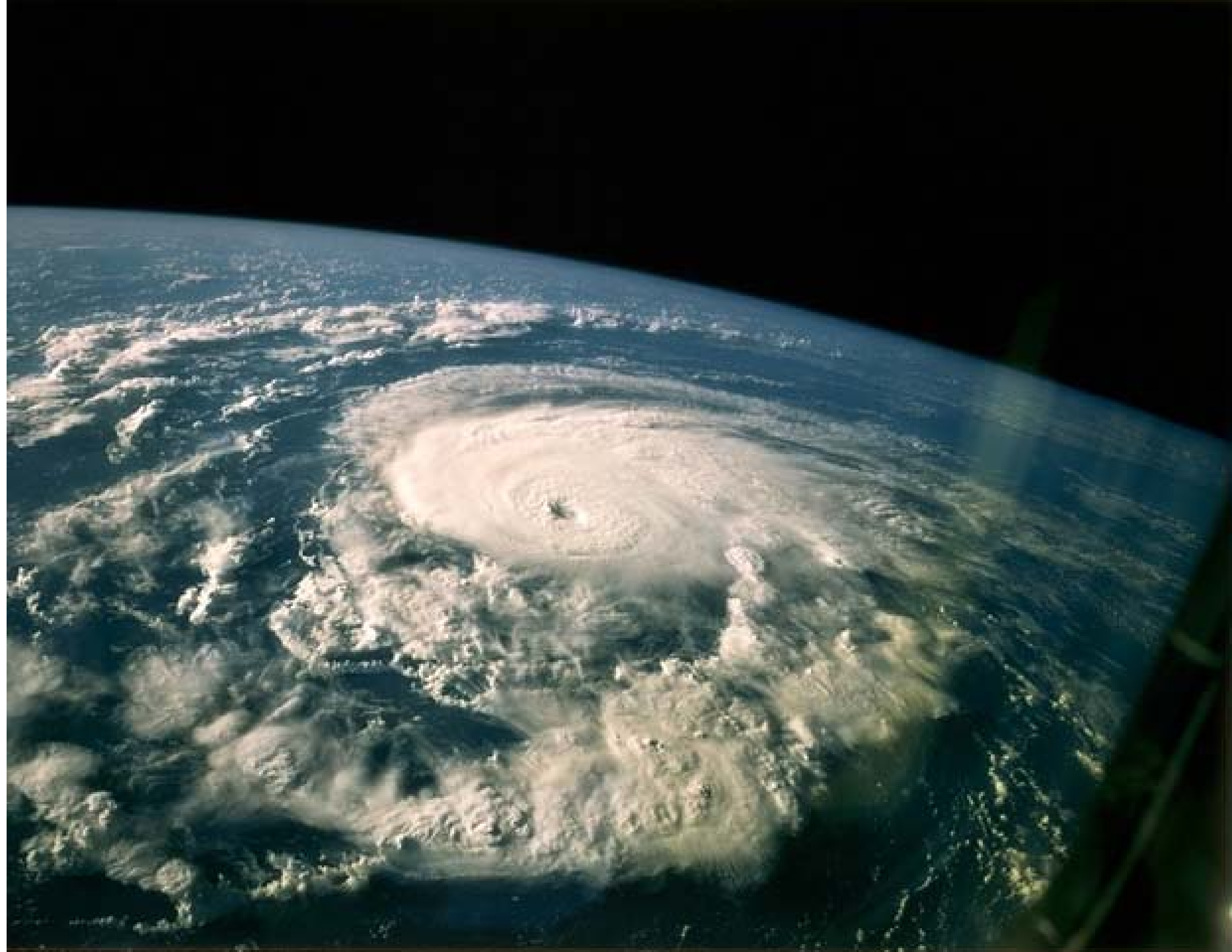
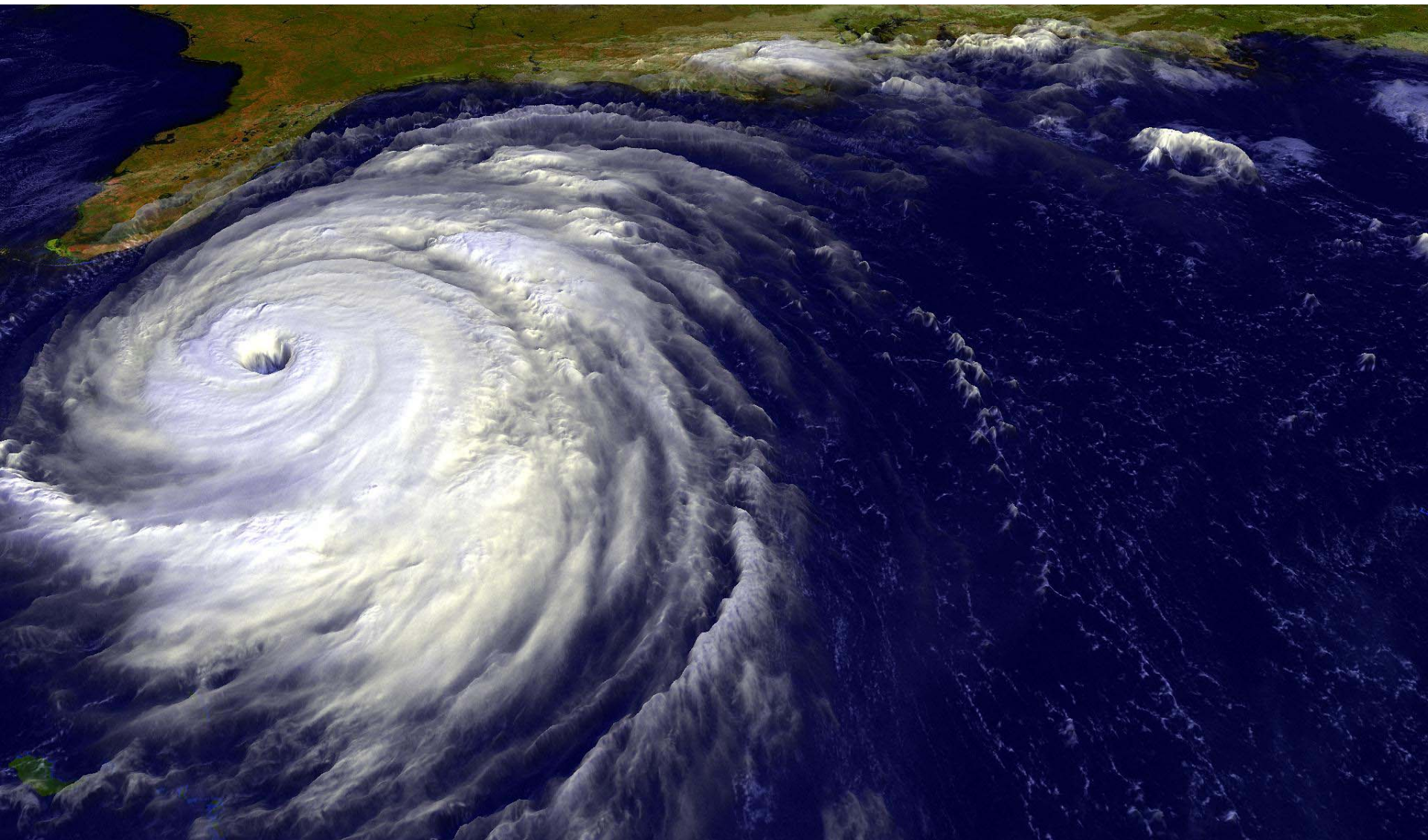


Tropical Cyclones

I: Observed characteristics







940719 193334 STS65 92 014



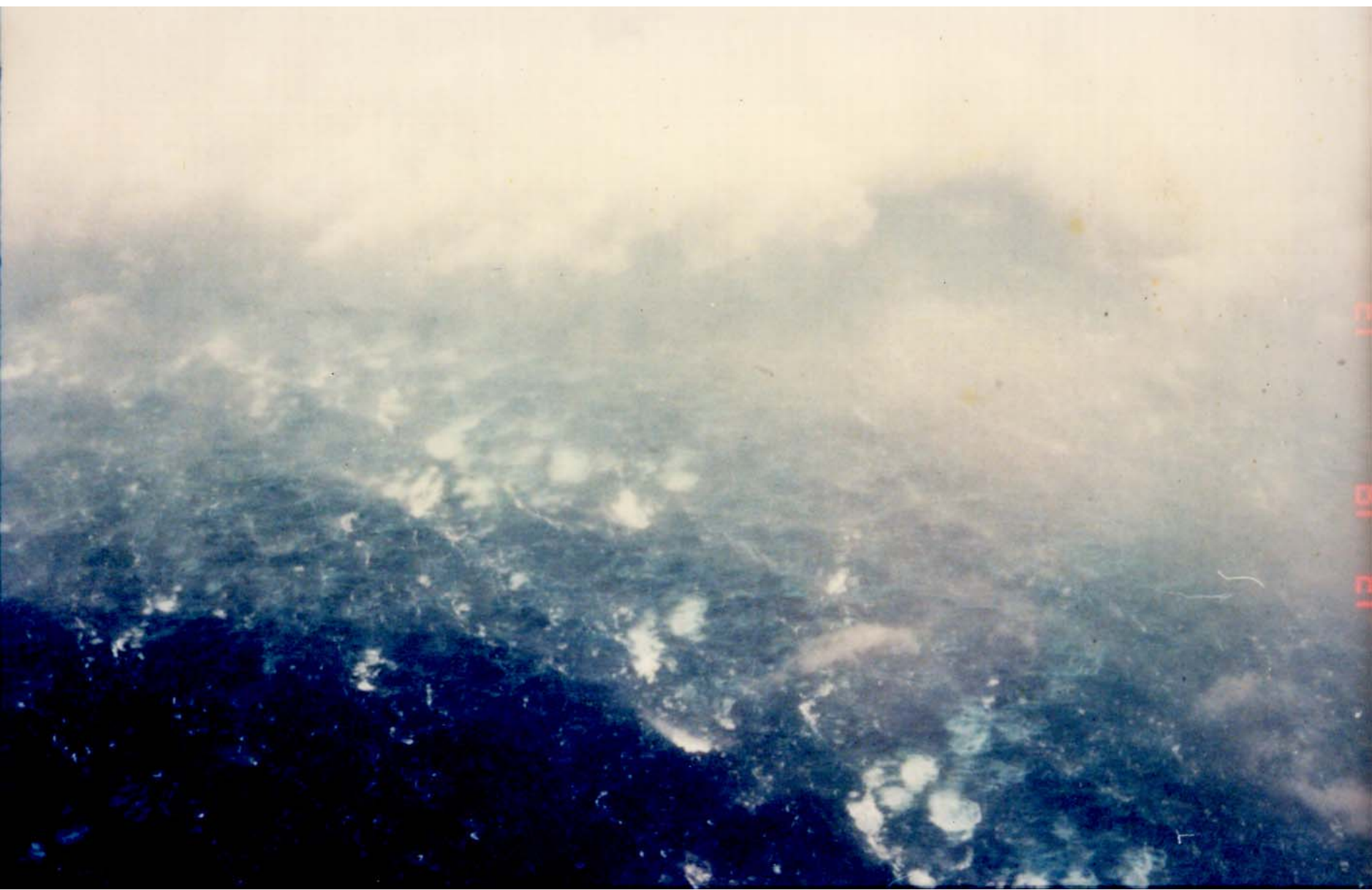












990913h1

FLOYD

(min.) (max.)

Pitch= -0.7; 3.0

52 Roll= -6.1; 5.3

49

46 Track=175.5;179.7

43

40 Drift=-11.4; -7.9

37

35 Tilt= 1.6; 2.5

32

29 Alt= 4255 m

26

23 Slat= 24.39 N

20 Slon= 73.95 W

17 Rlat= 24.26 N

15 Rlon= 73.95 W

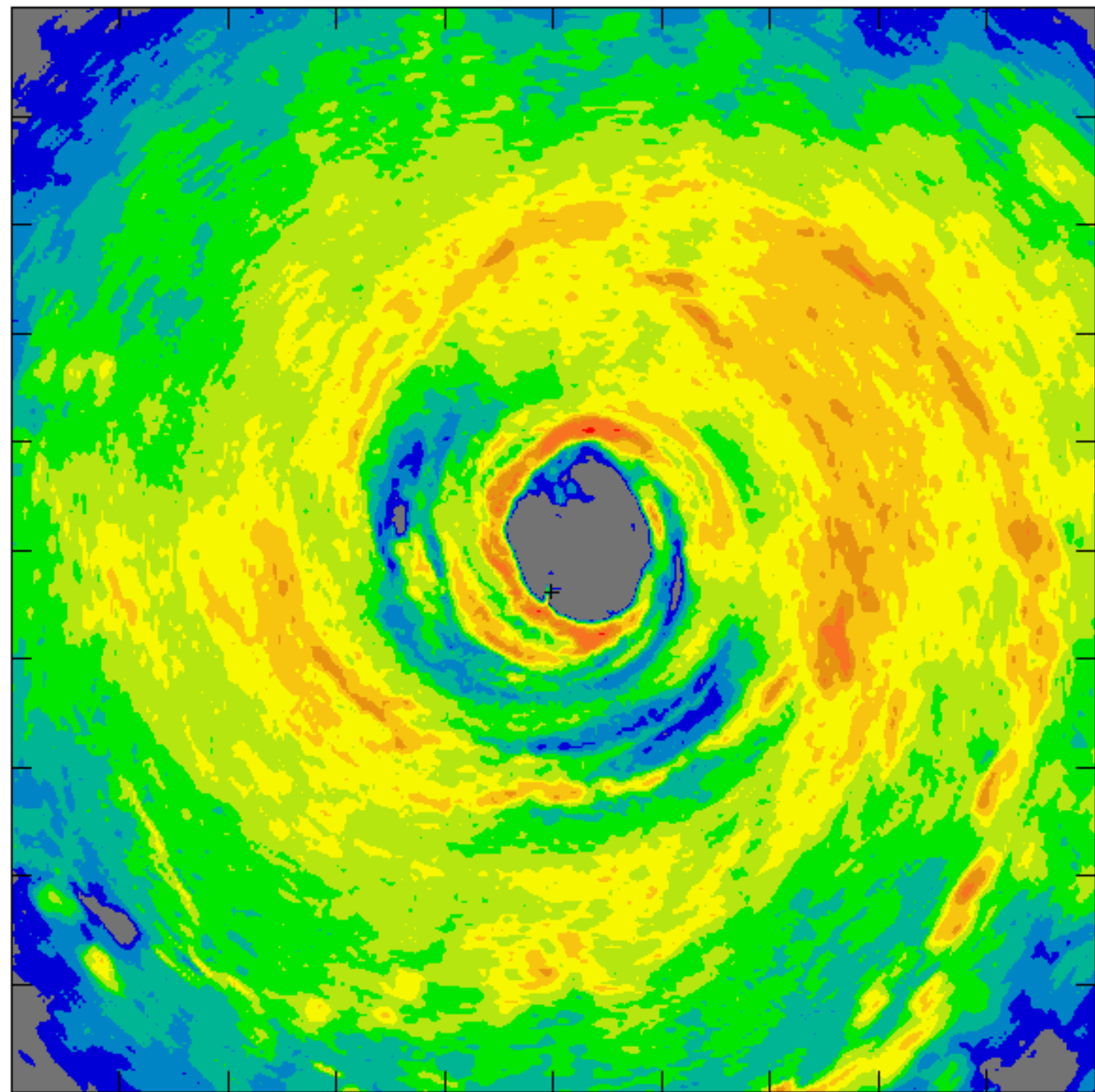


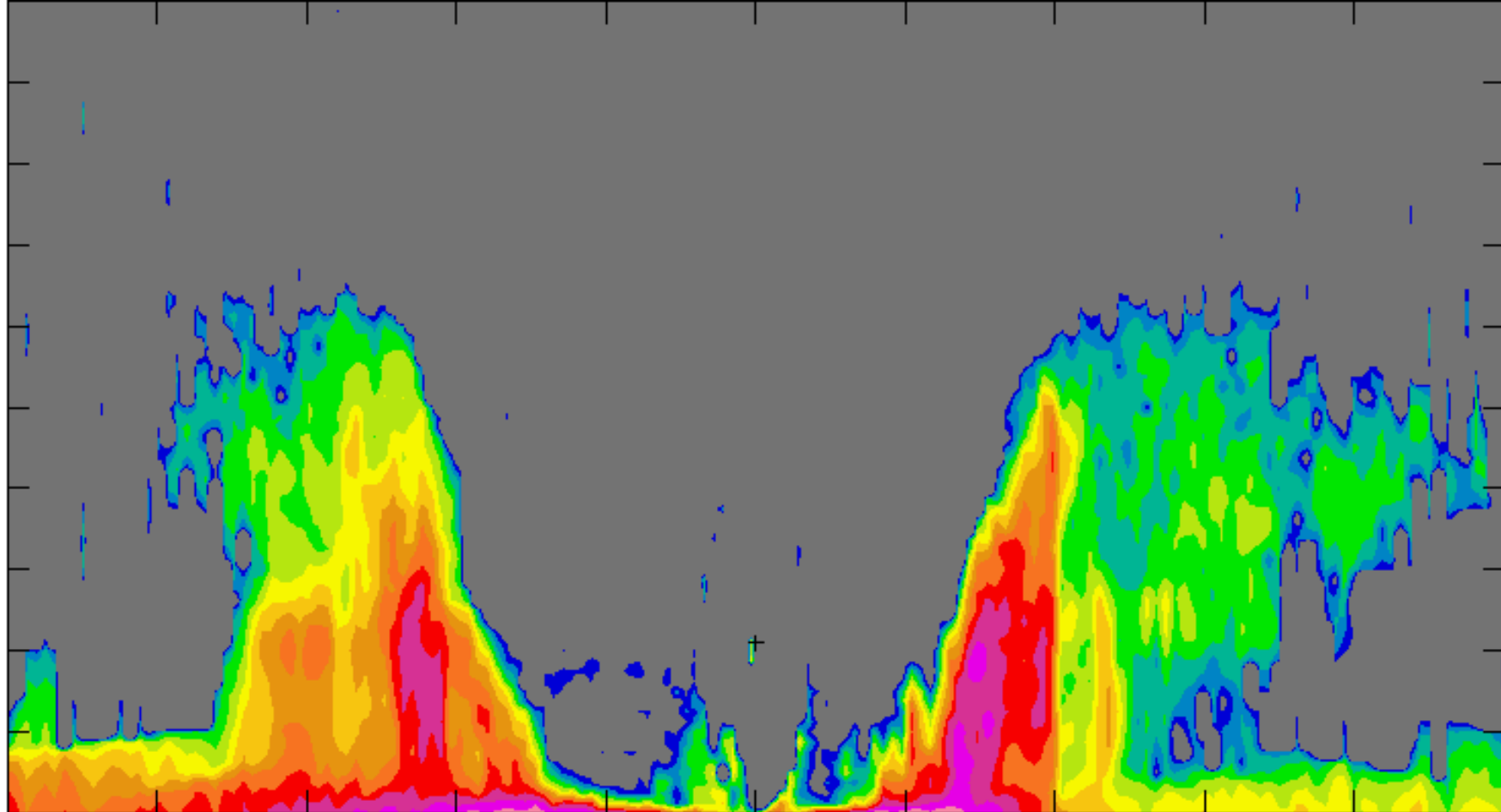
dBZ

230135 Z

Lower Fuselage

360 X 360 km





E

225723 Z

990913H1

FLOYD

W



(min.) (max.)

Pitch= .9; 1.2

Roll= -2; 6.4

Track=187.5;189.2

(min.) (max.)

Drift= 5.6; 6.7

Tilt= -26.0; -1.3

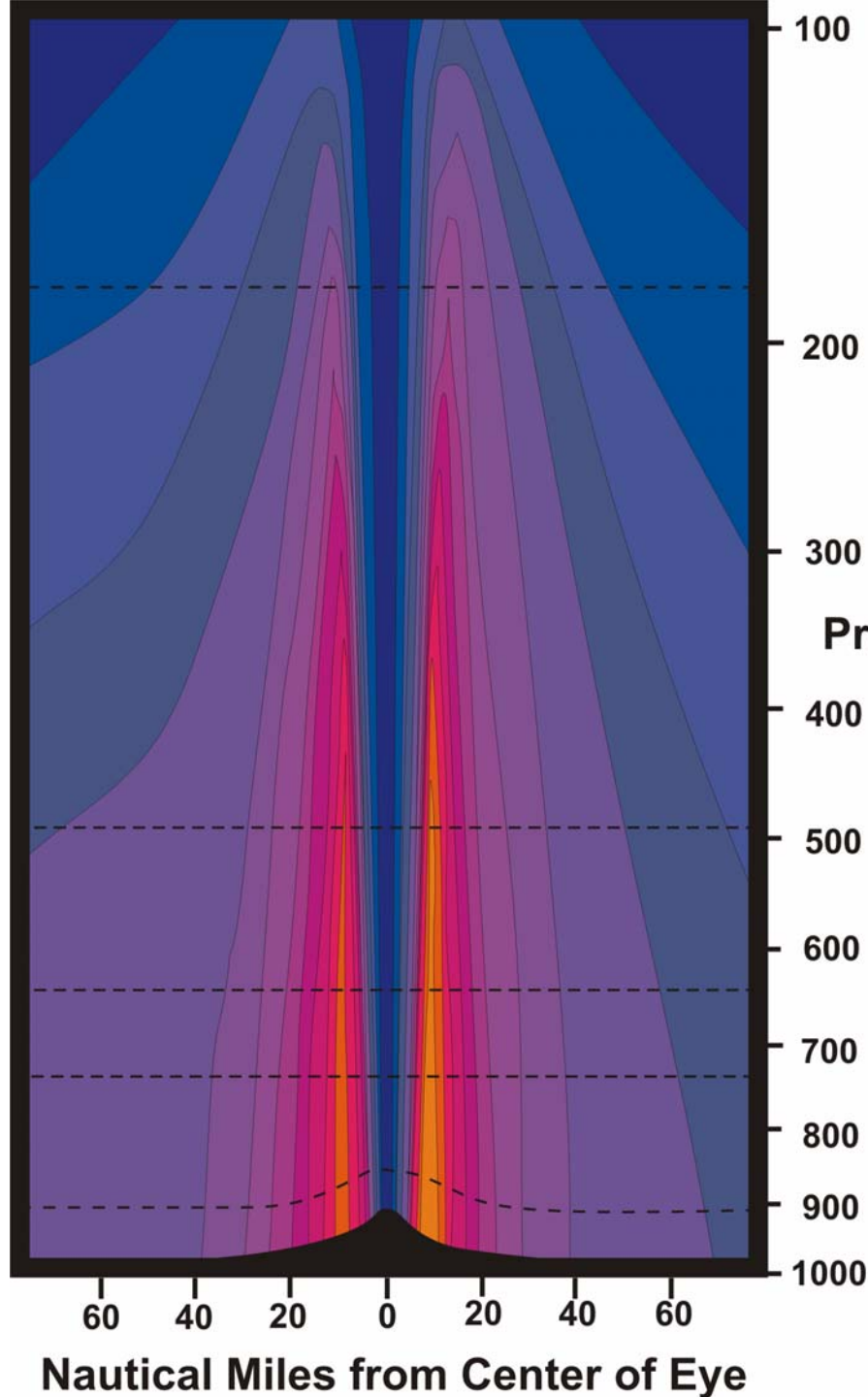
120 X 20 km

Tail Radar

Alt= 4243 m

Rlat= 24.56 N

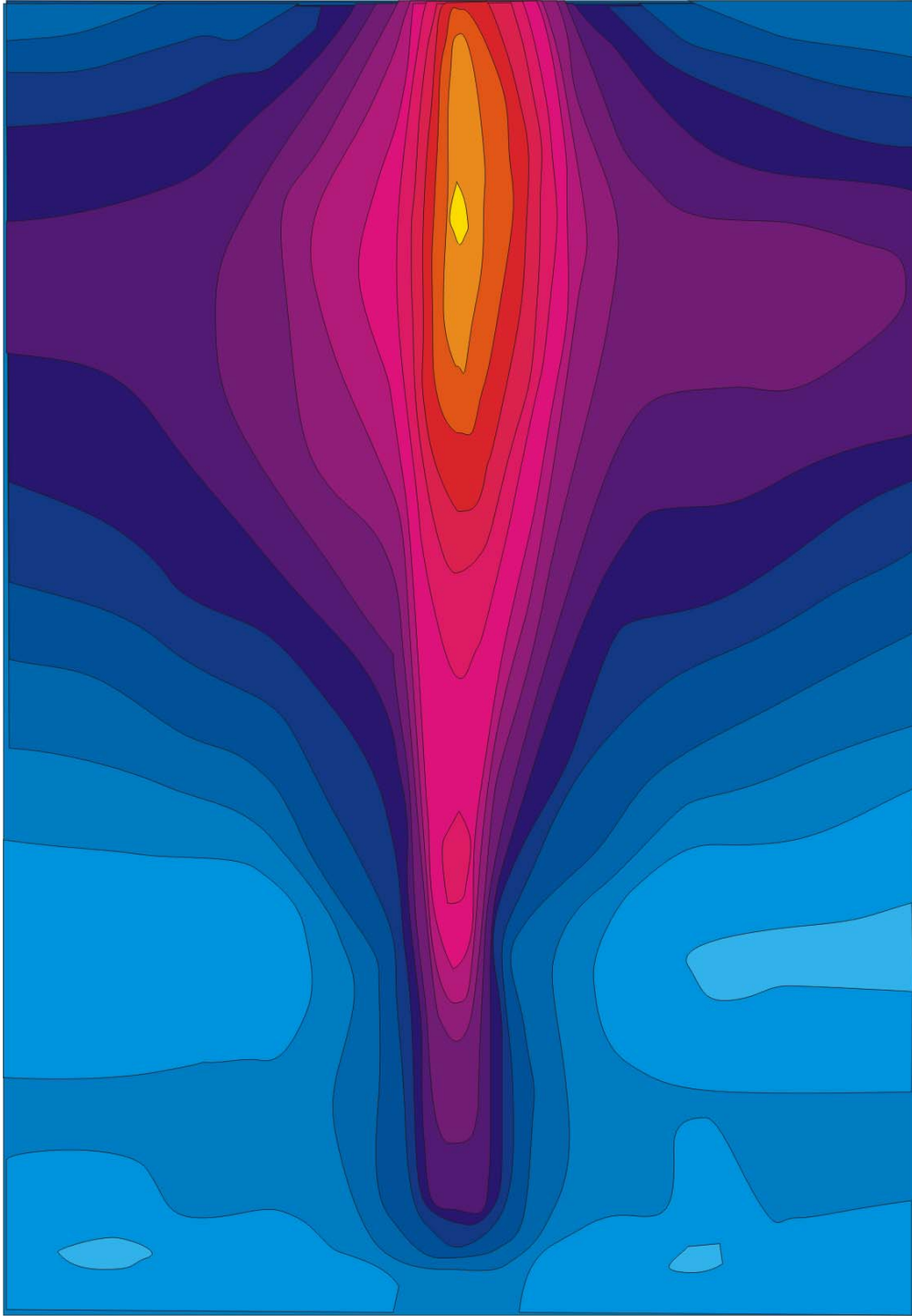
Rlon= 73.86 W



Azimuthal wind

Pressure (mb)

Nautical Miles from Center of Eye

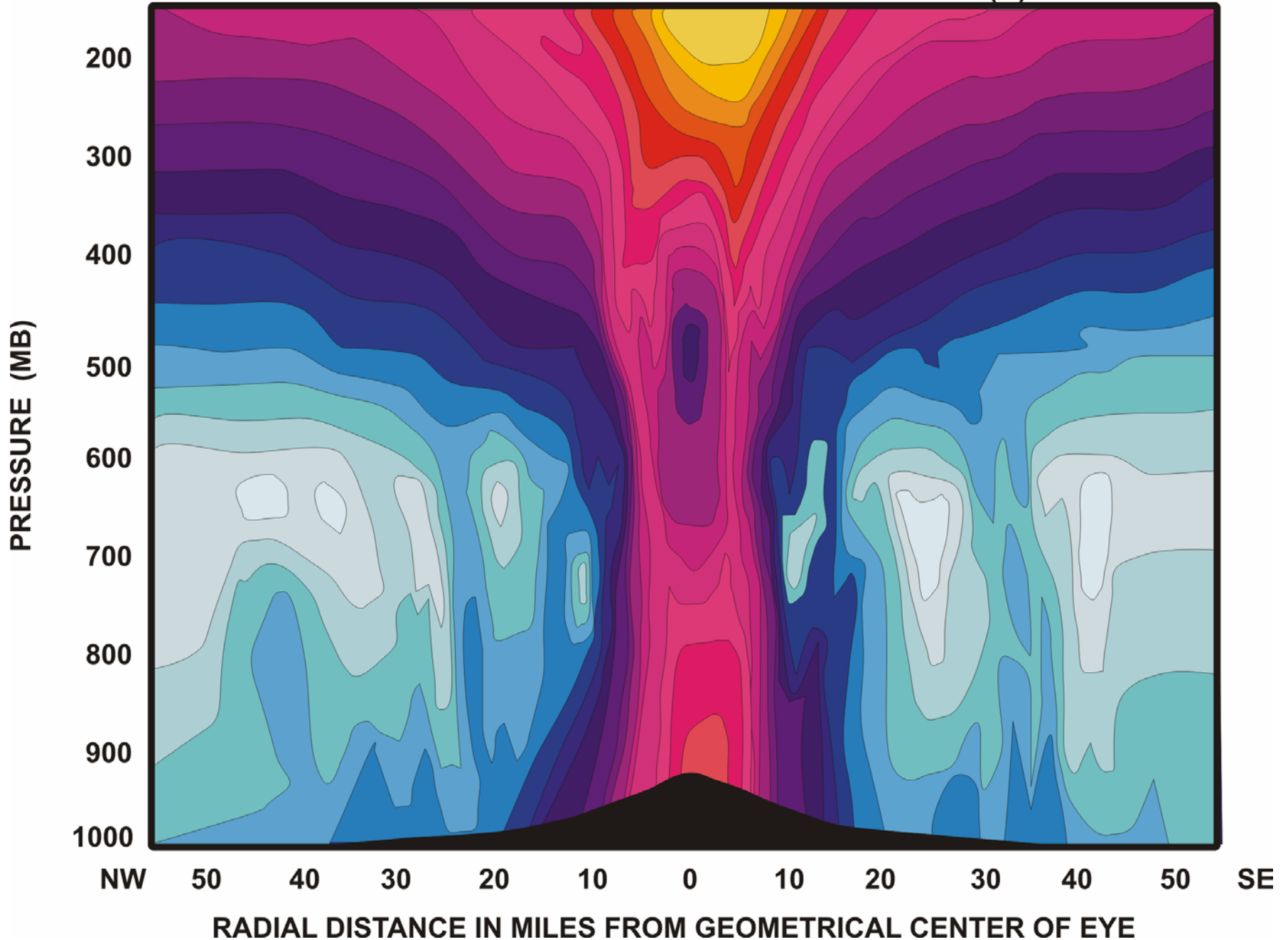


Temperature
perturbation at
constant altitude

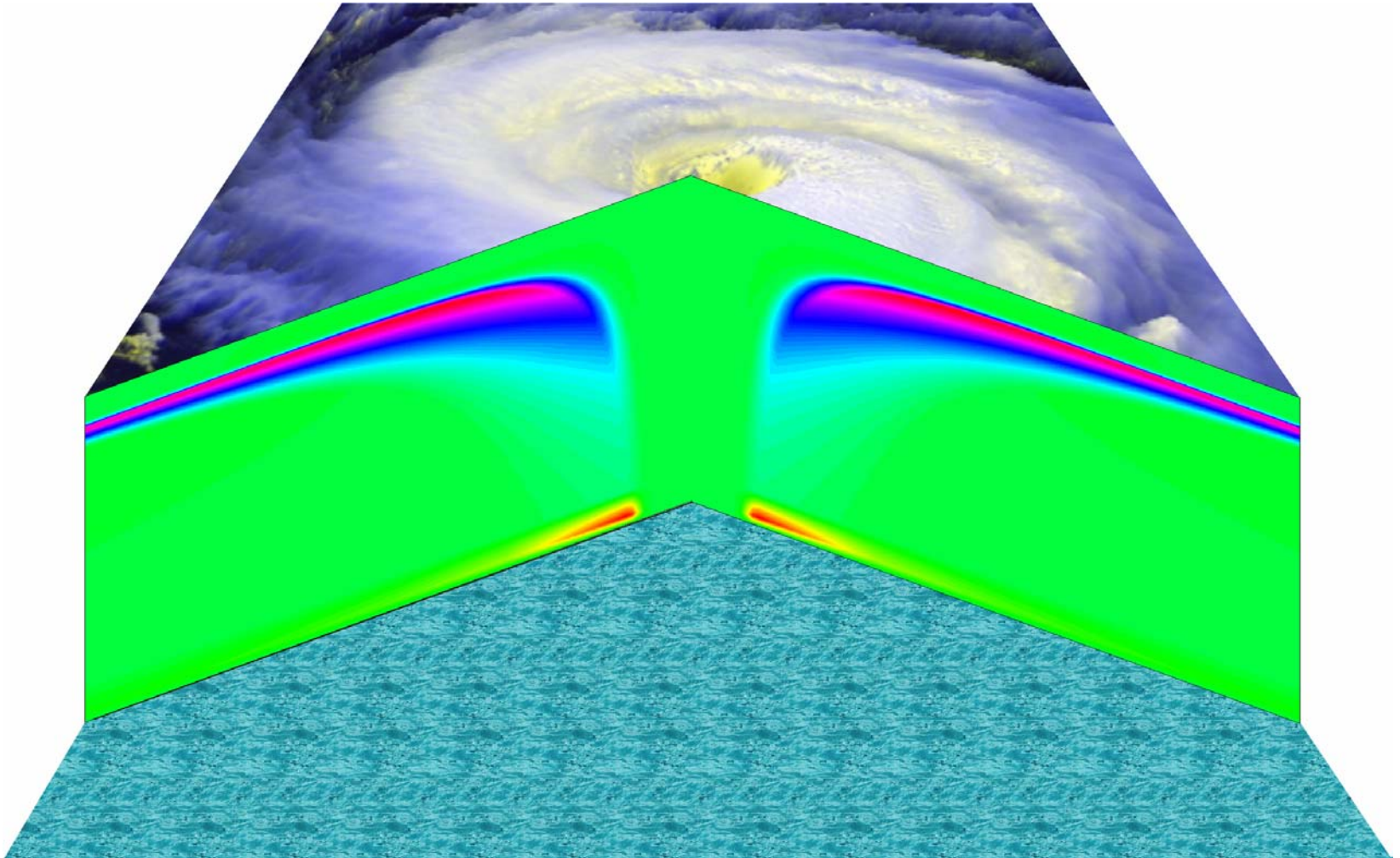
HURRICANE INEZ

SEPTEMBER 28, 1966

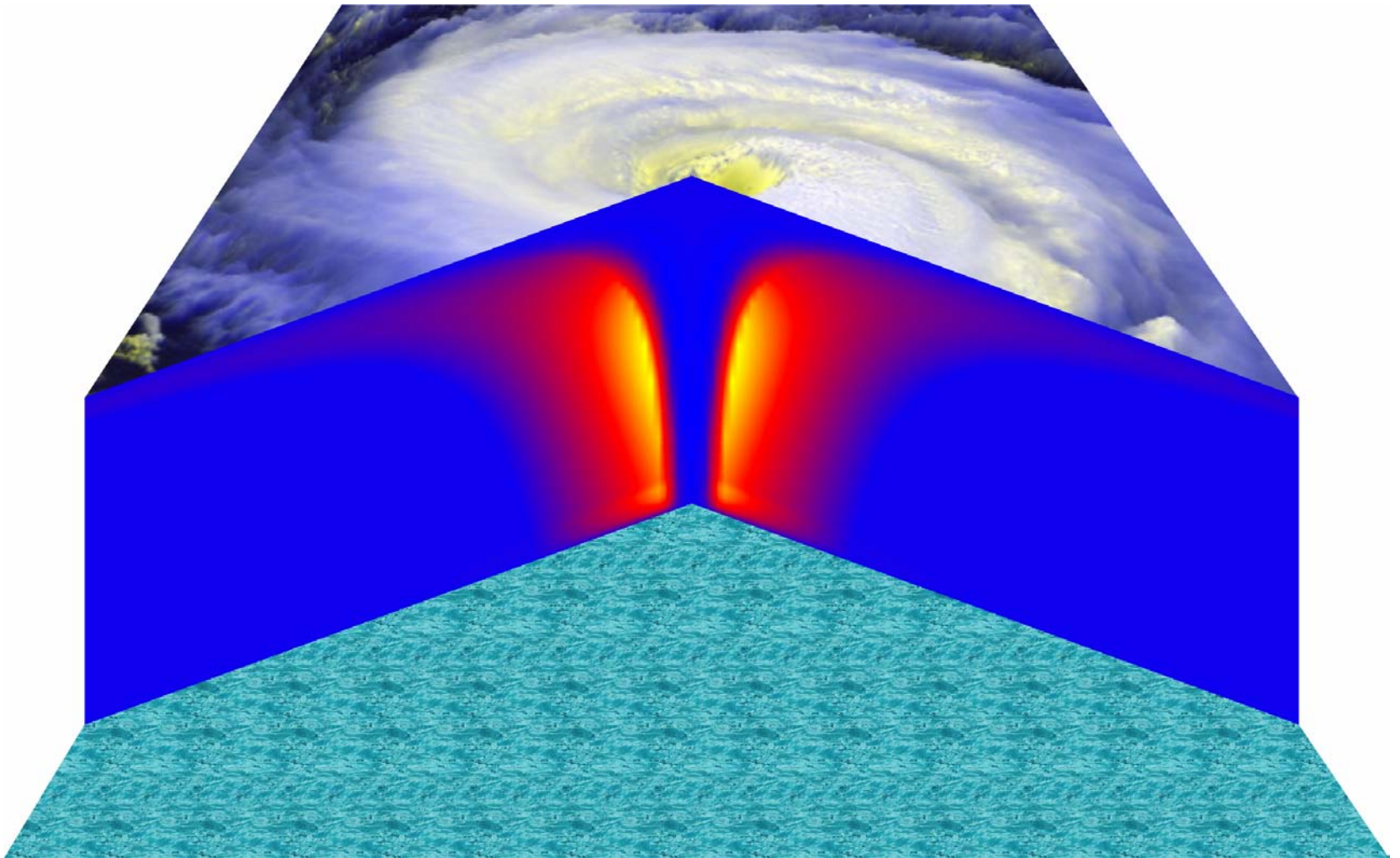
EQUIVALENT POTENTIAL TEMPERATURE (K)



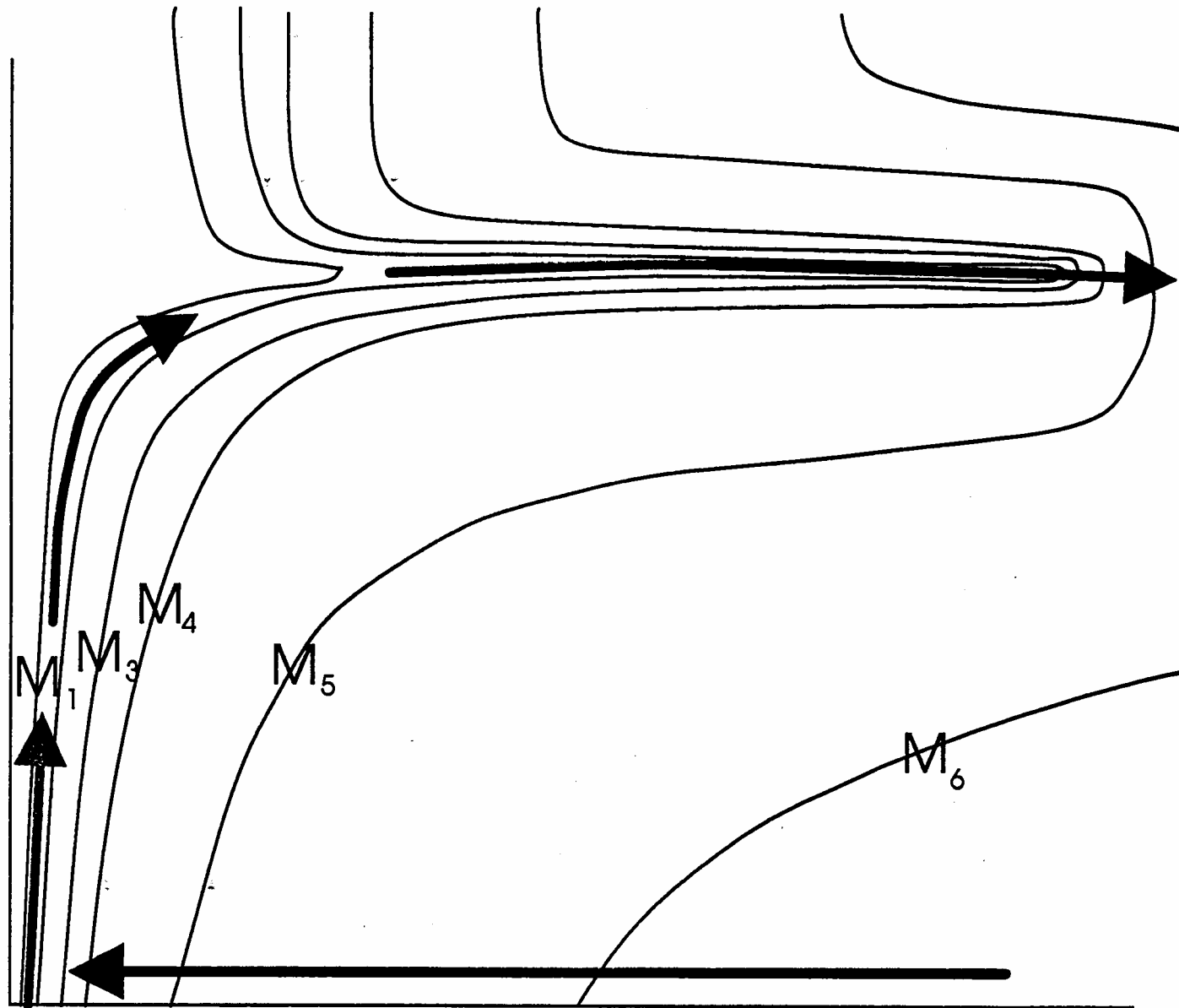
Radial wind



Vertical velocity

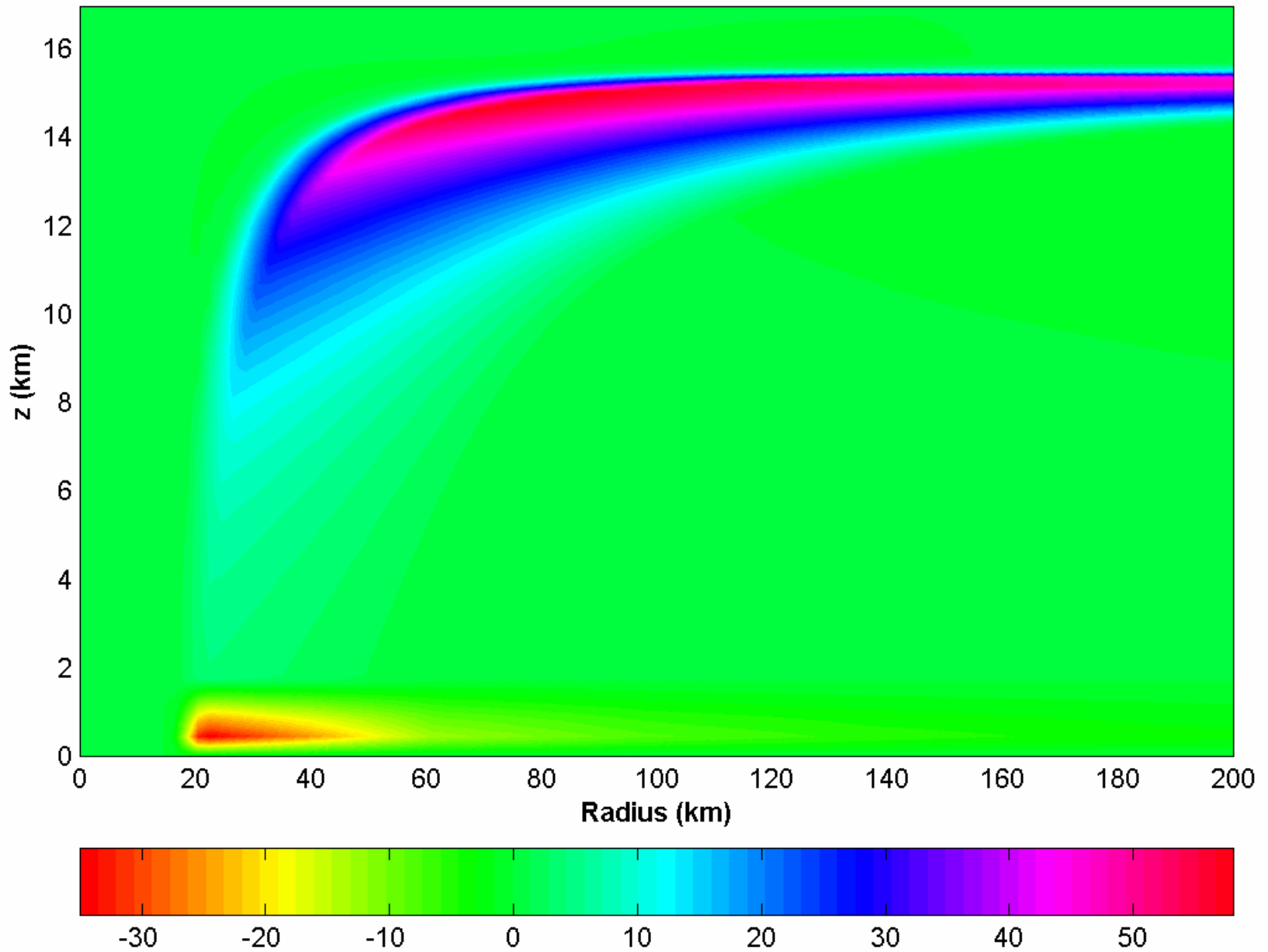


18 km

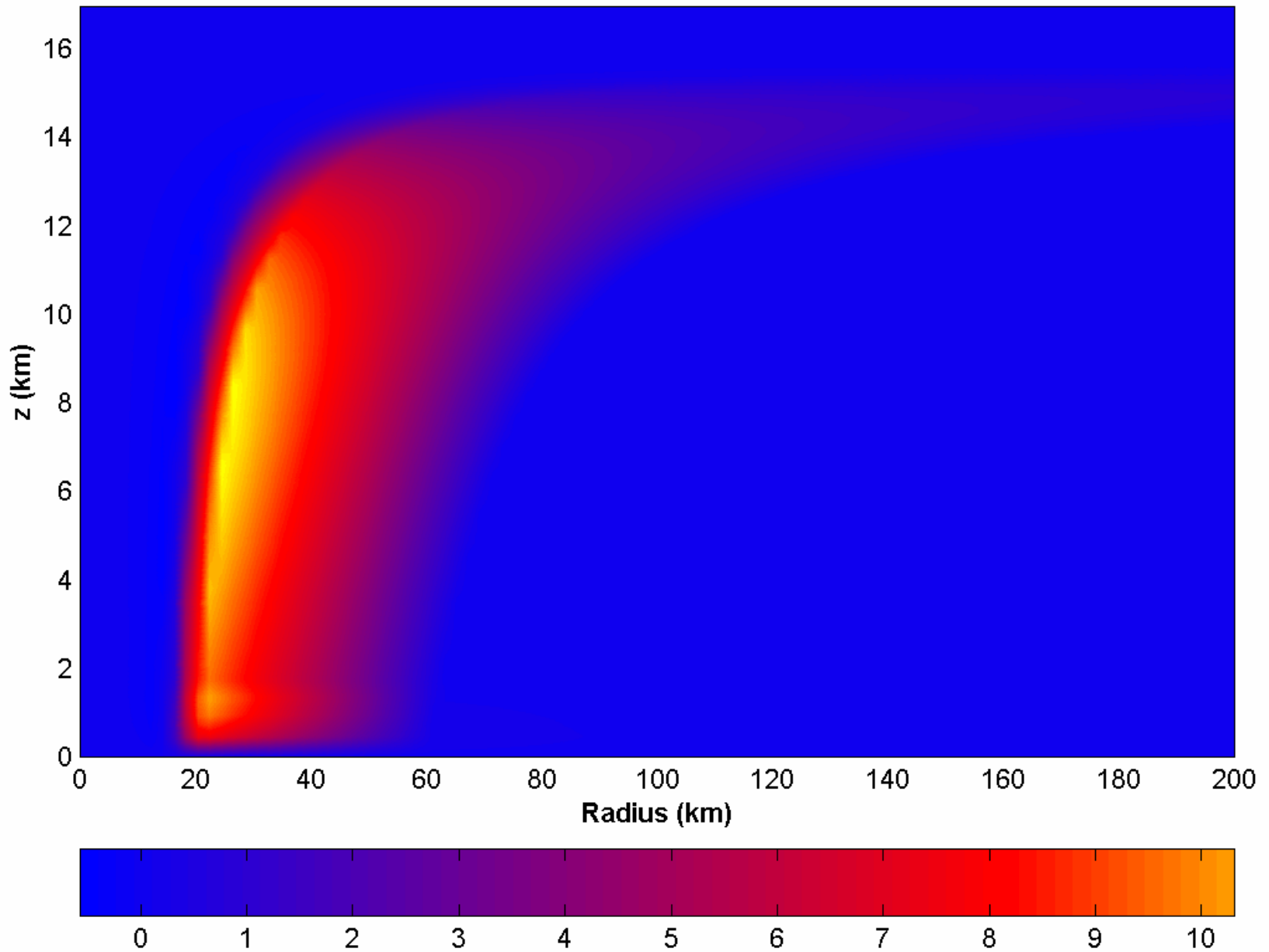


1000 km

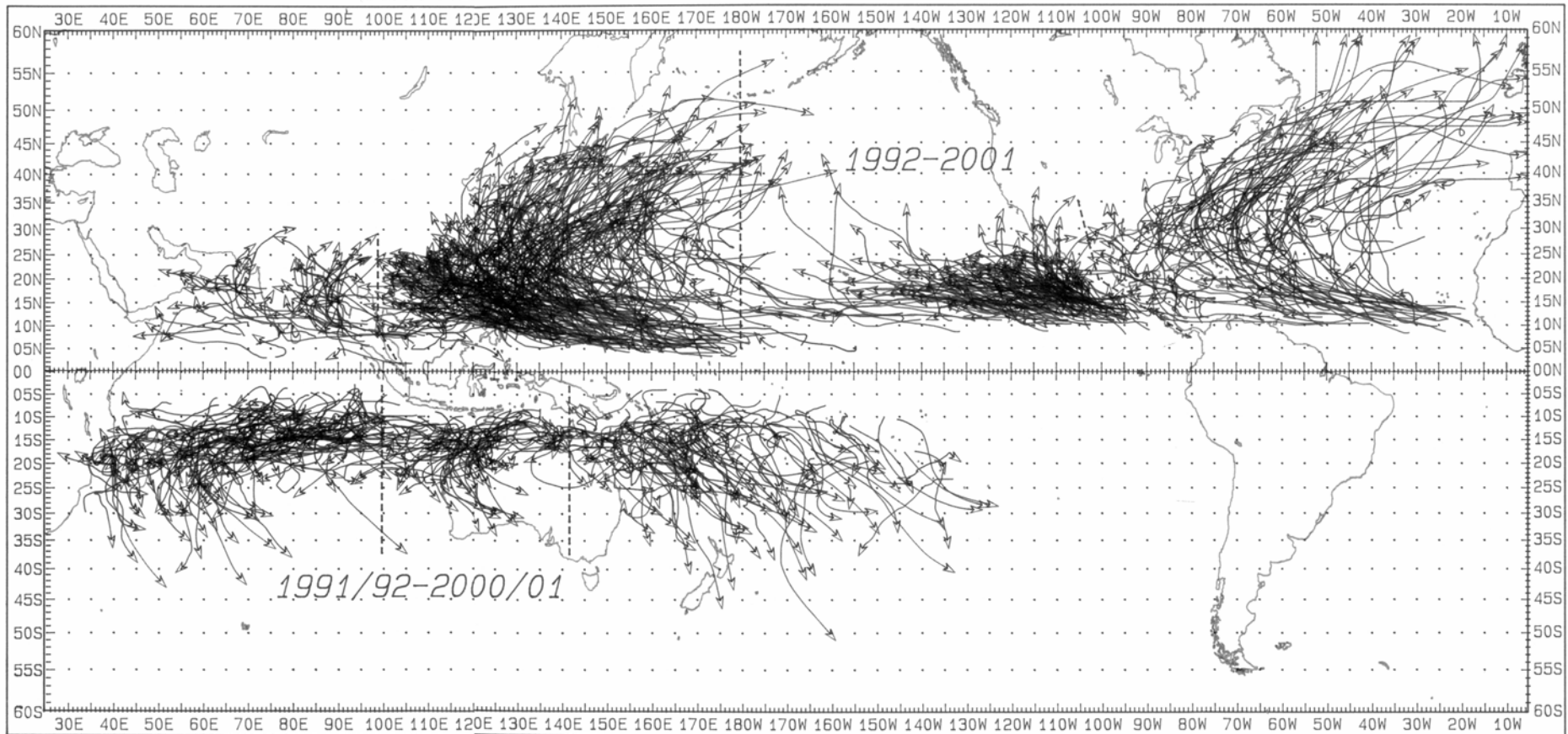
Radial velocity (m/s) from -34.9705 to 58.0879



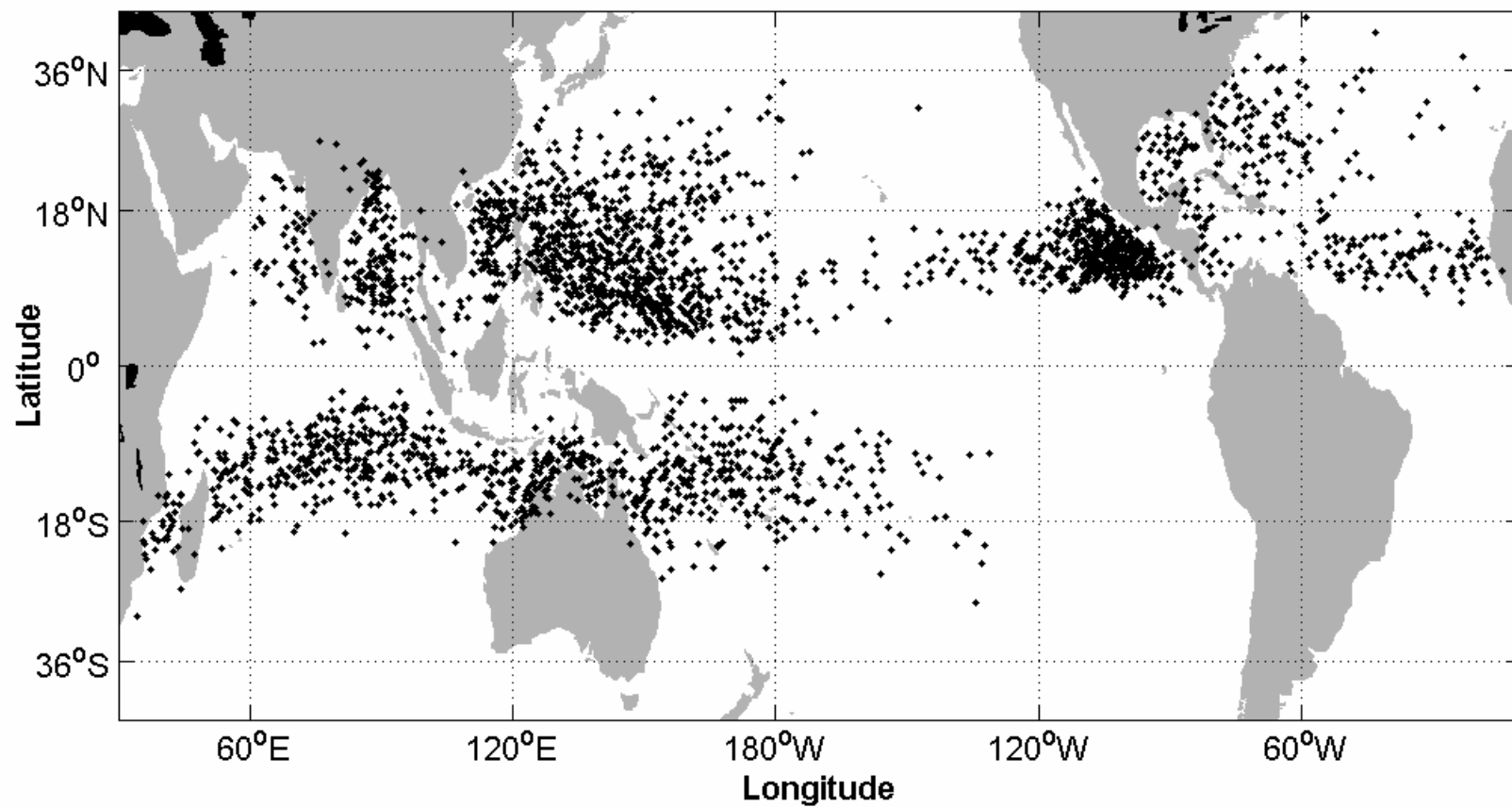
w (m/s) from -0.5701 to 10.3121, (- values X 10)



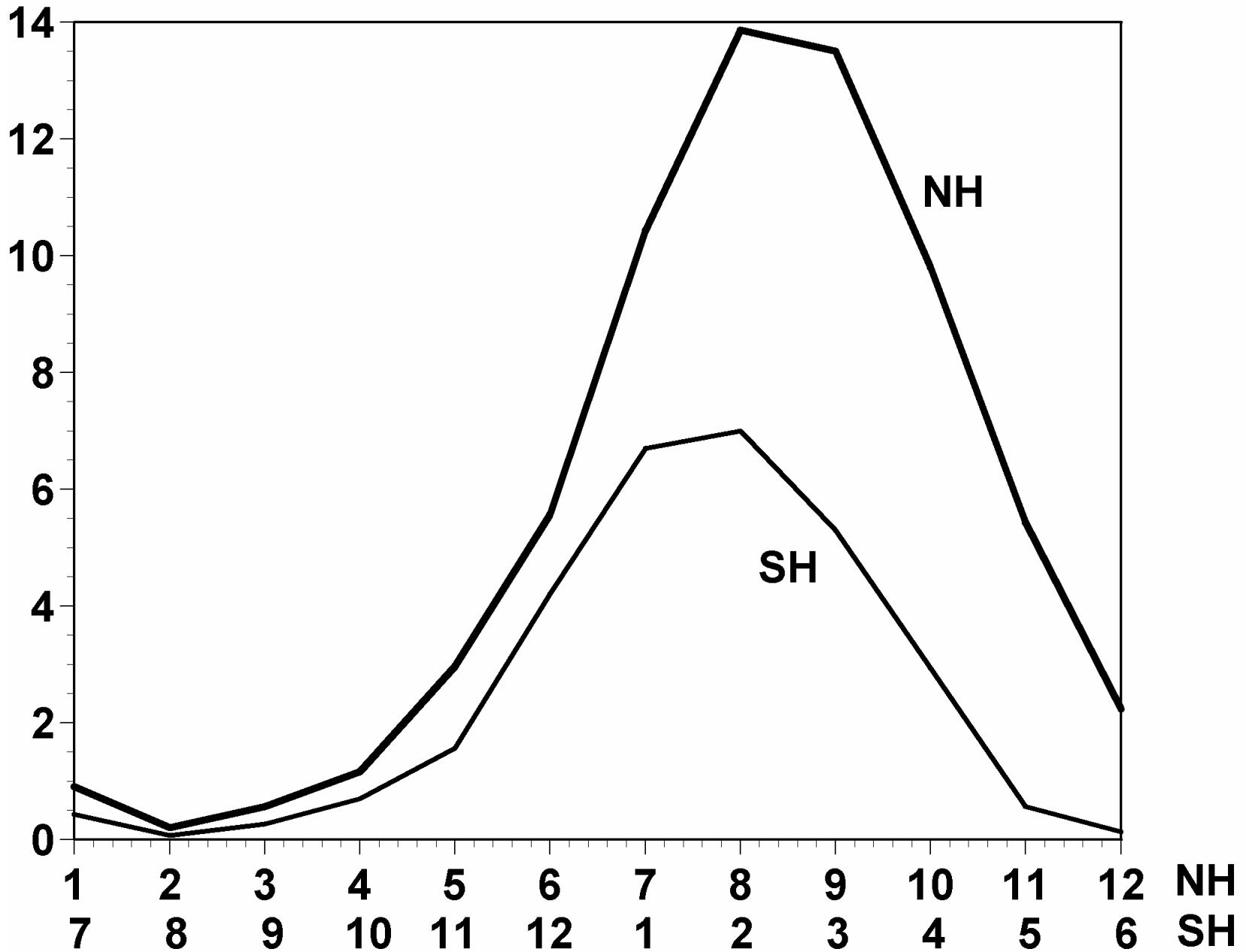
GLOBAL TROPICAL CYCLONES: 10 YEARS OF TRACKS



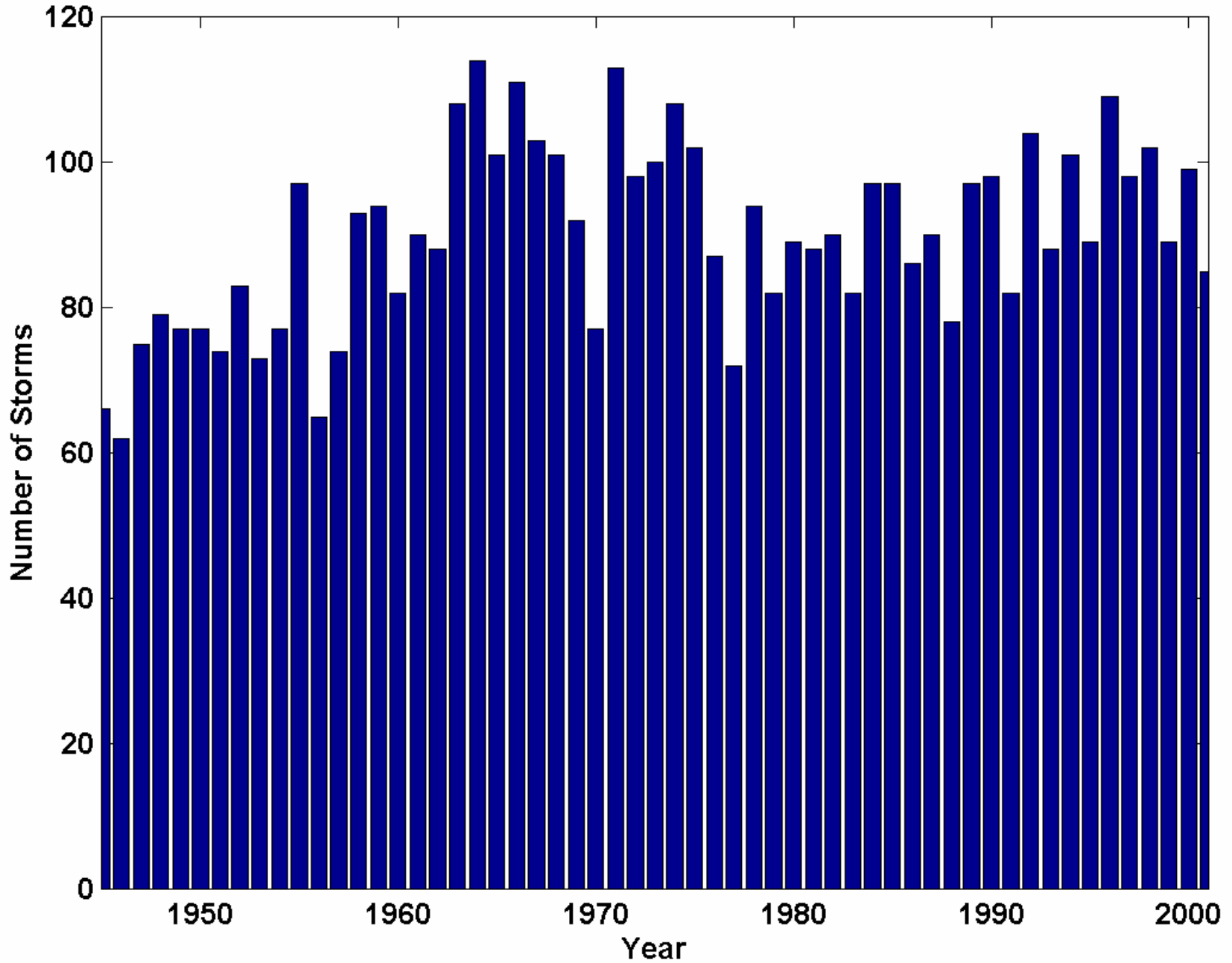
Global Genesis Events 1971-2001



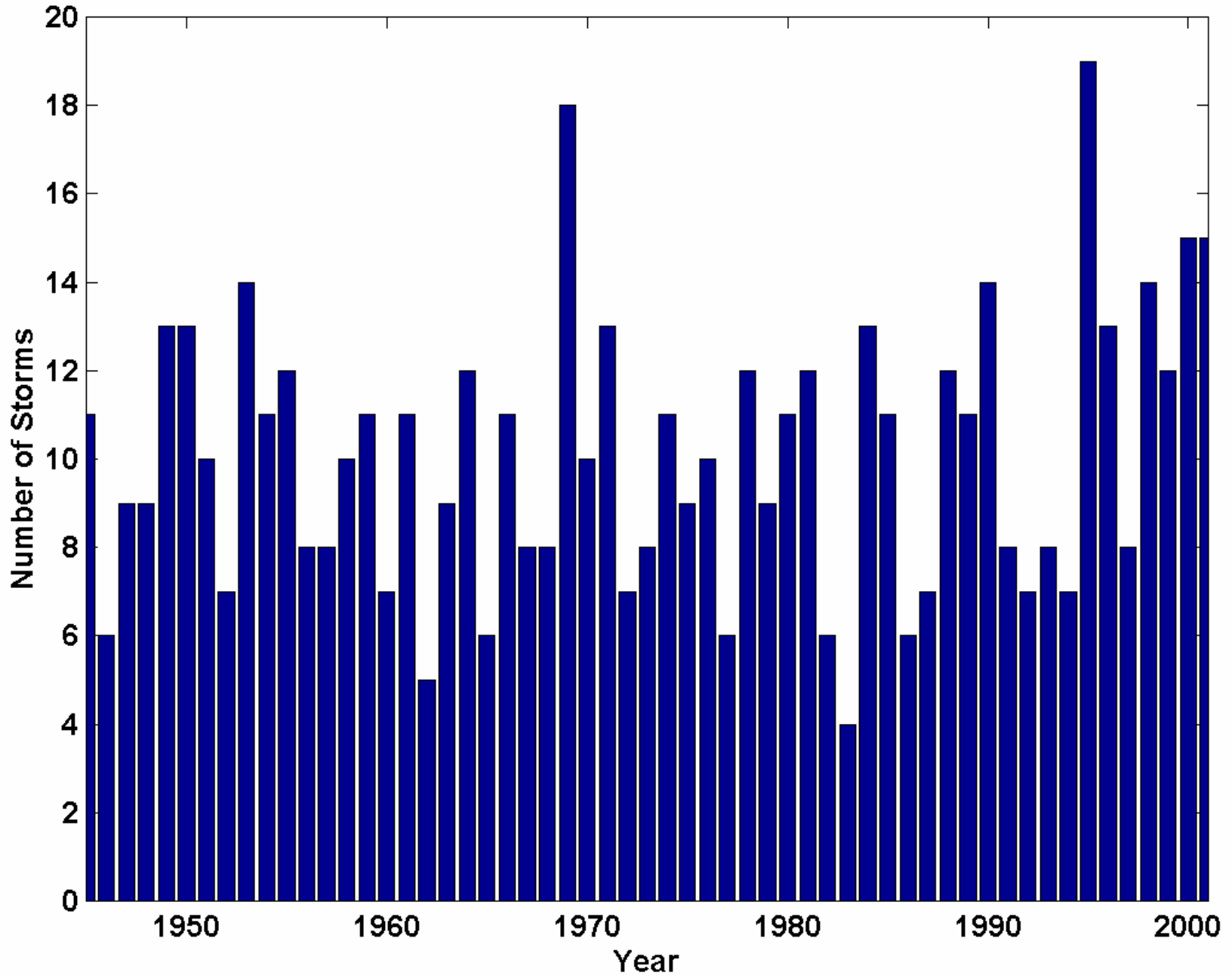
Number of Genesis Events per Month



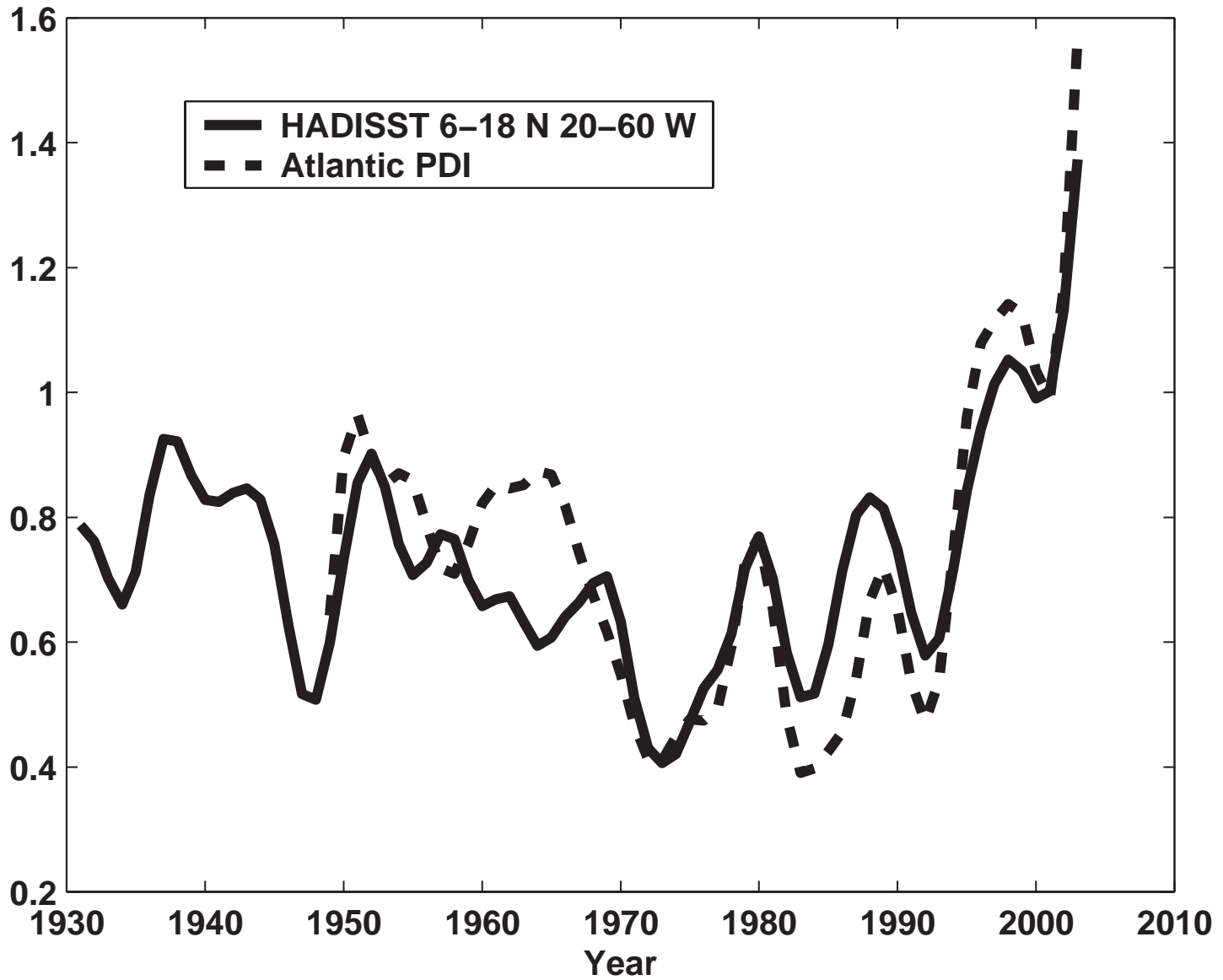
Global Tropical Cyclones, 1945-2001



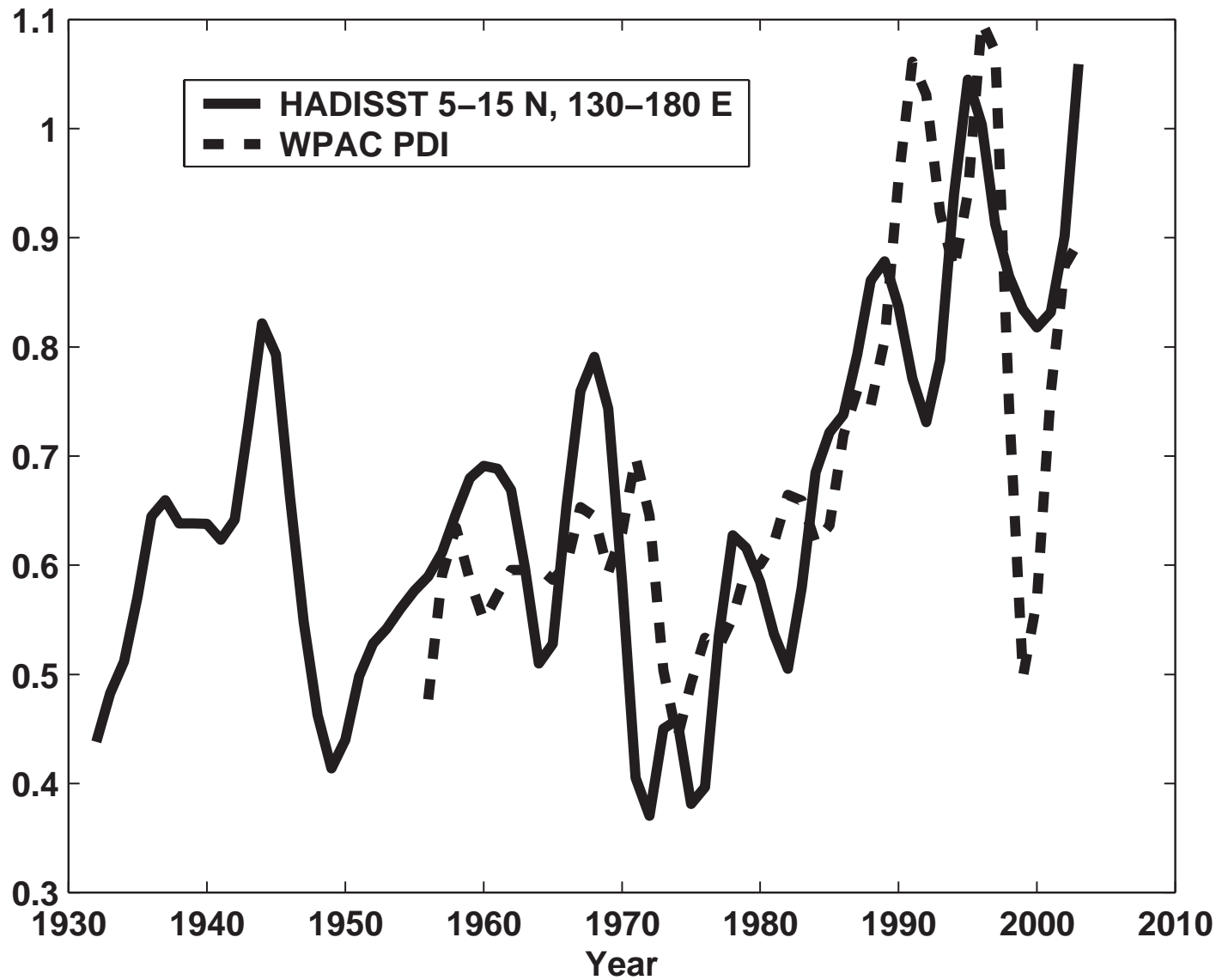
Atlantic Tropical Cyclones, 1945-2001



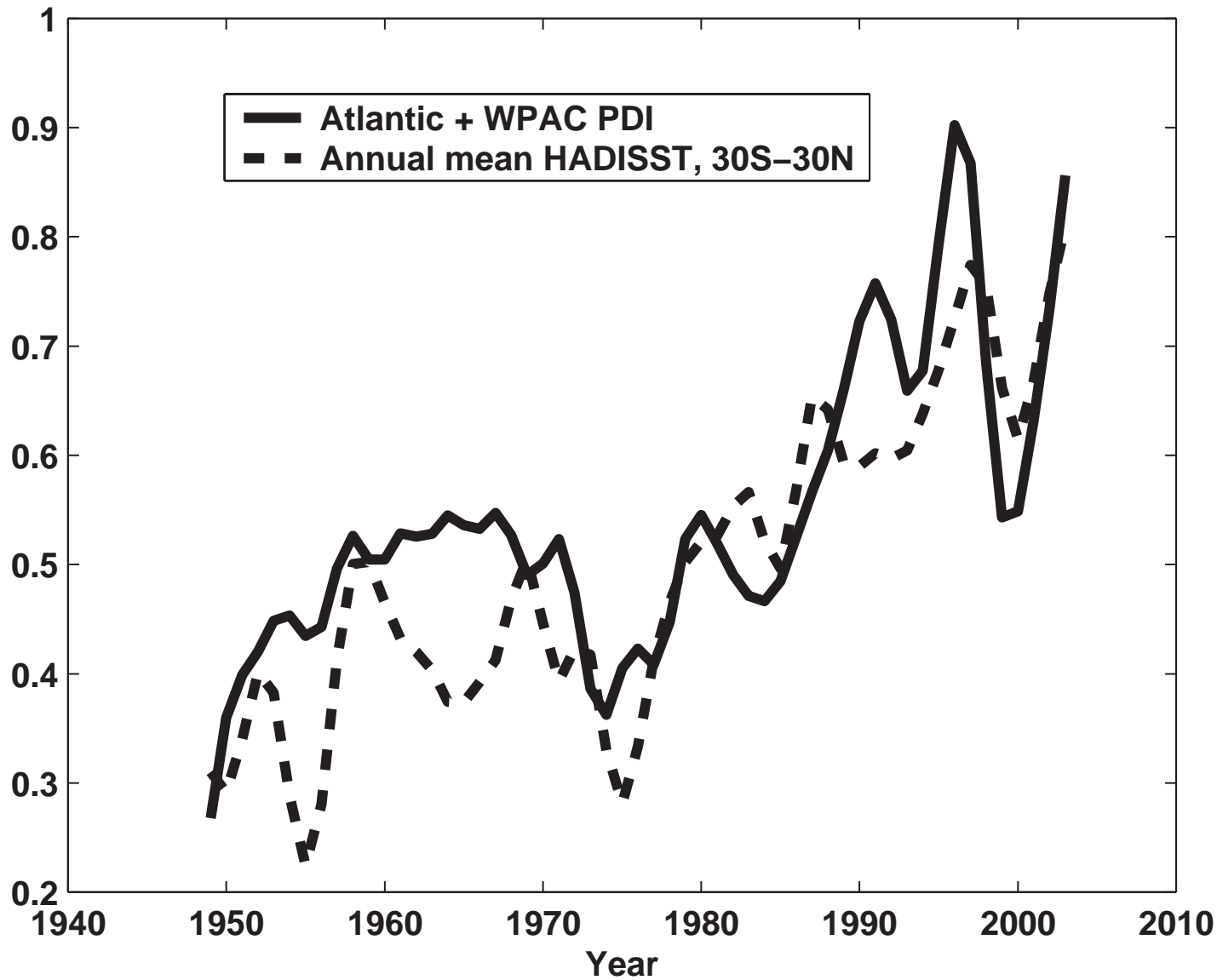
Tropical Atlantic ST versus Total Power Dissipation Index

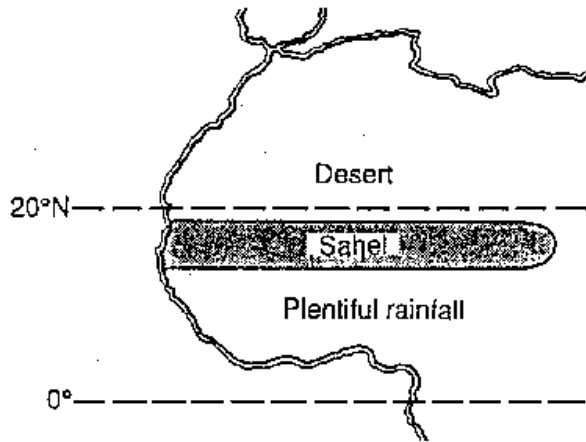


Tropical North Pacific ST versus Total Power Dissipation Index

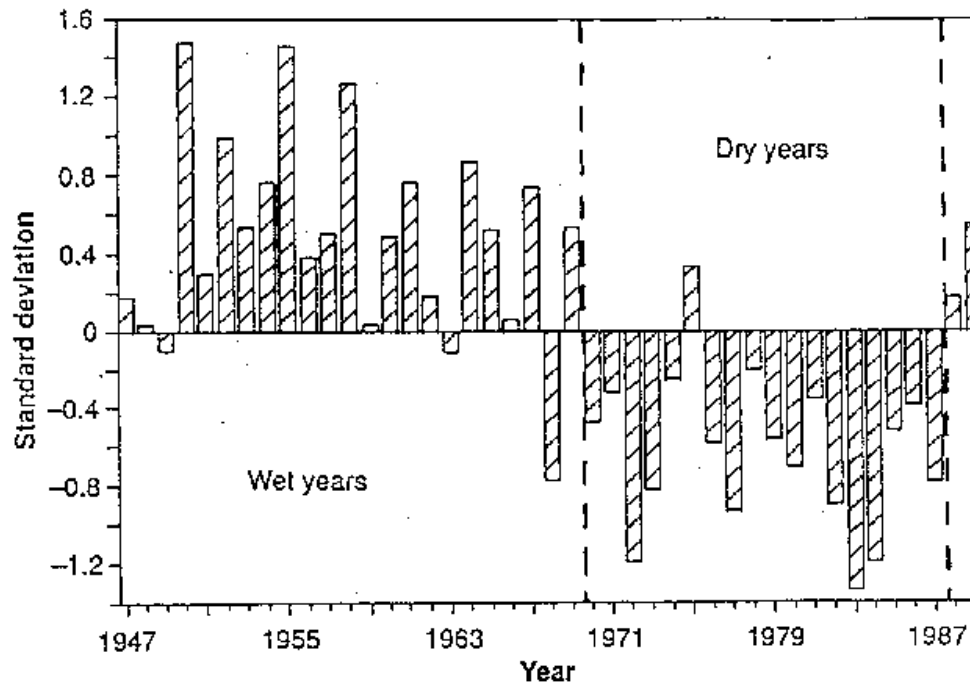


Tropical SST versus ATL and NWP Total Power Dissipation Index

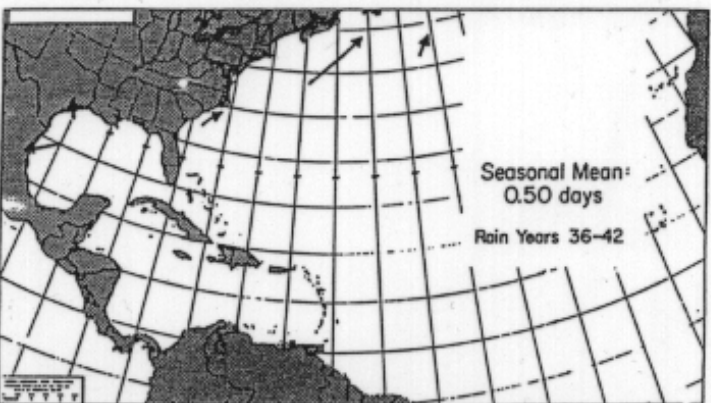
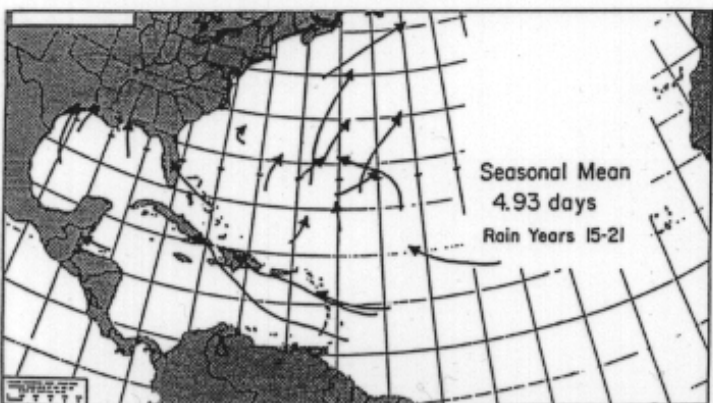
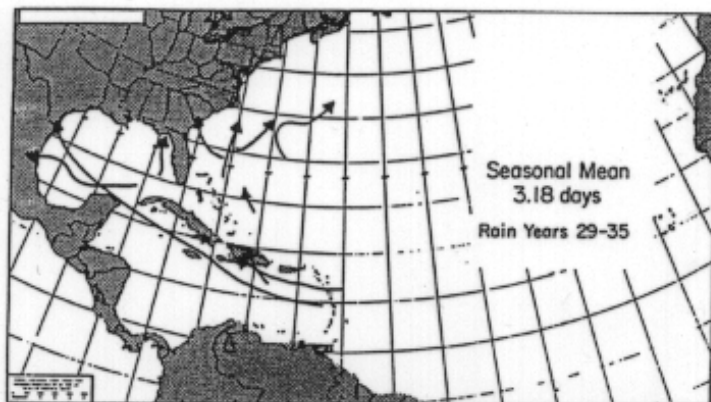
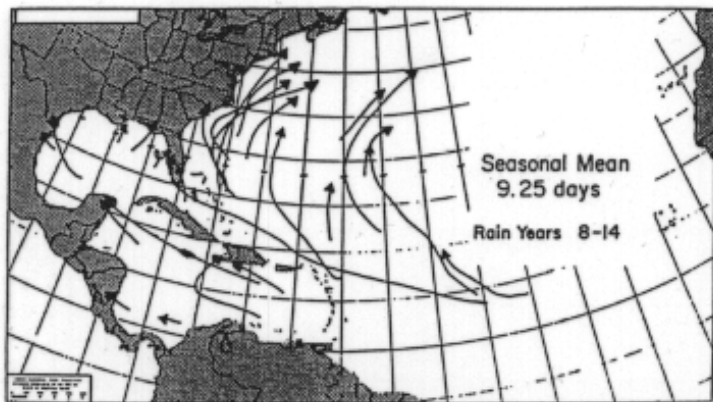
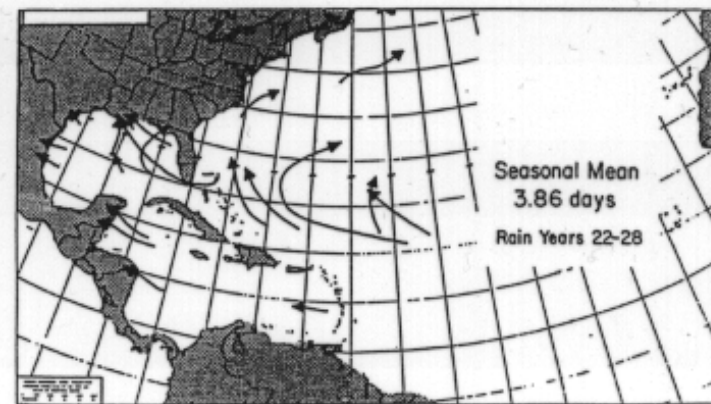
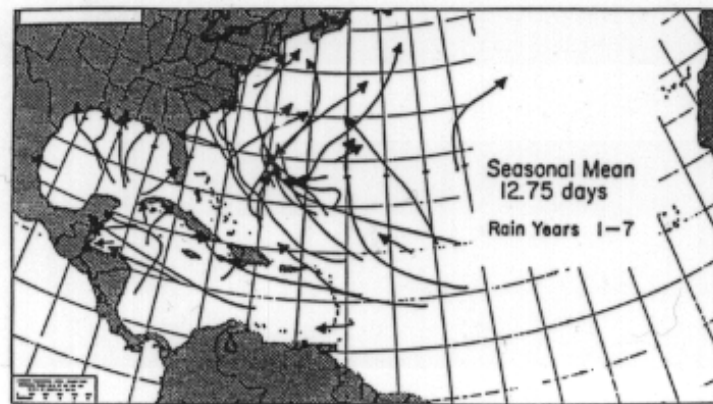




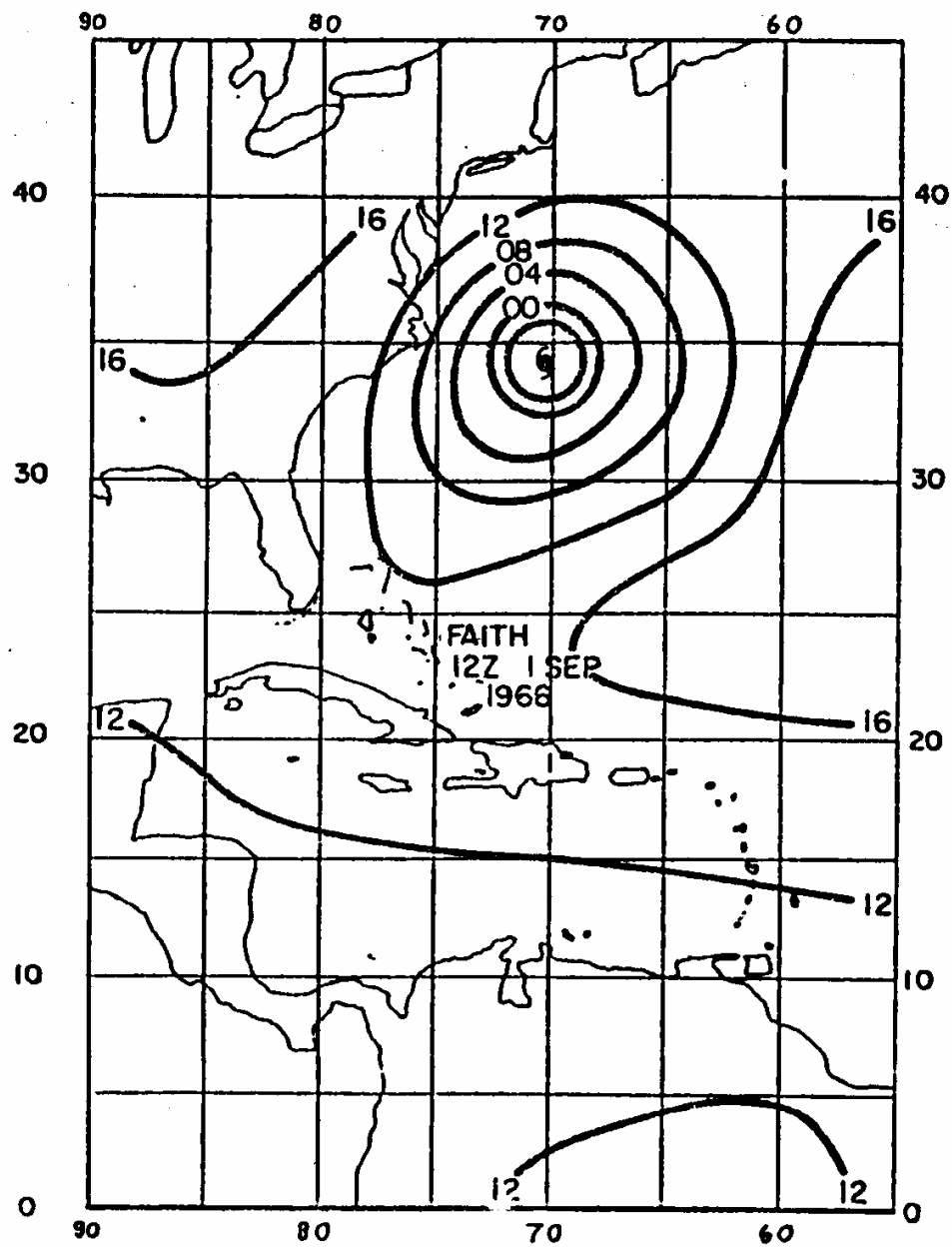
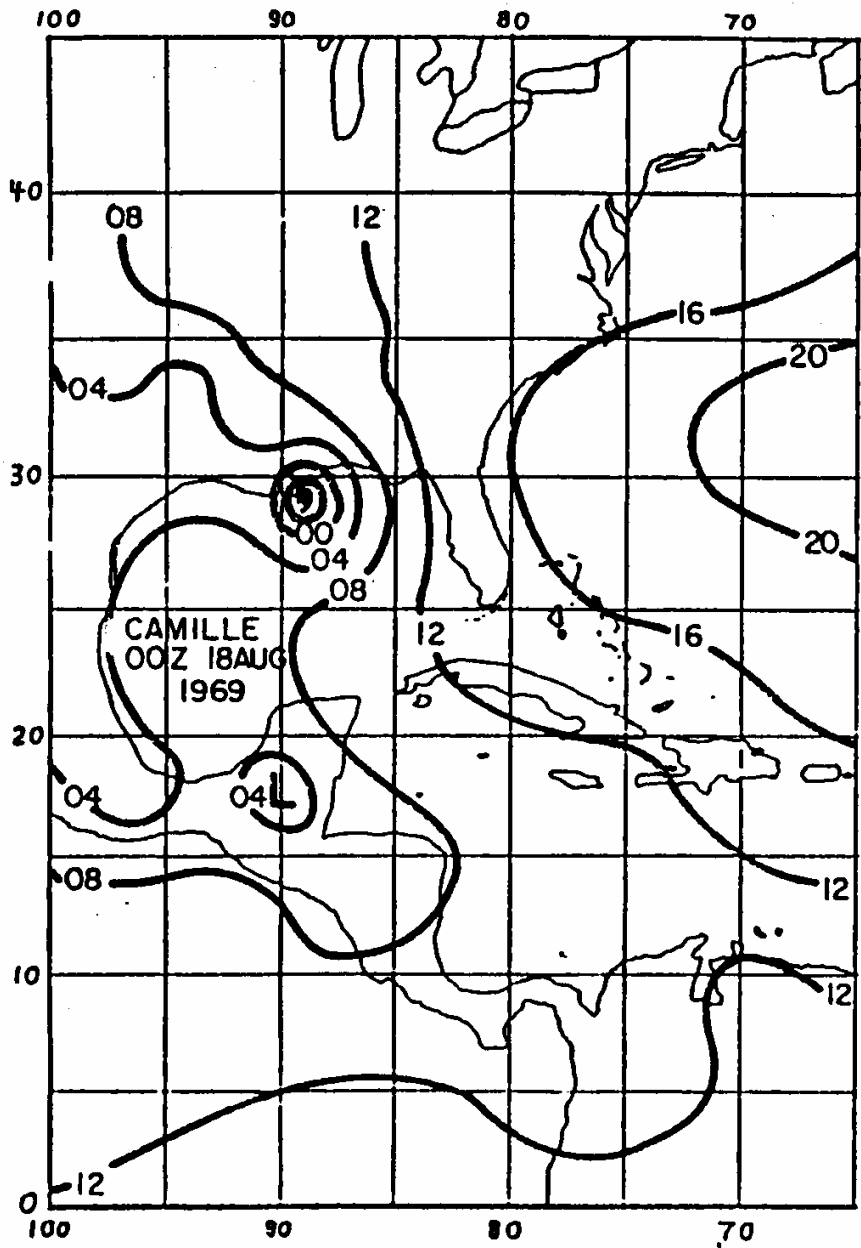
Approximate location of the Sahel region (shaded) of Sub-Saharan Africa; this region is characterized by marginally adequate rainfall and large multidecadal variations in rainfall.



Seasonal precipitation anomalies, expressed in terms of the standard deviation of June through September average rainfall, for 1947 to 1989 at the 38 Western Sahel stations shown above



2
 FIG. 4. Comparison of intense (category 3-5) hurricane tracks stratified into six groups of seven years each based upon the early season (prior to 1 August) rainfall amounts. The top left panel includes the seven wettest individual years, and the bottom right panel is a composite of the seven driest years.



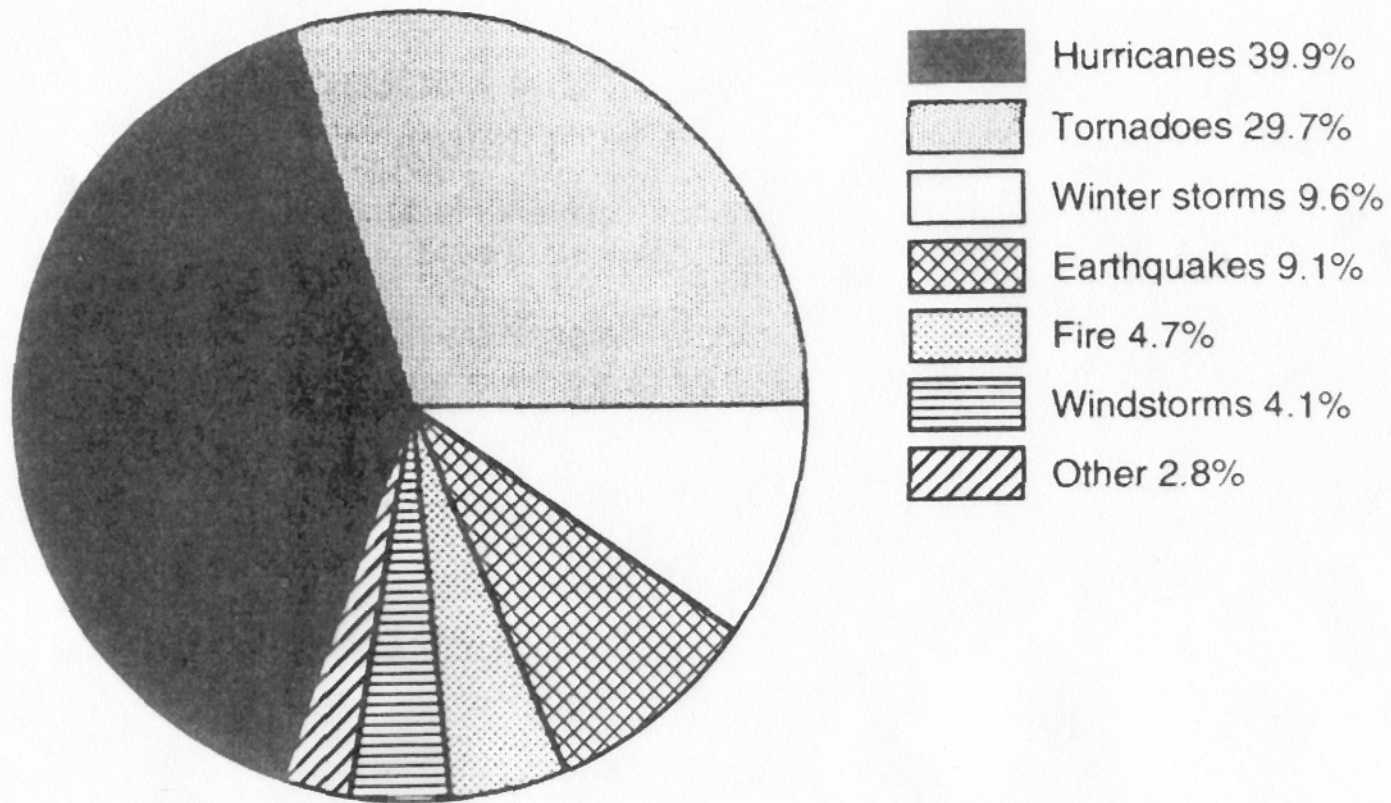


Figure 1.4 Insurance payouts for various disasters for 1984–1993. Source: BTFFDR (1995)

U.S. Insured Losses to Hurricanes: 1950-1995

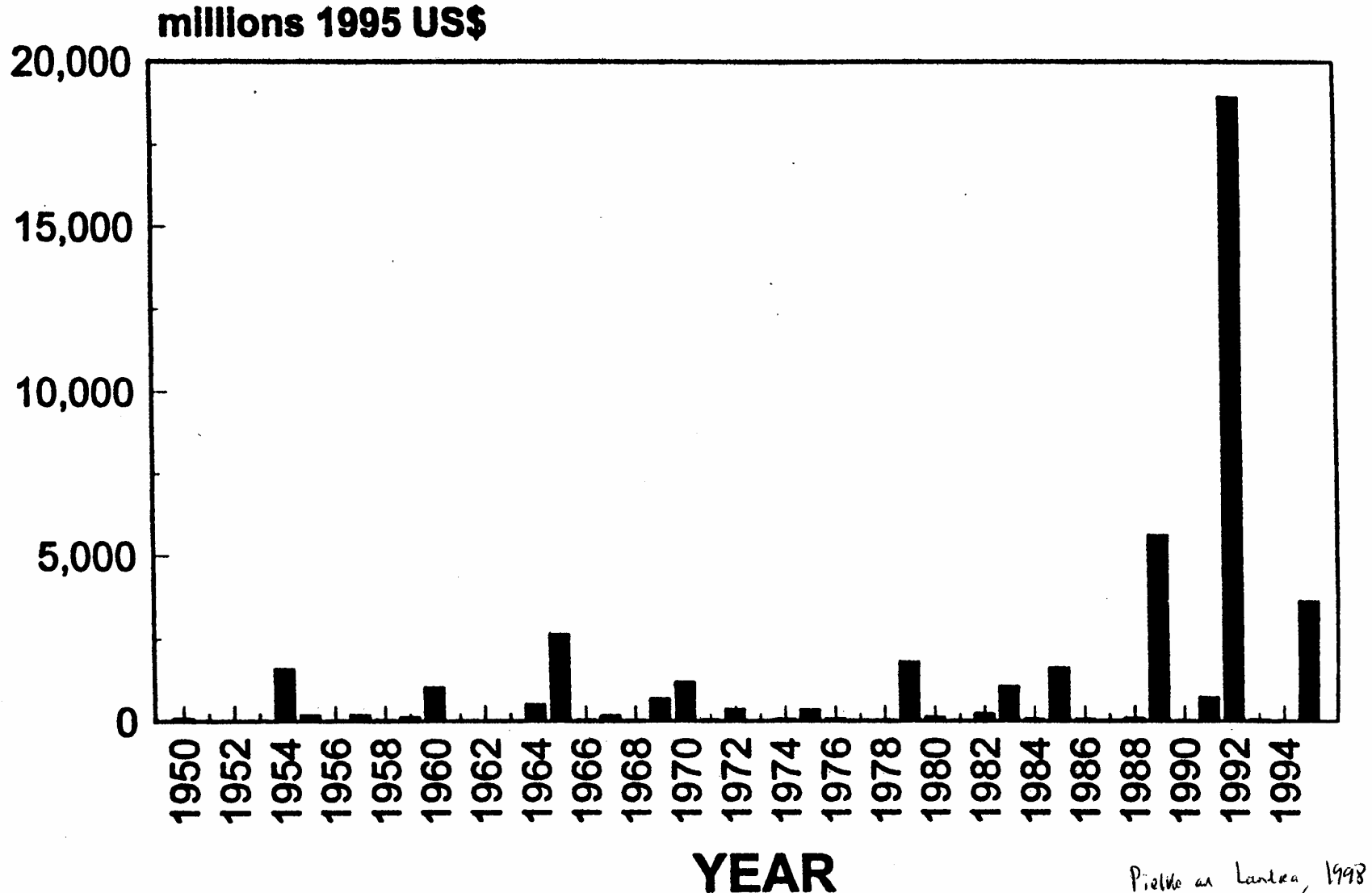


FIG. 2. Time series of hurricane-related insured losses in the United States (in millions of 1995 U.S. dollars) from 1950 to 1995 (data provided courtesy of Property Claims Services, Inc.).

US Normalized Tropical Cyclone Damage 1925-1996

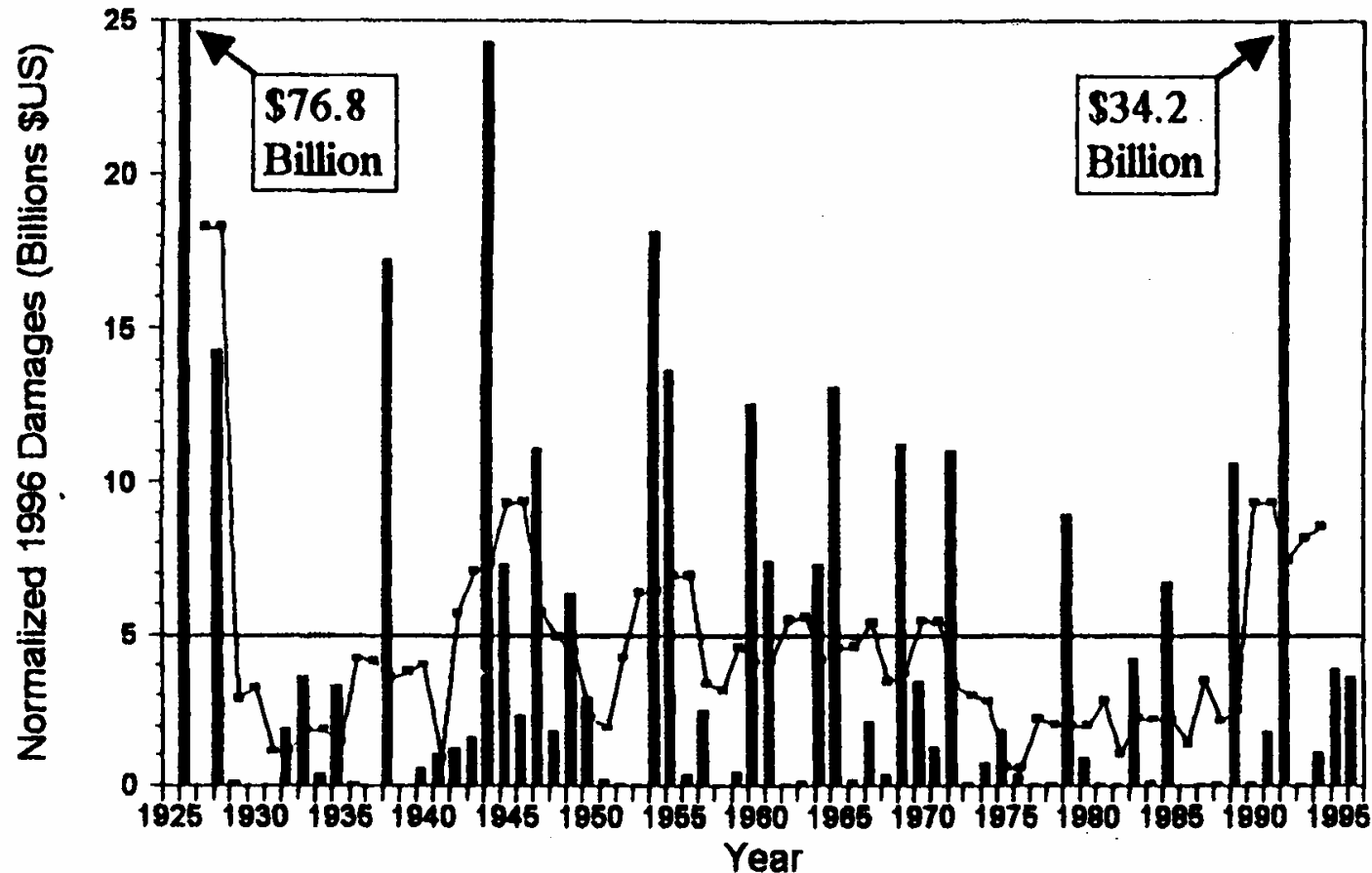


Figure 13. Time series of annual normalized tropical cyclone damage for the U.S. East and Gulf Coasts. The long-term (1950–90) average of \$3.5 billion per year (solid line) as well as a five year running mean (light curve) are superimposed on the time series. Damage is normalized to 1996 dollars by inflation, coastal county population changes, and an index of personal property amounts.