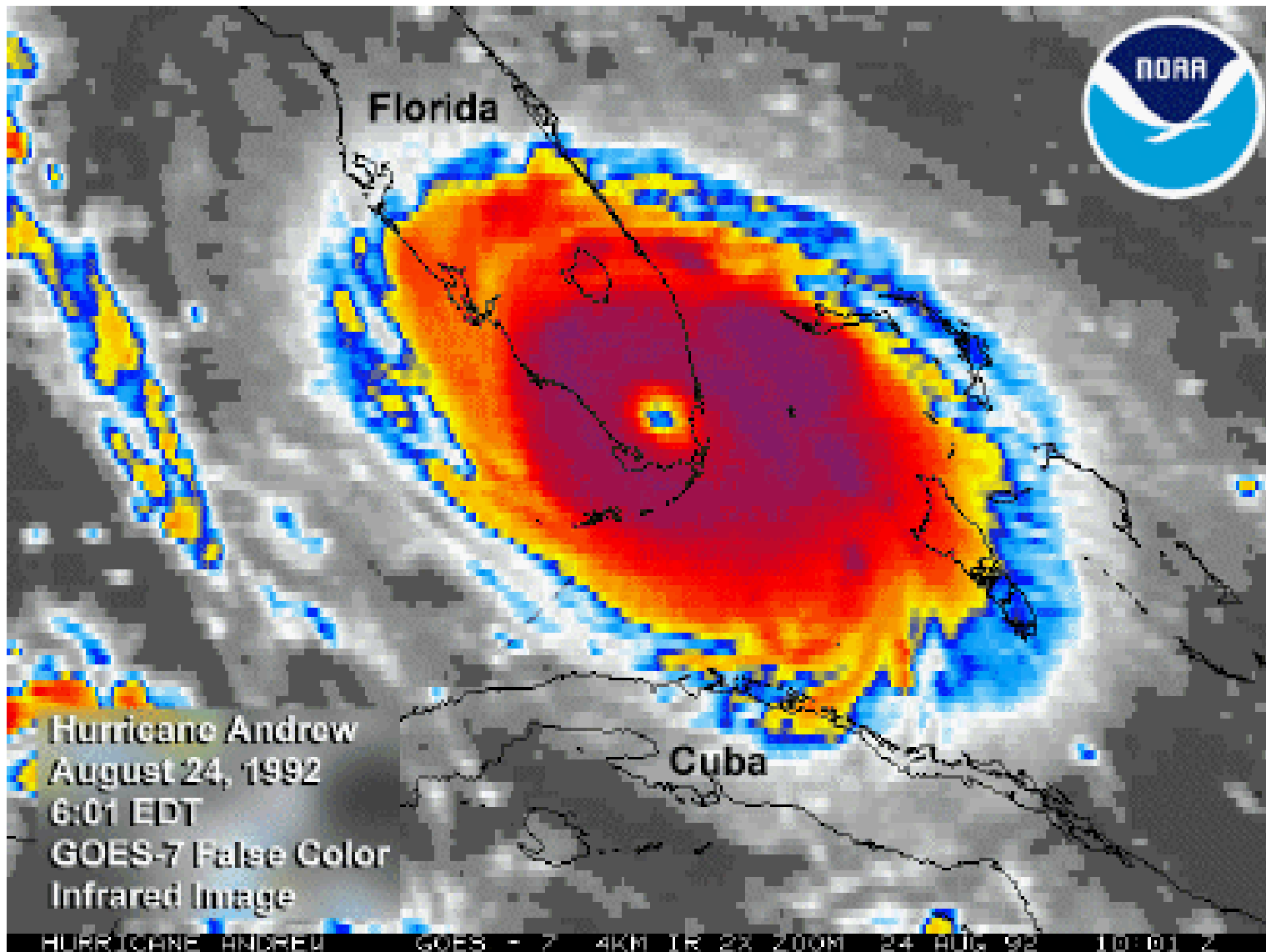


Notorious Storms

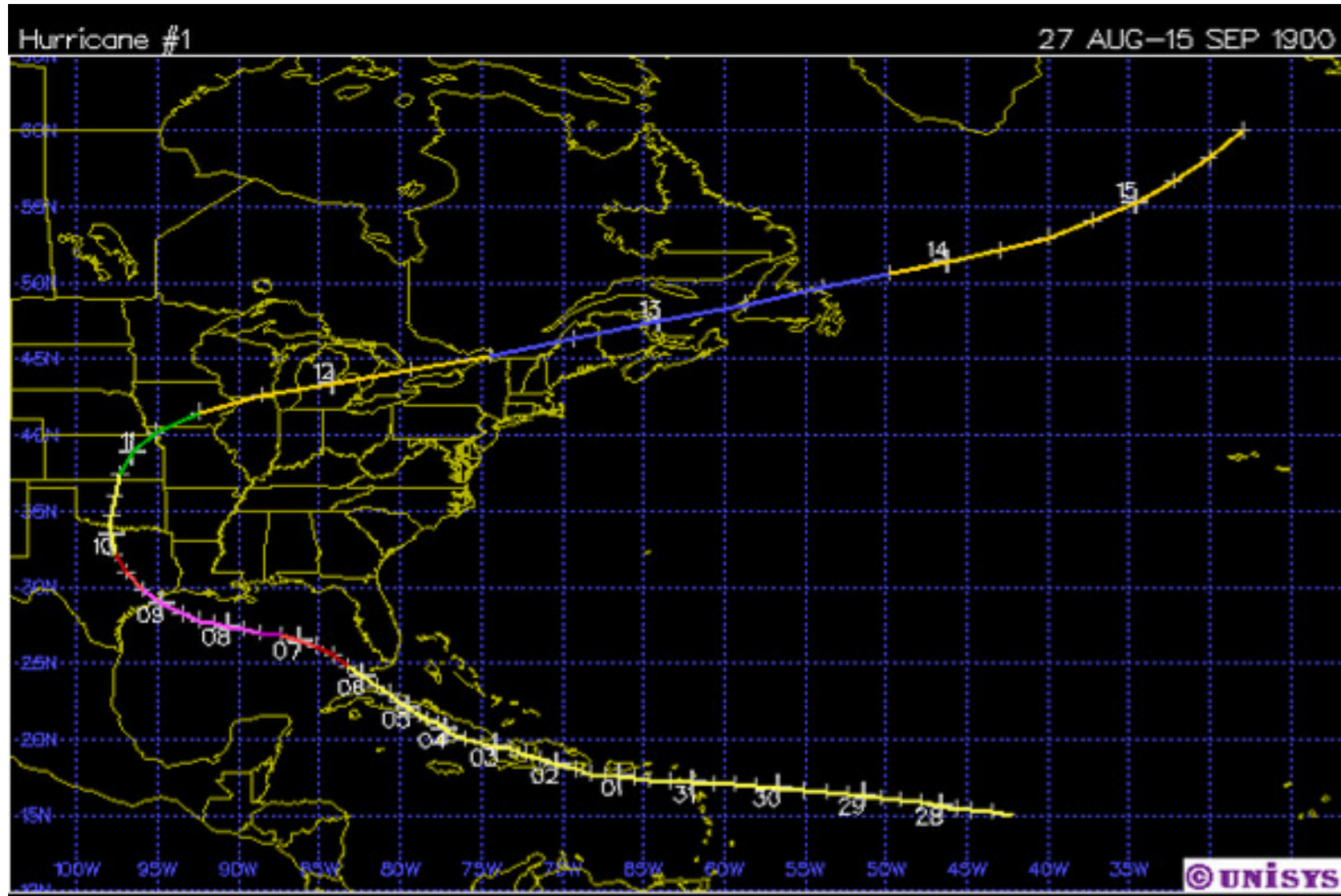


Major Early Atlantic/Carib Storms

- 1559 Pensacola Bay NW Fla, 4 Tristan de Luna Fleet ships sunk
- 1622 Marquesas Islands, W Fla Keys, 3 Spanish Treasure Fleet galleons sunk including Atocha & Margarita
- 1715 Ft Pierce, Gold Coast, SE Fla, 11 Spanish Treasure Fleet galleons sunk
- 1733 Mid-Upper Fla Keys, 20 Spanish Treasure Fleet ships/galleons sunk

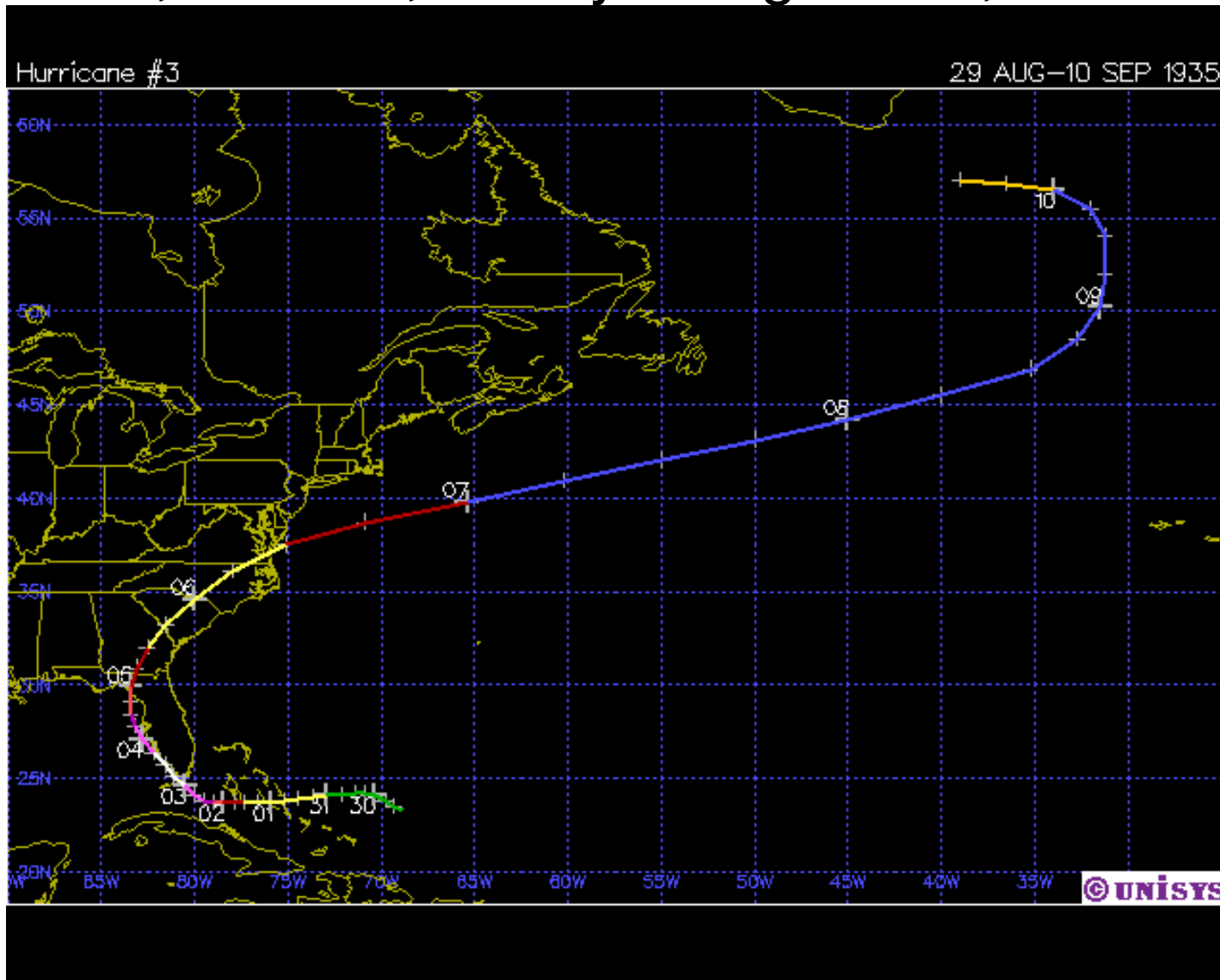
Cat 4 Galveston Hurricane 1900

125+ Kts, 936 mb, 12,000 killed!



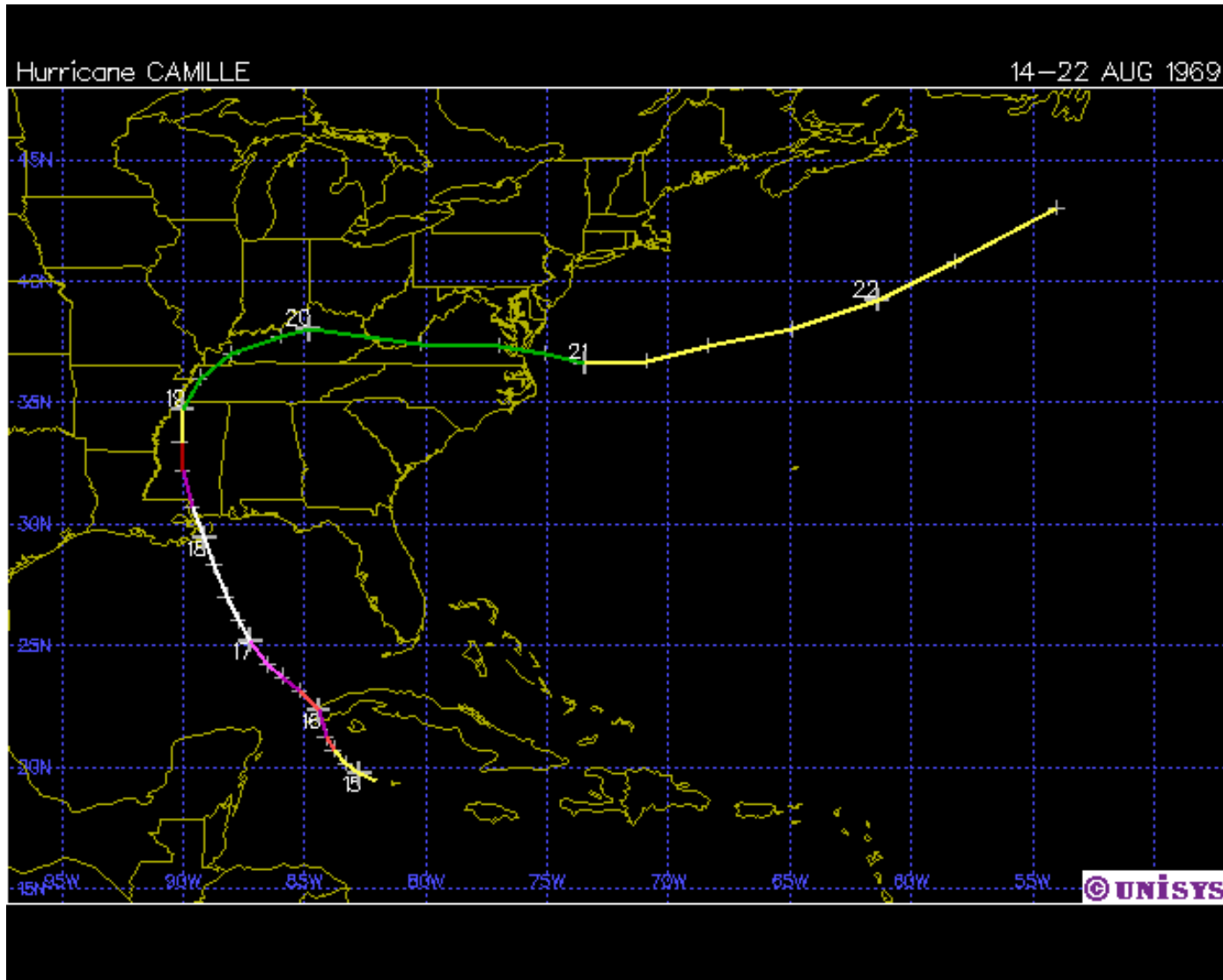
Cat 5 Labor Day Hurricane 1935

160+ kts, 892 mb, FI Keys/Flagler RR, 800 killed

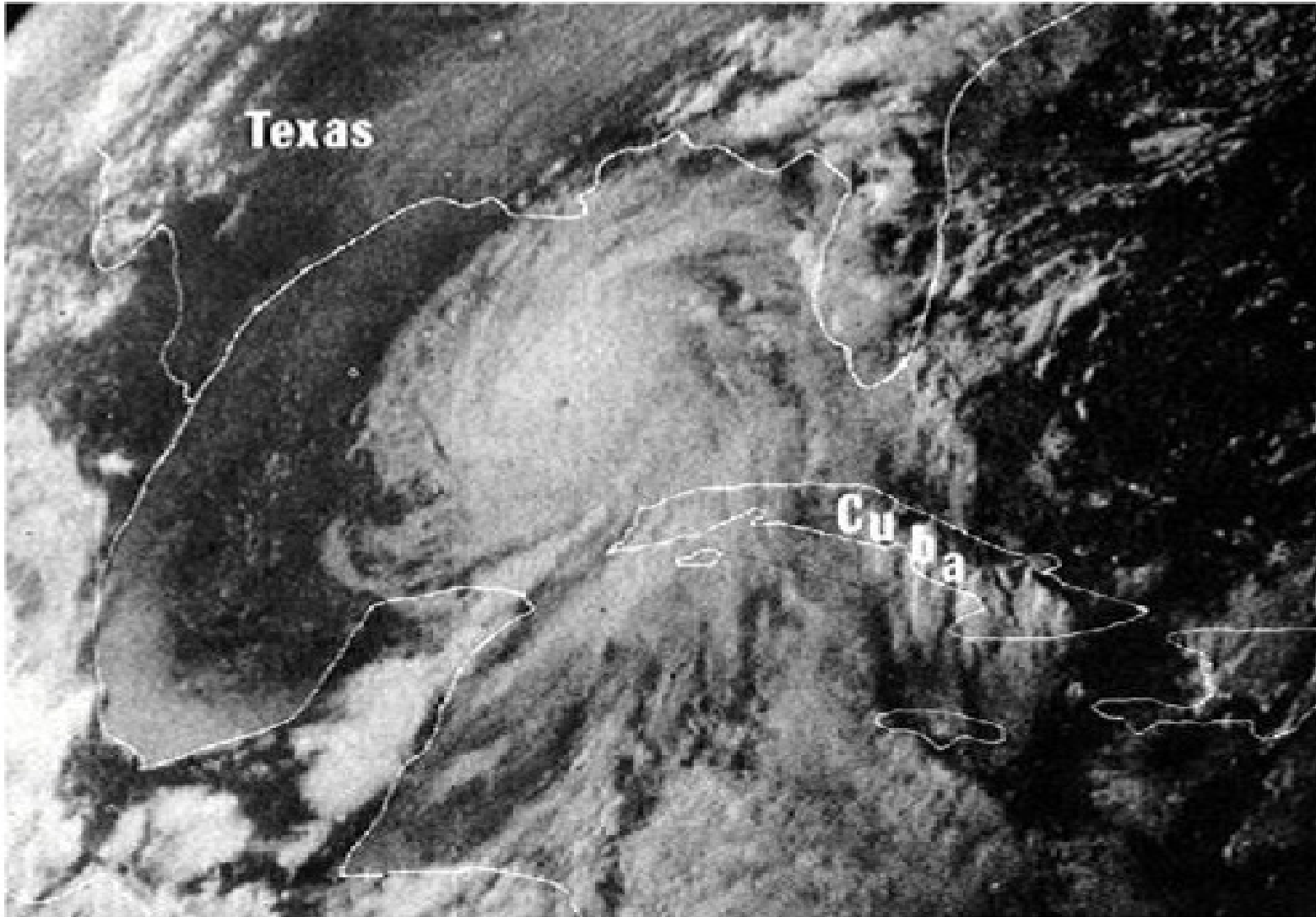


Cat 5 Hurricane Camille 1969

165+ kts, 905 mb, strongest ever? LA coast



Hurricane Camille -1969

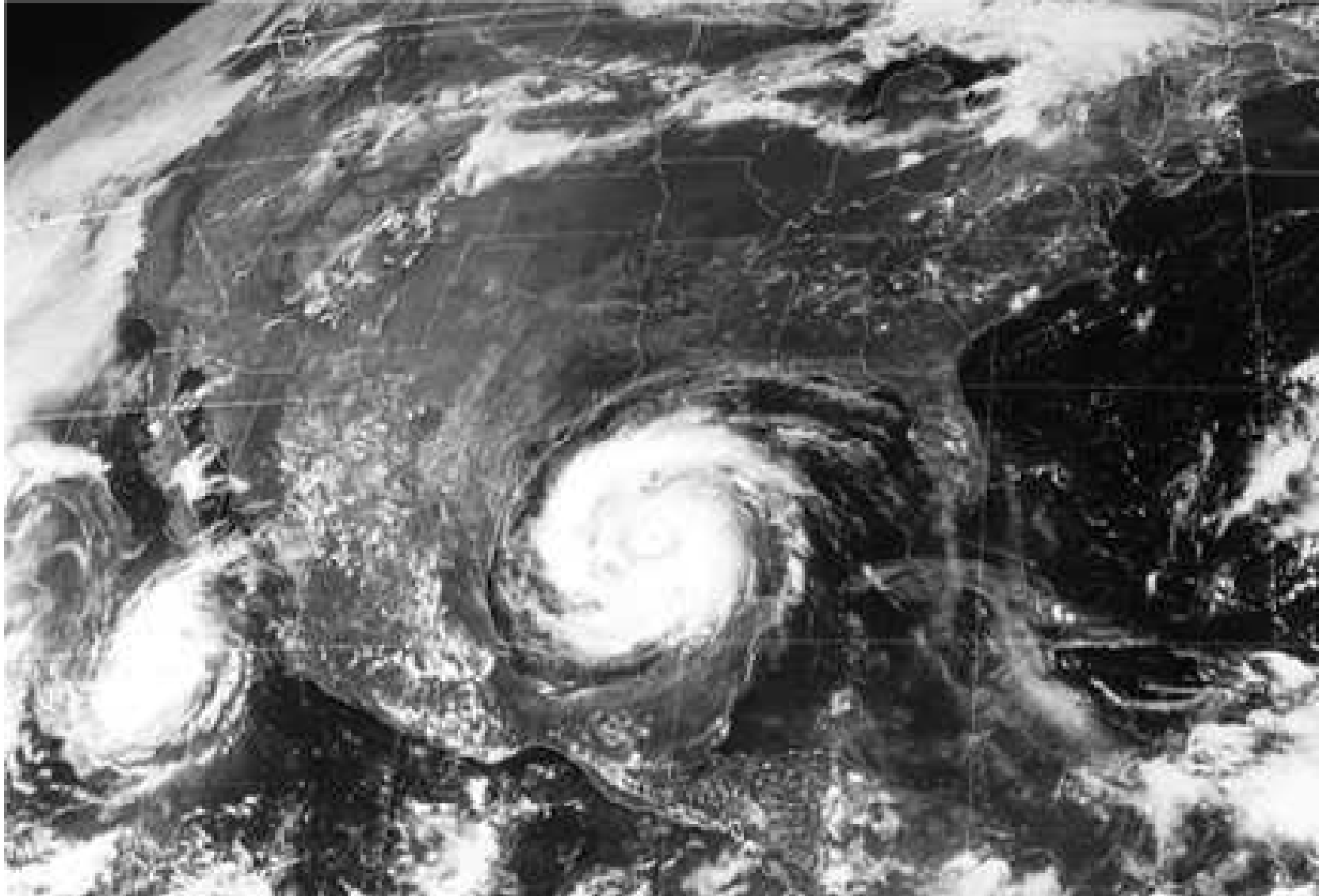


Hurricane Camille in 1969.

Perhaps the strongest recorded hurricane in modern history, Hurricane Camille

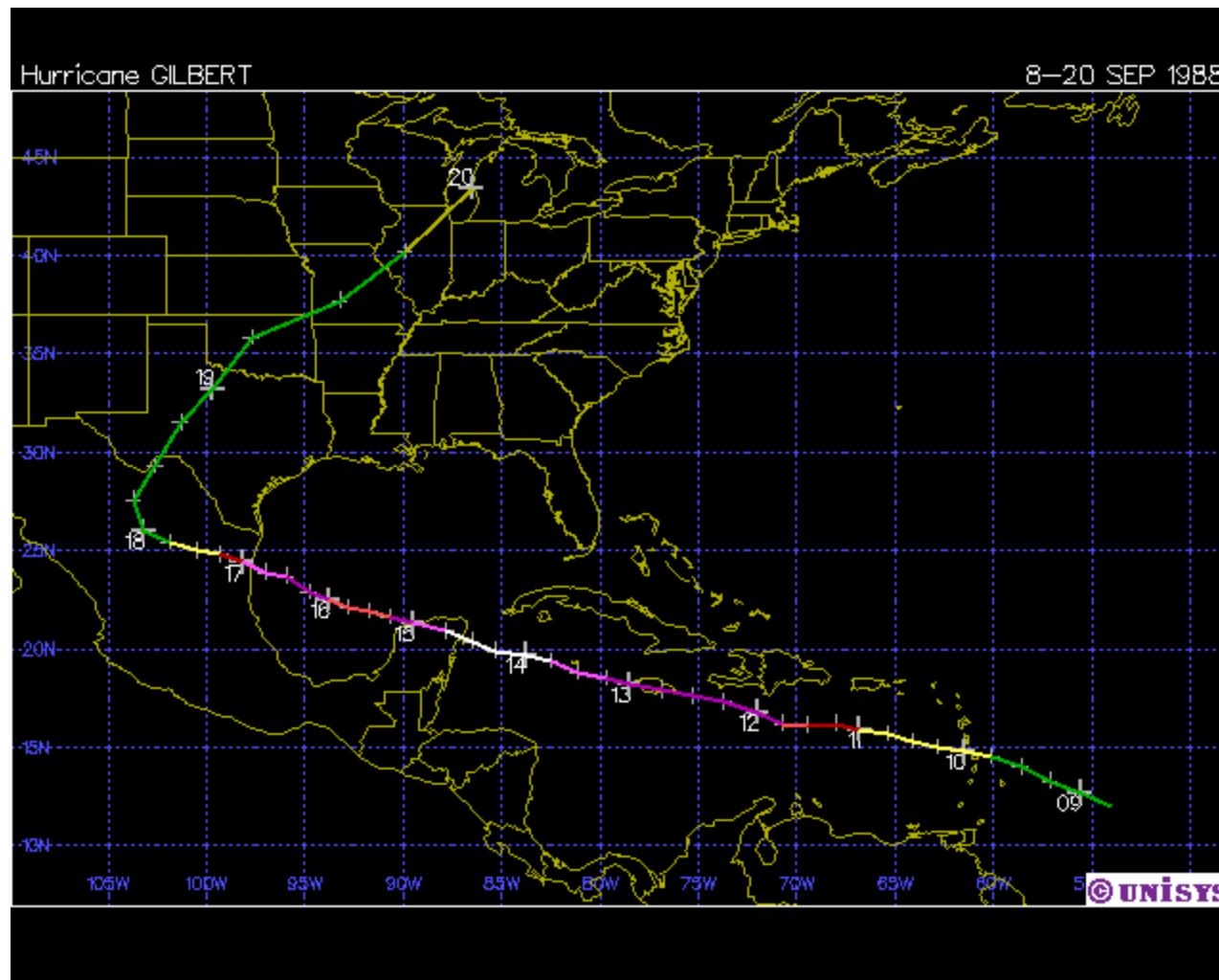
Cat 5, Hurricane Allen, 1980

160 kts, 899 mb, TX coast



Cat 5 Hurricane Gilbert 1988

888 mb, 165+ kts, largest ever?, Yucatan



Hurricane Gilbert



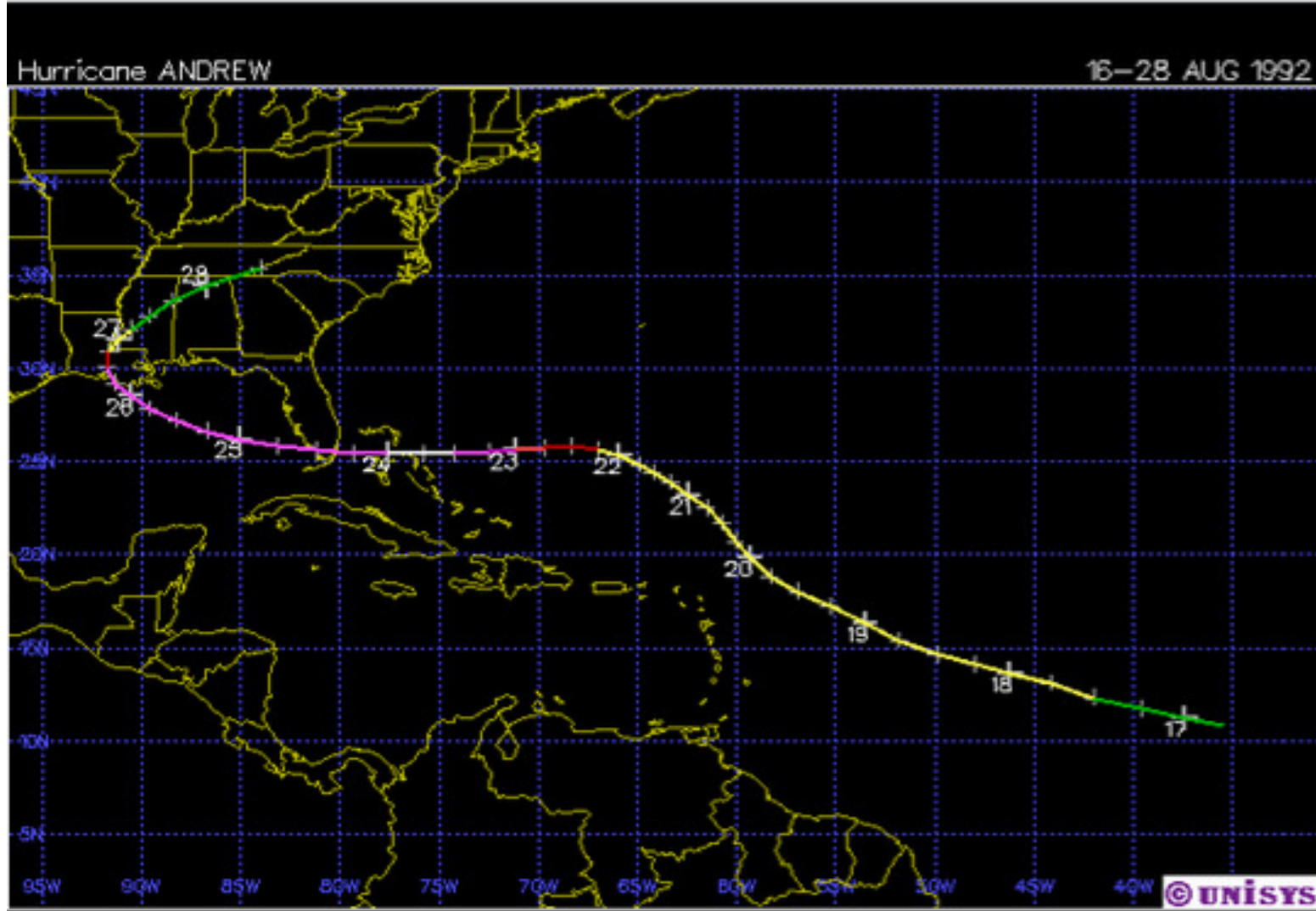
Cat 5, Hurricane Hugo, 1989

140 kts, 918 mb, SC coast

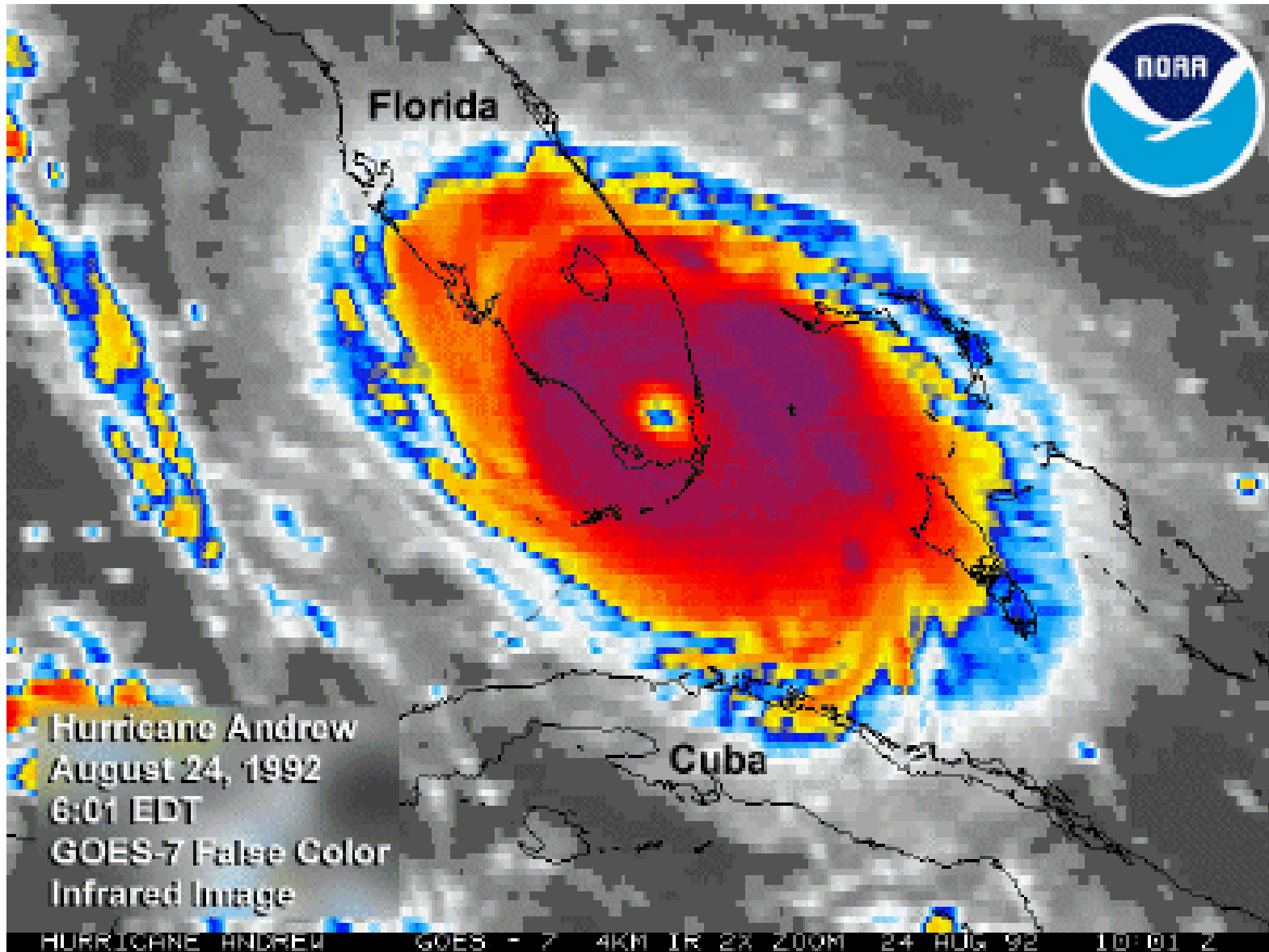


Cat 5 Hurricane Andrew 1992

150+ kts, 922 mb, S Miami/LA, \$8B



Hurricane Andrew 1992

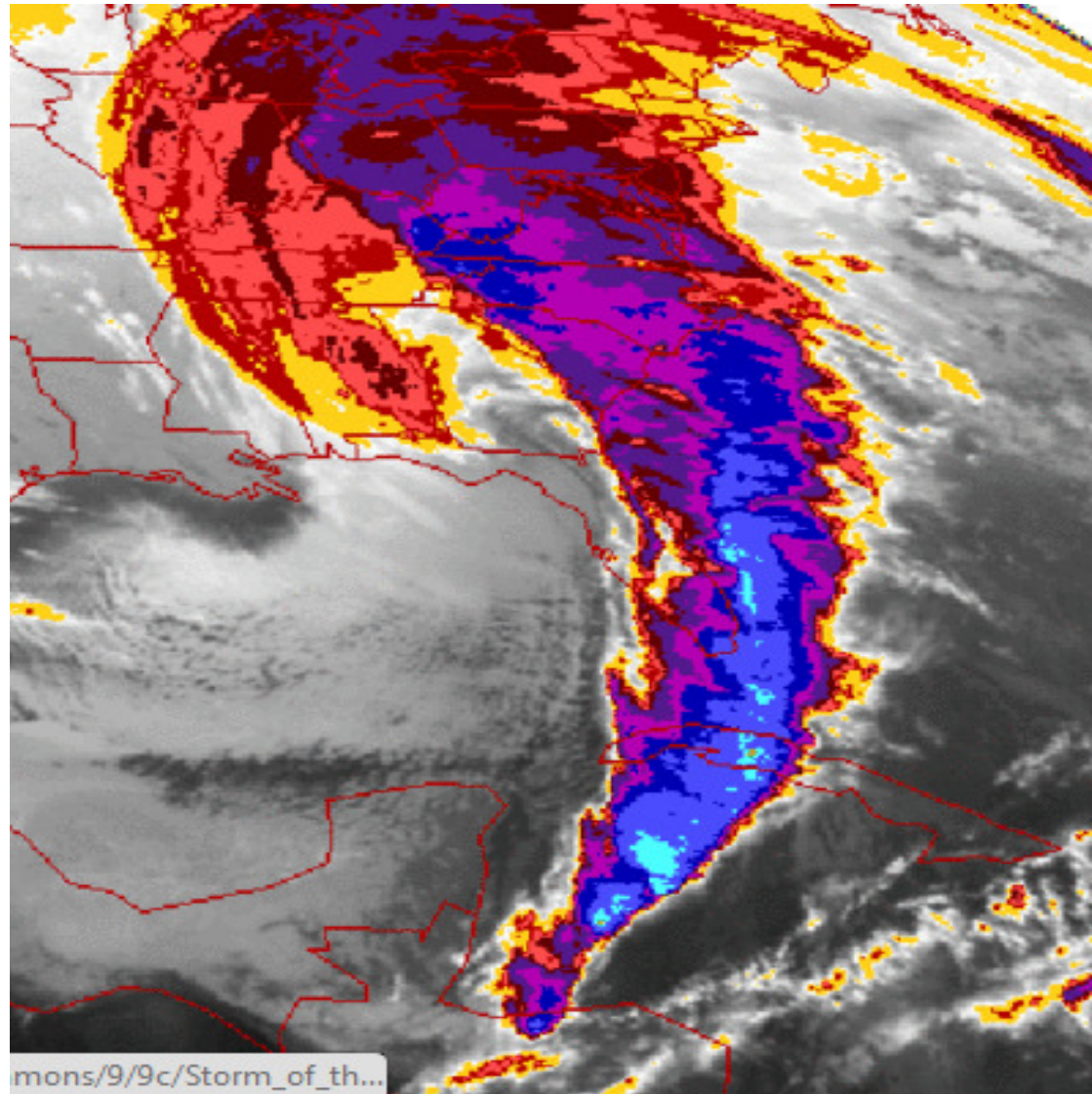


Hurricane Andrew



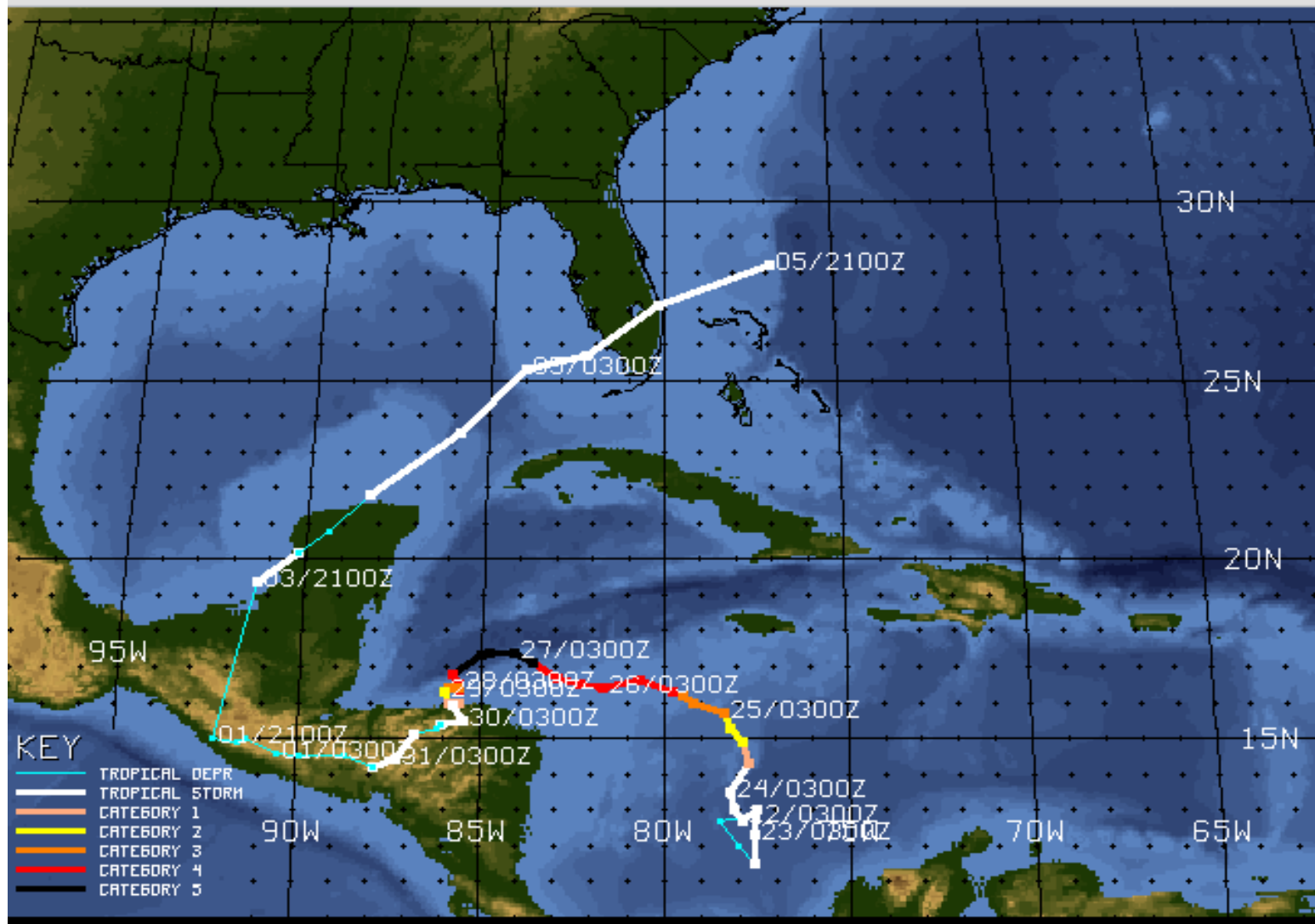
Mar 1993 Storm of the Century

100+ knots, 960 mb, 310 killed, \$6.5B

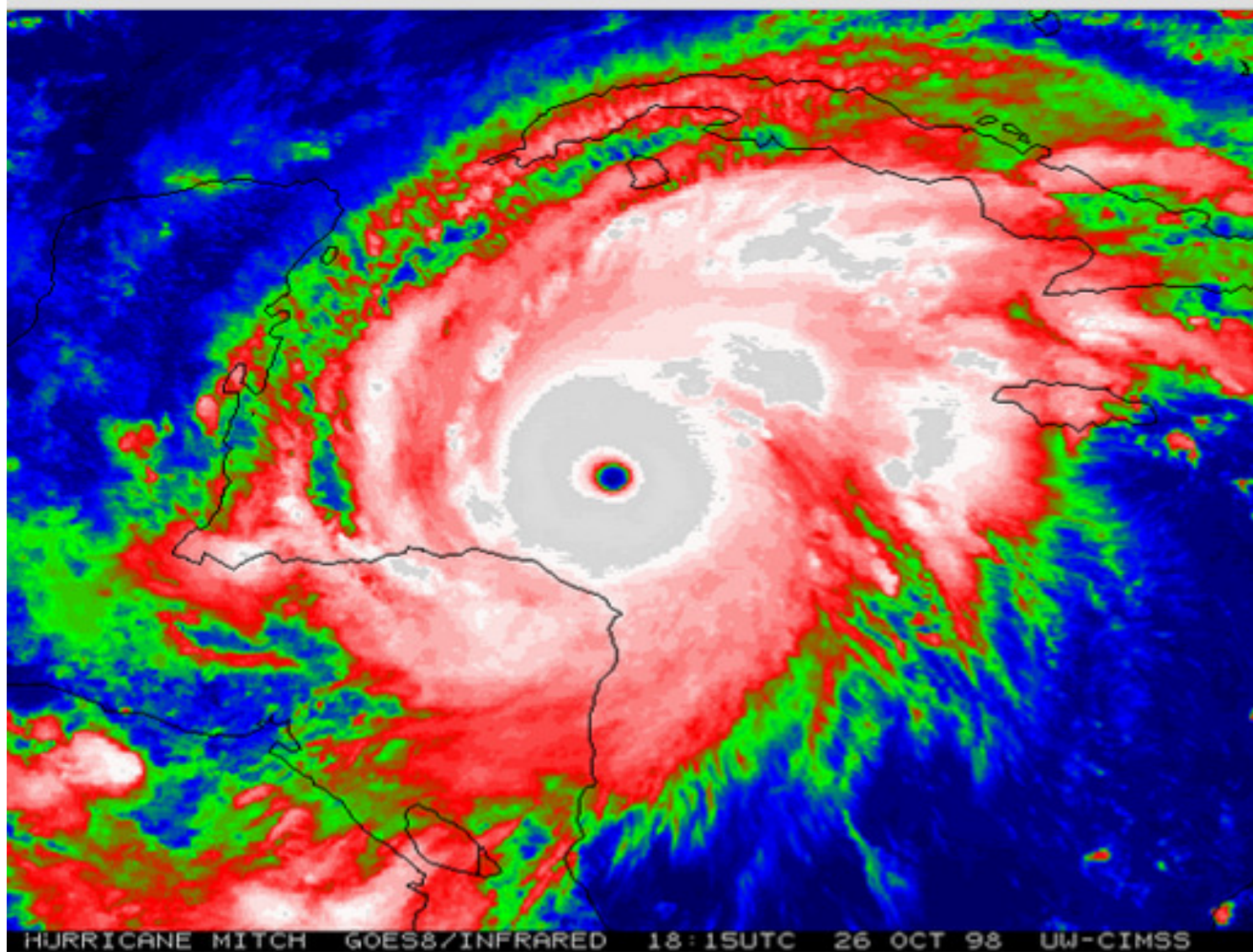


Cat 5 Hurricane Mitch/Earl 1998

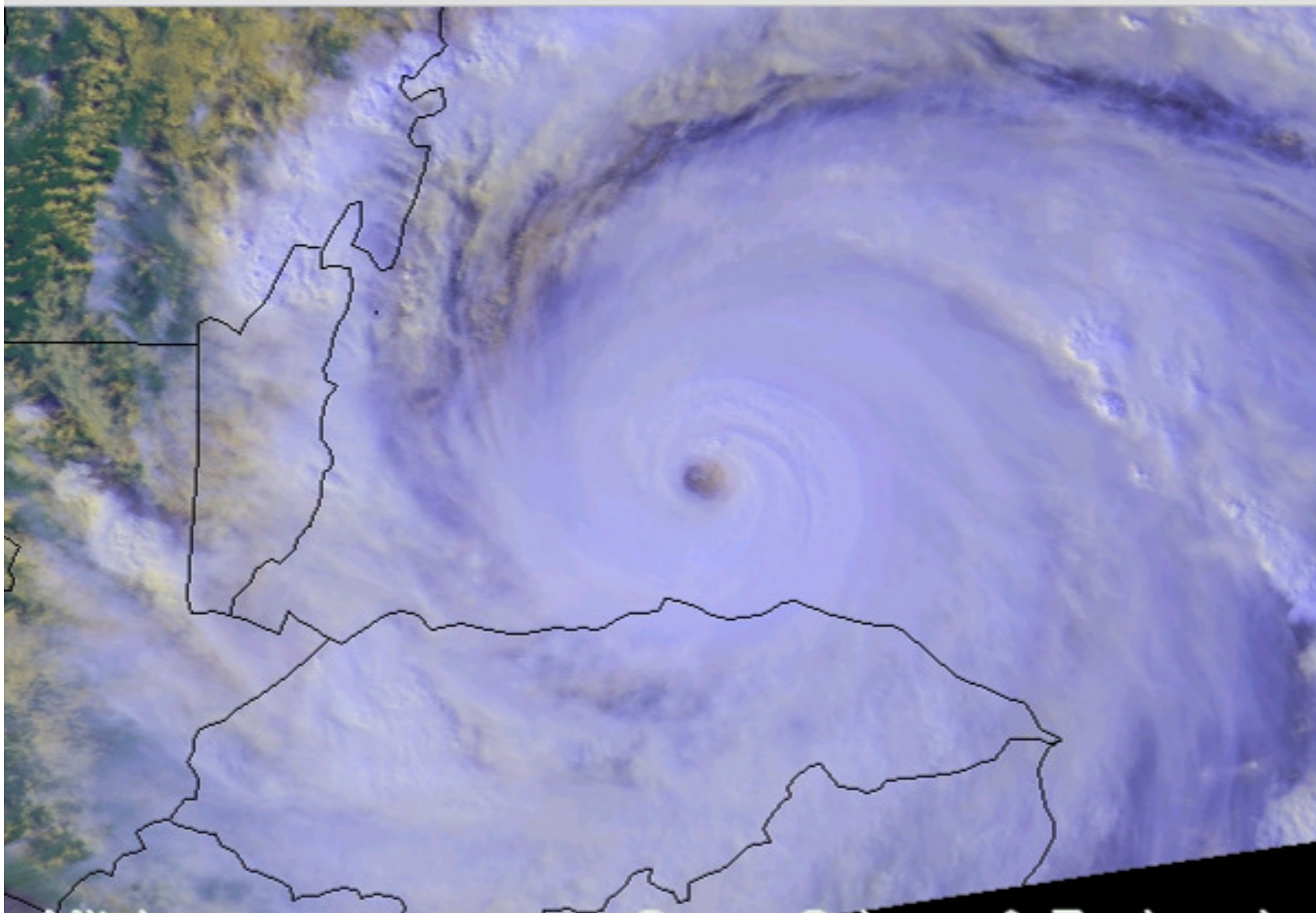
155+ Kts, 905 mb, 9K killed, S/V Fantome



Hurricane Mitch 1998

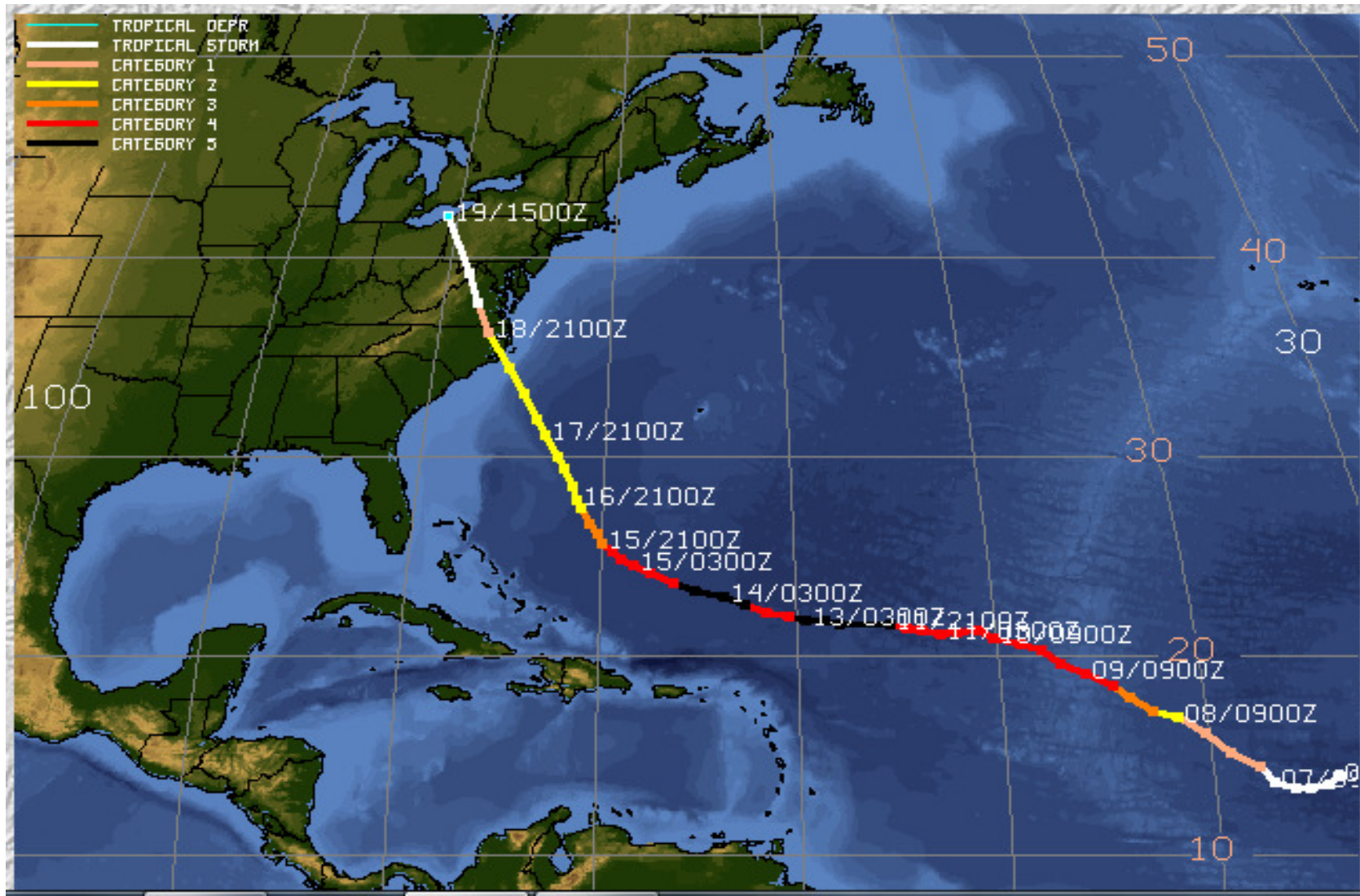


Hurricane Mitch 1998

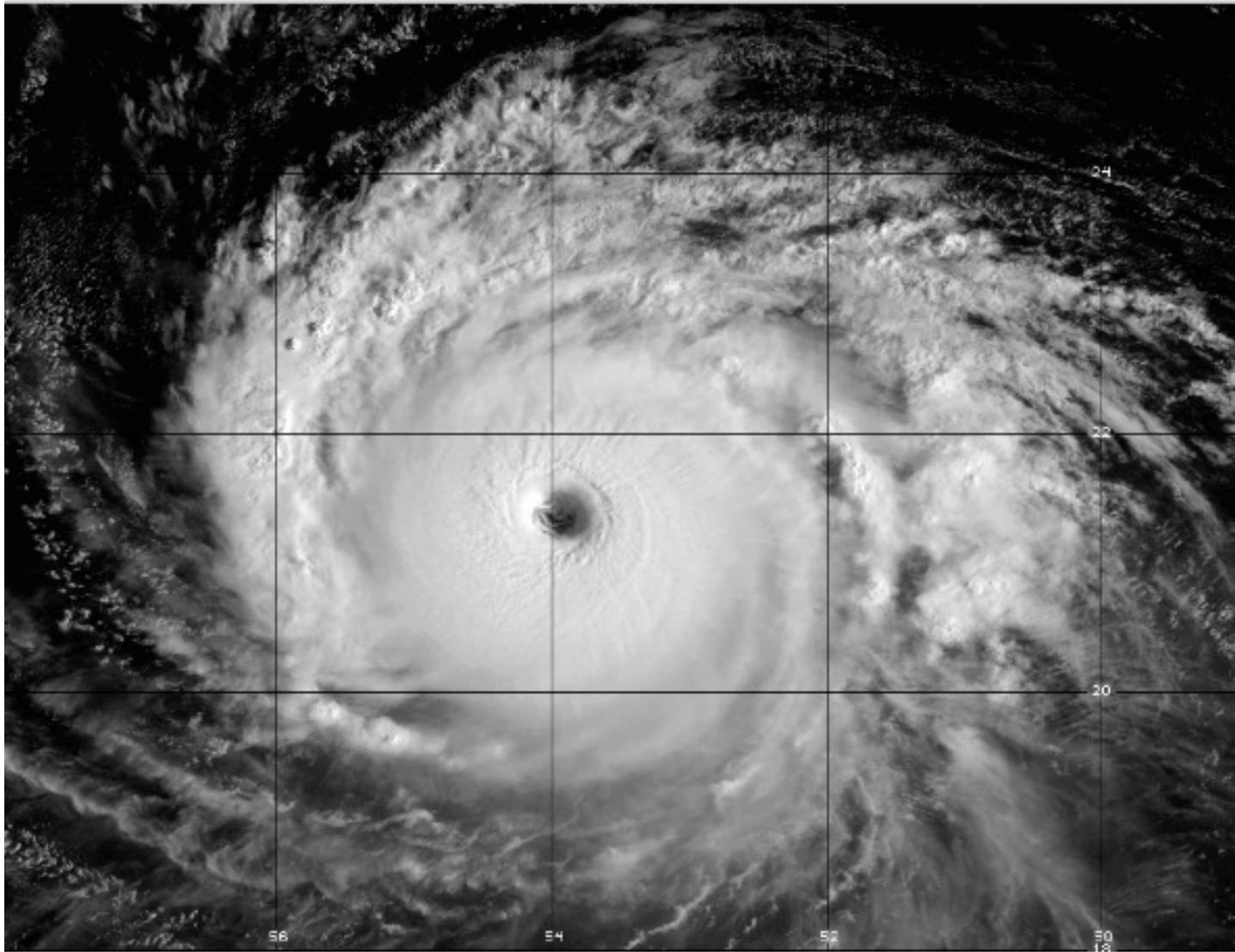


Cat 5 Hurricane Isabel 2003

140+ kts, 920 mb, Cape Hatteras

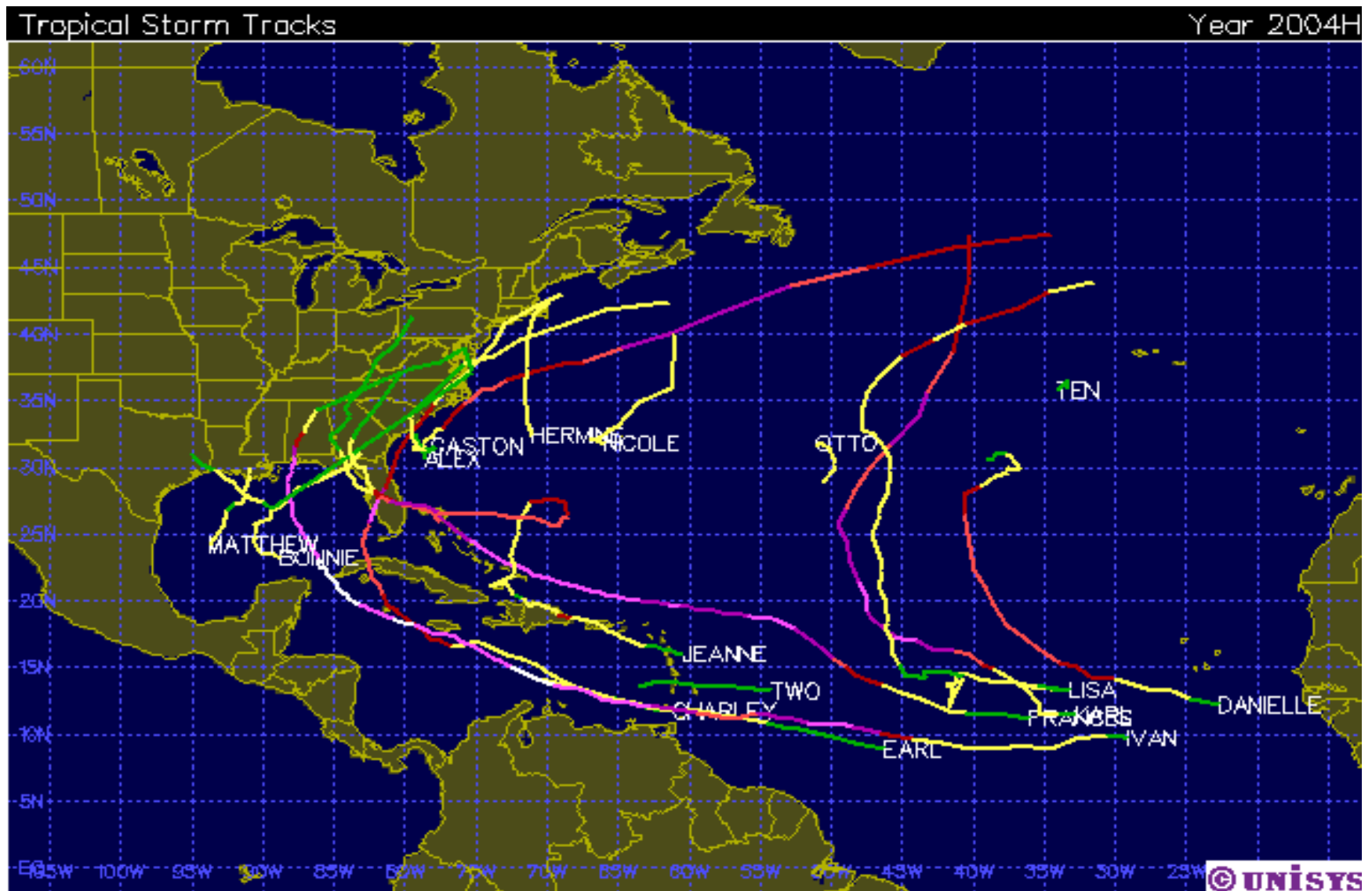


Hurricane Isabel 2003



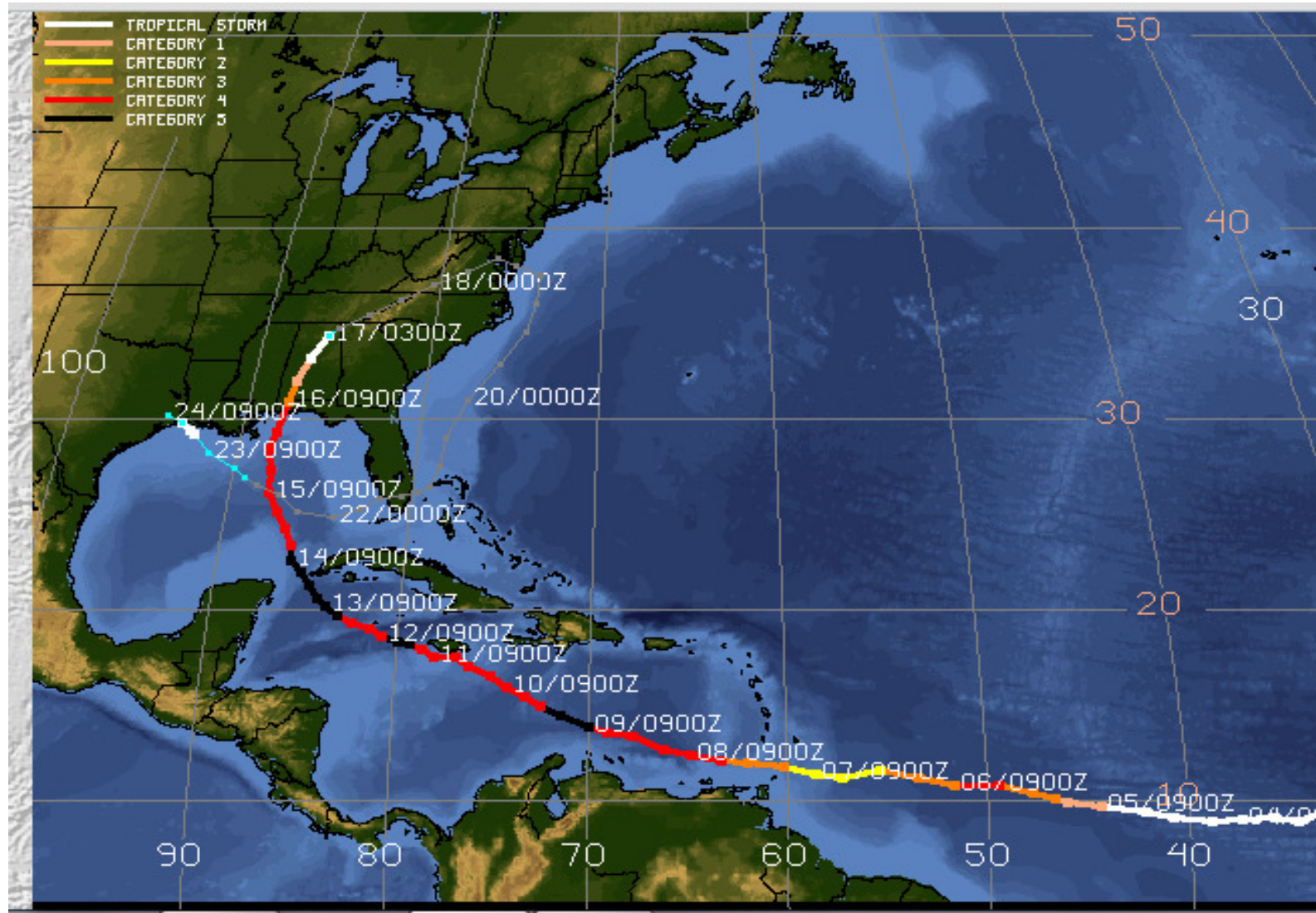
2004 Hurricane Season

6 big storms thru FL, ruined FL insurance



Cat 5 Hurricane Ivan 2004

145+ kts, 910 mb, Grenada/Pensacola

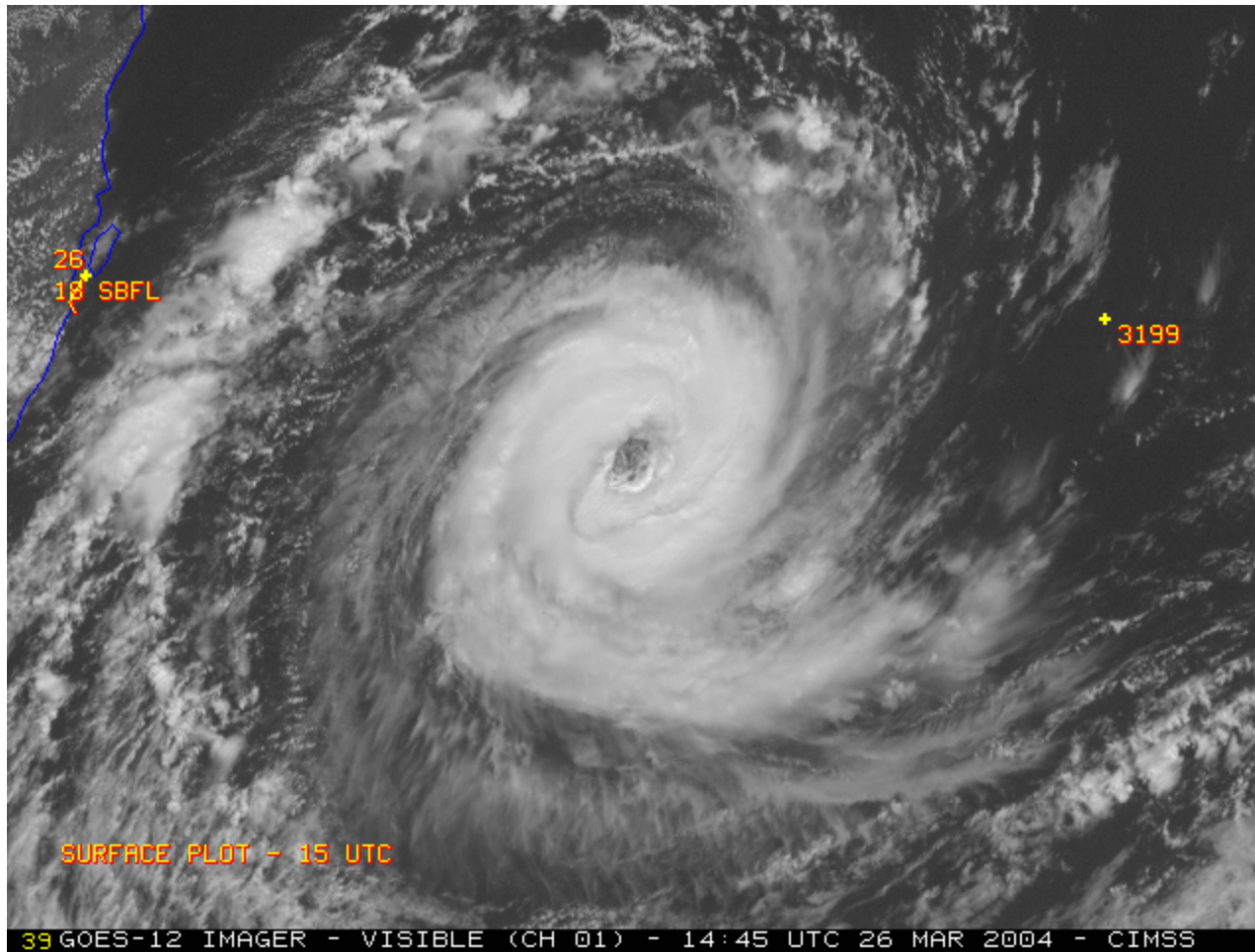


Hurricane Ivan 2004



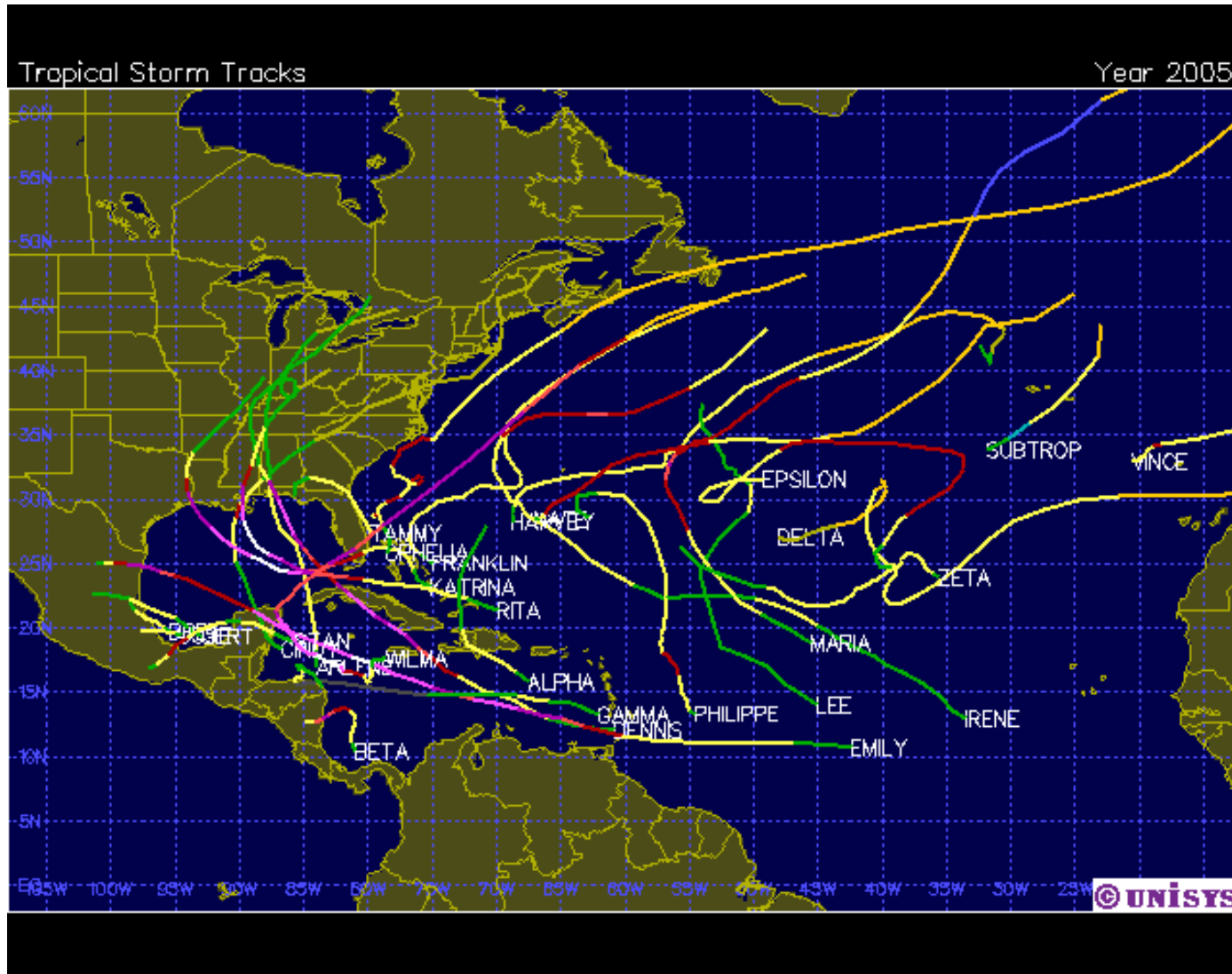
Cat 2 Cyclone Caterina 2004

85+ Kts, rare S Atlantic storm, off Brazil



2005 Hurricane Season

30 storms!, 4 Cat 5s

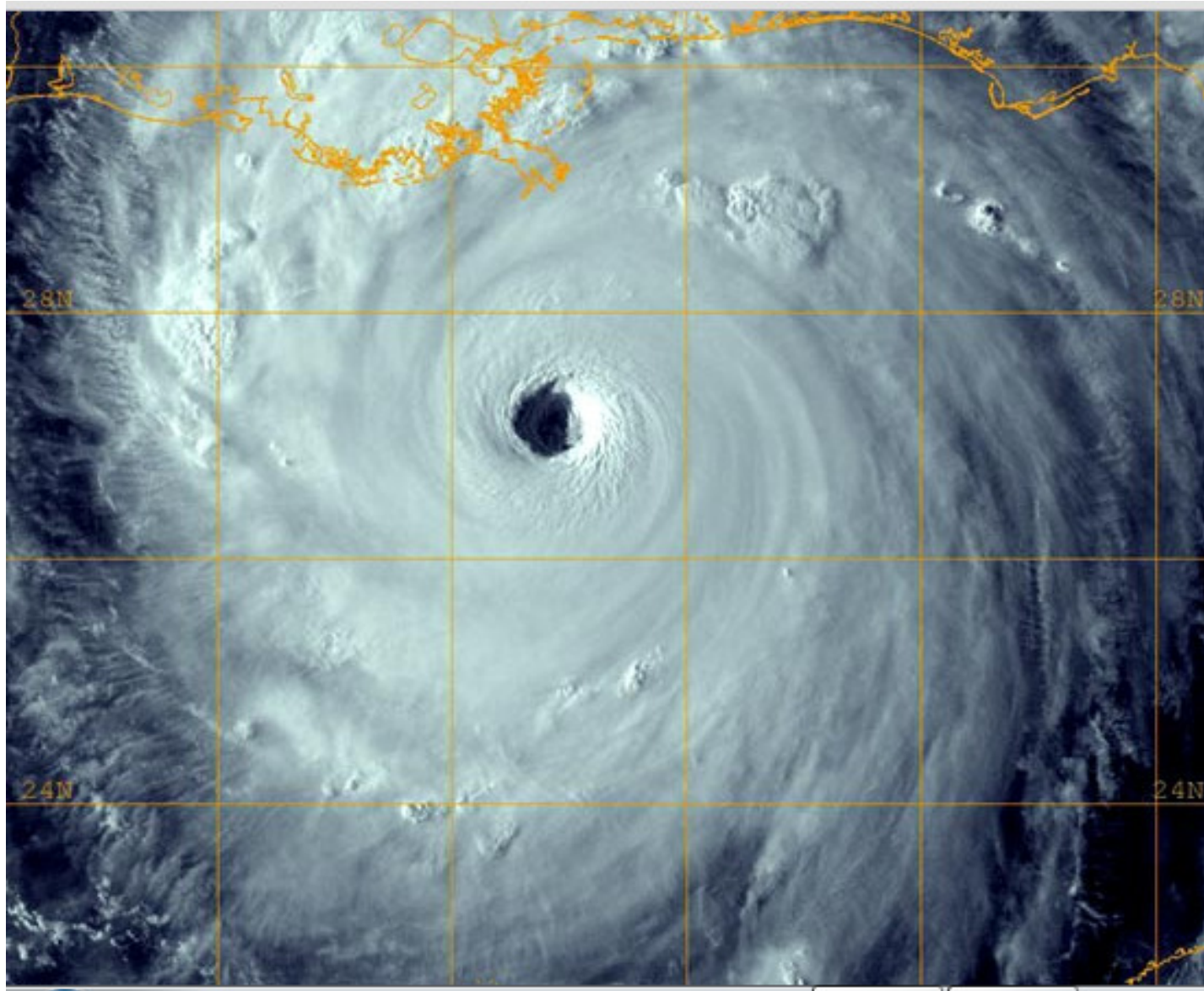


Cat 5 Hurricane Katrina 2005

150+ kts, 902 mb, N Orleans, 25' surge, \$108B

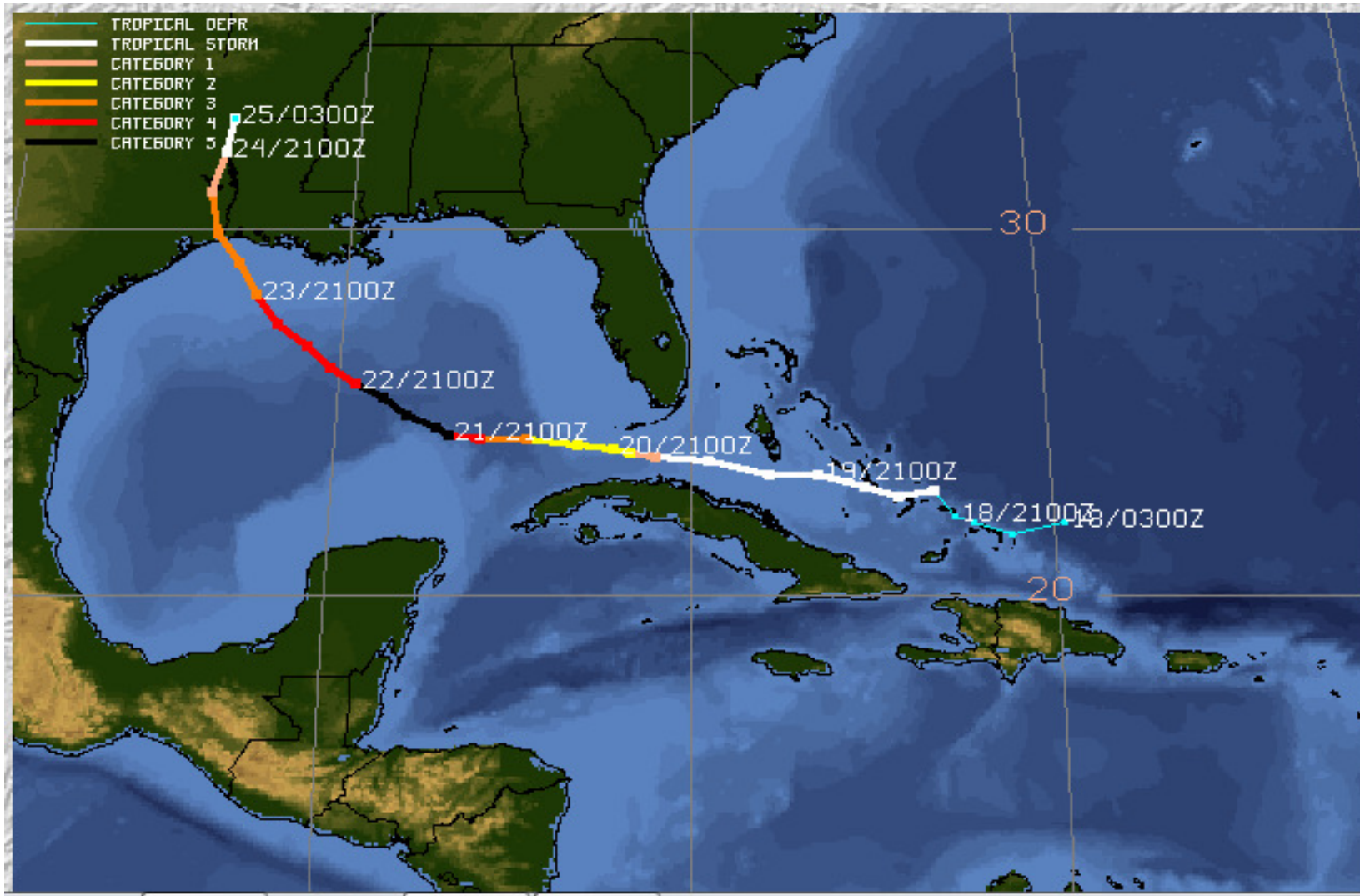


Hurricane Katrina 2005

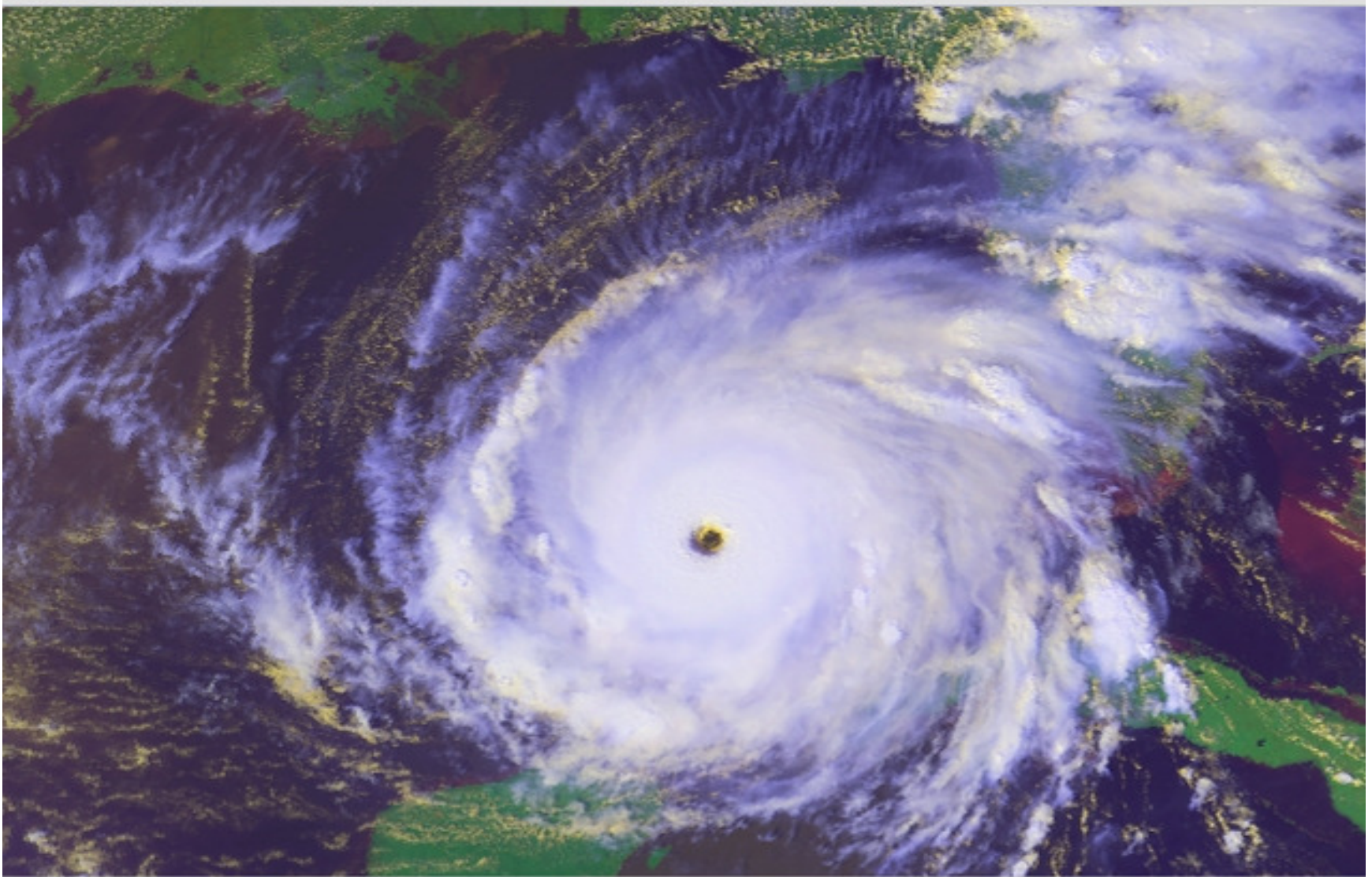


Cat 5 Hurricane Rita 2005

150+ kts, 897 mb, \$?? B, TX/LA border

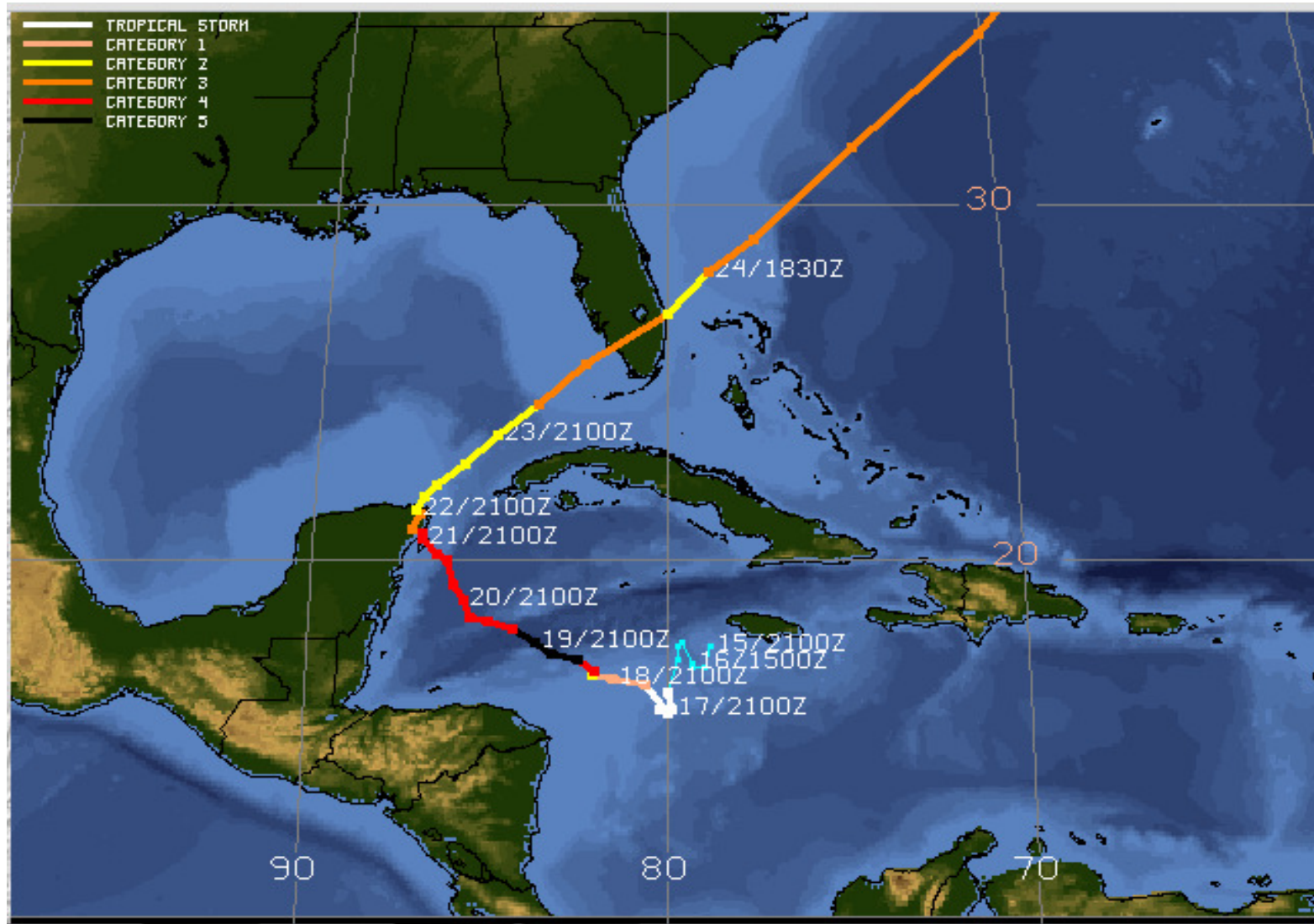


Hurricane Rita 2005



Cat 5 Hurricane Wilma 2005

150+ kts, 882 mb, lowest mb ever, Yucatan/Keys



Hurricane Wilma 2005

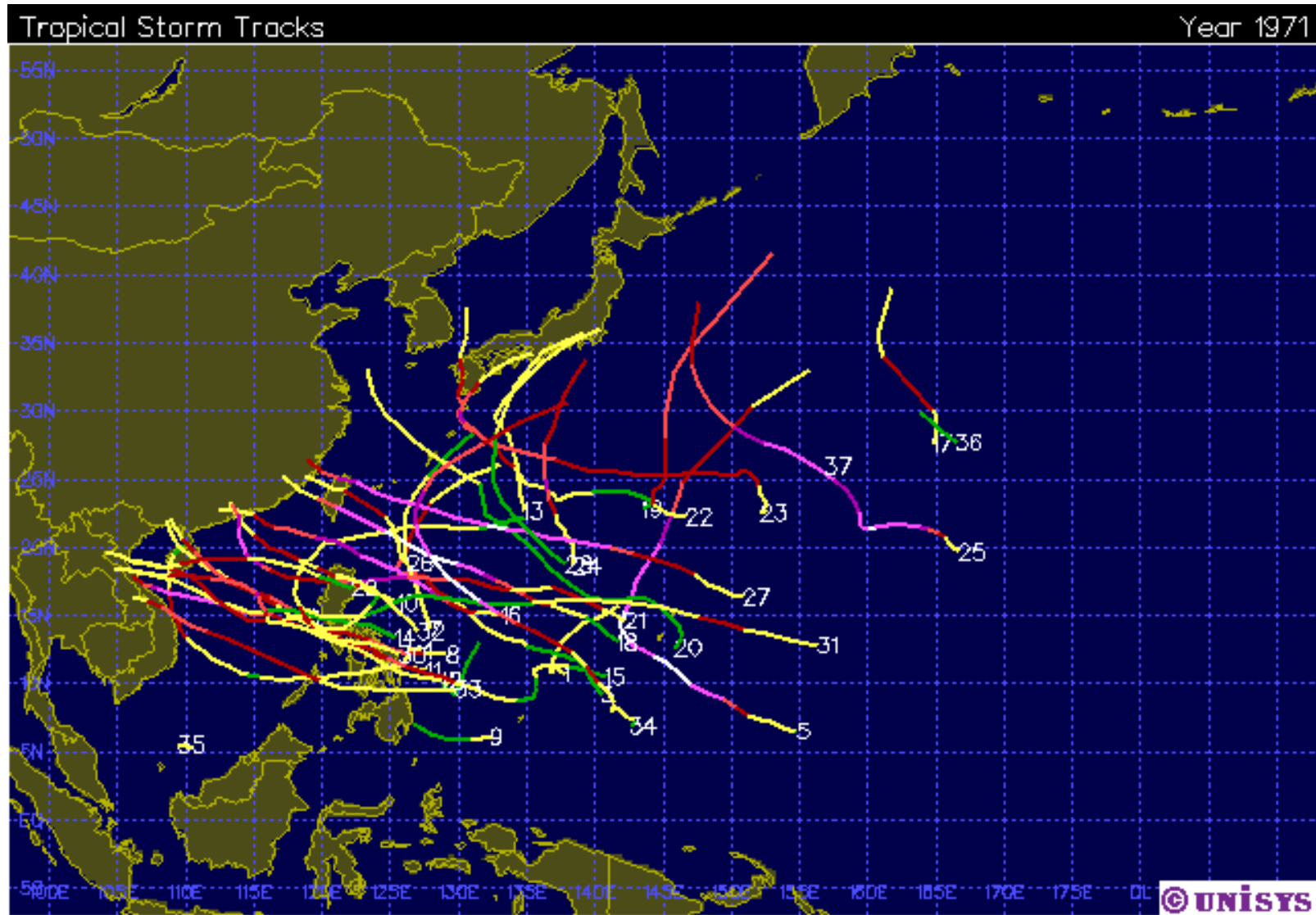


Hurricane Wilma



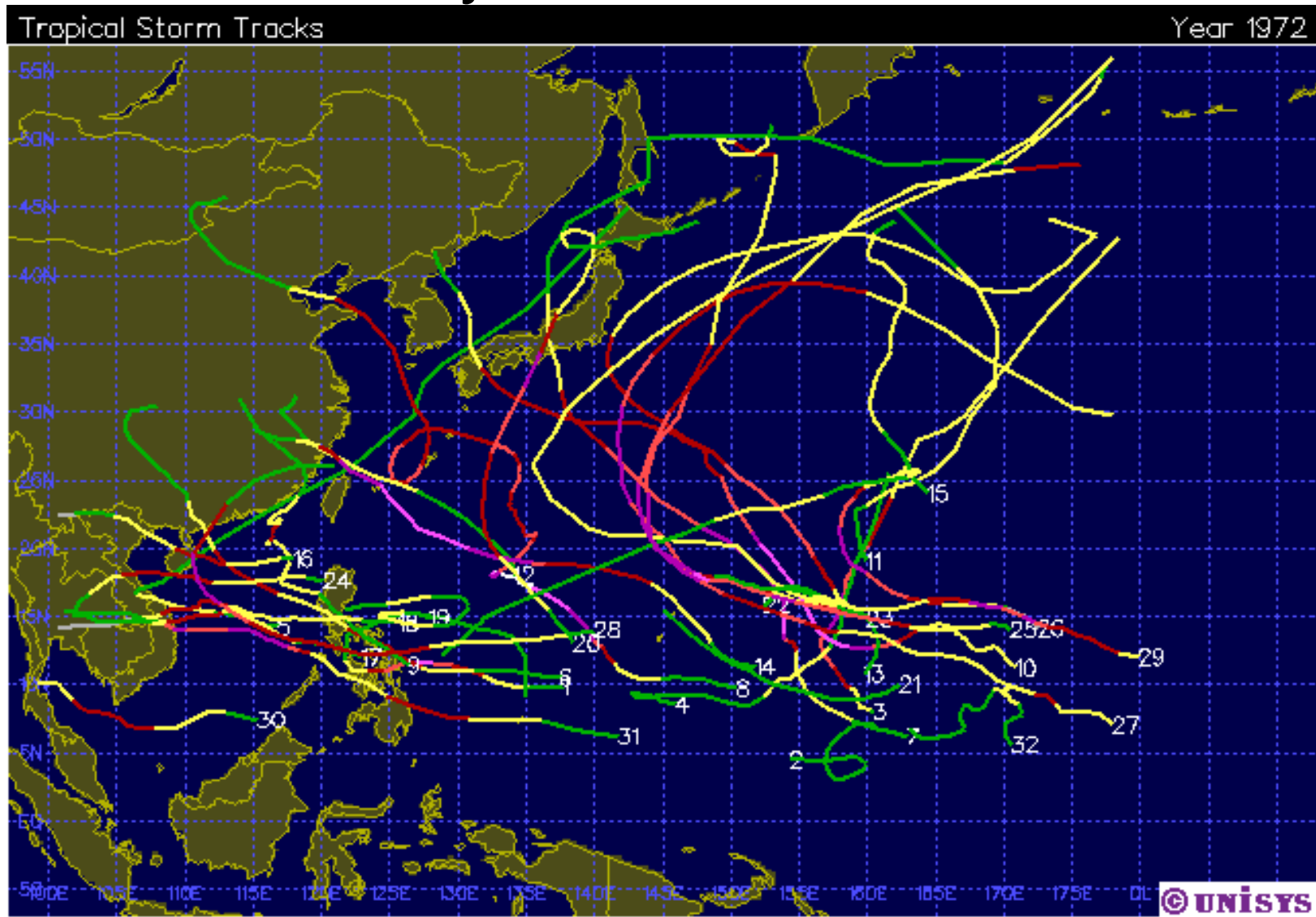
1971 NW Pacific Typhoons

37 Storms, mostly W of 150E

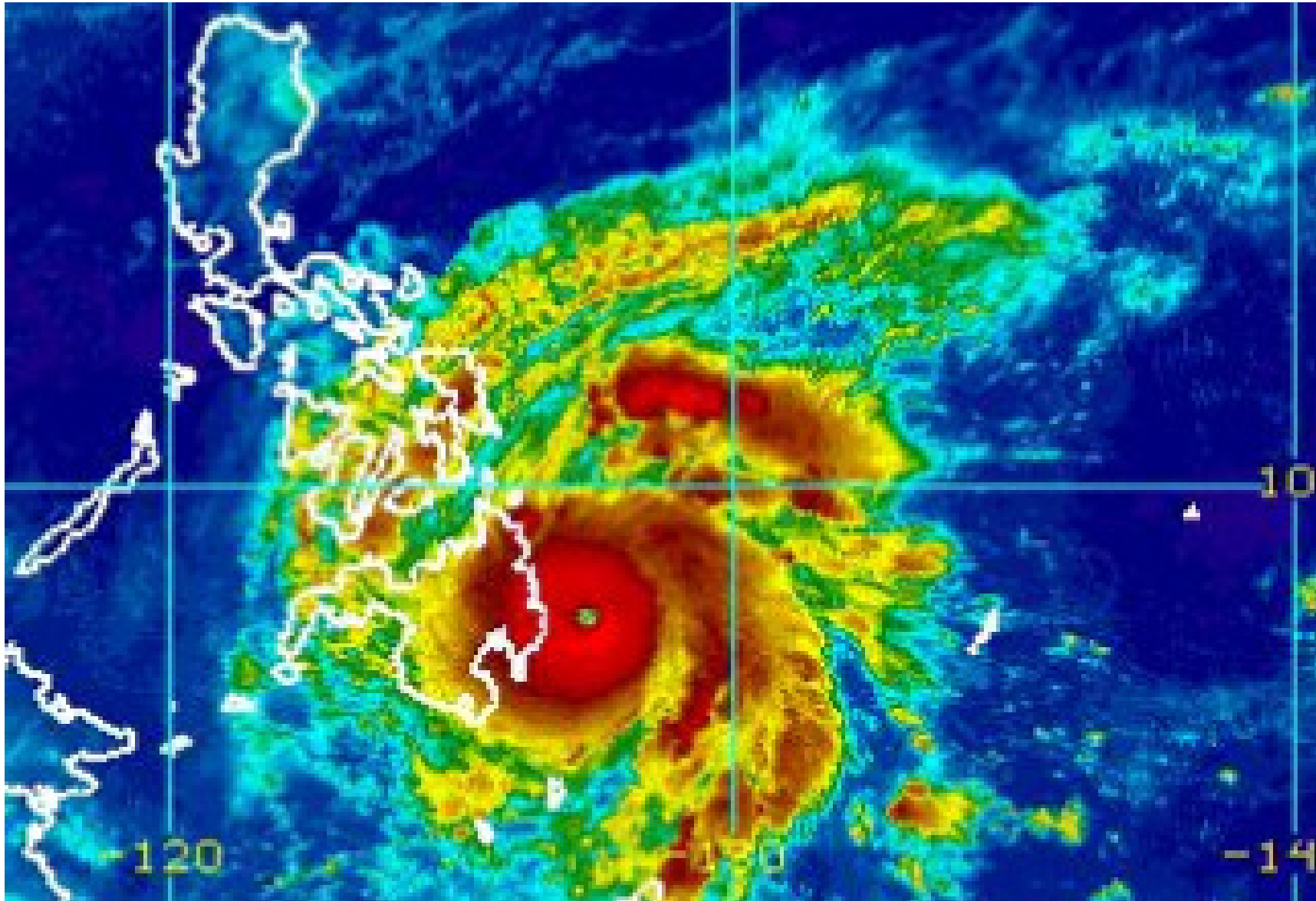


1972 NW Pacific Typhoons

32 Storms, many E of 150E, #2 at 3N/158W

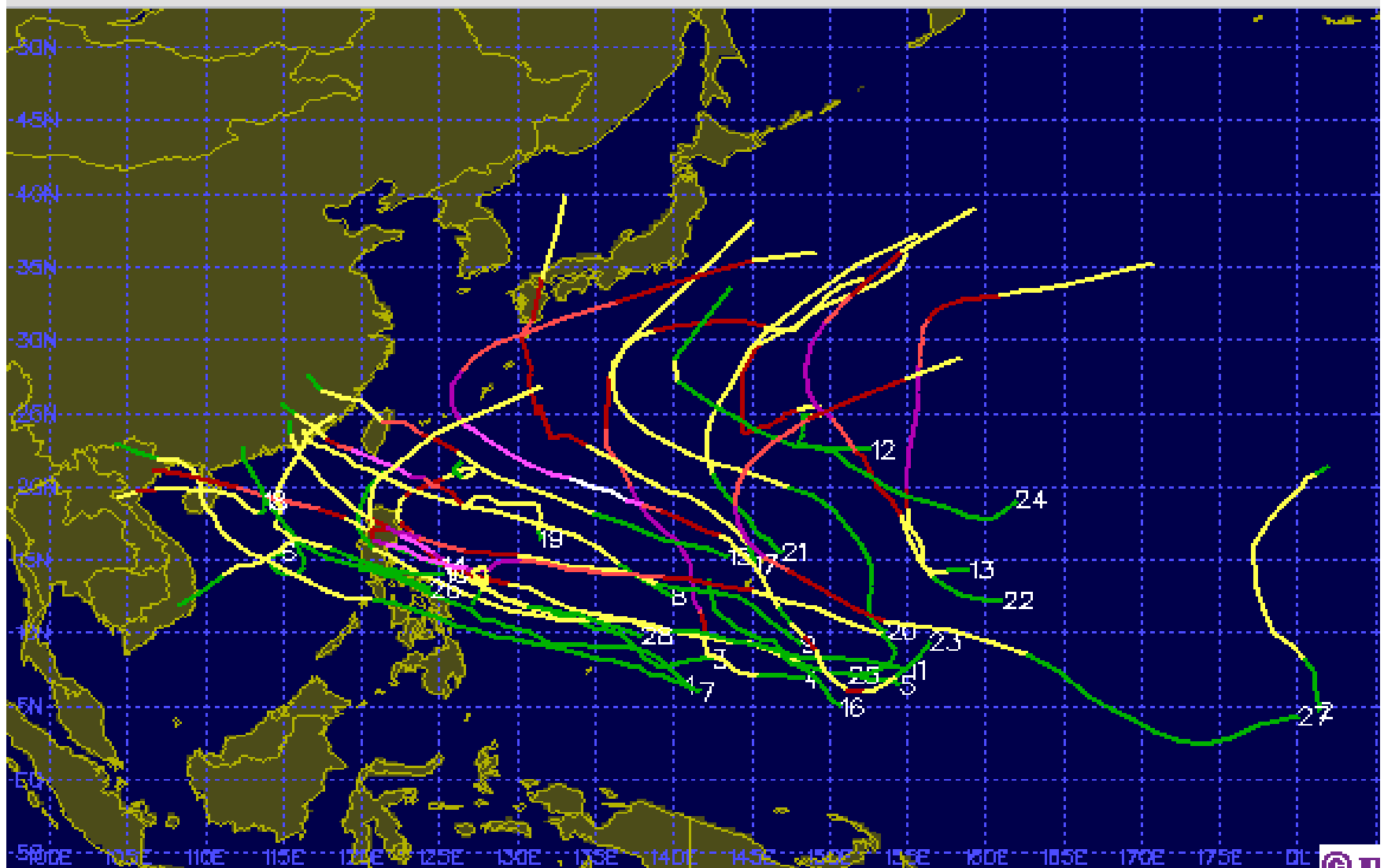


Typhoon Bopha, Dec 2012

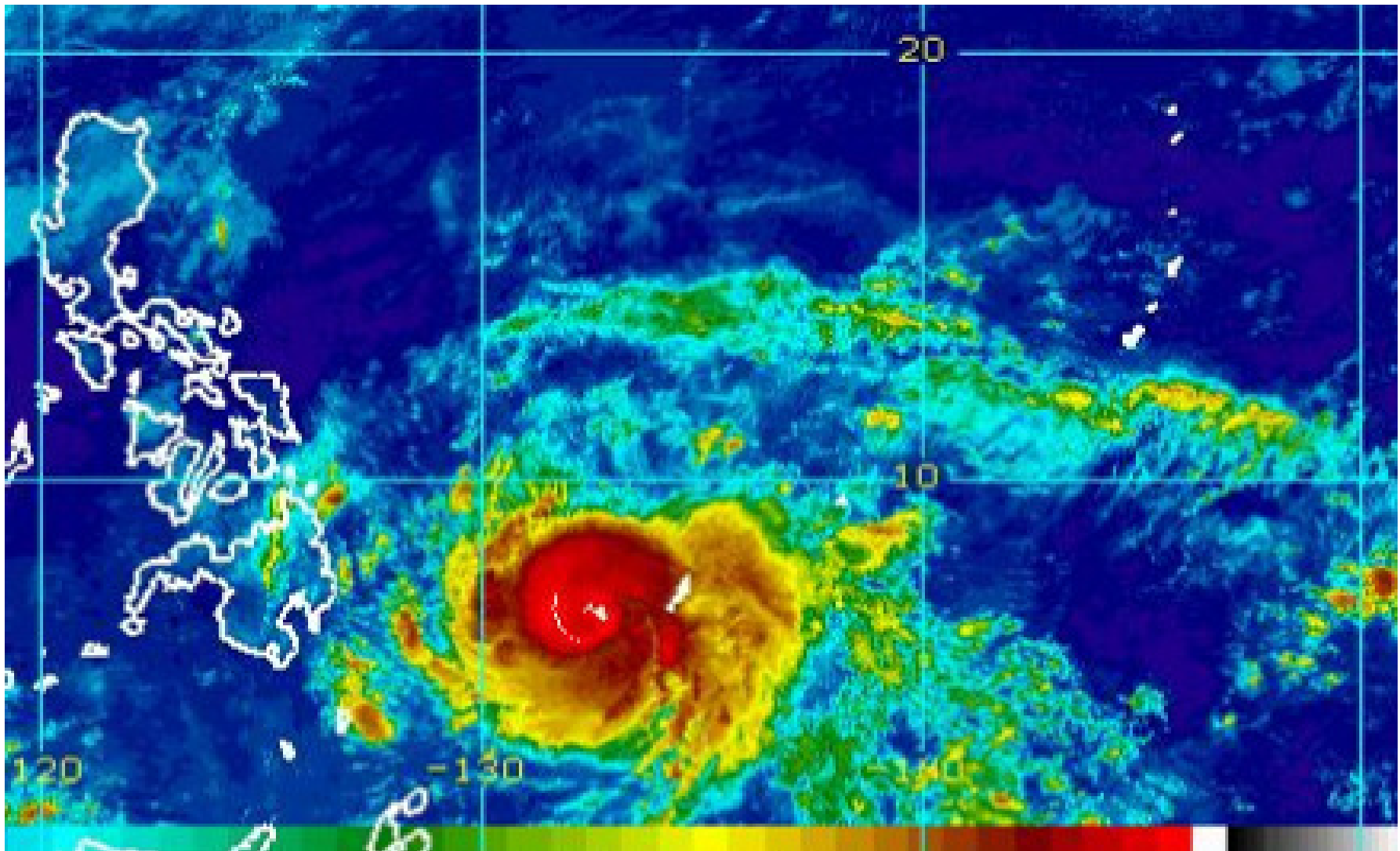


1980 NW Pacific Typhoons

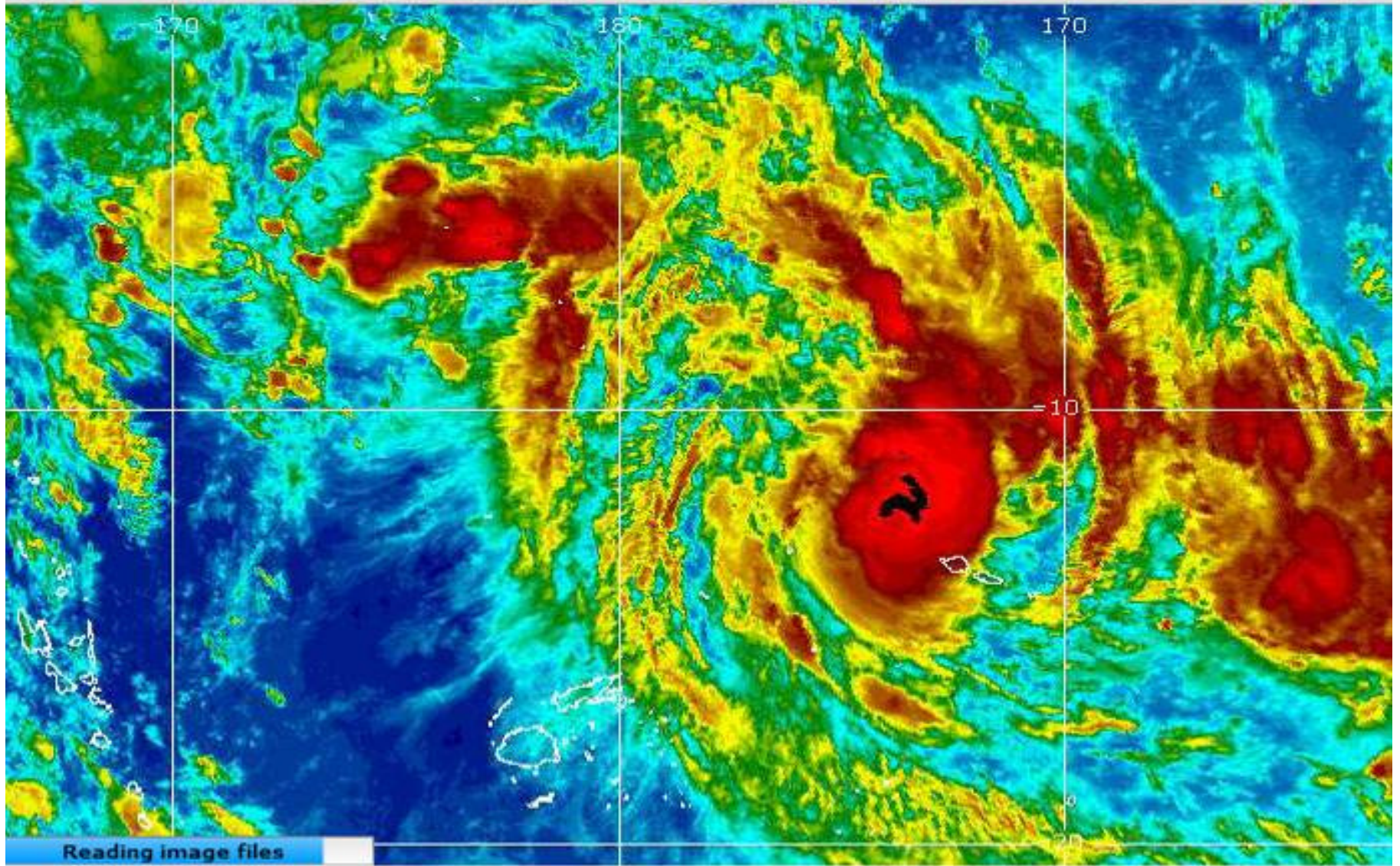
28 Storms, #27 at 3N/180W



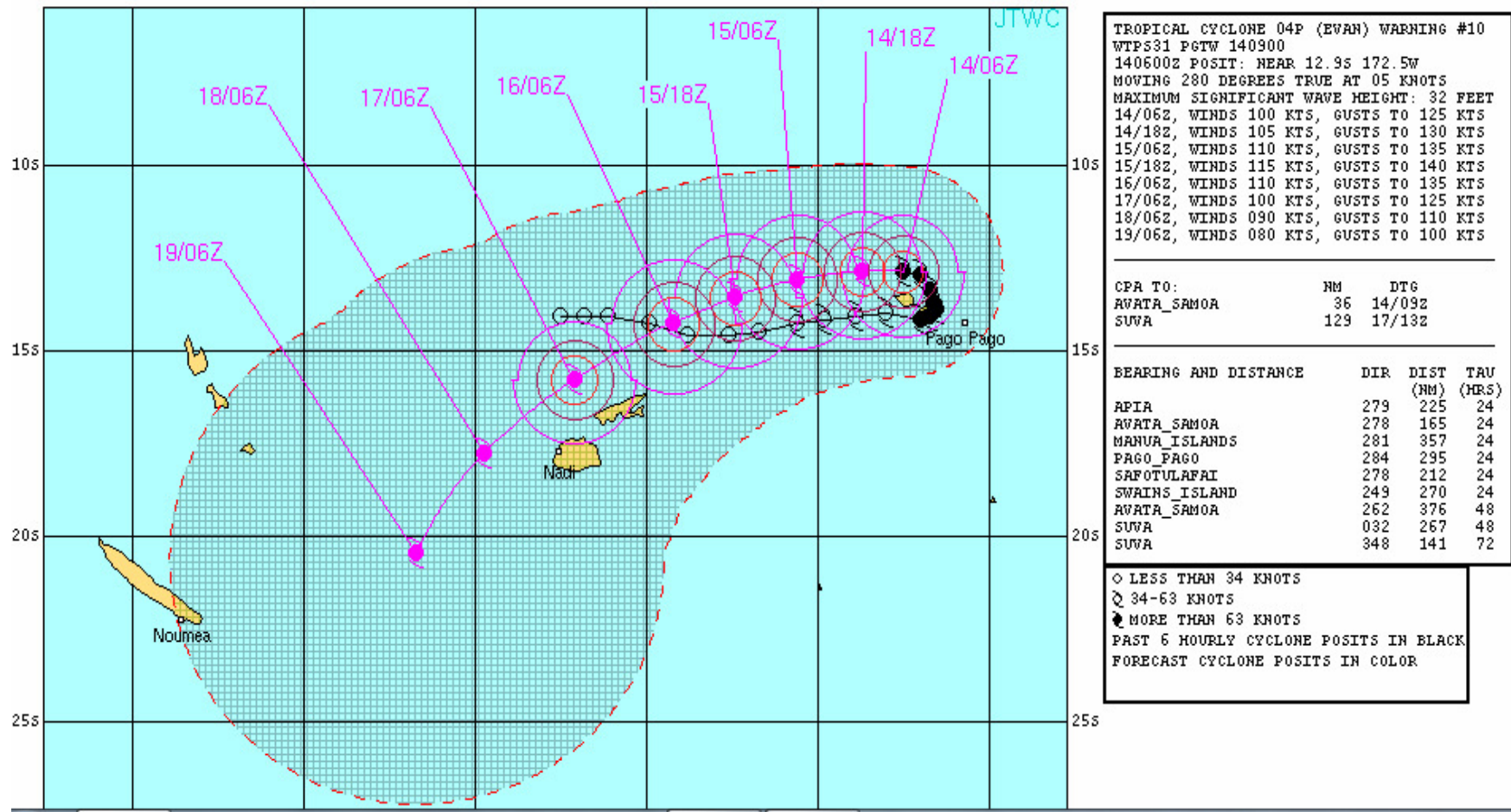
Typhoon Bopha, Palau 2012



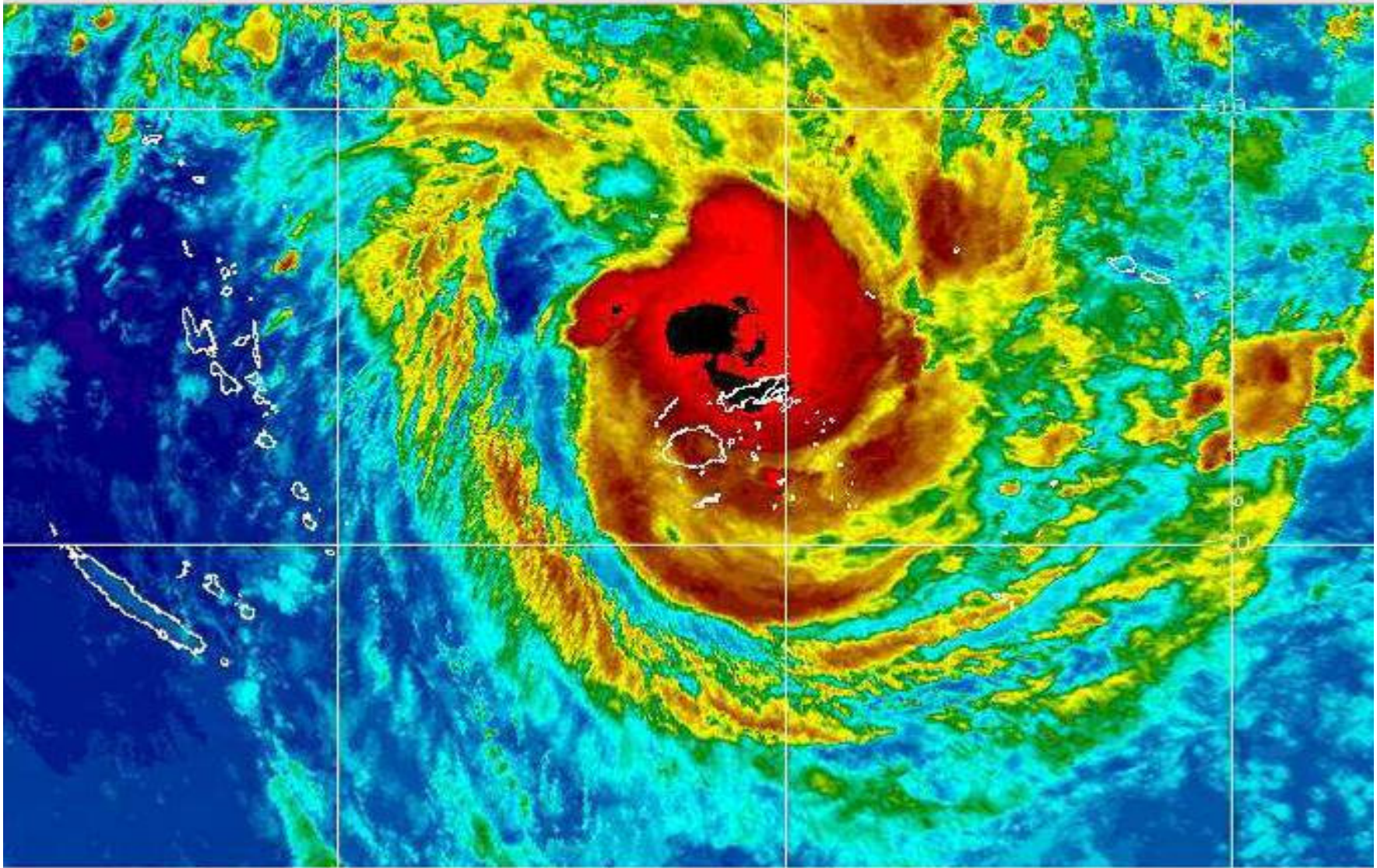
Cyclone Evan, 14 Dec 12



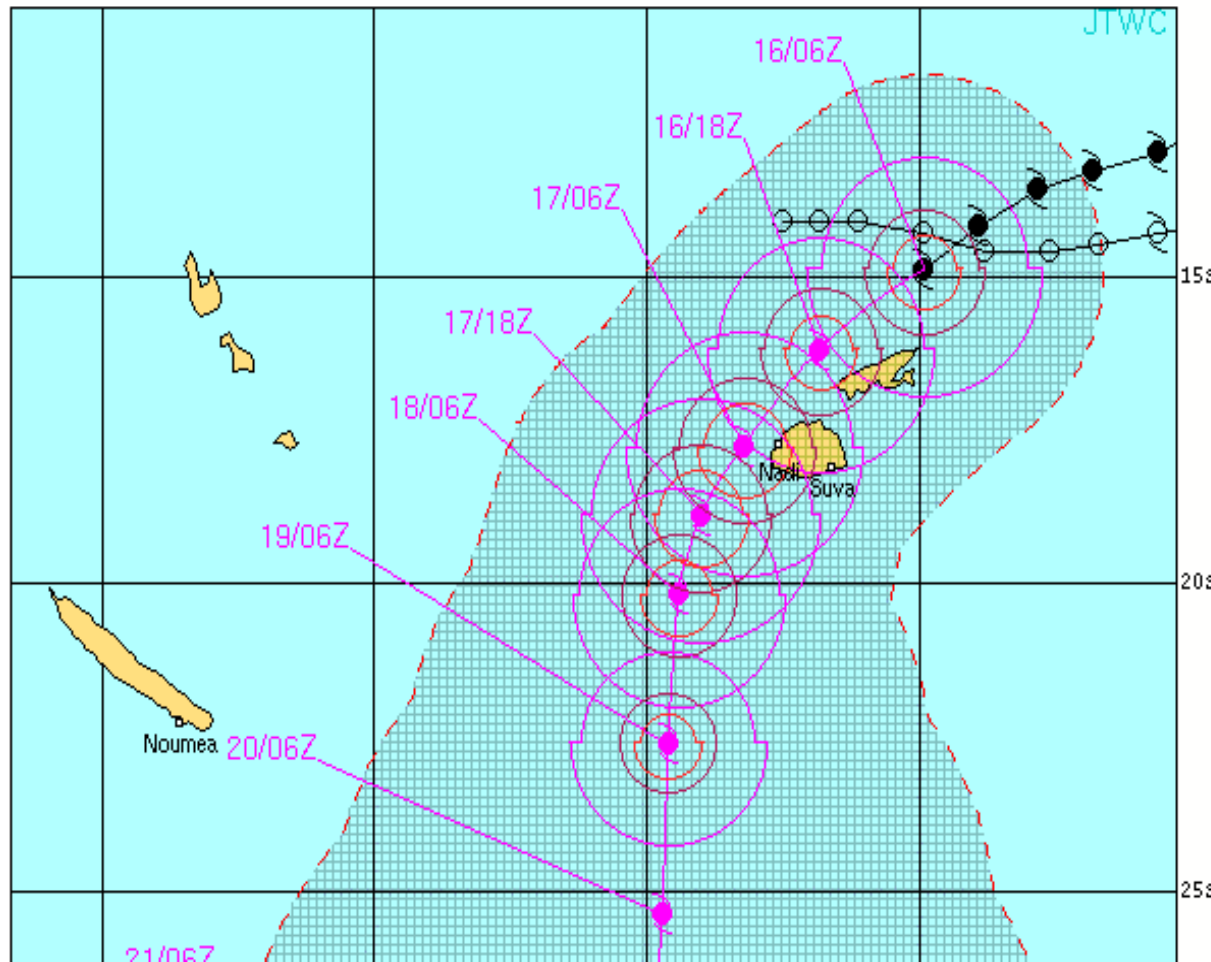
Cyclone Evan, 14 Dec 12



Cat 2 Cyclone Evan, 16 Dec 12



Cat 2 Cyclone Evan, 16 Dec 12



TROPICAL CYCLONE 04P (EVAN) WARNING #15
 WTPS31 PGTW 160900
 160600Z POSIT: NEAR 14.9S 179.9W
 MOVING 235 DEGREES TRUE AT 12 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 35 FEET

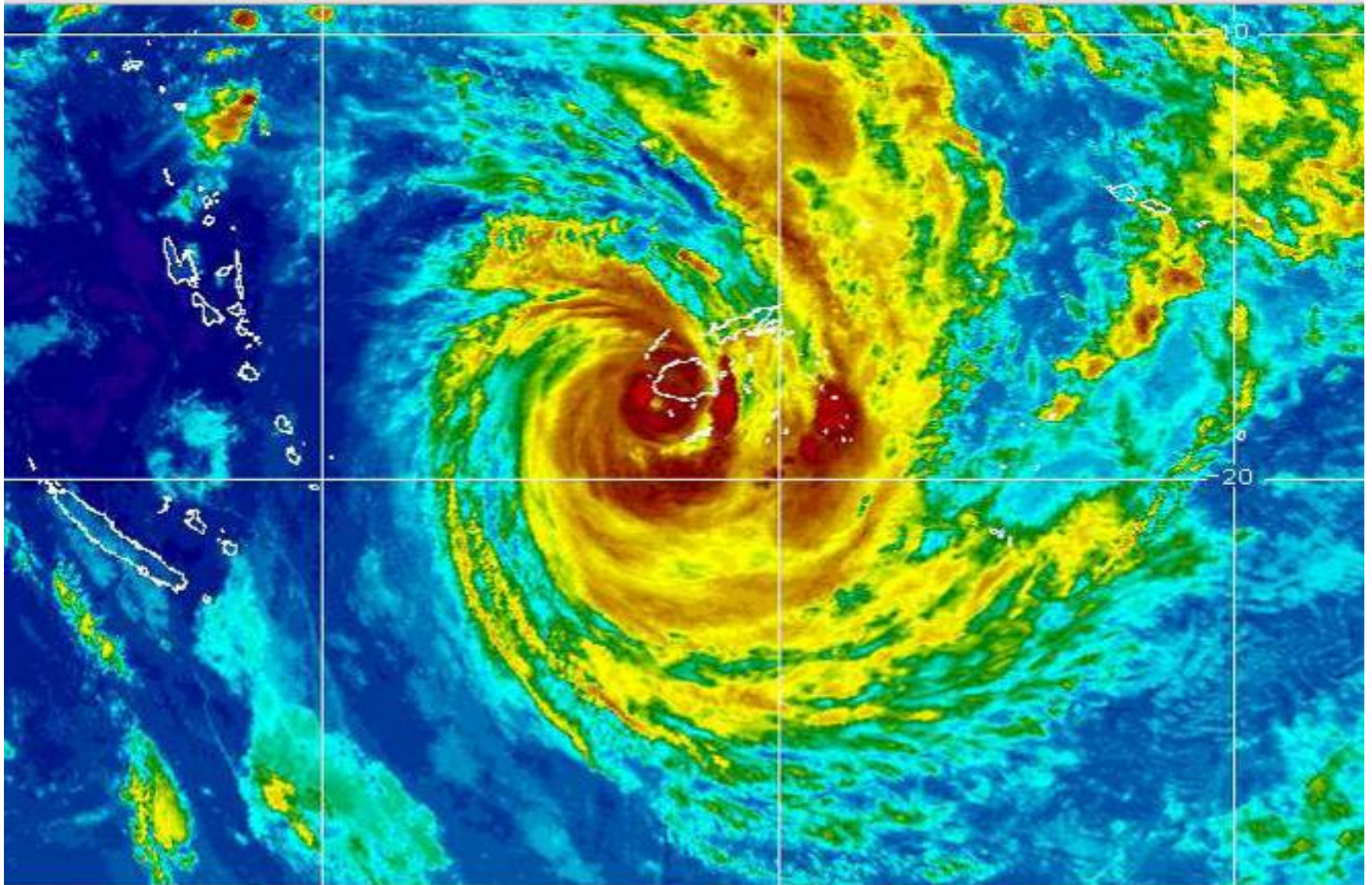
16/06Z,	WINDS 105 KTS,	GUSTS TO 130 KTS
16/18Z,	WINDS 110 KTS,	GUSTS TO 135 KTS
17/06Z,	WINDS 110 KTS,	GUSTS TO 135 KTS
17/18Z,	WINDS 105 KTS,	GUSTS TO 130 KTS
18/06Z,	WINDS 100 KTS,	GUSTS TO 125 KTS
19/06Z,	WINDS 085 KTS,	GUSTS TO 105 KTS
20/06Z,	WINDS 065 KTS,	GUSTS TO 080 KTS
21/06Z,	WINDS 050 KTS,	GUSTS TO 065 KTS

CPA TO:	NM	DTG
SUVA	83	17/02Z
KINGSTON_IS.	372	21/06Z

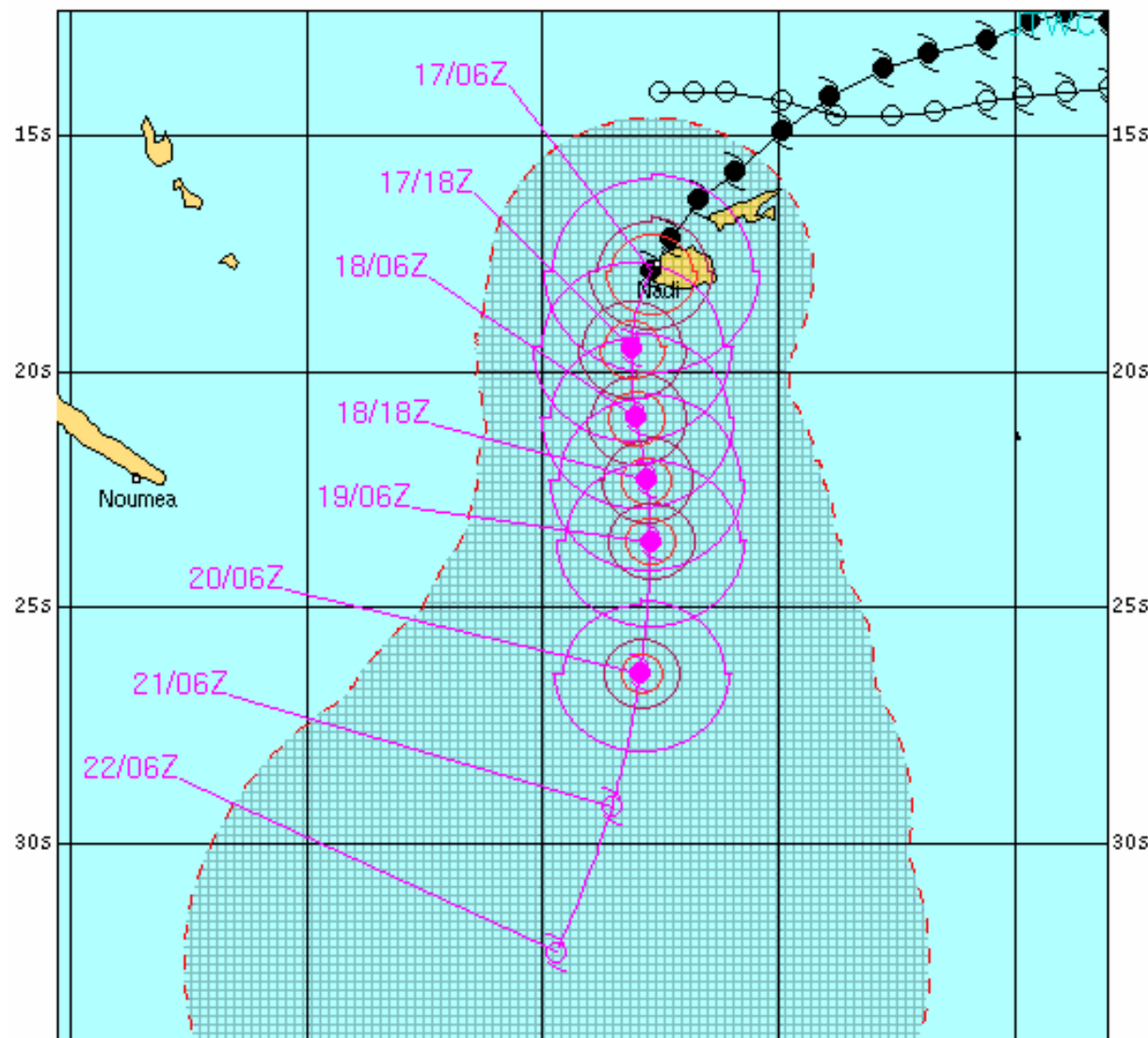
BEARING AND DISTANCE	DIR	DIST (NM)	TAV (HRS)
SUVA	281	93	24
SUVA	231	203	48
SUVA	211	318	72

○ LESS THAN 34 KNOTS
 ⊖ 34-63 KNOTS
 ● MORE THAN 63 KNOTS
 PAST 6 HOURLY CYCLONE POSITS IN BLACK
 FORECAST CYCLONE POSITS IN COLOR

Cat 4 Cyclone Evan, 17 Dec 12



Cat 4 Cyclone Evan, 17 Dec 12



TROPICAL CYCLONE 04P (EVAN) WARNING #17
 WTPS31 PGTW 170900
 170600Z POSIT: NEAR 17.9S 177.3E
 MOVING 210 DEGREES TRUE AT 08 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 40 FEE
 17/06Z, WINDS 115 KTS, GUSTS TO 140 KTS
 17/18Z, WINDS 110 KTS, GUSTS TO 135 KTS
 18/06Z, WINDS 105 KTS, GUSTS TO 130 KTS
 18/18Z, WINDS 095 KTS, GUSTS TO 115 KTS
 19/06Z, WINDS 085 KTS, GUSTS TO 105 KTS
 20/06Z, WINDS 070 KTS, GUSTS TO 085 KTS
 21/06Z, WINDS 055 KTS, GUSTS TO 070 KTS
 22/06Z, WINDS 045 KTS, GUSTS TO 055 KTS

BEARING AND DISTANCE	DIR	DIST (NM)	TA (HR)
SUVA	204	191	2
SUVA	190	336	4

○ LESS THAN 34 KNOTS
 ◑ 34-63 KNOTS
 ◐ MORE THAN 63 KNOTS
 PAST 6 HOURLY CYCLONE POSITS IN BLACK
 FORECAST CYCLONE POSITS IN COLOR

Typhoon Songda, 2011

