

**NOAA ADVISORY COMMITTEE FOR COMMERCIAL REMOTE SENSING
(ACCRES)
OPEN SESSION MEETING SUMMARY
September 13, 2005**

Open Session

The NOAA Advisory Committee for Commercial Remote Sensing (ACCRES) was convened on September 13, 2005 at 1:00 pm in the Ronald Reagan Building, Continental Room C, Washington, DC.

In accordance with the provisions of Public Law 92-463, the meeting was open to the public.

The Chairman, Kevin O'Connell, thanked Committee members and members of the public for attending the seventh meeting of ACCRES.

Committee members present:

Mr. Kevin O'Connell, Chair, RAND Corporation
Mr. Martin Faga, Vice Chair, MITRE
Dr. Joanne Gabrynowicz, National Remote Sensing and Space Law Center, University of Mississippi
Ms. Kass Green, President, The Alta Vista Company
Mr. Douglas Hall, Earth Satellite Corporation
Dr. Donald Lauer, American Society for Photogrammetry and Remote Sensing
Mr. Matthew O'Connell, OrbImage
Mr. Herb Satterlee, DigitalGlobe, Incorporated
Dr. Joe Straus, The Aerospace Corporation
Ms. Barbara Ryan U.S. Geological Survey (representing Charles Groat)
Mr. Cary Ludtke Ball Aerospace & Technologies Corporation, (representing David Taylor)
Ms. Sande Webster, National Geospatial-Intelligence Agency (representing Robert Weber)

Presiding Staff of the National Oceanic and Atmospheric Administration (NOAA):

Kay Weston, NOAA's Satellite and Information Service, International and Interagency Affairs Office
Mr. Glenn Tallia, Senior Counselor for Atmospheric and Space Services and Research Office of General Counsel

Briefing on 5th International Academy of Astronautics (IAA) Symposium on Small Satellites for Earth Observation

Kevin O'Connell briefed the committee on the 5th IAA Symposium on Small Satellites that took place from April 4-8 in Berlin, Germany. He noted that research within the small satellite community is diverse, and that the world community is collectively working on solving issues that were previously considered to be limitations, such as

architecture, management of flying satellites, and management of data. Overall, Mr. O'Connell advised that the importance of small satellites has significantly increased.

Dr. Gabrynowicz pointed out that Algeria is interested in creating better structures for sustainable development, and that the Saudi Arabian commercial remote sensing community has demonstrated a desire to be perceived as opening up. Matthew O'Connell noted further that Nigeria has indicated interest in an oil-for-technology deal.

Briefing on the Remote Sensing Conference in Europe

Kevin O'Connell briefed the committee on developments in Europe. He informed the Committee that there is a desire to develop a European Earth observation system, but that Galileo is not perceived as a viable way to proceed. Mr. O'Connell also noted that because of political difficulties, such as uncertainty related to the European Constitution, military transformation in European Capitals, and skepticism on the part of decision-makers that space knowledge has unique value, Europeans space actors are in the process of trying to federate. Mr. O'Connell also pointed out that the emergence of Google Earth has set a new standard for the application of space data, helping to prove that space data can be made into a unique commodity.

Matthew O'Connell inquired about the degree to which alternatives to space data are being considered. Kevin O'Connell confirmed that there is a perception that alternatives to space data may present viable, cost-saving options. Kevin O'Connell also noted that younger generations in Europe and in developing countries do not seem interested in space related fields. Herb Satterlee pointed out that in that regard, the situation is similar in the United States.

Commercial Remote Sensing Satellite Data Transfer Guidelines

Greg Snyder of the United States Geological Survey (USGS) first reviewed that agency's responsibility to serve as the National Land Remote Sensing Data Archive (the Archive) in order to provide "permanent, comprehensive Government archive of global Landsat and other land remote sensing data for long-term monitoring and study of the global environment" per the Land Remote Sensing Policy Act. Mr. Snyder then outlined the role of the Archive Advisory Committee in providing guidance for the Archive, including their authorship of a number of seminal reports and recommendations. He then reviewed the contents of the Archive, which contains trillions of bytes of storage, including both current and historical data relevant to a wide variety of applications, including human health, natural hazards, and agriculture practices among others. He also noted that Landsat imagery has proven very useful in mitigating the effects of hurricane Katrina.

Mr. Snyder next addressed the recommendation from the February ACCRES meeting to develop guidelines for satellite data transfer from the CRS industry to the Archive. He briefed the Committee on the USGS and NOAA July visits to Space Imaging, DigitalGlobe, and ORBIMAGE facilities to: review USGS Archive transfer requirements and expectations, discuss vendor formats, processing, and maintenance plans, and explore procedures to allow archives to be decompressed and processed. Mr. Snyder found that overall, vendors were supportive of U.S. policy goals, and that there was significant commonality between USGS/EROS and vendor storage technology. Mr. Snyder suggested that challenges were likely to emerge in the areas of proprietary compression

and product processing, but that there were no purge plans on the horizon, and that overhead costs of maintaining data would be relatively low. Furthermore, the licensees expressed interest in the offer of USGS/EROS as an offsite backup for data storage.

Mr. Snyder also noted that any data transfer scenario may be in the relatively distant future (25-100 years), but that it makes strategic sense to work through relevant issues ahead of time so that guidelines can be set in place before they become a concern for industry. Finally, he briefed the committee on the status of actions, which remain in a technical exchange mode with the CRS industry, and the progress towards the development of data transfer guidelines, which will undergo U.S. agency review and then review by the licensees

Dr. Gabrynowicz noted that in the case of business discontinuity, the Archive would provide a public service in that it would maintain data security, but expressed interest in hearing what other advantages Government archiving of commercial data would offer the public. She also suggested that there could be unfavorable legal implications arising from Government maintenance of the data. Tom Howard responded that this may be an issue for the Archive Committee, but that USGS feels that there is long term value to this project.

The Committee inquired as to the funding situation related to data transfer. Mr. Snyder stated that costs of storage would be small, but that increased costs were possible depending on the vendors and processors. Overall, he informed the committee that enough funding exists within the current budget to save the data. The Committee suggested that as a political as well as technical issue, it should be priced out. Dr. Gabrynowicz requested an Archive Committee review in October that would work through the NOAA Informal Interagency Remote Sensing Working Group (NIIRSWG).

NOAA Issues for Discussion

Kay Weston began by recognizing the fine work done in the past year by the Licensing and Compliance Staff at the NOAA Satellite and Information Service. She then reviewed international reports commissioned by NOAA. This included first the OECD report "Space 2030: Tackling Society's Challenges," which recommends government encouragement of public use of space data, and the creation of a supportive legal and regulatory environment for commercial space activity. Ms. Weston also brought to the attention of the Committee a follow-on OECD proposal for a Global Forum for the Economic Analysis of the Space Sector, which would analyze socio-economic benefits of the space sector. Ms. Weston then discussed two Global Marketing Insights, Inc. (GMI) studies due to NOAA, including a survey on the international remote sensing market and an analysis of the aerial market. She advised that these studies will be provided to all interagency partners and will be published on NOAA's commercial remote sensing website.

Ms. Weston next updated the Committee on the status of proposed changes to CRS regulations intended to further clarify reporting requirements, revise interagency review timelines for greater efficiency, revise timelines for companies to demonstrate satellite development, and add civil penalties for certain procedures. She noted that NOAA is currently reviewing comments received during the public comment period, and that

following this review, final regulations will be published in early 2006. Glenn Tallia added that the comments received were very helpful and merited serious consideration in the interagency review process.

Doug Hall raised concerns regarding the implication of regulations intended to remove “paper licenses.” Glenn Tallia stated that these regulations were not intended to harm companies with serious intent to move forward on satellite projects, but rather were intended simply as a means of cutting Government maintenance costs for licenses with no realistic prospect of being used. Mr. Hall then congratulated the Committee on the maturity of the process as compared to five years ago, based on the relatively few comments received during the public review period. One member raised further concerns about potential civil penalties to be stipulated in the revised regulations. Glenn Tallia pointed out that developing these penalties before they are needed could eliminate future confusion.

Ms. Weston next briefed the Committee on the NOAA Licensing Workshop to be held on September 14 in the Reagan Building, an event previously recommended by the Committee as a means of increasing the transparency of the licensing process. She outlined NOAA progress in improving the accuracy of NOAA performance measurements, including the development of an automated timeline tracking system. Ms. Weston then offered the Committee data demonstrating that foreign agreement processing has generally stayed within the statutory deadline of 60 days, but that precedent-setting license amendments in particular remain an area where improvement is needed. As part of the effort to improve performance, she cited timeliness discussions at quarterly interagency (NIIRS WG) meetings, interagency correspondence to principals with new performance figures when available, and ongoing discussions on timeliness at past and future ACCRES meetings.

To conclude, Ms. Weston brought to the attention of the Committee the William T. Pecora Memorial Symposium on “Global Priorities in Land Remote Sensing,” sponsored in part by NOAA, and progress towards a NOAA CRSL brochure to be published after the issuance of the new regulations.

Herb Satterlee agreed that the brochure is an important step, and especially emphasized the importance of timelines. Michael Hales pointed out that timelines are of particular importance because a breakdown of the process allows for better understanding of the process, as well as more serious analysis of where improvements can and should be made. Kevin O’Connell observed that the Government overall seems to be paying more serious attention to timeliness issues. Finally, Michael Hales noted that since only one new license application has been received by NOAA, the performance numbers may be somewhat skewed by one or two difficult amendments, but that overall, ACCRES has helped to decrease the probability that similar problems will arise in the future.

NGA Hurricane Katrina Crisis Support: Relief and Recovery Efforts

Sande Webster briefed the Committee on NGA support of Hurricane Katrina relief and recovery efforts. Ms. Webster informed the Committee that NGA support began on Friday, August 26, when NGA provided graphics depicting the location of key infrastructures to state and local government agencies along the Gulf Coast. She noted

that lessons learned since last year's NGA Tsunami response have been applied with some success, including cooperation with ClearView vendors, cooperation and coordination of requirements with the Federal Response Community, and vast improvement in the availability of unclassified capabilities to unclassified users. In addition, she informed the Committee of the initiation of a 10 am daily teleconference with NGA's commercial imagery users and a daily afternoon teleconference with vendors. She characterized these teleconferences as an excellent way to communicate and trouble-shoot with customers and vendors.

Ms. Webster then outlined more generally the NGA Crisis Support Process, which broadly encompasses three phases, including commercial imagery reaction and response, ingestion and production, and after action and review. She next outlined steps adopted to provide organizations with timely and current imagery, including around the clock customer service operations, keeping Government and contractor staff "on call," and daily communications between NGA's Source Directorate and Commercial Satellite Imagery Library (CSIL), as well as NGA's Commercial Data Providers. She also noted that all crisis information is posted to the CSIL "Critical News" page on the JWCS and SECRET Collateral Web Servers, and that metrics and statistics are recorded for the purposes of developing Lessons Learned. She then presented to the Committee the NGA "katrinaimagery.org" website, which contains NITF and GeoTIFF images and products, Pan-sharpened orthos, streaming images, and footprint maps. She concluded by presenting to the Committee the NGA supported Google Earth website.

A member of the audience asked if assets made available to the Federal Response Community and state and local governments would be made available to others, such as utility companies, and he further inquired as to whether RRD could have been pre-deployed, noting that more time was taken to deploy RRD during Hurricane Katrina than was required for the Tsunami. He additionally commented, though, that the NGA teleconferences had been perceived as a bright point in meetings with the Whitehouse. He also brought to the attention of ACCRES that the Committee on Environment and Natural Resources, Subcommittee on Disaster Reduction (SDR) had perceived difficulties coordinating the development of value-added imagery. He asked the representatives of industry on the Committee whether vendors could potentially provide the value-added.

Herb Satterlee responded that this would be a question of budget and customer needs, not necessarily a question of whether or not such information is available. Mathew O'Connell added that this is also a question of time. He noted that during the first week of Katrina, there was insufficient time to disseminate value-added information because the goal was to disseminate as much data as possible.

Dr. Gabrynowicz informed the Committee that the Geographic Information Service (GIS) response to Hurricane Katrina was overwhelming, and that state GIS coordinators had had enough information at their disposal. She also emphasized that after 9/11 there was an effort to collect GIS information for all cities, and that it is important to make sure that that kind of information continues to be collected in order to establish a basic data foundation.

Public Comment

In response to an inquiry regarding the status of discussion of Landsat issues, Kevin O'Connell remarked that according to Gregory Withee, no decisions have been made and that as long as that is the case, ACCRES could provide its views.

Michael Hales noted that Phil Ritcheson, Director of Space Policy, had been present for the closed morning session of the ACCRES meeting, and that it was very helpful for him to hear the views of the Committee. He suggested that moving forward; the User Committee could potentially raise issues to the highest levels, which Phil Ritcheson had confirmed could make a difference. In that light, Mr. Hales suggested consolidating the User voice in the ACCRES Committee.

It was noted that the Committee could function in non-governmental capacity in an attempt to more efficiently address time and money issues. Dr. Gabrynowicz saw a need for more evidence to proceed with, and urged that gaps need to be documented. It was noted that information exists inside of agencies, but for political reasons could not be disclosed, making for a more difficult working environment. He added that while Katrina represents an immediate problem, overarching problems loom in the future, such as what to do with the Mississippi Delta.

Kevin O'Connell concluded by reiterating a need for the Committee to continue to look for practical solutions, and thanked all participants for an interesting and productive day.