FAA
Commercial Space
Transportation

Quarterly Launch Report
3rd Quarter 2007

Featuring Launch Results from the 2nd Quarter and
Forecasts for the 3rd and 4th Quarter 2007

Introduction

The *Third Quarter 2007 Quarterly Launch Report* features launch results from the second quarter of 2007 (April-June 2007) and forecasts for the third quarter of 2007 (July-September 2007) and the fourth quarter of 2007 (October-December 2007). This report contains information on worldwide commercial, civil, and military orbital and commercial suborbital space launch events. Projected launches have been identified from open sources, including industry contacts, company manifests, periodicals, and government sources. Projected launches are subject to change.

This report highlights commercial launch activities, classifying commercial launches as one or both of the following:

- Internationally-competed launch events (i.e., launch opportunities considered available in principle to competitors in the international launch services market);
- Any launches licensed by the Office of Commercial Space Transportation of the Federal Aviation Administration under 49 United States Code Subtitle IX, Chapter 701 (formerly the Commercial Space Launch Act).

Contents

Cover (photo courtesy of Ken Shanaberger for UP Aerospace, copyright © 2007): An UP Aerospace Spaceloft SL-2 suborbital rocket lifts off from Spaceport America, the commercial spaceport of the State of New Mexico, on April 28, 2007. This was the maiden commercial launch of the Spaceloft SL-2, which carried the Celestis Legacy Flight capsule.

Second Quarter 2007 Highlights

On April 3, voters in New Mexico's Doña Ana County approved a sales tax increase designed to raise an estimated $49 million toward funding Spaceport America, the spaceport currently under construction in the state. Spaceport America, whose total cost will exceed $200 million, is slated for completion in 2009 or 2010, and will be the headquarters for Sir Richard Branson's Virgin Galactic suborbital space tourism company.

On April 7, the Soyuz ISS 14S mission lifted off from Baikonur in Russia carrying the fifth orbital space tourist to the International Space Station (ISS). Charles Simonyi, a software architect formerly with Microsoft, spent thirteen days in space in a trip organized by the space tourism company Space Adventures, Ltd. He returned safely to the Earth on April 21.

On April 23, India conducted its first commercial launch as a Polar Satellite Launch Vehicle (PSLV) lifted off from Satish Dhawan Space Centre carrying AGILE, an Italian astrophysics satellite. The launch was conducted by Antrix, the commercial arm of the Indian Space Research Organization (ISRO).

On April 28, UP Aerospace conducted the maiden commercial launch of its Spaceloft SL-2 suborbital rocket. The rocket launched from Spaceport America carrying a Celestis capsule containing the cremains of actor James Doohan (the character "Scotty" from *Star Trek*), NASA astronaut Gordon Cooper, and others. It reached an altitude of 72 miles (115 kilometers) before coming down at White Sands Missile Range. The flight was the first successful mission launched from Spaceport America.

On May 14, China Great Wall Industry Corporation (CGWIC) launched Nigcomsat, a Nigerian communications satellite, aboard a Long March 3B vehicle. The satellite was built and launched by China in a package deal that also included the construction of two ground stations and training for Nigerian personnel to operate the spacecraft. Chinese media reported that this was the first time a foreign buyer had purchased both the satellite and its launch service from China.

On May 22, the European Commission and the European Space Agency (ESA) formally adopted the first official European Space Policy. The *Resolution on the European Space Policy* is a landmark policy document resulting from nearly three years of European Space Council meetings involving consultation with 29 member and observer states. It articulates a broad consensus that space will play an increasing role in the security and prosperity of Europe, that European space assets must be protected from disruption, and that Europe must maximize its return on investment in space. To accomplish this, ESA plans to maintain its spaceport in Kourou, French Guiana, enhance its existing supply of Ariane and Soyuz vehicles, and continue to develop improved next-generation launchers.

On June 8, the Space Shuttle Atlantis launched from the Kennedy Space Center carrying components and supplies for the ISS. The mission had been delayed for several months following a severe February hailstorm that left hundreds of dents in the Shuttle's external fuel tank.

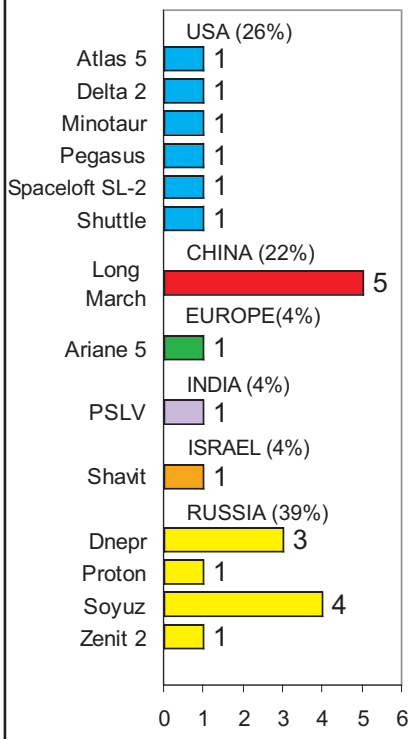
On June 13, six ISS onboard computers that handle aspects of oxygen supply, water circulation, guidance, and navigation malfunctioned, leaving the station temporarily reliant on its backup systems and internal gyroscopes. By June 18 computer control had been restored thanks to joint work by the Russian and Shuttle Atlantis crews. However, as of July 5, the ISS crew was still troubleshooting minor computer issues.

On June 15, an Atlas 5 rocket placed a U.S. Government payload known as NRO L-30 into an incorrect orbit due to a "technical anomaly" reportedly involving the vehicle's Centaur upper stage. However, the payload was reported to be functioning normally.

Vehicle Use

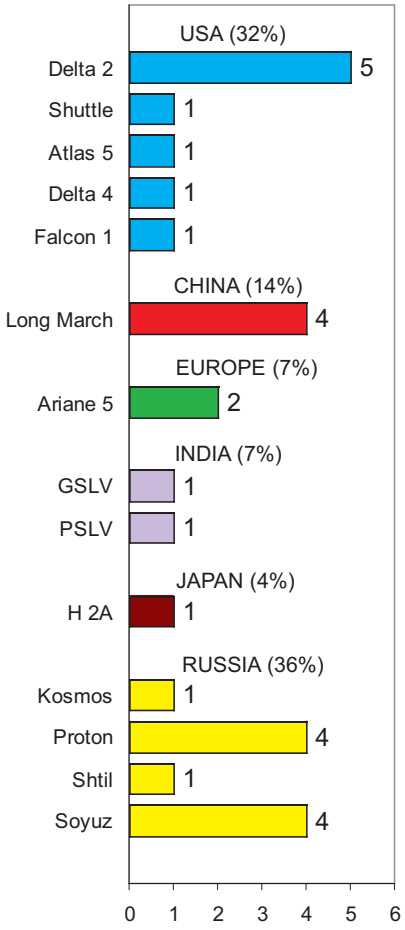
(April 2007 – December 2007)

Figure 1: Second Quarter 2007 Total Launch Vehicle Use



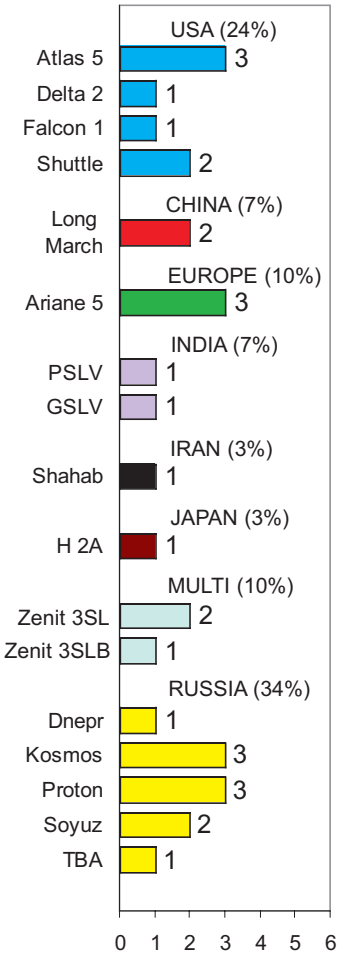
Total = 23

Figure 2: Third Quarter 2007 Total Projected Launch Vehicle Use



Total = 28

Figure 3: Fourth Quarter 2007 Total Projected Launch Vehicle Use



Total = 29

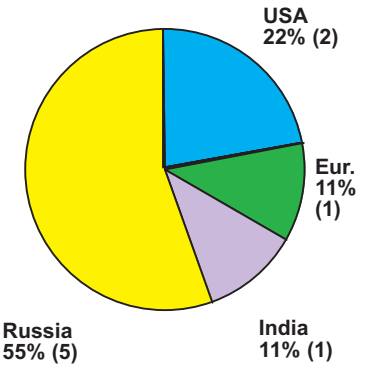
Figures 1-3 show the total number of orbital and commercial suborbital launches of each launch vehicle and the resulting market share that occurred in the second quarter of 2007. They also project this information for the third quarter of 2007 and fourth quarter of 2007. The launches are grouped by the country in which the primary vehicle manufacturer is based. Exceptions to this grouping are launches performed by Sea Launch, which are designated as multinational.

Note: Percentages for these and subsequent figures may not add up to 100 percent due to rounding of individual values.

Commercial Launch Events by Country

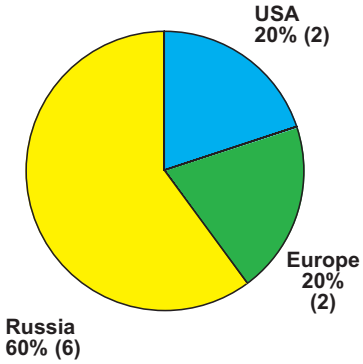
(April 2007 – December 2007)

Figure 4: Second Quarter 2007 Commercial Launch Events by Country



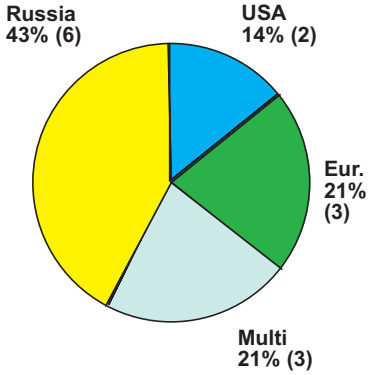
Total = 9

Figure 5: Third Quarter 2007 Projected Commercial Launch Events by Country



Total = 10

Figure 6: Fourth Quarter 2007 Projected Commercial Launch Events by Country



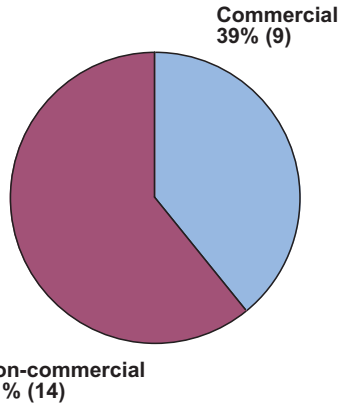
Total = 14

Figures 4-6 show all commercial orbital and suborbital launch events that occurred in the second quarter of 2007 and that are projected for the third quarter of 2007 and fourth quarter of 2007.

Commercial vs. Non-Commercial Launch Events

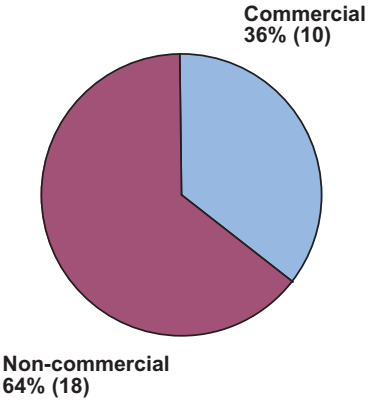
(April 2007 – December 2007)

Figure 7: Second Quarter 2007 Commercial vs. Non-Commercial Launch Events



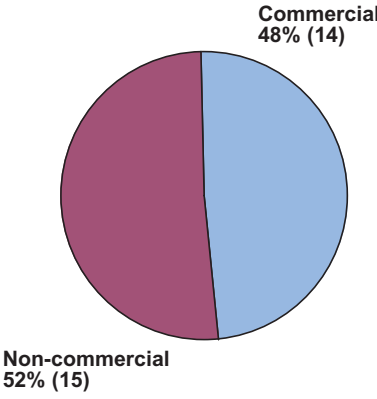
Total = 23

Figure 8: Third Quarter 2007 Projected Commercial vs. Non-Commercial Launch Events



Total = 28

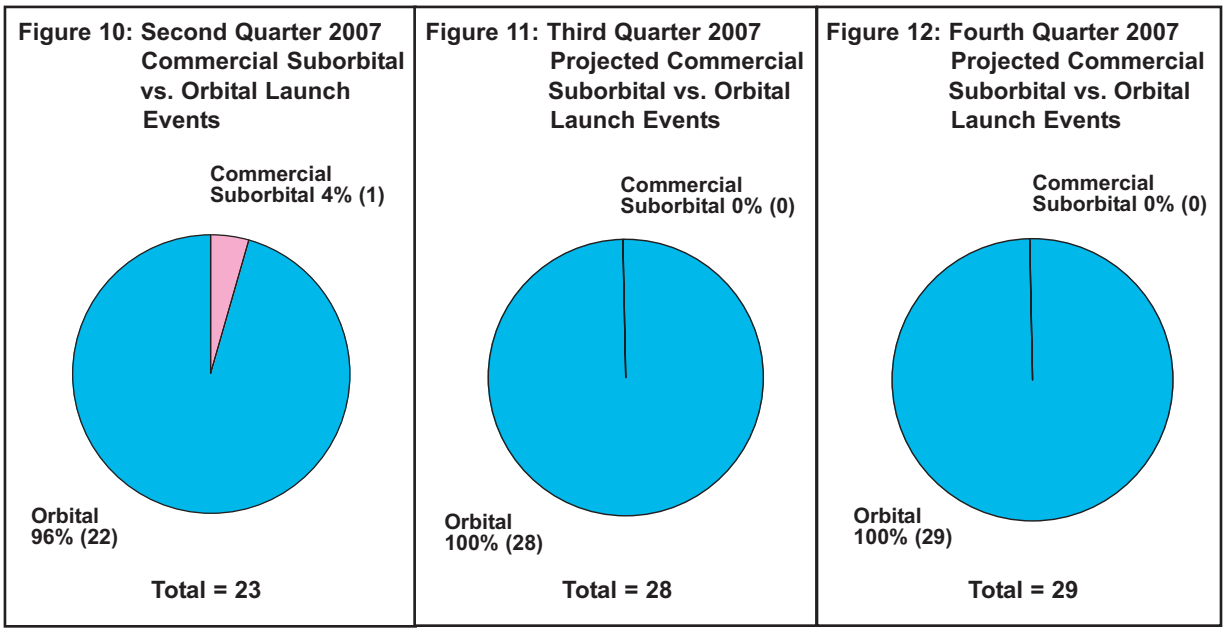
Figure 9: Fourth Quarter 2007 Projected Commercial vs. Non-Commercial Launch Events



Total = 29

Figures 7-9 show commercial vs. non-commercial orbital and suborbital launch events that occurred in the second quarter of 2007 and that are projected for the third quarter of 2007 and fourth quarter of 2007.

Orbital vs. Commercial Suborbital Launch Events
(April 2007 – December 2007)



Figures 10-12 show orbital vs. FAA-licensed commercial suborbital launch events (or their international equivalents) that occurred in the second quarter of 2007 and that are projected for the third quarter of 2007 and fourth quarter of 2007.

Launch Successes vs. Failures
(April 2007 – June 2007)

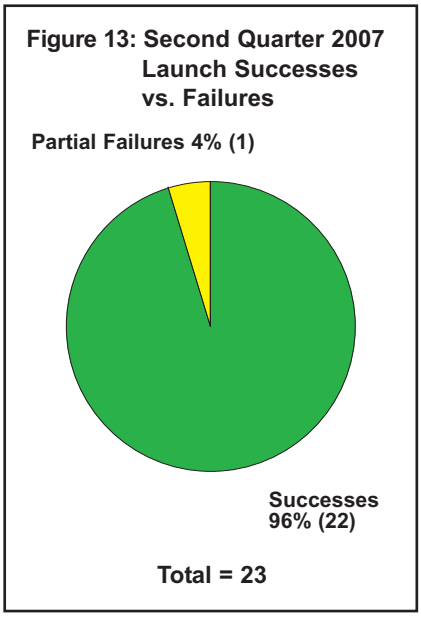
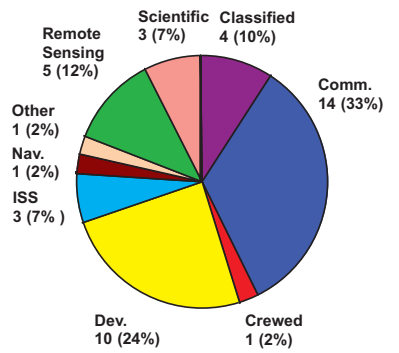


Figure 13 shows orbital and commercial suborbital launch successes vs. failures for the period from April 2007 to June 2007. Partially-successful orbital launch events are those where the launch vehicle fails to deploy its payload to the appropriate orbit, but the payload is able to reach a useable orbit via its own propulsion systems. Cases in which the payload does not reach a useable orbit or would use all of its fuel to do so are considered failures.

Payload Use (Orbital Launches Only)

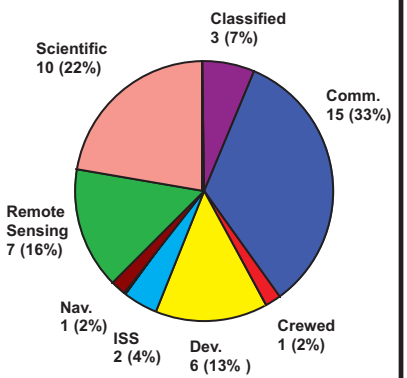
(April 2007 – December 2007)

Figure 14: Second Quarter 2007 Payload Use



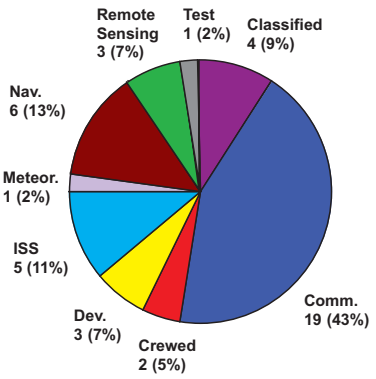
Total = 42

Figure 15: Third Quarter 2007 Projected Payload Use



Total = 45

Figure 16: Fourth Quarter 2007 Projected Payload Use



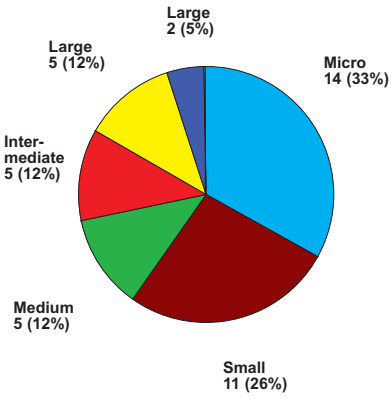
Total = 44

Figures 14-16 show total payload use (commercial and government), actual for the second quarter of 2007 and projected for the third quarter of 2007 and fourth quarter of 2007. The total number of payloads launched may not equal the total number of launches due to multi-manifesting, i.e., the launching of more than one payload by a single launch vehicle.

Payload Mass Class (Orbital Launches Only)

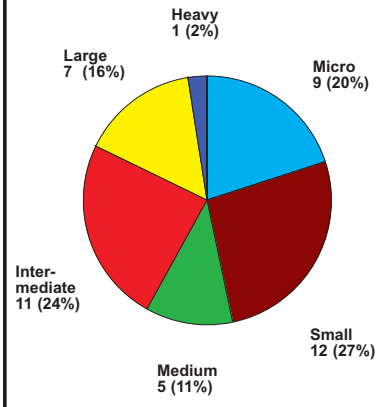
(April 2007 – December 2007)

Figure 17: Second Quarter 2007 Payload Mass Class



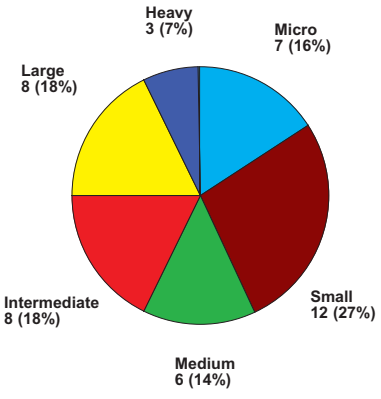
Total = 42

Figure 18: Third Quarter 2007 Projected Payload Mass Class



Total = 45

Figure 19: Fourth Quarter 2007 Projected Payload Mass Class



Total = 44

Figures 17-19 show total payloads by mass class (commercial and government), actual for the second quarter of 2007 and projected for the third quarter of 2007 and fourth quarter of 2007. The total number of payloads launched may not equal the total number of launches due to multi-manifesting, i.e., the launching of more than one payload by a single launch vehicle. Payload mass classes are defined as Micro: 0 to 91 kilograms (0 to 200 lbs.); Small: 92 to 907 kilograms (201 to 2,000 lbs.); Medium: 908 to 2,268 kilograms (2,001 to 5,000 lbs.); Intermediate: 2,269 to 4,536 kilograms (5,001 to 10,000 lbs.); Large: 4,537 to 9,072 kilograms (10,001 to 20,000 lbs.); and Heavy: over 9,072 kilograms (20,000 lbs.).

Commercial Launch Trends (Orbital Launches Only)

(July 2006 – June 2007)

Figure 20: Commercial Launch Events, Last 12 Months

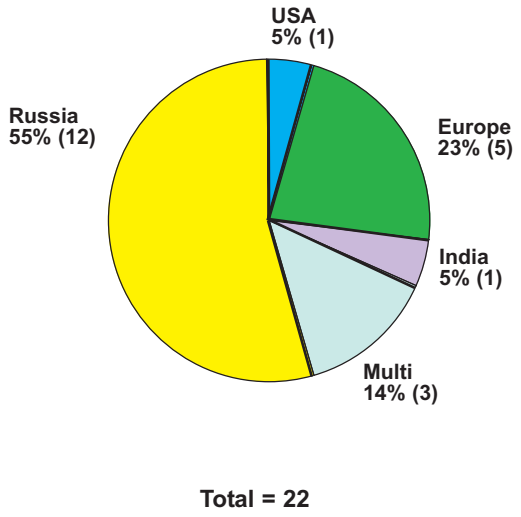


Figure 21: Estimated Commercial Launch Revenue, Last 12 Months

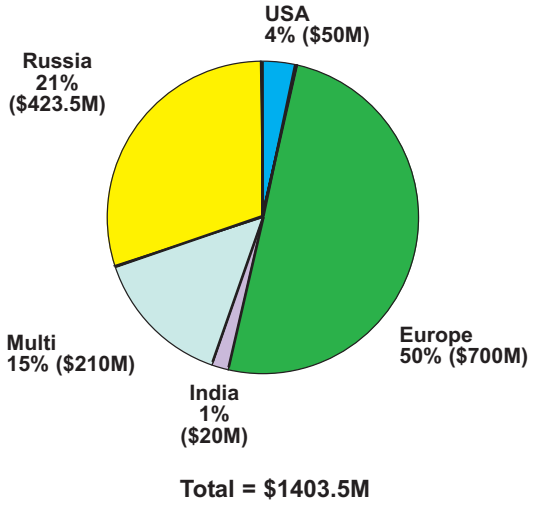


Figure 20 shows commercial orbital launch events for the period of July 2006 to June 2007 by country.

Figure 21 shows estimated commercial launch revenue for orbital launches for the period of July 2006 to June 2007 by country.

Commercial Launch Trends (Suborbital Launches and Experimental Permits)

(July 2006 – June 2007)

Figure 22: FAA-Licensed Commercial Suborbital Launch Events (or Their International Equivalents), Last 12 Months

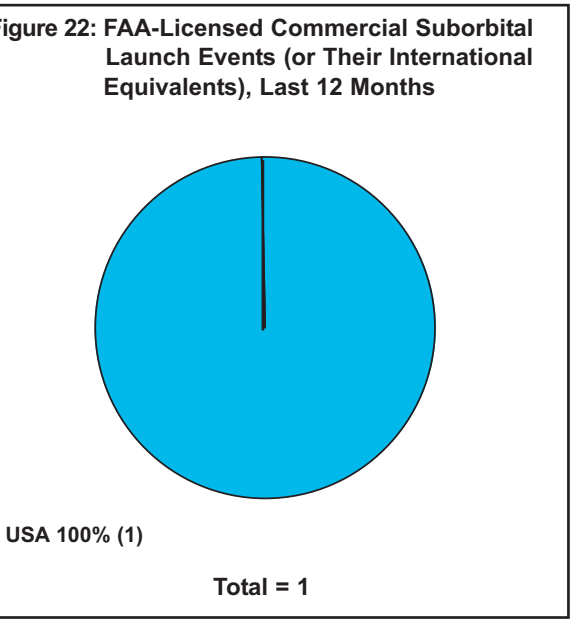


Figure 23: FAA Experimental Permit Flights, Last 12 Months

Flight Date	Operator	Vehicle	Launch Site
10/19/2006	Armadillo Aerospace	Pixel	Las Cruces International Airport, NM
10/20/2006	Armadillo Aerospace	Pixel	Las Cruces International Airport, NM
10/21/2006	Armadillo Aerospace	Pixel	Las Cruces International Airport, NM
10/21/2006	Armadillo Aerospace	Pixel	Las Cruces International Airport, NM
10/21/2006	Armadillo Aerospace	Pixel	Las Cruces International Airport, NM
11/13/2006	Blue Origin	Goddard	West Texas Launch Site, TX
3/22/2007	Blue Origin	Goddard	West Texas Launch Site, TX
4/19/2007	Blue Origin	Goddard	West Texas Launch Site, TX
6/2/2007	Armadillo Aerospace	Pixel	Oklahoma Spaceport, OK
6/2/2007	Armadillo Aerospace	Pixel	Oklahoma Spaceport, OK

Figure 22 shows FAA-licensed commercial suborbital launch events (or their international equivalents) for the period of July 2006 to June 2007 by country.

Figure 23 shows suborbital flights conducted under FAA experimental permits for the period of July 2006 to June 2007.

Commercial Launch History
(January 2002 – December 2006)

Figure 24: Commercial Launch Events by Country, Last Five Years

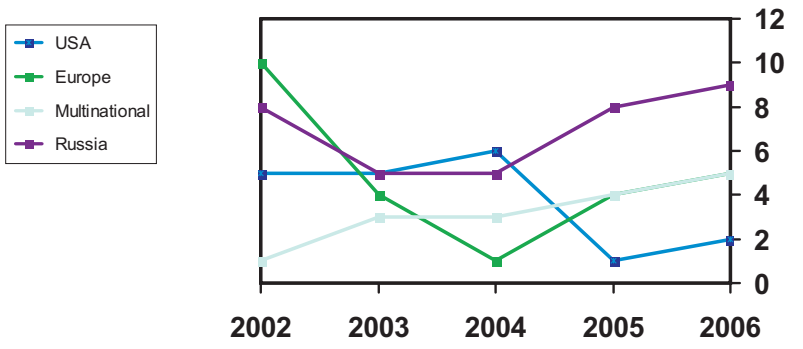


Figure 24 shows commercial launch events by country for the last five full calendar years.

Figure 25: Estimated Commercial Launch Revenue (in $ millions) by Country, Last Five Years

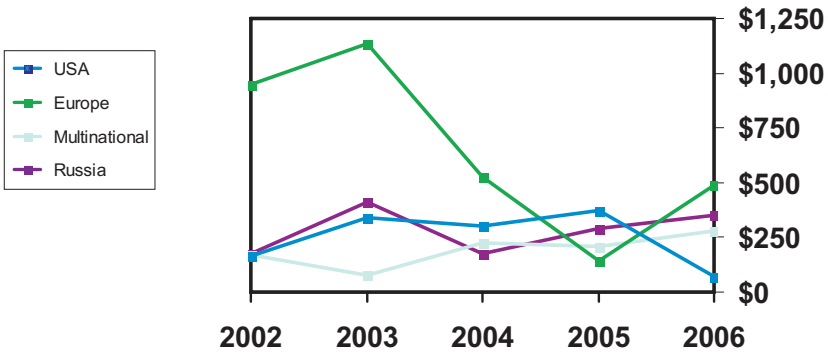


Figure 25 shows estimated commercial launch revenue by country for the last five full calendar years.

Second Quarter 2007 Orbital and Suborbital Launch Events

Date		Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price	L	M
4/7/2007		Soyuz	Baikonur		Soyuz ISS 14S	Russian Federal Space Agency (Roscosmos)	ISS	$40M	S	S
4/10/2007	√	Proton M	Baikonur	*	Anik F3	Telesat Canada	Communications	$70M	S	S
4/11/2007		Long March 2C	Taiyuan		Haiyang 1B	Chinese National Space Agency (CNSA)	Remote Sensing	$22.5M	S	S
4/14/2007		Long March 3A	Xichang		Beidou 2B	CNSA	Navigation	$50M	S	S
4/17/2007	√	Dnepr 1	Baikonur		Egyptsat	National Authority for Remote Sensing and Space Sciences	Remote Sensing	$9.5M	S	S
					AeroCube 2	Aerospace Corporation	Development			S
					CAPE-1	University of Louisiana	Development			S
					CTSB 1	Boeing	Development			S
					Libertad 1	Universidad de Sergio Arboleda	Development			S
				*	MAST	Stanford University	Development			S
					Polysat 3	Cal Poly Aerospace Engineering	Development			S
					Polysat 4	Cal Poly Aerospace Engineering	Development			S
					SaudiComsat 3	Space Research Institute	Communications			S
					SaudiComsat 4	Space Research Institute	Communications			S
					SaudiComsat 5	Space Research Institute	Communications			S
					SaudiComsat 6	Space Research Institute	Communications			S
					SaudiComsat 7	Space Research Institute	Communications			S
					Saudisat 3	Space Research Institute	Scientific			S
4/23/2007	√	PSLV	Satish Dhawan Space Center		AGILE	Agenzia Spatiale Italiana (ASI)	Scientific	$20M	S	S
					AAM	Indian Space Research Organization (ISRO)	Development			S
4/24/2007		Minotaur	Wallops Flight Facility		NFIRE	Missile Defense Agency (MDA)	Development	$14.5M	S	S
4/25/2007		Pegasus XL	VAFB		AIM Explorer	National Aeronautics and Space Administration (NASA)	Scientific	$16M	S	S
4/28/2007	√	+ *Spaceloft SL-2 (suborbital)*	*Spaceport America*	*	*Celestis Legacy Flight*	*Celestis*	*Other*	*N/A*	*S*	*S*

√ Denotes commercial launch, defined as a launch that is internationally competed or FAA-licensed. For multiple manifested launches, certain secondary payloads whose launches were commercially procured may also constitute a commercial launch. Appendix includes suborbital launches only when such launches are commercial.

+ Denotes FAA-licensed launch.

* Denotes a commercial payload, defined as a spacecraft that serves a commercial function or is operated by a commercial entity.

Notes: All prices are estimates, and vary for every commercial launch. Government mission prices may be higher than commercial prices. Ariane 5 payloads are usually multiple manifested, but the pairing of satellites scheduled for each launch is sometimes undisclosed for proprietary reasons until shortly before the launch date.

Second Quarter 2007 Orbital and Suborbital Launch Events (Continued)

Date			Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price	L	M
5/4/2007	√		Ariane 5 ECA	Kourou	*	Astra 1L	SES Astra	Communications	$140M	S	S
					*	Galaxy 17	Intelsat	Communications			S
5/12/2007			Soyuz	Baikonur		Progress ISS 25P	Roscosmos	ISS	$40M	S	S
5/14/2007			Long March 3B	Xichang		Nigcomsat 1	China Aerospace Corporation	Communications	$60M	S	S
5/25/2007			Long March 2D	Jiuquan		Yaogan 2	CNSA	Remote Sensing	$40M	S	S
5/30/2007	√		Soyuz	Baikonur	*	Globalstar Replacement 1	Globalstar	Communications	$40M	S	S
					*	Globalstar Replacement 2	Globalstar	Communications			S
					*	Globalstar Replacement 3	Globalstar	Communications			S
					*	Globalstar Replacement 4	Globalstar	Communications			S
6/1/2007			Long March 3A	Xichang	*	Sinosat 3	Sino-Satellite Communications (Sinosat)	Communications	$50M	S	S
6/7/2007	√	+	Delta 2 7420	VAFB		Cosmo-Skymed 1	ASI	Remote Sensing	$50M	S	S
6/7/2007			Soyuz	Plesetsk		Kosmos 2427	Russian Ministry of Defense (MoD)	Classified	$40M	S	S
6/8/2007			Shuttle Atlantis	KSC		STS 117	NASA	Crewed	N/A	S	S
						ISS 13A	NASA	ISS			S
6/11/2007			Shavit 1	Palmachim AFB		Ofeq 7	Israeli MoD	Classified	$12.5M	S	S
6/15/2007			Atlas 5 401	CCAFS		NRO L-30	US National Reconnaissance Office (NRO)	Classified	$75M	P	S
6/15/2007	√		Dnepr 1	Baikonur	*	TerraSAR X	Infoterra	Remote Sensing	$9.5M	S	S
6/28/2007	√		Dnepr 1	Dombarovskiy	*	Genesis 2	Bigelow Aerospace	Development	$9.5M	S	S
6/29/2007			Zenit 2M	Baikonur		Kosmos 2428	Russian MoD	Classified	$37.5M	S	S

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Notes: All prices are estimates, and vary for every commercial launch. Government mission prices may be higher than commercial prices. Ariane 5 payloads are usually multiple manifested, but the pairing of satellites scheduled for each launch is sometimes undisclosed for proprietary reasons until shortly before the launch date.

Third Quarter 2007 Projected Orbital and Suborbital Launch Events

Date		Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price
7/2/2007	√	Kosmos 3M	Plesetsk		SAR Lupe 2	German MoD	Classified	$12M
7/5/2007		Long March 3B	Xichang	*	Chinasat 6B	China Satellite Communications Corporation (Chinasat)	Communications	$60M
7/7/2007	√	Proton M	Baikonur	*	DirecTV 10	DirecTV	Communications	$70M
8/2/2007		Soyuz	Baikonur		Progress ISS 26P	Roscosmos	ISS	$40M
8/3/2007		Delta 2 7925H	CCAFS		Mars Phoenix Lander	University of Arizona Department of Planetary Physics	Scientific	$50M
8/7/2007		Shuttle Endeavour	KSC		STS 118	NASA	Crewed	N/A
					ISS 13A.1	NASA	ISS	
8/11/2007		Atlas 5 421	CCAFS		WGS 1	Department of Defense (DoD)	Communications	$75M
8/14/2007	√	Ariane 5 ECA	Kourou	*	Spaceway 3	Hughes Communications	Communications	$140M
				*	BSAT 3A	BSAT	Communications	
8/16/2007		H 2A 2022	Tanegashima		Kaguya	Japanese Aerospace Exploration Agency (JAXA)	Scientific	$85M
					µLabSat 2	JAXA	Scientific	
					µLabSat 2 Subsat	JAXA	Scientific	
					RSAT	JAXA	Scientific	
					VRAD	JAXA	Scientific	
8/28/2007		Delta 4 Heavy	CCAFS		DSP 23	United States Air Force (USAF)	Classified	$155M
8/2007		Long March 2D	Jiuquan		SJ 9	CNSA	Scientific	$40M
8/2007	√	Proton M	Baikonur	*	Sirius 4	SES Sirius	Communications	$70M
8/2007		PSLV	Satish Dhawan Space Center		Cartosat 2A	ISRO	Remote Sensing	$20M
					AAUsat 2	Aalborg University	Development	
					CanX-2	University of Toronto	Development	
					Cute 1.7 + APD 2	Tokyo Institute of Technology	Development	
					Delfi C3	Delft University	Development	
					Polaris	Israeli MoD	Classified	

√ Denotes commercial launch, defined as a launch that is internationally competed or FAA-licensed. For multiple manifested launches, certain secondary payloads whose launches were commercially procured may also constitute a commercial launch. Appendix includes suborbital launches only when such launches are commercial.

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Third Quarter 2007 Projected Launch Events (Continued)

Date		Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price
9/6/2007	√	Proton M	Baikonur	*	JCSAT 11	JSAT	Communications	$70M
9/14/2007		Soyuz	Baikonur		Foton M3	European Space Agency (ESA)	Scientific	$40M
9/18/2007	√ +	Delta 2 7925-10	VAFB	*	Worldview 1	DigitalGlobe	Remote Sensing	$50M
9/21/2007	√	Ariane 5 GS	Kourou	*	Horizons 2	Intelsat	Communications	$140M
				*	Intelsat 11	Intelsat	Communications	
9/24/2007		Soyuz	Baikonur	*	Globalstar Replacement 5	Globalstar	Communications	$40M
				*	Globalstar Replacement 6	Globalstar	Communications	
				*	Globalstar Replacement 7	Globalstar	Communications	
				*	Globalstar Replacement 8	Globalstar	Communications	
9/2007		Delta 2 7925-10	CCAFS		Navstar GPS 2RM-4	USAF	Navigation	$50M
9/2007		Delta 2 7925H	CCAFS		Dawn	NASA Jet Propulsion Laboratory (JPL)	Scientific	$50M
9/2007		Falcon 1	VAFB		TacSat 1	DoD	Development	$7M
9/2007		GSLV	Satish Dhawan Space Center	*	Insat 4C R	ISRO	Communications	$40M
9/2007		Long March 3A	Xichang		Chang'e 1	CNSA	Scientific	$50M
9/2007		Proton (SL-12)	Baikonur	*	Express AM33	Russian Satellite Communications Corporation (RSCC)	Communications	$72.5M
3Q/2007	√ +	Delta 2 7420	VAFB	*	GeoEye 1	GeoEye	Remote Sensing	$50M
3Q/2007		Long March 2C	Xichang		HJ 1A	CNSA	Remote Sensing	$22.5M
					HJ 1B	CNSA	Remote Sensing	
					HJ 1C	CNSA	Remote Sensing	
3Q/2007	√	Shtil	Barents Sea		Sumbandila	University of Stellenbosch	Development	$1.5M
3Q/2007	√	Soyuz	Baikonur	*	RADARSAT 2	MacDonald, Dettwiler and Associates	Remote Sensing	$40M

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+ Denotes FAA-licensed launch.

* Denotes a commercial payload, defined as a spacecraft that serves a commercial function or is operated by a commercial entity.

Notes: All prices are estimates, and vary for every commercial launch. Government mission prices may be higher than commercial prices. Ariane 5 payloads are usually multiple manifested, but the pairing of satellites scheduled for each launch is sometimes undisclosed for proprietary reasons until shortly before the launch date.

Fourth Quarter 2007 Projected Orbital and Suborbital Launch Events

Date		Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price
10/2/2007		Soyuz	Baikonur		Soyuz ISS 15S	Roscosmos	ISS	$40M
10/5/2007		Atlas 5 401	CCAFS		NRO L-24	NRO	Classified	$75M
10/15/2007	√ +	Zenit 3SL	Odyssey Launch Platform	*	Thuraya 3	Thuraya Satellite Communications Company	Communications	$70M
10/20/2007		Shuttle Discovery	KSC		STS 120	NASA	Crewed	N/A
10/2007	√	Dnepr 1	Baikonur		THEOS	Thailand Geo-Informatics and Space Technology Development Agency (GISTDA)	Remote Sensing	$9.5M
10/2007		GSLV	Satish Dhawan Space Center		Glonass M TBA	Russian MoD	Navigation	$40M
10/2007	√	Proton M	Baikonur	*	Thor 5	Telenor AS	Communications	$70M
11/8/2007		Delta 2 TBA	VAFB		STSS Block 2010 Risk Reduction	MDA	Classified	$50M
11/2007	√ +	Atlas 5 421	CCAFS	*	ICO G1	ICO Global Communications	Communications	$70M
11/2007	√ +	Falcon 1	Kwajalein Island		RazakSAT	Malaysia National Space Agency	Development	$7M
11/2007	√	Kosmos 3M	Plesetsk		SAR Lupe 3	German MoD	Classified	$12M
12/4/2007		Atlas 5 411	VAFB		NRO L-28	NRO	Classified	$75M
12/6/2007		Shuttle Atlantis	KSC		JEM ELM ES	NASA	ISS	N/A
					PV Module Batteries	NASA	ISS	
					STS 122	NASA	Crewed	
					Columbus Laboratory	ESA	ISS	
					JEM EF	NASA	ISS	

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Fourth Quarter 2007 Projected Launch Events (Continued)

Date		Vehicle	Site		Payload or Mission	Operator	Use	Vehicle Price
12/2007		Proton (SL-12)	Baikonur		Glonass K R7	Russian MoD	Navigation	$72.5M
					Glonass K R8	Russian MoD	Navigation	
					Glonass K R9	Russian MoD	Navigation	
12/2007	√	Proton M	Baikonur	*	AMC 14	SES Americom	Communications	$70M
12/2007		Soyuz	Baikonur		GIOVE B	ESA	Navigation	$40M
12/2007	√	Zenit 3SL	Odyssey Launch Platform	*	DirecTV 11	DirecTV	Communications	$70M
4Q/2007	√	Ariane 5 ECA	Kourou		RASCOM STAR 1	Rascom/QAF Joint Venture	Communications	$100M
4Q/2007		H 2A TBA	Tanegashima		WINDS	JAXA	Development	$85M
4Q/2007	√	Kosmos 3M	Plesetsk	*	Orbcomm Replacement 1	ORBCOMM	Communications	$12M
				*	Orbcomm Replacement 2	ORBCOMM	Communications	
				*	Orbcomm Replacement 3	ORBCOMM	Communications	
				*	Orbcomm Replacement 4	ORBCOMM	Communications	
				*	Orbcomm Replacement 5	ORBCOMM	Communications	
				*	Orbcomm Replacement 6	ORBCOMM	Communications	
4Q/2007		PSLV	Satish Dhawan Space Center		Oceansat 2	ISRO	Remote Sensing	$20M
4Q/2007	√	Zenit 3SLB	Baikonur	*	Measat 1R	MEASAT	Communications	TBA
2007	√	Ariane 5 ECA	Kourou		Skynet 5B	Paradigm Secure Communications	Communications	$100M
2007	√	Ariane 5 ECA	Kourou	*	Star One C2	Star One	Communications	$70M
2007		Kosmos 3M	Plesetsk		Kosmos TBA 1	Roscosmos	Navigation	$12M
2007		Long March 3B	Xichang	*	APStar 6B	APT Satellite	Communications	$60M
				*	Chinasat 9	Chinese Telecommunications Broadcasting Satellite Corporation	Communications	
2007		Long March 4B	Taiyuan		CBERS/Ziyuan 2B	Chinese Academy of Space Technology	Remote Sensing	$50M
					Fengyun 3A	China Meteorological Administration	Meteorological	
2007	√	Russia - TBA	Baikonur	*	Orbcomm CDS 3	ORBCOMM	Development	TBA
2007		Shahab 3	TBD		Safir	Iran - TBA	Test	TBA

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