November 16, 2005

Dear Forum Participant

Attached are the minutes of the Aeronautical Charting Forum, Instrument Procedures Group, (ACF-IPG) held October 25, 2005 and sponsored by the Air Line Pilots Association (ALPA). An office of primary responsibility (OPR) action listing and an attendance listing are attached 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 past meeting minutes 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. We encourage participants to use this site for reference in preparation for future meetings.

ACF Meeting 06-01 is scheduled for **April 18-20, 2006** with Advanced Management Technology Incorporated (AMTI), Rosslyn, VA as host. Meeting 06-02 is scheduled for **October 17-19, 2006** with the FAA National Aeronautical Charting Group, Silver Spring, MD as host.

Please note that the **meetings begin promptly at 9:00 AM**. Please forward new issue items for the 06-01 IPG meeting to the above addressees not later than March 31st. A reminder notice will be sent.

We look forward to your continued participation.

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

Attachment: ACF-IPG minutes

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
Meeting 05-02 Herndon, VA
October 25, 2005

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 9:00 AM on October 25, 2005. The Air Line Pilots Association (ALPA) hosted the meeting at their Herndon, VA facility. Mr. Kevin Comstock made welcoming and administrative comments on behalf of ALPA. 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 05-01, which was held on May 9, were electronically distributed to all attendees as well as the ACF-IPG Master Mailing List on June 1st. A minor change was made to Issue 92-02-110 at the request of ALPA. The corrected minutes with the change denoted in shaded text have been posted on the ACF-IPG web site. The corrected minutes were accepted without further comment.

3. Briefings:

Naming of Wide Area Augmentation System (WAAS) Lateral Only Guidance Approach Line of Minima.

Mike Webb, AFS-420, presented a briefing on a proposed naming convention to be used to identify the WAAS lateral only line of minima on approach charts.

The FAA is developing a new application using the WAAS signal in space to provide WAAS final approach guidance with a lateral accuracy of ± 40 meters and WAAS angular guidance sensitivity within ± 2.0 degrees. This will be a non-precision approach, flown with the pilot following the lateral guidance to maintain course and a barometric altimeter providing vertical guidance. It is envisioned that this line of minima would be associated with a Minimum Descent Altitude (MDA) and that the pilot flying such a procedure would not be allowed to descend below the MDA without having the appropriate landing area references in sight.

This type procedure will be used where a WAAS LPV procedure could not be sited due to infrastructure limitations; e.g., Glideslope Qualification Surface (GQS) penetration. However, it is not intended as a a fail-down mode to LPV. The concept of operations is to provide either an LPV line of minima or WAAS Lateral Only Guidance line of minima, but not both.

The current WAAS procedure with both angular and vertical guidance is identified as LPV, which is the international acronym used throughout ICAO and in the U.S. Aeronautical Information Manual (AIM) for Localizer Performance with Vertical Guidance. Several

options were discussed within Flight Standards, such as localizer performance – azimuth only (LPA) or localizer performance – lateral only (LPL). Both of these options seemed redundant within the name. Therefore, the working group settled on Localizer Performance (LP) without a third character. This option is also acceptable from a human factors standpoint in that it is clear that there is not vertical guidance without the "V". It describes the signal that will be displayed, a localizer like signal only.

Brad Rush, NFPG, asked about application of the concept in Alaska for fixed-wing operators. Mike responded that the concept has only initially been studied for Copter application; however, the new consolidated RNAV Order will assess fixed wing use.

Brad also recommended that the criteria allow a turning missed approach to increase design flexibility (current LPV criteria requires a straight-ahead missed approach segment). Mike responded that this also is under study.

After discussion, the group consensus was to accept the proposed charting standard for WAAS lateral only guidance as Localizer Performance (LP) with MDA on the minima line.

Questions on this subject may be addressed to Mike Webb, AFS-420, at 202-385-4603 or via email at mike.webb@faa.gov.

4. <u>Old Business</u> (Open Issues):

a. 92-02-105: Review Adequacy of TERPS Circling Approach Maneuvering Areas and Circling at Airports with High Heights Above Airports (HAAs).

Tom Schneider, AFS-420, briefed that the Manager of AFS-400 tasked AFS-440 to conduct an analysis of the TERPS circling approach obstacle evaluation areas (OEAs) on July 1st. A copy of the memorandum was provided in the meeting handout material and is included as attachment 3. The memorandum included the Randy Kenagy, AOPA, offer to assist in the Category A and B analysis. A meeting between AFS-420 and 440 was held to review the model used for the past study and the resulting proposed criteria. AFS-440 responded to the study request by stating that the project needs to be assigned a priority and funding. Tom briefed that the circling study has been entered in the new AFS-400 Enterprise Project Management (EPM) software system for tracking.

Status: AFS-440 to keep the group appraised of progress on the study.
<u>Item Open (AFS-440)</u>.

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

Mark Steinbicker, AFS-410, briefed that Flight Standards has not determined whether to pursue an operational solution (charted notes on procedures or pilot procedures to correct for temperature) or a criteria solution (adjust procedural altitudes to account for worst case expected conditions) to the issue. AFS-410 has requested a contract risk assessment analysis to determine the scope of the problem; i.e., the number of airports and air traffic facilities affected. However, the request did not make it into this year's budget and without funding; the project is in a HIA status. There is a possibility of receiving fall-out money for funding this year. There was much discussion on the issue as well as industry concern that FAA does not take the issue seriously. Monique Yates, NGA, stated that Canada and the

U.S. military address the problem through pilot education and application of the ICAO Cold Temperature Error Table in the AIM (Table 7-2-3). USAF air traffic controllers at northern tier locations broadcast "use cold temperature procedures" over the ATIS. Monique emphasized her point by noting an instance where a U.S. operator nearly struck a mountain while on approach in Canada because of not complying with cold weather adjustment procedures. Deb Martin, Transport Canada, confirmed that the incident occurred at Kewlona, BC and the aircraft was very close to impacting the terrain. Monique recommended that FAA initiate an effort to educate the flying public and air traffic controllers on the errors associated with cold weather altimetry in general. She also advocated using the ICAO Table within the NAS. Mark Washam, ATO-T, questioned the impact on ATC of applying the adjustment. Deb Martin replied that this has not been a problem in Canada as both controllers and pilots are educated on the subject. Cold weather procedures are effective for certain months during the year and all minimum vectoring altitude charts in Canada are temperature corrected. Deb volunteered Canadian support toward resolving the issue. Kevin Comstock, ALPA, supported Monique's recommendation. Kevin also questioned the need for another study as the Flight Safety Foundation CFIT study and the CAST initiative have already conducted studies to assess cold temperature impact. Kevin offered to provide the previous study material to AFS-410. Mark stated that if procedure design is feasible, it is preferable in lieu of implementing pilot procedures. However, FAA needs to know the extent of the issue prior to expending resources; therefore, the need for the risk analysis. Mark emphasized that he did take the issue to the PARC for further support; however, that group decided not to work the issue. Kevin responded that other countries are applying cold weather corrections, how do we ensure that our pilots are trained? He recommended that if the FAA is to pursue a risk analysis, expand the study to include international application. It was further noted that this issue has been on the agenda with no action for 13 years. Monique questioned whether the FAA may be relying on global warming to resolve the issue.

Status: AFS-410 will continue to track the issue and report. Item Open (AFS-410).

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

Vinny Chirasello, AFS-410, briefed there has been no action on this issue. Steve Bergner, NBAA, stated that the subject is important and needs clarification and resolution. Brad Rush, NFPG, added that the issue is not limited to approach procedures. Vinny promised to pursue resolution more aggressively through an AFS-400 Technical review Board (TRB).

Status: AFS-410 to continue efforts to develop AIM material. Item Open (AFS-410).

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

Jerry Ostronic, AFS-220, briefed that the issue is still bring worked. In addition to requesting carriers to provide climb performance data in the cockpit, it also asked for a determination of which climb gradient was applicable when there were differences between the Obstacle Departure Procedure gradient and a gradient on a SID. Jerry stated that he has asked the NFPG to review these procedures and resolve differences. Bill Hammett, AFS-420 (ISI) noted that as a result of previous ACF discussions, policy has been written in Order 8260.46, *Departure Procedure Program*, to require all information applicable to a graphic DP, either ODP or SID, to be published on the chart. There should be no need for a pilot to refer to different pages to ascertain what climb gradient or takeoff minimums are applicable

to a given procedure. Jerry noted that while this is true, not all locations have been updated. He further noted that if rulemaking was required, then it would require priority and funding. Jerry also stated that there is not a unanimous opinion within AFS and AGC on how to proceed. Mark Ingram, ALPA, questioned the timetable for a decision. Jerry responded that there was none.

Status: AFS-220 to continue to work the issue and report. Item Open (AFS-220).

e. 00-02-229: Turbine Powered Holding

Bill Hammett, AFS-420 (ISI), briefed that after the last meeting, the ATO-T representative advised the ACF-IPG Chair that the Director of Terminal Safety and Operations Support stated that they did not believe a letter confirming the ATO position on the subject was necessary. As a result, and to resolve the ACF issue, AFS-420 revised its policy memorandum on 175 KIAS holding to only allow the practice below FL 180. Additionally, all 175 KIAS holding patterns other than those published on IAPs restricted to Category A and B aircraft require a Flight Standards waiver approval. A policy memorandum was signed by AFS-400 on July 7th and forwarded to the National Flight Procedures Group with a copy to the applicable Air Traffic Offices. The revised policy will be included in the next revision to Order 7130.3A, *Holding Pattern Criteria* and may be viewed at http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/policies_guidance/memorandums/. Also at the last meeting, it was recommended that the ACF-IPG Chair send a memorandum to the Director of Terminal Safety and Operations Support regarding the lack of attendance at ACF-IPG meetings by an air traffic control terminal procedures specialist. The Chair prepared a memorandum to ATO-T that was forwarded through AFS-400 on June 24th. The result was successful as an ATO-T representative was in attendance. Copies of both memorandums were provided in the meeting handout material and are included as attachments 4 and 5. Bill recommended the issue be closed and the Group concurred.

Status: Issue Closed.

f. 01-01-234: Designation of Maximum Altitudes in the Final Approach Segment

Bill Hammett, AFS-420 (ISI), briefed that the VOR/DME RWY 7 approach at Orlando Executive Airport (ORL) has been amended to revise the maximum altitude at DITEY in the final approach segment to 1200 vice 1100. The early missed approach cautionary note has also been revised to match the other runway 7 IAPs. This makes all final approach restrictions and missed approach cautionary notes for the runway 7 IAPs at ORL identical. All required actions are completed and the issue may be closed.

Status: Issue Closed.

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

Bill Hammett, AFS-420 (ISI), briefed that at the last meeting he took an IOU to ensure the staff person responsible for Order 7930.2, *Notices to Airmen (NOTAMs)* under the new ATO organization was made aware of the ACF-IPG issue to include SIDs and STARs under the FDC NOTAM process. A memorandum requesting revision to the Order was signed by AFS-400 on July 1 and forwarded to ATO-R with an information copy to the Notices to

Airmen Group. A copy of the memorandum was provided with the meeting handout material and is included as attachment 6.

Status: The Notices to Airmen Group to revise Order 7930.2. Item Open (Notices to Airmen (NOTAMs) Programs Group, AJR-46).

h. 02-01-239: Minimum Vectoring Altitude (MVA) Obstacle Accountability; Lack of Diverse Vector Area (DVA) Criteria.

Bill Hammett, AFS-420 (ISI) briefed that a meeting was held on August 19 between the AFS-420 staff and the ATO liaison to AFS-400, Larry Ramirez, to discuss NOTICE 8260.RADAR and the ATO-T non-concurrence. The draft Notice was revised to mitigate the ATO concerns over the altitude rounding process and the revised draft was given to the ATO liaison to coordinate with ATO-T; however, no further comments have been received. Brad Rush briefed that Air traffic is actively pursuing modification of their Sector Design Automation Tool (SDAT) to include capability as MVA/MIA automation development tool. A meeting and demonstration of initial efforts was held in Oklahoma City on June 28. In addition to FAA participants, representatives from ALPA and NBAA attended. Work is progressing and another meeting is tentatively scheduled for mid-December.

Status: 1) AFS-420 to track progress on the revised criteria. 2) AFS-420 work with AT representative to resolve non-concurrence. 3) NFPG to provide progress reports on the MVAC development tool. Item Open (AFS-420, ATO-T, and NFPG).

i. 02-01-241: Non Radar Level and Climbing Holding Patterns.

Two days after the last ACF-IPG meeting, during a break at the ACF Charting Group meeting, Tom Schneider, AFS-420, approached Mark Washam, the ATO-T representative, and requested an update on the ATC Bulletin article. Mark stated that he had contacted the previous air traffic ACF representative to the ACF and asked him to provide the necessary material; however, he has received no reply. Paul Ewing, ATO-R, questioned the need for the bulletin article as the tasking was 2-years old and is apparently not a problem. Bill Hammett, AFS-420 (ISI), responded that the article was intended as refresher training for controllers to ensure all bases were covered. The only source for holding pattern data to include minimum altitudes, airspeeds, and whether a climb-in-hold evaluation has been conducted is FAA Form 8260-2. The intent of the tasking was to require a facility review of the forms to ensure that all controllers are aware of exactly what patterns have been evaluated for impromptu climb-in-hold use. Bill noted that refresher training is a common use for the ATC Bulletin and inclusion of this subject would close out the issue. Mark Washam agreed to more aggressively pursue the article.

Status: 2) Terminal Safety and Operations Support Division to prepare an ATC Bulletin addressing impromptu CIH clearances. Item Open (ATO-T, Safety and Operations Support).

j. 02-01-243: Holding Pattern Definition.

Bill Hammett, AFS-420 (ISI), coordinated with the OPR for the Pilot Controller Glossary (PCG) prior to the meeting. The “ATD” acronym for along-track distance is still on track to be published in the February 16, 2006 update to the PCG.

Status: Item Open – pending publication.

k. 02-02-246: Turn Angle Limits for RNAV Approaches Without TAAs.

Paul Ewing, ATO-R, briefed that the Air Traffic Document Change Proposals (DCPs) have been coordinated and approved for a February 16, 2006 publication in both Order 7110.65 and the AIM. The change will allow "direct-to" clearances to the IAF and IF for **RNAV approaches only**. Paul added that industry's request to allow the procedural change to also apply to conventional (non-RNAV) approaches was coordinated with the ATO-T organization; however, the ATO-T organization non-concurred with the proposal. Paul further noted that the conventional application issue is under consideration by the Air Traffic Procedure Advisory Committee (ATPAC). Kevin Comstock, ALPA, questioned the rationale for Air Traffic's non acceptance, especially since several line pilots have stated in previous ACF discussions that it is a common practice throughout the NAS for ATC to clear aircraft direct to the IAF, or IF where there is no IAF designated, on conventional approaches. He requested that ALPA be provided the rationale for the decision to exclude non-RNAV approaches. Kevin also noted that there is no guidance to specifically stop controllers from using "direct-to" clearances for conventional procedures; therefore, what is to stop them from continuing the practice. Paul responded that his office was charged to address RNAV application only, and that has been completed through the DCP. Tom Schneider, AFS-420, concurred and recommended ALPA address the request for Air Traffic's rationale directly to the ATO-T organization or through the ATPAC. Steve Bergner, NBAA, noted that the provision will not work for RNAV (RNP) SAAAR procedures due to containment constraints. Don Porter, ATO-R, stated that appropriate controller training material would be distributed. Tom Schneider stated that the original ACF recommendation applied to RNAV approaches and that issue has been resolved and the non-RNAV application should be worked through ATPAC. He recommended the issue be closed from further discussion and tracked until the applicable Orders and AIM have been updated. The group agreed.

Status: Item Open - pending publication.

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

Tom Schneider, AFS-420, briefed the following status report on the issue, which was provided by Dr. Richard Greenlaw, AFS--440. Requirements & priorities have been established for the project. However, the contractor failed to deliver the holding simulation tool on schedule. The new delivery date for the tool from the contractor is December 30. As a result, AFS-440 has changed the delivery schedule as follows (old dates in parenthesis, followed by revised dates):

- GPS Holding Analyses Results by (8/31/05) 4/27/06
- Conventional Results by (10/31/05) 4/27/06
- Helicopter/STOL/Cat AB Results by (11/30/05) 4/27/06
- RNP Results by (3/1/06) 6/21/06

Status: AFS-440 to continue ASAT/simulator analysis and report. Item Open (AFS-440).

m. 03-02-248: Substitution of GPS for Missed Approach Operations.

Vinny Chirasello, AFS-410, briefed that AFS-410 has been studying the issue as presented and determined that the issue should be expanded to address all facets of RNAV

substitution within the NAS. As a starting point, AFS-410 has scheduled an ad hoc 3-day meeting from November 8-10 and address all phases of flight; i.e., departure, en route, and arrival. The meeting will be government only and include FAA representation from AFS, AIR, Air Traffic, and the NFPO, as well as the military. The original ACF issue presented by NBAA regarding missed approach substitution is a small part of the total solution; however, Vinny asserted that it will be at the top of the list. Ted Thompson, Jeppesen, asked the FAA to consider the applicability of clear, concise NAVAID/equipment notes as a part of the substitution review. Ted also suggested the FAA consider work already accomplished on the subject in Europe. Mark Brown, NAVFIG, asked that the study consider obstacle containment areas. Bill Hammett, AFS--420 (ISI) stated that the original issue would remain open until resolved. Additionally, a new, more encompassing issue addressing total RNAV/NAVAID substitution would be opened - See New Business Issue 05-02-261.

Status: AFS-410 will continue to work the issue and report. Item Open (AFS-410).

n. 04-01-249: RNAV Terminal Routes for ILS Approaches.

Tom Schneider, AFS-420, briefed the following update from Jack Corman, AFS-420: Order 8260.RNAV will incorporate the new LPV criteria; therefore, it will follow publication of Order 8260.50A, *The United States Standard for Global Positioning System (GPS), Wide Area Augmentation System (WAAS), Instrument Landing System (ILS), and Localizer Performance With Vertical Guidance (LPV) Approach Procedure Construction.* 8260.50A will enter coordination in November, and work on 8260.RNAV will commence at that time. 8260.RNAV should enter coordination in the summer/fall 2006. Tom noted that the current approach procedure title methodology will not change and continue to reflect the conventional NAVAID required for final approach course guidance; e.g., ILS RWY xx. RNAV-only approach transitions will be annotated on the 8260 procedure source and will include an appropriate equipment note; e.g., “RNAV equipped aircraft only”. Charting or coding specifications should not be affected. Tom further briefed that appropriate criteria is being discussed and ultimately will be incorporated into the new 8260 RNAV/LPV Order. One option would be to simply add RNAV initial transition(s) to a conventional ILS approach, with appropriate equipment notes (applicable to individual RNAV transition route, or as a procedure note for entire procedure). Another option would be to create a separate ILS approach with RNAV Transitions as a separate procedure, which would be titled ILS-Z. To be determined.

Status: AFS-420 to track criteria development and report. Item Open (AFS-420).

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

Tom Schneider, AFS-420, briefed Order 8260.52, *United States Standard for Required Navigation Performance (RNP) Approach Procedures with Special Aircraft and Aircrew Authorization Required (SAAAR)*, was signed on June 3, 2005. This Order provides design criteria to achieve the lowest minimums where missed approach obstructions penetrate the standard 40:1 obstacle clearance surface through use of altered missed approach path, minimum climb gradients, or a combination of both. Tom asked whether this Order satisfies the NBAA concern. Steve Bergner, NBAA, stated that the original NBAA intent was not to develop RNP SAAR procedures, but to use RNAV as a means of applying smaller containment areas for missed approach procedures, thereby lowering minimums. Ted Thompson, Jeppesen, mentioned potential database coding problems and avionics limitations that could arise with the establishment of multiple missed approach procedures. Brad Rush, NFPG, noted that ARINC

424 allows coding of multiple missed approach procedures. Ted responded that while that may be true, most databases can't handle more than one. Tom added that criteria is being discussed and ultimately will be incorporated into the new 8260 RNAV/LPV Order. One option would be to simply add RNAV initial transition(s) to a conventional ILS approach, with appropriate equipment notes (applicable to individual RNAV transition route, or as a procedure note for the entire procedure). Another option would be to create a separate ILS approach with RNAV Transitions as a separate procedure, which would be titled ILS-Z. He will take the issue back to AFS-420 for further work.

Status: AFS-420 to continue work on the issue and report. Item Open (AFS-420).

p. 04-02-256: Impact of Temporary Runway End Changes on RNAV Procedures.

Tom Schneider, AFS-420, briefed that as agreed at the last ACF, he presented the issue for discussion at the government Aeronautical Information Services Working Group (AISWG) meeting in July. Representatives of the National Flight data Center, the FAA Airports Division, the National Aeronautical Charting Group, and the National Flight Procedures Group all agreed that notification and verification of runway changes is a serious issue. As a result there is better cooperation and coordination among the affected agencies. Brad Rush, NFPG, also briefed that he has elevated this issue through each Regional Airspace and Procedure Team (RAPT) to emphasize the importance of advance notification of airport changes by owner/operators. He has also stressed better coordination between the Flight Inspection Division and the supporting flight inspection database managers. The AISWG consensus is that all that can be done is being done. An excerpt of the AISWG minutes was provided in the meeting handout material and is included as attachment 7. During discussion, it was also suggested that Jeppesen consider sending a letter to the FAA Airport Safety and Operations Division, AAS-300, highlighting problems associated with uncoordinated airport data changes. Tom recommended the issue be closed and the group concurred.

Status: Issue Closed.

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

Vinny Chirasello, AFS-410, briefed that his office is in the process of re-writing HBAT 99-08 to require a clear 34:1 surface for use of MDA as DA. Discussion addressed the methodology for indicating a clear 34:1 surface. Current charting specifications use a "stipple" (shaded area from MDA to threshold) to indicate a clear 34:1 for RNAV approaches. However, there are no plans under consideration for a charting specification for conventional approaches. Ted Thompson, Jeppesen, reminded the group that AFS-410 took an IOU when the issue was first presented at meeting 04-02 convene an ad hoc group to refine technical standards for pilot use of a MDA as a DA as well as to develop charting specifications to indicate when the application may be used. However, the group has never convened; ergo, Jeppesen has made no charting changes. Vinny responded that his office believes the HBAT should be revised prior to calling a meeting.
(***Editor's note:*** *Volunteers for the ad hoc group are listed in the history file for the issue.)*

Status: AFS-410 to complete re-write of HBAT 99-08 and convene the ad-hoc working group to resolve the issue. Item Open (AFS-410).

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

Tom Schneider, AFS-420, reported that this issue is actively being worked by the AFS-420 staff specialist responsible for departure criteria; however progress is slow. The issue has not been brought before an AFS-400 Technical Review Board (TRB) yet, pending draft criteria revision. The sectorization issue is also being addressed within AFS-420 and was not presented to the TERPS Working Group.

Status: AFS-420 will continue to work the issue and report. Item Open (AFS-420).

5. New Business:

a. 05-02-260: ACF Closed Issue Re: Course Reversals Negated by AIM Change

New issue introduced by Steve Bergner, NBAA. NBAA is concerned that language in the most recent AIM paragraph 5-4-9 is misleading and contradicts the FAA General Council opinion discussed at the ACF in the early 1990's. The current language could cause pilot confusion on when a course reversal is required and lead to violation of 14 CFR Part 91.175(j). Tom Schneider, AFS-420, stated that his office is in agreement with the NBAA concern. Tom presented draft language for the AIM to resolve the issue, noting that it would not be published until the August 06 AIM revision. The consensus was that the proposed revision would resolve the issue. Mark Ingram, ALPA, recommended the draft language be published in the Notices to Airmen Publication (NTAP) as soon as possible. Tom agreed to pursue this. No further discussion required.

Status: AFS-420 to coordinate an AIM change and publish the change in advance in the NTAP. Item Open - (AFS-420).

b. 05-02-261: RNAV Substitution Within the NAS.

New issue spawned from discussion of issue 03-02-248. Vinny Chirasello, AFS-410, briefed that during initial study of Issue 03-02-248 to assess substitution of GPS for VOR in a conventional missed approach segment, his office determined that the time was right to address all facets of RNAV substitution within the NAS. He recommended a separate issue be opened to address and track this expanded issue and the ACF-IPG agreed. It was noted that this larger issue study would need support from FAA's Flight Standards Service, Aircraft Certification Service, the Air Traffic Organization (including offices responsible for air traffic control procedures, instrument procedure development, and aeronautical charting), as well as the DOD. As a starting point, AFS-410 has scheduled a 3-day ad hoc meeting to begin discussion of the issue from November 8-10. The goal is to address various RNAV equipment requirements for conventional NAVAID substitution in all phases of flight (departure, en route, and arrival). The initial meeting will be government only and include FAA and DOD representation. Updates will be provided industry through the ACF; however, industry participation may be required at a later date. Ted Thompson, Jeppesen, asked the FAA to consider the applicability of clear, concise NAVAID/equipment notes as a part of the substitution review. Ted also suggested the FAA consider work already accomplished on the subject in Europe. Mark Brown, NAVFIG, asked that the study consider obstacle containment areas.

Status: AFS-410 will continue to work the issue and report. Item Open (AFS-410).

6. <u>Next Meeting</u>: Meeting 06-01 is scheduled for **April 18-20, 2006** with Advanced Management Technology Incorporated (AMTI), Rosslyn, VA as host. Meeting 06-02 is scheduled for **October 17-19, 2006** with the FAA National Aeronautical Charting Office, Silver Spring, MD as host.

<u>Please note the attached Office of Primary Responsibility (OPR) listing (attachment 1) for action items.</u> 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 March 31, 2006 - a reminder notice will be provided.

7. <u>Attachments (7)</u>:

1. OPR/Action Listing.
2. Attendance Listing.
3. Memorandum, re: Circling Study
4. Memorandum, re: 175 KIAS Holding Policy
5. Memorandum, re: Air Traffic ACF Attendance
6. Memorandum, re:FDC NOTAMS for SIDs and STARs
7. AISWG Minutes Excerpt

AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
OPEN AGENDA ITEMS FROM MEETING 05-02

OPR	AGENDA ITEM (ISSUE)	REQUIRED ACTION
AFS-440	**92-02-105** (Circling Areas)	Conduct ASAT analysis and report.
AFS-410	**92-02-110** (Cold Weather Altimetry)	Review previous FAA and NSF studies. Monitor risk analysis initiative and report.
AFS-410	**96-01-166** (Descent Point on Flyby Waypoints. Originally "on course")	Place issue on AFS-400 TRB agenda. Continue to develop AIM language.
AFS-220	**98-01-197** (Air Carrier Compliance W/Climb Gradients)	Continue to work issue and report. Follow up on 1998 ALPA letter to AGC.
ATO-R (AJR-46)	**02-01-238** (Departure Minimums and DP NOTAMs)	Revise Order 7930.2 to add SID/STAR NOTAMs under the FDC process.
AJW-321 (NFPO) AFS-420	**02-01-239** (MVA Obstacle Accountability and Lack of DVA Criteria)	AJW-321 (NFPO): Monitor development of MVAC automation tool and report. AFS-420: Resolve ATO-T and ATO-W non-concur. Monitor progress on new criteria development.
ATO-T/SOS	**02-01-241** (Non-radar Level and Climbing Holding Patterns)	ATO-T/SOS: Develop controller education material on the issue.
AFS-420	**02-01-243** (RNAV Holding Pattern Definition)	No action required – awaiting publication of PCG change (ATD).
ATO-R/RNP & ATO-T/SOS	**02-02-246** (Turn Angle Limits for RNAV SIAPs Without TAAs)	No action required – awaiting publication of 7110.65.
AFS-410	**03-01-247** (Substitution of GPS for Missed Approach Operations)	Continue research on the issue and report.
AFS-420	**04-01-249** (RNAV Terminal Routes for ILS Approaches)	Track criteria development.
AFS-420	**04-01-250** (RNP and Climb Gradient Missed Approach procedures)	Re-look the issue and report.
AFS-410	**04-02-258** (VNAV IAPs using DA(H) and OpSpec C073)	Lead ad hoc working group on the issue.
AFS-420	**05-01-259** (Visual Climb Over Airport)	Continue research on the issue and report.
AFS-420	**05-01-260** (AIM Course Reversal Language)	Publish NTAP notice. Coordinate publication of AIM change
AFS-410	**05-01-261** (RNAV Substitution within the NAS)	Lead ad-hoc group to assess RNAV substitution throughout the NAS.

AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
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AERONAUTICAL CHARTING FORUM
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Tuesday Oct 25, 2005				

Federal Aviation Administration

Memorandum

Date: JUL 1 2005

From: Manager, Flight Technologies and Procedures Division, AFS-400

To: Manager, Flight Operations Simulation and Analysis Branch, AFS-440

Prepared by: Flight Procedure Standards Branch, AFS-420

Subject: Circling Approach Obstacle Clearance Analysis

An analysis is requested of the adequacy of the existing criteria for circling approach obstacle clearance areas (OCA) detailed in Order 8260.3, United States Standards for Terminal Instrument Procedures (TERPS), Chapter 2, Section 6. This request is in response to concerns first raised at Aeronautical Charting Forum, Instrument Procedures Group (ACF-IPG) meeting 92-02. An AFS-420 analysis addressing this issue concluded the current circling OCA is inadequate and new criteria were developed for inclusion in TERPS. However there was strong resistance from the Aircraft Owners and Pilot's Association (AOPA) regarding the increase in the OCA for Category A and B aircraft. There is equally strong concern from the Air Line Pilots Association (ALPA) that current criteria is not conservative enough for Category C and D aircraft operations. A complete history of the ACF discussions may be reviewed at the following URL: http://av-info.faa.gov/terps/ACF-IPG/Open%20History/Hist%2092-02-105.pdf.

The analysis should consider the previous AFS-420 study and include actual aircraft flight test data combined with simulation. As detailed in the ACF minutes, Mr. Randy Kenagy of AOPA has volunteered to act as a technical consultant for Category A and B operations; he may be reached at (301) 695-2111.

Request that this analysis be completed as soon as possible to resolve this long-standing issue. If necessary, consideration should be given to utilizing outside resources. If you have any questions, please contact Donald Pate, Manager, Flight Procedure Standards Branch, AFS-420, at (405) 954-4164.

John W. McGraw

Federal Aviation Administration

Memorandum

Date: JUL 7 2005

From: Manager, Flight Technologies and Procedures Division, AFS-400

To: Director of Technical Operations, Aviation System Standards, AVN-1

Prepared by: Flight Procedure Standards Branch, AFS-420

Subject: Policy on Use of 175 Knots Indicated Airspeed (KIAS) Holding Patterns

The AFS-420 memorandum of February 6, 2004, is cancelled. This memorandum is a replacement of that policy guidance.

The Federal Aviation Administration (FAA) Order 7130.3A, Holding Pattern Criteria, establishes maximum holding pattern airspeeds for civil aircraft. Civil aircraft standard maximum holding airspeeds are 200 KIAS for minimum holding altitudes up to 6,000 feet, 230 KIAS for altitudes above 6,000 feet up to 14,000 feet, and 265 KIAS for altitudes above 14,000 feet.

A 175 KIAS holding pattern is non-standard and is highly discouraged. Development of 175 KIAS holding patterns must only be accomplished to avoid obstacles and terrain, and as necessary to meet procedure design requirements.

a. Waiver action <u>is not required</u> when 175 KIAS holding patterns are established as part of an instrument procedure that is restricted for use by Category A and B aircraft only.

b. Waiver action <u>is required</u> when 175 KIAS holding patterns are established on procedures authorized for use by Category C, D, or E airplanes, and/or will be used by any category in en route operations.

NOTE: Regardless of which situation stated above applies, the holding pattern, must be charted with the "175K" cartographic icon.

Screen existing published instrument procedures having a 175 KIAS holding pattern in the approach, missed approach, or en route phase of flight. As a result of this screening:

a. If the holding pattern speed can be increased to standard with an acceptable holding altitude, issue a Flight Data Center (FDC) Notice to Airmen (NOTAM) deleting the 175 KIAS speed restriction and specify the holding altitude, if it is changed. Process a procedure amendment and cancel the NOTAM in a timely manner.

b. If the procedure provides Category C, D, or E minima and the holding pattern speed cannot be increased, send an FDC NOTAM restricting the procedure to Category A and B only; e.g., "Not Authorized for Cat C and D airplanes" (include Cat E, if applicable). Process an amendment to the procedure to authorize Category A and B minima only. If a Category C, D, or E requirement exists, develop a new procedure, where possible, to support the operation.

c. When required to support air traffic control en route operations, 175 KIAS holding patterns may only be authorized for use below 18,000 feet mean sea level (MSL). Screen existing fixes and amend the applicable FAA Form 8260-2(s) to ensure compliance with this policy.

Consistent with our February 6, 2004, memorandum, we again ask you assign the highest priority to screening the affected instrument approach procedures to ensure compliance with this policy as well as provide us an on-going status on the results of your review, perhaps through our weekly meetings at the Criteria Coordination Committee or through some other means. Possibly due to administrative oversight or another reason, we did not receive any results of your previous screenings, and are therefore more than willing to help facilitate this feedback process. Your cooperation and suggestions, in this matter, are greatly appreciated

Please direct all inquiries to Donald Pate, Manager, AFS-420, at (405) 954-4164.

John W. McGraw

Federal Aviation Administration

Memorandum

Date: JUN 2 4 2005

From: Manager, Flight Technologies and Procedures Division, AFS-400

To: Director, Terminal Safety and Operations Branch, ATO-T

Prepared by: Flight Procedure Standards Branch, AFS-420

Subject: Air Traffic Participation at the Aeronautical Charting Forum, Instrument Procedures Group (ACF-IPG)

The Aeronautical Charting Forum is a program established by the Administrator under Order 7910.5, Aeronautical Charting Forum, to provide a formal venue for interaction between the Federal Aviation Agency (FAA) and the aviation community. The Forum focuses on issues relating to aeronautical charting standards and products, instrument flight procedure criteria and policy, as well as pilot procedures for instrument flight. The ACF was originally established in 1992 and meets bi-annually in April and October. The ACF is co-chaired by representatives of the Air Traffic Organization (ATO) and the Flight Standards Service.

We are concerned that there has been no ATO-T representation at the ACF-IPG meetings since October 2003. Air Traffic Control procedures, as they apply to specific issues, frequently come under discussion. Previously, a representative from the Terminal Operations/Procedures Branch, ATP-120, attended all meetings and proved an invaluable asset to group discussions. Although the RNAV/RNP Division under ATO-R actively supports the Forum, its representatives are reluctant to get involved in discussions not within that office's purview. Additionally, your office, as the ATO replacement for the former ATP-100, is assigned as office of primary responsibility (OPR) for two open issues.

We request you renew support and participation at ACF-IPG meetings. A representative from your office will add additional credibility to discussions and demonstrate FAA support for this program. The next meeting will be held on October 25-27, and will be hosted by the Air Line Pilots Association (ALPA) in Herndon, VA.

If you have any questions, please contact Donald Pate, Manager, Flight Procedure Standards Branch, AFS-420, at (405) 954-4164.

for
John W. McGraw

Federal Aviation Administration

Memorandum

Date: JUL 1 2005

From: Manager, Flight Technologies and Procedures Division, AFS-400

To: Director, System Operations Programs, ATO-R

Prepared by: Flight Procedure Standards Branch, AFS-420

Subject: Flight Data Center Notices to Airmen (FDC NOTAMs) for Standard Instrument Departures (SIDs) and Standard Terminal Arrivals (STARs)

During meeting 02-01 of the Aeronautical Charting Forum, Instrument Procedures Group (ACF-IPG), the Air Line Pilots Association (ALPA) requested that all Departure Procedure (DP) NOTAMs be transmitted as FDC NOTAMs vice NOTAM (D)s. The rationale behind this policy change is that it will place all DP NOTAMs under the FDC process, thus simplifying pre-flight briefings for controllers and pilots alike. Other industry groups in attendance; e.g., the National Business Aircraft Association (NBAA) and the Aircraft Owners and Pilots Association (AOPA), unanimously supported this position.

Current policy requires NOTAMs for textual obstacle departure procedures (ODPs) be issued as FDC NOTAMs while NOTAMs for graphic ODPs and SIDs are issued as NOTAM (D)s. The National Flight Procedures Office (NFPO) initiates NOTAMs for all DPs. Initial coordination with NOTAM policy specialists in the Flight Service Station (FSS) Operations/Procedures Branch, ATP-320, indicated that they had no objection to using the FDC process for all DP NOTAMs provided STAR NOTAMs were included in the policy change. STAR NOTAMs are the responsibility of Air Route Traffic Control Centers. Subsequent coordination with the Air Traffic Office responsible for STAR policy indicates they have no objection to this change. Thus, adoption of the change, as amended, will place all instrument flight procedures under the FDC process.

An update to Order 7930.2, Notices To Airmen (NOTAMs), is required to implement the change. We have been advised that, under the Air Traffic Organization (ATO) realignment, your office is now Office of Primary Responsibility (OPR) for this Order. We request that this change be reflected in the next update of the Order. We are also willing to provide information as necessary to facilitate the change.

Since your office is OPR for NOTAM policy, ACF-IPG Issue 02-01-238 is assigned to your office for action. A complete history of the issue is available for your information at the following URL: http://av-info.faa.gov/terps/ACF-IPG/Open%20History/Hist%2002-01-238.pdf. The next ACF-IPG meeting is scheduled for October 25, and will be held at the ALPA facility in Herndon, VA. You are invited to have a representative in attendance to brief progress on the issue. If a representative is not available, please provide the ACF-IPG Chair, Tom Schneider, Flight Procedure Standards Branch, AFS-420, an update on actions taken thus far.

If you have any questions, please contact Donald Pate, Manager, AFS-420, at 405-954-4164.

John W. McGraw

Aeronautical Information Services Working Group (AISWG)
July 7, 2005
FAA - National Aeronautical Charting Office (NACO)
Silver Spring, MD

Excerpt from minutes, New Business, Item b

b. 05-037 (July 7, 2005). Runway/Airport Data Changes. ISSUE: During the past two ACF-IPG meetings, concern was expressed over runway end changes and the impact of those changes on database driven procedures. Additionally, different data for other airport values hinders the procedure development and charting process. For example, AVN, through a FPO receives new runway and airfield elevation data and develops a procedure based on that data. However, when the 8260-series form reaches NFDC for the pre publication review, the contradiction is noticed. If unnoticed, procedures could be published with different airport data. In either case, increased processing delays may be encountered while resolving data discrepancies.

STATUS 07-07-05 – Tom Schneider presented this issue for discussion, which was originally introduced at the ACF-IPG. Brad Rush provided background on development of IFPs based on proposed data and last minute runway data changes that affect database coded procedures. Runway data changes that are NFDD'd just prior to publication require IFPs to be NOTAMed NA and put back into work. In many cases, this leaves the airport without an instrument approach and the airport must revert to VFR operations only for an extended period. Most problems are at non-Part 139 airports. Tom Harris explained the NFDC procedures for accepting and verifying airport data changes. NFDC will accept data changes from airport managers, but will verify those changes through AVN-210 prior to NFDD action. E.C. Hunnicutt stated that all public use airport changes must be processed through the Airports Division. Brad also briefed a NAVAID (Dublin VORTAC) coordinate change that was NFDD'd' without coordination that impacted several airways and IFPs. Bill Hammett questioned if NFDC was as thorough verifying NAVAID data changes as airport data. Tom Harris assured the group that NFDC verifies NAVAID data changes equally as well as airport data. E.C. briefed that there are many new initiatives to help the data sharing/verification process to include electronic ALPs, Doc 405 expansion to include 3rd party survey standards, etc. Brad took an IOU to work with AVN-210 and 500 to ensure better coordination when advised of a data change by NFDC. Brad also has an IOU from the ACF to make airport data notification a RAPT special agenda item. The consensus is that all that can be done is being done. Tom will take this message back to the ACF. **Closed**.