



United States Department of the Interior  
Aviation Management Directorate  
U.S. Forest Service  
Fire and Aviation Management Division



June 4, 2009

From: Associate Director, DOI National Business Center, Aviation Management Directorate  
National Aviation Operations Officer, U.S. Forest Service Fire and Aviation Management Division

To: NMAC

Subject: Joint Forest Service and Department of the Interior Authorization for the Use of Very Large Air Tankers

Since 1958, the aerial firefighting mission has experienced a pattern of mishaps, resulting in over 135 Large Air Tanker fatalities and periodic in-flight structural failures. This has resulted in significant human, financial, equipment, credibility, costs to the interagency fire aviation community and has been the subject of numerous investigations, reports, and recommendations by various government oversight panels and agencies.

In 2008, the U.S. Forest Service (USFS) Fire and Aviation Management (FAM) Division and the U.S. Department of the Interior (DOI) Aviation Management Directorate (AMD) embarked on a new approach to the assessment and qualification of new firefighting aircraft. Working in collaboration with the National Aeronautics and Space Administration (NASA), FAM and AMD undertook an initiative to assess the suitability of the new Very Large Air Tanker (VLAT) class for the aerial retardant delivery mission from a mission-oriented science-based approach. The NASA-USFS-DOI team utilized accepted industry and government aviation flight test processes to assess within a limited scope investigation, the airworthiness, mission compatibility, and recommended operational usage regimes, policies, and procedures of the VLAT class. The assessment included analysis of available aircraft data, mission flights in high fidelity flight simulators, and participation in several operational training missions. In April 2009, NASA provided USFS and DOI with their 378 page report of findings and recommendations. Based on this report, FAM and AMD are able to authorize the use of VLAT class aircraft on USFS and DOI wildland fires within the following guidelines:

1. Level or gently rolling terrain where level to slight descents (< 6-7%) are required: Remain above 300' AGL during the delivery.
2. Usage in very steep or rugged terrain is not recommended unless deliveries can be performed with minimal maneuvering, a lead plane is available, and adequate terrain clearance is available at the wingtips.
3. Usage where in-flight visibility is less than 3 miles should be avoided.
4. Until significant experience is gained on VLAT platforms, at least 400' – 500' terrain clearance should be maintained in rugged terrain and a climb should be initiated before any turns of greater than 10 degrees bank angle.

  
Pat Norbury, National Aviation Ops Officer  
U.S. Forest Service Aviation Management

  
Mark L. Bathrick, Associate Director  
NBC, Aviation Management