

GOVERNMENT / INDUSTRY AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
Meeting 99-01 April 27-28, 1999
ALPA Headquarters/Washington, DC
(Transcribed/Reformatted)

1. **Opening Remarks:** Paul Best, AFS-400 and Dick Powell, ATA-100 Co-chairs of the ACF, Instrument Procedures Subgroup, opened the forum at 0900 April 27, 1999. The forum was held at ALPA Headquarters, Washington, DC. Welcoming and administrative comments were made by Kevin Comstock on behalf of ALPA. A listing of attendees is attached.

2. **Review of Minutes of Last Meeting:** Minutes of the last meeting, which was held on October 27-28, 1998, were electronically distributed. No comments were received and the minutes were accepted as distributed.

3. **Briefing:** SPECIAL AOPA BRIEFING: Randy Kenagy, AOPA presented a verbal briefing on an AOPA proposal to establish a unique waypoint at each localizer DME, thereby allowing GPS ATD fixes to be used in lieu of DME. This would provide pilots without DME, an ATD fix capability for position determination. The forum had mixed response to the proposal; however, all agreed that the issue would have to be staffed through NFDC to ensure data base compatibility. Several naming conventions (both 5 and 6 letter combinations) were discussed with a recommendation that ICAO harmonization be a primary concern. Consideration is also being given to populating the NAVAID data base with LOC/DME's. This recommendation is being worked by AOPA outside the ACF and is provided as a briefing item only. No action required.

4. **Old Business (Open Issues):**

a. **92-02-102 IFR Departure Procedures and Standard Instrument Departures (SIDs)**

Howard Swaney, AFS-420, briefed that Order 8260.46, *Instrument Departure Procedure Program*, is currently under revision with a target completion date of September, 1999. Don Pate, AFS-420, noted that policy will be expanded for clarification. Don requested comments from the group and encouraged everyone to provide inputs to Dave Eckles, POC for the re-write. Wally Roberts (ALPA) noted that there is pilot confusion when there are multiple obstacle departures from the same airport. Art Dodds, NOAA, noted that Miami International is a prime example of a case where there is a single graphic obstacle departure serving five different airports in the Miami area; however, there are also textual obstacle departures serving some of the airports. Eric Secretan, NOAA, emphasized that the original plan called for a single default obstacle departure; all others were to be ATC departures (formerly SID's). The discussion highlighted the confusion on this issue. Don Pate recommended the newly formed AIS Working Group address this issue and provides a consolidated position to AFS-420 for consideration. Wally noted that new issue 99-01-214 (relating to TERPS, Paragraph 1208 for RNAV departures) should also be addressed. A core group from the AIS Working Group will provide a

consolidated input to AFS-420 for consideration for the re-write of Order 8360.46 and report at the next meeting. The consolidated inputs will also be circulated informally for comment. **Action: Item Open (AFS-420).**

b. 92-02-103 Minimum Crossing Altitude (MCA) on Obstacle Clearance SIDs.

No change in status. This issue will be worked during the rewrite process for Order 8260.46. Pat Fair, ATA-130 noted that there is a meeting of key players in the .46 rewrite process scheduled for June, 1999. Eric Secretan, NOAA again emphasized that there should be no problem in publishing dual climb gradients (ATC and obstruction clearance) and MOCAs on departures if necessary. The issue will be addressed during the rewrite. AFS-420 will report progress. **Action: Item Open (AFS-420)**

c. 92-02-104 TERPS Paragraph 323a, Precipitous Terrain Additives

Howard Swancy, AFS-420, briefed progress on this issue. The OPI is Alan Jones, AFS-420, who was unable to attend the meeting. A Phase I model has been developed and is now undergoing expert analysis to determine the model's efficiency. This model expresses precipitous terrain analytically by evaluating DTED based upon the general concepts of "high enough", "rough enough", and "steep enough". On any flight segment, the primary and secondary areas and an additional buffer area can be evaluated quantitatively for aspects of high, rough and steep. Currently, several programs are being examined to quantify these different aspects of terrain and then determine a threshold value for precipitous terrain ROC adjustments. The sheer volume of data points to be analyzed necessitates computer automation of the process. The National Center for Atmospheric Research (NCAR) will continue working with the FAA over the next several months in developing Phase II and perhaps Phase III models and the software necessary to successfully develop and implement precipitous terrain criteria. AFS-420 will continue tracking the program and report. **Action: Item Open: (AFS-420)**

d. 92-02-105 Review of Adequacy of TERPS Circling Approach Maneuvering Areas and Circling at Airports With High Heights Above Airports (HAA's)

Howard Swancy, AFS-420, presented a briefing on new circling criteria for inclusion in TERPS. The new criterion significantly expands the obstacle clearance areas for circling maneuvers and incorporates three altitude stratus. The criteria was developed from extensive Airspace Simulation and Analysis for TERPS (ASAT) test results. A draft copy of the new criteria was handed out to all participants who were asked to review the new criteria and forward comments to Norm LeFevre, AFS-420, ASAP but not later than May 30, 1999. It is planned to incorporate the new criteria in TERPS, Change 19. **Action: Item Open: (ALL)**

e. 92-02-110 Cold Station Altimeter Settings

Howard Swancy, AFS-420, provided a hard-copy handout outlining progress on this issue. He also provided a briefing on actions within the ad hoc committee (co-chaired by AFS-200 and ALPA) along with specific examples of near terrain impacts and a sample corrective table. Implementation of a national cold weather adjustment plan is hoped for by October, 1999 with public awareness training beginning in May, 1999. Don Pate, AFS-420 emphasized whatever is adopted/published in the U.S. must also be harmonized with ICAO. This issue will be addressed at the ICAO OCP/12 meeting. While working this issue, it was discovered that another industry/government working group was also unilaterally addressing this issue, unbeknownst to the ACF. Kevin Comstock (ALPA) indicated that it was counterproductive that another group was addressing this issue in secrecy when he has repeatedly requested input from all sources. This demonstrates once again where the effectiveness of the ACF is limited by attendance. **Action: Item Open (AFS-420)**

f. 93-01-121 Provision of Current IAP Procedural Directive Guidance to the Aviation Community (AC90-XX)

Howard Swancy, AFS-420 briefed that there has been little progress on publication of AC90-XX over the past two years. He provided a copy of the last draft (circa 1995) to all attendees for review and comment. Once comments are received, he will prepare a new final draft, reserving space for new technologies. Jim Terpstra, Jeppesen, noted that once published, this guidance should be removed from AC61-27. Randy Kenagy, AOPA, recommended that one AC with all IFR flying material is preferable. Jim disagreed noting that AC90-XX will be dynamic and that a small publication is easier to change. There was group discussion as to whether the publication was to provide only information on how to read and interpret government charts or how to actually fly the procedure. Tom Young, ALPA, noted that SAE G-10 has this issue as one of its highest priorities. He believes there is no document available that explains to pilots what is required to ensure compliance with TERPS when flying an instrument procedure. Howard also noted that AFS-600 is making progress on the re-write of AC61-27. A new contract has been let and a timeline set for a final draft NLT September, 1999. All attendees tasked to review the draft AC90-XX and provide comments to AFS-420 (Howard Swancy) by June 30th. AFS-420 will consolidate comments and track the publication. **Action: Item Open (AFS-420)**

g. 96-01-155 Operational Status for OROCAs and Implementation of GPS TAAs.

Bill Mosley, ATO-120, briefed that there has been no progress on this issue. He is working with TG-133 to further sectorize the OROCA into 1/2° sectors. The "radar required" issue is still being staffed within ATO. Wally Roberts, ALPA, brought up the controlled airspace issue, especially in the westernmost U.S. Bill briefed that airspace issues are also being addressed. Bill Hammett, AFS-420, noted that the AFS approval to use the OROCA for obstruction clearance was dependent on incorporating the OROCA into the OE program. Informal contacts within ATA-400 organization indicate that this is not being considered in the re-write of Order 7400.2. Bill Mosley will coordinate this with ATA-400. **Action: Item Open (ATO-120)**

h. 96-01-162 GPS NoPT Terminal Routes and PT Required Terminal Routes

No change. This issue has been resolved; however, closure is dependent on re-write of the Instrument Flying Handbook by AFS-600. AFS-420 will monitor progress and report. **Action:** Item Open (AFS-420 & AFS-600).

i. 96-01-163 Purpose of ILS Fix Inside the Precision FAF

This issue is being worked by the AFS NAS National resource Specialist (NRS), Paul Best, AFS-400 who was available for this meeting. Item will remain open pending revision of Part 91.174k. AFS-400 will continue to monitoring the change. **Action:** Item Open (AFS-400).

j. 96-01-166 Determining Descent Point of Flyby Waypoints (Originally Submitted as Definition of "On Course" – title changed at ACF 97-01)

No report was available. The AFS-400 NAS NRS was unable to attend the meeting. **Action:** Item Open (AFS-400)

k. 97-01-175 Pilot Duties to Confirm GPS Data Base.

Pete Dula, Manager, AFS-410, has agreed to assign a POC to work with and provide information to AFS-200 for a FSIB addressing this issue. Once in agreement, AFS-200 will create and circulate the FSIB. AFS-410 requested to provide updated status at the next meeting. **Action:** Item Open (AFS-410)

l. 97-01-177 Non Collocated DME use at/inside FAF

Paul Best, AFS-400, and Mike Werner, AVN-160, were unable to attend the meeting. The issue was not discussed and deferred to the next meeting. **Action:** Item Open (AVN-160 and AFS-400).

m. 97-01-178 JFK VOR RWY 13L/R Waivers/LDIN Lights

Howard Swaney, AFS-420, briefed that research indicates the problem is site specific and requested the issue be worked outside the forum between AFS, AVN and ALPA. Tom Young, ALPA, agreed provided that AFS-420 would pressure resolution. If there is no action, the issue will be re-introduced through the ACF, Instrument Procedures Subgroup. Issue will be worked off line. **Status:** Item Closed.

n. 97-01-181 Non-Precision Missed Approach Turns

Howard Swaney, AFS-420, briefed that this issue is being worked in conjunction with new departure criteria which should be ready for circulation around the end of the year. LOA with glideslope criteria will be addressed in Change 19 (precision criteria volume). The plan is for

missed approaches to use an initial climb segment criteria, then transition to departure criteria (conventional or RNAV) as appropriate. AFS-420 will work the issue and report at the next meeting. **Action: Item Open (AFS-420).**

o. 97-02-185 Charting of DME Fix for Precision MAP in ILS/DME SIAP's.

Time constraints precluded discussion. AFS-420 was tasked to brief results of the MM elimination tests mentioned by Bill Hammett, AFS-420 (ISI) at the last meeting. Discussion deferred to next meeting. **Action: Item Open (AFS-420)**

p. 97-02-188 Mandatory Requirement to Chart Minima with and Without Step-down Fix.

Bill Hammett, AFS-420, briefed that the current guidance in Order 8260.19 sufficiently covered the issue. Wally Roberts, ALPA, stated he believed the guidance was not adequate for VOR crossing radials and provided four examples he believed were erroneous. The criteria from Order 8260.19 was presented and deemed adequate. The examples Wally presented were discussed and three of four were within policy, the fourth was not. It was agreed that the policy is adequate to cover this issue. The specific example that requires correction was noted to the AVN-160 representative. It was also suggested that AVN-160 enhance quality control of all IAP's with dual minima. Morris Anders, AVN-160 agreed to address this issue and report at the next meeting. Tom Young, ALPA, emphasized those issues like this support biennial reviews of procedures. AVN-160 will have branch managers review procedures, correct discrepancies and report at the next meeting. **Action: Item Open (AVN-160).**

q. 97-02-189 IFR Departure Minimum Turning Altitude Requirement

Bill Mosley, ATO-120, briefed that the issue concerning turns below 400 ft is being addressed within Air Traffic. ATO-100 has also published guidance to cease the use of MM's as turn points on DP's and to publish waypoints. Wally Roberts, ALPA, brought up the issue of radar vectors toward obstructions that penetrate the 40:1 departure OIS when the obstruction is not displayed on radarscopes. He requested that Bill work within ATO to more clearly define criteria for display of prominent obstructions on radar scopes. Don Pate, AFS-420, noted that the new departure criteria under development will address diverse vector areas (DVA) for departures below the MVA and for turns below 400 ft. ALPA agreed to offer AIM material for turns below 400 ft. Final resolution of this issue is dependent on revision of Order 8260.46 and Chapter 12 of TERPS. Three action items were assigned: 1) AFS-420 to track revision of Chapter 12 of TERPS. 2) ATO-120 to review policy for display of prominent obstructions on radarscopes, and, 3) ALPA to provide AFS-420 draft AIM material for turns below 400 ft. **Action: Item Open (AFS-420, ATO-120 and ALPA).**

r. 97-02-194 Introduction of Term "DA"

The issue was covered in Don Pate, AFS-420, briefing on the new RNAV chart. The plan is to promulgate the term "DA" in the Notice to Airmen's Publication (NTAP), and then process a rule change for harmonization with ICAO PANS OPS. AFS-420 will work the issue and report at the next meeting. **Action: Item Open (AFS-420)**

s. 98-01-196 Effect of Loss of AWOS Altimeter

Bill Hammett, AFS-420, briefed that the guidance in Order 8260.19 is sufficient for all AWOS/ASOS equipment scenarios. It was also briefed that, although there is no mandatory rule for a pilot to have the altimeter prior to commencing an approach, there are sufficient controller rules to ensure that he/she is provided one by ATC. It was suggested that the AIM provide better pilot guidance for altimeter source for IFR approaches. ALPA and AOPA agreed to provide input to Steve Jackson, AFS-420, for the AIM revision. The situation that prompted ALPA to bring the issue before the ACF was caused by ATC (a controller, in trying to be helpful, issued an altimeter from a source that did not support the procedure). Bill recommended that ATO-120 make this a mandatory briefing item in the quarterly AT Bulletin for all terminal and en route controllers. Bill Mosley, ATO-120 agreed. AFS-420 will work AIM change (with ALPA and AOPA input). ATO-120 will address altimeter source for approaches in the AT Bulletin. **Action: Item Open (AFS-420 & ATO-120)**

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

Jim Gardner, AFS-200 briefed that no action has been taken on this issue due to personnel constraints and changes. Tom Young, ALPA re-briefed their concern and offered to meet with AFS-200 to re-emphasize the problem and to volunteer industry assistance in the solution. AFS-200 agreed to more aggressively work the issue with ALPA input. **Action: Item Open (AFS-200).**

u. 98-01-199 RVR Accuracy and Conflict With Flight Visibility (Issue 99-02-220, *Use of RVR Minima*, submitted at ACF 99-02 also included)

Howard Swancy, AFS-420 briefed that an AFS-410 representative has been assigned to work this issue; however, he was unable to attend this meeting. The JAA harmonization group is also addressing this issue. AFS-410 will continue working the issue and report at the next meeting. **Action: Item Open (AFS-410).**

v. 98-01-200 Step-down Fix Within the Maneuvering Area

Bill Hammett, AFS-420, briefed that a review within AFS-420 indicated that current criteria is satisfactory and provides the flexibility necessary to develop IAPs to conform with traffic flows and airspace constraints. It was recommended that specific problem IAP's be referred to the Regional FPO for action. **Action: Item Closed**

w. 98-01-201 Significant Penetrations of Visual Segment Surface below MDA.

Don Pate, AFS-420, briefed that he has met with AVN-100, and an agreement has been reached on implementation policy for Change 17 visual segment analysis. The formal policy letter has not been finalized. Tom Young, ALPA, emphasized that the visual surfaces must be continually scrutinized, especially considering the advent of the "DA" mentality. Issue will remain open pending the AFS-AVN policy letter. **Action: Item Open (AFS-420)**

x. 98-01-203 Alignment of Approach Procedures With Runway

Howard Swancy, AFS-420, briefed the new precision approach criteria to be published in TERPS Change 19 will address this issue. Target date for circulation is the fall of 1999. AFS-420 will continue criteria development and report at the next meeting. **Action: Item Open (AFS-420).**

y. 98-01-204 Climb Gradients on Public Missed Approach Procedures

Jim Gardner, AFS-200, was not up to speed on the problem; therefore, Wally Roberts, ALPA, re-presented the issue. Jim advised that this issue will be worked in conjunction with 98-01-197. He also noted that AFS-800 must also be involved. Don Pate, AFS-420 advised that several considerations are being worked in the revised departure/missed approach criteria. Bill Hammett, AFS-420, suggested that publication of dual minimums (with and without climb gradient) might be a possible solution. AFS-420 will take the lead to work with all concerned to resolve this issue. AFS-420 will work resolution and report at the next meeting. **Action: Item Open (AFS-420).**

z. 98-01-205 SIAP Equipment Requirement Notes

Bill Hammett, AFS-420, briefed this issue will be addressed in Change 3 to FAA Order 8260.19. Change 2 should be in formal coordination by the end of May with Change 3 to follow in approximately 4 months. AFS-420 will resolve the issue in Change 3. **Action: Item Open (AFS-420).**

aa. 98-01-206 Washington DC P-56 Airspace and KDCA IFR Departures

Will Swank, AFS-200, briefed the prototype DP developed by the P-56 Committee. During discussion, Tom Young, ALPA, mentioned that the charted track could cause aircrews to use TIDAL as a flyover vice flyby waypoint. He requested consideration of showing the ground track passing left of TIDAL. Bill Hammett, AFS-420 (ISI), suggested that perhaps emphasizing the turn commence at 400 ft would eliminate the problem. The group consensus was that the prototype is good; however, text and graphic enhancements are needed to avoid confusion and reduce P-56 incursions. All attendees were requested to review the prototype and forward comments to AFS-200 ASAP. **Action: Item Open (AFS-200 and AVN-160)**

bb. 98-01-208 Two Procedures on the same IAP Chart (ILS & Localizer)

Howard Swancy, AFS-420, briefed that AFS has no problems with the current naming process and combination of procedures; however, he had no opportunity to address the issue with ATO-120. Bill Mosley, ATO-120, also stated that existing procedures are satisfactory with AIR Traffic. Bill Hammett, AFS-420 (ISI), suggested that perhaps ALPA would want to address this issue through ATPAC. Wally Roberts, ALPA, expressed concern over combining complex Localizer and ILS IAPs on the same chart and believes guidance should be in Order 8260.19 to address this. Bill responded that any organization has the opportunity to refer procedural matters, including complexity and charting issues, to the appropriate FPO for consideration.

AFS-420 will continue to track the issue and ensure it is considered during the current revision to Order 8260.19. **Action: Item Open (AFS-420 and ATO-120).**

cc. 98-01-209 Consolidated STAR Items Transferred from the Charting Portion

Howard Swancy, AFS-420, briefed that consideration is underway to transfer STAR policy responsibility to AFS-400 and STAR development responsibility to AVN-100. A lively discussion ensued over the complications that occurred and the confusion that still exists when responsibility for SID's was transferred from ATS to AFS/AVN. Mike Riley, NIMA, stated that the current Order 8260.46 which eliminated the term SID in favor of DP was not coordinated, nor agreed to by the military services, rather unilaterally done by the FAA. Al Palmer, USAASA, affirmed this. Kevin Comstock, ALPA, and Randy Kenagy, AOPA, also noted that their organizations were against eliminating the term SID. The DOD and ALPA is concerned that elimination of the term SID has created confusion and training issues among military, civil and foreign pilots operating in US airspace. Bill Mosley, ATO-120, supported the current (DP) concept; however, the majority of the group disagreed stating that the term DP should be applied to obstacle departures (formerly IFR Departure procedures) and the term SID retained to indicate a departure is in support of ATC. Bill Hammett, AFS-420, noted that Order 8260.46 is currently under revision and suggested that all agencies forward written input to AFS-420 for consideration. Also see comments under Issue 92-02-102. AFS-420 & ATO-120 will continue to work the issue and report. **Action: Item Open (AFS-420 and ATO-120)**

dd. 98-02-210 Use of Distance Limits for GPS Holding Patterns

Time precluded discussion of this issue. AFS-420 will provide a FAA position at the next meeting. Status: AFS-420 to report at the next meeting. **Action: Item Open (AFS-420).**

ee. 98-02-211 IACC Mandatory Profile View Specifications

Time precluded discussion of this issue. ATA-130 will provide a FAA position at the next meeting. Status: ATA-130 to report at the next meeting. **Action: Item Open (ATA-130).**

ff. 98-02-212 Radar Fixes on SIAPs

Lack of meeting time precludes discussion of this issue. ATO-120 and AFS-420 will jointly provide a FAA position at the next meeting. **Action: Item Open (AFS-420 and ATO-120).**

gg. 98-02-213 Publication of DME Required NoPt routes on non-DME SIAPs.

Time precluded discussion of this issue. AFS-420 is researching the issue to determine if an AIM change is necessary and will report at the next meeting. AFS-420 will report at the next meeting. **Action: Item Open (AFS-420).**

5. New Business:

a. 99-01-214 Application of TERPs 1208 to RNAV DPs

Wally Roberts, ALPA, briefed this issue stating ALPA's concern that RNAV criteria do not require application of TERPS Paragraph 1208 (ceiling/visibility in lieu of climb gradient). Don Pate, AFS-420 responded stating that this concept is under development and will be worked with issue 92-02-102 and resolved upon publication of new departure criteria in TERPS and a revised Order 8260.44. Wally then recommended that AFS-420 promulgate interim policy requiring application of paragraph 1208 when an RNAV departure is the only departure available, pending final resolution. Don is reluctant to do this pending better AIM information for pilot actions to climb VMC to an altitude over an airport prior to proceeding on course. Wally then read a proposed GENOT for AFS consideration. AFS-420 has the IOU to work this issue and report at the next meeting. AFS-420 will report at the next meeting. **Action:** Item Open (AFS-420).

b. 99-01-215 Radar Required SIAP's

The issue was presented by ALPA; however, time constraints precluded time for discussion. All attendees were requested to study the issue and forward comments to Dave Eckles, AFS-420, who will prepare a status update paper for the next meeting. The intermediate segment portion of the issue has been resolved via AFS-420 policy guidance to AVN-100. **Action:** Item Open (AFS-420).

6. Next Meeting:

7. Attachments:

ACF 99-01
Attendance Roster

Attendees	Organization
Dick Powell	ATA-100
Maurice Anders	AVN-160
Ann Behrns	USAFFSA/XOIA
Art Dodds	NOS/AC&C
Mark Brown	NAVFIG
Bill Hammett	AFS-420
Hank Cabler	AFS-430
Bill Mosley	ATO-120
Eric Duguid	AFFSA
Rick Funkhouser	AFFSA
Jim Gardner	AFS-220
Dave Goehler	Jeppesen
Simon Lawrence	ALPA
Natalie Miller	ATA-100
Randy Kenagy	AOPA
Al Palmer	ATAS-AI
Don Pate	AFS-420
Mike Riley	NIMA/CO
Will Swank	AFS-200
Eric Secretan	NOS/AC&C
Erik Eliel	USAF/Adv Instrument School
Russ Wall	NIMA
Hal Becker	AOPA
Jim Sackreiter	USAF/Adv Instrument School
Jim Terpstra	Jeppesen
Kevin Comstock	ALPA
Pat Fair	ATA-130
Paul Best	AFS-420
Tim Duerson	NIMA
Wally Roberts	ALPA
Tom Schneider	AFFSA
Tom Young	ALPA