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**Committee on the Peaceful Uses  
of Outer Space****Information furnished in conformity with the Convention  
on Registration of Objects Launched into Outer Space****Note verbale dated 12 October 2012 from the Permanent Mission  
of Japan to the United Nations (Vienna) addressed to the  
Secretary-General**

The Permanent Mission of Japan to the United Nations (Vienna) presents its compliments to the Secretary-General of the United Nations and, in accordance with article IV of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex), has the honour to transmit information on the Global Change Observation Mission — Water “Shizuku” (international designator 2012-025A), Small Demonstration Satellite 4 (international designator 2012-025C) and the High Voltage Technology Demonstration Satellite “Horyu-2” (international designator 2012-025D) (see annex).



## Annex

### Registration data on space objects launched by Japan\*

#### Global Change Observation Mission — Water “Shizuku”

##### Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator:	2012-025A
Name of the space object:	Global Change Observation Mission — Water (GCOM-W) “Shizuku”
State of registry:	Japan
National designator:	2012-025A
Date and territory or location of the launch	
Date of the launch:	17 May 2012 at 1639 hours UTC
Territory or location of the launch:	Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period:	98.9 minutes
Inclination:	98.2 degrees
Apogee:	711 kilometres
Perigee:	694 kilometres
General function of the space object:	The Global Change Observation Mission — Water (GCOM-W) “Shizuku” is an Earth observation satellite whose mission is to observe the Earth’s water cycle mechanism. It is equipped with Advanced Microwave Scanning Radiometer 2 (AMSR2) for observing precipitation, water vapour, cloud liquid water, seawater, sea surface temperature, wind speed, soil moisture and snow depth.

\* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

## **Additional voluntary information for use in the Register of Objects Launched into Outer Space**

Space object owner or operator:	Japan Aerospace Exploration Agency
Launch vehicle:	H-IIA Launch Vehicle Flight No. 21 (H-IIA-F21)
Other information:	Basic orbital parameters are as at 29 June 2012. The launching organizations are Mitsubishi Heavy Industries Ltd. and the Japan Aerospace Exploration Agency.

**Small Demonstration Satellite 4 (SDS-4)**

**Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space**

Committee on Space Research international designator:	2012-025C
Name of the space object:	Small Demonstration Satellite 4 (SDS-4)
State of registry:	Japan
National designator:	2012-025C
Date and territory or location of the launch	
Date of the launch:	17 May 2012 at 1639 hours UTC
Territory or location of the launch:	Tanegashima Space Center, Kagoshima, Japan
Basic orbital parameters	
Nodal period:	98.1 minutes
Inclination:	98.2 degrees
Apogee:	672.7 kilometres
Perigee:	662.7 kilometres
General function of the space object:	Demonstration of newly developed technology devices and components, such as the Space-based Automatic Identification System Experiment; the Flat-Plate Heat Pipe On-orbit Experiment; the in-flight experiment of space materials using THERME; and the Quartz Crystal Microbalance. The demonstrations will help to improve the reliability of operational and science satellites.

## **Additional voluntary information for use in the Register of Objects Launched into Outer Space**

Space object owner or operator:	Kyushu Institute of Technology
Launch vehicle:	H-IIA Launch Vehicle Flight No. 21 (H-IIA-F21)
Other information:	Basic orbital parameters are as at 24 May 2012. The launching organizations are Mitsubishi Heavy Industries Ltd. and the Japan Aerospace Exploration Agency.

High Voltage Technology Demonstration Satellite “Horyu-2”

**Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space**

Committee on Space Research international designator:	2012-025D
Name of the space object:	High Voltage Technology Demonstration Satellite "Horyu-2"
State of registry:	Japan
National designator:	2012-025D
Date and territory or location of the launch	
Date of the launch:	17 May 2012 at 1639 hours UTC
Territory or location of the launch:	Tanegashima Space Center, Kagoshima, Japan

## Basic orbital parameters

Nodal period:	98.0 minutes
Inclination:	98.2 degrees
Apogee:	671.6 kilometres
Perigee:	651.0 kilometres

General function of the space object:	The mission of the High Voltage Technology Demonstration Satellite is to carry out photovoltaic power generation at 300V in low Earth orbit and verify that electrostatic discharges do not occur on solar arrays that are specially designed to mitigate discharge even when the satellite generates the power at 300V.
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**Additional voluntary information for use in the Register of Objects Launched into Outer Space**

Space object owner or operator: Japan Aerospace Exploration Agency

Launch vehicle: H-IIA Launch Vehicle Flight No. 21  
(H-IIA-F21)

Other information: Basic orbital parameters are as at  
19 June 2012. The launching organizations  
are Mitsubishi Heavy Industries Ltd. and the  
Japan Aerospace Exploration Agency.

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