

**Government/Industry Aeronautical Charting Meeting (ACM)
Meeting 23-02
Charting Group
October 24-26, 2023**

CHARTING GROUP MINUTES

I. Opening Remarks

FAA, Aeronautical Information Services (AIS) hosted the Charting Group portion of the Aeronautical Charting Meeting (ACM) on October 24-26, 2023. This meeting was held virtually. Samer Massarueh, FAA/AJV-A223, opened the meeting on Tuesday, October 24. Samer recognized and introduced Jennifer Hendi, FAA/AJV-A250, Chair of the Charting Group, and Jeff Rawdon, FAA/AFS-420, Chair of the Instrument Procedures Group (IPG). Samer provided an overview of the purpose of the ACM, his role as facilitator, and explained how he planned to manage the meeting and participation for the meeting attendees.

II. Review Minutes of Last Meeting, ACM 23-01

The minutes from the ACM 23-01 meeting were distributed electronically via the [AIS ACM website](#). The minutes were accepted as submitted with no changes or corrections.

III. Agenda Approval

The agenda for the 23-02 meeting was accepted as presented.

IV. Presentations, ACM Working Group Reports and ACM Project Reports

[Chart Supplement Update](#)

Alex Rushton, FAA/AJV-A241, presented an [update](#) on the Chart Supplement Modernization effort.

He reported that the Chart Supplement team is continuing to work on implementing Phase II of the XML enhancements ([slide 3](#)) and plans to release the update in January 2024. The update expands the XML to include backmatter pages associated with each airport.

Phase II of the Chart Supplement Modernization Initiative ([slide 4](#)) has been completed and the team has moved on to Phases III and IV. [Slides 5-6](#) show the team's progress and the projected timeline for the phases. The completion of Phase II included working through over 70 recommendations (revisions, removals, and additions) from the Alaska and Pacific workgroups. A final report of the work completed in Phase II was sent to the Alaska and Pacific workgroups in September 2023.

For Phase III, the focus is on reorganizing the Chart Supplement based on feedback from the ACM and the Alaska and Pacific workgroups, specifically regarding the Notices section. For Phase IV, they are working on identifying the Office of Primary Responsibility for the Notices published in each of the Chart Supplements. Phases V and VI can be integrated once the final structure is decided upon.

Alex then reported that the Interagency Air Committee (IAC) has approved the overhaul of IAC Specification 8 which captures the current structure of the Chart Supplement books for the contiguous U.S. ([slide 7](#)). Future work will include chapters for the Alaska and Pacific Chart Supplements.

Alex said the Chart Supplement Team is also working on a new Chart Supplement Order (7000 series) ([slide 8](#)), which establishes the process for revisions, additions, and removals to the Chart Supplement Notices. The order is expected to be released in early 2024.

The Chart Supplement definition updates have been completed and are on track to be published in March 2024 in the Aeronautical Information Manual (AIM), Pilot/Controller Glossary (P/CG), and various FAA Orders ([slide 9](#)).

Alex then explained that foreign data has recently been removed/skeletonized on FAA aeronautical charts. As part of the same initiative, the plan is to remove foreign data from the Chart Supplement ([slide 10](#)). [Slide 11](#) shows the items identified for removal. The Chart Supplement team has put together a [document](#) detailing the items slated for removal. They are requesting feedback from ACM stakeholders ([slide 12](#)) to the email provided below within approximately two weeks of these minutes being published.

Aaron Jacobson, Jeppesen/Boeing, asked whether the items that will be removed are duplicated elsewhere. Alex explained that the information planned for removal is outside U.S. airspace and there is no requirement for the FAA to provide such information. The expectation is that pilots should refer to foreign publications when outside of U.S. airspace. This change will align the Chart Supplement with the rest of the agency's recent actions regarding the depiction of foreign data.

Please provide feedback to 9-AWA-AJV-A2-Apt-MapTeam@faa.gov on the [proposed changes for the Foreign Data Initiative](#) by 15 December 2023.

[Aircraft Detection Lighting Systems \(ADLS\)](#)

Lan Norris, FAA/AJV-A540, [presented](#) on Aircraft Detection Lighting Systems (ADLS). Lan first explained wind turbine marking and lighting standards (see [slides 2-4](#)). He explained that there is currently no way to mark the

tip of the blade, so lights are placed as high as possible on the turbine nacelle and they must be visible to aircraft approaching from all directions. Lan then explained and showed examples of wind farm lighting configurations ([slides 5-6](#)). He said the Obstruction Evaluation Group (OEG) receives complaints about the many flashing lights from large wind farms. Wind farms less than 499' might qualify for reduced lighting, though the trend is to build turbines higher to catch more sustained wind, so there aren't many of those.

A way to mitigate light pollution is to use ADLS ([slides 7-8](#)), which is like a light switch used to turn the lights on and off when the sensor-based system detects an approaching aircraft. The horizontal radar detection is 3 NM and the vertical radar detection is 1,000' above the tallest wind turbine. ADLS is not always ideal. For example, ADLS might not be a good solution for a wind farm near a VFR route with a lot of traffic, or in areas with terrain limitations. [Slides 9-10](#) show examples of ADLS coverage areas.

Lan discussed the responsibilities of the owner/operator if they want to use ADLS ([slide 13](#)). The FAA's role is shown on [slides 14-17](#). Airports Safety Research and Development oversees evaluating the systems for safety, and making sure it is following Advisory Circular (AC) 70/7460-1. They conduct an on-site performance assessment, including flight check. Then they issue the one-time Technical Note, which says the system meets the AC standards. OEG then reviews the required documents and issues a lighting recommendation letter for ADLS.

The pros of ADLS include compliance with laws requiring light mitigation, reduced impact of nighttime lighting on nearby communities, reduced impact to migratory birds, and extension of the life expectancy of the obstruction lights. The cons include additional cost, must be continuously monitored, lighting outage complaints, and ADLS is not depicted on aeronautical charts. Other concerns are listed on [slide 19](#), including that ADLS is not tracked in the Digital Obstacle File (DOF). Lan said the biggest concern he hears is that pilots may become disoriented. [Slide 20](#) shows mitigations that the FAA is taking regarding ADLS, including adding ADLS to the Digital Obstacle File (DOF) and pilot training and outreach. Lan concluded by saying that ADLS is becoming more common. He noted that there are some ADLS related updates coming to the Aeronautical Information Manual (AIM) and Aeronautical Information Publication (AIP) next year.

Rich Boll, NBAA, asked how many ADLS systems are out there. Cindy Whitten, FAA/AJV-A540, said there is currently no way to track that. There is an automation change in process to incorporate tracking that number, since they are getting that question more often from states and municipalities. There is currently no way to search the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) system to gather that data. Rich said one of his concerns is with the 3 NM/1,000' activation for airplanes that might be experiencing an emergency. They think they're gliding to an open area, but instead it's a wind farm that lights up suddenly. He asked if that had been part of the testing. Rich suggested that a solution for those with an ADLS system would be to respond to any emergency codes in their area by turning the lights on. Lan said he could take that suggestion to the Airports R&D group. Rich said NBAA would appreciate that. Rich asked for AOPA's opinion on that concern. Jim McClay, AOPA, said they are aware of ADLS but have not considered that scenario.

Jennifer Hendi, FAA/AJV-A250, said the Obstacle Data Team (ODT) is not currently tracking ADLS data. The suggestion has been made to add it to the DOF and Aeronautical Information Services is currently looking into that. After internal discussions, the Visual Charting Team is not sure a charted indication of ADLS is the correct solution, but it is being looked at as well. She thanked Lan for his briefing.

[Obstruction Evaluation Group Briefing](#)

Jennifer Hendi, FAA/AJV-A250, explained that at the last ACM there was an obstacle briefing by Aeronautical Information Services' Obstacle Data Team (ODT). They gave a briefing of the team's roles and responsibilities for obstacles in the National Airspace System (NAS), but there were still obstacle related questions that were outside of their responsibilities. This time, Jennifer said she arranged to provide a comprehensive briefing about

how obstacles are handled by the FAA to include briefings by the Obstruction Evaluation Group (OEG) and the Office of Airport's Obstacle team.

Lan Norris, FAA/AJV-A540, [presented](#) a briefing on the roles and responsibilities of the OEG. He first shared a [video](#) that explains the obstruction evaluation process.

Lan said OEG is responsible for evaluating proposed structures to determine if they could have an adverse effect on aviation and are deemed a hazard. They are responsible for doing aeronautical studies under 14 CFR Part 77. [Slide 4](#) shows the limits of the FAA's authority. OEG recommends marking/lighting for aviation safety. Also, the FAA does not issue permits, which is a common misconception, but conducts aeronautical studies. Studies are summarized in determination letters, which are publicly available on the agency's website. OEG only conducts studies on structures within 12 NM of the U.S. coastline. However, Lan said OEG is currently in discussion with Bureau of Ocean Energy Management (BOEM) to start looking at structures outside of 12 NM.

[Slide 5](#) explains more about OEG. Lan said that this year, OEG has already processed over 160,000 aeronautical studies. Lan then explained how aeronautical studies are processed ([slides 6-14](#)). A notice of construction must be filed on the Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) website at least 45 days in advance of the construction start date. OEG then coordinates with multiple offices to review proposals. If there are issues, a Notice of Preliminary Findings (NPF) letter will be issued. The NFP often leads to changes being made that result in the proposal no longer having an adverse effect upon aviation. OEG often coordinates with air traffic facilities to determine whether the structure is an actual hazard to aviation depending on the type of airspace usage. Upon completion, a final FAA determination is reached. The conclusion of the study is either a Determination of Hazard (DOH) or a Determination of No Hazard (DNH) letter. DNH letters may include conditions the proponent must follow to ensure aviation safety. Lan noted that DOH letters are rare because there are usually other actions that can be taken to mitigate the hazard. He emphasized that DNH is not a permit and does not supersede local law or authority.

Doug Willey, ALPA, asked who is responsible to communicate an evaluation finding to the community. Lan explained that all evaluations are public record. There is also a subscription service to receive notifications when a determination has been issued. For projects circulated for public comment, postcards and emails are sent. Doug said they have had issues with determinations not being communicated to pilots, or if communicated, not being done so in a usable way because the NOTAMs that were issued were useless. He shared an example of a crane off I-95 in Fort Lauderdale that was a huge safety issue. Lan said in a situation like that, OEG captures the obstruction determination information in the NPF, which is communicated directly to the facility that is impacted. Once they work with air traffic and determine the hazard is acceptable, then, before the obstruction is constructed, a temporary NOTAM needs to be submitted. Doug explained that in the situation he described, there was a disconnect in the process that resulted in a NOTAM that was not usable. Pat Mulqueen, FAA/AJV-A440, explained this scenario is about tactical changes to cranes and issuing FDC NOTAMs. The FAA has three days to issue these NOTAMs to the aviation community. He said they put out 40,000 NOTAMs a year and sometimes they make mistakes. He requested if anyone notices a problem, to let them know and they will fix it. Lan said it is not a perfect system. There are thousands of cranes going up and down every day. If one slips through the cracks, please let OEG know so they can get it right.

Dan Wacker, FAA/AFS-420, asked if OEG had determined how the addition of the departure end of the runway (DER) crossing height that is being added to the criteria will impact evaluations. Lan said he is not aware of this change. Dan said there will be DER crossing restrictions with the new Instructions for Continued Airworthiness (ICA) criteria. Lan said the Obstacle Impact Team is responsible for evaluating IFR procedures. Julie Morgan, FAA/AJV-A310, said the Instrument Flight Procedures Teams provides the IFR impact on procedures back to OEG. She suggested Dan should contact Pat Mulqueen and Johnnie Baker, FAA/AJV-A430, about this issue.

Office of Airports Obstacle Briefing

Dave Perry, FAA/AAS-120, provided a briefing on FAA Office of Airports' responsibilities for on-airport obstructions. He explained there is a step-by-step process in the Airport Data and Information Portal (ADIP) to collect information about obstructions. One of the modules in ADIP is Airports' Geospatial Information Systems (GIS) module, which is based on Advisory Circular (AC) 150/5300-16, -17, and -18. AC 16 covers the geodetic control, which means that every airport uses the same basic control network. AC 17 regulates the imagery requirements. AC 18 details how the surveys should be completed, including data tables that cover every obstruction.

In ADIP, the proponent first submits a detailed statement of work and then they submit an imagery plan. Required imagery is collected from within 3 to 3.5 miles around the airport. AC 18 covers every feature that is to be collected. For each project, the statement of work for each step must be approved before the survey data can be loaded to the system. One feature of the survey is obstructions. The survey splits the runway into sectors and surveyors collect information about the two highest man-made objects and the two highest non-man-made objects and any objects that penetrate the departure surfaces, etc., along with any representative objects. Once the process is complete, and the survey data is loaded to the system, the Office of Airports performs blunder checks (checking measurements like distance from objects to the end of the runway, etc.) to check the surveyor's work. Once the survey passes all checks, it is submitted to National Geodetic Survey (NGS), and at that point, the Office of Airports is out of the process. After NGS validates the data, they create a file package that is entered into the system, which includes the Obstacle Authoritative Source Database.

Once the data is in the system, the Runway Airspace Management (RAM) tool takes the obstacles from the Obstacle Authoritative Source Database and reports their status (terminated, removed, lit, etc.). For example, if a bunch of trees were removed, this information would be reported through the RAM tool. Another example would be if a pole was too tall, a mitigation might be to light the pole. Then the airport could report that it was lit via the RAM tool and the NOTAM would go away. Future updates to the RAM tool include adding the airport design surfaces (creation and evaluation). From that information, an obstacle action plan could be created that identifies every obstacle that penetrates any of those surfaces. The airport is responsible to report back to the region through the RAM tool about how they will mitigate each obstacle or, if they cannot, to state the reasons why. The plan would be approved on a yearly basis.

Noise Abatement

Kent Duffy, FAA/APP-410, [presented](#) an update on the FAA's effort to consolidate noise abatement information contained in the Chart Supplement. He showed an example of the new "Noise" entry in the Airport/Facility Directory entry and explained the objectives of this effort ([slides 2-3](#)). Kent explained that noise abatement information was scattered in many different locations and documents, including remarks in the Chart Supplement, NOTAMs, Airworthiness Directives, etc. The goal of this effort was to identify and provide a primary source for finding noise abatement information. His team developed a best practices guidance document to be used by airports when submitting entries for publication in the Chart Supplement. The FAA will also work to revise existing noise abatement entries in the Chart Supplement in accordance with best practices.

The project was delayed while the focus shifted to 5G and other priorities, but the team is now focused on completing a draft of the best practices document within the next few weeks ([slide 4](#)). Once completed, the team will solicit feedback from industry, operator associations, and the public before finalizing the document. Kent asked the audience to contact him (kent.duffy@faa.gov) if they are interested in reviewing the document. The team is open to discussing any issues, including setting up meetings with operator associations or other industry groups.

[Slide 5](#) recaps the common organizational structure and terminology/nomenclature the team wants airports to use when describing noise abatement information. [Slides 6-8](#) show an example legacy entry followed by how the common structure would be applied to the entry.

Kent asked that users provide feedback on the entire document, but [slides 9-11](#) list five key areas about which the team would most like to receive feedback:

1. Usefulness of “NAI” terminology.
2. How to identify voluntary versus mandatory provisions.
3. When to use Special Notices sections to supplement a noise entry.
4. How to define wind velocity values.
5. Usability of the structure, nomenclature, and template by airport operators.

Jennifer Hendi, FAA/AJV-A250, asked whether there is another office that will review noise abatement submissions for compliance before they are submitted to the Charting office. Kent said it has not fully been worked out yet, but he expects the Office of Airports will review them before they are submitted to Charting.

Rich Boll, NBAA, asked when industry outreach will occur. Kent said they have been working on the project for a few years and have provided several briefings at the ACM. In a few weeks, the team will share their best practices/recommendations document for review and comment. It will be provided to the airport industry associations, to the operator associations, as well as to the public. Rich said he sees some issues with terminology standardization that will need to be addressed so wants to make sure operators will have a chance to review it as well. Kent agreed.

Aaron Jacobson, Jeppesen/Boeing, asked whether all the noise abatement information will be provided, or will operators still need to go to each individual airport to get airport specific information. Kent said it is the intent that the Chart Supplement noise entries will be all inclusive. He said there are only a couple of places where there might be something truly unique that will need to be included in the special notices section or where operators will need to contact specific airports.

V. New Charting Topics

[23-02-379 Charting of Coincident Waypoints and Paved Runways on VFR Charts](#)

Nathan Carafelli, FAA/AJV-A210, presented a new recommendation on the charting of coincident waypoints and paved runways on Visual Charts. He noted this issue pertains only to RNAV waypoints and not VFR waypoints. Nathan explained that with the increase of RNAV routes entering the National Airspace System (NAS), more RNAV waypoints are added to define the RNAV route structure. As a result, some charted waypoints overlap the airport symbol. This creates charting difficulties and a chart legibility problem. The current method used to chart these waypoints is to carve out a piece of the airport symbol as shown on [slides 2-3](#) of the examples presented. The issue is more pronounced with towered airports since both symbols are blue. This method can create user confusion because some of the carved-out areas could be misconstrued as additional runways, particularly on paper copies of the charts. It is important to preserve the airport symbology so there aren't any misinterpretations about the runways or their approximate length.

Nathan presented two possible solutions ([slides 4-6](#)). Both solutions use leadered text to replace the RNAV waypoint symbol. Option 1 includes a leader line to point to the location of the RNAV waypoint, the RNAV waypoint name “CRLNA”, and the text “(RNAV WP)”. Option 2 is similar, with the only difference being “WP” instead of “RNAV WP.”

Bill Tuccio, Garmin, asked if the FAA charts every RNAV waypoint. Nathan explained they chart an RNAV waypoint at the beginning and end of the route and where there is a change in direction of the route.

Bill then asked whether Visual Charting considered putting the waypoint name in the airport data block. Nathan said yes, but they decided against it because the waypoint is not related to the airport and the information in the data block only pertains to the airport. Bill asked whether it would be better to include another table in the margin. Nathan said that would be difficult since the margin is already cluttered with information and space is at a premium.

Jim Deuvall, CAVU, asked whether the blue dot at the end of the leader represents the actual location of the waypoint. Nathan said not necessarily, but it points in the direction of the waypoint. Jim asked if a white dot could be used for the location. Nathan said that would not work because they currently use a white dot to chart NAVAIDs that are coincident with the airport symbology.

Nathan asked participants to vote for their preferred option. Jennifer Hendi, FAA/AJV-A250, reported that Option 2 was the preferred choice with 62 percent of the vote.

Jennifer said Visual Charting will begin work on an Interagency Air Committee (IAC) specification change and will report on this issue at the next ACM.

STATUS: OPEN

ACTION: Nathan Carafelli, FAA/AJV-A210, will report on the progress of the IAC specification change at the next ACM.

[23-02-380 Contour Lines on IAPs](#)

Krystle Kime, FAA/AJV-A222, briefed Terminal Charting's proposal to change the depiction of contours on Instrument Approach Procedure (IAP) charts. As charts become more complex, the current depictions of contours on IAP charts, especially ones that are heavily congested, introduce clutter that can obstruct procedural data and make the charts difficult to read and understand. Terminal Charting has received customer complaints about the readability of charts that contain contours, particularly on the digital products. For these reasons, Terminal Charting proposes removing the contour lines. The shaded intervals and contour interval text will remain, but the lines between intervals will be removed. See the [examples](#) for before and after depictions.

Rich Boll, NBAA, thanked Krystle for bringing this recommendation and said he strongly agrees with this change. He pointed out that in the MSO example, it is almost impossible to read the procedural information on the chart, especially in low lights in the cockpit. He said he hopes Jeppesen will also make this change on their charts. Rich asked if charting had looked at the prototype charts in the various digital displays. He said they do not look the same when they are on paper as they do on digital displays in the airplane. Krystle said they have not investigated how the contours look on the digital displays.

Bill Tuccio, Garmin, expressed support for the change.

Steven Madigan, Garmin, thinks this change makes the charts look much better. He has no concerns and thinks it is an overdue change.

Doug Willey, ALPA, said he supports the change, however he also suggested looking at the night function of the electronic displays to see the impact of the removal of the lines.

Jim Deuvall, CAVU, thanked Krystle for the change and said he fully supports this change.

Tony Lawson, Hughes Aerospace, asked whether the Volpe Center has done any human factors studies on the various displays and electronic flight bags (EFBs). Krystle said she is not aware of any studies. She explained they are focused on print but agrees with looking into other ways the data is displayed.

Rich said, with the transition to EFBs, he thinks Charting should always check their products on digital devices, including in night mode as part of the decision.

Jennifer Hendi, FAA/AJV-A250, said we do have contacts at the Volpe Center, and she will take an action item to reach out to them about how these changes will look in EFBs. If deemed acceptable, Terminal Charting can proceed with an Interagency Air Committee (IAC) Specification change to remove the contour lines from IAPs. Jennifer said she will also have to file an ICAO difference to Annex 4 since it specifically states elevations shall be shown by smooth contour lines.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will reach out to Volpe Human Factors to investigate how the removal of contour lines looks in EFBs.

ACTION: Krystle Kime, FAA/AJV-A222, will draft an IAC Specification change to remove the contour lines from IAPs if the removal is deemed acceptable by Volpe Human Factors.

ACTION: Jennifer Hendi, FAA/AJV-A250, will file an ICAO difference to Annex 4 regarding the removal of contour lines from IAPs.

[23-02-381 Fuel Table in the Chart Supplement](#)

Jennifer Hendi, FAA/AJV-A250, presented this new recommendation on behalf of the proponent Randy Collier, Aerologic. She explained this proposal is a request to update the fuel type legend in the Chart Supplement to improve readability. Randy recommended two options for modifying the table (see [Recommendation Document](#)). Jennifer said she sent the proposal to the Chart Supplement Team, and they are prepared to respond.

Jeff Lamphier, FAA/AJV-A240, reported that implementing these changes would take about nine months due to the large-scale changes to the legend that would be needed. He said he sees the value in the recommendation; however, his team does not have the time or resources to work on it at this time. He will add this recommendation to their list of items to work after the Chart Supplement Modernization initiative is complete.

Rich Boll, NBAA, asked what determines the fuel types that are listed in the legend. Bob Carlson, FAA/AJV-A241, said their source is the National Airspace System Resource (NASR). Rich asked whether there is a standardized list of fuel types. Jennifer said the fuel types that are published in the legend are those that have been coordinated and added to the Interagency Air Committee (IAC) specifications. If a new fuel type is added, it needs to be staffed through the IAC first. Rich said NBAA would like to see synthetic aviation fuel (SAF) added to the list. Jennifer asked Rich to send that request to her via email. Michael Stromberg, UPS-IPA, said the FAA should also consider adding G100 UL to the chart. Jennifer said she will follow up with Rich and Mike.

John Johnson, FAA/AJV-A313, added that the last time a new fuel type was added, it was coordinated through an FAA office that deals with aviation fuels and aircraft certification. He will provide the name to Jennifer. He also said new fuels would require a NASR enhancement.

Jennifer summarized the discussion and said that the Chart Supplement team will track the recommended changes to the fuel table for a future change. Jennifer recommended closing this issue; however, since the proponent was not in attendance, she will reach out to him to discuss the outcome of this item.

STATUS: CLOSED

23-02-382 Procedure Amendment Effective Date

Aaron Jacobson, Boeing/Jeppesen, presented a recommendation regarding the procedure amendment effective date on procedures published in the Terminal Procedures Publication (TPP). He explained that the date was added to the charts as a result of a 2007 ACM recommendation ([RD 07-02-198](#)). The intent was to provide pilots with a way to ensure their database is current, however there is a conflict in the definition. The TPP defines the date as the publication cycle on which a procedure amendment was incorporated on the chart. The Aeronautical Information Manual (AIM) defines the date as a way for a pilot to verify that their database is current. Aaron pointed out that there are changes on a chart that will result in an updated procedure amendment date that might not result in a database change, e.g., minima changes.

Aaron suggested three options to remedy this problem:

1. If the Procedure Amendment Effective Date is intended to provide pilots the ability to determine if they can use a procedure with an expired database, chart producers need to evaluate the changes that are being made per FAA Order 8260.19 Section 8-3-4 against the database values to determine if the database values are still current.
2. If the intent is to provide only the AIRAC cycle in which procedural changes have been made, the AIM language needs to be revised to remove the database verification portion.
3. If this date is not being used or has been overcome by events, then it should be removed from the chart.

Kevin Allen, American Air Lines, said they can fly with an expired database if they verify the data. He said the effective date on the charts is often nebulous, so they verify each segment is correct in the data.

Rich Boll, NBAA, said he was on the original working group when the procedure amendment effective date was added. The purpose was to provide a means to the pilot to verify that the procedure on the chart matched the procedure that was coded in the database. Before that pilots had to go line by line through the procedures, verifying courses, altitudes, waypoint positions, and making sure everything was the same before they could use an expired database. If Table 8-3-1 in FAA Order 8260.19 has been modified to add items that do not affect the path of the procedure, it needs to be changed. He does not think Options 2 and 3 are viable options. NBAA is opposed to removing the procedure amendment.

John Collins, ForeFlight, agrees with Rich. He also said many Flight Management Systems (FMS) specifically include this method as the means of validating the usability of the approach data. He agrees that it should not be removed.

Diane Adams-Maturo, FAA/AFS-420, said Table 8-3-1 is used by procedure designers to determine whether they need to cancel or issue an amendment, an abbreviated amendment, or a P-NOTAM. It is not intended to indicate anything else. Rich asked whether the procedure amendment effective date would change if something like the tower control frequency changed. Jeff Rawdon, FAA/AFS-420, said there are changes to the chart that have nothing to do with the procedure source data, like an airport frequency change. If a frequency is changed, the Julian date would be updated, but not the procedure amendment effective date since there is no procedure amendment. However, there are items on procedure amendments that will not affect the coding. For example, someone could use an amendment to add a chart note. The chart note is not coded but does result in a change to the procedure and the procedure amendment effective date. Rich said he does not think that was the original intent of adding the procedure amendment effective date.

Pat Mulqueen, FAA/AJV-A440, said we may have overcome the original intent over time. He said the Instrument Flight Procedures team uses Table 8-3-1 to determine what to do for a change but said every change they make goes to coding for an update to the Coded Instrument Flight Procedures (CIFP) dataset. The only thing not

changed in the CIPF is a T-NOTAM. He said he thinks this is a bigger issue, and it needs to be investigated internally first before any decision is made.

Aaron pointed out that the definitions in the Chart Users' Guide and the TPP says, "Updates to the amendment number and the effective date represent procedural/criteria revision to the charted procedure." The question is what causes the amendment number and effective date to change and does it change the database. There is a lot of heavy lifting on the part of pilots to compare the database and the charted procedure. If the change does not affect flying the procedure, the date should not change. He pointed out that in some cases the procedure amendment date on some Jeppesen charts does not match the procedure amendment effective date on the FAA's charts, since Jeppesen's charts follow the original intent of [RD 07-02-198](#).

Rich asked whether the original working group recommendations are still available. Jennifer Hendi, FAA/AJV-A250, said she can investigate that history, but it sounds like the original intent has been overcome. Rich said the procedure amendment effective date is for confirming and validating that the procedure matches the database when a procedure changes in flight, which happens occasionally.

Steven Madigan, Garmin, said Garmin regularly works P-NOTAMs with changes that aren't coded and have nothing to do with the path of the procedure, but they still roll the amendment number and effective date up. He asked how amendment changes that don't affect the database are intended to be made. Pat said Steven asks a good question. There are changes that occur, such as requirements notes or minima, that a pilot needs to know about but don't impact the procedure or the coding. Pat recommended a working group to figure out whether we really have a problem with the way we're doing things.

Jennifer Hendi, FAA/AJV-A250, summarized this issue and explained that it will be discussed further at the ACM Recommendation Review Group. She will report back at the next meeting.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will bring this issue to the ACM Recommendation Review Group for discussion and will report back at the next meeting.

[23-02-383 Identification of Radius to Fix Legs on IFPs](#)

Rich Boll, NBAA, presented a new recommendation for a charted indication of radius-to-fix (RF) legs on terminal procedures. He said he talked with a group of industry tech pilots, and they agreed that on some of the procedure charts it is difficult to tell which segments are RF legs and which are track-to-fix (TF) legs. Pilots are required to ensure that the instrument flight procedure that is coded in the navigation database matches the published procedure. This includes verification of leg type, track, and distance between waypoints. The PBN box equipment requirements will give indications of when you are flying a leg that contains an RF segment, however the pilot may not be able to tell which segment is RF.

NBAA recommends that the Interagency Air Committee (IAC) specification be amended to state that a track angle will always be shown on all TF legs and that the absence of track angles on a procedure segment is indicative of an arc segment, either an RF leg or a DME arc segment. Since DME arc segments are not used on RNP procedures, it would be clear that an arc segment on an RNP is an RF leg. He said the Terminal Procedures Publication (TPP) legend can also be updated to state that the lack of a track angle published with a procedure segment on an approach, departure, or STAR is indicative of an arc segment. Finally, Rich recommended that the Aeronautical Information Manual, Aeronautical Information Publication, Instrument Flying Handbook, and Instrument Procedures Handbook should be updated to explain this distinction.

Jeff Rawdon, FAA/AFS-420, clarified that this recommended change is only for the planview, not for the profile view.

Krystle Kime, FAA/AJV-A222, said Terminal Charting will have to do some research, but she would be surprised if there are any charts that have both RF and TF legs that don't already have a bearing on every TF route. She also pointed out that on Instrument Approach Procedure RNP charts, TF and RF legs are depicted differently within the profile view of the chart. TF portions are indicated with a track value above the line and RF portions do not contain a track value. For additional clarity, the TPP legend was recently updated to provide an example of an RNP profile with annotated TF and RF segments. Rich said he sees Krystle's point, but he needs to confirm this point is acceptable with pilots.

Doug Willey, ALPA, said he has also experienced issues with identifying the legs. He said it is made even more confusing because there is inconsistent placement of the note "RF REQD" on the charts. Joel Dickinson, FAA/AFS-410, responded that Flight Standards anticipated this issue and hoped to fix it by moving the note to the PBN box. As the charts are updated, the "RF REQD" notes will all be moved to the PBN box. Another safeguard is that if a pilot looks at this procedure and tries to select the RF leg in the Flight Management System (FMS) on an aircraft that is not capable of RF, it will not be included as an option. Diane Adams-Maturo, FAA/AFS-420, said putting the "RF REQD" note in the PBN box has been documented in the FAA Orders 8260.19 and 8260.46 and said it will take a while for all charts to meet the criteria, but they should all have PBN boxes eventually.

Bill Tuccio, Garmin, said he doesn't understand the issue. Pilots must comply with ATC clearance, which is based on the chart. If you can't look at the chart and tell whether it is a straight line or a turned line, you still must comply with ATC. Bill thinks the way things are done currently is adequate. Rich said the problem is there is still a requirement to validate the FMS against the chart.

Rich asked Doug whether the absence of a track angle makes it explicit that it is not a straight line but is curved. Doug can live with the solution in the long run, but thinks it needs to be emphasized through pilot guidance. Rich said he would be satisfied with a TPP legend change to explain that a track angle will always be shown on TF legs and that the absence of track angle on a procedure segment is indicative of an arc segment, either an RF leg or a DME arc.

Jennifer Hendi, FAA/AJV-A250, said additional internal discussion is needed and she will take this issue to the ACM Recommendation Review Group. Pending that outcome, Krystle and Jennifer will talk about updating the IAC specifications and will also discuss adding something to the planview legend.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will take this issue to the ACM Recommendation Review Group for further discussion.

ACTION: Krystle Kime, FAA/AJV-A222, and Jennifer Hendi, FAA/AJV-A250, will work any necessary Interagency Air Committee (IAC) specification changes.

[23-02-384 Improvements to NASR CSVs](#)

Steven Madigan, Garmin, presented a recommendation to request new data elements in the National Airspace System Resource (NASR) CSV files. He said the CSV files have been incredibly helpful to Garmin and they would like to have additional data added. In order of precedence, Garmin is requesting the following new data:

- FIX USE data
- Fix-level ESV data
- ASR/PAR data on a per-airport basis

Colleen Kubont, FAA/AJV-A350, reported there are three files that include FIX USE data. The information is not available on a public database, but internally the data team can export this data. They first need to obtain approval to share the data with the public. The Fix-level ESV data file exists now internally, but again, the data

team needs to obtain approval to distribute the data to the public. Colleen asked for clarification on what Garmin is requesting regarding ASR/PAR data. She said there is a radar file that is currently available to the public.

Steven said the current radar CSV file is not a 1:1 match between an airport that has ASR/PAR service on the charts and a facility or airport listed in the CSV. It seems to match to the facility that provides the ASR/PAR service but does not match to those facilities that are served by it.

Colleen said she will need to investigate that issue further. She said the data they are requesting comes from a non-public database where AIRNAV is housed. As with the above requests, the data team will need to obtain approval before this data can be shared.

Thomas Carrigan, FAA/AJV-A311, emphasized that AIRNAV does not contain all the data that was requested. The quick fix that Colleen can provide will not contain all the data. NASR is the ultimate data source and there is an open issue to add this information to NASR.

Colleen said the Aeronautical Data Team will investigate this issue and will report back at the next ACM.

STATUS: OPEN

ACTION: Colleen Kubont, FAA/AJV-A350, will report back on the Aeronautical Data Team's investigation into adding the additional data elements to the NASR CSV files.

[23-02-385 Perpetual Access to Procedure Packets](#)

Steven Madigan, Garmin, presented the new recommendation. He said upcoming changes to procedures, fixes, and routes are posted on the Instrument Flight Procedures (IFP) Gateway website for public comment several cycles before they become effective. Prior to the effective date, several packages are offered for every procedure – “F” and “S” packets, 8260-2 packets, etc. Once an amendment is published, most of this data is removed from the IFP Gateway. Garmin recommends creating a repository for these supplemental procedure packets that remains accessible to the public.

Pat Mulqueen, FAA/AJV-A440, said the IFP group is not surprised by this request and will investigate providing this information to Garmin. He agrees that having this data accessible would cut down on Aeronautical Portal inquiries. He said the question is how the FAA can provide this information. Pat said he will investigate this request, which may include talking to legal.

Rich Boll, NBAA, endorsed the proposal and said NBAA has asked for this for several years. He said he would also like to see the TERPS designs.

John Collins, ForeFlight, wholeheartedly agrees that access to this information will help. Many of the questions ForeFlight receives could be answered by this information. He thinks it will cut down on a lot of inquiries to specialists. It is helpful to understanding the issues on procedures.

Rich asked if the packets currently available on the coordination site are final. Pat said the material on the IFP Gateway is available for comment, and though it is usually too late to change them, the final product can differ. Also, the Gateway does not include everything that is available to the specialists. Rich said NBAA would be happy to have the final files and does not need the whole history. Steven agrees that they are looking for the final signed files.

Pat will take the action to investigate this issue and report back at the next ACM.

STATUS: OPEN

ACTION: Pat Mulqueen, FAA/AJV-A440, will investigate perpetual access to IFP procedure packets will report back at the next ACM.

23-02-386 ATC Non-Visibility Areas

Jennifer Hendi, FAA/AJV-A250, reported that this new recommendation is on hold for now. This is a request from an FAA office to graphically depict ATC non-visibility areas on airport diagrams. However, several FAA offices are involved in handling this issue and there is already a process in place, so the FAA needs to do more internal investigation before bringing this issue to the ACM.

VI. Outstanding Charting Topics

18-01-323 Standardizing the Labeling of Parking Areas on Airport Diagrams

Mike Rottinghaus, FAA/AAS-110, reported that he is still in the process of drafting the changes to Advisory Circular (AC) 150/5340-18. Mike said it will go out for internal review at the end of this year and an external review next year. He said there has been no change to the content since the last time it was presented. He said he did receive confirmation to use the term “apron” instead of “ramp” since other Office of Airports ACs use that term.

Jennifer Hendi, FAA/AJV-A250, said since this change is voluntary, there will not be a requirement for the Airport Mapping team to update their specifications or to collect the standardized airport terms. They will publish them on the Airport Diagrams as they are submitted. Jim McClay, AOPA, agreed and said he does not think there are any other action items for the ACM. He said AOPA is eagerly awaiting the publication of the AC.

Dan Wacker, FAA/AFS-420, said the FAA Order 8260.3 might need to be updated to include the term “apron” since it only uses “ramp” currently. Mike pointed out the Pilot/Controller Glossary (P/CG) says “see ‘ramp’” when you look up “apron” and vice versa. “Apron” is the formal term and “ramp” is synonymous. Doug Willey, ALPA, said he doesn’t know of anyone who uses the term “apron” and asked if it is an ICAO term. Mike said there is no definition of “ramp” in the ICAO documents, only “apron”.

Jennifer summarized the discussion and said this item will be kept open for an update on the status of the AC at the next meeting.

STATUS: OPEN

ACTION: Mike Rottinghaus, FAA/AAS-110, will report on the status of the update to include the three new parking area terms in AC 150/5340-18, the Aeronautical Information Manual, and the Pilot/Controller Glossary.

18-02-327 IAP Chart Modernization

Rich Boll, NBAA, presented [prototypes](#) that include the revised titling for the inoperative components minimums table based on the discussion at the last ACM. Krystle Kime, FAA/AJV-A222, explained each of the prototypes. She stated that if the inoperative minimums are standard and the table in the front of the TPP should be used, the header will read “FULL COMPONENTS (FOR INOP COMPONENTS SEE INOP COMPONENTS OR VISUAL AIDS TABLE)”. If there are “non-standard” inoperative minimums, i.e., currently a briefing strip note, the headers will read “FULL COMPONENTS” and “INOP COMPONENTS” or “INOP ALS #INOP TDZ or RCLS” (ORD example). If there is no Approach Lighting System at an airport, there is no header.

Steven Madigan, Garmin, said he still thinks adding the inoperative minima table only in non-standard cases is a bad idea. He thinks the FAA should always publish the inoperative component minima or not do it at all. Rich

said he understands that concern but said the FAA cannot accommodate that solution at this time. He is hopeful that, in the future, all the inoperative component minima will be published on the charts.

Jeff Rawdon, FAA/AFS-420, reported that when Flight Standards worked on this solution with the Instrument Flight Procedures team, the IFP team could only commit to chart the inoperative components that are currently documented as notes. If adjustments are standard, the FAA cannot commit to showing them differently, at least not at this time.

Diane Adams-Maturo, FAA/AFS-420, said this change would need to be explained in all the documentation. She has concerns it will be implemented slowly and in an inconsistent way. Rich said pilot practices will remain the same. Currently pilots must go to the inoperative components table. For non-standard minima, the proposal is that they will be documented in the table. We are not changing practices, just the location of the data, as well as eliminating the mental math. Diane said she wants everyone to be aware of the amount of work involved in this change.

Bill Tuccio, Garmin, said this is a move in the right direction, but thinks the minima title "INOP COMPONENTS" is not specific enough. He thinks the charts need to be clear about what components are being referred to. Rich asked if we could list what the inoperative component is. Bill suggested using "INOP ALS" as the title instead. Krystle and Jennifer Hendi, FAA/AJV-A250, said that is what was presented at the last meeting, and this group decided we needed something more generic than ALS to cover everything.

TJ Nichols, FAA/AFS-420, thinks there is enough clarity about the proposed solution, so the next step would be to figure out what the agency needs to do to react. This includes figuring out the scope of the project and then setting priorities. Jeff agreed and said the Flight Procedures and Airspace Group is continuing to investigate the criteria updates necessary to implement this proposal. He explained the entire Chart Modernization proposal went through a safety review a little over six months ago. The titling of the table was identified as an issue and that is what we are trying to solve now.

Aaron Jacobson, Boeing/Jeppesen, says he is fine with this solution if "INOP COMPONENTS" means the same on every chart. Otherwise, he thinks the table should be broken out by component. He then asked how this will be sourced. Krystle said the inoperative components minima will need to be sourced on the FAA 8260-3 forms and this title would need to be on the form as well. She said on the current form this information is sourced as a note, and on future forms it would be moved to a minima table. Aaron asked if we need to list the specific inoperative components in the title. Jennifer pointed out that the criteria for the note is currently written as "FOR INOP ALS" so she assumes it will continue to be written the same way. Rich said that seems to be what ACM participants want. Mike Stromberg, UPS-IPA, agrees that saying only "INOP COMPONENTS" is bad since it doesn't tell you which inoperative components are included. He thinks saying "INOP ALS" is better. Bill said he thinks if one non-standard inoperative component exists, then all of them need to be listed. Krystle summarized and confirmed that the ACM audience supports using "FULL COMPONENTS", but the titling for the inoperative minima needs further discussion.

TJ asked if the computations to determine what goes into the new inoperative minima table will be the same as what is done for the current chart note. Jennifer said the computation on the new form will be different. The current notes say something like, "increase the visibility by 1.5 miles" and then the pilot must go to the table in the front of the TPP to do the calculation. The new table will list the calculated new visibility, eliminating the need for mental math. TJ summarized that these changes will involve changing FAA Form 8260.3 and FAA Order 8260.19, and updating automation to calculate the new visibility values. Jeff agreed and said that is consistent with what has been briefed in previous meetings. Diane emphasized that form changes are very difficult and follow an intense process. Dan Wacker, FAA/AFS-420, cautioned the chart changes are a good concept, but reminded the audience that this change will be day forward and will take many years to complete.

Jennifer reported she and Krystle have started working on a change to Interagency Air Committee (IAC) specification 4 to capture Chart Modernization. It is a large change and will require a complete overhaul of IAC 4. Krystle said once the charting specification is complete, and criteria changes have been determined, her team can start applying changes to charts that don't have ALS. Dan emphasized that changes to the charts should not begin until the criteria changes are through coordination.

Jeff Lamphier, FAA/AJV-A240, provided a summary of the progress of the Airport Diagram Modernization effort. He explained that the content of the Airport Diagrams is being expanded to include NAVAIDs and runway and approach lighting information in preparation for the skeletonized sketch planned for IAPs. He said his team has started implementing the changes and are working them day-forward. He said he anticipates that will take 15-20 cycles to fully implement the changes. Jennifer said his action item can be closed.

STATUS: OPEN

ACTION: Rich Boll, NBAA, will report on the revised naming of the IAP Chart Modernization minima titling.

ACTION: Jennifer Hendi, FAA/AJV-A250, and Krystle Kime, FAA/AJV-A222, will report on the status of the Interagency Air Committee (IAC) specification change for the IAP Chart Modernization recommendations.

ACTION: Jeff Rawdon, FAA/AFS-420, will report on the Flight Procedures and Airspace Group investigation of criteria updates necessary to implement the Chart Modernization recommendations.

19-01-333 LED Lighting at Airfields

Matt Harmon, FAA/AFS-410, reported there has been no change to this proposal since he briefed the topic at the last ACM.

Jennifer Hendi, FAA/AJV-A250, asked whether Flight Standards wants the workgroup to get together and discuss the data and charting requirements for LED information. Matt said not yet. First, they need other FAA offices to agree to source this information.

Rich Boll, NBAA, asked whether the FAA is still in discussions with the Office of Airports about how to collect information about LED lights. Matt said there is currently no money to implement the changes necessary to collect the data or incorporate it into FAA Form 5010. Until the effort is authorized at the management level, the work cannot move forward. Rich said LED lights replacing incandescent lights is having a negative effect on aircraft with enhanced vision systems. Rich thinks this effort needs to engage the Office of Airports more heavily to find a way to source the data.

Jennifer Dahlstrom, FAA/AAS-120, said the Office of Airports can help to collect this data. They first need the specifications about what data to collect and how it should be housed in the Airport Data Information Portal (ADIP). The Office of Airports can then work with AJV-A on the publication of the data. Jennifer and Matt agreed to set up a meeting to talk about the issue.

Dan Wacker, FAA/AFS-420, asked whether the LED has been deemed better than the incandescent based on the angles required by TERPS. Matt said the LEDs must meet the same lighting requirements as other visible lights. Matt said he can talk to Dan after the meeting to answer his questions in more detail.

Jennifer Hendi summarized the issue and said the issue will be kept open for Matt and Jennifer Dahlstrom to work together on the source for LED data.

STATUS: OPEN

ACTION: Matt Harmon, FAA/AFS-410, will work with the Jennifer Dahlstrom, FAA/AAS-120, and the Office of Airports to secure a source for LED data.

19-01-335 Charting of Unusable Airway Segments

Jeff Rawdon, FAA/AFS-420, reported that all remaining notes on airway segments that say “unusable except” were removed with the 5 October 2023 chart cycle. He said there may be some remaining NOTAMs that have similar language, but they will attrition over time. Jeff said Flight Standards would like to close this issue.

At the last meeting, Rich Boll, NBAA, said he was going to investigate rulemaking changes to Part 95 regarding the replacement of unusable V Routes with T Routes. Since then, NBAA has determined they will not pursue any rulemaking changes. He thinks the request for a rulemaking change should come from an internal FAA office. Pat Mulqueen, FAA/AJA-A440, agrees with Rich. He said the regional Air Traffic Control offices oversee the planning for T-Routes and the overall maintenance of the airway structure. Gary Fiske, FAA/AJV-P31, said the best path is reach out to the regional office that oversees the area and ask them to cancel the unusable airways. Rich asked if that request needs to go through the IFP Gateway.

Art Griffenkrantz, FAA/AJV-E24, said he works at a regional office, and he confirmed that an IFP Gateway request must be submitted in order to request an amendment to an airway. He cautioned that it is a difficult legal process to get such a request approved. He said the Airspace Modernization effort is ongoing and is working to resolve these types of issues.

Jennifer Hendi, FAA/AJV-A250, summarized this issue and said there is nothing more to be worked through the ACM. She said Rich can investigate the removal of unusable airways by submitting a request in the IFP Gateway, but that is outside the scope of this issue. There were no objections to closing this issue.

STATUS: CLOSED

20-02-345 Wrong Surface Hot Spots

Jeff Rawdon, FAA/AFS-420, reported that the one-year test of arrival alert notices (AANs) and associated wrong surface hot spot airport diagram symbology officially concluded last May. As a result, the AANs were accepted and will be published in the Chart Supplement for the 12 airports included in the test in the next charting cycle. In the future, they will be added to and removed from other airports as deemed necessary. The Interagency Air Committee (IAC) specification changes for AANs have been approved. The cylinder symbology for wrong surface hot spots was not accepted. Going forward, hot spot symbology will be standardized to circles and ellipses and there will not be wrong surface landing hot spots. After 30 November 2023, the two Flight Standards memos and the Information for Operators (InFO) that were issued will be canceled. Jeff showed an [example](#) from Lincoln, Nebraska. Jeff recommended closing this issue.

Aaron Jacobson, Jeppesen/Boeing, asked what the criteria was for determining the results of the tests. Jeff said the effort included surveys and other forms of feedback. They also socialized the test on social media and conducted public outreach by talking to pilots at aviation gatherings and at the local airports where the AANs were published. He said it was hard to be quantitative with the results since you don’t know what wrong surface events didn’t happen because of the change, but the qualitative feedback they received was positive.

John Collins, ForeFlight, said ForeFlight manually added these AANs for the 12 airports. He asked if, going forward, there will be an automated means of obtaining this information. Jeff Lamphier, FAA/AJV-A240, said this information will be delivered as part of the Chart Supplement XML Phase II enhancements once they are

available. It will be in the XML code as a secondary airport package and on their web search page as a secondary PDF download. It will include everything associated with the airport. This method will be available in early 2024. Rich Boll, NBAA, pointed out that in the meantime the list of AANs can be found on Runway Safety's website: https://www.faa.gov/airports/runway_safety/hotspots/aan. Mark Mentovai, Manhattan Flight Club, said he has been able to extract the data from the Chart Supplement package. He said he will email the details to John.

Jennifer Hendi, FAA/AJV-A250, asked Jeff Lamphier if he has received any new or revised AANs from Runway Safety for the November cycle. Jeff said they have not received any yet, but Runway Safety is working them, and it will be handled through their usual submission process.

Joel Dickinson, FAA/AFS-410, noted that an expiration date and Runway Safety's email address is included on the AAN example that was shown. He asked if that information would remain or if it was just for the test. Jeff Lamphier said the expiration date was only for the test. He said he will talk with Runway Safety about whether to include their email. He also pointed out that the Chart Supplement team is working to identify owners of all special notices. They are working to add a block at the bottom of all notices to identify the office of primary responsibility that is responsible for managing, updating, and sending the notice to the Chart Supplement team for publication.

Rich Boll, NBAA, asked if Runway Safety plans to continue to update the list of AANs on their webpage. He also asked that Flight Standards consider updating the InFO with the results of the test and to refer pilots to the Runway Safety website for the list of airports and to the Chart Supplement for the AANs. Jeff Rawdon said he can take that recommendation back to discuss internally.

Jeff Lamphier said a Charting Notice was posted to announce that the test concluded and that AANs will be provided in the Chart Supplement with the standardized hot spot symbols (circle and ellipse). Jeff Rawdon asked Rich if that was sufficient. Rich said he still would like to see an InFO because they are more widely received by operational audiences than Charting Notices. Jeff Rawdon said he will follow up with Rich on whether a new InFO should be issued. Rich agreed and said he is fine with closing this issue.

STATUS: CLOSED

20-02-348 NASR Improvements for ARTCC/RCAG Frequencies

Jon Gdowik, FAA/AJV-A313, reported that the National Airspace System Resource (NASR) improvements to the databasing of Air Route Traffic Control Center (ARTCC) frequencies is still planned to be included in the large database revision. He explained that there is still a hold on NASR enhancements. He said, in the meantime, Colleen Kubont, FAA/AJV-A350, is still enhancing the CSV data files. Jon asked Steven Madigan, Garmin, whether he was still finding the CSV data files to be helpful. Steven confirmed that the CSV files are helpful, and they are relying on them more and more.

STATUS: OPEN

ACTION: Brian Murphy, FAA/AJV-A350, will report on the status of the request to improve the databasing of Air Route Traffic Control Center (ARTCC) frequencies in the National Airspace System Resource (NASR) database.

[21-01-351 Non Air Carrier Runways in the Chart Supplement](#)

Alberto Rodriguez, FAA/AAS-320, [presented](#) on this issue. He explained that the Office of Airports is developing a requirement for Part 139 airports with non-Part 139 runways to report standardized remarks to identify the non-Part 139 runway(s) in the Airport Data and Information Collection Portal (ADIP). It is also recommended they be identified in the National Airspace System Resource (NASR) database and in the Chart Supplement airport entries. He said, as an interim fix, the Office of Airports is working on developing a requirement for airports certificated under Part 139 to identify runways which are not available for air carrier use via standardized “Remarks” in the FAA Form 5010 Airport Master Record (AMR). See the proposed standardized remark on [slide 3](#).

The long-term solution is to establish a new field in the AMR – Runway Data section to identify which runways are not for use by Part 121 air carrier operations ([slide 4](#)). Then the relevant publications, e.g., Chart Supplement, Airport Diagram, can be updated and the remarks can be removed.

The blue arrow on [slide 5](#) shows where the data element is proposed to reside in the AMR. The red box shows an existing remark, which would be removed. [Slides 7-8](#) show an example of how the proposed language might be shown in the Chart Supplement Airport/Facility Directory entry and shows the existing remark that will be removed. The information would be shown under each runway.

Alberto said after receiving feedback at prior ACMs, workgroup discussions, and input from Flight Standards, the recommended terminology for the remark is “Not for Part 121 Air Carrier Use or Foreign Air Carrier Equivalent.” The workgroup also evaluated different types of aeronautical publications and determined the airport diagram to be the most functional publication for the information. [Slides 12-13](#) show the proposed language on the Airport Diagram.

He said the workgroup recommends adding a definition of Part 121 Air Carrier Runways to the Aeronautical Information Manual (AIM) and Aeronautical Information Publication (AIP). [Slide 15](#) shows next steps, including verifying the inventory list of affected certificated airports and associated runways, updating the FAA Form 5010 (AMR) and providing the data needed to populate the Chart Supplement, and providing notification to users (via InFO, Cert Alert, etc.) about when and where the information will be published.

Jon Gdowik, FAA/AJV-A313, said that remarks from ADIP are fed to National Airspace System Resource (NASR) and from there are picked up by the Chart Supplement. However, the plan to add those entries to each individual runway will require a NASR enhancement, which will take time. As a workaround, he thinks these changes can be made in phases by keeping the existing remarks, which will allow the FAA to meet the obligation until NASR enhancements can be made. In the future, we can remove the remarks and input the data in the runway fields. Alberto doesn't have an issue with this but thinks we need to continue to move forward with building the field into ADIP. Chris Criswell, FAA/AAS-120, said he can assist with the establishment of the data flow. Jon asked whether the current remarks published in the Chart Supplement will be standardized. Alberto said the existing remarks should already be standardized.

Jeff Lamphier, FAA/AJV-A240, said AJV-A and Office of Airports will need to have more internal communication before the Chart Supplement team commits to any action items. In the meantime, they will provide feedback on the recommendations briefed by Alberto.

STATUS: OPEN

ACTION: Alberto Rodriguez, FAA/AAS-320, will report on the progress of the Non-Air Carrier Runways Working Group as it continues to investigate the data and publication requirements for the identification of Part 139 runways.

ACTION: Chris Criswell, AAS-120, and John Gdowik, FAA/AJV-A313 will work together on the establishment of the data requirements for Part 139 runways.

21-02-362 Graphic Circling Restrictions on Instrument Approach Procedures

Krystle Kime, FAA/AJV-A222, briefed that since the last ACM an internal workgroup evaluated existing circling restrictions to determine what could and could not be shown graphically. They determined that circling restrictions for maneuvering can be shown graphically, but the conditional restrictions, such as those for night, will have to remain as a note. She shared some [examples](#).

Steven Madigan, Garmin, said he is aware of several procedures that would be impossible to depict with a small graphic. Krystle said they took the worst-case scenarios and made sure they work with this solution. She said that, if necessary, they will use a leader and put the category text outside the circle. Steven confirmed this will be limited in scope to those restrictions that always apply based on categories. It will never include conditional restrictions. Krystle confirmed that is the case.

Rich Boll, NBAA, said this is what NBAA was looking for. He realizes there will still be circling notes. Pilots are responsible to know everything on the charts and have always had to look in multiple places. He pointed out that it would be nice if the circling notes were grouped together in the notes box. Krystle said notes are charted in the order they are listed on the procedure source form. Rich suggested that maybe the FAA Order 8260.19 needs to be updated to group the notes. Diane Adams-Maturo, FAA/AFS-420, said that would be difficult to do in the criteria and difficult to enforce.

Diane then asked if there is a way to accomplish this without making changes to the source forms. Jeff said he had tried to come up with a way to do this without changing the form, but determined the form will need to be changed. He said before criteria changes are considered a safety review will be conducted.

Cameron Korrekt, NGA, said regarding the space available in the graphic, if all categories are affected by the non-circling area, perhaps some space could be saved by using "ALL" instead of A, B, C, D, etc. He also suggested that if there are additional circling notes, an asterisk could be added to the circling graphic to point users to the notes. Krystle said they investigated those ideas. They tried "ALL CATS" but didn't like how it looked. As far as the asterisk goes, she thinks it would be better to explain in the pilot guidance that only the maneuvering areas are depicted graphically. Pilots will still need to read the notes.

STATUS: OPEN

ACTION: Jeff Rawdon, FAA/AFS-420, will report on work to identify the criteria and form changes necessary to graphically depict circling restrictions.

ACTION: Jeff Rawdon, FAA/AFS-420, will report on the progress of a Safety Review for graphic circling restrictions.

21-02-364 Airport Sketch – Final Approach Track

Jennifer Hendi, FAA/AJV-A250, reported that the Interagency Air Committee (IAC) specification change for this item has been signed. The specifications have been updated to always depict the final approach course track in the airport sketch of Instrument Approach Procedures regardless of the location of the MAP in relation to the airport sketch boundary. The changes are being implemented day-forward beginning with the 30 November 2023 chart cycle. All actions are now complete, and this issue can be closed.

STATUS: CLOSED

[22-01-368 Special Use Airspace on IAPs](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards has not been able to reach an internal agreement about how this issue should be handled. Flight Standards will continue to investigate and will report back at the next ACM.

STATUS: OPEN

ACTION: Jeff Rawdon, FAA/AFS-420, and the Flight Procedures and Airspace Group will report on updates to Flight Standards criteria regarding the charting of Special Use Airspace areas.

[22-01-369 Wildlife, Seashore & Similar Areas on IAPs](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards has not been able to reach an internal agreement about how this issue should be handled. Flight Standards will continue to investigate and will report back at the next ACM.

STATUS: OPEN

ACTION: Jeff Rawdon, FAA/AFS-420, will report on the Flight Procedure and Airspace Group (FPAG) investigation into possible criteria changes regarding the charting of wildlife, seashore and other similar areas on Instrument Approach Procedures and what steps, if any, should be taken to remove currently charted instances.

[22-01-371 Enroute References & Coordinates on DPs & STARs](#)

Jennifer Hendi, FAA/AJV-A250, reported that the Interagency Air Committee (IAC) specification change to remove geographic coordinates and enroute references from DPs and STARs has been signed and is being implemented on a day-forward basis. All actions are now complete, and this issue can be closed.

STATUS: CLOSED

[22-02-372 Unnamed Special Military Activity Routes](#)

Katie Murphy, FAA/AJV-A213, thanked Paul Hoegstrom, AFFSA, and the other military contacts. With their help, Visual Charting was able to verify and update the information for the ten Special Military Activity Routes (SMARs) that are currently charted. She said those changes were effective with the 5 October 2023 chart cycle. Additionally, the Interagency Air Committee (IAC) specification change to add the route number to the SMARs communications boxes, as well as updating the note in the margin to more clearly explain that those notes are related back to the route itself, has also been signed and implemented. Katie said the updates resulted in changes to eight aeronautical charts. She recommended closing the issue.

Jennifer Hendi, FAA/AJV-A250, reported that, in addition to the IAC specification change, the guidance in the Aeronautical Chart Users' Guide was also updated for the 5 October 2023 effective date.

Joel Dickinson, FAA/AFS-410, reported that since it has been determined that SMAR guidance will continue to be published and the specification change is complete, he will now submit the Document Change Proposal for the addition of SMAR guidance to the Aeronautical Information Manual (AIM).

Tom Carrigan, FAA/AJV-A311, said he had worked the action from the last meeting to reach out to Greg Yuhasz, FAA/AJR-B1, regarding Flight Service Station awareness of SMARs. Tom confirmed with Greg that Flight Services is aware of this issue and will be providing training on SMARs.

Jennifer summarized the issue and said all actions are now complete. There was agreement to close this issue.

STATUS: CLOSED

[22-02-375 Charting Depictions of Stopways](#)

Jennifer Hendi, FAA/AJV-A250, reported that the Interagency Air Committee (IAC) specification change for the revised depiction of stopways and blast pads is currently in signature process. Once signed, the Chart Supplement team will identify an implementation date. Jennifer will report on this issue at the next ACM.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will report on the status of the Interagency Air Committee (IAC) specification change for the revised depiction of stopways and blast pads.

[23-01-377 NAVAID Box Leaders](#)

Jennifer Hendi, FAA/AJV-A250, reported that the Interagency Air Committee (IAC) specification change to replace the cartoon-type leader with a straight-line leader and to change the primary NAVAID box to a thicker line weight was signed and will be implemented day forward with the 5 October 2023 chart cycle. All actions are now complete, and this issue can be closed.

STATUS: CLOSED

[23-01-378 VASI/PAPI Locations](#)

Jon Gdowik, FAA/AJV-A313, reported the Aeronautical Data Team is still having internal discussions about providing the Visual Approach Slope Indicator (VASI)/Precision Approach Path Indicator (PAPI) location information in a CSV file. He said, for now, AVNIS/Flight Inspection Datasheets for individual airports can be requested by sending an email to 9-AMC-AJV-DataSheets@faa.gov.

Aaron Jacobson, Jeppesen/Boeing, asked what data will be included. Jon explained that the latitude/longitude for the VASI/PAPI is not always provided, but they are able to provide an approximation from the threshold. The data provided is reference points for the latitude/longitude, reference threshold, reference elevation, and threshold crossing height.

Jon said he will provide another update at the next meeting.

STATUS: OPEN

ACTION: Jon Gdowik, FAA/AJV-A313, and the Aeronautical Data Team will continue to investigate a way to make VASI/PAPI location information more accessible.

VII. Closing Remarks

Samer Massarueh, FAA/AJV-A223, and Jennifer Hendi, FAA/AJV-A250, thanked the attendees for their participation and input to the issues discussed.

Notices of the official minutes will be announced via email and provided via the ACM website. The two website addresses (CG and IPG) are provided below:

- [Charting Group](#)
- [Instrument Procedures Group](#)

Please note the action items for each issue. It is requested that all individuals with assigned action items be prepared to provide verbal input at the next meeting or provide the Chair, Jennifer Hendi, a written status update. These status reports will be used to compile the minutes of the meeting and will serve as a documented statement of your presentation.

VIII. Next Meetings

ACM 24-01 is scheduled for April 22-25, 2024.

IX. Attachment

- a. [23-02 Attendee Roster](#)