

DUNCAN INTELLIGENCE

Astra - Fuel Odor In Cabin

•*Tim Garity*

We have had several complaints of fuel odor in the cabin. Investigation concluded that fuel was seeping past the rivets and bolts common to the central tank lower and the cabin floor substructure. With time the sealant on these fasteners breaks down and small amounts of fuel are allowed to seep past. This fuel accumulates in the insulation below the cabin floor and eventually shows up as an odor in the cabin. The repairs are fairly extensive. The floorboards, insulation and ducting must be removed from the aft cabin, the central tank lower accessed, and many fasteners removed and resealed.

RVSM and Continued Airworthiness

•*Dave Lewis*

As DRVSM takes affect, continued maintenance will be an ongoing concern. The age and the method by which the aircraft was made RVSM capable will determine how maintenance will be performed. New aircraft are delivered RVSM capable, middle aged aircraft will typically have a factory solution through a factory service bulletin or STC, and older aircraft find their solution through an independent STC.

Some models have more than one solution and this is where the confusion lies. When an aircraft is in for maintenance, the service center must know the exact RVSM solution used. Without this information, wrong procedures could be applied, resulting in an unsafe aircraft or lost schedule.

Duncan Aviation and the local FAA FSDOs strongly encourage operators to carry the RVSM Operations Manual on the aircraft at all times. This includes all the information the facility needs to maintain RVSM to proper standards. The manual will direct technicians to factory maintenance manuals or identify an STC which will have its own instructions for continued airworthiness (ICA). A copy of the STC is typically kept in the RVSM Ops Manual.

Battery Technology

•*Karl Detweiler*

Securaplane and Enersys have developed a true, solid lead acid main aircraft battery. This technology has been previously used in military and commercial applications and is now available for corporate aviation. Batteries have been installed on Westwind aircraft and many other corporate aircraft models.

This battery has many advantages over liquid and gel cell lead acid batteries and NiCad batteries. It can be stored fully charged for 24 months with no required maintenance and when in use, it only requires servicing every 18 months. It has improved performance at hot and cold temperatures, eliminating thermal runaway potential and can be completely discharged and recharged.

Since it is a true, solid battery, it is rated non-hazardous and can be shipped by standard means. Turning over or tipping will not cause damage.

This battery includes a 30 month warranty (not pro-rated) that begins at the time of installation, and is in addition to the 24 month shelf life. A lead acid battery's life span is usually 15-18 months, but this battery has a 30 month warranty, and therefore should have the same life span as NiCad batteries.

Battery manufacturers rate their batteries at full capacity when new. So a 25 amp/hour battery is considered 25 amp/hour at full capacity when it leaves the production line. When Securaplane says its battery is a 25 amp/hour battery, it is rated 25 amp/hour at 80% of battery capacity. Therefore a new Securaplane 25 amp/hour battery, at full capacity, will have 31 amp/hour performance.

This cost is approximately 1/2 the cost of NiCad batteries and there is no need to ever replace the battery. If the battery eventually requires cells, its two cells can be "re-blocked" for about 2/3 the cost of a new battery and again has a full 30 month warranty.

Call Chris Gress for further information at 800.228.4277 ext. 1664.

