

BSRN STATION DESCRIPTION

STATION MANAGER

Atmospheric Environment Division,
Japan Meteorological Agency (JMA)

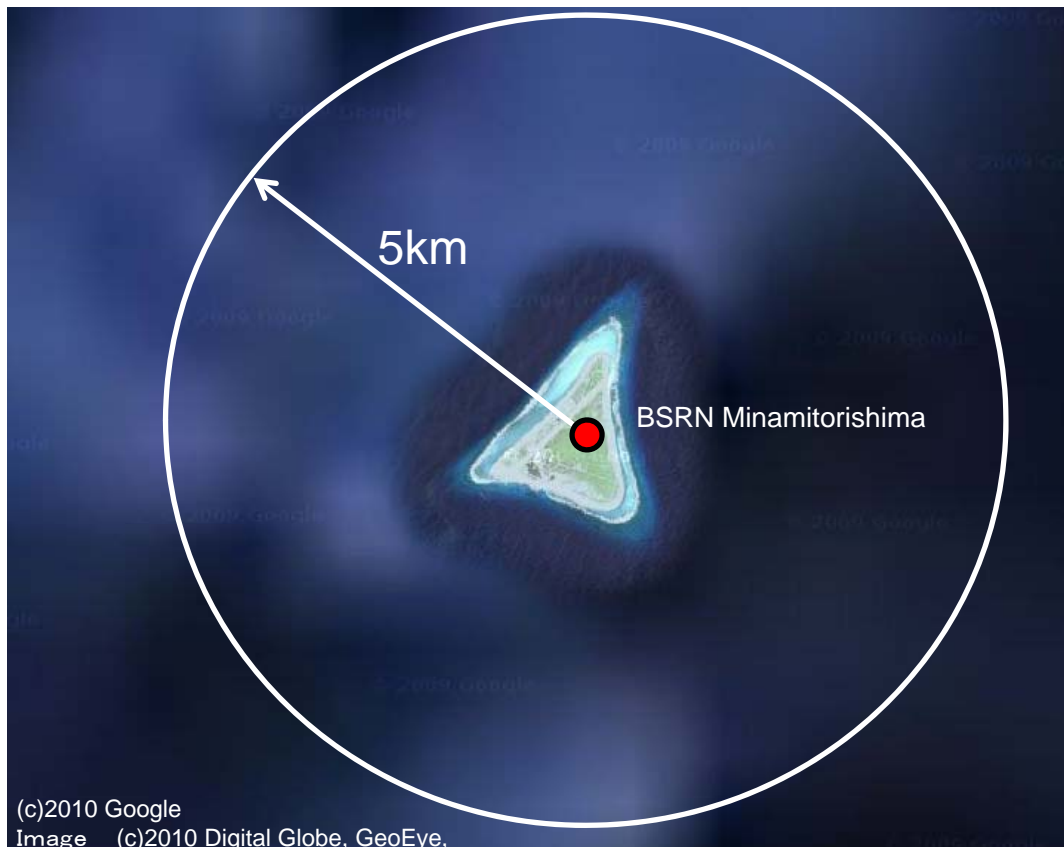
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FAX : +81-3-3211-4640
E-mail : rrc-jma@met.kishou.go.jp

STATION LOCATION

Latitude : 24° 17.3' (24.2883 deg.) N
Longitude: 153° 59.0' (153.9833 deg.) E
Elevation : 7.1 m (MSL)
Local Time: GMT + 09
Topography Type: 1 (flat, urban)
Surface Type : 7 (water (ocean))
Address : Minamitorishima,
Ogasawara-mura, Tokyo, Japan

TOPOGRAPHIC MAP OF SURROUNDING 5 KM RADIUS



BSRN SITE DESCRIPTION

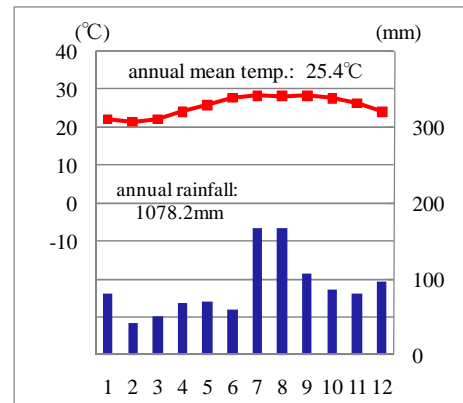
SITE DESCRIPTION



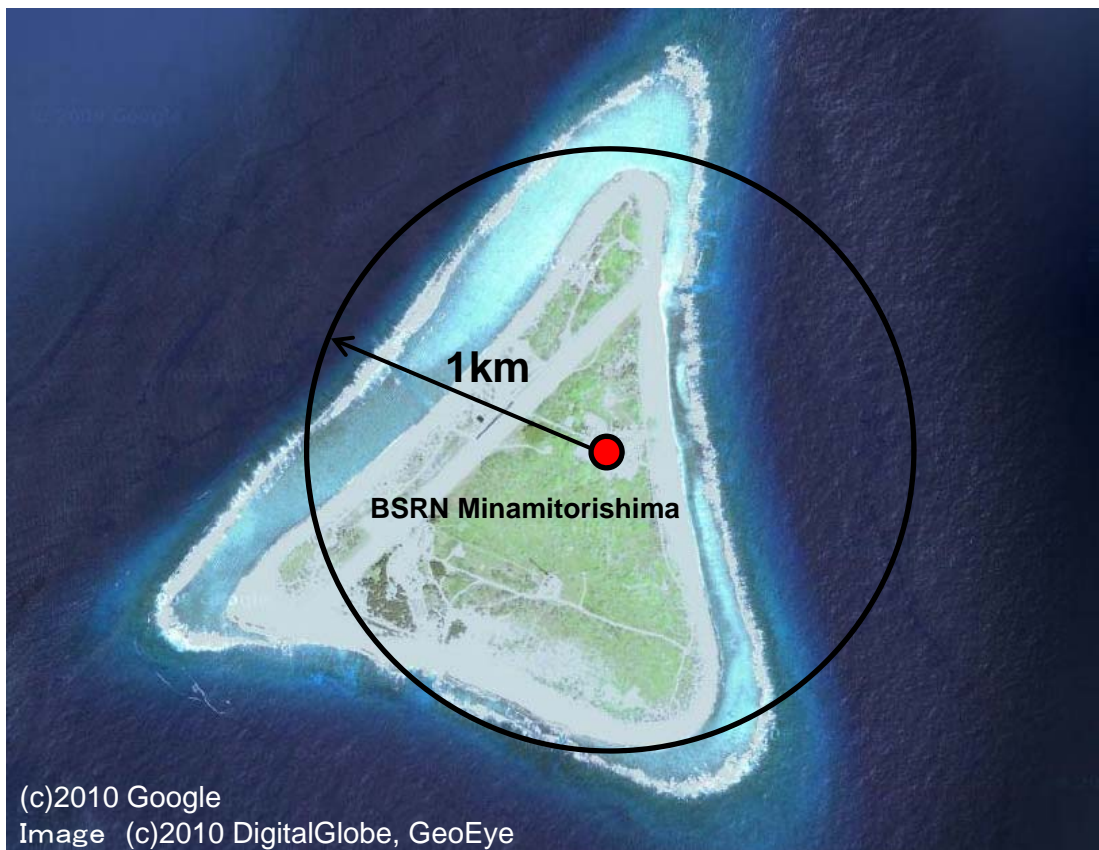
Instruments are installed at the rooftop of Minamitorishima meteorological observatory.

CLIMATE

Köppen climate classification Aw.
(Tropical wet and dry (savanna) climate)



DESCRIPTIVE MAP OF SURROUNDING 1 KM RADIUS



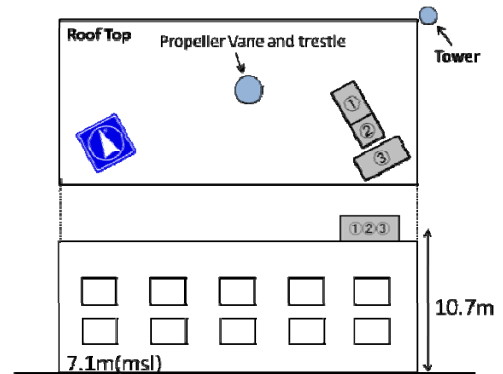
BSRN SITE DESCRIPTION

INSTRUMENT DESCRIPTION

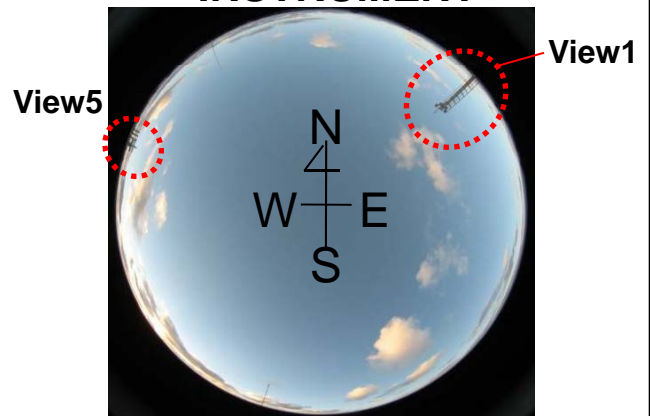
- ① Tracker (PREDE ASTX-220)
 - Kipp & Zonen CHP1 Pyrheliometer
 - Kipp & Zonen CMP21 Pyranometer
(for Global Solar Radiation)
 - Kipp & Zonen CMP22 Pyranometer
(for Diffuse Solar Radiation)
 - Kipp & Zonen CGR4 Pyrgeometer

Height from ground level: 10.7 m
Sampling frequency :1 Hz
- ② Tracker (EKO STR22)
 - PMOD PFR Sunphotometer
- ③ Kipp & Zonen Brewer Spectrophotometer

INSTRUMENT LOCATION MAP



HORIZON MAP OF CENTRAL INSTRUMENT



DESCRIPTION OF METEOROLOGICAL INSTRUMENTS



② Sunphotometer

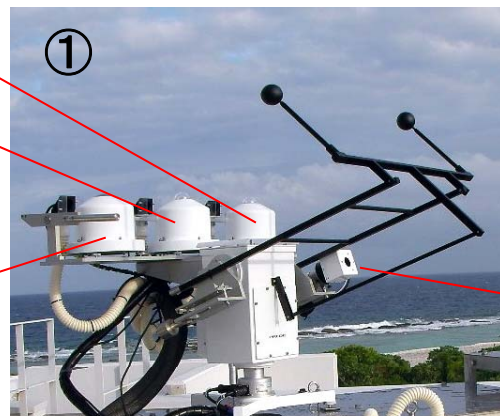


③ Brewer Spectrophotometer

Shaded Global

Global Radiation

Shaded Longwave



Direct Solar Radiation

BSRN STATION VIEWS

VIEW1



DESCRIPTION

Tower View

Azimuth 60 degrees
Inclination 39 degrees

The tower does not obstruct direct beam through the year.

VIEW2



DESCRIPTION

Eastern View

Azimuth 90 degrees
Inclination ~5 degrees

BSRN STATION VIEWS

VIEW3



DESCRIPTION

Southern View
Azimuth 180 degrees
Inclination ~5 degrees

VIEW4



DESCRIPTION

Western View
Azimuth 270 degrees
Inclination 5 degrees

BSRN STATION VIEWS

VIEW5

Propeller Vane and Trestle



DESCRIPTION

Propeller Vane and Trestle View

Azimuth 300 degrees
Inclination 18 degrees

The propeller vane and its trestle do not obstruct direct beam through the year.

VIEW6

Antenna



DESCRIPTION

Northern View

Azimuth 360 degrees
Inclination ~5 degrees

The antenna in NNW direction does not obstruct direct beam through the year.

COMMENT ON THE SITE

● Additional observation programs:

- (a) GCOS Upper Air Network (GUAN): upper-air observation
- (b) GCOS Surface Network (GSN): surface observation
- (c) WMO-GAW programme: ozone observation by the Brewer spectrophotometer
AOD observation by PFR sunphotometer
atmospheric background pollution observation
(i.e. CO₂, CH₄, CO and surface O₃ density observation,
chemical component observation of precipitation and settled dust)

● Calibration:

All radiometers are calibrated every 5 years. A pyrhelimeters and pyranometers are traceable to the WRR, and a pyrgeometer is traceable to the World Infrared Standard Group (WISG). The tracker will be overhauled every 5 years by its manufacturer.