Version 11; Page 1 of 3. This chart shows the 328 total CubeSats deployed in orbit so far, for a total of 682 Units. May 15, 2016.

Bryan Klofas. bklofas@gmail.com. Green are University CubeSats; Red are Commercial or Private; Blue are US Government.

Launch/Deployment	Satellite	Object	Size	Radio	Downlink	Satellite Service	Power	TNC	Protocol	Data Rate/Modulation	Downloaded	Lifetime	Antenna	Status	Updated
NLS-1/Eurockot 30 June 2003	AAU1 CubeSat	27846	1U	Wood & Douglas SX450	437.475 MHz	Amateur	500 mW	MX909	AX.25, Mobitex	9600 baud GMSK	1 kB	3 months	dipole	Dead	April 2013
	DTUsat-1	27842	1U	RFMD RF2905	437.475 MHz	Amateur	400 mW		AX.25	2400 baud FSK	0[1]	0 days	canted turnstile	DOA	April 2013
	CanX-1	27847	1U	Melexis	437.880 MHz	Amateur	500 mW		Custom	1200 baud MSK	0[1]	0 days	crossed dipoles	DOA	April 2013
	Cute-1	27844	1U	Alinco DJ-C4 (data)	437.470 MHz	Amateur	350 mW	MX614	AX.25	1200 baud AFSK	>10 MB[2]	118+ months	monopole	Alive	April 2013
	(CO-55)			Maki Denki (beacon)	436.8375 MHz	Amateur	100 mW	PIC16LC73A	CW	50 WPM	N/A		monopole		
	QuakeSat-1	27845	3U	Tekk KS-960	436.675 MHz	Amateur	2 W	BayPac BP-96A	AX.25[3]	9600 baud FSK	423 MB	7 months	turnstile	Dead	April 2013
	XI-IV	27848	1U	Nishi RF Lab (data)	437.490 MHz	Amateur	1 W	PIC16C622	AX.25	1200 baud AFSK	>11 MB[2]	118+ months	dipole	Alive	April 2013
	(CO-57)			Nishi RF Lab (beacon)	436.8475 MHz	Amateur	80 mW	PIC16C716	CW	50 WPM	N/A		dipole		
SSETI Express 27 Oct 2005	XI-V	28895	1U	Nishi RF Lab (data)	437.345 MHz	Amateur	1 W	PIC16C622	AX.25	1200 baud AFSK		90+ months	dipole	Alive	April 2013
	(CO-58)			Nishi RF Lab (beacon)	437.465 MHz	Amateur	80 mW	PIC16C716	CW	50 WPM	N/A		dipole		
	NCube-2	28897[4]	1U		437.505 MHz	Amateur			AX.25	1200 baud AFSK	0[1]	0 days	monopole	DOA	April 2013
	UWE-1	28892	1U	PR430	437.505 MHz	Amateur	1 W	H8S/2674R[5]	AX.25	1200/9600 baud AFSK		3 weeks	end-fed dipole	Dead	Apri 2013
M-V-8 22 Feb 2006	Cute-1.7+APD	28941	2U	Alinco DJ-C5	437.505 MHz	Amateur	300 mW	CMX589A	AX.25/SRLL	1200 AFSK/9600 GMSK	<1 MB	2.5 months	dipole	Deorbited	April 2013
	(CO-56)			Telemetry (beacon)	437.385 MHz	Amateur	100 mW	H8S/2328[5]	CW	50 WPM	N/A		dipole		
Minotaur-1 11 Dec 2006	GeneSat-1	29655	3U+	Microhard MHX-2400	2.4 GHz	Experimental	1 W	Integrated[6]	Proprietary		500 kB	3 months	patch	Deorbited	April 2013
				Stensat (beacon)[7]	437.067 MHz	Amateur	500 mW	PIC12C617	AX.25	1200 baud AFSK	N/A		monopole		
Dnepr 2 17 Apr 2007	CSTB1	31122	1U	Yaesu VX-2R	400.0375 MHz	Experimental	300 mW	PIC	Proprietary	1200 baud AFSK	6.77 MB	18 months	dipole	Dead	April 2013
	AeroCube-2	31133	1U	FreeWave FGRM	915 MHz	Experimental	2 W	Integrated[6]	Proprietary	38.4 kbaud	500 kB	1 week	patch	Dead	April 2013
	CP4	31132	1U	TI CC1000/RF2117	437.325 MHz	Amateur	1 W	PIC18LF6720	AX.25	1200 baud FSK	487 kB	2 months	dipole	Dead	April 2013
	Libertad-1	31128	1U	Stensat	437.405 MHz	Amateur	400 mW		AX.25	1200 baud AFSK	0[8]	1 month	monopole	Dead	April 2013
	CAPE1	31130	1U	TI CC1020	435.245 MHz	Amateur	1 W	PIC16LF452	AX.25	9600 baud FSK	0[9]	4 months	dipole	Dead	April 2013
	CP3	31129	1U	TI CC1000/RF2117	436.845 MHz	Experimental	1 W	PIC18LF6720	AX.25	1200 baud FSK	2.0 MB[2]	19+ months	dipole	Dead	April 2013
	MAST[10]	31126	3U	Microhard MHX-2400	2.4 GHz	Experimental	1 W	Intgrated[6]	Proprietary	15 kbps	>2 MB	0.75 months	monopole	Dead	April 2013
NLS-4/PSLV-C9 28 Apr 2008	Delfi-C3	32789	3U	Custom (transponder)	145.9-435.55 MHz	Amateur	200 mW	N/A	Linear	40 kHz wide	N/A	60+ months	turnstile	Alive	April 2013
	(DO-64)			Custom (beacon)	145.870 MHz	Amateur	400 mW	PIC18LF4680	AX.25	1200 baud BPSK	60 MB[11]		turnstile		
	Seeds-2	32791	1U	Musashino Electric (data)	437.485 MHz	Amateur	450 mW		AX.25	1200 baud AFSK	500 kB[2]	60+ months	monopole	Alive	April 2013
	(CO-66)			Musashino Electric (beacon)	437.485 MHz	Amateur	90 mW		CW		N/A		monopole		
	CanX-2	32790	3U	Custom S-Band	2.2 GHz	Space Research	500 mW	Integrated	NSP	16-256kbps BPSK	250 MB	60+ months	patch	Active	April 2013
	AAUSAT-II	32788	1U	Holger Eckhardt (DF2FQ)	437.425 MHz	Amateur	610 mW	PIC18LF6680	AX.25	1200 baud MSK	8 MB[12]	60+ months	dipole	Alive	April 2013
	Compass-1	32787	1U	Holger Eckhardt (data)	437.405 MHz	Amateur	300 mW	C8051F123, FX614	AX.25	1200 baud AFSK/MSK	<1 MB[2]	60+ months	dipole	Alive	April 2013
				BC549 (beacon)	437.275 MHz	Amateur	200 mW	PIC12F629	CW	15 WPM	N/A		dipole		
Minotaur 1 19 May 2009	AeroCube-3	35005	1U	FreeWave FGRM	915 MHz	Experimental	2 W	Integrated	Proprietary	77 kbaud GFSK	52 MB	7 months	patch	Deorbited	April 2013
	CP6	35003	1U	CC1000/RF2117	437.365 MHz	Amateur	1 W	PIC18LF6720	AX.25	1200 baud FSK		4 months	dipole	Deorbited	April 2013
	HawkSat-1	35004	1U	Microhard MHX-425	437.345 MHz	Amateur	1 W	Integrated	Proprietary		0 kB	0 days	monopole	DOA	April 2013
	PharmaSat	35002	3U+	Microhard MHX-2400	2.4 GHz	Experimental	1 W	Integrated	Proprietary	10 kbps	650 kB	10 days	patch	Deorbited	April 2013
				Stensat (beacon)[7]	437.465 MHz	Amateur	500 mW	Integrated	AX.25	1200 baud AFSK	N/A	1 month	monopole		
ISILaunch 01/ PSLV-C14 23 Sep 2009	BEESAT-1	35933	1U	STE BK-77B	436.000 MHz	Amateur[13]	500 mW	CMX909B	Mobitex	4800/9600 baud GMSK		43+ months	monopole	Alive	April 2013
	UWE-2	35934	1U	Custom	437.385 MHz	Amateur			AX.25	1200 baud AFSK		1 week	dipole	Dead	April 2013
	ITUpSAT-1	35935	1U	Microhard MHX-425	437.325 MHz	Amateur	1 W	Integrated	Proprietary	19200 baud	0 kB[8]	43+ months	dipole	Alive	April 2013
				BeeLine/CC1050	437.325 MHz	Amateur	350 mW		CW		N/A		monopole		
	SwissCube	35932	1U	Butler oscillator/RF5110G	437.505 MHz	Amateur	1 W	MSP430F1611	AX.25	1200 baud FSK	6 MB	43+ months	monopole	Active	April 2013
				RF2516 (beacon)	437.505 MHz	Amateur	100 mW	Integrated	CW	10 WPM	N/A		monopole		
H-IIA F17 20 May 2010	Hayato	36573	1U	Custom	13.275 GHz	Earth exploration	100 mW	Integrated		10 kbps/1 Mbps BPSK	0 kB[8]	18 days	patch	Deorbited	April 2013
	Waseda-SAT2	36574	1U	TXE430-301A	437.485 MHz	Amateur	150 mW	H8/3052F[5]	AX.25	9600 baud FSK	0 kB	0 days	monopole	DOA	April 2013
				TXE430-301A (beacon)	437.485 MHz	Amateur	100 mW	H8/3052F[5]	CW		N/A		dipole	Deorbited	
	Negai-Star	36575	1U	Data	437.305 MHz	Amateur	150 mW		AX.25	1200 baud FSK		1 month	dipole	Deorbited	April 2013
				Beacon Radio	437.305 MHz	Amateur	100 mW		CW	50 WPM	N/A		dipole		
NLS-6/ PSLV-C15 12 July 2010	TIsat-1	36799	1U	Alinco DJ-C6	437.305 MHz	Amateur	500 mW	MSP430F169	AX.25	1200 baud AFSK		33+ months	monopole	Active	April 2013
				CC1010 (beacon)	437.305 MHz	Amateur	400 mW	MSP430F169	CW	15-110 WPM	N/A		monopole		
	StudSat	36796	1U	CC1020	437.505 MHz	Amateur	500 mW	UC3A0512[5]	Custom AX.25	4800 baud FSK	0 kB[8]	5 days	monopole	Dead	April 2013
				MAX1472 (beacon)	437.860 MHz	Amateur	10 mW	UC3A0512[5]	CW	22 WPM	N/A		monopole		
STP-S26 19 Nov 2010	RAX-1	37223	3U	Lithium-1	437.505 MHz	Amateur	750 mW	Integrated	AX.25	9600 baud GMSK	4.8 MB	2 months	turnstile	Dead	April 2013
	O/OREOS	37224	3U+	Microhard MHX-2400	2.4 GHz	Experimental	1 W	Integrated	Proprietary	Variable	8 MB	29+ months	patch	Alive	April 2013
				Stensat (beacon)[7]	437.305 MHz	Amateur	500 mW	Integrated	AX.25	1200 baud AFSK	N/A		monopole		
	NanoSail-D2	37361	3U+	Microhard MHX-2400	2.4 GHz	Experimental	1 W	Integrated	Proprietary	Variable		5 days[14]	patch	Deorbited	April 2013
				Stensat (beacon)[7]	437.270 MHz	Amateur	500 mW	Integrated	AX.25	1200 baud AFSK	N/A		monopole		
Falcon 9-002 8 Dec 2010	Perseus (4)	37251+	1.5U			Government						1 month	dipole	Deorbited	April 2013
	QbX (2)	37249+	3U	TTC	450 MHz	Government	1 W			9600 baud GMSK		1 month	quadrafilar helix	Deorbited	April 2013
	SMDC-ONE	37246	3U	Pericle	UHF	Government						1 month	turnstile	Deorbited	April 2013
	Mayflower	37252	3U	Microhard MHX-425	437.000 MHz		1 W	Integrated	Proprietary	Variable	0 kB[8]	2 days	dipole	Deorbited	April 2013
				Stensat (beacon)[7]	437.600 MHz		1 W	Integrated	AX.25	1200 baud AFSK	N/A				
PSLV-C18 12 Oct 2011	Jugnu	37839	3U	CC1070/RF5110G	437.505 MHz	Amateur	1 W		AX.25	2400 baud FSK		18+ months	monopole	Alive	April 2013
				MAX1472 (beacon)	437.505 MHz	Amateur	10 mW		CW	20 WPM	N/A		monopole		
ELaNa-3/ NPP 28 Oct 2011	AubieSat-1	37854	1U	Melexis TH72011	437.475 MHz	Amateur	800 mW	ATmega1281[5]	CW	20 WPM	0 kB	22+ months	dipole	Alive	April 2013
	DICE (2)	37851+	1.5U	L3 Cadet	465 MHz	Meteorological	1 W	Integrated	Proprietary	2.6 Mbps OQPSK	8.4 GB	20 months	dipole	Dead	Aug 2013
	HRBE	37855	1U	CC1000	437.505 MHz	Amateur	850 mW		AX.25	1200 baud FSK	[11]	22+ months	monopole	Active	Aug 2013
	M-Cubed	37855	1U	Lithium-1	437.485 MHz	Amateur	1 W	Integrated	AX.25	1200 baud FSK	0 kB[8]	22+ months	monopole	Alive	April 2013
	RAX-2	37853	3U	Lithium-1	437.345 MHz	Amateur	1 W	Integrated	AX.25	9600 baud GMSK	242 MB	18 months	turnstile	Dead	Aug 2013
Vega VV01 13 Feb 2012	Xatcobeo	38082	1U	GomSpace U482C	437.365 MHz	Amateur	500 mW	Integrated	AX.25/CW	1200 baud MSK/20 WPM		18+ months	turnstile	Active	Aug 2013
	ROBUSTA		1U	MC12181/MAX2608	437.325 MHz	Amateur	800 mW	PIC18F4580[5]	AX.25	1200 baud AFSK	0 kB[15]	2 days	dipole	Dead	April 2013
	e-st@r	38079	1U	BHX2-437-5	437.445 MHz	Amateur	500 mW	PIC16	AX.25	1200 baud AFSK	0 kB[8]	3 days	dipole	Dead	April 2013
	Goliat	38085	1U	Alinco DJ-C7	437.485 MHz	Amateur	500 mW	FX614/MSP430	AX.25/CW	1200 baud AFSK/20 WPM		1 week	monopole	Dead	April 2013
				Microhard MHX-2420	2.4 GHz		1 W	Integrated	Proprietary	Variable	0 kB[15]		patch		
	PW-Sat	38083	1U	ISIS TRXUV	145.900 MHz	Amateur	200 mW	Integrated	AX.25/CW	1200 baud BPSK/12 WPM		10 months	dipole	Dead	April 2013
	Masat-1	38081	1U	Si4432	437.345 MHz	Amateur	100/400 mW	dsPIC33F[5]	Custom/CW	GFSK/120 CPM	305 MB	18+ months	monopole	Active	Aug 2013
	UniCubeSat-GG		1U	AstroDev Custom	437.305 MHz	Amateur	500 mW	Integrated	AX.25/CW	9600 baud GFSK	0 kB[8]	2 days	dipole	Dead	April 2013
ELaNa-6/NROL-36 13 Sep 2012	SMDC-ONE (2)	38766+	3U	Pericle	UHF	Government							turnstile	Alive	April 2013
	AeroCube-4 (3)	38767+	1U	FreeWave MM2	915 MHz	Experimental	2 W	Integrated	Proprietary	38.4 kbaud		8+ months	patch	Active	April 2013
				CC1101	915 MHz	Experimental	1.3 W	Integrated	Proprietary	500 kbps FSK			patch		
	Aeneas	38760	3U	MHX-425	437.000 MHz	Experimental	1 W	Integrated	Proprietary	Variable		8+ months	monopole	Alive	April 2013
				Stensat (beacon)[7]	437.600 MHz	Amateur	1 W	Integrated	AX.25	1200 baud FSK	N/A	8+ months	monopole		
	CSSWE	38761	3U	Lithium-1	437.345 MHz	Experimental	1 W	Integrated	AX.25	9600 baud GFSK	60 MB	12+ months	monopole	Active	April 2013
	CP5	38763	1U	CC1000/RF2117	437.405 MHz	Amateur	500 mW	PIC18LF6720	AX.25	1200 baud FSK	500 kB	4 months	dipole	Dead	April 2013
	CXBN	38762	2U	Lithium-1	437.525 MHz	Amateur	1 W	Integrated	AX.25	9600 baud GFSK		8+ months	turnstile	Active	April 2013
	CINEMA	38764	3U	Emhiser	2200 MHz	Space Research	1 W	FPGA	Proprietary	1 Mbps FSK		8+ months	patch	Active	April 2013
	Re	38765	3U	Helium-100	915 MHz	Government	1 W	Integrated	AX.25	57.6 kbps FSK	0 kB	0 days	dipole	DOA	Aug 2013
HTV-3/ISS 4 Oct 2012	FITSat-1	38853	1U	High-speed Custom	5.84 GHz	Amateur	2 W	PIC16F886		115.2 kbps FSK		9 months	patch	Deorbited	Aug 2013
				Custom (data)	437.445 MHz	Amateur		PIC16F1519	AX.25	1200 baud AFSK			monopole		
				Custom (beacon)	437.250 MHz	Amateur	10 mW	PIC16F1519	CW		N/A		monopole		
	TechEdSat[16]	38854	1U	Stensat (beacon)[7]	437.465 MHz	Amateur	1 W	Integrated	AX.25	1200 baud AFSK	N/A	7 months		Deorbited	Aug 2013
	F-1	38855	1U	VX-3R	145.980 MHz	Amateur	1 W	PIC18F	AX.25	1200 baud AFSK	0 kB	0 days	dipole	Deorbited	Aug 2013
				VX-3R	437.485 MHz	Amateur	200 mW	PIC16F	FM PWM CW	20 WPM	N/A		dipole		
	WE-WISH	38856	1U	(data)	437.505 MHz	Amateur	100 mW		SSTV	30 kbps SSTV		5 months	monopole	Deorbited	Aug 2013
				(beacon)	437.505 MHz	Amateur			CW				monopole		
	RAIKO	38852	2U	Custom	13 GHz							10 months	patch	Deorbited	Aug 2013
PSLV-C20 25 Feb 2013	STRaND-1	39090	3U	Custom SSC/SSTL	437.575 MHz	Amateur	1.6 W	PIC24	HDLC	9600 baud FSK		6+ months	monopole	Active	Aug 2013
	AAUSAT3	39087	1U	ADF7021/AWT6388	437.425 MHz	Amateur	900 mW	AT90CAN128	CCSDS/CW	2400 bps/30 WPM		6+ months	turnstile	Active	Aug 2013
Bion-M1/Soyuz/ ISILaunch-02 19 April 2013	OSSI-1	39131	1U	ADF7021	437.525 MHz	Amateur	2 W		AX.25	9600 baud FSK	0 kB	0 days	dipole	DOA	Aug 2013
				ADF7021 (beacon)	145.980 MHz	Amateur	80 mW		CW	12 WPM	N/A		monopole		
	SOMP	39135	1U		437.485 MHz	Amateur	500 mW		Custom	23 kbps BPSK		2 months	turnstile	Dead	Aug 2013
				Si4420	437.485 MHz	Amateur	500 mW		CW/AX.25	12 WPM/1200 baud FSK			turnstile		
	BEESAT-2	39136	1U	STE BK-77B	435.950 MHz	Amateur	500 mW	CMX909B	Mobitex	4800 bps GMSK		2+ weeks	monopole	Alive	April 2013
	BEESAT-3	39134	1U	STE BK-77B	435.950 MHz	Amateur	500 mW	CMX909B	Mobitex	4800 bps GMSK		2+ weeks	monopole	Alive	April 2013
	Dove-2	39132	3U	Custom UHF	401.3 MHz	Experimental	1.6 W			2.4 kbps FSK		4+ months	monopole	Alive	Aug 2013
				MHX-2420	2.4 GHz	Experimental	1 W	Integrated	Proprietary	variable			patch		
Antares Demo 21 April 2013	Phonesat 1.0 (Graham)[16]	39146	1U	Stensat (beacon)[7]	437.425 MHz	Amateur	1 W	Integrated	AX.25	1200 baud FSK		1 week	monopole	Deorbited	Aug 2013
	Phonesat 1.0 (Bell)	39145	1U+	Stensat (beacon)[7]	437.425 MHz	Amateur	1 W	Integrated	AX.25	1200 baud FSK		1 week	monopole	Deorbited	Aug 2013
				Iridium Q9602	1616 MHz	Experimental	1.6 W	Integrated	Proprietary	340 byte packet			Patch		
	Phonesat 2.0b (Alexander)[16]	39144	1U	Stensat (beacon)[7]	437.425 MHz	Amateur	1 W	Integrated	AX.25	1200 baud FSK		1 week	monopole	Deorbited	Aug 2013
	Dove-1	39143	3U	Custom UHF	401.3 MHz	Experimental	1.6 W			2.4 kbps FSK		1 week	monopole	Deorbited	Aug 2013
				D3-8225	8.225 GHz	Experimental	3 W		IP over DVB-S2	4 Mbps QPSK			patch		
Long March-2D/ Gaofen 1/ ISILaunch-04 26 April 2013	TurkSat-3USat	39152	3U	Custom Transponder	435.225 MHz	Amateur		N/A	N/A	50 kHz	N/A	1 week	monopole	Dead	Aug 2013
				BeeLine/Astrodev?	437.225 MHz	Amateur	1 W	Integrated	CW/AX.25	9600 baud FSK			monopole		
	CubeBug-1	39153	2U	Lithium-1	437.445 MHz	Amateur	1 W	Integrated	AX.25	1200 baud AFSK		4+ months	turnstile	Alive	Aug 2013
	NEE-01 Pegasus	39151	1U	Custom	910 MHz		1.9 W		SSTV/Audio			1 month		Dead	Aug 2013
Vega VV02/ISIL-06 7 May 2013	ESTCube-1	39161	1U	Data	437.505 MHz	Amateur	500 mW		AX.25	9600 baud FSK		3+ months	monopole	Alive	Aug 2013
				Beacon	437.250 MHz	Amateur	100 mW		CW	18 WPM			monopole		

[1] Satellite never heard from in space.
[2] As of April 2008.
[3] Used a modified Pacsat protocol on top of AX.25. Source code available upon request.
[4] This object separated from SSETI Express months later and is presumed to be NCube-2.
[5] This is also the main satellite processor.
[6] The radio module accepts serial data and uses an internal TNC.
[7] This beacon is based on a Atmel ATA8402.
[8] No uplink commands received by spacecraft.
[9] The CAPE1 team knew the receiver was dead before integration but had no time to fix it.
[10] One identical radio per satellite section, so three total radios onboard.
[11] Since no on-board telemetry storage exists on this satellite, this figure is not for commanded data and cannot be directly compared to the other spacecraft. This figure is beacon data and includes duplicate beacons.
[12] This figure includes all data from the spacecraft, including beacons, bad packets, and retransmissions.
[13] This satellite was not coordinated through the IARU.
[14] There were no solar cells on this satellite.
[15] This spacecraft did receive uplink commands, but it died before before downlink could be established.
[16] These satellites did not have command receivers.

 This chart shows the 328 total CubeSats deployed in orbit so far, for a total of 682 Units. May 15, 2016.

Bryan Klofas. bklofas@gmail.com. Green are University CubeSats; Red are Commercial or Private; Blue are US Government.

Launch/Deployment	Satellite	Object	Size	Radio	Downlink	Satellite Service	Power	TNC	Protocol	Data Rate/Modulation	Downloaded	Lifetime	Antenna	Status	Updated
HTV-4/ISS 19 Nov 2013	ArduSat-1	39413	1U	NanoCom U482C	437.000 MHz	Experimental	1 W	NanoMind A712D[1]	CSP	9600 baud FM-MSK/20 WPM CW		2+ months	turnstile	Alive/Deorbited	Mar 2015
	ArduSat-X	39414	1U	NanoCom U482C	437.000 MHz	Experimental	1 W	NanoMind A712D[1]	CSP	9600 baud FM-MSK/20 WPM CW		2+ months	turnstile	Deorbited	Mar 2015
	Pico Dragon	39412	1U	(data) (beacon)	437.365 MHz 437.250 MHz	Amateur Amateur	800 mW 100 mW		AX.25 CW	1200 baud AFSK		1 month	monopole monopole	Alive/Deorbited	Mar 2015
	TechEdSat-3P	39415	3U	Stensat (beacon) Iridium Q9602	437.465 MHz 1616 MHz	Experimental Experimental	1 W 1 W	Integrated Integrated	AX.25 Proprietary	1200 baud AFSK	N/A	1 month	monopole patch	Deorbited	Mar 2015
ORS-3/ELaNa-4 20 Nov 2013	COPPER	39395	1U	AstroDev He-100	437.290 MHz	Experimental	1 W	Integrated	AX.25	9600 baud FSK			dipole	DOA	Jan 2014
	TJ3Sat	39385	1U	Stensat	437.320 MHz	Experimental	1 W	Integrated	AX.25, CW	1200 baud AFSK					Dec 2013
	Vermont Lunar Cube	39407	1U	Helium-100	437.305 MHz	Experimental	1.5 W	Integrated	AX.25	9600 baud FSK		1+ month	Crossed Dipoles	Alive	Jan 2014
	SwampSat	39402	1U		437.385 MHz	Experimental	1 W		AX.25	9600 baud FSK					Jan 2014
	CAPE-2 (LO-75)	39382	1U	CC1101 RadioMetrix Parrot repeater	437.325 MHz 145.825 MHz	Experimental Experimental	1 W 1 W	Integrated	TI Parrot repeater	9600 baud FSK FM	N/A	1+ month		Alive	July 2014
	Ho'oponopono-2	39403	3U	Microhard MHX-2420 AstroDev Ne-1 (beacon)	2.4 GHz 437.220 MHz	Experimental Experimental	1 W	Integrated dsPIC33F	Proprietary	57.6 kbps			patch monopole	DOA	Jan 2014
	PhoneSat-v2.4	39381	1U	StenSat	437.425 MHz	Experimental	1 W	Integrated	AX.25	1200 baud AFSK			monopole	Alive	Jan 2014
	Trailblazer	39400	1U	AstroDev He-100	437.425 MHz	Experimental	1 W	Integrated	AX.25	9600 baud FSK			turnstile	DOA	Jan 2014
	DragonSat-1	39383	1U	AstroDev He-100	145.870 MHz	Experimental	500 mW	Integrated	AX.25	9600 baud FSK			monopole	DOA	Jan 2014
	KySat-2	39384	1U	AstroDev Li-1	437.405 MHz	Experimental	1.5 W	Integrated	AX.25	9600 baud FSK		1+ month	turnstile	Alive	Jan 2014
	ChargerSat-1	39405	1U	CC1100	437.405 MHz	Experimental	1 W			9600 baud FSK			dipole	DOA	Dec 2013
	NPS-SCAT	39389	1U	Microhard MHX-2400 CC1000 (beacon)[2]	2.4 GHz 437.525 MHz	Experimental Experimental	1 W 1 W	Integrated Integrated	Proprietary AX.25	1200 baud FSK	N/A		patch dipole	Alive	Jan 2014
	Black Knight 1	39398	1U	MHX-425	437.345 MHz	Experimental	1 W	Integrated	Proprietary						
	ORSES	39386	3U			Government									
	ORSTECH (2)	39387+	3U			Government									
	Prometheus (8)	39406+	1.5U			Government									
	SENSE (2)	39388+	3U	Innoflight SCR-100	2.2 GHz	Government							patch	Alive	Dec 2013
	FireFly	39404	3U	L-3 Cadet	425 MHz	Government	1 W	Integrated	Proprietary	QPSK			dipole	Alive	Jan 2014
	Horus	39397	3U	AstroDev	915 MHz	Government							patch	DOA	Dec 2013
ISILaunch-03/Dnepr 21 Nov 2013	FUNcube-1	39444	1U	AMSAT	145.936 MHz	Amateur	300 mW	N/A		1200 baud BPSK	70 MB+	2+ months	dipole	Active	Jan 2014
	ZACube-1	39417	1U	Custom	437.345 MHz	Amateur			AX.25	1200 baud AFSK/9600 baud FSK		2+ months	dipole	Alive	Jan 2014
	HiNcube	39445	1U		437.305 MHz	Amateur			AX.25	9600 baud GMSK				DOA	Jan 2014
	First-MOVE	39438	1U	ISIS TRXUV	145.970 MHz	Amateur	230 mW	Integrated	AX.25	1200 baud BPSK		2+ months	dipole	Alive	Jan 2014
	UWE-3	39446	1U		437.385 MHz	Amateur			AX.25	9600 baud FSK		2+ months		Alive	Jan 2014
	Velox-PII	39438	1U	ISIS?	145.980 MHz	Amateur	230 mW	Integrated	AX.25	1200 baud BPSK		2+ months		Alive	Jan 2014
	NEE-02 KRYSAOR	39441	1U		980 MHz										
	CubeBug-2	39440	2U	AstroDev Li-1	437.445 MHz	Amateur	1 W	Integrated	AX.25	1200/9600 baud AFSK/GFSK		2+ months	turnstile	Alive	Jan 2014
	KHUSAT (2)	39424+	3U	Emhiser	2.2 GHz	Space Research	1 W	FPGA	Proprietary	1 Mbps FSK		2+ months	patch	Alive	Jan 2014
	TRITON-1	39427	3U	ISIS TRXUV	145.815 MHz	Amateur	230 mW	Integrated	AX.25	9600 baud BPSK		2+ months	dipole	Alive	Jan 2014
	Delfi-n3xt	39428	3U	ISIS TRXUV ISIS Custom	145.900 MHz 2.405 GHz	Amateur Amateur	230 mW 125 mW	Integrated	AX.25	9600 baud BPSK 20-500 kbps MSK		2+ months	dipole patch	Alive	Feb 2014
	OPTOS	39420	3U		402 MHz	Earth-exploration									
	Dove-3	39429	3U+	D3-400-T D3-8200-T	401.3 MHz 8.1 GHz	Experimental Experimental	1.6 W 3 W		 IP over DVB-S2				monopole patch	Active	Jan 2014
	PUCP-SAT-1[3]	39442	1U	Telemetry Beacon	145.840 MHz 437.200 MHz	Amateur Amateur	1.5 W 10 mW		AX.25 CW	1200 baud AFSK 12 WPM	N/A		dipole dipole		Jan 2014 Jan 2014
	ICUBE-1[3]		1U	ISIS TRXUV	145.947 MHz	Amateur	230 mW	Integrated	AX.25	1200 baud BPSK					
	HumSAT-D[3]	39433	1U	NanoCom U482C	437.325 MHz	Amateur	500 mW		CSP/CW	1200 baud MSK		2+ months	turnstile	Active	Jan 2014
				D3-8200-T	8.1 GHz	Experimental	3 W		IP over DVB-S2				patch		
	GomX-1	39430	2U	NanoCom U482C	437.250 MHz	Amateur	3 W		CSP	4800 baud MSK			turnstile	Alive	Mar 2015
NROL-39/ELaNa-2 5 Dec 2013	IPEX	39471	1U		437.270 MHz	Experimental	1 W		AX.25	9600 baud FSK		2+ months	dipole	Dead	Dec 2015
	MCubed-2	39469	1U	AstroDev Li-1	437.485 MHz	Experimental	1 W		AX.25	9600 baud GMSK		2+ months	monopole	Active	Jan 2014
	CUNYSAT-1	39470	1U		437.505 MHz	Experimental	1.2 W								
	FIREBIRD (2)	39463+	1.5U		437.405 MHz	Amateur	1 W				27+ MB	2+ months	dipole	Active/DOA	Jan 2014
	Alice	39467	3U			Government									
	AeroCube-5 (2)	39465+	1.5U	Freewave FGRM CC1101	915 MHz 915 MHz	Experimental Experimental	 1.3 W	 Integrated	 Proprietary	 500 kbps FSK			 patch		
	SMDC-ONE (2)	39472+	3U			Government									
	TacSat-6	39473	3U			Government									
	SNAP	39468	3U			Government									
Orb-1/ISS 28 Feb 2014	Flock-1 (28)	39513+	3U+	D3-400-T D3-8200-T	401.3 MHz 8.1 GHz	Earth exploration Earth exploration	1.6 W 3 W		 IP over DVB-S2				monopole patch	Active	Feb 2014
	UAPSAT	39568	1U		437.385 MHz	Amateur			AX.25				turnstile		
	ArduSat-2	39571	2U	AstroDev Li-1 AstroDev Beryllium	400 MHz 2.4 GHz	Experimental Experimental	2 W 2.3 W						turnstile patch	DOA	Apr 2014
	SkyCube	39567	1U	AstroDev C2	915 MHz	Government			AX.25	57.6 kbps			dipole	Dead	Apr 2014
	LitSat-1	39570	1U		145.850 MHz	Amateur			AX.25						
	LituanicaSAT-1	39569	1U			Amateur									
H-IIA/GPM 27 Feb 2014	INVADER (CO-77)	39578	1U	Custom Beacon	437.200 MHz 437.325 MHz	Amateur Amateur	800 mW 100 mW		AX.25 CW	1200 baud AFSK	N/A	2+ months	dipole dipole	Active	Apr 2014
	KSAT-2	39573	1U	S-band Ku-band											
	OPUSAT	39575	1U	Custom	437.150 MHz	Amateur			CW/AX.25	1200 baud AFSK/9600 baud GMSK		2+ months		Alive	Apr 2014
CRS-3/ ELaNa-5 18 Apr 2014	SporeSat	39681	3U	StenSat	437.100 MHz		1 W	Integrated	AX.25	1200 baud AFSK			monopole	Deorbited	Aug 2014
	TSAT	39682	2U	GlobalStar STX2	1.6 GHz	Experimental[4]	200 mW	PIC18F2620	Proprietary	36bytes/sec			Patch	Deorbited	Aug 2014
	PhoneSat-v2.5	39684	1U		437.425 MHz				AX.25	1200 baud AFSK			monopole	Deorbited	Aug 2014
	ALL-STAR	39683	3U	Custom SDR	2401.7 MHz	Experimental								Deorbited	Aug 2014
	KickSat	39685	3U		437.505 MHz		1 W		AX.25	1200 baud AFSK				Deorbited	Aug 2014
ISILaunch-07/Dnepr 19 June 2014	AntelSat[5]	40034	2U	Custom (beacon) Custom (downlink) Custom (downlink)	437.280 MHz 437.575 MHz 2403 MHz	Amateur Amateur Amateur	200 mW 1W 1W		CW AX.25 AX.25	 1200 baud FSK/AFSK 500 kbps GFSK	N/A		1.5 months monopole patch	Alive	Aug 2014
	AeroCube-6[5](2)	40045+	0.5U	AdvRadio CC1101	915 MHz	Experimental	1.3 W	Integrated	Proprietary	500 kbps FSK		1.5 months	patch		Aug 2014
	LEMUR-1[5]	40044	3U	AstroDev Lithuim	402 MHz MHz	Experimental	2 W	Integrated							
	TigriSat[6]	40043	3U												
	Flock-1 (11)	40027+	3U+	D3-400-T D3-8200-T	401.3 MHz 8.1 GHz	Earth exploration Earth exploration	1.6 W 3 W		 IP over DVB-S2	 40 Mbps		1.5 months	monopole patch/helix	Active	Aug 2014
	Perseus (2)	40039+	6U	AstroDev Lithium Custom transmitter	401 MHz 26.8 GHz	Experimental Experimental	1 W 500 mW	Integrated Integrated	AX.25 DVB-S2	 40 Mbps		1.5 months	Monopole Horn	Alive	Aug 2014
	QB50P1	40025	2U	ISIS TRXUV FUNcube-3	145.815 MHz 145.950 MHz	Amateur Amateur	200 mW 400 mW	Integrated	CW/AX.25	15 WPM/1200 baud BPSK Linear transponder		1.5 months	dipole dipole	Alive	Aug 2014
	QB50P2	40032	2U	ISIS TRXUV AMSAT-Francophone	145.880 MHz 145.940 MHz	Amateur Amateur	200 mW	Integrated	CW/AX.25 FX25	15 WPM/1200 baud BPSK 9600 bps FSK		1.5 months	dipole dipole	Alive	Aug 2014
	DTUSat-2	40030	1U	Custom	2.401 GHz	Amateur	220 mW		CW/FSK						
	PolyITAN-1	40042	1U		437.675 MHz	Amateur	600 mW		CW/AX.25	9600 baud FSK		1.5 months	dipole	Alive	Aug 2014
	Duchifat-1	40021	1U	ISIS TRXUV	145.980 MHz 145.825 MHz	Amateur Amateur	200 mW	Integrated	CW/AX.25 AX.25	15 WPM/1200 baud BPSK 1200 baud AFSK		1.5 months	dipole dipole	Alive	Aug 2014 Aug 2014
	NanoSatC-Br 1	40024	1U	ISIS TRXUV	145.865 MHz	Amateur	200 mW	Integrated	CW/AX.25	15 WPM/1200 baud BPSK		1.5 months	dipole	Alive	Aug 2014
	PACE	40022	2U		437.485 MHz	Amateur	1 W		CW/AX.25	15 WPM/1200 baud FSK			dipole		Aug 2014
	POPSAT-HIP-1	40028	3U		437.405 MHz	Amateur			CCSDS						Aug 2014
PSLV-C23 30 June 2014	VELOX-1	40057	3U	ISIS TRXUV	145.980 MHz	Amateur	200 mW	Integrated	AX.25	1200 baud BPSK				Alive	Aug 2014
Soyuz-2 8 July 2014	UKube-1	40074	3U	ISIS TRXUV FUNcube-2 CS-CPUT-STX-01	145.840 MHz 145.915 MHz 2.401 GHz	Amateur Amateur Amateur	200 mW 300 mW 1 W	Integrated	AX.25	1200 baud BPSK 1200 baud BPSK 2 Mbps QPSK		1 month	dipole dipole patch	Alive	Aug 2014
ISS 18 Aug 2014	Chasqui-1[7]	40117	1U		437.025 MHz				AX.25	1200 baud AFSK		0 days	monopole	DOA	Mar 2015
SMAP/ELaNa-10 31 Jan 2015	ExoCube	40380	3U	Axsem AX5042	437.270 MHz	Amateur	1 W	AT91[8]	AX.25	9600 baud FSK		2+ months	monpole	Alive	Mar 2015
	GRIFEX	40379	3U	AstroDev Lithium	437.485 MHz	Amateur	300 mW	Integrated	AX.25	9600/19200 baud GFSK		2+ months	monopole	Active	Mar 2015
	FIREBIRD-2 (2)	40377+	1.5U		437.405 MHz	Amateur			AX.25	19200 baud GMSK		2+ months	dipole	Alive	Mar 2015
CRS-5/ISS[9] 5 Feb 2015	AESP-14	40389	1U		437.600 MHz	Amateur	500 mW		AX.25	9600 baud GFSK		0 days	dipole	DOA	Mar 2015
CRS-5/ISS[9] 3 March 2015	Flock-1d' (2)		3U+	D3-400-T D3-8200-T	401.3 MHz 8.1 GHz	Earth exploration Earth exploration	1.6 W 3 W		 IP over DVB-S2	 40 Mbps		1+ week	monopole patch/helix	Active	Mar 2015
Orb-2/ISS 6 March 2015	Flock-1b (22)[10]	40451+	3U+	D3-400-T D3-8200-T	401.3 MHz 8.1 GHz	Earth exploration Earth exploration	1.6 W 3 W		 IP over DVB-S2	 40 Mbps		1+ week	monopole patch/helix	Active	Mar 2015
	MicroMAS	40457	3U	L-3 Cadet	465 MHz	Meterological	1 W	Integrated	Proprietary	3 Mbps		1+ week	dipole	Alive	Mar 2015
	LambdaSat	40458	1U	StenSat Iridium	437.462 MHz	Amateur	1 W	 Integrated	AX.25 Proprietary	1200 baud AFSK		1+ week	dipole patch	Active	Mar 2015
	TechEdSat-4		3U	Iridium		Experimental		Integrated	Proprietary			1+ week	patch		Mar 2015
	GEARRSAT		3U	GlobalStar STX2	1616 MHz	Experimental	400 mW	Integrated	Proprietary	9600 baud CDMA		1+ week	patch		Mar 2015

[1] This is the main spacecraft processor.
[2] This beacon was built by Cal Poly based on CP2/3/6 heritage.
[3] These satellites were deployed from UniSat-5. Apparently Dove 4 is still stuck inside UniSat-5 and did not deploy.
[4] TSAT used Mobile Satellite Service (ground to satellite) frequencies for inter-satellite communications, requiring an experimental license.
[5] These CubeSats were deployed from UniSat-6 from a Cal Poly P-POD.
[6] This satellite was deployed from UniSat-6 from a PEPPOD.
[7] Chasqui-1 was hand-deployed by Cosmonaut Oleg Artemyev during an ISS space walk.
[8] This is the satellite's main Tyvak Intrepid processor.
[9] These three satellites were brough up to the ISS on SpaceX CRS-5, launched on 10 Jan 2015. AESP was deployed by itself on 5 Feb 2015 by the J-SSOD, and the two Doves were deployed out of a single NRCSD on 3 March 2015.
[10] A total of 28 Dove satellites were expected to be released, but the NRCSD failed partway through the deployment. 6 Dove satellites were returned to earth on SpaceX CRS-5.

Version 11; Page 3 of 3. This chart shows the 328 total CubeSats deployed in orbit so far, for a total of 682 Units. May 15, 2016.
Bryan Klofas. bklofas@gmail.com. Green are University CubeSats; Red are Commercial or Private; Blue are US Government.

Launch/Deployment	Satellite	Object	Size	Radio	Downlink	Satellite Service	Power	TNC	Protocol	Data Rate/Modulation	Downloaded	Lifetime	Antenna	Status	Updated
ELaNa-11/AFSPC-5/ ULTRASat 20 May 2015	LightSail-A	40661	3U		437.435 MHz	Amateur	1.5 W	Integrated	AX.25	9600 baud FSK		7 months	dipole	Deorbited	Apr 2016
	OptiCube (3)[1]	40653+	3U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Apr 2016
	AeroCube-8 (2)	40659+	1.5U	AdvRadio CC1101	915 MHz	Experimental	1.2 W			500 kbps FSK		11+ months	patch	Active	Apr 2016
	GEARRS-2	40657	3U	GlobalStar STX2	1616 MHz	Experimental	400 mW	Integrated	Proprietary	9600 baud CDMA			patch		Apr 2016
	USS Langley	40652	3U		437.475 MHz	Amateur				9600 baud FSK		0 days		DOA	Apr 2016
	BRICSat-P	40655	1.5U	Astrodev He-100 ADF7012	437.975 MHz 437.350 MHz	Amateur Amateur	300 mW 500 mW	Integrated ATMega8	AX.25 APRS AX.25	1200 baud AFSK 2.5 kHz PSK-31		1 month	monopole monopole	Dead	Apr 2016
	P-SAT	40654	1.5U	Byonics MTT4B ADF7012	145.825 MHz 435.350 MHz	Amateur Amateur	300 mW 500 mW	Integrated ATMega8	AX.25 APRS AX.25	1200 baud AFSK 2.5 kHz PSK-31		11+ months	monopole monopole	Alive	Apr 2016
PSLV-C28 10 July 2015	DeOrbitSail	40719	3U		145.975 MHz	Amateur			AX.25	1200 baud BPSK		9+ months	monopole	Alive	Apr 2016
CRS-6/ISS 13 July 2015	Arkyd-3-Reflight	40742	3U	Microhard MHX-2420	2.4 GHz	Experimental	1 W	Integrated	Proprietary FHSS	19.2 kbps			microstrip		Apr 2016
	Flock-1e (14)		3U+	D3-400-T D3-8200-T	401.3 MHz 8.2 GHz	Earth exploration Earth exploration	1.6 W 3 W		 IP over DVB-S2	 100 Mbps		9+ months	monopole patch/helix	Active	Apr 2016
	Centennial-1	40743	1U	Astrodev He-100	437.615 MHz	Experimental	3 W	Integrated	AX.25	1200 baud GFSK			Monopole		Apr 2016
HTV-5/ISS[2] 17 Sept 2015	SERPENS	40897	3U		437.365 MHz	Amateur			CSP	1200 baud MSK				Deorbited	Apr 2016
	S-CUBE	40898	3U												Apr 2016
Long March 6 19 Sept 2015	NUDT-PhoneSat	40900	3U												Apr 2016
Long March 11 25 Sept 2015	Tianwang-1A	40926	2U	NanoCom AX100	435.645 MHz				CSP	4800/9600 baud GMSK					Apr 2016
	Tianwang-1B	40927	2U	NanoCom AX100	437.645 MHz				CSP	4800/9600 baud GMSK					Apr 2016
	Tianwang-1C	40928	3U	NanoCom AX100	435.645 MHz				CSP	4800/9600 baud GMSK					Apr 2016
PSLV-C30 28 Sept 2015	Lemur-2 (4)	40932+	3U	AstroDev Li-1	401 MHz 2.02 GHz	Space operation Earth exporation	1 W 2 W	Integrated	AX.25	9600 baud MSK 1 Mbps QPSK		7+ months	turnstile patch	Alive	Apr 2016
HTV-5/ISS[2] 5 Oct 2015	AAUSAT5	40948	1U	ADF7021/AWT6388	437.425 MHz	Amateur	1 W		CSP	4800 bps GMSK/30 WPM CW		6 months	dipole	Deorbited	Apr 2016
	GOMX-3	40949	3U	NanoCom AX100 Syrlinks HDR-TM	437.250 MHz 8.1 GHz	Amateur Earth Exporation	1 W 2W	Integrated Integrated	CSP	1200-9600 baud GMSK 50 Mbps		6+ months	turnstile patch	Alive	Apr 2016
	Flock-2b (12)[3]	40950+	3U+	D3-400-T D3-8200-T	401.3 MHz 8.2 GHz	Earth exploration Earth exploration	1.6 W 3 W	CC1110	Proprietary IP over DVB-S2	4800 baud GMSK 80 Mbps		6+ months	monopole patch/helix	Active	Apr 2016
NROL-55/GRACE/ ELaNa-12 8 Oct 2015	AeroCube-5c	40965	1.5U	Freewave FGRM AdvRadio	915 MHz 915 MHz	Experimental Experimental	 1.3 W	Integrated	Proprietary	 500 kbps FSK		6+ months	patch patch	Alive	Apr 2016
	AeroCube-7A/OCSD	40966	1.5U	Freewave FGRM SDRadio Laser	915 MHz 915 MHz 1064 nm	Experimental Experimental N/A	 1.3 W 6 W	Integrated	Proprietary	 500 kbps FSK 40 Mbps		6+ months	patch patch	Alive	Apr 2016
	Fox-1A	40967	1U	FM Transponder	145.980 MHz	Amateur	800 mW	N/A	N/A	FM		6+ months	dipole	Active	Apr 2016
	BisonSat	40968	1U	Astrodev He-100	437.375 MHz	Amateur	1 W	MSP430	AX.25	9600 baud		6+ months	dipole	Alive	Apr 2016
	ARC1	40969	1U	CC1101	437.565 MHz	Amateur	1 W	Integrated	AX.25	9600 baud FSK		0 days	monopole	DOA	Apr 2016
	SNAP-3 (3)	40970+	3U												
	LMRST-Sat	40971	3U	AstroDev He-100 Ranging transponder	462.0 MHz 8.45 GHz	Meterological satellite Space Research	1 W 1 mW	Integrated	AX.25 N/A	9600 baud FSK N/A	 N/A	0 days	dipole patch	DOA	Apr 2016
	PropCube (2)	40973+	1U									6+ months	dipole	Alive	Apr 2016
	SINOD-D (2)	40974+	2U									0 days	dipole	DOA	Apr 2016
PSLV-C29 16 Dec 2015	Velox-II[4]	41171	6U		145.930 MHz					1200 baud BPSK					May 2016
	Galassia[4]	41170	2U	ADF7021	145 MHz			PIC18F47J53	AX.25	9600 baud FSK			dipole		May 2016
	Athenoxat-1	41168	3U		437.485 MHz	Amateur				2400 baud MSK					May 2016
CRS-4/ISS/AGS4 29 Jan 2016	Bevo-2[5]	41314	3U	AstroDev He-100	437.325 MHz	Amateur	2.5 W	Integrated	AX.25	38.4 kbps FSK		4+ months	dipole	Alive	May 2016
Soyuz/Sentinel-1B/ VS-14 22 Apr 2016	OUFTI-1	41458	1U	ADF7021 ADF7021	145.950 MHz 145.980 MHz	Amateur Amateur	1 W 100 mW	MSP430 MSP430	AX.25 CW	9600 baud FSK/D-STAR 11 WPM	 N/A	1+ months	monopole monopole	Active	May 2016
	est@r-II	41459	1U	Radiometrix	437.485 MHz	Amateur	500 mW	PIC16	AX.25	1200 baud AFSK/CW		1+ month	dipole	Alive	May 2016
	AAUSAT4	41460	1U	ADF7021/AWT6388	437.425 MHz	Amateur	900 mW	AT90CAN128	CSP/CW	2400 baud FSK/30 WPM	1+ MB	1+ month	dipole	Active	May 2016
Soyuz 28 Apr 2016	SamSat-218D	41466	3U		145.870 MHz	Amateur				CW		0 days		DOA	May 2016

[1] Some primary and backup CubeSats were not ready for this launch, so these three optical calibration CubeSats were just mass models with different coatings on the outside.
[2] All satellites on these two deployments we brought to the station by the HTV-5, launched on 19 August 2015. SERPENS and S-CUBE were deployed by the J-SSOD deployer in mid September, the other satellites were deployed from the NRCSD in the beginning of October.
[3] Two Flock-2b satellites were stuck in a NRCSD deployer and brought back down to earth.
[4] The 6U Velox-II CubeSat contained a 2U deployer for Galassia.
[5] Bevo-2 was deployed from an ISIPod inside AggieSat-4, which was deployed from the ISS by the Space Station Integrated Kinetic Launcher for Orbital Payload Systems (SSIKLOPS).