

DNEPR CLUSTER MISSION 2014

LAUNCH OF 33 SPACECRAFT





KAZEOSAT






Kazakhstan Gharysh Sapary
Republic of Kazakhstan,
SC mass: 177 kg

KazEOSat spacecraft will deliver wide swath, multi-spectral images with a GSD of 6.75 metres for agricultural and resource monitoring, disaster management, and land use mapping. Based on the SSTL-150 platform, the spacecraft is the medium-resolution element of a civil space observation system



DEIMOS-2






ELECNOR-DEIMOS, Spain,
SC mass: 300 kg

Deimos 2 is the first Spanish VHR Earth Observation satellite. It will deliver submetric panchromatic and multispectral (RGB+NIR) imagery for worldwide commercial purposes.




SAUDISAT-4






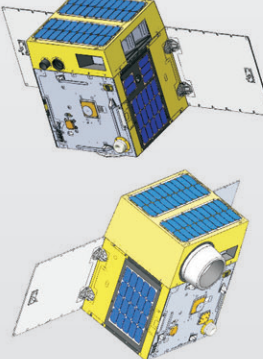
KACST, Saudi Arabia, SC mass: 100 kg

SaudiSat-4 is a civil earth observation satellite designed for technology testing in outer space environment, gaining experience for future missions and engineers training



HODOYOSHI-3,4





University of Tokyo, Japan,
SC mass: 58 kg & 64 kg

Hodoyoshi-3 and -4 are Earth observation satellites with GSD of 40m and 6m each. They carry Store and Forward data collection platforms. Hodoyoshi-4 is equipped with a Xenon Micro Ion Propulsion System and a 320Mbps 16QAM X-band data transmitter




TABLETSAT-AURORA






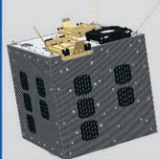
SPUTNIX, Russia, SC mass: 25 kg

TabletSat-AURORA is a commercial demo spacecraft designed to test a multipurpose platform in outer space environment as well as to conduct earth remote sensing for a private company. The satellite main purpose is to obtain necessary flight qualification and experience for further upgrade of the platform.




UNISAT 6







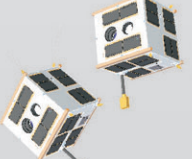
SC mass: 26 kg

UNISAT-6 is a civil scientific satellite, mainly intended for Customer's equipment testing in space conditions. Also SC will release 4 CubeSats in orbit (Tigrisat, AeroCube6, Antelsat, Lemur-1) designed by different university in different country.




BRITE-Toronto/BRITE-Montreal



SC mass: 7 kg

Pair of pair of nanosatellites belonging to BRITE-Constellation, will capture the light shed by luminous stars. BRITE-Constellation is the first network of satellites devoted to a fundamental problem in astrophysics.



APRIZESAT 9 & 10





SC mass: 14 kg

AprizeSat-9 and AprizeSat-10 are communication satellites designed for receiving and transmitting of short data packages from fixed and mobile assets, and to track the location of ships at sea



BugSat-1 & 21 CubeSats






QB50P1 & QB50P2 | NANOSATC-BR1 | PERSEUS-M1 & PERSEUS-M2
FLOCK1C-1 / FLOCK1C-11 | DTUSAT-2 | DUCHIFAT | PQPSAT-HIP1 | PAGE | POLYTAN-1




5 QuadPack systems (designed by ISIS, Netherlands) are used to deploy 21 CubeSats.

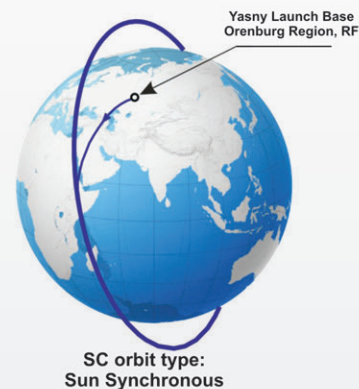
The QuadPack launch adapter system is a modular and configurable separation system for CubeSats. It is able to carry several CubeSats of different configurations. The QuadPack enables the launch and in orbit deployment of large numbers of satellites at the same time, while maintaining a simple interface to the launch vehicle.

BugSat-1 is a civil scientific earth observation satellite for medium resolution multispectral imaging. (designed by Satellogic S.A., Argentina, SC mass: 23 kg)

YASNY LAUNCH BASE



Cluster Mission pre-launch processing and SC integration with Dnepr Space Head Module (SHM) were performed at Yasny Launch Base (LB), town of Yasny, Orenburg Region, Russia. Yasny Assembly, Integration and Test Building (AITB) is a high-tech complex housing a SC processing clean room, a SC/SHM integration clean room, and a SC fueling station with its own clean room. The AITB is furnished with the modern systems and utilities for spacecraft pre-launch processing.



Assembly, Integration and Test Building and Admin/Hotel Complex



SC processing in AITB



Cluster Mission Orbit Injection Profile

