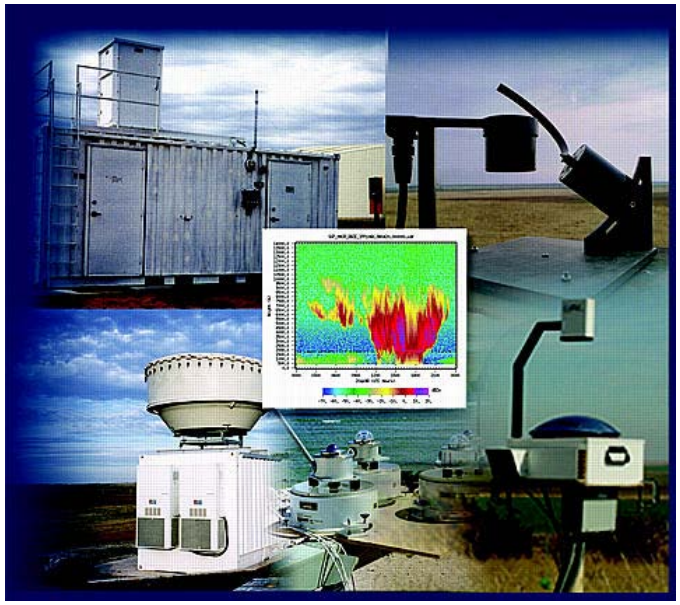
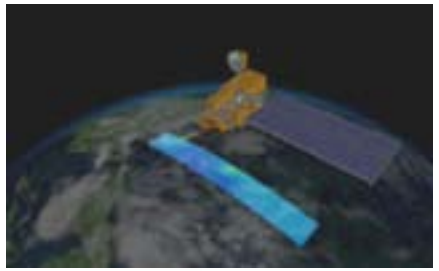
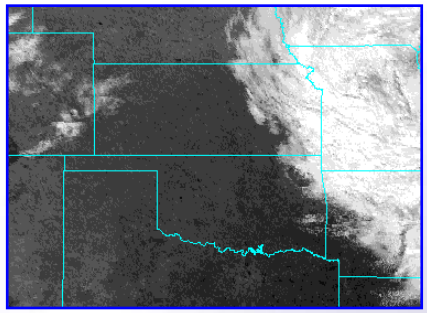
Update on Data Support for FASTER

M. Jensen, T. Toto, A. Vogelmann, R. Wagener







Atmospheric Systems Research Science Team Meeting
FASTER Breakout Session
March 15, 2010

Outline

I. CMBE-like Data Product(s)

II. Aerosol Data Sources

III. Data Request Triage

IV. Data Distribution

V. Emerging Datasets – Cloud Fraction

I. CMBE-like Data Product(s)

(mean, standard deviation, skewness and kurtosis)

Radiation

Sfc SW/LW fluxes

SW/LW flux (z)

SW/LW Radiative HR(z)

TOA SW albedo/LW fluxes

Clear sky SW/LW HR(z)

Cloud

LWP

Cloud fraction

L/IWC (z)

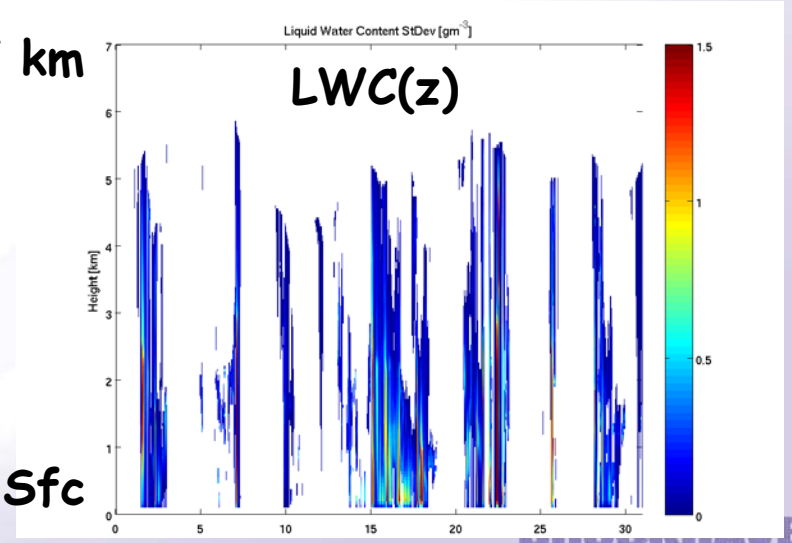
Re (I/L)

Meteorology

Precipitation Rate

Surface fluxes, Soil mois./temp.

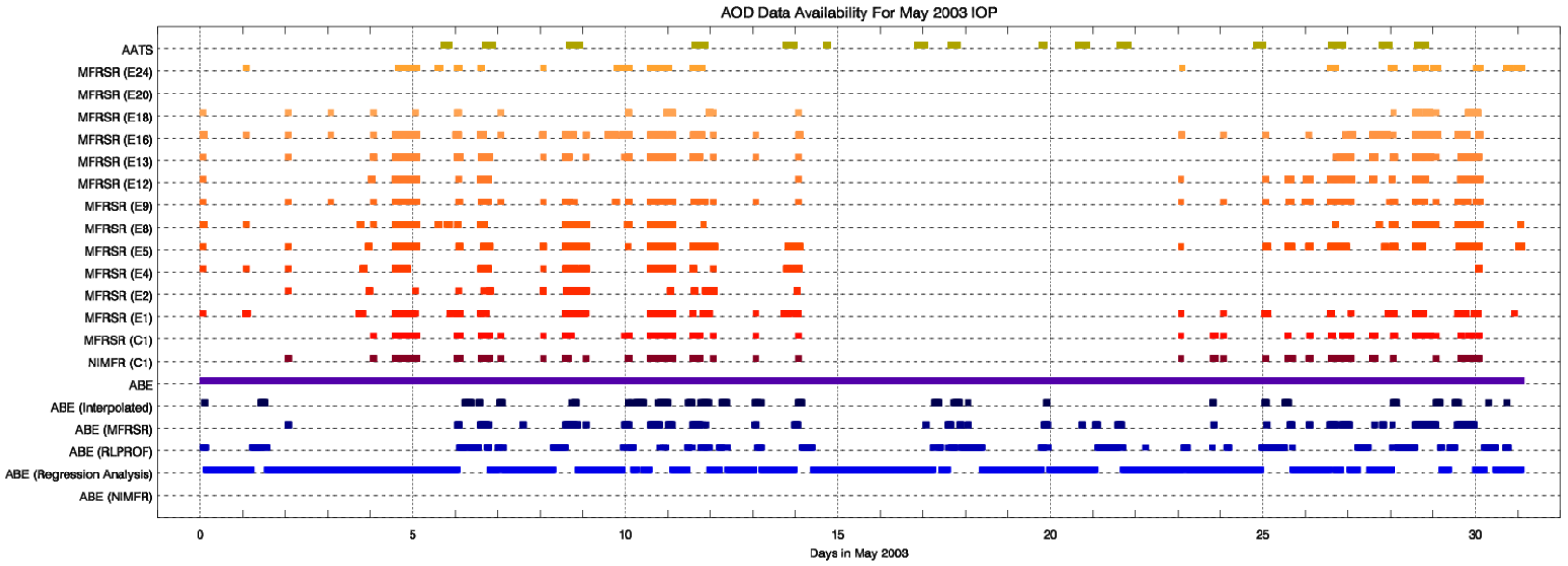
Atmospheric State (T,p, RH,u,v)



II. Aerosol Data Sources

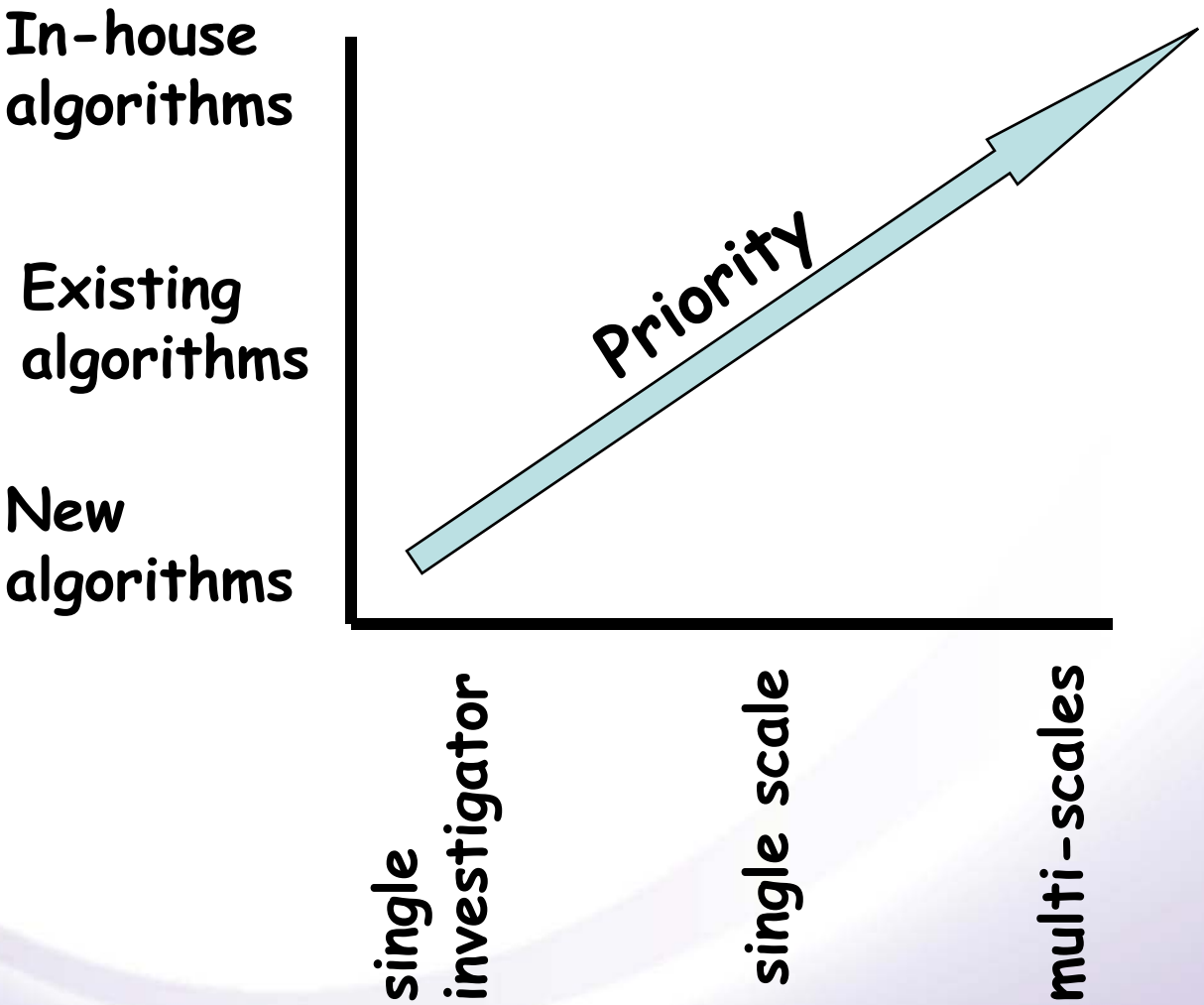
Thanks for input from S. Menon and G.de Boer

- Identified availability of aerosol related datasets important for large-scale modelling studies (March '00 and May '03)



- Next step is to begin formulating appropriate datasets

III. Data Request Triage



IV. Data Availability

Long-term – FASTER Web interface

Short-term – via FTP

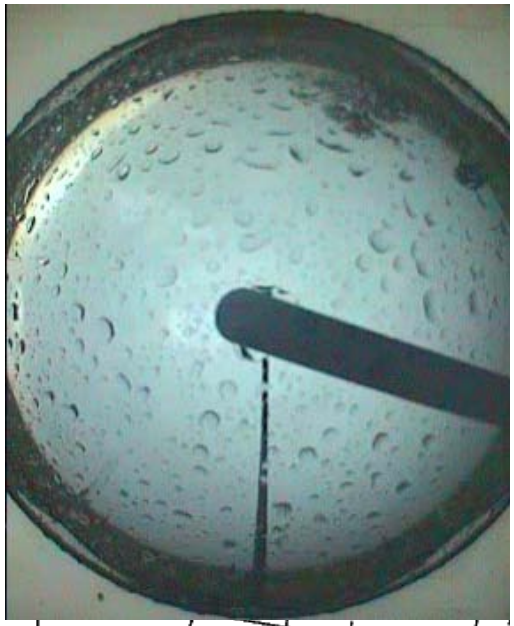
[contact mjensen@bnl.gov OR ttoto@bnl.gov]

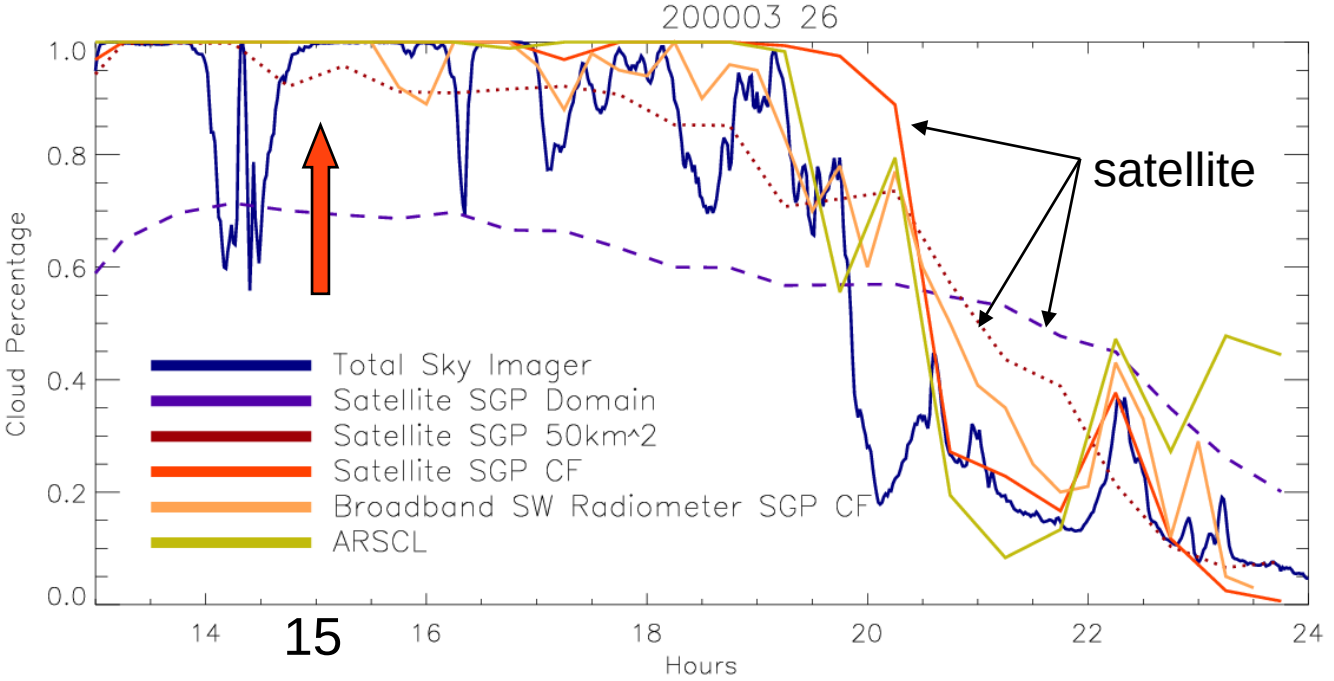
- Will include FASTER data products
- Assortment of existing ACRF and other datastreams
- Model output

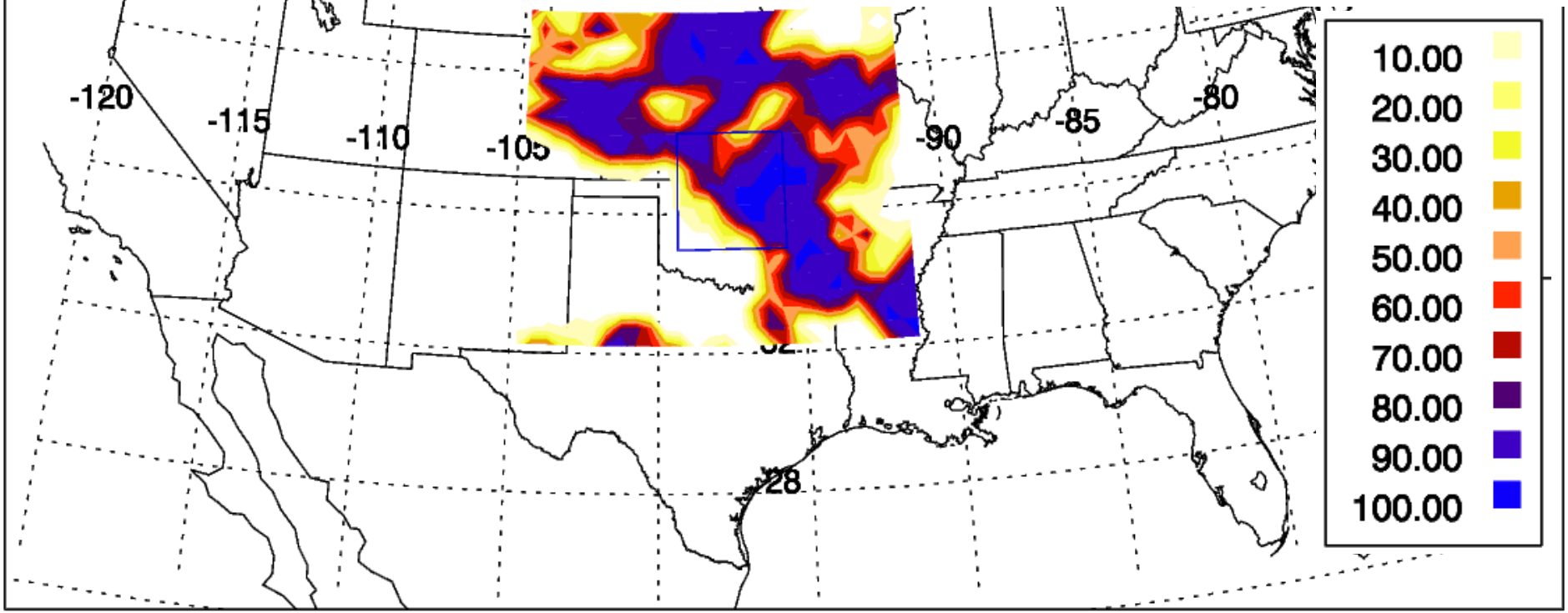
V. Emerging Datasets – Cloud Fraction

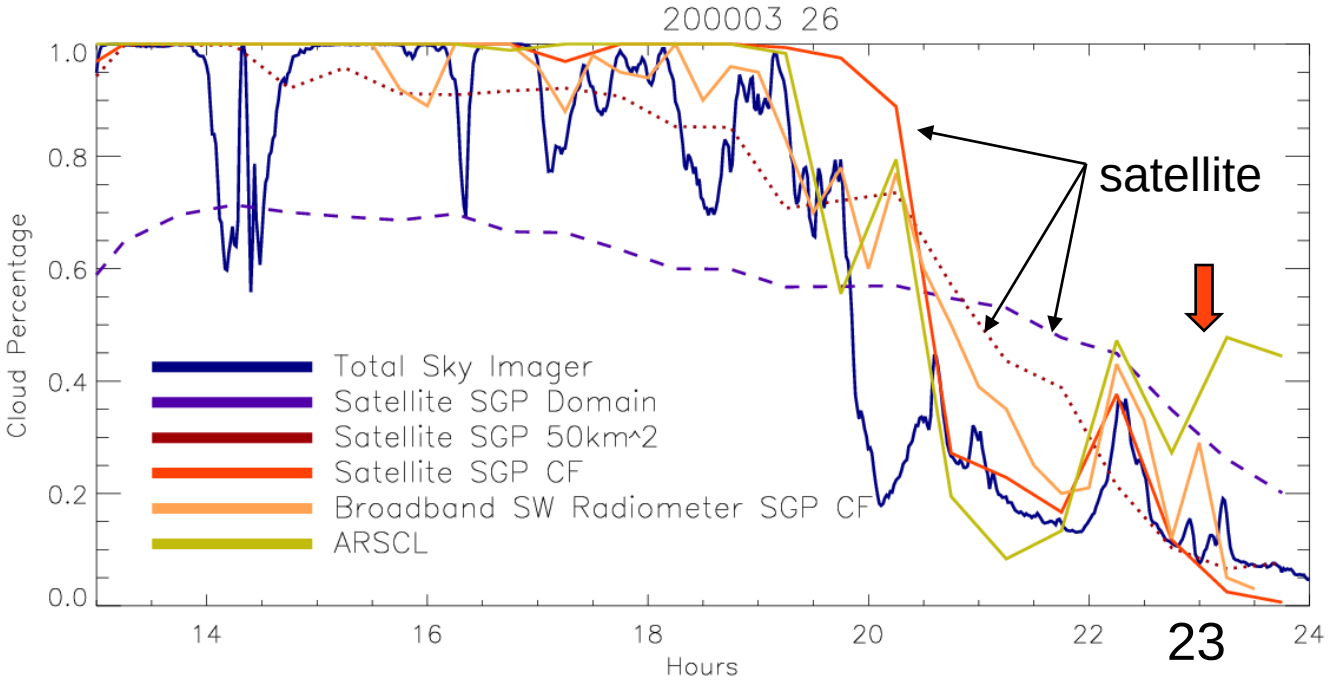
March 2000 Cloud IOP

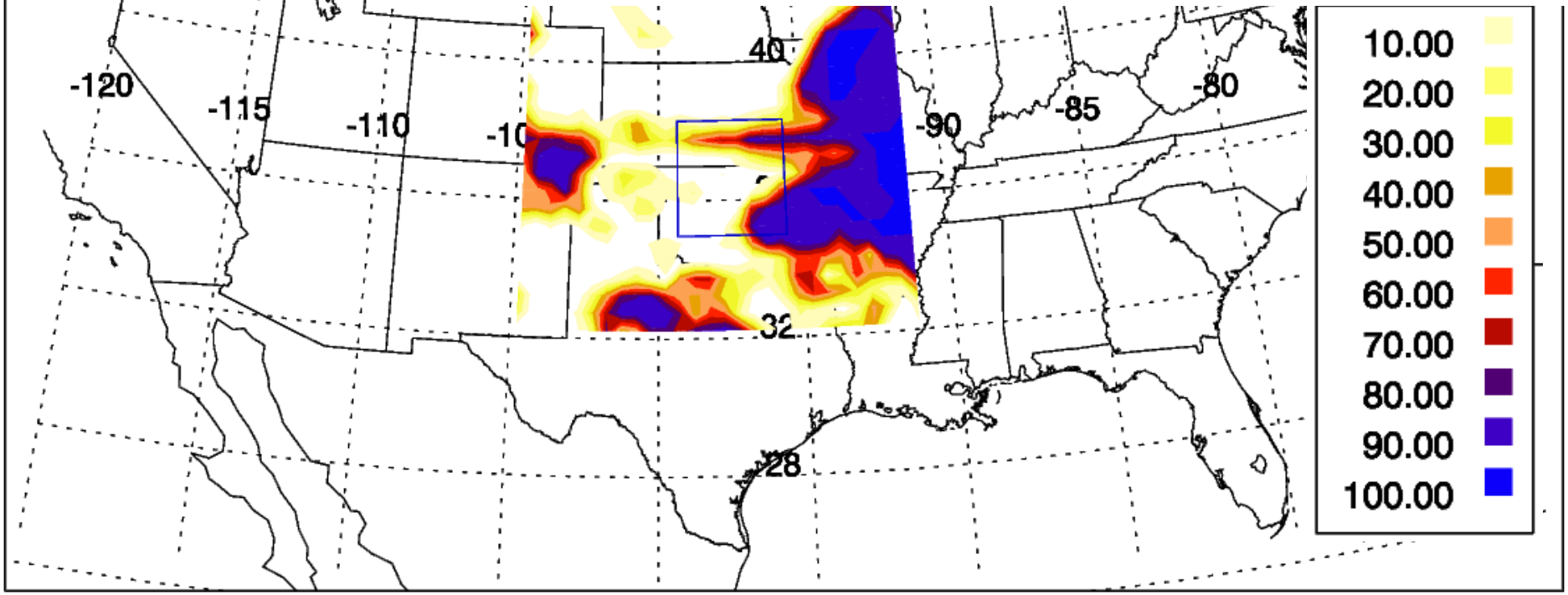
ARSCL
Total Sky Imager
Satellite (SGP Domain, 50 km2, CF)
Broadband SW Radiometer




200003 26
Cloud Percentage
1.0
0.8
0.6
0.4
0.2
0.0
14
15
16
18
20
22
24
Hours
satellite
Total Sky Imager
Satellite SGP Domain
Satellite SGP 50km^2
Satellite SGP CF
Broadband SW Radiometer SGP CF
ARSCL


-120
-115
-110
-105
-90
-85
-80
28
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00


200003 26
Cloud Percentage
1.0
0.8
0.6
0.4
0.2
0.0
14
16
18
20
22
23
24
Hours
satellite
Total Sky Imager
Satellite SGP Domain
Satellite SGP 50km^2
Satellite SGP CF
Broadband SW Radiometer SGP CF
ARSCL


-120
-115
-110
-10
40
-90
-85
-80
32
28
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00

Questions?

Suggestions?

Mike Jensen
mjensen@bnl.gov
(631)344-7021