



Aeronautical Charting Forum 14-01

McLean, Virginia

Instrument Procedures Group

April 29, 2014

Charting Group

April 30 - May 1, 2014



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Hosted by The Mitre Corporation

AERONAUTICAL CHARTING FORUM (ACF)

MEETING 14-01 April 29-May 1, 2014

Host: The MITRE Corp.

7515 Colshire Drive, Conference Center

McLean, VA 22102

INSTRUMENT PROCEDURES GROUP (IPG) AGENDA

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|------|--|---------------------------|
| I. | <u>OPENING REMARKS</u> | Tom Schneider |
| II. | <u>MITRE WELCOMING COMMENTS</u> | Al Herndon |
| III. | <u>REVIEW MINUTES OF LAST MEETING, ACF 13-02</u> | Steve VanCamp |
| IV. | <u>BRIEFING</u> ACF-IPG Web Site | Tom Schneider |
| V. | <u>OLD BUSINESS (Open Issues)</u> | <u>OPR</u> |
| | 92-02-110 Cold Station Altimeter Settings | AFS-470 |
| | 02-01-241 Non-radar Level and Climbing Holding Patterns | AJE-31 |
| | 07-01-270 Course Change Limitation Notes on SIAPs | AFS-420 |
| | 07-02-278 Advanced RNAV (FMS/GPS) Holding Patterns Defined by Leg Length | AFS-420 |
| | 09-02-286 Initial "Climb & Maintain" Altitude on Standard Instrument Departure Procedures | AJV-14 |
| | 09-02-288 VNAV Minimums vs. Circle to Land | AFS-410/420/470 |
| | 09-02-291 Straight-in Minimums NA at Night | AFS-420 (US-IFPP) |
| | 10-01-292 Removal of the Visual Climb Over Airport Option on Mountain Airport Obstacle Departure Procedures | AFS-420/AJE-31 |
| | 10-01-294 RNP SAAAR Intermediate Segment Length and ATC Intervention | AFS-470 |
| | 11-01-296 Magnetic Variation Differences and FMS systems | AFS-470 |
| | 11-02-297 Airway "NoPT" Notes on Instrument Approach Procedures | AFS-420 |
| | 11-02-298 Converging ILS Coding and Chart Naming Convention | AJV-3B/US-IFPP
AFS-420 |

12-01-299	Loss of CAT D Line of Minima in Support of Circle-to-land Operations.	AFS-420
12-01-301	Publishing a Vertical Descent Angle (VDA) with 34:1 Surface Penetrations in the Visual Segment	AFS-420 (US-IFPP)
12-02-303	Charting Computer Navigation Fixes (CNFs)	AFS-470
13-01-307	TDZE is required by 91.175, THRE is not	AFS-400/410 AJV-3, AJV-3B
13-01-308	RNAV (GPS) Approach Procedures That Do Not Have an LNAV Minimum Line Should Indicate "Alternate NA"	AFS-470
13-01-310	Option "Pilot Must Have at Least the Textual Description of a SID/STAR in Possession" to Fly a SID or STAR.	AFS-420
13-01-311	Terminal Arrival Areas	AFS-420 (US-IFPP) AJT-2A3/AJE-31
13-02-312	Equipment Requirement Notes on Instrument Approach Procedures	AFS-410/420/470
13-02-313	Chart Notes for Simultaneous Approaches	AFS-410

VI. **NEW BUSINESS** (New Agenda Items)

SPONSOR

14-01-315	90 Degree Airway-to-RNAV-IAP Course Change Limitation; Arrival Holds	NBAA
14-01-316	RNAV Fixes on Victor Airways Used for RNAV SIAPs.	NBAA

VII. **NEXT MEETINGS**

ACF 14-02 is scheduled for October 28-30, 2014, hosted by Pragmatics, Reston, VA

ACF 15-01 is scheduled for April 28-30, 2015, hosted by ALPA, Herndon, VA.

ACF 15-02 is scheduled for October 27-29, 2015, hosted by Lockheed Martin, Crystal City, VA.

December 2, 2013

Dear Forum Participant

Attached are the minutes of the Aeronautical Charting Forum, Instrument Procedures Group (ACF-IPG) meeting held on October 29, 2013. The meeting was hosted by the Air Line Pilots Association, 535 Herndon Parkway, Herndon, VA 20192. An office of primary responsibility (OPR) action listing (Atch 1) and an attendance listing (Atch 2) are appended to the minutes.

Please note there are briefing slides inserted in the minutes as PDF files shown as stickpins. All are asked to review the minutes and attachments for accuracy and forward any comments to the following:

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The AFS-420 web site contains information relating to ongoing activities including the ACF-IPG. The home page is located at:

http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/acfigp/

This site contains copies of minutes of the past several meeting as well as a chronological history of open and closed issues to include the original submission, a brief synopsis of the discussion at each meeting, the current status of open issues, required follow-up action(s), and the OPR for those actions. There is also a link to the ACF Charting Group web site. We encourage participants to use these sites for reference in preparation for future meetings.

ACF Meeting **14-01** is scheduled for **April 29-May 1, 2014** with the **MITRE Corporation, 7515 Colshire Ave, McLean, VA 22012**, as host. ACF meeting **14-02** is scheduled for **October 28-30, 2014** with ISI/Pragmatics, Inc. as host

Please note that **meetings begin promptly at 8:30 AM**. Dress is business casual. Forward new agenda items for the 14-01 ACF-IPG meeting to the above addressees not later than April 10, 2014. A reminder notice will be sent.

We look forward to your continued participation.

Thomas E. Schneider, FAA/AFS-420
Co-Chairman, Aeronautical Charting Forum,
Chairman, Instrument Procedures Group

Attachment: ACF-IPG minutes

**GOVERNMENT / INDUSTRY AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
Meeting 13-02
Air Line Pilots Association
October 29, 2013**

1. Opening Remarks:

Tom Schneider, AFS-420, Flight Standards co-chair of the Aeronautical Charting Forum (ACF) and chair of the Instrument Procedures Group (IPG) opened the meeting at 8:30 AM on October 29. The Air Line Pilots Association (ALPA) hosted the meeting at their Herndon, VA facility. Mr. Steve Serur made welcoming and administrative comments on behalf of ALPA. A listing of attendees is included as attachment 2.

2. Briefings: There were no formal briefings scheduled for this meeting; however, Bruce DeCleene, the Division Manager of AFS-400, was present and made comments regarding the significance and success of the ACF to the FAA. He made note of the importance of industry participation in making the Forum the success it is. Bruce made brief comments regarding the recent government shutdown noting that FAA is still in the recovery process. He also expressed appreciation for industry patience with work stoppage during the recent furlough and appreciates the huge impact on contract support, especially those laid off without pay. Bruce stated that the financial future for all government programs is unknown, but he expects continued reductions in contract funding; and full-time federal employee replacements due to attrition. Current federal employee replacement numbers are 1 for 2 in safety positions and 1 for 3 for all other positions. One of his goals is to determine industry priorities through meetings like the ACF in order to assist AFS-400 in resource allocation.

3. Review of Minutes of Last Meeting:

Bill Hammett, AFS-420, (ISI/Pragmatics Contract Support), briefed that the minutes of ACF-IPG 13-01, which was held on April 23, 2013 were electronically distributed to all attendees as well as the ACF Master Mailing List on May 14. One comment was received from TJ Nichols, AFS-420, regarding the first IOU for recommendation 13-01-311. The IOU should read "AFS-420 will pursue a review of FAA Order 8260.58 through the US-IFPP and forward the results to AFS-470 for updating of the AIM, IPH and IFH." This change will be made to the Issue history file. Otherwise, the minutes are accepted as distributed.

4. Old Business (Open Issues):

- a. 92-02-110:** Cold Station Altimeter Settings (*Includes Issue 04-01-251*).

Kel Christianson, AFS-470, provided a brief history update. A Safety and Risk Management Panel (SRMP), including Flight Standards operations and Air Traffic (AT), was originally scheduled to meet in October but that meeting was delayed by the government shutdown. It has been rescheduled for December. The SRMP will discuss the plan to publish, as a Graphic Notice in the Notices to Airmen Publication (NTAP), a list of affected airports and procedure segments, and required ATC training. Exact time frames for both the meeting and timelines for ATC training development are not available. Kel added that MITRE has revised their runway length data base for affected airports, reducing the original 4000' down to 2500'. MITRE will run this list through

their model and provide an updated list of affected airports. Bill Hammett, AFS-420 (ISI/Pragmatics Contract Support) asked whether implementation is targeted for this winter. Kel responded we will try. Val Watson, AJV-3B, asked if adding the cold temperature icon (snowflake) to affected charts had been approved and Kel responded yes, noting that there will be an exception made for Midway so as not to impact O'Hare. Michael Stromberg, Air Wisconsin, asked whether FAA has any idea how long it will take to get all charts updated with the snowflake. Val responded that this would have to be coordinated within the Terminal Charting Team. Val also inquired how many procedures are there to change. Kel responded about 135 airports, but that number will increase. Val stated AeroNav products will look at publication scheduling, but the hope is that when the cold temperature remark is published, all procedures at that airport will be worked in a single chart cycle. She added that because this is a non-regulatory action, it can be done fairly quickly. Val also added that Flight Standards needs to supply AeroNav Products with explanatory text to be published in the front matter of the Terminal Procedures Publications (TPP) for the snowflake icon so that users will understand what it means and will go to the NTAP (or AIM) for further guidance.

Status: AFS-470 will continue developing an implementation plan. **Item Open (AFS-470).**

b. 02-01-241: Non Radar Level and Climb-in-hold (CIH) Patterns.

Eric Fredricks, AJE-31, briefed that the Document Change Proposal (DCP) to FAA Order JO 7210.3 to mandate CIH holding pattern information be included in position binders is out for final coordination and is now targeted for publication in August 2014. Jim Arrighi, AJV-14, noted that the cutoff for the ATO August publication cycle has been slipped from February to April. He added that he heard there may not be a Feb pub cycle, or it may be slipped, due to deadlines being missed as result of the recent government shutdown.

Status: AJE-31 to continue to track the change, and will advise on progress of DCP. **Open Pending Publication (AJE-31).**

c. 07-01-270: Course Change Limitation Notes on SIAPs.

Tom Schneider, AFS-420, briefed that John Bordy, the AFS-420 conventional TERPS criteria specialist, provided an update stating TERPs Change 26 has been delayed due to AeroNav Products request to incorporate additional policy memorandums which will drive re-coordination. Expected publication is now August 2014. Brad Rush, AJV-3B, asked when Change 26 would be circulated for comment. Tom Schneider, AFS-420, responded "soon" and then provided a target tracking synopsis of all Flight Standards publications that are currently under revision. Bob Lamond, NBAA, asked whether a copy of the synopsis could be posted and maintained on-line. Bruce DeCleene, AFS-400, responded yes, and added that Flight Standards is in the process of updating all of its schedules internally, and one initiative is to increase public visibility of AFS orders.

Status: AFS-420 to track TERPS Change 26. **Open Pending Publication (AFS-420).**

d. 07-02-278: Advanced RNAV (FMS/GPS) Performance of Holding Patterns Defined by Leg Length

Tom Schneider, AFS-420, briefed the following report as received from Steve Jackson, the AFS-420 staff specialist for holding issues: "AFS-400 has made a decision to combine the planned Order 8260.HLD into a future version of Order 8260.3 (TERPS), probably as a separate

volume. This does not really change any ongoing activity except that it ties any revisions to an 8260.3 publication date, most likely Jan 2015. A draft document was circulated within AFS-400 before the decision was made to change the publication. The ongoing effort at this time is to determine whether some of the non-obstacle clearance information published in Order 7130.3A (originally an Air Traffic document) such as end reduction areas, should be deleted, moved to some other document, or retained in some other form. Once that is determined and the document revised accordingly, further internal coordination will take place."

Rich Boll, NBAA, asked whether all the proposed holding order changes will be included in TERPS. Tom responded yes. Rich followed up asking which TERPS change will include this. Tom replied the plan is for inclusion in 8260.3C, since it will not make Change 26. Gary Fiske, AJV-8, asked if this was discussed in a sub group of US-IFPP. Tom replied that he was not sure if Steve Jackson had a sub-group on this. Bruce DeCleene, AFS-400, added explanatory comments that Flight Standards is making a concerted effort to consolidate guidance. For example, Flight Standards has combined over 200 pieces of guidance for Aviation Safety Inspectors in Order 8900.1. A similar goal is to do the same in combining as much TERPS criteria as possible within a single document. Rather than produce a new holding document it makes sense to incorporate it into TERPS. Tom added that some items in the present holding order exist to support AT, and Steve Jackson is moving to resolve that.

Editor's Note: *Following the meeting, there was a discussion within AFS-400 to reconsider and publish a separate holding order prior to consolidating holding criteria into Order 8260.3C. A final decision will be made in Jan 2014 and the ACF will be advised.*

Status: AFS-420 to continue development of revised holding criteria. **Item Open (AFS-420).**

e. 09-01-282: Glide Slope Intercept Altitudes on ILS Parallel Approaches

Brad Rush, AJV-3B, briefed that of an approximate original 1,300 charts, there are only 17 left that require the notes to be removed. These revisions will be made as those procedures are amended by full/abbreviated form or via P-NOTAM. Bill Hammett, AFS-420 (ISI/Pragmatics contract support) asked whether the changes would be made only when routine IAP amendments to the procedures are required. Brad responded, no, the procedures would not be placed in work specifically to remove the note; however, he added that anytime a chart is put into work, that opportunity would be used to formally amend the procedure and remove the note. Tom asked whether the group supported closure; although not completed, everything is on the production schedule. Rich Boll, NBAA, stated that the majority of procedures have been revised and since work is in progress to handle the remaining IAPs, he is comfortable with closing the issue. The group agreed. **Status:** **Issue CLOSED**

f. 09-01-284: Question of TERPs Containment with Late Intercepts

There were two distinct IOUs relating to this issue. The first relates to Order JO 7110.65, paragraph 4-8-1. Mike Poisson, AJV-8, briefed that the revised procedures specified in this paragraph were implemented via Notice (N JO 7110.620), which became effective July 31, 2013 and will also be included in the next update of the Order. Rich Boll, NBAA, inquired whether the Notice has been implemented and whether all AT training has been completed. Gary Fiske, AJV-8, responded that all training has been complete and the procedures are in place. John Collins, GA Pilot, stated that the diagram associated with Change 3 regarding straight-in clearances doesn't make sense. Gary agreed to work this comment off line with John and Rich.

Bill Hammett, AFS-420 (ISI/Pragmatics contract support) asked about second part of the IOU that relates to AIM guidance. Bruce McGray, AFS-410, advised that the AIM has been updated. Bill said if this has been accomplished, then we should not need InFO or SAFO guidance. Tom Schneider, AFS-420, asked Rich Boll NBAA, the originator of the issue, if he supported closure. Rich said he will work off line with Bruce on training, and he is good with closing issue.

Status: Issue CLOSED

g. 09-02-286: Initial "Climb & Maintain" Altitude on Standard Instrument Departure Procedures

Bruce McGray AFS-410 briefed that the wording for the AIM change has been completed; however, AFS-410 is holding off on AIM changes until all Document Change Proposal (DCP) work has been completed by AT and to ensure everything controller-related is in place before change. A copy of the draft AIM language thus far is provided below. It is proposed that this language will be included as new paragraph 4-4-3c (following paragraphs will be re-numbered and retained) and also included within paragraph 5-2-8 following the sentence "ATC clearance must be received prior to flying a SID" follows:

"In your initial SID clearance, ATC will normally assign a SID and an altitude to climb and maintain. In some cases, your initial altitude will be published on the SID. In others, the altitude issued with your IFR clearance may be higher than restriction(s) on the SID. ***In all cases, you must comply with the SID restrictions. Pilots must notify ATC immediately if they cannot meet the published climb gradient or, if one is not published, a minimum of 200 ft/nm on each segment of the SID up to the MEA.*** If you are radar vectored or cleared off an assigned SID, you may consider the SID cancelled unless the controller adds — "Expect to resume SID". If ATC reinstates the SID and wishes any restrictions associated with the SID to still apply, the controller will state: — "Comply with restrictions".

Amended Clearances. ATC may amend your clearance at any time. It is important to remember that the most recent ATC clearance takes precedence over all others. When the route or altitude in a previously issued clearance is amended, the controller will restate applicable altitude restrictions. In the United States if the altitude to maintain is changed or restated, whether prior to departure or while airborne, and previously issued altitude restrictions are not re-stated, those altitude restrictions are canceled, including SID/DP/STAR altitude restrictions. ***Pilots must ensure minimum climb gradients for obstacle clearance are still met.***

Bruce advised that anyone is welcome to forward suggestions to the draft wording directly to him. He went on to provide a brief explanation of the AIM wording: If a SID is issued while on taxi out, and an altitude change is made after, the SID is cancelled unless you are explicitly advised the SID still applies along with all restrictions associated with it. Similarly, if AT takes you off the SID with a vector heading, the SID is cancelled unless AT explicitly restates that the pilot return to the SID routing. John Frazier, Advanced Aircrew Academy, stated that, although not related to departures, his office has noted many Aviation Safety Action Program (ASAP) reports relating to pilots descending on STARs, having to query the assigned altitude to which cleared after ATC intervention. Rich Boll, NBAA, advised the Pilot Controller Procedures System Integration group (PCPSI), a sub group of PARC, has been working on "climb via/descend via", and speed adjustments. Jim Arrighi, AJV-14, and Rich are members of the group. Rich advised that the changes the PCPSI recommended appear to align with the proposed AIM changes, but it would be a good idea to sit down off line and make sure there are not two AIM issues being worked coincidentally. Jim advised that the PCPSI has a meeting on Nov 20-21, 2013 to work on the pilot briefing material (which he stated NBAA has done a

tremendous job in developing), the pilot video, and status of AT procedures regarding climb via and descend via. All the DCPs have been finalized and are in queue to be signed, with implementation targeted for April 2014. Original target was Feb 2014. All changes are planned and being worked in earnest. The concern is that a change in a procedure is considered to cancel the procedure *unless* AT restates it. AT should advise the pilot to either resume procedure or give other guidance. The pilot should not delete the procedure from the data base since they may be put back on it. Tom Schneider, AFS-420, surmised the changes had not been submitted formally for AIM publication, and questioned if Bruce should cease activity until after the PCPSI Nov meeting. Bill Hammett, AFS-420 (ISI/Pragmatics Contract Support) inquired if the key members of the PCPSI were present for tasking purposes. Jim stated AJV-14, En Route, Terminal, and AFS-470 are all a part of the group and are present. Bill asked if AFS-410 was a part of the group. Jim responded there had not been any 410 participation. Bill suggested the PCPSI working group, with AFS-410 participation, accept the tasking to develop AIM language and pilot educational material for this issue. That would stop the dual effort, and the ACF would have just one focal point. The group agreed. Bill requested a POC to track the issue and Jim Arrighi graciously agreed to be focal point. John Frazier restated his desire for the discussions to include arrivals. Group discussion ensued; with agreement arrivals will be included. John Collins, GA pilot, added that it is important that AIM guidance and AT implementation occur simultaneously.

Status: AJV-14 (Jim Arrighi) will monitor the PCPSI group actions to develop pilot guidance and controller training material and keep the ACF-IPG apprised of progress. [Item Open AJV-14](#).

h. 09-02-288: VNAV Minimums vs. Circle to Land

Bill Hammett, AFS-420 (ISI/Pragmatics Contract Support), briefed that the following draft language has been developed for the IPH; and, if accepted, may also be considered for the AIM:

On some RNAV (GPS) procedures, LNAV (only) and circle-to-land procedures might have lower minima than vertically guided straight-in procedures (LNAV/VNAV or LPV). A different sloping obstacle clearance surface (OCS) is applied to vertically guided procedures that may result in higher published LNAV/VNAV minima than that published for LNAV. Under TERPS criteria, the circling MDA may be no lower than the highest non-precision approach (NPA) line of minima published on the same chart.

Additionally, the missed approach point (MAP)-to-threshold distance is also factored into computing the minimum visibility value for each straight-in line of minima on the approach. The MAP for a non-vertically guided procedure is normally the threshold, but may be any specified point between the FAF and the landing threshold. The MAP for a vertically guided procedure is the point where the published glide path intercepts the DA. In those cases where there is a high NPA MDA, this point may be computed farther from the threshold, requiring a higher visibility. Thus, the LNAV and Circling MDAs and visibility minimums may be lower than the published LNAV/VNAV minimums.

Rich Boll, NBAA, stated that the text should include a copy of an IAP chart with the problem and a graphic to explain the variances in ROC application. John Collins, GA Pilot, agreed. Coby Johnson, AFS-410, asked how prevalent the problem is. Both Rich and John responded it is a common situation. Coby agreed that if it is, then AIM clarification should be provided. Rich added that pilots need to know what to do when flying LNAV/VNAV. When reaching the DA,

does the pilot initiate a missed approach or can he/she revert to LNAV and continue to the LNAV MDA. Mike Webb, AFS-420, stated that the MOPS for SBAS state that the pilot should select a line of minima and fly it. Tom Schneider, AFS-420, requested that the ACF participants review the draft language and forward comments directly to Maj. Brian Strack, AFS-420, at brian.strack@faa.gov, Gil Baker at gilbert.ctr.baker@faa.gov and Bruce McGray, AFS-410, at bruce.mcgray@faa.gov.

Status: 1) AFS-410, in concert with AFS-470, to develop AIM language; and, 2) AFS-420 track IPH publication. Item Open (AFS-410, AFS-470, and AFS-420).

i. **09-02-291:** Straight-in Minimums NA at Night

Rich Boll, NBAA, presented an addendum to the original recommendation Document (). NBAA is concerned over a recent proliferation of NOTAMS affecting straight-in and/or circling minima on instrument approach procedures. The NOTAMS specify that straight-in and circling minimums are NA at night. Without straight-in or circling minima, the affected approaches are not authorized at night since there is no way to complete the approach. Pilots should not request nor should ATC issue a clearance for an approach where both straight-in and circling minima are "NA". When this situation occurs, NBAA believes Order 8260.19 should clearly state that the procedure itself must NA at night.

Tom Schneider, AFS-420, stated that AFS-420 agrees with this proposal and has included the following change to current paragraph 8-54m(2)(a) in Order 8260.19F "If unable to authorize night minimums (e.g., when both straight-in and circling minimums are not authorized at night), use: **Chart note: Procedure NA at night.**" Tom also noted that additional changes have been made to the draft Order as briefed at the last ACF meeting.

Brad Rush, AJV-3B, commented on draft Order 8260.19F, paragraph 8-54m(2)(h) note that states "remain on or above the VGSI glide path until threshold" portion not being necessary and in fact redundant. The group initially concurred. Bill Hammett, AFS-420 (ISI/Pragmatics Contract Support), said the Order is still out for formal coordination so comments can still be made. Tom asked if NBAA agreed with removing the comment portion in subparagraph (h). Rich Boll, NBAA, had questions on this and subparagraph (g), and then presented a PowerPoint discussion on operations, surfaces, and minima from the NBAA perspective. A copy of Rich's presentation is provided here: . He concluded prohibitions on operations at night must be consistent for the affected runway across all charts. NBAA believes surfaces should be aligned, and should protect aircraft on the visual portion of an approach, and until this is accomplished FAA needs to stop applying TERPS paragraph 3-3-2. Lev Prichard, APA, stated that circling approaches should be almost obsolete since current rules allow a straight-in RNAV approach to be developed nearly everywhere. Therefore, current policy is forcing pilots to fly a more risky circling maneuver. Kel Christianson, AFS-470 said the note in subparagraph (h) is there as mitigation for 20:1 visual surface obstacle penetrations. Tom asked Rich again, specifically about the note in subparagraph (h) regarding remaining on or above the VGSI. Rich stated the note should remain in support of Kel's comment. A group discussion followed. Bob Lamond, NBAA, emphasized that NBAA wants action on this issue ASAP as it is impacting operations. Tom Schneider, AFS-420, asked what harm does the note do. Val Watson, AJV-3B, responded that it takes up "white space" on the chart and that providing pilot guidance is not the purpose of an approach chart. John Moore, Jeppesen, supported Val's position adding that pilot guidance should be contained in the AIM, IPH, etc. John Frazier, Advanced Aircrew Academy, stated that if we start publishing notes to advise pilots to stay on or above the VGSI, will there be pilots that think if there is no note, they don't have to follow the VGSI. Kel stated that the VGSI is used to

support a waiver and was concerned to hear comments that pilots may not be following the VGSI. John Collins, GA Pilot, stated that he supports the note as it is rulemaking under Part 97. If the VGSI is used to mitigate 20:1 surface penetrations, then it should be so noted. After the discussion, Tom said we will retain note as is, and reminded the group this was the direction decided upon at the last ACF. Bruce DeCleene, AFS-400, opened a discussion regarding charting unlit obstacles. Tom said we have forced obstacles to be lit, but this does not work in every case. Brad stated charting all unlit obstacles would result in a black blob on chart. Rich again questioned suspending 3-3-2 (c) until issue brought up by NBAA addressed. Tom said this would need to be brought up in AFS-400, since there are possibly bigger ramifications.

Tom also briefed the following update as received from John Bordy, the AFS-420 conventional TERPS criteria specialist: "In June 2013, the US-IFPP designated AFS-420 to lead a working group to develop a recommended position related to all aspects of visual segments, to include using VGSI to mitigate 20:1 visual surface penetrations. To date, no working group has been convened due to other commitments; however there has been other significant activity by AFS-400 relating to 20:1 penetrations. These include, but are not limited to:

- 1) The issuance of a waiver in September to allow the temporary use of VGSI in lieu of obstruction lighting prior to receiving explicit approval from AFS.
- 2) A waiver was issued in September to temporarily mitigate 20:1 penetrations that exceed the lateral boundaries of localizer/LP signals (ILS, LOC, LPV, LP IAPs only).
- 3) Additionally, in September, representatives from AFS-400 participated in a "tiger team" along with representatives of Mission Support Services, AeroNav Products (AJV-3) and the Airports Division (AAS-100) to develop risk-based requirements (assessment, response times, NOTAM actions, etc.) related to the discovery of 20:1 penetrations. The tiger team's recommendations are currently under management review.
- 4) AFS-400 is also considering issuing a waiver that will allow application of a beginning straight-in/offset visual surface width of +/- 200 ft for CAT A/B aircraft on all IAPs that have CAT A/B minimums published even when higher CAT minimums are established to the same runway.
- 5) Lastly, John stated that during the October 23 AFS-400 Division Manager's meeting, Bruce DeCleene, Manager, AFS-400, stated this ACF issue is being added to the Division's One Plan. He directed that AFS-450 work hand-in-hand with the Airport Obstructions Standards Committee (AOSC) to acquire data so an objective analysis can be made regarding what area needs to be considered when assessing visual surfaces. The AOSC, through MITRE, has already collected much data that could be used for analysis of straight-in procedures; but, it's likely AFS-450 will need to obtain additional data related to aircraft alignment with the landing runway following a circling maneuver. An AOSC working group telcon is scheduled prior to the ACF meeting where John Bordy, AFS-420, will bring this issue up to the members to ensure all are on board as well. John has also agreed to keep the ACF informed of future actions of the working group."

Bruce DeCleene, AFS-420, provided a brief recap on 20:1 visual surface penetrations. The VGSI angles are usually reasonably coincidental with the approach VDA. More and more 20:1 penetrations are being noted and there is increased pushback from users regarding minima/procedure loss on procedures that have been in place for many years. We need to look at risk. If the risk is low, then give the airport time to fix the problem. If the risk is high, then amend or cancel the procedure. If the risk is medium, then apply a combination of the above. This would be a near term solution. For long term, we need to determine why there is an

increase in penetrations and we need to study the effectiveness of using VGSI as mitigation. We also need to assess what data we currently have on the surfaces in question, and collect new data using the best technology available. John Collins, GA Pilot, stated that "Procedure NA at night" NOTAMs affect more GA airports and he believes FAA is attempting to apply an airline solution for all airports when GA can easily accept a 4 degree descent angle. Bruce responded that the goal is to provide a descent angle to get all aircraft into a position to land. The preference is to not always use 3 degrees, rather to use an angle that coincides with the VGSI. He stated that he is a strong proponent for vertically guided approaches and if there is vertical guidance available to a runway, then it should be used. John agreed; however, adding that vertical guidance is not as substantial for GA operations.

Status: AFS-420 will continue to work the issue through the US-IFPP.

Item Open AFS-420 (US-IFPP).

j. 10-01-292: Removal of the Visual Climb Over Airport Option on Mountain Airport Obstacle Departure Procedures

Tom Schneider, AFS-420, briefed that 4 IOUs remain open for this issue. Each is addressed separately below:

- 1) Track IPH Guidance. Tom briefed the following update from Gil Baker, contract support to the AFS-420 OPR for the IPH: "Final IPH revisions should be completed by the end of October 2013 with a revised IPH targeted publication date of February 2014". This IOU remains open pending publication.
- 2) Develop AIM Educational Material. Eric Fredricks, AJE-31, briefed that the Document Change Proposals (DCPs) are finished and out for comment. This IOU remains open pending publication.
- 3) Re-establish VCOAs at Selected Mountainous Airports. Rich Boll, NBAA, stated they are monitoring this process through the RAPT. Eagle, CO is the airport that prompted this issue, and NBAA and ATC are currently working on designing a new SID that includes the visual climb provision as well as the requirement for pilots to notify ATC. Rich took responsibility to continue to monitor this issue on a case-by-case basis through the applicable RAPT. Since this will be a lengthy on-going process, Rich stated this IOU could be closed. This IOU is CLOSED.
- 4) Develop a list of those locations where Air Traffic has requested a VCOA be denied: Brad Rush, AJV-3B, briefed that he sent NBAA () a list of approximately 53 airports that do not have a VCOA per AT request. Rich stated he will edit obvious large airports like JFK, LAX, etc., out, and take IOU to follow the process through the RAPT. This IOU is CLOSED

Two IOUs remain open with taskings as indicated below.

Status: 1) AFS-420 to track the IPH revisions until published; 2) AJE-31 to track AIM, AIP, PCG, and FAA Orders JO 7110.65/7110.10 changes until published.

Item Open (AFS-420 and AJE-31).

k. 10-01-294: RNP SAAAR Intermediate Segment Length and ATC Intervention.

Kel Christianson, AFS-470, briefed this item has been taken up by the PARC, and they are actively working the issue; however, there is no update to quote. Gary Fiske, AJV-8, advised the ad hoc work group was supposed to meet on Oct 7, but that meeting was cancelled and has not yet been rescheduled. Gary added that there will be Document Change Proposals (DCPs) developed to support PARC recommendations.

Gary also briefed that the DCP for FAA Order JO 7110.65, paragraph 4-8-1 has been completed and the change implemented via NOTICE on June 13, 2013.

Status: AFS-470 to monitor PARC actions and report back. **Item Open (AFS-470).**

l. 11-01-296: Magnetic Variation Differences and FMSs

Kel Christianson, AFS-470, briefed that the AIM changes presented at the last meeting were finalized and have been forwarded for the next AIM publication cycle (February 6, 2014).

Tom Schneider, AFS-420, provided the following update as received from Steve Jackson, AFS-420: "RTCA SC-227 changed the order of use for MV data to place procedure MV first, followed by airport MV. Use of procedure MV will resolve many of the issues relating to MV since the equipment would always be using the same value as that used in the procedure design. Airport MV is the basis for RNAV and ILS procedures as well as runway bearing. However, this is a long term solution since existing avionics equipment will still use the source specified when the equipment was designed, which is usually either the NAVAID or airport on-board tables, which usually don't. The NavLean initiative will help resolve the issues by identifying the correct source for this data; e.g., several airport MVs exist, but only one of which matches the instrument procedures. Due to the Minimum Operational Network (MON) plan to remove VORs, and the existing workload for developing and maintaining procedures, many VORs are already out of tolerance, and policy on splitting the VOR MV from the rest of the procedures at an airport is being discussed. This would allow updates to the ILS and RNAV based procedures without updating airways and other conventional procedures. Once the list of VORs to be removed is finalized, a policy for bringing the remaining VORs back into tolerance will be devised.

The PARC MV Working Group completed its work and is no longer meeting. The report was delivered to the FAA in July, and most short term issues have been resolved. Long term issues such as use of True either at specific airports or as a region of True only operation in Alaska, similar to the Canadian Northern Domestic Airspace is under discussion. Another long term proposal to tie airport MV updates to aircraft MV database updates does not appear to be practical at this time, since there is no fixed schedule for manufacturers to make the data available, or for users to install the new tables, which in most cases requires sending the equipment back to the manufacturer. New guidance from Certification will cause manufacturers to notify users with older MV tables for airports where there may be issues with coupled approaches and auto-land operations.

There will be no further AFS-420 updates from the PARC MV WG and no further action on this issue is planned at RTCA; therefore, recommend closing this IOU. AFS-420 actively participates in many working groups and advisory committees. Should an issue of ACF concern arise, it will be presented as a briefing item; however, and continual updates under recommendation 11-01-

296 will no longer be provided.” Tom recommends closing this second IOU and the group agreed.

Rich Boll asked will there be any requirement to change aircraft certification and whether AIR is addressing the issue. Kevin Bridges, AIR-130, said the next SC-227 meeting will address this issue; however, keep in mind that “guidance is guidance”.

Status: AFS-470 to track requested AIM changes. **Open Pending Publication (AFS-470).**

m. 11-02-297: Airway "NoPT" Notes on Instrument Approach Procedures

Tom Schneider, AFS-420, briefed that, as noted at the last meeting, the change to resolve this issue has been included Order 8260.19F, which is just completing the formal coordination process and is still on target for publication in early 2014.

Status: AFS-420 to revise FAA Order 8260.19. **Item Open Pending Publication (AFS-420).**

n. 11-02-298: Converging ILS Coding and Chart Naming Convention.

Brad Rush, AJV-3B, briefed he is working with Air Traffic (Ron Singletary's office, AJV-8) on this issue. They have developed a draft Document Change Proposal (DCP) to eliminate Order 7110.98 and incorporate policy into Order JO 7210.3. The target date to eliminate the current converging naming convention and move towards a suffix is 2014-2015. Possible interim steps of using “converging” in phraseology and a suffix in the procedure title are under consideration. This is a work in progress and hopefully advancement will be seen within a year.

Tom Schneider, AFS-420, briefed that draft Order 8260.19F, includes added guidance in new paragraph 8-6-5 m (8) as follows:

"Simultaneous Converging Approach Operations. When informed by ATC that Simultaneous Converging Approach Operations will be conducted, use Order 8260.3 instrument procedure naming standards with a “suffix” to distinguish between the standard instrument procedure and the procedure used for converging operations. Additionally, the applicable “Converging” approach charts must be annotated to indicate they support this concept. “Converging,” in parenthesis, will be placed following the procedure name; i.e., “ILS Y RWY 31R (CONVERGING).”

Val Watson, AJV-3B, asked when this will occur. Tom responded, when Order 8260.19F is published. Brad Rush, AJV-3B, disagreed stating that naming conventions are specified in Order 8260.3 and the .19 cannot contradict those criteria. John Blair, AFS-410, asked about avionics coding limitations. Brad said there should be no problem as 6 characters are OK. Rich Boll, NBAA, stated that lots of FMSs can accept a suffix for RNAV, but not for conventional procedures. Brad reemphasized in other words, that since Order 7110.98 wouldn't go away until 2015, 8260.19 can't be change before that time. Tom agreed to work the issue off line to determine whether the draft guidance should be re-worded.

Editor's Note: After post meeting discussion between Brad and Tom, it was decided not to make the above change to draft 8260.19F due to the fact that a final decision regarding procedure identification has not been made and it is still undetermined when the necessary controller guidance will be published in ATO directives.

Status: 1) AJV-3B will continue to monitor US-IFPP activities as well as on-going AJV internal actions, and keep the ACF apprised of the issue status. 2) AFS-420 will track publication of Order 8260.19F. [Item Open \[AJV-3B \(US-IFPP\) and AFS-420\]](#).

o. 12-01-299: Loss of CAT D Line of Minima in Support of Circle-to-Land Operations.

Tom Schneider, AFS-420, briefed the following update as provided by John Bordy, the AFS-420 conventional TERPS criteria specialist: "Within Order 8260.3, Volume 1, Chapter 3, Paragraph 3.1.1.a, the last sentence of the note that reads, "ARC codes/supporting infrastructure should not be considered when determining authorized approach categories when the RAPT determines it is appropriate for safe operations." has been removed from the draft Change 26 to the order. It's expected the final revisions to Change 26 will be completed and entered into final coordination by the end of November. Although this change is expected to provide minor relief to this issue, it may not address it completely. AFS-420 intends to convene an additional meeting of the working group prior to the next meeting of the US-IFPP to determine whether/what additional actions are warranted."

Rich Boll, NBAA, says it appears we took out a sentence providing guidance from 2000, and questioned what is going to take its place. Tom advised that this will go to working group, of which Rich is a participant. Bob Lamond, NBAA, discussed that taking this out is fine, but this appears to be a half-step approach to a solution, and should we instead go to a more direct solution. Group discussion ensued. Rich asked about linking to a policy memorandum. Tom said we try to avoid those as much as possible, and we will bring the ACF-IPG input back to John Bordy and the working group. Rich requested the target date for publication of Order 8260.3C, since any change will now have to wait until then. Tom responded "August 2015". Rich said NBAA would prefer to see something sooner and recommended the policy be included in TERPS Change 26.

Status: AFS-420 will continue leading the workgroup to develop a recommended position for the US-IFPP. [Item Open \(AFS-420\)](#).

p. 12-01-301: Publishing a Vertical Descent Angle (VDA) with 34:1 Surface Penetrations in the Visual Segment (*Includes Issue 13-01-309 LP Procedure Cancelled Because of VDA Not Being Charted*)

Tom Schneider, AFS-420, briefed the following update as provided by John Bordy, the AFS-420 conventional TERPS criteria specialist: "This issue was discussed at length during the US-IFPP meeting in June. The US-IFPP determined that AFS-420 will lead a working group (tentative members were identified during the US-IFPP meeting) to develop a recommended position for the US-IFPP to consider. It was also agreed that non-US-IFPP member participation would be included in the working group as requested at AFC-IPG meeting 13-01. AFS-420 intends to convene a meeting of the working group prior to the next meeting of the US-IFPP." Rich Boll, NBAA, requested he be included as a meeting participant.

Lev Prichard, APA, briefed that he had decided to research examples where the problems exist and emphasized that it is not strictly a commercial operational problem. He briefed from a PowerPoint presentation, which included a CFIT history slide that showed where aircraft accidents occurred relative to runways. Lev used the San Diego (KSAN) LOC RWY 27 IAP to demonstrate the benefits of vertical guidance. Lev compared the FAA and Jeppesen approach plates, with emphasis on the advisory altitudes on the Jeppesen chart. Lev said the point is that APA supports all vertical guidance to MDA, with advisory use below MDA; however, NOTAMs

not allowing straight-in procedures at night effectively cancel all vertical guidance. A synopsis of Lev's presentation and briefing slides are included here .

From the GA perspective, Lev discussed the Fayetteville (FYV) RNAV RWY 34 which illustrated several issues. This approach has LPV minimums, has a VDP so the 20:1 visual surface is clear, but no 'stipple' indicating the 34:1 is not clear, and has a VDA. However, if you fly into the airport with a Garmin equipped aircraft, you will note the box is stripped of vertical descent programming because of Garmin programming methodology. Therefore, even though the chart shows LPV and LNAV minimums, you have no vertical guidance. But, if you look at the plate, you would think you also have vertical guidance since it has both a VDA and VDP. This is the unintended consequence of when this box was certified; some systems may have the guidance while others do not. Lev recommended charting everything and letting pilots/operators sort it out to their specifics. John Collins, GA Pilot, stated that a pilot can't always tell from a charted NPA whether vertical guidance is available. Discussion ensued about steep glide paths, and that advisory vertical guidance is advisory everywhere.

Rich Boll, NBAA, referred back to the KSAN LOC RWY 27 approach. The Jeppesen version profile has the ball note: "only authorized operators may use VNAV/DA/H in lieu of MDA/H". Rich asked how the VGSI could be inop and the FAA still allow an operator to treat a MDA as a DA/H under OpSpec C073. Rich stated he is raising this issue due to the note, and he is seeing it on a lot of approaches, where straight-in/circling is N/A at night but the ball note is still on the chart. Tom asked John Moore if he could determine the Jeppesen source for these notes. John said he did not know, but there had been internal discussions on the matter and he would check with Ted Thompson. Group discussion indicated that this was due to criteria at Part 139 airports only, and also is unique to Jeppesen charts, not FAA charts. Tom stated that since this subject is off topic from the agenda item, it would be put in the minutes as a discussion item, but will not be tracked by ACF. Rich concurred since NBAA concern deals with Part 135 operators.

Much later in the Forum John Collins raised concern that no updates or discussion was provided relating to Recommendation 13-01-309, which was combined with this item at the last meeting. Tom assured the group that this item will not be closed till both 12-01-301 and 13-01-309 are resolved. John asked that issue 13-01-309 be specifically updated in the next update to this issue.

Editor's Note: *The following response was provided by Ted Thompson, in response to John Moore's inquiry regarding the use of the ball note in the profile of Jeppesen approach charts: "In essence, the origins of the Jeppesen-added notes are based on HBAAT 99-08 and related requests from several ATA (now A4A)-member airlines when VNAV was introduced. The criteria originally cited in HBAAT 99-08 were eventually replaced with amended criteria contained in OpSpec C073. The criteria were mainly unchanged with the exception that they now only apply at 14 CFR, Part 139 Airports. Jeppesen charting specs address the removal of the notes for charts at non-Part 139 Airports."*

Status: AFS-420 will continue to work these two issues through the US-IFPP.

Item Open [AFS-420 (US-IFPP)].

q. 12-02-303: Charting Computer Navigation Fixes (CNFs)

This item was discussed in conjunction with Issue 11-01-296. Kel Christianson, AFS-470, briefed that the AIM changes presented at the last meeting were finalized and have been forwarded for the next AIM publication cycle (February 6, 2014).

Status: AFS-470 to track publication of AIM guidance. **Open Pending Publication (AFS-470).**

r. 12-02-305: Conflict Between STAR VNAV Path and MEA

Jim Arrighi, AJV-14, briefed that Order JO 7100.9E was signed on September 27, 2013.

Status: **Issue CLOSED.**

s. 13-01-307: TDZE is Required by 91.175, THRE is Not

Bryant Welch, AFS-410, provided a recap on the issue. 14 CFR, Part 91.175 requires TDZE be known by pilot to use approach lights to descend below minimums; however, the TDZE was removed with TERPS Change 20 in 2007 and replaced with THRE. Since then, there has been a lot of push back by industry stating that the lack of TDZE information could cause them to violate a Rule. After staffing the issue, Flight Standards decided to return to the old way of computing and basing minimums on the TDZE. This will require changing 4000+ charts back to TDZE, (with about 150 more per cycle currently being added to this number). Until accomplished, it is proposed to publish a listing of affected runway TDZEs on an AJV web site and possibly in the NTAP. Since minimums are not affected, this will provide the necessary information for pilots to compute the 100 foot above TDZE point. John Collins, GA Pilot, recommends when both values are the same; i.e., THRE is the TDZE, just publish the TDZE. Bryant agreed and stated they are proposing to publish a list in the NTAP.

Val Watson, AJV-3B, asked if there is some way to halt the development of procedures using THRE, since we are publishing procedure charts to the wrong data every day. Bruce DeCleene, AFS-400, stated that AFS had sent a memo to accommodate this and asked where AJV was in implementing the new standard. Brad Rush, AJV-3B, responded they will not change procedure development until the supporting criteria is in place. Tom Schneider, AFS-420, said all these changes are in the 8260.19F, which is scheduled for January, 2014. The second piece to the solution is TERPS Change 26, which has been delayed. Val asked if we can have interim guidance or a policy memo on this. Tom responded there is a problem with this, since we do not usually make changes to directives signed by AFS-1 without either a NOTICE or a change to the Order directly. We originally believed changes to Orders.8260.19 and 8260.3 were going to come out sooner. Also automation needs to be changed for both FAA and DoD. Bruce recommended this portion of the discussion be taken off line.

Michael Stromberg, Air Wisconsin, stated that it seemed the simplest solution would be to change the rule. Bruce responded that there was a rich dialog within Flight Standards on this issue centering on what is operationally pertinent to the pilot and the response is TDZE. THRE is irrelevant; no one lands on a threshold. AFS tried to change the rule once before and there was significant industry pushback, especially from Boeing and Airbus, who both expressed concern over the impact on autoland operations. In short, industry is on public record as opposed to the change and FAA has gone on record as accepting the industry comments. Moving on, the next issue is the impact on procedure design and criteria needs to be reversed to pre-Change 20 and return to use of TDZE for minimums calculations. AFS agrees that in the

interim a manual workaround is acceptable for procedure designers. We must also make the current TDZE known for those procedures designed to THRE when the TDZE is a higher value.

Rich Boll, NBAA, stated that this is not just an airline issue as some Part 91 operators also use the 100' provision. Rich believes the NTAP is not a good medium for promulgating the TDZE information and asked whether it could be done through the regular NOTAM process. Bill Hammett, AFS-420, (ISI/Pragmatics Contract Support), stated that this could probably be distributed as a NOTAM D as updating runway information. Brad Rush, AJV-3, objected, stating that NOTAMs should be for safety of flight conditions only. Val Watson, AJV-3, also voiced that a runway NOTAM is not appropriate, as the runway information is not changed or updated, it is simply not depicted on the approach plate. Rich responded that NOTAMs are also used to broadcast operational information and referred to Order 7930.2M, Paragraph 1-3-5.

George Bland, AFFSA, asked if the FAA would/could do this manually, and stated the DoD will have to change automation first. Brad commented that FAA is aware of the automation problem, and it will take time and money to resolve it. Tom said a memo went out to advise of upcoming policy changes some time ago, so this shouldn't be a surprise.

Tom moved to end discussion of issue. He stated that minimums can be raised by P-NOTAM if necessary. Bill Hammett responded to a question about placing both TDZE and THRE on IAP charts by reminding the group this subject was discussed at a previous ACF, and was violently objected to by nearly all pilot industry groups. Bruce suggested the discussion of how to expedite day forward TDZE usage for new/revised charts be taken off line and worked between AFS-400 and AJV-3. Brad re-stated that criteria changes are needed before automation changes can be done and discussed the possible introduction of errors due to manually changing numbers.

Status: 1) AFS-400 and AJV-3 will jointly work a plan for immediate implementation, and 2) AFS-410 and AJV-3B to work the issue of publishing TDZE on current procedures developed under TERPS Change 20. Item Open (AFS-400, AJV-3, AFS-410 and AJV-3B).

- t. **13-01-308:** RNAV (GPS) Approach Procedures That Do Not Have an LNAV Minimum Line Should Indicate "Alternate NA"

Kel Christianson, AFS-470, stated that the information has been published in the AIM and recommended closing issue. John Collins, GA Pilot, disagreed, commenting that LPV-only approaches are vertically guided and since they do not have an associated non-vertically guided line of minima published, must be marked as ALT N/A. Tom Schneider, AFS-420, discussed John's concerns and advised of specific guidance that has already been incorporated into Order 8260.19 to alleviate them. John concurred the 8260.19 changes address his concerns; however, the AIM guidance is lacking. Kel stated he will take this issue back to Catherine Majauskas, the AFS-470 specialist working this issue, for action.

Status: AFS-470 to consider John Collin's comments for possible AIM update.
Item Open (AFS-470).

- u. **13-01-310:** Option "Pilot Must Have at Least the Textual Description of a SID/STAR in Possession" to Fly a SID or STAR

Tom Schneider, AFS-420, briefed the following update from Gil Baker, contract support to the AFS-420 OPR for the IPH: "Draft IPH wording has been changed to reflect current AIM guidance. Targeted publication date is February 2014".

Status: AFS-420 to track changes to the IPH. [Open Pending Publication \(AFS-470\)](#).

- v. **13-01-311:** Terminal Arrival Areas

Tom Schneider, AFS-420, briefed the following update from the US-IFPP as received from TJ Nichols, the AFS-420 TERPS RNAV criteria specialist: "This subject was extensively discussed at the June US-IFPP meeting and led to a collaborative effort between AFS-420 and AFS-470 to review TAA use and a review of Order 8260.58. Both offices agreed to make changes in the next revision of the Order to remove all references to "free flight" from Volume 4, paragraphs 1.1.1, 1.2.1, 1.2.2, 1.2.3, and table 1-1. It was also noted that there is a discontinuity between the minimum leg length or the ideal leg length and the assumed intercept angle. There was some language implying pilots were supposed to or were obligated to maneuver themselves to make the angle, in order to make the leg length good and there are issues with that. There is no obligation nor any pilot training that requires this, and AFS is going to re-consider the leg length criteria instead of trying to put this on the pilot.

It was also discussed that there is contradiction between TERPS design, ATC procedures, and AIM material for pilots that must be resolved. For example, the AIM says that once a pilot crosses the TAA boundary he/she may proceed direct to the applicable fix, whereas TERPS implies the pilot must maneuver to be at a 45° intercept or fail to make the intercept with the appropriate leg length.

AFS-420 and AFS-470 agreed to jointly lead a US-IFPP working group to develop recommended revisions to FAA Order 8260.58, AIM, IPH, and IFH."

A lengthy group discussion followed on TAA concepts and actions, including pilot actions and controller responsibilities. Kel Christianson, AFS-470, advised action is underway to revise the entire TAA portion of the AIM. John Collins, GA Pilot, stated the original TAA concept was to apply to RNAV approaches, but it is becoming more and more common to see them on conventional IAPs. He supports increased use of TAAs and asked that if a TAA is published in lieu of a MSA, should the IAP be annotated "GPS Required". The consensus was yes. Brad Rush, AJV-3B, stated that they are seeing increasing TAA application on conventional IAPs. John stated he supports this concept. Tom advised the TAA concept was to replace MSA and a short discussion ensued regarding the future value of MSAs. Any changes will be discussed in US-IFPP, including all references to free flight. Bill Hammett, AFS-420 (ISI/Pragmatics Contract Support), asked Gary Fiske, AJV-8, if TAA controller training had been developed. Gary said that AT had not been good at training controllers on the benefits of TAAs. He also added that use of TAAs is most beneficial in remote areas where the ARTCC serves as the approach control.

Status: 1) AFS-420 will continue a review of FAA Order 8260.58 through the US-IFPP and forward the results to AFS-470 for updating of the AIM, IPH and IFH; and, 2) AJE-31 and AJV-8 will continue developing controller training material.

[Item Open \(AFS-420, AJE-31, and AJV-8\)](#).

5. New Business:

a. **13-02-312:** Equipment Requirement Notes on Instrument Approach Procedures

New issue presented by Rich Boll, NBAA, as a joint submission on behalf of NBAA and Bruce Williams, CFI and FAAS Team Member, Seattle, WA.

Rich presented background info, highlighting the duplication (both plan view and briefing strip) of chart notes on some procedures. Rich and Bruce both recommend that FAA determine the most critical equipment requirement and publish a single note regardless of whether that equipment is required to enter the procedure or to fly it. Tom Schneider, AFS-420, briefed that split notes are published as a direct result of ACF Charting Group consensus on CG issue 01-01-137. A long discussion followed after which Tom asked if the group had any objection to charting just one note in the briefing strip. Brad Rush AJV-3B questioned if IPG was initiating policy. Tom responded no; however, it is helpful to get users consensus **prior to** writing policy/criteria. Kevin Bridges, AIR 130, asked the benefits of the equipment notes. Rich responded that pilots must know what equipment is required to fly the approach. If something more than what the title suggests is necessary, then that equipment must be noted for the pilot. The general consensus is that FAA should determine the most critical equipment necessary for the approach and publish one note in the briefing strip. Tom recommended an AFS-410/420/470 working group be formed to address the issue and report back to the ACF.

Status: A joint AFS 410/420/470 working group will be formed to work the issue.

Item Open (AFS-410/420/470).

b. **13-02-313:** Chart Notes for Simultaneous Approaches

New issue presented by John Blair, AFS-410, expressing concern over the increasingly lengthy note requirements for simultaneous approaches. Current requirements are to note all simultaneous approaches on the chart being used by the pilot. In the case of locations like Atlanta, Los Angeles, etc., this can include up to 19 other approach titles, thus requiring a very lengthy note. AFS-410 is recommending the note be shortened to simply state that simultaneous operations are in effect to runways xx/xx/and xx. Vince Massimini, MITRE, stated that with the change from ILS/MLS being the only simultaneous operations authorized, he believed that pilots only need to know the applicable runways. Brad Rush, AJV-3B, stated that the IAP doesn't change whether there is a note on it or not, the ATIS also provides the information. Brad emphasized that when notes change on regulatory procedures, the procedure has to be amended. John Frazier, Advanced Aircrew Academy, asked why notes are required in the first place. Jim Arrighi, AJV-14, stated that before we decide to get rid of any notes that were added as a result of a SMRD, another SMRP would probably be necessary, before removing them. The group discussion and consensus is to only note the runways to which simultaneous approaches are authorized. It should also be considered whether the note can be eliminated and this information promulgated via the ATIS. Gary Fiske, AJV-8, added that Order JO 7110.65, paragraph 5-9-8 doesn't require specific IAPs only runways. AFS-410 will pursue these options through AT and the SRMD process.

Status: AFS-410 to work issue, with room consensus on direction. **Item Open (AFS-410).**

c. 13-02-314: Bank Angle Requirements on Instrument Approach Procedures

New issue presented by Rich Boll, NBAA, expressing concern over the use of increased bank angles in procedure design. He used the RNAV (GPS) RWY 33 approach at Buena Vista, CO, which specifies 25 degrees was used in the design; however, this information is not provided to the pilot. Rich is requesting that higher bank angles be published on the chart. Tom Schneider, AFS-420, briefed he had consulted with TJ Nichols, the AFS-420 staff specialist for RNAV criteria, who responded () that the use of an increased bank angle should not have happened. A bank angle calculator was inadvertently included in Order 8260.58. This situation is being corrected by an AFS-400 memo; however, Tom was unsure whether it had been signed. Brad Rush, AJV-3B, asked what bank angle developers should use. John Frazier, Advanced Aircrew Academy, concurred that the chart does not specify the bank angle; therefore, in the absence of other guidance, pilots would apply what they normally use. Group discussion on bank angles and aircraft performance and climb gradients ensued. Bruce McGray, AFS-410, stated that if a 25 degree bank angle is required, then it will have to be a demonstrated aircrew qualification. Rich stated that what he understands from the conversation is this was a fluke and should not happen again. Tom added there should never be a 25 degree bank angle requirement specified on an IAP. With this statement, Rich stated the issue may be closed.

Editor's Note: *The policy clarification memo mentioned above was signed by AFS-400 on November 4, 2013.*

Status: Issue CLOSED.

6. Next Meeting: ACF Meeting **14-01** is scheduled for **April 29-May 1, 2014** with **MITRE Corporation, 7515 Colshire Avenue, McLean, Virginia 22012** as host. ACF Meeting **14-02** is scheduled for **October 28-30, 2014** with **ISI/Pragmatics** as host. ALPA has volunteered to host meeting 15-01.

Please note the attached Office of Primary Responsibility (OPR) listing (attachment 1) for action items. *It is requested that all OPRs provide the Chair, Tom Schneider, AFS-420, a written status update on open issues not later than October 9 - a reminder notice will be provided.*

7. Attachments (2):

1. OPR/Action Listing.
2. Attendance Listing

Editor's Note: *As was announced during the meeting, this will be my last ACF-IPG meeting as Executive Secretary for this group. I have been attending ACF meetings since 1992 and have served as the Executive Secretary for the Instrument Procedures Group through 5 Chairs as both a 'fed and as a contractor since 1995. It has been a genuinely satisfying work experience. I have learned much from the conversations and my knowledge base broadened exponentially. I thank you all for your friendship and camaraderie over the past 21 years and especially thank Tom Schneider of AFS-420, Ted Thompson and John Moore of Jeppesen, Bob Lamond and Rich Boll of NBAA, and Brad Rush of FAA/AJV-3 for their kind words and farewell presentations after the meeting. I trust and encourage you all to provide the same support to my replacement, Steve VanCamp. I truly believe this Aeronautical Charting Forum has proven to be an invaluable asset to both FAA and industry in addressing and resolving instrument procedure criteria and charting issues and wish it continued support and success. Until we meet again somewhere, I will now retire to a life, as described by Tom T. Hall, a distinguished bluegrass songwriter, of "faster horses, younger women, older whiskey, and more money". Thank you all.....Bill Hammett*

**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
OPEN AGENDA ITEMS FROM MEETING 13-02**

<u>OPR</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-470	92-02-110: (Cold Weather Altimetry)	Continue to develop a cold temperature implementation plan and update the AIM.
AJE-31	02-01-241: (Non-Radar Level and Climb-in-hold (CIH) Patterns)	Track change to FAA Order JO 7210.3.
AFS-420	07-01-270: (Course Change Limitation Notes on IAPs)	Track TERPS Change 26.
AFS-420	07-02-278: (Advanced RNAV (FMS/GPS) Holding Patterns Defined by Leg Length)	Continue development of revised holding criteria.
AJV-14	09-02-286: (Initial "Climb & Maintain" Altitude on SIDS)	Monitor PCPSI group actions and report progress.
AFS-410, AFS-470 and AFS-420	09-02-288: (VNAV Minimums vs. Circle to Land)	AFS-410: In concert with AFS-470, develop AIM language. Note: Assistance has been offered from NBAA, APA, John Collins, and Horizon Air. AFS-420: Track IPH publication
AFS-420 (US-IFPP)	09-02-291: (Straight-in Minimums NA at Night)	Continue to work issue through the US-IFPP and report.
AFS-420 AJE-31	10-01-292: (Removal of VCOA Option at Mountainous Airports)	AFS-420: Track IPH guidance. AJE-31: Track AIM, AIP, PCG, and changes to FAA Orders JO 7110.65/7110.10 until published.
AFS-470	10-01-294: (RNP SAAAR Intermediate Segment Length and ATC Intervention)	Monitor PARC actions and report.
AFS-470	11-01-296: (Magnetic Variation Differences and Flight Management Systems)	Track AIM changes until published.
AFS-420	11-02-297: (Airway "NoPT" Notes on IAPs)	Track change to FAA Order 8260.19.
AJV-3B (US-IFPP) AFS-420	11-02-298: (Converging ILS Coding and Chart Naming Convention)	AJV-3B: Track and report US-IFPP and internal AJV-3 actions on the subject. AFS-420: Track change to FAA Order 8260.19.
AFS-420 (US-IFPP)	12-01-299: (Loss of CAT D Line of Minima in Support of Circle-to-Land Operations)	Lead a study group and address the issue through the US-IFPP.

**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
OPEN AGENDA ITEMS FROM MEETING 13-02**

<u>OPR</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-420 (US-IFPP)	12-01-301: (Publishing a Vertical Descent Angle (VDA) with 34:1 Surface Penetrations in the Visual Segment, <i>also includes issue 13-01-309</i>)	Facilitate US-IFPP work group to address both issues.
AFS-470	12-02-303: (Charting Computer Navigation Fixes(CNFs))	Track AIM guidance regarding CNFs until published.
AFS-400 & AJV-3 AFS-410 & AJV-3B	13-01-307: (TDZE is Required by 91.175, THRE is Not)	<u>AFS-400 & AJV-3:</u> Develop a work plan for immediate implementation. <u>AFS-410 & AJV-3B:</u> Publish TDZE value for procedures developed under TERPS Change 20.
AFS-470	13-01-308: (RNAV (GPS) IAPs without LNAV Minimums Should Indicate "Alternate NA")	Consider new comments from John Collins regarding IAPs with LPV minima only for inclusion in AIM.
AFS-420	13-01-310: (Option to Fly a SID/STAR) with only Textual description)	Track changes to the IPH and ensure the office responsible for the IFH is advised
AFS-420 (US-IFPP) AFS-470 AJE-31 & AJV-8	13-01-311: (Terminal Arrival Areas)	<u>AFS-420:</u> Pursue a review of FAA Order 8260.58 through the US-IFPP <u>AFS-470:</u> Based on the above, draft updated language for the AIM, IPH and IFH. <u>AJE-31 and AJV-8:</u> Jointly continue developing controller training material.
AFS-420, AFS-410, and AFS-470	13-02-312: (Equipment Requirement Notes on Instrument Approach Procedures)	<u>AFS-420:</u> Lead a joint working group to resolve the issue.
AFS-410	13-02-313: (Chart Notes for Simultaneous Approaches)	Work issue using ACF consensus as desired direction.

**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
ATTENDANCE - MEETING 13-02**

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**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
ATTENDANCE - MEETING 13-02**

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AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
Meeting 14-01 April 29, 2014

RECOMMENDATION DOCUMENT

FAA Control # 14-01-315

Subject: 90 Degree Airway-to-RNAV-IAP Course Change Limitation; Arrival Holds

Background/Discussion: Historically, TERPs has permitted course changes as large as 120 degrees from airways onto feeder routes or initial approach segments of SIAPs. This limit remains unchanged for SIAPs other than RNAV SIAPs with the recent TERPS change 26. However, FAA Order 8260.58 limits the course change for RNAV SIAPs from airways to feeder routes or initial segments to 90 degrees. NBAA has been unable to determine the rationale supporting the reduction in the turn angle limit on RNAV SIAPs. Since the AIM (ref: Sec.1-2-3) and AC 90-108 permit using RNAV systems to navigate the feeder segment of conventional SIAP, NBAA assumes that any issues concerning turn angle limitations would be reflected by a similar limitation being included in the recent change 26 to the TERPS. Given that RNAV systems are frequently used to navigate these segments, we believe that any issues arising from the use of the 120 degree turn angle limit would be well known and reported to industry.

The RNAV SIAP feeder limitation has resulted in arrival note restrictions where none previously existed. In addition, arrival holding patterns are being created by Aero Nav Services on an ad hoc basis to provide some relief from this restriction. Arrival holding patterns for this purpose become de facto course reversal holding patterns, but such use of an arrival holding pattern requires a clearance from ATC in addition to an approach clearance. This typical use of arrival holding patterns as an ATC traffic management tool is not generally understood by pilots. The expanded use of the arrival holding pattern as a tool supporting SIAP segment entry is less understood nor is it adequately explained in FAA guidance for pilots or controllers.

A recently implemented example is on the Dillon, Montana (KDLN) RNAV (GPS) Runway 17 SIAP, for an arrival on Victor Airway 343 from the south (illustrated in the attachment)*. Note that the course change from V-343 northbound onto the JOXIT feeder route is 101 degrees and prohibited by the JOXIT note. Instead, the JOXIT arrival holding pattern shown on the approach chart is an implicit course reversal to permit entry onto the JOXIT feeder route arriving on V-343 from the south.

NBAA conducted a simulation of the JOXIT configuration using a Garmin G-3000 trainer. We did this at 265 KIAS at 15,000 in an ISA atmosphere with no winds aloft. As a test, we intentionally “violated” the procedure note limitation by arriving at JOXIT from the south on V-343 and turned on to the feeder segment. The avionics simulation made a very good flyby of JOXIT. We also did this JOXIT flyby at a 120 degree angle and at 310 KIAS. Again, the result was a very good flyby at JOXIT. However, when we arrived at JOXIT from the south on V-343 and entered the charted arrival hold at 15,000, 265 KIAS (descending to 14,000 in the hold) the avionics could not correctly

sequence the turn from the hold to the JOXIT feeder route. The simulation did not attempt to start the turn to the west until having overflown JOXIT, thus treating it like a “fly over” WP.

Further discussions with business aviation avionics OEMs reveal that holding pattern waypoints are often treated as “fly over” waypoints when an “EXIT HOLD” command is executed. Therefore, most RNAV system exiting the arrival hold will over-fly the waypoint, then turn to rejoin the feeder segment. While NBAA has no concerns with this methodology, we fail to see where an advantage is gained by using arrival holds to mitigate the reduction of feeder-to-airway turn angle limits. We believe that air traffic and pilots are better served if RNAV turn angle limitations remain unchanged from the current 120 degree limit for both conventional and RNAV SIAPs unless compelling evidence is furnished by FAA demonstrating that the expanded limit results in RNAV aircraft exiting protected airspace during the leg change.

Recommendations: AFS-420 should commission a simulation study of both the 90 degree and 120 degree turn limits when RNAV equipment is used to navigate an airway-to-feeder route segment. The study should also evaluate the performance of RNAV systems when an arrival hold is used in lieu of a larger turn angle limit, and in particular the RNAV system performance leaving the holding fix (which are often treated as “fly-by” waypoint when exiting the hold) and joining the feeder route. NBAA believes such simulations will validate that a 120 degree course change is far preferable to an arrival hold “course reversal.”

If the FAA determines that it must retain the limit on airway to feeder (or initial segment) RNAV SIAPs to 90 degrees because of RNAV system performance, then consideration should be given to placing the same limit non-RNAV SIAPs since today RNAV systems are largely used to navigate these routes in lieu of the ground-based NAVAID. In addition, definitive, comprehensive policy needs to be provided to AeroNav Services that gives objective guidance about when arrival holding patterns must be included in original or revised RNAV and ground-based SIAPs. Consideration should also be given to establishing speed limitations on SIAPs that will allow the use of RNAV systems while supporting the existing 120 degree turn angle limit.

Finally, detailed guidance must be provided to both pilots and ATC about the use of “course reversal” arrival holding patterns on SIAPs in circumstances such as provided by the KDLN-JOXIT example.

Comments: This affects policy guidance to Aero Nav Services, the Aeronautical Information Manual, the ATC Handbook, and the TERPS and PBN Orders. An FAA simulator study by the FAA should be the first order of business on this issue, and should be promptly completed.

Submitted by: Richard J. Boll II

Organization: NBAA

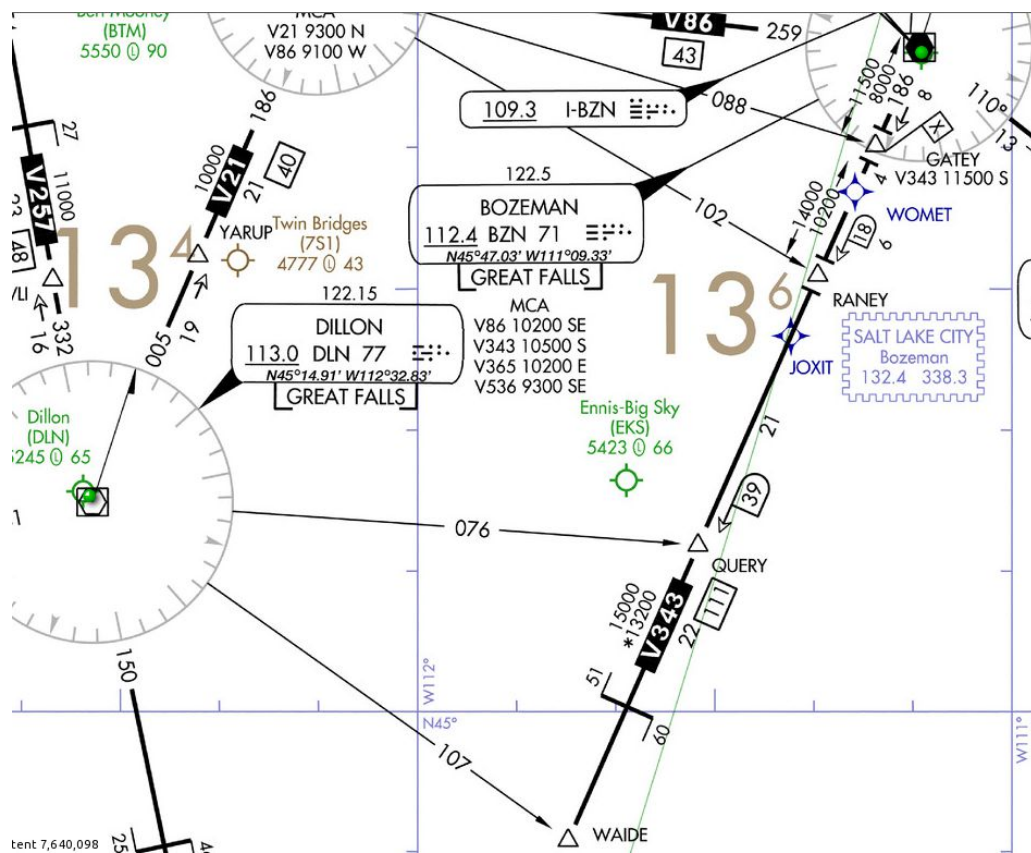
Phone: 316-655-8856

FAX:

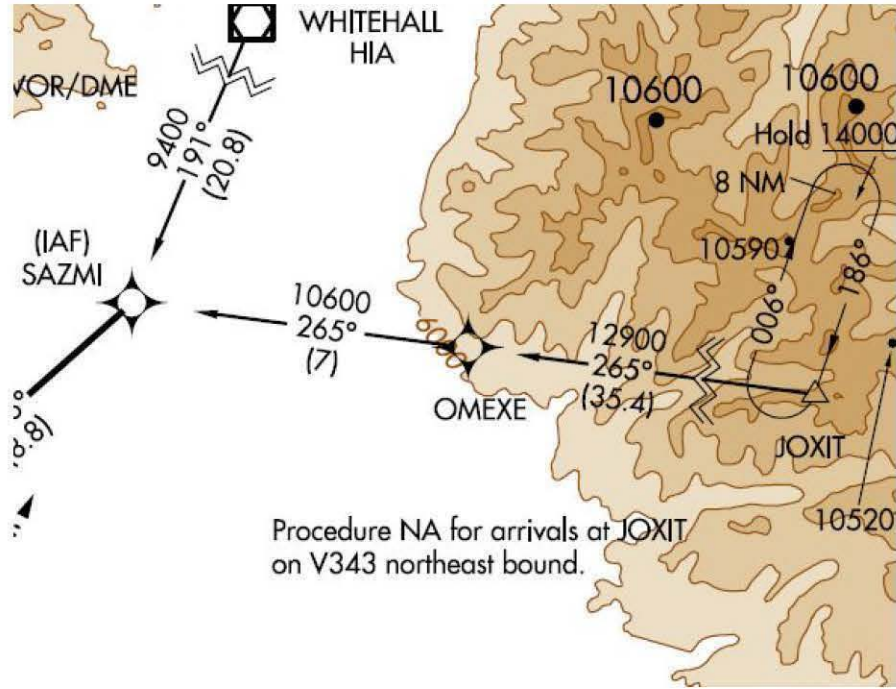
E-mail: richard.boll@sbcglobal.net

Date: March 21, 2014

V-343/JOXIT Feeder WP, Dillon, Montana



*Note: A very recent change to V343 removed JOXIT from the airway structure. However, the issue remains since the limitation is reflected on SIAP chart and is found on other procedures within the NAS.



AERONAUTICAL CHARTING FORUM
Instrument Procedures Group
Meeting 14-01 April 29, 2014

RECOMMENDATION DOCUMENT

FAA Control # 14-01-316

Subject: RNAV Fixes on Victor Airways Used for RNAV SIAPs.

Background/Discussion: The new KDLN RNAV SIAP has a feeder WP (JOXIT WP) that lies on V-343, but is not part of V-343 because it is not a radial/radial or radial/DME fix. This creates pilot human-factors and workload issues because the FMS airway nav-database cannot contain an airway fix that is not a part of the airway even though such fix (WP) lies on the airway. This increases workload and the possibility of a pilot creating the incorrect FMS flight plan to ingress onto an RNAV SIAP.

Recommendations: When a new Victor Airway fix is created to provide either a feeder or initial approach fix for an RNAV SIAP, such a fix should be a conventional airway fix (radial/radial or radial/DME), which will permit the fix to be part of the RNAV Victor airway database. This will prevent route discontinuities or possible pilot error in selecting the wrong feeder fix or IAF from the affected Victor airway onto the RNAV SIAP.

Comments: This requires that specific guidance be written in FAA Order 8260.19F to direct AeroNav Products to make on-airway RNAV SIAP feeder fixes or IAFs either radial/radial or radial/DME fixes instead of RNAV waypoints.

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Date: March 28, 2014

Charting Group

**Government/Industry Aeronautical Charting Forum (ACF)
Meeting 14-01**

April 30 – May 1, 2014

MITRE

**7515 Colshire Drive
Building 1, Conference Center
McLean, VA 20172**

CHARTING GROUP AGENDA

I. OPENING REMARKS

II. REVIEW MINUTES OF LAST MEETING, ACF 13-02

III. AGENDA APPROVAL

**IV. PRESENTATIONS, ACF WORKING GROUP REPORTS, ACF
PROJECT REPORTS**

ICAO / IFPP Committee Report

FAA / Mike Webb

Airport Surveying - GIS Program

FAA / Dr. Michael McNerney

Discontinuation of VOR Services

FAA / Rowena Mendez

PBN Implementation Process
FAA Order 7100.41

FAA / Dawn Ramirez

V. OUTSTANDING CHARTING TOPICS

Forum Number	Description Summary	Submitter
05-02-179	Attention All-users Page for Simultaneous, Parallel RNAV Departures & PRM Approaches Status: Kel Christianson, FAA/AFS-470	FAA/AFS
07-01-195	Charting & A/FD Information Re: Class E Surface Areas Status: Paul Gallant, FAA/AJV-11	NBAA
09-01-214	Low Visibility Operations/SMGCS (LVO/SMGCS) Taxi Charts (Previously titled as SMGCS Taxi Charts) Status: Bruce McGray, AFS-410	FAA
10-02-233	Removal of (ATC) Crossing Restrictions from STARs Status: Valerie Watson, AJV-3	FAA/AJV-14
11-01-238	Aerobatic Area Symbols on VFR Sectional Chart Status: Chris Criswell, AJV-22	FAA Mark Payne
13-01-260	Inclusion of Metering Frequency, 133.57, to MSP Airport Diagram – FAA AL 264 Status: Valerie Watson, AJV-3	Steve Perry Delta Air Lines
13-01-261	Alaska Ground Based Transceivers (GBT) Locations Status: Valerie Watson, AJV-3 and Bob Carlson, AJV-322	Jim Hill FAA/AJM-2323
13-01-262	Airport Facility Directory (A/FD) Depiction of Traffic Pattern Altitudes Status: Chris Criswell, AJV-22	Randy Collier Michigan DOT
13-01-263	Airport Facility Directory (A/FD) Airport Manager Contact Information Status: Bob Carlson, AJV-322	Randy Collier Michigan DOT
13-01-264	Flight Path Angle (FPA) on STAR Charts with Published Vertical Profiles Status: Kel Christianson, AFS-470	Kevin Allen US Airways
13-01-266	Standardized Depiction of Altitude Restrictions on Bottom, Top and Maintain Altitudes on Standard Terminal Arrival (STAR) and Standard Instrument Departures (SIDs) Status: Jim Arrighi, AJV-141, Valerie Watson, AJV-3, Tom Schneider, AFS-420	Jim Arrighi FAA/AJV-141
13-01-267	Addition of ATC Radar Telephone Numbers in FAA A/FD Status: Michael Poisson, AJV-8 and Rich Boll, NBAA	John Lindsay US Citizen

Forum Number	Description Summary	Submitter
13-01-268	Making Alternate Missed Approach Text Accessible to ATC Status: Brad Rush, AJV-3 and Michael Poisson, AJT-2AE	Rich Boll NBAA
13-01-270	Step Down Fix Chart Notes Status: Kevin Bridges, AIR-130	Kevin Bridges FAA/AIR-130
13-02-272	Charted Critical DME Note on RNAV SIDs and STARs Status: Jim Arrighi, AJV-141, Brad Rush, AJV-3 and Lynette Jamison AJR-B1	Ron Renk United Airlines
13-02-273	Publication of Diverse Vector Areas (DVAs) Status: Tom Schneider, AFS-420, Valerie Watson, AJV-3 and Bruce McGray AFS-410	Richard Boll, II NBAA

VI. NEW CHARTING TOPICS

Forum Number	Description	Submitter
14-01-274	Solar Power Plant Ocular Hazard Symbol on Aeronautical Charts Briefer: TBD	FAA Western Services Center Operations Support Group
14-01-275	Charting Speed Limited Areas on Instrument Approach Plates Briefer: TBD	Bennet E. Taber Dreamline Aviation, LLC
14-01-276	Removal of Non-Alaska Facility Information from Alaska Supplement Briefer: TBD	Marshall G. Severson FAA
14-01-277	Discontinuation of World Aeronautical Chart (WAC) Briefer: Ron Haag, FAA/AJV-3212	FAA AeroNav Products
14-01-278	Alaska Designated Common Traffic Advisory Frequency Area Chart Depictions Briefer: Mike Yorke, FAA/AAL-ANC-FSDO	Brian E. Staurseth FAA
14-01-279	Naming of FAA Certified, National Disseminated AWOS-3 Systems on Private Use Airports Briefer: Regina H. Sabatini, FAA/AJV-22	Regina H. Sabatini FAA

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

I. Opening Remarks

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

II. Review of Minutes from Last Meeting

The minutes from the 13-01 ACF meeting were distributed electronically last spring via the AeroNav ACF website: http://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 13-02 meeting was accepted as presented, with the addition of the TAPP (Transport Aircraft Performance Planning) briefing by Bruce McGray, AFS-410.

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

A. ICAO/IFPP Committee Report

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

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

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

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

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

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

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

B. Declared Distances

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

STATUS: CLOSED

C. Airport Surveying – GIS Program

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

D. Discontinuation of VOR Services

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

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

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

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

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

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

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

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

E. Los Angeles Terminal Navigation Chart

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

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

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

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

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

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

STATUS: CLOSED

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

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

STATUS: CLOSED

G. Route Planning Briefing

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

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

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

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

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

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

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

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

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

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

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

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

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

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

H. TAPP (Transport Aircraft Performance Planning) Presentation

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

STATUS: CLOSED

V. Outstanding Charting Topics**A. 05-02-179 Attention All Users Page (AAUP) for Simultaneous, Parallel RNAV Departures & PRM Approaches**

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

STATUS: OPEN

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

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

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

STATUS: CLOSED

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

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

STATUS: OPEN

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

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

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

STATUS: CLOSED

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

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

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

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

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

STATUS: OPEN

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

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

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

STATUS: CLOSED

G. 09-02-222 Charting of VGSI

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

STATUS: CLOSED

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

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

STATUS: OPEN

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

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

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

STATUS: CLOSED

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

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

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

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

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

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

STATUS: CLOSED

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

STAUS: OPEN

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

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

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

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

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

STATUS: CLOSED

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

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

STATUS: OPEN

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

VI. New Charting Topics

A. 13-02-271 Removal of VFR Waypoints

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

STATUS: CLOSED

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

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

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

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

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

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

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

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

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

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

STATUS: OPEN

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

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

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

VII. Closing Remarks

Valerie Watson, AJV-3, thanked everyone for their participation and voiced special appreciation to Steve Serur and ALPA for hosting the ACF.

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

- Charting Group - http://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/acfigg/

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

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

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

VIII. Next Meeting

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

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

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

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

IX. Attachments

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

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-274

Subject: Solar Power Plant Ocular Hazard Symbol on Aeronautical Charts

Background/Discussion:

Solar Energy Power Plant construction has rapidly increased over the last several years. While solar energy power plant technology is continuing to mature, data indicates that the bigger the site, the better the site. Many sites now cover hundreds of acres and contain multiple “farms” of mirrors. These sites are rapidly becoming VFR checkpoints for cross country flights as well as visual navigation fixes for IFR visual procedures.

Today, the only charting symbology linked to solar power plants is an associated obstruction (tower) centered in the farm. While appropriate for the obstruction, this symbol does not identify the Solar Power Plant sites as “highly visible visual landmarks”, nor do they indicate that these sites can present ocular hazards for flight crews. The most common hazard is reported as being similar to the sun’s glare reflected off water. However, there are reports of more intense reflections that can cause a temporary after-image for flight crew members.

Recommendations:

Define and establish aeronautical charting symbology for placement at large solar power plant sites that will identify;

1. The visual landmark for VFR navigational purpose.
2. This site has potential ocular hazard considerations.

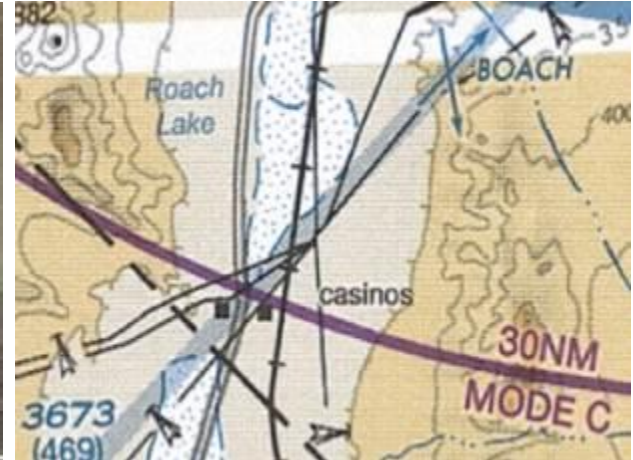
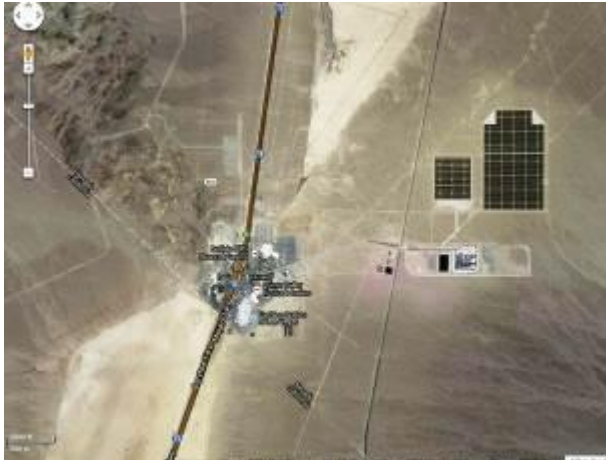
Comments:

Submitted by: FAA Western Service Center (WSC) Operations Support Group (OSG)
Organization: South Airspace/Procedures Team, AJV-W21
Phone: (425) 203-4564
E-mail: rex.maclean@faa.gov
Date: February 14, 2014



Ivanpah Solar Electric Generating System

Ivanpah Dry Lake, CA



First Solar Electric

Jean, NV

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-275

Subject: Charting speed limited areas on Instrument Approach Plates

Background/Discussion: After crossing the Catalina channel at 5,000', aircraft landing south at Santa Ana, California (KSNA) are usually vectored onto a right downwind for 19R at 3,000'. Most of the area on the downwind leg lies under an overhanging shelf of the LAX class B airspace, and therefore has a posted speed limit of 200 knots, but this relationship is not presented on the instrument approach plates. The result is that not a day passes without someone busting the speed limit and being reprimanded at by SoCal approach.

Recommendations: Since no one is going to break out the area chart or the LAX 10-1 plate to figure this out in advance, how about creating a graphic on the approach plate itself to show the area which lies under the B airspace with, perhaps, a reminder to slow to under 200 knots prior to reaching the area which lies under the B shelf?

Comments:

Submitted by: Bennett E. Taber
Organization: Dreamline Aviation, LLC
Phone: 925.980.3965
E-mail: ben@dljets.com
Date: 3/30/2014

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-276

Subject: Removal of Non-Alaska Facility Information from the Alaska Supplement.

Background/Discussion:

Attached is a list of 129 non-Alaska Facilities that are in the Alaska Supplement. Over the past couple of years FAA, Alaska Flight Services Information Area Group (AFSIAG) has been slowly identifying concerns about accuracy of data, safety implications, and wise use of resources regarding non-Alaskan facilities listed in the Alaska Supplement as well as the extraordinary amount of them. A few examples:

1. Safety/Accuracy: Redmond, Roberts Field (KRDM). Northwest A/FD lists Deschutes (DSD) VORTAC unusable 220°-240° beyond 30 nautical miles. The 6 Feb 2014 Alaska Supplement has no entry for any DSD unusable radials.
2. Safety/Accuracy: Very High Frequency Direction Finder (VHF DF) listed for KBFI. The DF was decommissioned years ago. We do not have any responsibility in Alaska to monitor these types of entries concerning non-Alaska locations.
3. Resource: M50 airport, Boardman OR. This is a small civil strip, far from Alaska and the Canadian/U.S. border, not sure why this would be in an Alaskan publication. Utilizing limited resources to publish duplicated information in a non-primary source is questionable resource management of scarce taxpayer funding.
4. Safety/Accuracy: Canadian non-AOE facilities. U.S. pilot briefers advise pilots to check data as soon as practical after entering foreign airspace as our international data may be inaccurate or incomplete. This disclaimer is not visible in the Alaska Supplement.
5. Safety/Accuracy: Non-Alaska Airports do not have airport layout graphics in the Alaska Supplement. This information gap is mitigated if users would utilize primary sources such as the Northwest A/FD.

AFSIAG coordinated with Air Force and Army representatives in Alaska. Accuracy was noted as the first priority and 5 airports were identified for retention if the information is assured accurate, otherwise they supported removing all non-Alaska airfields from the Alaska Supplement.

Gray Army Air Field (GRF) Joint Base Lewis-McChord
 McChord Field (TCM) Joint Base Lewis-McChord
 Seattle-Tacoma International Airport (SEA)
 Whidbey Island NAS (NUW) Ault Field
 Whitehorse (CYXY) Erik Nielsen Intl

Staff at Anchorage ARTCC has been contacted and has been supportive of this initiative as has Alaskan FAA Flight Standards Division management.

Recommendations: Eliminate selected non-Alaska facilities from the Alaska Supplement for reasons of safety, accuracy of data and prudent resource management, utilizing stakeholder input.

Comments: 1 attachment (List of non-Alaska Facilities)

Submitted by: Marshall G. Severson

Organization: FAA, Alaska Flight Services Information Area Group (AFSIAG), AJR-BAL

Phone: 907-271-5891

E-mail: marshall.g.severson@faa.gov

Date: April 2, 2014

Attachment 1: Alaska Supplement Non-Alaskan Airport/NAVAIDs

as of 7/25/13, Compiled by Marshall Severson, FAA-AJR/BAL

Airport Name	Airport City	Airport ID	Nav ID Name
			ABERN
ABBOTSFORD	ABBOTSFORD	CYXX	
			ACTIVE PASS
			AGGET
ANACORTES	ANACORTES	74S	
ANAHIM LAKE	ANAHIM LAKE	CAJ4	
ARLINGTON MUNI	ARLINGTON MUNI	AWO	
			ASHCROFT
ASTORIA RGNL	ASTORIA RGNL	AST	
AURORA STATE	AURORA STATE	UAO	
		PND	BANKS
		BTG	BATTLEGROUND
		RD	BODEY
CAMPBELL ISLAND	BELLA BELLA	CBBC	
BELLA COOLA	BELLA COOLA	CYBD	
BELL ISLAND HOT SPRINGS SEAPLANE	BELL ISLAND HOT SPRINGS SEAPLANE	KBE	
BELLINGHAM INTL	BELLINGHAM INTL	BLI	
BEND MUNI	BEND MUNI	BDN	
BROCKER LAKE SEAPLANE	BROCKER LAKE SEAPLANE	6A7	
JONES LANDING SEAPLANE	JONES LANDING SEAPLANE	L95	
BOARDMAN	BOARDMAN	M50	
BOUNDARY BAY	BOUNDARY BAY	CZBB	
BREMERTON NATIONAL	BREMERTON NATIONAL	PWT	
BULLEN POINT AIR FORCE STATION	BULLEN POINT AIR FORCE STATION	8AK7	
SKAGIT REGIONAL	BURLINGTON/MOUNT VERNON	BVS	
BURNS LAKE	BURNS LAKE	CYPZ	
BURWASH	BURWASH	CYDB	
CAMPBELL RIVER	CAMPBELL RIVER	CYBL	
CAMPBELL RIVER SEAPLANE	CAMPBELL RIVER		
CAPE POLE SEAPLANE	CAPE POLE SEAPLANE	Z71	
			CARNEY
CARMACKS	CARMACKS	CEX4	
CHAPMAN	CHAPMAN	CEZ2	
CHEHALIS-CENTRALIA	CHEHALIS-CENTRALIA	CLS	
COMOX	COMOX	CYQQ	
COMOX SEAPLANE	COMOX	CCX6	
CORVALLIS MUNI	CORVALLIS MUNI	CVO	
COUPEVILLE NOLF	COUPEVILLE NOLF	NRA	
DAWSON CITY	DAWSON CITY	CYDA	
DEASE LAKE	DEASE LAKE	CYDL	
			DONNY
			EDIZ HOOK
BOWERS FLD	ELLENSBURG	ELN	
			ELWHA
			EUGENE
MAHLON SWEET FLD	EUGENE	EUG	
SNOHOMISH CO/PAINE FLD	EVERETT	PAE	
FRIDAY HARBOR	FRIDAY HARBOR	FHR	
GRAY AAF (JOINT BASE LEWIS-McCHORD)	GRAY AAF (JOINT BASE LEWIS-McCHORD)	GRF	
			HOQUIAM
BOWERMAN	BOWERMAN	HQM	
			KELSO
SOUTHWEST WASHINGTON RGNL	SOUTHWEST WASHINGTON RGNL	KLS	
			KLICKITAT

Airport Name	Airport City	Airport ID	Nav ID Name
			KLONDIKE
			LEWISBURG
LEXINGTON	LEXINGTON	9S9	
MADRAS MUNI	MADRAS MUNI	S33	
			MASON CO
MASSET	MASSET	CZMT	
MAYO	MAYO	CYMA	
McCHORD FLD (JOINT BASE LEWIS– McCHORD)	McCHORD FLD (JOINT BASE LEWIS– McCHORD)	TCM	
MC MINNVILLE MUNI	MC MINNVILLE MUNI	MMV	
			MILL BAY
			MILL BAY
NANAIMO	NANAIMO	CYCD	
			NEWBERG
			NOLLA
SOUTHWEST OREGON REGIONAL	SOUTHWEST OREGON REGIONAL	OTH	
SCOTTS	SCOTTS	OAKO	
AJ EISENBERG	AJ EISENBERG	OKH	
OLD CROW	OLD CROW	CYOC	
OLYMPIA RGNL	OLYMPIA RGNL	OLM	
			PAINE
			PENN COVE
PORT ANGELES CGAS	PORT ANGELES	NOW	
WILLIAM R. FAIRCHILD INTL	PORT ANGELES	CLM	
PORT BAILEY SEAPLANE	PORT BAILEY SEAPLANE	KPY	
PORT HARDY	PORT HARDY	CYZT	
PORT HEIDEN	PORT HEIDEN	PTH	
PORTLAND–HILLSBORO	PORTLAND	HIO	
PORTLAND INTL	PORTLAND	PDX	
PORTLAND–TROUTDALE	PORTLAND	TTD	
JEFFERSON CO INTL	PORT TOWNSEND	OS9	
PITT MEADOWS		CYPK	
POWELL RIVER	POWELL RIVER	CYPW	
PRINCE RUPERT	PRINCE RUPERT	CYPR	
PUNTZI MOUNTAIN	PUNTZI MOUNTAIN	CYPU	
QUILLAYUTE	QUILLAYUTE	UIL	
ROBERTS FLD	REDMOND	RDM	
			ROBINSON
RENTON MUNI	RENTON MUNI	RNT	
ROSEBURG RGNL	ROSEBURG RGNL	RBG	
ROSS RIVER	ROSS RIVER	CYDM	
MCNARY FLD	SALEM	SLE	
SANDSPIT	SANDSPIT	CYZP	
SCAPPOOSE INDUSTRIAL AIRPARK	SCAPPOOSE INDUSTRIAL AIRPARK	SPB	
BOEING FLD/KING CO INTL	SEATTLE	BFI	
SEATTLE–TACOMA INTL	SEATTLE	SEA	
SEQUIM VALLEY	SEQUIM VALLEY	W28	
SANDERSON FLD	SANDERSON FLD	SHN	
SILVER CITY	SILVER CITY	CFQ5	
			SKAGIT/BAY VIEW
CAPE BLANCO STATE	CAPE BLANCO STATE	SS6	
SMITHERS	SMITHERS	CYYD	
HARVEY FLD	SNOHOMISH	S43	
STEWART	STEWART	CZST	
SUNRIVER	SUNRIVER	S21	
TACOMA NARROWS	TACOMA NARROWS	TIW	

Airport Name	Airport City	Airport ID	Nav ID Name
TERRACE	TERRACE	CYXT	
TESLIN	TESLIN	CYZW	
TETLIN	TETLIN	3T4	
COLUMBIA GORGE REGIONAL/THE DALLES MUNI	THE DALLES	DLS	
TILLAMOOK	TILLAMOOK	TMK	
TOFINO/LONG BEACH	TOFINO/LONG BEACH	CYAZ	
TOKEEN SEAPLANE	TOKEEN SEAPLANE	57A	
ED CARLSON MEMORIAL FLD–SOUTH LEWIS CO	TOLEDO	TDO	
VANCOUVER INTL	VANCOUVER	CYVR	
VANCOUVER INTL SEAPLANE	VANCOUVER	CAM9	
VICTORIA INTL	VICTORIA	CYYJ	
VICTORIA SEAPLANE	VICTORIA	CAP5	
			WHATCOM
			WATON
			WATSON LAKE
WHIDBEY ISLAND NAS (AULT FLD)	WHIDBEY ISLAND NAS (AULT FLD)	NUW	
WHITEHORSE/ERIK NIELSEN INTL	WHITEHORSE/ERIK NIELSEN INTL	CYXY	
			WHITE ROCK
WOODCOCK	WOODCOCK	CBQ8	
YAKIMA AIR TERMINAL/MCALLISTER FLD	YAKIMA AIR TERMINAL/MCALLISTER FLD	YKM	

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-277

Subject: Discontinuation of World Aeronautical Chart (WAC) Chart

Background/Discussion:

Following the FAA Strategic Initiatives, AeroNav Products must rigorously analyze our suite of products and stop doing those things that no longer are in demand from the public or have become obsolete due to technological advances. By right sizing our portfolio we can lay the foundation for a sustainable NAS of the future by leveraging technology we will deliver the benefits of more efficient products.

Observe WAC Sales Data Trends. (Compare to other chart series sales trends.)

The National Geospatial-Intelligence Agency has stopped ordering the WAC product series for its customers (military services). They report that the services utilize the Sectional Aeronautical Chart in the US and electronic flight bag (EFB).

EFB moving map technology (seamless charting) is now readily and economically available to general aviation through a number of commercial interests.

Underlying charts continue to portray the aeronautical information in the US where this recommendation is applicable.

Recommendations:

Except where obligated by international agreement or where US territory doesn't have sufficient alternative chart coverage, discontinue the World Aeronautical Chart (WAC).

Comments:

This is the first public forum discussing this initiative. Several internal FAA assessments are still underway on this topic.

Submitted by: Ron Haag, for Guy Copeland

Organization: AeroNav Products

Phone: 301-427-5499

E-mail: guy.copeland@faa.gov

Date: April 4, 2014

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-278

Subject: Alaska Designated Common Traffic Advisory Frequency Area Chart Depictions

Background/Discussion: As a result of several Alaskan mid-air collisions and near mid-air collisions, representatives from the FAA, Aircraft Owners & Pilots Association (AOPA), Alaska Airmen's Association, the Alaskan Aviation Safety Foundation, Alaska Air Carriers Association, along with other aviation industry and government organizations formed the Mat-Su Mid-Air Collision Avoidance Working Group.

NTSB findings recently included a review of the CTAF frequencies used in the area around several accident sites and revealed the use of multiple primary radio frequencies, but due to the high concentration of aerodromes in the area, many of the frequency boundaries overlap.

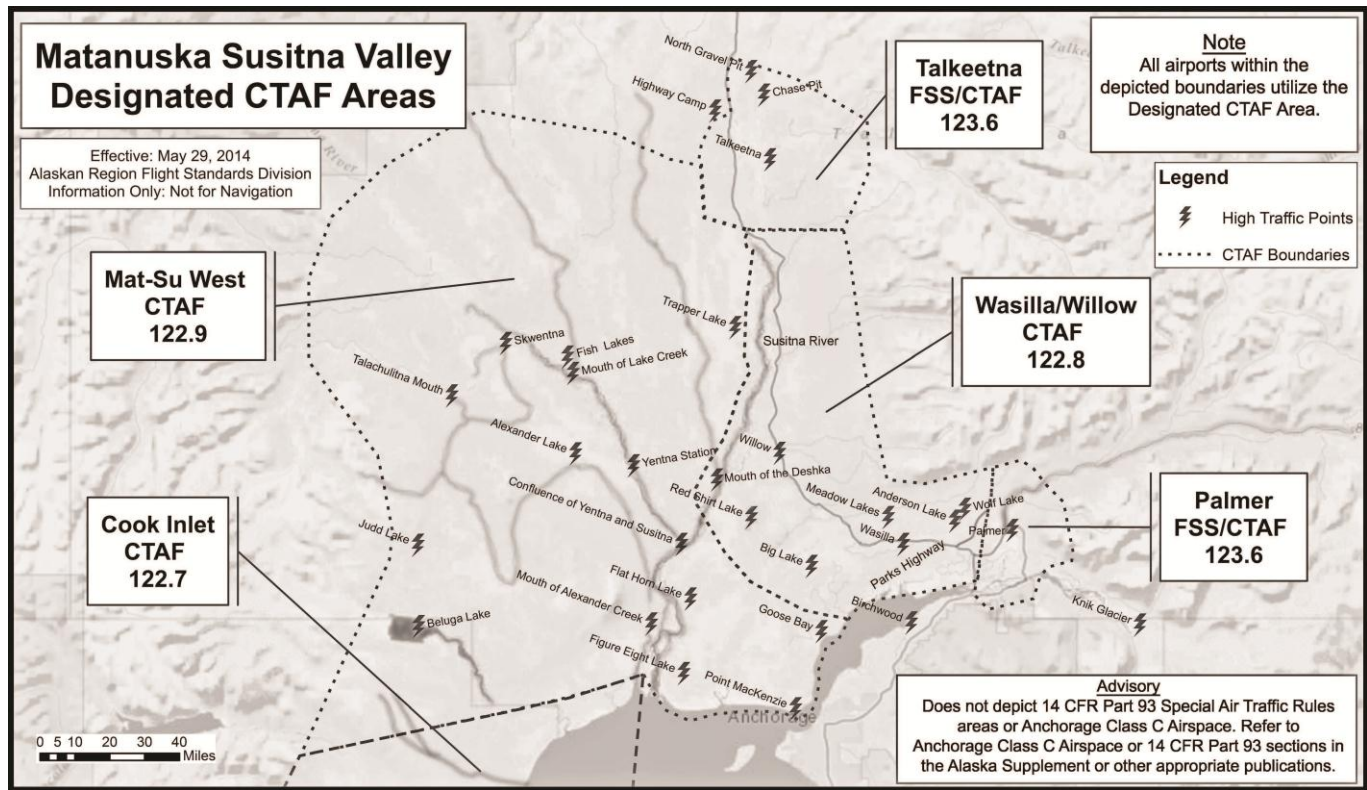
The members of the Working Group examined existing guidance, conducted a pilot survey and sought direct input from FAA lines of business, military operators, general aviation and air taxi pilots and CFI's who use this airspace on a regular basis. A set of recommendations was made to reduce confusing guidance concerning CTAF frequencies (identified in the NTSB findings), and improve aviation safety. These recommendations included establishment of designated CTAF Areas for discrete geographic areas, as opposed to the standard 10 mile radius around an airport.

Although the definition of CTAF and MULTICOM speak specifically to airport operations, discrete CTAF frequencies have been associated with communications in Alaskan FAA publications in high traffic areas for many years. Examples of such CTAFs include the Denali Flight Advisory, White Mountain Area Flight Advisory, and Juneau High Density Traffic Area all of which are contained in the FAA Alaska Supplement and involve air-to-air communications. Discussions with the Federal Communications Commission resulted in concurrence with the use of CTAF frequencies for designated areas.

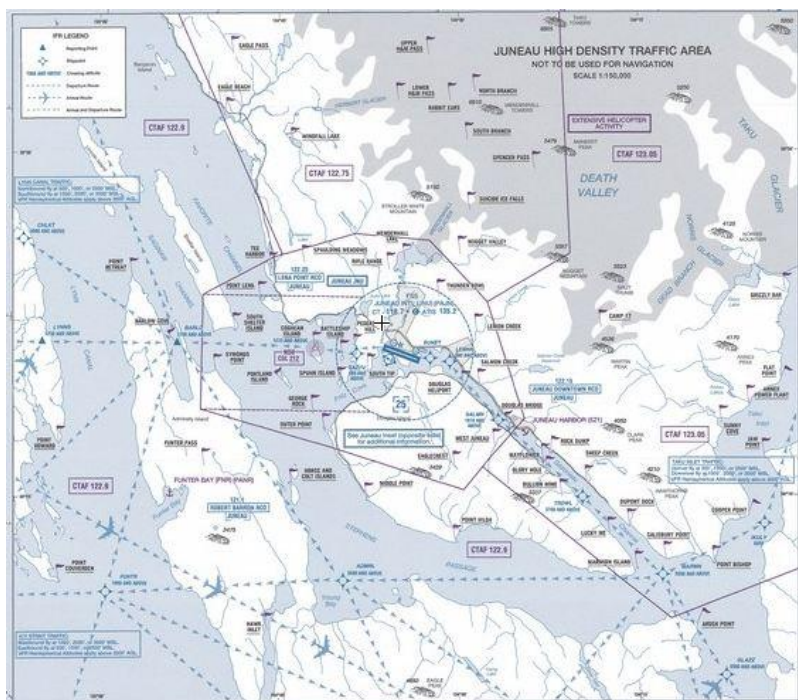
It is expected that these CTAF Areas will be published in an upcoming release of the Alaska Supplement (Alaska's Facility Directory). Additionally, in coordination with multiples lines of business, we have submitted a change request for the Airmen's Information Manual (AIM) to incorporate the historically established practice of utilizing these frequencies over designated high density traffic areas. While publishing this information in the Alaska Supplement provides a positive pre-flight planning tool, the aeronautical chart is the most popular and preferred tool for navigation, yet there are no charting conventions or approved chart symbology for designated CTAF areas. While special features have been included in Sectional Charts in the Juneau area, these features are often lost to users of electronic editions of the charts, which are becoming increasingly popular. Also, attached are samples of current graphics which exist either on FAA Sectionals or within the Alaska Supplement.

Recommendations:

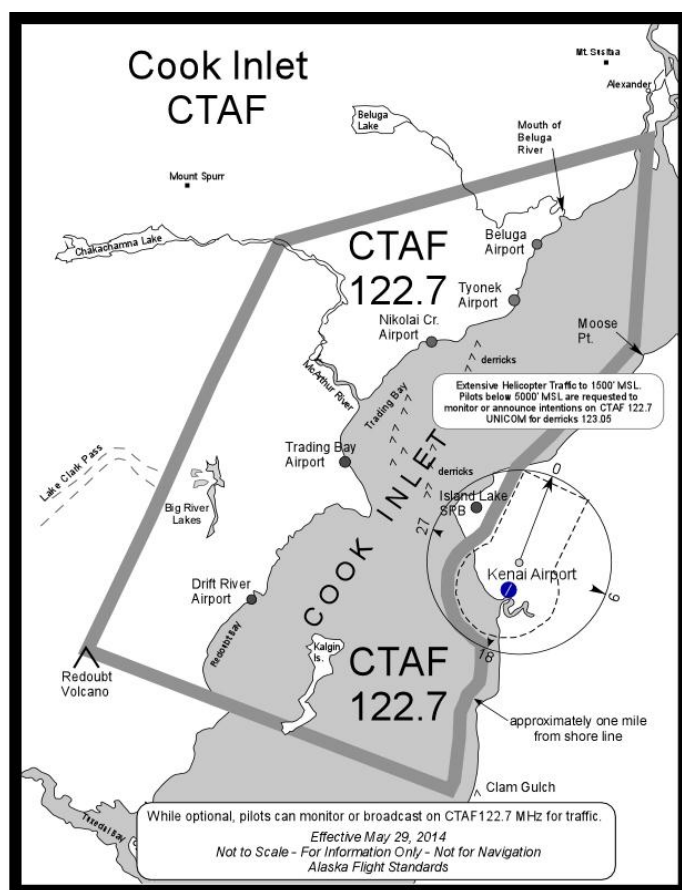
We recommend that charting conventions and symbology be developed to show CTAF Area boundaries for aeronautical charts in order to provide consistent CTAF information for airmen. This methodology should lead to a reduction in near mid-air collision by eliminating conflicting, confusing guidance and provides for easily accessible information. Conventions need to apply both to printed and electronic charts.

Attachments:

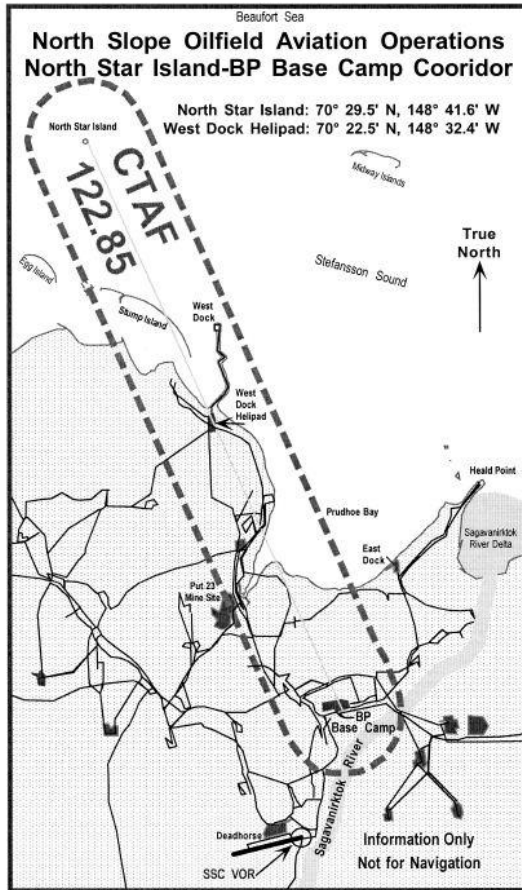
Mat-Su Valley Designated CTAF Areas.jpg



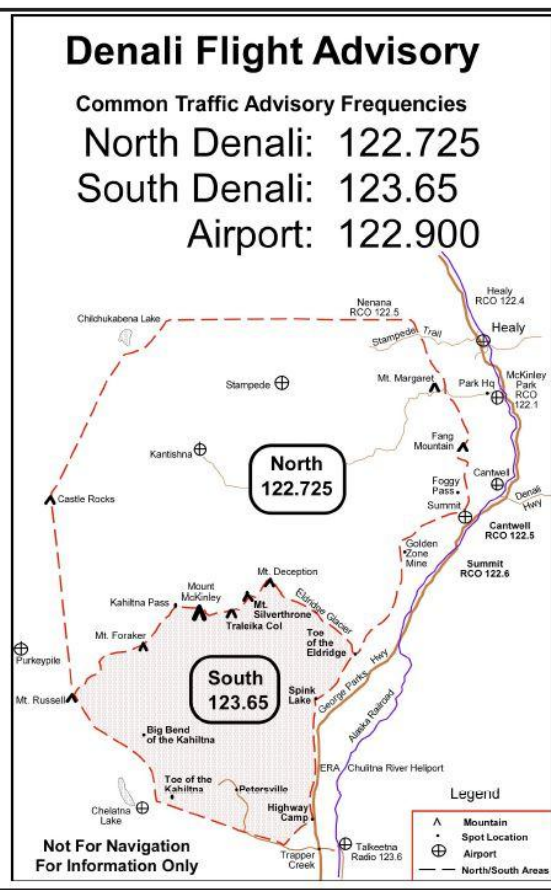
Juneau High Density Traffic Area inset.jpg



Cook Inlet CTAF Area.jpg



North Slope CTAF Corridor.jpg



Denali Flight Advisory CTAF Areas.jpg

Comments:**Submitted by:** Brian E. Staurseth**Organization:** Acting Assistant Division Manager, Flight Standards Division, AAL-201**Phone:** 907-271-5215**E-mail:** brian.e.staurseth@faa.gov**Date:** April 8, 2014

AERONAUTICAL CHARTING FORUM
Charting Group
Meeting 14-01 – April 29- May 1, 2014

RECOMMENDATION DOCUMENT

FAA Control # ACF-CG RD 14-01-279

Subject: Naming of FAA certified, nationally disseminated AWOS-3 systems on private use airports.

Background/Discussion: The FAA has seen an increase in the number of FAA certified, nationally disseminated AWOS-3 systems on private use airports. This is an exciting trend that improves the National Airspace System (NAS) with minimal cost to the Federal Government however, this trend challenges the real and perceived norms related to weather sensor FAA Identifier assignment, NOTAM and charting. These need to be addressed.

In accordance with FAA Order 7350.8 Location Identifiers:

- Private use airports are assigned four character identifiers
- Public use airports are assigned three character identifiers

Typically, when an AWOS is located on airport, the AWOS identifier matches the airport identifier. However in the case of the private use airport, using a four character identifier for an AWOS limits the usefulness of the AWOS in that national dissemination, METARs and NOTAMs become impossible and charting becomes complicated.

Stand-alone weather systems which are located independent of airports are assigned three character identifiers. These stand-alone systems produce METARs. Charting and NOTAMs are straightforward.

Current AWOS systems at private use airports have been assigned three characters which allows METARs and NOTAMs, but these are inconsistently charted because of their affiliation with the private use airport.

We'd like to explore two or more proposed solutions with the stake holders present at the ACF. Obtain feedback on the proposed solutions, identifying real and perceived complications to the naming of NAS supporting systems at private use airports.

Recommendations:

Concept 1 - Reassign the private use airport with a three character FAA identifier and then assign that same identifier to the weather system.

Concept 2 - Assign a three character FAA identifier to the weather system that is independent of the four character private use airport identifier. Treat the weather sensor as if it is a standalone facility.

Concept 3 - ? Suggestions?

Comments:

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Date: 4/8/14

Attachment

Slide 1

FAA Joint Order 7350.8

1-2-7. ASSIGNMENT SYSTEM

- **a.** Three-letter identifiers are assigned as radio call signs to aeronautical navigation aids; to airports with a manned air traffic control facility or navigational aid within airport boundary; to airports that receive scheduled route air carrier or military airlift service, and to airports designated by the U.S. Customs Service as Airports of Entry. Some of these identifiers are assigned to certain staffed aviation weather reporting stations or for airports commissioning Automated Weather Observation Systems, level III (AWOS-III) or higher that have paved runways 5,000 ft or longer.

- **e.** Two-letter, two-number identifiers are assigned to private-use landing facilities in the United States and its jurisdictions which do not meet the requirements for three-character assignments. They are keyed by the two-letter Post Office or supplemental abbreviation (listed below) of the state with which they are associated. The two-letter code appears in the first two, middle, or last two positions of the four-character code.

Slide 2

Chart Concept 1

Reassign the private use airport with a three character FAA identifier and then assign that same identifier to the weather system. Add the AWOS information under the airport elevation and runway length.

AWOS information will include AWOS Type, Frequency and AWOS identifier.

AWOS identifier matches the Private Use Airport Identifier.



****TEST CASE-** There is not a Weather System nor a Private Use Airport at this location.

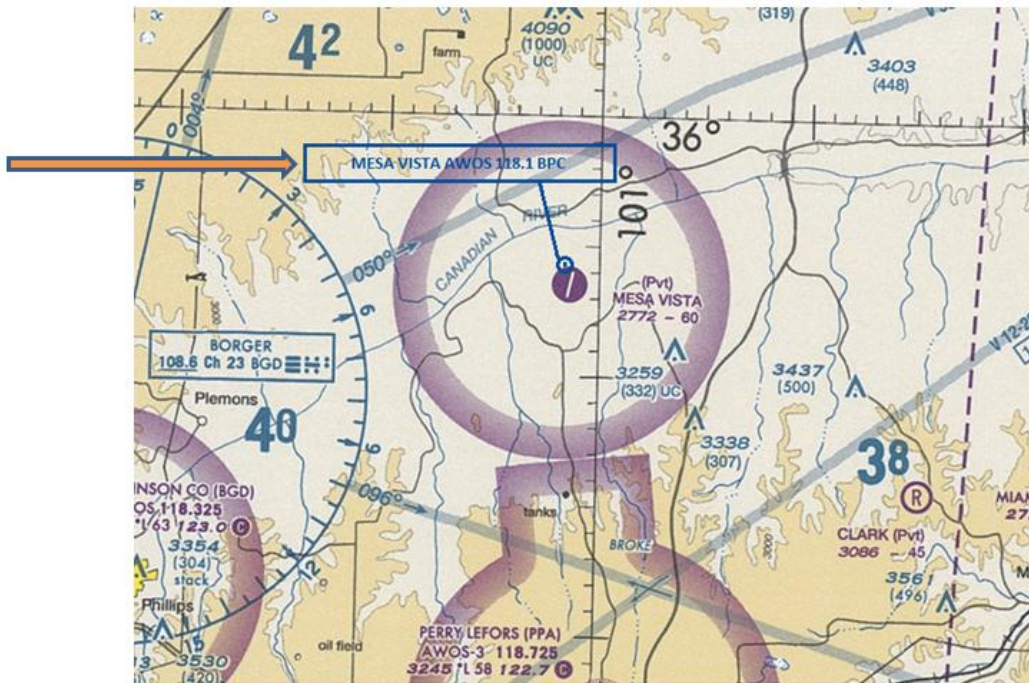
Slide 3

Chart Concept 2

Assign a three character FAA identifier to the weather system that is independent of the four character private use airport identifier.

Treat the weather sensor as if it is a standalone facility.

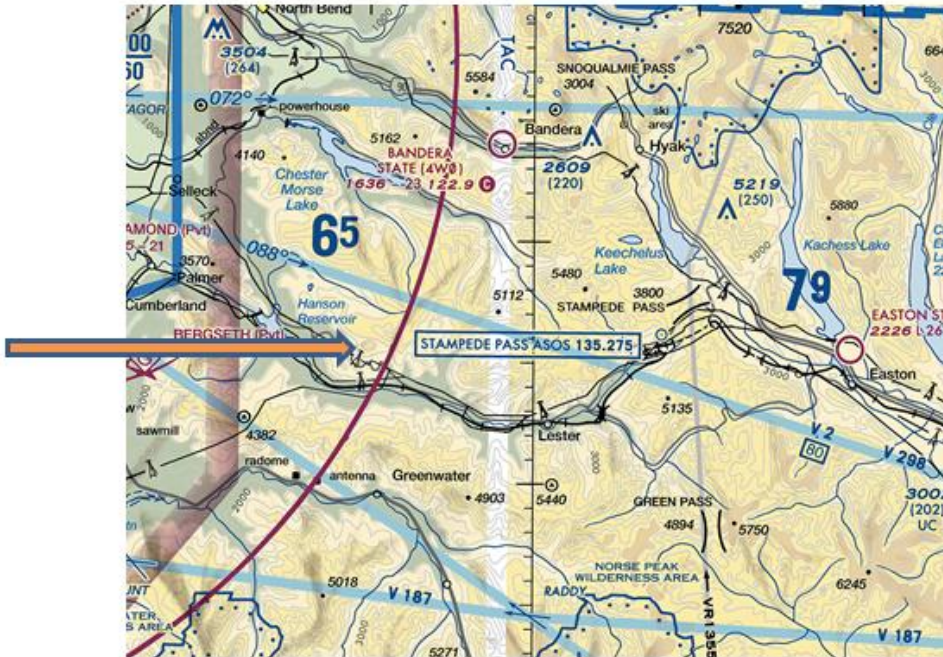
AWOS-3PT BPC as Stand Alone at Private Use Airport Mesa Vista Airport (PVT) TX13



**This configuration currently exists, however BPC is not charted or printed to the A/F D

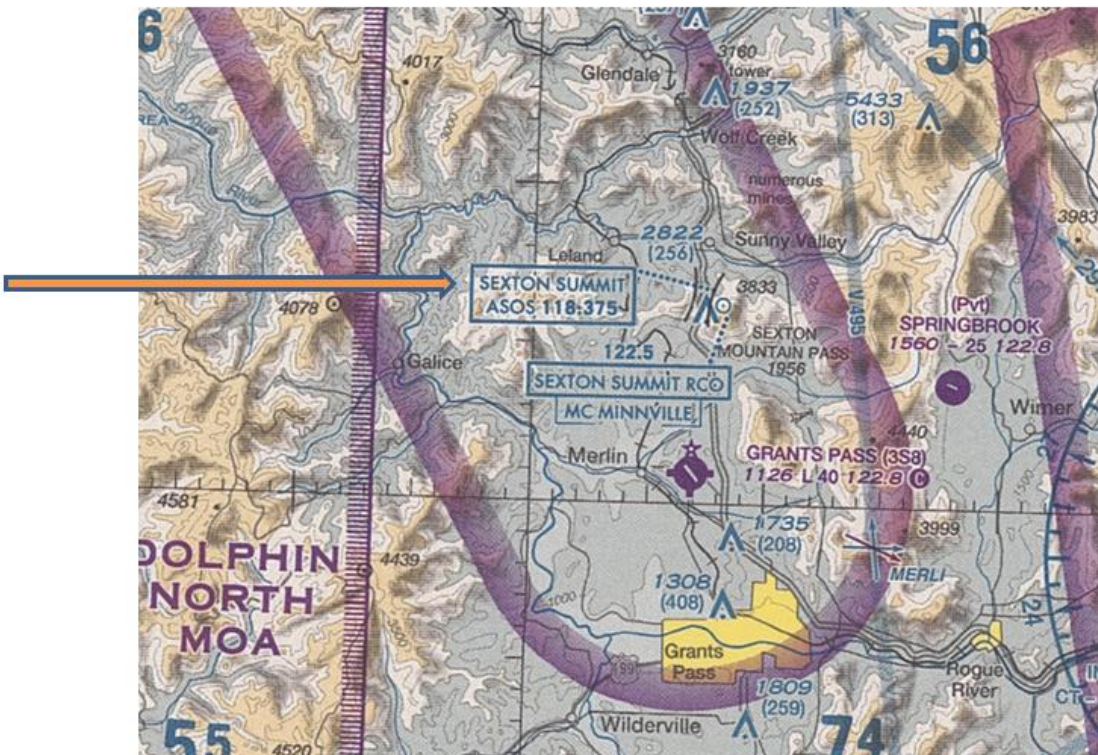
Slide 4

SMP FAA ASOS
Stand Alone Charted and NOTAMed
Location- Stampede Pass, WA



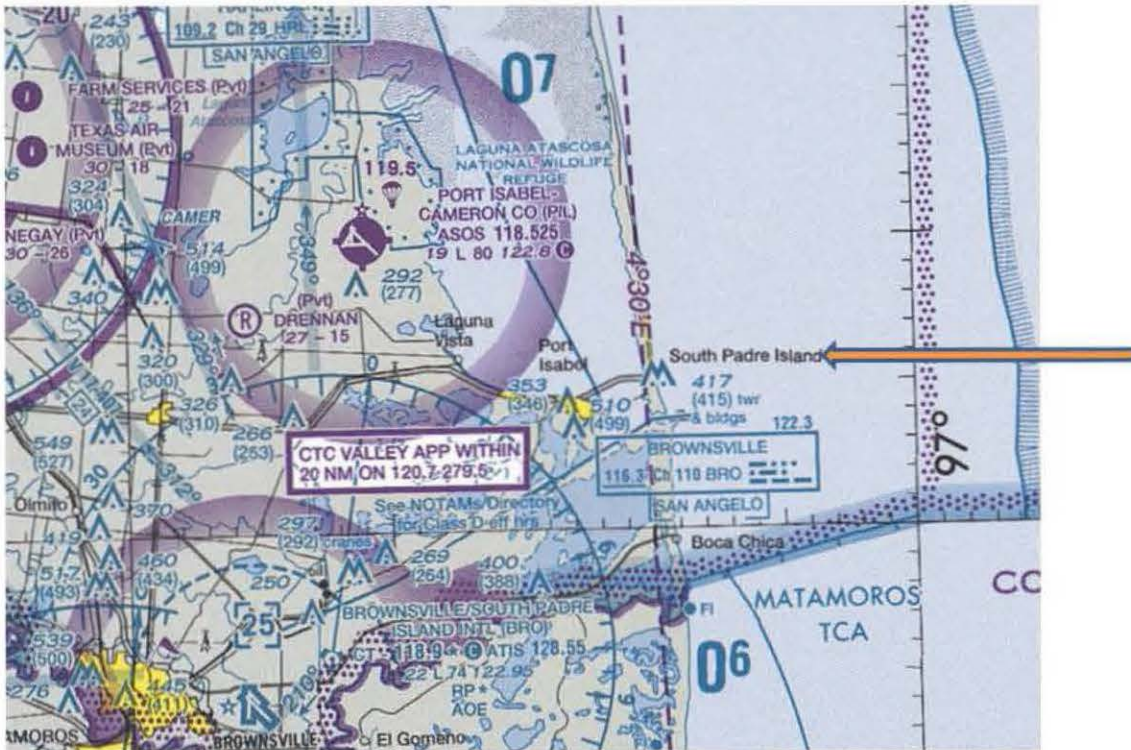
Slide 5

SXT FAA ASOS
Stand Alone Charted
Location- Sexton Summit, OR



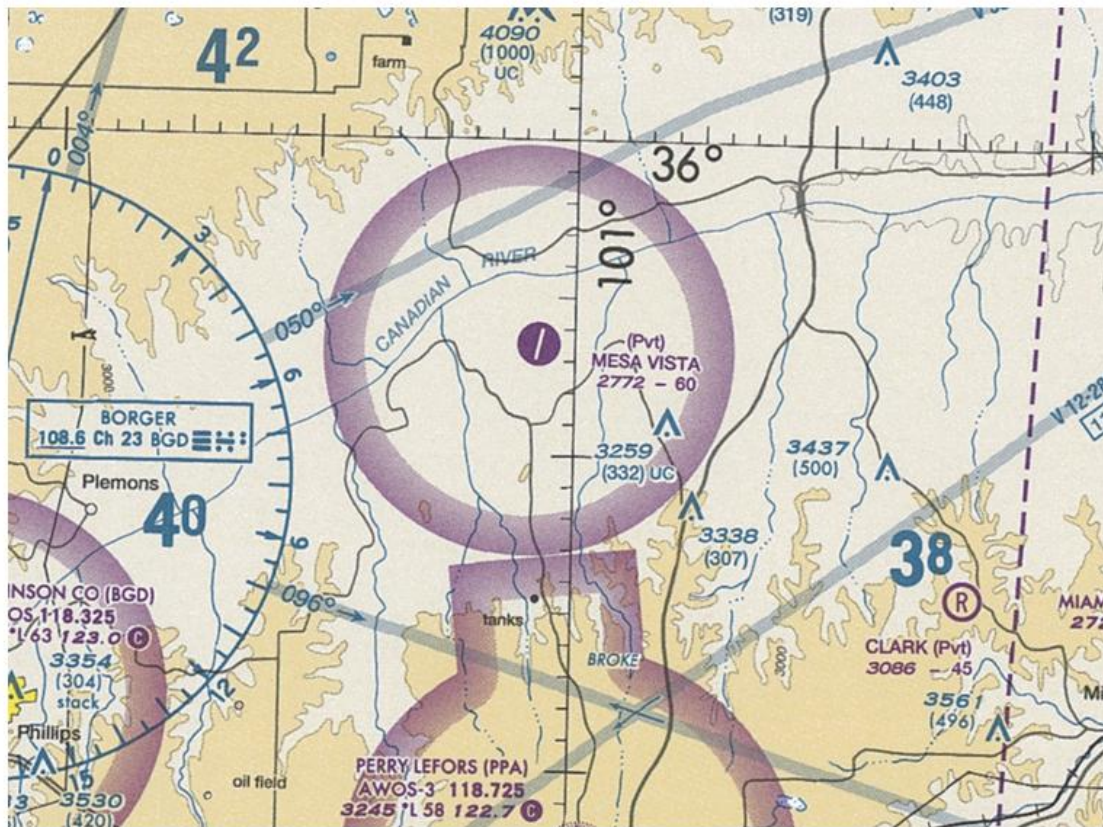
Slide 6

SPL NONFED AWOS-3PT
Stand Alone Not Charted
Location- South Padre Island, TX



Slide 7

BPC NONFED AWOS-3PT
On Private Airport/Stand Alone Not Charted
Location- Mesa Vista Airport (PVT) TX13



Slide 8



All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

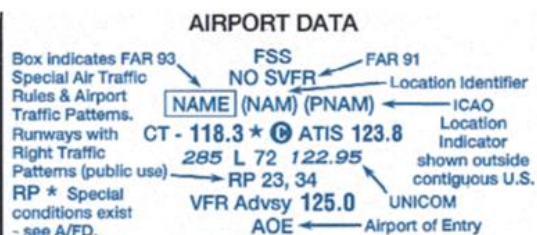
ADDITIONAL AIRPORT INFORMATION



Services - fuel available and field tended during normal working hours depicted by use of ticks around basic airport symbol. (Normal working hours are Mon thru Fri 10:00 A.M. to 4:00 P.M.) Consult A/FD for service availability at airports with hard-surfaced runways greater than 8069 ft.

★ Rotating airport beacon in operation Sunset to Sunrise

OBJECTIONABLE - Airport may adversely affect airspace use.



FSS - Flight Service Station

NO SVFR - Fixed-wing special VFR flight is prohibited.

CT - 118.3 - Control Tower (CT) - primary frequency

★ - Star indicates operation part-time. See tower frequencies tabulation for hours of operation.

Ⓢ - Follows the Common Traffic Advisory Frequency (CTAF)

ATIS 123.8 - Automatic Terminal Information Service

ASOS/AWOS 135.42 - Automated Surface Weather Observing Systems (shown where full-time ATIS not available). Some ASOS/AWOS facilities may not be located at airports.

UNICOM - Aeronautical advisory station

VFR Advsy - VFR Advisory Service shown where full-time ATIS not available and frequency is other than primary CT frequency.

285 - Elevation in feet

L - Lighting in operation Sunset to Sunrise

*L - Lighting limitations exist; refer to Airport/Facility Directory.

72 - Length of longest runway in hundreds of feet; usable length may be less.

When information is lacking, the respective character is replaced by a dash. Lighting codes refer to runway edge lights and may not represent the longest runway or full length lighting.