



Tropical Cyclone Support -- Space Launch Ops



Kathy Winters, 45th Weather Squadron

<https://www.patrick.af.mil/45og/45ws/index.htm>



Tropical Cyclone Support -- Space Launch Ops



HURRICANE KATRINA Shuttle Hurricane Information Form

Source: National Hurricane Center Advisory # 13, 26/1130L

Current Storm Information: Source--National Hurricane Center (NHC)

Location:	25.1 N 82.2 W 205 deg @ 225 NM from KSC
Movement:	265 deg @ 6 Kts
Strength:	Winds: 85 G 105 Kts (Cat: 2) Pressure: 971 mb

NHC Storm Forecast: Based on attached NHC forecast plot of storm track.
- Forecast speed and intensity of storm at each point on attached NHC forecast:

Point	Current - 26/2030L - 27/0830L	26/2030L - 27/0830L	27/0830L - 28/0830L	28/0830L - 29/0830L	29/0830L - 30/0830L	30/0830L - 31/0830L
Speed	6 Kts	6 Kts	6 Kts	5 Kts	6 Kts	20 Kts
Wind	90G110Kt	95G115Kt	100G120Kt	105G130Kt	110G135Kt	35G45Kt
40Kt Radial	70 70 40 30	70 70 40 30	70 70 40 30	80 80 80 80	90 90 80 80	0 0 0 0
NE SE SW NW						

The NHC forecast tracks Katrina northwest through the Eastern Gulf of Mexico. According to this forecast, Katrina makes landfall as a category 3 hurricane near Panama City on Monday, 29 Aug. ~1200L.

KSC Threat: Based on NHC's forecast, products, and published forecast errors.

Probability of 40 Kt sustained wind @ LC 39:	10%
Probability of 70 Kt peak wind @ LC 39 within 72 hrs:	2%

40-Knot Simulation: Note: This is a simulation. The official forecast is the NHC's current forecast.
Timing assumes Katrina follows the NHC forecast track for 24 hours, then turns clockwise and tracks NE toward KSC.

Given Storm Speed	Arrival Time at given storm speed					
	12 Kts	10 Kts	8 Kts	7 Kts	6 Kts	5 Kts
Time until arrival of 40 Kt winds	30 hrs	36 hrs	45 hrs	51 hrs	60 hrs	72 hrs
Date/Time of arrival of 40 Kt winds	27/1730L Sat	27/2330L Sat	28/0830L Sun	28/1430L Sun	28/2330L Sun	29/1130L Mon