



Institute of Remote Sensing and Digital Earth
Chinese Academy of Sciences

RADI: A New Platform for Remote Sensing and Digital Earth Study

——IRDR Host updates at the 13th IRDR SC meeting

November 13-15, 2014



RADI General Information: History



1979 Institute of Remote Sensing Applications (IRSA), CAS

2007 Center for Earth Observation and Digital Earth (CEODE), CAS

2012 Institute of Remote Sensing and Digital Earth (RADI), CAS



Strategic Planning

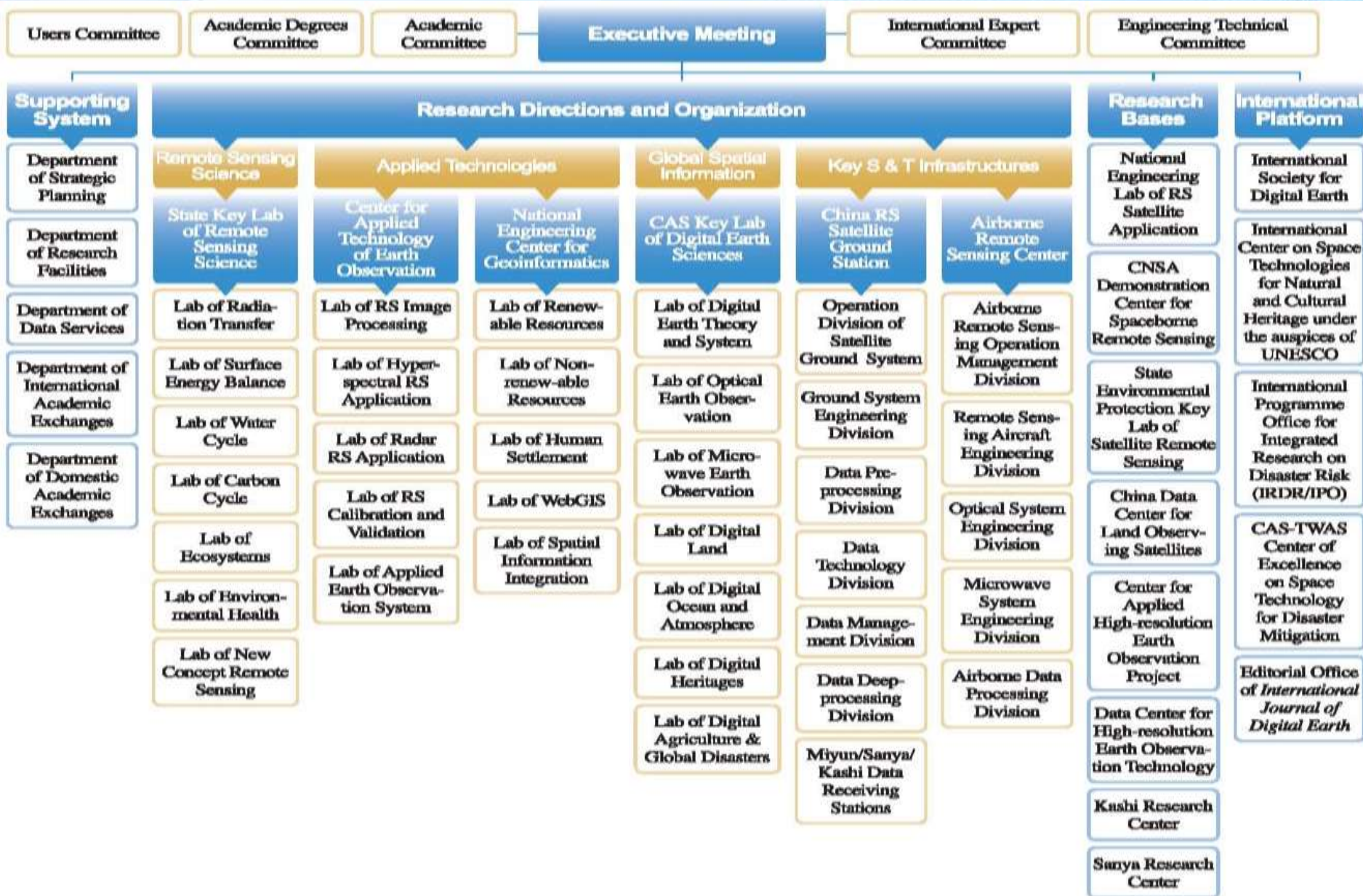
Exploring leading technologies in Earth observation, geospatial information science, and the mechanisms for acquiring and distributing remote sensing information;

Constructing and operating major Earth observation infrastructures and the spaceborne-airborne-ground Earth observation technology system;

Enhancing RADI's capacity for providing resource-environmental spatial information at the regional and global levels by creating a Digital Earth science platform.

Make innovative contributions to meet the national strategic needs and to promote the development of disciplinary, thus building RADI into a comprehensive, world-class research institute.

Organizational Structure



Human Resources



At present, RADI has a total staff of some 700 with an average age of 37.1, including 104 research professors and 191 associate professor researchers. Among them, 43.98% are doctoral graduates.

Talent Program	Number	Since 2011
CAS Member	4	1
Thousand Talents Program	2	1
National Science Foundation for Distinguished Young Scholars	1	1
NSFC Young Scientists Fund	2	2
Hundred, Thousand and Ten Thousand Talent Project (state-level)	2	0
Hundred Talents Program	17	9
CAS “Key Technical Talent Program”	5	4
CAS Visiting Professorship Program	10	7
Overseas Innovation Team	1	1
Domestic innovative partnership group for interdisciplinary research	1	1

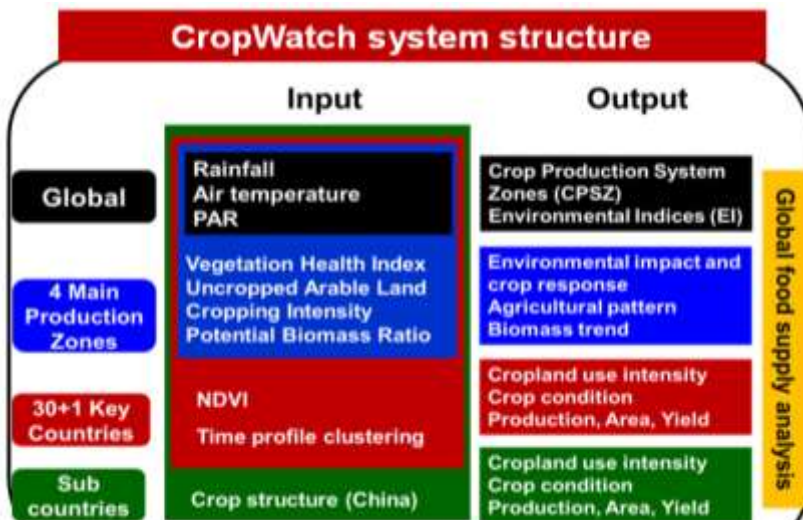
Updates: CropWatch System



Monitoring the food security using remote sensing

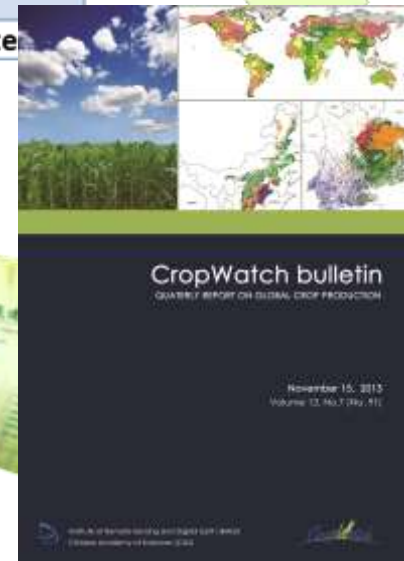


Wheat	Maize	Rice	Soybean
China	United States	China	United States
India	China	India	Brazil
Russia	Brazil	Indonesia	Argentina
United States	Argentina	Bangladesh	China
France	Ukraine	Vietnam	
Australia	India	Thailand	
Canada	Mexico	Myanmar	
Pakistan	Indonesia	Philippines	
Germany	France	Brazil	
Kazakhstan	Romania	Cambodia	
Ukraine	Canada	Pakistan	
Turkey	South Africa	United States	
Argentina	Nigeria		
United Kingdom	Ethiopia		
Iran			
Poland			
Egypt			
Uzbekistan			
Brazil			



CropWatch Bulletin is published 4 times a year.

<http://www.cropwatch.com.cn>



Updates: SatSee Technology

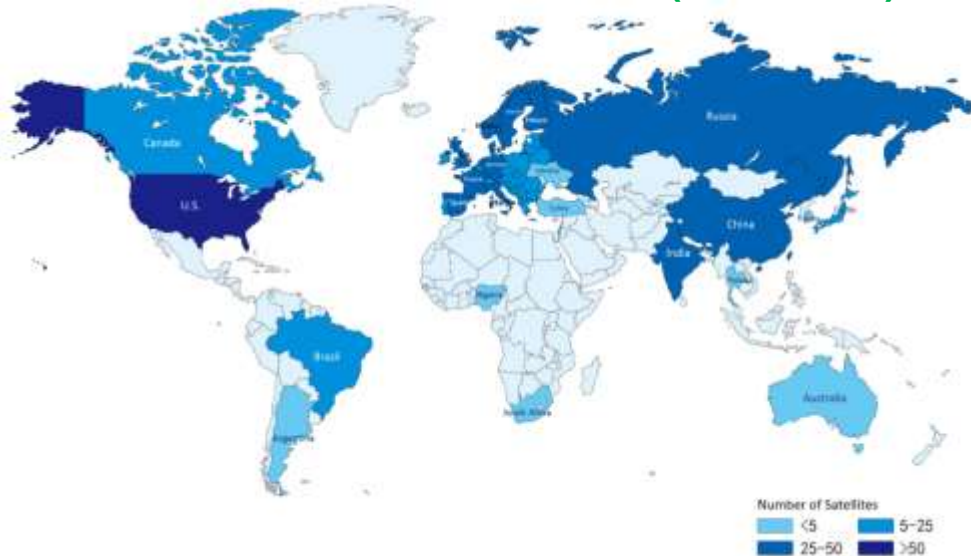


Earth observation is a **powerful** technology for **disaster mitigation**



For disaster quick response and management, developing countries are seeking to **increase their level of Earth observation data sharing.**

Earth Observation Missions (1962-2012)



Very few developing countries launched satellites

High cost of the construction of a new satellite ground station



Updates: SatSee Technology



Low-cost “virtual ground station” for disaster mitigation

- 2Mbits **internet connection**
- **two computers** and a large **monitor or TV screen**
- Distributing **real time quick-look imagery** of high resolution satellite
- Help developing countries with no Satellite



RADI's three stations receive data from satellites **covering 70% of Asia.**

SatSee System

real time quick-look imagery



Tracking Satellite Viewer



Installed in **Kirghizstan and Cambodia**
Preparing for **Mongolia**

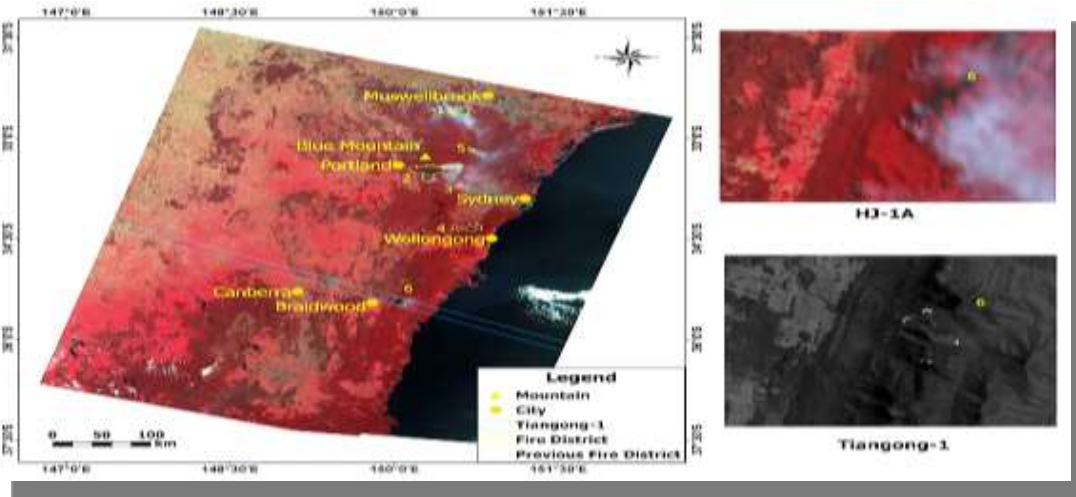
Updates: Monitoring of the Australian Bushfire in 2013



In a letter to CAS President Bai Chunli, Australian Ambassador in Beijing expresses his gratitude, on behalf of the Australian Government and the Australian community, for the assistance CAS provided during the bushfire emergency in the State of New South Wales.

He speaks highly of the courtesy, professionalism and expertise demonstrated by RADI people.

Earth Observation Missions (1962-2012)



Activities and Conferences

- Searching for missing MH370 during March to April 2014;



- Emergency response to MS 6.5 Ludian earthquake(Yunan, China, 3 Aug. 2014);
- Emergency response to MS 6.6 Jing-gu earthquake(Yunan, China, 7 Oct. 2014);





House damage in Ludian Earthquake in Yunnan Province
(2014.8.3)



Sino-Nepal Joint Research Center for Geography Officially Opens



Opening Ceremony of Sino-Nepal Joint Research Center for Geography on April 28, 2014 (by Tribhuvan University)

The Geography Center was supported by Ministry of Science and Technology of China and joint built by IMHE and TU. Based on global climate change, the Geography Center takes the south and north slope of the Himalayas as research areas, emphatically carry out the geography research of mountain hazards, mountain ecology and environment monitoring and mountain development.



Opening Ceremony of Sino-Nepal Joint Research Center for Geography on September 18, 2014 (by IMHE)



Updates: “Big Earth Observation Data for Climate Change Research” gets UN award

- The RADI-led project “Big Earth Observation Data for Climate Change Research” was selected among the “Projects to Watch” in 2014– these are projects with particularly innovative uses of big data in emerging topics and geographic regions.
- Among the seven “Projects to Watch” in this competition, the RADI project was the only one from China.

UNITED NATIONS
CLIMATE
SUMMIT 2014 | **BIG DATA**
CLIMATE
CHALLENGE
WINNERS



Updates: International symposium and training workshops



- **October 13-19, 2014: Asia-Pacific Remote Sensing Symposium 2014 Opens in Beijing**
- **2nd International Symposium on Earth Observation for Arid and Semi-arid Environments (ISEO2014) and Roundtable of Silk Road Economic Belt Convene in Kyrgyzstan in September, 2014**
- **3 training workshops were hosted by RADI, including one specially on disaster research.**
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CAS Reform



The Chinese Academy of Sciences (CAS) is making unprecedented structural reforms to foster collaboration and turbocharge research. The reform will focus on four categories as below:

- a) The first category is Centres of excellence on basic science;
- b) A second category will target areas with underdeveloped commercial potential, including microsatellites, marine information technology and drug development.
- c) A third category will establish collaborations around large-scale facilities:
- d) The fourth category will be devoted to initiatives that assist local development and sustainability.

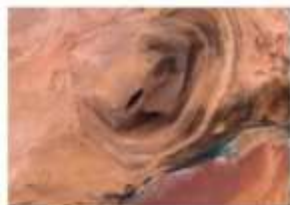
International Travel Management



- a) In 2013, the Ministry of Finance of China and Chinese Academy of Sciences released the new regulation on International travels, requiring that all travels shall report the travel plans in advance before the travel.
- b) Meanwhile, it is encouraged that priority shall be given to the China airlines when buying international air tickets.

RADI will coordinate with relevant departments to ensure that IPO will fulfill its commitment and function in the international community in such context.

Thanks!



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