

Abbreviated Tropical Cyclone Report  
Subtropical Depression Twenty-Two  
8 – 10 October 2005

Jack Beven  
National Hurricane Center  
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A large mid/upper-level trough persisted over the central north Atlantic Ocean during the first week of October, aided to some extent by the outflow from Tropical Storm Tammy near the Florida east coast. A mid/upper-level low formed in the trough around 5 October, and an associated surface trough developed to the east of the low on 6 October. The surface trough moved northwestward on 7-8 October on the northeast side of the upper low. The surface system developed a closed circulation and organized convection on 8 October, and it is estimated that it became a subtropical depression around 0600 UTC about 535 n mi southeast of Bermuda. The association of the surface and upper-level lows, combined with the influence of the cold air of the upper-level low, gave the depression the structure of a subtropical cyclone instead of a tropical cyclone. The depression turned westward on 9 October on the north side of the upper low. Strong easterly vertical wind shear caused the convection to diminish, and the depression became a non-convective remnant low on 10 October about 150 n mi west-southwest of Bermuda. The remnant low turned northwestward later that day and merged with a cold front on 11 October east of Cape Hatteras, North Carolina. The low then intensified as an extratropical system, causing gale-force winds to the northeast of the center as it meandered off the mid-Atlantic states from 12-14 October. The system was absorbed by a larger extratropical low late on 14 October.

A tropical storm watch was issued for Bermuda at 1500 UTC 8 October. The watch was cancelled at 0300 UTC 9 October when it became apparent that the shear would not allow the depression to strengthen.

There was some question as to whether this depression was a re-development of Tropical Depression Nineteen from the eastern Atlantic. Satellite imagery indicates that at the time the pre-Subtropical Depression Twenty-Two surface trough was forming on 6 October, the remnants of Tropical Depression Nineteen were a few hundred miles to the east. Those remnants weakened and were absorbed into the developing subtropical depression on 7 October.

Table 1. Best track for Subtropical Depression Twenty-Two, 8 – 10 October 2005.

Date/Time (UTC)	Latitude (EN)	Longitude (EW)	Pressure (mb)	Wind Speed (kt)	Stage
08 / 0600	26.1	57.4	1009	30	subtropical depression
08 / 1200	27.7	58.5	1008	30	"
08 / 1800	28.8	60.1	1009	30	"
09 / 0000	29.3	62.0	1009	25	"
09 / 0600	29.3	63.3	1009	25	"
09 / 1200	29.5	64.5	1009	25	"
09 / 1800	30.0	65.2	1009	25	"
10 / 0000	30.7	66.0	1009	25	"
10 / 0600	31.6	67.5	1009	25	remnant low
10 / 1200	32.5	68.9	1009	30	"
10 / 1800	33.5	70.0	1008	30	"
11 / 0000	34.3	71.0	1008	30	"
11 / 0600	35.5	71.7	1008	30	"
11 / 1200	36.7	71.8	1008	30	extratropical
11 / 1800	37.8	71.7	1008	30	"
12 / 0000	38.5	71.9	1009	30	"
12 / 0600	38.8	72.4	1010	30	"
12 / 1200	38.9	73.0	1011	35	"
12 / 1800	38.7	73.5	1011	40	"
13 / 0000	38.3	73.5	1010	40	"
13 / 0600	37.7	73.5	1010	40	"
13 / 1200	37.2	73.0	1008	40	"
13 / 1800	37.8	73.0	1006	40	"
14 / 0000	38.0	73.4	1006	40	"
14 / 0600	37.6	73.8	1005	40	"
14 / 1200	38.6	73.8	1005	35	"
14 / 1800	39.6	73.8	1005	30	"
15 / 0000					absorbed by larger extratropical low
08 / 1200	27.7	58.5	1008	30	minimum pressure

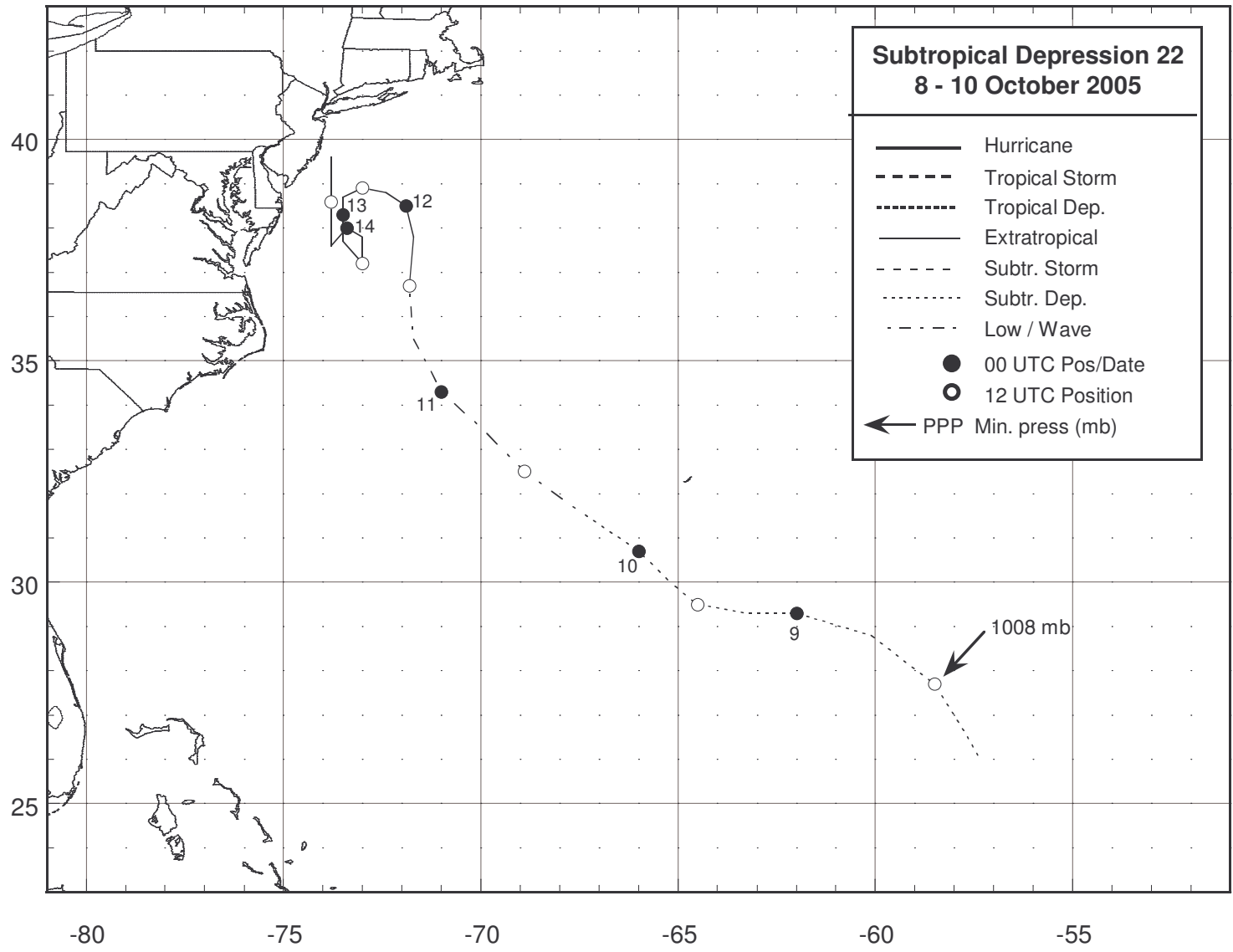


Figure 1. Best track positions for Subtropical Depression Twenty-Two, 8 – 10 October 2005. Track during the extratropical stage is based on analyses from the NOAA Hydrometeorological and Ocean Prediction Centers.