

Minutes of the Second National Satellite Land Remote Sensing Data Archive Workshop

October 8-9, 1997
USGS Headquarters
Reston, Virginia

Participants

Joanne Irene Gabrynowicz, J.D., Chair

Ms. Prudence Adler

Dr. Marshall Faintich

Dr. Mike Scott

Mr. John Antenucci

Mr. Thomas Feehan

Mr. Paul Tessar

Frank Beurskens

Ms. Kass Green

Mr. David Thibault

Dr. Grady Blount

Mr. Tom Holm

Dr. Kenneth Thibodeau

Mr. John Boyd

Dr. Anthony Janetos

Dr. Darrel Williams

Ms. Amy Budge

Dr. Gerald Nelson

Mr. Robert Wimer

Dr. Kenneth Davidson

Dr. George Robinson

Day 1: October 8, 1997

Introduction

Ms. Bonnie McGregor, U.S. Geological Survey's (USGS) Associate Director for Programs welcomed the participants. Ms. McGregor said that the USGS endorses the concept of an Advisory Committee for the National Satellite Land Remote Sensing Data Archive (NSLRSDA). One of the key goals in the USGS Strategic Plan published in May 1996 is to provide national leadership in maintaining Earth science data and making them readily available." One of the USGS's strategic actions in support of this goal is "to acquire, store, maintain, upgrade, and distribute long-term regional, national, and global Earth science data sets, including Earth-observing satellite images, digital cartographic data, and other types of geospatial data." Ms. McGregor told the group that their advice and participation in this workshop will be critical to helping the USGS meet its strategy.

Ms. McGregor mentioned two current initiatives that demonstrate the commitment of the USGS to the NSLRSDA:

- As recommended in the first NSLRSDA workshop, the USGS has gone forward with the Federal Advisory Committee Act (FACA) process to formally establish an archive advisory committee.

- The USGS is vigorously pursuing a funding initiative for fiscal year 1999 which proposes a gradual increase in base funding for the archive in order to meet the demands that will come with the dramatic growth that the USGS anticipates for it.

Ms. Hedy Rossmeissl, Senior Program Advisor for Data Information and Delivery of the USGS's National Mapping Division also welcomed the group. She said the USGS is actively promoting and ensuring for the archiving and preservation of Earth observation data, a role that is best characterized as a "public good." The Advisory Committee is very important to the USGS, and therefore they look forward to the comments and results of this workshop.

Joanne Gabrynowicz, workshop chair, reported on the status of getting the charter approved through the FACA process. The charter has been approved by Dick Witmer, Chief of the National Mapping Division and sent to the USGS Director's Office. Bonnie MacGregor and Barb Ryan, USGS Associate Directors, are currently reviewing the package. They will make their recommendations to the Acting Director of the USGS, Mark Schaefer. The package will then be transmitted to the Department of the Interior. We can expect that it will take at least 4-6 months before the Secretary of the Interior approves the charter. DOI gets numerous requests for Advisory Committees. However, they are currently below their allotted number of committees, so hopefully that will help to expedite approval of our request.

Data Policy Review: Joanne Gabrynowicz, Prue Adler, Ken Thibodeau

Joanne Gabrynowicz presented an overview of the various national data policies (copies included in workshop notebook):

- The Bromley Principles
- Committee on Earth Observation Satellites Data Principles
- U.S. Global Change Research Program Act of 1990
- Global Change Data and Information System (GCDIS) Data Management for Global Change Research Policy Statements, July 1991
- Data Policy for Landsat 4 through 6
- Landsat 7 Data Policy Plan of October 31, 1994 (draft revision, September 19, 1997)
- Current Status and Summary of Agreement Between Landsat Program Management and EOSAT Corporation on Cost and Reproduction Rights for Landsat 4/5 Thematic Mapper Data
- White House, Office of the Press Secretary, May 10, 1994, Fact Sheet, Landsat Remote Sensing Strategy
- White House, National Science and Technology Council, September 19, 1996, Fact Sheet, National Space Policy

Joanne commented that there is no such thing as “a” data policy...it depends on where in the process the data is, from acquisition to final storage, and the source of data, among other things. Data policies are affected by technological, budgetary and political constraints. Using Landsat as an example, Joanne demonstrated the contrasting governing policies and data pricing for each of the seven satellites.

George Robinson stated that the “bottom line” is that the government can use any data from any remote sensing satellite that is supported by appropriated funds. If a U.S. agency has problems and must meet the U.S.’ best interests, it may not be relevant if a contract with a private entity is involved. Marshall Faintich commented that from the commercial side, this is a tension that exists between the U.S. Government and commercial reality. The public and private sector have to cooperate and consistency is required to succeed and accomplish objectives. George Robinson commented that we need to turn our attention to specific points of the policies and that we need to be very careful regarding wording of contracts and agreements.

Joanne’s closing remarks included:

- We are in a transition right now. There are a number of public and private systems being readied for launch. A year from now our conversations may be very different.
- On the policy level, many of the principles seem to be broadly accepted. The disconnect is with individual contracts. When contracts are negotiated, the next step is to make sure these individual agreements follow the agreed principles. We need to keep a perspective on who the data users are.
- If the decision is made at the space law or general law level, the details get lost. That is part of our work.
- The principles should be designed to be flexible, but make sure both sides agree on the limits of flexibility when negotiating a contract.
- A reminder that with Landsat 7, policy developments will remain dynamic. Agreements are being negotiated by NOAA with foreign ground receiving stations. U.S. policies will be met with the different policies of the nations where the ground stations are located. Day-to-day operations may be based on interpreting conflicting policies and retrieving costs from the international ground receiving stations.

Prue Adler, Assistant Executive Director, Association of Research Libraries, discussed data policy as viewed by a library. She quoted Arthur Curley from the Boston Public Library saying that “libraries do not service merely individual, informational, and recreational interests, but are part of the essential fabric of our society in its fragile cultural and social ecology.”

Library policies cover legal (e.g., FOIA, copyright and intellectual property), social (Code of Ethics, missions of different types of libraries) and technological and operational infrastructure. Key themes include transparency of service (e.g., operational programs to enact legislative or policy directives, e.g. preservation programs), meaningful access to public domain and

proprietary resources; continuity of the record and preservation of resources; cost effective programs to access and share resources and redundancy.

Prue discussed key provisions of the Copyright Act and mentioned that Congress is currently updating it to meet the challenges of the digital environment. She talked about what agencies are not allowed to do under the Paperwork Reduction Act. For example, under certain circumstances, user fees were set in 1995 to cover cost of disseminations, but no higher (OMB Circular A-130). Sometimes, to get a specific record you must go through the Freedom of Information Act (FOIA) process, which is slow. The Federal Depository Library Program and FOIA are the two other important statutes which support access to government information by the public and library services. The combination of legal regimes, operational infrastructures, and community-based principles together form the foundation for library policies, including those relating to data and access information. These laws and policies complement each other and permit libraries to function effectively.

Based on library experience, considerations for the NSLRSDA include: (1) how to work with the larger community on a variety of issues such standards and preservation, (2) preservation and access to resources in a networked environment, (3) define role in the context of the library and archival communities, and (4) how to work with other federal agencies and users in the next generation Internet and Internet 2 Project. Issues that will have immediate implications on the Archive: (1) access issues, in particular cost of access and use, (2) who the users are and what the expectations, in particular concerns over privacy and confidentiality of their transactions (that becomes more difficult as orders are done electronically), and (3) set clear policies on who should have access to a user's data. The Advisory Committee will need to keep an eye on the principals, policies and constantly changing data laws, in order to effectively address the many issues facing the Archive.

Ken Thibodeau, Director for the Center for Electronic Records, National Archive Record Administration (NARA), gave an overview of data policy from the view of the Archive.

One difference for NARA data is that NARA's enabling legislation has not changed since it was made into law in 1935. NARA is an independent agency which establishes policies and procedures for managing U.S. government records. The National Archives contain those official records which have been determined by the Archivist of the U.S. To have sufficient historical or other value to warrant their continued preservation by the Federal Government, and which have been accepted by the Archivist for deposit in his custody" 44 U.S.C. 2901 (11). Record criteria are:

- (1) what has to be made or received by the Federal agencies, and
- (2) what must be preserved because it is evidence of how an entity functions and because of the informational value of the data in the records.

The Archivist can issue regulations on what he/she thinks needs to be done, provide guidance and assistance to Federal agencies, determine standards, promulgate regulations, take records in the Archive that he/she feels have value (30-year rule).

Regarding scientific data, NARA provides guidance and sets standards, identifies scientific records that have long-term value, and acquires, preserves, and provides access to them. A study was conducted by the National Research Council and sponsored by NARA, NOAA, and NASA. Recommendations from the study were (1) life cycle management, (2) data to be retained by the sponsoring agency in discipline data center, and (3) interagency collaboration. The Federal Geographic Data Committee has established a Historical Data Working Group to promote spatial data and metadata standards. ISO is developing archiving standards for preservation of digital information obtained from observations of the terrestrial and space environments.

Three ways to maintain legal and physical custody of records are to deposit in the National Archive, determine if agency should be an affiliated archive, or keep in legal custody of the agency. Ken discussed agency responsibilities for managing the digital scientific record.

Questions following presentations (1) Does NARA have intervention authority for data in EDC's care? NARA can offer advice, but in reality it does not have the resources to intervene. (2) How does digital data get retrieved from NARA? There is a basic charge of \$90 for one file/one volume and \$20 each for addition.

Workshop Objective: The Archive Advisory Committee Charge

Joanne Gabrynowicz stated that the purpose of the workshop is to identify a charge to the Advisory Committee which will allow it to move forward quickly. The workshop was organized into three discussion groups to address what the Committee's focus should be for its first two years of service. Joanne identified three topics for the discussion groups: (1) short, medium, and long-term goals, (2) priorities, and (3) standards. At the end of the first day, the three groups reconvened and reported on their results. (Group Reports - see Appendix 1). Paul Tessar was asked to draft a consolidation of the three group reports.

Following the group reports, Joanne noted that the workshop participants displayed a desire to recommend specific policy points to the Committee. The following prescriptive points were identified for the charge:

- address a 2-year horizon
- identify urgent, time sensitive losses
- work will have to be done between meetings
- interim work needs to be identified
- forward planning, pre-archiving, is necessary
- current recommendation-which to purge, which to compress
- "usefulness" rather than "uses"
- backup site

Day 2: October 8, 1997

Tom Holm informed the group that due to an unexpected family emergency, he had to leave immediately but before he did, he wanted to address the group. Joanne yielded the floor to Tom.

Tom stated that a year ago there was unanimous consensus that we should go through the Federal Advisory Committee Act process and that a standing Advisory Committee is a priority. A charter was drafted and accepted by the entire group. The charter contained a good set of goals and objectives. During the first day of the current workshop, participants demonstrated a clear sense of the need to go beyond discussion of the Charter and the general charge to the future of the Advisory Committee. As a result, Tom announced that another meeting will be held in six months. The hope is that the meeting will be the official Committee formed in accordance with the FACA process that ought to be completed by that time. But if the process is still pending, a Working Group will be convened to begin addressing the many issues facing the Archive. Many significant activities/events are imminent and the participants' involvement would be very valuable at this time.

Tom left the workshop. Joanne took the floor and continued to chair the remainder of the meeting.

Letters drafted to Secretary Babbitt and professional groups.

The participants reiterated the fact that progress was made a year ago. They expressed a desire to build on that progress. Comments were made about not waiting another year. A question was raised as to whether interagency support and support from professional organizations would help get expedite approval for the Committee through the FACA process. Joanne replied it probably would. Another question was raised regarding bringing the process to the attention of Secretary Babbitt. The group expressed a sense of urgency and based on the precedent set by them at the first workshop where a letter was drafted and send to Dr. Eaton, they voted to draft two more letters. One letter would be from the group to Secretary Babbitt, the other would be a prototype to be used for the use of professional groups. Kass Green, Paul Tessar, Amy Budge, Marshall Faintich, and others identified groups like ASPRS, MAPPS, ACSM and others to whom the prototype letter would be made available.

Prue Adler and George Robinson were nominated to form a subcommittee to draft the letters (see Appendix 2). The first letter will be sent from the workshop attendees to Secretary Babbitt. The second letter will be used as a model for individuals to send on behalf of various organizations.

Prue and George returned the whole group and the draft letters were edited for content and the points refined. Everyone agreed that letters should be one page, persuasive, and include four points: (1) the archive is concerned with maintaining and making available remote sensing data to everyone...it is a critical national asset; (2) the reason it is important is primarily environmental; (3) job is huge and getting huger; (4) needs to be sufficiently funded so that it can continue to happen for everyone's benefit.

The group reached unanimous consensus on the contents of the letters and agreed to sign them. The group also authorized Joanne to finalize the letters, making sure the four points are included. Letter 1 will be signed by Joanne, the workshop chair, on behalf of all attendees with all

attendees names listed on the letter. Letter 2 will be sent to those who have agreed to contact the organizations listed above.

Recommendations for the Advisory Committee: Committee Priorities

Based on the Group Reports submitted the day before, the workshop attendees unanimously agreed that the following are the most urgent matters for the Advisory Committee to address:

1. NSLRSDA-DAAC relationship
 - Division of responsibilities
 - When does NASA stop funding?
2. User survey
 - who are the users?
3. What are the appropriate services?
 - statement of principle
4. What are priorities for preservation in an era of limited resources
 - identify those records that are perishable, i.e., assets at risk
 - what is the global basic data set
 - definition

The draft consolidation of the group reports from day 1 was reviewed and consensus reached on a final version (see Appendix 3).

Recommendations for the Advisory Committee: the Charge to the Committee

The following two charges were agreed upon:

- You are charged to determine what the preservation priorities are in an era of limited resources.
- You are charged to commit yourselves to advocate the highest practical level of authenticity and integrity in data stewardship.

There was a comment that the Committee will have the authority to say “should,” but it will not have the authority to say “must.”

Panel Membership

The workshop participants reviewed the Committee membership as contained in the proposed charter.

The Advisory Committee will be comprised of 15 individuals as follows:

- Academia (2)

- researcher
- educator
- Government (4)
- federal user
- state user
- local user
- science archivist
- Industry (4)
- data management technologist
- licensed data provider
- value-added service or other data provider
- end user
- Other (5)
- nonaffiliated individual at-large
- NGO
- International
- 2 at-large from any sector

The disciplines of information science, natural science, social society and policy/law must be represented in the above sectors.

John Boyd will find out from the Interior Solicitors when the last day for nominations are, whether foreign nationals can participate, and whether there is conflict of interest for industry participants.

Marshall Faintich suggested that nominations should be for people, not organizations. The participants agreed. Joanne asked each nominator to take the responsibility of checking whether the person being nominated had an interest in serving on the Committee. All nominations will be subject to an individual nominee's interest in serving.

The following nominations were received:

- Gerald Nelson nominated everyone attending this workshop, plus those who could not attend from the last workshop but expressed a continued interest in this group.
- Grady Blount nominated John Copple.
- Bob Wimer nominated Doug Gerell.
- George Robinson nominated the Smithsonian Archivist.
- Marshall Faintich nominated Gil Rye.
- Marshall Faintich nominated Janet Campbell, Univ. of New Hampshire (GLOBE).
- Tony Janetos nominated Sam Grower, UMD.

- Kass Green nominated Russ Congalton, Univ. of New Hampshire (GLOBE).
- Amy Budge nominated Bruce Ambacher, FGDC Historical Data Working Group.
- Marshall Faintich nominated Jeff Dosier, Univ. of California.
- Grady Blount nominated Gary Mauro, Texas Land Commission.
- Tony Janetos nominated Dave Skole, Michigan State.
- Kass Green nominated Bill Raickle, Insurance Service Organization.
- Kass Green nominated Bo Turnasz, CIA.
- Marshall Faintich nominated David Schall, Open GIS.

A list of all nominees received from the two workshops is included as Appendix 4.

APPENDIX 1 Group Reports

Group 1 Report

Starting Point for Committee

(1)

1. Is science issue adequately addressed?

-Purging of data is a concern

-advice and guidance to establish a mechanism for purging

-is mathematical component stored with data

-keep level 0 data with math models

The charge -- provide guidance for what level of data are included in the archive. Policy should reflect science, not economics for maintaining the archive.

1. Committee should look at life cycle at data when entered (begins at design stage) and exits.
How to track it.

2. How to track it.

3. Technological changes.

4. Differentiation between public and commercial.

1-4 above: can provide guidance to collecting agency.

Advice to committee on archive products produced from "raw data"

-imagery that impacts policy -- these are value added.

Archiving "raw data" assumes user community has tools to do something with it.

Committee should recognize a distinction between life cycles of commercial and noncommercial data -- what you collect, how long do you keep it? Help defined issues.

(2)

Should EDC advise EDC on maintenance components of archive -- refreshing data, transitions to new technologies.

What about back-up sites? Multiple copies.

Review and advise on how archive should operate.

Mission of public institution to provide long-term access to data -- what about private groups?

(3)

Weighing value of data -- committee should figure ways to do this. How to prioritize what is archived? How does the archive meet the public good?

(4)

Advice on policy for pricing: what goes into marginal cost? What are the budget limits within pricing policy?

(5)

Clear sets of policies on use of data -- who has access to what.

(6)

Advice to archive on how to coordinate with foreign ground receiving stations.

How does NOAA embed in contracts that archival images to go EDC.

Relationship between archive and foreign data and how to access foreign data.

Protect long-term interests in acquiring data from foreign stations.

Advise on standard data formats.

(7)

Committee needs to know where technology is and is going and how it will impact archive issue.

Goals

Short term -- Figure out problems that will occur immediately so you can adjust for mid and long-term goals, such as:

-where opportunity can be resolved soon regarding relationship with foreign stations; tiered pricing structure; quality control of media

Medium and long term -- Relationship with private sector

Ongoing -- Relationship with public sector, civil versus classified

Priorities: What is basic data set

Standards

What are policies the archive has to deal with (“rules of the road”):

-how to use facility

-type of records

-when available

-pricing

-format of data

Group 2 Report

Out Mission: Develop a charge to the Advisory Committee - A written statement by a community of professionals providing direction of the Committee. Proposed contents:

- Goals - short-, mid- and long-term
- Priorities - What to tackle first, later

- Standards they should employ for their activities (e.g., do no harm in release of information)

Goals

1. Come up with a pronounceable name for the group - National Remote Sensing Archive Advisory Committee? (NRSAC)
2. Develop a long term archive strategy document addressing, at a minimum, all the following:
 - Define the boundary between standard products (with bulk and system corrections applied) and value-added products. (The latter would NOT necessarily be part of the Archive).
 - Establish the importance of acquiring global, baseline, seasonal coverage for future acquisitions. To the extent historical data are available via US and international ground stations, identify priorities for adding these datasets to a coherent Archive. (Plan for acquisitions)
 - Define the menu of services provided to Archive users. (Access, distribution,)
 - Work to develop ongoing awareness of commercial satellite operator's products and work towards their provision of imagery to the Archive. Encourage the Archive to work with the operators to assure the acquisition of critical spatial, temporal, and seasonal coverage with their spacecraft.

Standards

Committee deliberations and decisions should recognize and advocate the interests of the full, broad range of current and potential users (e.g., those on top of page 5 of minutes, meeting one).

Advisory Committee members should commit themselves to the highest practical level of authenticity and integrity in their stewardship of the data.

Archive products should conform to international and widely-adopted voluntary standards.

Group 3 Report

Specifics

1. Examine other archive and library models.
2. Resolve ownership and distribution rights for data partially subsidized by federal funds.
3. Examine data distribution policies of other agencies for relevance to EDC mission.
4. Determine whether the archive will or should include privately acquired data.

5. Public education, public relations. Advise the archive on means of promoting the archive by providing examples of applications.
6. Distribution issue -- access/time sensitivity.
7. How long do we archive data - dependent on application.

APPENDIX 2

Draft Letter 1 - To Secretary Babbitt from the Workshop Participants

(UNEDITED VERSION---to be edited by Joanne Gabrynowicz)

We are in danger of losing a critical national asset. We the undersigned scientists, economists, archivists, engineers, librarians, information and technology transfer specialists, and environmental project/program managers from the private and public sector considered to be leaders and experts representing a variety of disciplines relating to remote sensing imaging, archiving and education emphatically state our strong and continuing support for the National Satellite Land Remote Sensing Data Archive. We encourage your positive support of timely and necessary funding to ensure the Archive is able to meet its current and future demands.

The Archive was established in 1984 and has been mandated by the Congress and the Executive Branch. It is an extraordinarily critical national and world resource in the careful and knowledgeable planning and management of natural and human impacts on our global environment. It is designed to access, maintain, and preserve an extensive collection of data remotely sensed aeronautically and from space. Without any doubt, one of the most important functions of the Archive is to make these data, so essential to the effective management of earth's environment and resources, available as quickly and as effectively as possible to all interested people. Broad involvement is essential. NASA as well as other governmental and nongovernmental entities around the world, have delivered and are delivering the sophisticated data that comes from remote imaging of the Earth. The remote sensing archive must evolve to accommodate the growing constellation of satellites and develop the archiving and imaging accession infrastructure to deal with the new data sets. Policies and practices to get this information out to the people in a timely fashion must be developed now and quickly. There will be an unprecedented amount of data flowing to the archive in 1998 with the launch of several new remote sensing instruments. Availability to the public of this data must be assured and any threat or possibility of permanent loss avoided. We request that you support sufficient funding of the Archive to meet its current and future need.

Letter 2 - Draft for Others to Work From

(UNEDITED VERSION---to be edited by Joanne Gabrynowicz)

We are writing to express our strong and continuing support for the National Satellite Land Remote Sensing Data Archive. (Insert sentence regarding urgency.) The Archive, established in 1984 and mandated by Congress and the Administration, maintains a permanent, comprehensive

Federal archive of globally remotely sensed data, by providing proper storage, preservation, and timely access to long-term monitoring and global environmental studies. To meet its Congressional mandate, the Archive requires sufficient fiscal support over the next several years.

The Archive supports a large, diverse, and growing constituency in the public, private and governmental sectors. With minimal funding, the Archive leverages existing investments in many civilian and classified programs including.... In addition, these data resources are used by public and private sectors in agriculture, mining, urban planning, forestry, fisheries, water resources, and disaster assessment. (Fire management, ecosystem restoration....)

Because congress has already funded a series of critical new missions, there will be an unprecedented amount of additional data flowing to the Archive in 1998. In addition, commercial satellite managers will be providing data to the archive. To meet these challenges, sufficient funding will be necessary to provide the required systems and infrastructure capacity to ensure the availability and avoid permanent loss of these critically important data.

We request that you support sufficient funding of the Archive to meet its current and future needs.**APPENDIX 3**

Consolidated Discussion Notes

Our Mission: Develop a charge to the Advisory Committee - A written statement by a community of professionals providing direction of the Committee. Proposed contents:

- Goals - short-, mid-, and long-term
- Priorities - What to tackle first, later
- Standards they should employ for their activities (e.g., do no harm in release of information)

Goals

1. Come up with a pronounceable name for the group - National Remote Sensing Archive Advisory Committee (NRSAC)
2. Develop a long term archive strategy document addressing, at a minimum, all the following:
 - Define the boundary between standard products (with bulk and system corrections applied) and value-added products. (The latter would NOT necessarily be part of the Archive). Provide guidance for what level of data are included in the archive. Policy should reflect science, not economics for maintaining the archive. Is mathematical component stored with data? (Keep level 0 data with math models?) Advice to committee on archive products produced from "raw data" - imagery that impacts policy -- these are value added. Mission of public institution to provide long-term access to data -- what about private groups? Archiving "raw data" assumes user community has tools to do something with it. Examine differentiation between public and commercial roles.

• Establish the importance of acquiring global, baseline, seasonal coverage for future acquisitions. To the extent historical data are available via US and international ground stations, identify priorities for adding these datasets to a coherent Archive. (Plan for acquisitions) Advice to archive on how to coordinate with foreign data and how to access foreign data. Protect long-term interests in acquiring data from foreign stations.

• How long do we archive data - dependent on application.

• Define the menu of services provided to Archive users. (Access, timeliness, distribution, ...) Clear set of policies on use of data -- who has access to what.

• Work to develop ongoing awareness of commercial satellite operator's products and work towards their provision of imagery to the Archive. Encourage the Archive to work with the operators to assure the acquisition of critical spatial, temporal, and seasonal coverage with their spacecraft. (Determine whether the archive will or should include privately acquired data.) How does NOAA embed in contracts that archival images to EDC.

• Resolve ownership and distribution rights for data partially subsidized by federal funds.

• Provide advice and guidance to the Archive on establishing a mechanism for purging. Weighing value of data -- committee should figure ways to do this. How to prioritize what is archived? How does the archive meet the public good?

• Committee should look at life cycle of data when entered (begins at design stage) and exits. How to track it. How to accommodate technological changes. Committee should recognize a distinction between life cycles of commercial and noncommercial data -- what you collect, how long do you keep it? Help define issues.

• Advise EDC on maintenance components of archive --refreshing data, transitions to new technologies.

• What about backup sites? Multiple copies.

• Review and advise on how archive should operate.

• Advice on policy for pricing: what goes into marginal cost? What are the budget limits within pricing policy?

Short term -- Figure out problems that will occur immediately so you can adjust for mid and long-term goals, such as:

-where opportunity can be resolved soon regarding relationship with foreign stations; tiered pricing structure; quality control of media

Medium and long term -- Relationship with private sector

Ongoing -- Relationship with public sector, civil versus classified

Priorities: What is basic data set.

Other Committee Tasks

- Examine other archive and library models.
- Examine data distribution policies of other agencies for relevance to EDC mission.
- Public education, public relations. Advise the archive on means of promoting the archive by providing examples of applications.
- Advise on standard data formats.
- Committee needs to know where technology is, and is going, and how it will impact archive issues.

Standards

Committee deliberations and decisions should recognize and advocate the interests of the full, broad range of current and potential users (e.g. Those on top of page 5 of minutes, meeting one).

Advisory Committee members are charged to advocate the highest practical level of authenticity and integrity of stewardship.

Archive products should conform to international and widely-adopted voluntary standards.

What are the policies the archive has to deal with? (“Rules of the road.”)

- how to use facility
- type of records
- when available
- pricing
- format of data

APPENDIX 4

Recommendations For Nominations To The Advisory Committee

Abler, Ron (AAG)

Adler, Prudence

AM/FM (Sam Borski, Executive Director)

Ambacher, Bruce (FGDC Historical Data Workshop Group)

Antenucci, John

ASPRS

Baumgardner, Marion
Belward, Allan (Joint Research Center, ISPRA, Italy)
Beurskens, Frank
Blount, Grady
Budge, Amy
Campbell, Janet (University of New Hampshire- GLOBE)
Cargill,
CCRDs
CEOS
Coker, Karen
Congalton, Russ (Univ. of New Hampshire - GLOBE)
Coppie, John Randall
Dangermond, Jack (SRI)
Davidson, Kenneth
Dozier, Jeff (University of California)
Ducks Unlimited
Eastman, Ron (International Geographics Institute/Clark University/ Geog. Dept. Works with UNEP/sells poor man's GIS)
ERDAS (software COS)
Estes, Jack (U.C. Santa Barbara)
Faintich, Marshall
Feehan, Thomas
FGDC
Gabrynowicz, Joanne Irene
Gerell, Doug
Goodchild, Mike (U.C. - Santa Barbara)
Goward, Sam (U. MD.)
Green, Kass
Hallada, Wayne
Hariharan, P.C. (Data Management - tech/Johns Hopkins/advised NASA or EOSDIS)
IEEE Geoscience Remote Sensing Society
Janetos, Anthony
Jensen, Deborah (Nature Conservancy)
Krygel, Annette
Lillesand, Thomas
MacDonald, John
Mauro, Gary (Texas Land Commission)
McNeill, Jerry (National Association of County Officials)
Mizell, (American Farmland Trust-NGO)
National State Geographic Information Council
National Climatic Data Center Science Archivists
Nelson, Gerald
Nuvakami (Geog. Survey Institute Japan)
Palletiello, John (Management Association of Professional Photogrammetrists)
Raickle, Bill (Insurance Service Organization)
Robinson, George

Rock, Barry (NH)
Rye, Gil Schall, David (Open GIS)
Science Archivists (only RS archivist in world per Thibodeau/David Brown/National Archive-
Ottawa)
Scott, Mike
Skole, Dave (Michigan State)
Smithsonian Archivist
Society of American Archivists (Susan Fox, Exec. Director)
Space Imaging
Tessar, Paul
Thibault, David
Thibodeau, Kenneth
Tumasz, Bo (CIA)
Von Meyer, Nancy (URISA)
Williams, Darrel
Wimer, Robert