

THIRD ANNUAL REPORT
OF THE STATE MAP ADVISORY COMMITTEE
FOR OREGON
1981

OPEN FILE REPORT 0-82-1

January 1, 1981 - December 31, 1981

John D. Beaulieu, Chairman
State Map Advisory Committee

State of Oregon
Department of Geology & 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 continued a cooperative agreement with the U.S. Geological Survey to support 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. His annual report is included in this report.
- 3) 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>Published 1981</u>	<u>In progress</u>
7.5' topographic maps	10	46	76	376
7.5' orthoquads	2	36	1,492 *	288
1:100,000 base maps	0	4	3 *	17
7.5' map digitized land nets	-	-	324	462

* Advanced Material Available for this number

- 4) The State Map Advisory Committee continued to place high priority on the completion of the 7½' topographic base map series. Major input included constructive comments on and support of the Provisional Map format designed to accelerate the pace of map production.
- 5) The State Map Advisory Committee working with the U.S. Geological Survey, State Library, Department of Transportation and Department of Forestry assisted in the design and creation of the NCIC Affiliate Office for Oregon located in the State Library. The quadrupartite agreement provides for the centralized dissemination of map data by state government.
- 6) In addition to the Resident Cartographer Program and the NCIC Affiliate numerous formal and informal cooperative agreements for mapping were continued or initiated in Oregon. They included arrangements involving various combinations of federal agencies, state agencies, and private industry. Details are provided in the Annual report of the Resident Cartographer and the summary of the October 19, 1981 SMAC meeting (item 5).

Membership List

John D. Beaulieu, State Department of Geology and Mineral Industries,
1005 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.

Elizabeth Kirchill, 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.W., Salem, Oregon 97310.

Peter Paquet, State Department of Energy, 102 Labor & 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,
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Richard Lycan, Geography Department, Portland State University, P.O. Box 751,
Portland, Oregon 97207.

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

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.

Lewis McArthur, Board of Geographic Names, Portland, Oregon

Glenn Ireland, U.S. Geological Survey - National Map Division, Portland, Oregon.



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
National Mapping Division
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STATE RESIDENT CARTOGRAPHER-OREGON
ACTIVITIES AND COOPERATIVES
YEARLY REPORT

This year has seen the State Resident Cartographer's duties broaden into a wide range of activities, highlighted by the formation of several state-federal cooperative agreements. The formation of cooperative agreements allow the agencies to do more with their restricted resources. The following are some of the significant activities in which the Oregon SRC has been involved in:

- o Forwarded to USGS Cartometrics, WMC, 1:500,000 scale State Map review information. Thirteen state and federal agencies of Oregon reviewed the State Base Map for additions or corrections. Significant errors were detected by the agencies. This effort by the state and federal agencies will significantly reduce the research time necessary to gather this information.
- o Gathered opinions from public and government sources concerning NMD programs and policies. These responses were forwarded to WMC for their consideration. The most recent concept explored with the agencies was the Provisional Map Program. The Provisional Program is an accelerated mapping system which will complete the 1:24,000 scale series by 1988. The SRC has been gathering digital requirements and capabilities for use by the State and USGS.
- o Served in various positions to put together workshops and conferences of interest to the USGS and SMAC. Aided the SMAC Chairman in holding a SMAC meeting April 16 and October 29th. Made arrangements for a Cartographic Workshop instructed by Dick Zorker, WMC, held at Portland State University.

Plans are being made to hold an American Society of Photogrammetry-Digital Information Convention May 6, 7, and 8th in 1982 at the Portland Hilton. May 6th and part of the 7th will address the needs of the Digital Information Manager as it relates to geographic information systems. Part of May 7th and 8th will be an ASP centered program. A cartographic workshop is being planned as a separate offering on May 6th.

- o Acquired data from various state and federal agencies to be used by NMD field parties working in Oregon. This data included: State Highway Division Right-of-Way maps with

Section Line location information; cadastral fieldnotes; maps showing location of geothermal springs; and other pertinent details.

- o Serves on the Oregon Board of Geographic Names as the State Cartographer representing USGS/SMAC. Attends Interim Committee meetings of the OBGN aiding in the acquisition of data and the resolution of name controversies. Attended the Fifth Western Regional Geographic Names Conference where name policies within Oregon were discussed.

At the winter meeting of the OBGN, the SRC submitted a report concerning the USGS Gazetteer of Geographic Names. The Oregon Gazetteer is currently the last gazetteer scheduled for completion. The OBGN intends to send a letter to the USGS requesting a higher priority on the Oregon Gazetteer.

- o John Beaulieu, Chairman of SMAC, and the SRC met with Archie M. Mustard, Plans and Operations Officer with the Emergency Services Division of the State Executive Department. The SRC presented products from the USGS and state agencies. Mr. Mustard was impressed by the availability of data and the wide range of scaled coverage.
- o Attended SRC Program Meetings with other SRCs in Menlo Park, CA March 16-20 and November 5-9. These meetings allowed the SRCs to exchange information concerning state and federal programs.
- o Researched the availability of office space in the southwest part of Oregon to be used by the USGS as a District Office. This District Office will be a long term installation to map that portion of the state at 1:24,000 scale and provide revision information.

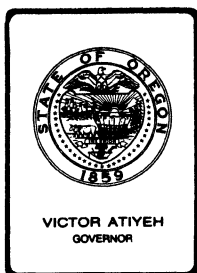
One of the major functions of the SRC program is to explore and develop cooperative agreements between the various state and federal agencies and the USGS. These cooperative programs can take the form of cooperative funding, workshare agreements, and exchange of information. The following cooperatives were developed through the Oregon SRC program:

- o STATE LIBRARY-STATE FORESTRY-STATE HIGHWAY-USGS
National Cartographic Information Center State Affiliate Agreement was signed October 29, 1981. The State Library System will disseminate information while the State Forestry and State Highway Divisions acquire information and act as technical advisors to cartographic product users.
- o WATER RESOURCES DIVISION-NATIONAL MAPPING DIVISION
A joint funding agreement was reached whereas the NMD will

produce specially formatted 1:100,000 scale maps of the Mt. Hood and Three Sisters areas. These maps will be used by WRD to study volcanic hazards. Total value of this agreement = \$164,000 - split evenly between the two agencies.

- o STATE LANDS DIVISION-STATE FORESTRY-BLM
These agencies are exchanging data to produce a 1:500,000 scale State and Federal Lands Ownership Map of Oregon. The USGS State Map will be used as a base to portray the land ownership. Data is originally being acquired and plotted on the USGS-BLM 100 K Series.
- o STATE FORESTRY-USGS
The USGS is digitizing into Digital Elevation Models five 7½-minute quadrangles for the State Forestry Department. This joint funding agreement is worth \$5,000.
- o ENVIRONMENTAL RESOURCE SATELLITE APPLICATIONS LABORATORY, OSU - USGS
ERSAL is producing a Landsat RBV Image Mosaic of Oregon using State Base Map material supplied to them by the USGS.
- o PORTLAND STATE UNIVERSITY-USGS
A Cartographic Workshop was produced by PSU and USGS. PSU provided the facilities and publication, and the USGS provided the instructor and organizational details. Materials supplied by the USGS were paid for by the workshop participants of \$35.00 each for 50 people.

Glenn W. Ireland
State Resident Cartographer -
Oregon



Department of Geology and Mineral Industries
ADMINISTRATIVE OFFICE

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MEETING SUMMARY

STATE MAP ADVISORY COMMITTEE

Thursday, April 16, 1981

Room 3 - State Library Building

Attendees

Affiliation

Richard Yarbrough	International Paper Company
George F. Gross	Spencer B. Gross, Engineers
Larry Bright	Oregon Department of Fish and Wildlife
George Shore	Oregon State Forestry Department
Jerry Holman	Oregon Water Resources Department
Jim Ulven	Oregon State Highway Division
Rudy Wellbrock	Oregon State Highway Division
George L. Green	Soil Conservation Service
Lewis L. McArthur	Oregon Geographic Names Board
John F. McMillan	Los Angeles County Engineer
Irma Lady	Oregon State Library
Richard Lycan	Portland State University
Kenneth J. Dueker	Portland State University
Stephen R. Sander	Oregon Department of Environmental Quality
Michael Seber	Oregon Department of Revenue
Toby Atterbury	Crown Zellerbach
Susan Truitt-Clark	University of Oregon Map Room
Sandy Martin	Lane County Planning
Peter Eberhardt	University of Oregon Map Room
Kent Howe	Lane County Geodata System
Robert A. Mead	Oregon Department of Revenue, Mapping
Gary Morgan	Oregon State Aeronautics Division
Tom Jackson	Bonneville Power Administration
Ted Albert	Bureau of Indian Affairs
Dick Dodge	U.S. Forest Service, Region 6
Mary Anne Szulist	U.S. Forest Service, Region 6
Roger E. Crystal	U.S. Forest Service, Region 6
Tony Lewis	ERSAL, Oregon State University
Glenn Ireland	U.S. Geological Survey
John Beaulieu	Oregon Dept. of Geology and Mineral Industries
Lee Aggers	U.S. Geological Survey, Menlo Park

1) Resident Cartographer - Major Activities

The desire for cooperative map efforts from the standpoint of cost effectiveness and avoidance of duplication was reiterated. Glenn indicated that historic coops, such as topo mapping, continue and that other coops are being pursued.

Specifically, the USGS-WRD is pursuing hazard and recreational maps in the Mt. Hood and South Sisters areas. A total of \$90,000 and \$45,000, respectively, is being routed to the National Map Program to update the 1:100,000 map series in these areas.

The USGS and BLM are now cooperatively exchanging base map and triangulation data in areas of mutual interest.

A proposal for cooperative update of the 1:100,000 series between USGS and State Forestry was not firmed up because mapping efforts for state needs do not correspond to national map standards for eventual publication. Conceivably the state product might prove of value to the so-called USGS Phase III pre-publication effort.

A proposal to cost share between USGS and BLM in areas of large-scale BLM mapping also did not lead to a contract because USGS is at capacity, but the data generated by BLM will be used by USGS later.

In the future, coops involving topobathy maps and 1:100,000 updates in the state (DOT) will receive further attention.

It is clear that effective pursuit of coops involves two elements of additional concern: (1) the agencies need to know which kinds of coops are most productively pursued, and (2) coops which do not come to fruition at a given point in time must be properly recorded to assure further consideration later.

Glenn also indicated that the update of the 1:500,000 state base map has been routed to Menlo Park for more knowledgeable treatment and that there are provisions for another in-state review prior to publication.

Field projects this season will be in Paisley, Wagontire, Sweethome, and Clatskanie areas and tentatively will be presented at the next SMAC meeting.

2) National Cartographic Information Center (NCIC) Affiliate

The NCIC goal is to provide for coherent and comprehensive dissemination of cartographic data and to provide for the flow of new data to the central data base. This goal as it is implemented must be modified to accommodate local bureaucratic, political, and logistic situations, particularly in the West where map efforts are large and government structures are diverse.

An NCIC affiliate within the State Library system is being pursued in Oregon. Here space, equipment, manpower, and agency mission best parallel the intent of the NCIC goals.

The prospect of a small block grant to the state for data collection might provide a means of keeping the state's NCIC data base up to date.

Nationally, NCIC seems to be rising to prominence as the federal way of centralizing cartographic data, as similar efforts in other federal agencies experience budget difficulties,

Lee Aggers gave a taped presentation of NCIC which demonstrated the need and functions of NCIC affiliates and illustrated the benefits of computers made possible and practical by a coherent nationwide effort.

3) Miscellaneous Information Items

State Forestry is soliciting cooperation for an aerial photo re-fly of western Oregon in the 1983-1984 field season.

Dick Lycan of PSU is organizing a topo map presentation with USGS participation tentatively on June 15-19 with emphasis on the private sector.

Rudy Wellbrock (DOT) distributed an index to state highway county maps.

Lewis McArthur announced:

- The need for a state correction map file.
- The Fifth Western Geographic Names Conference to be held at Mt. Hood.
- The progress on a computerized GNIS for Oregon.

Tony Lewis (ERSAL) solicited agency interest in the generation of a 1:500,000 RBV mosaic for the State of Oregon. Resolution is within 40 meters and blow-ups to larger scales are possible. Cooperation presently involves Oregon Forestry Department (George Shore).

Dick Lycan (PSU) indicated that EPA funding routed to DEQ will allow development of a prioritized lake atlas in Oregon to take the place of the defunct and incomplete lake series of similar format within the USGS-WRD.

4) Private Topographic Mapping - Southwest Oregon

International Paper Company, represented by Richard Yarbrough, presented the results of their efforts to topographically map their land holdings in southwest Oregon using a converted Inertial Guidance System and using a scale of 1" = 400' and contour interval of 20'. Resolution on x, y, and z axes is 3 feet. Spencer Gross of Beaverton is the sub-contractor.

There are 1-1½ tie points per township and two elevations were flown to yield two scales (1:56,000; 1:30,000) of aerial coverage. Topo mapping will cover 580,000 acres and additional planimetric coverage will total 400,000 acres.

The control or maps are available to interested agencies at a prorated cost which is considerably less than the cost to redo the work. Currently the USGS is pursuing a cooperative agreement for the data with the intent of integrating into their 7½' mapping effort when that part of the state comes on line.

5) Digital Map Workshop

Interest in a digital map - GIS workshop seems widespread and necessary as agencies individually pursue their own needs. Ken Dueker scoped the organization of such a meeting in terms of the following options:

- Local - regional - nationwide
- Sponsorship
- Conference - workshop
- Digital map - GIS - land management
- Location

SMAC opinions seemed to lean toward a broad base, many phases of presentation, industry participation as participant and exhibitor, agency participation, general to technical spectrum of presentation, coordination with and participation of professional organizations and regional format. Glenn Ireland, Ken Dueker, and John Beaulieu decided to have a meeting to further scope out the possibility of a workshop now that SMAC comments and interest are firm.



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SIGNIFICANT ACTIVITIES IN OREGON
PREPARED FOR SRC-WMC MEETING
March 16-20, 1981

The following are significant activities in which the Oregon State Resident Cartographer is involved:

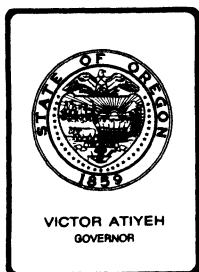
- o Coordination was provided for a meeting between International Paper Company (IPC) and the USGS, USFS, BLM, and State Department of Forestry. This meeting will cover the possibilities of coordination between agencies, and the purchasing of control and mapping from IPC. The IPC is in the process of mapping a $4\frac{1}{2}$ million acre area in West-Central Oregon at a scale of 1:4800 with 20-foot contours. Horizontal and vertical control for this area was provided by the Span Inertial Guidance System.
- o Proposals concerning exchange of data with BLM were sent to the Western Mapping Center (WMC) for approval.
 - + A Work-Share Agreement was proposed and accepted for pilot project status involving the use of BLM 1:4800 scale maps in producing NMD 1:24,000 scale maps.
 - + The BLM agreed to provide District Work Maps with landnet build-up. The landnet on these District Work Maps will be transferred to the Medford, Newport, Cottage Grove and Reedsport Projects. In exchange for this, WMC will transfer aerotriangulation PUG points from USGS diapositives to BLM diapositives. BLM will use these points for aerotriangulation control. The SRC-Oregon hand carried the BLM diapositives to WMC for point transfer during the SRC meeting March 16-20.
- o Unofficial word was received through Oregon District of the Water Resources Division that Reston WRD was going to approve a cooperative agreement with the USGS. This agreement will provide funding for the production of two special 100 K maps in the vicinity of Mt. Hood and Three Sisters.

- o Discussions were held with George Shore, Mapping Director, State Department of Forestry and his staff concerning 100 K mapping in Oregon. State Forestry is producing Fire Protection maps for 75% of Oregon using the 100 K base series. State Forestry is planning to update the 100 K series on a 3-5 year rotation. A proposal has been submitted which will suggest that State Forestry take the responsibility for revising most of the 100 K maps in Oregon. Mr. Shore has completed a study showing the financial advantage to his agency in using the 100 K series.
- o John Beaulieu and the Oregon SRC met with Katherine Grazing, Assistant State Librarian; and Candice Morgan, Head of Public Services, State Library System. This meeting was concerned with the possibility of the State Library System becoming a NCIC affiliate. They are interested in becoming an affiliate. A meeting is being scheduled in April to be attended by Lee Aggers, Chief, NCIC-WMC, to pursue this matter.
- o Had a meeting with Ken Dueker, Assistant Dean, School of Urban Studies, Portland State University; and Richard Lycan, Geography Professor, PSU. Plans were made to have a digital workshop concerning automated cartography and Geographic Information Systems. Names were discussed for a Steering Committee and plans were made to have the Steering Committee meet on April 28.
- 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 In November John Beaulieu, SMAC Chairman, and the SRC met with Governor Atiyeh and the Natural Resources Council. 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 Field Surveys Inspection Section requested aid concerning the Preston Peak, CA landnet build-up from the Western Field Office of the BLM through the SRC-Oregon. William Smart, Chief of Western Field Office, provided plats and data for a complex cadastral problem.
- o Plans were made with John Beaulieu, Chairman of SMAC, concerning a

SLAC meeting on April 16. Speakers will include Dick Yarbrough of IPC discussing their mapping project; and Ken Dueker, PSU, discussing the digital workshop.

A handwritten signature in cursive script that reads "Glenn W. Ireland".

Glenn W. Ireland
State Resident Cartographer-Oregon



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MEETING SUMMARY
STATE MAP ADVISORY COMMITTEE

Thursday, October 29, 1981
Room 357 - State Capitol Building

Attendees

Glenn Ireland
Don Zoller
Elizabeth Kirchill
Lee Aggers
Kathleen Grasing
George Shore
William Tebeau
Larry Bright
Tony Lewis
Jerry Schmitz
Mindy Gray
Lewis MacArthur
Stephen Sander
George Green
Ray Miller
Dick Dodge
John McMiller
Edwin Gustafson
Daniel Handschin
Karl Johansen
Tom Jackson
Ted Albert
Owen Kendall
Jerry Holmar
Rudy Wellbrock
Candy Morgan
Bill Loy
Susan Trevitt-Clark
John Beaulieu

Affiliation

State Resident Cartographer-Oregon
State Resident Cartographer-Wash
Division of State Lands
National Map Program-USGS
State Library
Oregon Dept. Forestry
Dept. of Transportation
Dept. Fish and Wildlife
ERSAL-OSU
Data Systems-Exec Dept.
Data Systems-Exec Dept.
Ore Geographic Names Board
DEQ
USDA-SCS, Portland
Ore Dept. Forestry
U.S. Forest Service, Portland
former L.A. County Engineer
contract cartographer, Lyons, Ore
Northwest Cartography, Seattle
Northwest Cartography, Seattle
Bonneville Power
Bureau of Indian Affairs
Bureau of Land Management
Oregon Water Resources Dept.
Ore. State Highway Div.
Ore. State Library
University of Oregon
University of Oregon-Map Lib.
Chairman-SMAC, DOGAMI

1) Highlights of Western Region Map Meeting at Honolulu, Hawaii - September 1981.

Major themes developed in the meeting included the diversity of SMAC structures in the west, the impact of funding reductions on mapping activities, the changes of funding and major directions of the National Map Division, and the lead role of the NMD in digital mapping within Federal circles:

Oregon with its diverse ownership, relatively unmapped status, wide variety of map users, and funding constraints must continue to seek new and innovative methods of cooperation and mapping. Other states in the west are in similar situations and have SMAC structures particularly suited to their specific needs.

The 1:500,000 base map for Oregon earlier scheduled for completion in spring of 1983 has now been rescheduled to the spring of 1982 in response to a strong across-the-board show of support and need by SMAC members including DOT, ERSAL, Forestry, and Geology. The coordinating efforts of the State Resident Cartographer played a central role.

Within the National Map Division the Digital Mapping Effort is taking form and is assuming a leadership role within the federal government as a result of studies by OMB and the Office of Science and Technology. Findings of these studies were that a federal digital effort was needed; it should be housed in the USGS, and it should be self-sustaining over the long term. Products will be available for purchase by users nationwide including state agencies. They will include tapes of land net, boundaries, drainage, transportation, elevation etc derived from 7½' topographic maps. An order involving a block of 15-16 quads has a turnaround time of a few months. Approximately 15% of Oregon is digitized in some manner at the present time.

2) Topographic 7½' P Map Series

Progress on the part of Oregon to complete the state 7½' series by 1988 was reviewed. After two years of effort coverage is now 46% as compared to 40% earlier. The pace of activity continues to accelerate.

On the National level the 7½' topographic map series has been converted (Oct. 1, 1981) to the P (Preliminary) map format, which involves accelerated field review, but no reduction in accuracy standards. The format will allow maintenance of the program in the face of budget reductions and also will significantly reduce production time for any given map. Examples of the P-Map format were distributed.

The Committee was informed that in spite of strenuous efforts the state financial match for the topographic map program was eliminated by the 1981 Session of the Oregon Legislature. Future contributions in the state may include pre-field specialized review of preliminary map products if offers to do so by BLM, BIA, Ore F&W, Ore Forestry, BPA, DOT, and U of Oregon can be successfully pursued.

Assignment of SMAC priority to 8 additional quadrangles was delayed until January when more information about federal priority assignments will be available.

3) Report of the State Resident Cartographer

In addition to input throughout the meeting and a brief review of cooperative efforts as summarized below, Glenn Ireland and Lee Aggers discussed the High Altitude Photography Program (HAP) noting that the Canyon City, Pendleton, Grangeville, and Baker Quads are now available in part or in full from the EROS data center in Sioux Falls, SD.

Also land use land cover maps (1⁰X2⁰) are available in paper form for Oregon and the intent is to provide digitized tapes of the data at a cost through the Reston Office. Turn around time will be a few weeks. More information will be provided at the January Meeting. Tapes will include those for land use, land cover, census, land ownership, and hydrology. Accuracy standards will allow larger scale data manipulation.

4) Establishment of the NCIC Affiliate Office for Oregon

The NCIC Affiliate Office Contract was jointly signed by representatives of the State Library (Kathleen Grasing) State Forestry (George Shore) and Oregon Department of Transportation (William Tebeau). It was signed previously by the U.S. Geological Survey.

The NCIC affiliate office concept was studied for a year prior to a six month coordination effort leading to final negotiation and signatures. The quadrapartite agreement represents the optimum manner in which map data and technical information can be disseminated in Oregon using existing governmental structures and it is indicative of innovative management within state and federal agencies in times of budget reductions.

The NCIC map data tape prepared by Oregon Agencies in 1979 was delivered to the State Library (Kathleen Grasing) as the first delivery in the NCIC effort. The tape is unique in the United States.

5) Cooperative Mapping Efforts

As summarized in the accompanying attachment Glenn Ireland reviewed the cooperative mapping efforts in Oregon which have developed or continued in the past year. They include the following:

- USGS - WRD-NMD 1:100 k for Mount Hood and Three Sisters
- BIA - USGS NMD old aerial photography of EROS
- BLM - USGS NMD Flight line plots at EROS
- Possible future grant to update NCIC state maps tape
- APSRS program direction to be coordinated with NCIC Affiliate effort
- PSU - USGS NMD Cartographic workshop - summer 1981
- DSL - BLM - Forestry - DOT joint efforts regarding land ownership maps; DSL also is plotting mineral ownership
- ERSOL - RBV 1:500 k mosaic being prepared with assistance from Bill Loy, George Shore, George Green and USGS
- BLM - USGS shoring cadastral data
- Oregon Forestry - USGS - CZ development of digital elevation models for part of northwest Oregon
- USGS - Inter. Paper Co. development and acquisition of land net data using SPAN inertial guidance
- USFS - USGS Deschutes County Photo Revision which involved reconciliation of road classifications schemes

6) U.S. Geological Survey 7½' Topographic Mapping Field Efforts

As topographic mapping in Oregon accelerates field efforts are increasing as indicated by Glenn Ireland's summary updates of the Cannon Beach, Blaine, Cathlamet, Cascadia-Sweethome, Klamath Falls, Reedsport and other projects. Certain specialized field elements were coordinated with BLM efforts in the Cascadia area.

7) Digital Mapping Activities in Oregon Related to SMAC mapping Coordination activities

Workshop:

Ray Miller (Oregon Department of Forestry) provided an update on the Digital map - GIS workshop scheduled for May, 1982 and jointly sponsored by Oregon SMAC, Washington SMAC, PSU, and the U.S. Geological Survey.

He indicated that the Puget Sound Chapter and Columbia River Chapter of the American Society of Photogrammetry would like to consolidate their efforts with ours.

The proposed arrangements sound exciting and will preserve our topic and audience thrust at resource managers and Director assistants with the view of increasing manager awareness of DIGITAL and GIS capabilities for problem solving. The ASP thrust will be more technical in orientation and will be segregated on the overall agenda.

USGS Digital:

Lee Aggers summarized the USGS digital effort noting its high priority within the NMD and the fact that it is "driven" by the orthophoto program. As summarized above it is current OMB philosophy that the program be ultimately self supporting and to this end the USGS will be seeking more specific statements of state need at the next SMAC meeting tentatively scheduled for January, 1982. A National Marketing Schedule is also underway.

Data of 25-30 categories (hydrology, land grid, topography, etc.) is input using the 7½' topographic series as the base. State technical cooperation in the completion of the 7½' P-Map series as scoped above is particularly crucial in this regard. Coherent state input will be required to make maximum use of the opportunities presented by this digital program within the USGS National Map Division.

Northwest Computer Aided Mapping Association:

Don Zoller (Resident Cartographer-Washington) informed the committee of a broad based grass roots organization (NWCAMA) arising in the Puget Sound area with its principle aim to address perceived disjointed efforts in the development of GIS capabilities in the northwest. Specific goals of the group are:

- provide a forum for exchange of info
- specify goals and standards
- promote interactive computer programs
- provide technical advice
- solicit and guide vendor interest in a manner consistent with user needs

The committee is structured to include agencies (members with a vote) and vendors etc. (Associate members without a vote). Information items including a copy of the charter were distributed.

8) Agency and other presentations

Lewis MacArthur reviewed the results of the Fifth Western Geographic Names Conference and emphasized the following:

- The group resolved that individual states should have final authority to determine valid names within their boundaries (following established guidelines).

- GNIS tapes for Oregon place names are available for adaptation to peripheral uses. In this context it was pointed out that the catalogued names would be more useable if they could be linked with a digitized 1:500 k state base map with a Township-Range grid.
- The need exists to complete the GNIS for Oregon - the Oregon effort is a pilot effort. At the next SMAC meeting the USGS will update the committee on the status of the effort from the USGS perspective, and the potential application of the data set will be presented from the state perspective. At that time a recommendation may be forthcoming from the committee.
- Bill Loy, back on the committee after a sabbatical leave from the University of Oregon, described progress on the State Gazetteer noting that is on computer tape and compatible with the USGS - GIPSY program. As such it will be a valuable resource in completion of the Oregon P-Map Series.

A brief review of agency interest in addition to those noted in earlier discussions touched upon the following items:

- DSL mineral rights map effort
- Oregon Forestry GIS research efforts with PNRC funding
- ERSAL RBV mosaic
- BIA efforts to make a uniform Atlas of Indian Lands
- BLM completed photography (1:12,000) for Coos Bay area
- Ore WRD maps for land use progress; water basin maps are at a budgetary standstill
- DOT 1:24,000 photos of Jackson County populated areas

JDB:ab



UNITED STATES
DEPARTMENT OF THE INTERIOR

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STATE RESIDENT CARTOGRAPHER-OREGON
ACTIVITIES AND COOPERATIVES

The following are significant activities in which the Oregon SRC has been involved in:

- o Forwarded to Cartometrics, WMC, 1:500,000 scale State Map Review information. Thirteen state and federal agencies of Oregon reviewed the State Base Map for additions or corrections. Significant errors were detected by the agencies. This effort by the state and federal agencies will significantly reduce the research time necessary to gather this information.
- o Gathered opinions from public and government sources concerning NMD programs and policies. These responses were forwarded to WMC for their consideration. The most recent concept explored with the agencies was the Provisional Map Program.
- o Served in various positions to put together workshops and conferences of interest to the USGS and SMAC. Aided the SMAC Chairman in holding a SMAC meeting October 29th. Serves on the local arrangement committee for a Geographic Information Systems Conference to be held in Portland in May, 1982. Made arrangements for a Cartographic Workshop instructed by Dick Zorker, WMC, held at Portland State University.
- o Acquired data from various state and federal agencies to be used by NMD field parties working in Oregon. This data included: State Highway Division Right-of-Way maps with Section Line location information; cadastral fieldnotes; maps showing location of geothermal springs; and other pertinent details.
- o Acted as intermediary between the National Mapping Division and potential contractors, providing information and gathering data to both groups.
- o Serves on the Oregon Board of Geographic Names as the State Cartographer representing USGS/SMAC. Attends Interior Committee meetings of the OBGN aiding in the acquisition of data and the

resolution of name controversies. Attended the Fifth Western Regional Geographic Names Conference where name policies within Oregon were discussed.

- o Acted as a liason with the Branch of Distribution in Denver making initial dealership recruitment and monitored local map sales.
- o Formulated informational packets concerning new field projects. These packets were directed to agencies who might have contact with the field parties to announce their functions and intentions. The packets were also used to make contact with state, county and municipal planners to make them aware of the availability of mapping programs in their area.

One of the major functions of the SRC program is to explore and develop cooperative agreements between the various state and federal agencies and the USGS. These cooperative programs can take the form of cooperative funding, workshare agreements, and exchange of information. The following cooperatives were developed through the Oregon SRC program:

- o STATE LIBRARY-STATE FORESTRY-STATE HIGHWAY-USGS
National Cartographic Information Center State Affiliate Agreement was signed October 29, 1981. The State Library System will disseminate information while the State Forestry and State Highway Divisions acquire information and act as technical advisors to cartographic product users.
- o WATER RESOURCES DIVISION-NATIONAL MAPPING DIVISION
A joint funding agreement was reached whereas the NMD will produce specially formatted 1:100,000 scale maps of the Mt. Hood and Three Sisters areas. These maps will be used by WRD to study volcanic hazards. Total value of this agreement = \$164,000- split evenly between the two agencies.
- o BLM-USGS
Exchange of data whereas the BLM supplied landline location on parts of the Medford and Newport Projects; and the USGS provided aerotriangulation control points for a BLM mapping project. Estimated value of this exchange of data was \$5,000.
- o STATE LANDS DIVISION-STATE FORESTRY -BLM
These agencies are exchanging data to produce a 1:500,000 scale State and Federal Lands Ownership Map of Oregon. The USGS State Map will be used as a base to portray the land ownership. Data is originally being acquired and plotted on the USGS-BLM 100 K Series.

- o STATE FORESTRY-USGS
The USGS is digitizing into Digital Elevation Models five 7½-minute quadrangles for the State Forestry Department. This joint funding agreement is worth \$5,000.
- o ENVIRONMENTAL RESOURCE SATELLITE APPLICATIONS LABORATORY-USGS
ERSAL is producing a Landsat RBV Image Mosaic of Oregon using State Base Map material supplied to them by the USGS.
- o PORTLAND STATE UNIVERSITY-USGS
A Cartographic Workshop was produced by PSU and USGS. PSU provided the facilities and publication, and the USGS provided the instructor and organizational details. Materials supplied by the USGS were paid for by the workshop participants of \$35.00 each for 50 people.
- o BUREAU OF INDIAN AFFAIRS-USGS
BIA is contributing 7 rolls of film to the EROS Data Center for storage indexing and inclusion into the Aerial Photography Summary Record System.
- o BLM-USGS
BLM is submitting photo flight diagrams representing 350 rolls of film to the APSRS program.

A few cooperatives which the SRC has worked on have not developed due to budget and program restrictions. Discussions will resume at a later time concerning these funding agreements.

- o INTERNATIONAL PAPER COMPANY-USGS
Ground control and photography for 57 7½-minute quadrangles were to be purchased through sole source contract funds. Contract funds have been eliminated from the M.D budget.
- o OREGON-USGS
The State of Oregon has had to eliminate the joint funded 7½-minute mapping from their budget for this fiscal year.
- o STATE FORESTRY-USGS
State Forestry offered to participate in the revision of the 100 K Series. M.D's program to start this revision will not go into effect until 1986.



Glenn W. Ireland
State Resident Cartographer-Oregon

OREGON

PROGRAM	TOTAL NUMBER OF MAPPING UNITS	NO. OF MAPS PUBLISHED FY 81	PUBLISHED TOTAL TO DATE	TOTAL NO. OF MAPS IN WORK	NO. OF MAPS AUTHORIZED FY 81	NO. OF MAPS REVISED FY 81
7.5' NEW MAPPING	1,827	76 - 4%	882 - 48%	376 - 20%	12	32
1:250,000-SCALE REV.	19	0	19 - 100%	0	0	0
NATIONAL PARK MAPS	1	0	1	1*	0	0
STATE BASE MAPS	1	0	1	1*	0	0

PROGRAM	TOTAL NUMBER OF MAPPING UNITS	NO. OF MAPS PUBLISHED FY 81	NO. OF MAPS PUBLISHED TO DATE	ADVANCE MATERIALS AVAILABLE BY MAPPING UNITS	UNITS COMPLETED FY 81	NO. OF UNITS IN WORK	NO OF UNITS AUTHORIZED FY 81
7.5' ORTHOPHOTOQUAD	1,827	8	20	1,492 - 82%	187	288	0
DEM'S	1,827	NA	NA	110 - 6%	109	5	5
DLG'S	1,827	NA	NA	394 - 21%	324	462	430
1:100,000 QUADS	65	3	7	19 - 29%	3	17	11
1:100,000 COUNTY MAPS	36	0	0	7 - 19%	4	0	0
1:100,000 LAND USE - LAND COVER MAPS	65	7	7	12 - 18%	0	0	0
1:250,000 LAND USE - LAND COVER MAPS	19	2	3	10 - 53%	1	5	1
1:50,000 DEFENSE MAPPING AGENCY QUAD	457	0	0	0 - 0%	0	0	0

* Revision