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**LANGLEY ALUMNI ASSOCIATION**

Lecture at Langley Alumni Association Meeting

NACA Room, B2102

January 8, 2019

**NESC Independent Review of the U.S. Navy F/A-18 Pilot’s Physiological Episodes**

**Presented by**

Mr. Clinton H. Cragg, Capt., USN (Retd.)

Principal Engineer

NASA Engineering and Safety Center (NESC)

Langley Research Center

**Abstract:**

The USN’s F/A-18 fighter jet aircraft had been experiencing an increased occurrence of reported physiological episodes (PE). For nearly a decade, NAVAIR’s investigations of these events had been without success.

The Secretary of the Navy was recently directed by Congress to conduct an independent review of the F/A-18 PEs. The Navy requested the assistance of NASA. The NASA scope, as assigned to NESC, included a review of the aircraft mishaps potentially related to such PEs, factors that may reduce the PE rate, and the performance of the relevant subsystems of the F/A-18 Hornet and F/A-18 Super Hornet. The presentation summarizes the results of this review.

**About the Speaker:**

Clint Cragg, upon graduating from the U.S. Naval Academy in 1978, entered the submarine and naval nuclear power training program.  His first submarine assignment was the USS Sand Lance, which at the time was undergoing a major engineering overhaul in Bremerton, Washington. Later, as the Ship's Engineer on the USS Alabama, he supervised a department composed of six divisions and was directly responsible for the maintenance, operation and safety of the ship's S8G nuclear reactor.  In 1990, he reported to his first shore tour at the Naval War College where he earned M.A. degrees in both Strategic Studies and International Relations.  In his next assignment as the Executive Officer of the USS Tunny, he prepared the ship and crew for four separate overseas deployments.  Selected for command, Clint took over as the Commanding Officer of USS Ohio in October of 1996.  After completing four strategic deterrent patrols, he was assigned as the Chief of Current Operations, US European Command. While in Europe he participated in several operations, which included the wars in Kosovo, Afghanistan, and Iraq.

 In 2003, he joined NASA as a founding member of the NASA Engineering and Safety Center (NESC). As a Principal Engineer, he leads teams of engineers to solve NASA's toughest challenges. Some of those included the Space Shuttle’s Hold-down Post System, the Orbiter’s Reinforced Carbon-Carbon wing leading edge failure, updating the Shell Buckling Knockdown Factors, and assessing NASA’s Frangible Joints. He has also led teams assisting the US Navy and US Air Force in solving F-22 and F/A-18 issues. Additionally, he led a team of engineers that provided critical design guidance to the Chileans involved in constructing the trapped Chilean Miner’s rescue vehicle.