ORDINARY CELLS

- short-lived (30-60 min)
- move with the mean wind

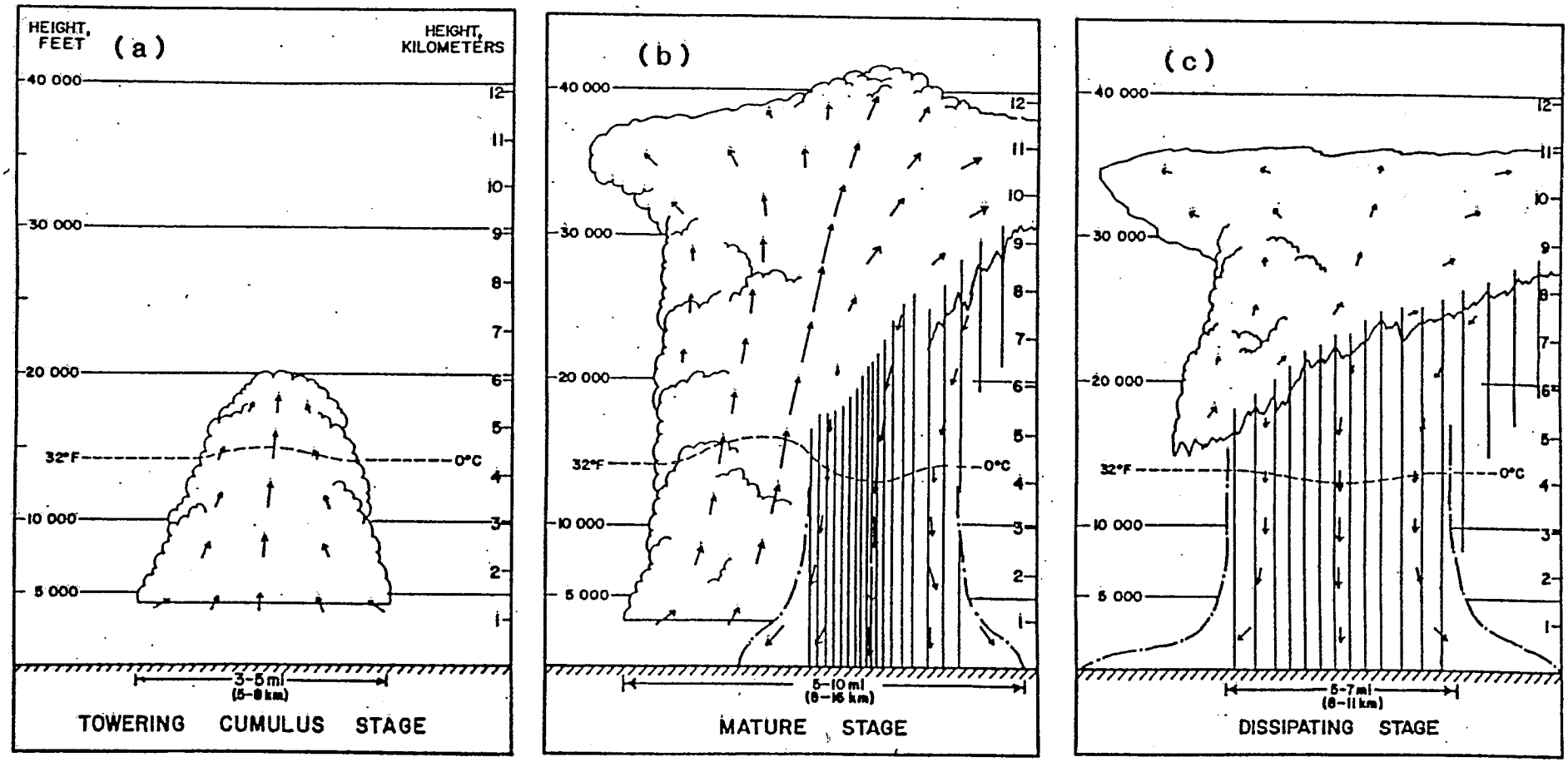
MULTICELLS

- group of ordinary cells
- cells move with the mean wind
- system propagates discreetly, with new cell growth often on a preferred flank

SUPERCELLS

- quasi-steady (often > 2 h)
- rotational updraft
- continuous motion to right (left) of mean wind
- BWER, hook echo?, tornado?, large hail

bounded
weak
echo
region



Ordinary Cells

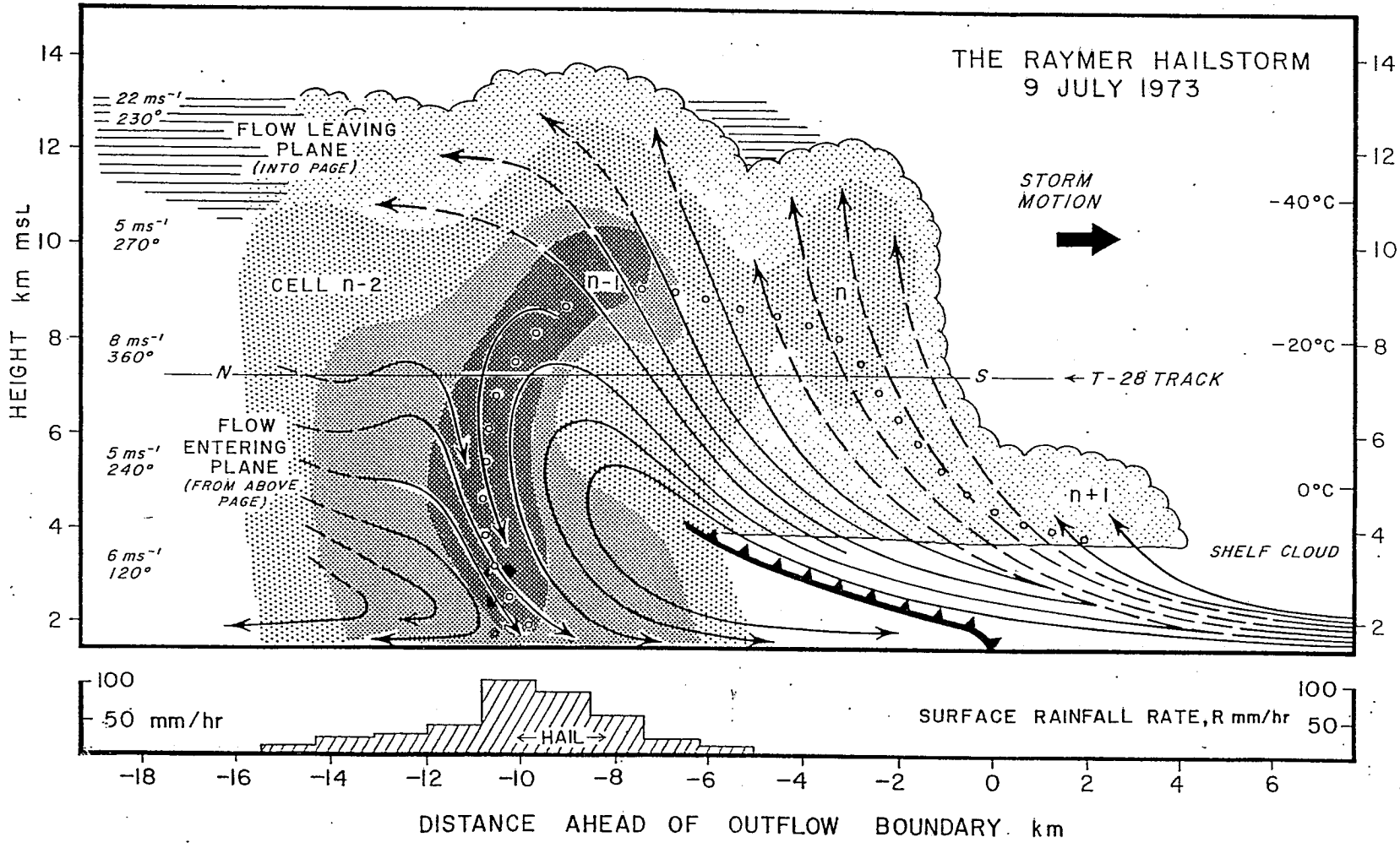
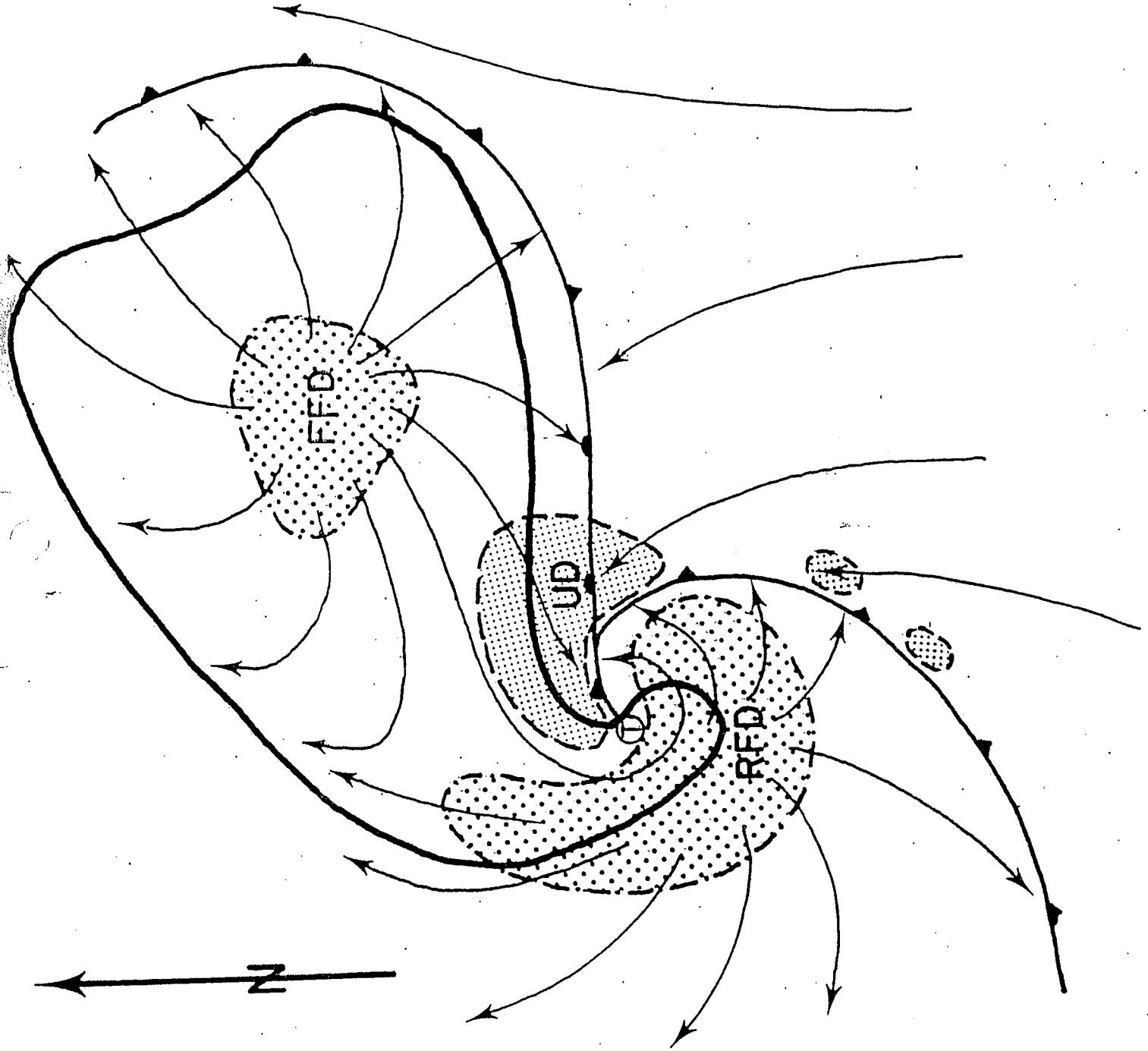
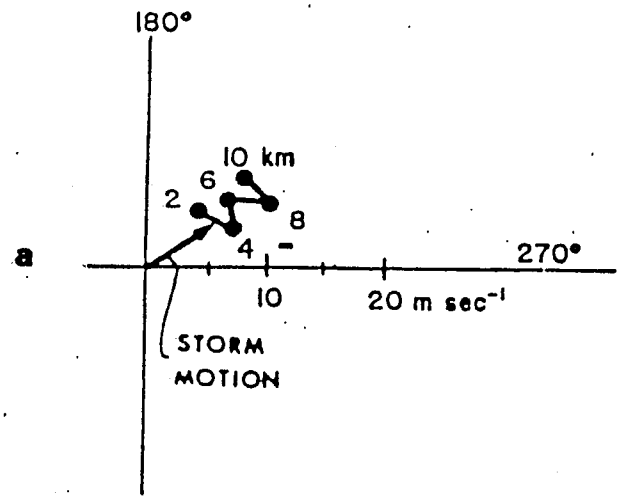


Figure 15.2

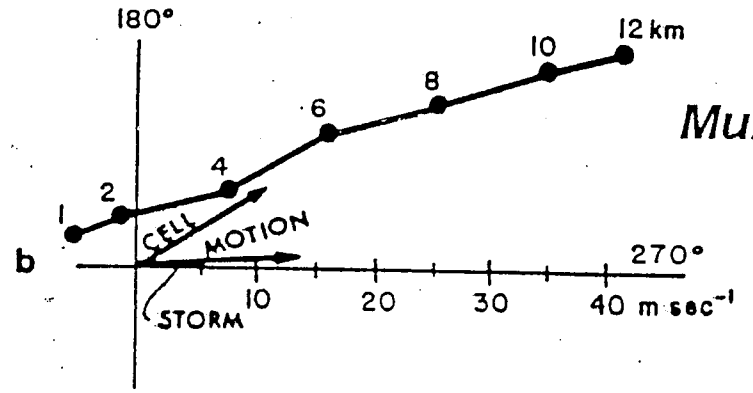
Multiple cells


RFD
UD
θ
RFD
N

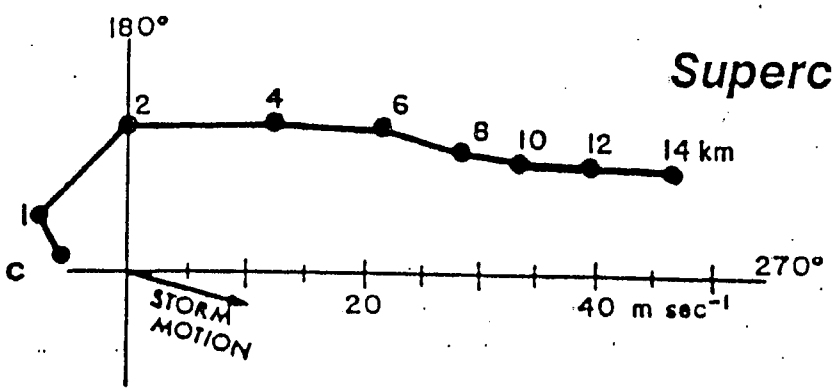
Chisholm and Renick (1972)



Ordinary Cells



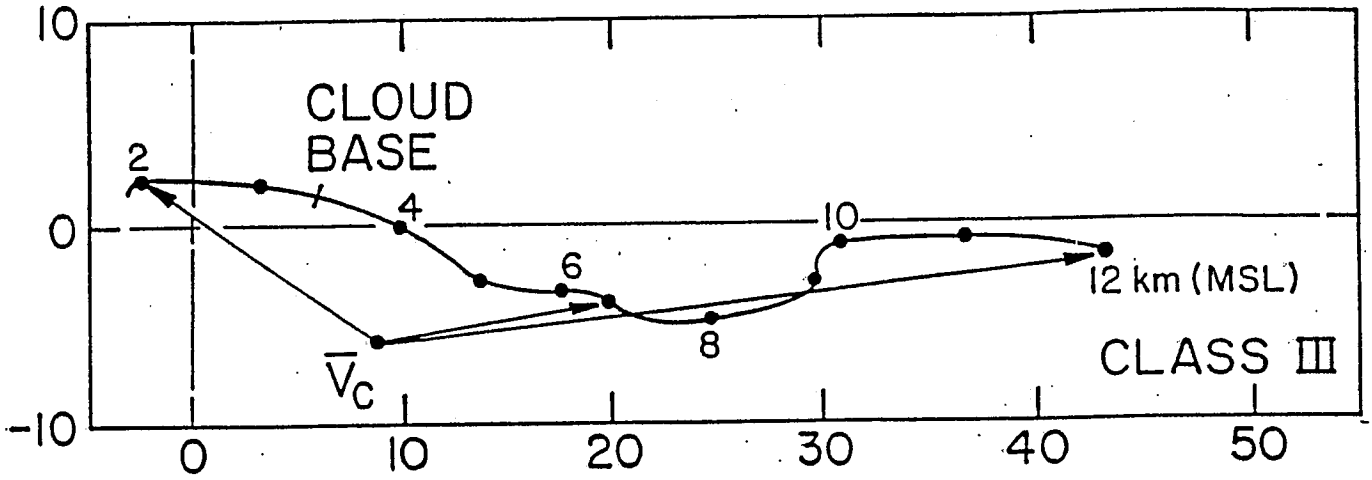
Multicells

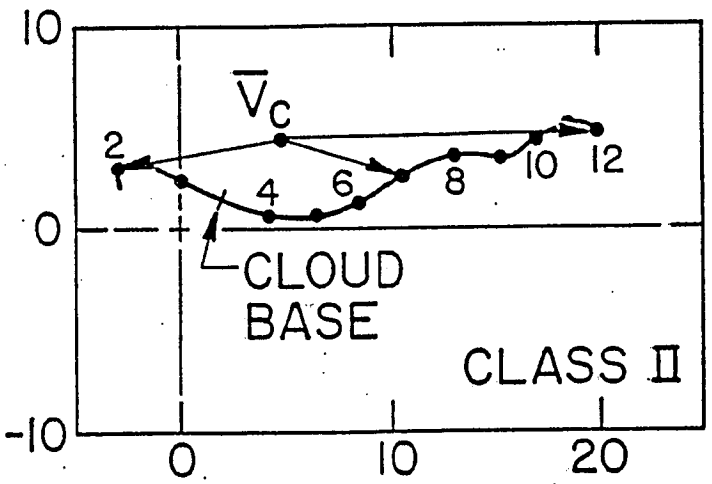


Supercells

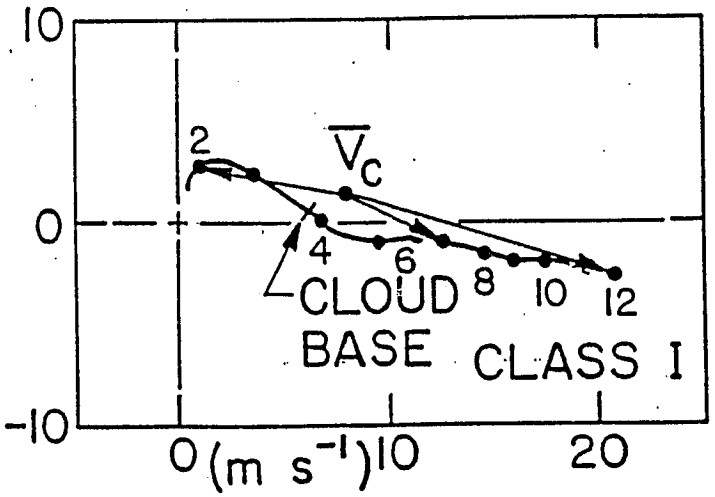
Fankhauser and Mohr (1977)

Long-lived cells





Multicells



Ordinary Cells

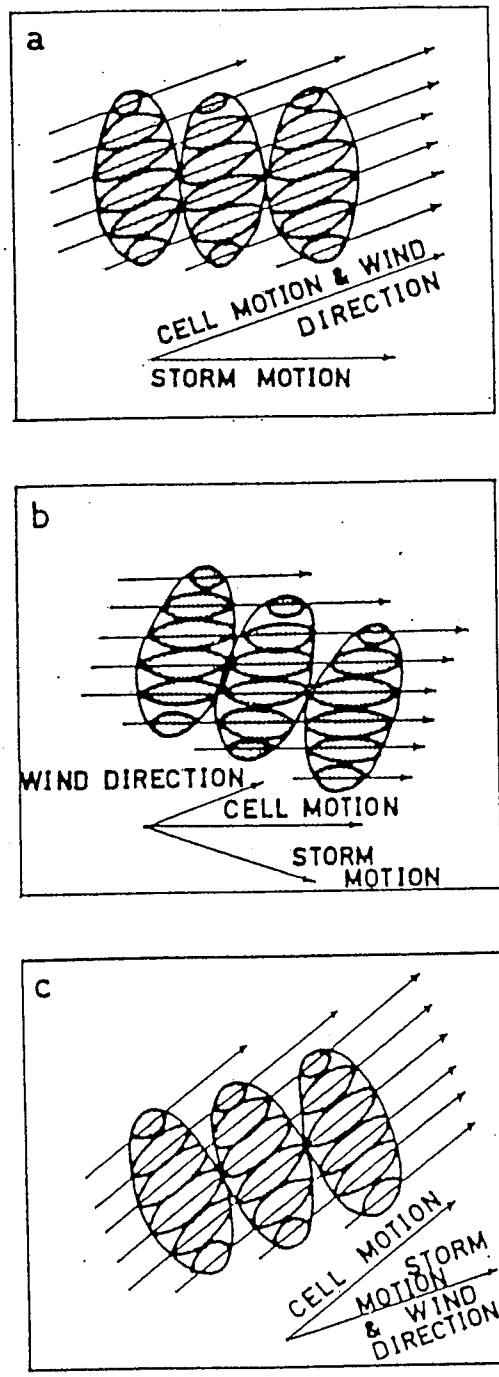
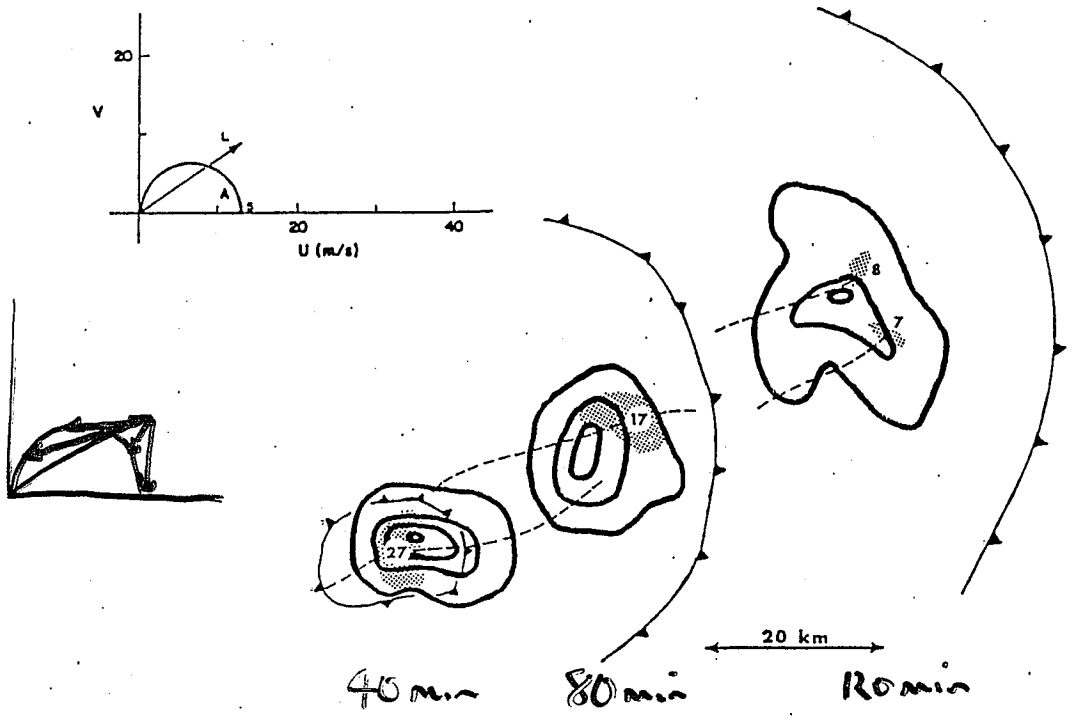


Figure 15.3

Movement of multiple cells

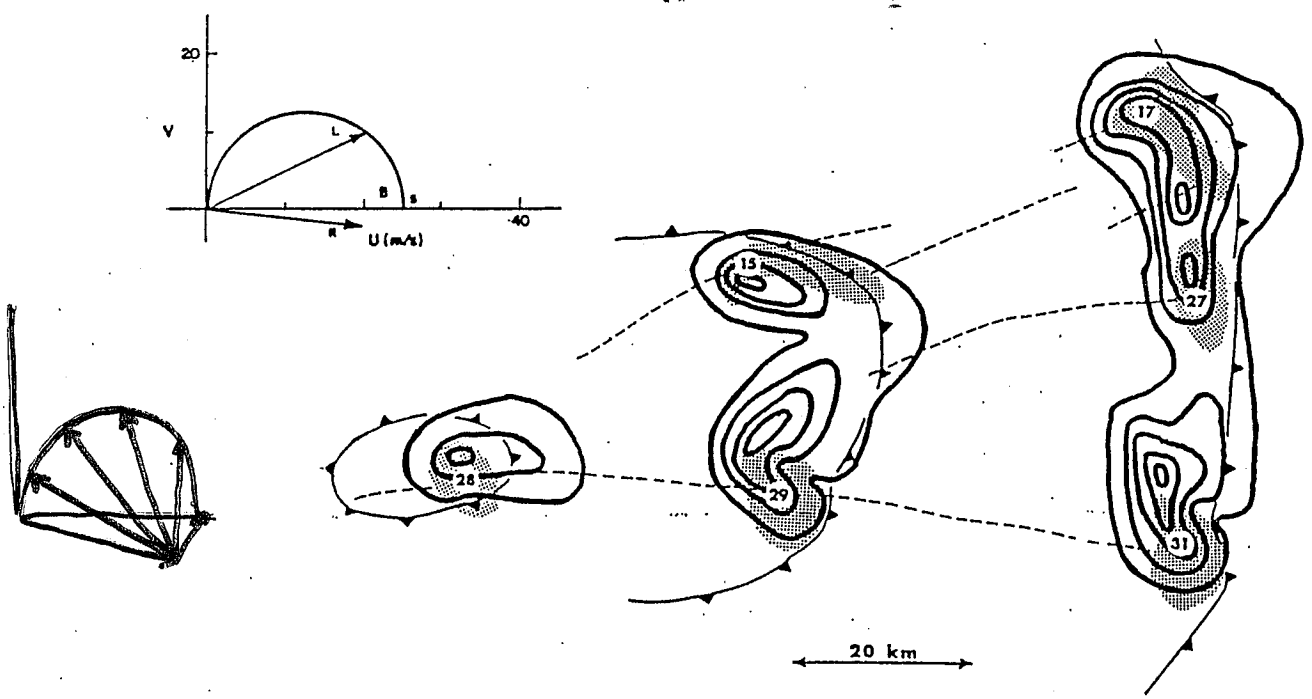
(a) R=89

Short-lived multicell

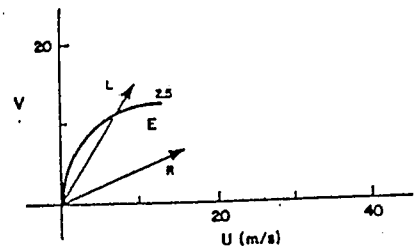


(b) R=22

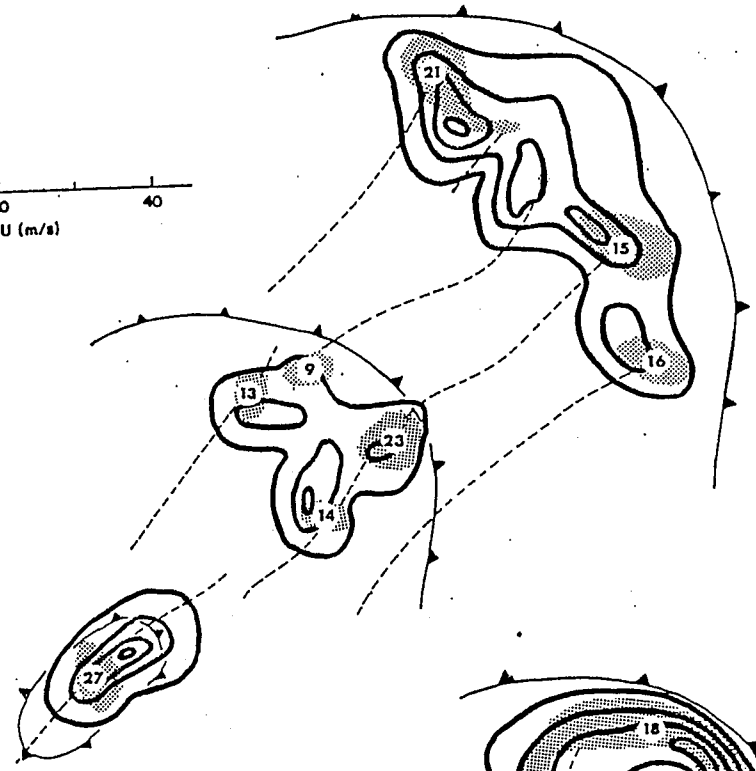
Supercell or Southend of multicellular line

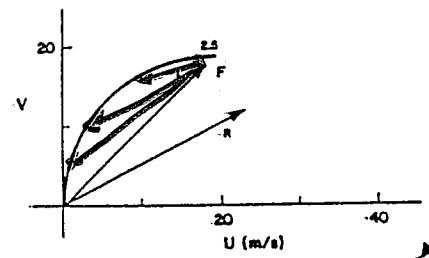


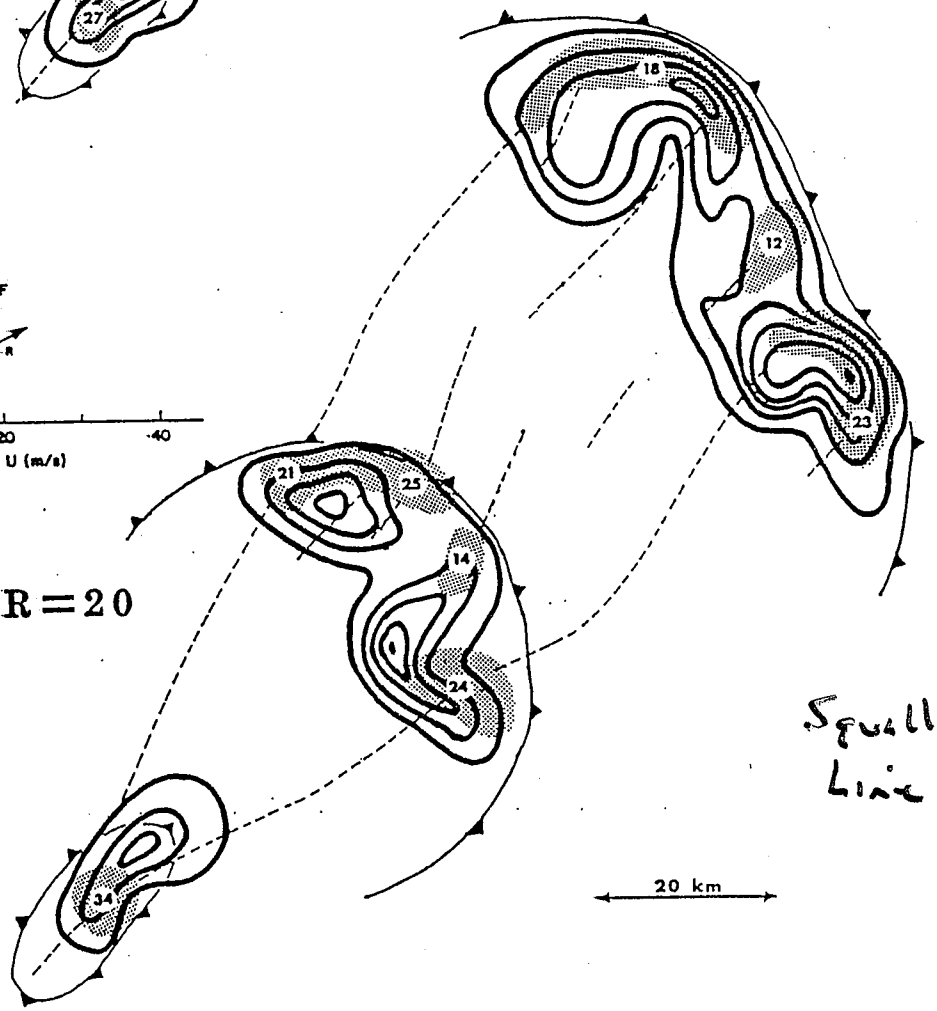
(e) R=34



Weak Squall Line







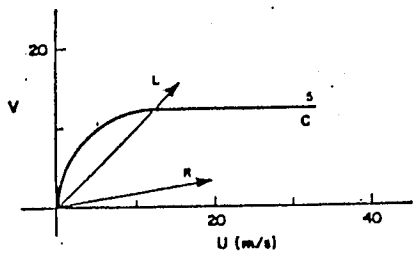
(f) R=20

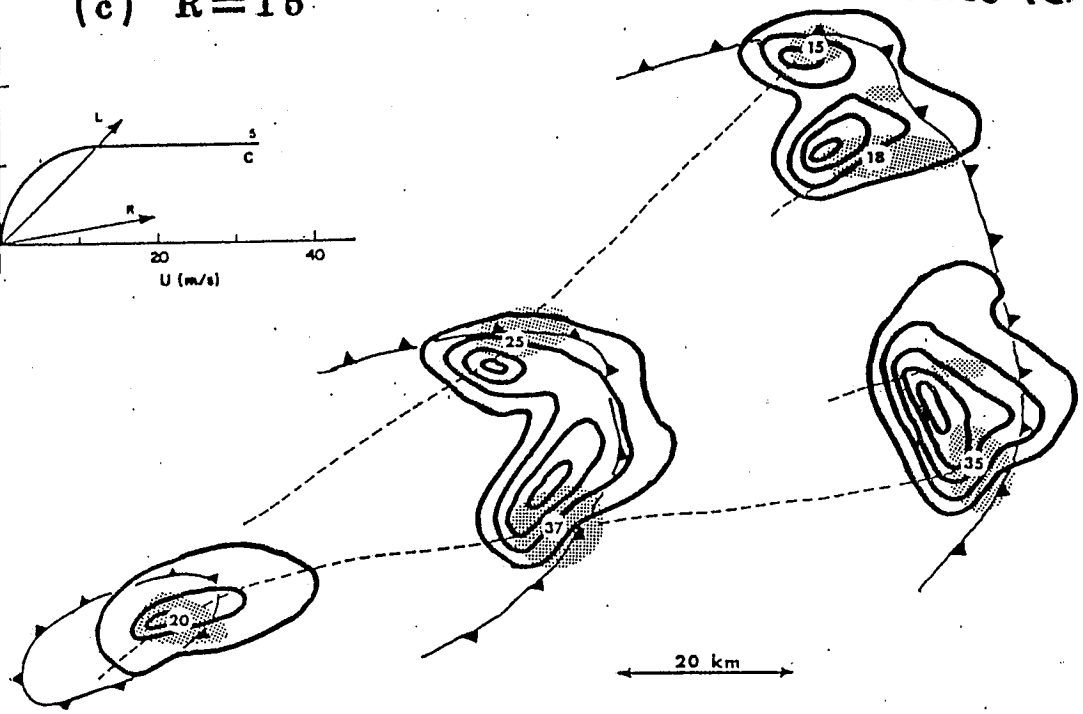
Squall Line

20 km

Right-Flank Supercell Split from weaker left flank storm

(c) R=15





(d) R=14

Right Flank Supercell