Update of Tateno, Minamitorishima and Syowa

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Outline

Activity
1. Tateno
2. Minamitorishima
3. Syowa
4. New Sounding Central System

Concern
1. Comparison
2. Utilization
Tateno

Photo by Masami Iwabuchi
Changes

• Switch from RS-11G to iMS-100  
  (13 SEP. 2017)
• Start SHC for iMS-100  
  (13 SEP. 2017)
GPS soundings in Tateno

Routine
1. RS-11G (single) : twice a day (before 12 SEP. 2017)
2. iMS-100 (single) : twice a day (after 13 SEP. 2017)
3. RS92-SGP (single) : once a week (summer only)
4. Ozonesonde (single) : once a week

Comparison
1. RS92-SGP – RS-11G : once a week (before 23 June 2017)
2. RS92-SGP – iMS-100 : once a week (after 15 Sep. 2017)
3. RS-11G – iMS-100 : 60 times
4. RS92-SGP – RS41-SG : 10 times
5. CFH – RS-11G – iMS-100 : twice a year
6. MTR – RS92-SGP – RS-11G – iMS-100 : twice a year
GPS soundings in Tateno

RS-11G

Data availability RS-11G

iMS-100

Data availability iMS-100

RS92-SGP

Data availability RS92

RS41-SG

Data availability RS41
Future plan

• Switch from RS92-SGP to RS41-SGP (early 2019)
• Start sending ozonesonde data to GRUAN (pending)
• Start sending RINEX data to GRUAN (pending)
Minamitorishima

Photo by Masami Iwabuchi
Change

- Participation in GRUAN (20 June 2017)
- Switch from RS-11G to iMS-100 (3 Sept. 2017)
- Start SHC for iMS-100 (1 Jan. 2018)

Minamitorishima

SHC:
0% and 100% humidity ground check

0%
molecular sieve

100(95~98)%
water
Routine

1. RS-11G (single) : twice a day (before 2 Sept 2017)
2. iMS-100 (single) : twice a day (after 3 Sept. 2017)

The yellow color is changes from ICM-9.
Future plan

- Start sending gpssonde soundings data to GRUAN (pending)
- Start sending RINEX data to GRUAN (pending)
Syowa

Photo by Masami Iwabuchi
Change

- Participation in GRUAN  
  (20 June 2017)
- Start SHC for RS-11G  
  (20 Mar. 2018)
- Switch from RS-06G to RS-11G  
  (20 Mar. 2018)

SHC:  
0% and 100% humidity ground check
GPS soundings in Syowa

Routine
1. RS-06G (single) : twice a day (before 20 Mar. 2018)
2. RS-11G (single) : twice a day (after 20 Mar. 2018)
3. Ozonesonde (single) : once a week

Comparison
1. CFH – RS-11G (Several times)
2. MTR – RS-11G (Several times)
Future plan

• Start sending gpssonde soundings data to GRUAN (early 2019)
• Start sending RINEX data to GRUAN (pending)
• Start sending ozonesonde data to GRUAN (pending)
Aerological Observation in JMA

- 8 manual launch sites (Meisei iMS-100) (Tateno also uses RS92-SGP.)
- 4 auto launch sites (Vaisala RS41-SG) (with Additional Grand Check)
- 4 auto launch sites (Meisei iMS-100)
- 1 manual launch site (Meisei RS-11G) (Syowa)

The yellow color is changes from ICM-9.
Before JAN. 2018

- RS11G
- iMS-100
- RS92-SGP
- RS41-SG

Create 1s data

- MGPS2
- DigiCORA III
- MW41

Convert to BUFR

- FM35
- FM35
- FM35

Central System

BUFR

After FEB. 2018

- RS11G
- iMS-100
- RS92-SGP
- RS41-SG

Create 1s data

- MGPS2
- DigiCORA III
- MW41

Create Products

New Central System

FM35

BUFR

Preparing now. Coming soon.

High resolution
Future plan

• Start sending of high resolution BUFR (except Syowa) (mid 2018)
• Start sending of Descent-BUFR (except Syowa) (undecided)
• Start sending of High resolution BUFR including GRUAN headers (except Syowa) (undecided)
Concern

Comparison
1. What type and number of comparison are required at minimum as a GRUAN site? Is it clearly stated?
   - Due to cost problems, personnel issue and safety issue, it is required to minimize comparison.
2. RS-11G is used only in Syowa, but is there an obligation to conduct comparative observation of RS-11G?

Utilization
1. How to use the GRUAN data to people outside GRUAN community?
2. Should we do activities to increase users?