



**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Weather Service  
Greater Cincinnati Airport  
Cincinnati, Ohio 45275

Date: April 9, 1974  
Reply to  
Attn of: MIC, WSO, CVG  
Subject: Preliminary Radar Action Summary  
To: ERH, Attn: WFE 4x2

1. Status of Radar and how it performed during the severe weather:

The Radar was operational throughout the severe weather situation of April 3-4. The performance was very good. The C-Log indicated the proper levels, however, after 1600 EDT the Lin Receiver was used because of the configuration of the echoes.

2. Type of Observation and how distribution was made:

There were 19 special observations in addition to the record observations. All observations were sent on the RAWARC circuit. Information about the hook echoes were also given to the WSO and WSFO with county responsibility. The information about the hook echoes was also put on the Ohio, Kentucky and Indiana NAWAS; and echoes moving into the local area were broadcast on the Hamilton County Police Civil Defense radio.

3. Contacts with other offices:

1946Z PSBL Hook 269/59 NE Seymour - Gave to IND.  
1855Z TRW ++ Top 500 10 SW Bedford, IN - Gave to IND.  
1900Z LN TRW ++ Top 500 isolated TRWX - Gave to IND.  
1540Z Cell + Top 500 30 N Dayton - Gave to DAY.  
1610Z LN + will be in CMH area in one hour - Gave to CMH.  
2013Z Hook 220/50 NE Madison, IN - Gave to IND.

In the time period from 1900Z to 2140Z, all observations with hook echoes or echoes with a V-notch were given to the office with county responsibility. Most of these were to the forecast centers at Indianapolis and Louisville, and the contact was via the NAWAS. Logs are incomplete, because the main function was the relay of data and issue of warnings.

4. Mail Film:

Film mailed A.M. of 4-4-74.

5. Summary of observations, activity and warnings issued:

See Station summary of severe WX sent to ERH, Attn: WFE8x3, dated 4-9-74.

6. Power outage and emergency power availability:

The power was out from 5:40 pm EDT until 8:53 pm EDT. Emergency power is not available. There were 5 hook echoes on radar at the time of power failure, one moving into Cincinnati.

7. Hook echoes observed and action taken:

1946Z Possible hook 269/59 NE Seymour, IN - Gave to IND on NAWAS

1955Z Cell approach Preble Co. in about 1 hour - warning advised.

2013Z Hook echoes  
281/44 Local tornado warning 2020 Franklin Co. IN.  
Also gave to Indianapolis, NAWAS  
239/74 Gave to Indianapolis and Louisville, NAWAS  
220/56 Gave to Indianapolis, NAWAS

2035Z Hook echoes  
296/33 Indianapolis NAWAS - local tornado warning  
33/35 Gave to Dayton hot line  
244/59 Gave to Indianapolis, NAWAS: local tornado warning

2042Z Hook approaching Xenia, call Dayton

2051Z Hook echoes  
40/57 Gave to Dayton hot line  
73/8 (1645 EDT) issued and updated tornado warning  
151/77 Called Lexington hot line (possible hook)  
243/39 Gave to Indianapolis NAWAS  
328/32 Gave to Indianapolis NAWAS / Tornado warning  
Franklin Co. V-notch cell 232/100 called Louisville  
NAWAS

2115Z 255/18 Tornado warning issued  
230/80 V-notch - called Louisville NAWAS  
44/68 Hook - called Dayton hot line

2135Z 228/77 Hook - gave to Louisville  
246/11 Local statement, warning current  
47/76 V-notch - gave to Dayton hot line

Power out 2140 - 0053Z

0110Z Received report from off duty observer 5 SW Walton, KY of  
1 1/2 inch hail. Severe thunderstorm warning issued at  
0115Z

0414Z Hook echo 252/17 local tornado warning issued

8. Confirmation of Severe Weather

See Station severe weather summary at later date

9. Anything unusual in observation other than hooks:

The only thing unusual is the number of hooks at one time. The important thing to learn from the situation is that we should not force or imagine the configurations; the hooks or V-shape notches that are important present no identification problem to the observer. The second lesson is that we should use the complete radar, both C-log and the Lin Receiver. In the recent situation if only the C-log was used, the hooks and V-notches would not be evident. The final thing is the local area and ground pattern; one should always remember to tilt the antenna and get a complete rotation on 25 or 50 mile range. You can get very busy with all the activity away from the station, but you should always be aware of your local area. In this situation we had 3 or 4 hooks away from the station and still had one pass 2.5 miles west.