NOVEMBER 28, 2025

TRANSPORTER-15 MISSION

WATCH →

On Friday, November 28 at 10:44 a.m. PT, Falcon 9 launched the Transporter-15 mission to sun-synchronous orbit from Space Launch Complex 4E (SLC-4E) at Vandenberg Space Force Base in California.

On board this mission were 140 payloads, including cubesats, microsats, hosted payloads, and orbital transfer vehicles carrying 13 of those payloads to be deployed at a later time.

This was the 30th flight for the first stage booster supporting this mission which previously launched NROL-87, NROL-85, SARah-1, SWOT, Transporter-8, Transporter-9, NROL-146, Bandwagon-2, NROL-153, NROL-192, Transporter-14, and 18 Starlink missions. Following stage separation, the first stage landed on the Of Course I Still Love You droneship, which was stationed in the Pacific Ocean.

There was the possibility that residents of and visitors to Santa Barbara, San Luis Obispo, and Ventura counties may hear one or more sonic booms during the launch, but what residents experienced depended on weather and other conditions.

COUNTDOWN

HR/MIN/SEC	EVENT
00:38:00	SPACEX LAUNCH DIRECTOR VERIFIES GO FOR PROPELLANT LOAD
00:35:00	RP-1 (ROCKET GRADE KEROSENE) LOADING BEGINS
00:35:00	1ST STAGE LOX (LIQUID OXYGEN) LOADING BEGINS
00:16:00	2ND STAGE LOX LOADING BEGINS
00:07:00	FALCON 9 BEGINS ENGINE CHILL PRIOR TO LAUNCH
00:01:00	COMMAND FLIGHT COMPUTER TO BEGIN FINAL PRELAUNCH CHECKS
00:01:00	PROPELLANT TANK PRESSURIZATION TO FLIGHT PRESSURE BEGINS
00:00:45	SPACEX LAUNCH DIRECTOR VERIFIES GO FOR LAUNCH
00:00:03	ENGINE CONTROLLER COMMANDS ENGINE IGNITION SEQUENCE TO START
00:00:00	FALCON 9 LIFTOFF

LAUNCH, LANDING, AND DEPLOYMENT

All Times Approximate

HR/MIN/SEC	EVENT
00:01:12	MAX Q (MOMENT OF PEAK MECHANICAL STRESS ON THE ROCKET)
00:02:30	1ST STAGE MAIN ENGINE CUTOFF (MECO)
00:02:32	1ST AND 2ND STAGES SEPARATE
00:02:40	2ND STAGE ENGINE STARTS (SES-1)
00:03:24	FAIRING SEPARATION
00:06:07	1ST STAGE ENTRY BURN BEGINS
00:06:33	1ST STAGE ENTRY BURN ENDS
00:08:02	1ST STAGE LANDING BURN BEGINS
00:08:21	2ND STAGE ENGINE CUTOFF (SECO-1)
00:08:26	1ST STAGE LANDING
00:51:03	2ND STAGE ENGINE STARTS (SES-2)
00:51:07	2ND STAGE ENGINE CUTOFF (SECO-2)
00:54:39	TORO2 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:54:42	BRO-17 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:54:49	IHI-SAT 2 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:54:53	BRO-20 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:54:58	PHI-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:00	BLACK KITE-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:04	TRYAD-2 DEPLOYS, MANIFESTED BY SEOPS
00:55:11	LEMUR-2-LAILA DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:18	HUNITY, SARI 1, SARI 2, AND ANISC DEPLOY, MANIFESTED BY SEOPS
00:55:20	LEMUR-2-DEANANDMAEVE DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:27	ORORATECH GENA-OT-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:37	LEMUR-2-TEODOR DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:42	NCKU-LILIUM-2 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:56	LUNA-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:58	6GSTARLAB DEPLOYS, MANIFESTED BY EXOLAUNCH
00:55:59	ACCENTURE-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:56:06	SPEQTRE DEPLOYS, MANIFESTED BY SPACE BD
00:56:16	GYEONGGISAT-1 (MXÁO-1) DEPLOYS, MANIFESTED BY EXOLAUNCH
00:56:21	OTTER AND HCT-SAT2 DEPLOY, MANIFESTED BY EXOLAUNCH
00:56:38	FLEDGLING VEERY V0.5 (VEERY-0G) AND SPIN-2 DEPLOY, MANIFESTED BY EXOLAUNCH
00:56:40	TRYAD-1 DEPLOYS, MANIFESTED BY SEOPS
00:56:51	PW-6U DEPLOYS, MANIFESTED BY SEOPS
00:56:52	T.MICROSAT-1 VIA TRON FUTURE TECH DEPLOYS, MANIFESTED BY EXOLAUNCH
00:56:54	MICE-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:56:56	FLOCK 4H 10 DEPLOYS, MANIFESTED BY PLANET LABS
00:57:06	CTC-1A DEPLOYS, MANIFESTED BY ARROW SCIENCE AND TECHNOLOGY, LLC
00:57:07	FLOCK 4H 25 DEPLOYS, MANIFESTED BY PLANET LABS
00:57:35	NCKU-LILIUM-3 DEPLOYS, MANIFESTED BY EXOLAUNCH
00:57:44	PHASMA-LAMARR VIA LSF DEPLOYS, MANIFESTED BY EXOLAUNCH
00:57:55	PHASMA-DIRAC VIA LSF DEPLOYS, MANIFESTED BY EXOLAUNCH
00:57:58	FLOCK 4H 14 DEPLOYS, MANIFESTED BY PLANET LABS
00:58:08	FLOCK 4H 13 DEPLOYS, MANIFESTED BY PLANET LABS
00:58:16	AE5RC DEPLOYS, MANIFESTED BY SPACE BD
00:58:17	FLOCK 4H 5 DEPLOYS, MANIFESTED BY PLANET LABS
00:58:25	WISDOM A-B DEPLOYS, MANIFESTED BY SEOPS
00:58:43	LEMUR-2-STAS-GORBUK DEPLOYS, MANIFESTED BY EXOLAUNCH
00:59:05	CTC-1A DEPLOYS, MANIFESTED BY ARROW SCIENCE AND TECHNOLOGY, LLC
00:59:16	FLOCK 4H 26 DEPLOYS, MANIFESTED BY PLANET LABS
00:59:28	FLOCK 4H 28 DEPLOYS, MANIFESTED BY PLANET LABS
00:59:30	FLOCK 4H 23 DEPLOYS, MANIFESTED BY PLANET LABS
00:59:42	CTC-1C DEPLOYS, MANIFESTED BY ARROW SCIENCE AND TECHNOLOGY, LLC
00:59:45	PIAST-M DEPLOYS, MANIFESTED BY EXOLAUNCH
01:00:07	FLOCK 4H 4 DEPLOYS, MANIFESTED BY PLANET LABS
01:00:12	IRIDE-MS1-EAGLET-2-1 DEPLOYS, MANIFESTED BY OHB ITALIA
01:00:14	PIAST-S2 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:00:22	IRIDE-MS1-EAGLET-2-5 DEPLOYS, MANIFESTED BY OHB ITALIA
01:00:27	MAUVE DEPLOYS, MANIFESTED BY SEOPS
01:00:36	FLOCK 4H 27 DEPLOYS, MANIFESTED BY PLANET LABS
01:00:52	IRIDE-MS1-EAGLET-2-4 DEPLOYS, MANIFESTED BY OHB ITALIA
01:00:57	IRIDE-MS1-EAGLET-2-3 DEPLOYS, MANIFESTED BY OHB ITALIA
01:01:07	IRIDE-MS1-EAGLET-2-6 DEPLOYS, MANIFESTED BY OHB ITALIA
01:01:42	AE5RA DEPLOYS, MANIFESTED BY SPACE BD
01:02:13	AE5RB DEPLOYS, MANIFESTED BY SPACE BD
01:02:21	IRIDE-MS1-EAGLET-2-8 DEPLOYS, MANIFESTED BY OHB ITALIA
01:02:44	FLOCK 4H 32 DEPLOYS, MANIFESTED BY PLANET LABS
01:02:54	IRIDE-MS1-EAGLET-2-7 DEPLOYS, MANIFESTED BY OHB ITALIA
01:03:07	FLOCK 4H 16 DEPLOYS, MANIFESTED BY PLANET LABS
01:03:09	IRIDE-MS1-EAGLET-2-2 DEPLOYS, MANIFESTED BY OHB ITALIA
01:03:28	FLOCK 4H 31 DEPLOYS, MANIFESTED BY PLANET LABS
01:03:34	FLOCK 4H 3 DEPLOYS, MANIFESTED BY PLANET LABS
01:03:51	3UCUBED-A DEPLOYS, MANIFESTED BY SEOPS
01:04:52	FLOCK 4H 35 DEPLOYS, MANIFESTED BY PLANET LABS
01:05:08	FLOCK 4H 33 DEPLOYS, MANIFESTED BY PLANET LABS
01:05:19	FLOCK 4H 34 DEPLOYS, MANIFESTED BY PLANET LABS
01:05:29	FLOCK 4H 2 DEPLOYS, MANIFESTED BY PLANET LABS
01:05:30	FLOCK 4H 36 DEPLOYS, MANIFESTED BY PLANET LABS
01:06:20	FLOCK 4H 30 DEPLOYS, MANIFESTED BY PLANET LABS
01:07:04	FLOCK 4H 15 DEPLOYS, MANIFESTED BY PLANET LABS
01:07:14	FLOCK 4H 29 DEPLOYS, MANIFESTED BY PLANET LABS
01:07:42	FLOCK 4H 18 DEPLOYS, MANIFESTED BY PLANET LABS
01:08:56	FLOCK 4H 19 DEPLOYS, MANIFESTED BY PLANET LABS
01:09:27	FLOCK 4H 20 DEPLOYS, MANIFESTED BY PLANET LABS
01:09:46	FLOCK 4H 17 DEPLOYS, MANIFESTED BY PLANET LABS
01:10:37	FLOCK 4H 24 DEPLOYS, MANIFESTED BY PLANET LABS
01:11:45	FLOCK 4H 22 DEPLOYS, MANIFESTED BY PLANET LABS
01:12:41	FLOCK 4H 21 DEPLOYS, MANIFESTED BY PLANET LABS
01:12:57	FLOCK 4H 1 DEPLOYS, MANIFESTED BY PLANET LABS
01:14:11	FLOCK 4H 6 DEPLOYS, MANIFESTED BY PLANET LABS
01:14:52	FLOCK 4H 8 DEPLOYS, MANIFESTED BY PLANET LABS
01:16:05	FLOCK 4H 7 DEPLOYS, MANIFESTED BY PLANET LABS
01:16:49	FLOCK 4H 12 DEPLOYS, MANIFESTED BY PLANET LABS
01:18:03	FLOCK 4H 9 DEPLOYS, MANIFESTED BY PLANET LABS
01:18:41	FLOCK 4H 11 DEPLOYS, MANIFESTED BY PLANET LABS
01:18:43	ICEYE 4 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:18:55	ICEYE 3 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:19:05	NEWSAT 52 DEPLOYS, MANIFESTED BY SATELLOGIC
01:19:15	LEO EXPRESS 3 DEPLOYS, MANIFESTED BY IMPULSE SPACE
01:19:17	AC1-003 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:19:30	ICEYE 1 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:19:32	HYDROGNSS-1 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:19:40	PIAST-S1 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:20:07	NAHLA DEPLOYS, MANIFESTED BY EXOLAUNCH
01:20:15	YAM-9 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:20:23	UMBRA-11 DEPLOYS, MANIFESTED BY UMBRA
01:20:26	PELICAN-6 DEPLOYS, MANIFESTED BY PLANET LABS
01:20:30	PELICAN-5 DEPLOYS, MANIFESTED BY PLANET LABS
01:20:44	NEWSAT 47 DEPLOYS, MANIFESTED BY SATELLOGIC
01:20:52	AC1-001 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:21:06	MERCURY ONE DEPLOYS, MANIFESTED BY EXOLAUNCH
01:21:13	FGN-TUG-S01 DEPLOYS, MANIFESTED BY FERGANI
01:21:20	ICEYE 5 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:21:53	ION SCV GALACTIC GIORGIUS DEPLOYS, MANIFESTED BY IMPULSO SPACE
01:22:02	HYDROGNSS-2 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:22:41	AC1-002 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:22:44	NEWSAT 51 DEPLOYS, MANIFESTED BY SATELLOGIC
01:23:29	ION SCV STELLAR STEPHANUS DEPLOYS, MANIFESTED BY D-ORBIT
01:24:35	W-SERIES 5 DEPLOYS, MANIFESTED BY VARDA
01:25:35	ICEYE 2 DEPLOYS, MANIFESTED BY EXOLAUNCH
01:45:47	2ND STAGE ENGINE STARTS (SES-3)
01:45:47	2ND STAGE ENGINE CUTOFF (SECO-3)
02:15:41	2ND STAGE ENGINE STARTS (SES-4)
02:15:41	2ND STAGE ENGINE CUTOFF (SECO-4)
02:19:56	FORMOSAT-8A DEPLOYS, MANIFESTED BY TASA
02:39:29	2ND STAGE ENGINE STARTS (SES-5)
02:39:37	2ND STAGE ENGINE CUTOFF (SECO-5)
02:43:10	REALIZING RAPID, REDUCED-COST HIGH-RISK RESEARCH (R5) DEPLOYS, MANIFESTED BY NASA'S CUBESAT LAUNCH INITIATIVE

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