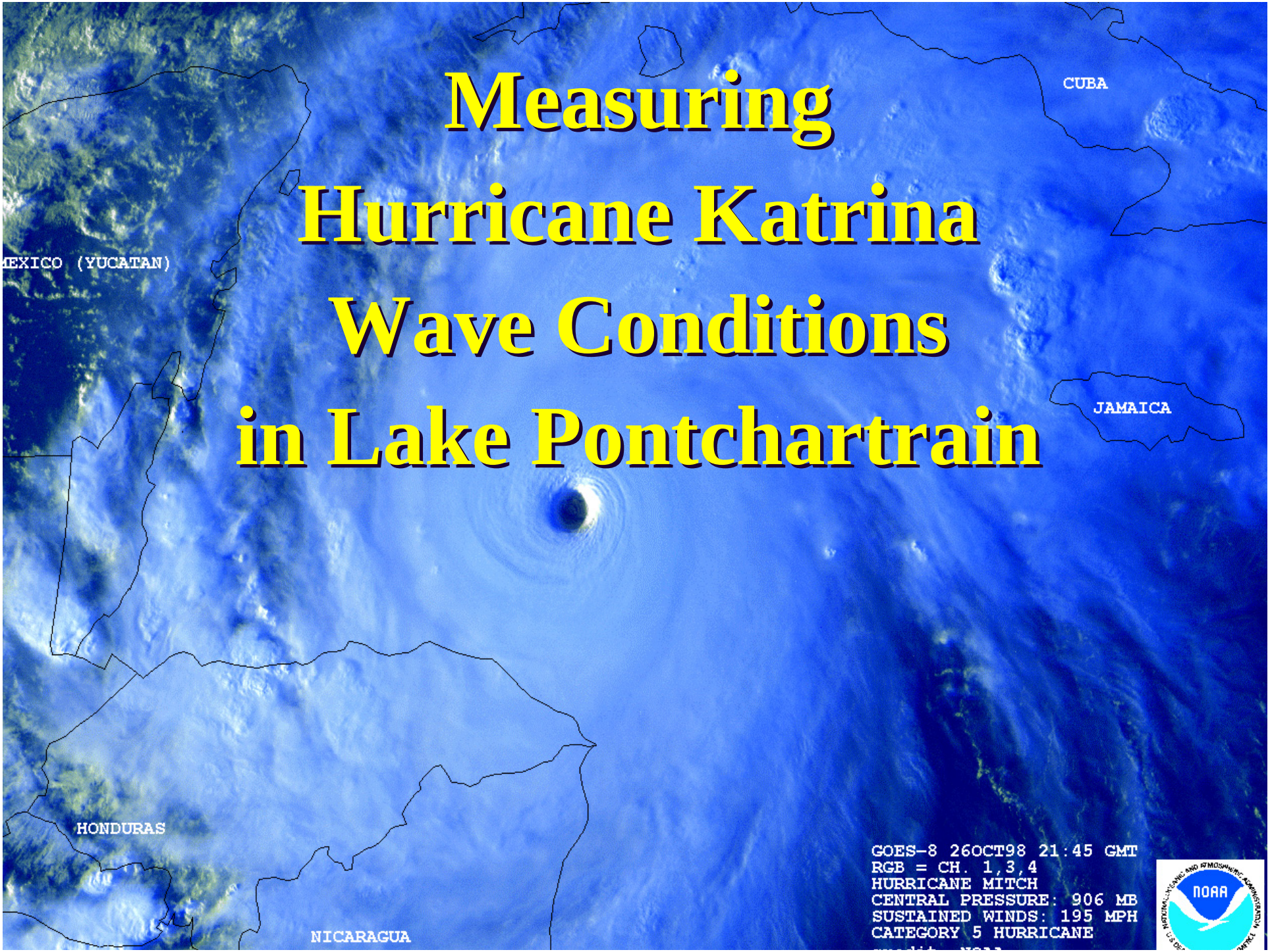
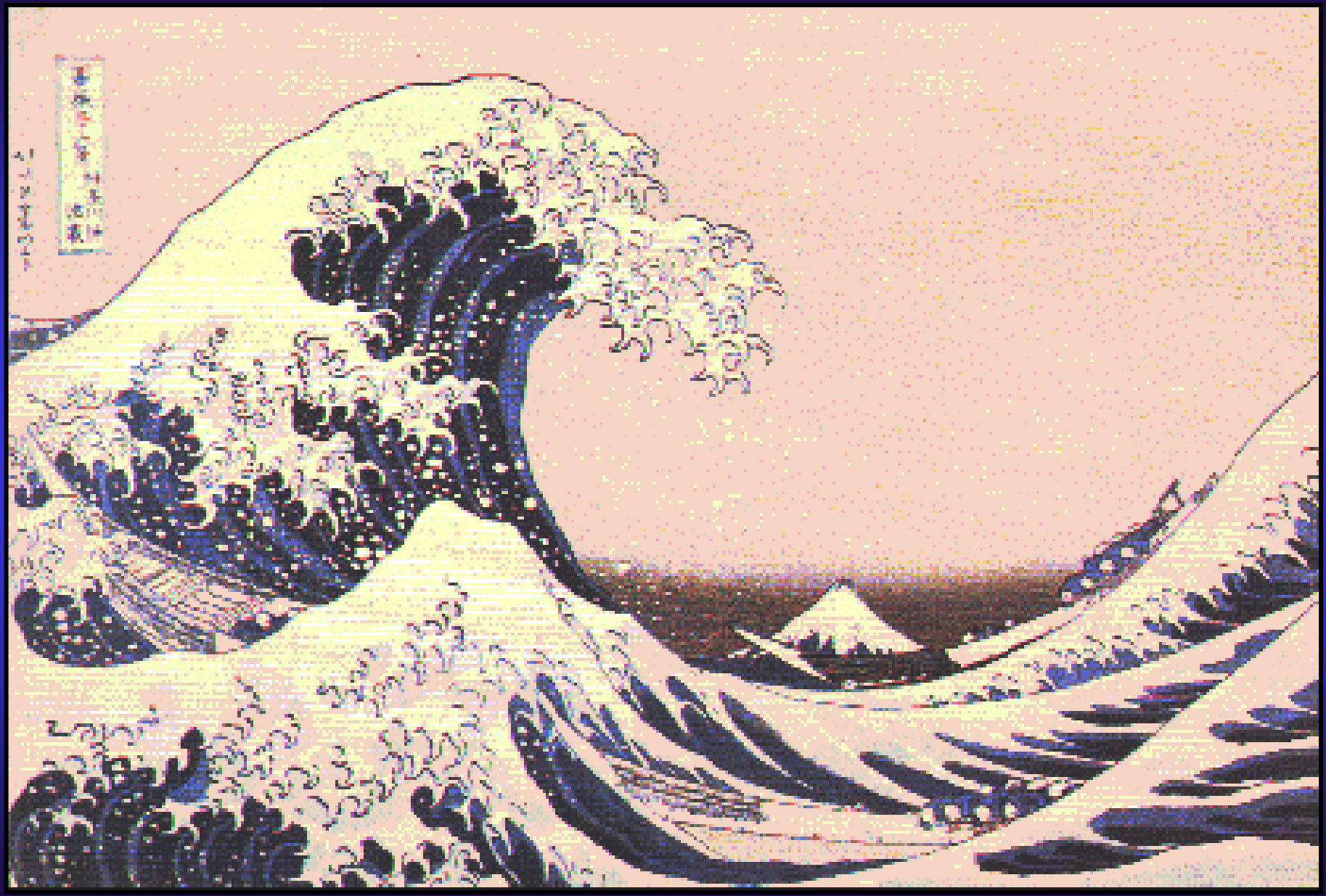
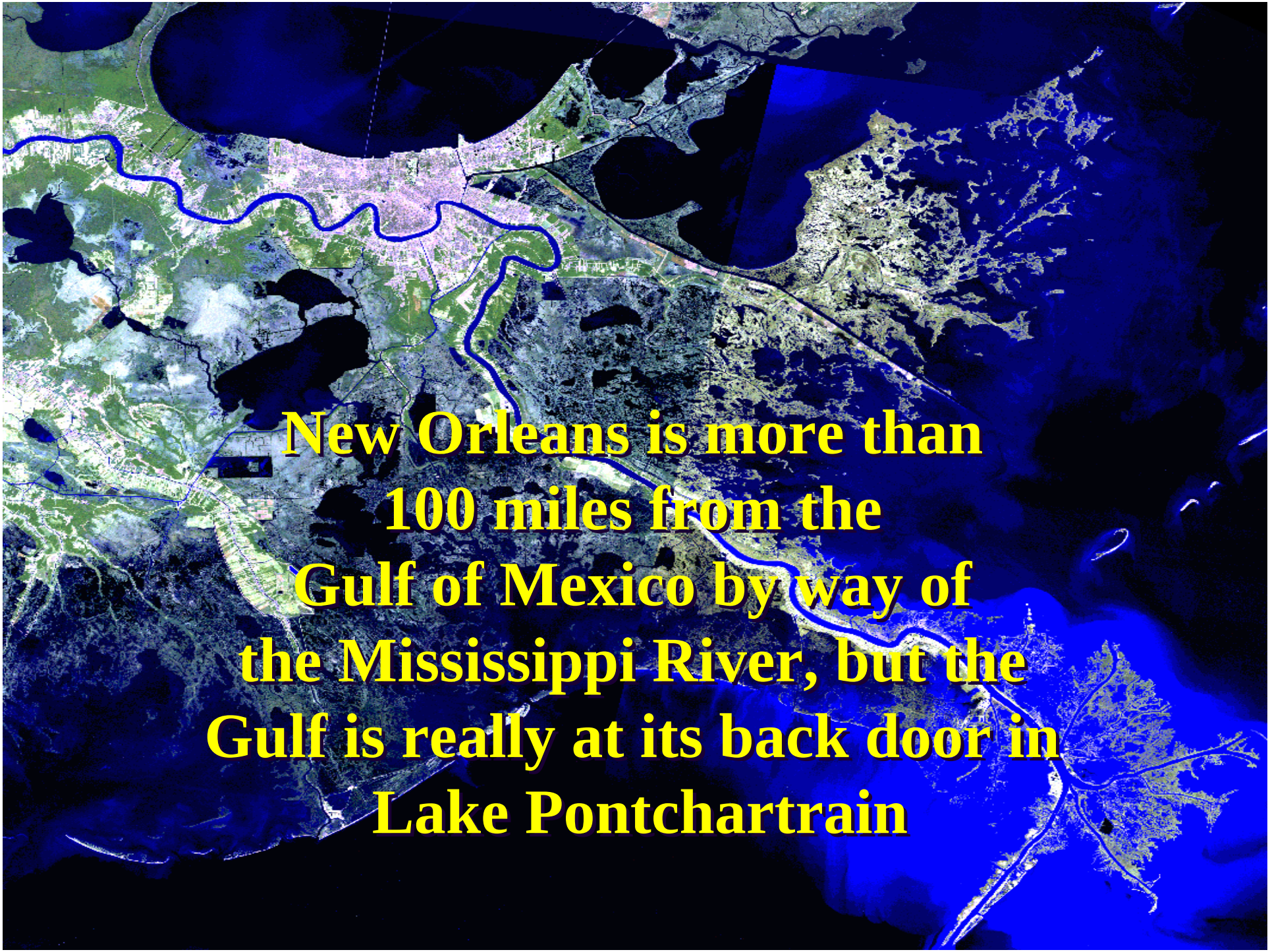
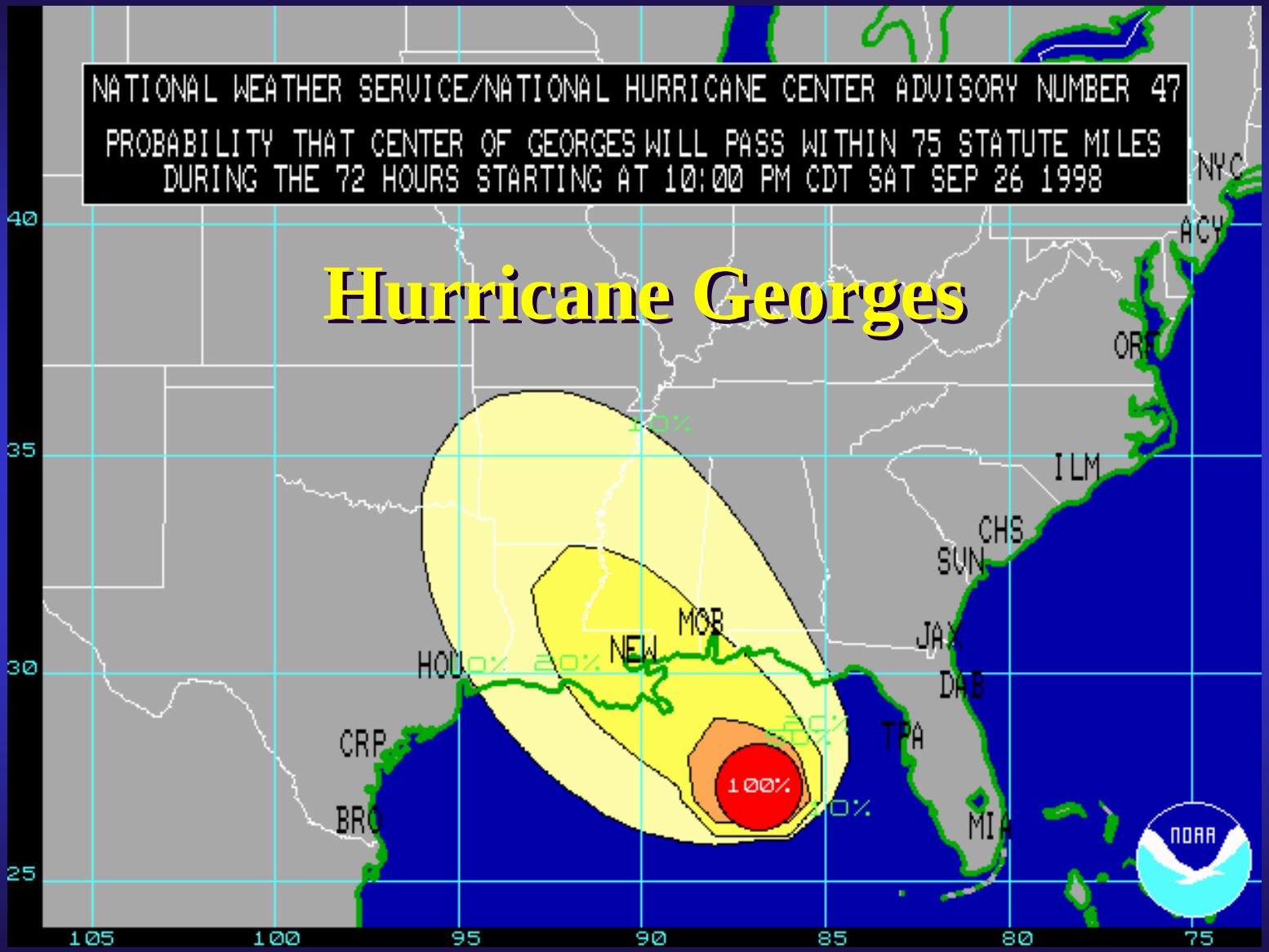
Measuring Hurricane Katrina Wave Conditions in Lake Pontchartrain

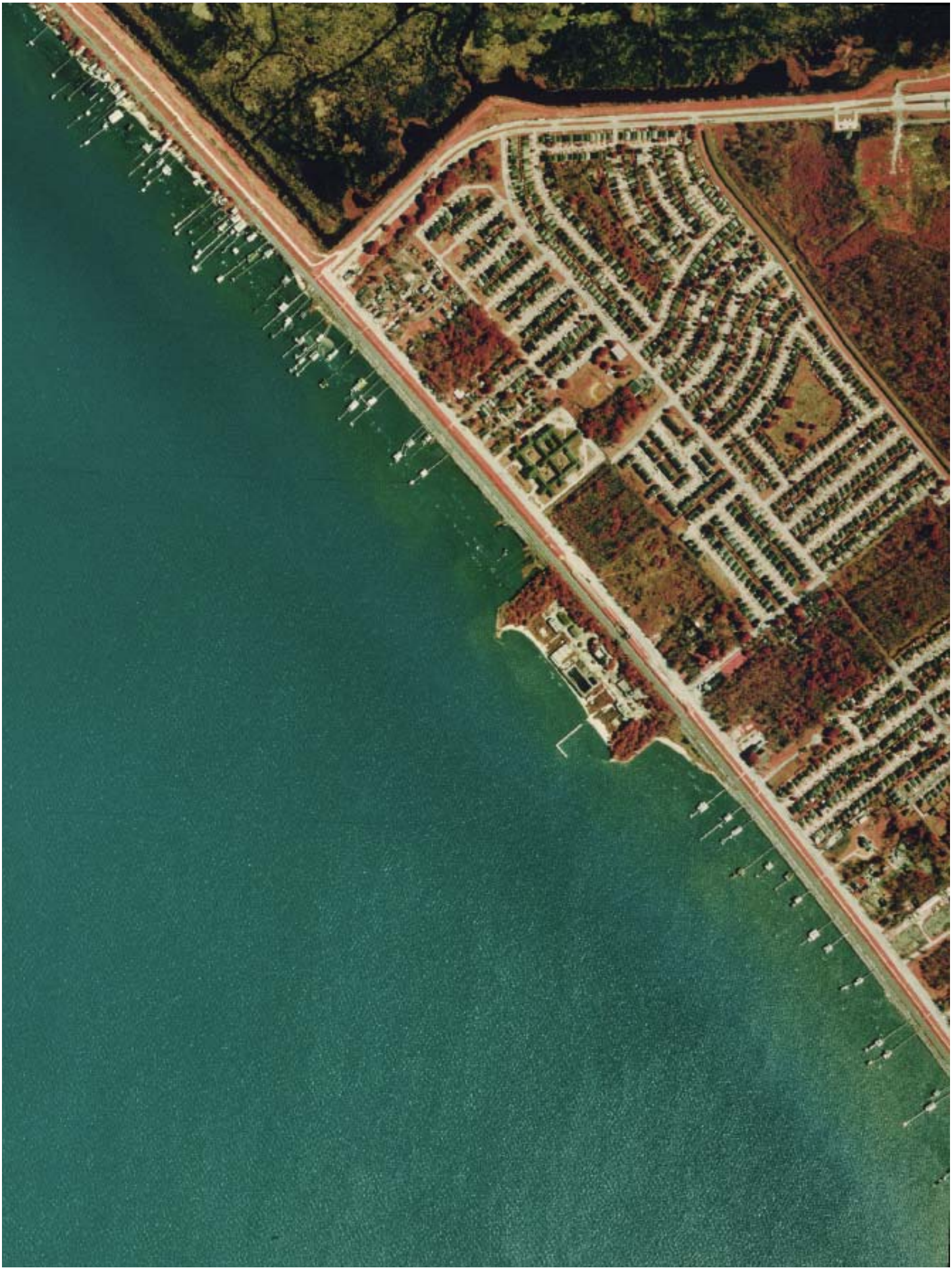





New Orleans is more than
100 miles from the
Gulf of Mexico by way of
the Mississippi River, but the
Gulf is really at its back door in
Lake Pontchartrain

Hurricane Georges





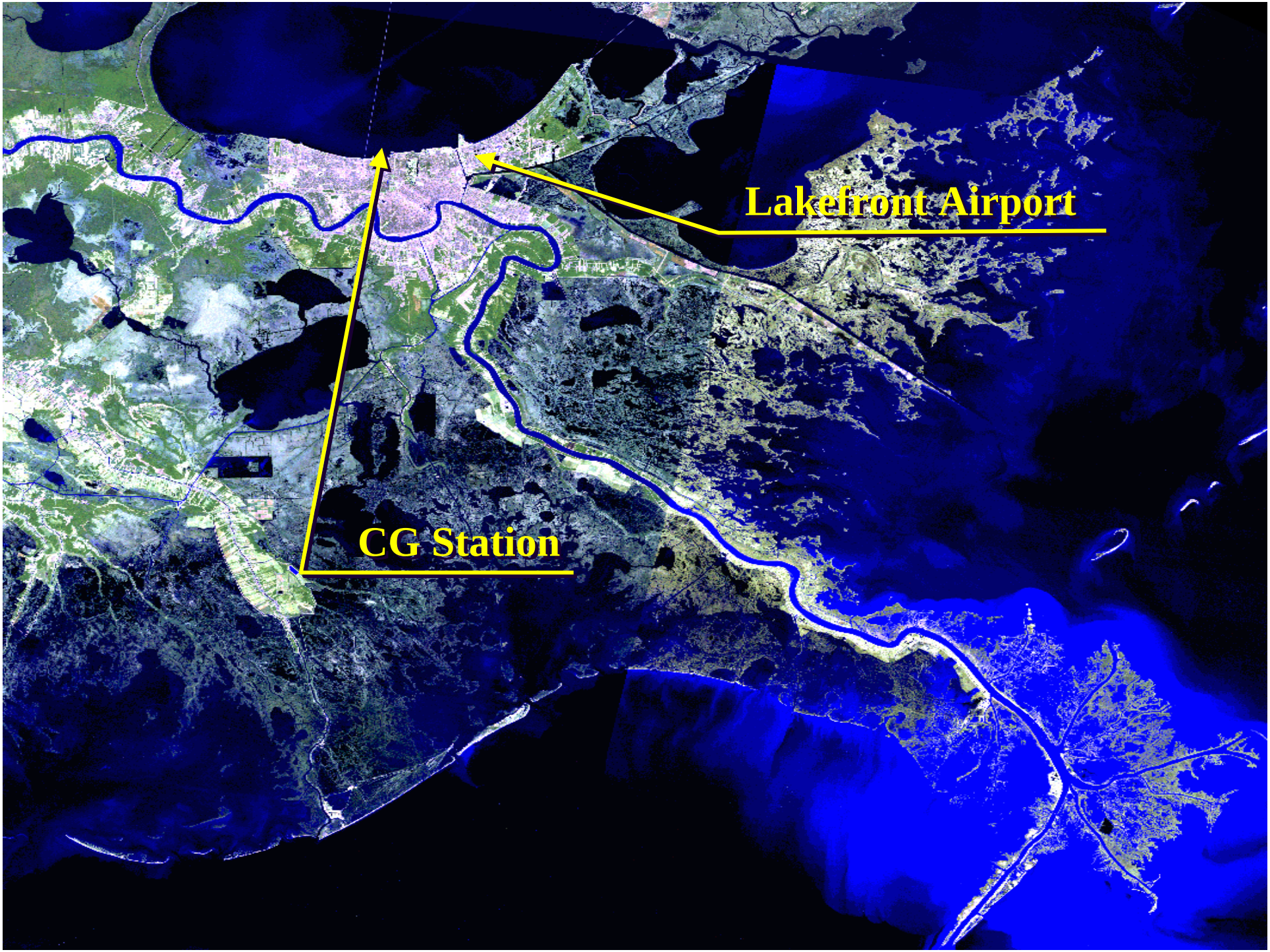
Many Difficulties in Measuring Hurricane Storm Waves

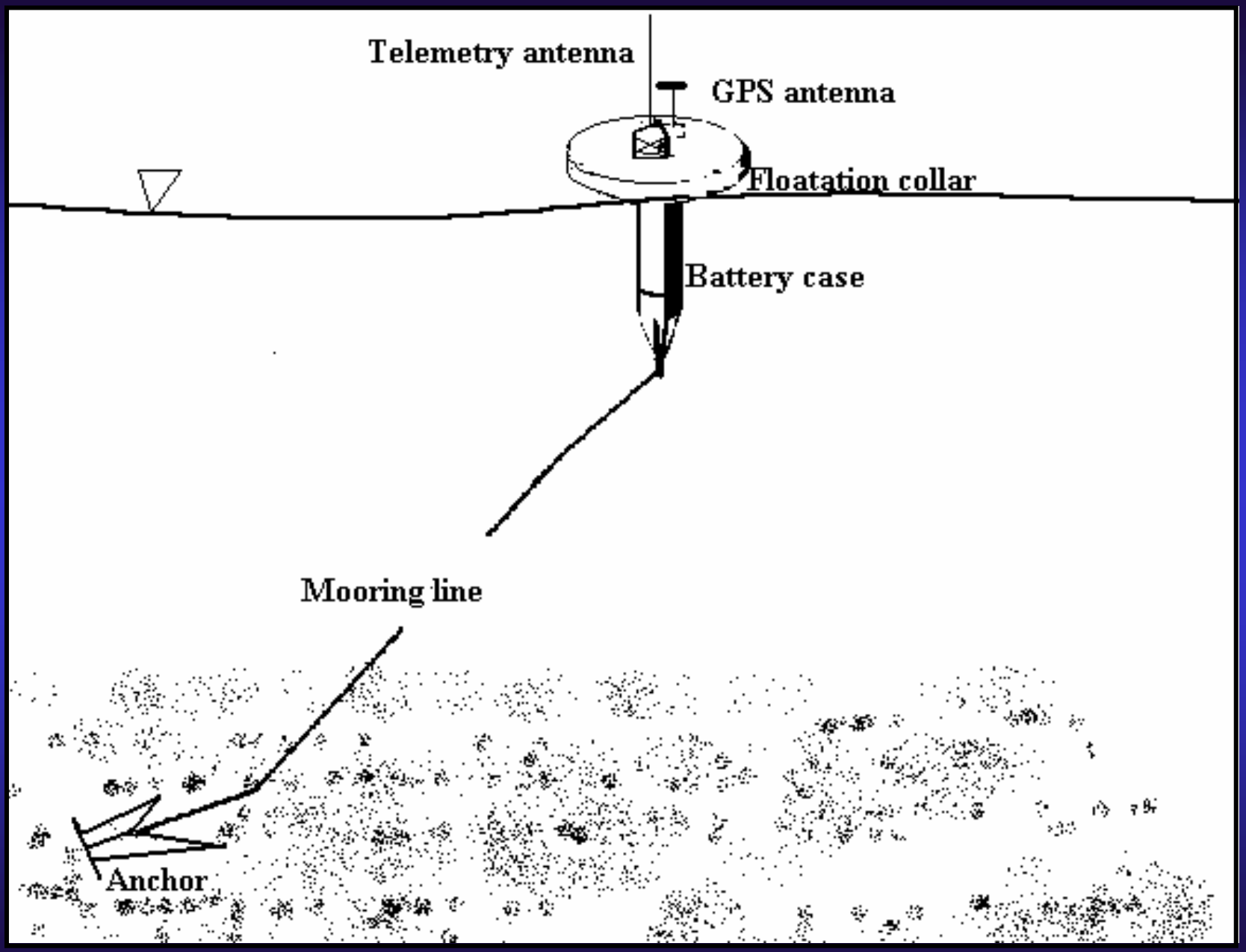
- Gage(s) can be damaged by the forces of the waves.
- Location of the gage (pier, etc.) may be wiped out by the storm.
- Data storage unit may be lost or destroyed.

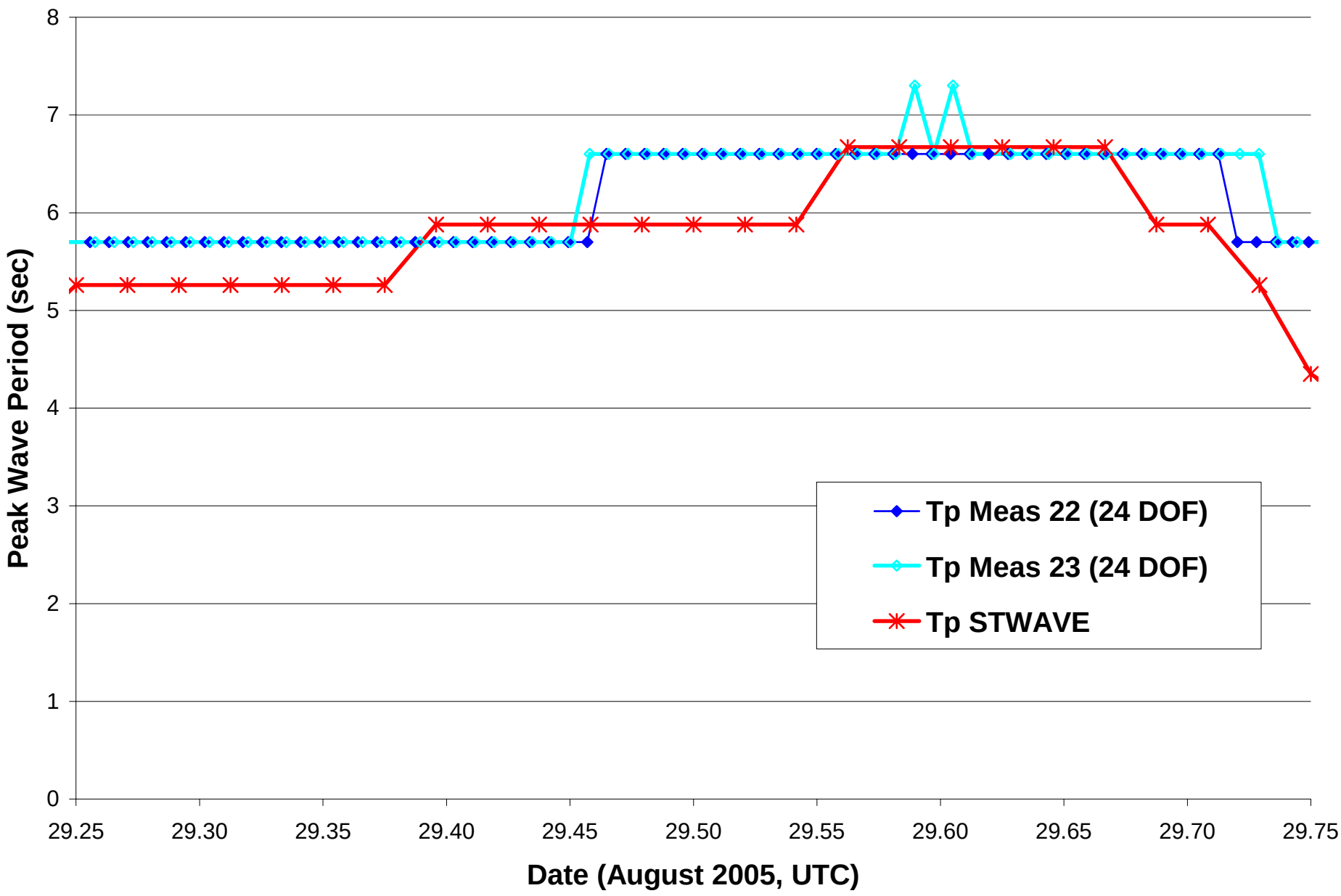
The best way to insure getting data is through redundancy.

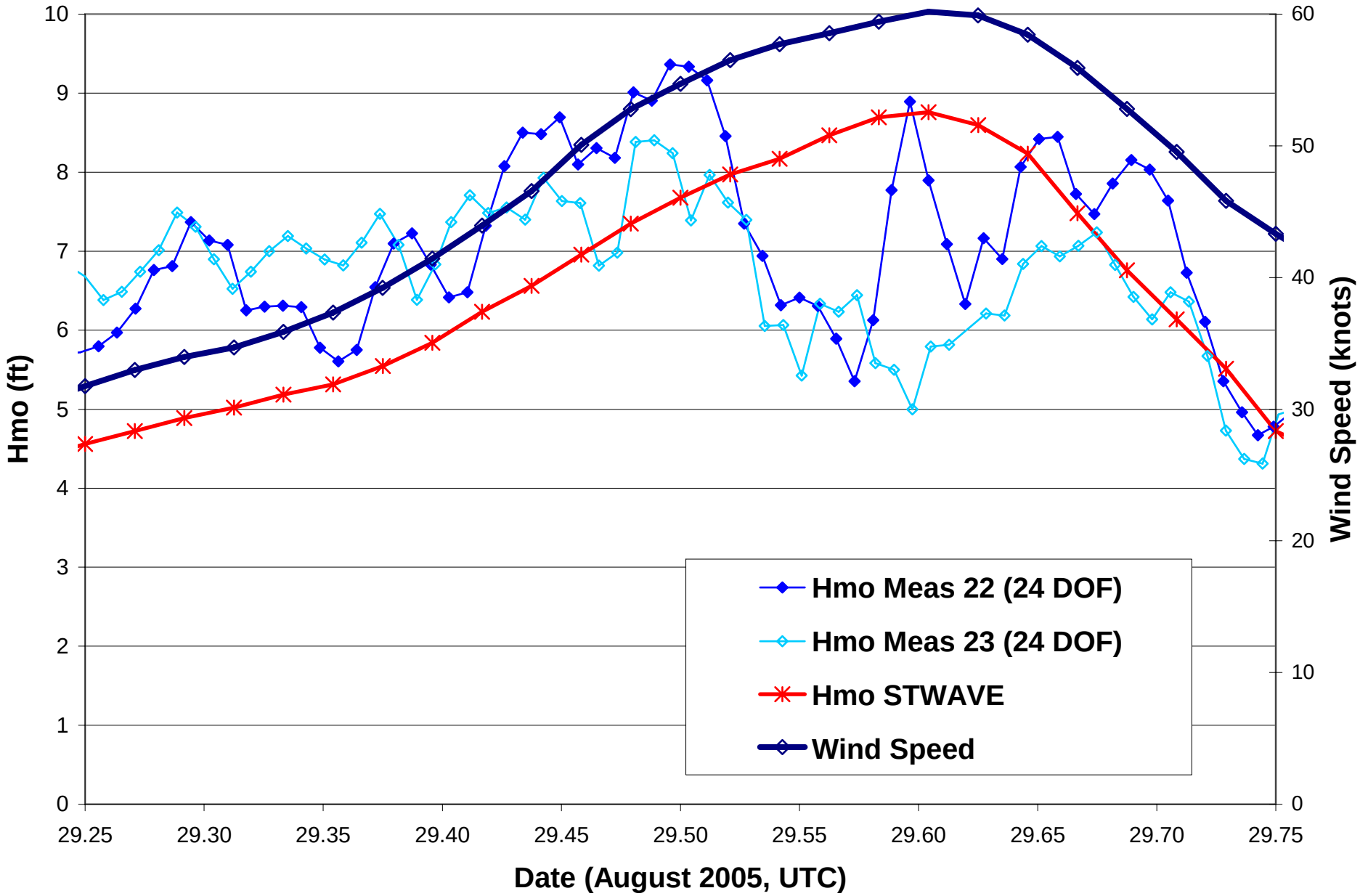
System Redundancies

- Redundancy of Gage Locations
- Redundancy in the Types of Gages
- Redundancy in the Number of Gages
- Redundancy of Data Storage


Lakefront Airport
CG Station


Telemetry antenna
GPS antenna
Floatation collar
Battery case
Mooring line
Anchor


Peak Wave Period (sec)
8
7
6
5
4
3
2
1
0
29.25
29.30
29.35
29.40
29.45
29.50
29.55
29.60
29.65
29.70
29.75
Date (August 2005, UTC)
Tp Meas 22 (24 DOF)
Tp Meas 23 (24 DOF)
Tp STWAVE


Hmo (ft)
Wind Speed (knots)
Date (August 2005, UTC)
Hmo Meas 22 (24 DOF)
Hmo Meas 23 (24 DOF)
Hmo STWAVE
Wind Speed
0
1
2
3
4
5
6
7
8
9
10
0
10
20
30
40
50
60
29.25
29.30
29.35
29.40
29.45
29.50
29.55
29.60
29.65
29.70
29.75