



## LIST OF RUSSIAN SPACE LAUNCH FAILURES SINCE DEC. 2010

Russia's usually reliable fleet of space launch vehicles began a surprising string of failures beginning in December 2010 that has created significant consternation in Russia's space program and brought about demands for industry reform. Following is the list of those failures and links to SpacePolicyOnline.com articles where available.

- December 2010, Proton-Block DM, upper stage failure, three Russian GLONASS navigation satellites lost
- February 2011, GEO-IK2, Rokot-Briz, upper stage failure, Russian geodetic satellite stranded in transfer orbit
- August 2011, Ekspress AM-4, Proton-Briz, upper stage failure, Russian communications satellite stranded in transfer orbit
- [August 2011, Progress M-12M, Soyuz U-Fregat, third stage failure](#) due to clogged fuel line, Russian cargo spacecraft for International Space Station lost
- [November 2011, Phobos-Grunt, Zenit-Fregat, upper stage failure](#), Russian Mars-bound spacecraft stranded in Earth orbit
- [December 2011, Soyuz 2.1a, third stage failure](#), Russian Meridian military communication satellite lost
- [August 2012, Proton-Briz, upper stage failure](#), Russian Ekspress-MD2 and Indonesian Telkom-3 communications satellites stranded in transfer orbit
- [December 2012, Proton-Briz, upper stage failure](#), Russian Yamal 402 communications satellite delivered to wrong orbit.
- [February 2013, Zenit-3SL Sea Launch](#), first stage hydraulic pump failure, Intelsat-27 communications satellite lost
- [July 2013, Proton-M, failure](#) immediately after launch under investigation, three Russian GLONASS navigation satellites lost