



**中国科学院对地观测
与数字地球科学中心**

Capacity of CEODE for Remote Sensing Data Sharing and Service

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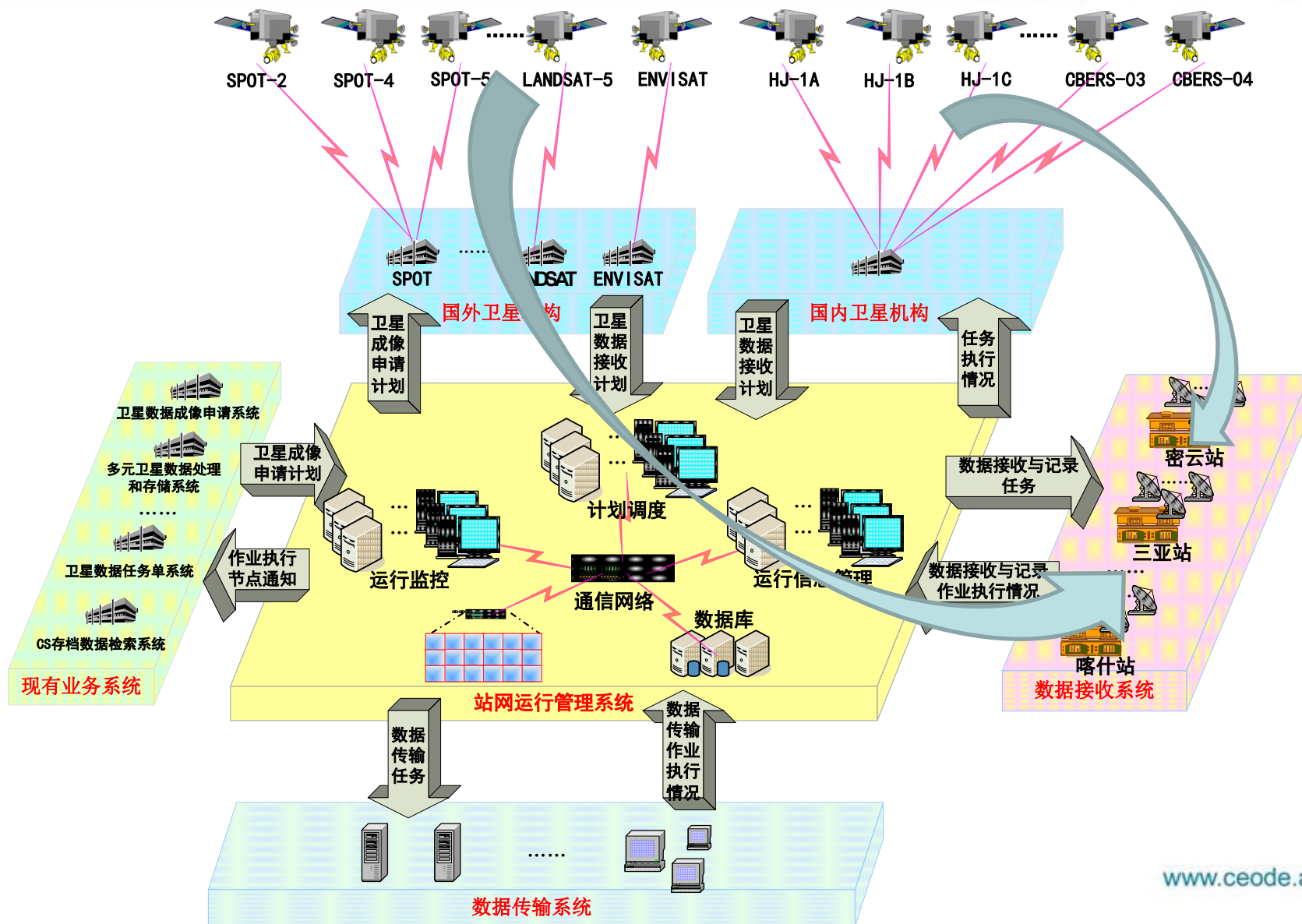
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Introduction to CEODE

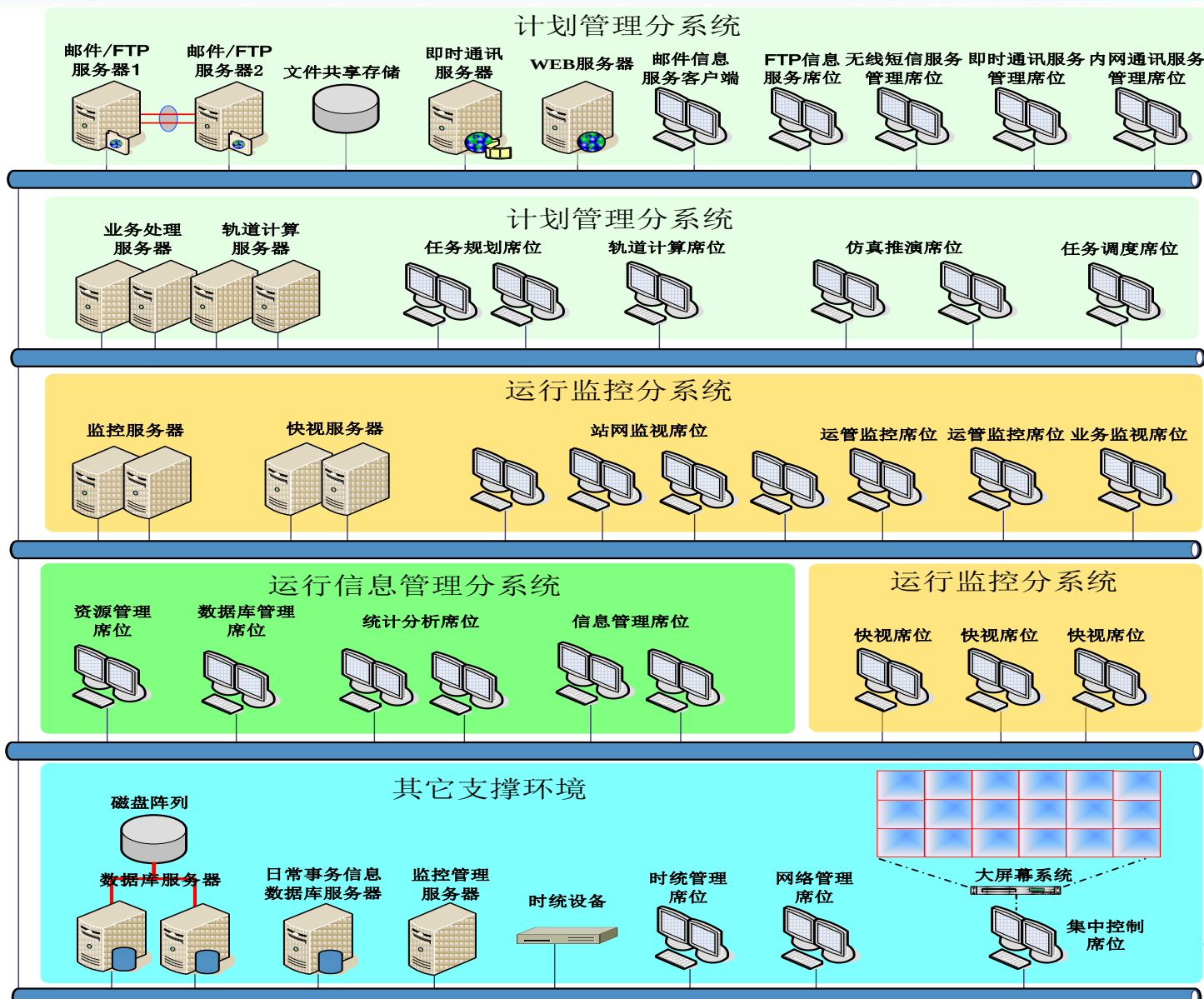


The Center for Earth Observation and Digital Earth (CEODE), Chinese Academy of Sciences (CAS), was established on August 27, 2007 through consolidating three CAS units: the Remote Sensing Satellite Ground Station, the Center for Airborne Remote Sensing and the Laboratory of Digital Earth Sciences. As an institution noted for combination of both scientific research and professional services, CEODE is committed to: high-quality operation of aerospace Earth observation system and related data services; exploration of cutting-edge technologies for earth observation and their application demonstrations; theoretical and technological research into key issues concerning Digital Earth and their integrated applications at the global, national and regional scales; and the establishment of a research platform for Digital Earth.

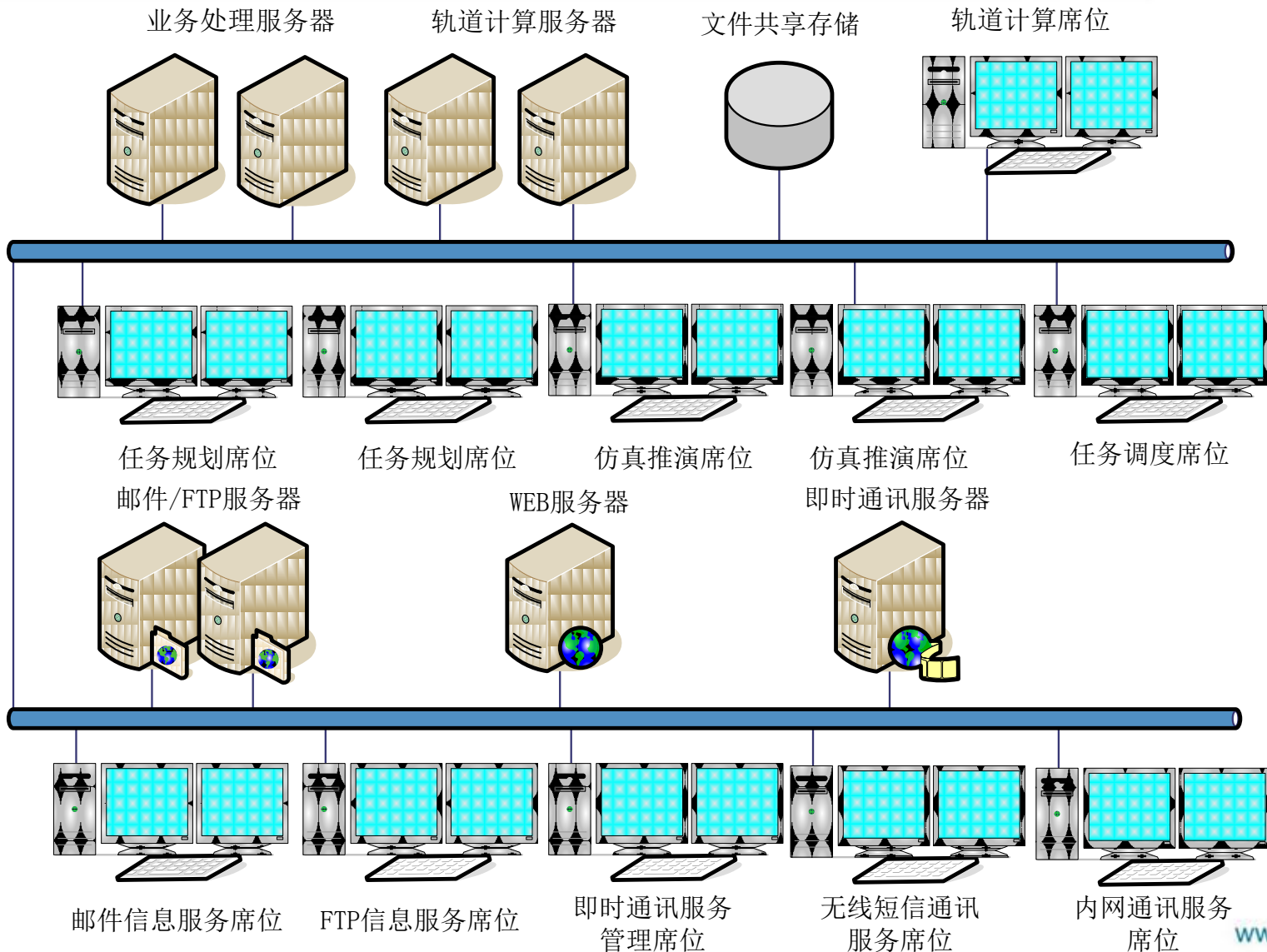
RS Data Receiving Station System and Its Management



RS Data Receiving & Processing Net-work control & Management System



Station Net-work control & Management System



Scheduling Resource



卫星资源

HJ-1A/1B

HJ-1C

CBERS-03/04

Z3

G1/G2/G3

SPOT-4/5

LANDSAT-5

RESOURCESAT-1

RADARSAT-1/2

ENVISAT

ERS-2

THEOS

接收站资源

密云站

- 4套天线系统
- 13套记录系统
- 其他系统
- 1000M传输链路

三亚站

- 2套天线系统
- 3套记录系统
- 其他系统
- 155M传输链路

西南站

喀什站

- 2套天线系统
- 4套记录系统
- 其他系统
- 155M传输链路

数据服务资源

SPOT-2/4/5

ERS-1/2

LANDSAT-5/7

RESOURCESAT-1

RADARSAT-1/2

ENVISAT

THEOS

Miyun Remote Sensing Data Receiving Station



- 4 Sets of Antenna System
- 13 Sets of Recording System
- 1000M Data Transferring Chains



Kashikar Remote Sensing Data Receiving Station



- 2 Sets of Antenna System
- 4 Sets of Recording System
- 155M Data Transferring Chain



Sanya Remote Sensing Data Receiving Station



- 2 Sets of Antenna System
- 2 Sets of Recording System
- 155M Data Transferring Chains

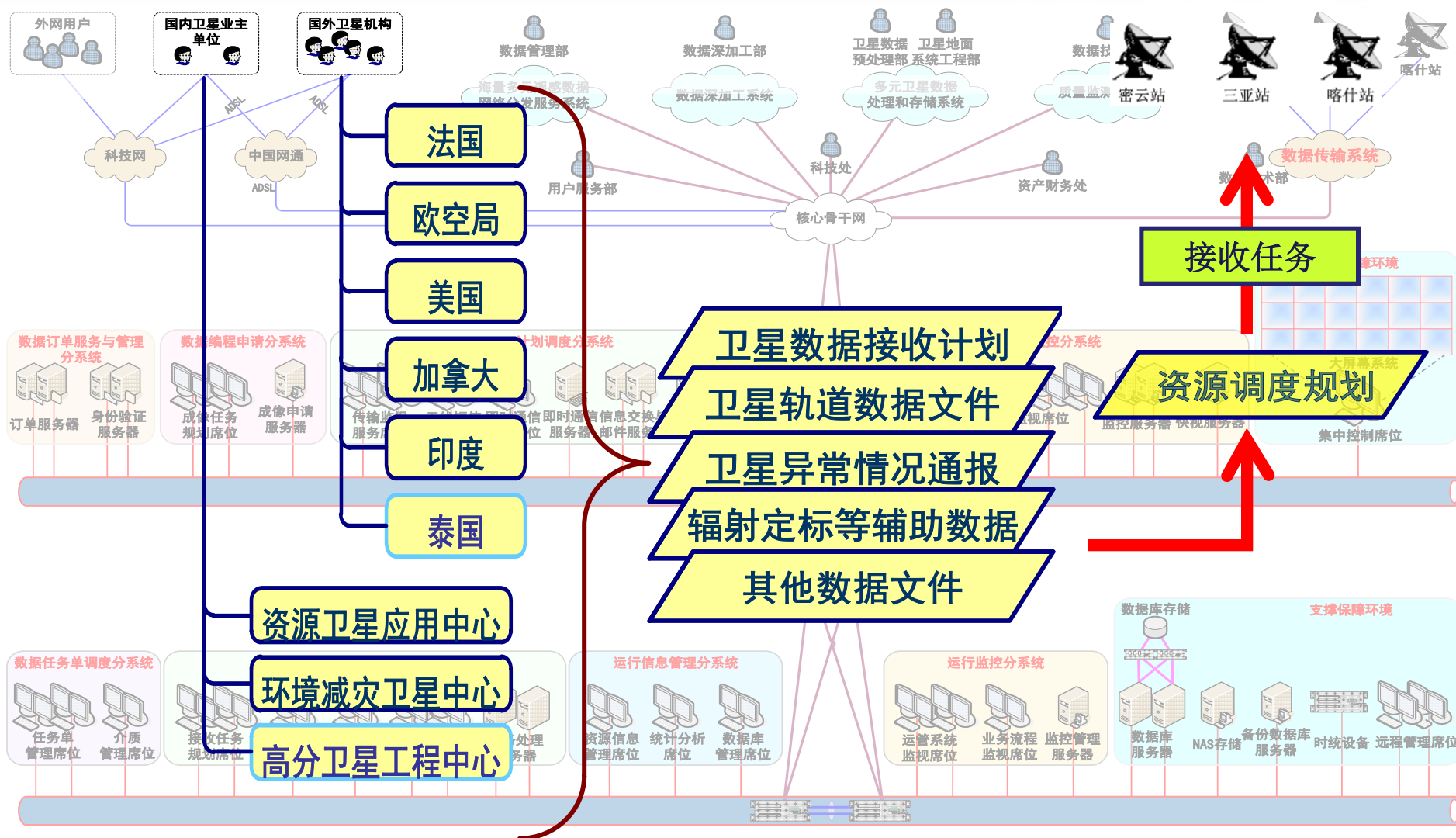


RS Data Receiving Extent for Miyun, Kashikar and Sanya Stations

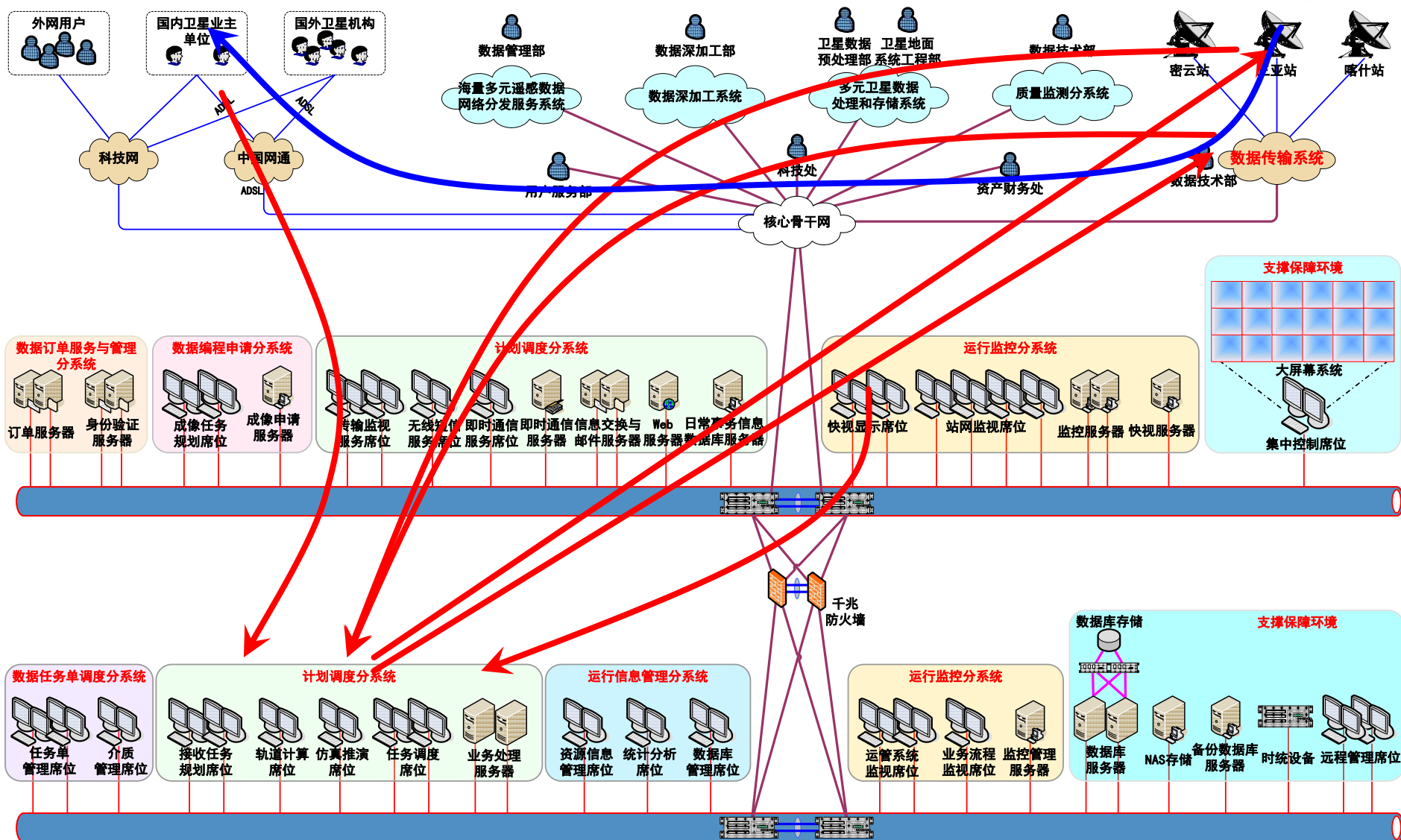


RS Data
Receiving
Extent
Covers the
Whole
Territory
of China,
about 70%
Territory
of Asia
Region

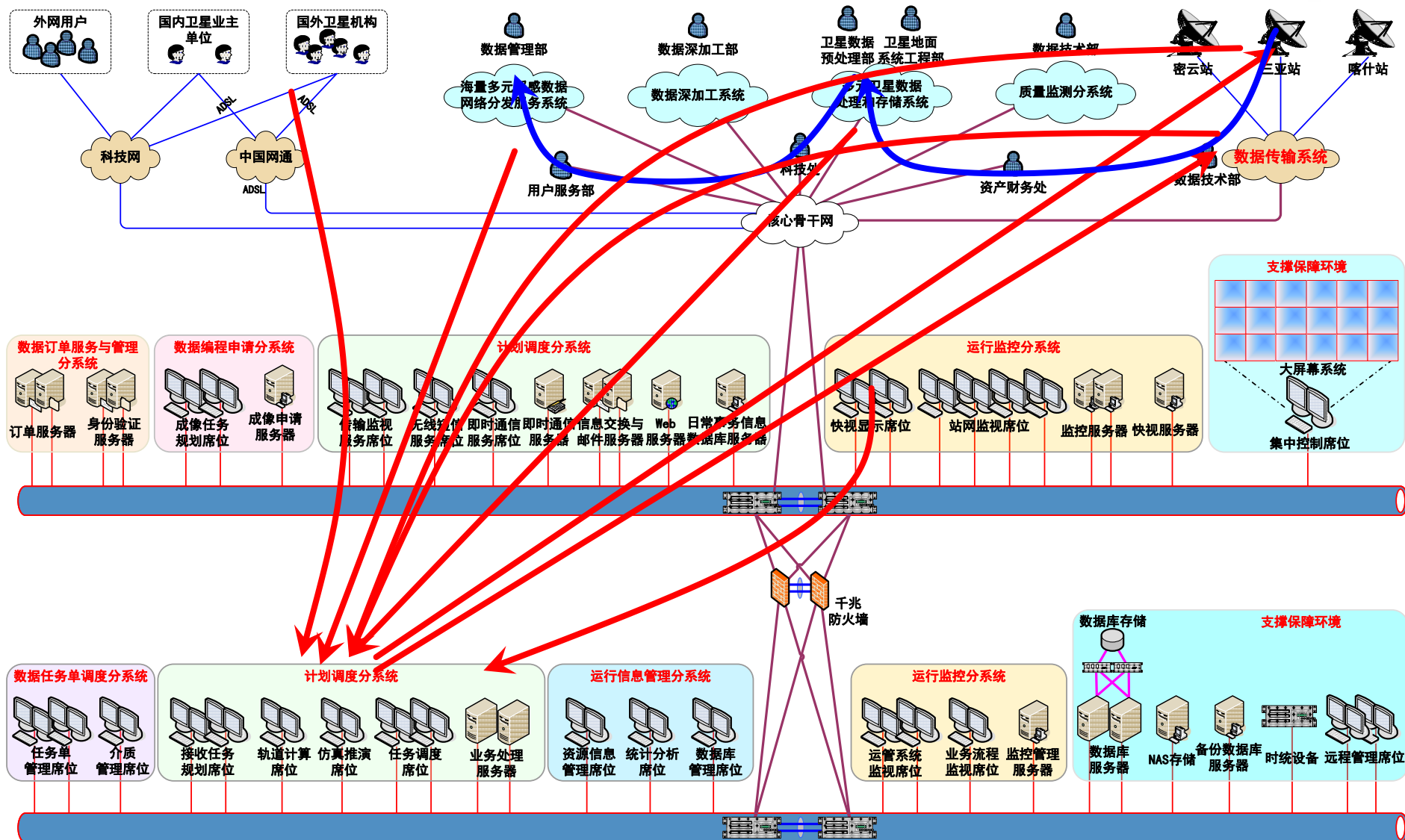
Remote Sensing Data Receiving Service



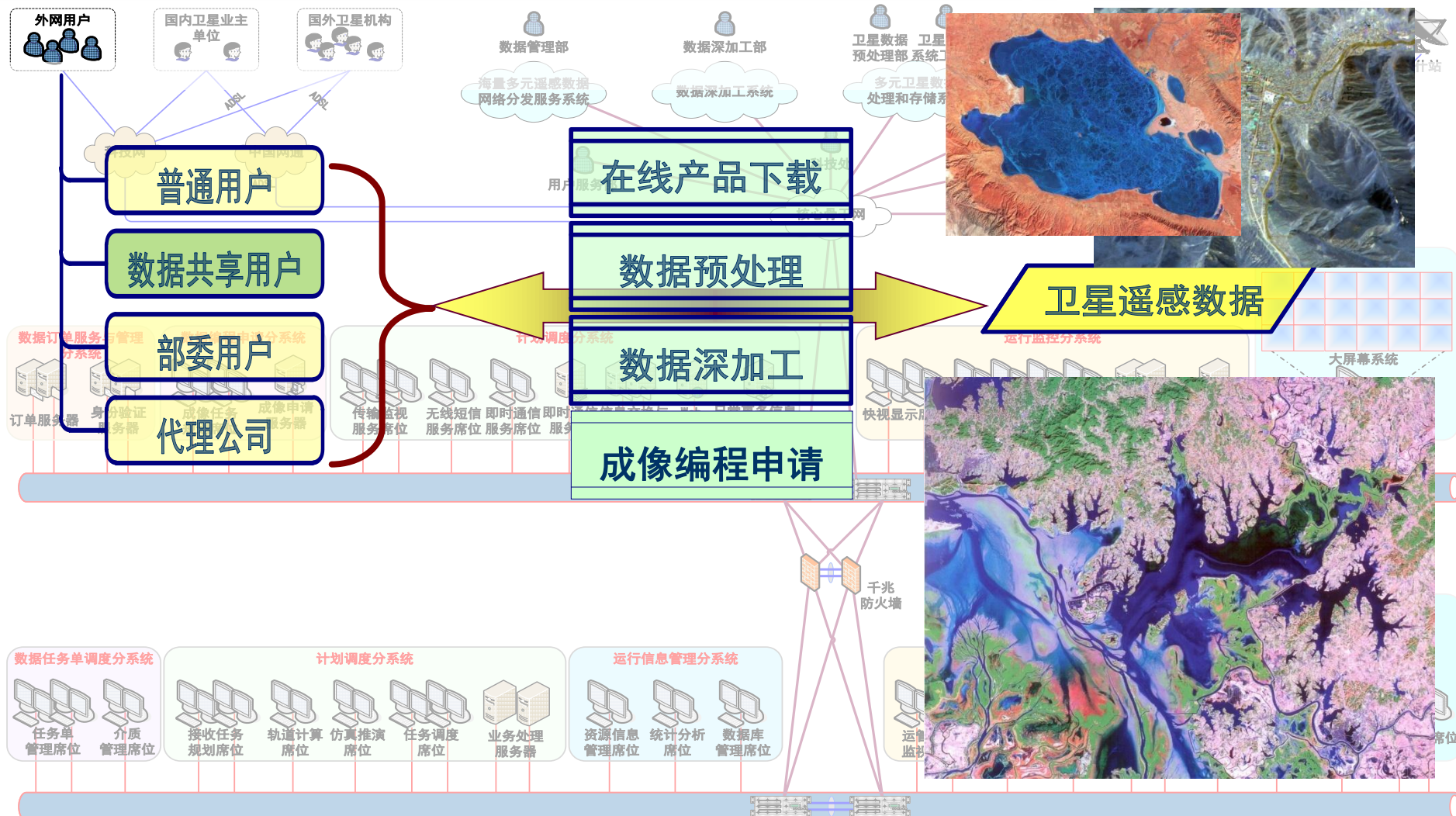
国内卫星数据接收与传输调度流程



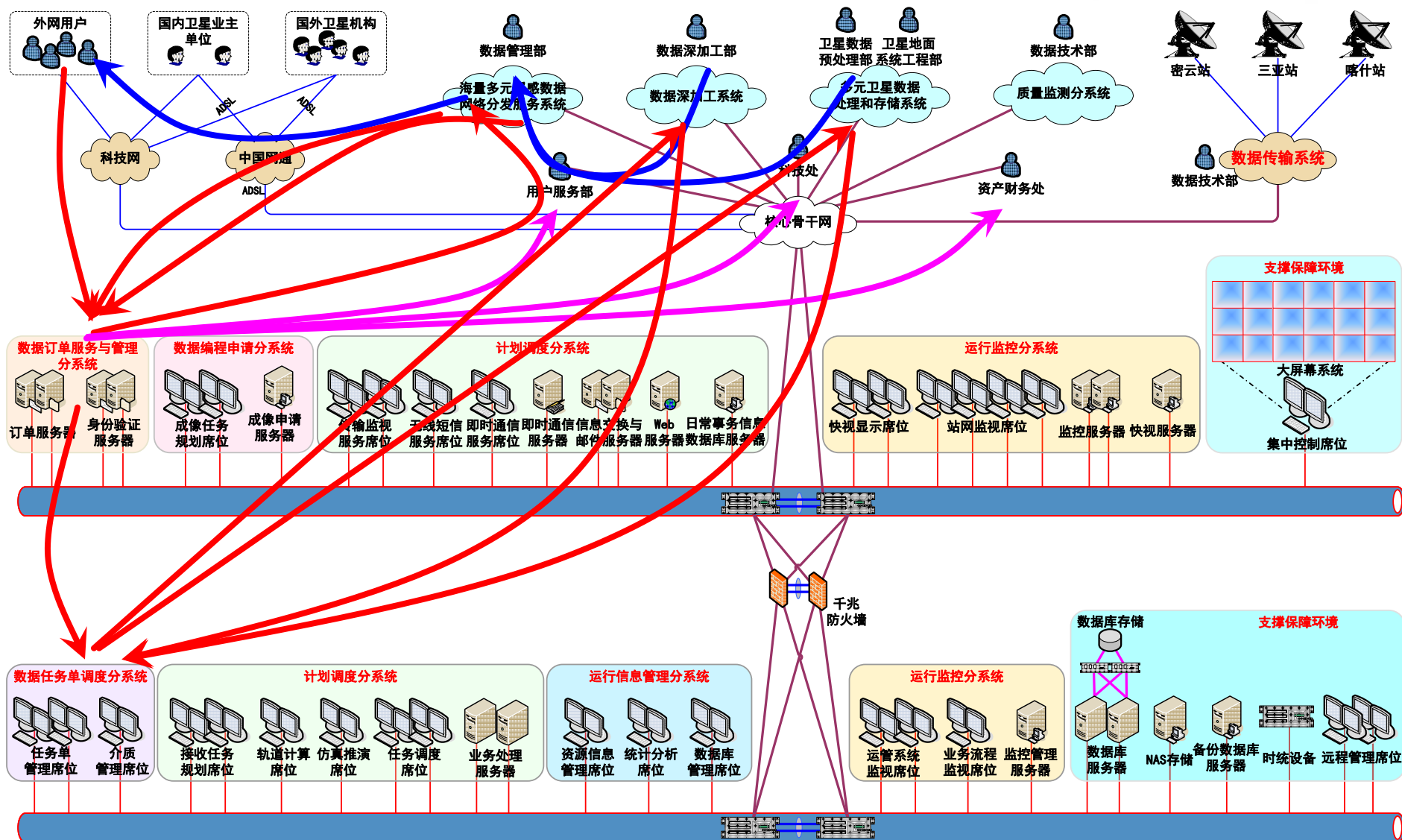
Foreign RS Data Receiving & Transferring Scheduling Procedure



RS Data Processing Service



Foreign RS Data Processing Scheduling Procedure





System Device Status Monitoring System



Task Execution Monitoring System



密云站业务状态

5.2米X/L	当前任务				
	计划号	子项序号	卫星代号	接收开始时间	接收结束时间
5.2米S/L	已执行任务			待执行任务	
	计划号	子项序号	状态	计划号	子项序号 接收开始时间
4.5米S/L-1	当前任务				
	计划号	子项序号	卫星代号	接收开始时间	接收结束时间
4.5米S/L-2	已执行任务			待执行任务	
	计划号	子项序号	状态	计划号	子项序号 接收开始时间
12米X	当前任务				
	计划号	子项序号	卫星代号	接收开始时间	接收结束时间
	36	18	SPOT-2	2006-04-21 08:29:36	2006-04-21 08:39:27
12米X	已执行任务			待执行任务	
	计划号	子项序号	状态	计划号	子项序号 接收开始时间
产品传输					
计划号	子项序号	节点名称	时间	备注	
10	3	产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	
		产品传输完成	09:20:40	BEI_FYID_MVISR_X_20050413101010.dat	

The figure displays the main interface of the Resource Information Management Software. The interface is organized into several sections:

- Menu Bar:** Located at the top, it includes options for 'Satellite Information Management', 'Ground Station Information Management', 'Transmission System Resource Information Management', 'Document Information Management', 'Personnel Information Management', 'Help', and 'Exit'.
- Toolbars:** Below the menu bar, there are toolbars for adding information: 'Add Satellite Information', 'Add Optical Sensor Information', and 'Add Ground Station Information'.
- Main Workspace:** This area contains three overlapping dialog boxes for editing information:
 - Edit Satellite Information:** Includes fields for satellite ID, name, country, institution, launch time, orbit type, orbit height, and return period.
 - Edit Ground Station Information:** Includes fields for ground station ID, name, type, deployment location, altitude, geographic coordinates, and status.
 - Edit Transmission System Information:** Includes fields for ground station ID, transmission system ID, destination, number of links, link name, bandwidth, and status.
- Log Information:** A table at the bottom left for recording operations, with columns for 'Type', 'Time', and 'Log Information Content'.

All satellite data were transmitted via a high-speed network. It took only 20min to transmit satellite data received at Miyun, Kashi and Sanya stations through the network to Beijing.



RS Data Receiving Planed in Near Future



RS Data Receiving Planed in Near Future

Domestic Satellite:

- **CBERS-02C**
- **HJ-1C**
- **CBERS-03/04**
- **Resource No.3**
- **High Resolution RS**

Foreign Satellite:

- **THEOS**
- **USA LDCM**
- **French Pleiades & SPOT-6 / 7**
- **Canada RADARSAT Followings**
- **Sino-French Astronomical Observation Satellite: SVOM**
- **EOS ENVISAT Followings**

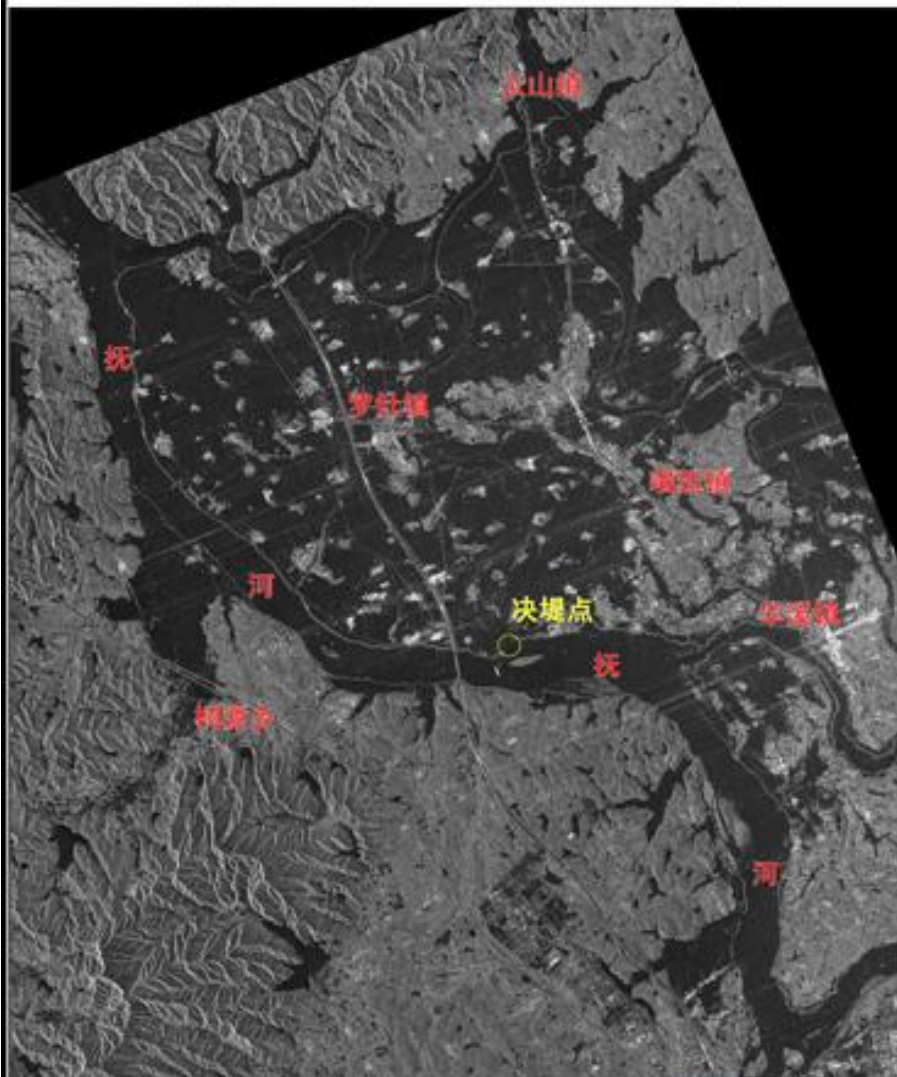
Flooding Monitoring with Airborne RS Image in Jiangxi



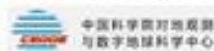
Flooding Monitoring with Airborne RS Image in Jiangxi



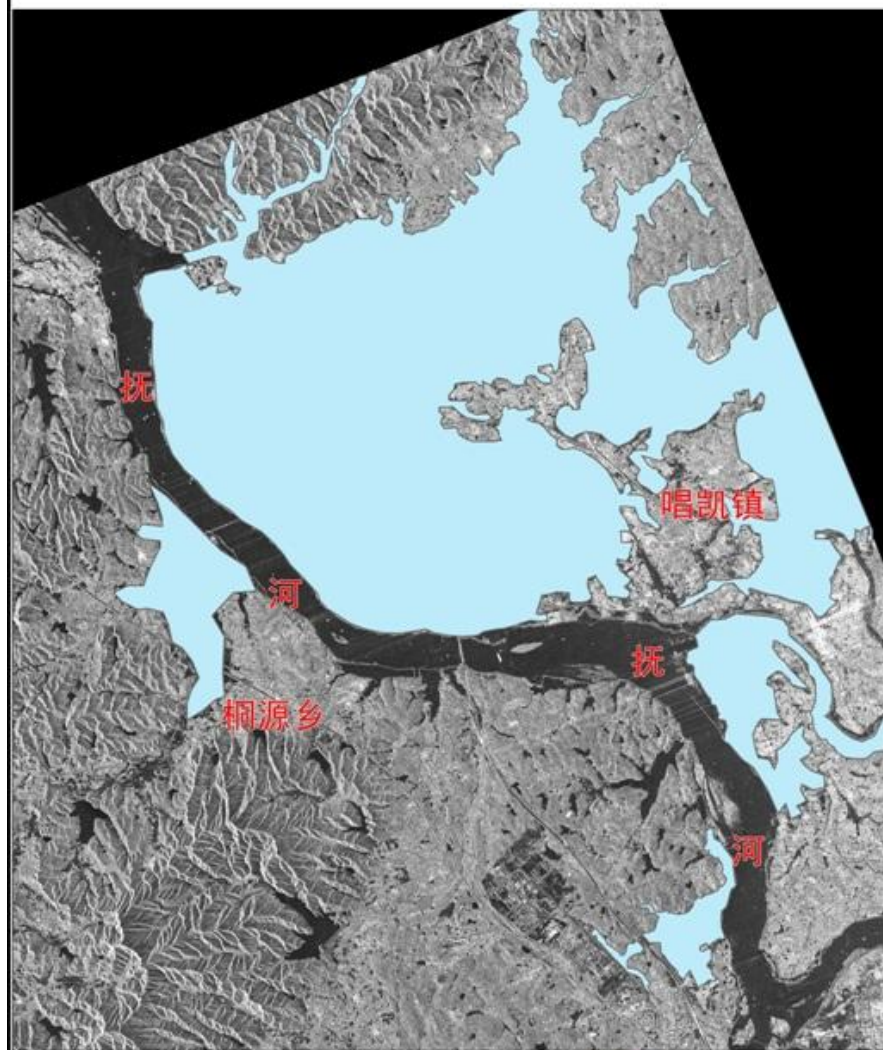
江西省抚州市Radarsat2卫星影像图



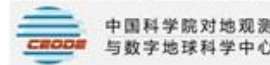
比例尺: 1: 25 000
数据获取时间: 2010年6月24日



江西省抚州市唱凯洪水淹没范围监测图



比例尺: 1: 25 000
数据获取时间: 2010年6月24日



Airborne RS Image in Yushu, Earthquake Hit Region

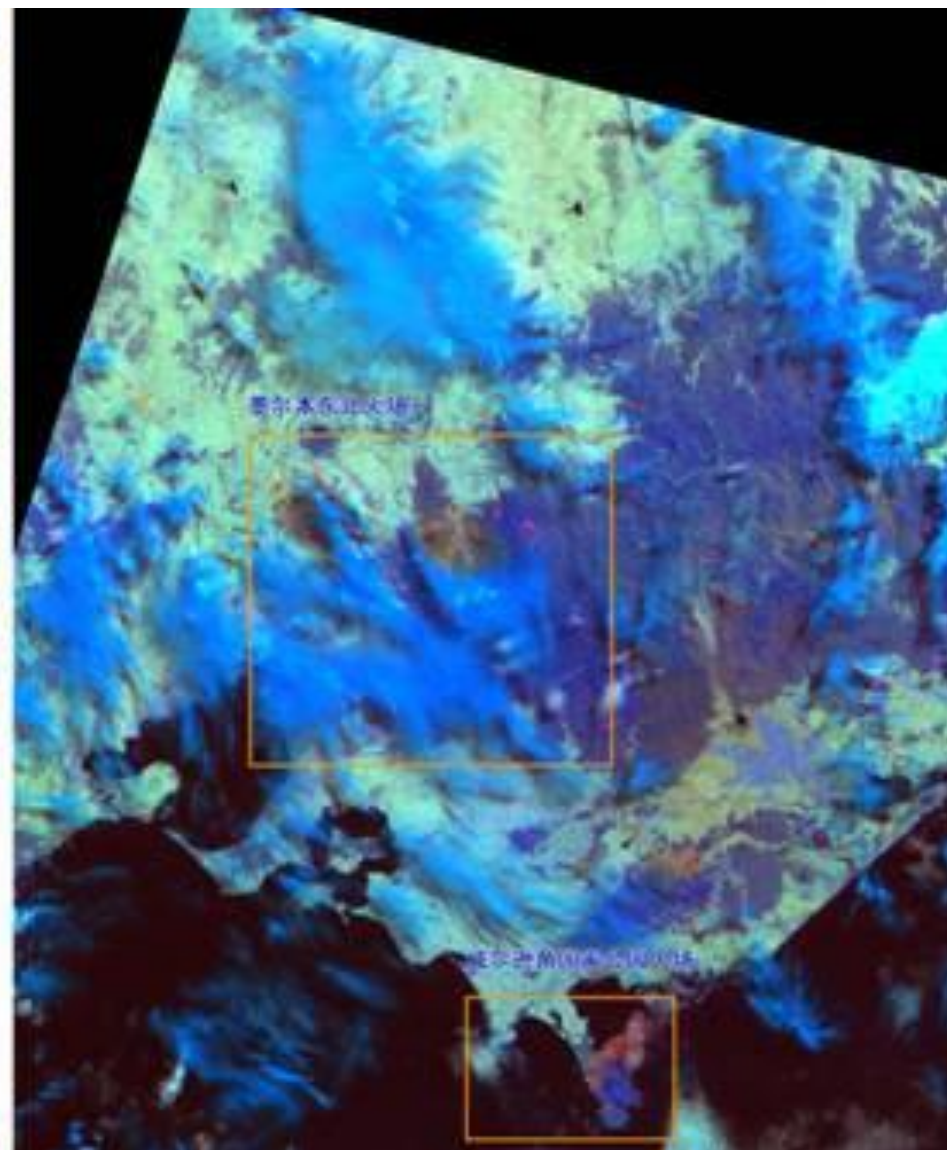
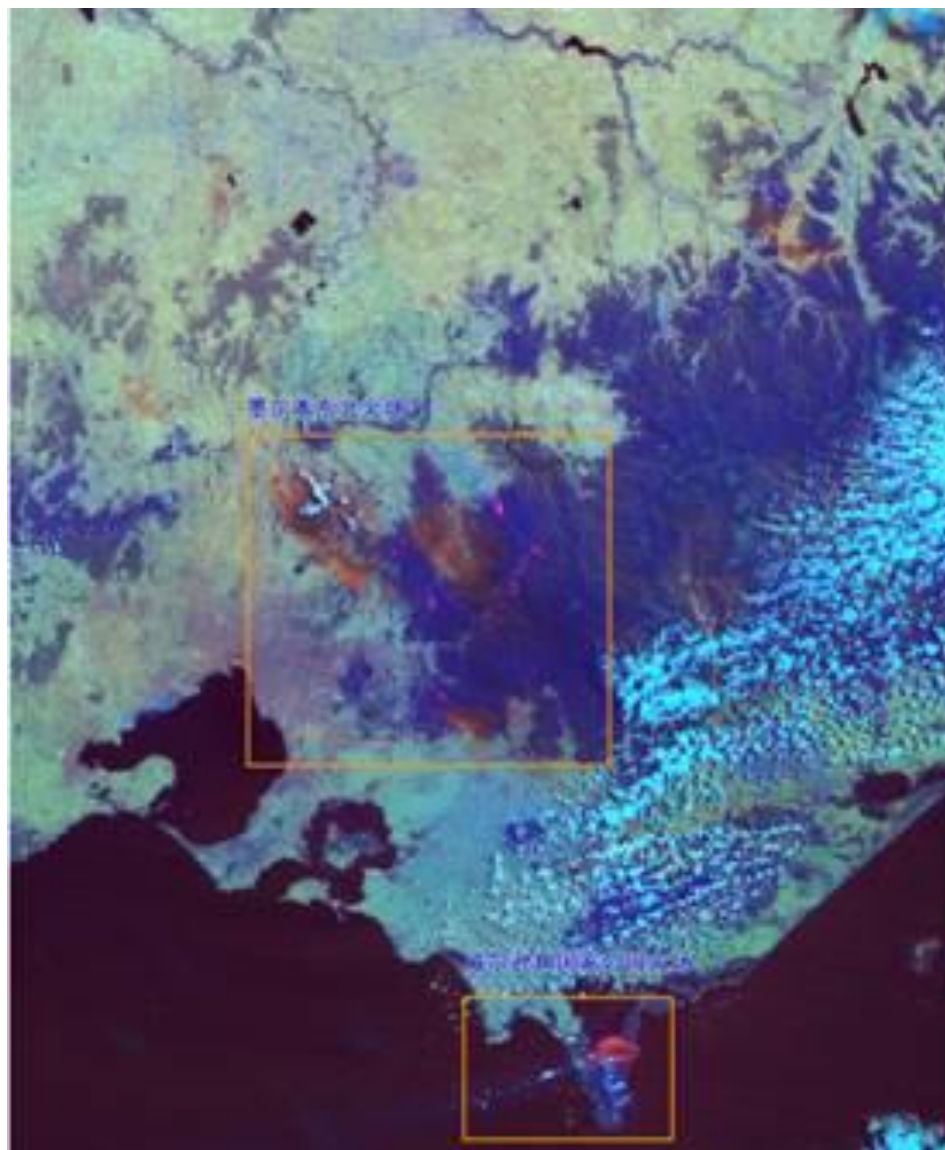


Airborne RS Image in Yushu, Earthquake Hit Region

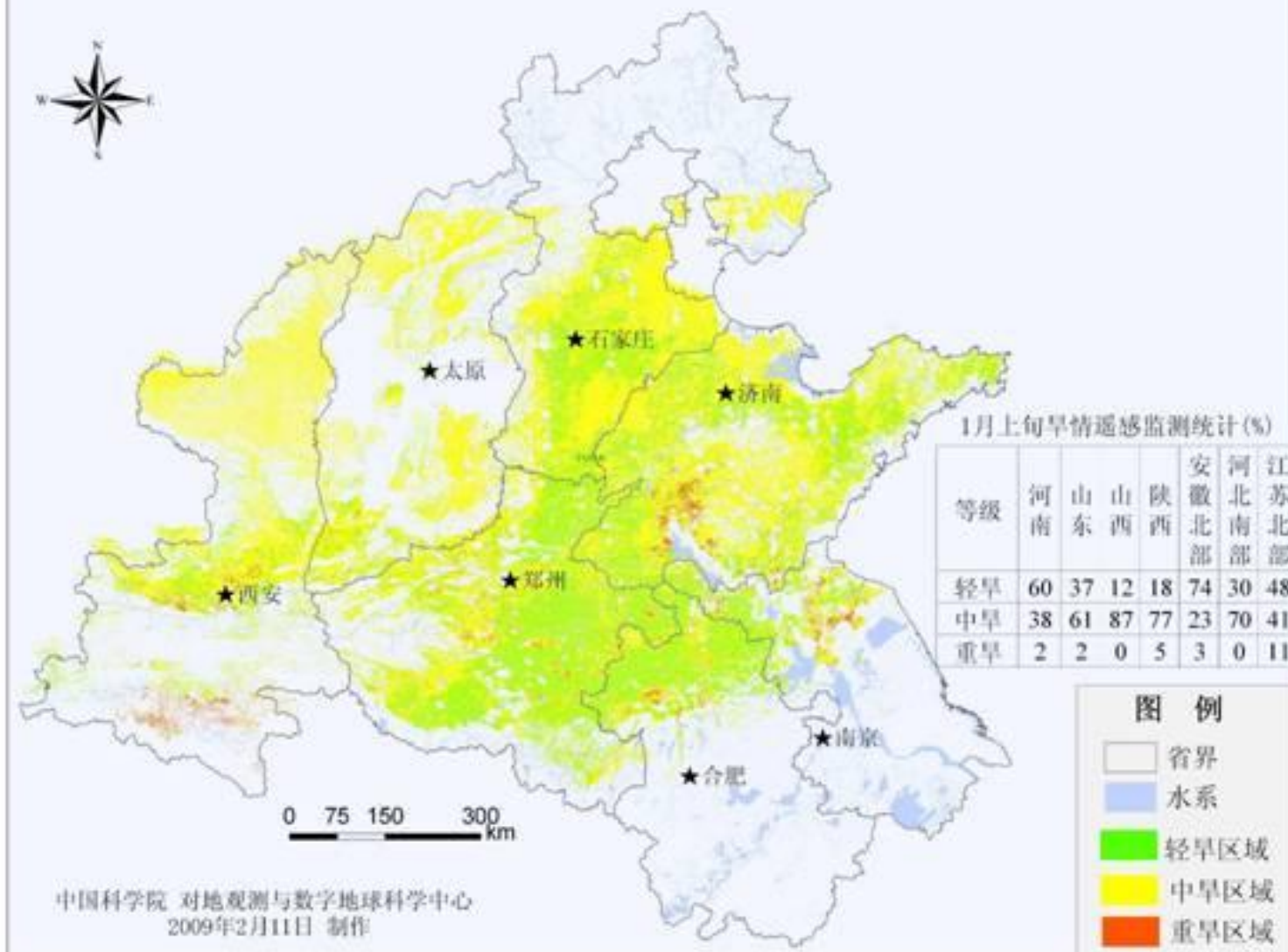


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Tracking Australia's Bushfires Using Satellite Data



河南、山东等7省区旱情遥感监测图（2009年1月上旬）



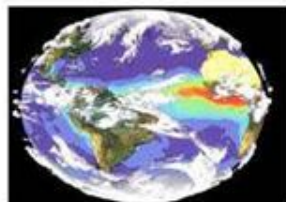
CEODE's RS monitoring of Mudslide-hit Zhouqu County



Airborn Image of Tangjiashan Barrier Lake(May 16, 2009)



Thanks !



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