

# Upper Air Sounding Diary for SoWMEX/2008

## Notification

Sounding Serial Number (SS/N) : : ① – ② – ③ – ④ – ⑤

**【Station's ID】 – 【Sounding System】 – 【Serial Number】 – 【Re-launch ID】 – 【Result Index】**

(1) Station's ID : 5 digits

CWB's Stations :  Banciao 【46692】  Hualien 【46699】  Yongkang 【46741】

Universities' stations :  Liouguei 【99744】  Taichung 【99770】  Hengchun 【99759】

AWW's Stations :  Magong 【46734】  Pingtung 【46750】  Lyudao 【46780】

Navy's Stations :  Dongsha 【46810】  Ship\_SW 【99810】  Ship\_NE 【99692】

(2) Sounding System : 2 Characters in capital

1st char. :  Tracking (T)  GPS (G)

2nd char. :  Meisei (M)  Vaisala (V)  Graw (G)

(3) Serial Number : 3 digits

To represent the sounding sequence since the beginning of SoWMEX (e.g. if Dongsha station being asked to start intensive observation since 00Z of May 15, 2008 with 4 times per day, the Planned Sounding Serial Number at 00Z of May 15, 2008 shall be 001, 06Z shall be 002 and so forth). Re-launch shall not be included.

(4) Re-launch ID : 1 digit

0 : represent first launch, 1 : for 1st re-launch, 2 : for 2nd re-launch.

The first launch shall be 30 minutes before observation hour. The re-launch proceed only If signal misses or instrument malfunctions within one hour. If the time interval exceeds one hour from first launch, the re-launch operation will not proceed to avoid overlapping the successive observation.

(5) Result Index : 1 character in capital

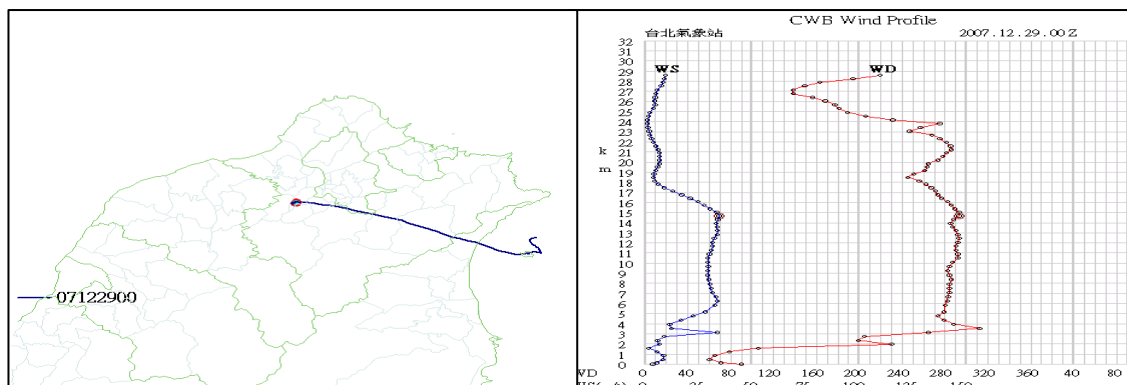
S : represent Success, F : represent Failure.

For Observation Unit, S means that the sounding shall be recorded up to 100 hPa (to enable Skew T plotting); For Research Unit, S means that the sounding shall be recorded at least to 500 hPa. (The criteria for re-launch as stated above).

Weather information recorded from sonde including P, T, U and Wind, PTU are sensing sensed by chips and Wind are calculated by tracking or GPS.

(6) Example of Sonde Trajectory (left) and Vertical Profile of Wind Speed and Direction

(right)



Ex : 46692 – TM – 001 – 0 – S : Banciao Station – Tracking/Meisei system – 1st sounding –

no re-launch – success

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一、Sounding S/N : ① - ② - ③ - ④ - ⑤

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二、Description of sounding result :

Success    \_\_\_ Yr \_\_\_ Mn \_\_\_ Dy \_\_\_ UTC

Successful re-launch    \_\_\_ Yr \_\_\_ Mn \_\_\_ Dy \_\_\_ UTC

Failure after \_\_\_ times re-launch

Cause of failure: \_\_\_\_\_

**【Remark】** : Do not re-launch if the time required will overlapping the successive observation ◦

三、Observation record : Surface observation while sonde launching for sonde's parameters comparison ◦

|                            |  |
|----------------------------|--|
| Baropressure : _____ hPa   | Wind direction : _____ ° ( 0-360° )  |
| Air temperature : _____ °C | Cloud coverage : <input type="checkbox"/> 0-6 <input type="checkbox"/> 7-8 <input type="checkbox"/> 9-10           |
| R.H. : _____ %             | Precipitation : <input type="checkbox"/> Yes <input type="checkbox"/> No   |
| Wind speed : _____ m/sec   | Surface condition : <input type="checkbox"/> Dry <input type="checkbox"/> Wet <input type="checkbox"/> Water layer |

四、Baseline Check : Ensure rationality and stability of data ◦

|   |  |
|---|--|
| Sonde passes baseline check at first time?  | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If not, please record how many sondes have been changed during this sounding : _____            |  |
| Consumables inventory   |  |
| (1) Sonde _____ Set ( Which includes sonde, battery, parachute and night indicator )            |  |
| (2) _____ g balloon left : _____ pcs    (3) He/H <sub>2</sub> steel bottle left : _____ bottles |  |

**五、Observation record** : Receiving computer must perform synchnization with time server ◦

|  |                           |                                      |
|--|---------------------------|--------------------------------------|
| Sounding S/N : _____   |                           | Average ascent speed : _____m/min    |
| Frequency at beginning : ___MHz  | Frequency at end : ___MHz | Horizontal distance at end : _____Km |
| Record begin : ___Dy___Hr___Mn (UTC)   |                           | Final altitude at end : _____m       |
| Record terminate : ___Dy___Hr___Mn (UTC)   |                           | Final baropressure at end : _____hPa |
| Cause of termination : <input type="checkbox"/> Balloon blast , normal <input type="checkbox"/> Forced termination |                           |                                      |
| <input type="checkbox"/> Others , Due to _____   |                           |                                      |

**六、Message reporting** :  固定傳送成功 Route : LL  DLSATFax PH

| Alternate                      | Deliver schedule                                     | Cause of failure |
|--------------------------------|--|------------------|
| <input type="checkbox"/> LL    | <input type="checkbox"/> success (      Hr      Mn ) |                  |
| <input type="checkbox"/> DL    |  |                  |
| <input type="checkbox"/> SAT   |  |                  |
| <input type="checkbox"/> Fax   |  |                  |
| <input type="checkbox"/> Other |  |                  |

**Remark:LL: Leased line, DL: Dial up line, SAT: Satellite, Fax: Facsimile, PH: Phone**

**七、Sonde Trajectory and Vertical Wind Profile** :

|   |                                    |
|---|------------------------------------|
| (1) Maximum wind speed : _____m/s ; Wind direction at Max. Wind speed : _____° ◦<br>( Remark: : Use Max. wind speed defined by software; raw data as option ) |                                    |
| (2) Altitude at Max. Wind speed : _____m / _____hPa ◦   |                                    |
| (3) Location of balloon blast : _____<br>( Describe briefly the geophysical location )  |                                    |
| Sonde Trajectory Map : ( option )   | Vertical Wind Profile : ( option ) |

Remark :

#### 八、Special Weather :

Special weather record around launch site :

(1) Any cumulonimbus observed?     Yes , distance : \_\_\_\_\_ km ;direction : \_

Description : \_\_\_\_\_

(2) Any twister observed?             Yes , distance : \_\_\_\_\_ km ;direction : \_\_\_\_\_

Description : \_\_\_\_\_

(3) Any sea-land breeze observed?    Yes , evident    Yes , unobvious    No

Description : \_\_\_\_\_

(4) Others : \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Remark :

#### 九、Suggestion :

Based on this sounding process , results and synoptic weather analysis , we suggest to the next operation team as following :

The forecasted weather system **will begin to influence** this area during next observation time .

The forecasted weather system **will continue** in this area during next observation time .

The forecasted weather system **will weaken** in this area during next observation time .

others : \_\_\_\_\_