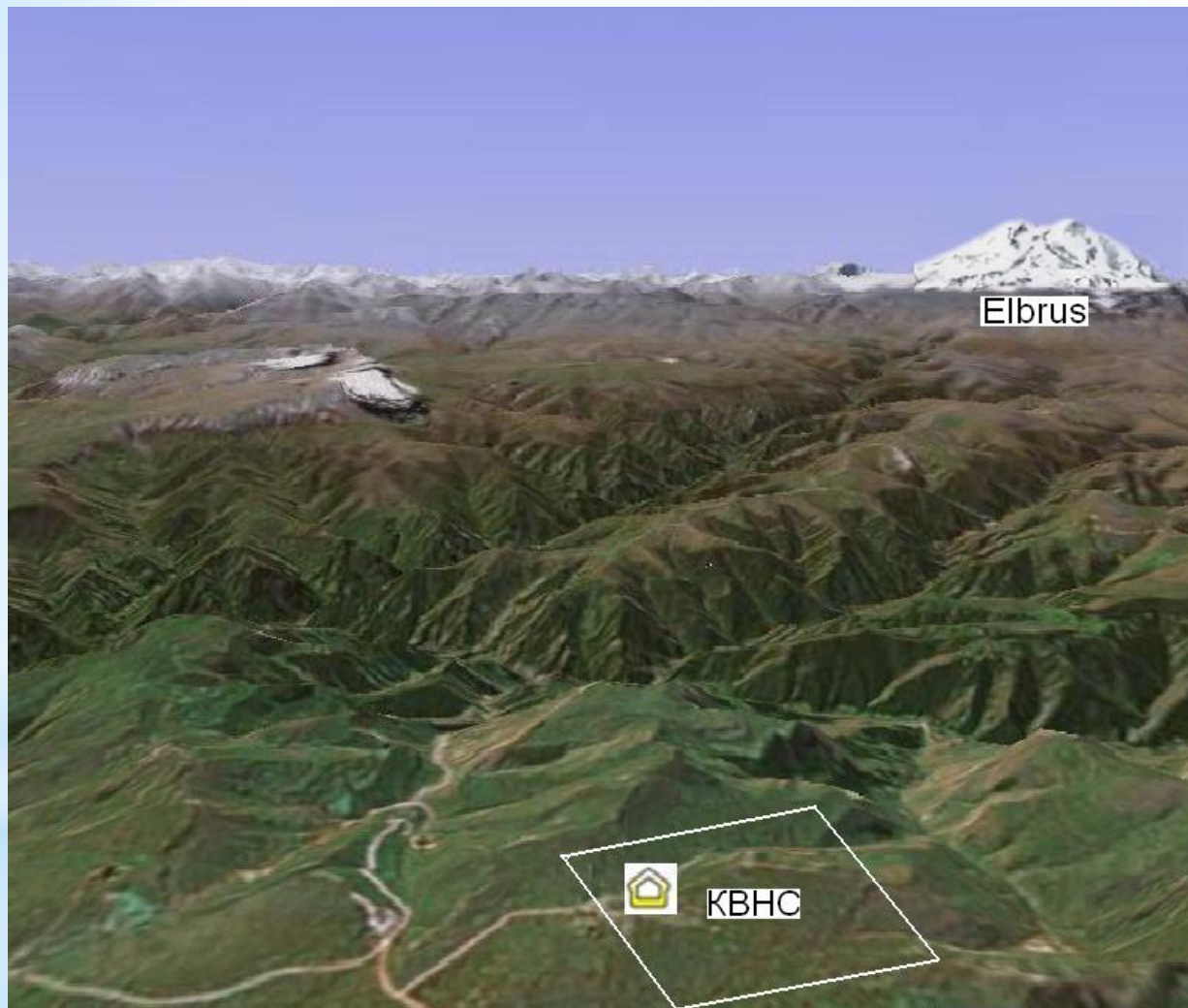




Test site Shatdzhatmaz (Шатджатмаз) to assess the radiometric characteristics of the sensors visible and near-IR ranges

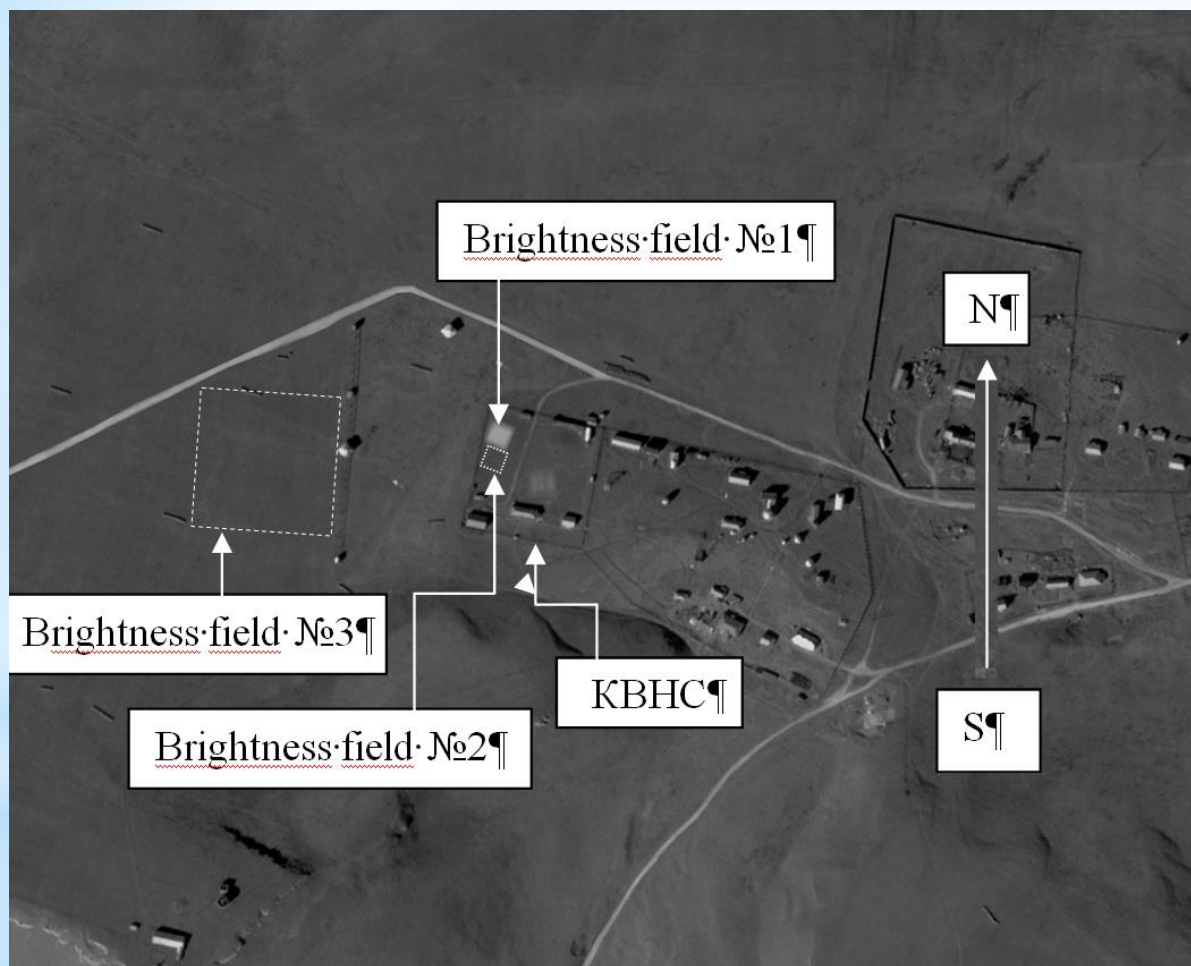
V.P. Kovalenko, A.V. Kondratov, V.V. Tikhonychev
Research Center For Earth
Operative Monitoring JSC «Russian space systems»

Research Center For Earth Operative Monitoring



KBHC - Kislovodsk
high-mountain
scientific station
Institute of
atmospheric
physics RAS

The location of the test object (TO)



The coordinates of the aiming point (WGS – 84):

latitude $43^{\circ}44'31.86''$,
longitude $42^{\circ}39'36.07''$,
height 2070 m,
radius_e 6381 km.

Field brightness

TO №1
30×30 m²



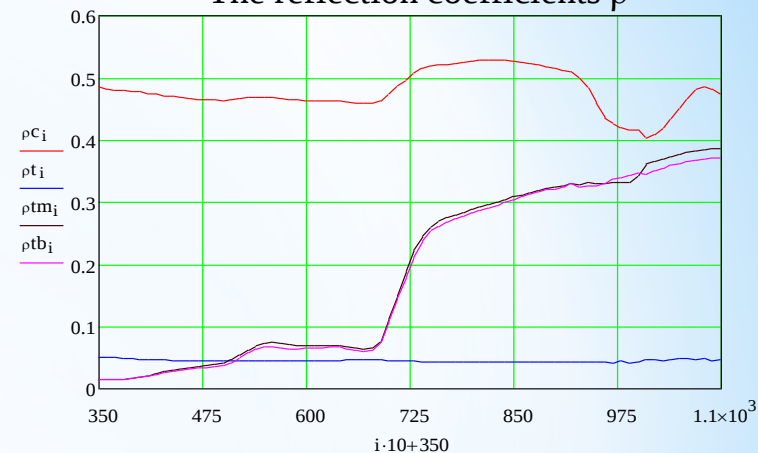
TO №2
30×30 m²



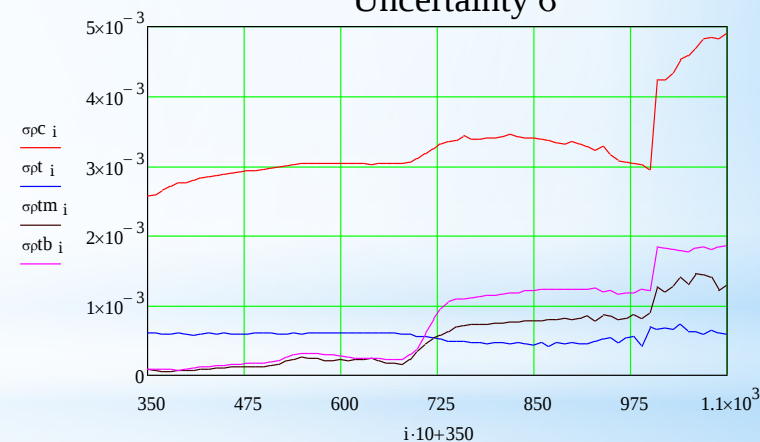
TO №3
Alpine meadow
200×300 m²



The reflection coefficients ρ



Uncertainty σ



Designation

$\rho_C = \rho_{TO \text{ №1}}$,
 $\rho_t = \rho_{TO \text{ №2}}$,
 $\rho_{tb} = \rho_{TO \text{ №3}}$,
 $\rho_{tm} = \rho$ the surface East of the test object 2.

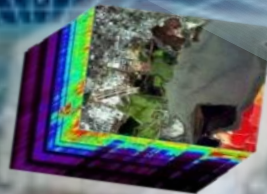
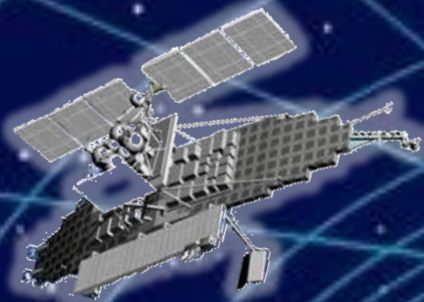
Test site Shatdzhatmaz:

- active from May 15 till Oct 15,
- measurements with FieldSpec-3 spectral radiometer are conducted by the team daily at 11:00 local time, $\Delta\lambda=1\text{nm}$,
- artificial objects – black and white fields of $30\times 30\text{ m}^2$ each and an alpine meadow of $200\times 300\text{ m}^2$,
- a meteo station is available:

P0	//GPa,
T	// $^{\circ}\text{C}$,
H2O_total	// g/cm^2 ,
O3_total	//DU,
NO2_total	// $1/\text{cm}^2$,
O3_ surface concentration	// ppb,
NO_ surface concentration	// ppb,
NO2_ surface concentration	// ppb,
AOD($\lambda=625\text{nm}$),	

- equipment for data transmission on the Internet.

Sun photometer purchasing is planned.



Thank you for attention!



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