

**GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES SUBGROUP
MEETING 00-02 Washington, DC
November 28-29, 2000**

NOTE: These minutes were distributed electronically on December 19, 2000. Several comments/suggested changes were received. Corrections/changes are annotated in ***bold italic type, followed by the agency who requested the change in parenthesis.***

1. Opening Remarks:

Mr. David Eckles, AFS-420, Flight Standards co-chair of the Aeronautical Charting Forum (ACF), opened the Instrument Procedures Subgroup meeting at 9:00 AM on November 28, 2000. The meeting was held at the Air Line Pilots Association (ALPA) Headquarters, Washington, DC. Mr. Kevin Comstock made welcoming and administrative comments on behalf of ALPA. A listing of attendees is included as attachment 4.

2. Review of Minutes of Last Meeting:

Minutes of the last meeting (ACF 00-01), which was held on March 28-29, 2000, were electronically distributed on April 18. Several comments were received and the minutes were accepted as distributed at the meeting.

3. Old Business:

a. Status Report on ACF SID Letter.

Dave Eckles, AFS-420, briefed the status of the SID letter that was recommended and drafted at ACF 00-01. The letter was finalized, signed by both co-chairs, and forwarded to AAT-1 and AFS-1 on May 24, 2000. To date, no official written response has been received; however, verbal coordination indicates approval of the recommendation to return to the term "SID" for other than obstacle DP's. Howard Swancy, AFS-4, briefed that AAT has expressed concerns that there may be even more confusion in returning to the term SID. Bill Hammett, AFS-420 (ISI), proposed a small ad-hoc working group to assess the required actions to return to the term SID. As a start, he noted that the process must be an ATP-100/AFS-420 joint effort. Several publications relating to instrument procedure development, charting policy, and air traffic procedures will require revision to accommodate the change; the AIM, AIP, Orders 7110.10, 7110.65, 7930.2, 8260.19, 8260.26, 8260.46, as well as legends for the terminal procedure publications, to name a few. For an effective date of 2/21/02, all work must be accomplished NLT the AIM and AIP cutoff for publication date of 7/12/01.

b. 92-02-104: TERPS paragraph 323a, Precipitous Terrain Additives.

Dave Eckles, AFS-420, presented a status update paper prepared by Alan Jones, AFS-420. Software to determine precipitous terrain and the required adjustment is currently being installed on the FAA's Instrument Approach Procedure Automation (IAPA) system. Brad Rush, AVN-160, confirmed that operational testing and evaluation (OTE) would begin later this year. Kevin Comstock, ALPA, requested examples of test results when available. Wally Roberts,

ALPA, recommended Medford, OR and Monterey, CA as test sites. Brad agreed to provide examples to ALPA after OTE is complete.

Status: AFS-420 will continue tracking the program and report at the next meeting. AVN-160 will provide OTE results when available. **Item Open (AFS-420 and AVN-160).**

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

Dave Eckles, AFS-420, presented a status update paper prepared by Steve Jackson, AFS-420. New circling criteria were pulled from TERPS change 19 as a result of AOPA's concerns. It is AFS-420's plan to include the new criteria in Change 20, which will be circulated for formal comment. Randy Kenagy, AOPA, noted that his agency concerns were forwarded via e-mail to AFS-420 on 5/25/00; however, they have received no response. Pre-meeting conversation with Steve indicated that he was expecting further criterion recommendations from AOPA. This apparent miscommunication between AOPA and AFS-420 has resulted in no action to mitigate AOPA's concerns. Randy emphasized that the proposed obstacle clearance area for Category (CAT) A aircraft was too large and will result in significant, unnecessary minima increases. Kevin Comstock noted that that the new criteria is necessary for CAT BCD aircraft and, in the interests of flight safety, should be processed and implemented without further delay. Bill Hammett, AFS-420 (ISI), recommended that AOPA contact AFS-420 directly regarding their concerns. Bill also noted that all changes to TERPS are coordinated with industry and other government agencies prior to publication. Formal comments received must be resolved prior to adoption. Dave Eckles assured Randy that AOPA comments would be staffed.

Status: AFS-420 to address AOPA comments and track publication of the new criteria. **Item Open (AFS-420).**

- d. **92-02-110:** Cold Station Altimeter Settings.

Dave Eckles, AFS-420, presented a status update paper prepared by Carl Moore, AFS-420. A comprehensive FAA policy for cold weather induced altimetry is still under development. Informational material regarding cold temperature induced altimeter error and a cold temperature error table will be published in the January 2001 AIM. When questioned, Deborah Martin, Transport Canada, briefed that cold weather altimeter procedures have been in use in Canada for some time without problems. She stated that this is due to extensive pilot and controller education programs. Kevin Comstock, ALPA, asked who is working the issue formally for FAA and requested the status of the draft AC on this issue. He further stated that his organization would like to see more aggressive action on this issue and recommended a FAA sponsored ad-hoc group be formed to work the issue. Dave responded that he is uncertain of the status of the AC and that AFS-420 will take initiative to lead the effort.

Status: AFS-420 will continue tracking the issue and **pursue establishing a formal FAA/industry group to work the issue (ALPA comment).** **Item Open (AFS-420).**

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

Howard Swancy, AFS-4, briefed that it appears that contract funding will be available to develop the Advisory Circular (AC). AFS-600 will oversee the project, which should start in February, 2001. Bill Hammett, AFS-420 (ISI), asked Howard to ensure the draft AC is circulated through ACF membership for comment prior to finalization. Kevin Jones, USAF-12 OG/AIS, has been leading an effort to develop an outline of material to be included in the AC. He requested that all members review and provide input on the draft outline that he circulated for comment last month. This outline will be provided to AFS-600 as a baseline for the AC development.

Status: AFS-4 will follow up on contractual funding and report at the next meeting. **Item Open (AFS-4).**

f. 96-01-155: Operational Status for OROCA Use.

An Air Traffic (ATP-402) representative was not available to discuss the issue; therefore, the issue is continued to the next meeting. **Editor's Note:** ATP-402 provided a status update paper on the issue after the meeting, which is attached to the minutes for the reader's information (see attachment 2).

Status: ATP-402 will work the issue and report at the next meeting. **Item Open (ATP-402).**

g. 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. (Also see issue 93-01-121). Dave Eckles, AFS-420, briefed that AC61-27 is currently in FAA internal coordination. Howard Swancy, AFS-4, stated that the AC would be circulated for public comment.

Status: AFS-420 will monitor status of the re-write of AC 61-27. **Item Open (AFS-420).**

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

Dave Eckles, AFS-420, presented a status update paper on the issue. Subsequent to the last ACF, it has been determined that certain navigation equipment will not permit descent from the intermediate fix altitude to the FAF altitude unless the aircraft is within a specified distance of the intermediate course, on an intercept heading, or in some cases, wings level. The result is that the altitude to be lost between the IF and FAF may exceed TERPS descent gradient standards. A new study is underway within AFS-420 to evaluate various associated parameters such as ground speed, angle of turn, altitude to be lost, and bank angle and their interrelated effect on required intermediate segment length. Study results will be incorporated into TERPS.

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

i. 97-01-175: Pilot Duties to Confirm GPS Database.

An AFS-410 representative was not available to report on the issue. AFS-200 cannot take any action until AFS-410 responds to the issue. Discussion continued to the next meeting.

Status: 1) AFS-410 to develop FAA position. 2) AFS-200 to prepare FSIB. **Item Open (AFS-410/200).**

j. 97-01-177: Non-collocated DME Use at/inside FAF.

Paul Best, NAS NRS, was unavailable for the meeting. Dave Eckles, AFS-420, was unable to ascertain the status of the AFS-AAF letter regarding collocated ILS-DME systems at Part 139 airports. The issue is continued to the next meeting.

Status: AFS-420 to ascertain status of the letter and report at the next meeting. **Item Open (AFS-420).**

k. 97-02-185: Charting of DME fix for Precision MAP in ILS/DME SIAP's.

Wally Roberts, ALPA, briefed that his organization has re-staffed this issue and is withdrawing it from the ACF.

Status: **Item Closed.**

l. 97-02-189: IFR Departure Minimum Turning Altitude Requirement.

Bill Hammett, AFS-420 (ISI), briefed a status update paper prepared by Chuck Everest, AFS-420. AFS-420 believes that the language in Change 19 to TERPS and Order 8260.46A emphasizing that DP's require no turns below 400 above DER satisfies ALPA's original concerns on this issue and recommended closure of the Flight Standards portion of the issue. Wally Roberts, ALPA, recommended that AIM language be clarified and agreed to provide Steve Jackson, AFS-420, draft language for AIM publication. Insofar as the ATP-120 IOU to respond to ALPA's request for the policy for display of prominent obstructions on radarscopes, an air traffic representative was not present to discuss the issue. **Editor's Note:** *ATP-402 provided a status update paper on the obstacle display issue after the meeting, which is attached to the minutes for the reader's information (see attachment 2).*

Status: 1) ALPA to provide draft AIM language to AFS-420. 2) ATP-120 to review policy for display of prominent obstructions on radar scopes and report at the next meeting. **Item Open (ALPA/AFS-420 & ATP-120).**

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

An AFS-200 representative was not present to discuss the issue. Discussion is continued to the next meeting.

Status: AFS-200 to work the issue and report at the next meeting. **Item Open (AFS-200).**

n. 98-01-199: RVR Accuracy and Conflict With Flight Visibility.

An AFS-410 representative was not present to discuss the issue. Discussion is continued to the next meeting. Wally Roberts, ALPA, noted that this issue is getting some action in the FAA/JAA harmonization effort.

Status: AFS-410 to report at the next meeting. **Item Open (AFS-410).**

o. 98-01-203: Alignment of Approach Procedures With Runway.

Bill Hammett, AFS-420 (ISI), presented a status update paper prepared by Jack Corman, AFS-420. He briefed that AFS-420 believes the proposed criteria in TERPS Change 19 satisfies the issue. Wally Roberts, ALPA, disagreed and stated that ALPA has forwarded formal comments to Change 19 regarding the issue. They also disagree with the lack of visibility adjustment when the final approach course is offset.

Status: AFS-420 to address ALPA comments and report on the issue. **Item Open (AFS-420).**

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

An AFS-200 representative was not available to address the issue. Brad Rush, AVN-160, briefed that the DP's had been developed by AVN-100. Variances from criteria were noted and forwarded to AFS-420 for evaluation. Wally Roberts, ALPA, noted that it was agreed that this would be a one-of-a-kind procedure that has been well coordinated; there should be no delay in processing for publication. Brad briefed that the target date for publication is next Spring.

Status: AVN-160 will continue to track DP processing and publication. **Item Open (AVN-160).**

q. 98-01-209: Consolidated STAR Items Transferred from Charting Portion.

An ATP-402 representative was not available to discuss the issue. Discussion continued to the next meeting. **Editor's Note:** ATP-402 provided a status update paper on the issue after the meeting, which is attached to the minutes for the reader's information (see attachment 2).

Status: ATP-402 will continue to work the STAR issue and report. **Item Open (ATP-402).**

r. 98-02-211: IACC Mandatory Profile View Specifications.

Dave Eckles, AFS-420, presented a status update paper and briefing on the issue. AFS-420 has re-studied the issue and believes that the current policy in Order 8260.19 is satisfactory. The group agreed to closure.

Status: **Item closed.**

s. 98-02-213: Publication of DME Required NoPT Routes on Non-DME SIAP's.

Dave Eckles presented a status update paper and briefing on the issue. AFS-420 has re-reviewed the text of AIM paragraph 5-4-5a3 dated 24 February 2000. This paragraph contains revised wording that explains the basis for procedure naming. It also advises the pilot that segments of the procedure other than the final segment may have equipment requirements not reflected in the procedure identification, and that the pilot should study the procedure carefully to properly determine whether the aircraft is adequately equipped to conduct the approach procedure. Based on further discussion of the issue and re-evaluation of the associated AIM paragraph, AFS-420 now feels the current wording is adequate and clear and recommends the issue be closed. The group agreed.

Status: Item closed.

t. 99-01-215: Radar Required SIAP's.

Brad Rush, AVN-160, briefed that AVN-100 is 50% through adding intermediate segments to the 77 SIAP's charted with FAF only and annotated "RADAR REQUIRED". A schedule of progress is included as attachment 3. He also stated that this issue has been elevated and is an AVN priority item. Kevin Comstock, ALPA, requested a schedule of remaining work at the next meeting and Brad agreed to provide one.

Status: AVN-160 to provide a status update and work schedule at the next meeting. **Item Open (AVN-160).**

u. 99-02-216: Elimination of Verbiage on DP's and STAR's.

Dave Eckles, AFS-420, briefed that AFS-420 has not completed staffing this issue relative to DP's. During informal discussions within the Branch, all are in agreement with the concept that proper graphical depiction should preclude the need for redundant textual descriptions of the procedure. However, the need for retention of some text, such as initial climb-out instructions, may be required. This effort must be a coordinated AAT/AFS/AVN effort and the issue will best be addressed after a decision has been reached on the "SID" terminology issue. Bill Hammett, AFS-420 (ISI) suggested an ad-hoc committee of representatives of AVN-100/500, civil and government charting agents, AFS-420, ATP-100, and ATA-100 to address the charting issue. The group non-concurred with this approach. Brad Rush, AVN-160 recommended his organization, in conjunction with AFS-420 and AVN-22A, work to re-design the 8260-15 series forms or the instructions relating to non-published information for DP's that will clarify/specify charted vs. non-charted text. Once the form has been revised, the issue can then be addressed through the Aeronautical Information Services Working Group (AISWG). STAR's remain under the purview of AAT who was not represented to discuss the issue.

Status: 1) AFS-420 revise as necessary associated DP forms. 2) ATP-120 work STAR issues. Both offices to report progress at the next meeting. **Item Open (AFS-420 & ATP-120).**

v. 99-02-218: Termination Point on Missed Approach Procedures.

Dave Eckles, AFS-420, and Brad Rush, AVN-160, presented a jointly prepared status update paper. They reported that their offices have discussed this issue at great length, and have determined that the ALPA request is not feasible for all applications. NAS infrastructure and ATC airspace management requirements dictate a need for operational discretion regarding the establishment or placement of missed approach holding. Whenever possible, location of missed approach holding should be at en route airway fixes. Where holding is established at an en route fix/facility, the holding altitude should normally be at airway MEA. If not feasible, a climb-in-hold evaluation to en route altitude will be accomplished. In the case of off-airway holding, the method of transition from holding to en route flight, or from holding to an additional approach, should be clearly depicted and understandable to the pilot. Missed approach holding will be depicted in all cases on the approach chart, and on en route charts at the managerial discretion of ATC. Wally Roberts, ALPA, added that since the stated FAA position agrees with ALPA's request to always chart MAPCH holding on the SIAP, the issue may be closed.

Status: Item Closed.

w. 99-02-219: Application of TERPS Paragraph 289.

Dave Eckles presented a status update paper and briefing on the issue. The AIM material is still under development by AFS-420. The status paper noted that AFS-420 had forwarded a memorandum to ATA-100 for consideration by the IACC; however, just prior to the meeting, Dave learned that the memo had not been signed out. He will research the status of the memorandum and AIM material and report at the next meeting. **Editorial note:** *The memorandum to ATA-100 was signed and forwarded on December 8.*

Status: AFS-420 to develop AIM material. ATA-130 to report IACC action. Item Open (AFS-420 & ATA-130).

x. 00-01-222 TERPS SIAP Naming Convention.

Dave Eckles, AFS-420, presented a status update paper prepared by Jack Corman, AFS-420. The TERPS Working Group (TWG) addressed this issue as well as ALPA's other concerns. The "ILS or DME" issue is resolved and is included in TERPS Change 19. This, coupled with the revision to AIM paragraph 5-4-5a3, should close the issue. Randy Kenagy, AOPA, wants to ensure that Air Traffic updates controller phraseology requirements. Consensus was that the issue may be closed. **Editorial note:** *At the charting portion, Jim Terpstra, Jeppesen, noted that he, through FAA invite to the Obstacle Clearance Panel (OCP), was able to introduce a Jeppesen paper noting a lack of procedure title standardization within ICAO member states. The OCP received the paper favorably and agreed to work the issue. Lynn Boniface, AFS-420, is the leader of a working group to prepare a formal position for presentation to the full OCP at the February, 2001 meeting. Lynn will host a telcon of interested parties on December 15th. Jim will provide follow-up on OCP determinations through the ACF charting portion.*

Status: Item Closed.

y. 00-01-223 Designation of NoPT and Related AIM Material.

Dave Eckles presented a status update paper and briefing on the issue noting that AFS-420 has reviewed the issue again. Policy regarding publication of "PT Required" and "NoPT" is clear and no changes are under consideration. Charting specifications are in consonance with Part 91.175. AFS-420 believes that the AIM provides adequate guidance to the pilot and clarification of the provisions of Part 91, as interpreted by FAA General Council. The NoPT charting examples provided by ALPA on two KATL SIAP's were in error and have been corrected. The NoPT issue at KJAC noted by ALPA was clearly pilot error. The two SIAP's at KATL depicting two stepdown fixes in the intermediate segment under the procedure turn (PT) have been brought to the attention of AVN-100 for correction. Charting agencies assume full responsibility for charting variances from the data provided on the FAA 8260-series forms. He recommended the issue be closed. Wally Roberts, ALPA, stated that ALPA desires policy in order 8260.19 to "...not allow NoPT routes to join the approach course within the PT maneuvering area where a stepdown fix exists within that PT maneuvering area." Dave agreed to study the request.

Status: AFS-420 to consider policy changes and provide report at the next meeting. **Item Open (AFS-420).**

z. 00-01-224 Unnamed Stepdown Fixes.

Bill Hammett AFS-420 (ISI) briefed this issue. The issue was presented to the Aeronautical Information Service Working Group (AISWG) for input. Based on comments received, AFS-420 has decided that: 1) Stepdown fixes will be named with 5-letter, pronounceable names vice CNF's; 2) Stepdown fix names will be processed using standard 8260-2 forms; 3) Stepdown fix names will be added as new procedures are produced and as existing procedures are reviewed/amended; 4) Pending issuance of change 3 to FAAO 8260.19C, interim guidance has been provided to AVN-100 via memorandum dated October 17, 2000; 5) Change 3 to FAA Order 8260.19C will require the naming of stepdown fixes in addition to all other navigation fixes. Based on these actions, he recommended the issue be closed – the group concurred.

Status: **Item Closed.**

5. New Business:

a. 00-02-225 TERPS Paragraph 251b(2)(c) – Visual Area Obstacle Clearance

Tom Schneider, AFFSA/XOI, presented this issue on behalf of the USAF. TERPS, paragraph 251b(2)(c) states, in part, that where there are penetrations of the 20:1 visibility surface, "...do not authorize IFR operations at night". The USAF questions if this includes visual approaches conducted under Order 7110.65, Air Traffic Control, paragraph 7-4-1. They believe that the verbiage in the AIM, paragraph 5-4-20a ("visual approaches are an IFR procedure conducted under IFR in VMC") and Order 76110.65, paragraph 7-4-1 ("A visual approach is an ATC authorization...it is not an instrument approach procedure.") are contradictory and may lead to misunderstanding in the application of TERPS criteria. It is AFS-420's position that a visual approach is an air traffic procedure whereby an aircraft on an IFR flight plan is authorized to proceed visually, and clear of clouds, to the airport. TERPS does not address design or obstruction clearance standards for a visual approach; therefore, TERPS is not applicable to visual approaches. After discussion, the group recommended that the issue should be resolved by clarifying TERPS paragraph 251b(2)(c). The group consensus was that AFFSA recommendation "B" or "D" would be acceptable. Tom agreed to take the issue to the TWG February meeting and report results at the next meeting.

Status: AFFSA will take the issue to the TWG and report results. **Item Open (AFFSA).**

b. 00-02-226 Precision FAF (PFAF) Location for RNAV SIAPs at ILS Runways

Dave Eckles, AFS-420, presented an issue paper prepared by Carl Moore, AFS-420. The FAA has started publishing three-dimensional RNAV approaches. These procedures will contain a charted FAF, which serves as both the nonprecision FAF and PFAF. Procedure design logic and present criteria dictates that the RNAV FAF must be placed at the vertical descent angle (VDA) interception point (analogous to the PFAF). However, this means that the RNAV FAF will, in most cases, not be coincident with the LOC FAF associated with ILS SIAP's to the same runway. ATC objects to non-coincidence of the RNAV FAF and LOC FAF location, as well as resulting video map clutter caused by multiple fixes in close proximity. ATC desires a single

"gate" fix for vectoring and video display purposes. Several proposals were offered for discussion as an outcome of an AFS/AVN/AAT meeting held June 28, 2000 in Oklahoma City. All of the proposals result in re-locating and re-naming LOC FAF's to coincide with the RNAV SIAP. Brad Rush, AVN-160, briefed that his office has made an initial survey with the following approximate conclusions: 1) 70% of the SIAP's (those using DME as the LOC FAF) will present no problem and can be revised by developing the RNAV approach and moving the LOC FAF; 2) 20% (those using a facility for the LOC FAF) will require deleting the 5-letter name for the facility; and, 3) 10% will require separate charts for each SIAP. Several questions were raised. Mike Riley asked how many procedures were involved. The answer is unknown at this time. Bill Hammett, AFS-420 (ISI) noted that this may have a significant impact on the NFDC database. Pat Fair (ATA-130) agreed and said she would check it out. Wally Roberts, ALPA noted that lengthening the LOC final may pick up more obstacles and increase MDA's. Bill also noted that changing the LOC FAF might cause an excessive length of final penalty to some SIAP's. Dave offered the suggestion that when this occurs, either a stepdown fix would be added or the LOC procedure might be published separately. It was agreed that Brad would take this issue to the AISWG and Pat would take it to the ATSOIT for discussion. Pat will also assess the NFDC impact of changing/deleting the five-letter names of the affected facilities.

Status: 1) AVN-160 will present the issue to the AISWG and report results. 2) ATA-130 will take the issue to the ATSOIT and report results. 3) ATA-130 will check impact on the NFDC data base. **Item Open (AVN-160 & ATA-130).**

c. 00-02-227 The User as the Customer

Simon Lawrence, ALPA, presented this issue for discussion. It is ALPA's position that all users of the procedure development process be treated equally. He noted that his organization has perceived a recent trend that allows the Air Traffic organization to have priority over other user groups. He went on to state that there seems to be a proliferation of ad hoc, regionally sponsored teams that are developing procedures unilaterally and user groups are not being afforded the opportunity to comment on procedure design or flyability until the procedure is ready to be processed for publication. He pointed the ROCKET DP at Cincinnati as an example. When user groups express concerns, they should be included in any procedural re-design changes prior to the final product. Brad Rush, AVN-160 briefed that the FAA is working this issue through development of a new order (8260.XX) that will establish a Regional Airspace and Procedure Team (RAPT) consisting of representatives of the regional air traffic, flight standards, airports, and airway facilities divisions, as well as the regional FPO. This team concept should ensure that all facets are considered in new procedure development. Kevin Comstock, ALPA, recommended that "customer" be defined in the AVN and AFS mission statements. Dave Eckles, AFS-420, agreed to take the issues for follow up.

Status: AFS-420 to track the issue as well as 8260.XX and report at the next meeting. **AFS-420 and AVN-160 to define "customer" (ALPA comment).** **Item Open (AFS-420).**

Off Agenda Discussion. Randy Kenagy, AOPA, requested why Air Traffic (ATP-100/402) and NATCA representatives were not present at this ACF. Bill Hammett, AFS-420 (ISI), as recording secretary, also expressed frustration at the poor ACF attendance, at this meeting in particular, by key FAA offices. Bill stated that he had sent a special notice to ATP-402 advising them of the meeting and their open issues. ATP-120 normally attends regularly; however the

reason for their non-attendance is unknown. Bill also noted that the co-chair, Dave Eckles, AFS-420, had also sent several messages to AFS-410 reminding them of the meeting and of their action items. At the last meeting, Howard Swancy, AFS-4, advised that he would ensure an AFS-200 representative would attend; however, none was present. Bill volunteered to draft a letter from the co-chair to the affected organizations. Dave stated that minutes would be provided to all those organizations failing to attend with special attention directed to the minute's text noting lack of progress due to their non-attendance. **Editorial Note:** *An ATP-120 representative arrived on Wednesday afternoon for the conclusion of the meeting.*

d. 00-02-228 PT Required on TAA RNAV SIAPs

Wally Roberts presented this issue on behalf of ALPA. They are concerned that there may be pilot confusion with the current policy on not publishing "PT Required" when a course reversal is necessary on complex, sectored TAA's. He noted that the first iteration of the TAA concept included for clarity, the charting of "NoPT" or "PT Required," as appropriate. Then a decision was made not to chart the procedures this way because it was felt that the AIM PT-related material supposedly addresses the issue sufficiently. Based on their ad-hoc survey of pilots, ALPA believes the TAA situation is much more complex, thus both the pilot *and controller* need to know with certainty what is implied by the standards and policies set forth by AFS. This is particularly true when a PT is required from within the straight-in area, because of descent gradient problems. Further, the present AIM language about TAA flight techniques from either the left or right base areas permits the pilot to elect whether to proceed to a NoPT IAF or the course-reversal IAF. This is a sticking point with air traffic personnel and needs to be resolved. Bill Hammett, AFS-420 (ISI), noted that the current policy in Order 8260.45A is in accordance with FAA's General Council interpretation of the PT issue; however, recent examples of pilot misinterpretation may require another look at the TAA issue. Bill also noted that it was assumed that ALPA was intending to use the "PT Required" annotation on TAA's as a stepping stone to so annotate every feeder route on all non-TAA SIAP's. Wally assured that this was not the case, they are primarily concerned with TAA's and recommended that Order 8260.45A be amended per their recommendation. Dave Eckles agreed to take the issue to AFS-420 for consideration. He will also refer AIM paragraph 1-1-21f5 to Steve Jackson, AFS-420, for action.

Status: AFS-420 to work the 8260.45 revision and AIM change issues. **Item Open (AFS-420).**

e. 00-02-229 Turbine Powered Holding

Wally Roberts presented this issue on behalf of ALPA. It is ALPA's position that 175 KIAS holding should be for CAT A aircraft only. He cited an approach at Helena, MT that restricts holding below 10,000 ft to 175 KIAS for all aircraft. He recommends that the Instrument Procedures Subgroup consider this issue with the goal of permitting 175-knot holds for helicopters of all types, low-performance turboprop aircraft, but to exclude all high-performance turbine-powered airplanes, even those that fit into Approach Category B. A discussion ensued as to how to differentiate between "low performance" and "high performance". Randy Kenagy, AOPA, noted that there are many CAT B aircraft that would be unnecessarily penalized by not allowing them to use 175 KIAS holding. Deb Martin, Transport Canada, stated that Canada publishes what is necessary for the procedure; pilots are expected to advise if they are unable to comply with a charted or issued instruction. Pat Fair, ATA-130, agreed to check the NFDC database to determine how many and where holding patterns are published with the airspeed restricted to 175 KIAS. There was no consensus on the issue and Dave Eckles, AFS-420,

agreed to take it for study. Wally also noted that there is no AIM material for climb-in-hold airspeeds. Dave agreed to forward this item to Steve Jackson, AFS-420, for action.

Status: AFS-420 to work the 175 KIAS holding issue and recommended AIM change.

ATA-130 to determine number of 175 KIAS patterns (ALPA comment). [Item Open \(AFS-420/ATA-130\)](#).

f. 00-02-230 SIAP Deceleration Segment and High Bypass Fan Engines

Simon Lawrence presented this issue on behalf of ALPA. ALPA is concerned that increased use of maximum descent gradients, especially in the intermediate segment has lowered the statistical margins of safety. The original authors of TERPs presumed that good judgment in procedure design would preclude use of maximum gradients in both the initial and intermediate segments, except where obstacles made such an undesirable application mandatory. In the past few years the intermediate segment maximum was increased from 300 to 318 feet per mile, which matches the ILS glide slope. Where this maximum is applied, the intermediate segment effectively becomes a barometric extension of the ILS final approach segment, with "slow-down-while-going-down" the procedural "rule." Where the preceding initial segment is at, or near maximum, it becomes a very difficult, destabilizing operation for flight crews. The primary ILS approaches for Los Angeles were offered for reference. ALPA recommends that SIAP design directives must compel the use of 150 feet per mile of descent gradient in the intermediate segment except where obstacles prevent such application. Where the preceding initial segment descent gradient is increased beyond optimum, the intermediate descent gradient should be decreased to less than 150 feet per mile in ratio with the increase of the descent gradient in the preceding initial approach segment beyond the optimum. Dave Eckles, AFS-420, agreed to take the issue for policy consideration. Brad Rush, AVN-160, agreed to look at revision of the LAX ILS RWY 25L SIAP.

Status: 1) AFS-420 to consider intermediate segment descent gradient for criteria/policy revision; 2) AVN-160 assess the LAX ILS RWY 25L SIAP for possible revision. [Item Open \(AFS-420 & AVN-160\)](#).

g. 00-02-231 Missed approach Climb Rate.

Dave Eckles, AFS-420, presented this issue and a position paper prepared by Jack Corman, AFS-420, as a discussion only item. The TWG discussed the premise of using departure criteria (200 Ft/NM climb rate) in the missed approach (MAPCH) segment at their August meeting. FAA research indicates that this premise has been the foundation of the existing criteria since the 1966 edition of TERPS. Although TERPS refers to a 40:1 obstacle clearance surface, the criterion is based on a climb gradient of 30:1 (pilot habit and air carrier inspector observations). The premise is further supported by the statistic that a 200 Ft/NM gradient is required in order to gain approximately 1000' of ROC (necessary for en route flight or holding) in the distance the MAPCH trapezoid reaches initial segment width, assuming the final segment ROC was 250 feet (worst case). Tom Schneider, AFFSA, stated that the USAF position has always been that a 152 Ft/NM climb gradient is sufficient to provide MAPCH obstacle clearance. He went on to state that this position is supported by PANS-OPS, which requires a 2.5% climb (152 Ft/NM). Wally Roberts, ALPA, also voiced objection to this assumption and supported Tom's position. Wally added that his organization was concerned that the 200 Ft/NM premise may lead to a proliferation of missed approach procedures that contain published climb

gradients, but are not 40:1 clear. Wally further recommended that this issue be discussed in a public venue with representation by performance engineers from major carriers. **Wally also** suggested the AIM language be revised to state that a climb of **at least** 200 Ft/NM is “expected” vice “required” (**ALPA comment**). **Tom requested that the FAA address the need for a 200Ft/NM MAPCH climb gradient at the ICAO Obstacle Clearance Panel (OCP) and a resulting change to PANS-OPS criteria (AFFSA comment)**. Dave noted that this item was presented for briefing purposes only and that TERPS criteria fall under the purview of the TWG. Publication is expected in TERPS Change 20, which will provide all interested parties the opportunity to formally comment on the position. Dave agreed to have AFS-420 take the issue for clarification.

Status: AFS-420 to study the issue for clarification, address the recommended AIM change, and consider presenting the issue to the OCP. **Item Open (AFS-420)**.

h. 00-02-232 Confusing Graphical or Textual Feeder Routes.

This issue was presented by ALPA at the charting portion and subsequently transferred to the Instrument Procedures Subgroup for action. ALPA is concerned that some feeder routes developed for SIAP's are unable to be charted by Jeppesen, whose charts are used by their membership and air carriers in general. They recommend that feeder routes be limited to a single route from each quadrant so that Jeppesen may create a comprehensible chart inset and avoid textual routes. They provided several Jeppesen and government charts for comparison. Dave Eckles, AFS-420, noted that the examples did have excessive feeder routes and that he would take an IOU to review the policy. It should be noted that the procedure development policy is not written solely to support Jeppesen charting specifications.

Status: AFS-420 to work the issue and report at the next meeting. **Item Open (AFS-420)**.

6. Next Meeting: The next meeting is scheduled for the week of April 23rd with FAA/AMTI as host. A letter of invitation will forward the specific date/time/location. The fall 2001 meeting is scheduled for the week of October 22nd with host to be determined.

Please note the attached OPI listing for action items. It is requested that all OPI's provide the AFS-420 co-chair (with an information copy to Bill Hammett) a status update paper on open issues not later than March 30, 2001 - a reminder notice will be provided. Anyone needing copies of position papers or meeting handouts may contact Dave Eckles, AFS-420.

7. Attachments (4):

1. OPI/Action Listing.
2. Air Traffic Addendum – Status Update Papers (3)
3. AVN-100 RADAR REQUIRED SIAP Listing (re: 99-01-215)
4. Attendance Listing.

**AERONAUTICAL CHARTING FORUM
INSTRUMENT PROCEDURES SUBGROUP
OPEN AGENDA ITEMS FROM MEETING 00-02**

<u>OPI</u>	<u>AGENDA ITEM (ISSUE)</u>	<u>REQUIRED ACTION</u>
AFS-420/AVN-160	92-02-104 (Precipitous terrain adjustments)	AFS-420: Track program criteria & report. AVN-160: Provide OTE examples.
AFS-420	92-02-105 (Circling areas)	Address AOPA comments & track status of new criteria.
AFS-420	92-02-110 (Cold weather altimeter)	Lead effort & track issue. Consider forming a FAA/industry group to work issue
AFS-4	93-01-121 (AC 90-XX)	Follow up contractual funding and report.
ATP-402	96-01-155 (OROCA use)	Work issue and provide report.
AFS-420	96-01-162 (NoPT/PT required routes) (AC61-27 Status)	Closed – pending AC61-27 publication. Monitor status of AC re-write & report.
AFS-420	96-01-166 (Descent point of flyby waypoints. Originally “on course”)	Work issue and report.
AFS-410/AFS-200	97-01-175 (Pilot duties to confirm GPS database)	AFS-410: Establish FAA position. AFS-200: Create FSIB.
AFS-400/AFS-420	97-01-177 (Non-collocated DME use at/inside FAF)	AFS-400: Prepare letter to AAF for DME’s. AFS-420: Track progress.
ALPA/AFS-420/ATP-120	97-02-189 (IFR departure minimum turning altitude)	ALPA: Provide draft AIM text to AFS-420. AFS-420: Process AIM change. ATP-120: Provide radar obst. display policy.
AFS-200	98-01-197 (Air carrier compliance w/climb grad’s)	Work issue and report.
AFS-410	98-01-199 (RVR accuracy vs. flight visibility. Also use of RVR minima)	Work issues and report.
AFS-420	98-01-203 (Runway alignment of approach procedures)	Address ALPA visibility concerns.
AVN-160	98-01-206 (P-56 airspace vs. KDCA IFR departures)	Track project & report.
ATP-402	98-01-209 (Consolidated STAR issues from charting portion) (94,95,96,97,98,99,100,101)	Track issue & report.
AVN-160	99-01-215 (Radar required SIAP’s)	Provide status list & report.

AFS-420/ATP-120	99-02-216 (Excess verbiage on DP's & STAR's)	AFS-420: Revise DP forms. ATP-120: Report STAR status.
AFS-420/ATA-130	99-02-219 (TERPS paragraph 289 application & obstacle charting)	AFS-420: Explain criterion in AIM. ATA-130: Track IACC action and report.
AFS-420	00-01-223 (Designation of NoPT and related AIM material)	Consider policy to not allow NoPT route join FAC when stepdown fix is w/in PT area.
AFFSA	00-02-225 (Visual area obstacle clearance – TERPS 251b(2)(c))	Take issue to TWG and report.
AVN-160/ATA-130	00-02-226 (PFAF location for RNAV SIAPs at ILS runways)	AVN-160: Present issue to AISWG & report. ATA-130: Present issue to ATSOIT & report.
AFS-420/AVN-160	00-02-227 (The user as the customer)	AFS-420: Track issue and 8260.XX. AFS-420 & AVN-160: Define “customer”.
AFS-420	00-02-228 (PT-required on TAA's)	Consider revision to 8260.45 and develop change to AIM paragraph 1-1-21f5.
AFS-420/ATA-130	00-02-229 (Turbine powered holding)	AFS-420: Address 175 KIAS holding issue. Develop AIM “climb-in-hold” material. ATA-130: Determine number & charting of 175 KIAS patterns.
AFS-420/AVN-160	00-02-230 (SIAP deceleration segment and high-bypass fan engines)	AFS-420: Study interm. Segment DG policy. AVN-160: Assess LAX ILS RWY 25L
AFS-420	00-02-231 Missed approach climb rate	Work the issue for clarification, consider AIM change, and consider presentation to OCP.
AFS-420	00-02-232 Confusing feeder routes	Address issue and report.

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
Instrument Procedures Subgroup
November 28-29, 2000
STATUS DOCUMENT

FAA Control # 96-01-155

SUBJECT: Operational Status for OROCA Use

BACKGROUND/DISCUSSION: ATP-402 is continuing to track the issue of OROCA Use for IFR operations.

COMMENTS: The use of the OROCA was discussed during the preliminary discussions leading to the development of a Notice of Proposed Rulemaking (NPRM) updating 14 CFR for area navigation. This discussion included the development of an MOCA for RNAV routes, independent of the NAVAID. The draft NPRM is under development by a contractor working for AFS-400. The first draft is scheduled for completion on December 15, 2000. Advanced Navigation Routes (ANR) eliminating the requirement to over fly source referenced (ground-based) navigation are currently under development by the ATSOIT. Initial publication of ANRs will occur in the Airport/Facilities Digest (AFD).

RECOMMENDATIONS: The ACF RNAV Transition Working Group has taken this on as an action item. Specifically, RNAV Routes and MEA on en route charts. (RNAV -00-01-06) Recommend this item be closed and transfer responsibility for tracking to the ACF RNAV Transition Working Group.

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Date: December 1, 2000

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
Instrument Procedures Subgroup
November 28-29, 2000
STATUS DOCUMENT

FAA Control # 97-02-189

SUBJECT: IFR Departure Minimum Turning Altitude Requirement

BACKGROUND/DISCUSSION: ATP was tasked to review air traffic policy for display of prominent obstructions on radar scopes.

COMMENTS:

1. FAA Order 7210.3, Facility Operation and Administration, Section 8, Paragraph 3-8-3 states, "To reduce clutter and increase operational efficiency, limit data on display maps to the following (except for subpara o, facility AT managers may delete items not required). . ." Included in the list of items are obstructions and prominent geographic features (islands, mountains, etc.).
2. FAA Order 7210.3, Facility Operation and Administration, Section 8, Paragraph 3-9-5 provides the procedures used to establish Diverse Vector Areas (DVAs). FAA Order 7110.65, Air Traffic Control, Para 5-6-3c, Vectors Below Minimum Altitude: "At those locations where DVAs have been established, terminal radar facilities may vector aircraft below the MVA/MIA within those areas and along routes described in facility directives." Reference – FAAO 7210.3, Establishing DVAs, Para 3-9-5.
3. FAA Order 7110.65, Air Traffic Control, Para 5-6-3, Vectors Below Minimum Altitude: ". . .you may vector a departing IFR aircraft, or one executing a missed approach, within 40 miles of the antenna and before it reaches the minimum altitude for IFR operations if separation from prominent obstructions shown on the radar scope. . ." Further,

RECOMMENDATIONS: CLOSED (for ATP-402). FAA Orders provide for the display of obstructions on radar scopes.

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GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM
Instrument Procedures Subgroup
November 28-29, 2000
STATUS DOCUMENT

FAA Control # 98-01-209

SUBJECT: Consolidated STAR Items Transferred from Charting Portion

BACKGROUND/DISCUSSION: Transfer of DP/STAR and FMS Procedures Process Orders was briefed at the last ACF Instrument Procedures Subgroup.

COMMENTS: Update: FAA Order 8260.XX, will partially replace order 7110.11A. Other sections of the 7100.11A will be included in the new STAR Order, 7100.9C. Working with AVN, AFS, ATP; a draft order has been circulated and will be sent out for formal coordination with the agency shortly. The STAR Order (7100.9) is awaiting publication of the 8260 order to complete the change and align procedure design and development to the new regional airspace/procedures team design. Transfer of the STAR Order (7100.9) is pending staffing increases at AVN/AFS.

RECOMMENDATIONS: Recommend closing this item. Transfer will not occur in the near term.

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Date: December 1, 2000

SIAP'S WITH NO INTERMEDIATE SEGMENT

#	BR	AIRPORT NAME	LOCATION/CITY	ST	ARPT IDENT	RWY #	PROCEDURE DESCRIPTION	STATUS
1	110	WASHINGTON	NATIONAL	DC	KDCA	A	VOR/DME RNAV OR GPS-A	Pending Work
2	110	NORTHAMPTON	NORTHAMPTON	MA	K7B2	B	VOR/DME-B	Done
3	110	BEDFORD	NEW BEDFORD RGNL	MA	KEWB	23	LOC BC RWY 23	Pending Work
4	110	VINEYARD HAVEN	MARHTAHAS VINEYARD	MA	KMVY	24	VOR OR GPS RWY 6	Pending Work
5	110	WESTFIELD	BARNES MUNI	MA	KBAF	2	VOR OR TACAN OR GPS RWY 2	Done
6	110	CHURCHVILLE	HARFORD COUNTY	MD	K0W3	A	VOR/DME-A	Done
7	110	BALTIMORE	BALTIMORE-WASHINGTON	MD	KBWI	28	ILS RWY 28	Done
8	110	BALTIMORE	BALTIMORE-WASHINGTON	MD	KBWI	28	VOR OR GPS RWY 28	Done
9	110	ATLANTIC CITY	ATLANTIC CITY INTL	NJ	KACY	22	VOR/DME OR GPS RWY 22	Done
10	110	WESTCHESTER COUNTY	WHITE PLAINS	NY	KHPN	34	VOR/DME RNAV OR GPS RWY 34	In Work (Canceling SIAP)
11	110	JOHN F. KENNEDY INTL	NEW YORK	NY	KJFK	31L	VOR/DME OR GPS RWY 31L	Done
12	110	LA GUARDIA	NEW YORK	NY	KLGA	31	LOC RWY 31	Done
13	110	NEW YORK	JOHN F. KENNEDY INTL	NY	KJFK	22R	ILS RWY 22R	Done
14	110	BATAVIA	GENESEE COUNTY	NY	KGVQ	28	ILS RWY 28	Done
15	110	AKRON	AKRON	NY	K9G3	7	VOR OR GPS RWY 7	Pending Work (Canceling SIAP)
16	110	PITTSBURGH INTL	PITTSBURGH	PA	KPIT	14	VOR/DME OR GPS RWY 14	Done
17	110	NORTHEAST PHILADELPHIA	PHILADELPHIA	PA	KPNE	6	LOC BC RWY 6	Done
18	110	NORTHEAST PHILADELPHIA	PHILADELPHIA	PA	KPNE	6	VOR OR GPS RWY 6	At Flight Check
19	110	PERKIOMEN VALLEY	COLLEGEVILLE	PA	KN10	9	VOR OR GPS RWY 9	At Flight Check
20	110	BUTLER COUNTY	BUTLER	PA	KBTP	8	ILS RWY 8	Pending Work
21	110	ROANOKE RGNL	ROANOKE	VA	KROA	A	VOR/DME OR GPS-A	Pending Work
22	110	RICHMOND INTL	RICHMOND	VA	KRIC	16	VOR OR GPS RWY 16	Pending Work
23	110	RICHMOND INTL	RICHMOND	VA	KRIC	20	VOR RWY 20	Pending Work
24	110	RICHMOND INTL	RICHMOND	VA	KRIC	25	VOR OR GPS RWY 25	Pending Work
25	110	RICHMOND INTL	RICHMOND	VA	KRIC	34	VOR RWY 34	Pending Work
26	110	MANASSAS RGNL	MANASSAS	VA	KHEF	A	NDB OR GPS-A	Pending Work
27	120	METROPOLITAN OAKLAND INTERNATIONAL	OAKLAND	CA	KOAK	29	VOR/DME RWY 29	Pending Work
28	120	MCCARRAN INTERNATIONAL	LAS VEGAS	NV	KLAS	1R	VOR/DME RWY 1R	Done (SIAP Canceled)
29	120	MCCARRAN INTERNATIONAL	LAS VEGAS	NV	KLAS	29L	VOR RWY 25L/R	Done
30	120	AURORA STATE	AURORA	OR	KUAO	17	NDB RWY 17	Pending Work
31	120	SALT LAKE CITY INTERNATIONAL	SALT LAKE CITY	UT	KSLC	17	ILS RWY 17	Done (Publish on 11/30/00)
32	120	SEATTLE-TACOMA INTERNATIONAL	SEATTLE	WA	KSEA	16R	NDB RWY 16R	In Work
33	120	RENTON MUNI	RENTON	WA	KRNT	15	NDB RWY 15	Pending Work
34	130	ANCHORAGE INTERNATIONAL	ANCHORAGE	AK	KANC	14	ILS RWY 14	At Flight Check
35	130	WHITE SANDS REGIONAL	ALAMOGORDO	NM	KALM	3	VOR RWY 3	Pending Work (Airspace)
36	130	WHITE SANDS REGIONAL	ALAMOGORDO	NM	KALM	3	NDB RWY 3	Pending Work (Airspace)
37	130	WHITE SANDS REGIONAL	ALAMOGORDO	NM	KALM	3	GPS RWY 3	Pending Work (Airspace)
37	130	CLARENCE E. PAGE MUNI	OKLAHOMA CITY	OK	KF29	B	VOR or GPS-B	Done
38	130	WILEY POST	OKLAHOMA CITY	OK	KPWA	17L	ILS RWY 17L	Done
39	130	WILEY POST	OKLAHOMA CITY	OK	KPWA	35R	VOR or GPS RWY 35R	Done
40	130	CLAREMORE MUNI	CLAREMORE	OK	K107	B	VOR/DME or GPS-B	Done
42	130	SHEPPARD AFB/WICHITA FALLS MUNI	WICHITA FALLS	TX	KSPS	15R	LOC BC RWY 15R	Pending Work
43	130	WILLIAM R. POGUE	SAND SPRINGS	TX	K0F8	A	VOR or GPS -A	Done (At NFDC for Publication)
44	130	ROCKPORT/ARANSAS COUNTY	ROCKPORT	TX	KRKP	14	NDB 2 or GPS RWY 14	Done (SIAP Canceled)
45	130	ROBSTOWN/NUECES COUNTY	ROBSTOWN	TX	KT53	A	VOR/DME or GPS-A	Done

SIAP'S WITH NO INTERMEDIATE SEGMENT

#	BR	AIRPORT NAME	LOCATION/CITY	ST	ARPT IDENT	RWY #	PROCEDURE DESCRIPTION	STATUS
46	130	LUBBOCK INTERNATIONAL	LUBBOCK	TX	KLBB	8	NDB RWY 8	Done (SIAP Canceled)
46	130	GALVESTON INTERNATIONAL	GALVESTON	TX	KGLS	13	GPS RWY 13	Done
47	130	GALVESTON INTERNATIONAL	GALVESTON	TX	KGLS	17	GPS RWY 17	Done
48	130	DALLAS/ADDISON	DALLAS	TX	KADS	15	ILS RWY 15	In Work
49	130	DALLAS/ADDISON	DALLAS	TX	KADS	33	ILS RWY 33	In Work
50	130	DALLAS/ADDISON	DALLAS	TX	KADS	15	NDB RWY 15	In Work
52	130	BAYTOWN	BAYTOWN	TX	KHPY	14	VOR RWY 14	Pending Work
53	130	BAYTOWN	BAYTOWN	TX	KHPY	14	GPS RWY 14	Pending Work
54	130	BAYTOWN	BAYTOWN	TX	KHPY	32	GPS RWY 32	Pending Work
54	140	AURORA MUNICIPAL	CHICAGO/AURORA	IL	KARR	A	VOR OR GPS-A	Done
55	140	CHICAGO MIDWAY	CHICAGO	IL	KMDW	13C	ILS RWY 13C	Done
56	150	TAMPA INTL	TAMPA	FL	KTPA	9	GPS RWY 09	Done
58	150	POMPANO BEACH AIRPARK	POMPANO BEACH	FL	KPMP	15	LOC RWY 15	Pending Work
59	150	OPA LOCKA	MIAMI	FL	KOPF	9L	ILS RWY 09L	Pending Work
60	150	OPA LOCKA	MIAMI	FL	KOPF	12	ILS RWY 12	Pending Work
60	150	LINDER REGL	LAKELAND	FL	KLAL	9	VOR OR GPS RWY 09	Done
61	150	CRAIG MUNI	JACKSONVILLE	FL	KCRG	14	VOR OR GPS RWY 14	Done
63	150	JACKSONVILLE INTL	JACKSONVILLE	FL	KJAX	13	ILS RWY 13	Done
64	150	JACKSONVILLE INTL	JACKSONVILLE	FL	KJAX	25	ILS RWY 25	Done
64	150	FORT LAUDERDALE/HOLLYWOOD INTL	FORT LAUDERDALE	FL	KFLL	13	LOC RWY 13	Done
65	150	BOCA RATON	BOCA RATON	FL	KBCT	5	GPS RWY 05	Done
66	150	COBB COUNTY-MC COLLUM FIELD	MARIETTA	GA	KRYT	27	GPS RWY 27	Done
67	150	COBB COUNTY-MC COLLUM FIELD	MARIETTA	GA	KRYT	27	ILS RWY 27	Done
69	150	HERBERT SMART	MACON	GA	KMAC	10	LOC RWY 10	Pending Work
70	150	PEACHTREE CITY-FALCON FIELD	ATLANTA	GA	KFFC	13	LOC BC RWY 13	In Work
71	150	BLUE GRASS	LEXINGTON	KY	KLEX	22	ILS RWY 22	Done (At NFDC for Publication)
72	150	OLIVE BRANCH	OLIVE BRANCH	MS	KOLV	18	LOC RWY 18	Pending Work (Canceling SIAP)
73	150	CONCORD REGIONAL	CONCORD	NC	KJQF	20	ILS RWY 20	Done (At NFDC for Publication)
74	150	CHARLOTTE/DOUGLAS INTL	CHARLOTTE	NC	KCLT	23	NDB RWY 23	Pending Work
75	150	MICHAEL J. SMITH FIELD	BEAUFORT	NC	KMRH	26	LOC RWY 26	Pending Work
75	150	CHARLES W. BAKER	MILLINGTON	TN	K2M8	18	VOR/DME RWY 18	Done
77	150	MILLINGTON MUNI	MILLINGTON	TN	KNQA	22	ILS RWY 22	Pending Work
Blue = ALPA Identified Priority								
Red = Project Completed								

**AERONATTICAL CHARTING FORUM
INSTRUMENT PROCEDURES SUBGROUP
ATTENDANCE LISTING - MEETING 00-02**

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**AERONATTICAL CHARTING FORUM
 INSTRUMENT PROCEDURES SUBGROUP
 ATTENDANCE LISTING - MEETING 00-02**

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* Tuesday only				
** Wednesday only				
*** Wednesday PM only				