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January 26, 2012

Mr. Dennis Roberts
Director of Airspace Services
Docket Operations, M-30
U.S. Department of Transportation
1200 New Jersey Avenue SE, Room W12-140
West Building Ground Floor
Washington, DC 20590

Re: Docket Number 2011-1279, Notice of Policy and Request for Information on Airborne Wind Energy Systems

Mr. Roberts,

The Aircraft Owners and Pilots Association (AOPA), representing more than 400,000 members nationwide, submits the following comments in response to the Federal Aviation Administration's (FAA) Notice of Policy and Request for Information on Airborne Wind Energy Systems (AWES). AOPA is generally supportive of the FAA's Notice of Policy that would apply Part 77 standards to tethered AWES as the method for ensuring airspace safety during the testing and evaluation of these systems. The conspicuity of AWES, and the tether in particular, is of critical importance. For this reason, AOPA suggests that modifications to Advisory Circular 70/7460-1 are necessary to include and address the unique challenges of AWES. For permanent installations at altitudes exceeding 2,000 feet above ground level (agl), more data are needed to evaluate the impact on existing operations in the National Airspace System (NAS) including operations conducted under Visual Flight Rules (VFR).

### Safety implications

As an obstruction in the National Airspace System (NAS), one of the greatest safety concerns associated with AWESs is the conspicuity of both the tether and the generator unit. AOPA supports the FAA's policy of using AC 70/7460-1 as a guide in determining appropriate marking and/or lighting. To that end, AOPA urges the FAA to update their guidance to include the unique and varied nature of AWES. The physical location of a proposed AWES installation is an additional safety concern. AOPA supports the FAA's policy of applying Part 77 obstruction standards in the approval process for individual AWES. Public input is vital to discovering and mitigating safety concerns unique to each AWES installation.

# Permanent operations

AOPA does not oppose the permanent installation of AWES below 2,000 feet agl on the conditions that each installation is evaluated under the provisions of Part 77, is conspicuously marked and or lighted in accordance with AC 70/7460-1, and does not significantly impact or restrict flight operations in the vicinity of the AWES.

# Altitudes exceeding 2,000 feet above ground level

AWES that exceed 2,000 feet agl have a greater likelihood of threatening access to the national airspace system, particularly for general aviation aircraft. At altitudes in excess of 2,000 feet agl, an AWES will have a potentially greater impact on en-route altitudes, efficiency of navigation, and arrival and departure procedures at airports. Prior to the approval of AWES operations in excess of 2,000 feet agl, the FAA should evaluate

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the provisions of Part 77, and seek public input, to ensure the regulations adequately address the unique nature of AWES. While Part 77 evaluates the impacts on instrument flight rules (IFR) operations, it does not sufficiently address the impacts of an obstruction on VFR operations. Prior to the use of Part 77 for the evaluation of an AWES in excess of 2,000 feet agl, AOPA requests that the regulations be reviewed for potential opportunities to improve the evaluation of impacts on VFR flight operations.

#### Other concerns

The National Airspace System is a finite resource that must be shared by a variety of interests. AOPA supports the FAA's goal of individually evaluating each AWES installation for potential impacts on the safety and efficiency of operators in the NAS. Any type of restrictive airspace used to segregate AWES would be an impediment to existing operators of the NAS. The FAA's policy of evaluating AWES by applying Part 77 standards ensures that the public has an opportunity to provide comments and the NAS is equitably shared by all users.

AOPA supports the FAA's policy on AWES below 2,000 feet agl in the testing and evaluation phase. As the AWES industry matures, more data are needed on the impacts of long term installations exceeding 2,000 feet agl in height. AWES installations at altitudes in excess of 2,000 present unique difficulties and necessitate further review of AC70/7460-1 and Part 77 regulations to ensure all impacts are identified and mitigated.

We appreciate the opportunity to submit comments on the FAA's Notice of Policy for AWES.

Sincerely,

Tom Kramer Manager

John Klamer

Airspace and Modernization