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Prepared by CNSA

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Discussed in Plenary

## **STATUS OF THE CURRENT CNSA EARTH OBSERVATION MISSIONS**

CGMS is informed of the status of the current China National Space Administration Earth Observation missions. It includes FY-series satellites, CBERS series satellites, HY-1B satellites and environment and disaster-monitoring small satellite constellation. FY-1D/HY-1A was successfully launched on May 15th 2002 , CBERS02 was on Oct.21th 2003. HY-1B and CBERS02B have been operated in 2007. FY-3 and HJ-1 will be launched in 2008. This paper will be introduced the status of satellites of CNSA in orbit.

## **STATUS OF THE CURRENT CNSA EARTH OBSERVATION MISSIONS**

### **1. – INTRODUCTION**

CNSA has built up an earth observation system for long- term stable operation. It includes FY-series satellites, Oceanic satellites and CBERS series satellites. And CNSA has actively sought the cooperation of them on Earth observation program and data sharing cooperation. As government department, CNSA is in charge of developing Earth observation satellite systems and promoting the application of satellite technology. The current Earth observation satellites in orbit include FY-1D, FY-2C, FY-2D, CBERS02, CBERS02B and HY-1B. We are trying to promote the operational applications of in-orbit satellite data .The status of the current CNSA earth observation missions is introduced in brief as follows:

### **2.- STATUS OF THE CBERS02 / 02B MISSIONS**

CBERS02 was launched on October, 21st 2003. Presently the satellite works normally with CCD camera in orbit, and on observation mission together with CBERS02B, and the revisiting cycle is shortened. During CBERS02 operating, China and Brazil announced data free respectively in their countries. CBERS02 data has been distributed about 250,000 pictures in China.

CBERS02B was successful launched On September, 19th, 2007, which being tested in-orbit now. It equips CCD camera, WFI and High Resolution camera(HR). CBERS02B works well, and its data quality and application are being evaluated.

### **3、 STATUS OF THE HY-1B MISSION**

The main goal of HY-1 is to detect the oceanic resource environmental parameters, including chlorophyll concentration, suspended sediment concentration, and dissolved organic matter, pollutants, and sea surface temperature. The satellite will play an important role in developing and utilizing the oceanic bio-resources, constructing the harbor, monitoring the ocean pollution, investigating coastal resources and studying the global environmental changes.

The HY-1A satellite was successfully launched to altitude of 870 km together with FY-1D satellite on May 15<sup>th</sup> 2002. it obtains the data of 1830 passes. Because of electrical circuit failure. The solar power arrays can not provide enough power for HY-1A satellite on 30 March 2004. its data was used to Monitoring ocean color, sea surface temperature, Sea ice/ coastal zone and detecting red tide and pollution events.

HY-1B was launched at Apr.11 2007. It has been working for seven months and its status is introduced in CGMS35-cnsa-wp-03.

### **4. About APPLICATION OF DATA OF SATELLITES IN ORBIT**

CNSA actively promotes international exchanges and cooperation on satellite data. We commit to provide CBERS02 satellite data free in China and Brazil, even for our surrounding countries and Africa. CBERS02 has implemented data landing tests in Europe, Australia and other countries. With multiple ways such as data exchanging and paid or free distribution, we will provide data services for all kinds of users. We hope to conduct close cooperation with the members of CGMS and invite experts to evaluate CNSA satellite data and applications. CNSA will urge to improve the services quality continuously.