Praia, Cape Verde Radiosonde Data Format

Below are two tables describing the radiosonde data to be made available on the RTMM and the NAMMA data archive. The user needs to be aware that there are two format sections, one for the up leg-tracked data and the second for the down leg track.

It will be the practice to track all radiosonde flights down to as low an altitude allowed by the system. The data record at the point where the descent occurs will be split from the full file and designated descent; the up track will be designated as ascent.

Table 1 describes the Header format of the file; this actually is the Metadata.

Table 2 describes the data file contents and its format. The data file is in two parts. Part 1 is the up leg track data and Part 2 is the down leg track. The up leg and down leg tracks are identified by the designator's 'ASCENT' and 'DESCENT'.

Radiosonde Data File Naming Convention

Consistent with the Project guidelines for the naming of products to be delivered to the NAMMA data system. UAIRP will be using the templates as shown below for the labeling of Praia radiosonde ascent and descent data files.

Praia Radiosonde "Ascent" Data File Name Template:

```
namma_praia-radiosonde_YYYYMMDD_hhmmZ_data_ascent.txt
```

where: `YYYYMMDD` = the UTC balloon release date as year-month-day, and
`hhmm` = the UTC balloon release time in hours-minutes.

Praia Radiosonde "Descent" Data File Name Template:

```
namma_praia-radiosonde_YYYYMMDD_hhmmZ_data_descent.txt
```

For information on the UAIRP NAMMA Praia GPS radiosonde and data contact:

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Record / Line No.	Record content	Description
1	Balloon / radiosonde release date	UTC date of detected sonde release based on host PC clock in month-day-year format (MM/DD/YY)
2	Flight identification	internal ground station track identification assigned to all files
3	Radiosonde type	edited manufacturer's radiosonde model
4	Radiosonde serial number	manufacturer's radiosonde serial number
5	Station location sub-heading	information sub-header only
6	Station latitude	latitude of balloon release site in decimal degrees
7	Station longitude	longitude of balloon release site in decimal degrees
8	Station height	the balloon release site height in meters above mean sea level
9	Balloon release time	the ground station identified balloon release time in UTC based on the host PC clock in hours-minutes-seconds format (hh:mm:ss) [Note: this is generally the time of the first frame aloft for the Sippican tracking software]
10	Flight termination time	the ground station identified flight termination time in UTC based on the host PC clock in hours-minutes-seconds format (hh:mm:ss) [Note: this time will generally NOT be the balloon burst time, but will represent the identified time of loss of track or when the operator manually ends the flight track]
11	Surface data sub-heading	information sub-header only
12	Surface pressure observation	surface pressure reading from AIR hand-held barometer; generally taken at 15 minutes prior to release
13	Surface temperature observation	surface temperature (dry bulb) reading from the sling psychrometer; generally taken at 15 minutes prior to release
14	Surface relative humidity	surface relative humidity determined from the sling psychrometer reading; generally taken at 15 minutes prior to release
15	Surface wind direction	surface wind direction reading; usually obtained at 15 minutes prior to release
16	Surface wind speed	surface wind speed reading; usually obtained at 15 minutes prior to release
17	Flight segment	indicator that this data file contains either the "ascent" or "descent" portion of the radiosonde track
18	Filler record	empty record spacer

Table 1. Description of the Praia radiosonde data file header information and Metadata.

Table 2 below, describes the data contents and format.

Character Positions	Data Field	Units	Character Width	Format	Column Heading	Missing Data
001-001	*filler*		1	*1 space*		
002-012	Flight Time Since Launch	elapsed seconds	11	seconds.xx	ElpsTime[s]	-999.00
013-013	*filler*		1	*1 space*		
014-024	Pressure	hPa	11	fixed - 3 decimal places	Press [hPa]	-999.000
025-025	*filler*		1	*1 space*		
026-036	Temperature	degrees Celsius	11	fixed - 2 decimal places	Temp [C]	-999.00
037-037	*filler*		1	*1 space*		
038-048	Relative Humidity	%	11	fixed - 1 decimal places	RH [%]	-999.0
049-049	*filler*		1	*1 space*		
050-060	Dew Point	degrees Celsius	11	fixed - 2 decimal places	Dewpt [C]	-999.00
061-061	*filler*		1	*1 space*		
062-072	Geopotential Height	meters	11	fixed - 1 decimal places	GeopHt [m]	-999.0
073-073	*filler*		1	*1 space*		
074-084	Smoothed Wind Direction	degrees	11	fixed - 1 decimal places	Dir [deg]	-999.0
085-085	*filler*		1	*1 space*		
086-096	Smoothed Wind Speed	meters per second	11	fixed - 1 decimal places	Speed [m/s]	-999.0
097-097	*filler*		1	*1 space*		
098-108	Smoothed Wind Comp. (E/W)	meters per second	11	fixed - 1 decimal places	u [m/s]	-999.0
109-109	*filler*		1	*1 space*		
110-120	Smoothed Wind Comp. (N/S)	meters per second	11	fixed - 1 decimal places	v [m/s]	-999.0
121-121	*filler*		1	*1 space*		
122-132	UTC Time	hours:minutes:seconds	11	hrs:mins:secs.x	UTC [h:m:s]	-999.0
133-133	*filler*		1	*1 space*		
134-144	Latitude	degrees	11	fixed - 5 decimal places	Lat [deg]	-999.00000
145-145	*filler*		1	*1 space*		
146-156	Longitude	degrees	11	fixed - 5 decimal places	Lon [deg]	-999.00000