

A comparative analysis of heavy reusable space transportation systems including an Ekranoplane

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Abstract

A comparison has been made between some advanced heavy space transportation systems of vertical and horizontal starts for near- and long-term prospects intended for payload delivering to space stations (near-earth), the moon and solar system planets.

A preliminary configuration of a fully reusable two-stage aerospace transportation system (ATS) of ocean basing is defined, in which a subsonic aircraft-Ekranoplane is used as the first stage.

Some advantages and drawbacks of the ATS concept of ocean basing are shown in comparison with current and advanced expendable space rocket systems of vertical start and advanced domestic and foreign reusable space transportation systems of vertical and horizontal starts.