## Letter of Intent (LoI)

## **Among**

# The National Space Science Center,

# The Institute of Remote Sensing and Digital Earth

# and The National Institute for Space Research

#### Introduction

The **National Space Science Center** (hereinafter referred to as "NSSC"), a key institute of the Chinese Academy of Sciences (CAS) responsible for planning, selecting, developing, launching, and managing the operation of Chinese space science satellite missions, as well as for space weather science studies,

The **Institute of Remote Sensing and Digital Earth** (hereinafter referred to as "RADI") a key institute of the Chinese Academy of Sciences (CAS), in charge of space science satellite receiving missions in China,

NSSC and RADI are jointly responsible for the construction and operation of the Ground Support System of the Strategic Priority program on Space Science and the Space Science Satellites Data Receiving System is also jointly constructed by both parties (hereinafter referred to as "NSSC/RADI")

and

The **National Institute for Space Research** (hereinafter referred to as "INPE"), a research unit of the Brazilian Ministry of Science, Technology, Innovations and Communications (MCTIC), whose main goals are fostering scientific research and technological applications and qualifying personnel in the fields of space and atmospheric sciences, space engineering, and space technology,

either of which may also hereinafter be referred to as a "Partner", have confirmed their mutual interest in analyzing the possibility of the establishment of a data receiving system –Brazilian Ground Station for China Space Science Satellite (BGSCA) at INPE's facilities in the city of Cachoeira Paulista, to receive data from China's space science satellites and from other space missions of both interest.

The above cooperation between NSSC/RADI and INPE shall be governed by the provisions of an appropriate Memorandum of Understanding (MoU) to be concluded in due time. In any case, the cooperation between NSSC/RADI and INPE shall be based on

a "no exchange of funds" concept. This LoI is not intended to be legally binding on either Partner, and may be terminated by either of the Partners, by giving written notice to the other Partner.

#### **Objectives**

The main objectives of this document are:

- 1. To identify the areas of intended cooperation and
- 2. To provide an indicative schedule for the new cooperation.

#### 1. Areas of Intended Cooperation

Jointly establishment of CBODS at a site being proposed by INPE and located at its facilities in Cachoeira Paulista, to receive data from Chinese space science satellites and from other space missions of mutual interest. The framework of the data sharing for the different missions will be detailed in the MoU. The China-Brazil Joint Laboratory for Space Weather will be responsible for building the infrastructure on site for the installation of CBODS. The on-site operational infrastructure (power, housing, communication etc.) is going to be further detailed in a Joint Work Plan that will be part of the MoU.

#### 2. Indicative Schedule for the Cooperation

The following schedule is an indication of the events in association to a tentative commitment timeline, intended to serve as a main guideline to indicate how and when each main event related to this cooperation is expected to occur and evolve to the subsequent ones, till completion of the objectives of this cooperative effort.

ID	Activity	Indicative Schedule
1	Exchange of hosting requirement documents and determination of site location.	Completed
2	Finalisation and signature of this intention of cooperation.	October 2017
3	Organisation of a workshop to discuss the Joint Work Plan. Visit of the Chinese members to Brazil.	October 2017
4	Finalisation of the Joint Work Plan.	December 2017
5	Signature of the MoU.	June 2018
6	Start the construction of the antenna in China. Start the construction of the infrastructure on site.	October 2018
7	Shipment of the station equipment to Cachoeira Paulista.	January 2020
8	Installation, test and initial operation of the equipment.	April 2020
9	Antenna ready for regular operation.	October 2020

#### 3. Points of Contact

The points of contact responsible for coordinating the activities arising from this LoI are **Dr. Joaquim E.R. Costa**, Manager of Science, Development and Innovation of the Space Weather Program ("EMBRACE"), on behalf of INPE, and **Dr. Tai Hu**, Deputy Director of the Space Mission Operation Center ("SMOC"), on behalf of NSSC, and **Dr. An Li**, Director General Assistant of RADI, on behalf of RADI.

# **Signatures**

Date:

**National Space Science Center**  Institute of Remote Sensing and Digital Earth National Institute for Space Research

Dr. Ziming Zou Deputy Director

Dr. An Li Director General Assistant

Date:

Dr. Ricardo Galvão Director

Date: 30 October 2017