

**Office of the Associate Administrator for
Commercial Space Transportation**

**Financial Responsibility Requirements
as Determined by the Maximum Probable Loss
(MPL) Process**

As of

December 10, 2010

ACTIVE LICENSES
Orbital Launches--Launch Operator

Vehicle Company	Year	Launch Site	U.S. Government Property (\$M)	Third Party (\$M)
Atlas V 401	2007	CCAFS	Pre-flight: \$7	Pre-flight: \$6
Lockheed Martin			Flight: \$21	Flight: \$45
Atlas V 411	2006	CCAFS	Pre-flight: \$7	Pre-flight: \$3
Lockheed Martin			Flight: \$100	Flight: 112.5
Atlas V 421	2006	CCAFS	Pre-flight: \$7	Pre-flight: \$3
Lockheed Martin			Flight: \$100	Flight: \$193.5
Atlas V 431	2006	CCAFS	Pre-flight: \$7	Pre-flight: \$3
Lockheed Martin			Flight: \$100	Flight: \$261
Atlas V 521	2006	CCAFS	Pre-flight: \$7	Pre-flight: \$3
Lockheed Martin			Flight: \$100	Flight: \$193.5
Delta II	2006	CCAFS	Pre-flight: \$51	Pre-flight: \$24
Boeing Launch Services			Flight: \$85	Flight: \$76.5
Delta IV M or M+	2006	CCAFS	Pre-flight: \$21.5	Pre-flight: \$3
Boeing Launch Services			Flight: \$43	Flight: \$261
Delta II	2005	VAFB	Pre-flight: \$68.6	Pre-flight: \$10
Boeing Launch Services			Flight: \$79.6	Flight: \$48.8
Pegasus	1998	VAFB	Pre-flight: \$27	Pre-flight: \$10
Orbital Sciences			Flight: \$1	Flight: \$37
Pegasus	1997	CCAFS	Pre-flight: \$1	Pre-flight: \$10
Orbital Sciences			Flight: \$1	Flight: \$37.5
Pegasus	1997	WFF	Pre-flight: \$1	Pre-flight: \$10
Orbital Sciences			Flight: \$1	Flight: \$43.5
Taurus	1996	VAFB	Pre-flight: \$27.2	Pre-flight: \$10
Orbital Sciences			Flight: \$2.3	Flight: \$40
Pegasus	2008	KMR	Pre-flight: Not Applicable	Pre-flight: Not applicable
Orbital Sciences			Flight: \$1	Flight: \$57
Zenit – 3SL	2000	Pacific	Pre-flight: Not Applicable	Pre-flight: Not Applicable
Sea Launch		Ocean	Flight: \$Zero	Flight: \$10

INACTIVE OR EXPIRED LICENSES

Orbital Launches--Launch Operator

Vehicle Company	Year	Launch Site	U.S. Government Property (\$M)	Third Party (\$M)
Atlas I	1989	CCAFS	Pre-flight: \$60	Pre-flight: \$30
Lockheed Martin			Flight: \$75	Flight: \$164
Atlas II/IIA	2000	CCAFS	Pre-flight: \$44	Pre-flight: \$45
Lockheed Martin			Flight: \$53	Flight: \$113
Atlas IIAS	2000	CCAFS	Pre-flight: \$55	Pre-flight: \$45
Lockheed Martin			Flight: \$78	Flight: \$135
Atlas IIIA & IIIB	2000	CCAFS	Pre-flight: \$44	Pre-flight: \$30
Lockheed Martin			Flight: \$53	Flight: \$149
Delta III			Pre-flight: \$29	Pre-flight: \$24
McDonnell Douglas	2000	CCAFS	Flight: \$56	Flight: \$126
Athena-1	1998	VAFB	Pre-flight: \$10	Pre-flight: \$10
Lockheed Martin			Flight: \$27	Flight: \$40
Athena-2	1998	VAFB	Pre-flight: \$20	Pre-flight: \$10
Lockheed Martin			Flight: \$10	Flight: \$109

INACTIVE OR EXPIRED LICENSES

Orbital Launches--Launch Specific

Vehicle Company	Year	Launch Site	U.S. Government Property (\$M)	Third Party (\$M)
Conestoga EER Systems	1994	WFF	\$73.5	\$13
Conestoga EER Systems	1995	WFF	\$88	\$13
Delta 7920-10 McDonnell Douglas	1993	VAFB	\$48.8	\$41
Athena-1 Lockheed Martin	1996	VAFB	\$27	\$117
Athena-1 Lockheed Martin	1997	SFA	\$32	\$21
Athena-2 Lockheed Martin	1997	SFA	\$81.2	\$36
Pegasus Orbital Sciences	1992	CCAFS	\$15	\$15
Pegasus XL Orbital Sciences	1997	Spain	\$Zero	\$48
Scout LTV	1990	WFF	\$21.6	\$10
Scout LTV	1990	VAFB	\$1.6	\$10
Titan Lockheed Martin	1989	CCAFS	\$80	\$215
Falcon 1 Space Exploration Technologies	2005	Pacific	Pre-flight: \$1	Pre-flight: \$6
		RTS	Flight: \$ 1	Flight: \$9
Falcon 9 Space Exploration Technologies	2010	CCAFS	Pre-flight: \$13	Pre-flight: 12
			Flight: \$100	Flight: \$36

INACTIVE or EXPIRED LICENSES

Sub-Orbital Launches--Launch Specific

Vehicle Company	Year	Launch Site	U.S. Government Property (\$M)	Third Party (\$M)
Black Brant IX Conatec	1988	WSMR	\$1	\$10
Prospector Orbital Sciences	1990	CCAFS	\$1	\$12.5
SMLV AMROC	1989	VAFB	\$1	\$12
Starfire SSI	1989	WSMR	\$1	\$10
Starfire EER Systems	1992	WSMR	\$2.5	\$10
Starfire Black Brant Class EER Systems	1994	WSMR	\$3	\$10
Talos Castor I Orbital Sciences	1991	KTF	\$0.3	\$10
SASSY Flea Society for Amateur Scientists	2000	VAFB	\$Zero	\$3
SpaceShipOne	2004	Mojave	Pre-flight: \$Zero	Pre-flight: \$Zero
Scaled Composites			Flight: \$Zero	Flight: \$3.1
Tachyon Interorbital Systems	2000	Western Range	\$Zero	\$0.250
Terrier Orion	2001	WTR	Pre-flight: \$Zero	Pre-flight: \$Zero
Astrotech			Flight: \$0.140	Flight: \$4.5

INACTIVE OR EXPIRED LICENSE

Sub-Orbital Launches--Launch Operator

Vehicle Company	Year	Launch Site	U.S. Government Property (\$M)	Third Party (\$M)
Aries	1991	WSMR	Pre-flight: \$1	Pre-flight: \$10
Orbital Sciences			Flight: \$1	Flight: \$10

INACTIVE OR EXPIRED LICENSE

Reentry-Reentry Specific

Vehicle Company	Year	Reentry Location	U.S. Government Property (\$M)	Third Party (\$M)
Dragon Space Exploration Technologies	2010	Pacific Ocean	\$Zero	\$33

NOTES

For all tables, the date shown in the Year column is the date of the MPL study. The dollar values shown for U.S. Government property and Third-party losses are as assigned in the applicable license orders. Those values are periodically and routinely reassessed. During such a reassessment, if the MPL values are confirmed to remain valid, the report's date is not changed. If the values are revised and new license orders issued, the date of the report will also be revised.

Past practice for launch specific licenses was to not discriminate between pre-flight and flight phases for the purposes of establishing financial responsibility requirements based on the MPL. Thus, assigned dollar values for U.S. Government and Third-party losses were the higher of the values determined for each phase – pre-flight and flight. This will no longer be the case for future launch specific licenses in that MPL values will be assigned for both phases of the two loss categories.

ACRONYMS

AMROC	American Rocket Corporation
CCAFS	Cape Canaveral Air Force Station, Florida
KMR	Kwajalein Missile Range, Pacific Ocean
RTS	Formerly, Kwajalein Missile Range, Pacific Ocean
KTF	Kauai Test Facility, Hawaii
LTV	Ling Temco Vought
SFA	Spaceport Florida
SMLV	Single Module Launch Vehicle
SSI	Space Services, Incorporated
VAFB	Vandenberg Air Force Base, California
WFF	Wallops Flight Facility, Virginia
WSMR	White Sands Missile Range, New Mexico
WTR	Woomera Test Range, Australia