

Government/Industry Aeronautical Charting Forum

ACF 94-01

Washington, DC

January 31 - February 4, 1994

I. Opening Remarks

Mr. Paul Best, FAA/AFS-420, Co-Chair of the ACF, opened the TERPs portion of the Charting Forum on January 31, 1994. The two day meeting was held at National Business Aircraft Association offices, and hosted by Mr. Paul Smith, NBAA. Minutes of the 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 February 2, 1994 at Air Line Pilots Association offices with a thanks to Mr. Tom Young, ALPA, for hosting the forum. Mr. Powell noted the user groups represented and commented on the Working Group presentations and numerous agenda items to be covered. ACF 94-1 Attendees are at Attachment 1. Minutes of ACF 93-1 were approved with minor rewrites.

II. Briefings and Workgroup Reports

**Obstruction Chart - Engine Out Working Group Report
(Agenda Item 92-1-003, Obstruction Data to Support Takeoff Performance Calculation)**

Mr. Wes Te Winkle, FAA/AFS-430, chaired the Working Group and presented their Final Report (Attachment 2). The group finalized specifications for a close-in obstacle digital data information base and a distance obstacle chart (ICAO Type C). The group made seven recommendations for follow-on action.

Mr. Bob Fisher, NOS/NGS, stated that the NOS Survey Crews would probably need an additional two days in the field to capture the low level data required. The cost estimate for the added work will be provided to Mr. Powell by Mr. Fisher. Mr. Bill Thomas, ATA, recommended looking into state funding of the surveys. Mr. Thomas will ask the ATA Charting and Data Display Working Group to consider this issue at their next meeting.

Mr. Ron Bolton, NOS/ACD, recommended that a graphic be generated to aid in data base quality control. The ACF approved the Working Group's recommendations as well as Mr. Thomas' and Mr. Bolton's.

Mr. Powell thanked the group for their work on this issue.

STATUS: OPEN

ACTION: Mr. Thomas will report on any ATA Working Group recommendations. Mr. Powell will report on the funding status.

**Minimum IFR Altitude Working Group Report
(Agenda Item 92-02-018, Charting Minimum Altitudes on Enroute Low Altitude Charts)**

Mr. Steve Lucchesi, FAA/ATP-220, chaired the working group and gave a status update. After ACF 93-1 approved the group's recommendations, the Department of Defense withdrew, rewrote (to comply with ACF position) and resubmitted their original IACC Requirement Document on this subject. The IACC will approve this at their next meeting. The FAA General Counsel has accepted this requirement. DoD will add a 3,000 foot buffer in overseas areas.

STATUS: CLOSED (RD 92-02-018)

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

Dick Powell reported that the FAA had asked NOS to develop a prototype GPS IAP chart from an 8260-7 for Houston. This prototype would be for evaluation only. In order to fly with a GPS in the NAS, the FAA requires a TSO'd box with a built-in database that contains the coordinates for all fixes, waypoints, et al. The FAA does not want to put coordinates on the approach plate because of the dangers of data entry error and pilot distraction. This led to the database requirement.

Ms. Melissa Bailey, AOPA, expressed concern with this position and requested that the FAA provide geographic position (GP) data on the approach plate and a government database with GPs for all fixes, waypoints, etc. Currently, the FAA is not funded to generate or provide this database. Mr. Ron Bolton, NOS/ACD, stated that NOS would need a database with GP data to support approach chart production.

Mr. Tom Young, ALPA, requested that the FAA provide GP data on the approach plate and that GPs be tagged to indicate fly-over or fly-by waypoints. Dick Powell noted that the FAA would like to develop a distinct symbol to indicate an electronically-generated glide slope. Other requirements: Minimum Safe Altitudes should be shown (IAW TERPs criteria); show distance to Missed Approach Point (MAP) from the airport; show MAP in the plan view; and, do not show magnetic variation.

Standard Taxi Routes Report (Agenda Items 93-01-024, Depict Boundary of Aircraft Movement Area on Aerodrome Charts, and 93-01-029, Standardized Taxi Routes)

Mr. Willie Card, FAA/ATP-120, reported on the status of two prototypes. Standard taxi routes for Pittsburgh have been color-coded and depicted in a landscaped, large (8.5" x 11") format. The taxi route colors are differentiated based on compass quadrants. According to Mr. Card, these improved airport diagrams will ultimately be published in a separate taxi diagram book. The Surface Movement Guidance Control System prototype, for low vis taxi operations and movement/nonmovement area boundaries, is still in the coordination process. Both prototypes will eventually be submitted to the IACC for approval as new products.

Mr. Card stated that when the new standard taxi routing is published for an airport, it will be printed in the new large format and the old airport diagram will be discontinued. The FAA intends to convert all airport diagrams from their current small format to the new large format, whether or not the airport has standard taxi routes.

Mr. Rudy Ruana, Jeppesen, requested the FAA provide them with the standard taxi route data prior to publication in Class II NOTAMs. This will give Jeppesen the needed production lead time.

IAP Reformat Questionnaire Results (Agenda Items 92-01-006, Change Depiction of Communication Frequencies on IAPs to Top of Page; 92-01-012, Warning and Caution Notes; 92-1-013, Print Size and Readability; and 92-01-014, Use of Icons)

Dr. Steve Huntley, Volpe National Transportation System Center (VNTSC), reported on the results of a questionnaire sent to ACF members concerning the proposed reformatting of IAP charts. The response was overwhelmingly in favor of the reformatted IAP. The new NOS IAP format was developed in conjunction with an Air Transport Association effort to reformat Jeppesen IAPs. The two prototypes are very similar, with only minor differences. The concept was to standardize and format the charts in order to reduce cost and clutter and make information easier to locate. The redesigned IAP, in numerous simulator tests, validated this concept by giving pilots the information they needed in the order in which they needed it, and by making the use of icons intuitive.

Steve Huntley has scheduled briefings on this issue to AOPA and to the military services at their next FLIP Coordinating Committee meeting. The AOPA Air Safety Foundation will be asked to coordinate a survey with their members. The VNTSC is having general aviation pilots fly with the reformatted IAP and will have the results available in September 1994.

AOPA thought that implementing the changes incrementally would be better received than an all at once implementation. FAA, NOS, and DMA, however, preferred that the new format be implemented all at once.

STATUS: OPEN

ACTION: FAA/ATP-220 asked NOS to provide cost data (dollars and time) for the reformatting effort, along with various implementation scenarios. NOS will report on this at the next ACF meeting.

ACTION: FAA/ATP-220 will ask FAA/ARD-210 to consider funding a SID/STAR reformat study by the VNTSC.

**New Planning Chart Report
(Agenda Item 93-1-021, Low Altitude Planning Chart)**

Mr. Mike Smith, FAA/ATP-220, presented a four color prototype planning chart and compared it to both the Flight Case Planning Chart and the IFR/VFR Wall Planning Chart. He indicated some features that would be on the final chart but that were not included on the prototype. The ACF was asked for comment on the following variables: projection values, sectional index, airway identification location, and font size. Mike Smith provided a comment form for all to complete and return.

STATUS: OPEN

ACTION: Melissa Bailey, AOPA, will survey their members to determine what they would be willing to pay for the new chart.

III. Outstanding Charting Topics

92-01-02 State-produced Aeronautical Charts (NASAO)

NASAO did not have a representative at ACF 94-1. They were to give the results of a NASAO-sponsored survey on state-produced aeronautical charts.

Tom Quinlan, FAA/ASA-100, coordinated with Flight Standards (General Aviation) on their interpretation of FAR Part 91.103. They said that they would not be comfortable with a state chart and would prefer use of NOS Sectional charts because of their relative currency.

STATUS: OPEN

ACTION: NASAO will address the results of their survey at the next ACF meeting.

92-01-03 Obstruction Data to Support Take-off Performance Calculation (Jeppesen Sanderson)

See *Obstruction Chart - Engine Out Working Group Report* in Section II – Briefings and Workgroups Reports minutes on status.

92-01-05 Depicting Fix Information on SID Charts (AOPA)

Mr. Dick Powell, FAA, reported that Change One to the SID and STAR Orders would contain some of the ACF-proposed changes, e.g., fix data on Vector SIDs and common points to link SID/STAR between airport pairs. These changes will be sent to the ATPAC for comment prior to being published.

STATUS: CLOSED

92-01-06 Depicting Communication Frequencies on IAP Charts (DOT/VNTSC)

See *IAP Reformat Questionnaire Results* in Section II – Briefings and Workgroups Reports minutes on status.

92-01-08 Electronic Charting - Standardization of Symbology (ALPA)

Tom Young reported that the SAE G-10 Aeronautical Charting subcommittee was actively working this and was developing an Aeronautical Requirement Document (ARD) on this issue. The ACF will close this issue because the SAE is taking action on it.

STATUS: CLOSED

92-01-09 Electronic Charting - Standardization of Color (ALPA)

See Agenda Item 92-1-8, except that SAE G-10 has not yet developed an ARD on this.

STATUS: CLOSED

92-01-11 Use of Color on IAPs (ALPA)

Mr. Charles Guy, ALPA, reported that he had no reports yet from ATPAC, which is addressing this issue.

STATUS: OPEN

ACTION: ALPA will report on the ATPAC efforts at the next ACF meeting.

92-01-12 Warning and Caution Notes (ALPA), 92-01-13 Print Size and Readability (ALPA) and 92-01-14 Use of Icons (ALPA)

See *IAP Reformat Questionnaire Results* in Section II – Briefings and Workgroups Reports minutes on status.

92-01-15 Obstacle and Terrain Contour Depiction (ALPA)

Mr. Charles Guy, ALPA, reported that he had no reports yet from ATPAC, which is addressing this issue.

STATUS: OPEN

ACTION: ALPA will report on the ATPAC efforts at the next ACF meeting.

92-02-16 Equipment Requirements on IAP Charts (FAA)

Mr. Rudy Ruana, Jeppesen, reported on the recommendations (Attachment 3) of a volunteer ACF working group to resolve this issue. The ACF approved these recommendations and requested that the FAA take appropriate action on them.

STATUS: OPEN

ACTION: Mr. Dick Powell, FAA, will report on their implementation efforts at the next ACF meeting.

92-02-18 Charting Minimum Altitudes on Enroute Low Altitude Charts (USAFFSA IFC)

See *Minimum IFR Altitude Working Group Report* in Section II – Briefings and Workgroups Reports minutes on status.

92-02-19 Perceived FMS Application Problems (Jeppesen Sanderson)

Tom Young, ALPA, is working this issue through the ATA's FMS Task Force.

STATUS: CLOSED

93-01-20 Eliminate NOAA Terminal Change Notice (NOAA)

Dick Powell, FAA/ATP-220, reported that, after discussing this with ATP, AVN, NFDC, and NOAA, the Change Notice will be kept. The guidelines for what will be charted as a CCP NOTAM in the Change Notice are still being worked out.

STATUS: OPEN

ACTION: Dick Powell will report on the guidelines at the next ACF meeting.

93-01-21 Low Altitude Planning Chart (FAA)

See *New Planning Chart Report* in Section II – Briefings and Workgroups Reports minutes on status.

93-01-24 Depict Boundary of Aircraft Movement Area on Aerodrome Charts (ALPA)

See *Standard Taxi Routes Report* in Section II – Briefings and Workgroups Reports minutes on status.

93-01-25 Noise Abatement Procedures (CA DOT/DOA)

FAA/ATP-220 is continuing to staff this with both ATP-120 and Airports.

STATUS: OPEN

ACTION: FAA/ATP-220 will staff this internally and report at the next ACF meeting.

93-01-27 Obstruction Data in Digital Format (EDS)

Dick Powell, FAA/ATP-220, reported that the FAA and NOAA are working this issue hard. Who will distribute (FAA or NOAA) and how the cost will be recovered are yet to be decided.

STATUS: OPEN

ACTION: FAA/ATP-220 will continue to staff this with NOAA and report on the efforts at the next ACF meeting.

93-01-28 Terrain Data Base (Jeppesen)

Dick Powell, FAA/ATP-220, reported that the FAA had forwarded to DMA the list of airports where terrain data (DTED) within 50NM is required. FAA and DMA subsequently met to begin discussion of release ability issues.

STATUS: OPEN

ACTION: Dick Powell, FAA/ATP-220, will report the status of this issue at the next ACF meeting.

93-01-29 Standardized Taxi Routes (FAA)

See *Standard Taxi Routes Report* in Section II – Briefings and Workgroups Reports minutes on status.

93-01-30 GPS Overlay and GPS Charting (FAA)

See *GPS Overlay and GPS Charting Working Group Report* in Section II – Briefings and Workgroups Reports minutes on status.

93-01-31 Depiction of AWOS on Sectional Charts (FAA)

FAA/ATP-220 has sent out a cartographic change proposal for staffing. This has also been submitted by the FAA to the IACC as a Requirement Document.

STATUS: OPEN

ACTION: FAA/ATP-220 will report on the status of this issue at the next ACF meeting.

IV. New Charting Topics

94-01-32 Elimination of the ILS/LOC Feathers on Enroute Low Altitude Charts (FAA)

The FAA reported receiving several requests from pilots to restore the ILS/Localizer feathers on the Enroute Low Altitude Charts. The FAA stated that Air Traffic Controllers are sector-certified and will direct pilots to ILS airports if requested. It was also noted that the National Airspace Review recommended that the feathers be removed so that clutter could be reduced and the charts could be decongested. The issue is which has greater value - feathers or decluttered charts. The FAA asked that the ACF prioritize this requirement.

STATUS: OPEN

ACTION: FAA/ATP-220 will report on the level of priority of this requirement at the next ACF meeting.

94-01-33 Elimination of Degree Markings from Compass Roses on Enroute Low Altitude Charts (FAA)

The FAA reported receiving several requests from pilots to restore the degree markings (0, 90, 180, 270) to the compass roses on the Enroute Low Altitude Charts. The rationale was that with the degree markings, compass roses can be used for estimating position from VOR cross-bearings.

The ACF took a position that there is sufficient data on the enroute low altitude charts that can serve the same purpose and preclude disorientation. The ACF did not support the request.

STATUS: CLOSED

94-01-34 Reformat of Enroute Low Altitude Chart L-19 (NOS)

The NOS reported that several civil and DoD chart users had complained that the new scale of L-19 made the chart illegible, and that the orientation of the chart away from a North-South axis made the chart extremely difficult to read and fly with. They requested that the chart be restored to its former scale, that it be reformatted along a North-South axis, and that the Bahamas be included on the chart.

Mr. Ben Zollman, NOS/ACD/ACB, will develop a reschemed chart to meet the above requests and provide prototypes to AOPA and DMA for evaluation.

STATUS: OPEN

ACTION: Mr. Zollman, NOS/ACD/ACB, will provide the results of the AOPA and DMA evaluations at the next ACF meeting.

94-01-35 Indicating ASR/PAR Availability on Enroute Low Altitude Charts (FAA)

The FAA reported that a chart subscriber had requested that availability of ASR/PAR at airports be restored to the Enroute Low Altitude Charts to serve as a ready enroute reference. The availability was

originally charted for use by military pilots since relatively few civil airports have ASR/PAR approaches. The military no longer requires this information on the chart since it was readily available from other sources. Therefore, to help reduce chart clutter and improve readability, indication of ASR/PAR availability was removed from Enroute Low Altitude Charts.

The ACF did not support the request.

STATUS: CLOSED

94-01-36 Part-time Tower/Approach Control Communications Symbology (FAA)

The FAA recommended that a star "*" be added to frequencies on NOS Instrument Approach Procedure Charts when that approach control frequency is in a part-time status. The star "*" would be a notice that the pilot must go to the Airport/Facility Directory for additional information on approach control availabilities.

The ACF supported this request.

STATUS: OPEN

ACTION: The FAA will staff this internally and, if required, submit a proposed IACC Requirement Document to Dick Powell, FAA/ATP-220, for the IACC to consider.

94-01-37 Naming Dependent Converging Instrument Approach (DCIA) Procedures (FAA)

This was referred to the TERPs group within the ACF for action.

STATUS: CLOSED

94-01-38 Charting of Military Training Routes (MTR) (FAA)

The FAA recommended that MTR information be published on VFR charts in the same manner as they are depicted on the Enroute Low Altitude Charts, by listing the route number and altitude range in tabular form. They also recommended that the MTRs be color-coded to indicate altitude.

The ACF believed that discerning between different color shades would be too difficult and so disapproved this recommendation. The ACF believed that tab data would be preferable but that there was no room in the margins. The FAA suggested that MTR data be included in the Airport/Facility Directory.

STATUS: OPEN

ACTION: Dick Powell, FAA/ATP-220, will staff this internally and report on the status at the next ACF meeting.

94-01-39 Changes to the Terminal Procedures (FAA)

A NOS chart subscriber recommended changes to the IAP format: "shadow box" the localizer frequency and the inbound heading and "bold" the inbound heading on an ILS, "shadow box" and "bold" the inbound heading on nonprecision approaches, and clearly mark with a bold arrow the highest obstacle shown on the approach plate (or within 10 NM).

The ACF noted that these recommended changes are included in the Volpe-reformatted IAP being considered by the ACF.

ACTION: Dick Powell, FAA/ATP-220, will monitor the IAP reformat issue to ensure these recommendations are included and report on the status at the next ACF meeting.

94-01-40 Charting of Parachute Jumping Areas (AOPA), 94-01-41 VFR Charting of Class C Airspace (AOPA), 94-01-42 VFR Charting of Communications Frequencies (AOPA) and 94-01-43 VFR Charting of Class B Airspace (AOPA)

The ACF concurred with all of these recommendations and referred them to IACC Task Group 25 for action.

STATUS: CLOSED

94-01-44 Charting Enroute and Approach Control Frequencies on Sectional VFR Charts (FAA)

The FAA recommended publishing enroute and approach control frequencies on Sectional charts because it would help: disoriented pilots get vectors to airports, pilots entering IMC get immediate separation from other aircraft and terrain, pilots requiring immediate action in an emergency to get vectors to the nearest airport and, pilots approaching congested areas get services earlier.

The ACF consensus was that this data was readily available elsewhere and that adding it would increase clutter and decrease readability. For instance: frequencies should be part of a preflight, 121.5 is available for emergencies, FSS is available; Flight Watch (122.0) through NAVAIDS. The ACF did not support this requirement.

STATUS: CLOSED

94-01-45 Charting Wildlife Areas on Sectional Charts (FAA)

Pilots have requested, via the NASA Aviation Safety Reporting System (ASRS), to have special chart symbology developed and used in the depiction of wildlife areas on Sectional charts. Current symbology leads to confusion with dry lake beds and, subsequently, overflight of sensitive areas. In addition, the chart legend does not adequately explain the depiction of wildlife areas.

The FAA has already answered this concern through the ASRS.

A large note and explanation of wildlife and refuge areas and the applicable restrictions is currently in the margin area of Sectional charts.

STATUS: CLOSED

94-01-46 Charting of Military Training Routes on State Aviation Charts (FAA)

The FAA believes that civilian pilots do not have an adequate understanding of Military Training Routes (MTRs). This is due to numerous factors, primarily the lack of readily accessible information on MTRs, but also poor explanation in the AIM, and also FSS responses to questions of MTR status. The FAA recommends that state aviation charts follow the State of Michigan's example and publish the MTR information, along with other military activities within their state, right on their chart.

Mr. Dick Powell, FAA/ATP-220, will forward this issue to the National Association of State Aviation Officials for their action.

STATUS: CLOSED

94-1-47 Charting Suggestions for Instrument Approach Procedures (FAA)

The FAA has received several requests to depict, on IAP charts, airfields within 10 NM of the airport being served by the IAP. It was also noted that it would be helpful if the remote communication outlet (RCO) frequency was charted on the approach plate.

Mr. Dick Powell, FAA/ATP-220, noted that the FAA already charts both airports within 10 NM of the IAP approach course and RCOs, when requested by the FAA. The specifications and procedures already allow for these charting recommendations, it is up to the Flight Procedures Branches to request their charting.

STATUS: CLOSED

94-1-48 Chart Pricing (FAA)

Mr. Dick Powell, FAA/ATP-220, stated that funding problems will not disappear in the future. He recommended establishing a Working Group (WG) to discuss: the future of chart prices, FAA and NOAA funding levels, ways to keep prices down, possible tradeoffs, and legislation affecting cost recovery. The WG would have representatives from the FAA, NOAA, DoD, AOPA, and ALPA. The FAA would chair the WG. The ACF approved establishing a WG with the FAA as Chair to address this issue.

STATUS: OPEN

ACTION: Mr. Dick Powell, FAA/ATP-220, will contact WG member organizations with the date, time and location of the first WG meeting.

V. Closing Comments

The next meeting (ACF 94-2) of the Aeronautical Charting Forum will be September 26-30, 1994 at Air Transport Association Headquarters in Washington, DC. TERPs issues will be addressed September 26 and 27, and charting issues will be addressed September 28, 29, and 30.

Aeronautical Charting Forum 94-01
Attendees

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