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FSL Output Format Description

(FSL Radiosonde Database)

FSL Rawinsonde data format

The official FSL data format is similar to the format used by the National Severe Storms Forecast Center (NSSFCC) in Kansas City. The first 4 lines of the sounding are identification and information lines. All additional lines are data lines. An entry of 32767 (original format) or 99999 (new format) indicates that the information is either missing, not reported, or not applicable.

---COLUMN NUMBER---

1	2	3	4	5	6	7
LINTYP						
header lines						
254	HOUR	DAY	MONTH	YEAR	(blank)	(blank)
1	WBAN#	WMO#	LAT D	LON D	ELEV	RTIME
2	HYDRO	MXWD	TROPL	LINES	TINDEX	SOURCE
3	(blank)	STAIID	(blank)	(blank)	SONDE	WSUNITS
data lines						
9	PRESSURE	HEIGHT	TEMP	DEWPT	WIND DIR	WIND SPD
4						
5						
6						
7						
8						

LEGEND

LINTYP: type of identification line

254 = indicates a new sounding in the output file

1 = station identification line

2 = sounding checks line

3 = station identifier and other indicators line

4 = mandatory level

5 = significant level

6 = wind level (PPBB) (GTS or merged data)

7 = tropopause level (GTS or merged data)

8 = maximum wind level (GTS or merged data)

9 = surface level

HOUR: time of report in UTC

LAT: latitude in degrees and hundredths

LON: longitude in degrees and hundredths

D: direction latitude ('N' or 'S') or longitude ('E' or 'W') -note this only appears in the online archive containing international observations.

ELEV: elevation from station history in meters
 RTIME: is the release time of radiosonde balloon
 HYDRO: the pressure of the level to where the sounding passes the hydrostatic check (see section 4.3).**
 MXWD: the pressure of the level having the maximum wind in the sounding. If within the body of the sounding there is no "8" level then MXWN is estimated (see section 3.2).
 TROPL: the pressure of the level containing the tropopause. If within the body of the sounding there is no "7" level, then TROPL is estimated (see section 3.3)**
 LINES: number of levels in the sounding, including the 4 identification lines.
 TINDEX: indicator for estimated tropopause. A "7" indicates that sufficient data was available to attempt the estimation; 11 indicates that data terminated and that tropopause is a "suspected" tropopause.
 SOURCE: 0 = National Climatic Data Center (NCDC)
 1 = Atmospheric Environment Service (AES), Canada
 2 = National Severe Storms Forecast Center (NSSFC)
 3 = GTS or FSL GTS data only
 4 = merge of NCDC and GTS data (sources 2,3 merged into sources 0,1)
 SONDE: type of radiosonde code from TTBB. Only reported with GTS data
 10 = VIZ "A" type radiosonde
 11 = VIZ "B" type radiosonde
 12 = Space data corp.(SDC) radiosonde.
 WSUNITS: wind speed units (selected upon output)
 ms = tenths of meters per second
 kt = knots

PRESSURE: in whole millibars (original format)
 in tenths of millibars (new format)
 HEIGHT: height in meters (m)
 TEMP: temperature in tenths of degrees Celsius
 DEWPT: dew point temperature in tenths of a degree Celsius
 WIND DIR: wind direction in degrees
 WIND SPD: wind speed in either knots or tenths of a meter per second
 (selected by user upon output)

An example of fortran format statements necessary to read output rawinsonde data, according to LINTYP, is as follows:

```

      LINTYP
      254      (3i7,6x,a4,i7)
       1      (3i7,f7.2,a1,f6.2,a1,i6,i7)
       2      (7i7)
       3      (i7,10x,a4,14x,i7,5x,a2)
      4,5,6,7,8,9  (7i7)
  
```

Note the format descriptor for LINTYP=1 has changed to conform with the CDROM archive.

** - section of noaa tech memo on the data base (in print)

TECHNICAL INFORMATION: Schwartz, B.E., and M. Govett, 1992: "A hydrostatically consistent North American Radiosonde Data Base at the forecast Systems Laboratory, 1946-present." NOAA Technical Memorandum ERL FSL-4. Available from NOAA/ERL/FSL 325 Broadway, Boulder, CO 80303.

[Begin RAOB database request](#)

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