

**Visually Observed Natural Re-entries of Earth Satellites**  
**Compiled by Ted Molczan**  
**2018 Mar 12, 00:38 UTC**

Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1958 Apr 14 01: 55	1957-002A	3	Russia	Sputnik 2	P+R	PS-2 payload attached to 8K71A stage	7790	Pennsylvania: Bryn Athyn Moonwatch; New York: Millbrook Moonwatch, Pittsford; Connecticut: New Haven Moonwatch, Merrow; Caribbean: St. Thomas, Antigua, Martinique, St. Lucia, Barbados, Trinidad, Guyana, 17 ships	L.G. Jacchia, "The Descent of Satellite 1957 Beta One", SAO Special Report No. 15; D.G. King-Hele, D.M.C. Walker, "The Last Minutes of Satellite 1957 Beta (Sputnik 2)", Nature, 1958, Vol. 182, Issue 4633: 426; "Barbados, B.W.I.", Project Blue Book Case 5748, 8 Apr 1958 ( <a href="http://www.fold3.com/image/1/6966815">www.fold3.com/image/1/6966815</a> ); "West Indies", Project Blue Book Case 5760, 13 Apr 1958 ( <a href="http://www.fold3.com/image/1/6967597">www.fold3.com/image/1/6967597</a> )
1960 Mar 08 01: 10	1959-011A	25	USA	Discoverer 8	P	Corona C	655	Numerous sightings from air, ground and sea. U.S.A.: Lake Erie, Michigan, Ohio, Pennsylvania, Virginia, N. Carolina, S. Carolina, Georgia, Florida; Bahamas: Berry Islands. Detected by Fort Stewart receiving station of NAVSPASUR fence.	"Eastern United States", Project Blue Book Case 6671, 7 Mar 1960 ( <a href="http://www.fold3.com/image/1/6970969">www.fold3.com/image/1/6970969</a> ); "Agencies in Disagreement On Mystery Lights", APRO Bulletin, Mar 1960: 2; "Strange Series of Fireballs Reported", The UFO Investigator, Vol. 1, No. 9, Mar 1960: 7; "Space Surveillance System Technical Summary Report No. 4", U.S. Naval Research Laboratory, Jun 30, 1960: 20.
1960 Sep 16 00: 30	1960-010A	54	USA	Discoverer 14	P	Corona C	655	Aruba; Curaçao; Venezuela; Caracas, Tachira, Puerto Cabello (air); ships: 12°22' N, 67°59' W; 13°21' N, 67°41' W; 14°35' N, 68°17' W; Puerto Rico: San Juan and vicinity (ground and air); Virgin Islands: St. Thomas	"Ramey AFB, Puerto Rico", Project Blue Book Case 6972, 15 Sep 1960 ( <a href="http://www.fold3.com/image/1/8228136">www.fold3.com/image/1/8228136</a> ); "Puerto Rico: Hundreds of Witnesses", "Virgin Islands-Awesome Spectacle", FSR Jan-Feb 1961, Vol. 7, No. 1: 27, 29; "Bright Object Seen in Sky", The Daily News of the Virgin Islands, 17 Sep 1960: 1.
1962 Feb 20 23: 05	1962-003B	241	USA	Friendship 7 r (Atlas 109D)	R	Atlas D core stage	3400	Brazil: seen from Minas Gerais; debris found near Ibiá, Alto Rio Doce and Bicas. South Africa: seen from Kimberley; debris found near Klawer, Aliwal North and Barkley East.	"Brazil", Project Blue Book Case 7820, 27 Feb 1962 ( <a href="http://www.fold3.com/image/1/8644076/">www.fold3.com/image/1/8644076/</a> ); "Aliwal North, South Africa", Project Blue Book Case 7811, 21 Feb 1962 ( <a href="http://www.fold3.com/image/1/8705254/">www.fold3.com/image/1/8705254/</a> ); D. Pace, T. Shiokari, "Feasibility Study of the Control of the Mercury-Atlas Booster Re-Entry from Orbital Missions", Aerospace Corp. Eng. Div., May 15, 1963 ( <a href="http://www.dtic.mil/dtic/tr/fulltext/u2/405900.pdf">www.dtic.mil/dtic/tr/fulltext/u2/405900.pdf</a> ); "Strange Lights Over Kimberley", FSR May-Jun 1962, Vol. 8, No. 3: 26.

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1962 Jul 07 11: 10	1962-026A	315	USA	Corona 9037	P	Corona M	1150	Antarctica: Hallett Station (72°19'07" S, 170°12'38" E)	"Antarctic Status Report No. 43, for July 1962," United States Antarctic Research Program, NSF 62-36: 2. ( <a href="https://s3.amazonaws.com/Antarctica/ASR/ASR43.pdf">https://s3.amazonaws.com/Antarctica/ASR/ASR43.pdf</a> ); "Seven Men Will Never Scoff Again," Antarctic, New Zealand Antarctic Society, Vol. 3, No. 3, Sep 1962: 120. ( <a href="http://www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.3.1962.pdf">www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.3.1962.pdf</a> ); "At Hallett - Flying Saucer?," Antarctic, New Zealand Antarctic Society, Vol. 3, No. 4, Dec 1962: 142. ( <a href="http://www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.4.1962.pdf">www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.4.1962.pdf</a> ); "Hallett News - Hallett Mystery Deepens," Antarctic, New Zealand Antarctic Society, Vol. 3, No. 5, Mar 1963: 188. ( <a href="http://www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.5.1963.pdf">www.antarctic.org.nz/pdf/Antarctic/Antarctic.V3.5.1963.pdf</a> ); "Hallett Station, Antarctica", Project Blue Book Case 7986, 7 Jul 1962 ( <a href="http://www.fold3.com/image/1/8677677">www.fold3.com/image/1/8677677</a> ); RAAF File A703 580 1-1 Part 3: 26-27, National Archives of Australia; "UFO Color Photo In Antarctica", APRO Bulletin, May 1962: 3 ( <a href="http://www.openminds.tv/pdf/apro/apro_may_1962.pdf">www.openminds.tv/pdf/apro/apro_may_1962.pdf</a> ); "New Zealand: Cape Hallett object", FSR, Sep-Oct 1962, Vol. 8, No. 5: 23.; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1962 Aug 13 03: 36	1962-036B	364	Russia	Vostok 3 r	R	8K72KE	1440	Gulf of Mexico: Coast Guard Cutter Triton at 19°57' N, 90°38.5' W, SS Carl Schmedeman at 23°22' N, 88°17' W; Nicaragua: Managua	"Gulf of Mexico", Project Blue Book Case 8054, 12 Aug 1962 ( <a href="http://www.fold3.com/image/1/8690135">www.fold3.com/image/1/8690135</a> ) "Managua, Nicaragua", Project Blue Book Case 8056, 12-14 Aug 1962 ( <a href="http://www.fold3.com/image/1/8716006">www.fold3.com/image/1/8716006</a> ) "Info Only: Santiago, Chile", Project Blue Book Case 8061, 13 Aug 1962 ( <a href="http://www.fold3.com/image/8722750">www.fold3.com/image/8722750</a> )
1962 Sep 05 09: 50	1960-005A	34	Russia	Sputnik 4	P	PO	1477	Ontario: TCA Vanguard over Kenora; North Dakota: Minot AFB; Minnesota: Duluth AFB, Minneapolis, B52E over 43°20' N, 93°15' W; Michigan: L'Anse, K.I. Sawyer AFB; Wisconsin: Abrams, Eagle River, Eau Claire (B-52), Manitowoc (debris recovered), Maple, Merrill, Milwaukee Moonwatch Team, Necedah, Three Lakes, Tomahawk, Wausa; Iowa: KC-135A over 42°40' N, 96°23' W (near Sioux City); Nebraska: O'Neil (aircraft)	C.A. Lundquist, R.C. Vanderburgh, et al, "Re-Entry and Recovery of Fragments of Satellite 1960 ε1", SAO Special Rpt No. 109, 21 Dec 1962; "Quincy, Washington", Project Blue Book Case 8097, 4 Sep 1962: 6-23 ( <a href="http://www.fold3.com/image/1/8723456">www.fold3.com/image/1/8723456</a> ); "Manitowoc, Wisconsin North Central U.S.", Project Blue Book Case 8098, 5 Sep 1962 ( <a href="http://www.fold3.com/image/1/8723540">www.fold3.com/image/1/8723540</a> ); J. C. Spry, "Death of Sputnik IV: Main Street, U.S.A.", Civil Service Journal, Apr-Jun 1963.
1963 Oct 30 15: 43	1963-040B	676	Russia	Cosmos 20 r	R	8A92E	1440	Latvia: Liepaja, Riga; Belarus: Minsk; Ukraine: Kyiv Oblast, Zhitomir Oblast; Russia: Taganrog, Rostov-on-Don	<a href="http://aeninform.org/ufo-navigator/bolid-30-oktyabrya-1963-goda">http://aeninform.org/ufo-navigator/bolid-30-oktyabrya-1963-goda</a> ; <a href="http://www.jamesoberg.com/10-30-1963_kiev.pdf">www.jamesoberg.com/10-30-1963_kiev.pdf</a>
1963 Dec 02 13: 07	1963-045B	690	Russia	Cosmos 22 r	R	11A57I	2350	Indian Ocean: S.S. Ranee at 11°30' N, 97°10' E	"11.3N 97.10E Indian Ocean", Project Blue Book Case 8638, 2 Dec 1963. ( <a href="http://www.fold3.com/image/1/9737655">www.fold3.com/image/1/9737655</a> )
1964 Mar 27 01: 31	1963-050A	707	Russia	Cosmos 23	P	Omega-1	347	North Dakota: Finley; Minnesota: Baudette, Duluth; Wisconsin: Madison WSRN Team	Spiral Decay And Sensor Calibration Differential Correction Programs, Vol. I Program Development, USAF, 31 Dec 1965: 19.

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1964 May 26 04: 09	1964-022A	796	USA	Corona J-8	P	Corona J	1500	Venezuela: observed from Maracaibo; debris found near La Fria.	U.S. National Reconnaissance Office ( <a href="http://www.theblackvault.com/documents/venezuelacrash.pdf">http://www.theblackvault.com/documents/venezuelacrash.pdf</a> ); "Committee Meeting", NRO memorandum, Aug 13, 1964 ( <a href="http://www.nro.gov/foia/CAL-Records/Cabinet6/DrawerA/6%20A%200065.pdf">http://www.nro.gov/foia/CAL-Records/Cabinet6/DrawerA/6%20A%200065.pdf</a> ); "Satellite Space Vehicle Markings", NRO memorandum, Sep 22, 1964 ( <a href="http://nro.gov/foia/CAL-Records/Cabinet1/DrawerA/1%20A%200065.pdf">http://nro.gov/foia/CAL-Records/Cabinet1/DrawerA/1%20A%200065.pdf</a> ); "Summary of Events, Corona/J Mission 1005 Ballistic Impact in Venezuela", NRO briefing, Oct 2, 1964 ( <a href="http://www.nro.gov/foia/CAL-Records/Cabinet4/DrawerB/4%20B%200024.pdf">http://www.nro.gov/foia/CAL-Records/Cabinet4/DrawerB/4%20B%200024.pdf</a> ).
1964 Aug 01 19: 15	1964-039B	834	Russia	Cosmos 35 r	R	8A92E	1440	Western Australia: Warremboo Creek, Wittenoom, possibly Carnarvon	RAAF Files A703 580 1-1 Part 4: 182-191, National Archives of Australia; E1327 5-4 Air Part 1: 121-122, National Archives of Australia; Spiral Decay And Sensor Calibration Differential Correction Programs, Vol. I Program Development, USAF, 31 Dec 1965: 19.
1964 Oct 20 03: 52	1964-028A	803	Russia	Cosmos 31	P	DS-MT	325	Ontario: Ottawa	Spiral Decay And Sensor Calibration Differential Correction Programs, Vol. I Program Development, USAF, 31 Dec 1965: 23; A. Mantell, "NORAD PROBES 'LIGHTS' Seeks Ottawa Aid In Tracking UFOs", The Ottawa Journal, Oct 21, 1964: 3; Ottawa, "Human Eye Still Dependable In Watching Objects In Night Sky", The Neosho Daily News, Neosho, Missouri, Dec 2, 1964: 10.
1965 Mar 05 09: 40	1965-012	none	Russia	Cosmos 57 debris	D	Voskhod 3KD No. 1 debris	?	Australia: Queensland: Quilpie; New South Wales: Belfield, Sydney	RAAF File A703 580-1-1 Part 4: 137, National Archives of Australia; "Info Only: Sydney, Australia", Project Blue Book Case 9337, 7 Mar 1965 ( <a href="http://www.fold3.com/image/1/9069905/">www.fold3.com/image/1/9069905/</a> ); "Australia: Thousands witness New South Wales sky objects" (citing Sydney Daily Telegraph of March 6, 1965), FSR May-Jun 1965, Vol. 11, No. 3: 29; "Australia: Twin lights over Quilpie" (citing The Brisbane Sunday Mail of March 7, 1965), FSR Jul-Aug 1965, Vol. 11, No. 4: 32.
1965 Mar 17 02: 17	1965-019B	1259	USA	KH 7-16 r	R	Agena D	~750	Maine: pilots; Nova Scotia: Doctor's Cove, Halifax, Woodlawn; New Brunswick: Moncton, St. John	"Halifax, Nova Scotia & Canada, Doctors Cove, Nova Scotia", Project Blue Book Case 9316, 16 Mar 1965 ( <a href="http://www.fold3.com/image/1/9068163/">www.fold3.com/image/1/9068163/</a> ); "Objets mystérieux", ST-JEAN (CP), L'Évangéline, Moncton, N.B., Mar 17, 1965:3.
1965 Apr 04 23: 24	1965-026A	1307	USA	Corona J-19	P	Corona J	1500	Austria: Eisenerz; Germany: Berlin; debris found near Borås, Sweden	Harro Zimmer, private correspondence; M. Zucker, "West Berlin 'Ear' Keeping Track of Red Space Shots, AP-Berlin, in The Tuscaloosa News, 1967 Jan 10: 5; A. Liljegren, C. Svahn, "Metallic Spheres", AFU Newsletter, Issue 46, July 2003: 2; "World round-up: Austria-Formation Flight", FSR Jan-Feb 1966, Vol. 12, No.1: 32 (from Italian journal Moss Secolo XIX of Apr 8, 1965).
1965 Jun 02 20: 44	1964-030A	811	USA	Corona 9065A (Starflash 1A)	P	Argon	1500	Spain: Torrejón AB, Morón AB (result of a re-entry watch organized by USAF Project Burn In)	"Europe (Germany, Spain)", Project Blue Book Case 9418, 2 Jun 1965 ( <a href="http://www.fold3.com/image/1/9074535/">www.fold3.com/image/1/9074535/</a> )

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1965 Jul 06 21: 53	1965-049B	1423	Russia	Cosmos 69 r	R	11A57I	2350	Atlantic Ocean: T.T. Jawesta at 24°40' N, 31°15' W	"Cigar' Passes A Few Hundred Feet Above Norwegian Ship", FSR Sep-Oct 1966, Vol. 12, No.5: 32 (translated from Norwegian newspaper Moss Dagbled of Dec 27, 1965).
1965 Aug 24 16: 33	1965-068B	1517	USA	Gemini-Titan 5 r	R	LR91AJ5	2400	South Africa: Baker-Nunn camera at Olifantsfontein; Pretoria Moonwatch	L.H. Solomon, "Observations of the GT-5 Rocket-Body Reentry - Preliminary Analysis", SAO Special Rpt No. 191.
1965 Oct 29 17: 56	1965-079A	1615	USA	Corona JX-28	P	Corona J	1500	Switzerland: Zurich Moonwatch; Germany: Moonwatch at Berlin, Bochum, Eilenburg and Rodewisch; France: Strasbourg Observatory; Denmark: Copenhagen Moonwatch (Tisvildeleje, Nejlinge), Rungsted; Sweden: Borlänge; Finland: central and eastern	W.P. Hirst, "The Decay of Satellite 1965-79A", SAO Special Rpt No. 214, 1966; "Sweden-Flying Train", FSR, Vol. 12, No. 4, Jul-Aug 1966: iv; (UPI), "Flying Objects Over Finland", The Long Island Press, USA, Nov 1, 1965; C. Svahn, "Contactee Wayne Aho and the Oct. 1965 Swedish "sky train"", AFU Newsletter, Issue 48, Dec 2004: 2.
1965 Dec 06 19: 55	1965-099C	1811	Russia	Luna 8 BOZ	H	Luna 8 BOZ	330?	Spain: Arroyomolinos de León, Montemolín. Debris: Fuente de Cantos (sphere), Montemolín (2 solid rocket casings), Lora del Rio (3 spheres).	V.J. Ballester Olmos, UFO Fotocat Blog ( <a href="http://fotocat.blogspot.ca/2009/04/20090413-en.html">http://fotocat.blogspot.ca/2009/04/20090413-en.html</a> ); V.J. Ballester Olmos, Desclasificacion Ovni: El Ultimo Expediente, June 2015 ( <a href="https://www.academia.edu/12561888/DESCLASIFICACION_OVNI_EL_ULTIMO_EXPEDIENTE">https://www.academia.edu/12561888/DESCLASIFICACION_OVNI_EL_ULTIMO_EXPEDIENTE</a> ); "52 minutos: Informe T67 (05/06/15)," Canal Extremadura, Jun 2015, ( <a href="http://www.canalextramadura.es/alacarta/tv/videos/52-minutos-informe-t67-050615">http://www.canalextramadura.es/alacarta/tv/videos/52-minutos-informe-t67-050615</a> )
1966 Jan 11 12: 00	1965-006B	984	Russia	Cosmos 53 r	R	S1	840	N. Pacific: SS Morgantown Victory at 26°58' N, 154°46' E	"26.58N 154.46E (Pacific)", Project Blue Book Case 10172, 11 Jan 1966 ( <a href="http://www.fold3.com/image/1/8697969">www.fold3.com/image/1/8697969</a> )
1966 Jan 31 22: 10	1966-006C	1966	Russia	Luna 9 r	R	11S510	2410	SS American Commander at 50.8 N, 31.1 W	"50.8N 31.1W (Atlantic)", Project Blue Book Case 10189, 31 Jan 1966 ( <a href="http://www.fold3.com/image/1/8722705/">www.fold3.com/image/1/8722705/</a> )
1966 Apr 30 01: 47	1964-005A	744	USA	Saturn SA-5	P+R	Saturn S-IV + Ballast	17100	Peru: visual observation from Arequipa Baker-Nunn site; Brazil: seen from Porto Alegre, Rio Grande do Sul, debris found in Rio Negro District.	SAO Optical Satellite-Tracking Program, Semiannual Progress Report No. 14: 2; "Info Only: Brazil", Project Blue Book Case 10501, 30 Apr 66 ( <a href="http://www.fold3.com/image/1/7091777/">www.fold3.com/image/1/7091777/</a> ).
1966 Jun 30 07: 48	1966-046	none	USA	Gemini 9 ATDA Atlas Core Stage debris	D	Atlas SLV-3 debris	?	USNS Longview at 23°21' N, 164°59' W; Hawaii: Kauai, Honolulu; Qantas 531 near 22°06' N, 156°22' W	"Waikiki Beach, Hawaii", Project Blue Book Case 10695, 29 Jun 1966 ( <a href="http://www.fold3.com/image/1/8281776/">www.fold3.com/image/1/8281776/</a> ), (good photo of Mrs. Anderson's painting of UFO at <a href="http://www.fold3.com/image/1/6978539/">www.fold3.com/image/1/6978539/</a> ); "Hawaiian Islands 23.21N 164.59W (2BN-164W)", Project Blue Book Case 10696, 29 Jun 1966 ( <a href="http://www.fold3.com/image/1/8281866/">www.fold3.com/image/1/8281866/</a> )
1966 Nov 30 11: 45	1966-107A	2601	Russia	Cosmos 133	P	Soyuz 7K-OK	6450	Japan	Pierre Neirinck, private correspondence.
1966 Dec 29 18: 53	1966-065A	2348	USA	Gemini 10 Agena	P	TDA 1A	~1500	Australia: MV Lake Boga at 14°08' S, 144°29' E (Coral Sea off Pison Island)	RAAF File A703 580 1-1 Part 7: 311-315, 321, 331-33, National Archives of Australia.
1966 Dec 30 08: 06	1966-080A	2414	USA	Gemini 11 Agena	P	TDA 6	1829	South Pacific: CP Air FL421 near 6° S, 81°42' W	Scientific Study Of Unidentified Flying Objects, The University of Colorado, 1968: 280-282; "Info Only: St. Boniface, Manitoba", Project Blue Book Case 11245, 21 Mar 1967.

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1967 Jan 26 03: 13	1967-005B	2658	Russia	Cosmos 139 r	R	8S692	3700	Quebec: Sherbrooke (airliner); New Jersey: Manahawkin; New York: Au Sable Forks, Jay, Plattsburgh; Pennsylvania: Morrisville, Yardley (aircraft)	"Over Yardley, Pa./Plattbury (sic) AFB, New York", Project Blue Book Case 11297, 24 Jan 1967 ( <a href="http://www.fold3.com/image/1/8541780">www.fold3.com/image/1/8541780</a> ); "Morrisville, Penn.", Project Blue Book Case 11303, 25 Jan 1967 ( <a href="http://www.fold3.com/image/1/8542688">http://www.fold3.com/image/1/8542688</a> ); "Manahawkin, New Jersey", Project Blue Book Case 11305, 26 Jan 67 ( <a href="http://www.fold3.com/image/1/8543223">http://www.fold3.com/image/1/8543223</a> ).
1967 Feb 07 16: 32	1966-096B	2515	USA	Intelsat II F-1 r	R	DSV-3E-3	785	Mexico: General Terán, NL: daylight sighting of smoke trail; sonic booms heard. Debris: helium pressurant sphere found near General Terán.	U.S. State Department telegrams reproduced in: "Official Government UFO Intelligence Papers Document Package 4," Quest Publications International: 45-61 (From Archives For the Unexplained: <a href="http://www.afu.se/Downloads/Books_and_documents/Digitized_by_AFU/Quest_Publications/Quest_Publications_028-Intelligence_document_package-Number_4.pdf">http://www.afu.se/Downloads/Books_and_documents/Digitized_by_AFU/Quest_Publications/Quest_Publications_028-Intelligence_document_package-Number_4.pdf</a> ).
1967 Feb 16 04: 16	1967-012B	2672	Russia	Cosmos 141 r	R	11A57I	2350	Alaska; California: Van Nuys, San Diego; Pacific: ships and planes	"Los Angeles, California", Project Blue Book Case 11380, 15 Feb 1967 ( <a href="http://www.fold3.com/image/1/9665997">www.fold3.com/image/1/9665997</a> ); (AP), "Fire in Sky From Soviet Space Junk", St. Joseph News-Press, Feb 16, 1967: 1A.
1967 Apr 05 11: 30	1967-024H	2729	Russia	Cosmos 149 r debris	D	S1M debris	?	Australia: M.S. Seaway King at 41°32' S, 148°44' E, off E. coast of Tasmania	RAAF File A703 580 1-1 Part 7: 138-139, National Archives of Australia.
1967 Apr 16 11: 08	1967-033B	2751	Russia	Cosmos 155 r	R	11A57I	2350	Korea: Youngson, Kunsan, Osan, Seoul, Cheju-Do	"Info Only: Korea", Project Blue Book Case 11683, 16 Apr 1967 ( <a href="http://www.fold3.com/image/1/7458355">http://www.fold3.com/image/1/7458355</a> )
1967 Jun 25 02: 05	1967-063A	2852	Russia	Cosmos 167	P	4V-1	6560?	Argentina: provinces of Córdoba, Buenos Aires, Tucumán, Santiago del Estero, Santa Fe, Entre Rios, Chaco, Corrientes, Misiones; Paraguay: Asuncion	"El paso de un objeto volador no identificado observan en la zona", El Litoral, Santa Fe, Argentina, Jun 25, 1967; "'Flap' Begins In Earnest - Fleets Over South America", APRO Jul-Aug 1967: 1; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1967 Jul 18 00: 14	1967-069C	2880	Russia	Cosmos 169 r	R	8S692	3700	England: Deal; France: ferry off Dieppe, Paris; Netherlands: Holland (tanker off coast); Belgium; Luxembourg; Germany: three USAF bases; Switzerland; Italy: northern Alpines, Bologna	"Info Only: Thousands See UFOs Flashing Over Europe - Journal Herald; Memo for the Record", Project Blue Book Case 11893, 19 Jul 1967 ( <a href="http://www.fold3.com/image/1/7572512">www.fold3.com/image/1/7572512</a> ) "The 'Fleets' Over Europe", APRO Jul-Aug 1967: 4; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1967 Jul 20 01: 21	1967-062A	2850	USA	Corona J-37	P	Corona J	1500	Four commercial airliners, probably over North Atlantic.	"Corona Associated Space Debris", Memo, National Reconnaissance Office, 1967 ( <a href="http://www.nro.gov/foia/CAL-Records/Cabinet1/DrawerD/1 D 0027.pdf">http://www.nro.gov/foia/CAL-Records/Cabinet1/DrawerD/1 D 0027.pdf</a> )
1967 Aug 07 02: 10	1966-075B	2399	USA	Pioneer 7 r1	R	DSV-3E-3	785	Mexico: Guanajuato, San Luis Potosi, Mexico City, Poza Rica, Tampico, Veracruz	W. Blaney, "UFO Sighting in Mexico", MUFON UFO Journal Jan 1981: pg.3; 'Siguen Viendo a los "OVNIS"', El Siglo de Torreon, Aug 08, 1967.
1967 Sep 22 19: 10	1967-091C	2964	Russia	Cosmos 179 r	R	8S692	3700	Australia: Victoria: Donald, Watchem, Maffra; New South Wales: Adaminaby	RAAF File A703 580 1-1 Part 8: 102-103, 109-114, 144-148, National Archives of Australia.
1967 Oct 25 02: 46	1967-061A	2848	Russia	Cosmos 166	P	DS-U3-S	360	Texas: Brownsville, Edinburg; Louisiana: Lake Charles	"Observers Notebook: Reentry of Cosmos 166", Sky and Telescope, Feb 1968: 128; AP, "Russian Spacecraft Burns in Texas Sky", The Milwaukee Journal, Oct 25, 1967.

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1967 Oct 28 18: 00	1967-106C	3018	Russia	Cosmos 187 r	R	8S692	3700	India: Belda	"India: Huge Object Over Midnapore", FSR Vol. 14, No. 2, Mar-Apr 1968: 34.
1967 Nov 09 12: 55	1967-110B	3027	Russia	Cosmos 190 r	R	11A57I	2350	Thailand: USAF aircraft, 150 guests of outdoor movie theatre at Udorn RTAFB, Lampang	"Info Only: UFO Investigation Report (Your ltr, 18 Nov 67)", Project Blue Book Case 12124, 9 Nov 1967, (www.fold3.com/image/1/6975750)
1968 Jan 08 03: 46	1967-126B	3080	Russia	Cosmos 197 r	R	S1M	840	Spain: Cádiz, Baker-Nunn camera at San Fernando.	ABC Sevilla (Sevilla), Apr 7, 1974: 21; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1968 Jan 19 17: 29	1967-083B	2936	USA	Biosatellite 2 r	R	DSV-3E-3	785	South Australia: Banksia Park (Adelaide); New South Wales: Wagga Wagga, Ashfield (Sydney). Debris found near Mudgee.	RAAF File A703 580 1-1 Part 9: 152, 170, National Archives of Australia.
1968 Mar 04 02: 48	1968-013C	3136	Russia	Zond 4 SOZ	H	SOZ	~100	Alabama: Florence; Tennessee: Hendersonville, Nashville, Oliver Springs; Kentucky: Elizabethtown, Lexington, London, Owensboro; Indiana: Gary, Shoals; Ohio: numerous ground and air; West Virginia: Bethany, Morgantown; Virginia: Lynchburg, Wytheville; Maryland: aircraft; Pennsylvania: numerous ground and air	"Northeastern U.S.", Project Blue Book Case 12253A, 3 Mar 1968 (www.fold3.com/image/1/6958071); "Observers Notebook: Slow-moving fireballs", Sky and Telescope, May 1968: 331.
1968 Mar 24 04: 27	1962-067F	520	USA	Poppy 1 r	R	Agena D	~750	Atlantic: SS Brunsberg at 20°40' N, 55°15' W	"Atlantic (20.40N - 55.15W)", Project Blue Book Case 12287, 23 Mar 1968. (www.fold3.com/image/1/6966078)
1968 Apr 19 01: 05	1968-030B	3194	Russia	Cosmos 213 r	R	11S510	2410	Atlantic: SS Louisiana Sulphur at 24°14' N, 83°32' W	"24.14N - 83.32W (Atlantic)", Project Blue Book Case 12324, 19 Apr 1968. (www.fold3.com/image/1/6971110)
1968 May 11 06: 48	1968-035B	3211	Russia	Molniya 1-8 r	R	11S510	2410	Florida: Everglades City, Naples, Immokalee, Cocoa, Patrick AFB	"Returning Russian Rocket Stages Show Over Cape", UPI, 11 May 1968; "UFO Reports On Fiery End of Russian Rocket", AP, 11 May 1968.
1968 Jul 16 07: 19	1968-052A	3296	USA	Corona J-47	P	Corona J	1500	Alberta: Hualien; NWT: Fort Resolute, Fort Smith, Yellowknife	NRC Non-Meteoritic Sighting N68/058, N68/059, N68/064, N68/102, Library and Archives Canada.
1968 Nov 20 17: 57	1968-102B	3543	Russia	Cosmos 253 r	R	11A57I	2350	England: Midlands, London, Dover; France: northeast; Belgium: aircraft	G. Falworth, "Rocket Re-entry on 1968 Nov 20 : identified", The Astronomer, Vol. 5, Jan 1969: 128; Study Of The Decay And Recovery Of Orbiting Artificial Space Objects - Semiannual Progress Report No. 10, May 1969: B-4; D.G. King-Hele, D.M.C. Walker, P.E.L. Neirinck, "The Decay of Cosmos 253 Rocket", Nature, 1969, Vol. 221, Issue 5176: 130; H. Miles, "Re-entry of Cosmos 253 rocket over the British Isles on 1968 November 20", J. British Astronomical Assoc., Vol. 79, 1969: 156-160; R. Futaully, "La Chute de la Fusée de Cosmos 253 (1968-102B)", L'Astronomie, Vol. 83, Sep 1969: 366; C. Bowen, "Sky Spectacular", FSR, Vol. 15, No. 1, Jan/Feb 1969: 31; RAE Table of Earth Satellites.
1968 Dec 27 14: 54	1968-109B	3596	USA	HEOS 1 r	R	DSV-3E-3	785	SAO Station atop Mt. Haleakala on the Island of Maui, Hawaii.	Study Of The Decay And Recovery Of Orbiting Artificial Space Objects - Semiannual Progress Report No. 10, May 1969: B-2.
1968 Dec 28 14: 09	1968-112A	3604	USA	Corona J-50	P	Corona J	1500	Australia: Tasmania: Bellerive, Hobart; Victoria: Warrnambool, Mount Eliza, Parkdale, Beaumaris, Black Rock, Melbourne, Blackburn, Glenthompson, St. Albans, Seymour	RAAF File A703 580 1-1 Part 10: 3-28, 142, National Archives of Australia; "Fiery sky trails awe Victorians", The Age, Dec 30, 1968: 3; "Airliner on fire, he thought", The Age, Dec 30, 1968: 3.

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**2018 Mar 12, 00:38 UTC**

Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1969 Jan 07 11: 08	1968-117B	3625	Russia	Cosmos 261 r	R	S1M	840	Japan: Chiba, Yamanashi, Saitama, Kanagawa, Niigata	Pierre Neirinck, private correspondence; "20 Fireballs in Night Sky Reported Seen Near Tokyo", Skylook, No. 16, Mar 1969: 9 (reprint from Asahi Evening News, Tokyo, Jan. 8, 1969).
1969 May 05 02: 58	1969-035D	3888	Russia	Molniya 1-11 BOZ	H	Blok-L BOZ	330	Colombia: Cartagena	"UFOs Reported Over Caribbean", APRO Bulletin May-Jun 1969: 6.
1969 Aug 27 03: 54	1969-072B	4075	Russia	Cosmos 294 r	R	11A57I	2350	Ground and air from California, Nevada, Arizona.	"California", Project Blue Book Case 12716, 26 Aug 1969 (www.fold3.com/image/1/7442588); "Report Light in Sky Was Soviet Rocket", Skylook, No. 23, Sep 1969: 22 (from St. Louis Post-Dispatch); F. Moore, W. Moore, "With a Grain Of Salt", Daily Redlands Facts, Sep 3, 1969: 20.
1970 Oct 24 08: 00	1970-088B	4592	Russia	Zond 8 SOZ	H	SOZ	~100	British Columbia: Vancouver, Lillooet	NRC Non-Meteoritic Sighting N70/074, Library and Archives Canada.
1970 Dec 09 16: 35	1970-104B	4788	Russia	Cosmos 383 r	R	11A57I	2350	Western Australia: City Beach	RAAF File A703 580 1-1 Part 14: 141-145, National Archives of Australia.
1971 Sep 07 04: 22	1971-073C	5450	Russia	Luna-18 KT SOZ	H	SOZ	~100	Montana: Wyola; Wyoming: Big Horn, Sheridan	"UFOs in Formation Over Wyoming", Skylook, No. 50, Jan 1972: 6.
1971 Oct 03 09: 14	1971-081B	5487	Russia	Cosmos 441 r	R	11A57I	2350	Japan: Aomori; Hokkaido: Ebetsu, Sapporo; Nagano: Honshu	V.J. Ballester Olmos, "Airliners and UFOs over Japan", UFO Fotocat Blog, Jul 14, 2007 (http://fotocat.blogspot.com.es/2007_07_14_archive.html); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1972 Jan 01 03: 21	1971-090B	5564	Russia	Cosmos 453 r	R	S1M	840	Norway: Askoy, Bergen, Eidsvoll, Kristiansand, Lillehammer, Moss, Oslo; Sweden: Eskilstuna, Gavle, Lembackern, Osthrammar, Stockholm, Sveg	"Scandinavian Reports", APRO Bulletin, Jan-Feb 1972: 1; "New Year UFO Formation", FSR, Vol. 18, No. 1: 31; Norway Fotocat (http://www.ufo.no/files/norway.xls); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1972 Feb 09 01: 50	1971-117B	5737	Russia	Cosmos 469 DU	H	US-A DU	?	Argentina: Airliner crew over San Nicolas and Ramallo, ground-based: Mar del Plato, Bahia Blanca	"Argentinian UFOs", APRO Bulletin, Jan-Feb 1972: 7.
1972 Apr 02 12: 58	1972-023C	5921	Russia	Cosmos 482 BOZ	H	Venera BOZ	330?	New Zealand: South Island. Debris found near Ashburton and Eifelton.	RNZAF File AIR 244 / 10 / 1 Volume 1: 79-85.
1972 Jul 27 01: 25	1972-056B	6115	Russia	Cosmos 503 r	R	11A57I	2350	Brazil: Campos, Vitoria	"Soccer Crowd Observes UFO Formation", APRO Bulletin, Vol. 21, No. 1, Jul-Aug 1972: 8; "Campos Soccer Case", APRO Bulletin, Vol. 21, No. 2, Sep-Oct 1972: 4.
1972 Sep 22 11: 00	1972-070B	6187	Russia	Cosmos 518 r	R	11A57I	2350	Japan: Okinawa: Naha	ID by P. Neirinck, private correspondence; "Object Near Okinawa", APRO Bulletin, Vol. 21, No. 2, Sep-Oct 1972: 5; B. Sparks, "Primary Analysis of 22 September 1973 Western Pacific AP", APRO Bulletin, Vol. 21, No. 4, Jan-Feb 1973: 11; "UFO Sighted off Okinawa", Skylook, Nov 1972: 6; "JAPAN: Pacific UFO off Okinawa", FSR, Vol. 18, No. 6, Nov-Dec 1972 p.31; "Okinawa UFO Photographed", FSR, Vol. 18, No. 6, Nov-Dec 1972 p.32; "UFO Photographed over Okinawa", FSR Case Histories Suppl., No. 12, Dec 1972: 6; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1973 Apr 09 11: 58	1973-017	none	Russia	Salyut 2 r debris	D	8S812 debris	?	Australia: Victoria: Bagshot, Clayton, Kyneton, Rochester; Tasmania: Frankford	RAAF Files A703 580 1-1 Part 22: 130-161, National Archives of Australia.
1973 Apr 09 19: 57	1973-017D	6401	Russia	Salyut 2 r debris	D	8S812 debris	?	South Australia: aircraft over outer harbour of N. Adelaide (34°45' S, 138°30' E); Queensland: Moombidary Station (near 28.8 S, 144.6 E).	RAAF Files A703 580 1-1 Part 21: 35-43, National Archives of Australia; "A UFO Chased Us for 8 Miles", Courier-Mail, Brisbane, Apr 12, 1973 (portion relevant to Queensland sighting is final paragraph, 1st sentence)
1973 Apr 28 16: 02	1973-024B	6441	Russia	Cosmos 555 r	R	11A57I	2350	Western Australia: Derby to Kalgoorlie	RAAF Files A703 580 1-1 Part 25: 4-64; A703 554 1-10 Part 3: 29-34, National Archives of Australia.
1973 Aug 22 03: 55	1973-045B	6723	Russia	Molniya 2-6 r	R	11S510	2410	Kansas; Nebraska; Iowa; Missouri; Oklahoma	"Light in Sky was Russian Rocket", St. Joseph Gazette, Aug 23, 1973: 7A; "Soviet Satellite Disintegrates over Kansas", Skylook, No. 71, Oct 1973: 14.
1973 Sep 06 04: 19	1973-062B	6810	Russia	Cosmos 583 r	R	11A57I	2350	Colorado, New Mexico, Texas	"Fireball Identified as Rocket", NY Times, Sep 7, 1973.
1973 Sep 28 00: 50	1973-066B	6833	Russia	Cosmos 587 r	R	11S510	2410	Manitoba: Hodgson; Ontario: Lac Seul	NRC Non-Meteoritic Sighting N73/091, N73/107, Library and Archives Canada.
1973 Oct 31 11: 01	1973-077D	6906	Russia	Cosmos 602 KDU	H	KDU	375	Australia: Victoria: Olinda (widely seen throughout Victoria)	RAAF File A703 580-1-1 Part 32 646591: 87-94, National Archives of Australia.
1974 Jan 26 02: 55	1973-089D	6935	Russia	Molniya 1-25 BOZ	H	Blok-L BOZ	330	Portugal: Several airliners over Sagres and Lisbon	D. F. Weinstein, "Unidentified Aerial Phenomena Eighty Years Of Pilot Sightings", 6th ed., Feb 2001; Portucat.
1974 Jul 09 21: 40	1974-049B	7355	Russia	Cosmos 664 r	R	11S510	2410	South Africa: Port Elizabeth	C. Hind, "Comment", UFO Afrinews, No. 1, Jul 1988: 2.
1974 Aug 01 03: 30	1974-060B	7393	Russia	Molniya 1S r	R	8S812	3500	Venezuela: Coro, Valencia, Maracay, Maiquetia, Caracas	E. Suarez, "Misteriosos Objetos en Cielo de Caracas", 2001, "El Vespertino Nacional", Caracas, Aug 1, 1974: 1; J. L. Olivares, "Flying saucers over Caracas last night", Daily Últimas Noticias, Caracas, Aug 1, 1974: 57; "Strange luminous objects seen last night in Caracas", Daily El Nacional, Caracas, Aug 1, 1974: Section Information, body D, p.9; D. Biedny, "Caracas UFO Sighting - July 31, 1974 Article", UFO Updates mailing list, Jun 6, 2013 ( <a href="http://www.ufoupdateslist.com/2013/jun/m07-001.shtml">www.ufoupdateslist.com/2013/jun/m07-001.shtml</a> ); D. Biedny, B. Biedny, "The Paracast", Mar 28, 2006, ( <a href="http://www.theparacast.com/podcasts/paracast_060328.mp3">www.theparacast.com/podcasts/paracast_060328.mp3</a> ); D. Biedny, "Dark Matters Radio", Dec 5, 2012, ( <a href="http://www.dqrm.com/shows/DMR/2012/wk40/dmr-49-w.mp3">www.dqrm.com/shows/DMR/2012/wk40/dmr-49-w.mp3</a> ); T. Molczan, "Re-entry Sightings of 1974-060B", Feb 13, 2014, ( <a href="http://satobs.org/reentry/1974-060B/1974-060B.html">satobs.org/reentry/1974-060B/1974-060B.html</a> ).
1974 Oct 15 10: 45	1966-110B	2609	USA	ATS 1 r	R	Agena D	~750	Western Australia: Cockatoo Island, Derby, Fitzroy Crossing; Northern Territory: Katherine	RAAF File E1327 5-4 Air Part 6-7: 38, National Archives of Australia; Western Australia Police Department file 64-2885: 8-13, National Archives of Australia.



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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1975 Jan 11 07: 49	1973-027B	6634	USA	Skylab 1 r	R	Saturn V S-II	37830	Canary Islands: Las Palmas: Gran Canaria, Fuerteventura and Lanzarote	R. Rekin, " Re: Chronological List of artificial atmospheric reentry observed on 7/6/13 6:22 p.m.", <a href="http://ufo-scepticisme.forumactif.com/t3911-liste-chronologique-des-rentrees-atmospheriques-artificielles-observees">http://ufo-scepticisme.forumactif.com/t3911-liste-chronologique-des-rentrees-atmospheriques-artificielles-observees</a> ; R. C. Pérez, "La reentrada de chatarra espacial inteligente sobre Canarias", Mar 3, 2011, <a href="http://mihteriodelasiensia.blogspot.fr/2011/03/el-pasado-27-de-febrero-lector-fajardo.html">http://mihteriodelasiensia.blogspot.fr/2011/03/el-pasado-27-de-febrero-lector-fajardo.html</a> ; (UPI), "Saturn Rocket Burns in Earth Fall", The Pittsburgh Press, Jan 12, 1975: A-11.
1975 Jan 15 08: 58	1974-106F	7602	Russia	Cosmos 701 KDU	H	KDU	375	Japan: airliners over Pacific coast: Tohoku, Kantō region	Pierre Neirinck, private correspondence; D. F. Weinstein, "Unidentified Aerial Phenomena Eighty Years Of Pilot Sightings", 6th ed., Feb 2001.
1975 Jun 20 10: 32	1975-029B	7739	Russia	Molniya 3-12 r	R	11S510	2410	Argentina: Catamarca, Córdoba, Santa Fe, Buenos Aires, Ringuelet (suburb of La Plata)	G. Roncoroni, A Proposito De Los Avistajes Masivos, UFO PRESS, n°21 (julio-septiembre/1984): 17-22 ( <a href="http://mitosdelmilenio.com.ar/mytovn0.htm#congresorosario">http://mitosdelmilenio.com.ar/mytovn0.htm#congresorosario</a> ); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1976 Feb 11 15: 49	1976-009B	8617	Russia	Cosmos 799 r	R	11A57I	2350	Estonia: Iisaku, Jõgeva, Rapla, Tallinn, Tartu; Russia: Kuzmolovo, Leningrad, Novgorod, Pskov	V. Gusca, "Балтийский болид (11.02.76)", November 25, 2013. ( <a href="http://necnonlab.org/index.php/k2-items/katalog-materialov/info/meteoritika/44-baltic-bolide.html">http://necnonlab.org/index.php/k2-items/katalog-materialov/info/meteoritika/44-baltic-bolide.html</a> ); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1976 Sep 07 05: 07	1976-090B	9406	Russia	Cosmos 854 r	R	11S510	2410	Washington, Idaho, Montana, Utah	"UPI: Meteor streaks across state", "Meteor reports received", Ellensburg Daily Record, Sep 7, 1976; Audio recording of reports to NUFORC, <a href="https://archive.org/download/NationalUfoReportingCenterRecordings/Nuforc1976.zip">https://archive.org/download/NationalUfoReportingCenterRecordings/Nuforc1976.zip</a> (file 110.mp3)
1976 Sep 19 01: 29	1976-074C	9051	Russia	Molniya 1-35 BOZ	H	Blok-L BOZ	330	Canary Islands: Santa Cruz de Tenerife; MV near 30°58' N, 12°02' W; Morocco: Agadir, Essaouira, Kalaa-Sraghna, Casablanca, Rabat, Kenitra, Meknes, Fez Region; Portugal: Lisbon (ground and air), southern provinces of Estremadura, Baixo Alentejo and Algarve; Spain: Huelva province, Seville area, Hinojosa del Duque (air)	M. Borraz, "Notas sobre las observaciones del 19/9/76", Mar 1989, updated Dec 1989; "Insólito", UFO bulletin of CEAFI (Oporto), No. 20, Jan 1977; UFO sighting reports from vicinity of Lisboa airport by TAP 241 crew and air traffic controller, solicited by NOBOVO, from the files of Douwe J. Bosga; Correspondence: U.S. embassy in Morocco and U.S. State Department, <a href="http://aad.archives.gov/aad/createpdf?rid=234239&amp;dt=2082">http://aad.archives.gov/aad/createpdf?rid=234239&amp;dt=2082</a> <a href="http://aad.archives.gov/aad/createpdf?rid=250871&amp;dt=2082">http://aad.archives.gov/aad/createpdf?rid=250871&amp;dt=2082</a> ; T. Molczan, "Moroccan UFO of Sep 1976 Correlates With Satellite Re-entry", SeeSat-L mailing list, Oct 5, 2012. <a href="http://satobs.org/seesat/Oct-2012/0047.html">http://satobs.org/seesat/Oct-2012/0047.html</a> , H. Zimmer follow-up with trajectory estimate: <a href="http://satobs.org/seesat/Oct-2012/0167.html">http://satobs.org/seesat/Oct-2012/0167.html</a>
1976 Dec 29 04: 23	1976-103B	9531	Russia	Kosmos-860 DU	H	US-A DU	?	Quebec: Sept-Iles, New Carlisle	NRC Non-Meteoritic Sighting N76/119, Library and Archives Canada.
1977 Jan 02 05: 31	1976-117A	9587	China	FSW-0 2	P	FSW	?	Quebec: Gagnon, Sept-Iles, Port Menier	NRC Non-Meteoritic Sighting N77/001, Library and Archives Canada.
1977 Mar 15 04: 00	1977-017B	9861	Russia	Cosmos 897 r	R	11S510	2410	Wyoming: Casper; Colorado: Colorado Springs	COLORADO SPRINGS, Colo. (AP), "Offbeat: Rocket debris", Big Spring Herald, Big Spring, TX, March 15, 1977, pg.1

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1977 Jul 29 12: 00	1977-066B	10147	Russia	Cosmos 929 r	R	8S812	3500	Mexico: Mexico City, Puebla. Debris found near Jopala.	ARP La Alternativa Racional. Boletín No. 23., <a href="http://www.escepticos.es/webanterior/publicaciones/lar23.html">www.escepticos.es/webanterior/publicaciones/lar23.html</a> H. Escobar, "Casos fotográficos ovni en México", <a href="http://marcianitosverdes.haaan.com/2011/06/casos-fotograficos-ovni-en-mxico-2/">http://marcianitosverdes.haaan.com/2011/06/casos-fotograficos-ovni-en-mxico-2/</a> ; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1977 Oct 16 16: 51	1974-103A	7587	Russia	Cosmos 699	P	US-P	3000	Japan	Pierre Neirinck, private correspondence.
1978 Jan 24 11: 55	1977-090A	10361	Russia	Cosmos 954	P	US-A	~4000	Canada: Northwest Territories: Hay River, Yellowknife; debris found, some of it radioactive	"Satellite looked 'like a jet on fire'; witness", Yellowknife, January 26, 1978: 8; <a href="http://www.pwnhc.ca/timeline/index_macFix.asp?forward=http%3A/www.pwnhc.ca/timeline/1975/1978_Cosmos.htm">http://www.pwnhc.ca/timeline/index_macFix.asp?forward=http%3A/www.pwnhc.ca/timeline/1975/1978_Cosmos.htm</a>
1978 Feb 15 05: 50	1968-095A	3526	Russia	Cosmos 250	P	Tselina-O	900?	France: Mont-Louis, Évenos, Ollioules, Grenoble, Iteuil, Chauvigny, Vouillé	MONT LOUIS (66) 1978, <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1978-02-00485">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1978-02-00485</a> ; "UFO Sightings in 1978", <a href="http://thecid.com/ufo/chrono/chrono/1978.htm">http://thecid.com/ufo/chrono/chrono/1978.htm</a> ; R. Rekin, "Re: Les PAN D du Geipan le 20.11.12 15:13", <a href="http://ufo-scepticisme.forumactif.com/t1540p240-les-pan-d-du-geipan">http://ufo-scepticisme.forumactif.com/t1540p240-les-pan-d-du-geipan</a> .
1978 Mar 12 04: 19	1978-009B	10606	Russia	Molniya 3-20 r	R	11S510	2410	Brazil: Brasilia, Uberaba, Belo Horizonte, Tremembe, Teresópolis, Petrópolis, Campos, Rio de Janeiro, São Paulo; some sightings from aircraft	"Astrônomo crê que é pedaço de nave espacial a bola de fogo vista de madrugada", <i>Jornal do Brasil</i> , Rio de Janeiro, March 14, 1979: 14; "Objeto voador avistado em São Paulo e Brasília", <i>Lavoura e Commercio</i> , Uberaba, Mar 13, 1978: 1; "Brasilia opinará sobre luminosos vistos no Rio e em São Paulo", <i>Lavoura e Commercio</i> , Uberaba, Mar 13, 1978: 1; "Objeto luminoso estranho nos céus de Uberaba", <i>Lavoura e Commercio</i> , Uberaba, Mar 14, 1978: 1.
1978 Mar 17 20: 28	1978-029C	10737	USA	KH 9-14 r	R	LR91AJ11	2650	South Africa: Durban Coast, Darnall on the Natal North Coast	J.C. Bennett, "Fireballs in 1977/78", <i>MNASSA</i> , Vol. 37: 118.
1978 May 26 12: 48	1978-052B	10916	Russia	Cosmos 1010 r	R	11S510	2410	Western Australia: Hyden	Bureau of Meteorology File PP956-1 45-38: 124, National Archives of Australia.
1978 Dec 21 05: 56	1978-118B	11159	Russia	Gorizont 11 r	R	8S812	3500	Argentina: La Rioja: near Chepas, La Rioja; Chaco: Resistencia; Santa Fe: Santa Fe. Debris: Entre Rios: San Salvador and vicinity	NICAP ( <a href="http://www.nicap.org/waves/1978fullrep.htm">www.nicap.org/waves/1978fullrep.htm</a> ); "Investigan la caída de un ovni en General Campos", <i>AIM Digital</i> , Apr 13, 2014 ( <a href="http://www.aimdigital.com.ar/2014/04/13/investigan-la-caida-de-un-ovni-en-general-campos/">http://www.aimdigital.com.ar/2014/04/13/investigan-la-caida-de-un-ovni-en-general-campos/</a> ).
1978 Dec 31 19: 07	1978-123B	11171	Russia	Cosmos 1068 r	R	11S510	2410	U.K.: Cumbria: Swarthmore, Lancashire: Morecambe, Norfolk: Litchom; Hertfordshire: Hitchin; Netherlands: Bunnik, Kruisweg; Germany: fragment of debris found in Stolzenau, near Hanover.	RAE Table of Earth Satellites; R. Huisman, B. Kroon, "Heavenly fireworks New Year's Eve", <i>Zenit</i> , The Netherlands, Mar 1979: 102-104; J. Randles, R. Moore, <i>UFO Study</i> , 2nd Ed., Ver. 2.151, 1981, 2007: 39; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1979 Feb 27 20: 27	1979-018B	11282	Russia	Soyuz 32 r	R	11S510	2410	Indian Ocean near Madagascar: ship at 15.5 S, 52.2 E.	RAE Table of Earth Satellites

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1979 Mar 25 05: 34	1969-107A	4273	Russia	Cosmos 315	P	Tselina-OM	900?	California: Los Angeles, Phoenix Lake, Sonora; Oregon: Baker City; pilots over at least 5 western states incl. Colorado; British Columbia; Canadian Prairies	(AP), "5 states see fiery satellite", The Spokesman-Review, Mar 26, 1979; (UPC), "Satellite's fiery fall was just 'routine'", The Gazette, Montreal, Mar 27, 1979: 7; D. Freitas, "Lights in The Night", The Daily Union Democrat, Mar 27, 1979; "Flying Object Still Unidentified", The Daily Union Democrat, Mar 28, 1979; NUFORC database: <a href="http://nuforc.org/webreports/023/S23448.html">http://nuforc.org/webreports/023/S23448.html</a>
1979 Apr 18 20: 36	1975-102AC	8648	Russia	Cosmos 777 debris	D	US-P debris (large RCS)	?	Philippines: Zamboanga Del Sur Province: Midsalip; Bohol Province: Baang, Malton, BAHAN; Negros Occidental Province: Bacolod, Talisay City; Masbate Province: Masbate City	A. Jamaludin, "A Philippines UFO Wave", FSR, Vol. 25, No. 6, Nov-Dec 1979: 32; Philippine Center for Aerial Phenomenon Studies ( <a href="http://agent-8971.x-files.tripod.com/id51.html">http://agent-8971.x-files.tripod.com/id51.html</a> )
1979 Apr 18 22: 40	1979-033B	11334	Russia	Cosmos 1094 r	R	11S692	4800	Denmark; Netherlands: Holland.	RAE Table of Earth Satellites
1979 Jul 11 16: 33	1973-027A	6633	USA	Skylab 1	P	Skylab 1	74783	Western Australia: Perth, Katanning, Lake Grace, Esperance, Kalgoorlie, Balladonia; large quantity of debris recovered.	RAE Table of Earth Satellites
1979 Aug 10 06: 45	1979-072B	11490	USA	Westar 3 r1	R	DSV-3P-4	950	Chile: XV Región de Arica y Parinacota: Caquena; Bolivia: Santa Cruz Department: Buen Retiro, Enconada; debris: titanium sphere found at both Bolivian sighting locations	Moon Dust reports by USAF Attaché at US Embassy in La Paz, telexed 1979 August 17 and 21; "Documentation containing information relating to Unidentified Flying Objects. (UFOs) - Part 2", US DIA: <a href="http://www.dia.mil/LinkClick.aspx?fileticket=KmOO2r0bH4E%3d">http://www.dia.mil/LinkClick.aspx?fileticket=KmOO2r0bH4E%3d</a> (pp.30-36), quoted: El Deber, Title unknown, El Deber, Santa Cruz de la Sierra, August 17, 1979: 1; El Diario, "New sphere fell from space in Santa Cruz", El Diario, La Paz, August 19, 1979: 1; (AP), "Cayó en Santa Cruz de la Sierra un extraño artefacto espacial", Clarín, Buenos Aires, Aug 18, 1979; (AP), "Bolivia: Aparecio Otra Extraña Esfera Metalica", Crónica Vespertino, Buenos Aires, Aug 21, 1979; (France Presse), "Un Misterio", Crónica Vespertino, Buenos Aires, Aug 22, 1979; (UP), "Cayeron en Bolivia otros dos artefactos espaciales", La Prensa, Buenos Aires, Aug 25, 1979; Caquena sighting: Enrique De Vicente, "Informe OVNI - Enciclopedia Interactiva", CD-ROM, Realidad Alternativa Ltd., 1996 (in file SUDAMERI.DBF); Another Caquena report is MUFON Case ID 49574 ( <a href="http://mufoncms.com/cgi-bin/report_handler.pl?req=search_page">http://mufoncms.com/cgi-bin/report_handler.pl?req=search_page</a> ); T. Molczan, "Re-entry Sightings and Debris Recovery of 1979-072B", Jul 30, 2014, ( <a href="http://satobs.org/reentry/1979-072B/1979-072B.html">satobs.org/reentry/1979-072B/1979-072B.html</a> ).
1979 Aug 20 01: 45	1979-070B	11475	Russia	Molniya 1-44 r	R	11S510	2410	Ontario: Hanmer, Copper Cliff, Spanish River, Sudbury, aircraft all over northern Ontario; Quebec: Lac des Jardins	NRC Non-Meteoritic Sighting N79/72, N79/73, N79/74, Library and Archives Canada.

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1979 Aug 20 18: 40	1979-075B	11492	Russia	Cosmos 1122 r	R	11S510	2410	Sweden: Karlskrona; Poland: Cap Rozewie, Elbląg, Toruń, Poznan, Warsaw, Lodz, Solina; Slovakia; Ukraine	J. Wilanda, "Historia pewnej kolacji ... Czyli UFO nad Polską. 20 sierpnia 1979 roku", Sep 2011 ( <a href="http://www.astrojawil.pl/kolacja_1979.htm">www.astrojawil.pl/kolacja_1979.htm</a> ); R.K. Leśniakiewicz, "Polish Border Guard Also Watched UFOs" ( <a href="http://www.aforteanosla.com.ar/Colaboraciones/internacional/Lesniakiewicz,Robert/Polish%20Border%20Guard%20Also%20Watches%20UFOs.pdf">www.aforteanosla.com.ar/Colaboraciones/internacional/Lesniakiewicz, Robert/Polish Border Guard Also Watches UFOs.pdf</a> )
1979 Oct 05 07: 32	1979-087B	11562	Russia	Ekran 4 r	R	8S812	3500	Washington; Idaho: Moscow; British Columbia: Kamloops, Prince George, Vancouver; Alberta: Calgary, Lethbridge, Whitecourt; Saskatchewan: Regina	L. Taylor, "Calgary front and centre for rocket's fiery entry", The Calgary Herald, Oct 5, 1979; (CP), "UFO identified as Russian rocket", The Star-Phoenix, Saskatoon, Sask., Oct 5, 1979: A2; P. Baechler, "UFO - The Martians aren't coming, but the Russians are, in a way", Lewiston Morning Tribune, Lewiston, ID/Clarkston, WA, Oct 6, 1979: 1A; NRC Non-Meteoritic Sighting N79/97, N79/98, N79/101, N79/102, N79/114, N80/27, Library and Archives Canada.
1980 Jun 11 11: 57	1980-046B	11828	Russia	Cosmos 1185 r	R	11S510	2410	Western Australia: Esperance, Kalgoorlie	Bureau of Meteorology File PP956-1 45-38: 10-13, 40-45, National Archives of Australia.
1980 Aug 26 14: 46	1980-070B	11939	Russia	Cosmos 1207 r	R	11S510	2410	China: Shanghai; provinces of Jiangsu, Zhejiang, Anhui, Jiangxi and Fujian; Taiwan Straits	"Widely reported UFO identified as meteorite", FSR, Vol. 27, No. 5, Mar 1982: 18.
1980 Sep 12 12: 00	1980-034C	11969	Russia	Cosmos 1176 DU	H	US-A RLS	?	Japan	Pierre Neirinck, private correspondence.
1980 Sep 17 04: 55	1973-010B	6374	Russia	Cosmos 549 r	R	S3M	1435	Nebraska; Tennessee: Memphis; Georgia: S. of Atlanta; Florida: Orlando, Tampa, counties of Lafayette, Sumter, Lake and Orange	M. Szymanski, "Close encounter...Venice residents describe mammoth UFO," Sarasota Journal, Sarasota, Florida, Sep 18, 1980: 1A; D. Baumrng, "Flying Object Identified As Soviet Rocket Remnants," Sarasota Journal, Sarasota, Florida, Sep 19, 1980: 1B; (AP), "Fireball said debris of Soviet rocket", The Phoenix, Sep 19, 1980; (AP), "Bright light Soviet rocket?", The Tuscaloosa News, Sep 19, 1980.
1980 Nov 05 03: 00	1980-089B	12055	Russia	Cosmos 1220 r	R	11S692	4800	Washington: Spokane; Idaho: Bonners Ferry, Walla Walla; Alberta: Millarville, Priddis; Saskatchewan: Foam Lake, Herbert, Lesley, Regina, Rush Lake, Swift Current, Tussmell, Willowbrook	(AP), "Russian rocket stirs UFO reports", The Telegraph, Nov 7, 1980; NRC Non-Meteoritic Sighting N80/170-174, N80/176-180, Library and Archives Canada; NUFORC
1980 Nov 26 01: 20	1974-054B	7370	USA	NTS-1 r1	R	PTS	163	Alberta: Lloydminster, Vegreville (Canadian Meteor Patrol camera), Elnora, Edmonton, Red Deer, Penhold, 30 km W of Edson	NRC Non-Meteoritic Sighting N80/189-191, Library and Archives Canada; S. Krysko, "A Fire In The Sky," Stardust, Newsletter of the Queen Elizabeth Planetarium and the Edmonton Centre, RASC, Feb/Mar 1981: 21 ( <a href="http://edmontonrasc.com/stardust/stardust198102.pdf">http://edmontonrasc.com/stardust/stardust198102.pdf</a> ); S. Krysko, "A Fire In The Sky," National Newsletter, Supplement To The Journal Of The Royal Astronomical Society Of Canada, Vol. 75, No. 2, April 1981: L27; T. Molczan, "A Fire In the Sky Identified," Stardust, Newsletter of the Royal Astronomical Society of Canada Edmonton Centre, Vol 62, No. 4, December 2015: 7 ( <a href="http://edmontonrasc.com/stardust/stardust201512.pdf">http://edmontonrasc.com/stardust/stardust201512.pdf</a> ).
1980 Dec 13 17: 31	1980-092B	12067	Russia	Molniya 1-48 BOZ	H	Blok-L BOZ	330	Japan	RAE Table of Earth Satellites

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1980 Dec 25 21: 07	1975-062B	8010	Russia	Cosmos 749 r	R	S3M	1435	Morocco: Tineghir; Portugal; Spain; France; England: Sussex	J. Mason, H. Miles, "Re-entry of 'Cosmos 749' Rocket on 1980 December 25", J. British Astronomical Assoc., 1981, 91, 6: 566; "La Nochebuena fue también noche de ovis", La Vanguardia, Barcelona, Dec 27, 1980:27; RAE Table of Earth Satellites; Pierre Neirinck, private correspondence; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1981 Jan 05 15: 58	1976-031B	8795	Russia	Cosmos 812 r	R	S3M	1435	Yukon: Whitehorse, Destruction Bay	M. Padgham, "Lights over Yukon pegged as plunging Soviet Rocket", Edmonton Journal, Jan 7, 1981: B4.
1981 Apr 13 11: 20	1981-030B	12369	Russia	Molniya 3-15 r	R	11S510	2410	China: Hebei: Tianjin, Tangshan, Qinhuangdo; Liaoning: Gai County, Hei Shan, Fushuen, Qing Yuan County	R. Rekin, "Re: Liste chronologique des rentrées atmosphériques artificielles observées le Mer 5 Juin - 14:58", <a href="http://ufo-scepticisme.forumactif.com/t3911-liste-chronologique-des-rentrees-atmospheriques-artificielles-observees">http://ufo-scepticisme.forumactif.com/t3911-liste-chronologique-des-rentrees-atmospheriques-artificielles-observees</a> ; P. Dong, "China's Major Mysteries", China Books and Periodicals, Inc., 2000: 42-44.
1981 Jun 26 14: 13	1981-061B	12565	Russia	Ekran 21 casing	H	Sredniy perekhodnik	700	Western Australia: Albany, Bunbury, Esperance	Bureau of Meteorology File PP956-1 45-38: 4-7, National Archives of Australia.
1981 Jul 19 15: 37	1981-021D	12552	Russia	Cosmos 1249 DU	H	US-A DU	?	South Australia: Adelaide, Iron Knob	AUFORN, 1981 sighting reports, ( <a href="http://www.aufor.com/1981.htm">www.aufor.com/1981.htm</a> )
1981 Jul 22 09: 57	1981-060C	12558	Russia	Molniya 1-50 BOZ	H	Blok-L BOZ	330	South Australia: Wirrappa, Whyalla	AUFORN, 1981 sighting reports, ( <a href="http://www.aufor.com/1981.htm">www.aufor.com/1981.htm</a> )
1982 Feb 24 04: 09	1982-011B	13064	Russia	Cosmos 1338 r	R	11S510	2410	Washington: Seattle; Idaho: Bear Lake and Franklin counties, Montpelier; Wyoming, North Dakota: pilots;	RAE Table of Earth Satellites; G. Tibbits (AP writer), "Rocket leaves no trace after fiery spectacle", Deseret News,
1982 May 30 01: 44	1982-048B	13214	Russia	Cosmos 1369 r	R	11S510	2410	New Brunswick: eastern, Moncton; Nova Scotia: northern; Prince Edward Island	Halifax (CP), "OVNI identifié", L'Évangéline, Moncton, N.B., May 31, 1982: 7; Halifax (CP), "'UFO' was rocket", The Montreal Gazette, May 31, 1982: B-3; "The Millman Fireball Archive - Fireball events reported for 1982" ( <a href="http://uregina.ca/~astro/MIAC/MFA/years/1982.pdf">http://uregina.ca/~astro/MIAC/MFA/years/1982.pdf</a> ).
1983 Jan 23 22: 17	1982-084A	13441	Russia	Cosmos 1402	P	US-A	~4000	Diego Garcia	J.N. Wilford, "Russian Satellite Falls Harmlessly Over Indian Ocean", New York Times, Jan 24, 1983.
1983 Mar 11 02: 13	1983-014B	13871	Russia	Cosmos 1444 r	R	11S510	2410	Arkansas, Mississippi	Colorado Springs, Colo. (AP), "Blazing rocket seen over central U.S.", The Telegraph, Mar 11, 1983: 1.
1983 Apr 30 06: 15	1983-039B	14040	Russia	Cosmos 1457 r	R	11S510	2410	Washington: eastern, Kennewick; Idaho: northern	P. O'Callahan, "Blazing 'UFO' turns out to be spent Russian rocket", Tri City Herald, May 1, 1983.
1983 Sep 27 04: 48	1983-081B	14250	Japan	Sakura 2B r	R	AJ10-118FJ	780	French Polynesia: Bora Bora	"Polynesie (987) 1983", GEIPAN, <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1983-09-00994">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1983-09-00994</a>
1983 Oct 29 22: 22	1983-110B	14456	Russia	Cosmos 1507 r	R	11S692	4800	Ghana: Avenui, Dabala	"'Frightening Object' in Ghana", APRO Bulletin, Feb 1984: 8.

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1983 Dec 02 18: 47	1983-118B	14533	Russia	Gorizont 18 r	R	8S812	3500	Czech Republic, Poland, Belarus, Ukraine	Moscow, Reuter, "Soviet Union - 'Flying cigar' prompts UFO Probe", The Citizen, Ottawa, May 30, 1984: 3; B. Rzepecki, "UFO Reports from Poland, VI An Important Sighting Over Southern Poland on December 2, 1983", FSR, Vol. 33, No. 1, March Quarter, 1988: 7-8; "1983 - December 2", Chronology of UFO sightings over Kiev, p.3 (cites: D. Lavrov. Second Millennium: Chronicle of anomalies / / gas. "Today", 23.12.2000) at <a href="http://sol-war.com.ua/files/Chronology_of_UFO_sightings_over_Kiev.pdf">http://sol-war.com.ua/files/Chronology_of_UFO_sightings_over_Kiev.pdf</a> .
1984 Feb 04 05: 48	1983-123C	14572	Russia	Molniya 3-22 BOZ	H	Blok-ML BOZ	330	Argentina: Cordoba, Santa Fe, Rosario, Greater Buenos Aries, La Plata; debris found 70 km from Ayachuco	"UFO Fleet", Tiempo Argentina (Buenos Aires), Feb 5, 1984 and "Challenger Mission?", La Nacion (Buenos Aires), Feb 6, 1984 reprinted and analyzed in MUFON UFO Journal, No. 203, Mar 1985: 14-15; US State Dept correspondence per <a href="http://www.noufors.com/Documents/moondust_42pages_nov73.pdf">http://www.noufors.com/Documents/moondust_42pages_nov73.pdf</a>
1984 Apr 28 04: 30	1984-040B	14939	Russia	Cosmos 1549 r	R	11S510	2410	Canada; USA: Utah, Idaho, Oregon	Staff, "Fireball blazes across Utah skies", Deseret News, Apr 28, 1984: A-1; (AP), "Rocket breaks up over U.S.", The Windsor Star, Apr 28, 1984: A9; (UPI), "UFO was Soviet rocket body", Record-Journal, Apr 29, 1984: A-3.
1984 May 21 01: 55	1984-014E	14918	Russia	Soyuz T-10 orbital module	H	Bitovoy otsek	1260?	Texas, Tennessee, Kentucky, Virginia, Illinois, Indiana, Ohio, Michigan	(AP), "NORAD says bright streak was junk from falling Soviet satellite", Daily News, Middlesboro, Kentucky, May 23, 1984: 1. D. Wright, H. Beech, "Re-entry/UFOs", MUFON UFO Journal, No. 198, Oct 1984: 15-16; D. Wright, H. Beech, "Re-entry Re-examined", MUFON UFO Journal, No. 199, Nov 1984: 5-6.
1984 Jul 28 03: 00	1984-055B	15028	Russia	Cosmos 1569 r	R	11S510	2410	Arkansas; Mississippi; Tennessee; Kentucky: Louisville, Lexington, London, Dry Ridge; Illinois; Indiana: Evansville, Indianapolis; Ohio: debris found near Lebanon; Pennsylvania: Clarion (aircraft)	(AP), "A Soviet rocket called source of lights in sky", Kentucky New Era, Jul 28, 1984: 2A; "Air Force investigates mysterious metal disk", Lakeland Ledger, Aug 1, 1984; "List of Reported Space Objects Discovered by Member States within their Territories", Number RD-84-01, U.N. Office for Outer Space Affairs, ( <a href="http://www.unoosa.org/oosa/en/natact/sdnps/unlfd.html">http://www.unoosa.org/oosa/en/natact/sdnps/unlfd.html</a> ); S. Gordon, "UFO Sighting by Pilot Over Pennsylvania", MUFON UFO Journal, No. 200, Dec 1984: 5; R. Alessandri, "Le 27 juillet 1984, une autre rentrée prise pour un Ovni", Mar 26, 2015, ( <a href="http://perso.numericable.fr/r.alessandri/rentrees/rentree_27_07_1984.html">http://perso.numericable.fr/r.alessandri/rentrees/rentree_27_07_1984.html</a> )
1985 Jan 11 02: 45	1983-049B	14088	Russia	Cosmos 1465 r	R	S3M	1435	The Bahamas: Nassau, Spanish Wells, Cherokee Sound; Florida: Miami, Opa-Locka, West Palm Beach, Vero Beach	R. Attrill, "Lights in the Sky - a UFO above the Bahamas", at <a href="http://www.motyvido.co.uk/bahamas_lights.htm">www.motyvido.co.uk/bahamas_lights.htm</a> ; J. H. Tolpin, T. Dodson, "Stargazers Mystified As Object Crosses Sky", Sun-Sentinel, Florida, January 11, 1985; "Group Sighting of 400 Foot UFO in the Bahamas - 1985", <a href="http://www.ufo-talk.com/group-sighting-of-400-foot-ufo-in-the-bahamas-1985">http://www.ufo-talk.com/group-sighting-of-400-foot-ufo-in-the-bahamas-1985</a>
1985 Jan 24 12: 00	1985-008B	15493	Russia	Cosmos 1625 r	R	11S692	4800	Australia: Queensland: Babinda, Mareeba, Cairns, Holloways Beach, Mount Molloy	AUFORN, 1985 sighting reports, ( <a href="http://www.auforn.com/1985.htm">www.auforn.com/1985.htm</a> )

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1985 Jan 25 06: 18	1985-008A	15492	Russia	Cosmos 1625	P	US-PM	3000	Shetland at 06:18 UTC.	RAE Table of Earth Satellites
1985 Jun 09 17: 05	1973-097A	6958	Russia	Molniya 1-26	P	Molniya-1	1650	South Africa	RAE Table of Earth Satellites
1985 Jun 21 03: 58	1984-002G	14929	Russia	Cosmos 1530 KDU	H	KDU	375	Michigan, Indiana, Ohio, Pennsylvania, Virginia, Georgia.	(AP), "Soviet Satellite Debris Spark Vivid Sky Show", Schenectady Gazette, Jun 22, 1985; S. Gordon, "Penn State Sighting", MUFON UFO Journal, No. 212, Dec 1985: 8. RAE Table of Earth Satellites
1985 Jun 25 02: 07	1985-040C	15740	Russia	Molniya 3-24 BOZ	H	Blok-ML BOZ	330	Florida: Tallahassee, Jacksonville, Orlando, Tampa and Gainesville; Georgia; North Carolina: Wilmington; South Carolina.	RAE Table of Earth Satellites J. Braunstein, "Re-Entering Space Junk Sighted Across Florida", AP, Jun 25, 1985.
1985 Sep 20 05: 36	1985-081B	16052	Russia	Soyuz T14 r	R	11S510	2410	Washington: Seattle; Oregon: Astoria. Klamath Falls; California: Sacramento, Stockton, 12 counties;	"Californians, Oregonians Sight Blazing Debris of Soviet Rocket Launch", Associated Press, Sep 20, 1985.
1985 Oct 08 10: 53	1985-085B	16089	Russia	Cosmos 1685 r	R	11S510	2410	Japan: Kochi: Aki; Osaka; Hiroshima: Fukuyama; Hyogo	Pierre Neirinck, private correspondence; V.J. Ballester Olmos, "La terrible belleza de una reentrada espacial", UFO Fotocat Blog, Sep 25, 2014 ( <a href="http://fotocat.blogspot.com.es/2014_09_25_archive.html">http://fotocat.blogspot.com.es/2014_09_25_archive.html</a> ); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1985 Oct 30 07: 26	1985-101B	16212	Russia	Cosmos 1699 r	R	11S510	2410	South-central Alaska: Anchorage, Wasilla	R. Mauer, "Those lights were fiery fall of Soviet rocket", Anchorage Daily News, Oct 31, 1985.
1986 Feb 24 04: 47	1986-017B	16610	Russia	Mir r	R	8S812	3500	Trans-Atlantic airliner, from 48 N, 44 W, 11300 m.	RAE Table of Earth Satellites
1986 Jun 02 02: 15	1986-040B	16738	Russia	Cosmos 1746 r	R	11S510	2410	Florida: Jacksonville to Key West	A. Rowland, "Fireball Neither UFO Nor Meteor Shower: Falling Soviet Rocket", Associated Press, AP News Archive, Jun. 2, 1986 1:36 AM ET; A. Rowland, "Sky Show Over Florida Was Part Of Soviet Rocket, NORAD Says", Associated Press, AP News Archive, Jun. 2, 1986 4:34 AM ET; (AP), "Russian Rocket Lights Up Night", Ocala Star-Banner, Jun 2, 1986: 1A.
1986 Sep 02 06: 08	1986-064B	16921	Russia	Cosmos 1773 r	R	11S510	2410	Chile: La Silla	A. Figer, via SeeSat-L
1986 Nov 06 04: 16	1986-068C	16936	Russia	Molniya 1-68 BOZ	H	Blok-ML BOZ	330	California: Antelope Valley, Barstow, Canyon Country, Needles, Oakland, Palm Springs, San Diego; Arizona: Phoenix; New Mexico: Albuquerque; Utah; Nevada: Carson City, Las Vegas; Texas: El Paso	"Falling Soviet Satellite Creates Fireball In West", Associated Press AP News Archive Nov. 6, 1986 2:42 AM ET; "Falling Soviet Satellite Creates Fireball", Associated Press AP News Archive Nov. 6, 1986 4:16 AM ET; "Soviet Rocket Booster Lights Up Western Skies in Fiery Re-Entry", Associated Press AP News Archive Nov. 6, 1986 8:00 PM ET; (UPI), "Fireball probably was Soviet rocket", The Bryan Times, Phoenix, AZ, Nov 6, 1986: 13;
1986 Nov 19 05: 00	1986-087B	17069	Russia	Cosmos 1792 r	R	11S510	2410	Washington: southeast; Idaho: Grangeville, Lewiston	"Aerial Display As Soviet Booster Rocket Re-Enters Atmosphere", Associated Press, AP News Archive Nov. 19, 1986 11:32 AM ET.
1986 Dec 12 07: 27	1984-032C	15345	Russia	Soyuz T-11 orbital module	H	Bitovoy otsek	1260?	North Dakota: Fargo; Minnesota: Duluth; Wisconsin: Solon Springs; Arkansas: Pocahontas	Duluth, Minn. (AP), "Light Clusters In Duluth, Minn. Sky", Dec 13, 1986.

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1987 Jul 27 23: 11	1987-064B	18226	Russia	Cosmos 1870 r	R	8S812	3500	Ghana: Accra, Kpando, Hohoe; Togo: Lome	Ghana: "Documentation containing information relating to Unidentified Flying Objects. (UFOs) - Part 2", US DIA: <a href="http://www.dia.mil/LinkClick.aspx?fileticket=KmOO2r0bH4E%3d">http://www.dia.mil/LinkClick.aspx?fileticket=KmOO2r0bH4E%3d</a> (pp.58-61, 65-67); Togo: US State Dept correspondence per <a href="http://www.noufors.com/Documents/moondust_42pages_nov73.pdf">http://www.noufors.com/Documents/moondust_42pages_nov73.pdf</a> (p.31).
1987 Aug 21 12: 57	1987-067B	18307	China	China 20 r	R	CZ-2C Stage 2	4000	Western Australia: Perth to Marble Bar	RAE Table of Earth Satellites
1987 Sep 02 00: 35	1987-071B	18319	Russia	Cosmos 1873 r	R	11S772	9300	Barbados, Grenada, Guadalupe, Martinique, St. Lucia; Br. Airways and LIAT pilots	US State Dept correspondence per <a href="http://www.noufors.com/Documents/moondust_42pages_nov73.pdf">http://www.noufors.com/Documents/moondust_42pages_nov73.pdf</a> (p.32-34); "Barbadians Report Several Ufo Sightings", <a href="http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000112351.pdf">http://www.foia.cia.gov/sites/default/files/document_conversions/89801/DOC_0000112351.pdf</a>
1987 Oct 11 09: 39	1987-086B	18397	Russia	Cosmos 1890 r	R	11S692	4800	Pacific Ocean: pilots from equator to N. California; Northern California; Western Nevada; Southern Oregon; debris recovered at Lakeport, California.	"Soviet space trash splashes down in Lakeport alley", Lodi News-Sentinel, Oct 14, 1987: 3; Lakeport, Calif. (AP), "Remnant of Soviet rocket drops onto sleepy town", The Item, Sumter, S.C., Oct 15, 1987: 7B.
1987 Oct 26 15: 20	1987-089B	18433	Russia	Cosmos 1893 r	R	11S510	2410	Australia: New South Wales: Siding Spring Observatory to Tamworth	RAE Table of Earth Satellites; <a href="http://www.auforn.com/1987.htm">http://www.auforn.com/1987.htm</a>
1987 Nov 05 11: 55	1987-077F	18392	Russia	Cosmos 1882 KDU	H	KDU	375	Texas: Waco, Wichita Falls; Oklahoma: Oklahoma City, Ponca City	Lights across Texas sky really a Soviet satellite disintegration," Herald-Zeitung, New Braunfels, TX, Nov 8, 1987:5.
1987 Nov 28 12: 43	1987-096B	18576	Russia	Cosmos 1897 r	R	8S812	3500	Japan	RAE Table of Earth Satellites
1987 Dec 13 02: 49	1987-100B	18632	Russia	Raduga 21 r	R	8S812	3500	Montana; Nebraska: Lincoln; Colorado: Greeley; Texas: Fort Worth; Kansas: Salina, Galena, southeast; Missouri: Lake of the Ozarks, Charleston; Arkansas: Beaver Dam, Fayetteville, Pea Ridge, Siloam Springs; Illinois: southern; Kentucky: Paducah, Marion, western; Tennessee: northern; Mississippi	RAE Table of Earth Satellites; (AP), "Light Show - Dying Soviet Rocket Re-Enters Atmosphere, Leaving Fiery Trail in Wake", The Albany (Ga.) Herald, Dec 14, 1987: 14A; L. Walsh (with AP info and photo), "UFO-like glare of Soviet rocket gives many a flight to remember", The Pittsburgh Press, Dec 14, 1987: A8; (AP), "Light Streaks in Sky Caused by Breakup Of a Soviet Rocket", The New York Times, Dec 14, 1987; B. Gribble, "A Re-Entry With Company", MUFON UFO Journal, No. 254, Jun 1989: 14; Audio of report to NUFORC by witness J.E. in MUJ No. 254: Part 1: <a href="http://www.youtube.com/watch?v=a6IVJyJMKwQ">http://www.youtube.com/watch?v=a6IVJyJMKwQ</a> ; Part 2: <a href="http://www.youtube.com/watch?v=a0mLxwTPq04">http://www.youtube.com/watch?v=a0mLxwTPq04</a> D. Wright, "Dear Editor", MUFON UFO Journal, No. 256, Aug 1989: 23; G. Fernandez, "Space Re-Entry Stimulus as CE-3 Generator: The Example of a December 12 1987 case...", Sceptiques vs. les Soucoupes Volantes, Jan 21, 2015: ( <a href="http://skeptivversustheflyingsaucers.blogspot.fr/2015/01/space-re-entry-stimulus-as-ce-3.html">http://skeptivversustheflyingsaucers.blogspot.fr/2015/01/space-re-entry-stimulus-as-ce-3.html</a> )



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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1988 Mar 26 04: 50	1988-024B	18993	Russia	Progress 35 r	R	11S510	2410	Texas; Oklahoma; Louisiana; Arkansas: Round Rock	RAE Table of Earth Satellites; (AP), "Rocket's re-entry lights sky in 3 states", Rome News-Tribune, Mar 27, 1988: 8-A; C. Trujillo, "'Meteor' turns out to be refuse from Russian spacecraft", The Dallas Morning News, Mar 27, 1988.
1988 Aug 21 05: 02	1988-071B	19398	Russia	Gorizont 16 r	R	8S812	3500	New Mexico, Colorado, Nebraska, Michigan	RAE Table of Earth Satellites
1988 Aug 30 02: 19	1987-025G	17786	Russia	Cosmos 1826 KDU	H	KDU	375	Colorado: Colorado Springs	RAE Table of Earth Satellites; "Falling debris from Soviet satellite produces fireball in Colorado sky", The Gazette (Colorado Springs, CO), Aug 30, 1988.
1988 Oct 22 13: 43	1988-095B	19597	Russia	Raduga 22 r	R	8S812	3500	French Polynesia: Nuku Hiva	"Nuku Hiva (987) 1988", GEIPAN, <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1988-10-01153">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1988-10-01153</a> ; <a href="http://ufo-scepticisme.forumactif.com/t1540p210-les-pan-d-du-geipan#41185">http://ufo-scepticisme.forumactif.com/t1540p210-les-pan-d-du-geipan#41185</a>
1988 Dec 20 23: 52	1988-110B	19706	Russia	Cosmos 1984 r	R	11S510	2410	France: Paris, Province, Saint Vitte, Rouffignac-Saint-Cernin-de-Reilhac. Debris found south of Bourges.	"National (975) 21.12.1988", GEIPAN, <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1988-12-01159">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=1988-12-01159</a> ; RAE Table of Earth Satellites
1989 Jan 07 16: 04	1988-060B	19321	Russia	Cosmos 1958 r	R	S3M	1435	Republic of Sudan: Khartoum	RAE Table of Earth Satellites
1989 Jan 21 02: 09	1988-115B	19731	Russia	Molniya 1-74 r	R	11S510	2410	Texas: Abilene, Houston, Spring; Oklahoma: Altus, Enid, Pawnee, Muskogee; Louisiana; Mississipi; Arkansas; Kentucky; Tennessee; Indiana; Kansas; Missouri: Fulton, St. Louis; Illinois; Iowa	RAE Table of Earth Satellites; (AP), "Falling Soviet space junk lights Midwestern skies", The Record-Journal, Meriden, Ct., Jan 21, 1989: 27; (AP), "Falling Soviet space debris lights up the sky across U.S.", The Telegraph, Jan 22, 1989: B-5; UFO Evidence ( <a href="http://www.ufoevidence.org/sightings/report.asp?ID=8896">www.ufoevidence.org/sightings/report.asp?ID=8896</a> )
1989 Jul 16 05: 17	1989-054B	20125	Russia	Cosmos 2030 r	R	11S510	2410	South Carolina: Charleston; Georgia: Tybee Island	Charleston (AP), "Expert: Soviet rocket caused lights in sky", Spartanburg Herald-Journal, Jul 19, 1989: B3; Article in The News and Courier, Charleston, S.C., Jul 17, 1989, via <a href="http://www.ufo-bbs.com/txt1/704.htm">www.ufo-bbs.com/txt1/704.htm</a> .
1989 Oct 24 10: 26	1989-078C	20257	Russia	Molniya 1-76 BOZ	H	Blok-ML BOZ	330	Texas: Kaufman; Indiana: aircraft in northwest corner of state; Ontario: Sudbury area	RAE Table of Earth Satellites; The Sudbury Star, "Strange Lights Probably A Satellite, NORAD Says", The Sudbury Star, Oct 1989; D. Wright, "Current Case Log: #900103", MUFON UFO Journal, No. 264, Apr 1990: 14.
1989 Nov 16 03: 07	1985-050A	15833	Russia	Cosmos 1662	P	Romb	550?	Southern Manitoba: Winnipeg, Oakville	RAE Table of Earth Satellites; UFOFORUM, NRC Non-Meteoritic Sighting N89/76, Library and Archives Canada, per C. Rutkowski, "Re-entries of rocket boosters... and UFOs", Aug 26, 2014 ( <a href="http://uforum.blogspot.ca/2014_08_01_archive.html">http://uforum.blogspot.ca/2014_08_01_archive.html</a> , Case 1).
1989 Dec 17 12: 14	1989-098B	20368	Russia	Raduga 24 r	R	8S812	3500	Japan	RAE Table of Earth Satellites

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1990 Mar 15 01: 47	1990-022B	20526	Russia	Cosmos 2060 r	R	11S692	4800	Texas: El Paso, between Clifton and Valley Mills; Mexico: hundreds of witnesses in various parts of Chihuahua State	"14 Mar 1990 - El Paso, Texas, USA", The CID (thecid.com/uf0/uf11/uf1/111420.htm); NUFORC S29494 (www.nuforc.org/webreports/029/S29494.html); F. Castro, G. Rivera, "Ovnis Estrellados En México", Grupo GIFAE, Mar 24, 2004, (http://espanol.geocities.com/gifae/xfiles5.htm via Wayback Machine archive).
1990 Aug 24 02: 41	1990-075B	20766	Russia	Cosmos 2096 r	R	11S692	4800	Colorado, Nebraska, Wyoming, South Dakota, North Dakota, Minnestota, Manitoba	P. Miller, "Witnesses marvel at mystery objects", The Pioneer, Bemidji, Minnesota, Aug 31, 1990; UFORUM per C. Rutkowski, "Re-entries of rocket boosters... and UFOs", Aug 26, 2014 (http://uforum.blogspot.ca/2014_08_01_archive.html, Case 2).
1990 Nov 05 18: 00	1990-094C	20925	Russia	Gorizont 21 r	R	8S812	3500	Br. Midland Airways BD991, appr. Belgian coast; Belgium, France, Poland, Czechoslovakia, Switzerland, Italy	ID by Pierre Neirinck, private correspondence; "Rentree Atmospherique 5 Novembre 1990", GEIPAN, http://www.cnes-geipan.fr/index.php?id=202&cas=1990-11-01225; "Analysis of the 1990 UFO reports by British jet fighter pilots", UFORUM.NL (https://web.archive.org/web/20061231233706/http://www.ufonet.nl/nieuws/tornado/index2.html); R. Alessandri, "5 novembre 1990 : Les ovnis fabriqués par des ufologues (05/11/2011)" (http://perso.numericable.fr/~wolf424/univers.ovni/ufologie/5novembre40cas.html) RAE Table of Earth Satellites; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014; R. Alessandri, "Documentaire TV: La mystérieuse nuit des OVNI", Mar 20, 2015 (http://perso.numericable.fr/r.alessandri/ufologie/5novembre_numero23.html).
1990 Dec 09 06: 47	1990-109B	21001	Russia	Cosmos 2108 r	R	11S510	2410	Oklahoma, Texas, Arkansas, Kansas and Colorado	"Falling Soviet rocket lit West's sky, NORAD says", The Gazette, Colorado Springs, Dec 10, 1990; NUFORC
1990 Dec 23 13: 26	1990-099B	20942	Russia	Cosmos 2105 r	R	11S510	2410	Japan: Sendai, Mt. Ohmine, Tsumagoi, Abiko, Miura, Misaki	RAE Table of Earth Satellites; LAT Satellite Circular, No. 16, Feb 1991; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1991 Jan 18 22: 19	1991-005B	21066	Russia	Cosmos 2122 r	R	11S692	4800	Poland, Slovakia, Hungary, Romania	RAE Table of Earth Satellites; J. Borovička, P. Spurný, "Satellite decays photographed by a fireball network", Proc. SPIE Vol. 3116: 168-176.
1991 Feb 07 03: 50	1982-033A	13138	Russia	Salyut 7/Cosmos 1686	P	DOS 6 + Cosmos 1686	40000	Observed from and pieces of debris picked up in Chile and Argentina.	RAE Table of Earth Satellites
1992 Jul 30 17: 44	1992-047D	22059	Russia	Cosmos 2204 r	R	8S812	3500	South Australia: Port Pirie	AUFORN, 1992 sighting reports, (www.auforn.com/1992.htm)
1992 Oct 01 01: 17	1990-103C	20961	USA	Navstar 2A-01 r	R	Star 48B	111	Alabama: Birmingham; Georgia: Smyrna	Mike McCants made the ID from a report by members of the Birmingham Astronomical Society, private correspondence.
1992 Oct 01 09: 36	1992-063B	22137	USA	Mars Observer r	R	LR91AJ11	2650	South Australia: between Whyalla & Port Augusta, Clare, Burra; New South Wales: Broken Hill	AUFORN, 1992 sighting reports, (www.auforn.com/1992.htm)

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1993 Mar 31 00: 10	1993-018B	22586	Russia	Cosmos 2238 r	R	11S692	4800	Ireland: Ennis; Wales: West and South; England: Staffordshire, Cornwall, Devon, Somerset, Bristol, Hampshire; France: Rhone Alpes, Midi-Pyrénées, Languedoc-Roussillon; Spain: Catalonia: Portbou, Girona, Torres de Segre, Barcelona, Tarragona	U.K. MOD Case No. 933 (defe-24-2086.pdf); Nocturnal light sightings in 1993 ( <a href="http://thecid.com/ufo/chrono/nl/1993.htm">http://thecid.com/ufo/chrono/nl/1993.htm</a> ); G. Anthony, C. Fowler, "UFOs of March 30th/31st 1993 Explained!", Nov 2006 ( <a href="http://www.mithrand.karoo.net/index.htm/cosford.htm">www.mithrand.karoo.net/index.htm/cosford.htm</a> ); J. McGonagle, Cosford ( <a href="http://www.uk-ufo.org/cosford/index.html">www.uk-ufo.org/cosford/index.html</a> ); D. Clarke, The Cosford Incident ( <a href="http://drdavidclarke.co.uk/secret-files/the-cosford-incident/">drdavidclarke.co.uk/secret-files/the-cosford-incident/</a> ); "Los expertos atribuyen la estela que cruzó el cielo de Cataluña a un meteoro o a un satélite", La Vanguardia, Barcelona, Apr 1, 1993:26; "Un cohete ruso causó el fenómeno luminoso del día 31 de marzo", La Vanguardia, Barcelona, Apr 21, 1993:29.
1994 Sep 14 18: 51	1994-053B	23219	Russia	Cosmos 2290 r	R	11S772	9300	Botswana; South Africa: Johannesburg; Zimbabwe: Bulawayo, Harare, Hwange, Lake Kariba, Mutare, Zvishavane	C. Hind, "UFO Flap in Zimbabwe Case No. 95", UFO Afrinews, Feb 1995, No. 11: 4-18; C. Hind, "An additional observation of the object over Late Kariba...", UFO Afrinews, Jul 1995, No. 12: 37-38; C. Hind, "Zimbabwean Flap of September 1994", UFO Afrinews, Jul 1996, No. 14: 15; C. Hind, "Report from Africa - I. Meteorite Shower (?) Over Zimbabwe, September 14, 1994", FSR, Vol. 40, No. 2, Summer 1995: 21.
1994 Dec 31 17: 24	1994-087B	23449	Russia	Raduga 32 r	R	8S812	3500	Germany, Austria, Czech Republic, Slovakia, Hungary, Romania	J. Borovička, P. Spurný, "Satellite decays photographed by a fireball network", Proc. SPIE Vol. 3116: 168-176.
1995 Jan 14 22: 29	1994-081B	23421	Russia	Molniya 1-88 r	R	11S510	2410	Uganda: Kampala	M.E. Yousif, "The UFO Sighting", <a href="http://www.exmfpropulsions.com/New_Physics/Sighting.htm">www.exmfpropulsions.com/New_Physics/Sighting.htm</a> ; N. Amooti, "Flying Object Explained", The New Vision, Jan 20, 1995: 9.
1996 Jan 29 02: 18	1996-005B	23776	Russia	Gorizont 43 r	R	8S812	3500	Mexico: states of San Luis Potosí, Guanajuato, Querétaro, Veracruz and the Distrito Federal (Mexico City)	S. Corrales, "UFO Crashes In Latin America", <a href="http://www.worldofthestrangest.com/nl_2000_06_12ufocrashesinlatinamerica.htm">http://www.worldofthestrangest.com/nl_2000_06_12ufocrashesinlatinamerica.htm</a> ; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1996 Apr 14 07: 05	1996-021C	23844	Russia	Astra 1F r	R	8S812	3500	Arizona, Minnesota, Wisconsin, Michigan, Quebec	NUFORC, SeeSat-L; SOS OVNI per C. Rutkowski, "Re-entries of rocket boosters... and UFOs", Aug 26, 2014 ( <a href="http://uforum.blogspot.ca/2014_08_01_archive.html">http://uforum.blogspot.ca/2014_08_01_archive.html</a> , Case 3).
1996 Aug 20 00: 47	1996-010D	23797	Russia	Raduga 33 r2	R	11S861	2440	New Brunswick: St. John - glowing near perigee, day prior to fall from orbit.	SeeSat-L
1996 Nov 17 00: 50	1996-064B	none	Russia	Mars 96	P	Mars 96	6800	Chile: Atacama desert	"Update On Russian Space Probe", USSPACECOM release 41-96, Nov 29, 1996; V.A. Udaloj, et al., "Space Dynamics Analysis of the Spacecraft Mars-96 Abnormal Flight", Proceedings of the 12th International Symposium on 'Space Flight Dynamics', ESOC, Darmstadt, Germany. 2-6 June 1997; J.E. Oberg, "The Probe That Fell to Earth", New Scientist, Mar 6, 1999.

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
1996 Dec 12 04: 27	1996-069B	24671	Russia	Cosmos 2335 r	R	11S692	4800	Alaska: Anchorage, pilots all over the state; Yukon: Fox Lake, Carmacks, Pelly Crossing, Mayo	D. Stanton, "Meteors Light Up Night Sky", Anchorage Daily News, Dec 12, 1996: B1; M. Jasek, "22+ Witnesses Observe a UFO Larger than a Football Stadium", UFOBC, Oct 1999, updated Feb 3, 2000. <a href="http://www.ufobc.ca/yukon/22index.htm">www.ufobc.ca/yukon/22index.htm</a> ; M. Jasek, "Giant UFO in the Yukon Territory", UFO*BC - Special Report No. 1, June 2000; G. Adamson (producer), "It came from heaven", NEDAA Season 21, Show #4 [videorecording], NNBY, 2007; T. Molczan, "Old Unknown Identified as a Re-entry", SeeSat-L mailing list, Apr 30, 2012 ( <a href="http://satobs.org/seesat/Apr-2012/0331.html">http://satobs.org/seesat/Apr-2012/0331.html</a> ); H. Zimmer, "The 1996 Cosmos 2335 RB Decay", SeeSat-L mailing list, May 01, 2012 ( <a href="http://satobs.org/seesat/May-2012/0015.html">http://satobs.org/seesat/May-2012/0015.html</a> ); T. Printy, "December 1996 Yukon UFO revisited", SUNlite, Vol. 6, No. 2, Mar-Apr 2014: 10 ( <a href="http://home.comcast.net/~tprinty/UFO/SUNlite6_2.pdf">http://home.comcast.net/~tprinty/UFO/SUNlite6_2.pdf</a> ).
1997 Jan 22 09: 37	1996-024B	23852	USA	MSX r	R	SSPS AJ10-118K	950	Oklahoma. Debris recovered in Texas.	SeeSat-L, NUFORC
1997 Aug 29 21: 40	1997-046B	24917	Russia	PAS 5 r	R	8S812	3500	Zimbabwe: Chete Gorge, Mana Pools, Mhangura	C. Hind, "Lights in the Sky - Cases F, G", UFO Afrinews, Feb 1998, No. 17: 28-31.
1997 Nov 13 10: 35	1997-070B	25046	Russia	Kupon casing	H	Sredniy perekhodnik	700	Fishermen in southern Japan	AP Wire, SeeSat-L
1997 Nov 15 05: 09	1997-070C	25047	Russia	Kupon r	R	8S812	3500	Oregon, Washington, British Columbia	SeeSat-L, NUFORC
1997 Nov 21 01: 25	1997-072B	25060	Russia	Resurs F-1M r	R	11S510	2410	Canary Islands	Despliegue Luminoso Sobre Canarias En Noviembre de 1997 Por Ricardo Campo Pérez y V.J. Ballester Olmos <a href="http://www.ikaros.org.es/fotocat/canarias97.pdf">http://www.ikaros.org.es/fotocat/canarias97.pdf</a> ; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1998 Jan 06 13: 43	1997-048C	24927	China	Iridium MFS 1 r	R	CZ-2C Stage 2	4000	Arctic Canada: Nunavut: 74.43 N, 94.4 W; Coral Harbour; Grise Fiord	SeeSat-L, Canadian Cirvis Reports for Jan 1, 1997 - Sep 4, 1998.
1998 May 02 01: 06	1998-025B	25316	Russia	Cosmos 2350 r	R	8S812	3500	South African/Namibian border and the west coast of Africa	W. Koorts, SeeSat-L
1998 Oct 14 03: 21	1998-054B	25486	Russia	Molniya 1-91 r	R	11S510	2410	South Africa: Ceres, Sutherland	SeeSat-L
1998 Dec 17 04: 35	1993-077B	22928	USA	Telstar 401 r	R	Centaur IIA	2293	Florida: Port Charlotte, Long Key, Plantation Key; Cuba: Isla de la Juventud, La Habana, Matanzas, Santa Clara	NUFORC, SeeSat-L; O. Girbau, "Eventos Luminosos En El Cielo" ( <a href="http://www.aforteanosla.com.ar/nuestros_foraneos/encuentros_cercanos_articulos/orestes_girbau_eventos_luminosos_en_el_cielo.pdf">http://www.aforteanosla.com.ar/nuestros_foraneos/encuentros_cercanos_articulos/orestes_girbau_eventos_luminosos_en_el_cielo.pdf</a> ).
1999 Jan 01 03: 43	1996-069A	24670	Russia	Cosmos 2335	P	US-PU	3150	Aruba; Curacao; Venezuela: Guigue, Cagua, San Juan, El Sombrero	SeeSat-L

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1999 Jul 19 00: 44	1999-038B	25859	Russia	Progress M-42 r	R	11S510	2410	Italy: Emilia-Romagna; Puglia: Turi; Calabria: Cardeto; Sicily: Palermo	A. Carbognani, L. Cassano, R. Labanti, S. Pernice, M. Russo, "Il bolide del 19 luglio 1999", Italian Superbolide Network (ITASN), Feb 25, 2001, <a href="http://www.fis.unipr.it/~albino/ITASN/documenti/bolide/IT19990719/IT19990719.html">http://www.fis.unipr.it/~albino/ITASN/documenti/bolide/IT19990719/IT19990719.html</a> .
1999 Sep 02 04: 25	1999-010E	25761	Russia	Raduga 1-4 SOZ	H	11S861 SOZ	100	California, Nevada, Oregon, Washington	SeeSat-L, NUFORC
1999 Sep 07 09: 02	1999-047C	25898	Russia	Yamal-102 r	R	8S812	3500	USA: Oklahoma, Texas, Louisiana, Arkansas, Mississippi, Florida; Cuba: Matanzas	SeeSat-L, NUFORC; O. Girbau, "Eventos Luminosos En El Cielo" ( <a href="http://www.aforteanosla.com.ar/nuestros_foraneos/encuentros_cercanos_articulos/orestes_girbau_eventos_luminosos_en_el_cielo.pdf">http://www.aforteanosla.com.ar/nuestros_foraneos/encuentros_cercanos_articulos/orestes_girbau_eventos_luminosos_en_el_cielo.pdf</a> ); V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
1999 Oct 23 00: 00	1981-002B	12134	Russia	Molniya 3-14 r2	R	Blok-L	1160	South Africa: Johannesburg/Pretoria area	SeeSat-L, Claire Flanagan of the Johannesburg Planetarium
1999 Nov 27 21: 30	1999-061B	25957	China	Shenzhou 1 r	R	CZ-2F Stage 2	4000?	Spain, Sardinia, Corsica and Italy.	Spanish Photographic Meteor Network (SPMN); V.J. Ballester Olmos, Matías Morey, "El cohete que puso en órbita al trasbordador chino Shenzhou reentra sobre el Mediterráneo"; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2000 Jan 27 14: 50	1986-057A	16885	Russia	Molniya 1-67	P	Molniya-1	1650	Western Australia: Albany, Esperance, Kalgoorlie, Wyndham	SeeSat-L, AUFORN
2000 Apr 19 16: 55	2000-019B	26244	Russia	Sesat r	R	8S812	3500	Central India: Mumbai, Pune, Kolhapur, Solapur, Sangli in Maharashtra, Indore in Madhya Pradesh	SeeSat-L
2000 Apr 27 13: 22	1996-019B	23834	USA	GPS IIA-16 r1	R	SSPS AJ10-118K	950	South Africa: Western Cape: daylight sighting of fireball and smoke trails. Sonic booms heard. Debris: fuel tank fell in Durbanville; helium pressurant sphere in Worcester, and thrust chamber in Robertson.	W. Botha, "Orbital Debris: A Case Study Of An Impact Event In South Africa," Proceedings of the Third European Conference on Space Debris, 19 - 21 March 2001, Darmstadt, Germany. Ed.: Huguette Sawaya-Lacoste. ESA SP-473, Vol. 2, Noordwijk, Netherlands: ESA Publications Division, ISBN 92-9092-733-X, 2001, p. 501 - 506 ( <a href="http://adsabs.harvard.edu/abs/2001ESASP.473..501B">http://adsabs.harvard.edu/abs/2001ESASP.473..501B</a> ); SeeSat-L
2000 Jul 01 23: 23	2000-035B	26391	Russia	Sirius FM-1 r1	R	8S812	3500	Western Australia: Balga, Collie, Cunderdin, Morley	SeeSat-L, AUFORN
2000 Jul 02 05: 20	1990-112F	21025	Russia	Raduga 26 SOZ	H	11S861 SOZ	100	California, Nevada	SeeSat-L, NUFORC
2000 Oct 11 18: 00	2000-056B	26539	Russia	Cosmos 2372 r	R	11S772	9300	Lesotho: pilot 33,000 ft over Maseru.	SeeSat-L
2000 Oct 14 00: 30	2000-063D	26567	Russia	Cosmos 2374 casing	H	Sredniy perekhodnik	700	Texas Panhandle, Oklahoma, Kansas and Nebraska; debris found in Wichita, Kansas	SeeSat-L, NUFORC; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2000 Oct 23 11: 45	2000-067B	26581	Russia	GE 6 r	R	8S812	3500	Western Australia: Giles Weather Station (25°02' S, 128°18' E)	SeeSat-L
2000 Nov 21 00: 09	2000-074A	26617	USA	Quickbird 1	p	BCP-2000	980	Uruguay: Montevideo	SeeSat-L

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2001 Jan 12 16: 40	1993-032C	22659	USA	GPS IIA-11 r2	R	Star 48B	111	Saudi Arabia (debris found near 23.7 N, 44.6 E).	"PAM-D Debris Falls in Saudi Arabia", The Orbital Debris Quarterly News, Vol. 6, No. 2, Apr 2001: 1; Note verbale dated 8 March 2001 from the Permanent Mission of Saudi Arabia to the United Nations (Vienna) addressed to the Secretary-General.
2001 Feb 08 19: 15	2000-071B	26606	USA	GPS IIR-6 r1	R	SSPS AJ10-118K	950	South Australia: Robe (37°10' S, 139°45' E)	SeeSat-L
2001 Aug 12 03: 42	2001-030B	26868	Russia	Molniya 3K-11 r	R	11S510	2410	Quebec: Drumondville; Nova Scotia: Halifax	SeeSat-L, NUFORC
2001 Sep 06 09: 51	1975-076B	8128	Russia	Cosmos 756 r	R	8A92ME	1440?	Along the U.S. northeast coast.	SeeSat-L, NUFORC
2001 Sep 16 03: 29	2001-041B	26909	Russia	Progress M-SO1 r	R	11S510	2410	Portugal: Dumbria (La Coruña)	SeeSat-L; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2001 Dec 01 22: 30	2001-053E	26991	Russia	Cosmos 2382 casing	H	Sredniy perekhodnik	700	S. England, Belgium, France	SeeSat-L
2001 Dec 02 04: 15	2001-053D	26990	Russia	Cosmos 2382 r	R	8S812	3500	New Mexico; Texas; Oklahoma; Kansas; Colorado; Nebraska; Iowa; Missouri; South Dakota	SeeSat-L, NUFORC; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2002 Feb 01 05: 27	1997-051D	24947	USA	Iridium 27	P	Iridium	~600	Yukon: Whitehorse, Lake Laberge	SeeSat-L, UFO*BC, Whitehorse Star
2002 Mar 27 17: 45	1985-035C	15679	ESA	Gstar 1 r	R	Ariane H10	1200	Uganda: Kabarole, Mubende, Bundibugyo, Kyenjojo and Kamwenge districts in western Uganda; debris: pressurant sphere found in Kasambya, Kikandwa sub-county in Mubende district	E. Mulondo, "Meteorites sighted in the West," New Vision, Uganda, Mar 31, 2002; New Vision, "Meteorites," New Vision, Uganda, Mar 31, 2002; F. Kiwanuka, "Mubende hit by rocket fragment, says Police," New Vision, Uganda, Apr 10, 2002; SeeSat-L, meteorite-list
2002 May 09 04: 15	2002-023B	27427	Russia	DirecTV-5 r	R	8S812	3500	Michigan: two airliners 150 km south of Sault Ste. Marie	SeeSat-L, NUFORC
2002 Nov 01 03: 41	2002-050B	27553	Russia	Soyuz TMA-1 r	R	11S510	2410	Turkey: crews of 6 airliners, ground-based observers	J. Oberg, H. Zimmer; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2002 Nov 28 14: 13	2002-053B	27558	Russia	Astra 1K r	R	Blok DM3	2500	Oregon, Washington, Idaho, British Columbia	SeeSat-L, NUFORC; (AP), "Russian rocket body re-entry mistaken for meteor shower", Amarillo Globe-News, Nov 29, 2002.
2003 Apr 26 05: 42	2003-015B	27776	Russia	Cosmos 2397 r	R	8S812	3500	South East Brazil	SeeSat-L
2003 Aug 31 02: 14	2003-039B	27874	Russia	Progress M-48 r	R	11S510	2410	Crete, West Turkey	SeeSat-L
2003 Nov 23 03: 31	2003-035C	28084	Russia	2003-035C	D	SpK film part	40	California: Joshua Tree	SeeSat-L, NUFORC
2004 Jan 20 11: 57	1993-068C	22879	USA	Navstar 34 r2	R	Star 48B	111	Argentina: debris found in San Roque.	SeeSat-L
2004 May 06 06: 17	1996-010A	23794	Russia	Raduga 33	P	Gran'	1954	Ontario: Toronto; Ohio: Massillon; Pennsylvania: Erie	SeeSat-L

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
2004 Jun 27 02: 54	1992-088E	22273	Russia	1992-088E	H	11S861 SOZ	100	Michigan: Clarkston, Lexington, Utica, Waterloo-Chelsea; Ontario: Windsor, Acton, Toronto; Ohio: Lordstown, Sagamore Hills; Pennsylvania: Allentown, Erie, Granville Summit, Lancaster, Lebanon, Reamstown, Smethport, Wagman Observatory (Pittsburgh), Tionesta; New York: Big Flats; New Jersey: Johnsonburg; Delaware: Newark	SeeSat-L, NUFORC, MUFON
2004 Nov 06 20: 37	2004-033A	28402	China	FSW No 19	P	FSW-3	2100	Brazil: Paraiba, Rio de Janeiro	SeeSat-L; "Juro que vi", <a href="http://fuleiragem.typepad.com/fuleira/2004/11/juro_que_vi.html">http://fuleiragem.typepad.com/fuleira/2004/11/juro_que_vi.html</a> ; V.J. Ballester Olmos, FOTOCAT: Worldwide Catalogue Of UFO Photographs, 2014.
2005 Apr 01 10: 42	2005-010B	28630	Russia	Ekspress AM-2 r	R	8S812	3500	Western Australia: Esperance; Northern Territory: Yulara, Alice Springs, Ti Tree	SeeSat-L, ABC Local Radio
2006 Apr 15 20: 52	2004-052A	28505	Russia	Sich 1M	P	Okean O1	1950	Spain: Malaga	SeeSat-L
2007 Jan 04 13: 15	2006-063B	29679	Russia	Corot r	R	14S54	2410?	New Mexico, Colorado, Arizona, Montana	SeeSat-L, NUFORC
2007 May 15 04: 33	2007-017B	31394	Russia	Progress M-60 r	R	11S510	2410	Brazil: São Paulo	SeeSat-L
2008 Mar 13 07: 27	1992-050D	22071	Russia	Molniya 1-84 r2	R	Blok-ML	999	British Columbia: Prince George	"Fireball over central B.C. was Russian space junk", Canwest News Service, Mar 13, 2008; NUFORC
2008 Sep 25 20: 55	2008-046D	33381	Russia	Cosmos 2442 r	R	8S812	3500	U.K., France	SeeSat-L, NUFORC
2008 Sep 26 14: 47	2008-046E	33382	Russia	Cosmos 2442 casing	H	Sredniy perekhodnik	700	South Australia: Adelaide	SeeSat-L, AUFORN
2008 Nov 21 17: 02	2008-058B	33440	Russia	Cosmos 2445 r	R	11S510	2410	South Australia: Elliston	SeeSat-L
2009 Feb 13 18: 18	2009-006B	33594	Russia	Progress M-66 r	R	11S510	2410	South Africa: Berg-en-Dal, Greyton, Melkbosstrand, Yzerfontein	W. Koorts, "Spectacular object seen streaking across the Cape Town sky", MNASSA Vol. 68, Nos. 3 & 4: 67-69.
2009 May 10 20: 14	2009-024B	34906	Russia	Progress M-02M r	R	11S510	2410	Russia, Ukraine	SeeSat-L
2010 Jun 19 15: 10	2010-029B	36604	Russia	Soyuz TMA-19 r	R	11S510	2410	Myanmar, Thailand	Aerospace Corp.
2010 Jun 22 01: 10	2009-042C	35698	Russia	2009-042C	H	Briz-M torus tank	950	Spain: Villajoyosa	SeeSat-L
2011 Mar 03 00: 50	2003-058C	28131	USA	GPS IIR-10 r2	R	Star 48B	111	Uruguay (debris found near Artigas)	Aerospace Corp., <a href="http://inexplicata.blogspot.ca/2011/03/uruguay-salto-ufo-was-space-junk.html">http://inexplicata.blogspot.ca/2011/03/uruguay-salto-ufo-was-space-junk.html</a>
2011 Apr 24 04: 11	2001-014B	26737	Russia	2001-014B	H	Briz-M torus tank	950	Brazil: Acre, Rondonia	SeeSat-L
2011 Dec 24 16: 25	2011-078B	38037	Russia	Soyuz TMA-03M r	R	11S510	2410	Denmark, The Netherlands, Belgium, France, Germany, Poland	"Retreee Atmospherique (975) 24.12.2011", GEIPAN, <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=2011-12-08169">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=2011-12-08169</a> ; SeeSat-L

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2012 Feb 22 09: 09	1997-016C	24770	France	Thaicom 3 r	R	Ariane H10-3	1240	Brazil: filmed from near Ponta de Pedras, debris near Anapurus	SeeSat-L
2012 Mar 04 11: 42	2007-057B	32300	Russia	Sirius 4 r	H	Briz-M torus tank	950	Australia: Tasmania, Victoria	Aerospace Corp.
2013 Jan 28 02: 27	1983-075A	14207	Russia	Cosmos 1484	P	Resurs-OE No. 3	2500	Georgia; Maryland; North Carolina; New Jersey; New York; Pennsylvania; South Carolina; Virginia	<a href="http://www.amsmeteors.org/members/imo_view/event/2013/206">http://www.amsmeteors.org/members/imo_view/event/2013/206</a> ; NUFORC.
2013 Feb 13 21: 15	2013-007B	39083	Russia	Progress M-18M r	R	11S510	2410	The Netherlands, Belgium, France, Germany, Austria	SeeSat-L
2013 Feb 27 09: 10	2012-021C	38259	China	Yaogan Weixing 14 r	R	CZ-4B Stage 3	4000	Louisiana, Texas. Debris found at Buna, TX.	<a href="http://www.amsmeteors.org/members/imo_view/event/2013/501">http://www.amsmeteors.org/members/imo_view/event/2013/501</a>
2013 May 10 00: 57	2013-016D	39145	USA	Cygnus Mass Simulator	P	Cygnus Mass Simulator	3800	Argentina: Neuquén; Chile: Temuco	SeeSat-L
2013 Nov 11 00: 16	2009-013A	34602	ESA	GOCE	P	GOCE	1002	Falkland Islands: Wall Mountain	ESA
2014 Jan 16 20: 07	2008-028B	33052	China	Zhongxing 9 r	R	CZ-3B Stage 3	4000	Saudi Arabia: Al-Madinah	NASA
2014 Feb 16 01: 41	1980-089A	12054	Russia	Cosmos 1220	P	US-P	3000	Saudi Arabia: Al-Madinah, Jiddah, Mecca, Taif	I. Hudhaifi, "Again .. The fall of the Russian satellite effectively over Saudi Arabia at dawn today ", Al Sabq newspaper, Feb 16, 2014; Paul Maley
2014 Jul 10 11: 42	2014-037J	40077	Russia	Meteor M2 r	R	14S54	2410?	Australia: Tasmania: Hobart, Launceston; Victoria: Melbourne; South Australia: Milang, Owen; New South Wales: Sydney, Dubbo; ACT: Canberra; Queensland: Talwood	Reentrywatch, Youtube, SeeSat-L
2014 Sep 03 04: 33	2014-025	none	Russia	Cosmos 2495 debris	H	Kobal't-M debris	?	New Mexico; Colorado; Wyoming; South Dakota; Montana	<a href="http://www.amsmeteors.org/members/imo_view/event/2014/1973">http://www.amsmeteors.org/members/imo_view/event/2014/1973</a> ; C.L. Peterson, Cloudbait Observatory; T. Ashcraft, <a href="https://vimeo.com/105618310">https://vimeo.com/105618310</a> ; MUFON, NUFORC; M. Langbroek, <a href="http://sattrackcam.blogspot.nl/2014/09/you-only-die-twice-confusing-end-of.html">http://sattrackcam.blogspot.nl/2014/09/you-only-die-twice-confusing-end-of.html</a> ; T. Molczan, "RE: FW: Forced reentry of Cosmos 2495", SeeSat-L mailing list, Sep 12, 2014 ( <a href="http://satobs.org/seesat/Sep-2014/0110.html">http://satobs.org/seesat/Sep-2014/0110.html</a> ).
2014 Sep 13 21: 40	1982-079A	13402	Russia	Cosmos 1400	P	Tselina-D	1750	Finland: Kälviä, Muonio, Inari; Russia: Monchegorsk	Ursa Astronomical Association ( <a href="https://www.taivaanvahti.fi/observations/show/30357">https://www.taivaanvahti.fi/observations/show/30357</a> ) SeeSat-L
2014 Oct 12 18: 32	1980-008B	11683	Russia	Cosmos 1154 r	R	8A92ME	1440?	Svalbard	S. Midtskogen, "Flaming Soviet space junk over Svalbard", Norsk Meteornettverk, Oct 15, 2014. ( <a href="http://norskmeteornettverk.no/wordpress/?p=1820">http://norskmeteornettverk.no/wordpress/?p=1820</a> )
2014 Oct 20 21: 31	1991-075B	21766	France	Intelsat 601 r	R	Ariane H10	1200	Brazil: Ceará: Fortaleza, Itapipoca, Acopiara, Canindé, Quiterianópolis, Santa Quitéria, Aracoiaba, Iguatu, Canindé, Aratuba, Viçosa	"Chuva de meteoros é vista no Ceará e causa surpresa", Diário do Nordeste, Oct 21, 2014; SeeSat-L, Oct 21, 2014 ( <a href="http://satobs.org/seesat/Oct-2014/0153.html">http://satobs.org/seesat/Oct-2014/0153.html</a> ); "Clarão' teria sido gerado por foguete", Diário do Nordeste, Oct 22, 2014 ( <a href="http://diariodonordeste.verdesmares.com.br/cadernos/cidade/clarao-teria-sido-gerado-por-foguete-1.1131345">http://diariodonordeste.verdesmares.com.br/cadernos/cidade/clarao-teria-sido-gerado-por-foguete-1.1131345</a> ).



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2014 Nov 26 03: 39	2014-074B	40313	Russia	Soyuz TMA-15M r	R	11S510	2410	The Netherlands, Germany, Hungary	M. Langbroek, "Analysis of the 2014-074B Soyuz r/b re-entry on 26 Nov 2014", SatTrackCam Leiden (b)log ( <a href="http://sattrackcam.blogspot.nl/2014/12/analysis-of-2014-074b-soyuz-rb-re-entry.html">http://sattrackcam.blogspot.nl/2014/12/analysis-of-2014-074b-soyuz-rb-re-entry.html</a> )
2014 Dec 28 04: 46	2014-052B	40142	USA	Asiasat 6 r	R	Falcon 9 V1.1 Stage 2	~4700	Chile, Paraguay, Brazil; debris: three large COPV tanks found near Santa Rita do Pardo, Brazil; small metal ring found at Andradina, Brazil	Reentrywatch, Youtube, SeeSat-L
2015 Jan 17 21: 48	2015-015D	40373	USA	Dragon CRS-5 r	R	Falcon 9 V1.1 Stage 2	~4700	Russia: Blagoveshchensk, Belogorsk, Khabarovsk Krai	Astroforum ( <a href="http://vk.com/astro.nomy?w=wall-727032_52634">http://vk.com/astro.nomy?w=wall-727032_52634</a> ); SeeSat-L
2015 Feb 24 05: 55	2014-088B	40363	China	Yaogan Weixing 26 r	R	CZ-4B Stage 3	4000	Arizona, Colorado, Utah, Nevada, Wyoming, Idaho, Oregon, Washington, Montana, British Columbia, Alberta	Reentrywatch, SeeSat-L
2015 Mar 29 12: 48	2015-016B	40543	Russia	Soyuz TMA-16M r	R	11S510	2410	Japan: Habikino, Osaka Prefecture; Aichi Prefecture; Shiojiri City, Nagano Prefecture; Ishikawa Prefecture	Masayoshi Ueda ( <a href="http://meteor.chicappa.jp/2015/TV_2015_03_ueda.html">http://meteor.chicappa.jp/2015/TV_2015_03_ueda.html</a> ); Meteor forum ( <a href="http://sonotaco.jp/forum/viewtopic.php?t=3482">http://sonotaco.jp/forum/viewtopic.php?t=3482</a> ); SeeSat-L.
2015 Jun 17 18: 50	2014-064C	40279	Russia	Ekspress AM-6 r	H	Briz-M torus tank	950	Iran: Ardabil	A. Rasoulzadeh, "A satellite reentry sighted by accident and caught on phone camera," You Tube video, Jun 18, 2015 ( <a href="https://www.youtube.com/watch?v=URjIthj86jl">https://www.youtube.com/watch?v=URjIthj86jl</a> ); Reentrywatch
2015 Jun 29 05: 30	1973-084D	6939	Russia	Cosmos 606 r2	R	Blok-L	1160	Florida, Louisiana, Mississippi, Alabama, Georgia, South Carolina, Tennessee, North Carolina, Virginia, West Virginia	American Meteor Society ( <a href="http://www.amsmeteors.org/members/imo_view/event/2015/1420">http://www.amsmeteors.org/members/imo_view/event/2015/1420</a> ); NUFORC ( <a href="http://www.nuforc.org/webreports/120/S120196.html">http://www.nuforc.org/webreports/120/S120196.html</a> )
2015 Jul 25 06: 01	2015-035B	40745	Russia	Soyuz TMA-17M r	R	11S510	2410	French Polynesia: Bora Bora; Ra'iātea; Moorea; Tahiti: Māhina, Puna'auia, Teahupo'o	"Mystère résolu : l'objet non identifié était une pièce de fusée en train de se désintégrer", TNTV News, Jul 25, 2015 ( <a href="http://www.tntv.pf/Mystere-resolu-l-objet-">http://www.tntv.pf/Mystere-resolu-l-objet-</a> )
2015 Aug 31 09: 03	1981-103A	12903	Russia	Cosmos 1315	P	Tselina-D	1750	Hawaii: Haleiwa, Hilo, Honolulu, Kailua-Kona, Makawao, Waikiki, Waimea	American Meteor Society ( <a href="http://www.amsmeteors.org/members/imo_view/event/2015/2093">http://www.amsmeteors.org/members/imo_view/event/2015/2093</a> ); Reentrywatch
2015 Nov 03 06: 01	2008-010B	32707	USA	Trumpet Follow-On 2 r	R	Atlas V-400 Centaur	2086	France: Midi-Pyrénées: Blajan, Montréjeau; Spain: sightings: Las Cumbres (Murcia), Almeria (Almeria), Almansa (Alicante); debris: three COPV spheres found in Murcia, between Calasparra and Mula. Possible fragment found in Cuenca, near Pozorrubio de Santiago.	SeeSat-L ( <a href="http://satobs.org/seesat/Nov-2015/0065.html">http://satobs.org/seesat/Nov-2015/0065.html</a> ), <a href="http://satobs.org/seesat/Nov-2015/0068.html">http://satobs.org/seesat/Nov-2015/0068.html</a> ); T. Molczan, "Re-entry Sightings and Debris Recovery of 2008-010B", Nov 19, 2015, ( <a href="http://www.satobs.org/reentry/2008-010B/2008-010B.html">http://www.satobs.org/reentry/2008-010B/2008-010B.html</a> ); CNES-Geipan ( <a href="http://www.cnes-geipan.fr/index.php?id=202&amp;cas=2015-11-09363">http://www.cnes-geipan.fr/index.php?id=202&amp;cas=2015-11-09363</a> ).
2015 Nov 04 10: 00	2007-014A	31140	USA	NFIRE	P	SA-200	381	Minnesota, Wisconsin, Michigan	American Meteor Society ( <a href="http://www.amsmeteors.org/members/imo_view/event/2015/2986">http://www.amsmeteors.org/members/imo_view/event/2015/2986</a> )
2015 Nov 13 06: 18	WT1190F	none	USA	Suspected translunar insertion stage of Lunar Prospector	R	LP TLI stage	200	Research aircraft over Indian Ocean, south of Sri Lanka.	Video: "WT1190F Reentry November 13, 2015," ( <a href="https://www.youtube.com/watch?v=YJT-q8_d188">https://www.youtube.com/watch?v=YJT-q8_d188</a> ); T. Watson, "Falling space debris traced to 1998 lunar mission," Nature, Jan 13, 2016. ( <a href="http://www.nature.com/news/falling-space-debris-traced-to-1998-lunar-mission-1.19162?WT.mc_id=SFB_NNEWS_1508_RHBox">http://www.nature.com/news/falling-space-debris-traced-to-1998-lunar-mission-1.19162?WT.mc_id=SFB_NNEWS_1508_RHBox</a> )

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2015 Dec 17 20: 31	2015-076B	41125	Russia	Soyuz TMA-19M r	R	11S510	2410	Newfoundland and Labrador: Muskrat Falls, Goose Bay, South Brook, Grand Falls-Windsor, Saint Anthony, Glenwood, Gander, Clarenville	American Meteor Society ( <a href="http://www.amsmeteors.org/members/imo_view/report?report_id=78046">http://www.amsmeteors.org/members/imo_view/report?report_id=78046</a> ); Reentrywatch; "Labrador Meteor!," YouTube ( <a href="http://www.youtube.com/watch?v=llqskkLOBlw">www.youtube.com/watch?v=llqskkLOBlw</a> ); "Meteorite - Spacejunk Explosion!," YouTube ( <a href="http://www.youtube.com/watch?v=792wW8RNxG8">www.youtube.com/watch?v=792wW8RNxG8</a> ).
2015 Dec 23 02: 10	2015-080B	41178	Russia	Progress MS-01 r	R	11S510	2410	California, Nevada, Arizona	American Meteor Society ( <a href="http://www.amsmeteors.org/members/imo_view/event/2015/4097">http://www.amsmeteors.org/members/imo_view/event/2015/4097</a> ) Meteorite-list; SeeSat-L
2016 Jan 01 23: 35	2015-074C	41107	Russia	Elecktro-L 2 r1	R	Zenit-2SB stage 2	8900	Thailand: Phu Hin Rong Kla National Park, Chiang Mai, Phrae, Nan, Lampang, Phitsanulok, Phayao, Tak, Chai Nat, Ayutthaya, Nong Kha, Maha Sarakham; Vietnam: debris found at three locations in provinces of Yen Bai and Tuyen Quang.	C. Singha, A. Wongnorkaew, "Mysterious light probably space debris," Bangkok Post, Jan 2, 2016 ( <a href="http://www.bangkokpost.com/news/general/813920/mystery-light-likely-space-debris">http://www.bangkokpost.com/news/general/813920/mystery-light-likely-space-debris</a> ); Y. Bai, "Mysterious metal balls found in Vietnam may be space debris: officials," Thanh Nien News, Jan 5, 2016 ( <a href="http://www.thanhniennews.com/society/mysterious-metal-balls-found-in-vietnam-may-be-space-debris-officials-57789.html">http://www.thanhniennews.com/society/mysterious-metal-balls-found-in-vietnam-may-be-space-debris-officials-57789.html</a> ); SeeSat-L
2016 Jan 03 18: 41	1986-052D	16866	Russia	Cosmos 1763 debris	D	Cosmos 1763 debris	~100	Ukraine: recorded by cameras of Meteors UA at Khmelnytskyi, Kyiv, Kyiv Nivky and Pylypovychi; also visually from Vyshgorod; Belarus: Gomel; Russia: Kaluga	Pavel Presnyakov, of Meteors UA; Astropolis (Kiev Astronomy Club), ( <a href="http://www.astroclub.kiev.ua/forum/index.php?topic=32052.2640">http://www.astroclub.kiev.ua/forum/index.php?topic=32052.2640</a> ); Reentrywatch.
2016 Jan 15 05: 53	2015-059B	40983	China	Apstar 9 r	R	CZ-3B Stage 3	4000	Chile: Huasco, Caldera, Antofagasta, Copiapó; Bolivia: Coqueza Canton	"Usuarios registran posible meteorito en el norte del país," 24 Horas, Chile, Jan 15, 2016; SeeSat-L
2016 Jan 30 12: 01	2015-046B	40893	China	TJS-1 r	R	CZ-3B Stage 3	4000	Hawaii: Mauna Kea	P. Plait, "SPECTACULAR Photos of a Rocket Re-Entering Over Hawaii!," Bad Astronomy, Jan 31, 2016 ( <a href="http://www.slate.com/blogs/bad_astronomy/2016/01/31/chinese_rocket_re_entry_caught_by_steve_cullen.html">http://www.slate.com/blogs/bad_astronomy/2016/01/31/chinese_rocket_re_entry_caught_by_steve_cullen.html</a> )
2016 Mar 10 22: 58	2000-050A	26481	China	Zi Yuan 2-1	P	Phoenix Eye 2	1200	Bolivia: La Paz	Meteorito se desintegra en Bolivia," YouTube ( <a href="https://www.youtube.com/watch?v=Jzn-xWchG5Y">https://www.youtube.com/watch?v=Jzn-xWchG5Y</a> )
2016 Jul 19 06: 28	2016-045B	41671	Russia	Progress MS-03 r	R	11S510	2410	New Zealand: South Island	M. Burrows, "Spectacular fireball lights up South Island," Newshub, Jul 19, 2016 ( <a href="http://www.newshub.co.nz/nznews/spectacular-meteor-lights-up-south-island-2016071919#axzz4Er3E055J">http://www.newshub.co.nz/nznews/spectacular-meteor-lights-up-south-island-2016071919#axzz4Er3E055J</a> ); G. Garrick, "Watch: 'Balls of fire' light up sky," NZ Herald, Jul 20, 2016 ( <a href="http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&amp;objectid=11677507">http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&amp;objectid=11677507</a> ); SeeSat-L
2016 Jul 28 04: 36	2016-042E	41628	China	DFFC r	R	CZ-7 Stage 2	3100	California, Nevada, Arizona, Utah, Idaho, Colorado	M. Hamilton, "Mysterious streak of light across night sky is re-entry of Chinese rocket, expert says," L.A. Times, Jul 27, 2016. ( <a href="http://www.latimes.com/local/lanow/la-me-in-streak-light-20160727-snap-story.html">http://www.latimes.com/local/lanow/la-me-in-streak-light-20160727-snap-story.html</a> )

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Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
2016 Oct 02 18: 44	1998-067HC	40951	USA	Flock 2b-2	P	Dove	4.5	Southern England, Northern France	Video: "Satellite debris re-entering," R. Fleet, Oct 2, 2016 ( <a href="https://www.flickr.com/photos/66996725@N00/30074026625/">https://www.flickr.com/photos/66996725@N00/30074026625/</a> ); IMO: Event 3712-2016 ( <a href="http://fireballs.imo.net/imo_view/event/2016/3712">http://fireballs.imo.net/imo_view/event/2016/3712</a> ); T. Molczan, "Re-entry trajectory of Flock 2b-2," SeeSat-L, Oct 3, 2016 ( <a href="http://satobs.org/seesat/Oct-2016/0018.html">http://satobs.org/seesat/Oct-2016/0018.html</a> ); A. Fritzier, "Re: Flock 2B 2 (40951) Reentry Seen from Southern England, UK." SeeSat-L, Oct 5, 2016 ( <a href="http://satobs.org/seesat/Oct-2016/0030.html">http://satobs.org/seesat/Oct-2016/0030.html</a> ).
2017 May 18 19: 26	2017-021B	42685	China	Tianzhou-1	R	CZ-7 Stage 2	3100	Uzbekistan: Tashkent	Examples of YouTube videos: Метеорит в Узбекистане ( <a href="https://www.youtube.com/watch?v=tz31HAzM7Bk">https://www.youtube.com/watch?v=tz31HAzM7Bk</a> ); 18.05.2017   О'ЗБЕКИСТОН ОСМОНИДА МЕТЕОРИТ УЧИБ О'ТДИ ( <a href="https://www.youtube.com/watch?v=-w7ltad0Tz8">https://www.youtube.com/watch?v=-w7ltad0Tz8</a> ); Пролёт метеорита над Ташкентом 19.05.2017 снято на телефон ( <a href="https://www.youtube.com/watch?v=m6YYpVpDASs">https://www.youtube.com/watch?v=m6YYpVpDASs</a> ): Жанакорган метеорит ( <a href="https://www.youtube.com/watch?v=ZdgMmAe1taE">https://www.youtube.com/watch?v=ZdgMmAe1taE</a> ).
2017 May 27 23: 18	2014-049C	40120	China	Gao Fen 2 r	R	CZ-4B Stage 3	4000	Aircraft: Cargolux Flight CV760, 11°56.1' N, 33°17.3' W, alt 10.36 km (approx. 1 min. after sighting).	Pilot C. van Heijst, FaceBook, May 28, 2017, ( <a href="https://www.facebook.com/christiaan.vanheijst/posts/10155340803292090">https://www.facebook.com/christiaan.vanheijst/posts/10155340803292090</a> ); M. Langbroek, "Analysis: The re-entry of the CZ-4B r/b 2014-049C observed by a Dutch pilot on May 27", May 29, 2017, ( <a href="https://sattrackcam.blogspot.nl/2017/05/analysis-re-entry-of-cz-4b-rb-2014-049c.html">https://sattrackcam.blogspot.nl/2017/05/analysis-re-entry-of-cz-4b-rb-2014-049c.html</a> ).
2017 Sep 16 10: 20	2017-054B	42938	Russia	Soyuz MS-06 r	R	11S510	2410	Australia: Northern Territory, South Australia	X. La Canna, G. Hitch, "Bright light likely space junk streaks across Central Australia night sky for more than a minute," ABC Radio Darwin, Sep 17, 2017. ( <a href="http://www.abc.net.au/news/2017-09-17/sighting-of-meteor-or-space-junk-stuns-people-across-central-oz/8954680">http://www.abc.net.au/news/2017-09-17/sighting-of-meteor-or-space-junk-stuns-people-across-central-oz/8954680</a> )
2017 Oct 16 15: 28	2017-065B	42972	Russia	Progress MS-07 r	R	14S54	2410?	UAE, Oman, Qatar, Saudi	Mohammad S. Odeh via Reentrywatch; "Satellite Reentry as seen from Arabian Peninsula on 16 October 2017," Astronomy Center, Oct 17, 2017 ( <a href="https://www.youtube.com/watch?v=1T4WTFhCrkQ&amp;feature=youtu.be">https://www.youtube.com/watch?v=1T4WTFhCrkQ&amp;feature=youtu.be</a> )
2017 Nov 25 05: 48	2017-071B	43007	USA	Cygnus OA-8 r	R	Castor 30B	999	Canada: Alberta: Medicine Hat, Seven Persons; Saskatchewan: Regina, North Battleford, Gravelbourg, Pierceland, Clavet, Zehner, Punnichy	A. Bridges, "Mystery fireball that baffled witnesses was likely rocket falling back to Earth," CBC News, Nov 25, 2017. ( <a href="http://www.cbc.ca/news/canada/saskatchewan/fireball-saskatchewan-alberta-november-2017-1.4419790">http://www.cbc.ca/news/canada/saskatchewan/fireball-saskatchewan-alberta-november-2017-1.4419790</a> )

**Visually Observed Natural Re-entries of Earth Satellites**  
**Compiled by Ted Molczan**  
**2018 Mar 12, 00:38 UTC**

Decay Date UTC	Int'l Desig.	SSN	Origin	Name	Type	Model	Mass kg	Sighting Location	Sources
2018 Jan 27 23: 32	2017-086D	43090	Russia	Angosat 1 r	R	Zenit-3SLBF	?	Brazil: Acre: Rio Branco, Tarauacá, Feijó, Cruzeiro do Sul, Porto Walter, Rodrigues Alves, Marechal Thaumaturgo; Peru: Huancané, San Antonio de Putina, Azángaro, Ucayali, San Martin. Debris: 5 pieces found in Puno; one or more near San José, Ninanuyo, Larancahuani and Catacora.	L. Cesar, "Clarão no céu assusta moradores do Acre," G1 AC, Rio Branco, Jan 28, 2018. ( <a href="https://g1.globo.com/ac/acre/noticia/clarao-no-ceu-assusta-moradores-do-acre.ghtml">https://g1.globo.com/ac/acre/noticia/clarao-no-ceu-assusta-moradores-do-acre.ghtml</a> ); "PUNO: EXTRAÑO OBJETO SURCA LOS CIELOS Y ALARMA A LA POBLACIÓN," Panamericana Televisión S.A., Lima, Peru, Feb 4, 2017. ( <a href="https://panamericana.pe/24horas/nacionales/239668-puno-extrano-objeto-surca-cielos-alarma-poblacion">https://panamericana.pe/24horas/nacionales/239668-puno-extrano-objeto-surca-cielos-alarma-poblacion</a> )
2018 Mar 10 05: 30	2017-078B	43040	China	Alcomsat 1 r	R	CZ-3B Stage 3	4000	Chile, Argentina, Paraguay, Brazil	ABC Color, "Satélite chino causó revuelo," Mar 10, 2018. ( <a href="http://www.abc.com.py/nacionales/satelite-chino-causo-revuelo-1682271.html">http://www.abc.com.py/nacionales/satelite-chino-causo-revuelo-1682271.html</a> ); Télam , "Restos de un cohete chino cruzaron el cielo esta madrugada," Mar 10, 2018. ( <a href="http://www.telam.com.ar/notas/201803/258321-cohete-chino-formosa-destellos-noche.html">http://www.telam.com.ar/notas/201803/258321-cohete-chino-formosa-destellos-noche.html</a> )

Note: Orange highlighted text denotes new ID by TJM since 2012 Apr 29.