

heavy rains were harmful in the southeast, with open cotton whipped out and shedding increasing; picking made slow advance. In the central part of the belt progress was fair to very good, while in Louisiana advance was poor, due to shedding; in Arkansas it was very good, as the warm, dry weather was favorable. In Oklahoma progress was very good and the general condition ranged from fair to very good. In Texas progress was mostly satisfactory, but condition was poor in the drier lower coast and southwest; elsewhere plants were fruiting fairly well and picking made good advance in the south.

During the second decade considerable damage resulted from the storm in the Carolinas and Georgia, and the continued wetness was favorable for weevil activity. In the central part of the belt progress varied widely, ranging from deterioration to good, with shedding reported locally. In Louisiana cotton deteriorated badly in places, but in Arkansas progress was very good and plants were blooming and bolls forming rapidly in most parts. In Oklahoma warmth and sunshine were favorable, though considerable shedding was noted and the general condition was spotted. In Texas advance was also spotted, ranging from poor to very good; the condition of the crop was poor in the drier sections and fair to good elsewhere.

During the last decade less rainfall and moderately high temperatures gave some improvement in the Southeast, especially in Georgia, where progress was fair, but condition still poor to only fair, with continued shedding.

In the Carolinas growth was mostly fair, while in the central belt advance varied from poor to very good, with continued complaints of shedding. Opening was rapid in Louisiana, while in Arkansas progress was good in the north, but the crop deteriorated or made only fair advance in the south. In Oklahoma progress was rather poor, with plants fruiting only fairly well and much shedding. In Texas advance was spotted, ranging from poor to very good; hot dry weather in much of the south and sections of the central area caused considerable shedding and premature opening.

Miscellaneous crops.—Pastures and meadows were mostly good in practically all sections east of the Mississippi River, although they needed rain in parts of the Ohio Valley toward the close of the month. Moisture was needed in some parts of the Great Plains area, but in the more northern sections and in the upper Rocky Mountain region they were good to excellent. Ranges were generally dry in most sections west of the divide, but livestock held up well.

Except for some local complaints of blight and dryness, potatoes did well generally. Truck suffered from too much moisture in the Atlantic Coast States, but good advance was made generally, except that unirrigated crops needed rain in the West. Tobacco was favored generally and sugar cane made excellent advance. Citrus fruits were damaged in Florida by the storm, but were doing well elsewhere, while deciduous fruits made satisfactory progress.

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The weather over the North Atlantic during August presented few unusual features over the extratropical regions where approximately normal conditions prevailed.

There were two tropical disturbances during the month; the first was in the vicinity of Turks Island on the morning of the 5th and following the usual northwesterly path, struck the southeast coast of Florida on the 7th. On the 5th and 6th this disturbance was of a comparatively moderate nature, but on the 7th winds of hurricane force were reported by vessels near the center. The disturbance continued in its northwestward course until near the thirtieth parallel and eighty-third meridian on the 9th, when it began to recurve, and moving over the land, passed out to sea near the Virginia Capes on the morning of the 12th, with moderate to strong gales along the coast between Hatteras and New York.

The second disturbance was central near Jamaica on the 11th, and on that day strong easterly gales were encountered in the northerly quadrants as shown on Chart XII, and also by the report from the American S. S. *Bogota* in table. This disturbance decreased in intensity as it moved in a north-northwesterly direction, and was accompanied by comparatively moderate winds on the three succeeding days. On the 13th the center was off the southwest coast of Florida and on the 14th near Apalachicola. From this point it began to recurve slightly toward the east and gradually filled in as it moved over the land.

Charts VIII to XIII cover the period from the 7th to 12th inclusive, and it will be noticed that observations were being made in extreme northern waters, in the vicinity of Greenland. These reports were taken on board the U. S. Coast Guard cutter *Marion*, in command of Lieut. Commander E. H. Smith, engaged in making an investigation of the ice conditions in that region.

Fog was reported on 23 days in the waters adjacent to the American coast, between the fortieth and forty-fifth parallels; from 9 to 10 days over the Grand Banks, and from 1 to 3 days over the middle section of the steamer lanes.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, August, 1928

Stations	Average pressure	Departure ¹	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Julianshaab, Greenland	29.89	(?)	30.38	24th	29.32	31st.
Belle Isle, Newfoundland	29.94	+0.05	30.42	24th	29.24	31st.
Halifax, Nova Scotia	30.06	+0.05	30.35	26th	29.78	31st.
Nantucket	30.04	+0.04	30.30	27th	29.68	10th.
Hatteras	30.07	+0.03	30.24	27th	29.84	12th. ³
Key West	30.00	+0.02	30.08	2d	29.82	13th.
New Orleans	30.02	+0.05	30.10	1st ²	29.82	10th.
Cape Gracias, Nicaragua	29.90	0.00	29.96	11th	29.86	15th. ³
Turks Island	30.05	+0.05	30.10	2d ³	29.96	5th.
Bermuda	30.17	+0.08	30.30	1st.	30.04	15th. ³
Horta, Azores	30.15	+0.05	30.32	20th	29.82	29th.
Lerwick, Shetland Islands	29.82	+0.02	30.19	2d ³	29.35	8th.
Valencia, Ireland	29.88	+0.06	30.24	16th.	29.41	12th.
London	29.96	-0.02	30.22	31st.	29.68	12th.

¹ From normals shown on Hydrographic Office Pilot Charts, based on observations at Greenwich mean noon, or 7 a. m. seventy-fifth meridian.

² No normal available.

³ And on other dates.

From the 1st to 4th Newfoundland was covered by an area of low pressure, although moderate weather prevailed in that vicinity as well as over the entire ocean. From the 5th to 8th a disturbance of limited extent was over the eastern section of the steamer lanes, while favorable conditions prevailed elsewhere, with the exception of the tropical disturbance previously referred to.

Charts XII and XIII show the conditions on the 11th and 12th with a well-developed low about 10° west of the Azores on the former date, and one off the European coast on the latter. The European low remained nearly stationary during the next 24 hours, and then moved northeastward, decreasing in intensity.

On the 14th St. Johns, Newfoundland, was about 5° west of a low that moved steadily eastward and on the 21st was over the North Sea. This low was accompanied by moderate weather, except on the 17th and 18th, when westerly gales of force 7 and 8 prevailed over the middle section of the steamer lanes.

From the 22d to 24th the region between the forty-fifth and fifty-fifth parallels and twentieth and thirtieth meridians was swept by a comparatively severe disturbance, with winds of force 9 and 10 at time of observation. On the 22d the Coast Guard cutter *Marion* encountered a moderate gale in extreme northern waters, as shown by report in table.

From the 25th to 28th there ensued another period of favorable weather over the ocean as a whole, although during the greater part of that period an area of low pressure was over the British Isles.

On the 29th the Azores was surrounded by a well defined disturbance, the storm area extending from the twenty-fifth to thirty-third meridian. This low apparently filled in as rapidly as it formed, as on the 30th and 31st moderate weather again prevailed over practically the entire ocean.

NOTE.—Honduran S. S. *Choluleca*, Capt. N. Christiansen, Observer; Th. Thorsen, second officer:

At 6 a. m. on August 16, in 16° 14' N., 87° 48' W., there was observed a very large waterspout being formed about 1 mile astern of the ship. It was seen for 13 minutes when it suddenly parted in the middle and disappeared. It had an even thickness from cloud to sea level and was traveling in an east-northeasterly direction with about a 5-mile speed and whirling the sea in a counter clockwise direction.

The spout was estimated to be about 2,000 feet high with a diameter of about 150 feet. Weather was overcast with heavy nimbus clouds hanging over the spout, variable light breeze, barometer 29.82, temperature of air 81°, rain drizzle on ship (in front of spout) but heavy downpour seen behind track.

OCEAN GALES AND STORMS, AUGUST, 1928

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Sixaola, Am. S. S.	Kingston, Jamaica.	New York	22 56 N.	74 23 W.	Aug. 5.	4p., 5.	Aug. 5.	29.78	N.	W., 8.	SE.	W., 8.	NW.-SE.
Mississippi, Br. M. S.	New York	Antwerp	45 00 N.	34 56 W.	5.	3a., 5.	6.	29.77	NW.	NW., 7.	WNW.	—, 8.	Steady.
München, Ger. S. S.	Galway, Ireland.	New York	52 30 N.	21 13 W.	5.	6a., 6.	8.	29.90	S.	—, 8.	WSW.	W., 9.	Steady.
Creole, Am. S. S.	New York	New Orleans	28 49 N.	78 30 W.	6.	Mdt., 6.	7.	29.51	NE.	NE., 3.	SW.	NW., 11.	NE.-N.-WSW.
Gulf of Mexico, Am. S. S.	Port Arthur.	New York	26 05 N.	79 48 W.	7.	Mdt., 7.	8.	29.42	WNW.	WNW., 10.	SE.	SW., 12.	NW.-W.-S.-SE.
Lempira, Am. S. S.	Puerto Cortez.	do.	26 00 N.	79 50 W.	7.	3a., 7.	7.	28.68	N.	W., 3.	SE.	—, 12.	W.-NE.-S.
Bogota, Am. S. S.	West Indies.	do.	19 23 N.	75 02 W.	11.	7a., 11.	11.	29.88	E.	E., 9.	E.	E., 11.	Steady.
Motorcarline, Belg. M. S.	Baton Rouge	Antwerp	38 07 N.	35 45 W.	11.	7a., 11.	12.	29.97	SE.	SE., 7.	N.	—, 8.	—, 8.
El Almirante, Am. S. S.	New York	New Orleans	24 39 N.	80 58 W.	11.	7p., 12.	13.	29.72	SSW.	SE., 9.	WNW.	S., 12.	SE.-S.-NW.
Cananova, Am. S. S.	do.	West Indies.	38 55 N.	74 08 W.	12.	4p., 12.	12.	29.58	NE.	NE., 9.	NE.	NE., 9.	Steady.
Galtymore, Br. S. S.	Nordenham.	Norfolk	58 59 N.	14 20 W.	12.	Mdt., 12.	13.	29.38	E.	NE., 9.	N.	NNE., 10.	Do.
San Gil, Br. S. S.	Boston	Habana	24 39 N.	80 45 W.	12.	3a., 13.	13.	29.78	SE.	SE., 9.	S.	—, 9.	SE.-S.
Careno, Am. S. S.	Casablanca	New York	41 32 N.	43 51 W.	13.	6a., 13.	14.	29.72	S.	S., 7.	W.	—, 8.	—, 8.
Steelmaker, Am. S. S.	Canal Zone	do.	18 00 N.	75 30 W.	14.	10p., 14.	14.	29.90	NE.	NE., 5.	NE.	NE., 8.	NE.-ENE.
Berlin, Ger. S. S.	Bremerhaven	do.	47 38 N.	29 00 W.	15.	—, 15.	16.	29.87	SSE.	SSE., 8.	SSE.	—, 10.	—, 10.
Leviathan, Am. S. S.	Southampton	do.	48 12 N.	25 56 W.	16.	11a., 16.	16.	29.79	S.	S., 8.	SSW.	—, 8.	S.-SSW.
Galtymore, Br. S. S.	Nordenham.	Norfolk	52 30 N.	40 35 W.	17.	8a., 17.	18.	29.17	W.	W., 9.	WNW.	NW., 10.	SW.-W.-WNW.
Hog Island, Am. S. S.	Gibraltar	Boston	39 38 N.	64 33 W.	18.	—, 18.	18.	29.82	NW.	N.	N.	N., 10.	NW.-N.
Nieuw Amsterdam, Du. S. S.	Rotterdam.	New York	43 12 N.	43 30 W.	20.	1a., 21.	21.	29.83	SW.	—, 8.	WNW.	SW., 8.	SW.-W.-NW.
Marion, U. S. M. S.	Greenland.	Vineyard Haven.	61 47 N.	64 10 W.	22.	6a., 22.	22.	29.28	—	E., 7.	—	ESE., 8.	ESE.-S.
Balsam, Am. S. S.	Manchester.	New York	51 50 N.	24 45 W.	21.	5a., 22.	24.	29.04	WSW.	WSW., 10.	NW.	WSW., 10.	WSW.-NW.
Belleplaine, Am. S. S.	Rotterdam.	do.	50 33 N.	23 34 W.	21.	2a., 23.	24.	29.40	WSW.	W., 9.	N.	W., 9.	WSW.-NW.
Marion, U. S. M. S.	Greenland.	Vineyard Haven.	61 11 N.	48 22 W.	29.	7p., 29.	30.	29.30	E.	E., 8.	—	SE., 8.	E.-SE.
Lucellum, Br. S. S.	Falmouth.	Canal Zone.	38 50 N.	30 20 W.	29.	Noon, 29.	30.	29.65	SSE.	W., —.	NNW.	WNW., 10.	SSE.-W.-NNW.
Motorcarline, Belg. M. S.	Antwerp.	Baton Rouge.	40 47 N.	27 20 W.	29.	10 p., 29.	30.	29.88	S.	S., 7.	NW.	—, 11.	—, 11.
NORTH PACIFIC OCEAN													
Akibasan Maru, Jap. S. S.	Vancouver	Yokohama	52 03 N.	158 16 W.	July 31	Noon, 31.	1.	29.73	SSE.	SW., 9.	W.	SSW., 9.	2 points.
Silveray, Br. M. S.	Manila	San Francisco	32 25 N.	139 00 E.	Aug. 2	8a., 4.	4.	29.13	N.	ENE., 11.	ENE.	ENE., 12.	N.-SE.
Kaga Maru, Jap. S. S.	Victoria	Yokohama	51 45 N.	165 05 W.	3.	1a., 3.	4.	29.59	SE.	SW., 8.	N.	SW., 8.	2 points.
Hampstead, Br. S. S.	Comox, B. C.	Karatsu	52 16 N.	136 19 W.	8.	4a., 9.	9.	29.44	S.	S., 8.	S.	SSW., 9.	S.-SSW.
Africa Maru, Jap. S. S.	Yokohama	Victoria	40 00 N.	150 09 E.	11.	4p., 11.	12.	29.38	ENE.	ENE., 7.	SE.	SE., 8.	ENE.-SE.
Chief Capilano, Br. S. S.	Vancouver	Yokohama	45 52 N.	162 24 E.	12.	7p., 13.	13.	29.51	SE.	S., 4.	S.	SE., 9.	SE.-SSW.
Bellingham, Am. S. S.	Hong Kong	San Francisco	29 29 N.	132 57 E.	16.	6p., 17.	18.	29.26	N.	SSW., 10.	W.	SSW., 10.	SW.-SSW.
Pres. Taft, Am. S. S.	San Francisco	Yokohama	34 56 N.	149 08 E.	18.	—, 18.	19.	29.36	ESE.	NNE., 7.	N.	ENE., 8.	—, 8.
Erie Maru, Jap. S. S.	Miike	California	49 12 N.	157 45 W.	27.	4a., 28.	29.	29.79	SW.	S., 8.	SW.	S., 8.	—, 8.

MEXICAN HURRICANE REPORTS

Florence Luckenbach, Am. S. S.	San Pedro	New Orleans.	15 45 N.	99 05 W.	Aug. 6.	2p., 6.	Aug. 7.	29.72	ENE.	ENE., 8.	E.	ENE., 8.	1 point.
La Crescenta, Br. S. S.	San Francisco	Balboa	16 04 N.	100 05 W.	6.	8p., 6.	7.	29.84	ESE.	ESE., 8.	SE.	ESE., 9.	ESE.-SE.
Sylvan Arrow, Am. S. S.	San Pedro	do.	16 53 N.	101 09 W.	7.	1a., 7.	7.	29.84	ESE.	ESE.	ESE.	ESE., 8.	Steady.
Ipswich, Am. S. S.	Los Angeles.	Panama Canal.	20 40 N.	107 05 W.	8.	6p., 8.	8.	29.71	NE.	ESE., 9.	SSE.	SE., 10.	NE.-SSE.
Kenowis, Am. S. S.	San Francisco	Balboa	19 08 N.	105 00 W.	8.	Noon, 8.	8.	—	ESE.	—, 12.	E.	—, 10.	ESE.-E.
Justin, Ger. S. S.	San Pedro	Hamburg	22 35 N.	110 10 W.	9.	7p., 9.	9.	29.12	NNW.	—, 12.	—	—, 12.	—, 12.
Canada Importer, Br. S. S.	Victoria	Panama Canal	22 59 N.	110 18 W.	9.	Mdt., 9.	10.	29.40	N.	SE., 10.	SW.	SE., 10.	NE.-E.-SE.
Solana, Am. S. S.	San Pedro	Balboa	23 14 N.	111 27 W.	10.	8a., 10.	10.	29.37	NNE.	NW., 10.	SSW.	N., 10.	N.-NW.-SW.
Henry D. Whiton, Am. S. S.	Columbia River.	New York	23 37 N.	112 15 W.	10.	9a., 10.	10.	29.72	NNE.	NW., 10.	SW.	NW., 10.	—, 10.
Suspearco, Am. S. S.	Los Angeles.	Balboa	24 10 N.	112 05 W.	10.	4p., 10.	10.	29.42	NE.	NE., 10.	SE.	ENE., 10.	NE.-E.-SE.
K. R. Kingsbury, Am. S. S.	San Francisco	do.	23 10 N.	111 05 W.	10.	6a., 10.	10.	29.08	NF.	Calm	SSW.	NE., 12.	NE.-O.-SW.
SOUTH PACIFIC OCEAN													
Golden Forest, Am. S. S.	Dunedin	Honolulu	Cook Straits.	—	15.	8p., 15.	16.	29.20	SSW.	SSW., 6.	—	N., 10.	—, 10.