

Government/Industry Aeronautical Charting Forum (95-1).
Washington, DC
March 27-30, 1995

1. Opening Remarks

The four day meeting was held at National Ocean Service/Aeronautical Charting Division (NOS/ACD) offices in Silver Spring, MD and hosted by Ms. Carol Beaver, Chief ACD. Mr. Paul Best, FAA/AFS-420, Co-Chair of the ACF, opened the TERPs portion of the Charting Forum on March 27, 1995. Minutes of the two day TERPs Forum are being generated by FAA/AFS-420 and will be sent out to participants at a later date.

Mr. Dick Powell, FAA/ATP-220, Co-Chair of the ACF, opened the Charting Forum on March 29, 1995 at Aeronautical Charting Division offices with a thanks to Ms. Carol Beaver, ACD, for hosting the forum. Mr. Frank Maloney, the Deputy Assistant Administrator, National Ocean Service, welcomed the Forum participants and remarked on the importance of their contributions to air safety. Mr. Powell gave an overview of the agenda and asked that the members give wide dissemination to the page in the Forum packet that contained new chart editions/issues/changes. ACF 95-1 attendees are at Attachment 1. Minutes of ACF 94-2 were approved, with corrections by the Volpe NTSC on the IAP Reformat issue.

2. Satellite Navigation Program Status

Mr. Ken Lauterstein, FAA/AND-510, briefed the ACF on the status of the GPS program. The existing satellite constellation must be augmented with user and/or ground based aids to meet civil aviation's requirements for integrity, availability and accuracy. User based aids would include Receiver Autonomous Integrity Monitoring (RAIM) and Inertial Reference Systems. Ground based aids would include a Local Area Augmentation System (LAAS) and a Wide Area Augmentation System (WAAS). The FAA expects to award a contract for the WAAS around May 15, 1995. Currently, there are 2508 airports and 4312 runway ends that have instrument approach procedures to them and need a survey based on WGS-84 coordinates (GPS coordinate system). If VFR airports are included, the numbers increase to 13,442 airports and over 21,000 runway ends that require WGS-84 based surveys. Mr. Lauterstein asked for ACF input on which airports should be surveyed first. The ACF agreed that airports and runway ends with instrument approach procedures to them should be surveyed first. Second priority should go to the VFR airports. Ms. Melissa Bailey, AOPA, indicated that each state should set priorities for their VFR airports' surveys. Priority could be established based on several criteria: extent of usage, growth potential, alternate airfield for safety purposes, et al. Mr. Lauterstein asked that the ACF help the FAA develop methodologies and priorities for VFR airport surveys.

Action: Ms. Melissa Bailey, AOPA, will coordinate this within AOPA for recommendations and report on this at the next ACF meeting.

3. Digital Airport Obstruction Chart Initiative

Mr. Bob Fisher, NOS/NGS, briefed the ACF on the progress of converting all obstruction

products to digital form and developing a digital delivery system for them. The paper form of the obstruction products will continue to be produced. All digital products will be in the Universal Data Delivery Format. The funding problem for this program is minor compared to the personnel issues. Full Time Equivalent (FTE) positions are being cut and key people are retiring and these combine to make a critical problem. Airport surveys are being done in three phases, with the obstruction phase being accomplished through aerial photography.

Action: Closed

**4. Obstruction Chart - Engine Out Working Group Report
(Agenda Item 92-1-003, Obstruction Data to Support Takeoff Performance
Calculation; Agenda Item 93-1-027, Obstruction Data in Digital Format;
and, Agenda Item 94-2-048, Digital Obstruction File on Disk)**

Mr. Wes Te Winkle, FAA/AFS-430, chair of the Working Group, updated the ACF on the status of airport surveys being done in support of both a close-in obstacle digital data information base and a distance obstacle chart (ICAO Type C). NOS/NGS has now surveyed 120 airports and the data is being entered into a database in a Universal Data Delivery Format (UDDF). The survey requirements are very burdensome and are slowing up the airport survey schedule. To catch up to the schedule, the Working Group established less stringent accuracy requirements for obstacle charts and decided that airports whose runways are less than 3000' long and 75' wide or are utility runways (WBC less than 12,500 lbs) will not be surveyed for obstacle charts.

The high cost estimate for the original Type C Obstacle Chart dictated a search for lower cost alternatives. The FAA and NOS are currently evaluating DMA's Digital Terrain Elevation Data (DTED) as an alternative means for generating a Type C chart. Results of the evaluation are expected in about 6 months.

Ms. Linda Cushing, NOS/ACD, noted that the Digital Obstruction File (DOF) was distributed on 2 diskettes, with 10 files in ASCII format on March 2, 1995. The DOF will be on a normal 8 week cycle, and will no longer be available in paper format. The DOF on disk was ordered by 69 users, with more expected. This completes the action on Agenda Item 94-2-048.

Ms. Cushing also reported testing in progress on use of the Internet and bulletin boards to distribute data. These and other distribution methods are still under discussion; currently, no data is available on the Internet. Mr. Ernie Tangren, American Airlines, and Mr. Wayne Soverns, TWA, joined Mr. Bill Thomas, ATA, in requesting that options other than the Internet also be developed and used to distribute the data. Mr. Thomas also requested that NOS look at using the Internet for all their databases (DOF, et al.) and also for advertising their products. Mr. Cecil Teets, Compuflight, requested that an indexed list of airports be provided on the file, with a Julian date tied to each airport, so that updated airports can be readily identified. The FAA General Counsel is still considering the issue of data dissemination and a ruling is expected before the next ACF meeting.

Action: Mr. Dick Powell, FAA/ATP-220, will report on the FAA General Counsel decision on data dissemination. Ms. Linda Cushing, NOS/ACD, will report on the use of DMA DTED

to generate a less expensive Type C Obstacle Chart. Agenda Item 94-2-048 is closed.

**5. GPS Overlay and GPS Charting Working Group Report
(Agenda Item 93-1-030, GPS Overlay and GPS Charting)**

Mr. Denny Newport, FAA/AFS-420, reported that the April 12, 1995 Working Group meeting will address the comments received on the Cartographic Change Proposal (CCP). A new CCP will be developed and distributed for comment. One change that will be made to the CCP is that flyover waypoints will be uniquely identified and designated by a circle within the waypoint. The Working Group will publish a new prototype GPS IAP chart reflecting the new flyover waypoint symbology.

Action: Mr. Denny Newport, FAA/AFS-420, will report on the CCP results and their affect on the prototype.

6. Standard Taxi Routes Report (Agenda Item 93-1-024, Depict Boundary of Aircraft Movement Area on Aerodrome Charts, and Agenda Item 93-1-029, Standardized Taxi Routes)

Mr. Steve Lucchesi, FAA/ATP-220, reported that IACC Task Group 30's airport diagram prototype had been produced and distributed for public comment. Comments from human factors engineers and others were favorable. Mr. Lucchesi noted that, like DMA, the FAA would continue to publish airport diagrams. Mr. Lucchesi also stated that land and hold short data will be published in the terminal procedures publications and removed from its current location in the Airport/Facility Directory. Mr. Bill Thomas, ATA, requested a cost of this new product, but the FAA has not yet determined that. Mr. Dick Powell, FAA/ATP-220, noted that the final cost would most likely be subsidized by the FAA. FAA/ATP-120 will be asked to brief on the runway incursion program and related National Transportation Safety Board (NTSB) issues at the next ACF meeting.

Action: Mr. Steve Lucchesi, FAA/ATP-220, will report on the status of the IACC TG 30 recommendations. Mr. Dick Powell, FAA/ATP-220, will request that FAA/ATP-120 brief at the next ACF meeting on the runway incursion program and related NTSB issues.

7. Loose Leaf Terminal Procedures Publication (Agenda Item 94-2-058)

Mr. Dick Powell, FAA/ATP-220, noted that AOPA and DMA, as well as FAA Flight Safety, had coordinated on a survey for users of the terminal procedures publications (TPP). Surveys were sent to over 18,000 TPP subscribers. Contractors are currently compiling the survey results. First look results indicated that there was no middle ground, users either hated it or loved it.

Action: Mr. Dick Powell, FAA/ATP-220, will report on the results of the survey at the next

ACF meeting.

8. IAP Reformat (Agenda Item 92-1-006, Change Depiction of Communication Frequencies on IAPs to Top of Page; Agenda Item 92-1-012, Warning and Caution Notes; Agenda Item 92-1-013, Print Size and Readability; Agenda Item 92-1-014, Use of Icons; Agenda Item 94-1-039, Changes to the Terminal Procedures)

Mr. Dick Powell, FAA/ATP-220, briefed that NOS had been asked to look at current hardware and software capability and at the MSAW and DTED databases to determine the costs of using existing automation to reformat all instrument approach procedure charts at one time. Mr. Powell noted that, even though automation can save dollars and workyears, workyears are the critical factor since FTEs have been cut significantly. Mr. Tom Young, ALPA, requested that the reformatted Jeppesen approach plates be thoroughly evaluated for ACF use prior to final decisions on the new format.

Action: Mr. Dick Powell, FAA/ATP-220, will coordinate with NOS to address dollar and work year costs and a timeframe for implementation and report on this at the next ACF meeting.

9. AOPA Safety Foundation and IACC Task Group 25 VFR Charting Recommendations (Agenda Item 94-1-040, Parachute Jumping Areas; Agenda Item 94-1-041, Class C Airspace; Agenda Item 94-1-042, Communication Frequencies; and Agenda Item 94-1-043, Class B Airspace)

Mr. Dave Thompson, FAA/ATP-220, briefed that the AOPA Safety Foundation recommendations have been included in a new IACC TG 25 specification change. He also noted that magenta may be used instead of black to meet Agenda Item 94-1-043 requirements. Mr. Thompson estimated that the charts would not reflect these new requirements until the end of the calendar year.

Action: Mr. Dave Thompson, FAA/ATP-220, will report on the status of implementing the IACC specification changes.

10. Agenda Item 92-1-003 Obstruction Data to Support Take-off Performance Calculation (Jeppesen Sanderson)

See paragraph 4 of these minutes for status

11. Agenda Item 92-1-006 Depicting Communication Frequencies on IAP Charts (DOT/VNTSC)

See paragraph 8 of these minutes for status

12. Agenda Item 92-1-011 Use of Color on IAPs (ALPA)

See Agenda Item 92-1-015 for comments.

13. Agenda Item 92-1-012 Warning and Caution Notes (ALPA)

Agenda Item 92-1-013 Print Size and Readability (ALPA)

Agenda Item 92-1-014 Use of Icons (ALPA)

See paragraph 8 of these minutes for status

14. Agenda Item 92-1-015 Obstacle and Terrain Contour Depiction (ALPA)

Ms. Melissa Bailey, AOPA, noted that AOPA had sent a letter to FAA strongly supporting the use of color and contours on IAPs. Ms. Dalia Marin, NOS/ACD, stated that ACD had analyzed approaches based on FAA criteria and had found 424 approaches where contours would be required (201 airports). Contour intervals, yet to be determined, will drive cost. The quality of the paper used in the TPPs would have to be upgraded to accept color. Mr. Ron Bolton, ACD, indicated that using black and white initially, and later following it with color, might be a better option. The black and white would be faster and cheaper to implement since the paper quality wouldn't have to be changed and the printing would be simpler. Mr. Bill Thomas, ATA, noted that Jeppesen had done extensive studies on the use of black and white and on color and that a decision by NOS to go with black and white would only delay the inevitable. Col Claude Richards, DMA, expressed his concern that other issues had a higher priority for dollars and workyears and also that this was adding VFR information to an IFR chart. Mr. Bolton felt this issue of color and contour depiction is a situational awareness issue with flight safety implications and one that will grow in scope and need as more GPS approaches are developed. Mr. Bolton felt that AOPA and ALPA requirements for color and contours on IAPs is sufficiently mature to forward this from the ACF to the IACC. Mr. Thomas asked that this be included in the IAP Reformat issue (see para 8) and that timelines be developed for a phased implementation.

Action: Mr. Dick Powell, FAA/ATP-220, will coordinate with Ms. Linda Cushing, NOS/ACD to develop cost estimates prior to forwarding this to the IACC. Mr. Powell will report results at the next ACF meeting.

15. Agenda Item 92-2-016 Equipment Requirements on IAP Charts (FAA)

Mr. Steve Lucchesi, FAA/AATP-220, reported that the FAA had submitted this requirement to the IACC for appropriate specification changes and implementation.

Action: Closed

16. Agenda Item 93-1-020 Eliminate NOS Terminal Change Notice (NOS)

Ms. Dalia Marin, NOS, reported that ACD had relooked at their compliance with the FAA's

guidelines and were meeting them.

Action: Closed

17. Agenda Item 93-1-024 Depict Boundary of Aircraft Movement Area on Aerodrome Charts (ALPA)

See paragraph 6 of these minutes for status.

18. Agenda Item 93-1-027 Obstruction Data in Digital Format (EDS)

See paragraph 4 of these minutes for status.

19. Agenda Item 93-1-028 Terrain Data Base (Jeppesen)

Mr. Bill Thomas, ATA, reported that ATA had forwarded to DMA those specific terminal and enroute areas where DTED would be required. Mr. Dick Powell, FAA/ATP-220, reported that all the ACF's requirements for DTED had been provided to DMA. Colonel Claude Richards, DMA/PRA reported that DMA was currently coordinating with the various Theater Commanders on release of DTED for airports and areas within their theaters. The DMA decision is expected around June, 1995. No DTED will be released until a policy decision has been made.

Action: Mr. Dick Powell, FAA/ATP-220, will continue to coordinate with DMA and will notify Mr. Bill Thomas, ATA, as soon as DTED releaseability has been decided. Mr. Powell will report the status at the next ACF meeting.

20. Agenda Item 93-1-029 Standardized Taxi Routes (FAA)

See para 6 of these minutes for status.

21. Agenda Item 93-1-030 GPS Overlay and GPS Charting (FAA)

See para 5 of these minutes for status.

22. Agenda Item 94-1-034 Reformat of Enroute Low Altitude Chart L-19 (NOS)

Lt Col Claude Richards, DMA, and Ms. Melissa Bailey, AOPA reported that their respective organizations wanted to leave Enroute Low Altitude Chart L-19 in its current schema.

Action: Closed

23. Agenda Item 94-1-036 Part-time Tower/Approach Control Communications Symbology (FAA)

Mr. Dick Powell, FAA/ATP-220, reported that the FAA had staffed this issue and would submit an IACC Requirement Document to change the IACC specification.

Action: Mr. Dick Powell, FAA/ATP-220, will report on the status at the next ACF meeting.

24. Agenda Item 94-1-038 Charting of Military Training Routes (MTR) (FAA)

Mr. Denny Newport, FAA/AFS-420, recommended that DMA's Area Planning Book 1/B, which contains MTRs, be used instead of putting MTR data in the Airport/Facility Directory. Col Claude Richards, DMA, will provide a Special Notice for publication in the A/FD to inform those requiring MTR data that it can be obtained in the AP1/B.

Action: Col Claude Richards, DMA, will provide the Special Notice to NOS/ACD and report on the status at the next ACF meeting.

25. Agenda Item 94-1-039 Changes to the Terminal Procedures (FAA)

See paragraph 8 of these minutes for status.

26. Agenda Item 94-1-040 Parachute Jumping Areas (AOPA)

See paragraph 9 of these minutes for status.

27. Agenda Item 94-1-041 Class C Airspace (AOPA)

See paragraph 9 of these minutes for status.

28. Agenda Item 94-1-042 Communication Frequencies (AOPA)

See paragraph 9 of these minutes for status.

29. Agenda Item 94-1-043 Class B Airspace (AOPA)

See paragraph 9 of these minutes for status.

30. Agenda Item 94-2-048 Digital Obstruction File on Disk (Compuflight)

See paragraph 4 of these minutes. Closed

31. Agenda Item 94-2-053 Charting Permanent Laser Sites (FAA)

Mr. Bill Nelson, FAA/ATP-240, reported on FAA's review of the laser site issue. The FAA is currently concerned with permanent laser sites and those temporary laser sites that will be in a single location for 6 months or longer. It is expected that the current practice of not charting these sites will continue. If sites were to be charted, all charts would be affected - enroute and terminal, IFR and VFR. Permanent and long term temporary (> 6 months) laser sites will be listed in the Special Notices Section of the A/FD. Short term temporary (< 6 months) laser sites will be listed in the NOTAMs. FAA Order 7210, Facilities Operations Handbook, will need to be revised to provide directions to the Regions to report laser sites. Mr. Nelson noted that ATPAC was also looking at this issue. Mr. Tom Young, ALPA, stated that the SAE G-10 Committee had established a Laser Subcommittee to address the issue and that it was coordinating with the Aeronautical Charting Subcommittee.

Action: Mr. Bill Nelson, FAA/ATP-240, will take appropriate action to revise FAA Order 7210, Facilities Operations Handbook. Mr. Nelson and Mr. Tom Young, ALPA, will report on the ATPAC and SAE G-10 efforts, respectively, at the next ACF meeting.

32. Agenda Item 95-1-57 Military Aviation Technology Initiative (DMA)

Dr. Peter Kreuger, DMA/TIS, briefed DMA's Defense Flight Information Initiative, a move toward digital Flight Information Publications (FLIP). Copies of the overheads used in the briefing are at Attachment 2. DMA sees several new opportunities created by: the use of GPS vs ground-based NAVAIDS; electronic transmission of digital FLIP data and its rapid update; and, 'glass cockpit' and display technologies. DMA proposed that the ACF participate in a joint effort to discuss these opportunities and issues. DMA is dividing digital FLIP (DFLIP) data into two categories: enroute (aeronautical information, airways, and communication frequencies); and terminal (obstructions). Intergraph is digitizing existing products based on draft requirements developed for the Air Force Mission Support System. Northrup is developing a 2-dimensional electronic display of terminal procedures, based loosely on the Volpe NTSC IAP format (previously approved by the ACF). The display has no 10 nm ring, a scale that changes based on approach phase, and shows obstacles automatically when the aircraft is off course. It is based on a vector product format (vs raster) that allows layering of data and the tying of different layers to each other. Northrup is currently evaluating the display in a simulator setting. Wright Labs will also evaluate the format and display. Mr. Tom Young, ALPA, noted that the SAE G-10 was heavily involved in the same efforts and encouraged DMA to actively participate in that committee as well. DMA and Northrup will be asked to brief the SAE G-10 Committee on their 2-dimensional electronic display efforts.

Action: Dr. Peter Kreuger, DMA/TIS, will brief the ACF on the status of DMA's efforts toward implementing DFLIP. Mr. Tom Young, ALPA, will coordinate with the SAE G-10 to invite DMA and Northrup to the next G-10 meeting to brief their project and become active members of the G-10.

33. Agenda Item 95-1-58 Visibility of ATC Frequencies on Sectional Charts (AOPA Air Safety Foundation)

Ms. Melissa Bailey, AOPA, introduced an AOPA Air Safety Foundation recommendation that would enhance the visibility of, and make it easier to find, ATC frequencies on VFR Sectional Charts. The recommendation would place the ATC frequencies on a boxed, white background. Mr. Ron Bolton, NOS/ACD, recommended that the hipsometric tints be softened/blocked so the underlying data would be visible. Col Claude Richards, DMA, felt that this would have the affect of cluttering the charts. Mr. Tom Young, ALPA, asked what the overall chart would look like after all the frequencies had been blocked. Mr. Bolton will add these two options (white, softened/blocked) to the color proofs being done for IACC Task Group 25 and present them at the next ACF for comment.

Action: Mr. Ron Bolton, NOS/ACD, will add these ATC frequency enhancement options to the IACC TG 25 color proofs and bring to the next ACF meeting for review and comment.

34. Agenda Item 95-1-59 Approach Frequency Depiction on Sectional Charts (AOPA Air Safety Foundation)

Ms. Melissa Bailey, AOPA, introduced an AOPA Air Safety Foundation recommendation that would place the Radar Approach Control frequencies for Class B Airspace back on the body of the Sectional charts as opposed to including them in the marginal/tab data. The ACF did not agree with this recommendation and, rather than close the issue, asked for the Air Safety Foundation to provide further justification and rationale.

Action: Ms. Melissa Bailey, AOPA, will coordinate with the Air Safety Foundation to determine if they would like to pursue this issue and, if so, then provide the ACF with additional information on their rationale.

35. Agenda Item 95-1-60 Holding Pattern Restricted Airspeed Depiction (FAA)

Ms. L'Tanya Talley, FAA/ATP-130, submitted an FAA proposal to depict non-standard holding airspeed (210 KIAS above 6,000' through 14,000') to alert pilots and controllers that the protected holding pattern airspace is based on the restricted maximum holding airspeed of 210 KIAS. Several proposals were discussed. Mr. Ron Bolton, NOS/ACD, and Mr. Tom Young, ALPA, supported adding the airspeed inside the holding pattern. Mr. Steve Lucchesi, FAA/ATP-220, recommended that an icon be used instead of a number inside the holding pattern, as a number could be confused with a heading/track/course direction. The ACF recommended that the IACC examine this issue and make a recommendation.

Action: Mr. Steve Lucchesi, FAA/ATP-220, will submit this to the IACC and report back on the status at the next ACF meeting.

36. Agenda Item 95-1-61 Removal of Mountain Pass Symbology (FAA)

The ACF concurred with the recommendation that Mountain Pass symbology be removed from the visual charts for safety reasons (misleads pilots; can't mislead if not depicted). The ACF recommended that the IACC examine this issue and make a recommendation.

Action: LCdr Eric Secretan, NOS/ACD, will submit this to the IACC and report back on the status at the next ACF meeting.

37. Agenda Item 95-1-62 GPS Approach Mode Arming Note (FAA)

Mr. Jim Nixon, FAA/AFS-420, submitted a recommendation to add a bold, enlarged note in the plan view of affected IAPs that would implement TSO C-129A and the GPS MOPS. The note would read "* ARM APPROACH MODE PRIOR TO IAF." This note will be used only for GPS approaches. Mr. Ron Bolton, NOS/ACD, recommended putting appropriate symbology on the legend page of the IAPs. Mr. Steve Lucchesi, FAA/ATP-220, noted that this might more appropriately be included in the notes section as opposed to symbology. The ACF recommended that IACC Task Group 31 include this in the issues they are addressing.

Action: Mr. Dick Powell, FAA/ATP-220, will submit this to the IACC and request that TG 31 address this subject. If approved, Ms. Dalia Marin, NOS/ACD, and Chair of TG 31, will report back on the status at the next ACF meeting.

38. Agenda Item 95-1-63 Conversion of Offshore Reporting Points to Waypoints (FAA)

Mr. Jim Nixon, FAA/AFS-420, submitted a recommendation to chart as waypoints, with coordinates, all overwater reporting points that are beyond the range of the ground-based NAVAIDS which are used to depict their make up. Mr. Ron Bolton, NOS/ACD, supported the use of geographic coordinates to define reporting points (fixes). Mr. Rudy Ruana, Jeppesen, recommended naming and charting those points as names as opposed to coordinates, and noted that this would follow RTCA SC 181 guidelines. The issue was modified by the ACF to include naming the waypoints. The ACF recommended that the ad hoc committee convened to discuss Agenda Item 95-1-66 should also take up this issue since the naming/coordinate aspects are the same.

Action: Mr. Rudy Ruana, Jeppesen, will chair and host an ad hoc committee meeting to discuss the issue and possible charting/database requirements. Mr. Ruana will report on the status of this issue and Agenda Item 95-1-66 at the next ACF meeting.

39. Agenda Item 95-1-64 Digital Obstacle File Software Utilities (ASAP)

Mr. Charles Guy, ASAP, recommended that the Digital Obstacle File (DOF) be provided with

additional software utilities. Mr. Guy will provide Mr. Ron Bolton, NOS/ACD, with specific examples of the requirements to be met by the utilities, so as to determine the most suitable utilities. NOS will coordinate with Mr. Dick Powell, FAA/ATP-220, on a flyer to all DOF subscribers that will describe the proposed additional utilities and request their comment. Based on that input, NOS will then provide the FAA with a cost estimate to add those utilities. Mr. Powell noted that the cost to provide these utilities is not recoverable by either the FAA or NOS. Mr. Tom Young, ALPA, requested that a flyer be sent to his office.

Action: Mr. Charles Guy, ASAP, will provide Mr. Ron Bolton, NOS/ACD, with specific requirements to be met by the new utilities. Mr. Bolton, NOS/ACD, will coordinate with Mr. Dick Powell, FAA/ATP-220, on a flyer to DOF subscribers describing these utilities and asking for comment. Mr. Bolton will report on these comments and proposed actions and the next ACF meeting.

40. Agenda Item 95-1-65 Equipment Required on Intermediate Segments (ALPA)

Mr. Tom Young, ALPA, briefed that there appeared to be an increasing trend to publish initial or intermediate approach segment with equipment requirements that are not inherent to the procedure itself. Most typical of this is a DME fix in either a VOR or ILS initial approach segment. Sometimes the segment is unusable without the DME capability; at other times the DME fix creates a 'NoPT' capability only for the DME-equipped aircraft, yet the 'NoPT' notation applies to all operations on the segment. One option is to make DME mandatory for such IAPs. Another option is to make mandatory very clear, pilot-friendly notes that state "Procedure turn required unless DME equipped" or "This transition authorized only for DME-equipped aircraft". A third option, one favored by the ACF, is to develop icons to note this requirement on a route segment. These icons could apply not only DME required, but also GPS required and FMS required route segments. The Airmen's Information Manual and the 8260.19C, "Flight Procedures and Airspace", would have to be changed to implement this.

Action: Mr. Jim Nixon, FAA/AFS-420, will coordinate with the Volpe NTSC to develop appropriate icons and explanations/descriptions to be added to the AIM. Mr. Nixon will also coordinate the appropriate changes to the 8260.19C and brief the status of this at the next ACF meeting.

41. Agenda Item 95-1-66 Unnamed Fixes on Charts (FAA)

Mr. Bill Mosley, FAA/ATP-20, asked that the ACF develop and state a requirement to chart and name fixes currently unnamed and to include these fixes in a database. Many fixes that are currently unnamed are that way because ATC does not use their names in controlling pilots route of flight, i.e., airway doglegs. However, with the advent of FMS and GPS and the increasing use of electronic databases, these fixes and their coordinates must be included in those databases, and therefore, named - even if only for database use. Possibly these fixes should also be charted and be named or given coordinates. Mr. Rudy Ruana, Jeppesen, noted that RTCA DO 201 has criteria for naming and charting these fixes, and that there are

approximately 540 of these fixes within the U.S. Ms. Melissa Bailey, AOPA, would like to get a briefing on the specifics of this issue prior to determining if a requirement exists. Many agreed that this issue would benefit from additional discussion in an ad hoc committee. Mr. Ruana agreed to host an initial meeting on May 3, 1995 at the Washington offices of Jeppesen. Ad hoc committee members are listed at Attachment 3. It was agreed that the committee would also discuss Agenda Item 95-1-63 Conversion of Offshore Reporting Points to Waypoints since the naming/coordinate aspect is the same between the two issues.

Action: Mr. Rudy Ruana, Jeppesen, will chair and host an ad hoc committee meeting to discuss the issue and possible charting/database requirements. Mr. Ruana will report on the status of this issue and Agenda Item 95-1-63 at the next ACF meeting.

42. **Closing Comments**

The next meeting (ACF 95-2) of the Aeronautical Charting Forum will be September 19 - 21, 1995 at ALPA Headquarters in Washington, DC. TERPs issues will be addressed September 19 and charting issues will be addressed September 20 and 21.

Aeronautical Charting Forum 95-1
Attendees

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Brandon Taksa	AOPA/ASF	301-695-2197	Fax:
Charles Guy	ASAP	703-636-4835	Fax:
Bill Thomas	ATA	202-626-4011	Fax: 4149
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