



HURRICANE ANITA, OPERATIONS LOG

**TEXAS DEPARTMENT OF WATER RESOURCES
EMERGENCY OPERATIONS CENTER**

LP-40

April 1978

HURRICANE ANITA, OPERATIONS LOG
TEXAS DEPARTMENT OF WATER RESOURCES
EMERGENCY OPERATIONS CENTER

by
Weather Modification and Technology Section

Texas Department of Water Resources

LP-40

1978

HURRICANE ANITA, OPERATIONS LOG
TEXAS DEPARTMENT OF WATER RESOURCES
EMERGENCY OPERATIONS CENTER

Hurricane Anita

A tropical depression was reported on August 29, 1977 in the Gulf of Mexico by the National Hurricane Center, Miami, Florida. The depression was located approximately 250 miles south-southwest of New Orleans (MSY). The tropical depression was upgraded to Tropical Storm Anita at 0500 Greenwich Mean Time (GMT) on August 30. By 1700 GMT that same day, Anita had intensified to hurricane strength and was located 200 miles south of New Orleans moving in a westerly direction. Hurricane Anita continued to intensify and made landfall on September 2 at 1000 GMT in Old Mexico about 120 miles south of Brownsville. An intermediate hurricane advisory issued before Anita made landfall classified the gulf storm as an extremely dangerous hurricane and a major threat to the northeast Mexican coastline. Maximum sustained wind speeds reached 155 mph and gale force winds extended outward 200 miles to the east and 150 miles to the west of the center. The lowest pressure reported was 926 millibars (27.35 inches of mercury). Torrential rains and storm tides estimated at 12 to 15 feet above normal raked the Mexican coastline where Anita made landfall. Anita maintained the westerly course and rapidly weakened and dissipated over the Mexican mountains. The complete life history of Hurricane Anita is presented in Table 1. The time and position plots of this gulf storm are shown in Figure 1.

Hurricane Watch Operations, Austin, Texas

During the morning of September 1, 1977, the State Director of Defense and Disaster Relief notified the Texas Department of Water Resources (TDWR) Acting Executive Director that the Emergency Operations Center (EOC) at the Department of Public Safety headquarters would be activated at 1500 Local Daylight Time (LDT). Responsible TDWR staff were notified. TDWR teams were scheduled to man the TDWR booth at the EOC around the clock.

Everett Rowland, Chief of Emergency Operations for the TDWR and Bob Riggio, TDWR meteorologist, were scheduled to man the booth beginning at 1500 LDT. Ralph Petty, TDWR engineer, and Tom Larkin, TDWR meteorologist, continued the watch at midnight and were relieved by John Carr, Division Director of Weather Modification and Technology and Everett Rowland the next morning before the watch was terminated.

A chronological log of TDWR personnel events which occurred during the hurricane watch at EOC was maintained and is presented below.

Log of TDWR-EOC Operations, Hurricane Anita

9-1-77 Local Daylight Time

1515	Rowland reported for duty, EOC Austin. Riggio briefed on Anita by Austin National Weather Service (NWS) personnel. NWS forecast called for six to eight inches of rain in the Brownsville area over the next 24 hours.
1600	Riggio reported for duty, EOC.
1745	Rowland signed off duty.
1800	EOC briefing to the Governor from each State agency representative.
1815	Riggio briefed the Governor on TDWR-EOC functions and responsibilities. At the Governor's request, Riggio forecast Anita to make landfall at 2300 LDT approximately 80 miles south of Brownsville in Old Mexico.

1830 Riggio briefed news media.
1845 Riggio briefed AG John Hill.
2010 Riggio briefed Mike Cooper (Governor's staff) on the current Brownsville weather and gave an update on the status of the hurricane.
2300 Larkin briefed on Anita by Austin NWS personnel at municipal airport.

9-2-77

0000 Riggio signed off duty. Petty and Larkin reported for duty. Hurricane watch continued. Occasional informal discussion on hurricane position, intensity, tides, winds, expected rainfall in northeast Mexico with EOC personnel.
0400 Anita made landfall, 120 miles south of Brownsville on Mexican coastline. Winds 155 mph, torrential rains, tides estimated at 12 to 15 ft. above normal. At Brownsville tides 4 ft. above normal, precipitation light, only ¼" by midnight, max gusts to 46 mph, no significant rainfall reported by 0600. Brownsville forecasts for possible rains up to 5" later today.
0600 Carr briefed on Anita by NWS Austin Personnel.
0715 Rowland reported in for duty.
0730 Petty signed out.
0800 Carr reported for duty. Larkin signed out.
0840 Hurricane watch terminated, EOC officially closed. Carr briefed EOC Director on a storm now in the eastern Gulf of Mexico that could possibly develop into a hurricane within the next 48 hours.
0850 Carr and Rowland closed TDWR-EOC booth.

TDWR-EOC Hurricane Watch Termination

At 0800 CDT September 2, 1977, Miami Special Advisory Number 14 discontinued all warnings along the Texas coast. The Brownsville Weather Service radar positioned the eye of Hurricane Anita to be 25 miles inland, about 100 miles north-northwest of Tampico, Mexico. Movement was to the west at 10 mph. Heavy rains were observed in the mountain areas of Old Mexico as Anita rapidly weakened. The heaviest rainfall occurred far to the south of the Texas-Mexico border and no significant runoff presented a flood threat to the lower Rio Grande basin.

Table 1. Hurricane Anita, Time and Position Reports

Source: Advisory Bulletins, National Hurricane Center, Miami

Miami Advisory No.	Date/CDT 1977	Position °N °W	Max Wind (mph)	Central Pressure mb/in	Movement Dir/Speed	Forecast Movt/Intensity
--------------------------	------------------	-------------------	----------------------	------------------------------	-----------------------	----------------------------

Tropical Depression Stage

na ^{1/}	8-29/1100	250 ^{2/} SSE MSY ^{3/}	35	na	forming	WNW @ 10/inc ^{4/}
na	8-29/1700	200 SSE MSY	35	na	drift WNW	drift WNW/inc
na	8-29/2130	200 S MSY	35	na	drift WNW	drift WNW/inc

Tropical Storm Stage

1	8-30/0500	27.0 90.0	40	na	drift WNW	5-10 WNW/inc
2	8-30/1100	27.0 90.5	45	1003/29.62	drift W	drift W/inc

Hurricane Stage

3	8-30/1700	26.5 91.0	80	992/29.30	drift W	drift W/inc
IA ^{5/}	8-30/2000	26.4 91.0	85	989/29.20	drift W	drift W/inc
4	8-30/2300	26.3 91.2	90	989/29.20	drift W	drift W/inc
5	8-31/0500	26.2 91.5	95	984/29.06	drift W	drift W/inc
IA	8-31/0800	26.2 91.9	95	984/29.06	W < 5	drift W/inc
6	8-31/1100	26.2 92.0	95	982/29.00	W < 5	drift W/inc
IA	8-31/1400	26.2 92.3	95	982/29.00	W < 5	drift W/inc
7	8-31/1700	26.2 92.5	95	982/29.00	W @ 5	drift W/inc
IA	8-31/2000	26.1 92.9	95	975/28.91	W @ 5	drift W/inc
8	8-31/2300	26.0 93.5	95	975/28.79	W @ 7	drift W/inc
IA	9-1/0200	25.9 93.8	100	973/28.73	W @ 9	to west/inc
9	9-1/0500	25.9 94.3	105	968/28.59	W @ 10	to west/inc
IA	9-1/0800	25.8 94.8	105	962/28.40	W @ 10	to west/inc
10	9-1/1100	25.6 95.4	115	960/28.35	W @ 10	W @ 10/inc
IA	9-1/1500	25.2 95.8	125	948/28.00	WSW @ 10	WSW @ 10/inc

(Continued)

Table 1. Continued

Miami Advisory No.	Date/CDT 1977	Position °N °W	Max Wind (mph)	Central Pressure mb/in	Movement Dir/Speed	Forecast Movt/Intensity
--------------------------	------------------	-------------------	----------------------	------------------------------	-----------------------	----------------------------

Hurricane Stage (continued)

11	9-1/1700	25.0 96.0	150	936/27.64	SW @ 10	W @ 10/inc
IA	9-1/1900	24.9 96.1	150	936/27.64	WSW < 10	WSW @ 10/inc
IA	9-1/2100	24.5 96.4	155	930/27.46	WSW @ 10	WSW @ 10/inc
12	9-1/2300	24.4 96.6	155	930/27.46	SW @ 10	SW @ 10/inc
IA	9-2/0100	24.3 97.2	155	930/27.46	WSW @ 10	WSW @ 10/inc
IA	9-2/0300	24.1 97.5	155	926/27.35	WSW @ 10	W @ 10/inc
13	9-2/0500	24.0 98.0	155	na	west	west/decr
14	9-2/0800	23.6 98.2	rapidly weakening		WSW @ 10	WSW/ decr

1/ Not available

2/ Miles

3/ New Orleans

4/ Increasing

5/ Intermediate Advisory

