



50 F St. NW, Suite 750
Washington, D.C. 20001

T. 202-737-7950
F. 202-273-7951

www.aopa.org

April 4, 2017

Mr. Kenneth Ready
U.S. Department of Transportation
Docket Operations, M-30
1200 New Jersey Avenue SE.
West Building Ground Floor, Room W12-140
Washington, DC 20590-0001

Re: *FAA Docket Number FAA-2016-9495 and Airspace Docket Number 15-AAL-6; Notice of Proposed Rulemaking for Proposed Establishment of Restricted Areas R-2201 A, B, C, D, E, F, G, H, and J; Fort Greely, Alaska.*

Dear Mr. Ready,

The Aircraft Owners and Pilots Association (AOPA), the world's largest aviation membership association, submits the following comment in response to the Notice of Proposed Rulemaking (NPRM) for the proposed establishment of Restricted Areas R-2201 A, B, C, D, E, F, G, H, and J; Fort Greely, Alaska. The United States Army's proposed Restricted Areas, which will overlie the existing Battle Area Complex (BAX) and Combined Arms Collective Training Facility (CACTF), represent their goal of shifting from a Controlled Firing Area (CFA) to the ability to conduct live-fire from rotary and fixed-wing aircraft. Although AOPA strongly supports the Army and understands their need for training areas that reflect modern battlefield requirements, we have consistently voiced our opposition to the location of this Restricted Area complex as it will have a significant adverse impact on aviation in Alaska in terms of efficiency and safety. AOPA believes the proposed Special Activity Airspace (SAA) cannot be enacted in its current state as it would significantly and adversely impact General Aviation.

Alaska's reliance on aviation

Alaska relies on aviation more than any other state in the union. According to *The Economic Contribution of the Alaska Aviation Industry to Alaska's Economy*, Northern Economics, Inc., the aviation industry in Alaska contributes \$3.5 billion, or approximately 8%, of the gross state product. This 2009 report highlights the fact that this is almost 40% greater than the industry's role in the national economy. This figure demonstrates the importance of the aviation industry to Alaska's economy. An estimated 47,000 jobs are directly and indirectly related to aviation in the state of Alaska.

Aviation not only has a significant economic impact in Alaska, it is the only manner many communities are accessible. On February 17, 2017, the FAA published a story in the *FAA Daily Broadcast* stating 82% of Alaska's communities are not accessible by road. Some communities may be accessible by barge; however, much of the year the water ways freeze over leaving only aviation to provide basic access, deliver healthcare, food, and to ensure these communities can send and receive mail on a year-round basis. The average number of enplanements per capita for off-road communities in Alaska is between eight and thirty times higher than in comparable communities in western rural states. Alaskans tend to rely on air freight 39 times more than comparable communities according to a 2009 study published by the Alaska Department of Transportation & Public Facilities.

The FAA must support all aviation users

As early as 2005, AOPA and other aviation stakeholders went on record noting the negative impact that a Restricted Area in this location would have on civil aviation. These comments to the Environmental Impact Statement (EIS) regarding proposed construction of the BAX and CACTF document, as well as subsequent comments to the Joint Pacific Alaska Range Complex (JPARC) Draft EIS and the Alaska Civil/Military Aviation Council (ACMAC), provided extensive details on why the Army must not consider the current BAX and CACTF location acceptable for a Restricted Area. Unfortunately, the Army, despite the many advanced warnings by the public, is now formally requesting SAA in this heavily trafficked and terrain constrained area. We believe the FAA, as responsible for ensuring a safe and efficient National Airspace System (NAS) for all users, must not allow this Restricted Area proposal to be approved.

In an effort of collaboration, AOPA has reached out to the military to try and address the placement of these facilities, but in spite of these efforts, as we have noted, the comments by ourselves and other aviation groups have been dismissed as the Record of Decision endorsed the largest expansion of Restricted Area of all the alternatives considered. In fact, the Army states in the June 2013 Final EIS that “moderate to significant impacts on the VFR aviation community without the implementation of appropriate mitigations” is expected should R-2201 be enacted. The public has provided comments numerous times to the proponent detailing the hazard this airspace will create; because of their inadequate response, we strongly believe the FAA must closely evaluate these concerns as the regulator of navigable airspace.

In the spirit of better understanding the Army’s current requirements, AOPA and the Alaska Airmen Association met with Army airspace representatives in March 2017. Throughout our discussion we encouraged the airspace proponent to explore with the FAA alternate means of meeting their training needs, including seeking a waiver for limited activities, to avoid the need for restricted airspace. We also discussed the need for the Army to better collaborate with the surrounding SAA operating agencies, such as the Cold Regions Test Center who utilize R-2202. We strongly encouraged the Army to take advantage of that preexisting SAA in the area versus the enactment of additional areas.

Location adversely impacts General Aviation flying VFR

The proposed Restricted Area complex is to be located immediately south and east of Allen Army Airfield near the Donnelly Dome, along the most desirable General Aviation route to and from the Isabel Pass. This is a strategically important mountain pass to aviation as it connects interior and southcentral Alaska. This pass offers one of the lowest terrain routes through the Alaska Range and is coincident with the Richardson Highway. Pilots regularly navigate using the Richardson Highway and Trans Alaska Pipeline as their guide to traverse the mountain valley that has precipitous terrain on either side. This major VFR corridor is already constrained by the R-2202 complex as it forces General Aviation traffic east of what would be the logical VFR route, along the Delta River. The proposed R-2201 complex would further narrow the airspace available to fly within this corridor to the point where it could be unsafe to do so.

Concentrating VFR traffic

The average distance between the R-2201 Restricted Area and the R-2202 complex is less than 2.5 NMs. At its narrowest point, the northern entrance/exit, aircraft are squeezed into an area barely 2 NMs wide. This laterally limited area will constrict aircraft operations and increase the opportunity for a mid-air

collision, which is further exacerbated by the proposed published active times of twelve hours per day, five days a week.

Given the reliance on this pass by low-altitude traffic, who are already constrained on the west by R-2202, narrowing this corridor will significantly increase the risk for a collision. Furthermore, as the Allen Army Airfield Class D airspace is located on the northern end of the corridor, aircraft operating VFR and trying to avoid that airspace will be at similar altitudes of 3,800 feet MSL or above. This vertical constraint will further elevate the risk of a collision.

Navigating the corridor

The proposed location for the R-2201 complex would make the Big Delta VORTAC (BIG) and Delta Junction NDB (DJN) unusable for direct-to navigation south of R-2201A, D, and G. When the full complex is active to FL220, pilots could no longer utilize these Navigational Aids (NAVAID) as references for how to find Allen Army Airfield as the signal would take them directly into a Restricted Area. The utility of these important NAVAIDs are all but lost when a barrier of airspace makes their use hazardous. This means VFR pilots would always be reliant on navigating using visual landmarks for reference; however, R-2201C and F overlie the Richardson Highway, the most prominent landmark, making flight in this corridor increasingly difficult in challenging conditions. The route is also constrained by Donnelly Dome, which is the highest terrain obstruction in the entire valley, itself becoming a blockade to low-level VFR traffic and increases the possibility of controlled flight into terrain.

Weather impacts

The close proximity to the Alaska Range generates mountain weather conditions, which at times include low ceilings and high winds, and can change rapidly creating significant hazards for VFR pilots. In areas of high terrain surrounding Isabel Pass and features including Donnelly Dome, it is important the FAA limit the artificial restrictions that could make maneuvering flight difficult for those pilots needing to remain VFR in challenging weather conditions. Restricting pilots to a narrow corridor between two restricted airspace complexes means a pilot may not be able to turn around safely should they encounter poor weather conditions. It is foreseeable that the weather a pilot may encounter at the southern end may not be the same as what is present in the northern opening.

A pilot flying a standard rate turn would find it very difficult to not penetrate one of the Restricted Area boundaries should they need to make a 180 degree turn. This type of "one-way tunnel" airspace design poses a significant hazard to pilots who may find themselves in the position of turning around in marginal conditions. As it may be impossible to make a 180 turn in that short distance unless increasing the turn angle, pilots could be at increased risk for loss of control, possibly at low altitude should they be trying to avoid clouds. Under high wind conditions, it may be both difficult to remain in this narrowly defined corridor, and dangerous to be confined to the corridor and not able to find smoother air without violating airspace rules.

Limiting options

Collectively, the existing R-2202 complex, Class D airspace over Allen Army Airfield, and the proposed R-2201 airspace, severely limit pilots' options for getting to and from Isabel Pass. At the minimum, under solid VFR weather, this causes decreased efficiency by increasing the distance and complexity of circumnavigating this airspace structure. Forcing pilots into higher terrain who are trying to avoid the SAA is clearly inherently dangerous.

In summary, the proposed Restricted Area, in a location already constrained by terrain and existing airspace, will foreseeably create numerous efficiency and safety hazards for VFR pilots. In an area influenced by mountain weather which commonly limits ceilings and/or creates turbulent conditions, it is irresponsible to force pilots into a corridor where they have no ability to turn around or to funnel them into an area of rapidly rising terrain.

Negative impact on IFR aircraft

The proposed R-2201 complex would be located near an important IFR crossroads: the BIG and DJN NAVAIDs. For aircraft to have access to Fairbanks from the east or south, IFR aircraft flying below FL180 must use airways that go to these NAVAIDs. However, when the R-2201 complex is active, all routes to and from BIG and DJN will not be available. The impacted airways include: A-2, B-25, V-481, T-226, V-515, V-444, and T-232. A significant number of aircraft traffic these routes connecting Fairbanks and northern Alaska with south-central communities. The route is also used by international General Aviation traffic that utilizes the Alaska Highway route connecting Alaska with Canada and the contiguous United States. Impacting access to these routes will negatively impact air traffic efficiency and increase the cost for aircraft operators to fly in this area.

Unlike operations in much of the lower 48, icing and mountainous terrain are the routine operating environment in Alaska, which necessitates an extensive route structure to accommodate non-radar operations and low operating altitudes. Many commercial and General Aviation operators rely on single-engine piston aircraft because of the small airfields spread out across the state. These aircraft need the airways to be available as they offer the lowest minimum enroute altitude. Due to performance issues, high terrain, and icing, it is likely more missions will need to be performed VFR if these routes are regularly unavailable. This will adversely impact safety and could lead to a higher accident rate as the benefits of the IFR support structure will not be available. Although over 21 years old, the National Transportation Safety Board's (NTSB) safety study of Alaska (see NTSB SS-95-03) still very much applies and it points out the continuation of issues long before identified. The report notes "an improved low altitude [IFR] system... would reduce the incidence of fatal accidents involving VFR flight into [IMC] in the State and result in a net safety improvement for Alaska aviation."

Frequent utilization will significantly impact General Aviation

The NPRM notes the times of use for each proposed Restricted Area are 12 hours each weekday and other times by NOTAM. In the Final EIS for this airspace it states the airspace below 6,000 feet MSL would be active 60% of the time and all three altitude layers would be active 40% of the time. As this airspace can be active for up to 242 days per year, operators can expect to lose access to the IFR routes and not be able to overfly the complex approximately 100 days per year. Due to frequent concerns for icing, the low altitude component of this airspace can be the most precious but, according to the proposal, it will be the most frequently activated stratum of restricted airspace. The anticipated high utilization of this airspace compounds the impact felt by VFR and IFR aircraft.

The proposal states activation for the Restricted Area would take place by NOTAM, but it fails to state how much advanced notice pilots would receive. Pilots cannot adequately flight plan should this airspace be activated after they depart. Modern General Aviation aircraft can have over six hours of fuel endurance; however, having to deal with a long reroute, particularly in Alaska, can lead to issues of the pilot not having enough fuel, thus being forced to divert to refuel. At least four hours advanced notice is necessary to assist pilots with their flight planning and to help them avoid costly reroutes or the need for fuel diversions. The times of use should be changed to "as published by NOTAM issued 4 hours in advance of area activation."

AOPA cannot support Restricted Area in this location

As AOPA has stated in previous comments regarding this airspace, we cannot support any Restricted Area in this location. There are over 400 square miles of existing restricted airspace in close proximity to this complex. The Army should have considered the serious concerns of the aviation community and developed a plan that would work for both groups versus advancing a proposal with such severe impacts.

With the goal of finding a way to mitigate the airspace proposed in the NPRM and to make it compatible with General Aviation, we investigated several ideas.

- The western border of R-2201 could be moved further east to provide more maneuvering room for aircraft flying in the corridor. The R-2202 complex eastern border could be moved further west (146 degrees) to make a larger corridor for VFR traffic, allowing the Delta River to provide a poor weather VFR route through the area. The borders would also need to be modified due to their inclusion of existing MOA exclusion areas. Indications from the airspace proponent are these modifications are not feasible.
- The Restricted Area should not be allowed to be activated in periods of marginal weather. The FAA should require minimum weather requirements of 5,000 foot ceiling and 5 SM visibility to ensure VFR General Aviation are safely allowed to maneuver in this area of high terrain. The Army indicates they need to use the Restricted Area in marginal weather conditions indicating this mitigation is not feasible.
- The Restricted Area should be limited to a maximum of 8,000 feet to allow airways to be usable by IFR aircraft at any time. The Army indicates the joint-use of this range requires the ability to accommodate multiple aircraft types and utilize airspace at higher altitudes. We were informed limiting the ceiling of R-2201 to 8,000 feet MSL would not be practical.
- Ensuring any new Restricted Area is charted on the Anchorage Sectional before activation, to avoid pilots not being aware of the change, as described in the latest JO 7400.2, Chapter 2, document change proposal.
- Pursue manning and funding for enhancements required to expand situational awareness for air traffic in and around training areas for general and military aviation. Establish an Army Airspace Information Center, fully integrated with the Special Use Airspace Information Service, which has been discussed since at least 2012.

Despite our attempts at mitigating a Restricted Area in this location, we continue to believe that any Restricted Area would be hazardous given the adverse impact it would have on a pilot's ability to maneuver in this area of rapidly rising terrain and congestion.

Given the serious safety concerns raised by civil aviation, AOPA contends the FAA must issue a supplemental NPRM prior to the enactment of any new Restricted Area in this location. We believe it would be inappropriate for the FAA to issue a Final Rule for R-2201, except a notice of withdrawal, without providing an opportunity for the concerned public an opportunity to provide more detailed feedback. We are deeply concerned that the proposed SAA will be substantially modified but the public will not have an opportunity to provide new feedback via a supplemental NPRM.

Additionally, AOPA is disappointed a graphic of the proposed airspace was not provided as part of the docket. Per the Chapter 2 rewrite of the JO 7400.2, available graphics should be provided as they assist the public in understanding the affected area. The FAA produces graphics for these airspace areas so they should include them in the docket for the interested public.

Conclusion

AOPA recognizes and fully supports the Army's need to train as they fight. The BAX and CACTF represent a unique training asset for the Army which, if carefully managed, will result in meeting the Army's training needs. However, we believe the Restricted Area as proposed is demonstrably hazardous to civil aviation and would significantly disrupt aviation in Alaska.

The Army's proposed R-2201 complex will have significant safety and operational impacts on IFR and VFR aircraft any day the airspace is activated. Due to the huge size of this Restricted Area complex and its placement in a strategically important location in Alaska, lacking the ability to utilize the airways means a significant safety and efficiency factor will be lost the majority of the year. There will be an increase in the cost for civil operators given reroutes will be required. Safety will be impacted as more operators may choose to fly VFR which lacks many of the protections an IFR flight has.

As proposed, merely charting the proposed Restricted Area and confining VFR traffic to a narrow corridor will concentrate traffic thus increasing the risk of a mid-air collision, and force pilots into mountainous terrain and over the Donnelly Dome, a tall and unlit obstruction. Combined with the highly variable mountain weather often associated with this location, the safety risk to pilots and the public traveling through this area will increase because of R-2201. Thank you for reviewing our comment on this important issue. Please feel free to contact me at 202-509-9515 if you have any questions.

Sincerely,



Rune Duke
Director, Airspace and Air Traffic

The Aircraft Owners and Pilots Association (AOPA) is a not-for-profit individual membership organization of General Aviation Pilots and Aircraft Owners. AOPA's mission is to effectively serve the interests of its members and establish, maintain and articulate positions of leadership to promote the economy, safety, utility, and popularity of flight in General Aviation aircraft. Representing two thirds of all pilots in the United States, AOPA is the largest civil aviation organization in the world.