

NOTES ON LIGHTNING STRIKES ON AIRCRAFT

The following details of lightning strikes on aircraft have been received from the Department of Civil Aviation.

"On 24 January 1964, flying between Sydney and Canberra, when approximately abeam Marulan at 14,000 feet (time 11.20 G. M. T.) a Viscount aircraft was struck by lightning. Flight conditions were in light, comparatively dry cloud and outside air temperature -3°C . Very slight turbulence was being experienced. The strike was on the forward end of the fuselage and was followed by a small amount of smoke on the flight-deck. All systems, compasses and radio aids were immediately checked and found to be normal. A distinct "pounding" on the fuselage was diagnosed as a broken H. F. aerial which was flying loose at the rear end. Pressurisation was normal but as a precaution the aircraft was descended and depressurised. On arrival at Canberra the remaining piece of the H. F. aerial was removed and a thorough visual inspection made of the aircraft. The aerial lead into the H. F. transmitter had fused and this accounted for the smoke on the flight-deck. Externally there was some scorching of the point on the fin adjacent to the H. F. aerial attachment point. No other evidence of the lightning strike was apparent. Approval was received from ATC Sydney for the aircraft to return without H. F. radio facilities. Again, as a precaution the flight was made at 12,000 feet with reduced pressure differential. Just prior to being hit by the lightning the aircraft had passed between two moderately active storm cells which were 15 miles apart and was about 8 miles behind them when the strike occurred.

On 11 June 1964, a Viscount aircraft suffered both port and starboard aileron damage as a result of the lightning strike when in the vicinity of Burragorang at 0920 E. S. T. The aircraft was in cumulous type cloud in a rain area, was experiencing light to moderate icing, slight continuous turbulence and the strike occurred at 11,000 feet on a descent from 15,000 feet. Outside air temperature was -7°C . There had not been any evidence of electrical activity prior to the strike and the aircraft storm warning radar showed no signs of storm cells but did indicate areas of precipitation. Thirty minutes afterwards, in the same area under similar circumstances another aircraft reported a lightning strike. No damage was incurred in this latter case, but detailed information is not available. The nature of the aileron damage and the type of weather prevailing raises some conjecture that an aircraft "build up" of static electricity may be a more feasible explanation of this incident than an actual lightning strike."