DEPARTMENT OF THE NAVY
COMMANDER
TRAINING AIR WING FIVE
7480 USS ENTERPRISE STREET SUITE 205
MILTON, FLORIDA 32570-6017

IN REPLY REFER TO:
COMTRAWINGFIVEINST 13700.4J
Code N4
17 Aug 15

COMTRAWINGFIVE INSTRUCTION 13700.4J

Subj: FOREIGN OBJECT DAMAGE (FOD) TO AIRCRAFT GAS TURBINE ENGINES

Ref: (a) COMNAVAIRFORINST 4790.2 Series
(b) CNATRAINST 13700.2 Series

1. Purpose. To provide instructions for the reduction of gas turbine engine/aircraft propeller removals or failures due to Foreign Object Damage (FOD) through an aggressive FOD Prevention Program.

2. Cancellation. COMTRAWINGFIVEINST 13700.4H.

3. Discussion

a. FOD to gas turbine engines is a problem which adversely impacts readiness. FOD-related engine repairs continue to cause critical shortages of spare engines, repair parts, and funding. Premature engine removal adversely affects aircraft availability and Student Naval Aviator training. FOD prevention is an area of prime concern and an "all hands" responsibility.

b. Aircraft propeller deterioration (prop erosion) is another major, but seldom considered problem attributed to FOD. FOD to a propeller can cause serious defects that result in accelerated propeller inefficiency and early removal. Further, propeller driven foreign material becomes an airborne hazard to nearby aircraft, support equipment, and personnel.

c. One of the most important factors in FOD prevention is the immediate and thorough investigation of each FOD incident. Conducted properly, a comprehensive investigation may identify the object which caused the FOD and highlight maintenance or operating practices which may have contributed to the incident. While not all damage is preventable, it is necessary to investigate all damage to aircraft gas turbine engines/aircraft propellers in order to ensure timely action to prevent recurrence by eliminating the cause of damage whenever possible.

d. Training Air Wing (TRAWING) FIVE activities operating aircraft shall take action to prevent aircraft engine/propeller damage due to FOD.

4. Definitions

a. Foreign Object Damage (FOD). Damage that exceeds serviceable limits caused by ingestion of objects not organic to the damaged engine.

b. Minor Damage FOD. Damage which is repaired at the Organization Maintenance Activity or Intermediate Maintenance Activity at a total man-hour and material cost not to exceed the greater of $3,000 or 10% of the reportable repair cost. The Naval Aviation Safety Center sets the reportable repair cost annually.

c. Major Damage FOD. Damage to an installed engine which was removed for FOD or a FOD damaged discrepancy is repaired by Aircraft Intermediate Maintenance Department or Maintenance Contractor, and exceeds the dollar/man-hour/repair threshold of minor damage FOD. NOTE: Polishing or buffing of blades to remove minute roughness shall not be interpreted as blending or reported as FOD.

5. General FOD Prevention Rules

a. All elements of the Tool Control Program are to be strictly observed at all times.

b. Before starting an engine and at the completion of engine shutdown, perform a thorough inspection of the immediate operating area for potential FOD.

c. When in the vicinity of operating engines, all loose gear shall be secured, pockets and sleeves buttoned, and tool containers closed.

d. All personnel shall pick up loose objects in the hangar and on the flight line and deposit in appropriate FOD containers located in hangar areas.

6. Responsibility. FOD prevention is not limited to one division or department. It is an "all hands" responsibility, civilian and military alike. However, specific tasks are assigned as follows:

a. TRAWING FIVE FOD Prevention Council

(1) The TRAWING FIVE FOD Prevention Council is established to provide a forum to communicate concerns and discuss ways of reducing FOD hazards aboard NAS Whiting Field and its outlying fields.

(2) The TRAWING FIVE FOD Prevention Council will meet in conjunction with monthly Safety Council meeting.

(3) The meeting will be chaired by the TRAWING FIVE Safety Officer and composed of representatives from TRAWING FIVE OPS/Safety, NASWF OPS/CRASH/FIRE DEPT, CNATRA DET, T-6 and TH-57 Contractors, Fuel Farm, and VT-2/3/6 and HT-8/18/28 Maintenance Officers.

(4) Items to be reviewed include prior months' FOD Incidents, Engine Damage Investigation (end-it) Team Reports/Recommendations, Observations, and conditions and/or coming events that may create FOD hazards. Recommendations shall be forwarded to the Commander, Training Air Wing FIVE and Commanding Officer, NAS Whiting Field for action.

b. TRAWING FIVE Maintenance Officer

(1) Designated as the FOD Control Officer (FCO) and will serve as the TRAWING FIVE point of contact in all matters pertaining to FOD.

(2) Maintain a definitive FOD Prevention Instruction. Verify that TRAWING FIVE squadrons are in compliance with references (a) and (b), when applicable, and this instruction.

(3) Upon initial notification of a suspected FOD incident, call CNATRA N4215, DSN 861-3224, not later than 1600 the following workday. A control number will be assigned at this time to be utilized in conjunction with reference (b), enclosure (1), Engine FOD Hazard/Mishap Report, to ensure positive engine tracking.

(4) Ensure the damage investigation is conducted utilizing FOD Prevention Team personnel selected per reference (b). Collate inputs and provide a comprehensive FOD Investigation Report. This report is for FOD incidents, including damage due to natural causes such as birds, ice, etc.

c. NAS Whiting Field. Institute and maintain a daily sweeping schedule to include the following areas: All aircraft taxi, run-up, and takeoff areas, all hard surfaced approaches leading to these areas, and problem areas reported by CNATRA DET Whiting.

d. NAS Whiting Field Fire/Crash Department. Conduct daily inspections and submit daily reports to the Public Works Department indicating those areas in need of sweeping.

e. Outlying Field Crash Crews. Perform a daily inspection of their respective fields and remove, if possible, or report to the TRAWING FIVE Maintenance Officer, any potential FOD hazards.

f. Commanding Officers. Ensure aircrews are indoctrinated in FOD prevention measures, such as taxi/takeoff intervals and avoiding taxiing through the exhaust or propeller/rotor blade wash of other aircraft.

g. Aircrews. Report FOD hazards to their respective Safety Officer.

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Distribution:
COMTRAWINGFIVEINST 5216.1T
List I, II, III(f-j)