

**Government/Industry Aeronautical Charting Meeting (ACM)  
Meeting 22-02  
Charting Group  
October 25-27, 2022**

**CHARTING GROUP MINUTES**

**I. Opening Remarks**

FAA, Aeronautical Information Services (AIS) hosted the Charting Group portion of the Aeronautical Charting Meeting (ACM) on October 25-27, 2022. This meeting was held virtually. Samer Massarueh, FAA/AJV-A223, opened the meeting on Tuesday, October 25. Samer recognized and introduced Valerie Watson, 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 participation for the meeting attendees.

**II. Review Minutes of Last Meeting, ACM 22-01**

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

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

### [Chart Supplement Update](#)

Alex Rushton, FAA/AJV-A241, [briefed](#) the audience on the progress of the Chart Supplement Modernization Initiative, including the XML Enhancement Project. He reported that the working group met in 2021 with stakeholders regarding requirements for the Pacific and Alaska Chart Supplements and has continued to meet in 2022 to consolidate the feedback. The working group came up with 70 recommendations to improve the Chart Supplements and they have organized them into four categories: revision, removal, addition, and reorganization. In May through September 2022, they established an internal working group to work through the proposed recommendations. As of this meeting, eight recommendations have been completed.

Alex then reported that Phase I of the XML enhancement project to add XML tags to the continuation pages for airport entries has been completed. In Phase II, the team will focus on tagging entries in the back matter portion of the Chart Supplement ([slide 3](#)). Valerie Watson, FAA/AJV-A250, pointed out that that these XML enhancements will result in improved searchability that the ACM community has been requesting. Alex said they are working toward February 2023 for publication of these changes.

Alex then gave an overview of the project phases for the Chart Supplement modernization initiative ([slide 4](#)). [Slides 5-6](#) show the work that has been completed and a projected timeline for each phase.

Alongside this effort is the major update of the portion of the Interagency Air Committee (IAC) 8 specification that covers the back matter material of the supplements. Work is underway to document the current state of Continental United States (CONUS) Chart Supplements in IAC 8. Alex reported that the team hopes to complete the draft update and have it approved by the IAC in 2023. [Slides 7-9](#) show the phases, current progress, and projected timeline for completion for this multiyear project.

### [Northeast Corridor Atlantic Routes](#)

Joey Tinsley, FAA/TETL1-ZTL, [briefed](#) the status of the project. This is a large-scale change to the National Airspace System (NAS). 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. These changes were started in October 2019 and the team hopes to complete them by April 2023.

Joey summarized the changes that have already been made and those expected to be published through April 2023 ([slides 3-18](#)). He explained that due to the impacts of COVID-19, the implementation of the majority of the remaining routes and procedures was delayed because they were unable to provide the necessary controller training.

Joey said they are utilizing Virtual Go-Team meetings in order to address any of the ATC or operator issues that may be encountered when the new routes become effective. A list of contacts was also provided for anyone with specific questions ([slide 21](#)).

Valerie Watson, FAA/AJV-A250, pointed out that a lot of routes are NOTAM'd out but can still be assigned by ATC. She asked if these routes are being used now. Joey said they are not currently being used, but ATC wanted to have the option to be able to test the routes.

Doug Willey, ALPA, said the NOTAM system is already in crisis because of the volume of NOTAMs in the system. He said publishing something that knowingly can't be used for an extended period of time seems to go against the purpose of the NOTAM system. Joey said that, at the time, it was determined that using NOTAMs was the safest option. Joey agreed it isn't ideal and he hopes they can cancel all of the NOTAMs in April 2023.

### 5G C-Band NOTAMs

Christina Clausnitzer, FAA/AFS-410, [briefed](#) on Radio Altimeter issues and 5G C-Band deployment. Christina explained the reason that radio altimeters are susceptible to interference is because they are designed to receive signals which bounce back from the ground that are within a specific remote altimeter band of the spectrum. 5G signals broadcast close to this same band and can result in a loss or misleading remote altimeter data. Different remote altimeter models have different levels of susceptibility to the interference. This has a large impact on the U.S. fleet as well as foreign-registered aircraft that fly in the U.S. Christina explained the mitigations that are in place. The FAA has published Airworthiness Directives (ADs) including a transport AD, a rotorcraft AD and Boeing issued six aircraft-specific ADs. The FAA also issued Alternative Methods of Compliance (AMOCs) and additional guidance in a Special Airworthiness Information Bulletin ([SAIB:AIR-21-18R1](#)) and a Safety Alert for Operators ([SAFO 21007](#)). Verizon and AT&T have voluntarily agreed to use reduced power levels, lower the frequency and provide partial protection for vulnerable airports. Christina then explained the actions the FAA has taken since January 2022. The FAA gets new antennae location data every month and issues NOTAMs and AMOCs. They are also continuing outreach efforts, continuing to refine the airspace protection models and working with manufacturers to retrofit altimeters, but all of these actions take years to develop.

Dez Silagyi, FAA/AJV-A360, reported that over the past ten months the number of affected areas has more than doubled. Everything is happening faster than expected and the pace is not sustainable. The FAA is still using NOTAMs at this time, however they are continuing to look for other long-term solutions. In the meantime, they are also looking at ways to shorten the airspace NOTAMs. For November, the FAA plans to release a Domestic Notice which can contain all of the geographic coordinates, as well as graphics and hyperlinks. As a result, the airspace NOTAMs won't have to include as much information and can refer to the Domestic Notice.

Christina reported that the voluntary telecommunications companies' mitigations end July 1, 2023. Resulting considerations can be found on [slide 8](#). Christina discussed the conditions that are necessary for 5G C-Band to operate compatibly with aviation. The hope is that the airport environment will become safer through rulemaking changes rather than voluntary mitigations. They have asked the FCC to reduce the spurious emission limits, implement a downward tilt requirement, maintain the 220 MHz guard band (separation), and implement reduced power limits near certain airports.

The overall plan after July 2023, is for domestic aircraft to follow the restrictions in the AD and to reference the Domestic Notice. The plan for foreign operators is to follow the Aeronautical Information Publication (AIP) and the Domestic Notice. Christina shared the Draft AIP language ([slide 11](#)).

John Moore, Jeppesen/Boeing, said AIP language states “The FAA requires that radio altimeters are accurate and reliable...” He asked if there is any specific information published regarding what kinds of radio altimeter equipment is recommended in order to attain that accuracy and reliability. Christina said there was a plan to add that information to the Domestic Notice. She agreed that may need to go into the AIP as well.

Christina suggested referring to the [FAA's 5G website](#) for more information.

### [Charting of Wind Turbine Farms](#)

Michael Rauchle, FAA/AFS-420, [briefed](#) on proposed enhancements for the charting of wind turbine farms on VFR charts. He reported that the team received significant feedback from ACM participants and his team has evaluated the feedback. They identified some minor enhancements and discarded some of the proposed features presented at the last meeting.

Michael then showed several examples of the current wind turbine farm depiction and the final proposed depiction. The proposed symbology for the farm is 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.

The audience expressed support for the proposed depiction and Jim McClay, AOPA, said AOPA would be happy to help with outreach on this change.

Allison Miller, FAA/AJV-A213, stated that the Visual Charting team will submit an Interagency Air Committee (IAC) specification change for the revised wind turbine farm depiction. Once approved, the Visual Chart Team can begin the implementation. She said they are targeting June 2023 for implementation. Allison will report progress at the next meeting.

### [NASR Status Update](#)

Brian Murphy, FAA/AJV-A350, briefed the status of National Airspace System Resource (NASR) database enhancements. There are currently several ACM agenda items that require NASR enhancement in order to capture a new data requirement. He said the Air Traffic Organization is currently experiencing a budget restriction. He also briefed that a number of behind the scenes updates are needed to improve the stability and security of NASR. For those reasons, there will not be any significant enhancements to the database in the near future. He said AJV-A will continue to work to gather requirements for future updates so they can be ready to take action when possible. The team will continue to provide [the subscriber files and comma-separated values \(CSV\) data files](#) and is working to provide information in new ways that are easier to use. Feedback is encouraged using the [Aeronautical Information Portal](#).

Valerie Watson, FAA/AJV-A250, asked how long it will be until we can anticipate new NASR changes. Brian said the hold on changes is expected to last at least until the next fiscal year.

Steve Madigan, Garmin, voiced appreciation for the new CSV files that are being provided. He asked if there is a plan to continue providing the CSVs and subscriber files and whether they are considered authoritative source.

Brian said yes, both CSVs and subscriber files will continue to be provided. He also said the FAA stands behind all the aeronautical products provided on the FAA website, so yes, the CSV files are an authoritative source.

Valerie reminded the audience that there are several ACM issues that are dependent on NASR changes for resolution. She asked everyone to keep this briefing in mind as other items on the agenda are discussed.

## V. New Charting Topics

### 22-02-372 Unnamed Special Military Activity Routes

Mark Guenin, private citizen, presented his recommendation on Special Military Activity Routes (SMARs). He explained that he encountered an area depicted on the Las Vegas Sectional Chart that is charted similarly to special use airspace, however he couldn't identify it, couldn't find any information or rules about how to transit it and it didn't have an ident to communicate to ATC. There is a boxed note on the chart that identifies it as a Special Military Activity Area with contact information for Cedar City Radio; however, when he contacted them they didn't know what he was referring to. Mark's recommendation is that the SMARs should either be eliminated from the charts or they need to be identifiable by a name/identifier or perhaps be reclassified as a Military Operations Areas (MOA).

Allison Miller, FAA/AJV-A213, said the Visual Charting Team reached out to the National Geospatial-Intelligence Agency (NGA) and they responded that they want the FAA to keep charting the areas and that they cannot re-designate them as MOAs. She reported NGA recognized that there is a communication problem if the charted boxed contact frequency does not provide a reliable conduit for the user to determine activity status of the area and they will work with the FAA to resolve that.

Mike MacLean, NAVFIG, said these areas surround charted military training routes (MTR) and are used for unmanned aircraft activity. As far as Mike can tell, the NOTAM system is working appropriately for these areas. If a pilot encounters a problem, he recommended that they contact the Air Traffic Control Center overseeing that area. Valerie Watson, FAA/AJV-A250, said the contact information that is published on the chart needs to be verified to ensure it is correct. Users should not have to seek additional contact information. Valerie then asked whether the description of SMARs that is included in the margin area of the charts should be updated to make it clearer. She also asked if the SMARs should be referenced to the underlying MTR when a pilot contacts the facility for activity status. Mike said yes, he thinks it would be helpful if the pilot refers to the underlying MTR route by identifier and agreed this could be added to the explanatory language in the margin note and the boxed contact note associated with each area.

Valerie asked if explanatory language should be added to the Aeronautical Information Manual (AIM). Joel Dickinson, FAA/AFS-410, does think language should be added to the AIM and will reach out to the military to draft AIM language.

Paul Gallant, FAA/AJV-P210, confirmed that these are named areas based on the IFR military training routes so that is what pilots should use to ask about the status. He agrees with improving the language on the chart and in the AIM.

Steve Madigan, Garmin, asked what the source is for the boundary. John Collins, ForeFlight, said the width descriptions of the MTRs are in the National Airspace System Resource (NASR) database and represent the outer boundaries of those areas designated as Special Military Activity Areas. Valerie said AJV-A will research this further to determine if all the needed information is already included in NASR.

John Moore, Jeppesen/Boeing, voiced he doesn't think the FAA should try to train pilots with text on the chart. The necessary data should be provided, but not instruction in how to use it.

There was general audience agreement that the boxed note should include the route identifier, the contact information needs to be verified, and there should be guidance added to the AIM.

Valerie asked if Paul Hoegstrom, AFFSA, and Mike MacLean, NAVFIG, could help the Visual Chart Team ensure they get the needed contact information, i.e., facility and frequency, from the military. Paul said there are very few of these areas and he thinks the military would not have a problem providing the information. He said will reach out to the Air Force and Mike MacLean said he can reach out to the Navy to ensure the contact information is correct.

**STATUS: OPEN**

**ACTION:** Paul Hoegstrom, AFFSA, and Michael MacLean, NAVFIG, will assist Allison Miller, FAA/AJV-A213 and the Visual Charting Team in researching the appropriate communication information to be published in the SMAR communication box.

**ACTION:** Allison Miller, FAA/AJV-A213, will draft an Interagency Air Committee specification change to update the SMAR communication box to include the route identifier and to expand the explanatory guidance published on the VFR charts.

**ACTION:** Allison Miller, FAA/AJV-A213, will research the SMAR data that is currently included in NASR.

**ACTION:** Joel Dickinson, FAA/AFS-410, will coordinate with the military on the addition of SMAR guidance in the Aeronautical Information Manual (AIM).

**ACTION:** Jennifer Hendi FAA/AJV-A250, will update the Chart Users' Guide SMAR guidance to include the current chart margin explanatory note.

**22-02-373 Expanded SUA Labels**

Mark Guenin, private citizen, presented a recommendation in which he proposed that all Special Use Airspace (SUA) areas on the Visual Flight Rules (VFR) charts be labeled with floor and ceiling, contact frequencies, and hours of operation directly on body of the VFR aeronautical charts. Currently this information can be found in tabular form on the margins of the charts. He said the downside of this proposal is the cluttering of the chart, but he explained that much of the affected airspace is over unpopulated airspace so in most instances it would not lead to excessive cluttering.

Allison Miller, FAA/AJV-A213, presented an [example](#) chart to show what this would look like in an already congested area. She showed how adding this information would cause significant clutter on the charts. She doesn't think it is practical from a readability standpoint. This recommendation will not be possible until the charts are fully digital.

Valerie Watson, FAA/AJV-A250, pointed out that though in uncongested areas this information might be added to charts without causing undo clutter, the standardized location of the data is important. Pilots should know where to go in all cases to find the information so it needs to always be in a single location. For now, the tables

serve that purpose. She agreed the proposal might be possible when the FAA can offer layered information in a fully digital format. For now, it needs to remain standardized in the tables so pilots always know where to find the information they need.

Mike Stromberg, UPS-IPA, likes this recommendation, but understands why it is impractical in some areas. He thinks users should look to the electronic flight bag (EFB) vendors who can already add layers of information to the charts. John Collins, Foreflight, said EFB vendors are already providing overlays with this airspace information.

Doug Willey, ALPA, said this should be part of an ongoing FAA modernization project. Valerie said the FAA is working on modernizing the charts over time. Joel Dickinson, FAA/AFS-410, said there is currently a Radio Technical Commission for Aeronautics (RTCA) effort to develop new EFB standards in order to bridge the gap between the current EFB models and the new data driven model [SC-227](#). The effort is comprised of government and industry.

Mark Guenin requested that the FAA consider just adding the ceiling and floor values to the charts so pilots can quickly know if they have to comply with it. Steve Madigan, Garmin, said from an industry perspective he thinks adding this information to the paper charts would make it too cluttered. He said industry can already provide this information in an overlay.

There was agreement that the FAA will not move forward with this recommendation at this time.

**STATUS: CLOSED**

### [22-02-374 Non-Numerical Runway Identifiers](#)

John Gibson, Garmin, briefed that Airport Master Records FAA Form 5010, and now the Airport Data and Information Portal (ADIP), are used by airport proponents/owners/operators to establish and update airport/runway/facility information. He explained that problems exist when private-use airports name unpaved runways with cardinal directions rather than numerical runway identifiers. He said the existing runways are not named in a standardized way and often confuse landing ends and landing headings. He explained that guidance for naming runway ends using cardinal directions is lacking and that the revised Advisory Circular ([AC 150/5300-19](#)) only provides guidance for numerical runways. John provided tables of runway data that represent the various issues related to the problem that he has discovered. (See [RD 22-02-374](#).)

Garmin proposes that true alignments, coordinates, and end elevations should be required for all airfields. In addition, clear and concise naming convention guidance should be published. If the removal of the cardinal direction naming convention was intentional, corrections should be made to update the existing non-numerical runway identifiers to numerical identifiers. If it is the FAA's intention to continue to support non-numerical runway identifiers, AC 150/5300-19 and ADIP's Airport Master Records Data Dictionary should be updated to provide guidance for that naming.

Carlton Lambiasi, FAA/AAS-120, said the FAA Office of Airports is aware of these runways and explained that most of them are located at unmarked, private-use facilities, most often water runways. He said most of them were activated over 50 years ago and that in the last four years there have only been 10 runways activated using

cardinal directions. He said any new runways must include the latitudes/longitudes in the submission. He suspects that the airport operators at these locations would like to keep their runways named using cardinal directions based on how they operate. He asked the audience if there are safety concerns with the way these runways are specified today.

John said that this is more an issue about how these runways are captured in the NASR database. He said true alignments, coordinates and end elevations should be required for all runways. Carlton said all new runways will have that data and the Office of Airports can try to get coordinates for those that don't have them currently.

John said he will provide the list of entries that have missing or incorrect data to the Office of Airports. Carlton said he is willing to work with John to identify the problematic locations and conduct outreach to those facilities.

**STATUS: OPEN**

**ACTION:** John Gibson, Garmin, will provide the Office of Airports with the list of the problematic NASR data that was found.

**ACTION:** Carlton Lambiasi, FAA/AAS-120, will work to correct the data by reaching out to the facilities and will report back at the next meeting.

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

Greg Petto, FAA/TCID1-SDF, presented the new recommendation. He explained that a low-speed runway excursion at Louisville Muhammad Ali Intl (SDF) airport occurred when an aircraft exited the end of a runway and taxied onto a stopway. The flight crew indicated that they believed the area was usable for taxiing because the FAA-produced airport diagram depicted the stopway in gray screen, the same as a taxiway. Greg recommends that the FAA change the depiction of stopways and blast pads on airport diagrams so they can be clearly differentiated from taxiways.

Rich Boll, NBAA, said the areas presented in this recommendation are not stopways, but are blast pads. A stopway is usable in the event of an aborted takeoff, is included in performance planning and is associated with the runway declared distances. Carlton Lambiasi, FAA/AAS-120, agreed and said most airports have blast pads, but do not have stopways. Carlton asked if there is a need to depict a stopway on the chart at all. If they cannot be used by the pilot he thinks they should be completely removed from the airport depiction.

Valerie Watson, FAA/AJV-A250, pointed out that ICAO guidance supports depiction of stopways differently than taxiways (see [ICAO depiction](#)) and voiced support for the U.S. adopting something similar. She then asked how the AJV-A charting offices, without doing declared distance assessments, can confirm if an area should be charted as a stopway or blast pad. She said the information needs to be accurately provided by the airport and is concerned that currently it may not be. Jeff Lamphier, FAA/AJV-A240, agreed and said this information is not contained in a database and is self-reported by the facility.

Valerie said the source piece will have to be worked internally, but asked the audience if there is agreement that stopways should be depicted differently if their existence can be confirmed as such by source. Mike Stromberg, UPS-IPA, agreed stating that if you don't want a pilot taxiing on an area, you need to change the way it is

charted. Rich said from a pilot's view out the window, both stopways and blast pads are marked on the ground with chevrons. Mike Rottinghaus, FAA/AAS-110, confirmed that blast pad and stopway surface markings are painted in the same chevron pattern. Mike Crim, private pilot, suggested using chevrons on the Airport Diagram to match the symbol on the runway in both instances.

Valerie said she agrees with Mike's suggestion to chart the chevron symbol for both stopways and blast pads as that is how the surface is actually marked and chart compilers would not need to discriminate between the two. Chevrons have meaning to pilots, i.e. don't taxi here. Rich said that while he doesn't necessarily think it is necessary to depict blast pads and stopways at all, he would support a charting standard to depict them with chevrons.

Mike Crim asked if the current blast pad/stopway text would be removed if the new symbol is used. Valerie said yes, the symbol would appear in the legend making identifying text unnecessary.

Valerie summarized that there was audience support that if there is a confirmed blast pad or stopway, it should be depicted with chevrons and explained as such in the legend. Jeff said he agrees with the proposal and his team will draft an Interagency Air Committee (IAC) Specification change for the revised depiction of stopways and blast pads when provided by source.

**STATUS: OPEN**

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

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

Matthew A. Leeser, FAA/AFS-420, [briefed](#) the new recommendation. He explained that the National Airspace System (NAS) currently has numerous obstacles above 200' AGL that had previous lighting plans that are now abandoned and are no longer lit. [Advisory Circular \(AC\) 70/7460-1M](#) explains the rules regarding the marking and lighting of obstacles. Current charting specifications for VFR sectional charts state that obstacles above 200' AGL will be charted, but does not indicate if these obstacles are lit or unlit unless equipped with a high intensity strobe lighting system. Matthew explained that pilots, particularly those flying under Visual Flight Rules (VFR), expect that the obstacles that are portrayed on the sectional charts are lit. An unlit obstruction greater than 200' AGL in the NAS may be a potential hazard to navigation if pilots are not made properly aware. He said Notices to Air Missions (NOTAMs) are issued when there is a lighting outage, but those notices are meant to be temporary. Currently there are a number of permanent NOTAMs in the system for unlit obstacles. Matthew said his team proposes that known abandoned unlit structures, i.e., those with permanent NOTAMs issued, be denoted by adding a "UL" to the chart next to/below the MSL and AGL height ([slide 10](#)). Matthew said the symbol is for known abandoned unlit towers only. He said unlit structures that were never assigned a lighting plan aren't included in this proposal.

John Warner, FAA/AJV-A360, asked if the permanent NOTAM will be canceled once the "UL" is published. Valerie Watson, FAA/AJV-A250, confirmed that would be the process. John asked which FAA office is responsible for these NOTAMs. He also stated that long term, he thinks there might need to be legislation on these abandoned unlit structures so that owners are accountable. Valerie said except for Chart Correction NOTAMs,

the charting offices do not publish permanent NOTAMs. Jason Gibson, FAA/AJV-A322, confirmed that the Obstacle Data Team doesn't issue P-NOTAMs. He said their job is to find an owner of the structure and request that they take corrective action. It is the responsibility of the owner to call Flight Service to request a NOTAM. Debbie Milburn, FAA/AJV-A321, said her understanding of the process is that the T-NOTAMs will continue for owners who file requests while they are in the process of lighting their structures. The P-NOTAMs are for the structures for which an owner cannot be found and there is no expectation that the structure will ever be lit.

Rich Boll, NBAA, said he is concerned there are so many unlit structures in the NAS and asked what action the FAA is taking to address this problem. Matthew said there are currently about 50 P-NOTAMs for these unlit obstacles in the NAS. The FAA does not have the authority to do anything to insist they are lit or removed. Rich asked if an obstacle is abandoned, can the FAA change its classification to a hazard in order to provide more incentive to owners to light them. Additionally, Rich thinks the "UL" will be hard for pilots to see. He proposes instead of using "UL" the color of the obstacle symbol and associated text should be changed to magenta so it would stand out. Mike Stromberg, UPS-IPA, said he likes the idea of using magenta to make the symbols stand out more and he agrees the "UL" text would be easy to miss. Jim McClay, AOPA, said the "UL" is too similar to the "UC", so there is the possibility for misinterpretation. He agrees the best solution is the color change. Mike Crim, private pilot, proposed using the dot under the tower for lit and no dot as unlit. He thinks it is better to the keep the chart less cluttered. Matthew said they would take these suggestions under consideration.

Roger Hughes, FAA/AFS-420, said there is a procedure in FAA Order 7400.2 for obstacles that become hazards. The hazard designation is by the authority of the Obstruction Evaluation Group (OEG). He said they will not label anything over 200' a hazard unless it penetrates a Federal Regulation 49 CFR Part 77 surface. Valerie said she understands that that this recommendation is only for a new depiction of obstacles that are over 200' and penetrate the Part 77 surface, for which a lighting plan was assigned, but they are abandoned and no longer lit. Valerie asked whether a structure could be reevaluated as a hazard if it is flagged as unlit. Roger said he doesn't know. Matthew said he will investigate that.

Diane Adams-Maturo, FAA/AFS-420, expressed concern that indicating the obstacle as unlit on the chart makes it seem as if it is acceptable that they are unlit. She see this as a safety concern that needs to be addressed.

Rich clarified that the problem arises when the FAA has determined a structure needs a lighting plan and then the structure is abandoned and left unlit. Mike Stromberg said thousands of unlit towers have been determined not to be a hazard to the NAS and the towers depicted on the sectional charts can be lit or unlit. He agrees with charting the known abandoned unlit obstacles to reduce the NOTAMs, but agrees that further clarification is needed in the Aeronautical Information Manual (AIM) or Pilot/Controller Glossary (PCG) and Aeronautical Chart Users' Guide.

Valerie summarized that the structures addressed in the proposal are the small subset of obstacles (approximately 50) that originally received a "hazard" designation, were assigned a lighting plan to mitigate the hazard, but are now unlit. ACM consensus is not in favor of adding the proposed "UL" text, but there was support for showing these obstacle symbols and associated text in magenta. The source still needs further investigation. How these obstacles should be named in the chart legend, Chart Users' Guide and AIM will need to be established. She said the charting offices will reach out for human factors input regarding use of the magenta color change with respect to cockpit red light conditions as that concern was voiced. If the Interagency

Air Committee specification change is approved, the change will also need to be defined in the AIM and the Chart Users' Guide.

**STATUS: OPEN**

**ACTION:** Jennifer Hendi, FAA/AJV-A250, will expand the guidance in the Aeronautical Chart Users' Guide to explain that today, charted obstacles on VFR sectional charts may or may not be lighted.

**ACTION:** Jennifer Hendi, FAA/AJV-A250, will reach out to the Volpe Human Factors Office regarding the proposed change to depict known abandoned unlit obstacles in magenta.

**ACTION:** Matthew Leeser, FAA/AFS-420, will reach out to the Obstruction Evaluation Group (OEG) to understand the process for identifying an unlit structure as a hazard.

**ACTION:** Katie Murphy, FAA/AJV-A214, will work with Matthew Leeser, FAA/AFS-420, and the Obstacle Data Team, FAA/AJV-A320, regarding the source for Known Abandoned Unlit Obstacles.

**ACTION:** Katie Murphy, FAA/AJV-A214, will draft an Interagency Air Committee (IAC) specification change for the color change for Known Abandoned Unlit Obstacles once a source flow is determined.

## VI. Outstanding Charting Topics

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

Mike Melssen, FAA/AFS-410, reported that his office is still considering whether to add language to the Aeronautical Information Manual (AIM) since it would only affect a small fraction of users. They are also still considering adding language to Advisory Circular (AC) 120-118. He explained that the information is already included in the Chart Supplement. Any changes are pending the Safety Risk Management Panel (SRMP) assessment regarding multipath issues. Once complete, they will then evaluate where the guidance will be published.

Valerie Watson, FAA/AJV-A250, said it is understood that the AIM guidance would only be for a fraction of users, but the ACM audience had agreed that they would like the guidance to be published.

#### **STATUS: OPEN**

**ACTION:** Mike Melssen, FAA/AFS-410, will report on the effort to publish Category I Autoland guidance in AC 120-118.

**ACTION:** Mike Melssen, FAA/AFS-410, will report on the rewrite of AIM Chapter 1-1-9 and the addition of a link to the [ILS Procedures & Components List](#).

**ACTION:** Mike Melssen, FAA/AFS-410, and Flight Standards will reconsider the original proposal to add the information about ILS Classifications Codes that is currently published in the Chart Supplement legend into the AIM.

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

Valerie Watson, FAA/AJV-A250, reported that she reached out to the Office of Airports to again ask if they will consider sanctioning the use of the proposed terms. The issue was forwarded to Mike Rottinghaus, FAA/AAS-110. Mike reported that [AC 150/5340-18](#) currently states that it is up to the discretion of the airport to install signs and provide supplemental guidance to help pilots. Mike [presented](#) the list of common signs that are in the AC, but explained that there is flexibility beyond that list. He said that the American Association of Airport Executives (AAAE) has expressed that they want to ensure that the use of the new terms will not be mandatory. Mike also explained that the proposed terms all use the word “ramp” and the term “apron” would be more appropriate. The new terms would be “FBO Apron,” “GA Transient Apron,” and “GA Tenant Apron”. Mike briefed the planned approach is to first amend the AC to add new sub-bullet examples of the new parking area designations along with a brief definition of what the terms mean. The language in the AC will still indicate implementation of signage is at the discretion of the airports and is not mandatory. Once the terms are in the AC, the Office of Airports will submit a Document Change Proposal (DCP) to propose an update to the Aeronautical Information Manual (AIM) and Pilot Controller Glossary (PCG).

Jim McClay, AOPA, expressed support but explained that since the original terms using the word “ramp” were agreed upon by the Airports Council International (ACI) and American Association of Airport Executives (AAAE), he may need to take the revised terms using “apron” back to them for review. He doesn’t expect that the

change will present a problem. Jim also emphasized that the original intent of this request was to get the terms on Airport Diagrams, not to alter the signage that is used at the airport.

Valerie asked Mike to confirm that the only change to the designations will be “ramp” to “apron” and that the descriptions of each area will be as proposed by AOPA. Mike agreed. Valerie expressed her pleasure that this proposal is now being supported by the Office of Airports and thanked Mike and the Office of Airports for their efforts. She summarized the Office of Airports will begin work to revise the AC that Mike reported was anticipated for next summer. He will report back at the next ACM. Jim thanked Valerie and the Office of Airports for their efforts.

**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 held internal meetings to discuss the IAP Chart Modernization Working Group [recommendations](#) and has decided to accept the proposal with one revision. He explained that before Flight Standards approves the revised recommendation, they will need to conduct a safety review. He also explained there will have to be one exception to the proposal as briefed at the last meeting. Jeff said the minima portion of the proposal will only address procedures that have non-standard inoperative component landing minima notes. Procedures with only standard inoperative minima reductions will not be addressed and users will continue to use the Inoperative Components table in the front of the Terminal Procedures Publication. Jeff said in order to accomplish changes to the charts that have non-standard inoperative minima, there will need to be 8260 Order changes and subsequent procedure amendments. For those charts with standard inoperative minima, the other changes in the proposal can begin once the specification changes are approved. He stressed that these actions are still pending the safety review.

Rich Boll, NBAA, said a change is needed to the prototype charts in the recommendation based on this adjustment to the proposal. The header above the minima table in the current proposal states “ALS INOP VISIBILITY”. It will need to be changed to say something like “NON-STD ALS INOP VISIBILITY”. Valerie Watson, FAA/AJV-A250, agreed.

Jeff is hopeful the safety review can start in the first part of 2023. Pending the outcome, they will then proceed with Interagency Air Committee (IAC) specification changes and will begin planning for criteria and automation changes. Updates will also be needed in the Aeronautical Information Manual (AIM), the Instrument Procedures Handbook and the Chart Users’ Guide.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, will report on the safety review of the IAP Chart Modernization Working Group Recommendations.

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

Valerie Watson, FAA/AJV-A250, shared the [proposed Interagency Air Committee \(IAC\) 4 specification language](#) for fly-over and fly-by waypoints. The new language clarifies that the only time a holding point will be charted as a fly-over point is if it is used in other aspects of the procedure and designated in all other aspects of the procedure unrelated to holding with a fly-over function. Otherwise the holding point will always be shown as fly-by. This language supports what the 22-01 audience was in favor of.

Diane Adams-Maturo, FAA/AFS-420, said the guidance in FAA Order 8260.19 will be updated to align with the change. Jeff Rawdon, FAA/AFS-420, clarified that this change doesn't affect how the waypoint is designed, documented, or coded. It is only a charting clarification.

There was then a lengthy discussion about whether or not "enroute" should be specified in the specification and criteria language. There was also a lot of discussion around whether NAVAIDs or Intersections could be designated as fly-over. It was decided that even though there are no NAVAIDs charted today as fly-over, the language should remain as proposed because it is conceivable that one could be used that way. Krystle stressed that this change is only meant to clarify what the FAA has already been doing.

**STATUS: OPEN**

**ACTION:** Diane Adams-Maturo, FAA/AFS-420, will report on the proposed changes to FAA Order 8260.19.

**ACTION:** Krystle Kime, FAA/AJV-A222, will report on the IAC specification change.

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

Mike Melssen, FAA/AFS-410, said he has nothing new to report, but said his team will continue to work on this issue and will report at the next meeting.

**STATUS: OPEN**

**ACTION:** Mike Melssen, FAA/AFS-410, will continue to work with the Office of Airports, FAA/AAS-100, to secure a source for the LED data and will report back at the next ACM.

### [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 there is one remaining on V1 that is scheduled to be removed soon. He said there are still airway segments that are made unusable using Temporary Notices to Air Missions (NOTAMs) but those will have to remain until they can be fixed over time.

John Collins, Foreflight, said he sees remarks in the National Airspace System Resource (NASR) database that say certain radials are not usable and those remarks do not appear on the charts, e.g., "VOR unusable 081 to 084 beyond 40 nautical miles". Dale Courtney, FAA/AJW-263, said there have always been restrictions published

against facilities if they do not perform as they should and those are the notes that are found in NASR. Procedure developers use that information when they are designing a procedure. Dale said that a facility being restricted doesn't necessarily make the entire airway or even a segment unusable. Valerie Watson, FAA/AJV-A250, said NAVAID restrictions published in the NAVAID resource of NASR are shown in the Airport/Facility Directory section of the Chart Supplement for the subject facility, but they do not show up in the context of an enroute airway unless the radial is designated unusable on the FAA 8260-16 source document form. In that case, they are entered into the airway resource of NASR and are published in 14 CFR Part 95 and on the enroute charts.

Curtis Davis, FAA/AJV-A311, said the issues with unusable airway segments are in the process of being remedied. He said he believes there may be several instances where there are notes that are charted with regard to unusable radials. He said he would send the list of such notes to Pat Mulqueen, FAA/AJV-A440. Valerie asked if Pat thinks the criteria needs to be clarified. Pat said the 8260.19 guidance is sufficient.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, and Pat Mulqueen, FAA/AJV-A440, will report on the investigation and discussions internal to the Flight Procedures and Airspace Group (FPAG) and with Aeronautical Information Services (FAA/AJV-A) to resolve existing issues related to unusable airway segments/routes/radials.

**[19-02-341 Review of Mountain Passes on VFR Charts](#)**

Jim McClay, AOPA, reported that the JO 7210.3 policy change for the application of VFR waypoints/checkpoints with respect to mountain passes is expected to be effective 3 November 2022. Once that is complete, requests can be made for new VFR waypoints/checkpoints to be added to the charts. Changes to the Aeronautical Information Manual and Aeronautical Information Publication will also be published on 3 November 2022. Valerie Watson, FAA/AJV-A250, showed the [update](#) to the Aeronautical Chart Users' Guide that will be published concurrently on 3 November 2022. All actions related to this issue have been accomplished and this issue can be closed.

**STATUS: CLOSED**

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

Jeff Rawdon, FAA/AFS-420, reported that the test of Wrong Surface Hot Spot Arrival Alert Notices and Associated Airport Diagram Symbology started on 19 May 2022. He said one condition of the test was a mid-term review of test progress, which will happen in three weeks. Flight Standards has issued an [Information for Operators \(InFO\)](#) and AJV-A published a [Charting Notice](#) to explain the test. He said a twelfth airport was added to the test and will be published on 29 December 2022.

Giovanni Dipierro, FAA/AJI-141, said his office will share data from the test with Flight Standards the first week of December. He reported that in looking at some of the airports involved in the test it appears the number of wrong surface events has gone down. He said they have been socializing the proposal with industry and are gaining support, especially for the Arrival Alert Notices.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, and Giovanni Dipierro, FAA/AJI-141, will provide an update on the test 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 referred to his earlier briefing regarding the 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.

**21-01-350 Holding Pattern Leg Lengths on Terminal Charts**

Jeff Rawdon, FAA/AFS-420, reported the Flight Procedures and Airspace Group (FPAG) conducted a review of FAA Orders 8260.19 and 8260.46 and they believe the orders make it clear that holding pattern information will be documented on the procedure source forms.

Krystle Kime, FAA/AJV-A222, said Terminal Charting gets the holding pattern leg length for conventional Standard Instrument Departures (SIDs) and Standard Terminal Arrivals (STARs) from FAA Forms 8260-15 and -17 and for Instrument Approach Procedures (IAPs) and RNAV SIDs and STARs, from FAA Form 8260-2.

Steve Madigan, Garmin, reviewed his original recommendation and said they would like to have the holding pattern leg length always documented on the procedure source form for SIDs and STARs. He said discrepancies arise when the FAA Form 8260-2 has been updated but the procedure source form has not. Dan Wacker, FAA/AFS-420, said the 8260-2s and FAA Forms 8260-15 and -17 and should be submitted together and the information should be documented/updated on both. He said discrepancies are only occurring if the criteria is not being followed. Pat Mulqueen, FAA/AJV-A440, agreed that the holding pattern details should be maintained on the procedure source forms and on the 8260-2s and they are working on correcting this problem going forward.

Valerie summarized that FAA Orders 8260.19 and 8260.46 both have guidance documenting that the leg length will be documented on both the procedure source forms and on the 8260-2s. Going forward, holding pattern details will be maintained on the 8260-15, 8260-17, and on the 8260-2s. Steve and Krystle both support that as a solution. Krystle asked what to use if the procedure source doesn't match the -2. Pat said Terminal Charting should query any discrepancies. There was agreement to close this item.

**STATUS: CLOSED**

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

Alberto Rodriguez, FAA/AAS-320, reported that he was hoping to have the final recommendation ready for this meeting, however they have identified some additional items that need further work. He said the workgroup has been working to identify the products in which users would most benefit from this information being published. They plan to put it in the Chart Supplement and on the Airport Diagram, but have determined they needed to work on terminology that properly captures the concept and translates it to foreign operators as well. Alberto plans to present the final recommendation at the next meeting.

**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.

### [21-01-353 Airport and Runway Lighting in the Chart Supplement](#)

Jeff Lamphier, FAA/AJV-A240, said that though he agrees that the lighting information is not always found in the best place within the airport entries in the Chart Supplement, his team does not have time or resources to make the requested changes at this time. He said his team is working toward creation of a data inventory of the entire Airport/Facility Directory section to determine the source of each data element and whether or not it is automated. Once they have that inventory they can slowly work toward automation and better addressing stakeholder interests like this one.

Valerie Watson, FAA/AJV-A250, asked Jeff if his team could look into the smaller ask discussed at the last ACM regarding pilot controlled lighting information as a first step. Jeff said he can't commit to individual pieces, but rather needs to complete the full inventory before assessing individual change requests. Scott Jerdan, FAA/AJV-A310, said the Aeronautical Data Team will work with Jeff once there is a documented understanding of the individual data elements and where the data comes from.

Scott said he was asked to investigate if remarks in the National Airspace System Resource (NASR) database can be stored in upper/lower case rather than all caps. This would reduce the amount of modification required to ultimately publish those remarks in the Chart Supplement. Currently NASR stores text in all caps only and the Chart Supplement team must amend the remarks into upper/lower cases sentence form. This is a time and labor intensive step. Scott reported the change to upper/lower case text in NASR cannot be accomplished in an automated way at this time and his team does not have the time or resources to make those changes manually. He acknowledged this is another update that may be re-addressed at some time in the future.

Valerie said it doesn't seem like this proposal can be supported in the near future, so suggested closing the issue. Doug Willey, ALPA, said he worked with Rich Boll, NBAA, to submit this issue. He understands it cannot be done now, but hopes it can be done eventually. Valerie agreed and suggested the item be closed and updates to the Chart Supplement process, including progress in the data inventory/source endeavor be reported in the

future as part of the Chart Supplement modernization briefing. She stated she is hopeful that once that work is completed, proposals like this one can gain traction. The group agreed.

**STATUS: CLOSED**

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

Rich Boll, NBAA, [briefed](#) on the progress of the working group. The group determined the directional component of all airways in the NAS is preferred and does not constitute a restriction. The problem remains that they are coded in some databases with a directional restriction, preventing filing in the opposite direction. Air Traffic has made clear that they wish to be able to clear aircraft in either direction on any airway or route in the NAS. Curtis Davis, FAA/AJV-A311, is working to make sure the airways in NASR are databased correctly to reflect preferred directionality. Rich said the workgroup recommends this be communicated to users through: (1) publication of a Charting Notice, (2) publication of guidance in the National Airspace System Resource (NASR) README file, and (3) update of the Enroute Chart Legend and Chart Users' Guide. Rich showed the audience the draft [Charting Notice](#).

Rich asked Aaron Jacobson, Jeppesen/Boeing, whether the Charting Notice and README file would give him the mechanisms needed to code the airways as intended, i.e., preferred direction rather than directionally restricted. Aaron confirmed it would and said that all the airways coded in a single direction have been recoded so they should now be loadable in both directions. He questioned if the Air Traffic Service (ATS) routes should still be referred to as single direction or if they should be renamed to preferred single direction route. Valerie Watson, AJV-A250, said these ATS routes currently referred to as single direction routes will be revised.

Curtis Davis, FAA/AJV-A311, said currently there are nine airways that are still databased as single direction. His team will remove the directional component from the NASR airway file and will publish an overlying preferred route for all of these airways in the 23 Feb 2023 update. Concurrent with the changes in NASR, the legend references on the charts will be updated to "Preferred Single Direction ATS Route". Curtis said they will include a note about this change in the December NASR readme to help users prepare for the February update.

Rich asked if the other database providers think this solution is sufficient. Roland Borys, Lido, and Dario Pierandrei, Lido, said they think this solution will meet their needs.

Doug Willey, ALPA, thinks the word "single" is unnecessary and makes the direction sound regulatory. He said part of the issue is that the rest of the world has regulatory directional routes, but the U.S. doesn't. He thinks they should be named "preferred direction routes". Rich and Valerie agreed and said that now is the time to make this change. Valerie said she is in favor of the legends and all terminology and headers being updated to say "preferred direction", removing the term "single". She committed to working to ensure that is how they are referenced in/on all her organization's products.

Tom Carrigan, FAA/AJV-A311, said the data team has talked about this issue at internal meetings and everyone agrees with the proposed changes. His team plans to update NASR next week. He also agrees with the terminology change. Rich said the charting notice will also need to be updated with the new terminology. He asked when the chart legend changes can be done. Valerie said it will take an Interagency Air Committee (IAC) specification change, but she will initiate the process immediately so it can be effective for the February date.

**STATUS: OPEN**

**ACTION:** Rich Boll, NBAA, will work with Jennifer Hendi, FAA/AJV-A250, to update and publish the Charting Notice.

**ACTION:** Valerie Watson, FAA/AJV-A250, will process an Interagency Air Committee (IAC) specification change to revise the Enroute Chart legends to refer to these routes/airways as “Preferred Direction”. She will also ensure the Chart Supplement is updated as necessary.

**ACTION:** Tom Carrigan, FAA/AJV-A311, will update the NASR README file for the December release to help prepare users for the 23 February 2023 NASR changes.

**ACTION:** Colleen Kubont, FAA/AJV-A350, will investigate whether the NASR headers and/or CSV output headers need to be updated to reflect the removal of the word “single”.

**ACTION:** Jennifer Hendi, FAA/AJV-A250, will update the Aeronautical Chart Users’ Guide guidance for preferred direction airways.

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

Jeff Rawdon, FAA/AFS-420, reported that the Flight Procedures and Airspace group has not had a chance to work on this proposal yet, but it is on the list of items to be worked. He will report any progress at the next meeting.

Krystle Kime, FAA/AJV-A222, showed [prototypes](#) she created from currently existing [circling restriction notes](#). She explained that there are many notes that are easy to graphically portray, but there are others that cannot be depicted and those may have to remain as notes. Valerie Watson, FAA/AJV-A250, expressed some concern that pilots may not look for the notes if some are left in the briefing strip while others are shown graphically on the same chart. She suggested that a given chart should either document all restrictions as notes or all as graphic. She asked Jeff if his organization has looked at clarifying or standardizing the note format regardless of whether this proposal is accepted. Dan Wacker, FAA/AFS-420, said the standardization of the notes has already been addressed in FAA Order 8260.19, but it takes time for the notes to be updated to the new criteria on the charts.

Mike Stromberg, UPS-IPA, said he is still in favor of graphic circling restrictions even if all the notes can’t be shown graphically. He believes “a picture is worth a thousand words” so any restrictions that can be shown graphically should be. Pat Mulqueen, FAA/AJV-A440, agrees that some restrictions are so complicated they will need to remain in note form, but thinks the graphic may be possible in many cases. TJ Nichols, FAA/AFS-420, said the Flight Procedures and Airspace Group still needs to work out the details. He cautioned that they need to make sure not to confuse night restrictions with other types of restrictions. Jeff agreed and said there is still a lot of work to do on this issue.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, will report back on Flight Procedures and Airspace Group approval of the proposal and FAA Order 8260.19 changes necessary to support the graphic depiction of circling restrictions on Instrument Approach Procedure charts.

#### **21-02-363 Simplification of Airport Sketch Final Bearing**

Valerie Watson, FAA/AJV-A250, reported that the Interagency Air Committee (IAC) specification change supporting the depiction of only the inbound final approach bearing in the airport sketch of IAPs was approved and Terminal Charting has begun implementing this change on a day forward basis. There was agreement to close the issue.

**STATUS: CLOSED**

#### **21-02-364 Airport Sketch – Final Approach Track**

Jeff Rawdon, FAA/AFS-420, reported that Flight Standards will do a safety review of this recommendation along with the review for the Chart Modernization effort. He expects to be able to report the results of the safety review at the next meeting. Pending the outcome, work on an Interagency Air Committee (IAC) specification change can begin. It was agreed this effort can move forward independently of the Chart Modernization changes.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, will report on the safety review of the Airport Sketch Final Approach Track recommendation.

**ACTION:** Krystle Kime, FAA/AJV-A222, will draft an Interagency Air Committee (IAC) specification change pending a positive outcome of the safety review.

#### **21-02-366 Chart Supplement Remarks in List Format**

Jeff Lamphier, FAA/AJV-A240, reported his team does not have the resources to move forward with this proposal at this time. Just as he reported for 21-01-353, he explained his team is working toward creation of a data inventory of the entire Airport/Facility Directory section of the Chart Supplement to determine the source of each data element and whether or not it is automated. Once they have that inventory they can slowly work toward automation and better addressing stakeholder interests. As with issue 21-01-353, Valerie Watson, FAA/AJV-A250, suggested the item be closed and updates to the Chart Supplement process, including progress in the data inventory/source endeavor be reported in future as part of the Chart Supplement modernization briefing. The audience agreed.

**STATUS: CLOSED**

## [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 referred to his earlier briefing regarding the 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.

Steve Madigan, Garmin, said they found the clearance delivery frequencies are also being stored as text and asked if that will be part of the future revision. Scott Jerdan, FAA/AJV-A310, said the data team can work with Garmin to pull the frequencies out of the textual remarks and place them in a more logical frequency format. Jon Gdowik, FAA/AJV-A313, said his team already has a cleanup project to transition as much information as possible out of remarks. He said they can work on the clearance delivery frequencies as part of that effort.

### **STATUS: OPEN**

**ACTION:** Brian Murphy, FAA/AJV-A350, will report back on the implementation of airport GCO frequencies in a dedicated field in the NASR database.

**ACTION:** Jon Gdowik, FAA/AJV-A313, will report on the effort to pull clearance delivery frequencies out of remarks and put them in a more usable format.

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

Jeff Rawdon, FAA/AFS-420, said there was an ACM Recommendation Review Group (ARRG) discussion of this issue and the decision was made to accept this proposal for further assessment. Currently FAA Order 8260.19 says "When a procedure planview area encompasses Special Use Airspace (SUA), use the following note as deemed necessary: 'Chart P-56.'" There is concern this is not done consistently as there are many instances of two procedures at the same airport that show SUAs differently. Jeff said the ARRG arrived at several options for which public feedback is desired: (1) Never chart special use airspace on IAPs, (2) Chart only prohibited areas on IAPs, or (3) Adopt criteria similar to that within ICAO Annex 4, which reads "prohibited areas, restricted areas, and danger areas which may affect the execution of the procedures shall be shown with their identification and vertical limits".

Bill Tuccio, Garmin, voiced that, in his opinion, Special Use Airspace areas seem unnecessary to chart on an instrument procedure that has undoubtedly been designed to avoid them. Military Operations Areas (MOAs) are more debatable. Bill said the FAA may need to consider continuing to chart these areas on IFR approaches for pilots conducting practice approaches under visual flight rule (VFR) conditions. Joel Dickinson, FAA/AFS-410, said these procedures are built to protect only Instrument Approach Procedures (IAPs). The fact that pilots fly them for practice under visual conditions may not be enough of a reason to put them on IAPs. Bill agreed that if a pilot is cleared by Air Traffic Control (ATC), none of these areas need to be depicted.

John Moore, Jeppesen/Boeing, asked if the FAA is proposing to adopt the ICAO standard and only depict three types of SUAs. He thinks the FAA would need much wider vetting for that kind of change. Jeff said the exact

wording of the text would need to be made compliant with U.S. airspace area terminology with consideration given to differences with ICAO language.

Pat Mulqueen, FAA/AJV-A440, explained that Air Traffic tells procedure designers what needs to be depicted on specific procedures. The Instrument Flight Procedures (IFP) group honors these requests and in doing so consider they are following the “as deemed necessary” clause in the 8260.19 guidance. Bruce McGray, FAA/AFS-410, said he thinks it should be up to the controlling agency responsible for that airspace to determine what should be charted.

Steve Madigan, Garmin, said if ATC wants something charted he doesn’t intend to disagree with them. He said the problem still remains that they are charted inconsistently across procedures at a single airport.

Valerie Watson, FAA/AJV-A250, suggested adding something to FAA Order 8260.19 so when an SUA is requested for charting, an assessment is done to evaluate other procedures at that airport. Dan said that is already documented in FAA Order 8260.3. Pat said ATC may have a good reason why an SUA is shown on one procedure and not another.

Steve said the rationale for some of these seems to be that they have been on the chart for 40 years. He asked if charted SUAs are questioned when doing periodic reviews of these procedures. Pat said it is part of the periodic review process and deactivated SUAs will be removed. Steve clarified he’s talking about a periodic review of all areas, not just those that no longer exist. Pat said when procedures are submitted for amendment, there is a checklist of items they look at, but they don’t go back and ask the local ATC to justify anything they previously requested.

Valerie asked if the audience agrees that ATC should have the option to request SUAs be depicted on specific charts. Dan said yes, if they have a valid reason for the request. Valerie asked what criteria Instrument Flight Procedures (IFP) should use when following up with ATC to justify these areas. Dan said he will work on this issue with ATC outside of the ACM. He will then will work to clarify the criteria for when SUAs should be shown.

Jeff Rawdon summarized the discussion and said he thinks there is ACM agreement that ATC should have the ability to request an SUA be charted if it meets certain criteria. He suggested adding words similar to the ICAO language. He said the Flight Procedures and Airspace Group will take this back for more internal discussions to determine how they will proceed with potential criteria changes.

**STATUS: OPEN**

**ACTION:** Jeff Rawdon, FAA/AFS-420, and the Flight Procedures and Airspace Group will report back 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, reviewed the issue and said there was an ACM Recommendation Review Group (ARRG) discussion and the decision was made to accept this proposal for further assessment. It was discussed in the ARRG that adopting the recommendation to eliminate the graphic depiction of these areas might be feasible if there were an option to chart a note on the procedure instead.

Bill Tuccio, Garmin, said he does not think the notes are helpful either and doesn't support them on the charts. Doug Willey, ALPA, said almost every area includes a NOTAM that there is bird activity in the area. He asked what the criteria is to add these areas to the chart. Steve Madigan, Garmin, said migratory waterfowl NOTAMs are everywhere and he doesn't see the benefit of putting notes or graphic areas on the charts.

Jeff said these types of bird/wildlife warnings are published in the Chart Supplement in airport entries. He said the procedures are designed to protect these areas if that is necessary. He asked the audience if anyone thought these areas/notes were necessary and no one did.

John Moore, Jeppesen/Boeing, said someone probably thought this would help pilots' situational awareness. Pat agreed and said this is a situation where pilots may want to know if they are above a wildlife area. It is possible that the procedure could have been designed lower if not for a wildlife area. He said the Instrument Flight Procedures Team will continue to add these areas/notes to the procedures if requested by the local facility. Bennie Hutto, NATCA, said it may have been an environmental request to add this area. Valerie said there is a vague reference in FAA Order 8260.19 about making environmental assessments and the requests for the charting of these areas may be associated.

Valerie asked, if Flight Standards supports the removal of these areas, how will they determine it is appropriate in specific cases and how will the removal be accomplished. Dan Wacker, FAA/AFS-420, said if requirements are not covered in the 8260.19, a waiver is needed to add these areas/notes. This may be a path to cleaning these areas off the charts. Valerie asked if during the periodic review process, perhaps these could be removed unless they are supported by a waiver. Jeff said the Flight Procedures and Airspace Group will need to take this back and continue to investigate this issue further.

**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](#)**

Valerie Watson, FAA/AJV-A250, reviewed the issue. She said at the last ACM, there was audience consensus for removal of enroute chart references and coordinates from Departures and Arrivals. She had taken an action to first reach out to MITRE to see how many aircraft still need the geographic coordinates and report the numbers to Rich Boll, NBAA, and to Flight Standards before proceeding with a specification change. She said she did get the information from MITRE and has passed that along. Dan Wacker, FAA/AFS-420, said the Flight Procedures and Airspace Group is still discussing this issue internally and are considering a safety review.

Rich Boll, NBAA, reported that latitudes/longitudes were added to conventional Standard Instrument Departures (SIDs) and Standard Instrument Arrivals (STARs) in the 1980s to support the use of Inertial Navigation Systems (INS). He said MITRE determined that there are approximately 45 aircraft still using the INSs in the National Airspace System (NAS). He said removing the coordinates will not be a change to navigating in the NAS, only a

change to the charts. Additionally, these are conventional procedures and can still be flown using conventional ground-based navigation for which they were designed.

Dan Wacker, FAA/AFS-420, agreed and said his office will need to evaluate and document that. Valerie clarified this is only a specification change and will not be a change to procedure design criteria. Dan agreed and said he would get an answer back quickly.

**ACTION:** Dan Wacker, FAA/AFS-420, will report on the Flight Procedures and Airspace Group (FPAG) investigation of this issue and consideration of a safety review.

**ACTION:** Krystle Kime, FAA/AJV-A222, will draft an Interagency Air Committee (IAC) specification change to remove geographic coordinates and enroute references from DPs and STARs after the above action has been accomplished.

## VII. Closing Remarks

Samer Massarueh, FAA/AJV-A223, and Valerie Watson, FAA/AJV-A250, thanked the attendees for their participation and input to the issues discussed. Jeff Lamphier encouraged everyone to check out the Safety Alerts and Charting Notices website. There was a request for a VOR MON briefing at the next ACM.

Samer announced that after 35 years of government service, Valerie Watson will be retiring this December. Her contributions to the ACM and the entire aviation charting community have been immense. Participants acknowledged their appreciation for Valerie's leadership and contributions to the ACM. Valerie announced that Jennifer Hendi, FAA/AJV-A250, will be taking over as Chair of the ACM Charting Group.

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 23-01 is scheduled for April 24-27, 2023, location TBD.

## IX. Attachment

- a. [22-02 Attendee Roster](#)