

May 4, 2011

ASPRS Committee and Board of Directors Meetings

ASPRS Primary Data Acquisition Division (PDAD) Meeting Minutes

11:00 AM to 12:00 Noon, Room: 203 D

Attendees:

Greg Stensaas	USGS	stensass@usgs.gov
Mike Benson	USGS	benson@usgs.gov
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Notes:

¹Community Sensor Model

²Geometric/Radiometric Data Exchange Standards Oblique Best Practice

Meeting started at 11:01 am. The newly elected chair, Bob Ryan, opened the meeting.

Introductions:

New chair began the meeting, thanked Greg Stensaas for his hard work within PDAD and said that he looks forward to his continued involvement. Bob Ryan stressed need to stay active because we're not nearly as active as PAD or some of the other divisions. The plan is to continue with monthly meetings to coordinate on-going committees. There will be some committee work in the future.

Agenda Meeting Minutes & Teleconferences:

Need to approve meeting minutes from last ASPRS meeting and from the teleconferences. Greg Stensaas and Bob Ryan are pulling all of that together for web and historical files. Discussed future needs. Brian Huberty asked to have "Common Sensor Model" added to this agenda. Plan to include a common sensor model briefing in future agendas. The teleconferences are working well and leading to productive work, rather than continual planning. Described progress of imagery specifications committee—have accomplished some things, but need much more. Need a community like ASPRS to help.

Committee Status:

Digital Imagery Guidelines (DIG) ... Greg has been leading, but not a lot of traction with larger community overall. Looking to define and document the parameters related to image quality. Need the community to step up and help with topics such as these. The PDAD is also looking to have Dean Merchant lead an ad-hoc committee. Bob Ryan emphasizes that the group will try to resist starting new areas of work until significant progress has been made in some of the current areas.

DIG – Metric Calibration (Dean Merchant) ... Bob Ryan passed out a proposal to establish an ad-hoc Camera Calibration Committee to review *in-situ* calibration. Dean Merchant talked about his method and the procedure. Dean will lead the committee and eventually send the findings through the ASPRS formal channels for further peer review and dissemination to the larger community. Very important because there will be no camera calibration capability in the Western Hemisphere within 2 years. Sign up for the committee if you want to help. Goal is to provide an equivalent or better calibration/characterization than the one that the USGS is currently abandoning. This is an *in-situ* method that uses a cross-road range. Documentation describes the step-by-step process of how to go from the plane and camera being integrated to image acquisition and measurement. The method will produce a result within 1 micron for the DMCI camera platform. Ultimately, the testing and process will be documented as the committee moves forward. The committee is working toward consensus and something that is good enough to apply to the entire community, not unanimity or total agreement. ASPRS standards will be the vehicle to publish the method. Based on the need for a best practice in

industry, Greg Stensaas moved to have the ad-hoc committee created for the aerial metric calibration . Pictometry (Mondello) seconded. All approved and the ad-hoc committee is formed.

DIG – Oblique Imagery Guidelines Charles Mondello would like to kick off the means associated with oblique imagery. Oblique imagery has a scale variable oddity that needs to be addressed by the community. This anomaly applies to high/low oblique and other related areas. Need to define the metrics and radiometry for this type (variable scale imagery) of imagery. The community at large already confuses GSD, BRDF effects and radiometric assessments for oblique imagery. This work needs to be done now and is relevant to current industry concerns. Most imagery are not just orthophotos anymore and there eventually needs to be an ASPRS standard. The last PDAD committee established the ad-hoc committee with Charles Mondello as the chair, but support is needed to move the effort forward. We are pursuing government, industry and academic support to get the effort moving. Authoritative versus visualization oblique differentiation needs to be established. Does ISPRS have a related committee? ISPRS commission I is still PDAD. Does this include mobile (street-level) imaging? Bob Ryan cautioned that we start with aerial and address mobile when we are done.

DIG – Mapping Accuracy Standards ... There needs to be a set of common terms. Need a data specification and to document the community accepted definitions.

DIG – Image Quality / Radiometric Calibration ... There needs to be a set of common terms. Need a data specification and to document the community accepted definitions.

ASPRS 10 Year Forecast The results will be presented at the fall conference. Authoritative versus visualization was addressed. The survey received a good number of responses this year. A double enveloped survey was sent out relating todollars and sustaining members. Please complete and return.

UAV Committee ... It has been four years since the big sessions were completed in this area. Larry Handley talked about the UAV group. Need to pull together more sessions for the Sacramento update meeting. FAA is releasing new regulatory information in the near future. It would be good to have a session about this. Plan is to get someone from the FAA to attend the meeting , which would be similar to a town hall meeting. The general feel is that the FAA is light years away from actually getting the regulation released. Brian Huberty asked if we could have a session like Mike Hutt had in Denver. NASA Ames has a Sierra UAV with 6' wing span. They may be able to have it there for a demonstration or for people to look at in exhibit. The FAA is supposed to make a new decision on UAVs for remote sensing and other applications in 2012. Larry Hothem said that AUVSI could interact with this somehow? Described how their last meeting at Patuxent was very successful; had demos of several systems. There was a general discussion about whether UAVs belonged in the PDAD area. It would potentially focus on platforms.

ASPRS Data Provider and Imagery Standards Committee ... NASA has a database of data providers. ASPRS has been asked to support this database. Does this belong in PDAD? Should this be a new ad-hoc committee? Bruce Davis of DHS S&T would like to see more commodity and exotic data providers

maintained in the database, especially for emergency response. (FEMA) Mondello said that from the sustaining membership, the database should be updated with ASPRS information. When a multiband slicing thermal device is required for an application, they can be very hard to find. Host the database under PDAD and have processes for maintainability. Need to have current information about data provider platforms and sensors that exist and are operational. Bruce Davis or Charlie Mondello would lead the effort. Bob Ryan would also help. Deep-Water Horizon oil spill has a matrix that sorts out data providers and the usefulness and usability of data to the oil spill analysis effort. A usability matrix will be available at the end of the summer that could be integrated into a database. The list was developed between the BP and Federal side of the effort. How were the vendors contacted? All were contacted through the response process ... RPFs or Coast Guard. Would Larry Handley be able to lead this effort? Mike Starva is currently putting this together with Larry, Aerometric, and BP. Larry will be the PDAD lead for the task because he already has a head start on the task. Is this a PDAD effort and is it just a database? Brian Huberty indicated this should not just be a database, but something that can be put on Google Earth. Many data providers don't capture all of the information required and should not be penalized. Motion was made to create/maintain a database about the data providers, their unique capabilities, and current service. It was moved by Jon Christopherson and seconded by Charlie Mondello with no issues or concerns from the group. The ad-hoc committee was formed.

Interoperability and Imagery Standards ...Related to discussions with NGA's geospatial working group that is creating the community sensor model. Greg Stensaas described how the Geospatial Working Group in NGA is creating the Community Sensor Model for their community and creating tags that fit the NITF and TIFF standards. They are also creating related standards. The thought is that ASPRS should be tying into that effort and moving areas specific to PDAD forward. ISPRS may have already undertaken this task . ASPRS PDAD should review what they are doing and where they are going. Wolfgang Schickler noted that the ISPRS has started work in this area and that we need to look to see what they have done already before we embark on this. Bob Ryan agreed. Need to document and research what ISPRS has been doing. FGDC just had a meeting this last week . George/Larry will report back to PDAD on their efforts. Is this the correct group? PDAD can get something started, but it can grow into another division if it is more applicable. Mark will help to get a teleconference setup to discuss this with PDAD(Randy Hienz, etc.). This will remain under review. GWG web site is a good place to start.

Way Forward: Greg Stensaas would like to move the work that the USGS has done over the last few year into the ASPRS arena to document some industry standards and best practices. The vendors were relying on the USGS processes for certification, but now it would be good to have the ASPRS publish standards and guidelines for a 3rd party to perform independent data provider and sensor evaluations. Greg Stensaas is planning to move this idea forward in future PDAD sessions.

2011 Pecora Sessions...Allen Cook would like to lead a session. PDAD should have more sensor technologies in the agenda. Need to continue to define sessions. Bob Ryan has all of the recommended sessions documented , which can be published with the meeting minutes. Bruce Davis would be willing

to chair an SAR session because of all the new SAR satellites up there. Greg Stensaas proposed a session on the efforts being made to cross-calibrate and reference other satellites. The group discussed data fusion and conflation. Qassim Abdullah suggested having a parallel manufacturer's session but to bring the operators of satellites instead.

Workforce development is going to be moved over to education ... not really a PDAD area to move forward. Greg Stensaas proposed a session for the previously completed quality assessment work on different satellites Rapid Eye, DMC, GeoEye, and others that typically present at JACIE. May 16th is the deadline to get these sessions established. PDAD SAR, Quality Assurance, and Algorithms ... any concerns with those? Pecora is satellite based, no concerns from the group. Propose a high resolution Q/A session. The group thought it was a good idea to move the workforce topic to education. There is a session on the competency model already. Move this session to Sacramento.

Membership: Continue with the teleconferences. Need a method to send invitations to the teleconference. The ASPRS membership to PDAD is driven by the completion of the ASPRS membership form. Need a method to get PDAD membership updated. Excellent attendance today ... can be attributed to the teleconferences. Qassim Abdullah suggested that ASPRS make a signup sheet function on the ASPRS website. Brian Huberty suggested a Facebook account! Another person said that every member can go to the website and update their membership. Social media? Membership to PDAD can be updated on-line on the ASPRS web site.

Discussion and Wrap-Up:

Bob Ryan mentioned how there might be a name change to PDAD to better reflect the scope and mission of this Division. May be something like Sensors, Platforms, and Algorithms or something similar..

Who is going to ISPRS? Greg may be able to attend, but Bob probably would not be able to attend. This needs to be discussed at the next teleconference. George Lee ... chapter 8 is out for review. Manual of Photogrammetry is to be revised ... chapter 8 is sensors and calibration. The session is out of date information and needs a lot of update. PDAD needs to be involved in getting comments into the chapter. Need suggestions. George is the technical editor, but not the overall editor. Need to get a method in place to provide input to the chapter updates. Is there a master outline? John Boland is the editor of Chapter 8. He said there is little communication or coordination. He said that he has heard that Chris McGlone (book editor) has decided to pull everything about calibration from the 6th edition! John has had little interaction with the chapter edits. Greg was going to break up the sections and send out to subject matter experts for text updates. Not everyone agreed with the release of chapter 5. Release of chapter 6 is moving fast ... chapter completed by January. After someone stated that all camera calibration was going to be removed from the 6th edition, there was the suggestion that if someone needs camera calibration information; they can read the 4th or 5th edition.

Qassim Abdullah noted how we had some good momentum on calibration, etc..., really wants a Center of Excellence for these things. Bob Ryan said that he would bring this up at the Board. There is debate over whether this is an ASPRS function, a government function, or something private (third party), now

USGS has decided to not go further. Qassim Abdullah said it needs to stay in the USGS! NASA used to collaborate on these calibration areas and USGS does not desire to continue to collaborate. ASPRS may need to be a guideline and best practices entity and eventually these would be release for a 3rd party to complete those independent evaluations in the future. USGS will write the guidelines, but ASPRS will release the documentation. The thought is that the USGS should continue in the calibration area.

Thank you to everyone for a very productive PDAD meeting. There was a lot of ground covered.

Meeting adjourned at 12:09 and then at 12:14 PM.

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PDAD Home Page: <http://www.asprs.org/society/divisions/pdad/index.html>