

Greater St. Louis Chapter AMS - Minutes of 19 February 2004.

The February meeting of the Greater St. Louis Chapter of the American Meteorological Society was held on Thursday, February 19, at the Michael's West End restaurant. This location was another Local AMS first and two dozen of our members enjoyed a delicious dinner. Chairperson, Marty Baxter, began the Business meeting at 8:15 PM CST.

Reports

Lou Hull read the minutes of the January 2004 meeting at Ragazzi's with Dr. Robert Pasken. They were accepted as read.

Treasurer's Report

Ron Przybylinski delivered the Treasury Report and reported a slight dip of \$83.00 to \$990.12.

Old Business

Ron continued his plea for judges at the upcoming Greater St. Louis Science Fair to be held on April 16, 2004. This will be the first Friday after Easter this year. Judges who arrive by 4:30 pm will receive a free meal before the evening judging begins.

Lou read Mark Britt's invitation to the members to attend the Severe Weather Workshop to be held on Saturday, March 27, at Busch Center.

New Business

Ron requested from the membership if we could use some of our Treasury surplus to generate some cash or gift certificate prizes for the top Science Fair winners. He suggested a single \$100.00 prize in addition to the books and rain gauges we already offer. This prize was approved by the membership.

Speaker

Marty introduced the speaker Dr. Thomas Schlatter. Tom is Chief Scientist at the Forecast Systems Laboratory (FSL). He received his BS, MS, and PhD all from Saint Louis University. Tom has been associated with FSL since 1980 when it was still the NOAA Program for Regional Observing and Forecasting Services (PROFS).

Dr. Schlatter's talk was entitled: "The Amazing Colorado Front Range Snowstorm of 17-19 March 2003."

The entire eastern quarter of Colorado received more than 2 inches of liquid equivalent precipitation. Areas above 5000 feet received snow. Area west and southwest of Denver had 3 to 7.5 feet of snow. This broke a severe drought that limited Pueblo to 3.8 inches of precipitation in the prior 12 months September to August period. Tom showed some great snow scene photographs, scenes where landmarks disappeared over a 48 hour period.

Dr. Schlatter presented the synoptic picture, cool but not cold air over the west-central plains and a large 140 kt subtropical jet maximum cruising across southern California. The air over Texas was moisture laden with dewpoints in the 50s. On March 17th, the subtropical wind max moved into southern-most Arizona and New Mexico. The sharp wind drop-off, north of the wind maximum caused diffluence and gradual pressure falls across southern Colorado and northwest Texas. Cooler air settled into northeastern Colorado and the flow of moisture accelerated from central Texas into southwest Kansas.

On the 18th of March, snow broke out in the higher elevations of south-central Colorado. Damp air quickly saturated in eastern Colorado as the moist trajectory continued moving uphill to the northwest. Cooling due to upslope and dynamic cooling brought snow levels down to 5000 feet in Denver itself. On the 19th of March, the subtropical jet was re-inforced and continued to focus the low-level convergence over eastern Colorado. Most of the precipitation fell as rain, but above 5000 feet it was all snow.

Tom remarked that he had never seen a Colorado winter storm with a trajectory emanating from southeast Texas. Wind profiler data from Denver showed 20 kt northeast winds near the surface changing to 45 knots from the east at 850 mb. Tom, also recounted his race against time to get home ahead of the storm from a camping outing with his son in central Utah. He returned in mid storm just before the roads were closed. The water content for the storm was maxed out. The temperature stayed at 32 degrees for 48 hours. The sounding was saturated. The snow maintained a 10 to 1 snow to rain ratio. Melted precipitation (4 to 7.5 inches) was converted to 4 to 7.5 feet of snow just west of Denver.

The damage was widespread to the weight of the snow. There were many collapsed roofs and stranded motorists. But the snow melted and the reservoirs were refilled. Tom stated that it was an experience he would never forget.

Marty thanked Dr. Schlatter after many questions and answers. Marty ended the business meeting at 9:20 PM CST.

Lou Hull, Secretary.