New Zealand Cloud Types

Cloud Base: 20,000ft – 40,000ft

- **Cc** Cirrocumulus: A greyish or blueish middle-level cloud sheet. It usually develops from gradually warming middle levels. Turbulence can be encountered below the cloud.

- **Cs** Cirrostratus: A greyish or blueish middle-level cloud sheet. It usually develops from gradually warming middle levels. 'solar halos' are not observed with this cloud. Turbulence is usually moderate or severe when thick As is associated. When assessing the threat – or absence of threat – to aviation safety, each weather situation must be taken in isolation. The weather situations below are three examples of the nasty in which there may be threats to aviation safety.

Cloud Base: 6500ft – 20,000ft

- **Ac** Lenticularis: A greyish or blueish middle-level cloud sheet. It usually develops from gradually warming middle levels. Turbulence can be encountered below the cloud.

- **Sc** Stratocumulus: A greyish or blueish middle-level cloud sheet. It usually develops from gradually warming middle levels. 'solar halos' are not observed with this cloud. Turbulence is usually moderate or severe when thick As is associated. When assessing the threat – or absence of threat – to aviation safety, each weather situation must be taken in isolation. The weather situations below are three examples of the nasty in which there may be threats to aviation safety.

Cloud Base: Surface – 6500ft

- **St** Stratus: A low uniform-looking grey low-level layer cloud. It forms when warm moist air moves over a cool surface or when rain from nimbostratus falls out. Fairly uniform-looking grey low-level layer cloud. It forms when warm moist air moves over a cool surface or when rain from nimbostratus falls out.

- **Cu** Humilis: A convective cloud which is also called 'fair weather cumulus'. It has little vertical development and is often associated with a front. Ac lenticularis often occurs in coastal areas under the influence of 'old' anticyclones.

Abbreviations

- **Ci** Cirrus
- **Cc** Cirrocumulus
- **Cs** Cirrostratus
- **Ac** Altostratus
- **As** Altocumulus
- **Ns** Nimbostratus
- **Sc** Stratocumulus
- **St** Stratus
- **Cu** Cumulus
- **TCu** Towering Cumulus
- **Cb** Cumulonimbus

Cloudy weather occurs more frequently over New Zealand than over many parts of the world. Clouds in New Zealand are often associated with cold fronts, low pressure systems, and rain. Clouds that form as a result of precipitation can be hazardous, as they can reduce visibility and cause turbulence. Some clouds are formed from the lifting of a layer of air, while others form from the condensation of water vapor. The diagrams and text in this document provide information on various cloud types and their characteristics, which can help pilots and other aviation professionals understand and navigate through these weather conditions.