

## **ALPENA SPECIAL USE AIRSPACE PROPOSAL - FREQUENTLY ASKED QUESTIONS**

### **Q1. What is a Military Operations Area (MOA)?**

A1. A MOA is a block of airspace where aircraft can perform military training activities (aircraft intercepts, turning and evasive maneuvers, and air combat maneuvers) separated from Instrument Flight Rule (IFR) traffic.

### **Q2. What is an Air Traffic Control Assigned Airspace (ATCAA)?**

A2. An ATCAA is airspace of defined vertical and lateral limits, assigned by Air Traffic Control (ATC), for the purpose of providing air traffic segregation between the specified activities being conducted within the assigned airspace and other IFR air traffic. Typically, these blocks of airspace start at Flight Level (FL) 180 or 18,000 ft. and, in some cases, are contoured to the dimensions of the MOAs beneath them.

### **Q3. What is a Restricted Area (RA)?**

A3. A Restricted Area is airspace established within which the flight of aircraft, while not wholly prohibited, is subject to restriction, when determined necessary to confine or segregate activities considered hazardous to nonparticipating aircraft. These activities can include, but are not limited to, air weapons employment, non-eye-safe laser employment, and small arms and artillery surface fires.

### **Q4. What role does the Federal Aviation Administration play in the proposal?**

A4. The Federal Aviation Administration (FAA) manages the National Airspace System (NAS) and may review and comment on the draft environmental assessment.

### **Q5. How are altitudes measured or specified?**

A5. Airspace altitudes are primarily defined in terms of Mean Sea Level (MSL), which is measured from the surface of the ocean. Where the height of the airspace floor above the ground or sea is important, the airspace floor can be measured in terms of Above Ground Level (AGL) or Above Sea Level (ASL). Airspace altitudes starting at 18,000 feet are defined in terms of flight level (FL).

### **Q6. Why are the current military operations areas deficient for training purposes?**

A6. Current aircraft and tactics require more maneuvering space than those flying when Grayling Range was founded in the 1970s. Current MOAs lack airspace below 6,000ft MSL over land. Pilots must train at lower altitudes to be prepared to defeat enemy threats, employ modern weapons and sometimes to fly beneath low clouds where they can visually acquire practice targets on the ground.

**Q7. What has changed? Why was the previous airspace sufficient for training, but now it isn't?**

A7. Previous Alpena Complex airspace was never sufficient for low altitude training, only providing low over-water areas or the tiny Grayling Range. Over-water flying doesn't teach a pilot to maneuver relative to ground obstacles and the Grayling Range is too small for adequate flying training time and often unavailable due to its primary function as a bombing and artillery range. Local pilots relied on infrequent, expensive deployments elsewhere for low altitude flight experience. Around the range, tactics built for modern weapons require pilots to remain farther away from enemy targets, which is safer for pilots but requires additional maneuvering MOA airspace adjacent to the range.

**Q8. What factors influenced the choice of the proposed military operations area (MOA) shape and location?**

A8. The Grayling MOAs (West/East/East Low) must adjoin the Grayling Range to be used concurrently. They were shaped to minimize impacts to populated areas and other non-military aircraft operations while maintaining range safety procedures. The Steelhead MOAs were chosen due to their close proximity to Selfridge ANGB, home to the MI A-10 Thunderbolt II's who require a nearby low altitude MOA for daily training, also in a lightly populated area with few non-military air operations. There will be low-altitude training in the Grayling West MOA. In April 2019, the Pike Low and Grayling East MOAs were removed from the Michigan Air National Guard's proposal based on feedback from the Federal Aviation Administration regarding safety-of-flight concerns.

**Q9. What units and what aircraft will use the MOAs?**

A9. The primary users will be the Michigan 107FS A-10s from Selfridge ANGB and the Ohio 112FS F-16s from Toledo ANGB. The Selfridge A-10s fly daily missions and the F-16s from Toledo will fly in the airspace occasionally. As Alpena CRTC's mission is to provide a deployed-like training location for Air National Guard flying units, other ANG aircraft from around the US, primarily the East Coast, Southeast and Midwest, will fly in the MOAs during 1- 2 week training trips. These are typically A-10, F-16 and F-15.

**Q10. How often and when will these MOAs be used?**

A10. Generally, the A-10s and/or F-16s will use the MOAs Monday – Friday for 1-2 hours in the morning and 1-2 in the afternoon. Occasional weekend flying may occur, but usually only once a month. Night flying will occur less frequently, usually only on week nights, either one night per week or one week every other month, usually concluding not later than midnight. CRTC-deployed units follow a similar pattern as the local units described above, sometimes for additional hours during a 1 – 2 week training trip. Most trips occur in the spring-summer months. The MOAs are proposed in 3 geographic areas and will not always be activated all 3 together, each day, based on unit mission requirements and weather conditions. The Pike Low and Grayling East Low MOAs will be activated the least often.

**Q11. How many military aircraft will fly in the military operations areas at any one time?**

A11. Typically, 2 - 4 aircraft will be flying in any single MOA at one time but there can be as many as 8-10 aircraft depending on the training needs. Additional MOAs are usually used in conjunction with each other when aircraft numbers exceed 4 to allow for greater maneuvering space. This also has the effect of keeping aircraft densities and noise levels lower and spread out.

**Q12. What will be the impact on noise levels on the ground?**

A12. Currently military training routes (MTR) exist in all the proposed MOAs, bringing aircraft down to 500ft AGL – the same level as the proposed MOAs. Noise levels will be like those under the MTRs however the MOAs will allow aircraft to spread out in a wider area reducing the density of aircraft above a single point and reducing repetitive noise events. FAA recommendations and U.S. Air Force best practices entail aircraft utilizing military operations areas to avoid noise-sensitive areas to the maximum extent practical.

**Q13. What happens if the current airspace is not expanded?**

A13. No action would mean local and deployed units will continue losing adequate training opportunities. The current airspace will remain inadequate for current generation aircraft and tactics. Combat units will be unable to maintain the highest state of readiness and proficiency, creating more risk for aircrews in combat deployments. Existing fighter units will attempt to deploy to costlier, limited-access airspace venues to meet training requirements but readiness will decline in between those limited training opportunities.

**Q14. If citizens have noise complaints, how will they know whom to call?**

A14. The ANG is a good neighbor and provides citizens an outlet for providing feedback about aircraft noise. Alpena CRTC actively maintains a Noise Complaint Hotline (989-354-6450) for community members. Unlike complaints about noise from commercial and general aviation over flights, citizens have direct access to ANG flight operators who can research and resolve noise issues.

**Q15. What effect will this action have on commercial aviation in the affected area?**

A15. Commercial aviation is currently routed around, under or over Alpena Complex's airspace. The Complex is already built in blocks, allowing airspace managers to activate just the blocks required for military training missions. These activation schedules are available 24 hours in advance at the FAA's [www.faa.gov](http://www.faa.gov) web portal. Additionally, the Alpena airspace coordinator works with the FAA and military users in real-time to adjust the top or bottom elevation of a block of airspace to facilitate a non-military transition above or below the airspace. Often the military user can temporarily adjust their flight training profile or move from one block to another, freeing up the airspace for the non-military aircraft. These practices will continue with any new MOA airspace created in this action to minimize the impacts to commercial aviation. There will still be some times when transitions are not possible and the diversion around, under or over is required. There will not be activations that prevent arrivals or departures at an airfield under the Complex.

**Q16. What is the impact on general aviation?**

A16. General aviation and military aircraft operate safely in military operations areas throughout the nation every day. During good weather all aircraft operate under Visual Flight Rules (VFR) using the "see and avoid" concept for deconfliction. When visibility is low, pilots operate under Instrument Flight Rules (IFR). As with commercial aviation above, these IFR aircraft will either divert around, over, or under the military operations area or the FAA and military will temporarily reduce the size of the MOA to facilitate the transition. In the case of the Grayling MOAs, they will not all typically be activated concurrently, allowing general aviation to fly underneath the proposed Grayling East MOA airspace since the floor will be 6,000' or over the Grayling East Low MOA with a ceiling of 5,999'. Again, as with commercial aviation above, the military will only schedule the minimum blocks of airspace required for the current training mission, freeing up the deactivated blocks for non-military use. Activated blocks which are unutilized due to military changes will be turned in to FAA for non-military use. This flexibility will help minimize impacts to general aviation in the surrounding areas.

**Q17: Will the MOA proposal permanently close airspace to general aviation flights?**

A17: Because the airspace is built in blocks, only the minimum amount of space necessary for training will be activated at any given time. An airspace coordinator in Alpena will work with the FAA and military users in real-time to adjust the top or bottom elevation of an airspace block to facilitate a non-military transition in the vicinity. Often, the military user can temporarily adjust their flight training profile or move from one block or another to free up the airspace for non-military users. It is the role of the ANG and the FAA to ensure that these proposed activities do not conflict with the public's use of the airspace and ground activities that may be affected by training exercises.

**Q18: How were the airspace modifications selected?**

A18: The shape and location of the proposed alterations were selected because of their proximity to training sites and sparsely-populated areas with a low volume of non-military flying operations.

**Q19: How will the MOA affect events like annual airshows?**

A19: The ANG plans to establish letters of agreement to ensure deactivation of MOA airspace for special events such as annual airshows. In case of emergency situations, where medevac helicopters or other aircraft may need access to specific airspace, there are already policies in place to suspend all training or movement in those areas.

**Q20: Why can't the Michigan Air National Guard implement the MOA expansion proposal in a different area, such as the U.P.?**

Q20: The Michigan Air National Guard is challenged to be a good steward of both the environment in which it trains, as well as the budgetary resources it has been provided to ensure maximum readiness of its Airmen. One of the considerations in selecting the location of the proposed Steelhead MOAs was their proximity to Selfridge ANG Base and Grayling Range to conserve in-flight hours and fuel expenditures enroute to training opportunities. Re-locating the MOAs, for instance to the area over Michigan's Upper Peninsula, would introduce exponentially longer sorties while reducing the amount of time aircrews can actually train with the fuel resources available. This does not support the optimal utilization of tax dollars. Michigan's airspace offers a unique opportunity for aircrews to train long-distance over coastal landscapes, which is unavailable anywhere else in the Midwest.

**Q21: What (if any) were the "rules" combat jets had to follow concerning above ground level (AGL) flights over the Thumb back in the 70s-90s?**

A21: The rules for military jets' minimum altitudes in the past and present depend on the speed of the jet and whether or not they are on a military training route (MTR) such as the VR-1624 or in other designated areas. Fast jets such as F-16, F-15 and MI A-7's during the 70's-80's must remain in MTRs, military operations areas (MOA) or restricted areas (RA) such as Grayling Range when below 10,000ft and at tactical speeds. In Michigan's Thumb and further north several MTRs cross over with approved minimum altitudes of 500 ft over land. These are shown in Figure 1. below and are likely where Thumb residents observed jets prior to A-10s moving to Selfridge in 2008. The routes are generally 4 – 8 nm wide and not higher than 1500 ft above ground level (AGL), focusing training on low-level maneuvers, navigation and timing. Over the last 4 years the routes over the Thumb were used on average 3 sorties per month or about 30 sorties in a typical year, with the highest year seeing 54 sorties. MTRs are plotted on "Sectional" Aeronautical charts by the FAA, published nation-wide by the DoD and scheduled by Alpena CRTC in this region of Michigan.

Jets like the A-10 have slower tactical speeds and may fly Low Altitude Tactical Navigation (LATN) missions in several designated areas of Michigan outside of MTR, MOA or RA. In the Lower Peninsula their minimum altitude is generally designated as 500 ft except over populated areas where the minimum is 1000 ft, in accordance with FAA regulations. LATN is usually used as a means to practice low-level flying while transiting from Selfridge to a training area such as Grayling Range and then back again. Michigan A-10s generally fly between 35-65 LATN sorties monthly and 350-750 sorties in a typical year. This is the most likely scenario in which Thumb residents are observing low-flying Selfridge A-10s.



Figure 1 - Answer 20, military training routes over the Thumb