

## **Government/Industry Aeronautical Charting Forum (ACF)**

**Meeting 02-02**

**October 23-24, 2002**

**MINUTES**

### **I. Opening Remarks**

The Aeronautical Chart Forum (ACF) was held at the offices of the Air Line Pilots Association (ALPA) in Herndon, Virginia. Mr. Dick Powell, FAA/ATA-100, the ACF Co-Chair, opened the Forum on October 23, 2002 with thanks to ALPA and ALPA representatives Mr. Kevin Comstock, Mr. Mark Ingram, and Mr. Brad Alberts for hosting the meeting.

Mr. Powell also pointed out that this meeting marks the 10<sup>th</sup> anniversary of the Aeronautical Chart Forum. He also offered a prize for anyone who could correctly identify the airport diagram on the cover of the ACF binder. The prize was later awarded to Mr. Skip Ellis for correctly identifying the airport.

Mr. Kevin Comstock, ALPA, welcomed the ACF participants and stated that the ALPA Engineering and Air Safety Department hosted the meeting. Mr. Powell also introduced the new ACF co-chair Mr. Tom Schneider, FAA AFS-420. Mr. Tom Schneider chaired the ACF Instrument Procedures group meeting held on October 21-22, 2002. Separate minutes of that meeting will be distributed.

### **II. Review of Minutes from Last Meeting**

The minutes from the 02-01 meeting were accepted as distributed.

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

#### **Area Chart Terrain Depiction Update**

Mr. Dick Powell, ATA-100, reported that this issue began as an NTSB recommendation. Ms. Valerie Watson, ATA-130, reported that requirement document #526 has been signed and has a 20 March 2003, implementation date for area charts. Mr. Powell thanked ICAO for the assistance they provided. Mr. Dave Lewtas, ICAO, stated that this meets an ICAO recommended practice. The group agreed that this issue is now closed.

#### **RNAV Transition Working Group Update**

Mr. Eric Secretan, AVN-503 chair of the RNAV Transition Working Group, briefed the ACF that the last meeting had closed all the open issues and that a final report is being written and will be provided at the next ACF. He stated that stand-alone GPS routes would be Blue including the RNAV MEAs. Mr. Secretan stated that the ICAO ANC would address the issue of waypoints, which are coordinate based vs. navaid based. He stated that the issue is going to the ICAO ANC because it involves air traffic considerations and the ICAO OCP didn't feel comfortable addressing the issue. Mr. Secretan stated that he and Mr. Dick Powell have copies of the ICAO OCP paper going to the ICAO ANC if anyone wishes to have a copy. Mr. Dave Lewtas stated that the ANC would likely form a study group to review the paper. Mr. Secretan stated that the RNAV Transition WG would not address High Altitude issues.

Mr. Powell stated that RNAV NPRM is in FAA executive review, he stated that aggressive dates had been proposed. He stated that Mr. Steve Brown, FAA ATS-1, had signed the document and that it is continuing through review. It was also stated that the recommendations from the RNAV Transition WG have been adopted

by the ACF and have been brought to the IACC where they have been implemented. Mr. Gary Powell stated that GPS MEAs (blue number followed by a G) would show up in southeastern Alaska first. It was also stated that AFS-400 would develop a special FAR based on WAAS. It was pointed out that 8260.19C and 8260.16 are being modified to support this effort and that rulemaking will be addressed by ATA-400. Mr. Brad Alberts stated that GPS routes in Alaska make sense however GPS routes in the lower 48, except in mountainous areas, defeats the purpose of GPS. Mr. Powell stated that the working group's work would be concluded with the submission of the final report.

**ACTION:** Mr. Eric Secretan will forward the RNAV Transition WG final report to Mr. Powell for dissemination at the next ACF.

### **ICAO AIS/MAP Initiative Update**

Mr. Dave Lewtas, ICAO, provided an ICAO update. He stated that there are 186 member states of ICAO. He stated that the proposals for the next Annex 4 (Aeronautical Charting) scheduled for spring 2004 adoption if accepted are a radar vectoring chart, electronic terrain data, electronic aeronautical charts for the flight deck display, a review of ICAO AOC charts and OCP 13 related items.

Mr. Lewtas stated that pilots liked to have the radar vectoring chart and that the AIS/MAP study group has sent out a State letter and received responses. Mr. Lewtas stated that State comments that have been received indicated that the function of the chart should be clearly stated to the user (a note stating use as cross-checking purposes only will go on the chart). He stated that the ANC had approved the chart but had not finalized a title for the chart. The ANC has proposed Radar Minimum Altitude Chart as the title. Mr. Bill Hammett stated that the radar antenna is the U.S. point used for drawing the circles. Mr. Kevin Comstock stated that ALPA would like to have digital charts rather than paper for this proposed chart type. Mr. Lewtas stated that they are working with SAE-G10 to address some of the digital mapping requirements.

Mr. Lewtas stated that terrain data requirements would see a preliminary review by the ANC in the spring of 2003. He stated that there is some concern about the suitability of the vertical datum and that the OCP will review the vertical datum issue at its next meeting.

Mr. Lewtas asked if a digital only AOC chart would be acceptable but there was no comment from the ACF. He also stated that the AIS/MAP study group has a web site.

Mr. Lewtas stated that OCP 13 related issues are IAC procedure title standardization and that responsibility could be removed from Annex 4 and moved to PANS OPS. He said that charting of procedure altitudes in the profile view is also being addressed as well as the vertical datum for GNSS approaches.

It was pointed out that the existing chapter in Annex 4 would be developed further to cover electronic aeronautical charts for flight deck display. Mr. Lewtas also stated that a new amendment to Annex 15 and PANS ABC is expected in 2003 and will cover NOTAM format in plain language text as well as the promulgation of contingency plans by NOTAM. He stated that ICAO AIS/MAP would review Annexes 15 and 4 for security of AIS information. He pointed out that a new WGS-84 manual was published last spring.

### **FAA/NACO GPS/FMS National Flight Database (NFD) Update**

Mr. Eric Secretan provided the ACF with this update on the status of the FAA GPS/FMS database. He stated that the FAA has been producing the enroute portion of the database for about a year. He stated that a prototype containing the instrument procedure information would be available for the January 2003 cycle and that the

FAA would continue to provide the instrument procedure information in prototype form for at least 2 cycles. Mr. Secretan stated that “overlay” data would be provided in July 2003. He pointed out that there are about 300 overlays, which for reasons such as high descent angles will not be coded but will be forwarded to AVN-100 for priority redevelopment as stand alone RNAVs. He stated that current customers of the enroute data would receive the procedure prototype data.

Mr. Secretan also stated that upon determination of an error in the database the user would be contacted. He stated that major errors would be discussed with ATA and AFS to determine the appropriate FAA response. Mr. Secretan also stated that data processors that “value add” to the NFD are expected to notify their customers per RTCA DO-200A. Mr. Secretan also stated that ARINC 14 and 15 are being supported by NACO and that down the road NACO may support 3 versions of ARINC. He wrapped up by saying that when NACO is comfortable with the instrument procedure information the NFD will be published in official (non-prototype form) on a 28-day cycle.

**Case for including Minimum Vectoring Altitude Charts (MVACs) in Electronic Flight Bags.**

ALPA representatives Mr. Mark Ingram and Mr. Kevin Comstock [briefed the group on this issue](#). They began by talking about the TWA accident west of Dulles and discussed another accident at Istanbul, Turkey. They stated that MVACs are created in each TRACON using Sectional charts and then reviewed and approved for use by AVN-100. ALPA stated that their review of selected charts indicates that there are obstacle penetrations of minimum vectoring altitudes (MVAs). ALPA proposed that MVAs be more thoroughly reviewed by AVN using more detailed maps than Sectionals. Part 77 requirements were discussed as well as NACO’s 200 ft and above requirements for the Digital Obstacle File (developed to support charting). ALPA stated that 90 incidents involving terrain and vectors have been reported to the NASA ASRS program over a 10-year period. Finally, ALPA recommended that MVACs be made available to the public for inclusion in electronic flight bags so that the pilot would have access to the information.

Mr. Tom Schneider, AFS-420, stated that AFS is developing criteria for MVAC creation and this will be included in TERPS. It was decided that a TELECON would be held to address this issue and that ALPA would chair this group. The Instrument Procedures portion of the Aeronautical Chart Forum will address this issue. The following is a list of those folks from the Charting portion of the ACF who would like to participate in the TELECON.

MVA Telecon

Name	Organization	Telephone	E-mail
Watson, Valerie	ATA-130	202 267-9302	Valerie.Watson@faa.gov
Fair, Pat	ATA-130	202 267-9290	Pat.fair@faa.gov
Comstock, Kevin	ALPA	703 689-4176	Comstockk@alpa.org
Alberts, Brad	ALPA	901 301-1630	albertsb@alpa.org
Ingram, Mark	ALPA	417 442-7231	markt@mo-net.com
Walker, Martin	FAA ATP-120	202 267-9330	Martin.r.walker@faa.gov
Hammett, Bill	FAA AFS-420	860 399-9407	isiconn@snet.net
DePlois, Terry	FAA AVN-100	405 954-6163	Terry.deplois@faa.gov
Rush, Brad	FAA AVN-160	405 954-0188	Brad.w.rush@faa.gov
Harman, Thomas		703 416-8576	
Karlin, Sandy	FAA AVN-510	301 713-2817	Sandy.k.karlin@faa.gov
Timm, Chad	NAVFIC	202 433-0008	Timm.chad@hq.navy.mil
Marin, Dalia	FAA AVN-514	301 713-2925	Migdalia.L.marin@faa.gov
Schneider, Tom	FAA AFS-420	405 954-5852	Thomas.e.Schneider@faa.gov
Corman, Jack	FAA AFS-420	405 954-0012	Maurice.e.corman@faa.gov
Roberts, Wally	ALPA	949 498-3456	wallyroberts@chips-alpa.org

Bergner, Steve	NBAA	845 583-5152	Sbergner1@cs1.com
Green, Larry	FAA AVN-514	301 713-2935	Larry.R.Green@faa.gov

The FAA’s National Aeronautical Charting Office (AVN-500) stated that they would study development of a tool for MVAC determination. It was stated that ATA, AVN, and AFS met the preceding week to coordinate the development of the tool.

### **Naming Approach Procedures**

Mr. Jim Terpstra provided this update to the ACF. He stated that the ICAO OCP was addressing the issue. He stated that the OCP was working on approach procedure title standardization. He stated that the OCP position was that procedure titles should be named according the navaid(s) to be used. He also stated that there are currently many variations from State to State and that this causes pilots to hear different clearances from State to State. He stated that the OCP had some disagreement over the use of parenthetical with RNAV, for example RNAV (DME/DME). He also stated that the naming convention for charted visual procedures was not addressed by the OCP.

### **Committee Update**

Mr. Jim Terpstra provided an update on the work of some RTCA and SAE committees. He stated that RTCA had published DO-272 “User Requirements for Aerodrome Mapping Information” as well as DO-276 “User Requirements for Terrain and Obstacle Databases”. He stated that RTCA SC193 is now working on a document covering data exchange requirements to support DO-272 and DO-276. Mr. Terpstra stated that SAE G-10, Aerospace Behavioral Engineering Technology-Aeronautical Charting Subcommittee is working on the electronic display of aeronautical information and that they will be holding their next meeting in Denver, November 19-21, 2003. He stated that they would be working on a matrix of display priority among other things.

### **Procedure Title Briefing**

Mr. Tom Schneider provided the ACF with a sample approach plate for review (RNAV RWY 28L San Francisco INTL). He also discussed a revision to the minima naming for LPV, LNAV/VNAV, LNAV. The chart passed out was for RNP RNAV and he pointed out the change on the minima lines. He pointed out that RNP procedures might come out in a separate book. He stated that he thinks that the larger airports will get RNP procedures first. He also solicited comments on the sample approach plate. Mr. Brad Alberts commented that he was concerned about the proliferation of meaningless acronyms. Mr. Brad Rush offered FAA Order 8260.50, which has a definition of LPV. It was pointed out that RNP 0.3 lower minima (RNP 0.15) on the special line of the distributed procedure probably are based on aircraft equipment requirements, TAWS etc.

### **High Altitude Redesign Briefing**

Mr. John Timmerman updated the ACF on the high altitude redesign. He stated that the effort would be bottom-up and top-down. He said that initially 7 centers will be involved in the first phase of implementation and the FAA movement forward would be based on equipage. He pointed out that RNAV routes would migrate to RNP routes and that waypoints would be established around SUAs/ATCAAs. He stated that the FAA is considering creating exclusionary areas based on altitude and equipage (ability to fly RVSM and RNP-possibly 1.5). He stated that phase 3 would include datalink and VRET as a conflict detection tool. He also pointed out that the FAA has backed away from charting ATCAAs. Mr. Timmerman discussed a grid-based system (NRS) of

waypoints based on FAA and user community input. He stated that the grid is based partly on aircraft equipment database capacity and that the FAA would like to have a tighter grid (10 minutes by 10 minutes). Mr. Timmerman stated that 640 waypoints are needed for phase 1.

Prototype charts were distributed for review with pitch and catch points. Mr. Brad Alberts said that if the waypoints were black and the nav aids blue or green that the chart would be more readable. It was also stated that there would be no mandatory NRS waypoints. Mr. Dave Lewtas stated that he would bring the grid issue back to ICAO for review. Mr. Gary Powell stated that BAE and MITRE are going to conduct an equipage assessment for advanced RNAV under the direction of the RNAV program office. Mr. Steve Bergner pointed out that the naming convention for the grid waypoints might cause some problems for folks keying into their FMSs. For example a direct clearance to KD455 keyed in as KD545 results in 60-mile difference. Mr. Mitch Scott stated that en-route waypoints couldn't easily be flown as fly-over. Mr. Eric Secretan asked what about waypoints that fall on airways. Mr. Brad Rush pointed out that January 9 is the cut-off for information to publish on March 03. Mr. Timmerman stated that routes out West will be for FL240+, the West Coast routes are also specials for Alaska Air. He stated that East Coast routes would probably be around FL290+. Mr. Brad Alberts expressed a concern that controllers not mix clearances from traditional to RNAV highs. There was also some concern expressed about differentiating NRS points from regular waypoints.

**ACTION:** NACO will produce another prototype chart with NRS waypoints in green at 75% the size of normal waypoints, with all other waypoints in blue.

### **ACF ICAO Identifier Working Group**

Mr. Patrick Millspaw provided the ACF with this update. He stated that there is some confusion for international flight plans. He pointed out that the FY03 budget has provisions for aeronautical information and flight plan enhancements to harmonize with the international community. Mr. Millspaw stated that the ICAO approved idents for the lower 48 doesn't seem to be a problem but that he is still talking to AT folks in Alaska. He stated that a working group would be formed by ATP to address the issues within the FAA. Mr. Millspaw said that problems have been uncovered in the en-route automation system for domestic fix population. He said that as a result of research 1,500 NAVAIDS and airports have been uncovered with the same location ID. He pointed out that ambiguities exist with areas abutting the U.S. such as the naviad at University Park, PA (UNV) and one in Cuba (UNV). He said that the FAA is developing a plan to fix these problems.

Mr. Terpstra said that the air traffic computer could take the idents. Mr. Terpstra said we need a hierarchy for implementation and suggested the following order of precedence; international IFR airports, IFR airports, VFR airports. Mr. Brad Alberts said that the ident on the chart should be the same as the database ident. Mr. Dick Powell said that ATA can change all 3-letter idents to 4 letter idents easily but this needs to be coordinated. Mr. Powell stated that philosophically we all agree that we need to go to 4 letter idents. Mr. Terpstra stated that the FAA should put out a NOTAM when the change occurs. Mr. Terpstra, Mr. Millspaw, Mr. Secretan, and Mr. Powell agreed that where there is an ICAO ident established we should begin using them. Mr. Millspaw said that DUATS strips the "K" from the identifier before it is submitted to en-route automation and therefore DUATS must be revised. Mr. Terpstra pointed out that there is a proposal to include numbers in ICAO idents. Mr. Brad Rush said that we shouldn't forget heliports. Finally, Mr. Millspaw pointed out that there are still NATCA issues to be resolved.

The ACF ICAO Idents working group will remain OPEN.

***Editor's note:*** this group has yet to meet. Its membership is listed in the 02-01 minutes.

#### IV. Outstanding Issues

##### **97-02-105 Charting of Air Traffic Control Assigned Airspace (ATCAA) Frequencies Above 18,000**

Mr. Dick Powell stated that the free flight action plan (RTCA WG) made a recommendation to chart VHF frequencies for SUA's on sectional chart tabulations so that pilots could get real time status information. It was reported that DoD does not want ATCAAs charted on public charts, however, they may be added to a web page for planning purposes and that we may receive a request from the NAR group to chart ATCAAs on the controller charts. He also stated that a maintenance process must be put into place if they are to be charted.

**STATUS: OPEN**

##### **98-02-111 Tabular Data for Military Operations Areas (MOAs) times of use NOTAMs issue**

The SUA issue (charting SUA frequencies on VFR charts in the SUA tabulations) from 94-01-040 has been moved to this item. Mr. Dick Powell said that the last NASR software release supports storing and updating SUA frequency information. He said that the database will be populated and then NFDD'd. He also stated that the specifications support charting.

**STATUS: OPEN**

**ACTION:** Mr. Hal Becker will consult with the originator of the issue before the ACF closes.

##### **00-01-119 Adding PCNs (Ground/Airports)**

Mr. Dick Powell reported that he has not received a reply from Mr. Allen Ball of Executive Jet. Mr. Powell stated that he must receive a requirement letter from Industry to include PCN numbers as part of the State and Federal airport inspection programs. Mr. Terpstra stated that corporate and charter folks are the ones who really need this information. Mr. Jack Crawford stated that airports sometimes underreport PCNs to keep the bigger folks out, thus reducing wear and tear.

**STATUS: OPEN**

**ACTION:** Mr. Steve Bergner, NBAA, will research if their constituents want this data published and report to the ACF.

##### **00-01-122 Note for Offset Localizer**

Mr. Dick Powell reported that IACC RD530 is being staffed and that offset to hundredths of a degree is supported.

**STATUS: OPEN**

#### **00-02-125 Departure Procedures/Multiple Runways**

Mr. Dick Powell reported that this issue is being researched by the SOIT. Mr. Gary Powell stated that this is not so much a charting issue as a database issue. Mr. Jim Terpstra stated that ARINC-16 would support coding but that former versions of ARINC don't support coding. He stated that it is now an issue for avionics manufacturers. Upon group consensus the issue was closed.

**STATUS: CLOSED**

#### **00-02-128 Temporary Flight Restriction/Notice of Proposed Rulemaking**

Mr. Dick Powell reported that a meeting was held with AOPA. Mr. Hal Becker stated that only TFRs under 91-145 air shows and sporting events need be published in the A/FD. AOPA would like a list of events, dates, and the type of TFR as well as a note for users to look for NOTAM information. Mr. Dick Powell said that ATA-100 has a list and that he could send the list to NACO for publication in the appropriate A/FD. ATA-400 will send the list to NACO. NACO will also publish the Presidential TFRs.

**STATUS: CLOSED**

#### **00-02-134 Charting SMGCS**

It was reported that there are about 12 of these. Ms. Pat Fair stated that in 1996 the IACC has specifications for charting. An FAA Order was written but that NATCA non-concurred.

**STATUS: CLOSED**

**ACTION:** Mr. Dick Powell will write the originator of the issue Gerard K. Holtorf AFS/ANE-230 and let him know that the FAA has no requirement for charting.

#### **01-01-136 Charting Waypoints with both Fly-over and Fly-by Functions**

The ACF had previously reached a consensus is to chart as fly-by in the plan view at the last meeting. The waypoint would then be depicted as fly-over in the VOLPE missed approach icon area. Mr. Eric Secretan reported that the ICAO OCP felt that the most restrictive should be charted and that there were cases where the waypoint in question was not also a missed approach waypoint. Mr. Secretan stated that the OCP would not accept any new issues until after OCP 13. He stated that he would bring the issue up after OCP 13. Mr. Secretan stated that STARS waypoints might be a concern as well. The RNAV (GPS) RWY32 KRAP was used to illustrate with NIRYO. The ACF consensus was that all holding fixes would be charted as fly-by waypoints on procedure charts.

**STATUS: OPEN**

**ACTION:** Mr. Secretan will take the ACF's consensus decision to the IACO OCP and brief the ACF on OCP action as appropriate

**ACTION:** Mr. Bill Hammett and IACC MPOCs - IACC and AFS-420/AFS-600 will amend specifications, Instrument Handbook (8083), and AIM as appropriate

**01-01-140 Tabular Information for Descent (non-precision approaches)**

Mr. Powell reported that ATA-100 has received a letter from AFS and that an RD be been prepared by the MPOC and is being staffed. He said that the RD is receiving mixed comments.

**STATUS: OPEN**

**01-01-145 LPV Minima Charting**

Mr. Dick Powell reported that this will be addressed at the SPIT in Oklahoma City. Ms. Pat Fair stated that the SPIT is working on a process for conveying path point, WAAS identifier, and CRC wrap in an end-to-end delivery of the data. Mr. Jim Terpstra said that the 8260 would be the delivery format to start. He said AVN should move toward sending the data with a CRC wrap. ATA should then disseminate the data to the public wrapped as well. It was stated that September 2003 is the effective date for charting 5 airports with LPV, they are Oshkosh WI, Frederick MD, Leuville VA, Montgomery Airpark MD, and Manassas, VA.

It was pointed out that LNAV/VNAV would be flyable first followed by LPV. LNAV/VNAV may only require a review and not a flight check to implement. Ohio University is reviewing airports and those that don't have terrain or coverage issues (95% reliability) won't be flight checked. The remaining airports with reliability issues (remaining 5%) will be flight checked. Those that don't pass will be NOTAMed out. Mr. Steve Bergner asked what would change so that they can fly LNAV/VNAV. Mr. Brad Rush responded that a blanket statement would be issued. Mr. Rush also that those procedures with a remote altimeter are a concern.

**STATUS: OPEN**

**02-01-146 Codes for Non-ICAO Airfields**

NIMA requests that the U.S. identify DAFIF unique assigned 4-digit alphanumeric codes for all U.S. airfields that have no ICAO identifier. It was stated that AFFSA would like a uniform naming convention. It was agreed that the ACF ICAO idents working group would resolve this issue.

**STATUS: OPEN**



## V. New Charting Topics

### 02-02-147 FAA Electronic Regulations/Documents

NIMA requests that the FAA make all of its electronic documents (FAA Orders, Directives, Manuals, etc.) available on one single FAA website. NIMA states that it is very challenging for a user to find documents when they are located on multiple FAA websites. NIMA has also indicated that some documents when updated are only available in electronic form for download via the web.

**STATUS: OPEN**

**ACTION:** Mr. Dick Powell will research and report to the ACF.

### 02-02-148 Obstacles not in Public Data

ALPA has requested that all OE/AAA approved obstructions be included in the NACO Digital Obstruction File, which is part of the FAA's Digital Aeronautical Information CD. In addition, ALPA requested that the accuracy of the obstruction data in the DOF be improved. Mr. Charles Branch reported that the DOF was created to support charting, generally obstacles 200' or greater. It was reported that automated OE/AAA might solve this problem partially. Mr. Dick Powell stated that if Air Traffic has determined an obstruction is not a hazard and it is below 200' that it may not appear in the DOF. It was pointed out that to meet the ALPA recommendation, the 7400.2 would have to be rewritten. Mr. Branch stated that AVN is looking at reengineering the DOF to support the request. ALPA stated that the obstacle reengineering being done by AVN is acceptable. Mr. Dick Powell stated that there is now a new OE tool that AT is using and that this tool should help the FAA move forward.

**STATUS: OPEN**

**ACTION:** ATA-100 and NACO will provide the ACF with an outline of how obstructions get built and added to the DOF.

**ACTION:** AVN will update the ACF on the status of the DOF reengineering.

### 02-02-149 Obstacles on Departure Procedures

Mr. Jim Terpstra, Jeppesen, states that the current 8260.15B for a number of airports at or near Houston, TX includes more than 100 obstacles to be depicted on the relevant DPs. He states that these are more obstacles than can reasonably be depicted on the DP graphic. Mr. Terpstra recommends that the current obstacle depiction criteria used by charting agencies for DPs should be standardized for obstacles. He states that if additional obstacles are required for certain requirements, the obstacle information should be available from sources other than the paper charts. Finally, he stated that the 8260.15 is probably not the best way to get obstacle information to the public.

It was pointed out that the 8260.19 was vague and that 8260.46A was rewritten and that rewrite was what caused the proliferation of obstacles on the 8260.15s. It was also pointed out that Jeppesen and the FAA list the obstacles textually and not graphically. Mr. Terpstra stated that a great number of obstacles have to be published and that this becomes costly. Tom Schneider and Bill Hammett said that it is a TERPS requirement to publish the obstacles. Mr. Brad Rush stated that this should point out to users that airport managers are allowing obstacles to penetrate TERPS surfaces.

**STATUS: OPEN**

**ACTION:** Tom Schneider will take this issue to AFS-420 for review. He will report to the ACF the results of the AFS review.

**VI. Next Meeting**

The next meeting of the ACF is scheduled for April 28-May 1, 2003 and will be hosted by the AOPA at their facilities in Frederick, MD. Dress will be casual. The following meeting will be held at the FAA's National Aeronautical Charting offices in Silver Spring, Maryland, October 20-23, 2003.