NATIONAL TRANSPORTATION SAFETY BOARD
Office of Research and Engineering
Materials Laboratory Division
Washington, D.C. 20594

June 13, 2006

MATERIALS LABORATORY FACTUAL REPORT Report No. 06-054

A. ACCIDENT

Place	:	Ketchikan, Alaska
Date	:	January 25, 2006
Vehicle	:	Aero Vodochody L-39MS
NTSB No.	:	ANC06FA018
Investigator	:	Scott Erickson

B. COMPONENTS EXAMINED

Rear cockpit annunciator panel

C. DETAILS OF THE EXAMINATION

The rear cockpit annunciator panel received for examination consisted of thirteen rows of three indicators, each with three micro-sized single filament light bulbs. The received panel is shown in Figure 1 and was heavily sooted. Figure 2 shows a diagram of the annuciator panel. The light covers for the “Generator Overheat” and “Saphire Low Oil Pressure” lights were cracked. Most of the bulbs had intact filaments. The “Min Alt”, “Minimum Fuel Pressure”, “Saphire Starting”, and “Anti-ice On” lights each had one bulb with a broken filament. The “II Hyd Failure”, and “Chip Detector” lights each had two bulbs with a broken filament. None of the filaments had hot stretching relaxation of the coils (damage that, if present, would be an indication of impact loading while the filament was on). However, the “Emergency Hyd”, “Emergency Generator” and “Brake Fail” indicators each had one bulb in which the filament had been tightly stretched between the filament posts during the bulb manufacturing process.

Nancy B. McAtee
Chemist

Image No.:0603A00215, Project No.: 2006030002

Figure 1. Rear cockpit annunciator panel.

Max Mach	{Waves}	Canopy Unlocked
I Hyd Fail	II Hyd Fail	Emergency Hyd
Min Alt	Main Generator	Emergency generator
Cabin Pressure	3X 36 V Fail	115 V Fail
150 kg fuel	Fuel filter	Emergency Eng System Start
Minimum fuel pressure	Engine computer	Generator overheat
No engine start	Engine Start	Max eng. EGT
Compressor stall	Saphire starting	Max. APU EGT
Oil temp	Chip detector	Saphire low oil pressure
Brake fail	Engine vibration	Oil filter
Suit vent	Marker beacon	Decision height
Air cond off	{Snowflake}	Anti-ice on
Air cond fail	Tip tank empty	Drop tank empty

Figure 2. Diagram of rear cockpit annunciator panel.