IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Launch Vehicles in Service or in Development (1)

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# A NEW WEB-BASED KNOWLEDGE REPOSITORY OF THE WORLD'S LAUNCH SYSTEMS AND PROGRAMS

**Abstract**

The AIAA's International Reference Guide to Space Launch Systems was the winner of the 2004 Summerfield Book Award. Over the years it has served as a reliable and comprehensive repository of information on worldwide launch vehicles and programs in Brazil, China, Europe, India, Israel, Japan, Russia, Ukraine, and the United States. A new electronically available fifth edition scheduled for publication in 2020 will include the latest commercial launch systems and their capsules, a section on the payload design and vehicle integration process, and important updates on international launch systems and programs. Packed with illustrations and figures, the periodically updated electronic edition will offer quick and easy web-linked data retrieval for policymakers, planners, engineers, launch buyers, and students. This online repository will keep pace with the dynamic commercial launch vehicle landscape. Standard sections describe each of the launch systems in detail, including: one-page vehicle summaries, cost, availability, performance graphs for a variety of orbits, flight history and failure descriptions, vehicle design and technical data, payload accommodations, production and launch operations, and vehicle history. The launch sites of the world are described in a spaceports section, weblinks point to launch providers and additional information sources, and a new section contains response surface equations which enable rapid, parametric assessments of launch vehicle options. Such assessments allow engineers to conduct cost, mass, and orbit performance trades early during design and development, and over a multiple vehicle and/or orbit trade space to optimize launch vehicle selection.