

DUNCAN INTELLIGENCE

• Edited by Dave Schiver & Skip Laney • Fall 2002

Fuel Quantity Calibration

By Dave Schiver

How many times have you had strange readings on your Fuel Quantity Indicator when trying to set “Empty” or “Zero's” on a Fuel Quantity Calibration? More times than not, your Compensator Probe is trying to compensate for air instead of fuel. The easiest way around that is short the center conductor of the Compensation line on the probe side to ground. If you are checking the Capacitance value of the Compensator Probe on a bench, short the Compensator center conductor to ground on the test set. This will ensure that you are not inducing an error on your part. Please remember that it is good practice to never touch the Probe surface.

31 Model Stall Warning

By Dave Schiver

Duncan Aviation has recently discovered an error through omission in the Learjet Maintenance Manual in regards to the Stall Warning System Calibration check in Chapter 27-31-00 Page 203 dated Dec. 07/01. There is a note that states: “The angle-of-attack vane to vane plate mark tolerance shall be +/- 0.03” for shaker operation...” The note fails to mention that you are allowed +/- 0.03” for the “red line” mark also.

The Value Of Paint, Plan For Protection

By George Bajo

Our current economy is a catalyst for the exchange of aircraft and new paint is often a differentiator in the decision-making process. If you are considering buying or selling an aircraft, consider the condition of its paint. An aircraft kept in a quality coat of paint is less likely to develop corrosion. For this reason, aircraft should be stripped, inspected and repainted by a reputable aircraft paint facility every five to seven years.

Paint technology has improved considerably in recent years. The new High Solids (HS) primers and paint have evolved into excellent products with proven performance on all surfaces, including composites. Flexible agents in HS paint and primers, combined with skilled paint technicians, ensure a long-lasting, top-quality finish and maximum protection for your aircraft.

Also consider that interior or old paint can cause electrical problems affecting comm radios and navigation receivers. In addition, many aircraft manufacturer's “continuing maintenance instructions” for RVSM aircraft stress that the paint around the static ports needs to be kept in “new condition” with no paint chips allowed to disrupt the airflow over the static sensing areas, which could cause altitude errors.

X-rays And NDT Inspections

By Dan Fuoco

The main purpose of X-ray and NDT procedures is to detect cracks and corrosion; however, other non specific damage/abnormality may also be detected using these procedures.

Corrosion typically appears as more dense areas or individual spots, irregular in shape with poorly defined extremities. It is generally agreed that corrosion of less than 10% in depth of the total material thickness penetrated by the X-ray beam will NOT be readily detected by the conventional radiographic method.

Don't Make Two Trips For ELT, RVSM & TAWS

By Dave Pleskac

Three avionics mandates are quickly approaching:

ELT—January 1, 2004

RVSM—December 1, 2004

TAWS(EGPWS)—March 29, 2005

Nearly 7,500 aircraft worldwide still need these upgrades.

In order to minimize customer headaches, Duncan Aviation recommends that these mandates be completed now while performing other required maintenance. This “killing two birds with one stone” approach will ensure compliance by the deadlines and may also save money, downtime and prevent an AOG situation because a rush may exist next year if operators delay compliance.

**DUNCAN
AVIATION**



For Lear technical info, we have the experts. Our Lear Team consists of tech reps and technicians with experience in airframe/engine, interior/exterior completions, avionics installations, component repair and parts.

In Lincoln, NE, contact **Skip Laney** at
402.475.2611 or 800.228.4277

In Battle Creek, MI, contact **Pete Kilmartin** at
616.969.8400 or 800.525.2376

Receive the Duncan Intelligence by e-mail—Go to www.duncanaviation.com/newsreq.html