KazEOSat is a remote sensing Earth observation satellite built for the Kazakhstan.

Mission: The maximum duration of imaging per orbit is 10 minutes, the average duration is 3 minutes. The maximum length of a strip imaging is 2000 km.

| | |
|---|---|
| Instrument type | Pushbroom imager |
| Optics | - Korsch telescope in SiC (Silicon Carbide)<br>- aperture diameter = **640 mm** |
| Spectral band (Pan) | 0.45-0.75 µm |
| MS (Multispectral bands), 4 | Blue: 0.45-0.52 µm<br>Green: 0.53-060 µm<br>Red: 0.62-0.69 µm<br>NIR: 0.76-0.89 µm<br>The multispectral bands can be matched to suit customer needs |
| GSD (Ground Sample Distance) | PAN: from 1.0 m to 2.5 m at nadir<br>MS: from 4 m to 10 m at nadir |
| Detectors | N x silicon area arrays with 7000 pixels PAN, 1750 pixels in each MS band |
| TDI (Time Delay Integration) | The PAN band offers TDI services for SNR improvement of the signal |
| Swath width | - From 10 km to 60 km at nadir depending on GSD and number of detectors |
| FOR (Field of Regard) | ±35° (spacecraft tilting capability about nadir for event monitoring) |
| Data quantization (dynamic range) | 12 bit |
| Instrument nominal mass | 150 kg (telescope + electronics) |
| Instrument power requirement | 90 W for thermal control, 90 W for imaging mode |

• May 2014: The KazEOSat-1 spacecraft is on orbit operating nominally. The spacecraft acquired the first images of Kazakhstan on May 5, 2014

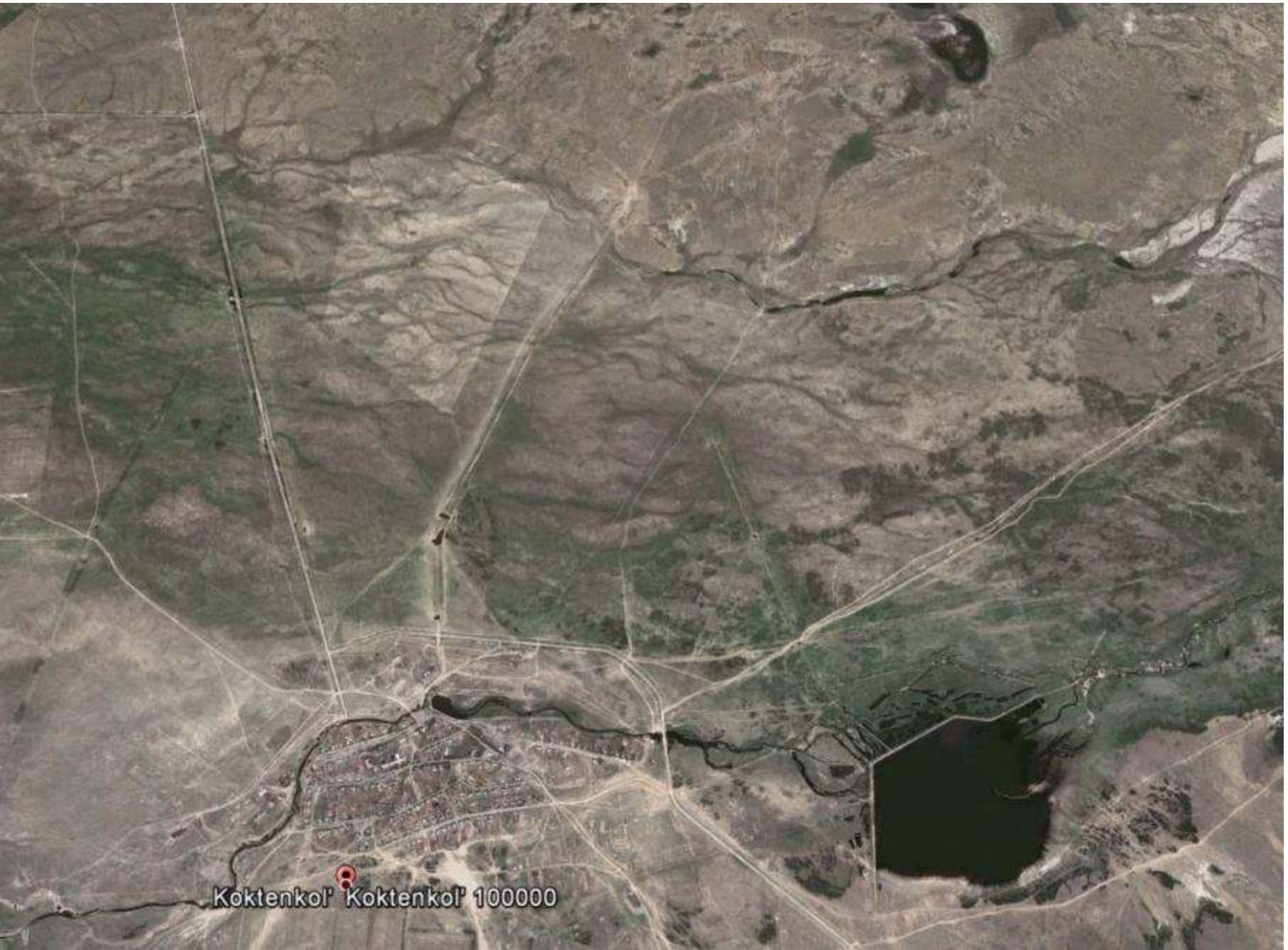
Almaty 5 May 2014. KazEOSat-1

• KazEOSat-1 (Medium Resolution Earth Observation Satellite) provided by SSTL of Surrey, UK (spatial resolution of 6.5 m).

• KazEOSat-2 (High Resolution Earth Observation Satellite System) built by Astrium SAS of Toulouse, France (Pan spatial resolution of 1 m).

http://cof1.gharysh.kz/customer-office/net.eads.astrium.faceo.HomePage/HomePageLogin.jsp?locale=en#

Koktenkol village Google Earth image 23 May 2007.



Flooding in Kazakhstan as seen from satellite.

Koktenkol village as photographed on 13 April 2015 from KazEOSat-1.

The first wave of flooding in Karaganda Oblast happened between March 23 and 29. It affected four Districts in the Oblast. The second wave started on 6 April. According to the competent authorities, the flooding has affected 50 villages, 1149 houses in 17 Districts of Akmola, Karaganda, Pavlodar and North Kazakhstan Oblasts. To date, 511 houses remain flooded.

Aganas village as photographed on 18 April 2015 from KazEOSat-1

Aganas village Google Earth image 27 June 2015