Government/Industry Aeronautical Charting Forum (ACF)
Meeting 16-02
Charting Group
October 26-27, 2016
Pragmatics, Inc.
Reston, VA 20190

CHARTING GROUP MINUTES

I. Opening Remarks

The Aeronautical Charting Forum (ACF) was hosted at Pragmatics, Inc., at their headquarters located in Reston, VA. Valerie Watson, FAA/AJV-553, opened the Charting Group portion of the forum on Wednesday, October 26. Valerie acknowledged ACF Co-chair Tom Schneider, FAA/AFS-420, who presided over the Instrument Procedures Group (IPG) portion of the forum the previous day. Valerie also expressed appreciation to Pragmatics, Inc., with special thanks to Richard Silver and Steve VanCamp, for hosting the 16-02 ACF.

II. Review Minutes of Last Meeting, ACF 16-01

The minutes from ACF 16-01 were distributed electronically last spring via the Aeronautical Information Services (AIS) 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 16-02 meeting was accepted as presented.

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

ICAO/IFPP Committee Report

Mike Webb, FAA/AFS-420 and advisor to the U.S. Delegation to the International Civil Aviation Organization (ICAO) Instrument Flight Procedures Panel (IFPP), provided an update on the ICAO/IFPP Committee activities and an overview of the key topics of the ICAO/IFPP Integration Working Group (IWG), see Slide #3.

Mike briefed revisions to several documents supporting performance based navigation (PBN) implementation that will be submitted to ICAO. Detailed information on the specific documents being revised is included in Mike's presentation slides.

One topic Mike discussed that generated discussion was the charting of conventional NAVAIDs on PBN procedures. Brian Townsend, American Airlines, asked if there is a requirement for the charting of latitude and longitude on waypoints. Mike replied that to date, there is no such requirement. Ted Thompson, Jeppesen, stated that his charting offices are in the process of removing charted coordinates for waypoints on SIDs and STARs and plan to retain coordinates only on NAVAIDs and unnamed turn points. Brian voiced support for this decision.

Valerie Watson, FAA/AJV-553, commented that she sees two items in Mike's discussions that will impact the FAA. The first is in regards to the depiction of NAVAIDs. Currently, RNAV procedures in the U.S. only show the name and identifier of a NAVAID used as a waypoint. Frequency, channel, Morse code and geographic coordinates are not charted for these NAVAIDs and a revision to chart all of this data on RNAV procedures would have a huge impact. Mike stated that this topic was newly introduced, has not yet been decided upon and will continue to evolve. The second issue of concern is in regards to the requirement to depict all obstacle penetrations to the runway visual surface. Valerie stated that the U.S. has filed a difference to ICAO Annex 4 because there are too many obstacle penetrations to show them all on the charts. She explained that early attempts to depict all of these obstacles rendered the runway environment undecipherable at the current chart scale. Valerie stated that the FAA cannot comply with that requirement at this time.

Ted Thompson, Jeppesen, provided some considerations for Mike to share with ICAO regarding chart complexity on SIDs and STARs. He stated that multiple transitions per procedure are common in the U.S. The result is fewer charts, but more congestion and chart complexity. In Europe, only one transition per chart is depicted. The result is less complexity but many more charts. Ted stated that his hope is that, with future of data driven charts, only one transition will be shown and the charts will be simpler.

John Moore, Jeppesen, stated these types of conversations are very helpful when providing U.S. input to ICAO. He recommended the formation of a workgroup that he would chair to talk about these issues. Individuals interested in participating in the ICAO workgroup should contact John Moore (john.moore@jeppesen.com).

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

PARC PBN Procedure Naming and Charting

Mike Webb, FAA/AFS-420, provided an update on the Performance Based Operations Aviation Rulemaking Committee (PARC) Performance Based Navigation (PBN) Procedure Naming Action Team activities during the Instrument Procedures Group portion of the ACF (See IPG Issue Number 13-02-312).

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

Discontinuation of VOR Services

Dale Courtney, FAA/AJW-292, provided an update. Dale stated that the final policy statement was published in the Federal Register in late July. Part of this announcement was the discontinuance candidate list for Phase I (FY2016-2020) and Phase II (FY2021-2025) https://www.federalregister.gov/documents/2016/07/26/2016-17579/provision-of-navigation-services-for-the-next-generation-air-transportation-system-nextgen. Dale stated that five VORs have already been decommissioned and more are scheduled in the coming months.

Brian Townsend, American Airlines, asked how long and complex the process is for a decommissioning. Dale responded that the timeline varies by location depending on the NAS dependence on the particular VOR. He stated that Operation Support Groups reach out to identify the impact of a VOR identified for decommissioning. He said that the time required to coordinate the decommissioning can vary greatly depending on the amount of work required to address existing airways, IAP, DP and STAR procedures, fixes and holding patterns dependent on the VOR.

Valerie Watson, FAA/AJV-553, asked if progress has been made on updates to the Aeronautical Information Manual (AIM) describing the VOR MON changes. Dale shared the new VOR MON language submitted for the VOR section of the AIM to be published next spring. Valerie pointed out some concerns with the AIM entry. First, the language only mentions the charting of MON airports on Low Altitude enroute charts, but should also include High altitude charts. She also thought there should be some clarification that MON airports will not be charted simply because they are MON, but will carry the MON designation if they are already indicated for charting on either the High or Low altitude enroute charts. Valerie also stated that she thought the MON Airport language might be more appropriately placed in the Airports section of the AIM rather than under VOR section. Lastly, Valerie suggested that MON Airport be added as a new definition in the pilot controller glossary. Dale agreed.

Rich Boll, NBAA, asked if MON Airport information is considered preflight information. Dale replied yes. Rich suggested that consideration be given to putting MON language in the preflight planning portion of the AIM. Dale responded that the AIM language he showed the audience will appear in the spring as a starting point. As the program evolves and comments are received, the MON Office will expand and improve upon the content and the location of the information that pilots need both for training and preflight planning.

ACTION: The VOR MON Program Office, FAA/AJM-324, will provide an update the next ACF.

Atlantic Coast Route Project (ACRP)

As no one from the ACRP Program was available to brief, Dan Bryder, FAA/AJV-5211, reviewed the topic and provided background information on the original scope of this project. He then presented a revised implementation plan that was developed based upon comments received at the last ACF and from concerns raised by New York Air Traffic Control Center (ZNY). The revised plan consists of two phases. Phase I will be implemented in June 2017 with the addition of 12 new Q and Y routes within the New York Center area of coverage. The new routes will co-exist with the existing Jet Routes. Phase II will be implemented in October 2017 and will add the Q and Y routes to the remaining Centers and all J-routes will be removed. Dan shared that the original plan to NOTAM the new routes out of use on the effective date has been abandoned and the routes will be fully operational on the effective date published.

Dan added that most of the new routes overlay existing J-routes, so chart clutter will not increase significantly. He stated that the FAA Enroute charting offices feel confident with their ability to handle the work load and to depict the changes clearly.

Rich Boll, NBAA, asked whether the FAA was planning to update the Preferred Route database. Also of concern are possible effects to Tower Enroute Control (TEC) routes, Coded Departure Routes (CDRs), Departure, Arrival and Approach procedures. Dan responded that he has heard these items mentioned by the ACRP group and assumes that those routes/procedures will be updated concurrently, but has only been involved with the IFR Enroute airway changes.

Concerns were raised by the audience regarding this two phase process and a lack of understanding for why this was the chosen path. What is the value of the Phase 1 plan for ZNY? Gary Fisk, FAA/AJV-82, expressed concern over the exception in place for ZNY where Q route segments will appear in the sector in June but will not be connected to a similar type route within surrounding ATC areas until October. He questioned the wisdom of this avenue and the logic behind it.

Dan responded that he would communicate the ACF concerns to Ray Spickler, FAA/AJV-142, but voiced that, in his understanding, the plan has already been agreed upon and set into motion.

Gary also asked whether the rulemaking actions required for removing Jet Routes is being done. Paul Gallant, FAA/AJV-113, reported that his office is responsible for processing and publishing the rulemaking changes, but that no change packages had yet been received.

Ted Thompson, Jeppesen, commented that the revised plan is a vast improvement on the original plan presented at the prior ACF, but voiced concern regarding dependent procedures, especially implications on Terminal Departure and Arrival procedures along the East Coast.

Lt. Col Neindorf, USAF, asked about alternate navigation for military aircraft without GPS equipment. Dan emphasized that not every Jet Route will be eliminated as part of this project and there will still be sufficient conventional routes available for non-GPS equipped aircraft.

NOTAM Briefing

Jerry Torres, FAA/AJR-B11, provided an update on the NOTAM modernization efforts. Jerry stated that the NOTAM Office is still working on full migration of the NOTAM system from an analog based system to a digital system (See Slide #4). Jerry then provided an update on the Take Off and Landing Performance Assessment (TALPA) program (See Slide #5) and an overview of the International Air Transport Association (IATA) workshop (See Slide #6).

Rich Boll, NBAA, inquired about the outcome of discussions regarding obstacle information in NOTAMs. Jerry stated that a 1-800 telephone number is available, but that the NOTAM office continues to encounter challenges making the information available in a one-stop-shop. Rich commented that the process for a pilot to properly access obstruction information is convoluted and overly complex. Rich emphasized how important having obstruction information is for those operating under Part 135. Tom Schneider, FAA/AFS-420, stated that the FAA now includes the Obstruction Evaluation/Airport Airspace Analysis (OEAAA) identification number in obstruction NOTAMs so that the detailed information can be looked up. Rich stated that, in his opinion, access to the OEAAA number is not enough and pilots need to have the specific latitude and longitude information for each obstacle in the NOTAM. Rune Duke, AOPA, also agreed with Rich Boll's request and stated that he would like to participate in the next workshop.

Valerie Watson, FAA/AJV-553, asked about the status of 224 day NOTAMs, specifically if the practice of renewing 224 day NOTAMs is to be prohibited. Tom Schneider stated that a Safety Risk Management (SRM) study must be conducted prior to a final decision on the issue.

ACTION: US NOTAM Office, FAA/AJR-B11, will provide future updates to the ACF as warranted.

Transition to Point to Point Navigation

Rune Duke, AOPA, briefed the audience on the charting concerns that have or will emerge from the transition to Point to Point Navigation. Rune highlighted the different efforts underway that impact charting (Slide #2) and identified several items for ACF consideration that may lead to new ACF Recommendation Document submissions in the future (Slides #3 and #4). He commented that Radio Technical Commission for Aeronautics (RTCA) and MITRE have been working with the FAA to discern how pilots fly IFR. He stated that in 2014, of the 4 million flight plans filed, less than half were filed using airways. Additionally, AOPA has found that over 80% of their pilot population utilizes electronic flight bags (EFB) in the cockpit. Rune proposed the formation of an ACF-sponsored subcommittee to research challenges facing point to point navigation and to formulate and present charting recommendations.

Rune proposed four primary topics to be considered by the ACF Subcommittee:

- Providing Minimum IFR Altitude (MIA) to Pilots
- Waypoints for Low Altitude Environment
- Low/High Airspace Altitude Threshold of FL230 vs FL180
- Charting of Air Traffic Control Assigned Airspace (ATCAA)

The first item for consideration is the replacement of the existing Off Route Obstruction Clearance Altitude (OROCA) values with Minimum IFR Altitude (MIA) values. Rune described a number of benefits to providing an MIA grid on Enroute charts (see Slides #6-8). He then reviewed several concepts of MIAs applied to both US and Alaska charts (Slides #9-#15).

Valerie Watson, FAA/AJV-553, asked if the publication of MIAs on the chart would assure pilots of communications reception and RADAR coverage. Rune replied no.

Ted Thompson, Jeppesen, suggested that the Subcommittee take into consideration looking at adjacent countries. He added that Jeppesen creates worldwide a 1 degree altitude grid. If the proposal is to move forward, the grid reference system needs to be considered in an international context.

Gary Fiske, FAA/AJV-82, asked Rune whether AOPA has looked at what ATC is already doing for point to point navigation. Rune replied that yes, they have talked to ATC and will continue to have ATC as part of the discussion. Rune is hopeful that ATC will join the Subgroup and provide input.

Rich Boll, NBAA, asked if these issues are already being worked in other groups. Rune responded yes, but in the other groups, charting experts are not part of the discussion. Rich suggested that this workgroup should be advertised to a wider audience so that efforts are not being duplicated. He mentioned the Performance Based Operations Aviation Rulemaking Committee (PARC), Technical Operations Committee and the NextGen Advisory Committee. Valerie asked Jill Olson, FAA/AJV-553, to conduct outreach to these other groups. Jill agreed to do so.

Tom Schneider, FAA/AFS-420, commented that the issue of OROCAs was first introduced in 1996, with ACF-IPG RD # 96-01-155 - Operational Status for OROCAs and Implementation of GPS TAAs. Tom stated that the topic generated a 6 year discussion before being closed out, without OROCA use being authorized for off-route RNAV operations.

The second topic for discussion addressed the need to retain a system of waypoints within low enroute airspace to further the ability for pilots to file and fly Point to Point Navigation (Slide #20).

Dale Courtney, FAA/AJW-292, commented that through the VOR MON Program, where there is a VOR that has been identified for decommissioning, the DME will often remain with the 3 letter identifier retained. That DME can be used as a waypoint.

Ted commented that there are currently 10,000 floating waypoints, including the National Reference System (NRS) grid waypoints, in existence and databased. Many of these floating waypoints lack any defined association. He emphasized that the group needs to take caution in adding more waypoints to the NAS. Ted added that the topic appeared to him to be less about charting depiction and more related to an operational issue. Ted suggested that the group attempt to define the end state and then work to figure out how to get there.

Rune then briefed the idea of revising the Low and High Altitude Enroute Charts at FL230 rather than the existing FL1800. This was discussed and is documented later in the minutes as part of a new Recommendation Document (ACF RD 16-02-308).

Rune briefly introduced the idea of charting ATCAAs on Enroute charts. This will be discussed by the Subcommittee.

The Subcommittee signup sheet was circulated and the following individuals volunteered to participate:

Transitioning to Point to Point Navigation Workgroup			
Name	**Organization**	**Phone Number**	**Email**
Rune Duke (Chair)	AOPA	202-509-9515	Rune.Duke@aopa.org
Russ Beatse	FAA-ZME	901-368-8537	Russell.c.beatse@faa.gov
John Collins	GA Pilot	704-576-3561	n7083n@att.net
Juergen Kuhnhenn	Lufthansa Tech System	41-44-828 6546	juergen.kuhnhenn@LHSystems.com
Ehadwick Brauwell	Lufthansa Tech System	41-44-828-1987	Ehadwick.brauwell@LHSystems.com
Dale Courtney	FAA	202-267-4537	dale.courtney@faa.gov
Daniel Bryder	FAA	301-427-4860	Daniel.Bryder@faa.gov
Vince Massimini	MITRE	703-983-5893	svm@mitre.org
Ted Thompson	Jeppesen	303-328-4456	ted.thompson@jeppesen.com
Kyle Jermyn	Jeppesen	303-328-6298	kyle.jermyn@jeppesen.com
Lev Prichard	APA	214-739-2912	levprichard@bigsky.aero
Mike Webb	FAA	202-267-8942	mike.webb@faa.gov
Kemal Ahmed	NavTech	44-0-1932-704263	kemal.ahmed@navtech.aero
Justin Nahlik	NGA	571-557-8803	Justin.m.nahlik@nga.gov

ACTION: Rune Duke, AOPA, will report on progress of the Point-to-Point Navigation ACF Subcommittee and propose any Requirement Document proposals that are supported and generated by the group.

ACTION: Jill Olson, FAA/AJV-553, will determine where this subject is currently being discussed within other groups (PARC, NextGen Advisory Committee, etc.) so that the Subgroup's time/work is not wasted on redundant activity or working at cross-purposes.

Discontinuation of Facility Aeronautical Data Distribution Systems (FADDS)

John Graybill, FAA/AJV-552, briefed the audience on the discontinuation of FADDS. John reviewed the current FADDS website and demonstrated where items found in FADDS could be found through the National Flight Data Center (NFDC) website (URL: http://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/), reassuring the audience that all FADDS data will continue to be available. John stated that there was not a good reason to continue with FADDS when all of the same information is already available on a public website. John announced that FADDS is scheduled to be discontinued on 2 March 2017.

Rich Boll, NBAA, asked where he would be able to find UDDF data (digital airport/runway survey data available in the Universal Data Delivery Format). John demonstrated that the UDDF data is available under Survey Data on the NFDC web site.

Valerie Watson, FAA/AJV-533, asked if there was going to be any additional outreach planned announcing the discontinuance of FADDS. John replied that his office will be putting out a notice on the FADDS site redirecting users to the NFDC site.

Discontinuation of the Digital Enroute Supplement (DERS)

Scott Jerdan, FAA/AJV-533, provided a briefing on the discontinuation of DERS. Scott briefed that DERS is a legacy product from the 1970s, originally intended to supplement the Air Traffic Controller Charts. It was primarily designed to create numbered fixes and to support ATC automation and is no longer needed with the advent of the En Route Automation Modernization (ERAM) system. He also stated that all of the data contained in DERS is available in the National Airspace System Resources (NASR) subscriber files. Scott stated that the last DERS publication will be for the 22 June 2017 effective date.

Revised Inoperative Components Table

Tony Lawson, FAA/AJV-542, gave a short presentation on the newly revised inoperative components table that is to be published in April 2017. Tony commented that the new table supports FAA Order 8260.3C criteria and will better reflect the lighting systems, procedures and categories that are in use today.

Runway Selection Order

John Blair, FAA/AFS-410, briefed the audience on the update of FAA Order 8400.9. John stated that the Order is now in coordination, hopefully ready for review and comment in November 2016. Any questions should be directed to John.Blair@faa.gov .

V. Outstanding Charting Topics

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

Paul Gallant, FAA/AJV-113, reviewed the issue. Paul stated that the list of Aeronautical Information Services-identified airspace legal descriptions needing revision continues to be worked. He reported that there are approximately 30 descriptions remaining that are still being worked. He added that his office has sent out a message to the service centers requesting revisions to the remaining descriptions. He is hopeful that the remaining descriptions will be updated and closed out in the next 6 months. He will report back on continued progress at the next ACF.

Rich Boll, NBAA, expressed his appreciation to Paul and his team for getting the new Aeronautical Information Manual (AIM) guidance published.

STATUS: OPEN

ACTION: Paul Gallant, FAA/AJV-113, to report back on updating airspace legal descriptions at the next ACF.

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

Valerie Watson, FAA/AJV-553, reviewed the issue. Rich Boll, NBAA, presented draft Aeronautical Information Manual (AIM) guidance for the audience to review. The draft guidance defines recommended traffic pattern altitudes (TPA) with much more clarity. Rune Duke, AOPA, expressed his support for the revised text.

Lev Prichard, APA, also supportive, commented that misunderstanding traffic pattern altitudes is a pilot education problem and the new AIM guidance will be helpful.

Valerie asked the audience if, once the new AIM guidance is published and the definition for standard (recommended) TPA is published in the Legend of the Chart Supplement, would it be sufficient if only TPAs that are an *exception to the standard* were published. The group agreed that this would be acceptable. Valerie further clarified that this means that only non-standard TPAs would be databased in the source database (NASR) and published in the Chart Supplement airport entries. The audience concurred.

Scott Jerdan, FAA/AJV-533, expressed his concern for ensuring a source for the TPA information. Historically, this data has been collected on FAA Form 7480-1, Notice of Landing Area Proposal, the Office of Responsibility for which is the Office of Airports, FAA/AAS-100. Scott stated that the National Flight Data Center (NFDC) will coordinate with the Office of Airports to ensure a conduit for the collection and maintenance of this information. Chris Criswell, FAA/AAS-100, agreed to coordinate with NFDC. Chris and Scott will work out a process.

STATUS: OPEN

ACTION: Scott Jerdan, FAA/AJV-533, and Chris Criswell, FAA/AAS-100, will coordinate to ensure the proper collection and maintenance of TPA information in NASR.

ACTION: Valerie Watson, FAA/AJV-553, and Rich Boll, NBAA, will work to get the revised language published in the AIM.

ACTION: Valerie Watson, FAA/AJV-553, will draft a specification change to define a standard Traffic Pattern Altitude and the chart-by-exception policy in the Chart Supplement Legend.

13-01-270 Stepdown Fix Chart Notes

Rune Duke, AOPA, reviewed the topic. Rune presented the proposed Aeronautical Information Manual (AIM) language changes regarding stepdown fix use. Rune also showed figures from the TPP Legend that would need to be revised concurrently.

Tom Schneider, FAA/AFS-420, stated that the revised guidance to remove the stepdown fix chart notes has been included in the draft of FAA Order 8260.19H.

There were a number of comments from the audience regarding details of the wording of the AIM language. Rich revised the language and presented it again to the ACF audience for review.

Valerie Watson, FAA/AJV-553, asked the audience if they concurred with the revised language. As there were no further objections, Rich and Rune will submit the changes for the AIM. Valerie will begin work to update the TPP Legend.

Post-ACF Update: Per AFS-400, this initiative has been placed on hold pending further coordination.

STATUS: OPEN

ACTION: Rune Duke, AOPA, and Rich Boll, NBAA, will work with John Blair, FAA/AFS-410 to submit revised stepdown fix AIM guidance for publication.

ACTION: Valerie Watson, FAA/AJV-553, will draft a specification change to update the TPP Legend Profile View page to clarify stepdown fix use.

ACTION: John Bordy, FAA/AFS-420, to report on the status of revised guidance in draft FAA Order 8260.19H.

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

Jill Olson, FAA/AJV-553, provided an update stating that she had not had success getting an answer from ATO Safety regarding publication criteria for ocular hazards. Jill stated that at this time, there is no charting criteria that exists for these types of hazards. She added that to date, there have only been two requests for the charting of ocular hazards and that these two sites appear on the VFR charts.

Valerie Watson, FAA/AJV-553, suggested that this item be closed. If in the future, large numbers of these requests for charting are submitted, the issue can return to the ACF for further discussion. The ACF audience agreed to close this item.

STATUS: CLOSED

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

Valerie Watson, FAA/AJV-553, reviewed the item. Dale Courtney, FAA/AJW-292, provided an update. Dale stated that he had been in communication with the Non-Fed Weather Office on the handling of the certification of weather systems, specific to Joint Order 7900-2C. Dale emphasized that all weather systems that go through the Non-Fed Weather Office are required to be maintained and certified. He said that if they are privately owned and not for public use, they should not be submitted to the National Flight Data Center (NFDC) for publication.

Rick Mayhew, FAA/AJV-533, reported that there are a number of privately owned (or located at private-use airports) AWOS systems in National Airspace System Resources (NASR) that he suspects may not be certified for public-use. Dale responded that he would research the list and verify the status of those specific systems.

Valerie asked if the Non-Fed Weather Office is required by order to notify NFDC when a previously published weather system is no longer certified or if there is a change in the status of the system. Dale stated that once a system is certified, the proponent cannot opt out of maintenance and the certification does not expire.

Scott Jerdan, FAA/AJV-533, emphasized that NFDC has no way of knowing if a weather system is for private or public use. He would like to see a flag on the source coming from the Non-Fed Weather Office that distinguishes Public/Private use. NFDC could then add a Public/Private-Use field to NASR. This would ensure that private-use only systems are not published.

STATUS: OPEN

ACTION: Rick Mayhew, FAA/AJV-533 will provide Dale Courtney, FAA/AJW-292, the list of weather systems published in NASR that require verification.

ACTION: Dale Courtney, FAA/AJW-292, will verify the list supplied by Rick Mayhew, FAA/AJV-533.

ACTION: Scott Jerdan, FAA/AJV-533, will update the NFDC submission form used by the Non-Fed Weather Office to include a Public/Private Use checkbox for automated weather systems.

ACTION: Scott Jerdan, FAA/AJV-533, will update the weather resource field in NASR to add a Public/Private-use checkbox.

14-02-282 VASI PAPI Differences

Valerie Watson, FAA/AJV-553, reviewed the topic. Tony Lawson, FAA/AJV-542, showed the audience the draft Aeronautical Information Manual (AIM) guidance that describes the Obstacle Clearance Surfaces for both VASIs and PAPIs in terms of nautical miles. The new guidance is scheduled to appear in the 10 November 2016 release.

STATUS: OPEN

ACTION: Tony Lawson, FAA/AJV-542, to update on the publication of the revised AIM guidance.

15-01-289 Adding "CPDLC" Information to Airport Diagram and Terminal Procedures and Updating the AFD

Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie showed the audience the new Aeronautical Information Manual (AIM) guidance regarding Terminal Weather Information for Pilots system (TWIP) that was published in the 26 May 2016 release. It was agreed to close this RD since all actions related to Controller Pilot Data Link Communication (CPDLC) and TWIP have been completed. If the charting of new digital communications is requested in the future, a new RD can be submitted.

STATUS: CLOSED

15-01-293 STAR Terminus Point Standardization

Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie reported that the specification change (IACC Requirement Document 766) for the depiction of STAR Terminus Point Identifiers supported by the ACF has been approved and is in place. She showed the audience a sample chart.

Tom Schneider, FAA/AFS-420, showed the audience the new language added to draft FAA Order 8260.19H, which is still in coordination. Tom also showed the audience a sample FAA Form 8260.17.1 showing how the STAR Terminus Point Identifiers are documented on the source.

STATUS: OPEN

ACTION: John Bordy, FAA/AFS-420, to report on the status of the new guidance to be published in FAA Order 8260.19H.

15-01-295 Charting of Airports for the Minimum Operating Network (MON)

Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie reported that the charting specification (IACC Requirement Document 770) supporting MON Airports on/in FAA products has been signed and is in place. She showed the audience prototypes of how MON Airports will be depicted on Enroute charts and in the Chart Supplement. What remains to be worked out is the process by which the list of MON Airports is

sourced, updated, maintained and databased within the FAA. The MON Program Office has verbally agreed to serve as the source for the MON Airports list while that office exists (2025). Valerie voiced concern within her organization (AJV-5) that the source flow be established by order for now and the future after the MON Program Office no longer exists.

Dale Courtney, FAA/AJW-292, stated that the initial submission of the list to the National Flight Data Center (NFDC) is easy for the MON Office. What will become an issue in the future is when an IFR procedure is amended that may have an impact on the MON status of an airport. There needs to be a process ensuring that the MON office is notified that something has changed. Valerie suggested that perhaps after the initial submission, the Instrument Flight Procedures (IFP) Group of AJV-5 should have a role in maintaining the list.

Tony Lawson, FAA/AJV-542, agreed that either the Flight Procedures team take ownership of the list, or establish a process for notifying the owners of the list of changes that would revise the MON status of an airport. He suggested that a field could be added to the procedure review checklist to ensure designers consider MON airport qualification and voiced that he would give the matter further thought.

John Moore, Jeppesen, agreed with engaging the IFP Group, but said there is more than just procedure type and availability that determine the MON status of an airport. He stated that final determination will have to be made by the MON office, but echoed Valerie's concern about what happens after the MON Program Office no longer exists.

Valerie suggested that, in the meantime, the FAA obligate in writing that the MON Program Office is the authoritative source for MON Airport status. Scott Jerdan, FAA/AJV-533, agreed and said his office will work with the MON Program Office to ensure the source flow is captured in an Order. Once this is accomplished, NFDC will begin publishing the MON Airport designations.

STATUS: OPEN

ACTION: Scott Jerdan, FAA/AJV-533, will work with the VOR MON Program Office, FAA/AJM-324, to secure an authoritative source flow process for MON Airport Data.

ACTION: Scott Jerdan, FAA/AJV-533, will begin populating NASR with the MON Airport designations once the source documentation is in place.

15-02-296 Charting of Unmanned Free Balloon Activities and Amateur Rocket Activity Areas

Valerie Watson, FAA/AJV-553, reviewed the topic. Paul Gallant, FAA/AJV-113, speaking on behalf of Paul Eure, FAA/AJV-113, stated that no work had yet been done on the publication of Special Notices due to other pressing priorities.

STATUS: OPEN

ACTION: Paul Gallant, FAA/AJV-113, to provide an update on the publication of Special Notices and on discussions with Flight Standards regarding charting criteria.

15-02-297 Charting of HILPT Maximum Holding Altitude

Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie showed the audience the prototype chart and stated that the charting specification (IACC Requirement Document 771) has been signed and is in place. Tom Schneider, FAA/AFS-420, showed the new language that has been added to draft FAA Order 8260.19H. Tom also showed the audience a sample FAA Form 8260.3 showing how the maximum holding altitude is documented on the procedure source.

STATUS: OPEN

ACTION: John Bordy, FAA/AFS-420, to report on the status of the new guidance to be published in FAA Order 8260.19H.

15-02-298 Charting GLS DMax (Service Volume)

Valerie Watson, FAA/AJV-553 reviewed the topic. She stated that the IACC Requirement Document (RD 769) written in accordance with ACF 16-01 consensus, was submitted for coordination, but was placed on hold by request of AFS-400.

Tom Schneider, FAA/AFS-420, stated that AFS-400 has devised a counter proposal. He said that rather than specifying a "(DMAX)" point on the procedure source document and the chart, Flight Standards would prefer to revise the GLS design criteria so that the Intermediate Fix (IF) is always located within the service volume area of the GLS signal. If the IF is always located within the service volume, there would be no need to depict the DMax location. He presented the revision to Draft Order 8260.58A supporting this counter proposal.

Mike Cipriano, United Airlines, was in attendance representing Ron Renk, United Airlines, original proponent of this issue. Mike commented that in some cases, the IF could be as close as 7 nautical miles from the runway and that does not give the pilot sufficient time to switch to approach mode. He also pointed out that a user could be well within the service volume of the GLS when being radar vectored and not be aware of it. Several pilots voiced this same concern. Tony Lawson, FAA/AJV-542, said that from a procedure design standpoint, it may not always be possible to design a procedure so that the IF is within the Service Volume of the GLS.

Although there was agreement from the majority of the ACF audience that it would be preferable to simply identify the DMax point on the chart, as per the original proposal and the consensus of the ACF 16-01 audience, representatives from AFS-470 did not agree.

Because the original proponent, Ron Renk, was not in attendance, and because AFS-470's counter proposal did not receive the support of the audience, no decision was made. Representatives from AFS-470 will connect with Ron and this issue will be discussed again at the next ACF before any decisions will be made.

STATUS: OPEN

ACTION: FAA/AFS-470 will arrange to discuss the counter proposal with Ron Renk, United Airlines, and report back at the next ACF.

16-01-301 RVR Locations in FAA Documentation

Valerie Watson, FAA/AJV-553, reviewed the topic. Jill Olson, FAA/AJV-553, provided an update stating that work has begun to determine if the information in the ILS Components List can be pulled from the National Airspace System Resources (NASR) database. Jill said that there is still a question whether all of the Runway Visual Range (RVR) information being requested is available in NASR. She also said that work would have to be done to be able to output the data in a reportable format.

Dale Courtney, FAA/AJW-292, echoed the concern that all attributes of the ILS Components List are not populated in NASR.

Ted Thompson, Jeppesen, commented that he had submitted what RVR information Jeppesen requires to John Blair. Ted said that one thing he knows is missing from NASR is information on how the RVR is used at an airport, in particular, RVR sensors that can be borrowed from parallel runways. Dale agreed that there is nothing in NASR to describe how they are being operationally used, only that they exist.

Nate Rahn, FAA/AJV-552, said that he will coordinate with Dale and John Blair, FAA/AFS-410, to determine what data is stored in NASR and what data is not, and where that missing data might be obtained and made available by AJV-5.

Jill Olson, AJV-553, will brief AJV-5 management to gain support for generating, maintaining and publicly disseminating the data previously made available to the public by AFS-410 via the ILS Components LIst.

STATUS: OPEN

ACTION: John Blair, FAA/AFS-410, Nate Rahn, FAA/AJV-552 and Dale Courtney, FAA/AJW-292, to discuss what information is being requested and the details of the RVR information that is available in NASR.

ACTION: Jill Olson, FAA/AJV-553, to work with AJV-5 management to determine support for generating and maintaining an ILS Component List.

16-01-302 Cold Temperature Restricted Airport SIAP Segment Depiction

Valerie Watson, FAA/AJV-553, reviewed the topic. Valerie stated that since the last ACF, an IACC Requirement Document (RD 768) was drafted to add segment specifics and to remove Fahrenheit from the cold temperature chart notes. The RD was put on hold because AFS-470 has revised their decision to publish segment specifics on IAP chart notes.

Kel Christianson, FAA/AFS-470, provided an update on the work done by his office since the last ACF. Kel said that beginning next month, Fahrenheit values will be removed from the cold temperature notes on the charts and from the Notice to Airmen Publication (NTAP) entries. Kel also said that a decision had been made within AFS-470 and with coordination from user groups, that segment specific temperatures will not be published on the chart. An additional method for making temperature corrections has been approved that allows pilots to use a single temperature correction for all segments beginning at the Initial Approach Fix (IAF); this is the temperature that will be included in the briefing strip notes on charts. He said segment specific temperature entries will remain in the NTAP, but it is no longer a requirement to go to this secondary publication for more information since the single temperature correction from the IAF has been approved for use. New explanatory language has been added to the NTAP.

Rich Boll, NBAA, asked if the segments published in the NTAP will be removed. Kel said that, for the time being, both methods will be available for pilots to make cold temperature corrections. If at some point in the future, the single temperature method becomes the standard, Flight Standards will consider removing the segment temperatures from the NTAP and moving all cold temperature language to the Aeronautical Information Manual (AIM).

Valerie asked the audience if they were in support of the proposed changes. Rune Duke, AOPA, stated that AOPA supports the solution. He stated that AOPA would also like to see all cold temperature references removed from the NTAP, and have the single temperature correction method explained in the AIM. Valerie asked why this information isn't in the AIM now, regardless of the two methods. Kel said his office was waiting to be sure the method works and that users are satisfied before publishing the guidance in the AIM.

Valerie asked Kel about the expected frequency of updates. Will AFS-470 require an update to the chart note even if there only a 1 degree change? Kel stated that there may be some changes published in January that could be as small as 1 degree, however as the list becomes more finely tuned, there will be fewer changes over time.

Valerie stated that based on the changes briefed by Kel, she would revise the IACC RD to remove the segment specifics and to update the explanatory text in the TPP Legend. Valerie confirmed that the original maximum of 175 chart changes per cycle will continue to be followed. Kel agreed.

Tom Schneider, FAA/AFS-420, confirmed that, as agreed to at the last ACF, he has made changes to Draft FAA Order 8260.19H to remove references to Fahrenheit from all procedure notes citing temperature.

Discussion then shifted to the sourcing of the cold temperature note on the 8260-series Form rather than via the National Flight Data Digest (NFDD) airport remark. Jill Olson, FAA/AJV-553, and Tony Lawson, FAA/AJV-542, reported that this change would require modification to FAA Order 8260.19 and would require a significant amount of cost and effort to be accomplished. They also reiterated that they do not see this as a TERPS issue and the 8260-series Form is primarily a TERPS record.

Rich Boll, NBAA, stated that he thinks the note should be part of the procedure source and the assessment should be part of the procedure analysis. The assessment should be approach-specific and needs to be looked at every two years. It may be determined as part of that analysis that the correction may not apply to all approaches at an airport. Tom pointed out that if the note is sourced on the 8260, it will take a lot longer

to get changes published than if it is done via NFDD. Rich responded that, eventually, that won't matter as much because the temperatures won't change as frequently.

Mike Cramer, MITRE, suggested that the cold temperature analysis could be done as part of the bi-annual review process which would have the added advantage of using the actual required obstacle clearance values in the analysis. He supported Rich's comment that the correction may not be necessary for all procedures at a given airport and if the analysis were by procedure, they could be assessed individually.

Rune restated the importance of making the note a procedural item so that a procedure NOTAM would be issued if/when there is a change. He stressed that pilots check NOTAMs, but they do not check the NTAP or read the NFDD.

Valerie suggested that Tony share the points made at the ACF with AJV-5 management and look again at the feasibility of sourcing the cold temperature note on the 8260-series Form.

STATUS: OPEN

ACTION: Valerie Watson, FAA/AJV-553, will revise the IACC Requirement Document to remove the segment specifics and to update the explanatory text in the TPP Legend.

ACTION: John Bordy, FAA/AFS-420, to report on the status of the new guidance to be published in FAA Order 8260.19H to remove references to Fahrenheit from procedure notes citing temperature (other than cold temperature notes which are not currently documented in FAA Order 8260.19).

ACTION: Tony Lawson, FAA/AJV-542, to discuss with AJV-5 management the feasibility of sourcing the Cold Temperature note on the 8260-series Form.

16-01-303 Terminal Area Charts (TAC) and Charting IFR Arrival/Departure Routes

Rick Fecht, FAA/AJV-5223, reviewed the original request. Rick stated that the Visual Charting Team has been in touch with the Operations Support Groups (OSGs) to collect feedback from air traffic facilities regarding the six TACs that do not have IFR arrival/departure routes charted. Three air traffic facilities have provided responses: New Orleans, Tampa and Detroit. Detroit has requested the depiction of the routes on their TAC. The request requires additional work because the parameters of the chart will have to be extended to properly depict the IFR Arrival/Departure routes. The New Orleans TAC with the new routes is scheduled to be published November 10, 2016. The Tampa TAC with the new routes is scheduled to be published February 2, 2017. Work has begun on a new VFR Flyway Chart for New Orleans. Memphis has responded and is taking the recommendation under consideration.

Gary Fisk, FAA/AJV-82, asked if Rick had received any feedback from users regarding the addition of chart clutter. Rick stated that he had received no comments about chart clutter and does not anticipate any as the TACs and Flyways are relatively uncluttered charts and because the depiction of the routes does not take up a lot of additional space.

Ted Thompson, Jeppesen, asked for a clarification on what data is used to generate the routes on the VFR charts and if this could be done with data driven charting. Rick replied that VFR charts are not yet automated, however the routes are drawn using geographic coordinates.

Rune Duke, AOPA, expressed appreciation for the work being done and emphasized how having such routes will aid pilots with situational awareness.

STATUS: OPEN

ACTION: Rick Fecht, FAA/AJV-5223, will report on progress made on the charting of IFR Arrival/Departure Routes on VFR Terminal Charts and the possible addition of new VFR Flyway Charts.

16-01-305 Cold Weather Temperature Compensation at Military Authority Locations

Valerie Watson, FAA/AJV-553, reviewed the issue. Kel Christianson, FAA/AFS-470, stated that all U.S. military airports with hard surface runways over 2,500 feet are now included in the Cold Temperature list published in the Notice to Airmen Publication (NTAP).

Frank Fortunato, AFSA, and Justin Nahlik, NGA, concurred that this satisfies their request and voiced appreciation to the FAA for the effort.

STATUS: CLOSED

VI. New Charting Topics

16-02-307 Light Gun Chart on Sectional and Terminal Area VFR Charts

Valerie Watson, FAA/AJV-553, briefed the issue, stating that the proponent proposed that a light gun signal table be placed on the title panel of VFR charts. This is so that a pilot with a radio failure would always have ready access to the signal table and could use it to follow ATCs signals to safely land.

Rick Fecht, FAA/AJV-5223, provided a response from the FAA Visual Charting Group, stating that this is viewed as a training issue and that the FAA charts are not intended to be training tools, but to depict the VFR land references and aeronautical information specific to the unique geographical area each chart covers. Rick pointed out that this information is thoroughly covered in the Aeronautical Information Manual (AIM).

Gary Fisk, FAA/AJV-82, thought the idea was a novel one and worthy of some consideration. Gary emphasized that light gun procedures are seldom used and for pilots to have such a reference readily available might be beneficial.

John Collins, ForeFlight, commented that even if the material were added to the chart panel, it would not provide ready reference for pilots utilizing electronic flight bags (EFBs) because the chart title panel is never shown or available to pilots through such devices.

Vince Massimini, MITRE, commented that there are other light gun signal references available to pilots and that publishing the table on the charts themselves is not necessary.

Valerie pointed out that there is not enough available white space to print this type of information on the charts and that it would set a precedent for depicting training material that is not appropriate to the intent of the charts.

General consensus of the ACF audience was that as the material is available in the AIM and elsewhere, and is basically pilot training material, this is not chart-appropriate information. It was agreed by the audience that the light gun signal table will not be published on the title panel of the VFR charts.

STATUS: CLOSED

16-02-308 23,000 Feet vs. 18,000 Feet IFR Chart Change

Valerie Watson, FAA/AJV-553, briefed the issue on behalf of the submitter. The proponent recommends that IFR Enroute charts more closely align with operational standards. The specific recommendations are as follows:

1. Revise Low Altitude IFR Enroute charts to depict up to FL230 and IFR High Altitude charts to depict above FL230.
2. Raise Victor Airways operating altitude up to FL230 and Jet Airways to FL240 and above.
3. Depict MOA's maximum operating altitude as appropriate on Low Altitude IFR Enroute Charts.

Paul Gallant, FAA/AJV-113, presented the response to the submission from the Airspace Policy Group. Paul provided an overview of airspace definitions in the NAS. The division in the U.S. for High and Low Altitude Airspace is 18,000 feet not 23,000 feet. He stated that the recommendations in this proposal would present a drastic change to the U.S. Airspace Structure.

Paul discussed several major issues that would arise as a result of the implementation of these recommendations (See slides 13 and 14). Other considerations that Paul pointed out is that the National Airspace System is currently in transition and modernizing to increase efficiency and safety with new PBN routes and procedures and new programs such as the VOR MON.

Paul pointed out that if it were decided that such a change in the U.S. Airspace structure was going to be pursued, the process to make such a change would require a major rulemaking effort, including republication of all regulatory routes (J, Q, V, T, TK) and a significant cost involved in training, publications updates, and chart restructuring.

Paul stated the Airspace Policy Group does not endorse the proposal.

Ted Thompson, Jeppesen, stated that there is defined line of division of low and high airspace. The airspace as it is currently is structured represents what it is rather than how the airspace is used. Ted agreed that there is no merit in changing it.

Rune Duke, AOPA, stated that he had reached out to the proponent. The proponent was not aware of the magnitude of the regulatory effort/changes required or that Air Traffic Control Assigned Airspace (ATCAA) and Special Use Airspace (SUA) information is available through a number of FAA resources.

Valerie asked the audience for feedback and found no support for this recommendation. This recommendation will not be pursued.

STATUS: CLOSED

16-02-309 Publishing of CLNC DEL Phone Numbers in Chart Supplement

Jeff Black, FAA/AJR-B6, briefed the recommendation. He stated that in accordance with the Administrators NAS Efficient Streamlined Services Initiative, a workgroup was formed with members from Air Traffic, National Air Traffic Controllers Association (NATCA), and Flight Service to recommend changes to the work of Flight Service that would increase the efficiency of the National Airspace System. The group agreed that air traffic facilities that currently provide clearances to pilots via phone should begin publishing their phone numbers in the Chart Supplement, thereby removing the Flight Service middleman and providing a direct link from the pilot to the controller.

Jeff stated that currently, 32 ATC facilities, serving approximately 800 airports, have committed to releasing clearance delivery and, if requested, clearance cancellation phone numbers for publication in the Chart Supplement. Jeff mentioned that a spattering of these numbers has already been published in the Chart Supplement, but now the process will become widespread.

Rich Boll, NBAA, commented that this is the third time such a request has been entertained by the ACF and it would appear to him that this proposal appears to have everything in place to succeed. NBAA supports the proposal.

Gary Fisk, FAA/AJV-82, commented that narrowly tying the release of CLNC DEL phone numbers to the Chart Supplement may impact their usefulness. He suggested that consideration be given to publishing the phone numbers on the approach plate.

Valerie Watson, FAA/AJV-553, argued against publishing the phone numbers on the approach chart because pilots would be securing the CLNC DEL as part of their pre-flight process on the ground. The approach charts are intended as in-flight tools where the Chart Supplement is a more appropriate location for pre-flight information.

Rich agreed and added that each FAA product has specific uses and that the Chart Supplement is a required document for pilots to utilize to obtain information. Rich suggested that maybe some type of symbol could be added to the charts, like a negative icon, to alert the pilot that a CLNC DEL phone number is available.

Ted Thompson, Jeppesen, stated that changes to communications and frequency information triggers a lot of chart changes. He was a strong advocate for phone numbers *not* to appear on the charts.

Rune Duke, AOPA, commented that AOPA supports the RD and that he doesn't think the phone numbers need to be on the approach charts, but believes the Chart Supplement is the correct publication place for these numbers. Rune added that Jeff's office needs to also look at updating the guidance in the clearance delivery/communications section of the Aeronautical Information Manual (AIM).

Valerie commented that there is a need to standardize how and where the phone numbers will be published. She expressed concern over how we are publishing existing phone numbers today. Scott Jerdan, FAA/AJV-533, stated that the existing entries and the new ones should all be standardized and placed in a consistent location within the National Airspace System Resources (NASR) database and within the Chart Supplement. After discussion, the audience agreed that the phone numbers should be published in the Communications Data portion of the airport data entry. Valerie asked the audience if explanatory text should be placed in the front of the Chart Supplement. The audience agreed that would be unnecessary.

Conversation then shifted to a concern over the maintenance and databasing of CLNC DEL phone numbers. Tom Schneider, FAA/AFS-420, suggested that guidance should be placed in FAA Joint Order 7210.3 to ensure the proper submission of the data and for data maintenance. Jeff replied that once the initial data is submitted from his office, it will be up to the individual facilities maintain it. Scott emphasized that there needs to be language in the Order regarding the requirements for submission to the National Flight Data Center (NFDC) as well as identifying the responsibility for maintenance of the data. Jeff agreed that his office will promulgate changes to FAA Joint Order 7210.3 as necessary to insure that the responsibility for submitting and maintaining the phone numbers is clearly assigned to the air traffic facility and that the process of submission to NFDC is clearly defined.

STATUS: OPEN

ACTION: Jeff Black, FAA/AJR-B6, will draft AIM guidance regarding the use of clearance delivery phone numbers in the Chart Supplement.

ACTION: Jeff Black, FAA/AJR-B6, to review the FAA JO 7210.3 guidance and add the appropriate language to the order to ensure the proper submission and maintenance of the data.

ACTION: Scott Jerdan, FAA/AJV-533, and Bob Carlson, FAA/AJV-56, will determine a standard form and location for new and existing clearance delivery phone numbers in both NASR and in the Chart Supplement.

ACTION: Jeff Black, FAA/AJR-B6, and Scott Jerdan, FAA/AJV-533, will coordinate the implementation date for the publication of the new clearance delivery phone numbers in the Chart Supplement.

16-02-310 Inclusion of MSA Info for ODPs, SIDs & STARs

Ted Thompson, Jeppesen, briefed the recommendation. Ted stated that the basis for his submission came from the use of Minimum Sector Altitudes (MSAs) worldwide. Ted pointed out that although the International Civil Aviation Organization (ICAO) supports depiction of MSAs on Approaches, Arrivals and Departures, the FAA only provides MSA information for Approaches. Ted commented that Jeppesen has received numerous requests to provide MSAs on U.S. Obstacle Departure Procedures (ODPs), Standard Instrument Departures (SIDs) and Standard Terminal Arrivals (STARs).

Ted stated that the U.S. DOT Volpe Center recently did a study titled *Line Pilot Perspectives on Complexity of Instrument Flight Procedures* on pilot behavior patterns when utilizing instrument approach procedures in the cockpit. One of the findings from the Volpe study is that pilots seek out MSA information when utilizing FAA SIDs and STARs as part of their preparation for briefing and flying the procedures. Divya Chandra, USDOT Volpe Center, confirmed this and added that MSA information is one of the very few items that pilots have ever asked to be added the charts.

As a result of the ICAO recommendations on MSAs, the Volpe study findings and direct feedback from pilots to include MSAs, Jeppesen recommends that the FAA expand the scope of the application of MSAs to ODPs, SIDs and STARs.

Lev Prichard, APA, stated that pilots often pull the MSA from the intended IAP and use the approach MSA figure as part of the briefing process for a STAR procedure. Various pilots within the room confirmed this and said the same logic/process is often used when flying SID. Ted stated that “borrowing” the MSA from the IAP is not an authorized practice and could be risky. It would be better to adapt the MSAs to the particular SID or STAR. He would like to see TERPs criteria developed and documented, and have the MSA data published on procedure source forms so that safe, reliable, FAA-supplied MSA values could be charted.

Dan Lehman, U.S. Navy, commented that the Navy depicts an MSA on the arrival procedures they develop and publish. Frank Fortunato, AFSA, stated that DoD also shows the MSA on the SIDs and STARs they generate.

Valerie Watson, AJV-553, asked the audience, considering the distances covered on many SID and STAR charts, how useful a 25 mile MSA would be.

Rich Boll, NBAA, stated that it would be useful, particularly on departures when/if a pilot encounters an emergency immediately after takeoff.

Ted pointed out that the FAA publishes MSAs on Instrument Approach Procedures (IAPs) today that can cover distances of 80 miles or more.

Gary Fisk, FAA/AJV-82, stated that he does not see a value in adding MSAs further out because pilots won’t be off the route. The only value he sees is in showing them close to the airport. Ted agreed and stated that this recommendation is to keep it to the established criteria for current MSAs.

Juergen Kuhnhenn, Lido, stated that the proposal put forward is a good one and it encourages the FAA to align with ICAO charting practices. He stated that, in response to customer requests, Lido publishes MSAs on SIDs and STARs, and if one is not published on the source, they "borrow" it from the closest aligned IAP.

Aric Newstead, Air Wisconsin, stated that their electronic chart provider, NavTech, adds the MSA on their SID and STARS, borrowing similarly from an associated approach.

Rich asked for clarification on when an MSA would be applied with regards to ODPs. Ted stated that graphic ODPs would receive an MSA under the proposal but not textual ODPs.

Divya expanded on what she and her team had observed during their study. She said that if an MSA was not published on the chart, pilots were observed looking for one. She observed them switching between related charts, distracting them from their primary task.

Tom Schneider, FAA/AFS-420, stated that since the ACF audience agrees with this proposal and as adoption of the proposal would require criteria changes, AFS-420 would take it to the U.S. Instrument Flight Procedures Panel (US-IFPP) for further consideration.

Valerie asked the audience to consider how this concept might be applied to Area STARs that serve multiple airports shown on the same chart. The depiction of multiple MSAs on a single chart would likely result in chart congestion and/or addition of an extra page. John Moore, Jeppesen, agreed and added that this topic needs more discussion before it gets to the US-IFPP. He put forth several questions that he felt should be considered: What happens with Area STARs? Would all airports get an MSA or just the primary airport? How to handle the added chart clutter? John added that the application of MSAs is easier in Europe because there is only one airport per arrival chart. John Bordy, FAA/AFS-420, said that these issues could and would be discussed at the US-IFPP.

Rich questioned the value of putting MSAs on STARs. Since within 25 nautical miles, pilots will be on the IAP. He said that showing the same MSA on the STAR would be a duplication of the MSA that is already shown on the IAP. Ted stated that are situations where the MSA on a STAR is not a duplication of the IAP MSA.

Aric commented that because pilots are now utilizing electronic flight bags (EFBs), it is more difficult to go back and forth between charts and you may not switch to the approach plate until just before being established on the approach. Therefore, having the MSA on the STAR would be of value.

Divya mentioned that this is a mental preparation issue. MSAs aid pilots in avoiding terrain particularly in unfamiliar airspace. Lev agreed and commented that pilots want that mental preparation in case something goes wrong.

Valerie reviewed where things stood at the end of the discussion. There was strong consensus within the ACF audience for the addition of an MSA on SIDs and graphic ODPs. There was mixed consensus for the addition of MSAs on STARs. It was agreed that this topic could be passed to the US-IFPP with consideration given to the concerns of the ACF audience.

STATUS: OPEN

ACTION: John Bordy, FAA/AFS-420, will take this issue to the US-IFPP for discussion and report at the next ACF.

VII. Closing Remarks

Valerie Watson, AJV-553, thanked the attendees for their participation and voiced special appreciation to 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/
- Instrument Procedures Group – http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/acfipg/

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 informational 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, FAA/AJV-553, for presentation assistance, for aid in capturing the minutes and for general conference support, and to Alex Rushton, Contract Support to FAA/AJV-553, for taking the minutes and supplying general conference support.

VIII. Next Meeting

ACF 17-01 is scheduled for April 25-27, 2017, host USGS, Reston, VA.

ACF 17-02 is scheduled for October 24-26, 2017, host TBD

IX. Attachments

a. 16-02 Attendee Roster
b. Office of Primary Responsibility (OPR)