

JAXA-RPR-MX16321

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# **MARTIAN MOONS EXPLORATION (MMX) MISSION**

## **SCIENCE MANAGEMENT PLAN FOR**

### **NEUTRON AND GAMMA-RAY SPECTROMETER (NGRS)**

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**REVISION AND HISTORY PAGE**

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## 1. SUMMARY AND SCOPE

This document, MMX Science Management Plan (MMX-SciMP-NGRS), deals with the scheme that will be implemented up to and including the post operational phase, to ensure the fulfilment of the scientific objectives of the MMX mission and to optimise its scientific return, with special emphasis on science operation and data management from the view point of Neutron and Gamma-ray spectrometer (NGRS).

JAXA is happy that MMX is an international mission. Some Principal Investigators (PIs) of some science instruments are supported by his/her Lead Funding Agency else than JAXA. Here JAXA would like to thank the corresponding agencies for appreciating highly the value of MMX and for their supports to the scientists which enable world's top-class expertise to be available for the success of the mission. A foreign-led instrument team will have at least one or two Japanese members so that the tie between the foreign-led instrument team and the mission-core team who resides at JAXA is not only secured for this particular mission, but potentially will also be a good starting point for another exciting mission in the future.

Described in this document are what make a secure development of the mission and what make the mission scientifically most successful. JAXA thinks that there should not be firewalls among the PIs. Embedded in the body where science members discuss matters from science-oriented perspectives (Science Working Team: SWT) is Science Board (MMX-SB). At MMX-SB, PIs (and some more members) make strategic planning for the largest success that the mission deserves. All the relevant data will be required to be submitted to MMX-SB for the planning purpose, that is, the notion of exclusive data period does not apply to this process. Given the nature of science expected of MMX, multi-instrument studies matter most. It is this idea that made JAXA decide to set up a framework where all information are focused at MMX-SB which consists of members who are equipped with suitable capabilities so that the best strategy and planning will be formulated.

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## 2. PROGRAMME PARTICIPATION

### 2.1. Payload Configuration and PI-Responsible Instruments

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

### 2.2. Modes of Participation

The possible modes of participation to the MMX programme are:

- (1) Principal Investigator (PI), leading an instrument team providing a PI-responsible instrument.
- (2) Co-Principal Investigator (Co-PI) may be appointed if a major development is carried outside the country/institution of a PI.
- (3) Co-Investigator (Co-I), a member of an instrument team providing a PI-responsible instrument.
- (4) Interdisciplinary Scientist (IDS), an expert in specific science themes that need multi-instrument approaches and which needs to be investigated in order to obtain maximum scientific return of MMX.

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

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### 3. SCIENCE AND PROJECT MANAGEMENT

#### 3.1. The JAXA/MMX Project Team

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

#### 3.2. The MMX Mission Scenario

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

#### 3.3. Science Working Team

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

#### 3.4. Monitoring of Instrument Development

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).

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#### 4. SCIENCE DATA RIGHTS

See MMX Science Management Plan for All Instruments (MMX-SciMP-ALL).



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## 5. DOCUMENTS

### 5.1. Applicable documents

(1) JAXA-RPR-MX16300

MMX Science Requirement Document for All Instruments (MMX-SciRD-ALL)

(2) JAXA-RPR-MX16301

MMX Instrument Interface Requirement Document (MMX-I-IRD)

### 5.2. Reference documents

N/A

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## 6. ACRONYMS

Co-I	Co-Investigator
Co-PI	Co-Principal Investigator
IDS	Inter-Disciplinary Scientist
JAXA	Japanese Aerospace Exploration Agency
MMX	Martian Moons Exploration
MMX-I-IRD	MMX Instrument Interface Requirement Document
MMX-SciRD	MMX Science Requirement Document
MMX-SB	MMX Science Board
MMX-SWT	MMX-Science Working Team
PI	Principal Investigator
SWT	Science Working Team