

# DUNCAN INTELLIGENCE

• Edited by Bill Schroeder & Skip Laney • Winter 2001

## Test Light Usage

By Bill Schroeder

How many times have you heard: "Check for power at Pin A." You take the plug apart, find pin "A," probe it with your VOM and look at the meter window or listen for the tone.

With the new digital, high impedance multimeter, selected to indicate voltage, we can read potential. This reading will not tell us if the circuit is capable of carrying current. Even the diode test mode, cannot give us an indication of current capabilities. Often, a circuit element, such as a relay, connector, or circuit breaker will develop high resistance. Voltage indications will be normal, yet the component under test will not function.

In many cases, the application of a current load to the circuit, such as a test light, will help to isolate the trouble source. A bulb of the proper voltage and current value, used to load the circuit, will prove that the circuit is supplying both current and voltage.

Duncan Aviation recommends making the test light from a tail nav light bulb (approximately 40 watts), a couple of wires (longer is better) and some solder and electric tape. Solder one wire to the bulb tip and the other to the brass base. Wrap the bulb base and tip with tape to preclude shorting. See future Duncan Intelligence articles for additional test light usage tips.

## Inspection Panel Paint Problems?

By George Bajo

Customers frequently ask Duncan paint technicians for tips to prevent paint breakage and chipping around panels and on screw heads during frequent inspections. While there is no good prevention method after the aircraft has been painted, we have had success removing and painting frequently removed panels and screws separately from the aircraft during a complete paint job.

### Disadvantages of Removal

- Additional cost/downtime.
- Visible panel seams.

### Advantages of Removal

- Preserves paint around frequently removed panels.
- Reduces labor hours required for touch-up during future inspections.

## Ferry Permits

By Dick Hyde

A ferry permit is required to move a damaged aircraft from an accident site to a maintenance facility. A U.S. ferry permit is valid only from a U.S. border to a stated maintenance facility in the U.S. and may be acquired through the FAA at no cost. If a movement is required from outside of the U.S., an agent will need to contact an FBO within that country to secure the permits that will be needed in order for the airplane to leave. Flight permits are required from the country the airplane is departing from as well as each country that the airplane will fly over before entering the U.S. Depending upon the FAA and the temporary repairs needed, permits are usually granted within 2-3 days.

## Duncan Aviation Receives TAWS STC for Learjet 35As

By Ron Hall

Duncan Aviation has been awarded an STC for Universal Avionics Terrain Avoidance Warning System (TAWS) with display on the Universal MFD-640 in a Learjet 35A. This Universal TAWS installation by Duncan Aviation complies with the upcoming Class A and Class B TAWS mandate.

The TAWS unit accepts GPS position information from the Universal UNS-1C FMS to prevent controlled flight into terrain (CFIT) accidents. As certified, the universal MFD-640 displays TAWS, Radar, FMS maps, VOR/DME and TCAS on the 6.4-inch color flat panel display.

If you have TAWS questions, you're not alone! Duncan Aviation is compiling a booklet entitled Straight Talk About TAWS that delivers answers about the TAWS mandate. Call for a free copy of Straight Talk About TAWS.

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*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.*

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