

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Commercial Human Spaceflight Programs (2)

Author: Dr. Alexander G. Derechin

S.P. Korolev Rocket and Space Corporation Energia, Russian Federation, alexander.derechin@rsce.ru

Mr. Igor Verkhovsky

S.P. Korolev Rocket and Space Corporation Energia, Russian Federation, Igor.Verkhovsky@rsce.ru

SPACE COMMERCIAL FLIGHTS - THE PAST, THE PRESENT AND FUTURE

Abstract

More than 500 persons have made the space flight missions, and only 7 of them are not professional cosmonauts, paid their own money for space ticket. The missions of astronauts and cosmonauts, requested by the space agencies and other sponsors, can also be considered as commercial missions. In total - 31 missions without taking into account NASA. All these 39 missions (Ch. Simony has flown twice) have been implemented by Soyuz spacecraft to Mir orbital station and ISS. RSC Energia is a prime company to implement the missions. Currently NASA is engaged in large scale LEO commercialization. Such companies as Boeing, Space Exploration Technologies, the winners of NASA competition, will launch their spacecraft to ISS, and these missions are also to be considered as commercial ones. Based on analysis of the commercial spacecraft and flight information, as well as trends, driving the future space market, the main marketing factors, the technical and programmatic constrains, impacting the space commercial missions, are presented by this paper.