May 3, 2006

Dear Forum Participant

Attached are the minutes of the Aeronautical Charting Forum, Instrument Procedures Group, (ACF-IPG) held on April 18, 2006 and sponsored by Advanced Management Technologies, Inc (AMTI). 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 06-02 is scheduled for **October 17-19, 2006** with the FAA National Aeronautical Charting Group (NACG), Silver Spring, MD as host. Meeting 07-01 is scheduled for **May 1-3, 2007**

Please note that the **meetings begin promptly at 9:00 AM**. Please forward new issue items for the 06-02 IPG meeting to the above addressees not later than September 22nd. 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 06-01 Alexandria, VA
April 18, 2006

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 April 18, 2006. Advanced Management Technologies, Inc. (AMTI) hosted the meeting at their Alexandria, VA headquarters. Tom Reiss made welcoming and administrative comments on behalf of AMTI. 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 05-02, which was held on October 25, were electronically distributed to all attendees as well as the ACF-IPG Master Mailing List on November 17th. A minor change was made to Issue 02-02-246 at the request of ALPA. The corrected minutes with the change denoted in shaded text have been posted on the ACF-IPG web site and distributed to attendees. The corrected minutes were accepted without further comment.

3. Briefings: Tom Schneider provided a briefing on the forthcoming change to TERPS, Volume 1, Chapter 3, Takeoff and Landing Minimums. The primary purpose of the change is to harmonize visibility minimums between U.S. TERPS and Europe's Joint Aviation Authority. Lyle Wink, AFS-400, is working to resolve final issues with the National Flight Procedures Group (NFPG) and preparing DOD coordination. Once completed, Lyle will provide a full briefing to the ACF at the October meeting. Bill Hammett, AFS-420 (ISI), asked if an implementation date has been considered. Lyle responded that it would depend on the TERPS change approval process. Tom noted that, once approved, implementation of the new visibility criteria would be accomplished as procedures are revised/developed. He stated that AFS-420 will propose implementation by airport.

4. Old Business (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 the proposed AFS-440 ASAT study will not be accomplished due to administrative problems. Rather, AFS-420 has assumed the analysis and standards task for the circling areas. The goal is to retain the current circling area construction methodology, and to provide a formula that determines the appropriate circling radius based on approach category and airport elevation. This work has begun and preliminary calculation routines are being evaluated. A request has gone to the DOD for parameters to use for Category E aircraft. A similar request was forwarded to Randy Kenagy, AOPA, for input for Category A & B. Bill Hammett, AFS-420 (ISI) provided a short briefing on the past history of the issue emphasizing the need for industry input. The proposed criterion, which was planned for TERPS Change 19, but later rescinded, was developed unilaterally by AFS-420 because, despite repeated requests for input from

industry groups through the ACF, no parameters for circling maneuvers were received. All attendees were reminded that if they desire to provide input, forward information to Jack Corman, AFS-420. It is hoped that AFS-420 will brief the finalized draft criteria at the next ACF meeting. Lyle Wink, AFS-400, asked whether a request had been made to ICAO for them to assess their parameters. Tom responded that this action may be considered after the FAA criteria have been completed.

Status: AFS-420 to keep the group appraised of progress on criteria development. Item Open (AFS-420).

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

Vincent Chirasello, AFS-410, briefed that the issue is not being worked due to lack of money and resources. The FAA position, as briefed at the last meeting, is to contract a risk analysis study to determine the validity of the problem and whether to address the issue through an operational or criteria solution. Lt Col Monique Yates, NGA, provided a presentation from the USAF Advanced Instrument School curriculum to demonstrate the significance of the issue. The presentation demonstrated an excellent example of the impact of cold temperature on required obstacle clearance (ROC) by approach segment using an actual approach chart and the ICAO table. In her example, assuming minimum ROC in each segment, actual obstacle clearance vs. ROC was reduced as follows: Initial segment: 235 ft vice 1000 ft; Intermediate segment 32 ft vice 500 ft; Final segment: 97 ft vice 250 ft. Monique concluded by stating that both Canada and the DOD agree that using the ICAO Cold Temperature Error Table and pilot education is a better solution to the problem and should not overly impact FAA money and resources. Contributing to the problem is that the FAA Air Traffic system is not on board. Bill Hammett, AFS-420 (ISI), asked if the USAF is implementing cold weather corrections. Monique responded, yes, at their U.S. 'northern tier' locations. Controllers advise pilots to implement cold temperature adjustments on initial contact and via the ATIS. Pedro Rivas, ALPA, stated that, by and large, air carriers do not apply any cold temperature correction except for FMS procedures. Paul Ewing, AJR-37 (AMTI), added that FAA MVA charts are not temperature corrected. Bill noted that from previous meetings, the Transport Canada representative stated that all MVA charts in Canada are temperature corrected. Vinnie stated that the MVA altitudes didn't matter as the pilot didn't know the actual MVA anyway. Richard Boll, NBAA, briefed that he received a GPWS alert while descending from 4,000 ft to 2400 ft to intercept the glide slope on the ILS RWY 19R IAP at Fairbanks Alaska at -22 degrees. When he queried the Control Tower, they responded, "It happens all the time". Vinnie again stated that the issue should be addressed by the PARC; however, when presented, the PARC declined to accept it. Lyle Wink, AFS-400, questioned the need to adjust all procedure altitudes since most (other than the DA/MDA) are controlled by airspace requirements. Vinnie agreed stating that this would be included in the risk analysis to determine whether we have a problem. A majority of the group believe that cold temperature altimetry is a problem and a study is not needed. After more discussion, the ACF consensus is that a combination of pilot education and use of the ICAO Cold Temperature Error Table should be endorsed by FAA. Tom Schneider, as Chair of the ACF-IPG, took an IOU to write the Manager, AFS-400, emphasizing the ACF consensus and requesting that AFS-400 elevate the issue within FAA. AFS-410 is still the OPR for action.

Status: 1) AFS-410 will continue to track the issue and report; 2) the ACF-IPG Chair will prepare a letter to AFS-400 requesting the issue be elevated for action. Item Open (AFS-410 and ACF-IPG Chair).

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

Vincent Chirasello, AFS-410, briefed the issue was discussed at an AFS-400 Technical review Board (TRB) after the last ACF meeting. However, the language never made it to the AIM. Vinnie added that his office is staffing a request to adopt the ICAO definition of "on course" for FAA use. He promised AIM material prior to the cutoff for the Feb 07 AIM. Tom stated he would circulate the AIM proposal to the ACF-IPG Master Mailing List for comment as soon as received from AFS-410.

Status: 1) AFS-410 to continue efforts to develop AIM material; 2) ACF-IPG Chair to circulate draft AIM language for ACF comment. Item Open (AFS-410 and ACF-IPG Chair).

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

Mark Ingram, ALPA, briefed that an AGC response to their follow-up letter was received on January 13, 2006. (Copies of the ALPA letter and the AGC response are included as attachments 3 and 4)The response regarding the climb gradient (CG) validated there is no requirement for carriers to provide CG data to aircrews. Therefore, if ALPA desires to pursue the issue, then ALPA must initiate rulemaking under 14 CFR Part 11. In regard to Part 121/135 pilots flying an ODP or a SID, AGC ruled that a pilot could fly either procedure and be in compliance with the rule. However, if assigned a SID, the pilot may not fly the ODP unless receiving an amended ATC clearance as required by Part 91.123. Rich Boll, NBAA, stated that corporate pilots face the same lack of performance data. Vince Massimi, MITRE, noted that Part 121.189 requires engine out performance parameters, it seems logical that similar data would be required for Part 97 procedures. Bill Hammett, AFS-420 (ISI), asked whether the AGC response satisfied the issue as it stands before the ACF, recommending that if ALPA decides to request rulemaking; that would be an ALPA prerogative outside the ACF. Kevin Comstock, ALPA, responded that ALPA has not decided whether to pursue rulemaking. He also noted that AGC only responded to two of ALPA's original five questions. Kevin requested the issue remain open until ALPA decides their next course of action. He also stated that he thought the request for rulemaking would have more weight if presented from within FAA, e.g. AFS-200. Bill suggested that ALPA follow up with a request for an opinion to the remaining three questions while they have AGC's attention.

Status: ALPA to determine whether to pursue rulemaking action and to follow up ACG-200 response. Item Open (ALPA).

e. 02-01-238: Part 97 "Basic" Minima; ATC DP Minima, and DP NOTAMs.

Bill Hammett, AFS-420 (ISI), briefed that no response has been received from the Notices to Airmen (NOTAMs) Program Group, AJR-46. A representative from the office was not in attendance. Status is unchanged.

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

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

Bill Hammett, AFS-420 (ISI) briefed that the last non-concur (ATO-E) has been lifted. All concerns have now been mitigated and NOTICE 8260.RADAR will be forwarded for AFS-1 signature next week. The initiative to expand the Sector Design Automation Tool (SDAT) to include capability for automated MVA/MIA chart development is progressing well. A field test was conducted on the Atlanta ARTCC MIA chart early in the year and a follow-on test is currently in progress on the Washington ARTCC MIA. Coordination is still on-going to conduct MVAC analysis at several Terminal facilities. A meeting is scheduled in Oklahoma City on May 9-10 to evaluate the Atlanta MIA test and begin validation of the software. Mark Ingram (ALPA) asked whether the evaluation would be open to the public. Bill responded that he would check with the project manager.

Status: AFS-420 to monitor the signatory process and provide progress reports on the MVAC/MIA automation effort. Item Open (AFS-420).

Editor's Note: *The NOTICE was forwarded for AFS-1 signature on April 19. Coordination with the SDAT project manager indicates that the Oklahoma City meeting will be FAA-only. A demonstration of the automation software will be requested for a future ACF.*

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

Bill Hammett, AFS-420 (ISI), briefed that no response has been received from the Airspace Procedures Group, AJT-22. A representative from the office was not in attendance. Status is unchanged.

Status: Terminal Safety and Operations Support Office, Airspace Procedures Group, to prepare ATC Bulletin addressing impromptu CIH clearances. Item Open (Airspace Procedures Group, AJT-22.

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

Bill Hammett, AFS-420 (ISI), briefed that the "ATD" acronym for along-track distance was published in the February 16, 2006 update to the Pilot Controller Glossary.

Status: CLOSED.

i. 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 incorporated in both Order 7110.65 and the AIM on February 16, 2006. The change allows "direct-to" clearances to the IAF and IF for **RNAV approaches only**. As noted at the last meeting, the application for conventional procedures is being addressed at ATPAC.

Status: CLOSED.

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

Tom Schneider, AFS-420, briefed that he coordinated with Dr. Richard Greenlaw, AFS-440, and the project is awaiting software delivery. The software is due in April, at which time analysis will begin. Scheduled completion dates are as indicated below:

- GPS Holding Analyses Results by 4/27/06
- Conventional Results by 4/27/06
- Helicopter/STOL/Cat AB Results by 4/27/06
- RNP Results by 6/21/06

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

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

Vincent Chirasello, AFS-410, briefed that the FAA working group has met and begun developing a matrix for RNAV substitution. The PARC also has a working group addressing the issue. It is planned that the groups will merge and reach a harmonized position; however, an estimated completion date is dependent on the PARC. Kevin Comstock, ALPA, asked whether the matrix is private or available to industry. Vinnie responded that it is not mature enough to release to the public at this time. Bill Hammett asked if there was any interim response to the original NBAA recommendation to allow GPS substitution for VORs as is done for NDBs. Vinnie stated that the FAA and PARC are addressing overall RNAV substitution and this question will be considered in the process. He further recommended that, since this issue is a small part of the total solution, it be closed in favor of tracking through issue 05-02-261. The group concurred.

Status: Item Closed - *(See issue 05-02-261)*.

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

Tom Schneider, AFS-420, briefed the following update from Jack Corman, AFS-420: Non-concurrence with the criteria in draft Order 8260.RNAV was received from 2 lines of business. The non-concurs were mitigated on April 14th. The draft order will be finalized and forwarded to AFS-1 for signature the week of April 17th. It is expected that the Order will be signed and an official number assigned by the week of May 8th. John Moore, NACG, asked whether a decision had been made regarding the two charting options noted at the last meeting (add RNAV transitions to existing ILS IAPs or publish separate approaches for RNAV use). Ted Thompson, Jeppesen, stated that every effort should be made to avoid option 2 (separate approaches). He would prefer a “RNAV required” note on the transition over the “Z”, “Y”, “X” naming convention. Tom stated that there may be instances where multiple approaches may be necessary; however, he would note the ACF preference for a single IAP. He added that 8260.19 policy would be written AFTER the criteria were developed.

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

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

Tom Schneider, AFS-420, briefed the following update from Jack Corman, AFS-420: The initial issue of 8260.RNAV will contain criteria for RNAV transition to an LPV/ILS final segment, and an LPV RNAV missed approach. There are placeholders for addition of en route criteria, LNAV, LNAV/VNAV, and criteria addressing RNAV missed approach climb gradients in excess of 200 ft/NM. The initial issue of the Order (predicted by early May in the update above) will not contain the climb gradient criteria. It is scheduled for change 1 to the document. Vincent Chirasello, AFS-410, stated the Order must clarify whether RNAV may be used for missed approach guidance from a conventional approach. Tom agreed to mention this to Jack Corman, the AFS-420 RNAV criteria specialist. The NBAA request to apply a missed approach climb gradient to gain lower minima is still under study. Ted Thompson, Jeppesen, again mentioned the problems associated with coding more than one missed approach procedure; e.g., with/without climb gradients, with/without RNAV, etc. *(Also see new issue 06-01-264)*.

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

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

Vincent Chirasello, AFS-410, briefed that the status is unchanged. Hopefully, staff additions will expedite a response. He also noted that the effort to harmonize minimums may impact the issue. Ted Thompson, Jeppesen, noted that the resolution must consider the implications regarding how many VNAV procedures can be in a database. Harmonized minima will allow credit for a constant descent final approach (CDFA); therefore, if the vertical descent angle (VDA) is removed, what is the impact on the database? Ted also reminded Vinnie that AFS-410 has still not convened the ad-hoc committee. Vinnie responded that the group would be convened when the draft HBAT 99-08 was complete.

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).

o. 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. Draft material has been developed; however, no final conclusions have been reached and the material has not been circulated for comment outside FAA. The issue has not been brought before an AFS-400 Technical Review Board (TRB) yet, because travel requirements have kept key staff members from attending. ***Editor's Note:*** *TRB has been scheduled for May 11th.*

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

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

Tom Schneider, AFS-420, stated that immediately following the last ACF, AFS-420 published the agreed upon AIM text in the NTAP. The text has been forwarded for publication in the August AIM change.

Status: Item Open - Pending Publication.

q. 05-02-261: RNAV Substitution Within the NAS *(Also includes Issue 03-02-248)*.

Vincent Chirasello, AFS-410, briefed that the FAA working group has met and begun developing a matrix for RNAV substitution. The PARC also has a working group addressing the issue. It is planned that the groups will merge and reach a harmonized position; however, an estimated completion date is dependent on the PARC. Kevin Comstock, ALPA, asked whether the matrix is private or available to industry. Vinnie responded that it was not mature enough to release to the public at this time.

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

5. New Business:

a. 06-01-262: More Flexible Hold-in-Lieu (HIL) Alignment Options For Public RNAV IAPs.

New issue introduced by Rich Boll, NBAA. NBAA is recommending that when a hold-in-lieu-of-procedure-turn is required on a public RNAV procedure, the HIL be increased to 90 degrees. Current criterion is restricted to an offset of 30 degrees from the intermediate segment (15 degrees if LPV minimums are allowed). As the issue was submitted after the suspense, AFS-420 has not had time to perform an in-depth review. Tom Schneider, AFS-420, reported that Jack Corman, the AFS-420 RNAV criteria specialist, stated that from initial review, he doesn't see a problem; however, further study is required. Danny Hamilton, AJW-324, requested interim policy as soon as the study was complete. Tom agreed to forward this request.

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

b. 06-01-263: Uniform Application of FAA Order 7130.3A RNAV Charted Holding Pattern Lengths.

New issue introduced by Rich Boll, NBAA. NBAA is concerned that the NFPG may be incorrectly applying holding pattern leg lengths. Brad Rush, AJW-321, briefed that Order 7130.3A, Table 8 is not being used. Per the AFS-420 memorandum of June 17, 2004, which was prompted by issue 03-01-247, the NFPG is using Chapter 2 to determine holding pattern size and Appendix 1 to determine leg length. NBAA agrees with using Chapter 2 to determine pattern size; however, once size has been determined, then Table 8 should be used to specify leg length. NBAA also believes that the maximum leg length specified in Table 8 should also be considered the optimum length and has requested AFS-420 issue policy accordingly. There was also a discussion on holding pattern controlling obstacle documentation on FAA Form 8260-2. Danny Hamilton, AJW, 324, stated that Order 8260.19, paragraph 841j(2) requires evaluating the larger holding pattern but documenting the controlling obstacle for the smaller patter. This issue is also under discussion within the AJW-32/AFS-420 Criteria Coordinating Committee (CCC). Tom Schneider, AFS-420, agreed to take the issues (leg lengths and documentation requirements) for study within AFS-420.

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

c. 06-02-264: Uniform Standard for Use of Climb Gradients In Public IAPs

New issue introduced by Rich Boll, NBAA. This issue was prompted upon NBAA review of the new San Bernardino (KSBD) ILS RWY 6 public SIAP that specifies a climb gradient (CG) for the missed approach. The Burbank (KBUR) ILS RWY 8 SIAP is the only other public approach procedure with a higher than standard missed approach slope. However, the KBUR missed approach performance requirement is specified as "rate-of-climb". NBAA supports that climb requirements should be standardized as a climb gradient in feet per NM (ft/NM). NBAA also supports publishing up to three lines of minima depending on the CG requirements including a line to accommodate the standard 200 ft/NM. Tom Schneider, AFS-420, stated that draft guidance for 8260.19D will specify ft/NM and a line of minima to accommodate the standard 200 ft/NM climb. He asked whether the three-lines of minima suggestion would affect charting. Ted Thompson, Jeppesen, responded that it probably would. The JAA harmonization effort will require changes and introducing additional complexities could possibly cause minima to be placed on a separate page as is depicted on the Tarbes, France VOR ILS RWY 20 IAP attached to the NBAA paper. Kevin Comstock, ALPA, added that ALPA has concerns that this could make charts more complex. He recommended resolving charting and pilot training issues prior to implementation. Bill Hammett, AFS-420 (ISI) questioned whether a ft/NM CG or rate-of-climb was preferred by the group. The consensus was ft/NM. Ted also noted that the climb gradient notes on the KBUR and KSBD charts are in different locations due to the 8260 source. Ted believes the information should be placed in the briefing strip because under the Volpe format, the briefing strip was planned as a standard place for equipment/procedural notes that apply to the whole IAP to support a pre-approach briefing. Tom replied that the Burbank approach was developed before Order 8260.19 specified note locations. Draft Order 8260.19D will require the note in the briefing strip. Kevin also suggested the issue title be changed to "Missed Approach Climb Gradients". Tom agreed to coordinate this change with NBAA and take the issue for study within AFS-420.

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

6. Next Meeting: Meeting 06-02 is scheduled for **October 17-19, 2006** with the FAA National Aeronautical Charting Office, Silver Spring, MD as host. Meeting 07-01 is scheduled for **May 1-3, 2007**; host TBD.

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 September 27, 2006 - a reminder notice will be provided.

7. Attachments (4):

1. OPR/Action Listing.
2. Attendance Listing.
3. ALPA Follow-up Letter to AGC
4. AGC Response

AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
OPEN AGENDA ITEMS FROM MEETING 06-01

OPR	AGENDA ITEM (ISSUE)	REQUIRED ACTION
AFS-420	**92-02-105** (Circling Areas)	Provide report on criteria development.
AFS-410 ACF-IPG Chair	**92-02-110** (Cold Weather Altimetry)	Monitor issue and report. Prepare memo to AFS-400 urging action.
AFS-410	**96-01-166** (Descent Point on Flyby Waypoints. Originally "on course")	Develop AIM material for Feb 07 publication. Assess ICAO definition of "on course".
ALPA	**98-01-197** (Air Carrier Compliance W/Climb Gradients)	Determine whether to seek rulemaking. Write AGC for additional response.
ATO-R (AJR-46)	**02-01-238** (Departure Minimums and DP NOTAMs)	Revise Order 7930.2 to include SID/STAR NOTAMs under the FDC process.
AFS-420	**02-01-239** (MVA Obstacle Accountability and Lack of DVA Criteria)	Track NOTICE 8260.RADAR through the signatory process. Continue involvement in the MVA/MIA automation tool development
AJT-22	**02-01-241** (Non-radar Level and Climbing Holding Patterns)	Develop controller education material on the issue for the ATC Bulletin
AFS-440	**03-01-247** (Holding Pattern Selection Criteria)	Continue research on the issue and report.
AFS-420	**04-01-249** (RNAV Terminal Routes for ILS Approaches)	Track criteria development and report.
AFS-420	**04-01-250** (RNAV and Climb Gradient Missed Approach procedures)	Track criteria development and report.
AFS-410	**04-02-258** (VNAV IAPs using DA(H) and OpSpec C073)	Re-write HBAT 99-08 and lead ad hoc working group on the issue.
AFS-420	**05-01-259** (Visual Climb Over Airport)	Continue working the issue and report.
AFS-420	**05-02-260** (AIM Course Reversal Language)	Track AIM publication scheduled for Aug 06.
AFS-410	**05-02-261** NAV Substitution within the NAS)	Continue working through AFS ad-hoc group and PARC to assess RNAV substitution throughout the NAS.
AFS-420	**06-01-262** HIL Alignment Options for Public RNAV Approaches)	Study request for criteria change and report.
AFS--420	**06-01-263** NAV Holding Pattern Leg Lengths)	Develop standardized policy guidance and report.
AFS-420	**06-01-264** (Uniform Standard for Climb Gradients on Public SIAPs)	Develop standardized policy guidance and report.

AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
ATTENDANCE LISTING - MEETING 06-01

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AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
ATTENDANCE LISTING - MEETING 06-01

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AIR LINE PILOTS ASSOCIATION, INTERNATIONAL
535 HERNDON PARKWAY ☐ P.O. BOX 1169 ☐ HERNDON, VIRGINIA 20172-1169 ☐ 703-689-2270
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December 30, 2005

Mr. Andrew B. Steinberg,
Office of the Chief Counsel, AGC-1
Federal Aviation Administration
800 Independence Ave., S.W.
Washington, DC 20591

Subject: Status of 1998 Request for Legal Interpretation

Dear Mr. Steinberg,

The Air Line Pilots Association, International (ALPA) represents over 63,000 cockpit crewmembers at 40 airlines in the U.S. and Canada. We are writing to obtain the status of a request for legal interpretation we submitted to your office nearly eight years ago, on January 6, 1998 (attached), to which the FAA has not responded.

Since 1998 the Government/Industry Aeronautical Charting Forum (ACF), established by FAA Order 7910.5, has had an open agenda item on charted climb gradients. This agenda item is in reference to air carriers not providing pilots with performance data to determine if their aircraft can comply with charted climb gradients on departures based on current loading and atmospheric conditions. Flight Standards has stated that based on current regulations they have been unable to establish a requirement for air carriers to provide data to pilots that would help them determine if they can comply with charted climb gradients. Flight Standards has also said that depending on the response from AGC to our request for legal interpretation, they may at that time be able to institute such a requirement.

The request for legal interpretation has to do with non-standard climb gradients that are published on some departure procedures for use in normal operations (i.e. all engines operating). In order for pilots to determine if they can comply with these restrictions on the chart, pilots must be provided performance data. Pilots are not currently given the data to determine if their aircraft can comply.

Please note that our concern is not addressed by the use of engine-out procedures. Airlines provide data in the form of what track to fly for use in the event of an engine failure. However, this engine failure flight track is typically different than the normal

departures and in no way assist the pilot in determining compliance with meeting climb gradient requirements on the normal departures.

In ALPA's view, data that can be used by pilots to determine the ability to comply with normal departure procedure climb gradients is necessary to ensure that these procedures can be executed as charted.

Subsequent to our original request, we have made numerous phone calls attempting to resolve the apparent contradiction of pilots being required to verify performance but not being given the data with which to do so. In addition to those phone calls, we have faxed the original request two additional times at AGC-220's request. These faxes were sent on March 1, 1999 and June 29, 2001.

The complete history of discussions at the ACF on this item can be found by going to http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs420/acfipg/open/ and selecting item 98-01-197.

Please provide us with a status to our request for legal interpretation. If you have any questions please contact Kevin Comstock at 703-689-4176.

Sincerely,

Pedro Rivas/kc

Captain Pedro Rivas,
Director, Charting & Instrument Procedures

cc: Mr. Nicholas Sabatini, AVS-1
Mr. Thomas Toula, AFS-200
Mr. John McGraw, AFS-400

Revised

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

January 13, 2006

Captain Pedro Rivas
Director, Charting and Instrument Procedures Committee
Air Line Pilots Association, International
535 Herndon Parkway
Post Office Box 1169
Herndon, VA 20172

RE: Climb Gradient Information for Air Carrier Pilots

Dear Captain Rivas,

We received a copy of your letter requesting a legal interpretation of the Federal Aviation Regulations. In summary, you asked:

1. whether an air carrier operating in accordance with parts 121 or 135 is required to provide flight crewmembers with data necessary to assure that an aircraft can comply with the climb gradients specified in published instrument flight rules (IFR) departure procedures and standard instrument departure (SID) procedures; and
2. whether pilots operating under parts 121 or 135 are required to follow a published IFR departure procedure even when Air Traffic Control (ATC) assigns a SID to a departing aircraft.

First, please accept our apologies for the delay in issuing a response to your inquiry. As you are aware, the FAA has been working internally and with the Government/Industry Aeronautical Charting Forum (Forum) on this issue. We appreciate your efforts in resolving this aviation safety matter.

Regarding the first issue, there is presently no requirement in the Federal Aviation Regulations mandating air carriers or commercial operators to provide climb gradient data to flight crewmembers. Therefore, it would be necessary for the FAA to conduct rulemaking proceedings in order to impose this requirement. Section 5 of the Administrative Procedure Act defines rulemaking as the agency process for formulating, amending, or repealing a rule.[1] FAA rules are subject to public notice and comment prior

[1] 5 U.S.C. § 551 (2004).

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to implementation. You may file a petition for rulemaking in accordance with 14 C.F.R. part 11.

Your second area of concern involved the requirement for pilots to follow published IFR departure procedures. Specifically, you asked which procedure a pilot should follow if ATC issues a SID that differs from the published IFR departure procedure for a particular airport.

As an initial matter, it is helpful to clarify that a "published IFR departure procedure" may be a SID developed for ATC purposes or an obstacle departure procedure (ODP) developed for obstacle clearance purposes. ODPs are developed by the Aviation System Standards Division (AVN) within the FAA Flight Standards Service.[2] According to Flight Standards, ATC historically developed SIDs for purposes of expediting air traffic and maintaining aircraft separation. SIDs did not contain an assessment for obstacle clearance beyond the first en route navigational fix. Instead, the obstacle assessment along the SID route was terminated at the first en route airway fix even if the SID procedure had transition routes beyond that point. The SIDs contained a standard 200 feet per nautical mile climb gradient that provided obstacle clearance for most airports. Procedures requiring greater climb gradients were specifically tested and documented in the Terminal Procedures Publication as part of the procedure. Therefore, flight crews are provided with adequate obstacle clearance climb gradients, even when using a SID developed by ATC.

In recent years, AVN and ATC began developing ODPs that establish climb gradients for obstacle clearance beyond the first en route navigational fix. All airports with instrument approach procedures are assessed to determine if an ODP should be published. ODPs are published for airports with a required climb gradient of more than 200 feet per nautical mile for obstacle clearance. The ODPs are valid for all directions of flight unless otherwise stated in the ODP.

According to your letter, the question regarding which procedure a pilot must follow stems from FAA Interpretation 1993-30.[3] In that interpretation, the FAA stated that part 121 or 135 operators are required to follow "any published IFR departure procedure" regardless of the weather conditions. A SID issued by ATC and an ODP developed by AVN are both "published IFR departure procedures." Therefore, it is consistent with the 1993 interpretation and regulatory requirements for an operator to comply with either procedure. The pilot in command (PIC) has the authority to determine which procedure is most appropriate based on the circumstances of the flight. However, if the PIC desires

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[2] The FAA also notes that more restrictive departure procedures may be imposed on an air carrier via Operations Specifications. A carrier must always comply with the more restrictive procedures mandated by the Operations Specifications unless an emergency exists or the deviation is in response to a traffic alert and collision avoidance system resolution advisory. If a more restrictive procedure is mandated by the Operation Specifications, the pilot in command must seek an amended clearance from air traffic control. *See* 14 C.F.R. § 91.123 (2006).

[3] *See* Federal Aviation Decisions, published by West Publishing Company.

to use an ODP instead of the SID issued by ATC, the PIC must request an amended clearance in accordance with § 91.123.

We trust that the foregoing interpretation is responsive to your inquiry, and we apologize again for the delay in its issuance. This interpretation was prepared by the Operations Law Branch of the Office of the Chief Counsel, and coordinated with the Air Transportation and Flight Operations Divisions of the Flight Standards Service. Please contact us if we can be of further assistance.

Sincerely,

Rebecca MacPherson
Assistant Chief Counsel for Regulations