

Government/Industry Aeronautical Charting Forum (ACF)

Meeting 09-01

Charting Group

April 29-30, 2009

MINUTES

I. Opening Remarks

The Aeronautical Charting Forum (ACF) was hosted by the National Geospatial-Intelligence Agency (NGA) at the United States Geological Survey's (USGS) offices in Reston, Virginia. Mr. John Moore, Chair of the Aeronautical Charting Forum, Charting Group, opened the Forum on April 29, 2009. Mr. Moore introduced the host, Mr. Lance Christian, NGA, who welcomed the ACF participants. Mr. Moore then acknowledged the ACF Co-Chair Mr. Tom Schneider, AFS-420. Mr. Schneider chaired the ACF Instrument Procedures Group meeting held on April 28, 2009. Minutes of that meeting will be distributed separately.

II. Review of Minutes from Last Meeting

The minutes from the 08-02 ACF meeting were distributed electronically via the NACO website: <http://naco.faa.gov/index.asp?xml=naco/acf> last autumn. They were accepted as submitted with no changes or corrections.

III. Agenda Approval

The agenda for the 09-01 meeting was accepted as presented.

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, was not in attendance. Mr. Ted Thompson, Jeppesen, reported that the committee had not met and that there has been no activity.

The future intent of the committee is to hold ad hoc meetings only. ATA Charting updates will be added to future meetings only as required.

ACTION: Remove from future Agendas unless requested by ATA member.

SAE G-10 Electronic Symbology Committee Report

Mr. Ted Thompson, Jeppesen, provided an overview of the committee's ongoing effort to develop a basic, simplified set of symbols for use in electronic aeronautical displays. The goal is to establish symbols that are intuitive and universally recognizable. The FAA intends to use the results as a reference for use in future certification of electronic aeronautical displays. The committee is currently working to complete the text portion of Aerospace Recommended Practice (ARP) document 5289A, to be accompanied by a matrix of representative symbols in graphical form.

The document content, appendixes, and symbol matrix have been finalized.

SAE G-10 ARP-5289A will be submitted for balloting within SAE in June. Comments will be reviewed at the next SAE G-10 meeting in August.

It is expected that, following disposition of comments, the document will be formally published by December 2009.

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

ICAO/IFPP Committee Report

Mr. John Moore, FAA/NACO, [reported that the Integration Working Group \(IWG\)](#) has Working Papers in progress concerning the following issues:

- Harmonized database resolutions between Annex 15 and ARINC 424
- State data required to support GLS
- RNAV route charting guidance
- RNP data block guidance (coordinating with PBN SG)
- RNAV IAC charting guidance
- Helicopter PinS maneuvering visual segments charting guidance
- Naming and coding of Stepdown Fixes
- Track, course and heading definitions for database coding purposes
- Fix guidance in Instrument Procedure Construction Manual (coordinating with QA WG)
- SID and STAR database identifiers
- Deletion of the descent fix

Future IWG work will include:

- Altitudes on Terminal Procedures (possible HF study)
- PBN SIDs, STARs, and IACs chart and database guidance (off-cycle meeting in July)
- PinS Departure Maneuvering Visual Segment

Mr. Moore emphasized the need for the FAA to exert international influence. He stated that ICAO and IACC coordination is very important.

ACTION: Mr. Moore will report on ICAO/IFPP activities at the next forum.

Temporary NAVAID Outages

Mr. Brad Rush, FAA/NFPO, reported that the FAA is no longer publishing temporary NAVAID outages in the National Flight Data Digest (NFDD), which is used as source for the Airport/Facility Directory. Ms. Valerie Watson, FAA/NACO, reported that NAVAIDs are not decommissioned when airspace or an instrument approach procedures are predicated on them. The issue has been resolved. Refer to FAA Order 7930.2 for guidance.

ACTION: **CLOSED.** Remove from 09-02 ACF Agenda.

Airport Source Data Committee

Mr. Dave Goehler, Jeppesen, provided a status report to the ACF on the pending Advisor Circular (AC) entitled "Submission of Airport Data Changes to the FAA". Mr. Bob Bonanni, FAA/AAS-100 and Mr. Dick Powell, FAA/AJT-6, decided to combine the content of the pending airport AC with two updated 5010 and Airport Diagram ACs as part of the FAA Airport -GIS Survey program. Although this is a work-in-process, the combined AC is not expected to be published until June or July.

Mr. Geohler stated the ASD Committee had not formally met for over a year. All efforts have been directed to moving the new airport source data Advisory Circular through the FAA. The Airport Geographic Information System (GIS) Committee has taken ownership of the Advisory Circular (AC). The committee's recommendations are being analyzed for integration with other FAA airport data collection processes and procedures such as the 5010 program and development of an airport diagram GIS database.

The Airport GIS will be the primary entry point for requesting airport changes. The AC will give guidelines on how/when to use the Airport GIS.

Airports that receive federal funds will be expected to comply with the guidance in the new AC once it's officially published.

Mr. Goehler agreed to update the ACF if the committee meets again. Mr. John Moore, FAA/NACO, proposed leaving this item on the agenda until the AC is published.

ACTION: Mr. Dave Goehler will report on subcommittee activities at the next forum.

Declared Distances

Mr. Richard Boll, NBAA, [provided the following update](#) concerning the Declared Distance Committee's efforts. The FAA recently issued a Cert Alert covering the reporting and collection of declared distances for all FAR Part 139 airports.

The committee has worked with the FAA Airports Office to improve collection of declared distances using FAA Form 5010 (populate all runway declared distance record data blocks accordingly, even if they are the same). The committee recently responded to inquiries from FAA ATO about the use of declared distances for Land and Hold Short Operations (LAHSO).

Future actions the committee will address include:

- Improve AIM for operational guidance. That guidance is in draft form now and will be circulated within the next week or so.
- Address pilot training & testing
- Address ways to include non-FAR Part 139 airports
- Address Airport Design Advisory Circular to develop improved guidance for Runway Safety Zones.

ACTION: Mr. Richard Boll will report on subcommittee activities at the next forum.

AC90-RNP Status Update

Mr. John Swigart, FAA/AFS-470, [briefed the issue](#) to the ACF. The Performance-Based Navigation (PBN) concept represents a shift from sensor-based navigation to PBN. The PBN concept specifies aircraft Required Navigation Performance (RNP) system performance requirements in terms of accuracy, integrity, availability, continuity and functionality needed for particular operations or airspace. Performance requirements are identified in navigation specifications (e.g., the requirements in AC 90-105), which also identify the choices of navigation sensors, navigation equipment, operational procedures, and training needed to meet the performance requirements. RNP 1.0 terminal procedures will be based on GPS navigation equipment. Pilots are not required to monitor ground-based navigation facilities for position updating unless required in the Aircraft Flight Manual (AFM). The navigation performance needed to fly RNP 1.0 procedures must be clearly indicated on all appropriate aeronautical charts. For systems with RAIM capability, RAIM prediction must be performed prior to departure. The capability may be a ground service and need not be present in the aircraft's avionics equipment.

RF leg types have already been incorporated into public use RNAV RNP procedure design. RF legs will not be used in the Final Approach Segment (FAS) of an IAP.

Requirements for RF legs will be indicated on charts in the notes section or at the applicable initial approach fix (IAF) for instrument approaches. Applicable speed restrictions will be charted also. At the present time the numbers of RF-capable navigation devices are few. The FAA doesn't intend to implement RF legs if very few airplanes can fly them. Dialogue within the FAA is still ongoing.

RNAV RNP instrument approaches will include two lines of landing minimums: LNAV and LNAV/VNAV. (Note: RNP excludes LPV minimums) The new AC90-105 differs from the previously published AC 90-100A which covered RNAV-1 and 2 (non-RNP) operations. Criteria for RNP Enroute operations (RNP 2.0) have yet to be determined.

Charting implications need to be addressed and finalized, especially procedure and equipment notes, and speed restrictions. Another important aspect is how to identify procedures that include RF legs.

Mr. Swigart said that AC 90-105 had been signed and posted on the regulatory website. Training organizations were aware the AC was out. Mr. Richard Boll, NBAA, expressed his concern about some confusion between AC 90-105 and AC 90-101. Mr. Swigart suggested that manufactures contact AFS-470 to resolve any confusion.

ACTION: Mr. John Swigart will provide an update at the next ACF.

Engineered Materials Arrestor System (EMAS)

Mr. Steve Serur, ALPA, [briefed the ACF on the charting of EMAS](#), an arresting system made in the form of a crushable surface designed to arrest transport category aircraft in the event of an overrun. EMAS beds are placed beyond the ends of a runway and in alignment with the extended runway centerline. Currently NACO, Jeppesen and Lido are using different chart symbology but do label the areas as "EMAS". Mr. Ted Thompson, Jeppesen, agreed to remove the shading from their EMAS depictions since electronic viewing is difficult with any symbol inside these boxes. The SAE G-10 Committee approves of the use of open rectangles for EMAS (No chevrons or shading). It was recently approved by their human factors study. It was reported that a label has more significance than symbols.

Information concerning EMAS was published in the AIM 6 months ago. As of October 2008 there are 30 locations with EMAS with a total of 45 pads. ICAO may already have a standard depiction for EMAS. Mr. John Moore, FAA/NACO, agreed to research this. The pilot community would like EMAS pads to be discernable from the air and their depiction should match the charts if possible. Another concern was that potential confusion could be averted if the depiction of EMAS was unique. Mr. EC Hunnicutt, FAA/Airports Division, stated that there were no plans to paint/mark EMAS pads any differently than they do now. All U.S. pads are marked with chevrons; however, chevrons are painted elsewhere on the airport and are not unique to EMAS.

ACTION: Mr. John Moore will check with ICAO standards for charting EMAS and report to Valerie Watson and the ACF with his findings.

ACTION: Ms. Valerie Watson, FAA/NACO, will approach the IACC with the open box and EMAS label idea.

High Altitude Redesign Briefing

Mr. Larry Bicknell, MITRE, [provided an overview](#), past and present, of the High Altitude Redesign (HAR) project, now called High Altitude Airspace Management (HAAM) project. Mr. John Timmerman, formerly the FAA Program Manager, has retired and been replaced by Mr. Mike Hannigan, FAA/AJR-3.

HAAM Phases 1 (West & Southwest regions) and 2 (South & Southeast regions) were implemented, but Phase 3 (East/Northeast region) was not. Some Q-routes from the Southeast end at the northern boundary of the Atlanta Center.

Mr. Bicknell indicated that NRS waypoints can be used in lieu of NAVAIDs. They can be used to define sector boundaries and to divert air traffic around weather systems. Their new proposal is to chart points every degree of longitude and every 10 minutes of latitude – a six times increase in the number currently charted. Expansion and adjustment (realignment) of RNAV Q-routes across the U.S. is likely to occur based on key geographic and/or high traffic corridors. Designations for Pitch & Catch airspace fixes have been eliminated due to lack of usage as intended. The NRS lat-long waypoint system, under the new proposal, is seen as being a key component to the HAAM system. The higher density would result in approximately 6,500 additional NRS waypoints. There is even consideration of making NRS waypoints effective in the Low Altitude structure.

Based on MITRE data of ATC records, NRS waypoints in the center of the country get the most usage. This is likely due to high use by transcontinental flights. It's been determined that Air Traffic Controllers are slow to use NRS waypoints, but there's a new generation of controllers coming.

One pilot commented that NRS waypoints are hard to find in the cockpit.

Mr. Ted Thompson, Jeppesen, expressed concerns about the proposal to increase the number of NRS waypoints in the CONUS. Several ACF representatives expressed concerns about increased data, database sizing and chart congestion.

RNAV (RNP) Charting Options

Ms. Valerie Watson, FAA/NACO, [presented a briefing](#) explaining the charting problems NACO has encountered with an increasing number of complex RNAV RNP approach procedures that cover large geographical areas. NACO chart formats are limited to roughly a 5" x 5" area (planview). When procedures involve lengthy transition routes and/or missed approach procedures, coupled with complex close-in final approach segments, NACO is faced with the difficulties of charting all the information in the planview graphic to-scale.

Ms. Watson presented various prototype charts for the charting of procedures that don't fit on the existing planview, even at a 1:1,000,000 scale. The approximately 5" x 5" area covers about 30nm at 1:500,000 scale. Scale breaks could be used and are within current specs, but cartographers need more options. It was decided that bearing integrity is very important to pilots and that two redundant procedures would be confusing. Mr. Brad Rush, FAA/NFPO, stated that the procedure could be split into a Y and Z. The NFPO will look into that option. The purpose of the briefing was to solicit feedback on the various options.

ACTION: Ms. Val Watson will develop an IACC RD based on the feedback received and report on the status at the next ACF.

ACTION: Mr. Brad Rush will check into the option of splitting into a Y and Z approach.

V. Outstanding Issues

04-01-168 Identifiers for Heliports and Helipads

Mr. Mike Webb, FAA/AFS-420, provided a brief recap of the issue. The goal is 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. The issue remains open pending formalization of internal FAA agreements.

Note: This item also relates to ACF Issue 05-02-177, Identifiers for Copter Point-in-Space procedures. It was decided at the 08-02 ACF to combine the two issues into one.

STATUS: OPEN

ACTION: Mr. Mike Webb will get industry input and report on issue at the next ACF.

04-02-170 Idents & Coordinates for Parachute Jump Areas (PJA)

Mr. John Moore, FAA/NACO, recapped the issue and turned it over to Mr. George Sempeles, FAA/NFDC. Mr. Sempeles reported that data has been received from the Central and Western Service Areas. The data has been added into the NASR database, including all previously discussed requirements. Mr. Sempeles will follow-up with the Eastern Service Area shortly. Representatives from the DoD are satisfied with military data within the database.

STATUS: OPEN

ACTION: Mr. George Sempeles will provide an update at the next ACF.

05-02-177 Identifiers for Copter Point-in-Space Procedures

Mr. Mike Webb, FAA/AFS-420, reported that his committee was still working on how to add the visual segment to the approach chart. They will be discussing that topic in Brussels in July. Shortly after the Brussels meeting Mr. Webb will contact Ms. Valerie Watson, FAA/NACO, for IACC coordination.

Mr. Webb reported that as far as Location Identifiers for heliports/helipads, the FAA has overcome internal problems related to the designation of heliport/helipad idents and the existing NOTAM system. Mr. Webb has not yet had a chance to convene the ACF working group.

Mention was made of related helicopter Point-In-Space (PinS) activities taking place in the ICAO IFPP, including guidance addressing the concept of helicopter maneuvering areas and helicopter approach chart formats. Also under discussion with ICAO are criteria for helicopter RNAV RNP applications. *Note: John Kasten is a member of the ICAO IFPP (representing ARINC). He may be a source for additional information if needed.*

Note: This item relates to ACF Issue 04-01-168, Identifiers for Heliports and Helipads. It was decided to combine the two issues into one. See issue 04-01-168 Identifiers for Heliport and Helipads. This issue will remain open until the related issue closes.

STATUS: OPEN

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

Mr. John Swigart, FAA/AFS-470, reported that the FAA is developing the content for an “Attention All-Users Page” intended to be published at locations where RNAV SIDs are in use. This relates to activity underway by Mr. James Arrighi, FAA Flight Standards.

It was acknowledged that some of the content is “generic” and some which is specific to a particular airport. Mr. Swigart also commented that a cross reference to the applicable AAUP will be added to affected charts. This concept follows what the FAA has provided in the past for ILS PRM approaches.

The content of the Attention All-Users Page will be promulgated through the AVN source processes, and cross references will be provided on applicable 8260 procedure source documents. The effort needs to involve several other affected groups within the FAA.

Mr. Swigart, referring to the Simultaneous approaches at DFW, said a note would be added to the procedure referring to the AAUP. No draft AAUP is available yet. Concerns about Atlanta and Dallas AAUP prompted Mr. Swigart to delay publishing and he said he could work with them directly.

STATUS: OPEN

ACTION: Mr. John Swigart will provide an update at the next ACF.

[07-01-192 Recording, Reporting and Dissemination of Usable Lengths for Takeoff and Landing](#)

Note: This agenda item also relates to ACF agenda item 06-01-181 Declared Distance Information on Airport Charts (since closed in ACF 07-01).

Mr. Richard Boll, NBAA, is chairman of the ACF Declared Distances Subcommittee. The agenda item is under the scope of this group. Refer to the subcommittee report provided earlier in these minutes. Issue will remain open until resolution.

STATUS: OPEN

ACTION: Mr. Richard Boll will report at the next ACF.

[07-01-193 Charting Helicopter RNAV Routes](#)

Mr. Paul Gallant, FAA/Airspace & Rules, announced that the RNAV-RNP office has decided not to pursue the unique TK route designation due to various factors and therefore recommended closing the issue. Mr. John Moore, FAA/NACO, questioned Mr. Paul Ewing, FAA Air Traffic RNAV-RNP, as to the reason for the pushback, noting that the TK designator conforms to ICAO applications. Mr. Ewing stated that Air Traffic would determine which aircraft may or may not be allowed to use the specific T routes. Mr. Richard Boll, NBAA, questioned how the operator of a fixed-wing airplane would know which T routes he could file for and which ones are intended for helicopter use only. After some debate, the consensus was that unique identification of the routes was desired. Mr. Ewing said he could go back to his office for coordination and to get a letter of concurrence or non-concurrence. If RNAV-RNP agrees a requirement exists to proceed with the use of the TK designator, they would provide the specific route information to the Airspace & Rules Group along with a request to begin the

rulemaking process. Ms Valerie Watson, FAA/NACO, will wait for a decision on the matter before writing the IACC RD.

Mr. Geoffrey Waterman, NGA, reminded everyone that during these strict financial times, all IACC decisions were weighing the cost against the benefit. Modifications to their (NGA's) database must be worth the cost before they will agree to any changes.

STATUS: OPEN

ACTION: Mr. Paul Ewing, FAA/AJR-37 will report back at the next ACF.

07-01-195 Charting and AFD Information Re: Class E Surface Areas

Mr. Ray Nussear, FAA/NACO, recapped the issue at the ACF. NACO sent a list of affected locations to the FAA/Airspace & Rules Group which sent a memo to the Service Area Managers tasking them to start rulemaking action to "clean-up" the airspace legal descriptions. A specific time-line was not set. Mr. Paul Gallant, FAA/Airspace & Rules, reported that appropriate changes will remedy any misapplications related to Class E airspace extension areas.

Ms. Valerie Watson, FAA/NACO, said there's a revised version describing the status of extensions now published in the A/FD Legend. Issue to remain open until the AIM, Chapter 3 is re-written by FAA/Airspace & Rules.

STATUS: OPEN

ACTION: Paul Gallant, FAA/Airspace & Rules, will re-write the AIM Chapter 3 and will report back at the next ACF.

07-01-196 Q Route DME/DME IRU MEA

Ms. Valerie Watson, FAA/NACO, has written an RD proposal for a D suffix for IACC coordination. NGA is currently staffing the issue.

STATUS: OPEN

ACTION: Valerie Watson, FAA/NACO, will report back at the next ACF.

07-02-198 Use of Charts to Validate Navigation Database Information

Mr. Bill Hammett, FAA/AFS Contract Support, commented that the FAA is ready to implement the establishment of the procedure amendment date by assigning the reference date (i.e. in the Transmittal Letter).

Mr. Ted Thompson, Jeppesen, remarked that his company will support the proposal and that they have informed the ACF Navigational Digital Display Working Group (NDDWG) that Jeppesen will need at least 90 days prior to implementation in order to prepare specifications, modifying internal processes, and to prepare bulletins to inform OEMs and customers of the change and pilot obligations for checking out-of-date databases. Pilots must be informed how to use the new, charted date. NACO will prepare a website note and a note for the TPP.

A new date is expensive to implement as far as the database is concerned. Mr. Lance Christian, NGA, admitted that it was a good solution but expressed hesitation and concerns about the costs versus benefits of implementing the proposal. He further added that flying RNAV as the only available procedure in IMC conditions with an outdated database was probably a rare occurrence. He said, if a pilot cannot validate his database, then perhaps he should fly by conventional navigation, or perhaps changing the database validation regulation to simply state that a pilot can't use an outdated database as a primary means of navigation, would be a better option. He also pointed out that if the expense is too costly to implement, DoD would have to non-concur with the IACC RD. Mr. Ted Thompson, Jeppesen, was convinced that this fix is necessary. The way it stands now, pilots have no chance to comply with the regulation. Mr. Geoffrey Waterman, NGA, suggested we put the information elsewhere electronically. Mr. Hammett, responded that the printed dates would be to help civilian pilots. A tentative NDDWG teleconference date is set for May 19th. Mr. John Moore, FAA/NACO, urged persons with concerns to participate in the telecon. Details have yet to be confirmed by Mr. Pedro Rivas, ALPA.

STATUS: OPEN

ACTION: Valerie Watson will report on the status at next ACF meeting.

ACTION: Mr. Pedro Rivas, ALPA, will report status at the next ACF.

[07-02-200 Charting of Alert Areas](#)

Mr. John Moore, FAA/NACO, recapped the issue. The RD still needs to be signed by Mr. Dick Powell, FAA/NFDC - after that NACO is ready to implement.

STATUS: OPEN

ACTION: Ms. Valerie Watson to report at the next ACF meeting.

[07-02-201 Charting of Flight Training Areas, USAF Academy](#)

Mr. John Moore, FAA/NACO, recapped the issue. He reported that Mr. Dan Rund, U.S. Air Force Academy, contacted NACO via e-mail requesting to withdraw the issue; however, he left the issue for AOPA to pursue if they so desired. Mr. Hal Becker, AOPA, taking over from Mr. Pete Lehmann (formerly representing AOPA), reported that AOPA's members still want these training areas charted on the flyway side of VFR TACs. No additional information was available.

STATUS: OPEN

ACTION: Mr. Hal Becker will gather additional data and report back at the next ACF.

[07-02-202 Inconsistent & Incomplete Charting of STAR Holding Patterns](#)

Ms Adrienne Funk, FAA/NFDC, reported that the issue was completed; however, the database (eNASR) will not be published for two more years. Based on internal FAA agreements, holding patterns and leg lengths specific to a particular procedure will be included on the appropriate 8260 or 7100 procedure source. This effectively addresses the original problem.

Mr. Richard Boll, NBAA, agreed the issue should be closed.

STATUS: CLOSED

[07-02-204 Continued Charting of Airports “Closed Indefinitely”](#)

Mr. John Moore, FAA/NACO, recapped the issue for the forum. Mr. EC Hunnicutt, FAA/Airports Office, is working with Mr. George Sempeles, FAA/NFDC, concerning the issue and will provide information at the next ACF.

STATUS: OPEN

ACTION: Mr. E.C. Hunnicutt will report on the status at the next ACF.

[08-01-206 Runway Status Lights Information Charts for Pilots](#)

Mr. Dale Bryan, Veracity Engineering, [provided an update to the forum](#). RWSL are still undergoing operational evaluation. RWSL information is included in the A/FD at applicable airports. Mr. Juergen Kuhnenn, Lido, stated that they depict RWSL colored lights embedded in the runway on their airport charts. Jeppesen produces special “ops eval” pages at a few specially designated locations (in support of the FAA’s program office – future depictions were TBD).

Implementation of the first certified RWSL system will be implemented sometime in 2010. NACO does not intend to chart actual RWSL in-pavement lighting, but will add a general information note in the “note” section of the airport chart. There were no conclusions made at this meeting.

STATUS: OPEN

ACTION: Mr. Dale Bryan, Veracity Engineering, will brief the ACF in October after the program has been completed at the implementation office at Orlando (MCO)

[08-01-207 Depiction of Minimum Crossing Altitudes on Graphic Departure Procedures](#)

The IPG Departure Procedures Working Group completed its review of SID crossing altitudes. One of the outcomes was to depict ATC Minimum Crossing Altitudes with the letters (MCA) after the altitude, where they are designated in addition to obstruction clearance altitudes. Ms. Valerie Watson, FAA/NACO, reported that the RD was waiting for Mr. Dick Powell’s, FAA/NFDC, signature.

STATUS: OPEN

ACTION: Ms. Valerie Watson will report at next ACF.

[08-01-208 TPP Rate of Climb Table Improvements](#)

Mr. John Moore, FAA/NACO, recapped the issue. NGA has a higher climb table but lists fewer airspeeds. The NGA table is a combined climb and descent table. NACO is willing to eliminate its two tables and use NGA’s. Interpolation on the pilot’s part would be required. The consensus was to proceed with that plan.

STATUS: OPEN

ACTION: Ms. Valerie Watson, FAA/NACO, to report at the next ACF.

08-02-210 Charting Medical Facility Heliports for EMS

Mr. James Lamb, FAA Safety Team (FAAST), provided a report highlighting the results and recommendations from the FAA sponsored HEMS Safety Workshop held last March in Kansas City, MO.

Highlights and conclusions:

- Main issue is the need to improve collection and maintenance of heliport/helipad data on a national level.
- Many heliports/helipads are private facilities and operators are reluctant to share data.
- HEMS pilots don't want and would not use additional paper helicopter charts.
- The consensus of the HEMS operators at the conference was that the data would best be used in electronic applications (cockpit displays, dispatch, planning, etc.).

Mr. Ted Thompson, Jeppesen, provided personal insights and observations from the FAAST workshop. His recommendation was that the aspect concerning the need for a new set of helicopter charts has been concluded (not required by HEMS operators).

Mr. John Moore, FAA/NACO, stated that the aspect covering the need for improved collection of heliport and helipad data is best incorporated into the scope of the Airport Source Data Committee led by Mr. Dave Goehler, Jeppesen. The purpose is to address the need to collect and maintain heliport/helipad data.

Mr. Thompson recommended closing the issue since it's not a charting issue. It's more of a data collection issue.

Mr. Lamb agreed to coordinate with FAA's Airports Office.

STATUS: CLOSED

VI. New Charting Topics

[09-01-211 Chart Notes on IAPs for Navigational Facility Restrictions](#)

Mr. Brad Rush, FAA/NFPO, [briefed the issue](#) concerning the Buffalo ILS or LOC RWY 23 approach in Buffalo, NY. Recently there was an accident near the airport when a Continental flight was about to start the ILS approach. Later, it was discovered that Southwest Airlines had issued an alert bulletin to their crews concerning pitch-up indications caused by terrain on this ILS's glideslope. A review indicated there is a restriction published, which states: "Glideslope unusable 5 degrees right of course". This restriction is caused by a signal interference of the glideslope.

However, that portion of the glideslope is outside the coverage of the localizer and has no impact on the instrument approach procedure itself. The instrument approach has been flight inspected satisfactorily. The note is printed in the Airport/Facility Directory (A/FD). Jeppesen charts the restriction on their approach plate. Mr. Ted Thompson, Jeppesen, explained that it was not their policy to publish such notes and that he would investigate how the note wound up on their chart.

Mr. Rush stated that there are many types of restrictions to navigation facilities. When a restriction is of a nature that it impacts the instrument procedure, either the procedure is restricted or not allowed and would not be charted. FAA Order 8260.19 paragraph 855a states, in part: "Data entered in this section of Forms 8260-3/4/5/7 are items that should appear on the published procedure chart as a note; e.g., notes pertaining to conditional use of a procedure, notes restricting the use of a procedure, and other notes required for procedure clarification." This indicates that only notes pertaining to this procedure or issues pertaining to the operational usage of the procedure should be charted on the approach chart.

The recommendation was that all facility restrictions pertaining to NAVAIDs used to conduct the approach be defined in a chart note, even if they do not directly impact the lateral or vertical flight track to be flown when using the procedure. This recommendation affects all instrument approach charts and FAA Order 8260.19, *Flight Procedures and Airspace*. Mr. Rush reiterated that NAVAIDs can have many restrictions.

The consensus was that NAVAID restriction notes should NOT be charted unless determined by the procedure designer to have a direct affect on the procedure. It is not advisable or appropriate to chart NAVAID restriction notes on the procedure unless it affects the procedure.

STATUS: CLOSED

[09-01-212 Depiction of UAS Activity on VFR Sectionals](#)

Maj. James Taylor, USAF, briefed the issue. The USAF is committed to integrating Unmanned Aircraft Systems (UAS) technology into the National Airspace System (NAS). However, current UAS technology does not provide Unmanned Aerial Vehicle (UAV) pilots with see and avoid capabilities. This limitation compelled the FAA to limit operations of UAVs around Beale AFB from 4100 AGL to 18,000 MSL (the top of the local Class C airspace to the bottom of Class A airspace) to 10 nm from the airfield. These dimensions establish a Terminal Flight Restriction (TFR) area around Beale AFB, published via NOTAM. However, VFR pilots do not necessarily check NOTAMS before each flight. In an effort to increase safety and situational awareness, the USAF believes a special airspace designation is required. There may be precedence for such a designation. Some airfields are specifically highlighted on VFR sectional charts as areas of high glider traffic or parachute operations. The recommendation was that the USAF-identified UAS main operating airfields should be depicted with a 10 nm ring centered on the

airfield center point. This ring would be referenced in the chart legend: "Exercise Caution – Unmanned Aerial Vehicle traffic, SFC to 18,000MSL". This recommendation affects upcoming NGA chart products as well.

The discussion of options was between placing a symbol near an airport for UAS operations and placing some sort of airspace with parameters. Ms. Valerie Watson, FAA/NACO, remarked that it would be much easier to create and place a symbol rather than to create airspace. Temporary Flight Restrictions (TFR) are difficult to get and pilots say there are too many of them now. National Security Areas must be requested by Airspace and Rules and are also difficult to obtain.

Mr. Brad Rush, FAA/NFPO, reiterated that the ACF has recently received several requests for depiction of airspace areas. His stated position was that if there is a need to establish special airspace use or regulatory airspace areas, there is a defined official government process to follow for establishing official regulatory airspace with defined lateral and vertical limits.

The FAA's official policy for integrating UAVs into the NAS is still evolving with DoD and other branches of the federal government. The subject touches numerous branches such as airspace, procedures, regulations, etc. No conclusions were reached.

STATUS: OPEN

ACTION: Valerie Watson will approach the IACC with a proposed new UAS symbol.

ACTION: Mike Connor, FAA/UAV Office, will raise the issue internally and brief the ACF at the next meeting.

ACTION: Maj. James Taylor will communicate with Beale AFB to have a note published in the A/FD.

[09-01-213 TERPs Change 21 Circling Approach](#)

The pending release of TERPS Change 21 will affect circling approach area dimensions (circling approach protected airspace). Mr. Richard Boll, NBAA, would like to ensure that operational guidance and charting information will be sufficient to allow pilots to thoroughly understand the change and be able to safely apply the revised circling protected airspace dimensions when conducting a circle-to-land maneuver. While the expanded circling approach areas provide much needed improvements with respect to obstacle protection, this was but only one of several deficiencies associated with the previous TERPS circling approach area (pre-TERPS-21) criteria.

NBAA strongly believes that pilots should be able to use the circling protected airspace to the greatest extent practicable to manage a stabilized approach along a nominal 3-degree descent path. In order to execute this nominal descent, pilots must have knowledge of the extent of protected airspace available.

NBAA requested that NACO evaluate options for informing the pilot of the circling approach area (CAR) radius defining the circling protected airspace afforded at the published CMDA based on airport elevation and published Height Above Airport (HAA). More accidents occur during non-standard descents. High altitude airports present even more challenges.

NBAA recommended that the AIM be revised to describe changes to circling protected areas based on TERPS Change 21. NBAA also recommended that, for procedures developed in accordance with TERPS Change 21 circling criteria, NACO evaluate options for informing pilots when the new circling approach protected areas apply. One possible option is to add an icon in the minimums band of the chart, adjacent to the aircraft

categories, indicating the new circling area radius used to define the protected airspace applicable to each particular aircraft category.

An alternative option could be to create a cross-reference table that correlates aircraft categories to new circling area radii. This table could be published in the front of the Terminal Procedures Publication (TPP).

Mr. Steve Surer, ALPA, supports NBAA's recommendation to depict the Circling Area Radius (CAR) values on the chart. He pointed out that the depiction of the CAR provides pilots with a means to directly compare the circling area radius distance to the applicable minimum visibility for the same aircraft category.

Lido supports NBAA's charting recommendation also, especially in consideration of non-US operators who are more familiar with ICAO circling areas (radii), which are larger than the FAA's current (pre-TERPS Change 21) circling areas.

Major James Taylor, USAF, applauded the idea and also supported the charting proposal.

Mr. Tom Schneider, FAA/AFS-420, commented that guidance would be needed to provide the procedure designer for determining the values. He also pointed out that calculation of the CAR is complex and can vary (expand) depending on the airport elevation. The higher the airport elevation/HAA is, the greater the CAR is.

Mr. Ted Thompson, Jeppesen, stated that they would like to see the FAA present the subject to the ICAO IFPP in order to address the subject on an international level.

Mr. Schneider commented that it will take years before all 16,000 U.S. IAPs are evaluated for TERPS Change 21. Mr. Boll responded that the use of the CAR icon would be a useful way, visually, for pilots to know which procedures have the "old" smaller circling areas (w/o CAR icon) and those which do have larger areas (as required by TERPS Change 21).

Regarding NBAA's alternative recommendation, if a reference table was created, some other kind of icon on the approach chart could indicate that new TERPS Change 21 criteria have been applied, and also provide a cross-reference to the table.

Pilots unanimously preferred to have the CAR values shown on the IAP chart.

STATUS: OPEN

ACTION: Mr. Richard Boll will work with Mr. Brad Rush or Mr. Tom Schneider to see what tables might look like as an alternative method. The results will be presented at the next ACF.

[09-01-214 SMGCS Taxi Charts](#)

The FAA's new Surface Movement Guidance and Control (SMGCS) Joint Order, now in final coordination, in conjunction with Advisory Circular 120-57A, require FAA production of SMGCS low visibility taxi charts for applicable airports within the jurisdiction of the United States AIP. FAA/AFS-410 is concerned that NACO does not publish SMGCS charts. SMGCS charts are, however, produced by Jeppesen. The lack of published FAA cartographic standards for SMGCS charts results in the approval/acceptance of commercial SMGCS plans and corresponding charts being left up to each regional AWO inspector (who is not trained in cartographic standards or charting). Therefore, at the present time, the de-facto cartographic standards for SMGCS charts are under the control of a commercial charting company. The Joint Order addresses this by requiring FAA published SMGCS charts.

AFS-410 recommends an FAA team be appointed to devise cartographic standards for SMGCS charts.

Discussion included the background and historical development of SMGCS, including Jeppesen's Airway Manual SMGCS charts, involvement with airlines, and the symbols/depictions used by Jeppesen.

Discussion also included the fact that SMGCS plans vary by location and include some unique features and that source for SMGCS is only available from individual airport authorities. The major problem is the lack of a centrally available repository of SMGCS source information. Mr. Brad Rush, FAA/NFPO, commented that this is another example of the need for FAA to develop their Airport GIS database.

Mr. Ted Thompson stated that Jeppesen would provide support to the FAA about its SMGCS charting experience, if requested.

Mr. John Moore, FAA/NACO, asked Mr. Bruce McGray to report on the development of the upcoming FAA Joint Order for SMGCS. Mr. Moore also indicated that SMGCS charting and symbology for U.S. FAA charts would fall within the domain of the IACC. He also encouraged Mr. McGray to communicate and coordinate with Airports regarding the source issues, as appropriate.

STATUS: OPEN

ACTION: Mr. Bruce McGray will provide update at the next ACF.

09-01-215 Reporting and Depiction of Stopways

In the course of researching declared distances, the ACF's Declared Distance Committee discovered numerous issues involving the reporting and depiction of stopways. The Committee believes these issues represent a systemic problem and may not be isolated errors or inconsistencies.

Recommendations (in part) from the original Recommendation Document:

- Ensure that Airport Operators of FAR Part 139 airports follow the requirements prescribed in AC 150/5300-13 concerning the designation of a stopway. The Committee also believes that AAS-300's recent CertAlert 09-05 should be a further guidance aid.
- During required inspections of Part 139 airports, request that Airport Certification Safety Inspectors review the NACO airport diagram, the A/FD and information provided by the Airport Authority for accuracy and consistency.
- Explore options to ensure information and depiction of a stopway in NACO and commercially provided airport charts are in agreement with regard to charting of stopways. Resolve differences accordingly.
- Explore the option of adding stopway data validation capability to the FAA's Airport GIS airport source data collection program.

The discussion focused on the collection, accuracy, completeness and timely dissemination of available airport source data (stopways), which, in turn, drives chart depictions (government and commercial).

Mr. Henry Felices, FAA/Airports Office, commented that there is confusion among pilots about mixed use of overruns and stopways, and the fact that they have different affects on declared distances. He asked the rhetorical question "What is necessary to stop using the term stopway?"

STATUS: OPEN

ACTION: Mr. Richard Boll will discuss the subject further within the Committee and report back at the next ACF.

09-01-216 Charting of Significant Points Not Part of the Procedure

Mr. Edward Ward, Southwest Airlines, provided a briefing on the Burbank VNY7 Departure, which depicts TWINE INT as part of the AVE, DAG, GMN and PMD transitions.

The source document does not specify TWINE as part of the AVE or GMN transition.

However, TWINE is used as part of the DAG and PMD transitions. The way that the departure routes are charted in relation to TWINE, which shows the combination of transitions, leads to the mistaken belief that TWINE is part of each of all four transitions. A pilot cross checking the chart against his NavData coding will not see TWINE in the FMS for the AVE or GMN transitions.

The difference between the chart and database coding led an airline pilot to question the accuracy of the coding; believing TWINE was omitted in error, and then manually entered TWINE into the FMS.

Mr. Brad Rush, FAA/NFPO, explained that this particular SID is an older “conventional” departure procedure, and that TWINE is not required for conventional navigation for the AVE or GMN transitions. He further stated that the manual insertion of TWINE by the pilot would not represent a navigation problem.

Mr. Rush stated that other procedures for this airport are being updated for unrelated changes. He will investigate the procedure to see if it’s possible to modify the procedure source to “officially” include TWINE as part of the description of the AVE and GMN transitions. This solution will alleviate the compatibility (consistency) and perception concern. Brad will also share the subject with the RAPT team.

STATUS: OPEN

ACTION: Mr. Brad Rush will report on the status of this issue at the next ACF.

09-01-217 Cat II Minima Depiction

Mr. Bryan Welch, FAA/AFS-410, provided the briefing. NACO ILS CAT II instrument approach charts currently depict landing minimums as: DA/RVR HAT RA ###. This format is very similar to what is used for ILS CAT I instrument approaches showing the DA and RVR in large text. Although there are only +/- 40 ILS CAT II procedures in the US NAS, recent changes that allow the use of ILS CAT I instrument procedures down to RVR 1400 with RA or HUD presents possible pilot confusion due to the use of the same minima presentation. AFS-410 is concerned that the current NACO depiction, which is the same for both, introduces potential confusion in determining the landing minimums applicable to the CAT II approach (e.g. Radar Altimeter (RA) vs. Decision Altitude (DA) based on barometric altimeter).

The recommendation was to rearrange the order of the Minima or Cat II approaches.

FAA/NACO and Flight Standards will coordinate a review the recommendation and report at the next ACF.

STATUS: OPEN

ACTION: Ms. Valerie Watson, FAA/NACO, will take up the issue with the IACC.

ACTION: Mr. Tom Schneider, FAA/AFS-420, will revise the Order 8260.19, paragraph 854k(1), accordingly.

ACTION: Mr. Bryant Welch, FAA/AFS-410, will write a Safety Memo.

VII. Closing Remarks

Mr. John Moore thanked everyone for their participation. A special thanks was extended to Mr. Lance Christian for providing snacks and drinks for the three-day event. Official minutes will be published and provided via the internet. The two website addresses (IPG and CG) will be provided via email to all participants once the minutes have been posted.

VIII. Next Meeting

The next meeting of the ACF (09-02) is scheduled for October 27-29, 2009 at the NACO facility in Silver Spring, Maryland. The location for ACF 10-01, in April 2010, has been tentatively scheduled at the NACO offices as well.

Please note the attached Office of Primary Responsibility (OPR) listing for action items (Attachment 10 Office of Primary Responsibility (OPR) List). It is requested that all OPRs provide the Chair, John Moore, (with an information copy to Mr. Jim Grant) a written status update on open issues no later than October 2, 2009.

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.

A special thanks to Mr. Ted Thompson, Jeppesen, for providing his meeting notes for use in these ACF minutes.

IX. Attachments

1. Attendees/Mailing List
2. Office of Primary Responsibility (OPR) List

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.