Pre – Season Inspection

(WHAM Meeting – 29 Feb 04)

A. Introduction

The continuing serviceability and airworthiness of your airplane should not be assumed, particularly after a lengthy period of inactivity such as winter. Was the airplane simply put in a dark corner of the workshop and forgotten last September or October? Was the airplane operating satisfactorily? Were any repairs required? If there are any doubts about the condition of the airplane, a close inspection should be done before you venture out to the first day of flying in the new season. Too many of us have experienced equipment failures early in the new season which could have been picked up during a Pre – Season Inspection.

B. End Of Season

The "How" and "What" of a comprehensive Pre – Season Inspection can be defined in large measure by the state in which the airplane was left at the end of the last flying season. If the powerplant, fuel and radio systems were removed to facilitate preservation over the winter period, then the de-preservation and re-assembly of the airplane lends itself to that critical Pre – Season Inspection. Because the winter lay-off period is a lengthy one and memories tend to be short, the use of "End of Season" written notes can be a help also, especially if required repairs will be put off until the following spring. The following details an inspection of a typical airplane which, at the end of the last flying season, had the powerplant removed and inhibited for storage, the fuel system removed and inhibited for storage, and the receiver battery removed and placed on a charge maintenance schedule.

C. Pre – Season Inspection

1. **Powerplant**
    i. Un-inhibit engine and clean
    ii. Inspect
        a. carb for free and full movement
        b. glowplug for operation
        c. muffler attachment for condition, security
        d. mounting lugs for cracks
        e. head and backplate bolts for torque
        f. propeller for oil soaking, nicks, cracks, balance
        g. spinner for condition and security
    iii. Re-install engine
        a. inspect engine mount for condition and security
        b. ensure mounting bolts are properly torqued

2. **Fuel System**
    i. Un-inhibit fuel cell and clean
    ii. Replace all hoses
    iii. Inspect fuel cell for cracks and condition
    iv. Inspect and clean filters and valves
    v. Install fuel cell – be aware of vibration sources

3. **Radio System**
    i. Inspect switch assembly for loose, broken connections
    ii. Inspect receiver antenna for breaks, kinks
    iii. Inspect all servos
        a. cables for loose, broken connections
        b. operating arms for condition, security
        c. full and free movement
    iv. Install fully charged battery

4. **Airframe**
    i. Inspect
        a. engine cowling for cracks and condition
        b. firewall for oil soaked areas, joints
        c. throttle pushrod for full and free movement, no metal to metal contact
        d. control surface pushrods for full and free movement, control horns for security, clevises for condition and locking device security
        e. control surfaces for full and free movement, damage to structure and covering, hinges for condition and security
        f. fuselage for damage to structure, covering
        g. servo tray for condition and security
        h. undercarriage for condition and security
        i. retractable landing gear, if equipped, for full and free movement
        j. steerable nose or tail wheel for full and free movement, condition and security
        k. vertical and horizontal stabilizers for damage to structure and attachment security
        l. wing for damage to structure, covering, attach bolts or dowels for condition and security

5. **Center of Gravity Location**

    i. Ascertain the C of G position if any significant repairs done or there is any doubt

6. **Before First Flight**

    i. Radio system
        a. range check
        b. check operation with engine running and shutdown
        c. check for excessive servo chatter, un-commanded control movement
    ii. Engine performance
        a. correct and reliable idle rpm
        b. reliable full power rpm w/o running excessively lean
        c. smooth and reliable transition from idle to full power rpm

7. **Happy and Safe Flying!**