

SURFACE WEATHER OBSERVATIONS

| TYPE | TIME (LST) | SKY AND CEILING (Hundreds of Feet) | VISIBILITY (Miles) |       | WEATHER AND OBSTRUCTIONS TO VISION | SEA LEVEL PRESS. (Mbs.) | TEMP. (°F) | DEW PT. (°F) | WIND               |              | ALTIMETER SETTING (In.) | REMARKS AND SUPPLEMENTAL CODED DATA  | SEA LEVEL PRESS. (Mbs.) |       |       |
|------|------------|------------------------------------|--------------------|-------|------------------------------------|-------------------------|------------|--------------|--------------------|--------------|-------------------------|--|-------------------------|-------|-------|
|      |            |                                    | SURFACE            | TOWER |                                    |                         |            |              | DIRECTION (00-360) | SPEED (Kts.) |                         |  |                         |       |       |
| (1)  | (2)        | (3)                                | (4)                | (4a)  | (5)                                | (6)                     | (7)        | (8)          | (9)                | (10)         | (11)                    | (12)   | (13)                    | (14)  |       |
| R    | 0055       | E120(1)250(1)                      | 10                 |       |                                    | 061.54                  | 42         | 13           | 03                 |              | 971                     |  |                         |       |       |
| R    | 0155       | E120(1)250(1)                      | 10                 |       |                                    | 050.55                  | 42         | 15           | 08                 |              | 968                     |  |                         |       |       |
| R    | 0255       | E120(1)250(1)                      | 10                 |       |                                    | 043.54                  | 43         | 14           | 08                 |              | 966                     | 720  | 1078                    |       |       |
| R    | 0355       | 250(1)200(E)250(1)                 | 10                 |       |                                    | 046.53                  | 44         | 14           | 07                 |              | 967                     |  |                         |       |       |
| RS   | 0455       | M22(1)                             | 10                 |       |                                    | 040.54                  | 46         | 00           | 00                 |              | 965                     |  |                         |       |       |
| R    | 0555       | M22(1)35(1)                        | 10                 |       |                                    | 040.57                  | 50         | 15           | 09                 |              | 965                     |  |                         |       |       |
|      |            | 72423 R1509                        | 66032              |       | 04014                              | 85511                   | 16803      |              |                    |              | 6986.5                  | 46853  |                         |       |       |
| S    | 0615       | 250(1)400(E)100(1)                 | 10                 |       |                                    |                         |            | 13           | 08                 |              | 963                     | 40(1)V(1)  |                         |       |       |
| R    | 0655       | 400(E)100(1)250(1)                 | 10                 |       |                                    | 030.60                  | 54         | 15           | 10                 |              | 962                     |  |                         |       |       |
| R    | 0755       | 200(E)450(1)100(1)                 | 10                 |       |                                    | 026.62                  | 56         | 16           | 12                 |              | 961                     |  |                         |       |       |
| S    | 0820       | 200(M)38(1)100(1)                  | 7                  |       | TRW                                |                         |            | 21           | 08                 |              | 962                     | TB20 TSW MOVG NE LTGIC SW  |                         |       |       |
| RS   | 0855       | 200(M)34(1)100(1)                  | 7                  |       |                                    | 030.64                  | 58         | 18           | 08                 |              | 962                     | TE40 MOVG NE RE35 PKWND 15/1145 SWR01 157/   |                         |       |       |
| R    | 0955       | 300(E)200(1)250(1)                 | 7                  |       |                                    | 016.70                  | 62         | 18           | 16                 |              | 958                     |  |                         |       |       |
| R    | 1055       | M32(1)250(1)                       | 7                  |       |                                    | 998.75                  | 63         | 18           | 18                 | 029          | 953                     |  |                         |       |       |
| R    | 1155       | M32(1)                             | 7                  |       |                                    | 998.77                  | 64         | 18           | 19                 | 027          | 950                     |  |                         |       |       |
|      |            | 72423 C1819                        | C1029              |       | 98825                              | C1500                   | 18647      | 69814        |                    |              | 70140                   | 20001  | 47753(1)                |       |       |
| R    | 1255       | M34(1)250(1)                       | 7                  |       |                                    | 960.78                  | 63         | 18           | 21                 | 030          | 942                     | PRESRR   |                         |       |       |
| R    | 1355       | M36(1)250(1)                       | 7                  |       |                                    | 950.77                  | 62         | 18           | 19                 | 030          | 939                     |  |                         |       |       |
| RS   | 1439       | E45(1)                             | 10                 |       | T                                  |                         |            | 19           | 25                 |              | 957                     | TB38 TSW MOVG NE OCNL LTGIC SW   | RDC                     |       |       |
| R    | 1455       | E45(1)                             | 10                 |       | T                                  | 947.78                  | 62         | 19           | 22                 | 031          | 956                     | TB38 SW MOVG NE OCNL LTGIC SW  | RDC                     |       |       |
|      |            |                                    |                    |       |                                    |                         |            |              |                    |              |                         | SW SDF RADAR INDICATES HOOK ECHO 30 MINSW 236/30   |                         |       |       |
|      |            |                                    |                    |       |                                    |                         |            |              |                    |              |                         | PK WND 26/35 29 742 1911   |                         |       |       |
| S    | 1540       | M32(1)                             | 4                  |       | TRW+                               |                         |            | 24           | 28                 | 073          | 957                     | TORNADO B31 JUST NORTH OF FIELD MOVG E   | RDC                     |       |       |
| RS   | 1555       | E45(1)250(1)                       | 7                  |       |                                    |                         |            |              |                    |              |                         | TORNADO B31 E42 200 YDS NORTH OF ARPT MOVG E RB00 OCNL LTGICCG E PKWND 24/73 37 AB30 E41 | RDC                     |       |       |
|      |            |                                    |                    |       |                                    |                         |            |              |                    |              |                         | HAIL 1/2 IN LONEST PRES 887 2152   |                         |       |       |
| RS   | 1614       | E45(1)250(1)                       | 7                  |       |                                    |                         |            | 21           | 18                 | 026          | 956                     | TE14 MOVG E RE14 PRESRR  | RDC                     |       |       |
| R    | 1655       | 45(1)E250(1)                       | 10                 |       |                                    | 940.73                  | 62         | 21           | 17                 |              | 956                     | TE14 RE14 MOVG E PKWND 2126 13   | RDC                     |       |       |
| R    | 1755       | E45(1)250(1)                       | 7                  |       |                                    | 940.73                  | 62         | 20           | 15                 |              | 986                     | TCU ALQDS  | RDC                     |       |       |
|      |            | 72423 62015                        | 61029              |       | 940                                | 23                      | 52         | 602          | 17503              |              | 69770                   | 70720  | 92273                   | 20006 | 47953 |
| R    | 1855       | 45(1)                              | 7                  |       |                                    | 944.72                  | 61         | 18           | 09                 |              | 957                     | TORNADO HAIL   | RDC                     |       |       |
| R    | 1855       | 45(1)                              | 7                  |       |                                    | 944.70                  | 61         | 18           | 09                 |              | 957                     | OCNL LTGIC E   | RDC                     |       |       |
| R    | 1955       | O                                  | 7                  |       |                                    | 947.72                  | 62         | 20           | 14                 |              | 956                     |  | RDC                     |       |       |
|      |            | 1805                               |                    |       |                                    |                         |            |              |                    |              |                         | EARTHQUAKE FELT AB 50F   |                         |       |       |
| R    | 2055       | 45(1)                              | 7                  |       |                                    | 950.71                  | 63         | 20           | 11                 |              | 959                     | 210 1100   | RDC                     |       |       |
| R    | 2155       | E50(1)                             | 7                  |       |                                    | 956.72                  | 63         | 18           | 18                 | 026          | 941                     |  | RDC                     |       |       |
| RS   | 2255       | E50(1)250(1)                       | 7                  |       | T                                  | 948.70                  | 62         | 18           | 20                 | 032          | 959                     | TB50 W-NW MOVG E OCNL LTGICCG  | RDC                     |       |       |
|      |            |                                    |                    |       |                                    |                         |            |              |                    |              |                         | PK WND 18/32 56  |                         |       |       |
| S    | 2332       | E20(1)30(1)                        | 4                  |       | TRW+                               |                         |            | 27           | 18                 | 041          | 948                     | TALQDS FOT LTGICCG ALQDS MOVG ENE PKWND 26/41 31   | RDC                     |       |       |

A synoptic observation, in WMO code format FMI1D, is entered on the following related aviation observation.

FMI1D: IIIII Hddff VVwwW PPTT N1C1 hCUC4 T.J.1000 6P.P.P.P. TRRR15 8N.Ch.hc 95p5p5p 2R2R2R2R2R2 3P\_w.H\_w dwdwPwHwHw 4T2T2T2T2

Translations of highlighted sections on next page...

PRESFR: The barometric pressure was falling very rapidly

SDF RADAR INDICATES HOOK ECHO 30 MI SW: A “hook echo” on radar is an indicator of a possible tornado. The radar was probably seeing the Brandenburg F5.

TORNADO B31 JUST NORTH OF FIELD MOVG E: At 31 minutes after the hour, National Weather Service officials witnessed the birth of the Louisville tornado as it touched down just west of the State Fairgrounds.

TORNADO B31 E42 200 YDS NORTH OF ARPT MOVD E RB00 OCNL LTGICCG E PK WND 24/73 AB30E41: The tornado began at 31 minutes after the hour 200 yards north of Standiford Field, moved east, and disappeared from the view of the weather observer at 42 minutes after the hour. Rain began at the top of the hour and was continuing. There was occasional lightning to the east of the airport. The strongest wind at the weather office was 84 miles per hour at 24 minutes after the hour. Hail fell from 30 minutes to 41 minutes after the hour.

EARTHQUAKE FELT AT SDF: As if an F4 tornado wasn't enough, we also had an earthquake! It was a 4.7 on the Richter Scale and was centered in southeast Illinois about 30 miles southwest of Vincennes, Indiana.