

## Weather Notes

## RADAR ECHO AND ASSOCIATED TORNADO DAMAGE NEAR TOPEKA, KANS., APRIL 2, 1956

Late on April 2, 1956, a strange looking radar echo was observed on the scope at the Weather Bureau Office, Topeka, Kans. Until just before 2330 cstr the echo had been fairly symmetrical. Then the center began to show an indentation and the southern end became pointed. The changes appeared to be due primarily to these portions of the echo becoming weaker. The northern portion continued strong. Other echoes are not included since only this one looked unusual.

Because of the way in which the shape was changing, it was decided to trace this echo. The sketch, made about 2335 cstr, is reproduced in figure 1. As the 20-mile range did not provide good definition, the 50-mile range was used. Since the original tracing was made with wax pencil, the sharpness of the echo was not too well defined, particularly in the central and southern portions.

After this sketch was made and the report put on the RAWARC circuit, the echo was next noted about 2345 cstr. There appeared to be a dark inverted U in the center almost due west of the station, and the point on the southern end was becoming more rounded. A sketch of the echo at this stage, although not made at the time, is included in an inset to figure 1. Shortly thereafter a power failure occurred, but the set was back in operation before midnight. By then the echo was becoming solid again, with the southern portion apparently dissipating and the northern section considerably the stronger.

No reports received at Topeka before or immediately after the passage of the echo attached any particular importance to it at that time, although a rather sharp pressure jump with wind gusts of 54 knots—not unusual for thunderstorms in this area—occurred at the station. The station was apparently on the eastern edge of the echo although there was almost continuous thunder from all quadrants. The weakening of the echo seemed substantiated by the light rainfall.

A later plotting of approximate tornado damage paths on the sketch (see fig. 1) showed enough relation to the echo to make it worth reporting here. Locations where time of tornado damage have been definitely ascertained are shown on the sketch. Overdeveloped mammatus or incipient funnels 7 or 8 miles south-southwest of the observation point and 4 or 5 miles to the east of any damage area were observed between 2335 and 2350 cstr. No rotary motion could be detected in the mammatus which have been described as having an accordionlike pulsating movement and which reached close enough to the ground to obscure the beacon at Forbes Air Force Base while runway lights were plainly visible.—*G. E. Brokaw, WBO, Topeka, Kans.*

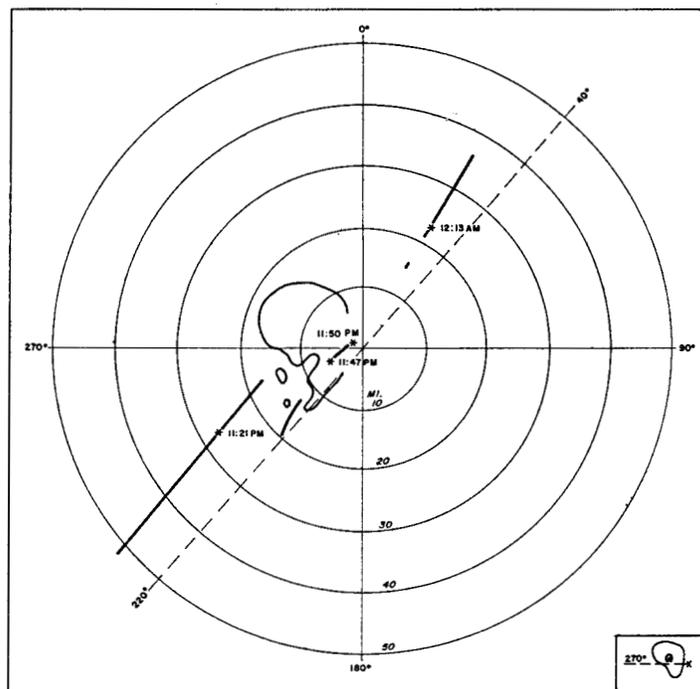


FIGURE 1.—Sketch of radar echo, 2335 cstr, Topeka, Kans., April 2, 1956. Range: 50 mi. Approximate tornado damage paths and locations where time of damage is definitely known are shown. Inset.—Sketch of echo about 2345 cstr. Range uncertain.