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April 5, 2017

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

Re: FAA Docket No. FAA-2016-9536 and Airspace Docket No. 16-AWP-27; Notice of Proposed Rulemaking for the Establishment of Temporary Restricted Areas R-2509E, R-2509W, and R-2509N; Twentynine Palms, CA.

Dear Mr. Ready,

The Aircraft Owners and Pilots Association (AOPA), the world's largest aviation membership association, submit the following comments in response to the Notice of Proposed Rulemaking (NPRM) for the establishment of temporary Restricted Areas R-2509E, R-2509W, and R-2509N at Twentynine Palms, CA. AOPA strongly supports the Marine Corps and understands their need for training areas that reflect modern battlefield requirements. We believe this training can be accommodated; however, AOPA contends the proposed airspace would unnecessarily impact General Aviation pilots and should be modified so that the short duration training can take place with reduced impact on other airspace users. The proposed dimensions of R-2509W would create an unacceptable hazard and operational impact on General Aviation and it must be modified.

### **Engagement with stakeholders important**

The military proponent involved AOPA early on in the discussions of the mission expansion at Twentynine Palms and the necessary enlargement of Special Activity Airspace (SAA). Collaboration is very important to understanding and mitigating negative impacts so we applaud the proactive approach of the Marine Corps. AOPA understands Twentynine Palms is the only location in the National Airspace System (NAS) that meets their requirements for large scale exercises; however, there have been several steps for mitigation along this multi-year process that we believe have been missed. The proposed temporary Restricted Areas would have an adverse impact on air traffic if their current dimensions are retained.

AOPA commented to the March 30, 2016, NPRM for the establishment of R-2509E, R-2509W, and R-2509N, which was last year's attempt to enact temporary Restricted Areas. That proposal was withdrawn by the FAA with the statement, "efforts to mitigate the aeronautical impacts associated with the proposed action have been unsuccessful." AOPA's previous comment noted serious hazards and operational impacts to General Aviation by the proposed airspace. We note

this year's airspace proposal is largely unmodified from last year's despite the feedback and the time to modify the SAA boundaries. We are disappointed that we are commenting on the same foreseeable serious impacts and believe the FAA must fully justify any enactment of R-2509W given the valid concerns from the flying public.

### **R-2509W creates an unacceptable impact to General Aviation**

The Twentynine Palms SAA complex is located in a major air traffic corridor. The traffic data provided by the Los Angeles ARTCC (ZLA) collected from August 10 through August 31, 2015, showed a large number of aircraft transiting through the area proposed for the new Restricted Areas. In that three week period, over 1,200 General Aviation aircraft transited through the airspace below FL180. Many more aircraft above FL180 flew through this airspace when transiting to and from Southern California. Graphics of historical air traffic flow in the Twentynine Palms area shows many aircraft fly very close to the existing boundary of the Restricted Areas, which would now be enclosed in the temporary Restricted Areas. The lack of charting will hurt pilot awareness resulting in an increased likelihood of unintentional airspace violations.

The Victor Airway V-386, located between SOGGI and YUCCA intersections, is heavily utilized by VFR General Aviation traffic and would be impacted by R-2509W. General Aviation traffic that are VFR would no longer be able to utilize this airway unless they were able to fly above 8,000 feet MSL. Placing a Restricted Area, wherein hazardous activity is taking place, along an established and busy air traffic corridor, and not charting that Restricted Area, creates an inherently hazardous situation for pilots.

The geographical area R-2509W overlies is also an important valley. This area of lower terrain is beneficial to pilots as it allows more room for maneuvering. The area west of R-2509W is comprised of much higher and rapidly rising terrain. Pilots will be constricted to a limited corridor between the Restricted Area and rapidly rising terrain. This corridor reduces to only 5 NMs wide at certain points which could pose a challenge for pilots needing to turn around safely. Adding R-2509W to an already large SAA complex will further constrain low-altitude General Aviation and force them to fly closer to areas of precipitous terrain. Pilots forced to fly further west around the temporary Restricted Areas will have to fly through congested Southern California airspace, areas of high terrain, and will have the economic hardship of increased flight time and fuel costs. Allowing a temporary Restricted Area in such a busy area where pilots have become accustomed to flying within the valley would place many pilots at high risk for an airspace incursion and in an unsafe position near hazardous activity.

AOPA contends these factors make the enactment of R-2509W to be a serious hazard for General Aviation; consequently, R-2509W should not be enacted. The location and lateral dimensions of R-2509N and R-2509E allow General Aviation to continue to use the valley and V-386 for navigation and will not unacceptably put a large number of pilots at risk.

### **Pilots need advanced notification of activation**

The proposal states activation for the Restricted Areas would take place by NOTAM but fails to state how much advance 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 can lead to issues of the pilot not having enough fuel and thus being forced to divert for fuel. At least four hours advance notice is necessary to assist pilots with their flight planning, particularly for uncharted temporary SAA, 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.”

### **Alternative to temporary Restricted Area**

An alternative airspace type the FAA should consider is the utilization of a Temporary Flight Restriction (TFR) instead of a temporary Restricted Area. For the reasons described in the next section, issuing a TFR is a more effective means of alerting pilots given this type of SAA is provided graphically on many websites, and can be depicted by third party vendors and presented electronically to users via an Electronic Flight Bag (EFB). AOPA believes the use of a TFR must only be a transitional solution as the process for a TFR lacks advanced warning for users, minimal outreach, and no public comment period. We strongly encourage the FAA, should they see the merit of this alternative, require the proponent to conduct the same outreach discussed in the NPRM given the impact is similar.

### **Pilots lack awareness of temporary Restricted Areas**

In 2016, AOPA and the FAA conducted a series of surveys to better understand how pilots utilize Flight Service and access critical flight information. We learned over 80% of General Aviation pilots routinely use an EFB in the cockpit. Most modern EFBs can display NOTAM information and can continuously update while inflight. Many pilots are embracing the FAA’s FIS-B service which facilitates near real-time NOTAM information in the cockpit and can augment or, in some cases, replace Flight Service for pilots. The utilization of these services is growing as more pilots embrace technology and rely less on Flight Service. Therefore, it is important that the communication of that information is effective and usable by the many pilots flying with advanced technology.

As more pilots embrace EFBs, the expectation is that the information being provided to them is complete. It has become common for TFRs to be depicted electronically on an EFB; however, there is no mechanism that allows temporary Restricted Areas to be depicted electronically in the same way. The last time a temporary Restricted Area was approved was in 1999. There have been so few temporary Restricted Areas issued that there is no process for the FAA to provide third party vendors an aeronautical shapefile so that can be depicted like a TFR. The FAA must implement a process to publish shapefiles for this type of SAA given how many pilots now utilize an EFB.

Temporary Restricted Areas are not charted by the FAA nor able to be electronically depicted by a third party vendor on an EFB. These graphical limitations mean a transient pilot's awareness of this airspace is primarily dependent on them seeing the published NOTAM. With nearly two millions NOTAMs published last year, it is a challenge for pilots to review all NOTAMs applicable to a flight. This NOTAM would utilize lat/longs that are not easily translated to geographical areas; consequently, pilots may easily overlook them when flight planning. Pilots must be provided graphics, accomplished through the issuance of a TFR, to have the spatial orientation to determine the impact of the airspace on their flight.

The Notices to Airmen Publication (NTAP) is noted in the NPRM as one method of increasing pilot awareness. This is a publication where graphical notices are provided but General Aviation pilots simply do not use this resource on any routine basis. Several different committees with FAA and industry participation have noted the deficiencies of the NTAP and recommended it either be improved or discontinued given this current lack of usefulness for the civil aviation community. In response to an AOPA February 1, 2017, letter to the NOTAM policy manager, the FAA has initiated an internal working group to evaluate the risks of discontinuing the NTAP. Should the decision be made to alter this publication, a safety panel would determine how to make the information within the NTAP, such as graphical notices, more effectively available to the aviation community.

Should the FAA not implement the TFR alternative, they must ensure pilots have awareness of temporary Restricted Areas by: (a) issue pointer NOTAMs for all the airports located within the local area; (b) the NOTAM must include plain language location information including distance and direction from Big Bear City, CA, and that the temporary Restricted Areas are attached to the western area of R-2501N, S, and W; (c) ensure all temporary Restricted Areas are depicted graphically on the FAA's SUA website; and (d) improve the facilitation of shapefiles of this airspace to third party vendors so that the airspace can be depicted graphically on EFBs.

### **The FAA and airspace proponent must conduct extensive outreach**

Alerting local and transient pilots of the three week large-scale exercise is a necessary mitigation the proponent should be actively engaged in. Robust outreach with local pilot groups, such as the Southern California Airspace Users Working Group, state pilot groups, national pilot associations, airports, and fixed base operators will be needed to reduce the impact of the SAA and to ensure pilots stay away from the hazardous activity. We understand the Marines are creating posters and other awareness materials for airports in the vicinity. This is a positive step to increasing pilot awareness of the exercise. AOPA stands ready to support the military proponent's outreach efforts. Additional outreach using FAA mechanisms, such as a FFAST Blast, should also be investigated to ensure wide dissemination.

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

The Marine's proposal for R-2509W would place hundreds of pilots at risk for violating the Restricted Area's boundary during the three week exercise being planned. AOPA believes this proposed Restricted Area cannot be mitigated due to its location which puts it in the middle of an established busy corridor for General Aviation traffic. The Restricted Area would also force many pilots to deviate further west and into complex, congested airspace and areas of high terrain.

AOPA recognizes and fully supports the Marine's need to train as they fight. The Twentynine Palms SAA complex represents a unique training asset for the Marines which, if carefully managed, will result in meeting the Marine's training needs while avoiding or mitigating the impact on General Aviation flight operations. 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.