

Storm: TS Karen

Ex. name: TOR

Flight ID: 131004H1

LPS: Rogers

Nav: Siegel

Radar: Hazelton

Sys eng: Boston



Drop: Sellwood

Data Tech: Poles

BT: Sellwood

Elec Tech: Lynch

FO: Henning

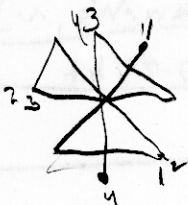
Pilots: Nelson, Sweeney, Price

Take off: 1908 UTC Loc: KMCF

Landing: 0211 UTC Loc: KMCF



Briefing: Conduct Eme-tasked TOR mission in TS Karen, which is tracking NW in the central Gulf of Mexico. Rotating figure-4, 1P on NE side, FO on south, fly 100nm legs, drop sondes at all turn and mid-points, plus all center passes. Drop BTs in comb with sondes at all turn points and first center pass. Fly at 8000ft. Storm has weakened slightly from previous day, with convection well-displaced from center on the east side. Moderate to strong SW shear, plus dry air, continue to prevent organization and intensification. There have been occasional bursts of convection near center, but they have been transient.



(1)

Log

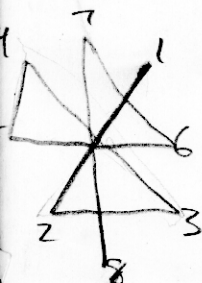
Time

Time	Event	Position	Comments
1808	takeoff	KMCA	
1928	obs	near (Pan) NE	only stratus below 10; no convection to be seen
1929	drop 1, BT	100 nm NE	FL 30, SF 30, SST
1942	drop 2	50 nm NE	FL 10, SF 35
1950	obs	near center	went through an area of weak winds on NE side, possibly indicating a center trying to reform to east of previous position, at at a minimum multiple centers
1957	obs, drop 3, BT	25° 47' 90° 06'	center mark, at drop 1003
2003	obs, d	on rebound to SW	center drop measured a surface wind of 50 kt at 075 degrees; center at surface clearly reforming to the SE; SFMR confirmed 50 kt ste winds
2012	drop 4	50 nm SW	FL 20, SF 15 kt
2024	drop 5, BT	100 nm SW	FL 10-15, SF 5
2058	drop 6, BT	100 nm SE	FL 30-35, SF 25 kt; 28 SST
2107	obs	68 nm SE	line of deep convection here; 45 dBZ LF, echo tops 16+ km
2110	drop 7	60 nm SE	FL 5, SF 50-55 kt
2117	obs	30 nm SE	very weak winds, ~ 5 kt. at FL; SF 20-25 kt

Radar leg 1
1929-2004
-2058

center
1957
25° 47'
90° 06'

Radar leg 2
2058-2152
-2211



Time	Event	Position	Comments
2128	center, drop 8	25°50' 90°19'	extrap 1001
2139	drop 9	50 nm NW	FL 10, SF 15 kt
2152	drop 10	100 nm NW	absolutely no precip here, blue sky, stratus deck
2211	drop 11, BT	100 nm W	FL 10, SF 5 kt
2226	drop 12	50 nm W	FL 15, SF 15 kt
2235	drop 13	center, 25°51' 90°26'	extrap SLT 1002
2248	obs	40 nm E ctr	passing north of drop convection, about 60 nm to S, echo tops upto 16 km
2250	drop 14	50 nm E	FL 10, SF 30-35 kt
2301	drop 15, BT	100 nm E	FL 30, SF 30-35 kt 28.3 SST
2302	obs	100 nm E	in same chop, some isolated cells, in cloud as well; band of convection on LF
2332	drop 16, BT	100 nm N	FL 25, SF 25 kt, 27.9 SST
2349	drop 17	50 nm N	FL 10, SF 25-30 kt
2357	drop 18, BT	25°55' 90°23'	
0012	drop 19	50 nm S	FL 15, SF 10 kt
0021	drop 20, BT	100 nm S	FL 15, SF 15 kt, SST — no BT
0004	pattern	SE of ctr, 25°33' 97°13'	end pattern, 21 kt
0024	LAND	KMCF	

2128 Z
25°50'
90°19'
center

295/6

radar leg 3
2211 - 2301
- 2332

2235 Z
25°51'
90°26'
center

radar leg 4
2332 - 0021
- 0104

2357 Z
25°55'
90°23'
center

Mission Summary

GPS Rogers
Radar Hazelton
Drops Sellwood

Mission Briefing: see previous

Mission synopsis: flew mission as planned. Performed four radar

analyses, dropped sondes and BT's as planned. Storm is looking less defined than previous day. USLP about 1002-1003. PL winds showed a complicated structure, with winds on inbound NE leg turned to NE by a portion of leg. Upon first center fix showed winds from NE at 50 kt. Possibly another center trying to form to SE, where the deepest convection was located. Very complex structure - weak circulation,

dual centers. Strongest SWE winds about 50-55 kt. Satellite presentation

showed nearly exposed center, with flare-ups of convection on E/NE side.

Possible center re-formation, but whatever is there is still being shown.

Vertical cross-sections through feature to SE shows deep updraft, anticyclonic

flow b/w 3 to 6 km radially inward of updraft, ~~then~~ then cyclonic flow outward → vorticity maximum at that interface.

Evaluation: mission objectives were achieved. All drops worked, all BT's but 1 worked, radar analyses completed and transmitted to Euro. We did extend the final radar leg for a portion of our downwind leg to sample convection again on SE side.

Problems: No problems. All drops worked, all but 1 BT.

GPS sondes : 20

BT : 9