

# AMS-NWA Memphis Chapter

## Meeting Minutes

March 21, 2023

### Opening

The March business meeting of the AMS-NWA Memphis Chapter was called to order at 7:10pm on March 21, 2023 by President Dorian Burnette.

### New Business

- The Treasurer's Report was given by Erik Proseus. The scholarship fund balance was \$1,252.81. The general checking account balance was \$1,128.46. Dues can be paid and scholarship donations made on our website ([www.amsmemphis.org](http://www.amsmemphis.org)).
- This year's chapter scholarship packet will be distributed to universities across the region this week. Applicants will have until May 1 to return their application. An ad hoc scholarship committee will be formed at that time.
- NWA Annual meeting will be held in Kansas City September 9-13, 2023 and the next AMS Annual meeting will be held in Baltimore in January 2024. In addition, the Mississippi State University Southeast Severe Storms Symposium is March 25-26.

### Presentation

Our speaker for the evening was Delmer Rodriguez, Master's student at the University of Memphis. His presentation was "Spring Tornadoes and Drought over the Southern Mississippi River Valley" and based on his thesis work. Rodriguez the Palmer Drought Severity Index (PDSI) and Palmer Z Index to determine if drought has an influence on tornadic activity in an area that included Arkansas, west Tennessee, Louisiana, and Mississippi. Included in the study were the effects of fall and winter moisture and the following spring tornado activity and the potential role of La Nina and Gulf of Mexico sea surface temperatures (SST).

Rodriguez's results showed a positive correlation between PDSI (drought) and percent of normal tornado days during the late spring (April-June), a strong positive correlation between Z Index and tornado days in the spring (March-May), a negative correlation between antecedent fall Z Index and tornado days the following spring, and minor differing signals between the western and eastern half of the study area. For example, west of the Mississippi River, a dry fall often led to above average spring tornado days. Rodriguez's conclusions were 1) that there is evidence of a relationship between soil moisture and percent of normal tornado days, especially in the spring season, and 2) that the Z Index provided the most consistent signal as compared to the PDSI data. It remains to be seen if teleconnections play a role in overriding or offsetting drought correlations.

**Adjournment**

After a short question-and-answer period, there being no further business, the meeting was adjourned at 8:05pm by President Dorian Burnette.

Minutes submitted by: Erik Proseus, Secretary

Approved by: Dorian Burnette, President