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PROSPECTS OF SUBORBITAL SPACE TOURISM FROM THE ROLLOUT OF SECOND
SPACESHIP TWO AND DEVELOPMENT OF LYNX MARK II AND NEW SHEPARD

Abstract

Although the realization of suborbital space tourism (SST) has been long overdue, there are some exciting news happened recently. First of all, 16 months after the crash of first SpaceShipTwo (SS2) on 31 October 2014 during test flight, Virgin Galactic unveiled its second SS2 on 19 February 2016. Also, on 15 January 2016, NASA announced the Commercial Resupply Services (CRS-2) contracts which were designed to obtain cargo delivery services to the International Space Station (ISS), disposal of unneeded cargo, and the return of research samples and other cargo from ISS back to NASA between 2019 and 2024. The three winners are Sierra Nevada Corporation's Dream Chaser, SpaceX's Dragon, and Orbital ATK's Cygnus. Although the CRS-2 contracts are not for SST, but the contracts could indirectly promote or affect the development of SST. Actually, NASA has selected 12 experiments for the first commercial research flight of SS2 on 3 June 2014. Besides, NASA has selected XCOR Aerospace to provide suborbital flight and payload integration services for research and scientific missions in as early as 2011. All of these evidences showed the advantageous facets to the prospects of SST development. However, from the fact that the first SS2 named VSS Enterprise was rolled out on 7 December 2009 and did not reach any commercial SST operations before the crash on 31 October 2014, we just cannot be too optimistic. It seems that only two competitors remained in the promotion of SST so far: Virgin Galactic and XCOR. Obviously there is no enough momentum from the private industry. A favorable expectation for the realization of private commercial SST could be not earlier than 2020.