

HURRICANE LILI
12 TO 24 DECEMBER 1984

LILI BECAME ONLY THE THIRD HURRICANE TO FORM IN DECEMBER IN THE ATLANTIC SINCE RECORDS BEGAN IN 1886. THE FIRST KNOWN HURRICANE OCCURRED IN THE OPEN WATERS OF THE ATLANTIC IN 1887. HURRICANE ALICE IN DECEMBER OF 1954, THE SECOND DECEMBER HURRICANE, FORMED IN THE SAME GENERAL AREA AS LILI AND TRACKED SOUTHWEST DIRECTLY INTO THE NORTHEAST CARIBBEAN.

LILI BEGAN AS A DEVELOPING WAVE ON AN OLD COLD FRONT. THE FRONT HAD BECOME STATIONARY AND EXTENDED FROM THE WINDWARD PASSAGE NORTHEAST INTO THE ATLANTIC. AN UPPER LEVEL DISTURBANCE IN THE WESTERLIES MOVED OVER THE FRONT ON THE 9TH AND CREATED A LARGE AREA OF CLOUDS AND SHOWERS ON THE FRONT BY LATE IN THE DAY. A WEAK CIRCULATION BEGAN BY THE 11TH AND THE WSFO IN WASHINGTON CARRIED A DEVELOPING GALE CENTER IN THEIR 12/0000Z HIGH SEAS FORECAST FOR A SYSTEM NEAR 28N/65W WITH A CENTRAL PRESSURE OF 1010 MB.

THE GALE CENTER INTENSIFIED TO BELOW 1000 MB WITH WINDS OF 40 KNOTS AS IT MOVED TOWARD THE NORTHEAST DURING THE FOLLOWING THIRTY SIX HOURS. BY 13/0000Z THE WASHINGTON HIGH SEAS FORECAST CARRIED IT AS A DEVELOPING STORM.

THE STORM STOPPED MOVING TOWARD THE NORTHEAST BY 13/1200Z AND HAD TURNED TOWARD THE SOUTHEAST MOVING AT NEAR 11 KNOTS IN RESPONSE TO RISING PRESSURES TO THE NORTH. DURING THE NEXT SEVERAL DAYS (THROUGH THE 21TH) AN UPPER CUTOFF LOW (500MB) DEVELOPED OVER THE STORM. AFTER MOVING TOWARD THE SOUTH THROUGH THE 15TH, THE STORM RECURVED IN A CYCLONIC DIRECTION AND ACCELERATED (UPWARDS TO 35 KNOTS) BACK TOWARD THE NORTH ON THE 17TH AND 18TH.

AT THIS TIME HIGH PRESSURE TO THE NORTH IN COMBINATION WITH THE UPPER CUTOFF LOW AGAIN HALTED THE STORMS¹ NORTHERLY MOVEMENT AND TURNED IT BACK TOWARD THE SOUTH. AS THE STORM BEGAN DRIFTING TOWARD THE SOUTH IT BEGAN TO STRENGTHEN. SATELLITE INTERPRETATION INDICATED THAT HURRICANE FORCE WINDS HAD POSSIBLY DEVELOPED ON THE 19TH. FINALLY ON THE 20TH AT 1200 GMT A SHIP LOCATED NEAR LATITUDE 30.5N... LONGITUDE 52.6W REPORTED WINDS OF 63 KNOTS FROM THE WEST WITH 982 MBS PRESSURE AND HURRICANE LILI WAS OFFICIALLY NAMED.

BY 22 DECEMBER, RIDGING (BOTH SURFACE AND ALOFT) FROM WEST TO EAST NEAR LATITUDE 30N, BUILT EASTWARD FORCING LILI TO MOVE TOWARD THE SOUTHWEST. THE UPPER TROUGH AND ASSOCIATED CUTOFF LOW IN THE WESTERLIES HAD FAILED TO PICK UP LILI AS THE TROUGH WEAKENED AND RETREATED TOWARD THE NORTHEAST IN THE FACE OF THE ADVANCING RIDGE. LILI, IN RESPONSE TO THE RIDGE, ACCELERATED OFF TOWARD THE SOUTHWEST AT 20 KNOTS AND A HURRICANE WATCH WAS ISSUED ON THE EVENING OF THE 22ND (23/0200 GMT) FOR THE VIRGIN ISLANDS WESTWARD THROUGH PUERTO RICO.

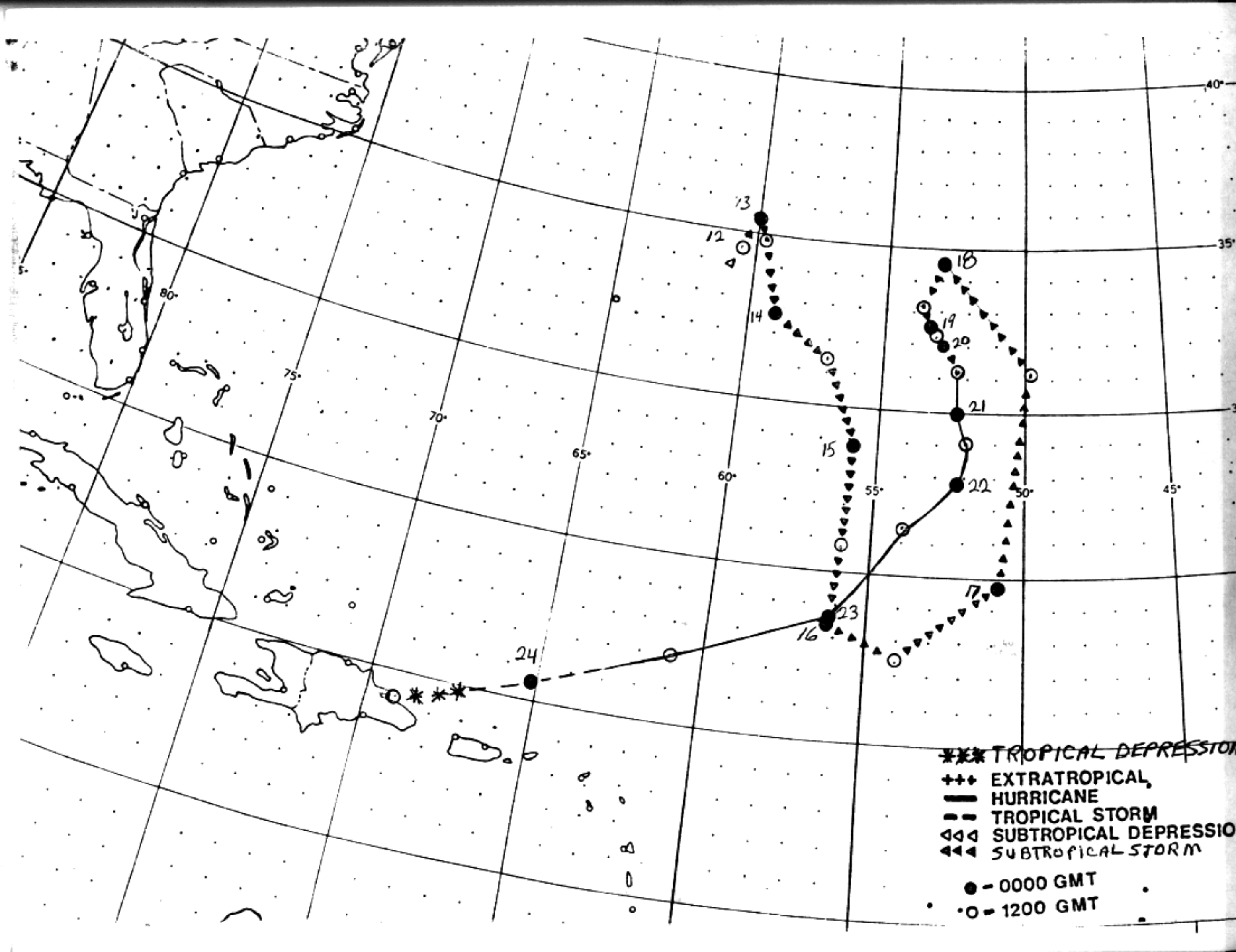
DUE TO A COMBINATION OF LILI'S FAST FORWARD SPEED AND AN INCREASE IN THE WIND SHEAR, CONSIDERABLE WEAKENING OF THE HURRICANE TOOK PLACE ON THE 23RD. BY MIDDAY (1900 GMT 23 DECEMBER) LILI WAS DOWNGRADED TO A TROPICAL STORM AND THE HURRICANE WATCH WAS DISCONTINUED. LILI DISSIPATED QUITE RAPIDLY ON THE NIGHT OF THE 24TH AND WAS MERELY AN AREA OF SQUALLY WEATHER BY THE TIME IT CAME INTO CONTACT WITH HAITI ON THE MORNING OF 24 DECEMBER.

TABLE 1. PRELIMINARY BEST TRACK - HURRICANE LILI
12 TO 24 DECEMBER

DATE	TIME (GMT)	POSITION		PRESSURE (MB)	WIND (KT)	STAGE	
		LAT	LONG			SUBTROP	STORM
12/12	1200	34.5	60.5	995	50	SUBTROP	STORM
	1800	35.5	60.0	995	50	"	"
12/13	0000	35.5	60.0	993	55	"	"
	0600	35.5	60.0	994	55	"	"
	1200	34.9	59.8	994	55	"	"
12/14	1800	33.8	59.5	994	55	"	"
	0000	32.7	59.0	994	55	"	"
	0600	32.0	58.0	994	55	"	"
	1200	31.4	57.0	994	55	"	"
12/15	1800	30.5	56.2	994	55	"	"
	0000	28.9	55.9	994	55	"	"
	0600	27.2	55.8	994	55	"	"
	1200	25.8	56.0	994	55	"	"
12/16	1800	24.5	56.3	994	55	"	"
	0000	23.4	56.2	994	55	"	"
	0600	22.4	55.4	994	55	"	"
12/17	1200	22.4	54.0	994	55	"	"
	1800	23.2	52.7	994	55	"	"
	0000	24.8	50.8	994	55	"	"
	0600	28.0	49.6	994	55	"	"
12/18	1200	31.2	49.9	994	55	"	"
	1800	33.0	51.0	994	55	"	"
	0000	34.5	53.0	994	55	"	"
	0600	34.0	53.6	994	55	"	"
12/19	1200	33.1	53.7	990	60	"	"
	1800	32.8	53.5	990	60	"	"
	0000	32.5	53.3	990	60	"	"
	0600	32.4	53.2	990	60	"	"
12/20	1200	32.3	53.1	990	60	"	"
	1800	32.2	53.0	990	60	"	"
	0000	32.0	52.9	989	60	"	"
	0600	31.6	52.5	988	60	"	"
12/21	1200	31.1	52.4	988	70	HURRICANE	"
	1800	30.5	52.3	988	70	"	"
	0000	30.0	52.2	988	70	"	"
	0600	29.5	52.1	988	70	"	"
12/22	1200	29.0	52.0	988	70	"	"
	1800	28.5	52.0	988	70	"	"
	0000	27.8	52.2	988	70	"	"
	0600	27.0	52.9	988	70	"	"
12/23	1200	26.0	54.0	988	70	"	"
	1800	24.8	55.6	988	70	"	"
	0000	23.6	57.1	987	65	"	"
	0600	22.7	58.9	994	55	TROP	STORM
12/24	1200	22.0	61.0	1001	50	"	"
	1800	21.2	63.1	1007	45	"	"
	0000	20.5	65.1	1009	35	"	"
	0600	19.9	67.5	1010	30	TROP	DEP.
	1200	19.2	69.4	1012	25	"	"

TABLE 2. WATCHES AND WARNINGS ISSUED FOR HURRICANE LILI.

LOCATION	TYPE	EFFECTIVE	DISCONTINUED
VIRGIN ISLANDS WESTWARD THROUGH PUERTO RICO	HURRICANE WATCH	12/23/0200Z	12/23/1900Z



- *** TROPICAL DEPRESSION
- +++ EXTRATROPICAL HURRICANE
- TROPICAL STORM
- ◁◁◁ SUBTROPICAL DEPRESSION
- ◁◁◁ SUBTROPICAL STORM
- - 0000 GMT
- - 1200 GMT

HURRICANE LILI DEC 12-24

