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| NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924) | U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE | HYDROLOGIC SERVICE AREA (HSA) San Juan, Puerto Rico |
| MONTHLY REPORT OF HYDROLOGIC CONDITIONS | | REPORT FOR: MONTH YEAR September 2013 |
| TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283 | | SIGNATURE Althea Austin-Smith, Service Hydrologist <hr/> DATE 10/11/2013 |

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: The San Juan ASOS reported 7.61 inches of rain for the month of September; 1.84 inches greater than the normal of 5.77 inches. The ASOS rainfall report from Cyril E. King Airport in St. Thomas was 9.82 inches for the month of September; 4.24 inches greater than the normal of 5.58 inches. The ASOS rainfall report from Christiansted Airport in St. Croix was 5.43 inches for the month of September; 0.57 inches greater than the normal of 4.86 inches.

“Cloudiness and moderate to heavy rainfall associated with tropical storm Gabrielle affected the local area the first week of the month. Rainfall accumulations associated with Gabrielle were between 6 to 8 inches across USVI and eastern Puerto Rico during a 48 hour period. After the passage of Gabrielle over the Mona Passage, a generally fair and mainly dry weather pattern prevailed across Puerto Rico and USVI with warm to hot temperatures focused over the northern slopes of Puerto Rico. The aforementioned warm to hot temperatures were the result of a southerly wind flow that prevailed across the forecast area the last week of the month.”

(Excerpt - Please see (<http://www.srh.noaa.gov/sju/?n=sep2013cr>) for September's complete Climate Report.)

The big hydrologic story for the month of September was the rainfall and flooding caused by Tropical Storm Garbrielle which had a greater impact to the U.S. Virgin Islands and more specifically St Thomas. The entire forecast area saw some impact from this storm at the beginning of the month, but the eastern sections of Puerto Rico and St. Thomas saw enough runoff over a 48 hour period to result in significant flooding. Most of the flooding would be considered urban and small stream due to the nature of the rainfall and the geography of the areas impacted.

See details of some flood reports in the LSR reports below:

Local Storm Reports for September 2013

| ..TIME... | ...EVENT... | ...CITY LOCATION... | ...LAT.LON... |
|-----------|-------------|---------------------------|---------------|
| ..DATE... |MAG.... | ..COUNTY LOCATION.`.ST... | ...SOURCE.... |

| | | | |
|------------|----------------|---------------|---------------|
| 0800 AM | TROPICAL STORM | CHRISTIANSTED | 17.75N 64.71W |
| 09/04/2013 | | SAINT CROIX | VI PUBLIC |

SHOWERS AND THUNDERSTORMS ASSOCIATED WITH TROPICAL STORM GABRIELLE PRODUCED HEAVY RAINFALL WHICH LEAD TO URBAN FLOODING ON THE ISLAND OF ST CROIX. - NORTHSIDE ROAD WAS FLOODED VICINITY OF CARIBBEAN AUTO MART AND SUNNY ISLES. -AREA FLOODED IN PETERS REST NEAR EL SOL BAR. -PARTS OF THE MELVIN EVANS HIGHWAY VICINTY OF ESTATE PROFIT AND DIAGEO...EASTBOUND LANE WAS COMPLETELY FLOODED AND OBSTRUCTED. SEVERAL TREES WERE DOWN NEAR THE SWEENEY POLICE STATION AND ON SOUTH SHORE ROAD SOUTH OF JUNIES BAR.

| | | | |
|------------|-------------|------------------|-------------------|
| 1100 PM | FLASH FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLASH FLOOD AT BROOKMAN ROAD. ROADWAY COLLAPSED AND CAR STUCK IN WATER.

| | | | |
|------------|-------|------------------|-------------------|
| 1100 PM | FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLOOD AT BOLONGO BAY.

| | | | |
|------------|-------|------------------|-------------------|
| 1100 PM | FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLOOD AT BOVONI.

| | | | |
|------------|-------|------------------|-------------------|
| 1100 PM | FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLOOD AT ESTATE PEARL.

| | | | |
|------------|-------|------------------|-------------------|
| 1100 PM | FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLOOD AT HONDURAS.

| | | | |
|------------|-------|------------------|-------------------|
| 1100 PM | FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

EMERGENCY MANAGER REPORTED FLOOD AT VETERANS DRIVE AND MANDELA CIRCLE.

| | | | |
|------------|-------------|------------------|-------------------|
| 1100 PM | FLASH FLOOD | CHARLOTTE AMALIE | 18.34N 64.93W |
| 09/05/2013 | | SAINT THOMAS | VI EMERGENCY MNGR |

| | | | | |
|-----------------------|-------------|---|----|---------------------------------|
| | | EMERGENCY MANAGER REPORTED FLOOD AT NADIR. CARS STUCK IN WATER. | | |
| 1100 PM 09/05/2013 | FLASH FLOOD | CHARLOTTE AMALIE SAINT THOMAS | VI | 18.34N 64.93W EMERGENCY MNGR |
| | | EMERGENCY MANAGER REPORTED FLASH FLOOD AT CONTANT. ONE FAMILY IN NEED OF SHELTER. | | |
| 1155 PM 09/07/2013 | FLOOD | PONCE PONCE | PR | 17.99N 66.61W EMERGENCY MNGR |
| | | STREET FLOODING IN THE CITY OF PONCE. | | |
| 0426 PM 09/19/2013 | FLOOD | SAN JUAN SAN JUAN | PR | 18.41N 66.06W PUBLIC |
| | | URBAN FLOODING WAS REPORTED AT SANTURCE SECTOR NEAR SAGRADO CORAZON UNIVERSITY | | |
| 0525 PM 09/26/2013 | FLOOD | SAN SEBASTIAN SAN SEBASTIAN | PR | 18.34N 67.00W PUBLIC |
| | | URBAN AREAS NEAR ROAD PR-119 WERE FLOODED DUE TO RIVER CULEBRINAS OUT OF ITS BANKS. ALSO OMME SAN SEBASTIAN REPORTED URBAN FLOODING. NO DAMAGE AT THIS POINT. | | |

The approximate amounts of Hydrologic Products issued during the month of September are as follows:

| Non-Routine Hydrologic Products Issued: | Approximate number of Products for the month |
|---|--|
| Hydrologic Outlooks (SJUESFSJU) | 0 |
| Flood Watches (SJUFFASJU) | 12 |
| Flood Warnings (SJUFLWSJU) | 3 |
| Flash Flood Warnings (SJUFFWSJU) | 2 |
| Flash Flood Statements (SJUFFSSJU) | 1 |
| Urban/Small Stream Flood Advisories (SJUFLSSJU) | 85 |

Here is the September 2013 rainfall totals graphic.

(http://www.srh.noaa.gov/images/sju/climo/monthly_reports/2013/Sept_2013_RainV2.png)

For monthly "radar totals" use the archive of the Advanced Hydrologic Prediction Service (AHPS) - click on the Precipitation interface for San Juan, Puerto Rico and request the duration you would like to view...daily or monthly remembering that the 24 hour totals are from 12z – 12z (8am to 8am in PR) - AHPS archive of radar totals/ images.

(<http://water.weather.gov/ahps2/precip.php?wfo=sju>)