



*DEPARTMENT OF THE NAVY
COMMANDER TRAINING AIR WING SIX
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PENSACOLA, FLORIDA 32508-5509*

COMTRAWINGSIXINST 13700.1P
Code 00S1
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COMTRAWING SIX INSTRUCTION 13700.1P

From: Commander, Training Air Wing SIX

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

Ref: (a) OPNAVINST 4790.2(series)
(b) CNAFINST 4790.2 (series
(c) CNATRAINST 13700.2L CH-1
(d) COMTRAWINGSIXINST 3710.1N
(e) MIL-STD-980

1. Purpose. To establish procedures for an effective Foreign
Object Damage (FOD) prevention program.

2. Cancellation. COMTRAWINGSIXINST 13700.1N

3. Discussion

a. FOD is a clear and present hazard requiring continuous
attention - no piece of FOD is too small. FOD prevention is an
all hands evolution, all the time. Damage to gas turbine
engines from both external and internal sources is a costly
problem that impacts readiness. Premature engine removals
continue to aggravate critical shortages of spare engines and
parts. The adverse effect on aircraft availability, safety, and
student Naval Flight Officer training is of prime concern.

b. One of the most important factors in FOD prevention is
the immediate and thorough investigation of each FOD incident in
order to prevent recurrence. Reference (a) provides FOD
prevention guidance. FOD deficiencies shall be reported to the
FOD Prevention Officer (FPO) and Chief of Naval Air Training
(CNATRA) N4 Detachment, Pensacola Quality Assurance (QA)
Representative.

c. Training Air Wing (TRAWING) SIX activities operating
aircraft and those directly supporting flight operations shall
take action to prevent aircraft engine damage. Government
contractor spaces will be maintained in accordance with the
governing contract. Damage prevention programs shall

incorporate the spirit and intent of the FOD and engine damage prevention programs delineated in references (a) through (d), and this instruction.

d. All contracted aircraft maintenance will follow the appropriate contract and will be monitored by CNATRA N4 QA. The governing contract will take precedence over this instruction.

e. All Contract Maintenance providers will be monitored by the assigned CNATRA N4 Representative. NOTE: The CNATRA N4 Representative will be contacted on all matters relating to the applicability of references (a) through (d) and this instruction.

4. Definitions

a. FOD. Damage that exceeds serviceable limits caused by ingestion of objects not organic to the engine.

b. Minor Damage. Damage which is repaired at the Organizational Maintenance Activity at a total man-hour cost not to exceed the greater of \$3,000 or 10 percent of reportable repair cost promulgated via message annually by the Naval Safety Center.

c. Major Damage. Damage on an installed engine which is removed for FOD and damage exceeds the minor damage dollar/man-hour/repair thresholds.

5. Responsibilities

a. COMDRAWING SIX

(1) Ensure vigorous participation in FOD prevention by the establishment of a base-wide FOD Prevention Council to discuss ways to reduce the overall FOD hazards on board Naval Air Station Pensacola. The Council will consist of one representative from each of the following: DRAWING SIX, CNATRA N4 QA, Training Squadrons TEN, and EIGHT SIX, Aircraft "O" Level Contractors, Air Operations, Fire Department, Facilities Maintenance Department, and Fuel Farm. The council shall meet, at a minimum, on a monthly basis.

(2) Designate an FPO in accordance with reference (c).

b. FPO

(1) Ensure an effective Engine Damage Investigation Team (END-IT) is established in the DRAWING SIX maintenance

organization per reference (c). Ensure Contractor Site Managers, via CNATRA N4 Detachment Pensacola, have in-depth and active FOD programs, including padeye cleanliness, in their activities that are in compliance with references (a) through (d).

(2) Upon initial notification of a suspected FOD incident, call CNATRA (N4212/NA44), DSN 861-2636, not later than 1600 the following workday. A FOD control number shall be assigned to be used in conjunction with enclosure (1) of reference (c). Ensure Commander and Safety Officer TRAWING SIX are notified of the incident. Notify appropriate Government Contract Supervisory Agency.

(3) Ensure a damage investigation is conducted using END-IT personnel. Prepare, review, and release the engine FOD Incident Report message in the format of enclosure (1) of reference (c). Also, ensure a copy is provided to the cognizant Squadron/Command Safety Officer.

(4) Submit the quarterly FOD Summary Report, required by reference (c), to CNATRA, no later than the fifth working day following the end of each quarter.

c. Squadron Safety Officer. Brief aircrew on cross-country procedures for aircraft which sustain engine damage.

d. Contract Supervisory Agencies

(1) Under the guidance of established contract procedures, Contract Supervisors shall ensure contract personnel comply with reference (d) and government-approved FOD-control procedures/programs as prescribed in the governing contract.

(2) Provide assistance to the FPO in gathering data from contract personnel and aircrew for FOD Hazard/Mishap Reports.

(3) Conduct a special audit when applicable or requested. Recommendations for correction of deficiencies shall be documented and copies provided to the contractor and FPO.

(4) Ensure contractors submit rough drafts of FOD Hazard/Mishap Reports in accordance with reference (a) to CNATRA N4 Detachment Pensacola QA for reporting.

(5) Monitor FOD prevention procedures for all TRAWING SIX activities and report problem areas to appropriate TRAWING SIX representative.

e. Organizational Maintenance Contractors

(1) Establish procedures to conduct an aggressive FOD Prevention Program per references (a) and (d), and in the areas designated in enclosure (1) of reference (c), to include padeye cleanliness.

(2) Notify N4 detachment, the FPO and Contract Supervisor immediately for each engine damage incident in the areas designated by enclosure (1) of reference (c).

(3) Quarantine and make aircraft immediately available for the END-IT inspection. The engine shall not be removed until the END-IT investigation of the aircraft is complete (during normal working hours).

(4) Assign a qualified and knowledgeable representative to the FOD Prevention Council.

(5) Designate and brief an END-IT for each squadron detachment. Submit names of END-IT personnel to the detachment FPO or Government Contract Supervisor Representative.

f. Operations Maintenance Division (OMD). Establish procedures to conduct an aggressive FOD-prevention program, per reference (a), and in the areas designated in enclosure (1) of reference (c).

g. Commanding Officer, NAS Pensacola

(1) Ensure formation of a Pavement Evaluation Team to coordinate a continuing program for the inspection, repair, and replacement of deteriorating surfaces of flight lines, taxiways, runways, and holding areas.

(2) Maintain a schedule to vacuum all areas which might contribute to FOD. During normal operating hours, ensure a vacuum truck is available and dispatched, as necessary, by the Base Operations Duty Officer.

(3) Implement procedures for receiving reports from aircrew relative to FOD hazards on the runways and ensure the FOD is removed prior to clearing aircraft through the areas.

(4) Ensure a conscientious and comprehensive FOD program is being carried out at outlying fields under the cognizance of NAS Pensacola.

(5) Whenever feasible, ensure FOD-free tires are

installed on all ramp vehicles. Control access to the flight line area and ensure all drivers perform FOD inspections of the tires of those vehicles given access by visually inspecting each tire to ensure there is no FOD embedded in the tire treads.

(6) Assign representatives from Air Operations and the Fire Department to serve on the FOD Prevention Council.

h. TRAWING SIX, Training Squadrons TEN, and EIGHT SIX, and CNATRA N4:

(1) Contract maintenance personnel shall perform FOD walkdowns in accordance with the appropriate governing contract.

(2) Aircrew shall perform a thorough FOD walkdown in the immediate vicinity of their aircraft prior to each flight.

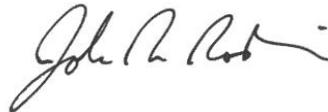
(3) The Preflight FOD walkdown shall encompass those areas surrounding the aircraft with particular emphasis on the areas in front of and to either side of the engines. All FOD found is to be picked up, e.g., rocks, cigarette butts, sticks, safety wire, and screws.

(4) All FOD found shall be turned in to the Plane Captain (if available), thrown away in a proper trash receptacle, secured in one's helmet bag or, as a last resort, secured on one's person in a zippered pocket. FOD that is brought back shall be turned in to maintenance with an explanation of where it was found.

6. Reports and Forms

a. The Engine FOD Hazard/Mishap Report shall be submitted as outlined in enclosure (1) of reference (c).

b. TRAWING SIX shall submit a Quarterly FOD Summary Report.



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