

Government/Industry Aeronautical Charting Forum (ACF)

Meeting 00-01

March 30-31, 2000

CHARTING GROUP MINUTES

I. Opening Remarks

The ACF was held at the Aircraft Owners and Pilots Association (AOPA) Headquarters offices in Frederick, Maryland. Mr. Dick Powell, FAA/ATA-100, the ACF Chair, opened the forum on March 30, 2000 with thanks to Mr. Randy Kenagy and AOPA for hosting the Forum. Mr. Landsberg, Executive Director of the AOPA Air Safety Foundation, made the opening remarks. Mr. Howard Swancy, FAA/AFS-420, chaired the ACF Instrument Approach Procedures Subgroup meeting held on March 28-29, 2000. Separate minutes of that meeting have been sent to those participants.

II. Review of Minutes from Last Meeting

The minutes from the 99-02 meeting were accepted as distributed.

III. Presentations, ACF Working Group Reports, ACF Project Reports

AC&C Moved to FAA

Mr. Terry Laydon, Director of the Office of Aeronautical Charting and Cartography (AC&C), reported that the FAA reauthorization bill will move AC&C to the FAA effective October 1, 2000. Mr. Laydon reported that he was not sure where AC&C will be located physically or organizationally.

National Airspace Redesign

Mr. John Walker, FAA, AT, spoke to the ACF about the NAS redesign. Mr. Walker spoke of the development of a grid system rather than the current sector boundaries with New York, Philadelphia, Detroit, and Houston being test areas. Mr. Walker also stated that a High Altitude Route Restructure meeting will be held in June, 2000 with participation by all En-route Centers and FAA Air Traffic Management Staff.

Electronic Charting

ALPA distributed a handout written by Pedro Rivas of ALPA. This handout addresses electronic charting displays and petitions the Government to take a more active leadership role in the production of electronic charts.

Charting of Aerobatic Areas

Dr. Finagin, IAC/EAA, made a presentation suggesting the charting aerobatic areas. Dr. Finagin suggests aerobatic areas be charted on Sectionals and Terminal Area Charts using a biplane symbol. He also provided the ACF with an example of a symbol. He stated that there are 160 "waivered boxes" identified for aerobatic maneuvers. He suggests that these "boxes" be charted. Dr. Finagin continued to point out that aerobatic flight is permitted 4 miles off airways and above 1500' AGL and suggested, at a minimum, some of the more popular aerobatic areas that fall into this category be charted as well.

- a) Ms. Pat Fair, FAA, ATA-130, suggested that the aerobatic "waiver box" areas might be charted if a means of identifying and tracking these areas were identified. Thus, a means of inputting these areas into a database and a process to maintain that database must be developed.

- b) AC&C and NIMA support this request.
- c) Mr. Eric Secretan, AC&C, stated that this issue has been broached before by the IACC, but that the FAA withdrew the proposal.

ACTION: Mr. Dick Powell asked Dr. Finagin for a letter covering these aerobatic charting issues, including coordinates of the 160 “waivered box” areas. Mr. Powell will then forward the letter to the relevant FAA offices and the IACC.

AIS/MAP Initiatives Update

Mr. Dick Powell provided the ACF with an update of the ICAO AIS/MAP initiative. The AIS/MAP group met in Montreal in December 1999. The ICAO Secretariat will prepare SARPs based on the RTCA SC181 Working Group 4 document, Minimum Operational Performance Standards for the Depiction of Navigational Information on Electronic Moving Map Displays. ICAO will also base requirements on the work of RTCA SC193, Electronic Terrain, Obstacle, and Airport databases. The next meeting of ICAO AIS/MAP will be in Montreal, in late August 2000.

- a) The Obstacle Clearance Panel will meet in June 2000 in Madrid and will address symbology related to computer navigation fixes and waypoints.
- b) ICAO Annex 4 contains specifications for Aerodrome Obstacle Clearance Charts (OCs). No States produce type “C” OC charts. Dave Thompson, FAA ATA-130, will lead an effort to research hybrid OC chart requirements.
- c) ICAO AIS/MAP is working on providing States with guidance for chart production using automation.
- d) ICAO AIS/MAP discussed ISO certification of States. ICAO will develop recommended practices for States to use in pursuit of ISO 9000 Certification.

ATA CDAH Update

Mr. Jim Terpstra, Jeppesen, provided information on the work of the ATA CDAH group and others, related to waypoint symbology. Mr. Terpstra also provided SAE G-10 documents related to Fly-Over and Fly-By waypoints that included a page of symbols.

- a) Dr. Kathy Abbott, FAA, will coordinate a VOLPE Transportation Center study of waypoint symbology. Ideally, the study will be completed before the June 2000 OCP meeting and available for presentation at that meeting. The study will focus on existing ICAO standards related to Fly-over and Fly-by waypoints.
- b) ATA CDAH recommends against filing a difference with ICAO on waypoint symbology until the VOLPE study is complete.
- c) ATSOIT has added waypoints to its agenda for its May 2000 meeting.
- d) Mr. Lynn Boniface is the US OCP representative.

- e) The next CDAH meeting will be the last meeting with domestic only participation. After that meeting the CDAH will have international participation, with the European TARA group participating. Mr. Tom Graff and Mr. Jim Terpstra will chair the new group.
- f) The next CDAH meeting will be held in Minneapolis, MN on July 10-12, 2000 and will be hosted by Northwest Airlines. Later meetings are scheduled for Atlanta, GA, September 18, and Seattle, WA, in December 2000. Meetings of the new group will include meetings in Europe. No terms of reference have been written for this new group.

ACTION: Mr. Dick Powell will hold a meeting to coordinate the US position on waypoint symbology and will gather materials for the OCP meeting in Madrid.

Area Chart Terrain Depiction Update

Mr. Eric Secretan, AC&C R&T, presented the status of the work on Area Chart terrain depiction. AC&C has produced several prototypes however, the results were not satisfactory. AC&C has asked NIMA to release to the public its Area Arrival Charts Depicting Terrain. NIMA will also provide the specifications for these charts to AC&C. Mr. Dick Powell pointed out that the NTSB position was that terrain should be depicted on all charts, but that the NTSB later withdrew the requirement from En-route Charts if terrain were depicted on Area Arrival Charts. AC&C will study this issue further.

RNAV IAP Terrain Depiction

Mr. Terry Laydon, Director of AC&C, stated that implementation of IAPs with terrain depiction is largely a production related issue. Mr. Dick Powell stated that a change of the cut-offs for IAPs will allow more time for terrain depiction.

ACTION: AVN did not concur with a change in cut-off dates and will study the issue further.

ACTION: FAA and AC&C will work the 31-day vs. 28 day cut-off issue with AIS/WG.

IACC Task Group 33(RNAV Chart-Free flight chart) Update

Ms. Pat Fair, FAA, ATA-130, reports that funding has been lost for this project and everything is currently at a standstill. Mr. Dick Powell, FAA, ATA-100, states that he continually gets requests to chart RNAV data on en-route charts.

- a) Mr. Dick Powell suggests the possibility of producing a hybrid en-route chart (scale different from standard en-route chart).
- b) Mr. Eric Secretan, AC&C R&T, suggested charting new RNAV data as waypoints rather than the reporting points AC&C receives from the FAA. Mr. Secretan also stated that AC&C is considering a scale change for enroute charts.
- c) Mr. Mike Riley, NIMA/COTF, agreed that these data should be charted as waypoints.
- d) Mr. Jim Terpstra, Jeppesen, supports the position to chart these data as waypoints. Mr. Terpstra also suggests defining criteria for placing waypoints to minimize chart clutter. AC&C agrees with Jeppesen

on this issue.

- e) Mr. Randy Kenagy, AOPA, and Brad Rush, FAA AVN-160, suggest adding more data to IAPs, such as airways. Mr. Terpstra, Jeppesen, feels that the maintenance of airways on IAPs is difficult.
- f) As a result of discussions related to TG-33 the ACF formed a group to address RNAV issues. The new group will be co-chaired by Mr. Eric Secretan, AC&C R&T, and Mr. Randy Kenagy, AOPA. The group will include TG-33 members and members from industry. This group, the RNAV Transition Group, will study the following:
 - Charting criteria
 - Scale change of en-route charts
 - Reformat of en-route charts
 - Depiction of airways on IAPs
 - Charting symbology of points only RNAV equipped aircraft can identify/use
 - How to chart en-route facilities on an RNAV chart

RNAV Study Group

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IACC Task Group 34 (GPS Database) Update

Mr. Eric Secretan, AC&C R&T, reported that TG-34 has not met since the last ACF. Mr. Dick Powell, FAA ATA-100, reported that the Satellite Procedures Implementation Team (SPIT) wasn't funded to aggressively pursue development. Mr. Secretan stated that the proposed AC&C GPS database will be compliant with ARINC 424 data structure and that AC&C is working with FAA, NIMA and NFDC on development. ICAO has yet to choose between the AIXM and SICM data models. FAA and AC&C are studying compatibility between the NASR and AC&C databases to facilitate data exchange.

Status of Volpe, TAA and RNAV Chart Formats

Mr. John Moore, AC&C R&T, reported that AC&C began converting charts on February 24, 2000 to new TAA format. Mr. Moore reported that when an airport gets a new RNAV procedure all procedures at that airport would be changed to TAA at that time. Mr. Jim Terpstra, Jeppesen, stated that large numbers of airlines don't want GLS DA in the top line of the minima. Mr. Terpstra stated that airlines think a lot of training will be required. This issue is related to RNP. Mr. Terpstra stated that the name of this line should possibly be changed to GLS RNP. Also Jeppesen will not publish the GLS-PA line however, AC&C will publish IAPs with the GLS DA line. Also, Jeppesen stated they would like the Missed Approach Point on the 8260 identified as fly-over or fly-by.

GPS Approaches and RNAV Approaches

Mr. Jim Terpstra, Jeppesen, began a discussion on the use of "E" for RNAV GPS approaches as a possible problem for some box makers. For example, E26L designates a RNAV GPS to 26L. It was later determined that the use of "E" for box makers would not be a problem. It was also identified that the current naming schema limits the naming of multiple RNAV approaches to the same runway. It was stated that path points need to be created early enough so that they can be flowed through system to the box makers so that the box makers can ensure full system operation. Also, path points will be brought up at the next ARINC 424 meeting. Finally, the Ortho vs. Baro issue for path points was brought up.

VFR Waypoints Working Group

Mr. Randy Kenagy, AOPA, reported that VFR waypoints had been published on AC&C's San Diego and Los Angeles Terminal Area Charts, and the Los Angeles and Boston Helicopter Charts. Currently FAA regions ask users to provide information on what VFR waypoints they would like to see. In addition, AOPA has conducted an on-line survey at their website related to VFR waypoints. AOPA is analyzing data from this web survey. AOPA suggests the next step is to expand VFR waypoints to two terminal areas, Kansas City and St. Louis. It was also stated that the designator for VFR waypoints will change from VV to VP. Jim Terpstra, Jeppesen, stated that there is a proposed change to ARINC 424 to code VFR waypoints as VFR waypoints rather than just waypoints.

ACTION: Mr. Randy Kenagy will submit a request to include VFR waypoint guidance in the AIM, in addition it was pointed out that AFS 800 should be contacted.

Final Approach Fix Altitudes

Mr. Randy Kenagy, AOPA, broached the subject of Optimum and minimum altitudes and their depiction on IAPs. Currently, AC&C publish minimum altitudes. It was stated that ICAO will propose the creation of a procedure altitude. Jim Gregory of Transport Canada originally proposed this issue. The ACF will await the decision of the OCP.

IV. Outstanding Issues

94-01-40 Charting of Parachute Jumping Areas

Mr. Dave Thompson, FAA ATA-100, reported that this has been signed by the IACC. It was reported that the NFDC database would need to be updated to include the new frequency field. The new frequency information will be charted in magenta. NFDD will continue to publish parachute jump area data.

STATUS: CLOSED

96-02-78 Adding GPS Waypoints to Charting

Mr. Eric Secretan, AC&C R&T, reported approval by the IACC. Currently AC&C charts waypoints as reporting points on en-route charts. Jeppesen only charts those GPS waypoints that can be positioned with GPS equipment, if a navaid is part of an RNAV procedure no frequency is shown and the symbol is shown as a navaid.

STATUS: CLOSED

98-01-103 ARTCC-Lost Communications

Mr. Dave Thompson, FAA ATA-100 reported that this item is still going through the government review process and will be briefed at the next ACF meeting.

STATUS: OPEN

98-01-108 Airport Names, Identifiers, and Associated Cities

Mr. Eric Secretan, AC&C R&T, reported that this issue has been submitted to the IACC, and the IACC has approved the charting of identifiers on en-route domestic charts. The issue of adding associated city names to airports on the en-route charts is still being staffed by the IACC. The group has agreed to add the four letter identifier to en-route charts. Adding city names to VFR charts will be addressed at a later time (Identifiers are already on Sectional charts).

STATUS: OPEN

98-01-111 Tabular Data for Military Operations Areas (MOAs) times of use NOTAMs issue

Mr. Dick Powell, FAA ATA-100, stated that lawyers at the FAA wouldn't let the FAA change tabular notes. Three FAA Program Directors, John Walker, Head of Air Traffic, Jeff Griffith, Head of Air Traffic Systems, and Bill Peacock, Head of where the NOTAM System lies, will meet to work this issue. Mr. Powell feels this is the only way this issue will be resolved. It was also stated that a communication package (WIMSKER) is being worked.

STATUS: OPEN

97-02-105 Charting of ATCA Frequencies Above 18,000

Mr. Randy Kenagy, AOPA, stated that this item was closed prematurely. The ACF agreed to reopen 97-02-105. Mr. Dick Powell, FAA ATA-100, will investigate sources of frequency data.

STATUS: OPEN

99-02-114 Departure Procedure Identification

The title terms of pilot nav and vector nav is being removed from charts when they are revised.

STATUS: CLOSED

99-02-115 Elimination of Air/Ground Communication Tabulation on En-Route Low Altitude Charts

Ms. Pat Fair, FAA ATA-130, reported that FAA is still staffing this.

STATUS: OPEN

99-02-117 Charting Enhancements to Reduce the Risk of Landing at the Wrong Airport

Mr. Brad Rush, FAA AVN-160, reported there was a question on which procedures to chart. Jeppesen and ALPA stated that only look alike airports need to be on an IAP. ALPA will send a list to ATA-100, which will in turn send to AC&C. If the look alike airport falls in the plan view AC&C will chart.

STATUS: CLOSED

ACTION: ALPA will send a list of look alike airports to Mr. Dick Powell, FAA ATA-100.

V. New Charting Topics

00-01-118 Displaced versus Relocated Thresholds

Mr. Russ Wall, NIMA, presented this new topic. Mr. Wall explained that in the TPPs and AFDs, several airports publish displaced thresholds at both end of the runway, publish landing distance available contrary to the guidance in the AIM Section 3, para 2-3-3-h.1 and 2. Instead of publishing the landing distance available from the displaced threshold to the end, they publish the distance between the displaced thresholds if they are relocated thresholds.

STATUS: OPEN

ACTION: NIMA has agreed to identify problem airports.

ACTION: FAA will draft a letter to airport managers to cover submission requirements.

00-01-119 Raising Nationwide Charting Standard

Mr. Allan Ball, Executive Jet, presented this new topic. He stated that as private and commercial aircraft become larger and heavier there exist no chart/layout currently that allows the safe transition from flight to ground environment.

- Current charts generally are limited by 5010 data and do not take full pavement into account
- Current charts do not address taxiway widths or load bearing capacity
- Current charts do not address apron load bearing capacity

Mr. Ball also presented the ACF with a handout with an example of Canadian pavement load rating charts and a Montana State Aviation System Plan Field inspection form and chart of West Yellowstone Airport (WYS). Mr. Ball suggests that the 5010 include taxiway width data. He also suggests inclusion of parking area weight bearing capability that includes PCN values.

Mr. Ball states that Non-Part 131 airports are the biggest problem but that some Part 131 airports are also a problem. Mr. Ball suggests adopting an ICAO PCN standard. Mr. Jim Terpstra, Jeppesen, stated that source data is needed (currently very limited). Mr. Dave Goehler, Jeppesen, suggested contacting NASAO. Mr. Dick Powell, FAA ATA-100, will take the issue to the FAA's Airports group which will then probably move from FAA's Airports group to NASAO and/or Airports District Office. Mr. Dave Eckles, FAA AFS-420, suggested that Bob Bonani of the FAA be contacted.

VI. Next Meeting

The next meeting of the ACF is scheduled for November 28 through December 1, 2000. ALPA will host the meeting at their building in Washington D.C. Dress will be casual. The following meeting will be held at the (FAA) AC&C building in Silver Spring, Maryland from April 24-27, 2001. The ACF also agreed to hold future meetings the last week in November and the last week in April.