

CORRESPONDENCECloud Forms Associated with "Jet Streams"

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After a study of clouds associated with Jet Streams in this area during the past year, I feel that in most cases a definite connection has been found between the Jet Stream and high level cloud formations. Whilst paragraph 3 of Circular Instruction 39/795 of 10th February, 1955, states that no association has been found on the major number of occasions on the mainland, it appears the statement is not correct for this area.

Photographs taken by V.J. Schaefer were in the northern parts of the U.S.A., a latitude similar to Tasmania. A striking similarity has been found in cloud formation here and with some of those pictured in Mr. Schaefer's article in "The Aeroplane" of October 30th, 1953. In particular plates 8, 9 and 10 of the article show clouds which are most commonly seen here with a Jet or near Jet stream.

I have kept a close watch on middle and high cloud formations, particularly when a Jet stream was suspected, and in nearly all cases when the Jet stream was shown by Nephys or Rawins, a characteristic high level cloud could be observed. The cloud usually was scattered, and at times only visible for short periods during the day. It was noted also that the three hourly synoptic observations may not have shown any Ci cloud all day, although between synoptic periods it could be seen. For this reason a study of the Synoptic Observation book would not give a true picture of Ci formations during the day.

The high cloud was much whiter than usual, having a rippled effect with definite Cc characteristics. The orientation of the main cloud form was usually nearly the same direction as the direction of the Jet Stream. The ripples in the cloud were at right angles to the main cloud, but at times the direction was confused.

In "Notes on the mean Jet-Stream over Australia" by W.J. Gibbs, published August 1952, two maximum streams are shown in the Australian region, varying according to season. Is it possible that the Northern stream over the central Mainland may not show significant Ci forms whilst the stream in this latitude does?