

TROPICAL RAINFALL ANOMALIES

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The tropics is investigated with
by the interactions of low-
s with El Nino phenomena and
the rainfall anomalies in the
strongly positively correlated
homogeneous time series of rain-
coherent area averages extending
so far as available. At first
these series have been studied,
separately. Then these series are
analyzed for each month in order to
relations between them.

Locations most representative
composites of the rainfall anomalies
for up to 12 El Nino-events, each
monthly data for the three years
shown. These results fit surpris-
ingly Carpenter's (1982) results
on wind anomalies.

Variations of the Walker Circulation
are shown as depending on season. The
atmospheric processes west of the
equator to the east.

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RELATIVE ROLES OF THERMAL OCEANIC AND TROPOSPHERIC
STRUCTURES, ON SQUALL LINES PROPAGATION

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Through a climatological study of 176 squall lines over West Africa and
the Eastern Atlantic ocean during the boreal summer of 1974, Aspliden et
al. (1976) concluded that the phenomena were primarily continental.
Moreover squall lines formation being strongly time dependant (LST), the
positive role of the sensible heat flux from the ground was mentioned.
This study is concerned by squall lines which continued to propagate over
the ocean. In that sense, the relative importance of the tropospheric
wind structure compared to the boundary layer forcing function of the sea
surface temperature is analyzed. The preferential oceanic area for squall
lines propagation (and generation) is clearly outlined, between the two
zones of cold water linked respectively to coastal and equatorial
upwellings. The oceanic thermal structure over that area, and its
variations during the monsoon season is also presented.

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