

American Meteorological Society (AMS) - St. Louis Chapter Meeting

Tuesday, March 11th, 2008

Location: Little Hills Restaurant in St. Charles, MO

Call to Order: 8:05 pm by Ron Przybylinski

Members in Attendance: est. 45

Board Members in Attendance:

Dr. Charles Graves – President

Ron Przybylinski – Vice President

Allison Wreath – Treasurer

Benjamin Sipprell – Secretary

Lou Hull – Membership

Chad Gravelle – Webmaster

Introductions – Ron Przybylinski

Welcome notes.

Secretary Report – Benjamin Daniel Sipprell

Recommendations to always communicate via our email address at amsstl@gmail.com

If you need information and/or want to be added to the email list for information, send a request to this email address

Minutes were approved post reading first by Alison Wreath and seconded by Ron Przybylinski

Treasurer's Report – Allison Wreath

Savings ... \$455.72 (up 0.39 with dividend)

Checking ... \$1501.78 (up 0.62 with dividend)

3 members joined prior to March 11th meeting ... an additional \$30

6 members joined the evening of March 11th meeting ... an additional \$60

Monies lost to buffet meal at Little Hills Restaurant ... summary anticipated for April 1st meeting

Old Business – Ron Przybylinski

Discussion concerning our next speaker: Rich Grumm

SOO from State College, PA

Location for meeting undetermined

Meeting slated for April 1st

Encouragement to consult St. Louis AMS Metro Area Chapter website

New Business – Ron Przybylinski

Discussion over new ideas for potential speakers for the future:

Paul Strovaka from the College of Dupage
Possible talk in late summer ... early fall
Possible discussion concerning bow echo in Chicago

Paul Markowski
Discussion by Benjamin Daniel Sipprell concerning his anticipated talk slated for
September
Options to discuss projects concerning IHOP or VORTEX2

Concerns over AMS HQ raised by Lou Hull concerning our communication between ourselves
and the main headquarters

Speaker Introductions – Ron Przybylinski

Jon Davies

Private Meteorologist out of Kansas City, Missouri
Strengths in private application research in severe weather and tornado research
Worked for the Weather Channel during the 1980's
Has published several works concerning wind shear and instability combination in
association with tornadoes and non-supercell tornadoes
University of Kansas graduate
Published books concerning tornadoes and stormchasing
Witness first twister at age 9 out of Pratt, Kansas
Participates in storm chasing and spotting

Topic for this evening:

Twenty Years of Storm Chasing: Thrills, Busts and Things Learned

Notes:

Importance of RUC analysis soundings on severe weather events
Nighttime vs. Daytime
Less CIN with daytime events ... more CIN with nighttime events
Lower LFC heights with tornado events
More shear associated with nighttime events ... though less CAPE
SRH seems to make up for the lack of CAPE
Shear and CAPE combinations are what made the environment favorable for
Greensburg, KS tornado
During the evening hours moist warm air advects northward
Surface based environments generated after dark with strong, warm, moist
advection

Association with mini-supercell research
Closed 500 mb low with cold air aloft
Surface low close by 500 mb low
Localized vorticity coinciding with very thin moist axis
Collection of boundaries:
Heating axis ... warm and cold fronts ... boundary intersections
Tornadoes found around boundary intersections
Significant tornado parameter fails with regards to only the presence of a moist,
narrow axis
RUC soundings illustrate CAPE bunched near ground, below 400-500 mb,
bunched toward ground with more stretching and effective use

CAPE vs. SRH 0-2 km

Not a good tool with large SRH and weak CAPE
Useful in generating energy helicity index (EHI)

Non-Supercell Tornadoes

Landspout tornadoes form easily with notable stretch and steep lapse rates down low

Development with sharp stationary surface boundary in combination with CAPE
Updraft directly over boundary

Surface heat axis changing lapse rates over 1-3 km

Intersection with moist boundary layer with little CIN

No inhibition illustrated with sounding ... combinations with vertical vorticity
... another means of the development of land spouts

Interactive Session

Tornado pictures ... storm chasers ...

“On the Trail of Twisters” ... Kids book on stormchasing

Notes concerning examples provided

Upper air vs. Jet stream influences on surface features

Trough out of upper plains in combination with strong 300 jet

Jet spreads and splits

Southern branch of jet subtropical

Mini-supercell development in Southern Alberta, Manitoba

Thin moisture, mini-supercells more favorable

Found cold core situations in lots of different situations

Can occur in many locations

Importance lies in relation to cold air aloft

Facilitation with thin, warm, moist air wedge

Meeting Adjourned: 10:03 pm by Ron Przybylinski