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Update from Aerospace Information Research Institute, Chinese Academy of Sciences (AIRCAS)

LIU Jie Oct 15, 2025

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As IRDR Host Institution

AIRCAS: provides full operational support to the IPO, and explore potential cooperations with IRDR and its community, during IRDR Phase II.



1. Operational Support

for personnel management

01 Oversight

AIRCAS's Director-General consult on the appointment of ED and ED's annual assessment and contract renewal with SC chair

02 Staff employment

Comprehensive on-boarding services for IPO staff

03 Support for international staff

Visa/residential assistance, eg: Kerry-Ann Morris, Science and Communication Officer....

for IPO funds management

- Assists with seed fund transfer and contract establishment
- Support CAST's annual audit currently underway
- Complies with Chinese law and financial regulations and procedures of AIRCAS....

Provides dedicated office space, working environment and publication support, etc.



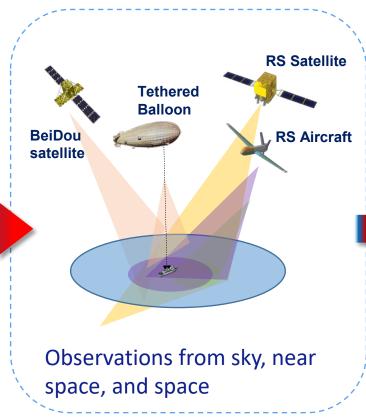
2. Technical Support | Full-Chain R&D System of AIRCAS

Focusing on 13 key areas across aerospace information, AIRCAS has formed a full-chain R&D system from space to ground



Microwave detection / optical payload / electromagnetic detection /

Payload and Devices



Information Acquisition Platforms



RS science / Digital Earth, RS product/ validation / RS application

Information processing and applications



Technical Support | Big Science Research Infrastructure

China Remote Sensing Satellite Ground Station

- Five ground stations
- Real-time data reception covering Chinese territory and 70% of the land area of Asia
- Abundant historic data archive

Chinese Airborne Remote Sensing System

- Four remote sensing aircraft
- scientific experiments/satellite calibration and verification/emergency monitoring and rescue / flights for public welfare







Technical Support | Data Sharing in Global DRR





Support for Capacity Building of DRR

Series of SDGs Capacity Building Workshops for Developing Countries



Innovating SDG
Monitoring: Integrating
Big Earth Data for Official
Statistics

Nairobi, Kenya
In Partnership with
PARIS21





Small Island Developing States Capacity Building Workshop on Utilizing Big Earth Data for SDGs

Serving over 30 participants from over 10 SIDs countries for 2 consecutive years – 2024 and 2025

Beijing, China
In Partnership with

UNDESA



Potential Applications of Big Earth Data in Monitoring and Assessing the SDGs

UN Headquarter, Nairobi
In Partnership with
UNEP



3. AIRCAS-IRDR Cooperation | Documents and Publications

Jointly issued by SDGSAT-1 and IRDR on UNDRR website during 2024-2025:

1. Assessment of the Libya flood based on high spatial nighttime light data from SDGSAT-1

https://www.preventionweb.net/publication/assessment-libya-flood-based-high-spatial-night-time-light-data-sdgsat-1

2. Assessment of Los Angeles wildfire based on multisource remote sensing data

https://www.preventionweb.net/publication/assessment-los-angeles-wildfire-based-multisource-remote-sensing-data

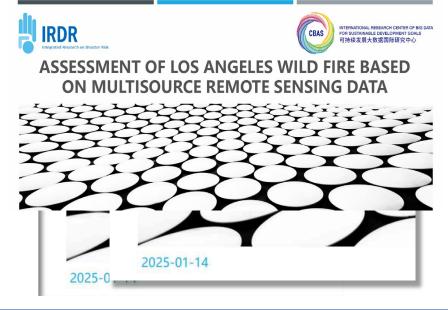
3. Assessment of Xizang earthquake based on high spatial remote sensing data

https://www.preventionweb.net/publication/assessment-xizang-earthquake-based-high-spatial-remote-sensing-data

4. Analysis of Gansu Jishishan earthquake based on nighttime light

https://www.preventionweb.net/publication/analysis-gansu-jishishan-earthquake-based-nighttime-light







AIRCAS-IRDR Cooperation | Research Project

Joint construction of disaster risk knowledge base and Q&A system

- Data Collection
- Data Cleaning
- Test Set Creation
- Knowledge Graph Design
- Knowledge Graph Implementation
- Open Science Knowledge Base
- Data Vectorization
- Model Pre-training and Fine-tuning
- System Integration, Deployment, and Testing



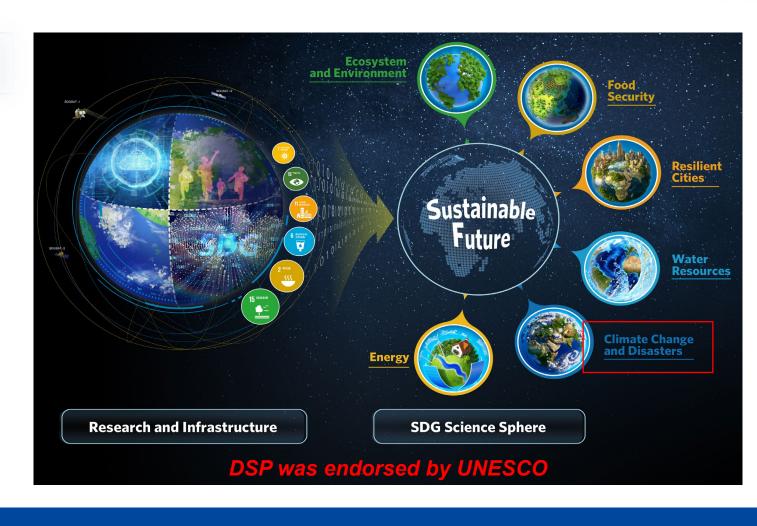


Digital Sustainable Development Goals Programme (DSP)

Mission: Powering Global Sustainable Development with Digital Technologies

Advancing DSP with IRDR

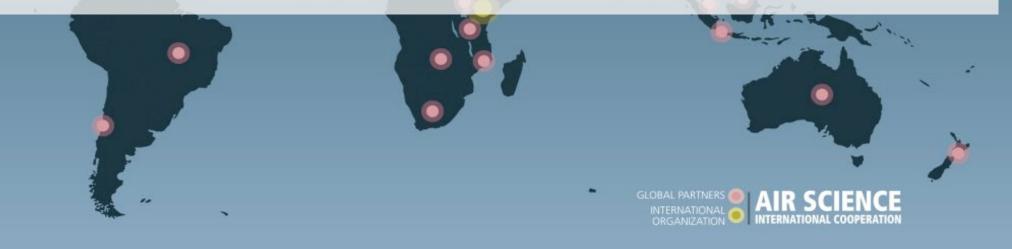
- **Ecosystem and Environment**
- Food Security
- Resilient cities
- Water Resources
- Climate Change and Disasters
- Energy



Connecting AIRCAS with the Rest of the World



Active engagement from the IRDR communities is warmly welcomed!





Thank you!

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