

TURBULENCE WITHIN CLOUDS.



Turbulence occurs within cumuliform clouds

because of the upcurrents and downdraughts within the clouds.

Turbulence is also found in and around significant cloud developments, especially in **cumuliform cloud**, which are **convective clouds** created by **rising air currents**.

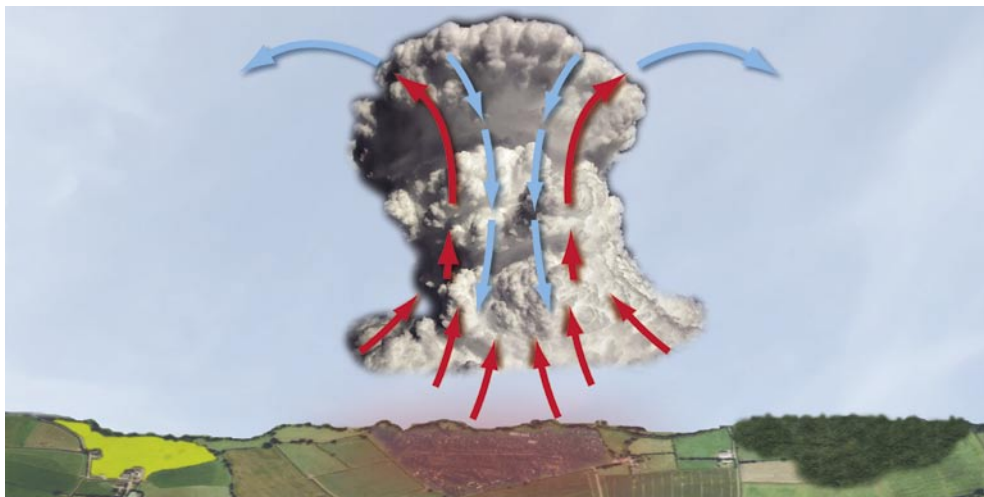


Figure 9.2 Turbulence within clouds is generated by rising air.

The **vertical extent** of a **cumulus cloud** is therefore a very good indication of the **intensity** of the **vertical air flow beneath and within the cloud**, and, consequently, the **intensity** of the **turbulence in and around the cloud**. For this reason, pilots must treat **large cumuliform clouds** with caution. **Cumulonimbus clouds** generate the most violent turbulence. In **cumulonimbus clouds**, and well developed **cumulus cloud**, both **upcurrents** and **downdraughts** are present within the cloud, itself.

TURBULENCE SURROUNDING CLOUDS.

Around well developed **cumulus cloud**, (**cumulus congestus**), and **cumulonimbus**, **downdraughts** are active at some distance from the cloud itself. These **downdraughts** cause severe turbulence.



Treat cumulus congestus and cumulonimbus clouds

with great caution. Severe turbulence will almost certainly be present within and around these clouds.

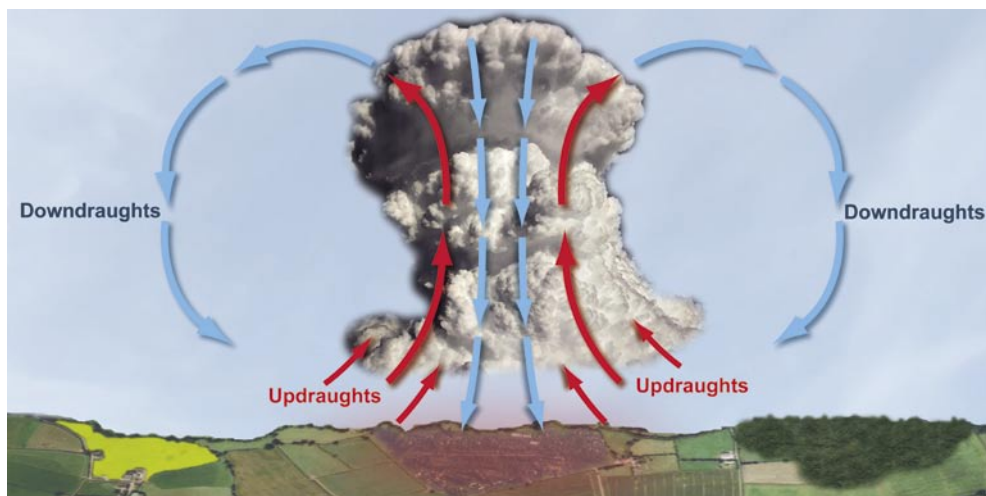


Figure 9.3 Downdraughts can cause severe turbulence at some distance from the cumulus congestus and cumulonimbus.