

information BULLETIN

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Western Association of Map Libraries

*"... to encourage high standards in every phase of organization
and administration of map libraries..."*

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The Information Bulletin is published three-times-per-year by the Western Association of Map Libraries, but opinions expressed herein do not necessarily reflect an official position of the Association.

Membership in WAML is open to any individual, institution, or business interested in furthering the Purpose of the Association, which is "to encourage high standards in every phase of the organization and administration of map libraries".

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WESTERN ASSOCIATION OF MAP LIBRARIES

Endowment Fund

A friend of the Western Association of Map Libraries, who wishes to remain anonymous, has recently made a cash contribution of \$300.00 to establish an Endowment Fund.

The WAML Executive Committee, at its Sept. 10, 1981 meeting in Edmonton, Alberta, accepted the proposal of the WAML Treasurer for establishment and operation of the Fund, to which the Donor had agreed.

The WAML Executive Committee has matched the donation with \$300.00 from the general funds of the Association, to help build the Fund toward a goal of \$1,000.00 or more. Money so contributed will remain on deposit in a high-yield savings account. The accumulated interest will be awarded from time-to-time to someone or for a project, as selected by the Executive Committee.

It is the hope of the Donor and the WAML Executive Committee that others will be encouraged to make contributions to this Endowment Fund. Toward this end, tax exempt status for WAML is being sought from the Internal Revenue Service.

The proceeds of the Endowment Fund will be used for purposes that coincide with WAML's objectives, and with IRS regulations. Awards to individuals for scholarship, for publication of articles in the Information Bulletin, or an Occasional Paper, or the creation of a prize map, or the underwriting of a special workshop, etc. These are examples of the many purposes to which the proceeds could be put. The award does not have to be given for the same purpose each year, and the Executive Committee (or an Awards Committee if so designated by the Executive Committee) will have complete discretion. The Fund will be perpetual, only the interest accrued will be spent. Rules and procedures for the administration of the Endowment Fund will evolve.

OFFICERS OF THE WESTERN ASSOCIATION OF MAP LIBRARIES FOR 1981/82

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Bellingham

Donations to the Endowment Fund may be accepted by any Officer, checks should be made out to the WESTERN ASSOCIATION OF MAP LIBRARIES and noted as a contribution to the Endowment Fund. Further information regarding the Tax Exempt status of the Association will be forthcoming from the Treasurer.

WESTERN ASSOCIATION OF MAP LIBRARIES

Spring Meeting, March 25-26, 1982
 at Stanford University,
 Meyer Library, Forum Room

AGENDA

(preliminary)

Thursday, March 25, 1982HOST: Karyl Tonge
Reference Dept.

- 1:00 - 1:15 Welcoming Remarks Central Map Collection
 1:15 - 2:00 Business Meeting Cecil H. Green Library
 2:00 - 2:45 *Map reading tools for map libraries:* Gerald L. Greenberg,
 Chief, Data Acquisition, National Cartographic Information
 Center, U.S. Geological Survey, Menlo Park
 3:15 - 3:45 *Mapping the Coastal Ecological Inventory:* Jay Watson,
 United States Fish and Wildlife Service, Portland, Oregon
 3:45 - 4:00 *A review of new U.S.G.S. - National Mapping Division products,*
policies, prices: Gerald L. Greenberg, N.C.I.C.
 Dinner Rick's Swiss Chalet, Palo Alto.

Friday, March 26, 1982

- 9:00 - 9:45 *The use of maps in explorational geology:* William Beatty,
 Senior Geologist, Radio Physics Lab., SRI International, Menlo
 Park
 9:45 - 10:30 *Sub-surface soundings for new archaeological mapping:*
Roger Vickers, Senior Physicist, Radio Physics Lab., SRI Inter-
 national, Menlo Park
 11:00 - 12:00 Sounding Board
 1:30 - 2:15 *Guidebooks to America: The Federal Writers Project:* Peter Stark,
 Central Washington University, Ellensburg, Washington
 2:15 - 3:00 *Using LANDSAT data:* Ronald Lyon, Professor, Applied Earth Sci-
 ences, Geology Depts., Stanford University
 3:30 - 4:30 Speaker to be announced

MAP ROOM TOUR: March 25, 11:00 to Noon

Members arriving early are encouraged to visit
 the Central Map Collection - 2nd floor, Green
 Library, West Wing, Room 200.

View the Exhibition of North American maps -
 1600 to 1860, in the Special Collections Rotunda
 and Gallery, adjacent to the Map Room.

Map Librarianship in The Republic of China

Harold M. Otness
 Visiting Associate Professor
 National Taiwan University
 Republic of China

The state of map librarianship in the Republic of China (Taiwan) can be described in a very few paragraphs, but the reasons for it are somewhat complex and require more explanation. In spite of an expanding, and in some ways remarkably vigorous library program, map collections open to the public as we know them in the United States are virtually non-existent in the public and university libraries of Taiwan.

When I visit libraries here (I have now visited about forty), I always ask to see their map collections. Usually I draw a blank; at best I am led to a few wall maps of an earlier American vintage, or a few sheet maps which have been put off in some inaccessible place and almost forgotten. At two libraries they were completely forgotten - I was told there was thought to be some, but a frantic search failed to uncover them.

Public libraries are virtually mapless, although it is remarkable how often you find world maps and maps of Taiwan displayed on their walls, perhaps as much for decoration as for information. University libraries tend to be less centralized than they are in the United States, with their main libraries serving primarily as study halls. Within the teaching departments are found the materials that are more likely to have heavy use, and this is where the maps are most likely to be found, if they are to be found at all.

Soochow University is one school with a centralized library and it does have a "map room." This is a corner room measuring no more than eight feet square which looks to me as though it was intended as a broom closet. It has a few roll maps which are checked out to professors for classroom use, and a few dozen miscellaneous flat maps, including some from National Geographic, which are kept in a wood cabinet. This room is kept locked. National Chengchi University also has a map room of similar dimensions in a graduate library building. In it are some Taiwan and mainland China maps, neatly stacked and in clear plastic bags, placed on open steel shelving. This room is also kept locked and there are restrictions on taking these maps out of the room or having them copied.

At National Taiwan University, the major and most prestigious school in the country, there are twenty-eight libraries (I have heard there are as many as a hundred but here we get into the problem of defining a library), and the bibliographic control leaves something to be desired. The Geography Department, which is one of the smaller ones, maintains a small collection of books and journals. Down the hall from it is another room which houses some miscellaneous equipment, including a large, locked metal map cabinet. In it are some topographic maps, orthophotomaps, and aerial photographs of Taiwan, none of which seem to be of the latest issue. These may be used in the room by qualified

people but cannot be taken out, apparently by anyone except perhaps by a professor wanting them for classroom use. Departments don't generally view their collections as resources to be shared by the entire campus community; however, visitors such as myself are treated with a gracious hospitality that is a trademark of Chinese culture.

The National Central Library, whose equivalent in the United States would be the Library of Congress, has a small but fine collection of old Chinese maps, some of which are on scrolls. Two of them were on display recently in that library; one of the Yangtze River and the other of the Yellow River. These maps are not old by Chinese standards, only about two hundred years, but they are absolutely stunning. What they lack in cartographic precision, they more than make up for in artistic achievement.

The Taiwan Branch Library of the National Central Library (a separate building in another part of Taipei), has what remains of a very fine collection of Southeast Asia materials compiled by the Japanese during their rule of the island which lasted from 1895 to 1945. There are some maps in the collection, mostly dated from those years and mostly of Japanese origin, but they are folded and handled like books in the collection. Unfortunately they are in very poor condition and deteriorating at an alarming rate in this humid, insect-infested, and industrially polluted environment. Conservation and preservation of library materials is a major problem facing the profession-at-large here, and it is one that has received little serious attention so far.

The major map collections in Taiwan are securely in the hands of the military, and it can be assumed that there are some excellent collections of not only Taiwan but mainland China and the entire Asia region as well. The National War College, at Yangmingshan in Taipei's northern suburbs, is thought to have the best collection. It is not open to the public and security clearance is needed to visit it. That is not something casually arranged because technically the Republic of China is a nation at war. The government, which claims to represent all of China, is only temporarily headquartered in Taipei. The military presence here strikes the visitor from the West as being very strong. Maps are apparently regarded much as weapons; they must be kept out of the hands of enemies because they can be instruments of great military advantage. I was unable to arrange a class visit to a military map library.

The maps of Taiwan that are available to the public are of the generalized tourist sort which lack topographic detail. It is difficult to acquire even a thorough, accurate, and up-to-date plan of Taipei. We live on an alley just off a major boulevard which has been under construction for several years but passable to traffic. Our apartment building is five years old, but I have not yet found a street plan which shows the alley on which it fronts. Taipei street plans are sold by many vendors around the central railroad station and I have occasionally seen them on the dashboards of delivery trucks and taxis (Taipei has 67,850 taxis!), but these will only get you to the general area you are looking for. At that point you must start asking the local residents. The same is true of the island-wide maps which cannot begin to show all the backroads which lace Taiwan.

There is, to my knowledge after six months of looking, no map librarian working in the civilian sector of Taiwan, nor is there even a librarian with regularly assigned responsibilities for maps. With this in mind, it is somewhat of a wonder that I have just completed teaching the first-ever course on "Geography and Map Librarianship" to be offered in Taiwan, and maybe even the whole of China, for that matter.

The course came about when I met Lawrence Chen, Chairman of the Department of Library Science and Director of Libraries, National Taiwan University. When I mentioned that I had been involved in map librarianship, he said that they have a need here for courses in special librarianship, but have few people who are qualified to teach them. He asked if I would teach map librarianship. This was last fall just as the semester was getting underway. We quickly put together a course and got it into the schedule in time to attract ten students.

Library science in Taiwan is a four-year undergraduate program. Five universities offer it and three schools have over two hundred majors each (only about twenty percent of the graduates actually go to work in libraries but this is a matter that must be explained elsewhere). In 1980 National Taiwan University began a masters program but it is still small. My official title: "Visiting Associate Professor in the Graduate Library Science Department, National Taiwan University." My students were seniors, graduate students, and working librarians, two of which were from the National Central Library and two from libraries at National Taiwan University. Two of these librarians have M.L.S.'s from schools in the United States so I had some confidence that at least two of my students could understand my English. I learned to speak slowly, repeat when I saw puzzled looks, and use the blackboard extensively. These students are very bright (only the highest scorers on the island-wide uniform entrance examination are accepted at National Taiwan University), they have studied English for years (it is required in the library science curriculum), and they read and write it remarkably well.

At the time I agreed to teach the course I didn't know that there were virtually no maps available for classroom use as examples, nor did I even know that the map library journals and relevant books were not to be found in the country. I have been accustomed to teaching with an abundance of maps (I have several boxes of examples in Oregon) and map literature. I had to make due with tourist maps given out at the hotels and whatever the students could scrounge up to serve as discussion points for evaluation, terminology, and cataloging. My greatest need was for a textbook. In a state of near panic I wrote off to Southern Oregon State College for Mary Larsgaard's Map Librarianship; An Introduction and a couple of other books, sample maps, and index sheets. These were promptly sent. Mary's book in particular with its excellent description of map cataloging and its bibliography and addresses, saved the course. Taiwan does not respect copyright and it was suggested I have the book photocopied and sold as a required textbook, but I didn't want to be a party to this. Instead I put it on reserve and assigned selective readings in it. I also assigned readings on the history of Chinese cartography. The publications of the Western Association of Map Libraries, the Special Libraries Association, the Canadian Map Library Association, and other professional map library

organizations are not available here and I missed not being able to draw upon them for class readings. I have made suggestions that these be acquired by National Taiwan University so they will be available in the future.

We had three field trips during the semester. We visited Taipei American School to see an American library in operation. They have some nice atlases and some teaching maps. We also visited the Taiwan Branch Library of the National Central Library to see their older Taiwan maps, and we visited the Geography Department map collection at National Taiwan University. These field trips proved popular. They are not often included in library science courses here.

Students in Taiwan are not as accustomed to class discussion as are American students, and discussion in English is an added burden for them. My students took notes and they did ask perceptive questions. They showed particular interest in cataloging, and especially in computer-based cataloging. There is a big push in the profession here now to process Chinese characters through computers and some remarkable advances are being made. A Chinese-language MARC system is on the verge of implementation and it is going to revolutionize librarianship in Taiwan.

For a class project I had the students translate into Chinese selected terms from the U.S. Defense Mapping Agency's Glossary of Mapping, Charting, and Geodetic Terms. To it I added some pertinent library science terms to come up with what I hope will be a useful glossary of terms used in map librarianship. I am hoping it will be published in one of the library science journals in Taiwan.

Teaching map librarianship in Taiwan is not the same as teaching it in the United States. In the U.S. the librarians have maps and they want to know what to do with them, or else they are hoping to get employment in a map library because they have an interest or background in geography. Here where there are few maps outside of the military, it may be some years before the public and academic libraries will have map collections as we know them. My students seemed to be surprised at the abundance of maps and map libraries in the U.S. and they seemed even more surprised that the public makes use of them.

Taiwan has essentially been a mapless society. It is a small island and until very recently its people have not been very mobile. Their lives have been confined to relatively small areas and there has been relatively little discretionary travel. Now with a booming economy and a rapidly rising standard of living, people are beginning to have more leisure and more money to spend on travel and recreation. Already there are over 4,000,000 motorcycles in a population of 17,000,000. The market is now tapering off for motorcycles because people are moving up to automobiles. It is obvious that roadmaps are going to become a more common and even essential possession. Hiking too is experiencing great popularity and large-scale topographic maps showing trails are beginning to reach the public. Foreign travel is also coming within the reach of more and more people. The cities of Taiwan are growing and changing so rapidly that even life-long residents can get lost in their newer suburbs.

The sometimes tragic effects of industrialization point to the need for land use planning and environmental protection, both of which require mapping and heavy map use. I think it is obvious that maps are starting to become a more important component in the public's information mix, and no longer just a resource of the military and the higher levels of government.

What librarians will need to handle maps in their libraries is some knowledge of what is being done in map librarianship in other countries so that they can profit from our experience. In time perhaps depository arrangements can be worked out with the civilian and military agencies that issue maps, so that libraries can be assured of getting all the sheets they need as they are issued. Librarians will also need a professional organization, much like the Western Association of Map Libraries, to bring them together to assure cooperation between institutions and types of libraries, to exchange information, and to provide education, and continuing education, in map librarianship. We have made some wasteful mistakes and some false starts in the West which need not be duplicated here. We have also shown the way in library cooperation and in the adaptation of cartographic records for computer processing which should enable countries such as Taiwan to make a faster start in map librarianship and catch up quickly. This has been my message in teaching map librarianship here.

While at times it has seemed that I have taught a subject that has little relevance here at the moment, at other times I have felt that I have arrived just in time to be in on the beginning of map librarianship in Taiwan, and have been able to offer some worthwhile advice.

As hosts the Chinese librarians have no peers. They have made my stay very pleasant and very productive. At this point it may seem that they have much to learn from us concerning map librarianship, but with their ingenuity and industry I wouldn't be surprised if those of us in the West soon find something to learn from them. Certainly more exchange between East and West will be mutually beneficial. As map librarianship develops in Taiwan, there will be more and more opportunities for cooperation and exchange. That is something we can all look forward to.

EDITOR'S NOTE: Harold Otness is Map Librarian, Southern Oregon State College, Ashland, Oregon 97520. He is the author of many articles for the Information Bulletin, author of WAML Occasional Papers No. 4 and No. 7, and is past-President of the Association.



Bench Marks!

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LC Information Bulletin
October 30, 1981

1981 Map Processing Project Participants



Twelve map librarians and students participated in the 30th Map Processing Project sponsored by the Geography and Map Division, which ran for six weeks, from July 6 to August 14. Participants were involved in a variety of tasks in all sections of the division. In exchange for these services, they selected over 56,000 duplicate maps, charts, and atlases for their libraries' collections.

Map librarians and students who took part in this project were (seated, left to right) David Azzolina, Rice University; Jerry Thornton, University of Michigan; Denise Hughlett, University of Pittsburgh; and Riley Moffat, Brigham Young University; (standing, left to right) Paul Stout, Ball State University; John Bradley, Appalachian State University; Daniel Seldin, Indiana University; Thorton P. McGlamery, University of Connecticut; Peter Stark, Central Washington University; and Lewis Armstrong, University of Kansas. Not included in the picture were Paul Blint, University of Oregon, and Jean Trumbore, University of Delaware.

- ¶ BEATRICE LUKENS Member of WAML, Head of the Earth Sciences Library, University of California, Berkeley, is Treasurer of the Geoscience Information Society for 1982. She also continues to serve as Chairperson of the Guidebooks Committee of GIS. The Committee is working on the 4th edition of the *Union List of Geologic Field Trip Guidebooks of North America*.
- ¶ NANCY J. PRUETT Member of WAML, Sandia National Laboratories, Albuquerque, serves as Past President of the Geoscience Information Society for 1982, and Chair of its Nominating Committee.
- ¶ DAVID A. COBB Member of WAML, Map & Geography Librarian, University of Illinois-Urbana, has gone to the University of Reading, England, on a six-months exchange as Map Librarian. His exchange partner is Robert Parry. In addition to working he will be training for the London Marathon to be run in May. He will be in England through July and will be in Philadelphia to attend the annual meeting of ALA MAGERT.



Natural Resource Mapping in Calgary - an overview

by

Bob Batchelder

Map & Air Photo Library
University of Calgary Library
Calgary, Alberta

Background on Calgary

Calgary was founded in 1875 by the Northwest Mounted Police as an administrative centre; i.e., as Fort Calgary. In 1883, the Canadian Pacific Railway arrived, and with it Calgary became the major urban area in Alberta to be serviced directly by rail. It now became the major centre for settling the Alberta region, a region dominated by ranching and farming with some coal development. As the First World War came, Calgary had become a major supply, marketing, storage, and processing centre for a prosperous agricultural region.

Soon, other factors spurred its growth. In 1914, Western Canada's first oil well literally blew in. A refinery was built in Calgary and linked to the oil field by pipeline. Further development of the Turner Valley Oilfield (26 mi. SSW of Calgary) occurred in 1936 when a more prolific formation was found. Calgary naturally filled with oil speculators and their stocks, etc. The Alberta Oil and Gas Conservation Board set up its headquarters in Calgary in 1938. Calgary had, by the end of the decade, become western Canada's major oil and gas exploration and administrative centre.

In 1947, the Leduc Oilfield came into existence. Although closer to Edmonton, this discovery reinforced Calgary's role as the centre with the trained personnel and the expertise for its development. Subsequent development of the oil and gas potential has created a booming city to which over 2000 people arrive every month.

Alberta's boundaries contain most of western Canada's sedimentary basins. This has enhanced Calgary as the natural resource centre for western Canada. During the last decade, a number of companies have moved their exploration and development departments from either Edmonton or Toronto, and this movement has created a natural resource centre for all of Canada based in Calgary.

Letting my boosterism subside momentarily, I will note that there are still some natural resource exploration departments located outside Calgary, but they are mainly interested in minerals other than hydrocarbons. Edmonton should also be briefly noted because it is Calgary's sister community in Alberta. The friendly rivalry between the two cities tends to cause forgetfulness of the other's existence. I have to admit that Edmonton is growing as quickly as Calgary. Its growth is also dependent on hydrocarbons, but its principal

A talk given at the Western Association of Map Libraries Fall Meeting,
Edmonton, September 10, 1981.

base is government, refineries, and other industrial service functions.

If you wish more information on Calgary's history and development, you should consult Calgary, an urban study, by Richard P. Baine (Toronto : Clark, Irwin, & Co., 1973), and, Calgary: metropolitan structure and influence, by Brenton M. Barr (Victoria, B.C. : University of Victoria, Department of Geography, 1975).

Calgary's Support Services

Some of the supporting activities in Calgary for natural resource development are as follows:

Consulting companies (engineering, geological, geophysical, land, and surveying)

Geophysical contractors

Oil well drilling contractors

Oil well servicing companies

Data processing companies

Pipeline companies

Power distributors

Refining, marketing, processing, and plant operations

Lease brokers and land agents

Financial services

General service companies supplying a general infrastructure linking all of the above.

From this list, you can see that there is a wide range of companies who have an interest in Calgary's growth and development as a natural resource exploration and development centre.

Maps - A Development Tool

Knowledge of the physical environment is obviously very important to natural resource development, and maps are the best method for transferring, storing, and displaying information about the physical environment. Thus, Calgary is a place in which maps rate fairly high as a commodity.

There are twenty entries under maps in the yellow pages of the telephone directory, but this does not include them all. Most of the mapping created is proprietary in the sense that the distribution is limited to those within a particular company.

This paper will only outline the smaller portion of mapping which is available either for purchase or free. Because of the dynamic nature of Calgary, the following is not a comprehensive listing of map producers.

Oil & Gas Inventory Maps

Maps are used as an inventory of leases and wells. This is a major service industry whose products are normally ozalid copies available on a subscription basis guaranteeing the holder an up-to-date copy. Companies servicing this market are as follows:

Carter Mapping Ltd.
1035 - 7th Ave. S.W.
Calgary, Alberta

Field Title Service
P.O. Box 9444
(500 Bow Valley Square Three
255 - 5th Avenue S.W.)
Calgary, Alberta, T2P 2W6

Metric Mapping Ltd.
301-505, 8th Ave. S.W.
Calgary, Alberta

Nickle Mapping Service
401 - 630, 6th Ave. S.W.
Calgary, Alberta

Carter Mapping Ltd.'s products are well maps at 1:50,000 and 1:100,000, 1:250,000 and 1:500,000, and smaller scales covering all Canada. Carter Mapping has been in business since 1956.

Field Title Service has available land maps at 1:50,000 that show mineral ownership; i.e., whether Crown, freehold, Indian, etc.; mineral disposition; i.e., including Crown, federal, freehold, Canadian Pacific Railroad (CPR), Indian, etc.; nature of disposition; i.e., lease, permit, option, drilling reservation, etc., expiration dates and notice dates on freehold and Crown; acquisition dates; sales prices; gas holdings in complete detail; and planimetric information.

They also have available well maps at 1:50,000 showing all producing wells, both oil and gas; dry holes; pressure maintenance and water disposal wells; drilling wells; field outlines; unitized areas; and, for wells outside designated fields - operator's name, Kelly bushing elevation, total depth, and date completed or abandoned; and planimetry. They also have this information plotted on township plans.

General maps are also available showing permits, drilling reservations, crown reserve gas license, available land, sale postings, potash holdings, prices, dates of issue, etc.; also available are oilfield and pipeline maps which show field boundaries and pipeline diameters and tariffs. Also available is a special bituminous-sand map of Alberta's McMurray area. Field Title Service has been in operation since 1950.

Metric Mapping Ltd. provides well maps at 1:50,000, 1:100,000, 1:250,000, 1:500,000, and 1:1,000,000. It can also provide base maps without the well information.

Nickle Map Service has both land and well maps available at scales of one inch to 1 mile, 3 miles, 4 miles, and 16 miles. It has been in existence since the late 1930s and has been active in many other mapping activities. The Province was not fully mapped at the mile scale and a major project was set up after 1948 to provide planimetric information in accordance with that need. Nickle Map Service was involved in that project.

Special Subject Maps

Other companies provide similar information but include items which result from their particular expertise.

Geowest Maps (120-708 7th Ave. S.W., Calgary, T2P 0Z1) provides a set of maps covering a particular area. As an example, the following is a list of the sheets covering the Calgary region at a scale of ca. 1:250,000:

1. Blairmore Structure (values and contours)
2. Blairmore Isopach (values and contours)
3. Paleozoic Structure (values and contours)
4. Nisku Structure, data with map: subsea - Top Nisku, subsea - Top Nisku Porosity, thickness - Nisku Porosity
5. Leduc - cooking lake structure, data with map: subsea - Top of Leduc - cooking Lake, thickness - Ireton
6. Blairmore Structure contours with Viking shows and pools
7. Blairmore Structure contours with Upper Blairmore and Basal Colorado shows and pools
8. Blairmore Isopach Contours with Glauconite shows and pools
9. Blairmore Isopach Contours with Basal Quartz shows and pools
10. Paleozoic Structure Contours with shows and pools
11. Wabamum Structure with values and Wabamum shows and pools
12. Nisku Structure with Nisku shows and pools
13. Leduc - Cooking Lake shows and pools, -- with 3 cross sections.

As you can see, these maps depict information which Geowest has created on its own, and the prices for these maps indicate the level of proprietary information involved. The above set may be leased for \$153. per month (\$1836. per year), or purchased for \$5200.00. The lease would also include an updating service.

Another company providing enhanced information is Aqua Terra (306-505 8th Ave. S.W., Calgary, Alberta T2P 1G2). Its specialty is magnetic and gravity information for areas of interest at scales from 1:100,000 and smaller. Exact prices for their products are unavailable, but a geophysical map of an offshore area east of Newfoundland would cost about \$60,000.

As you may imagine, these companies are unwilling to sell or give these maps to libraries who would make the information available at no cost to the general public, including companies who do not wish to pay the usual fee for obtaining this specialized information.

Another example of mapped information being made available by private enterprise is land use reference at a 1:50,000 scale, produced by Patch Work Enterprises (620 9th Ave. S.W., Calgary, Alberta T2P 1L5).

Patch Work Enterprises initiated a Mapping Division approximately a year ago as a result of in-house and industry requirements for accurate and up-to-date information. To date, approximately \$300,000 has been invested in this venture. The program initially began with Forest Cover Series Green Area Maps. Onto these maps is plotted information such as Ecological Reserves; Natural Areas; Forest Management Agreement Areas (FMA's); Recreation Areas; Watershed Areas; Government Restricted Orders; East Slope Zones; Green, White and Yellow Areas; Lakelands; Buck for Wildlife; Wildlife Sanctuaries; etc.

The foregoing are restricted areas established through government management policies and have until now been mapped separately. Whether it be in oil exploration, oil and gas development, sand, gravel, coal exploration, or whatever, land users have found that when applying for programs, these management policies are an important consideration for the proper execution of a program. This has particularly been the case since the implementation of the new exploration regulations in 1978. An applicant must be aware of all restricted areas as they can effect a program in a variety of ways, such as types of equipment used, methods of survey, or even the seasons when work can be done. As these management areas are so very important, they should be mapped collectively. This simplifies studying several maps or computer print-outs, allows for less error, and reduces program preparation time.

Patch Work has purchased these maps with the copyrights from the Alberta Energy and Natural Resources Department and have plotted all available information on them. Base maps have been updated from final plans and photography and indicate seismic lines, pipelines, wellsites, access locations, plus anything else effecting a program - as far as the surface land is concerned.

The following is a brief description of some of these areas (called zones), how they have developed, and some of the operational conditions within them:

Eastern Slopes of Alberta's Rockies

The East Slopes Management policy was initially established to provide protection for watersheds, wildlife, agriculture, resources (primarily timber) and recreation. Its primary purpose is to reduce environmental impact and satisfy public demands by intense land use management.

Within the East Slopes Management policy there are eight zones. The zones of prime concern to the exploration industry are zones 1, 2, 4, & 7.

Zone One, the prime protection zone does not allow for any exploration or development unless prior interests are held (e.g.; developing a step out well). However, as some companies still own leases in this zone, the government has attempted to trade these for leases in less critical and sensitive areas.

Zone 2, the Critical Wildlife Zone - was established to protect wildlife, migration routes, browse and range lands, and fisheries. Some of the areas covered by this zone were initially misdesignated. Other more sensitive areas not considered at the time of legislation are only now being accounted for as referral areas. When the East Slopes Management Plan went to legislation for approval, field people interpreted it as the initial draft, while in actuality it was finalized. A lot of Zone 2 areas, as a result, are presently being changed.

Zone 4, the Recreation Area - was established for recreation purposes. Depending on the specific classification, whether it be 1, 2, 3, or 4, (it can be a developed recreation area or one that is being proposed) this will effect operations as programs will not be permitted in developed recreation areas.

Zone 7, is an Industrial Zone - its function is to protect industries in the area, such as gas plants, coal mining operations, etc.

Ecological Reserves and Natural Areas - are small areas set aside for one reason or another; to protect an endangered species or grass type, or something that is unusual, such as a Ponderosa pine out in the middle of the prairie. Generally, they are set up for different ecological purposes, preserving some of the natural areas in the Province in both white and green areas. Depending upon the areas, surface access is conditional.

Flowing Hole Areas - are restricted to drilling of holes. The area is restricted to vibroseis operations only to prevent a flowing hole problem, the potential end result being a lake.

FMA's (Forest Management Agreement Areas) - are virtually agreement areas established between a logging company and the government. The logging company rents timber lands from the government to put into production. Acting as land managers they are responsible for managing a sustained yield. As many companies have developed ongoing research over the last ten to twenty years, these areas and zones must be considered for mapping purposes.

Lakelands - is another area where some flowing hole problems have occurred. Unfortunately, government policy wasn't established soon enough, resulting in massive areas of lakes because of oil-exploration seismic activity and the drilling of holes. There is now an intense management plan in effect to protect the area from further flooding. It has, as well, become a big recreational area, so some of the zones in the area are restricted from seismic or any other kind of activity. Other zones are restricted as to how lines can be cut. Usually a mile is cut, then a break and detour of 75-feet-out is made, and hand cutting is done between the breaks.

Wildlife Sanctuaries - have essentially gone to legislature or are under legislative acts. Not all wildlife sanctuaries are of much concern, but should be considered. Some wildlife sanctuaries are ignored by Fish and Wildlife, while in others there is absolutely no surface access permitted.

Buck for Wildlife - another fish and wildlife plan; it was originally begun when hunters were asked for a 'buck' to put towards Wildlife Management. As a result, in areas with very little wildlife, actual blocks of timber are cut out to increase the browse species so animals will return to these areas and graze. Bulldozer activity is restricted in these areas for fear of disturbing animals and chasing them away from their food supply. Much effort and money has been invested to establish this program, so these areas should be considered for mapping as well.

Summary of Zones

Most of these zones have been created out of necessity. In the past, the oil industry generally had its way within the Province. As a result, places like Rainbow/Zama occurred with a honeycomb of seismic lines. Thus the government was forced to provide more intense management by the public. The extreme result has been veritable over-regulation.

White and yellow areas are affected by these zones only occasionally. Patch Work Enterprises has mapped all but a few areas in the southeastern end of the Province, which is presently being updated. Ideally, Patch Work will update these, utilizing Landsat imagery on a three-month basis. All seismic

line and new access activity, pipelines and wellsites, and any type of land-use activity will be updated with available information. At present, available government and company photos are employed to update the maps. Other than that, information is used from final plans submitted according to regulations. The 1978 Exploration Regulations have had a great bearing on the controls all petroleum people and some coal people must deal with. The regulations state exactly how preliminary and final plans must be submitted. Because of these definite requirements, quality maps are necessary. As the government has not been able to provide such maps to the industry, Patch Work has undertaken the task to produce such maps for the industry. They are of great benefit for field work, preplanning, and submission of final plans. Patch Work is also undertaking coverage in northeastern British Columbia.

(I wish to acknowledge the input of Connie Down for this section on Patch Work Enterprises, Ltd.)

Other Map Producers in Calgary

Many of the private mapping agencies do work under contract only, and thus do not have any products directly available. Two of these firms deserve mention because they highlight the extent of technological innovation available in Calgary.

The Ortho Shop (3016 19th St. N.E., Calgary) operates a complete photogrammetric mapping facility, including the Wild O.R. 1 Ortho-Photo Instrument. The O.R. 1 is a fantastic machine which can easily create orthophoto maps featuring better accuracy and image quality than previously available. This machine is presently in use only in Canada, and the Ortho Shop has a number of American clients.

The other facility is operated by Canadian Drafting Systems Ltd. They are in the business of computer graphics and operate an Autotrol. They have undertaken the digitizing of features on topographic maps such that they can produce a useful product at 1:250,000, a feature as yet unavailable from any government agency.

It can be easily said that there is an example of any technologically advanced tool used for mapping available and already in use in Calgary at companies like Dome, Husky, Nova, Shell, Esso, Gulf, or in the smaller supporting companies.

The Energy Resources Conservation Board (ERCB) produces a number of maps. It was originally set up in 1938 as the Alberta Oil and Gas Conservation Board. One of its functions is the recording and disseminating of energy and energy resource information. The following list of maps was extracted from its current catalogue:

Designated oil and gas fields and oil sands deposits, main pipelines, refineries, and gas processing plants, Alberta, December, 1979.

(1 inch to 20 miles & 40 miles versions) \$10. & \$5.

Gas strike areas, Alberta, May 1980. (1 inch to 12 miles) \$7.50.

Oil and gas fields and main pipelines in Alberta - blue line - revised monthly (1 inch to 12 miles) \$15.

Main gas pipelines in Alberta - blue line - revised monthly (1 inch to 12 miles) \$15.

Table of formations - blue line 56" x 87" \$1.50; coloured 22" x 36" free.

Geological map of Alberta's major coal bearing regions, 1979. 1:3M \$2.00.

Areal extent of major coal zones in the plains region, 1979. 1:3M \$2.00.

Coal regions designated coal fields and isolated coal deposits of Alberta, 1979. 1:3,000,000 \$5.00

Surface mineable coal in the plains region of Alberta. 1:540,000. \$6.00.

Structure of the Milk River Horizon, southeastern Alberta, 1970. blue line, \$8.75.

Structure of the base of Fish Scale Horizon, Upper Cretaceous - Lower Cretaceous Horizon. - blue line - entire province 1" to 16 miles - \$15. Sheets 1,2,4,5,6,8,10,11,15 -- 1" to 8 miles - \$10.

Paleozoic surface maps - blue line copies - each area 1" to 4 miles & 8 miles -- \$15. (11 sheets for complete coverage)

Oil sands maps showing location and status of wells and evaluation holes in oil sands area - 1:1,000,000 -- each sheet \$10.

The Provincial electric system: electric transmission lines, electric energy generating stations, and utility services areas. 1:1,500,000. 1979. -- \$3.00

A complete catalogue is available from ERCB at 640 5th Ave. S.W., Calgary, Alberta T2P 3G4.

Another type of map produced in Calgary by private agencies is the oil and gas maps produced by various banks. It was a bit difficult to obtain any historical information on these maps and so it remains an area awaiting someone's time and effort for further research. There does not appear to be a library in Calgary containing any full set of all editions.

The Royal Bank was the first bank to introduce its services to the oil patch using the Canadian Oil and Gas Map as a publicity vehicle. The first edition was published on October 15, 1952, and subsequent editions have followed at a rate of about one every two years. The Royal Bank started the Arctic Oil and Gas Map in about 1970 with editions every one or two years, depending on activities in that region. These maps depict oil fields, gas fields, oil or gas discoveries, drilling wells, abandoned wells, refineries with their capacities, pipelines, and other general information.

The Canadian Imperial Bank of Commerce commenced publication of their map: Canadian Petroleum Highlights at about the same time, and with the same frequency.

The Bank of Montreal started their map - Oil and Gas Activities in Western Canada - sometime in the late 1960's.

The Toronto Dominion Bank was the last to commence publication of its Petroleum and Natural Gas Map of Canada in the later part of the 1960's.

These bank maps are all prepared with the assistance of Nickle Service, and others, and they all show generally similar information. They vary slightly in scale - 1:2,000,000 to 1:2,500,000 - and in geographic coverage, insets, and statistical tables. Their primary purpose is still mainly to project the banks' interest in the oil patch. Thus, these are available free of charge from the following addresses:

Royal Bank
Global Energy Dept.
339 - 8th Ave. S.W.
Calgary, Alberta

Bank of Montreal
Oil and Gas Department
3000 - 300 5th Ave. S.W.
Calgary, Alberta

Canadian Imperial Bank of Commerce
Oil and Gas Division
1820 - 540 5th Ave. S.W.
Calgary, Alberta T2P 0M2

Toronto Dominion Bank
Energy & National Accounts Division
1800 Home Oil Tower
Toronto Dominion Square
Calgary, Alberta T2P 2Z2

Before I conclude, I also wish to briefly cover the companies involved in aerial photography and remote sensing. The yellow pages of the telephone directory list more with each issue. These firms provide information and services to produce either a large scale topographic map or any mapping based on any type of remotely sensed imagery. Some of these companies have also flown areas for which imagery is directly available from them.

Foto Flite and Kenting regularly fly the city of Calgary and provide better coverage than is generally available from the standard government agencies.

Conclusion

As you can see from the above, Calgary is alive and well in a cartographic sense.

Recently, the Canadian Cartographic Association held a two day seminar on computer mapping in Calgary, with over 50 participants - and there were more who wished to attend.

In spite of the tremendous growth in cartographic products originating in Calgary, the majority of the mapping will only be available within companies. Publicly available mapping is usually blue line and is usually priced so as to provide a return on the invested time in research and compilation. Coloured lithographed maps make up a small portion of the available production, yet these are the maps in which we are all generally interested.

To be able to do good preplanning, and to have a job with very few flaws in it, you must have good maps with accurate information on them to avoid a lot of unnecessary problems.

This paper has presented an overview of cartographic activity in Calgary as it relates to the field of natural resources. It is hoped that this information will lead in the right direction those of you interested in obtaining maps or services from those producers in Calgary.

OFFICIAL HIGHWAY MAPS FOR STATES AND PROVINCES OF NORTH AMERICA

by

Edward P. Thatcher
Map Librarian (Emeritus),
University of Oregon

The University of Oregon map collection contains three file drawers of state, province and city maps, as yet without benefit of indexing or cataloging; many of these, the most valuable, date from the early years of automobile travel. We term these the Lodewick Collection after its principal donor, or with a tone of apology - "*that file below the table of old oil company maps*".

City maps of Chicago, Los Angeles and New York of the early 1930s, and the highways of Texas for 1931 are becoming infrequent among gifts to libraries, as eventually will those of the 1970s. And how, other than from a gift horse, may these be obtained?

We expect to retain and enlarge this collection by broadcasting our interest in acquiring these and by making special appeals to potential donors. While continuing to collect such nostalgia-filled, folded examples of carto-ephemerae, I feel obligated to inform others that these are available here for consultation or borrowing via interlibrary loan as xerox copies in black-and-white.

Therefore, to begin the spirit of building a union list within the pages of the Information Bulletin, I offer a list of official state and province highway department road maps which are on file at the Map Library of the University of Oregon, Eugene, OR 97403. The list includes all available, without apology for harsh earlier handling and obvious deterioration, from earliest to the most recent. Now, if some other map librarians will add to the literature with their records of official state-province maps and begin a list of the oil company editions of cities, states-provinces, regions, we will have a good beginning on a potentially valuable union list - every installment to appear in WAML's Information Bulletin.

<u>State or Province</u>	<u>Publisher/Agency</u>	<u>Edition Years</u>
ALABAMA	Highway Department	1951, 1974
ALASKA	State Highway Map	1964, 1972, 1973, 1975
ARIZONA	Highway Department	1939, 1940, 1964/54, 1967, 1968, 1971, 1972, 1973, 1976
ARKANSAS		{none}
CALIFORNIA	Division of Highways	1958, 1962, 1966, 1974
COLORADO	Highway Department	1946, 1949, 1950, 1959, 1963, 1967, 1968, 1969, 1971, 1976
CONNECTICUT	Highway Department	1938, 1963, 1966
DELEWARE	Highway Department	1939, 1950, 1960
FLORIDA	State Road Dept.	1950, 1954, 1964, 1973, 1976

GEORGIA	State Highway Dept.	1971, 1976/77, 1977/78, 1980/81
HAWAII		{none}
IDAHO	Dept. of Highways	1937, 1939, 1950, 1952, 1954, 1955, 1957, 1966, 1968, 1971, 1972
ILLINOIS	Division of Highways	1952, 1963, 1965, 1968, 1970
INDIANA	Highway Commission	1939, 1961, 1964, 1971/72
IOWA	Highway Commission	1939, 1965, 1967, 1969, 1972
KANSAS	Dept. of Transporta.	1939, 1941, 1963/64, 1965, 1975
KENTUCKY	Highway Department	1939, 1960, 1963, 1972, 1975
LOUISIANA	Dept. of Highways	1939, 1953, 1975, 1977
MAINE	Highway Commission	1937/38, 1964, 1969, 1972, 1973, 1974, 1975
MARYLAND	State Roads Commission	1939, 1952, 1968, 1971, 1975, 1977
MASSACHUSETTS	Dept. of Public Works	1939, 1970, 1971
MICHIGAN	Highway Department	1939, 1941, 1961, 1963, 1964, 1966, 1969, 1970, 1975, 1976/77
MINNESOTA	Dept. of Highways	1953, 1954, 1964, 1965, 1967, 1968, 1970, 1971, 1972, 1975, 1976
MISSOURI	Highway Department	1939, 1963, 1964, 1965, 1972, 1975, 1976
MISSISSIPPI	Highway Department	1963, 1975, 1977
MONTANA	Highway Commission	1937, 1939, 1942, 1951, 1955, 1957, 1964, 1965, 1966, 1967, 1968, 1970, 1975, 1976, 1977
NEBRASKA	Roads & Irrigation	1939, 1966, 1967, 1975, 1978
NEVADA	Dept. of Highways	1941, 1950, 1958, 1960, 1964, 1965, 1969, 1970, 1971, 1973, 1976/77
NEW HAMPSHIRE	Planning Department	1938, 1951, 1957/58, 1963/64, 1964/65, 1968/69, 1975, 1976
NEW JERSEY	Highway Department	1939, 1976
NEW YORK	Dept. Public Works	1949/50, 1969
NEW MEXICO	Highway Department	1939, 1958, 196-, 1974
NORTH CAROLINA	Highway Commission	1963, 1967, 1976
NORTH DAKOTA	Highway Dept.	1939, 1971, 1972
OHIO		{none}
OKLAHOMA	Highway Commission	1939, 1959, 1964, 1968, 1972
OREGON	Dept. of Transporta.	1918 - date
PENNSYLVANIA	Highways. Forests & Waters.	1964, 1965, 1973 1938, 1949

RHODE ISLAND	Public Works	1939, 1942, 1964, 1975/76 1977/78
SOUTH CAROLINA	Highway Primary System	1939, 1951, 1964, 1975, 1976
SOUTH DAKOTA	Highway Commission	1939, 1952, 1953, 1965, 1967, 1968, 1969, 1972/73, 1974, 1975/76, 1976
TENNESSEE	Dept. of Transporta.	1972/73, 1975
TEXAS	Highway Commission	1931, 1939, 1950, 1960, 1961, 1963, 1964, 1966, 1967, 1970, 1971, 1972
UTAH	Dept. of Highways	1956, 1962, 1963, 1967, 1968, 1969, 1972, 1974, 1974/75, 1977/78
VERMONT	Dept. of Highways	1937/38, 1963, 1968, 1969, 1972, 1973, 1975
VIRGINIA	Dept. of Highways	1938/39, 1940, 1948, 1958, 1964, 1969, 1975
WEST VIRGINIA	Road Commission	1968/69, 1970
WASHINGTON	Highway Commission	1939/40, 1950, 1954, 1957, 1962, 1963, 1964, 1965, 1966, 1968, 1969, 1973
WYOMING	Highway Commission	1950, 1951, 1956, 1964, 1965, 1966, 1967, 1968, 1969, 1971, 1976
BRITISH COLUMBIA	Dept. Travel Industry	1958, 1965/66, 1968/69, 1970/71, 1973/74, 1976/77, 1978, 1979/80
ALBERTA	Travel Bureau	1965, 1966, 1968, 1969, 1970, 1973
SASKATCHEWAN	Dept. of Highways	1965, 1970, 1972, 1976
MANITOBA		1939/40, 1964, 1968, 1969, 1971, 1972, 1973
ONTARIO	Dept. of Highways	1937/38, 1950, 1962, 1964, 1970, 1972, 1973, 1974, 1976
QUEBEC	Dept. of Transport	1956, 1959, 1964, 1968, 1971, 1972, 1975
NEW BRUNSWICK	Dept. of Highways	1940, 1951, 196-, 1973, 1975, 1976
NOVA SCOTIA	Dept. of Highways	1939, 1968/69, 1972, 1975
PRINCE EDWARD ISLAND	Travel Bureau	1968, 1975
NEWFOUNDLAND & LABRADOR	Highways	1970
NORTHWEST TERRITORIES	Canada, Ottawa.	1970, 1972, 1976

U.S.G.S. Topo Quad Count by State

Some time ago the U.S. Geological Survey announced that it had completely blocked the United States into 7½-minute quadrangles and named those quads whether or not there was a map actually in existence for the area in question. Having completed the 7½' grid, the next logical step was a count, by state, of the number of quads for 1:24,000 map coverage.

Some years back this author hazarded a guesstimate that it would take 63,000 maps to cover the country at 1:24,000. I overestimated by about 9% as the actual count for the contiguous 48 states is 57,324. Assorted outlying areas bring the total to 57,586 7½-minute quads, and Alaska takes 3718 15-minute quads. Here, by courtesy of Gary North (USGS), is a state-by-state count of the theoretical total of 7½' topos:

Alabama	910	Kentucky	779	Ohio	790
American Samoa	12	Louisiana	893	Oklahoma	1240
Arizona	1971	Maine	725	Oregon	1932
Arkansas	916	Maryland	260	Pennsylvania	881
California	2874	Massachusetts	188	Puerto Rico	78
Colorado	1938	Michigan	1325	Rhode Island	37
Connecticut	116	Minnesota	1739	South Carolina	569
Delaware	54	Mississippi	854	South Dakota	1552
D.C.	4	Missouri	1300	Tennessee	804
Florida	1041	Montana	3008	Texas	4442
Georgia	1017	Nebraska	1429	Utah	1542
Guam	10	Nevada	1989	Vermont	232
Hawaii	154	New Hampshire	214	Virginia	807
Idaho	1728	New Jersey	175	Virgin Islands	8
Illinois	1072	New Mexico	2034	Washington	1461
Indiana	700	New York	1021	West Virginia	495
Iowa	1134	North Carolina	975	Wisconsin	1176
Kansas	1564	North Dakota	1464	Wyoming	1953

TOTAL (7½-minute quads): 57,586

TOTAL (15-minute Alaska): 3,718

61,304

Mapkeepers, and library administrators (and others as well), with these totals may plan space requirements. Please note the word "theoretical" above. Some of these quads are no longer in print, some may never be printed, or a new series may complete the 1:24,000 mapping of the country. On the other hand, having some figures is better than having none, and these are at least more precise than my guesstimate, and also more accurate than those currently on the individual state indices.

Charley Seavey GPMD-General Library
University of New Mexico, Albuquerque

MAPS, HISTORY, AND THE SAN DIEGO*
ENVIRONMENTAL CONSULTING INDUSTRY

by

Frank Norris
WESTEC Services, Inc.
San Diego, California

Good morning! One section of map users which has not yet been discussed today, but deserves prominent mention, is the environmental consulting industry in our area. Therefore, in the next few minutes, I'd first like to mention a few words in general about environmental consulting firms in San Diego, after which I shall digress to their map needs. Finally, I'd like to be more specific in describing the work of the historical consultant's roles and responsibilities, and suggest methods whereby the map research process might be streamlined and simplified.

As Larry Cruse (the conference moderator) has mentioned, I work for an environmental consulting firm called WESTEC Services. The company has existed for about nine years, and its environmental function (one of several parts of the company) was brought into being largely as the result of the California Environmental Quality Act of 1970 (CEQA), which mandated the preparation of Environmental Impact Reports (EIRs) as an integral part of land development. The company is located in the Hillcrest district of San Diego, at the corner of Fifth and Spruce, and currently employs about 35 employees in its environmental division. We're one of the larger environmental consulting firms in the area; all in all, there are about ten to fifteen companies (in San Diego) that perform this type of work, though this number constantly fluctuates due to the economy and political climate. The long-term prognosis for the industry, however, appears bright; therefore, the map needs that these companies share deserve further scrutiny.

The basic reason behind our industry is that we perform those environmental projects that agencies and large corporations do not want to deal with on their own. Recent environmental legislation, as I've mentioned, has demanded that a continuing supply of these reports be furnished, but because most of these needs are so sporadic, it is uneconomical for these agencies and corporations to keep a large staff especially for this purpose.

The primary tasks for most environmental consulting firms, at least during the past decade, have been related to the preparation of EIRs, energy-development plans, and large-scale planning efforts for various state and federal agencies. Because these reports require broad-based technical expertise, these companies are usually staffed with at least one geographer or urban planner, a biologist, a geologist, an archaeologist, and occasionally a historian, although one or more of these functions may be filled by subcontractors. Other specialties dealt with in these reports deal with noise impacts, traffic

* Presented to the Metro Conference on Map Resources in San Diego at San Diego State University, January 15, 1981. Entitled Map Resources: their creation, organization & application in San Diego, the conference was moderated by WAML Past President Larry Cruse, UC San Diego. [See W Assn Map Lib Inf Bull 12 (2) 132 (last item).]

impacts, hydrology, air and water quality, visual or scenic impacts; these functions may be filled either by staff specialists or by outside consultants.

As is easy to see by the number of specialists and the size of our industry, our need for good maps is fairly substantial. In our Environmental Analysis Group -- that is, where all division personnel work who are neither archaeologists nor historians -- a wide array of current maps is used. Subdivision plat maps, usually provided by the developer, and standard USGS topographic maps are the main map tools used, but other maps describe traffic flows, ethnic diversity, population density, income levels, soils, geology, and a host of other data. Most of these maps are available locally either through the San Diego Association of Governments (SANDAG, formerly the Comprehensive Planning Organization), the County Map Center on Mercury Street, or at various city or special district offices. State or federal agencies, on the other hand, usually supply our personnel with maps through the mail; agencies commonly used by our firm include the California Department of Fish and Game, the Coastal Commission, the Solid Waste Management Board, CALTRANS, the U.S. Bureau of Land Management, the Fish and Wildlife Service, and the Army Corps of Engineers. However, in the Cultural Resource Group, particularly in the historical area, the situation is different. Here, the latest topographic maps and other current data are also valuable, but only as a baseline from which to measure past activities.

The job of the historical consultant as it relates to maps is two-fold: 1) to show, on as comparable a basis as possible, the sequential land-use activities that have developed during historic time within the area chosen for study, and 2) to identify, either from other maps or from primary and secondary data, the specific location of historic sites, historic areas and historic events. The areas where this work takes place are often quite scattered; examples of study areas where I've worked thus far include such diverse areas as the California Desert, the San Bernardino National Forest and the lower half of the Colorado River, as well as relatively small areas such as the Carlsbad area and the Melville Klauber house here in San Diego. Transmission line projects are an additional part of the work that we undertake.

As can be seen, my responsibility is to search through all relevant maps -- and other documents as well -- to obtain all data that will help reconstruct the cultural complex during various periods in an area's history. As often as not, the final product is a series of composite maps showing the various major land-use activities in given historic periods; occasionally, one significant or notable activity will be singled out onto a separate map.

Obtaining these data can be simple, or it can be confusing and complex. Unfortunately the consultant, as an inherent part of his role, cannot usually predict where future projects will take place, nor can it be predicted to how much depth a given project will be investigated. I have been asked to complete some projects in just a few working days, while for others, I've been given over a year.

Therefore, the best single advantage available to the contract historian looking for maps is a good, vest-pocket familiarity with the location and content of as many map repositories as possible. For most areas, this is usually acquired only through actual experience at the various libraries and other repositories, although a few guides are available in certain geographic or the-

matic areas; examples include the New York City area, Utah, the Mother Lode gold-mining region of California, and Arizona. Inasmuch as you here today are obviously sensitive to the utility of maps, I realize this may be the wrong audience for this suggestion, but my advice to the researcher is to urge you to use maps a lot; remember the adage, "if a picture is worth a thousand words, then a map is surely worth a thousand pictures". Also, I urge you to DIG DEEP in your search for historic maps in the local area.

To begin your search, the map collections at San Diego State University (SDSU), the University of California at San Diego (UCSD), the San Diego Historical Society and the California Room at the Central Public Library are the obvious and perhaps the best places. However, there are several other excellent sources as well. At the above libraries, there are often annexes with cartographic outlets; examples that come to mind include the San Diego History Research Center on the SDSU campus, the Scripps Institution of Oceanography library at UCSD, and the history and science sections at the Central Public Library. Individual volumes outside of map collections, such as USGS Water-Supply Papers, also offer excellent maps. As a contract historian, my viewpoint may be somewhat myopic, but allow me to offer a few other examples where local maps might be found.

The county operations center -- near Clairemont Mesa Boulevard and State Highway 163 -- has thousands of maps in Building 2, and in Building 5 exists aerial photography for most of the county, taken in 1928. The county law library, at "C" and Front Streets, also has a number of maps, as does the city operations center at 19th and B Streets. Additional map repositories I've encountered in the city include the San Diego Department of Public Works, and the Naval Submarine Support Facility, located on the bay side of Point Loma. Soil Conservation Service offices in El Cajon and Escondido offer aerial photography of major parts of the county dating back to the 1940s and 1950s, as does the Agricultural Stabilization and Conservation Office in Indio. CALTRANS, along with the various local cities, chambers of commerce, historical societies and special districts, more-often-than-not also have map collections of some type. Unfortunately, as I've mentioned before, no one in our local area knows the distribution or content of these various map repositories. My advice to those persons performing work in San Diego County, therefore, is to assume that any given governmental body has mapmaking capabilities, and to ask for the graphics department, engineering department, or even a long-time employee to find out whether older maps actually exist. Conversely, I'd advise any of you working for public agencies to make sure that your map collections are well known to standard map referral sources such as the university or city collections.

Other locations, farther afield, may also be of major help in locating San Diego county maps. In the greater Los Angeles area, I gravitate to three major sources. First in this category is the UCLA Map Library, primarily located in the basement of Bunche Hall, near Hilgard Avenue on the east-central portion of campus. Part of their collection, however, is located in the Map Library Annex in the Powell Library, and is open only a few hours each week. You may well find the wait worth it. One particularly valuable item that I've found there is the Rand McNally Commercial Atlas, once called their Business Atlas. This atlas shows the location of many hamlets not covered in other atlases, and as well has an excellent index with a complete (though rough) population estimate of even the smallest population clusters. As many of you may

know, most libraries are required to trade in their older copies of this atlas when a new version is published. At UCLA, however, issues dating back to the 1920s are available. Copies earlier than that must be obtained directly from the Library of Congress in Washington, D.C.

A second source I've found -- an unexpected one -- is the collection of the Automobile Club of Southern California. This is among the oldest automobile clubs in the country, and it has been producing city and county maps of our region since 1917. The maps are particularly good with regard to place-name locations and road conditions. The Auto Club's main building is located in Los Angeles at Adams and Figueroa Streets; however, its map collection is located in the Standard Oil Building, downtown at Olympic and Flower Streets.

The other "must" spot for map research in Southern California is the Huntington Library, in San Marino, near Pasadena. Many people find it difficult to finagle a way into the Huntington, because it requires a rather exacting entrance application prior to their first visit. However, its collections offer data often available in few if any other locations.

For the sake of completeness, I must here include the map collection at U.C. Berkeley, even for historical work in relatively local areas. Though I haven't yet been there, this collection is reputed to be the best in California, and may be among the best locations for map research devoted to any of several other western states.

I've also run across a number of excellent maps, particularly of rural areas, in Bureau of Land Management offices, district as well as state. District offices, as a rule, have township status maps; these describe which lands have left the public domain, when and for how long. Information is therefore included here on railroad lands, homestead plats, transmission and telephone lines, forest and park boundaries, and other matters. The state offices, located in the state capitals, have these data for all districts in the state; the early land surveys, with maps and notes, are also included here. Other sources exist for mapping data that are best obtained by mail. The best ones I've found so far for my purposes include the National Cartographic Information Center (NCIC), the Cal-State Northridge collection, and the Library of Congress. I have used the NCIC primarily for exact size reproductions of outdated USGS maps; at the Western Mapping Center is a repository of federally-sponsored aerial photography. The resources of the Library of Congress, of course, are legendary; I've found them most beneficial for obtaining copies of Post Route maps and post office location forms, as well as the early copies of maps and indexes from the Rand McNally Business Atlas. Finally, I've used the map library at Cal-State Northridge to obtain Sanborn Fire Insurance Maps. This location, along with that of the University of Indiana, I believe, has one of the best collections of Sanborn Maps in the country; by using these maps, much data can be obtained regarding the structural growth of U.S. cities and towns. This collection is located in the Geography Department; the contents of the collection are included in a recent index published by the Western Association of Map Libraries.

In terms of suggesting a more ideal situation under which historical map research might be carried out, my most hearty recommendation points to a compilation of map research sources in the San Diego area. Creating such a compilation

need not be difficult. It would be pleasant, of course, to have the system hooked on to an on-line computer system, but it need not be for a project being considered in the near term. It could be organized along much the same lines as the recent Arizona Index which is relatively brief. The entire historic community would benefit, creating as it would a greater awareness of where maps and aerial photography might be found. I urge its consideration sometime in the near future.

Thank you.



Duplicates

The following Duplicates are available from Susan Trevitt-Clark, Map Library, University of Oregon, Eugene, Oregon 97403. Offered on a first-come, first-served basis; please include a self-addressed mailing label with your request.

Ghidul strazilor municipiului Bucuresti. Editura consiliului National Pentru Educatie Fizica si sport, Alexandru Ionescu Dan Emanoil. (Two Books - same)

Atlas der Deutschen Volkskunde: Neue Folge. N.G. Elwert Verlag Marburg, Bonn, Germany, 1964.

Atlas Mira: Ukazatel Geograficheskikh Nazvaniy. Moscow, 1954. Index only.

Association de L'atlas de Cote D'ivoire. B.P. 8863 Abidjan Ci, 1979. (Partial)

Situation Des Travaux. Direction de la Conservation Fonciere et du Service Topographique, January 1971, (Morocco).

Algeria. Service de la carte geologique de l'Algerie, 1941.

Haack Atlas Aktuell. Germany (?), 1978 (?).

Magyarország Nemzeti Atlasza. Budapest 1967.

Du Page County: Atlas & Plat Book. Rockford Map Publishers, Inc., 1979.

Websters Atlas and Zip Code Directory. Hammond Inc., 1973.

Geobotanical Atlas of the Prudhoe Bay Region, Alaska. By D.A. Walker, K.R. Everett, P.J. Webber and J. Brown, U.S. Army Corps of Engineers, 1980.

Satellite-Derived Global Oceanic Rainfall Atlas. Rao, Abbott, and Theon, National Aeronautics and Space Administration, 1976.

Climatic Atlas of the Tropical Atlantic and Eastern Pacific Oceans. Stefan Hastenrath and Peter J. Lamb, The University of Wisconsin Press, 1977.

Atlas of Mars: the 1:5,000,000 Map Series. Batson, Bridges, and Inge, NASA, 1979.

Moon Maps. H.P. Wilkins, Faber & Faber, 1960.

The Sherman Day 1850 Map of San Jose

and how to correct L.C. cataloging

by

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Introduction

Occasionally a cartographic item will appear in a catalog or a bibliographic citation with an incorrect date, an incorrect main entry, or another important element that is wrong. What do you do about it? What can you do about it?

I have an example, the Sherman Day 1850 Map of San José, California, and I have a suggested method of getting the cataloging record corrected.

First, however, I want to give a framework to the subject.

Within a radius of seventy-five miles of my library at Santa Cruz lie California's historical heartland. The area includes Monterey, the birthplace of the State's Constitution (1849) as well as being the pre-Statehood Capital (1770-1849), San José, the site of the first Legislature (1849), and San Francisco, the most important commercial center for the first 100-years of California's development.

Within that radius lie many of the Spanish Period's (1769-1822) missions, pueblos, and presidios: eight of California's twenty-one religious missions, two of the three Pueblos, and two of four military Presidios.¹

My location, therefore, explains why I, as a map librarian, am inexorably moved to learn all about the history of this region and identify, and acquire if possible, cartographic treasures that will be useful in revealing this rich and colorful history.

I should explain why I have included San Francisco within the framework of my interest. Although the Berkeley campus, through an agreement among the map librarians of the University of California, has responsibility for collecting maps of San Francisco, San Francisco's historical proximity to the other places in my region dictates that I know the cartographic history of San Francisco as well. The historical route of travel was from Monterey to Santa Cruz to San Jose to San Francisco, so the interwoven history between these places is immeasurable.

* Presented at the March 27, 1981 Spring Meeting of the Western Association of Map Libraries, San Francisco.

Focus of This Presentation

The focus of this presentation is on San José, and specifically on one episode of its cartographic heritage: the 1850 map of "The City of San Jose" by Sherman Day.

As background to the significance of this map and its maker, I will give a brief history of the Pueblo and City of San José, and a brief biography of Sherman Day. Then I will describe the map, and the facsimile published by Historic Urban Plans, and I will point out the cataloging errors made by the Library of Congress when the facsimile was cataloged. Finally, I will suggest the recommended method for reporting errors to the Library of Congress so that corrections can be made to the cataloging record.

This presentation is intended as neither a definitive biography of Sherman Day nor a definitive cartobibliography of the Pueblo and City of San José. Both of those objectives need to be done, but I cannot provide them within this presentation. Murphy Smith has compiled an admirable biography of Day, yet he admits that there is work that remains. Certainly Sherman Day's cartobiography needs to be compiled, for beyond this 1850 map of San José there is only one other map attributed to him.²

Colonization of California

The history of modern California can be told through the people who have owned its land, and particularly through the diseños and maps that remain as a framework for the story.

The land belonged to the Indians before 1769, the year Spanish soldiers, mission padres, and settlers entered California overland from Mexico. After 1769, titles to land were granted by, or were derived from the Spanish or Mexican authorities, based on the Law of the Indies. To most of the Indians who occupied pre-White California, the land was not regarded as property that could be owned by an individual. Land was occupied communally and the land which was claimed by individual Indians was bought, traded, and sold - or captured - according to concepts of private ownership that derived from the predominant culture, according to the locality of the Indian: north Pacific Coast civilization centered in British Columbia and the Yurok Indians, the central California Indians were influenced by the Shoshones of the Great Basin, and those of the southern California area were influenced by the Colorado River Indians and the greater southwest and Mexico.³

Indians took what they needed to survive: nuts, berries, and other collectibles from the land, fish and shellfish from the ocean and rivers, and wild game from the plains and forests. With a pre-1769 population of less than a quarter-million Indians, there was little problem with enough to satisfy the needs of all - both in food and shelter, as well as land that would support them.⁴

Unfortunately today there is no cartographic record of the Indians' land holdings, and the boundaries between tribal groups are only estimates based on archaeologists findings.

W. W. Robinson, one of the primary authorities on land ownership in California stated:

Since eighteenth- and nineteenth-century missionization of Indians destroyed native cultures, there is little information about real property ideas among the groups that gave up their villages for the mission compound. The Gabrielinos, for example, the most advanced of the Shoshonean peoples of southern California, held the most fertile land there, a stretch of pleasant coast, and Santa Catalina, the best of the Santa Barbara Channel islands. Yet only the scantiest source material is available about their holdings of real property before they substituted the mission for the rancheria.⁵

Colonization of California - The Mission Period

The Spanish rule in California lasted for about a half-century, and as part of Spain's plan to colonize California, twenty-one Missions, four military presidios or forts, and three civilian pueblos or towns were established.

The first of the twenty-one missions was established at San Diego in 1769. Seven-and-a-half years later the mission at Santa Clara was founded.

Military presidios at San Diego, Monterey, San Francisco, and Santa Barbara were established for the protection of the Missions, as well as for repelling any potential threat of foreign excursions into California.

Pueblos were established in the hope that their residents would be able to raise food to feed the military, and they were populated with retired soldiers, some criminals who were induced to turn to productive pursuits, and some families seeking a better life.

Three civilian pueblos were established, one at Los Angeles, one at Branciforte, across the river from the Mission at Santa Cruz, and one next to the Guadalupe river about two or three miles from the Mission Santa Clara.

The officials of both types of settlements, presidios and pueblos, acted with legal authority to grant land ownership to the new settlers.

The mission settlements, designed as religious communities to Christianize the Indians, were not intended to be permanent. In fact, between 1834 and 1836 they were all secularized. This led to an immediate grab for land. Robinson states that

Between 1834 and 1842 more than 300 ranchos were granted to Mexican citizens, and [the ranchos were] largely carved out of mission-held land.⁶

Statehood granted in 1850

After Statehood was granted to California by Congress in 1850, titles to land had to be clarified. There is a long and detailed history to these problems.⁷ A Land Commission was established by the Act of 1851, and it handled more than 800 cases that involved both Spanish and Mexican private land grants.

An Act of 1853 established a Surveyor General for California, and one of his primary duties was to survey the public lands. In addition to the Surveyor

General, there were many private surveys conducted by men with only practical rather than formal training. This lack of properly trained surveyors produced some extraordinarily vague descriptions that led to many court battles.

Founding of the Pueblo of San Jose

The Pueblo of San José was founded on November 29, 1777 when Lieutenant José Moraga, commander of the Presidio of San Francisco, camped next to the Guadalupe river with sixty-six men, women, and children. This became California's first Pueblo.

The earliest maps of San José have been reproduced elsewhere⁸, at least one of which is attributed to Moraga. I believe the other must have been created by Moraga or one of his cadre, but whoever drew them must have worked more from the concepts of the Law of the Indies or the Plan of Pitic (Pitic is now Hermosillo, Mexico) rather than an actual survey of a populated settlement.

The American Surveys

The first two surveys under American instruction were done in February and May 1847 by Thomas and William Campbell, when the population was about 700.⁹ A map of this survey was reported in 1871 to be in the "office of the city authorities", but my preliminary search of their map files has not yet been successful.¹⁰

The next survey was also done in 1847, making it the third survey for that year so far. James D. Hutton was the surveyor this time, and the 500-acre lots were distributed among the settlers by drawing numbers out of a hat.¹¹ But Hutton was evidently not a competent surveyor, his 500-acre lots were found to measure from 200 to 300 acres, so a fourth survey for 1847 was conducted.¹² This time the authorities turned to the United States Surveyor for the Middle District of California, Chester S. Lyman. His "Plan of The Town of St. Joseph 1847" appears in John W. Repts' Cities of the American West.¹³

The next map of San José, the seventh in chronology, was done in 1850 by Thomas White, then City Surveyor, by order of the Common Council.¹⁴

Next we come to the eighth map of the city, the second made in 1850. This is the Sherman Day map.¹⁵

Sherman Day - The Man

Permit me to interrupt my discussion of Sherman Day - his map - for a bit to talk about Sherman Day - the man. You might ask, why bother? You might retorically ask, surely a single map and a single mapmaker are hardly worth all this attention!

Sherman Day was one of California's truly great pioneers, one who contributed more to the development of the State than most of California's early fortune hunters - and, parenthetically, he also contributed to the history of his native Pennsylvania.

A new book about Sherman Day has just been published: *Sherman Day, artist, forty-niner, engineer* by Murphy D. Smith. This is the most definitive work yet on Sherman Day. It includes abundant biographical material for anyone who would like to read further about Day, and it focuses on 194 sketches

(reproduced therein), most of which he drew for his *magnum opus*: Historical Collections of the State of Pennsylvania (Philadelphia, 1843), the first illustrated history of the State. Smith points out that there was not "much material available for a study on Sherman Day"¹⁶, but he has now rectified that by supplying a work that contains exhaustive original research and enough citations to permit further inquiry. The book was written with a focus to provide a "niche in American art history"¹⁷ for Sherman Day, and it does not, unfortunately, provide adequate documentation to Day's career as an engineer/cartographer to satisfy the curiosity of a map librarian. What he does provide, nevertheless, is of classic stature as a biographical work.

Sherman Day was the grandson of Roger Sherman, signer of the Declaration of Independence, and son of Jeremiah Day, President of Yale University. Born in 1806, Sherman Day graduated from Yale University at the age of twenty and received the degrees of Bachelor and Master of Arts at the same time.¹⁸

After travel and sketching scenes in Europe while on a merchandise buying trip, he resumed his pursuits as a business man in Philadelphia and New York. For five or six years he worked as a civil engineer in Ohio and Indiana. Although formal training as an engineer was not available to Day at Yale, his education was basic, and as a member of Phi Beta Kappa he had the basic intelligence to adapt to almost any task. He also helped his father write textbooks.

Sherman Day - The Surveyor

There is evidence that he believed in the school of thought advocated by John Millington, whose *Elements of Civil Engineering* was the first on the subject in America (Philadelphia, 1839). Millington "taught that everything, from the original survey, to the construction of railroads, canals, roads, bridges, etc., must be undertaken by the engineer, from the examination for foundations and the drawing of plans, to the construction. In addition, the engineer had to superintend all work and oversee its execution."¹⁹

This attitude was reflected later in his work when he redesigned the famous Plymouth Church of Henry Ward Beecher in Brooklyn²⁰, then took the old lumber, doors, windows, and pews that had been loaded on barges and towed around the Horn to San Francisco - he welcomed the shipment when it landed at the dock in San Francisco - to San Jose where he directed the construction of the first Presbyterian Church in the far west.²¹ This was July of 1849, and as did most everyone in California that year, he prospected in the Mother Lode of the Sierras, and practiced mining and civil engineering. When he returned to San Jose, Day bought property and established "Coyote Farm" and raised wheat.

In 1850 he created his map of "The City of San Jose".

In 1853 he produced the first survey for the railroad between San Jose and San Francisco - which exists today as the Southern Pacific's line. In the same year he began a personal campaign to open a wagon road across the Sierras, and he was appointed a U.S. Deputy Surveyor for California, and he was elected to the California Legislature as a Senator representing Santa Clara and Alameda Counties.

As Senator, Day drafted legislation, known as the Wagon Road Bill, which became law in 1855. He surveyed the route, and the road was eventually built over this same route because it was the most practical. Today that route is U.S. Route 50 to South Lake Tahoe. Sherman Day's wagon road over the Sierra, the first passable road for wagons, also became the route used by the famous

Pony Express. It has been noted that "Without Day's road over the Sierras, the Pony Express could not have existed, for this twelve-foot-wide Sherman Day wagon road was the sole overland communication from California to the eastern United States."²²

In 1849, Sherman Day was appointed a trustee for the College of California and served until 1865 when the College was moved from San Jose to Berkeley and became the University of California.

Day surveyed the Berkeley campus, built a dam on Strawberry Creek to provide a water supply, and on June 3, 1868 delivered the first commencement address to the graduating class. At the time of his death in Berkeley in 1884, Day had devoted thirty-five years to the promotion of the University of California.

- as Surveyor-General

Day was commissioned as Surveyor General of California and Arizona on July 22, 1868, having been confirmed by Congress. I have seen his signature on some of the Township Surveys conducted during his tenure, and I have a manuscript map in my collection on which his signature certifies that the map was drawn to the specifications of his office, but I have not seen an inventory of his cartographic contributions during this period. As Surveyor-General, Day complained that he was required to survey not only the public lands, and private lands, but he was designated by Congress to be the Federal District Court for all Mexican grant boundary disputes. He complained that he worked from early morning to late at night, without help, and little money, so when his appointment expired after two years he was undoubtedly happy to pass this political job on to someone else. As with all things to which Day committed himself, he was thorough and diligent. The Society of California Pioneers cited his work as being of such high quality that "his decisions were rarely, if ever, reversed at Washington".²³

Day also served as a civil engineer at the New Almaden Quicksilver Mines near San Jose. In 1857, the year he started at New Almaden, it was the most important quicksilver mine in California and its production meant that gold could be processed without importing the more expensive quicksilver from Spain.²⁴

Sherman Day - The Map

Now that Sherman Day - the man - has been established, we turn our attention to his map. The caption on the 1850 lithograph indicates that it is "Copied from the original map Drawn by Pherman Day, Civil Engineer". [*underlined P is author's for emphasis*]

It is this caption that has caused the problem. Whoever copied Sherman Day's map obviously didn't know to whom this irreverence was being committed. Although, Historic Urban Plans who created the facsimile was aware of the error because its Catalog 22 (1979) cites his name correctly. Indeed, the copy of the original lithograph from which the facsimile is produced bears the error.

When the Library of Congress acquired the facsimile and cataloged it under the incorrect name, the irreverence was compounded - and furthermore - a name authority was created under Pherman Day, incorrectly of course.

The second error committed by the Library of Congress is the scale statement. There is no scale statement on the map, or a graphic scale representation, and yet the LC cataloging indicates the scale to be "ca. 1:8,750". Although there is no indication in the LC cataloging of the facsimile being reduced in size from the original, since I have an original lithograph in my collection I have observed that the Historic Urban Plans facsimile has been reduced twenty-percent from the original.²⁵ Based on a comparison between the original lithograph and the facsimile, I have calculated the respective scales to be 1:6,960 and 1:8,350. I have used Frederic Hall's 1871 description for these calculations, since there is no scale statement nor linear bar-graph on the map itself. Hall gives several measurements with which comparisons may be made.²⁶ Washington Square, for example, site of today's San Jose State University, was laid out with dimensions of 1,160-feet in length, and 1,005-feet wide. These measurements provide a scale for the Sherman Day lithograph as being 1:6,960. A twenty-percent reduction would make the scale of the facsimile 1:8,350, rather than the 1:8,750. This may be verified by comparing the dimensions of the full printed surface of the lithograph and facsimile. All of this might be insignificant to someone who is not a map librarian, but as long as we are correcting the cataloging record for one data element we must be absolute and provide the correct data for each error.

The cataloging record should reflect the fact that the scale of the facsimile is a reduction from the original by 20%, and state each.

Summary of the errors

In summary, the following facts in the cataloging record require correction: (1) the name authority/main entry should be "Day, Sherman"; and, since the authority is being upgraded, his birth and death dates could be added: "1806-1884"²⁷; (2) the statement of responsibility should be transcribed from the facsimile just as it appears, but the inaccuracy should be followed by [sic] or by the abbreviation "i.e." and the correction within square brackets. My recommendation in this case is to provide the correct spelling and indicate that as follows: "City of San Jose. Copied from the original map drawn by Pherman [i.e. Sherman] Day, civil engineer." ; (3) the scale statement should be corrected to "Scale ca. 1:8,350", and the scale of the original lithograph should be included in a note: "scale of original lithograph ca. 1:6,960".

How to correct the record

Now we come to the action required by possession of all this new information.

I have met with Dr. John Wolter, Chief of the Geography and Map Division, The Library of Congress, to determine the procedure that would satisfy his administrative responsibility in a situation like this. He has requested that the most effective procedure is to write a letter and cite the elements to be corrected, citing the factual evidence to support the new information, and send the letter to him personally:

Dr. John A. Wolter
Chief, Geography & Map Division
The Library of Congress
Washington, D.C. 20540

Conclusion

San Jose was the first of the Spanish Pueblos established in California, in 1777.

Sherman Day, one of the major contributors to the development of California, created one of the significant maps of San Jose in 1850.

The facsimile of Day's map has been incorrectly cataloged by The Library of Congress, and the elements that require correction in the cataloging record have been identified. A method for providing the new information to the Chief of the Geography and Map Division has been suggested.

It is hoped that this biographical sketch of Sherman Day, and the importance of his life and that of San Jose at the time of his survey, will be recalled the next time errors are discovered in an incorrectly cataloged map. It is hoped that map librarians will take the initiative to report the errors by sharing their information so that the cataloging of cartographic materials will reflect the best collective scholarship of which our profession is capable.

Footnotes

- ¹ Mission San Carlos de Monterey (1770), and the Presidio of Monterey (1770); Mission San Antonio de Padua (1771); Mission San Francisco de Asís (1776), and the Presidio of San Francisco (1776); Mission Santa Clara de Asís (1777), and the Pueblo of San José (1777); Mission Santa Cruz (1791); Mission Senora de la Soledad (1791); Mission San José de Guadalupe (1797); Mission San Juan Bautista (1797); and the Villa de Branciforte (1797) [one of the three Pueblos].
- ² "Map of Nine Sections of Land in Amador County; Surveyed by Sherman Day in July, August, and September, 1856 by Order of Andrés Pico and Ramon de Zaldo." [Gudde, p. 394]
- ³ Robinson, p. 10.
- ⁴ Robinson, p. 5. The population estimates range between 150,000 and 250,000.
- ⁵ Robinson, p. 12. ⁶ Robinson, p. 31. ⁷ Robinson, Chapter VIII, pp. 91-109.
- ⁸ The 1780 map in Garr, p. 95; the 1787 map by Moraga in Reps, p. 98.
- ⁹ Garr, p. 100.
- ¹⁰ Hall, p. 178; Garr, p. 100: Garr was apparently not successful in his search, for he states that "the extent to which these surveys differed is not known, and it is doubtful whether they still survive."
- ¹¹ Hall, p. 181. [Two distinct editions of the Hutton Survey are located: one in the California State Library, and one in the Map Collection of the University of California at Santa Cruz. The CSL copy is dated 1860, being copied and signed by Charles T. Healy, County Surveyor. The UCSC copy is not dated, being copied by S. Worsley Smith, County Surveyor, and a preliminary date of 1862 has been assigned.]
- ¹² Garr, p. 100. ¹³ Reps, p. 169. ¹⁴ Hall, p. 185.
- ¹⁵ The Sherman Day map may have been co-authored by William J. Lewis, a railroad engineer with whom Day was associated in the surveying of the San Jose to San Francisco railroad line in 1853. Lewis is not mentioned in the map's title, in spite of Hall's reference: see Hall, p. 186.

- ¹⁶ Smith, p. x. ¹⁷ Smith, p. xiii. ¹⁸ White, p. 99.
¹⁹ Smith, pp. 5-6. ²⁰ Smith, p. 21. ²¹ Smith, p. 23; White, p. 100.
²² Smith, p. 27. ²³ Quoted by Smith,²⁴ ²⁴ Winther, pp. 157-159.
²⁵ The dimensions of the original are 84 x 65 cm., the facsimile is 68 x 52 cm.
²⁶ Hall, pp. 183-186.
²⁷ In spite of the fact that Gudde cites the dates for Day as 1806-1873, Smith's Chronology, p. xiv, cites his birthday at February 11, 1806 in New Haven, Connecticut, and his deathdate as December 14, 1884. Smith quotes an obituary of the Committee for the Society of California Pioneers in which the 1884 date is used, p. 33.

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Cataloging

United States. Library of Congress.

Catalog Card No. 73-693229/MARC Map. [also available on OCLC #5406337]

Maps

Day, Sherman. City of San Jose, copied from the original map drawn by Pherman [i.e. Sherman] Day, Civil Engineer. San Francisco, Woodworth & Morris, [1850?]*. Lithograph in UCSC Map Collection. Reproduced in Reps, p. 171; reproduced by Historic Urban Plans, 1972.

Hutton, James D. Map of the public lands of the Pueblo de San José, 1847, the survey by J.D. Hutton, this map made from the original map by C.S. Lyman. "This is hereby certified that this is a true copy of a map filed in this office which purports to be a copy of the map made by Hutton which is not to be found. Chas. T. Healy, Co. Surveyor, Co. Surveyor's Office, San Jose, Jan. 21st, 1860." Map in California State Library; reproduced in Reps, p. 170.

Hutton, James D. "Map of the public lands of the Pueblo de San José, (500 acres), Surveyed by James D. Hutton. A.D. 1847. Copied from the original in the Mayor's Office by Chas. Whiting. Recopied from Whiting's by S. Worsley Smith." [1862?] This copy is located in UC Santa Cruz Map Collection.

Lyman, Chester S. "Plan of the Town of St. Joseph, 1847, C.S. Lyman, Del." Reproduced in Reps, p. 169; reproduced in Garr, p. 101.

Moraga, José Joaquin. [Plan of the Pueblo of San José.][before 1780, probably by Moraga or one of his cadre.] Reproduced in Garr, p. 95.

Moraga, José Joaquin. [Plan of San José, California: 1787.] Repro. in Reps, 98.

Thompson, George H. "Map of Pueblo Lands of San Jose finally confirmed to Mayor & Common Council of The City of San Jose. Surveyed under instructions from the U.S. Surveyor General by George H. Thompson, Dep. Sur^r, July 1866." San Francisco: Geo. H. Baker, 1866. Reproduced in Reps, 175.

White, Thomas. "Map of the City of San José. Surveyed and drawn by order of the Common Council in the year 1850 by Tho. White - City Surveyor." Copy in UC Santa Cruz Map Collection is from microfilm on file in the County Surveyor's Office, San Jose, California.*

* [It is the White survey to which Hall refers: "Messrs. Sherman Day and W. J. Lewis made a survey and map which, I believe, correspond with those made by Mr. White." Hall, p. 186. A comparison does prove that they correspond, and therefore since White's map is dated 1850 we are justified in using the 1850 date (as the date of the situation depicted by the map) for Sherman Day's map - although no evidence known to this author proves the year of publication. Reference to two city directories for San Francisco, March 1850 and September 1850 indicate that Woodworth & Morris (Frederick A. Woodworth and Charles A. Morris) were located at the Clay Street Wharf.]



U.S.G.S. Provisional Mapping Program

by

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The United States Geological Survey has recently started a provisional mapping program. The Survey's definition states that Provisional Maps are "essentially partially edited, multicolor advance prints that are printed lithographically in the same manner as standard maps". Basically, the provisional maps (P maps) will take the place of the standard 7.5 minute maps. Their specifications will be discussed later.

Objective

The Provisional maps will, it is hoped, enable U.S.G.S. to complete large scale coverage of the U.S. by 1988-1989.

Benefits

A primary benefit of the program includes a significant cost savings. It currently takes 745 hours and \$23,650. to produce a 7.5 minute map. It takes 573 hours and \$18,193. to produce a P map. The savings, therefore, is 172 hours and \$5,457., a 23% decrease in cost. There is some indication that the cost of producing a P map will be lowered as people get used to the process. U.S.G.S. feels that this can be accomplished without affecting the utility of the map. Another benefit of the program is having 7.5 minute coverage available, even if not in the final standard form.

Specifications

Of the approximate 57,000 sheets required to cover the U.S. in 7.5 minute format, 75% or roughly 40,000 have been completed. Of the 11,523 sheets in the Western Mapping Center region, 68% have been completed. Fifty-nine percent of those completed have been published and the remaining 9% are in a "T" format. (Even though some areas were published as 15 minute maps, the field work at that time was designed to meet specifications of the 7.5 minute series. Therefore, information is available in 7.5 minute advance manuscript form, known as "T" maps.)

The provisional mapping program is designed to accelerate map production and the intent is to have all sheets underway by 1985. An interesting note: the four mapping centers (Mid-Continent, Rolla, Missouri; Rocky Mountain, Denver; Western, Menlo Park; Eastern, Reston) will be assisting each other in completing coverage of the U.S. For example, the Rolla Center will assist in completing coverage of central Nevada, and the Rocky Mountain Center will assist in completing coverage of Oregon. As stated by USGS, "coverage will be prepared for all remaining unmapped 7.5 minute areas, including unmapped 7.5-minute areas currently covered by 15 minute maps, and all unmapped Alaska 15-minute areas". Mapping of those areas will be based on State priorities and input from State Mapping Advisory Committees.

The provisional maps will meet National Map Accuracy Standards. The exception to that will be the heavily timbered areas where spot elevations are difficult to determine without extensive field work. The maps will be published in either four or five colors. The basic four colors will be black, brown, blue, and green. Red will be added to the public land states. As a result of screening, urban tints will appear as a gray tone. Street and road patterns will be shown as well.

Process

How is all of this to be accomplished? Basically U.S.G.S. intends to do the following: 1) increase prefield procedures by 500%; 2) decrease field procedures by 25%; 3) increase office compilation by 5%; 4) reduce final scribing by 90%; and, 5) reduce editing procedures by 70%. U.S.G.S. plans to make maximum use of names data in the Geographic Names Information System. It also plans to suspend Topo Quad preparation. In addition, map users will be "reoriented to availability and utility of the provisional maps".

Impact

Some U.S.G.S. personnel will be reassigned and retrained for compilation functions instead of scribing and editing functions. Field people will be doing less field classification. As a result, more field classification will be done in the office. There will also be an increase in obtaining aerial photos.

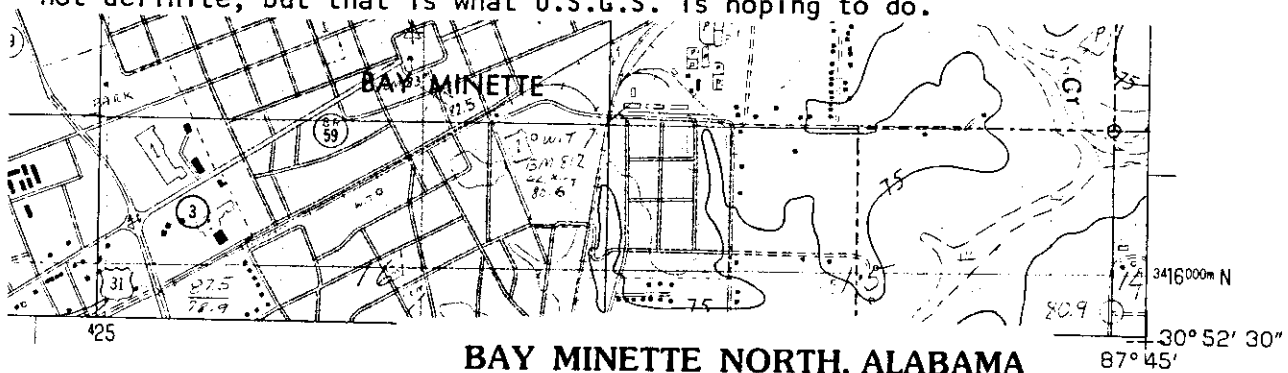
The user will have 7.5-minute coverage instead of 15-minute coverage, although the finished product may not be as complete or nice as the standard form. The editing process may confuse the user in that the map may contain notations familiar only to another U.S.G.S. employee. (e.g., ss meaning "submerged swamp") Elevation labels may not be as easy to read. Under the provisional mapping program, labels are placed on a culture manuscript, not scribed on a contour manuscript. Therefore, the contour line will not be broken for the elevation number.

Final Notes

Some of the maps in progress will not be P maps; apparently it would cost more to produce them as P maps.

Separates for those sheets within the Western Mapping Center region will be available from WMC, even if the maps are produced by Denver or Rolla.

Revisions: one report indicated that "it is intended that when the maps are revised standard map finishing techniques will be used". That statement is not definite, but that is what U.S.G.S. is hoping to do.



BAY MINETTE NORTH, ALABAMA

PROVISIONAL EDITION 1981

SELECTED TRANSPORTATION MAPS OF THE PACIFIC STATES, 1940
or Earlier, AT THE UNIVERSITY OF OREGON

by

Edward P. Thatcher
 Map Librarian (Emeritus),
 University of Oregon

This list of early maps of the automobile age for the Pacific States is presented in near-chronological order under area headings: region, state, county, city. It is representative of a greater collection at the University of Oregon Map Library.

That all have been acquired by donation from private donors indicates to me that there still exist many others of similar vintage, also in private ownership. It is our experience that when such maps are known to be available in a library, they will be demanded, used and appreciated; and, in good time more will be donated.

REGIONAL

<u>DATE</u>	<u>TITLE OR AREA</u>	<u>PUBLISHER</u>
1915	Oregon, Washington, Idaho, railroads and roads	Union Pacific RR
1923	Auto Trails: Oregon, Washington, western Idaho, northern California	Rand McNally
1929	Western U.S., national parks & highways	AAA of Washington
193-	Western U.S. highways	Tidewater Assoc. Oil
1940	Western states	AAA
19-- (strip maps)	Grants Pass, Ore. to San Francisco, Calif.	Redwood Empire Assoc.
1915-16 (strip maps)	Portland, Ore. to San Francisco, Calif.	Pacific Highway Assoc.
1917	Grants Pass, Ore. to Fresno	California State AA
1924	Washington, California & Oregon	Honeyman Hardware Co.
1925	Pacific Coast Auto Camps	Associated Oil Co.
1926	Pacific Highway maps	Pacific Highway Assoc.
1927	Grants Pass, Oregon to Modesto, CA.	California-Oregon- Washington Tourist Association
1930	Oregon-Washington highways	Flying A
1932	Pacific Northwest	Associated Hotels
1932	Washington-Oregon	Texaco Oil

1933 (strip maps)	California-Oregon-Washington	Richfield
193-	Pacific Coast Auto Camps	Associated Oil Co.
193- (pictorial)	Washington-Oregon	Union Oil Co.
	<u>OREGON</u>	
1916-1920	Central Oregon Empire	Spokane, Portland & Seattle RR
1917	Oregon	Southern Pacific Lines
1925 (strip maps)	Old Oregon Trail & Columbia River Highway. Rock Springs, Wyoming to Portland-Seaside, Ore.	Ryder Bros. Printers
1926	Oregon	Shell Oil Co.
1927 (pictorial)	Columbia River & Cascade Mtns.	Spokane, Portland & Seattle RR
1927	Oregon, with a description of its resources, development, topography & climate.	Southern Pacific RR
1930	Oregon, with Seattle, Tacoma and Spokane	Associated Oil
1930-40	Oregon Coast Highway	Oregon Coast Motor Stages
1933	Oregon, highways	U.S. Tourist Ser- vice
1936	Oregon Roads	Shell Oil Co.
1938	Oregon	Standard Oil Co.
191-	Portland, Oregon & Columbia River Highway	Portland Chamber of Commerce
192-	Portland, Oregon	Bekins
1933	Portland city map	Chamber of Commerce
1936	Portland	Pittmon's
1937, 1939	Portland & vicinity	Shell Oil Co.

WASHINGTON

193-	Washington state	Oregon State Motor Association
193-	Washington	Union Oil Co.
193-	Washington & Vancouver, B.C.	U.S. Tourist Service
1936	Washington	Standard Oil Co.
1936	Puget Sound country	Puget Sound Navigation Company

1938	Washington	Washington State Progress Commission
1939	Tacoma-Seattle-Spokane	Standard Oil Co.
193-	Yakima	Kroll Map Co.

CALIFORNIA

1913	Shippers Guide of California Indexed county and township	Southern Pacific RR
1915	Los Angeles to San Diego & counties of Los Angeles, Riverside, Orange San Bernardino & San Diego	A.G. Thurston, Pasadena
1916 (strip maps)	San Francisco to Yuma, Ariz.	Auto Club of So. Ca.
1916	Auto Roads showing relationship of Orange Belt cities to San Ber- nardino mountain resorts, lakes & fishing streams	_____
1914, 1917-18	Southern California & southwestern Nevada	_____
1916	Panoramic view of the Yosemite Val- ley, roads leading to and in the valley, from Los Angeles	_____
1917	San Francisco to San Diego, highways, cities, towns & railways.	A.G. Thurston, Pasadena
1918	California, state highway system, boulevards and good roads.	Auto Club of So. Ca.
1929	Highways of northern California	Shell Oil Co.
1936	West Central section of Calif.	Auto Club of So. Ca.
1937	California motor routes	Security-first National Bank
1939	Outing maps of the Inyo-Sierra Region	Auto Club of So. Ca.
1939	Mojave & Colorado Deserts, Death Val.	_____
1916	Imperial County	_____
1941	Kern County	_____
1938	Los Angeles County	Los Angeles County
1935-40	Los Angeles County	L.A. Chamber of Com.
1940	Mono County	Hayden Co., Glendale
1918	Orange County	Auto Club of So. Ca.
1918, 1939	Riverside County	_____
1917	San Bernardino County	_____
192-	San Diego County	_____
1917	Auto Routes of Santa Barbara County	_____

1918	Tulare County	Auto Club of So. Ca.
1917	Ventura County	_____
193-	Berkeley	Berkeley Chamber of Commerce
1932	Long Beach	Lyon Van & Storage Co.
1939	Long Beach & vicinity	Standard Oil Co.
1915	Principal auto routes in & out of Los Angeles	Auto Club of So. Ca.
1915	Los Angeles to the beaches in Los Angeles & Orange Counties	_____
1922	Los Angeles & vicinity	California Bank
1923	Los Angeles, Pasadena, Glendale	Security Trust & Sav.
1924	Auto Trails of Los Angeles and vicinity	Rand McNally
1925	Los Angeles	Bekins
1927	Los Angeles	Lyon Storage Co.
1928	Los Angeles & adjoining cities	Security Trust & Sav.
1929	Los Angeles & adjacent towns	California Bank
1929	City of Los Angeles	Chamber of Commerce
1930	Los Angeles	Clason Map Co.
193-	Western Portion of Los Angeles	E. F. Hill
1930-33	Los Angeles, Hollywood, Pasadena	Security First National
193-	Central Portion of Los Angeles	Auto Club of So. Ca.
1938, 1940	Los Angeles & vicinity	_____
1916	Auto map of Pasadena & vicinity	_____
1915	Redlands, California	_____
194-	Riverside, California	Chamber of Commerce
193- (pictorial)	Sacramento, map & guide to points of interest	_____
1915	San Diego city	Auto Club of So. Ca.
1926	San Diego County	San Diego Trust & Sav.
193-	San Diego, La Jolla street guide	Shell Oil Co.
1940	San Diego	Union 76 Oil Co.
193-	San Jose & Santa Clara County	Chamber of Commerce
1915	Santa Barbara & vicinity	Auto Club of So. Ca.
1916	Santa Cruz to San Jose	_____
1938	Official Information Guide to San Francisco & Bay cities	Southern Pacific RR

1939	San Francisco & East Bay cities	Standard Oil Co.
193-	Van Nuys & vicinity	Van Nuys Transfer & Storage

NOTE: Cartographers for early petroleum company road maps are generally H.M. Goushā Co. of San Jose, California; or, the Rand McNally Co. of Chicago, Illinois. The American Automobile Association and Auto Club of Southern California are known to have employed their own map designers and draftsmen. (see Otness: W Assn Map Lib Inf Bull 6(3):7-14, 1975.)

Duplicates

Central Washington University, Documents/Maps Department has available the following 7.5-minute quadrangles, a total of 2,019. Please include self-addressed mailing labels and please refund postage upon receipt of package.

Peter Stark, Library, Documents/Maps Dept., Central Washington University, Ellensburg, WA 98926

<u>STATE</u>	<u>NUMBER OF SHEETS</u>	<u>STATE</u>	<u>NUMBER OF SHEETS</u>
Alabama	56	New Jersey	6
Arkansas	8	New York	138
Delaware	1	North Dakota	31
Florida	90	Ohio	106
Georgia	15	Oklahoma	75
Illinois	106	Pennsylvania	148
Indiana	117	South Carolina	29
Kansas	65	South Dakota	7
Kentucky	59	Tennessee	65
Louisiana	114	Texas	248
Maryland	42	Vermont	6
Michigan	45	Virginia	273
Minnesota	42	West Virginia	27
Mississippi	37	Wisconsin	21
Missouri	42		

ATLAS & BOOK REVIEWS

Review Editor:

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New Hampshire Maps to 1900

Cobb, David A. New Hampshire Maps to 1900: An Annotated Checklist. Hanover, New Hampshire : Published by the New Hampshire Historical Society and Distributed by the University Press of New England, 1981. 106 p. \$12.00. LC: 78-63588. ISBN: 0-87451-166-6.

Long needed in the United States are cartobibliographies, checklists, and/or printed catalogs describing the maps of our individual states. Fortunately, in recent years there has been a growing number of significant state map lists available in printed form. Works that immediately come to mind are Riley Moffat's Printed Maps of Utah to 1900 published in 1981 by WAML; Newberry Library's stupendous Checklist of Printed Maps of the Middle West encompassing in eleven volumes the states of Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; and David A. Cobb's Vermont Maps Prior to 1900. Recently published by the New Hampshire Historical Society is another state list by David Cobb. Entitled New Hampshire Maps to 1900: An Annotated Checklist, this list describes 516 printed maps and atlases dating from 1699 to 1899. Manuscript maps, despite their relevance and importance to the study of the cartography of the State, are excluded. Each entry includes seven categories of information: 1, authority; 2, title; 3, imprint; 4, map scale; 5, collation; 6, location; and 7, description. The list is preceded by a 3½-page introduction containing an all-too-brief thumb-nail sketch of the history of mapping of New Hampshire. Three useful appendices follow the main body of the work: Appendix A is a list of U.S. Geological Survey sheets; Appendix B describes the Sanborn fire insurance maps of New Hampshire found in the Library of Congress, Dartmouth College Library, and the New Hampshire Historical Society; and Appendix C is an index of place name changes. The work concludes with a list of biographical references consulted in the preparation of the checklist, an "index of authors, engravers, and publishers" and an "index of places and railroads."

One could quibble with bibliographical details, such as the compiler's reference to Volumes Five and Six of Clara Egli LeGear's A List of Geographical Atlases in the Library of Congress, but his failure to mention Volumes Seven and Eight of this same work (published in 1973 and 1974), volumes - by the way - which describe over 8,000 atlases of the Western Hemisphere added to LC's collections between 1920 and 1969.

A serious flaw, however, is the lack of any clear statement explaining the comprehensiveness of this list. For a reference librarian or researcher relying on this checklist, this could be a serious matter. Although there are twenty-two institutions cited in the list of locational symbols, no indication

is given on how thoroughly the compiler examined these collections. The references to the Public Record Office and the British Museum (i.e., Library), for example, appear to have come from a selection of photocopies on file in the Library of Congress and not from any systematic review of the holdings of these great English repositories. Even the British Library's fifteen volume catalog of its printed maps is not cited in the list of references consulted by the compiler.

Nevertheless, this is a useful checklist and is a must for anyone maintaining a collection of reference books on the cartography of the United States.

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Bantam Great Outdoors Guide

Landi, Val. The Bantam Great Outdoors Guide to the United States and Canada : The Complete Travel Encyclopedia and Wilderness Guide.
New York : Bantam Books, 1978. 854 p. \$12.95. LC: 79-101374.
ISBN: 0-553-01112-X.

Any work that advertises itself in its title or subtitle as "the complete ..." is immediately suspect. But the work at hand contains so much useful information on outdoor recreation that any initial skepticism on this point quickly passes. One is barraged with charts of record fish, descriptions of wilderness, parks, and forests, history and lore, addresses for more information and names of reliable outfitters. In short, so much is provided that there is little time to be skeptical about such things as completeness. Gaps are found, but with a little more reading they are usually filled. In its pages on California, for instance, it does not mention wild boar hunting on Santa Cruz Island, but it does list addresses that quite probably will net adequate information on this sport. Though "complete" is a rarely fulfilled absolute since the beginning of the information explosion, Landi's guide comes courageously close to being just that.

Sensibly arranged by region then by state or province and with a clear emphasis on backpacking, canoeing, fishing and hunting, the book lists and annotates thousands of sources for recreation publications issued by public agencies and private organizations. Often noted publications are illustrated in the text. By using the addresses provided, a library or individual could build an impressive vertical file of tourist pamphlets, maps, trail guides, and other types of recreation literature without cost.

Though nearly four years old, we can expect that without revision the information could become dated. Since the book's primary purpose is to introduce the reader to the recreation potential of each state and province, then inform as to sources for further more detailed information, currency is of utmost importance. A small random sample of addresses (20) were used to request cited maps and publications. Agencies and organizations were given three

months to respond to the requests for material listed as free of cost, while no two requests were sent to the same state. Fifteen or 75% responded either with the item (12), out-of-print regrets (2) or a price list (1). Five failed to respond at all. While 75% is not a poor showing, it illustrates what nearly four years can do to the currency of this type of publication. Another four years could be ruinous.

Maps are accorded an important place in the book. Citations for U.S.G.S. maps abound and care has been taken to describe their features, but prices given for them are no longer in force and the constant use of the terms "large scale map" and "small scale map" is upsetting. Scales and minute dimensions often do not accompany the map citation and could lead to problems when ordering. Canadian maps still carry the lower pre-1980 prices. Citations for privately issued maps are also found throughout the work and thus can aid in map acquisition. In light of inflation and the passing of time, expect to write an initial letter to discover the current price and availability and another to order.

"The Great Outdoors Atlas" bound in the middle of the book consists of color oblique bird's-eye views of eight National Parks. They are both accurate and useful maps but as they are bound into the text, the center is obscured. Regions are introduced with maps that can only be described as minimal black and white sketches. The maps in the text cannot really help in planning an outdoor vacation. A good road atlas can supplement the text far better than the maps provided.

The guide contains much information that will never become outdated. It warns of rattlesnakes on the Great Plains, remedies for the flies in British Columbia, richly describes regions and states, and even retells stories of Big-foot. Roughly a third of the book is made up of such material that can be useful for many years.

The low price and high information content is certainly enough to recommend the book to all. By utilizing its greatest strength, that is the addresses for free and low cost maps and publications, the book can easily pay for itself. Cautious folk might want to wait for Joyce and Jeremiah Post's new work, Travel in the United States (Gale, 1981), for comparison purposes.

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Cartography of Northern Virginia

Stephenson, Richard W., ed. The Cartography of Northern Virginia: Facsimile Reproductions of Maps Dating From 1608 to 1915. Fairfax, Virginia: Fairfax County, Office of Comprehensive Planning, History and Archaeology Section, 1981. 145 p. LC: 81-65210.

Publication of collections of maps of particular areas is a well-established cartographic tradition. Sometimes the area is a country, a state (province), a county, or, as in this case, a district. Although the area covered in The Cartography of Northern Virginia is relatively small, it is of exceptional interest being now functionally related to Washington, D.C. Moreover, the cartographers represented include some of the best-known names in the his-

tory of the United States--Washington, Jefferson, Madison, etc.

The facsimile atlas grew out of a series of lectures on local history and through the joint efforts of local historians and employees of the Federal Government. The Editor, Dick Stephenson, as readers of the Information Bulletin of the Western Association of Map Libraries will know, is a distinguished author of works on American maps and mapping and a valued member of the Geography and Map Division of the Library of Congress. The Division has recently returned to splendid quarters in the new Madison Building of the Library in Washington, D.C., after a long sojourn in Alexandria, Virginia.

It is from the Library of Congress map collections that all but three of the 122 maps in the atlas are drawn, but other Federal and local collections were consulted. As Stephenson tells us in his Preface, the maps range from Captain John Smith's map of Virginia, 1608, to a 'modern' topographic map of the second decade of the twentieth century. More contemporary maps of the area, aerial photographs, and satellite imagery are specifically excluded although there must have been a great temptation to include some of the latter especially. The maps are arranged chronologically with five from the seventeenth century and seventeen from the eighteenth century. Some of these, such as the general maps of the area by Smith, Herrman, Fry/Jefferson, etc., are well known but others, of a more detailed character showing early townsites and military camps, will be less familiar.

These and other cartographic genres are continued in the maps from the nineteenth century, which accounts for most of the coverage. The new forms which appear from this period include bird's-eye views and real estate promotion maps and plats. All twelve plates from the City Atlas of Alexandria, Virginia, 1877, of Griffith M. Hopkins are included, in effect an 'atlas within an atlas'. From the same cartographer's Atlas of Fifteen Miles Around Washington of 1879, eleven maps are reproduced.

The cadastral tradition continues in the maps of the early twentieth century but, in addition, there are topographic and soils maps. The latter suffer particularly in reproduction because of the complexity of the symbolization. All of the illustrations in the atlas are reproduced in black and white whatever the state of the originals. The large format of the atlas, 28 x 38 cms., allows for generous reproduction. Where the original map is of a much larger area than northern Virginia, the wise decision has been made to reproduce only the portion of the special interest in order to maintain a reasonable scale.

In addition to the Preface, there is a twelve page Introduction which amounts to a history of the maps and a Guide to the arrangement of multi-plate maps. As we would expect, considering the editorship of the volume, a useful Bibliography of Maps Reproduced with Repository Reference Numbers is included. A short Index/gazetteer completes the work.

All map libraries, many general libraries, and, depending on their interests, some private collectors will want to acquire this publication. In essence, The Cartography of Northern Virginia...1608 to 1915 is a microcosm of much of the mapping of the United States during the rather more than three hundred years which it covers.

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Hodgkiss, A.G. Understanding Maps: A Systematic History of Their Use and Development. Folkestone, Kent, England: Dawson, 1981. 209 p. \$40. ISBN: 0-7129-0940-0.

There is a wealth of information in Understanding Maps: insights into how a map functions as a medium of communication; how a map is constructed; and, the development and kinds of cartographic symbols. Separate chapters cover the growth of the different types of maps, i.e., nautical charts, world maps, route maps, thematic maps, etc.

Yet, despite this abundance of data, the book fails to fulfill the promise of its lengthy title because it tries to do too much in too few pages. The history of maps, systematic or otherwise, deserves more space in order to be told effectively. The text becomes a mere listing of qualities and descriptions, with only a spartan use of narrative to connect them. The reader is worn down under this barrage and eventually driven to confusion. An example:

One of the hallmarks of the Renaissance was the 'universal genius' such as Leonardo da Vinci, who among his manifold accomplishments tried his hand in mapmaking. The Flemish cartographer, Mercator, was another such man. His diverse talents included engraving, instrument making, surveying and the manufacture of globes, as well as those of outstanding geographer and mapmaker. He is best known today for his cylindrical projection which served as the framework of his great world map of 1569. The various distortions introduced by the Mercator projection have been mentioned but on the credit side Mercator improved the delineation of south-east Asia and Central America, made a partial correction of Ptolemy's incorrect measurement of the Mediterranean Sea, and showed particular concern about the choice of a calligraphic style which would help convey information quickly, clearly and pleasingly. (Page 85.)

Without taking a breath, the author has mentioned the cartographic worth of Leonardo da Vinci, compared him with Mercator, listed the latter's major contributions, and even threw in Ptolemy's distortion.

Instead of a continuous chronology found in most histories of cartography, Hodgkiss has decided to devote one chapter to each kind of map and its history. In some chapters, the history goes back to the ancient world, in others, only to the 15th or 16th centuries. There is no clear reason why Hodgkiss has chosen this particular methodology, and it does nothing but detract from the overall impact of the book, forcing the reader to go back and forth in time, sometimes covering the same period twice, three, even four times or more. What is lost is the sense of unity in the history of cartography, a unity that shows how the different kinds of maps shared facts and techniques during their collective history.

In the book's favor, however, is the number of illustrations. Though they are not in color, they do go beyond the usual collection of map reproductions and details found in most histories. These illustrations are clearly

labeled and related to the discussion in the text. The two chapters, "Official Mapmaking" and "Modern Commercial and Private Cartography" are the best written in the whole book. Neither chapter suffers from the barren syntax of the earlier chapters. Overall, however, the book does set itself too broad a topic for too little space. More prudent writing and editing or a few hundred more pages could have salvaged the whole project.

The book is not recommended for purchase, especially at a price of \$40.

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Ryder's Standard Geographic Reference

Ryder, Nicholas G. Ryder's Standard Geographic Reference. Denver: Ryder Geosystems, 1981. 215 p. \$39.95. ISBN: 0-941784-00-2.

One can't resist the impulse to flip first to one's home state to see what the old home town looks like from Landsat; and that's just the beginning of the fun, for Nicholas Ryder has put together a most interesting satellite photo-atlas of the United States. This will be a valuable resource for many, from geologists and geographers, to pilots, students at all levels, and the casual traveler.

The volume measures 33 x 26 centimeters, with 169 pages of very well-indexed satellite imagery, overprinted with lines of latitude and longitude, state and international boundaries, major highways, cities and towns and significant geographical features, as well as VOR stations [Very high frequency Omnidirectional Radio, used by pilots for navigation] and Landsat image center-points with path and row numbers noted. There is sufficient overlapping of images to make all points clearly visible.

The volume is further enhanced by four appendixes and three indexes. There is an orientation to the Landsat system with an easily understood explanation of how the images are assembled, and how one may obtain a copy of a photograph. An explanation of all symbols used, an interpretation guide to the photo images seen on the maps, where to write for other geographic information, and indexes of place names, VOR navigation stations, and a Landsat center-point index by path and row numbers.

Ryder's Standard Geographical Reference is an attractive work, packed with information that has not before been so readily available or so easily accessed.

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Camponi, Linda, comp. Maps of Indian Reserves in the National Map Collection. Volume 1: British Columbia. Ottawa: Public Archives of Canada, National Map Collection, 1980. 157 p. Free. ISBN: 0-662-50525-5.

This volume is the first in a series which will cover the whole of Canada. As British Columbia has about 1600 reserves, out of close to 2300 for Canada, it seems an appropriate place to start. A preface indicates the major collections that are included (over half are from the Central Registry System of the Indian Affairs Branch) and an introduction gives a useful historical summary of Indian relations with the Government in B.C. and the Federal Government.

The maps themselves are listed alphabetically by reserve using the Schedule of Reserves and Settlements (Ottawa: Dept. of Indian Affairs and Northern Development, 1972) as an authority wherever possible. Agency names are used when it is not possible to use a reserve name, but users are warned that agency boundaries have changed and it may be necessary to look under more than one agency name. Within each entry the maps are listed chronologically and cross references are made when more than one reserve is listed on a map or a reserve has an alternate name or spelling. The entries are clear and easy to read and illustrated with twenty-eight examples of different types of maps.

The listing does not claim to be definitive and indeed cannot be as there is much material relating to Indian reserves located in Provincial archives and other government departments. As Geoff Castle of the Provincial Archives of British Columbia points out, the holdings of the Legal Surveys Division, Surveys and Lands Records and the Ministry of Lands, Parks and Housing (both in Victoria, B.C.) are extensive [ACML Bulletin No. 40, Sept. 1981, p. 52]. Perhaps some mention of these further sources could have been made.

However, this is a very useful publication and is particularly timely in view of the renewed interest of Native Indians in their heritage and the recent growth of research into Indian affairs by scholars and other interested people. The National Map Collection is to be congratulated on its achievement.

EDITOR'S NOTE:

Volume II of this work has been published. See Publications of Relevance for details; i.e., under Camponi, Linda.

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Computer in Contemporary Cartography

Taylor, D.R. Fraser, ed. The Computer in Contemporary Cartography. Progress in Contemporary Cartography, Volume 1. Chichester, England: John Wiley, 1980. 252 p. \$41.25. LC: 79-42727. ISBN: 0-471-27699-5.

This collection of essays signals the beginning of a continuing series intended to review and report significant progress in theories, methods, and empirical research in modern cartography. Much of the research and publication in cartography over the past decade bears some relationship to computer

assistance. It is appropriate, therefore, that the purpose of the first volume is to assess the impact of the computer on contemporary cartography. As one of the first books to present a fairly comprehensive review of methodology and research related to computer-assisted cartography (CAC), Taylor's effort serves to elevate the subject from the realm of user's manuals, technical papers, and research reports.

The volume brings together contributions from an international group, representing Canada, Norway, the United Kingdom, the United States, and Sweden, which has been involved in research and development in CAC for many years. Eleven chapters represent a broad spectrum of topics which range from the impact of computer technology on cartographic change to computer applications in soil, geologic, and census mapping. Each of the essays is loosely structured around a common framework: data capture, spatial referencing, data manipulation, and data display. Though their backgrounds, topics, and outlooks differ, all authors address, directly or indirectly, the issue of cost. While their opinions and estimates vary, the bulk of the evidence supports the view that the cost impact of CAC is a positive one.

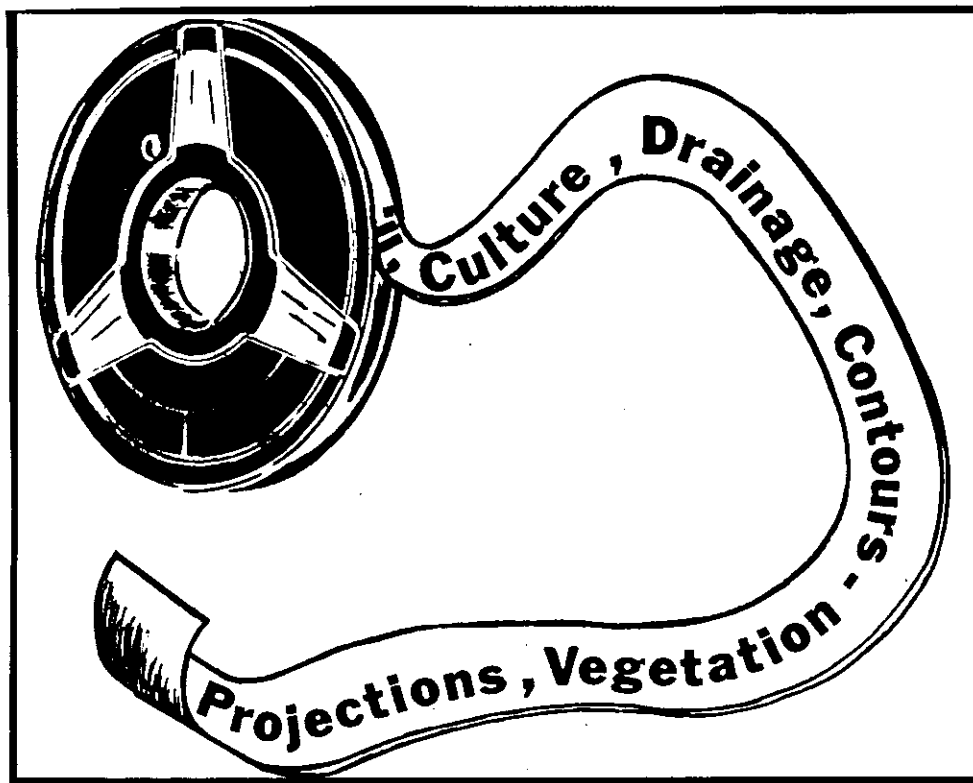
Most of the research and development work in CAC to date has been of a technical kind where the primary concern often has been to provide technical solutions to limited, practical problems. Many of the technical improvements which have occurred stem from work outside the field of cartography. For primarily these reasons, an unstandardized and often intimidating vocabulary of acronyms and jargon has evolved in recent years. In introducing the essays, Taylor attempts to standardize certain terms. Within the field of CAC today, for example, it is possible to distinguish between two different types of map production: automated mapping and computer mapping. The former involves the automation of many of the map-making processes with the goal to produce maps similar in style, design, and content to existing topographic maps. Computer mapping, on the other hand, is concerned with the production of maps utilizing primarily the analytical power of the computer. These tend to be of a thematic variety which rarely reach the high standard of precision of those produced by automated mapping and which may be very different products from conventional maps. Though it is possible to combine elements of both in one mapping system, most research and production in CAC today tends to lean toward one end of the spectrum or the other and, thus, follows the broader division of labor in cartography between reference and thematic mapping.

The first two essays by Morrison and Rhind, perhaps the most important contributions to the volume, consider from rather different perspectives the general nature of CAC and its impact on the discipline. Boyle reviews developments in equipment and techniques and emphasizes the changes which have occurred over the past five years. Computing technology and equipment change so quickly that some of the material that Boyle and others present undoubtedly will become outdated within the next five years. Harris discusses topographic mapping by computer which is complemented by later chapters on soil mapping and geologic mapping by Bie and Gold respectively. These applications illustrate the strong linkages between the environmental sciences and cartography, as emphasized by Bickmore in the concluding chapter. The contribution by Ottoson and Rystedt describes how Swedish researchers, whose work dates from the mid-1950s, have achieved a greater degree of integration between automated and computer mapping than elsewhere. Broome and Witiuk document the approaches used in mapping census data by computer in Canada and the United States, and

emphasize the difficulty in merging statistical and topographic data bases. Waugh describes the development, implementation, and application of the GIMMS thematic mapping system. The volume concludes with Bickmore's thoughts on future research and development in computer-assisted cartography.

The publication of these essays is well-timed since it occurs during a period of transition between two phases in the implementation of computer-assisted technology. We are now nearing the end of a phase in which the discipline is enjoying the new technology's ability to replicate, often at lower costs, previous manual mapping methods. The next phase--full implementation including expanded potentials for the discipline--lies on the horizon. The volume represents an important benchmark in that it permits advanced students, researchers, and professionals to assess the effects wrought on the discipline and the progress attained by the adaptation of computer assistance.

John D. Stephens
Assistant Professor of Geo-
graphy
University of California
Los Angeles, CA 90024



News Notes !

- ¶ THE AUSTRALIAN MAP CURATORS' CIRCLE announced the most recent venture into the field of facsimile map publishing in a prospectus that accompanied Newsletter 22 (December 1981):

MAP OF AUSTRALIA by James Wyld - circa 1851. An edition limited to 250, each one serially numbered and signed, this facsimile is being produced with the permission of the National Library of Australia, printed by Canberra Press in full color, and sales are being limited, one per customer. The price is \$Aust. 50.00, which includes postage, packaging and delivery by surface mail.

The Business Manager, AMCC, 9 Fortune St., Box Hill, Victoria, 3129, Aust.

The 1982 Conference of AMCC was held from February 9 thru February 12 at the Canberra College of Advanced Education, Belconnen, A.C.T.

- ¶ THE ASSOCIATION OF CANADIAN MAP LIBRARIES 1982 Annual Conference is to be held at the Public Archives of Canada, Ottawa, August 16-20, 1982. It was announced in the November 1981 (Vol. 13, No. 1) issue of the Information Bulletin (page 65). It was inadvertently stated that an exhibition would be held in conjunction with this conference, and the title of Treasurers of the National Map Collection was given. That should have read Treasures of Keepers of treasures are Treasurers, are they not? Map Librarians are then, treasurers!

The Program will consist of papers on the conference theme of MAP PRODUCERS AND MAP COLLECTIONS; PERSPECTIVES ON CO-OPERATION and/or any submitted papers; sessions and panel discussions on cartographic communication, institutionalizing depository arrangements, and standardization of marginal information. Demonstrations of video-disc technology and Telidon will be seen. There will be a layman's introduction to basic design structures of computer systems for bibliography, such as DOBIS, MINISIS, and UTLAS.

- ¶ The BULLETIN 38 ASSOCIATION OF CANADIAN MAP LIBRARIES includes the following articles by WAML Members: (March 1981 issue)

Exploration and Survey of the Kootenay District 1800/1918, by Frances M. Woodward

In Which We Serve: Map Libraries and Our Clientele - a report on activities at the University Map Collection at the University of Alberta, by Ronald Whistance-Smith

A review by Alberta Auringer Wood of The Map Librarian in the Modern World; Essays in Honour of Walter W. Ristow

A review by Ronald Whistance-Smith of Kitimat-Stikine Regional District...

¶ LIBRARY TRENDS - CORRECTION: 350,000 not 35,000,000

In the Winter 1981 issue of Library Trends (an issue devoted to Map Librarianship and Map Collections), Stanley D. Stevens reported the results of his survey conducted for that special issue. His article, *Map and Aerial Photo Collections in the United States: Survey of the Seventy Largest Collections*, identified the National Capital Planning Commission, Washington, D.C., as ranking Number 1 in the country with 35,250,656 items, including ...35 million maps on microform....

The data was collected from questionnaires sent to each of the seventy map collections, selected from the third edition of Map Collections in the United States and Canada; the National Capital Planning Commission responded with the following answer to Question 3 which asked for the Size of the Collection:

Maps	250,000	
atlases	16	
globes	—	
relief models	20	{copies of response available on request}
aerial photographs	600	
ref. bks. & gazett	20	
serials (titles...)	{blank}	
microforms (# maps)	35,000,000	

Larry Cruse, Map Section, University Library, University of California, San Diego, being curious about all matters related to microcartography, wrote to Francis H. Deter, Jr., Chief, Carto/Graphic Branch, National Capital Planning Commission, 1325 G Street NW, Washington, D.C. 20576, to inquire about the collection of microforms. Mr. Deter responded as follows:

The contents of our microfilm map file system are mainly maps depicting Federal projects within the National Capital Region (The District of Columbia and adjacent jurisdictions in Maryland and Virginia).

Although there is not an accurate count of the microforms in existence, from the most recent sequence number assigned an estimate can be made. Our most recent sequence numbers are between 29,000 and 30,000. In very many cases an entire set, consisting of as many as fifty or more maps, will be filed under one sequence number. In other cases there may be only one map filed. It is estimated that on an average there are ten. An estimate of the total microforms on file is therefore between 290,000 and 300,000, or slightly more than a quarter of a million.

There are many NCPC maps, photographs, and other graphics contained in our files and in the files of the National Archives which have not been micro-filmed. It is estimated that there may be as many as 50,000 of these.

The total number of items which have been placed on file by this office would then approach 350,000, or 1/100 of the number attributed to our collection by Mr. Stevens.

We are grateful to Mr. Deter, and to Larry Cruse for reporting his response, for clarification of this matter. While apologies for reporting the facts as we know them are not appropriate, it is hoped that the error did not cause anyone major difficulty. As noted in the concluding remarks of the Library Trends article, it is hoped that this survey has answered some questions; it undoubtedly will raise others.

sds

¶ THE NEWBERRY LIBRARY, SUMMER INSTITUTE IN CARTOGRAPHY, Chicago, Illinois

A four-week series of lectures and workshops on the study, use, and creation of maps for faculty in the humanities and social sciences and college and university map librarians. This is a joint program of the National Endowment for the Humanities and the Hermon Dunlap Smith Center for the History of Cartography at the Newberry Library.

Thirty participants will be selected: 20 faculty, 10 map librarians. Stipends of \$1,500., as well as a grant of up to \$250. toward travel costs, will be awarded to successful applicants. The institution of the participant must pay a \$200. registration fee for materials.

Four courses are offered: (1) The history and principles of cartography, taught by David Woodward, Professor of Geography, University of Wisconsin; (2) The use and evaluation of maps in historical research, taught by David Buisseret, Director, Hermon Dunlap Smith Center for the History of Cartography; (3) Historical map and atlas making, taught by John H. Long, Project Director, Historical Boundary Data File Project, the Newberry Library; (4) Antiquarian map librarianship, taught by Robert W. Karrow, Jr., Curator of Maps, the Newberry Library.

Visiting faculty include: Louis DeVorse, Professor of Geography, University of Georgia; Kenneth Nebenzahl of Kenneth Nebenzahl Inc., Chicago; Barbara B. Petchenik, Cartographic Services, R.R. Donnelley & Sons; Thomas J. Schlereth, Associate Professor of History, Notre Dame University.

Applications are due March 15, 1982; applicants will be informed of the selections shortly after April 1, 1982. For additional information and application forms, write or call: Summer Institute in Cartography, The Newberry Library, 60 West Walton Street, Chicago, IL 60610; (312) 943-9090, ext. 214.

¶ INTERNATIONAL CARTOGRAPHIC ASSOCIATION - 11th International Cartographic Conference, July 29 - August 4, 1982 - Warsaw, Poland

Pre-Conference Information may be requested from: Ms. Lidia Sitek, Institute of Geodesy and Cartography, ul. Jasna 2/4, 00-950 Warszawa, Poland; Telephone: 27-76-13 Telex: 812355 ppgk pl

Sponsored by the Polish National Cartographic Committee, the Head Office of Geodesy and Cartography, and the Institute of Geodesy and Cartography, this program will be held at the Palace of Culture and Science in Warsaw. The official languages of the Conference will be English and French with simultaneous translations into French, English, and Polish. The theme of the conference is: THEORETICAL AND PRACTICAL PROBLEMS OF THEMATIC CARTOGRAPHY. In addition to the six Plenary Sessions devoted to six aspects of the theme, one open session and two evening discussion sessions, there will be exhibitions and a special exhibition of OLD MAPS AND ATLASES OF THE NATIONAL LIBRARY IN WARSAW. There will be a choice of two of the following tours: (1) the Cartographic Dept. of Warsaw University; (2) the Faculty of Geodesy and Cartography of the Warsaw Technical University; (3) The State Cartographical Publishing House; (4) the Geological Publishers; (5) the Institute of Geodesy and Cartography and its Remote Sensing Centre; and (6) Warsaw Geodesy Office (WPG).

The Second Circular provides rates for travel, housing, etc.

¶ LIBRARY OF CONGRESS GEOGRAPHY & MAP DIVISION 31st SPECIAL PROJECT 1982

The Library of Congress Geography and Map Division will sponsor the 31st annual Special Project during the summer of 1982. As in recent years, the 1982 Project will be limited to cooperative participants. (EDITOR'S NOTE: During earlier years of the Project, LC was able to offer limited salaries to participants. Due to limited financial resources, therefore, the Geography and Map Division has been unable to pay for any part of the participants' work. The term cooperative is euphuistic for *the participant and his sponsoring institution is responsible for salary and transportation and accommodation for the six-week period*. This note is meant to highlight that the benefits to the participant and institution are considered worthy of their financial commitment.)

University and college libraries and geography departments, and public and research libraries are invited to participate in the 1982 Project according to the following procedures. (*Invitation dated 1-10-82, received 2-10-82*)

Qualified librarians, faculty members, or students will be accepted as cooperative participants. Sponsoring institutions are responsible for salaries and transportation costs of participants. Project members work with permanent staff members of the Geography and Map Division on various tasks related to technical processing, and bibliographic and reference services. In exchange for services rendered they select, from surplus duplicate stocks, maps, charts, and atlases, for transmittal to their sponsoring institutions. A selection of up to 1,000 maps (or their equivalent in atlases) is made for each week of participation.

The 1982 Project will begin on Tuesday, July 6th and terminate Friday, August 13th. For maximum benefits to the institution and representative, participation for the full six-week period is encouraged. In view of current budgetary restrictions, a limited number of four-week participants will be accepted. Project members are expected to report at 9:00 a.m., July 6, to Room B02, James Madison Memorial Building, Library of Congress, 1st and Independence, S.E., Washington, D.C.

Requests have, in recent years, far exceeded the number of participants who could be accommodated. An early reply to this announcement is recommended. To assist in making selections and work assignments, prospective participants are asked to fill out a questionnaire provided by G&M Division, and provide a list in priority order of the types of cartographic works (single maps, set maps, etc.) and geographic coverage (Australia, Minnesota, etc.) that are desired.

One of the objectives of the G&M Special Project is to process quantities of non-current maps, charts, and atlases, received by transfer from various Federal agencies. Providing professional and clerical assistance to members of the staff is also an important objective. Although Projects are not designed as workshops or training sessions, participants benefit from experience gained by working in a large map library with highly qualified professionals. A series of lectures by senior staff members will deal with specialized aspects of map librarianship and introduce participants to distinctive segments of the cartographic collections.

For more information please contact Ralph E. Ehrenberg, Assistant Chief, Geography and Map Division, The Library of Congress, Washington, D.C. 20540. (*See also: Library of Congress Summer Project Acquisitions, by Muriel Strickland, Information Bulletin, Vol. 10, No. 1 (November 1978) pp. 67-71.*)

¶ SURVEY OF BORDER REVEALS IOWA AS SCENE OF CRIME

OMAHA, Neb. (AP) — Christopher LeGear's trial on charges of tossing a woman off a bridge to her death had just gotten under way when officials discovered he had been charged in the wrong state.

A survey of the border between Nebraska and Iowa, conducted at the request of the Douglas County deputy attorney, showed the killing occurred in Iowa — not Nebraska, authorities learned Monday. The murder trial was halted the day after it began.

LeGear refused extradition to Iowa on Tuesday. It's now up to the governor of Iowa to ask the governor of Nebraska for a warrant.

Officials said a misplaced sign led to the confusion.

¶ LIKE STRESS? TRY MAPPING - U.S. OFFICE OF GEOGRAPHER PERFORMS VITAL SERVICE

WASHINGTON (New York Times News Service) — Frequently at 3 a.m., J. Millard Burr sits bolt upright in his bed, lights a cigarette and worries. Lately, he has been worrying about a boundary dispute over the Wakhan Corridor of Afghanistan, where China fears the Soviet Union is attempting to extend its boundaries.

This was the lead on a lengthy article regarding the Office of the Geographer, U.S. Department of State, that appeared in newspapers throughout the country about October 3, 1981.

¶ NORTH AMERICAN CARTOGRAPHIC INFORMATION SOCIETY - FIRST ANNUAL MEETING

The First Annual Meeting of NACIS was held in Gatlinburg, Tennessee, on Sept. 30 to Oct. 3, 1981. In addition to the all-day tours (TVA in Chattanooga, etc.), several presentations kept the participants interested:

Design concepts for a cartographic information system, by Daniel Garnett

Holistic government and the geographic information system, Glen Daidre

Aeronautical cartography is more than a chart, by Walter J. Chappas

KGS - NCIC: Kentucky's First Year as an NCIC State Affiliate, Patrick H. McHaffie (Kentucky Geological Survey)

University Landsat Imagery Consortium, by Christopher Baruth

Don Daidone, Map Librarian, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, was host of the meeting.

Gary North, USGS National Mapping Division, was the featured speaker at a banquet - he spoke on *25 years in Wigits and Digits*.

MAP GAP is the title of the NACISociety, published irregularly, edited by Karl Proehl, Pattee Library-Maps Section, Penn State University, University Park, PA 16802.

Officers for 1982 are: President, Christine Reinhard, State Cartographer's Office, Madison, Wisconsin; President Elect, Don Daidone, Virginia Tech, Blacksburg, Virginia; Treasurer, Mike Fox, State Historical Society, Madison, Wisconsin; Secretary, Christopher Baruth, AGS Collection, University of Wisconsin, Milwaukee. Next year's meeting is tentatively scheduled for Washington, D.C., on October 6 - 8.

- ¶ CHAMPION MAP CORP., P.O. Box 5545, Charlotte, North Carolina 28225
(phone): 704-596-7714 or Toll Free 1-800-438-7406

This map publisher is offering a Special Variety Package consisting of 350 different folded city and state road maps for \$700., less a 25% College Library discount of \$175., leaving a total of \$525.00.

Champion publishes road maps for over 1500 cities and states of the U.S.

- ¶ 1:250,000 UNIFIED HEMISPHERIC MAPPING SERIES - Update

A letter dated 20 October 1981 from Robert L. Senter, Program Manager of this series, as well as a letter on 14 January 1982, informs us of the status of this project.

The Pan American Institute of Geography and History, Commission on Cartography, is the sponsor of this Program. In theory, the entire hemisphere will be covered by this series. By the end of the year, however, only two maps (Guadalajara and Puerto Vallarta, Mexico) have been distributed (and the distribution has been met with mixed results). Distribution is, according to the October letter, transferred to the DMA Distribution Center, Clearfield, Utah. Senter had expected during 1981 that 38 additional sheets would be added to the program from Mexico, six from Peru, one each from Haiti and Costa Rica. The January letter indicated that Mexico had published 55 more map sheets and had 17 others at the printer. The Mexico mapping agency would ship its production to the Clearfield distribution center in February. Also, Mexico is publishing the first map sheet (NE 18-4) (of a total of three) for Haiti (NE 18-7 & NE 18-8 remaining).

Senter is coordinating the distribution, although it will be actually done by the DMA Distribution Center, so questions should be directed to him at the address below. He indicates that the PAIGH Commission on Cartography will continue to handle the billing from Mexico City.

ROBERT L. SENTER, PAIGH Program Manager, DMA InterAmerican Geodetic Survey, Building 144, Fort Sam Houston, Texas 78234

- ¶ MAP ONLINE USERS GROUP - NEWSLETTER No. 9 - February 1982

Editor: Laura M. Macqueen, Library, MS 950, U.S. Geological Survey, Reston, VA 22092 (phone 703 - 860-6679)

A Workshop, sponsored by the OCLC Subgroup, will be held March ^{15 16 17}~~25~~, 26, 27, 1982 at the OCLC Headquarters, Dublin, Ohio. Registration fee is \$15, payable to Map Online Users Group, remit to: June C. Harris, 1411 Golden Ave., Apt. 1, Ann Arbor, MI 48104 REGISTRATION DEADLINE IS MARCH ¹⁵~~31~~, 1982.

The program on Thursday, March ¹⁵~~25~~, will include Map Cataloging under AACR 2 by MARY LARSGAARD; the Friday program will be a continuation of the workshop and a tour of the new OCLC facilities; Saturday will have MARC tagging under AACR2 (by ELIZABETH MANGAN).

MOUG will have its annual meeting in Detroit on Tuesday, June 8 from 9 to 11am. This is in conjunction with the annual meeting of Special Libraries Assn., which is June 5 - 10, 1982.

¶ NEW CARTOGRAPHIC ESTABLISHMENT IN IRAN

Dave Deckelbaum, UCLA Map Library, furnished the recent blurb from Saeed Bakhtiari, Executive Director of GITA SHENASSI. This is a new firm in the field of geography and related matters in Iran.

A list of 41 maps indicates that four are English text, five are combined Persian & English text, and the balance are Persian text. They range in price from 25 to 1600 RIs. The item for 1600 RIs. measures 200 x 175 cm. and is a map of Iran (Physical & Roads).

GITA SHENASSI, P.O. BOX 41/1813/14155 Tehran, Iran. (tel. 361239)

¶ ROAD MAP DATING - ANOTHER CLUE TO UNRAVELING THE MYSTERY

Some years ago in this journal, Bernice Kimball, Historical Map Section, Street Opening & Widening Division, City of Los Angeles, provided a Date-Coding of Automobile Club Maps in which the day of the month was the first two digits, the year next (digits reversed; e.g., 83 for 1938), and the month the last two digits. November 11, 1938 would be expressed as 118311 and would appear in the margin of the map.

Larry Cruse, in an effort to determine other possible codes used by map publishers, inquired of Robert W. Karrow, Jr., Curator of Maps, The Newberry Library, Chicago, and this is the answer received:

...I phoned Rand McNally's map librarian, Joe Rocky, who tells me that there really is no one system for interpreting the numbers on the older maps. Various systems were used by different people at various times and even the people at Rand McNally can't usually tell, except by studying the map, when it was done. In some cases Joe has even had to follow things through the copyright records in order to determine an actual date of publication for Rand McNally products. He did say, though, that they never reversed the digits for the year and that often on older numbers the last two digits represent the year. On more modern maps printed in four colors there usually would be a number consisting of four segments of numbers each in a different color. The sequence might be blue-red-yellow-black. In these cases the last two digits of a color are the year in which that particular plate was revised. Typically, a blue plate will not have been revised much if at all from its first use and the black plate would probably have the latest date.

¶ STATE OF WASHINGTON AGENCIES HOLDING AERIAL PHOTOGRAPHY OF MT. ST. HELENS

Steven Hiller, Map Librarian, University of Washington, provides the data:

Department of Natural Resources
Resource Inventory Section QW-21
Attn: Ruth Rabie, Photo Sales
Olympia, WA 98504 (206)753-5338

Department of Transportation
Materials & Photogrammetric Lab.
Attn: Mr. Jim Walker
Tumwater, WA 98504 (206)753-2162

Department of Ecology
Attn: John C. Milhollin, Cartogra-
Olympia, WA 98504 pher
(206) 753-3896

Utilities & Transportation Commission
Attn: Mike Siegrist, Cartographer
Olympia, WA 98504 (206)753-6492

{USGS, Menlo Park, NCIC; EROS Data Center, Sioux Falls, SD; USGS Water Resources Division, Tacoma; USGS Office of Glaciology, Tacoma, also have coverage.}

¶ FIFTH WORKSHOP ON MAP LIBRARIES IN THE SOUTHEAST U.S.

The Committee on Southern Map Libraries (COSMAL) of the Southeastern Division of the Association of American Geographers held its Fifth Workshop on Sunday, November 22, 1981, in Atlanta, prior to the 36th Annual Meeting of SEAAG.

Consecutive meetings held during the week are: November 20, SOLINET conducted a MAPS FORMAT (BASIC) Workshop as part of a week-long series of OCLC online workshops for cataloging of maps, etc.; November 21, SOLINET and COSMAL jointly sponsored an Intermediate Map Cataloging Workshop as an elaboration and reinforcement of skills learned in the previous day; on November 23, the Georgia State Archives held an exhibit entitled - *Sextants to Satellites -- Three Centuries of Georgia Mapping*.

The November 20th SOLINET workshop was led by Mary Larsgaard, Colorado School of Mines.

The November 21st SOLINET/COSMAL workshop was led by James Minton, University of Michigan.

Coordinator for the COSMAL session was Dr. Helen Armstrong, University of Florida, Gainesville (COSMAL Chairperson).

Participating in the COSMAL 5th Workshop were John Sutherland, University of Michigan; Kathleen Eisenbeis, Duke University; June Harris, Detroit Public Library; Nell Evans, University of Georgia; Robert Lindquist, University of Florida; and James R. Carter, University of Tennessee.

¶ MAPPING THE AMERICAS - XIII Conference on American Prints - Philadelphia

The Historical Society of Pennsylvania, as one of a series of Conferences on American Prints, sponsored a meeting that began Thursday, October 15, and concluded on Saturday, October 17, 1981, at noon. It included two exhibits: The Historical Society of Pennsylvania's exhibit highlighted Philadelphia as a center for gathering and distributing geographical information. The Library Company of Philadelphia had an exhibit to celebrate their *Quarter of a Millenium*.

Geographical misconceptions of North America in early maps, William Cumming
Anglo-American Military Draughtsmanship, 1700-1790, Douglas W. Marshall
Decorative Imagery on Maps of America in the last third of the 18th Century,
Donald Cresswell

Nineteenth-Century commercial mapmaking industry of Chicago, Patricia Moore
(paper read by Jefferson Moak)

Insurance mapping for industry, Helena Wright

Late nineteenth-century city plans, Thomas Beckman

Printed maps of Quebec City, 1600-1900, Edward H. Dahl

Artefact as Symbol: the Philadelphia map trade and popular American cartography in the early Federal Period, by J. Brian Harley

Maps and Manifest Destiny, by Peter J. Parker

The Historical Society of Philadelphia is located at 1300 Locust St., Philadelphia, PA 19107

¶ HISTORIC PHOTOS OF LOS ANGELES AND SOUTHERN CALIFORNIA

The Security Pacific National Bank has donated to the city of Los Angeles a collection of 250,000 photographs relating to the history of Los Angeles and Southern California. The collection is valued at \$1 million, and it is to be maintained at the city's main library. Along with the photographs, the bank has contributed \$50,000 and the services of its in-house historian to assist with the cataloging of the historic photographs.

p.178/The American Archivist/Spring 1981

¶ SAN FRANCISCO BAY RESOURCES STUDY WINS NATIONAL PLANNING AWARD

The 1981 Outstanding Planning Award of the American Planning Association has been given to the U.S. Geological Survey for its innovative nine-county San Francisco Bay Region Environmental and Resources Planning Study.

In the 11 years since its inception, the Study produced more than 150 maps and reports.

¶ MOVING - {from the U*N*A*B*A*S*H*E*D Librarian No. 38, p. 7}

How do we find out about the quality of life in cities and suburbs today? The "Moving To" reports highlight living costs, employment potential, recommended neighborhoods, crime rates, taxes, the quality of public schools, and other helpful facts.

Cities available are Atlanta, Baltimore, Boston, Chicago, Cincinnati, Dallas, Denver, Detroit, Houston, Los Angeles, Miami, Milwaukee, Minneapolis/St. Paul, New Orleans, New York, Philadelphia, Phoenix, Pittsburgh, St. Louis, San Diego, San Francisco, Seattle, Tampa/St. Petersburg, and Washington, D.C.

Each city report with map is \$5.00, available from JAME Publishing, P.O. Box 94953, Schaumburg, IL 60194. A subscription to the entire series is \$65.00.

¶ HAND COLOURED COLLOTYPE FACSIMILE MAPS - LIMITED EDITIONS

Olwen Caradoc Evans, Perllan Caradoc, Conwy, Gwynedd, N. Wales, G.B. LL32, BAZ, is offering 11 items for prices ranging from £7 to £20.

The closure of the Cotswold Collotype Press in November 1980 ends an era of outstanding contribution in Western Europe to the printing of fine art and engravings. This little known printing method is undoubtedly the finest form of reproducing works of art, historical documents and maps. The Press produced work, not only for publishers, libraries and museums all over the world, but also fine pen and chalk drawings from the Royal Collection at Windsor.

All the items offered in this catalogue are Collotype prints and therefore are now Limited Editions. (500 copies) When ordering please appreciate that each print is hand coloured and will vary slightly in colour. Postage and Packing inclusive for U.K., but overseas extra.

West Indies, Bowen circa 1770. West Indies after Le Sr. Robert 1750.

Florida "Called by French Louisiana" after Herman Moll 1728.

West Indies published by Tallis nineteenth century. Virgin Islands ca. 1764, Jacques Nicolais Bellin. {others}

¶ Antiques reveals Maps - A mind-boggling discovery - by J.B. Post

Why I happened to have the December 1981 Antiques is a long story, but it had the annual index in it. As is my wont when I run across an index, I checked out the entry for *maps*. Sure enough, there were some entries. I was not able to find all the issues to which there were citations, but enough to impress me that here may be an untapped source to be checked regularly. The entry *chart, Delaware Bay and River, English. Apr: 880* was to a page with a photograph of a room with said map framed on the wall. The entry *globes, celestial and terrestrial, marked Cary's. Mar: 678* was to a photograph of the globes in question. The entry for a 1795 Tennessee map was to a small illustration which reproduced the map.

As we say, *information is where you find it*, and this may prove to be worth some attention. I leave the retrospective search (and resulting article) to others.

¶ ATLAS BUYING GUIDE - Forthcoming

Janet Collins, Western Washington University, Bellingham, has forwarded for our attention a letter from Kenneth F. Kister, Editor, Atlas Buying Guide:

I have recently agreed to undertake a new book project entitled ATLAS BUYING GUIDE. This letter is to introduce the project

The book will be fully titled ATLAS BUYING GUIDE: A CONSUMER GUIDE TO WORLD, NATIONAL, REGIONAL & THEMATIC ATLASES IN PRINT. Scheduled for publication in the fall of 1982 by Oryx Press, the book will complement my other reference guides, ENCYCLOPEDIA BUYING GUIDE (3d ed., 1981) and DICTIONARY BUYING GUIDE (1977), both standard selection tools found in most public and academic libraries.

ATLAS BUYING GUIDE will provide concise information about all general English-language world atlases currently on the market in this country, as well as major national, regional, and thematic atlases. It will also include advice on how to evaluate an atlas, a bibliography of selected print and nonprint items, and a comprehensive directory of U.S. atlas publishers.

Mr. Kister's address is 9404 North 10th Street, Tampa, Florida 33612; the publisher is The Oryx Press, 2214 North Central at Encanto, Phoenix, Arizona 85004.

¶ COLOR TRANSPARENCIES AVAILABLE FROM CANADA MAP OFFICE

from biblio no. 5, 1981, Map and Geography Library, University of Illinois

The Canada Map Office has announced a new product, designed primarily for class room use. Color transparencies of any map distributed by the Canada Map Office may now be ordered. These transparencies, having an image size of 24 mm x 18 mm, are ideally suited for use with an overhead projector. Cost is \$13.50 for the first transparency and \$7.00 for each subsequent transparency of the same map. A \$0.50 handling charge is applied to each order, regardless of the number of transparencies ordered. Please make check or money order payable to Receiver General for Canada. Orders may be placed through Canada Map Office, 615 Booth Street, Ottawa, Ontario, K1A 0E9. EDITOR'S NOTE: *Although quoted directly, I presume the size should read in centimeters.*

¶ PRICES GO UP FOR USGS MAPS *USGS Press Release, November 23, 1981*

The first price increase in more than five years on maps published by the U.S. Geological Survey went into effect on November 25, 1981.

7.5-minute and 15-minute standard topographic quadrangles	= \$2.00
7.5-minute orthophotoquads and orthophotomaps	= \$2.00
1:250,000-scale standard topographic quads & 1:1,000,000	= \$3.25
State base maps (black & white) 1:500,000	= \$2.50
State base maps (multi-color or shaded relief)	= \$3.25
National Park Maps	= \$3.25

Prices charged by more than 2,400 independent map dealers may vary.

¶ IFLA Division of Special Libraries, Section of Geography & Map Libraries

The 47th Council and General Conference of the International Federation of Library Associations and Institutions met at Leipzig, German Democratic Republic, August 17-22, 1981.

From the report in the Library of Congress Information Bulletin for December 11, 1981, pp. 443-444, we garner the following:

Egon Klemp, director of the Map Division, Deutsche Staatsbibliothek, Berlin, German Democratic Republic, spoke on access to the cartographic collections in GDR libraries.

Lothar Zögner, director, Map Section, Staatsbibliothek Preussischer Kulturbesitz, Berlin, Federal Republic of Germany, read a paper that presented a statistical analysis based on returns of questionnaires sent to some 1,400 libraries, archives, collections, and repositories in the Federal Republic of Germany and West Berlin.

Monique Pelletier, chief, Département des Cartes et plans, Bibliothèque Nationale, Paris, reported on *French Map Libraries and National and International Professional Organizations*. Her presentation described the nature and purpose of the Working Group on Map Libraries and Cartographic Documentation which has been recently established within the Comité française de cartographie (CFC).

New officers of the Section were elected: Hugo L.P. Stibbe, Public Archives of Canada, will serve as Chair for the next two years, as will the new Secretary, David K. Carrington, Geography & Map Division, Library of Congress.

¶ NATIONAL ONLINE MEETING - New York City, March 30 - April 1, 1982

The preliminary program for this meeting, sponsored and organized by Online Review (the International Journal of Online Systems)/Learned Information.

Information is available from Learned Information, Stokes Road, The Anderson House, Medford, NJ 08055. (phone 609/654-6266)

¶ DEMOCRACY AND MAPS IN THE NETHERLANDS was the title of a talk given by Dr. Prof. Ing. Cornelis Koeman, Professor Emeritus of Cartography, University of Utrecht, on February 20, 1982 at the William Andrews Clark Memorial Library, University of California at Los Angeles. The talk was sponsored by the CALIFORNIA MAP SOCIETY.

¶ THE LAMENT OF AN INDEXER - with additions

Barbara Christy, map cataloger at the Geography and Map Division, Library of Congress, would like to share her personal views on an item she read in The GeoRef Newsletter (Vol. 4, No. 3, November 1981). On page 3 of that issue *The Lament of an Indexer* appeared, addressed --

-- *To all the map-makers and publishers of the world- a plea:*

What a bibliographer and an indexer would love to have in a map but rarely does!

1. Title
2. Indication of location plus longitudes and latitudes
3. Publication date
4. Responsible organization or person or publisher -- or anything (ADDRESS, added by BC)
5. Scale
6. Legend
7. Edition indication (with previous editions indicated also)
8. Serial information
9. Relation, if any, to monograph publication
10. An indication that the blasted thing is a map in the first place.
11. Price (added by BC)

Barbara indicates that she runs into the problem of insufficient information not only as a cataloger, but as a citation contributor to Geotimes. *The readers often write for source and price, but we cite all the information in this regard and have no other recourse, she laments.*

The Information Bulletin will be happy to receive examples of this problem and publish same in forthcoming issues. Please send to WAML Information Bulletin. We all share this problem, perhaps if we expose enough examples a change by publishers may take place. (EDITOR)

¶ Gerald L. Greenberg, President of the Map Society of California (and Chief, Data Acquisition, NCIC, U.S. Geological Survey, Menlo Park) has prepared a list (distributed to members of the MSC) entitled:

WE ARE NOT ALONE

There are many map societies and organizations in North America:

American Cartographic Association
 American Library Association, Map and Geography Round Table
 Association of Canadian Map Libraries
 Chicago Map Society
 Historical Map Society of British Columbia
 Map Society of California
 Michigan Map Society
 New York Map Society
 North American Cartographic Information Society
 Ottawa Map Society
 Special Libraries Association, Geography and Map Division
 Washington Map Society
 Western Association of Map Libraries
 Wisconsin Map Society

If you know of others not included, please forward information to the Editor.

Supplement to
Printed Maps of Utah to 1900:

An Annotated Cartobibliography

by

Riley Moore Moffat

In compiling Printed Maps of Utah to 1900 (WAML Occasional Paper No. 8) my primary aim was to present an accurate description of the pre-1900 cartographic resources in Utah about Utah.

During the summer of 1981, I was able to participate in the Special Project at the Library of Congress Geography and Map Division. During the project, I took some extra time to go through the Utah drawers to see what LC might have that does not exist in Utah.

This Supplement contains those maps held at the Library of Congress Geography and Map Division, but not held by institutions in Utah. In addition, I was able to examine and describe the maps of Utah at LC that appear in Phillips' A List of Maps of America, Hébert's Panoramic Maps of Anglo-American Cities, and Stephenson's Land Ownership Maps, which I listed in Printed Maps of Utah to 1900 but copies of which I had not been able to locate in Utah.

This Supplement lists items in chronological order. Item numbers appear at the beginning of the citation; some are a continuation of numbering, Printed Maps of Utah to 1900 ended at number 303, some are references to items which appeared therein; e.g., item number 116 on the first page of this Supplement adds LC as a location for this item.

INDEX

This Index supplements the Index that appears on pages 173 thru 176 of Printed Maps of Utah to 1900: An Annotated Cartobibliography by Riley Moore Moffat (Western Association of Map Libraries, Occasional Paper No. 8, 1981).

Note: All numbers in this Index refer to entry numbers in the Supplement.

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304. 1867

View of Great Salt Lake City. Published by Philip Ritz, Walla Walla W. T. Jany 1st 1867. Lith. & Printed by H. J. Toudy & Co. 505 Chestnut St. Phila.

27 x 67 cm. col.

Low oblique aerial view from above North Main St.

LC, BYU.

305. 1869

Map of the Territory of Utah. Entered . . . 1869 by B. A. M. Froiseth . . . New York.

12 x 8 cm., 1:6,000,000.

Six lakes numbered and referenced at bottom. Railroads current. Same map enlarged and reprinted in color in 1870. See #100.

LC.

115. 1873

In other copies the railroad stops before Alta or stops at Granite City with Alta City called Central City. Earliest state lacks railroad projection past Payson and lacks mining district names in western desert.

116. 1873

LC.

306. 1874

New Mining Map of Utah Showing the Location of Mining Districts over an extent of Territory 150 miles from North to South. Compiled from U.S. Government Survey's and other Authentic Sources. By B. A. M. Froiseth. Aided

by H. R. Durkee. Salt Lake City. 1874. Entered . . . 1871 by B. A. M. Froiseth.
97 x 56 cm. colored, 1:253,440.

Insets of Alta, Eureka City, City of Stockton and Ophir. Reprint of
1871 map #110. Poor job of changing the 1 to a 4 on the date.

I.C.

307. 1874

Department of the Interior. U.S. Geological and Geographical Survey
of the Territories. Second Division. J. W. Powell Geologist in charge. Pre-
liminary Map No.1 (Transcript of Plane Table Sheets) of the Country Surveyed
in 1874 by Party No.1. A. H. Thompson, Geographer in Charge of party. W. H.
Graves, Topographer. J. H. Renshaw.

79 x 44 cm. colored, 1:253,440.

Shows from $111^{\circ}30'$ to $112^{\circ}45'W$ and from $37^{\circ}30'$ to $39^{\circ}20'N$. Relief
shown by hachures. Some copies colored to show timber lands in blue and
irrigable lands in green.

LC.

308. 1874

Department of the Interior. U.S. Geological and Geographical Survey
of the Territories. Second Division. J. W. Powell, Geologist in charge. Pre-
liminary Map No.2 (Transcript of Plane Table Sheets) of the Country Surveyed
in 1874 by Party No. 1. A. H. Thompson, Geographer in charge of party. W. H.
Graves, Topographer. J. H. Renshaw.

44 x 79 cm. colored, 1:253,440.

Shows area from about $37^{\circ}15'$ to $38^{\circ}15'N$ and from about $111^{\circ}45'$ to
 $114^{\circ}W$. Some copies colored to show timber lands in blue and irrigable lands
in green. Relief shown by hachures.

LC.

139. 1875

Birds-eye view of Salt Lake City, from the north, looking south east, Utah, 1875. Drawn & published by E. W. Glover, Salt Lake City. Strobridge & Co. Lith. Cincinnati, O.

56 x 83 cm. colored.

Oblique aerial view from the north west.

309. 1875

Department of the Interior. U.S. Geological and Geographical Survey of the Territories. Second Division, J. W. Powell, Geologist in charge. Preliminary Map (Transcript of Plane Table Sheets) of the Country Surveyed in 1875 by Party No. 1. A. H. Thompson, Geographer, Chief of party. W. H. Graves, J. H. Renshaw, Topographers.

80 x 51 cm. colored, 1:253,440.

Shows from $37^{\circ}15'$ to $39^{\circ}N$ and from $110^{\circ}25'$ to $111^{\circ}47'W$. Relief shown by hachures. Some copies colored to show timber lands in blue and irrigable lands in green.

LC.

310. 1880

Map of Mining Claims in Parley's Park, Utah. Showing Ontario and other Mines. Compiled from Government surveys by Jos. Gorkinski, U.S. Minl. Surv. April 1880. The Mining Record Photo-Litho. 61 Broadway, N. Y. Robert Gorkinski Draughtsman.

28 x 72 cm., 1:14,000.

Shows mining claims, roads, and gulches south of Park City.

LC.

311. 1881

Sketch Map Showing the Distribution of the Strata and Eruptive Rocks in the Western Part of the Plateau Province. U.S. Geological Survey. Annual Report 1881. J. H. Renshawe, Del. Julius Bien Lith. N. Y. Geology by C. E. Dutton, Geologist-in-Charge.

73 x 45 cm. colored, 1:1,000,000.

Relief shown by form lines and hachures. Shows area from Prescott to Salt Lake City. Same base map as #170.

LC.

312. 1882

San Francisco Mining District, Beaver Co. Utah. Scale 600' = 1". Copyright 1882 by E. Buettner & T. B. Stearns. Surveyed by E. Buettner & T. B. Stearns, Frisco, August 1881.

104 x 98 cm. colored, 1:7,200.

Relief shown by hachures. Shows roads and railroads. Mining claims individually colored. Includes inset of Frisco Town, 45 x 39 cm., 1:2,400, which shows all buildings, naming owners or purpose except the "Chinese Quarter" on Grampion Str. An outstanding map.

LC.

313. 1882

Post Route Map of the Territory of Utah with parts of adjacent states and territories. Designed and constructed under the orders of Postmaster General Thomas L. James by W. L. Nicholson, Topographer of P. O. Dept. 1882.

103 x 73 cm. colored, 1:633,600.

Shows drainage and railroads. Frequency of mail service is color

coded. Distances between towns by railroad and by road given. Data current as of April 1st 1882. Railroads shown to Scofield and Frisco.

LC.

314. 1883

Utah. Rand, McNally & Co. Engr's, Chicago.

47 x 32 cm. colored, 1:1,420,000.

No Garfield County shown. Railroads shown to Frisco, Stockton and Gooseberry Valley (Scofield).

Rand, McNally & Companys Indexed Atlas of the World. Chicago, 1883
pp. 744-745. Another edition pp. 840-841.

Philips 6212

LC.

178. 1883

LC.

315. 1885

Post Route Map of the Territory of Utah with parts of adjacent states and territories showing post offices with the intermediate distances and mail routes in operation on the 1st of February 1885. Published by order of Postmaster General Frank Hatton under the direction of W. L. Nicholson, Topographer P. O. Dept. 1884.

103 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, mail routes and distances. Mail routes color coded by frequency. Railroads shown to Tintic, Moroni and into Colorado. Another edition dated 1st of August 1885.

LC.

316. 1886

Utah. Rand, McNally & Co. Engr's, Chicago.

47 x 32 cm. colored, 1:1,400,000.

Information current including change of Emery County seat from Castle Dale to new town of Huntington.

Rand, McNally & Company's Indexed Atlas of the World. Chicago, Continental Pub Co., 1886. pp. 849-841.

Philips 934

LC.

317. 1887

Railroad and County Map of Utah. Geo. F. Cram, Engraver and Publisher, Chicago.

54 x 38 cm. colored, 1:1,300,000.

Railroads shown to Frisco, Ephriam, Mud Creek (Winter Quarters), Silver City, Park City, Alta, Stockton and Bingham Canyon. Counties current. Shows township lines.

Grant's Bankers' and Brokers' Railroad Atlas. N. Y., A. A. Grant, 1887 pp. 232-233.

LC.

318. 1887

Post Route Map of the Territory of Utah with parts of adjacent states and territories showing post offices with the intermediate distances and mail routes in operation on the 1st of April 1887. Published by the order of Postmaster General William F. Vilas under the direction of David Enright, Topographer P. O. Dept. 1884.

103 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, mail routes and distances. Mail routes color coded by frequency. Railroads to Chester and Silver City. Another edition dated June 1st 1887.

LC.

319. 1887 #215

Salt Lake City, Utah. Drawn for the Chamber of Commerce by Edmund Wilkes, Civil Engineer, 1887. Published by Lynch & Glasmann, Real Estate Brokers.

41 x 57 cm., 1:24,000.

Shows wards, blocks and lot numbers, Inset "The Vicinity of Salt Lake City" 1:800,000.

LC.

217. 1888

Topographic Map of Weber County, Utah. Surveys of 1884, 1885, 1886 & 1887 Under the Direction of Washington Jenkins, Civil Engineer & Draughtsman. By Order of the Probate Judge and Selectmen of Weber County. Washington Jenkins, Civil Engineer and Topographer. Copyright by W. Jenkins 1888. Photo Electro-type Eng. Co., 20 Cliff St. N. Y.

90 x 209 cm., 1:39,000.

Detailed relief shown by hachures. Shows drainage, canals, roads, railroads, types of vegetation on level areas. Some buildings are identified.

LC.

325. 1891

Utah. Rand, McNally & Co.'s Utah. Rand, McNally & Co.'s Business Atlas Map of Utah. Copyright 1888 by Rand, McNally & Co. Rand, McNally & Co. Engr's,

Chicago.

47 x 32 cm. colored, 1:1,420,000.

Grand County shown.

Rand, McNally & Co's Business Atlas. Chicago, 1891 p. 286

Philips 6257

LC.

216. 1888

LC copy is unpagged.

219. 1888

LC copy names landowners in rural areas.

224. 1889

View of Ogden City, Utah Territory. From a Drawing by Eugene F. Darling. 1889.

45 x 93 cm. colored.

Low oblique view from the West.

LC.

320. 1889

Post Route Map of the Territory of Utah with parts of adjacent states and territories showing post offices with the intermediate distances and mail routes in operation on the 1st of December 1889. Published by order of the Postmaster General John Wanamaker under the direction of C. Roeser Jr., Topographer P. O. Dept. 1884.

103 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, and mail routes with distances. Mail routes color coded by frequency.

LC.

321. 1890?

[Topographic maps of Utah]

8 maps 46 x 72 cm., 1:250,000.

Relief shown by contours, contour interval 250 feet, 1000 feet index contours are dashed lines. These maps are double sheet printings of the U.S. Geological Survey's 60' sheets. LC copy is stamped with "U.S.C. & G. Survey Library and Archives." All pre-1900 Utah 1:250,000 are represented except Henry Mountains and Abajo plus Pioche is added to St. George.

LC.

235. 1890

Map of Salt Lake City and Environs, Utah. 1890. Compiled by Jesse W. Fox Jr. City Surveyor. Published by W. H. Whitney.

176 x 217 cm. colored, 1:7,920.

Shows section, block and lot numbers. Names land owners in rural areas. List of "Patents issued within corporation and outside townsite entry" down left margin. View of "Western part of Salt Lake City, from 'The Tower'" in upper right. "Plat of Salt Lake & Utah Valleys" in upper left.

LC.

322. 1890

[Salt Lake County] Photolitho. Print. The Collier & Cleaveland Litho. Co. Denver and Salt Lake City.

138 x 148 cm. colored, 1:41,000.

Relief shown by hachures. Identifies block numbers in Salt Lake City; lot and block numbers for suburban areas; townships, sections and land owners for rural areas. Also shows limits of surveyed lands, precinct boundaries,

school district boundaries and city limits. Around borders are views of Garfield Beach and five important buildings. Title panel is lacking from LC copy. Union Pacific Railroad logo in upper left.

LC.

323. 1890

Post Route Map of the Territory of Utah with parts of adjacent states and territories showing post offices with the intermediate distances and mail routes in operation on the 1st of December 1890. Published by order of Postmaster General John Wanamaker under the direction of C. Roeser Jr. Topographer P. O. Dept. 1884.

103 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, mail routes with distances. Mail routes color coded by frequency of delivery. Railroad extended from Silver City to Eureka and from Park City to Salt Lake City.

LC.

324. 1891

Map of Provo City, Utah. Compiled by E. L. Jones. D. W. Ensign and Co. Publishers.

157 x 175 cm., 1:2,400.

Shows area from Third West to the Territorial Asylum and from 21st Street to about two blocks south of 1st Street (about 800 South). Shows block numbers, lot numbers, land owners, and buildings. Commercial advertisements around borders. Inset of commercial area at 1:1,200 and a 4-mile radius map.

LC.

326. 1892

Progress of the Triangulation Between Eastern Utah and Western Nevada Along or Near the 39th Parallel June 30th 1892. Coast and Geodetic Survey Report of 1892. No. 12.

70 x 83 cm., 1:1,000,000.

Main triangulation points in Utah are Ibepah A. L., Deseret, Ogden Peak A. T., Mt. Nebo A. L., Patmos Head L. A., Scipio, Wasatch L. A., Tushar, and Mt. Ellen L. A. These are tied in with Pilot Peak L. A., Jeff Davis Pk. (Wheeler Peak) and Pioche L. A. in western Nevada.

LC.

327. 1892

Map Showing Location of the New Gold Fields in Utah. The Henry and Blue Mountain Mining Districts, and Placers on Colorado River. Showing Wagon Roads from Salina, Green River and Thompsons. Supplement to the Mining Age. Pioneer Litho. Co. Denver.

51 x 42 cm. colored, 1:760,320.

Shows area from Provo to the Four Corners. Henry Mountains, Abajo Mountains, and Blue Mountains colored gold. Relief shown by hachures.

LC.

256. 1892

LC copy unpagged.

329. 1893

Gorlinski's General map of Park City Mines showing Ontario, Daly, Crescent, Anchor, Alliance, Meears, Silver King, Woodside, Mayflower, Glencoe, Parleys Park, Lowell, McHenry, Hawkeye, Massachusetts, Jones Bonanza, Southern Tier, Jupiter, Apex, Silver Key, Uintah, Farish, Reed, Pioneer, West End,

Scott Hill, Ehenger, Kennedy, Dolberg, Black Diamond, New York, Storey, Shanley, Lucky Bill, Little Bell, Putnam, Boulder, Wasatch, Union, Bogan, Creole, Newell, etc. From Official Surveys in Uintah, Blue Ledge, Snake Creek and a portion of Big and Little Cottonwood Mining Districts, Utah. 1893. Compiled with additional Mining and Topographical informations by Robert Gorlinski, U.S. Mining Surveyor & Civil & Mining Enginr. Salt Lake City, Utah.

128 x 212 cm., 1:7,300.

Shows mining claims, topography, drainage, roads, mills, shafts, tunnels, public land survey lines and ward boundaries in Park City. Another copy 72 x 121 cm., 1:13,100. Tremendous detail.

LC.

262. 1893

New York Recorders Atlas. New York, The New York Recorder Co., 1893.
p. 277.

264. 1893

LC copy unpagged.

267. 1893

LC.

330. 1894

Progress of the Triangulation between eastern Utah and western Nevada along or near the 39th parallel June 30th 1894. Coast and Geodetic Survey Report of 1894. No. 13. The Norris Peters Co. Photo-Litho., Washington, D.C.

71 x 83 cm., 1:1,000,000.

Main triangulation points in Utah are Ogden Peak, Deseret, Mt. Nebo,

Patmos Head, Wasatch, Ibepuh (sic.), Scipio, Tushar, and Mt. Ellen. These points are tied with Pilot Peak, Jeff Davis (Wheeler Peak) and Pioche in eastern Nevada.

LC.

331. 1894

Post Route Map of the Territory of Utah with adjacent parts of the states of Nevada, Idaho, Wyoming and Colorado and the Territory of Arizona showing post offices with the intermediate distances and mail routes in operation on the 1st of February 1894. Published by order of Postmaster General Wilson S. Bissell under the direction of A. von Haake, Topographer P. O. Dept. 1891.

104 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, mail routes with distances. Mail routes color coded by frequency of delivery. Railroads removed from American Fork Canyon and extended from Chester to Salina and from Thistle to Manti. Another copy dated 1st of September 1894. Another copy dated 1st of December 1894.

LC.

332. 1894

Utah and Nevada. Copyright 1894 by Wm. M. Bradley.

36 x 56 cm. colored, 1:1,740,000.

Colored by counties, no Grand County. Inset of southern tip of Nevada.

Potter-Bradley Atlas of the World. John E. Potter & Co. 1894 p. 56.

Philips 989

LC.

333. 1895

Utah. Copyright 1895 by the Credit Co.

34 x 25 cm. colored, 1:1,820,000.

Colored by counties. Includes Carbon County. County lines over-printed in purple. Railroads number coded in purple.

LC.

334. 1895

Post Route Map of the Territory of Utah with adjacent parts of the states of Nevada, Idaho, Wyoming and Colorado and the Territory of Arizona showing post offices with the intermediate distances and mail routes in operation on the 1st of March 1895. Published by order of Postmaster General Wilson S. Bissell under the direction of A. von Haake Topographer P. O. Dept. 1891.

104 x 74 cm. colored, 1:633,600.

Shows drainage, railroads, mail routes with distances. Mail routes color coded by frequency of delivery. Railroad taken up in Little Cottonwood Canyon.

LC.

273. 1895

LC copy unpagged with list of counties along top margin.

335. 1897

Utah Pioneer Jubilee. Grand Celebration of the 50th Anniversary of the Arrival of the Pioneers in Utah. Salt Lake City, July 20th to 24th 1897.

50 x 46 cm.

Cover title on verso: "Millroy's Pocket Map of the Heart of Salt Lake City Showing the Location of the Leading Business Houses &c. February 1897." Shows from South Temple to Market Street (Exchange) and from First West to a

half block east of State Street identifying all businesses.

LC.

278. 1897

Railroads extended from Salina to Belknap, from Fairfield to Mercur, and from Eureka to Payson.

336. 1898

Map of Mercur, Camp Floyd and Ophir Mining Districts. Compliments of Denver & Rio Grande Railroad Co. Compiled from Records at U.S. Surveyor General's Office. Reached by Denver & Rio Grande, Rio Grande Western, Oregon Short Line, and Salt Lake & Mercur Railways. Published by. W. M. Wantland, Salt Lake City, Utah, June 30, 1898. Utah Lithographing Co.

82 x 57 cm., 1:23,000.

Shows mining claims, township and section lines, railroads, and mills. Photo of Mercur at top center and photo of prospectors tools at upper right.

LC.

337. 1898

Map of Tintic. Compiled from Records at U.S. Surveyor General's Office. Published by W. M. Wantland, Salt Lake City, Utah, June 30th, 1898. Utah Lithographing Co., Salt Lake City, Utah.

52 x 93 cm., 1:16,100.

"Compliments of Denver & Rio Grande Railroad Co." in upper left. Photo of prospectors tools in upper right with "Reached by Denver & Rio Grande Western Railways" under it. Photo of Eureka in lower right. Map shows mining claims, roads, railroads, and mills, with list of elevations. Oriented with North at left. Section corners are marked.

LC.

338. 1898

Indexed Atlas of the World [Utah]. Rand, McNally & Co.'s New Business Atlas Map of Utah. Copyright 1898 by Rand, McNally & Co. Copyright 1893 by Rand, McNally & Co.

47 x 31 cm. colored, 1:1,440,000.

Railroads shown to Marysvale, Sulphur Spring in Escalante Valley and Mercur. La Plata shown. Colored by counties. Shows township lines. Nevada on verso.

Rand, McNally Atlas of the New World. Chicago, 1901. p. 285.

LC.

280. 1898

LC copy colored by counties.

281. 1898

Another LC copy dated 1st of March 1898.

340. 1899

Utah. Copyright 1899 by J. W. White.

34 x 25 cm. colored, 1:1,800,000.

Colored by counties. Railroads number coded in red. Index to counties along top. Advertisement for the National Bank of the Republic on verso.

LC.

341. 1899

Utah. Copyright 1899 by Geo. F. Cram.

54 x 38 cm. colored, 1:1,310,000.

Railroads color coded. The Carbon-Emery county line is not overprinted

in yellow. Mud Creek (Clear Creek) is west of Scofield. Index to towns on other maps along top and bottom. Paged 392 and 393. Index to Utah towns on verso paged 391.

LC.

342. 1899

Utah, prepared especially for the Merchantile Guide and Bureau Co. Publishers of C. and T. Railway, Express and Postal Shipping Guides. Copyright 1899 by the Matthew-Northrup Co. Buffalo, N. Y.

23 x 22 cm., 1:2,150,000.

Mountain ranges lettered in a German gothic type. Railroads shown from Milford to Uvada and from Fairfield to Mercur.

LC.

343. 1899

Map of Utah compiled under the direction of Henry Gannett, Geographer, by Gilbert Thompson, Topographer 1899.

76 x 61 cm. colored, 1:760,320.

Relief shown by contours, contour interval 1000 feet. Bound in Department of the Interior. Bulletin of the United States Geological Survey. No. 166. A Gazetteer of Utah by Henry Gannett. Washington, Government Printing Office, 1900.

LC.

297. 1899

Another LC copy dated 1st of December 1899.

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Publications of Relevance

Compiled by The Editor, from Publishers' blurbs & items in hand.

- ¶ The American Geographical Society Collection = The UWM Bookstore Academic Calendar ~ 1982. *price not given*

Published by the University of Wisconsin-Milwaukee Bookstore, its 1982 calendar commemorates that institution's 25th Anniversary by paying special tribute to the AGS Collection which is housed in the Golda Meir Library. The calendar was planned and designed by Joy Berman, Bookstore Graphic Artist. Guidance in the selection of materials was provided by Roman Drazniowsky, Curator of the Collection, and Howard Deller, Literature Analyst.

- ¶ Bouguer Gravity Anomaly Map of the Appalachian Orogen, compiled by R.T. Haworth, D.L. Daniels, Harold Williams, and Isidore Zietz.

Appalachian Research Fund, Department of Geology, Memorial University of Newfoundland, St. John's, Newfoundland, Canada A1B 3X5

\$20. each for the following:

Bouguer Gravity Anomaly	1:1,000,000
{ same as above }	1:2,000,000
Magnetic Anomaly	1:1,000,000
{ same as above }	1:2,000,000
Tectonic Lithofacies	1:1,000,000
{ same as above }	1:2,000,000

These maps are colored, the 1:1,000,000 maps are in two sheets, and portray the latest data for the Appalachian Orogen and nearby offshore regions (*extending from Newfoundland to Florida*). Each map is compatible with the others. The Tectonic Lithofacies Map of the Appalachian Orogen is by Harold Williams, and the Magnetic Anomaly Map of the Appalachian Orogen was compiled by Isidore Zietz, R.T. Haworth, Harold Williams, and D.L. Daniels.

Black and white editions are also available.

- ¶ City and Unincorporated Place Names in California. 1981 edition. Prepared by: The State of California, Business, Transportation and Housing Agency, Department of Transportation.

\$4.00 which includes tax and post. Office of Office Engineer, P.O. Box 1499, Sacramento, CA 95807 (phone 916/ 445-4631)

This CalTrans guide gives California place names, denoting County seats, state highway district numbers, County name abbreviation, sheet number of Department Road System Maps, indicates whether the place has a Post Office, gives status (I = Incorporated City; U = Unincorporated Place; D = Place within Incorporated City), the elevation in feet at sea level, population as of 1980, and the approximate geodetic latitude and longitude for each place. *This publication is designed primarily for internal use and the inclusion or exclusion of a particular place in no way reflects upon its importance or lack of importance.*

- ¶ City Map Library. Goushā/Chek-Chart, P.O. Box 6227, San Jose, CA 95150
\$49.95 plus 6½% sales tax for Calif., Ill., N.J., N.Mex. and Tex.

This is a special package of 64 city street maps, prepared by Gousha and marketed exclusively by Gousha. The maps cover the 75 largest U.S. cities, plus hundreds of adjoining towns and suburbs.

A \$64.00 value, the set is furnished in a sturdy file carton that is convenient for easy access to these frequently asked-for items.

- ¶ Camponi, Linda*

Maps of Indian Reserves and Settlements in the National Map Collection Volume II: Alberta, Saskatchewan, Manitoba, Yukon Territory, Northwest Territories. Compiled by Linda Camponi, assisted by Diane Tardif-Côté, and Guy Poulin. Ottawa: National Map Collection, Public Archives of Canada, 1981. Minister of Supply and Services Canada, Cat. No. SA41-1/5-2. ISBN: 0-662-51523-4. C81-70102-2E or F Call No. Z1209.C2N3 1980

Text in English and French. — Includes bibliographies.

*Main entry under National Map Collection (Canada). CIP

This is the second in a set of five volumes, please see the review in this issue of Volume I (British Columbia) by Maureen Wilson.

Volumes on Ontario, Quebec, and Maritime Provinces are being compiled.

free from: *Communication Services, Public Archives of Canada, 395 Wellington Street, Ottawa, Canada, K1A 0N3.*

- ¶ Explorer's Map & Directory of the New England Coast, New London, CT to Passamaquoddy Bay, Canada. Southwest Harbor, Maine, Great Circle Productions, 1981.

1 col. map, 61 x 183 cm. 1:330,000 LC No.: 81-694424

Map Contents: Natural Areas (conservation, recreation, & park lands); Directory of over 300 marine-oriented organizations for learning & recreation; public beaches; shellfish areas (clams, scallops, mussels & oysters); contaminated water (not suitable for shellfishing); Coast Guard Stations; ferry routes; bathymetry; town boundaries; emergency information concerning red tides, marine mammal protection, oil and chemical spills, air-sea rescue, SCUBA recompression; drawings & notes about historic sailing craft developed on these waters; Bio-geographic notes; gazetteer; panoramic photographs of Mt. Desert Island & the Cape Cod Canal; bibliography of interesting publications. {could there be anything else?}

\$9.95 plus \$2.00 for postage & tube (worldwide surface delivery); worldwide air delivery add \$2.00. Available laminated @ \$19.95. PREPAYMENT REQUIRED, make checks payable to GREAT CIRCLE PRODUCTIONS Box 122, Southwest Harbor, Maine 04679 Copyrighted 1981 by David Weaver & Elizabeth Sorenson.

- ¶ France. Comité Français de Cartographie. Groupe de travail Cartothèque et documentation cartographique. Centre National de la Recherche Scientifique. Laboratoire d'information et de documentation en géographie. Repertoire des cartotheques de France. Paris: Laboratoire Intergeo, 1981. D.L. 81-19407. 25 F. par A.M. Briend et D. Gabay.

¶ Facsimiles of Rare Maps Produced by Library of Congress for sale.

Facsimiles of four rare 16th- and 17th-century maps and charts from the Geography and Map Division are now available for sale:

Agnese, Battista, 16th cent.

Map of the world, ca. 1544, drawn by Battista Agnese : a facsimile from the Library of Congress. — Scale [ca. 1:150,000 at the equator][sic.] (W 180° — E 180° / N 90° — S 90°). — Washington, D.C. : Library of Congress, 1981.

1 map : col. ; 20 x 30 cm. (8 x 12 in.) Shows route of Magellan's circumnavigation and the Spain-Peru trade route via Panama. Relief shown pictorially. Geographic names in Latin on the original. Facsim. of a ms. map on vellum in Agnese's Portolan atlas, Venice, 1543-44. Accompanied by text by Andrew M. Modelski ([4] p. ; 22 cm.) Original described as item 5 in Ristow's and Skelton's Nautical charts on vellum in the Library of Congress, 1977.

From a limited ed. of 500 copies. Includes col. ill. of 12 cherubim representing the 12 classical wind directions.

This facsimile was made possible by the Clapp Fund in the Library of Congress. LC # 81-693459 AACR 2 MARC CIP \$10.00

Champlain, Samuel de, 1567-1635.

Map of the northeast coast of North America, drawn by Samuel de Champlain : a facsimile from the Library of Congress. — Scale [ca. 1:1,500,000]. — Washington, D.C. : Library of Congress, 1981.

1 map : col. ; 36.5 x 54.5 cm (14½ x 21 in.) Covers the coast of North America from western Nova Scotia to Cap Cod.[sic.] Pictorial map. Original title: *Description des costs, pts., rades, illes de la Nouuele France faict selon son vray méridien : avec la declinaison de la ment de plussieurs endrois selon que le sieur de Castes le franc le démontre en son liure de la mécométrie de l'emnt. / faict et observé par le sr. de Champlain 1607.* Facsim. of a ms. chart on vellum in the collection of the Geography and Map Division, Library of Congress.

From a limited ed. of 500 copies. Accompanied by text by Andrew M. Modelski ([4] p. ; 22 cm.) Original described as item 16 in Ristow's and Skelton's Nautical charts on vellum in the Library of Congress, 1977.

Includes table of longitude calculations in upper right corner.

This facsimile was made possible by the Clapp Fund in the Library of Congress. LC # 81-693436 AACR 2 MARC CIP \$15.00

The other two facsimiles, \$20.00 and \$15.00 respectively, are: a portolan chart by Catalan cartographer Mateo Prunes, 1559, showing the Mediterranean Sea and Western Europe (27 by 39 inches); and, the earliest known map of Manhattan and its environs, *Manatus situated on the North River*, 1639, by Johannes Vingboons. (19 7/8 by 28 3/4 inches)

Available by mail from the Library of Congress, Information Office, Box A, Washington, D.C. 20540. Mail orders should be prepaid and include an additional \$1.50 for postage and handling.

- ¶ Landsat Images of New Zealand, by G. Ross Cochrane. Christchurch, N.Z., Action Publications, c1981. (New Zealand Geographic Studies)
- 1 booklet, 36 p. ; 24 cm. Action Publications, P.O. Box 5160, Christchurch, New Zealand.
- Contents: The nature and use of LANDSAT images; introduction to the skill of reading LANDSAT images; LANDSAT images of representative areas (in New Zealand). Includes black & white, and full color photos.
- ¶ Lockmann, Ronald F.
- Guarding the forests of Southern California. Glendale, California, Arthur H. Clark Co., 1981. \$19.50 (Western Lands and Waters Series, XII)
- The author is a member of the Geography Department at the University of Southern California, is editor of The California Geographer, and holds a Ph.D. from UCLA where he worked in the Map Library.
- ¶ Maps and Charts of North America and the West Indies, 1750-1789: A Guide to the Collections in the Library of Congress. Washington, D.C., The Library of Congress, 1981. ISBN 0-8444-0335-0 \$17.00 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402
- vi, 495 p. Compiled by John R. Sellers and Patricia Molen Van Ee.
- ¶ Microcartography, applications for archives and libraries.
- (Occasional paper / Western Association of Map Libraries ; no. 6)
 "Outgrowth of a meeting held by the Western Association of Map Libraries ... at the University of California, San Diego ... October 6-7, 1977"--Introd.
 "Annotated bibliography, by Larry Cruse": p. 165.
 Includes index [to the bibliography].
 LC No. 81-19718 ISBN 0-939112-07-8 \$20.00 Santa Cruz, WAML, 1982.
- Edited by Larry Cruse / with the assistance of Sylvia B. Warren.
- Contents: Foreword by Stanley D. Stevens; Introduction by Larry Cruse; Maps and Charts on Microfilm??, by Charles J. Barkee; Precision Navigation Filmstrips, by Thomas S. Fraim; The Space Imagery Center: a Multifformat Collection with a Computer-Linked Microfiche Retrieval System, by Gail Georgenson; Microcartography at the U.S. Geological Survey, by Gerald L. Greenberg; A Simple Map Microfilm Program, by R. Philip Hoehn; The Historical Maps of the City Engineer, City of Los Angeles: a Microfilm Collection, by Bernice Kimball; A Discussion of Microfilm Formats and Some Newly Developed Readers, by William R. Lataday; The Microfilm Programme of the National Map Collection, by Gilles Langelier; Application of 35mm Aperture Card Technology to Microcartography: How to Acquire a System, by Carl Lundquist; A Systematic, User Oriented Plan for Topographic Maps on Microfiche, by Robert Markham; The Standards Committee on Cartographic Microforms - a Progress Report, by Stanley D. Stevens; Commercial Reprographics Services, by Bill Talbot; The Manuscript Map Microfilming Project of The National Archives, by Charles Taylor; Maps and Microimaging, by John A. Wolter.

¶ MINERAL DEPOSITS MAP OF NORTH AMERICA PUBLISHED

Preliminary Metallogenic Map of North America. 1:5,000,000. Reston, VA., U.S. Geological Survey, 1981?

14-colors, printed on four sheets, five x six feet when joined. The map shows more than 4,000 ore deposits on a geologic background. Two companion reports identify the deposits and list mineral commodities and coordinates. The area covered is from Greenland to Panama, including the islands of the Caribbean. Chief compiler of the map was Philip Guild, geologist at the USGS National Center in Reston.

The map is the product of a cooperative effort by the geological surveys of the continent initiated in 1964 under the aegis of the Commission for the Geological Map of the World, an affiliate of the International Union of Geological Sciences.

This first edition is considered preliminary because it was reproduced by electronic scanning of hand-colored copy rather than by normal map color separation methods and because the individual contributors have not yet had the opportunity to check the map in detail.

Copies of the map (four sheets) may be obtained for \$10.00 from Branch of Distribution, U.S. Geological Survey, 1200 South Eads St., Arlington, VA 22202, or Branch of Distribution, U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225.

Copies of the companion reports, USGS Circular 858-A, Preliminary Metallogenic Map of North America: a Numerical Listing of Deposits, and USGS Circular 858-B, An Alphabetical Listing of Deposits, are free upon application to Text Products Section, Branch of Distribution, U.S.G.S., 604 South Pickett St., Alexandria, VA 22304.

¶ ONTARIO BASIC MAPPING PROGRAM: Explanatory Notes and Symbolization

The title above is from a pamphlet issued by the Ontario Ministry of Natural Resources. Printed on both sides of the sheet (48 x 21 cm.) it is an introduction to the topographic maps of the whole of Ontario.

The maps are designed as simple, generally unannotated maps made to known standards of accuracy and intended as base maps. The Universal Transverse Mercator 6° Grid System is used for this series, all sheets are 50 cm x 50 cm, and the scales are either 1:10,000 or 1:20,000.

The pamphlet gives ordering information and coverage. Available from: Ontario Basic Mapping, Ministry of Natural Resources, Room 2623, Whitney Block, Queens Park, Toronto, Ontario, M7A 1W3, Canada.

¶ RESEARCH GUIDES FROM PAIGH

CHILE. Guia para investigadores de Chile. Direccion y preparacion Ana Maria Errazuriz K., Maria Henriquez R., Jose F. Betancourt, Reinaldo Rioseco H., Instituto de Geografia de la Pontificia Universidad Catolica de Chile, Instituto Geografico Militar. (Santiago), Instituto Panamericano De Geografia E Historia, 1978.

26cm. 171 p. CONTENTS: I Parte: Mapas Indices; II Parte: Bibliografia - (1) Cartografia (Atlas & Mapas) & (2) Bibliografia; III Parte: Material de Investigacion sobre Chile existente en Estados Unidos.

Part III, Research Materials on Chile in the United States (in English) includes a comprehensive survey of maps of Chile located in the U.S., as

well as significant research collections of other geographic materials in the U.S. Thematic maps of Chile in the Library of Congress are listed in Table 4.

COLOMBIA. Research Guide to Colombia. Prepared by Tom L. Martinson, with the assistance of Gerald R. Showalter (both of Ball State University). n.p., Pan American Institute of Geography and History, 1975. (Bogota?)

28 cm., 62 p. English edition. Includes sections on earth satellite photography, radar imagery, aerial photography, topographic and planimetric mapping, geologic mapping, special project mapping; the research bibliography covers General Guides to Latin American materials, and development literature on Columbia.

COSTA RICA. Research Guide to Costa Rica. Prepared by Instituto Geografico Nacional, oficina de investigaciones geograficas: Carlos L. Elizondo, Juan B. Gonzalez, Luis F. Martinez. (San Jose, Costa Rica), Pan American Institute of Geography and History, 1977.

Contents: Satellite photographic coverage (Sky Lab & LANDSAT); aerial photographic coverage 1945 - 1977; topographic and planimetric mapping, and thematic maps, special project maps; bibliography on geographic aspects and planning problems, 1974.

EL SALVADOR. Guia para investigadores Republica de El Salvador. Preparada por Ministerio de Obras Publicas, Instituto Geografico Nacional, "Ingeniero Pablo Arnoldo Guzman". (San Salvador), Instituto Panamericano de Geografia e Historia, 1977. 28 cm. ; 87 p.

Contents: Parte I: fuentes de informacion; division administrativa; fotografia aerea; proyecto piloto para estudio por sensores remotos; imagenes de satelite; mapas topograficos y planimetricos; mapa basico; publicaciones a escala 1:100,000; levantamientos catastrales; planos y pictomapas; red de nivelacion geodesica; clasificacion de suelos y uso de la tierra; algunos proyectos especiales realizados por el Instituto Geografico Nacional "Ingeniero Pablo Arnoldo Guzman"; estudios oceanograficos; mapa geologico. Parte II: cartografia. Parte III (bibliografia): geografia fisica; geografia economica; geografia humana.

HONDURAS. Research Guide to Honduras. Prepared by Eng. Fernando Lanza Sandoval, Director, National Geographic Institute and Chairman National Section of PAIGH in Honduras in collaboration with Rigoberto Granados Garay and Lic. Leticia Bustillo de Young. (Comayaguela), Pan American Institute of Geography and History, 1977. 28 cm. ; 45 p.

Contents: aerial photography; topographic and planimetric maps; geological maps; special project maps; index of publications; bibliography.

MEXICO. Guia de informacion cartografica para investigadores. (Mexico City), Comision de Cartografia, Instituto Panamericano de Geografia e Historia, 1980. 29 cm. ; 40 p.

Contents: cartografia basica; cartografia derivada.

NICARAGUA. Guia de recursos basicos contemporaneos para estudios de desarrollo en Nicaragua. Managua, Instituto Panamericano de Geografia e Historia, 1977. 28 cm. ; 91 p.

Contents: Parte I: Mapas indices y textos; Parte II: Recursos bibliograficos existentes.

PANAMA. Guia para investigadores de Panama. Preparado por las Profesoras de la Universidad de Panama, Nydia M. Cardoze y Consuelo Tempone, con la colaboracion de la Profesora Raquel Ma. de Leon P., Presidenta de la Seccion Nacional de Panama del IPGH. Publicacion No. 341. (Panama), Instituto Panamericano de Geografia e Historia, 1978. 27 cm. ; 65 p.

Contents: Parte I: Mapas indices y textos; Parte II: Guia bibliografica.

PERU. Guide to cartographic and natural resources information of Peru. Mexico, Instituto Panamericano de Geografia e Historia, 1979. Prepared by personnel of the National Office for the Evaluation National Resources (ONERN). 27 cm. ; 100 p.

Contents: Part I: national cartographic information - aerial photographs, photomaps, side looking radar images, satellite imagery, planimetric delineation, planimetric and topographic maps. Part II: thematic information at the national level - rural cadastral maps, geological map, nautical charts, national forests, conservation and hunting areas, other information (including: departmental maps, urban material, tourist maps, highway diagram, geophysical stations in Peru), list of national maps. Parte III: thematic information at the local or regional level - integrated studies of natural resources, geological studies, soils studies, studies of present land use, studies of hydrological resources, forestry studies, grass studies. Basic bibliography consulted; List of Index Maps.

Availability of these guides is not clear, but for a start one could inquire: Robert L. Senter, PAIGH Program Manager, DMA InterAmerican Geodetic Survey, Building 144, Fort Sam Houston, Texas 78234.

¶ The S. Klein Directory of Computer Graphics Suppliers: Hardware, Software, Systems and Services. 1982 Edition. Sudbury, Massachusetts, S. Klein, 1982.

Pre-publication price \$34. US/Canada/Mexico; add \$6.35 elsewhere. Price after March 31, 1982 \$47. The S. Klein Directory of Computer Graphics Suppliers, 730 Boston Post Road, Suite 27, Sudbury, MA 01776.

Modeled after the 1980 directory prepared under the auspices of the Harvard University Laboratory for Computer Graphics, compiled by the same editorial team, under the direction of Stanley Klein. Mr. Klein founded and also publishes The Harvard Newsletter on Computer Graphics.

A Geological Perspective

... a column for reports of cartographic products
of interest to geoscientists and geoscience developments of interest
to map librarians.

by

Nancy J. Pruett
Technical Library 3144
Sandia National Laboratories
Albuquerque, New Mexico

SECOND INTERNATIONAL CONFERENCE ON GEOLOGICAL INFORMATION

The program and registration form for the Second International Conference on Geological Information, to be held May 23-27 in Golden, Colorado, has been mailed to prospective attendees. Many WAML members should be interested in the program. The site is the Colorado School of Mines in Golden.

Highlights I am particularly looking forward to include Toni Carbo Bearman's keynote address on Monday morning (she's Executive Director of NCLIS and an excellent speaker), the banquet speaker Robert Bates (he writes "The Geologic Column" in *Geotimes*), the papers on numeric databases, developing countries and online bibliographic databases, the field trips, and especially the interaction with international figures in geoscience information.

I hope to see some WAML members there. It should be an excellent conference in a perfect location. For further information about the conference, contact Dederick C. Ward, Geology Library, 223 Natural History Bldg., University of Illinois, Urbana, IL 61801.

PROGRAM HIGHLIGHTS

Session 1: Geoscience Information: issues and Prospects I

International exchange of scientific and technical information - policy issues for the 1980's: T.C. Bearman (National Commission on Libraries and Information Science)

Geological information - past, present, and future: A.P. Harvey (British Museum of Natural History)

International cooperation in geological documentation: why, when, ways, and whereto: J. Gravesteyn (Bureau de Recherches Géologiques et Minières)

Data on the rocks - a cross section of user needs: N.J. Pruett (Sandia National Laboratories)

Session 2: Symposium - Geoscience Information for Developing Countries: Problems and Prospects

Some recent developments in geoscience information in the Third World: A.R. Berger (Geological Survey of Canada)

Impact of current developments in information management on developing countries: G.N. Rassam (American Geological Institute)

Geoscience Information in Mexico; state-of-the-art: N. Benveniste (Instituto Mexicano del Petroleo)

Session 3: Symposium - Online Bibliographic Databases

In house information online: creating small databases: U.H. Rowell (Exmin Corp.)

Online searching using geographical coordinates: R.K. Farrar and J. LeRud (Marathon Oil Co.)

Economic geology on GeoArchive: A.P. Gotto (Geosystems)

Information services: impact of international data exchange on GeoRef: J.G. Mulvihill (American Geological Institute)

The future cost of online retrieval: R.D. Walker (University of Wisconsin-Madison)

Session 4: Symposium - Maps, Mapping, and Management

Presiding: S. Klimley (Lamont-Doherty Geological Observatory)

The reality of online retrieval of geoscience maps

The promise of microcartography for geology

The future of digital maps

(speakers not yet confirmed)

Session 5: Symposium - The Use of Digital Data in the Geosciences

Retrospective digitization of geoscience data: F. Chayes (Carnegie Institution)

Application of digital collection in the geosciences: (speaker not yet confirmed)

National and international data exchange: problems and opportunities: A.L. Clark, (International Institute for Resource Development, Vienna)

Overview of the geological implications of spatial databases: L.G. Batten (speaker, EROS Data Center), E.D. Greenlee, D.A. Hastings, S.K. Jenson, and C.M. Trautwein

Major sources of digital data: C.F. Burk, Jr. (Geological Survey of Canada)

Banquet Speaker: Robert L. Bates (Emeritus Professor, Ohio State University) on "Geoliterary Follies"

Session 6: Technical Papers *Presiding:* J.H. Bailey (French American Metals Corp.); A. Bearer (Phillips Petroleum Co.); M.J. Farmer (Shell Oil Co.); M. Larsgaard (Colorado School of Mines); E. Morrissett (Montana College of Mineral Science and Technology); and P. Sheahan (Selco Mining Corp.)

The Australian experience with information transfer in the geosciences: D.A. Tellis and D.S. Crowe (speaker), (Australian Mineral Foundation)

The information services and systems of the Australian Bureau of Mineral Resources: E.P. Shelley (Bureau of Mineral Resources, Canberra)

Geoscience information in the Geological Survey of South Africa: M.D. du Plessis (Geological Survey of the Republic of South Africa)

Recent developments in geological information in India: K.S. Murty (University Department of Geology, Nagpur)

The role of the information specialist in the (U.S.) state geological surveys:
A.R. Masterson (Bureau of Economic Geology, University of Texas)

Continental Scientific Drilling Program data base: G.A. Pawloski (Lawrence Livermore National Laboratory)

Information availability of the National Uranium Resource Evaluation Program:
W.L. Chenoweth (U.S. Department of Energy)

Database design and inventory system for trackline data: A.M. Hittelman (National Geophysical and Solar-Terrestrial Data Center)

NCIC - A service to the geologic community: L.L. Kemper and W.F. Graser (USGS/National Cartographic Information Center)

Geological Activities of the World Data Center-A: Glaciology (Snow and Ice):
R.L.S. Weaver (World Data Center A: Glaciology)

Data and its retrieval from the Regional Planetary Image Facilities: L.J. Pieri (Regional Planetary Image Facility, Pasadena)

Using the subject-interest-profile for collection development in the earth sciences: C.L. Derksen (Stanford University)

A method for core selection of geoscience journals for libraries with limited resources: L.A. Bartlett (Wichita State University)

The geological content of the Geo Abstracts bibliographic data base: K.M. Clayton (University of East Anglia)

Humanizing science communication - innovation at SEG: T. Barrington (Society of Exploration Geophysicists)

Information brokerage for the working geologist: S. Gallanter (TechSearch)

Session 7: Geoscience Information: Issues and Prospects II

Foreign literature and translation in geoscience: America's inability to cope:
F.T. Manheim and M. Connor (U.S. Geological Survey)

The future of scientific publication: A.F. Spilhaus, Jr. (American Geophysical Union)

The management of international geoscience information resources: C.F. Burk, Jr. (Geological Survey of Canada)

Closing of the Technical Sessions: Mary W. Scott (President, Geoscience Information Society)

GENERAL INFORMATION

Registration Fee: \$175; Pre-Registration (before 1 April) \$150. Student Registration Fee: \$75. Accommodations: dormitory rooms within easy walk of conference center - \$30/day includes room and board (breakfast, lunch, dinner).

Abstracts: Abstracts of the papers will be distributed to all registrants and the proceedings will be published by the Oklahoma Geological Survey in its Special Publications Series.

Field Trips: Coors Brewery, local technical information centers, and others.

Friday Workshops: GEOREF on Friday 9 to 3 (\$50); Geosystems on Friday 9 to Noon, free.

Exhibits and Demonstrations of computer databases are planned.

New Mapping of Western North America

Contributions by: JC = Jim Coombs, Southwest Missouri State Univ; Springfield
 BC = Barbara Cox, University of Utah, Salt Lake City
 PH = Phil Hoehn, University of California, Berkeley
 EK = Elaine Kavelski, University of Utah, Salt Lake City
 ML = Mary Larsgaard, Colorado School of Mines, Golden
 RM = Riley Moffat, Brigham Young University, Provo, Utah
 PS = Peter Stark, Central Washington State Univ., Ellensburg
 EP = The Editor, from Publisher's blurbs & items in hand

Alaska

¶ U.S. Forest Service

JC Chugach National Forest, Alaska. (Washington, D.C.), 1981.
 45 x 76 cm. 1:506,880 free Forest Supervisor, Chugach National Forest, Pouch 6606, Anchorage, Alaska 99502 (phone 907/ 279-5541)
 GPO Depository No. A 13.13:C47/980. Compiled in 1969, rev. 1980.
 Includes recreation site directory. Verso contains text and ill.
 OCLC: 7535123

¶ U.S. Forest Service

JC Tongass National Forest, Alaska. (Washington, D.C.), 1980.
 91 x 46 cm. 1:900,000 free on deposit; GPO No. A 13.28:T61/3
 Compiled in 1973, rev. 1980. Includes key map, Map B - Chatham area,
 recreation site directory, text and ill. OCLC: 7860328

Arizona

¶ Arizona. Department of Water Resources.

ML Hydrologic map series report. Phoenix, 1981?
 size and scale vary. No. 5 & 6 dated June & Dec. 1981
 (author): 2810 S. 24th St., Phoenix, AZ 85034 free?

¶ U.S. Forest Service

JC Roosevelt Lake and Apache Lake, Tonto National Forest, Arizona.
 (Washington, D.C.), 1981.
 41 x 67 cm. 1:63,360 free on deposit; GPO No. A 13.28:R67
 Verso contains text, recreation site directory, photos. Forest Supervisor, Tonto National Forest, 102 South 28th St., P.O. Box 29070,
 Phoenix, AZ 85038 (phone 602/ 261-3205) OCLC: 8081776

California

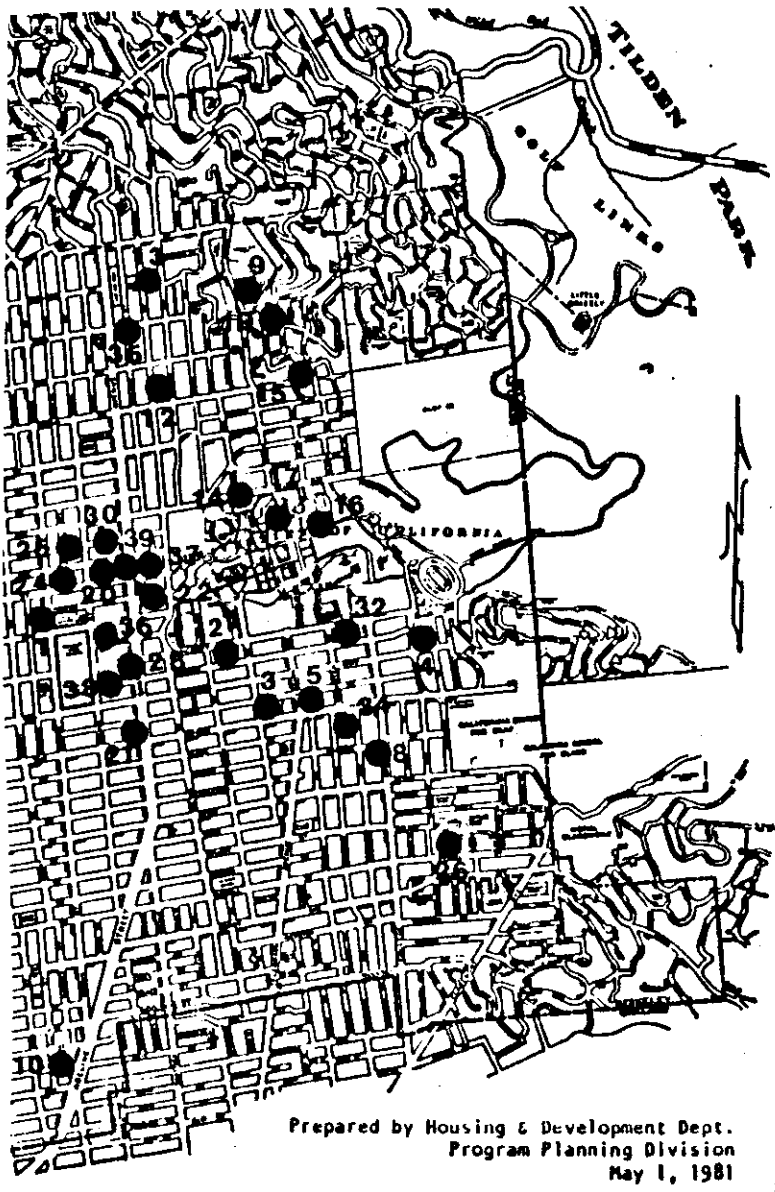
¶ Berkeley (California), Housing & Development Dept., Program Planning Division.

EP & PH Berkeley [Calif.] local landmarks / Prepared by Housing & Development Dept., Program Planning Division. -- Scale ca. 1:36,000. --
 [Berkeley]: The Div., (2180 Milvia St., Berkeley, CA 94704), 1981.
 1 map ; 19 x 22 cm. free (see note and end of next entry)

¶ Berkeley (California), Housing & Development Dept., Program Planning Division.

EP Berkeley [Calif.] national landmarks / Prepared by Housing & Development
& Dept., Program Planning Division. -- Scale ca. 1:36,000. --
PH [Berkeley] : The Div. (2180 Milvia St., Berkeley, CA 94704), 1981.
-- 1 map ; 19 x 22 cm. free

EP Note: Upon receipt of the citations above, the two maps were requested from the producer. They came free, but upon examination it was considered a waste of postage - certainly a waste of the taxpayers' money to produce such a poor document. The maps are on 8.5" x 14" brown paper, black & white (color maps would have been much more effective, albeit more expensive to produce) apparently produced via xerox process. Excellent examples of failure to communicate between government agency and the public. A portion of the Local Landmarks map is shown below: The clutter of data renders the map unusable.



27. 2911 Russell Street
SILVA HOUSE
1824 Fifth Street
28. MORSE BLOCK (DONOGH ARMS)
2276, 80, 86 Shattuck Ave.
29. TOVERII TUPPA BUILDING*
1810 Tenth Street
30. THE JOSEPH CLAPP COTTAGE
2007-2009 Berkeley Way
31. HEYWOOD HOUSE
1808 Fifth Street
32. COLLEGE WOMEN'S CLUB
2680 Bancroft Way
33. DELAWARE STREET HISTORIC DISTRICT
(800 block of Delaware St.
between Fifth and Sixth St.)
34. HILLEGASS SITE
(SMITH HOUSE & SMITH COTTAGE)
2527-2529 Hillegass Ave.
35. FORMER GARFIELD SCHOOL
1414 Walnut Street
36. BERKELEY MAIN POST OFFICE*
2004 Allston Way
37. ROOS BROS. BUILDING
64 Shattuck Square
38. BOONE'S UNIVERSITY SCHOOL
2029 Durant Avenue
39. THE KRESS STORE
2036 Shattuck Avenue

*This property has also been placed on the National Register of Historic Places.

Prepared by Housing & Development Dept.
Program Planning Division
May 1, 1981

¶ California Department of Fish and Game.

EP Atlas of California Marine Resources. (Sacramento?) 1981?

A complete set of sheets for the entire coastline of California is available at \$72.69 per set. 134 quad-sized maps in complete set.

Individual maps of specific counties are available at the following prices:

Del Norte County	\$3.36	Monterey County	\$7.20
Humboldt County	6.24	San Luis Obispo County	5.28
Mendocino County	8.16	Santa Barbara County	7.68
Sonoma County	3.84	Ventura County	3.84
Marin, San Francisco & San Mateo Counties	8.64	Los Angeles County	6.24
Santa Cruz County	3.36	Orange County	3.84
		San Diego County	5.76

The following island maps are available at 51-cents each:

Anacapa	<i>Content: fish, marine mammals,</i>	(Prices May 1981)
West San Miguel	<i>crustaceans, mollusks, sea veg-</i>	
East San Miguel	<i>etation. 1:24,000</i>	Add \$3.00 additional
San Miguel		on each order to
West End Station, Santa Rosa Island Contours		cover shipping &
East End Station, Santa Rosa Island Contours		handling charges.
West End Station, Santa Cruz Island Contours		
East End Station, Santa Cruz Island Contours		Taxes already are
Santa Barbara Island		included in prices.
San Nicolas Island		
West End Station Catalina Island		Copies may be ordered
East End Station Catalina Island		and PREPAID to:
West End Station San Clemente Island		VISUAL-GRAPHIX, INC.
East End Station San Clemente Island		(formerly-Cartwright Blueprint)
Artificial Reefes (3 maps \$1.53)		2124 19th St.
So. Cal. Commercial Fisheries		Sacramento, CA 95818
So. Cal. Reduction & Bail Fisheries		(phone ac916/443-6838)

¶ U.S. Fish and Wildlife Service

Pacific Coast Ecological Inventory. (Washington, D.C. or Reston, VA.)
Government Printing Office, Washington, D.C. 20402, or U.S. Geological
Survey, Reston, VA., or Western Distribution Branch, U.S. Geological
Survey, P.O. Box 25286, Denver Federal Center, Denver, CO 80225.

JC
&
RM

29" maps; col. ; ca. 46 x 72 cm. Ecological information printed on
USGS 1:250,000 sheets. \$3.25 each, or free on GPO Depository, GPO No.
I 49.6/2:Ec7/2 Each map shows the occurrence and distribution of aqua-
tic and terrestrial organisms. Includes numerically-keyed lists of
organisms, notes, location diagram, and legend. Accompanied by text
on each sheet. *Contents:*

CALIFORNIA

Eureka	Sacramento	Santa Rosa	Coos Bay
Long Beach	San Francisco	Santa Rosa Island	Medford
Los Angeles	San Luis Obispo	Ukiah	Roseburg
Monterey	San Jose	Weed	Salem
Redding	Santa Ana	<u>OREGON</u>	<u>WASHINGTON</u>
San Diego	Santa Maria	Cape Blanco	Cape Disappointment
San Clemente Island			Cape Flattery

¶ U.S. National Geophysical and Solar-Terrestrial Data Center.

PS Geothermal Resources of Idaho. Washington, D.C., 1980.
Idaho Dept. of Water Resources, 450 State St., Boise, ID 83702
162 x 105 cm. 1:500,000. *Free from above address. Same format
as those Geothermal Maps of California, New Mexico, and Utah.*

Montana

¶ U.S. Bureau of Land Management.

Off-road vehicle travel plan, Butte District, Dillon Resource Area
(Montana). (Washington, D.C.), 1981.
JC Dillon Resource Area Office, P.O. Box 1048, Ibey Building, Dillon, MT
59725 (phone 406/683-2337)

on sheet 127 x 81 cm. 1:70,000 *free on depository GPO No. I 53.11:
B98* Printed on both sides of sheet. Shows where motorized vehicles
are allowed, restricted, or prohibited. Also shows State lands, National
Forests, and wildlife refuges.

¶ U.S. Forest Service.

Glacier View Ranger District, Flathead National Forest (Montana).
(Washington, D.C.), 1981.
JC Forest Supervisor, Flathead National Forest, P.O. Box 147, 290 N.
Main St., Kalispell, MT 59901 (phone 406/755-5401)
110 x 83 cm. 1:63,360 *free on depository GPO No. A 13.28:F 61/2/981/
Glacier* Includes area map and index to forest transportation maps and
USGS topo maps. OCLC: 7969467

¶ U.S. Forest Service.

Tally Lake Ranger District, Flathead National Forest (Montana).
(Washington, D.C.), 1981.
JC Forest Supervisor, Flathead National Forest, P.O. Box 147, 290 N. Main
St., Kalispell, MT 59901 (phone 406/ 755-5401)
121 x 79 cm. 1:63,360 *free on depository GPO No. A 13.28:F 61/2/
981/Tally* OCLC: 7969418 Includes area map and index to forest
transportation maps and USGS topo maps.

New Mexico

¶ U.S. Forest Service.

Black Range Primitive Area (Gila National Forest, New Mexico). (Albuquer-
que?), 1980?
JC Forest Supervisor, Gila National Forest, 2610 North Silver St., Silver
City, NM 88061 (phone 505/388-1986)
84 x 64 cm. scale not given. *free on depository GPO NO. A 13.13:B 56/6
OCLC: 6676302* Verso contains text and ill.

Oregon

¶ U.S. Forest Service.

Waldo Lake area, Willamette, Deschutes National Forests, Oregon. (Wash-
ington, D.C.), 1980. Forest Supervisor, Willamette National Forest,
JC Eugene, OR 97401 Eugene Federal Bldg. (P.O. Box 10607) (phone 503/
687-6521)
54 x 39 cm. 1:63,360 *free on depository GPO No. A 13.13:D45/12
OCLC: 7181649* Verso contains text, ill., and bathymetric map of Waldo Lake.

¶ Willard L. McIntosh and Margaret F. Eister

Geologic map index of Oregon. (Reston, VA.), 1981.
Western Distribution Branch, U.S. Geological Survey, Box 25425, Federal
Center, Denver, CO 80225 (phone 303/234-5888)

JC 4 maps; each 25 x 32 cm. 1:2,050,000 *free* Indexes maps published by
USGS, State and commercial organizations, universities and professional
societies. includes bibliography.

Utah

¶ United States. Air Force Regional Civil Engineer - MX.

5200-foot 2/3 filled hexagonal MPS layout: [] valley, Utah.
San Bernardino, Calif. : Norton Air Force Base, 1981.

BC
& 244 x 102 cm. or smaller. 1:62,500 Shows clusters and shelter sites
EK of proposed MX-missile system.

Washington

¶ U.S. Forest Service.

Okanogan National Forest, Washington. (Washington, D.C.), 1981.
Forest Supervisor, Okanogan National Forest, 1240 South Second, Okano-
gan, WA 98840 (phone 509/422-2704)

JC 55 x 86 cm. 1:210,000 *free on depository* GPO No. A 13.13:Ok1/2/979
OCLC: 7657738 Compiled in 1970, rev. 1979. Includes recreation site
directory. Verso contains text and ill.

¶ Washington Division of Geology and Earth Resources,

Geothermal resources of Washington. (series: Geologic map GM-25)
(Olympia?), 1981. Washington Department of Natural Resources, Olympia,
WA 98504.

JC
& 108 x 128 cm. 1:500,000 *free from publisher; free on depository:*
ML
& GPO No. C 55.22/2:W27 OCLC: 8070107 Includes text, table of thermal
PS springs and wells, and inset map of physiographic provinces of the state.

Wyoming

¶ U.S. Forest Service

Bridger-Teton National Forest (Bridger Division-west half), Wyoming.
(Washington, D.C.), 1981. Forest Supervisor, Bridger-Teton National
JC Forest, 340 North Cache St., P.O. Box 1888, Jackson, WY 83001 (phone 307/
733-2752) 128 x 72 cm. 1:126,720 Compiled in 1966, National Forest
name changed and map reprinted 1974. *free on depository* GPO No. A 13.28:
B 76/981/Wyoming) OCLC: 7932274

¶ U.S. Forest Service

JC Bridger Wilderness, Bridger-Teton National Forest, Wyoming. (Washington,
D.C.), 1981. *available same as above* GPO No. A 13.28:B76/980
OCLC: 7968143

¶ U.S. Forest Service.

JC Bridger-Teton National Forest, Wyoming: Travel Plan. (Washington, D.C.),
1981. *available as above* GPO No. A 13.28:B76/981 OCLC: ?

Geologic Map Index to USGS 7.5' & 15' Quadrangles of California, 1883 - 1980

by
Joe Crofts

Part **P-Z**

Government Publications-Maps
University Library
California State University, Chico

This index covers the detailed geologic maps of California that are distributed among ten irregularly issued map and monograph series published by the United States Geological Survey. Previous indexes to these maps are not organized around a common areal descriptor of sufficiently limited extent, which makes it difficult to determine coverage of specific areas. This index correlates U.S.G.S. geologic maps of California with 7.5' and 15' topographic quadrangles.

The U.S.G.S. topographic index map for California provides areal access to 7.5' and 15'-square zones by division of the state into quadrangles. Patrons seeking a geologic map of a specific area frequently utilize the index map and define their area in terms of the corresponding quadrangle(s). The standard 7.5' and 15' topographic maps are frequently used as base maps for geologic maps. Requests for topographic maps are frequently followed by requests for geologic maps of those quadrangles.

Geologic maps having scales of 1:125,000 and larger are covered in this index. Chronologically, the index begins with the earliest relevant map in each series and extends through 1980; *excluded from this index are maps issued in the Open-File Report series prior to 1974.*

The arrangement of the index is alphabetical by quadrangle name, with 7.5' quadrangles preceding identically named 15' quadrangles. Data elements provided for each quadrangle are: series name and number of each report containing a geologic map of that quadrangle or portion thereof; and, the extent of coverage of each geologic map of the quadrangle.

The ten series containing geologic maps of California covered in this index, with their title abbreviations, and the beginning date of each series are listed in the Legend. Also listed are abbreviations of areas and geographic directions used in the descriptions.

LEGEND

United States Geological Survey Series

B Bulletin 1883-
GF Geologic Folio 1894-
GP Geophysical Investigations Map 1946-
GQ Geologic Quadrangle Map 1949-
I Miscellaneous Geologic Investigations
Map 1955-
MF Mineral Investigations Field Studies
Map 1950-
OF Open-File Report 1974-
OM Oil and Gas Map 1943-
P Professional Paper 1902-
W Water-Supply Paper 1896-

Coverage Notations

<u>E</u>	east, east of	<u>E.</u>	East
<u>L.</u>	Lake	<u>N</u>	north, north of
<u>N.</u>	North	<u>NE</u>	northeast
<u>NW</u>	northwest		
<u>R</u>	range (U.S. Land Survey)		
<u>R.</u>	River	<u>S</u>	south, south of
<u>SE</u>	southeast	<u>SW</u>	southwest
<u>T</u>	township (U.S. Land Survey)		
<u>V.</u>	Valley		
<u>W</u>	west, west of		
<u>W.</u>	West		

<u>Quadrangle</u>	<u>Publication</u>	<u>Coverage</u>
Pacheco Pass 7.5	OF 75-394	complete
Pacheco Pass 7.5	B 603	E 121°12'30"
Pacheco Pass 7.5	MF 343	W 121°12'
Pacheco Pass 7.5	MF 416	Santa Clara Co.
Pacheco Pass 15	OF 75-394	complete
Pacheco Peak 7.5	MF 343	complete
Pacheco Peak 7.5	MF 416	complete
Pacifico Mtn. 7.5	P 522	T4N R11W 2-18,20-23,26-27 T4N R12W 1-3,10-13; T5N R11W 26-35 T5N R12W 22-27,34-36
Packwood Creek 7.5	B 406	complete
Packwood Creek 7.5	I 757	complete
Packwood Creek 7.5	I 788	complete
Packwood Creek 7.5	P 646-C	complete
Packwood Creek 7.5	P 1082	complete
Packwood Creek 7.5	B 721	T27S R17E 35-36; T27S R18E 31-32 T28S R17E 1-2, 11-12; T28S R18E 4-10
Paicines 7.5	OF 79-290	complete
Paicines 7.5	MF 357	T14S R5E 1,12-13,24-25,36 T14S R6E 6-8,16-22,26-36 T15S R5E 1,12-13; T15S R6E 1-18 T15S R7E 6-7,18 (primarily south of San Andreas Rift Zone)
Painted Rock 7.5	I 757	complete
Painted Rock 7.5	B 406	N 35°11'
Palen Mts. 15	MF 205	T2S R17E 13-36 T2S R18E 13-19,29,30-31 T3S R17E 1-11,17-18
Palermo 7.5	GF 17	complete
Palm Springs 7.5	W 1605	complete
Palm Springs 15	W 1605	S 33°55' E 119°37'30"
Palmdale (Pearland) 7.5	GQ 24	complete
Palmdale 7.5	MF 76	complete
Palmdale 7.5	P 522	complete
Palo Alto 7.5	GF 163	complete
Palo Alto 7.5	MF 328	S 37°27'30" W 122°12' (San Mateo Co.)
Palo Alto 7.5	MF 335	T5S R2W 31; T5S R3W 35-36 T6S R2W 6-7,18-19,30; T6S R3W 1-3,9-13,24 (east of Stanford Univ., south of Bay- shore Freeway)

Palo Alto 7.5	MF 575	San Mateo Co.
Palo Alto 7.5	P 943, pl. 1	two areas: 1 - urbanized lowlands, primarily north of 37°26' 2 - Portola Valley
Palo Alto 15	GF 163	complete
Palo Alto 15	MF 575	San Mateo Co.
Palo Cedro 7.5	GF 138	complete
Palo Escrito 7.5	MF 750	S Salinas River
Panamint Butte 15	B 1299	complete
Panamint Butte 15	MF 251	complete
Pancho Rico Valley 7.5	OM 24	complete
Pancho Rico Valley 7.5	P 819	complete
Pancho Rico Valley 7.5	B 581-D	T21S R10E 11-13 T21S R11E 7-11,14-18,20-23
Panoche 7.5	B 603	complete
Panoche Pass 7.5	OF 75-394	complete
Panorama Hills 7.5	B 406	complete
Panorama Hills 7.5	I 757	complete
Panorama Hills 7.5	P 116	N 35°10' E 119°39'30"
Paraiso Springs 7.5	B 1285	complete
Paraiso Springs 7.5	OM 24	complete
Paraiso Springs 7.5	P 819	complete
Paraiso Springs 7.5	MF 750	excl. primarily NE ¼ of quad.
Parker 7.5	I 1124	complete
Parker 15	I 1124	N ½
Parker 15	I 1125	SW ¼
Parker NW 7.5	I 1124	complete
Parker SW 7.5	I 1125	complete
Parkfield 7.5	P 646-C	complete
Parkfield 7.5	P 1082	complete
Parkfield 7.5	OM 24	T23S R14E 17-20,29-32
Parkfield 15	P 646-C	complete
Parkfield 15	I 757	T23S R15E 28-29,31-33 T24S R15E 1,11-15,21-29,31-36 T24S R16E 4-9,16-21,28-33 T25S R14E 1,11-15; T25S R15E 1-18 T25S R16E 4-9,16-18
Parkfield 15	P 819	T24S R14E 6-8,16-22,26-36 T25S R14E 1-13; T25S R15E 7,17-18

Parkfield 15	P 1082	excl. T24S R14E 7,17-21,27-34 T25S R14E 2-18; T25S R15E 18 (south of Cholame Hills)
Partington Ridge 7.5	MF 750	complete
Paso Robles 7.5	OM 24	complete
Paso Robles 7.5	P 646-B	complete
Paso Robles 7.5	P 819	complete
Paso Robles 15	P 646-B	complete
Paso Robles 15	I 757	T25S R13E 36; T25S R14E 30-31 T26S R12E 35-36; T26S R13E 1-2,10-16,20-36 T26S R14E 6-7,18-19,30-31 T27S R11E 20,29,32 T27S R12E 1-3,9-17,19-36; T27S R13E 1-36 T27S R14E 6-7,18-19,30-31; T28S R12E 1-12 T28S R13E 1-12; T28S R14E 6-7
Pastoria Creek 7.5	B 812-D	N 34°55'
Pastoria Creek 7.5	P 522	S 34° 55'
Pastoria Creek 7.5	W 1656, pl. 3	T10N R18W 1-11,15-21,29-30 T10N R19W 1-2,11-14,23-26 T11N R18W 31-36; T11N R19W 35-36
Patterson 7.5	B 603	complete
Peak Mtn. 7.5	I 757	complete
Peak Mtn. 7.5	B 621-M	excl. east of Abel Canyon, south of Peak Mtn.
Peak Mtn. 7.5	I 487	S 34°54'15" W 119°48'15" (SW of Sierra Madre Rd.)
Pebblestone Shut-In 7.5	P 646-A	complete
Pebblestone Shut-In 7.5	I 1097, sh. 1	T25S R8E 28-29,32-34 T26S R8E 2-5,8-17,20-29,32-36 T26S R9E 18-20,30-31
Pebblestone Shut-In 7.5	MF 784	T25S R8E 20,28-29,32-34 T26S R8E 3-5,8-17,20-29,32-36 T26S R9E 18-20,30-31
Pebblestone Shut-In 7.5	OM 24	T25S R9E 20-21,28
Pennington 7.5	GF 17	complete
Penon Blanco Peak 7.5	GF 41	complete
Penon Blanco Peak 7.5	GF 63	T2S R15E 21-27,34-36; T2S R16E 19,30-31 T3S R15E 1-2,12-13; T3S R16E 6-7,18-19
Penon Blanco Peak 7.5	GF 63	T2S R15E 21-27,34-36; T2S R16E 19,30-31 T3S R15E 1-2,12-13; T3S R16E 6-7,18-19
Pentland 7.5	W 1656, pl. 3	complete
Pentland 7.5	I 757	T32S R24E 23-26,35-36; T32S R25E 19-21,28-32 T11N R23W 4-9,17-20; T12N R23W 27-34

Petaluma 7.5	P 943, pl. 1	Petaluma city; Chileno V.; San Antonio Creek V.; Hicks V.
Petaluma 7.5	MF 574	complete
Petaluma 15	MF 574	complete
Petaluma Point 7.5	MF 484, sh. 2	complete
Petaluma Point 7.5	MF 574	complete
Petaluma Point 7.5	P 943, pl. 2	excl. uplands in SW $\frac{1}{4}$ of quad.
Petaluma Point 7.5	MF 574	south of Petaluma R. (Marin Co.)
Petaluma River 7.5	MF 574	complete
Petaluma River 7.5	P 943, pl. 2	Petaluma River floodplain
Petaluma River 7.5	W 1427	E 122°43'
Petrolia 7.5	MF 1196-A	T2S R2W 18-19,28-35; T2S R3W 13,24-25,36
Pfeiffer Point 7.5	MF 750	complete
Phelan 7.5	P 522	complete
Pickett Peak 15	GQ 1111	complete
Pico Creek 7.5	I 1097, sh.2	complete
Pico Creek 7.5	P 646-A	complete
Piedras Blancas 7.5	I 1097, sh.1	complete
Piedras Blancas 7.5	MF 784	complete
Piedras Blancas 7.5	P 646-A	complete
Piedras Blancas 15	I 1097, sh. 1	complete
Piedras Blancas 15	P 646-A	complete
Pigeon Point 7.5	GF 163	complete
Pigeon Point 7.5	MF 328	complete
Pigeon Point 7.5	MF 575	complete
Pigeon Point 7.5	P 943, pl. 1	lowlands
Pike 7.5	GF 66	complete
Pilot Hill 7.5	B 1341	complete
Pilot Hill 7.5	GF 5	complete
Pilot Hill 7.5	OF 79-386	complete
Pinalito Canyon 7.5	OM 24	complete
Pinalito Canyon 7.5	P 819	complete
Pinalito Canyon 7.5	MF 357	T18S R8E 15-17,20-23,25-29,32-36 T18S R9E 31; T19S R8E 1-5,8-16,21-28 T19S R9E 4-9,16-21,28-30
Pine Grove 7.5	GF 11	complete
Pine Mtn. 7.5	MF 944	T26S R29E 32-34 T27S R29E 3-5,8-10,14-17,20-29,32-36 T27S R30E 31; T28S R29E 1-5,8-12 T28S R30E 5-8

Pinto Basin 15	W 1475-0	N 33°55' E 115°42'30"
Piper Peak 15	GQ 1186	complete
Piru 7.5	B 309	complete
Piru 7.5	OF 76-210	complete
Pismo Beach 7.5	GF 101	complete
Pittsburg 15	MF 484, sh.5	complete
Placerville 7.5	GF 3	complete
Placerville 15	GF 3	complete
Plainsburg 7.5	MF 945	complete
Plainsburg 7.5	MF 927	T8S R15E 35-36; T8S R16E 31-32 T9S R15E 1-3,10-13; T9S R16E 5-8,17-20,29
Planada 7.5	MF 945	complete
Pleasant Grove 7.5	GF 5	complete
Pleasant Grove 7.5	OF 79-583	complete
Pleito Hills 7.5	P 116	complete
Pleito Hills 7.5	B 812-D	N 34°55'
Pleito Hills 7.5	W 1656, pl.3	N 34°53'30"
Point Arguello 7.5	B 322	complete
Point Arguello 7.5	W 1619-F	N 34°36'15"
Point Arguello 15	B 322	complete
Point Bonita 7.5	GF 193	complete
Point Bonita 7.5	MF 574	complete
Point Conception 7.5	B 322	complete
Point Dume 7.5	B 1457-E	T1S R18W 15-16,21-22 (pl.B) T1S R19W 22 (pl.E); T1S R19W 21,28 (pl.G) T1S R18W 27-28 (pl.I); T1S R19W 34-35 (pl.L) T1S R18W 31 (pl.M); T1S R19W (pl.M) S 34°00'40" (pl.N); Pt. Dume Pen. (pl.N)
Point Magu 7.5	W 1619-S	complete
Point Reyes 15	MF 574	complete
Point Reyes NE 7.5	MF 574	complete
Point Sal 7.5	B 322	complete
Point Sal 7.5	P 222	S 34°57'
Point Sal 15	B 322	complete
Point Sur 7.5	MF 750	complete
Point Sur 15	MF 750	complete
Pollock Pines 7.5	GF 3	complete
Ponderosa 15	MF 1214-A	N 41°05' W 121°33'30"

Port Chicago 7.5	MF 484, sh.2	complete
Port Chicago 7.5	P 943, pl.2	excl. uplands in NW $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$ of quad.
Port San Luis 7.5	GF 101	complete
Port San Luis 7.5	I 1097, sh.3	complete
Port San Luis 7.5	MF 511	complete
Port San Luis 15	GF 101	complete
Port San Luis 15	I 1097, sh. 3	complete
Poso Farm 7.5	MF 945	east of San Joaquin River (Madera Co.)
Potter Valley 7.5	W 1548, pl.2	T16N R11W 3-5,9-10 T17N R11W 5-8,16-21,27-34 T18N R11W 31-32
Pozo 15	I 757	excl. T31S R14E 4-5
Pozo 15	P 819	N 35°26'15" W 120°22'30"
Pozo Summit 7.5	I 757	complete
Prado Dam 7.5	OM 195	complete
Prado Dam 7.5	P 420-B	complete
Prado Dam 7.5	OM 23	T2S R8W 17-20,28-35; T3S R8W 1-24
Priest Valley 7.5	B 581-D	complete
Priest Valley 7.5	OM 24	T21S R11E 1-2
Priest Valley 15	P 819	T21S R11E 11,13-14,23-26,35-36 T21S R12E 19,29-33 T22S R11E 1-2,11-14,23-24 T22S R12E 3-11,14-24
Project City 7.5	GF 138	complete
Prospect Peak 15	GQ 345	complete
Prunedale 7.5	MF 1199	complete
Prunedale 7.5	MF 357	T12S R3E 27-34; T13S R3E 3-6,8-10,15-16 north of 36°48'; south of 37°51'30" east of T12S R2E and T13S R2E
Pulga 7.5	GF 43	complete
Pulga 7.5	P 731, pl.1,3	complete
Pulga 15	GF 43	complete
Pulga 15	P 731,pl.1,3	complete
Purdys Gardens 7.5	W 1548,pl.2	T13N R11W 6-8,10; T13N R12W 1,12 T14N R11W 30-31; T14N R12W 25-36
Pyramid Peak 7.5	GF 31	complete
Pyramid Hills 7.5	I 757	complete
Pyramid Hills 7.5	P 646-C	complete

Pyramid Hills 7.5	P 1082	complete
Pyramid Hills 7.5	B 357	N 35°47'
Pyramid Hills 7.5	B 398	N 35°47'
Pyramid Hills 7.5	B 406	S 35°47'
Pyramid Hills 7.5	B 721	S 35°47'15"
Queen Mtn. 7.5	I 561	complete
Queen Mtn. 7.5	MF 205	N 34°03' E 116°02'30"
Quien Sabe 15	OF 75-394	complete
Quien Sabe Valley 7.5	OF 75-394	complete
Quincy 7.5	GF 37	complete
Quincy 15	GF 37	complete
Quincy School 7.5	MF 944	complete
Rackerby 7.5	GF 18	complete
Raglin Ridge 7.5	MF 516	complete
Railroad Flat 7.5	GF 11	complete
Rana Creek 7.5	MF 750	complete
Ranchita 7.5	OF 80-960	N 33°13'30"
Ranchito Canyon 7.5	OM 24	complete
Ranchito Canyon 7.5	P 646-B	complete
Ranchito Canyon 7.5	P 819	complete
Rancho Nuevo Creek 7.5	I 752	complete
Rattlesnake Canyon 7.5	I 518	complete
Raymond 7.5	MF 945	T9S R18E 25-27; T9S R19E 27-34 T10S R18E 1-3,10-15,22-27,34-36 T10S R19E 3-11,13-36; T10S R20E 18-21, T11S R18E 1-3; T11S R19E 1-6 26-35 T11S R20E 2-6
Raynor Creek 7.5	MF 927	T8S R17E 21-22,26-36; T8S R18E 31 T9S R17E 1-4,9-16,21-24,25-28 T9S R18E 6-8,16-21,29-30
Raynor Creek 7.5	MF 945	SW $\frac{1}{4}$
Red Buttes 7.5	B 1089-B	complete
Red Buttes 7.5	P 522	complete
Red Mtn.. 7.5	P 522	complete
Red Mtn. 7.5	P 457	T29S R41E 35-36; T29S R42E 31-32 T30S R42E 5-8
Redding 7.5	GF 138	complete
Redding 15	GF 138	complete

Redlands 7.5	OF 78-21	complete
Redlands 7.5	W 1419, pl.1	excl. uplands in S ½ and NE 1/8
Redman 7.5	B 1089-B	complete
Redman 7.5	P 522	complete
Redondo Beach 7.5	GP 149	complete
Redondo Beach 7.5	W 1461	N 118°47'30"
Redwood Point 7.5	GF 193	complete
Redwood Point 7.5	MF 328	San Mateo Co.
Redwood Point 7.5	MF 575	San Mateo Co.
Redwood Valley 7.5	W 1548, pl.2	T16N R12W 2-11; T16N R13W 1,12 T17N R11W 6-7,18-19,30 T17N R12W 1-2,7-8,11-14,17-21,23-25,27-34 T17N R13W 36; T18N R11W 31; T18N R12W 36
Reliz Canyon 7.5	B 1141-Q	complete
Reliz Canyon 7.5	MF 750	complete
Reliz Canyon 7.5	P 819	complete
Reliz Canyon 7.5	OM 24	T19S R5E 25,36; T19S R6E 25-36 T19S R7E 30-31 T20S R5E 1,12-13,24-25,36 T20S R6E 1-6,8-17,21-28,33-36 T21S R6E 1-3; T21S R7E 6
Reward 7.5	B 406	complete
Reward 7.5	I 757	complete
Reward 7.5	B 721	N 35°20' W 119°40'
Reward 7.5	P 116	T29S R22E 29-32; T30S R22E 5-8,17-18, T31S R22E 5-8 29-32
Reyes Peak 7.5	I 752	complete
Rich 7.5	P 522	complete
Richgrove 7.5	MF 944	complete
Richmond 7.5	GF 193	complete
Richmond 7.5	OF 80-1100	complete
Richmond 7.5	MF 429	urbanized area of Berkeley and Albany south of 37°54'15" west of 122°16' east of San Francisco Bay
Richmond 7.5	MF 574	urbanized area, from south to north, west of: St. Marys High Sch., Marin Sch., Fairmount Sch., St. John Sch., Woodrow Wilson Sch., Richmond Union High Sch., City Hall, Lake Sch., Richmond Golf Club
Richmond 7.5	P 943, pl.2	lowlands (urbanized area)
Ridgecrest 15	W 2007	complete

Ridgecrest North 7.5	W 2007	complete
Ridgecrest South 7.5	W 2007	complete
Ridgecrest South 7.5	P 522	T27S R39E 23,25-26,35-36; T27S R40E 31 T28S R40E 1-2,11-12; T28S R41E 4-10, 14-18
Rim Rock 7.5	I 517	complete
Rio Bravo Ranch 7.5	MF 944	complete
Rio Bravo Ranch 7.5	OF 76-592	complete
Rio Bravo Ranch 7.5	W 1656, pl.3	S 35°28'
Rio Linda 7.5	GF 5	complete
Rio Linda 7.5	OF 79-583	complete
Rio Vista 7.5	MF 484, sh.5	complete
Rio Vista 7.5	P 943, pl.2	Two areas: 1 - Ryer Island, west of Cache Slough; 2 - N 38°11'30" W 121°42'30"
Rio Vista 7.5	W 1464	N 38°12'30" W 121°40'
Rio Vista 15	MF 484, sh.5	complete
Ripon 7.5	OF 78-656	complete
Ritter Ridge 7.5	MF 76	complete
Ritter Ridge 7.5	P 522	complete
Ritter Ridge 7.5	MF 766	T6N R12W 18-20,29-30; T6N R13W 10-15,22-25
Ritter Ridge 7.5	P 1039	T6N R12W 18-20,29-30; T6N R13W 10-15-22-25
Riverton 7.5	GF 31	complete
Robbs Peak 7.5	GF 31	complete
Robbs Peak 15	GF 31	complete
Rockbound Valley 7.5	GF 31	complete
Rocklin 7.5	B 1341	complete
Rocklin 7.5	GF 5	complete
Rocklin 7.5	OF 79-386	complete
Rock Spring Peak 7.5	OF 69-16	complete
Rock Spring Peak 7.5	B 581-D	S 36°24'30"
Rodman Mtns. 15	I 430	complete
Rogers Lake 15	B 1089-B	complete
Rogers Lake 15	P 522	complete
Rogers Lake North 7.5	B 1089-B	complete
Rogers Lake North 7.5	P 522	complete
Rogers Lake South 7.5	B 1089-B	complete
Rogers Lake South 7.5	P 522	complete

Rosamond 7.5	B 1089-C	complete
Rosamond 7.5	P 522	complete
Rosamond 15	P 522	complete
Rosamond Lake 7.5	P 522	complete
Rosedale 7.5	MF 944	T28S R26E 13-15,22-26,35-36
Roseville 7.5	GF 5	complete
Roseville 7.5	OF 79-583	complete
Rough and Ready 7.5	GF 18	complete
Royal Gorge 7.5	GF 39	complete
Royal Gorge 7.5	MF 1177-A	T15N R13E 1-2,11-14; T15N R14E 2-10 T16N R13E 13-15,22-27,34-36 T16N R14E 14-23,26-35
Ruby Canyon 7.5	OF 75-394	complete
Rumsey 7.5	OF 79-1606	complete
Rutherford 7.5	MF 483, sh.2	complete
Rutherford 7.5	P 943, pl.2	Napa V.
Rutherford 7.5	W 1495	T6N R5W 2; T7N R5W 2,11,14-18,20-23, 26-28,34-35; T7N R6W 1
Ryan 15	I 782	T24N R3E 1-3; T24N R4E 1-6 T25N R3E 1-2,10-16,20-29,33-36 T25N R4E 6-8,16-22,27-35
Sacate 7.5	B 322	complete
Sacramento East 7.5	GF 5	complete
Sacramento East 7.5	OF 79-583	complete
Sacramento West 7.5	OF 79-583	complete
Sacramento West 7.5	W 1464	W 121°35'
Saddle Mtn. 15	GF 3	complete
Saddleback Mtn. 7.5	MF 204	complete
Saddleback Mtn. 7.5	P 522	complete
St. Helena 7.5	MF 483, sh.3	complete
St. Helena 7.5	P 943, pl.2	Napa V.; Pope V.
St. Helena 7.5	W 1495	T8N R5W 19,28-34; T8N R6W 2,11-14,26, 35-36
St. Helena 15	MF 483, sh.3	complete
St. John Mtn. 7.5	MF 279	complete
Salida 7.5	OF 78-656	complete
Salinas 7.5	MF 1199	complete
Salinas 15	MF 750	south of Salinas Valley
Salisbury Canyon	I 757	excl. SE 1/8
Salisbury Portrero 7.5	I 757	complete

Salisbury Portrero 7.5	B 621-M	N 34°48'
Salisbury Portrero 7.5	I 487	southwest of Sierra Madre Rd.
Salt Spring Valley 7.5	GF 11	complete
Saltdale NW 7.5	P 522	complete
Saltdale SE 7.5	P 522	complete
San Andreas 7.5	GF 11	complete
San Andreas 7.5	GF 63	T3N R12E 2-4,10-11; T4N R11E 1-2,12 T4N R12E 2-11,14-23,26-29,33-35 T5N R11E 35-36; T5N R12E 31-35
San Andreas 15	GF 11	complete
San Andreas 15	GQ 222	complete
San Ardo 7.5	OM 24	complete
San Ardo 7.5	P 819	complete
San Benito 7.5	OF 75-394	complete
San Benito 7.5	OF 79-386	complete
San Benito 7.5	OF 75-394	complete
San Benito Mtn. 7.5	B 581-D	T19S R11E 1-3,10-15,22-27 T19S R12E 17-21,28-30
San Bernardino North 7.5	OF 79-770	complete
San Bernardino North 7.5	W 1419, pl.1	excl. T1N R4W 1-5,10-13; T2N R4W 19-36 T2N R5W 23-26 (San Bernardino Natl. Forest)
San Bernardino South 7.5	OF 78-20	complete
San Bernardino South 7.5	W 1419,pl.1	excl. uplands in SE ¼
San Clemente Is. Central 7.5	B 1071-B	complete
San Clemente Is. North 7.5	B 1071-B	complete
San Clemente Is. South 7.5	B 1071-B	complete
San Dimas 7.5	OM 23	T1S R8W 6-7,18-19,30-31 T1S R9W 13-17,19-24,30-36; T2S R8W 6-7,18 T2S R9W 1-18; T2S R10W 1,12
San Felipe 7.5	OF 75-394	complete
San Felipe 7.5	MF 335	T11S R4E 11-14; T11S R5E 7-8 (Santa Clara V. within Santa Clara Co.)
San Felipe 7.5	MF 416	N 36°57'35"
San Fernando 7.5	B 309	T3N R15W 3-10,15-18; T4N R15W 31-33
San Fernando 7.5	OM 196	N 34°19' E 118°28'
San Francisco 15	GF 193	complete
San Francisco North 7.5	GF 193	complete
San Francisco North 7.5	I 272	complete
San Francisco North 7.5	MF 574	complete

San Francisco North 7.5	P 782	complete
San Francisco North 7.5	P 943, pl.1	San Francisco, excl. Telegraph, Russian, Nob, Potrero Hills, Mt. Sutro and Twin Peaks
San Francisco South 7.5	GF 193	complete
San Francisco South 7.5	MF 311	complete
San Francisco South 7.5	MF 328	S 37°42'30" (San Mateo Co.)
San Francisco South 7.5	MF 574	N 37°42'30" (San Francisco)
San Francisco South 7.5	MF 575	S 37°42'30" (San Mateo Co.)
San Francisco South 7.5	P 943,pl.1	excl. San Bruno Mtn. and uplands from Daly City southward and west of Hwy 280
San Geronimo 7.5	MF 574	complete
San Geronimo 7.5	W 1427	N 38°06' E 122°40'
San Gorgonio Mtn. 7.5	I 431	complete
San Gorgonio Mtn. 7.5	MF 1161-A	N 34°04' (San Gorgonio Wilderness)
San Gorgonio Mtn. 15	I 431	complete
San Gregorio 7.5	GF 163	complete
San Gregorio 7.5	MF 328	complete
San Gregorio 7.5	MF 575	complete
San Gregorio 7.5	OF 80-245	complete
San Guillermo 7.5	I 752	complete
San Guillermo 7.5	OF 79-1464	complete
San Jose East 7.5	MF 335	excl. uplands in NE ¼ and SE ¼ of quad.
San Jose East 7.5	P 943, pl.1	lowlands
San Jose West 7.5	MF 335	complete
San Jose West 7.5	P 943, pl.1	excl. uplands in SW ¼ of quad.
San Juan Bautista 7.5	MF 1199	complete
San Juan Bautista 7.5	OF 79-375	complete
San Juan Bautista 7.5	MF 357	S 36°50' excl. narrow north-south area south of 36°47'30", west of 121°37'15"
San Juan Capistrano 7.5	OM 193	complete
San Leandro 7.5	GF 193	complete
San Leandro 7.5	MF 429	incl. urbanized area (Oakland, San Leandro, San Lorenzo, Russell City) excl. west of 122°12'30" (Bay Farm Is.), and mountainous non-urbanized area east of Hwy 580
San Leandro 7.5	P 943, pl.1	excl. uplands in NE 1/8, E of Hwy 580
San Lucas 7.5	B 1141-Q	complete

San Lucas 7.5	OM 24	complete
San Lucas 7.5	P 819	complete
San Lucas 7.5	MF 357	T19S R8E 25-28; T29S R9E 28-33 T29S R9E 4-9
San Luis Dam 7.5	B 603	complete
San Luis Dam 7.5	OF 75-394	complete
San Luis Obispo 7.5	GF 101	complete
San Luis Obispo 7.5	MF 686	complete
San Luis Obispo 7.5	OF 74-223	complete
San Luis Obispo 7.5	I 1097, sh.3	excl. T29S R12E 25-28,34-36 T29S R13E 30-31; T30S R12E 1; T30S R13E 6-7
San Luis Obispo 15	OF 74-223	complete
San Luis Obispo 15	I 1097, sh.2	T28S R11E 12-13; T28S R12E 18 T29S R11E 24-25; T29S R12E 19-20,28-30
San Luis Obispo 15	I 1097, sh.3	T29S R11E 25-26; T29S R12E 28-35 T30S R11E 1,12-13,24-25-36 T30S R12E 1-36; T30S R13E 7,17-20,27-35 T31S R11E 1; T31S R12E 1-6; T31S R13E 1-6
San Luis Obispo 15	P 819	T28S R11E 13; T28E R12E 13-29,32-36 T28S R13E 13-36; T28S R14E 18-19,30-31
San Luis Ranch 7.5	MF 945	T8S R11E 7-10,15-22,27-28,33-34 T9S R11E 3-4
San Mateo 7.5	MF 328	complete
San Mateo 7.5	MF 575	complete
San Mateo 7.5	P 943, pl.1	urbanized lowlands bordering San Francisco Bay, primarily N of El Camino Real
San Mateo 15	GF 193	complete
San Mateo 15	MF 575	complete
San Miguel 7.5	OM 24	complete
San Miguel 7.5	P 646-B	complete
San Miguel 7.5	P 819	complete
San Miguel 15	P 646-B	complete
San Nicholas Island 6 x 9.5	P 369	complete
San Pedro 7.5	GP 149	complete
San Quentin 7.5	GF 193	complete
San Quentin 7.5	MF 574	complete
San Rafael 7.5	GF 193	complete
San Rafael 7.5	MF 574	complete
San Rafael Mtn. 7.5	I 487	T6N R27W 5-6; T7N R27W 5-7,17-20,29-32 T7N R28W 1-28,34-36; T8N R27W 31-32 T8N R28W 31-36

San Rafael Mtn. 7.5	I 757	N 34°43'45" E 119°48'20" (NE 1/8)
San Simeon 7.5	I 1097, sh.1	complete
San Simeon 7.5	MF 784	complete
San Simeon 7.5	P 646-A	complete
San Simeon 15	P 646-A	complete
San Simeon 15	I 1097, sh.1	N ½, west of Santa Lucia Range
San Simeon 15	I 1097, sh.2	S ½
San Simeon 15	MF 599	S 35°37'30" W 121°07'30" (SE ¼)
Sanborn 7.5	MF 219	complete
Sanborn 7.5	P 522	complete
Sanborn Slough 7.5	GF 17	complete
Sand Canyon 7.5	MF 944	complete
Sandy Mush 7.5	MF 945	complete
Santa Barbara 7.5	B 321	E 119°44'
Santa Barbara 7.5	W 1108	T4N R26W 6-8,17-20; T4N R27W 1-24
Santa Cruz 7.5	GF 163	complete
Santa Cruz 7.5	MF 648	Entire city of Santa Cruz and westward along coast extending 1½ mi. inland
Santa Margarita 7.5	GF 101	complete
Santa Margarita 7.5	I 757	complete
Santa Margarita 7.5	OF 74-223	complete
Santa Margarita 7.5	OM 24	N 35°26'30"
Santa Margarita 7.5	P 819	N ½
Santa Margarita Lake 7.5	I 757	excl. T31S R14E 4-5
Santa Maria 7.5	B 322	complete
Santa Maria 7.5	MF 933	T9N R33W 5-8; T10N R33W 7-8,17-20,29-32 and north of Santa Maria River
Santa Maria 15	B 322	complete
Santa Paula 7.5	OF 76-212	complete
Santa Paula 7.5	B 309	N 34¼20'
Santa Paula Peak 7.5	B 309	complete
Santa Paula Peak 7.5	OF 76-212	complete
Santa Rita 7.5	MF 945	east of San Joaquin River
Santa Rita Park 15	MF 945	north of San Joaquin River
Santa Rita Peak 7.5	B 603	complete
Santa Rita Peak 7.5	B 357	S 36°19' E 120°37'
Santa Rita Peak 7.5	B 398	S 36°19' E 120°37'

Santa Rosa 7.5	MF 483, sh.2	complete
Santa Rosa 7.5	W 1427	complete
Santa Rosa 7.5	P 943, pl.1	Two areas: 1 - lowlands south and west of Santa Rosa, incl. city of Santa Rosa 2 - Rincon and Bennett Valleys east of Santa Rosa
Santa Rosa 15	MF 483, sh.2	complete
Santa Rosa Hills 7.5	B 322	complete
Santa Rosa Hills 7.5	OM 26	N 35°30' E 122°22'
Santa Rosa Hills 7.5	W 1107	N 34°35'
Santa Susanna 7.5	OF 76-211	complete
Santa Susanna 7.5	B 309	N 34°20'
Santa Susanna 7.5	OM 196	T3N R17W 2-4,9-11,14-16
Santa Susanna 7.5	P 334-H	T3N R17W 2-5,9-11,14
Santa Teresa Hills 7.5	MF 335	Santa Clara Valley, N and S of, but excl., Santa Teresa Hills
Santa Teresa Hills 7.5	MF 416	east of old Hwy 101
Santa Teresa Hills 7.5	P 943, pl.1	lowlands north (Santa Clara V.) and S of Santa Teresa Hills in N ½ of quad.
Santa Ynez 7.5	B 322	complete
Santa Ynez 7.5	W 1107	N 34°34'
Santiago Creek 7.5	P 116	N 34°53'30"
Santiago Creek 7.5	W 1656, pl.3	T9N R22W 5-6; T9N R23W 1-3 T10N R22W 5-8,17-20,29-32 T10N R23W 1-6,10-15,22-28,33-36 T11N R22W 31-32; T11N R23W 31-36
Saticoy 7.5	OF 76-212	complete
Saticoy 7.5	B 309	N 34°20'
Saticoy 7.5	MF 781	N 34°16' S 34°17'30" W 119°08'50"
Savahia Peak 7.5	I 1126	S 34°19'30"
Savahia Peak NE 7.5	P 486-J	T4N R24E 6-7; T5N R23E 25,36; T5N R24E 30-31
Savahia Peak SW 7.5	I 1126	T2N R21E 1-2,11-14,23-24; T2N R22E 1-24 T3N R22E 24-26,33-36
Sawmill Mtn. 7.5	P 116	N 34°51'30" E 119°12'30"
Sawtooth Ridge 7.5	B 406	complete
Sawtooth Ridge 7.5	B 721	complete
Sawtooth Ridge 7.5	I 757	complete
Sawtooth Ridge 7.5	I 788	complete
Sawtooth Ridge 7.5	P 646-C	complete
Sawtooth Ridge 7.5	P 1082	complete

Saxon 7.5	W 1464	complete
Saxon 7.5	P 943, pl.2	W 121°41'30" (Solano Co.)
Sears Point 7.5	MF 484, sh.2	complete
Sears Point 7.5	P 943,pl.2	lowlands
Sears Point 7.5	W 1427	excl. T4N R5W 5-6,7-8; T5N R5W 31-32
Sears Point 7.5	W 1495	E 122°27'30"
Seaside 7.5	MF 577	complete
Seaside 7.5	MF 750	complete
Sebastopol 7.5	P 943, pl.1	1 - lowland east of 122°50' 2 - Mark West Creek & Atascadero Creek Valleys
Sebastopol 7.5	W 1427	E 122°55'
Sebastopol 7.5	W 1548, pl.1	T7N R9W 2-5; T8N R9W 32-35
Shadow Mts. 7.5	MF 227	complete
Shadow Mts. 7.5	P 522	complete
Shadow Mts. SE 7.5	P 522	complete
Shale Point 7.5	B 406	complete
Shale Point 7.5	B 721	complete
Shale Point 7.5	I 757	complete
Shandon 7.5	I 788	complete
Shandon 7.5	OM 24	complete
Shandon 7.5	P 646-C	complete
Shandon 7.5	P 819	complete
Shandon 7.5	I 757	excl. T25S R14E 17-19 (west of Wild Horse Canyon)
Shandon 15	P 1082	T25S R15E 13-16,21-27,35-36 T25S R16E 16-21,28-33 T26S R15E 1-2,12 T26S R16E 4-9,16-18,20-21,28
Shandon 15	I 788	complete
Shandon 15	P 646-C	complete
Shandon 15	I 757	excl. T25S R14E 17-19 (west of Wild Horse Canyon)
Shandon 15	P 819	W ½
Shasta Dam 7.5	GF 138	complete
Shaver Lake 15	GQ 1271	complete
Shedd Canyon 7.5	I 757	complete
Shedd Canyon 7.5	I 788	complete
Shedd Canyon 7.5	OM 24	complete
Shedd Canyon 7.5	P 646-C	complete
Shedd Canyon 7.5	P 819	complete

Shelter Cove 7.5	MF 1196-A	complete
Sheridan 7.5	GF 5	complete
Sheridan 7.5	OF 79-583	complete
Sherman Peak 7.5	B 357	T19S R13E 25-29,32-36 T19S R14E 30-31 T20S R13E 1-4,10-14,23-24 T20S R14E 6-7,18-19,30-31
Sherman Peak 7.5	B 398	T19S R13E 25-29,32-36; T19S R14E 30-31 T20S R13E 1-4,10-14,23-24 T20S R14E 6-7,18-19,30-31
Sherman Peak 7.5	B 581-D	excl. T19S R13E 25-27,35-36 T19S R14E 30-31
Shingle Springs 7.5	GF 3	complete
Shubrick Peak 7.5	MF 1196-A	complete
Shuteye Peak 15	GQ 728	complete
Shuteye Peak 15	MF 1181	T7S R25E 20-21,28-30,31-33 T8S R25E 4-5,8-9
Sierra City 15	GF 37	complete
Silver Bell Mine 7.5	I 430	complete
Silver Lake 15	GF 31	complete
Silverwood Lake 7.5	P 522	complete
Simi 7.5	OF 76-210	complete
Simi 7.5	B 309	N 34°20'
Simmler 7.5	B 406	complete
Simmler 7.5	I 757	complete
Simmler 7.5	I 757	complete
Sisquoc 7.5	B 322	complete
Sisquoc 7.5	OM 14	complete
Sisquoc 7.5	P 222	complete
Sisquoc 7.5	W 1664	S 34°50'50"
Sites 7.5	OM 210	complete
Skaggs Springs 7.5	W 1548, pl.1	T10N R10W 7,18-19; T10N R11W 2-3,]0-14
Slack Canyon 7.5	B 581-D	N 36°06'
Slack Canyon 7.5	OM 24	T21S R11E 11-14,23-26,35-36 T21S R12E 7-8,17-21,28-34 T22S R11E 1-2,11-14,23-24 T22S R12E 1-24
Slack Canyon 7.5	P 819	SW ½
Slate Mtn. 7.5	GF 3	complete

Sleepy Valley 7.5	MF 79	complete
Sleepy Valley 7.5	MF 766	T6N R13W 8-10,15-17
Sleepy Valley 7.5	P 522	T5N R13W 4-9,16-18,20-21 T5N R14W 1-5,9-13 T6N R13W 7-10,15-22,27-34 T6N R14W 9-16,21-28,33-36
Sleepy Valley 7.5	P 1039	T6N R13W 8-10,15-17
Sly Park 7.5	GF 3	complete
Smartville 7.5	GF 18	complete
Smith Mtn. 7.5	MF 303	complete
Smith Mtn. 7.5	B 581-D	T21S R12E 12-13; T21S R13E 7-36 T21S R14E 7,18-19,30-34 T22S R13E 1-2,12; T22S R14E 6-7
Smith Mtn. 7.5	OM 24	T22S R13E 7,17-20
Smith River 7.5	W 1254	complete
Snelling 7.5	GF 41	complete
Soapstone Hill 7.5	GF 43	complete
Soapstone Hill 7.5	P 731, pl.1,3	complete
Soberanes Point 7.5	MF 750	complete
Soda Lake 15	MF 205	S 35°04'
Soda Springs 7.5	GF 39	complete
Soda Springs 7.5	MF 1177-A	S South Yuba R.
Soldier Pass 15	GQ 654	complete
Soldier Pass 15	I 506	complete
Soldier Pass 15	B 1251-H	T5S R37E 21-23,25-36; T5S R38E 31 T6S R37E 1-4,9-16,21-28,33-36 T6S R38E 5-9,15-36; T7S R37E 1-4,9-12 T7S R38E 1-12
Soledad 7.5	MF 357	T16S R5E 36; T16S R6E 31-36 T16S R7E 31; T17S R6E 1-18,20-28,-- T17S R7E 6-7,18-19,30-31 --34-36 T18S R6E 1,12; T18S R7E 6-7
Soledad 7.5	OM 24	S 36°24'30"
Soledad 15	P 819	S ½
Soledad Mtn. 7.5	P 522	complete
Solvang 7.5	B 322	complete
Solvang 7.5	OM 26	T5N R32W 2-5,8-11 T6N R31W 3-10,15-18 T6N R32W 1-4,9-16,21-28,33-36
Solvang 7.5	W 1107	N 34°34'

Solyo 7.5	B 603	complete
Solyo 7.5	MF 343	complete
Sonoma 7.5	MF 483, sh.2	complete
Sonoma 7.5	P 943, pl.2	lowlands, incl. Sonoma V. V. of the Moon Lovall V.
Sonoma 7.5	W 1495	T5N R5W 5-9,16-30 T5N R6W 1-2,11-14,23-26; T6N R5W 31 T6N R6W 14,23,25-26,35-36
Sonoma 15	MF 483, sh.2	complete
Sonora 7.5	GF 41	complete
Sonora 7.5	GF 63	T1S R14E 1-4; T1N R13E 1,12 T1N R14E 2-29,33-36 T2N R13E 25-36; T2N R14E 27-35
Sonora 15	GF 41	complete
Soquel 7.5	MF 648	excl. uplands north of Aptos
South Gate 7.5	W 1461	W 118°13'
Springler Hills East 7.5	P 457	T28S R42E 1,8-18; T28S R43E 5-8,17-18
Spreckels 7.5	MF 750	complete
Sprangler Hills West 7.5	W 2007	complete
Spring Garden 7.5	GF 37	complete
Standard 7.5	GF 41	complete
Standard 7.5	GF 63	T1S R15E 4-6; T1N R15E 4-6
Stanislaus 7.5	GF 51	complete
Stockdale Mtn. 7.5	OM 24	complete
Stockdale Mtn. 7.5	P 646-B	complete
Stockdale Mtn. 7.5	P 819	SW ½
Stoddard Well 7.5	MF 232	complete
Stoddard Well 7.5	P 522	complete
Stonyford 7.5	MF 279	complete
Stonyford 15	MF 279	complete
Storrie 7.5	GF 43	complete
Storrie 7.5	P 731, pl.1,3	complete
Strawberry 7.5	GF 51	complete
Strawberry Valley 7.5	GF 43	complete
Strawberry Valley 7.5	P 731, pl.3	T20N R8E 1-11,14-23,27-30,32-33
Sunfair 7.5	I 561	complete
Sunfair 7.5	MF 205	T1N R8E 3-5,9-10,15-16,22,27 T2N R8E 19-22,27-29,32-34
Sunnymead 7.5	OF 78-22	complete

Sunshine Peak 7.5	I 472	complete
Sunshine Peak 7.5	MF 205	T6N R5E 1-2,11-12; T6N R6E 5-8 T7N R5E 1-5,9-16,22-26,35-36 T7N R6E 5-8,17-20,29-32 T8N R5E 31-36; T8N R6E 31-32
Surf 7.5	B 322	complete
Surf 7.5	W 1107	S 34°43'
Surf 7.5	W 1619-F	Point Arguello Naval Missile Facility (south of Hwy 246)
Sutter 7.5	GF 17	complete
Sutter Buttes 7.5	GF 17	complete
Sutter Buttes 15	GF 17	complete
Sutter Causeway 7.5	OF 79-583	complete
Sutter Creek 15	GF 11	complete
Sutter Creek 15	OF 79-436	complete
Sweeney Pass 7.5	OF 79-754	complete
Sycamore Flat 7.5	B 1285	complete
Sycamore Flat 7.5	MF 750	complete
Sycamore Flat 7.5	P 819	complete
Sycamore Flat 7.5	OM 24	E 121°28'30"
Taft 7.5	B 406	complete
Taft 7.5	I 757	complete
Taft 7.5	P 116	complete
Taft 7.5	W 1656, pl.3	complete
Taft 7.5	B 835	T31S R23E 10-12; T31S R24E 7-10, 15-18
Taft 7.5	P 912, pl.3	T31S R23E 10-13 T31S R24E 7-10,15-18 Elk Hills
Tahoe 15	GF 39	complete
Tahoe City 7.5	GF 39	complete
Tajiguas 7.5	B 322	complete
Tar Springs Ridge	I 757	T31S R14E 11-13 T31S R15E 7-9,16-18,20-21
Tassajara 7.5	MF 310	complete
Tassajara Hot Springs 7.5	MF 750	complete
Tassajara 7.5	OF 80-544	complete
Tassajara 7.5	MF 429	T2S R1E 13,23-24

Taylor Canyon 7.5	I 757	complete
Taylor Canyon 7.5	B 621-M	excl. T32S R19E 22-27,34-36
Taylor Monument 7.5	OF 79-583	complete
Taylorville 7.5	B 353	complete
Tecuya Creek 7.5	P 116	W 118°54'30"
Tehachapi 15	I 607	complete
Tehachapi North 7.5	I 607	complete
Tehachapi NE 7.5	I 607	complete
Tehachapi NE 7.5	P 522	T31S R34E 24-26,34-36 T31S R35E 7-8,17-20,29-32 T32S R34E 1-4,9-17,19-24 T32S R35E 5-8,17-20
Tehachapi South 7.5	I 607	complete
Tehachapi South 7.5	P 522	T32S R33E 25,35-36 T11N R14W 4-9,16-21,28-33 T11N R15W 1,11-15,22-28,32-36 T12N R14W 31-33
Tejon Hills 7.5	W 1656, pl.3	complete
Tejon Hills 7.5	MF 944	E 118°51'30"
Tejon Ranch 7.5	I 611	complete
Tejon Ranch 7.5	B 812-D	W 118°40'
Tejon Ranch 7.5	MF 944	W 118°40'
Tejon Ranch 7.5	W 1656,pl.3	T11N R16W 18-19; T11N R17W 1-21,29-30 T11N R18W 1,12-13,24-25,36 T12N R17W 27-35; T12N R18W 25,36 T32S R30E 27,34-35
Telegraph Peak 7.5	P 522	complete
Templeton 7.5	OM 24	complete
Templeton 7.5	P 646-B	complete
Templeton 7.5	P 819	complete
Templeton 7.5	I 757	T26S R12E 35-36; T27S R11E 20,29,32 T27S R12E 1-3,9-17,19-36 T28S R12E 1-12 irregular area including most of S ½ and NE ½ of quad. from Templeton southward, parallels Hwy 101, extending westward to 1000' elevation north of Templeton, crosses Hwy 101 at juncture with Hwy 46 and extends northeastward east of Paso Robles
Tent Hills 7.5	I 757	complete
Tent Hills 7.5	P 646-C	complete

Tent Hills 7.5	P 1082	complete
Tent Hills 7.5	B 357	N 35°47' W 120°12'
Tent Hills 7.5	B 398	N 35°47' W 120°12'
Tent Hills 7.5	B 726	S 35°47'15" E 120°12'30"
Tepusquet Canyon 7.5	B 322	complete
Tepusquet Canyon 7.5	I 757	N 34°57'05" E 120°10'10" (north of Buckhorn Ridge)
Tepusquet Canyon 7.5	MF 933	W 120°14'15"
Terminus 7.5	OF 79-933	complete
The Dark Hole 7.5	P 646-C	complete
The Dark Hole 7.5	P 1082	complete
The Dark Hole 7.5	I 757	T23S R16E 28-29,32-33 T24S R16E 4-6
The Dark Hole 7.5	P 605-C	T22S R15E 25-28,33-36 T22S R16E 29-32 T23S R15E 1-3,11-13 T23S R16E 5-8,17-18
The Whaleback 15	W 1491	N 41°38' E 122°10'
Thompson Canyon 7.5	B 1141-Q	complete
Thompson Canyon 7.5	OM 24	complete
Thompson Canyon 7.5	P 819	complete
Thousand Palms 15	W 1605	south of Hwy 60-70-99 west of 116°26'30"
Three Sisters 7.5	OF 75-394	complete
Three Sisters 7.5	MF 343	N 121°56'
Three Sisters 7.5	MF 416	N 36°57'35" (Santa Clara Co.)
Tiefert Mountains 15	W 1460-F	S 35°22' W 116°33'
Tierra Redonda 7.5	P 646-B	complete
Tierra Redonda Mtn. 7.5	B 1255	complete
Tierra Redonda Mtn. 7.5	OM 24	complete
Tierra Redonda Mtn. 7.5	P 819	complete
Tisdal Weir 7.5	GF 17	complete
Tomales 7.5	MF 574	complete
Topanga 7.5	GP 149	complete
Topanga 7.5	P 165	complete
Topanga Canyon 7.5	B 1457-E	T1S R16W 25,36; T1S R17W 30-31 (p1.A) T1S R16W 18-19; T1S R17W 13,24 (p1.H)
Topatopa Mtns. 7.5	OF 79-1464	complete

Topo Valley 7.5	MF 357	T17S R8E 8,16-17,20-21,27-29,32-34 T18S R8E 3-5,8-10
Topo Valley 7.5	OM 24	T17S R8E 20-21,28-29,32-34 T18S R8E 2-4,8-11
Topock 7.5	P 486-J	Calif. area
Torrance 7.5	GP 149	complete
Torrance 7.5	W 1461	excl. S 33°47'30" W 118°119'
Tracy 7.5	MF 343	complete
Tracy 7.5	B 603	S 37°42'30"
Tranquillon Mtn. 7.5	B 322	complete
Tranquillon Mtn. 7.5	W 1107	N 34°36'30"
Tranquillon Mtn. 7.5	W 1619-F	Point Arguello Naval Missile Fa- cility N 34°35' W 120°31'15"
Trench Canyon 15	P 438, pl.1(sh.1)	S 38°06'
Tres Pecos Farms 7.5	B 603	complete
Tres Pinos 7.5	OF 75-394	complete
Tres Pinos 7.5	OF 79-702	complete
Truckee 7.5	GF 39	complete
Truckee 15	GF 39	complete
Tubb Canyon 7.5	OF 80-960	N 33°13'30" W 116°24'
Tumey Hills 7.5	B 603	complete
Tumey Hills 7.5	OF 75-394	complete
Tumey Hills 7.5	OM 128	T15S R12E 14-23,26-35 T16S R12E 2-5,9-11,14-15,23
Tunnel Hill 7.5	GF 3	complete
Tuolumne 7.5	GF 41	complete
Tupman 7.5	B 835	T30S R24E 23-26,35-36; T30S R25E 30-32 T31S R24E 1-2,11-12; T31S R25E 5-8
Tupman 7.5	I 757	T30S R24E 11-14,23-26,35-36 T30S R25E 18-20,28-34 T31S R24E 1-2,11-12; T31S R25E 3-10
Tupman 7.5	P 116	W 119°17'
Tupman 7.5	P 912, pl.3	T30S R24E 24-26,35-36 T30S R25E 30-32; T31S R24E 1-2,11-12 T31S R25E 5-8 (Elk Hills)
Turlock 7.5	MF 945	complete
Turlock 15	MF 945	excl. west of San Joaquin River
Turlock Lake 7.5	OF 80-913	complete
Turner Ranch 7.5	MF 945	excl. south of San Joaquin River

Turtle Valley 7.5	MF 232	complete
Turtle Valley 7.5	P 522	complete
Tustin 7.5	OM 154	N 33°41'15"
Tustin 7.5	OM 193	S 33°41'
Twain 7.5	P 731, pl.2	south of E. Branch N. Fork Feather R.
Twelve Guage Lake 7.5	MF 226	complete
Twelve Guage Lake 7.5	P 522	complete
Twentynine Palms 7.5	I 561	complete
Twentynine Palms 7.5	MF 205	complete
Twentynine Palms 15	I 561	complete
Twitchell Dam 7.5	B 322	complete
Twitchell Dam 7.5	MF 933	complete
Two Rocks 7.5	W 1427	T5N R8W 4-9,16; T5N R9W 1 T6N R8W 7-9,16-21,28-33 T6N R9W 13-16,21-28,34-36
Tyee City 7.5	W 1470	complete
Tylerhorse Canyon 7.5	P 522	complete
Ubehebe Peak 15	GQ 95	complete
Ubehebe Peak 15	I 506	complete
Ukiah 7.5	W 1548, pl.2	T15N R12W 2-11,14-23,25-30 T15N R13W 1,12; T16N R12W 14-23,-- T16N R13W 13,24-25 26-36
Vacaville 15	MF 484, sh.3	complete
Val Verde 7.5	OF 76-211	complete
Val Verde 7.5	B 309	T4N R17W 15-23,26-35 T4N R18W 1-3,10-15,22-27,34-36 T5N R17W 19-21,28-33 T5N R18W 22-27,34-36
Val Verde 7.5	OM 196	S 34°26' E 118°42'
Val Verde 7.5	P 334-H	T4N R17W 7-11,14-23,26-29,32-35
Valleton 7.5	B 1221-B	complete
Valleton 7.5	OM 24	complete
Valleton 7.5	P 646-B	complete
Valleton 7.5	P 819	complete
Valley Ford 7.5	W 1427	T6N R9W 7-8,17-20; T6N R10W 12-13
Valley Mtn. 7.5	MF 205	complete
Valley Mtn. 15	MF 205	N 34°02'
Valley Springs 7.5	GF 11	complete
Valley Springs 7.5	79-436	complete

Valley Springs 15	GF 11	complete
Valley Springs 15	OF 79-436	complete
Valley Springs SW 7.5	GF 11	complete
Valley Springs SW 7.5	OF 79-436	complete
Valyermo 7.5	GQ 50	complete
Valyermo 7.5	P 522	complete
Van Nuys 7.5	GP 149	T1N R14W 30-31; T1N R15W 19-36
Van Nuys 7.5	P 165	S 34°09'
Venice 7.5	GP 149	complete
Venice 7.5	W 1461	complete
Ventana Cones 7.5	MF 750	complete
Ventura 7.5	MF 781	S 34°17'30" E 119°20'
Vernalis 7.5	MF 343	complete
Vernalis 7.5	B 603	T35S R5E 1,12-13,24-25,36 T35S R6E 7,17-21,28-34
Verona 7.5	OF 79-583	complete
Victorville 7.5	MF 229	complete
Victorville 7.5	P 522	complete
Victorville 15	MF 229	complete
Victorville 15	P 522	complete
Victorville NW 7.5	MF 229	complete
Victorville NW 7.5	P 522	complete
Vidal 7.5	I 1125	complete
Vidal 15	I 1125	SE ¼
Vidal Junction 7.5	I 1126	complete
Vidal NW 7.5	I 1126	complete
Viejas Mtn. 7.5	OF 78-113	complete
Villa Creek 7.5	P 646-A	complete
Volta 7.5	B 603	W 120°54'
Wallace 7.5	GF 11	complete
Wallace 7.5	OF 79-436	complete
Walnut Creek 7.5	GF 193	complete
Walnut Creek 7.5	OF 80-351	complete
Walnut Creek 7.5	P 943, pl 2	N 37°55' E 122°05' excl. Lime Ridge
Walters Springs 7.5	MF 483, sh.3	complete
Warm Springs Mtn. 7.5	P 522	T6N R15W 7,18-19; T6N R16W 9-15,24

Warner Springs 7.5	OF 80-960	E 116°40'45"
Warners Ranch 7.5	OF 80-960	N 33°13'30" E 116°40'45"
Washington 7.5	GF 66	complete
Waterloo 7.5	OF 79-664	complete
Waterman Mtn. 7.5	P 522	T33N R10W 1-4,10-12
Watsonville East 7.5	MF 1199	complete
Watsonville East 7.5	OF 78-453	complete
Watsonville East 7.5	MF 648	Pajaro Valley north of Pajaro R. and uplands west of Simas Lake and Casserly Creek
Watsonville West 7.5	MF 1199	complete
Watsonville West 7.5	MF 648	excl. south of Pajaro R. (Monterey Co.)
Waucoba Mtn. 15	GQ 528	complete
Waucoba Mtn. 15	I 506	complete
Waucoba Mtn. 15	P 110	complete
Waucoba Mtn. 15	P 438, pl.1	complete (sh.2)
Waucoba Spring 15	GQ 921	complete
Waucoba Spring 15	I 506	complete
Waucoba Wash 15	I 506	complete
Waucoba Wash 15	P 110	complete
Waucoba Wash 15	P 438, pl.1(sh.3)	W ½ of quad. & Saline V. in SE portion of quad.
Weaverville 15	MF 275	complete
Weed 15	W 1484	T41N R5W 5-8,17-18; T41N R6W 1,12 T42N R4W 18; T42N R5W 7-36 T42N R6W 12-13,24-25,36
Weed Patch 7.5	W 1656, pl.3	complete
Weed Patch 7.5	B 812-D	S 35°06'
Wells Ranch 7.5	I 585	complete
Wells Ranch 7.5	I 757	complete
Wells Ranch 7.5	OM 217	complete
Wells Ranch 7.5	B 406	T32S R22E 19-21,28-29,33
Wentworth Springs 7.5	GF 39	complete
West Camp 7.5	I 757	T24S R19E 1,12-13,24-25,36 T24S R20E 7,17-20,28-33 T25S R19E 1,12-13; T25S R20E 3-11,14-18 (SW ½)
West Elk Hills 7.5	I 757	complete
West Elk Hills 7.5	P 116	complete
West Elk Hills 7.5	B 835	T30S R22E 11-14,23-26 T30S R23E 7-9,16-21,25-28,31-33 T31S R23E 4

West Elk Hills 7.5	P 912, pl.3	T30S R22E 11-14,23-25 T30S R23E 7-9,16-21,28-33 T31S R23E 4
West of Biggs 7.5	GF 17	complete
West Point 7.5	GF 11	complete
Westley 7.5	OF 78-656	complete
Westley 7.5	B 603	T4S R7E 18-20,29-33 T5S R7E 3-11,14-18
Westville 7.5	GF 66	complete
Westville 7.5	MF 1177-A	complete
Whale Mtn. 7.5	P 486-J	excl. T6N R23E 6
Wheatland 7.5	GF 18	complete
Wheeler Springs 7.5	I 752	N 34°35'
Whipple Mtns. SW 7.5	I 1124	S 34°17'30"
Whipple Wash 7.5	I 1124	S 34°17'30"
Whispering Pines 7.5	MF 483, sh.4	T10N R8W 2-4 T11N R8W 16,21,27-28,33-34
White Ledge Peak 7.5	W 1108	T4N R25W 21-28,33-36
White Mtn. Peak 15	GQ 1012	complete
White Mtn. Peak 15	P 438,pl.1 (sh.1)	complete
White Mtn. Peak 15	P 438, pl.2	complete
White Mtn. Peak 15	P 800-B, pl.97	N 37°35' E 118°23'
White River 7.5	MF 944	S 35°52'30" W 118°51'20"
White River 15	MF 944	S 35°52'30" W 118°51'20"
Whitmore 15	GQ 993	complete
Whittier 7.5	P 420-C	complete
Whittier 7.5	OM 83	N 33°58' E 118°02'
Wilber Springs 15	I 538	complete
Wilcox Ridge 7.5	B 603	E 121°18'
Wild Crossing 7.5	MF 226	complete
Wild Crossing 7.5	P 522	complete
Wildwood School 7.5	OF 79-1606	complete
Williams Hill 7.5	B 1181-Q	complete
Williams Hill 7.5	P 646-A	complete
Williams Hill 7.5	P 819	complete
Willits 15	W 1548, pl.6	T17N R13W 4-5,9; T18N R13W 4-10,15-22, T18N R14W 1,11-15,22-25 27-34 T19N R13W 29-32; T19N R14W 25,36

Willow Springs 7.5	B 1089-C	complete
Willow Springs 7.5	P 522	complete
Wilson Corner 7.5	I 757	complete
Wilson Corner 7.5	OM 24	N 35°26'
Wilson Corner 7.5	P 819	N ½
Winters 7.5	MF 484, sh.4	complete
Winters 7.5	OF 79-1606	complete
Winters 7.5	W 1464	complete
Winters 7.5	P 943, pl.2	south of Putah Creek
Winters Ridge 7.5	B 812-D	N 34°55' W 118°40'
Winters Ridge 7.5	P 522	S 34°57'
Winton 7.5	MF 945	complete
Wolf 7.5	GF 18	complete
Woodland 7.5	OF 79-1606	complete
Woodland 15	OF 79-1606	complete
Woodland 15	MF 484, sh.4	S 38°37'30"
Woodside 7.5	GF 163	complete
Woodside 7.5	MF 328	complete
Woodside 7.5	MF 575	complete
Woodward Island 7.5	P 943, pl.2	east of Old River (121°34'30")
Woody 7.5	MF 944	W 118°51'20"
Wunpost 7.5	B 1221-B	complete
Wunpost 7.5	OM 24	complete
Wunpost 7.5	P 646-B	complete
Wunpost 7.5	P 819	complete
Yermo 7.5	I 592	complete
Yorba Linda 7.5	OM 195	complete
Yorba Linda 7.5	P 420-B	complete
Yorba Linda 7.5	OM 23	T2S R8W 18-19,30-31; T2S R9W 13-36 T2S R10W 13,24-25,36 T3S R8W 6-7,18; T3S R9W 1-5,9-14
York Mtn. 7.5	P 646-B	complete
York Mtn. 7.5	I 1097, sh.2	T27S R10E 34-35; T28S R10E 2-3,10-15 T28S R11E 7,17-18
York Mtn. 7.5	MF 599	T27S R10E 34-35; T28S R10E 2-3,20-15 T28S R11E 18
York Mtn. 7.5	OM 24	E 35°48'
York Mtn. 7.5	P 819	NE ½

Yosemite Lake 7.5	MF 945	complete
Yountville 7.5	MF 483, sh.2	complete
Yountville 7.5	P 943, pl.2	Napa V.; Foss V.
Yountville 7.5	W 1495	T6N R4W 4-10; T6N R5W 1-2,12 T7N R4W 18-20,29-33 T7N R5W 2,11-14,23-26,35-36
Yreka 15	B 1436	complete
Yreka 15	MF 568	complete
Yreka 15	OF 78-12	complete
Yreka 15	W 1462	T43N R8W 2-3; T44N R8W 22-23,26-27, 34-35
Yreka 15	W 1484	E 122°40'
Yuba City 7.5	GF 17	complete
Yucca Valley North 7.5	I 516	complete
Yucca Valley South 7.5	I 516	complete
Zaca Creek 7.5	B 322	complete
Zaca Creek 7.5	OM 14	N 34°40' W 120°10'
Zaca Creek 7.5	OM 26	T6N R31W 3-6; T6N R32W 1-4 T7N R31W 7,17-22,27-34 T7N R32W 1-4,9-16,21-28,33-36 T8N R32W 33-34
Zaca Creek 7.5	P 222	N 34°40' W 120°10'
Zaca Creek 7.5	W 1107	S 34°42'
Zaca Creek 7.5	W 1664	T7N R31W 3-9,16-21; T7N R32W 1-4,9-16, T8N R31W 27-34 22-24 T8N R32W 25-28,33-36 (primarily west of Zaca Creek and N of S slope of Purisma Hills)
Zaca Lake 7.5	B 322	complete
Zaca Lake 7.5	I 487	N 34°47'30"
Zaca Lake 7.5	W 1107	T8N R30W 18-20
Zaca Lake 7.5	W 1664	R8N R31W 10,15,22
Zamora 7.5	OF 79-1606	complete



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