

November 23, 2010

Dear Forum Participant

Attached are the minutes of the Aeronautical Charting Forum, Instrument Procedures Group (ACF-IPG) held on October 26, 2010. The meeting was hosted by the MITRE Corporation, 7515 Colshire Dr., McLean, VA 22012. An office of primary responsibility (OPR) action listing (Atch 1) and an attendance listing (Atch 2) are appended to the minutes.

Please 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/acfipg/

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 **11-01** is scheduled for **April 26-28, 2011** with **Jeppesen, Inc, 55 Inverness Drive East, Englewood, CO 80112** tentatively scheduled as host. Meeting **11-02** is scheduled for **October 25-27, 2011** with the **Air Line Pilots Association (ALPA)**, Herndon, VA as host.

Please note that **meetings begin promptly at 8:30 AM**. Dress is business casual. Please forward new agenda items for the 11-01 IPG meeting to the above addressees not later than April 8, 2011. 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 10-02

MITRE Corporation, McLean, VA.


October 26, 2010

1. Opening Remarks:

Mr. 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 26, 2010. The MITRE Corporation hosted the meeting at their McLean, VA facility. Al Herndon made welcoming and administrative comments on behalf of MITRE. A listing of attendees is included as attachment 2.

2. Review of Minutes of Last Meeting:

Bill Hammett, AFS-420 (ISI) briefed that the minutes of ACF-IPG 10-01, which was held on April 27, 2010 were electronically distributed to all attendees as well as the ACF-IPG Master Mailing List on May 28, 2010. Comments were received from the Terminal Service Unit representative relating to the assigned OPR for issue 02-01-241. The minutes were revised to include post meeting dialog between the Chair and the Terminal and En Route Service Unit representatives. A corrected version of the minutes was distributed on June 4. No further comments were received; therefore, the revised minutes are accepted.

3. Briefings: Brad Rush, AJV-3B, provided a briefing on yet another re-organization within the ATO. Effective October 1, the AeroNav Services portion of the Technical Operations Service Unit (AJW-32) and the Aeronautical Information Management (AIM) office of the System Operations Service Unit (AJR-3) have combined under a new office called Mission Support Services (MSS). A major goal of this initiative is to eliminate duplication of databases and streamline procedure production, processing, and publication. The former AeroNav Services is now titled Aeronautical Products Office, AJV-3. The former AIM office is now split into AIM, AJV-2, and Airspace Services, AJV-1. Of note is that the FPOs are now directly under the ATO Service Centers vice AVN. "Box charts" of the new MSS organization and Aeronautical Products Office are included here . Mike Foster, USAASA asked about the flight inspection function. Brad responded that the flight inspection function remains under Technical Operations (AVN). Mike Frank, AFS-52, asked what is the impact on the RAPT and NAPT. Brad responded that the chair of these functions would have to be changed and many Orders revised to accommodate the re-organization.

4. Old Business (Open Issues):

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

Kel Christian, AFS-470, briefed that a meeting was held in July with AFS 470, AFS-420, AFS-460, AVP-210, AIR-130, and MITRE in attendance to review the MITRE study. All agree that there are inherent risks associated with cold weather altimetry. The AFS participants and MITRE met again in September to discuss how to fine tune the study and add variables. The question of how to mitigate the issue, either through a procedural design adjustment, or through an operational adjustment was discussed and the procedure design option favored. A second

MITRE study is underway and expected to be complete by the end of November, at which time another meeting will be held. This meeting will include AJT, ATE, AJS, AOV and ATSAP to discuss how to proceed based on the second MITRE study. Gary Fiske, AJT-28, asked what was expected of AT. Kel responded that is undetermined at this time; AFS just wants to ensure AT is involved early in the discussions. Larry Wiseman, AOV-310, asked whether MVA and MIA charts were considered in the MITRE study. Kel responded that only non-precision approaches were considered. Vince Massimini, MITRE, stated that MVA/MIA must also be covered. Kel responded that we are not there yet. Gary added that ATO is not dealing with cold temperature affects on MVA/MIA charts yet. The problem is determining a minimum monthly mean temperatures at different locations within the US. Brad Rush, AJV-3B, cautioned that the method of computing high and low temperature variables has changed in Order 8260.54. He noted an example where the current high temperature limitation of 90 degrees on a procedure, when re-computed using current criteria, now equals 27 degrees. Mark Ingram, ALPA, asked at what approach speed is 1,000 ft/minute ('stabilized') descent calculated. Brad responded the final approach airspeed is calculated for all Categories. Valerie Watson, AJV-3B, asked what locations are being looked at in the MITRE study. Kel responded that MITRE has narrowed down the impact area to about 60 airports. Mike Cramer, MITRE, stated that MITRE is reviewing airports and procedures over the past 5-years to assess impact. Roy Maxwell, Delta, asked whether FAA was ruling out the option for pilots checking temperatures and making adjustments. His concern is that procedural adjustments may cause FAA to say not to use the procedures. Roy stated that Delta has adjusted (blue page) procedures for cold temperature use so capacity isn't terminated. Kel stated that it is not FAA's intent to terminate current operations, but the long range goal is to delete the requirement for pilot manual adjustments.

Status: AFS-470 will continue to work the issue with MITRE and report progress.

Item Open (AFS-470).

- b. 96-01-166:** Determining Descent Point on Flyby Waypoints (Originally: Definition of "On Course").

John Blair, AFS-410, briefed that work is continuing; however, progress has been slowed due to medical issues involving Bruce McGray, the staff specialist assigned the issue. Bruce is still on medical leave and will re-energize the issue with AFS-470 upon his return.

Status: AFS-410 and 470 to evaluate feedback and develop AIM and other educational material. Item Open (AFS-410 and AFS-470).

- c. 98-01-197:** Air Carrier Compliance with FAA-specified Climb Gradients.

Catherine Majauskas, AFS-470, briefed there has been no change in the issue status. The PARC is undergoing re-organization and AFS-470 will continue to monitor progress. Rich Boll, NBAA, stated that the AFS-410-NBAA Transport Airplane Performance Planning (TAPP) Working Group met on June 5. Objectives were defined and a joint FAA/industry symposium will be sponsored next year to assess what performance data aircraft manufacturers can provide. Mark Ingram, ALPA, asked whether missed approach climb gradients will be addressed as well as departure requirements. Rich responded yes. Mark requested Steve Serur, ALPA, be included in the group's next meeting.

Status: 1) AFS-470 to monitor PARC progress and report; and, 2) AFS-410 and NBAA to report on TAPP progress to resolve the issue. Item Open (AFS-470 and AFS-410/NBAA).

d. 02-01-238: Part 97 “Basic” Minima; ATC DP Minima, and DP NOTAMs.

Bill Hammett, AFS-420 (ISI) briefed that comments received from the formal coordination of Change 2 to Order 7930.2 are currently being mitigated by the Mission Support Services, Airspace, Regulations, and ATC Procedures group, AJV-11. The proposed change will place SID and STAR NOTAMs under the FDC format and has a planned publication date of March 2011. Order 8260.19 policy guidance is planned concurrently.

Status: AJV-11 to continue to track and report updates on revision of Order 7930.2.
Item Open (AJV-11).

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

Gary Fiske, AJT-28, briefed that an Air Traffic Control Bulletin was determined not to be the best medium for controller awareness. Gary said his office has circulated a DCP for Order 7210.3 that will require the information in position binders and facility SOPs at those facilities with limited or no radar coverage. The comment period for the DCPs closed last week and comments are being evaluated. Provided all comments can be mitigated, the policy should be included in Change 3 to Order 7210.3, which will be effective in August 2011. Bill Hammett, AFS-420 (ISI), asked whether the DCPs were applicable to both terminal and en route facilities. Gary responded that he was referring to DCP for the revision to the Terminal Section of the 7210.3. The DCP for the En Route section is still out for comment.

Status: AJT-28 and AJE-31 will track inclusion of the requirement in Order 7210.3.
Item Open (AJT-28 and AJE-31).

f. 03-01-247: Holding Pattern Criteria Selection and Holding Pattern Climb-in-Hold Issues.

Tom Schneider, AFS-420, presented a status report provided by AFS-450 stating that AFS-450 is continuing to validate and analyze the new software package for conventional holding pattern development. Preliminary holding software results have been shared with AFS-420. Al Herndon, MITRE, stated that MITRE is doing some analysis on holding for AFS-470 and the Performance Based Navigation (PBN) group. Al added that this analysis will also address the differences in FMS holding. Tom suggested MITRE and AFS-450 collaborate in the study.

Status: AFS-450 to continue ASAT/simulator analysis and report. **Item Open (AFS-450).**

g. 04-01-250: RNAV and Climb Gradient Missed Approach Procedures.

Tom Schneider, AFS-420, briefed that he had contacted Larry Culver, AFS-630, to discuss the ACF agenda item and again asked what else can be done to get this subject incorporated into the Practical Test Standards (PTS). Larry said that he had read and circulated this agenda item and its history throughout his division but had received no comments in return. Tom informed him that AIM guidance regarding nonstandard missed approach climb gradients has been published for some time now in paragraph 5-4-21b, (it is also published in the Instrument Procedures Handbook). Larry stated that he will check again and advise Tom by 10/22/2010 if he has any information to pass to the ACF-IPG. Tom advised that no further response was received. Tom then stated that he has taken all the action physically possible within his capacities as Chair of the ACF-IPG and as a staff member of AFS-420 to get this issue resolved. He informed AFS-200, AFS-600, and AFS-800 of the new policies involving

nonstandard missed approach climb gradient and advised them that this information has been published in the AIM/AIP and the Instrument Procedure Handbook, FAA-H-8261-1A. The ACF can only recommend actions to FAA Offices, but does not have the authority to force action; e.g. in this case mandating publication of information, establishing training requirements, and/or revising practical test standards. In summary, AIM/AIP/IPH guidance has been published. Further action by AFS-200/600/800 has been recommended and the ACF-IPG can do no more. Tom recommend this agenda item be closed. Rich Boll, NBAA, supported closure adding that this issue will also be addressed by the AFS-410-NBAA Transport Airplane Performance Planning (TAPP) Working Group. The group agreed to closure.

Status: Item CLOSED

- h. 04-02-258:** Vertical Navigation (VNAV) Approach Procedures Using DA(H); OpSpec C073.

Kel Christianson, AFS-470, briefed that C073 is being rewritten and guidance added to FAA Order 8900.1, *Flight Standards Information Management System (FSIMS)*, Volume, 3 Chapter 18. These changes will provide guidance on specifications required for an FAA visual obstacle assessment. The guidance will also help industry determine criteria for visual assessment. Changes to OpSpec and introduction of AC-CDFA will provide guidance for the use of an MDA as a DA. Kel added that AFS-470 does not plan to chart MDA as a DA on IAPs as appropriate guidance is covered in US Air Carrier OPS Specs. Additionally, FAA does not have plans to issue C073 to Part 91 operators due to oversight issues. Mike Frank, AFS-52 added that C073 is issued to those Part 91 operators that have MSspecs. Rich Boll, NBAA, stated that the original HBAAT 99-08 excluded Part 91 operators, yet some FSDOs were allowing the operation for selected Part 91 operators under a LOA. This is a contradiction in FAA policy application. NBAA supports allowing use of MDA as a DA for Part 91 through a LOA. Kel responded that more research is required.

Status: AFS-470 to continue to develop guidance and keep the ACF-IPG updated.
Item Open (AFS-470).

- i. 05-01-259:** Visual Climb Over Airport (VCOA).

Tom Schneider, AFS-420, briefed that an Order providing new criteria for evaluating a VCOA, which will be re-named Visual Climb to IFR Departure (VCID) per ACF recommendation, is in internal AFS-420/AJV-3B coordination. The new criteria is expected in 2011.

Status: AFS-420 will continue to track the VCOA issue through the US-IFPP and report.
Item Open [AFS-420 (US-IFPP)].

- j. 06-02-267:** Pilot Option to Use Standard Timing for RNAV IAP Holding Patterns

Tom Schneider, AFS-420, briefed that he did request priority for this issue after the last meeting; however, pre-meeting input from AFS-450 did not appear to directly address the issue of containment if substituting standard timing in lieu of ATD on the outbound leg for RNAV holding. As a result, AFS-420 criteria specialists reviewed the existing holding criteria for pattern selection. It was determined that as long as the specified holding pattern leg length is within criteria, the containment area would also support standard timing holding (1 minute legs at 14,000 and below; 1.5 minute legs above 14,000). However, Steve Jackson, AFS-420, expressed last minute concerns over FMS application of timing. The issue remains open.

Status: AFS-450 to continue to assess the use of standard in lieu of ATD for RNAV holding. in the ongoing holding study. **Item Open (AFS-450).**

k. 07-01-269: Diverse Vector Areas (DVAs).

Tom Schneider, AFS-420, briefed that an Order providing DVA evaluation criteria is in AFS internal coordination. Suspense for comments is November 12. Once comments are mitigated, external coordination will begin with an ECD of March 10, 2011. Gary Fiske, AJT-28 briefed that Air Traffic guidance for requesting has been completed and will be published on March 10, 2011. Paul Eure, AJE-31, added that there is no en route action in progress as it was believed the DVA application would be for terminal use only. Ted Thompson, Jeppesen, questioned the affect on aeronautical charting. Tom responded that after the new DVA criteria have been implemented and have undergone a period of operational use by Air Traffic, the issue of whether or not to chart DVA information, and how to chart it, will be determined sometime in the future once operational experience is gained. Paul asked whether there are any DVAs currently in use. Gary responded, a few. Rich Boll, NBAA stated that there are approximately 10-12 DVAs proposed in the Northwest Mountain Region that are on hold pending release of the ATO DVA Order.

Status: 1) AFS-420 will continue to track DVA criteria development through the US-IFPP, and 2) AJT-28, jointly with AJE-31, will continue to track controller guidance for radar vectoring departures at airports where an ODP is established. **Item Open (AFS-420, AJT-28, and AJE-31).**

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

Tom Schneider, AFS-420, presented the following update from T.J. Nichols, AFS-420 conventional TERPS criteria specialist: No immediate action is planned. Expect course change limitations to be addressed in an early change to Order 8260.3 "C" revision.

Status: AFS-420 will continue to track the issue through the US-IFPP. **Item Open [AFS-420 (US-IFPP)].**

m. 07-01-272: Using an ODP in lieu of the Published Missed Approach Procedure.

Mike Frank, AFS-52 (formerly of AJT-28), briefed that Mike Singletary, Manager of AJT-28, is OK with the proposed language for AIM paragraph 5-4-21h, dated March 5, 2010, as published in the minutes of the last ACF-IPG meeting. He stated that AJT-28 would like one final meeting/telcon with AFS-410 and NBAA to ensure all are in agreement. Bill Hammett, AFS-420 (ISI), briefed that AFS-410 has forwarded a change to paragraph 5-4-21h to the AIM office for publication; however, the last paragraph has been changed from the March 5 version (the preceding paragraphs are unchanged). See below:

March 5, 2010 version: The pilot must advise ATC as soon as practical of their current actions and intentions **IF** executing any procedure other than the published missed approach procedure or any ATC-assigned alternative missed approach procedure.

Version submitted for March, 2011 publication: In normal conditions the pilot must get a clearance from ATC for whatever procedure he/she follows, and in an emergency the pilot must advise ATC as soon as practicable of their current actions and intentions **IF**

executing any procedure other than the published missed approach procedure or any ATC-assigned alternative missed approach procedure.

The group consensus is for AFS-410 to arrange the requested meeting, finalize the AIM verbiage (specifically the last paragraph) and coordinate publication on March 10, 2011 to close this issue. Bill also noted there were several other IOUs assigned at the last meeting: 1) AFS-410 was to respond to the AJT-28 memorandum on the issue; 2) NBAA was to facilitate a sub group meeting when the AFS response was completed; and 3) AJT-28 was to evaluate the preamble language for Part 91.116 (now 91.175) and re-assess the need for the requested airport review. Mike and Bill agreed that these IOUs have been overcome by events and are no longer applicable.

Status: 1) AFS-410 to schedule a meeting/telcon between AFS-410, AJT-28, and NBAA to finalize and forward the AIM change for publication in the March 10, 2011 AIM.

Item Open - (AFS-410, AJT-28, and NBAA).

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

Tom Schneider, AFS-420, briefed that Steve Barnes, Manager of AFS-450, stated that AFS-450 is unclear as to exactly what the problem is and requested that AFS-420 provide a problem statement that would help his Branch understand what analysis and/or studies are required, if any. Steve Jackson, the AFS-420 holding criteria specialist, provided the following for the ACF: "I was able to have some discussion on this at the ICAO IFPP with Pedro Rivas, Delta, and some of the other PBN working group folks. The PBN study group is now discussing a Navigation Specification (navspec) for RNAV/RNP holding. Until then, there is no standard for RNAV holding for the equipment. The current implementations may or may not conform to the navspec when it is written, some probably will not. There have been no changes to the operational guidance for holding in years. The only change was the addition of the ATD holding diagram in the AIM, based on the existing text, several years ago. I have been unable to find any other operational guidance for distance based holding other than turning at the charted distance. Bottom line is until there is an RNAV/RNP holding navspec, I don't see that we will have sufficient guidance on how to model RNAV holding. Once the navspec is written, there will need to be operational guidance written to support it."

Status: AFS-420 and AFS-450 to continue to work the issue and provide updates.

Item Open (AFS-420 and AFS-450).

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

Brad Rush, AJV-3B, briefed that the amendments to revise the stepdown fix locations for the LAX ILS RWY 24L/R and 25L/R approaches are scheduled for the May 5 chart cycle. The changes will ensure that aircraft tracking the ILS glide slope are above the intermediate stepdown fix altitudes. As simultaneous parallel approaches are amended at other airports the new formulae will be applied to those procedures. Rich Boll, NBAA, asked whether this means that aircraft, when cleared for ILS approaches with multiple specified GS intercept altitudes, can track the glide slope and disregard intermediate stepdown fix altitudes. Bill Hammett, AFS-420 (ISI) briefed that the AIM change agreed to at the last meeting had been forwarded for publication on March 10, 2011. This change supports Rich's position. Mike Frank, AFS-52, stated that when cleared for an ILS approach, the pilot still must adhere to specified fix crossing

altitudes prior to the PFAF. This position was supported by Gary Fiske, AJT-28. Tom Schneider, AFS-420, stated that procedures with a note authorizing multiple glide slope intercept altitudes are applicable only at locations that permit simultaneous parallel operations. Tom added that the requirement for multiple glide slope intercept altitudes may go away if/when an AFS-450 study (currently in progress) to assess the necessity for vertical guidance when conducting simultaneous operations is completed. Larry Wiseman, AOV-310, asked whether it was the ATO's position to disrupt stabilized descents. Mike responded yes, and emphasized that the stepdown altitudes were for ATC separation purposes and even when the fixes/altitudes were temperature corrected, pilots will be expected to comply with stepdown fix altitudes outside the PFAF. Rich stated that if this is true, then the note requirement on the chart is misleading. He stated that nearly all pilots when cleared for the ILS approach at an altitude annotated on the chart "*when assigned by ATC, intercept glidepath at (altitude)*" are going to intercept and track the glidepath from that altitude to the runway. If the ATC intent is that the stepdown profile is always to be followed, the plan view notes need to be eliminated and the procedures noted in issue 09-01-283 be followed for all ILS approaches. Rich recommended the current chart notes be NOTAMed until the issue resolved. Mark Ingram, ALPA, stated that perhaps the term "vertical path" should be used vice glidepath. Tom Loney, CAF, agreed. Bill Hammett re-capped the current proposed AIM changes with the recommendation that the proposed change under this issue be held pending further discussion. The group agreed and also recommended that an ad hoc group needs to be formed to determine exactly what notation is required on approach charts that support simultaneous operations. Tom Schneider accepted the IOU to check the status of the aforementioned AFS-450 study and recommended no group be formed until the results were in. Mike Frank, AFS-52, stated that temperature correcting all intermediate stepdown altitudes on simultaneous approaches will provide the most effective solution and asked Brad whether this could be given priority. Brad responded that priorities are set through the RAPT and NAPT. Brad also agreed to provide Rich a listing of all simultaneous approaches, which Rich will use to initiate RAPT action.

Status: 1) AFS-410 to hold the AIM change recommended under this issue; 2) AFS-420 to ascertain the status of the AFS-450 vertical guidance for simultaneous approaches study; 3) Brad Rush to provide NBAA a listing of simultaneous approaches; and 4) Rich Boll to pursue RAPT action to get priority for simultaneous approach procedure amendments.
Item Open (AFS-410, AFS-420, AJV-3B and NBAA).

p. 09-01-283: Intermediate Fix Altitudes & ILS Glide Slope

Bill Hammett, AFS-420 (ISI), briefed that the recommended AIM change to paragraph 5-4-5-b to resolve this issue has been forwarded for publication on March 10, 2011. The group consensus was that this AIM change should go forward as recommended. Mark Ingram, ALPA, stated that there seems to be some confusion as to whether "glidepath" or "glideslope" should be used. Tom Schneider, AFS-420, responded that in the Pilot/Controller Glossary, the terms are interchangeable in the US. Brad Rush added that further coordination with ATC at Teterboro revealed that the problem there has been resolved through an ATC phraseology enhancement. Controllers now include "cross DANDY at 1500" in the approach clearance.

Status: AFS-410 to track the AIM change. **Item Open Pending Publication (AFS-410).**

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

Gary Fiske, AJT-28, briefed that the comments on the DCP changes to Order 7110.65, paragraph 4-8-1, have been received and there is one non-concur that has not been mitigated.

A SRMP is scheduled for November 9-10 and further resolution is pending the SRMD. Rich Boll, NBAA, asked whether the DCP had been re-circulated. Gary Responded that the DCP has not been re-circulated but, pending the outcome of the SRMP, may need to be. Bill Hammett, AFS-420 (ISI), added that the issue is still at ATPAC for resolution.

Status: 1) AFS-410 will continue to follow and report on ATPAC actions to resolve the issue; and, 2) AJT-28 to report on status of the proposed change to Order 7110.65.

Item Open (AFS-410 and AJT-28).

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

There was no ATO representative from the PBN Group, AJV-14, to brief whether any progress had been made by the "climb via" working group. There was no comment on whether AJT-28 had formed a working group to address the issue. Rich Boll, NBAA, recommended Order 8260.46 be changed to provide better guidance. How does a pilot determine whether an altitude has been issued or re-issued. Rich took an IOU to draft AIM language and forward it to AFS-410 for processing.

Status: AJT-28, with support from AJE-31 and AJV-14, to form a sub group to study the issue and report; and, 2) NBAA to draft AIM language and forward it to AFS-410 for processing. **Item Open (AJT-28, AJE-31, AJV-14, and NBAA).**

s. 09-02-287 Operator Training Concerning One Engine Inoperative (OEI) Contingency Planning For IFR Departure Procedures

Rich Boll, NBAA, briefed that the AFS-410-NBAA Transport Airplane Performance Planning (TAPP) ad hoc working group formed under issue 98-01-197 is working the issue. The group will also address training requirements under Part 91.175(f) as well as air carrier climb gradient issues. The group met during the first week in June and proposed a web site with programs to help operators develop training material. Follow on meetings are planned with FAA, industry, and operators. It is hoped that 2 or 3 meetings will eliminate confusion surrounding the issue and allow the group to communicate all-engine performance requirements to manufacturers. Once these initial steps have been taken, NBAA and Bombardier will sponsor a conference. Rich noted that actions have been on hold due to the illness of Bruce McGray, the AFS-410 representative. Mike Frank, AFS-52, asked why this group was working the issue instead of AFS-200. Rich responded that there are problems with FAA publishing procedures that pilots cannot comply with. Kevin Allen, USAIR, offered an example that arose at Philadelphia Intl (PHL). US Airways was involved in the GRDEN ONE SID design from the beginning. However, after the last meeting, there were some changes to the procedure at waypoint BRNDA. PHL TRACON moved the fix closer to the airport, kept the 9000' minimum altitude restriction and thus increased the climb gradient to 675'/nm. A heavy A-321 aircraft has performance limitations to 9000. FAA policy allows for a 500'/nm climb gradient before a waiver is required; however, in actuality, the A-321 will not make it at a much lower gradient. Kevin was not espousing a change to policy to accommodate the A-321; but emphasizing that required climb gradients must be carefully considered to accommodate all users of the procedure(s). Mike Frank emphasized that AFS-210 be involved in any work group addressing performance issues. John Blair, AFS-410, recommended that this issue and issue 98-01-197 be combined. Bill Hammett, AFS-420 (ISI) responded that although the issues were similar in nature, they would remain separate. Past history has proven that combined issues take on a life of their own. The issues may be worked together, but will be tracked separately.

Status: The AFS-410 and NBAA aircraft performance sub group to work the issue and report.
Item Open (AFS-410 and NBAA).

t. 09-02-288 VNAV Minimums vs. Circle to Land

Tom Schneider, AFS-420, briefed the following from T.J. Nichols, the AFS-420 TERPS conventional criteria specialist: "Guidance has been issued prohibiting the design of a circling procedure from a vertically guided procedure. Circling minima is authorized only where non-vertically guided minimums are published (a published VDA is not considered vertical guidance)." Tom added the following from Jack Corman, the AFS-420 TERPS RNAV criteria specialist: "The ACF proposed not publishing LNAV/VNAV minima if it were more than 60 feet above LNAV. This suggestion was initially rejected by AFS-420. Suppose there is a procedure with an LNAV HATh of 250, and an LNAV/VNAV HATh of 313. Vertically guided procedures insofar as possible is a goal of the CAST initiative, to wit: "Studies show that over 70 percent of FATAL accidents occur on non-vertically guided procedures. It is the recommendation that vertically guided procedures be offered where possible, and requirements for air carrier aircraft to fly vertically guided procedures when possible." In this case, it is not unreasonable to fly to a 313 HATh with vertical guidance vice a 250 HATh without it. However, after considering the RNAV (GPS) RWY 13 approach at Harrisburg Intl, PA, which has a 392' DA/MDA difference and a 4.5 mile visibility difference, it was agreed that some type tolerance should be developed whereby LNAV/VNAV minimums are not feasible. It was emphasized that Operations should play a role in the decision. Subsequent coordination with AFS-470 indicates they also support a value difference; however, do not necessarily agree that 60' is the correct value. Further coordination between AFS-420 and AFS-470 will ensue and a value decided upon prior to the next ACF. Vince Massimini, MITRE, provided information on WAAS performance capabilities. Mike McGinnis, AA/APA asked how it is possible that LNAV/VNAV minimums could be so much higher than LNAV only. Brad Rush, AJV-3B, provided a detailed explanation.

Status: AFS-420 to work the issue with AFS-470 through the US-IFPP and report.
Item Open (AFS-420 (US-IFPP)).

u. 09-02-289 Use of Leg Combinations and Altitude Constraints on RNAV Departure Procedures

Tom Schneider, AFS-420, provided the following update from Jack Corman, the AFS-420 TERPS RNAV criteria specialist: "AFS-420 action is to remove leg type designators VA-CF from design criteria until such time that all avionics implement these leg type designators in a manner that will generate the same path guidance. Currently, there is no regulatory standard for ARINC leg type designator implementation." Kevin Allen, USAIR, stated that Honeywell changes VA-CF to VA-DF. Vince Massimini, MITRE, that this will not assure repeatable ground tracks as FMS' treat this coding differently. Brad Rush, AJV-3B, stated that using VA-DF to a waypoint 2 NM from the DER provided the best track. John Moore, AJV-3B, expressed concern over what options are left if VA-CF is eliminated. He asked when we started changing regulatory guidance based on box performance. Kevin Allen, USAIR, responded that there are lots of options to replace VA-CF and the change is not solely tied to box performance. Mike McGinnis, APA, noted that there only seems to be a problem with VA-CF when there are parallel runway operations. Mike Cramer, MITRE, stated that all boxes fly VI legs the same under similar conditions. Al Herndon, MITRE, provided additional test information regarding LGA. Mike McGinnis asked whether the change from VA to VI resolve the problems at DFW. Al said MITRE had also studied VI-CF and there is a problem with magnetic variation (mag

var)application. The VI leg uses the airport mag var of record; however, the CF leg will use the assigned mag var of the NAVAID. Tom advised the issue would continue to be addressed by the US-IFPP Database and Coding Working Groups.

Status: The Executive Director of the US-IFPP will keep the ACF apprised of the issue status.
Item Open (AFS-420 (US-IFPP)).

- v. **09-02-290** Call for Review and Revision of ARINC Leg Types Used in Construction of RNAV Departure Procedures

Tom Schneider, AFS-420, provided the following update from Jack Corman, the AFS-420 TERPS RNAV criteria specialist: "This issue is being worked jointly with issue 09-02-289 and is being addressed by the US-IFPP Database and Coding Working Groups. It currently appears that a long-term solution is to move away from using headings."

Status: The Executive Director of the US-IFPP will keep the ACF apprised of the issue status.
Item Open (AFS-420 (US-IFPP)).

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

Tom Schneider, AFS-420, briefed the following input from T.J. Nichols, the AFS-420 conventional TERPS criteria specialist: "The issue was resolved by the AFS-1 memorandum to AJW-3 dated October 1, 2010. In summary, only those airports notified of 20:1 penetrations within the three years preceding this memorandum (i.e. Oct 1, 2007 through Sep 30, 2010) continue to be exempted from compliance with Order 8260.3 paragraph 251 and only for the period specified in AJW's letter to the airport operator. Tom went on to say that while this response addresses straight-in minimums at night when there are visual surface penetrations, it does not address the original NBAA concern; i.e., if straight in minimums are not authorized at night on a specific approach to a runway, how can an aircraft be allowed to circle to land on that runway from another approach to a different runway? NBAA believes that circling to a runway where straight-in minimums are not authorized at night should also not be allowed at night. Tom will take the issue back to AFS-420 and have an answer at the next meeting.

Status: The Executive Director of the US-IFPP will keep the ACF apprised of the issue status.
Item Open (AFS-420 (US-IFPP)).

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

Tom Schneider, AFS-420, briefed that Change 1 to Order 8260.46D, includes a requirement to add a note to ODPs with VCOA to require pilots to advise ATC prior to executing the VCOA maneuver. This change is targeted for publication on March 10, 2011 and may be implemented immediately by the Aeronautical Products Office. John Blair, AFS-410, advised that after the formal coordination process is complete for the 8260.46 change, his office will work the necessary AIM changes. Rich Boll, NBAA, asked whether the above actions get VCOAs back at mountainous airports. Paul Eure, AJE-31 stated that AFS and ATO are not in total agreement on ODP application; therefore, it is difficult to develop training for controllers on what to expect. He added that, in many cases, controllers are not aware of VCOA options and it is imperative that facilities are aware of procedure development. Rich added that he is aware of complaints to the RAPT's from AT facilities that they are unaware of procedures under development. Gary Fiske, AJT-28, stated that procedure coordination letters must get to the facilities. Paul stated that

during a recent telcon, the Central Service Unit spent over an hour complaining about the lack of procedure coordination. Gary stated the RAPT process is broken. Brad Rush, AJV-3B, stated that he hears this all the time; however, the reports of lack of coordination are unsupported. Brad emphasized that all procedure coordination starts at the RAPT. Once the RAPT agrees that procedure development/amendment is warranted, the procedure specialist coordinates with the affected ATC facility. Then the procedure is put on the coordination web site. Brad stated there is no excuse for ATC facilities and associated ARTCCs not being aware of procedure work at their airports or within their area of responsibility. Francie Hope, WSC-OSG, reported that the VCOA NA NOTAM has been cancelled for Aspen; however, the NOTAM not authorizing the VCOA at Eagle remains in effect. Paul Eure added that Denver and Oakland Centers have issues with VCOAs because there is no requirement for pilots to advise ATC when the maneuver is being used.

Status: 1) AFS-420 will track the change for the chart note requirement in Order 8260.46 and develop applicable IPH guidance; and, 2) AFS-410 to Develop AIM and AIP educational material. **Item Open (AFS-420 and AFS-410).**

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

Tom Schneider, AFS-420, briefed the following from Jack Corman, the AFS-420 TERPS RNAV criteria specialist:

"The October 2, 2009 memorandum on RNAV segment length identifies design length limitations in Order 8260.54A. Order 8260.52 contains RNP SAAAR segment length limitations. Both Orders are subject to the "up to 90 degree intercept clearance" authority assumed in 7110.65. However, the Order 7110.65 ATC allowance of clearance direct to join an RNAV approach procedure at fixes following the IAF at intercept angles up to 90 degrees may result in a turn that the designed segment length was not intended to accommodate. In these instances, air traffic will assure obstacle clearance is not compromised through use of radar and other mechanisms. AFS-420 discussed this with ATC at length and they satisfied our concerns when the segment RNP value was 1.0 or greater. If < 1.0, amendment action or statement of ATC accepting obstacle clearance responsibility is required.

The AFS concerns were centered on 2 problems: 1) Inadequate segment length to accommodate the turn, and 2) Descent into unevaluated airspace.

1. Radar monitoring is required. Controllers are trained to take action when they observe gross deviations from prescribed paths. This training and expected reaction is inherent to the radar controller discipline. The controller would intervene to maintain altitudes at or above MVA and provide vectors back toward the course or re-sequence the aircraft. Although Flight Standards may and does provide input, controller responsibilities and the ATC discipline is under the purview of the ATO through Order 7110.65. All changes go through a SMS process with Flight Standards representation to assure safety

2. These are direct clearance to the IF or fixes between the IF and PFAF. The segment width is +/- 2 NM. Turn radius should be in the vicinity of 2.5 to 3.5 NM (example airport at 4000, aircraft at 6000). At a 90 degree turn, the DTA is equal to turn radius. If descent commences at the bisector, and the turn radius was as large as 4 miles, descent out of the intermediate minimum altitude would occur at or just slightly before crossing the segment boundary. The MVA ROC is 1000, intermediate segment ROC is 500. If the

area was expanded to evaluate the turn, at least 500 feet ROC would exist. The probability of obstacle conflict is very, very low.

For RNP values <1.0, segment half width would decrease, but the DTA stays the same. We are not yet comfortable with allowing the operation with less than a 2 NM half-width without expanding the OEA and evaluating the area.

Gary Fiske, AJT-28, stated that ATC will radar monitor all "direct to" clearances; however, they do not care what RNP value is designed in the procedure. The MVA altitude at the IF where the turn commences provides 1,000 feet of ROC, twice the intermediate segment requirement of 500 feet. Tom stated this represents a disagreement between ATC and AFS that the US-IFPP must address

Status: The Executive Director of the US-IFPP will keep the ACF-IPG apprised of the issue status. **Item Open [AFS-420 (US-IFPP)].**

z. 10-01-295 Official Source for Charting Fix Makeup

Marty Heller, AJV-21B, briefed the decision has been made and it was agreed to post entire Form 8260-2s on FADDS. Marty asked how many days prior to and after the procedure effective date the data needs to be kept there. Bill Hammett, AFS-420 (ISI) recommended that the -2s be posted no later than concurrently with the Transmittal Letter promulgating the procedures and remain on the site until the 28-day AIRAC cycle after publication. The group agreed this seems reasonable. Valerie Watson, AJV-3B, asked when this process would happen. Ted Thompson, Jeppesen, reported that Jeppesen has not been able to establish access to FADDS through NFDC; apparently there are "additional details" to work out. Marty responded that George Sempes or Marty Oudemans of NFDC will be POCs to coordinate with Ted and/or Bob Gill (Jeppesen POCs) to arrange a telcon to resolve the matter

Status: AJV-21 will continue the process of using FADDS to provide complete 8260-2 data to all charting agents. **Item Open (AJV-21).**

5. New Business: No new recommendations were presented at this meeting.

6. Next Meeting: ACF Meeting **11-01** is scheduled for **April 26-28, 2011** with Advanced Management Technology, Inc. (AMTI), 1515 Wilson Boulevard, Arlington VA 22209 as host (**Please note change from Jeppesen**). Meeting **11-02** is scheduled for **October 25-27, 2011** with the **Air Line Pilots Association (ALPA)**, Herndon, VA as host.

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 (with an information copy to Bill Hammett), a written status update on open issues not later than October 8 - a reminder notice will be provided.

7. Attachments (2):

1. OPR/Action Listing.
2. Attendance Listing.

**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
OPEN AGENDA ITEMS FROM MEETING 10-02**

<u>OPR</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-470	92-02-110 (Cold Weather Altimetry)	Continue to track the issue and develop consolidated recommendation for PARC. Also, report results of MITRE study.
AFS-410 AFS-470	96-01-166 (Descent Point on Flyby Waypoints. Originally "on course")	<u>AFS-410 and AFS-470</u> : Jointly evaluate feedback and develop AIM and other pilot educational material.
AFS-470 AFS-410 NBAA	98-01-197 (Air Carrier Compliance With Climb Gradients)	<u>AFS-470</u> : Monitor PARC actions and report progress. <u>AFS-410/NBAA</u> : Report on sub group progress to address this issue and 09-02-287.
AJV-11 AJV-3	02-01-238 (Departure Minimums and DP NOTAMs)	<u>AJV-11</u> : Report progress on re-write of Order 7930.2 to include SID/STAR NOTAMs under the FDC process. <u>AJV-3</u> : Provide update on development of the Federal NOTAM System (FNS).
AJT-28 AJE-31	02-01-241 (Non-radar Level and Climbing Holding Patterns)	<u>AJT-28 and AJE-31</u> : Track Change to Order 7210.3 to ensure controller awareness and education on what holding patterns are authorized for Climb-In-Hold.
AFS-450	03-01-247 (Holding Pattern Selection Criteria)	Continue research/evaluation on the issue and report.
AFS-470	04-02-258 (VNAV IAPs using DA(H) and OpSpec C073)	AFS-470: Continue to develop operational guidance (AC-CDFA).
AFS-420 (US-IFPP)	05-01-259 (Visual Climb Over Airport)	Track new criteria development through the USIFPP and report.
AFS-450	06-02-267 (Option to Use Standard Timing for RNAV Holding Patterns)	Assess use of timing in lieu of ATD for RNAV holding.
AFS-420 (US-IFPP) AJT-28/AJE-31	07-01-269 (Diverse Vector Areas)	<u>AFS-420</u> : Ensure DVA criteria are developed through the US-IFPP. <u>AJT-22 and AJE-31</u> : Jointly develop controller guidance for vectoring departures at airports with an ODP.
AFS-420 (US-IFPP)	07-01-270 (Course Change Limitation Notes on IAPs)	Continue to track issue through the US-IFPP.
AFS-410	07-01-272 (Use of ODP in Lieu of Published Missed Approach)	Schedule telcon between AFS-410, AJT-28 and NBAA to finalize AIM language

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<u>OPR</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-450	07-02-278 (Advanced RNAV (FMS/GPS) Holding Patterns Defined by Leg Length)	Address the issue in conjunction with the other holding pattern studies under issues 03-01-247 and 06-02-267.
AFS-410 AFS-420 AJV-3B NBAA	09-01-282 (Glide Slope Intercept Altitudes on ILS Parallel Approaches)	<u>AFS-410</u> : Hold the proposed AIM change to paragraph 5-4-5b pending further coordination. <u>AFS-420</u> : Ascertain status of AFS-450 study regarding vertical guidance requirement for close parallel operations. <u>AJV-3B</u> : Provide NBAA a listing of simultaneous close parallel approaches. <u>NBAA</u> : Pursue RAPT priority for close parallel approach amendments.
AFS-410	09-01-283 (Intermediate stepdown Fix Altitudes & ILS Glide Slope)	Track AIM change publication.
AFS-410 AJT-28	09-01-284 : (Question of TERPs Containment with Late Intercepts)	<u>AFS-410</u> : Continue to track the issue through ATPAC and report. <u>AJT-28</u> : Report status of proposed changes to Order 7110.65.
AJT-28 AJE-31 AJV-14 NBAA	09-02-286 : (Initial "Climb & Maintain" Altitude on SIDS)	<u>AJT-28, AJE-31, and AJV-14</u> : to form a sub group to address the issue. <u>NBAA</u> : Draft AIM language and forward to AFS-410.
AFS-410 NBAA	09-02-287 : (Operator Training Concerning OEI Contingency Planning For IFR Departure Procedures)	<u>AFS-410 and NBAA</u> : Jointly work the issue through the Transport Airplane Performance Planning (TAPP) working group in conjunction with issue 98-01-197.
AFS-420 AFS-470	09-02-288 : (VNAV Minimums vs. Circle to Land)	<u>AFS-420 and AFS-470</u> : Jointly re-assess the issue through the US-IFPP and report.
AFS-420 (US-IFPP)	09-02-289 : (Use of Leg Combinations and Altitude Constraints on RNAV Departure Procedures)	Provide status update for the next meeting.
AFS-420 (US-IFPP)	09-02-290 : (Call for Review and Revision of ARINC Leg Types Used in Construction of RNAV DPs)	Provide status update for the next meeting.
AFS-420 (US-IFPP)	09-02-291 : (Straight-in Minimums NA at Night)	Re-assess the issue considering comments from ACF-IPG 10-01 and report

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OPEN AGENDA ITEMS FROM MEETING 10-02**

<u>OPR</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-420 AFS-410	10-01-292: (Removal of VCOA Option at Mountainous Airports)	<u>AFS-420:</u> Track change to Order 8260.46 to add pilot notification requirement and develop IPH guidance <u>AFS-410:</u> Develop pilot VCOA guidance for the AIM/AIP.
AFS-420 (US-IFPP)	10-01-294: (RNP SAAAR Intermediate Segment Length and ATC Intervention)	Assess issue and report.
AJV-21	10-01-295: (Official Source for Charting Fix Make-up)	Track progress in using FADDS to promulgate 8260-2 information to civil chart producers.

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INSTRUMENT PROCEDURES GROUP
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