

New-Born JAXA



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On October 1, 2013, the Japan Aerospace Exploration Agency (JAXA) celebrated its tenth anniversary.

Over the last decade, JAXA has launched a series of rockets, participated in manned activities on the International Space Station (ISS) and has made steady progress in space science research. It has also achieved successes with the maiden flight of the Epsilon Launch Vehicle and the pioneering *Hayabusa* mission. These activities have gained international recognition, and we believe that they have helped to elevate Japan's international standing and R&D capabilities while drawing attention from all over the world.

JAXA experienced a series of mishaps soon after its inauguration, and has since made efforts to acquire a technological infrastructure and improve reliability in order to successfully accomplish its projects and business missions. As a result, 21 out of 22 H-IIA Launch Vehicles have launched successfully, resulting in a world-beating success rate of 95%. Also, all four of the H-IIB Launch Vehicles used to launch the *Kounotori* H-II Transfer Vehicle (HTV) have launched successfully, providing the world with a valuable means of transportation to deliver supplies to the ISS. Last year we also successfully launched the Epsilon Launch Vehicle, which is capable of being controlled by two PCs equipped with self-checking functions.

On the subject of satellites, we aim to establish a means of sharing information during natural disasters as a response measure to large-scale disasters such as the Great East Japan Earthquake of three years ago, and we are involved in a joint trial with the Japan Association of Medical Practitioners involving the use of the high-

speed Internet relay satellite WINDS (Wideband Internetworking Engineering Test and Demonstration Satellite). In 2007, we launched ALOS (Advanced Land Observing Satellite), which provided useful services such as emergency observations after the 2007 West Sumatra earthquake, monitoring illegal logging in the Amazon rainforest, and providing data for resource surveys and maps. This satellite ceased operating in 2011, but its successor ALOS-2 is being prepared for launch this year and is expected to make further international contributions in various fields including agriculture. In the Global Precipitation Measurement (GPM) project (a chiefly US-Japan initiative scheduled for launch this year), a dual-frequency precipitation radar will be used to measure precipitation with unprecedented accuracy, and is expected to improve the accuracy of weather forecasts and provide useful information for the study of extreme weather and the management of water resources. In the field of science, we are working on the development of technology to probe the origins of life by studying the characteristics of primordial asteroids rich in organic compounds and hydrated minerals. This will be carried on the *Hayabusa 2* probe — the successor to our *Hayabusa* probe, which accomplished the first ever sample return from an asteroid.

Alongside this steady accumulation of successes, the environment surrounding JAXA has been changing. In addition to the United States, Europe and the like, emerging nations are developing their own space programs, and in Japan new systems are being put in place, including revisions to the JAXA Law. According to the basic space policy as revised in January last year, JAXA is expected to expand the use of space and operate autonomously. In this regard, in addition to pushing at the frontiers of space science and the like, it also plays the key role of a central technology agency that assists the entire government in the use of technology for space development, including support for security measures and disaster prevention.

Based on these circumstances, we have decided to reconsider our mission and continue moving forwards as a reborn JAXA with renewed determination. In line with this, we have decided to adopt the guiding principle of exploiting space and aerospace to provide a safe, rich society, and we have adopted the corporate slogan "*Explore to Realize*". The new-born JAXA aims to contribute to humankind by developing its technical demonstration and technical platform capabilities, and by promoting links with society and other industries. We will also usher in a new era through the creation of value by using technology to address the dynamically changing needs of society.



Launch of the Epsilon Launch Vehicle

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