



Southwest Airlines PIT Visit July 15, 2014



STEEL IN LUV
AFTER 9 YEARS
Pittsburgh, PA Est. 2005

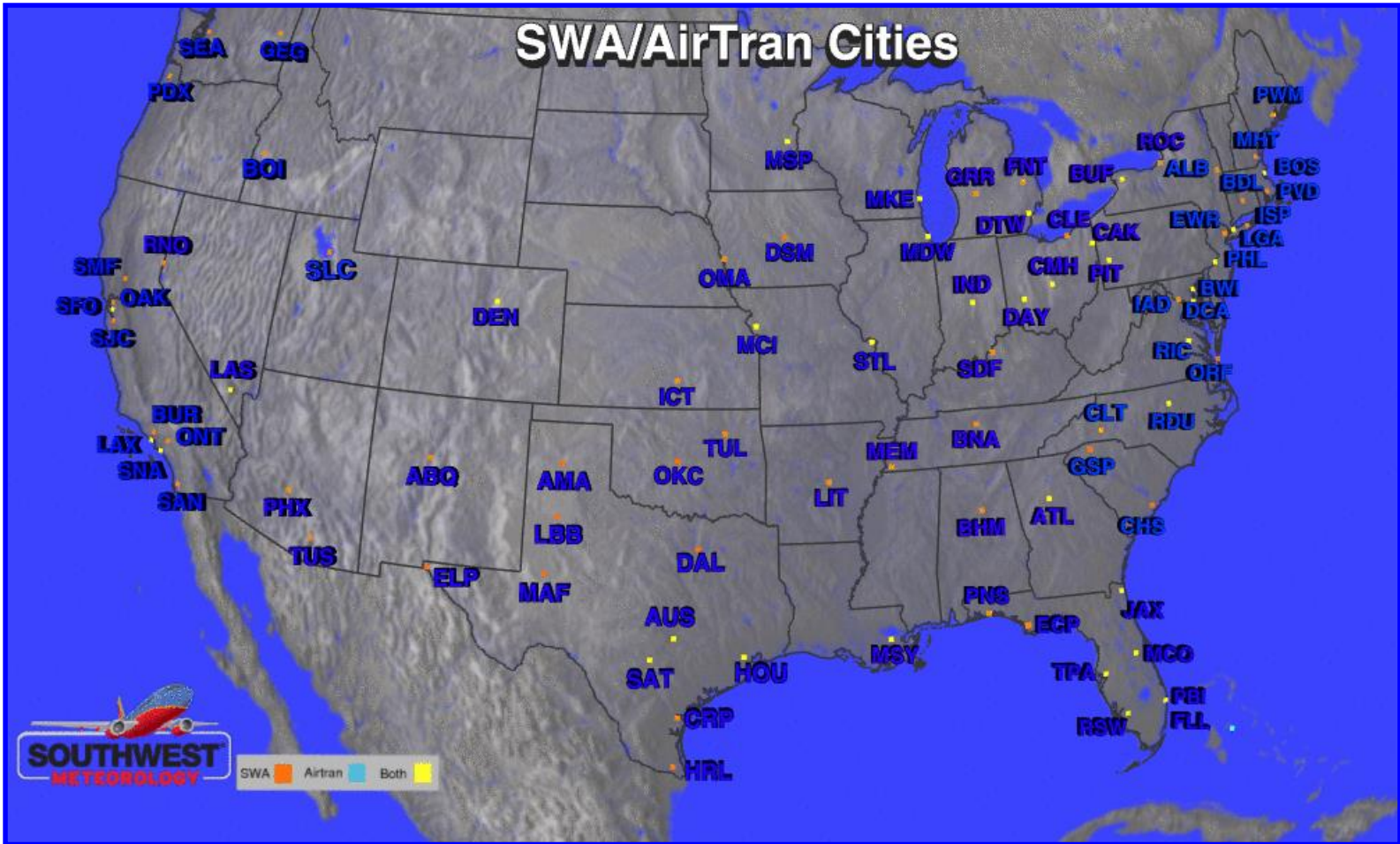


SWA Facts and Figures

- ▶ 3600+ flights from 96 airports
- ▶ 693 Boeing Jets:
 - 614 total 737 (300's, 500's, 700's, and 800's)
 - 66 total 717 (AirTran, 200's)
- ▶ Flight information:
 - Longest daily flight: BWI-SEA (2,335 miles)
 - Shortest daily flight: HOU-AUS (148 miles)
- ▶ Southwest offers the most domestic flights of any airline



SWA/AirTran Cities



SWA/AirTran Cities



Top 10 Airports by Departures

Cities	Daily Departures	Number of Gates	Nonstop Cities Served	Established
MDW	233	32	64	1985
LAS	210	19	54	1982
BWI	206	28	57	1993
DEN	167	19	56	2006
HOU	161	19	45	1971
PHX	162	24	46	1982
ATL	165	31	44	2012
DAL	124	15	18	1971
MCO	120	20	43	1996
LAX	109	12	23	1982

SWA Meteorology

▶ Our Team:

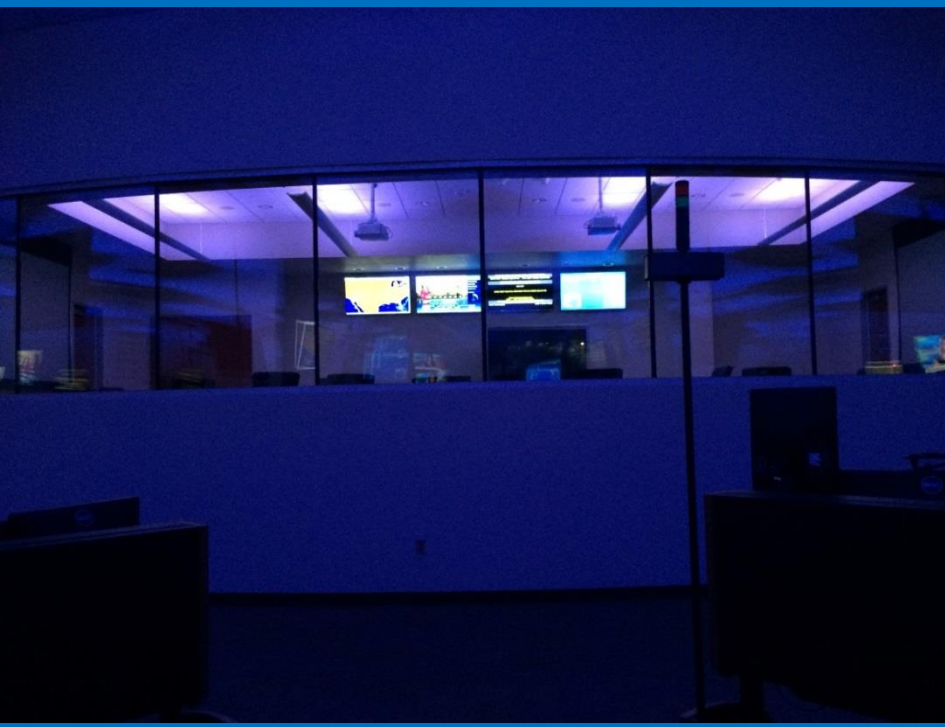
- Rick Curtis
- Brian Collins
- Myranda Muehlman
- Rebecca Miller
- Joe Kleiman
- Rebecca Schrom

▶ Our Role:

- Provide strategic weather support to SWA decision makers to help increase operational safety and efficiency



Our New Home Network Operations Center (NOC)

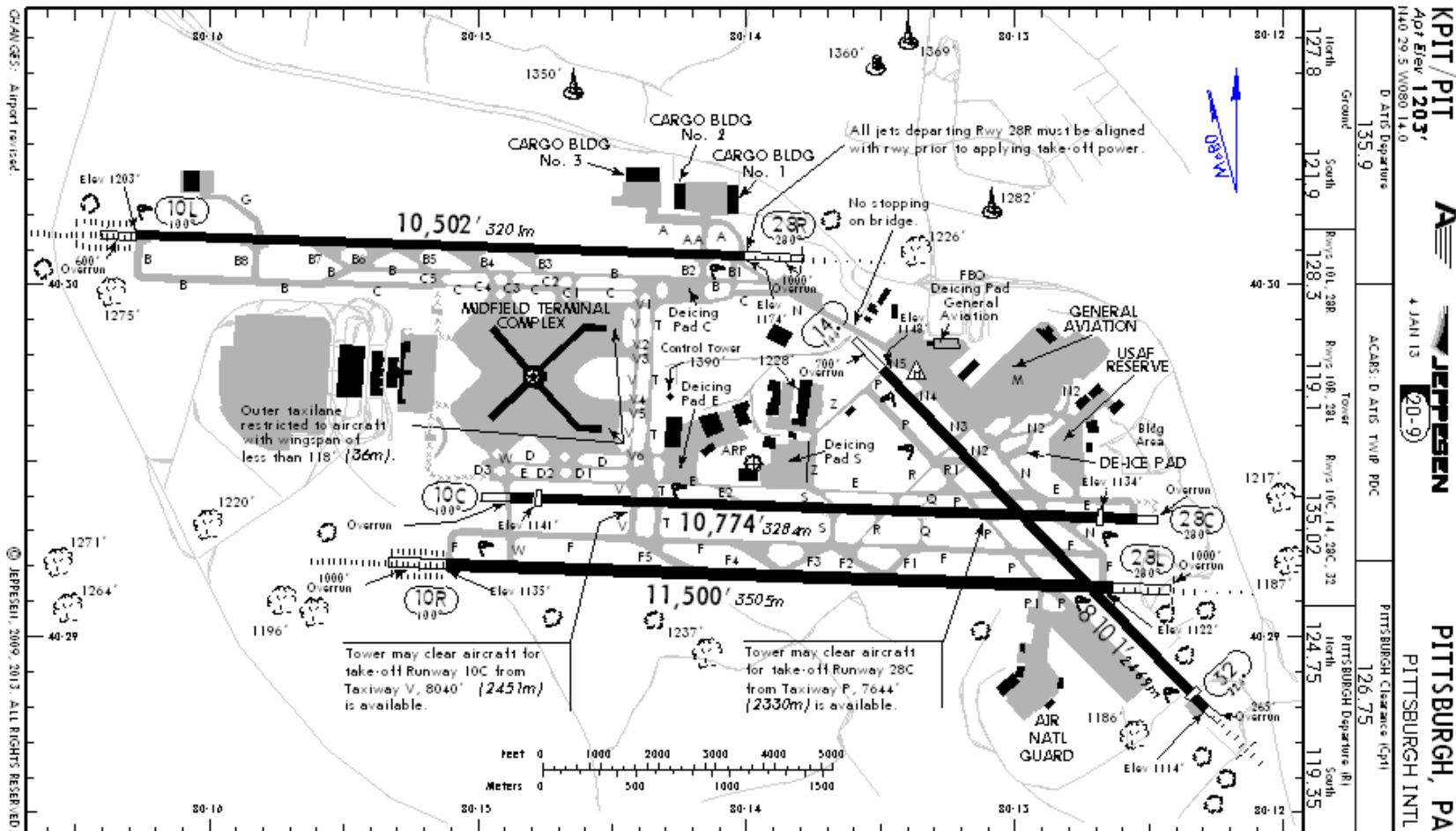


PIT Information

- ▶ 11 RONS
- ▶ 22 total daily departures and arrivals
- ▶ 7 Gates
- ▶ SWA located in Concourse A
- ▶ Capable of CAT II or CAT III landings
- ▶ Landing minimum 700 RVR
- ▶ Primary runways are 10C or 28R
 - Secondary runway is 14/32
- ▶ Elevation – 1,203ft
- ▶ ATC Center – CLE (ZOB)
- ▶ Diversion support station for both MDW and BWI



PIT Airport Information



CHANGES: Airport revised.

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KPIT/PIT
 Apt Elev **1203'**
 140 29.5 W080 14.0

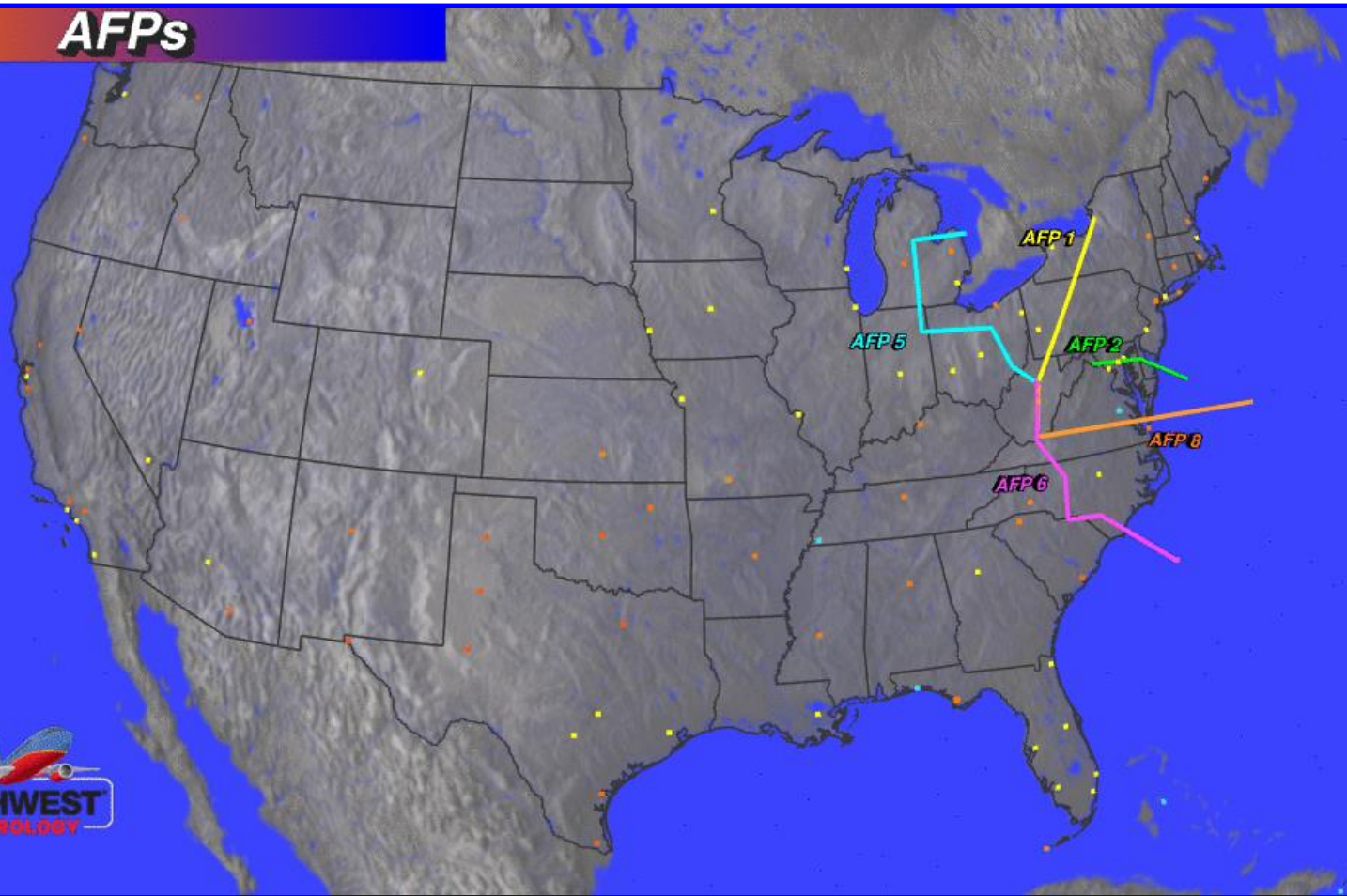
JEPPESEN
 4 JAN 13 **20-9**

PITTSBURGH, PA
 PITTSBURGH INTL

Weather Impacts at PIT

- ▶ Multiple Weather Concerns:
 - Wind
 - Direction
 - Speed
 - Winter Storms
 - Precipitation type
 - Accumulation rate
 - Liquid water content of snow
 - Deicing
 - Lake effect snow
 - Airborne Icing
 - Thunderstorms
 - Hail
 - Lightning
 - Tornadoes
 - Location, location, location...

AFPs



AFP – Airspace Flow Program

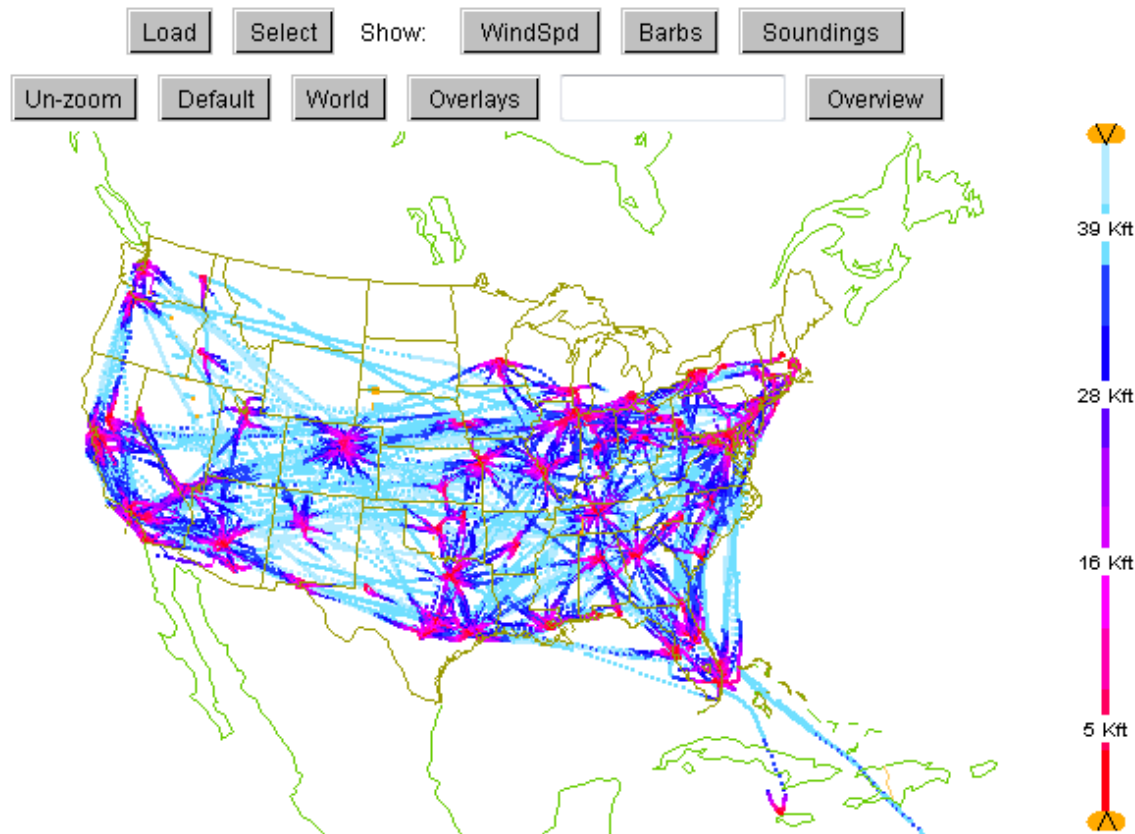
- ▶ Airspace Flow Programs (AFPs) manage demand-capacity imbalances through a given airspace.
- ▶ An AFP may be used to reduce the rate of flights through a center when that center has reduced en route capacity due to severe weather, replacing Mile-In-Trail (MIT) restrictions for a required reroute, managing airport arrival fix demand or controlling multiple airports within a terminal.
- ▶ CCFP plays a major role in the determination for AFPs and other ATC, implemented programs.



SWA Water Vapor Project

- ▶ SWA is subcontractor to Rockwell Collins (ARINC)
- ▶ Rockwell Collins contracts with the NWS on this effort
- ▶ 87 SWA aircraft equipped with WVSS (-300s and -700s)
- ▶ Future SWA goals:
 - Working with ARINC to install 20 additional sensors:
 - 18 additional -700s
 - 2 -800s (in STC planning process)
- ▶ UPS also participate and has 25 WVSS equipped aircraft

SWA Water Vapor Project – 24 Hour Observations/Coverage

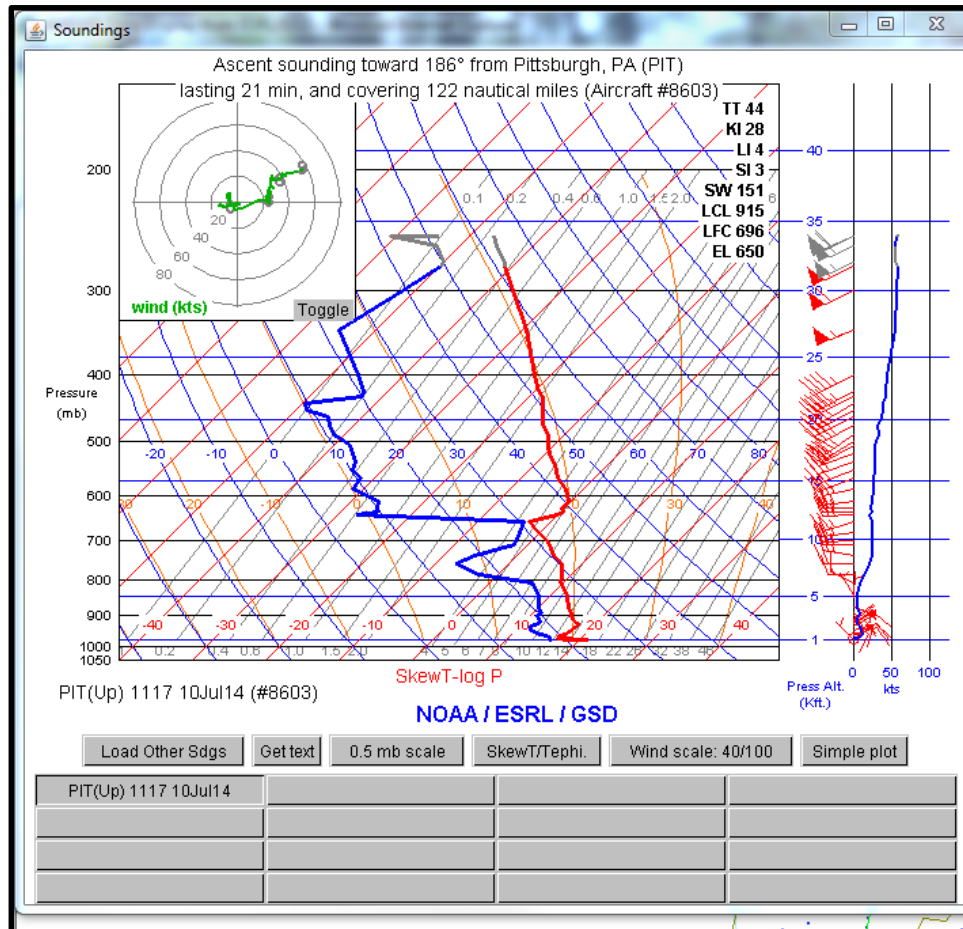


06-Jul-2014 17:00:00 -- 07-Jul-2014 17:36:00 (56235 obs loaded, 55528 in range, 18450 shown)

NOAA / ESRL / GSD Altitude: -1000 ft. to 45000 ft.

vapor

WVSS Sounding Example



PIT – RSW
7/10/14
11:17Z

Other SWA Program Participation

- ▶ MDCRS (Meteorological Data Collection and Reporting System)
 - Reports wind and temperature data
 - As of June 2014, SWA had 314 A/C reporting wind and temperature data
- ▶ EDR (Eddy Dissipation Rate)
 - Automated turbulence reporting
 - As of July 2014, SWA had 123 A/C reporting automated turbulence data

SWA TAF Wish List

- ▶ Be aware that TAFs are used (sometimes unfairly) for both longer term planning and flight planning activities.
- ▶ Remember that the end time of the event is just as important as the start time. Try to think the event ending time through versus just leaving the event in the TAF and waiting for the next regularly scheduled TAF update.
- ▶ Don't "over tweak" the details; Sometimes by doing so, you miss the train headed right for you because your head is down.
- ▶ Avoid the forecast "yo-yo" effect among your fellow forecasters.

SWA TAF Wish List

- ▶ Be aware of your history. Group multiple items into single amendments if possible. You need to do what you need to do, but be aware of the message you send when you issue an amendment just after a previous amendment, or regular TAF update.
- ▶ “Know when to fold em” – When you realize that something is not going to happen, “bite the bullet” and amend versus keeping things around until a future update.
- ▶ It takes courage to put 1/4SM +SN on the last few lines of a TAF. Do not be afraid, but do exercise caution!
- ▶ Please make the TAF consistent with other products. Mixed messages kill credibility, and appear as a divide within your WFO!

SWA TAF Wish List

- ▶ Allow us to be included in conference calls initiated for media or emergency management on significant weather events...very helpful.
- ▶ Does NWS PBZ issue airport weather warnings?
 - If yes, what thresholds do you use when issuing a warning?
- ▶ Please be familiar with airport operating criteria and local minimums.
- ▶ Please work closely with your CWSU to ensure forecast consistency and awareness of traffic flow status.
- ▶ Utilize website graphics for significant/ongoing events.
- ▶ Utilize NWS Chat.

Our Partnership with the NWS

- ▶ We are a huge advocate of the NWS
 - Always looking for ways to help promote your efforts
 - Help educate all levels of the NWS concerning aviation community use of your products and services
 - Please continue to be enthusiastic about your role in aviation weather...we utilize and count on all you do!



Thank You for all you do!

