

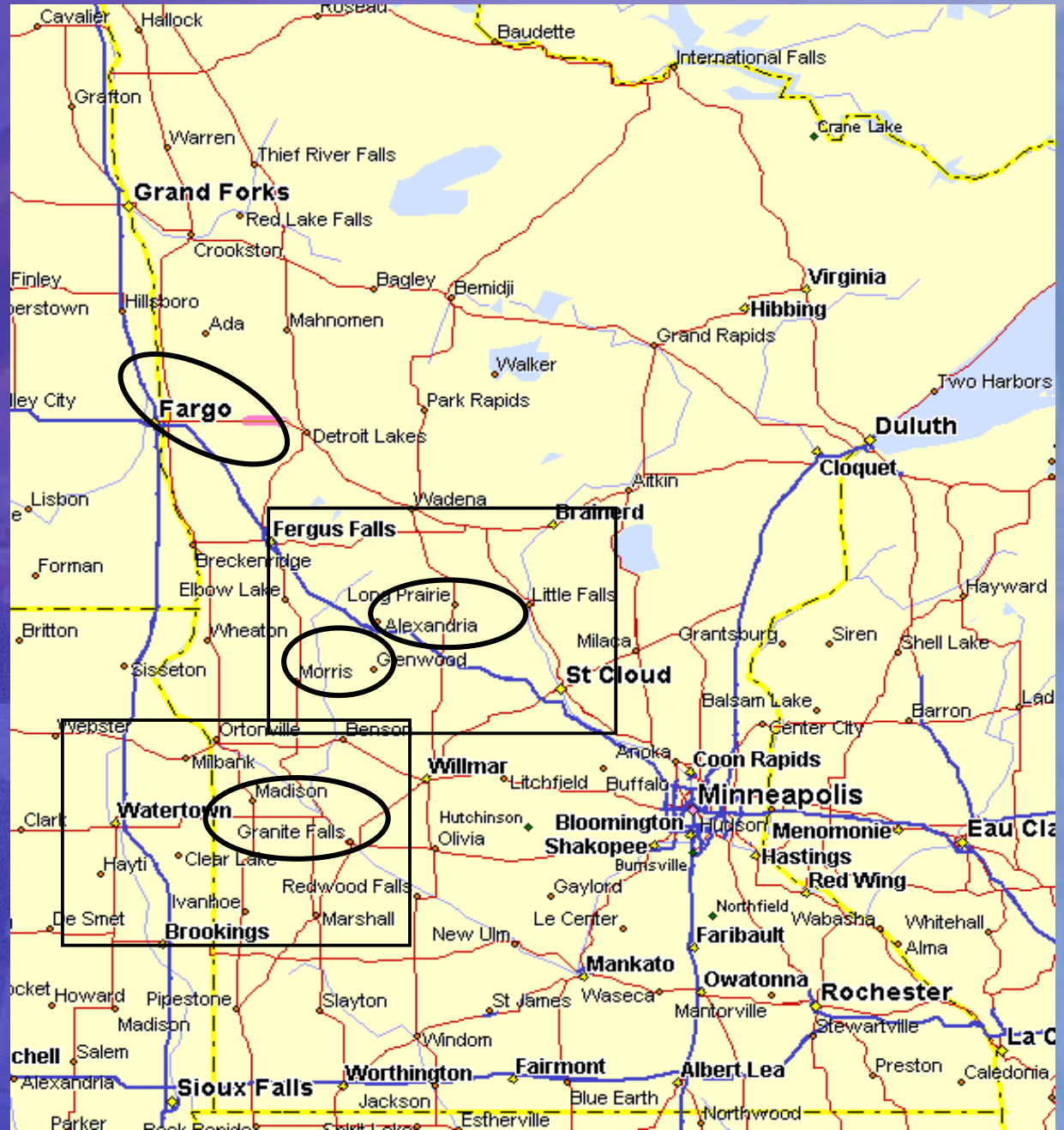
**MDSS Functional
Prototype
Demonstration
Weather Case**

11 April 2002



MDSS FP

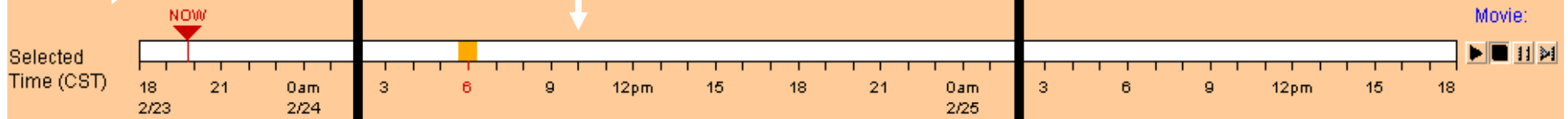
Route Locations



MDSS prediction is for 48 hr period based on data available from the Saturday 23 February, 7 am model runs.

**NWS Forecast
(Noon, Sat, 23rd)**

**NWS Forecast
(10 am, Sun, 24th)**



2am Snow Period 2am
Sunday Storm

**MDSS Forecast
(7 am, Sat 23rd)**

NWS Forecast – Issued Friday ~12 pm, 23 February

CITIES OF...ALEXANDRIA...ST CLOUD

.TONIGHT...SNOW DEVELOPING AFTER MIDNIGHT. A PERIOD OF FREEZING RAIN POSSIBLE. LOWS IN THE MIDDLE 20S. WIND BECOMING NORTHEAST AT 15

TO 20 MPH. CHANCE OF PRECIPITATION 60 PERCENT.

.SUNDAY...SNOW LIKELY IN THE MORNING...THEN TAPERING TO FLURRIES BY

THE AFTERNOON. **TOTAL ACCUMULATIONS 1 TO 2 INCHES**. BLUSTERY AND

COLDER WITH STEADY TEMPERATURES IN THE MIDDLE 20S. NORTH WIND 15 TO

25 MPH. CHANCE OF SNOW 60 PERCENT.

.SUNDAY NIGHT...MOSTLY CLOUDY AND BLUSTERY WITH SCATTERED SNOW

SHOWERS. LOWS AROUND 10 ABOVE.

NWS Forecast – Issued Friday ~12 pm, 23 February

CITIES OF...BENSON...MONTEVIDEO...REDWOOD FALLS...WILLMAR

.TONIGHT...RAIN MIXED WITH SNOW DEVELOPING AFTER MIDNIGHT...CHANGING TO ALL SNOW BY DAYBREAK. A PERIOD OF FREEZING RAIN POSSIBLE. LOWS IN THE UPPER 20S. WIND BECOMING NORTHEAST AT 15 TO 20 MPH. CHANCE OF PRECIPITATION 60 PERCENT.
SUNDAY...SNOW LIKELY IN THE MORNING...THEN TAPERING TO FLURRIES. **TOTAL ACCUMULATIONS 1 TO 2 INCHES**. BLUSTERY AND COLDER WITH STEADY TEMPERATURES IN THE MIDDLE 20S. NORTH WIND 15 TO 25 MPH. CHANCE OF SNOW 60 PERCENT.
.SUNDAY NIGHT...MOSTLY CLOUDY WITH A 40 PERCENT CHANCE OF SNOW.
LOWS 10 TO 15 ABOVE.

NWS Forecast – Issued Sunday ~10 am, 24 February

CITY OF...ALEXANDRIA

...WINTER WEATHER ADVISORY THIS AFTERNOON...
.THIS AFTERNOON...SNOW CONTINUING...DECREASING TO
FLURRIES BY
LATE AFTERNOON. **TOTAL ACCUMULATIONS 3 TO 5 INCHES.**
TEMPERATURES
FALLING THROUGH THE 20S. NORTH WIND 15 TO 30 MPH.
.TONIGHT...MOSTLY CLOUDY WITH A 40 PERCENT CHANCE OF
LIGHT SNOW. LOWS
FROM 10 TO 15. NORTHWEST WIND 15 TO 20 MPH.

NWS Forecast – Issued Sunday ~10 am, 24 February

CITIES OF...BENSON...MONTEVIDEO...REDWOOD FALLS...WILLMAR

...WINTER WEATHER ADVISORY THIS AFTERNOON...

.THIS AFTERNOON...SNOW...POSSIBLY MIXED WITH SLEET OR RAIN
EARLY.

ACCUMULATIONS OF 3 TO 5 INCHES. TEMPERATURES FALLING
INTO THE 20S.

NORTH WIND 15 TO 30 MPH.

.TONIGHT...MOSTLY CLOUDY AND COLDER WITH A 30 PERCENT
CHANCE OF
LIGHT SNOW. LOWS IN THE TEENS. WIND NORTHWEST 15 TO 20
MPH....

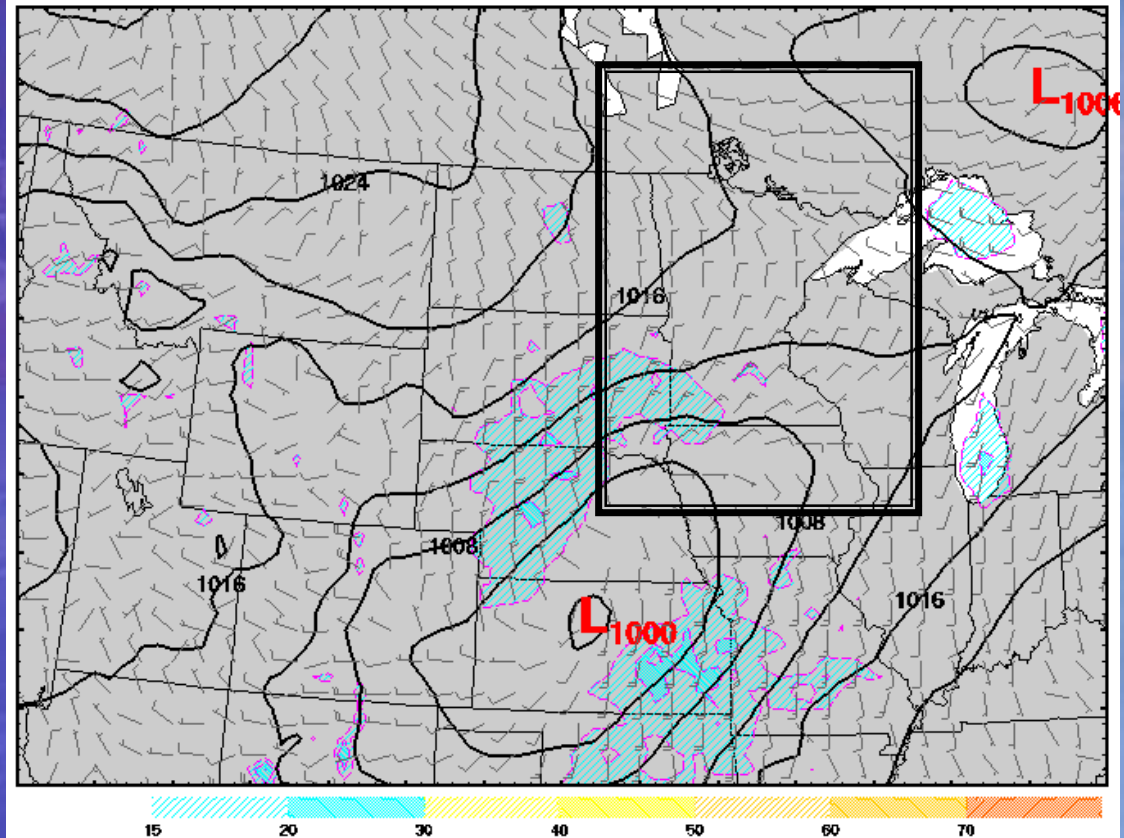
Surface Weather

Surface winds were primarily from the north to northeast as the low approached from the southwest.

Sunday Morning

MSLP (mb) / Winds (kts)

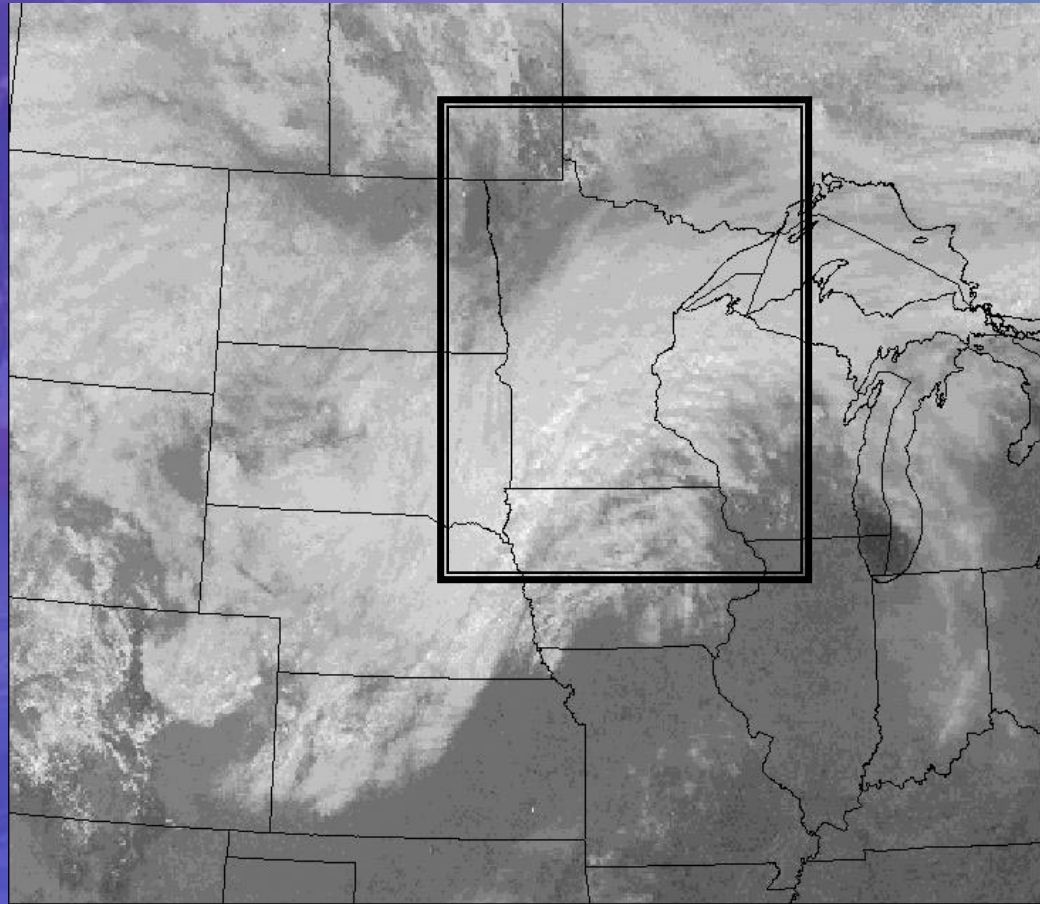
24-hour forecast valid 1200 UTC Sun 24 Feb 2002



Satellite Image

A winter storm
moved through
central MN.

Sunday Noon



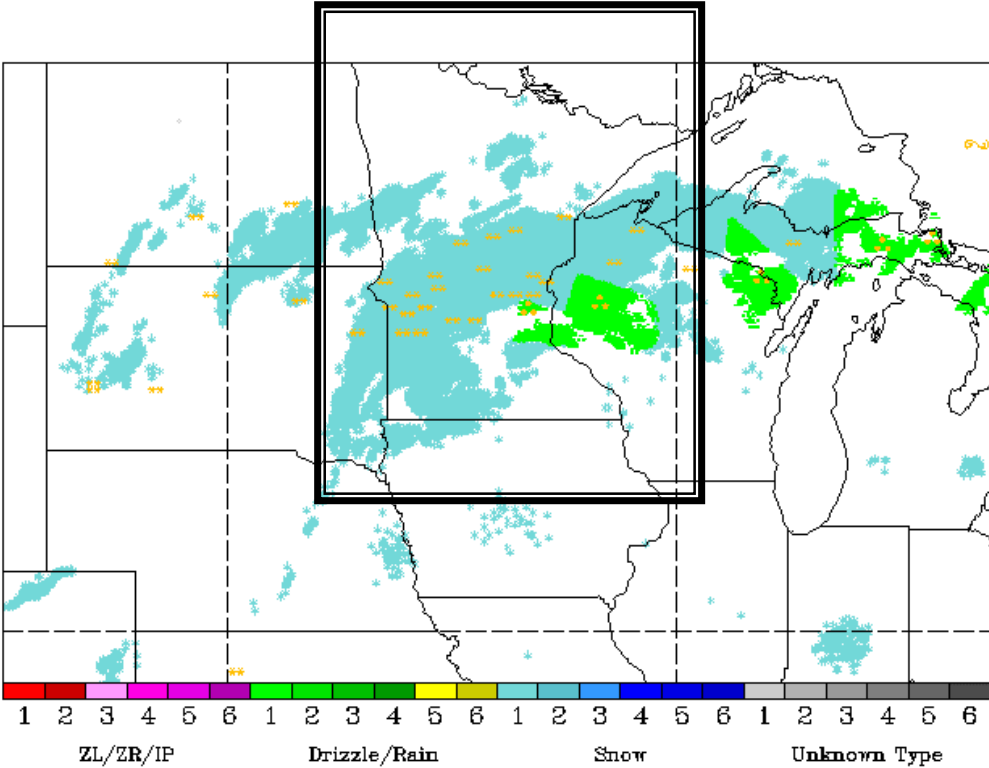
GOES-8 Imagery - 20020224/1739

Radar Image

The precipitation primarily fell in central MN.

Sunday Morning

RADAR DATA PLOT FOR 02/24/2002 - 15 Z



C = Clear Icing
 X = Mixed Icing
 R = Rime Icing
 U = No Type Given

MOD/SEV to SEV = Large
 LGT/MOD to MOD = Medium
 TRC to LGT = Small

FIRTPs are for < 16000 ft MSL

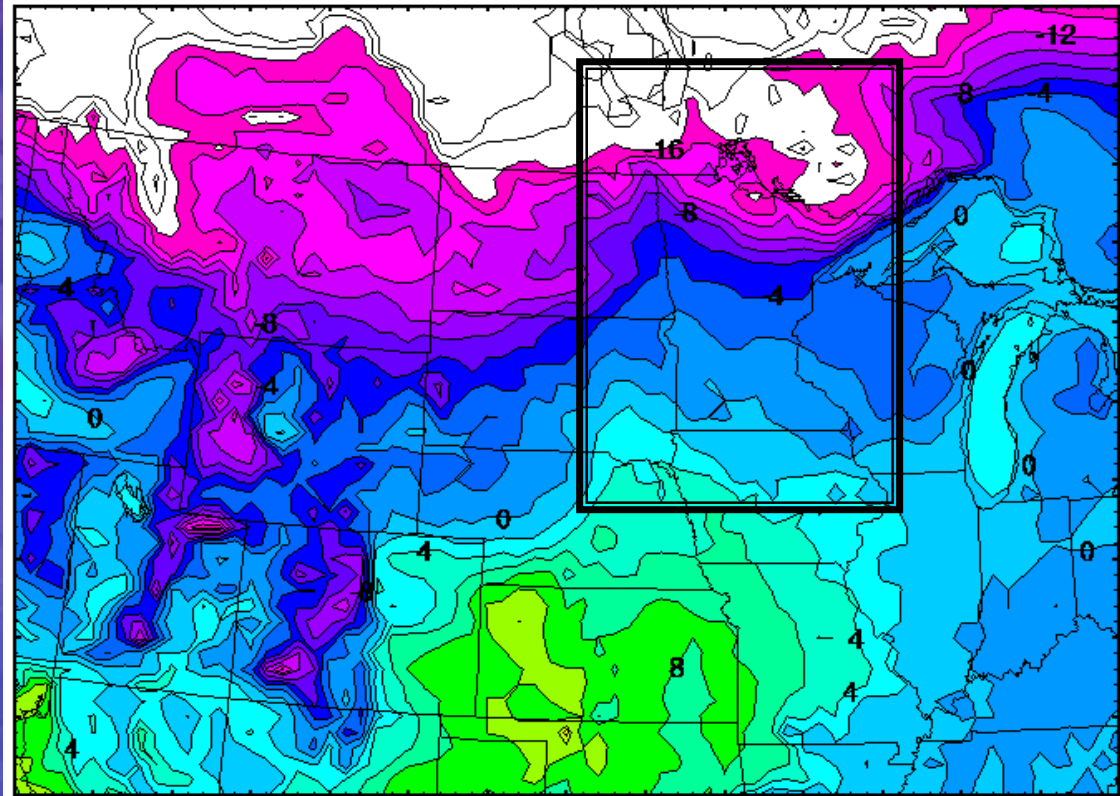
SFC PRECIP SYMBOLS IN YELLOW

Surface Weather

Surface low temperatures ranged from 14 to 32 F.

Sunday Morning

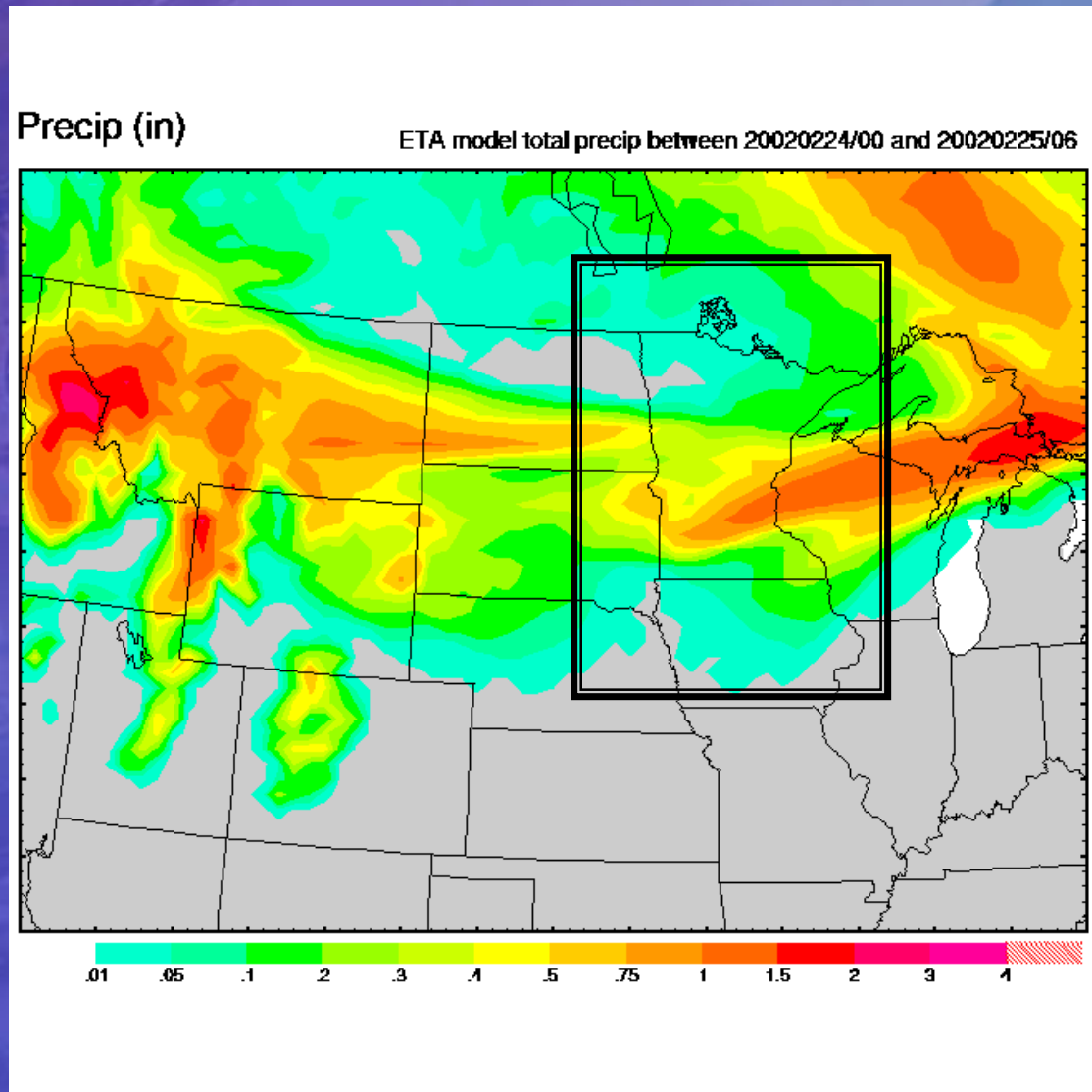
Surface (2 m) Temperature (C) 24-hour forecast valid 1200 UTC 24 Feb 2002



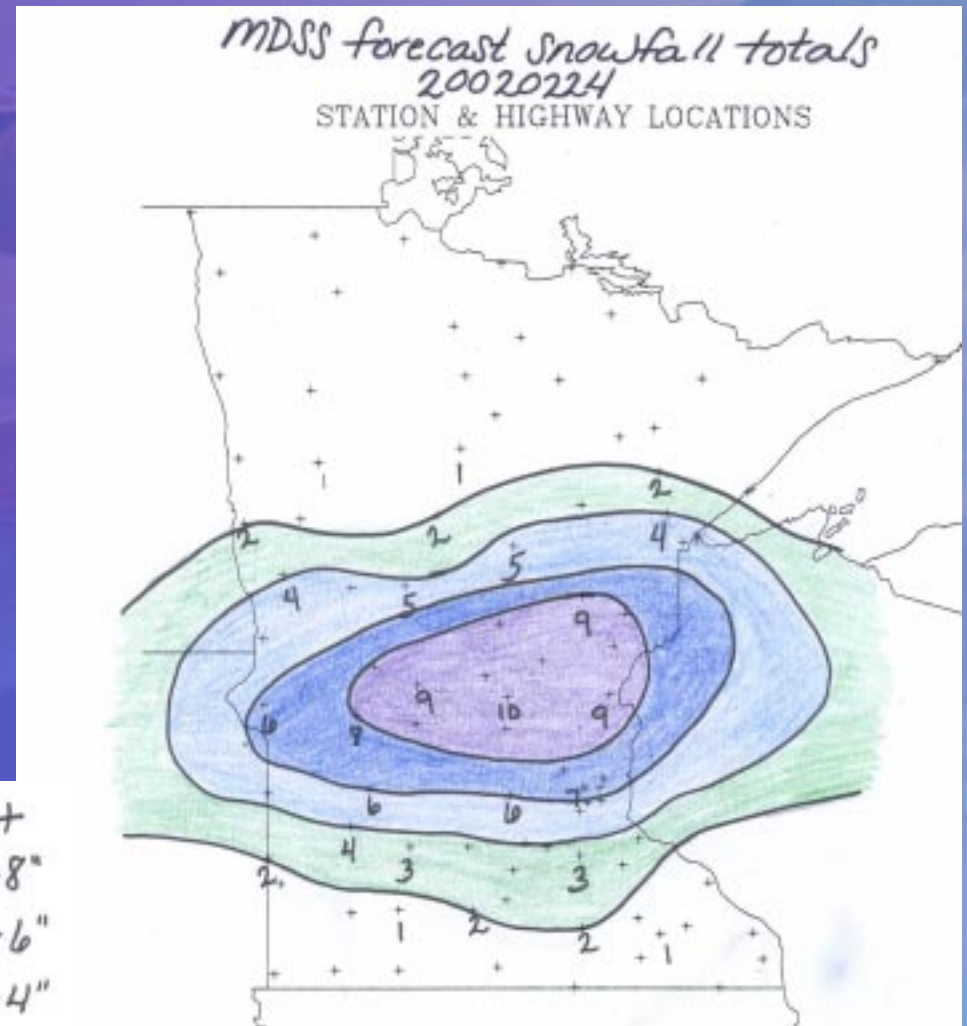
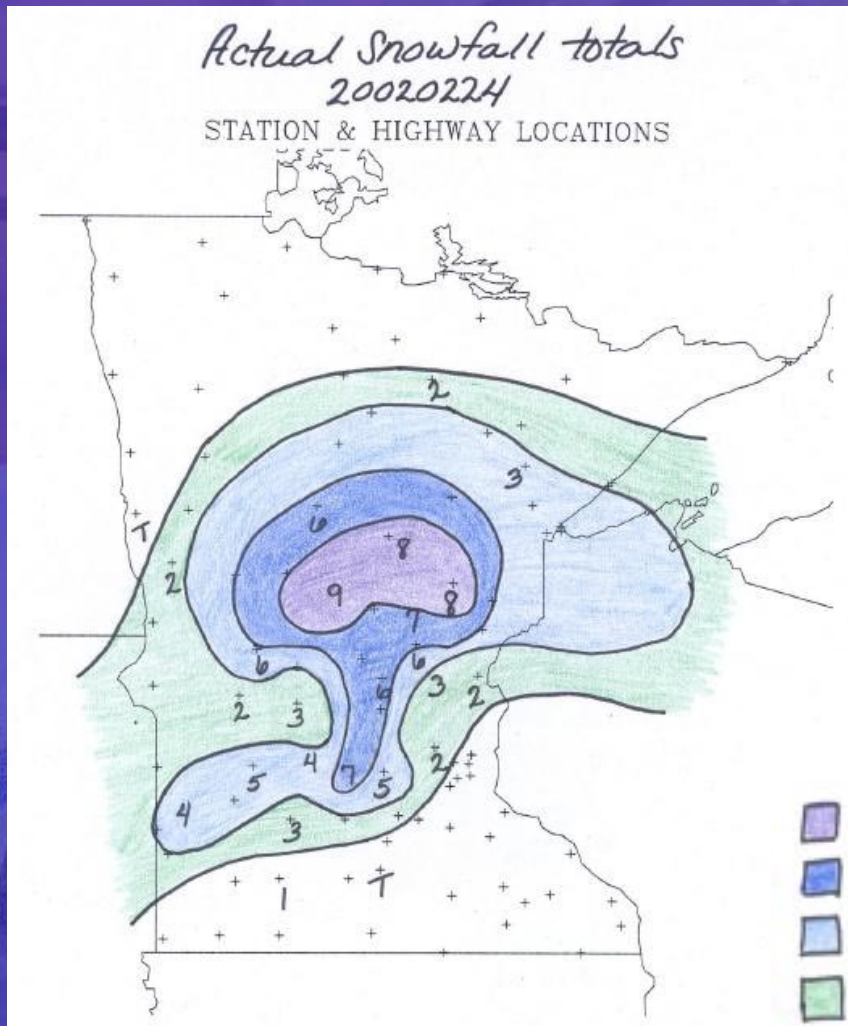
Total Precipitation – Eta Model

Total precipitation from the Eta model (alone) ranged from zero to ~1.2 inches (liquid) or zero to ~12 inches of snow.

Sat through Sun



Precipitation Verification*



*From untrained MDSS



MDSS FP

Sample of enhanced time series graphic

