

**GOVERNMENT / INDUSTRY AERONAUTICAL CHARTING FORUM  
CHARTING GROUP  
MEETING 13-02  
Air Line Pilots Association (ALPA) – Reston Facility  
October 29-31, 2013**

**I. Opening Remarks**

The Aeronautical Charting Forum (ACF) was hosted by the Air Line Pilots Association (ALPA) at their Headquarters in Herndon, VA. Valerie Watson, AJV-3, opened the forum on Wednesday, October 30. Valerie acknowledged the ACF Co-chair Tom Schneider, AFS-420, who presided over the Instrument Procedures Group (IPG) portion of the Forum and expressed appreciation to ALPA for hosting the 13-02 ACF, giving particular thanks to Steve Serur.

**II. Review of Minutes from Last Meeting**

The minutes from the 13-01 ACF meeting were distributed electronically last spring via the AeroNav ACF website: <http://aeronav.faa.gov/index.asp?xml=aeronav/acf>. The minutes were accepted as submitted with no changes or corrections.

**III. Agenda Approval**

The agenda for the 13-02 meeting was accepted as presented, with the addition of the TAPP (Transport Aircraft Performance Planning) briefing by Bruce McGray, AFS-410.

#### IV. Presentations, ACF Working Group Reports and ACF Project Reports

##### A. ICAO/IFPP Committee Report

Mike Webb, AFS-420 and U.S. Member of the ICAO Instrument Flight Procedures Panel (IFPP), [provided an update](#) on actions taken since the last ACF. Mike commented that both the sequestration and the closing of the Government in October impacted activities to the extent that he was unable to attend the October ICAO meeting.

Mike acknowledged the efforts and support received from John Moore, Jeppesen, during the Government closure, stating that John was able to attend the October ICAO meeting as an advisor.

Mike briefed that an ICAO state letter regarding chart naming was released in the Spring of 2013. Mike reviewed the current work being done by the ICAO Integration Work Group (IWG), stating that unfortunately, little progress was made due to the lack of the U.S. participation

Mike reviewed details of the contents of the ICAO state letter, highlighting those parts that the U.S. was in agreement or disagreement with. Mike stated that the U.S. disagreed with changing RNAV to RNP in procedure titles. The U.S. does not see significant benefit to changing the name and is not in support of the large financial impact associated with such a change. Mike suggested that it is possible the Europeans are also not in support of this aspect of the proposed name changes. The ICAO response to U.S. comments is pending.

Mike commented that 2022 is the proposed date for implementation of the PBN charting items.

Mike commented that the next meeting of the Performance Based Operations Aviation Rulemaking Committee (PARC) PBN Charting Action Team is scheduled in November 2013.

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

##### B. Declared Distances

Rich Boll, NBAA, reviewed the history of the topic and the associated Recommendation Documents (RDs) 07-01-192 and 09-01-215. Rich [gave a presentation](#) that reviewed all tasks completed since the introduction of the original issues and stated that since the last ACF, the Declared Distances Workgroup (DDWG) met and collectively decided they are satisfied with the actions that have been taken and agree to close both RDs and the briefing topic. The presentation also pertains to RD 07-01-192 and 09-01-215.

**STATUS: CLOSED**

##### C. Airport Surveying – GIS Program

Dr. Michael McNerney, AAS-100, [provided an update](#) on the progress made within the Airport Surveying-GIS program. Since the last ACF, the cloud server is up and running, work is advancing on an airspace evaluation tool, data continues to be gathered and problems with the digital airport GIS system, which is not yet fully operational, are being addressed.

Bob Lamond, NBAA, inquired about accessibility to digital airport GIS data. Dr. McNerney replied that currently, only airports providing data, the FAA and other U.S. Government agencies, have access to the data. Bob asked when this access would be expanded to all stakeholders and suggested that 'Read Only' access to data be granted to a wider audience. "Read Only" ability would provide access to the wealth of data housed in the system, but would prevent its corruption.

Dr. McNerney explained that his office is working with the AIM offices to provide access; however, an agreement is not yet in place. Chris Criswell, AJV-22, added that the AIM office is working with AAS-100 on a process to validate the data prior to its release, but that these processes are not yet in place. Until such time, AIM does not plan to disseminate the digital airport GIS data.

Bob referred to an open transparency document signed a year ago, as he reiterated his request for access to the data.

Valerie Watson, AJV-3, inquired as to whether there could be an ability to add some type of caveat or metadata to the data that would indicate whether it has been verified or not. She suggested this might enable the release of the data, but with the clear stipulation that it has not been verified or sanctioned by the FAA.

Bob supported Valerie's idea and added that the data, even if not fully verified by the FAA would be extremely useful.

Dr. McNerney replied that because many airports do not wish their data disseminated, the Airports GIS office has to secure permissions to be able to release information.

Chris suggested that there be a means to allow industry to use and leverage the data with a caveat that the data is not official. It was emphasized that Airport GIS collects the data; however, it is the AIM office that is the public point of contact and distribution point for aeronautical data.

Dr. McNerney reviewed the data flow of information submitted to Airports GIS. He stated that the aerial photography data is reviewable and eventually the data would be uploaded and available. Work is ongoing regarding the importing of legacy airport data information into the system from NASR.

Dr. McNerney next commented on the work being done on the Airport 20:1 Penetration Visualization Tool that AAS-100 is developing to verify and identify 20:1 penetrations. AAS-100 is working on procedures and processes for obtaining access to such information, which they hope to have finalized by November 2013.

John Moore, Jeppesen, inquired as to whom was leading the development work on the 20:1 Tool. Dr. McNerney replied that the work is being carried out in-house by AAS-100, and involves the collection of data stored within ESRI, the Digital Obstacle Database, the Airport GIS database and utilization of Google Earth.

Gary Fiske, AJV-8, inquired as to whether a list of airports with current 20:1 penetrations could be obtained. Dr. McNerney replied that the work remains in progress and that a partial listing, including only those with verified penetrations, could be obtained at this time.

Dr. McNerney reviewed work on [AC 150/5300-18B, Change 1](#), which is due out soon. He demonstrated the Draw and Measure tool that is part of the eALP toolbox.

Dr. McNerney discussed future collection of data, including a proposed grant that will fund collection of data to 1 foot elevation degree of precision and collection of aerial photography. He stated that AAS-100 has a goal for the provision of full data for 825 airports by the end of FY2018.

In the coming years, there will be a migration of airport data from NASR to Airports GIS. It is anticipated that all existing data on airport runways will be migrated into the test database in CY 2014. Dr. McNerney stated that in 2014, the Airports GIS database will be the authoritative source for airport data for all subscribers.

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

#### D. Discontinuation of VOR Services

Rowena Mendez, AJM-324, [provided an update](#) on the progress made towards the transition of the NAS from a VOR-based to a satellite-based system. Rowena reviewed how the current VOR-based system operates, citing 966 FAA owned and operated VORs, most of which are very old and would require well over \$1 Billion dollars to replace and modernize. The VOR Minimum Operational Network (MON) is projected to reduce the number of VORs by about 50 percent, but will continue to enable navigation of the NAS via VOR should GPS outages occur.

Rowena stated that since the last ACF briefing, the initial criteria and list of VORs to be shutdown has been drafted and has been given to the Department of Defense and RTCA. AJM-324 is awaiting feedback. She described that analysis is ongoing to evaluate maintenance work necessary for potentially remaining VORs as well as extension of the service volume of selected VORs from 40 NM to 77 NM. She mentioned that flight check validation of expanded service volumes would need to occur.

Gary Fiske, AJV-8, expressed concern that the new service volume of 77 NM could vary by altitude. Rowena stated that the base altitude is set to be established for 5,000 feet, but that discussions were still ongoing.

Lynette Jamison, AJR-B1, asked if the VORs designated to be part of the VOR MON would be restored to full operational status. Rowena responded yes, that is the intention.

Valerie Watson, AJV-3, inquired as to whether a significant proliferation of standalone DMEs is still part of the plan for the VOR MON. Rowena replied that an analysis is being done on the potential use of standalone DMEs.

Steve Van Camp, iBIZ Contract Support to AFS-420, inquired as to whether Congress was fully informed regarding the decommissioning of VORs. Rowena stated that her office is doing everything to insure that the lines of communication are kept open and that a number of inquiries from various Congressional offices regarding the decommissioning of specific VORs have been received and are being dealt with.

Discussion with the audience focused on the potential impact of the decommissioning of VORs on various aircraft operations and procedures. Proponents from airlines mentioned and discussed the potential impact on engine out procedures. Stakeholders expressed wide concern that they be provided the opportunity to comment and engage in discussions regarding the MON initiative. Rowena stated that comment periods would be provided before action takes place.

**ACTION:** Rowena Mendez, AJM-324, will provide an update at the next ACF.

#### E. Los Angeles Terminal Navigation Chart

Rick Fecht, AJV-321, reviewed the history of the LA Terminal Navigational Chart. To date, no decision has been made as to whether to put the Terminal Navigational Chart concept for LA into full production.

Melissa McCaffrey, AOPA, expressed that the California group that had initially requested the LA Chart was eager to see the chart go into production and that feedback from the General Aviation (GA) community as a whole was very positive.

Chris Criswell, AJV-22, inquired as to whether there had been any discussions about moving forward with the human factors evaluation of the new chart, specifically with regards to use of the chart at night (i.e., red light cockpit environment).

Rick commented that because there has not been a firm decision to move the chart into production, there have been no discussions regarding a formal human factors evaluation.

John Moore, Jeppesen, commented that even though no actions are currently being taken to move forward with the new chart, a human factors analysis could be of huge value and the outcome of the analysis could potentially contribute to the decision on whether AeroNav Products should ultimately publish the chart.

Valerie Watson, AJV-3, commented that once there has been a decision made on the production of the Terminal Navigation Chart and if it impacts any existing chart products (i.e., Helicopter, Terminal Area Chart, etc.), this briefing topic would be reopened for discussion and input. Given the current financial environment and lack of a decision to implement the new chart, it was moved that this topic would be closed.

**STATUS: CLOSED**

#### **F. QR (Quick Response) Codes on FAA Charts/Supplements**

Valerie Watson, AJV-3, announced that QR codes have been applied to all AeroNav product charts as of the 17 October 2013 charting cycle.

**STATUS: CLOSED**

#### **G. Route Planning Briefing**

James Sheridan, AJV-14, [briefed the topic](#). James stated that the national routes strategy plan is integral to the implementation of the Minimum Operational Network (MON). The plan involves research, both operational and financial, into what changes in the U.S. airway system can and should take place in concert with implementation of the MON.

James stated that it is recognized that the need for both conventional and GPS routes/airways will remain as the FAA transitions from today's structure to NextGen.

James briefed the activities being undertaken by his office. Work includes analysis of the current conventional NAS route system (Jet Routes and Victor Airways), with a focus on identification of what airways/routes could be eliminated, be more fully optimized, or converted to RNAV Routes.

James stated that users of the NAS will see a proliferation of Q (High Altitude RNAV Routes) and T (Low Altitude RNAV Routes) routes, as well as a decrease in the numbers of conventional (Jet Routes & Victor Airways) routes in the coming years. His office is working on how to best institute this change with as little disruption to the NAS as possible.

James described that an assessment of actual route/airway usage is underway using a tool developed by MITRE specifically for that purpose. With the use of this tool, it will be determined what routes (or segments of routes) are most heavily used, so that future airway development determinations can be made.

James then then focused his discussion on the low altitude enroute environment and described that more T Routes will be established. James added that his office was planning, as a first step, to overlay existing Victor Airways with T Routes. Such routes would initially coexist and should the VOR airway be impacted by VOR decommissionings, the T Route would be in place to replace the Victor airway. Taking such an approach is both cost and time effective, allowing a rapid transition to the MON.

James added that his office was looking to roll out 100 T-Routes through the help of the MITRE tool. Existing T-Routes were developed to transition Class B Airspace, but the new routes would provide

overlay operational coverage of the most critical Victor Airways (over their entire length) and would enable continued navigation through the existing NAS.

Bill Hammett, ISI Pragmatics Contract Support to AFS-420, inquired as to whether the Minimum Enroute Altitudes (MEA) for the new T-Routes are planned to be based on the existing Victor Airway MEAs. Bill added that there is a potential for lower MEAs for RNAV routes. James acknowledged this and replied that initially, the conventional MEAs would be retained. Later, as time and money allows, the RNAV MEAs of the T-Routes could be assessed and published.

John Collins, GA Pilot, asked if naming conventions for waypoints replacing either decommissioned NAVAIDs or conventional fixes have been established. James replied that those details were still being worked out.

James commented that at present, there are 650 Victor Airways and 450 Jet Routes in existence, but emphasized that this does not mean that there will be 650 T and 450 Q Routes.

Valerie Watson, AJV-3, asked if determination of the 100 T-Routes proposed for roll out would be based purely on usage. James replied that because the most heavily used routes are along the east coast, his offices will be looking at both geographic coverage and usage to insure that all areas of the NAS are accommodated. James emphasized that publication of these 100 routes does not represent the final solution, but would provide guidance for the initial thrust of the project.

Steve VanCamp, iBIZ Contract Support to AFS-420, asked as to whether the focus would be more on route segments versus complete routes. He pointed out that certain airway segments are much more heavily used than others and inquired whether segment or entire routes would be overlain. James replied that it was the intent to look at the whole route, not just a segment. Depending on budgeting, there may be cases for stretching a route.

**ACTION:** James Sheridan, AJV-14, will provide an update at the next ACF.

#### **H. TAPP (Transport Aircraft Performance Planning) Presentation**

Bruce McGray, AFS-410, [briefed](#) the audience on the formation and purpose of the TAPP Working Group, a Joint FAA/Industry group which was created to improve understanding of transport aircraft performance concepts and requirements. Bruce commented on how the materials for the TAPP were developed and the stressed importance of the materials. A recent product of the group is a video that exists in the public domain and is now part of AMA-230 training. If the TAPP engages in activity that involves charting issues, Bruce will bring them to the group for discussion.

**STATUS: CLOSED**

## V. Outstanding Charting Topics

### A. 05-02-179 Attention All Users Page (AAUP) for Simultaneous, Parallel RNAV Departures & PRM Approaches

Kel Christianson, AFS-470, provided an update on progress made since the last ACF. Kel reported that RNAV Departure AAUP references have been removed from FAA Order 8260.46 and that [draft FAA Order 8400.AAUP](#), which will cover both arrivals and departures, has been created. The new order formalizes and identifies responsibilities within the FAA for creation, maintenance and publication of AAUPs. Kel reported that the recent government shut down impacted the scheduling the coordination of the draft AAUP Order, which should soon be in formal coordination.

**STATUS: OPEN**

**ACTION:** Kel Christianson, AFS-470, to report on progress of the publishing of the AAUP Order.

### B. 07-01-192 Usable Runway Lengths for Takeoff and Landing

See the Declared Distances Work Group Report in paragraph IV, B.

**STATUS: CLOSED**

### C. 07-01-195 Charting & AFD Information Regarding Class E Surface Areas

Paul Gallant, AJV-11, stated that because of resource issues within his office, updates to the AIM and FAA Order JO 7400.2 have been put on hold due to other priorities. Paul commented that the Airspace chapter (Chapter 3) of the AIM is in the process of a total rewrite and is 50% completed. Paul acknowledged that the 7400.2 needs an extensive rewrite as well and that his office is working to prioritize updates of both the 7400.2 and AIM, Chapter 3.

**STATUS: OPEN**

**ACTION:** Paul Gallant, AJV-11, will provide an update at the next ACF.

### D. 09-01-213 TERPS Change 21 Circling Approaches

Valerie Watson, AJV-3, [briefed the topic](#). Since the last ACF, an expanded explanatory Chart Notice was published on the AeroNav Products website and paragraph [5-4-20 Approach Landing Minimums](#) was added to the AIM by Bruce McGray, AFS-410.

**STATUS: CLOSED**

### E. 09-01-214 Low Visibility Operations/SMGCS (LVO/SMGCS) Taxi Charts

*(Previously listed as 09-01-214 SMGCS Taxi Charts)*

Bruce McGray, AFS-410, [briefed the topic](#), stating that coordination within ICAO regarding LVO/SMGCS processes and harmonization continues.

The online testing of LVO/SMGCS symbology for charts has been completed and AFS-410 will soon be able to share the results.

Bruce commented that work continues with AIM and the Airports GIS office to establish a standard process for SMGCS source data collection, validation, maintenance and dissemination. Advancement in the LVO/SMGCS arena has been impacted both by sequestration and the recent government closure.

**STATUS: OPEN**

**ACTION:** Bruce McGray, AFS-410, will provide an update at next ACF.

**F. 09-01-215 Reporting and Depiction of Stopways**

See the Declared Distances Working Group report in paragraph IV, B.

**STATUS: CLOSED**

**G. 09-02-222 Charting of VGSI**

Valerie Watson, AJV-3, briefed the topic, stating that the requested clarification to FAA Order 8260 .19 that numerical values for VGSI Angle and TCH not be annotated on the instrument flight procedure source document(s) is satisfactory in the draft version of the Order and that this issue may be closed.

**STATUS: CLOSED**

**H. 10-02-233 Removal of (ATC) Crossing Restrictions from SIDs and STARs**

Valerie Watson, AJV-3, briefed the topic, stating that there are no ATC crossing restrictions on STARs and that there are only approximately 17 remaining on Departures. She announced that the AeroNav Products Terminal Team has committed to amending the source documents for these Departures and that all ATC crossing restrictions will be deleted from the charts for the February 2014 charting cycle.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-3, to report on completion of the removal of ATC crossing restrictions from Departures.

**I. 11-01-238 Aerobatic Area Symbols on VFR Sectional Charts**

Valerie Watson, AJV-3, reviewed the history of the topic. Valerie emphasized that what is needed by the charting offices is an established source for aerobatic areas that warrant charting. Until it is known where these areas are located, what geographic areas they comprise, when and how long they have been in operation, and which of these are required for charting, a charting/publication strategy cannot be investigated.

Chris Criswell, AJV-22, stated that since that last ACF, he has been working to identify who within the FAA is or should be the authorized source for aerobatic areas. He believes that AFS-800 is the most appropriate authorized source. Once the authorized source is formally identified and a source flow is established, a publication (graphic or textual) strategy can be developed.

Rick Fecht, AJV-321, commented that in his work on this issue, there appeared to be a lack of standardized criteria regarding which are currently published as a Notice in the Airport Facility Directory

(AFD) and/or which are indicated by a note on a Visual chart. He mentioned that many of these areas are only operational on a temporary basis via waiver and are hard to track down.

John Moore, Jeppesen, suggested that perhaps the publication criteria established for Parachute Jump Areas could be used as a basis for establishing criteria for Aerobatic Areas. The NASR database contains Parachute Jumping Areas with an indication as to which should be charted.

Valerie commented that this issue is of potential safety concern and that the charting offices should not be the ones to establish charting criteria; as with Parachute Jumping Areas, the charting offices need to be told which areas to publish and they, in turn will develop the charting specifications. She agreed with Chris that Flight Standards should be the office establishing publication criteria.

Chris reiterated that the office responsible for submitting the information for entry into NASR must be established. Valerie originally agreed to contact AFS-800 and attempt to work with them to obtain the information which is deemed necessary for charting/publication. After the meeting Chris Criswell accepted this I.O.U.

**STATUS: OPEN**

**ACTION:** Chris Criswell, AJV-22, will get in touch with the Service Area representatives and generate a list of current Aerobatic Areas that exist within the NAS.

**ACTION:** Chris Criswell, AJV-22, will work with AFS-800 to establish publication/charting criteria for Aerobatic Areas.

**J. 12-01-248 NEXTGEN Procedure for the Naming of Aeronautical Navigations Aids**

Valerie Watson, AJV-3, briefed the issue. Brad Rush, AJV-3, had reported at the last ACF that a letter had been sent to AJV-1 asking whether they could support a new naming convention for waypoints/fixes located in positions formerly occupied by decommissioned NAVAIDs. While a formal written response has yet to be received, AJV-1 identified Gary Norek, Manager, Airspace Policy and ATC Procedures Group, AJV-11, as a point of contact. Gary Norek in turn deferred the decision to AJV-2.

Chris Criswell, AJV-22, reported that AJV-2 does not support the creation of a unique naming convention for waypoints/fixes based on their co-location with a decommissioned NAVAID. AJV-2 does support the current practice of retiring a NAVAID name and location identifier when it is decommissioned. If a waypoint or fix is required at this location, a 5-letter pronounceable name is created for that waypoint/fix. This is consistent with ICAO naming conventions.

The discussion next addressed the subject of stand-alone DME facilities remaining after the VOR portion of a VOR/DME is decommissioned. It was agreed that in these cases, the stand-alone DME should retain the name and 3-character location identifier of the VOR/DME.

Brad stated that he would contact the original proponents of this proposal at Cleveland Center to inform them of the conclusion reached by the ACF.

**STATUS: CLOSED**

**K. 13-01-259 Airspace Changes Effective Prior to Chart Revision**

Valerie Watson, AJV-3, briefed the issue. Bob Carlson, AJV-322, stated that currently there is no assigned responsibility within the AeroNav Products organization to create graphics that depict airspace (Class Airspace, MOA, SUA, etc.) changes that occur between VFR chart cycles. Under the current fiscal/staffing

environment, AeroNav Products is not able to allocate resources to generate the special chart depictions requested by this proposal and that the textual descriptions in the Chart Bulletin portion of the Airport Facility Directories will have to suffice for the present.

Paul Gallant, AJV-11, commented that his department attempts, whenever possible, to coordinate airspace changes to Visual Charting cycles, but that this cannot always be done.

Some interim airspace changes are published in the Notices to Airmen Publication (NTAP), but Melissa McCaffrey, AOPA, stated that pilots are not consulting the NTAP.

Rick Fecht, AJV-321, stated that AeroNav Products is currently unable to provide interim graphics, but Visual Charts will eventually be produced on a 56 day chart production cycle. No date has been set for implementation of the shortened charting cycle, but when it occurs, it will satisfy this request.

**STATUS: CLOSED**

**L. 13-01-260 Inclusion of Metering Frequency, 133.57, to MSP Airport Diagram – FAA AL 264**

Valerie Watson, AJV-3, briefed the topic and reviewed that pilots are informed when a Metering Frequency is in use via ATIS and at present, the FAA does not publish metering frequencies on Airport Diagrams.

Michael Poisson, AJV-8, emphasized that Minneapolis (MSP) wants their Metering Frequency published. Michael stated that the frequency is always in use and it would be extremely helpful to publish it on the airport diagram (it is currently published in the airport entry of the Airport Facility Directory).

Chris Criswell, AJV-22, commented that the metering frequencies are maintained in NASR.

John Moore, Jeppesen, stated that Jeppesen publishes metering frequencies on their instrument approach and airport charts.

A general discussion ensued, the conclusion of which was a consensus that the Metering Frequency should be included on FAA Airport Diagrams.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-3, will draft a Requirement Document (RD) for IACC consideration and report at next ACF.

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

Valerie Watson, AJV-3, briefed the topic. Valerie stated AeroNav Products' position is that because GBT locations are believed to be a pre-flight data element, adding all the GBT locations to Visual charts would provide little in-flight usefulness and would provide significant clutter.

Melissa McCaffrey, AOPA, stated that since the ACF she had spoken with the AOPA member's resident in Alaska and that they expressed that such information would only be of use to a pilot during pre-flight planning. The Alaskan pilots agreed that adding all the GBT locations to the VFR charts would add more clutter and was of very little value while in flight. Melissa referenced the information provided in the Supplement Alaska, which depicts high and low altitude ADS-B coverage. Melissa inquired if there was a possibility to show ADS-B coverage at 5000 and 10,000 feet MSL.

Bob Carlson, AJV-322, commented that the graphics depicting high and low altitude ADS-B coverage in the Supplement Alaska are provided by either the Alaska or Western Region Offices. The images received are camera ready and require no additional resources to incorporate them into the Supplement. If these sources submit 5000 and 10,000 foot MSL ADS-B graphics, they could certainly be included in the Supplement Alaska.

Lynette Jamison, AJR-B1, stated that the NOTAM office does not publish ADS-B outage NOTAMS. Currently, ADS-B antennas do not have identifiers. Lynette stated that, in the future, she could see the value of the dissemination of information regarding the status of the ADS-B system, such as an outage covering three or more states, for instance.

John Collins, GA Pilot, provided a counter argument to the notion that ADS-B tower information was not needed on the charts and cited that a pilot might revise his course of flight depending on the position and availability of an ADS-B location. John gave a detailed presentation of how ADS-B towers could potentially be charted, [illustrated how he uses ADS-B](#) and how he has gathered the information.

Bruce McGray, AFS-410, stated that when encountering problems in flight, it would be useful to a pilot to know where coverage is available. A discussion followed during which most pilots in the room stated that in an emergency situation, they would be looking for a landing location and not searching for ADS-B locations.

Kevin Bridges, AIR-130, stated that the charting of an ADS-B antenna does not indicate anything more than just a location; it does not necessarily indicate coverage. He stressed that what a pilot wants is a prediction of ADS-B coverage. In his opinion, adding the antenna locations on a chart would not accomplish that goal. Kevin stressed that ADS-B is a surveillance function.

Valerie repeated that the FAA provides an online ADS-B location map that covers the U.S. (new URL - <http://www.faa.gov/nextgen/implementation/>). John Collins stated that he would like this information in list form with the locations cited in latitude/longitude. He stated that he contacted several offices within the FAA and that the FAA "was unwilling to release this information."

Valerie volunteered to contact the ADS-B office and see if release of ADS-B locations could be approved. Chris Criswell, AJV-22, agreed that if released from a sanctioned source, the AIM offices could publish the ADS-B location data. Valerie repeated that AeroNav Products has no plans to chart these locations on their current Visual charts.

Lev Prichard, APA, commented that if the data were available, e-charting third party entities could (and would, if there is truly a desire) provide an overlay within their software to show the location of ADS-B towers and the coverage associated with each tower.

Note: Since the ACF, the ADS-B web underwent a redesign. A [new presentation](#) was generated to help guide interested parties through the redesigned web site.

#### **STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-3, will contact the ADS-B office and attempt to obtain release of ADS-B locations for potential publication.

**ACTION:** Bob Carlson, AJV-322, will contact the Alaska and Western Regional Offices to see if they can or wish to provide additional (or replacement) ADS-B coverage graphics at 5000 and 10,000 foot flight levels.

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

Valerie Watson, AJV-3, reviewed the topic. Chris Criswell, AJV-22, provided an update on actions taken since the last ACF. Chris stated that in discussions with the FAA Office of Airports, AAS-100, the FAA Form 5010 is the source for all traffic pattern altitudes. What appears on the 5010 is the responsibility of the Office of the Airports. Chris stated that NASR ingests the 5010 information, databases it and then disseminates the data as submitted. Chris emphasized that NASR will not edit or adjust data submitted and that to truly fix the issue, the 5010 will need to be altered/modified.

Brad Rush, AJV-3, stated that the last time the [FAA Order 5010.4 Airport Safety Data Program](#), was revised was 1981. Brad added that the Order/Forms only require the airport to identify airports that have nonstandard traffic patterns. There is no requirement in the current order to provide 1000' pattern altitude information.

Valerie stated that apparently the Office of Airports is NOT reporting only nonstandard pattern altitudes, as there are numerous instances of the recommended 1000' traffic pattern altitudes in NASR and these values presumably came from the 5010 source.

A discussion followed, with one solution being, that since NASR databases some standard pattern altitudes, but not all, the Airport Facility Directory team could cull the 1000' traffic pattern altitudes out manually.

Bob Carlson, AJV-322, commented that such an approach would require the AFD team to vet all data published in the AFD, thereby losing the production efficiency gains made by the recent automation of the publication.

Rich Boll, NBAA, reminded the audience that while GA aircraft generally fly a standard pattern altitude of 1000' above ground level (AGL), that altitude is primarily for single engine, piston aircraft. Twin engine and turbine powered aircraft have a standard pattern altitude of 1500' AGL, as referenced in the [AIM – Paragraph 4-3-3](#). Rich inquired as to how those other standard altitudes are handled in the 5010. Rich added that if the data is going to be captured that “we” (i.e. the General Aviation community) will want to see them as separate attributes in the AFD and to not have the information buried within the remarks section of an airport entry.

John Collins, GA Pilot, inquired as why the AFD team couldn't put something in the AFD that states that standard GA recommended altitude is 1000'.

Valerie responded by stating that this type of information is referenced in the AIM and that the AFD is not the place where pilots should be looking for such guidance material.

Chris reemphasized that the big issue is the data itself and the need to have the right data entered into the system.

The consensus of attendees was that ALL traffic pattern altitudes should be collected by the Office of Airports, databased in NASR and published in the AFD. Support for this decision was strengthened in light of the fact that the “recommended” or “nonstandard” altitude differs depending on aircraft type.

### **STATUS: OPEN**

**ACTION:** Chris Criswell, AJV-22, will work with Office of Airports to collect ALL traffic pattern altitudes. Chris will report at the next ACF.

**O. 13-01-263 Airport Facility Directory (AFD) Airport Manager Contact Information**

Bob Carlson, AJV-322, reviewed the topic. Bob stated that his team is able to support publication of Airport Manager contact phone numbers in the Airport Facility Directories. He [presented a sample airport entry](#) with the information added. He commented that the phone numbers of airport managers are databased within NASR, so the solution should not be difficult to implement.

**STATUS: OPEN**

**ACTION:** Bob Carlson, AJV-322, to provide an update on the inclusion of Airport Manager Contact information in the AFD at next ACF.

**P. 13-01-264 Flight Path Angle (FPA) on STAR Charts with Published Vertical Profiles**

Kel Christianson, AFS-470, reviewed the topic. Kel stated that the PARC VNAV Action Team would have an interim product/guidance out in January 2014.

Al Herndon, MITRE, reported that MITRE is conducting research to determine whether current avionics can support depiction of a FPA. A discussion ensued during which it was agreed that if the angle is only depicted on charts, but is not contained in the FMS, it may be of limited value.

Rich Boll, NBAA, commented that the Business Aviation community has not been included in the discussions and studies, but that many of the same FMS systems that are utilized by the regional airlines are found in business aircraft as well. Rich stated that many business aircraft have the ability to depict FPA and wish to see its publication implemented.

Valerie Watson, AJV-3, stated her previous position on behalf of the charting offices that the FPA be clearly listed on the FAA Form 7100-4 arrival procedure source document. She then asked whether there might be different angles for different transitions on a single Arrival. Kel responded that details are still being worked out. Valerie asked whether the angle was to be considered “advisory” or not. If it is to be charted as “advisory”, she would like to see it indicated as such on the source.

Lev Prichard, APA, expressed support for the publication of the advisory flight path angle on charts regardless of other variables. He believes that publication of this information would assist pilots in flying VNAV arrivals much more smoothly and efficiently.

**STATUS: OPEN**

**ACTION:** Kel Christianson, AFS-470, will report on progress made by the PARC VNAV Action Team.

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

Valerie Watson, AJV-3, briefed the issue, [showed the audience prototype depictions](#) of both Departure and Arrival charts with top and bottom altitude notes.

Tom Schneider, AFS-420, stated that language supporting the requirement for top altitudes on departures has been added to the draft version of FAA Order 8260.46, Departure Procedure (DP), and is expected to be final in April 2014.

Jim Arrighi, AJV-141, commented that because FAA Order JO 7100.9, Standard Terminal Arrival (STAR) Program and Procedures, was just updated and published in September, it would be some time before

the bottom altitude provision would be accommodated (2014 – 2015). He stated that bottom altitudes on STARs would be tied to different runway transitions, not fixes or waypoints.

Based on the fact that the Departure documentation will be released in April and there is no anticipated date for the Arrivals, Valerie stated she would draft an IACC specification change addressing only top altitudes on Departures.

Lev Prichard, APA, expressed a desire to see the top/bottom altitude information appear in a consistent location on the charts, as much as possible. Valerie agreed and stated that part of the RD would serve to establish a standard preferred location, likely the upper right hand corner of the planview.

**STATUS: OPEN**

**ACTION:** Valerie Watson, AJV-3, to draft an IACC Requirement Document for the publishing of top altitudes for Departures.

**ACTION:** Tom Schneider, AFS-420, to provide confirmation of publication of FAA Order 8260.46E to accommodate top altitudes on DPs.

**ACTION:** Jim Arrighi, AJV-141, to provide an update on progress made on modifying/updating the FAA Order JO 7100.9 to accommodate bottom altitudes on STARs.

**R. 13-01-267 Addition of ATC Radar Telephone Numbers in FAA AFD**

Valerie Watson, AJV-3, reviewed the topic. Michael Poisson, AJV-8, stated that some Air Traffic facilities publish or make available their phone numbers while others do not. At present, Michael reiterated his position from last ACF that he believes these phone numbers should not be published in the Airport Facility Directory (AFD). Valerie asked if this was a formal response from Terminal ATC, Michael conceded it was not, but that he would seek such a response.

It was suggested that only those ATC facilities willing to release phone numbers could submit those numbers for publication in the AFD. Valerie agreed with this, but stated that the numbers need to be submitted by Terminal to AIM for publication in the NFDD and some explanatory text would also need to be drafted by Terminal to explain to users of the AFD how the numbers may be used.

Rich Boll, NBAA, expressed an interest in working with ATC to discuss the establishment of an agreement to publish ATC phone numbers. He feels strongly that the numbers would be extremely useful and would like to work with ATC to expedite matters. Michael agreed to work with Rich and put him into contact with individuals within Air Traffic.

**STATUS: OPEN**

**ACTION:** Michael Poisson, AJV-8, and Rich Boll, NBAA, will work with ATC to discuss the issue.

**ACTION:** Michael Poisson, AJV-8, will secure a consolidated official Terminal ATC response and report at the next ACF.

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

Valerie Watson, AJV-3, reviewed the topic. Michael Poisson, AJV-8, stated that he had no update and was as yet unable to confirm that necessary revisions to FAA Order JO 7210.3 had been initiated to ensure that Alternate Missed Approach directions are in the hands of the controllers who require them. He will report on progress at next ACF.

Valerie polled the room to determine whether “or as directed by ATC” text was necessary in the Missed Approach text of an approach procedure. She [showed an example](#) of a chart with an alternate missed and pointed out that the boxed, clearly marked “Alternate Missed Approach Fix”, should serve as ample means for a pilot to be aware that an alternate exists.

A clear consensus of ACF attendees supported deletion of the text. Tom Schneider, AFS-420, mentioned that FAA Order 8260.19 is currently out for comment and he suggested that Brad Rush, AJV-3, suggest removal of the “or as directed by ATC” text as an AJV comment. Brad agreed.

**STAUS: OPEN**

**ACTION:** Michael Poisson, AJV-8, will confirm that necessary revisions to FAA Order JO 7210.3 have been made.

**ACTION:** Brad Rush, AJV-3, to submit a comment to remove the “or as directed by ATC” text from the draft FAA Order 8260.19 currently in coordination.

**T. 13-01-269 Conversion from Local Time to Coordinated Universal Time (UTC) on FAA VFR Charting Products**

Valerie Watson, AJV-3, reviewed the topic, reminding the group that the AIM offices have announced that in the near future the NASR database will reflect all times in UTC. At present, all AeroNav Products charts and flight supplements depict UTC except the Visual Charts, which depict local times.

Rick Fecht, AJV-321, stated that upon further consideration, AeroNav Products would like to withdraw the proposal to depict times in UTC on Visual Charts. Users are accustomed to seeing local times on these products, and the conversion from local to UTC caused a myriad of problems with chart notes and tabulated data. As the proposal was initiated by AJV-321, Rick requested that it be withdrawn. There were no objections.

**STATUS: CLOSED**

**U. 13-01-270 Step Down Fix Chart Notes**

Kevin Bridges, AIR-130, commented that since the last ACF the suggestion was submitted to the USIFPP. The USIFPP is still considering the issue and there is nothing yet to report. Kevin will report progress of the issue at the next ACF.

**STATUS: OPEN**

**ACTION:** Kevin Bridges, AIR-130, will monitor progress of the issue through the US IFPP and report at next AFC.

## VI. New Charting Topics

### A. 13-02-271 Removal of VFR Waypoints

Rick Fecht, AJV-321, [briefed the topic](#). Bob Carlson, AJV-322, briefed that a listing of VFR Waypoints exists in both the AFD and on Visual Charts. This is seen as redundant publication of data and is inefficient to maintain. Bob proposed that the AFD listings be removed and the tabulation that currently appears on the VFR Chart products remain. The proposal was agreed upon by a consensus of attendees. Steps will be taken within AeroNav Products to remove the VFR Waypoint listings from the AFD. The RD is closed.

**STATUS: CLOSED**

### B. 13-02-272 Critical DME Note (SIDS and STARS)

Ron Renk, United Airlines, [briefed the issue](#). Ron stated that many RNAV Departures and Arrivals contain a statement regarding NAVAID requirements, such as "[AEX must be operational](#)". This note suggests that the entire facility must be operational, when all that is needed is the DME portion. Ron proposes that the note specify that it is the DME portion of the NAVAID that is critical, i.e., "AEX DME must be operational". He would like to see the guidance revised for both Departures and Arrivals.

Tom Schneider, AFS-420, stated that FAA Order 8260.46D has been revised to support this clarification on Departure notes. Outstanding procedures will be revised accordingly as they are amended.

Brad Rush, AJV-3, will determine the number of Departures that require revision.

Jim Arrighi, AJV-141, agreed with the proposal and stated that he would investigate revisions to FAA Order JO 7100.9 to accommodate the change on Arrivals. He noted that the Order had only recently been updated and was not sure when this change could be incorporated.

John Collins, GA Pilot, inquired as to how pilots are informed of DME outages.

Lynette Jamison, AJR-B1, commented that such outages are transmitted via NOTAM. A discussion followed regarding the specifics of facility outage NOTAMs and whether they are published in a way that makes it clear to the pilot what aspect of a NAVAID is non-operational. Lynette commented that the issue involves both Technical Operations and Flight Check and that it is possible that communication about the critical nature of the DME portion of a NAVAID may need to be enhanced. She will research and report back to the group.

**STATUS: OPEN**

**ACTION:** Jim Arrighi, AJV-141, will research revision to STAR Order.

**ACTION:** Brad Rush, AJV-3, to look at the Terminal production schedule and report on progress on Departure revisions.

**ACTION:** Lynette Jamison, AJR-B1, will research clarity of NAVAID outage NOTAMs.

### C. 13-02-273 Publication of Diverse Vector Areas (DVAs)

Rich Boll, NBAA, briefed the topic. Rich reviewed past DVA progress and voiced a need to see DVA information published in the FAA Terminal Procedure Publication (TPP) and in Jeppesen material. He also stated a need for published guidance for pilots in the AIM and IFP manual, etc.

Ken Wilkes, AJV-352, proposed that the DVA information be placed in the front matter Takeoff section of the FAA TPPs. He [showed a prototype](#) sample based on the latest guidance. He explained that because the DVA information is non-regulatory, it would be promulgated via NFDD and the information could then be added to the Takeoff entry for a given airport. This placement will ensure that users are able to locate the DVA information, as every Obstacle DP (graphic or textual) is referenced in the Takeoff section. He stated that there would be no reference to the DVA on graphic departures.

A discussion followed regarding the specifics of the DVA entry. The sample shown depicted latitude/longitude values, but did not show a climb gradient. The group agreed that specific geographic coordinates are of little use to a pilot. Rich expressed a preference for referral to a runway end point rather than lat/long references. Gary Fiske, AJV-8, emphasized the need for pilots to know the required climb gradients.

Tom Schneider, AFS-420, stated that the sample shown to the group did not represent the latest version that is planned to be incorporated in the guidance. He commented that the coordinates referenced in the sample source document are intended for use on a radar video map (for internal ATC use) and are not intended for charting. He stated that climb gradient requirement WILL be a part of the charted DVA. Tom will provide a more recent sample to Valerie Watson, AJV-3, who will see that it is incorporated into any specification change documents.

Lev Prichard, APA, commented that the information should be as simply presented as possible to insure that it will be correctly interpreted by users.

Gary inquired as to whether there is a need for the DVA to specify vectors. He stated that the fact that a DVA has been established should enable the controller a means to direct the aircraft from takeoff without the publication of specifics other than the climb requirements.

John Frazier, Advanced Aircrew Academy, asked whether DVAs would appear on charts. John Moore, Jeppesen, inquired as to whether DVA's are regulatory. Valerie Watson, AJV-3, replied that DVA's are non-regulatory and that the proposal is NOT to show DVA information on graphic Departures, but only in the textual Takeoff section of the TPP.

Brad noted that by charting DVA's, when a change occurs in the NAS that impacts the DVA, that information can be disseminated via NOTAM.

#### **STATUS: OPEN**

**ACTION:** Tom Schneider, AFS-420, will provide most recent 8260.46D guidance.

**ACTION:** Valerie Watson, AJV-3, will draft a specification revision document to support publication of DVAs in FAA TPPs.

**ACTION:** Bruce McGray, AFS-410, will work with AFS-420 to draft guidance material for insertion into the AIM and IPH.

## VII. Closing Remarks

Valerie Watson, AJV-3, thanked everyone for their participation and voiced special appreciation to Steve Serur and ALPA 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://aeronav.faa.gov/index.asp?xml=aeronav/acf>
- Instrument Procedures Group - [http://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/afs/afs400/afs420/acfig/](http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/acfig/)

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.

Special recognition expressed by Valerie and Brad Rush, AJV-3, on behalf of AJV-3, to Bill Hammett, for his invaluable years of service to the ACF.

Appreciation to Alex Rushton, Contract Support to AJV-3, for recording the Minutes and to Jennifer Hendi, AJV-3, for presentations assistance.

## VIII. Next Meeting

**ACF 14-01** is scheduled to be held on April 29 – May 1, 2014, hosted by MITRE in McLean, VA.

**ACF 14-02** is scheduled to be held on October 28 – 30, 2014, hosted by Innovative Solutions International at Pragmatics, Inc. corporate headquarters in Reston, VA.

ALPA has offered to host **ACF 15-01**.

Please check the [Aeronautical Charting Forum](#) website for the most recent information on future meeting dates and location.

## IX. Attachments

- A. 13-02 Attendee Roster
- B. Office of Primary Responsibility (OPR)