



CubeSat Launch Initiative

August 3, 2020

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NASA-KSC Launch Services Program



CubeSat Launch Initiative

192 Missions Selected – 109 CubeSats Launched
102 Organizations from 41 States + Puerto Rico



ELaNa
NASA
CalPoly

Launch of Nanosatellite

Glory March 4, 2011

ELaNa III
NASA
CalPoly

Launch of Nanosatellite

NPP October 28, 2011

ELaNa VI
NASA
NRO
CalPoly

Launch of Nanosatellite

NROL-36 September 13, 2012

ELaNa IV
NASA
GalPoly
STP
CRS

Launch of Nanosatellite

ORS-3 November 19, 2013

ELaNa II
NASA
NRO
CalPoly
SRI NPS

Launch of Nanosatellite

NROL-39 December 6, 2013

ELaNa V
NASA
CalPoly

Launch of Nanosatellite

SpL-3 April 18, 2014

ELaNa VIII
NASA
NanoRacks

Launch of Nanosatellite

ORS-3 October 28, 2014

ELaNa X
NASA
CalPoly

Launch of Nanosatellite

SMAP January 31, 2015

ELaNa XI
NASA
NRO
CalPoly
NPS
SRI

Launch of Nanosatellite

APSFC-5 May 20, 2015

ELaNa XII
NASA
NRO
CalPoly
NPS
SHI

Launch of Nanosatellite

NROL-33 October 8, 2015

ELaNa VII
NASA
CRS
CalPoly

Launch of Nanosatellite

ORS-4 November 3, 2015

ELaNa IX
NASA
NanoRacks

Launch of Nanosatellite

OA-4 December 6, 2015

ELaNa XVII
NASA
NanoRacks

Launch of Nanosatellite

OA-7 April 18, 2017

ELaNa XXII
NASA
NanoRacks

Launch of Nanosatellite

SpL-12 August 14, 2017

ELaNa XIII
NASA
ARC
CRS
SpaceFlight
MEI

Launch of Nanosatellite

OA-8 November 12, 2017

ELaNa XIV
NASA
TYVAK

Launch of Nanosatellite

JPSS November 18, 2017

ELaNa 23
NASA
NanoRacks

Launch of Nanosatellite

OA-9 May 21, 2018

ELaNa 18

Launch of Nanosatellite

ICESat-2 September 15, 2018

ELaNa XVI
NASA
NanoRacks

Launch of Nanosatellite

NG-10 November 17, 2018

ELaNa 24
NASA
Spaceflight

Launch of Nanosatellite

SSO-A December 3, 2018

ELaNa 21
NASA
NanoRacks

Launch of Nanosatellite

SpL-16 December 3, 2018

ELaNa XIX
NASA
CBLI
VCLS

Launch of Nanosatellite

Recher Lab December 11, 2018

ELaNa 26
NASA
NanoRacks

Launch of Nanosatellite

NG-11 April 17, 2019

ELaNa XV
NASA
STP

Launch of Nanosatellite

STP-2 June 23, 2019

ELaNa 27
NASA
Spaceflight
ARCS

Launch of Nanosatellite

SpL-18 August 7, 2019

ELaNa 28
NASA
Spaceflight
ARCS

Launch of Nanosatellite

SpL-19 January 31, 2020

ELaNa 25
NASA
NanoRacks

Launch of Nanosatellite

NG-12 February 11, 2020
SpL-19 February 16, 2020

100TH MISSION
EDUCATING AMERICA'S YOUTH INTO SPACE

NSAF February 19, 2020



- COVID-19 has impacted the flight readiness of a significant number of CSLI selectees
 - Response at academic institutions has varied significantly across the country, but most teams lost lab access and most undergraduate students were sent home
 - Some remote work still being performed, but is limited in scope/effectiveness
 - Some teams took hardware home/off-site in an effort to keep working
 - Most NASA centers have been closed for all but “mission essential” work
 - Of the 31 CubeSats manifested to launch in CY 2020 pre-pandemic:
 - 1 has flown (launch delayed ~ 6 weeks)
 - 15 remain manifested to fly (30 September, mid-November, and 1 December)
 - 15 have been delayed to subsequent CRS missions in CY 2021
 - Of the 45 CSLI CubeSats awaiting manifesting, 35 are reporting delays (some significant) to their forecasted readiness dates
 - Launch vehicle pandemic impacts have been minor in comparison to the delays in spacecraft readiness
 - Academic/NASA reopening plans and associated social distancing requirements will undoubtedly result in additional delays
 - Flexibility and patience will be key in the months ahead

CubeSat Launch Initiative Major Accomplishments



ELaNa-25A

Mission: NG-12 (Antares II)

Launched: November 2, 2019

Ext. Deploy: January 31, 2020

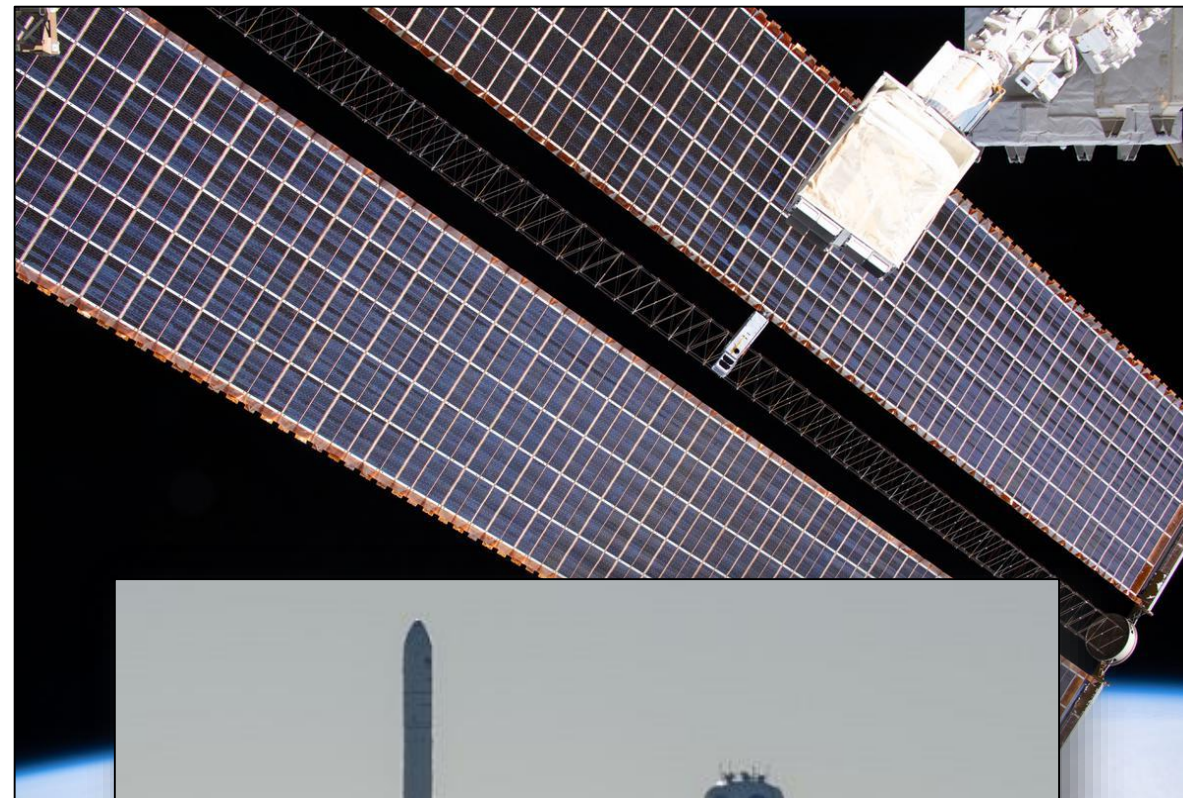
Int. Deploy: February 19, 2020

7 CSLI sponsored CubeSats

- Argus-02 (1U)
 - » St. Louis University
- HARP (3U)
 - » University of Maryland, Baltimore County

★ **100th CubeSat Mission to be Deployed!** ★

- HuskySat I (3U) – *External Cygnus Deploy*
 - » University of Washington
- Phoenix (3U)
 - » Arizona State University
- RadSat-u (3U)
 - » Montana State University
- SOCRATES (3U)
 - » University of Minnesota
- SwampSat II (3U) – *External Cygnus Deploy*
 - » University of Florida



CubeSat Launch Initiative Major Accomplishments



ELaNa-25B

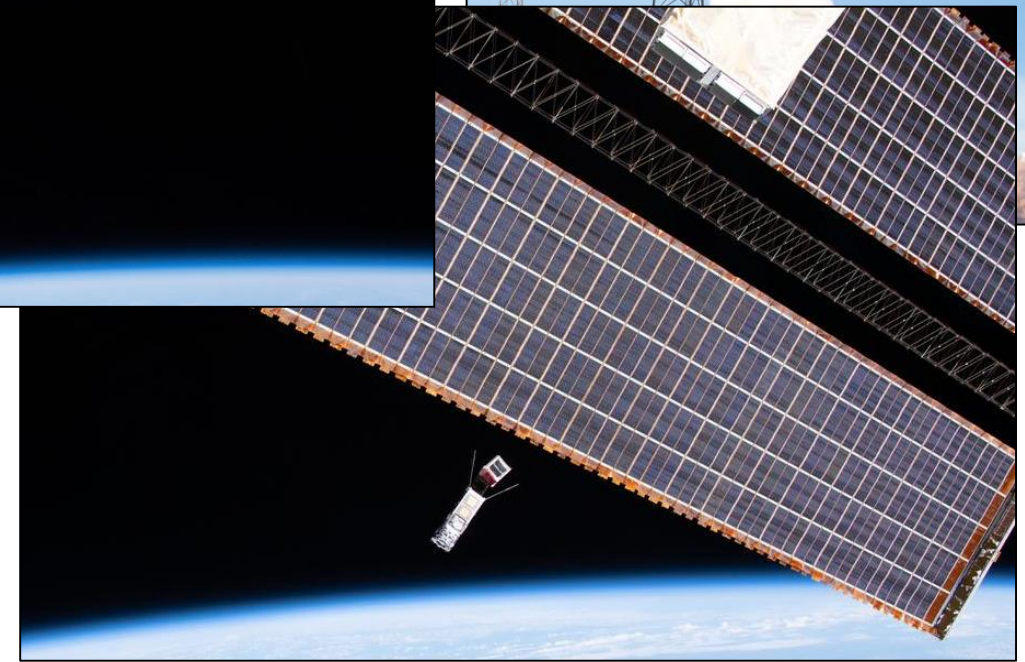
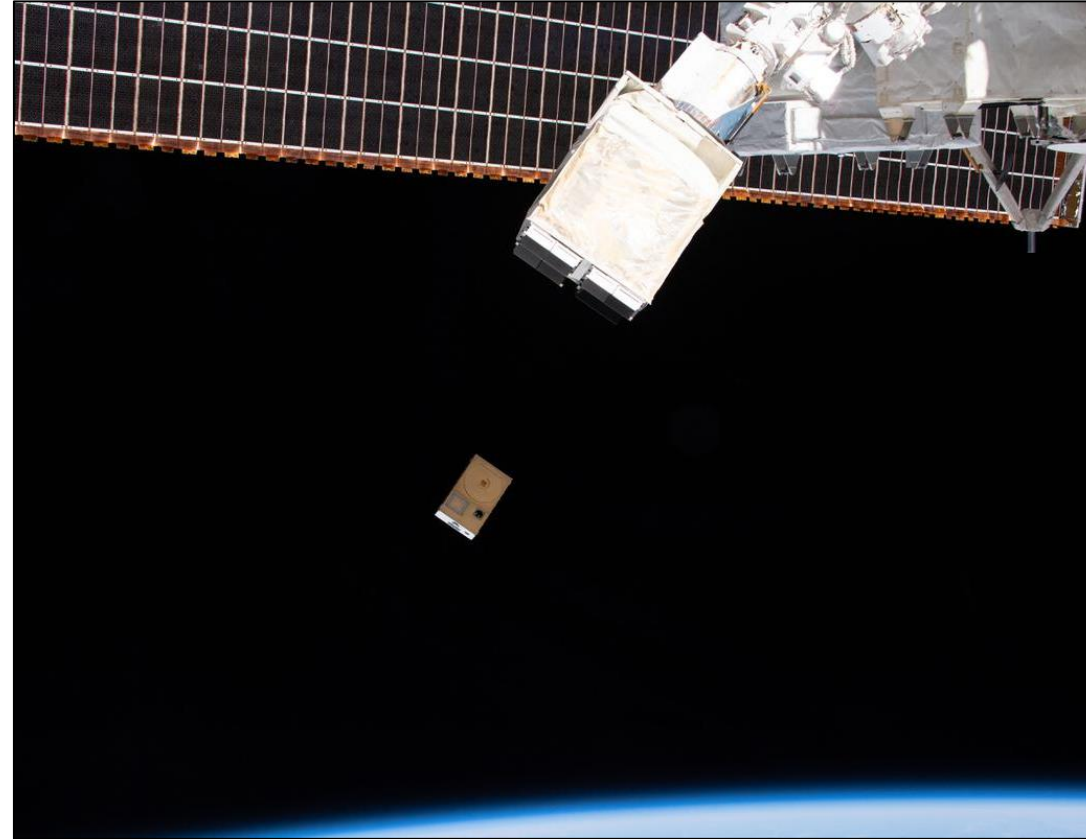
Mission: SpaceX-19 (Falcon 9)

Launched: December 5, 2019

Deploy: February 19, 2020

3 CSLI sponsored CubeSats

- AzTechSat-1 (1U)
 - » NASA Ames
- CryoCube (3U)
 - » NASA KSC
- SORTIE (6U)
 - » Atmospheric & Space Technology Research Associates



CubeSat Launch Initiative Major Accomplishments



ELaNa 28

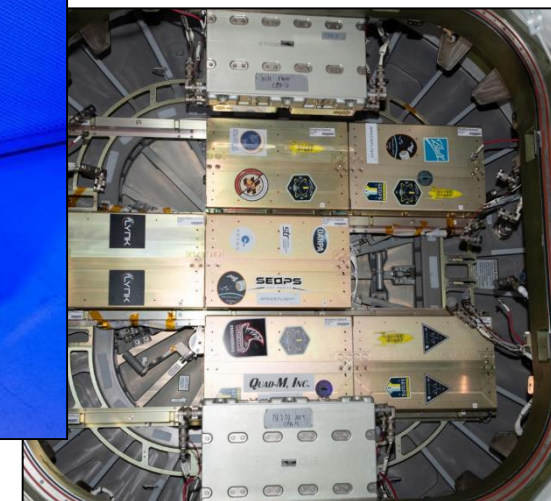
Mission: SpaceX-19 (Falcon 9)

Launched: December 5, 2019

Deploy: January 31, 2020

2 CSLI sponsored CubeSats

- CIRiS
 - » Utah State University/ Ball Aerospace & Technologies
- EdgeCube
 - » Sonoma State University



ELaNa 30

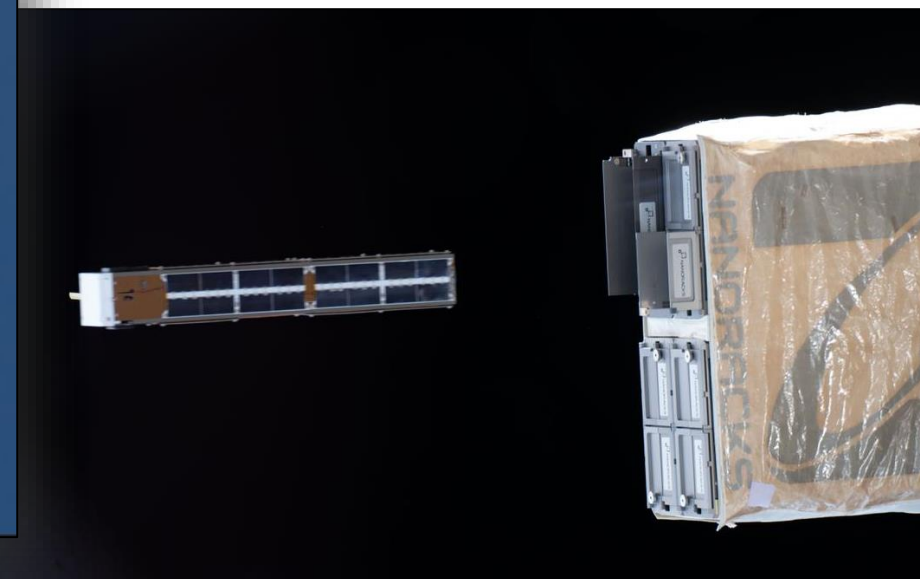
Mission: NG-13 (Antares II)

Launched: February 15, 2020

Deploy: July 13, 2020

1 CSLI sponsored CubeSats

- TES-10 (1x6U)
 - » NASA Ames



CubeSat Launch Initiative Major Accomplishments



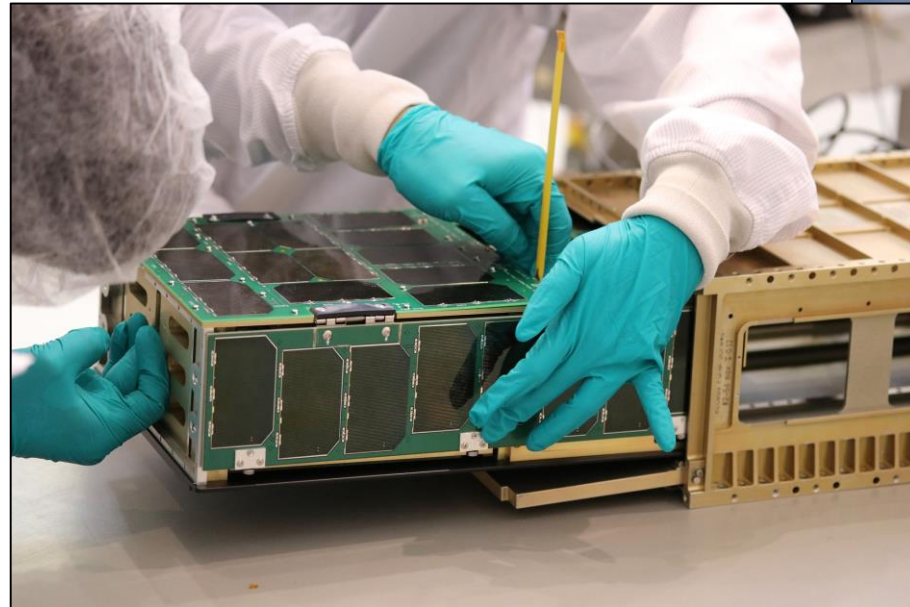
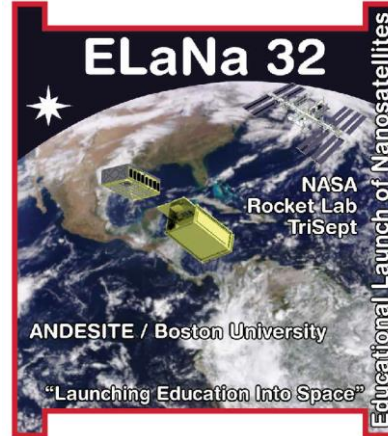
ELaNa 32

Mission: Rocket Lab Flight 12

Launched: June 13, 2020

1 CSLI sponsored CubeSats

- ANDESITE (6U)
 - » Boston University



CubeSat Launch Initiative

Upcoming Flights



Mission	Primary	Launch Vehicle	Launch Date	Launch Site	# of CubeSats
ELaNa 31	NG-14	Antares II	September 30, 2020	Wallops, VA	3
ELaNa 20	VCLS/Virgin Orbit	LauncherOne	Late CY 2020	Mojave, CA	11
ELaNa 35	Transporter-1	Falcon 9	December 1, 2020	CCAFS/KSC	1
ELaNa 33	NG-15	Antares II	February 1, 2021	Wallops, VA	1
ELaNa 36	SpX-22	Falcon 9	March 12, 2021	CCAFS/KSC	9
ELaNa 29	STP-27 VP	LauncherOne	TBD 2021	AAFB, Guam	2
ELaNa 34	Landsat-9	Atlas V	April 8, 2021	VAFB	2
ELaNa 37	CRS TBD	Antares II or Falcon 9	3rd Quarter CY 2021	CCAFS/KSC or Wallops, VA	22

CubeSat Launch Initiative Announcement of Opportunity



Release Date: Soon!

Proposal Due Date: November 4, 2020 @ 4:30 pm EST

Anticipated Selection Date: February 19, 2021

Objective:

NASA anticipates providing a limited number of launch opportunities for CubeSat experiments that will fly as auxiliary payloads on planned missions or be deployed from the International Space Station in the 2021-2024 time frame

NASA will provide integration and other services as necessary to complete the launch activity

NASA will not transfer any funds to collaborators under Agreements negotiated in response to this Announcement

http://go.nasa.gov/CubeSat_initiative

<https://www.nasa.gov/content/announcement-of-opportunity-for-cubesat-launch-initiative>



