

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

**Meeting 06-02**

**October 18-19, 2006**

**MINUTES**

**I. Opening Remarks**

The Aeronautical Charting Forum (ACF) was held at the National Aeronautical Charting Group (NACG) office in Silver Spring, Maryland. Mr. John Moore, NACG, the ACF Co-Chair and Chair of the Aeronautical Charting Forum, Charting Group, opened the Forum on October 18, 2006. Mr. Moore welcomed the ACF participants to the NACG office. Mr. Moore acknowledged ACF Co-Chair Mr. Tom Schneider, AFS-420. Mr. Schneider chaired the ACF Instrument Procedures Group meeting held on October 17, 2006. Separate minutes of that meeting will be distributed.

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

The minutes from the 06-01 ACF meeting were accepted as submitted with no changes or corrections.

**III. Agenda Approval**

The agenda for the 06-02 meeting was approved as submitted.

**IV. Presentations, ACF Working Group Reports, ACF Project Reports**

**ATA Charting Committees**

Mr. Mitch Scott, Continental Airlines and Chair of the ATA Chart and Data Display Working Group, reported that the group no longer meets as a committee on a set schedule. They continue to meet as a working group on an ad-hoc basis as issues arise. Mr. Scott stated that most of the member airline carriers are in transition, with several of the carriers occupied with issues related to Electronic Flight Bags. The airlines have primarily focused on hardware and software issues and to a lesser degree with the charting itself. Hopefully, within the next year the group will shift their focus back to charting issues.

**ACTION:** Mr. Ted Thompson will report on the ATA Chart and Data Display Working Group at the next forum.

**SAE G-10 Electronic Symbology Committee Report**

Mr. Ted Thompson, Jeppesen, updated the ACF on the Society of Automotive Engineers (SAE) G-10 Committee. Mr. Thompson provided a brief overview of the committee's ongoing efforts to develop a basic, simplified set of symbols for use in electronic aeronautical displays. The intent is to establish symbols that are intuitive and universally recognizable. The group's goal is to create a reference document that the FAA can use for the future certification of electronic aeronautical displays.

Mr. Thompson reported that preliminary work has been completed on NAVAIDS, airspace fixes, and airports. Most recently the committee began to reviewing and analyzing the depiction of airspace boundaries. The airspace issue is somewhat complex; there are over sixty types of airspace worldwide. In an effort to increase participation by avionics companies, a letter was sent by the chairman, Pedro Rivas, explaining the committee's work and inviting participation. Only Boeing responded to the letter. Honeywell already has a

representative on the committee. The next SAE G-10 meeting will be held November 7-9, 2006 in Phoenix, Arizona.

**ACTION:** Mr. Ted Thompson will report on the SAE G-10 Committee at the next forum.

### **RNAV Airway Program Sub-group**

Mr. Tom Schneider, AFS-420, reported that the subcommittee has continued to work the issue since the last ACF meeting. The 8260.19D has been updated and should be sent out for external coordination within the next two weeks. Mr. Schneider stated that the following sentence has been added to the .19D:

Part 95 routes include Victor Airways, Jet Routes, RNAV "Q" (for FL 180 and above) and "T" Routes, and RNAV IFR Terminal Transition Routes (RITTRs) (below FL 180).

Mr. Schneider stated that a note was added for clarification:

*NOTE: RITTRs are considered to be low altitude RNAV routes and will contain the "T" prefix.*

Mr. Schneider reiterated that domestic RNAV routes at or above FL180 be designated as 'Q' Routes and RNAV routes below FL180 be designated as 'T' Routes. However, the issue with the routes in the Gulf of Mexico remains unresolved. The RNAV routes over the Gulf are designated as Q Routes at all altitudes. Mr. Eric Secretan, NACG, inquired if the VOR/DME RNAV route issue in Alaska had been resolved. These routes currently carry an R suffix. Mr. Schneider stated that there is no policy in the .19 for the R suffix designator. Mr. Schneider commented he was under the impression that these routes would be eliminated.

Mr. John Moore, NACG, inquired as to what office is responsible for the elimination or conversion of these VOR/DME RNAV routes into RNAV 'Q' or 'T' routes. Mr. Schneider stated that the routes should be cleaned up and he agreed to coordinate the issue with Flight Standards, the National Flight Procedures Group, and Air Traffic. Mr. Paul Ewing, ATO-R, commented that the term RITTR should no longer be used. That low altitude RNAV routes through Class B and Class C areas should be identified as Tango Routes. Mr. Schneider responded that the term RITTR is still used in the 8260.10D.

### **STATUS: OPEN**

**ACTION:** Mr. Thomas Schneider, AFS-420, will report on the VOR/DME routes in Alaska at the next forum.

**ACTION:** Mr. Thomas Schneider, AFS-420, will report on the status of the .19D at the next forum.

## ICAO/OCP Committee Report

Mr. Eric Secretan, NACG, provided the following briefing. The Obstacle Clearance Panel (OCP) has created a charting working group to deal with charting issues that may not be considered by other parts of the International Civil Aviation Organization (ICAO). The working group met in Frankfurt Germany where they focused on procedural related issues.

The highlights of the meeting were:

- RNAV Holding: ICAO is considering replacing the use of DME or time with a RNAV distance for a RNAV holding pattern. The U.S. had previously adopted this recommendation. Mr. Secretan commented that ICAO is catching up with the U.S. on some issues and on other issues they are pressing ahead.
- Stepdown Fix: France has proposed that every stepdown fix on an instrument approach procedure be named. In addition, segment mileages, and total distances be charted between all fixes in the approach chart profile view.
- Waypoint Identifiers: There is a proposal to use alphanumeric waypoint identifiers for procedural waypoints. The proposal is to use two letters associated with an airport identifier and three numbers. These numbers will be sequential which will enable the pilot to 'count down'. The identifiers will not be unique waypoint identifiers, which may result in database duplication. However, the intent is that they will only be used in coding of terminal procedures. Mr. Secretan commented that this might cause conflict with our grid system in the future.
- Magnetic Variation: France is also recommending that True course be provided on RNAV procedures. Their current recommendation is that both true and magnetic be shown however, they are laying the groundwork for exclusive use of True for all terminal procedures.
- Procedure Identification: There is a proposal to add IGS (Instrument Guidance System) as a procedure type. The IGS replaces the current SDF (Simplified Directional Facility) with glideslope procedure. SDF procedures can be coded in a database; however an SDF with glideslope cannot be coded. The IGS provides vertical guidance information and can be coded in a database.
- Fly-by Waypoints: There has been some progress on the ACF recommendation to chart all RNAV holding pattern waypoints as fly-by waypoints although they are coded as fly-over. Hierarchy Concept: The ACF hierarchy concept is making progress. Where any fix on a chart will be charted using the same symbol on all chart products. The concept also redefines the triangle from an air traffic control reporting point to indicate a ground based intersection. Any waypoint, intersection, or NAVAID could be treated as a reporting point, both compulsory and on request.
- Minimum Enroute Altitudes: The FAA proposed that ICAO adopt the use of GPS/GNSS MEAs (Minimum Enroute Altitude), MAAs (Maximum Authorized Altitude), MCAs (Minimum Crossing Altitude), and MRAs (Minimum Reception Altitude). The OCP Working Group supported the GPS/GNSS MEAs and MAA concepts. However, the MCAs and MRAs were not accepted.

Procedure Sequencing:

A proposal was discussed to sequence approach procedure charts for each airport by runway number, lowest to highest runway number, then by procedure type. Mr. Secretan stated that if this is an ICAO recommendation the U.S. should consider it. This recommendation might make finding procedures easier. Ms. Valerie Watson, Cartographic Standards, inquired when the hierarchy concept would be accepted. Mr. Secretan responded that the OPS Panel has agreed to the concept, now it is a matter of documentation. The hierarchy concept should get formal acceptance at the OCP meeting next summer.

**ACTION:** Mr. Eric Secretan will report on the ICAO/OCP Committee at the next forum.

## V. Outstanding Issues

### [00-01-119 Raising Nationwide Charting Standards \(PCNs\)](#)

Mr. Dave Goehler, Jeppesen, provided the following briefing. The ad-hoc Airport Source Data Committee has been meeting for approximately three years. One of the main topics of discussion has been PCN (Pavement Classification Number) data. During the last meeting it was reported that Boeing had provided PCN data for approximately 900 open to the public airports. The plan was to have the Federal and State Airport Inspectors verify the information as part of their annual airport inspection process. Unfortunately, the Airport Safety Data Program Office, AAS-330, has reported that due to union contract issues the airport inspectors will not collect PCN data or will they validate the PCN data provided from Boeing. This puts us back to square one. There is however a [new Advisory Circular \(AC\) 150/5335-5A Standardized Method of Reporting Airport Pavement Strength-PCN](#).

Mr. Goehler explained that this AC reflects the ICAO approved standard for collecting PCN data and replaces an old 1980 AC. Also, the FAA developed a software application that calculates ACN (Aircraft Classification Number) values using the procedures and conditions specified by ICAO. The software is called COMFAA and it may be downloaded along with its source code and supporting documentation from the FAA website. The program is useful for determining an ACN value under various conditions; however, the user should remember that official ACN values are provided by the airplane manufacturer.

Determination of the numerical PCN value for a particular pavement can be based upon one of two procedures. The procedures are known as the “using” airplane method and the “technical” evaluation method. ICAO procedures permit member states to determine how PCN values will be determined based upon internally developed pavement evaluation procedures. Either procedure may be used to determine a PCN, but the methodology must be reported as part of the posted rating.

Mr. Goehler stated that the AC provides guidance for the reporting of PCN data. It states that once the data is determined the information will be forwarded to the FAA Airports Division where it will be disseminated by the National Flight Data Center. This means that the airport operator will be required to calculate the information. Other issues that the group is following are the Airport GIS Survey Program and the electronic obstacle chart. The National Geodetic Survey has introduced its first electronic obstacle charts to the public, and is available at the following website: <http://www.ngs.noaa.gov/AERO/eAOC/eAOC.htm>

Mr. John Moore, NACG, recommended that the original agenda item be closed as an issue. However, Mr. Goehler could continue to provide reports to the ACF on the committee’s activities.

#### **STATUS: CLOSED**

**ACTION:** Mr. Dave Goehler will report on the Airport Source Data Committee at the next forum.

### [03-01-154 Charting of RNAV legs adjacent to Fly-Over and Fly-By Waypoints](#)

Mr. John Moore, NACG, recapped the issue. AFS-410 submitted the issue to standardize the depiction of fly-over waypoints using a stylized line. At the 06-01 ACF, Lt. Col. Monique Yates, NGA/OMSF, reported that the Department of Defense (DoD) Flip Coordinating Committee (FCC) non-concurred with the proposed recommendation to graphically depict the flight path for fly-over waypoints as a stylized line on all procedures. At that meeting, the NACG agreed to provide DoD a PowerPoint presentation depicting problematic procedures. The same procedures were depicted using both stylized lines and point-to-point depiction in two separate examples.

Lt. Col. Yates provided the following status report. The FCC is scheduled to meet next week. However, the issue has been discussed at length with the military services. The Navy concurs with the recommendation while the Army and the Air Force non-concur. Two Services carry the FCC vote. Therefore, DoD officially non-concurs with the stylized line recommendation. Additionally, NGA/PVA has issues with the database depiction of stylized lines. Mr. Eric Secretan, NACG reminded the ACF participants that the issue in question is for fly-over waypoints only. The ACF agreed not to use stylized line depiction for fly-by waypoints. DoD stated their position is based on the fact that the lines would be 'stylized' and would not be reflective of true aircraft performance characteristics for different types of aircraft. Lt. Col. Yates stated since DoD non-concurred with the issue it would not be discussed at the next FCC meeting.

Mr. Secretan recapped the final ACF position on the issue. Standard depiction of flight tracks will remain as outlined in the IACC Specifications as straight line, point-to-point depiction. Except, when chart clutter is an issue then cartographic judgment will be used. If required, for chart clarity, stylized lines will be used in these instances.

The group discussed how these types of flight tracks will be digitally generated once the ESRI (Environmental Systems Research Institute, Inc.) system is in place. The group agreed that until ESRI begins producing the charts, DoD and NACG will continue to use cartographic judgment, depicting stylized lines when required. Once the charts are produced using the ESRI system only point-to-point straight line depiction will be used. Mr. Secretan commented that ESRI might be able to depict stylized lines with extensive software programming. Mr. Ted Thompson, Jeppesen, commented that this issue is one of several chart and database compatibility issues being considered by Jeppesen. Regardless of the FAA decision, Jeppesen will continue to pursue the issue internally.

**STATUS: CLOSED**

#### **[04-01-167 Charting of Altitude Constraints on SIDs and STARs](#)**

Mr. John Moore, NACG, provided a brief history of the issue. IACC Requirement Document (RD) 616 was submitted to the IACC for approval. The RD established the requirement for using over line and underline bars to depict maximum/minimum altitudes and airspeeds on SIDs, STARs and Instrument Approach Procedure (IAP) Charts.

Ms. Val Watson, Cartographic Standards, reported the IACC RD was signed by the IACC on 5/23/2006. Mr. Moore reported that the NACG could not determine an implementation date due to unresolved issues with verbiage on the source documentation and the 7100.9 Star Order. Mr. Moore explained that the 8260 Order is specific in regard to the language used for describing altitudes, constraints and criteria. However, the 7100.9 Star Order does not provide clear guidance for mandatory and recommended altitudes on STARs and Charted Visual Flight Procedures. Mr. Paul Ewing, ATO-R commented that it was his understanding that recommended altitudes have been eliminated from the 7100.9. Mr. Ewing suggested that NACG confirm this with the point of contact for the Star Order, Mr. Jim Arrighi. Ms. Janet Myers, NACG, stated that the STAR forms still have recommended altitudes; these forms will need to be updated.

Mr. Ted Thompson, Jeppesen, informed the group that Jeppesen uses text labels and 'information boxes.' Jeppesen occasionally receives queries whether or not it will adopt the overline/underline application for existing pre-composed charts. For the present time, Jeppesen intends to remain with text labels. However, overlines/underlines will be considered in Jeppesen's future data-drive charting specifications. Mr. Thompson requested a copy of IACC RD 616. He also suggested that the issue be taken to the SAE G-10 meeting.

**STATUS: OPEN.**

**ACTION:** NACG will provide Jeppesen a copy of RD 616.

**ACTION:** NACG will report on the coordination efforts with Mr. Jim Arrighi at the next ACF.

#### **04-01-168 Identifiers for Heliports and Helipads**

Mr. John Moore, NACG, provided a brief recap of the issue. The FAA is working to create location identifiers for heliports and helipads in order to support helicopter operations. The initiative is intended to provide the required NOTAM support to private use heliports and helipads. At the 06-01 ACF, Ms. Valerie Watson, Cartographic Standards, inquired if the NOTAM system could accept four character alphanumeric reserved identifiers. Mr. Gary Bobik, ATO-R, responded that according to their contractors it could. However, the problem resides with the legacy systems. Sixteen facilities may not accept a FDC NOTAM with this type of identifier. Mr. Bobik agreed to test the legacy systems prior to the 06-02 ACF. Mr. Bobik was unable to attend the forum. In his absence, Mr. Gary Norek, ATO-R provided a current status report.

The problem with the legacy systems will be eliminated in 2007. Lockheed Martin will replace the outdated OASIS system with the new FS21 NOTAM system at 20 facilities across the United States. The first system will be installed at the Leesburg Automated Flight Service Station in February 2007. Mr. Norek stated that Lockheed Martin has not briefed the FAA on how the new FS21 system will handle reserved identifiers. Mr. Norek requested additional time to determine the compatibility of the new system and to determine if Mr. Bobik completed the legacy system test. The reserved identifiers can be entered into the USNS (U.S. NOTAM System) however, it has not been determined if these NOTAMs can be disseminated.

Ms. Watson expressed her concerns stating that the FAA remains in violation of the GENOT (General Notice) that states the FAA must be able to publish NOTAMs on any instrument approach, including specials. Mr. Tom Schneider, AFS-420, commented that this is a safety issue. Most of these heliports are hospital heliports conducting lifeline operations and they need this critical information. Also, this is becoming a homeland security issue.

The initial problem of no assigned identifiers for these facilities has been solved. However, the unresolved issue remains the NOTAMs. Mr. Bill Hammett, AFS-420 ISI, stated we need to determine if the test was run on the legacy system and what the results were. If the information is not being disseminated to the legacy systems we need to know now. In addition, we cannot wait until the end of 2007 to determine if the new FS21 system will work. Parallel testing needs to be completed on both systems. Mr. Norek responded contractually the FS21 system should be in service by July 2007. If the system does not support these identifiers a system change will need to be implemented at an additional cost to the FAA.

**STATUS: OPEN**

**ACTION:** Mr. Gary Norek will determine FS21 system compatibly.

**ACTION:** Mr. Gary Norek will resolve the legacy system testing issue and report back at the next forum.

**ACTION:** Mr. Gary Norek will work with Mr. Ed Robinson, AFS-410.

#### **04-02-170 Idents and Coordinates for Parachute Jump Areas**

Mr. George Sempeles, Cartographic Standards, was unable to attend the forum. Ms. Valerie Watson, Cartographic Standards, briefed that National Airspace System Resource (NASR) version 7.1 would be released on October 23, 2006 to include data fields for unique identifiers, geographic position, civil or military use and jump volume. The jump volume will display a single alpha character to represent the level of activity/intensity. Ms. Watson inquired as to what type of information would be shown in this field. Mr. Eric Secretan, NACG, reported that Mr. Edward Scott, U.S. Parachute Association (USPA), requested this field. He stated that the field is subjective and recommended that it be left blank until we receive guidance from the USPA. The Parachute Jump Working Group has no additional meetings scheduled. Mr. Secretan stated that the USPA had agreed to poll their members and provide updated parachute jump area information to George Sempeles for NASR population. Parachute jump areas that are no longer in existence would be deleted and new jump areas would be added based on the listing received from USPA. In addition, USPA agreed to provide a yearly update.

Ms. Watson reported that to her knowledge this information has not been provided to Cartographic Standards. Mr. Secretan reported that ARINC 424 version 19 scheduled for release in 2007 would include coding of parachute jump areas. The group discussed digital cockpit displays and database sizing issues for the airline industry. Mr. Ted Thompson, Jeppesen, commented that Jeppesen has no plans to include this information in their database; PJA data will be an on demanded option. Ms. Donna Gallant, NACG, inquired how the revised parachute jump area information would be disseminated to NACG. Ms. Watson responded that is yet to be determined. She assured the group that Mr. Sempeles would coordinate directly with NACG and the information would be published in the National Flight Data Digest (NFDD) possibly as an add-on page. The group agreed that the issue would remain open until the listing was received from USPA and the information was populated in NASR.

**STATUS: OPEN**

**ACTION:** Mr. George Sempeles or Ms. Valerie Watson will provide an update at the next ACF.

**[05-01-173 ASR Symbol on Visual Charts](#)**

Mr. Jim Grant, NACG, provided the following update. The definition of ASR according to the AIM 4-5-3 states, "ASR is designed to provide relatively short-range coverage in the vicinity of an airport and to serve as an expeditious means of handling terminal area aircraft through observation of precise aircraft locations on a radarscope. The ASR can also be used as an instrument approach aid." Mr. Grant recapped the history of this issue for the ACF members and provided a detailed account of the charting issues associated with the NTSB requirement.

Currently the NACG uses the DACS-9 as source for charting the ASR symbol. Numerous inconsistencies have been discovered which include, but is not limited to duplicate ASR entries – ASRs with same coordinates listed at multiple airports. ASR Coordinates not close to an airport – as far away as 15 miles. Obvious wrong coordinates for the ASR – 30 minutes away. Listing of ASR 4 and ASR 8 located very close to each other, and finally, the DACS 9 and NASR out of agreement. The NACG contacted several other FAA offices to determine their perspective on the issue.

Mr. Kerry Rose, FAA Terminal Services, stated "The controllers may or may not be certified to provide separation services with the monitor installed... ." Ms. Pamela Coopwood, FAA Terminal Airspace Procedures, added, "there are towers who use DBRITE displays as extensions of their eyes for situational awareness only. However, a lost pilot can contact any tower for assistance regardless of their types of equipment and the controllers would provide assistance."



Based on the information gathered from numerous sources the NACG determined that the resulting 1991 specification to add the **R** to the airport data block currently may serve to remind VFR pilots that radar services (e.g. Flight Following) are provided for those choosing to participate. Virtually all of the U.S. now has radar coverage and VFR pilots are encouraged, although not required, to use Flight Following. Therefore, the NACG Recommendation is to remove the **R** symbols from both the sectional and terminal area charts and place a boxed note in the chart margins stating that Flight Following Services are available on request and highly recommended in and around Class B, C, and TRSA areas.

Mr. Grant's recommendation led to extensive discussion by the forum participants. Mr. Eric Secretan, NACG commented that the use of the ASR symbol is outdated and the source is unreliable. However, the NTSB recommendation will need to be addressed prior to any NACG action. Mr. Ian Twombly, AOPA, stated that his initial thought is that the note is not required. The note will not replace the intent of the **R** information. Also, how will the user obtain frequency information? The group responded that frequency information is available on the chart and in the Airport/Facility Directory (A/FD). Mr. John Moore, NACG, reiterated the NACG position and asked Mr. Twombly for an AOPA recommendation. Mr. Mark Ingram, ALPA, stated that if the note is added to the chart the Aeronautical Information Manual should be modified to reflect this recommendation. Mr. Secretan stated that the use of the term 'recommended' should be coordinated with Air Traffic. The final consensus of the group was to remove the **R** from the charts. The NACG will coordinate with the removal of the symbol with the NTSB and the IACC and report at the next forum. A copy of [Mr. Grant's complete report is attached to these minutes.](#)

**STATUS: OPEN**

**ACTION:** Mr. Eric Secretan will provide an update at the next ACF.

**ACTION:** The NACG will coordinate with the removal of the symbol with the NTSB and the IACC.

#### **[05-02-174 Top Altitude Note on Standard Instrument Departures \(SIDs\)](#)**

Neither Mr. Don Porter, ATO-R/RNP, nor Mr. Brian Townsend, ALPA, were able to attend the forum. Mr. Tom Schneider, AFS-420 reported that a test was completed last month in Las Vegas. One problem identified by Flight Standards was situations where the top altitude was lower than the associated airway MEA. Mr. Mark Ingram, ALPA, agreed to contact Mr. Porter and Mr. Townsend and provide an email update to be attached to these minutes.

**STATUS: OPEN**

*Editor's note: No response was available at the time of print for these minutes.*

**ACTION:** Mr. Don Porter and Mr. Brian Townsend will provide an update at the next forum.

#### **[05-02-177 Identifiers for Copter Point-in-Space Procedures](#)**

Mr. Mike Webb, AFS-420 was unable to attend the forum. The Working Group, Chaired by Mr. Webb that was established at the ACF 05-02 has not met. Mr. Gary Bobik, ATO-R, was unable to attend the forum. Therefore, the NOTAM issues outlined at the last forum remain unanswered.

Mr. Eric Secretan, NACG, updated the group on the NACG proposal for the indexing of the Point-in-Space (PinS) procedures in the terminal procedures publication and related ARINC issues. Mr. Greg Yamamoto, NACG, is currently attending the ARINC meeting in Germany where he intends to submit a proposal for

consideration. FMS require a four-character airport/heliport identifier as the first step in selecting a procedure. Once an identifier is selected, the individual PinS procedure can be selected based on the last common point, similar to the STAR convention.

PinS procedures could be coded by use of a pseudo 4 character heliport identifier. This naming convention is based on the state two letter postal code, for example, MD01, MD02 etc. This naming convention will limit the pseudo heliport identifier to 99 per state. These pseudo heliports could be located regionally across each state along major highway intersections, populated areas, and other significant landmark. Each single pseudo heliport can have multiple PinS procedures assigned to it. The pseudo heliport has nothing to do with actually flying the PinS procedure. It is simply used for FMS selection. There are still numerous unresolved issues associated with this concept, charting, NOTAMs, and indexing of the procedures. Mr. John Moore, NACO recommended that the issue be sent back to Mr. Webb for coordination.

**STATUS: OPEN.**

**ACTION:** Mr. Mike Webb will provide an update at the next ACF.

**ACTION:** Mr. Gary Norek will continue to investigate the NOTAM issue and report at the next ACF.

#### **[05-02-179 Attention All-users Page for Simultaneous, Parallel RNAV Departures and PRM Approaches](#)**

Mr. Mark Steinbicker, AFS-410, was unable to attend the forum. Mr. Bill Hammett, AFS-420 ISI, reported that IACC RD 631, Indexing of Procedures and Attention All Users Page (AAUP) were submitted to the IACC on 8/22/2006. The RD revises the index listing of approach procedures to allow all PRM procedures to be published together. The AAUP will be published at the beginning of the PRM approaches.

Ms. Valerie Watson, Cartographic Standards reported that IACC RD 631 was signed by the IACC. Mr. Ted Thompson, Jeppesen, reported that the AAUP is not being monitored. He provided an example of a recent problem at LAX where the AAUP was not updated when the departure procedures was revised. Mr. Hammett commented that there was a disconnect with the PRM procedures in the past. AFS-410 maintains the AAUP while the Procedures office amends the procedures. The National Flight Data Center (NFDC) is the clearing point, they insure that the -10 is part of the procedure, you can't amend the -10 without amending the procedure, they both must go together. The format change for the AAUP will eliminate the problem; procedures can now be revised without revising the AAUP. The same holds true in reverse. The AAUP can now be revised without revising the procedure itself. The AAUP will be disseminated via the NFDD.

Mr. Tom Schneider, AFS-420 stated that he was unaware of AAUP being published for departure procedures. Mr. Thompson responded that Jeppesen has AAUP for departures at LAX, Atlanta and Dallas. Mr. Mitch Scott, ATA, responded that departures are not generic to AAUP procedures. The AFS-410 representative will take the departure issue back to Mr. Steinbicker for action.

**STATUS: OPEN.**

**ACTION:** Mr. Steinbicker will provide an update at the next ACF.

#### **[06-01-180 Voluntary Designation of Collection Facilities for Contaminated Fuel, Used Oil, Universal Wastes, and Hazardous Materials on Airport Diagrams](#)**

Mr. John Moore, NACG, provided a brief summary of the issue. The initial consensus of the group is the intended use of airport diagram is to support ground movement of aircraft. The depiction of hazardous waste dumpsites is outside this intended use and scope. Mr. Hal Becker, AOPA, recommended the information be added to the airport remarks portion of the A/FD. The ACF participants agreed at the last meeting not to close the issue. The issue will be forwarded to Air Traffic, for a formal reply also Mr. Becker stated that AOPA would revisit their position.

Ms. Pamela Coopwood, FAA Terminal Airspace Procedures, provided the official Air Traffic response stating that the depiction of hazardous material sites is not an air traffic function and therefore should not be part of the airport diagram. The dissemination of this type of information is the responsibility of airport management. Mr. Becker provided that AOPA response stating AOPA concurs with the air traffic position and the initial consensus of the ACF. Mr. Becker and Mr. Moore contacted NASAO for their opinion on the issue. NASAO non-concurred with the proposal stating The State and Federal Inspectors are currently over tasked trying to maintain critical safety of flight information. Transient pilots can obtain the information from the airport manager or local fixed-based-operator and based aircraft already have the information. Funding is also an issue.

Mr. Becker suggested adding a general note to the A/FD advising the pilot to contact the airport manager for hazardous waste site information. Mr. Eric Secretan, NACG, responded that adding the note will not provide any additional information to the pilot. Also, there is no source available for this information. Ms. Valerie Watson, Cartographic Standards contact the Airport Safety Data Program Office, AAS-330 for their position on the issue. Mr. Ben Castellano responded they have no vested interest in the issue. The group discussed the suggestion to add general guidance information to the AIM without adding a remark to the A/FD.

Ms. Cooperwood commented that hazardous waste is not an FAA charting function. This is the responsibility of the local airport management. These sites can be moved at anytime therefore tracking the site positions will be impossible. Ms. Cooperwood recommended that the Mr. Baum forward the issue to the Environmental Protection Agency. The consensus of the ACF participants remains unchanged; the intended use of the airport diagram is to support ground movement of aircraft. Mr. Mark Ingram, ALPA, recommended the issue be closed.

**STATUS: CLOSED**

#### [06-01-181 Declared Distance Information on Airport Charts](#)

Mr. John Moore, NACG, provided a brief history of the issue. NBAA recommended that airport diagram charts provide all declared distance information TORA, TODA, ASDA, and LDA whenever these distances differ from the total runway length. The information that is currently published on the airport diagrams is not standardized, nor did it constantly agree with the information published in the A/FD. Representatives from AOPA, Jeppesen, DoD, ALPA, and NACG agreed to state their position. Mr. Hal Becker, AOPA, stated the information needs to be standardized; it is a safety of flight issue. AOPA does not object to/with adding the information to the airport diagram as long as it does not distract from the chart.

Mr. Eric Sectetan, NACG report the NACG position. Since the information is only partially charted on the airport diagram the NACG recommendation is to remove the partial runway landing distance information, and replace it with the following note if applicable:

Runway declared information available; see Airport/Facility Directory.

Add to the legend the following sentence:

Runway declared distance information when available, is published in the Runway Data section of the A/FD.

The LDA information will be deleted from the airport sketch. The runway length and width information will continue to be shown. Mr. Mark Ingram, ALPA asked if we would consider using an asterisk on the runway value to indicate the availability of declared distance information in the A/FD. Mr. Moore responded that the note covers it.

Lt. Col. Monique Yates, NGA/OMSF, asked if pilots normally check the A/FD prior to flight. Mr. Richard Boll, NBAA, responded that commercial pilots generally do not check the A/FD. Mr. Ted Thompson, Jeppesen, reported the Jeppesen position. Jeppesen provides some, but not all, declared distance information in the Additional Runway Information section of its Airport charts. Currently, TODA and ASDA information is not shown. Air Carriers in Europe have requested this information and Jeppesen is considering the inclusion of all declared distances on the Airport chart. However, internal coordination needs to take place before a commitment can be made.

Mr. Mark Ingram, ALPA, responded that ALPA wants to see the information published on a 10-9 page. Lt. Col. Yates provided the DoD position stating they concur with removing the information from the chart. The information is published in the A/FD and in the IFR Supplement. Military pilots are required to check the information as part of their mission planning. Mr. Boll stated that he has no problem with removing the information from the chart. However, he would like to see some type of annotation on the chart indication that declared distance information is available.

Mr. Moore stated that from a government perspective, NACG will remove the landing distance information from the airport diagrams. Mr. Thompson agreed to provide prototypes and work directly with NBAA and ALPA. Ms. Valerie Watson, Cartographic Standards, inquired as to the value for adding the note to every airport diagram that has landing distance information stating, shouldn't this be a pilot education issue. Mr. Secretan responded that the point is how many airports have declared distances. If the majority of airports do not have declared distance information then the note is of value. However, if the majority of the airports do have declared distance information the note is of less value. Lt. Col. Yates commented that the intended use of an airport diagram is for surface movement. Adding the note will only add to the chart clutter issue. DoD would nonconcur with the recommendation to add the note to military airport diagrams. Mr. Boll responded that pilots depend upon the airport diagram for their performance planning.

Mr. Peter Laroche, NavCanada stated the Canada Air Pilot publications provide declared distance information in tabular form on the top of their aerodrome charts. The declared distance information is also published in the Canadian Flight Supplement. Mr. Boll commented that from an NBAA standpoint he would prefer that the information be added to the chart. However, he will accept the recommendation to delete the information from the airport diagram. The group discussed the displaced threshold issues and the proper use of LDA terminology. Every airport with a displaced threshold will have a published LDA.

Mr. Boll will submit a new issue item at the next forum outlining the issue. Mr. Ingram reminded the group that the AIM guidance may need to be expanded. Mr. Secretan recommended that the issue be opened at the AISWG.

**STATUS: OPEN.**

**ACTION:** Mr. Ted Thompson will work with NBAA and ALPA and provide an update at the next forum.

**ACTION:** The NACG will submit an RD to delete the LDA information from the airport diagrams and airport sketch.

**ACTION:** NACG will review the current AIM guidance.

**ACTION:** Mr. Richard Boll will submit a new displaced threshold issue at the next forum.

#### **06-01-182 Alternate Missed Approach Holding Pattern**

Mr. John Moore, NACG, provided a brief recap of the issue. The alternate missed approach holding instructions when established are published on the FAA Form 8260. FAA Order 8260.19C requires that the alternate missed approach holding pattern must be charted in the planview. The issue from the NACG perspective is how to standardize the charting of the information. The NACG provided additional prototypes for DoD consideration. These prototypes were based on the participant's comments from the last meeting.

Lt. Col. Monique Yates, NGA/OMSF, briefed the prototypes provided by NACG are still unacceptable. Mr. Moore asked for DoD recommendations on how to depict the required information. Lt. Col. Yates responded that DoD wants to see a distinction between the missed approach and the alternate missed approach holding. For example, the use of a hashed line with gray background would differentiate the two holding patterns. The alternate missed approach hold labeling alone is not visually apparent to the user. However, labeling the box, and depicting the information in shades of gray should provide enough of a distinction.

Lt. Col. Yates inquired as to the status of the human factors study. Mr. Tom Schneider, AFS-420, responded that a letter requesting a human factor study was submitted to Ms. Terry Stubblefield, AFS-410. It was determined that it was not cost effective to complete the study. Mr. Eric Secretan, NACG, commented that it is a requirement to depict this information on the chart. The question is how to depict the information, not if we should depict the information. Mr. Jim Spencer, NAVFIG, questioned the reason behind charting the information. The information is published on the enroute charts so why chart it on the instrument approach procedure chart.

Mr. Bill Hammett, AFS-420 ISI, responded that this same issue was brought before the ACF six or seven years ago. At that time, the ACF participants agreed that charting the alternate missed approach holding pattern on the IAPs benefited both the pilot and controller. Depicting the information eliminated the pilot's need to write down the information and eliminated the controller's requirement to verbally provide the information. Additionally, if the alternate missed approach fix were not charted on the IAP the pilot would need to scramble to locate the fix on the enroute chart. Mr. Hammett stated that the final decision of the forum was the alternate missed approach holding instruction would not be charted, but the alternate missed approach holding pattern would be charted on the IAPs. Mr. Hammett captured the [complete history of the issue and the information is attached to these minutes \(Reference: IPG RD 97-01-182\).](#)

Mr. Lance Christian, NGA/OMS, inquired how often is a pilot sent to the alternate missed approach holding. Mr. Danny Hamilton, NFBG, responded that the alternated missed approach holding is used during NAVAID outages and during practice approaches and very few of the holding patterns are depicted on the enroute charts. The policy for creating an alternate missed approach holding is anytime the final approach course facility and the missed approach course facility differ then you will develop an alternate missed approach. All ILS procedure will get an alternate missed approach, if possible. Mr. Moore recommended that the issue remain open. The NACG will coordinate the issue within the IACC and report at the next meeting. The ACF participants agreed that if required, AFS-410 would be contacted for an opinion on the issue.

**STATUS: OPEN**

**ACTION:** NACG will provide additional prototype to the IACC for final recommendation and report at the next ACF.

#### **06-01-183 ICAO Location Indicators on Visual and Enroute Charts**

Ms. Valerie Watson, Cartographic Standards provided the following update. IACC RD 624 was approved by the IACC on October 11, 2006. The IACC RD established the requirement to depict the ICAO location indicator when available on all charts and publications outside of the contiguous United States. This requirement will result in the charting of both the FAA identifier and ICAO location indicator. In addition, the ICAO location indicators for Puerto Rico and the Virgin Islands will be added to the Airport/Facility Directory. Ms. Watson reported that the NASR database cleanup has been completed. Also, the 80+ 'grandfathered' indicators in Alaska have been submitted to ICAO.

**STATUS: CLOSED**

#### **06-01-184 Missed Approach Leg Length and Direction**

Ms. Valerie Watson, Cartographic standards reported that IACC RD 635 was submitted to the IACC. Both FAA representatives and NGA/OMS are ready to sign. However, NGA/PVA is staffing the issue. Mr. Danny Shelton, NGA/PVA reported that PVA concurs with the RD and is ready to sign.

*Editor's note: As of the print date of these minutes NGA/PVA is reconsidering their position and staffing the issue.*

**STATUS: OPEN**

**ACTION:** NGA/PVA will provide an update at the next forum.

#### **06-01-185 RNAV-1 and RNAV-2 Descriptors for DPs, STARs and Routes**

Mr. Mark Steinbicker, AFS-410, was unable to attend the forum. Mr. Robert Carty, AFS-410, reported that the PARC (Performance Based Aviation Operation Rulemaking Committee) and ICAO agreed on the terminology RNAV-1 and RNAV-2, Type A/Type B would no longer be used. Mr. Tom Schneider, AFS-420, commented that the RNAV-1 and RNAV-2 information will need to be incorporated into the DP Order and the STAR Order 7100.9 will need to be updated. Additionally, an IACC RD will be submitted to the IACC outlining the changes to the terminal procedures publication legend.

Advisory Circular (AC) 90-100, US Terminal and Enroute Area Navigation (RNAV) Operations will be revised to eliminate all reference to Type A/Type B. The new terms will be defined as RNAV-1 and RNAV-2 and will conform to ICAO standards. The modified AC will be published in February 2007 as AC 90-100A. The AIM guidance should also be published for the February 2007 effective date. Mr. Brad Rush, NFPG, will coordinate the procedure changes. These changes will be provided via an Excel spreadsheet to the NFDC and published as an add-on page to the NFDD.

Mr. Ted Thompson, Jeppesen, requested that Mr. Rush provide advance information about affected procedures, as was done for the original Type A/Type B implementation. Mr. Richard Boll, NBAA, request a draft copy of the revised AC. Mr. Schneider responded that the draft AC is not ready for release. The

proposed implementation date for this change is March 2007. Mr. Thompson requested that the implementation date be coordinated with Jeppesen. Mr. Steinbicker will be contacted to get an update on the PARC recommendation. This update will be attached to these minutes.

**STATUS: OPEN**

*Editor's note: On 1/25/07 Mr. Steinbicker provided the [draft material for AC 90-100A and the draft AIM update](#).*

**ACTION:** Mr. Mark Steinbicker will provide an update at the next forum.

**ACTION:** Mr. Brad Rush will coordinate the procedure changes.

**ACTION:** Mr. Jim Arrighi will report on the modifications to the STAR Order.

**ACTION:** Mr. Tom Schneider will report on the modifications to the DP Order.

**06-01-186 STAR Procedures and their Terminations**

Mr. John Moore, NACG, provided a brief history of the issue. Mr. Brian Townsend, ALPA, based on a discussion with the ATPAC, submitted the issue. ATPAC was recommending that the STAR Order be modified to indicate that lost communications procedures would be published on all procedures and for the ACF to examine the adequacy of lost communications specifications. Mr. Townsend was unable to attend the forum; however, the following group discussion followed.

Ms. Valerie Watson, Cartographic Standards, reported that current IACC Specifications state that lost communication procedures will be shown in textual form if provided. The original recommendation from ATPAC was to provide lost communication procedures for all STARs in a standard format. Ms. Watson commented that lost communication procedures are not available for all STAR procedures. This requirement is part of the STAR Order and should be forwarded to Mr. Jim Arrighi. Ms. Watson informed the group that Mr. Townsend and Mr. Arrighi are working the issue outside of the ACF. Mr. Ted Thompson, Jeppesen, reported that Jeppesen depicts lost communication information graphically on their charts; however, the information is not coded in their database. Mr. Tom Schneider, AFS-420, asked if the revised STAR Order was disseminated for comment. Mr. Paul Ewing, ATO-R, responded that the order had not been sent out. Mr. Ewing agreed to get an update on the status of the Order.

Mr. Eric Secretan, NACG, stated that part of the original recommendation was that published headings should follow the terminus fix. He questioned if this requirement was in the IACC specifications. Mr. Bill Hammett, AFS-420 ISI, responded that it would not need to be in the specifications. If the heading is provided on the procedure source documents it will be charted. The group discussed the ATPAC recommendation for standard formatting. The NACG and Jeppesen both chart this information when provided each using their own unique style. There have been no user complaints about the individual method of charting lost communication information therefore the differences will remain. The group agreed that this is not a charting issue, it is a policy issue.

**STATUS: OPEN.**

**ACTION:** Mr. John Moore will submit a formal response to the ATPAC.

**ACTION:** Mr. John Moore will contact Mr. Arrighi and provide an update at the next forum.

## VI. New Charting Topics

### 06-02-187 Obstructions on World Aeronautical Charts

Mr. Eric Secretan, NACG, submitted the issue and provided the following briefing. The World Aeronautical Charts (WAC) are a series of aeronautical charts covering land areas at a size and scale convenient for navigation by fast to moderate speed aircraft operating at higher altitudes. These charts are used for flight planning and in-flight navigation by VFR pilots on extended cross country flight. Because of their smaller scale, these charts do not show as much detailed information as appears on the Sectional and Terminal Area Charts. Because some information is not shown, WACs are not recommended for exclusive use by pilots of low speed, low altitude aircraft. Currently, obstructions greater than 200 feet AGL in height (300 feet AGL or more in built up areas) are charted on the WAC if the location is critical and space permits. Charting these low level obstructions provides limited value to the pilot during cross country flight and greatly adds to chart clutter. With the advancements in onboard databases the aviation community is requesting that additional information be added to the chart to support these database systems. However, congestion on the World Aeronautical Chart will need to be decreased prior to adding new information.

The recommendation is to modify the prerequisite for charting low level obstructions to 500' AGL on the World Aeronautical Charts. The Sectionals and Terminal Area Charts will continue to chart obstacles 200 feet AGL and above. Copies of prototype charts were made available for review. Mr. Secretan commented that the WAC is almost unmanageable; no additional information can be added to the WAC. Removing these obstacles will allow for additional information to be added, for example VFR waypoints, GPS information to include RNAV routes. Mr. Larry Wiseman, AFFSA, commented that the military currently uses the WAC for long legs of military training routes. He will take the issue back to the Air Force for comment.

Mr. Richard Boll, NBAA, recommended that the current AIM guidance be expanded to include such information as obstruction heights for both the Sectional chart and WAC. Lt. Col. Monique Yates, NGA/OMSF, requested that the chart users be polled. Mr. Secretan responded that NACG is briefing this as an introduction to the issue. ACF members are encouraged to take a copy of the prototype back to their respective organizations for comment. NACG is seeking endorsement from the ACF and IACC and would initially not seek public comment. However, NACG is requesting comment from AOPA and other interested ACF participants. The recommendation was made for NACG to contact HAI and NGATS JPDO. There will be no change to the FAA's Digital Obstacle File (DOF) database.

#### **STATUS: OPEN**

**ACTION:** Mr. Eric Secretan will provide an update at the next forum.

**ACTION:** Mr. Ian Twombly will provide the AOPA position at the next forum.

**ACTION:** Mr. Larry Wiseman will provide the Air Force position at the next forum.

### 06-02-188 Non-Standard Traffic Patterns on TPP Airport Sketch

Mr. Eric Secretan submitted the issue and provided the following briefing. A pilot using U.S. Government charts can and should derive airport traffic pattern information from the Airport/Facility Directory. However, when IFR en route (especially single-pilot and operating in IFR weather conditions) it may be difficult to get the A/FD out to check the airport details.



Recommendation is made to add some type of symbol or note shown in the airport sketch area on the instrument approach chart to alert the pilot of right traffic situations. This inclusion would be helpful to pilots and improve safety. Mr. Secretan commented that NACG presented the issue to the forum because it was submitted from a user. However, from a resource standpoint NACG may not be able to support the issue given the number of charts that will be affected.

Mr. Richard Boll, NBAA, concurred with the recommendation. Mr. Ted Thompson, Jeppesen, commented that Jeppesen currently publishes right hand traffic pattern information on its airport diagrams in note form. Mr. Ian Twombly, AOPA, endorsed the recommendation stating it is a great tool for the single engine IFR pilot. The consensus of the ACF is to support the recommendation. The NACG will report on the impact and possible implementation plan at the next forum.

**STATUS: OPEN**

**ACTION:** Mr. Eric Secretan will provide an update at the next forum.

**[06-02-189 Priority Charting of Intermediate Fixes on all RNAV IAPs](#)**

Mr. Richard Boll, NBAA, submitted and briefed the issue. Beginning this past February, ATC is authorized to clear aircraft directly to the Intermediate Fix (IF) on RNAV IAPs, provided certain conditions and limitations are observed. However, most intermediate fixes are still not charted on government charts because NACG must wait for the IAP source to authorize charting of the IF. This could take many years and will result in endless confusion and misapplication of the recently implemented air traffic procedure. Jeppesen has elected to chart all RNAV intermediate fixes where there is a hold-in-lieu (HIL), because the HIL fix is always the intermediate fix. However, where an RNAV IAP does not have a HIL, determination of the intermediate fix can only be made by the NFBG.

Neither chart makers, pilots, nor controllers can possibly make that determination where there is no HIL and there is one or more step-down fix(es) within the intermediate segment. In order to assure the integrity and safety of the new direct-to-the-IF ATC procedure the NFBG should document all RNAV intermediate fixes on a spreadsheet, which will be promptly disseminated as official source material to trigger a chart change by the charting entities. This should be accomplished on a priority basis.

Mr. Boll's briefing led to extensive discussion from the forum participants. The suggestion to accelerate the charting of IF information via a spreadsheet would create numerous resource, workload and revision activity issues for both the FAA and Jeppesen in addition to causing future maintenance problems if using a 'unapproved' spreadsheets as source. A spreadsheet is not an approved government source. The 8260 form is the 'official' source for procedure changes. Mr. Paul Ewing, ATO-R commented that the IF information will be added to the 8260 for all new and revised procedures as they are developed. Mr. Eric Secretan, NACG, commented that the FAA, Jeppesen, and the Military are unable to support the recommendation. This information must be phased-in; no agency has the resources to support this cross-the-board change.

Mr. Boll requested that a NACG and Jeppesen review the current published procedures and those that have IF on the 8260 source can then be published on the chart. Mr. Secretan responded that he will ensure that the NACG Instrument Approach Procedure Sub-Team is aware of the requirement. NACG does not have the resources to go back and review 11,000 procedures. Mr. Ken Wilkes, NACG, commented from the IAP Sub-Team perspective. The IF is currently depicted on the chart when provided on the 8260 source. When jobs are put into work they do not have the resources to go back and review the original 8260 forms.

Mr. Boll inquired if the NFBG could identify which procedures have IFs. Mr. Danny Hamilton, NFBG, responded no, that resources are not available. Mr. Ted Thompson, Jeppesen, pointed out that the database would need to be modified in the same cycle as the charts. The group continued to discuss the biannual review process and the NACG quality control process and the possibility of catching this information during these reviews. After extensive discussion the group agreed that if NBAA or any other group identifies a particular procedure they wish to have amended, they could contact NFBG or NACG directly. If the IF is not on the 8260 Mr. Hamilton stated that the procedure will be amended. Otherwise IF information will be added to the charts only when the 8260s are revised or when new procedures are developed.

**STATUS: CLOSED**

#### **06-02-190 Use of the Word Transition in the SID Procedure Text**

Mr. Mitch Scott, Continental Airlines, submitted and briefed the issue. The JFK NINE SID is being revised on Sept 28<sup>th</sup> and will be named the JFK ONE SID. The issue we are encountering is that the transitions on this SID are called "climbs" i.e. the "Idlewild climb". These climbs are really transitions. The biggest issue is that the term climb is not recognized as an ARINC 424 transition and therefore these transitions are not coded in the FMC navdatabase. The use of the term "Climb" can be misleading to flight crews not familiar with local area practices.

Continental Airlines recommends that the term transition be used in the place of the term climb. This will provide the opportunity to code the departure into the various Flight Management Systems databases and provide flight crews with procedural lateral and vertical guidance. This would also allow for standard terminology to be used by pilots and ATC.

Mr. Tom Schneider, AFS-420, stated that this subject is not a charting issue and does not belong in the ACF. The JFK SIDs, are old, non-standard procedures that do not conform to current TERPs 8260.46 criteria. The transition should be redesigned by the Air Traffic facility/TRACON. Mr. Scott stated that the same situation exists at LaGuardia. Mr. Scott explained that the problem was first taken to the TRACON and they recommended that the issue be taken to the ACF.

Ms. Pamela Coopwood, FAA Terminal Airspace Procedures, will work with Mr. Scott to resolve the issue offline. They will take the matter to the responsible NY ATC authority with a recommendation to change the procedures to be compatible with current FAA practice and guidance.

**STATUS: OPEN**

**ACTION:** Mr. Mitch Scott will provide an update at the next forum.

## VII. Closing Remarks

Mr. Mark Ingram, ALPA, recommended the documentary movie One Six Right. Information is available at <http://www.onesixright.com/>. Mr. John Moore, NACG, again thanked Mr. Richard Neher, Ms. Donna Gallant, and Ms. Debbie Copeland for the refreshments. He thanked the ACF participants for attending the forum.

## VIII. Next Meeting

The next meeting of the ACF is scheduled for May 1-3, 2007 and will be hosted by the National Geospatial-Intelligence Agency (NGA) at the U.S. Geological Survey (USGS) facility in Reston, VA. Dress will be casual. The following meeting will be held October 23-25, 2007 at the Air Line Pilots Association (ALPA) facility in Herndon, Virginia.

Please note the attached Office of Primary Responsibility (OPR) listing for action items. It is requested that all OPRs provide the Chair, John Moore, (with an information copy to Debbie Copeland) a written status update on open issues no later than April 6, 2007.

**Note – These status reports will be used to compile the minutes of the meeting and will be the “for the record” statement of your presentation.** A reminder notice will be provided.

## IX. Attachments

1. Attendees/Mailing List
2. Top Altitude Update is unavailable at this time. The report will be added upon receipt.
3. OPR/Action Listing

**ACF Website URL Disclosure:** Website URLs included these minutes were accurate and reflect the URL address at the time these minutes we drafted and approved.