Tanegashima Space Center

The Tanegashima Space Center, located on the south-eastern tip of Tanegashima Island in the south of Kyushu, is the largest launch complex in Japan (9,700,000 square meters).
The center equipped with “large rocket launching pad,” “satellite assembling building,” “satellite fairing assembling building,” and related facilities. It conducts a series of operations including the assembling, fitting, and inspection of launching vehicles as well as final checking of each satellite, mounting it on the vehicle, and tracking and controlling the launched vehicle. The Tanegashima Space Center plays a central role in conducting satellite launches that are a part of space development in Japan.

Firing tests

Ground firing tests are carried out on rocket engines to collect all types of data including combustion data.

Assembly

Launch vehicles and satellites are assembled, fitted, and inspected.

Launch

Launch vehicles are transported to the launch complex, filled with fuel and oxidizer, and launched.

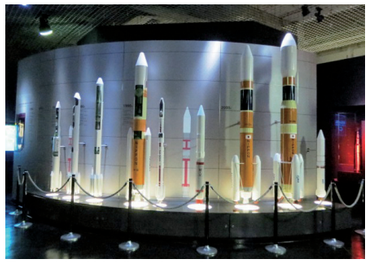
Launch Control

Launch is controlled by using information about acceleration, pressure, temperature, and position, which is received from the launch vehicle.

Space Museum (Exhibition Hall)

Space Museum provides exhibitions and introductions of various fields in space development such as launch vehicles, satellites, the International Space Station (ISS) project, earth observation, and lunar and planetary exploration.
Enter and experience in full-scale model of the Japanese Experiment Module “Kibo,” which is a part of the ISS that is an edifice orbiting about 400 km above the Earth.
At the Rocket Launch Theatre, with full audio on a large screen, you can experience a lift-off of Japan’s flagship large-scale rocket, the H-IIA Launch Vehicle, as if you were on a launch site.

Prototype model of “Daichi” (Full scale)



The models which follow a trace of the launch vehicles development of Japan

A Moon Scope that shows the history of lunar exploration

- Open from 9:30 a.m. to 5:00 p.m. (9:30 a.m. to 5:30 p.m. in July and August)
- Closed on every Monday (if Monday falls on a public holiday, the building is closed on the following Tuesday) and during New Years’ Holidays. (December 29 through January 1) The building may also close during launches and other events.
- The Space Museum is generally open every day in August.
- Tel: +81-(0)997-26-9244 (direct line)
  +81-(0)997-26-9125 (voice guidance)
- Admission is free of charge
- Facility tour is from Tuesday to Sunday.
  For details, contact the Space Museum.

Access Map

Access by public transportation

- By Air
  From Kagoshima Airport to Tanegashima Airport (30 min.)
  Taxi/rent-a-car from Tanegashima Airport (50 min.)
- By Ship
  - JET FOIL
  From Kagoshima (South Pier) to Tanegashima (Nishinoomote Harbor) (95 min.).
  Taxi/rent-a-car from Nishinoomote Harbor (75 min.).
- Access to the rocket launch observation points
  Rocket launches can be viewed freely from anywhere beyond a radius of three kilometers from the Launch Pad (excluding Tanegashima Space Center premises).
  Minamitane Town has various observation points such as Uchugaoka Park and Hase Park.

Tanegashima Space Center
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Tel: +81-(0)997-26-2111 (main) Fax: +81-(0)997-26-9100

Tanegashima Space Center Website
http://www.jaxa.jp/about/centers/tnsc/index_e.html

Japan Aerospace Exploration Agency
Public Affairs Department
Ochanomizu sola city, 4-6 Kandasurugadai,
Chiyoda-ku, Tokyo 101-8008, Japan
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JAXA Website
http://www.jaxa.jp/index_e.html

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JAXA

Tanegashima Space Center

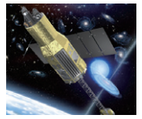
JAXA’s mission is to pursue the infinite possibilities for future development in the space.

We feel a longing and awe towards the vast universe that seems to be boundless.
Such feelings have been harbored since the start of humankind.
The world that our ancestors gazed upon and could only imagine is now an important field actively explored by humankind with the aid of incredible advances in science and technology.
Through these advances, a deep link was formed between space and all the people living on our planet.
Although the vast universe remains shrouded in mystery, it reveals an infinite number of possibilities.
JAXA will continue to carry out great missions in order to pursue these mysteries, to expand our activities even further, and to give firm support to ensuring a secure and prosperous lifestyle.

Japan Aerospace Exploration Agency activities

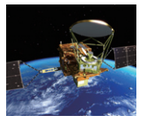
Space Science

Explore the mysteries of space and the solar system, as well as the mystery of the forming of the earth and the beginning of life.



Satellites and Observational Imaging

Observe the earth with our “eyes” in space. Support our lifestyle with use of satellites.



Utilization of Space Environment

A new environment is grasped by humankind. International Space Station program is underway to explore the possibilities for utilization of the space.

Space Transportation System

Open up the possibilities for transportation systems that link the earth and space, and help development of space activities.

Aviation Research and Development

Aim to contribute to growth of the aviation industry and make new developments for future air transportations.

Fundamental Technology Research

Establish an autonomous technology platfrom through continuous accumulation of research.

The Tanegashima Space Center is the facility for launching satellites.

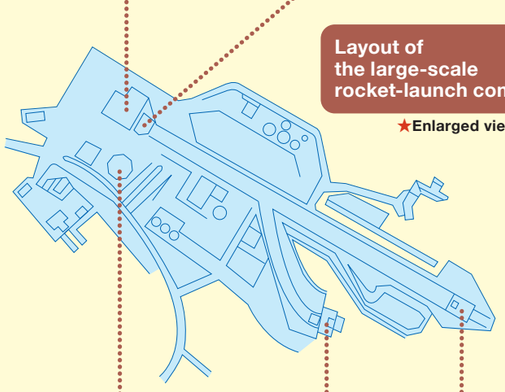
Vehicle Assembly Building (VAB) for large-scale launch vehicles

VAB is a facility to assemble, outfitting, and inspect a launch vehicle shipped from a factory. At the VAB, two vehicles can be assembled simultaneously. The launch vehicles are assembled on a large-scale launch vehicle movable launcher (ML). The satellite and fairing are mounted, and the vehicle is transported to the launch pad. The VAB is 81 meters high, 64 meters wide, and 34.5 meters depth.

Large-scale launch vehicle Movable Launcher (ML)

Layout of the large-scale rocket-launch complex

★Enlarged view of Ⓐ



Launch Pad 2 (H-IIB) (Right of the photo)

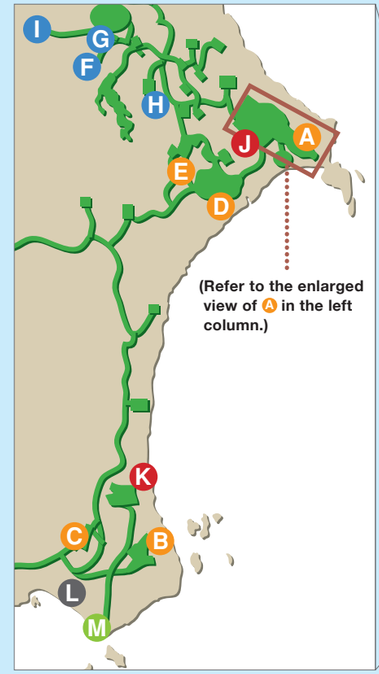
Launch Pad 1 (H-IIA) (Left of the photo)

Yoshinobu Block House (B/H)

At a point 500 meters away from the launch pad, the launch control room located 12 meters underground. All launch preparations up to the launch are remotely monitored and controlled from the Block House. And also, necessary information is transmitted to the Takesaki Range.

H-IIA Launch Vehicles are launched from Launch Pad 1. H-IIB Launch Vehicles from Launch Pad 2.

Yoshinobu Launch Complex seen from the Vehicle Assembly Building



◀ Enlarged view

(Refer to the enlarged view of Ⓐ in the left column.)

Ⓐ Yoshinobu Launch Complex (for large-scale launch vehicles)

Following the H-II Launch Vehicle, the H-IIA and H-IIB Launch Vehicles are assembled, fitted, inspected, fill fuel, and launched from the Yoshinobu Launch Complex on the north side of Tanegashima Space Center.

Ⓑ Takesaki Range (for small-size launch vehicles)

Takesaki Range is located at the south end of the center and has facilities for assembling, inspecting, and controlling launch of mid-size launch vehicles. Smaller launch vehicles such as TR-IA were launched there for conducting fundamental experiments of space development.

Ⓒ Takesaki Range Control Center (RCC)

This Control Center functions as the brain for launching vehicles. At the occasion of a launch, the chief of each operation enters there. All necessary launch information will be gathered here, and all decisions related to the launch, including the launch itself, tracking, and ground safety, are made here.

Ⓓ Osaki Launch Complex (for mid-size launch vehicles)

Osaki Launch Complex is equipped with the Mobile Service Tower, which stands 60 meters high and weighs 2,700 tons. N-I, N-II, and J-I Launch vehicles were launched from here.

Ⓔ 80-meter Meteorological Tower

For safer launch operations, accurate weather information is necessary. The 80-meter Meteorological Obsertvation Tower is utilized for our own meteorological observation data acquisition.

Ⓕ Ⓖ Ⓗ Ⓘ Spacecraft Test and Assembly Building (STA) & Spacecraft and Fairing Assembly Building (SFA)

These buildings are used for assembling and testing satellites, and encapsulating them with a fairing cover that protects the satellite.

Ⓙ Yoshinobu Firing Test Stand (for Liquid-fuel Boosters)

This stand was built as a ground firing test site for testing the first stage engine of the H-II Launch Vehicle. After that, it was used for the firing test the first stage engine (LE-7A) of the H-IIA Launch Vehicle.

Ⓚ Takesaki Static Firing Test (for Solid Boosters)

This facility is for conducting ground firing tests of Solid Rocket Boosters that generate a strong propulsion force. It was used for conducting ground firing tests on Solid Rocket Boosters (SRB-A) of the H-IIA Launch Vehicles.

Ⓛ Space Museum (Exhibition Hall)

For a deeper understanding of space development, the museum exhibits shows the relations between space and humankind, and the mechanism of launch vehicles and satellites as well as the unique characteristics of JAXA's rockets in a visually comprehensive manner.

Ⓜ Takesaki Observation Stand

At the time of a rocket launch, this building becomes a press center. It is equipped with a rooftop stand for press coverage, a briefing room, and a newsroom.

Ⓝ Kadokura Optical Tracking Station

This station is a facility for optical tracking of launched rockets and sending tracking data to the Takesaki Range Control Center. Optical tracking stations are also located in Hirota and Takesaki.

Ⓞ Uchugaoka Radar Center

This center is used to receive telemetry data from the launched vehicles and send the obtained data to the Takesaki Range Control Center.

Ⓟ Masuda Tracking & Communication Station

In addition to tracking launch vehicles via radar and receiving telemetry data from the vehicles, this facility serves as an integral station of satellites tracking network to conduct tracking of satellites and receiving telemetry data from them.