VIII Public Access to Facilities

1. Mitaka Campus

[Open year-round]

Dates: April to March, 10:00-17:00

Every day except for the New Year's season (December 28–January 4)

Visitors: 20,413

Open Facilities: Observatory History Museum (65-cm Telescope Dome), 20-cm Telescope Dome, Solar Tower Telescope, Exhibit Room, Repsold Transit Instrument Building (Transit Instrument Museum), Astronomical Instruments Museum, Gautier Meridian Circle Building, Old Library

[Regular Star Gazing Parties]

Dates: Friday before second Saturday; fourth Saturday Visitors: 4,671 (23 events) Open Facility: 50-cm Telescope for Public Outreach

[4D2U Theater Showings]
Dates: Friday before second Saturday; first, second, and third Saturdays
Visitors: 5,432 (47 events)
Open Facility: 4D2U Dome Theater

[Special Open-House Event] Mitaka Open House Day Dates: October 21 (Fri.), 2016, 14:00–19:00
October 22 (Sat.), 2016, 10:00–19:00
Topic: Gravitational Waves, a new Frontier of Astronomy Visitors: 4,534

This event is jointly sponsored by NAOJ, the University of Tokyo School of Science Institute of Astronomy, the SOKENDAI Department of Astronomical Science, and the NINS Astrobiology Center. It has been held for 2 days each year, starting from 2010. The perennially popular lectures related to this year's theme were hosted by the Institute of Astronomy, University of Tokyo ("The Universe Observed in Kiso's Sky by Tomo-e Gozen" Shigeyuki Sakoh, Assistant Professor) and NAOJ ("Listening to the Universe with Gravitational Waves" Raffaele Flaminio, NAOJ Specially Appointed Professor; and "Seeing Gravitational Waves with Electromagnetic Waves? Pursuing the true Nature of Gravitational Wave Sources through Electromagnetic Follow-up Observations" Michitoshi Yoshida, Professor, Hiroshima University).

* Guided tours corresponding to group tours (Dantai Kengaku) and cultural property events were also held. In addition the "Information Space of Astronomy and Science" was opened in 2015 near the south entrance of Mitaka Station to distribute information.

2. Mizusawa Campus

[Open year-round]

Visitors: 18,100

Open Facilities: Kimura Hisashi Memorial Museum, VERA 20-m antenna, 10-m VLBI antenna

The open house event is held at the campus with the cooperation of the Oshu Space and Astronomy Museum (OSAM: Yugakukan) located in the campus.

[Special Open Day] Held as part of Iwate Galaxy Festival 2016 (Hours: 10:00-20:30)

Date: August 20 (Sat.), 2016, 10:00–20:30 Visitors: Approximately 2,500

Same as last year, the Open Day was co-hosted with Ihatov Space Action Center / the Oshu Space and Astronomy Museum (OSAM: Yugakukan) and the city of Oshu. The event was opened with a performance by a marching band from a local elementary school. NAOJ offered such attractions as exhibits about the research results of VERA, RISE, and CfCA; tours of the 20-m parabolic antenna; commemorative photo booth; plastic bottle rocket launch; a quiz game; tours of the supercomputer "Aterui;" and a special guided tour of the Array Operations Center (AOC) and the VLBI correlator.

Special lectures about black holes were given by Ms. Arisa Kuroda of TV fame, Masaki Ando, Associate Professor of University of Tokyo, Mareki Honma, Director of the Mizusawa VLBI Observatory and Ken Osuga, Assistant Professor of the Center for Computational Astrophysics, and were enormously well received.

OSAM (Yugakukan) offered various experiments in the science stalls, workshops, etc., which were carried out by the student interns. The Open Day was a great success with close ties to the local people.

Iriki: VERA Iriki Station

[Open year-round]

Dates: April to March (except for New Year's season) Visitors: 5,949

[Special Open Day]

Date: August 7 (Sun.), 2016, 12:00–20:00 Visitors: Approximately 4,500

This special open event was held in conjunction with "Yaeyama Highland Star Festival 2016" hosted by the executive committee primarily formed by members of Satsuma-Sendai city hall and Kagoshima University.

Dates: April to March (except for New Year's season), 9:00– 17:00 daily

At the NAOJ VERA 20-m radio telescope and the Kagoshima University 1-m optical/infrared telescope facilities, guided tours of telescopes and observation buildings were held. NAOJ offered such attractions as parent-child science experiments, plastic bottle rocket launching, 4D2U (4-Dimentional Digital Universe screening), and a stargazing party at night. This time JAXA supported a chance to try on a spacesuit, which was well received.

The special lecture of the year was given by Takumi Nagayama, Specially Appointed Senior Specialist from Mizusawa VLBI Observatory. All visitors had fun and were satisfied with scientific programs offered in this festival.

Ogasawara: VERA Ogasawara Station

[Open year-round]

Dates: April to March (except for New Year's season) Visitors: 9,930

[Special Open Day]

Date: February 12 (Sun.), 2017, 10:00–16:30 Visitors: 227

A special open house event was held this year again under the name "Star Island 16". Same as last year, the free shuttle buses were appreciated by the visitors. The number of visitors was 227, which was more than last year. Because the number of the resident in the island is about 2,000, more than 10% of the islanders visited this event.

NAOJ offered such attractions as exhibits about the research results of VERA and RISE, 20-m parabolic antenna driving experience, quiz games, a commemorative photo booth, and short lectures.

On the night before the special open house, Space Lectures were given at the Ogasawara Visitor Center by Director General Masahiko Hayashi and Kazuhiro Hada, Assistant Professor at Mizusawa VLBI Observatory, and were attended by 46.

A stargazing party was held by the local Ogasawara astronomy club on the day following the special open house, February 13, and NAOJ members also assisted. Thanks to good weather, the stargazing party was well received and the number of visitors was 50.

Ishigakijima: VERA Ishigakijima Station

[Open year-round]

Dates: April to March (except for the New Year's season); premises are open to the public 24 hours/day, and the observation rooms are open during the hours of 10:00–16:30.

Visitors: 2,442

[Special Open day] The Special Open Day was held as a part of the Star Festival of the Southern Island.

Dates: August 7 (Sun.), 2016, 10:00-17:00

Visitors: 194 (252 during the Star Festival of the Southern Island)

Same as previous years, attractions like antenna tours, a commemorative photo booth, merchandise, commemorative lectures, and exhibits were offered.

Ishigakijima: Ishigakijima Astronomical Observatory

[Open year-round]

- Dates: April to March
- Open Hours: Wednesdays through Sundays (Except for the New Year's season; when Monday / Tuesday is a national holiday, it is open and then closes on the next day.), 10:00–17:00
- Stargazing Sessions: Evenings on Saturdays, Sundays, Holidays, and Star Festival weekdays (19:00–22:00), two 30-minute sessions per evening, with support of NPO Yaeyama Star Club
- 4D2U Screening: from 15:00 to 15:30 every day when the observatory is open
- Visitors: 15,061 (903 during the Star Festival of the Southern Island)
- Open Facilities: Murikabushi 105-cm optical/infrared telescope, Starry Sky Study Room (featuring the 4D2U "4-Dimensional Digital Universe"), interior of observation dome (including exhibits of astronomical images)

The Starry Sky Study Room, constructed adjacent to the observatory in 2013 by the Ishigaki city, was very popular, welcoming 6,186 guests.

[Star Festival of the Southern Island 2016] Dates: August 6 (Sat.) to August 14 (Sun.), 2016 Visitors: Approximately 11,000

This year is the 15th anniversary of both the completion of VERA Ishigakijima Station and the Star Festival of the Southern Island. Approximately 11,000 visitors attended the dimmed-light stargazing event blessed with better weather than ever before. The annual planetarium screening was attended by 623.

The activities at Ishigakijima Astronomical Observatory boost regional development like school education, lifelong learning, and sightseeing. The cooperation agreement between NAOJ and the Ishigaki-city tourism exchange association has been finalized. And it is widely recognized that the starry sky can be used as a tourism resource. Considering this situation, we will continue to strengthen our ties with other associations.

3. Nobeyama Campus

[Regular Open]

Open Time: 8:30–17:00 (every day except during New Year's Season (Dec. 29 to Jan. 3), open until 18:00 during the summer (Jul. 20 to Aug. 31))

Visitors: 44,961

Open Facilities: 45-m Radio Telescope, Nobeyama Millimeter Array, Nobeyama Radioheliograph, etc. (just viewing) and NINS Nobeyama exhibition room (just July to September)

[Open House Day]

Date: August 27 (Sat.), 2016, 9:30–16:00 Visitors: 1,675

The theme of the 2016 Open House Day was "Let's go on a journey to look for a Black Hole". We have two lectures on the theme, which attract large audiences every year. This year one was "Pursuing Objects Emitting Gravitational Waves" by Dr. Tanaka, Masaomi (NAOJ). The other was "Objects lurking in the Galactic Center" by Prof. Oka, Tomoharu (Keio University). However, we had only 1,675 visitors due to stormy weather on that day. Several events, such as the chance to touch the main reflector panel of the 45-m Radio Telescope, had to be canceled. It was severe conditions for visitors and staff members. In spite of the bad weather, we had some established hands-on events such as the antenna handicrafts, radio detector handicrafts, and the antenna origami. At the NINS exhibition room, the presentation of the 4D theater, exhibits of other institutes, and the Mitaka VR system operated by the CfCA team were offered. In addition, the ALMA team offered the ALMA VR system and some short lectures. Moreover, we had balloons for children presented by the NRO character, Dr. Nobeyama, and the NRO original panel for taking commemorative pictures. We had unfortunate weather, but felt some hope because we were supported by many people from other projects of NAOJ as well as other institutes of NINS.

[Jimoto Kansha Day] (Thanks Day for the locals) Date: February 11 (Sat.), 2017, 13:30–16:00 Visitors: 45

It is difficult for the local people to join the Open House Day during the farming season. They do not know so much what we, not only NRO but also Tsukuba and Shinshu Universities, study in Nobeyama. In response to these comments, we established this event in cooperation with Shinshu University, Faculty of Agriculture, Education and Research Center of Alpine Field Science and Tsukuba University, Agricultural and Forestry Research Center, Yatsugatake Forest. At the Vegetaball With hosted by Shinshu University, we also had an exhibition on the "scarlet runner bean" project, which is studied by Shinshu University in cooperation with Minamimaki Village. The exhibitions by elementary school students and a "scarlet runner bean" sampling party were held out. Also, we had three lectures,

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"Nagano is Astro-Prefecture" by NAOJ, "Talk about various plants in the local area" by Tsukuba University and "Introduction to the scarlet runner bean project" by Shinshu University.

It appeared to be a local-based event.

4. Okayama Campus

Okayama Astrophysical Observatory

[Open year-round]

Dates: 9:00-16:30 daily

Visitors: 10,102

Open Facilities: Window view of Okayama 188-cm Reflector Telescope

[Special Stargazing Party]

Date: April 2 (Sat.), 2016, 18:30–22:25

Visitors: 79

133 applications for 348 applicants were received. Pollux of Gemini and Jupiter were viewed.

Date: July 30 (Sat.), 2016, 18:30-22:25

Visitors: 81

124 applications for 359 applicants were received. Mars and Saturn were viewed.

5. Subaru Telescope

[Summit Facility Tour]

- Dates open for public tour: 55 (these dates are listed in the public tour program page at the Subaru Telescope's web site, only 1 day was canceled due to the hurricane; no tours scheduled during the winter months of December to March, the weather was particularly bad in December, January and March)
- Public tour visitors: 456
- Special tour visitors: 127 groups, 592 visitors

[Base Facility Tour]

• Special tour visitors: 40 groups, 398 visitors

[Public information]

- Primary means of disseminating public information is posting at the official website http://subarutelescope.org
 - $\circ\,$ Science results from the Subaru Telescope 9 Japanese and 10 English articles
 - Depicting special activities or announcing Calls for Proposals, recruitment – 46 Japanese and 30 English articles. Japanese topics include 22 articles in a series introducing the Subaru Telescope.
- Web postings are supplemented by social media via official accounts
 - Twitter accounts SubaruTelescope (for Japanese), SubaruTel Eng (for English)
 - Facebook pages 国立天文台 (for Japanese), National Astronomical Observatory of Japan (for English, started February 2015)
 - YouTube channels Subaru Telescope NAOJ (for Japanese), Subaru Telescope NAOJe (for English)

[Outreach]

- 1. Lectures at the Subaru Telescope's base facility in Hilo: 18 cases, reached 281 people
- 2. Remote presentations, mainly to Japan: 11 cases, reached 1,349 people
- 3. Lectures, demonstrations, workshops etc. in the vicinity: 16 cases, reached 482 people
- 4. Lectures in Japan: 13 cases, reached 4,933 people
- 5. Others Exhibits etc.: 8 cases, reached approximately 1,905 people
- 6. Media coverage

23 Japanese media visits. No English media visits.