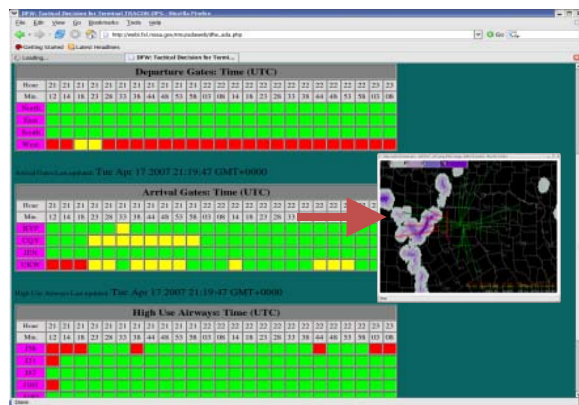
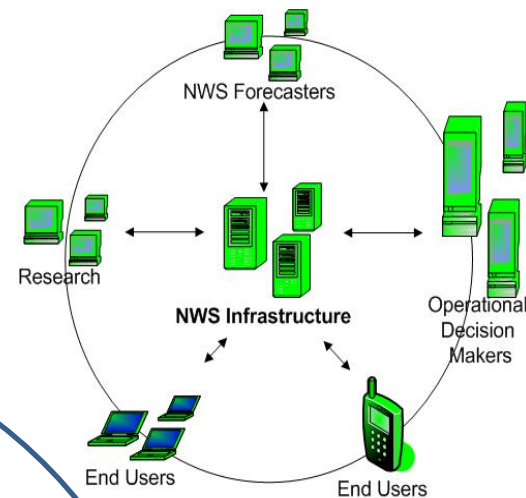


Forecaster X-Window Collaboration System (FXC)

Weather Tailored and Disseminated
Based on End-User Needs



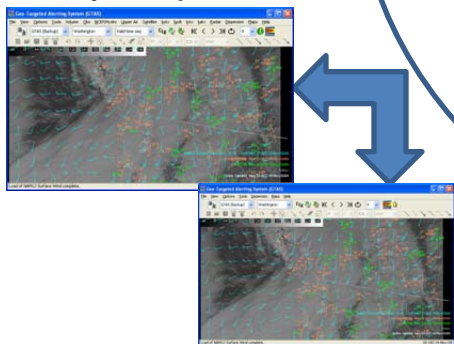
Network
Enabled
Operations



Improved
Decision
Support

Information
Sharing

Subject Experts

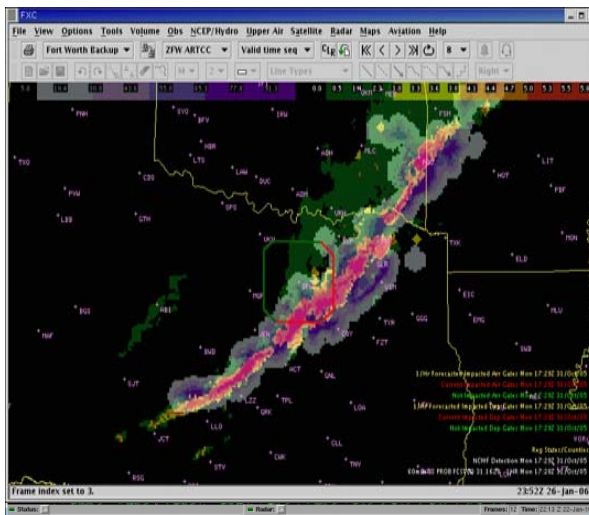


Operational Support
and Other End-Users

Shared
Situational
Awareness

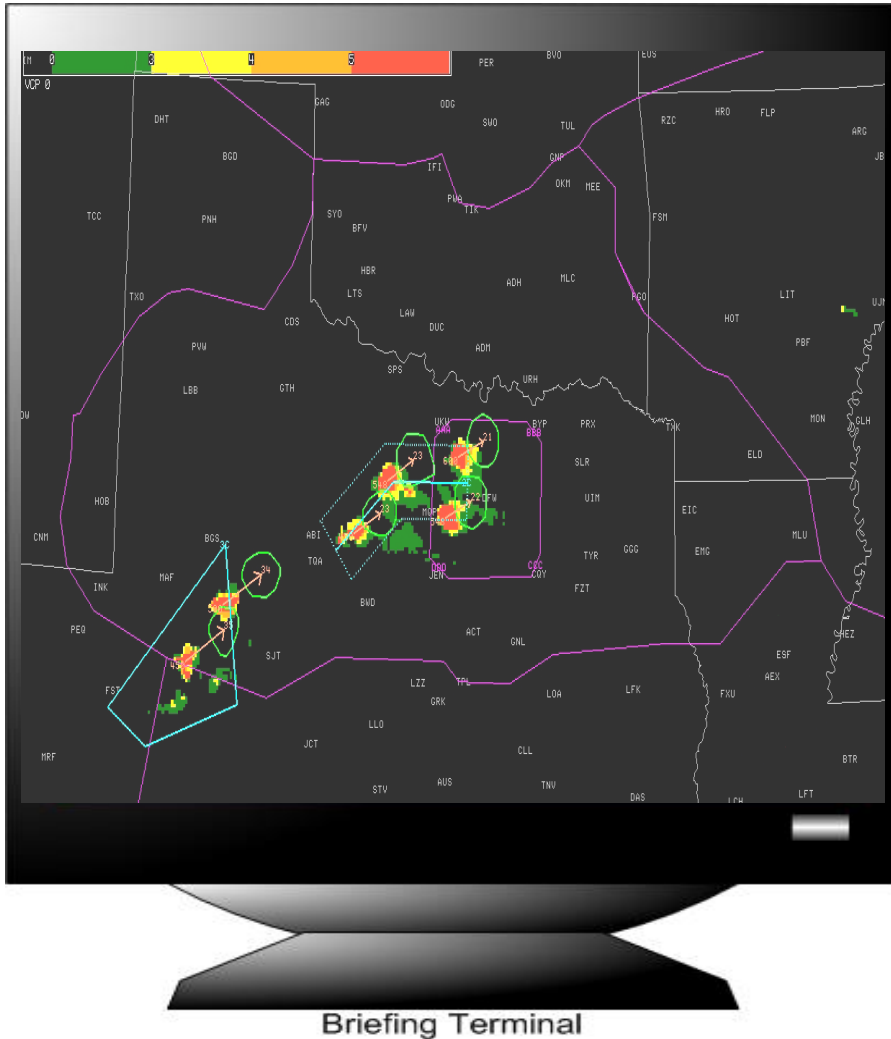
Integration of
Research,
Technology,
and Data

Volcanic Ash Plume Modeling
Toxic Plume Modeling
Enhanced Satellite Imagery
High Resolution Weather Models
Integration of All Relevant Data



FXC – Prototype Projects

Traffic Management Unit-Weather Information Decision Aids (TMU-WIDA)



Feb 22 07 11:33

p1

ZDC CWSU BRIEFING

VALID 12/12Z-23/04Z THURSDAY FEBRUARY 22, 2007

ADVISORIES IN EFFECT...AIRMET SIERRA, TANGO AND ZULU.

SYNOPSIS...CDFNT FRM GRTLKS S TO TENN AT 10Z WILL MOV RRPDLY EWD ACRS THE AREA TODAY AND AREA OFSHR BY 22Z STG NW FLO BHD FNT. GENERAL WEATHER...PATCHY IFR/MVFR COND WITH FOG OVR MTNS/SRN VA/NC. COND IMPRVG TO VFR BY 14Z. CHC BRF SHRA ALNG FAST MOVG CDFNT.

TERMINALS...DCA/BWI/IAD...VFR. CHC SHRA 18-20Z. WNDLS L/V BCMG WSWLY ARND 10 KTS BY 14Z. CHC BRF SHRA 25G35-40 KTS 18-19Z LGA/EWR/JFK/PHL/BOS..VFR ORF...VFR CIGS. GSO/CLT/RDU/ATL...IFR BR. 14Z VFR.

PIT...IFR BR. 14Z VFR. 16Z CHC SHRA. ORD...VFR.

SIGNIFICANT WEATHER...NONE.

TURB...MOD OCNL SVR TURB BLW 120 DVLPG 15-18Z ACRS THE AREA. OCNL MOD TURB FL180-350.

ICG...LGT-MOD RIME BLW FL180. FRZLVL..04-100.

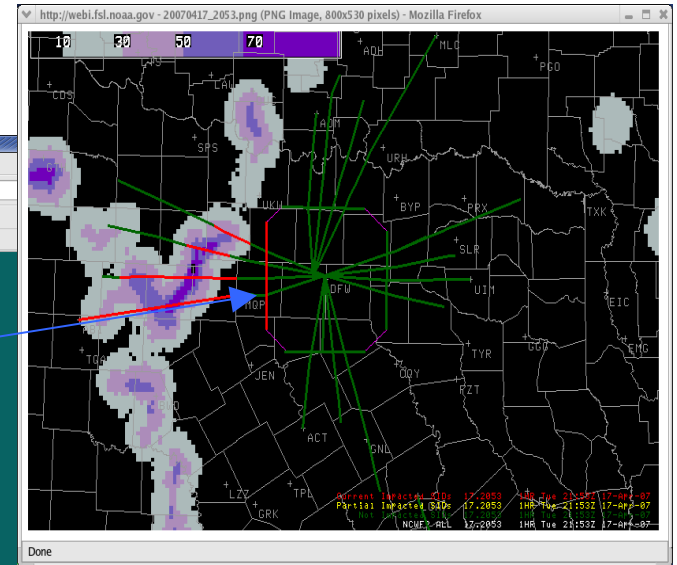
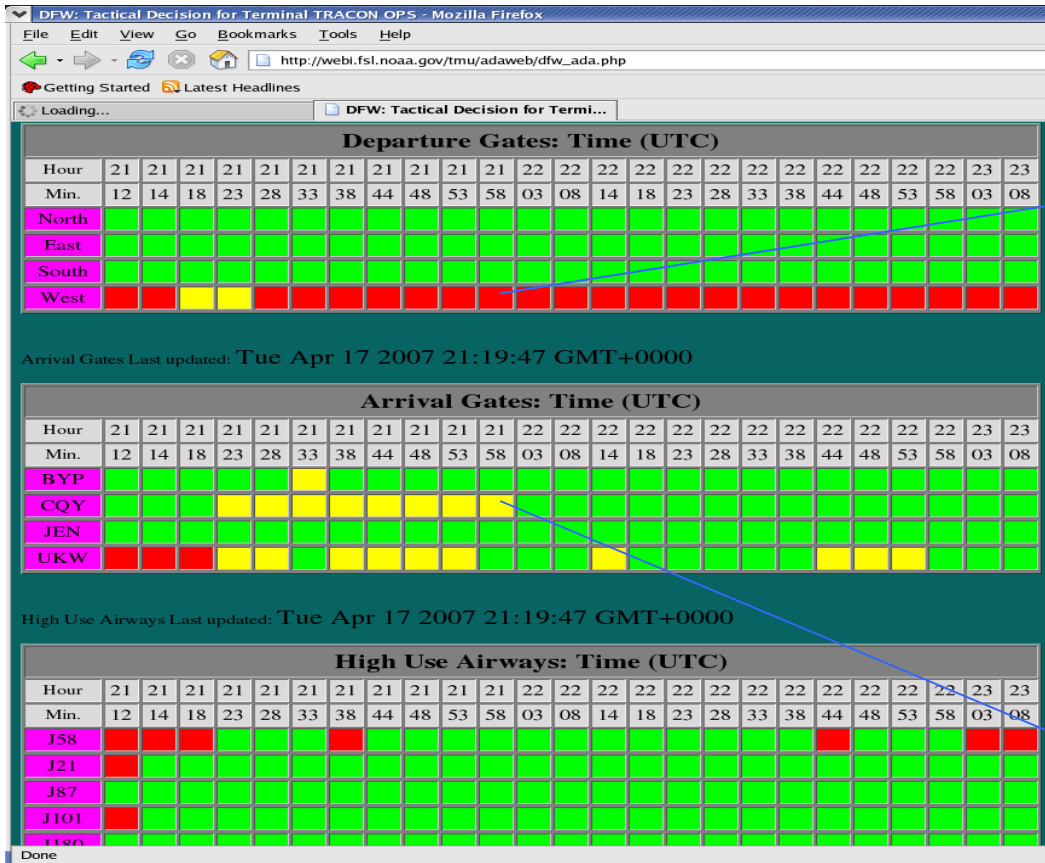
JETSTREAM...XTNDS DAKOTAS SE ACRS VA INTO ATLC AT FL340 WITH WINDS 120-140 KTS. WINDS ZDC NWLY 90-140 KTS FL300-400.

OUTLOOK...22/20Z-23/04Z..VFR GUSTY SFC WINDS. -SHSN OVR MTNS.

METEOROLOGIST...THE ROCK OF CWSU 1100Z

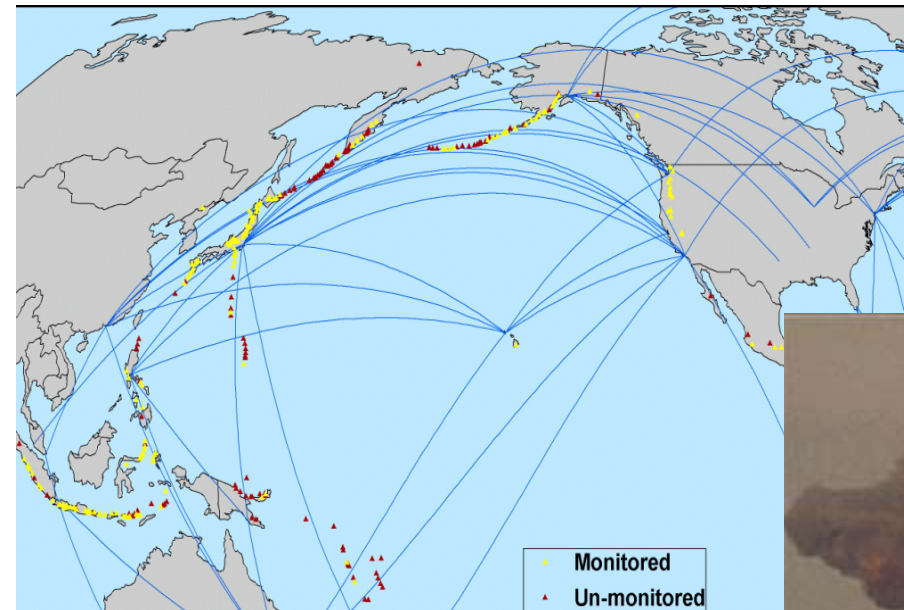
FXC – Prototype Projects

TMU-WIDA



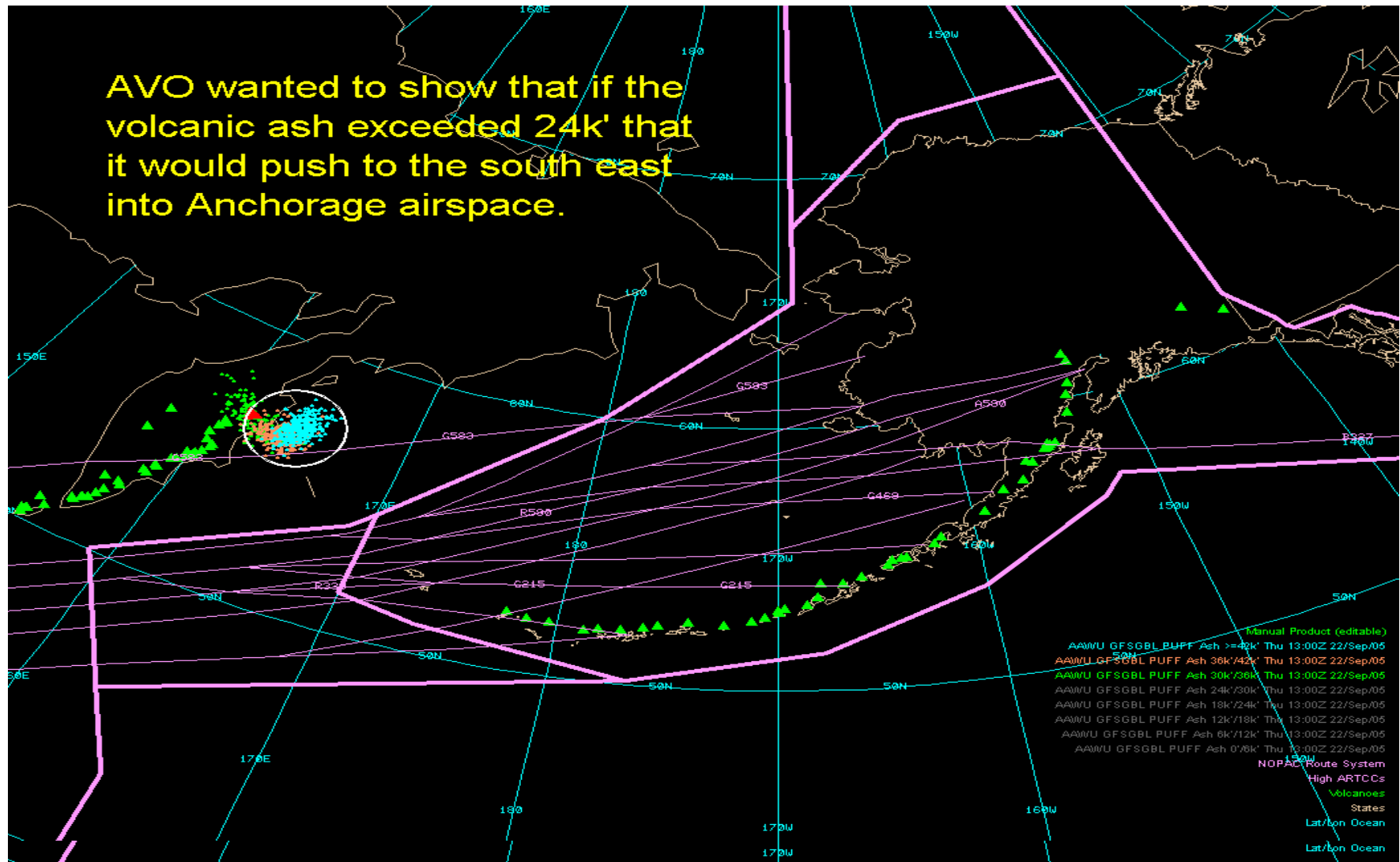
FXC – Prototype Projects

Volcanic Ash Coordination Tool (VACT)



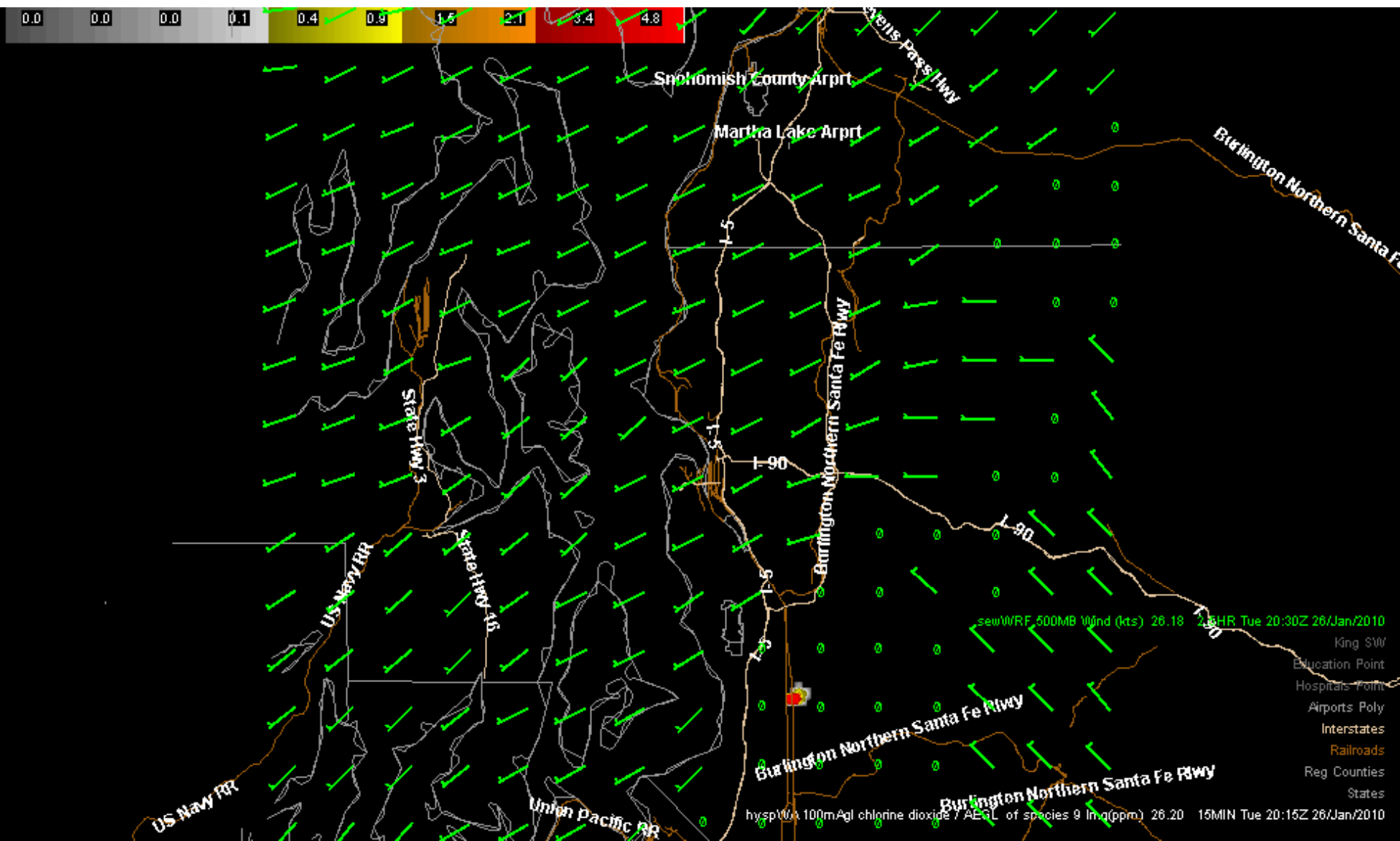
FXC – Prototype Projects

VACT



FXC – Prototype Projects

Geo-Targeted Alerting System (GTAS)



Societal Benefits

➤ TMU-WIDA

1. Used operationally at Leesburg and Fort Worth ARTCCs.
2. Winner of the National Weather Associations Aviation Meteorology Award.
3. Safer more efficient national airspace.
4. User comment:

“ZFW TMU strongly supports the TMU-WIDA convective weather forecast tools used at ZFW. The CWSU, TMU team both have used the weather displays extensively. TMU-WIDA was a significant factor in making good tactical and strategic decisions during the significant thunderstorms that the airspace experienced during the Winter to Summer period of 2007. Of the more than 90 days that the airspace experienced significant thunderstorm activity, TMU-WIDA was able to provide clear two hour thunderstorm predictions nearly 80 percent of the time, greatly increasing our effectiveness as an operational team.”

Tom Amis, MIC, Fortwoth, Texas Center Weather Service Unit

➤ VACT

1. Used operationally by Anchorage VAAC, CWSU, and AVO during volcanic eruptions.
2. Winner of the NOAA Bronze Medal for Scientific and Engineering Achievement.
3. Safer Alaska airspace.
4. User comment:

“VACT enables more timely and accurate forecasts from a coordinated multi-agency response, allowing operational scientists in USGS and NWS to collaborate in real time with shared situational awareness. VACT was operationally tested during the 2006 eruptions of Augustine Volcano that caused ash to fall in several communities, many airline flights to be canceled, and military aircraft to be redeployed. AK Volcano Observatory (USGS) scientists repeatedly expressed gratitude for VACT because it facilitated coordination.”

Laura Furgione, Director, NWS AK Region

Societal Benefits

➤ GTAS

1. **System being operationally demonstrated in Dallas and Seattle (WFO, state and local EOC). Working on installations in Kansas City, New York City, Washington DC, Houston, Lake Charles, and Melbourne.**
2. **Improved response time, more accurate, and better coordinated public alert.**

Acronyms

ARL	Air Resources Laboratory
AVO	Alaska Volcano Observatory
CWSU	Center Weather Service Unit
DHS	Department of Homeland Security
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FXC	Forecaster X-window Collaboration
GTAS	Geo-Targeted Alerting System
NASA	National Aeronautics and Space Administration
NCAR	National Center of Atmospheric Research
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
ORR	Office of Response and Restoration
RSS	Really Simple Syndication
TMU	Traffic Management Unit
UAF	University of Alaska Fairbanks
USGS	United States Geological Survey
VAAC	Volcanic Ash Advisory Center
VACT	Volcanic Ash Coordination Tool
WIDA	Weather Information Decision Aid
WFO	Weather Forecast Office