

Antonov 124-100, RA 82044

AAIB Bulletin No: 7/99 Ref: EW/C98/11/6 **Category: 1.1**

Aircraft Type and Registration: Antonov 124-100, RA 82044

No & Type of Engines: 4 D-18T turbofan engines

Year of Manufacture: 1993

Date & Time (UTC): 30 November 1998 at 1233 hrs

Location: Stanstead Airport

Type of Flight: Ground Operations - Cargo Loading

Persons on Board: Crew - Not Applicable - Passengers - Not Applicable

Injuries: Crew - Not Applicable - Passengers - Not Applicable

Nature of Damage: Heat damage to aerodynamic fairings above left-hand APU exhaust

Commander's Licence: Not Applicable

Commander's Age: Not Applicable

Commander's Flying Experience:

Last 90 days - Not Applicable

Last 28 days - Not Applicable

Information Source: AAIB Field Investigation

Ground staff were preparing to load the aircraft using the two internal 10 tonne gantry cranes powered by a ground power unit (GPU). The GPU did not produce sufficient current due to an apparent fault so the ground crew decided to start the left hand APU, which is rated for this task. The aircraft is equipped with two APUs, one in the rear of each main landing gear fairing, for engine starting as well as supplying electrical, hydraulic and air conditioning systems. During the start cycle, the crewman monitoring the Exhaust Gas Temperature gauge at the flight engineer's station noticed that the temperature was increasing rapidly; he therefore cancelled the start cycle before the temperature exceeded its maximum allowable value. During this process, a flame was emitted from the APU exhaust that damaged the aerodynamic composite and honeycomb fairings above the exhaust.

The APU start cycle is controlled by an electronic control unit that sequences the elements of the start cycle. The control unit was tested, and the fuel manifold valves were checked for leaks; both were satisfactory. The APU, which had run for 90 hours since overhaul, was therefore returned for

investigation and repair under warranty. The Russian FAA have determined that the incident was caused by the failure of the main starting manifold valve, and further work is being carried out to identify the reason for the failure. Any further information relating to this incident will be published as an addendum to this bulletin.