

**Government/Industry Aeronautical Charting Meeting (ACM)
Meeting 23-01
Charting Group
April 25-27, 2023**

CHARTING GROUP MINUTES

I. Opening Remarks

FAA, Aeronautical Information Services (AIS) hosted the Charting Group portion of the Aeronautical Charting Meeting (ACM) on April 25-27, 2023. This meeting was held virtually. Samer Massarueh, FAA/AJV-A223, opened the meeting on Tuesday, April 25. Samer recognized and introduced Jennifer Hendi, FAA/AJV-A250, Chair of the Charting Group. He then acknowledged Jeff Rawdon, FAA/AFS-420, Chair of the Instrument Procedures Group (IPG) portion of the meeting held the previous day.

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. He reported that that the decision was made for future meetings to continue using the virtual format in place since ACM 20-02. This is the sixth ACM to utilize this format, which has proven successful based on attendance and participation. Please direct any feedback or concerns to the ACM group inbox: 9-AMC-AVS-ACM-Info@faa.gov.

Jennifer thanked everyone for attending the ACM and emphasized that the active participation of the audience has continued to make the meeting a success.

II. Review Minutes of Last Meeting, ACM 22-02

The minutes from the ACM 22-02 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 23-01 meeting was accepted as presented.

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

Candidate NOTAM Contingency System

Jill Witter, FAA/AJV-A300, [presented](#) information about the Candidate NOTAM Contingency System. She explained that currently two systems together provide full Notices to Air Missions (NOTAM) capability and function. The US NOTAM System (USNS) is a legacy platform that provides critical NOTAM management functions. The Federal NOTAM System (FNS) is the modernized NOTAM system. The majority of NOTAMs are originated via this platform and it is the primary distribution interface for the public. The primary site for both systems is hosted at the Mike Monroney Aeronautical Center (OEX/MMAC), with a disaster recovery site in Atlantic City (ACY) to handle long-term outages.

The Candidate NOTAM Contingency System was developed to address major outage events that render the primary NOTAM system site unavailable. It allows the creation and distribution of “candidate” NOTAMs, which are unnumbered NOTAMs. It is a short-term solution, covering approximately 4 hours. Ongoing NOTAM Modernization will improve the resiliency of the NOTAM system by consolidating USNS and FNS into a single system, and transitioning the system to the Integrated Enterprise Services Platform (IESP) with two sites in Atlanta and Salt Lake City.

Refer to the [briefing slides](#) for more detailed information on the Candidate NOTAM Contingency System. The next steps are industry outreach and providing demonstrations. Contact information is provided on [Slide 9](#) for those interested in participating in a demonstration.

Bill Tuccio, Garmin, asked why there are two systems rather than developing a more modern single system with cloud replication. Jill said the candidate site is on the cloud and the FAA is working on integrating everything into one system. This is a short-term, backup solution.

Steve Madigan, Garmin, asked how the System Wide Information Management (SWIM) NOTAMs will be impacted. Jill said SWIM NOTAMs will not be available and that this system is only designed for NOTAMs that need to be issued during the outage, not for exiting NOTAMs.

Chart Supplement Update

Alex Rushton, FAA/AJV-A241, [briefed](#) the audience on the progress of the Chart Supplement Modernization Initiative. He first explained that the team is currently working on Phase 2 of the XML enhancement project, tagging entries for the back matter portion of the Chart Supplement.

Alex then summarized that the working group met in 2021 with stakeholders regarding requirements for the Pacific and Alaska Chart Supplements and continued to meet in 2022 to consolidate the feedback. The working group came up with 70 recommendations to improve the Chart Supplements. Since May 2022, they have established internal working groups to work through the proposed recommendations. Alex then gave an overview of the project phases for the Chart Supplement modernization initiative ([slide 6-9](#)). He said they are continuing to work through the proposed recommendations, working on reorganizing and defining the scope and purpose of the Chart Supplement, and beginning the work to define offices of responsibility for the data contained in the back portion of the Chart Supplement.

Another part of the Chart Supplement Modernization Initiative is the overhaul of Interagency Air Committee (IAC) specification 8. The plan is to capture the current structure of the Chart Supplement. [Slides 11-12](#) shows the proposed structure and timeline for the overhaul.

The team is also in the process of doing an Airports/Facilities Directory data point analysis ([slide 14](#)). The objective is to identify data handled by automation versus manual entry and to identify opportunities to improve automation. The results of the analysis will be used to expand and enhance current automation methods.

The new Chart Supplement Order (7000 series) is being drafted to establish the responsibilities and requirements for submission, revisions, or removals of Chart Supplement Publication Notices ([slide 15](#)).

See [slide 17](#) for a summary of proposed changes to the structure of the Chart Supplement. Alex requested audience feedback on the proposed structure shown on [slide 19](#). Please provide any feedback through the Airport Mapping Team email, 9-AWA-AJV-A2-Apt-MapTeam@faa.gov. The comment period will last for two weeks after the release of the ACM meeting minutes.

Rich Boll, NBAA, asked where the procedures and emergency procedures that are crossed out on [slide 19](#) will go. Alex said they will go into the Notices section. Rich cautioned to make sure contingency procedures are easy to find.

Jennifer Hendi, AJV-A250, thanked Alex for his presentation and reminded everyone to provide comments on the proposed reorganization.

[Northeast Corridor Atlantic Routes](#)

Doug Perkins, MITRE, [briefed](#) the status of the project. He noted this project is one of the biggest changes to the National Airspace System (NAS) in decades. It is part of a transition to a Performance Based Navigation (PBN)-centric NAS involving the addition/amendment of 39 Q and Y Routes to replace the current north-south high altitude route system along the east coast. The changes began in October 2019 and the majority were completed on 20 April 2023.

The FAA implemented 142 route changes. The project is now 99% done. Doug summarized all the changes made with the implementation of this project ([slides 5-27](#)). [Slides 29-30](#) show the Not Authorized (NA) NOTAMs that were implemented for about 6-7 months, all of which have now been canceled. Doug said they utilized Virtual Go-Team meetings in order to address any of the ATC or operator issues that were encountered with the new routes. A list of contacts was also provided for anyone with specific questions ([slide 32](#)).

Dan Wacker, FAA/AFS-420, thanked Doug for the briefing and asked if the intent is that only the Y Routes go offshore. He also asked if there is a plan to do a similar project on the west coast. Doug said this was only intended for the east coast. He explained that there are some legacy Q routes across the Gulf of Mexico that have not been canceled for a variety of reasons, but primarily you will not see Q routes offshore beyond 15 NM. Dan said FAA Order 8260.19 does not allow RNAV routes to go beyond FL 450, but he noticed some of these

routes go above that. He asked if the criteria has been changed. If so, the Orders will need to be updated. Doug said he will forward that concern to Joey Tinsley, FAA/TETL1-ZTL, and Reggie Davis, FAA/AJV-E24.

Dan then asked if there is an intent to remove more jet routes. Paul Carroll, FAA/AJR-11, said VOR/MON projects will dismantle more Jet routes over the next 10-12 years.

Rich Boll, NBAA, asked if the definitions for the Y routes have been updated in the AIM. Dan said there was a recent change to the AIM that did update the definition.

Steven Madigan, Garmin, asked if the audience could expect more updates on route redesign projects. Doug said that currently there are no plans for large redesign projects.

[5G C-Band NOTAMs](#)

Christina Clausnitzer, FAA/AFS-410, [briefed](#) on Radio Altimeters and 5G C-Band Deployment. She reported that since the last ACM, the FAA asked industry to begin to retrofit their altimeters and they are making good progress. There are still a lot of Notices to Air Missions (NOTAMs) in the National Airspace System (NAS) ([slide 2](#)). She said that AT&T and Verizon plan to have unlimited 5G operations by July 2023. At that time, they will end their mitigation efforts in most areas except for 5G C-Band Mitigated Airports (CMAs). 5G C-Band emitters are anticipated throughout the contiguous U.S. The current NOTAM/Alternative Method of Compliance (AMOC) process is not tenable so they have updated the current Transport Airworthiness Directive (AD) ([slide 3](#)). The new AD went out for comment and the comments are currently under review. See [slide 4](#) for links to the Transport Notice of Proposed Rulemaking (NPRM) and the Rotorcraft NPRM.

Christina explained that after July 1, 2023, U.S. ADs will not apply to foreign operators. Domestic aircraft will follow the restrictions in their respective ADs. For international aircraft, the FAA does not have a solid legal way forward so guidance has been included in the 5G C-Band Domestic Notices and in the Aeronautical Information Publication (AIP). As additional safety measures, the FAA will publish 20 Contiguous United States (CONUS) Air Route Traffic Control Center (ARTCC) NOTAMs and will keep approximately 150 Instrument Approach Procedure (IAP) NOTAMs against all public and special SA CAT I/II, CAT II, and CAT III approaches.

[Charting of Wind Turbine Farms](#)

Allison Miller, FAA/AJV-A213, briefed on proposed enhancements for the charting of wind turbine farms on VFR charts. She said that after significant feedback from the ACM audience, a final depiction has been determined. The symbology for the farm will be a dotted “zipper” outline to define the outer parameter with a 45° degree hatched line pattern inside the defined area. A masked elevation box with both the MSL and AGL of the highest wind turbine will be placed within or near the farm area (see [sample charts](#)). The new symbology will be documented in the Aeronautical Information Manual (AIM) and in the Aeronautical Chart Users’ Guide. Visual Charting will also issue a Charting Notice.

Mike Rauchle, FAA/AFS-420, reported that Flight Standards is working with Aeronautical Information Services to make sure the change is socialized. They revised the “Obstructions to Flight” section in the AIM. Flight Standards is also working with the Aircraft Pilots Association to publish an article in their publication and with the National FAA Safety Team (FAASTeam) to put out a FAAST Blast to subscribers and in their bimonthly publication.

Jeff Rawdon, FAA/AFS-420, asked how the published AGL value is calculated since the terrain within a farm could vary. Mike explained that the masked elevation shows the highest point (MSL and AGL) of the wind turbine in the wind farm, or blade tip. Shawn Smith, FAA/AFS-420, agreed with the concern that there can be variances in terrain, so the AGL value will not always be associated with the highest point. They said further discussion may be warranted on this topic.

Bill Tuccio, Garmin, noted that the text in the elevation boxes did not seem to be justified consistently in the examples that provided. Allison said Visual Charting will look into that.

**Post-Meeting Update: The Visual Charting managers met with Flight Standards and consensus was reached to maintain the current charting specification to only chart the highest MSL figure of the tallest wind turbine within the farm. Visual Charting will remove AGL from the proposal.*

Discontinuation of VOR Services (VOR MON)

Ernesto Etienne, FAA/AJM-323, [presented](#) on the Very High Frequency Omnidirectional Range (VOR)/Minimum Operational Network (MON) program. The VOR/MON program optimizes the VOR network in the Contiguous United States (CONUS) to provide a backup conventional service in the event of an unplanned Global Positioning System (GPS) outage. New VOR Standard Service Volumes (SSVs) are being implemented and VORs that do not meet the VOR/MON criteria are being discontinued. [Slide 4](#) highlights the program timeline for the two phases of the program. Ernesto said the program should be fully implemented by 2030.

[Slide 6](#) shows depictions of the VOR Low (VL) and VOR High (VH) SSVs. No changes to aircraft are required to use the new service volumes; however, frequency changes are required for some VORs. Ernesto summarized that 242 out of 491 new VOR SSVs have been published and 149 out of 306 VORs have been discontinued. See the VOR MON website (www.faa.gov/go/VORMON) for more information.

John Collins, ForeFlight, asked who is responsible for maintaining the VOR/MON status of an airport. Leonixa Salcedo, FAA/AJM-323, said changes cannot be made to approaches at a VOR MON airport unless it has been pre-coordinated with the VOR MON Program Office. John said it is difficult as a pilot to determine what the criteria is for a MON airport and whether or not a specific approach fits the criteria. He recommended that the Chart Supplement include the approach title and any dependent VORs. John also said he noticed several of the new service volumes are highly stratified. Dale Courtney, FAA/AJW-2630, said those that do not meet criteria will be corrected. He suggested that John send his specific concerns to him and Ernesto.

Pat Mulqueen, FAA/AJV-A440, said the Flight Procedures Group is very careful not to make changes to the list of VOR/MON safe approaches. When a long-term change will occur, they determine which other approach can be suitable for VOR/MON. He would like to speak to John offline about his specific concerns.

Obstacle Briefing

Eric Freed, FAA/AJV-A320, manager of the Obstacle Data Team (ODT), [briefed](#) the audience about how obstacles are handled by the FAA. He explained that ODT is part of the Aeronautical Information Group and is comprised of two sub-teams. ODT investigates obstacles that might be hazardous. You can read ODT's mission statement

on [slide 5](#) and a list of the team's responsibilities on [slide 6](#). [Slide 7](#) provides a list of sources for the Obstacle Authoritative Source (OAS) data. [Slide 8](#) shows the workflow process, which includes data source analysis, data investigation, data verification, data review, delivery to OAS, and file management. Obstacle data arrives from a variety of sources as shown on [slide 10](#). The obstacle information is then used to develop and update aeronautical charts, and related digital publications. The data is disseminated in accordance with International Civil Aviation Organization (ICAO) standards. The following deliverables are extracted from the OAS and are available on the FAA's public website:

- Digital Obstacle File (DOF). See [slide 13-16](#) for more information.
- Daily Digital Obstacle File (DDOF). See [slides 17-18](#) for more information.
- Weekly Construction Notices. See [slides 19-20](#) for more information.

[Slide 22](#) shows a list of stakeholders who use the obstacle data.

[Slides 23-30](#) provide information about the tools and software platforms the team uses. Obstacle Evaluation/Airport Airspace Analysis (OE/AAA) includes all the studies the team evaluates. It is the primary source for obstacle evaluations. Documentum is their file management system, but the FAA no longer supports it, so the team is transitioning to Alfresco. The team uses Google Earth Pro to get the relative positions of the obstacles for charting. They also have access to Digital Globe, which provides access to the most current National Geospatial-Intelligence Agency (NGA) data. The team also uses a coordinate conversion tool, which shows the obstacles as latitudes/longitudes, allowing for the most accurate positioning. The team has taken on obstacle lighting outages recently, which may lead to Notices to Air Missions (NOTAMs), and uses the Federal Communications Commission (FCC) database in order to have more authority when dealing with public. The Third Party Survey Site (TPSS) is also available to ODT to collect survey documents.

Eric noted that the Obstacle Evaluation Group in Aeronautical Information Services and the Office of Airports also have responsibilities for obstacles.

Rich Boll, NBAA, thanked Eric for the briefing. He asked if the conversion tool was available to external teams. Jason Gibson, FAA/AJV-A322, said their version of the tool is internal, but he will look into whether it can be made available to others and coordinate with Rich.

Jay Leitner, American Airlines, asked for access to the FAA's Airport Data and Information Portal (ADIP) to retrieve the obstacles in an easier to use format. Jason explained that ADIP is an Office of Airports product and that all airport obstacles within 20,000 feet of the runway are under the purview of Office of Airports.

Clint Carter, AeroNavData, asked if there are plans to identify LED lit towers, specifically for Part 135 helicopter air landing with night vision goggles. Jason said if a structure has lighting, ODT adds it to the database. He's not sure about specifying LED lights. He said if there are specific concerns related to an obstacle to report that through the [Aeronautical Information Portal](#).

Mike Webb, FAA/AFS-420, asked where completed survey information is stored. Jason said the information is sent to National Geodetic Survey (NGS) and from there it is added to the Obstacle Authoritative Source (OAS). There is a public link for surveys.

Dan Wacker, FAA/AFS-420, asked whether private airport obstacle data goes through ODT and NGA. Jason said that question will need to go to the Office of Airports. Dan said FAA Order 8260.19 requires only one database, and that is OAS, but it seems like it does not contain all the information needed. Third party data should be there. Jason said obstacles off-airport and third party surveys should go through the Obstacle Evaluation Group (OEG). Surveys can capture both on and off-airport data, and his team does look at that. Dan asked whether FAA Order 8260.19 is incorrect. Jason said he believes it was written to a future state based on requirements that have not been implemented.

Eric added that Office of Airports focuses on on-airport obstacles and OEG focuses on off-airport evaluations. He suggested that a combined briefing with ODT, OEG and the Office of Airports would be useful at a future ACM.

Jason and Eric provided links to the following resources:

- Universal Data Delivery Format (UDDF): <https://nfdc.faa.gov/nfdcApps/services/publicData/uddfList.jsp>
- Light Outages Report: <https://nfdc.faa.gov/nfdcApps/public/#/lightOutage>
- Aeronautical Inquires:
https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Aeronautical_Inquiries/
- ODT Email: 9-AMC-AJV-DataSheets@faa.gov

[Change Notice Expansion of Service](#)

Ron Haag, FAA/AJV-A221, [briefed](#) the audience on a proposal to add Alaska non-enroute Terminal Chart releases to the interim 28-day release Change Notice. Due to reasons that are no longer valid, Alaska procedure charts are not printed in the Change Notice per FAA Order 8260.26. Items determined critical to safety between 56-day cycle publications are mitigated with Notices to Air Missions (NOTAMs) or Safety Alerts. Adding the Alaska procedure charts to the Change Notice would reduce the number of active NOTAMs, provides greater flexibility in scheduling procedure updates, and provides the aviation community access to updates 28 days earlier. The DOD supports this proposal.

Alaska stakeholders will need to adjust to the change and there will possibly be an increased cost for third-party chart providers ([slide 6](#)). Currently Aeronautical Information Services is coordinating with Alaska stakeholders and the Western Flight Procedures Team regarding this proposal. The FAA needs approval from Alaska stakeholders before moving forward.

Brent Walker, FAA/AJV-A242, asked if Airport Diagrams would be part of the proposal. Jennifer Hendi, FAA/AJV-A250, said since Alaska procedures are included in the Chart Supplement, which is a 56-day product, Airport Diagrams will have to remain on the 56-day schedule.

Steve Madigan, Garmin, asked whether the Pacific charts will also be added to the Change Notice. Bob Carlson, FAA/AJV-241, said just like with the Airport Diagrams, the Pacific procedures are also published in the Chart Supplement and since that is a 56-day product, they would not be included in the Change Notice.

Implementation Updates

Jennifer Hendi, FAA/AJV-A250, provided an implementation briefing on the changes to the foreign data depiction on the Enroute and Visual charts. She explained that, as part of a larger effort to modernize the Enroute and Visual Charts, AJV-A proposed to revise the current foreign data depiction with a skeletonized depiction of all aeronautical data that is outside of the U.S. boundary. A briefing of these changes was planned for the April 2020 ACM, which was canceled due to the pandemic. Therefore, a briefing document to describe the proposed changes was emailed to the ACM distribution list. Subsequently, there was a follow up [briefing](#) at the October 2020 ACM. There was ACM concurrence for the changes so between Fall 2020 and Fall 2022, AJV-A worked on the Interagency Air Committee (IAC) specification changes and automation changes necessary to implement this change. A [Charting Notice](#) was issued 13 October 2022 announcing that starting on 29 December 2022 areas outside the U.S. would be skeletonized on all Sectional and VFR charts. On 9 March 2023 another [Charting Notice](#) was issued to announce the foreign data changes to the enroute IFR charts. Those changes are planned for release on 15 June 2023. Jennifer showed a [sample](#) of a sectional chart.

Rich Boll, NBAA, referred to issue [14-01-277](#) and said that at the time of this issue there was considerable interest in maintaining World Aeronautical Charts (WACs), particularly in the Caribbean charts. He's wondering if this decision was vetted in light of those concerns. Guy Copeland, FAA/AJV-A210, said the Caribbean products still exist with the amount of detailed coverage that is required by ICAO. Rich said it's not nearly the same level of information that was available in the past. Guy agreed but said this was a decision about not publishing data outside of the U.S. since the FAA cannot guarantee the accuracy or timeliness of that data. The information that was published outside of the U.S. was never meant to be used for navigation.

Jim McClay, AOPA, said this change came as a surprise to AOPA despite the fact that it had been discussed at the ACM. He thanked Guy for providing information to AOPA when this change went effective. He also thanked Jennifer for making this briefing and requested that in the future we continue to do briefings leading up to significant charting changes. Jennifer said she would leave this briefing open in order to discuss any future issues.

V. New Charting Topics

23-01-377 NAVAID Box Leaders

Krystle Kime, FAA/AJV-A222, presented a recommendation from the Terminal Charting Team to remove the cartoon-type leader, or fillet, from NAVAID boxes and marker beacons on Terminal charts, and replace it with a standard straight line leader. She explained that the cartoon-type leader provides no additional information to the pilot and is simply used for aesthetic purposes. Creating these leaders is currently a manual process that requires additional compilation time and can result in an inconsistent depiction. As chart automation advances, it would be more efficient to display one type of leader. In order to enhance the depiction of the primary NAVAID on Instrument Approach Procedure (IAP) charts, Terminal Charting suggests using an 8 weight box instead of a 6 weight box. The examples attached to the [Recommendation Document](#) show the current and suggested changes. The third BUR example shows the proposed line weight change.

Mark Mentovai, Manhattan Flight Club, said he thinks the FAA should keep the cartoon-type leaders. He finds straight leaders make the charts harder to read and harder to differentiate the meaning.

Kevin Allen, American Airlines, thinks this is not an issue because third party chart providers have their own charting standards and do not follow these rules. Krystle confirmed these changes are only being recommended for FAA charts.

Kevin Carter, NGA, said the military does not use the cartoon leaders and has had no issues with users.

Mike Stromberg, UPS IPA, pointed out that people do not like change, but if the DOD has been using straight line leaders without any problem, then he thinks that is a good case study. He agrees the line weight change would be helpful.

Rich Boll, NBAA, said he does not see a problem with making the change.

Steve Madigan, Garmin, does not think this is an impactful change. He asked whether the boxes are currently masked. Krystle said they are not currently masked and will not be masked with the proposed change.

The majority of ACM participants voted to accept the proposal and move forward with the change.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will process an 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.

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

Jay Leitner, American Airlines, [presented](#) his recommendation to add Visual Approach Slope Indicator (VASI)/Precision Approach Path Indicator (PAPI) locations to the Airport Data and Information Portal (ADIP) or the National Airspace System Resource (NASR). He explained that this information would allow operators to determine the distance from the landing threshold, which would in turn allow for fixed air distance to be determined for landing performance assessments at time of arrival. [SAFO 19001](#) was released that allows pilots to reduce the air distance to landing point. When air distance is reduced, pilots need to identify a touchdown point.

Jay said Jon Gdowik, FAA/AJV-A313, from the Aeronautical Data Team (ADT) has been able to provide him with a data sheet that includes the requested information at individual locations. He also provided an email address for the ADT where Jay and others can submit future requests. Jay said the data sheet provides the information his company needs, but he would prefer to have the information readily available rather than having to request it each time. Rich Boll, NBAA, said he is concerned that an email must be sent to request the data and agrees with adding the information somewhere where it is more readily available.

Brian Murphy, FAA/AJV-A350, said the ADT works to respond to the email requests quickly and his team is working to make the data more accessible to users. He thinks a web-based data sheet would be easier than adding a field to NASR; however, the team first needs a readily available source. He can add this to the NASR list,

but cannot provide a timeline at this point. Rich agrees with adding it to the NASR list, and also agrees that a web solution is a good short-term option.

Scott Jerdan, FAA/AJV-A310, does not want to commit to adding the information to NASR. He thinks the web-based data sheet is the best option currently available.

Mark Mentovai, Manhattan Flight Club, is concerned that one-off data pulls do not subscribe you to updates if the data changes. If the VASI/PAPI locations are resurveyed or move, pilots will not know it. He thinks it is better if the data is regularly available. Scott said if the locations moved, users would be alerted to the change in the National Flight Data Digest (NFDD).

John Johnson, FAA/AJV-A313, said the ADT receives VGSI latitudes and longitudes on the survey. That information is not stored, but they do use the runway reference point data, which is the center point of the VGSI. They store the distance from the runway point to the VGSI. He also wanted to point out that even in AIRNAV this information is not complete and is not provided for every airport.

John Collins, ForeFlight, asked why this information is needed since the VGSI angle and Standard Threshold Crossing Height (TCH) are published on the charts. Jay said there are examples where those two calculations do not always line up. John asked how precise it needs to be. Jay said even small distances can make a difference.

Steve Madigan, Garmin, said he is a proponent of more data disseminated to industry. He asked whether this information could be added to the CSV files. He also said he would like to see industry access to AIRNAV, even if only in a read-only capacity. Scott said his preference would be the AIRNAV approach, but users would need to understand its limitations. Brian said the CSV files could be possibility. They are already looking at making the data sheet more readily available, and will investigate whether the information could be provided in a CSV file as well.

STATUS: OPEN

ACTION: Brian Murphy, FAA/AJV-A350, and the Aeronautical Data Team will investigate creating a web-based data sheet for the VASI/PAPI location information and/or adding the information in a CSV file.

VI. Outstanding Charting Topics

[17-02-314 Charting of ILS Classification System for Category I ILS Approaches](#)

Mike Melssen, FAA/AFS-410, reported that Doug Dixon, FAA/AFS-410, is updating the Aeronautical Information Manual (AIM) focused on critical area protection. He said his office is still considering adding language to a future update to Advisory Circular (AC) [120-118](#). Mike reported that since the AIM update is forthcoming and the Safety Alert for Operators ([SAFO 21004](#)) was published for Air Traffic Control (ATC) notification and pilot awareness when conducting an ILS Autoland Procedure about this topic, Flight Standards would like to close the issue.

Mike Stromberg, UPS IPA, was one of the original proponents of this issue and he agreed with closing it. There were no other objections raised.

STATUS: CLOSED

[18-01-323 Standardizing the Labeling of Parking Areas on Airport Diagrams](#)

Mike Rottinghaus, FAA/AAS-110, reported that the Office of Airports is working on the changes to [Advisory Circular \(AC\) 150/5340-18](#) that were presented at the last ACM. He confirmed the term “apron” instead of “ramp” will be used. Mike said he expects to have a draft later this year and the date of final publication will depend on the responses received. He confirmed that once the new terms are in the AC, they will submit an update to the Aeronautical Information Manual (AIM) and Pilot Controller Glossary (PCG) to include the new terms.

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](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards completed a satisfactory safety review, with only one hazard found, which was deemed a low safety risk. He said the proposal is now clear to move forward.

Rich Boll, NBAA, [presented](#) a summary of the safety review conducted in March. He explained that the decision was previously made not to publish standard inoperative minima adjustments on the charts that are found in the Inoperative Components or Visual Aids Table. Only non-standard adjustments that are currently captured as briefing strip notes will be shown in the minima block. When inoperative component minima are published, the title for the column of the minima block was proposed to be “NSTD ALS INOP VISIBILITY”. The safety review did not find this to be a hazard, but determined it could be a source of pilot confusion. Rich said the proposed change is to explicitly state, “FOR ALS INOP VISIBILITY SEE INOP COMPONENTS AND VISUAL AIDS TABLE”. There was a lot of discussion regarding how best to word the title for the inoperative minima in order to reduce the

confusion. Jennifer Hendi, FAA/AJV-A250, and Rich agreed to work on the wording of the title offline and consult with the workgroup if necessary.

Steve Madigan, Garmin, said he thinks adding the inoperative minima table only in non-standard cases sets a bad precedent. He thinks the FAA should always publish the inoperative component minima or not do it at all. Rich said he understands that concern, but says he does not think the FAA can accommodate that at this time. He is hopeful that, in the future, all the inoperative component minima will be published on the charts. Jeff Rawdon explained that the Instrument Flight Procedures (IFP) team does not have the resources to publish all inoperative minima at this time since these changes require a procedure amendment. He said that does not mean that it cannot happen in the future. Jeff stressed that only publishing the non-standard minima in the table was not deemed to be a hazard in the safety review. Jennifer said that insisting on including all the minima would be a deal breaker for this proposal. The FAA still sees the advantage of moving forward with this proposal since it removes the lengthy notes from the briefing strip. Krystle added that including all the minima is not off the table completely, but this is where we need to start.

Mike Stromberg, UPS IPA, said he agrees with moving forward with the proposal in order to get rid of the notes and hopes that we will look into providing the full table down the road. Rich said maybe in the future automation will make this process easier. Jeff agreed but said IFP can only commit to what it has resources for today.

Jennifer summarized the discussion. She said once the minima titling is determined, she will work with Krystle to begin drafting the specification changes necessary to implement this proposal on IAPs. Concurrently, the Flight Procedures and Airspace Group will begin investigating the criteria updates that will be necessary.

Jeff Lamphier, FAA/AJV-A240, reported on the Airport Diagram piece of the Chart Modernization proposal. He explained that in order to support the simplification of the airport sketch, the content of the Airport Diagrams needs to be expanded to include NAVAIDs and runway and approach lighting information. He said that the Requirement Document (RD) 848 for the changes on the Airport Diagrams has been approved and a [Charting Notice](#) was issued. The changes will begin with the 5 October 2023 publication cycle. Dan Rooks, FAA/AJV-A242, showed [examples](#) of the Airport Diagram changes.

Brent Walker, FAA/AJV-A242, said that currently, the only place to get the landing direction indicator is on the airport sketch that is included in the Chart Supplement. He said there is a proposed IAC specification change in process that would also add landing direction indicators to Airport Diagrams. He pointed out the landing direction indicators that were included in the prototype.

Rich asked if the plan is still in place to require an Airport Diagram for every airport with a public-use Instrument Approach Procedure (IAP). Jennifer said yes and noted the FAA will not make any chart modernization changes to an IAP until it has a published Airport Diagram and that all changes will be coordinated.

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 begin drafting an 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 this proposal.

ACTION: Jeff Lamphier, FAA/AJV-A240, will report on the implementation of the Airport Diagram Modernization effort.

[19-01-332 Charting Waypoints with Both Fly-Over and Fly-By Functions](#)

Jeff Rawdon, FAA/AFS-420, reported that the guidance has now been updated in FAA Order 8260.19J, which has gone through coordination and should be signed soon.

Jennifer Hendi, FAA/AJV-A250, reported that Interagency Air Committee Specification language for fly-over and fly-by waypoints has been signed and implemented.

Bennie Hutto, NATCA, asked if a holding pattern must be selected in order to see if the waypoint is fly-over or fly-by. Rich Boll, NBAA, cautioned that each Flight Management System (FMS) treats holding differently. Even if a fix is charted as a fly-over, some FMSs will still code it as a fly-by. Charting a hold does not mean an FMS will change actions. Jennifer pointed out this this update is only a clarification for charting and does not change anything about the coding of holding waypoints.

Jennifer suggested that this item can be closed. There were no objections.

STATUS: CLOSED

[19-01-333 LED Lighting at Airfields](#)

Matt Harmon, FAA/AFS-410, reported that as airports are transitioning to LED lights, his office would still like to find the best way to alert pilots to the presence of LED approach lighting systems.

Rich Boll, NBAA, strongly suggested this information be put on the Instrument Approach Procedures (IAP) charts in some form. He said it makes a big difference and requested NBAA be included in discussion with the FAA on this issue. Guy Copeland, FAA/AJV-A210, thinks lighting information is better to put in the Chart Supplement than on the charts. Rich thinks it is important that pilots have information about the equipment requirements necessary to see the lights. NBAA wants this information on the IAP charts.

Mike Stromberg, UPS IPA, asked if the incandescent LED lights would be charted differently than LED infrared lights. Matt said incandescent is being used in the test and expects they will not be charted any differently. Mike asked if anyone had looked into using infrared lights with the LED. Matt said they looked into it and they work like a normal incandescent light.

Scott Jerdan, FAA/AJV-A310, said this issue was stalled until about a week ago, so he said the National Airspace System Resource (NASR) requirements still need to be defined. He said there is a lot of work to do in order to

get this information published and the Office of Airports and Aeronautical Information Services need to be part of the discussion. He pointed out that his team's ability to make NASR enhancements is very limited, so this group should have plenty of time to work this issue.

Jennifer Hendi, FAA/AJV-A250, suggested creating a workgroup with industry to investigate this issue. She requested that individuals send an email to 9-amc-avs-acm-info@faa.gov to be included in the workgroup.

STATUS: OPEN

ACTION: Matt Harmon, FAA/AFS-410, will continue to work with the Office of Airports, FAA/AAS-100, to secure a source for the LED data.

ACTION: Matt Harmon, FAA/AJV-410, will report on the LED Lighting Workgroup with regard to data and charting requirements.

19-01-335 Charting of Unusable Airway Segments

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards has been working with Aeronautical Information Services (AIS) to remove all the notes on airway segments that say "unusable except". He said the three remaining notes will be removed from the enroute charts in June. He said the Flight Procedures and Airspace Group (FPAG) would like to keep this issue open until the October ACM to confirm the removal. Additionally, he said there are Temporary Notices to Air Missions (NOTAMs) that refer to unusable radials that came from Flight Inspection. Flight Standards has sent Flight Inspection information to ensure NOTAMs referencing unusable radials are not issued in the future. Existing NOTAMs will be removed through attrition and reissuance.

Bennie Hutto, NATCA, said he thinks pilots should be able to substitute unusable routes. It does not make sense to prevent an aircraft from flying a route it has always flown. Joel Dickinson, FAA/AFS-410, said Air Traffic Control is not supposed to clear an aircraft on an unusable route. If a route is designated unusable, the reason the route is designated unusable must be fixed before that route can be used again. Steve Madigan, Garmin, clarified that it depends on whether you are flying an unusable radial using conventional navigation or RNAV. Joel said the route is still unusable even if it is being flown point-to-point. Jeff confirmed you should not be cleared for it. Steve does not see the logic. John Barry, FAA/AIR 622, said the logic is that the route is defined with radials and DMEs off the NAVAIDs. It is part of the legal description. It is unusable because there is a problem with the way the route is defined. John suggested removing the routes entirely. Jeff said removal would require rulemaking and that is a different process entirely.

Rich Boll, NBAA, showed a charted unusable airway V170 that was missing minimum altitudes. He said there should not be a problem with flying that route point-to-point, but the enroute requirements say Air Traffic Control has to look 4 miles each way to make sure the aircraft is above the minimum altitudes, which now puts that responsibility on Air Traffic Control.

Bennie said he understands we can fly the routes point to point, but it would save so much time to still be able to input the route. John reiterated the route is not legal, so the rules would have to be adjusted in order to make it legal.

Mike Stromberg, UPS IPA, said the legal requirements say pilots cannot fly unusable routes, and he think the ACM should work to change the rules to accomplish what is needed. Rich asked how to approach expedited rulemaking for 14 CFR Part 95. He would like to investigate rulemaking changes for replacing unusable V-Routes with T-Routes. He asked if there is a complete list of all charted unusable airways that are not expected to be resolved in the near future. Curtis Davis, FAA/AJV-A311, said currently there are about 64 airways with unusable segments. Rich asked if Curtis could send him the list, along with the duration the unusable symbol has been charted.

John Collins, ForeFlight, said there are some places where there are both unusable Victor airways and a T route in place, such as V170/T433 and there are GPS MEAs charted. Jeff said there are several out there with concurrent T routes. Jennifer Hendi, FAA/AJV-A250, said there is a relatively new specification change to add a note for coincident routes that states "Only V170 Unusable". John said there is another one (V53/T441) that doesn't have the note and having the unusable symbol on the route is confusing. He suspects that there should not be so many unusable routes charted, but the process to get them removed is too difficult. Curtis said the zigzagging can be applied without rulemaking action. He also noted the FAA is removing V and J routes over time and those routes are being replaced with Q and T routes. Patrick Mulqueen, FAA/AJV-A said he thinks replacing the V routes with T routes is a good way to handle the unusable radial issues. He noted that the NOTAM process is not there for these airways, which is why a permanent note on the chart is used.

Jennifer summarized the issue. She said Jeff will track the removal of the remaining unusable notes from the charts and report back at the next ACM. In the meantime, Rich said he will investigate rulemaking changes to Part 95 regarding the replacement of unusable V Routes with T Routes.

STATUS: OPEN

ACTION: Jeff Rawdon, FAA/AFS-420, will report on the removal of the remaining unusable airway notes.

ACTION: Rich Boll, NBAA will report on his investigation of rulemaking changes to 14 CFR Part 95.

[20-02-345 Wrong Surface Hot Spots](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards met with Runway Safety in December 2022 to do a six month review of the one year test of Wrong Surface Hot Spot Arrival Alert Notices and Associated Airport Diagram Symbolology. At that time, it was reported that the test results were positive and they would plan to continue the test until May 18, 2023. If the test results continued to be positive, he said they would plan to implement the proposal.

Scott Proudfoot, FAA/AJI-1550, reported that since the test started on May 19, 2022, the team tracked and documented all wrong surface events that occurred at the 12 test facilities. The team then evaluated the events to determine what went wrong. They saw an overall decrease in number of wrong surface events, with the exception of two airports that had no changes and one where the number increased slightly. It was determined the Arrival Alert Notices and changes to the Airport Diagram did not cause problems and, if anything, assisted pilots.

Scott noted it is hard to collect and analyze relevant data since it is hard to know whether the Arrival Alert Notices assisted in safe arrivals or were utilized when there was a wrong surface event. In the past few months, the team did a lot of outreach at the test airports, asking pilots whether they were aware of and using the new products. They discovered that they need to improve their outreach. He noted that pilots based at the airports already know the risks for that airports, so one challenge the team had was how to contact transient pilots not based at those airports. However, when they were able to contact pilots, the verbal feedback received was that when pilots know about the Arrival Alert Notices, they said they found them to be helpful.

The team also discovered that some of the airports were included in the test based on old data and did not have problems with wrong surface events anymore, such as Rochester and McKinney. Going forward, Scott thinks the best way to handle determining whether an airport would benefit from Arrival Alert Notices and symbology on the Airport Diagrams would be to use data only from the last two years. For example, Reno and Boise should be added but other airports could be removed from the list of airports.

Jeff Rawdon asked what feedback the team received about the addition of wrong surface hot spot symbology to the Airport Diagram. Scott said the feedback received from pilots is that the distinctive symbology makes it much clearer and easier to understand.

Jim McClay, AOPA, said at the last few ACMs there was not pushback from industry on the Arrival Alert Notices but there has been pushback on the changes to the Airport Diagrams. There is wide agreement that pilots do not look at the Airport Diagrams for arrival information, so he does not think it makes sense to put the information there. Secondly, he thinks there is a downside to combining two different terms – misalignment risks and wrong surface hot spots. Conflating the two terms is confusing and he thinks they should be treated differently.

Scott agreed with Jim about the terminology issue and said he thinks misalignment risk is more accurate. He disagreed with Jim's position regarding adding the symbology to the Airport Diagram. He thinks anything that can help a pilot recognize a potential misalignment risk is beneficial. Jennifer Hendi, FAA/AJV-A250, said it has been pointed out in past meetings that pilots do not use the Airport Diagram to mitigate landing issues because it is a ground movement chart. Jim agreed and said he also thinks the problem is more a matter of precedent. He is concerned this could lead to the addition of more information to the Airport Diagram that is outside its stated purpose. Scott asked where a pilot would look for this information. Jim said for general aviation, most pilots are looking at electronic flight bags (EFBs) and there might be some opportunities there to highlight risks at particular airports. Bennie Hutto, NATCA, said he agrees that pilots will look at information added to EFBs.

Jeff Rawdon pointed out that with the IAP Chart Modernization effort, information previously charted on the airport sketch will be moved to the Airport Diagrams, so maybe in the future pilots will use them more. Rich Boll, NBAA, also noted that through the work of the Chart Modernization Workgroup, Airport Diagrams will be made available for all airports. He then asked Scott whether the improvements seen at the airports were because of the Arrival Alert Notices and symbology on the Airport Diagrams or because of the outreach that was done by Runway Safety. He noted that the results will be more clear a few years down the road and will show whether the proposed changes were a success or not. He said the FAA has an obligation to follow up on all wrong surface events to make sure the products were used. He also thinks the FAA should make sure the Arrival Alert Notices and symbology on the Airport Diagram are truly a success before spreading them across the National Airspace System (NAS).

Bill Tuccio, Garmin, said he thinks the Arrival Alert Notice is an excellent resource, but he would never find it because it is buried in the Chart Supplement. John Collins, ForeFlight, pointed out that ForeFlight's airport view includes the Arrival Alert Notice and the hot spots from the Airport Diagram.

Mike Stromberg, UPS IPA, pointed out that most wrong surface events are VFR and general aviation. He thinks the FAA is trying to get people who normally do not look at those specific charts to look at them to solve the problem.

Scott showed an example of the Arrival Alert Notice and Airport Diagram from Flying Cloud. He said they pass out these products everywhere they might run into Flying Cloud pilots. The feedback received has been positive.

Rich suggested ForeFlight partner with the FAA to put these supplemental products into ForeFlight. John Collins said he can facilitate that conversation, but noted ForeFlight has already made the Arrival Alert Notices more accessible. Steve Madigan, Garmin, agrees with adding the information into Garmin and thinks there is a lot of value in adding information to EFBs. Mike agreed and also suggested reaching out to airports for a list of people who rent hangars as another means of finding GA pilots.

Kevin Carter, NGA, asked whether there was coordination with DoD. He noted there is no language to explain the symbology, and noted that the DoD Flight Information Products do not publish the information. Jeff Lamphier, FAA/AHV-A240, said it hasn't yet been published in DoD products because this information was added as a test via memo for specific locations in FAA publications.

Jennifer thanked Scott for his presentation and summarized that the test will be complete on May 18, 2023. Flight Standards is meeting with Runway Safety after the completion of the test and will then decide whether to continue the program. Jeff Rawdon noted that even after the end of the test, it is probable users will continue to see the test Arrival Alert Notices and symbology on the Airport Diagrams in the publications beyond the test period due to the timing of the end of the test and subsequent charting cycle dates.

STATUS: OPEN

ACTION: Jeff Rawdon, FAA/AFS-420, and Scott Proudfoot, FAA/AJI-1550, will provide an update on the plan for publication of Wrong Surface Hot Spot Arrival Alert Notices and Associated Airport Diagram Symbology.

[20-02-348 NASR Improvements for ARTCC/RCAG Frequencies](#)

Brian Murphy, FAA/AJV-A350, 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 his team will continue to work to gather requirements for this change so they can be ready to work it when NASR updates become possible. In the meantime, his team will continue to provide the CSV data files.

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](#)

This topic was not discussed during ACM 23-01. It will be briefed at the next ACM.

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 both Part 139 airports and runways.

[21-01-357 Single Direction Airways](#)

Jennifer Hendi, FAA/AJV-A250, reported that a [Charting Notice](#) was published on 8 November 2022 to inform chart users and navigation data suppliers of the intended purpose of the charting of preferred IFR routes in the U.S. Domestic National Airspace System (NAS). She also said that Interagency Air Committee Requirement Document 850 that changed the term “single” direction to “preferred” direction, was signed and implemented for 23 February 2023. The Aeronautical Chart Users’ Guide was also [updated](#) for the 23 February 2023 edition.

Tom Carrigan, FAA/AJV-A311, reported that an explanation regarding preferred direction routes was added to the 12/01/2022 National Airspace System Resource (NASR) README file.

Colleen Kubont, FAA/AJV-A350, reported that the CSV output has been modified to replace the “single” headers with “preferred”. A ticket has been opened to update the headers in NASR, however that update is not likely prior to 2024.

Darrell Pennington, ALPA, asked if there was a way to add coding for both directions. Aaron Jacobson, Boeing/Jeppesen, explained that the README guidance that was published will help to ensure these routes do not get coded in a single direction so that they can be filed in either direction.

Jennifer said all actions for this issue are complete and recommended closure. There were no objections. Rich Boll, NBAA, the original proponent of this issue, agreed with closing it.

STATUS: CLOSED

[21-02-362 Graphic Circling Restrictions on Instrument Approach Procedures](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards decided to create an in-house workgroup to begin investigating this issue. They determined there are 546 circling restrictions that they consider “simple” and 121 “complex” circling restrictions.

Krystle Kime, FAA/AJV-A222, asked the ACM participants if it would be helpful to only depict simple circling restrictions as a graphic and leave the more complex restrictions as notes. She asked them to consider the loss of planview space.

Mike Stromberg, UPS IPA, thinks it is worth it to depict the simple ones and also worth trying to figure out how to depict the complex circling restrictions.

Joel Dickinson, FAA/AFS-410, said that from a standards perspective, it is preferable to show all restrictions as a graphic. Mike pointed out that circling NA to a certain runway at night would be hard to depict. Krystle said the problems are not just with circling at night, but also with Cat D situations. Rich thinks it is important to specify when you can/cannot circle to a runway and also to specify which areas you cannot circle in. Those are two separate things and one may have to be handled as a note.

Tom Carrigan, FAA/AJV-A260, said he loves the idea of the graphic depiction, but if you have both a graphic and associated notes for the complex ones, he is concerned a pilot may get used to looking at the graphic and fail to look at the notes. Rich said he understands the concern about the notes, but pointed out that there are many things on the chart that require pilots to look at the notes.

Pat Mulqueen, FAA/AJV-A440, said there are two types of restrictions, one for maneuvering and one for night. Tailoring these depictions to the maneuvering area is most helpful. Circling NA at night is mostly due to unlit obstacles. He thinks the discussion should focus on maneuvering areas and leave the notes for NA at night.

Dan Wacker, FAA/AFS-420, asked if this is a charting specification change or a criteria change. Jeff said this is a charting specification change that requires some criteria updates. FAA Order 8260.19 would need to be updated to explain the graphic and the graphic will need to be documented on the procedure source forms.

John Collins, ForeFlight, asked if any consideration was given to making the non-circling area shaded. Krystle said they would consider that.

Diane Adams-Maturo, FAA/AFS-420, pointed out that this change is going to affect a lot of things, e.g., FAA Order 8260.19, Aeronautical Information Manual, charting specifications, etc. Jennifer agreed and said this discussion was to better understand if the ACM audience still supports this proposal even though it will be more complicated and time consuming to implement than was originally thought.

Rich said there was an accident at Truckee, CA, where the pilot did not see the circling restriction since it was buried in the notes. A graphic would quickly show a pilot where they can circle and where they cannot. Dan said there will still be issues at night. Rich said they are only asking the FAA to show pilots areas where they can circle. Rich showed an example from Canada, which already graphically depicts circling restrictions.

Bruce McGray, FAA/AFS-420, expressed the opinion that this is a safety issue. Joel said if Canada is doing this, there should be an ICAO specification that shows how to handle it. Mark Harding, NAV CANADA, provided ICAO Doc 8697, Aeronautical Chart Manual, [paragraph 11.10.6.1 sub F](#). This shows the international standard for graphic circling restrictions.

Jennifer summarized the discussion. She said there is still ACM support for showing circling restrictions graphically despite the fact that some restrictions will have to remain as notes and that this proposal may be more difficult and time consuming than first realized. She said the first step is for Aeronautical Information Services to put together an internal workgroup to investigate the steps to accomplish this goal.

STATUS: OPEN

ACTION: Krystle Kime, FAA/AJV-A222, and Patrick Mulqueen, FAA/AJV-A440, will put together a Graphic Circling Restrictions workgroup and report on progress at the next ACM.

[21-02-364 Airport Sketch – Final Approach Track](#)

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards conducted a safety review and did not identify any hazards with this recommendation.

Jennifer Hendi, FAA/AJV-A250, reported that an Interagency Air Committee (IAC) specification change is in process. Kevin Carter, NGA, reported that the DoD is already doing this.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will report on the Interagency Air Committee (IAC) specification change at the next ACM.

[21-02-367 Improve NASR Storage of GCO Frequencies](#)

Brian Murphy, FAA/AJV-A350, reported that this request will be part of the larger National Airspace System Resource (NASR) database communications upgrade that is planned. He said there is still currently a hold on NASR enhancements. He said they will continue to work to gather requirements for this change so they can be ready to proceed when NASR upgrades become possible. In the meantime, his team will continue to provide the CSV data files.

Jon Gdowik, FAA/AJV-A313, reported on the effort to pull clearance delivery frequencies out of remarks and put them in a more usable format. He reported that there is currently a cleanup project to transition as much information as possible out of remarks, and clearance delivery frequencies are part of that effort.

Brian said Ground Communication Outlet (GCO) is in the FRQ.csv file now. He asked if Garmin looking for more information or if this item can now be closed.

Steve Madigan, Garmin, said he agrees with closing this item. The status of the NASR communications upgrade can continue to be tracked with issue [20-02-348](#).

STATUS: CLOSED

22-01-368 Special Use Airspace on IAPs

Jeff Rawdon, FAA/AFS-420, reported the Flight Procedures and Airspace Group is planning to discuss this issue with Air Traffic Control and then look at the criteria for when Special Use Airspace should be charted on Instrument Approach Procedures. He will report at the next meeting.

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 the Flight Procedures and Airspace Group is planning to discuss this issue with Air Traffic Control and then look at the criteria for when these areas should be charted. He will report at the next meeting.

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

Dan Wacker, FAA/AFS-420, reported that Flight Standards determined no safety review is required and this proposal can proceed.

Jennifer Hendi, FAA/AJV-A250, reported that the Interagency Air Committee Requirement Document (RD) 859 for these changes is in process. She will report the status at the next meeting.

STATUS: OPEN

ACTION: Jennifer Hendi, FAA/AJV-A250, will report on the implementation of the IAC specification change to remove geographic coordinates and enroute references from DPs and STARs.

22-02-372 Unnamed Special Military Activity Routes

Katie Murphy, FAA/AJV-A213, reported that Visual Charting submitted Interagency Air Committee Requirement Document (RD) 856 to expand the Special Military Activity Route (SMAR) communications box to include the corresponding instrument rules (IR) route identifier. Her team is also working to confirm the facilities and frequencies for these areas. Paul Hoegstrom, AFSA, reported that there are three IR routes for which it has been hard to determine when they were established and whether they are still being used. There are two U.S. Navy

SMARs and one Air Force SMAR and two of them overlap. He said finding contacts for the three IR routes out west has been difficult.

Tom Carrigan, FAA/AJV-A260, said every IR route has been updated, some recently, but none of them associated with SMARs have been updated. He is trying to figure out what is different about these areas. The source document shows they were historically all used for one particular thing, but there is no updated information.

Paul said he will find out whether these areas have been discussed with the services to find out whether they are still correct. Tom said we need to figure out how they will be sourced.

Katie said at last fall's ACM there was a vote that these areas should stay on the charts. Jennifer Hendi, FAA/AJV-A250, said Michael MacLean, NAVFIG, wanted them to remain because he said they are still used for unmanned activity. Paul said he will reach out to Michael and try to track down whether they are all still needed. He will also try to find someone in Air Traffic Control to ask about the matter.

Rich Boll, NBAA, asked for clarification on the proposal. Katie recapped that one option is to take the SMARs off the charts. The second option is to continue charting them, confirm the data in the communications boxes, and improve the pilot guidance. She said the SMARs on the east coast are associated with the FAA, so they have been able to confirm the communications information. Paul is still helping them confirm communications information for the SMARs in the west.

Rich said there is specific information in the Aeronautical Information Manual (AIM) about what to do with Military Training Routes. He asked how these are different. Katie said these areas are bigger (polygon-shaped) and in the communications boxes, pilots are given specific frequencies to contact. Rich thinks the fact that the Flight Service Stations (FSSs) did not know what the areas were when communication was established is a greater concern.

Joel Dickinson, FAA/AFS-410, said the pilot who brought this concern to the ACM said he looked into all the regular pilot resources about what a SMAR was and could not find a description. Therefore, Joel's team created a Document Change Proposal (DCP) to add the term in the AIM, but he has not submitted it yet. This discussion shows there are still questions regarding whether SMARs should continue to exist. He is going to hold the DCP until it has been determined whether they will continue to be charted. Paul said he will talk to people in his office and try to determine whether to go forward or not. Joel said he will send Paul the draft DCP for his information.

Katie said she will continue to work with Paul and Joel and will provide an update at the next meeting.

Jennifer reported the Aeronautical Chart Users' Guide (CUG) has been updated with the current language that is documented on the margin of the VFR charts. It will be updated again when the RD for the IR Route identifiers in the SMAR communications boxes is approved.

Rich thinks this never should have been an issue and the FSS should have known about the SMARs. He would like an action item to follow up with the facilities to make sure they know about SMARs. Scott Jerdan, FAA/AJV-A310, agreed and suggested Greg Yuhasz, FAA/AJR-B1, Flight Service Headquarters, as a good point of contact. He will contact Greg.

STATUS: OPEN

ACTION: Paul Hoegstrom, AFSA, will continue to assist Katie Murphy, FAA/AJV-A213, and the Visual Charting Team in confirming the appropriate communication information to be published in the SMARs communication boxes.

ACTION: Katie Murphy, FAA/AJV-A213, will work with Paul Hoegstrom, AFSA, and Joel Dickinson, FAA/AFS-410, in researching whether the SMARs should continue to be charted.

ACTION: Joel Dickinson, FAA/AFS-410, will submit the addition of SMAR guidance to the Aeronautical Information Manual (AIM) if it is determined that SMARs will continue to be published.

ACTION: Jennifer Hendi FAA/AJV-A250, will report on the IAC Specification and Chart Users' Guide updates to SMAR guidance.

ACTION: Scott Jerdan, FAA/AJV-A310, will reach out to Greg Yuhasz, FAA/AJR-B1, regarding Flight Service Station awareness of SMARs.

22-02-374 Non-Numerical Runway Identifiers

Jennifer Hendi, FAA/AJV-A250, reported that Sam Moore, AeroNavData, sent the requested list of problematic NASR data to Carlton Lambiasi, FAA/AAS-120. Carlton said that after working closely with Garmin, they determined the issue is not with the cardinal direction but rather with the runway bearing. It is not a safety concern, but more a matter of pilot confusion. Steve Madigan, Garmin, agrees that it is an element of pilot confusion not a safety concern.

John Moore, Boeing/Jeppesen, asked if Office of Airports has any oversight over small, private airports. Aeronautical Information Services (AIS) does not capture or publish information on private use airports. He would think the Office of Airports has the same policy and probably does not have any oversight over private airports. Without authority, it will be hard to make any progress. Scott Jerdan, FAA/AJV-A310, clarified that AIS does collect and publish private use airport information that is submitted by the Office of Airports. Steve also shared that he found an example of a public airport that does have non-numerical runway identifiers.

Carlton said he has spoken with Flight Standards about this recommendation. He said they agreed that since there are no safety concerns raised, he is not planning to move forward with the proposal.

Mike Stromberg, UPS IPA, agrees and thinks this is a lot of work with not a lot of benefit.

Clint Carter, AeroNavData, said his main concern is that this issue might be causing confusion. He said he does not know if the Flight Management System will work properly with non-numerical runways.

John Moore said this seems like an issue more for industry than for the FAA. He does not think this is an issue for the ACM and suggested closing this issue.

Rich Boll, NBAA, added that seaplane airports have geographical directions for their runways in Alaska. If the FAA were to require numerical runway identifiers, that would create a lot of work for these small airports. He thinks if the airport owner wants the runway bearing information, it is up to them to provide it and the FAA should not be pushing it on them to satisfy an avionics need.

Gary Fiske, FAA/AJV-P310, agrees with John and Rich and thinks this is out of scope of the ACM.

Jennifer Hendi, FAA/AJV-A250 summarized the issue and asked Sam if he agrees with closing this issue. He agreed and there were no other objections to closure.

STATUS: CLOSED

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

Jeff Lamphier, FAA/AJV-A240, presented a [prototype](#) of the proposed change to the depiction of blast pads and stopways on Airport Diagrams. The recommendation is to show the areas with a chevron pattern when provided by source. No ACM concerns were raised with the proposed depiction. Jeff said he will draft an Interagency Air Committee (IAC) specification change.

STATUS: OPEN

ACTION: Jeff Lamphier, FAA/AJV-A240, will report on the proposed Interagency Air Committee (IAC) Specification change for the revised depiction of stopways and blast pads.

[22-02-376 Charting of Known Abandoned Unlit Structures](#)

Jennifer Hendi, FAA/AJV-A250, reported that a workgroup met to investigate the issue. The Obstacle Data Team (ODT) then completed a scrub of the Permanent NOTAMs. Out of 52 unlit obstacle Perm NOTAMS, the ODT was able to determine that 16 structures no longer existed and therefore could be removed from the database. Once removed from the database, the Perm NOTAMs could then be canceled by Flight Service. That brings the total number of Perm NOTAMs for unlit obstacles to approximately 36.

A small [change](#) was also made to the Aeronautical Chart Users' Guide to clarify that obstacles may be lit or unlit. A similar change will be added to the Visual chart legend.

Jennifer said she had spoken with Matthew Leeser, FAA/AFS-420, who was the original proponent of the issue. He does not think a color change is necessary anymore given the small and decreasing numbers of unlit obstacles remaining. He said the Chart Users' Guide and Legend updates along with a planned education and outreach piece will be sufficient to address this concern. He recommends closing this issue. There were no objections to closure.

STATUS: CLOSED

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 23-02 is scheduled for October 23-26, 2023, virtual.

ACM 24-01 is scheduled for April 22-25, 2023, virtual.

IX. Attachment

- a. [23-01 Attendee Roster](#)