



# FAA-NWS Aviation Weather Weather Policy and Product Transition Panel

Friends and Partners in Aviation Weather  
October 22, 2014



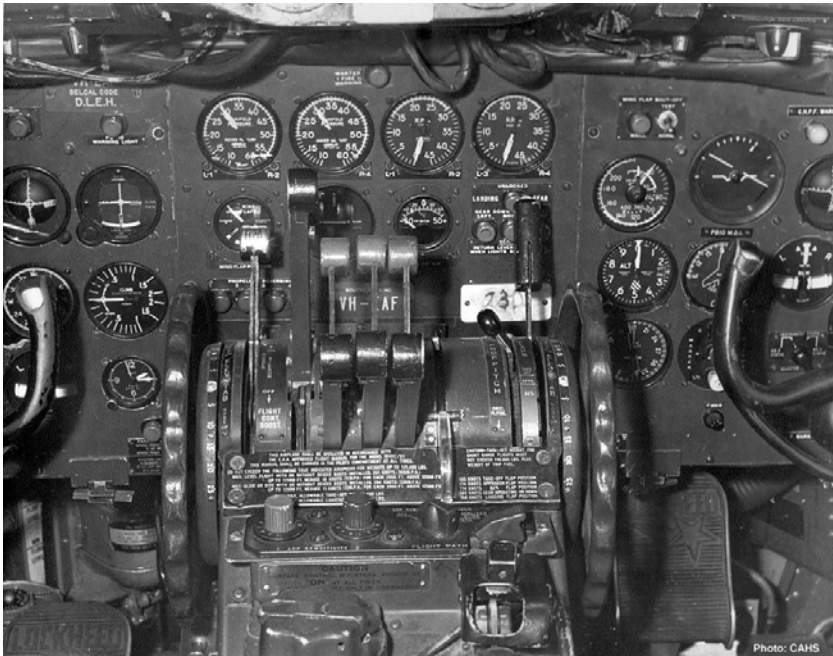
NOAA



FAA

# Airplanes ...

# have changed.



Lockheed Constellation



Airbus A380



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# Aviation weather products ...

not so much.

FA ATL 071245  
08E-20E WED

WRN NC WRN SC NRN GA ALA EXCP MOBILE AREA

CLDS AND WX. ○ OVR SRN AND CNTRL ALA

OVR NRN ALA AND NRN GA C15-20V⊕ TOPS 40-60 BCMG MSTLY C30V⊕ TOPS 40 BY 12E AND 35⊕ BY 14E AND ○ BY 19E

OVR WRN SC 40V⊕ MSL TOPS 90 BCMG ○ BY 19E

OVR WRN NC C20-40V⊕ TOPS 100-120 LCLY C10⊕7 IN THE MTNS WITH OCNL C10X2S- BCMG C40V⊕ TOPS 80 BY 12E WITH A FEW SNW FLRYs PRSTG IN THE MTNS. CLRG BY 20E.

ICG. LGT TO MDT RIME ICGIC WITH CHANCE OF MDT MXD ICGIP WRN NC TIL 12E. FRZG LVL SFC OVR THE WRN CAROLINAS AND NRN GA SLPG TO 30-40 CNTRL AND SRN ALA LFTG TO 25 WRN NC AND 50 SRN ALA BY AFTN

TURBC. MDT BLO 80-120 OVR WRN NC WRN SC NRN GA WITH OCNL SVR TURBC OVR AND ALG E SLPs OF MTNS. TURBC WL DMSH LATE AFTN. MOST PRBL AREA OF MDT CAT 250-350 OVR THE WRN CAROLINAS AND NRN GA ESPECIALLY OVR THE MTNS

OTLK. 20E WED-08E THU. ○ OVR AREA BCMG C200⊕ OVR WRN ALA BY DABRK. VSBY UNRSTD LWRG LCLY TO 4KH BY 06E

## Area Forecast 1965

NOAA's National Weather Service  
Aviation Weather Center

Home News Organization

Local forecast by "City, St" or Zip Code  
City, St Go

Find us on Facebook  
AWC on Facebook

Advisories  
SIGMET/AIRMET »  
Center Weather

Forecasts  
Convection »  
Turbulence  
Icing  
Winds/Temps »  
Prog Charts »  
TAF / FA »

Observations  
PIREPs »  
METARs »  
Radar »  
Satellite »  
Ceiling and Visibility  
Flight Planning»

AWC Home > Area Forecasts > Miami FA

### Miami Area Forecast (FA)

FYI/Help

Forecast updated: 17:32 UTC

FAMAP BOS MIA CHI DFW SLC SFO GULF CARIB  
Alaska Hawaii

000  
FAUS42 KNCI 091745  
FA2W  
MIRAC FA 091745  
SYNOPSIS AND VFR CLDS/WX  
SYNOPSIS VALID UNTIL 101200  
CLDS/WX VALID UNTIL 100600...OTLK VALID 100600-101200  
NC SC GA FL AND CSTL WTRS E OF 85W  
.  
SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.  
TS IMPLY SEV OR GTR TURB SEV ICE LWS AND IFR CONDS.  
NON MSL HGTS DENOTED BY AGL OR CIG.  
.  
SYNOPSIS...18Z WRMNT FM LOW NRN NC CSTL WTRS EWD INTO INTL WTRS.  
STNR FNT FM LOW NRN NC CSTL WTRS TO LOW 210SE CHS. CDFNT FM LOW  
210SE CHS ACRS NRN BAHAMAS-EXTRM SERN PTN FL CSTL WTRS CONTG  
SSWWD INTO CUBA. TROF FM LOW NRN NC CSTL WTRS ACRS 40E ORF-SIE  
LN. 12Z OCFNT FM LOW 100E ILM TO 140SE ECG. STNR FNT FM 140SE ECG  
EWD INTO INTL WTRS. CDFNT FM 140SE ECG SWD INTO INTL WTRS CONTG  
ACRS NRN BAHAMAS TO EXTRM SE PTN FL CSTL WTRS. TROF FM LOW 100E  
ILM ACRS NC OUTER BANKS-SERN MD-NRN NJ.  
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## Area Forecast 2013



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# Background

- Many NWS aviation weather products are decades old, with little change in format
- The Area Forecast (FA) is a prime example
- FAA and NWS have undertaken a review of all weather information produced by NWS for aviation purposes



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# Background

Primary goals of the review, include:

- Improving NWS products, in-support of aviation weather;
- Increasing emphasis on digital products and looking for opportunities to digitize legacy NWS products and services;
- Identifying products and services with duplicative information;
- Identifying products and services that are of limited (dated) utility to operators; and
- Focusing activities of NWS forecasters to maximize operational benefit.



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# The Area Forecast (FA)

- Manually-generated text product (no graphical components)
- Forecasts VFR clouds and weather over 16 vast geographical areas:
  - ✦ CONUS (6)
  - ✦ Hawaii (1)
  - ✦ Alaska (7)
  - ✦ Gulf of Mexico (1)
  - ✦ Caribbean (1)
- Issued 3-4x daily, valid 18hrs (12hr + 6hr categorical outlook)
- Character-limited
- Variations date back as far as the 1930s; current version unchanged since the early 1990s



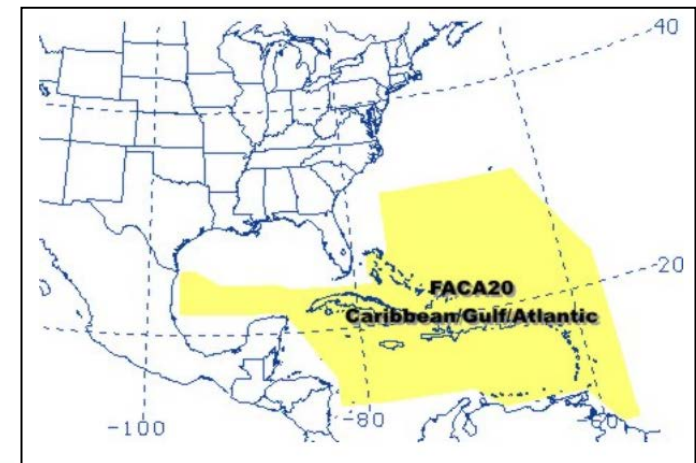
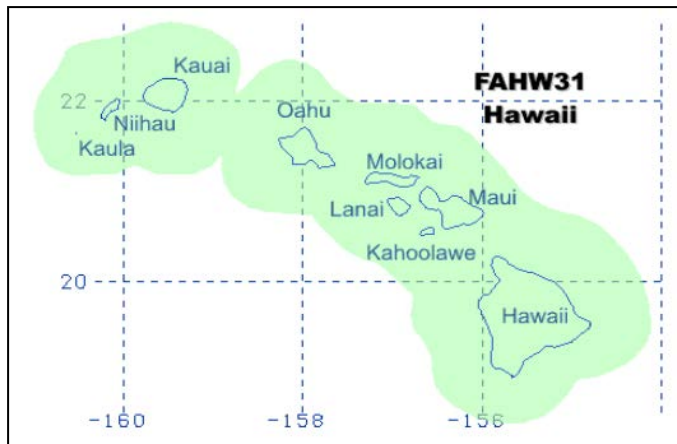
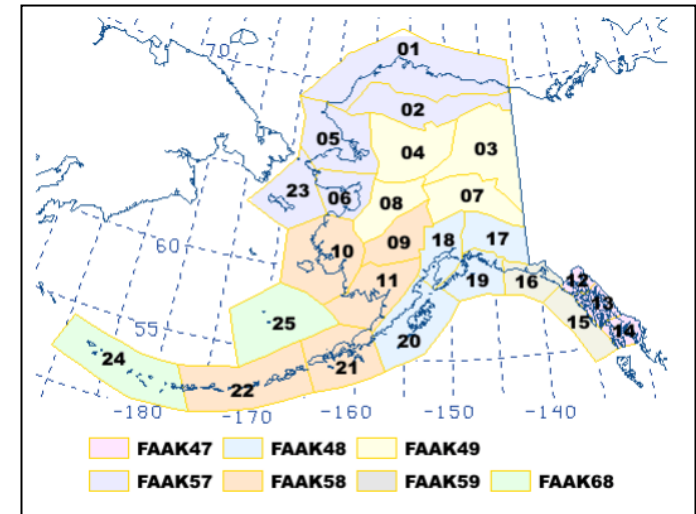
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# Geographical Coverage of the FA



# Elements of the FA & Alternatives

## Elements of the FA

Weather Synopsis →

Cloud Amount (1000ft ≤ Z ≤ FL180)  
Cloud Bases & Tops (1000ft ≤ Z ≤ FL180) }

Areas of Precipitation →

Visibility (including obstruction) →

Areas of Sustained Surface Winds →

Flight Category\* (including obstruction) →

## Alternative Sources of Information

WPC+HFO Surface Analyses + Progs  
(including Short-Range Public Forecast Discussion)

National Digital Forecast Database (SkyCover Grid)  
Low-Level SIGWX Chart + PIREPs  
Cloud Top Height Model Forecast Graphics

National Digital Forecast Database (PoP Grid)  
Low-Level SIGWX Chart

AIRMET Sierra

National Digital Forecast Database (Sfc Winds Grid)  
AIRMET Tango

Low-Level SIGWX Charts + Nearest TAF(s)



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*\*6hr outlook (hrs 12-18)*

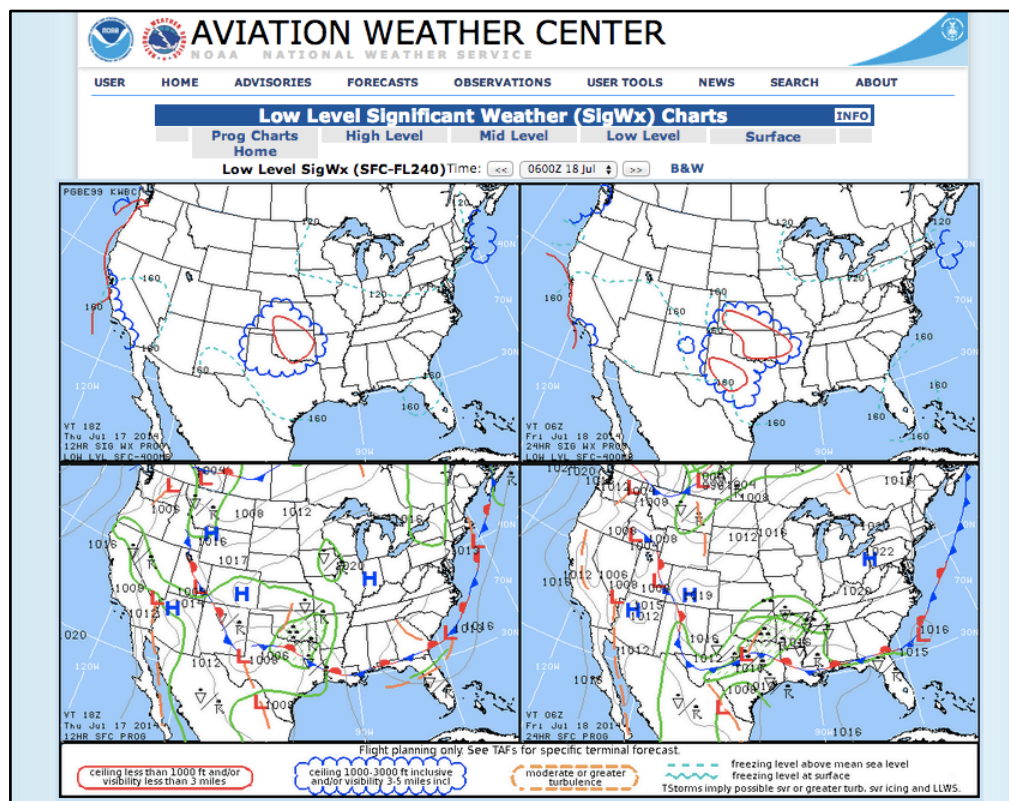
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# FA Alternatives Guide

## Low-Level Significant Weather (SIGWX) Prognostic Chart

<https://www.aviationweather.gov/progchart/low>

**Guidance:** The SIGWX chart provides pilots with the 'big picture.' Cold, warm, occluded and stationary fronts are clearly depicted, along with areas of high and low pressure.



Low-Level SIGWX Prognostic Chart, SFC-FL240.

Aviation Weather Center



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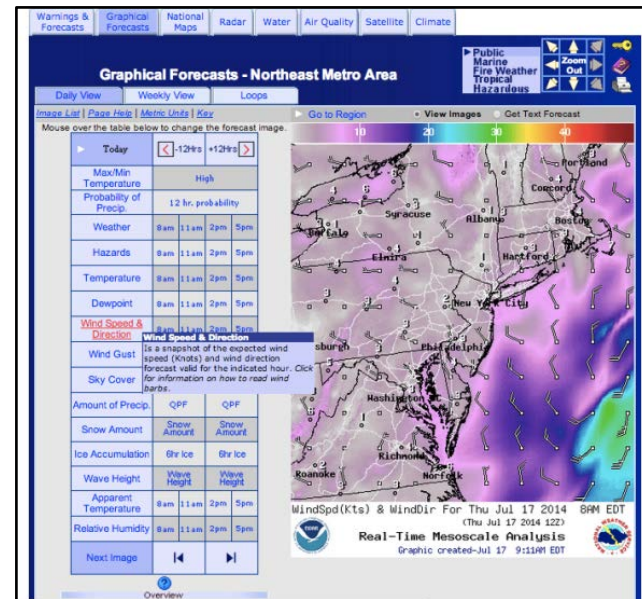
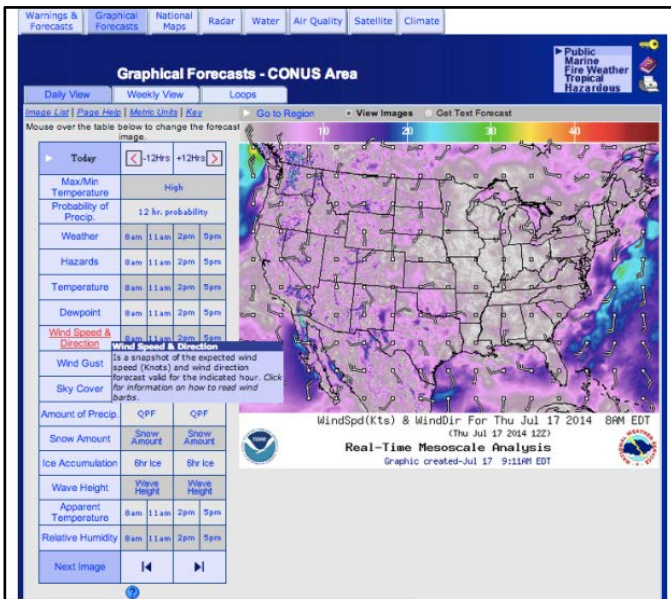
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# FA Alternatives Guide

## National Digital Forecast Database (NDFD):

<http://graphical.weather.gov/sectors/conus.php>

**Guidance:** Whereas SIGWX charts provide pilots with a big-picture, general depiction of the weather, NDFD provides much greater detail with finer time scales and finer areal depictions of weather. FAA and NWS are working to ensure the information in the NDFD is available through *existing FAA pilot weather briefing sources*. AWC is integrating this information with ADDS, so users are able to generate a weather briefing without the need to navigate multiple websites.



NDFD Surface Wind Speed and Direction Grid, CONUS & Regional Views.

National Weather Service



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NOAA

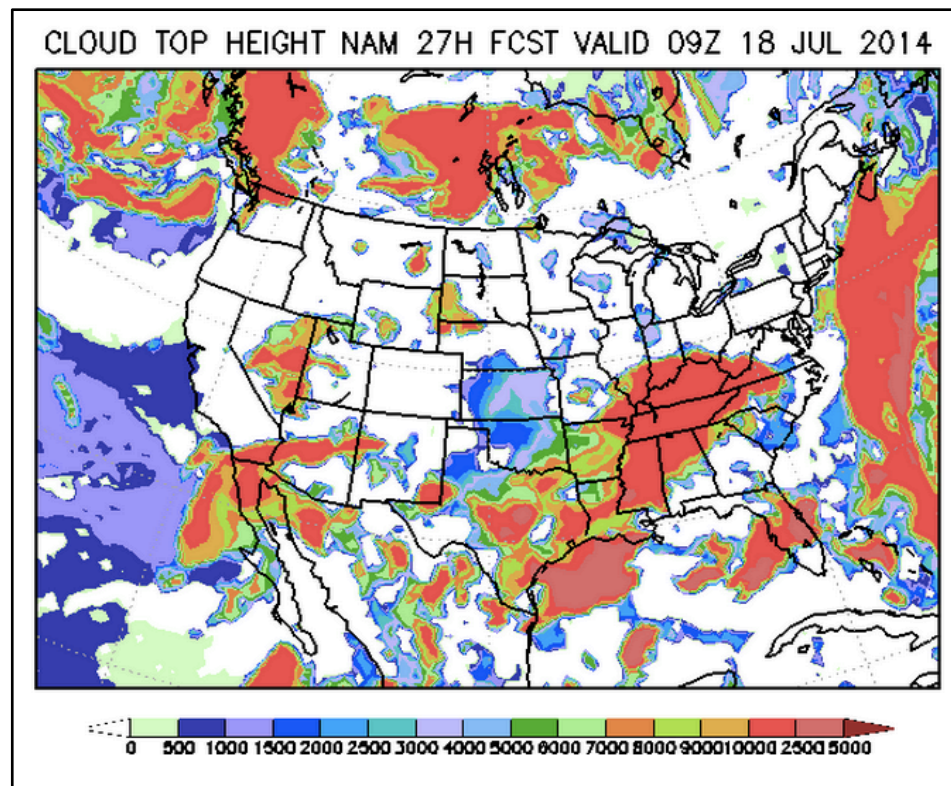
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# FA Alternatives Guide

## Cloud Top Height Model Forecast Graphic:

<http://www.emc.ncep.noaa.gov/mmb/mmbpll/opsnam/>

**Guidance:** The Cloud Top Height Model Forecast Graphic is a computer-generated forecast from one of many weather computer models used by the National Weather Service. The Cloud Top Height Forecast Graphic only indicates the highest cloud. In other words, if there are multiple cloud layers, this product will only provide the top of the highest cloud. It should be used in-conjunction with METARs and TAFs to assess the presence of low, medium or high clouds.



Cloud Top Height Model Forecast Graphic.  
*National Center for Environmental Prediction (NCEP)*



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# Area Forecast Status Update

- FAA and NWS mapped alternative sources of information, to be used in-place of the FA
- Developed guidance document for using these alternatives, including examples
- Invited interested parties to submit comment
  - Notice in the Federal Register (FAA)
  - Public Information Statement (NWS)
  - Majority of comments in support of transition
- The Agencies are targeting mid 2015 for transition to alternative sources of information
- Initial change(s) will apply *only to the CONUS and HI FAs*
- AK, CB and GM FAs will be addressed at a later date



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# Questions or comments?

## Please contact:

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