



РОСКОСМОС

# **ROSCOSMOS**

## **Agency Report**



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**Joint-Stock Company "Russian Space Systems"**

**34<sup>th</sup> CEOS WGCV Plenary**

**24-28 September 2012**

**NRSC ISRO, Hyderabad, Andhra Pradesh, India**

# TEST SITES

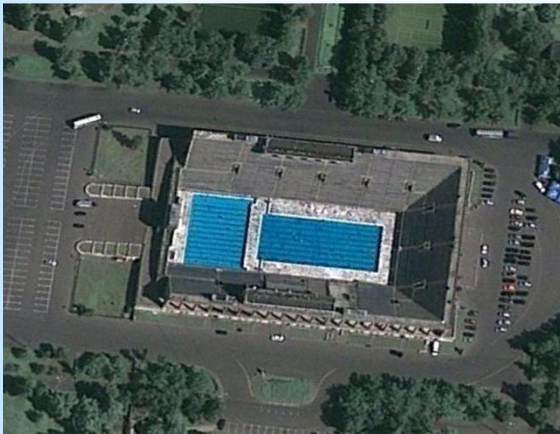
By 2015 in Russia there are planned for deploy 4 test sites designed to measure spatial-frequency, spectroradiometric, and coordinate-measuring characteristics of visible, IR and radar imagery data

# Moscow test site



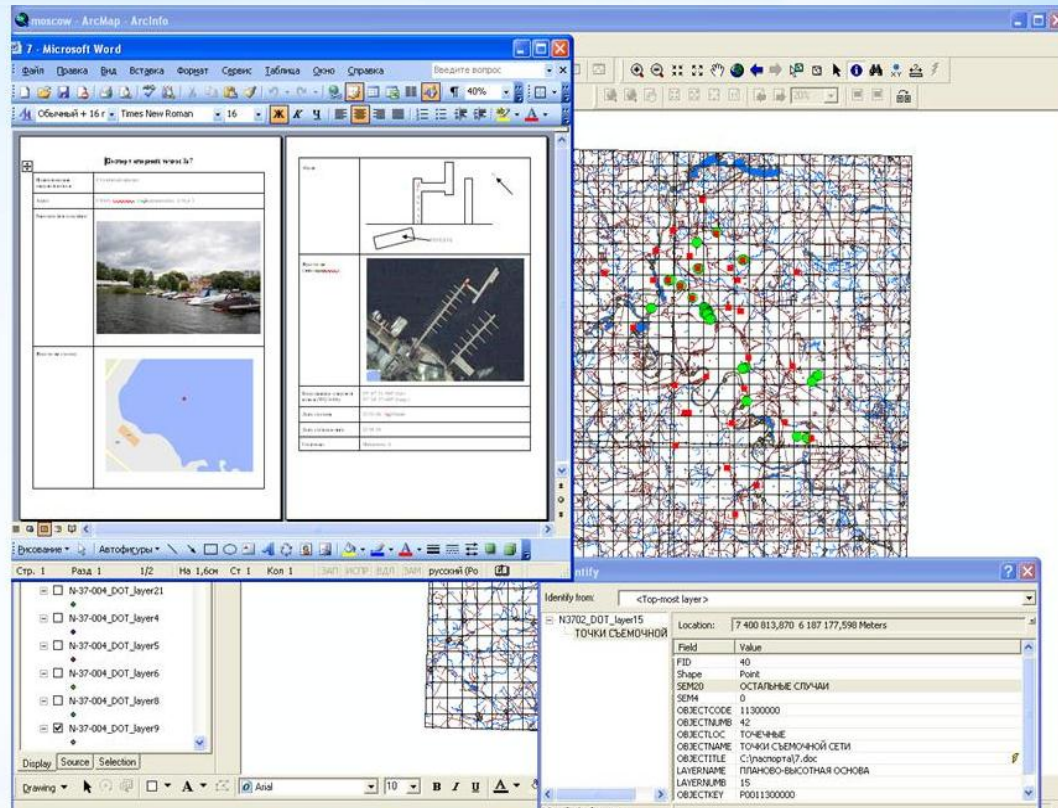
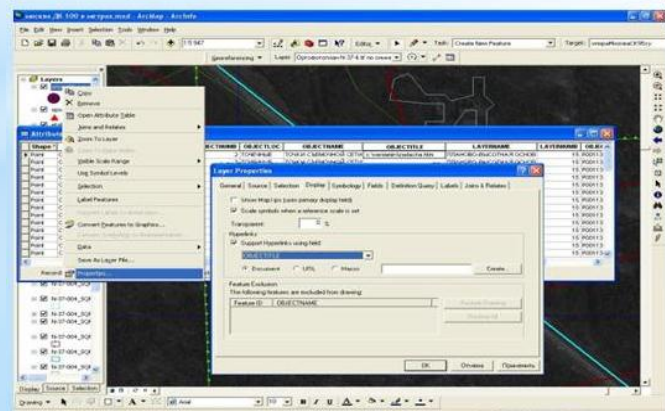
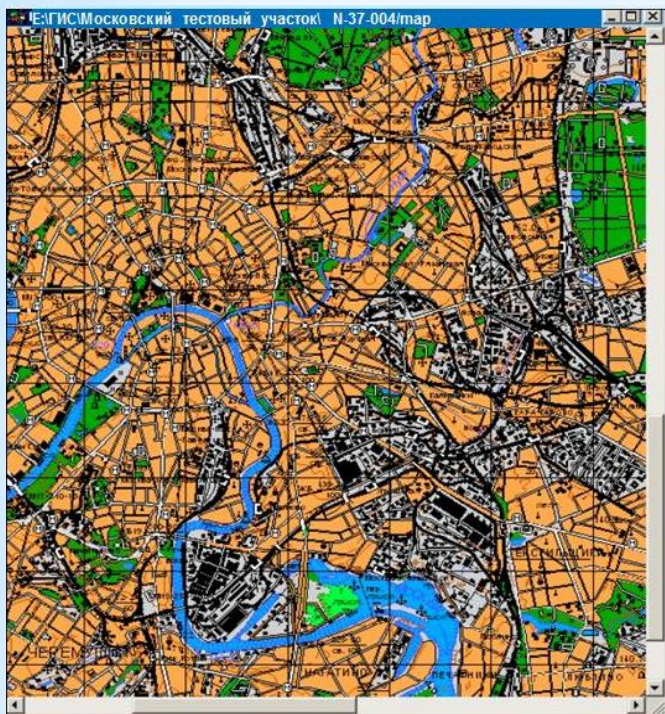


# Objects Within the Moscow Test Site Used for Estimation of Photogrammetric Characteristics and Accuracy Control of Geolocation of Space Observations





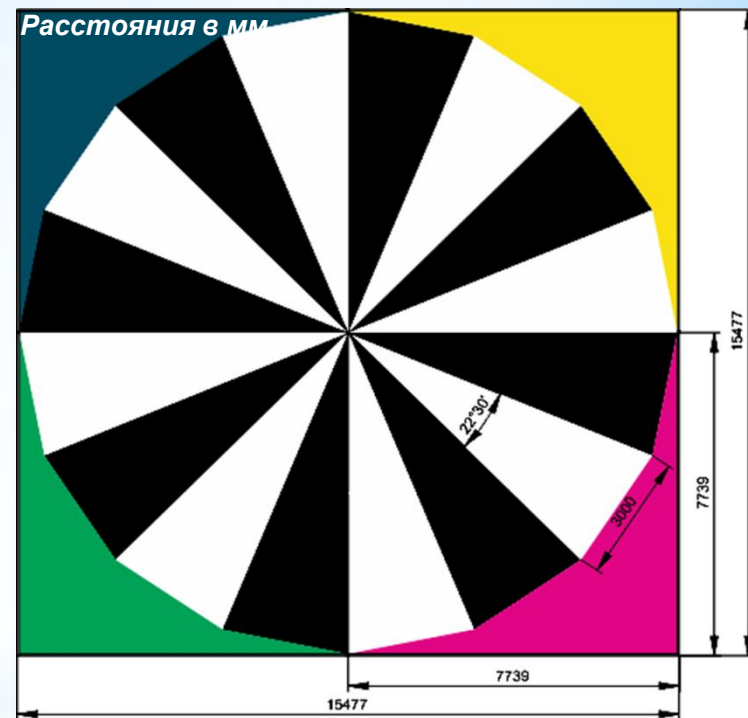
# Test Sites in Progress: Photogrammetric test site in Moscow



**Cartographic database**  
Reference contours, objects and points  
database  
EO data (PAN and MS)

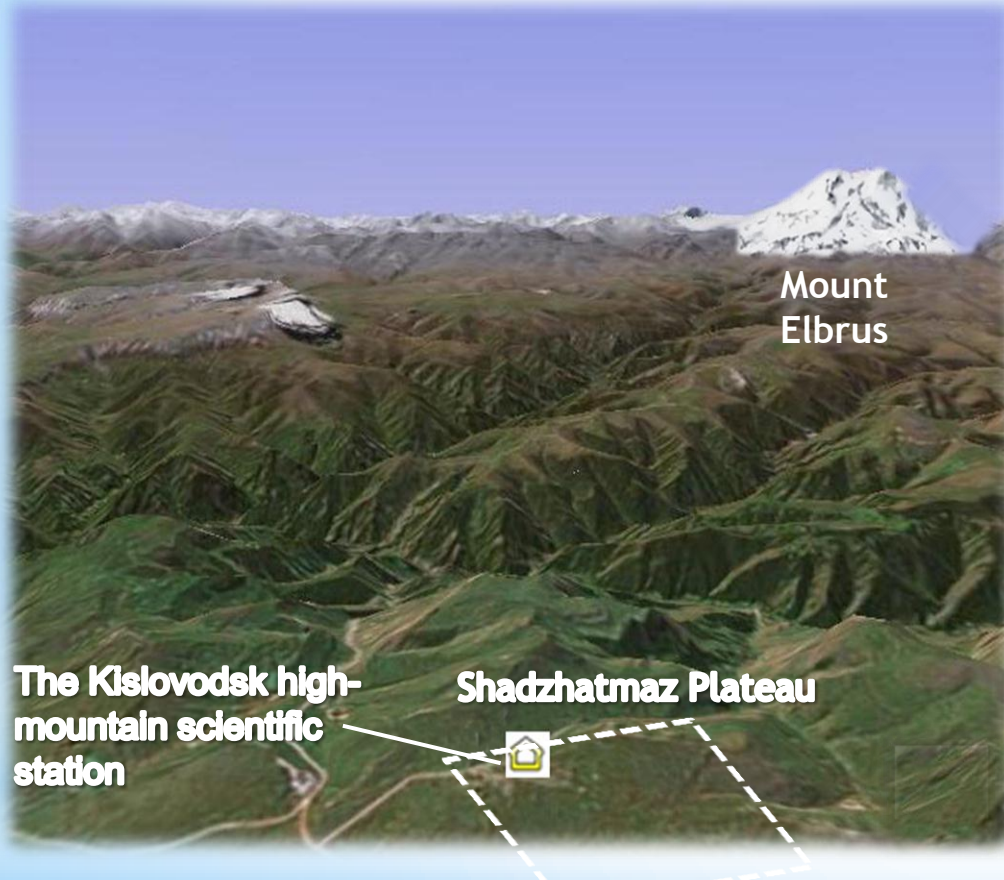


# Test Sites in Progress: *Photogrammetric test site in Moscow*



Deployment of the radial test pattern and the execution of measurements on it are carried out jointly with Moscow State University of Geodesy and Cartography (MIIGAİK)

# Shadzhatmaz Plateau test site



The Kislovodsk high-mountain scientific station is located 48 km to the north of Elbrus (5642 m) in alpine grasslands of the Shadzhatmaz plateau at the northern gentle slope of the Main Caucasian Ridge extended in the latitudinal direction



At high-altitude stations located above the planetary boundary layer (PBL)

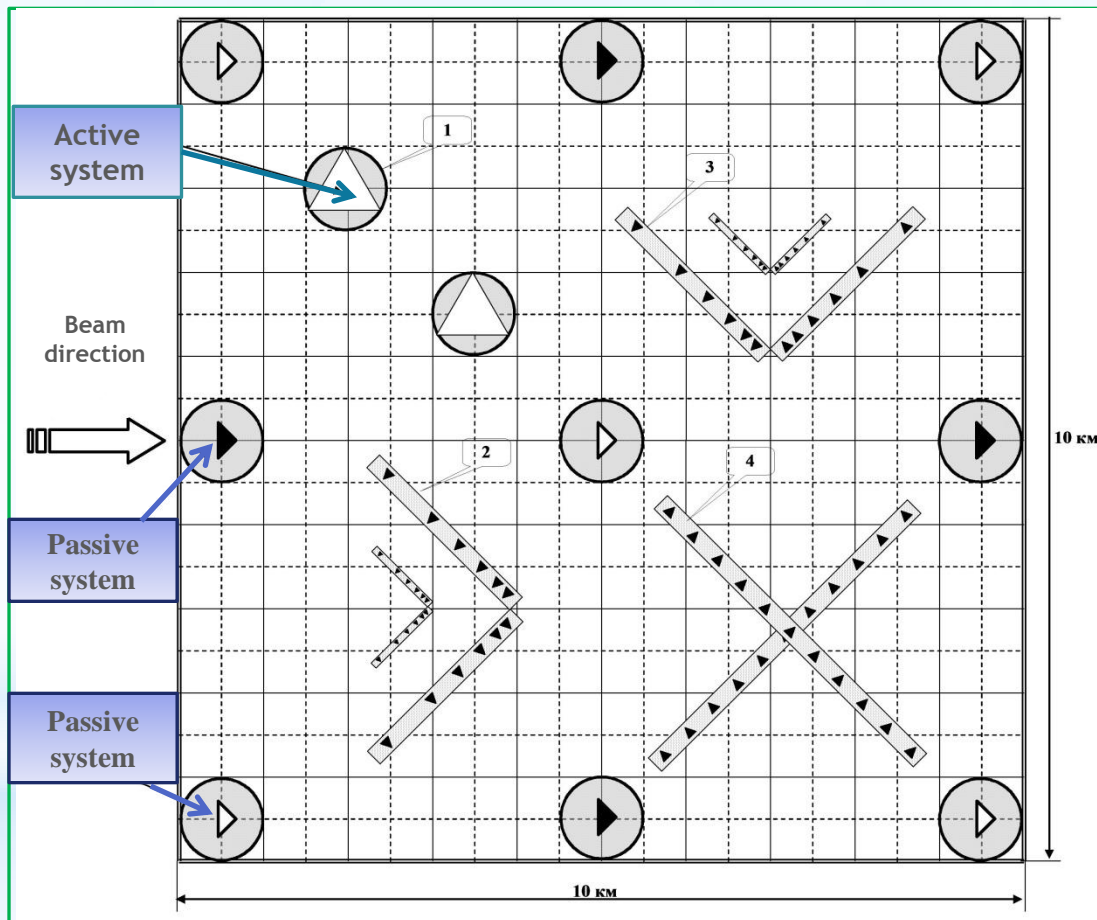




# Test site for SAR



Satellite track





# Test Site Equipment

## Spectroradiometers



ASD FieldSpec3  
VNIR (380-1050 nm)

ASD FieldSpec3  
Hi-Res (380-2500 nm)

## Photometers



Photometer  
Microtops II

## IR cameras

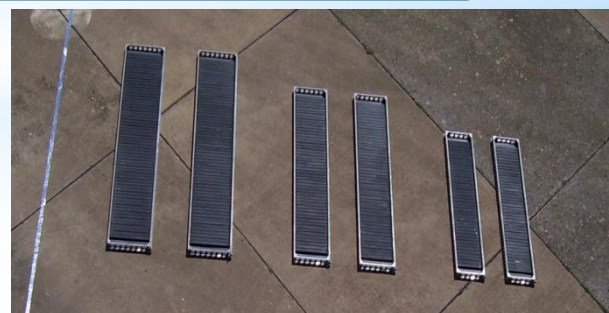
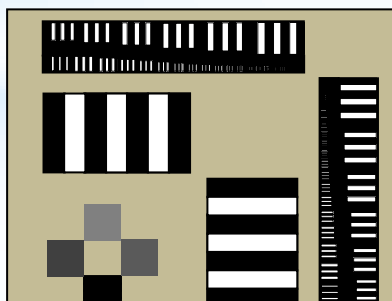


## Navigation instruments



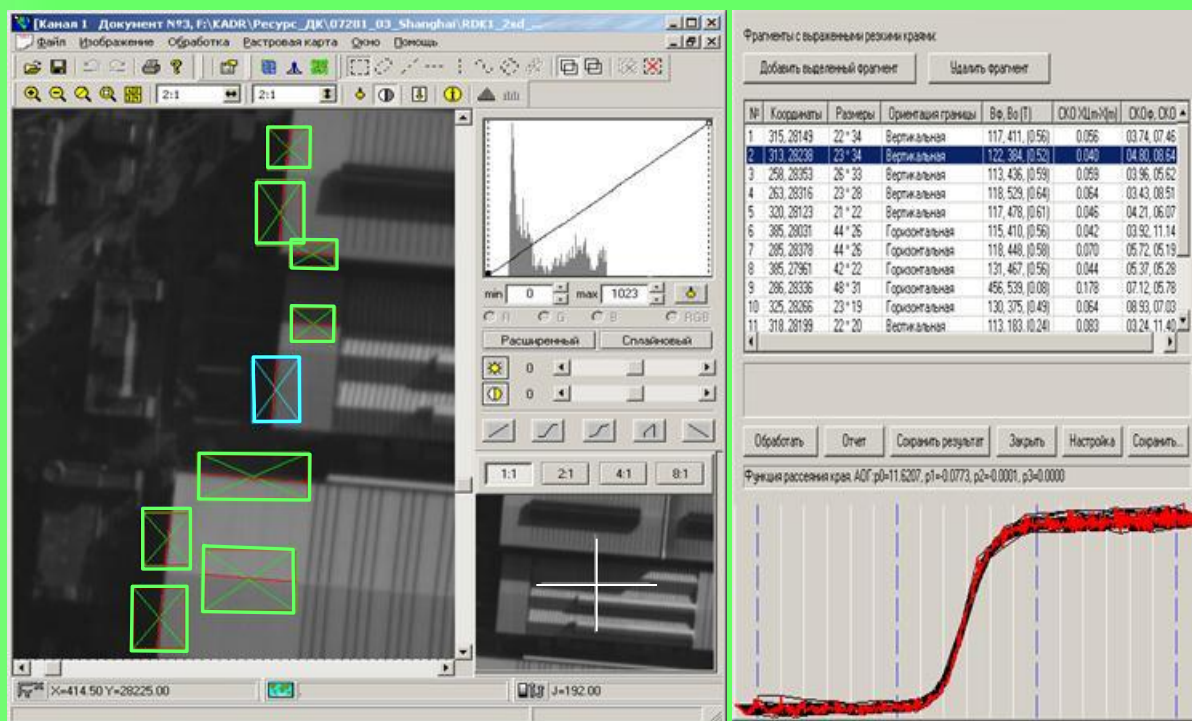
GeoExplorer  
Trimble GeoXT 2005

## Targets for infrared and visible test



# Software packages for observational data processing and analysis

## Automatic scanning and searching of test objects



## Image Characteristics:

*The dependence of contrast transfer coefficient on spatial frequency*

*Lighting Response*

*Image noise level and signal-to-noise ratio at the given spatial frequency*

*Linear resolution on ground etc.*



***Thank you for your attention!***

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