

**Government / Industry Aeronautical Charting Forum (ACF)
Meeting 10-02
Charting Group**

October 28-29, 2010

MINUTES

I. Opening Remarks

The Aeronautical Charting Forum (ACF) was hosted by MITRE Corporation in McLean, VA. Mr. John Moore, Chair of the Aeronautical Charting Forum, Charting Group, opened the Forum on October 28, 2010. Mr. Moore acknowledged the ACF Co-Chair Mr. Tom Schneider, AFS-420. Mr. Schneider chaired the ACF Instrument Procedures Group meeting held on October 27, 2010. Minutes of that meeting will be distributed separately. Mr. Moore acknowledged Mr. Al Herndon of MITRE and thanked him for the use of their facilities.

II. Discussion of Next ACF

Mr. Moore informed the Forum participants that ACF 11-01 would not be able to be held in Silver Spring as originally planned. He noted that there may be a possibility of moving ACF 11-01 outside of the Washington D.C. area, but that it would depend on the commitment of the ACF members, specifically the DC-area FAA Offices, to fund their attendance at an out-of-town location. Mr. Ted Thompson, Jeppesen, offered to host the forum at Jeppesen Offices in Denver, Colorado. Mr. Moore asked each of the participants to email him by December 1st with their ability (or their Office's ability) to support ACF 11-01 if it is held in Denver.

III. Review of Minutes from Last Meeting

The minutes from the 10-01 ACF meeting were distributed electronically last Spring via the AeroNav website: <http://aeronav.faa.gov/index.asp?xml=aeronav/acf>. They were accepted as submitted with no changes or corrections.

IV. Agenda Approval

The agenda for the 10-02 meeting was accepted as presented.

V. Presentations, ACF Working Group Reports, ACF Project Reports

SAE G-10 Electronic Symbology Committee Report

Mr. Ted Thompson, Jeppesen, summarized the objective of SAE Aerospace Recommended Practice 5289A as the need to standardize electronic symbols in the cockpit. All content, including Appendices and Symbol Matrix, has been finalized. Second balloting was sent out last July and comments are expected by November 2010. Mr. Thompson said Mr. Pedro Rivas, ALPA, and Chair of the SAE G-10 Charting Committee, is hopeful of a publication date by the spring of 2011.

ACTION: Mr. Ted Thompson will provide an update at the next forum.

ICAO/IFPP Committee Report

Mr. John Moore, AeroNav Services, as Chair of the Integration Working Group, ICAO Instrument Flight Procedures Panel (IFPP), introduced Mr. Mike Webb, FAA/AFS-420, as the U.S. Member of the ICAO/IFPP. Mr. Webb noted that the focus of the ICAO/IFPP is moving towards Performance Based Navigation (PBN) implementation and identification of charting and aircraft systems requirements to support PBN.

Mr. John Moore [provided an overview](#) of the key topics of the recent ICAO/IFPP/Integration Working Group meeting.

IWG Working Papers submitted to the IFPP:

- *GLS Procedure Publication* – What gets published in the AIP and on the 8260
- *Minimum Sector Altitude* – Establishes reference point for RNAV procedures
- *SBAS (WAAS) Route Indicator Coding* – Harmonizes Route Indicator with chart title suffix
- *Helicopter Point in Space Approach Procedure* – Maneuvering Visual Segment procedure and definitions for helicopter crossing height & helicopter reference point

IWG Working Papers still in work:

- *RNP Navigation Accuracies* - aka RNP values
- *Magnetic Reference Bearing* - Applies U.S. practice to ICAO
- *Fixes w/in the Final Approach Segment* - Establishes name/location/coding
- *Procedure Altitudes and MOCAs* - Application and use of altitudes on IACs
- *RNAV Approach Chart Standardization* - Title, information required, format
- *SID/STAR Chart and Database* - Harmonization issues between chart and coding
- *Helicopter Point in Space Procedures* - Procedure design and chart requirements
- *SBAS Chart* - Title, information required, coding issues
- *Update of ICAO Aeronautical Chart Manual* - To reflect Annex 4 Standards & Recommended Practices
- *Future PBN Navigation Specifications* - Advanced RNP, 'More Advanced' RNP

ACTION: Mr. John Moore will provide an update at the next forum.

Declared Distances

Note: Issues 07-01-192 and 09-01-215 are addressed by this WG.

Mr. Richard Boll, NBAA, [reviewed the issues](#) from 07-01-192 and 09-01-215.

ISSUE 07-01-192

Mr. Boll briefed the remaining issue is reporting the length of runway available for takeoff and landing and the multiple methods used (i.e., physical runway length vs. physical runway length minus displaced threshold vs. declared distances). The recommendation is to establish a consistent reporting format (i.e., all hard surface runways report declared distances and NOTAMs reporting temporary restrictions to runway should report available runway using declared distances).

Actions to date: **(1)** CertAlert 09-05 requiring reporting of declared distances for all part 139 airports was released March 2009. As of October 2010 approximately 60% of Part 139 airports now report declared distances. **(2)** The AIM revision addressing declared distances as confirmed by Mr. Bill Hammett, FAA/AFS-420 (ISI), through AT Pubs will be included in the March 2011 edition. The AIM revision will include a new section updated guidance regarding declared distances, a pilot/controller glossary on declared distances definitions, and a revised 4-3-10 section concerning Intersection takeoffs.

Ongoing: **(1)** AC 150/5300-13 Airport Design Revision Draft– Requirement for all airports to report runway declared distances has not been released for external coordination. **(2)** Coordination with AAS 100 has not yet progressed and is still ongoing.

Mr. Marty Heller, FAA/NFDC, stated he has seen State agency airports (non part 139) submitting some data in the past several months and FAA Order 7930.2 provides guidance to airports on how to NOTAM airport closures or shortened runways.

Mr. Boll stated he would be happy to close this issue after ensuring that AC 150/5300-13 contains requirements to report runway declared distances with the recommendation that State agencies follow the requirement and a revision to FAA Order 7930.2 NOTAMs and AC 150/5300-28D requiring partial runway closures/available length restrictions resulting in NOTAMs that report revised declared distances.

ISSUE 09-01-215

Mr. Boll and Ms. Valerie Watson, FAA/AJV-3B confirmed the revised TPP Airport Diagram Legend removing the reference to stopway has been implemented.

Actions Remaining: **(1)** Review NASR database for potential errors e.g. “overrun” vs. “stopway”. **(2)** Review of commercial publications as an indication of possible conflicts. **(3)** Have an airport data collection program to ensure validity of data.

Mr. Gary Craig, ASAP, stated that he is helping with NASR database errors.

Ms. Watson asked if there was a “red flag” that comes up in NASR if there is a change to the runway length so that NFDC airport data input specialists would know to pursue associated declared distance changes. Mr. Marty Heller, FAA/AJV-22, replied that only a change in the displaced threshold will cause a flag.

Ms. Watson also raised the fact that the airport diagrams and sketches also now include a negative “D” icon to indicate that declared distances have been assessed, and are published in the A/FD. She shared with the group that pilots have questioned the value of the negative “D” in cases when the runway length is exactly the same as the declared distances. Mr. Boll replied that pilots have been trained on the negative “D” symbol and how to use the data. Mr. Roy Maxwell, Delta Airlines, suggested the possibility of using the negative “D” to represent when airports have non-standard declared distances (when declared distances are not the same as actual runway length). Mr. Boll and Ms. Watson agreed that would be a good use but for now they would hold off on pursuing that avenue until more airport data is available.

ACTION: Mr. Richard Boll will report on Committee activities at the next forum.

RNAV (RNP) Charting Options

Mr. John Moore, FAA/AJV-3B, [provided a recap](#) on behalf of Pedro Rivas, ALPA, covering the recommendations recently submitted to the PARC concerning the complexity of RNAV RNP SAAAR approach procedure charts.

The PARC recommendations are:

- Additional Human Factors research required.
- Charting implications should be considered during procedure design.
- Procedures should be able to be depicted uncluttered on a standard size U.S. government chart.
- Procedures that split into two separate paths that rejoin at a downstream point shall not be developed.
- RNAV STAR considerations when designing RNP SAAAR IAPs.
- RNAV STARs developed in conjunction with RNP SAAAR IAPs.
- Suffixed Procedure Option (e.g. KPSP RNAV (RNP) Y RWY 13R, KPSP RNAV (RNP) Z RWY 13R).
- A single Intermediate Fix (IF) results in the simplest charting option.
- Multiple IFs should be restricted to RNP SAAAR procedures.
- Do not depict an Intermediate Segment in the Profile View when Multiple IFs exist.
- Depict the Intermediate Segment in the profile view when there is a single IF.
- There may be future electronic charting options that may provide other solutions not possible with traditional charting.

Mr. Mark Steinbecker, FAA.AFS-470, commented that under SAAAR (soon to be known as AR) procedures there still may be multiple IF’s.

Mr. Brad Rush, FAA/AJV-3B, commented there will be no multiple profile views on the chart if there are multiple IF’s.

Mr. Jim Arrighi, FAA/AJV-14, stated the PARC recommendations have started to be implemented and used RDU as an example.

Ms. Valerie Watson, FAA/AJV-3B, expressed concern that, aside from the prohibition against procedures that split into two separate paths and rejoin at a downstream point, the PARC recommendations offer little to alleviate the charting congestion issues. She points out that the Boise RNAV (RNP) Z RWY 28L meets existing criteria and application of that criteria has resulted in an essentially unreadable chart.

Mr. Jim Arrighi said they attend all industry working groups to discuss with industry to avoid any procedures that are as complex as Boise.

ACTION: No further action but will remain open in case further discussion is needed.

Airport Surveying – GIS Program

Mr. Chris Criswell, FAA/AJR-32, demonstrated the new AGIS system. The system allows airports and contract survey companies to upload airport survey data. Uploaded data is then validated and verified for accuracy. To date there have been 176 completed surveys.

Mr. Roy Maxwell, Delta Airlines, asked if this data was available to the public. Mr. Criswell said that safety critical data was available to the public after Flight Standards has formally accepted the data and is sent to NFDC.

FAA AGIS website: <https://airports-gis.faa.gov>

ACTION: Mr. Chris Criswell will continue to brief the status of AGIS.

Updated Chart Covers from AeroNav Services

Ms. Valerie Watson, FAA/AJV-3B, briefed the new chart covers emphasizing that no information had been removed but simply been moved to a different location on the chart to accommodate the new chart covers. Ms. Watson also stated that Hot Spots and LASHO had been added to the index.

Mr. Richard Boll, NBAA, requested an airport ID search be available on the A/FD on-line. Ms. Watson said she would look into it.

On a side note, Mr. Rush also discussed and demonstrated the new “Compare” feature that has been added to the on-line TPP.

ACTION: This item is closed and will be removed from the agenda.

ATO Reorganization

Mr. Brad Rush, FAA/AJV-3B, [briefed the ATO reorganization](#).

ACTION: This item is closed and will be removed from the agenda.

VFR Wall Planning Chart

Mr. Ron Haag, FAA/AJV-321, exhibited a prototype version of the newly designed VFR Wall Planning Chart and briefly described its intended purpose and basic attributes. Mr. Haag said the suggestion for the Wall Planning chart came from representatives from Sporty’s Pilot Shop who met with Mr. Fred Anderson, FAA/AJV-3. Mr. Haag noted that the chart is a combination of VFR and IFR information and it was vetted at EAA’s Sun & Fun and AirVenture (Oshkosh) events. It is the first all automated visual product and comes out in February of 2011. Mr. Haag said the chart will not be produced under IACC Specs but will be defined under an FAA Order instead.

ACTION: This item will be closed and removed from the agenda.

Reporting Function of NAVAIDs

Ms. Valerie Watson [briefed the plan](#) to implement new NAVAID reporting symbology based on ICAO standards. Mr. Bill Hammett, FAA/AFS-420 (ISI), inquired as to whether TACAN's needed to be addressed. Mr. Geoff Waterman, NGA, said it would be useful for standardization. Mr. Brad Rush, FAA/AJV-3B, added that based on the hierarchy rules it's possible that a waypoint could be made at the same point as a NAVAID, but remain charted as a NAVAID. Mr. Ted Thompson, Jeppesen, said they would be going to the same format.

ACTION: This item will be closed and removed from the agenda.

RNAV (RNP) SAAAR to AR (Authorization Required)

Mr. Mark Steinbicker, FAA/AFS-470, discussed how the FAA will follow the [ICAO PBN convention for the RNAV RNP](#) note for terminal procedures and change the U.S. procedure note from "Special Aircraft and Aircrew Authorization Required (SAAAR)" to "Authorization Required (AR)". The March 2011 chart cycle will include the use of the term. Mr. Brad Rush, FAA/AJV-3B, added that the goal is to modify all the charts simultaneously. The source for the change has yet to be determined but will probably be via a 3rd docket to the Transmittal Letter. Individual Form 8260s will not be updated.

Ms. Valerie Watson, FAA/AJV-3B, expressed concern over the similarity and possible confusion by pilots of the varying uses of the 'authorization' terms, e.g., AR (Authorization Required) vs. SAAAR (Special Aircraft and Aircrew Authorization Required) vs. Special Aircrew & Aircraft Certification Required in note form vs. SA (Special Authorization) impeded into chart titles.

ACTION: Mr. Mark Steinbicker will continue to update the progress at the next ACF.

VI. Outstanding Issues

[04-01-168 Identifiers for Heliports and Helipads](#)

Note: This issue has been combined with 05-02-177.

Issue 04-01-168

Mr. Mike Webb, FAA/AFS-420, has confirmed that a process for identifying Heliports and Helipads is in place; however, Airports still needs to establish its own internal process for implementation.

Mr. Richard Boll, NBAA, inquired if there is a public source to reference the heliports and helipads. Mr. Webb said yes, via the 5010 website (http://www.faa.gov/airports/airport_safety/airportdata_5010).

Issue 05-02-177

Mr. Webb has confirmed that a PinS procedure identifier process is in place. For a procedure with a single destination heliport/helipad, the ID of that location will be used. For a procedure with multiple heliport / helipad destinations, the ID of the airport that supplies altimeter information shall be utilized.

Ms. Valerie Watson, FAA/AJV-3B, expressed concern that this may still be hard for a pilot to determine where to go to find possible NOTAMs when referencing an airport ID that is not the same as any of the actual heliports that appear on the chart.

NOTE: This item may be readdressed at a future date.

STATUS: CLOSED

[05-02-177 Identifiers for Copter Point-in-Space Procedures](#)

This issue has been combined with 04-01-168

STATUS: CLOSED

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

Ms. Suzette Rash, FAA/AFS-470, stated that a DRAFT document has been created and she is soliciting feedback from any interested parties.

Ms. Valerie Watson, FAA/AJV-3B, expressed concerns about the AAUP for Instrument Approaches and noted that a previous effort to create similar one-per-airport pages never happened. She asked Mr. Tom Schneider, FAA/AFS-420 the status. Mr. Schneider remarked that the task had been assigned to AFS-410. Mr. Mike Hambrick, AFS-410 (CTR), agreed to take the issue back to Mr. Coby Johnson, FAA/AFS-410, and to follow up with Ms. Watson who will provide him with background information.

STATUS: OPEN

ACTION: Ms. Suzette Rash will report back at the next ACF.

[07-01-192 Recording, Reporting and Dissemination of Usable Lengths for Takeoff and Landing](#)

See presentation provided under *Section V, Presentations, ACF Working Groups, ACF Project Reports, Declared Distances*.

STATUS: OPEN

ACTION: Mr. Richard Boll will report back at the next ACF.

[07-01-195 Charting and AFD Information Re: Class E Surface Areas](#)

Mr. Paul Gallant, FAA/AJR-33, was unable to attend. Mr. Moore, FAA/AJV-3B, briefed that Mr. Gallant had sent him an email stating that the AIM Chapter 3 re-write was about 50% complete.

STATUS: OPEN

ACTION: Mr. Paul Gallant, will report back at the next ACF.

[07-01-204 Continued Charting of Airports “Closed Indefinitely”](#)

Mr. Henry Felices, FAA/AAS-100 was unable to attend. Mr. Moore, FAA/AJV-3B, briefed that Mr. Felices had sent him an email with the following information: Mr. Felices has a 5 year contract with GCR that specifically addresses private use landing areas closed indefinitely and an annual grant with GCR & Associates that specifically addresses public use landing areas that are closed indefinitely. Mr. Felices noted this issue is trickier with public use landing areas. Mr. Felices believes this issue is addressed as far as he can take it within the legal limits of the FAA and wishes to close the item.

Mark Ingram, ALPA, expressed concern that even with the data if they are not able to remove the airports from the charts there is still a possibility of an accident.

Mr. Brad Rush, FAA-AJV-3B, asked if we can label the airport closed indefinitely on charts if it is labeled so in the A/FD. Ms. Valerie Watson pointed out that the visual charts are 6 months products and as the “closed indefinitely” status of an airport can be lifted immediately via NOTAM, the incorrect status could well remain charted for 6 months. Additionally, she pointed out that “closed indefinitely” does not show up in FMS databases. Mr. Ted Thompson, Jeppesen, said the onus should be on the Airports Office to fix it. Ms. Watson and Mr. Ingram suggested the possibility of another category to chart airports closed indefinitely to accommodate chart users and airport owners. Mr. Bill Hammett, FAA/AFS-420(ISI), suggested that one option would be to require airports set specific time limits on runway closures vice using the term UFN, similar to that required of the NOTAM system. If the time limit is exceeded, generate another notice. Mr. Hammett added that the term UFN is being phased out of use in the U.S. and ICAO NOTAMs. Mr. Tom Schneider, FAA/AFS-420, suggested that the ACF pass this safety issue to the Airport Obstruction & Safety Committee (AOSC) led by Mr. Bob Bonanni.

AOSC Website: http://www.faa.gov/about/office_org/headquarters_offices/arc/programs/aosc/

STATUS: OPEN

ACTION: Mr. John Moore will discuss this with AOSC and report back at the next ACF.

09-01-212 Depiction of High Volume UAS Activity on VFR Sectionals

Mr. Chris Criswell, FAA/AJR-32, said the Requirements Document is in place for the new symbol and will vet the process via the Visual Chart Branch through the UAS office.

STATUS: CLOSED

09-01-213 TERPs Change 21 Circling Approaches

Ms. Valerie Watson, FAA/AJV-3B, [briefed the circling charting option prototypes](#). Initial consensus was option # 5.

Mr. Bill Hammett, FAA, AFS-420 (ISI), noted that the circling formulae are based on two criteria (Airport elevation and HAA) not just airport elevation and pointed out that, when applying the TERPS formulae, the circling approach radii (CAR) are not always constant for an aircraft category. Mr. Hammett asked what criteria will be used and who will determine it. Mr. Brad Rush, FAA/AJV-3B commented that AVN will determine and provide only one set of CAR values for each category and they will be charted based on the single set of radii listed on the 8260.

Mr. John Moore, FAA/AJV-3B, was concerned about placing the CAR within the line of minima considering that there is no relationship between visibility and CAR and that visibility is measured in SM while CAR is measured in NM. Mr. Rush said the visibility relationship has not been addressed but there may be a change in criteria to tie visibility to CAR.

After further discussion it was decided to develop 2 more prototypes for review on day two (Option 6 and 7 in the attachment).

The 2 additional prototypes were discussed with similar results as the previous day. Mr. Boll, NBAA, who was the proponent of the issue, then [suggested that a table similar](#) to the Climb/Descent Table in the TPP would be a good alternative. However, if a separate CAR chart is used, it will be necessary to indicate to the pilot whether or not the new CAR values have been designated for a particular runway.

Discussions continued and there was no consensus among the various groups. Mr. Boll strongly defended the need for CARs for Corporate and Business operators. He was agreeable to CARs being provided either on the chart or in a reference table. The representative from AOPA did not feel the information was beneficial or necessary for most General Aviation pilots. Airline pilots in the group commented that air carriers rarely circle to land, and if they do, they're required to abide by a 3 mile visibility according to Ops Specs. Representatives of the USAF stated that their crews routinely circle and would like to see CARs on the charts. There was a lot of debate about the pros and cons and a general consensus was not reached.

STATUS: OPEN

ACTION: Mr. Roy Maxwell, Delta Airlines, has agreed to develop a table for CAR and forward to Mr. Tom Kramer, AOPA, and Mr. Richard Boll, NBAA.

ACTION: Mr. Kramer will take the CAR options (Newly designed table from Mr. Maxwell and the charting option) to their constituents for their feedback and evaluation. Mr. Kramer will report back his findings at the next ACF.

ACTION: Mr. Boll will take the CAR options and vet them through the NBAA Working Group and various Part 142 training schools and report back his findings at the next ACF.

09-01-214 SMGCS Taxi Charts

Mr. Bruce McGray, FAA/AFS-410, was not able to attend. Mr. Moore, FAA/AJV-3B, briefed the issue on his behalf. The SMGCS Order is expected to be published soon but is still awaiting signature. It addresses source data and what is to be charted.

Mr. Moore noted that (1) the SMGCS Working Group had never been convened by Mr. McGray to discuss the issue and (2) he was concerned that the order will become public before the data collection and charting requirements are defined and that chart producers will be playing catch up. Mr. Moore requested that the SMGCS WG that had been put in place at the last ACF be convened to sort out issues still remaining from the last ACF.

SMGCS Working Group

Name	Organization	Phone #	Email
Mr. Bruce McGray	FAA/AFS-410	202-385-4725	bruce.mcgray@faa.gov
Mr. Ted Thompson	Jeppesen	303-328-4456	ted.thompson@jeppesen.com
Ms. Valerie Watson	FAA/AeroNav	301-427-5155	valerie.s.watson@faa.gov
Mr. Juergen Kuhnhenh	LSY (Lido)	41-44-828 6546	juergen.kuhnhenh@LHSystems.com
Mr. Dale Bryan	Veracity Eng	202-243-9516	dale.bryan@veracity-eng.com
Mr. Steve Serur	ALPA	703-689-4333	steve.serur@alpa.org
Mr. George Legarreta	FAA/AAS-100	202-267-8766	george.legarreta@faa.gov
Ms. Monique Yates	NGA	301-243-1436	monique.m.yates@nga.mil
Mr. Chris Criswell	FAA/AJR-32	202-267-9302	christopher.criswell@faa.gov

NOTE: Mr. Chris Criswell, FAA/AJR-32, Mr. Steve Serur, ALPA, and Ms. Monique Yates, NGA, have been added to this existing working group.

STATUS: OPEN

ACTION: Mr. Bruce McGray will provide an update of the SMGCS WG progress at the next ACF.

09-01-215 Reporting and Depiction of Stopways

See presentation provided under *Section V, Presentations, ACF Working Groups, ACF Project Reports, Declared Distances*.

STATUS: OPEN

ACTION: Mr. Richard Boll will report back at the next ACF.

09-02-218 Incompatibility Issues of Enhanced Flight Vision Systems (EFVS) with Light Emitting Diodes (LEDs)

Ms. Terry Stubblefield, FAA/AFS-410, reported that a technical Working Group within SAE-G20 has been working to determine a solution which can be used to enable LED lights to be seen by EFVS. A November 2010 meeting is scheduled to discuss further developments, but she believes a possible solution has been found.

It was noted that the ACF Working Group put in place last ACF had not convened.

Ms. Valerie Watson, FAA/AJV-3B, noted that there was still no means of tracking what lights are being installed and asked if the LED installation process could be stopped until such time as the ramifications and potential safety concerns could be better understood. Ms. Stubblefield said she is aware of the tracking issue and she is working internally to develop a solution; however, due to the Congressional Mandate there will be no way of stopping the installation of LEDs.

Mr. Moore, FAA/AJV-3B, decided to leave the issue open and asked that the Working Group be convened.

EFVS & LED Compatibility Working Group

Name	Organization	Phone #	Email
Mr. Alvin Logan	FAA/AAS-100	202-267-8743	alvin.logan@faa.gov
Ms. Terry Stubblefield	FAA/AFS-410	202-385-4588	terry.stubblefield@faa.gov
Ms. Valerie Watson	FAA/AeroNav	301-427-5155	valerie.s.watson@faa.gov
Mr. Steve Serur	ALPA	703-689-4333	steve.serur@alpa.org
Mr. Jeff Williams	Jeppesen	303-328-6531	jeff.williams@jeppesen.com
Mr. Bruce Beard	FAA/AJV-14	817-838-1996	bruce.beard@faa.gov
Mr. Dick Temple	FAA/AFS-410	202-385-4611	dick.temple@faa.gov

NOTE: Mr. Steve Serur, ALPA, Mr. Dick Temple, FAA/AFS-410, and Mr. Bruce Beard, FAA/AJV-14, have been added to this existing working group. Ms. Adrienne Funk, FAA/AJR-32, has been removed.

STATUS: OPEN

ACTION: Mr. Dick Temple will report back on the input from SAE-G20 Technical Study Group and the ACF WG at the next ACF.

09-02-219 CAST Recommendations

Note: This issue has been combined with 09-02-227

Mr. Ron Haag, FAA/AJW-321, briefed the latest changes that were applied as a result of the feedback from ACF 10-01. He noted that the Washington, DC TAC was used as a prototype at the request of the ACF. This is because the DC TAC is considered to be a cluttered chart. Issues that were readdressed: **(1)** The white mask of the outer boundaries of the class B airspace – Mr. Haag said this was easy to do on the TAC charts but could be very difficult on Sectional charts. **(2)** Magenta type which overlies the magenta Class E airspace and using a leader line – Usable on TAC, but not on Sectional charts. Moving magenta text off the magenta vignette is a painstaking and manual process, but is being progressively accomplished. **(3)** White mask behind the VFR checkpoint descriptive text – this was not addressed by Mr. Haag.

Francie Hope, FAA/AJV-W2, said that the Southern California Airspace Users Group (SCAUG) liked the white masking and mentioned that she and Mr. George Sempeles are on the VFR Safety Task Force which support the white masking of the Class B airspace, especially the LA airspace. Mr. Chris Criswell, FAA/AJR-32 and Ms. Valerie Watson, FAA/AJV-3B, both expressed concern that the white masking undermines the importance of the SFAR in the D.C. area. Ms. Watson added that if this policy was adopted it would have to be adopted for the entire chart series and not just the charts in the LA area. This would adversely impact the D.C. area and she suggested that it not be used.

Mr. John Moore, FAA/AJV-3B, addressed the fact the change would have a significant impact on chart production and asked Mr. Jim Fee, AVP-200, to weigh the effort involved against the expected outcome of reducing airspace violations. Mr. Fee said data does suggest that enough incidents occur between GA & 121 (1 in 100) to support the need for chart enhancements, especially the white mask of the Class B and VFR Checkpoints. Mr. Tom Kramer, AOPA, said the issue is not necessarily ignorance on the pilot's part in determining where the class B airspace is, but on airspace design criteria that allow GA pilots to get within the TCAS alert areas but remain outside of class B. Mr. Moore asked Mr. Fee if he could bring more information about the causal factors of the violations, in order to better understand the reasons for the violations and better determine if the proposed chart changes are the correct solution or not. Mr. Fee agreed that if this was not the right fix then he would like to continue to research and find the right fix.

STATUS: OPEN

ACTION: Mr. Fee, FAA/AVP-200, to brief in more detail the safety issues that brought this to the table and other continuing research he has obtained towards finding a solution.

[09-02-220 Multiple Intermediate Segments in Recent RNP AR \(SAAAR\) IAPs](#)

See presentation titled *RNAV (RNP) Chart Options* in paragraph in Section V, Presentations, ACF Working Groups, ACF Project Reports.

STATUS: CLOSED

[09-02-221 Navigation of Class B Airspace Using US Government-Produced VFR & IFR Charts.](#)

Mr. Richard Boll, NBAA, [reviewed the issue](#). Mr. Boll reiterated that the pilot's ability to navigate a complex Class B airspace configuration without reference to visual landmarks when operating at night or in IMC would be greatly enhanced by the use of a detailed Class B graphic on the VFR Flyway chart, as depicted on the LA, San Diego, and Phoenix TACs.

Mr. Tom Kramer, AOPA, agreed with Mr. Boll and said the GA community would find this very useful.

Mr. George Sempeles, FAA-AJR-32, said the three Class B graphics on VFR Flyway charts (LAX, San Diego, and Phoenix) were created by a special request through the individual TRACONS. Mr. Boll offered to contact each TRACON and request the Class B graphic be provided on all VFR Flyway charts.

Ms. Valerie Watson, FAA/AJV-3B, had concerns that the existing graphics are not covered by specification and that without some guidance on what to chart and how to chart it there would be no consistency between charts. She requested that the Visual Chart Team submit a charting specification change document supporting the charting of detailed Class B graphics so that she can staff it through IACC channels.

STATUS: OPEN

ACTION: Mr. Ron Haag, FAA/AJV-321, will work with Ms. Valerie Watson, FAA/AJV-3B to determine if VFR Flyway charts can be done in-house and determine what, if any, specification changes may be needed. If required Mr. Haag will submit the specification change.

ACTION: Mr. Ron Haag, AJV-321, after determining charting requirements will coordinate with Mr. Rich Boll, NBAA, and the individual TRACON's to develop the requested VFR Flyway Charts.

09-02-222 Charting VGSI Angles

Mr. Tom Schneider, FAA/AFS-420, said the 8260.19E is complete and has drafted AIM language which will go out soon.

Ms. Valerie Watson, FAA/AJV-3B, said the IACC Spec RD adding VGSI Angles and TCH to all existing non-coincident profile notes, has been signed and will be implemented on a day-forward basis.

STATUS: CLOSED

09-02-225 Charting Special Authorization (SA) CAT I and SA CAT II Approach Procedures

Mr. Bryant Welch, FAA/AFS-410 was unable to attend. Mr. John Moore, FAA/AJV-3B summarized the issue on his behalf.

Mr. Tom Schneider, FAA/AFS-420, said the Order has been changed.

Ms. Valerie Watson, FAA/AJV-3B, said the charting spec has been signed and will be implemented.

STATUS: CLOSED

09-02-226 Mandatory Altitude Note on Teterboro ILS RWY 6

Mr. John Moore, FAA/AJV-3B, summarized the issue.

Mr. John Blair, FAA/AFS-410, agreed that charting is not the solution and that a redesign of the airspace would help alleviate the problem.

Mr. Brad Rush, FAA/AJV-3B, commented that ATC is now clearing traffic coming off Newark to cross DANDY at 3000 vice the old 2500, and when they issue a clearance for the ILS to 6 at Teterboro, they restate to cross Dandy "AT 1500". Hopefully this fix will help diminish any further deviations and declines have been seen since the procedure and phraseology have changed.

Mr. Richard Boll, NBAA, noted that there has been a significant effort to increase pilot awareness through the local Teterboro Users Group.

STATUS: CLOSED

09-02-227 Class-E Airspace Depiction on Sectional Charts

Mr. Ron Haag, FAA/AJV-321 stated that moving the magenta text from overprinting magenta vignette is a manual effort done chart by chart and they currently move those text areas from overprinting when they can.

Refer to minutes of Issue 09-02-219.

STATUS: CLOSED

10-01-228 Aeronautical Survey Program / Aeronautical Data – UDDF and AOC

Mr. Chris Criswell, FAA, AFS-470, said UDDF files are available on the website. Mr. Criswell said eAOC's are still a work in progress. The question was asked as to whether taxiway information was available as well and Mr. Criswell said that at this time it is not but everything else is.

Website access for the UDDF: <http://nfdc.faa.gov>

Mr. Gary Craig, ASAP, who submitted the issue, was satisfied with the efforts and results and agreed that the issue could be closed.

STATUS: CLOSED

VII. New Charting Topics

[10-02-230 Note on Legend of IFR Enroute High Altitude Chart – Q RNAV Route](#)

Ms. Suzette Rash, FAA/AFS-470, briefed the issue. Ms. Rash stated that the Legend note related to RNAV Q-Routes in Alaska needs to be changed to align with current AC-90-100 and the Air Traffic Controllers Handbook to the following:

“(Not including Q routes in the Gulf of Mexico). GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. Radar monitoring required for DME/DME/IRU RNAV aircraft. Refer to Airport/Facility Directory for DME information. For operations in Alaska the entire portion of the intended route of flight shall be under Air Traffic Control radar surveillance.”

Current note reads:

“(Not including Q routes in the Gulf of Mexico). GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. Radar monitoring required. DME/DME/IRU RNAV aircraft refer to Airport/Facility Directory for DME information.”

Mr. John Moore, FAA/AJV-3B, asked if this proposed change had been vetted with pilot groups in Alaska. Ms. Rash commented that it had not but they did ask Alaska ATC and the response was positive. Ms. Kathy Majauskas, FAA/AFS-470, said the ACF was the first forum they have used to vet the terminology. Mr. Moore asked what “shall be” means: will, must – do we need to clarify the terminology? Mr. Brad Rush, FAA/AJV-3B, was concerned about the terminology of the last sentence which implies all routes not just “Q” routes. Mr. Ted Thompson, Jeppesen, asked if it was possible to reconsider the note(s) to be “regionalized” (Alaska, contiguous 48, Gulf of Mexico, etc.), or maybe sourced as individual airway restriction notes (i.e. FAA form 8260-16)? Mr. Thompson also asked what document or mechanism is to be used as the official source (i.e. AC 90-100).

STATUS: OPEN

ACTION: Ms. Suzette Rash, FAA/AFS-470, will take suggestions back to the pilot groups and coordinate FAA responses to the questions raised in the Forum, and report back at the next ACF.

[10-02-231 Deletion of 10NM Distance Ring from IAP Planview](#)

Ms. Valerie Watson, FAA/AJV-3B, briefed the issue.

Ms. Watson is proposing to delete the 10NM distance ring from the IAP planview. The 10 NM distance ring depicted on the planview of Instrument Approach Procedures (IAPs), though intended for scale reference only, has been misinterpreted by pilots, instructor pilots, ATC and others. Many users are under the impression that the area of the procedure turn is contained within this ring (Remain within 10 NM). This is not necessarily the case. Others believe that only data within the ring is drawn to scale. This is not the case – all data on the planview is drawn to scale unless a scale break, inset box or concentric rings are used. Although the center point on which the ring is predicated is usually the FAF, this is not standardized. The ring is not a part of the published procedure, is not documented on the source 8260, but is added to the chart by cartographers. Ms. Watson added that the 10NM reference ring does not appear on the Jeppesen IAPs and there have been no complaints from pilot groups. The 10 NM distance ring is not (nor has it ever been) depicted on RNAV procedures. She also pointed out that deletion of the 10NM distance ring would reduce clutter in the planview.

Geoff Waterman, NGA, said that DOD has agreements with other countries to keep the circle. Mr. John Moore, FAA/AJV-3B, said ICAO requires the circle 'except where not practical'. Mr. Moore said that, if this removal is approved, then he will take this action to ICAO and let them know about the change to the FAA charting requirements.

There were no other objections to the proposal.

STATUS: OPEN

ACTION: Ms. Valerie Watson, FAA/AJV-3B, will report back at the next ACF on the progress of the IACC Specification change.

10-02-232 Depiction of Temporary Flight Restriction (TFR) areas

Mr. Jack Kenton, representing some of the individual members of the Southern California Airspace Users Group (SCAUWG), briefed the issue.

Airspace restrictions in the form of Special Use Airspace are depicted on air navigation charts so as to alert pilots as to where they are either restricted from flight or need special permission to use that area. A NOTAM decreeing a Temporary Flight Restriction (TFR) is the most common. Since the 9/11 attack on the U.S., some security efforts have resulted in restrictions which have outlasted what would be considered a "temporary" flight restriction. Some of these restrictions are truly temporary, such as airspace around baseball and football stadiums. But there are others that remain, but are not depicted on our air navigation charts because there is no provision for charting "temporary" airspace.

A pilot is required to either place a TFR on his chart by personally drawing the boundary of the restricted airspace or to simply make a mental note of it as he might for a TFR depicting airspace around a forest fire. When such an airspace restriction has no end date, there would appear to be no reason not to depict the boundary of that restriction on our aviation charts. It would enhance the safety of air navigation.

Mr. Kenton is recommending that a charting standard should be established that will permit the charting of any SUA that creates a long term constraint in the National Airspace System (NAS). Most SUAs of that kind are already charted. However, there is no provision that would permit the charting of an SUA such as those created as TFRs. It is recommended that, as a minimum, such SUA should be shown on Terminal Area Charts.

Mr. Roy Maxwell, Delta Air Lines, asked if there can be a timeframe established at which a NOTAM'd TFR must be charted. Mr. Bill Hammett, AFS-420 (ISI) responded that the terms UFN, WIE and WEF are being eliminated in favor of Effective and Cancellation 10-digit date/time groups; e.g. yymmddtttt (1011051200). If the return to service time is unknown, the date/time group will be followed by (EST); e.g. 1011061200(EST). Use of UFN, WIE and WEF is currently discouraged; however their use will be eliminated for D NOTAMs in Change 2 to Order 7930.2, which will be effective on March 10, 2011. It is anticipated that date/time groups will not be included in FDC flight procedure NOTAMs until introduction of the Federal NOTAM System (FNS) and full ICAO compliant NOTAMs. This is expected in early 2012.

Ms. Watson, FAA/AJV-3B, said that TFRs are currently only charted when necessary for purposes of National Security as designated by System Operations Security Office, AJR-2. Ms. Watson indicated that the discretionary charting of particular TFRs does not reside with AeroNav Products and the problem is rooted in the definition of airspace.

STATUS: OPEN

ACTION: Mr. John Moore, FAA/AJV-3B, will pass the recommendation to Mr. Paul Gallant, FAA/AJR-33, for review and will report back at the next ACF.

10-02-233 Remove (ATC) from STARs

Mr. Jim Arrighi, FAA/AJV-14, briefed the issue [citing examples provided in the attachment](#).

This issue had been brought before the Departure Working Group of the Aeronautical Charting Forum, purportedly resolved, but is now resurrected. As a result of a recommendation from this group, FAA Order 8260.46D, Departure Procedures was modified to establish an (ATC) annotation requirement. The application to Arrivals was vetted through the RNAV/RNP Group and received concurrence from Mr. Arrighi. IACC Requirement Document 677 required that a crossing altitude on a SID or STAR that has been established for Air Traffic Control (ATC) purposes will have '(ATC)' annotated adjacent to the altitude. By convention, all crossing altitudes without an annotation will be assumed to be for obstacle clearance, NAVAID reception, airspace containment, etc. and would represent the altitude below which Air traffic could not clear an aircraft.

Mr. Arrighi now states that this requirement is unnecessary on STAR procedures. Order 7100.9 requires that an MEA is charted for each segment of the arrival. For terminal RNAV procedures all operations are radar monitored. Any ATC issued changes on a procedure places the responsibility for obstacle clearance on the air traffic controller. Similarly, once a controller vectors an aircraft off of a procedure, and then returns the aircraft to the procedure, he retains responsibility for obstacle clearance until the aircraft is re-established within the lateral and vertical confines of the IFP.

Mr. Arrighi asserts that this charting requirement would create chart clutter, especially on NextGen procedures incorporating an Optimized Vertical Profile. The specification has caused confusion and concern among the ATC workforce. There are approximately 1,100 STARs in the NAS. Many of them have altitude restrictions and NONE of them currently has the (ATC) annotation. None of the procedures reviewed had a TERPS driven altitude restriction. Contrary to the intent of the charting specification, on STARs obstacle driven altitude restrictions appear to be virtually non-existent and are the exception, not the rule. Regardless, each case a depicted MEA would alert an aircrew should they be descending to an unsafe altitude. Additionally, ATC automation Minimum Safe Altitude Warning (MSAW) settings alert ATC prior to an aircraft reaching an unsafe altitude; ATC procedures require issuance of a low-altitude alert in such cases.

Mr. Arrighi further stated that his office, The Performance Based Navigation Integration Group (formerly known as the RNAV/RNP Group), recommends that the charting specification for (ATC) altitudes be cancelled. Charting of the Minimum En Route Altitude (MEA) for each STAR segment is already required and depicts the lowest published altitude between fixes that assures acceptable navigation signal coverage and meets obstacle clearance criteria and communications requirements. Recommend establish a charting specification for SIDs and STARs that requires a (T) annotation next to TERPS driven altitude restrictions and that no RNAV STAR procedures use the (ATC) notation at a crossing restriction. Only TERPS driven restrictions should have a special annotation to highlight the cause of the restriction. Any STAR that may be charted with the (ATC) annotation prior to implementing this recommendation should be processed for charting revision.

Mr. Arrighi said that ATC has been advised to disregard the (ATC) annotation for STAR's and not to publish any more. Ms. Valerie Watson, FAA/AJV-3B, asked why no one else was informed that ATC was disregarding the procedure.

Mr. Bill Hammett, FAA/AFS-420 (ISI), commented that he felt Mr. Arrighi's presentation was biased and stated that the policy and charting standard for depicting ATC altitude restrictions were not developed in isolation, but

through consensus of the ACF Departure Working Group, chaired by Tom Schneider, AFS-420. This group had representatives from many lines of business, including: FAA Flight Standards, FAA Air Traffic (Terminal, En Route, and the RNAV Group), DOD, ALPA, NBAA, Jeppesen, Air Canada, Delta, and Volpe. The issue was vetted thoroughly over 4 meetings and the currently used charting solution agreed to by all, including the RNAV/RNP Group (Mr. Arrighi's office). Mr. Hammett emphasized that the goal of the Departure WG was to provide the pilot with a minimum safe altitude for obstacle clearance when ATC has intervened with the charted procedure and then clears the aircraft to re-join it while simultaneously canceling charted altitude restrictions. It was with the RNAV/RNP Group's agreement that the departure charting standard was also accepted for STARs. Mr. Hammett stated that all departure procedure policy falls under Flight Standards. STARs are still under the purview of Air Traffic under Order 7100.9 and Air Traffic is free to dictate what needs to be charted.

Mr. Ted Thompson, Jeppesen, commented that this was not a charting issue but is a procedure design issue. The fact that ARINC coding for SID and STAR procedure types can only accommodate a single altitude and its description (such as "AT", "AT OR ABOVE", or "AT OR BELOW") at a given airspace fix further complicates matters because the designation of multiple altitudes at a fix will inherently result in differences between the single altitude that is coded in the electronic navigation database (FMS) vs. the multiple altitudes the pilot will see on the corresponding SID or STAR chart. This issue is less about the inclusion of labels on the chart or the style used to depict altitudes. The problem is the practice of defining multiple altitudes at a single fix on SID and STAR procedures. If multiple altitudes are a necessity, the only possible ARINC solution would be to (re)design the procedures to accommodate the use of the ARINC "Block" or "Window" altitude concept at applicable fixes. This could be easily accommodated in the ARINC coding as "BETWEEN" altitudes - and also charted as such. This (re)design solution might serve the desired outcome and it would improve chart and database compatibility.

Mr. John Moore, FAA/AJV-3B, summarized and noted that there are two issues, (1) Coding, (2) Chart differences between SIDs and STARs. He recommended that a Working Group be established to revisit the issue. This working group should include all those involved in the previous effort to insure that their concerns are met.

SID/STAR (ATC) ALTITUDE WORKING GROUP

NAME	ORGANIZATION	PHONE #	EMAIL
Mr. Jim Arrighi	FAA/AJV-14 PBN	202-385-4680	james.arrighi@faa.gov
Mr. Ted Thompson	Jeppesen	303-328-4456	ted.thompson@jeppesen.com
Mr. Mike McGinnis	American Airlines	214-727-9310	msm1976@gmail.com
Mr. Richard Boll	NBAA	316-655-8856	richard.boll@sbcglobal.net
Mr. Steve Serur	ALPA	703-689-4333	steve.serur@alpa.org
Mr. Thomas Schneider	FAA/AFS-420	405-954-5852	thomas.e.schneider@faa.gov
Mr. Ric Babcock	FAA/AOV-330	202-267-5190	ric.a.babcock@faa.gov
Ms. Valerie Watson	FAA/AJV-3B	301-427-5155	valerie.s.watson@faa.gov
Mr. Kevin Allen	USAirways	480-693-4637	kevin.allen@usairways.com
Dr. Divya Chandra	Volpe	617-494-3882	divya.chandra@dot.gov
Mr. Brad Rush	FAA/AJV-3B	405-954-0188	brad.w.rush@faa.gov
Ms. Monique Yates	NGA	301-243-1436	monique.m.yates@nga.mil
Mr. Bill Hammett	FAA/AFS-420 (ISI)	603-521-7706	bill.ctr.hammett@faa.gov

STATUS: OPEN

ACTION: Mr. Jim Arrighi, has agreed to be the Chair of the new WG and will report back at the next ACF.

VIII. Closing Remarks

Mr. John Moore thanked everyone for their participation. Notice of the official minutes will be announced via email and provided via the Internet. The two website addresses (CG and IPG) are provided below:

- <http://naco.faa.gov/index.asp?xml=naco/acf>
- http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/acfig/

IX. Next Meeting

The meeting location of ACF 11-01 is TBD. Mr. Moore reiterated that each of the participants should verify by December 1, 2010 if they could support the ACF 11-01 if moved to the Jeppesen facility in Denver, Colorado. Mr. Moore will send an email the following week to inform attendees of the outcome.

Please note the attached Office of Primary Responsibility (OPR) listing for action items (**Attachment # 11: Office of Primary Responsibility Action List**). It is requested that all OPRs provide the Chair, John Moore, (with an information copy to Mr. Tom Carrigan) a written status update on open issues no later than April 4, 2011.

Note – These status reports will be used to compile the minutes of the meeting and will be the “for the record” statement of your presentation. A reminder notice will be provided.

A special thanks to Mr. Ted Thompson, Jeppesen, for providing his meeting notes for use in these ACF minutes.

X. Attachments

1. Office of Primary Responsibility
2. Attendance Record

ACF Website URL Disclosure: Website URLs included these minutes were accurate and reflect the URL address at the time these minutes we drafted and approved.