I. Opening Remarks

The Aeronautical Charting Forum (ACF) was hosted by Pragmatics, Inc. at their location in Reston, VA. Valerie Watson, AJV-344, opened the Charting Group portion of the forum on Wednesday, October 29. Valerie acknowledged ACF Co-chair Tom Schneider, AFS-420, who presided over the Instrument Procedures Group (IPG) portion of the Forum the previous day. Valerie also expressed appreciation to Pragmatics, Inc. and Pragmatics, Inc. representative Steven VanCamp for hosting the 14-02 ACF.

II. Review Minutes of Last Meeting, ACF 14-01

The minutes from ACF 14-01 meeting were distributed electronically last spring via the AeroNav ACF website: http://www.faa.gov/air_traffic/flight_info/aeronav/acf/. The minutes were accepted as submitted with no changes or corrections.

III. Agenda Approval

The agenda for the 14-02 meeting was accepted as presented.
IV. Presentations, ACF Working Group Reports and ACF Project Reports

ICAO/IFPP Committee Report

Mike Webb, AFS-420 and advisor to the U.S. Delegation to the ICAO Instrument Flight Procedures Panel (IFPP), provided an update on the ICAO/IFPP Committee activities and an overview of the key topics of the recent summer meeting of the ICAO/IFPP Integration Working Group (IWG).

Mike announced that Robbie Myers, AFS-420, replaced Mike as the U.S. representative member on the ICAO IFPP. Mike will now serve as an advisor.

A complete list of work done regarding IFPP/12 is provided on slide #3 of PowerPoint presented at the ACF. The papers related to these items are in the final stages of being prepared for endorsement. Future tasks for IFPP/13 are listed on slide #4.

**ACTION:** Mike Web, AFS-420, will provide an update at the next ACF.

PARC PBN Procedure Naming and Charting

Mike Webb, AFS-420, provided an update on the Performance Based Operations Aviation Rulemaking Committee (PARC) Performance Based Navigation (PBN) Procedure Naming Action Team activities since the last ACF. Mike reported that there has been good participation across all industry shareholders. The next meeting is to be held on 10 November 2014. The group is working towards a draft recommendation paper for the PARC steering group, to be readied by December 2014.

The group has come up with several instrument approach procedure (IAP) examples that depict single or multiple NAVSPECs, as well as sensor and functional requirements to be placed in a PBN requirements box located in the briefing strip portion of the chart (See Slides #7 and #8 for prototype examples). The group will begin discussing the depiction of PBN requirements on SIDs and STARs next.

Rich Boll, NBAA, asked whether there would be any change in how the IAPs are titled, specifically, if GPS would appear in the procedure title. Rich added that if GPS is not included in the title, the procedure would not be properly pulled from an aircraft’s FMS. Mike responded that the plan is for GPS not to be part of the procedure title and stated that FMS manufacturers have and are addressing the issue. He restated that in the U.S., RNAV will remain in the procedure title, not RNP as it appears ICAO will recommend.

**ACTION:** Mike Web, AFS-420, will provide an update at the next ACF.
Airport GIS and FAA Order 5010.4A update

Dr. Mike McNerney, AAS-100, provided an update on the progress made on the FAA Airports GIS program. Since the last ACF, AAS-100 has been focused on delivering several projects that will enable airports to upload their data directly to the Airports GIS server. Dr. McNerney added that by the end of the fiscal year, AAS-100 plans to have approximately 1000 airports, legacy ALPS, PDF data, Part 139 airport signage and marking plans uploaded to the cloud server. Work continues to improve the 20:1 tool, which is currently available. Work is also being done to push data out to the three FAA Centers. The Eastern Center will be the first, with the remaining two centers expected to have data pushed to them around March 2015.

Dr. McNerney next briefed on the transition work from current FAA databases to the Airports GIS database and the establishment of Airports GIS as the authoritative source for airport information. One key issue associated with the change in authoritative source pertains to the validity of source information. As has been previously reported at the ACF, data will be entered directly by the airport and only the airport providing the information will have the means to change the information. Once the data is in the Airports GIS database, it will be verified. The release of airport data is still planned to be through NFD for official publication. The process, from start to finish, will be electronic and should reduce the number errors.

Next Dr. McNerney gave an update on the FAA Order 5010.4A. He mentioned that airport lighting information will be collected in more detail, including the lighting fixture name and presence of LEDs. For instance, a MIRL system using LEDs will be identified as MIRL-L. Charting requirements of these LED systems has yet to be determined.

Dr. McNerney reported that airport survey information, for at least the larger airports, will be routed through NGS for validation. AAS-100 is investigating alternative methods for smaller airports to be validated without the NGS step required. The goal is maintain airport survey information to an accuracy of one meter.

Rich Boll, NBAA, inquired as to how the airports data would be available to those outside the FAA. Dr. McNerney responded that those outside of the federal government would need to seek access through the FAA’s Aeronautical Information Services (AIM) office. Details of external access have yet to be finalized.

Lynette Jamison, AJR-B1, asked for clarification about exactly who is authorized to change airport data. Are state airport inspectors authorized to revise the data? Dr. McNerney stated that state Inspectors can request a change by sending the data to the airport, then the airport would be required (and authorized) to formally submit the data electronically to Airports GIS. If an airport is abandoned and the last point of contact cannot be reached, the state inspector may submit the data change request.

Brad Rush, AJV-344, inquired when AC 150/5300-18C would be published. Dr. McNerney stated that the Order is scheduled to be out for comment in March 2015.

Valerie Watson, AJV-344, asked for more detail about the plan for Airports GIS to database the presence of LED lighting at airports and what might be expected for charting. Coby Johnson, AFS-410, stated that there is an FAA workgroup that is looking into the issue of LED lighting. Coby stressed that there are huge implications to switching over to LEDs and the workgroup is looking into the infrastructure requirements and...
working on a test plan. They are also considering alternatives to LEDs. Valerie stated that should charting of LEDs be a requirement, the issue should be brought to the ACF as a new agenda item.

Ted Thompson, Jeppesen, asked about the value of collecting and potentially publishing LED lighting for an airport. He stated that for pilots with Enhanced Vision System (EVS) devices, knowing this information might be useful, but for the average pilot, it would be useless information.

**ACTION:** Dr. Mike McNerney, AAS-100, will provide an update at the next ACF.

**Discontinuation of VOR Services**

Leo Eldridge, Tetra Tech, Contract Support to AJM-324, briefed the issue. Leo reviewed the plans for transitioning the NAS from a VOR-based NAS to an RNAV/PBN-based NAS. It is estimated that 90% of the general aviation and commercial aircraft operating within the NAS are GPS equipped. The numbers for DoD aircraft equipped with GPS were estimated to be around 60%. The need for VORs is in decline and it is still the FAA’s intention to eliminate 30% to 50% of the existing VORs by 2025. The reduction will begin gradually over the first five years during which time the bulk of the procedural/airway/airspace work will assessed. Then the plan is to accelerate the process, with approximately 20 to 25 VORs decommissionings accomplished per year. Leo emphasized that there is a great deal of pre-coordination required in the decommissioning of these VORs. Many of the remaining VORs will be enhanced to supply increased service volume.

Leo stated that the coordination efforts between the FAA and DoD is ongoing. MITRE is working with the DoD to identify the VORs that will need to be retained to meet DoD’s needs.

Leo emphasized that only FAA owned and operated VORs will be considered for decommissioning. There has been some discussion regarding the possibility that local authorities and airports may privatize a number of VORs that have been identified for decommissioning.

Leo discussed several challenges related to the implementation of the VOR MON. These include impacts to Instrument Flight Procedures, the implementation of the PBN National Route Structure, ongoing engineering analysis, stakeholder coordination, co-located facilities (HIWAS, RCO, ATIS, DME), and rulemaking changes. Many of these details are still unanswered.

Leo concluded by reviewing the next step for the VOR MON program. AJM-324 is still in the process of coming up with a detailed program plan. The Final Investment Decision is expected in September 2015.

**ACTION:** Leonixa Salcedo, AJM-324, will provide an update the next ACF.
National Route Strategy

Sharon Abhalter, AJV-14, briefed the issue. Sharon first provided an overview of the National Route Structure concept. At this time, it is a concept of operation only and as of yet, is not funded. The PBN Route Structure is envisioned to be the primary means of navigation for the future NAS and would complement and support the VOR MON program. The route structure would increase the number of RNAV routes, e.g., Q and T routes, in order to replace existing VOR-based Victor Airways and Jet Routes, while still accommodating point-to-point navigation. Route structure will be established in areas where structure is deemed necessary, for instance the high traffic corridors along the East Coast. Point-to-point navigation will be utilized in less congested zones where route structure is not deemed necessary.

Sharon stated that a system of ATC preferred routes will continue to exist and will likely be expanded.

When asked what the potential impact on the existing Jet Routes system is expected to be, Sharon responded that eventually ALL of the Jet Routes are expected to be eliminated. The existing Q Route structure will be re-evaluated, revised and added to. She briefed that Victor Airways, and T Routes would remain, especially in areas of no radar coverage and in high traffic areas. Connections between metroplexes are being analyzed and will make up a key part of the PBN National Route structure.

Rich Boll, NBAA, asked about the anticipated timeline. Sharon stated that thus far, no definitive timeline has been established and its first steps are dependent upon funding.

**ACTION:** Robert Novia, AJV-14, to provide an update at the next ACF.

PBN Implementation Process FAA Order 7100.41

Sharon Abhalter, AJV-14, briefed on the recently signed PBN Implementation Process Order 7100.41. The Order provides a standardized development and implementation process for PBN procedures and routes.

The order is designed to be used by a workgroup to meet agreed-upon project goals by attaining developmental and incremental milestones in PBN Implementation. It provides an increased requirement for collaboration across lines of business and establishes a process that when followed will fulfill SMS obligations. The Order also outlines the requirement for a post implementation analysis report to be filed after procedures have been put in place.

Sharon stated that numerous comments to the Order have been received and that those comments will be reviewed sometime after January 2015.

Bob Lamond, NBAA, asked if external components have access to the developmental milestones. Sharon replied that the PBN team is working on that and will provide further information at the next meeting.

**ACTION:** Bruce Kinsler, AJV-142, to provide an update at the next ACF.
Revision to FAA Order 8400.9, Runway Selection and Use Plan

John Blair, AFS-410, briefed on revisions to the Runway Selection and Use Plan, FAA Order 8400.9. The Order addresses safety concerns and operations of aircraft arriving at and departing from Part 139 airports. The Order will require that all Part 139 airports establish a Runway Selection Safety Team (RSST), who will be charged with determining maximum crosswind and tailwind components for each runway at their airport. This knowledge will effectively reduce the number of times pilots must reject a clearance for a runway due to cross or tail wind limitation and will also reduce the number times pilots are put in possibly unsafe situations. The timeline for coordination of the Order is by end of 2014. It is anticipated that the Order will be formally adopted by late 2015.

The purpose of this briefing was informational only. There will be no impacts on charting.

VFR Chart Print Schedule Realignment and Synchronization

Ron Haag, AJV-3212, briefed the audience on AeroNav Products’ intent to eventually provide digital updates of VFR Charts every 56 days. The plan is to provide an updated digital version of the VFR charts every 56 days and an updated paper version every 224 days. The first step of the plan, to be implemented in the near future, will be to extend the paper update cycle of Sectional and TAC charts from its current 168 and 196 days (alternating) to a standard 224 days. Ron stated that the purpose of the change is partly to synchronize the VFR charts with other FAA chart products (e.g. IFR Enroute Charts, TPPs, AFD, etc.). This change will also allow charts that share Class B airspace or have large overlapping areas to be printed concurrently.

Ted Thompson, Jeppesen, expressed concern that printing the charts and producing them digitally on different schedules will result in data conflicts. Ron replied that other than when both charts are released on the same date, the digital charts would have a more current date and would appear different because the information would be more up to date.

Rick Fecht, AJV-3213, stated that the AFD chart bulletin would enable paper users of the VFR charts to keep their charts up to date with the latest chart changes.

Lynette Jamison, AJR-B1, asked how the NOTAMS would be applied to the charts given the difference in versions and delivery method. Ron responded that the Visual charting team is investigating this and other issues that will provide challenges and does not plan to move forward until they are resolved. He stated that FAA Legal has been contacted and will help work these issues prior to implementation.

**ACTION:** Ron Haag, AJV-3212, to provide an update at the next ACF.
V. Outstanding Charting Topics

05-02-179 Attention All-Users Page for Simultaneous, Parallel RNAV Departures & PRM Approaches

Kel Christianson, AFS-470, briefed the issue. Kel reported that the RNAV Departure AAUP guidance was published in FAA Order 8260.46 in May, 2014. Rich Boll, NBAA, inquired as to when we would start to see AAUPs in the TTPs. Kel responded that AAUPs for approaches have already been published. No requests to publish RNAV Departure AAUPs have been received to date.

Ted Thompson, Jeppesen, expressed his gratitude to Kel and Tom Schneider, AFS-420, for the work done in getting the AAUP process formalized.

STATUS: CLOSED

07-01-195 Charting & AFD Information Re: Class E Surface Areas

Paul Gallant, AJV-113, reviewed the issue. Paul stated that the AIM Chapter 3 changes have been made and are currently out for comment. Specific queries regarding a number of individual airspace areas (and extensions, times, etc.) originally identified by AeroNav Products and supplied to the Airspace & Rules office have been resent to the three service areas. Paul will follow up and process revised airspace descriptions as necessary.

STATUS: OPEN

ACTION: Paul Gallant, AJV-113, to report on publication of revised AIM guidance.

ACTION: Paul Gallant, AJV-113, to report back on feedback received from service areas and any possible Order JO 7400 action.

09-01-214 Low Visibility Operations/SMGCS (LVO SMGCS) Taxi Charts (Previously title as SMGCS Taxi Charts)

Bryant Welch, AFS-410, briefed the topic on behalf of Bruce McGray, AFS-410. Bryant stated that the SMGCS Order has been in the process of undergoing a major edit as many of the provisions detailed in the order did not materialize, largely due to funding issues. AFS-410 is now in the process of simplifying the Order, which is currently under review by the FAA Regional offices. Bryant stated that SMGCS charts will not be expected to be produced by the FAA in the near future.

STATUS: OPEN

ACTION: Bruce McGray, AFS-410, to report back on the progress made on the revision of the SMGCS Order.
11-01-238 Aerobatic Area Symbols on VFR Sectional Chart

Mike Wallin, AJV-211, briefed the issue. Mike stated that he has met with Susan Gardner, AFS-800, regarding this issue. AFS-800 and AJV-211 are working together to collect the data (lateral parameters, altitudes, times of use, contact information) on the long term Aerobatic Training Areas (ATAs) in the U.S. and to devise charting/publication criteria for them. AFS-800 will determine which areas are to be depicted on the VFR charts and which are to be published only in the AFD. Mike also reported that AJV-211 will be contacting the AFD team to investigate the possibility of creation of a separate table in the AFD similar to that used for the publication of parachute jumping areas. It is expected that an associated standard note will also be included in the AFD airport entry.

Mike reported that an average of 10 to 15 new aerobatic areas are established and 5 are decommissioned annually. Most aerobatic areas are within close proximity to an airport. As part of the publication criteria being discussed, the aerobatic area will be identified in part by the nearest airport. It is proposed that aerobatic areas would be represented by a chart symbol not unlike the symbols used for hang glider and ultralight activity. Each aerobatic activity area location will have latitude and longitude information.

Mike added that initially, the aerobatic area publication information will be distributed via NFDD add-on page, until such time as NASR can be updated to accommodate the data. The process to update NASR is expected to take approximately 12 months.

Mike reiterated that AFS-800 will assume responsibility for maintaining ATAs and submitting ATA information to NFDC for publication. Newly designated ATAs (which are established via waiver) are only valid for 2 years and have to be renewed upon expiration. AFS-800 will either inform NFDC that an area is to be deleted or has been renewed for another 2 years. ATA changes will be submitted from AFS-800 to NFDC via an online digital form, which NFDC expects to have ready by the summer of 2015. FAA Order 7900.3, which is currently being drafted by NFDC, will include the form and instructions on the submission process.

John Moore, Jeppesen, inquired as to who will be responsible for guaranteeing the Flight Standards established ATA criteria is adhered to and how the data will be verified. Mike replied that AFS-800 will be the authoritative source for ATAs and that NFDC will publish them as submitted. Original requests may still go through the FSDO and then to AFS-800. All requests for ATAs will be validated by AFS-800 before they are submitted to NFDC for publication.

**STATUS: OPEN**

**ACTION:** Mike Wallin, AJV-211, to continue working with AFS-800 to finalize charting and AFD publication criteria for ATAs.

**ACTION:** Rick Fecht, AJV-3213, will supply Mike Wallin a list of those Aerobatic Training Areas that currently exist on the VFR Charts and in the AFD for AFS-800 assessment.

**ACTION:** Rick Fecht, AJV-3213, will begin work on developing an ATA symbol for the visual charts.
13-01-260 Inclusion of Metering Frequency, 133.57, to MSP Airport Diagram – FAA AL 264

Valerie Watson, AJV-344, reviewed the topic. Valerie stated that the IACC Recommendation Document has been signed and Metering Frequencies should appear on affected airport diagrams within the next couple of charting cycles.

**STATUS: CLOSED**

13-01-261 Alaska Ground Based Transceivers (GBT) Locations

Valerie Watson, AJV-344, briefed the issue. Valerie stated that she has been in contact with Maureen Cummings-Spickler, AGC-520, who is the attorney in FAA General Counsel newly assigned to the ADS-B program. Ms. Cummings-Spickler informed Valerie that she is working both the ACF request and a Freedom of Information Act (FOIA) request for release of ADS-B locations. Ms. Cummings-Spickler has promised a response prior to the next ACF (April 2015).

Bob Carlson, AJV-3721, briefed that he contacted the Alaska and Western Regional Offices to inquire if they would like to submit ADS-B coverage graphics at 5,000’ and 10,000’ for publication in the Supplement Alaska. A response has not yet been received.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-344, to report back on her discussions with FAA Legal regarding the release of ADS-B tower locations.

**ACTION:** Bob Carlson, AJV-3721, to report back on publication of ADS-B coverage graphics at 5,000’ and 10,000’ in the Supplement Alaska.

13-01-262 Airport Facility Directory (AFD) Depiction of Traffic Pattern Altitudes

Valerie Watson, AJV-344, briefed the previous ACF consensus that ALL traffic pattern altitudes, whether considered “standard” or “recommended”, should be both captured in the NASR database and published in the AFDs. Steve Brisbon, AJV-211, briefed that NFDC has not yet begun the process of populating all traffic pattern altitudes in NASR. Steve will follow up and attempt to expedite the project.

**STATUS: OPEN**

**ACTION:** Steve Brisbon, AJV-211, to report back on the progress in populating all Traffic Pattern Altitudes in NASR.
**13-01-264 Flight Path Angle (FPA) on STAR Charts with Published Vertical Profiles**

Trent Bigler, AFS-470, briefed the issue and stated that the final recommendation from the PARC VNAV Action team was not to publish FPAs on STAR Charts.

Valerie Watson, AJV-344, expressed surprise at this decision as there was very strong pilot support at the previous ACF for published FPAs on Arrivals. Trent stated that the angle will be calculated as part of the criteria, but will not be published on the chart.

**STATUS: CLOSED**

**13-01-266 Standardized Depiction of Altitude Restrictions on Bottom, Top and Maintain Altitudes on Standard Terminal Arrival (STAR) and Standard Instrument Departures (SIDs)**

Valerie Watson, AJV-344, briefed the issue. Valerie reported that AFS-420 has provided interim “Top Altitude” guidance via memo until FAA Order 8260.46F is released. Valerie showed sample charts to the group depicting how the “Top Altitude” box will appear on the planview of FAA charts.

Ted Thompson, Jeppesen, presented prototypes of Jeppesen’s “Top Altitude” chart depiction, which will incorporate the altitudes into a specifically labeled “Top Altitude” column as part of the Departure Routing text block.

Valerie briefed that Top Altitude publication will begin with the Denver SIDs for the November 13 effective date cycle. A prioritized schedule is being established, in concert with Air Traffic, to place all SIDs with Top Altitude into production.

Tom Schneider, AFS-420, briefed the interim Top Altitude guidance and stated that the final guidance will be published in FAA Order 8260.46F, due to be published next September.

Tom also discussed the proposed “Bottom Altitude” changes to the STAR Order, which is in the process of being transferred to AFS-400 and incorporated into Orders 8260.3, 8260.19, and 8260.58. Once the transfer has been completed, likely sometime in 2015, Order JO 7100.9E will be cancelled. Tom has draft language prepared to support the requirement for “Bottom Altitudes” on STARs for insertion into Draft FAA Order 8260.19G.

Jim Arrighi, AJV-151, stated that the language in the order must be written to allow for one Bottom Altitude per runway transition.

**STATUS: OPEN**

**ACTION:** Tom Schneider, AFS-420, to provide an update on the transfer of FAA Order JO 7100.9 (STAR Order) to AFS-400.

**ACTION:** Valerie Watson, AJV-344, to draft an IACC Recommendation Document to support the charting of Bottom Altitudes on STARs and to create prototype STAR charts.
**13-01-267 Addition of ATC Radar Telephone Number in FAA AFD**

Gary Fiske, AJV-82, reviewed the issue and stated that this issue has not progressed since the last ACF. Gary was not able to obtain ATC consensus to release the requested phone numbers. Many questions remain unanswered within ATC such as what phones at the facilities might be dedicated to this use, who will be charged to field the calls in the facility, what specific services could be offered via phone. Gary stated that it is possible that some terminal facilities might be willing to release phone numbers, while others may not and restated that at present he does not have the ATC authorization to go forward. He will attempt to obtain a consolidated ATC position.

Valerie Watson, AJV-344, commented that in order for the ATC numbers to be published in the AFD, they would first have to be published in NASR. Valerie also stated that there is currently no placeholder in the AFD to publish the numbers and that preliminary work will not be done to create one until a decision has been made by ATC.

**STATUS: OPEN**

**ACTION:** Gary Fiske, AJV-82, will work to gain a consolidated ATC response and report back at the next ACF.

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**13-01-268 Making Alternate Missed Approach Text Accessible to ATC**

Rich Boll, NBAA, reviewed the issue. Gary Fiske, AJV-82, proposed that the ACF revisit the original idea of publishing Alternative Missed Approach text in the front matter of the TPPs. Rich stated that it is his understanding that many new controllers don’t know what an FAA Form 8260 is. Gary acknowledged this. Gary stated that he believes publishing them in the TPP is the best way to ensure the controllers have the information. There was a vigorous discussion among ACF participants on the pros and cons of publishing the alternative missed approach text either in the front of the TPPs or on the approach charts.

Ted Thompson, Jeppesen, stated that if this information is primarily for controllers, it should not be placed on the IAP charts.

Valerie Watson, AJV-344, emphasized that the TPPs are for pilots, not ATC. She commented that it is ATC’s responsibility to maintain and have available this information in the facilities and that she feels it is not up to AeroNav Products to create and maintain a new section in the TPPs because ATC does not have a sufficient process in place.

Brad Rush, AJV-344, referenced Gary to the FAA website where there is public access to all 8260 forms. Brad Rush stated that this is more of an ATC training issue than a charting issue, and that ATC needs to insure that the 8260s (and thereby the Alternate Missed Approach instructions) are available to controllers.

Gary will investigate this issue further within ATC and report back at the next ACF.

**STATUS: OPEN**
**ACTION:** Gary Fiske, AJV-82, will take the comments raised in the ACF back to ATC and investigate the best way to insure that alternate missed approach information is available to controllers.

**13-01-270 Stepdown Fix Chart Notes**

Tom Schneider, AFS-420, briefed the topic and advised that the revised FAA Order 8260.19G will be published March 2015. Kel Christianson, AFS-470, added that work on the changes to the AIM have been put on hold until the revisions to the Order have been published.

Rich Boll, NBAA, presented a briefing in which he expressed various concerns regarding pilot confusion over how to apply the stepdown fix chart note. One of those concerns is that there is a belief among pilots that the stepdown fix does not apply to circling. Part of the confusion stems from combining LNAV/VNAV and LNAV-only capabilities onto a single chart. Rich presented various solutions to address this confusion, including adding circling to the existing chart note, separating the vertically guided and non-vertically guided approaches onto different charts, or adjusting the TERPS criteria to remove LNAV/VNAV minima and only publishing LPV minima.

John Collins, GA Pilot, inquired as to whether there were any temperature restrictions associated with LNAV/VNAV approaches where Baro VNAV was required. Pilots within the audience commented that there is an assumption that a Baro-VNAV system attempts to fly the descent path and is potentially dangerous.

Rich put forth the following request from NBAA regarding actions on this topic:

- Suspend action to amend chart note
- In the short term, establish an FAA/Industry working group to identify, evaluate, and select suitable options to address the current issue.
- In the longer term, AFS to work with AIR to establish appropriate criteria within TERPS supporting continued use of LNAV/VNAV minima that reflect existing certification criteria respective to approach Baro-VNAV

John Collins, GA pilot, expressed his opinion that a stepdown fix after the FAF (GS Intercept) should not apply to an LNAV/VNAV procedure as it is a vertically guided procedure that meets TERPS criteria for obstacle clearances and specifies temperature limitations when using Baro-VNAV equipment to assure these obstacle clearances are satisfactorily met.

Lev Prichard, APA, stated that he does not support the addition of the asterisk for the stepdown altitude, as it will most certainly destabilize approaches using VNAV equipment. It is not necessary as LNAV minimums use a flat OCS and LNAV/VNAV minimums use a temperature corrected sloping OCS. The stepdown fix does not effectively exist for LNAV/VNAV minima and would have a negative operational effect on a stabilized approach in cold temperatures for Baro-VNAV equipped aircraft by requiring them to interrupt the VNAV path by entering another vertical mode, thus complicating and destabilizing the procedure. It is a non-issue for aircraft utilizing SBAS (WAAS), and therefore chart clutter. We do support other possible changes as discussed if it alleviates the circling issue brought up by NBAA.
Tom stated that these recommendations would have to go back to the US-IFPP and this issue be reopened in order to address the concerns. Tom reminded the audience that the related FAA Orders are still in draft. With regard to the circling portion of this issue, Tom stated that there are two options. Either the note can be expanded to also apply to circling, or a rule can be established within TERPS that if there is a stepdown fix, circling MDA cannot be established below that stepdown fix altitude.

**STATUS: OPEN**

**ACTION:** Tom Schneider, AFS-420, will readdress the issue at the USIFPP and report at the next ACF.

**13-02-273 Publication of Diverse Vector Areas (DVAs)**

Valerie Watson, AJV-344, briefed the issue. Valerie stated the first DVA’s were published in October 2014 in the *Takeoff Minimums front matter* section of the TPPs.

Ted Thompson, Jeppesen, commented that the DVA appears on the Jeppesen airport diagram chart in the Jeppesen Airway Manual.

Tom Schneider, AFS-420, stated that the Instrument Procedures Handbook will be updated with DVA information in the next edition.

Bryant Welch, AFS-410, presented the DVA text submitted for publication in the AIM, which is currently in coordination and is expected to be published in the AIM for the next update cycle.

Gary Fiske, AJV-82, emphasized that a pilot should be aware of what to anticipate from ATC and that if there is a DVA at a given airport, the pilot is responsible for insuring that the aircraft can fly the DVA.

**STATUS: CLOSED**

**14-01-274 Solar Power Plant Ocular Hazard Symbol on Aeronautical Charts**

Valerie Watson, AJV-344, reviewed the topic. Rick Fecht, AJV-3213, showed the audience the current VFR Sectional chart depictions of the two solar plants that were identified by the Western Service Center as presenting an ocular hazards to pilots. He asked attendees for feedback on the depictions.

Lev Prichard, ASA, commented that the current charting depictions look understated. Lev inquired if there was anything charted on any FAA Instrument charting products. Valerie replied back that current FAA policy prohibits the practice of posting cautionary comments on IFR Charting products.

Melissa Rudinger, AOPA, Bill Wade, Delta Air Lines, John Collins, GA Pilot, and others echoed the sentiment that the solar plants are not prominently enough displayed on the current Sectional charts. Valerie suggested that the visual charting team try to work on a more prominent visual depiction and also utilize text to alert users that there is an ocular hazard associated with the plants. Rick agreed.
Lynette Jamison, AJR-B1, stated that there are currently two NOTAMs on the circuit which were issued by the ATC Traffic Advisory Committee to alert users of the plants. Lynette added that there have been several filings by pilots through NASA ASRS comments and ATSAB reports. She also stated that these are the first two such solar power stations and that there are 5 more large farms in planning. Lynette then asked if there was anything in the AIM regarding ocular hazards.

Valerie stated that in searching the AIM prior to the ACF, she found nothing addressing flash blindness or cockpit illumination associated with solar mirror farms. She stated pilots desiring to report problems with an ocular hazard should report to their local Flight Standards District Office (FSDO) to voice their concerns.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-344 and Rick Fecht, AJV-3213, to work on generating new charting concepts that would provide a more prominent depiction and alert users of the ocular aspect.

**14-01-275 Charting Speed Limited Areas on Instrument Approach Plates**

Gary Fiske, AJV-82, provided an update on discussion within ATC about assigning speeds contrary to that specified under Class B airspace and procedure issues with Southern California TRACON. Gary noted that most controllers are aware of the speed restrictions under Class B airspace and the feedback from the TRACON is that there was not a huge problem.

Gary briefed the group that the rulemaking action he was pursuing that would allow speeds “or as assigned by ATC” under Class B airspace did not receive support and the effort has been abandoned.

Rich Boll, NBAA, commented that speed limit issues for pilots are a problem throughout the NAS. Rich pointed out that the AIM states that the pilot will maintain the airspeed issued from last ATC order. This may explain why pilots maintain airspeeds into airspace below Class B. Rich add that in instances where a pilot chooses to slow down when entering airspace below Class B, the controller will often ask him why. Rich stated that there may need to be a better explanation in the AIM.

Bob Lamond, NBAA, suggested that there be a one-time re-education of both pilots and controllers. He committed to looking into some possible educational alternatives in coordination with Gary.

Valerie Watson, AJV-344, restated that, per previous ACF consensus, AeroNav Products will not chart Class B airspace boundaries on IAPs and since this issue does not involve a charting solution, the item would be closed. The group agreed.

**STATUS: CLOSED**
14-01-276 Removal of Non-Alaska Facility Information from Alaska Supplement

Valerie Watson, AJV-344, reviewed the issue. Melissa Rudinger, AOPA, reported that she reached out to the AOPA regional manager in Fairbanks and to pilot members in Alaska regarding the removal of non-Alaska information from the Alaska Supplement. She found strong support for retaining all of the airport information currently contained in the Supplement, both Alaskan and non-Alaskan. The AOPA Alaskan members did say that some of the airports could be looked at for removal, but requested that for the present, they would like to see all the information retained. They found having such information very useful to pilots who are flying along the border non-stop.

Lynette Jamison, AJR-B1, commented that the non-Alaska information in the Alaska supplement should be removed because the data is erroneous. Lynette added that Alaska has submitted the errors to the FAA and those errors have yet to be addressed. Valerie responded that there was a disconnect between the AFD and AK Supplement, but that will be rectified with the upcoming move to automate both books. Valerie added that work is also ongoing to establish one IACC Specification for the AFD, Alaska Supplement and Pacific Chart Supplement. Bob Carlson, AJV-3721, requested that any known errors be forwarded to him and he would see that they are remedied.

The current non-Alaska information contained in the Supplement will remain.

STATUS: OPEN

ACTION: Lynette Jamison, AJR-B1, and Melissa Rudinger, AOPA, to work with Bob Carlson, AJV-3721, on addressing the errors found in the AK Supplement.

14-01-277 Discontinuation of World Aeronautical Charts

Ron Haag, AJV-3212, reviewed the topic. Ron reported that his office submitted the Federal Register Notice in July to address AeroNav Products’ proposal to discontinue the WACs. The Notice has not yet been published. Until the Federal Register Notice is published and comments are received, this issue is on hold.

STATUS: OPEN

ACTION: Ron Haag, AJV-3212, will report back on the Federal Register Notice at next ACF.

14-01-278 Alaska Designated Common Traffic Advisory Frequency Area Chart Depictions

Mike Yorke, AAL-03, reviewed the issue. Mike showed the audience the new VFR graphics generated by FAA AeroNav Products’ Visual Charting Team. The new inset chart, titled Matanuska Sustia Valley CTAF, illustrates the outer parameters defining the CTAF usage in the area. Mike acknowledged and praised the efforts of the VFR Charting Team in making the new inset and in getting it published in such a short period of time. Mike then proposed that CTAF boundaries also be applied to the Sectional Chart for Anchorage.
Mellisa Rudinger, AOPA, also praised the new chart and joined Mike in support of depiction of the CTAF boundaries on the Sectional chart.

Ron Haag, AJV-3212, asked the audience if the new inset chart is sufficient or is there a perceived need to do more, such as putting the CTAF boundaries on the Sectional Chart. Ron emphasized that there are currently no charting specifications for adding CTAF boundaries to Sectional Charts.

In response to Ron’s question, Mike commented that the current CTAF inset chart is helpful for users who purchase paper charts, but is not readily accessible when using digital charting applications.

Ron will investigate the digital chart website and see if the inset chart can be more easily found and accessed.

Valerie Watson, AJV-344, stated that CTAF boundaries will not be added to the Sectional charts, the parameters of CTAF areas are not formally defined, are not captured in a sanctioned database and even if they could be depicted, would cause a great deal of clutter on the charts. These areas and the inset that has been produced are really informational and she believes the inset should be labeled “Not for Navigation”.

John Moore, Jeppesen, agreed and voiced that if the intent was to add CTAF boundaries to Sectional charts, the boundaries would first need to be defined, formalized and databased in NASR. Ted Thompson, Jeppesen, pointed out that once a chart like the CTAF inset is created, pilots perceive that the boundaries depicted are firm/formal boundaries.

There was discussion within the audience to how CTAF information could be potentially depicted on a Sectional chart and how the CTAF boundaries could potentially be geo-referenced for use by digital chart applications. There was a suggestion that perhaps the parameters of the inset could be shown and identified on the Sectional Chart. The Visual chart team will investigate this possibility.

STATUS: OPEN

ACTION: Ron Haag, AJV-3212, will explore ways to identify on the Sectional chart the existence and possibly parameters of the inset, so that users are aware of its existence. He will also add “Not for Navigation” to the inset. Ron and will report back at the next ACF.

14-01-279 Naming of FAA Certified, National Disseminated AWOS-3 Systems on Private Use Airports

Regina Sabatini, AJV-221, briefed the issue. Regina stated that guidance on stand-alone AWOS systems is out for comment and will likely not be published in Joint Order 7350.9B until the spring of 2015. Valerie Watson, AJV-344, stated that she will wait on initiating changes to the charting specifications until after the Order is officially released and the direction is firmly defined.

STATUS: OPEN

ACTION: Regina Sabatini, AJV-221, will provide an update on the publishing of FAA Order 7350.9.
VI. New Charting Topics

14-02-280 MEA Usage on SIDs

John Collins, GA Pilot, briefed the issue. John stated that the Legend within the TPPs says that altitudes depicted on SIDs are MEAs, yet many SIDS have altitudes specified that are of little or no operational significance. He noted that a comparison of the MEAs published on the IFR Enroute Charts to those that appear on the SIDS, shows that the altitudes often do not match and in some cases the MEA depicted on the SID is higher than the one published on the Enroute Chart.

Valerie Watson, AJV-344, stated that from a charting perspective, the MEAs that appear on the SID are published on the procedure source document, FAA Form 8260.15B and are charted accordingly. The charting offices, of either the FAA or non-government, will chart what is on the source document.

Tom Schneider, AFS-420, commented that the FAA Form 8260.46 provides for altitudes for the transitions, MOCA and MEA. Tom surmised that ATC devises the altitudes appearing on SIDs for their operational needs.

It was agreed that the issue is not one of charting but of source. Tom stated that he would put a statement into the 8260.46 that MEAs should not be raised to support ATC altitudes and that if ATC needs an altitude for operational requirements, crossing altitudes should be used.

After discussion, the second portion of the Recommendation regarding lost communications on SIDS be withdrawn by the proponent.

STATUS: OPEN

ACTION: Tom Schneider, AFS-420, to report on revision of the 8260.46 guidance on use of MEAs and Crossing Altitudes on SIDs.

14-02-281 Publish Electronic Form of MVA Charts

John Collins, GA Pilot, briefed his request to have MVA charts published in an electronic format so that they could be graphically displayed in the cockpit. Valerie Watson, AJV-344, reported that MVA data, not graphics, is currently available via an FAA FTP site (email fred.milburn@faa.gov for access). The MVA files are in line file format and are admittedly not easy to utilize. She further reported that there has been a recent internal initiative within AeroNav Products to post graphic MVA information on a public website. Val stated that the initiative is still in its embryonic stages and specifics as to format and time of release have yet to be determined.

Bob Lamond, NBAA, commented that NBAA has been engaged with the FAA for over 11 years in an attempt to obtain public access to MVA Charts in a graphic format. He stated that he was pleased with the news that MVAs will soon be released.
Ted Thompson, Jeppesen, stated that once the MVA data becomes available, Jeppesen will investigate generating an overlay for use with their digital charting products.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-344, to report back on the FAA initiative to provide public access to graphic MVA Charts.

**14-02-282 VASI PAPI Differences**

John Collins, GA Pilot, briefed the audience that PAPI and VASI systems utilize different Obstacle Clearance Surfaces (OCS). VASI systems are calibrated for obstacle clearance from the threshold to 4 NM, while PAPI systems are calibrated from runway end to 4 SM (3.25 NM). John believes the OCS should be the same for both lighting systems.

Bob Bonanni, AAS-100, provided some background information to explain the differences between the two systems. He stated that the reason for the difference is that VASI is a legacy system and that PAPI is a much newer system. The PAPI system was designed in harmonization with international standards.

Brad Rush, AJV-344, briefed that in preparing a response to Johns recommendation prior to the ACF, he reached out to the FAA office of responsibility, AJM-3222, for the Visual Guidance Lighting Systems Order, FAA Order 6850.2B, but has yet to receive a response. His intent is to encourage the Order to be changed so that the surfaces will be the defined in the same manner. He also stated that the AIM language should be clarified to better explain the current differences.

**STATUS: OPEN**

**ACTION:** Bryant Welch, AFS-410 and Brad Rush, AJV-344, to investigate responsibility for the text regarding VASI and PAPI systems in the AIM and work to clarify AIM language.

**ACTION:** Brad Rush, AJV-344, to report on a response regarding FAA Order 6850.2B.

**14-02-283 Charting of Transmission Lines on VFR Charts**

Jim O'Keafe, USCG, briefed the issue. Jim stated that the USCG is asking the FAA to consider revision of the symbology used for transmission lines on the VFR Sectional Charts. The USCG request arises from a helicopter incident in 2010 where a USCG helicopter flew into a power line and three crew members were killed. The USCG acknowledged that pilot error was a major contributing factor to the incident. Additionally, it was also acknowledged that the power lines were correctly charted on the Visual chart at the time of the incident.

The USCG feels that the current symbology for transmission lines used on FAA charts does not stand out enough when compared to that used on Canadian charts and as suggested by ICAO charting standards. Jim
showed examples of both Canadian and FAA depictions of transmission lines, commenting that the wavy line design used on Canadian charts appears more prominently than the FAA straight line with T’s symbology.

Rick Fecht, AJV-3213, commented that to date, his office has not received any complaints regarding the current FAA transmission line depiction. He added that the transmission lines are on the chart for landmark purposes only. The lines in question were below 200 feet AGL, so would not have met obstruction charting criteria. He noted that on the Canadian chart the larger symbology displaces other features of presumed importance and that the T’s used in the Canadian symbology are excluded when in conflict with another charting feature. Rick stated that the current charting practices of putting FAA T-lines on sectional charts are a manual process and that revising the symbology would be an extremely labor and cost intensive endeavor.

Jim responded that for helicopter pilots, transmission lines are more than landmarks, they are flight hazards. Helicopter flight into power lines has led to many fatal accidents.

Valerie Watson, AJV-344, commented that considering the accident report cited pilot error and that the incident was not attributed in any way to a charting issue, her opinion is that a case would be difficult to support for manually revising the transmission lines in today’s financial climate where resources are severely limited. She did suggest that once the Visual charts are fully automated, such a change could be considered.

Brad Rush, AJV-344, stated that AeroNav Products will investigate the resources required to make the change. Brad requested that the Visual Charting Team look into what would be involved in changing the symbology. Rick agreed to investigate.

**STATUS: OPEN**

**ACTION:** Rick Fecht, AJV-3213, will conduct an analysis of how much work and resources would be involved to manually revise the transmission line symbology on Sectional charts.

**ACTION:** Brad Rush, AJV-344, will report back after AeroNav Products assesses the scope of the issue.

**14-02-284 DME Facilities – Charting and MAGVAR Issues**

Valerie Watson, AJV-344, briefed the issue. Valerie stated that though a number of decisions have been made regarding the handling of DME facilities, questions still remain. She briefed that in instances where a VOR that was part of a VOR/DME has been decommissioned, the remaining DME will retain the original name, three letter identifier and DME channel. Valerie questioned whether or not the paired frequency should be retained, databased and charted. Rich Boll, NBAA, said yes, the paired frequency should be retained.

A discussion ensued regarding how DMEs are intended to be used in the NAS and when or if there is a need to publish DMEs on the charts. The general consensus is that if a DME defines something in the NAS, e.g., fix makeup, part of a route, part of the description for class airspace, it will be charted. If it is solely for DME/DME/IRU use, it does not need to be charted.
Ted Thompson, Jeppesen, emphasized that pilots don’t like to see a disconnect between what is displayed on the FMS and what appears on the chart. If all DMEs are going to in the FMS even if they are only being used for DME/DME/IRU, they should be considered for charting. The rules for charting DMEs should be kept simple.

Lynette Jamison, AJR-B1, asked if there would be confusion when an uncharted DME is NOTAM’d. How would a pilot know where the DME is located geographically, and what routes and procedures are impacted? Valerie commented that today, DMEs used for Q routes are databased to the route in question and are published in the back matter of the AFDs, so pilots don’t know the relationship today by looking at a chart.

Leo Eldridge, Tetra Tech, Contract Support to AJM-324, voiced support for charting all DMEs so that they could potentially be utilized as points for free flight. John Collins, GA Pilot, supported this view.

The subject of whether DMEs should/would be assigned magnetic variation was brought up. Brad Rush, AJV-344, stated that a DME has no azimuth aspect, therefore assignment of a magnetic declination value meaningless and unnecessary. If there is a TACAN associated with the DME, then the TACAN would require a magnetic declination. When asked how the ARINC 424 requirement for the use of a “reference facility” for DME/DME/IRU operations on certain leg types to be coded in the procedure would be handled, Brad responded that the FAA will establish a reference facility that matches the airport of landing/departure magnetic declination, so there is no need for a DME to have an assigned magnetic declination.

John Moore, Jeppesen, stated that there are too many unknowns to be able to make decisions at this time and suggested that a DME workgroup be formed to address the many issues and requirements that need further discussion and clarification.

It was agreed that a workgroup be formed. The following individuals signed up to participate:

<table>
<thead>
<tr>
<th>Name</th>
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STATUS: OPEN

ACTION: The Stand-Alone DME Workgroup will meet to discuss the issues brought up at this ACF and report back.

14-02-285 Charting of Arctic UAS Permanent Areas

Valerie Watson, AJV-344, informed the forum that the recommendation was withdrawn by the submitter. The RD will be closed and may be re-opened by the submitter at a future ACF.

STATUS: WITHDRAWN/CLOSED

14-02-286 Airport Diagram Symbol for Non-Standard Runway Holding Position Marking in Conjunction with a Hot Spot

Valerie Watson, AJV-344 presented the issue on behalf of the Chris Diggons, AJI-144, the Runway Safety Group proponent. Valerie stated that currently there is a prohibition against depiction of non-standard runway hold lines on airport diagrams where a Hot Spot has been established for that purpose. The submitter requests that non-typical locations of the runway hold line be shown in conjunction with the Hot Spot. It is Runway Safety’s contention that a number of specific incidents at Seattle-Tacoma International (KSEA) airport could have been avoided had the hold line been depicted on the airport diagram.

John Moore, Jeppesen, commented that runway safety information tends to get buried in the lengthy Hot Spot descriptions. He suggested that the length of the Hot Spot descriptions should be addressed as well. Valerie commented that Runway Safety is the authoritative source for Hot Spot description, so after standardization, they are published as submitted. She agreed that some of the descriptions are fairly lengthy and committed to sharing this input with Runway Safety.

Lev Prichard, ASA, stated that in his experience pilots essentially ignore hot spots on charts and do not even read the textual descriptions. He voiced that the pilot is focused on the taxi clearance given by ATC and noting the clearance on an airport diagram. Lev added this is especially the case at complex airports like KBOS, KORD, KSFO, etc.

Ted Thompson, Jeppesen, commented that it appeared to him that this is a unique problem associated with just KSEA. If that is the case, it needs to be handled as unique problem. Ted advised that the FAA not devise a charting specification for just one airport, but a universal specification that can be applied to other airports.

Valerie asked the audience if there was general support for collocating non-typical locations of runway hold lines with a Hot Spot when requested by Runway Safety. There was general support for the idea. Valerie also
reiterated her commitment to reach out to the proponent of this RD, Chris Diggons, regarding the lengthiness of Hot Spot descriptions and the comments regarding the fact that pilots are not reading them.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AVJ-344, to draft an IACC Recommendation Document to remove the prohibition against the charting of non-typical runway hold lines, charted by special request, in conjunction with a Hot Spot on airport diagrams.

**ACTION:** Valerie Watson, AJV-344, to reach out to Chris Diggons, AJI-144, regarding the negative feedback received at the ACF regarding the lengthiness of the Hot Spot descriptions.

**14-02-287 Update Terminal Enroute Control (TEC) Route Descriptions to use Waypoints**

Valerie Watson, AJV-344, briefed the issue on behalf of the submitter, John Collins, GA Pilot. The proponent recommends that the TEC route descriptions replace the radial/radial and radial/distance notations with 5-letter waypoint names in order to simplify the descriptions and enable them to be loaded into an FMS.

Bob Carlson, AJV-3721, responded that the TEC routes are generated from the Command Center, who serves as the authoritative source. The AFD team takes the information and publishes it exactly as it is received. It was agreed that this recommendation is not a charting issue. Bob stated that he has sent the point of contact information for the Control Center to the proponent of the RD so that he can communicate with them directly.

Rich Boll, NBAA, commented that there is merit to this recommendation. There is a need to modernize the TEC route descriptions from the legacy VOR Radial NAS environment to the RNAV NAS environment.

Bob Lamond, NBAA, added that this is part of ongoing work being done with the FAA Command Center in conjunction with the National Route Strategy.

Ted Thompson, Jeppesen, echoed the comments from NBAA that there is a need to modernize the TEC Routes so that they are in step with the waypoints and fixes used on current charts. He also stated that this simplification should also be applied to IFR preferred routes.

**STATUS: CLOSED**

**14-02-288 Airport Reference Codes in the AFD**

Bob Bonanni, AAS-100, briefed the issue. Bob described Airport Reference Codes and how they are utilized. These codes reflect the proper aircraft design groups’ utilization for existing runway to taxiway separations. The airport reference codes make up a new element of the operational procedures at an airport for the airport operator and ATC to utilize. The airport reference codes are not meant to be restrictive and are a tool to allow users to quickly assess runway suitability. Bob proposed that these codes appear in the AFD.
Khallil Kodsi, AAS-100, reviewed the operating parameters associated with the airport reference codes. The airport reference codes have been published and made available via Advisory Circular 150/5300-13A. The responsibility for the use of these codes falls upon airport management.

Lynette Jamison, AJR-B1, inquired as to how many airports would be impacted by the airport reference codes. Khallil responded that currently over 3,500 airports have received the codes and more are being added.

Discussion shifted to how pilots were expected to utilize the codes. Rich Boll, NBAA asked several operational questions from a pilot perspective. He inquired as to whom at an airport would be alerting aircraft that they cannot taxi or depart from an airport based on these codes. Are these codes really for the pilot? Why should they be published in the AFD?

Bob replied that the codes would provide reference information to the pilots.

Jolda Reed, AJV-W21, voiced that she believes that Airport Reference Codes would be an extremely useful tool for Terminal ATC, but probably of limited use for pilots.

The consensus of the ACF was that Airport Reference Codes would be of little use to pilots, would likely create user confusion if published in the AFDs and therefore should not be.

STATUS: CLOSED
VII. Closing Remarks

Valerie Watson, AJV-344, thanked the attendees for their participation and voiced special appreciation to Steve VanCamp and Pragmatics, Inc. for hosting the ACF.

Notices of the official minutes will be announced via email and provided via the Internet. The two website addresses (CG and IPG) are provided below:

- Charting Group – http://www.faa.gov/air_traffic/flight_info/aeronav/acf/

Please note the attached Office of Primary Responsibility (OPR) listing for action items. It is requested that all OPRs be prepared to provide verbal input at the next Forum or provide the Chair, Valerie Watson (with an information copy to Alex Rushton, Contract Support), a written status update. These status reports will be used to compile the minutes of the meeting and will serve as a documented statement of your presentation.

Appreciation to Jennifer Hendi, AJV-344, for presentation assistance for both the CG and IPG portions of the forum, conference support pre- and post-conference, and to Alex Rushton, Contract Support to AJV-344, for taking the minutes and conference support pre- and post-conference.

VIII. Next Meeting

ACF 15-01 is scheduled to be held on April 28-30, 2015, hosted by Pragmatics, Inc. in Reston, VA.

ACF 15-02 is scheduled to be held on October 27-29, 2015, hosted by Lockheed Martin at their Global Vision Center in Crystal City, VA.

ACF 16-01 is scheduled to be held on April 26-28, 2016, location and host to be determined.

ACF 16-02 is scheduled to be held on October 25-27, 2016, located and host to be determined.

IX. Attachments

a. 14-02 Attendee Roster
b. Office of Primary Responsibility (OPR)