

GOVERNMENT / INDUSTRY AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES GROUP
Meeting 95-02 September 19, 1995
ALPA Headquarters/Washington, DC
(Transcribed/Reformatted)

1. **Opening Remarks:** Paul Best, AFS-420 and Dick Powell, ATP-220 opened the meeting at 0915. The two day meeting was held at ALPA Headquarters offices in Washington, DC, and was hosted by Tom Young, ALPA. A list of attendees is attached.

2. **Briefings:** Lyle Wink, AFS-422 gave a presentation on a standardized design for GPS approaches. The "T" approach design, coupled with the terminal arrival area (TAA) airspace, appears to have the most merit; however, there are several issues of concern:

- a. Doug Helton, AOPA expressed concern over both human factors and flight testing. Lyle offered to coordinate a complete briefing on test results in OKC for AOPA representatives.
- b. Doug expressed concern over the impact of controlled airspace requirements for the TAA concept. He believes this concept will have a significant impact on the general aviation community. Lyle indicated that it was planned to arbitrarily lower the floor of controlled airspace to 1200' AGL throughout the TAA area. The floor of controlled airspace would be no lower than that required for procedure design.
- c. Dalia Marin, NOS, stated that charting agents must have sufficient lead time to determine procedure protocol. Changes to current charting standards must be worked thru the IACC.

3. **Review of Minutes of Last Meeting:** Minutes of the last meeting were distributed. There were comments noting that minutes need to be distributed in a timelier manner. All agreed and Bill Hammett, AFS-420 stated that every effort would be made to distribute future minutes within two weeks of the meeting.

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

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

These issues are being addressed by the Departure Working Group (DWG), a sub group of the TWG, which is chaired by the Naval Flight Information Group (NAVFIG). No representative of this sub group was in attendance at this meeting; therefore, an update was not available. Bill Hammett, AFS-420 volunteered to contact the DWG chair to ascertain status. AC 120-XXX addressing the two different departure criteria is still in work. This agenda item is expanded to include item 95-01-142. Bill contacted Joe Messina, NAVFIG DWG Chairman, who advised the DWG will submit radar, diverse, and VCOA criteria at the next meeting of the TWG. The date is unknown due to reorganization

in AVN. A request was made to have a briefing at the next ACF, TERPS sub group meeting. **Action: Item Open.**

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

At a previous meeting, Tom Young, ALPA took an IOU to write ATP-130 a letter requesting that obstacle clearance altitude restrictions be annotated on SID charts to provide pilots full situational awareness. Additionally, if ATC vectors an aircraft off of a charted SID, the pilot will be cleared to a specified fix when released for non-radar navigation. The letter was sent; however there has been no response from ATP-130. Dick Powell agreed to coordinate with ATP-130 to ascertain status and remind them they owe a response. **Action: Item Open. ATP-220)**

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

Chuck Everest, AFS-421 reported that developing a specific formula for a precipitous terrain additive is impossible until there is a clear definition of "precipitous terrain". A "straw man" definition was presented to the group; however, more development is needed. During the discussion, Tom Young, ALPA requested that paragraph 323a be revised to reflect that ROC "shall" vice "should" be increased. Chuck stated that this is not possible until a criterion is first established. **Action: Item Open (AFS-421).**

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

Lyle Wink, AFS-420 reported that research is still ongoing for this issue and a finalized report is not available. AFS-420 will report when research is complete. **Action: Item Open (AFS-420)**

e. 92-02-110 Cold Station Altimeter Settings

Lyle Wink, AFS-422 outlined concepts; however, due to the AFS/AVN re-organization he did not have sufficient time to prepare a full briefing for this meeting. Report deferred to the next meeting. **Action: Item Open (AFS-421).**

f. 93-01-117 Inadequacy of Lateral Obstacle Clearance at Turning Facility FAFs

ALPA will rewrite their position paper and resubmit at the next meeting. **Action: Item Open. (ALPA)**

g. 93-01-120 Portrayal of Final Approach Segment descent Gradients on High Descent Gradient SIAPs

ALPA re-submitted their position paper. Discussion indicates that this issue applies to SIAPs that are aligned with the runway, yet have circling only minima published. This appears to be more of a charting than a criteria issue. AFS-420 agreed to prepare a proposal of what verbiage should be used, and on what procedures it should be applied to. i.e. "for straight-in landing 3.75 degree descent", "descent gradient 420 ft./NM for straight-in landing", etc. Once agreed to by the TERPS Subgroup, the issue will be referred to the ACF. AFS-420 will present a proposal at the next meeting. **Action: Item Open (AFS-420)**

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

A draft copy of AC 90-XX, accomplished under contract for AFS-420, was provided to the group for informal comments. When approved, it will be incorporated into the Instrument Flying Handbook. **Action: Item Open (AFS-420)**

i. 94-01-126 Widths of Feeder and Initial Approach segments in New Criteria

The group agreed that Order 8260.38A addresses and closes this issue. **Status: Item Closed.**

j. 94-02-131 Approved radar Vectors to the So Called "Final Approach Course" and Compatibility With the SIAP

At the last meeting, Jerry Dudley, ATP-120 read a prepared letter addressing the issue. ALPA commented on the complete correctness of the letter and requested the letter be re-accomplished to ensure correctness of the data presented. At the last meeting, ALPA agreed that they owed a letter to ATP-120 addressing this item. Tom Young, ALPA stated that they wrote the letter; however, ATP-120 has not responded. An ATP-120 representative was not available to discuss the issue. Dick Powell, ATP-220 will coordinate with ATP-120 and advise them they owe a response to ALPA's letter which should be presented at the next meeting. **Action: Item Open (ATP-220)**

k. 94-02-133 SIAP Optimum Final Approach Segment Descent Gradient for Categories C and D Aircraft

Tom Young, ALPA did not have the opportunity to meet with Horizon Air to gain further background on this issue. ALPA will address this item with Horizon Air, and report at next meeting. **Action: Item Open (ALPA)**

I. 95-01-137 GPS Approach Design Guidance

This item is combined with item 95-02-153. **Status:** Item Closed.

m. 95-01-138 Identification of Standard Instrument Approach Procedures (SIAPs)

It was agreed that since this issue involved a formal change to the TERPS Handbook, it should first be addressed by the TWG. AFS-422 will take appropriate action for a change to the TERPS Handbook. **Action:** Item Open (AFS-422)

n. 95-01-139 The Use of the FMS VNAV Function as Sole Means of Executing Non Precision Approaches

Tom Young, ALPA has concerns that if the FAA plans on allowing FMS VNAV to be used as the sole means of executing Non-Precision Approaches. They believe that the use of this equipment must be subject to the TERPS process to ensure adequate obstacle clearance. AFS-400 is continuing research. **Action:** Item Open (AFS-400)

o. 95-01-140 Sector Arrival Zones for GPS SIAPs and Turning Protection Over Such Fixes

This issue was addressed during the GPS approach design presentation given by Lyle Wink, AFS-440. Development is continuing. **Action:** Item Open (AFS-440)

p. 95-01-141 Multiple DME ARC IAFs

There was a further discussion of the FAA's Chief Counsel's letter dated November 28, 1994, interpreting that intercepting a DME arc anywhere along its published length is not in accordance with procedural requirements. As there was no representative from ATP-100, the issue is deferred to the next meeting. A report from ATP-100/AFS-420 is deferred until the next meeting. **Action:** Item Open (ATP-100 and AFS-420).

q. 95-01-142 Basic IFR Departure Procedures Should Follow the Least Onerous Route

Item combined with ACF item 92-02-102. **Status:** Item Closed

r. 95-01-143 Establish and Publish Procedural Maximum Speeds for Terminal Instrument Procedures

No action was taken to update this issue. AFS-420 and AFS-800 will evaluate this item and report at next meeting. **Action:** Item Open (AFS-420 and AFS-800)

s. 95-01-147 ALPA Currently Active ATPAC TERPS/AIM/ATC submissions

Discussion indicates that ATPAC has agreed to the ALPA issues, and they are awaiting publication. ALPA requests this item remain open till the items are published. **Action: Item Open (ALPA).**

5. New Business:

a. 95-02-148 TERPS Para 288c (1); DME or Radar Step-down Fixes.

TERPS paragraph 288c (1):DME or Radar Step-down Fixes: Clarification is required to clarify "multiple fixes shall be in whole NM increments". The proposed change 17 to TERPS specifies "DME fixes may be denoted in tenths of a mile. The distance between fixes shall not be less than one mile." The working group accepts this change if an additional caveat indicating that "whole mile increments are optimum" is added. AFS-421 will refer this issue to the TERPS Working Group (TWG) for action. **Status: Item Closed.**

b. 95-02-149 TERPS Paragraph 289; Application of the 7:1 Surface to Obstacles Close to Initial, Intermediate and Final Approach Fixes.

The proposed change 17 to TERPS allows this application per recommendation of the TWG. AFS-421, after further review is now recommending this proposal be withdrawn for civil consideration. The sub-group concurs with the withdrawal. AFS-421 will take appropriate action to have this proposed change withdrawn. **Action: Item Closed (withdrawn).**

c. 95-02-150 TERPS Paragraphs 613c (1) and 713c (1); Proposal to Reduce Required Obstacle Clearance (ROC) for NDB SIAPs by 50ft.

The TWG recommended this change to TERPS based on the ICAO concept that standard ROC may be used for all non-precision SIAPs as the area considered for obstacle clearance increases as the NAVAID accuracy decreases. AFS-421 has changed its position and does not agree with the ROC reduction. Discussion centered on whether to place notes on procedures for civil users, cancel the criteria change, or make the change applicable to military SIAPs only. Industry also initially objected to reducing ROC; however, desires time to further study the issue. **Action: Item Open (ALPA)**

d. 95-02-151 GPS Departures.

Criteria are being formulated for GPS departure routing. Questions arise as to whether to chart graphically as SIDs are currently charted or textually as current IFR departure procedures are published. After much discussion, the group's consensus is that the depiction will depend on procedure complexity and that "complexity" requires definition. The group agreed that this should be a Charting Group issue. AFS-420 will refer this issue for action. **Status: Item Closed.**

e. 95-02-152 Sensitivity Settings for GPS Departures.

TSO-129C currently stipulates that GPS receiver sensitivity/RAIM automatically default to 5.0/1.0NM respectively for departures. Since RAIM is 1NM per the TSO within 30 NM of the departure point, the sensitivity setting of 1 NM must also be set prior to takeoff. It is recommended that a note be placed on GPS departure procedures stating "select terminal mode sensitivity prior to takeoff or departure is not authorized". This will ensure criteria may be written to specify that prospective airspace and obstruction clearance dimensions are equal to or less than 2 NM primary and 2 NM secondary. This position was accepted by the group. Criteria will be written to reflect values equal to or less than 2 NM primary and 2 NM secondary areas for obstruction clearance. **Status: Item Closed.**

f. 95-02-153 Flight Procedures Designer Designee Program. GPS Approach Design Guidance.

Charles Guy, Aviation Safety and Procedures (ASAP) presented this paper requesting the status of the Flight Procedures Designee Program and clarification of who the OPI is for the program. This is a follow up to agenda item # 95-01-137. A contract study was accomplished for AFS; however, after re-organization, the program now falls under AVN purview. Charles stated that he contacted AVN and they advised the program still belongs to AFS. It was mentioned that there may be no need for the program as the NFPO may be able to handle all GPS requirements. Lyle Wink, AFS-422, will relay to AVN management that certain members of AVN should attend future meetings of the ACF, TERPS sub group, to address AVN issues. Charlie will write AVN again requesting the information. This item is expanded to include ACF issue # 95-01-137. **Action: Item Open: (AFS-420 and ASAP)**

6. Attachments:

ACF 95-02
Attendance Roster

Attendees	Organization
Paul Best	AFS-420
Dick Powell	ATP-220
Dennis Newport	ATP-220
Bill Parshall	USAASA
Bob Hall	ALPA
Ken Fiveash	ATM-600
Lyle Wink	AFS-422
Chuck Nixon	AFS-423
Marin George	NOS/ACC
Tom Young	ALPA
Doug Helton	ALPA
George Lutz	EAA
Charles Guy	ALPA
Dan Hanlon	ATP-20
Bill Mosley	ATP-20
SSgt Danny McClain	AFFSA
Bill Hammett	AMT-613
Dick Johnson	NAVFIG
Chuck Everest	AFS-421
Rudy Ruana	Jeppesen
Jerry Dudley	ATP-120