

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS (D2)
Small Launchers: Concepts and Operations (7)

Author: Mr. Alexander Serkin
ISC Kosmotras, Russian Federation, serkin@kosmotras.ru

Mr. Vladimir Andreev
ISC Kosmotras, Russian Federation, andreev@kosmotras.ru

DNEPR PROGRAM: RELIABILITY AND INNOVATIONS IN SERVICE OF SMALL SATELLITES

Abstract

For more than 12 years of activity on launch services market, ISC Kosmotras has acquired the reputation of a reliable launch services provider. Thanks to continuous process of perfection and our endeavor to constantly enhance rocket technical capabilities, the company, using Dnepr launch vehicle, succeeded to meet to the utmost the requirements of the customers, which are space agencies and aerospace mega-firms from United Kingdom, France, Germany, Japan, United States, Italy, Spain, UAE, Saudi Arabia and from other countries.

51 spacecraft were delivered into low earth orbit as a result of twelve Dnepr LV successful launches. Compliant with international requirements, high-technology Yasny launch base was built during short time by ISC Kosmotras in Orenburg Region, the Russian Federation, and became a space launch point for three customer's satellites.

Several launch missions under the Dnepr Program were performed owing to efforts applied by ISC Kosmotras cooperative businesses, which improved launch vehicle performance characteristics. The company incessantly works in this field striving to give launch opportunity to the maximum number of spacecraft.

Historically and following its strategy, ISC Kosmotras carries out not only dedicated launches but cluster launches as well. For this purpose, three types of space head module (SHM) were developed for the Dnepr launcher, which opened the door to a number of small satellites to space.

The accuracy of spacecraft orbital injection made a good impression on most of the ISC Kosmotras customers. Launcher flight reliability of 0.97, supported by more than 160 rocket launches is an indisputable advantage of the Dnepr Program.

Along with the enhancement of the LV technical capability, ISC Kosmotras constantly improves quality of the services provided to a Customer. A prime example is an Administrative and Hotel Complex of the Yasny launch base, a place where the customer's personnel can have rest and gain strength for the next day to accomplish important responsible operations on spacecraft preparation for launch.

ISC Kosmotras demonstrated its ability to successfully resolve such important issues as the compliance with the US ITAR requirements, which was proven by launches of US spacecraft.

The quality of the company's work was recognized also in the international space risk insurance market, which offers attractive insurance rates for various aspects of the Dnepr launch.