



## Minutes of First Meeting of 2-Year Charter EROS Data Center, Sioux Falls, South Dakota October 28-30, 1998

### Committee Membership

#### Academia

Laboratory researcher-data user: Dr. Marion Baumgardner, Purdue Univ. (Retired)

Classroom educator-data user: Dr. Grady Blount, Texas A&M

#### Government

Federal data user: Mr. Glenn Bethel, USDA/Farm Service Agency

State data user: Ms. Amy Budge, Univ. New Mexico, EDAC

Local data user: Mr. Paul Tessar, Boulder County, CO

Science archivist: Dr. Annette Krygiel, National Defense University

#### Industry

Data management technologist: Dr. John MacDonald, Chairman, MacDonald-Dettwiller (Retired)

Licensed data provider: Mr. John Copple, CEO, Space Imaging EOSAT

Value-added or other data provider: Ms. Kass Green, President, Pacific Meridian

End user: Mr. Joseph Harroun, Cargill, Minneapolis, MN

#### Other

Nonaffiliated individual at-large: Prof. Joanne Gabrynowicz, Univ. of North Dakota

Nongovernmental organization: Ms. Prudence Adler, Assoc. Director, Research Libraries

International non-U.S. representative: Dr. Edryd Shaw, Director General, CCRS

At-large from any sector: Dr. George Robinson, Robinson & Assoc. Law

Offices (General Counsel Smithsonian-Retired)

At-large from any sector: Dr. Anthony Janetos, NASA HQ

#### Ex-Officio

Long-term land archive Mr. Thomas Holm, EROS Data Center

Long-term oceans & atmospheric archive Dr. Kenneth Davidson, NOAA

### Record of Committee Meeting Attendance

October 28-30, 1998

#### Present:

Ms. Prudence Adler

Dr. Marion Baumgardner

Mr. Glenn Bethel

Dr. Grady Blount

Ms. Amy Budge

Dr. Kenneth Davidson

Prof. Joanne Gabrynowicz

Mr. Joseph Harroun

Mr. Thomas Holm

Dr. Annette Krygiel

Dr. John MacDonald

Dr. George Robinson

Mr. Paul Tessar

**Absent:**

Mr. John Copple  
Dr. Anthony Janetos  
Ms. Kass Green  
Dr. Edryd Shaw

April 2-3, 1998

**Present:**

Ms. Prudence Adler  
Mr. Glenn Bethel  
Dr. Kenneth Davidson  
Prof. Joanne Gabrynowicz  
Ms. Kass Green  
Mr. Joseph Harroun  
Mr. Thomas Holm  
Dr. Annette Krygiel  
Dr. John MacDonald  
Dr. George Robinson  
Dr. Edryd Shaw  
Mr. Paul Tessar

**Absent:**

Dr. Marion Baumgardner  
Dr. Grady Blount  
Ms. Amy Budge  
Mr. John Copple  
Dr. Anthony Janetos

Record of Data Archive Workshop Attendance

October 8-9, 1997

**Present:**

Ms. Prudence Adler  
Mr. John Antenucci  
Dr. Frank Beurskens  
Dr. Grady Blount  
Ms. Amy Budge  
Dr. Kenneth Davidson  
Dr. Marshall Faintich  
Mr. Thomas Feehan  
Prof. Joanne Gabrynowicz  
Ms. Kass Green  
Mr. Thomas Holm  
Dr. Anthony Janetos  
Dr. Gerald Nelson  
Dr. George Robinson  
Mr. Mike Scott  
Mr. Paul Tessar  
Mr. David Thibault  
Dr. Kenneth Thibodeau  
Dr. Darrel Williams  
Mr. Robert Wimer

**Absent:**

No applicable record.

November 12-23, 1996

**Present:**

Ms. Prudence Adler  
Mr. John Antenucci  
Dr. Marion Baumgardner  
Dr. Frank Beurskens  
Dr. Grady Blount  
Mr. John Boyd  
Dr. Darlene M. Carlson  
Dr. Karen Coker  
Mr. John Copple  
Dr. Kenneth Davidson  
Mr. Thomas Feehan  
Prof. Joanne Gabrynowicz  
Ms. Kass Green  
Mr. Wayne Hallada  
Mr. Thomas Holm  
Dr. Thomas Lillesand  
Dr. John MacDonald  
Dr. Gerald Nelson  
Dr. George Robinson  
Mr. Mike Scott  
Mr. Paul Tessar  
Mr. David Thibault  
Dr. Kenneth Thibodeau

**Absent:**

No applicable record.

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**Day 1 - Wednesday, October 28, 1998****1. Introduction**

Joanne Gabrynowicz, Co-Chairperson of the National Satellite Land Remote Sensing Data Archive (NSLRSDA) Advisory Committee (hereafter referred to as the Archive Advisory Committee, the Committee, or AAC) welcomed the group, mentioning the delayed presence of certain members due to airline delays caused by fog. Delayed members were expected to arrive throughout the day.

**2. Welcome**

Tom Holm welcomed those present by first saying that Donald Lauer, Chief of the EROS Data Center (EDC), was not able to make the first day of the meeting due to other travel obligations, but would be available to welcome the group tomorrow. Tom presented an overview of EDC organizational materials showing the Center as one of five of the field centers within the National Mapping Division. He highlighted the EDC staffing mixture and expertise, as well as growth trends of government and contractor employees. He mentioned EDC is the home of the NSLRSDA and as well as the Land Processes DAAC; and that Jim Irons, Deputy Project Landsat 7 Scientist at NASA and a member of the Land Processes DAAC Science Advisory Panel, would participate in the two day meeting giving the Committee an overview on the current and potential interaction of the two

Archives. In addition, Tom gave an overview on EDC's operating budget for FY 1999, including appropriated and reimbursable funding, stating that EDC was successful in securing \$2.5M for the National Archive in the FY 1999 base budget. Various personnel from around the Center involved with the National Archive were introduced to the Committee.

Joanne Gabrynowicz reviewed the agenda. The April 1998 meeting minutes were distributed earlier and were not reviewed again during this meeting. Discussion was held regarding the absence of Committee members Kass Green, John Copple, Tony Janetos, and Ed Shaw. Committee members expressed the opinion that absences impact the success of the AAC meeting and its work. The valuable input of absent members will be missed. Two members raised the issue of absence and noted the need to establish a procedure for continued absences. Further discussion on the procedure was tabled until later in the day. The Committee members agreed that the meeting minutes must specifically identify the absence and presence of Committee members. Annette Krygiel motioned that the minutes should reflect such and that the attendance record of members at previous meetings be explicitly recorded. Motion was seconded, and passed unanimously by those present.

### **3. Action Item Reports**

#### **A. Policy Position at EDC - Tom Holm**

On the recommendation of the AAC, EDC addressed the need to establish a policy and law position for Archive. As an interim step in establishing a policy office, the responsibilities of day-to-day management of the NSLRSDA Program, currently held by Tom Holm, are being dispersed among the EDC Branches and Programs. This will allow Mr. Holm to transition into a position that allows more time to be spent on Archive policy and law matters. The role of the position will evolve. It is a first step toward achieving the Committee's recommendation. Discussion followed on the need for Donald Lauer to heighten the awareness of this recommendation at the Headquarter level. The Policy Subcommittee scheduled a meeting with Mr. Lauer on this matter.

#### **B. Report to Secretary of DOI - George Robinson**

Since the April 1998 Advisory Working Group Meeting was held just prior to official Committee member appointments by the Secretary of the Interior, it would not have been appropriate to submit a report from that meeting to the Secretary. Future meetings will be reported. Discussion followed requiring the past and future schedule of meetings for the Committee since their 2-year Charter approval by the Secretary. The meeting schedule was confirmed as follows: October 28-30, 1998; April 21-23, 1999; October 20-22, 1999; and April 26-28, 2000.

#### **C. Next Phase of Declassification & USGS Role - Bill Draeger**

What is the role of USGS EDC in the next phase? EDC is a systematic part of the overall process and official USGS representation is provided by Eric Anderson of the National Mapping Division at USGS Headquarters. Declassification of additional imagery is currently under discussion. The schedule is unclear with no significant activity in FY 2000. The scenario will be similar to the one followed in Corona declassification: (a) data is duplicated elsewhere; copy delivered to EDC; (b) EDC-compliant browse and metadata will be prepared/funded externally; and (c) collection will be on film. The assumption is that the cost of duplicating and preparing the browse

will be covered by the Department of Defense. If this is not true, the Federal Government will have to find the funds elsewhere. The first phase of declassification was carried out pursuant to a 1995 Clinton Administration Executive Order. The funding for the second phase is questionable and might need another Executive Order to establish cost coverage. As Archive policy is established, the funding issues will need guidelines to follow.

#### **D. User Survey - Dennis Hood**

A summary of the land satellite requirements study was presented. An option is to establish processes and mechanisms to identify user information needs. The goal is to create a process (survey and reports) that is credible and repetitive. The procedure will be developed by reviewing previous work, developing a plan, defining mechanisms, developing a data base, and repeating it biannually. The plan outline was provided with emphasis placed on the land satellite data requirements study, results, and recommendations. It should be broadened to cover other data sets, being sure to consider Headquarter's involvement.

Three review phases were suggested:

- (a) Department of the Interior,
- (b) federal agencies, and
- (c) general user community.

The time frame is about 6 months per phase. A number of Committee members expressed the concern that the plan will not necessarily meet general user community's needs because it focuses primarily on the needs of federal users. Nonfederal users' needs, historically, are not met. It was discussed to possibly reverse the review phases to start with the general user community first. Guidance is then needed as to how EDC is to interact with that user community. The action was to come up with a survey process. Some Committee members suggested that perhaps a private sector company could do the general user survey and EDC could do the federal user survey. (For example, global change research and what is the best mix of data sets to accomplish this.) A briefing to Don Lauer is necessary on this issue. It is appreciated by EDC that a person has been assigned to this action. The Archive will benefit from this effort.

A reference on the 1997 RAND Study on system preferences is not available and is wanted by the AAC. The Committee also discussed the fact that an Earth Observation System Data and Information System Survey was conducted by NASA in response to federal agency requests and that Landsat surveys were application oriented with sensor requirements. Glenn Bethel has a copy of this survey (Stoney/Meyer survey) and will make copies available to the AAC. The IGDC Remote Sensing Working Group (FY 1997 Aeronautics and Space Report) was an internal working group within the Interior, and the report is done annually.

Current Archive products include Landsat, AVHRR, and declassified photography. EDC customer information is private but could probably be used for survey use. No information is gathered as to what the customer is using the products for. When orders are placed, it would be very useful to have this data gathered to determine user priority for data.

The last three sections of the plan outline that was presented included:

(a) Land Satellite Data Requirements Study: Who will be on the data team? Mostly EDC. Information sources could include SpaceImaging/Eosat, SPOT, EDC, and others. Significant federal users are USDA, EPA, NASA, USGS, among others. What will the information gathering vehicle be? The survey questions are important in how they are designed. The suggestion that a private company might design the survey was reiterated by some of the Committee members. Who designs the questions will make a difference. Also, questions need to be changed periodically. Survey must be repetitive. It was noted by Committee members that academic and other end users were not on the list. User profiles need to be defined and broadened.

(b) Results: Assembly, information analysis, and reports.

(c) Relevant recommendations: It is critical to include and reach general users. As presented, the plan represents primarily data distributors talking to other data distributors. This is too narrow a scope for a user survey.

Comments were heard that the AAC's commitment to the Archive doesn't play into the budget process, but rather the relevancy of the data in the Archive is what means something to the budget process. The user survey will count very heavily in determining the relevancy of the data. Some sort of on-line survey in the data purchasing process could be a good data gathering mechanism.

**ACTION:** Dennis Hood will supply a revised survey process. He will also secure a copy of the RAND Study and distribute it to the AAC. Report to: Tom Holm.

**ACTION:** Dennis Hood will secure a copy of the FY 1997 Aeronautics and Space Report and distribute it to the AAC. (ACTION COMPLETED BEFORE MEETING ADJOURNED.)

**ACTION:** Glenn Bethel will secure a copy of the Stoney/Meyer survey and distribute it to the AAC. (ACTION COMPLETED BEFORE MEETING ADJOURNED.)

#### **E. Collections Management Policy and Process - Tom Holm**

Existing EDC policies date back to the early 1980s. They establish guidelines for considering and accepting data sets from other agencies for archiving at EDC. The Data Service Branch has the lead responsibility for this. EDC is revising the guidelines to incorporate the Basic Data Set and elevate the ultimate decision authority to a Collections Management Council with representatives centerwide. The policy on transfer of data collections to EDC storage, reproduction, and distribution needs updating. Past use was reactive; future use should be proactive. There are a number of instructions in place, many relatively new. There are established policies at headquarters level that EDC must comply with as it develops internal instructions. There is a working archive, and another one—the long-term archive—with separate procedures. Continued action is being taken and several updates are being done. EDC collections include data sets from DOI bureaus and some state collections.

**ACTION:** George Robinson will obtain a copy of the collection management policy from the Smithsonian Institute. Many library

systems have these policies in place and we might use them to build upon. Action completed.

#### **F. Public Data vs. Restricted Data - Ken Davidson and Amy Budge**

A white paper entitled "Restricted vs. Public Domain Data: An Overview" was distributed to Committee members. It included copies of various agreements citing various ownership licenses and rights in use of the data (copyrights). The white paper considered what public domain data means from a user's perspective: easily obtained data versus restricted data.

Examples included:

- (a) Landsat data under privatization (e.g., like a copyright and costs a lot more);
- (b) restricted data that decreases the ability to use it;
- (c) simple storage versus archive storage in order to access it; and,
- (d) accessing public domain versus restricted through mechanisms like passwords.

Another example involved the University of New Mexico which attempted to obtain IRS-C data from Space Imaging, Inc. to check GPS road data for the Emergency-911 system. Space Imaging would not allow universities to have data access because it wanted the data to be made available on a county-by-county basis through individual agreements. Through negotiations, access was increased, but there are still many restrictions in place. The cost is negotiated, and the State and universities have to work through a distributor, not Space Imaging itself.

Another white paper was submitted but tabled for discussion until the next meeting. That paper takes a view of data access from an historical perspective. Regarding that perspective, comments were made that the Committee is an archive committee, not a user access committee. Consideration can't be made from only the users' perspective. The Committee's job is to consider access from the historical perspective. User access may not be as critical as is need for long-term historical access. It is impossible to determine what will be important in 20 or more years from now. Discussion addressed the fact that these are separate issues that the Committee does need to address. The Committee does need to consider historical perspectives, but it also must address the access processes.

#### **G. Policy and Law Subcommittee - Joanne Gabrynowicz**

Joanne Gabrynowicz reported that the Policy and Law Subcommittee had met prior to the AAC meeting. It prepared a draft report for consideration by the Technical Working Group and the AAC which was distributed to the group. Input is expected and needed. The Subcommittee considered the immediate, practical issues that must be addressed by the Archive. The two subjects chosen were the National Satellite Land Remote Sensing Data Archive (NSLRSDA) status and Landsat 7 data definitions. As a legally-mandated national archive, NSLRSDA must maintain a core capability to meet its mandate. Regarding data definitions, there are inconsistent policies and laws. The subcommittee compared pertinent statutory definitions with EDC terminology and drafted a preliminary list of definitions.

Other preliminary subcommittee recommendations to the AAC are to:

- (a) appoint a remote sensing commercial development subcommittee,
- (b) EDC must establish/maintain an in-house commercial advocacy capability, and
- (c) the DOI solicitor's office needs to provide EDC with legal advice in remote sensing matters.

The AAC needs to review these recommendations. It was noted that the question of a conflict of interests might arise regarding the first preliminary recommendation depending on the role such a subcommittee pursues. It was recommended that the enhanced/unenhanced definitions be attached to this report. It was suggested that Stennis' Commercial and Remote Sensing Program, the Department of Transportation Office of Commercial Space Transportation, and the Office of Air and Space Commercialization in the Department of Commerce should be added to the list of potential sources of advice. The comment was made that NSLRSDA will archive in the rawest form.

#### **4. Information Briefings**

##### **A. Business Partner Program - David Terrell**

David Terrell informed the Committee about the EDC Business Partner Program explaining that it is new and an expansion of the old Map Program. It includes aerial photos and digital data products. Satellite images are not yet a part of the program. EDC's view is that it will be necessary to move from retail to wholesale through the private sector in order to avoid compromising its ability to deliver data in a timely fashion. Business partners can expect faster turnaround, price breaks on bulk orders, special handling, and referrals. EDC's benefits includes getting products out to the customers. Tom Holm handed out an informational document on "Status of Private Sector Initiatives". Comments were made by several of the Committee members that the Business Partner Program is a good one and should be encouraged. Other comments were made that EDC should also be encouraged to be more creative in fostering the growth of private sector involvement.

##### **B. Systems Initiatives: DOI Land Resources Observation Program Initiative - R. J. Thompson**

The USGS has endorsed the concept of a new initiative for establishing a broad-based Land Resources Observation Program. This has been stimulated by the need to resolve operations management responsibility for the Landsat 7 mission. NASA, NOAA, USGS are the members of the Landsat 7 Program Management Team. NASA requested the USGS to consider assuming the responsibility for Landsat 7 operations. The USGS is pursuing a funding initiative for a new program to acquire, process, and apply data from land remote sensing satellites, initially focused on Landsat 7.

A Landsat 7 Value-Added Processing workshop is being scheduled to stimulate private sector involvement in addressing issues such as data products/prices, global mapping objectives, acquisition strategy, Landsat 7/commercial data synergy, data policy, and software availabilities. An objective of the workshop will be to find out which, and how many, participants in the value-added sector want to use raw Landsat 7 data. Another objective is to explore how EDC



can develop a working relationship with them to develop a suite of products and to determine who would use the products.

Committee members discussed the work of the policy subcommittee regarding data definitions and whether that work should be presented to the workshop. The Committee concluded that, at this time, there is no subcommittee product to be presented. The entire Committee has not fully completed its work on the definitions. Finally, whatever the AAC does produce is to be considered advice. Discussion ensued regarding forming a subcommittee to attend the value-added workshop. Further comment was made that the AAC must be careful to remain within the intent of its charter. A possible motion to attend the workshop was tabled until after the working groups met.

**C. Systems Initiatives: National Civil Applications Program (NCAP) D  
R. J. Thompson**

The presentation included information on the objective, background and current initiatives of the DOI Classified Data Management Initiatives and the NCAP Program. NCAP was developed to enhance the ability of federal agencies to respond to national resource management problems including applications for hazards, libraries, products, and forecasting. USGS facilities include the MAC, MCMC, RMMC, ASC, CINDI, and Collateral Facility at EDC.

**D. Systems Initiatives: Gateway to the Earth: Data Access and  
Delivery - R. J. Thompson**

Explanation of the OhioView consortium and initiative was presented. A group from Ohio, consisting primarily of universities, initiated an effort with Congress to add \$3M dollars to EDC's budget for a series of data activities. It showed to the group how we are going towards high-speed computing and delivery of data. An enhancement to general EDC infrastructure will be achieved through this OhioView initiative.

**E. Systems Initiatives: Status of SPOT Agreement - Tom Holm**

The Memorandum of Agreement (MOA) between the USGS and SPOT was signed on September 9, 1998. Its purpose is to preserve and distribute SPOT data. The driver of the agreement was the augmenting NSLRSDA holdings. The MOA might establish a model for future USGS/private sector partnerships. It provides low cost distribution of SPOT data to many users, and opens potential new markets. SPOT doesn't have to pay for storage. The MOA only commits EDC to agree to cooperate and the terms of the agreement are verbal. An overview of the objectives, scope, responsibilities, pending financial arrangements, and implementations was presented. The MOA duration is 3 years.

Concern was expressed by some Committee members that public good aspect of the agreement is weak and needs to be strengthened. Concern was also expressed that data originating from the private sector must, at some point, be in the public domain without restriction and that the evolution of the agreement must ensure this.

**F. Systems Initiatives: Brief Review of EDC's NSLRSDA Budget D FY99  
Tom Holm**

A summarized budget breakout was present for FY 1998, 1999, and 2000. The items included populating the archive, preserving the archive, accessing the archive, producing and distributing products, and management. Base funds (\$4,370K) were used for the TM Conversion

effort and NLAPS in the early 1990s. A funding initiative of \$2.5M was successful in FY 1999, with reason to expect another \$2.5M in FY 2000 would be available to populate and preserve the archive. The base is all appropriated dollars from Congress.

#### **G. Policy Topics: USGS Pricing Policy****An Overview - Bill Draeger**

Full copies of the USGS Pricing Policy will be copied and distributed to the Committee. A summarized copy of the pricing policy is in the briefing binder. It was signed in 1995 by the USGS Director. The concept was to maximize dissemination given the restraints of cost recovery. Prices are to be based on costs, not the value of the product. The policy should pursue full cost recovery, including indirect costs such as depreciation of equipment and burden. All costs associated with the dissemination of the product will be recovered. Archiving costs are not recoverable costs. Prices apply to federal and nonfederal customers. There is a bureau level review of prices each year. Specific cost elements (recoverable/nonrecoverable) were reviewed with the Committee.

#### **H. Policy Topics: DAAC Science Advisory Committee and AAC Interaction** **- Jim Irons**

EDC's Land Processes DAAC Science Advisory Panel has been meeting since 1991. The most recent meeting was in September 1998. Tom Holm presented an overview of the AAC and NSLRSDA at that meeting. A major issue is the potential discrepancy between the two Archives regarding the product pricing, i.e., cost of fulfilling a user request. The DAAC recommends to charge for all Version 0 DAAC products distributed on hard media; to transfer NALC triplicates to NSLRSDA; and to transfer SIR-C Single Look Complex data to NSLRSDA. A listing of the DAAC membership was provided. The DAAC recommends that an AAC member should participate in the DAAC meetings to facilitate the successful transfer of data between the two Archives. A motion was made to have a member of the AAC attend the DAAC meetings. The motion was seconded, and passed unanimously by those present. The selection of the AAC member was tabled for later discussion and decision.

#### **I. Policy Topics: Commercial Space Act of 1998 - Joanne Gabrynowicz**

The Commercial Space Act of 1998 was an omnibus bill which addressed many aspects of commercial space activities. The bill was sent to the President for signature on October 20, 1998 and is expected to become law. Only one section of the bill addressed remote sensing. Most of the remote sensing provisions were eliminated in the legislative process. There are no provisions in the bill regarding NSLRSDA.

Prof. Gabrynowicz told the Committee the most informative aspect of the bill regarding remote sensing were provisions that were eliminated. These provisions demonstrated a conflict between the public and private sectors regarding property rights in data that would have been gathered pursuant to a government contract. In one version, such data would have been treated as private property under the defense acquisition regulations. These would have presumed private ownership and inhibited the government's ability to distribute the data to third parties. In another version of the bill, this position was modified. The version of the bill that was sent to the President eliminated these provisions altogether. It should be expected that this issue will arise again in the 106th Congress.

The final version contains only two new remote sensing provisions. The first pertains to private system license reporting requirements.

The requirement that a private operator report to the licensing authority any agreement with a foreign entity has been changed to reporting any significant or substantial agreement. The second new provision requires NASA to conduct a study within six months to identify how it can promote availability of NASA information to commercial providers that enables them to meet baseline requirements; disseminate its advanced technology R&D information to commercial providers; and, identifies policy, regulatory, and legislative barriers to implementing the recommendations.

#### **J. Policy Topics: Military/Civilian Licensing Issues - George Robinson**

Mr. Robinson reported on a conference regarding military/civilian licensing issues for private remote sensing systems. The presentations at the conference led Mr. Robinson to believe it is becoming increasingly difficult to determine what will be considered classified and declassified in the future.

### **5. General discussion**

Joanne Gabrynowicz noted that Committee members who had been delayed due to bad weather had arrived throughout the day. Discussion was held regarding plans for the next day, which was to break into working groups and then reconvene in the afternoon.

### **6. Adjourn**

## **Day 2 - Thursday, October 29, 1998**

### **7. Reconvene**

Donald Lauer, Chief of EDC, addressed the Committee and expressed his appreciation to the members for taking time out of their busy schedules and donating it to assist EDC with NSLRSDA management. EDC will work to the best of its ability to preserve the data and protect it. He addressed the financial and budgetary progress that was made with the success of the \$5M budget initiative in the President's budget and the resulting first installment of \$2.5M in EDC's FY 1999 base. This will give EDC some flexibility in considering the Committee's recommendations. The Department of the Interior has approved the second installment of \$2.5M in FY 2000; the next challenge is to sustain it through the budget process through the U.S. Geological Survey and the National Mapping Division. Other major highlights are the potential of American civilian satellites and the major shift in policy being negotiated as we speak with the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey.

### **8. Followup on Previously Tabled Issues**

Prior to breaking into working group sessions, Joanne Gabrynowicz suggested that the Committee consider and act upon the issue that were tabled the day before.

#### **A. Item 1: AAC Representative to the DAAC**

A motion had been made, seconded, and passed unanimously by those present, to assign an AAC member and an alternate to attend the DAAC meetings. The next meeting will be held in early March 1999. A show of hands indicated members who were unavailable for these meetings. They included: Annette Krygiel, Joe Harroun, Ken Davidson, and Prue Adler. The floor was then opened for nominations. Grady Blount

nominated himself. Paul Tessar nominated Amy Budge. A motion was made nominations cease and it was seconded. By show of hand, Grady Blount was voted as the AAC representative to the DAAC meeting. Amy Budge was voted as alternate.

#### **B. Item 2: Procedure for AAC Meeting Absences**

A motion had been made, seconded, and passed unanimously by those present, to establish an AAC policy regarding meeting absences. It was noted that two Committee members have been absent for consecutive meetings. Neither of them have responded to email and telephone calls to arrange their travel to AAC meetings. With time limitations, the absence of members limits the Committee's ability to make and implement decisions. Under the current Charter, there are three meetings left.

A suggestion was made to discuss policies used by other committees and boards to address absences. Two AAC members who served on other committees said it was the policy of those committees to replace members that miss two consecutive meetings unless extenuating circumstances were involved. Discussion of this practice ensued and the group adopted it as a policy. A question was raised whether the process through the Secretary of Interior allows for replacement by way of recommendation with a biographic sketch, pursuant to an existing Charter. The answer was that there is an alternate list of potential members from which replacements could be drawn. Another question was raised as to whether the alternates represented the required membership categories. The answer was yes. The question was also raised as to whether an appointed member could delegate a representative from his or her organization to attend the AAC meeting in his or her place. The answer was no. The Secretary of Interior appointed specific people, not organizations, as members.

The following procedure and policy was established by a motion which was seconded, and passed unanimously by those present.

1. In the future, if two (2) consecutive meetings are missed by an appointed member, the member will be replaced.
2. For current members who have already missed two consecutive meetings, they member will be notified and informed that their input and participation was missed. They will be asked if they will be attending the next meeting. If they are unable to attend the next meeting, they will be given the opportunity to resign.
3. An Executive Committee consisting of Joanne Gabrynowicz, Paul Tessar, and Joe Harroun to will select replacements.
4. The AAC authorized the Executive Committee to use their discretion, in consultation with EDC, to select from within or without the pool of replacements and initiate the appointment replacement procedure.

**ACTION:** Joanne Gabrynowicz and Paul Tessar will send letters to absent members and inform them of the new policy of meeting absences.

#### **C. AAC representation at the Value-Added Workshop**

A raise of hands showed Joe Harroun, Glenn Bethel, and Amy Budge have plans to attend. The Committee had information that Kass Green is also expected to be present. A motion was made and seconded that the four (Harroun, Bethel, Budge, and Green) become an informal group in

attendance and report back to the AAC on their perspectives of their workshop. Joanne Gabrynowicz will attend as AAC Cochair. The motion was seconded, and passed unanimously by those present. Comment was made that the workshop conflicts with the ERIM Geological Meeting. R.J. Thompson made note of the conflict and will check the workshop dates. The AAC recommended to EDC that speakers representing academia, nonprofit organizations, and nonfederal users be invited to the workshop.

ACTION: Harroun, Bethel, Budge, Green and Gabrynowicz have the action to report back to AAC on the attendance of the Value-Added Workshop. Report to Joanne Gabrynowicz.

## **9. Working Group Meetings: Issues and Concerns**

The Policy Subcommittee and the Technical Subcommittee met independently from one another to address separate agendas. Both groups reconvened in the afternoon and met as the whole Committee.

### **A. Policy Working Group Report to the Whole Committee**

The revised version of the Law and Policy Subcommittee's draft was distributed. Discussion of the draft followed and Paul Tessar made edits as the discussion proceeded. Joanne Gabrynowicz encouraged the group to take the document with them for the evening to read it, analyze it and have comments for the group the next day. The white paper's purpose is to clarify existing policy. AAC recommendations will be a separate document.

### **B. Technical Working Group Report to the Whole Committee**

The working group evaluated candidate data sets for inclusion in the archive. And recommend that the following data sets be included:

Foreign Landsat 1-5 Holdings  
Landsat 7  
MODIS  
ASTER  
SRTM  
LightSAR  
Advanced Land Observing System (Japan)  
Vegetation Canopy Lidar

The Technical Working Group also reviewed the Policy and Law Subcommittee's first draft. Paul Tessar highlighted their review comments. Among the items discussed by the Technical Working Group was the Law and Policy Subcommittee's draft data definitions. As a working group, they agreed with the definitions. Noting that both the Policy and Law Subcommittee and the Technical Working group had met independently and appeared to reach consensus on the definitions, a motion was made by Prue Adler to have the AAC adopt the Policy and Law Subcommittee's draft data definitions. The Motion was seconded, and passed unanimously by those present. (The list of adopted definitions are appended to these minutes.)

## **10. Adjourn**

**Day 3 - Friday , October 30, 1998**

## **11. Reconvene**

## Working Group Meetings: Issues and Concerns

The Policy Subcommittee and the Technical Subcommittee continued to met independently to complete work begun the previous day. Both groups again reconvened and met as the whole Committee.

## 12. Working Group Reports and Recommendations

### A. Policy Working Group Report to the Whole Committee

Joanne Gabrynowicz outlined the "Draft Policy Advice to EDC" (white paper) document which will include:

- I. Goals. To clarify policy in order to facilitate implementation.
- II. Introduction: Rewrite to include AAC's comments.
- III. Rewrite of prior draft and fill in to include AAC's comments.
- IV. Definitions as provided in draft and adopted by AAC.
- V. NSLRSDA's relationship to private sector. Subcommittee rewrite section later referencing applicable references.

It was proposed to accept the outline, and to separate the white paper from the recommendations that the AAC will make to the Secretary. Each will go forward separately. A motion was made and seconded to accept the outline and to separate the white paper from the recommendations. The Motion was seconded, and passed unanimously by those present.

Joanne Gabrynowicz highlighted the process that the white paper will go through. She stated that the Policy and Law Subcommittee strongly believes it must go through the proper review process, as follows:

1. Policy Subcommittee to finalize draft. (By meeting's end or soon thereafter)
2. Post draft to entire AAC.
3. Collect comments from AAC. Individual members may solicit individual expert comments at their discretion.
4. Joanne Gabrynowicz will integrate collected comments with the Subcommittee's draft.
5. Integrated version posted for AAC approval.
6. Send to Secretary of Interior (mid-January 1999).

Policy and Law Subcommittee members are Prue Adler, George Robinson, Joe Harroun, Annette Krygiel, and Joanne Gabrynowicz. Other members are welcome. A motion was made and seconded to accept the review process. The Motion was seconded, and passed unanimously by those present.

### B. Policy and Law Working Group Recommendations to the Secretary of the Interior

1. Recommend that the data definitions in White Paper be used to facilitate implementation of the NSLRSDA's mission.

2. Recommend that EDC and NSLRSDA pursue the best means to established, continuous and sustained access to legal and policy expertise.

3. Recommend that EDC promote the development of the commercial use of remotely sensed data. Some examples could include establishing a clearinghouse for value-added retailers; providing information regarding services available from the value-added community; and/or providing a central web site that lists commercial sources for products and services.

The AAC has come to appreciate the challenges EDC and the NSLRSDA face, and will continue to face, in the future. Both EDC and the Archive need established, continuous and sustained access to legal and policy expertise. The AAC strongly recommends that EDC and the Archive should pursue the best means to ensure it. The group decided that this recommendation should be ranked second in order of importance. A motion was made and seconded to accept the proposed, ranked recommendations and assign actions to supply examples of commercial development activities to the AAC. The Motion was seconded, and passed unanimously by those present.

ACTION: Marion Baumgardner and Glenn Bethel have the action to forward examples to the AAC. Report to Joanne Gabrynowicz.

ACTION: John MacDonald will forward URL for CEO Net to AAC. Report to Paul Tessar.

ACTION: Tom Holm set up a password protected web site for posting to AAC.

A fourth recommendation was discussed regarding NSLRSDA outreach activities and reviewing the policy regarding U.S. Government and affiliated Users (USGAU). Due to the complexity of the USGAU subject and the fact that there was only an hour remaining for the current meeting, Joanne Gabrynowicz suggested separating out and postponing a discussion of the USGAU policy until the next meeting. A motion was made and seconded to postpone the USGAU discussion until the next meeting. The Motion was seconded, and passed by a majority by those present. The final vote was 9 for and 1 against (Grady Blount).

A motion was made and seconded to accept the revised fourth recommendation. The Motion was seconded, and passed unanimously by those present.

The fourth recommendation to be sent to the Secretary of the Interior is as follows:

4. Recommend that EDC/NSLRSDA expand their relationship to land remote sensing data users through a focused outreach program and continuous solicitation of current and potential user input. Examples will be provided by AAC members.

ACTION: Grady Blount, John MacDonald, Amy Budge, and Marion Baumgardner will send examples to the Committee to include nonprofit, local, state, and county. Report to Tessar.

B. Technical Working Group Recommendations to the Secretary of the Interior

1. Encourage NASA to consider the potential consequences and problems

related to data pricing inequities at the Land DAAC vis a vis the NSLRSDA.

Comment was made that the AAC only has authority to advise the Secretary of the Interior. A reply was made that the recommendation was intended to address DAAC-NSLRSDA interaction, not to advise any other entity. A motion was made and seconded to place this recommendation on the next AAC agenda and to not go forward with it at this meeting. The Motion was seconded, and passed by a majority by those present. The final vote was 9 for and 1 against (Grady Blount).

2. The definition of the Basic Data Set (Attachment ) has been completed and provided. Data from all the sensors considered above meet the criteria inclusion in the Basic Data Set.

A motion was made and seconded to accept the this recommendation. The Motion was seconded, and passed unanimously by those present.

#### **C. Other Technical Working Group Recommendations to EDC**

1. Establish and adopt a comprehensive collections management policy and process.

2. Establish relationships with other well-kept archives to exchange browse and metadata via reciprocal agreements with international ground stations (IGSS).

A motion was made and seconded to accept the above two recommendations. The Motion was seconded, and passed unanimously by those present.

3. For Landsat 1-5 data held by international ground stations that are unique and in danger of loss, acquire them immediately.

A motion was made and seconded to place this recommendation on the next AAC agenda and to not go forward with it at this meeting. The Motion was seconded, and passed unanimously by those present.

ACTION: R.J. Thompson has the action to obtain information on international data purging issues and practices and report at the next AAC meeting. Report to Tom Holm.

#### **D. Future agenda items**

Any and all proposed agenda items for the next should be sent to Joanne Gabrynowicz. The next meeting will be April 21, 22, 23, 1999.

ACTION: Amy Budge and Ken Davidson will report on the two papers they submitted regarding long-term archiving issues, loss of historical data, and restricted data access at the next AAC meeting.

#### **E. General Closing Comments**

Tom Holm stated for the next meeting, he would like to see the whole committee meet as a single group rather than break into working groups.

Annette Krygiel stated she prefers not to be on one subcommittee for the entire working life of the AAC. They are fine for ad hoc purposes, but not for entire life of AAC. She also mentioned that a future list of agenda topics should be kept.



Joanne Gabrynowicz mentioned it maybe a possibility to hold a future meeting in Washington, D.C. Other locations would also be considered for the convenience of members and if they did not incur additional costs.

**ACTION:** Joe Harroun will take action to look into the possibility of holding a future meeting in the Minneapolis area. Report to Joanne Gabrynowicz.

#### **F. Meeting Adjourned**

A motion was made and seconded to place to adjourn the meeting. The Motion was seconded, and passed unanimously by those present.

## Definitions

### Levels of Data Preprocessing

Levels of Data Preprocessing  
For Land Remote Sensing Data included in the  
Definition of Unenhanced Data

Basic philosophy about data levels :  
Unenhanced data are numbers proportional in a defined way to the radiance measured by a sensor viewing a specific surface area. A measure of what existed on the Earth system at a point in time, placed geographically and calibrated radiometrically.

**Raw**  
Unprocessed, raw data acquired by a land remote sensing system as it views the Earth. Data are stored in the original telemetry format as transmitted from the satellite to the ground station.

**Level 0R**  
Reformatted, raw data acquired by the satellite as it views the Earth. Reformatting includes: 1) reordering of the scan data, 2) aligning detectors, etc., and includes data files of ancillary data necessary for processing to higher levels. The data are not radiometrically corrected, the pixels are not resampled, and the pixels are not registered to an earth location.

**Level 1R**  
A radiometrically corrected digital data along with the files containing metadata, calibration parameters, payload correction data, and other sensor information such as mirror scan correction data, a geolocation table, and internal calibration data. The digital image pixels are not resampled or geometrically corrected.

**Level 1 Systematically Corrected**  
A radiometrically corrected and geometrically corrected digital data along with metadata, calibration parameters, and a geolocation table. The radiometrically corrected pixels are resampled for geometric correction and registration to an earth location with a geodetic accuracy of 5 to 25 times the sensor ground instantaneous field of view (GIFOV).

**Level 1 Precision Corrected**  
Geometric precision correction of the satellite data using ground control points to correlate the spacecraft's predicted position with its actual geodetic position. Geometric precision correction provides an accuracy of +/- one half of the sensor GIFOV, where terrain variation is low.

#### Level 1 Terrain Corrected

Terrain correction includes geometric precision correction using ground control points and are corrected pixel-by-pixel for local terrain displacement errors by utilizing a Digital Terrain Model. The location accuracy is +/- one half of the sensor GIFOV, regardless of terrain variation. The terrain adjustment removes distortion that can result in high relief areas. Provides the highest level of geodetic accuracy.

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