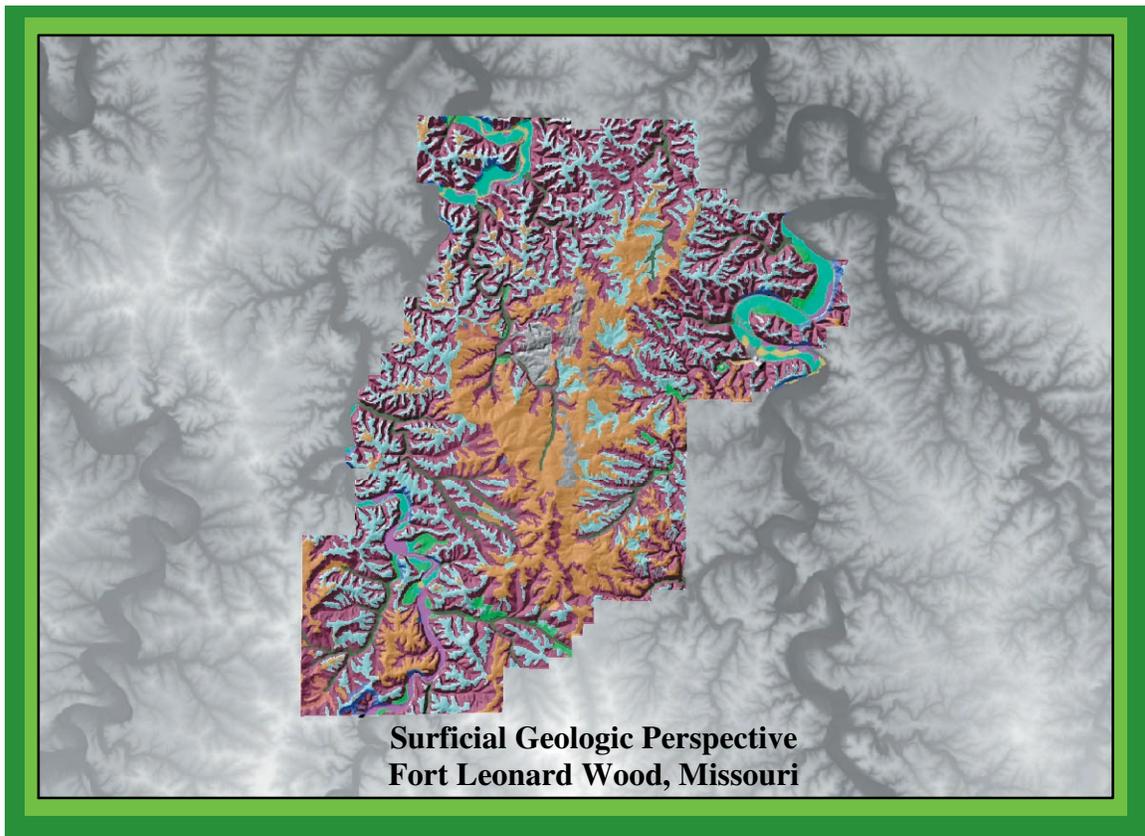




# Strategic Plan for the U.S. Geological Survey Department of Defense Earth Science Program National Mapping Discipline



**Building on a foundation of excellence is the key to the future.**

**Strategic Plan for the  
U.S. Geological Survey  
Department of Defense  
Earth Science Program  
National Mapping Discipline**

February 2003

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# LIST OF ACRONYMS

C&R	Coordination and Requirements
CRS	Commercial Remote Sensing Data Contract
CSC2	Cartographic Services Contract
DENIX	Defense Environmental Network and Information eXchange
DOD	Department of Defense
DODEC	Department of Defense Environmental Conservation
DODESP	Department of Defense Earth Science Program
GIS	Geographic Information System
MCMC	Mid-Continent Mapping Center
MOU	Memorandum of Understanding
NMD	National Mapping Discipline
RI/FS	Remedial Investigation/Feasibility Study
SOLDGR	Strategic On-Line Defense Geography Repository
USGS	U.S. Geological Survey
WRD	Water Resources Discipline

## MISSION STATEMENT

The mission of the U.S. Geological Survey (USGS) Department of Defense Earth Science Program (DODESP) is to provide high quality, legally defensible, and timely earth science information to answer relevant questions about the Department of Defense's (DOD) geospatial, engineering, and environmental concerns, and to provide the data necessary for Federal, State, and local agencies to make informed decisions about environmental resources within their jurisdiction.

### Program History

The U.S. Geological Survey (USGS), Department of Defense Earth Science Program (DODESP) is the proposed name for the Geography Discipline's component of the Department of Defense Environmental Conservation (DODEC) Program. The DODEC program primarily has been a Water Resources Discipline (WRD) endeavor. Recent changes in USGS leadership and management structure supports collaboration among the Bureau's Disciplines. The Geography Discipline's new DODEC coordinator position is consistent with the strategic directions of the Bureau's leaders and supports a collaborative atmosphere in pursuit of Department of Defense (DOD) partnerships. Within the scope of this strategic plan, the Geography Discipline has outlined its participation in the DOD program—the foundation of which is the seamless collaboration between USGS Disciplines in support of the DOD geospatial, engineering, and environmental community.

The following is a brief history of the DODEC program as written by John Powell, the current WRD DODEC Chief.

*The USGS DODEC Program carries out scientific and technical studies related to environmental contamination issues of concern to Department of Defense (DOD) agencies. The purpose of the program is to provide scientific and technical data and interpretations needed to characterize hazardous waste sites, provide data to support evaluation of plausible remedial alternatives, and search for new technologies to improve cost effectiveness of DOD efforts. These activities support the DOD Restoration Program, designed to address issues of contamination resulting from activities of the past, and the Environmental Compliance Program, designed to address issues of contamination resulting from current operations.*

*The DODEC program has included activities at more than 100 military installations in all 50 States, Puerto Rico, and two foreign countries. Facilities involved include those of the Air Force, Army, Navy, Marine Corps, Air National Guard, Army National Guard, and Defense Logistics Agency. Major issues of concern have been the characterization of local geologic frameworks through which ground water moves, the fate and transport of chlorinated hydrocarbon solvents (trichloroethene, dichloroethene, vinyl chloride) in water and soils, the fate and transport of constituents of fuels (benzene, toluene, xylenes) in water and soils, the fate and transport of trace metals (lead) in water and soils, and the documentation of toxicity to local biota of contaminants present in water and soils.*

*USGS researchers have been leaders in the development of innovative media sampling techniques to lower costs of environmental projects and in the development of innovative geophysical techniques to refine documentation of local geologic frameworks. The USGS has also been in the forefront of identifying and*

documenting the processes affecting natural attenuation and phytoremediation of contaminants in ground water and soil.

The DODEC Hydrology Program was formally instituted in 1989 when the Chief, Project Coordination and Technical Services Section was given the responsibility for coordinating the program. Until that time the USGS Water Resource District offices were operating separately and issues of consistency among cost calculations and manpower allocations were arising with the DOD partners. Previous to DODEC the major projects were coordinating among themselves without help from headquarters. In 1992, John Powell was selected to coordinate the program. In 1993 the program changed its name from "Contamination" to Conservation" at the request of an Air Force partner who advised that the former term conjured up too negative an image for the DOD.

A need for coordination among the early large DOD projects was recognized early on among the projects chiefs. As a result of this identified need, the first DODEC meeting was convened by John Powell in Richmond, VA in 1987. Attendees were from HI, AR, CO, OK, and VA. Subsequent meetings were held at three-month intervals in Denver, CO and Little Rock, AR. All projects involved in these meetings were with the Air Force through its contracting agency in San Antonio, TX.

The successes of these projects demonstrated that the USGS could perform in a timely and competent manner. Many new projects followed throughout the country. The number of projects quickly grew from a few to more than 120. The need for continued coordination grew and annual formal meetings replaced the informal smaller meetings. In 1989, the first national DODEC meeting was

held in New Orleans, LA. For the first time Regional Hydrologists participated from the Central and Southeastern Region. Two years later annual meetings commenced with the first one being held in Reston, VA in 1991, Las Vegas, NV, in 1992, 1993, and 1994, Albuquerque, NM, in 1995, Colorado Springs, CO, in 1996, Charleston, SC, in 1997, Tampa, FL, in 1998, Tacoma, WA, in 1999, San Diego, CA, in 2000, Charleston, SC, in 2001, and Indianapolis, IN, in 2002.

DODEC meetings were originally internal meetings targeted to solve administrative issues, to share success/failure stories through formal scientific presentations, and to train participants in areas of common need. From about 1995 on, the DODEC meeting evolved into marketing venues and opportunities for technical transfer between the USGS and leaders of the DOD environmental offices. Leadership from the Pentagon and all the services participated in all the meetings after 1995. Gordon Eaton, Director of the USGS at that time, gave a keynote address at the 1996 meeting in Colorado Springs, and later attended the 1999 meeting in Tacoma after his retirement.

The focus of most DODEC projects early on was in areas of ground water contamination and meeting the requirements of the DOD's Remedial Investigation/Feasibility Study (RI/FS) program. The RI/FS program was designed to mimic the U.S. Environmental Protection Agency's Superfund Program. Through the years the focus has evolved to one of scientific study, including research, in support of the DOD's cleanup efforts by private contractors. The other USGS disciplines are participating at the annual DODEC meeting with the hope that they can develop the same success with DOD.

## VISION FOR THE FUTURE

**P**rovide timely, quality-oriented service to our DOD customers.

\* \* \* \* \*

**U**SGS DOD projects will be at the forefront of earth science information gathering and dissemination so the public, academic, and private sectors will value its presence in the geospatial, engineering, and environmental sciences.

\* \* \* \* \*

**E**nsure the program represents ‘added value’ to include all disciplines by implementing a name change to the USGS DODESP.

\* \* \* \* \*

**E**stablish solid and lasting partnerships that eliminate competition with Universities, other State and Federal agencies with similar missions, and the private sector.

\* \* \* \* \*

**I**mplement internal collaborative policies that support including science and technology from sister disciplines in DOD studies to strengthen conclusions and ensure complete and informative outreach products.

\* \* \* \* \*

**E**stablish a Network within the DODESP to support program development within the Geography Discipline.

\* \* \* \* \*

**E**stablish an annual project review process that emphasizes the results of study and provides a forum for disseminating information to the USGS professional and technical staff, and the DOD geospatial, engineering, and environmental community.

\* \* \* \* \*

**S**upport a password-protected Internet map service product named the Strategic On-line Defense Geography Repository (SOLDGR) that includes all USGS geospatial data layers, DOD supplied geospatial data layers, and environmental documentation for DOD facilities and installations. This map service product will parallel and benefit from the work on *The National Map*.

\* \* \* \* \*

**B**uild partnerships with all branches of DOD and the Homeland Security Department to ensure non-sensitive geospatial data are shared with the USGS for inclusion in SOLDGR and *The National Map*.

# CRITICAL SUCCESS FACTORS

## Customer Satisfaction

- Central to the issue of customer satisfaction is the timely completion of reports, maps, and other products. Leadership at all levels of management in the Discipline will strengthen our timely reputation with the geospatial, engineering, and environmental community.
- Customer relations greatly improve with frequent and routine contact. The Discipline will provide unconditional representation at all DOD environmental science-related meetings that are applicable to the earth science mission of USGS. Discipline leadership will support empowerment of its employees at all levels of the staffing matrix to support this success factor.
- ‘Not for Fee’ technical assistance is a hallmark of Federal agencies and should remain so with the Program’s customers regardless of the fiscal size of the program they support. The Discipline will support employee participation on DOD Restoration Advisory Boards, Geographical Information System Committees, Automation Committees, and other venues that promote USGS as a leader in geospatial science.
- Data and interpretation on issues relevant to the needs of the customer will be provided, and will provide added value to the projects they support. Discipline leadership will implement client-centered marketing (niche-specific services) that targets customer needs and links these needs with regional earth science issues.

The Discipline’s Science Plan and focus on *The National Map* will be used to identify these needs and issues as they develop.

## Establish Partnerships

- The Discipline realizes that it is not a sole source for cartographic data collection and interpretation, and has already demonstrated a willingness to establish partnerships with members of private industry through the Cartographic Services Contract (CSC2) and the Commercial Remote Sensing Data Contract (CRS). These contracts represent a valuable partnership that will provide a mechanism to support geospatial work at DOD locations in the future.
- Several Federal, State, and local government agencies promote themselves as experts in the geospatial sciences. Memorandums of Understanding (MOU) must be developed with these organizations to promote communication. The DODESP will utilize partnerships already developed through implementation of *The National Map* to access data that meet the needs of our DOD partners.

## Internal Collaboration

- The DODESP must recognize the talents of its sister disciplines and capitalize on these during the project proposal and project implementation process. DODESP leadership will review the role

of its sister disciplines for each project idea and require that project chiefs collaborate with appropriate personnel in the representative discipline.

- DODESP leadership will work with each discipline to ensure the Geography Discipline is invited to participate on proposals that have a geospatial component. DODESP leadership will remain informed of the programs and issues affecting the DOD to ensure collaborative opportunities within the Bureau are utilized.
- The DODESP will support an Internet clearing house for DOD related data through an enterprise application linked to *The National Map* (SOLDGR). This will provide a ready resource for projects from other disciplines to include the Geography Discipline in proposed work plans for the DOD.

### **Core Product Development, Support, Outreach**

- *The National Map* is the central focus of the Discipline's mission. With this in mind, the DODESP will develop and support SOLDGR as a link to *The National Map* to store data layers related to DOD facilities, lands, and installations.
- Outreach includes opportunities to develop partnerships with new customers. The DODESP leadership will implement a quarterly newsletter that will highlight DODESP projects and liaison activities, and will promote projects that are of a collaborative nature. Copies of the newsletter will be distributed to existing customers, USGS District and Regional offices, and to members of groups and committees for which DODESP liaisons have been established.

- Millions of individuals search the Internet daily, and it has become the largest outlet of information and data within the USGS. *The National Map* is an enterprise web-based application; therefore, to be consistent with the Discipline's intended product outlet, the DODESP leadership will promote the development and maintenance of an easily accessed and informative web page that allows for access to SOLDGR, the quarterly newsletter, DODESP contacts/liaisons, and other supporting documentation and information.

### **DODESP Network**

- The DODESP coordinator alone cannot efficiently develop a program that supports the DOD geospatial, engineering, and environmental concerns nationwide; therefore, the Geography Discipline will utilize the WRD DODEC model to develop a network of individuals that can effectively carry the Program's message to potential and existing DOD partners.
- Establish the DODESP Network by utilizing personnel resources within the Discipline's management structure, including Coordination and Requirements staff and Science Coordinators.
- Identify key individuals that currently are working on or have completed projects with the DOD.
- Discipline management must provide funding for these individuals to establish liaisons with their contacts.
- Utilize the Water Resource Discipline's DODEC program to expand DODESP contacts and networking capabilities.

# ASSESSMENT OF THE PRESENT

## DODESP Personnel

**D**ODESP is a new focus for the Geography Discipline. The DODESP Chief is the only employee in the program. He is a former WRD employee with experience in the DODEC program, data collection, database management, water quality and surface water program development, and supervision. Equipped with this knowledge and experience, the DODESP Chief will identify and recruit outstanding personnel to support the program, and lobby for support from senior management to meet the critical success factors of the DODESP strategic plan.

## Customer Focus

**T**he DODESP Chief has a customer base that was developed during his tenure with the Water Discipline's DODEC program. Efforts are currently being made to expand and diversify the DODESP client base through contacts within DOD's Geographic Information System (GIS) community. In addition to developing and expanding an external client-base, an internal base will be established with sister Discipline employees. The DODESP Chief will provide a data layer repository service to the other disciplines through an Internet map service product (SOLDGR) linked to The National Map.

## Operating Business Process

**B**ecause this is a new program within the Geography Discipline, the operating business process/structure is proposed herein.

## People Orientation

**T**he DODESP will take advantage of successes the WRD has had within the DODEC program by aligning its Internet map service product (SOLDGR) with data from WRD projects. There currently are more than 80 people in the WRD conducting water science projects for the DOD. These individuals will be brought into the DODESP program by demonstrating the 'added value' the Geography Discipline can provide their customers.

The DODESP program will utilize expertise within the Geography Discipline to develop a customer base, propose and complete projects, and support SOLDGR. The Coordination and Requirements (C&R) Office has a large liaison role outside the Bureau; therefore, its experience with determining user requirements for mapping products, establishing cooperative agreements, identifying new sources of geospatial data, and identifying issues that can be addressed through the application of Cooperative Topographic Mapping Program data will be invaluable to the success of the DODESP.

## STRATEGIC OBJECTIVES

**F**ocus on relevant niche areas that provide opportunity to test innovative geospatial applications (LIDAR, IFSAR, LANDSAT) that will benefit the DOD. Utilize existing data to promote ideas to new and existing customers (for example, use available data from the National Hydrography Dataset and the National Elevation Dataset). Objective will be fully realized in 5 years.

**P**romote 'Not for Fee' interaction with new and existing customers. The Discipline must dedicate funds to allow employees to represent the Discipline at DOD environmental meetings, on restoration committees, and with individual points-of-contact. Objective to be implemented immediately.

**D**evelop agreements in the form of MOU between the USGS and the military branch commands. MOUs will be established and renewed throughout the life of the program.

**R**ecruit the C&R Office staff to support a DODESP Network for the Discipline. Objective will be fully realized within 2 years.

**E**stablish partnerships with DOD organizations (National Imagery Mapping Agency, GEOBASE, Integrated Training Area Management, Army Environmental Center, Installation Management Agency, Air Force Center for Environmental Excellence, U.S. Army Corps of Engineers Topographic Engineering Center) that have been formed to support GIS and Internet Enterprise products for DOD lands, facilities, and installations. Objective to be implemented immediately with full realization throughout the life of the program.

**E**stablish a review process that ensures sister disciplines have a role in proposals being developed for DOD within the DODESP. Objective to be implemented immediately and fully realized in 2 years.

**I**mprove collaborative opportunities with sister disciplines by participating on technical resource committees composed of leaders from each discipline. Objective will be implemented immediately.

**C**ontinue to support the annual DODEC meeting by including a breakout session that brings the Discipline's DODESP project chiefs together for an annual review.

**E**stablish a quarterly newsletter that highlights DODESP projects, reports, activities, and other accomplishments. Objective will begin immediately with first issue to be published in 6 months.

**P**romote the development and maintenance of a high-quality web site that represents the DODESP. Objective in progress and will be fully realized in 1 year.

**D**evelop and support SOLDGR. This application will become a password-protected repository for DOD installation and environment data layers, and will be accessible through the DODESP web page. Objective to be implemented within 6 months and to be fully realized during the life of the program.

**D**evelop a partnership with the Homeland Security leadership both internally and externally that allows reciprocal sharing of resources, contacts, and data layers. Objective to be implemented within 6 months.

## TACTICS TO MEET THE OBJECTIVES

### Focus on relevant niche areas.

- Meet with potential DOD customers to determine their geospatial needs.
- Identify strengths within the Discipline to link to the customer's needs.
- Develop a list of capabilities the Discipline can offer potential customers.
- Agree on the base cost of these capabilities.
- Where possible, utilize existing data to mitigate costs and to highlight the Discipline's value as a geospatial science leader.

### Promote 'Not for Fee' interaction.

- Develop a list of 'Not for Fee' interactions the Discipline recognizes as being important to the program.
- Identify DOD committees where the Discipline can provide support.
- Encourage reciprocal data-sharing as a reason for the participation on DOD committees.

### Develop MOUs with the military branch commands.

- Review the existing MOUs to make sure the Discipline's science is included in the scope of services offered.
- Update MOUs that do not include the Discipline's science to include geospatial innovation and support.
- Update MOUs that have expired.
- Establish new MOUs with DOD support agencies and military branch commands.
- Utilize the C&R Office to assist with developing MOUs.
- Utilize the WRD MOU as a standard format for developing new and revised MOUs.

### Recruit Geography Discipline staff for DODESP network.

- Utilize the liaison network already established within the C&R Office to populate the DODESP network.
- Assign liaisons to specific military branch commands.
- Incorporate a DODESP reporting requirement to be included in the routine C&R meetings.
- Capitalize on the network already developed by the WRD.

### Establish partnerships with DOD organizations.

- Identify DOD organizations with a geospatial mission.
- Establish data/resource-sharing agreements with these organizations if they don't already exist.
- Include these organizations in Geography Discipline sponsored conferences and workshops where appropriate.
- Attend conferences and workshops sponsored by DOD organizations.
- Establish an information sharing agreement with the Defense Environmental Network and Information eXchange (DENIX) program.
- Display USGS published products related to DOD facilities on the DENIX website.
- Provide a link from the DENIX website to the proposed DODESP website.

### Establish a review process that ensures collaboration.

- DODESP Chief will request electronic copies of proposals for DOD facilities, and disseminate them to sister Disciplines through the Science Coordinators.

- If the proposed study includes a GIS component, the DODESP Chief will provide an estimate to the proposed project chief for the cost of including these data in SOLDGR.
- The Regional Science Coordinators will review DOD proposals from their Disciplines to support collaborative opportunities throughout the Bureau.

#### Improve collaborative opportunities with sister Disciplines.

- Establish/participate on a ‘Collaborative Opportunities Committee’ or similar committee composed of members from the other Disciplines.
- Represent the interests of the other Disciplines at DOD-related meetings/ conferences.
- Recruit members of the other Disciplines to support program development within the DODESP Network.
- The DODESP Chief will keep a record of all collaborative opportunities within the program and regularly report to the Associate Director.

#### Support regular marketing/information transfer conference.

- Continue to support the presentation of USGS science at an annual forum for the DOD engineering and environmental community.
- Improve DOD attendance at the annual USGS DOD conference by advertising through the DOD community media.
- Work with USGS Public Affairs Officers to improve representation and attendance at the USGS DOD conference.
- Include more training opportunities at the annual USGS DOD conference by increasing the number of breakout sessions.
- Maintain a collaborative atmosphere where all Disciplines have an opportunity to participate in the planning of the conference.

- Ensure USGS Senior Leadership support the annual USGS DOD conference by attending and presenting leadership direction.

#### Produce a quarterly newsletter.

- Implement a quarterly newsletter that highlights multidisciplinary work being done by USGS for the DOD.
- Utilize existing USGS Publications and Outreach Units to support processing, printing, and distribution of the newsletter.
- Utilize the expertise within the USGS Public Affair Offices to support development of this newsletter.
- Utilize the newsletter to highlight collaboration within the Bureau.
- Utilize the newsletter to promote the use of the CSC2 and CRS contracts, and to present the status of these projects.
- Utilize the newsletter to promote the status of and upgrades to SOLDGR.
- Utilize the newsletter to update current events and provide data on future DOD environmental conferences.
- Link the newsletter to the DODESP website and to the DENIX website.

#### Develop and maintain a DODESP website.

- Utilize personnel within the Mid-Continent Mapping Center (MCMC) to assist the DODESP chief in developing a DODESP website.
- Website will present useful information for the DOD community.
- Website will provide a link to SOLDGR.
- Website will list and link USGS publications, maps, and other project information that is of interest to the DOD engineering and environmental community.
- The website will list DOD meeting dates and other venues.

#### Develop and support SOLDGR.

- Adopt the USGS DOD Internet map service application (SOLDGR) developed by the MCMC.

- Link SOLDGR to *The National Map*.
- Add data layers of DOD installations, facilities, and training areas as they become available.
- Add data layers developed by all USGS disciplines for DOD installations and projects (wetland studies, well networks, stream gaging networks, flood plain maps, etc.).
- Promote SOLDGR as the USGS clearinghouse for DOD geospatial, engineering, and environmental information.
- Link SOLDGR to the DODESP website.

**Partner with Homeland Security leadership.**

- Establish a partnership with the Discipline’s Homeland Security leadership so the DODESP program will benefit from the contacts and data generated through those efforts.
- Work with the USGS Homeland Security leadership to develop an MOU with the Department of Homeland Security that supports innovative use of geospatial information and provides for reciprocal data sharing.
- Utilize SOLDGR as a repository of Homeland Security information.

## **ACTION PLAN**

- 12-27-02** Submit for review by former National Mapping Discipline (NMD) DODEC Contact
- 01-02-03** Incorporate review comments
- 01-05-03** Submit to Missouri District Publications Unit for editorial review
- 01-08-03** Incorporate editorial review comments
- 01-09-03** Meet with MCMC Center Chief to discuss draft plan
- 01-09-03** Incorporate revisions to plan
- 01-09-03** Distribute to Program Council
- 01-13-03** Meet with MCMC Program Council to discuss plan
- 01-15-03** Incorporate revisions to plan
- 01-22-03** Present plan for review by Regional Geographer
- 02-05-03** Present Background and Strategic Visions to C&R Staff
- 02-06-03** Present plan to Associate Director for Geography
- 02-06-03** Present plan to Chief of Staff
- 02-17-03** Incorporate Revisions to plan
- 02-18-03** Final formatting
- 02-24-03** Plan Approved--Associate Director for Geography
- 03-10-03** Begin Implementation

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