## SHAPIRO-KEYSER MODEL OF MID LATITUDE DEPRESSION

- The Shapiro-Keyser (SK) model of the mid-latitude depression (cyclone) life cycle is a recent development of the Polar Front model, first proposed by the Norwegian school of meteorologists in the early 1900's.
- It sees the development of a warm core rather than the cold core normally seen in the traditional model.
- The main changes are seen at the early stages when the low deepens more rapidly (perhaps producing a 'bomb' cyclone) and in the occluding stages when cold front fracture occurs.
- In the SK model the Warm Conveyor Belt (WCB) and Cold Conveyor Belt (CCB) airstreams are more pronounced and are usually stronger.
- The normal occluded front does not develop due to the cold front fracture and cold (polar) air begins to wrap around warm (tropical) air in the core to form a Warm Seclusion (separate from the warm sector).

## Cold air wraps around warm core **Classic T bone frontal pattern** ш of SK cycle I Warm seclusion Frontal fracture

## SK MODEL : DEPRESSION LIFE CYCLE