

MONTHLY REPORT OF HYDROLOGIC CONDITIONS

REPORT FOR:
MONTH YEAR
July 2016

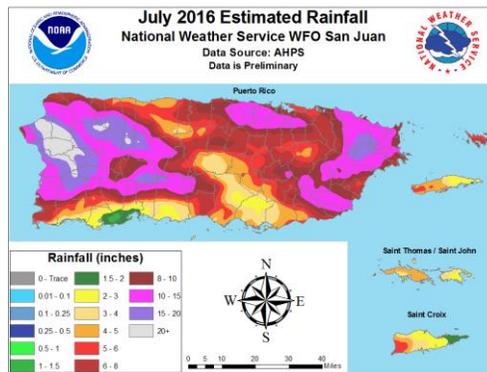
TO: Hydrologic Information Center, W/OS31
NOAA's National Weather Service
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SIGNATURE
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DATE
08/12/2016

When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).

An X inside this box indicates that no flooding occurred within this hydrologic service area.

Summary: An active and wetter weather pattern was observed throughout most of the month throughout the local islands mainly due to the passage of several tropical waves. Even though the majority of the tropical waves were modest, there were two potent tropical wave events that left behind significant impacts across the local islands. The first tropical wave affected the region on July 1st-2nd and it combined with an upper-level low that positioned itself to the west of the region to produce periods of heavy showers and strong thunderstorms across the local islands. The other tropical wave affected the region on July 31st and it also produced heavy showers and strong thunderstorms with more significant rains also observed, especially across the Eastern Half of PR and the USVI. In addition to the passage of these tropical waves, an excessive rain event, as a result of a surface induced trough, was observed across the San Juan Metropolitan area on July 13th as up to 5-6 inches of rain was observed creating flash flooding. Based on the Cooperative Observer Network Data (COOP), 103 % of the normal rainfall was observed across Puerto Rico. Preliminarily, an average rainfall total of 5.15 inches was measured, which is 0.12 inches above normal. Across St. Croix, an average rainfall total of 3.78 was observed, which is slightly above the normal rainfall. At the primary climatological data sites, a rainfall surplus of 0.50 and 0.13 inches was observed at Henry E. Rohlsen Airport in Saint Croix (TISX) and Cyril E King Airport in St Thomas (TIST) respectively.



Please also see July 2016 Climate Report:

(http://www.srh.noaa.gov/images/sju/climo/monthly_reports/2016/Jul2016.pdf).

River and Drought Conditions: Based on the 28-day average streamflow from the USGS, the majority of streamflows are running between the 25th and the 90th percentile, which is in the normal to above normal range. A few outliers are still observed across Central Puerto Rico with streamflows below the normal range. Scattered showers dropped varying amounts of rain across the island, but mainly missed the southwestern and south-central sections of the island where D0/D1 drought conditions are observed.

Water Supply: Lake levels at water supply reservoirs continue at optimum levels.

Flood Conditions: An excessive rain event, as a result of a surface induced trough, was observed across the San Juan Metropolitan area on July 13th as up to 5-6 inches of rain was observed creating flash flooding.

Non-Routine Hydrologic Products Issued:	Approximate number of Products for the month
Hydrologic Outlooks (SJUESFSJU)	0
Flood Watches (SJUFFASJU)	2
Flood Warnings (SJUFLWSJU)	1
Flash Flood Warnings (SJUFFWSJU)	4
Flash Flood Statements (SJUFFSSJU)	4
Urban/Small Stream Flood Advisories (SJUFLSSJU)	37

General Hydrology Information: Sea Surface Temperature (SST) anomalies in El Niño region are currently near average and most of the models are suggesting a developing La Niña likely to peak by November-December-January (NDJ). Tropical North Atlantic SSTs tend to be warmer than average during a La Niña, and are currently above average throughout the Caribbean Islands. Warm Atlantic temperatures increase evaporation and local deep atmospheric convection, potentially increasing rainfall. Average circulation patterns during La Niña periods may also contribute to increased frequency of developing tropical storms. Therefore, rainfall is likely to be near to above normal across the local area during the next few months. Therefore as we moves into a potentially wetter period, the chance of wet spells and flooding increases.

More Info: <http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/>