Reassessment of Part 95 Designated Mountainous Areas

MEETING 20-02

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.