

SECOND ANNUAL REPORT
OF THE STATE MAP ADVISORY COMMITTEE
FOR OREGON

1980

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January 1, 1980 - December 31, 1980

John D. Beaulieu, Chairman
State Map Advisory Committee

State of Oregon
Department of Geology and Mineral Industries

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EXECUTIVE SUMMARY

The purposes of the State Map Advisory Committee (Executive Order 79-06) are: (1) to recognize and pursue mapping goals for Oregon, (2) to promote coordination of programs, policies, and resources with the intent of maximizing opportunities and minimizing duplication, and (3) to bring benefits of well directed mapping more effectively to the people of Oregon.

To accomplish these aims, the State Map Advisory Committee includes representation from Federal agencies, State agencies, and universities. Major accomplishments noted below are detailed in the body of this report.

- 1) The State Map Advisory Committee promoted effective coordination in mapping through the planning and sponsorship of three meetings of the Committee and one highly successful State/Federal Mapping Coordination Meeting in which each agency had opportunity to discuss programs and interests.
- 2) The Oregon Department of Geology and Mineral Industries entered into a cooperative agreement with the U.S. Geological Survey to bring a Resident Cartographer to the State of Oregon whose major tasks now include: (1) the identification and linking of mapping capabilities through cooperative agreements, (2) promotion of more effective product dissemination, (3) elimination of unnecessary duplication of effort, and (4) technical assistance in matters of mapping and coordination.
- 3) The State Map Advisory Committee completed a brief brochure for broad public use which outlines the mapping products and responsibilities of the various Federal and State agencies engaged in mapping in the State.
- 4) The State Map Advisory Committee pursued cooperative completion of fundamental map bases for the State through effective planning, prioritized goal setting, and consistent communication with the U.S. Geological Survey. Progress is tabulated below:

<u>Product</u>	<u>Published 1979</u>	<u>Published 1980</u>	<u>In progress</u>
7.5' topographic maps	10	46	453
7.5' orthoquads	2	36	441
1:100,000 base maps	0	5	60

STATE RESIDENT CARTOGRAPHER - YEARLY REPORT

Glenn W. Ireland

The State Resident Cartographer (SRC) came on duty September 1, 1980. The position was established to satisfy several State and Federal goals:

- o To provide assistance and technical guidance in the broad area of Cartography using the resources of the National Mapping Division and other Federal and State agencies.
- o To search for, identify, and facilitate the implementation of cooperative agreements with Federal, State, and local agencies which can contribute to the goals of the National Mapping Program.
- o To be a contact point for the National Mapping Division - collecting and disseminating information as needed by cartographic producers and users.
- o To coordinate activities, and perform those functions which will lead to the most practical and economical use of the State and Federal resources as they relate to mapping and geographic information.

In line with the general goals of the SRC office, there are several specific activities taking place in Oregon that the SRC has been directed to pay particular attention:

- 1) Geographic Information System (GIS). The State Department of Forestry has taken the lead in the investigation of a GIS. A recent GIS workshop sponsored by the Department of Forestry indicates the readiness State agencies have for a GIS.
- 2) State Affiliate of the National Cartographic Information Center (NCIC). Several adjacent states have established or are in the process of establishing an NCIC State Affiliate or a Cartographic Information Center. Affiliation with NCIC improves the State's ability to learn about, have access to, and use the cartographic information available from Federal, State, and private sources. Affiliation also extends the State government's capability to apply more effective cartographic information in planning and in policy formulation. This concept will be pursued in 1981.
- 3) Cartographic and Geographic Needs and Capabilities of Oregon. The SRC will be visiting each State and Federal agency to aid the cartographic and geographic effort in Oregon. Areas of gap and overlap will be identified for future planning.

During the four months of the SRC's activities several noteworthy occurrences have taken place:

- o In November John Beaulieu, SMAC Chairman, and the SRC met with Governor Atiyeh and the Natural Resources Cabinet. The presentation began with

an explanation of the SRC concept and progressed into an explanation with exhibits of the USGS National Mapping Division products. Several questions were asked by the Governor and agency heads. The presentation lasted half an hour and was attended by 12 agency heads, the Governor, and two of his assistants. The presentation and our presence were well received.

- o On December 17, the State/Federal Coordination Meeting for Oregon was held in the Capitol Building at Salem. Speakers for this meeting were: Peter Bermel, Assistant Division Chief, Plans and Operations, NMD; Dick Swinnerton, Chief, WMC; Gene Napier, Chief, Plans and Coordination, WMC; Dr. John Beaulieu, Chairman, State Mapping Advisory Committee (SMAC), was the moderator. Forty-eight participants from State and Federal agencies and the private sector attended this meeting. Peter Bermel and Dick Swinnerton gave overviews of the NMD from a national and regional perspective. Gene Napier reported on the priority mapping requests submitted by each agency and gave a summary of the mapping activities in Oregon in fiscal year 1980. Part of the afternoon was devoted to each agency giving a summary of their mapping activities and needs. Also on the afternoon agenda were discussions of a Geographic Information System and a report by Dr. Jon A. Kimmerling concerning the Coastal Uniform Mapping Series.
- o Water Resources Division of the USGS submitted two requests through the State Resident Cartographer concerning 1:100,000 scale maps of the Mt. Hood and Three Sisters areas for a volcano hazards study. These proposed maps will be a composite of several standard 100 K quadrangles. These maps will be used to study potential flood damage caused by an increase in volcanic activity.
- o Several meetings were held with the State Department of Forestry and other State agencies concerning a Geographic Information System. Attended a workshop conducted by Comarc Design Systems. The workshop was one part of a contract awarded to Comarc by State Forestry and funded by the Pacific Northwest Regional Commission.
- o About 12,000 excess USGS topographic maps were distributed to the Board of Higher Education State Library System. The distribution of these maps had several restrictions including they could not be sold or used for purposes that would compete with any private supplies.
- o The BLM Cadastral Surveys Branch was assisted in a surveying problem on Mount St. Helens. The BLM required positions for two points on either side of Mount St. Helens' northerly mouth. The Western Mapping Center determined positions by aerotriangulation on the two points which were paneled by BLM.
- o Various items of information were collected for the National Mapping Division's mapping effort in Oregon. The information resources in Oregon have up to now been mostly unavailable except to the field parties. With the SRC in-place in Portland, this information gap will be minimized.

Membership List

John D. Beaulieu, State Department of Geology and Mineral Industries,
1055 State Office Building, Portland, Oregon 97201.

James H. Claypool, State Department of Land Conservation and Development,
1175 Court Street N.E., Salem, Oregon 97310.

George E. Shore, State Department of Forestry, 2600 State Street, Salem,
Oregon 97310.

Robert A. Mead, State Department of Revenue, 213 Public Service Building,
Box #2, Salem, Oregon 97310.

Mark E. Harbert, Division of State Lands, 1445 State Street, Salem, Oregon
97310.

Larry R. Bright, State Department of Fish and Wildlife, 506 S.W. Mill Street,
Portland, Oregon 97201.

James Hollon, State Department of Agriculture, Agriculture Building,
635 Capitol N.E., Salem, Oregon 97310.

Rudolph P. Wellbrock, Highway Division, State Department of Transportation,
207 Transportation Building, Salem, Oregon 97310.

Gerald N. Holman, State Water Resources Department, Mill Creek Park,
555 13th Street N.E., Salem, Oregon 97310.

William Sidle, State Department of Energy, 102 Labor and Industries Building,
Salem, Oregon 97310.

Gary B. Morgan, Aeronautics Division, State Department of Transportation,
3040 25th Street S.E., Salem, Oregon 97310.

Stephen R. Sander, State Department of Environmental Quality, P.O. Box 1760,
Portland, Oregon 97207.

Tony Lewis, Environmental Remote Sensing Applications Laboratory, Oregon
State University, Corvallis, Oregon 97331.

Cartography Department, Portland State University, P.O. Box 751, Portland,
Oregon, 97207.

Jon Kimerling, Geography Department, Oregon State University, Corvallis,
Oregon 97331.

William Loy, Geography Department, University of Oregon, Eugene, Oregon,
97403.

Richard Lycan, Geography Department, Portland State University, P.O. Box 751,
Portland, Oregon 97207.

Sue Clark, Map Library, University of Oregon, Eugene, Oregon 97403.

Terry Bayless, State Soil and Water Conservation Commission, 1015 13th Street S.E., Salem, Oregon 97310

Geometrics Division, U.S. Forest Service, P.O. Box 3623, Portland, Oregon 97208.

Owen Kendall, U.S. Bureau of Land Management, P.O. Box 2965, Portland, Oregon 97208.

George Green, U.S. Department of Agriculture, Soil Conservation Service, 1220 S.W. 3rd Avenue, 16th Floor Federal Building, Portland, Oregon 97204.

Thomas Jackson, Bonneville Power Administration/ETLL, P.O. Box 3621, Portland, Oregon 97208.

James Francis, U.S. Army Corps of Engineers, P.O. Box 2946, Portland, Oregon 97208.

David Harris, Associate Chief, Water Resources Division, U.S. Geological Survey, P.O. Box 3202, Portland, Oregon 97208.

Ted Albert, BIA-PAO, Land Services Branch, P.O. Box 3785, Portland, Oregon 97208.

1980 STATE/FEDERAL MAPPING COORDINATION MEETING

Salem, Oregon

9:00 a.m. - 4:00 p.m.
Wednesday, December 17, 1980

MEETING SUMMARY

Attendees

Dick Swinnerton	Western Mapping Center, U.S. Geological Survey
Peter F. Bermel	National Mapping Division, U.S. Geological Survey
Ray W. Miller	Oregon Department of Forestry
George Shore	Oregon Department of Forestry
Tony Lewis	Environmental Remote Sensing Applications Laboratory
Larry Bright	Oregon Department of Fish and Wildlife
Jon Kimerling	Department of Geography, Oregon State University
Glenn Ireland	Oregon/U.S. Geological Survey
Lewis L. McArthur	Oregon Geographic Names Board
Mike Beyerle	Oregon Department of Forestry
Dave Trask	U.S. Forest Service
Ig Gruenwald	U.S. Water and Power Resources Service
Herbert D. Lloyd	U.S. Water and Power Resources Service
Steve Sander	Oregon Department of Environmental Quality
Rosalyn Shirack	Oregon Dept. of Land Conservation and Development
Dick Hickenbottom	Chickering/Green Empire
Dave Harris	Water Resources Division, U.S. Geological Survey
Owen Kendall	U.S. Bureau of Land Management
Tom Jackson	Bonneville Power Administration
Ted Albert	U.S. Bureau of Indian Affairs
Carl Johansen	Northwest Cartography, Inc.
George Robinson	U.S. Geological Survey
Gene Napier	U.S. Geological Survey
Bill Sidle	Oregon Department of Energy
Bill Reed	U.S. Forest Service - R-6
Dick Dodge	U.S. Forest Service - R-6
Dave Lang	U.S. Forest Service - R-6
Jim Francis	U.S. Army Corps of Engineers
John Price	Federal Highway Administration
Peter Eberhardt	University of Oregon Map Library
Susan Clark	University of Oregon Map Library
George L. Green	USDA Soil Conservation Service
Don Stelling	USDA Soil Conservation Service
Elton Chang	Federal Highway Administration, Oregon Division
Mindy Gray	Data Systems Division, Executive Department
Phil Morgan	Data Systems Division, Executive Department
Walt Shields	Crown Zellerbach Forestry Research
Ron Hanna	FAA
Robert Mead	Cadastral Map Division, Department of Revenue
Joyce Erickson	Division of State Lands
Peter Paquet	Oregon Department of Energy
John D. Beaulieu	Oregon Department of Geology and Mineral Industries

Introduction

Dr. John Beaulieu (Chairman of the State Map Advisory Committee and Deputy State Geologist) opened the meeting noting that the purpose was to facilitate cooperation among agencies in mapping functions with the view of maximizing opportunities as well as avoiding possible duplication of effort.

U.S. Geological Survey National Mapping Division

Dick Swinnerton (Chief, Western Mapping Center, USGS) elaborated on the map factory aspects of the National Mapping Program and the map leadership role of the Division within the Federal government. Specific comments included:

- 1) Principal digital efforts by Federal government will be in the Division.
- 2) The 1:24,000 topo series will be complete in the late 1980's with printing to follow.
- 3) The 1:100,000 planimetric series will be complete nationwide in a few years.
- 4) The 1:250,000 series is complete.
- 5) The historic file is available on microfilm by state through NCIC.

In topo mapping, Federal agency input is most important through OMB directive, but consideration is also given to Critical National Priorities, SMAC, cooperative agreements, and balance state by state. In Washington and Oregon, 72 quads in the 7½' series are being processed in connection with volcanic hazard interests; advance material will be available in two years.

Budget trends for the 1980's include a decline in new map work with a corresponding increase in digital efforts (from 5% total budget to 40% total budget). Other functions (ortho, NCIC, modernization, HAP, co-ops) will continue.

For Mount St. Helens various map products now include or will soon include 7½' topo with existing field control, ortho coverage, digital coverage (pre-eruption topo, post-eruption topo, digital line graph), and miscellaneous other products (LUDA 1:100K post-eruption, etc.)

U.S. Geological Survey National Mapping Division

Plans and Operations

Peter Bermel (Assistant Division Chief) briefly described Division structure noting the recent assimilation of geography, topography, and publication functions. Funding includes appropriation (86%), co-ops (4%), other Federal revenue (9%), and other (1%).

Expenditures are guided by Congress, Budget, co-ops, OMB, and Interior. Co-ops have totaled \$100 million over the years. SMACs are most active in the West.

In the 7½' series 14 states are complete and the goal is to complete the series in print in the early 1990's. Production will be guided primarily by Federal agency needs and will follow a national completion plan. Generally, areas requested by three or more Federal agencies get attention; SMAC priorities should be directed elsewhere as a matter of strategy. Historically, Federal priorities in the A-16 process have been skewed towards the East.

Topo bathymetric maps on a variety of scales are available in given areas through a cooperative effort with the National Ocean Survey and indicate mean high, mean low, and subsea topography using the metric system. Data are acquired through a coordinated field observation - aerial photo effort.

High altitude photos are acquired largely through Federal co-ops owing to inadequate USGS funding. Increased resolution on higher altitude platforms may allow a 3-4 year cycle in the future. The photos are used for the orthophoto series and to revise the 1:24,000 topo series. Imagery includes 1:80K black and white and 1:63K color IR.

Digital efforts around the nation include transportation, coal, boundaries, geothermal, land management, land use, forest inventory, and base maps. Potential includes data manipulation. The Federal digital effort is undergoing review which includes a recent report from ITEC Optical Systems to OMB, which finds that:

- On line capabilities will be needed for planning.
- Federal responsibility is needed in addressing question of consistent standards.
- An effort centralized in the USGS and building on 7½' data base is advisable.
- An A-16 type effort would assure compatibility.
- Emphasis on completion of 7½' digital data base is desirable with a 1991 deadline using subcontracting. Funding on a self-sustaining basis is recommended so that receipts flowing to the General Fund from sales are equal to expenditures. As a companion arrangement a Federal copyright may be required to preserve the market. Also, a provision should be considered to allow direct co-ops with private industry.

National Map Program - Map Product Availability

Dick Swinnerton noted the greatly increased demand for map products antecedent to the actual printed map. These include map separates and similar items. To cope with the problem, the USGS is addressing management options which include size, complexity, condition, price, inquiry procedures, automated product tracking, standardization of orders, contract photo lab support, and satellite outlets. Near term completion of the "Map Data Catalogue" will help. Also, the possibility of developing field production capabilities through work share arrangements may help.

Oregon 7½' Topo Series Progress Report

For fiscal year 1980, SMAC requested 203 starts, and 75 were made as compared to 250 for the entire western region. A total of 46 quads were published in 1980 as compared to 10 in 1979. Presently 453 are in progress. Specific areas of concern to SMAC are not being addressed in the precise sequence requested, but the overall completion plan is being addressed and the Oregon effort has accelerated noticeably in the past year.

Specific "agency" input was offered on an individual basis and is tabulated below:

- Oregon DOE: Bill Sidle and Peter Paquet - energy siting and coastal zone.
- USFS: Bill Reed - use of 7½' series base and updates.
- Oregon Revenue: Bob Mead - oversees large-scale state cadastral map program, interest in topobathy series.
- U.S. Corps of Engineers: Jim Francis - large-scale construction mapping.
- U.S. Highway: Jim Price - desire to coordinate A-16 request with SMAC
- Oregon Geographic Names Board: Lewis MacArthur - the need to incorporate proper names procedure in mapping efforts.
- LCDC: Roslyn Shirock - need for maps by local planners, and by LCDC in plan review; interest in topobathy series need for computer analysis of some level.
- DEQ: Steve Sanders - variety of projects using survey maps and imagery, interest in topobathy.
- USDA SCS: George Green - 1:24K ortho in use for soils mapping, desire to digitize soils at 1:100K. Need for timely release of color IR HAP.

- Oregon Fish and Wildlife: Larry Bright - Habitat mapping employs LANDSAT, aerials, and orthos with 7½' topo as guide.
- ERSAL: Tony Lewis - variety of projects on contract basis employ a spectrum of imagery products and scales.
- Oregon Forestry: George Shore - prefer 4-5 year cycle in ortho-photos; photo index is being converted to APSRS treatment.
- BIA: Ted Albert - use basic USGS products for a variety of Indian related issues.
- BPA: Tom Jackson - APSRS is too coarse in present form to meet all needs.
- BLM: Owen Kendall - emphasis on 1:100K planimetric series, but a variety of projects primarily with an EIS slant. Will fly Coos Bay area at 1:12,000 next year.
- USGS WRD: David Harris - producing 1:100K base maps of drainage surrounding volcano areas in Oregon.
- Chickering/Green Empire: Dick Hickenbottom - available for contract services.

Geographic Information System - Oregon Orientation

For the Oregon effort to develop in the optimum direction, proper communication is a must between all participants if all options are to be properly considered, especially in view of budgetary shortfalls. Major concerns include goals, maximizing opportunities, data compatibility, adequate state coverage, intercommunication of hardware, and consistency of classification insofar as that is desirable. The contributions SMAC has to offer in this effort are summarized below.

Executive Department

The Executive Department recognizes the needs for standards and a coordinated approach and tracks the efforts of various agencies. A recent study by the Department and now in the Governor's Office for consideration recommends creation of a task force of potential users to resolve issues and to define direction. There is a need to address existing data bases, to explore practical questions, to assure standards in media and format, to pursue solutions that are user oriented rather than vendor oriented and to geo-reference a variety of data amenable to this kind of treatment even if historic treatment may not have considered this option.

U.S. Geological Survey

In addition to previous comments, the USGS through Dick Swinnerton developed the distinction between digital mapping (automated plotting and tabulations) and geographic information systems (the interplay and analyses of data bases) and pointed out that the USGS digital effort is aimed at digital mapping, but designed to service geographic information system efforts.

Oregon Department of Forestry

Mike Beyerle discussed the historic role of the Department as data collectors for forestry related data and noted the rapidly expanding needs for data in terms of volume, scope, and need for resolution. Specialized retrieval requests from a broad spectrum of users has further spurred the need for an automated approach for data retrieval. In recent years PNRC funding has assisted the Department as they respond to a variety of needs on State Forest lands and forested lands and regarding a variety of topics such as insect and disease control.

Coordination efforts have included work with the USFS at Fort Collins and scoping studies by OSU. A present Executive Order addresses the need for a coordinated Forest Resources Program including the need to define forest resource data needs and the scope of an information system that will be sufficient to conduct assessments and develop program recommendations.

Geography - Oregon State University

Jon Kimerling discussed the progress on a program to develop a coastal land use map series for planners and also for USGS LUDA revision in Oregon.

In scoping the study, attempts by others to do the same were studied. An orthophoto base was selected to allow timely revision and ozalid technologies are being examined to allow timely and cost effective reproduction.

Modifications are being considered to enhance visual effectiveness and a land net will be added for geographic referencing. Overlay for hazards and land use will be developed.

The classification scheme will follow the USGS system, which allows for necessary flexibility in levels III and IV to address local needs and interests. The project may evolve into a model for the state in terms of format and method.

CONTRIBUTION OF SMAC IN THE DEVELOPMENT OF GIS FOR OREGON

Executive Order 79-06 directs SMAC to pursue computer map options for the State of Oregon. The USGS is a leader in the Federal government in digital mapping and sees its role as including guiding and assisting states. SMAC cooperates with the USGS.

There is little opportunity in State government at this time to develop a centralized GIS capability from the standpoint of hardware. Priority is placed on lower cost and possibly otherwise desirable options within agencies which preserve maximum precision of data and which allow agency management of data of interest to them.

At the same time the State must move ahead in a coherent fashion to address the growing need for statewide GIS capabilities. In this setting the role of SMAC is triply important. First, it must provide a means for agencies to make good consistent decisions to best serve their respective interests. Second, it must assure that the development of diffuse GIS capabilities does not lead to a variety of incompatible systems in the future. And third, it must provide for comprehensive coverage for the State, if possible:

- 1) Mechanism for consistent decisions: Agencies contemplating GIS efforts should present their plans to SMAC with the aim of tapping the experience of all agencies and of informing other agencies of their plans. Coordination, consistency, and maximum use of shelf capabilities are promoted in this manner. For technical assistance and for accessing NMP capabilities the Resident Cartographer is available.
- 2) Provisions to assure compatible systems: In isolation a body like SMAC is not fully capable of avoiding the development of incompatible systems in a diffuse statewide GIS effort. However, the leadership, expertise, and capabilities of the National Map Program within the USGS are available to SMAC through cooperative agreements and the Resident Cartographer. Systematic adherence to the formats and standards of the NMP by agencies working through SMAC can make a coherent statewide GIS system for Oregon possible even though the system is a composite of individual agency efforts.
- 3) Provisions for a complete system: An overview perspective can be provided by SMAC to assure that significant geographic or topical gaps do not develop in a State GIS effort. Further, it can provide for maximum use of available resources within agencies by linking of common interests either through informal agreements or the development of cooperative agreements with the assistance of the Resident Cartographer.
- 4) The role of SMAC is advising and is part of a State effort which also includes initiative on the part of individual agencies, review on the part of the Executive Department, guidance on the part of task forces, and leadership on the part of the Governor's Office.

MEETING SUMMARY
STATE MAP ADVISORY COMMITTEE

Thursday, March 20, 1980

Room 257

State Capitol Building

Participants

<u>Name</u>	<u>Agency</u>
John Beaulieu	State Dept. of Geology and Mineral Industries
Gene Napier	U.S. Geological Survey
Dick Dodge	U.S. Forest Service
Jim Francis	U.S. Corps of Engineers
Jon Kimmerling	Oregon State University - Geography
Steve Feinstein	PNRC - Governor's Office
Gerald Parker	USGS-WRD (Portland)
Robert Mead	State Department of Revenue
Jim Claypool	State Land Conservation and Development Comm.
George Shore	State Department of Forestry
Robert Montgomery	Soil Conservation Service
Mindy Gray	State Executive Department
Rudy Wellbrook	State Department of Transportation
Chris Levy	State Department of Transportation
Paul Staub	State Dept. of Geology and Mineral Industries
Sue Clark	University of Oregon - Map Library
Tom Jackson	Bonneville Power Administration
Meg Tillett	U.S. Geological Survey
Bill Loy	University of Oregon
Jerry Holman	State Water Resources Department

- 1) Major accomplishments of 1979 as summarized in the Annual Report were briefly reviewed and input for major emphasis in 1980 was solicited. As suggested by the chairman, topics of concern include but are not limited to the following:
 - a) Maintenance and monitoring of the topographic mapping program.
 - b) Development of cooperative agreements to facilitate mapping in the state.
 - c) Acquisition of a Resident Cartographer for Oregon.
 - d) Long-term consideration of the relationship of SMAC to local jurisdictions.
 - e) An evaluation of the concept of NCIC affiliates.
 - f) Increased contribution to the ongoing search for and evaluation of computer mapping options in and/or for the state.
- 2) Highlights of the 1979 Regional Federal-State Mapping Conference were briefly reviewed:
 - a) The Topographic Mapping Division has been revamped into the National Mapping Program with broader duties and increased emphasis on consolidating digital mapping capabilities.
 - b) The High Altitude Aerial Photo Program (HAP) operates on two scales (1:80,000 B+W) (1:58,000 CIR) with a turnaround time of 3-5 years. Eleven Federal agencies cooperate.
 - c) Land use maps of western Oregon with a scale of 1:100,000 and/or 1:250,000 are available for western Oregon. Digitizing is in progress.
- 3) National Map Index status was reviewed:
 - a) The efforts of the Oregon SMAC to get a unit-by-unit index developed for Oregon drove the Federal system.
 - b) The Committee agreed that our encoding information should be converted to the Federal MCIS format and that annual update encoding data should be provided by state agencies for inclusion in the system. Federal agency input is provided at the Federal level.
 - c) A similar data base for aerial photographs is now available under the APSRS program. It includes map plot information using $7\frac{1}{2}'$ quads as the smallest split. Future indexes should designate smaller units of area as indicated by the Committee.

4) Resident Cartographer - status and program direction were reviewed:

- a) Recruitment for the position will be multi-agency and nationwide.
- b) The Resident Cartographer will be in place at the USGS-WRD office in Portland by midsummer or shortly thereafter.
- c) The Resident Cartographer will be under the supervision of SMAC through the chairman; he or she will receive S and S support through the USGS-WRD office in Portland, and will pursue priority items defined by SMAC and the USGS in previous meetings.

5) Miscellaneous

- a) The agency map brochure will be completed and distributed by Transportation after a few minor additions are supplied by Gene Napier.
- b) Gratis topographic maps will arrive in Oregon in June.

STATE MAP ADVISORY COMMITTEE

MEETING SUMMARY

Thursday, June 19, 1980

Participants

<u>Name</u>	<u>Affiliation</u>
John Beaulieu	Department of Geology
George L. Green	Soil Conservation Service
Robert A. Mead	Department of Revenue
Kris Brooks	Geography Department (OSU)
Ray W. Miller	State Forestry Department
Steve Renoud	State Forestry Department
Tony Lewis	ERSAL (OSU)
Tom Jackson	Bonneville Power Administration
Gale Sickler	Bonneville Power Administration
Owen Kendall	Bureau of Land Management
Larry Bright	Fish & Wildlife Department
Chris Levy	Department of Transportation
Joe Bach	Department of Transportation
Dick Dodge	U.S. Forest Service
Jerry Parker	U.S.G.S. - Water Resources
Jim Claypool	Land Conservation & Development
Gene Napier	U.S.G.S - Mapping Center
Susan Trevitt-Clark	Map Library (UofO)

Prior to treatment of the agenda topics, the mapping needs of the USGS Mount St. Helens effort in Vancouver, Washington were discussed. Map products that have been developed on short order to assist the operation have been a 1:100,000 metric base map, and a variety of orthophoto maps. The State Resident Cartographer has coordinated most of the effort. In the future larger scale topo maps and a digital terrain - change map will be developed.

The regular agenda was then discussed:

1) Long Range Plan for 7½' Topographic Maps:

Following Oregon's lead the other Western States developed individual long range plans which the NMP of the USGS then consolidated into a regional plan which now is in draft form and which considers USGS capabilities as well as state needs. A 1989 completion date is scheduled.

For Oregon there are 1831 7½' quads of which (as of October 1979) format, 760 are published, 102 are in "T" - map format, 303 are in progress and 124 are authorized. A total of 61 more maps have been authorized this year with a planned authorization of 130-135 in sight for the year. In general terms we are on schedule.

2) The Federal Five Agency Agreement:

This Agreement, signed in 1977, is designed to promote coordination of inventorying of renewable resources by Federal Agencies. In ways it is a Federal analog to the Executive order creating SMAC. We (SMAC) are on their mailing list now and will be tracking their progress since from time to time it will impact programs and planning by State Agencies. Ray Miller (Forestry) mentioned peripheral contacts of his agency with the group.

As a responsive mapping body the NMP of the USGS will address the concerns and recommendations of the Five Agency Group in the normal course of their program planning and mapping.

3) Resident Cartographer:

Recruiting is closed; interviewing will take place in July, and SMAC members have received copies of the position description.

The incumbent (he/she!) will work closely with SMAC to address Federal and State concerns in mapping, namely product availability and program cooperation. Further detail on the purpose of this position is provided in previous meeting summaries.

4) Aerial Photography activities in Oregon:

Cooperative aerial photography is occurring in Oregon on a variety of fronts, but historically has been hindered by a variety of technical difficulties including the preferred centering practice for photos (Township vs Quad) focal length, scale, and turnaround time.

Gene Napier reports that survey flying now includes both township and quad centered cameras.

Ready access to available photography is still hindered by lack of indexing in terms of completeness, detail, and timeliness. APSRS is the best available system. The need to further improve the system or supplement it with other activities will be addressed later in the context of larger related issues pertaining to map availability and user service.

5) Miscellaneous:

The agency brochure was formally distributed. Our thanks to Susan Clark for her months of effort and to Chris Levy for final preparations prior to printing. DOT will house the masters and will oversee periodic revisions and updates.

The gratis topographic maps will be available in August. A letter of notification and instructions will be sent in advance to all those who requested maps.

MEETING SUMMARY
STATE MAP ADVISORY COMMITTEE

Thursday, September 11, 1980

ATTENDEES

John Beaulieu
Rudy Wellbrock
Bill Reed
Roger Crystal
Robert Peak
Jim Francis
Owen Kendall
Ted Albert
Gale Stickler
Mindy Gray
Dick Dodge
Edwin Gustafson
Tony Lewis
Dave Harris
Larry Bright
Jon Kimerling
Gene Napier
Ray Miller
George Shore
Mike Donley

DOGAMI
Oregon Highway
USFS - R6
USFS - R6
U.S. Army Corps
U.S. Army Corps
BLM Portland
BIA Portland
BPA Portland
Executive
USFS - R6
U of Cal. Santa Barbara
ERSAL
USGS
Ore. Fish & Wildlife
OSU Geography
USGS Menlo Park
State Forestry
State Forestry
Donley & Associates

1) Resident Cartographer

Glenn Ireland, Resident Cartographer for the State of Oregon selected after an intense nationwide search, was introduced to the committee. His general duties (attached) were discussed and his plans for visiting committee members on an individual basis were stated. The opportunities for a person of Glen's background and capabilities to assist Oregon's mapping and related efforts are almost limitless and he will operate with general guidelines and priorities identified by the SMAC Chairman and the USGS.

2) Digital Mapping and Informations Systems:

The direction of the National Map Program within the USGS is articulated in the October 11, 1979 letter of Rupe Southard, Chief of the National Map Program. This letter (attached) was highlighted to the group by Gene Napier. The USGS will coordinate and provide leadership to Federal and state agencies in digital mapping.

General plans include a phased decentralization of technical expertise and special resources to meet federal and state needs and to tap diffuse existing capabilities. This effort is assigned high priority in the 1980's.

Ray Miller of State Forestry discussed his agency's efforts to put into place a pilot GIS project for Oregon. Input involves many agencies and it was noted that communication between and within agencies will need close attention. SMAC members will be invited to a workshop September 22 and 23.

Bob Reed (USFS) and Gene Napier (USGS) briefly described the pitfalls of attempting to develop a GIS in isolation. The presentation by Forestry was helpful in this regard.

3) Miscellaneous

Gratis topographic maps are loaded in Denver and will be delivered to the Camp Adair facility. Total number of maps is less than originally anticipated. Distribution will be decided by the SMAC Chairman with priority given to educational institutions with plans for repeated use of the maps. The gesture of the USGS to provide these maps to the state is appreciated.

The Regional Map Coordination Conference is scheduled for December 17. Mr. Brumell and Dick Swinnerton will attend.

The Committee expressed a strong desire for the 1:100,000 topo base material be digitized along with other elements. The Chairman will communicate this in writing to Rupe Southard.

U.S. GEOLOGICAL SURVEY
NATIONAL MAPPING PROGRAM
Fiscal Year 1980 Summary for the State of Oregon

Program Objectives

Under the National Mapping Program, administered by the Geological Survey's National Mapping Division (NMD), multipurpose published maps and basic map data are produced for a variety of needs. The Program's published maps include topographic maps, orthophotoquads, State maps, land use, and other special subject maps. The Program provides a wide spectrum of basic map data as map production by-products, including aerial photographs, reproducible map materials, and geodetic control.

A recent Program emphasis is the reorientation from producing principally printed maps to an automated effort of creating and maintaining a digital data base that can be used to provide a wide variety of output including printed maps.

Services to Federal, State, and local agencies include coordination of mapping requirements and technical assistance in satisfying them. Government agencies and the general public are served by the Program's National Cartographic Information Center (NCIC).

Highlights of 1980

- o Statistics and indices of available products are enclosed.
- o A revision of the 1:62,500-scale map of Crater Lake National Park is in work but is currently held up for legislative adjustment of the park boundary.
- o Public land surveys and boundaries in the Portland area for ninety-two quadrangles were authorized for digitizing.

- o The NMD entered into a work-share agreement with the U.S. Forest Service to produce one hundred sixty-four new orthophotoquads in the Deschutes, Umpqua, and Willamette National Forests.
- o The Department of Geology and Mineral Industries and the NMD cooperatively established a State Resident Cartographer position in Portland.
- o Requests for two hundred and three 1:24,000-scale maps were received from state agencies at the mapping coordination meetings hosted by the State Mapping Advisory Committee. From these requests thirty new quadrangles were authorized. Forty-five additional maps were authorized from Federal mapping requirements. The combined total number of authorizations are in five projects, Agness (12), Crater Lake (22), Sweethome (12), Wildcat Mountain (16), and Mineral (13).
- o Northeastern Oregon is scheduled to be flown in FY 81 as part of the National High Altitude Program. The area covered includes the 1:250,000 quadrangles of The Dalles, Pendleton, Canyon City, Grangeville, Baker, and the eastern half of Vancouver.

OREGON

	TOTAL NUMBER OF MAPPING UNITS IN STATE	NO. OF MAPS PUBLISHED FY 80	PUBLISHED TOTAL TO DATE	TOTAL NO. OF MAPS IN WORK	NO. OF MAPS AUTHORIZED FY 80	NO. OF MAPS REVISED FY 80
7.5 MINUTE MAPPING	1831	46	806 (44%)	453 (25%)	75	27
1:100,000-SCALE QUADS	65	5	5 (8%)	60 (92%)	6	0
1:100,000-SCALE COUNTY MAPS	36	0	0	7	0	0
1:250,000-SCALE REVISION	19	0	19	0	0	0
NATIONAL PARK MAPS	1	0	1	1*	0	0
STATE BASE MAPS	1	0	1	1**	0	0

* Revised format

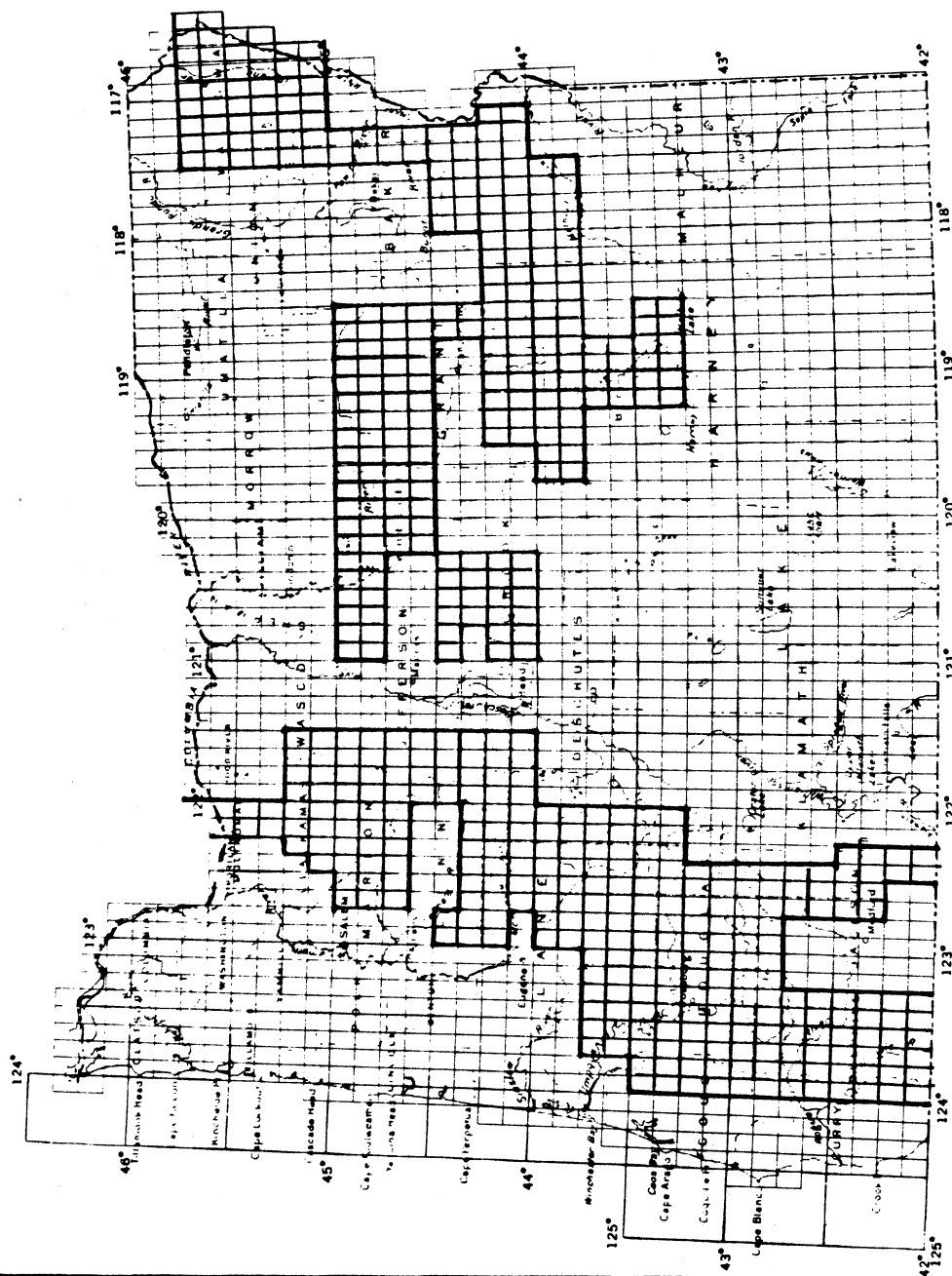
** Update

	TOTAL NO. OF MAPPING UNITS IN STATE	AVAILABILITY OF ADVANCE MATERIALS BY MAPPING UNIT	MAPS COM- PLETED THIS FY (80)	NO. OF MAPS IN WORK	NO. OF MAPS AUTHORIZED THIS FY (80)
7.5-MINUTE ORTHOPHOTOQUAD	1831	1350 (74%)	36	441 (24%)	166
DIGITAL ELEVATION MODELS	1831	1	1	16	17
DIGITAL LINE GRAPHS BY 7.5-MINUTE QUAD	1831	70	70	22	92
1:100,000 LAND USE AND LAND COVER MAP	65	12	0	0	0
1:250,000 LAND USE AND LAND COVER MAPS	19	8	2	6	6
1:50,000-SCALE DEFENSE MAPPING AGENCY QUAD	457	0	0	0	0

TOPOGRAPHIC DIVISION
WESTERN MAPPING CENTER
MENLO PARK, CALIFORNIA

OREGON

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



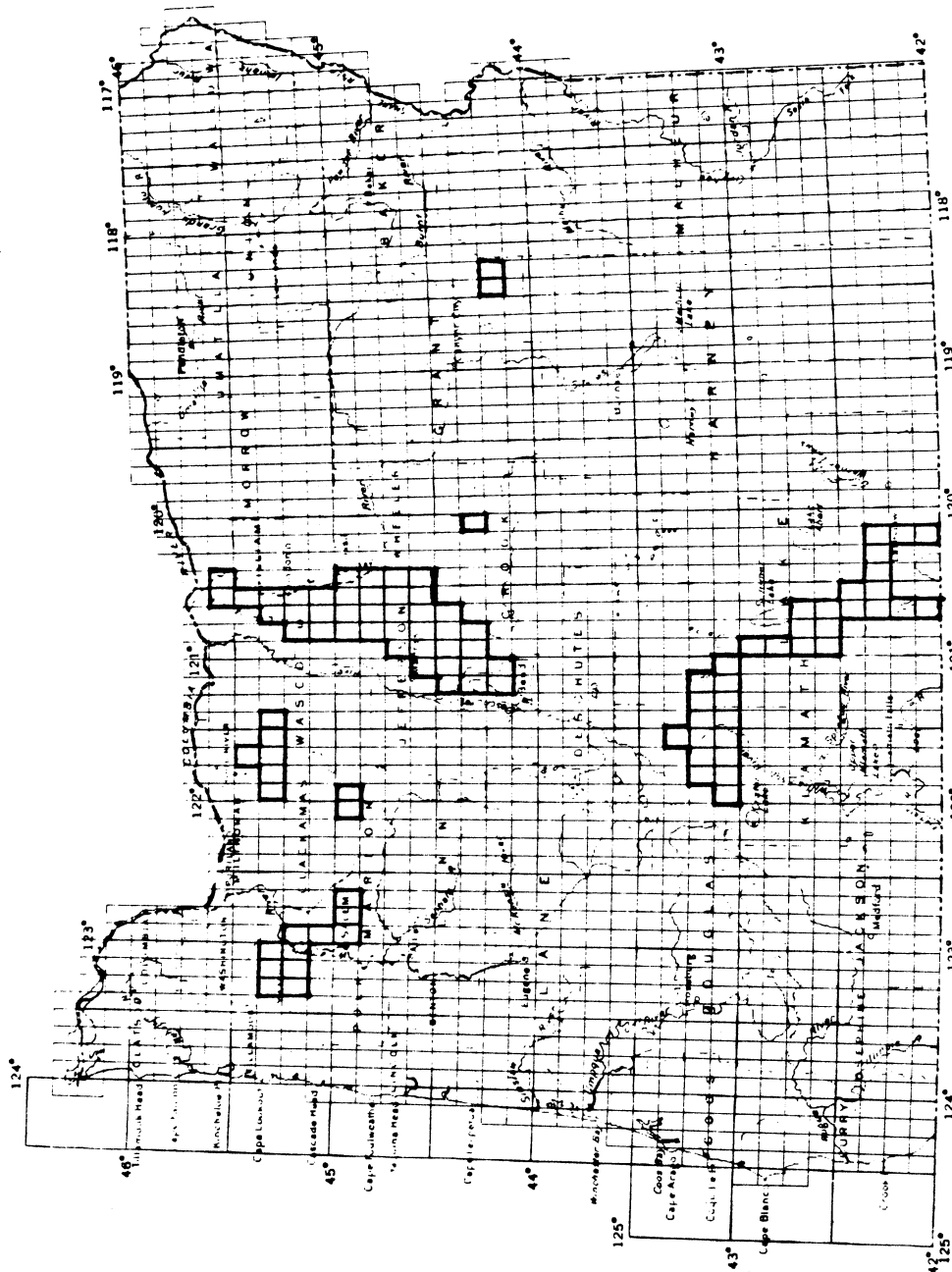
□ 1:24,000-scale quadrangles
not authorized or mapped
as of October 1980.

TOPOGRAPHIC DIVISION
WESTERN MAPPING CENTER
MENLO PARK, CALIFORNIA

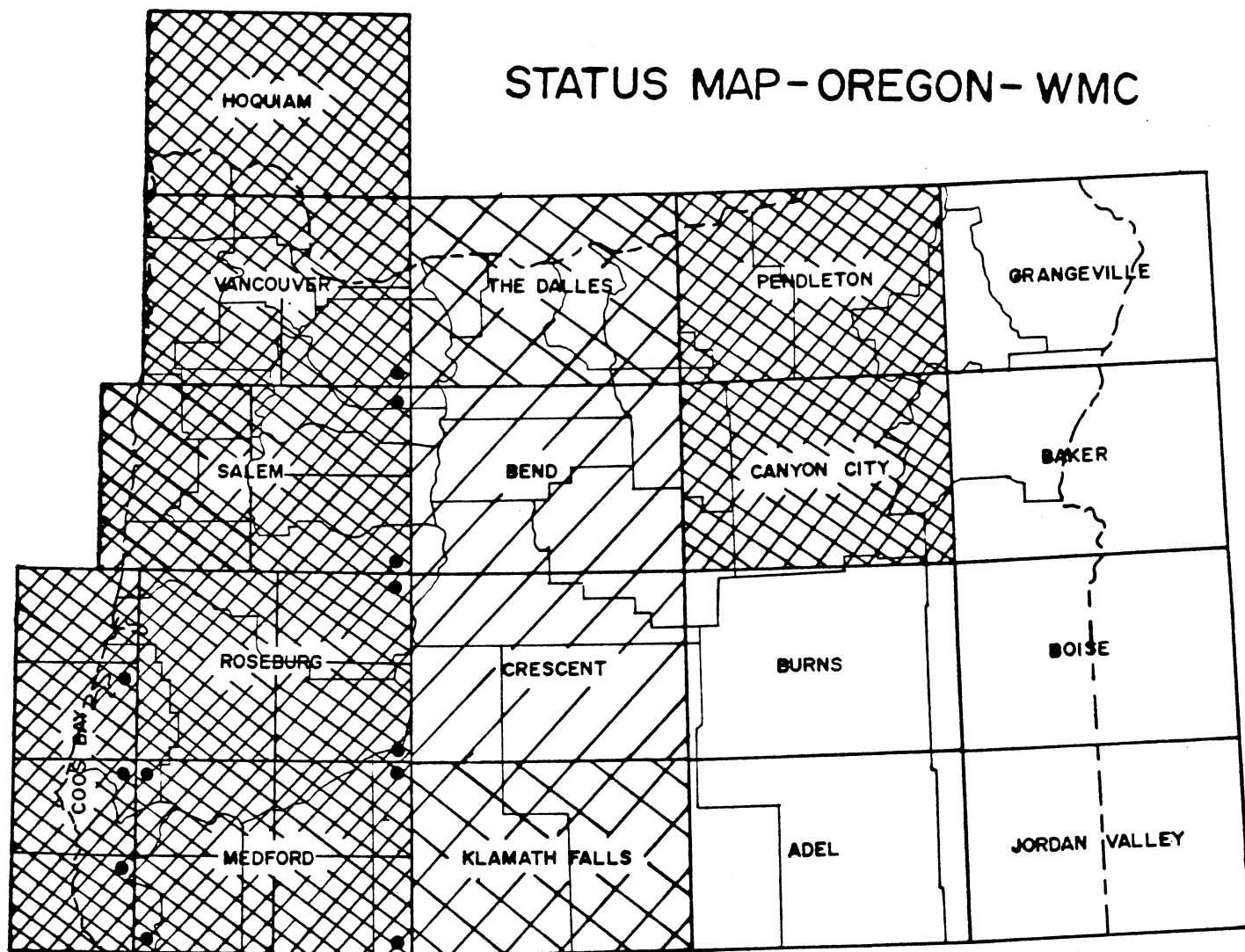
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□ 1:24,000-scale orthophoto-
quads not authorized or
mapped as of October 1980.



STATUS MAP - OREGON - WMC



1:250 000

-  Compilation started
-  Compilation complete or near completion
-  Maps on Open File

• 1:100 000 maps

◆ Published maps

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OREGON

TOPOGRAPHIC DIVISION
WESTERN MAPPING CENTER
MENLO PARK, CALIFORNIA

TOPOGRAPHIC MAPPING PROGRAM ADVANCE MATERIAL AVAILABLE QUARTERLY EDITION

(OCT. 1, 1940)

Aerial photography completed. Information available from Western Mapping Center, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, CA 94025 or National Cartographic Information Center, U.S. Geological Survey, 167 National Center, Reston, Virginia 22092.

Basic horizontal and vertical control completed. Descriptions and unadjusted coordinates of elevations are available. Price is \$9 cents for each 15-minute quadrangle horizontal or vertical control list. See notes 1 and 2.

Prints of manuscripts compiled from aerial photographs or other available sources. Contours are shown in areas suitable for stereoplotting. See notes 1 and 2.

Final drafting completed. Partially-edited one color advance print (with names) are available for \$1.25 each. See notes 1 and 2.

Maps published since the latest edition (FEB 1939) of State Sales Index to published maps. See note 3.

Maps published at 1:57,500 scale in 15-minute units ONLY. However, 1:31,000 scale prints in 7.5-minute units, with appropriate accuracy and contour interval are available at \$1.25 each. See notes 1 and 2.

NOTES

1. Requests for control lists or advance prints should be sent to Western Mapping Center, U.S. Geological Survey, 345 Middlefield Road, Menlo Park, CA 94025. Partially-edited one color advance print should accompany order and may be made by check or money order payable to U.S. Geological Survey. Please do not send stamps. NO DISCOUNT ALLOWED.

2. In ordering material or requesting information, mark your area of interest on this index and forward it with your order. A new copy of the index will be returned to you for future use.

3. State sales indexes listing all published maps are available free from the Branch of Distribution, U.S. Geological Survey, P. O. Box 35186, Federal Center, Denver, CO 80225. Published quadrangle maps at 1:24,000 scale are available from the same address at a price of \$1.25 each. Remittance may be by check or money order payable to the U.S. Geological Survey. On an order amounting to \$10.00 or more at the list price, a 10% discount will be allowed. The discount applies to all maps and charts distributed by the Geological Survey, but not to photographic reproductions.

