

Data Format of Log Files (log.dat)

Data	Data form	Figure	Example, Explanation
Data name	xxxx to xxxx	12	
Type of observation	xxxx to xxxx	10	Routine, Special observation
Memo for observation	xxxx to xxxx	30	
Station name/Identifier	xxxx to xxxx	32	
WMO Station number	#####0	5	Ex. 89532
Date (Year, Month, Day)	####0(Year) #0(Month) #0(Day)	25	20030410 = 10 th April 2003
Observation Starting time	#0(Hour) #0(Minute) #0(Sec)	8	203010 = 20:30:10
Observation closing time	#0(Hour) #0(Minute) #0(Sec)	8	215320 = 21:53:20
Closing time for TU	#0(Hour) #0(Minute) #0(Sec)	8	215320 = 21:53:20
Closing time for Wind	#0(Hour) #0(Minute) #0(Sec)	8	215320 = 21:53:20
Observer name	xxxx to xxxx	30x2	
Serial number of Radiosonde	#####0	6	200708
Observation number	#####0	6	666
Type of Radiosonde	xxxx to xxxx	15	RS-01GII
Coefficient for temp sensor	###0.00000e±000	14x10	-3.27559e+001 for 10 parameters
Coefficient for humid sensor	###0.00000e±000	14x10	-2.54370e+003 for 10 parameters
Test data before launch	xxxx to xxxx	16	
Tested date	####0(Year) #0(Month) #0(Day)	44	
Height of surface barometer	#0.0	4	20.7m
Recording area for remain	#####0	8	10026MB
Height of GPS	xx	2	OK, OK/NG
Air temperature	###0.0	5x3	27.1°C, 3 data for Radiosonde, Reference, difference
Humidity	###0.0	5x3	55.6%, 3 data for Radiosonde, Reference, difference
Air pressure	###0.0	6x3	1015.7hPa, 3 data for Radiosonde, Reference, difference
Type of Balloon	####0	4	600 g
Serial number of balloon	#####0	6	13791
Buoyancy	####0	4	1800 g
Result of Baseline check	xxxx to xxxx	96	
Observation data	xxxx to xxxx	18	After termination
Termination reason	x.x	3	B.B
Wind Termination reason	x.x	3	B.B
Equipment	xxxx to xxxx	8	
Parachute for clear	xxxx	4	Used/ Not use
Parachute for Rain	xxxx	4	Used/ Not use
Winder	xxxx	4	Used/ Not use
Pilot lamp for tracking	xxxx	4	Used/ Not use
Waterproof painting	xxxx	4	Used/ Not use
Silicon painting	xxxx	4	Used/ Not use
Cloud data, NNhCLhCMCH	xxxxxx	6	442X00
Present weather	xx	2	02
Transmitting information	xxxx to xxxx	12	
Transmitted date for TEMP	####0(Year) #0(Month) #0(Day)	18	
Transmitted time AB	##(Hour) ##(Minute)	8	22:27
Transmitted time CD	##(Hour) ##(Minute)	8	22:27
Transmitted date for Correction for TEMP	####0(Year) #0(Month) #0(Day)	18	
Transmitted time AB(Corre)	##(Hour) ##(Minute)	8	Correction TEMP report
Transmitted time CD(Corre)	##(Hour) ##(Minute)	8	Correction TEMP report
Number of correction report	#0	2	TEMP-AB
Number of correction report	#0	2	TEMP-CD
Transmitted time for 1st Statistics report	####0(Year) #0(Month) #0(Day) ##(Hour) ##(Minute)	30	
Transmitted time for 2nd statistics report	####0(Year) #0(Month) #0(Day) ##(Hour) ##(Minute)	30	
Remarks	xxxx to xxxx	96	

(To be continued)

Data	Data form	Figure	Example, Explanation
Surface data on balloon release	xxxx to xxxx	14	
Air pressure on surface	###0.0	6	1016.5hPa
Air temperature	##0.0	5	24.5°C
Humidity	##0.0	5	79.0%
Wind direction	##0.0	5	20.0°, 1~360°, Calm:00°, Failure: [-]
Wind speed	##0.0	5	1.2m/s, Calm:0.0, Failure: [-]
Automatic calculation	xxxx to xxxx	8	
Total time for wind interpolation	##0	3	5 sec
Auto calculation	*	*	Starting time: 20:32:03, Pressure 940.5hPa up to xxx, Maximum number: 300times, Refer to below table
Total time for temperature interpolation	##0	3	52 sec
Auto calculation	*	*	Starting time: 20:32:03, Pressure 936.8hPa upto xxx, Maximum number: 300times, Refer to below table
Total time for humidity interpolation	##0	3	0 sec
Auto calculation	*	*	None, Maximum number: 300times, Refer to below table
Super thermal insulation processing	xxxx to xxxx	10	
Auto calculation	*	*	Starting time: 20:32:17, Pressure 927.1hPa upto xxx, Maximum number: 300times, Refer to below table
Correction information	xxxx to xxxx	16	Maximum number: 300times
Correction date	000000000000	12	200304112329, 2003/04/11 23:29
Correction time	00:00:00	8	20:53:03
Corrected data	xxxxxx	6	Hourly TU, Hourly TU and Wind/ P-T
Operator name for correction	xxxx to xxxx	32	

Detail of corrected data format

Data	Data form	Figure	Example, Explanation
Starting time	##(Hour) ##(Minute) ##(Sec)	12	20:31:58, Starting time when data corrected
Pressure	###0.0	6	940.5hPa, Pressure data when data corrected
~	xx	2	~
Closing time	##(Hour) ##(Minute) ##(Sec)	12	20:32:03, Closing time when data corrected
Pressure	###0.0	6	936.8hPa, Pressure data when data corrected
Delimiter	-	2	CR, LF

Data Format of Log Files (*.csv)

Format of Header Section

First row

Data	Data form	Figure	Example, Explanation
Type of Radiosonde	xxxxxxx	8	RS-01GII
Serial number	#####0	7	4100001
Observation interval	0	1	2(Fixed)
Type of temperature sensor	0	1	1(Fixed)
Balloon release Date	yyyy/mm/dd	10	2001/01/30
Balloon release Time	hh:mm:ss	8	10:10:35
Data number	#####0	5	30, If there is data on row 8~37
Recording period	hh:mm:ss	8	01:15:59
Station name	xxxx~xxxx	32	Max 32 characters
Latitude of antenna	±#0.00000	9	+24.28806 deg
Longitude of antenna	±#0.00000	10	+153.99972 deg
Altitude of antenna	±##0	4	+26 m
Altitude of balloon release site	±##0	4	+21 m
Observer name	xxxx~xxxx	32	Max 32 characters
Memo for observer	xxxx~xxxx	64	Max 64 characters
Output interval for height	±##0	4	+0(Fixed)
Transmitting frequency	0	1	0:1600MHz/1:400MHz

Second row

Data	Data form	Figure	Example, Explanation
BL confirmation time	hh:mm:ss	8	23:59:59
Reference frequency	##0.00	6	0.00, Hz
Frequency of internal temperature data	##0.00	6	0.00, Hz
Low reference frequency for voltage	##0.00	6	0.00, Hz
High reference frequency for voltage	##0.00	6	0.00, Hz
Frequency for Pressure data	##0.00	6	0.00, Hz
Frequency for Temperature data	##0.00	6	0.00, Hz
Frequency for Humidity data	##0.00	6	0.00, Hz
Pressure data	####0.0	6	1014.3, hPa
Temperature data	##0.00	6	25.10, °C
Humidity data	#0.00	5	62.30, %RH
Pressure data at BL check	####0.0	6	1014.3, hPa
Dry-bulb temperature data at BL check	##0.00	6	25.30, °C
Wet-bulb temperature data at BL check	##0.00	6	0.00, °C
Humidity data at BL check	#0.00	5	63.50, %RH
Difference pressure data	##0.00	6	0.00, hPa (between sonde and BL check)
Difference temperature data	##0.00	6	-0.20, °C (between sonde and BL check)
Difference humidity data	#0.00	5	-1.20, %RH (between sonde and BL check)
Memo for BL check	xxxx~xxxx	64	Max 64 characters

Third row to Fifth row

Data	Data form	Figure	Example, Explanation
Sonde parameter as 01/64	±0.0000000e±00	14	
Sonde parameter as 02/64	±0.0000000e±00	14	
Sonde parameter as 03/64	±0.0000000e±00	14	
Sonde parameter as 04/64	±0.0000000e±00	14	
Sonde parameter as 05/64	±0.0000000e±00	14	
Sonde parameter as 06/64	±0.0000000e±00	14	
Sonde parameter as 07/64	±0.0000000e±00	14	
Sonde parameter as 08/64	±0.0000000e±00	14	
Sonde parameter as 09/64	±0.0000000e±00	14	
Sonde parameter as 10/64	±0.0000000e±00	14	
Sonde parameter as 11/64	±0.0000000e±00	14	
Sonde parameter as 12/64	±0.0000000e±00	14	
Sonde parameter as 13/64	±0.0000000e±00	14	
Sonde parameter as 14/64	±0.0000000e±00	14	
Sonde parameter as 15/64	±0.0000000e±00	14	
Sonde parameter as 16/64	±0.0000000e±00	14	

(To be continued)

Sixth row

Data	Data form	Figure	Example, Explanation
Sonde parameter as 49/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 50/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 51/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 52/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 53/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 54/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 55/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 56/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 57/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 58/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 59/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 60/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 61/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 62/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 63/64	$\pm 0.0000000e\pm 00$	14	
Sonde parameter as 64/64	$\pm 0.0000000e\pm 00$	14	

Format of Data Section

Data	Data form	Figure	Example, Explanation
Observation time	hh:mm:ss	8	Time form GPS (Passage time in second, when data is missing or abnormal)
Data Counting number	####0	5	
Observation status	0	1	Hex-Decimal by exclusive OR from 0(h) to 7(h) 1: After balloon release, 0: Before Balloon release 2: Remote receiver, 0: Local Receiver 4: After BL check, 0: Before BL check
Receiver error status	0	1	Hex-Decimal by exclusive OR from 0(h) to 7(h) 1: Impossible normal receiving, 0: Normal receiving 2: Abnormal Frame Counter, 0: Normal counting 4: Jamming Radio wave, 0: Normal
Radiosonde serial number	#####0	7	
Frame Counter	####0	5	
Signal strength	##0	3	
Receiving frequency	##0.00000	9	MHz
Wind calculation mode	0	1	1: Doppler shift, 0: Positioning data
Wind direction	##0.00	6	deg
Wind speed	##0.00	6	m/s
Height	####0.0	7	m
Distance in X	#####0.0	8	m
Distance in Y	#####0.0	8	m
GPS positioning mode	0	1	4: Differential 3-dimensional positioning 3: Differential 2-dimensional positioning 2: Single 3-dimensional positioning 1: Single 3-dimensional positioning 0: Impossible for positioning
HDOP	#0.0	4	Horizontal Dilution Of Precision
PDOP	#0.0	4	Position Dilution Of Precision
GPS Latitude	##0.00000	9	deg
GPS Longitude	###0.00000	10	deg
Weather data error status	0	1	Hex-Decimal by exclusive OR from 0(h) to 7(h) 1: Pressure error (Even frame), 0: Normal 2: Temperature error (Even frame), 0: Normal 4: Humidity error (Even frame), 0: Normal 8: Pressure error (Odd frame), 0: Normal 10: Temperature error (Odd frame), 0: Normal 20: Humidity error (Odd frame), 0: Normal

(To be continued)

Data	Data form	Figure	Example, Explanation
Pressure (Even frame)	###0.0	6	hPa
Temperature (Even frame)	##0.0	5	°C
Humidity (Even frame)	##0.0	5	%RH
Frequency error status	0000	4	Hex-Decimal by exclusive OR from 0(h) to 7(h) 1000: Abnormal Reference frequency, 0: Normal 2000: Abnormal Internal temp frequency, 0: Normal 4000: Abnormal High voltage reference freq., 0: Normal 8000: Abnormal Low voltage reference freq., 0: Normal 0100: Abnormal temp freq.(Even frame), 0: Normal 0200: Abnormal humidity freq. (Even frame), 0: Normal 0400: Abnormal pressure freq. (Even frame), 0: Normal 0010: Abnormal temp freq. (Odd frame), 0: Normal 0020: Abnormal humidity freq. (Odd frame), 0: Normal 0040: Abnormal pressure freq. (Odd frame), 0: Normal 0001: Spare element-1, 0: Normal 0002: Spare element-2, 0: Normal 0004: Spare element-3, 0: Normal 0008: Spare element-4, 0: Normal
Reference Frequency	##0.00	6	Hz
Internal temperature Freq.	##0.00	6	Hz
High voltage reference freq.	##0.00	6	Hz
Low voltage reference freq.	##0.00	6	Hz
Spare element-1	##0.00	6	Hz
Spare element-2	##0.00	6	Hz
Spare element-3	##0.00	6	Hz
Spare element-4	##0.00	6	Hz
Total number of Satellite	0	1	
Identification of No.1 Satellite.	00	2	
Identification of No.2 Satellite.	00	2	
Identification of No.3 Satellite.	00	2	
Identification of No.4 Satellite.	00	2	
Identification of No.5 Satellite.	00	2	
Identification of No.6 Satellite.	00	2	
Identification of No.7 Satellite.	00	2	
Identification of No.8 Satellite.	00	2	