

# DUNCAN INTELLIGENCE

Unforgettable People—Legendary Service • Edited by Jeff Manion • Winter 2000

## Is Your Autopilot Developing A Mind Of Its Own?

Just as we need our sense of sight to fly an aircraft, an autopilot needs to know what attitude the aircraft is at and the rate of change in attitude to compute a proper response. The vertical gyro acts as the “eyes” of the autopilot. If this information is missing, the autopilot will give a “hard-over” response in whatever direction drive is required. If the gyro is sluggish or slow, the rate information will not be correct for the autopilot and the result will be wing-rock or pitch porpoise. This symptom is usually fairly slow and constant. The attitude information is electrically picked off slip rings in the gyro by brushes. If the contact between brush and slip ring becomes intermittent due to tension or resistive contact, the autopilot interprets this as change in attitude and attempts to respond accordingly, resulting in jittery or rapid oscillation. Depending on the gyro installed there may also be Service Bulletins addressing this problem.

For more info, contact Larry Troyer in LNK at 800.228.4277, E-mail Larry at [larry\\_troyer@duncanaviation.com](mailto:larry_troyer@duncanaviation.com) or contact Pete Kilmartin in BTL at 800525.2376, E-mail Pete at [pete\\_kilmartin@duncanaviation.com](mailto:pete_kilmartin@duncanaviation.com)

## Don't Let Your Purge Restrictor Clog

Hamilton-Sundstrand APU's normally purge about CC's of fuel after start. If this doesn't happen, your purge restrictor may be clogged.

## Do You Need A Eurocontrol Extension?

As of January 1, 2000, aircraft with TOW of 15,000kg/33,000lbs traveling in European airspace (ECAC) are to have an operational ACAS II system.

The ACAS II requirement is met with a TCAS II system with 7.0 or MOPS 7 software. The TCAS system will also need recertification due to the new part number being installed. The STC which the system was “originally” certified under must also be revised. Only the original STC holder is being allowed to make these amendments.

Eurocontrol will allow an extension for compliance until March 31, 2001, for operators whose system currently has software version 6.04. Due to certification time constraints, it's advisable to apply to Eurocontrol for an extension ASAP. Exemption forms are available on the Eurocontrol website at [www.eurocontrol.be/projects/eatchip/acas/](http://www.eurocontrol.be/projects/eatchip/acas/) (Select Annex D).

Please call Dave Pleskac in LNK at 800.228.4277, E-mail Dave at [dave\\_pleskac@duncanaviation.com](mailto:dave_pleskac@duncanaviation.com) or contact Dennis DeCook in BTL at 800525.2376, E-mail Dennis at [dennis\\_decook@duncanaviation.com](mailto:dennis_decook@duncanaviation.com)

## Be Sure Your Copper Gasket Is Installed

Hawker 1000 Pratt & Whitney 305B engines may have one or both of two different part numbered ignition cables. Pre-Mod Pratt & Whitney SB 24340 ignitor cables have a copper gasket on the end of the cable that connects to the ignitor plug. Damage to the ignitor plug can occur if this copper gasket is not installed. Post-mod cables do not have this copper gasket.

For more info, contact Roy Olsen in BTL at 800.525.2376, E-mail Roy at [roy\\_olsen@duncanaviation.com](mailto:roy_olsen@duncanaviation.com) or contact Dick Hyde in LNK at 800.228.4277, E-mail Dick at [dick\\_hyde@duncanaviation.com](mailto:dick_hyde@duncanaviation.com)

## Does Your Windshield Heat Up Properly?

If you have experienced a windshield heat failure, be aware that you can have 120 VAC at the window terminals to ground but still have no heat if you are missing two of the three AC phases. Check for 240 VAC between any two of the window terminals. If you have this voltage, the window should heat.

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AVIATION



*For Hawker technical info, we have the experts. Our Hawker 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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