Individual case study projects

Due: Tuesday, 13 December (at beginning of lecture)

Given below is a list of cases for which data is already available for the individual case study project. Gridded model data, surface observations, and upper air observations are available for each case, satellite and radar data is available for selected cases. You may select a case that is not included in the list below if you wish. **If you want to study a case not on the list below, please let Melissa know by November 8th.** Acquisition of data for a new case may take up to one week.

Folders containing data for each of the cases listed below are located in the directory: /raid6/cases/452cases

Cases for which data are already available:

10–16 March 1993: The "Storm of the Century"; record low pressures

16–20 January 1996: Midwest winter storm; intense baroclinic zones

25–28 January 1996: "Colorado hook" storm similar to 10 November 1998; blizzard IA and WI

13–15 March 1996: Denver snow event

17–18 October 1996: Midwest cold season synoptic storm

3–7 April 1997: Cyclone similar to 10 November 1998; snow north, severe weather south

23–26 October 1997: Major winter storm in CO; slowly moving low over southern U.S.

6–10 January 1998: Ice storm in northeastern U.S. and southeastern Canada

7–9 March 1998: Late winter snowstorm in WI (up to 12" snow); severe wx southern U.S.

7–9 April 1998: Midwest spring synoptic storm; plenty of rain and thunderstorms

20–23 December 1998: Explosive cyclogenesis in southeastern Canada; cold air outbreak

29 Dec 1998–3 Jan 1999: New Year's blizzard over the Midwest

5–8 March 1999: Cyclogenesis in the Ohio Valley

7–10 March 1999: Midwest and Mid-Atlantic snowstorm associated with an inverted trough

2–5 January 2000: Intense cyclone moving from south-central U.S. to southeastern Canada

23–27 January 2000: East Coast “surprise” snowstorm

8–12 March 2000: Milwaukee, WI tornado (earliest tornado on record for Milwaukee)

16–20 December 2000: Plains and Midwest snow event

27–31 January 2001: Rapid cyclogenesis and major snowstorm in the central U.S.

11–13 March 2001: Cyclogenesis over the Midwest; severe weather across the southern U.S.

6–9 April 2001: Intense low through Upper Midwest; high wind event in MN and WI

23–25 October 2001: Severe weather outbreak from Great Lakes to south-central U.S.

1–3 March 2002: Cyclogenesis over the Ohio Valley

7–11 November 2002: Intense cyclone in Midwest; severe weather outbreak

15–18 November 2002: Nor’easter; ice storm in New England

21–23 November 2002: Cyclogenesis over eastern Great Lakes and East Coast

10–13 February 2003: Alberta Clipper with intense snow band

14–18 February 2003: “Presidents’ Day Storm of ‘03” dumps heavy snow on Baltimore

12–14 November 2003: Cyclogenesis over the Great Lakes

20–23 January 2005: Continental Cyclongenesis, strong CAA over midwest

29–31 March 2005: Intense Cyclogenesis

10-14 November 2005: Interesting Wisconsin weather, continental cyclone

26-30 November 2005: Surface cyclone over Midwest states, severe weather along cold front over Gulf Coast states.

12-19 February 2006: Coldest 5 day period in years for several locations in the Midwest, wind chills in the -40s in WI/MN.....brrr
e
10-14 October 2006: Very interesting upper levels, associated with intense continental cyclone

28 November – 1 December 2006: Strong anticyclone/cyclone couplet over central US. Strong winds.

24-26 February 2007: Intense surface cyclogenesis, interesting Midwest weather.

17-21 August 2007: Heavy Rain/Flooding along warm front in SW Wisconsin

20-25 September 2007: Midwest severe weather along warm frontal boundary

21-24 October 2007: Intense cold front sweeps across northern US

1-5 November 2007: Midwest's first cold/windy cyclone of the 2007 season, (54mph gust MKE)

25-30 November 2007: A clipper system with winds and snow in the Great Lakes region

7-11 January 2008: Rare January Wisconsin tornado, record January warmth

3-6 February 2008: Madison got 13" of snow on the 7th, the data focuses on the development.

2-9 June 2008: Cyclone with severe weather in Wisconsin

Possible cases also can be found from the COMET case study page:
http://www.comet.ucar.edu/resources/cases

To get a preview of the surface and upper air conditions for any case back to January 1996, you can view archived surface maps and model analyses at the UCAR image archive:

http://www2.mmm.ucar.edu/imagearchive/

→ Select a date in the left hand column.
→ A list of available surface and upper air products will be available.