

## Summary

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Verification

U. S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE  
 NORTH ATLANTIC HURRICANE TRACKING CHART

NUMBER	YEAR	NAME	DATE
1	(81)	ARTHUR	AUG 28 - SEPT 8
2	(81)	BEYLA	AUG 30 - SEPT 4
3	(81)	CELESTE	AUG 31 - SEPT 2
4	(81)	DIANA	SEPT 8 - 16
5	(81)	EDWARD	SEPT 15 - 20
6	(81)	GUSTAV	SEPT 16 - 19
7	(81)	HATTIE	SEPT 16 - 19
8	(81)	HURTIK	SEPT 23 - OCT 2
9	(81)	JESSIE	SEPT 25 - OCT 1
10	(81)	JOSEPH	NOV 8 - 13
11	(81)	KAREN	NOV 8 - 13
12	(81)	LILLIE	NOV 8 - 13
13	(81)	MARY	NOV 8 - 13
14	(81)	NANCY	NOV 8 - 13
15	(81)	OLIVE	NOV 8 - 13

1. Tropical Storm. Do not reach hurricane velocity.  
 2. Hurricane. Reaches hurricane velocity.  
 3. Subtropical. Never recorded as a tropical storm.  
 4. Tropical depression. (Development stage).  
 5. Tropical storm stage.  
 6. Hurricane stage.  
 7. Subtropical depression (not less than 34 kts).  
 8. Subtropical storm (not less than 34 kts at height).  
 9. Subtropical storm (not less than 34 kts at height).  
 10. Subtropical storm (not less than 34 kts at height).  
 11. Subtropical storm (not less than 34 kts at height).  
 12. Subtropical storm (not less than 34 kts at height).  
 13. Subtropical storm (not less than 34 kts at height).  
 14. Subtropical storm (not less than 34 kts at height).  
 15. Subtropical storm (not less than 34 kts at height).

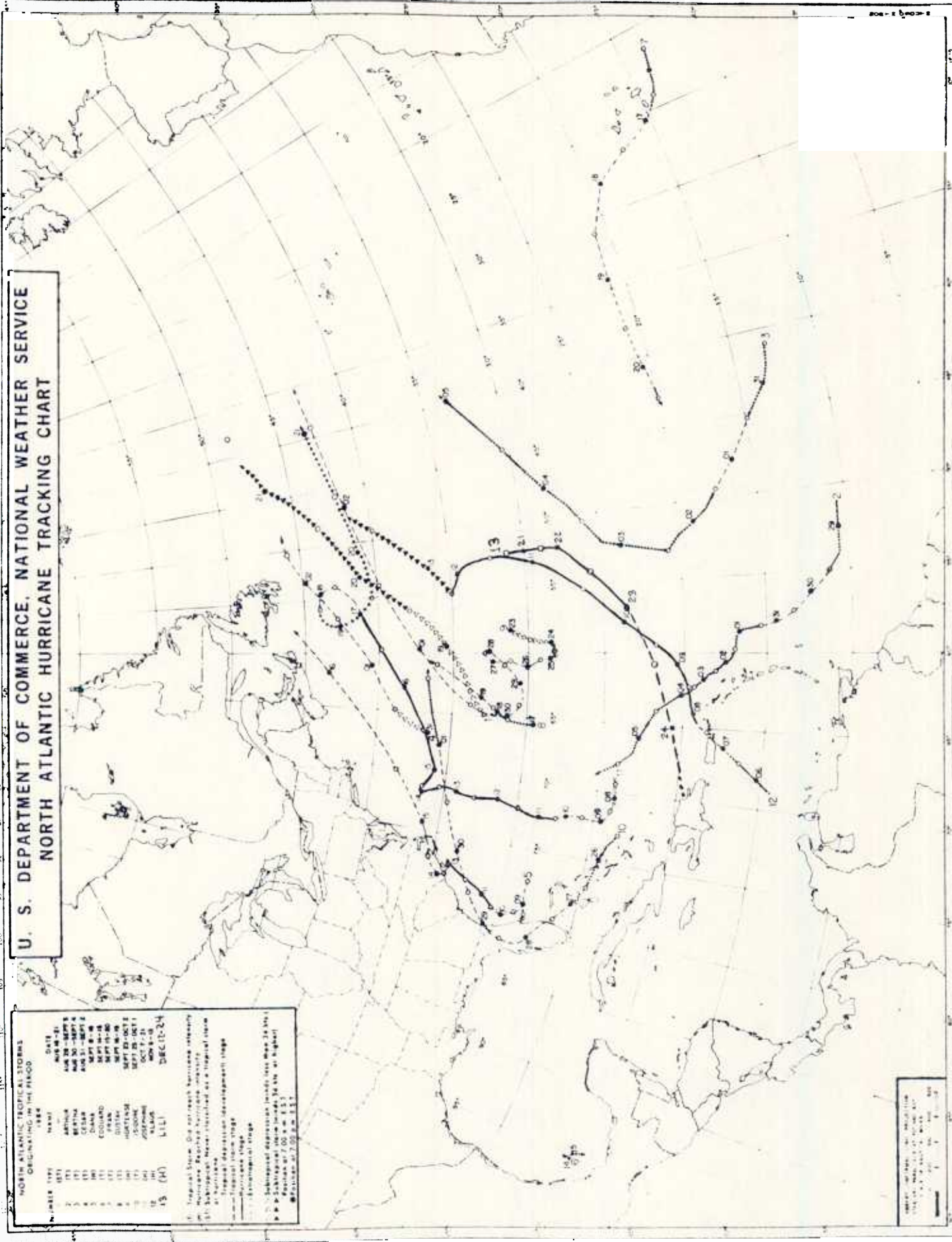


Figure 1. 1984 tropical cyclone tracks

Table 1. 1984 Hurricane Season Statistics

no.	name	class. <sup>1</sup>	dates <sup>2</sup>	maximum sustained wind (kt)	lowest press. (mb)	U.S. damage (\$millions)	deaths
1		ST	8/18- 8/21	50	1000		
2	Arthur	T	8/28- 9/05	45	1004		
3	Bertha	T	8/30- 9/04	35	1007		
4	Cesar	T	8/31- 9/02	50			
5	Diana	H	9/08- 9/16	115	949	65	3
6	Edouard	T	9/14- 9/15	55			
7	Fran	T	9/15- 9/20	55			
8	Gustav	T	9/16- 9/19	45			
9	Hortense	H	9/23-10/02	65			
10	Isidore	T	9/25-10/01	50	999	1	1
11	Josephine	H	10/07-10/21	90			
12	Klaus	H	11/06-11/13	80			
13	Lili	H	12/12-12/24	70	980		

1 T: tropical storm, wind speed 34 - 63 kt.  
H: hurricane, wind speed 64 kt or higher.  
ST: subtropical storm, wind speed 34 - 63 kt

2 The day begins at 0000 GMT

Table 2.

1984 Verification  
Average Track Forecast Errors (n. mi.)  
official forecasts  
(Hurricane Lili not included)

	forecast period (hours)				
	initial	12	24	48	72
1984 average (no. of cases)	22 (162)	55 (162)	120 (139)	237 (110)	349 (81)
1974 - 1983 avg. (avg. no. of cases)	18 (124)	54 (120)	115 (107)	257 (74)	377 (56)
percent improvement	-22%	-02%	-04%	+08%	+07%

Table 3.

1984 Verification  
Average Track Forecast Errors (n. mi.)  
homogenous sample

technique	initial	----- forecast period (hours)			
		12	24	48	72
Official	15	48	81	160	
NHC67	15	39	88	171	
NHC72	15	41	71	124	192
HURRAN	15	51	113	264	
CLIPER	15	48	90	190	
NHC73	15	40	72	121	179
SANBAR	15	49	96	195	
MFM	15	78	104	132	
(no. of cases)	(20	20)	19)	(15)	