

# Aerospace Medical Association



*President*  
JAMES M. VANDERPLOEG, M.D.  
700 Gemini Ave., Ste. 110  
Houston, TX 77058

*President-Elect*  
KENNETH N. ACKLES, Ph.D.  
15 Delhi Crescent  
Unionville, Ont.  
CANADA L3R 4J4

320 South Henry Street  
Alexandria, VA 22314-3579

703-739-2240  
Fax 703-739-9652

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*First Vice President*  
ROBERT R. McMEEKIN, M.D., J.D.  
7435 Arrowood Road  
Bethesda, MD 20817

*Executive Director*  
*Secretary-Treasurer*  
RUSSELL B. RAYMAN, M.D.  
Association Home Office

Mr. Alan J. Dixon  
Defense Base Closure & Realignment Commission  
1700 N. Moore Street, Suite 1425  
Arlington, VA 22209

Dear Mr. Dixon:

The Aerospace Medical Association is gravely concerned about the imminent closure of the Dynamic Flight Simulator (DFS) at the Naval Air Warfare Center, Warminster, PA. As the only "super centrifuge" in the world, capable of accurately replicating dynamically unstable flight, the disappearance of this facility would be a major blow to both the scientific and operational capability of the United States Department of Defense. Its 50-foot arm, three axis dual gimballed gondola with a 40,000-lb capacity, allows the pilot, in a complete cockpit with out-the-window visual scenes, to fly controlled true fidelity aircraft maneuvers generating up to 12 Gs at 13 G per second acceleration. The DFS provides full range of Gs in the real flying environment. No other centrifuge or simulator in the world can create the full range of stresses on the pilot which are imposed by current and future aircraft. The majority of the flight regimens studied in the DFS, which accurately replicate realistic out-of-control flight, are too unsafe to test in actual aircraft flight. If the DFS is closed, an essential link between incomplete ground-based simulation and costly, hazardous flight testing will be lost. This will result in an unacceptable impact on future Department of Defense safety of flight assurance testing.

The DFS has been used to address a number of serious safety problems in the US Navy including the F-14 flat spin problem and the safety impact of F/A-18 G-induced loss of consciousness. The results of both of these projects led to improvements in cockpit spin warning systems, improved recovery techniques and restraint systems, and an improved G resistance system. The DFS is essential for the development of future generation fighter aircraft. This installation is the world's premier aviation simulator super centrifuge, with capabilities so uniquely varied and versatile, that its function cannot be replicated by any single facility or by any combination of facilities anywhere else in the world. The loss in scientific and operation capability will be irreplaceable. The cost of the loss of a single aircraft and trained crew in dollar terms must be added into any affordability analysis.

The Aerospace Medical Association strongly recommends that the DFS at the Naval Air Warfare Center, Warminster, PA not be closed. Thank you for your consideration of this important matter which impacts the future scientific and operational capability of the national and international military aviation communities.

Sincerely,

James M. Vanderploeg, M.D.  
President