

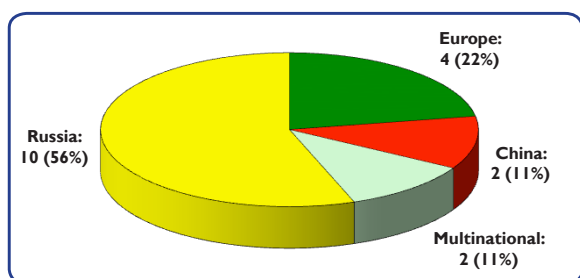


ONE ORBITAL FAA-LICENSED LAUNCH IN CALENDAR YEAR (CY) 2011

In CY 2011, the Federal Aviation Administration's (FAA) Office of Commercial Space Transportation (AST) licensed one orbital launch of a Zenit 3SL vehicle from the Sea Launch Odyssey Platform.

The total for this year's FAA-licensed launches is three fewer than last year's count. No commercial suborbital launches occurred in CY 2011.

Worldwide Distribution of Orbital Commercial Launches in CY 2011



FAA-Licensed Vehicles Launched in CY 2011

SEA LAUNCH	
Vehicle	Zenit 3SL
2011 Total Launches	1
2011 Licensed Launches	1
2011 Launch Reliability	1/1 (100%)
10-Year Launch Reliability	23/24 (96%)
Maximum GEO Capacity - kg	6,100
(lbs)	(13,448)

OTHER CY 2011 FAA LICENSES AND PERMITS

In CY 2011, two suborbital launches occurred under an FAA Experimental Permit. Both were conducted by Blue Origin, using the PM-2 vehicle.

Flight Date	Operator	Vehicle	Launch Site
06-May-11	Blue Origin	PM-2	West Texas
24-Aug-11	Blue Origin	PM-2	West Texas

For CY 2012, it is projected that there will be an increase in the number of experimental permits issued by FAA/AST due to continued testing in the suborbital market.

In CY 2011, there were no reentries conducted under an FAA reentry license. The NASA COTS and CRS missions in 2012 are expected to use FAA reentry licenses.

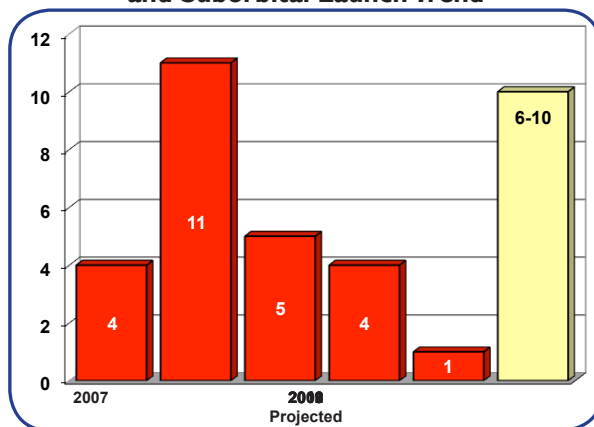
FIVE-YEAR ORBITAL COMMERCIAL LAUNCH TRENDS WORLDWIDE

During the five-year period from CY 2007 to CY 2011, there was an average of 16 commercial launches to geosynchronous orbit worldwide per calendar year, with a low of 13 in CY 2007 and a high of 19 in CY 2009. In the same period, there was an average of eight commercial launches to non-geosynchronous orbit worldwide per calendar year, with a low of three in CY 2011 and a high of 12 in CY 2007.

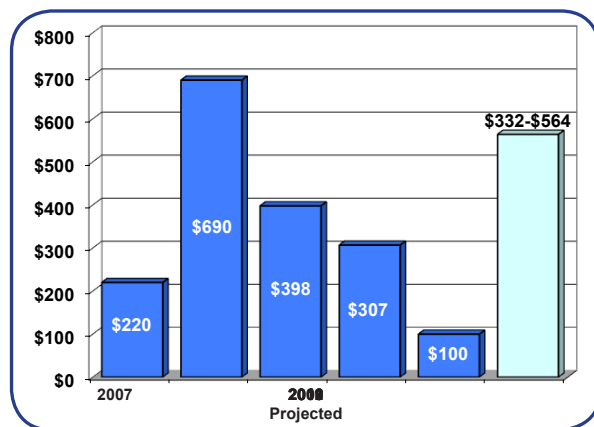
During the five-year period, there was an average of 23 commercial orbital launches worldwide per calendar year. For CY 2011, the total number of worldwide commercial orbital launches (18) is below the five-year calendar average. CY 2011 had five fewer launches than the 23 commercial launches in CY 2010 and was 10 launches below the five-year high of 28 in CY 2008. The U.S. conducted an average of three commercial launches per year from CY 2007 to CY 2011, while Sea Launch conducted an average of three, Europe an average of five, and Russia an average of 11.

Six to ten FAA-licensed commercial orbital launches are projected for CY 2012. This is due to an increase of NASA COTS/CRS launches on the Falcon 9 and Antares vehicles, as well as the continued use by Sea Launch of the Zenit 3SL vehicle, and possible suborbital launches. The first commercial suborbital launch, Virgin Galactic's SpaceShipTwo, is projected for late CY 2012.

FAA-Licensed Commercial Orbital and Suborbital Launch Trend



FAA-Licensed Commercial Orbital and Suborbital Launch Revenue Trend



Worldwide Orbital and Suborbital Commercial Launch Events in CY 2011

Date	Vehicle	Site	Payload(s)	Operator	Manufacturer	Use	Commercial Price	L	M	
EUROPE										
04-22-2011	Ariane 5 ECA	Kourou	* Yahsat 1A	Yah Satellite Communications Co.	EADS Astrium	Communications	\$220M	S	S	
			* Intelsat New Dawn	Intelsat	Orbital Sciences Corp.	Communications			S	
05-20-2011	Ariane 5 ECA	Kourou	* Insat 4G/GSAT 8	ISRO	ISRO	Communications	\$220M	S	S	
			* ST 2	Singapore Telecom	Mitsubishi Electric Corp.	Communications			S	
08-06-2011	Ariane 5 ECA	Kourou	* Astra 1N	SES Astra	EADS Astrium	Communications	\$220M	S	S	
			* BSAT-3c/CSAT-110R	Sky Perfect JSAT Corp.	Lockheed Martin	Communications			S	
09-21-2011	Ariane 5 ECA	Kourou	* Arabsat 5C	Arabsat	EADS Astrium	Communications	\$220M	S	S	
			* SES-2	SES World Skies	Orbital Sciences Corp.	Communications			S	
MULTINATIONAL										
09-24-2011	✓	Zenit 3SL	Pacific	* Atlantic Bird 7	Eutelsat	EADS Astrium	Communications	\$100M	S	S
10-06-2011		Zenit 3SLB	Baikonur	* Intelsat 18	Intelsat	Orbital Sciences Corp.	Communications	\$100M	S	S
RUSSIA										
05-20-2011		Proton M	Baikonur	* Telstar 14R	Telesat	Space Systems/Loral	Communications	\$85M	S	S
07-13-2011	Soyuz 2 1A	Baikonur	* Globalstar 2nd Gen 07	Globalstar, Inc.	Thales Alenia Space	Communications	\$50M	S	S	
			* Globalstar 2nd Gen 08	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 09	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 10	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 11	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 12	Globalstar, Inc.	Thales Alenia Space	Communications			S	
07-15-2011	Proton M	Baikonur	* SES-3	SES World Skies	Orbital Sciences Corp.	Communications	\$85M	S	S	
			* KazSat 2	JSC Kazsat	Khronichev State Research & Productions Space Center	Communications			S	
08-17-2011	Dnepr M	Domboroskiy	Nigeriasat 2	NASRDA	Surrey Satellite Technology Ltd.	Remote Sensing	\$12M	S	S	
			NX	NASRDA	Surrey Satellite Technology Ltd.	Remote Sensing			S	
			RASAT	TUBITAK-UZAY	TUBITAK-UZAY	Remote Sensing			S	
			Slch 2	National Space Agency of Ukraine	NPO Yuzhnoye	Remotes Sensing			S	
			Edusat	Italian Space Agency	University of Rome	Scientific			S	
			BPA 2	Hartron-Arkos	Hartron-Arkos	Development			S	
			* AprizeSat 5	ExactEarth Ltd.	SpaceQuest Ltd.	Communications			S	
			* AprizeSat 6	ExactEarth Ltd.	SpaceQuest Ltd.	Communications			S	
08-17-2011	Proton M	Baikonur	* Express AM4	Russian Satellite Communications Co.	Khronichev/Astrium Satellites	Communications	\$85M	F	F	
09-29-2011	Proton M	Baikonur	* QuetzSat-1	QuetzSat	Space Systems/Loral	Communications	\$85M	S	S	
10-19-2011	Proton M	Baikonur	* ViaSat 1	ViaSat	Space Systems/Loral	Communications	\$85M	S	S	
11-25-2011	Proton M	Baikonur	* Asiasat 7	Asiasat	Space Systems/Loral	Communications	\$85M	S	S	
12-11-2011	Proton M	Baikonur	* Luch 5A	Roscosmos	Reshetnev Company	Communications	\$85M	S	S	
			* Amos 5	SpaceCom Ltd.	Reshetnev Company	Communications			S	
12-28-2011	Soyuz 2 1A	Baikonur	* Globalstar 2nd Gen 13	Globalstar, Inc.	Thales Alenia Space	Communications	\$50M	S	S	
			* Globalstar 2nd Gen 14	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 15	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 16	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 17	Globalstar, Inc.	Thales Alenia Space	Communications			S	
			* Globalstar 2nd Gen 18	Globalstar, Inc.	Thales Alenia Space	Communications			S	
CHINA										
10-07-2011	Long March 3B	Xichang	* Eutelsat W3C	Eutelsat	Thales Alenia Space	Communications	\$70M	S	S	
12-19-2011	Long March 3B	Xichang	* NigComSat 1R	Nigerian Communication Satellite Ltd.	CAST	Communications	\$70M	S	S	

* Denotes a commercial payload, defined as a spacecraft that serves a commercial function or is operated by a commercial entity. Commercial prices are estimates only.

✓ Denotes a commercial launch licensed by the Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST).

A commercial suborbital or orbital launch has one or more of the following characteristics:

- The launch is licensed by FAA/AST.
- The primary payload's launch contract was internationally competed. A primary payload is generally defined as the payload with the greatest mass on a launch vehicle for a given launch.
- The launch is privately financed without government support.

L Denotes launch outcome (S-Success, F-Failure, P-Partial). **M** Denotes mission outcome (S-Success, F-Failure, P-Partial).