



# A Weather-Ready Nation

## HAPA Project Report

Volume 3, Issue 6, December 22, 2016

### Disclaimer

This is an EXPERIMENTAL project report based on the Hovmoller Analysis and Prognostics Approach (HAPA) conducted at the WFO New Orleans/Baton Rouge Forecast Office (WFO LIX). This report is a means of bringing situational awareness to large scale events and potential impacts that may require decision support or emergency response activities in the foreseeable future. This project is NOT a long range forecast product for day-to-day conditions. HAPA is an interpretative method of integrating established numerical model guidance, climatological and earth systems monitoring and subject matter expertise from various sources to provide an outlook to potential weather hazards in the 8 to 60 day range. The intended audience of this report is media, NWS partners, stakeholders, and the general public. **Users must refer to the latest official NWS forecasts and outlooks for any decision-making activities.**

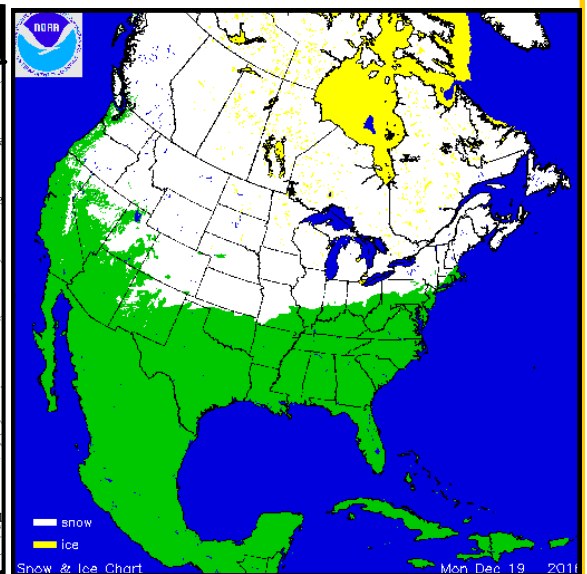
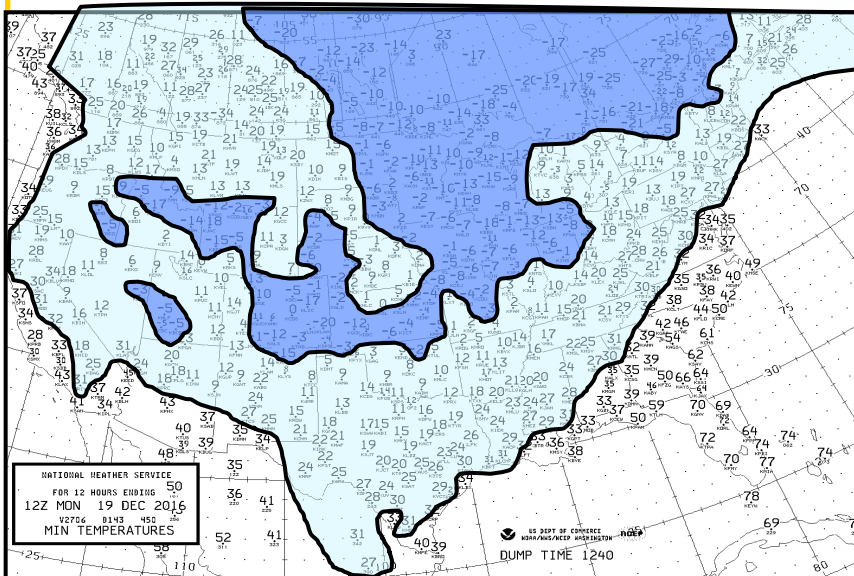


WFO New Orleans/Baton Rouge, LA

## A cold snap hits much of the United States before the Winter Solstice

The last analysis effort and subsequent report made mention of the potential of winter weather to occur on or around the 20th of December—a 12 day lead time on Issue #5. The cold weather actually did hit much of the nation pretty hard on the 18th and 19th. The minimum temperature chart from the morning of December 19th, image below left, shows a very large portion of the nation from California to the spline of the Appalachians waking up to below freezing temperatures. The darker blue shading represents the area where morning lows were below zero degrees Fahrenheit—roughly about 30 percent of the nation. The image lower right is the daily snow cover map of North America, showing solid coverage through all of Canada to approximately 35N latitude by the morning of December 19th.

Looking ahead, there are several profound indicators to suggest more Arctic air is poised to enter and impact a large part of the nation in coming weeks. It does appear the latter half of January, say from about the 12th through about February 2nd, is lining up to be a period of very cold weather and potentially some winter weather implications in various portions of the nation mainly east of the Rockies. See the outlook portion on the back page for details on particular dates.



## Outlooks and dates for consideration

**Dec 25 [3 days out]:** This feature is in the official forecast timeframe, but could have some impactful weather in the Plains States as a slow moving cold front bucks into warmer than normal temperatures. This could spell some severe weather in the central Plains, where the Storm Prediction Center is indicating a 15 percent chance of severe thunderstorms Christmas afternoon.

**Dec 30 [8 days out]:** A frontal system is indicated to move through the Gulf South that may bring some thunderstorm activity and cooler weather.

**Jan 3 and 5 [12 to 14 days out]:** A couple of fast moving frontal features that may have some limited impacts aside from brief rainfall in the Gulf States.

**Jan 16 [25 days out]:** **This appears to be the onset of a very active period for cold weather and winter weather potential as far south as the Gulf States, culminating with the passage of a strong cold front on the Jan 18 [27 days out].**

**Jan 29 [38 days out]:** A potential period of storminess in the Gulf States with a system that strengthens along the Gulf Coast around this date.

**Feb 13 [53 days out]:** Another period of concern for colder than normal temperatures and perhaps a shot at some winter type precipitation in parts of the Deep South.

**Feb 22/23 [62/63 days out]:** This is getting into the Carnival Season and may be a few days of impactful weather for any parades scheduled around these dates.

**Mar 9 [77 days out]:** Just a date to remember this far out, as some indications of active weather is noted.

A more detailed, technical explanation of these outlooks are available upon request to the e-mail address below.

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## December 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## January 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## February 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

**Next report is scheduled for January 4, 2017.  
Have a Happy and Safe Holiday Season.**

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