WEEKLY WEATHER OUTLOOK
BELIZE, CENTRAL AMERICA

PERIOD: Monday-Monday, Oct. 1 – October 8, 2012
DATE ISSUED: Monday, Oct 1, 2012 – 6:00 am

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EcoSolutions & Services

SYNOPSIS: An upper to mid level circulation (Low) in the NW Caribbean is generating scattered, deep convection around and south of Jamaica, extending NNW over western Cuba as can be observed from the latest GOES IR image (Figure 1). The mid to upper low will drift NW during the next 24 to 48 hours pulling the convection over Yucatan and Belize by Tuesday, as it begins to interact with an upper level trough associated with a cold front zone in the central and southern Gulf of Mexico. The GFS model is projecting an increase in rainfall over Belize due to the interaction of these features on Tuesday through early Thursday. Thereafter, the activity will weaken and dissipate.

The model projections are also indicating that the westerlies are becoming more pronounced over the northern hemisphere at this time, and another cold front system will make its way southwards through the Gulf of Mexico reaching Yucatan and the extreme NW Caribbean by late Saturday and early Sunday. This system will provoke another bout of showers and thunderstorms over Belize.

No tropical cyclone is expected to form over or move into the Caribbean region during the next five days. However, close monitoring of the cold front entering the NW Caribbean early next week is necessary as the frontal zone interacting with moist, unstable tropical air often favor disturbances to form on the tail end of the frontal boundary. Remain vigilant!

Rainfall rates over Belize will be in the range of 0.10-0.25 of-an-inch on Sunday, Monday. On Tuesday through Thursday heavier showers and thunderstorms, especially in the interior could result in rainfall rates increasing in the range of 0.50 inch to1.50 inches locally in the hills and along central coastal areas. Rainfall rates will then reduce to 0.10-0.25 of-an-inch later on Friday through Saturday; but

increasing on Sunday and Monday once again with amounts of 0.50-0.75 of-an-inch over most districts. Locally higher rates are possible in the hilly terrain.

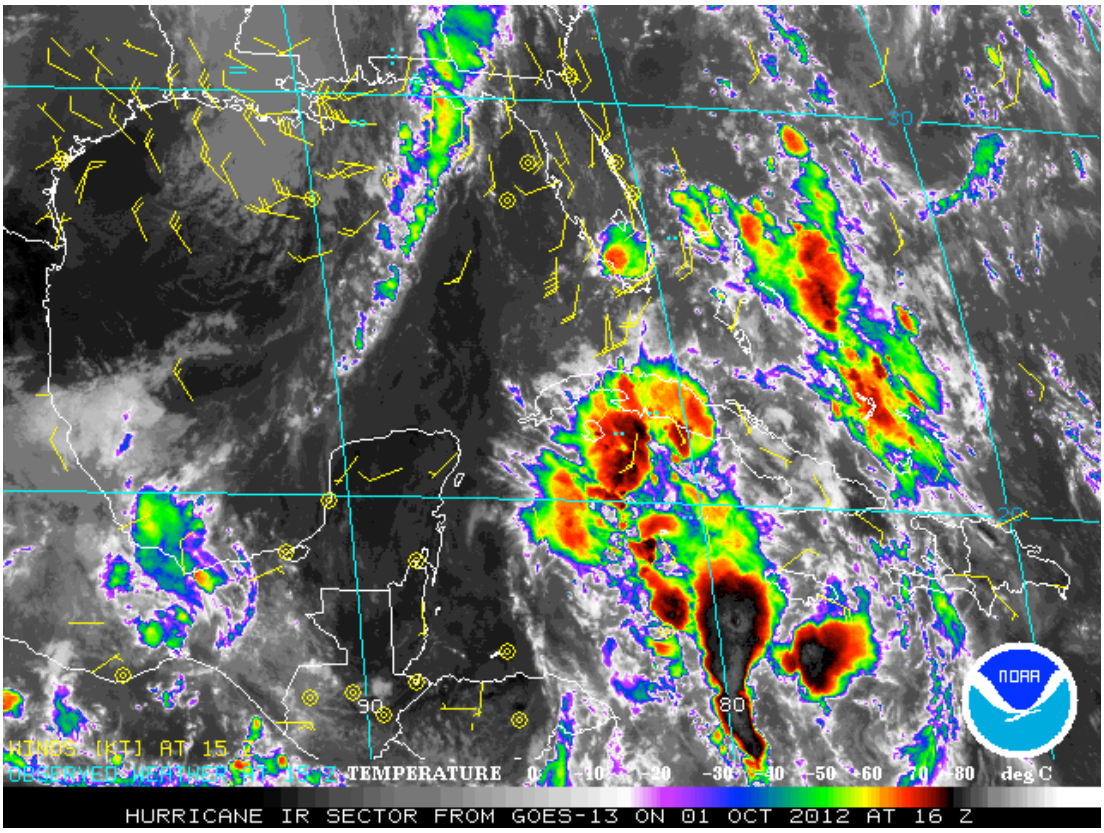


Figure 1 GOES IR Satellite picture for 10:00 am, Monday October 1, 2012, showing weak band of convection across the central Gulf of Mexico making the position of a cold front from NW Florida to the Bay of Campeche. Deep, widespread convection can be observed over the Central Caribbean associated with an upper to middle level circulation in the western Caribbean

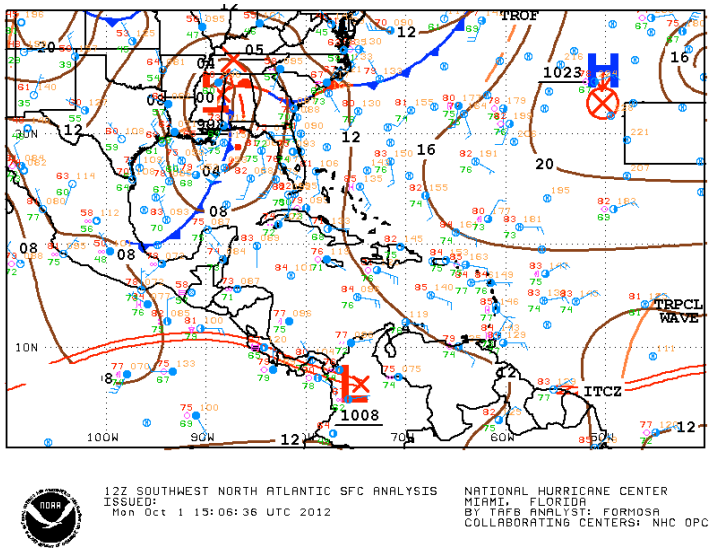


Figure 2 Surface map valid for 9:00 am Monday, Oct. 1, 2012, showing a well defined cold front across the central and southern Gulf of Mexico moving slowly ESE. A weak pressure gradient dominates the western Caribbean.

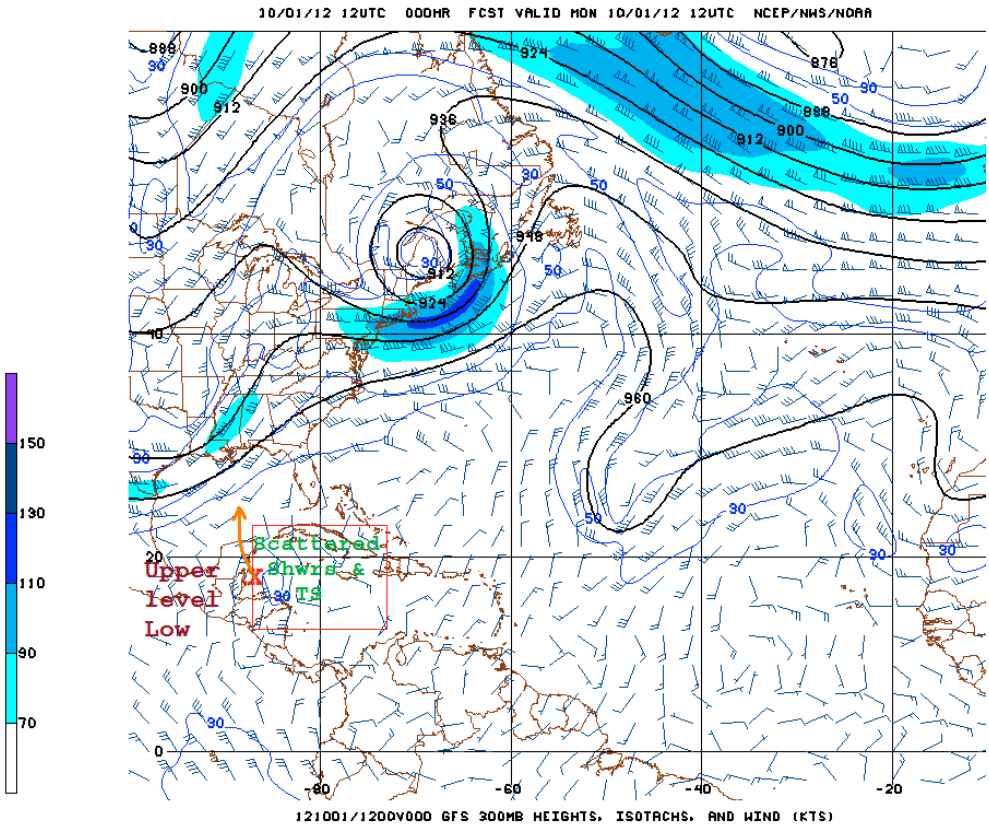


Figure 3 GFS Model 300 mb (30, 000ft) wind pattern analysis for 6:00 am Monday, Oct. 1, 2012 showing upper level low just east of Belize, drifting WNW during the next 24 - 36 hours. This low is generating scattered thunderstorms over and around Jamaica. The instability will affect Belize during next 24 hours.

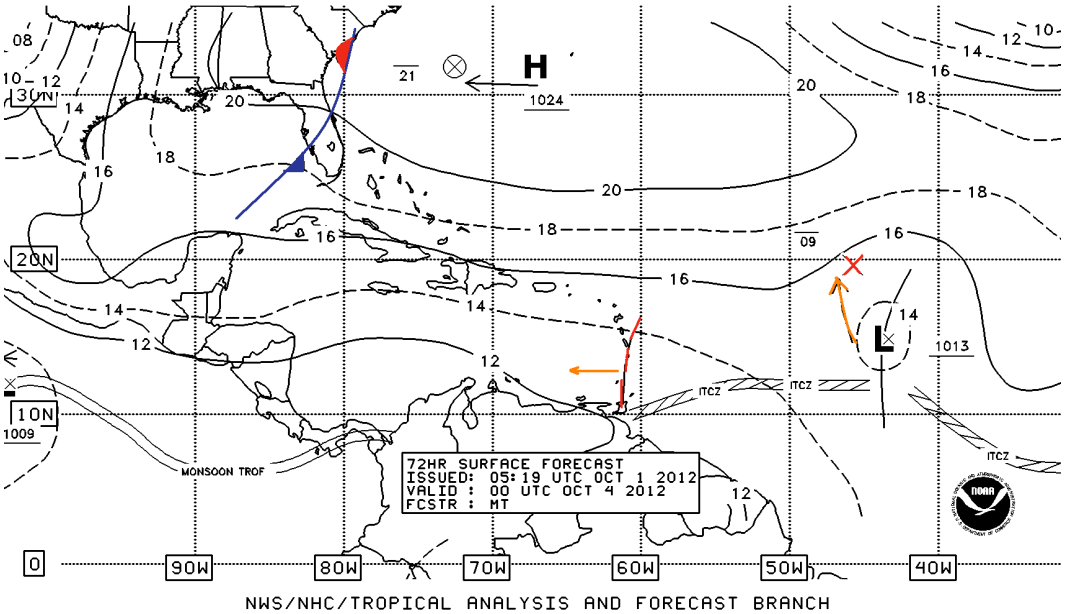


Figure 4 NHC 72-hr forecast surface map, valid for 6:00 pm Wednesday, Oct. 4, 2012, showing a general easterly airflow over the western Caribbean, as the southern portion of the Cold front dissipates over the SE Gulf of Mexico.

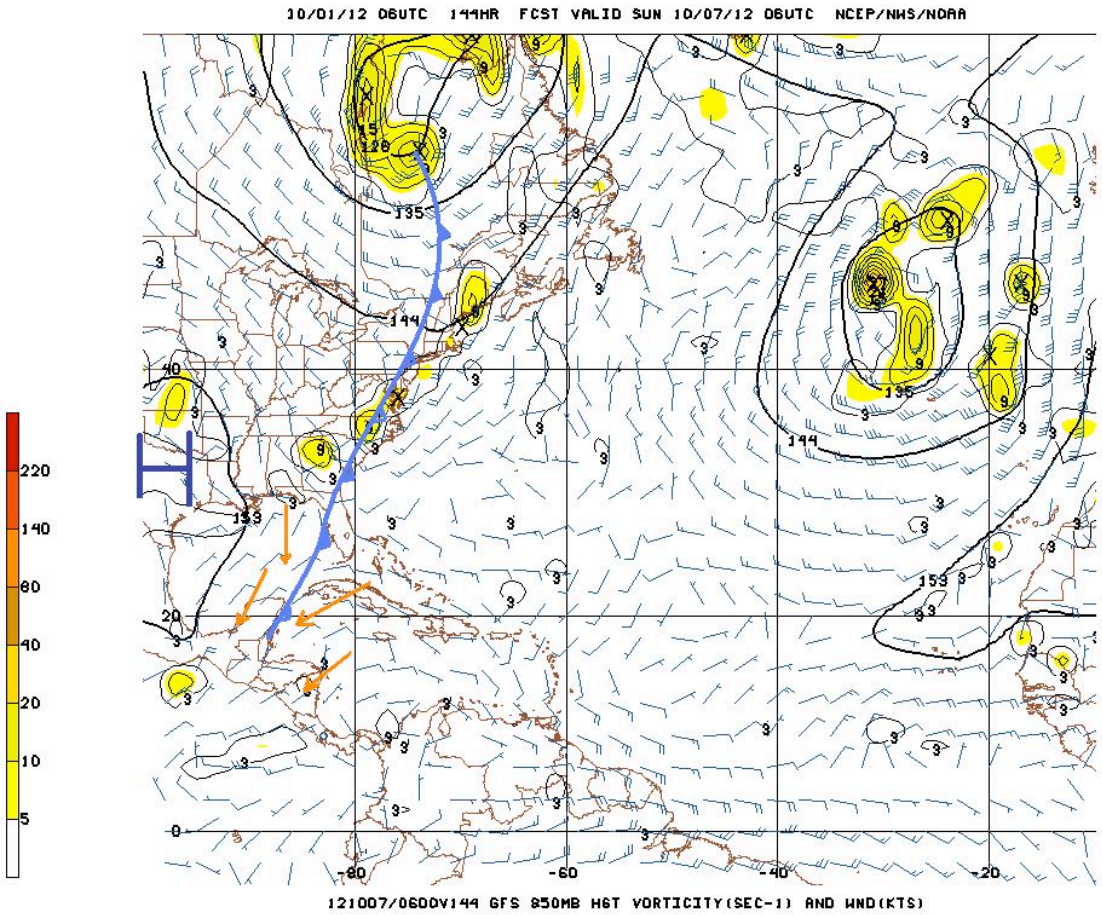
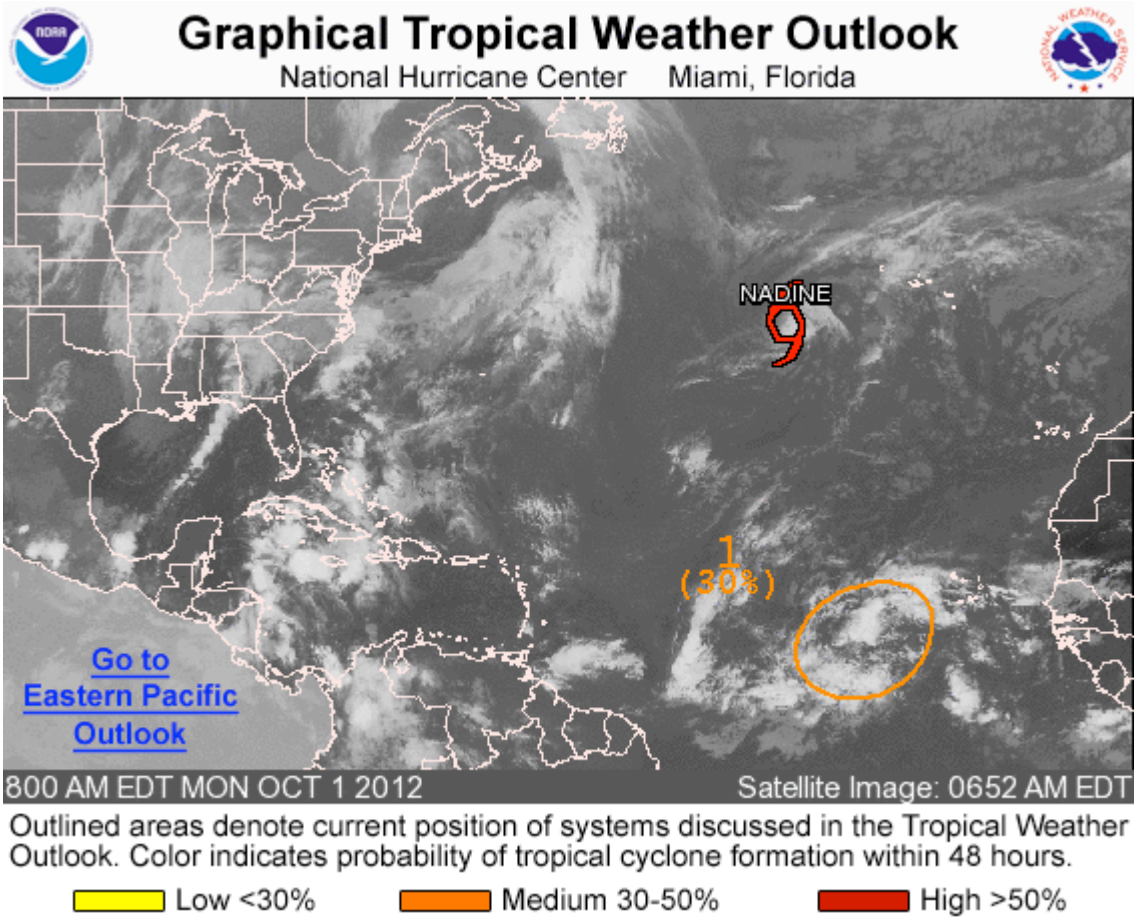


Figure 5 GFS Model vorticity projection at 850 mb (5,000 ft) valid for 12:00 am Sunday, October 7, 2012 showing another cold front boundary just edging its way into the NW Caribbean and Belize. This system will generate another bout of showers and thunderstorms over Belize, and may mark the earliest Cold Front to reach Belize in the cool transition period.

Belize Seven-day Outlook for Agriculture and Industry…

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sep. 30, 2012	Oct. 1, 2012	Oct. 2, 2012	Oct. 3, 2012	Oct. 4, 2012	Oct. 5, 2012	Oct. 6, 2012
Sunny with isolated showers Rainfall: 0.10-0.25 of-an-inch	Sunny with cloudy spells Isolated showers mainly inland Rainfall: 0.10-0.25 of-an- inch	Cloudy with a few showers & thunderstorms especially over coastal areas at first, inland later Rainfall: 0.50 –0.75 of-an- inch	Cloudy with outbreaks of showers & thunderstorms especially inland Rainfall: 0.75-1.50 inch	Cloudy with outbreaks of showers & thunderstorms mainly central and south Rainfall: 0.75- 1.00 inch	Cloudy with few showers lingering Rainfall: 0.025–0.50 of-an- inch	Sunny with isolated showers Rainfall: 0.10-0.25 of-an-inch

OUTLOOK FOR THE MAIN DEVELOPMENT REGION (MDR) OF THE TROPICAL ATLANTIC BASIN



TROPICAL WEATHER OUTLOOK
NWS NATIONAL HURRICANE CENTER MIAMI FL
800 AM EDT MON OCT 1 2012

FOR THE NORTH ATLANTIC...CARIBBEAN SEA AND THE GULF OF MEXICO...

THE NATIONAL HURRICANE CENTER IS ISSUING ADVISORIES ON HURRICANE NADINE...LOCATED ABOUT 685 MILES WEST OF THE AZORES.

1. A BROAD AREA OF LOW PRESSURE LOCATED ABOUT 500 MILES SOUTHWEST OF THE CAPE VERDE ISLANDS CONTINUES TO PRODUCE A LARGE AREA OF DISORGANIZED SHOWERS AND THUNDERSTORMS. ENVIRONMENTAL CONDITIONS ARE EXPECTED TO BE CONDUCIVE FOR GRADUAL DEVELOPMENT OF THIS DISTURBANCE OVER THE NEXT FEW DAYS. THIS SYSTEM HAS A MEDIUM CHANCE...**30 PERCENT**...OF BECOMING A TROPICAL CYCLONE DURING THE NEXT 48 HOURS AS IT MOVES WEST-NORTHWESTWARD AT 10 TO 15 MPH.

ELSEWHERE...TROPICAL CYCLONE FORMATION IS NOT EXPECTED DURING THE NEXT 48 HOURS.

FORECASTER BROWN

Synopsis: El Niño conditions are likely to develop during September 2012

ENSO-neutral conditions continued during August 2012 despite above-average sea surface temperatures (SST) across the eastern Pacific Ocean (Fig. 1). Reflecting this warmth, most of the weekly Niño index values remained near +0.5°C (Fig. 2). The oceanic heat content (average temperature in the upper 300m of the ocean) anomalies also remained elevated during the month (Fig. 3), consistent with a large region of above-average temperatures at depth across the equatorial Pacific (Fig. 4). Possible signs of El Niño development in the atmosphere included upper-level easterly wind anomalies and a slightly negative Southern Oscillation Index.

Despite these indicators, key aspects of the tropical atmosphere did not support the development of El Niño conditions during the month. In particular, low-level trade winds were near average along the equator, and the pattern of tropical convection from Indonesia to the central equatorial Pacific was inconsistent with El Niño with the typical regions of both enhanced and suppressed convection shifted too far west (Fig. 5). Because of the lack of clear atmospheric anomaly patterns, ENSO-neutral conditions persisted during August. However, there are ongoing signs of a possibly imminent transition towards El Niño in the atmosphere as well as the ocean.

Most of the dynamical models, along with roughly one-half of the statistical models, now predict the onset of El Niño beginning in August-October 2012, persisting through the remainder of the year (Fig. 6). The consensus of dynamical models indicates a borderline moderate strength event (Niño 3.4 index near +1.0°C), while the statistical model consensus indicates a borderline weak El Niño (+0.4° to +0.5°C). Supported by the model forecasts and the continued warmth across the Pacific Ocean, the official forecast calls for the development of most likely a weak El Niño during September 2012, persisting through December-February 2012-13.

End…