



# CENTRAL PACIFIC HURRICANE CENTER TROPICAL CYCLONE REPORT

## TROPICAL CYCLONES 1994

Central Pacific Hurricane Center

### JULY 11 - 14, 1994 (TROPICAL STORM DANIEL)

Tropical Storm DANIEL entered the Central Pacific on July 11, crossing 140W longitude near 13N. DANIEL moved west northwest at nearly 15 knots in the general direction of the Hawaiian Islands with winds estimated at 55 knots. This proved to be DANIEL's peak intensity as it slowly began weakening on the 12th as the effects of vertical wind shear was present. On crossing 150W near 16N on the 13th, DANIEL was downgraded to a tropical depression. By the time DANIEL moved south of the Big Island on the 14th, winds were down to 25 knots as DANIEL was dissipating and the last advisories were issued. The remnant circulation passed west about 100 miles south of South Point early on the 15th. The only effect on land was some locally heavy showers over the windward slopes of the Big Island where rainfall totals of about 5 inches in as many hours were reported locally on the 15th. Moderate surf between 4 and 6 feet also affected east and southeast facing shorelines on the Big Island on the 13th and 14th.

1994: Tropical Storm Daniel

Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
07/11/0000	12.4	135.7	994	55	Tropical Storm
07/11/0600	12.6	137.4	994	55	"

07/11/1200	13.0	139.0	994	55	"
07/11/1800	13.3	140.4	994	55	"
07/12/0000	13.5	141.5	995	55	"
07/12/0600	13.7	142.7	996	55	"
07/12/1200	13.8	144.0	997	55	"
07/12/1800	13.9	145.2	998	45	"
07/13/0000	14.1	146.3	999	45	"
08/13/0600	14.4	147.3	1000	45	"
08/13/1200	14.7	148.3	1002	45	"
08/13/1800	15.1	149.2	1004	45	"
07/14/0000	15.4	150.2	1003	30	Tropical Depression
07/14/0600	15.8	151.2	1003	30	"
07/14/1200	16.2	152.5	1004	25	"
07/14/1800	16.6	153.7	1004	25	"

## JULY 17 - 25, 1994 (HURRICANE EMILIA)

Hurricane EMILIA was already a well developed hurricane when it crossed 140W near 10N at 18Z on July 17 with winds estimated at 85 knots. EMILIA had developed near 08N between 120W and 130W a few days earlier and was one of the relatively few storms that formed south of 10N in the Eastern North Pacific.

EMILIA grew rapidly in intensity to become one of the most powerful

storms of record in the Central Pacific as maximum sustained winds increased to 135 knots on July 19 and 20 UTC, while it was moving west and later west northwest well to the southeast of the Hawaiian Islands. On the 21st, the track started bending more toward the northwest as a trough in the upper westerlies started affecting the storm. The upper southwesterly wind flow pulled the upper part of the storm northeast while the low level circulation was forced west by the trade winds. This type of vertical wind shear is unfavorable for maintaining an intense tropical cyclone. This, together with the effect of cooler water, caused EMILIA to become sheared and rapidly lose strength rapidly on the 21st and 22nd as EMILIA passed south of the islands.

On its closest approach, EMILIA passed about 150 miles southwest of the Big Island at 0600Z on July 22 with winds down to 100 knots. EMILIA continued to lose strength and passed about 200

miles southwest of Oahu and Kauai on the 23rd as a weak tropical storm. The following day, EMILIA was downgraded to a tropical depression and the last advisory was issued at 0300Z on the 25th as the remnant circulation was dissipating to the west of Kauai.

The effects of the powerful EMILIA on the Islands weather was minimal. There was the usual high surf between 6 and 10 feet along the Puna and Kau shorelines with slightly lower surf reported along the Kona and Kohala coastline and along the south facing shores of the smaller islands. EMILIA passed very close to NOAA Buoys 51002 and 51003 and observations from these two platforms gave a good hourly sampling of atmospheric pressure and winds and waves during the passage. Locally on land winds were strong and gusty across the state where terrain brought the strong easterly winds at mountain top level down to the lower elevations. Only minor wind damage to roofs occurred and a few trees were felled or branches broken. Rainfall was mostly light to moderate. No hurricane watches or warnings were issued as the confidence in the weakening effects of shearing and subsequent westward movement of the storm were high.

1994: Hurricane Emilia					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
07/17/1800	10.4	140.2	968	80	Hurricane Cat. 1
07/18/0000	10.5	141.5	962	100	Hurricane Cat. 3
07/18/0600	10.7	142.8	958	120	Hurricane Cat. 4
07/18/1200	10.8	144.3	953	125	"
07/18/1800	10.8	145.4	940	130	"
07/19/0000	10.9	146.5	930	130	"
07/19/0600	11.2	147.5	928	135	"
07/19/1200	11.5	148.5	926	135	"
07/19/1800	11.8	149.6	926	140	Hurricane Cat. 5
07/20/0000	12.0	150.8	926	135	Hurricane Cat. 4
07/20/0600	12.3	151.9	929	135	"
07/20/1200	12.6	152.7	936	140	Hurricane Cat. 5
07/20/1800	13.0	153.5	935	140	"
07/21/0000	13.5	154.3	932	130	Hurricane Cat. 4

07/21/0600	14.0	155.0	936	125	"
07/21/1200	14.7	155.5	945	125	"
07/21/1800	15.4	156.3	955	115	"
07/22/0000	16.3	156.7	965	105	Hurricane Cat. 3
07/22/0600	16.9	157.4	980	85	Hurricane Cat. 2
07/22/1200	17.5	158.2	990	65	Hurricane Cat. 1
07/22/1800	17.9	159.0	995	65	Hurricane Cat. 1
07/23/0000	18.4	159.7	999	60	Tropical Storm
07/23/0600	18.8	160.0	1002	55	"
07/23/1200	19.1	161.2	1003	45	"
07/23/1800	19.7	162.2	1004	35	"
07/24/0000	20.3	162.9	1005	30	Tropical Depression
07/24/0600	20.5	163.6	1006	30	"
07/24/1200	20.9	164.6	1007	30	"
07/24/1800	21.3	165.7	1009	25	"
07/25/000	21.5	166.3	1010	25	"

## JULY 22 - 24, 1994 (TROPICAL DEPRESSION FABIO)

FABIO had already weakened to tropical depression strength as it entered the Central Pacific on July 22. FABIO travelled west rapidly along 17N with winds generally ranging between 20 and 30 knots. FABIO was situated between Hurricanes EMILIA and GILMA, though about 5 degrees farther north. EMILIA and GILMA were unusually intense cyclones while southeast of the Hawaiian Islands. This may somehow have limited FABIO's growth potential. In any event, FABIO never developed past the depression stage in the Central Pacific and the last advisory was issued at 0000Z on the 24th.

The remnant circulation of FABIO moved south of the Big Island on the 24th with the center passing about 100 miles south of South Point, accompanied by some intense thunderstorms over the open waters south of the Islands. Moisture along the northern fringes of the circulation brought some locally heavy showers to the Big Island and pockets of moisture also affected the other islands where some windward areas of Oahu received as much as 3 to 4 inches of rainfall late on the 24th local time.

1994: Tropical Depression Fabio

Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
07/22/0600	16.8	140.8	1008	25	Tropical Depression
07/22/1200	16.8	142.5	1008	25	"
07/22/1800	16.8	144.2	1008	25	"
07/23/0000	16.6	146.1	1008	25	"
07/23/0600	16.7	148.1	1008	25	"
07/23/1200	16.8	149.8	1009	25	"
07/23/1800	16.7	151.8	1010	25	"
07/24/0000	16.8	153.4	1010	25	"

## JULY 24 - 31, 1994 (HURRICANE GILMA)

GILMA came into the Central Pacific as a very intense hurricane with 130 knot sustained winds near the center. It moved along a rather straight path westward along 12N parallel to and about 02 degrees farther north than the track EMILIA had followed a few days earlier.

Like EMILIA, GILMA also reached a record intensity of 140 knots for the Central Pacific. This occurred on the 24th to the southeast of the Hawaiian Islands in the same general area where EMILIA had reached this extreme intensity.

During the nighttime hours between the 24th and 25th hst, GILMA, for some reason suddenly began to decline in intensity. An Air Force reconnaissance flight into the storm at 251200Z confirmed what the satellite pictures had indicated. The winds had dropped from 140 knots to 100 knots in a matter of just a few hours.

Whereas EMILIA had curved northwest toward the Hawaiian Islands, causing some anxious moments, GILMA maintained its west track along 12N while continuing to lose strength. GILMA was downgraded to tropical storm strength when passing 400 miles south of South Point at 270000Z. GILMA, after passing 160W at 271800Z, assumed a west northwest course, which took it about 100 miles south of Johnston Island during the evening hours on the 28th HST. Johnston Island received some surf along its east southeast shores and winds gusted near 35 knots. Some showers also were reported, but otherwise nothing out of the ordinary. From south of Johnston Island, GILMA curved more northwest and later northerly while weakening further and, as the month ended, GILMA was dissipating over the waters south of Midway Island.

1994: Hurricane Gilma

<b>Date/Time (UTC)</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>	<b>Pressure (mb)</b>	<b>Wind Speed (kt)</b>	<b>Stage/Notes</b>
07/24/0600	12.2	140.4		135	Hurricane Cat. 4
07/24/1200	12.0	141.8		135	"
07/24/1800	12.1	143.3		140	Hurricane Cat. 5
07/25/0000	12.0	144.7		140	"
07/25/0600	12.0	146.0		140	"
07/25/1200	12.0	147.6		100	Hurricane Cat. 3
07/25/1800	12.0	149.2		110	"
07/26/0000	12.2	150.8		105	"
07/26/0600	12.3	152.2		100	"
07/26/1200	12.2	153.4		90	Hurricane Cat. 2
07/26/1800	12.2	154.5		80	Hurricane Cat. 1
07/27/0000	12.1	155.6		60	"
07/27/0600	12.0	156.8		60	"
07/27/1200	11.8	158.0		60	"
07/27/1800	12.1	159.9		50	Tropical Storm
07/28/0000	12.5	161.6		50	"
07/28/0600	12.8	163.3		50	"
07/28/1200	13.1	165.2		50	"
07/28/1800	13.5	167.1		55	"
07/29/000	13.7	169.0		45	"
07/29/0600	13.9	170.7		45	"
07/29/1200	14.2	171.6		45	"
07/29/1800	15.2	172.7		40	"

07/30/0000	16.6	174.0		35	"
07/30/0600	17.7	174.9		35	"
07/30/1200	18.1	175.3		35	"
07/30/1800	18.3	175.6		30	Tropical Depression
07/31/0000	18.5	176.0		25	"

## AUGUST 3 - 12, 1994 (HURRICANE LI)

Hurricane LI entered the Central Pacific as Tropical Depression EIGHT-E early on August 3 UTC. EIGHT-E crossed 140W longitude near 12N, moving slightly south of due west with winds estimated at 30 knots.

Eight-E appeared to be weakening and issuances of advisories were discontinued on the 5th near 10N 155W. EIGHT-E, however, came back to life as it moved well south of the Hawaiian Islands on the 6th and 7th and advisories were again issued beginning on the 8th when the depression was near 14N 165W with winds close to tropical storm strength.

Eight-E became Tropical Storm LI, the first storm named in the Central Pacific during the 1994 season. LI moved west between 13N and 14N at a forward motion of about 10 knots on the 9th and 10th with winds between 45 and 50 knots. LI passed about 180 miles south of Johnston Island at 1500 UTC on the 9th with little effect felt on the atoll. On the 11th LI, curved southwestward for a few hours while intensifying before reaching the Dateline and briefly attained hurricane strength near 12.5N 178.5W when winds were estimated at 65 knots.

LI became Typhoon LI, but barely. LI began weakening again west of the Dateline and was downgraded to a tropical storm and later to a tropical depression while moving west northwest in the general direction of Wake Island. It arrived there on August 16-17 with some showers but little in the way of winds.

1994: Hurricane Li					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
08/03/0600	11.1	140.0		25	Tropical Depression
08/03/1200	11.	140.8		30	"
08/03/1800	10.	142.0		25	"
08/04/0000	10.7	143.5		25	"
08/04/0600	10.5	145.1		25	"

08/04/1200	10.3	146.4		25	"
08/04/1800	10.1	147.8		25	"
08/05/0000	9.7	149.2		25	"
08/05/0600	9.7	150.9		25	"
08/05/1200	9.9	152.7		20	"
08/05/1800	10.5	154.2		25	"
08/06/0000	11.0	155.3		25	"
08/06/0600	11.6	155.9		25	"
08/06/1200	12.2	156.5		25	"
08/06/1800	12.6	157.5		25	"
08/07/0000	13.0	158.4		25	"
08/07/0600	13.4	159.2		25	"
08/07/1200	13.5	16.0		25	"
08/07/1800	13.5	161.1		25	"
08/08/0000	13.5	162.3		25	"
08/08/0600	13.5	163.5		30	"
08/08/1200	13.5	164.8		40	Tropical Storm
08/08/1800	13.5	166.3		45	"
08/09/0000	13.6	167.5		50	"
08/09/0600	13.6	168.2		50	"
08/09/1200	13.6	169.1		45	"
08/09/1800	13.6	170.0		45	"
08/10/0000	13.5	171.0		45	"
08/10/0600	13.6	171.6		45	"



08/10/1200	13.7	172.2		45	"
08/10/1800	13.9	172.7		50	"
08/11/0000	13.9	173.3		50	"
08/11/0600	13.8	174.2		45	"
08/11/1200	13.6	175.1		45	"
08/11/1800	13.4	175.8		50	"
08/12/0000	12.9	176.5		55	"
08/12/0600	12.7	177.4		60	"
08/12/1200	12.5	178.3		65	Hurricane Cat. 1
08/12/1800	12.4	179.3		65	"

## AUGUST 9 - 14, 1994 (TROPICAL DEPRESSION ONE-C)

Tropical Depression ONE-C developed on August 9 within a disturbed area near 15N 145W that had been present in that vicinity for several days. ONE-C with 30 knot sustained winds moved at first northwest to near 17N 147W and then assumed a westward path passing about 100 miles south of South Point on the 12th.

An isolated cumulonimbus cloud or two had been developing near the center of the circulation and within the northeast quadrant as Tropical Depression ONE-C moved west along 17N. During the late forenoon and early afternoon hours local time on the 12th, the depression was centered about 150 miles southwest of the Big Island. The very rich tropical moisture, within the northeast quadrant of circulation, flared up into some very intense thunderstorms over the Big Island. The volcano slopes above Hilo received torrential downpours that caused severe flooding within the town of Hilo as several streets turned into raging rivers. Two rain gauges along the slopes above Hilo at Waiakea Uka and Piihonua reported 15 inches of rain, much of which fell within a 6 hour period. Rainfall was likely even more extreme locally on the slopes above Hilo, where no gauge measurements were available. Damage at Hilo may have reached 5 million dollars. There were no reports of deaths or injuries.

Luckily, Tropical Depression ONE-C kept moving steadily west. Therefore, the rains on the Big Island diminished as rapidly as they had begun. Some heavy showers did occur over east Maui also where Hana received 4 inches of rain with heavier amounts indicated over the nearby Haleakala slopes, judging from satellite pictures. With Tropical Depression ONE-C now quite far west of the islands, no more thunderstorms occurred over land. Tropical Depression ONE-C gradually weakened as it moved west and the last advisory was issued at 0900 UTC on the 14th near 18N 165W.

## 1994: Tropical Depression One-C

<b>Date/Time (UTC)</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>	<b>Pressure (mb)</b>	<b>Wind Speed (kt)</b>	<b>Stage/Notes</b>
08/09/0600	15.3	145.5		25	Tropical Depression
08/09/1200	15.6	145.8		30	"
08/09/1800	15.6	145.9		30	"
08/10/0000	15.8	146.0		30	"
08/10/0600	16.2	146.4		30	"
08/10/1200	16.5	147.0		30	"
08/10/1800	16.6	148.0		30	"
08/11/0000	16.7	149.4		30	"
08/11/0600	16.8	150.4		30	"
08/11/1200	16.8	151.5		30	"
08/11/1800	17.0	152.3		30	"
08/12/0000	17.0	153.4		30	"
08/12/0600	17.2	154.6		30	"
08/12/1200	17.3	156.0		30	"
08/12/1800	17.3	157.3		30	"
08/13/0000	17.1	158.4		25	"
08/13/0600	16.8	159.6		25	"
08/13/1200	16.7	160.7		25	"
08/13/1800	16.7	161.9		25	"
08/14/0000	16.9	163.3		25	"
08/14/0600	17.8	164.5		25	"

## AUGUST 20 - 27, 1994 AND SEPTEMBER 8 - 10, 1994 (HURRICANE JOHN)

Hurricane JOHN was already a well developed Hurricane with 100 knot winds and about 10 days old as it entered the CPHC area of forecast responsibility to the west of 140W longitude on August 20. JOHN moved westward along 15N at a steady 12 to 15 kt rate dipping south slightly to 14N on the 22nd and 23rd while gaining strength on approaching the longitudes of the Hawaiian Islands. When it crossed 155W, sustained winds based on Dvorak intensity analysis were estimated at 150 knots, making JOHN the most intense Hurricane of record in the Central Pacific, beating out EMILIA and GILMA, which were also of extreme intensity near 140 knots over these same waters just a few days or weeks earlier.

JOHN gave the Hawaiian Islands a wide berth passing almost 300 miles south of South Point late on the 22nd HST. The only effects felt on the islands were strengthened trade winds and rough surf along the southeast and south facing shores also spreading to west facing shores briefly. Heavy rains over the Ka'u and South Kona slopes of the Big Island of Hawaii caused some localized minor flooding which closed some roads temporarily.

JOHN now took aim at Johnston Island located near 17N 170W. JOHN, fortunately, started to weaken as it approached island and passed about 15 miles to the north at 260400Z with maximum sustained winds down to 80 knots. Passing north of Johnston Island placed the Islet in the benign semicircle of the cyclone. The 1100 personnel on Johnston Island had been evacuated to Honolulu as a precautionary measure ahead of the approaching storm. A remote readout anemometer on the atoll reported sustained winds between 40 and 50 knots for about 6 hours with gusts as high as 67 knots. Damage was estimated at close to 15 million dollars.

From Johnston Island, JOHN continued west northwest while gaining renewed strength with winds reaching 115 knots at 280000Z. JOHN, a few hours later, crossed the Dateline near 22N and was handed over to the JTWC on Guam.

During the next few days, JOHN continued to move on a northwest track, slowly weakening and reducing its forward motion. On September 1, Tropical Storm JOHN had almost stalled. It then reversed course in the area near 28N 170E and curved back toward the southeast. It completed a clockwise loop well to the southwest of Midway Island and then headed northwest once more. Finally, on September 7, an upper trough approached from the west and the upper southwesterlies grabbed ahold of JOHN and recurvature toward the northeast was assured. JOHN crossed back into the Central Pacific at 081200Z while in an intensifying mode. JOHN crossed the Dateline near 31N and was a hurricane once more at 1800Z when passing several hundred miles northwest and north of Midway Island. Winds were estimated at 80 knots and a well developed eye appeared on satellite imagery.

Hurricane JOHN finally was considered extratropical near 42.5N 170.3W on September 10. The CPHC issued Advisory Number 120 at this time, denoting a life span of 30 days for Hurricane JOHN since its inception off Mexico a month earlier. This extended life cycle likely makes JOHN the longest lived tropical cyclone on record.

This was not the first time a Tropical Cyclone reentered the Central Pacific from the Western Pacific. Other recorded events include Tropical Storm CARMEN in 1980 and Tropical Storm SKIP

in 1985. Both of these, however, were weak cyclones. However, JOHN left as a hurricane and returned as a hurricane once more after spending about 10 days west of the Dateline, much of this time, however, as a Tropical Storm.

1994: Hurricane John					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
08/21/0000	15.0	140.6		100	Hurricane Cat. 3
08/21/0600	14.8	142.1		115	Hurricane Cat. 4
08/21/1200	14.6	143.8		120	"
08/21/1800	14.4	145.5		125	"
08/22/0000	14.2	147.5		130	"
08/22/0600	14.0	149.0		130	"
08/22/1200	14.0	150.8		130	"
08/22/1800	13.9	152.3		140	Hurricane Cat. 5
08/23/0000	14.0	153.7		140	"
08/23/0600	14.2	155.1		150	"
08/23/1200	14.4	156.7		150	"
08/23/1800	14.6	158.1		145	"
08/24/0000	14.9	159.3		140	"
08/24/0600	15.1	160.6		140	"
08/24/1200	15.3	161.8		125	Hurricane Cat. 4
08/24/1800	15.6	162.9		125	"
08/25/0000	15.8	163.9		120	"
08/25/0600	16.1	165.0		105	Hurricane Cat. 3
08/25/1200	16.3	166.3		100	"
08/25/1800	16.5	167.6		100	"

08/26/0000	16.8	168.8		85	Hurricane Cat. 2
08/26/0600	17.1	169.9		80	Hurricane Cat. 1
08/26/1200	17.5	171.1		75	"
08/26/1800	18.0	172.5		70	"
08/27/0000	18.5	173.7		85	Hurricane Cat. 2
08/27/0600	19.0	175.1		90	"
08/27/1200	19.6	176.2		100	Hurricane Cat. 3
08/27/1800	20.2	177.3		110	"
08/28/0000	20.8	178.5		115	Hurricane Cat. 4
08/28/0600	21.6	179.6		100	Hurricane Cat. 3

Note: Hurricane John recurved and crossed from west to east across 180

09/08/1800	31.5	178.9		70	Hurricane Cat. 1
09/09/0000	32.7	177.4		80	"
09/09/0600	34.2	176.0		65	"
09/09/1200	37.0	174.0		65	"
09/09/1800	39.5	172.3		75	"
09/10/0000	41.5	171.0		60	"

## AUGUST 31 - SEPTEMBER 4, 1994 HURRICANE KRISTY

Kristy was initially recognized as a disturbance near 13N 117W on August 27th. The disturbance developed into Tropical Storm KRISTY two and a half days later near 16N 133W on August 29. KRISTY continued to strengthen and moved west along 16N reaching hurricane intensity near 16N and 141W on August 31 at 1200 UTC. KRISTY reached maximum intensity of 90 knots on September 1 at 0000Z near 16N 145W. KRISTY weakened to a tropical storm late that day as increasing westerly winds aloft began to shear the top of the storm. The increasing westerly shear ahead of the approaching trough continue to weaken KRISTY and turned the storm on a more west southwest track. KRISTY had weakened to a tropical depression by September 3 near 15N 150 W. KRISTY eventually dissipated near 15N 164W on September 4th. The area where KRITY intensified was in the same general area where EMILIA, GILMA, and JOHN reached their maximum intensities with winds speeds in excess of 135 knots or Category 5 on the Saffir-

Simpson scale. The primary difference between KRISTY and the other three storms was her encounter with an upper trough to the east of 150W.

1994: Hurricane Kristy					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
08/31/0600	16.2	139.8	992	65	Hurricane Cat. 1
08/31/1200	16.3	141.3		75	"
08/31/1800	16.4	142.8		85	Hurricane Cat. 2
09/01/0000	16.5	144.1		90	"
09/01/0600	16.5	145.6		90	"
09/01/1200	16.5	147.0		80	Hurricane Cat. 1
180	16.3	148.5		70	"
09/02/0000	16.0	150.2		60	Tropical Storm
09/02/0600	15.5	151.7		50	"
09/02/1200	15.0	153.2		45	"
09/02/1800	14.9	154.7		35	"
09/03/0000	14.8	156.2		35	"
09/03/0600	14.8	157.6		35	"
09/03/1200	14.8	158.9		35	"
09/03/1800	14.8	160.0		30	Tropical Depression
09/04/0000	14.7	161.1		30	"
09/04/0600	14.6	162.0		30	"
09/04/1200	14.5	162.8		30	"
09/04/1800	14.5	163.4		30	"
09/05/0000	14.5	164.0		25	"

## SEPTEMBER 6 - 9, 1994 TROPICAL STORM MELE

MELE was the second tropical cyclone that developed within the boundaries of the CPHC area of responsibility during the 1994 season.

The tropical disturbance developed rapidly overnight and, by 2100Z on September 6th, it became tropical depression TWO-C near 11N 160W (800 miles south southwest of Honolulu). The depression strengthened into Tropical Storm MELE by 0300Z on September 7th and was located near 12N 165W. Tropical Storm MELE moved on a west northwest track for two days. It then weakened to a depression on early on September 9th and dissipated later that day near 13.5N and 176W. MELE encountered decreasing outflow support at the upper levels during the last two days and this decrease in the anticyclonic flow near the top of the storm is thought to have contributed to its dissipation.

1994: Tropical Storm Mele					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
09/06/0000	10.7	159.6		25	Tropical Depression
09/06/0600	10.8	161.2		25	"
09/06/1200	11.0	162.7		30	"
09/06/1800	11.3	163.9		30	"
09/07/0000	11.6	165.0		35	Tropical Storm
09/07/0600	11.9	166.1		35	"
09/07/1200	12.3	167.2		35	"
09/07/1800	12.6	168.6		35	"
09/08/0000	12.9	170.0		35	"
09/08/0600	13.0	171.0		35	"
09/08/1200	13.1	171.9		35	"
09/08/1800	13.2	172.8		35	"
09/09/0000	13.3	174.0		30	Tropical Depression
09/09/0600	13.4	175.0		30	"
09/09/1200	13.5	176.0		30	"

## SEPTEMBER 9 - 10, 1994 TROPICAL DEPRESSION LANE

Tropical depression LANE developed as a depression on September 3, 1994 at 0000Z near 17N and 105W. The depression then moved west between 10 and 15 knots and increased to tropical storm strength on September 4th at 1200Z. Tropical Storm LANE then intensified rapidly and became a hurricane on September 5th at around 1800Z near 18N 118W. As Hurricane LANE tracked west, it maintained its maximum winds between 100 and 115 knots during September 6 and 7th before beginning to lose strength. LANE was downgraded to a tropical storm nearly 18 hours before reaching the CPHC boundary at 140W. Tropical Depression LANE entered the Central Pacific in a rapidly weakening mode on September 10th and the last advisory was issued later that day as LANE dissipated near 21N and 144W. LANE's dissipation was caused by an upper level trough, which had passed over the Hawaiian Islands a day or so earlier. This trough brought westerly winds between 50 and 55 knots near the 250 millibar level at both Hilo and Lihue by September 10th.

1994: Tropical Depression Lane					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
09/06/0000	21.4	140.0	1010	25	Tropical Depression
09/06/0600	21.3	141.4	1010	25	"
09/06/1200	21.2	142.9	1010	25	"
09/06/1800	21.2	144.3		25	"

## OCTOBER 22 - 25, 1994 TROPICAL STORM NONA

The last tropical cyclone of the 1994 season developed on October 22, 1994 at 2100Z as tropical depression THREE-C near 13N 157W. The area of disturbed weather had been moving steadily westward with little development for several days before strengthening to a depression. On October 25th, it strengthened slightly and became Tropical Storm NONA during the early morning hours. Later that day, the system again weakened and became a tropical depression. The system continued west as a tropical depression before dissipating near 12N 171W on October 26th. In the early stages of NONA's development, weak outflow inhibited intensification of the system as it moved west. An upper trough near the Dateline was migrating eastward and west and southwest flow ahead of this approaching trough eventually spelled the end of the depression. Increasing westerly flow destroyed the upper level support for the system.

1994: Tropical Storm Nona					
Date/Time (UTC)	Latitude (N)	Longitude (W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
10/21/0000	12.8	157.3		30	Tropical Depression



10/21/0600	12.8	157.3		30	"
10/21/1200	12.8	157.3		30	"
10/21/1800	12.8	157.3		30	"
10/22/0000	12.8	157.3		30	"
10/22/0600	12.8	157.3		30	"
10/22/1200	12.8	157.3		30	"
10/22/1800	12.8	157.3		30	"
10/23/0000	12.8	157.7		30	"
10/23/0600	12.7	158.5		30	"
10/23/1200	12.5	158.5		30	"
10/23/1800	12.5	159.5		30	"
10/24/0000	12.0	160.3		30	"
10/24/0600	11.8	161.5		30	"
10/24/1200	12.1	162.5		25	"
10/24/1800	11.6	164.5		25	"
10/25/0000	11.7	165.6		25	"
10/25/0600	11.8	167.0		25	"
10/25/1200	12.0	168.4		35	Tropical Storm
10/25/1800	12.0	169.9		30	Tropical Depression
10/26/0000	12.2	171.4		25	"