

Aircrew Safety

Award of Distinction

Approximately 90 minutes into a Higher Headquarters Directed sortie as part of RIMPAC 04, the #1 generator of Havoc 21 tripped off, and the autopilot failed. Shortly after resetting the generator, the constant speed drive (CSD) overheat light illuminated. The crew decoupled the generator from its accessory drive IAW T.O. procedures. Thirty minutes later, the #1 generator CSD overheat light illuminated again. In accordance with T.O. guidance, the pilots shut down the #1 engine and established windmilling RPM by slowing to 205 KIAS and descending to 17,000 feet. With the #1 engine shut down, primary hydraulics for the left tip gear and left outboard spoilers were unavailable. The instructor pilot on board backed up the pilots while they reviewed all applicable

T.O. guidance. The radar navigator and navigator informed the pilots that the RIMPAC activity and air refueling would have to be slipped 3 hours. The pilot and copilot concluded that a 3-hour slip would put the aircraft 33,000 pounds below the minimum fuel reserves at the air refueling point. The crew agreed that a mission abort was the best option, and notified the Andersen AFB Supervisor of Flying (SOF) of their plan to return to Guam. The 36 EOG/CC agreed with the crew's decision to abort the mission, and approved their return. After approximately 40 minutes, the #1 generator overheat light finally extinguished. With the autopilot inoperable, the pilots alternated flying duties during the 3-hour return trip to maximize pilot alertness for the 0200L landing. Upon arrival at Andersen AFB, the crew burned down fuel to reach approximately 290,000 pounds for landing. The pilots extended the left tip gear using emergency procedures to ensure positive extension, and turned on the #1 hydraulic standby pump to provide pressure to operate the left outboard spoiler. The crew computed 7-engine landing data, confirmed the data with the Duty Instructor Pilot (DIP), and then flew a 7-engine approach to a full stop.

Capt Aaron D. Root, 1Lt Christopher Miller, Maj Timothy MacGinley, 1Lt Michael Gregston, 1Lt Alexander Christy, Lt Col Timothy Hansen, Capt Robert Billings, 96th and 11th Bomb Sqdns., 2nd Bomb Wing, Barksdale AFB, Louisiana

Ground Safety

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T Sgt Canning developed a plan to control and reduce the Foreign Object Damage (FOD) potential at the engine test facility for both TF34 and F110 turbo fan engines. The previous FOD removal method of water washing was detrimental to the construction of the sound retardant baffles. Water was being absorbed by the basalt-wool sound retardant materiel, trapping the moisture and causing corrosion to the metal framing. In turn, the metal corrosion produced FOD at a rate greater than corrosion prevention measures could stop its progression. His creativity led to the requisition of a commercial leaf blower to remove FOD from the huge intake and

cooling baffles of the "Hush Houses." Sgt Canning also implemented a weekly plan to use a vacuum cleaner to extract any particles wedged in test bay floor expansion joint cracks. This area was previously missed by the water washing method. Since implementation of the new procedures, the potential for FOD has been virtually eliminated and no FOD incidents have occurred. Sgt Canning also implemented a run screen preservation plan that far exceeds technical order guidance. To protect the run screens fragile nylon/cotton material from dry rotting and tearing, the screens' are changed out monthly versus the technical order recommendation of using them until they become unserviceable. Additionally, the screens are now stored inside and out of direct sunlight and weather to make them less susceptible to FOD being introduced from outside debris and premature dry rotting. TSgt Canning's sound decisions and practical applications in every aspect of FOD awareness has virtually eliminated the FOD potential in the engine test facility. This has reduced the chances for a catastrophic engine failure resulting from FOD ingestion, thus preventing engine blade liberation and subsequent damage to multi-million dollar equipment and loss of life.

TSgt Thomas J. Canning, 20th Component Maint. Sqdn., 20th Fighter Wing, Shaw AFB, South Carolina

Pilot Safety

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Lt Col Fenton was number two of a four-ship of F-15C Eagles on a combat training mission off the East Coast of Virginia. During the first engagement, his flight lead noticed vapor streaming from Col Fenton's aircraft and a "knock-it-off" was called to end the engagement. As Col Fenton reduced the power to mid-range, he noticed the fuel flow on the right engine was twice as high as that on the left engine. In addition, the flight lead indicated that fuel was streaming from the right side of the centerline pylon. Col Fenton immediately turned direct to Langley and shut down the right engine to stop the fuel leak. The fuel flow decreased; however, fuel was still streaming from the aircraft. With no other options available to completely stop the streaming fuel, Col Fenton continued his re-

covery but elected to maintain his speed as long as possible to ensure landing prior to fuel starvation. As he entered the weather and slowed down for the instrument approach, the hydraulic system began cycling valves and reverting to backup systems due to the decay of windmilling RPM on the number two engine. The cycling hydraulics caused the flight control augmentation system (CAS) to drop off-line several times, placing increasing demands on Col Fenton under instrument flying conditions. Col Fenton executed a single-engine ILS to a perfect landing with field conditions of 700 foot ceilings and 2 miles of visibility. Upon inspection of the aircraft, maintenance discovered that the fuel leak originated from the fuel pump supplying fuel to the afterburner. The pump is held in place with three bolts, two of which had sheared off and the third had backed halfway out. Quick action, smart decisions, and expert flying skills enabled Lt Col Fenton to safely recover a crippled aircraft.



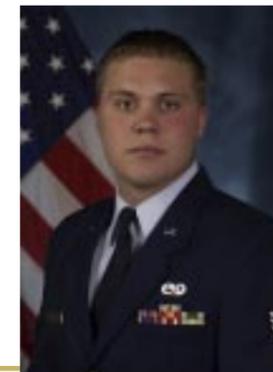
Lt Col Matthew R. Fenton, 71st Fighter Sqdn., 1st Fighter Wing, Langley AFB, Virginia

Crew Chief Safety

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SrA Sager was tasked to accomplish a Pre-flight/Post-flight/Alert Pre-flight Inspection of an aircraft in preparation for a local training mission. During this inspection, SrA Sager discovered what he believed to be damage to the 4th stage Low Pressure Turbine blades

(LPT). Immediately after this discovery he notified the flight line supervisor and expeditor of this damage, which instantly grounded the aircraft. A further, more detailed borescope inspection revealed a considerable amount of damage had occurred affecting two, and possibly three blades. Because of his attention to detail, and technical experience, SrA Sager quite possibly prevented a catastrophic accident. SrA Sager's concern and involvement make him highly deserving of this recognition. He is, and will continue to be, a role model for others.



SrA Matthew W. Sager, 119th Fighter Wing, Detachment 1, Langley AFB, Virginia