INSPECTION AUTHORIZATION
INFORMATION GUIDE

Appendix 1
Sample Forms and Records
Figure 1. FAA Form 8610-1, Mechanic’s Application for Inspection Authorization.
Figure 2. FAA Form 8310-5, Inspection Authorization.
Figure 3. FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance) (front view). Note the FAA inspector’s data approval for a major repair (block 3).
8. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N12345J  03/02/20XX
Nationality and Registration Mark  Date

Aircraft Total Time 6,210 hours

1. Removed horizontal stabilizer from aircraft and opened top and bottom skin at rear spar. Removed cracked rear spar and replaced with new spar (part number FW10204-56) in accordance with FleetWing structural repair manual No. 410, chapter 2, and figure 9-12. Original rivet pattern and type (MS20470AD3-4) were maintained.

DATE: 02/25/20XX, inspected repair work to interior of horizontal stabilizer prior to closure of top skin. Found repair to be in accordance with data indicated and ready for final closure. An inspection of the complete interior of the stabilizer for hidden damage and condition at this time revealed no damage and good structural condition.

Martin M. Sawyer
Martin M. Sawyer, A&P 9486717 IA

2. Primed interior of stabilizer and closed upper skin. Installed on aircraft, rigged elevator and operationally checked in accordance with manufacturer's maintenance manual (FW4490).

3. No change in weight and balance.

END
March 22, 20XX

Total Aircraft Time 1,502.0 Hours

Tach Time 972.4 Hours

I certify that this aircraft has been inspected in accordance with an annual inspection as per Air Tractor AT502 owner’s manual and was determined to be in an airworthy condition.

Joseph P. Kline
A&P 123467899 IA

NOTE: This is an example of a record entry for an annual inspection determining the aircraft to be in airworthy condition. The date, aircraft total time, and tachometer (tach) or recorder reading are included. The tach or recorder readings should not be confused with the total time and should only be shown in addition to the total time entry. The mechanic’s certificate number is suffixed by the letters “IA” indicating that the mechanic is the holder of an inspection authorization. Maintenance done in conjunction with the inspection should be entered as a separate entry.

Figure 4. Example of an airworthy annual inspection maintenance record entry.
Figure 5. Airworthiness Directive Compliance Record (suggested format).
Pilot reported loss in aircraft's critical altitude. Inspection revealed the left engine's wastegate shaft warped and binding. The shaft's freedom of travel was also found to be partially restricted due to carbon buildup in the bearings. This is possibly a contributing factor in the warping. Recommend lubricating wastegate valve with approved lubricant such as Mouse Milk or WD-40 when shaft is cool.

**Figure 6. FAA Form 8010-4, Malfunction or Defect Report.**
<table>
<thead>
<tr>
<th>Operating Limitations</th>
<th>Zeph-Air 63-1A N40023</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPM</td>
<td>Do not exceed 2,300</td>
</tr>
<tr>
<td>Oil temperature</td>
<td>212°F max.</td>
</tr>
<tr>
<td>Airspeed limits—do not exceed:</td>
<td></td>
</tr>
<tr>
<td>Level flight or climb</td>
<td>95 knots</td>
</tr>
<tr>
<td>Glide or dive</td>
<td>130 knots</td>
</tr>
<tr>
<td>Gross weight</td>
<td>1,200 lb</td>
</tr>
<tr>
<td>Empty CG</td>
<td>14.4 inches aft of datum</td>
</tr>
<tr>
<td>Useful load</td>
<td>453 lb</td>
</tr>
<tr>
<td>Kinds of operation</td>
<td>VFR—day</td>
</tr>
</tbody>
</table>

**Figure 7.** Operating limitations placard.

March 22, 20XX

Total Aircraft Time       3,202.5 Hours

Hobbs Meter Reading    975.5 Hours

I certify that this aircraft has been inspected in accordance with an annual inspection, and a list of discrepancies and unairworthy items dated March 22, 20XX, have been provided for the aircraft owner.

Joseph P. Kline
A&P 1123456789 IA

**Figure 8.** Example of an unairworthy annual inspection maintenance record entry.
Figure 9. Discrepancy list to be provided to an aircraft owner when reporting an aircraft with unairworthy items after completing an annual inspection.
Weight and Balance Revision

N44933  Cessna 182L
Serial Number 18234329

Date: 05/06/20XX

Supersedes Computations found on FAA Form 337, dated 10/22/20XX

Removed the following equipment:

1. Turn coordinator P/N C661003-0211  2.50 lb  15.0  37.50
2. Directional gyro P/N 0760099  +3.12  13.5  +42.12

Total  5.62  79.62

1,709.60  35.26  60,282.20

–5.62  –79.62

Aircraft after removal  1,703.98  35.20  60,202.58

Installed the following equipment:

1. Vector2 Autopilot system including turn coordinator and directional gyro.

Weight  Arm  Moment
13.0 lb  32.7  425.13

1,703.98  60,202.20

+13.00  +425.13

*REVISED LICENSED EMPTY WEIGHT  1,716.98  60,627.71

*NEW USEFUL LOAD: 1,083.02

<table>
<thead>
<tr>
<th></th>
<th>Forward Limit Check (Limit +38.4)</th>
<th>Rearward Limit Check (Limit +47.4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wt</td>
<td>Arm</td>
</tr>
<tr>
<td>A/C Empty</td>
<td>1,716.98</td>
<td>35.31</td>
</tr>
<tr>
<td>Fwd Seats</td>
<td>170.00</td>
<td>36.00</td>
</tr>
<tr>
<td>Aft Seats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel (min.)</td>
<td>115.00</td>
<td>48.00</td>
</tr>
<tr>
<td>Oil</td>
<td>22.00</td>
<td>–15.00</td>
</tr>
<tr>
<td>Baggage</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2,023.98</td>
<td>35.50</td>
</tr>
</tbody>
</table>

Joseph P Kline
Joseph P Kline
A&P 123456789 IA

NOTE: Computations are shown. Form is signed, dated, and identifies the computations or figures it supersedes. It is recommended that the manufacturer's weight and balance data forms be used for specific aircraft.

Figure 10. Weight and balance revision for a typical light, single-engine aircraft.
July 12, 20XX

Aircraft Total Time: 1,566 hours

Complied with Airworthiness Directive (AD) 20XX-12-10R1, effective date June 30, 20XX. Modified the airplane by compliance with paragraph 2(b) of AD. Installed FleetWing Service Kit SK 1910 as required by AD. No recurring action required.

Bill Quinlan
A&P 143298671

**Figure 11.** One-time Airworthiness Directive compliance entry.

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May 23, 20XX

Engine Total Time: 720 hours

Complied with Airworthiness Directive (AD) 20XX-10-12, Alcon Turbo Chargers by inspection as required by paragraphs (b) through (g) of AD. Turbine housing found satisfactory, next inspection due at 920 hours.

Joe Knight
A&P 279387792

**Figure 12.** Recurrent Airworthiness Directive compliance entry.