Tanegashima Space Center

The Tanegashima Space Center, located on the south-eastern tip of Tanegashima Island located to the south of Kagoshima Prefecture, is the largest launch complex (9,700,000 square meters) in Japan. It consists of facilities including "large rocket launching pad," "satellite assembling building" and "satellite fairing assembling building." It conducts a series of operations including assembling, fitting, inspection and launch of vehicles as well as final checking of satellites, mounting of them on the vehicle, and tracking and controlling of launched vehicles. The Tanegashima Space Center plays a key role in satellite launches as part of Japan's space development activities.



Firing tests Ground firing tests are

carried out on rocket engines to collect all types of data including mbustion data.



Assembly

Launch vehicles and satellites are assembled, fitted and inspected



The Space Museum, an "active place" for feeling the link of the Earth with space on the unique Tanegashima Island, provides opportunities for rare experience.

The facility houses many attractive exhibitions and areas where visitors can touch rocket components and play a "touch game." These features will help visitors feel and enjoy space with their body.

At the Liftoff Theater, you can experience a virtual liftoff of a large rocket on a large screen on wall and floor with full audio and smoke. You feel realistic sensations as if you were on a launch site.



Liftoff Theater for audience's body sensory experier of virtual rocket liftoff







A photo spot in the scale model of the JEM Kibo

9:30 a.m. to 4:30 p.m. Opened Mondays (Tuesdays if public holidays fall on Mondays); exceptionally the first and fifth Monday in August; year Closed end and New Year holidays: December 29 to January 2. (Closing dates may be changed according to rocket launch schedule.) 0997-26-9244 (direct to the Space Museum) Telephone Free Admission

0997-26-9125 (voice guidance) Facility guide tour organized from Tuesday to Sunday.

Guide Tour For details, call the Space Museum.



Access to the Tanegashima Space Center 70 min. drive from Nishinoomote Port 50 min. drive from Tanegashima Airport

Rocket launch observation points Rocket launches can be viewed freely from anywhere beyond a radius of 3 kilometers

from the Launch Pad (excluding the premises of the Tanegashima Space Center). The municipality of Minamitane Town has arranged suitable observation sites such as Eminokotenbo Park, Uchugaoka Park and Hasetenbo Park.

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2022.0*

Tanegashima Space Center

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JAXA website http://www.jaxa.jp/



Tanegashima **Space Center**



Launch

Launch

control

temperatures

quantities.

Launch is controlled

with data sent by the launch vehicle about

acceleration, pressures,

positions and physical

Launch vehicles transported on a movable launcher to the launch complex, filled with fuel oxidizer, and and launched.

Uncovering new values For people, nations and the Earth

The environment surrounding the use and development of space is now dramatically changing. JAXA is expected to play a far greater role, not only in pioneering the frontiers of space science, but also in contributing to national security, disaster prevention, and industrial development.

The agency has committed to enhancing its existing efforts centering on technology development and tests for broadening the range of the aerospace industry by collaborating with private companies and universities. Our mission is to respond to ever-changing social needs with technologies to open up a new era.

Activities of Japan Aerospace Exploration Agency (JAXA)

Space Utilization with Satellites	Achieve a more prosperous society by observing the Earth's environment, monitoring disasters, and developing communications and positioning technologies.
Development and Operation Transport Systems Linking Ground and Space	Enhancing rocket technology nurtured in Japan to maintain and further improve technological foundations while reducing costs to contribute to space development.
Research on space science	Exploring the mysteries of the origin and evolution of space and the beginning of life. Paving the way for the future of mankind through the results of our experiments and advanced engineering research in the space environment.
Space Environment Utilization	Contributing to an international society by safely and steadily operating the Japanese Experiment Module "Kibo" and the H-II Transfer Vehicle (HTV) "KOUNOTORI" a cargo transporter to the ISS.
Research on Aeronautical Technology	Contributing to the growth of Japan's aviation industry and a safer society by promoting research and development mainly on the "environment" and "safety."
Research Relating to Fundamental	Contributing to strengthening Japan's industrial competitiveness by improving advanced and fundamental tochnologies in the astronance field

Technology

The Tanegashima Space Center is a facility for launching satellites.

Layout of the large-scale rocket-launch complex

Launch Pad 1 Launch Pad 2 (for H-IIA) (left) (for H3) (right)

Yoshinobu Block House

★Enlarged view of ()



H-IIA Launch Vehicles are launched The launch control room is located from the Launch Pad 1. Construction 500 meters from the launch pad, 12 work is going on at the Launch Pad 2, meters underground. All launch aiming at launching H3 Launch Vehicles. preparations up to the launch are



remotely monitored and controlled from the Block House. And also, necessary information is transmitted to the Takesaki Range Control



Launch Pads from the Vehicle Assembly Building



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

Launch vehicles are assembled, fitted, filled with fuel and launched at the Yoshinobu Launch Complex on the north side of the Tanegashima Space Center



Yoshinobu Firing Test Stand

This test 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 of the first stage engine (LE-7A) of the H-IIA Launch Vehicle. At present, it is used for testing the first stage engine (LE-9) of the H3 launch vehicle being developed.

Takesaki Static Firing **Test Facility for Solid Motor**

This facility is used for conducting ground firing tests of solid rocket boosters that generate a strong propulsion force. The firing tests of the solid rocket booster (SRB-3) of the H3 launch vehicle being developed were conducted

Takesaki Observation

Stand **★** (building top only)

When a rocket is launched, this building

is used as a press center. It has a

rooftop stand for press coverage, a

briefing room and a newsroom

Large-scale Launch

Vehicle Movable

Launcher (ML)

Yoshinobu'Vehicle **Assembly Building (VAB)**



VAB is a facility for assembling, outfitting and inspecting launch vehicles shipped from 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 deep.



Takesaki Range Control Center •

The Takesaki Range Control Center is the "brain" for launch. To launch a vehicle, the responsible persons for different tasks related to rocket launch enter this facility. All information is gathered here and used to make decisions related to launching and tracking and conducting safety management.

🕞 Uchugaoka Radar Center

The Uchugaoka Radar Center is the facility that receives telemetry data from launched vehicles and sends obtained data to the Takesaki Range Control Center



Spacecraft Test and Assembly Building & Spacecraft and Fairing Assembly Building

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





★: Visitors are permitted to enter the facility





🖌 Space Museum ★

For general public's better understanding of Japan's space development, the museum exhibits various items related to launch vehicles, satellites, the ISS, lunar and planetary exploration.



Rocket Garage+

The Rocket Garage exhibits real components of launch vehicles such as H-II Launch Vehicle No.7, giving visitors sensation of overwhelming reality

Takesaki Range (for Small-size Launch Vehicles) *

Located at the south end of the Center, the decommissioned Range for Smallsize Launch Vehicles exhibits installations for assembling and inspecting small-size vehicle and launch control equipment.



Masuda Tracking & Communication Station ★(exhibition room only)

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

•: Participants in the facility guide tour are permitted to enter the facility. (Some facilities may not be accessible depending on the current site operations.)