

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Launch Services, Missions, Operations, and Facilities (2)

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PERSPECTIVE ON THE LAUNCH MARKET

**Abstract**

At present, commercial space transportation is on the rise. The number of satellites launched is expected to grow exponentially. SpaceX, a once new and disruptive entrant, has now been in service for over 10 years. Meanwhile, the launch industry continues to evolve, with Rocket Lab's super-small Electron launcher joining the market early last year, and over a hundred commercial launch vehicle developments in pursuit of a similar goal. At least two space tourism businesses are also anticipated to start their services later this year. From the mid-60s through to the late 80s/early 90s, launch activity was consistently high, averaging 130-140 launches per year. This was mostly due to the deployment of global commercial communication constellations. With the upcoming deployment of commercial remote sensing, navigation, internet-of-things and internet-communication constellations, a new steep rise in contemporary launch activities, that we are already seeing the beginnings of, is anticipated. For commercial companies and investors involved in space transportation, it is important to know these launcher market demands in the years ahead. CST has therefore started a research project to forecast future launch activities. In this paper the initial work on this project is presented. Historical launch data has been collected along with estimated launch costs. Based on this data, historical launch sales have been assessed and by extrapolating trends into the future, it can be concluded that in the next 7-10 years the number of spacecraft and orbital launches will increase significantly due to increased numbers of small spacecraft and small commercial launches. After the completion of certain satellite constellation deployments, these launch numbers could still be maintained as virgining national aspirations, such as next generation space stations and a renewed global interest in lunar missions, are expected to gain momentum by 2030. Meanwhile, space tourism will add a significant share of suborbital launches in the next decade.