

WICHITA AMS-NWA MINUTES
APRIL 20, 2006

Brad Ketcham opened the meeting around 7 PM by recognizing the new officers. There was no old business. Several items of new business were addressed.

- a) Standard meeting times: Brad raised the question of whether the chapter should schedule its meetings at a standard time. The group felt that it was desirable and selected the second Thursday of each even numbered month. We may depart from this either due to severe weather or to accomodate the schedule of a speaker.

- b) Upcoming Meetings: No definite arrangement for a speaker has been made for the June 8 meeting. The August 10 meeting will be a picnic at Brad Ketcham's residence, which he assured us did not have the fly population we encountered last year at Sedgwick County Park. For October 12, we voted to attempt to have a talk on global climate change to be given by Prof. David D. Houghton, retired professor from the University of Wisconsin and past president of the AMS. Nate Reynolds will try to make the arrangements with Prof. Houghton, and Jon Davies would try to tie the geology department of Wichita State University (WSU) into cosponsorship, at least in terms of securing a WSU lecture hall for this talk. Brad agreed to check into a cosponsorship by the local National Weather Service (NWS) office.

- c) It was moved, seconded, and aproved by vote to amend the by-laws to include a statement concerning e-voting for chapter officers. The procedure for e-voting (i.e., obtaining votes by email) was consided by those present to have been highly successful this year for our officer election.

- d) We agreed that it would be desirable to get new members. It was noted that the television personnel had trouble making it to an evening meeting. We were unable, however, to come up with a good way to address the problem, although one suggestion made was to have an occasional lunchtime meeting. Otherwise, attracting new members and attendees at our presentations could be aided by public service announcements on some radio stations.

The presentation for the night was given by Mr. Ken Cook, science officer for the Wichita office of the NWS. The title was "Increasing Situational Awareness for Non-Supercell Tornadogenesis (NST)."

The talk started with a review of pertinent literature dating back to the 1970s, starting with Cooley, 1978 in a discussion of cold air funnels. Other authors mentioned were Burgess and Donaldson in the late 70s and Bluestein in the mid 1980s, who coined the term "landspout".

More recent researchers identified the NST tornadoes with mesoscale vortices in the presence of a very unstable boundary layer, without a necessity for an environment of large deep layer shear. However, the NST phenomenon often had some moderate horizontal shear present across a line of convection. At other times, the NST occurred before the parent convection provided radar returns.

Ken Cook presented some idealized modeling that was able to isolate the NST mechanism, including funnel genesis and growth from the boundary layer upward as mesoscale vortices were stretched by growing convection. The presentation culminated in the discussion of a couple of case studies. One was in Iowa in association with a frontal boundary. The other was the January 28, 2006 Newton landspout case, which occurred in developing convection along a dryline.

Since NST funnels can cause damage, even at F2 or F3 levels occasionally, greater understanding is needed, especially in terms of short range forecasting and warning of these events.

Submitted by Nathaniel Reynolds, Secretary.