

**Government/Industry Aeronautical Charting Meeting (ACM)
Meeting 20-02
Charting Group
October 28-29, 2020**

CHARTING GROUP MINUTES

I. Opening Remarks

FAA, Aeronautical Information Services hosted the Aeronautical Charting Meeting (ACM) on October 28-29, 2020. Due to the impacts of the COVID-19 pandemic, this meeting was held virtually rather than in-person. Samer Massarueh, FAA/AJV-A221, opened the Charting Group portion of the meeting on Wednesday, October 28. Samer acknowledged Jeff Rawdon, FAA/AFS-420, Chair of the Instrument Procedures Group (IPG) portion of the meeting held the previous day. He recognized and introduced Valerie Watson, FAA/AJV-A250, Chair of the Charting Group. Samer then provided an overview of his role as facilitator and explained how he planned to manage participation for the meeting attendees.

II. Review Minutes of Last Meeting, ACM 19-02

The minutes from ACM 19-02 meeting were distributed electronically last fall via the Aeronautical Information Services (AIS) ACM website: http://www.faa.gov/air_traffic/flight_info/aeronav/acf/. The minutes were accepted as submitted with no changes or corrections.

Note: There are no minutes for ACM 20-01 due to its cancellation.

III. Agenda Approval

The agenda for the 20-02 meeting was accepted as presented.

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

NOTAM System Modernization

Jim Linney, FAA/AJW-1, is the executive champion for FAA NOTAM Modernization and he provided a [briefing](#) on this effort. NOTAM Modernization is part of the Air Traffic Organization's (ATO) Top 5 Program that identified hazards that affect safety risk in the National Airspace System (NAS). The effort to modernize is a partnership with the FAA, industry stakeholders, and airports. The reasons behind the effort to modernize NOTAMs include a reduction in the volume of NOTAMs, an increase in clarity of NOTAM information, and NOTAM compliance with International Civil Aviation Organization (ICAO) standards ([Slide 2](#)). Jim spoke about the three goals of NOTAM Modernization ([Slide 3](#)). He stated that this effort is still a work in progress and emphasized that the training and outreach strategy will take time. Jim also explained that the work has been divided into workstreams, each with a goal and workgroups assigned ([Slide 4](#)). The transition to the Federal NOTAM System (FNS) includes the goal of a single database to house aeronautical data. Jim then highlighted some of the early successes of the modernization effort ([Slide 5](#)). Jim emphasized that the FAA is investing a lot of effort into NOTAM Modernization, and much of this effort is focused on establishing a structure that will have lasting change and will allow for continued future progress.

Heidi Williams, NBAA, stated that she has been part of the coalition as an industry stakeholder. She pointed out that, with regard to other initiatives that might be related to NOTAM Modernization, e.g., PERM NOTAMs, NBAA is working to ensure alignment with this larger NOTAM effort.

John Moore, Jeppesen, stated that, from the field, he has heard concerns regarding consistency and timeliness of NOTAMs. John said he didn't have specifics, but asked Jim for his thoughts on further coordination. Jim emphasized that although progress has been made, the work is not done and that outreach is ongoing. Heidi said that if there are specific concerns, they could be forwarded to her and she would be willing to take them to the group as the industry representative.

Bill Tuccio, Garmin, asked about the impacts of integrating ICAO standards and whether or not that is a constraint to the effort. Jim said that ICAO is not a constraint, but is a motivating force. Heidi agreed and said the group is working toward more global harmonization. Bill then asked if work was being done to add attribution data to the NOTAMs so that items not relevant can be filtered out for pilots. Heidi said that the coalition is aware of this need and is working on what they call filtering and parsing.

Doug Willey, ALPA, stated that industry would like to reexamine certain aspects of current practice. He voiced that, as an example, having a NOTAM active for two years announcing an out of service PAPI is a practice that needs improvement. Doug suggested it would be preferable to update the chart based on the NOTAM. Jim stated that this is a complex issue, but one that is being investigated.

Diane Adams-Maturo, FAA/AFS-420, asked how FDC and PNOTAMs addressing procedures are envisioned to be different under this new system. Heidi said that the types of NOTAMs that will be available is not changing. Brian Murphy, FAA/AJV-A350, added that with regard to changes to PERM NOTAMs that address such things as airport conditions, a process improvement related to this larger effort is being researched and worked on as a separate issue that will be discussed as part of a later agenda item ([18-01-322](#)).

Jim thanked the audience and stated that any further questions could be forwarded to him.

NOTAM Briefing

John Warner, FAA/AJV-A360, provided a [briefing](#) on behalf of the U.S. NOTAM Governance office. John discussed the ongoing transition of the FAA NOTAM system to the Federal NOTAM System (FNS), an ICAO compliant NOTAM system. John discussed the details of a new ICAO format that will replace domestic NOTAMs. John pointed out that the accountability on the qualifier line is changing from the Flight Service Station boundary to the FIR boundary. He then gave a line-by-line breakdown of the revised ICAO NOTAM format. He pointed out several ways that NOTAMs will be coded to allow systems to filter and sort NOTAMs for the pilot. Jim then provided some examples to demonstrate the format changes ([Slides 13 & 14](#)).

Bill Tuccio, Garmin, asked if this is strictly a change to the data structure, and not a change to what is presented to the pilot. John responded that part of the ICAO format change is the addition of the codes that the systems can use for filtering. For the pilots, a plain language piece will remain as part of the NOTAM. Bill then asked if NOTAMs will have an expiration date in ICAO or if they can be open-ended. John said that there is an expiration date and time.

John Barry, FAA/AIR-622, asked if GPS will be indicated in the NOTAMs. John said it is indicated within the codes provided on the "A" line of the NOTAM. John then asked how worldwide outages would be handled. Gary Bobik, FAA/AJR-B, responded that the process for those NOTAMs will not change. Such NOTAMs are submitted in the international format and will continue to be published as submitted.

Rich Boll, NBAA, asked when the change to the new format will be implemented. John said that conversion to the ICAO format is projected to occur in the 4th quarter of 2022. Rich asked if what pilots are accustomed to seeing in NOTAM text will change in the new format. John said that will depend on how the different data provider systems display the information. Rich said that he would like to see updated pilot guidance to explain the changes that are coming. John explained that his office's role is development of the ICAO compliant policy and is not involved in training.

John Collins, ForeFlight, pointed out that there are multiple FIR boundaries, e.g., high, low, surface. He asked what boundary will be used in the NOTAMs. John said he is aware of those distinctions and that those details have yet to be resolved.

Sue Walker, FAA/AFS-420, stated that according to FAA Order 7930.2S, her office is responsible for policy guidance and procedures for FDC NOTAMs. She said that she has not seen any coordination for updating the relevant orders to address ICAO format. Because FNS will be disseminating the NOTAMs in ICAO format, she asked if other systems need to be updated to accommodate those changes. She also asked what the impact will be on the 90-day NOTAMs. John was unable to answer those questions.

Several ACM audience members raised concerns regarding the need for more coordination. The audience agreed that a plan for training and outreach, updated pilot guidance, and changes to FAA Orders will need to be coordinated before this change can be implemented.

Chart Supplement Back Matter Changes Resulting from NOTAM Task Force

Jeff Lamphier, FAA/AJV-A240, provided a [briefing](#) on the Chart Supplement Modernization effort. Jeff started by reviewing the objectives of this initiative. The first objective is to ensure that aeronautical information resides in an authoritative source and is not published by the agency in multiple venues. The second objective is to align and format all Chart Supplement (CS) volumes to a refined scope and purpose. A working group was formed to recommend changes to the CS ([Slide 3](#)). Jeff briefed a number of alternate sources pilots can use for aeronautical information ([Slides 6-13](#)). Jeff stressed that the purpose of the Chart Supplement is for essential flight information in support of IFR/VFR Aeronautical Charting products. The group is grappling to define what “essential” means and who should have the oversight authority to determine what is essential for the CS.

Jeff then discussed a proposal for the future state of the CS. He pointed out that today much of the content in the back of the Supplements is unorganized and contains outdated information. His team is refining a clarification of the scope and purpose for the CS in order to ensure better stewardship of the information published. They propose to simplify the back matter from 25 sections to three sections: Notices, Communications, and Airport Diagrams. Jeff recognized the need for his team to be better stewards of the aeronautical information to ensure currency. This will involve identifying where the information belongs and then ensuring the orders and process are in place to govern that information.

Dave Smith, Advanced Aircrew Academy, asked what the target date is for the completion of these changes. Jeff stated that the short-term goal is to reorganize the existing content. The long-term goal is to improve the stewardship of the aeronautical information. These changes will likely take years to accomplish.

Rich Boll, NBAA, asked if the working group is still meeting. Jeff said that the stakeholder working group meetings have ended. Rich then asked if there is a plan to communicate to pilots the revised locations for the information that will be removed from the CS. Jeff stated that his office is still looking into that and he will report back on those plans.

Bruce Williams, BruceAir, stated that most pilots have moved to an electronic format and asked how these changes could help to improve the electronic format. Jeff stated that one of the long-term goals is to pull all the data from electronic source with the hope that eventually the users will also have access to that source. Brian Murphy, FAA/AJV-350, stated that the Aeronautical Common Service through System Wide Information Management (SWIM) is also currently working on disseminating digital aeronautical data. These are all part of a larger effort regarding digital data.

Mike Webb, FAA/AFS-420, asked where UAS and Urban Air Mobility information can be found. Jeff stated that the UAS office continues to resolve how to disseminate that data. He said he would take an action to try to find an answer for Mike.

John Collins, ForeFlight, stated that he would like to be able to search the graphic data in the CS. Jeff said he understands that concern and that is still a long-term challenge that needs to be addressed.

Northeast Corridor Atlantic Routes

Joey Tinsley, FAA/AJT-E, presented a [briefing](#) on the implementation of the Northeast Corridor Atlantic Coast Routes. This is a large-scale change to the National Airspace System (NAS). It is part of a transition to a PBN-centric NAS by adding/amending 39 Q and Y Routes to replace the current north-south high altitude route system along the east coast. These changes are being implemented incrementally on 13 chart effective dates that began 10/10/2019 and will continue through 1/27/2022. Joey discussed the milestones from 2020 and those on the schedule for 11/5/2020 ([Slides 5 & 6](#)). He explained that when a new route is published, a NOTAM is issued to NA it for one chart cycle. Then, beginning with the next chart cycle, the NOTAM is cancelled and pilots can file and fly the route. Joey said the team took lessons learned from the Florida Metroplex project and are applying them to the future implementation. He briefed that a virtual meeting space has been set up for the first three days after new routes go live in order to address any ATC or operator issues. Joey then shared the changes that are planned for 2021 ([Slide 15](#)).

Rich Boll, NBAA, asked if there will be any J Routes available for a pilot to use if they are having an issue with GPS. Joey said that most of the J Routes will be removed. Rich asked what the provision will be for non-GPS aircraft. Rich also asked if there will be any guidance published for pilots without GPS. Valerie Watson, FAA/AJV-A250, said that, in the past, the military has also voiced concern for accommodation for those that cannot fly RNAV. John Moore, Jeppesen, said that he believes the pilot guidance for non-RNAV users has been addressed and suggested those concerned contact the Flight Operations Branch about guidance that has been published. Gary Fiske, FAA/AJV-P310, stated that he does not believe many non-RNAV aircraft will be flying in this route structure. If it does happen, he stated that ATC will do the best they can to approximate the route. John Collins, ForeFlight, stated that when filing for a route without GPS, those flight plans are still being accepted by the automation.

Bennie Hutto, NATCA, asked if a pilot can file for a newly-established Q Route that has been loaded into the system when a NOTAM has been published to NA it. Joey said it is technically possible, but there have been very few cases where that has happened.

Discontinuation of VOR Services (VOR MON)

Ernesto Etienne, FAA/AJM-323, [provided an update](#) for the Very High Frequency Omnidirectional Range (VOR) Minimum Operational Network (MON) program. He reported that Phase 1 was completed in September 2020 with 82 VORs discontinued. Phase 2 has received approval and will include the discontinuance of 225 VORs from 2021-2030. This represents an extension of the program for an additional five years. The total number of VORs that are candidates for discontinuance is 307.

Ernesto briefly touched on the changes related to VOR Standard Service Volume (SSV) classes. Dale Courtney, FAA/AJW-292, provided a more detailed briefing on this topic. [See Briefing: [NAVAID Service Volumes \(DME, VOR and TACAN\)](#)]

Ernesto stated that current work is focused on flight inspection for the new SSVs and mitigation of Instrument Flight Procedures affected by VOR decommissioning.

Gary McMullin, Southwest Airlines, asked about the interaction that the MON Program Office has with the Flight Procedure Team. He said they are still seeing disconnects in the field where procedures were cancelled without a suitable replacement. Ernesto reported that they do meet regularly to discuss these issues and asked the audience to send him specific locations where there are known issues. Valerie Watson, FAA/AJV-A250, said that the same concerns about coordination were voiced at the last ACM and Ernesto took those issues back for resolution. Brent Luna, NATCA, stated that the MON Program Office manages the overall endeavor and the responsibility for detailed work and execution falls on the flight procedure teams within the Service Centers. Brent recommended that those with specific concerns go directly to the appropriate flight procedures team for a quicker resolution.

Doug Phifer, FAA/AFS-470, reported that his office has submitted changes related to the VOR/MON effort for the Aeronautical Information Manual for publication in December. John Collins, ForeFlight, mentioned the new language to be published in the AIM will address revised SSVs.

NAVAID Service Volumes (DME, VOR and TACAN)

Dale Courtney, FAA/AJW-292, presented a [briefing](#) on upcoming changes to NAVAID service volumes. He explained the VOR MON Program is in the process of implementing two new VOR standard service volumes (SSV) in order to achieve VOR service within 70 nautical miles above 5,000 feet AGL. The new NAVAID codes are VOR Low (VL) and VOR High (VH). Along with that effort, the NextGen DME Program is going to implement two new DME SSVs primarily to support DME-DME RNAV service. This change will require the establishment of two new DME NAVAID codes: Expanded Low (DL) and Expanded High (DH). The new NAVAID SSVs will be in addition to the legacy SSVs of Terminal (T), Low (L) and High (H) that will continue to be maintained.

Dale reported that the National Airspace System Resource (NASR) change to support the databasing of VOR and DME service volumes separately is scheduled to be implemented in late spring 2021. He said that ARINC 424 also needs to adopt new standards so the new service volumes can be used. He said that the new service volumes will be available next summer after testing is completed.

Rich Boll, NBAA, asked if the DME SSV coverage is being increased to support DME-DME-IRU navigation. He is concerned that there may not be enough DMEs in the Terminal and Enroute environment to support a DME-DME solution in the event of a GPS outage. Dale said that the future of the National Airspace System (NAS) is primarily enabled by GPS. He said there are two backup solutions in the absence of GPS: VOR MON and DME-DME capability. The infrastructure is being designed to support DME-DME navigation above FL180 and FL240 in the western mountain regions. It will also support arrivals and departures at the busiest 62 airports. Additionally, the network is being designed for operationally significant arrivals and departures to have redundant coverage for DMEs. There are still some airworthiness questions for those aircraft without IRU that will need to be worked out. Rich pointed out that newer aircraft are not being equipped with DME-DME.

Bruce McGray, FAA/AFS-420, said that in the past, there were limits on the number of aircraft that can receive the signal from a DME at the same time. Dale said that the newer DME equipment can accommodate more aircraft. The problem with that is it can then begin to interfere with GPS capabilities. Dale pointed out that this is not an issue with the vast majority of DMEs. Bruce suggests that Dale reach out to industry regarding the impacts of these changes on future avionics equipment. John Barry, FAA/AIR-6B1, suggested that Rich consider

joining RTCA Special Committee 227 which is currently updating the standards for Flight Management Systems (FMS). Heidi Williams, NBAA, agreed that industry needs to have greater involvement. With regard to joining the RTCA Special Committee, she commented that these issues reach beyond a change to the standards.

Identification of Trauma Centers on Helicopter Route Charts

Katie Murphy, FAA/AJV-A214, reported that, from a charting perspective, the work agreed to at the previous ACM has been completed. An Interagency Air Committee (IAC) specification change was signed to change all references of Trauma Center and Hospital Helipad to Medical Center on the Helicopter Route Charts. Katie showed the audience the revised [Helicopter Route Chart legend](#). Implementation of that change began with the June 18, 2020 publication date.

Valerie Watson, FAA/AJV-A250, reported that this is a change that was supported at the last ACM. She said that the only outstanding action is for the Office of Airports, as agreed, to collect the Air Ambulance and Medical Center designations.

Chris Criswell, FAA/AAS-120, stated that the Medical Center designation will be added to the 7480 process and his office will be adding the term to Advisory Circular 153/150-5300-19 within the data dictionary. He said that these changes can be expected in early 2021.

Valerie recommended that this briefing item be closed. There were no objections to closing.

Reassessment of Part 95 Designated Mountainous Areas

Brian Durham, FAA/AJV-W21, provided a [briefing](#) on an ongoing project to reassess and revise the method that is used to determine Part 95 Designated Mountainous Areas. Brian described the history of designated mountain areas, which were established by the Department of Commerce in 1956. At that time, there were Flight Service Stations at all commercial airports, few altimeter setting areas and very little information on flying in mountainous areas. He said it was difficult to obtain the historical information on the criteria that had been used to establish these areas. Since they were originally established in 1956, several exception areas have been added for specific locations. Brian said this new project came out of an RTCA Tactical Operations Committee that recommended that the FAA investigate revising the method used to determine Part 95 mountainous areas to determine if they can increase the percentage of non-mountainous areas. This change would impact the design of airways and altitude requirements. Brian said that this project came to his office three years ago when Denver TRACON approached the Western Service Center attempting to safely reduce their designated mountainous areas. A workgroup was formed to begin looking into applying a modern analysis method to reassess these areas. The group first came up with a proposed definition for designated mountainous areas: *Designated mountainous areas include those areas having a terrain elevation differential exceeding 3,000 feet within 10 nautical miles within those one arc-second quadrangles overlying terrain or U.S. territorial waters.*

Joshua Haviland, NATCA, then described the method devised to determine mountainous areas based on the new definition. He explained that a Mountainous Terrain Identification Area (MTIA) is a 10 NM circle that is used to determine the elevation differential for a given one arc-second quadrangle. If the elevation difference within

the MTIA is more than 3000' then that quadrangle receives a mountainous area designation. The result of using this method is a significant reduction of areas designated as mountainous. This would have significant impact on Off-Route Obstruction Clearance Altitudes (OROCA), Minimum IFR Altitudes (MIA)/Terrain Alert Volume (TAV), and Minimum Vector Altitudes (MVA). There are also small-scale changes to Air Traffic Service Routes and Instrument Flight Procedures that would result from implementation of this strategy. One important future consideration is how to implement this into our current technology. It was agreed that the many impacts of this change will have to be considered ([Slide 20](#)).

Brian then described the project timeline. He said that the Office of Primary Responsibility (OPR) for this project is FAA/AFS-220, Technical Operations Branch. As a result of feedback from that office, the model has since been revised to account for the effect of mountain wave data. AFS-220 accepted the proposed changes and has initiated a Safety Risk Management Panel (SRMP) and begun the rulemaking process. The tentative date to begin the SRMP is January 2021 and industry will take part. Due to the far reaching impacts, potential implementation is projected to be several years in the future.

Gary McMullin, Southwest Airlines, expressed his appreciation and support for this much-needed work.

John Moore, Jeppesen, asked about the volume of changes foreseen. He asked if they expect this to be small, incremental changes to mountainous areas, or a large-scale change to all designated areas at once. Josh said since this is going to involve such widespread changes, he anticipates that there will be a transitional implementation. He pointed out that it is unnecessary to revise everything at once because today's designations are safe. This is a refinement that can be applied where there will be a greatest benefit. John then asked if they are coordinating with Instrument Procedure Design teams. Brian said the Flight Procedure and Airspace Branch has been involved and that there is a Flight Procedure Specialist on the workgroup. He stated that all the appropriate offices will be involved in the SRMP. John then asked what elevation model was used to evaluate the terrain. Josh said he believes the model was based on the National Elevation Dataset (NED), but will need to confirm. He said he has requested that they have the most current and the best dataset available for the analysis to ensure it is as robust as possible.

Bill Fernandez, FAA/AJV-A440, said that this project could also prove to be valuable for helicopter operations.

Tom George, AOPA, said he would be very interested to see the results of the analysis for Alaska. Josh said his group has not completed the analysis for Alaska yet, but committed to looking into it and to reaching out to Tom after the meeting.

Don McGough, FAA/AJF-170, said his office uses this data in Flight Inspection and he anticipates it will have a large impact on their work in terms of the ability to fly at lower altitudes. Josh said that despite the far-reaching impacts and the daunting task ahead, his group has confirmed this is a highly-desired change for the aviation community.

John Barry, FAA/AIR-622, said that he is concerned that an area may be designated as non-mountainous but be adjacent to a mountainous area. He recommends that they consider that in the model. Josh agreed and said that is part of what they are trying to build into the new model.

There was overwhelming support for this project expressed by the ACM audience. It was expressed that future briefings would be appreciated.

Foreign Data on Enroute and Visual Charts

Katie Murphy, FAA/AJV-A214, provided an update on the [briefing document](#) that was sent to the ACM mailing list last April after the cancellation of ACM 20-01. She summarized the planned changes for the future depiction of foreign data and showed the audience [examples](#) of the proposed depiction on Enroute and Visual charts. She said only skeletonized data for orientation and transition will be shown outside of the U.S. A note will be placed along the border alerting pilots that limited chart information will be provided outside of U.S. airspace and that pilots should refer to foreign charts and flight information in those areas. Valerie Watson, FAA/AJV-A250, reported that only positive feedback was received as a result of the briefing document sent last April. She said specification change documents have been drafted to adopt the briefed proposal and are still in the vetting process. The target date for implementation is February 25, 2021. Katie said that once the changes are approved and the implementation is set, a Charting Notice will be published to make users aware of the changes.

56-Day VFR Charts

Katie Murphy, FAA/AJV-A214, provided an update on a [briefing document](#) that was sent to the ACM mailing list last April after the cancellation of ACM 20-01. She said that Visual Charting is working toward the goal of printing all VFR Charts, with the exception of the Wall Planning Chart, every 56 days. This change aligns the VFR chart publication schedule with the other charting products. It will also reduce the number of NOTAMs and eliminate the need for Chart Bulletins because the charts will be updated more often. She stated that this project is on track for completion on February 25, 2021. The audience expressed appreciation for this effort.

V. New Charting Topics

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

Giovanni Dipierro, FAA/AJI-141, provided a [briefing](#) on new recommendations regarding hot spot symbolization depiction when related to surface misalignment risk, publication of Arrival Alert pages in the Chart Supplement regarding wrong surface risk and the addition of a “MR” (for Misalignment Risk) icon to approach charts. He began his briefing by providing some background and describing the current definition of a hot spot as published in the Chart Supplement and the Terminal Procedures Publication. He said that hot spots today are drawn using varying shapes in order to fit the area of concern and asserted this has resulted in pilot confusion. A workgroup was formed to establish more standardized symbology for existing hot spot depictions on airport diagrams. Giovanni then provided some statistics on wrong surface arrivals and departures ([Slides 6-8](#)). He reported that from 2016 to 2020, there were 1,285 wrong surface arrivals and 851 wrong surface departures documented. The majority of these events were attributable to general aviation (GA) operations and took place during Visual Flight Rules (VFR) conditions.

Giovanni then explained the changes recommended by the workgroup. The group recommended that surface-based hot spots be depicted with a circle or an ellipse symbol and further recommended that a misalignment risk hot spot designation be added and depicted by a cylindrical symbol. He then showed examples of airport diagrams with the current and the proposed symbology. He proposed that when a misalignment risk is identified, a hot spot locating it be added to the airport diagram (with corresponding explanatory text of the hot spot), an Arrival Alert page be published in the Chart Supplement and that a negative "MR" icon be added to the sketch area of the Instrument Approach Procedures (IAPs) for the subject airport. The "MR" symbol on the approach charts is intended to serve as a cue for users flying that approach to look for the Arrival Alert page in the Chart Supplement and be aware that there is a potential for misalignment risk. He then provided a list of airports proposed to be updated with designations of misalignment risk hot spots. Giovanni explained that outreach and education is planned to ensure pilots fully understand the charting changes.

John Moore, Jeppesen, asked if the decision to move forward with these changes has already been made. He also asked if the Safety Risk Management Panel (SRMP) conducted in November of 2019 has been completed. Giovanni said yes, the SRMP had been completed. John then suggested that in the future, proposals be made at the ACM to get input before subsequent decisions are made. He then explained that according to the published definition of hot spots, they are designed to be used for surface operations. He said this is not the appropriate place for wrong surface landing information. Giovanni said this is not a new concept, wrong surface hot spots have been on the charts for a long time. He said the only thing that is new is the addition of the MR symbol on the IAP. Valerie Watson, FAA/AJV-A250, agreed that the FAA may have published some wrong surface landing risk hot spots, but reminded the group that in discussion at ACM 18-02 ([RD 18-02-326](#)) it was decided, with concurrence by Cheri Walter from Runway Safety, that those were published incorrectly and that the FAA should not be charting a landing risk on an airport diagram. At ACM 18-02 the Airport Mapping Team took an action to coordinate with Runway Safety to correct the verbiage in the errant entries. Valerie voiced that these errant entries should not serve as a precedent to the publication of wrong surface landing or arrival risk on FAA-produced airport diagrams. She emphasized that because the airport diagrams are surface movement charts, there is no expectation that pilots will be looking at the airport diagram for landing runway information. She voiced that, in her opinion, charting on a ground movement product would do little to mitigate a landing risk. Valerie clarified that alerting GROUND traffic that certain taxiway/runway surfaces might be mistaken is legitimate, but claiming that this mitigates a LANDING risk for arriving aircraft does not make sense. John also pointed out the differences in the revised symbols is very subtle and therefore may not be noticed by pilots. Valerie agreed.

Lev Prichard, APA, said that their safety team has been involved with this effort. He expressed their disappointment because Allied Pilots disagreed with this plan from the beginning and that dissenting opinion seems to have been disregarded. He emphasized that there can be a potential for misalignment anytime there are parallel runways or taxiways. He also agreed with Valerie that pilots use the airport diagram for taxiing and not for landing. He also questioned the choice of airports on the list to be updated with the new symbology, because he does not see those as the airports that have the biggest wrong surface landing risk. He does not believe the root cause of a wrong surface landing has been properly addressed. In summary, Lev believes that this change will create more problems than it fixes. Giovanni said they are trying to find a way to heighten pilots' awareness to this risk. He pointed out that wrong surface risk is an Air Traffic Organization (ATO) Top 5 issue. Lev said he recognizes the need to heighten pilots' awareness to this problem, but this solution is not going to fix it.

Rich Boll, NBAA, asked if they are looking at before-and-after data to determine if the wrong surface landing risk hot spots that are published today are making a difference. Giovanni said they have no way to know if the addition of a hot spot is a mitigating factor. Rich then asked how the Arrival Alert page will be sourced to ensure that commercial chart providers also receive it for publication. Rich also pointed out that during the discussions at 18-02 there was concern expressed about the proliferation of hot spots on airport diagrams. He asked about the criteria that will be used to determine where hot spots are added and to ensure they don't proliferate. Ray German, FAA/AJI-142, said the plan is for AJV-A to create the Alert page in coordination with Runway Safety and the airport. He said they are still in the process of developing the criteria for when a misalignment risk hot spot will be added. Tom Frakes, FAA/AJI-143, said they recognize they will need to limit the number published hot spots to the most critical risk areas. How this will be determined will be defined in the criteria. Rich stated that he may be able to support this initiative if he is able to first see the criteria that will be used and as long as the proliferation of hot spots is addressed. Chris Diggons, FAA/AJI-144, said that this effort is just one of many that Runway Safety is considering in an attempt to mitigate this problem. He said that not every parallel surface is a misalignment risk. The hot spot will only be shown at locations where these events are actually occurring.

Gary Fiske, FAA/AJV-P310, said that he supports this initiative. He said that wrong surface landings are a huge issue in the National Airspace System (NAS), and he supports using an existing resource to try to mitigate the problem.

Heidi Williams, NBAA, stated that she agrees with Lev and Valerie's earlier comments. She said NBAA participated in the SRMP and said that they did not concur or non-concur, but recommended that the ACM is the appropriate place to work the proposal. She said she has been part of many SRMPs for wrong surface events and not once has the chart been looked at to mitigate the risk. She disagreed that this is a surface issue. She emphasized that concerns are being voiced by industry that need to be considered. Giovanni said that they are surface events, because that is where the incident occurs. Valerie reiterated that the airport diagram is a ground movement chart and there is no expectation that a landing pilot would be looking at the diagram for misalignment risk.

Joe Lintzenich, FAA/AFS-410, Contract Support, stated his agreement with Lev's points and said it is better to train pilots than to put more clutter on the chart.

Bruce McGray, FAA/AFS-420, stated that there has been no data that has been presented that demonstrates adding a hot spot mitigates the risk to landing aircraft. He also said that adding clutter to the chart should not be part of any solution. Chris responded that they have recently begun tracking the effectiveness of hot spots.

Jim Spencer, NGA, noted that there was no data presented regarding the military. He recommended that Runway Safety solicit military input before adding something new or changing the symbology on a significant number of charts. He asked for the justification for changing the symbols and agreed with previous comments that it would not make a difference to pilots. Giovanni said that was the consensus of the workgroup in order to standardize the symbols for consistency across charts.

Jim McClay, AOPA, commented that it would be valuable to carry this discussion forward in this arena, to continue to look at this proposal and also to look at other alternatives to mitigate the wrong surface landing issue.

Valerie emphasized that it is understood by all that wrong surface landing is a huge and important issue. The questions being raised here are whether or not this proposed solution is appropriate and would solve the problem. She asked if a copy of the SRMP final report could be shared with the audience. Giovanni agreed to share the final report with Valerie so that she can in turn share with the ACM audience.

Gary McMullin, Southwest Airlines, stated that this is an important topic, however when he read the report, he had serious concerns about the effectiveness of the proposal in mitigating risk for arriving aircraft. He asked if pilot input was part of the SRMP because he, on behalf of Southwest, does not see that these proposed changes will have any positive mitigating effect. He stated Southwest does not agree with moving forward with these recommendations. He suggested that a new workgroup be formed that includes pilots to come up with a proper solution. Giovanni responded that many pilots groups were included in the SRMP.

Bruce McGray stated that there should be follow-up at future ACMs before this proposal moves forward. He said that the SRMP overlooked the concerns of the pilots on the panel.

John Moore, Jeppeson, asked what will be done with the feedback received at this meeting. Giovanni said that he would take the ACM feedback to his management and to the workgroup and discuss the next steps. He said that these specific proposals are not a “done deal” but emphasized that doing nothing is not an option.

Michael Stromberg, UPS, said that while doing nothing may not be an option, doing the wrong thing isn’t going to help the problem and that it is more important to come up with the right solution. He stressed that there needs to be data that demonstrates that a solution will have a positive effect before pilots will support that solution.

Calvin Lott, FAA/AFS-220, stated that landing runway incidents are a navigation error that should be solved through pilot training.

Valerie pointed out that legal liability needs to also be considered. She pointed out that there are hundreds, perhaps thousands, of airports in the NAS that have parallel surfaces, so the first thing that is needed is strong, clear criteria that designates what constitutes a misalignment risk. Waving a red flag at one airport and not at a similarly configured airport could be problematic.

Valerie summarized the discussion and stated that there was consensus of the audience that wrong surface landing risk is a known issue that needs to be addressed. There was also a clear consensus of the audience that did not support the proposal presented here as an appropriate solution.

STATUS: OPEN

ACTION: Giovanni Dipierro, FAA/AJI-141, will take the ACM feedback back to Runway Safety management for further discussion and will report at the next ACM.

ACTION: Giovanni Dipierro, FAA/AJI-141, will provide the final Safety Risk Management Panel (SRMP) report to Valerie Watson, FAA/AJV-A250, for distribution to the ACM mailing list.

[20-02-346 Special Use Airspace on VFR Charts](#)

Jeremy Katz, private pilot, provided a [briefing](#) on the new recommendation. He explained that he has concerns regarding some of the colors and symbols that are used on FAA Visual Flight Rules (VFR) charts. First, he showed the Anchorage Sectional and Terminal Area Chart (TAC) and noted white areas shown within the yellow populated area, the meaning of which is unclear. He questioned whether or not white is intentionally used in the Special Air Traffic (Part 93) Areas. He pointed out that the Legend and the Chart Users' Guide do not indicate color or shading for these areas. He recommended that the yellow color that is used to identify populated places be muted in all Part 93 Areas. With regard to the symbol used for Special Air Traffic Areas, he noted the legends depict the hash marks at a 45° angle to the boundary line. He then showed examples from the charts where the hash marks are depicted at 90° to the boundary. He recommended that the FAA address the charting inconsistencies and consider adding more explanatory guidance to the Legends and Chart Users' Guide. A complete list of Jeremy's recommendations can be found in the Recommendation Document.

Katie Murphy, FAA/AJV-A214, said there are some items that she can take back to her office for consideration. She also said some of the inconsistencies can be explained. She said that in charting, they use hypsometric tint to show elevation and the tint is not shown in areas that show city tint so that may explain what appears to be inconsistencies. She also emphasized that the Special Flight Rules Area (SFRA) around Washington DC is unique and the depiction was congressionally mandated to emphasize the extra security. She said she will investigate the inconsistent charting of the hash marks. She will also see if more explanation is needed in the Legends and the Chart Users' Guide. Valerie Watson, FAA/AJV-A250, agreed and said the some general explanatory text on the use of masking in the Chart Users' Guide could help alleviate some of the confusion.

Jeremy clarified that he was not recommending a change to the DC SFRA. He recommends using that as an example of the use of muted color to differentiate the Part 93 areas from the city tint.

STATUS: OPEN

ACTION: Katie Murphy, FAA/AJV-A214, will take the recommendations back to the Visual Charting Team for consideration and will report back at the next meeting.

[20-02-347 Mode C Airspace Label](#)

Bill Tuccio, Garmin, briefed the new topic. Bill explained that this is a recommendation to update the Mode C Airspace label to "Mode C/ADS-B" on FAA Visual Flight Rules (VFR) Sectionals and Terminal Area Charts since ADS-B is now a requirement.

Paul Gallant, FAA/AJV-P210, stated that the Airspace Rules and Regulations Team has no objections to this change. He explained that according to 14 CFR 91.225 and 14 CFR 91.215, the requirements are the same for Mode C and ADS-B Out. For that reason, he suggested that the wording on the chart say “Mode C and ADS-B Out” to ensure pilots understand that both are required. Valerie Watson, FAA/AJV-A250, stated that she agrees with this recommendation and with Paul’s suggested rewording of the note.

John Collins, ForeFlight, said that references to the “Mode C Veil” in the Aeronautical Information Manual (AIM) and Aeronautical Information Publication (AIP) should be updated to reflect this change to the terminology. Bill agreed that the publications need to be aligned with this change. Valerie said that the description need to be updated to include mention of the requirement to be ADS-B out equipped. Paul agreed and said that his office can take the action to update the AIM and AIP. Bill also mentioned a change is needed in Advisory Circular (AC) 90-114A. Rich Boll, NBAA, stated that the AC has already been updated for ADS-B and no action is need. *(Post-meeting update: Paul reported that all references in the AIM and AIP were already updated to require ADS-B Out in the Mode C Veil. No further changes for these documents are necessary.)*

Steve Madigan, Garmin, added that updates will also be needed for the Chart Users’ Guide and the VFR Chart Legends. Valerie said those changes will be made as part of the specification changes.

There was audience consensus to use the label “MODE C & ADS-B – OUT” on the charts.

STATUS: OPEN

ACTION: Valerie Watson, FAA/AJV-A250, to draft an Interagency Air Committee (IAC) specification change to update the Mode C Airspace label on VFR Sectionals, Terminal Area Charts, and to update the Chart Users’ Guide.

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

Steve Madigan, Garmin, presented the new recommendation. He explained that in the National Airspace System Resource (NASR) there is a resource for Air Route Traffic Control Center (ARTCC) that contains ARTCC frequencies. The problem is that the frequencies stored here are not organized in a way that allows database suppliers to use this data to create a complete airport communication record. Garmin recommends that NASR list each ARTCC frequency shown on IFR terminal procedures referenced to the subject airport as a “Serviced Airport”. This would enable the NASR database to more accurately reflect the uses of the various ARTCC frequencies and enable ARINC 424 database suppliers to use NASR to create a complete airport communication record for each airport.

Rocky Rizzutti, FAA/AJV-A313, said that the Aeronautical Data Team is aware of this limitation in NASR and that they have received similar requests from the Terminal Charting Team. He said that the database has limitations regarding the storage of ARTCC data and that is why they are not currently able to tag specific frequencies to serviced airports.

Valerie Watson, FAA/AJV-A250, stated that as far as the recommendation relates to arrivals and departures, there is a related ACM item ([17-02-312](#)) that is working toward the standardization of communications on Departure Procedures (DPs) and Standard Terminal Arrival (STAR) charts. As procedures are amended, only ATIS and APP CON will be shown on STARs and only DEP CON on DPs unless other communications are specifically requested on the procedure source form. Center frequencies should begin to be removed from DPs and STARs in the future. Steve said he is familiar with that related recommendation, but that those changes are going to take time for widespread implementation and he is concerned about getting this problem fixed in the interim. Valerie agrees that this change will take several years and that it will not fix all of these issues.

Krystle Kime, FAA/AJV-A222, said that part of the problem is that frequencies are submitted from a variety of sources. It is her hope that with the standardization of the DP and STAR communications, Center frequencies will not be requested as often in the future on those procedures. Rocky said that based on the previous request from Terminal Charting, his team has already submitted the request to update NASR. Scott Jerdan, FAA/AJV-A310, stated that this represents a significant change to NASR and his office currently has limited ability to push through large scale NASR changes. Brian Murphy, FAA/AJV-A350, said this request had not been given a high priority, but they are still aware of the need for this change. He agreed with Krystle that part of the problem is the mix of data sources for this information and he voiced the data flow will have to be documented ahead of the system change.

Valerie summarized that there is concurrence that a change is needed in NASR for accommodating ARTCC frequencies referenced to the airports/procedures they serve and though it may take time to accomplish, the update should be supported.

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.

VI. Outstanding Charting Topics

[13-01-270 Stepdown Fix Chart Notes](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Valerie Watson, FAA/AJV-A250, showed the audience how the [TPP Legend Profile View](#) page is proposed to be revised to clarify stepdown fix altitude relevance only to non-precision use of the procedure. Diane Adams-Maturo, FAA/AFS-420, reported that FAA Order 8260.19 has been updated to remove the requirement to append stepdown fix altitudes and VDPs with notes, e.g., LOC only, LNAV only. Amended procedures going forward will have the notes removed from the forms.

Bill Tuccio, Garmin, asked if commercial providers can begin removing all such notes from the charts. Valerie said she cannot speak for what commercial providers do, but that the FAA will not remove the notes from the charts until the procedures are amended and the notes are removed from the source documents. Aaron

Jacobson, Jeppesen, said that they would also apply the changes as the procedures are amended. Jim Spencer, NGA, confirmed that they will also follow that same plan.

Valerie stated that all actions for this RD are complete and this item can now be closed. There were no objections.

STATUS: CLOSED

15-02-298 Charting GLS DMax (Service Volume)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. At ACM 19-02, Joel Dickinson, FAA/AFS-410, said that the Flight Operations Group was considering the need for a charted indication on IFR procedures where a required NAVAID change occurs and suggested this would satisfy the request to depict the extent of the GLS signal reception on GLS procedures. At this ACM, Joel reported that he introduced a Recommendation Document at the IPG portion of the ACM ([see IPG issue 20-02-349](#)) the prior day for the charting of required NAVAID changes. Joel recommended closing this issue in the Charting Group per the new RD in the IPG.

Valerie Watson, FAA/AJV-A250, stated that she is not yet ready to close this issue in the Charting Group because there was strong pilot support for this change and it is yet to be determined if the IPG issue will satisfy the original request.

Michael Stromberg, UPS, pointed out that that the Flight Operations Group is researching the addition of this information on a great number of charts when the original request was to only chart it on a few GLS charts. He doesn't feel that the proposed solution will be at all useful to pilots except in a very limited number of cases, such as on GLS procedures. Joel stated his office's position remains that graphic depiction of GLS signal reception limits are unnecessary because the standard approach service volume (ASV) guidance has been published in the Aeronautical Information Manual (AIM). Valerie pointed out that because not all existing GLS procedures adhere to the standard in the AIM, publication of that standard does not satisfy this request. She voiced that she hopes it will be looked at in more detail during the IPG issue discussions. Joel said he will report back on the status of the IPG issue workgroup that will be formed.

Rich Boll, NBAA, said that there is still an interim issue that needs to be addressed for GLS. He said currently the SSV is set at 25 miles because of equipment limitations. He said once GBAS is in place at airports with GLS, the coverage of the GLS will extend to the initial approach fix. Therefore, we may be fighting to get something added to GLS charts that will need to be removed later.

Don McGough, FAA/AJF-170, said Flight Operations currently flight inspects the SSV at 20 miles from the threshold. He added that approval of the SSV on a GLS beyond that distance would not occur in the near future.

This item will remain open for Joel Dickinson to report on the status IPG issue at the next ACM.

STATUS: OPEN

ACTION: Joel Dickinson, FAA/AFS-410, will report on IPG Item 20-02-349 discussions regarding a charting indication for required NAVAID changes and any relevance to solution of the GLS issue.

[16-02-310 Inclusion of MSA Info for ODPs, SIDs & STARs](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Jeff Rawdon, FAA/AFS-420, stated that guidance has been added to FAA Order 8260.3E for the addition of Minimum Safe Altitudes (MSAs) on Graphic Obstacle Departure Procedures (ODPs) and for Standard Instrument Departures (SIDs). Sue Walker, FAA/AFS-420, reported that the guidance has also been added to draft FAA Order 8260.46H which is in final coordination. Valerie Watson, FAA/AJV-A250, reported that she has drafted the Interagency Air Committee (IAC) Specification change for the addition of MSAs on DPs and will process it when the revised guidance has been finalized in the 8260.46.

STATUS: OPEN

ACTION: Sue Walker, FAA/AFS-420, will report on the status of revised guidance in FAA Order 8260.46 for the addition of MSAs to Departure Procedures.

ACTION: Valerie Watson, FAA/AJV-A250, will submit an Interagency Air Committee (IAC) Specification change for the depiction of MSAs on Departure Procedures once the revised guidance has been finalized in FAA Order 8260.46.

[17-02-311 TFR Charting: Recommendations of the RTCA Tactical Operations Committee](#)

Scott Jerdan, FAA/AJV-A310, reviewed the issue. He stated that publication of National Defense Airspace Temporary Flight Restriction (TFR) Areas on Visual Flight Rules (VFR) charts is awaiting publication of the next update to FAA Order 7930.2. The revised Order will document the System Operations Security Office's obligation to serve as the authoritative source for these areas. Publication of the revised Order is expected in November 2020. He said he expects publication on the charts by early 2021.

Valerie Watson, FAA/AJV-A250, confirmed that that the charting specification for depiction of National Defense Airspace TFR Areas on VFR charts is already in place and as soon as source is obtained, publication on the charts will begin.

Joshua Fenwick, Garmin, asked how the data will be sourced to the public. Scott said the current plan is to use open data source in the same way sporting event locations are sourced today. He said they will not be sourced in the National Airspace System Resource (NASR).

Valerie said this issue will be left open until the publication is complete.

STATUS: OPEN

ACTION: Scott Jerdan, FAA/AJV-A310, to provide an update on publication of the NOTAM Order and subsequent charting implementation of National Defense Airspace TFRs on VFR Charts.

17-02-312 Standardized Communications on DPs and STARs

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Diane Adams-Maturo, FAA/AFS-420, reported that FAA Order 8260.19I has now been published with the revised guidance for standardized communications on STARs (ATIS and APP CON). She reported that FAA Order 8260.46H has also been updated with the revised guidance for DPs (DEP CON) and that the Order is in the final stages of coordination. Valerie Watson, FAA/AJV-A250, stated that the Interagency Air Committee (IAC) specification change for standard communications on STARs has been signed and is being implemented. The IAC specification change for DPs has been drafted and will be processed once the revised guidance is published in FAA Order 8260.46H. Valerie reminded the audience that communication revisions to charts will not be made until procedures are formally amended to allow the local facility a chance to revise the procedure source document to request communications outside the standard for charting.

Bennie Hutto, NATCA, explained the difficulties that the facilities have with keeping the frequencies up to date in the National Airspace System Resource (NASR) database. He asked if it was possible for the AJV-A Aeronautical Data Team to reach out to the facilities on a regular basis to ensure the frequencies in NASR are up to date. Scott Jerdan, FAA/AJV-A310, said his team does not routinely ask the facilities for information unless there is a specific question. He said it is up to the facility to submit changes through the Aeronautical Information Portal. Valerie clarified that only the communication types specifically requested for charting are listed on the procedure source document. The numerical frequencies for those communication types are databased in NASR, not on the source document. Krystle Kime, FAA/AJV-A222, reiterated that NASR is the Terminal Charting Team's source for frequencies and when questions arise about frequencies, they work with the facility and with the Aeronautical Data Team to ensure the correct frequencies are in the database and thus on the charts.

STATUS: OPEN

ACTION: Sue Walker, FAA/AFS-420, to report on the status of revised guidance for standardized communications on Departure Procedures in FAA Order 8260.46H.

ACTION: Valerie Watson, FAA/AJV-A250, will submit an Interagency Air Committee (IAC) Specification change for standardized communications on Departure Procedures after the revised guidance has been published in FAA Order 8260.46H.

17-02-314 Charting of ILS Classification System for Category I ILS Approaches

Samer Massarueh, FAA/AJV-A221, reviewed the issue. At ACM 19-02, Joe Lintzenich, FAA/AFS-410, Contract Support, reported that a Multipath ILS Glideslope Study was underway and until the study is complete, his office could not move forward with the effort to publish Category I Autoland guidance in AC 121-118. Doug Dixon, FAA/AFS-410, reported that this study is still ongoing. He said the expected results may drive changes to the AC, as well as potential changes to the Operation Specification C061 and the Aeronautical Information Manual (AIM). He said the changes would not be specific to ILS classification code, but the broader subject of Cat I Autoland. He said that his office also plans to publish a Safety Alert for Operators (SAFO) after the study is complete. He added that he does not expect any impact on charting.

Valerie Watson, FAA/AJV-A250, said that this item will remain open pending the results of the study and subsequent updates to the pilot guidance and the publication of the SAFO.

STATUS: OPEN

ACTION: Doug Dixon, FAA/AFS-410, will report on the outcome of the Multipath ILS Glideslope Study and how it pertains to the effort to publish Category I Autoland guidance in AC 121-118. He will also report on potential updates to Operation Specification C061 and the Aeronautical Information Manual (AIM) as well as the publication of a Safety Alert for Operators (SAFO).

[17-02-316 Improving OROCA to Meet FAR 91.177 Requirements](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Joel Dickinson, FAA/AFS-410, provided an update. He said his office has improved the wording for the Aeronautical Information Manual (AIM) describing how OROCA can be used. He reiterated that his office's position is that OROCA cannot be used to satisfy FAR Part 91.177. Joel shared [slides](#) that contain the revised language for the AIM, the FAA Enroute Low Chart OROCA note, and for the Instrument Procedures Handbook (IPH).

Valerie Watson, FAA/AJV-A250, asked Joel if there is a change to how a pilot will use OROCA. Joel emphasized that they have not changed the definition of OROCA or how it is calculated, but are trying to clarify what OROCA is so that pilots will better understand how it can be used.

Valerie asked for input from AOPA, the original proponent of this item, if they support the direction that the Flight Operations Branch has taken. Jim McClay, AOPA, said that this is the first time he has seen these changes so he will need to look at it more closely. Joel said that this is the first time it has been shared with a larger audience.

Valerie said that with these proposed changes, it appears that there will not be a need to pursue updating the OROCA values with more frequency than the current 56-day updates or a need to publish NOTAMs on interim cycle changes. Joel confirmed that the frequency of updates will not change and interim NOTAMs will not be necessary.

Bruce Williams, Bruce Air, said that he is still concerned about how OROCA will be used when planning an off-airway route. Joel emphasized that a pilot will never be given an off-route clearance without being given an ATC assigned altitude. Rune Duke, FAA/AJI-314, stated that there was a lot of collaboration in the workgroup to draft this revised language. He emphasized that OROCA is not an altitude that ATC uses, but it is there for flight planning and for contingency use. Bruce emphasized the importance of explaining this adequately in the pilot guidance. Rich Boll, NBAA, agreed that this was a collaborative effort and said that the revised guidance for the IPH addresses Bruce's concerns.

Joel stated that his office will move forward with the Document Change Proposal (DCP) process for these proposed changes. Valerie asked how long it will take for publication and whether or not she should move forward with the changes to the OROCA text published on the Enroute Low Charts. Joel said it takes two AIM

cycles before the guidance is published so he recommends waiting until that is complete before proceeding with the chart change. John Blair, FAA/AFS-410, emphasized that the DCP still needs to be coordinated which can result in some changes to the language.

STATUS: OPEN

ACTION: Joel Dickinson, FAA/AFS-410, will report on the status of revised OROCA guidance to be published in the Instrument Procedures Handbook (IPH), Aeronautical Information Manual (AIM), and on the FAA Enroute Low Charts.

ACTION: Valerie Watson, FAA/AJV-A250, will submit an Interagency Air Committee (IAC) Specification change amending the OROCA text on IFR Enroute Low Altitude charts after receiving the sanctioned text from Joel Dickinson, FAA/AFS-410.

[17-02-318 Charting of Helicopter Routes per RNP NAVSPEC 0.3](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Mike Webb, FAA/AFS-420, reported that the first IFR Low Altitude RNAV Helicopter (TK) routes with a Required Navigation Performance (RNP) 0.3 value is being developed in Maine for Life Flight. It is expected to be ready for publication in March 2021. Mike said initially it will be published as a Special (not for public use) so air traffic can limit traffic on the route before it is converted to a public route. Publication of the second route is expected at the end of 2021 as a public route.

Scott Jerdan, FAA/AJV-A310, showed an example [FAA Form 8260-16](#) and highlighted the field on the form that will serve as the source for RNP values. He reported that AJV-A does not typically put Specials into the National Airspace System Resource (NASR) database nor are they charted. Brian Murphy, FAA/JAV-A350, reported that the NASR enhancement to add an RNP attribute in the airway resource is scheduled to be released in Spring 2021 so everything should be in place for the publication of the first public route later in 2021. Scott then asked if the Part 71 rulemaking piece has been addressed because that could affect the timeline for publication. Paul Gallant, FAA/AJV-P210, said that any new TK routes will require Part 71 and 72 rulemaking.

Gary Fiske, FAA/AJV-P31, stated that he was part of the working group to establish the route in Maine. He reported that during the time the route is published as a special, it will have a ZK identifier. He said the intent of first publishing it as a special is to work out a repeatable process for the larger implementation of public use RNP 0.3 TK routes in the future. Paul expressed concern with a proliferation of smaller TK routes because there are a limited number of identifiers available. Gary said he does not anticipate a large number of TK routes and running out of identifiers should not be a problem.

John Collins, ForeFlight, asked if they are planning to publish guidance for pilots regarding how to file for an RNP TK route. Mike reported that guidance is being drafted for the Aeronautical Information Manual (AIM) and a new Advisory Circular (AC 90-119) is being written. He said the guidance will include information on pilot requirements to fly RNP TK routes and how the routes will be filed. He said the AIM guidance is expected to be published in Spring 2021.

Joshua Fenwick, Garmin, said that the ARINC 424 specification recently added Navigation Specifications (NAVSPECs) for airways. Josh said they would like to know the NAVSPEC that was used to design the route so they can determine what equipment can fly them. He asked if the RNP value on the 8260-16 applies to the entire route. Mike said the RNP designation on the 8260-16 will indicate the RNP NAVSPEC that was used to design the entire route. Joshua suggested that rather than an RNP field on the form, it should be a NAVSPEC field where the NAVSPEC that was used to design the route could be documented, e.g., RNAV 2 or RNP 0.3.

John Moore, Jeppesen, expressed concern for setting a precedent for publishing these as specials. He said having multiple routes that are only known to some users becomes a lot for ATC to manage. Mike said he is not sure how many will be published as specials, but the goal of the project is to publish public routes.

Bennie Hutto, NATCA, said he is concerned that ATC will have to determine if a pilot is qualified to fly these routes. He said that needs to be automated through the flight plan coding. Mike agreed and said they are working on that issue so that ATC does not have to be the regulator.

Valerie reported that the Interagency Air Committee (IAC) Specification change to support depiction of RNP values on TK Routes on IFR Enroute Low Altitude charts has been signed. She said this issue will remain open until the remaining actions are complete.

STATUS: OPEN

ACTION: Mike Webb, FAA/AFS-420, will provide an update on anticipated publication dates for the first public TK routes with RNP values.

ACTION: Scott Jerdan, FAA/AJV-A310, and Brian Murphy, FAA/AJV-A350, will report on progress to add an RNP attribute in the airway resource in NASR and to update the CIFP.

18-01-322 Recognize Specific PERM NOTAMs as Authoritative Source

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Scott Jerdan, FAA/AJV-A310, said that the FAA NOTAM Modernization effort includes work involving PERM NOTAMs that remain active for extended periods of time and is investigating ways to remedy the issue. He said AJV-A is working with the Office of Airports to address PERM NOTAMs that are associated with airport information. He said his office is still not authorized to use PERM NOTAMs as source, so the Office of Airports is working with the Airport District Offices and airport managers to encourage them to submit airport information changes to the FAA's Aeronautical Information Portal so the NOTAMs can be cancelled.

Valerie Watson, FAA/AJV-A250, asked if Scott is still working to determine the types of PERM NOTAMs that can be accepted as source to initiate a chart change and whether or not the FAA can cancel PERM NOTAMs on behalf of an airport. Scott said that could still be possible in the future, but for now, the goal is to encourage airports to submit the changes through the Portal and then cancel the NOTAM. Lynette Jamison, FAA/AOV-110, stated that the request to change the policy to authorize AJV-A to cancel PERM NOTAMs was

denied. Scott said that the new collaboration with the Office of Airports and Tech Ops has resulted in a lot of progress and he is in support of continuing that effort.

Randy Collier, Aerologic, said he is involved with the training of airport inspectors and he would like more information that he can share when reaching out to airports to help with this effort. Scott suggested airport inspectors pull up all the PERM NOTAMs for an airport to make sure they are either still valid and/or if they need to be sent to the Portal for a permanent chart/publication change.

STATUS: OPEN

ACTION: Scott Jerdan, FAA/AJV-A310, will continue to work with the Office of Airports to establish a process for the reduction of PERM NOTAMs associated with airport information.

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

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Jim McClay, AOPA, reported that the proposed terms for parking/ramp areas have changed slightly since the original proposal. He said AOPA has been working with the Office of Airports and the American Association of Airport Executives (AAAE) and have since received consensus on the following four terms and definitions:

FBO RAMP – An apron administered by a fixed base operator where fuel, parking and other related services may be offered to general aviation aircraft operators subject to terms and conditions.

GA TRANSIENT RAMP – An apron not administered by a fixed base operator where itinerant, general aviation operators can park their aircraft subject to terms and conditions (i.e. fees, security requirements, limitations on services offered).

GA TENANT RAMP – An area designated for parking of permanently based general aviation aircraft, i.e. tie-down area.

CBP RAMP – An area to temporarily accommodate arriving international general aviation aircraft requiring inspection by U.S. Customs and Border Protection personnel.

Jim said they are getting positive feedback from airports and have already seen over 50 airports that have voluntarily updated the labels used on their airport diagrams. He said the next step will be to go back to the Office of Airports with the updated terms.

Chris Criswell, FAA/AAS-120, stated that the Office of Airports expressed concern about how they will determine what these areas are and whether or not they are identified appropriately with corresponding markings and signage. Chris asked Jim if they have a letter of concurrence for these terms that he can share with the Office of Airports and asked if AAAE was part of that concurrence. Jim said that AAAE was part of that and he will provide the letter after the meeting.

Valerie said that this issue will be left open for AOPA to report back on their communications with the Office of Airports.

STATUS: OPEN

ACTION: Jim McClay, AOPA, will continue to coordinate with the Office of Airports to sanction use of the proposed terms and update their relevant guidance/documents.

ACTION: Valerie Watson, FAA/AJV-A250, and Jim McClay, AOPA, will submit the new parking area definitions for publication in the Pilot/Controller Glossary (PCG) of the Aeronautical Information Manual (AIM) after the Office of Airports has updated their documentation to support them.

ACTION: Valerie Watson, FAA/AJV-A250, will revise the Interagency Air Committee (IAC) Specifications and the Chart Users' Guide after the new parking area definitions have been published in the Pilot/Controller Glossary (PCG) of the Aeronautical Information Manual (AIM).

ACTION: The Airport Mapping Team, FAA/AJV-A240, will research possible outreach to airport proponents in collecting the standardized airport diagram parking area terms after the above steps have been accomplished.

18-02-327 IAP Chart Modernization

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Rich Boll, NBAA, presented a [briefing](#) on the status of this item. Rich shared the history and summarized the proposal as it stands today. He said that the primary proposed revisions involve incorporation of inoperative components into the minima tables and deletion of corresponding notes, expansion of the profile view, and replacement of the current airport sketch with a smaller, skeletonized sketch. Sample Instrument Approach Procedure (IAP) charts were presented ([Slides 5-7](#)).

Rich reported that at ACM 19-02, the military representatives reported that DoD requires that the military ceiling and visibility remain in the minima tables. Rich asked if there was any further consideration of this proposal from the military since that time. Kevin Keszler, AFFSA, said there are plans to readdress this issue to see if they can get military concurrence. He asked if Rich had received a response from the Army or the Navy on this. Rich said he has not. Krystle Kime, FAA/AJV-A222, said that since the original proposal to remove the military ceiling and visibility was not well received, the proposal has been changed to only remove the repeated statute mile visibility. If the civilian visibility is RVR, the corresponding statute mile visibility will be retained just as it is today. Kevin said that he believes this change is viable, but it will need to be staffed again to see if there is concurrence. Rich asked AJV-A to assist him in putting together some new examples to clarify the requested changes for the military.

Rich said that the original proposal included the incorporation of Remote Altimeter Setting Source (RASS) as a separate line of minima and the removal of RASS notes from the briefing strip. Krystle reported that because of other compromises that have been made to this proposal, Terminal Charting has determined they can no longer support adding RASS to the minimums tables. She said it has also come to their attention

that there will be fewer RASS notes in the briefing strip in the future because many of the backup altimeter source notes will be documented on the 8260-9 form in the future and will therefore not be indicated for charting.

Mike Webb, FAA/AFS-420, reported that since the last ACM, he reached out to verify support from the helicopter community regarding the proposed removal of the airport sketch and replacement with a skeletonized sketch. He was able to verify support for the proposed change.

Rich said that he will reconvene the workgroup and continue to pursue this proposal.

STATUS: OPEN

ACTION: Rich Boll, NBAA, will submit a revised summary of the proposal to the military representatives of the IAP Chart Modernization Workgroup for reconsideration.

ACTION: Rich Boll, NBAA, will report on progress of the IAP Chart Modernization Workgroup.

[19-01-331 Hotspot Information on Departure/Arrival Charts](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Rich Boll, NBAA, presented a [briefing](#) on the status of this item. He reported that after reaching out to multiple lines of business within the FAA, it was determined that the pilot deviations on the RUUDY DEPARTURE at Teterboro Airport (TEB) are indeed a safety concern. He explained that the FAA introduced a new tool in October called the Aviation Risk Identification and Assessment (ARIA) tool. The plan is to use this tool to assess the risk at TEB and, based on those findings, determine if a Safety Risk Management Panel (SRMP) should be conducted. Rich said that the proposed draft AAUP/Alert Notice is largely complete but on hold pending results of the FAA risk analysis.

Rune Duke, FAA/AJI-314, supported Rich's summary and said FAA Safety Management Group is awaiting the data from the risk analysis before determining what the next steps will be.

John Moore, Jeppesen, asked if the FAA can provide a future briefing on the ARIA tool. Valerie Watson, FAA/AJV-A250 said she will coordinate with the FAA Safety Management Group on providing a briefing at the next ACM.

STATUS: OPEN

ACTION: Rich Boll, NBAA, will report on the results of the FAA Safety Management Group's risk analysis of the RUUDY DEPARTURE at Teterboro Airport (TEB).

ACTION: Rich Boll, NBAA, will report on progress of the addition of criteria for the use of an Alert Notice or Departure AAUP for Teterboro Airport (TEB).

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

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Kevin Keszler, AFFSA, reported that FAA Order 8260.19, the Aeronautical Information Manual (AIM), and the Interagency Air Committee (IAC) specifications are now in alignment. He said it was decided that the IAC specifications would remain the same and the AIM and 8260.19 would be updated to ensure that the charting of all holding pattern waypoints are clearly described the same way. He reported that updated language has now been published in the 8260.19I. Joel Dickinson, FAA/AFS-410, showed the audience the [Document Change Proposals \(DCPs\)](#) to update the AIM that have been submitted and are expected to publish in summer 2021.

Rich Boll, NBAA, asked if the AIM changes say that all holding patterns will be coded as fly-over. He emphasized that should not be the case because there are instances where a fly-by is needed at a holding waypoint. Kevin stated that the AIM does not specify the holding as RNAV or conventional, but says that all holding pattern fixes will be fly-over. Rich said that the AIM language is not correct and conflicts with the recently revised holding pattern guidance.

There was a lot of discussion regarding the AIM language and the consensus was that it needs further scrutiny. Joel said he will pull the DCPs from coordination and collaborate on a revision to the proposed language and present it again at the next ACM.

Diane Adams-Maturo, FAA/AFS-420, read the new language from the 8260.19I and there was agreement that it was correct.

Jim Spencer, NGA, reported that the military has retroactively taken exception to the original IAC specification change because they plan to continue to chart the missed approach holding waypoint as fly-over in the missed approach icons when indicated. He said they will follow the specification for the charting of holding waypoints in the planview, except in a very few cases where a special request has been submitted to do otherwise.

STATUS: OPEN

ACTION: Joel Dickinson, FAA/AFS-410, will report on the status of the revised language for the Aeronautical Information Manual (AIM).

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

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Matt Harmon, FAA/AFS-410, reported that the Flight Operations Branch is continuing to work with the Office Airports to get LED lighting systems added to FAA Form 5010, Airport Master Record. Once a reliable source for LED lighting system locations is established, the AJV-A charting/publication offices will investigate how to communicate this information to users.

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.

19-01-335 Charting of Unusable Airway Segments

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Joel Dickinson, FAA/AFS-410, showed the audience the expanded guidance that was added to the [Chart Users' Guide](#) to describe how Unusable Segments can and cannot be used. Valerie Watson, FAA/AJV-A250, asked if Joel considered similar updates to the Aeronautical Information Manual (AIM). Joel said his office does not think AIM updates are necessary. Valerie said that a lot of confusion has been expressed regarding this issue, and she believes expanded guidance in the AIM is needed.

Dan Wacker, FAA/AFS-420, asked if an unusable route/airway is also part of a Departure or Arrival procedure, if it is also considered unusable on those procedures. He also noted that NOTAMs sometimes say that the unusable conventional route, or route segment, can still be used with GNSS. Joel said an unusable route is unusable in the Enroute environment as well as on any Departure or Arrival procedures on which it appears. He said there is no basis for the addition of the GNSS note. Dan agreed with Valerie that the guidance is not clear and use of unusable routes/segments needs to be better explained in the AIM and the Instrument Procedures Handbook (IPH).

Valerie explained a second issue that was discussed at ACM 19-02 regarding a number of airway route notes that are being added to the charts, e.g. "ISO R-055 to PEARS unusable except aircraft equipped with suitable RNAV". She said the Instrument Flight Procedures Group had taken an action to investigate the source for these confusing notes. Joel said those notes should not be on the charts. Valerie pointed out that a disconnect seems to exist between what notes are being documented on the 8260-16 airway forms and what is supported by the Flight Operations Branch.

John Collins, ForeFlight, said that from a pilot's perspective, a great deal of confusion exists on this issue and he sees a need to define "unusable" in the pilot guidance. Bennie Hutto, NATCA, agreed that it is not clear what unusable means for RNAV-equipped aircraft. He said he does not think an unusable conventional route should be excluded for RNAV aircraft. Joel emphasized that a pilot should not be flying an unusable route. There might be conditions where RNAV substitution is allowed, but there are also conditions where it is not. Gary Fiske, FAA/AJV-P31, said it is about training and education and he doesn't understand why this is causing so much confusion. He said that it is not explained in the AIM because the Flight Operations Branch does not have any control over how pilots or ATC handle a route that is designated unusable. Gary said he had taken an action to determine if there is a disconnect between FAA JO 7110.65 and what is in the AIM, and determined there is clearly a disconnect. ATC guidance does not preclude an aircraft that is RNAV capable from flying an unusable Victor route. ATC's main concern is that the aircraft is going where they expect it to go based on the clearance.

Valerie said that the airway notes that are being published on the charts are very inconsistent and difficult to interpret. She asked what kind of notes are permissible based on the criteria in FAA Order 8260.19. Jeff Rawdon, FAA/AFS-420, said the Order is not specific regarding these notes. Pat Mulqueen, FAA/AJV-A440, said the Instrument Flight Procedures (IFP) Group realizes now that they should not have been publishing

certain notes and that a NOTAM should have been used instead. He said they will look into the currently published notes on unusable routes, ensure they are correct and report back at the next meeting.

Valerie summarized the topic. She noted there is still a lot of confusion about how unusable routes and segments can and cannot be used. Guidance has been added to the Chart Users' Guide. Counter to recommendation of the ACM audience, the Flight Operations Branch does not plan to add guidance to the AIM or the IPH. Pat has agreed to look into the airway notes being added to the 8260-16s, and thus to the charts, and consider recommending that more detailed and specific guidance for the notes be published in FAA Order 8260.19.

STATUS: OPEN

ACTION: Pat Mulqueen, FAA/AJV-A440, will investigate the source documentation for the addition of the unusable airway notes to FAA Form 8260-16 and consider recommending criteria for the notes in FAA Order 8260.19.

19-02-336 Addition of PDC Note in Chart Supplement

Samer Massarueh, FAA/AJV-A221, reviewed the issue. It was previously agreed by the ACM audience that Pre-Departure Clearance (PDC) should be published in the communications section of Chart Supplement airport entries and on Airport Diagrams where it is available.

Rick Mayhew, FAA/AJV-A311, reported that the Interagency Air Committee (IAC) specification change has been signed to support publication of PDC in the Chart Supplement Airport/Facility Directory entries and in the communications section of Airport Diagrams. He has been working with the Tower Data Link Services FAA Data Communications Office (AJW-178), the office that serves as authoritative source for PDC. He reported that PDC availability has been entered in the National Airspace System Resource (NASR) database at 76 airports for the 31 December 2020 effective date.

Rich Boll, NBAA, said at the last ACM there were questions about facilities selectively issuing Pre-Departure Clearance (PDC) services. He said he reached out to the FAA Data Communications Team and they reported that there are no restrictions on the type of aircraft that can be issued a PDC. Gary Fiske, FAA/AJV-P31, agreed and said the problem reported at the last ACM was specific to one location. Rick confirmed that none of the recently published PDC entries in NASR have restrictions.

John Collins, ForeFlight, said he is starting to collect data on PDC denials from airports. He said it is happening at more than one location. He said he will continue to investigate this problem and will report on his findings at the next meeting.

Valerie Watson, FAA/AJV-A250, said this item will remain open pending publication.

STATUS: OPEN

ACTION: Valerie Watson, FAA/AJV-A250, will report on the publication of a PDC indication in the Chart Supplement and Airport Diagrams.

ACTION: John Collins, ForeFlight, will report on the results of his investigation into PDC denials.

19-02-338 Publish DP (SID/ODP) and STAR Chart Notes in Machine Readable Form

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Pat Mulqueen, FAA/AJV-A440, reported that the FAA will not be able to provide digital procedure source forms for Departure Procedures (DPs) and Standard Terminal Arrival Charts (STARs) in the near future. He said this goal is attainable, but it has not been given a high priority. John Collins, ForeFlight, restated the value this would add for pilots if 3rd party vendors had the capability to supply procedural notes in Electronic Flight Bag (EFB) so pilots can more easily filter available procedures based on aircraft type and equipment requirements. Pat said perhaps he misunderstood the request and he will coordinate with John Collins to better understand his request and will then will take it back and investigate it further with his automation team.

STATUS: OPEN

ACTION: Pat Mulqueen, FAA/AJV-A440, will research original request and investigate whether the FAA can support the provision of electronic DP and STAR chart notes.

19-02-339 LAHSO Rejected Landing Procedures

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Rich Boll, NBAA, stated that at ACM 19-02, it was determined that LAHSO Rejected Landing Procedures are published for the benefit of Part 121 operators only and are not intended for General Aviation use. Since the last ACM, all LAHSO Rejected Landing Procedures have been removed from the Special Notices section of the Chart Supplement. He said the remaining LAHSO information in the Chart Supplement is now in agreement with the information published in the Terminal Procedures Publication. Rich said the Flight Operations Branch is reviewing all LAHSO procedures and will determine if any changes are needed in the Aeronautical Information Manual (AIM) guidance. Rich proposed to close this item.

John Blair, FAA/AFS-410, stated that the Flight Operations Branch is still considering updating the AIM and FAA Order 8900.1 to better describe the intended use. He said since action was taken to remove these procedures from the Chart Supplement, he agrees with closing this item.

Valerie Watson, FAA/AJV-A250, asked if there were any objections to closing this item. There were no objections.

STATUS: CLOSED

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

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Tom George, AOPA, [presented an update](#) on the Mountain Pass Working Group. He said there are currently 49 mountain passes charted on the Alaska Sectional charts and that the United States Geological Survey (USGS) currently has 189 mountain passes in their database. He pointed out the USGS is the source for mountain passes on the charts, but his team does not recommend all of them be added to the charts. The working group did recommend the addition of three mountain passes that were in the USGS database and those have now been added to the Sectional charts. They are also working with the VFR Charting Team to adjust the locations and add elevations to existing charted mountain passes. He said they are also working with USGS to get an uncharted, but desired, mountain pass included in their database so it can then be added to the charts. Finally, the working group is drafting a proposal for adding VFR waypoints to improve the identification of mountain passes. Next they plan to investigate the addition of mountain pass information in the back matter of the Chart Supplements. They also want to locate the appropriate Flight Operations Branch point of contact in order to work on policy regarding the addition or deletion of mountain passes and to consider the use of VFR waypoints.

Valerie Watson, FAA/AJV-A250, clarified that mountain passes are charted as a geographic features only. They are not charted to represent a path that the FAA recommends be flown.

Dan Wacker, FAA/AFS-420, asked if the working group has considered adding Aeronautical Information Manual (AIM) guidance for how a designated mountain pass can be used. Tom said they will have to look into that. Valerie said if they do decide to establish VFR waypoints at either end of the mountain passes, there would need to be pilot guidance added to explain the intended use of the waypoints.

STATUS: OPEN

ACTION: Tom George, AOPA, will report on progress of the Mountain Pass Workgroup.

[19-02-342 Depiction of Profile Procedure Track for NPA Procedures](#)

Samer Massarueh, FAA/AJV-A221, reviewed the issue. Krystle Kime, FAA/AJV-A222, reported that the Interagency Air Committee (IAC) specification change to provide guidance that all Non-Precision Approach (NPA) procedures will depict the horizontal level-off segment in the profile has been signed and implemented. The affected charts have all been updated effective November 5, 2020.

All actions have been completed and there was agreement to close this item.

STATUS: CLOSED

VII. Closing Remarks

Samer Massarueh, FAA/AJV-A221, and Valerie Watson, 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 – http://www.faa.gov/air_traffic/flight_info/aeronav/acf/
- Instrument Procedures Group – http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afx/afs/afs400/afs420/acfi/pg/

Please note the attached Office of Primary Responsibility (OPR) listing for action items. It is requested that all OPRs be prepared to provide verbal input at the next meeting or provide the Chair, Valerie Watson (with an informational copy to 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 21-01 is scheduled for April 26-29, 2021, virtual.

ACM 21-02 is scheduled for October 26-28, 2021, location TBD.

IX. Attachments

- a. 20-02 Attendee Roster
- b. Office of Primary Responsibility (OPR)