest, 1929, compiled by  
Lemhi Proclamation diagram, 1913, compiled by  
Lemhi Folio, 1909, compiled by  
Lemhi National Forest, 1927, compiled by (1928)  
Manti Proclamation diagram, 1913, compiled by  
Manti Grazing Atlas, 1915, compiled by  
Manti National Forest, 1926, compiled by (1931, 1937)  
Minidoka Proclamation diagram, 1922, compiled by  
Minidoka National Forest, 1920, compiled by  
Minidoka National Forest, 1925, compiled by  
Payette Folio, 1909, compiled by



Powell National Forest, 1924, compiled by  
 Salmon Proclamation diagram, 1913, compiled by  
 Salmon Folio, 1909, compiled by  
 Sawtooth Folio, 1907, compiled by  
 Targhee Folio, [1913], compiled by  
 Targhee Grazing Atlas, [1913], compiled by  
 Targhee National Forest, 1919, compiled by  
 Targhee National Forest, 1922, compiled by (1925)  
 Teton Proclamation diagrams of 1912 and 1916, compiled by  
 Teton National Forest, 1921, compiled by  
 Teton National Forest, 1925, compiled by (1928, 1930, 1934)  
 Wasatch National Forest, 1925, compiled by  
 Weiser National Forest, 1923, compiled by (1925)  
 Wyoming National Forest, 1925, compiled by  
 Kaibab Folio [1913?], Forest Type ed., compiled by

*Pacific Southwest Region*

Cleveland Proclamation diagram, 1925, compiled by  
 Cleveland National Forest, 1920, compiled by (1924)  
 Diamond Mountain Folio, 1907, compiled by  
 Kern Proclamation diagram, 1914, compiled by  
 Klamath Folio, 1909, compiled by  
 Klamath National Forest, 1921, compiled by (1923, 1925)  
 Lassen Folio, 1909, compiled by  
 Lassen Folio [1916?], control by  
 Modoc Proclamation diagram, 1920, compiled by  
 Modoc National Forest, 1920, compiled by (1925, 1927)  
 Mono National Forest, 1919, compiled by (1928)  
 Plumas Folio, 1908, compiled by  
 Sequoia Proclamation diagram, 1917, compiled by  
 Shasta Folio, 1909, compiled by  
 Stanislaus National Forest, 1920, compiled by (1922, 1924)  
 Trinity Proclamation diagram, 1920, compiled by  
 Trinity National Forest, 1920, compiled by

*Pacific Northwest Region*

Cascade National Forest, 1912, compiled by  
 Chelan Folio, 1908, compiled by  
 Chelan National Forest, 1922, compiled by  
 Columbia Folio, 1908, compiled by  
 Columbia Folio, 1920, compiled by  
 Deschutes Folio, 1910, compiled by  
 Minam Folio, 1913, compiled by  
 Rainier Folio, 1908, compiled by  
 Siuslaw Folio, 1910, compiled by  
 Snoqualmie Folio, 1907, compiled by  
 Snoqualmie National Forest, 1919, compiled by  
 Umatilla Folio, 1910, compiled by  
 Umatilla National Forest, 1922, compiled by (1930)  
 Umatilla National Forest, 1930, compilation revised by (1935 – South Half only)  
 Wallowa Folio, 1910, compiled by  
 Wallowa Folio, 1917, compiled by  
 Washington Folio, 1907, compiled by  
 Wenaha Folio, 1910, compiled by  
 Wenatchee Proclamation diagram, 1925, compiled by  
 Wenatchee Folio, 1908, compiled by  
 Wenatchee National Forest, 1922, compiled by (1925, 1932)

### *Southern Region*

Alabama National Forest, 1930, compiled by  
Cherokee National Forest, 1931, compiled by (1932)  
Cherokee Purchase Unit, Georgia, North Carolina, and Tennessee [1932], status lines to date, Sept. 15, 1932 by  
Choctawhatchee National Forest, 1929, compiled by  
Luquillo National Forest, 1929, compiled by  
Osceola National Forest, 1931, compiled by  
Ouachita Proclamation diagram, 1931, Arkansas & Oklahoma Divisions, compiled by  
Ouachita National Forest, 1931, Arkansas Division, compiled by  
Ouachita National Forest, 1931, Oklahoma Division, compiled by  
Ozark Proclamation diagram, 1928, compiled by  
Ozark National Forest, 1919, compiled by  
Ozark National Forest, 1928, compiled by  
Pisgah Proclamation diagram, 1929, compiled by  
Pisgah National Forest, 1929, compiled by  
Pisgah National Forest, Mt. Mitchell Division, 1930, compiled by  
Pisgah National Forest, French Broad Division, 1931, compiled by  
Pisgah National Forest, Pisgah Division, 1931, compiled by

### *Eastern Region*

Marquette National Forest, 1932, compiled by  
Ottawa National Forest, 1932, compiled by

### *Alaska Region*

Chugach National Forest, 1910, 2-map set, compiled and drawn by  
Tongass National Forest, 1910, 3-map set, compiled and drawn by

**Mehurin, Ellen L.** E. L. Mehurin. E. L. M. (Washington Headquarters Office) One of the Forest Service's most productive cartographers, Mehurin's name appears as the tracer for many folio pages, proclamation diagrams, and administrative maps from 1915 to 1938. Towards the end of her career, she worked primarily on maps of the national forests of the South, her last map credits coming in 1938 for the Homochitto and Ocala National Forests. She can be found in Washington, D.C. city directories from 1912 to 1938. **Regions 1, 2, 3, 4, 5, 6, 8, 9 & 10**

### *Northern Region*

Cabinet National Forest, 1925, traced by  
Clearwater National Forest, 1920, compiled & traced by (1925)  
Flathead National Forest, 1922, traced by (1927)  
Helena Proclamation diagram, 1919, traced by  
Helena National Forest, 1918, traced by  
Kaniksu Proclamation diagram, 1927, traced by  
Kaniksu National Forest, 1921, traced by (1928)  
Pend Oreille Proclamation diagram, 1927, traced by  
Pend Oreille National Forest, 1922, traced by (1928)  
St. Joe National Forest, 1921, compiled and traced by (1925, 1927)  
Selway National Forest, 1921, compiled and traced by (1928, 1935)

### *Rocky Mountain Region*

National Forests of Western Colorado, 1930, traced by  
Arapaho Proclamation diagram, 1930, traced by  
Black Hills National Forest, 1917, traced by  
Cochetopa Proclamation diagram, 1930, traced by  
Gunnison Proclamation diagram, 1930, traced by  
Harney National Forest, 1919, traced by (1924 1:253,440-scale Administrative map)  
Medicine Bow Proclamation diagram, 1924, traced by  
Pike Proclamation diagram, 1930, traced by  
Routt Proclamation diagram, 1930, traced by

### *Southwestern Region*

Apache Proclamation diagram, 1925, traced by  
Apache National Forest, 1925, traced by (1926, 1928)  
Coronado National Forest, 1918, compiled and traced by (1922, 1927, 1931, 1934, 1937, 1939, 1940, 1953)  
Datil Proclamation diagrams, 1921 and 1925, compiled and traced by  
Datil National Forest, 1919, compiled and traced by (1921, 1925)  
Gila Proclamation diagram, 1921, compiled and traced by  
Gila National Forest, 1919, compiled and traced by (1921, 1924)  
Manzano Proclamation diagram, 1924, traced by  
Manzano National Forest (Western Division), 1922, traced by  
Manzano National Forest (Eastern & Western Divisions), 1924, traced by (1926)

### *Intermountain Region*

Ashley National Forest, 1918, traced by  
Idaho Proclamation diagram, 1919, traced by  
Lemhi National Forest, 1927, traced by (1928, 1934, 1936)  
Payette Proclamation diagram, 1919, traced by  
Salmon Proclamation diagram, 1930, traced by  
Salmon National Forest, 1930, traced by (1934, 1937)  
Teton National Forest, 1921, compiled by  
Weiser National Forest, 1923, traced by

### *Pacific Southwest Region*

Cleveland National Forest, 1926, traced by (1930, 1934, 1937, 1940, 1944)  
Eldorado National Forest, 1920, traced by  
Inyo Folio, 1915, traced by  
Klamath National Forest, 1921, traced by (1923, 1925)  
Lassen Folio [1916?], traced by  
Lassen National Forest, 1930, traced by  
Lassen National Forest, 1932, 1:253,440-scale administrative map, traced by (1933)  
San Bernardino National Forest, 1926, traced by (1931, 1934, 1937, 1943)  
Sierra National Forest, 1918, compiled and traced by (1922, 1924, 1925, 1927, 1932, 1934)  
Stanislaus National Forest, 1927, traced by (1934, 1936, 1939)  
Stanislaus National Forest, 1935, forest visitor map, revised by

### *Pacific Northwest Region*

Crater National Forest, 1919, traced by (1922, 1924, 1925, 1926)  
Deschutes National Forest, 1940, compiled by  
Wallowa National Forest, 1937, traced by  
Wenatchee Proclamation diagram, 1925, traced by  
Wenatchee National Forest, 1920, compiled by (1931)  
Wenatchee National Forest, 1922, traced by (1925, 1932)

### *Southern Region*

Arkansas National Forest, 1925, compiled and traced by  
Florida National Forest, Western [Choctawhatchee] Division, 1917, traced by  
Homochitto National Forest, 1938, traced by (1959)  
Knox National Forest Executive Order diagram, 1925, [drawn by]  
Natural Bridge National Forest Proclamation diagrams of 1924 and 1927, compiled and traced by  
Natural Bridge National Forest, 1924, compiled and traced by (1927, 1930, 1933)  
Ocala National Forest, 1930, compiled by  
Ocala National Forest, 1938, traced by (1949, 1956?)  
Ouachita Proclamation diagram, 1926, compiled and traced by  
Ouachita Proclamation diagram, 1931, Arkansas Division, traced by  
Ouachita National Forest, Arkansas and Oklahoma (Arkansas Division), 1931, traced by  
Ozark National Forest, Central Division, 1932, traced by  
Pisgah Proclamation diagram, Part 1, 1921, compiled and traced by

Pisgah Proclamation diagram, 1929, traced by  
Pisgah National Forest, 1921, topographic map, compiled and traced by (1923)  
Pisgah National Forest, 1929, traced by  
Shenandoah Proclamation diagram, 1919, compiled and traced by  
Shenandoah National Forest, 1920, compiled and traced by  
Wichita Folio, 1919, compiled and traced by  
Wichita National Forest and Game Preserve, 1923, topographic map, compiled and traced by (1929)

#### *Eastern Region*

Allegheny National Forest, 1928, compiled and traced by (1932, 1936, 1937, 1940, 1942)  
Chequamegon Purchase Unit, 1933, compiled by  
Chequamegon National Forest, Flambeau Division, 1933, traced by (1937)  
Hiawatha National Forest, 1932, compiled and traced by (1935, 1939)  
Monongahela National Forest, Proclamation diagram, 1920, compiled and traced by  
Monongahela National Forest, Proclamation diagram, 1928, traced by  
Monongahela National Forest, 1924, traced by (1928)  
Moquah Purchase Unit [Nicolet National Forest], 1931, compiled and traced by  
Nicolet National Forest, Argonne Division, 1933, compiled by  
Nicolet National Forest, Moquah Division, 1933, compiled and traced by  
Savanna National Forest, Executive Order diagram, 1925, compiled by  
Tobyhanna National Forest, Executive Order diagram, 1925, compiled by  
White Mountain National Forest, 1934, traced by (1937)

#### *Alaska Region*

Chugach National Forest, Proclamation diagram, 1925, compiled and traced by.  
Chugach National Forest, 1922, compiled and traced by (1925)  
Chugach National Forest, 1936, compiled and traced by  
Tongass National Forest, Proclamation diagram, 1925, traced by  
Tongass National Forest, 1925, traced by  
Tongass National Forest, 1929, traced and revised by

**Merriam, Clinton Hart.** C. Hart Merriam. (Pacific Southwest Region, San Francisco, California) Merriam served as Chief, Biological Survey between 1886 and 1910, then an agency of the U.S. Department of Agriculture. **Region 5**

Map of California showing National Forests and Main Highways, 1907, [drawn by]

\***Mooney, L. D.** (Eastern Region) Mooney has not been identified in any directory. His one map credit is for the corrections and additions made on the 1936 map of the Huron National Forest. He could have been a WPA hire or, like the unidentified G. I. B (above), a CCC enrollee. **Region 9**

Huron National Forest, 1936, corrections and additions by

**Moore, Rolland H.** Moore, R. H. (Pacific Southwest Region, San Francisco, California) Moore's name was found in the 1953 Sacramento city directory working as the Chief, Photogrammetry Section, U.S. Geological Survey. Documentation attaching his name to Forest Service topographic and other mapping efforts could not be located. His earliest map credit is for the topography on the 1936 Shasta National Forest topographic map, then as compiler for three maps of the Lassen National Forest. Perhaps like cartographers Earl M. Buckingham and C. Seid, Moore was stationed in Susanville, the Supervisor's Headquarters of the Lassen National Forest, at the time he compiled the topographic maps. **Region 5**

Lassen National Forest, 1938, topographic map, compiled by (1947)  
Lassen National Forest, 1939, administrative map, compiled by (1950)  
Lassen National Forest, 1940, forest visitor map, compiled by  
Shasta National Forest, 1936, topographic maps, topography by

**Moorhouse, Thomas Leander.** Moorhouse. Major Moorhouse. (Pacific Northwest Region, Portland Oregon). Famous Oregon photographer based in Pendleton Oregon. Moorhouse arrived in Oregon in 1861 at the age of 11 from Marion County, Iowa and became a miner, surveyor, rancher, businessman, civic leader, Umatilla Indian agent, and assistant adjunct general of the Oregon State militia, where he rose to the rank of major. Beginning in 1888, he produced over 10,000 photographic images documenting Native American cultures and the urban and rural lives of white settlers in eastern Oregon and Washington, as well as 600 images of the Pendleton Round-up from its beginning in 1910. His photos of Native Americans can be found on the front folded covers of forest visitor maps of the Umatilla National Forest from 1922 to 1931. His work forms an unsurpassed social history archive for this time period and for this region. He died in 1926.

North Half, Umatilla National Forest, Washington and Oregon, 1922, folded map cover photograph by  
South Half, Umatilla National Forest, Washington and Oregon, 1922, folded map cover photograph by  
Umatilla National Forest, Washington, North Half, 1926, folded map cover photograph by  
Umatilla National Forest, Washington, South Half, 1926, folded map cover photograph by  
Umatilla National Forest (North Half), Oregon and Washington, 1931, folded map cover photograph by  
Umatilla National Forest (South Half), Oregon and Washington, 1931, folded map cover photograph by

**Morrow, Nicolas G.** N. G. Morrow. (Pacific Southwest Region, San Francisco, California) Morrow served as a draftsman for the Forest Service in 1937. **Region 5**

Lassen National Forest, 1938, topographic map, topography by (1947)  
Shasta National Forest, 1933, topographic maps, topography by (1936)

**Murphy, Philip A.** Phil A. Murphy. (Northern Region, Helena, Montana) The 1947 edition of Polk's Helena city directory lists Murphy as a "Draftsman" located at 117 ½ Broadway, Apartment 1, Helena, Montana. **Region 1**

Howdy & Welcome to Helena in the Heart of the Gold Country [Helena National Forest, 1950]

## N

**\*L. S. N.** (Southern Region) Searching both the Atlanta city directories (Regional Headquarters) as well as the Hot Springs, Arkansas city directories for the time period 1968 to 1970 failed to yield any references to an L.S.N. working for the Forest Service. These initials given on the map cited below were the very last map credit made in the Southern Region identifying an individual. **Region 8**

Mena Recreation Area of the Ouachita National Forest, 1969, [drawn by]

**\*N. B. N.** N. N. (Pacific Northwest Region) These initials appear on several numbers of in the Recreation Guide series for Oregon areas, but could not be deciphered using the Portland city or Forest Service directories of the time. **Region 6**

Lower Rogue River Recreation Area, Siskiyou National Forest, Oregon, Recreation Guide No. 14 – Oregon, corrected by  
Murderers Cr. and Deer Cr. Hunting Area, Malheur National Forest, Oregon, Recreation Guide No. 18 – Oregon,  
corrected by  
Canyon Creek Archers Refuge, Open to Hunting with Bow and Arrow Only, Malheur National Forest, Oregon, Recreation  
Guide No. 19, compiled by  
Anthony Lakes Recreation Area, Whitman National Forest, Oregon, Recreation Guide No. 24 – Oregon, compiled by  
Northern Blue Mountains Recreation Area, Umatilla National Forest, Oregon and Washington, Recreation Guide No. 30 –  
Oregon, compiled by  
Oregon Coast Highway Recreation Areas, Siuslaw National Forest, Recreation Guide No. 31 – Oregon, compiled by  
Fremont Recreation Area, Fremont National Forest, Oregon, Recreation Guide No. 33 – Oregon, compiled by  
Oregon Skyline Trail: Pacific Crest System, Oregon, Recreation Guide No. 35 – Oregon, compiled by  
Breitenbush Loop Recreation Area, Mt. Hood & Willamette National Forests, Oregon, Recreation Guide No. 39 – Oregon,  
compiled by  
Index to Recreation Maps, Western Oregon, Unnumbered sheet, [compiled by]

**Neiman, Lloyd I.** L. I. Neiman. L. I. N. (Southwestern Region, Albuquerque, New Mexico; Southern Region, Atlanta, Georgia) Neiman is first listed in the 1925 edition of the Albuquerque city directory as a “draftsman, U.S. Forest Service.” According to the map record and Forest Service directories, Neiman transferred to Atlanta, the newly created Southern Region’s headquarters in 1935. His name last appeared in the 1934 Albuquerque city directory and first appeared in the Atlanta directory in 1935 working as a draftsman for the Department of Agriculture up to 1942. With Helen O’Neill, he became one of most productive cartographers of the Southern Region with a remarkable number of map credits to his name. **Region 3 & 8**

#### *Southwestern Region*

National Forests, Region 3, Showing Main Highways, 1934, traced by  
Carson National Forest, 1930, compiled and traced by  
Carson National Forest, 1934, compiled by (1935, 1937, 1941)  
Coronado National Forest (Chiricahua Division), 1929, Topographic map, compiled and traced by (1938)  
Coronado National Forest, Santa Rita Division, 1932, Topographic map, compiled and traced by  
Crook National Forest, 1931, traced by (1934, 1937, 1941, 1949)  
Kaibab National Forest, 1934, compiled and traced by  
Kaibab National Forest, 1938, Administrative map, compiled and traced by  
Tusayan National Forest, 1927, compiled and traced by (1934)

#### *Southern Region*

National Forests and Purchase Units in Region 8, 1935, [drafted by]  
Puerto Rico and Contiguous Islands under its Jurisdiction, 1939, revised by  
Angelina National Forest, 1937, assembled and traced by (1948)  
Bienville National Forest, 1937, revised by  
Black Warrior National Forest, 1939, traced by  
Caribbean National Forest, Luquillo Ranger District, Puerto Rico, 1940, administrative map, traced by  
Puerto Rico and Contiguous Islands Showing Caribbean National Forest and Toro Negro Purchase Unit, 1939, traced by  
Armuchee Purchase Unit [Chattahoochee National Forest], 1937, compiled and traced by  
Lookout Mtn. Purchase Unit [Chattahoochee National Forest], 1937, compiled and traced by  
Choctawhatchee National Forest, 1939, topographic map, traced by  
Conecuh National Forest, 1935, traced by (1937)  
Conecuh National Forest, 1939, traced by (1951)  
Davy Crockett National Forest, 1937, assembled and traced by (1948)  
De Soto National Forest, Chickasawhay Purchase Unit, 1934, traced by  
De Soto National Forest, Biloxi Purchase Unit, 1935, traced by  
De Soto National Forest, Leaf River Purchase Unit, 1935, Eastern Half, traced by  
De Soto National Forest, Leaf River Division, West Half, 1936, revised by  
De Soto National Forest, Chickasawhay Division, 1937, traced and revised by  
De Soto National Forest, Leaf River Division – Biloxi Ranger District, 1937, traced by  
De Soto National Forest, Leaf River Div. – East Half Leaf River Ranger Dist., 1937, traced and revised by  
De Soto National Forest, Leaf River Div. – West Half Leaf River Ranger Dist., 1937, revised by  
De Soto National Forest, Biloxi Ranger District of the Leaf River Division, 1940, traced by  
De Soto National Forest, Chickasawhay Division and Ranger District, 1941, traced by (1961)  
De Soto National Forest, Leaf River Division, East Half, Leaf River Ranger District, 1941, traced by  
Francis Marion National Forest, 1939, traced by (1945, 1957)  
Holly Springs National Forest, 1937, revised by  
Homochitto National Forest, 1937, revised by  
Homochitto National Forest, 1938, compiled by (1959)  
Kisatchie National Forest, Vernon Unit, 1936, traced by  
Kisatchie National Forest, 1941, revised by  
Nantahala National Forest, 1942, revised by  
Ouachita National Forest, Arkansas Division, 1937, traced by (1945)  
Ouachita National Forest, 1938, compiled and traced by  
Ozark National Forest, Main Division, 1938, compiled and traced by  
Ozark National Forest, Sylamore Ranger District, 1941, traced by  
Ozark National Forest, Main Division, 1946, traced by

Pisgah National Forest, Yadkin Purchase Unit, 1935, traced by  
 Pisgah National Forest, Pisgah Ranger District, 1941, revised by  
 Sabine National Forest, 1937, assembled and traced by (1949)  
 Sam Houston National Forest, 1936, assembled and traced by  
 Sam Houston National Forest, 1938, assembled and traced by (1948)  
 Sumter National Forest, Enoree Division, 1938, revised by (1947)  
 Sumter National Forest, Long Cane Division, 1938, revised by (1947)  
 Oakmulgee Purchase Unit [Talladega National Forest], 1935, drawn by (1937)  
 Talladega Purchase Unit, 1935, drawn by  
 Talladega National Forest, Oakmulgee Division, 1940, reduced and traced by (1951)  
 Talladega National Forest, Talladega Division, 1940, reduced and traced by (1950)  
 Tombigbee Purchase Unit, Alabama, 1935, traced by  
 William B. Bankhead National Forest, 1950, traced by  
 Part of Nantahala National Forest, showing location of Joyce Kilmer Memorial Forest, 1939, [drawn by]

**Newhall, George N.** Newhall, G. N. (Pacific Southwest Region) Newhall graduated from the University of California Berkeley in 1933 with a degree in civil engineering. His World War II era draft card lists his employer as the U.S. Forest Service, 760 Market Street, San Francisco (Phelan Building), and the 1940 Census roll entry for Newhall has his occupation as Assistant Highway Engineer for the Forest Service. Newhall was born in Johannesburg, South Africa and in the 1940s was living in the East Bay city of El Cerrito. Records for Newhall could not be located for the 1950s. It was rare to have map credits attached to ranger district maps, so perhaps he had been temporarily posted to the Plumas National Forest headquarters in the town of Quincy, California. **Region 5**

Map of La Porte Ranger District, Plumas National Forest, 1954, quadrangles compiled under the supervision of

**Nichols, George L.** G. L. Nichols. (Intermountain Region, Ogden, Utah) Nichols joined the Engineering staff of District 4 in 1925 as “Chief Draftsman” according to Polk’s Ogden city directory for that year and continued in the Surveys and Map Section until late 1936 when he was put in charge of Buildings Section later known as the Structures and Related Buildings Section. Ogden city directories identify Nichols as being an Architectural Engineer with the Forest Service. **Region 4**

Tourist Map of Eastern Idaho and Western Wyoming, 1925, compiled and traced by  
 Map of Southern Idaho and Western Wyoming, 1926, compiled and traced by  
 National Forests of the Northern Half of the Intermountain Region, 1931, compiled and traced by  
 National Forests of the Southern Half of the Intermountain Region, 1931, compiled and traced by  
 Ashley National Forest Executive Order map, 1933, compiled by  
 Ashley National Forest, 1928, compiled and traced by (1931)  
 Ashley National Forest, 1933, compiled by (1934, 1945)  
~~Wyoming~~ [Bridger] National Forest, Wyoming, 1940, compiled and traced by  
 Boise National Forest, 1929, compiled and traced by (1933, 1934, 1936)  
 Boise National Forest, 1933, traced by (1934, 1936)  
 Bridger National Forest, Bridger Division, 1946, traced [1929] by (1954, 1960)  
 Cache National Forest, 1932, traced by (1936, 1940)  
 Challis National Forest, 1927, compiled and traced by  
 Challis National Forest, 1930, compiled and traced by  
 Challis National Forest, 1935, compiled and traced by (1936, 1937)  
 Fishlake National Forest, 1925, traced by (1931)  
 Idaho Proclamation diagram, 1926, traced by  
 Idaho National Forest, 1926, traced by  
 Idaho National Forest, 1930, revised by (1938)  
 Lemhi National Forest, 1928, revised by (1934, 1936)  
 Manti National Forest, 1931, revised by (1937)  
 Payette National Forest, 1928, revised and traced by  
 Payette National Forest, 1934, traced by  
 Payette National Forest, 1938, compiled and traced by (1941)  
 Sawtooth National Forest, 1926, revised and traced by



Targhee National Forest, 1932, traced by (1939)  
 Teton National Forest, 1928, revised by  
 Teton National Forest, 1930, revised by (1934)  
 Toiyabe Proclamation diagram, 1931, traced and revised by  
 Toiyabe National Forest, 1928, traced by  
 Toiyabe National Forest, 1931, traced and revised by (1942)  
 Uinta Proclamation diagram, 1929, compiled and traced by  
 Uinta National Forest, 1927, compiled and traced by (1938)  
 Wasatch National Forest, 1929, compiled and traced by (1931, 1934, 1935)  
 Weiser National Forest, 1925, revised and traced by  
 Wyoming National Forest, 1930, compiled and traced by (1936, 1940)  
 Kaibab National Forest, 1926, traced by  
 Timpanogos Cave National Monument, Wasatch National Forest, 1930, [drawn by]

**Noel, John P.** J. P. N. (Eastern Region, Washington, D.C.) The Washington, D.C. directory of 1915 identifies John P. Noel working as a “Clerk” for the Forest Service; the 1924 edition, employed by the U.S. Department of the Interior; 1930 edition, as a “Draftsman” for the War Department; 1934 edition simply as a “Lithographer.” His one map of the then (1934) new Toro Negro Purchase Area in Puerto Rico had been drawn for the National Forest Reservation Commission, which had, since its creation under the Weeks Law of 1911, the War Department as its lead agency. Atlanta city directories for this time period do not include any names under the initials “J. P. N.” that could point to a working cartographer. Perhaps Noel, assuming he was still an employee of the War Department, had been asked to draft the map of the purchase area based on his experience with the Forest Service. **Region 8**

Toro Negro Purchase Area, Puerto Rico, 1934, [drawn by]

**Noel, Joseph Snider.** J. S. Noel. J. S. N. (Washington Headquarters Office) Noel mostly worked on tracing folio pages for forests throughout the West and later proclamation diagrams and is found in the 1910 Washington, D.C. city directory as being a “draftsman, Dept. Agr.” Noel is also credited with the tracing and lettering of the special edition of the General Land Office map of Alaska, made for the Alaska-Yukon-Pacific Exposition held in Seattle, Washington in 1909. He also followed up on his Alaska map by working on the two-map set of the Chugach National Forest and the three-map set of the Tongass National Forest dated 1910. **Regions 1, 2, 3, 4, 5, 6, 8 & 10**

#### *Northern Region*

Beaverhead Folio, 1909, traced by  
 Helena Folio, 1907, traced by

#### *Rocky Mountain Region*

Harney Folio, 1912, compiled by  
 Medicine Bow, Wyoming, Folio, 1913, traced by  
 Medicine Bow, Wyoming, Grazing Atlas, 1913, traced by  
 Pike Folio, 1908, traced by  
 Rio Grande Folio, 1909, traced by  
 Rio Grande National Forest, 1911, [traced by]  
 San Juan Folio, 1909, traced by

#### *Southwestern Region*

Coconino Grazing Atlas, 1912, compiled by  
 Lincoln Folio, 1910, traced by

#### *Intermountain Region*

Payette Folio, 1909, traced by  
 Salmon Folio, 1909, traced by  
 Sawtooth Folio, 1907, traced by  
 Targhee Folio and Grazing Atlas, 1913, compiled and traced by

*Pacific Southwest Region*

California Folios of 1911 and 1912, compiled and traced by  
California National Forest, 1912, compiled and traced by  
Diamond Mountain Folio, 1907, compiled and traced by  
Kern Proclamation diagram, 1914, topography and tracing by  
Lassen Folio, 1909, compiled [and traced] by  
Plumas Folio, 1908, compiled [and traced ] by  
Sequoia Proclamation diagram, 1917, topography and tracing by  
Shasta Folio, 1909, [traced by]

*Pacific Northwest Region*

Minam Folio, 1913, traced by  
Siuslaw Folio, 1910, traced by  
Wenatchee Folio, 1908, traced by

*Southern Region*

Wichita Folio, 1907, [traced by]

*Alaska Region*

Chugach National Forest, 1910, 2 map set, traced and lettered by  
Tongass National Forest, 1910, 3 map set, traced and lettered by

**Nordmark, Godfrey G., Jr.** G. G. Nordmark, Jr. G. G. N., Jr. (Rocky Mountain Region, Denver, Colorado)

Nordmark's name appeared in the 1929 Denver city Directory as a "Draftsman" for the Denver Phone Company. The next year he was working in that capacity for the U.S. Forest Service until 1939. From 1940 onwards, Nordmark served Denver residents as an attorney. **Region 2**

National Forests of the Rocky Mountain Region, Region 2, 1932, drawn by (1940)  
Black Hills and Harney National Forests, South Dakota and Wyoming, 1934, compiled and drawn by  
Nebraska National Forest, 1932, traced by  
San Isabel National Forest, 1931, compiled and drawn by  
San Juan National Forest, 1933, forest visitor map, drawn by  
Uncompahgre National Forest, 1935, revised by

**Noyes, Clare B.** C. B. Noyes. C. B. N. (Washington Headquarters Office) Noyes was another highly productive cartographer with a specialty in topography, but her name can also be found on proclamation diagrams, folio map plates, and administrative maps for all regions of the Forest Service except Alaska. She was appointed to the position of "Draftsman" in April of 1907 and her name first appears on the Snoqualmie National Forest Folio of 1907 and last found on the 1940 Los Padres National Forest, Monterey Division administrative and topographic maps as the one who traced these maps. The 1940 credit probably carries forward her work on the 1934 Monterey Division map of the then named Santa Barbara National Forest onto the newly revised maps. William P. Wharton of the American Forestry Association and Chairman of the Joint Committee on Recreational Survey of Federal Lands expressed his gratitude to her and to her fellow Forest Service cartographer, Francene Sizer in the Committee's 1928 report to the National Conference on Outdoor Recreation for drafting the maps found in the report. Her name can be found in city directories of Washington, D.C. beginning in 1915 and thereafter. **Regions 1, 2, 3, 4, 5, 6, 8 & 9**

*Northern Region*

Flathead National Forest, 1925, topographic map, traced in part by (1933)  
Lewis & Clark National Forest, 1926, topographic map, traced by

*Rocky Mountain Region*

National Forests District No. 2, 1914, drawn by  
Durango National Forest, 1917, traced by  
Leadville Folio, 1908, traced by  
Pike Folio, 1908, traced by

### *Southwestern Region*

Dixie National Forest, 1923, compiled and traced by (1924)  
Manzano Proclamation diagrams, 1923 and 1924, traced by  
Manzano National Forest (Eastern Division), 1922, traced by (1924)  
Manzano National Forest (Eastern & Western Division), 1926, traced by

### *Intermountain Region*

Ashley National Forest Executive Order map, 1933, traced by  
Ashley National Forest, 1933, traced by (1934, 1945)  
Boise National Forest, 1923, compiled by (1925)  
Caribou National Forest, 1921, traced by  
Dixie National Forest, 1923, compiled and traced by (1924)  
Manti National Forest, 1926, traced by (1931, 1937)  
Nevada National Forest, 1919, traced by  
Powell National Forest, 1924, traced by  
Toiyabe Proclamation diagram, 1921, traced by  
Toiyabe National Forest, 1920, traced by  
Weiser National Forest, 1919, compiled by

### *Pacific Southwest Region*

Angeles National Forest, 1920, 1:253,440-scale administrative map, compiled and traced by  
Angeles National Forest, 1923, traced by (1924)  
Eldorado National Forest, 1918, traced by  
Eldorado National Forest, 1925, 1:126,720-scale, administrative map, traced by  
Inyo Folio, 1915, traced by  
Lassen Folio [1916?], traced by  
Lassen National Forest, East & West Halves, 1933, 1:126,720-scale administrative map, traced by  
Los Padres National Forest, Monterey Division, 1940, administrative and topographic maps, traced by  
Mono National Forest, 1935, traced by  
Santa Barbara National Forest (Monterey Division), 1934, topographic map, traced by  
Shasta Folio, 1909, [traced by]  
Stanislaus National Forest, 1920, traced by (1922, 1924)  
Trinity Proclamation diagram, 1920, traced by  
Trinity National Forest, 1920, traced by  
Trinity National Forest, 1931, 1:126,720-scale administrative map, traced by

### *Pacific Northwest Region*

Chelan Folio, 1908, traced by  
Chelan National Forest, 1922, traced by  
Columbia Folio, 1908, traced by  
Columbia Folio, 1920, traced by  
Rainier Folio, 1908, traced by  
Snoqualmie Folio, 1907, traced by  
Umatilla National Forest, 1922, traced by  
Umatilla National Forest, 1930, compilation revised and traced by (1935 – South Half only)  
Wenatchee Folio, 1908, traced by

### *Southern Region*

National Forests of the Eastern District (District 7), 1921, compiled and traced by  
Alabama National Forest, 1924, traced by  
Cherokee Proclamation diagram, 1928, traced by  
Cherokee National Forest, 1928, traced by  
Choctawhatchee National Forest, 1929, traced by (1933)  
Ouachita Proclamation diagram, 1931, Oklahoma Division, traced by  
Ouachita National Forest, Arkansas and Oklahoma (Oklahoma Division), 1931, traced by  
Ozark Proclamation diagrams of 1928 and 1936, revised and traced by  
Ozark National Forest, 1928, revised and traced by (1936)

Pisgah National Forest, Parts 2 and 4, North Carolina and Tennessee, 1925, compiled by  
Pisgah National Forest, Pisgah Division, 1931, traced by  
Pisgah National Forest, Grandfather Division, 1933, traced by

*Eastern Region*

National Forests of the Eastern District (District 7), 1921, compiled and traced by

## O

**O'Neill, Helen D.** H. O'Neill. H. O'N. (Southern Region, Atlanta, Georgia) In 1935 both the Atlanta city directory and the Forest Service *Directory* list O'Neill for the first time and indicate she worked as a draftsman. She went on to become one of the most productive cartographers of the Southern Region with a remarkable number of map credits to her name. During the war years and after, she undoubtedly provided the continuity for the Engineering Division's drafting department. Atlanta city directories track her continuous service from 1935 to 1958. **Region 8**

Recreation map, Ocala National Forest, 1955, [drawn by  
Angelina National Forest, 1948, revised by  
Apalachicola National Forest, Apalachicola Ranger District, 1949, revised by (1968)  
Chattahoochee National Forest, [all three Ranger District maps], 1944, revised by  
Chattahoochee National Forest, 1954, administrative map, revised and traced by (1960, 1964)  
Chattahoochee National Forest, 1954, forest visitor map, drawn by  
Chattahoochee National Forest, Armuchee Ranger District, 1955, revised by  
Concuh National Forest, 1935, traced by (1937)  
Concuh National Forest, 1951, revised by  
Davy Crockett National Forest, 1948, revised by  
Francis Marion National Forest, 1957, revised by  
Kisatchie National Forest, Catahoula Division, 1952, traced by  
Kisatchie National Forest, Kisatchie – Vernon – Evangeline Divisions, 1952, traced by  
Recreation map, Nantahala National Forest, 1948, [drawn by]  
Nantahala National Forest, 1950, drawn and traced by (1956)  
Ocala National Forest in *Florida National Forests*, [1951], forest visitor booklet and maps, revised by  
Recreation Map, Ocala National Forest, Florida, 1952, [revised by]  
Ocala National Forest in *Florida National Forests*, 1955, forest visitor booklet and maps, revised by  
Ocala National Forest, 1949, revised by (1956?)  
Ouachita National Forest, 1938, compiled and traced by  
Ouachita National Forest, 1953, traced by  
Ozark National Forest, 1941, forest visitor map, prepared by  
Ozark National Forest, Boston Mountain addition, 1945, prepared by  
Ozark National Forest, Main Division, 1946, traced by  
Ozark National Forest, Magazine Mountain Ranger District, 1951, revised by  
Ozark National Forest, 1954, drawn by  
Pisgah National Forest, Grandfather Ranger District, 1949, revised by  
Pisgah National Forest, French Broad Ranger District, 1954, revised by  
Sabine National Forest, 1949, revised by  
Sam Houston National Forest, 1948, revised by  
Sumter National Forest, General Pickens Ranger District, 1952, revised and traced by  
Talladega National Forest, Talladega Division, 1950, revised by  
Talladega National Forest, Oakmulgee Division, 1951, revised by  
Pisgah – Unaka Natl Forest, Uwharrie Purchase Unit, 1935 [1944], revised by  
William B. Bankhead National Forest, 1950, revised by

**Olmstead, Frederick E.** Mr. Olmstead. “Fritz” Olmstead, was a long-time colleague of Gifford Pinchot from the Biltmore Forest to the U.S. Forest Service. The Forest History Society has a biographical information file on Olmstead in its Research Center in Durham, North Carolina. Olmstead is named on the Little Missouri Forest Reserve map of 1905.  
**Region 1**

Little Missouri Forest Reserve (Dakota), 1905, named on the map

**Osborne, William Bush, Jr.** Wm. B. Osborne. (Pacific Northwest Region, Portland, Oregon) Osborne moved from being an Assistant Forester on the Oregon National Forest headquartered in Portland in 1911, to become a “Forest Examiner” in 1914, and a “Deputy Forest Supervisor” in 1915. Later Portland city directories note that he served in the Forest Service as a Forest “Examiner.” Forest Service directories place him in the Fire Control Division responsible for fire suppression in the Portland Office in 1916 until 1932, when he moved to Seattle, Washington, and was placed in charge of the “Cooperative Fire Equipment Project.” By 1936 he was back at the Regional Office in Portland working in the State and Private Forestry Division, Private Forestry Section. **Region 6**

Oregon National Forest, Oregon, Hood River District, 1912, compiled and mapped by  
Oregon National Forest, 1913, revised by  
Oregon National Forest, 1916, compiled and mapped by

**Oswald, Joseph M.** J. M. Oswald. J. O. (Eastern Region, Milwaukee, Wisconsin) Like several other cartographers in Region 9, Oswald began his career with the Forest Service in 1934. Oswald operated out of the North Central Region offices in Milwaukee, Wisconsin, drawing maps of the Region’s many purchase units. He continued with the Forest Service until 1950. In that year the Milwaukee city directory stopped recording his name. Oswald drew the two maps of purchase areas in North Dakota at the time when national forest properties in the state of North Dakota were administered by Region 9, the North Central Region, from its headquarters in Milwaukee, Wisconsin. **Regions 1 & 9**

#### *Northern Region*

Shenandoah Purchase Area, North Dakota (Region 9) 1935, [drawn by]  
Souris Purchase Area, North Dakota (Region 9) 1935, [drawn by]

#### *Eastern Region*

National Forests and Purchase Unit Areas of the North Central Region, 1934, compiled by  
National Forests and Purchase Units as of September 1, 1934, compiled by  
National Forests and Purchase Units, 1935, compiled by  
Chequamegon National Forest, Chequamegon Division, Wisconsin, 1937, traced by  
Chequamegon National Forest....(small scale map), 1937, traced by  
Chippewa National Forest and purchase unit, 1935, revised by  
Clark Purchase Unit [Clark National Forest]..., 1935, revised by (1939)  
Fristoe Purchase Unit [Clark National Forest]..., 1935, revised by  
St. Francois Purchase Unit [Clark National Forest]..., 1935, compiled by  
Wappapello Purchase Unit, [Clark National Forest]..., 1935, [Clark National Forest], revised by, 1:500,000-scale map  
Hiawatha National Forest (small scale map), 1937, compiled by  
Hoosier National Forest, 1935, Indiana Purchase Units, compiled by  
Manistee Purchase Unit (small scale map), 1935, compiled by  
Mark Twain National Forest, Table Rock Purchase Unit (small scale map), 1936, compiled by  
Nicolet National Forest (small scale map), 1937, compiled by  
Ottawa National Forest (small scale map), 1937, compiled by  
Superior National Forest and Purchase Unit (small scale map), 1935, compiled by  
McArthur Purchase Unit [Wayne National Forest] (small scale map), 1934, compiled by  
Hocking Valley Purchase Unit [Wayne National Forest] (small scale map), 1935, compiled by  
Little Scioto Purchase Unit [Wayne National Forest] (small scale map), 1935, compiled by  
Muskingum Purchase Unit [Wayne National Forest] (small scale map), 1935, compiled by  
Symmes Creek Purchase Unit [Wayne National Forest] (small scale map), 1935, compiled by  
Chequest Purchase Unit, Iowa (small scale map), 1935, compiled by (1939)  
Keosauqua Purchase Unit, Iowa (small scale map), 1935, compiled by (1939)

## P

\***M. E. P.** M. P. (Southern Region) Cartographer could not be identified with standard directories. **Region 8**

Ouachita National Forest. (forest visitor booklet and map), 1956, revised by  
Ozark National Forest, Arkansas. (forest visitor booklet and map), 1956, revised by

\***O. M. P.** (Pacific Northwest Region) These initials could not be decoded in the Forest Service or in Portland city directories for the early 1920s. **Region 6**

Whitman National Forest, 1923, compiled by (1927, 1931, 1937)

\***V. P.** (Rocky Mountain Region) These initials could not be linked to a name in any of the reference works consulted. He or she could have perhaps been a contractor who produced the unusual forest visitor booklet and map in atlas format. **Region 2**

Black Hills National Forest of South Dakota and Wyoming, 1962 [drawn by]

\***W. V. P.** (Pacific Northwest Region) This cartographer/designer, identified on the 1935 Recreation Guide cited below as working in Seattle, Washington, could not be identified using all available directories. **Region 6**

Recreation Guide of the Skykomish District, Snoqualmie National Forest, Washington, Recreation Guide No. 14 – Washington, [drawn by]

**Paine, Topliff O.** T. O. Paine. (Northern Region) Paine served as a draftsman in the early years of District One. Entries in the Everett, Washington city directories between 1913 and 1916 lists a Topliff O. Paine as being a “Surveyor” without a specific employer. The 1917 Everett directory has Paine as a “Civil Engineer” and the 1918 edition, Paine has joined the U.S. Army. The last Everett entry for Paine in 1919 lists no occupation or employer. Other information could not be found on Paine including his connection to the U.S. Forest Service. **Region 1**

Coeur d’Alene Folio, 1917, compiled by  
Coeur d’Alene National Forest, topographic map, 1918, compiled by (1929 & 1934)

**Parker, Gordon.** (Rocky Mountain Region, Denver, Colorado) Information on his “present occupation” supplied by hand by Gordon Parker on his World War I draft card dated September 12, 1918 states that he was the “Forest Supervisor, Department of Agriculture, Mancos, Montezuma, Colo.” The Montezuma National Forest (1905-1947) was headquartered in Mancos, Colorado. Tax Assessments from earlier in the decade also places Parker in Mancos. No other sources of information on Parker, particularly shedding light on his work on a national forest in Wyoming, have been found. **Region 2**

Washakie National Forest, 1912, [compiled by]

**Patterson, Wade B.** W. B. Patterson. W. B. P. (Pacific Northwest Region, Portland, Oregon) The 1920 edition of the Portland city directory includes Patterson and lists his occupation as being a “draftsman,” but without an employer. The Portland city directory was not published in 1922, but in 1923 Patterson’s name can be found as a draftsman working for the U.S. Forest Service and in directories issued in 1925 and onwards, he is listed as an unaffiliated draftsman. By 1929 he was working as a draftsman for the U.S. Army Corps of Engineers, Portland Office. **Region 6**

Road and Recreation Map of Oregon, 1923, prepared by  
Road and Recreation Map of Oregon, 1924, prepared and revised by (1927, 1931)  
Map of Automobile Roads, State of Washington, 1924, revised by  
Cascade National Forest, 1921, revised by (1923)  
Columbia National Forest, 1925, revised by  
Crater National Forest, 1924, revised by (1925)  
Deschutes National Forest, 1924, traced by (1928)

**Payne, Neil G.** (Southern Region) City directories of Roanoke, Virginia, the headquarters of the Jefferson National Forest, include Payne's name as a resident of the city and working as an artist. He was perhaps contracted to produce the drawings for the set of 1964 forest visitor maps for the Jefferson National Forest by the Eastern Region of the Forest Service. All six of the ranger districts of the Jefferson National Forest are represented in this set of four maps.

Jefferson National Forest, Clinch Ranger District, [1964], black & white drawings by

Jefferson National Forest, Holston and Wythe Ranger Districts [1964], black & white drawings by

Jefferson National Forest, Blacksburg Ranger District & Jefferson National Forest Newcastle Ranger District [1964], black & white drawings by

Jefferson National Forest, Glenwood Ranger District, [1964], black & white drawings by

**Perkins, Clarence L.** C. L. Perkins. (Eastern Region) Perkins (1882-1968), a native West Virginian, was the Forest Supervisor on the Monongahela National Forest at the time he wrote the text dated February, 1930, on the back of the 1930 forest visitor map of this national forest. He left the Forest Service to become an official in Braxton County, West Virginia living in the town of Gassaway where he had served as Postmaster before being employed by the Forest Service. The 1940 Census indicates that he was once again serving as the Postmaster in Gassaway, West Virginia. **Region 9**

Monongahela National Forest, Virginia and West Virginia, 1929 (printed 1930), forest visitor map, text on verso by

**Peterson, John L.** J. L. Peterson. (Washington Headquarters Office) Listed in the 1918 edition of Polk's Washington, D.C. city directory as employed by the Department of Agriculture as an "engineer." **Region 6**

Wallowa Folio, 1917, base map by

**Peterson, Orrie R.** O. R. Peterson. (Pacific Southwest Region, San Francisco, California) Peterson seems to have served only one year, 1937, with the Forest Service. His name on the 1948 forest visitor map of the Modoc National Forest relates to this 1936 revision work, but why his name is on the 1945 map of the Plumas National Forest has not been determined. **Region 5**

Modoc National Forest, 1936, administrative maps, revised by (1949)

Modoc National Forest, 1948, forest visitor map, revised by

Plumas National Forest, 1945, revised by

**Piniera, Felix M.** F. M. Piniera. F. M. P. (Region 7, Washington, D.C.) Piniera began his career as a draftsman with the U.S. Census Bureau in 1931. By the time of the 1934 edition of the Washington, D.C. city directory, he is working as a clerk in the Agriculture Adjustment Administration, switching to the Eastern Region of the Forest Service in 1936. **Regions 8 & 9**

#### *Southern Region*

Cumberland National Forest, Red River Ranger District, 1937, South Half, compiled by

George Washington Proclamation diagram, 1936, revised by

George Washington Proclamation diagram, 1938, [drawn by]

George Washington National Forest, 1936, revised by

George Washington National Forest, Dry River Ranger District, 1938, compiled by

George Washington National Forest, Deerfield Ranger District, 1939, compiled by

George Washington National Forest, Pedlar Ranger District, 1942, land status and checked by

Jefferson National Forest and Purchase Unit, Newcastle Ranger District, 1939, East & West Halves, compiled by

Jefferson National Forest and Purchase Unit, Wythe Ranger District, 1941, North & South Halves, compiled and traced by

Jefferson National Forest and Purchase Unit, Holston Ranger District, 1942, compiled, checked, and land status by

Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1942, Eastern Section, compiled and traced by

#### *Eastern Region*

Green Mountain National Forest, 1936, map checked by (1937)

Green Mountain National Forest, Northern Ranger District, 1936, topography by (1959)



Monongahela Proclamation diagram, 1936, revised by  
Monongahela National Forest, 1936, revised by

**Porter, Russell W.** R. W. Porter. (Pacific Northwest Region) Porter's name could not be found in Washington, D.C. directories or in Portland city directories for this time period, however, Porter had served as a surveyor and a topographer with the U.S. Geological Survey. Porter accompanied the Dr. Frederick A. Cook expedition to Mount McKinley in 1906 and was released by Dr. Cook in late July of 1906 to pursue topographic work for the Geological Survey. Porter wrote a summary of his topographic work on pages 39 to 42 in U.S. Geological Survey Professional Paper 70 (1911) with the title, *The Mount McKinley Region, Alaska* by Alfred H. Brooks (U.S. Geological Survey Publications Warehouse link: <https://pubs.usgs.gov/pp/0070/report.pdf>) Russel W. Porter is responsible for the triangulation and topography for Map No. 15 found in the back pocket of U.S.G.S. Professional Paper 70. The map is entitled, *Reconnaissance Map of the Yentna Mining District, Alaska*, surveyed in as 1906 and published in 1910. The source of the Yentna River is the Mount Dall and Yentna Glacier on the slopes of the Alaska Range west of Denali and is a tributary of the Susitna River. Perhaps Porter's and Dewitt L. Reaburn's (see below) topographic contribution to this Forest Service map of 1913 was done as employees of the USGS, or their earlier topographic work was borrowed by the Forest Service. The 1913 map of District 6 does not include Alaska. **Region 6**

National Forests, District 6, 1913, topography by

**Potter, Albert F.** (Intermountain Region, Ogden, Utah) Albert F. Potter was hired by the General Land Office as an expert on grazing and, in 1902, while working out of the Salt Lake City office of the G.L.O., he completed a survey of potential forest reserves in Utah. Potter went on to become a grazing inspector for the Forest Service in 1906 and was the bureau's first Chief of Grazing. Gifford Pinchot credited Potter for launching the Forest Service's sound, workable, and productive grazing policy in the early years of the agency. Potter drew two maps for the forest reserves in Utah for the General Land Office before joining the Forest Service: *Map of the Logan Forest Reserve..., 1902* and the *Map of the Proposed Aquarius Forest Reserve in the State of Utah, 1903*. **Region 4**

#### *Intermountain Region*

Caribou Grazing Atlas, 1915, approved by  
Manti Grazing Atlas, 1915, approved by  
Targhee Grazing Atlas, 1913, approved by

#### *Pacific Northwest Region*

Minam Grazing Atlas, 1913, approved by

**Powell, James E.** J. E. P. (Washington Headquarters Office) A "draftsman" with the Department of Agriculture according to Polk's Washington, D.C. city directories from 1930 to 1940. Powell lived in McLean and Falls Church in Virginia. **Region 6**

Deschutes National Forest, 1940, compiled by

**Power, William H.** W. H. Power. (Southwestern Region, Albuquerque, New Mexico) Power, as a Forest Ranger for northern Arizona, was based in Flagstaff, Headquarters of the Coconino National Forest. Power has map credits of 1908 to 1909, but there are no city directories of Flagstaff published for that time period that would allow confirmation. There is, however, a record of a William H. Power marrying Sadie Bernhart in Flagstaff, Arizona on June 18, 1895. This places Power in Flagstaff, but as yet no record connects him to the Forest Service. Albuquerque directories do not list the name. **Region 3**

(Part of) Coconino National Forest, 1908, by W. H. Power, Forest Ranger  
Grand Canyon National Game Preserve within Kaibab and Coconino National Forests, 1909, his map of the Grand Canyon used  
Grand Canyon National Monument within Grand Canyon National Forest, 1908, his map of the Grand Canyon used

## R

\***C. E. R.** (Eastern Region) These initials could not be matched with a name in any directory consulted. This cartographer's one map credit is for revising the Flambeau Ranger District map of 1937 and the assumption here, without certainty, is that C. E. R. most likely worked on the Chequamegon National Forest. **Region 9**

Chequamegon National Forest, Flambeau Division, Wisconsin, 1937, revised by

\***Radziszewski, J. A.** (Eastern Region) This name was not found in any directory, commercial or governmental. There seems to be more citizens with the name spelled Radziszewski than Radziszewski, but neither could be identified as working in the eastern United States as a cartographer or draftsman during the 1930s. **Region 9**

Monongahela Proclamation diagram, 1936, traced by  
Monongahela National Forest, 1935, revised and traced by  
Monongahela National Forest, 1936, traced by

**Ralph, Horace F.** H. F. Ralph. (Intermountain Region, Ogden, Utah) Ralph was first listed as an "operator" for the Forest Service in the 1932 edition of Polk's Ogden city directory which is in line with the *Forest Service Directory* of April 1932 and April 1933 in which Ralph is identified as a "Blue printer." When he compiled the 1937 map of the Ruby Division of the Humboldt National Forest, his job title was "draftsman." By 1938 his title had changed to "Assistant topographic engineer," then, in 1944, to "Civil engineer," and finally, in 1952, to "Surveying engineer" all positions held with the Forest Service. The last known job title held by Ralph was found in the 1959 Ogden city directory as being involved with Forest Service "Transportation Systems Planning." **Region 4**

Humboldt National Forest, Ruby Division, 1937, compiled by (1942, 1953)

**Ralph, James J.** J. J. R. (Pacific Northwest Region, Portland, Oregon) The January 1951 issue of the *Organizational Directory* of the Forest Service lists Ralph as being assigned to the Bull Run Ranger District of the Mount Hood National Forest when the map he is credited with drawing, along with Richard M. Bowe, was published. **Region 6**

Timberline – Government Camp Winter Sports Area, 1951, drawn by

**Rankin, Hugh B.** (Pacific Northwest Region) Rankin was the Forest Supervisor for the Siuslaw National Forest serving from 1914 to 1918. **Region 6**

Siuslaw National Forest, 1915, compiled by assembling atlas pages corrected by the Supervisor

**Rawlins, Fabiola G.** F. G. Rawlins. F. G. R. (Southwestern Region, Albuquerque, New Mexico) Fabiola G. Rawlins is the married name of the former Miss Fabiola R. Gilmore, who was employed as a draftsman for the Forest Service between 1920 and 1923. From 1924 to 1930, she was not listed in the Albuquerque city directory under either name. In 1931, she and her husband, Frank B. Rawlins, appeared together for the first time in the Albuquerque city directory, continuing her career as a "Draftsman, U.S. Forest Service" to 1959. The 1960 directory describes her and her husband occupation as "Ranchers." Her last map credit was the 1958 administrative map of the Sitgreaves National Forest and had a total of 33 years with the Southwestern Region. A separate listing of her maps is found above under Fabiola R. Gilmore. **Region 3**

[National Forests of the Southwestern Region – Arizona and New Mexico, 1940, traced by]

Apache National Forest, 1940, [traced by]

Carson National Forest, 1948, traced by

Cibola National Forest, 1934, traced by – all administrative versions

Cibola National Forest, 1934, forest visitor map, compiled by

Cibola National Forest, 1938, traced and revised by – all administrative versions (1948)

Sandia Ranger District, Cibola National Forest, [1941, traced by]

Coconino National Forest, 1941, retraced by (1946, 1949)

Coronado National Forest, 1939 (East Half & West Half), revised by

Coronado National Forest, 1942, compiled by

Crook National Forest, 1934, revised by

Crook National Forest, 1937, revised by

Gila National Forest, 1949, revised by  
 Kaibab National Forest, 1942, traced by (1949)  
 Kaibab National Forest, North Half, Arizona, 1959, [revised by?]  
 Lincoln National Forest, 1941, traced by (1949)  
 Manzano National Forest, 1926, forest visitor map, [drawn by]  
 Prescott National Forest Executive Order map, 1934, revised by  
 Prescott National Forest, 1934, revised by (1938)  
 Prescott National Forest, 1940, traced by (1945)  
 Prescott National Forest, 1941, [drawn by]  
 Santa Fe National Forest, 1929, forest visitor map, [drawn by]  
 Santa Fe National Forest, 1931, revised by  
 Santa Fe National Forest, 1938, revised by  
 Santa Fe National Forest, 1946, compiled and traced by  
 Santa Fe National Forest, 1948, compiled, traced, and corrected by  
 Santa Fe National Forest, Eastern and Western Sheets, 1950, 1:126,720-scale administrative map, compiled and traced by  
 Recreation Map, Santa Fe National Forest, 1950, [drawn by]  
 Santa Fe National Forest, Jemez and Pecos Divisions, 1954, 1:126,720-scale administrative maps, compiled by  
 Sitgreaves National Forest, 1930, Key map, drawn by  
 Sitgreaves National Forest, 1933, Topographic map, traced by  
 Sitgreaves National Forest, 1935, corrected by  
 Sitgreaves National Forest, 1948, corrected by  
 Sitgreaves National Forest, 1958, compiled and drawn by  
 Tonto National Forest, 1932, traced by (1933, 1934, 1937, 1941)  
 Tonto National Forest, 1939, traced and revised by

**\*Ray, Ted** (Eastern Region) The name could not be found in any commercial or governmental directory. **Region 9**

White Mountain National Forest, 1956? (Culverwell's pictorial map & two reprints) revised by

**Reaburn, Dewitt L.** D. L. Reaburn. The U.S. Geological Survey employed Reaburn in 1898/1899 to survey the Idaho-Montana boundary line. His name is found in the work, *History of the Topographic Branch (Division)* by Richard T. Evans and Helen M. Frye (Reston, Va.: U.S. Geological Survey, 2009 – USGS Circular 1341). He later worked in Alaska under Alfred H. Brooks on Geological Survey projects. However, his name, like Russell W. Porter's (see above), was searched in both Washington, D.C. and Portland, Oregon city directories for 1909-1920 period but could not be found in either. Perhaps Reaburn's and R. W. Porter's topographic contribution to this Forest Service map was done as employees of the U.S.G.S., or their earlier topographic work was borrowed by the Forest Service for this one map dated 1913. **Region 6**

National Forests, District 6, 1913, topography by

**\*Reed, A. D.** (Southwestern Region) Reed's name could not be found in the Washington, D.C. or Albuquerque Directories. He or she could have possibly been stationed in Williams, Arizona, the headquarters of the Tusayan National Forest when work began on this grazing atlas in 1912. **Region 3**

Tusayan Grazing Atlas, 1914, grazing classification and base map by

**Reed, Theodora.** T. R. (Northern Region, Missoula, Montana) Reed was a student at the University of Montana in Missoula between 1927 and 1931 according to that city's directory. She began her career with the Forest Service in the late 1930s and was recorded as being a "Clerk, Forest Service" in the 1938 edition of Polk's Missoula city directory then as a "Draftsman" from 1942 to 1955. The 1953 maps of the Colville National Forest were compiled during the time in which the Colville was administered by the Northern Region. **Regions 1 & 6**

#### *Northern Region*

National Forests, Region One, 1950, 1951, 1959, prepared by  
 Bitterroot National Forest, Recreation Attractions, 1941, [drawn by]  
 Bitterroot National Forest, 1951, prepared by  
 Custer National Forest, Beartooth Division, 1955, prepared by  
 Deerlodge National Forest, 1953, traced by

Gallatin National Forest, 1952, prepared by  
Kaniksu National Forest, 1953, prepared by  
Lolo National Forest, 1949, prepared by  
Nezperce National Forest, 1950, prepared by  
Nezperce National Forest, 1951, prepared by  
Colville National Forest, 1953, traced by  
Colville National Forest, 1953 (small scale map), prepared by (1957)  
Deerlodge Recreation Area, 1942, [drawn by]  
Kootenai National Forest Recreation Area, 1942, (1963), [drawn by]  
Flathead Recreation Area, 1947?, [drawn by]

*Pacific Northwest Region*

Colville National Forest, 1953, traced by  
Colville National Forest, 1953 (small scale map), prepared by (1957)

**Reese, Ed L.** E. L. Reese. (Eastern Region, Washington, D.C.) Like his colleague Alfred R. Kinney, Reese is listed in the April 1931 edition of the Forest Service *Directory* as being an examiner of surveys for the Eastern Region. Since land acquisition took place in several different locations throughout Region 7 at this time, there is a good chance Reese worked outside the Washington, D.C. area in one of these outlying offices, especially since his name cannot be found in the pages of the Washington, D.C. city directories for this time period. Reese's name turns up again in the Forest Service *Directory* of November 1935 as the road superintendent for the DeSoto Purchase Unit based in Jackson, Mississippi.

**Region 8**

Ouachita Proclamation diagram, 1931, Arkansas Division, compiled by  
Ouachita National Forest, 1931, Arkansas Division, compiled by

**Renie, Jack J.** J. J. Renie. J. J. R. (Pacific Northwest Region, Portland, Oregon) Renie is listed in the Portland city directory for only one year, 1923, as being a "draftsman" with the U.S. Forest Service. **Region 6**

Cascade National Forest, 1921, revised by (1923)  
Mt. Hood National Forest, 1924, drawn by (1927, 1931)  
Snoqualmie National Forest, 1923, compiled and traced by (1925, 1927, 1932)

**Renner, Edwin Ross.** E. R. Renner. E. R. R. (Eastern Region, Milwaukee, Wisconsin) The Milwaukee city directory first lists Edwin R. Renner in its 1935 edition as a draftsman for the U.S. Forest Service. In 1937 the form of his name had been changed to E. Ross Renner and in the following year his job title became "topographic draftsman." The Milwaukee city directory stopped carrying his name in 1941. Renner compiled and traced proclamation diagrams, small-scale forest visitor maps, and administrative maps for national forests and purchase units for the North Central Region. **Region 9**

Chippewa Proclamation diagram, 1936, compiled by  
Clark National Forest, 1940, traced by  
Huron National Forest and Purchase Unit, 1936, (small scale administrative map) compiled by  
Huron National Forest, 1940, traced by  
Mark Twain National Forest, 1940, traced by  
Ottawa National Forest, 1937 & 1953, traced by  
Superior Proclamation diagram (small scale map), 1936, compiled by  
Superior National Forest (small scale forest visitor maps), 1939 & 1940

**Reuter, Rosemarie.** R. Reuter. (Eastern Region, Milwaukee, Wisconsin) The 1952 edition of *Wright's Milwaukee City Directory* is the first to include Reuter's name followed by her occupation of draftsman, and her employer, the U.S. Forest Service. She later married Mr. William T. Bowman (1954?) and changed her name to Rosemarie Bowman. Her map credits after marriage are given above under Rosemarie Bowman. **Region 9**

Ottawa National Forest, 1953, revised by

**Riemenschneider, Carl E.** C. E. Riemenschneider. C. E. R. (Eastern Region, Milwaukee, Wisconsin) Although Riemenschneider's name never made it into the official U.S. Forest Service staff Directory, the pages of Wright's Milwaukee City Directory records his name and his various occupations. In 1929 he is a draftsman for the R.E.O. Building and Realty Company, then as student, architect, and again as a draftsman, this time with the U.S. Forest Service in 1935. In 1936 he is recorded as working as a construction supervisor for a plate glass installation company and finally in 1937 as the principal owner of the Economy Company, Inc., a contracting firm. Between the 1938 edition of the Milwaukee city directory and the 1948 issue, his name was not listed, but in 1949 Riemenschneider's name reentered the directory with "Architect" as his occupation. **Region 9**

Chequamegon National Forest, Flambeau Division, Wisconsin, 1937, revised by  
St. Francois Purchase Unit [Clark National Forest], 1936, compiled by  
Hoosier National Forest, 1936, Pleasant Run Purchase Unit, compiled by  
Huron National Forest, 1936, traced by  
Manistee Purchase Unit, 1935, compiled by  
Manistee Purchase Unit, 1937, compiled by  
Chequest Purchase Unit, Iowa, 1935, compiled by  
Grand River Purchase Unit, Iowa, 1935, compiled by

**Ringland, Arthur C.** A. C. Ringland. (Southwestern Region, Albuquerque, New Mexico) At the time this map was made, Ringland was the District Forester for District 3. **Region 3**

Sitgreaves National Forest, 1914, compiled by

**Roak, John C.** J. C. Roak. (Intermountain and Southwestern Regions) In the early 1920s, Roak was the Forest Supervisor for the Kaibab National Forest and by 1926, he was identified as the Assistant Supervisor on the Apache National Forest in Arizona-New Mexico. Earlier, the Forest Service's serial publication, *January Field Program 1918*, includes Roak's name as serving as the Deputy Forest Supervisor on the Idaho National Forest stationed in McCall, Idaho. Issues of the *Field Program* for the 1910 to 1917 period could not be located, which could have helped locate Roak's duty station when he made the base maps for the grazing atlas of the Manti National Forest. **Region 4**

Manti Grazing Atlas, 1915, base maps by

**Robertson, Richard H.** R. H. Robertson. R. H. R. (Pacific Northwest Region, Portland, Oregon) Richard Robertson was possibly the first draftsman to work for District 6 in Portland, Oregon, as he is found in 1909 Portland city directory employed by the Forest Service. The map record and city directories of the time would indicate that he stopped working for the Forest Service around 1920, although still a resident of Portland. **Region 6**

National Forests, District 6, 1913, traced and lettered by  
Cascade National Forest, 1919, traced by (1921, 1923)  
Columbia National Forest, 1917, traced by (1920, 1924)  
Colville National Forest, 1918, traced by (1922, 1928)  
Crater National Forest, Recreation in the Southern Cascades, guide map, 1917, [compiled] by  
Deschutes National Forest, 1915, compiled by  
Malheur National Forest, 1918, traced by (1920, 1924)  
Ochoco National Forest, 1915, corrected by  
Olympic National Forest, 1911, in booklet with text by Findley Burns, prepared by  
Oregon National Forest, 1916, lettered by  
Rainier National Forest, 1915, compiled by  
Rainier National Forest, 1918, traced by (1923)  
Siskiyou National Forest, 1915, compiled and lettered by  
Siskiyou National Forest, 1919, traced by (1921, 1922, 1924, 1926, 1927)  
Umatilla National Forest, 1915, corrected by  
Umpqua National Forest, 1918, compiled by  
Wenatchee National Forest, 1916, compiled and traced by  
Wenatchee National Forest, 1918, compiled, traced, and revised by  
Columbia Gorge Park Division, Oregon National Forest, 1916, compiled by  
Sunset Highway National Forest Cottage Sites, 1917, [compiled by]

**Rossoll, Harry L.** H. L. R. (Southern Region, Atlanta, Georgia) Atlanta native, Harry Rossoll (1910-1999) was prolific illustrator working in the Forest Service's regional office in Atlanta from the mid-1930's onwards. His more than 1000 "Smokey Says" newspaper cartoons helped make Smokey Bear an almost universally recognized symbol of wildfire safety and prevention and one of our country's most successful public relations campaigns. While he is most remembered for his Smokey Bear illustrations, his signature can be found on many of the panel illustrations decorating the covers of forest visitor maps and booklets of national forests of the Southern Region. Included in Atlanta city directories beginning in 1938 to the 1960s alternately as an "Artist," "Illustrator," and "Visual Information Specialist" with the Forest Service, his name was first included in the Forest Service Directory of July 1939 as an "Illustrator" in the Information and Education Division of the Southern Region. However, his illustrations began to appear on the Southern Region's Recreation Guide Series in 1937. Two of his map covers can be found in Figure 21 above. **Region 8**

Recreation Map of National Forests in Region 8. (forest visitor map), 1937, cover drawing by (Figure 21)

The National Forests of the Southern Appalachians in relation to Principal Motor Highways. (forest visitor map), 1937, drawings by

Recreation Map of Alabama National Forests. (forest visitor map), 1947, drawings by

Alabama National Forests, Facts About the Forests, (forest visitor booklet and map), [1953], drawings by

Recreation map of Texas National Forests, (forest visitor map), 1938, drawings by

Recreation map, Apalachicola National Forest, Florida, [1955], drawing by

Apalachicola National Forest, Leon and Wakulla Ranger Districts, Florida, Recreation map, 1955, drawing by

Chattahoochee National Forest, Georgia, Recreation map, 1937, 1939, 1949, 1956, and 1959, drawing by

Pictorial Guide Map of the Western Section of the Chattooga Ranger District, Chattahoochee National Forest, Georgia, 1960, [drawn by]

Chattahoochee National Forest, Georgia, 1965, forest visitor map, cover drawing by

Florida National Forests, [1951], forest visitor booklet and maps, drawings by

Florida National Forests, 1955, forest visitor booklet and maps, drawings by

Francis Marion National Forest, South Carolina, 1963, forest visitor map, drawing by

George Washington National Forest, 1968, drawings by

Kisatchie National Forest, Louisiana, Recreation map, 1937, illustrations by

Kisatchie National Forest, Louisiana, 1964, forest visitor map, drawing by

Nantahala National Forest, North Carolina, Recreation map, 1937 and 1938, drawing by

Nantahala National Forest: Facts About the Forest, forest visitor booklet and map, [1949] drawing by

Ocala National Forest, Florida, Recreation map, 1937, drawing by

Juniper Spring and Fern Hammock: A Recreational Development on the Ocala National Forest, Florida, Recreation Development, 1937 & 1938, drawings by (Figure 21)

Osceola National Forest, Florida, Recreation map, 1955, drawing by

Ouachita National Forest, Region 8, Arkansas. Recreation map, [1936?] drawn by

Ouachita National Forest, Arkansas, Pictorial Guide, [1940?] drawn by

Ouachita National Forest, Arkansas and Oklahoma, 1966, drawing on verso by

Ozark National Forest, Arkansas, (forest visitor booklet and map), 1952, drawings by

Ozark National Forest, Arkansas, (forest visitor booklet and map), 1956, drawings by

Pisgah National Forest, North Carolina, Recreation map, 1937, drawings by

Pisgah National Forest, North Carolina, Recreation map, [1960?], drawings by

St. Francis National Forest, Arkansas, forest visitor map, 1968, drawing by

Clear Springs Recreation Area, Homochitto National Forest, Mississippi, Guide map, [1955], drawings by

Part of Nantahala National Forest, North Carolina, showing location of Joyce Kilmer Memorial Forest, 1939, drawings by

**\*Ruth, C. H.** C. H. Ruth. C. H. R. (Northern Region) Ruth's work primarily involved topography as evidenced by this name being attached to single sheet national forest topographic maps as well as topographic Atlas Folio pages. Ruth could not be found in Forest Service directories or in Polk's city directories of Missoula, Montana or Washington, D.C. of the day. **Region 1**

Coeur d'Alene Folio, 1917, traced by

Coeur d'Alene National Forest, topographic map, 1918, traced by (1929 & 1934)

Dakota Folio, 1912, traced by

Kaniksu Folio, 1915, traced by (1927)

Kaniksu National Forest, 1919, topographic map, traced by (1927)

Pend Oreille Folio, 1914, traced by

Pend Oreille National Forest, 1916, topographic map, traced by (1919, 1930)

## S

\***C. S.** (Pacific Northwest Region) Unknown cartographer not found in Forest Service or Portland city directories.  
**Region 6**

Whitman National Forest (Blue Mountains Division), Oregon, 1942, compiled by  
Whitman National Forest (Minam Division), Oregon, 1942, compiled and traced by

\***C. R. S.** (Pacific Northwest Region) Unknown cartographer who drew and revised several numbers in the Recreation Guide Series for Washington. It is possible that this cartographer was based in Olympia, Washington the Headquarters of the Olympic National Forest. **Region 6**

Goat Rocks Primitive Area, Columbia National Forest, Washington, Recreation Guide No. 9, revised by  
Snow Peaks Recreation Area, Olympic National Forest, Washington, Recreation Guide No. 16, [drawn by]  
Quinault Lake Recreation Area, Olympic National Forest, Washington, Recreation Guide No. 17, [drawn by]  
Hood Canal Recreation Area, Olympic National Forest, Washington, Recreation Guide No. 18, [drawn by]  
Quinault Lake Recreation Guide, Olympic National Forest, Washington, Recreation Guide No. 23 [drawn by]

\***E. M. S.** (Southwestern Region) This cartographer, whose initials could not be matched with a complete name using the city directories for Albuquerque for the late 1950s, early 1960s, was the last draftsman to be given credit for a map of the Southwestern Region. **Region 3**

Gila Wilderness Area, Gila National Forest, 1959, [drawn by]

\***F. P. S.** (Pacific Northwest Region) Unknown cartographer not found in the Portland City Directories. **Region 6**

Columbia National Forest, 1925, revised by

\***F. P. S.** (Eastern Region) The name could not be deciphered in any directory. This cartographer's one map credit is for compiling and tracing the Mondeaux Ranger District map of 1937 and the assumption here, without certainty, is that F. P. S. most likely was stationed on the Chequamegon National Forest. **Region 9**

Chequamegon National Forest (Mondeaux Division), Wisconsin, 1934, compiled and traced by

\***M. C. S.** (Southern Region) Unknown cartographer not found in the Atlanta City of Forest Service Directories.  
**Region 8**

Conecuh National Forest, 1937, [revised] to date

\***T. F. S.** (Pacific Southwest Region) The identity of the draftsmen for the Southern Redwood Purchase Unit of 1936 could not be found in either the Washington, D.C. or the San Francisco directories of the time. **Region 5**

Southern Redwood Purchase Unit, 1938, [drawn by]

\***V. M. S.** (Pacific Southwest Region) The identity of the draftsmen for the Southern Redwood Purchase Unit of 1936 could not be found in either the Washington, D.C. or the San Francisco directories of the time. **Region 5**

Southern Redwood Purchase Unit, [1936] [drawn by]

\***W. A. S.** (Southwestern Region) The name could not be found in the Albuquerque city directories. W.A.S. could have been working out of the Lincoln National Forest in Capitan, New Mexico, in 1914, the forest's headquarters. **Region 3**

Lincoln National Forest, New Mexico (Temporary Base Map), 1914, [drawn by]



**Sabine, R. Ray.** R. R. Sabine. (Washington Headquarters Office) Indications are that Sabine worked from the Washington Headquarters Office and not from Missoula, Montana. His only map credits are for these three maps made during World War I at a time of Forest Service staff shortages. Sabine is listed as being employed as a “draftsman” for the Department of Agriculture in the 1920 edition of the Washington, D.C. city directory, and is pictured in the 1925 group photograph of the Engineering Division of the Forest Service (see Figure 28). **Region 1**

Coeur d’Alene National Forest, 1919, compiled and traced by (1925 administrative & forest visitor maps)  
Gallatin National Forest, 1918, traced by (1923, 1927, 1934)  
Madison National Forest, 1919, traced by

**Sanford, Earl C.** E. C. Sanford. (Intermountain Region, Ogden, Utah) Forest Supervisor for the Caribou National Forest at the time the folio was made. **Region 4**

Caribou Folio, 1915, base map by

**Sargent, Charles Sprague.** C. S. Sargent. 1841-1927. Sargent, a botanist, was appointed the first director of Harvard University’s Arnold Arboretum. He served on the committee appointed by the National Academy of Sciences to report on the inauguration of a forest policy of the forested lands of the United States. His work on the forest trees of North America is cited in the Regional Chapter of “The Alaska Region (**Region 10**) and the section on the “Mapping of the United States and North America.”

Sixteen Maps accompanying Report on Forest Trees of North America, 1880, by (North American Atlases)

**Saunders, Albert G.** A. G. Saunders. A. Saunders. A. G. S. A. S. (Intermountain Region, Ogden, Utah) The 1938 Ogden city directory first lists Saunders as working as a blue printer for the Forest Service and continuing in that capacity until 1944 when he was identified as being a “draftsman” and later as an “engineer.” His Forest Service career extended well into the 1960s. **Region 4**

National Forests of the Intermountain Region, 1950, [drawn by]  
National Forests of the Intermountain Region, 1954, [drawn by]  
Recreation map, Ashley National forest, Utah and Wyoming, 1951, traced by  
Recreation Map, Boise National Forest, 1959, [drawn by]  
Bridger National Forest, Wyoming Division, 1946, compiled and traced by (1954)  
Cache National Forest, 1948, revised by  
Caribou National Forest, 1946, revised by  
Caribou National Forest, 1947, traced by  
Caribou National Forest, 1956, traced by  
Dixie National Forest, Powell Division, 1950, revised by  
Recreation Map, Dixie National Forest, Utah, 1952 [ and 1955 drawn by]  
Recreation Map, Fishlake National Forest, 1953, [drawn by]  
Recreation Map, Minidoka National Forest, 1950, [drawn by]  
Charleston Division, Nevada National Forest, [1955?], [drawn by] [1959?]  
Payette National Forest, East Division, 1947, traced by (1952)  
Payette National Forest, West Division, 1948, traced by (1952)  
Payette National Forest, 1949, traced by (1951-forest visitor map)  
Payette National Forest, 1953, traced by – forest visitor map  
Payette National Forest, 1956, traced by – administrative map (1960)  
Recreation map, Sawtooth National Forest, Minidoka Division, 1954, [drawn by]  
Charleston Division, Toiyabe National Forest, [1959], [drawn by]  
Recreation map, Uinta National Forest, 1957, [drawn by]  
Wasatch National Forest, 1950, revised by (1955)  
Wasatch National Forest, 1951, traced by (1958)

**Schach, Audrey C.** A. C. Schach. A. C. S. (Southwestern Region, Albuquerque, New Mexico) The Albuquerque city directories from 1916-1923 lists Schach as being a “draftsman, U.S. Forest Service.” **Region 3**

Carson National Forest, 1919, traced by  
Crook Proclamation diagram, 1919, compiled and traced by  
Crook National Forest, 1921, compiled and traced by (1925)  
Manzano National Forest, New Mexico, 1915, [compiled by]

**Schach, Marie A.** (Southwestern Region, Albuquerque, New Mexico) Over a three year period, 1917-1919, Marie A. Schach, perhaps the sister of Audrey C. Schach (above), was listed in Hudspeth’s Albuquerque city directory as being employed as a “Map colorist, U.S. Forest Service” at a time of Forest Service staff shortages due to World War I. Even though her name does not appear on any map, she deserves credit here and a place in this listing. **Region 3**

**Schade, Frank P.** F. Schade. (Pacific Northwest Region, Portland, Oregon) Schade is listed in the Portland city directory for only one year, 1924, as being a “civil engineer” with the U.S. Forest Service. **Region 6**

Siskiyou National Forest, 1924, revised by (1926, 1927)

**Scheaffer, Morris A.** M. Scheaffer. M. A. S. (Rocky Mountain Region, Denver, Colorado) Scheaffer came to the Rocky Mountain District as a “draftsman” in 1924 and remained until 1929. Denver city directories stopped carrying his name in 1930. The 1927 map of the Michigan National Forest was made at the time when the national forests of Michigan were administered from Denver. **Regions 2 & 9**

#### *Rocky Mountain Region*

Arapaho National Forest, 1928, compiled and drawn by  
Bighorn National Forest, 1927, drawn by  
Grand Mesa National Forest, 1930, compiled by  
Medicine Bow National Forest, 1928, drawn by  
Montezuma National Forest, 1930, compiled and drawn by

#### *Eastern Region*

Michigan National Forest, 1927, compiled and drawn by

**Schoedinger, Jack A. Jr.** J. A. Schoedinger. (Southwestern Region, Albuquerque, New Mexico) Schoedinger appeared in the 1938 edition of the Albuquerque city directory, but without an occupation. His name appeared again in the 1939 directory, this time as being a “draftsman” for the Forest Service. Subsequent directories do not list his name, reflecting his one map credit. **Region 3**

Prescott National Forest, 1940, traced by (1945)

**Scott, James E.** (Eastern Region, Washington, D.C.) Scott was serving as the Assistant District Forester for Public Relations for the Eastern District (District 7) at the time he wrote the text to this Forest Service publication with S. M. Shanklin, the Forest Supervisor on the Wichita National Forest. **Region 8**

The Wichita National Forest and Game Preserve, 1925 & 1928, (forest visitor booklet and map), text by

**Sealing, Herman Ellis.** Herman E. Sealing. H. Ellis Sealing. H. E. Sealing. (Rocky Mountain Region, Denver, Colorado) Sealing appeared in the Denver city directory in 1911 employed by the Clason Map Company as a “draftsman” and continuing with the commercial map company until 1917. The 1918 directory has Sealing employed as a “draftsman” for the Forest Service for the first time. By 1922, Sealing had moved on to the U.S. Reclamation Service’s Denver Office as a “draftsman” and later as an engineer. The maps of the Michigan and Superior National Forests were made at the time when the national forests of the Great Lakes region were administered from Denver. **Regions 2 & 9**

#### *Rocky Mountain Region*

Battlement National Forest, 1922, compiled by  
Colorado National Forest, 1917, compiled and traced by ([1924] forest visitor map)

Grand Mesa National Forest, 1922, compiled by  
 Holy Cross National Forest, 1918, traced by  
 Montezuma National Forest, 1921, compiled by  
 Rio Grande National Forest, 1918, compiled and traced by  
 Roosevelt National Forest, 1917 forest visitor map & its 1932 reprint  
 San Juan National Forest, 1918, compiled and traced by  
 Uncompahgre National Forest, 1920, compiled by  
 Washakie National Forest, 1919, compiled by  
 Battlement National Forest, 1922, compiled by  
 Colorado National Forest, 1917, compiled and traced by ([1924] forest visitor map)  
 Grand Mesa National Forest, 1922, compiled by  
 Holy Cross National Forest, 1918, traced by  
 Montezuma National Forest, 1921, compiled by  
 Rio Grande National Forest, 1918, compiled and traced by  
 Roosevelt National Forest, 1917 (1932 reprint)  
 San Juan National Forest, 1918, compiled and traced by  
 Uncompahgre National Forest, 1920, compiled by  
 Washakie National Forest, 1919, compiled by

#### *Eastern Region*

Michigan National Forest, 1919, compiled by (1920)  
 Superior Proclamation diagram, 1927, compiled by  
 Superior National Forest, 1920, compiled by (1924)

**Sears, H. M.** (Eastern/Southern Region) Sears served as the Forest Supervisor for the Natural Bridge National Forest in its Lynchburg, Virginia, headquarters in the 1920s when he wrote the text for the 1927 forest visitor map for his forest, according to Forest Service Directories from April 1924 through April 1933. Earlier, he was based in Buena Vista, Virginia as a “Forester” in the town that later became the Ranger District Office of the Pedlar Ranger District of the Natural Bridge National Forest. This information is based on the 1916 birth certificate of his daughter. Sears was also the supervisor on the Sumpter Purchase Unit headquartered in Columbia, South Carolina in 1935. None of these sources fully spelled out his first or middle names. **Region 8**

Natural Bridge National Forest, Virginia, 1930. (forest visitor map), text by

**Sedelmeyer, Herman A.** H. A. Sedelmeyer. (Pacific Southwest Region, San Francisco, California) Sedelmeyer began his cartographic career with the Forest Service in 1917 and was active well into the 1940s. He was Chief of Region 5’s Drafting Section of the Engineering Division and is found in Forest Service directories of the time. **Region 5**

Angeles National Forest, 1923, compiled by (1924)  
 Angeles National Forest, 1926, topographic map, compiled and traced by (1931, 1937, 1942)  
 Angeles National Forest, 1926, 1:253,440-scale maps, compiled by (1931, 1933, 1937, 1943)  
 California National Forest, 1924, compiled by (1926, 1928)  
 California National Forest, 1928, topographic map, compiled and traced by  
 Cleveland National Forest, 1926, compiled by (1930, 1934, 1937, 1940, 1944)  
 Eldorado National Forest, 1925, 1:126,720-scale, administrative map, compiled by (1929, 1932)  
 Inyo National Forest, 1934, compiled by (1935, 1941, 1949)  
 Lassen National Forest, 1926, compiled and traced by (1929)  
 Lassen National Forest, 1930, compiled by  
 Los Padres ~~Santa Barbara~~ (except the Monterey Division) National Forest, 1926, 1:253,440-scale forest visitor map, compiled by (1936)  
 Los Padres National Forest, 1937, compiled by (1944)  
 Los Padres National Forest, East & West Halves, 1950, 1:126,720-scale administrative maps, compiled by  
 Mendocino National Forest, 1932, topographic map, compiled and traced by (1935, 1940)  
 Mendocino National Forest, 1934, compiled by (1940, 1950)  
 Modoc (Warner Mountain Division) Folio, 1925, compiled and traced by  
 Modoc National Forest, 1932, 1:126,720-scale administrative map, compiled and traced by (1936, 1941, 1949)  
 Mono National Forest, 1928, revised by

Plumas National Forest, 1930, topographic map, compiled and traced by (1938, 1947)  
 Plumas National Forest, 1932, compiled by (1938, 1940, 1945)  
 San Bernardino National Forest, 1934, 1:126,720-scale administrative map, revised by  
 San Bernardino National Forest, 1938, 1:126,720-scale administrative map, compiled and traced by (1943)  
 Santa Barbara National Forest (except the Monterey Division), 1926, compiled by (1934, 1935)  
 Shasta National Forest, 1927, administrative maps, compiled by (1932, 1934)  
 Shasta National Forest, 1927, forest visitor map, compiled by (1932)  
 Stanislaus National Forest, 1946, revised by (1950)  
 Tahoe National Forest, 1923, compiled and traced by (1924, 1925, 1926, 1928, 1932)  
 Tahoe National Forest, 1930, compiled by

\***Seid, C.** (Pacific Southwest Region) This name could not be found in San Francisco city or U.S. Forest Service directories. Perhaps Seid was attached to the Lassen National Forest headquarters in the town of Susanville, California.

#### **Region 5**

Lassen National Forest, 1938, topographic map, traced by (1947)

**Sellman, Wallace A.** W. A. Sellman. (Pacific Southwest Region, San Francisco, California) Forest Service staff directories never included Sellman's name and San Francisco city directories do not attach his name to Forest Service employment. But city directories do list Wallace A. Sellman as a "draftsman" without an employer in 1940 and again in 1945 indicating war service. In 1951 city directories indicated that Sellman was working as a draftsman for the U.S. Coast and Geodetic Survey. Directories after this date carry Sellman's name as a teacher for the San Francisco Unified School District. **Region 5**

Modoc National Forest, 1948, forest visitor map, revised by

**Serex, John F.** J. F. Serex. (Pacific Southwest Region, San Francisco, California) Serex joined the Engineering Division staff of the California District in 1924 for a career that lasted well into the 1940s, but he has only one map credit. City directories of the time list Serex alternatively as a draftsman and as a forester into the late 1950s. **Region 5**

Plumas National Forest, 1930, topographic map, compiled by (1938, 1947)

**Shafer, Florence I.** F. I. Shafer. FIS. (Region 4, Ogden, Utah; Region 10, Juneau, Alaska) Shafer began her career with the Forest Service in 1910 working for District 4 as a draftsman. The 1915 Ogden city directory has her serving the Forest Service as a Geographer and from 1918 to 1920 as "chief draftsman" for the District. The next year, Shafer was on her way to work in the Engineering Department of the newly formed Alaska District along with Phyllis I. Dennee of the Rocky Mountain District, two experienced Forest Service cartographers tasked with setting up the new drafting unit in the District's headquarters in Juneau. Shafer worked in Juneau as Chief Draftsman until 1938 when she was promoted to Assistant Regional Engineer, a position she held until 1942, according to official Forest Service directories. Her name does not appear in the April 1943 edition of the directory of Forest Service staff. Meanwhile, Phyllis Dennee returned to Denver to work for the U.S. Surveyor General (General Land Office) in 1927. **Regions 4 & 10**

#### *Intermountain Region*

Fillmore National Forest, 1915, [handmade note in reference to]  
 Wyoming National Forest, 1913, mapped by

#### *Alaska Region*

Tongass National Forest, poster map, [1935?, drawn by]  
 Tongass National Forest recreation map, 1937, [drawn by]  
 Alaska, Tongass National Forest: region of fiords and forests, nature unchanged, [1938] poster map, [drawn by]  
 Tongass National Forest recreation map, 1939, [drawn by]  
 Tongass National Forest, region of fiords and forests, nature unchanged, 1940 map in booklet, [drawn by]  
 Tongass National Forest recreation map, 1944, [drawn by]  
 Tongass National Forest, topographic maps, 1934-1938, compiled and traced by

**Shank, Henry M.** H. M. Shank. (Intermountain Region, Ogden, Utah) Shank joined District 4 in 1923 as a “draftsman,” but Polk’s Ogden city directories for the years following lists several occupations for Shank: draftsman, Engineer, department manager, assistant engineer, clerk, and sometimes, just employee. The year 1936 finds Shank as the Forest Supervisor for the Idaho National Forest serving until 1941 when he was named Assistant to the Assistant Regional Forester and later, in 1944 as Assistant Regional Forester. Shank is no longer found in directories after 1947. The maps of the Kaibab National Forest were made when this forest was administered from Ogden, Utah. **Regions 3 & 4**

*Southwestern Region*

Kaibab National Forest, 1926, compiled by  
Kaibab National Forest, 1930, compiled and revised by  
Kaibab National Forest, 1934, compiled by

*Intermountain Region*

National Forests of the Northern Half of the Intermountain Region, 1931, compiled by  
National Forests of the Southern Half of the Intermountain Region, 1931, compiled by  
Ashley National Forest Executive Order map 1933, compiled by  
Ashley National Forest, 1928, compiled by (1931, 1933, 1934, 1945)  
~~Wyoming~~ [Bridger] National Forest, Wyoming, 1940, compiled by  
Bridger National Forest, Bridger Division, 1946, compiled [1929] by (1954, 1960)  
Cache National Forest, 1932, compiled by (1936, 1940)  
Sawtooth Executive Order map, 1932, compiled by  
Sawtooth National Forest, 1932, compiled by (1938, 1942) (1955 & 1960 – North Division)  
Uinta Proclamation diagram, 1929, compiled by  
Uinta National Forest, 1927, compiled by (1938)  
Wasatch National Forest, 1929, compiled by (1931, 1934, 1935)  
Wyoming National Forest, 1930, compiled by (1936, 1940)

**Shanklin, S. M.** (Eastern/Southern Region) Shanklin was the Forest Supervisor on the Wichita National Forest at the time he provided the text to this Forest Service Publication, co-authored with James E. Scott. **Region 8**

The Wichita National Forest and Game Preserve, 1925 & 1928, forest visitor booklet and map, text by

**Shaw, John A.** J. A. Shaw. (Eastern Region, Washington, D.C.) Shaw was a draftsman with the U.S. Treasury Department in the early 1930s before transferring his skills to the Forest Service in 1937, where he earned only map credit as the compiler on the map cited below. The 1937 edition of the Washington, D.C. city directory was the only one that recorded his name as working for the Forest Service. Subsequent directories do not carry his name at all. **Region 8**

George Washington National Forest, Dry River Ranger District, 1938, compiled by

**Shaw, Rose S.** R. S. Shaw. R. S. S. (Washington Headquarters Office – after 1934, Region 7) Shaw began her career with the Forest Service at the Washington, D.C. Office tracing Forest Atlas folio sheets for California forests in 1914. Previous to her joining the Engineering Division of the Forest Service, Shaw drew maps to illustrate articles in the *National Geographic Magazine*, such as route of former President Theodore Roosevelt’s 1909 Eastern Africa Safari, that appeared in the January to June 1911 issues. In addition, the archives of the National Geographic Society indicate that Shaw also worked on General Land Office maps before 1914. Until 1930 she compiled and traced maps for all regions of the Forest Service, moving on after that date to compiling and tracing duties for maps of the national forests in the eastern United States. She remained with the Eastern Region after the creation of the Southern Region in 1934. Her last map credit can be found on the 1937 map of the Cumberland National Forest in Kentucky. Her last entry in the Washington, D.C. city directory as a draftsman with the Forest Service came in 1941. Forest Service directories indicate that she did not relocate to Philadelphia when the Eastern Regional Offices moved from Washington, D.C. to that city in 1941. **Regions 1, 4, 5, 6, 8 & 9**

*Northern Region*

Bitterroot National Forest, 1920, traced by (1921, 1923, 1926, 1928, 1933)  
Cabinet National Forest, 1925, traced by  
Deerlodge National Forest, 1926, administrative map, traced by (1933)  
Deerlodge National Forest, 1926, forest visitor map, traced by  
Jefferson National Forest, 1917, compiled and traced

### *Intermountain Region*

Sevier National Forest, 1919, traced by

### *Pacific Southwest Region*

Eldorado National Forest, 1920, traced by

Inyo Folio, 1915, traced by

Kern Folio, 1914, traced by

Lassen Folio [1916?], traced by

Modoc Proclamation diagram, 1920, traced by

Modoc National Forest, 1920, traced by (1925, 1927)

### *Pacific Northwest Region*

Oregon National Forest, 1919, compiled and traced by

Umpqua National Forest, 1918, traced by

### *Southern Region*

Alabama National Forest, 1930, traced by

Cherokee National Forest, 1932, revised and traced by

Cherokee Purchase Unit, 1934, additional compilation and new boundary by

Choctawhatchee National Forest, 1933, traced by

Cumberland Purchase Unit, Laurel Ranger District, 1936, land status and checked by

Cumberland National Forest, 1937, 1:253,440-scale administrative map, compilation tracing made by

George Washington National Forest, Pedlar Ranger District, 1942, traced by

Jefferson National Forest and Purchase Unit, Holston Ranger District, 1942, traced by

Ouachita Proclamation diagram, 1931, Arkansas Division, traced by

Ouachita National Forest, Arkansas and Oklahoma (Arkansas Division), 1931, traced by

Ozark National Forest, Eastern Division, 1933, traced by

Ozark National Forest, Western Division, 1933, traced by

### *Eastern Region*

National Forests and Purchase Units in the Eastern Region (Region Seven), 1936, revised with additions by

Allegheny National Forest, 1937, revised by

Allegheny National Forest, Northern & Southern Ranger Districts, 1940, revised by

Allegheny National Forest and Purchase Unit, Pennsylvania, 1942, revised by

Hiawatha National Forest, 1932, traced by (1935, 1939)

Marquette National Forest, 1932, traced by

Monongahela Proclamation diagram, 1936, traced by

Monongahela National Forest, 1935, revised and traced by

Monongahela National Forest, 1936, traced by

Monongahela National Forest, Gauley Ranger District, 1938, traced by

Monongahela National Forest, Cheat Ranger District, 1939 & 1940, traced by

Monongahela National Forest, Greenbrier Ranger District, 1939 & 1940, compiled and traced by

Monongahela National Forest, White Sulphur Ranger District, 1939, traced by

Monongahela National Forest, Potomac Ranger District, 1940 & 1941, traced by

White Mountain National Forest, 1937, corrected and revised by

**Shelley, Ralph S.** R. S. Shelley. (Pacific Northwest Region, Portland, Oregon) Shelley is first listed in the Portland city directory of 1909 as being the Deputy Supervisor of the Oregon National Forest. He later became Supervisor of the Siuslaw National Forest in 1918 and held that position for 20 years. **Region 6**

Oregon National Forest, Oregon, Hood River District, 1912, compiled and mapped by

Oregon National Forest, 1913, compiled and mapped by

**Shields, John F.** J. F. Shields. J. F. S. (Northern Region, Missoula, Montana) Shields was a student at the University of Montana between 1930 and 1933 before beginning his career with the Forest Service in 1936. His map credits indicate a versatile cartographer working on all types of maps for Region One. Shields can first be found in Polk's Missoula city directory of 1930/31 and again in 1934 and 1936, but his name was never associated with the Forest Service in any

edition of Missoula's city directories. The Forest History Society has a biographical information file on J. F. Shields in its Research Center in Durham, North Carolina. **Region 1**

St. Joe & Clearwater National Forests, 1936, compiled by  
Cabinet National Forest, 1936, topographic map, compiled by (1956 reprint)  
Cabinet National Forest, 1937, administrative map, compiled by  
Clearwater National Forest, 1936, topographic map, compiled by (1942)  
Clearwater National Forest, 1936, administrative map, compiled by (1942)  
Clearwater National Forest, 1937, forest visitor map, compiled by  
Flathead National Forest, 1938 topographic map (Flathead Division), compiled by  
Flathead National Forest, 1939, compiled by (1948)  
Kaniksu National Forest, 1938, revised by  
Kootenai National Forest, 1937, topographic map, compiled by  
Kootenai National Forest, 1937, administrative map, compiled by (1942)

**Simerl, Rudolph A.** R. A. Simerl. R. A. S. (Eastern Region, Milwaukee, Wisconsin) Simerl's name can be found in the 1936 edition of the staff *Directory* issued by the Forest Service as serving as a draftsman in the Engineering Division of the North Central Region. Milwaukee city directories during this time, however, record his name followed by the enigmatic "clerk" without an employer. In 1938, he is listed as an "artist" and not listed at all in 1939 and 1940, even though he does have map credits for 1940 and 1941. **Region 9**

National Forests and Purchase Units as of September 1, 1934, compiled by  
National Forests and Purchase Units, 1935, compiled by  
Chequamegon National Forest, Chequamegon Division, Wisconsin, 1937, compiled and traced by  
Chippewa National Forest and Purchase Unit, 1935, compiled by  
Chippewa National Forest, Minnesota, 1941, compiled and traced by  
Clark Purchase Unit, Missouri, 1936, traced by  
Clark Purchase Unit, Missouri, 1936 (all purchase units, small scale), compiled by  
Hiawatha National Forest, 1940, traced by  
Huron National Forest, 1940, drawn by  
Mark Twain National Forest, Gardner Purchase Unit, 1935, compiled by  
Mark Twain National Forest (Gasconade Unit), 1941, revised by  
Marquette National Forest, 1940, compiled and traced by  
Nicolet National Forest, Oconto Division, 1933, compiled by  
Nicolet National Forest, 1937, compiled by  
Ottawa National Forest (small scale map), 1936, compiled by  
Ottawa National Forest, 1937 & 1953, compiled and traced by  
Illini Purchase Unit [Shawnee National Forest], 1935, revised by  
Superior National Forest, 1934, corrected by  
Hocking Valley Purchase Unit [Wayne National Forest], 1935, compiled by  
Little Scioto Purchase Unit [Wayne National Forest], 1935, compiled by  
McArthur Purchase Unit [Wayne National Forest], 1936, compiled by

**Simons, Sprague T.** S. T. Simons. S. T. S. (Northern Region, Missoula, Montana; Intermountain Region, Ogden, Utah; Pacific Northwest Region, Portland, Oregon) Map credits being the guide, Simons began his cartographic career with the Forest Service in 1919 on the Northern District, then moved on to work for the Intermountain District (1925 Fishlake National Forest map) and finally with the North Pacific District/Region, from 1926 to 1942. The 1926 edition of the Portland city directory includes his name as a "draftsman" with the U. S. Forest Service and city directories for Portland, Oregon thereafter carry his name well into the 1950s as working in that capacity for the Forest Service. His map credits for the 1932 and 1933 maps of the Jefferson Division of the Lewis & Clark National Forest refer back to his 1923 map work on the independent Jefferson National Forest and do not represent new work done in 1933. **Regions 1, 4 & 6**

#### *Northern Region*

National Forests, District 1, 1923 compiled by (1932)  
Blackfeet National Forest, 1920, topographic map, traced by (1928)  
Cabinet Executive Order map of 1931, compiled by  
Cabinet National Forest, 1925, compiled by (1926, 1931)



Jefferson National Forest, 1923, compiled by  
Lewis & Clark National Forest, Jefferson Division, East & West Portions, 1932, compiled by  
Lewis & Clark National Forest, Jefferson Division, 1933, compiled by  
St. Joe Folio, 1919, traced by

*Intermountain Region*

Fishlake National Forest, 1925, compiled and traced by (1931)

*Pacific Northwest Region*

Road and Recreation map, State of Oregon, 1927, revised by (1931)  
Chelan National Forest, 1928, traced by (1935)  
Chelan National Forest, 1931, traced and revised by  
Columbia National Forest, 1931, traced by (1932, 1935, 1938)  
Mt. Baker National Forest, 1926, revised by  
Mt. Baker National Forest, 1931, compiled by (1932, 1935, 1936, 1939, 1941, 1942)  
Ochoco National Forest, 1930, compiled and traced by (1935, 1937)  
Rainier National Forest, 1930, traced by (1931)  
Siuslaw National Forest, 1932, ¼" map, traced by (1937 – South Half only)  
Snoqualmie National Forest, 1927, revised by (1928)  
Umatilla National Forest (North & South Halves), 1940, compiled by  
Umpqua National Forest, 1939, compiled by (1946, 1948)  
Wallowa National Forest, 1942, compiled by (1946)  
Wenatchee National Forest, 1931, corrections (1926 & 1927) by

**Sizer, Francene E.** F. E. Sizer. (Washington Headquarters Office) Sizer was active from 1921 to the late 1940s working in the Washington Headquarters office as assigned on maps of all Districts except, based on map credits, the Rocky Mountain and Alaska Districts. She later came to focus on mapping the southern forests, although she did not transfer to Atlanta, Georgia, the headquarters of the new Southern Region when it opened in 1934. William P. Wharton of the American Forestry Association and Chairman of the Joint Committee on Recreational Survey of Federal Lands expressed his gratitude to Francene Sizer and her fellow Forest Service cartographer, Clare B. Noyes in the Committee's 1928 report to the National Conference on Outdoor Recreation for drafting the maps found in the report. Her last map credits came in 1945 and 1946 on two maps of the Caribbean National Forest. Forest Service directories indicate that she did not relocate to Philadelphia when the Eastern Regional Offices moved there from Washington, D.C. in 1941.

**Regions 1, 3, 4, 5, 6, 8 & 9**

*Northern Region*

Lewis & Clark National Forest, 1922, compiled and traced by (1929)

*Southwestern Region*

Lincoln Proclamation diagram, 1924, revised by  
Lincoln National Forest, 1923, revised by

*Intermountain Region*

Humboldt National Forest, 1929, traced by  
Targhee National Forest, 1922, traced by  
Teton National Forest, 1921, traced by  
Teton National Forest, 1925, compiled and traced by (1928, 1930, 1934)  
Wasatch National Forest, 1925, compiled and traced by

*Pacific Southwest Region*

Eldorado National Forest, 1925, 1:126,720-scale, administrative map, traced by

*Pacific Northwest Region*

Mt. Baker National Forest, 1922, traced by (1926)  
Washington National Forest, 1922, traced by

### *Southern Region*

Caribbean National Forest and Purchase Unit, Luquillo Division, Puerto Rico, 1945, traced by  
Caribbean National Forest and Purchase Unit, Toro Negro Division, Puerto Rico, 1946, traced by  
Cherokee Proclamation diagrams of 1920 and 1924, compiled and traced by  
Cherokee National Forest, 1921, compiled and traced by  
Luquillo National Forest, 1929, traced by  
Nantahala Proclamation diagram, 1920, compiled and traced by  
Nantahala National Forest, 1920, compiled and traced by  
Nantahala National Forest, 1924, traced by  
Pisgah Proclamation diagram, Part 3, 1921, compiled and traced by  
Pisgah Proclamation diagram, 1929, traced by  
Pisgah National Forest, 1929, traced by  
Pisgah National Forest, Mt. Mitchell Division, 1930, traced by  
Pisgah National Forest, French Broad Division, 1931, traced by

### *Eastern Region*

Ottawa National Forest, 1932, traced by

**Skidmore, J. Fred.** J. Fred Skidmore. (Northern Region, Missoula, Montana) Skidmore was active during the last half of the 1930s tracing topographic and administrative maps as a “draftsman” for the Forest Service according to the 1936 and 1938 editions of Polk’s Missoula city directory. His first name beginning with “J” could not be discovered by consulting standard directories and other reference works of the time. **Region 1**

Flathead National Forest, 1938, topographic map (Blackfeet & Flathead Divisions), traced by  
Flathead National Forest, 1939, traced by (1948)  
Gallatin National Forest, 1937, traced by (1947)  
Kaniksu National Forest, 1938, compiled and traced by  
Kaniksu National Forest, West Half, 1939, traced by  
Lolo National Forest (Western Portion), 1937, topographic map, traced by  
Nezperce National Forest, 1936, topographic map, traced by (1942)

**Skoblin, Serge K.** S. Skoblin. (Northern Region, Missoula, Montana) Listed as a “draftsman” for the Forest Service according to the 1938 edition of Polk’s Missoula city directory, Skoblin later worked as a draftsman with the Missoula County Surveyor (1955) and by 1958 was serving as a “civil engineer” with the Montana State Highway Department. **Region 1**

Helena National Forest, 1939, topographic map, traced by (1947)  
Helena National Forest, 1939, administrative map, traced by (1947)

**Smith, Clinton G.** (Eastern/Southern Region, Washington, D.C.) Smith served as the Forest Supervisor on the Alabama and the Cherokee National Forest from 1928 to 1933 when the headquarters for both forests were located in Athens, Tennessee. Before his supervisory positions, he was Assistant District Forester for Range Management for the Eastern District. He later served as the Forest Supervisor of the Choctawhatchee National Forest and then took on the responsibility of management of the Apalachicola Purchase Unit in 1934. He moved into the State and Private Forestry Section first in Region 7 and later in Region 8 specializing in private forest management. Having served five years as Supervisor on the Cherokee National Forest uniquely qualified him to write the text on the forest visitor maps of 1930 and 1932. **Region 8**

Alabama National Forest, Alabama, 1930, forest visitor map, text written by  
Cherokee National Forest, Georgia, North Carolina, and Tennessee, 1932, forest visitor map, text written by

**Smith, Helen B.** H. B. Smith. H. B. S. (Washington Headquarters Office) The earliest map credit for H.B. Smith was in 1914 for her work as a tracer on the Kern (California) Folio. Her cartographic credits are primarily found on proclamation diagrams for Eastern District forests in the 1920s and several maps for the Northern, Intermountain, and California Districts. She can be found in city directories for Washington, D.C. from 1914 to 1941 as working in various capacities with the Forest Service. **Regions 1, 4, 5 & 8**

### *Northern Region*

Beartooth National Forest, 1918, compiled by (1925)  
Blackfeet Proclamation diagram, 1918, compiled & traced by  
Blackfeet National Forest, 1918 compiled & traced by (1923, 1929)  
Custer National Forest, 1933, Beartooth Division, compiled by  
Lolo National Forest, 1918, compiled and traced by (1922)

### *Intermountain Region*

Idaho Proclamation diagram, 1919, compiled and traced by  
Payette Proclamation diagram, 1919, compiled and traced by  
Payette National Forest, 1920, compiled by  
Bryce Canyon National Monument (Powell National Forest) Proclamation diagram, 1923, [drawn by]

### *Pacific Southwest Region*

Eldorado National Forest, 1918 compiled by  
Eldorado National Forest, 1920, compiled and traced by  
Kern Folio, 1914, traced by  
Lassen Folio [1916?], compiled by

### *Southern Region*

Arkansas National Forest, 1925, compiled by  
Boone Proclamation diagram, 1920, compiled and traced by  
Boone National Forest, 1920, compiled and traced by  
Florida Proclamation diagrams of 1920 and 1926, Choctawhatchee Division, traced by  
Florida Proclamation diagrams of 1920 and 1926, Ocala Division, compiled by  
Florida National Forest, Choctawhatchee Division, 1918, traced by (1926)  
Florida National Forest, Ocala Division, 1918, compiled by (1926)  
Ouachita Proclamation diagram, 1926, compiled by  
Ozark Proclamation diagram, 1928, compiled by  
Ozark National Forest, 1919, compiled by  
Ozark National Forest, 1928, compiled by  
Pisgah Proclamation diagram, Part 2, 1921, compiled and traced by  
Unaka Proclamation diagram, 1920, compiled by  
Unaka National Forest, 1920, compiled by  
Wichita National Forest, 1918, compiled by (1920)

**Smith, Ralph C.** R. C. Smith. (Southwestern Region, Albuquerque, New Mexico) In 1944 Smith worked as a “draftsman” for the U.S. Grazing Service, an agency of the Department of the Interior which merged in 1946 with the General Land Office to establish the Bureau of Land Management. His one map citation and city directories of Albuquerque indicate that he transferred to the U.S. Forest Service in 1946. **Region 3**

Gila National Forest, 1946, revised by (1948, 1949, 1959)

**Smith, Raymond H.** R. H. Smith. R. H. S. R. S. (Pacific Northwest Region, Portland, Oregon) Smith is first listed in the 1937 Portland city directory as being a “draftsman” for the U.S. Forest Service. This edition listed his name as simply Raymond Smith, while the 1940 edition of the directory includes his middle initial “H.” This fact allows the inclusion of three pre-1940 maps with the credit “R.S.” under his full name. He was listed as draftsman with the Forest Service in city directories from 1937 to 1941, but not during the war years when he was serving in the U.S. Army. Portland Oregon city directories after the war identify Smith as being an “engineer” with no affiliation to any particular employer. **Region 6**

Mt. Hood National Forest, 1939, traced by (1952)  
Olympic National Forest, 1941, topographic map traced by (1948)  
Umatilla National Forest (South Half), 1940, compiled and traced by  
North Santiam – Hog Pass Recreation Area, Willamette National Forest, Oregon, Recreation Guide No. 12, [drawn by]  
Mount Hood National Forest Winter Sports Area, South Side Unit, Recreation Guide No. 21 – Oregon, revised by  
Lake Chelan Recreation Area, Chelan National Forest, Washington, Recreation Guide No. 21 – Washington, [drawn by]

**Spaun, Calvin S.** Calvin Spaun. C. Spaun. C. S. (Intermountain Region, Ogden, Utah) Spaun started his professional career as a draftsman with the Ogden architectural firm of Hodgson & McClanahan in 1922 and worked for the firm until 1932. Ogden city directories for 1933 and 1934 continued to list Spaun as a draftsman and clerk, but without an employer. 1935 finds him serving as a draftsman for the U.S. Forest Service, Intermountain Region for the first time. His map credits far surpass any other Region 4 staff member and extend from 1936 to 1960. The Ogden city directories of 1959 and beyond lists his role in the Forest Service as an “Architect.” **Region 4**

National Forests, Region Four, 1960 & 1961, traced by (1952)  
 Ashley National Forest, 1948, compiled and traced by (1955)  
 Boise National Forest, 1939, compiled and traced by  
 Boise National Forest, 1945, compiled and traced by (1946)  
 Boise National Forest, 1950, compiled, traced, and revised by (1956, 1960)  
 Bridger National Forest, Wyoming Division, 1946, traced by (1954)  
 Cache National Forest, 1936, tracing revised by (1940)  
 Cache National Forest, 1953, revised by  
 Caribou National Forest, 1940, compiled and traced by (1946)  
 Caribou National Forest, 1949, compiled, revised, and traced by  
 Challis National Forest, 1937, revised by  
 Challis National Forest, 1940, traced by (1946, 1958)  
 Challis National Forest, 1952, traced and revised by  
 Dixie National Forest, 1937, tracing revised by  
 Dixie National Forest, 1944, revised by (Powell Division, 1950)  
 Fishlake National Forest, 1941, compiled and traced by (1944)  
 Fishlake National Forest, 1951, compiled, traced, and revised by  
 Recreation Map, Fishlake National Forest, 1953, [drawn by]  
 Humboldt National Forest, Humboldt Division, 1937, traced by  
 Humboldt National Forest, Ruby Division, 1937, traced by  
 Humboldt National Forest, Humboldt Division, 1942, traced and revised by  
 Humboldt National Forest, Ruby Division, 1942, traced and revised by  
 Humboldt National Forest, Humboldt Division, 1953, traced and revised by  
 Humboldt National Forest, Ruby Division, 1953, traced and revised by  
 Recreation Map, Humboldt National Forest, 1953, [drawn by]  
 Humboldt National Forest in Elko County, 1953, [drawn by]  
 Idaho National Forest, 1940, compiled and traced by (1941)  
 La Sal Division [Uinta National Forest], 1944, compiled and traced by  
 Manti National Forest, 1937, revised by  
 Manti National Forest, 1941, traced by  
 Manti-La Sal National Forest, La Sal Division, 1952, compiled, traced, and revised by  
 Manti-La Sal National Forest, Manti Division, 1952, traced and revised by  
 Recreation Map, Manti-La Sal National Forest, La Sal Division, 1954, [drawn by] (1956)  
 Nevada National Forest, Nevada and Moapa Divisions, 1943, revised by  
 Nevada National Forest, 1954, revised by  
 [Payette] National Forest (Idaho Division), ~~Idaho~~ National Forest, Idaho, 1941, compiled and traced by  
 [Weiser Division] ~~Weiser~~ [Payette] National Forest, Idaho, 1943, revised by  
 Payette National Forest, East Division, 1947, traced by  
 Payette National Forest, West Division, 1948, traced by (1956, 1960 – Administrative map)  
 Payette National Forest, East Division, 1952, traced and revised by  
 Payette National Forest, West Division, 1952, traced and revised by  
 Payette National Forest, traced by 1956 (1960)  
 Powell National Forest, 1944, revised by  
 Salmon National Forest, 1937, revised by  
 Salmon National Forest (Western Portion only), 1938, compiled and traced by  
 Salmon National Forest, East Half, 1941, traced by  
 Salmon National Forest, West Half, 1941, compiled, traced, and revised by  
 Salmon National Forest, 1949, compiled, traced, and revised by (1955, 1959)  
 Salmon National Forest, 1948, forest visitor map, [drawn by]  
 Salmon National Forest, 1956, revised by

Sawtooth National Forest, 1932, (small-scale) forest visitor map of 1937, revised by  
 Sawtooth National Forest, 1942, revised by (1955, 1960 – North Division)  
 Targhee National Forest, 1944, compiled and traced by  
 Targhee National Forest, East Division, 1950, compiled and traced by (1955)  
 Targhee National Forest, West Division, 1950, compiled and traced by  
 Teton National Forest, 1938, traced by  
 Teton National Forest, 1944, traced and revised by  
 Teton National Forest, 1949, traced and revised by (1955, 1960)  
 Toiyabe National Forest, 1942, revised by  
 Toiyabe National Forest, Mono Division, 1946, compiled and traced by (1951)  
 Toiyabe National Forest, Central Nevada Division, 1951, compiled and traced by (1955)  
 Toiyabe National Forest, North Half, Mono Division, 1957, compiled, traced and revised by (1960)  
 Toiyabe National Forest, South Half, Mono Division, 1957, compiled, traced and revised by (1960)  
 Uinta National Forest, 1947, compiled and traced by (1954)  
 Wasatch National Forest, 1942, compiled and traced by (1950, 1955)  
 Weiser National Forest, 1943, revised by

**Stadler, George H.** G. H. Stadler, or (by mistake) G. H. Stabler. (Northern Region, Missoula, Montana) The Flathead Folio of 1916 lists a “G. H. Stabler” in the map credits as the one who traced the maps, but this is a misspelling, a mistake which is repeated in the 1925 and 1933 topographic maps of the Flathead National Forest. The 1915/15 and 1917/18 editions of the directories for the city of Missoula list Stadler as “surveyor” for the Forest Service. **Region 1**

Blackfeet Folio, 1918, traced by  
 Blackfeet National Forest, 1920, topographic map, traced by (1928)  
 Flathead Folio, 1916, traced by  
 Flathead National Forest, 1925, topographic map, traced in part by (1933)  
 Sioux Folio, 1917, traced by

**Steele, Byram W.** (Rocky Mountain Region, Denver, Colorado) Steele is identified in the 1921 through 1925 editions of the Denver city directory alternately as an “Civil engineer” and as a “draftsman.” He is never listed as being a cartographer for the Forest Service. The Battlement (later the Grand Mesa) National Forest covered areas where there were incongruities in the original federal land survey. The Forest Service went to Steele as an independent professional cartographer to determine the correct township, range, and section lines within national forest boundaries. **Region 2**

Battlement National Forest, 1922, projections and land lines by  
 Grand Mesa National Forest, 1922, projections and land lines by

**Stelling, David G.** D. Stelling. (Northern Region, Missoula, Montana) First listed as a “student” according to the 1938 edition of Polk’s Missoula city directory and again in Polk’s Missoula directory of 1940/41, but without an occupation or employer. The directory of 1943 indicates that he was serving in the U.S. Army Air Corps. **Region 1**

Bob Marshall Wilderness, 1941, compiled by

**Stephenson, William P.** W. P. Stephenson, or (by mistake) W. P. Stephens. (Northern Region, Missoula, Montana) Stephenson was first listed in the 1917/18 edition of Polk’s Missoula city directory occupied as a “Topographic draftsman” for the Forest Service and in the 1922/23 edition as a “surveyor, Forest Service.” Unfortunately, the 1917 Sioux Folio incorrectly gives “W. P. Stephens” credit for a few map sheets in the folio. Both the 1922/23 edition of the Missoula city directory confirms the October 1922 Forest Service staff directory and includes a W. P. Stephenson as working for the Forest Service as a “surveyor.” Stephenson was in charge of entry surveys for the Northern District and in 1925 became part of the Roads Section of the Engineering Division where he remained well into the late 1930s. **Region 1**

Sioux Folio, 1917, compiled by

**\*Stevens, A. W.** (Intermountain Region) Employed on Forest Service range reconnaissance. Not found in any directories or databases consulted. **Region 4**

Caribou Folio, 1916, base map by

**Stimac, P. T.** (Eastern Region) Since this map cited below was, to quote from the statement of responsibility, "...compiled at Supervisor's and Regional Offices from G.L.O., U.S.G.S., Forest Service and other surveys by P. T. Stimac and R. A. Simerl..." it stands to reason that Stimac most likely was the cartographer based at the Ottawa National Forest's Supervisor's Office in Ironwood, Michigan and R. A. Simerl based at the Regional Office in Milwaukee, Wisconsin. **Region 9**

Ottawa National Forest, 1937 & 1953, compiled by

**Stoner, Sidney N.** S. N. Stoner. (Pacific Southwest Region, San Francisco, California) The 1914 edition of the city directory for San Francisco lists Stoner as a "Forest Examiner" with the U.S. Forest Service and resided at the time in Berkeley, California. His name is absent from city directories from 1925 onwards. **Region 5**

California National Forest, 1928, topographic map, topography under the direction of  
Klamath National Forest, 1934, topographic maps, topography by (1942)  
Monterey National Forest, 1917, compiled by (Forest Examiner)  
Shasta National Forest, 1933, topographic maps, topography by (1936)  
Trinity National Forest, 1936, topographic map, topography by (1941, 1950 administrative map)

**Stowell, Henry W.** Henry W. Stowell. (Washington Headquarters Office) Stowell is listed as a "draftsman" for the Department of Agriculture in the 1935 edition of Polk's Washington, D.C. city directory. **Region 3**

National Forests of Region 3 (Southwestern Region), 1935, compiled and traced by (1941, 1954)

**Swan, Joseph S.** Joe S. Swan. J. S. Swan. J. S. (Northern Region, Missoula, Montana) Swan spent the years 1930 to 1934 as a student at the University of Montana in Missoula before starting his cartographic career with the Forest Service. Active in the late 1930s on administrative and topographic maps, he is also credited with preparing the 1954 forest visitor map of the Jefferson Division, Lewis & Clark National Forest. Swan is listed as being a draftsman for the Forest Service according to the 1938 edition of Polk's Missoula city directory. Missing from directories for the war years, Swan reappeared in the 1948 edition of the Missoula city directory as an engineering aide with the Forest Service. He was part of the Northern Region's Engineering Division until his retirement in 1973. **Region 1**

Absaroka National Forest, 1937, compiled by  
Bitterroot National Forest, 1938, traced by (1940)  
Gallatin National Forest, 1947, [compiled] and traced by (a revision & reissue of the 1937 Absaroka National Forest map)  
Lewis & Clark National Forest (Lewis & Clark Division), 1938, topographic map, traced by (1956)  
Lewis & Clark National Forest (Lewis & Clark Division), 1938, administrative map, traced by (1949)  
Lewis & Clark National Forest (Jefferson Division), 1954, prepared by  
Map of Primitive Areas on Flathead and Lewis and Clark, National Forests, Montana, 1936, in booklet and 1939 separate.

**Swan, Kenneth Dupee.** K. D. Swan. (Northern Region, Missoula, Montana) Swan was an active cartographer between 1915 and 1921. Polk's 1915/16 and 1917/18 editions of its Missoula city directory gives his occupation as "Examiner, Forest Service" and later in the 1922/23 edition of the city directory Swan became a "publicity assistant." The October, 1922 edition of the Forest Service staff directories place him in the Public Relations office reporting to the District Forester while also continuing in his earlier job title as "Forest Examiner." That changed in 1925 when the job title of Forest examiner was dropped, and Swan became a full time public relations staff member. Consulting the Forest Service directories as well as city directories, K. D. Swan worked full time in public relations for the Northern Region well into the late 1940s. He is the author of the pamphlet, *What the National Forests Mean to Montana*, (Washington, D.C.: U.S. Government Printing Office, 1926) The Forest History Society has a biographical information file on K. D. Swan in its Research Center in Durham, North Carolina. **Region 1**

Beaverhead National Forest, 1921, traced by (1926)  
Beaverhead National Forest, 1934, West Half, traced by  
Beaverhead National Forest, 1934, traced by

Blackfeet Folio, 1918, traced by  
 Blackfeet National Forest, 1920, topographic map, traced by (1928)  
 Clearwater Folio, 1915, traced by  
 Clearwater National Forest, 1915 topographic map, tracing by (1926)  
 Coeur d'Alene Folio, 1917, traced by  
 Coeur d'Alene National Forest, topographic map, 1918, traced by (1929 & 1934)  
 Custer Proclamation diagram, 1918, traced by  
 Custer Proclamation diagram, 1932, [Part Two] Ashland Division, traced by  
 Custer National Forest, 1928, (Ashland Division), administrative and forest visitor maps, traced by (1938)  
 Flathead Folio, 1916, traced by  
 Flathead National Forest, 1925, topographic map, traced in part by (1933)  
 Lewis & Clark Folio, 1916, traced by (1926 topographic map)  
 St. Joe Folio, 1919, traced by  
 Selway Folio, 1915, traced by  
 Selway National Forest, 1915, topographic map, traced by  
 Selway National Forest, 1918, topographic map, revised and traced by (1928)  
 Sioux Folio, 1917, compiled and traced by

**Swan, Walter Hughey.** W. H. S. (Rocky Mountain Region, Denver, Colorado) Swan joined the Rocky Mountain Region as a “draftsman” in 1935 and worked for the Region through 1941. Before 1935 and after 1941, he was listed in the Denver city directory as being a civil engineer. After a seven-year tenure with the Forest Service, Swan had only one map credit. **Region 2**

National Forests of the Rocky Mountain Region, Region 2, 1940, revised by

## T

\***A. A. T.** (Eastern Region) A name could not be found for these initials by an examination of city or Forest Service directories. A.A.T. might have been assigned to the forest headquarters of the White Mountain National Forest in Laconia, New Hampshire. **Region 9**

White Mountain National Forest, Section Maps, 1936, compiled by

**Tayloe, Imogen I.** I. I. T. (Washington Headquarters Office) Tayloe is listed in Polk's 1908 Washington, D.C. city directory as being employed by the Department of Agriculture as a “draftsman.” She is known for her work on Forest Service folios. **Regions 2 & 6**

### *Rocky Mountain Region*

Leadville Folio, 1908, traced by  
 Pike Folio, 1908, traced by

### *Pacific Northwest Region*

Chelan Folio, 1908, traced by  
 Rainier Folio, 1908, traced by

**Taylor, Charles L.** C. L. T. (Washington Headquarters Office) Taylor is listed in the 1908 Washington, D.C. city directory as being employed by the Department of Agriculture and in the 1910 directory by the Forest Service. **Regions 3 & 6**

### *Southwestern Region*

Zuni Folio, 1910, traced by

### *Pacific Northwest Region*

Crater Folio, 1909, traced by

**Taylor, John B.** Taylor, J. B. (Northern Region, Missoula, Montana) Taylor was a student attending the University of Montana in Missoula according to the 1909 and 1911 editions of the Missoula city directory. By the time the 1915/16 edition of the directory was published, Taylor's occupation was recorded as being a "Forest Ranger" with the Forest Service. He enlisted in the U.S. Army in 1917 and returned to Missoula as a "Grazing Examiner with the Forest Service after the war. Forest Service staff directories list him as being a "supervisor, range appraisal." The Forest History Society has a biographical information file on John B. Taylor in its Research Center in Durham, North Carolina. **Region 1**

Blackfeet Folio, 1918, compiled by  
Blackfeet National Forest, 1920, topographic map, compiled by (1928)  
Coeur d'Alene Folio, 1917, compiled by  
Coeur d'Alene National Forest, topographic map, 1918, compiled by (1929 & 1934)  
Pend Oreille National Forest, 1916, topographic map, compiled by (1919)

**Thomas, Anthony W.** Anthony Thomas. A. W. T. A. (Region 10, Juneau, Alaska) Thomas worked for the Forest Service as a cartographer and map editor in its Alaska Regional Headquarters Office for nearly 50 years. He retired in the mid-1980s. **Region 10**

Admiralty Island Recreation Area, 1947, [drawn by]  
Chugach National Forest, 1951, compiled and traced by (1960)  
Kenai Division, Chugach National Forest, Alaska Region, 1953 [compiled and drawn by]

**Thomas, Letty B.** L. B. T. (Eastern Region, Washington, D.C.) Before joining the Forest Service as a cartographer, Thomas was employed as an "artist, colorist" with the Hicks Photo Finishers Company of Washington, D.C. The Forest Service staff *Directory* first includes her name in its November 1935 issue and, perhaps by mistake, the Washington, D.C. city directories from 1935 to 1938 indicate that she was working for the U.S. Geological Survey as a draftsman. Washington, D.C. city directories from 1939 to 1941 list her name as being a draftsman with the Forest Service. **Region 9**

Allegheny National Forest, 1936, revised by

**Thompson, S. Marshall.** S. M. T. (Washington Headquarters Office) Thompson's name can be found in the 1916, 1917, and 1918 editions of the Washington, D.C. city directories as being a "clerk" for the Forest Service. **Regions 4, 6, & 8**

*Intermountain Region*  
Manti Grazing Atlas, 1915, traced by

*Pacific Northwest Region*  
Wallowa Folio, 1917, traced by

*Southern Region*  
Alabama Proclamation diagram, 1918, [drawn by]

**Thornton, Thomas O.** T. O. Thornton. (Rocky Mountain Region, Denver, Colorado) Thornton began his drafting career with the Forest Service in 1938 and worked until 1941. After a being listed in the 1941 Denver Directory he disappears from its pages, but returns in 1945 and is listed as an "Engineering Aid, USFS." The Forest Service *Organizational Directory* of April 1945 identifies Thornton as working in the "Truck Trails and Trails" section of the Engineering Division. After 1945 he is not listed in either directory. **Region 2**

Bighorn National Forest, 1940, drawn by  
Grand Mesa National Forest, 1939, compiled and drawn by  
Nebraska National Forest, 1939, revised by  
San Juan National Forest, 1939, revised by

**\*Thorsten, O. T.** (Eastern Region) Thorsten could not be found in any directory. His one map credit makes it difficult to determine his or her duty station, Milwaukee, Wisconsin or Washington, D.C., or put another way, employed by the North Central Region or by the National Forest Reservation Commission. **Region 9**

Purchase Unit, Hiawatha, Southwest Addition, approved N.F.R.C. 9-30-36, drawn by



**Tomkins, Harry James.** Mr. Tomkins. Tomkins served as a forester under Gifford Pinchot in the Agriculture Department. The Forest History Society has a biographical information file on Tomkins in its Research Center in Durham, North Carolina. **Region 1**

Little Missouri Forest Reserve (Dakota), 1905, named on the map

**Tourjee, Perry M.** P. Tourjee. (Pacific Southwest Region, San Francisco, California) Tourjee is first listed in the San Francisco city directory's 1940 edition as Perry M. Tourjee "with the U.S. Forest Service." Tourjee along with E. Charr were credited with the tracing of the 1938 map, "Eshom Creek Unit, Pinehurst Project, Sequoia National Forest, California" which only appeared in a blue line print. **Region 5**

Trinity National Forest, 1940, revised by (1951, forest visitor map)

**Trembly, Guy T.** G. T. Trembly. G. Trembly. G. T. T., or (possibly by mistake) G. H. (Washington Headquarters Office) U.S. Forest Service, *Field Program for November 1906*, reports that, "Guy T. Trembley had been appointed as a draftsman at \$900.00 per annum." With Ellen L. Mehurin, Trembly was one of the most productive map tracers in the Washington Office, working first on tracing proclamation diagrams and folio sheets beginning in 1907, then administrative maps for all Forest Service Regions, except for the Eastern and Alaska Regions, all the way to the mid-1930s with a 1935 map of Puerto Rico. In 1910 he was listed as a "draftsman" in the Washington, D.C. city directory. Trembly compiled a remarkable record of 70 maps, many of which were very early and important proclamation diagrams. **Regions 1, 2, 3, 4, 5, 6 & 8**

#### *Northern Region*

Absaroka National Forest, 1919 traced by (1925, 1930, 1933)  
Beartooth National Forest, 1918, compiled by (1925)  
Beaverhead Proclamation diagram, 1913, [traced by]  
Beaverhead Folio, 1909, [traced by]  
Blackfeet Proclamation diagram, 1912, [traced by]  
Cabinet Proclamation diagram, 1918, compiled & traced by  
Cabinet Folio, 1910, [traced by]  
Cabinet National Forest, 1918, compiled and traced by  
Custer Proclamation diagram, 1912, [traced by]  
Custer National Forest, 1933, Beartooth Division, traced by  
Flathead Proclamation diagram, 1912, [traced by]  
Flathead Proclamation diagram, 1918, traced by  
Flathead National Forest, 1917, traced by  
Gallatin Proclamation diagram, 1912, [traced by]  
Helena Proclamation diagram, 1912, [traced by G.H., probably a printing error instead of G. T. T.]  
Jefferson Proclamation diagram, 1912, [traced by]  
Kootenai Proclamation diagram, 1912, [traced by]  
Lewis & Clark Proclamation diagram, 1912, [traced by]  
Missoula Proclamation diagram, 1912, [traced by]  
Pend Oreille National Forest, 1916, administrative map, [compiled and traced by]  
Sioux Proclamation diagram, 1919, compiled and traced by  
Sioux National Forest, 1919, compiled and traced

#### *Rocky Mountain Region*

Arapaho Proclamation diagram, 1912, traced by  
Battlement Proclamation diagram, 1913, compiled by  
Bear Lodge Proclamation diagram, 1907, traced by  
Leadville Proclamation diagram 1913, traced by  
Leadville Folio, 1908, traced by  
Pike Folio, 1908, traced by  
Rio Grande Folio, 1909, traced by  
San Juan Folio, 1909, traced by  
White River Proclamation diagram, 1912, traced by

*Southwestern Region*

Coconino Grazing Atlas, 1912, traced by  
Kaibab Forest Type Folio, 1913, traced by  
Manzano Folio, 1908, traced by  
[San Francisco Mountains Folio], 1907, traced by  
Tusayan Grazing Atlas, 1914, traced by

*Intermountain Region*

Caribou Folio, 1916, traced by  
Caribou Grazing Atlas, 1915, traced by  
Fillmore Proclamation diagram, 1914, traced by  
Lemhi Folio, 1909, traced by  
Manti Grazing Atlas, 1915, traced by  
Minidoka Proclamation diagram, 1922, traced by  
Minidoka National Forest, 1920, traced by  
Payette National Forest, 1920, traced by  
Salmon Folio, 1909, traced by  
Salt Lake Folio, 1908, [traced by]  
Sawtooth National Forest, 1919, traced by  
Targhee Folio and Grazing Atlas, 1913, traced by  
Teton Proclamation diagrams of 1912 and 1916, traced by  
Kaibab Forest Type Folio, 1913, traced by

*Pacific Southwest Region*

Shasta Folio, 1909, [traced by]  
Sierra Proclamation diagram, 1915, [traced by]  
Sierra National Forest, forest visitor map, [traced by]

*Pacific Northwest Region*

Chelan Folio, 1908, traced by  
Columbia Folio, 1908, traced by  
Crater Folio, 1909, traced by  
Minam Folio, 1913, traced by  
Rainier Folio, 1908, traced by  
Snoqualmie Folio, 1907, traced by  
Umatilla Folio, 1910, traced by  
Wallowa Folio, 1910, traced by  
Wallowa Folio, 1917, traced by  
Washington Folio, 1907, traced by  
Wenaha Folio, 1910, traced by  
Wenatchee Folio, 1908, traced by

*Southern Region*

Porto Rico and Contiguous Islands under its Jurisdiction [1935], draftsman (1939)  
Florida Proclamation diagram, 1920, Ocala Division, traced by  
Florida National Forest, Ocala Division, 1918, traced by (1926)  
Ocala Folio, 1910, [traced by]  
Ozark National Forest, 1919, traced by  
Unaka Proclamation diagram, 1920, traced by  
Unaka National Forest, 1920, traced by

**Tricker, Albert C.** A. C. T. (Pacific Northwest Region, Portland, Oregon) 1932 is the first year that Tricker's name is carried in the Portland city directory with an occupation of "draftsman" but without an employer. This situation lasted until 1937 when Tricker is recorded in the city directory as being a draftsman for the U.S. Forest Service and continued to be so listed until the mid-1950s. **Region 6**

Umatilla National Forest (North Half), 1940, compiled by

**Tripp, Homer F.** Tripp, H. F. (Northern Region, Missoula, Montana) Listed as “Draftsman, Forest Service” in Polk’s 1909 and 1911 Missoula city directories, but with only one credit. **Region 1**

Bitterroot Folio, 1910, compiled by

**Truscott, Charles J.** C. J. Truscott. (Intermountain Region, Ogden, Utah) Truscott joined the Intermountain District in 1921 as a “ranger.” The next year he is listed in the Forest Service Directory in the District’s Engineering Division as in charge of “Entry Surveys.” Ogden city directories after 1922 alternately list Truscott as a draftsman or as a surveyor, chief surveyor, or simply clerk. Listed as an “employee” of the Forest Service in 1935, Truscott took on the job title of “Topographic engineer” in 1938 and held that same title with Region Four until 1946. **Region 4**

Ashley National Forest Executive Order map, 1933, revised by  
Ashley National Forest, 1933, revised by (1934, 1945)  
~~Wyoming~~ [Bridger] National Forest, Wyoming, 1940, compiled by  
Bridger National Forest, Bridger Division, 1946, compiled [1929] by (1954, 1960)  
Dixie National Forest, 1933, compiled by (1937)  
Humboldt National Forest, Humboldt Division, 1937, compiled by (1942, 1953)  
Humboldt National Forest, Ruby Division, 1937, compiled by (1942, 1953)  
La Sal Division [Uinta National Forest], 1944, compiled by  
Manti-La Sal National Forest, La Sal Division, 1952, compiled by  
[Weiser Division] ~~Weiser~~ [Payette] National Forest, Idaho, 1943, compiled by  
Targhee National Forest, 1932, compiled by (1939)  
Toiyabe Proclamation diagram, 1931, compiled by  
Toiyabe National Forest, 1928, compiled by (1931, 1942)  
Weiser National Forest, 1931, compiled by (1938, 1943)  
Wyoming National Forest, 1930, compiled by (1936, 1940)

**Tuke, Clement H.** C. H. Tuke. C. H. T. Tuke is listed in the city directory for Albuquerque for two years, 1924 and 1925 with an occupation of “draftsman, S.W. District, Forest Service.” **Region 3**

Gila National Forest [1924], forest visitor map, [drawn by]  
Tonto National Forest, 1924, forest visitor map, traced by

**Tuxbury, George H.** (Northern Region, Missoula, Montana) A longtime resident of Missoula, Tuxbury worked at the local Chevrolet dealership, Fisher-Kraabel Company before World War II, as a telegrapher during the war, and as a mechanic for the Western Amusement Company in Missoula repairing watches and small appliances, before becoming a draftsman with the Forest Service in 1956. Map credits tell us that he prepared small-scale maps for two forests in the late 1950s and continued on the staff of the Northern Region’s Division of Engineering as a draftsman. Tuxbury advanced to the position of highway engineer, well past the time when the Forest Service halted the practice of adding the names of the cartographers to its maps. He retired from the Forest Service in 1986. **Region 1**

Custer National Forest, 1957, prepared by  
Nezperce National Forest, 1959, prepared by

## U

**Udell, Stewart.** S. Udell. (Intermountain Region, Ogden, Utah) Udell was hired as a “draftsman” and “surveyor” by District 4 in 1925 and remained until 1927. He is not included in the Ogden city directories of 1928 and beyond. **Region 4**

Challis National Forest, 1927, compiled by (1930, 1935, 1936, 1937)  
Uinta Proclamation diagram, 1929, compiled by  
Uinta National Forest, 1927, compiled by (1938)

**Uzefovich, Alexis M.** A. M. Uzefovich. (Eastern Region, Washington, D. C) Uzefovich's first position as a draftsman came in 1932 when worked for the U.S. Shipping Board. He moved on in 1934 to the U.S. Coast and Geodetic Survey and in 1936 to the Census Bureau. Ultimately he became a draftsman for the Department of Agriculture in 1937. There are no other listings for him in the Washington, D.C. directory after 1937. **Region 8**

George Washington National Forest, Dry River Ranger District, 1938, checked by

## V

**\*L. V.** (Southwestern Region) This cartographer is given credit as the tracer of this single forest visitor map. He or she could have been based in Alamogordo, New Mexico, headquarters of the Lincoln National Forest, but there are no city directories of the city published at this time that would allow confirmation. The name cannot be found in Albuquerque city directories of the time.

### Region 3

Lincoln National Forest, 1930, forest visitor map, [traced by]

**Vanderford, Jay B.** J. B. Vanderford. J. B. V. (Pacific Northwest Region, Portland, Oregon) Vanderford's first position with the Forest Service's North Pacific District was that of a messenger, from 1923 to 1927. After an absence of over 8 years, the 1935 Portland city directory includes his name as a "draftsman" with the US Forest Service and carried his name, occupation, and employer in this form well into the 1950s. **Region 6**

Columbia National Forest, 1940, forest visitor map revised by (1949 – Gifford Pinchot National Forest)  
Columbia National Forest, 1941, administrative map revised by (1949 – Gifford Pinchot National Forest)  
Malheur National Forest, Lost Creek Ranger District, 1945, corrected by  
Olympic National Forest, 1941, topographic map traced by (1948)  
Umatilla National Forest (South Half), 1940, traced by  
Umpqua National Forest, 1939, compiled and traced by (1946, 1948)  
Wallowa National Forest, 1942, compiled by (1946)  
Whitman National Forest, 1942, compiled and traced by (Blue Mountains & Minam Divisions)  
Baker River Recreation Area, Mt. Baker National Forest, Washington, Recreation Guide No. 22 – Washington, [drawn by]

**Venable, Richard M.** R. M. Venable. (Northern Region, Missoula, Montana) Polk's 1955 edition of its Missoula city directory lists Venable's occupation as being an "engineer, U.S. Forest Service." The 1956 edition was the last year he was recorded as being a resident of Missoula and was listed as being a "student." **Region 1**

Bob Marshall Wilderness, 1954, revised by

**Vitali, Frank D.** F. D. Vitali. (Pacific Southwest Region, San Francisco, California) Vitali began his career with the Forest Service in 1928 as a draftsman for the California District. San Francisco city directories from 1941 onward indicate that Vitali continued his drafting career with the Schmidt Lithograph Company of San Francisco. **Region 5**

Cleveland National Forest, 1937, revised by (1940, 1944-1:253,440 administrative map)  
Eldorado National Forest, 1939, traced by  
Klamath National Forest, 1934, topographic maps, traced by (1942)  
Klamath National Forest, 1936, compiled and traced by (1943)  
Lassen National Forest, 1938, topographic map, traced by (1947)  
Lassen National Forest, 1939, administrative map, traced by (1950)  
Lassen National Forest, 1940, forest visitor map, traced by  
Los Padres National Forest, 1937, revised by (1944)  
Plumas National Forest, 1938, administrative map, revised by (1945)  
San Bernardino National Forest, 1937, 1:253,440-scale administrative map, revised by (1943)  
Sequoia National Forest, North & South Halves, 1940, administrative map, traced by  
Stanislaus National Forest, 1936, revised by  
Tahoe National Forest, 1939, compiled and traced by (1940, 1944)  
Desolation Valley Recreation Area, Eldorado National Forest..., 1939, [drawn by]

**Vogel, George F.** G. F. V. (Southern Region, Atlanta, Georgia) Vogel's map credits indicate he began work with the Southern Region in 1935. This start date is confirmed by his name being listed in the Atlanta city directory for the same year and ending in 1939. **Region 8**

National Forests in the Southern Region (Region 8), 1934, traced and revised by  
Black Warrior National Forest, 1936, [drawn by]  
Ozark National Forest, Eastern Division, 1938, traced by  
Sam Houston National Forest, 1936, revised by  
Oakmulgee Purchase Unit [Talladega National Forest], 1935, revised by (1937)  
Talladega Purchase Unit, 1935, revised by  
Tombigbee Purchase Unit, Alabama, 1935, revised by

## W

**\*R. A. W.** (Eastern Region) R.A.W. might have been a roving forest examiner/appraiser for the Forest Service due to the fact that this cartographer only made small scale maps of purchase units. **Region 9**

Illini Purchase Unit [Shawnee National Forest] (small scale map) 1935, revised by  
Shawnee Purchase Unit [Shawnee National Forest (small scale map), 1935, revised by  
Chariton Purchase Unit, Iowa (small scale map), 1935, compiled by (1939)  
Chequest Purchase Unit, Iowa (small scale map), 1935, compiled by (1939)  
Grand River Purchase Unit, Iowa (small scale map), 1935, compiled by

**Waggaman, Josephine M.** J. M. Waggaman J. Waggaman. J. M. W. (Washington Headquarters Office) Waggaman was hired by the Forest Service as a "Draftsman" in April of 1907. She made maps for all Districts except the Eastern and Alaska Districts, including administrative, folio and grazing atlas sheets, and proclamation diagrams. The last of her 26 maps (her first map credit came in 1912) was the for the 1922 Executive Order map for the Dixie National Forest. **Regions 1, 2, 3, 4, 5, 6 & 8**

### *Northern Region*

Kaniksu National Forest, 1915, [drawn by]  
Lewis & Clark National Forest, 1918, traced by

### *Rocky Mountain Region*

Medicine Bow, Wyoming, Folio, 1913, traced by  
Medicine Bow, Wyoming, Grazing Atlas, 1913, traced by  
Montezuma National Forest, 1916, revised by  
Pike National Forest, 1919, 1:253,440-scale administrative map, traced by (1925 forest visitor map)

### *Southwestern Region*

Coconino Grazing Atlas, 1912, traced by  
Kaibab Forest Type Folio, 1913, traced by  
Kaibab National Forest, 1917, compiled and traced by  
Tusayan Grazing Atlas, 1914, traced by

### *Intermountain Region*

Caribou Folio, 1916, traced by  
Caribou Grazing Atlas, 1915, traced by  
Dixie Executive Order map, 1922, compiled and traced by  
Dixie National Forest, 1918, compiled and traced by (1922)  
La Sal Proclamation diagram, 1914, traced and lettered by  
Manti Grazing Atlas, 1915, traced by  
Targhee National Forest, 1919, compiled and traced by  
Uinta National Forest, 1920, compiled and traced by  
Wasatch Proclamation diagram, 1921, compiled and traced by  
Wasatch National Forest 1920, compiled and traced by

Kaibab Forest Type Folio, 1913, traced by  
Kaibab National Forest, 1917, compiled and traced by

*Pacific Southwest Region*

Mono National Forest, 1919, traced by (1928)  
Santa Barbara Proclamation diagrams of 1914 and 1915, compiled by  
Stanislaus National Forest, 1920, traced by (1922, 1924)

*Pacific Northwest Region*

Snoqualmie National Forest, 1919, compiled by  
Wallowa Folio, 1917, traced by

*Southern Region*

Wichita National Forest, 1918, compiled and traced by (1920)

**Wagner, Eugene V.** E. V. Wagner. E. V. W. (Northern Region, Missoula, Montana) As a draftsman for the Forest Service, Wagner traced small-scale recreation maps in the last half of the 1930s. He can be found in the 1932 edition of Polk's Missoula city directory as being a student at the University of Montana and again in 1934 as a laborer. Only in the 1936 and 1938 editions of Polk's Missoula city directory can he be found listed as a "draftsman, U.S. Forest Service." **Region 1**

National Forests, Region 1, 1937, traced by  
Winter sports, Region 1, 1939, traced by  
Anaconda – Pintlar Wilderness Area, Bitterroot, Beaverhead, and Deerlodge National Forests, Montana, 1938 (1954)  
Recreation Attractions, Ennis Ranger District, Gallatin National Forest, 1938, [drawn by]  
Nezperce National Forest Recreation Attractions, Idaho, 1938, [drawn by]

**Walker, Daisy E.** D. E. Walker. (Pacific Southwest Region, San Francisco, California) Daisy E. Walker began her career with the Forest Service's District 5 in 1914. Before that, she worked in the two previous years for the San Francisco office of the Geological Survey. She was not listed in the San Francisco city directories for the years 1915 through 1917. In 1918 her name reappeared, this time as Mrs. Daisy E. Walker residing at 735 Taylor Street. City directories of San Francisco and Washington, D.C. indicate that she left San Francisco for the nation's capital in the mid-1920s. Neither city's directories include her name for 1927. The Washington, D.C. directory of 1928 lists her name, her occupation as a "draftsman, but no employer. Between 1929 and 1932 she is alternately listed as working for the General Land Office and the Post Office Department, before finding a permanent position with the G.L.O. **Region 5**

Angeles National Forest, 1926, 1:253,440-scale maps, compiled and traced by (1931, 1937, 1943)  
California National Forest, 1924, compiled and traced by (1926, 1928)  
Cleveland National Forest, 1926, compiled by (1930, 1934, 1937, 1940, 1944)  
Eldorado National Forest, 1925, 1:126,720-scale, administrative map, compiled and traced by (1929, 1932)  
Eldorado National Forest, 1925, 1:253,440-scale, administrative map, compiled by (1929, 1934, 1937, 1943)  
Eldorado National Forest, 1926, forest visitor map, compiled by (1939)  
Inyo National Forest, 1926, revised by  
Route Map, Klamath National Forest and Vicinity, 1919, forest visitor map, [traced] by  
Klamath National Forest, 1925, revised by  
Klamath National Forest, 1928, compiled and traced by (1929, 1931, 1934-administrative map)  
Los Padres ~~Santa Barbara~~ (except the Monterey Division) National Forest, 1926, 1:253,440-scale forest visitor map, compiled and traced by (1936)  
Los Padres National Forest, 1937, compiled by (1944)  
Mendocino National Forest, 1934, compiled and traced by (1940, 1950)  
Plumas National Forest, 1922, revised by (1925)  
Santa Barbara National Forest (Except the Monterey Division), 1926, compiled and traced by (1934, 1935)  
Shasta National Forest, 1927, administrative maps, compiled by (1932, 1934)  
Shasta National Forest, 1927, forest visitor map, compiled by (1932)  
Trinity National Forest, 1927, compiled and traced by (1930, 1931, forest visitor map, 1934, 1940, 1951, forest visitor map)  
Northern Redwood Purchase Unit, 1931, compiled and traced by

**Washburn, Frank E.** F. E. Washburn. Washburn. F. E. W. (Southwest Region, Albuquerque, New Mexico: Pacific Northwest Region, Portland, Oregon; Rocky Mountain Region, Denver, Colorado) Washburn became the Chief of Drafting for the Rocky Mountain District in 1927 after leaving the North Pacific District where he had worked since 1921. Previous to 1921, he was a cartographer for the Southwestern District working in Albuquerque, New Mexico. Washburn served as a Forest Service staff member in Denver, building the largest map record in the Rocky Mountain Region, until 1957 when he became an engineer for Denver's City Board of Water Commissioners. The maps of Michigan and Minnesota National Forests were made when these forests when the Rocky Mountain District administered the national forests in these states. **Regions 2, 3, 6 & 9**

*Rocky Mountain Region*

National Forests of the Rocky Mountain Region, Region 2, 1932, drawn by (1940)  
Rocky Mt. Region, 1935, compiled and checked by  
National Forests of the Rocky Mountain Region, 1953, edited by  
The Black Hills Region, South Dakota – Wyoming, 1930, compiled and drawn by  
Black Hills and Harney National Forests, South Dakota and Wyoming, 1934, compiled by  
Black Hills and Harney National Forests, South Dakota and Wyoming, 1940, checked by  
Arapaho National Forest, 1928, compiled by  
Arapaho National Forest, 1932, compiled by (1938)  
Arapaho National Forest, 1939, checked by  
Bighorn National Forest, 1927, compiled by  
Bighorn National Forest, 1932, compiled by  
Bighorn National Forest, 1938, compiled by  
Bighorn National Forest, 1940, compiled by  
Black Hills National Forest, 1928, compiled by (1934)  
Black Hills National Forest, 1939, checked by  
Black Hills National Forest, 1939 (1953), checked by; folder map overlays by  
Black Hills National Forest, 1955, compiled and revised by  
Cochetopa National Forest, 1928, compiled by  
Cochetopa National Forest, 1931, compiled by  
Cochetopa National Forest, 1935, compiled by (1940 Administrative map)  
Cochetopa National Forest, 1940, forest visitor map, checked by  
Grand Mesa National Forest, 1930, compiled and drawn by  
Grand Mesa National Forest, 1936, compiled by (1941)  
Grand Mesa National Forest, 1939, compiled by  
Grand Mesa National Forest, 1941, forest visitor map, compiled by (1952)  
Gunnison National Forest, 1931, compiled by  
Gunnison National Forest, 1937, compiled by (1941, 1949)  
Gunnison National Forest, 1938, checked by  
Gunnison National Forest, 1955, compiled and revised boundary by (1959, forest visitor map 1960?)  
Harney National Forest, 1935, compiled by (1938, 1942, 1951)  
Holy Cross National Forest, 1935, compiled by (1939)  
Holy Cross National Forest, 1937, forest visitor's booklet and map, compiled by  
Medicine Bow Proclamation diagram, 1929, compiled by  
Medicine Bow National Forest, Laramie Peak Division, 1929, compiled by  
Medicine Bow National Forest, 1930, forest visitor map, compiled and drawn by (1934)  
Medicine Bow National Forest, 1935, compiled by (1940)  
Medicine Bow National Forest, 1941, checked by  
Michigan National Forest, 1927, forest visitor map, compiled by  
Montezuma National Forest, 1930, compiled and drawn by  
Montezuma National Forest, 1935, compiled by (1940)  
Montezuma National Forest, 1938, checked by  
Nebraska National Forest, 1932, compiled by (1939)  
Pike National Forest, 1930, compiled by (1931, 1936, 1937, 1942)  
Pike National Forest, 1938, compiled by  
Rio Grande National Forest, 1933, compiled by (1937-administrative map, 1942)  
Rio Grande National Forest, 1937, forest visitor map, compiled by  
Rio Grande National Forest, 1947, compiled by  
Rio Grande National Forest, 1949, checked by

Roosevelt National Forest, 1932, compiled by (1937)  
 Roosevelt National Forest, 1938, compiled by (1941)  
 Roosevelt National Forest, 1951, checked by  
 Routt National Forest, 1932, compiled by (1933)  
 Routt National Forest, 1941, checked by  
 San Isabel National Forest, 1930, compiled by (1937, 1942)  
 San Isabel National Forest, 1931, compiled by  
 San Isabel National Forest, 1940, checked by  
 San Isabel National Forest, 1942, compiled by  
 San Isabel National Forest, 1947, edited by  
 San Isabel National Forest, 1948, checked by  
 San Juan Proclamation diagram, 1928, compiled by  
 San Juan National Forest, 1928, compiled by (1933 administrative map, 1939)  
 San Juan National Forest, 1933, forest visitor map, compiled by  
 San Juan National Forest, 1942, checked by  
 San Juan National Forest, 1951, compiled by  
 Shoshone National Forest, 1929, compiled and traced by  
 Shoshone National Forest, 1936, compiled by (1940)  
 Shoshone National Forest, 1941, checked by  
 Superior National Forest, 1928, compiled by (1934)  
 Uncompahgre National Forest, 1929, compiled by (1935)  
 Washakie National Forest, 1927, compiled by  
 Washakie National Forest, 1937, compiled by (1942)  
 Washakie National Forest, 1938, checked by  
 White River National Forest, 1928, compiled by  
 White River National Forest, 1933, compiled by (1934, 1939)  
 White River National Forest, 1941, checked by  
 White River National Forest, 1949, checked by  
 White River National Forest, [1955], revised by  
 Map of Grand Mesa Lake Area, Grand Mesa Nat'l Forest, 1951, compiled and drawn by (1955)

#### *Southwestern Region*

Apache Proclamation diagram, 1925, traced by  
 Apache National Forest, 1918, traced by (1921, 1925, 1926, 1928)  
 Coconino Proclamation diagrams of 1919 and 1923, traced by  
 Coconino National Forest, 1919, traced by (1921, 1924)  
 Lincoln Proclamation diagram, 1918, traced by  
 Lincoln National Forest, 1918, compiled by (1921)  
 Prescott Proclamation diagram, 1923, compiled and traced by  
 Prescott National Forest, 1920, compiled and traced by (1921)  
 Santa Fe Proclamation diagram, 1923, traced by  
 Santa Fe National Forest, 1919, traced by (1921, 1924-Administrative map)  
 Sitgreaves Proclamation diagram, 1923, traced by  
 Sitgreaves National Forest, 1918, traced by  
 Sitgreaves National Forest, 1921, traced by (1924)  
 Tonto Proclamation diagram, 1923, traced by  
 Tonto National Forest, 1919, traced by (1921, 1924)  
 Tusayan National Forest, 1919, traced by  
 Tusayan National Forest (Williams Division), 1921, traced by

#### *Pacific Northwest Region*

Map of Automobile Roads, State of Washington, 1925, revised by  
 Cascade National Forest, 1925, drawn by (1930)  
 Crater National Forest, 1925, revised by  
 Deschutes National Forest, 1924, traced by (1928)  
 Fremont Proclamation diagram, 1935, traced by  
 Fremont National Forest, 1927, traced by (1935, 1938)



Mt. Baker National Forest, 1926, revised by  
Mt. Hood National Forest, 1924, drawn by (1927, 1931)  
Olympic National Forest, 1923, compiled and traced by (1930)  
Santiam National Forest, 1923, compiled and drawn by  
Santiam National Forest, 1925, compiled, drawn and revised by (1931, 1932)  
Siskiyou National Forest, 1922, revised by (1924)  
Siskiyou National Forest, 1926, revised by (1927)  
Snoqualmie National Forest, 1925, revised by (1927, 1928)  
Umpqua National Forest, 1925, traced by (1929, 1931, 1932, 1935)  
Wallowa National Forest, 1925, revised by  
Whitman National Forest, 1925, traced by (1935, 1937)  
Oregon Caves National Monument, 1923, compiled by (1926)  
Oregon Skyline Trail, 1925, compiled by (1931)

#### *Eastern Region*

Michigan National Forest, 1927, compiled by  
Superior National Forest, 1928, compiled by (1934)

**Weitknecht, Robert H.** Robt. H. Weitknecht. (Pacific Northwest Region, Portland, Oregon) Weitknecht is listed only once in the Portland city directory. In the 1917 edition, he is described as being a “forest ranger” with the U.S. Forest Service. While his duty station was Portland, Oregon at the District Headquarters, Weitknecht was detailed to examine forest conditions primarily on the east side of the Cascade Range in 1915. Weitknecht, perhaps, had special knowledge of the Deschutes National Forest that he shared with veteran Forest Service cartographer, Richard H. Robertson in compiling the 1915 forest visitor map of the forest. Since the administrative map at twice the scale as the forest visitor map has been identified only in a blueline print, it was probably an in-house enlargement of the map face of the 1915 forest visitor map. Weitknecht served in Portland from 1914 to 1921. He changed his name to Robert H. Weidman in 1920 and in 1921 moved from Portland to Missoula, working with the Rocky Mountain Experiment Station until 1937. Weidman continued his forest research work as Superintendent of the U.S. Institute of Forest Genetics in Placerville, California from 1937 to 1948. **Region 6**

Deschutes National Forest, 1915, compiled by

**Wernstedt, Lage.** L. Wernstedt. L. W. (Pacific Northwest Region, Portland, Oregon) Wernstedt served on the Columbia National Forest, headquartered in Portland, Oregon, in 1916 as an “examiner” later moving to the District 6 Engineering Division in 1922. Before that assignment, he served under William A. Langille as a Forest Assistant in Alaska, then a part of District 6. In 1916, Wernstedt in his role as a forest examiner for District 6, together with H. Nilsson, was assigned the task of examining the western coastal areas on the Kenai Peninsula of Alaska from Kachemak Bay north to the settlement of Kenai during the time when the Forest Service was involved in classifying its national land base. Their recommendation was to eliminate a 3-mile-wide coastal strip of 205,670 acres from East Foreland to the head of Kachemak Bay, which was later so ordered. The Portland city directory for 1923 lists him as a “topographer” for the U.S. Forest Service and in the years following as an “examiner” until 1926. After a hiatus, Wernstedt returned the Portland directory in 1933 as a surveyor in the North Pacific Region’s Engineering Division. By 1943, the Portland Oregon city directory listed his name, but without occupation or employer, indicating that he had retired. **Region 6**

Chelan National Forest, 1928, compiled by (1931, 1935)  
Columbia Folio, 1920, partially compiled from photo-topographic surveys by (Forest Examiner, 1917)  
Deschutes National Forest, 1924, compiled by (1928)  
Mt. Baker National Forest, 1931, compiled by (1932, 1935, 1936, 1939, 1941, 1942)  
Santiam National Forest, 1923, compiled and drawn by (1925, 1931, 1932)  
Umpqua National Forest, 1925, compiled by (1929, 1931, 1932, 1935)

**West, Vallum W.** V. W. West. V. W. W. (Rocky Mountain Region, Denver, Colorado) West began as a “draftsman” for the Rocky Mountain Region in 1930 and worked through until 1941. Denver directories did not carry his name from 1942 until 1945. However, Forest Service directories included his name as a draftsman in Region 2 throughout the war years. Denver city directories once again listed West as a draftsman for the Forest Service, serving in that capacity until the mid-1950s. **Region 2**

National Forests of the Rocky Mountain Region, 1953, compiled and drawn by  
 Arapaho National Forest, 1932, forest visitor map, drawn by  
 Arapaho National Forest, 1939, drawn by  
 Bighorn National Forest, 1932, forest visitor map, drawn by  
 Bighorn National Forest, 1938, compiled and drawn by  
 Bighorn National Forest, 1940, drawn by  
 Black Hills National Forest, 1939, compiled by (1953)  
 Cochetopa National Forest, 1931 (1932) forest visitor map, drawn by  
 Grand Mesa National Forest, 1936, drawn by  
 Gunnison National Forest, 1931, forest visitor map, drawn by  
 Harney National Forest, 1942 (1951), forest visitor map, recreation map by  
 Medicine Bow National Forest, 1930, forest visitor map, drawn by (1934)  
 Montezuma National Forest, 1935, compiled and traced by  
 Montezuma National Forest, 1940, compiled and revised by  
 Rio Grande National Forest, 1949, drawn by  
 Roosevelt National Forest, 1937, revised by  
 Roosevelt National Forest, 1938, revised by  
 Roosevelt National Forest, 1951, drawn by  
 San Isabel National Forest, 1940, revised by  
 Uncompahgre National Forest, 1951, compiled and drawn by  
 Washakie National Forest, 1937, compiled and drawn by (1942)  
 White River National Forest, 1933, drawn by  
 Trail Map of West Elk Wild Area, 1963, [drawn by]

**White, Everett D.** E. D. White. (Pacific Southwest Region, San Francisco, California) The San Francisco city directory first lists White in its 1954 edition as “with the U.S. Forest Service.” **Region 5**

Inyo National Forest, North Half, 1958, 1:126,720-scale administrative map, 1958, compiled and drawn by  
 Lassen National Forest, 1960, compiled and drawn by  
 Mendocino National Forest, 1956, compiled and drawn by  
 Modoc National Forest, 1954, compiled and drawn by  
 Plumas National Forest, 1959, compiled and drawn by  
 San Bernardino National Forest, 1959, compiled and drawn by  
 Shasta National Forest, North & South Halves, 1954, compiled and drawn by  
 Sierra National Forest, 1953, revised by  
 Sierra National Forest, 1958, compiled and drawn by  
 Six Rivers National Forest (North Half), 1954, compiled and drawn by  
 Six Rivers National Forest (South Half), 1956, compiled and drawn by  
 Trinity National Forest, 1956, compiled and drawn by  
 Salmon-Trinity Alps Wilderness Area and Trinity Lake Recreation Area, 1954, compiled and drawn by

**\*Wiese, F. W.** (Southern Region) Author of the text for the 1936 forest booklet. He or she could not be identified after using the standard directories of Washington, D.C. and Atlanta, Georgia from the 1930s. **Region 8**

Nantahala National Forest, Georgia, North Carolina, South Carolina, 1936, (forest visitor booklet and map), text by

**Wilcox, Arthur R.** A. R. W. (Pacific Northwest Region, Portland, Oregon, and Siuslaw National Forest, Corvallis, Oregon) In 1909, Wilcox was serving as the Assistant Forester on the Columbia National Forest in the State of Washington. The Portland city directories do not include his name after 1913. Wilcox was the Assistant Forester to Ralph S. Shelley, the supervisor of the Siuslaw National Forest when he compiled the 1937 map cited below. **Region 6**

Columbia National Forest, 1909, signed by (Forest Assistant, Del.)  
 Columbia National Forest, 1912, compiled by (1912)  
 Siuslaw National Forest, 1937, South Half only, compiled by

**Wilcox, C. F.** C. Wilcox. C. F. W. (Pacific Southwest Region, San Francisco, California) The 1941 San Francisco city directory includes Wilcox and describes him or her as being “with the U.S. Forest Service,” but does not provide full first and middle names or the occupation. **Region 5**

Angeles National Forest, 1941, [drawn by] (1948)  
Eldorado National Forest, California and Nevada, 1939, forest visitor map, revised by  
Recreation map, Mono National Forest, 1940, [drawn by]  
Plumas National Forest, 1940, revised by  
Stanislaus National Forest, 1939, forest visitor map, revised by

**Wiley, J. C.** (Intermountain Region) Identified as a “Grazing Examiner” for the Forest Service in official directories, but full names for his or her first and middle initials could not be determined. **Region 4**

Manti Grazing Atlas, 1915, grazing classification and base maps by

**Williams, Everett E.** E. E. Williams. E. E. W. (Eastern Region, Washington, D.C.) A draftsman for the Forest Service from 1936 to 1939, Williams is first listed in the 1937 edition of the Washington, D.C. city directory. **Regions 8 and 9**

*Southern Region*

Cumberland Purchase Unit, Laurel Ranger District, 1936, compiled and land status by  
Cumberland National Forest, Rockcastle and Sublimity Ranger Districts, 1937, North & South halves, compiled by  
George Washington National Forest, Lee Ranger District, 1939, compiled by  
Jefferson National Forest, Glenwood Ranger District, 1938, compiled by  
Jefferson National Forest and Purchase Unit, Clinch Ranger District, 1940, Northern & Southern Sections, compiled by

*Eastern Region*

Green Mountain National Forest, 1936, benday applied by  
Green Mountain National Forest, Northern Ranger District, 1936, benday applied by (1959)  
Monongahela Proclamation diagram, 1936, traced by  
Monongahela National Forest, 1935, revised and traced by  
Monongahela National Forest, 1936, traced by

**Williams, George W.** GWW. (Pacific Northwest Region) Williams served in the Pacific Northwest Region’s Recreation Division in charge of “Classification of Special Areas” when this 1971 map was published. **Region 6**

Alpine Lakes Area, Snoqualmie and Wenatchee National Forests, 1971 [drawn by]

**\*Williams, V.** V. Williams. (Northern Region, Missoula, Montana) Williams could not be found in Forest Service directories or in Polk’s city directories of Missoula or of Washington, D.C. for this time period. **Region 1**

Blackfeet Folio, 1918, compiled by

**Wilson, Neil.** (Pacific Southwest Region, San Francisco, California) Wilson’s name could not be found in any directories of San Francisco matching the years of the maps where he is credited as being the cartographer. This is perplexing since he was responsible for many of the Class A administrative maps for the region. **Region 6**

Inyo National Forest, North Half, 1958, 1:126,720-scale administrative map, compiled and drawn by  
Klamath National Forest, 1953, compiled and drawn by  
Lassen National Forest, 1960, compiled and drawn by  
Mendocino National Forest, 1956, compiled and drawn by  
Modoc National Forest, 1954, compiled and drawn by  
Plumas National Forest, 1959, compiled and drawn by  
San Bernardino National Forest, 1959, compiled and drawn by  
Shasta National Forest, North & South Halves, 1954, compiled and drawn by  
Sierra National Forest, 1958, compiled and drawn by

Six Rivers National Forest (North Half), 1954, compiled and drawn by  
Six Rivers National Forest (South Half), 1956, compiled and drawn by  
Trinity National Forest, 1956, compiled and drawn by  
Salmon-Trinity Alps Wilderness Area and Trinity Lake Recreation Area, 1954, compiled and drawn by

**Winbray, Dave.** Dave Windbray. (Southwestern Region and Eastern Region – duty station unknown) Volume One of the 1901 and 1905 editions of the *Official Register of the United States* (page 952), lists a Dave Winbray as a surveyor employed by the Indian Service, Department of the Interior, assigned to the Five Civilized Tribes in the Indian Territory. However, the names Windbray or Winbray could not be found in the city directories for Albuquerque or Washington, D.C. for this time period. His 1912 map of the Sitgreaves National Forest indicates an affiliation with District 3. Between 1907 and 1914, District 3 included the national forests of Arizona, New Mexico, Arkansas and Florida, and also the Wichita National Forest in Oklahoma. He is also credited as being the surveyor on the preliminary reconnaissance survey of the 1917 Wichita National Forest of Oklahoma. It seems likely that the Dave *Windbray* as it is found on the Sitgreaves and Wichita National Forest maps is the same as Dave Winbray, the Oklahoma surveyor. His earlier map work in Oklahoma at the beginning of the century most likely had been used for the 1917 map. If that is the case, Dave Winbray retired to San Antonio, Texas in the early 1930s and died on December 12, 1945 at the age of 78. His death certificate has “Unknown” typed into the spaces provided for his marital status, date of birth, and occupation, but it does note that he was taken to Oklahoma City, Oklahoma for burial. The 1940 United States Census states Dave Winbray’s age at 73. **Region 8**

Sitgreaves National Forest, Arizona, 1912, (topographic map), compiled by  
Preliminary map, reconnaissance survey, Wichita National Forest, 1917, surveyed by

**Winkler, Everett C.** E. C. Winkler. E. C. W. (Eastern Region, Milwaukee, Wisconsin) Winkler is first listed in the Milwaukee city directory of 1934 as being a draftsman for the U.S. Forest Service the same year he is first recorded as an employee of the Forest Service in its *Directory* and worked in Region 9 until 1954. The Forest Service did not publish an Organizational Directory for the years, 1955 through 1957, but it must have been during this period that Winkler transferred his cartographic skills to the Southwestern Region, where he worked until the mid-1960s. **Region 9**

National Forests of the North Central Region, Region Nine, 1937, compiled by  
Clark National Forest, Clark Purchase Unit..., 1935, [compiled by] (1939)  
Clark National Forest, Frisco Purchase Unit..., 1935, [compiled by]  
Clark National Forest, Wapkeppello Purchase Unit, 1935, compiled by  
Clark National Forest, [Clark Purchase Unit], 1936, compiled and traced by  
Clark National Forest, Fristoe Purchase Unit, 1936, compiled by  
Hiawatha National Forest, 1940, compiled by  
Hoosier National Forest, Lafayette Purchase Unit, 1935, compiled by  
Hoosier National Forest, Lost River Purchase Unit, 1935, compiled by  
Hoosier National Forest, Patoka Purchase Unit, 1935, compiled by  
Hoosier National Forest, Pleasant Run Purchase Unit, 1935, compiled by  
Manistee Purchase Unit, 1933, compiled by  
Mark Twain National Forest, Gasconade Purchase Unit, 1934, compiled by (1940)  
Mark Twain National Forest, Gasconade Purchase Unit, (small scale map) 1935, compiled by  
Mark Twain National Forest, Gardner Purchase Unit, (small scale map) 1935, compiled by  
Mark Twain National Forest, Pond Fork Purchase Unit, 1935, compiled by  
Mark Twain National Forest, Pond Fork Purchase Unit, (small scale map) 1935, compiled by  
Marquette National Forest and Purchase Unit, (small scale map) 1935, compiled by  
Illini Purchase Unit [Shawnee National Forest], 1935, compiled by  
Illini Purchase Unit [Shawnee National Forest] (small scale map) 1935, compiled by  
Shawnee Purchase Unit [Shawnee National Forest, 1935, compiled by  
Shawnee Purchase Unit [Shawnee National Forest (small scale map), 1935, compiled by  
Mesaba Purchase Unit [Superior National Forest] (small scale map), 1933, compiled by  
Superior National Forest, 1934, corrected by  
Symmes Creek Purchase Unit [Wayne National Forest], 1935, compiled by  
Muskingum Purchase Unit [Wayne National Forest], 1936, compiled by

**Witherow, John M.** J. M. W. (Washington Headquarters Office) Witherow started out in 1908 as a draftsman for the Department of Agriculture before moving to the Forest Service in 1912 where he remained until the early 1930s.

**Region 6**

Wallowa Folio, 1917, traced by

**Wood, William A.** W. A. Wood. (Intermountain Region, Ogden, Utah) Wood first appeared in the 1925 edition of the Ogden city directory working for the Forest Service as a “draftsman.” He remained only for a short time. **Region 4**

Caribou National Forest, 1928, compiled by

**Woodard, Farrell, W.** Farrell W. Woodward. The 1955 Billings, Montana city directory notes that Woodard worked in “Aerial Photo Interpretations” with the U.S. Bureau of Reclamation, Yellowstone District, based in Billings. The earlier 1949 edition of the Billings city directory lists Woodard as an “Engineer” with the Reclamation Bureau. The 1954 map of the Beartooth High Country names Woodard, along with Frank D. Bates and Robert F. Jamieson, as cartographers. Bates and Jamieson were also on the staff of the Bureau of Reclamation in Billings. **Regions 1 & 2**

The High Country Showing the Beartooth Primitive Area in the Gallatin and Custer National Forests...1954, compiled by

**Woods, Francis W.** (Intermountain Region, Ogden, Utah) An entry in the 1930 Census for Ogden, Weber County, Utah lists Mr. Francis W. Woods’ occupation as a surveyor working for the Forest Service. **Region 4**

Mirror Lake Recreation Area, 1931, mapped by

## Y

**Yeo, Herbert W.** H. W. Yeo. (Southwestern Region, Albuquerque, New Mexico) The 1938 Albuquerque city directory lists Yeo serving as an Agriculture Engineer with the Soil Conservation Service. He might have been temporarily attached to the Forest Service’s Experiment Station in Arizona. **Region 3**

Sierra Ancha Experimental Forest: Southwestern forest and range experimental station Parker Creek branch, 1938, compiled from surveys by

**\*Youngs, H. S.** Assigned to Range Reconnaissance with the Forest Service. Not found in any directories consulted. **Region 4**

Caribou Folio, 1916, base map by

**Yule, James Blaine.** J. B. Yule. (Northern Region, Missoula, Montana) Yule joined the Forest Service as a cartographer in 1911 in Missoula at age 27. His first map credit came in 1915 and with his engineering talents earned while enrolled at the University of Montana, Yule specialized in topographic map drawing. Yule is listed in city directories for Missoula, Montana first as a “Surveyor” (1915/15 edition), as a “Survey draftsman” (1917/18), and as a “civil engineer” (1922/23). His name is carried in Forest Service staff directories as being in charge of the Maps and Surveys Section of the Engineering Division of the Northern District a position he held until his retirement from the Forest Service in 1947. During World War II, Yule volunteered his cartographic skills to the war effort by transferring to the Forest Service’s Bakersfield office. There, he made up to date topographic maps for the Army of the California Coast using aerial photography, a process for which he had long advocated. Yule died in 1957. **Region 1**

Blackfeet Folio, 1918, compiled by

Clearwater Folio, 1915, topography by

Clearwater National Forest, 1915 topographic map, topography by (1926)

Custer Proclamation diagram, 1918, compiled by

Custer Proclamation diagram, 1932, [Part Two] Ashland Division, compiled by

Custer National Forest, 1928, (Ashland Division), administrative and forest visitor maps, compiled by (1938)

Flathead Proclamation diagram, 1918, compiled by

Flathead Folio, 1916, topography by

Flathead National Forest, 1917, compiled by

Kootenai National Forest, 1922, compiled by (1924)  
 Lewis & Clark Folio, 1916, topography by (1926 topographic map)  
 Lewis & Clark National Forest, 1918, compiled by  
 Lolo Folio, 1927, compiled by  
 Lolo, topographic map, 1927 [partial map of the forest], compiled by  
 Nezperce National Forest, 1920, compiled by (1923, 1927)  
 Aerial Photographic Type and Drainage Map, North Area, Nezperce National Forest, Idaho, 1927-1928, map compiled by  
 St. Joe Folio, 1919, compiled by  
 Selway Folio, 1915, topography by  
 Selway National Forest, 1915, topographic map, compiled by  
 Selway National Forest, 1918, topographic map, compiled by (1928)

For U.S. Geological Survey cartographers and cartographers working for the U.S. General Land Office on forest reserve and national forest mapping, see the “Cartographers” section in the individual Regional chapters elsewhere on this website.

## **X. Union List of the Forest Atlases of the National Forests of the United States**

Descriptive note: All folios measure 54 x 46 cm., except for two 1910 “pocket” atlases for the Wallowa and White River National Forests. Each sheet in the forest atlas covers six townships or less and can, but not always, carry the date and compilation information. Sheets were issued unbound in heavy cardstock paper folders. Folders include the title information and sheet arrangement diagram for the majority of the folios (see Figure 7). For a more complete citation to each atlas, see the individual Regional Chapter found elsewhere on this website and identified for each atlas below, under the named forest. Most common abbreviations used to identify institutions holding the atlas: **NA** = National Archives; **LC** = Library of Congress, Geography and Map Division; **YA** = Yale University, School of Forestry and Environmental Studies, Henry S. Graves Memorial Library; **NAL** = National Agricultural Library; **AGS** = University of Wisconsin Milwaukee Libraries, American Geographical Society Library; other libraries are fully identified. Forest Atlases were not widely distributed and were never a part of the Government Printing Office’s Depository Library Program.

### **A**

1. **Absaroka Folio [Montana]** Dec., 1908. 14 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Yale's copy includes land classification maps from USGS Professional Paper 29 *Forest conditions in the Absaroka division of the Yellowstone Forest Reserve, Mont...* 1904. **Region 1**
2. **Alamo Folio [New Mexico]** Jan., 1909. 19 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, NAL) **Region 3**
3. **Angeles Folio [California]** Mar., 1908. 20 sheets, topographic, both black and white and colored editions. Sheets 11-20 dated Aug. 1908. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**
4. **Apache Folio [Arizona]** Feb., 1909. 13 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) (Arizona State University) National Agricultural Library has only uncolored edition for sheet 7. **Region 3**
5. **Arapaho Folio [Colorado]** Mar., 1909. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**
6. **Arkansas Folio [Arkansas]** Mar., 1909. 20 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 8**

7. **Ashley Folio [Utah-Wyoming]** Jan., 1909. 12 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

## **B**

8. **Battlement Folio [Colorado]** July 1908. 10 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

9. **Bear River Folio [Idaho-Utah]** Jan., 1908. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Yale and National Agricultural Library file this folio under Cache National Forest. Includes sheets 1, 4, 6, 7, & 9-12 (Idaho-Boise Meridian) in colored and uncolored editions, but lacks sheets 2, 3, 5, and 8 for Utah (Salt Lake Meridian)). **Region 4**

10. **Beartooth Folio [Montana]** Oct., 1908. 11 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 1**

11. **Beaver Folio [Utah]** Aug., 1907. 4 sheets, topographic, both black and white and colored editions. No graphic index to sheets on front cover. Compiled and printed by the U.S. Geological Survey (NA, LC, YA, NAL, AGS) **Region 4**

12. **Beaverhead Folio [Montana-Idaho]** 1909. 30 sheets, topographic, black and white edition. Compiled by H. S. Meekham. Printed by the U.S. Geological Survey. (NA, LC, NAL) **Region 1**

13. **Big Belt Folio [Montana]** Oct., 1907. 11 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (LC, YA, NAL) **Region 1**

14. **Bighorn Folio [Wyoming]** Feb., 1909. 14 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (LC, YA, NAL) **Region 2**

15. **Bitterroot Folio [Idaho - Montana]** Nov. 1907. 44 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, Idaho Historical Society) **Region 1**

---- **Another edition.** [Oct. – Dec. 1910] 20 sheets, topographic, black and white. Compiled from U.S.G.S., G.L.O. data and Forest Service surveys; compiled and drawn 1910 by F. E. Bonner, H. F. Tripp, and C. F. Farmer]. Printed by the U.S. Geological Survey. (NA, NAL, University of Montana, Montana State Univ.)

---- **Another edition.** 1<sup>st</sup> correction March 1911, [signed] Wilfred W. White, Forest Supervisor. (LC; NA)

16. **Black Hills Folio [South Dakota]** 1909. Compiled by D. C. Harrison. 12 sheets, black and white. Printed by the U.S. Geological Survey. (NA, LC, NAL) National Agricultural Library's copy has sheets 1 thru 6, and 9 in black and white editions only. **Region 2**

17. **Blackfeet Folio [Montana]** 1918. 24 sheets, topographic, color. Compiled at district office, Missoula 1918, from U.S.G.S., G.L.O., Forest Service, and other surveys. (NA, LC, NAL, AGS) **Region 1**

18. **Blue Mountains Folio [Oregon]** Sept., 1907. 50 sheets, topographic with hachures, black and white edition. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) National Archives copy has 40 sheets; Yale's copy, 34 sheets; National Agricultural Library copy, 50 sheets, AGS has two copies both incomplete. **Region 6**

19. **Bonneville Folio [Wyoming]** Jan., 1909. 21 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey; topography from U.S. Geological Survey maps; land lines from General Land Office plats (NA)  
**Region 2**

---- **Another edition.** 1<sup>st</sup> ed. Jan. 30, 1909. 1<sup>st</sup> correction Aug 12, 1909. 2<sup>nd</sup> correction May 31, 1911. 3<sup>rd</sup> correction Dec. 9, 1911. 4<sup>th</sup> correction March 6, 1913. 2<sup>nd</sup> ed. Sept. 17, 1913. (LC, NAL)

## C

20. **Cabinet Folio [Montana]** May 1910. 14 sheets, topographic, black and white. Compiled by H. S. Meekham, 1910. Printed by the U.S. Geological Survey. (NA, YA) **Region 1**

---- **Another edition.** 1<sup>st</sup> ed. issued May 23, 1910. 1<sup>st</sup> correction rec'd March 8, 1911. 2<sup>nd</sup> correction rec'd March 13, 1912. 2<sup>nd</sup> edition issued July 1, 1912. (LC, NAL)

21. **California Folio [California]** 1911. 11 sheets, hachures, black and white. No graphic index to sheets on front cover. Compiled by J. S. Noel 1911. (NA, LC) Library of Congress' copy has in manuscript: Corrected 5/16/11. And Corrected 11/21/11. **Region 5**

---- **Another edition.** Compiled Mar. 1911; corrected May 1911; issued July 1911; second correction July 1912; second edition issued May 1912. Printed by U.S. Geological Survey. (NAL)

22. **Caribou Folio [Idaho-Wyoming]** Jan., 1909. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 4**

---- **Another edition.** [1916] 12 sheets, topographic, color edition. (LC)

---- **Another edition.** [1929] 5 sheets (1-4 & 6), topographic, color (alienated lands). (LC)

---- **Another edition.** Grazing Atlas. 1915. Grazing classification by Mark Anderson and H. C. Hancock, 1913. [maps compiled 1913-1915]. (LC) LC's copy incomplete, includes only sheets 5, 7, 8, and 9.

23. **Carson Folio [New Mexico]** Jan., 1909. 19 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) National Agricultural Library has the black and white edition only. **Region 3**

24. **Cascade Folio [Oregon]** Jan., 1909. 22 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 6**

25. **Challis Folio [Idaho]** Jan., 1909. 15 sheets, planimetric, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Agricultural Library's copy has 15 black and white sheets as well as sheets 11 and 12 from the Sawtooth Folio in color and black and white. **Region 4**

26. **Chelan Folio [Washington]** 1907 & 1908. 23 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Agricultural Library's copy incomplete: NAL has sheets 1, 6 and 12 thru 23 in black and white; sheets 6, and 12 thru 23 in colored edition. **Region 6**

27. **Cheyenne Folio [Wyoming]** Nov., 1908. 8 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, University of Wyoming) Univ. of Wyoming copy lacks uncolored page 5. **Region 2**



28. **Chiricahua Folio [Arizona – New Mexico]** Mar. 1909. 9 sheets, hachures, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) Yale's copy has sheets 1 thru 5 for Arizona in black and white edition only; 6 thru 9 in both color and black and white editions. **Region 3**
29. **Choctawhatchee Folio [Florida]** 1910. 9 sheets, planimetric, black and white. Compiled by D. C. Harrison. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 8**
30. **Clearwater Folio [Idaho]** 1915. 12 sheets, topographic, color. Compiled Feb. 1915 at District Office, Missoula. Printed by the U.S. Geological Survey. (NA, LC, NAL) **Region 1**
31. **Cleveland Folio [California]** Jan., 1909. 27 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**
32. **Cochetopa Folio [Colorado]** Aug., 1908. 12 sheets, topographic, black and white edition. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL). **Region 2**
33. **Coconino Folio [Arizona]** Oct., 1908 and Jan., 1909. 40 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, Arizona State University) **Region 3**
- **Another edition.** *Grazing Atlas.* [1913] 20 sheets, topographic, color. Grazing classification and base map by R. R. Hill, 1912; map compiled 1912, approved December 1912, and June 1913. Printed by the U.S. Geological Survey. (NA; LC; Univ. of Northern Arizona; Univ. of Wisconsin Milwaukee Libraries, American Geographical Society Library) National Archives has both grazing edition and topographic edition. LC copy has only 14 numbered sheets (sheets 1-3 & 5-15).
34. **Coeur d'Alene Folio [Idaho]** Jan., 1909. 25 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA) **Region 1**
- **Another edition.** 1917. 15 sheets [13 shown on index, plus page 9A and 11A "Detail of Mineral Survey in green"], topographic, color. Compiled at District Office, Missoula, October 1912. Revised July 1917. (LC, NAL)
35. **Columbia Folio [Washington]** 1908. 12 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham. Printed by the U.S. Geological Survey. (NA, LC, YA) **Region 6**
- **Another edition.** 2<sup>nd</sup> edition - 1920. 15 sheets, topographic, issued in both a colored base edition and an edition showing alienated lands on the colored base. (LC, NAL, AGS) Library of Congress' has edition showing alienated lands; National Agricultural Library has both editions.
36. **Colville Folio [Washington]** June 1909. 13 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 6**
37. **Coronado Folio [Arizona-New Mexico]** Oct., 1908. 14 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. Sheet 14, Dragoon Mountains area, is planimetric. (NA, YA, NAL, AGS, Arizona State University) **Region 3**
- **Another edition.** 1909. 19 black & white sheets. Compiled by D. C. Harrison, 1909. (YA)
38. **Coronado (Animas Division) Folio [Arizona-New Mexico]** 1923. 6 sheets, topographic, color. Compiled at District Office, Albuquerque, New Mexico, August 1923. Printed by the U.S. Geological Survey. (LC, NAL) Both Library of Congress' and the National Agricultural Library's copy has 6 sheets, numbered 28 thru 33. **Region 3**
39. **Crater Folio [Oregon]** 1909. 19 sheets, topographic, black and white. Pages 1-11 & 17-19 drawn in 1909. Pages 12-16 drawn in 1908. Printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

40. **Crook Folio [Arizona]** Jan., 1909. 10 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

41. **Custer Folio [Montana]** Feb., 1909. 8 sheets, largely planimetric with hachures and form lines in part, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 1**

## D

42. **Dakota Folio [North Dakota]** 1912. 1 sheet, planimetric, black and white. compiled by F. E. Bonner; [traced by] C. H. R. Oct. 1912; approved, November 23, 1912, [signed] John X. Preston, Acting District Forester. [Printed by the U.S. Geological Survey]. (NA) **Region 1**

43. **Datil Folio [New Mexico]** Jan., 1909. 37 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

44. **Deerlodge Folio [Montana]** Jan., 1909. 7 sheets lettered A to G, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Included in the Library of Congress' and the National Agricultural Library's copies of the Deerlodge Folio, are sheets 4, 5, 5 1/2, & 6-12 covering the Helena National Forest to the east, compiled by H.S. Meekham, 1907. **Region 1**

45. **Deschutes Folio [Oregon]** 1910. 10 sheets together with sheets 17-21, 28-31, 38-41, and 46-47 dated Sept., 1907 from the Blue Mountains Folio, hachures, black and white. Compiled by H.S. Meekham. Printed by the U.S. Geological Survey. (NA, YA, AGS) **Region 6**

46. **Diamond Mountain Folio [California]** 1907. 10 sheets, planimetric, both black and white and colored editions. Compiled by J.S. Noel and H.S. Meekham. Printed by the U.S. Geological Survey. (NA, NAL) **Region 5**

47. **Dixie Folio [Utah]** April, 1909. 15 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

## E

48. **Eldorado Folio [California]** April 1914. 12 sheets, planimetric, colored set showing alienated lands but no other themes. Printed by the U.S. Geological Survey. (NA, LC, NAL, AGS) National Agricultural Library's copy lacks sheet 8. **Region 5**

## F

49. **Fillmore Folio [Utah]** Mar., 1909. 4 sheets lettered A to D, topographic, both black and white and colored editions. Included in the Fillmore Folio are sheets 1-4 covering the Beaver National Forest to the south, added to the Fillmore National Forest on July 1, 1908, dated Aug., 1907. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Yale's copy lacks the numbered (Beaver NF) sheets. **Region 4**

50. **Fish Lake Folio [Utah]** Jan., 1909. 9 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

51. **Flathead Folio [Montana]** 1916. 26 sheets, topographic, both black and white and colored editions. Compiled in District Office, Missoula in 1916. Printed by the U.S. Geological Survey. (NA, LC, NAL, AGS) National Agricultural Library's copy has black and white sheets numbered 1, 6, 12-15, 17-20, and 22. **Region 1**

52. **Fremont Folio [Oregon]** 1910. 26 sheets, planimetric, black and white. Compiled by D. C. Harrison 1910. Printed by the U.S. Geological Survey. (NA, YA, AGS) **Region 6**

## G

53. **Gallatin Folio [Montana]** Dec., 1907. 13 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 1**

54. **Garces Folio [Arizona]** July 1908. 11 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

55. **Gila Folio [New Mexico]** Jan., 1909. 18 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

56. **Gunnison Folio [Colorado]** Oct., 1908. 12 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

## H

57. **Harney Folio [South Dakota]** 1909. 14 sheets, topographic, black and white. Compiled by D. C. Harrison 1909. Printed by the U.S. Geological Survey. (NA LC, NAL) National Agricultural Library's copy includes sheets 7 thru 14 only. **Region 2**

58. **Helena Folio [Montana]** 1907. 13 sheets (1-12 with sheet 5 ½ ), topographic, both black and white and color editions. Compiled by H. S. Meekham 1907. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Archives copy has 1 black and white set of the Deer Lodge Folio included in its copy of the Helena Folio. **Region 1**

59. **Holy Cross Folio [Colorado]** Mar., 1908. 19 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

60. **Humboldt Folio [Nevada]** Feb., 1909. 17 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Archives and Library of Congress copies have no index on the front cover; Yale's and the National Agricultural Library's copy has front cover with index. **Region 4**

## I

61. **Idaho Folio [Idaho]** Apr. 1909. 15 sheets, planimetric (sheets 5,6,11 & 12 topographic), black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

62. **Invo Folio [California]** Jan., 1909. 23 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA) **Region 5**

---- **Another edition.** Edition of Nov. 22, 1915. 24 color sheets: topographic, showing alienated lands. Printed by the U.S. Geological Survey. (LC, NAL, AGS)

## J

63. **Jefferson Folio [Montana]** Feb., 1909. 20 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA) **Region 1**

---- **Another edition.** First ed. issued Feb. 1909; First corrections rec'd July 1, 1909; Corrections posted June 10, 1912; Second edition issued July 1, 1912. Printed by the U.S. Geological Survey. 20 black and white topographic sheets. (NA, NAL)

64. **Jemez Folio [New Mexico]** Jan., 1909. 13 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

## K

65. **Kaibab Folio [Arizona]** Oct., 1908. 13 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, Arizona State University) **Region 3**

66. **Kaniksu Folio [Washington-Idaho]** Compiled in Regional Office, Missoula [1914-1927]. 13 colored sheets; topographic. Compiled and printed by the U.S. Geological Survey. (NA, LC, NAL) National Agricultural Library's copy has black and white editions of sheets 1,2,5,6 & 9. **Region 1**

67. **Klamath Folio [California]** 1907 and Mar. 1909. 5 lettered sheets, A-E., Sheet A dated Mar. 1909 with statement "Compiled by H. S. Meekham, 1909." Sheets B thru E dated "1907" with statement "Compiled by H. S. Meekham, 1907." Topographic, color. These sheets cover the eastern edge of the Forest and a portion of the present day Goosenest Ranger District. (YA, NAL) **Region 5**

---- **Another edition.** No date [1909?] 19 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (YA, NAL, AGS)

---- **Another edition.** No date [1914-1915?]. 19 sheets, topographic (some sheets with form lines only), both black and white and colored editions showing alienated lands. Compiled and printed by the U.S. Geological Survey. (NA)

68. **Kootenai Folio [Montana]** Jan., 1909. 19 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 1**

## L

69. **La Salle Folio [Utah-Colorado]** July 1908. 10 sheets, topographic (Powell, Hayden, U.S.G.S. surveys), both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) Name changed back to La Sal on March 16, 1909. **Region 4**

70. **Las Animas Folio [Colorado-New Mexico]** Sept., 1908. 3 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

71. **Lassen Folio [California]** 19 sheets (20 shown on index) dated 1907, 1908, and 1909, topographic. Sheets 1,2,3,4 to 14, 15,16,18 & 20 are colored; Sheets 1,2 to 14,15,16,17,18, & 20 are black and white. (YA, NAL) **Region 5**

---- **Another edition.** No printing date (1916-1918?) Compiled by J. S. Noel 1907 and 1908. 27 sheets, planimetric with some hachures, showing alienated lands. Printed by the U.S. Geological Survey. (NA, LC, NAL, AGS) National Agricultural Library's sheets are undated.

72. **Leadville Folio [Colorado]** 1908. 19 sheets, topographic, both colored and black and white editions. Compiled by H. S. Meekham 1908. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

73. **Lemhi Folio [Idaho]** 1909. 18 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham 1909. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Agricultural Library's copy includes sheets 19 thru 21 & 29 thru 31 from the Sawtooth Folio. **Region 4**

74. **Lewis and Clark Folio [Montana]** No date (1908?) 56 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 1**

---- **Another edition.** 1916. 17 sheets, colored, topographic. Compiled at the District Office, Missoula 1916. Printed by the U.S. Geological Survey. (NA, LC, NAL) National Agricultural Library's copy has sheets 7, 10 & 17 in black and white edition.

75. **Lincoln Folio [New Mexico]** 1910. 11 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham 1910. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

76. **Lolo Folio [Montana]** Sept., 1908. 17 sheets, planimetric, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA) **Region 1**

---- **Another edition.** 1927. 21 sheets, color, topographic. Compiled in District Office, Missoula 1927. Printed by the U.S. Geological Survey. (NA, LC, NAL, AGS)

77. **Luquillo Folio [Puerto Rico]** 1908. 1 sheet, topographic, black and white. Title of map inside folio: *Sketch map of portions of Luquillo National Forest, Porto Rico.* Compiled from surveys by the U.S. Geological Survey. No index on front cover and issued without separate legend page. (NA, YA, NAL) **Region 8**

## M

78. **Madison Folio [Montana]** Sept. 1907. 13 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 1**

79. **Manti Folio [Utah]** No date [1907? 1908?] 10 sheets, topographic, black and white showing alienated lands and school sections. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 4**

---- **Another edition.** 1914-1915. 10 sheets without date showing alienated lands with patterned overlay. Compiled and printed by the U.S. Geological Survey. (LC, AGS) Partial set of **Grazing Atlas** (sheets 4,7,8, 9 & 10) included in AGS copy, LC's copy also has Grazing Atlas sheets but lacks sheet 9.

80. **Manzano Folio [New Mexico]** 1908 12 sheets, topographic, both black and white and colored editions. Part 1 containing sheets 6 through 12; Part 2, 1 through 5. Compiled by C. C. Bassett and H. S. Meekham 1908. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) The two parts represent the April 16, 1908 addition of the Mount Taylor National Forest (Part 2) to the Manzano National Forest (Part 1). **Region 3**

81. **Medicine Bow Folio [Colorado]** Sept. 1908. 9 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

---- **Another edition.** Grazing Atlas. Sheets 1,2,6,& 7, compiled 1911-12 and 1913. Sheets 2,5,6,& 7 compiled 1913 in color. (LC YA) Yale's has sheets 1, & 3 thru 7.

82. **Minam Folio [Oregon]** 1912. 8 sheets, topographic, black and white. Cover not printed with the name of the forest or compiling/issuing agency. (NA, LC, University of Oregon) **Region 6**

---- **Another edition.** Grazing atlas. 8 sheets, topographic, both black and white and color editions. Grazing classification and base map by C. E. Fleming, 1912. Compiled by H. S. Meekham, 1913. Approved June 1913 Printed by the U.S. Geological Survey. (NA, LC)

83. **Minidoka Folio [Idaho-Utah]** Jan., 1909. 15 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

84. **Missoula Folio [Montana]** Jan., 1909. 21 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 1**

85. **Moapa Folio [Nevada]** Jan. 1909. 5 sheets, topographic, both colored and black and white editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 4**

86. **Modoc Folio [California]** Jan., 1909. 21 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 5**

87. **Modoc Folio (Warner Mountain Division) [California]** 1925. 8 sheets numbered 6-7, 13-14, 20-21, & 27-28. Compiled in the District Office, San Francisco 1925. Prepared by the U.S. Geological Survey. (NA, LC, NAL, AGS) **Region 5**

88. **Mono Folio [California-Nevada]** Jan., 1909. 19 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

89. **Monterey Folio [California]** Jan., 1909. 10 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

90. **Montezuma Folio [Colorado]** Oct., 1908. 17 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

91. **Mt. Graham Folio [Arizona]** Nov. 1907. 3 sheets, topographic, both black & white and colored editions. No index to sheets on front cover. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

## N

92. **Nebo Folio [Utah]** Jan., 1909. 7 sheets, lettered A - E and numbered 1 - 2, black and white edition. Numbered sheets 1 and 2 are from the Payson Folio. Lands of the Payson National Forest combine with all of the Vernon and part of the Filmore National Forests to establish the Nebo National Forest. Payson sheets carry no date and show alienated lands. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) AGS copy has only the five lettered sheets. **Region 4**
93. **Nebraska Folio [Nebraska]** Jan., 1909. 9 sheets, planimetric, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) National Agricultural Library's copy has a planimetric and a topographic edition for sheets 4 thru 7. **Region 2**
94. **Nevada Folio [Nevada]** 1910. 15 sheets, planimetric, black and white. Compiled by D. C. Harrison 1910. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**
95. **Nez Perce Folio [Idaho]** Nov. 1907. 25 sheets, numbered 13-14, 18, 20-28, 30-37, 40-41, and lettered A-C. Lettered sheets dated Jan., 1909. Numbered sheets are from the Nov. 1907 Bitterroot Folio and lettered sheets are from the Jan. 1909 Weiser Folio. Topographic, black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, Idaho State Historical Society) Yale and the National Archives have both editions, but colored edition is incomplete, missing numbered sheets, 14, 23-28, 33-37, and lettered sheets A-C. **Region 1**

## O

96. **Ocala Folio [Florida]** 1910. 4 sheets, planimetric, black and white. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 8**
97. **Olympic Folio [Washington]** No date [1907?] 16 sheets, topographic, black and white and colored editions. No index to sheets on front cover. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) Yale has colored edition only. AGS has uncolored edition only. **Region 6**
98. **Oregon Folio [Oregon]** Jan., 1909. 21 sheets, most sheets are topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 6**
99. **Ozark Folio [Arkansas]** Jan., 1909. 22 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 8**

## P

100. **Payette Folio [Idaho]** 1907 & 1909. 11 sheets: 6 numbered sheets (from Sawtooth Folio) 1-3 & 6-8; 5 lettered sheets A-E, topographic, black and white and colored editions. Compiled by H. S. Markham 1907 [on numbered sheets] ; Jan., 1909 [on lettered sheets]. Compiled and printed by the U.S. Geological Survey. (NA YA, NAL) Yale's copy has lettered sheets A-E in black and white only. **Region 4**
101. **Payson Folio [Utah]** No date [1907?] and no index on front cover. 2 sheets, topographic, black and white, showing alienated land and school sections. Compiled and printed by the U.S. Geological Survey. Later included in the Nebo Folio. (NA, YA, NAL) **Region 4**
102. **Pecos Folio [New Mexico]** Jan., 1909. 9 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Yale has black and white edition only. **Region 3**

103. **Pend d'Oreille Folio [Idaho]** Jan., 1909. 10 sheets, lettered A-J, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 1**

---- **Another edition.** 1914. 15 sheets, topographic, color. Compiled in 1914 at District Office, Missoula from G.L.O., U.S.G.S., Forest Service, and other surveys. Printed by the U.S. Geological Survey. (NA)

104. **Pike Folio [Colorado]** 1907 & 1908. 21 sheets, topographic, both black and white and color editions. Compiled by H. S. Meekham 1907 and 1908. Printed by the U.S. Geological Survey. (NA, YA, NAL, Colorado School of Mines) **Region 2**

105. **Plumas Folio [California]** 1907 & 1908. 20 sheets, lettered A - K, and numbered 2 - 10, topographic, both black and white and colored editions. Compiled by H. S. Meekham and J. S. Noel 1907 and 1908. Printed by the U.S. Geological Survey. This folio is a combination of the Plumas National Forest covered by lettered sheets A - K titled "Plumas" (western portion) and numbered sheets 2 - 10 titled "Diamond Mountain" (eastern portion). The largest portion of the Diamond Mountain National Forest was added to the Plumas National Forest on July 2, 1908 during the compilation stage of the Plumas Folio, which accounts for this mixed folio. (NA, YA, AGS) National Archives and Yale copies have 19 sheets, A-K and 2-10. **Region 5**

106. **Pocatello Folio [Idaho]** 1908. 7 sheets: Lettered sheets A - C, dated Nov., 1908; and numbered sheets 2,3,5,& 8, dated Jan., 1908. Numbered sheets from the Bear River Folio, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) AGS has only the colored edition of the 3 lettered sheets. **Region 4**

107. **Powell Folio [Utah]** Jan., 1909. 10 sheets, topographic, both black and white and color editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) AGS has only colored edition. **Region 4**

108. **Prescott Folio [Arizona]** 1908-1909. 20 sheets: sheets 1 - 9 dated Feb., 1908 and sheets 10 - 20 dated Jan., 1909. topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. Sheets 1-9 represent the western (original) portion of the Prescott National Forest and sheets 10-20 cover the Verde National Forest (eastern portion) which was added to the Prescott National Forest on July 1, 1908, which accounts for the different compilation dates. (NA, YA, NAL, AGS Arizona State University) Yale, the National Agricultural Library, and the AGS have one complete black and white edition and sheets 5 thru 9 in the colored edition. **Region 3**

109. **Priest River Folio [Idaho-Washington]** Jan., 1908. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) National Agricultural Library' colored edition includes only sheets 5 & 9. **Region 1**

## R

110. **Rainier Folio [Washington]** 1908. 20 sheets, topographic, both black and white and colored editions. Compiled by C. C. Bassett, H. S. Meekham, 1908. Printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

111. **Rio Grande Folio [Colorado]** 1909. 15 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham, 1909. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

112. **Routt Folio [Colorado]** Feb., 1909. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 2**



## S

113. **Saint Joe Folio [Idaho]** 1919. 24 sheets, topographic, color. Compiled in District Office, Missoula, 1919. Printed by the U.S. Geological Survey. (NA, LC) **Region 1**

114. **Salmon Folio [Idaho]** 1909. 26 sheets, topographic, black and white. Compiled by H. S. Meekham 1909. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

115. **Salt Lake Folio [Utah]** 1908. 2 sheets, topographic, both black and white and colored editions. Compiled by C. C. Bassett 1908. No index to sheets on front cover. (NA, LC, YA, NAL, AGS) AGS has only colored edition. **Region 4**

116. **San Francisco Mountains Folio [Arizona]**. 1907. 1 sheet, numbered "5" topographic, color. Compiled by H. S. Meekham; [traced by] G. T. T. – 1907. Map centered on the town of Williams, Arizona and served as a review sheet sent to experts for comments in advance of launching the Forest Atlas series. Forest combined with other lands to create the Coconino National Forest on July 1, 1908. Area on this single sheet included in the 1908/1909 Coconino Folio. (AGS) **Region 3**

117. **San Isabel Folio [Colorado]** Jan., 1909. 12 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

118. **San Juan Folio [Colorado]** 1909. 16 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham 1909. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

119. **San Luis Folio [California]** Jan., 1909. 8 sheets, topographic within forest boundary, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) AGS copy is missing sheets 3 and 4. **Region 5**

120. **Santa Barbara Folio [California]** Jan., 1909. 26 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

121. **Sawtooth Folio [Idaho]** 1907. 34 sheets, topographic, both colored and black and white editions. Compiled by H. S. Meekham 1907. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) LC has incomplete black and white edition. Yale and National Agricultural Library has colored edition only. AGS has sheets 24-29 uncolored sheets only. **Region 4**

122. **Selway Folio [Idaho]** 1915. 20 sheets, topographic, color. Compiled Feb. 1915 at District Office, Missoula, from G.L.O., U.S.G.S., Forest Service, and other surveys (NA) National Archives copy has sheets 1-4, 8-10, 14-16, & 18-20; sheets 18, 19, and 20 uncolored with hachures. **Region 1**

123. **Sequoia Folio [California]** Jan., 1909. 29 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. Sheets 1-19 cover the Kern National Forest, before this area was separated from the Sequoia National Forest in 1910; rejoined the Sequoia in 1915. (NA, LC, YA, NAL) **Region 5**

124. **Sequoia (Kern) Folio [California]** 1914. 19 sheets dated Nov. 24, 1914, topographic, color. Printed by the U.S. Geological Survey. Covers the area of the former Kern National Forest, added back to the Sequoia National Forest on April 13, 1915, effective July 1, 1915. (NA, LC, AGS) **Region 5**

125. **Sevier Folio [Utah]** Jan., 1909. 11 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) AGS has only colored edition. **Region 4**

126. **Shasta Folio [California]** 1907-1909. 24 sheets, topographic, both colored and uncolored editions. Compiled by H. S. Meekham 1907, 1908, and 1909. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

127. **Shoshone Folio [Wyoming]** July 1908. 18 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

128. **Sierra Folio [California]** Jan., 1909. 22 sheets, topographic, black and white edition. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

129. **Sierra Madre Folio [Wyoming]** Jan., 1908. 6 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

130. **Sioux Folio [Montana-South Dakota]** Feb., 1909. 8 sheets, planimetric, both black and white and colored editions (only sheets 1 thru 4 are colored in the colored edition). Compiled and printed by the U.S. Geological Survey. (YA) **Region 1**

---- **Another edition.** 1917. 12 sheets, topographic, color. Compiled at District Office, Missoula, April 1917. (NA, LC, NAL)

131. **Siskiyou Folio [Oregon-California]** Feb. 1908. 13 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

132. **Sitgreaves Folio [Arizona]** Dec., 1908. 11 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS, Arizona State University) **Region 3**

133. **Siuslaw Folio [Oregon]** 1910. 16 sheets, hachures, both black and white and colored editions. Compiled by H. S. Meekham 1910. Printed by the U.S. Geological Survey. (NA, YA) **Region 6**

134. **Snoqualmie Folio [Washington]** 1907. 13 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham 1907. Printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

135. **Stanislaus Folio [California]** Jan., 1909. 15 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) Yale, National Agricultural Library, AGS have only the black and white edition. **Region 5**

136. **Sundance Folio [Wyoming]** Oct., 1908. 5 sheets, topographic, black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (LC, YA, NAL) **Region 2**

137. **Superior Folio [Minnesota]** 1910. 18 sheets, planimetric, black and white. Compiled by D. C. Harrison 1910. Printed by the U.S. Geological Survey. (NA, LC, NAL) **Region 9**

## **T**

138. **Tahoe Folio [California]** April 1909. 26 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 5**

139. **Targhee Folio [Idaho-Wyoming]** July 1908. 21 sheets, topographic, both black and white and colored editions. Sheets 12, 13, 16, 19, and 21 exist in uncolored edition only. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 4**

---- **Another edition.** Grazing Atlas. 1913. 12 numbered sheets only, but with the same sheet arrangement as the forestry edition, both color thematic maps and black and white base maps. Grazing classification and base map by A. E. Aldous, 1912-1913; compiled by J. S. Noel and H. S. Meekham 1912 and 1913. (NA, NAL) National Agricultural Library's copy has no index on front cover.

140. **Teton Folio [Wyoming]** April 1909. 23 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) Yale's copy includes the 1898 map by T. S. Brandegee from the Nineteenth Annual Report of the U.S. Geological Survey, *Teton Forest Reserve and southern part of Yellowstone Park Forest Reserve*. **Region 4**

141. **Toiyabe Folio [Nevada]** Jan. 1909. 28 sheets, most sheets are planimetric (sheets 12 - 14, 20 - 22 & 25 are topographic), black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, Arizona State University) **Region 4**

142. **Tonto Folio [Arizona]** Jan. 1909. 21 sheets, topographic, both black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) **Region 3**

143. **Trinity Folio [California]** 1907. 4 sheets, lettered A thru D, topographic, black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (YA) **Region 5**

---- **Another edition.** No date [1909?] 12 sheets, topographic for the eastern portion of the forest; planimetric for the western. Shows alienated lands in color. Compiled and printed by the U.S. Geological Survey. (NA)

---- **Another edition.** No date [1914?] 18 sheets, hachures. Shows alienated land in color. (NAL)

144. **Tusayan Folio [Arizona] Grazing Atlas.** 1912 6 sheets; numbered 15,17,18,19,22,& 23. Compiled 1912 and 1913. Approved 1914. No sheet index. These six sheets of the Tusayan Folio were most likely extracted from the Coconino Folio. Tusayan National Forest established from lands of the Coconino National Forest on June 28, 1910. (NA, LC) **Region 3**

## U

145. **Uinta Folio [Utah-Wyoming]** Jan., 1909. 19 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (LC, YA, NAL) **Region 4**

146. **Umatilla Folio [Oregon]** 1910. 12 sheets, planimetric, black & white. Sheets, numbered 1-5; sheets 10-13 and 22-24 extracted from the Blue Mountains Folio dated Sept., 1907. (NA, YA, AGS) **Region 6**

147. **Umpqua Folio [Oregon]** Jan., 1909. 20 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS, University of Oregon) Yale has sheets 1 and 2 in color. **Region 6**

148. **Uncompahgre Folio [Colorado]** Jan., 1909. 13 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 2**

## W

149. **Wallowa Folio [Oregon]** 1910. 23 sheets, planimetric, black and white. Compiled by H. S. Meekham, 1910. (YA, AGS) **Region 6**

---- **Another edition.** Pocket Folio. 1910. 19 sheets. Compiled by H. S. Meekham 1910. 16 x 13 cm. atlas, bound. (NA)

---- **Another edition.** 1917. 15 sheets, topographic, color. Compiled by H. S. Meekham 1917. Printed by the U.S. Geological Survey. (NA, AGS, University of Oregon)

150. **Wasatch Folio [Utah]** Sept., 1907. 2 sheets, topographic, both black and white and colored editions. No index to sheets on front cover. Compiled and printed by the U.S. Geological Survey. (NA, NAL, AGS) AGS has only one uncolored sheet. **Region 4**

151. **Washington Folio [Washington]** 1907. 16 sheets (only 5 printed, sheets 11-16 covering the southern portion of the forest), topographic, both black and white and colored editions. Compiled by H. S. Meekham 1907. Printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

152. **Weiser Folio [Idaho]** Jan. 1909. 11 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

153. **Wenaha Folio [Washington-Oregon]** 1910. 10 sheets, hachures, black and white. Compiled by H. S. Meekham, 1910. Printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 6**

154. **Wenatchee Folio [Washington]** 16 sheets, topographic, both black and white and colored editions. Compiled by H. S. Meekham 1907 and 1908. Printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 6**

155. **White River Folio [Colorado]** Jan. 1909. 10 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL) **Region 2**

---- **Another edition. Pocket Folio.** [1910?] 10 sheets. Sent to Forest Supervisors as a sample by Fred G. Plummer. 16 x 13 cm. atlas, bound. (NA)

156. **Wichita Folio [Oklahoma]** 1907. 1 sheet, planimetric, black and white and colored editions. Compiled and printed by the U.S. Geological Survey. (NA, YA, NAL, AGS) **Region 8**

---- **Another edition.** 1919. 2 sheets, topographic, color. Compiled at Washington Office, June 1919 from G.L.O., War Dept., Forest Service, and other surveys by E. L. Mehurin. Topography for forest area only. (NA)

157. **Wyoming Folio [Wyoming]** July 1908. 12 sheets, topographic, black and white. Compiled and printed by the U.S. Geological Survey. (NA, LC, YA, NAL) **Region 4**

## **Z**

158. **Zuni Folio [Arizona-New Mexico]** 1910. 16 sheets, topographic, black and white. Compiled by D. C. Harrison 1909 and 1910. Printed by the U.S. Geological Survey. (NA, LC, YA, NAL, AGS) AGS set is missing sheets 4, 9 & 10. **Region 3**

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