

Iowa Environmental Mesonet: Supporting the real-time and research needs of the national severe weather community



Daryl Herzmann

What are you interested in?

	Real-time	Archived
Level 2 NEXRAD	134 sites ONDAS compliant	NCDC 30 day TAMU
NWS Warnings	Maps & full text GIS Shapefiles	Same apps have archive function > 1 Jun 2003
Local Storm Reports (LSR)	Maps GIS Shapefiles	Same apps have archive function > 1 Jan 2003
Bufkit Soundings	NWS websites	Iowa+ > 1 Jan 2006 NAM,GFS,RUC
Model data	Lots of places	GEMPAK Archive
Surface data	Yeah, IEM ☺	Boatloads > 1945
Satellite	GIS rasters	NOAA CLASS
Sounding data	Lots of places	GEMPAK > 1950s

All done, have a nice day!

Oh, I have more time?

Composite Product:

A2. United States

(Archive Begins @)

A1. 1 May 2003

A2. 3 Nov 2004

A3. 3 Nov 2004

A4. 21 Sep 2005

Display Tool:

List Images

Mode:

Archived

Frames:

1

Frame Interval:

5 min (DEFAULT)

Date:

2007 Mar 1

Time:

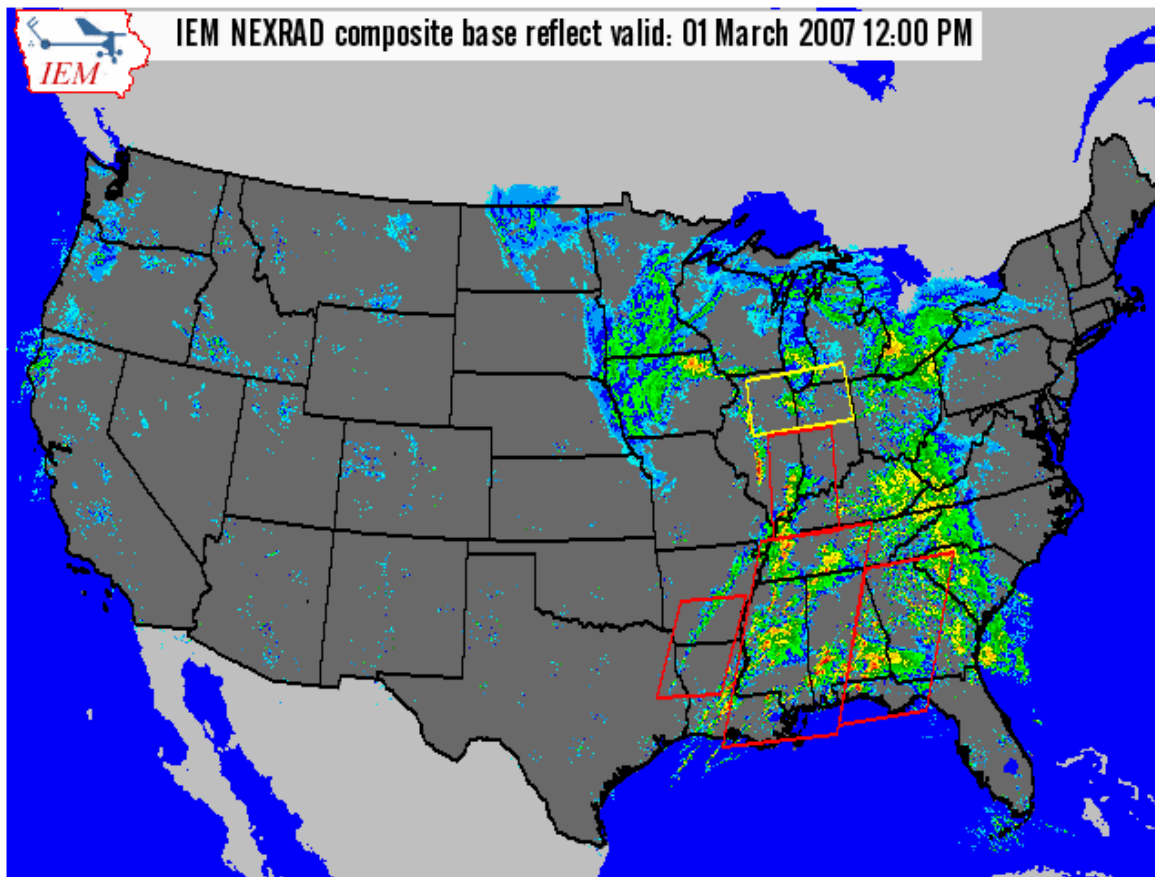
12 PM 00

Generate Loop

Related Links:

[Interactive RADAR](#)

[Warning Verification](#)

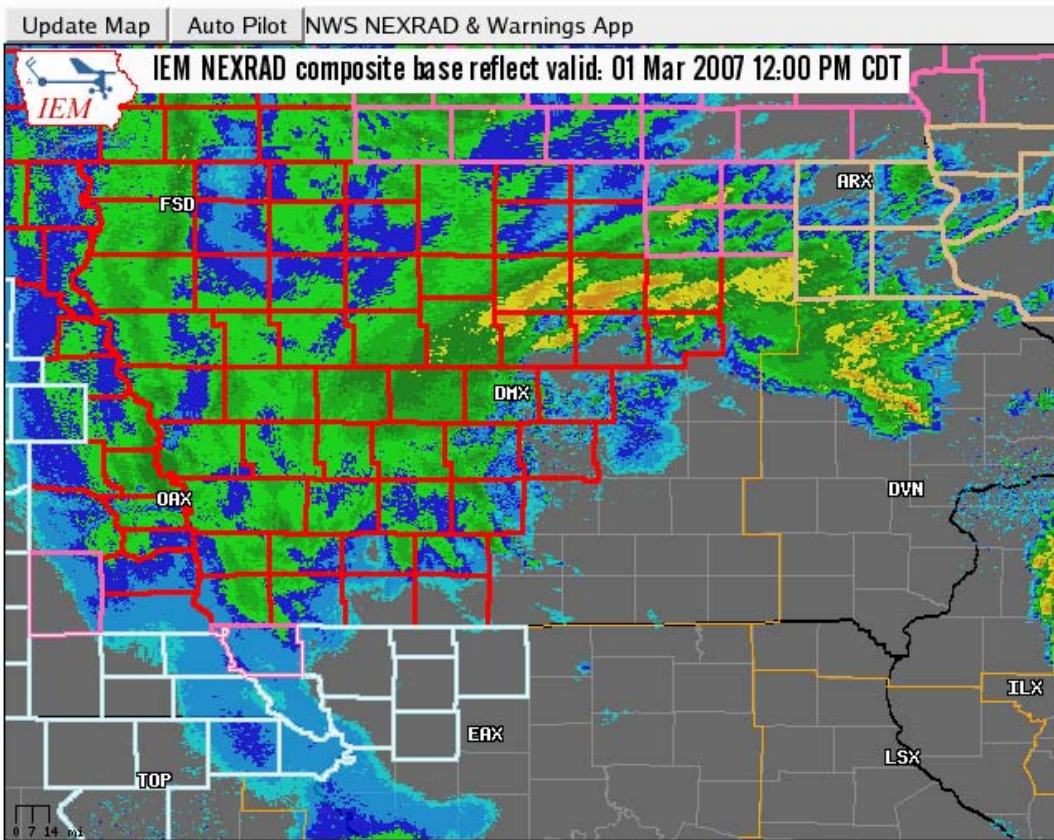


GIS NEXRAD layers

The NEXRAD layer used in these images are available in a georeferenced RASTER format. You will need this [this world file](#) to correctly georeference them. The projection of these images is geographic NAD83 (*unprojected*). You will need to rename the world file to match the filename of the RADAR layer before loading into your GIS.

- http://mesonet.agron.iastate.edu/archive/data/2007/03/01/GIS/uscomp/n0r_200703011800.png

Layers Locations
 Time Options
 NWS Office:
 [DMX] DES MOINES
 Selecting a different office will move the display to that office.



Warnings Valid at: 01 Mar 2007 12:00 PM CDT

WI	Winter Weather Advisory (View Text) expires 12:46 PM by MKX (\$\$) Dodge, Ozaukee, Jefferson, Waukesha, Washington, Milwaukee, Sheboygan, Jefferson, Ozaukee, Washington, Dodge, Milwaukee, Waukesha, in WI VTEC# 1 (CAN) Issued: 12:34 PM Updated: 12:46 PM
SD	Blizzard Warning (View Text) expires 07:00 AM by FSD (BT) Kingsbury, Clay, Beadle, Turner, Hutchinson, McCook, Hanson, Davison, Lake, Miner, Sanborn, Jerauld, Douglas, Bon Homme, Yankton, Aurora, Lincoln, Minnehaha, Moody, Brookings, Union, in SD VTEC# 1 (EXP) Issued: 07:00 AM Updated: 07:18 AM

Start: 2006 May 5 0 Z End: 2006 May 5 23 Z

WFO: [SJT] SAN_ANGELO Warning Type: Tornado Svr T'storm

Hail Size: 0.75 LSR Type: Tornado Svr T'storm


Go Cow Go

Begin Date: 05/05/2006 00:00 End Date: 05/05/2006 23:00

Summary:

Observation	Warning Y N		Reports		51
	Y	13 45	5	Listed Warnings:	36
	N	23	NA	Verified: (A _w)	13
			% Verified		36

Warned Events (A _e)	45
Unwarned Events (B)	5
Non TOR LSRs during TOR warning	17



FAR == C / (A_w + C) = 0.64 POD == A_e / (A_e + B) = 0.9 CSI == ((POD)⁻¹ + (1-FAR)⁻¹ - 1)⁻¹ = 0.35

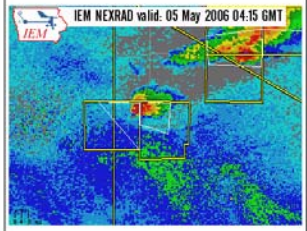
Avg Lead Time for 1st Event	11.7	Avg Lead Time for all Events	15.8	Max Lead Time	38	Min Lead Time	1
-----------------------------	------	------------------------------	------	---------------	----	---------------	---

Warnings Issued & Verifying LSRs:

Isr	Issued:	Expired:	County:		Final Status:	Poly Area:
	Valid	Lead Time:	County	City		
SV	05/05/2006 00:09	05/05/2006 00:45	Concho,TX	McCulloch,TX	NEW	2098 km^2
Isr	05/05/2006 00:17	8 minutes	Mcculloch,TX	Melvin	Hail	1
Isr	05/05/2006 00:32	23 minutes	Concho,TX	1 Nw Doole	Hail	1.75
SV	05/05/2006 00:14	05/05/2006 00:45	McCulloch,TX	Mason,TX San Saba,TX	NEW	3157 km^2
Isr	05/05/2006 00:26	12 minutes	Mcculloch,TX	Voca	Hail	0.75
Isr	05/05/2006 00:32	18 minutes	Mason,TX	2 Ese Mason	Wind Gust	62
Isr	05/05/2006 00:35	21 minutes	Mason,TX	8 N Mason	Hail	1.75
SV	05/05/2006 00:29	05/05/2006 01:15	Tom Green,TX	Sterling,TX	NEW	1413 km^2
Isr	05/05/2006 00:35	6 minutes	Sterling,TX	10 S Sterling City	Hail	2.75
Isr	05/05/2006 00:55	26 minutes	Tom Green,TX	17 Wnw Arden	Hail	4
SV	05/05/2006 00:31	05/05/2006 01:00	Concho,TX	Coleman,TX McCulloch,TX Brown,TX	NEW	1155 km^2
TO	05/05/2006 00:42	05/05/2006 01:15	Mason,TX		NEW	794 km^2

VTEC Summary:

NWS WFO: SAN_ANGELO
Event ID: Previous 191 Next
Phenomena: Severe Thunderstorm
Significance: Warning
Status: Issues
Issued: 2006-05-05 04:12 GMT
Expires: 2006-05-05 04:45 GMT

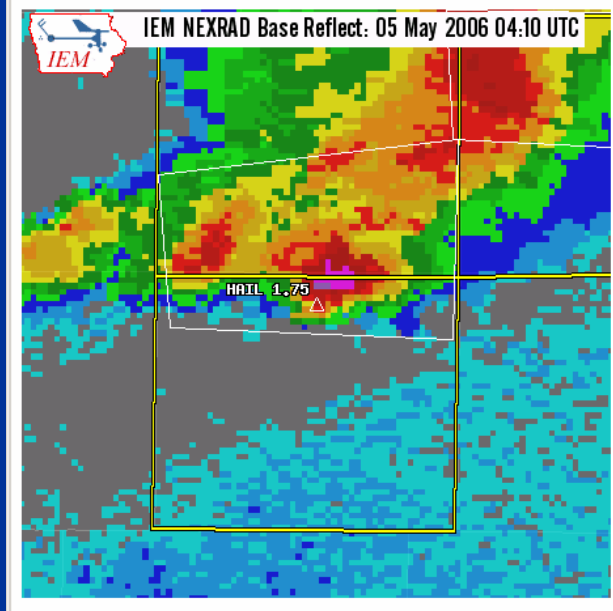


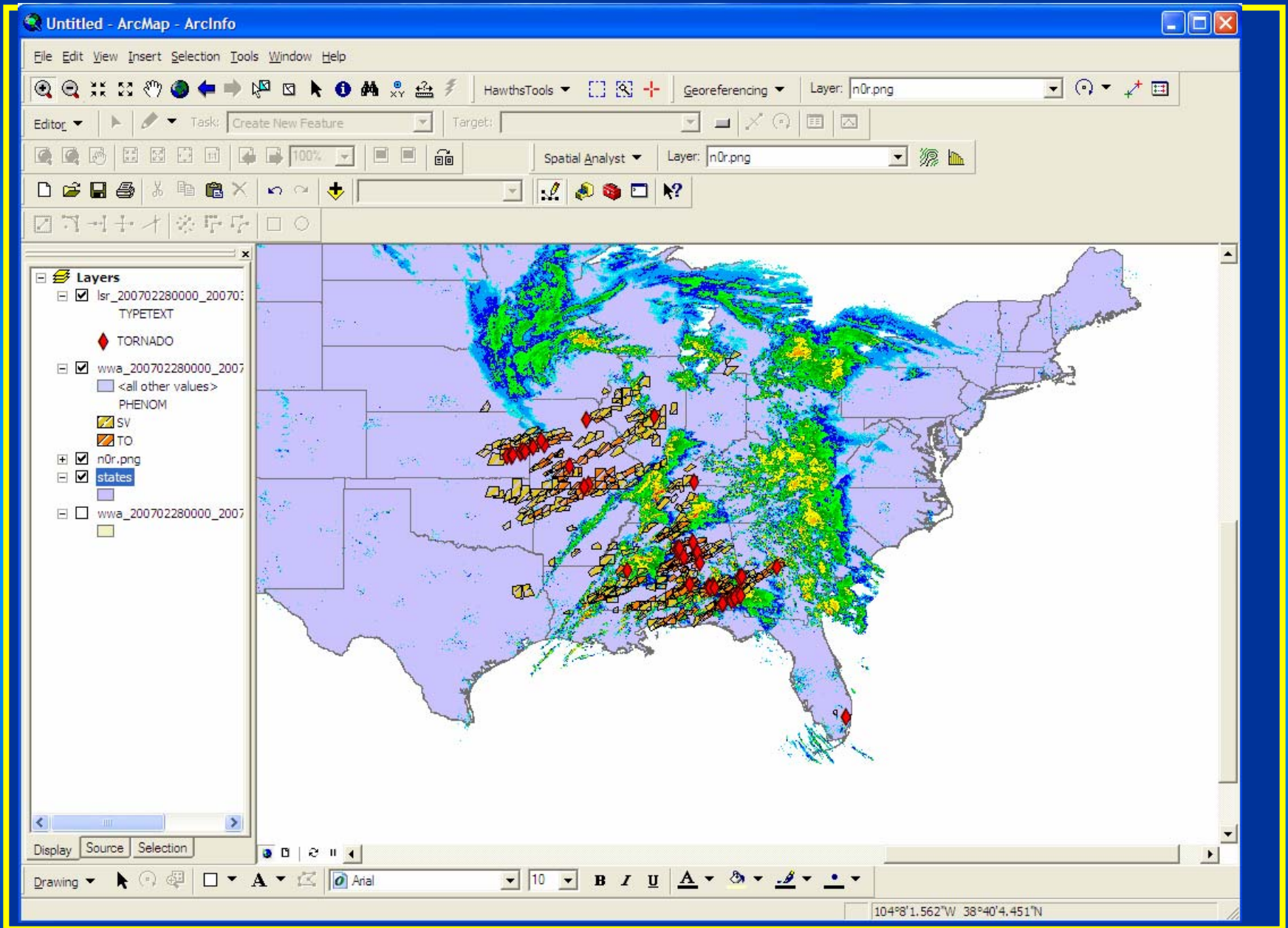
Links:

- Polygon Verification
- Download Shapefile of Warnings
- Interactive RADAR Display

Text Product:

317
WU854 RSJT 050412
WU854
TSC431-050445-
/O.NEV.RSJT.SV.W.0191.060505T0412Z-060505T0445Z/
BULLETIN - EAS ACTIVATION REQUESTED
SEVERE THUNDERSTORM WARNING
NATIONAL WEATHER SERVICE SAN ANGELO TX
1112 PM CDT THU MAY 4 2006
THE NATIONAL WEATHER SERVICE IN SAN ANGELO HAS ISSUED A
SEVERE THUNDERSTORM WARNING FOR...
NORTHWESTERN STERLING COUNTY IN WEST CENTRAL TEXAS

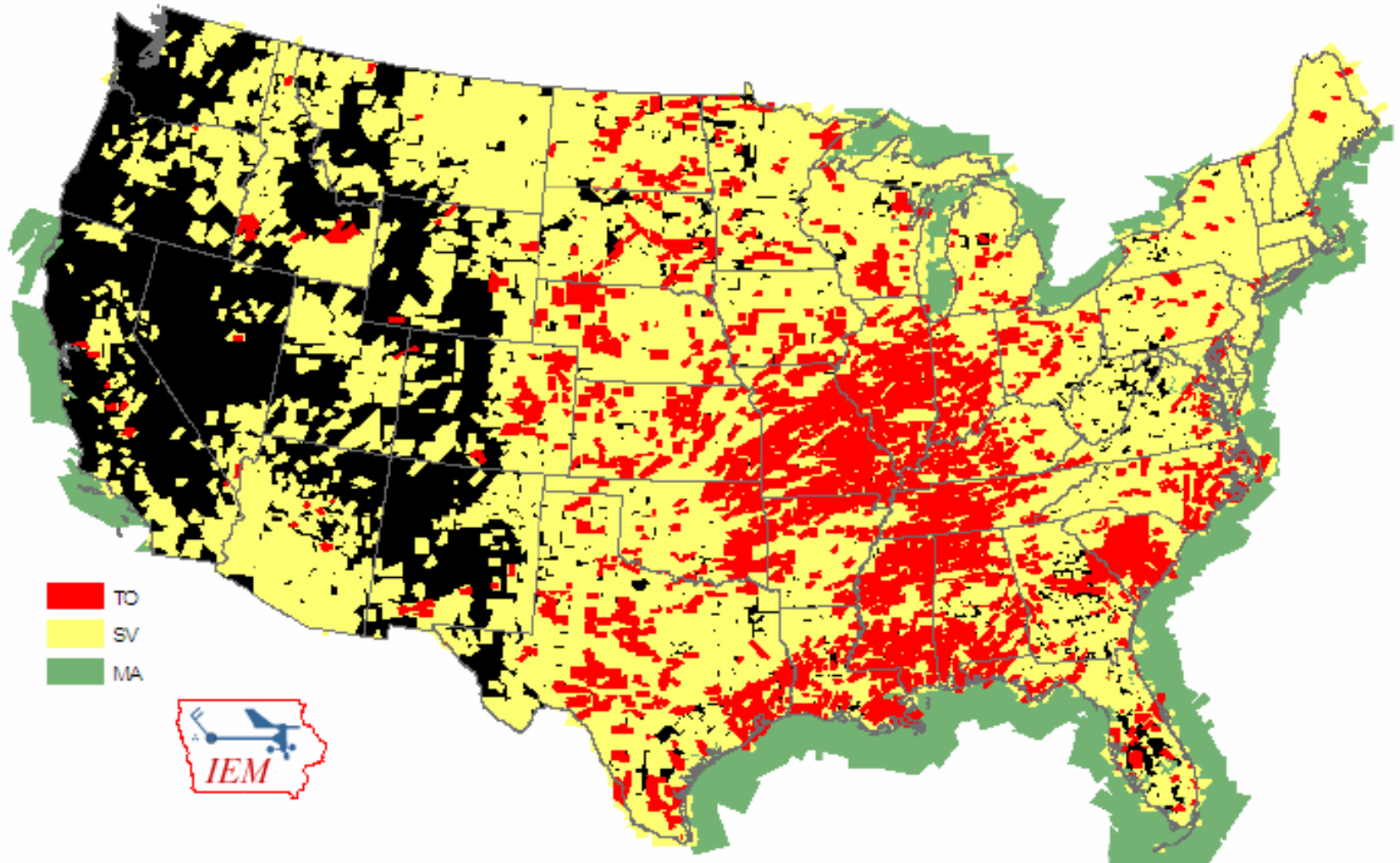




24 March 2007

2007 Central Iowa NWA
Severe Storms Conference

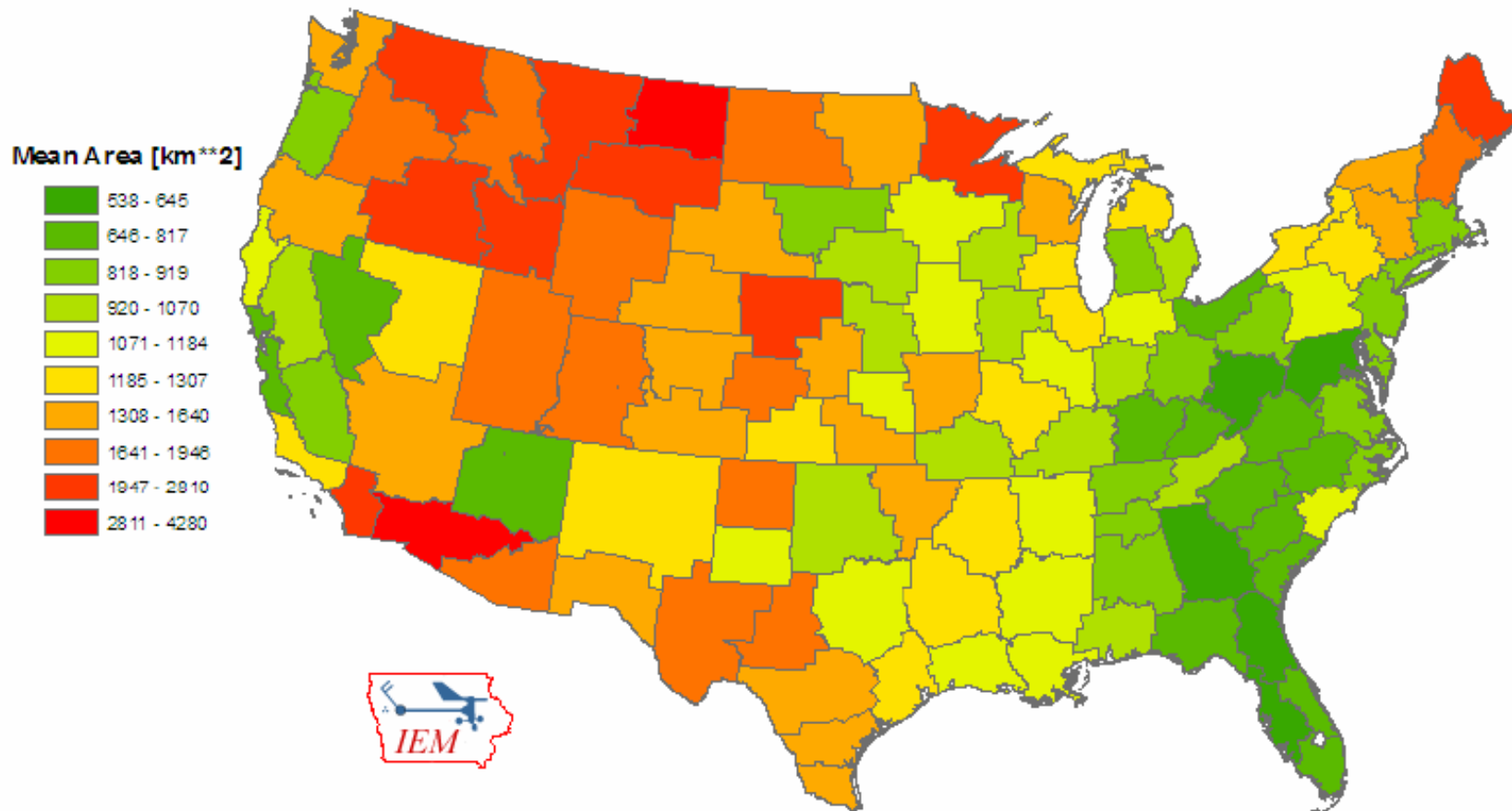
1 Jan - 28 Nov 2006 All Polygons



24 March 2007

2007 Central Iowa NWA
Severe Storms Conference

1 Jan - 28 Nov 2006 Average SVR polygon size by CWA

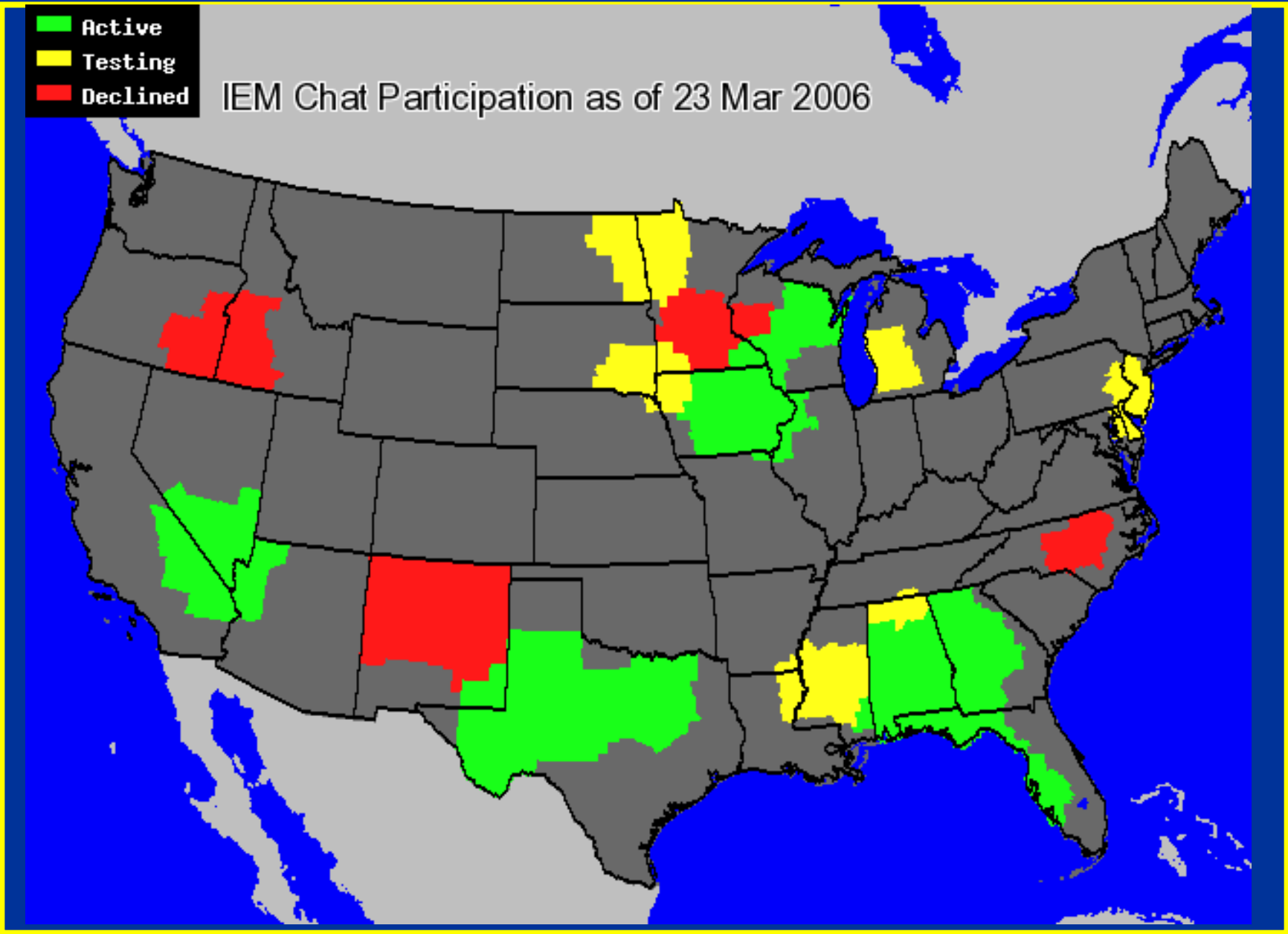


Of course, IEM Chat

- A system to support the real-time collaboration of operational meteorologists and emergency management
- Standards based, open source software to do instant messaging
- Project launched June 2005
- 850+ accounts, ~200 TV stations, and 41 WFOs are currently using it

- Active
- Testing
- Declined

IEM Chat Participation as of 23 Mar 2006

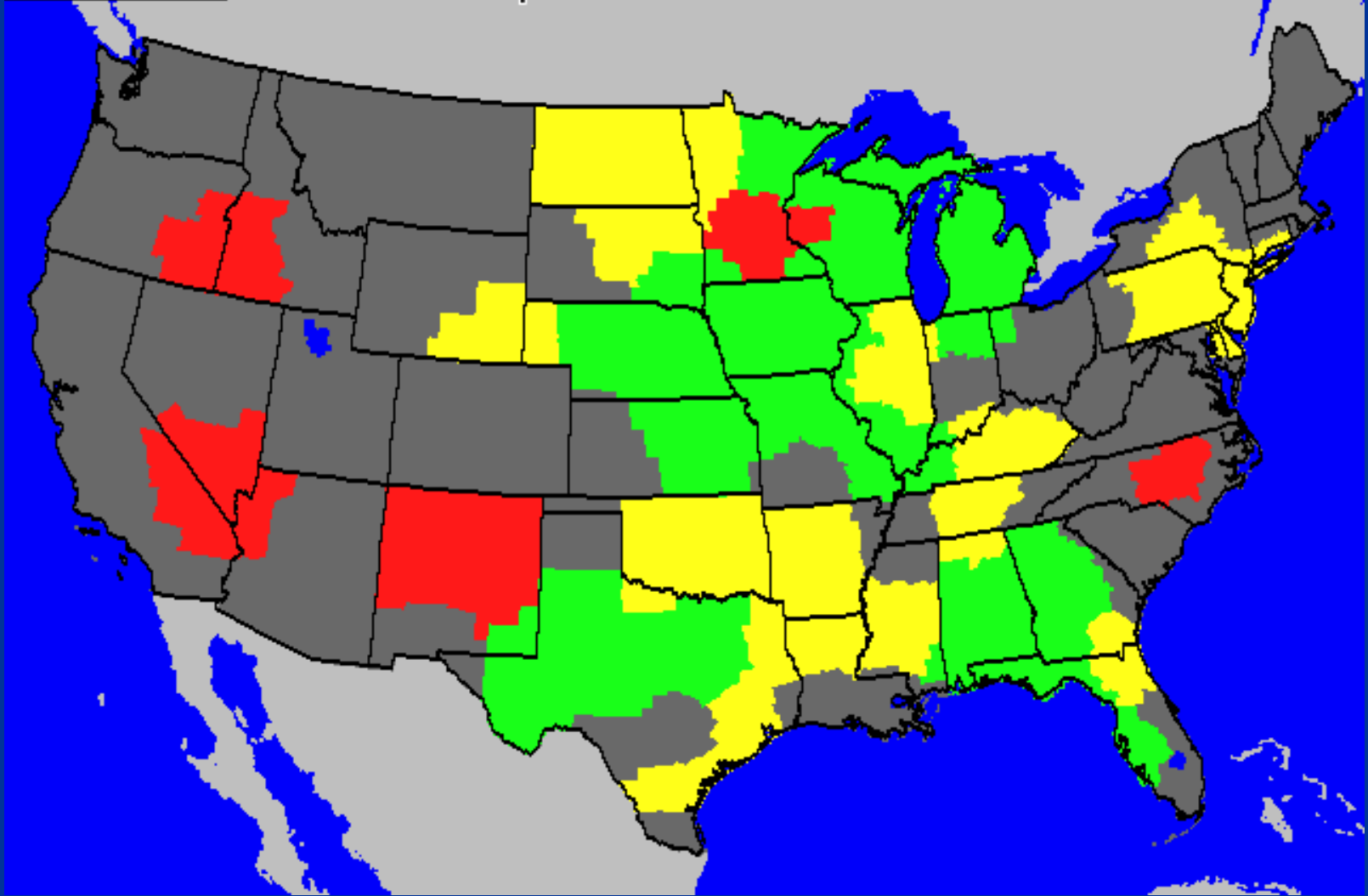


24 March 2007

2007 Central Iowa NWA
Severe Storms Conference

- Active
- Interested
- Declined

IEM Chat Participation as of 15 Mar 2007



24 March 2007

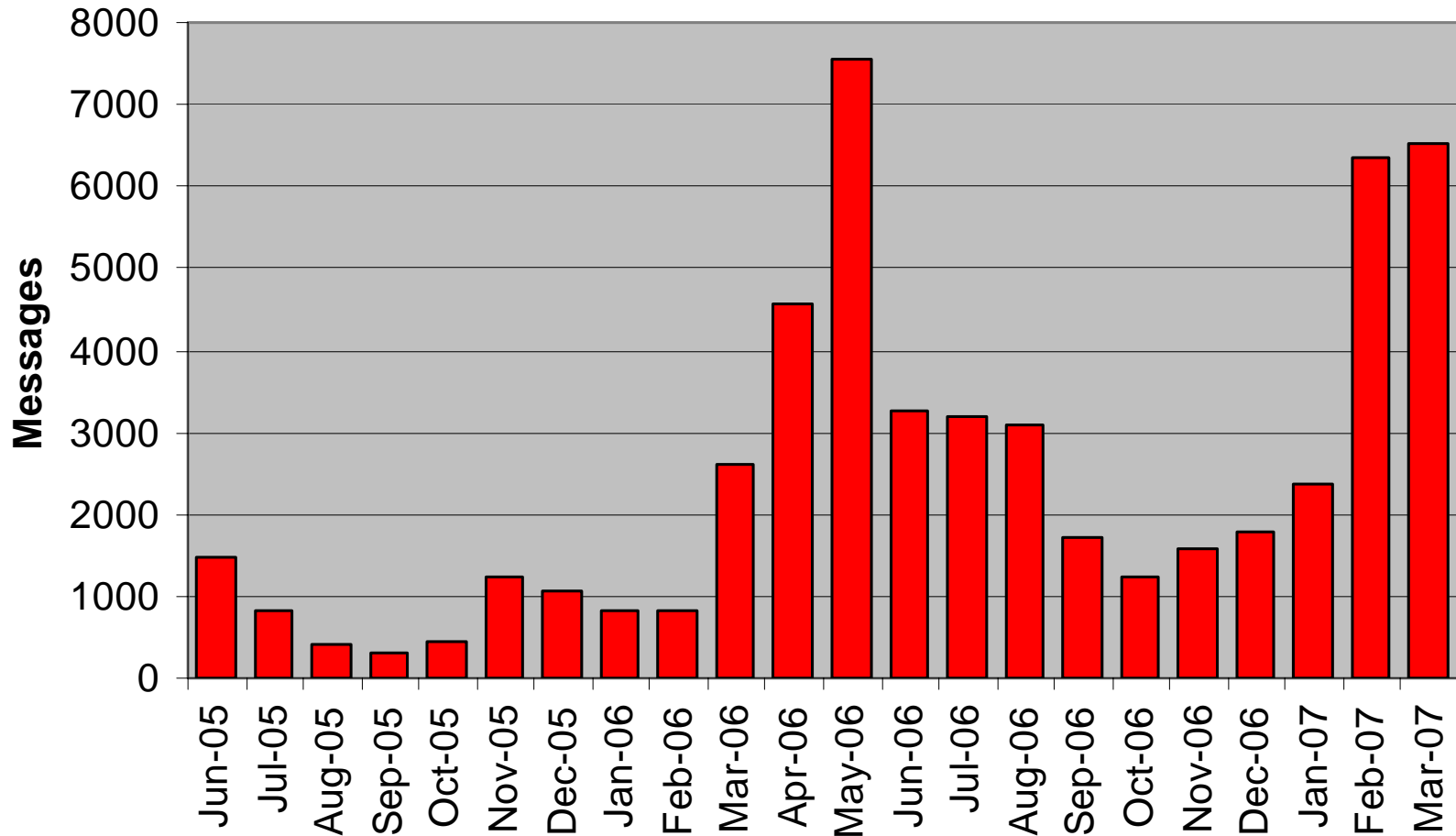
2007 Central Iowa NWA
Severe Storms Conference

Chatroom interaction (11/12/05)

- [22:52:16] **kcciwhite** viewer confirms funnel/tor. report in luther area
- [22:52:19] **iowamesonet** 2 mile south of luther, farm house heavily damaged
- [22:52:44] **nwsdmx6** ham radio reports luther tornado has begun to rope out
- [22:53:23] **iembot** 3 S Stratford [Hamilton Co, IA] trained spotter reports TORNADO at 04:36 PM CST --
- [22:55:19] **iembot** 1 E Woodward [Dallas Co, IA] county official reports TORNADO at 04:41 PM CST --
- [22:55:34] **iowamesonet** ISU spotters say former Luther tornado has dissipated
- [22:56:06] **nwsdmx6** tor wrng for story co coming
- [22:56:24] **iembot** DMX issues Tornado Warning for Story [IA] till 5:30 PM CST
- [22:57:58] **iembot** DMX issues Tornado Warning for Franklin, Hamilton, Hardin, Wright [IA] till 5:45 PM CST
- [22:59:09] **iowamesonet** funnel on Ames cam
- [22:59:52] **iowamesonet** almost down
- [23:00:34] **iembot** Webster City [Hamilton Co, IA] public reports HAIL of 0.75 INCH at 04:50 PM CST --
- [23:02:00] **wmt_am** got a citizens report of a tornado that touched down briefly just north of lincoln way in ames

IEM Chat Chatroom Messages (non-iembot)

1 Jun 2005 thru 17 Mar 2007



IEM Chat room monitor

Select Chatroom to monitor:

Please mute iembot

Chatroom Tabs: click roomname to view log for room

[bmxchat \[x\]](#) [bgmchat \[x\]](#) [iwkchat \[x\]](#) [iwxchat \[x\]](#) [botstalk \[x\]](#)

14:40:42 14:40:42 14:40:42 14:40:44 14:40:42

3/17 20:16:15 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 8:16 AM CDT
3/17 19:00:14 <iembot> ----- Mar 18, 2007 [GMT] -----
3/17 8:38:39 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 8:38 PM CDT
3/16 21:31:52 <nwsfwd1> **Meant to say over areas NE of D/FW (ie...Paris...Greenville...and Sulphur Springs).**
3/16 21:31:25 <nwsfwd1> **Some smoke from fires in OK/W AR dropping visibilities down to between 3 and 6 miles...but should continue to improve during the overnight. EM-NWS**
3/16 20:30:12 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 8:29 AM CDT
3/16 19:00:13 <iembot> ----- Mar 17, 2007 [GMT] -----
3/16 9:33:46 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 9:33 PM CDT
3/15 19:00:10 <iembot> ----- Mar 16, 2007 [GMT] -----
3/15 10:14:22 <iembot> FWD [expires Dense Fog Advisory](#) for Anderson, Bell, Bosque, Collin, Comanche, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Erath, Falls, Fannin, Freestone, Grayson, Hamilton, Henderson, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Lamar, Lampasas, Leon, Limestone, McLennan, Milam, Mills, Montague, Navarro, Palo Pinto, Parker, Rains, Robertson, Rockwall, Somervell, Stephens, Tarrant, Van Zandt, Wise, Young [TX]
3/15 9:37:09 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 9:36 PM CDT
3/15 4:25:52 <iembot> FWD [issues Dense Fog Advisory](#) for Anderson, Bell, Bosque, Collin, Comanche, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Erath, Falls, Fannin, Freestone, Grayson, Hamilton, Henderson, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Lamar, Lampasas, Leon, Limestone, McLennan, Milam, Mills, Montague, Navarro, Palo Pinto, Parker, Rains, Robertson, Rockwall, Somervell, Stephens, Tarrant, Van Zandt, Wise, Young [TX] till 10:00 AM CDT
3/14 21:15:09 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Leon, Robertson [TX] till 9:14 AM CDT
3/14 20:04:07 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Robertson [TX] till 8:13 PM CDT
3/14 19:41:46 <iembot> FWD issues [Flood Advisory \(FLS\)](#) for Henderson, Van Zandt [TX] till 7:51 PM CDT
3/14 19:00:43 <nwsfwd1> **Thanks, KDFW**
3/14 19:00:09 <iembot> ----- Mar 15, 2007 [GMT] -----
3/14 18:55:59 <kdfw wx> We had a report of a viewer that received pea to marble size hail in Gun Barrel City

IEMChat Project

Topic: Welcome to IEMChat
(and continuing that warning over into Keokuk County?)
(2005-06-13 22:28:38) nwsdmx6: Will be discussing/deciding that soon kwwl
(2005-06-13 22:29:49) iembot: MCD! <http://www.spc.noaa.gov/products/mcd/>

My IEMChat: akrherz | [Logout](#)

WFO:

Year:

Month:

Day:

[DMX] DES_MOINES 2005 November 13 Giveme Giveme!

Download to disk? Descending time?

All times are in UTC for 2005-11-13

[00:01:45] <iembot@iemchat.com/Logger> 3 S Radcliffe [Hardin Co, IA] law enforcement reports TORNADO at 05:20 PM CST -- delayed report

[00:03:11] <iembot@iemchat.com/Logger> 4 S Radcliffe [Hardin Co, IA] law enforcement reports TORNADO at 05:27 PM CST -- delayed report

[00:04:05] <iembot@iemchat.com/Logger> 2 S Radcliffe [Hardin Co, IA] law enforcement reports TORNADO at 05:27 PM CST -- delayed report

[00:05:54] <nwsdmx6@iemchat.com/Logger> still getting reports of rotation aloft in iowa falls storm - law enforcement reports at 604 p.m.

[00:06:29] <iembot@iemchat.com/Logger> 5 N Roland [Hamilton Co, IA] amateur radio reports TORNADO at 05:23 PM CST -- delayed report

[00:15:52] <kimtwx@iemchat.com/Logger> any thoughts dmx on SE hamilton co.?

[00:16:12] <iembot@iemchat.com/Logger> DMX expires Tornado Warning for Franklin, Hardin [IA]

[00:16:20] <kwwl_stormteam@iemchat.com/Logger> franklin still valid?

[00:16:35] <kimtwx@iemchat.com/Logger> franklin, sorry bout that

[00:16:42] <nwsdmx6@iemchat.com/Logger> just expired both

[00:17:11] <kwwl_stormteam@iemchat.com/Logger> just seconds apart)

[00:17:25] <iowamesonet@iemchat.com/Logger>

[\(Link\)](#) , please akrherz@iastate.edu
media

[00:17:27] <nwsdmx6@iemchat.com/Logger> ha - hopefully we'll get things off a fast boil now

[00:23:36] <kwwl_stormteam@iemchat.com/Logger> KCCI...permission to use

About Historical Logs

- IEMbot messages are shown at the time the product was issued by the NWS
- All links to IEM / SPC products should work
- Historical logs are “live”, can download up to the minute

You can't read this:

IEM Website

<http://mesonet.agron.iastate.edu>

IEM Chat website

<https://iemchat.com>

NOAA Class

<http://class.noaa.gov>

Static Composites

<http://mesonet.agron.iastate.edu/current/mcview.phtml>

Interactive Display

<http://mesonet.agron.iastate.edu/GIS/apps/rview/warnings.phtml>

GIS downloads (LSRs / warnings / radar)

<http://mesonet.agron.iastate.edu/GIS/>

Live Level2 NEXRAD data

<http://mesonet.agron.iastate.edu/data/nexrd2/raw/>

IEM Cow

<http://mesonet.agron.iastate.edu/cow/>

Texas A&M 30day Level2 NEXRAD cache

<http://mesonet.tamu.edu/products/RADAR/nexrad/CRAFT/>

NCDC HAS (archived level2 and level3 nexrad)

<http://hurricane.ncdc.noaa.gov/pls/plhas/has.dsselect>

IEM Archive page

<http://mesonet.agron.iastate.edu/archive/>

I'm done! Any questions?



- Daryl Herzmann

Office: 515.294.5978

Cell: 515.451.9249

akrherz@iastate.edu

<http://mesonet.agron.iastate.edu>

<https://iemchat.com>