

WEEKLY WEATHER OUTLOOK BELIZE, CENTRAL AMERICA

PERIOD: Monday-Monday, Sep. 24- Oct. 1, 2012

DATE ISSUED: Monday, Sep. 24, 2012 – 6:00 am

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EcoSolutions & Services

SYNOPSIS: A major upper level trough in the westerlies extending North-South over eastern Canada-USA, projects southward into the southern Gulf of Mexico (see Figure 3 below). This system is supporting a cold front that has moved offshore the Atlantic coast of the USA and the NE Gulf of Mexico. This trough is now coupled with a tropical wave that moved into the Gulf of Mexico from the Caribbean over the weekend, and is producing widespread convection in the eastern and SW Gulf of Mexico. Shallow convection generated by this interaction is also evident over Yucatan and southern Mexico. *No satellite image available for the greater Caribbean region since 9:00 pm on Sunday through Monday morning...*

The upper level trough will drift eastwards over the next 36 hours and the southern portion will lose its identity by Wednesday. This feature will support localized convection over Belize through Wednesday, especially along the coast. A return to drier weather is expected later on Wednesday through the rest of the working week and the upcoming weekend.

No tropical cyclone is expected to form over or move into the Caribbean region during the next seven days. In the Atlantic, tropical storm Nadine was located near latitude 31.7 North... longitude 27.8 West. Nadine is moving toward the west-northwest near 7 mph. A turn toward the west and west-southwest are expected over the next couple of days. Maximum sustained winds are near 50 mph with higher gusts. Little change in strength is expected over the next 24 – 48 hours.

Rainfall rates over Belize will be in the range of 0.75-1.00 inch on Sunday, Monday, and Tuesday in the heavier showers and thunderstorms, especially along the coast and in the north. Elsewhere, rainfall daily rainfall rates will be in the range of 0.25-0.50 of-an-inch. Rainfall will diminish later on Wednesday through the weekend,

with daily accumulations of only 0.10-0.25 of-an-inch in locally isolated showers or isolated thunderstorms, especially in the interior and in the hills.

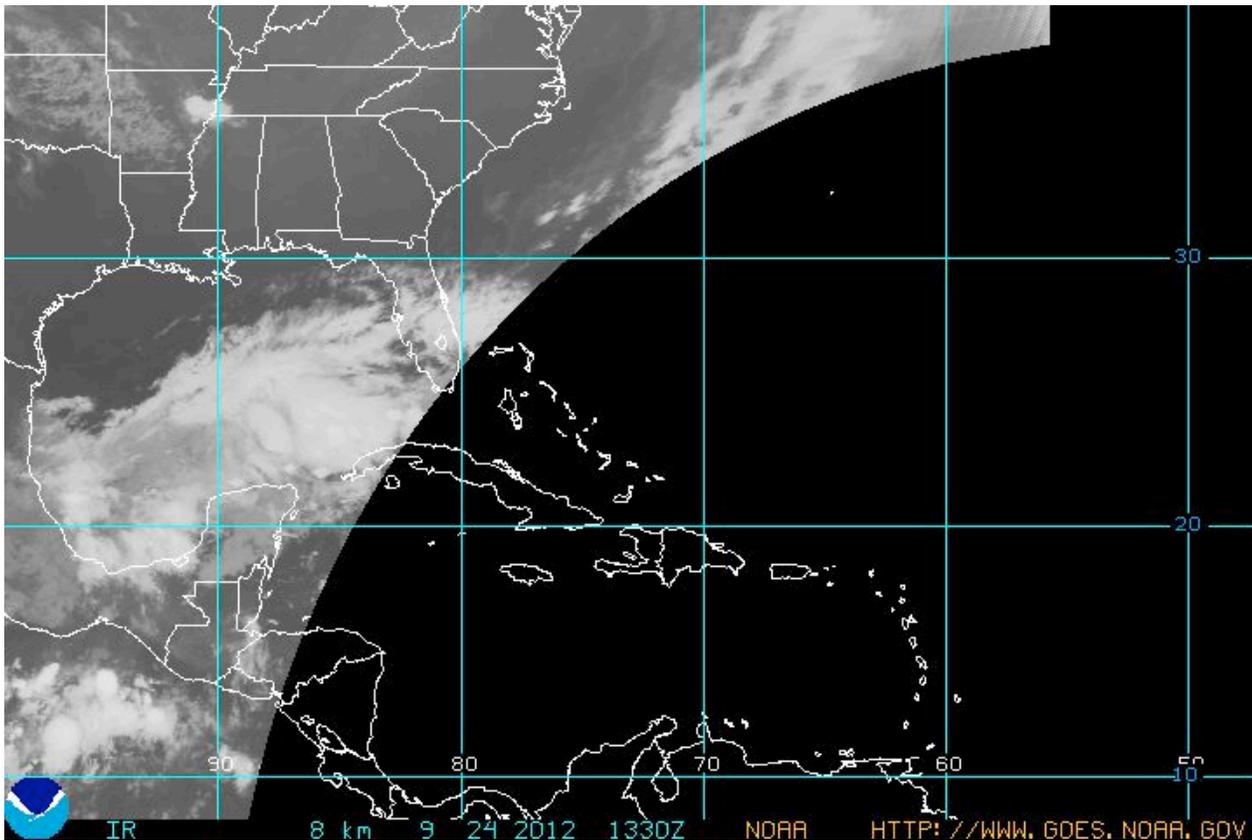


Figure 1 GOES IR Satellite picture for 7:30 am, Monday Sep. 24, 2012, showing weak convective activity off shore southern Belize. Deep, widespread convection evident across the SE and SW Gulf of Mexico. *No satellite image for the greater Caribbean Sea area available since 9:00 pm on Sunday, Sep. 23, 2012.*

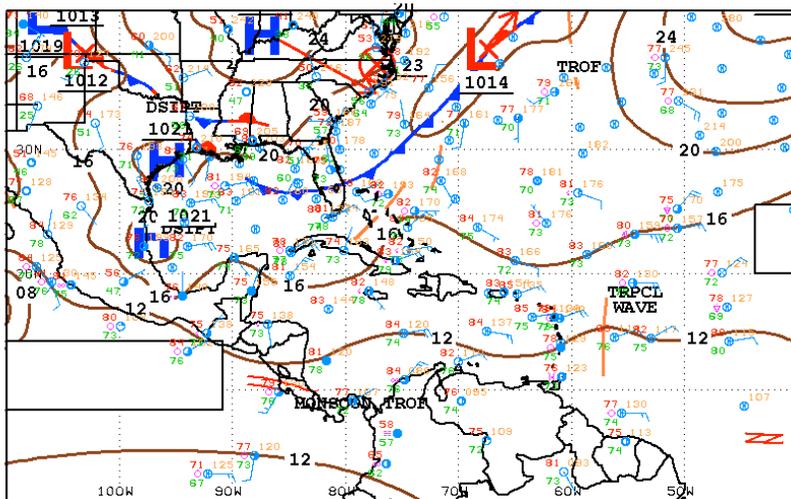


Figure 2 Surface map valid for 9:00 am Monday, Sep 10, 2012, showing weak ridge of high pressure from the Atlantic into the SE Gulf of Mexico. Weak pressure gradient over the Caribbean.



06Z SOUTHWEST NORTH ATLANTIC SFC ANALYSIS
ISSUED:
Mon Sep 24 08:59:11 UTC 2012

NATIONAL HURRICANE CENTER
MIAMI, FLORIDA
BY TAFB ANALYST: HT
COLLABORATING CENTERS: NHC OPC HPC

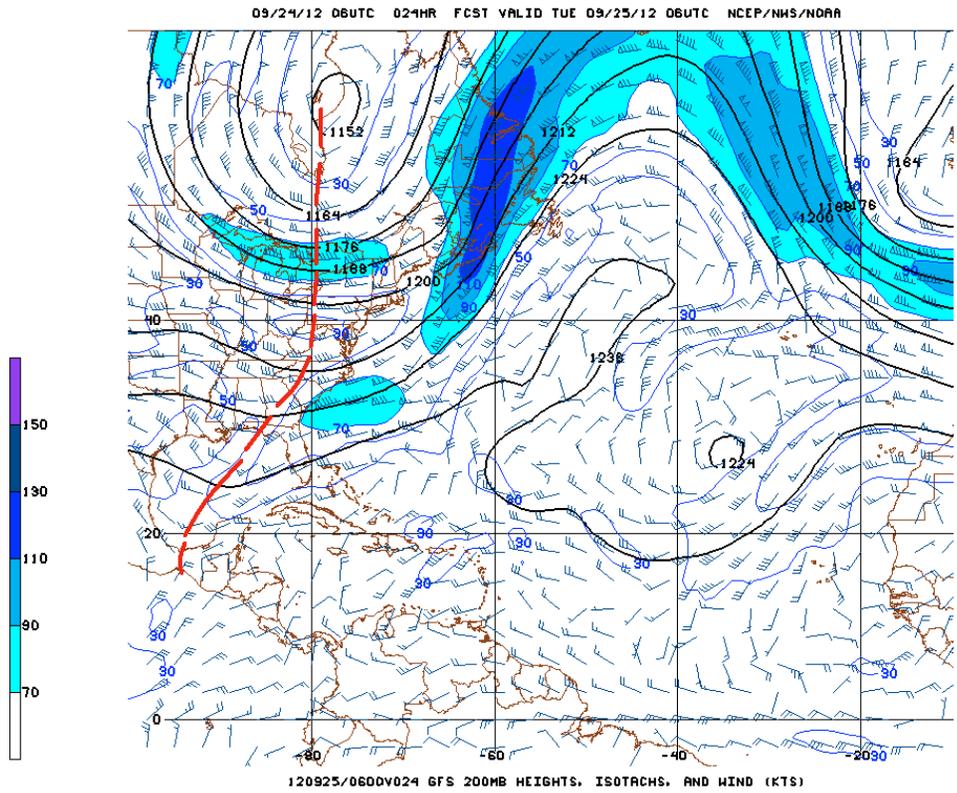


Figure 3 NHC 24 hr 200 mb (53,000ft) level windflow valid for 12:00 am Tuesday, Sep 25, 2012, showing long wave trough in the Gulf of Mexico, responsible for the instability over Yucatan and Belize

Belize Seven-day Outlook for Agriculture and Industry...

Sun Sep. 23, 2012	Mon Sep. 24, 2012	Tue Sep. 25, 2012	Wed Sep. 26, 2012	Thu Sep. 27, 2012	Fri Sep. 28, 2012	Sat Sep. 29, 2012
Cloudy spells with a few showers & thunderstorms especially over the coastal zone and sea	Cloudy spells with a few showers & thunderstorms especially over coastal areas & North	Cloudy spells with a few showers & thunderstorms especially over coastal areas & North	Cloudy at times Few showers & thunderstorms , diminishing	Sunny with isolated showers	Sunny with isolated showers or thunderstorms	Sunny with isolated showers
Rainfall: 0.75-1.00 inch	Rainfall: 0.50-0.75 of-an- inch	Rainfall: 0.75 –1.00 inch	Rainfall: 0.25-0.50 of-an-inch	Rainfall: 0.10- 0.25 of-an-inch	Rainfall: 0.50–0.75 of-an- inch	Rainfall: 0.01-0.10 of-an-inch

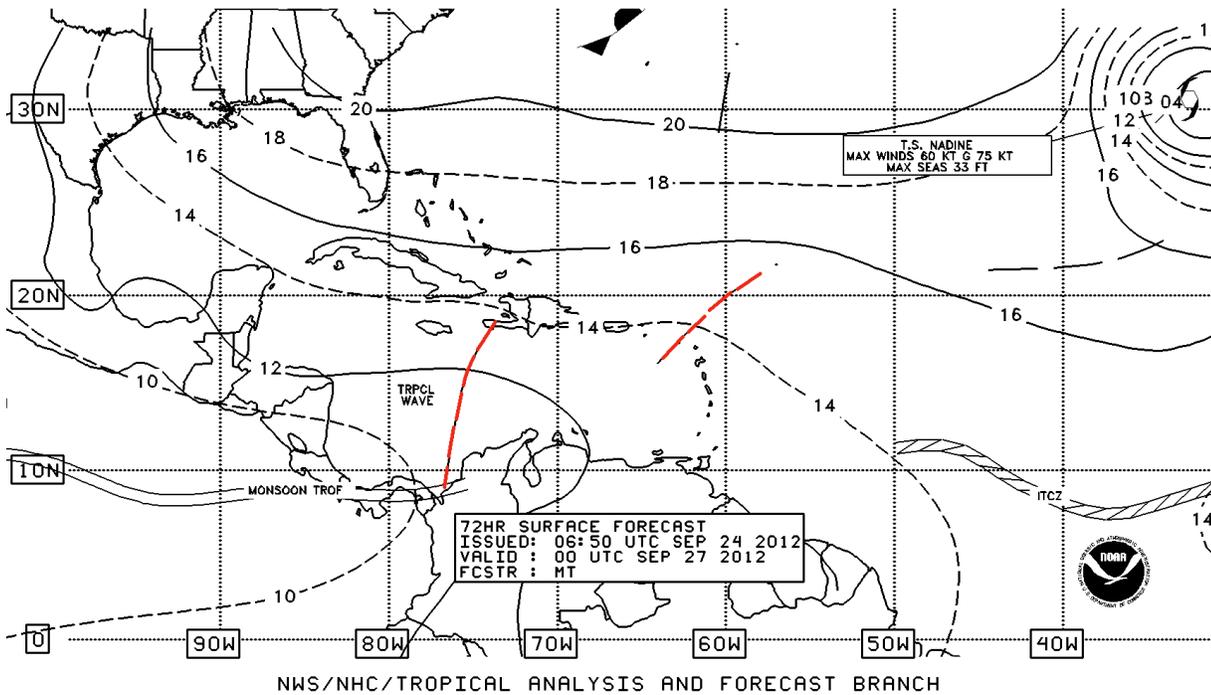
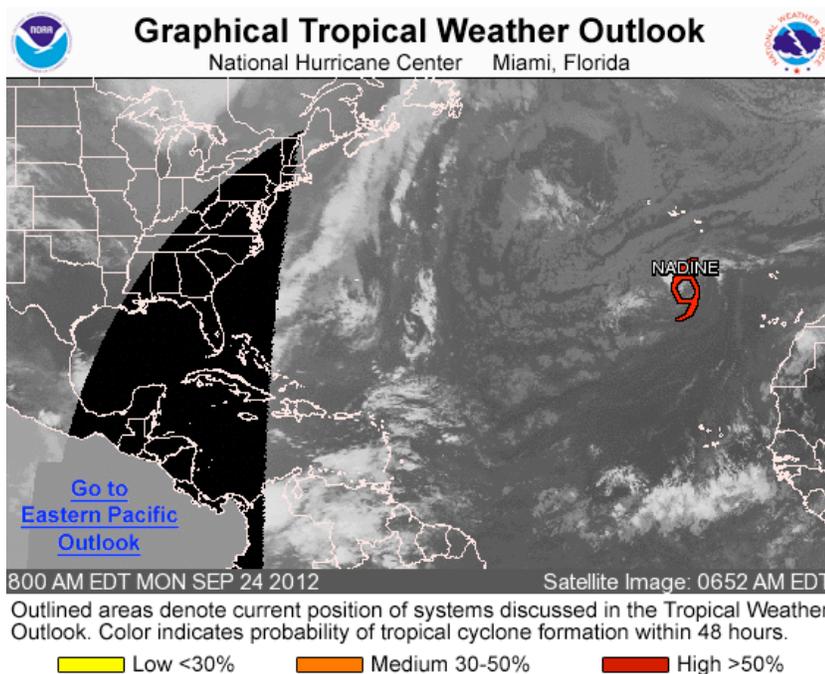


Figure 4 NHC 72-hr forecast surface map, valid for 6:00 pm Wednesday, Sep. 26, 2012, showing an active Tropical Wave moving across the central Caribbean. This tropical wave will cross Belize later on Friday, generating a few showers

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



**TROPICAL WEATHER OUTLOOK
NWS NATIONAL HURRICANE CENTER
MIAMI FL800 AM EDT MON SEP 24
2012**

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

THE NATIONAL HURRICANE CENTER
IS ISSUING ADVISORIES ON
TROPICALSTORM NADINE...LOCATED
ABOUT 455 MILES SOUTH OF THE
AZORES.

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

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 $+0.5^{\circ}\text{C}$ (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 $+1.0^{\circ}\text{C}$), while the statistical model consensus indicates a borderline weak El Niño ($+0.4^{\circ}$ to $+0.5^{\circ}\text{C}$). 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