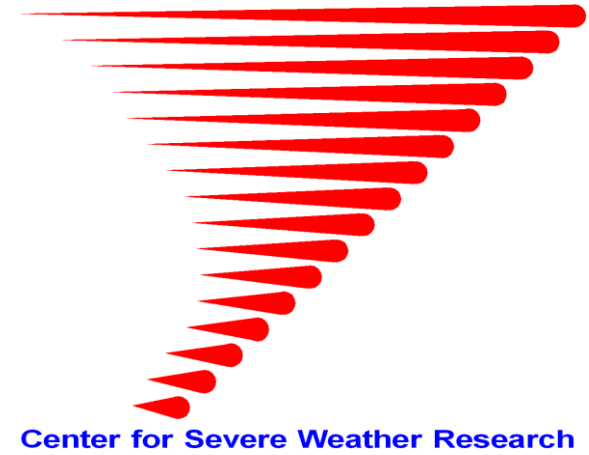




OWLeS

DOW Facility



Data Collection Summary



OWLeS DOW Project Overview

- **22 IOPs**
- **450** hours radar operations
(DOW6: 139; DOW7: 192; DOW8: 119)
- **43 Terabytes**
- Raw, Un-QC-ed, Sweeps Available to PIs: 11 April 2014
 - Via CSWR FTP and mail
 - *Truck Sweeps: Elevation Angles and Range-To-First-Gate Uncorrected, ZDR Uncorrected, Calibration files.*
- QC-ed Sweeps Available to PIs: ~1 August 2014
 - *More info later in presentation*

Event Summary (Radar, IOP#, Type of IOP)

Type of Event	DOW8	DOW7	DOW6	Total
LLAP	1, 4, 5, 7, 9, 13, 15, 22	1, 2b, 3, 4, 9, 15, 19, 22	1, 2b, 3, 4, 5, 7, 9, 15	11
Orographic (Site K)	2b, 3	5, 7, 10, 14	22	7 (3)
Upwind		18, 23	23	2
Downwind/S AIL	16	16, 17, 20, 21	6, 20, 21	5
Finger Lakes		12	12	1
TOTAL	11	19	14	

OWLeS DOW Sites



SP = Sodus Pt

FH = Fair Haven

MX = Mexico

K = Site K

OB = Oswego Beach

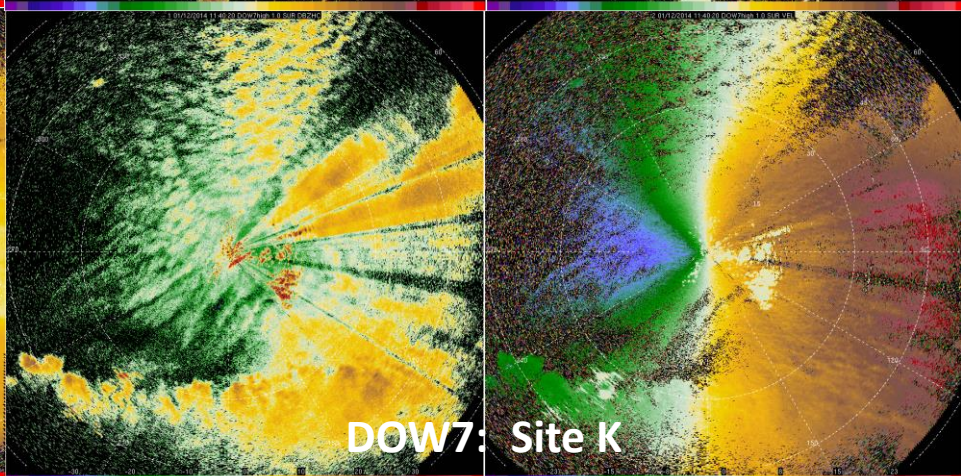
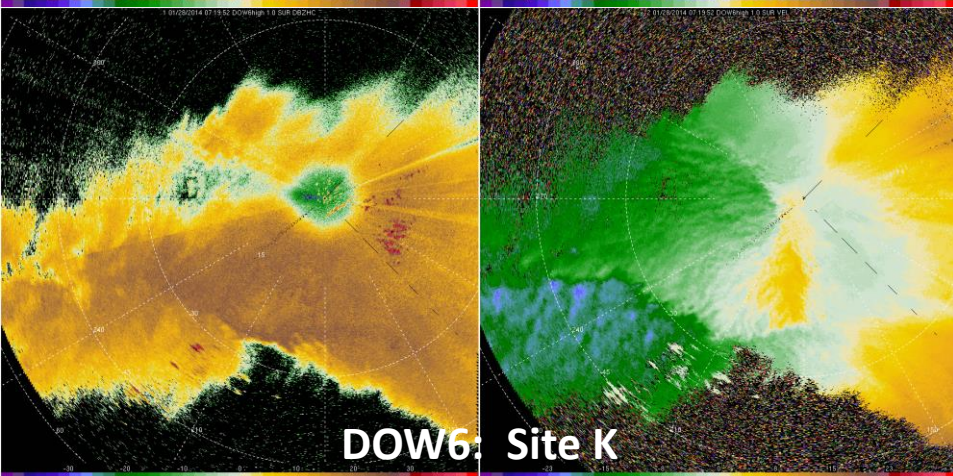
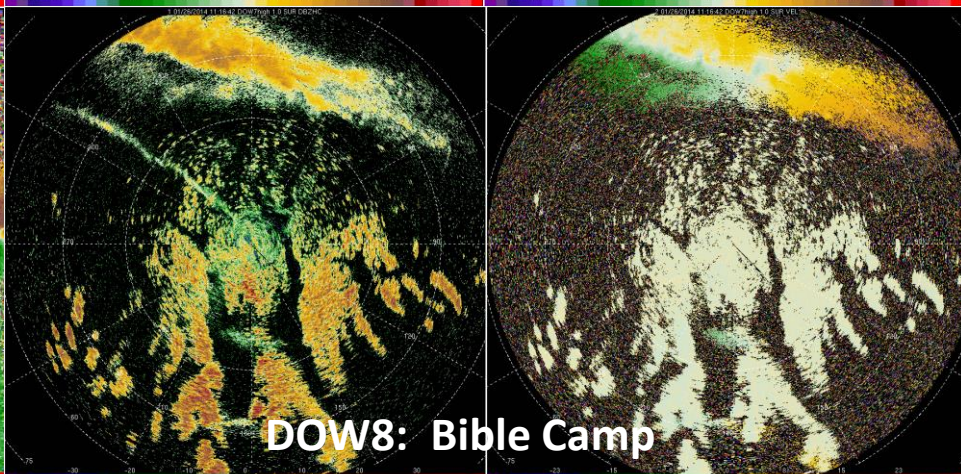
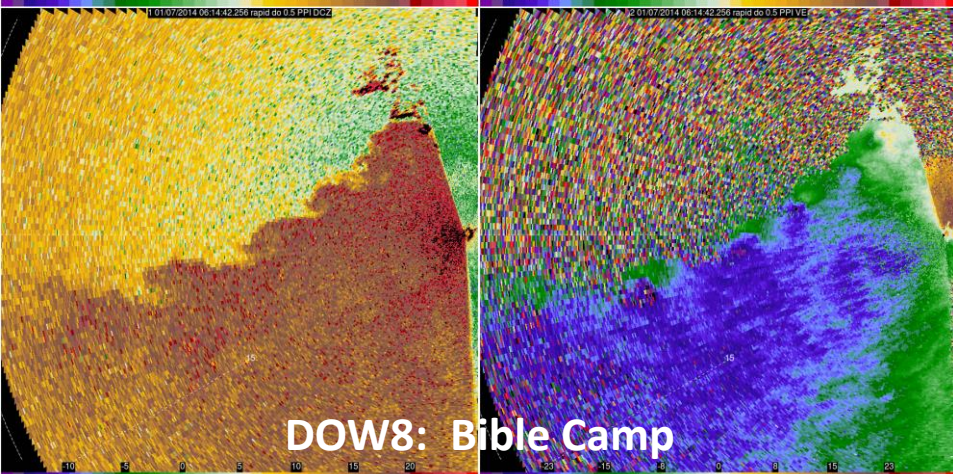
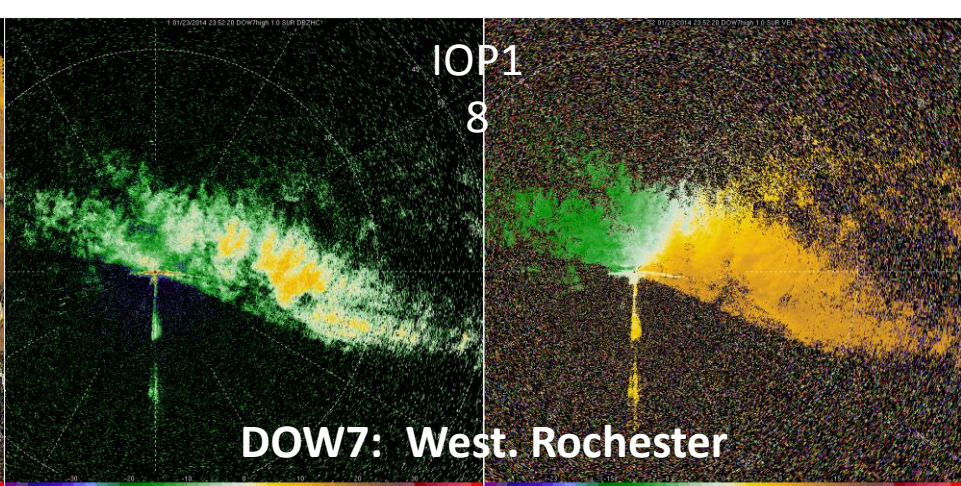
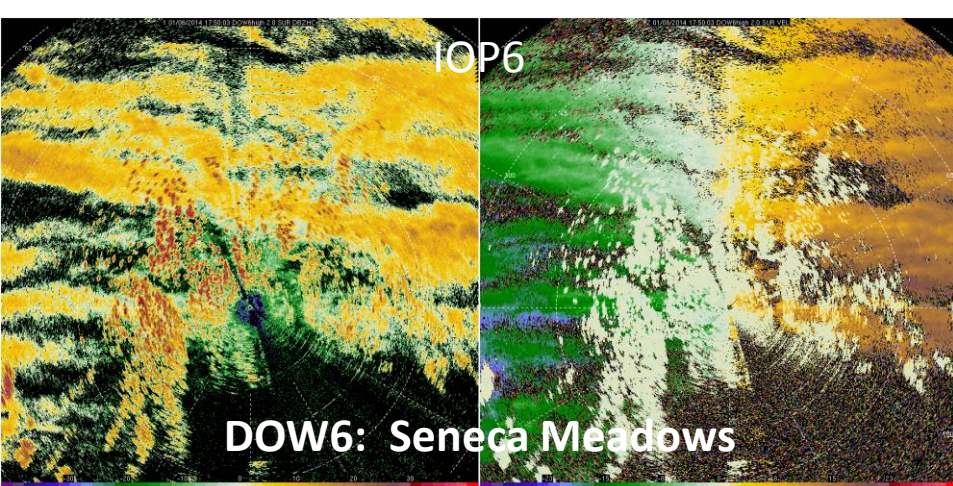
OY = Oswego Yacht Club

BC = Bible Camp

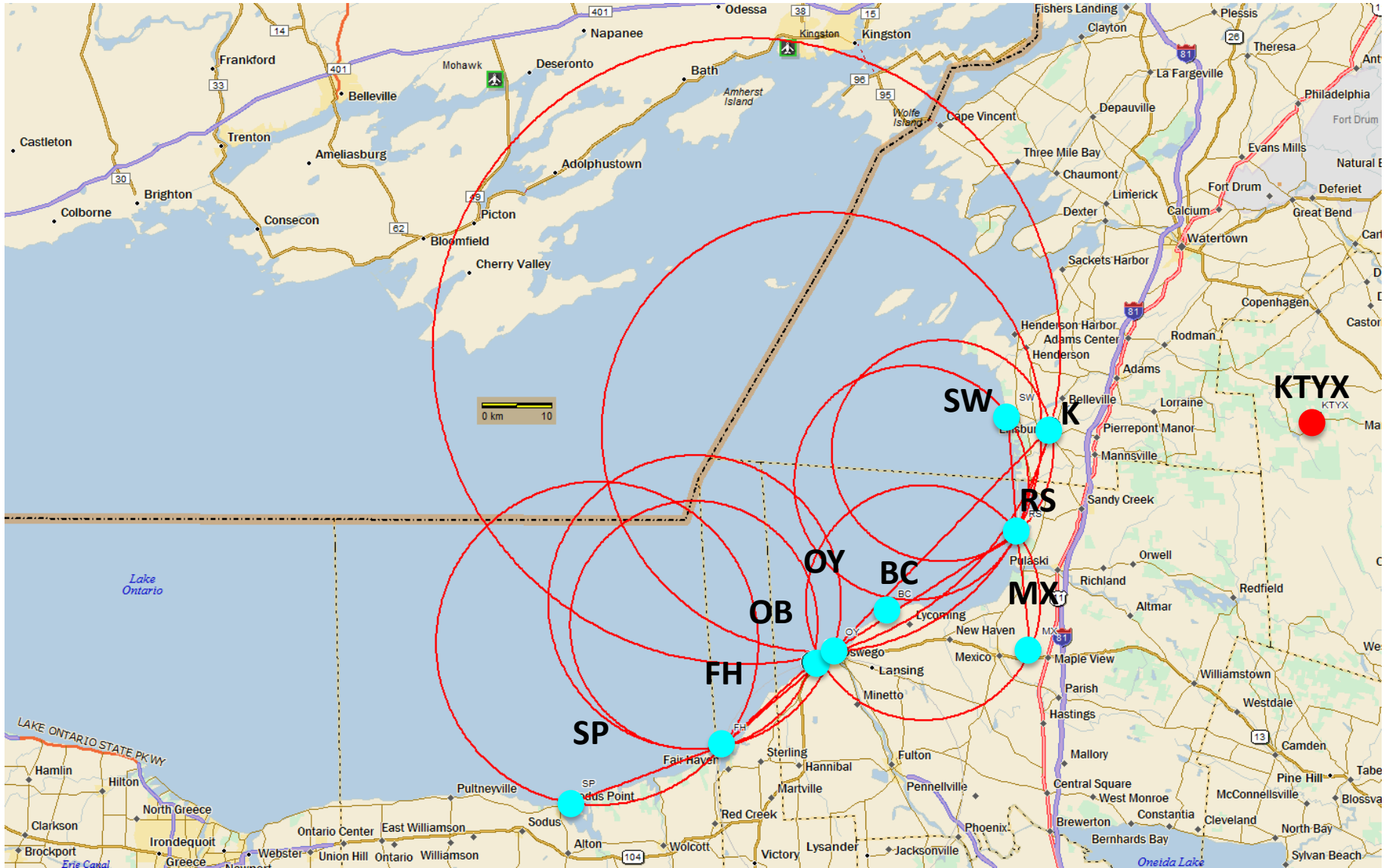
SM = Seneca Meadows

RS = Rainbow Shores

SW = Southwick Beach



OWLeS dual-Doppler



SP = Sodus Pt

OB = Oswego Beach

SM = Seneca Meadows

FH = Fair Haven

OY = Oswego Yacht Club

RS = Rainbow Shores

MX = Mexico

BC = Bible Camp

SW = Southwick Beach

K = Site K

Dual-Doppler Baselines (km)

	SP	FH	SM	OB	OY	BC	MX	RS	SW	K
SP		22.7	39.6	39.3						
FH				17.4	20.6	29.9	45.6	51.2		
SM					65.1					
OB						12.6	30.8	34.0	44.1	47.0
OY						9.3	27.9	30.8		43.8
BC							20.9			34.7
MX								16.5		
RS									16.4	15.5
SW										
K										

SP = Sodus Pt

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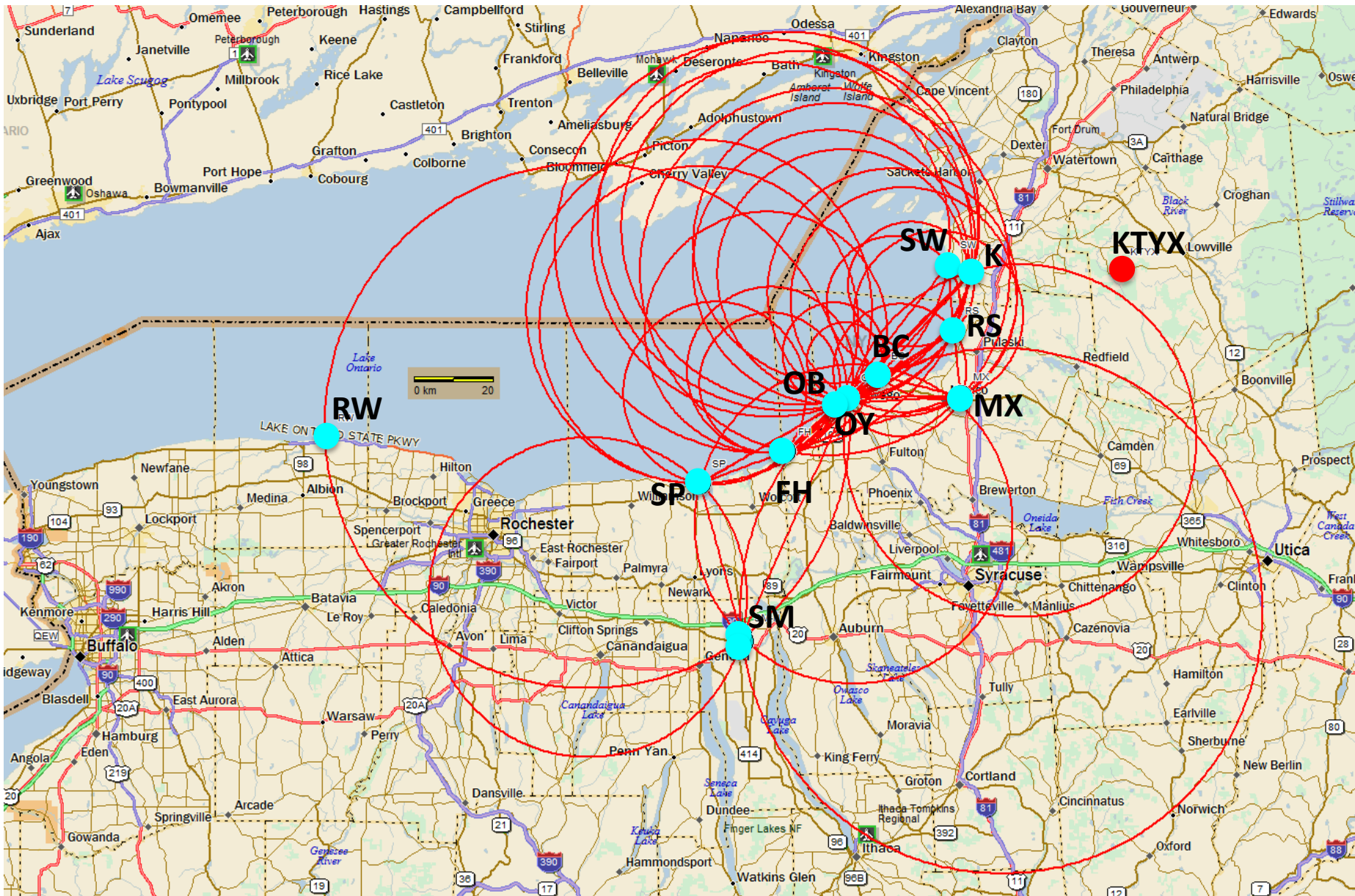
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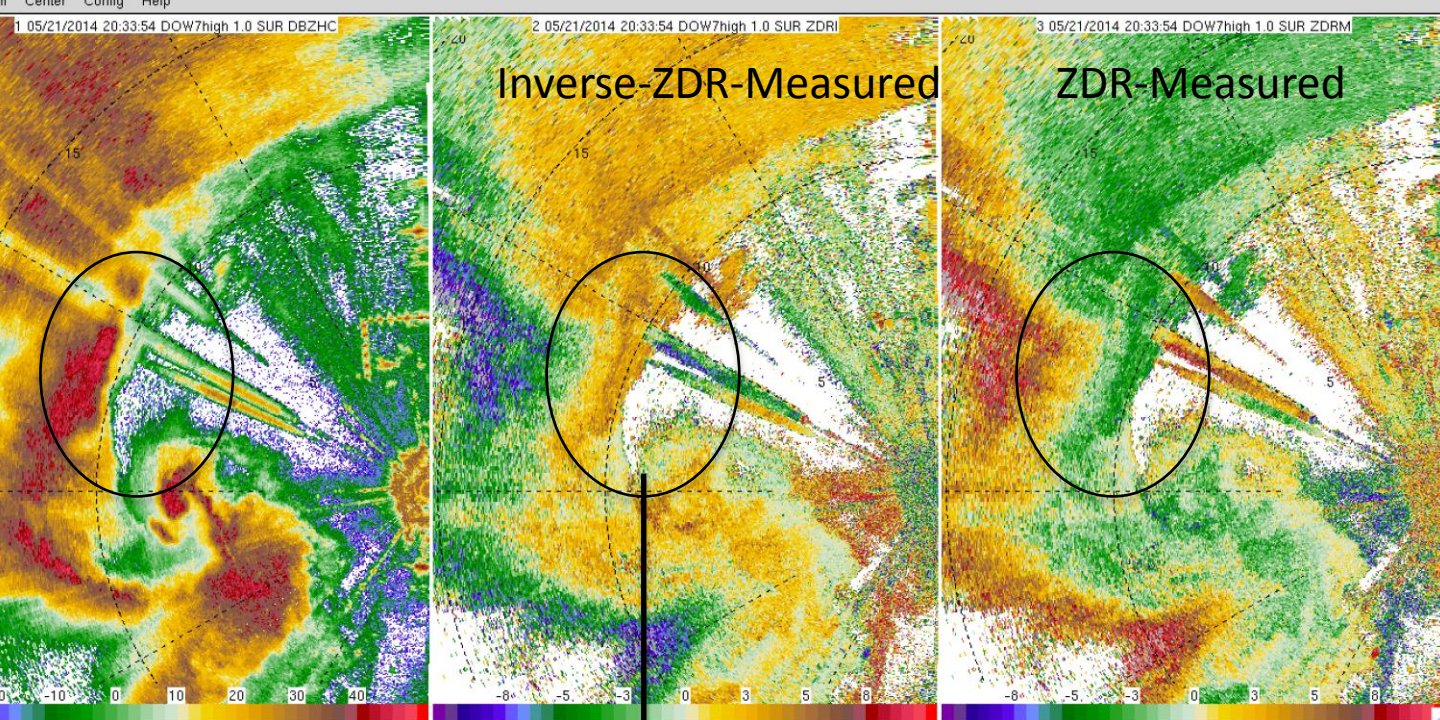
SP = Sodus Pt
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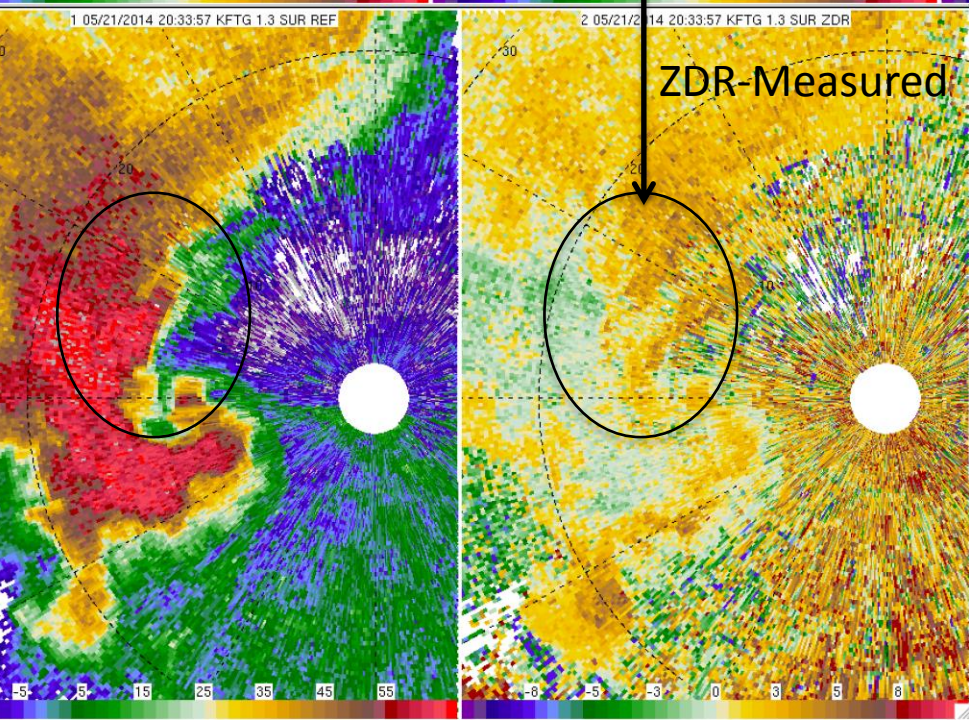
MX = Mexico
BC = Bible Camp
SW = Southwick Beach
K = Site K

Data QC

- Heading
 - Ground Clutter and Solar Alignments
- Latitude/Longitude
- Pitch/Roll
 - Inclinometer data
- Elevation
 - DOW8 and DOW6 labels
 - Slight adjustments for pitch/roll
- Range-to-first-gate correction
- ZDR fine-calibration for DOW6/7 (vertical scans and/or 88D)
 - Calibrations for Z
- Basic radar file compatibilities
 - QC-ed files need to be compatible with 32- and 64-bit systems (solo builds)
 - Soloi versus Solo3



DOW7.

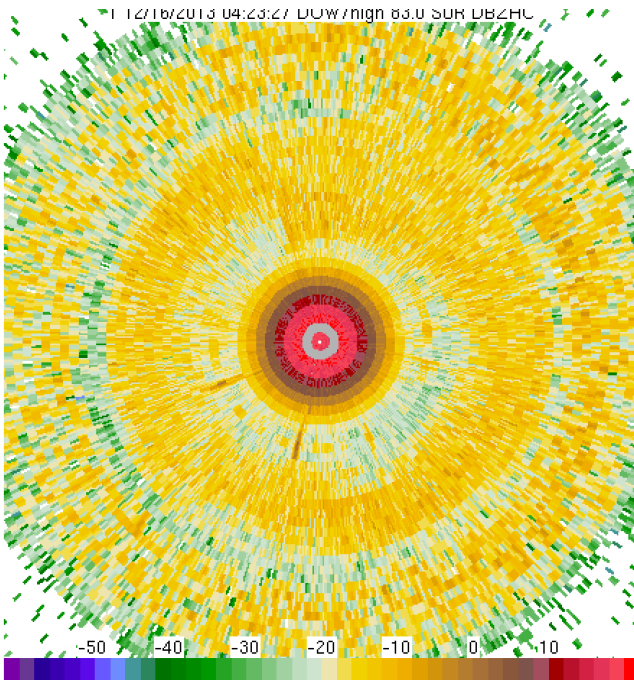


88D.

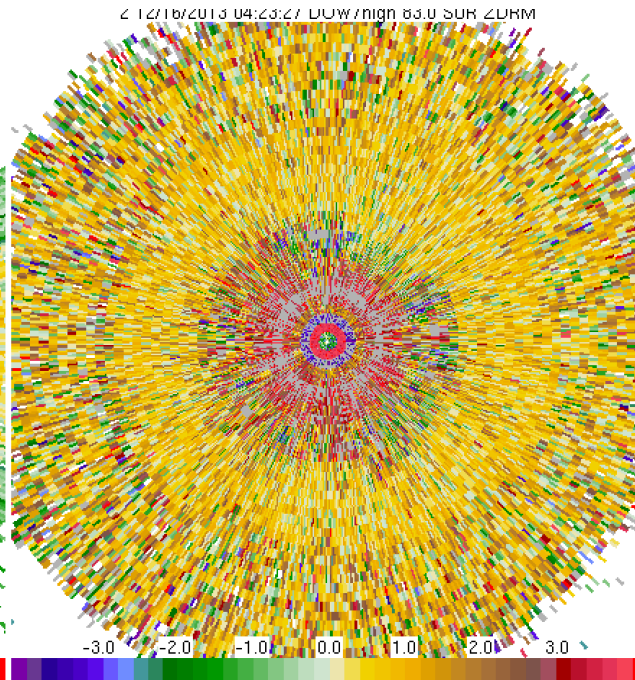
**H and V channels reversed
(DOW-88D comparison 21 May 2014).**

Example DOW7 Vertical Scan (precip overhead)

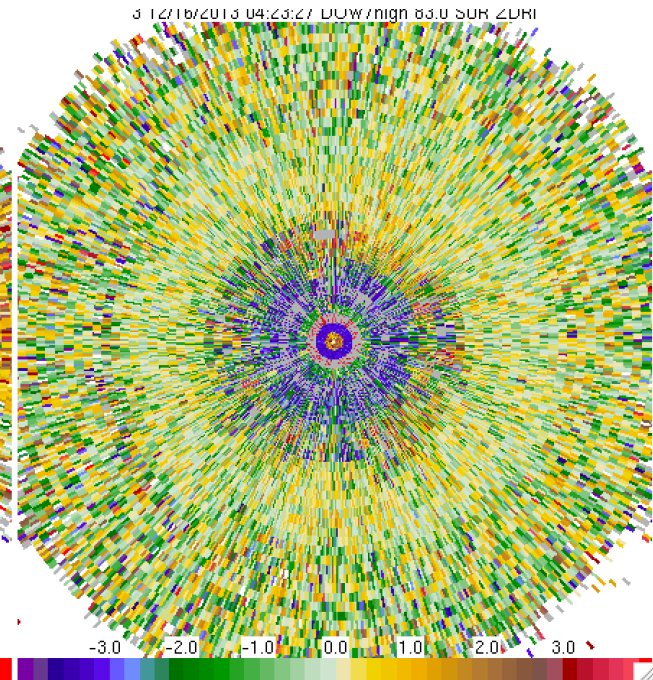
Reflectivity



ZDR

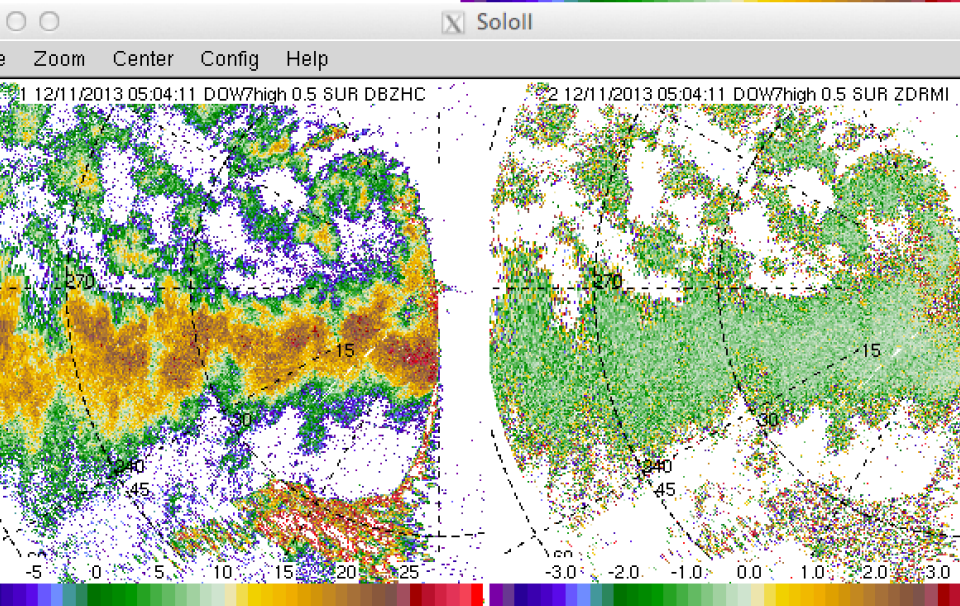
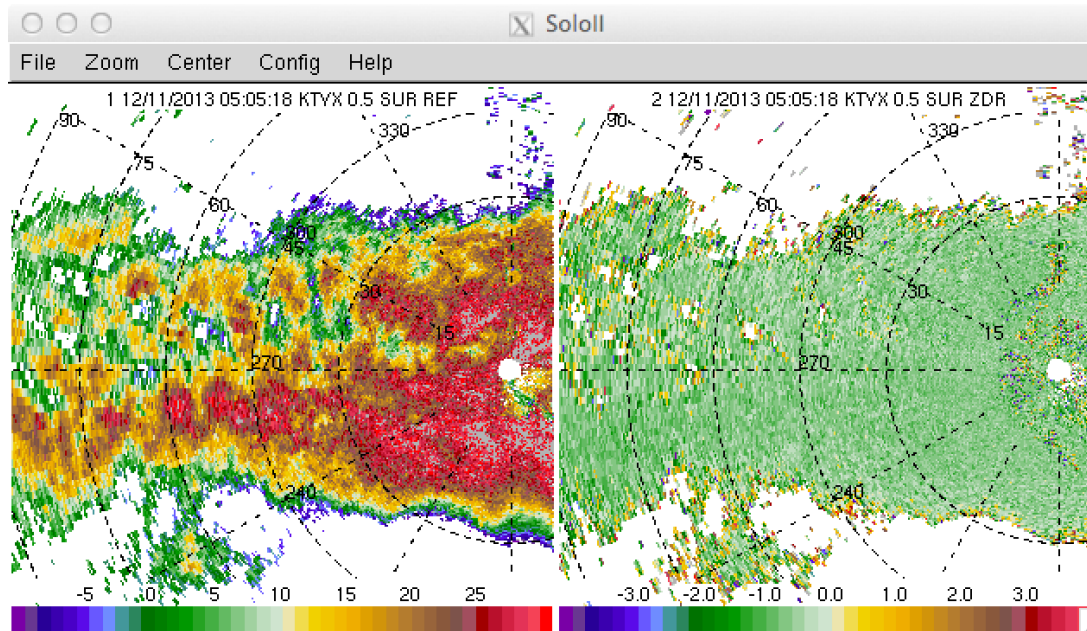


ZDR - Zeroed

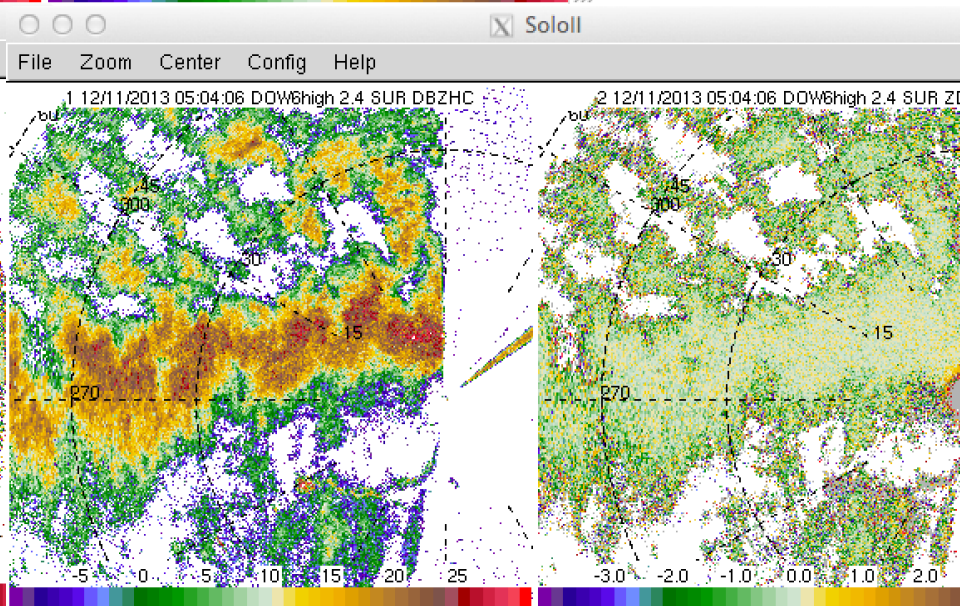


Note: Not always precip or precip overhead during an IOP

WSR-88D – DOW6 – DOW7 Comparisons



DOW7.



DOW6

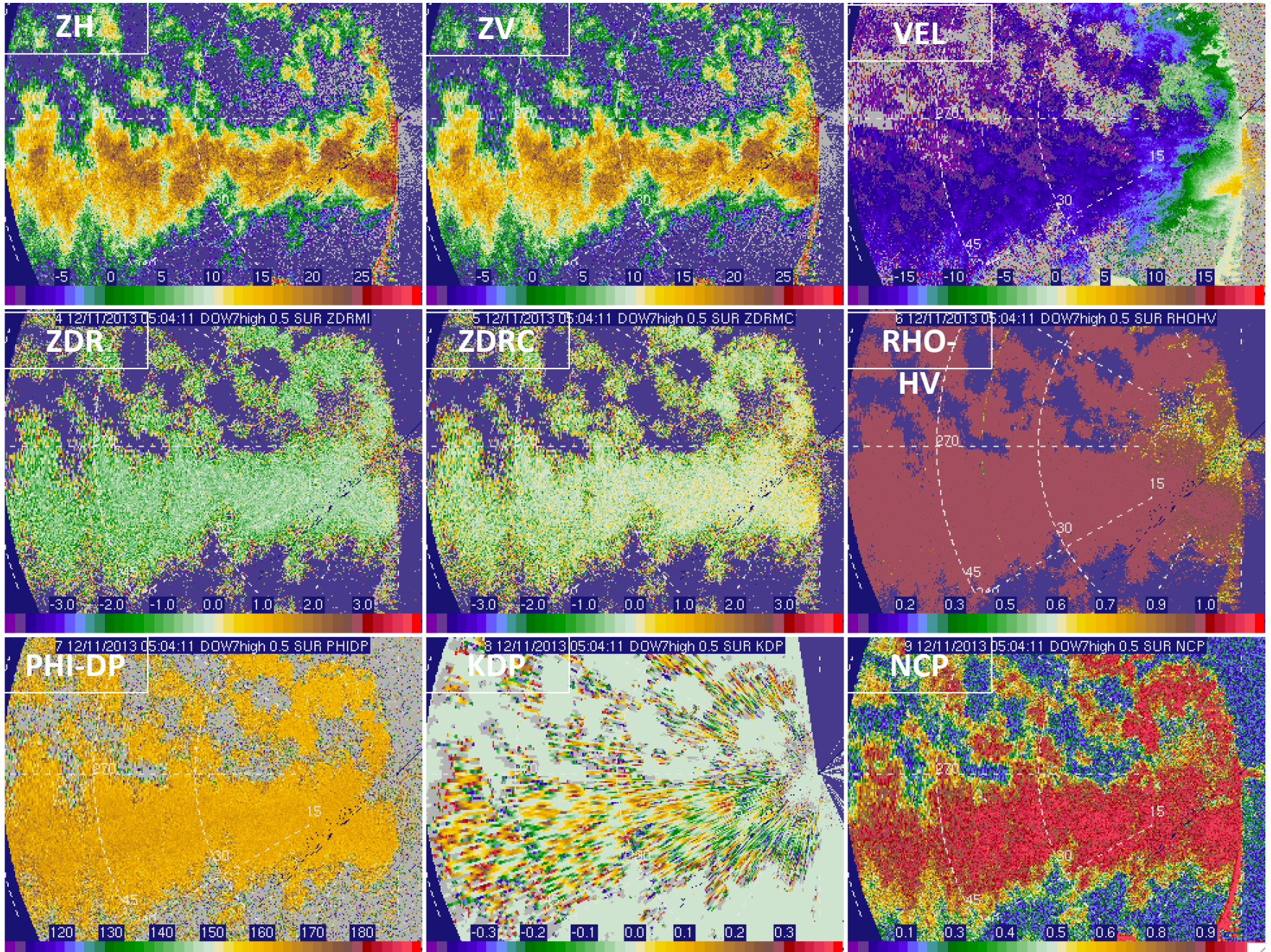
Data QC

- Heading
 - Ground Clutter and Solar Alignments
- Latitude/Longitude
- Pitch/Roll
 - Inclinometer data
- Elevation
 - DOW8 and DOW6 labels
 - Slight adjustments for pitch/roll
- Range-to-first-gate correction
- ZDR fine-calibration for DOW6/7 (vertical scans and or 88D)
 - Calibrations for Z
- **Basic radar file compatibilities**
 - QC-ed files need to be compatible with 32- and 64-bit systems (and solo builds)
 - Soloi versus Solo3

DOW6/DOW7 Data

- Data in DORADE format (*translated from TS afterwards*)
 - IQ data available upon request
- NetCDF from RadX
- Dual-pol, dual-frequency radars:
 - Each radar has 2 frequencies
 - Each frequency has an H and a V channel
- For **each** frequency (15 products):
 - DBM-H, DBM-V, DBZ-V, DBZ-H, VEL, VS, VL, SNR-H, SNR-V, SW
 - ZDR, ZDRC, KDP, PHI-DP, RHO-HV
- Using 0.5 degree beam indexing
- Notes:
 - ZDR QC 1 freq/DOW
 - DOW6 TR Tube Response and Calibration

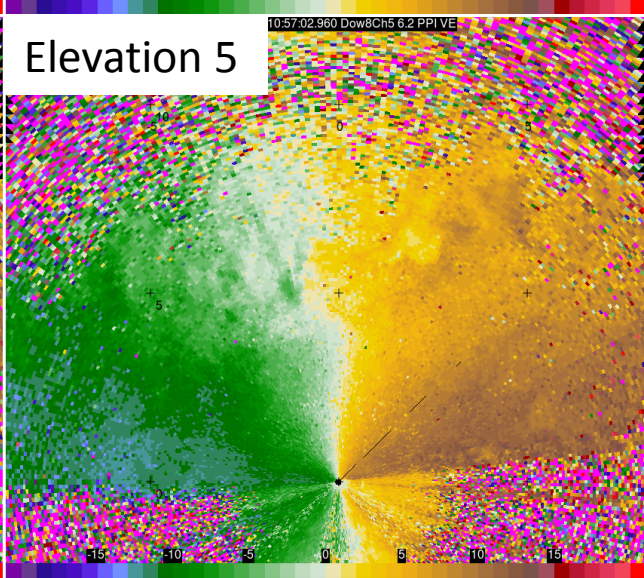
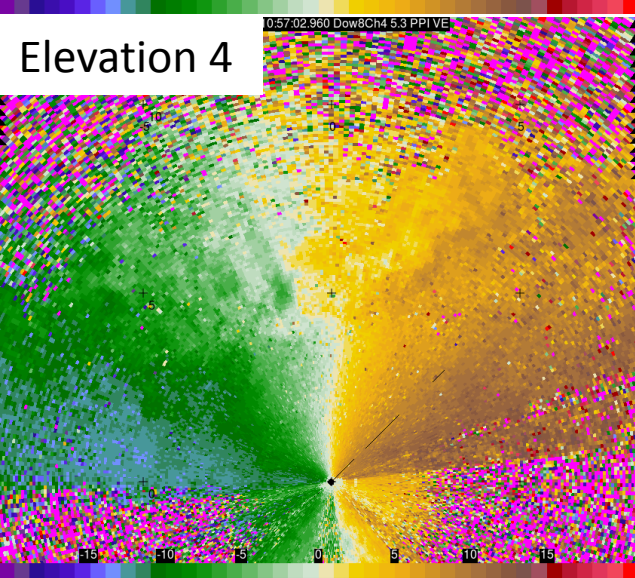
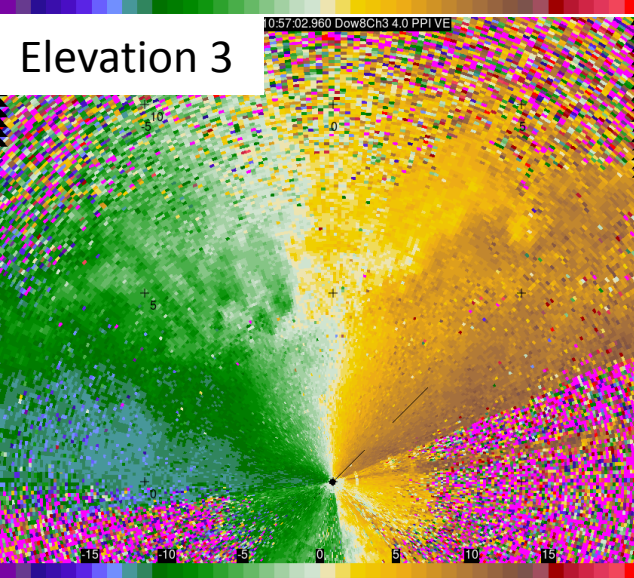
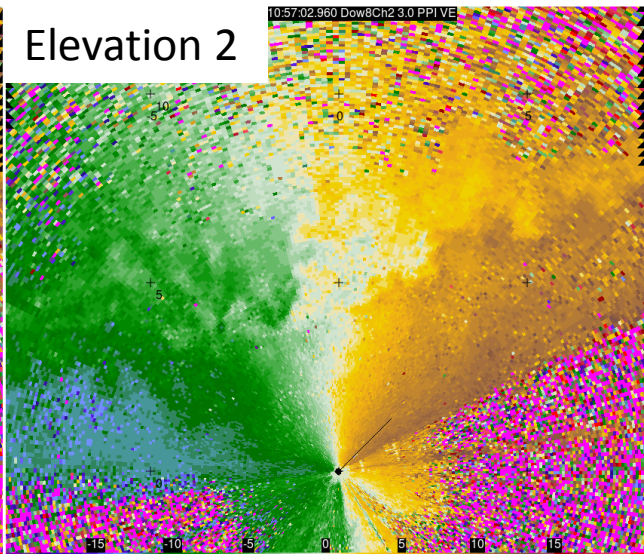
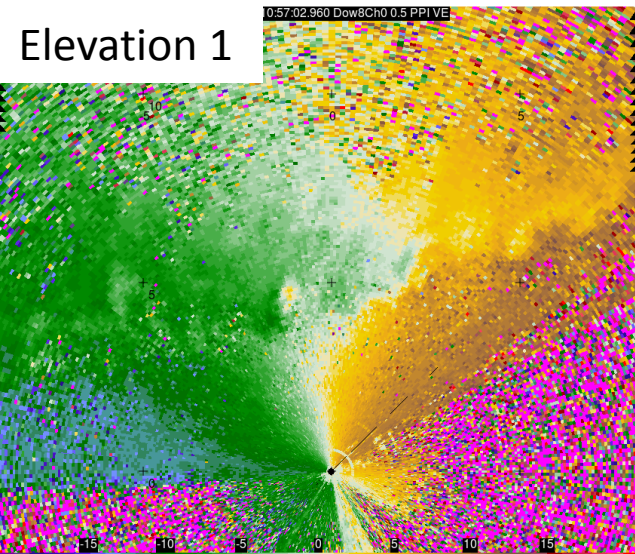
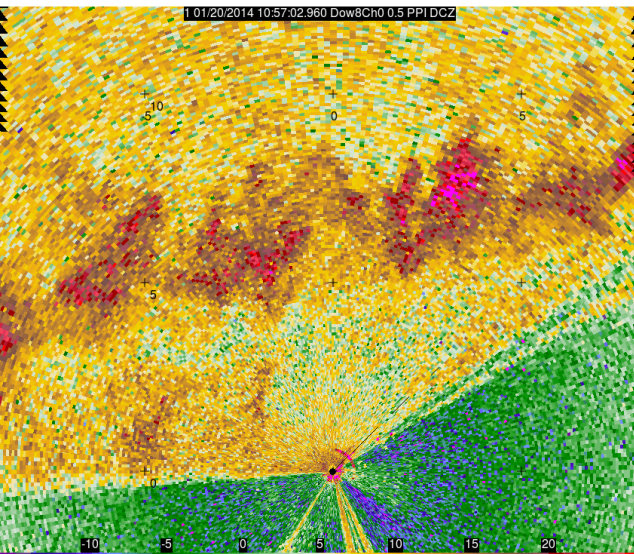
DOW6/DOW7 Products



DOW8 Data

- Rapid-Scan
 - 5 channels (at 5 different elevations)
- Data in DORADE format
- Product List
 - P, Z, VEL, NCP, SW

DOW8 Data



Elevation 1

Elevation 2

Elevation 3

Elevation 4

Elevation 5

Mesonet and Pod Data

Pods

Mesonet

IOP Number

1, 2, 3, 4, 5, 14

1, 2, 3, 4, 5, 8, 14, 15



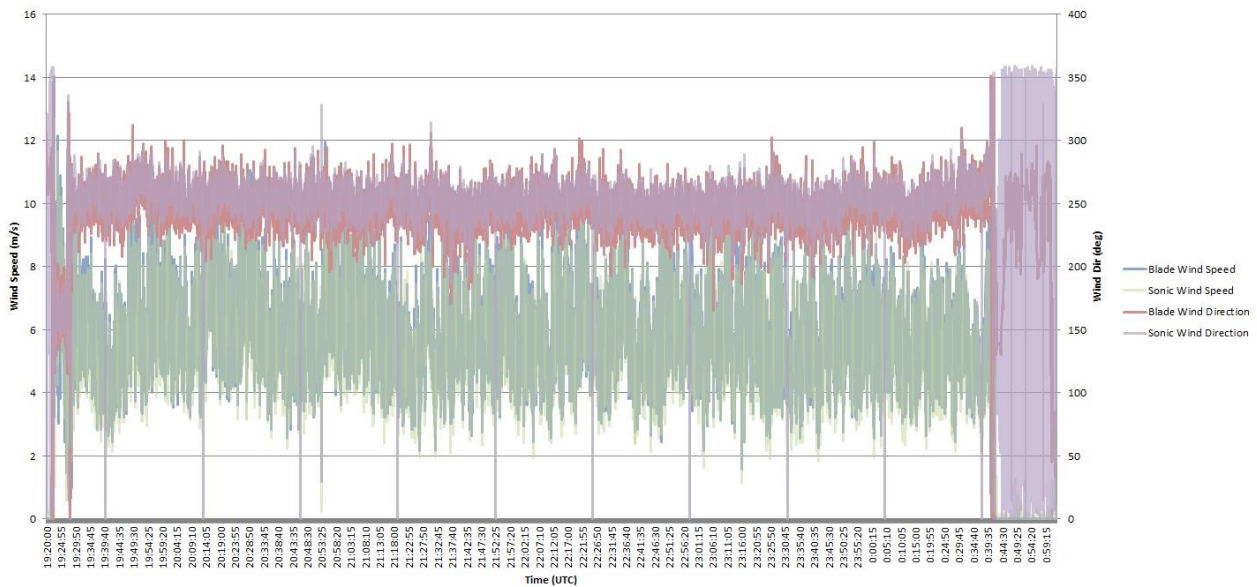
DOW6 and DOW7 have weather data (T/RH and Wind) from the instruments on the mast



Temperature and Relative Humidity
IOP#1 20131207
Pod C 43.41486, -76.616644



Wind Speed and Direction
IOP#1 20131207
POD C 43.41486, -76.616644



Data Availability and Requests

- Quality-controlled DOW data and associated metadata and documentation will be released within no more than six months after the conclusion of a field campaign, unless otherwise indicated (EOL data policy).
 - **Target Date: 1 August 2014**
- Data will available via FTP from cswrdata.org and by mail.
 - **Target Date: 1 August 2014** data set will also go to NCAR field catalog
- Different beam indexing, clutter filtering, etc. will be serviced by request.