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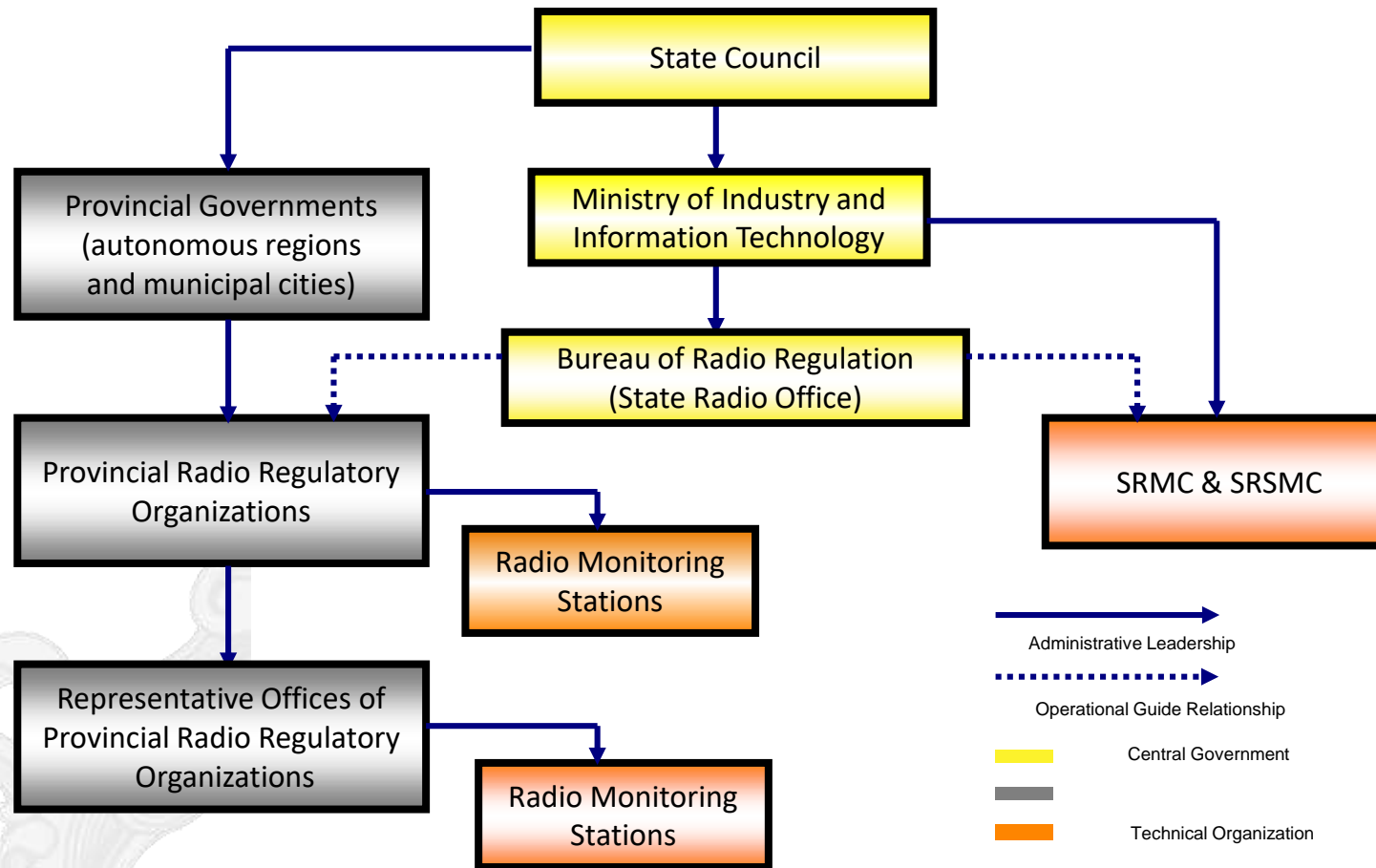


国家无线电监测中心
The State Radio Monitoring Center

Spectrum Monitoring In China(SRMC)

ITU ASP CoE Training – April 2018 (KUN MING,P.R.CHINA)

Radio Management Organizational Structure



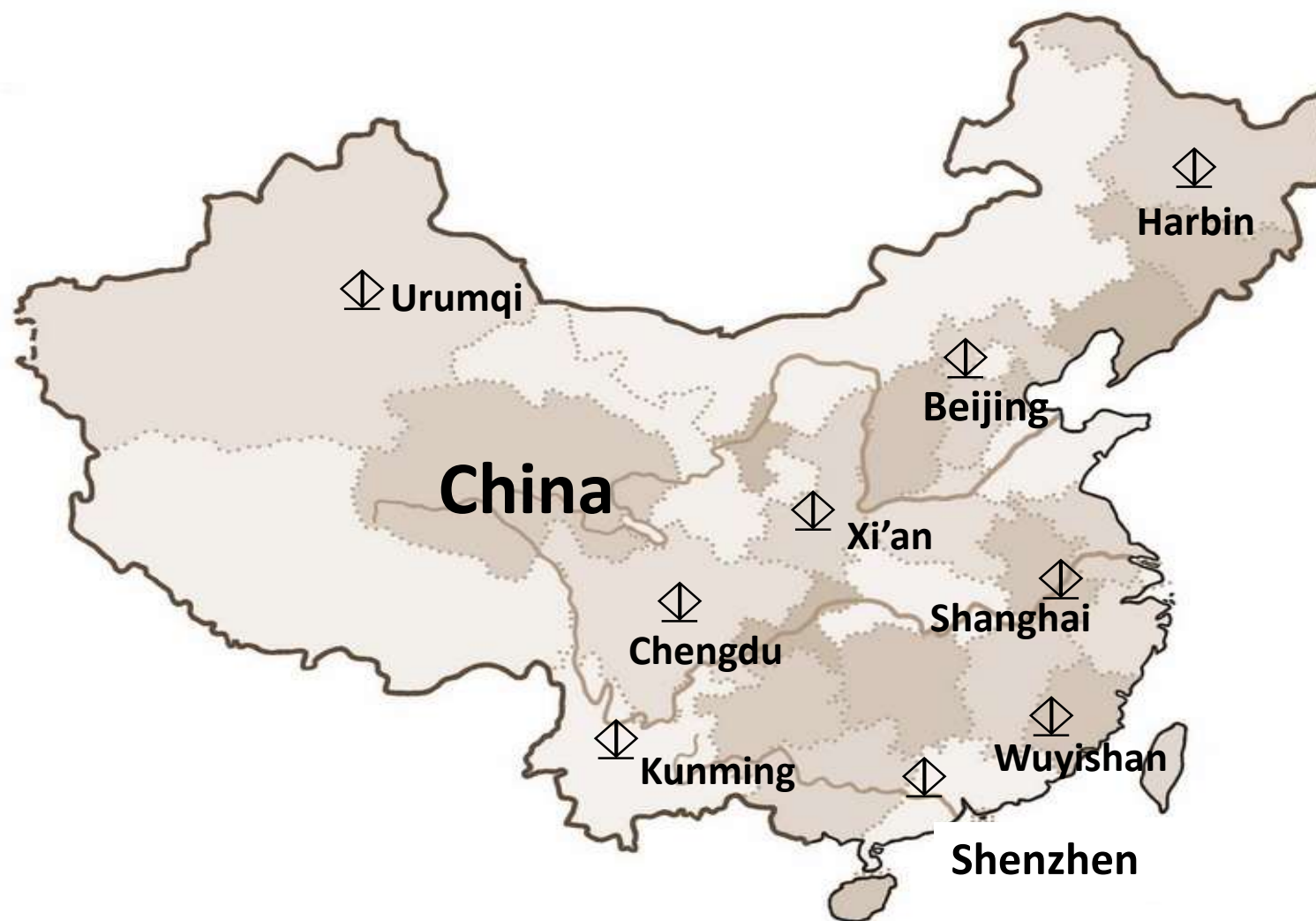
BRR (the State Radio Office)

One of the departments of MIIT with the responsibility to regulate the radio spectrum on behalf of China

The State Radio Monitoring Center (SRMC) and the State Radio Spectrum Management Center (SRS MC)

Affiliated to MIIT, providing the technical support for BRR

9 Monitoring Stations of SRMC



9 Monitoring Stations of SRMC



Yunnan Radio Monitoring Station



Harbin Radio Monitoring Station



Shanxi Radio Monitoring Station



Urumqi Radio Monitoring Station



Chengdu Radio Monitoring Station



Beijing Radio Monitoring Station



Shenzhen Radio Monitoring Station



Shanghai Radio Monitoring Station



Fujian Radio Monitoring Station

Overview of Beijing Monitoring Station



- Beijing Monitoring Station is located at south of Beijing, 0.2 km², 35 km away from downtown.
- Joined International Monitoring Stations(IMS) at 2004.
- The Largest Radio Monitoring Station in Asia.
- Asia Pacific Radio Management and Monitoring Training Base.

Overview of Beijing Monitoring Station



**Space Radio
Services Monitoring**

**Terrestrial Radio
Services Monitoring**



Space Monitoring



HF Monitoring



VHF/UHF Monitoring



Spectrum Monitoring Networks in China

- HF monitoring network
- V/UHF monitoring network
- Space monitoring network

HF Monitoring Networks

Amount of facilities and staffs

Staffs in China

90

9

18

3

9



Fixed stations

**Mobile
stations**

**Transportable
systems**

**Portable
equipment**

HF Monitoring Networks

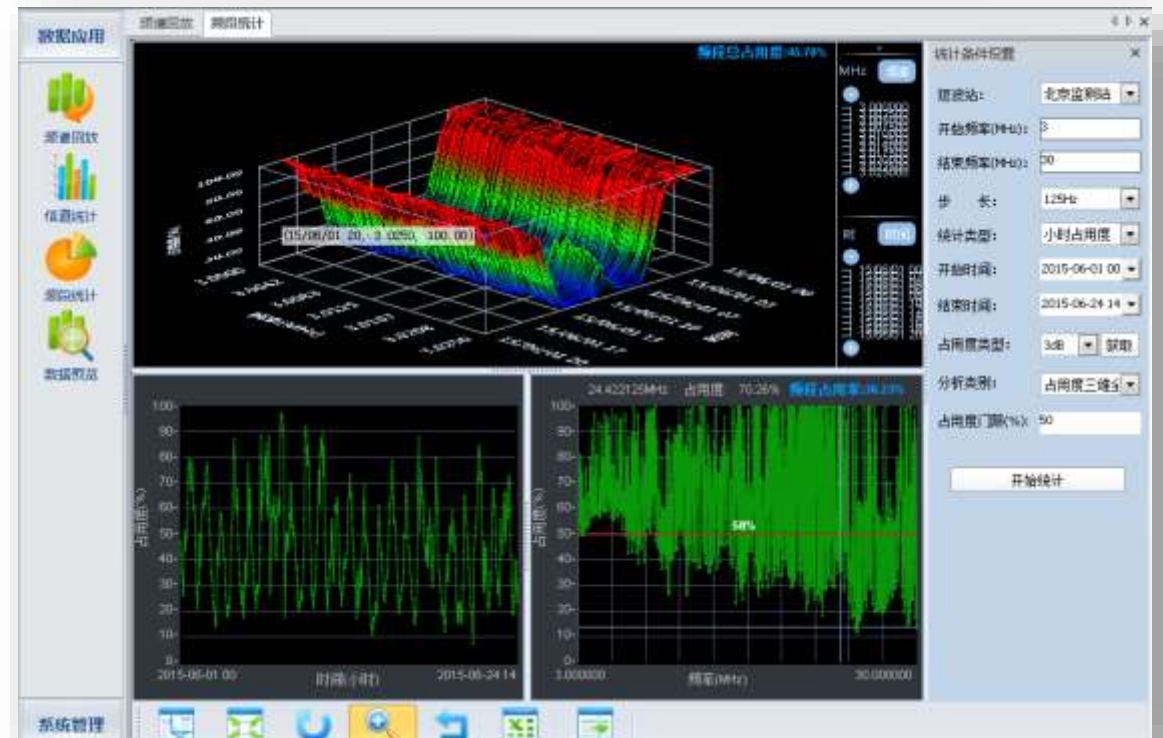
Monitoring Capability

1. Spectrum Occupancy Measurement

Spectrum recording & replay



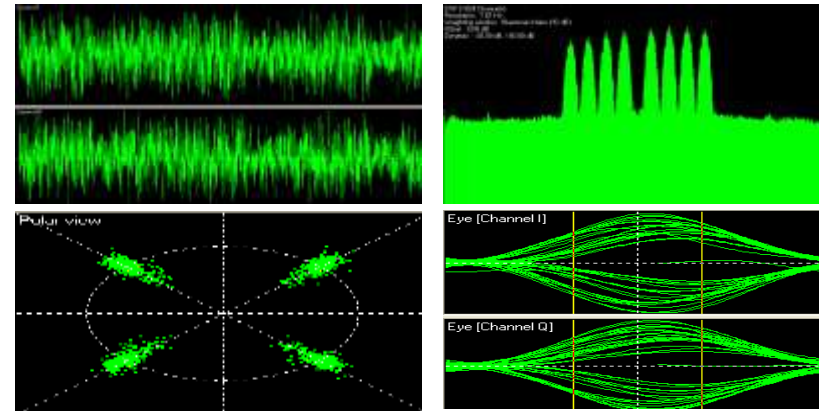
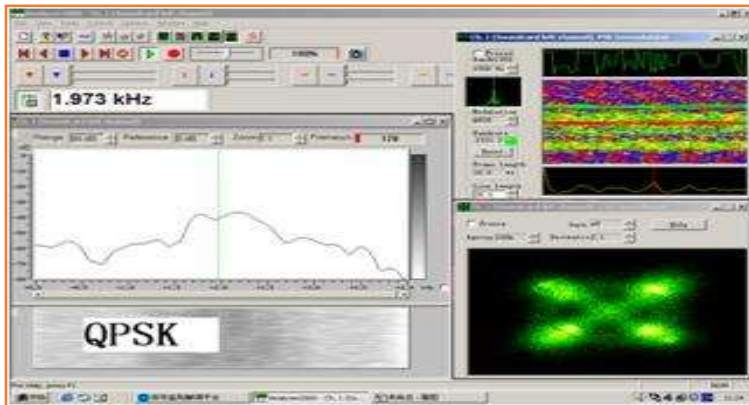
Occupancy statistics



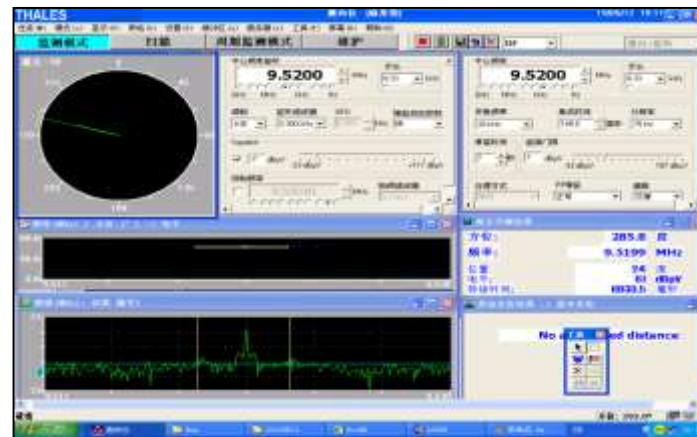
HF Monitoring Networks

Monitoring Capability

2.Signal Parameter Analysis

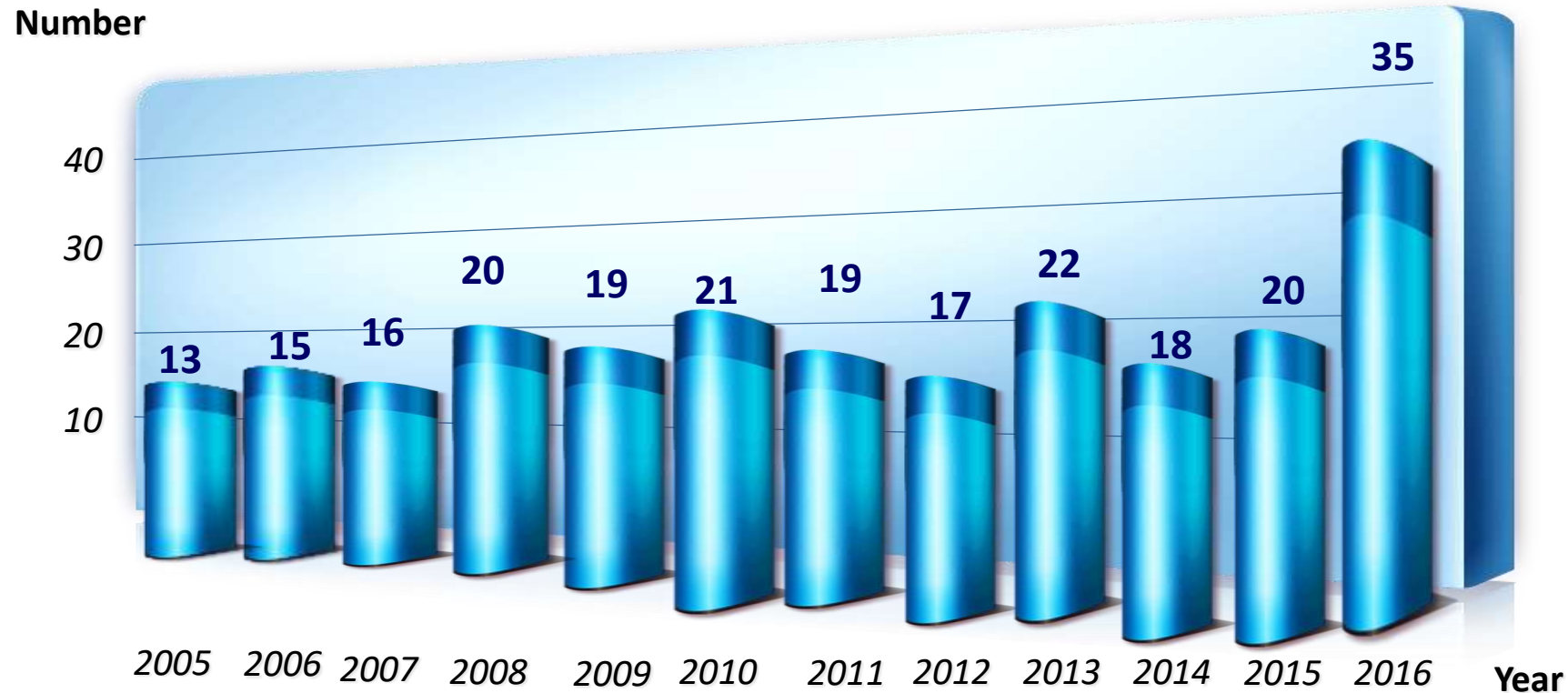


3.DF&Location



HF Monitoring Networks

Monitoring Capability



We have resolved about 200 interference cases.

Space Monitoring Networks

Amount of facilities and staffs

Staffs in China

25

3



Fixed stations

9



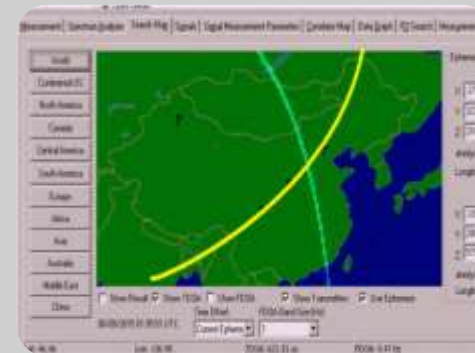
Reference Transmitters

2



Mobile stations

4



Geolocation systems

9

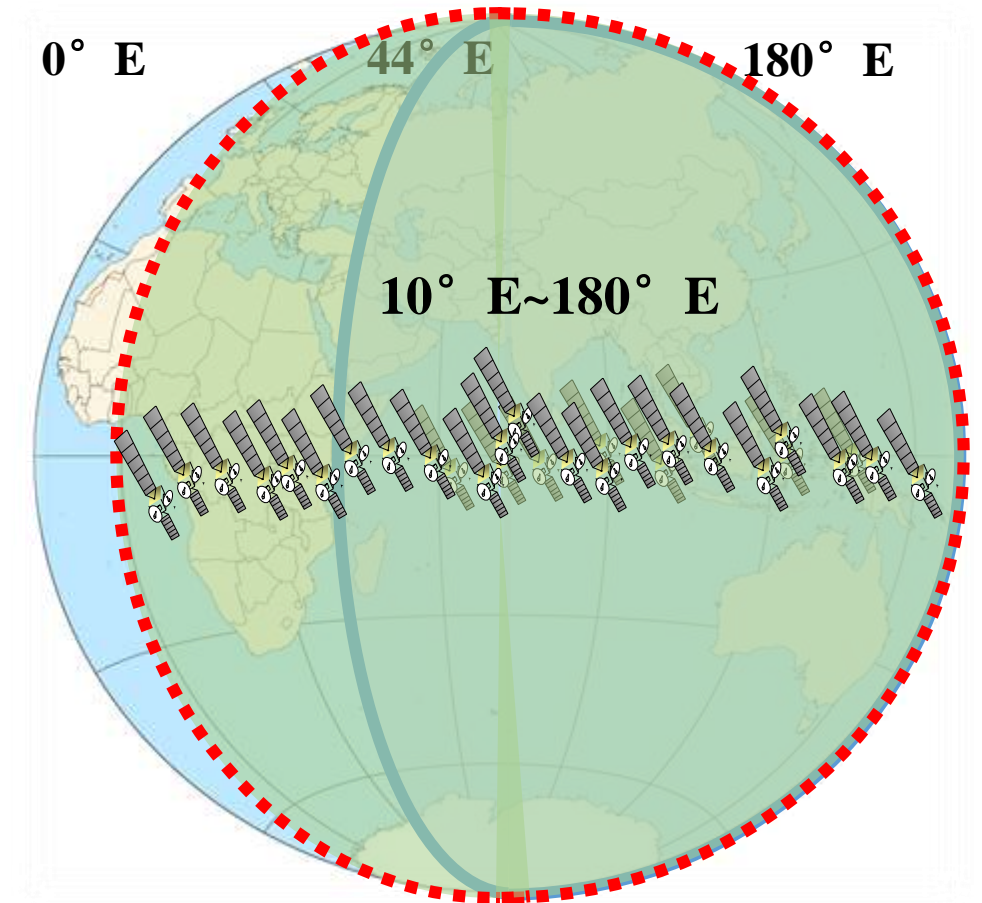


Portable equipment

Space Monitoring Networks



Monitoring Coverage

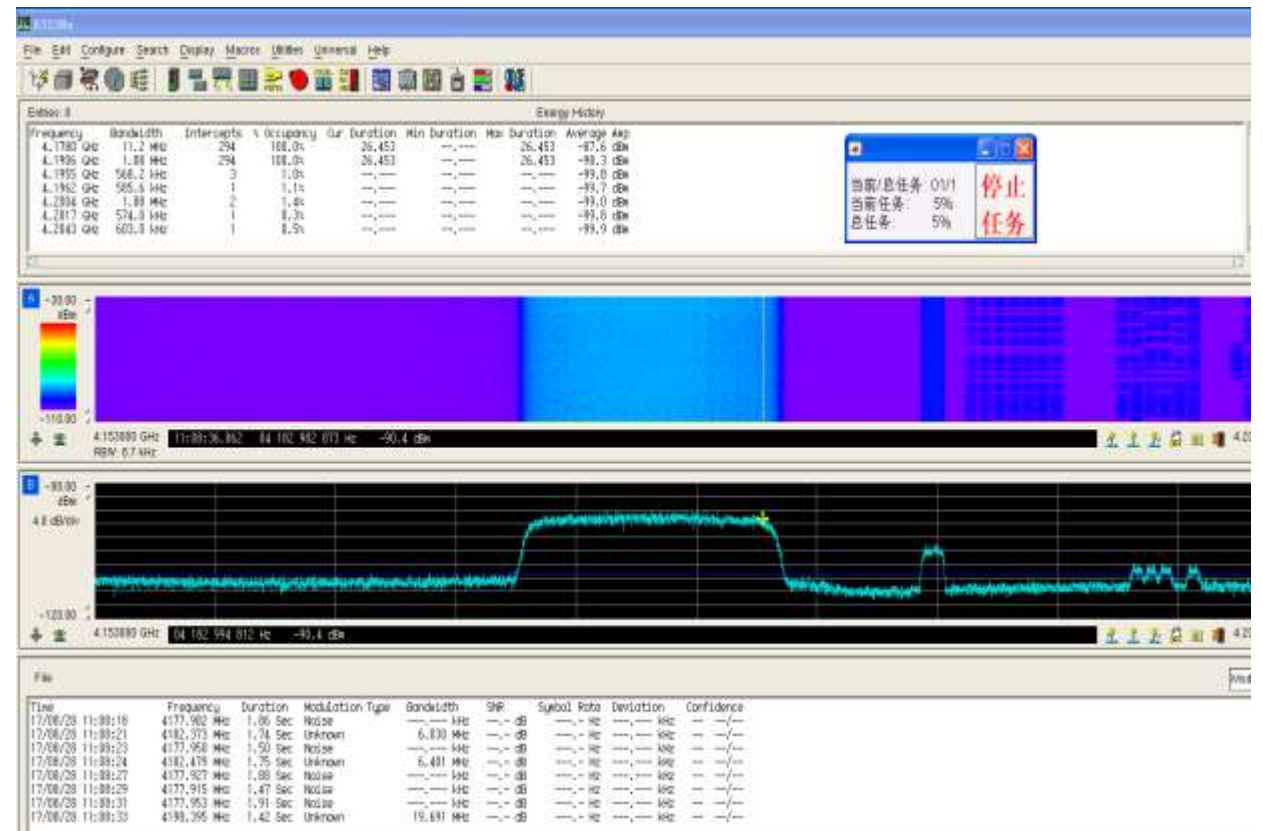
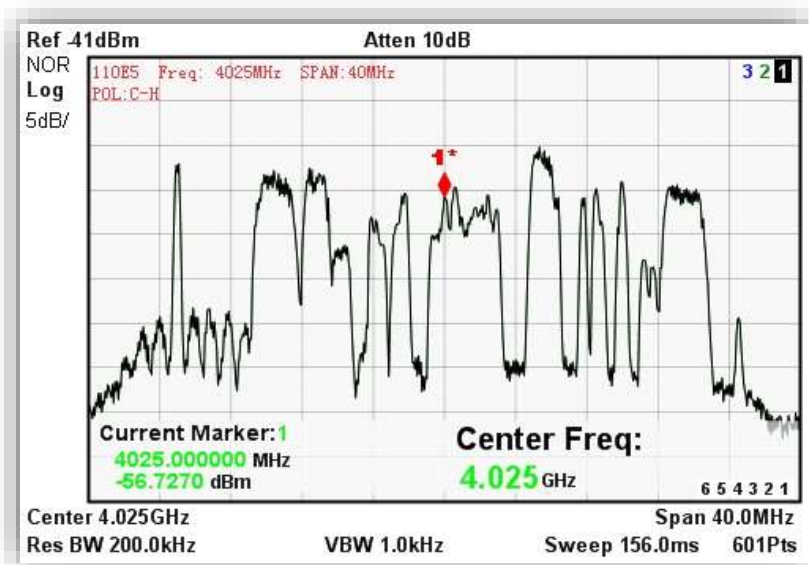


Space Monitoring Networks

Monitoring Capability

1. Spectrum parameter & Occupancy Measurement

- Monitoring band
- ✓ GSO: L/S/X/C/Ku/Ka band
- ✓ NGSO: L/S/X band



Space Monitoring Networks

2.Geolocation

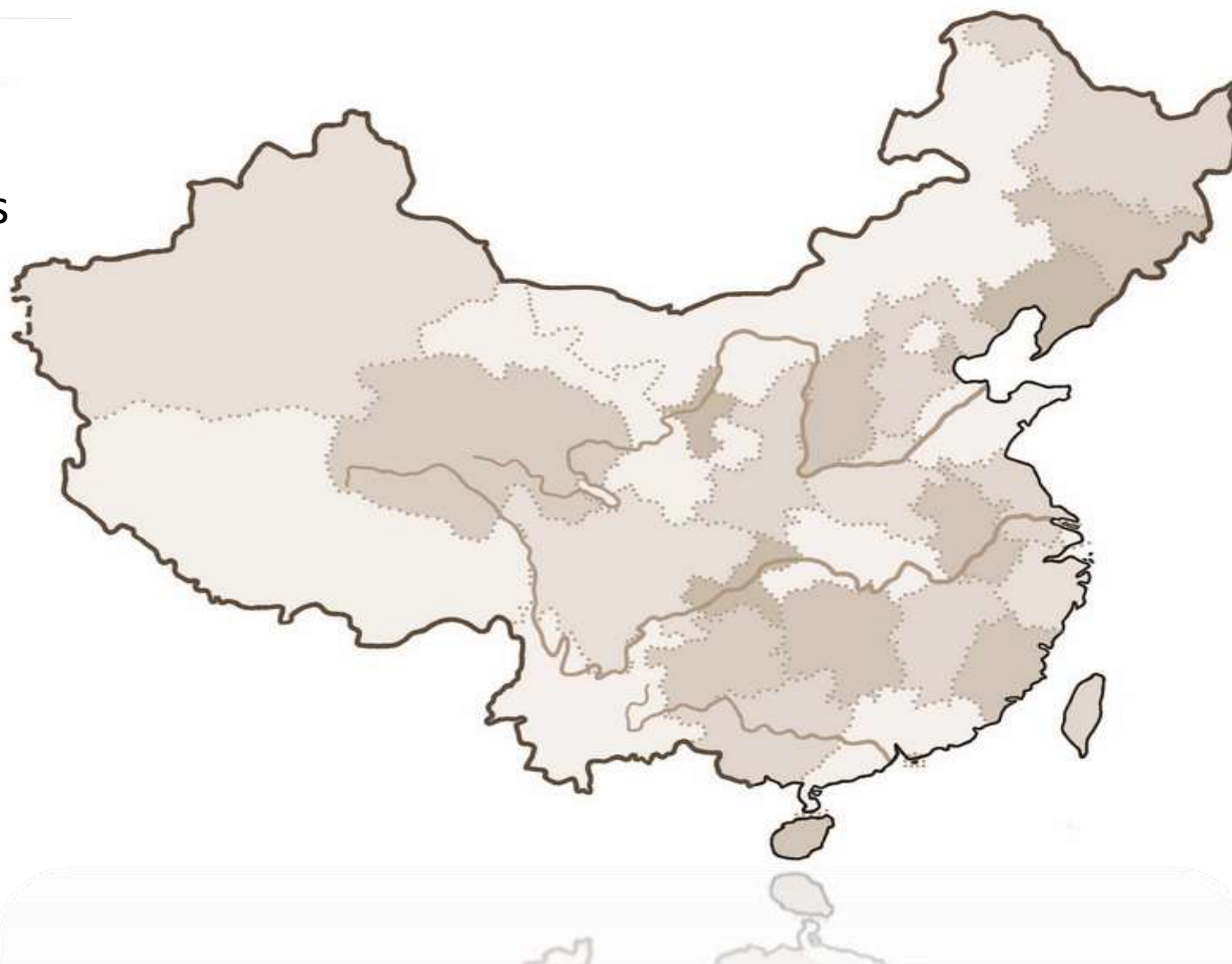
- Monitoring band
 - GSO satellites in C/Ku band
- Dual satellites geo-location & Triple satellites geo-location mode
- Location accuracy: $\leq 10\text{km}$

Monitoring Capability



V/UHF Monitoring Networks

The V/UHF monitoring network is distributed in 334 Prefecture-level regions of China



V/UHF Monitoring Networks

Achievement

Role in special events



Pseudo base station



Illegal broadcasting station



Cheating in the exam



Satellite TV jammer



Guarantee in Major Events

Olympics, Recreational and Sports activities, Crucial International Meetings.

