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UPS AND DOWNS OF SPACE TOURISM DEVELOPMENT IN 60 YEARS FROM MOON REGISTER
TO SPACESHIP TWO CRASH

Abstract

In 1954, 3 years before the successful launch of the first human's artificial satellite, the world's oldest travel company Thomas Cook in Britain had initiated the "Moon Register." Enthusiasts could sign an option for a commercial trip to the Moon and the company guarantees to provide tickets at the earliest possible date. On 31 October 2014, a SpaceShipTwo (SS2) of Virgin Galactic developed for commercial suborbital space tourism (SST) as well as suborbital scientific research crashed at the Mojave Desert in California during test flight. Although the first governmental astronaut flew to Earth orbit in as early as 1961 and the term "space tourism" was used for the first time in 1960s, it was until 2001 the first privately paid space tourist traveled to the International Space Station (ISS). From 1960s to 2000, there were many researches and attempts to develop commercial space transportation vehicle and space accommodation hotel. But all were unrealized. Then in 2004, the SpaceShipOne (SS1) won the Ansari X prize to shed the first light of SST. However, the commercial SST operations originally planned to be realized in 2008 is long overdue. Developed for the purposes of SST, satellite launch from suborbit, and scientific research on suborbit, SS2 is one of the reusable suborbital launch vehicles (RSLVs). As of today, the major RSLVs are the Lynx of XCOR, the Spaceplane of Airbus Defense and Space, the Dream Chaser of Sierra Nevada Corporation (SNC), the suborbital shuttle SOAR of Swiss Space Systems (S3), and the SS2 of Virgin Galactic. The tragedy of SS2 crash caused the sacrifice of one senior test pilot. But it also waked up tourists that the long overdue of SST might be just a few years away. The purpose of this paper is to review and discuss the ups and downs of space tourism in 60 years from the year of Moon Register (1954) to the year of SS2 crash (2014). Keywords: space tourism, suborbital space tourism, RSLV, spaceplane, Lynx, Dream Chaser, SOAR, SpaceShipTwo