

**UNITED STATES DEPARTMENT OF THE INTERIOR**

**National Satellite Land Remote Sensing Data Archive  
Advisory Committee Meeting Minutes**

**Second Meeting of 2-Year Charter  
EROS Data Center, Sioux Falls, South Dakota  
April 21-23, 1999**

**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  
Federal data user: Mr. Darrel Williams, *Landsat* Scientist, NASA/GSFC  
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-Dettwiler (Retired)  
Licensed data provider: Mr. John Copple, CEO, Space Imaging  
Value-added or other data provider: Ms. Kass Green, President, Pacific Meridian  
End user: Mr. Joseph Harroun, Cargill, Minneapolis, MN

**Other**

Non-affiliated individual at-large: Prof. Joanne Gabrynowicz, Univ. of North Dakota  
Non-government organization: Ms. Prudence Adler, Assoc. Dir., 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)

**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**

**April 21-23, 1999**

**Present:**

Ms. Prudence Adler  
Dr. Marion Baumgardner  
Mr. Glenn Bethel  
Dr. Grady Blount  
Ms. Amy Budge  
Mr. John Copple  
Dr. Kenneth Davidson  
Prof. Joanne Gabrynowicz  
Ms. Kass Green  
Mr. Joseph Harroun  
Mr. Thomas Holm  
Dr. Annette Krygiel  
Dr. John MacDonald  
Dr. Edryd Shaw  
Mr. Paul Tessar

**Absent:**

Dr. George Robinson  
Dr. Darrel Williams

**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 NSLRSDA 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

**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

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.

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.

**Day 1 - Wednesday**  
**April 21, 1999**

**Introduction**

Members gathered for the beginning of the meeting.

**Welcome**

The meeting of the Archive Advisory Committee (AAC) for the National Satellite Land Remote Sensing Data Archive (NSLRSDA) was opened by Dr. Donald Lauer, Chief, EROS Data Center (EDC). Dr. Lauer welcomed the members back to EDC and thanked everyone for coming. This is the AAC's fifth session. He spoke about the "Decade of Imagery" that is focusing on land remote sensing; *Landsat 7* is only the beginning. There are other launches scheduled. One next Tuesday, one in June, one in July, one in September, one in December (EO-1--future concepts of multispectral moderate resolution coverage). Discussions are on-going at NASA regarding a *Landsat 7* follow-on. The timing of this meeting is perfect.

Mr. Thomas Holm went over logistics with the group. Mr. Holm also introduced Dr. Bryan Bailey, Satellite Systems Branch, EDC and the representative to the DAAC Science Advisory Committee.

Prof. Joanne Gabrynowicz, AAC Co-chair, reported that Ms. Kass Green and Mr. Edryd Shaw encountered flight problems and will be in later today. Dr. George Robinson was unable to join

us. Dr. Darrel Williams, Project Scientist for *Landsat 7*, and our newest member, was also unable to attend because of the *Landsat 7* launch. Dr. Williams was recommended by the AAC Nominating Committee and selected by DOI/USGS.

Gabrynowicz reviewed:

1. The AAC charter objectives are:

a. Assist in defining and accomplishing the NSLRSDA's archiving and access goals to carry out the requirements of the *Land Remote Sensing Policy Act*.

b. Advise the USGS/EDC on priorities of the NSLRSDA's tasks.

c. Provide interdisciplinary guidance and serve as a resource to USGS/EDC on issues of archiving, data management, science policy, and public private partnerships.

2. The agenda was changed slightly to accommodate late arrivals. The white paper discussions will be at 12:45. The rest of the Agenda is flexible.

## **I. ACTION ITEM REPORTS**

### **1. Policy Position at EDC - Update (Lauer-Holm)**

The USGS has consolidated some resources in data policy. Changes were made over the last 18 months. Tom Holm was assigned to the Office of the Chief to focus on NSLRSDA policy. In the last 4 months, EDC created the new Processing Engineering Office, which has been filled by the previous Chief of the Data Services Branch (DSB). Currently, Mr. Holm is assigned as the Acting Chief, DSB. The DSB is the Branch that oversees EDC archiving responsibilities. Holm brought many of the policy areas with him. Gene Napier has been moved to the Office of the Chief, but does not have the experience Mr. Holm does in the policy area. The intent for the Land Resources Observation Program is to have two Reston individuals involved, Ray Byrnes and Larry Pettinger. They are dedicating resources to policy decisions.

With *Landsat 7* activities and NOAA leaving the program, USGS has had a lot of contact with Department of the Interior (DoI) and the Solicitor's office regarding remote sensing. This is a new opportunity for EDC to have dialog with the solicitors and will be handled by Ray Byrnes. The USGS does not have a solicitor; they are at the Department of the Interior level. AAC recommended and agreed to write a memo to the Solicitor's Office to emphasize the importance of legal attention to NSLRSDA issues. Dr. Lauer stressed that the EDC support for the AAC remains with Tom Holm. Discussion ensued on the need for sustained resources and getting the AAC business moving forward. Is there enough level of support to keep AAC moving forward? It takes a lot of time and probably should be discussed further.

**ACTION: Holm** will provide Gabrynowicz with the name and address of the solicitor.

**ACTION: Gabrynowicz** will write memo.

## **2. NASA Stennis SFC Report (Gabrynowicz)**

Stennis SFC has established the Earth Observations Commercial Applications Program (EOCAP) and other innovative public-private remote sensing projects. Co-Chair Gabrynowicz interviewed attorneys and others at Stennis regarding these programs and found two things were apparent to success: knowledge of an authoritative legal basis and political support. These may serve as models for EDC and the NSLRSDA.

a. Legal basis. NASA has an enabling statute, the *National Aeronautics and Space Act* which established the Administration in 1958. It is a very flexibly and generally written statute allowing a lot of room for discretion in establishing programs like the commercial data buys. Each project was negotiated differently depending on the data involved. With additional data buys more legal questions are raised. Stennis is transitioning the EOCAP program to the next level. Relationships between individual entities and Stennis has been productive but the move is now toward establishing relationships with industry associations, rather than individual companies. Gabrynowicz reported that the USGS needs to find a statutory basis to make progress similar to the way Stennis SFC has done.

b. Political support. Senator Trent Lott is an active sponsor of Stennis SFC. For example, a \$10M grant was awarded to a local university for remote sensing education and a NASA manager has been moved there to manage the program. Gabrynowicz reported that recognition and support from SD's Congressional delegation would benefit EDC in a similar manner.

## **3. Procedures for AAC Meeting Absences (Tessar)**

At the last meeting attendance was discussed. AAC members resolved that if a member missed two consecutive meetings they would be replaced. The AAC also resolved that the member would be notified. A resolution was passed to have the nominating committee select a replacement, if necessary. Another resolution was passed to consider people who were on the list from the previous solicitation.

## **4. Public Data vs. Restricted Data (Davidson and Budge)**

At the previous AAC meeting, Ken Davidson and Amy Budge presented views accessing public and restricted data. Davidson emphasized that the AAC needs to consider including restricted data in the NSLRSDA. Distribution of the data shouldn't guide the decision on what goes into the NSLRSDA. NOAA continues to examine privately owned databases and archiving by private companies. Amy Budge feels that the AAC needs to consider access to the data. If data access is unrestricted, then easy accessibility is desirable. In considering the long term, the AAC also needs to address long term accessibility. These are two different issues: (1) accepting data for the NSLRSDA, and (2) accessing data in the NSLRSDA.

Discussion continued regarding the Government having the first right of refusal for data from private systems. Holm stated that there would be two paragraphs in the agreements regarding this issue. The language is consistent in all of the agreements. He pointed out that the commercial remote sensing licenses states that data from private systems cannot be purged without first being

offered to the NSLRSDA. This means it must be flexible. There will be occasions when restricted data will be placed in the NSLRSDA. NOAA is responsible for all commercial remote sensing activities and licensing agreements in the Department of Commerce. These archiving issues have been discussed between NOAA and USGS. Holm mentioned that Larry Pettinger and Ray Byrnes deal with remote sensing issues at USGS headquarters and that Pettinger is the point-of-contact for licensing. He has been working with Chuck Woolridge at NOAA on these issues. Rules and regulatory authority are being developed. EDC has provided information on the archiving portion of those licensing agreements.

Commercial operators will offer their data to the NSLRSDA. They cannot purge data without offering the them to the Government for first rights of refusal. This doesn't mean the data will be offered at no cost. Most likely a price will be negotiated. In the NOAA agreements, they are attempting to put more granularity into the documents. For the NSLRSDA, there will need to be a set of parameters established so that EDC will know what it is acquiring. The AAC agreed that this is an important issue that should be an agenda item for the next meeting. Holm will provide the licensing agreement language to Gabrynowicz prior to the next meeting.

Important guidelines for accepting commercially-gathered data:

- (1) the NSLRSDA is not a "dumping ground" nor is it a storage area for just any data;
- (2) the data's scientific value must be shown; and,
- (3) the data must be a valuable addition to NSLRSDA's overall holdings.

When the AAC reviews the NOAA license language regarding the NSLRSDA, a discussion of the public domain issues will be included. The NSLRSDA can hold data that are not in the public domain. Some data entering the NSLRSDA might have restrictions but there must be a sunset clause so that it will eventually enter the public domain as required by statute. Don Lauer stated that the mandate of the NSLRSDA is to save information forever and access has to be part of the formula.

**ACTION: Budge and Davidson** will combine their respective papers/points.

**ACTION: Holm** will get the licensing language to **Gabrynowicz**

**ACTION:** Place private system license language on the agenda.

## **5. Collections Management - Smithsonian Institution Example (Faundeen)**

With George Robinson absent, John Faundeen, Data and Information Management Program Manager, EDC (this program falls under the Data Services Branch), gave a brief update. EDC is attempting to combine old collections and management instructions (these will be shared at the next meeting). Elements important to EDC in becoming a standard operating procedure (SOP) include, among others: (1) the media data stored on, (2) size of the file, and, (3) availability of a browse file. Copies of the SOP are available for those interested. The SOPs should be signed in

June and available on the Web. Part of EDC's Continuity of Operation (COO) is identifying an off-site archive as a backup. A survey of off-site locations for media storage will be conducted. It is important that the off-site facility provide easy data access. EDC is researching creation of a position for an on-site Archivist. Certification is done by an independent association.

**ACTION: Faundeen (Holm)** will provide old collections and management instructions 59 and 65.

## **6. Secure Web Site for the AAC**

The AAC requested that EDC establish a password protected, Internet accessible web site for posting documents and other information that it is working on. The site URL is: <http://edc.usgs.gov/programs/nslrda/private>. Eric Cross, Information Scientist, EDC, will be responsible for establishing and changing the AAC web site. The AAC listed desired features. All requests and suggestions were noted by Cross and he will work on the changes.

**ACTION: Holm** will email status to AAC members.

## **II. INFORMATION BRIEFINGS**

### **1. Landsat 7 Status/Update (RJ Thompson)**

*Landsat 7* data policy will restrict data distribution to LOR, L1R, and L1G in an effort to get the private sector involved. There are products that may have to be gotten that are not listed, for example, WBVT, for which EDC is getting requests. EDC wants to get as much raw data out to the public as possible. Copple felt that the cost of data wasn't conducive for the private sector to purchase and market value-added data. USGS has a very rigorous policy for changing product pricing. EDC procedurally determines the cost of reproducing the data, this goes to the National Mapping Division, then to USGS headquarters and it has to be approved by the Under-Secretary for Water and Science. It is very possible that the private sector may be eligible for discounted prices through the business partnership program. The question was raised of where the line is between archiving and distribution of data. Discussion ensued on what is raw data? Is NSLRSDA data 5-year old data? EDC responded that it is three year old data.

USGS/EDC is required by law to offer data to private sector for value-added information. This is a sensitive issue with international cooperators. That is, foreign ground stations. They are encouraged to continue even though their products are not the same as ours.

The Presidential Decision Directive (PDD) authorizing the change in the *Landsat* Management team has been written and reviewed and comments received. The document has been revised and is waiting for a statement from OMB that will release it so OSTP can go forward. DOI is including the running of the *Landsat* program in the 2000 budget submission.

### **2. International Ground Stations (IGS) Overview (Carnegie and Thompson)**

Dr. Carnegie provided a status of *Landsat* IGS Agreements. State Department restrictions on communications with Saudi Arabia have hindered correspondence between EDC and the IGS in Saudi Arabia. Argentina, Australia, Brazil, and ESA will probably be ready to download data July 1, 1999. Many discussions are on-going with others interested in establishing ground stations for areas that are not within a receiving station. For *Landsat 7*, there are constraints other than duty cycle limitations, i.e., number of minutes per path, per scene, etc. On the duty cycle the coverage circle is soon to be 5 degrees. Cloud predict is not used over U.S.

Bethel was hoping data would be forwarded directly to the NSLRSDA from the IGS' so that he could obtain these data from the NSLRSDA, and not have to order them from the ground station. Thompson said that if the global land masses are looked at each day there are about 800 scenes, with about 450--250 coming back to EDC. Considering the cloud cover predict, the expectation is that most of the world will be covered most of the time and EDC will be receiving data for the NSLRSDA. Using AVHRR cloud cover analysis there are predictions of cloud cover driving acquisitions. Can a scene be ordered without the cloud cover predict? Yes. Not all data acquired by the ground stations will be sent to the US. The ground stations are required to provide data exchange information, and the U.S. has first right of refusal for the NSLRSDA. Krygiel inquired if *Landsat 7* data over Korea is being used, must it be sent to the US, regardless of which station is acquiring the data? Thompson replied, no. However, EDC has the right to those data and can purchase them from the ground stations. They are, however, required by MOU to sell the data at a negotiated price, which varies by country. The U.S. will always have the metadata and the browse over foreign stations, but the ground stations will, of course, have more extensive local archives.

Copple inquired why the ground station fee is established at the current level. Is there any guarantee that the US can buy the data back? Thompson replied that EDC is operating based on many heritage issues. Less than 9 month ago, the ground station fees were \$450-500,000. EDC wants to encourage international access so it adopted what it felt was an equitable system, and which reduced IGS access fees. Krygiel noted that the AAC has been conducting its work with the understanding that there has been a distinct separation between *Landsat 7* and the NSLRSDA. If that is not now the case, then a lot of the AAC's advice has to be reconsidered within that arrangement. A great deal of discussion ensued regarding the propriety of automatically including *Landsat 7* data in the NSLRSDA. It was agreed that this is a question that must be specifically addressed at the next AAC meeting. Pricing becomes extremely relative regarding data submitted to the NSLRSDA. Copple noted that users may need to buy data from the foreign ground stations. The questions were discussed as to whether this is an acquisition policy and when is it determined that *Landsat* data are submitted to the NSLRSDA?

Copple addressed the NSLRSDA specifically. Will the foreign stations determine the price for acquiring data for the NSLRSDA? Thompson replied that the system is configured to the best ability of the engineers and that the solid state recorders would acquire all the data necessary to satisfy US requirements. Copple noted that data are being provided, but the business model requires the taxpayer to subsidize it further. Krygiel agreed, stating that this is not final because no MOU is in place. It was suggested that NSLRSDA prices should be negotiable (payment should not be more for data in the IGS archives). It was noted that foreign ground stations are also responsible to their own taxpayers and governed by their own national policies. Copple

suggested that the MOU should specifically address prices. Thompson replied that whatever fee EDC charges the ground stations, is taken against what it costs to populate the US database. Copple replied that the cost of acquiring data from the NSLRSDA should not be any more than what EDC paid for it. Thompson replied that he was confident that users will get all the data they could possibly want because of the robustness of the system. The AAC commented that the IGS MOUs should identify a mechanism for the US to obtain data from the IGS archives. Should the AAC register a concern? Thompson noted that it is very difficult to obtain data from the ground stations. Acquiring data is a very important point; it needs to be discussed further. Constraints from some countries are quite great. The window for signed MOUs is about 30-60 days from the date of this meeting.

### **3. Issues Concerning the NSLRSDA (General Discussion by All)**

Discussion began to focus on a variety of specific NSLRSDA issues. Harroun inquired as to whether there is a separation between the DAAC and the NSLRSDA? Thompson replied that originally EDC made a distinction, but that has recently changed regarding *Landsat 7*. It is a USGS responsibility. Copple noted that *Landsat 7* was designed as a science system. MacDonald is of the opinion that the NSLRSDA function should be separated from the distribution function.

Gabrynowicz clarified that the AAC has already adopted a set of definitions for the NSLRSDA for its purposes. The AAC tried to draw a fine line. The definitions are good; don't lose sight of making the definitions as robust as possible. Keep in mind what people are going to be using the data for. The AAC's recommendation is that data would not be accepted into the NSLRSDA until 3 years after acquiring the data. Are people going to be interested in 3-year old data? The AAC needs to consider it.

The AAC was reminded that there is a definition of "unenhanced" data. The descriptions of the six data processing levels can be omitted from the white paper without changing the definition of unenhanced data. The goal of the *Landsat* program was to provide more timely data. Timely data are important, but so are consistent data. The customer should be kept in mind.

The AAC refocused on its mission. The AAC's role is to assist EDC with policy issues regarding the long-term NSLRSDA.

The bar defining value-added products will change over time. The Government has its own regulations to follow. Should the AAC be looking at what they produce or what they should store? The AAC was reminded of the purpose of the White Paper. The paper offers terms of reference for defining levels of processing that fit the unenhanced definition for data processing. Focus should be on the original intent of the paper. The definitions of the six data processing levels are meant to serve as guidelines for the Government in determining the limits of processing they should offer. Processing beyond these levels is considered to be value-added. The NSLRSDA is an inherently governmental function; distribution isn't. The NSLRSDA is obligated to make data available. The value-added companies will have access to large volumes of data. EDC needs to maintain a core capability to provide products. There can be a working definition for EDC to use in the purpose of the NSLRSDA, not in distribution.

A subgroup (Copple, Krygiel, Tessar, and MacDonald) was formed to clarify some of the terms of reference in the White Paper. (**NOTE: document was completed by the end of the meeting.**)

#### **4. WBVT Data Rescue - Status/Celebration (Holm/Smith)**

Presentation was made by Tim Smith, Information Specialist in the Information Services Department of the Data Services Branch. NASA has given \$750,000 to develop the WBVT system. Gabrynowicz recognized Dr. Darrel Williams for his special efforts in making the data rescue possible.

### **Day 2 - Thursday** **April 22, 1999**

#### **Open Discussion (General Discussion by All)**

Regarding the Fourteenth William T. Pecora Memorial Remote Sensing Symposium and The Land Satellite Information in the Next Decade III Conference (Pecora) technical program: Kass Green is chairing the classification section. Abstracts are due by the end of the month.

Possible agenda changes for the rest of the day were discussed:

1. Commercial development will be discussed and may put it into the White Paper.
2. We need to discuss IGS MOU language.
3. Correlation of sciences with rest of the data. This may be held until the next meeting.
4. Space law and commercial remote sensing.
5. NCAP - will try to do this at 2:30. Ronald Parsons is the chair for the NCAP working group. All of the NCAP archive is coming to the Data Center. Discussions are going well .
6. LROP was discussed at the last meeting. Comments from Committee members were submitted to headquarters in Reston.
7. User Survey update - Dennis Hood will give a status report.
8. Session on DAAC--we need to get to this today. Amy Budge and Grady Blount will be attending the DAAC advisory committee meeting.
9. Establish the priorities and other subjects that we need to tackle within the next 2 meetings.

#### **II. Information Briefings Continued**

### **3. U.S. Government and Affiliated User Policy - Keep it or Not? (Gabrynowicz)**

A Government and Affiliated User (USGAU) is a Government agency or a user with a Federal grant or with a Federal contract. They pay only \$425 per scene. All other users pay \$4,400 per scene. This applies to *Landsat 5*, not *Landsat 7*. It was suggested that the AAC needs to know about this policy because it has been cited as a model for other policies. At the moment EDC does not intend to use the USGAU policy for *Landsat 7*. Level 0R to 1G will be available to everyone at the same rate.

It appears that the facility for *Landsat 7* archive and the NSLRSDA are commingled. There is also the related issue of a *Landsat 7* backup archive which is in the *Landsat 7* program budget but not in the NSLRSDA. Therefore, it is important to clarify which data, e.g. archiving of new data versus archiving of historical data, are under consideration and which NSLRSDA policies apply to the data. MacDonald noted that this is inherently a problem with the noun "archive." There is a distinction between *Landsat 7* as a part of the fresh "archive" versus the old "archive." *Landsat 7* is part of the fresh "archive", not the old "archive". Other archive libraries use different schedules and maybe a statement on new *Landsat 7* data is necessary. In addition, when data enters the NSLRSDA, there should be an appreciation that datasets may be different. As a consequence, discussions should occur between NSLRSDA and the owner of the data. Moreover, some data entering the NSLRSDA may have restricted access privileges for a period of time. Finally, it is possible that some data within the NSLRSDA may not enter the public domain. Regarding the White Paper, MacDonald suggested continuing with it.

**MOTION:** Blount. Accept sections 1-4 of the White Paper. Tessar seconded. **Unanimously approved by all present.**

**MOTION:** Blount. Accept section 5. Tessar seconded. **Unanimously approved by all present.**

**MOTION:** Blount. Accept rest of White Paper. Tessar seconded. **Unanimously approved by all present.**

### **III. New and Reordered Items**

#### **1. Promoting the Commercial Remote Sensing Market (Gabrynowicz)**

The Committee considered how to further engage the private sector in NSLRSDA. The Committee recognized that the Land Remote Sensing Policy Act encourages the Federal Government to promote commercial remote sensing. As a result, the NSLRSDA works to promote commercial remote sensing interests in the context of its activities. The Committee considered how to further facilitate commercial remote sensing interests in the various archiving activities beyond those already employed and encouraged the NSLRSDA to continue to seek private sector involvement where appropriate. Perhaps a clearinghouse is one option. NSLRSDA should help promote industry use of its assets. Everything the Federal Government does to help and assist will be done in accordance with Federal regulations.

### **II. Information Briefings (Continued)**

#### **4. The EDC LP-DAAC Science Advisory Panel and the AAC (Bailey/Holm)**

Should the Land Processes - Distributed Active Archive Center (LP-DAAC) and the NSLRSDA, which are both archives housed within the EDC, agree on a definition of "cost of filling a user request" (COFUR)? NASA supports the LP-DAAC as a node of its Earth Observing System Data and Information System (EOSDIS). EDC's accounting is based on USGS policy. For datasets from EDC, USGS distributes the data, and in turn, the DAAC is charged for those costs. In contrast, NASA chooses not to pass these costs on to the user thus the discrepancy between the two agency policies. It was noted that if NASA chooses to subsidize a certain segment of the remote sensing community, then it should do so, but in a visible manner so there is no misunderstanding regarding the costs of data.

Blount and Budge will be attending the next DAAC Advisory Committee meeting. This topic of policy differentiation between agencies was tabled until these members attend the DAAC Advisory meeting. At the next AAC meeting, a review of the DAAC Advisory Committee discussions will occur and a decision can be made regarding how to, if at all, address the different agency approaches.

**ACTION: Budge and Blount** attend next LP-DAAC meeting and report to the AAC in October and address whether NSLRSDA and DAAC ought to have the same definition of COFUR.

A discussion ensued as to whether or not the NSLRSDA data sieve articulated by the AAC at a prior meeting worked. Money for acquisition is the problem. It was recommended that the AAC establish a working group to work with EDC on the effectiveness of the sieve. Consideration will be given to examples of where the data sieve may be too strong thus eliminating possible donations/acquisitions.

**MOTION: Davidson:** Do this offline and before the next meeting. Seconded by Blount. Sieve clarification working group members: **Blount, Davidson, Budge, Holm. Unanimously approved by all present.**

**ACTION: Blount, Davidson, Budge, and Holm.** This subgroup will reconsider the sieve and report back at the next meeting

#### **IV. AAC-Identified the Priorities for the next 2 meetings (not in rank order).**

1. Restricted versus public data in the NSLRSDA. Restricted and public data sets definitions will be done through the working group and will be an item on the next agenda.
2. The AAC should look at the performance measurements of the NSLRSDA. Are the correct criteria being measured?
3. User Survey status. Content and use are very important on an on-going basis. It is necessary to understand what is being done with the data, how the NSLRSDA is used, and by whom. This topic is related to the previous topic.

4. User forms. How are they made meaningful and relevant?
5. What is the relationship between how the NSLRSDA can promote "global environmental monitoring" and user needs and interests? Increased or enhanced use of the NSLRSDA is a measure of success. One possible enhancement would be via the global environmental monitoring page.
6. What is the relationship between the Landsat 7 archive and NSLRSDA? Report on the Status of the Continuity of Operation plan and security What is access?
7. IGS MOU language (Note: this was done before AAC adjourned. See below.)
8. User Survey (Note: this was done before AAC adjourned. See below.)
9. LROP
10. NCAP
11. Future Satellite Systems

**MOTION:** Gabrynowicz asked the AAC if it accepts this list as final and complete? Blount seconded. **Unanimously approved by all present.**

### **III. New and Reordered Items (Continued)**

#### **2. NSLRSDA language in *Landsat* ground station MOUs.**

It is necessary to find an effective way to provide data from foreign ground stations if *Landsat 7* recorders fill up or fail. This is a complex issue and applies to general EDC and *Landsat* activities as well as to the long-term archiving of *Landsat 7* data in NSLRSDA. If the data is not downlinked, there needs to be a cost effective means to get data into the NSLRSDA if:

- 1) backup recorders fail
- 2) recorders are filled on pass

AAC's interest is EDC's contingency plan in case of a failed recorder. And, it was noted that even if the recorder is working well there may be data in a local archive that the NSLRSDA will want to acquire. The AAC explored current EDC policies and those that may be beneficial to the NSLRSDA. Current EDC policy is that:

- the solid state recorder is working,
- collection is at will,
- it is assumed that some scenes will be missed, and
- there will be scenes with cloud cover.

EDC will develop a plan on the data exchange format. It was recognized that EDC would not be in a good position if negotiations only began when a failure occurred. Under an exchange format, EDC will have the capability to exercise a clause to acquire the tape from the receiving stations. This will ensure that EDC has a way of getting information from the ground station and into the NSLRSDA. Also, when a foreign station agreement comes up for renewal, EDC will ask the station to provide a product in one of EDC's three distribution formats as a standard product. The product price has not been defined. EDC assumes that it will pay the price of the ground station involved. Depending upon the data exchange, terms may vary. For example, for large volumes, EDC will seek better terms. It is assumed that customers will go to a country's domestic archive as it will be more robust than EDC's.

A number of issues were discussed by the AAC. For example, there is another category of data exchange, namely that EDC may want to acquire a number of scenes for a particular purpose. However, that has not yet been addressed, nor what kind of volume purchase can be made. Discussion has focused on the cloud free archive. Everything that was raised is covered in the agreement. There is also a clause for monthly updates of metadata and a browse requirement. Additionally, if a local archive were to be purged, EDC can acquire it for cost of reproduction. EDC still has other pricing issues to negotiate. There should be a process to assess what areas are in question and to determine the frequency of coverage. It may very well be that cover is adequate for the areas that are needed.

Much of the AAC's discussion focused on the relationship between *Landsat 7* data and the NSLRSDA. The Committee considers these to be separate. EDC is considering including *Landsat 7* data to encourage a robust NSLRSDA population over a period of time. Whether this data should be included is an important issue, thus the AAC will focus on it at one of its upcoming meetings. The AAC agreed to provide a draft policy to the NSLRSDA so in case of failure, EDC will be in a better negotiating position.

**ACTION: Bethel, Shaw and Copple** will generate a draft for Committee consideration statement that addresses the NSLRSDA's concerns.

### **3. User Survey - Status/Update (Hood)**

Gaging the interests of non-Federal data users, will not be considered until

Phase II of a planned survey of user information needs. A recurring concern is that non-Federal users are not considered in Government planning. AAC members posed a number of questions. For example, does the survey address *Landsat 7* or the NSLRSDA? It was noted that the survey has taken on a heavy *Landsat 7* bias. If the survey is intended to address the NSLRSDA then it needs reconsideration. A discussion of different approaches to the user survey ensued. Members of the AAC noted that its initial discussions and recommendations regarding a survey focused on how the NSLRSDA could better know its user community, as well as those users with whom the NSLRSDA is not in direct contact. Meeting the information needs of this latter constituency was considered important to AAC members. The question was asked as to whether EDC will be targeting the survey to the "right" people? EDC is basing their contacts on a list of current

purchasers of *Landsat 1-5* data. These users will be targeted. Currently, EDC sends out a card with orders soliciting feedback but only 4% are returned.

In contrast, EDC has determined for now that it will not be conducting separate surveys for the NSLRSDA and *Landsat 7*. The survey as currently drafted does not address NSLRSDA issues. The NSLRSDA has separate needs and must be addressed in its own environment. Part of the rationale for the survey is to better understand the requirements of the user community and to better define ways to make decisions on distribution and planning. The AAC suggested mechanisms by which the NSLRSDA user base could grow. One suggestion discussed was to have EDC contract out the user survey to a survey research professional firm. EDC noted that due to funding cycles, contracting out could not happen until October 1999.

**Oral recommendations made by the AAC regarding user survey:**

1. The current survey does not meet NSLRSDA needs and should be reconsidered if it intends to. The survey as currently drafted does not ask the right questions to elicit pertinent information about NSLRSDA user information. **Approved by all present.**
2. Send email with 2-3 questions regarding the NSLRSDA to Gabrynowicz. She will send them to Rita Tornow who will forward them to the EDC webmaster. **Approved by all present.**
3. A White Paper is made unnecessary by taking the action of forwarding NSLRSDA questions to EDC. **Approved by all present.**

**MEETING ADJOURNED.**