JYOTINT · LAUNCH ADVISORY

SEALED 2026-11-11 17:21 UTC

Amazon Leo (LV-01)

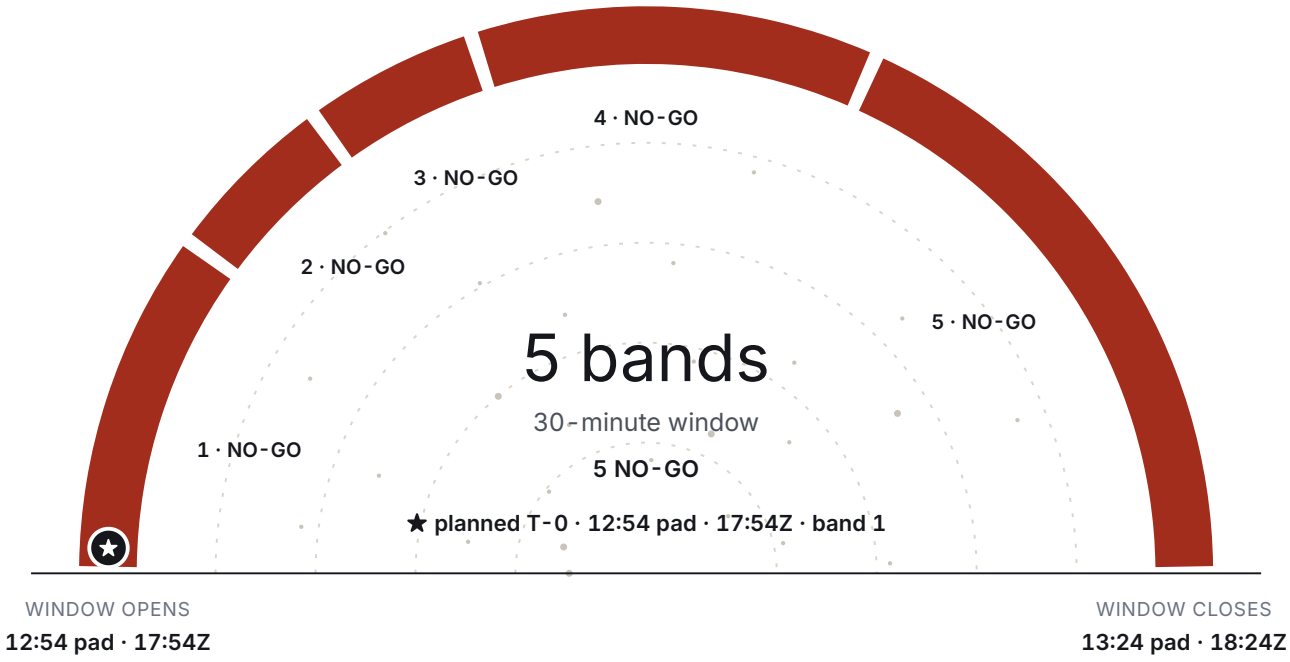
Vulcan Centaur · ULA — Cape Canaveral SFS · SLC-41 · US

advisory id	lia_20261111_37a5aed58666
status	SEALED · WINDOW AHEAD
window, at the pad	Fri, Nov 13, 12:54 EST → Fri, Nov 13, 13:24 EST
window, UTC	2026-11-13 17:54 UTC → 2026-11-13 18:24 UTC
T-0, pad local	Fri, Nov 13, 12:54 EST
pad, cast at	SLC-41 · 28°34′58.8″N 80°34′58.8″W (28.583, -80.583) · America/New_York
prepared for	Vijay Jyotish
profile	communications satellite · low Earth orbit
read	Provisional
edition	Showcase

THE DAY'S CLASS

● STAND DOWN

POSTURE C · STAND DOWN



The window at a glance. Each segment of the arc is one band, in clock order from the window's open on the left to its close on the right, drawn in its window class; the star on the arc is the planned T-0. The band table carries the same classes in words, and each band has its own page with its grade line.

01 · THE CALL

§ 01-06

Commander's briefing

You hold a T-0 in this window. This briefing gives you the day before it opens, read and sealed so it can be graded.

THE MISSION	Vulcan Centaur · ULA · Amazon Leo (LV-01) from Cape Canaveral SFS SLC-41. Window Fri, Nov 13, 2026, 12:54–13:24 EST at the pad; T-0 planned 12:54.
THE WINDOW CALL	The window call is STAND DOWN, set out in full on the binding sheet, the next page.
WHAT IS AT STAKE	Pre-ignition: exposure clean on countdown schedule only (recycle or slip — schedule, not an insurable event). Launch: exposure no-go on GEM 63XL solid boosters and revised nozzles, booster jettison and stage separation, Centaur V upper stage: cryogenic conditioning, RL10 burns, coast, avionics, guidance and telemetry, fairing, adapter and dispenser; spacecraft separation and launch-commit decision. Operating life: exposure elevated on satellite batch after release: early-orbit checkout, delivered orbit against target (propellant spent raising, life shortened) and long-duration reliability of the satellites.
DECISION RESTS WITH THE TEAM	Stand down this window. Work the actionables and re-file on the next window.
THE RECORD BEHIND THIS READ	1 sealed call on Vulcan Centaur, 1 graded in public; the whole public record and the cuts that match this mission are drawn in the record section.
WHAT THIS READ DOES NOT CLAIM	No verdict on the vehicle's engineering, no launch clearance, no price and no figure for cover. Sealed 2026-11-11 17:21 UTC, 2.0 days before the window. The decision stays with you.

The quad and the full read follow; every line above is derived from the sealed values printed there.

THE CALL

● STAND DOWN

STAND DOWN: at the planned T-0 (17:54Z) launch reads NO-GO and operating life reads ELEVATED, and the band holding the T-0 reads NO-GO; no later band in this window reads CLEAN for the flight. The advisor's posture: C · Stand down — the cover phases at the planned T-0 set the course: pre-ignition reads CLEAN, launch reads NO-GO, operating life reads ELEVATED. The decision is the commander's and the insurer's.

Pre-ignition · CLEAN · no hold criterion named

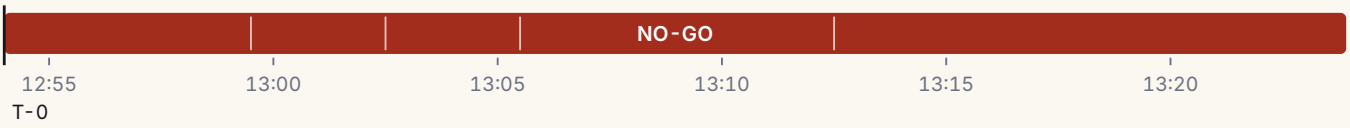
Launch · NO-GO · reads NO-GO at the planned T-0: not flown on this mark

Operating life · ELEVATED · reads ELEVATED at the planned T-0: the named risk is carried in flight

House signal 0.974 (better than 9 in 10) over the three phases, the house's rating. In plain words: the house signal is a chance on a scale from 0 to 1. It is how likely the house finds it that the named anomaly class shows for this vehicle on this day; 0 is none and 1 is sure. 0.974 reads as better than 9 in 10. Driver: Launch 0.940, confidence calibrated on 26 graded launches, Brier 0.033 (the published calibration file, launch rows).

window	Fri, Nov 13, 12:54 EST → Fri, Nov 13, 13:24 EST at the pad
planned T-0	Fri, Nov 13, 12:54 EST — its band reads NO-GO
clean range	none in this window

WINDOW MAP



5 bands · planned T-0 Fri, Nov 13, 12:54 EST · clocks at the pad · one run, the class word inside the bar, a seam at every band boundary

TERMS — FOR CONSIDERATION

REFERRAL

if your authority sets a referral trigger for an adverse date, this read is that trigger before any decision to bind; the decision stays yours.

PRICING

the house would not write this window: the day reads adverse at the level of the mission; where you write, write on the named terms.

CONDITIONS

consider binding only for a different date that reads clean on its own sealed read; this read names no such date.

BINDING

Cover binds to this window and this planned T-0 only: window 2026-11-13 17:54 UTC to 2026-11-13 18:24 UTC, planned T-0 2026-11-13 17:54 UTC. Cover never binds to the mission. A scrub or slip is a new read on new terms (repriced), with the balance paid before the new T-0.

CLAIMS FILE

keep the sealed text, the advisory id and the values sha256 on the file; the seal line lets a later dispute test what was said before the window, and the grading sheet shows how each call was graded.

Recommendation is not verdict: the class is the house's reading. Whether to bind, on what terms, and at what price are the underwriter's decisions, made with their own base rate and authority.

WHAT CHANGES THE CALL

T-0 moves

the class of the band at the new T-0 is the class that applies; the day call stands — read the window map, never re-read the day

an addendum is sealed

a later sealed addendum supersedes this sheet for the rows it names; none is in the sealed values unless printed under Addendum

the launch scrubs

A scrub is a scrub: with no flight no band grades, and the day call is the one row that grades, by the scrub row of the rubric; nothing transfers to a reschedule.

THE RECORD

● 1 sealed · 1 graded · 1 hit

on Vulcan Centaur; "hit" is defined under Accuracy; Brier and the realized hit share are published on the site; the grades, bin by bin, are under The house record.

THE SEAL

sealed	2026-11-11 17:21 UTC
before the window	2.0 days
sealed by	house key · 2026 · week 46
verify	VERIFIED — house line verifies (sign-3fd74b1d, 2026-11-11T17:21:07.987Z)
issuer	Vijay Jyotish LLC
third party	one: the model vendor (named in the verification exhibit), no-retention term

`advisory lia_20261111_37a5aed58666`

Eight families, in the order they print

01 The call
§ 01–06 · 6 sections

02 The decision and the band pages
§ 07–11 · 5 sections

03 What it means
§ 12–13 · 2 sections

04 The mission
§ 14–19 · 6 sections

05 Window evidence and grading
§ 20–23 · 4 sections

06 The record
§ 24–28 · 5 sections

07 Watch and pledge
§ 29–30 · 2 sections

08 Method and exhibits
§ 31–36 · 6 sections

Each family opens with its divider; the page number is in the foot of each page.

Research index · checked, researched, sealed

Mission data as checked
10 fields read against the house sources · 0 changed · full table § 14

Mission as researched
12 of 15 facets observed from 52 dated sources · brief sealed 0fd579e98138 · full read § 15

- business pressure observed
- goal observed
- implications observed
- payload observed
- timeline observed
- consensus observed
- history observed
- market line not observed
- pending observed
- vehicle configuration observed
- context observed
- identity observed
- other factors observed
- sequence not observed
- weather not observed

CONTENTS

Each line is a link: select it to go to that section, on screen and in the saved PDF. Section numbers are as printed beside every heading; the page number is in the foot of each page. Headings are searchable: find a section by its title.

How to read this document: how the advisory is graded comes first, then the call (the TL;DR and claims, the reading box, the band table, the window map and curve, the named mode, the decision package and the actions). The band pages follow, one page per band, each with its own grade box. The supporting material comes last: stakes and money, the mission as checked and as read, the factor table, grading, the record, watch, method, sources and legal.

READ FIRST

01 How this advisory is graded — one recommendation, two branches
02 TL;DR and the key call
03 The claims, upfront — what this advisory asserts
04 The band table — what grades if the rocket flies
05 The window map — the band picture across the window
06 The window risk curve
07 If flown — the named mode
08 Ranked indicators
09 The decision package
10 Pre-launch actionables — what to inspect, and when

THE BAND PAGES

11 The band pages — one page per band

SUPPORTING MATERIAL

12 The stakes — order of magnitude by phase
13 Money value — expected loss avoided, marked estimate
14 Mission data as checked
15 The mission as read
16 The sealed text
17 Frame and scope — what this read covers
18 Background
19 The public prior
20 Factor table — every standard phase, rated by the house
21 Grading protocol — pre-committed
22 Grading sheet
23 Post-flight measurement
24 Accuracy
25 The record, sealed and public
26 Sealed before the event
27 Stress test — what would break this call
28 Addendum and re-seal block
29 The watch plan
30 The data pledge
31 Exhibits and the consensus freeze
32 Chain of custody
33 Method and boundary
34 The laws of foresight
35 Verification exhibit — how a stranger checks this record
36 One third party

01 HOW THIS ADVISORY IS GRADED — ONE RECOMMENDATION, TWO BRANCHES

The day call is the house's recommendation for the day as a whole. The decision to fly belongs to the launch team and the underwriter, never to the house. So the house is graded on what actually happens, on one of two branches, both fixed at the seal.

IF THERE IS NO FLIGHT

The day call grades. The day call on this read is STAND DOWN. With no flight in this window, a NO-GO call grades HIT: the house said do not fly, and the window was not flown. A new date is a new reading.

IF THE MISSION FLIES ANYWAY

The band grades, not the day call. The house cannot stop a launch, and the day call is not graded on a flight. Whatever minute the team picks, the band that holds the actual T-0 is the row that grades, on its own class. All 5 bands of this window were sealed before the window opened, so the house already holds a graded position on every minute of it.

> NO-GO band — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record

This is the house's standing form. On Vulcan Cert-1 · Peregrine (LA-003, January 2024) the house recommended a scrub and sealed the if-flown branch beside it; the launch went ahead, and the if-flown branch is the one that graded. The rows are in "The band table — what grades if the rocket flies"; the full protocol is in the grading section.

02 TL;DR AND THE KEY CALL

● STAND DOWN

Pre-ignition · CLEAN · no hold criterion named

Launch · NO-GO · reads NO-GO at the planned T-0: not flown on this mark

Operating life · ELEVATED · reads ELEVATED at the planned T-0: the named risk is carried in flight

Status: SEALED · WINDOW AHEAD. The window has not opened; every row of the grading sheet is UNRESOLVED by construction.

In plain words: better than 9 in 10 for the named class across the three phases.

Posture C · Stand down — the cover phases at the planned T-0 set the course: pre-ignition reads CLEAN, launch reads NO-GO, operating life reads ELEVATED.

House signal over all three phases: 0.974 — the arithmetic behind the blended class NO-GO, not the verdict. In plain words: the house signal is a chance on a scale from 0 to 1. It is how likely the house finds it that the named anomaly class shows for this vehicle on this day; 0 is none and 1 is sure. 0.974 reads as better than 9 in 10. Per phase: Pre-ignition 0.257 · Launch 0.940 · Operating life 0.416.

If flown, the named mode: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion.

The house day call is NO-GO. By cover phase: pre-ignition CLEAN, launch NO-GO, operating-life ELEVATED. This sealed read is for Vulcan VC6L, a communications satellite mission, window open 17:54 UTC on 13 November 2026. It names where to look. A NO-GO is a recommendation to stand down; the launch team may still fly, and the risk is then theirs.

HOUSE SIGNAL · ALL PHASES	CLEAN SHARE OF THE WINDOW	PLANNED T-0	DRIVER PHASE
0.974	0%	12:54	launch
class: NO-GO better than 9 in 10 for the named class	0 of 31 one-minute samples in a clean band	sits in a NO-GO band	0.940

03 THE CLAIMS, UPFRONT — WHAT THIS ADVISORY ASSERTS

1. Day call: STAND DOWN · house signal 0.97 for the named class. The day call is the house's recommendation; it grades on a scrub, and on a flight the band that holds the actual T-0 grades instead.
2. A scrub is a scrub: with no flight no band grades, and the day call is the one row that grades, by the scrub row of the rubric; nothing transfers to a reschedule.
3. If the team flies anyway: IF flown 12:54–13:24: NO-GO. Each row grades on its own clock.

FALSIFIER: if flown, the band that holds the actual T-0 is the row that grades; the day call is the house's recommendation and is not graded on a flight. A clean flight (with or without a hold or delay) or a successful flight with risk on record, affirmatively established on its channel, against a NO-GO call grades MISS at full weight. Silence on a channel grades UNRESOLVED, never MISS.

Time is the address: this read grades its sealed window, 2026-11-13 17:54 to 2026-11-13 18:24 UTC (planned T-0 2026-11-13 17:54 UTC), on the band that holds the actual lift-off. A new date is a new reading; a flight outside the window does not re-anchor a row. The window has not opened; every row of the grading sheet is UNRESOLVED by construction.

The grade is pre-committed and it is one row: the band that holds the actual T-0 if the rocket flies, the day call if it does not. That row is a HIT or a MISS at full weight, with no half credit; MISS only when the falsifier is affirmatively established on its channel. A row whose channel has not spoken is UNRESOLVED, which is neither.

A printed number is a house signal on a measured series, not a promise; the cap on every printed probability is stated once in the grading protocol. The call is the launch team's and the cover decision the insurer's.

HOW TO READ THIS FOR UNDERWRITING

The day's class is the house's out-of-model, day-specific signal for this launch. It sits beside your vehicle and base-rate model, not instead of it. NO-GO means: the house would not write this window: the day reads adverse at the level of the mission; where you write, write on the named terms. A probability in this document reads as "roughly 1 in N" for the named class in that phase, and "× the base rate" compares it with the public prior for the same phase. Each gloss printed beside a number is arithmetic on that same number; the number itself is unchanged.

Cover binds to this window and this planned T-0 only: window 2026-11-13 17:54 UTC to 2026-11-13 18:24 UTC, planned T-0 2026-11-13 17:54 UTC. Cover never binds to the mission. A scrub or slip is a new read on new terms (repriced), with the balance paid before the new T-0.

Sealed 2026-11-11 17:21 UTC, 2.0 days before the window opens at 2026-11-13 17:54 UTC. Nothing sealed changes after the seal.

What this is NOT: not a vehicle reliability model, not a prediction of a specific failure mode, and not a substitute for the engineering review of the vehicle or its launch readiness.

04 THE BAND TABLE — WHAT GRADES IF THE ROCKET FLIES

One row per band, 5 in all across the 30-minute window (31 one-minute samples, both ends counted); the planned T-0 sits in band 1 (★). If the rocket flies, the band that holds the actual T-0 is the row that grades. Each band has its own page below, with its class per phase, its minutes, its named issues and its change against the planned-T-0 band. Clocks: EST at the pad (America/New_York) first, UTC second; the public channels speak UTC. With no flight no band grades: a scrub grades the day call.

1 ★	2	3	4	5
12:54–12:59	13:00–13:02	13:03–13:05	13:06–13:12	13:13–13:24
NO-GO	NO-GO	NO-GO	NO-GO	NO-GO

BAND	CLASS	EST AT THE PAD	UTC	MIN	PRE-IGNITION	LAUNCH	OPERATING LIFE	AGAINST BAND ★
1 of 5 ★	NO-GO	12:54–12:59	17:54–17:59Z	6	CLEAN 0.26	NO-GO 0.94	ELEVATED RISK 0.42	planned T-0
2 of 5	NO-GO	13:00–13:02	18:00–18:02Z	3	CLEAN 0.12	NO-GO 0.92	CLEAN 0.30	Operating life ELEVATED RISK → CLEAN
3 of 5	NO-GO	13:03–13:05	18:03–18:05Z	3	CLEAN 0.19	NO-GO 0.96	ELEVATED RISK 0.44	same classes as the planned T-0
4 of 5	NO-GO	13:06–13:12	18:06–18:12Z	7	CLEAN 0.17	NO-GO 0.95	ELEVATED RISK 0.44	same classes as the planned T-0
5 of 5	NO-GO	13:13–13:24	18:13–18:24Z	12	CLEAN 0.18	NO-GO 0.95	ELEVATED RISK 0.45	same classes as the planned T-0

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record

The grade law is one way for every band of this class; each band's page carries its line. The band is a risk rating, not a flat declaration: a flight on an adverse band that bites is the priced risk materialised. Holds are not an outcome; a hold flies later and grades on the flight, or scrubs. Signal is the three phase covers' mean p inside the band, as sealed; it is the Brier term's p and never a probability of loss. The class word ranks the bands: a band is lighter only by class, and the signal numbers, which vary by hundredths inside one class, do not rank it against another of the same class.

05 THE WINDOW MAP — THE BAND PICTURE ACROSS THE WINDOW

Scale: the window map — the sweep's per-minute p against the two thresholds, the launch-team view of the whole window.

5 bands, 31 one-minute samples across the window; clocks EST at the pad (America/New_York); shares round to whole percent. No band in this window is clean. Highest-load bands: 12:54–12:59, 13:00–13:02, 13:03–13:05, 13:06–13:12, 13:13–13:24 EST at the pad. The bands grade; the minutes never. The clean range is a selection, never a clearance: a T-0 chosen inside it is still the launch team's call on the day.



Window colors, three classes and one warning state: red · NO-GO (the house recommends standing down; the launch team may still fly, the risk theirs) · yellow · ELEVATED RISK · blue · CLEAN, a named warning stands (a sub-state of CLEAN, not a fourth class) · green · CLEAN.

RANGE	CLASS	BANDS	MIN	SHARE OF WINDOW	READS AS
12:54–13:24	NO-GO	5 ★ planned T-0	31	100%	the day reads adverse; the clean range, if any, is named

Columns left out because this read files no value for them: signal.

Each of the 5 bands has its own row, outcome and grade line in "The band table — what grades if the rocket flies", under The call at the front of this document; the runs above are the strip's shape only.

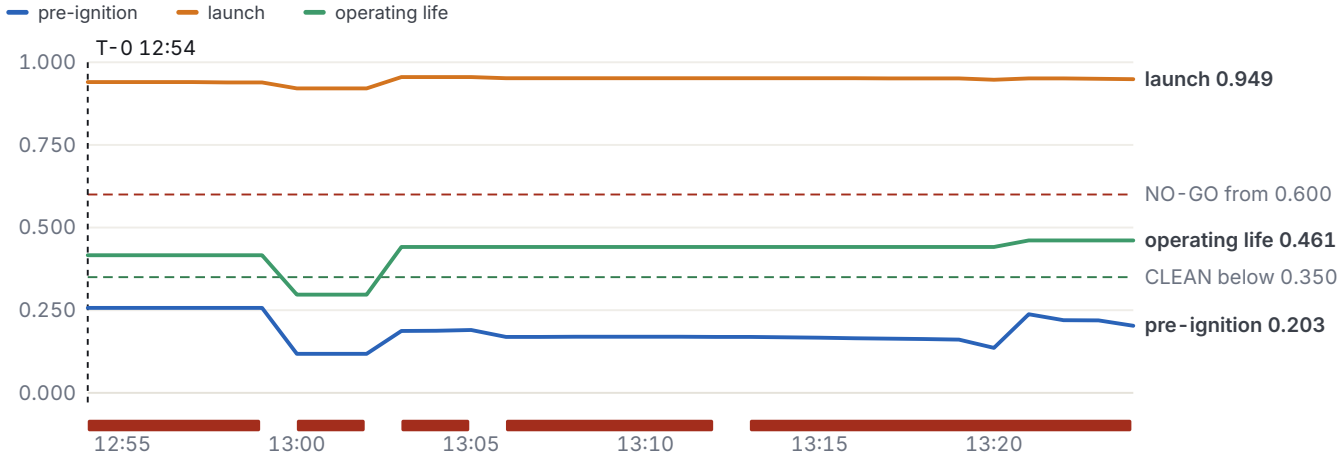
IF flown 12:54–13:24: NO-GO. No clean window follows this band.

In a band statement, a percentage after a component (rocket, mission, pad) is the share of that band's minutes on which the engine marks the component — never a probability of loss.

06 THE WINDOW RISK CURVE

Scale: the window map — the sweep's per-minute p against the two thresholds, the launch-team view of the whole window.

The window risk curve phase signal p at each sampled minute, by phase · 31 one-minute samples over a 30-minute window · the label at each line's end is that phase's p at the last sampled minute · clocks at the pad



Higher = more risk. Below 0.350 CLEAN · from 0.350 ELEVATED RISK · from 0.600 NO-GO.

The strip under the axis is the overall band class; the dashed colored rules are the two class thresholds; the dashed ink rule is the planned T-0.

02 · THE DECISION AND THE BAND PAGES § 07-11

07 IF FLOWN — THE NAMED MODE

1. The call

FALSIFIER: if flown, the band that holds the actual T-0 is the row that grades; the day call is the house's recommendation and is not graded on a flight. A clean flight (with or without a hold or delay) or a successful flight with risk on record, affirmatively established on its channel, against a NO-GO call grades MISS at full weight. Silence on a channel grades UNRESOLVED, never MISS.

The house day call is NO-GO. By cover phase: pre-ignition CLEAN, launch NO-GO, operating-life ELEVATED. This sealed read is for Vulcan VC6L, a communications satellite mission, window open 17:54 UTC on 13 November 2026. It names where to look. A NO-GO is a recommendation to stand down; the launch team may still fly, and the risk is then theirs.

2. Findings

The lead signal is on the upper stage [F1]: a recycle indicator in cryogenic loading, with thermal margin carried through the Centaur V burns toward insertion. That stage is a new shorter version on its first flight (the brief's vehicle-configuration facet, dated 9 November 2026). A margin indicator reaches this path [F7], so the read places it in flight.

The period clock sets the size [F2]: two of its three hands are stalled around one strong one, which sizes any anomaly here as contained, on the delivery side. The stalled hands are the fairing, payload-interface and satellite-release chain [F3] (dispenser arrangement: not read, no dated source) and avionics, guidance and telemetry [F4], where data may answer slowly.

Thrust is the strong element [F5]: the first stage and six solid boosters. On it sits a release-and-separation indicator, closing [F6], pointing at the solid-booster nozzles, booster jettison and stage separation; the revised nozzle follows two earlier failures (the brief's history facet, dated 29 October 2026). The margin indicator stands beside it [F7], and the fault-line check points to the same place [F13].

The certification-and-schedule indicator reads as a disciplined return after rework [F8]. The launch-authority indicator runs below strength [F11]: the go decision sits under backlog pressure (the brief's business-pressure facet, dated 11 November 2026). The fine-grain cross-check supports the interface and thrust paths and flags long-duration reliability [F12].

3. Timeline by phase

Before: the recycle signal belongs to loading, about 240 minutes before the window opens [F1]; a recycle is schedule. Weather: not read (no dated source). Launch: nothing presses on the opening instant [F9]; inside the window the upper-stage signal is tightest at the open, 17:54 UTC, the booster signal at the close, 18:24 UTC [F6]. Flight: solid burn, SRB jettison and stage separation [F6][F13]; then Centaur MES-1, fairing jettison, coast, MES-2 and spacecraft separation [F1][F3][F4]. Sequence for this mission: not read (no dated source); steps are named only. Life: in operating life the watch is delivery quality and early checkout of the batch [F3][F12].

4. What is clean

The launch-instant indicator carries nothing [F9]. The latent-defect and contamination indicator touches no active part [F10].

5. Insurance implications

Pre-ignition cover: CLEAN; a scrub or slip is schedule, not an insurable event [F8][F9][F10]. Launch cover, intentional ignition to separation: NO-GO; exposure sits on the solid boosters and jettison [F6][F13], the upper stage into insertion [F1], avionics [F4] and the fairing-to-release chain [F3], sized by the period clock [F2] and the commit decision [F11]; thrust and margin offset [F5][F7]. Operating-life cover: ELEVATED; exposure is delivery quality carried into the satellites' early life [F3][F4][F12]. Satellite service life: not read (no dated source).

6. Decision handed back

The question on your desk is whether what stands here is enough to commit this window. This read advises and does not decide; the decision is the launch team's and the insurer's.

Widening admitted: the call names 4 modes (a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion). The scope rank of these modes is not in the sealed values, so the grade point is not named.

08 RANKED INDICATORS

F1 · Upper-stage cryogenic propellant conditioning, pressed by the schedule-and-restriction hand

FLIGHT · CENTAUR V UPPER STAGE (LIQUID HYDROGEN / LIQUID OXYGEN, TWO RL10 ENGINES)

Would show as temperature swings in hydrogen topping and replenish, an RL10 chilldown irregularity before an upper-stage burn, propellant stratification in coast, or an orbit short of target.

meaning: A recycle signal in loading; thermal margin carried through the upper-stage burns into insertion · literal: Centaur V hydrogen and oxygen tanks, RL10 chilldown, ullage and feed lines in coast · qualitative: Loading team and launch conductor weighing a recycle; the public account afterward follows this stage

F2 · The three-level period clock running at T-0

FLIGHT · PAYLOAD AND DEPLOYMENT CHAIN; AVIONICS; ENGINES AS THE SUPPORTING HAND

Would show as a contained anomaly on the payload-delivery side — a degraded subsystem or an off-target orbit — sized below a loss driven by the engines.

meaning: Sets the size of an anomaly: interface and data hands stalled, thrust hand strong · literal: Payload interface and deployment, then engines, then flight software and telemetry, in that order · qualitative: Customer-provider partnership period; propulsion team carries it; data reviewers slow to decide

F3 · Fairing, payload-interface and satellite-release hand, running near standstill

FLIGHT · PAYLOAD FAIRING, ADAPTER AND DISPENSER; THE SATELLITE BATCH (DISPENSER ARRANGEMENT NOT READ — NO DATED SOURCE)

Would show as a stubborn or late step at fairing jettison or spacecraft separation: partial or delayed release, a degraded satellite after deployment, extended reviews.

meaning: Interface and deployment steps are the stalled part: rework, or stubborn release behaviour · literal: Fairing jettison, payload adapter and dispenser, release of the satellite batch · qualitative: Provider and customer integration teams; interface rework revisited late; public result tied to delivery

F4 · Avionics, guidance and telemetry hand, running near standstill — FLIGHT · AVIONICS, FLIGHT SOFTWARE, TELEMETRY AND THE GROUND DATA PIPELINE

Would show as frozen displays or a telemetry gap, a go/no-go reversal, a guidance update lagging in ascent, or an insertion off its target orbit.

meaning: Slow or stuck data: guidance updates, telemetry and go/no-go calls lag · literal: Flight computers, guidance for the new shorter upper stage, telemetry links, ground displays · qualitative: Data-review and anomaly teams; a decision that waits on readings; go/no-go reversals

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F5 · First-stage and solid-booster thrust hand, moving at full speed — LAUNCH (IGNITION → SEPARATION) · FIRST STAGE (TWO BE-4 ENGINES) AND SIX GEM 63XL SOLID BOOSTERS

A margin in the main burn: thrust is the element this window supports best, and the command-and-power indicator adds no trigger to it.

meaning: Peak-thrust performance is the strong element of this window · literal: Two BE-4 engines and six solid boosters through liftoff and max-Q · qualitative: Propulsion team acts decisively; this hand holds the middle of the clock

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F6 · Release-and-separation hand sitting on the thrust hand, closing — FLIGHT · GEM 63XL SOLID BOOSTERS (REVISED NOZZLE), JETTISON AND STAGE-SEPARATION SYSTEMS

Would show as a nozzle or thrust-vector event during the solid burn, asymmetric timing or debris at booster jettison, or a surprise at stage separation.

meaning: A sudden, out-of-sequence event where peak thrust meets a jettison or staging step · literal: Solid-booster nozzles and thrust vector, booster jettison, first-stage cutoff and stage separation · qualitative: A known past fault revisited: the nozzle-revision team and its still-open analysis

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F7 · Margin-and-review hand standing beside thrust and reaching the upper stage — FLIGHT · PERFORMANCE MARGIN AND REDUNDANCY ON THE BOOSTER AND UPPER-STAGE PATHS

A margin on both paths: the read sizes an event there as an in-flight anomaly with reserve to compensate.

meaning: Protective margin: an anomaly on these two paths tends to be absorbed in flight · literal: Performance reserve, redundancy and guidance compensation on booster and upper-stage paths · qualitative: Chief engineers and the joint investigation board; the conservative call made before T-0

F8 · Certification-and-schedule hand that owns the vehicle's identity, moving in review — BEFORE · VEHICLE STRUCTURE AND PROPELLANT RESERVES; COUNTDOWN DISCIPLINE

A procedural, by-the-book count; a hold reads as discipline at work. The wider thrust-side pressure belongs to operating life, not to this window.

meaning: Disciplined return after rework; a wide thrust-side pressure builds later, not at T-0 · literal: Tank structure and propellant reserves; redundant telemetry strings; rework carried from the grounding · qualitative: The provider's certification culture and range discipline; the return-to-flight review

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F9 · The launch instant itself: the vehicle on the pad at T-0 — LAUNCH (IGNITION → SEPARATION) · THE LAUNCH INSTANT (VEHICLE ON THE PAD AT T-0)

Nothing to show: no clustered pressure at the opening minute; this indicator is colour, not a finding against the count.

meaning: No pressure indicator stands on the opening instant of the window · literal: Vehicle identity and load-bearing structure at the moment of release from the pad · qualitative: The attempt as an undertaking carries no added flag from this indicator

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F10 · Latent-defect and contamination indicator, standing apart from every active hand — LIFE · CONTAMINATION CONTROL AND LATENT-DEFECT SCREENING

Nothing to show: the indicator touches no active part and is recorded for completeness only.

meaning: No hidden-contaminant signal is attached to any active part in this window · literal: Cleanliness of valves, filters and lines; debris at jettison: none flagged by this read · qualitative: No concealed supplier or inspection fault is indicated; noted and set aside

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F11 · Launch-authority and prestige hand, running below strength in the public-result seat — LAUNCH (IGNITION → SEPARATION) · LAUNCH AUTHORITY AND THE GO/NO-GO DECISION

Would show as a go committed inside a flagged window, or a late call that waits on data: a decision pattern, not a hardware fault.

meaning: The go/no-go call is exposed to schedule and backlog pressure · literal: Launch director's poll and range authority; the command chain adds no thrust trigger · qualitative: Provider leadership under backlog and return-to-flight pressure; customer deadlines behind the date

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F12 · The fine-grain cross-check of each hand's underlying quality — LIFE · PAYLOAD INTERFACE AND ENGINES (CONFIRMED); LONG-DURATION RELIABILITY (FLAGGED)

Supports the interface and thrust paths as consistent under stress; points the watch toward slow-developing reliability in operating life.

meaning: Payload-interface and thrust hands confirm underneath; the long-duration hand reads weak · literal: Interface hardware and engines read as consistent under sustained load; long-life reliability is softer · qualitative: Confirms the integration and propulsion teams' work; flags endurance for later review

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F13 · The deep fault-line check, pointing at the thrust hand — FLIGHT · PROPULSION AND STAGING (BOOSTER AND UPPER-STAGE ENGINES)

Would show, if at all, as an abrupt propulsion or staging event in ascent, with reserve on hand to compensate.

meaning: If acute stress comes, it comes through propulsion; the margin hand covers it · literal: Engines, nozzles and staging events as the place a sudden anomaly would originate · qualitative: Tells the anomaly team where to look first; no pattern beyond that

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09 THE DECISION PACKAGE

Written for the launch team: three priced courses, read left to right: A fly at open, which is the cost of ignoring this advisory; B hold inside the window, no band of a lighter class; C stand down. One carries the mark; the call is the team's.

Three courses for this window: fly at the open as scheduled (A), hold inside the window (B), or stand down the window (C). No band in this window reads CLEAN and none is of a lighter class, so B is a hold and names no other band or clock.

DECIDE BY	OWNER	DISPOSITION
planned T-0 2026-11-13 17:54 UTC	the launch decision authority	stand down the window — the marked course (C); inside the window no band is of a lighter class, so a hold there names no move

WRONG IF

1. A fresh re-read of the window bands that shows at least one band at ELEVATED or CLEAN, which would open a slip to the lightest band.
2. An independent observation from outside the launch origin that the launch phase is lighter than the bands show.
3. A re-verified day call that falls well below 974, with the launch phase no heavier than ELEVATED at 0.416.

WATCH

1. no clean band and no band of a lighter class on this map; only a fresh sealed read of this window could name a move

Mark: the cover phases at the planned T-0 set the course: pre-ignition reads CLEAN, launch reads NO-GO, operating life reads ELEVATED.

A FLY AT OPEN

Fly at open, as scheduled. The cost of ignoring this advisory: the day call stands as sealed and nothing is moved. Log the call, keep the watch plan in force, re-open on a new packet.

ENGINE POSTURE
FLY AT OPEN

IF THE CALL IS WRONG
if the warning is wrong: the launch flies at open on a clean day and the vehicle and the communications satellite of ~$100 million to ~$500 million are delivered on schedule at no added cost.

IF THE CALL IS RIGHT
if the warning is right: the vehicle and the communications satellite fly into the named anomaly at T-0, with ~$100 million to ~$500 million at loss.

FORECLOSES
Once past T-0 there is no scrub or stand down left, and the full ~$100 million to ~$500 million is committed to the day as it is.

REVERSIBILITY
None after commit; total until it.

B HOLD INSIDE THE WINDOW

No clean band in this window and no band is of a lighter class: every band carries the one class. A T-0 move inside the window buys time on the pad, never a lighter band. Priced in reversibility: one reversible move, no declaration; no band is a selection.

ENGINE POSTURE
HOLD INSIDE THE WINDOW — the engine's slip to the lightest band, no band of a lighter class

IF THE CALL IS WRONG
if the warning is wrong: the margin is spent on the ground holding inside a clean window, a small fraction of the ~$100 million to ~$500 million at stake.

IF THE CALL IS RIGHT
if the warning is right: the named anomaly is avoided only while the hold lasts, at the cost of ground margin that is a small fraction of ~$100 million to ~$500 million, and with every band NO-GO there is no lighter band to release into.

FORECLOSES
Holding inside the window gives up a launch at open and burns the 30 minutes of margin, leaving a late scrub as the likely end with ~$100 million to ~$500 million still on the pad.

REVERSIBILITY
High: the window is still open; the hold can still end in a launch or in a scrub.

C STAND DOWN ◆

Stand down this window. Priced in reversibility: the window is given up, the sealed call is not revised, and the next window is re-filed on its own sealed text.

ENGINE POSTURE
STAND DOWN THE WINDOW

IF THE CALL IS WRONG
if the warning is wrong: the window is given up on a clean day, costing the range slot, a pad recycle and the wait for the next published window, a small fraction of the ~$100 million to ~$500 million at stake.

IF THE CALL IS RIGHT
if the warning is right: the cost is a scrub's range slot and crew days while the adverse day is real, a small fraction of ~$100 million to ~$500 million, and the vehicle and payload stay safe on the pad.

FORECLOSES
Standing down gives up this window and its range slot entirely, moving the ~$100 million to ~$500 million mission to the next published window.

REVERSIBILITY
Low inside this window: a scrub is a new read, repriced.

HOUSE MARK | ENGINE RECOMMENDS

Dollar figures in the cards carry a tilde (~): each is the engine's order-of-magnitude sizing of the money at stake, drawn from public ranges for the vehicle and the payload class; none is a ledger row, a price, or a figure for cover.

The house mark follows the cover phases at the planned T-0, which set the course: STAND DOWN. The recommendation printed is C · STAND DOWN THE WINDOW. The call is the launch team's.

This package is the house's recommendation on the risk as sealed, not a verdict: the mission may still fly on the marked day if that risk is accepted. The call belongs to the underwriter, whose money is on the line, and to the launch team.

10 PRE-LAUNCH ACTIONABLES — WHAT TO INSPECT, AND WHEN

Pre-ignition (count · pad)

☐ WHEN	the phase has one band, 12:54–13:24 EST (signal 0.118–0.257); the phase holds one class across the whole window, so no time inside it is lighter or heavier (the phase's own bands, not the window map)
☐ INSPECT	countdown schedule only (recycle or slip — schedule, not an insurable event) (drivers F8, F9, F10) — while inspection is still possible
☐ BRIEF THE LAUNCH TEAM ON	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion
☐ WATCH ON	provider count net · webcast · range statements
☐ NOT FILED	no public prior is filed for this phase (no catalog row); the call stands on what is printed

Launch (ignition → separation)

☐ WHEN	the phase has one band, 12:54–13:24 EST (signal 0.921–0.955); the phase holds one class across the whole window, so no time inside it is lighter or heavier (the phase's own bands, not the window map)
☐ INSPECT	GEM 63XL solid boosters and revised nozzles · booster jettison and stage separation · Centaur V upper stage: cryogenic conditioning, RL10 burns, coast · avionics, guidance and telemetry · fairing, adapter and dispenser; spacecraft separation · launch-commit decision (drivers F1, F2, F3, F4, F6, F11, F13) — while inspection is still possible
☐ BRIEF THE LAUNCH TEAM ON	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion
☐ WATCH ON	webcast · telemetry call-outs · provider statement at separation
☐ NOT FILED	no public prior is filed for this phase (no catalog row); the call stands on what is printed

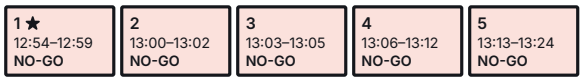
Operating life (early orbit · service)

☐ WHEN	the clean range: 13:00–13:02 EST; the heaviest band is 13:03–13:24 EST (signal 0.448) (the phase's own bands, not the window map)
☐ INSPECT	satellite batch after release: early-orbit checkout · delivered orbit against target (propellant spent raising, life shortened) · long-duration reliability of the satellites (drivers F1, F3, F4, F12) — while inspection is still possible
☐ BRIEF THE LAUNCH TEAM ON	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion
☐ WATCH ON	public catalogs and trackers · operator statements · first-light reports
☐ NOT FILED	no public prior is filed for this phase (no catalog row); the call stands on what is printed

Every item is derived from a sealed field: the band map (when), the stakes (inspect), the named modes (brief), the event definition (what counts as the event).

11 THE BAND PAGES — ONE PAGE PER BAND

Each page reads one band alone: its header, its house sentences where the house has filed them, its sentence, one bar per phase, the launch sequence as ticks, its minutes, its change against the planned-T-0 band and the band before it, and its named issues. A phase's bar carries that phase's class and signal; a step has no class or number of its own. NO-GO is the house's recommendation to stand down: the launch team and the underwriter may still fly, and the risk is theirs.



Named issues register: each ref's literal, printed once. The band pages list the refs that sit outside CLEAN in each band.

REF	PHASE	LITERAL
F1	Launch	Centaur V hydrogen and oxygen tanks, RL10 chilldown, ullage and feed lines in coast
F2	Launch	Payload interface and deployment, then engines, then flight software and telemetry, in that order
F3	Launch	Fairing jettison, payload adapter and dispenser, release of the satellite batch
F4	Launch	Flight computers, guidance for the new shorter upper stage, telemetry links, ground displays
F5	Launch	Two BE-4 engines and six solid boosters through liftoff and max-Q
F6	Launch	Solid-booster nozzles and thrust vector, booster jettison, first-stage cutoff and stage separation
F7	Launch	Performance reserve, redundancy and guidance compensation on booster and upper-stage paths
F8	Pre-ignition	Tank structure and propellant reserves; redundant telemetry strings; rework carried from the grounding
F9	Launch	Vehicle identity and load-bearing structure at the moment of release from the pad
F10	Operating life	Cleanliness of valves, filters and lines; debris at jettison: none flagged by this read
F11	Launch	Launch director's poll and range authority; the command chain adds no thrust trigger
F12	Operating life	Interface hardware and engines read as consistent under sustained load; long-life reliability is softer
F13	Launch	Engines, nozzles and staging events as the place a sudden anomaly would originate

Band 1 of 5 ★ planned T-0 · 12:54–12:59 pad · 17:54–17:59Z · 6 min

NO-GO WINDOW CLASS

(stand-down recommended; the team may still fly and the risk is theirs)

The band opens at 17:54Z and holds the planned T-0.

Segments in this band: pre-ignition CLEAN · launch NO-GO · operating life ELEVATED RISK.

> All three phases: Opens the window: no band before it to read against.
>
> All three phases: Holds the planned T-0 minute (17:54Z).

> **The house's read of this band · NO-GO**
>
> Centaur V cryogenic conditioning and the weather constraints of the count carry the first exposure: a hold or recycle late in loading, and thermal-margin drift that would follow the stage into both of its burns. The six solid boosters and the BE-4 first stage carry an ignition and combustion exposure from start through burnout and staging. Guidance, telemetry, the fairing and the payload attach-and-release hardware for the 40 satellites are where a degraded subsystem would show, as an off-target insertion or an incomplete release.
>
> Weather: Weather constraints at the pad and upper-level winds on ascent are a named exposure here, alongside cryogenic loading. The team would first see it as a hold against a range weather limit inside the short window, or a slip to a later attempt.

IF FLOWN — THE NAMED MODE · BAND 1, LIFTOFF TO THE LAST STEP

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
liftoff	T+00:00:00	Start of the two BE-4 engines and the six solid motors carries the ignition and combustion exposure. It would first show as a chamber or thrust reading out of family in the opening seconds, on a count that may already have absorbed a hold for Centaur chilldown or a weather constraint.	—
max-Q	T+00:01:xx	Peak aerodynamic load meets the main burn: the exposure is a brief thrust imbalance across the solids and the BE-4 pair, with upper-level winds adding load. The team would see engine gimbal activity and attitude excursions wider than the planned trace, and guidance margin being used early.	—
SRB jettison	T+00:01:5x	End-of-burn behaviour of the six solid motors is the exposure: uneven tail-off between motors would show as a short roll or yaw transient just before release. The release hardware itself carries no named exposure at this step.	—
BECO; stage separation	T+00:05:xx	BE-4 shutdown timing against the planned timeline is the exposure; an early or late cutoff would show as a velocity shortfall or surplus handed to Centaur. Staging is also the moment a combustion anomaly on the spent stage would become visible on the cameras and in the last booster data.	**F3 F6**
Centaur MES-1	T+00:05:xx	First start of the RL10 pair on the new short Centaur V is where the cryogenic and thermal-margin exposure from loading arrives in flight. It would show as chilldown temperatures outside tolerance, a delayed start, or thrust that builds below plan.	—
fairing jettison	T+00:05:xx	The fairing's release function carries a degraded-subsystem exposure: a late or sluggish jettison. The first indication would be event timing off the plan and an attitude disturbance on Centaur while the first burn continues.	**F3**
MECO	later	Cutoff of the first Centaur burn tests guidance and telemetry: the exposure is underperformance, seen as a burn that runs long to make up a shortfall or a cutoff state off the planned orbit. Gaps or frozen values in downlinked data would make that harder to confirm promptly.	**F1 F3 F6**
coast	later	Propellant management in coast is the exposure: stratification, ullage settling and thermal drift in the cryogenic tanks ahead of the restart. It would show as tank temperatures trending off prediction and settling-thruster activity above plan.	**F1 F3 F6**
MES-2	later	The RL10 restart is the sharpest point for the cryogenic and thermal-margin exposure, after the stage has soaked through coast. It would show as a delayed or low-thrust relight, or a burn cut short or long, leaving the release orbit off target.	**F1 F3 F6**
spacecraft separation	later	Release of the 40 satellites is where the degraded-subsystem exposure reaches the payload: attach-and-release hardware and the stage's pointing and sequencing. It would show as an incomplete or mistimed release, or slow confirmation of each spacecraft's state over the telemetry link.	**F1 F3 F6**

Named issues on the flight with no single step named: F2 F4 F11 F13.

Each row is this band's own read of that step: what the read names if the vehicle is flown in this band, never a forecast that it happens. The F refs are the day read's named issues outside CLEAN in this band whose own text names the step; their literals are in the named-issues register.

Band 1 of 5 (12:54–12:59 pad) is rated NO-GO: the house recommends standing down; the team may still fly and the risk is theirs. Pre-ignition reads CLEAN (0.26); Launch reads NO-GO (0.94); Operating life reads ELEVATED RISK (0.42). This is the planned T-0 band (★). 7 named issues sit on a phase outside CLEAN, 3 of them on a named step.

PRE-IGNITION — CLEAN 0.26

LAUNCH — NO-GO 0.94

liftoff T+00:00:00 max-Q T+00:01:xx SRB jettison T+00:01:5x BECO; stage separation T+00:05:xx F3 F6
Centaur MES-1 T+00:05:xx fairing jettison T+00:05:xx F3 MECO · coast · MES-2 · spacecraft separation later F1 F3 F6

Launch, named issues with no step named: F2 F4 F11 F13

OPERATING LIFE — ELEVATED RISK 0.42

Ticks are the sequence steps. A step before T-0 sits under pre-ignition, a step from lift-off under launch, and a step after orbit is reached under operating life. A tag marks a named issue of the day read whose own text names that step; the steps carry no signal of their own.

Minute strip (sealed, UTC): 17:54–17:59 (6 min): Pre-ignition 0.26, Launch 0.94, Operating life 0.42.

Minutes by class: Pre-ignition CLEAN 6 min; Launch NO-GO 6 min; Operating life ELEVATED RISK 6 min.

This is the planned T-0 band, the reference for the other pages.

The first band of the window: there is no band before it to compare.

Named issues outside CLEAN: F1 F2 F3 F4 F6 F11 F13 (each ref's literal is in the named-issues register at the head of the band pages).

Quiet in this band: Pre-ignition CLEAN: F8; Launch NO-GO: F5 F7 F9; Operating life ELEVATED RISK: F10 F12.

Marked in this band: rocket, vehicle, payload · the day's named modes, filed the same on every band: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion (what enters or leaves this band is in the change lines at the head of this page) · these bear on: the flight, the operating life.

GRADING BAND 1: IF THE ACTUAL T-0 FALLS IN THIS BAND

How this band grades: this band is NO-GO. HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record.

GRADE KEY, EVERY CLASS:

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record ◀ this band

NO FLIGHT: NO BAND GRADES. A SCRUB GRADES THE DAY CALL, AS THE GRADING SECTION STATES.

Not sealed: a signal per step. The bar is one call for the whole phase; the steps carry no class or number.

Band 2 of 5 · 13:00–13:02 pad · 18:00–18:02Z · 3 min

NO-GO WINDOW CLASS

(stand-down recommended; the team may still fly and the risk is theirs)

The band opens at 18:00Z.

Segments in this band: pre-ignition CLEAN · launch NO-GO · operating life CLEAN.

Against the planned T-0 band, which is also the band before it (band 1):

Pre-ignition and Operating life: opens on a state change.

Pre-ignition: a degraded subsystem leaves the pre-ignition cover; the planned T-0 band carried it in 6 of 6 min.

Pre-ignition: pre-ignition cover mean p 0.12 against 0.26 (-0.14); the move is carried by the pre-ignition signal.

Operating life: reads clean where it read elevated, so the class line is crossed.

Operating life: operating-life cover mean p 0.30 against 0.42 (-0.12); the move is carried by the operating-life signal.

Launch: Unchanged from the band before: same class, same issues, same components; launch cover mean p 0.92 against 0.94, inside the 0.02 move that names a change.

The house's read of this band · NO-GO

The forty-satellite batch and its release hardware carry the heaviest exposure here: the payload interfaces, the fairing and the flight avionics fly with no margin behind them, so a shortfall would first appear as late or missing release indications or an orbit short of target. The new short Centaur V carries a cryogenic conditioning exposure from the count into both RL10 burns, and the six solids and the BE-4 pair carry a thrust-symmetry exposure through the first-stage burn. What marks these minutes is that the propulsion read rests on a background of engines driven hard against cold-side limits.

Weather: A range weather constraint or an upper-level wind limit can hold this count late and push liftoff toward the close of the window or to a later attempt, first showing while propellant conditioning is still settling. If the count is flown through it, the wind margin is taken on ascent instead of being left at the pad.

IF FLOWN — THE NAMED MODE · BAND 2, LIFTOFF TO THE LAST STEP

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
liftoff	T+00:00:00	Ignition of the two BE-4 engines and the six solids carries the exposure: a chamber or igniter anomaly at start, or uneven thrust among the solids with their revised nozzles in the first seconds. The team would see start-transient readings off nominal or steering working against a thrust asymmetry as the vehicle leaves the pad.	—
max-Q	T+00:01:xx	Thrust imbalance during the main burn meets peak aerodynamic load and upper-level winds here, with the fairing and payload interfaces flying on thin margin. It would first show as larger engine and nozzle steering angles and higher structural load readings than the day-of-launch prediction.	—
SRB jettison	T+00:01:5x	The exposure sits on the solids' burn-out: uneven thrust tail-off across the six motors just before release. It would show as attitude excursions and steering activity in the seconds around release, with the core engines absorbing the difference.	—
BECO; stage separation	T+00:05:xx	Booster engine cutoff timing against the published timeline is the item: an early or late BE-4 shutdown that hands the Centaur a velocity shortfall. The first indication would be a cutoff time or staging velocity off the planned values.	**F3 F6**
Centaur MES-1	T+00:05:xx	This is the heaviest propulsion exposure of the flight: RL10 chilldown and liquid hydrogen and oxygen conditioning on the new short Centaur V, flying for the first time in this form. It would first show as chilldown temperatures out of tolerance, a delayed start or a rough start transient on one engine.	—
fairing jettison	T+00:05:xx	The fairing release function flies with little margin, so the exposure is a sluggish or incomplete jettison indication over the forty-satellite stack. The team would see late confirmation on one half or an attitude disturbance on the Centaur at release.	**F3**
MECO	later	First-burn cutoff on the Centaur carries the shutdown-timing exposure: a burn that ends early or late against the timeline and leaves the parking orbit off target. It would show in the orbit parameters at cutoff and in the propellant remaining for the second burn.	**F1 F3 F6**
coast	later	Cryogenic propellant behaviour in coast is exposed: stratification, settling and feed-line thermal drift ahead of the restart, with telemetry and flight software carrying a reduced-margin exposure of their own. First indications would be tank and feed-line temperatures drifting from prediction or gaps in the downlinked data.	**F1 F3 F6**
MES-2	later	Restart of the RL10 pair after coast carries the same cryogenic exposure as the first start, now with less propellant and a colder stage: a delayed, short or absent second burn. It would show as chilldown not converging before the planned ignition time, leaving the batch below its release orbit.	**F1 F3 F6**

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
spacecraft separation	later	The release of the forty satellites is where the flight's value sits and where the read places a degraded-subsystem exposure: release hardware, sequencer commands and satellite interfaces working below margin, or a release into an orbit short of target carried over from the burns. It would first show as late or missing release confirmations and slow first contact with individual satellites.	**F1 F3 F6**

Named issues on the flight with no single step named: F2 F4 F11 F13.

Each row is this band's own read of that step: what the read names if the vehicle is flown in this band, never a forecast that it happens. The F refs are the day read's named issues outside CLEAN in this band whose own text names the step; their literals are in the named-issues register.

Band 2 of 5 (13:00–13:02 pad) is rated NO-GO: the house recommends standing down; the team may still fly and the risk is theirs. Pre-ignition reads CLEAN (0.12); Launch reads NO-GO (0.92); Operating life reads CLEAN (0.30). Against band 1 ★: Operating life moves from ELEVATED RISK to CLEAN. 7 named issues sit on a phase outside CLEAN, 3 of them on a named step.

PRE-IGNITION — **CLEAN 0.12** — down 0.14 vs ★

LAUNCH — **NO-GO 0.92** — down 0.02 vs ★

liftoff T+00:00:00 · max-Q T+00:01:xx · SRB jettison T+00:01:5x · BECO; stage separation T+00:05:xx **F3 F6**
Centaur MES-1 T+00:05:xx · fairing jettison T+00:05:xx **F3** · MECO · coast · MES-2 · spacecraft separation later **F1 F3 F6**

Launch, named issues with no step named: F2 F4 F11 F13

OPERATING LIFE — **CLEAN 0.30** — down 0.12 vs ★

Ticks are the sequence steps. A step before T-0 sits under pre-ignition, a step from lift-off under launch, and a step after orbit is reached under operating life. A tag marks a named issue of the day read whose own text names that step; the steps carry no signal of their own.

Minute strip (sealed, UTC): 18:00–18:02 (3 min): Pre-ignition 0.12, Launch 0.92, Operating life 0.30.

Minutes by class: Pre-ignition CLEAN 3 min; Launch NO-GO 3 min; Operating life CLEAN 3 min.

Against band 1 ★, the planned T-0: Pre-ignition 0.26 to 0.12 (down 0.14); Launch 0.94 to 0.92 (down 0.02); Operating life 0.42 to 0.30 (down 0.12), class ELEVATED RISK to CLEAN.

The band before is the planned T-0 band (band 1), so its change is the one above.

Named issues outside CLEAN: F1 F2 F3 F4 F6 F11 F13 (each ref's literal is in the named-issues register at the head of the band pages).

Quiet in this band: Pre-ignition CLEAN: F8; Launch NO-GO: F5 F7 F9; Operating life CLEAN: F10 F12.

Marked in this band: rocket, vehicle, payload · the day's named modes, filed the same on every band: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion (what enters or leaves this band is in the change lines at the head of this page) · these bear on: the flight.

GRADING BAND 2: IF THE ACTUAL T-0 FALLS IN THIS BAND

How this band grades: this band is NO-GO. HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record.

GRADE KEY, EVERY CLASS:

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record ◄ this band

NO FLIGHT: NO BAND GRADES. A SCRUB GRADES THE DAY CALL, AS THE GRADING SECTION STATES.

Not sealed: a signal per step. The bar is one call for the whole phase; the steps carry no class or number.

Band 3 of 5 · 13:03–13:05 pad · 18:03–18:05Z · 3 min

NO-GO WINDOW CLASS

(stand-down recommended; the team may still fly and the risk is theirs)

The band opens at 18:03Z.

Segments in this band: pre-ignition CLEAN · launch NO-GO · operating life ELEVATED RISK.

Against the band before (band 2):

All three phases: opens on a state change.

Pre-ignition: a corrective that misfires enters the pre-ignition cover on the launch component, carried in 3 of 3 min at signal 0.03.

Pre-ignition: pre-ignition cover mean p 0.19 against 0.12 (+0.07); the move is carried by the pre-ignition signal.

Launch: a corrective that misfires enters the launch cover on the launch component, carried in 3 of 3 min at signal 0.03.

Launch: launch cover mean p 0.96 against 0.92 (+0.04); the move is carried by the in-flight signal.

Operating life: reads elevated where it read clean, so the class line is crossed.

Operating life: operating-life cover mean p 0.44 against 0.30 (+0.14); the move is carried by the operating-life signal.

Against the planned T-0 band (band 1):

Pre-ignition: a corrective that misfires enters the pre-ignition cover on the launch component, carried in 3 of 3 min at signal 0.03.

Pre-ignition: a degraded subsystem leaves the pre-ignition cover; the planned T-0 band carried it in 6 of 6 min.

Pre-ignition: pre-ignition cover mean p 0.19 against 0.26 (-0.07); the move is carried by the pre-ignition signal.

Launch: a corrective that misfires enters the launch cover on the launch component, carried in 3 of 3 min at signal 0.03.

Operating life: operating-life cover mean p 0.44 against 0.42 (+0.02); the move is carried by the operating-life signal.

The house's read of this band · NO-GO

The ignition and burn of the first stage and the six solid motors carry the main exposure here, alongside the cryogenic conditioning of the new short Centaur V for its two engine starts and the command-and-data path that releases the forty satellites, which has the thinnest margin of the flight. A hold late in propellant loading on thermal readings or range weather would be the first showing on the ground; flown, it rides into the upper-stage burns and the release. The change from the band before: the burn exposure now sits on the powered events themselves and not on a latent fault, and the payload weakness moves from the release hardware to guidance, commanding and telemetry.

Weather: A range-weather exposure is carried at the pad late in the count and in the upper-level winds on ascent: it would first show as a hold on a weather constraint or an upper-level wind limit during or just after propellant loading, with a slip to a later attempt behind it. If the count is pressed through marginal conditions, the exposure is carried into flight as wind loading and thermal effects on the cryogenic upper stage.

IF FLOWN — THE NAMED MODE · BAND 3, LIFTOFF TO THE LAST STEP

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
liftoff	T+00:00:00	Ignition and combustion on the two BE-4 engines and the six solid motors with their revised nozzles: an igniter or chamber irregularity, or uneven thrust across the solids in the first half-minute, would first show as thrust readings out of family and extra steering demand on the core engines. Any thermal or range-weather item left open at the end of propellant loading is flown from this point, not left on the ground.	—
max-Q	T+00:01:xx	The burn exposure meets peak aerodynamic load: a brief thrust imbalance among the solids or upper-level wind shear would first show as larger steering commands and attitude error than planned. Guidance and telemetry work with thin margin in this band, so the team may see the excursion late or on noisy data.	—
SRB jettison	T+00:01:5x	Uneven tail-off among the six solids is the exposure here, and it differs from liftoff in that the imbalance arrives as the motors burn out. It would first show as burn-out times spread wider than planned and an attitude transient just ahead of the jettison command.	—
BECO; stage separation	T+00:05:xx	First-stage shutdown early or late against the planned timeline, or a thrust shortfall that leaves velocity at cutoff under plan. It would first show as a cutoff time and velocity off the pre-flight numbers, handing the upper stage more work; the release of the stage carries the exposure only through that timing.	**F3 F6**
Centaur MES-1	T+00:05:xx	Cryogenic and thermal margins on the new short Centaur V: the chilldown of the two RL10 engines and the propellant conditioning are where the loading-time thermal item is carried in flight. It would first show as chilldown temperatures off the expected curve and a late or slow-building first start.	—
fairing jettison	T+00:05:xx	The fairing release and the structure around the payload carry a degraded-subsystem exposure: this hardware runs with little margin in this band, though no outside load is named on it. It would first show as the release confirmation arriving late against the timeline.	**F3**

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
MECO	later	Upper-stage first cutoff: the exposure is an early or late shutdown against plan and an insertion short of or off the target orbit, the sum of any shortfall earlier in ascent and thin guidance margin. It would first show as cutoff time and orbit parameters outside the pre-flight dispersions.	**F1 F3 F6**
coast	later	Cryogenic propellant management through the coast: stratification, settling and feed-line conditioning in the shorter tanks, with the thermal item from loading still riding. It would first show as tank temperatures drifting from prediction and more settling-thruster activity than planned.	**F1 F3 F6**
MES-2	later	The restart is where the cryogenic exposure is sharpest: RL10 chilldown after the coast and propellant conditioning for a second start. It would first show as a chilldown running long, a late start or a shortened burn, leaving the orbit under the planned altitude.	**F1 F3 F6**
spacecraft separation	later	The release of the forty broadband satellites is the weakest-margin function of the flight in this band: the command-and-data path that sequences the releases and the payload interface hardware. It would first show as release confirmations arriving slowly or incompletely, a release into an orbit off plan, or slow first contact with some spacecraft, with effects that can run on into early operations.	**F1 F3 F6**

Named issues on the flight with no single step named: F2 F4 F11 F13.

Each row is this band's own read of that step: what the read names if the vehicle is flown in this band, never a forecast that it happens. The F refs are the day read's named issues outside CLEAN in this band whose own text names the step; their literals are in the named-issues register.

Band 3 of 5 (13:03–13:05 pad) is rated NO-GO: the house recommends standing down; the team may still fly and the risk is theirs. Pre-ignition reads CLEAN (0.19); Launch reads NO-GO (0.96); Operating life reads ELEVATED RISK (0.44). Against band 1 ★: every phase holds its class. 7 named issues sit on a phase outside CLEAN, 3 of them on a named step.

PRE-IGNITION — **CLEAN 0.19** — **down 0.07 vs ★**

LAUNCH — **NO-GO 0.96** — **up 0.02 vs ★**

liftoff T+00:00:00 · max-Q T+00:01:xx · SRB jettison T+00:01:5x · BECO; stage separation T+00:05:xx **F3 F6**

Centaur MES-1 T+00:05:xx · fairing jettison T+00:05:xx **F3** · MECO · coast · MES-2 · spacecraft separation later **F1 F3 F6**

Launch, named issues with no step named: F2 F4 F11 F13

OPERATING LIFE — **ELEVATED RISK 0.44** — **up 0.02 vs ★**

Ticks are the sequence steps. A step before T-0 sits under pre-ignition, a step from lift-off under launch, and a step after orbit is reached under operating life. A tag marks a named issue of the day read whose own text names that step; the steps carry no signal of their own.

Minute strip (sealed, UTC): 18:03–18:05 (3 min): Pre-ignition 0.19, Launch 0.96, Operating life 0.44.

Minutes by class: Pre-ignition CLEAN 3 min; Launch NO-GO 3 min; Operating life ELEVATED RISK 3 min.

Against band 1 ★, the planned T-0: Pre-ignition 0.26 to 0.19 (down 0.07); Launch 0.94 to 0.96 (up 0.02); Operating life 0.42 to 0.44 (up 0.02).

Against band 2 (the band before): Pre-ignition 0.12 to 0.19 (up 0.07); Launch 0.92 to 0.96 (up 0.04); Operating life 0.30 to 0.44 (up 0.14), class CLEAN to ELEVATED RISK.

Named issues outside CLEAN: F1 F2 F3 F4 F6 F11 F13 (each ref's literal is in the named-issues register at the head of the band pages).

Quiet in this band: Pre-ignition CLEAN: F8; Launch NO-GO: F5 F7 F9; Operating life ELEVATED RISK: F10 F12.

Marked in this band: rocket, vehicle, payload · the day's named modes, filed the same on every band: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion (what enters or leaves this band is in the change lines at the head of this page) · these bear on: the flight, the operating life.

GRADING BAND 3: IF THE ACTUAL T-0 FALLS IN THIS BAND

How this band grades: this band is NO-GO. HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record.

GRADE KEY, EVERY CLASS:

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record ◄ this band

NO FLIGHT: NO BAND GRADES. A SCRUB GRADES THE DAY CALL, AS THE GRADING SECTION STATES.

Not sealed: a signal per step. The bar is one call for the whole phase; the steps carry no class or number.

Band 4 of 5 · 13:06–13:12 pad · 18:06–18:12Z · 7 min

NO-GO WINDOW CLASS

(stand-down recommended; the team may still fly and the risk is theirs)

The band opens at 18:06Z.

Segments in this band: pre-ignition CLEAN · launch NO-GO · operating life ELEVATED RISK.

Pre-ignition: Unchanged from the band before: same class, same issues, same components; pre-ignition cover mean p 0.17 against 0.19, inside the 0.02 move that names a change.

Launch: Unchanged from the band before: same class, same issues, same components; launch cover mean p 0.95 against 0.96, inside the 0.02 move that names a change.

Operating life: Unchanged from the band before: same class, same issues, same components; operating-life cover mean p 0.44 against 0.44, inside the 0.02 move that names a change.

Against the planned T-0 band (band 1):

Pre-ignition: a corrective that misfires enters the pre-ignition cover on the launch component, carried in 7 of 7 min at signal 0.03.

Pre-ignition: a degraded subsystem leaves the pre-ignition cover; the planned T-0 band carried it in 6 of 6 min.

Pre-ignition: pre-ignition cover mean p 0.17 against 0.26 (-0.09); the move is carried by the pre-ignition signal.

Launch: a corrective that misfires enters the launch cover on the launch component, carried in 7 of 7 min at signal 0.04.

Operating life: operating-life cover mean p 0.44 against 0.42 (+0.02); the move is carried by the operating-life signal.

The house's read of this band · NO-GO

The Centaur V cryogenic upper stage, flying its shorter version for the first time, and the guidance, telemetry and satellite-release chain carry the main exposure: any propellant-conditioning drift from the loading hours rides into the upper-stage starts, and the flight-software and payload-interface side has little margin to absorb an off-target insertion for the forty satellites. Engine start and thrust balance on the BE-4 pair and the six solids are the second item, held within review margin. It reads the same as the band before, with the same issues on the same components.

Weather: A weather exposure sits at the pad through the propellant-loading hours and into the count: it would first show as a hold on a range weather constraint or an upper-level wind limit, with a slip to a later attempt as the form it takes. If the count is carried through, the same exposure rides the ascent as wind loading on the first stage.

IF FLOWN — THE NAMED MODE · BAND 4, LIFTOFF TO THE LAST STEP

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
liftoff	T+00:00:00	Ignition and combustion carry the exposure: BE-4 start and the lighting of the six solids, with thrust balance across the engines as the watch item. It would first show as an igniter or chamber reading out of family at start, a brief thrust imbalance in the first seconds, or slow ground telemetry displays at the moment of commit.	—
max-Q	T+00:01:xx	The same combustion exposure sits on the solids and their revised nozzles under peak aerodynamic load, with upper-level winds adding to it. It would first show as chamber or thrust readings diverging between motors and the steering working harder than planned to hold attitude.	—
SRB jettison	T+00:01:5x	The combustion exposure closes out here as the solids burn down: uneven thrust tail-off between motors would show as a brief attitude transient just before release. No named exposure on the release event itself in this band.	—
BECO; stage separation	T+00:05:xx	Exposure is on booster engine cutoff timing against the planned timeline, read through the guidance and telemetry chain: a cutoff early or late would show as a velocity shortfall or surplus handed to Centaur. No named exposure on the staging event itself in this band.	**F3 F6**
Centaur MES-1	T+00:05:xx	Cryogenic and thermal margins carry the exposure on the first RL10 start of the new shorter Centaur V, with chilldown and start conditions shaped by how the propellant load went. It would first show as a chilldown irregularity, start-box temperatures out of family or a late engine start.	—
fairing jettison	T+00:05:xx	The degraded-subsystem exposure touches the vehicle-body and payload-interface side: it would show as a late or incomplete jettison indication or a telemetry gap around the event, to be confirmed against camera and acceleration data.	**F3**
MECO	later	Exposure is on the first Centaur cutoff and the parking orbit it leaves, with guidance and engine performance on thin margin. It would first show as a cutoff off the planned time and a parking orbit low or off-target in tracking data.	**F1 F3 F6**

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
coast	later	Cryogenic and fluid management carry the exposure through the coast: propellant settling, stratification and boil-off margins ahead of the restart. It would first show as tank temperature and ullage readings drifting out of family, with telemetry gaps between ground stations slowing the team's view.	**F1 F3 F6**
MES-2	later	This is the heaviest step in the band: the RL10 restart on propellant that has sat through the coast. It would first show as a restart chilldown irregularity, a late or shortened burn, and a final orbit short of the target.	**F1 F3 F6**
spacecraft separation	later	The payload carries the exposure at release: any insertion shortfall is handed to the forty satellites, and the release sequence depends on the guidance and telemetry chain with thin margin. It would first show as release confirmations arriving late or incomplete and as satellites needing their own propellant to make up the orbit, which carries into their service life.	**F1 F3 F6**

Named issues on the flight with no single step named: F2 F4 F11 F13.

Each row is this band's own read of that step: what the read names if the vehicle is flown in this band, never a forecast that it happens. The F refs are the day read's named issues outside CLEAN in this band whose own text names the step; their literals are in the named-issues register.

Band 4 of 5 (13:06–13:12 pad) is rated NO-GO: the house recommends standing down; the team may still fly and the risk is theirs. Pre-ignition reads CLEAN (0.17); Launch reads NO-GO (0.95); Operating life reads ELEVATED RISK (0.44). Against band 1 ★: every phase holds its class. 7 named issues sit on a phase outside CLEAN, 3 of them on a named step.

PRE-IGNITION — **CLEAN 0.17** — **down 0.09 vs ★**

LAUNCH — **NO-GO 0.95** — **up 0.01 vs ★**

liftoff T+00:00:00 max-Q T+00:01:xx SRB jettison T+00:01:5x BECO; stage separation T+00:05:xx **F3 F6**
Centaur MES-1 T+00:05:xx fairing jettison T+00:05:xx **F3** MECO · coast · MES-2 · spacecraft separation later **F1 F3 F6**

Launch, named issues with no step named: F2 F4 F11 F13

OPERATING LIFE — **ELEVATED RISK 0.44** — **up 0.02 vs ★**

Ticks are the sequence steps. A step before T-0 sits under pre-ignition, a step from lift-off under launch, and a step after orbit is reached under operating life. A tag marks a named issue of the day read whose own text names that step; the steps carry no signal of their own.

Minute strip (sealed, UTC): 18:06–18:12 (7 min): Pre-ignition 0.17, Launch 0.95, Operating life 0.44.

Minutes by class: Pre-ignition CLEAN 7 min; Launch NO-GO 7 min; Operating life ELEVATED RISK 7 min.

Against band 1 ★, the planned T-0: Pre-ignition 0.26 to 0.17 (down 0.09); Launch 0.94 to 0.95 (up 0.01); Operating life 0.42 to 0.44 (up 0.02).

Against band 3 (the band before): Pre-ignition 0.19 to 0.17 (down 0.02); Launch 0.96 to 0.95 (down 0.01); Operating life 0.44 to 0.44 (unchanged).

Named issues outside CLEAN: F1 F2 F3 F4 F6 F11 F13 (each ref's literal is in the named-issues register at the head of the band pages).

Quiet in this band: Pre-ignition CLEAN: F8; Launch NO-GO: F5 F7 F9; Operating life ELEVATED RISK: F10 F12.

Marked in this band: rocket, vehicle, payload · the day's named modes, filed the same on every band: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion (what enters or leaves this band is in the change lines at the head of this page) · these bear on: the flight, the operating life.

GRADING BAND 4: IF THE ACTUAL T-0 FALLS IN THIS BAND

How this band grades: this band is NO-GO. HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record.

GRADE KEY, EVERY CLASS:

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record ◄ this band

NO FLIGHT: NO BAND GRADES. A SCRUB GRADES THE DAY CALL, AS THE GRADING SECTION STATES.

Not sealed: a signal per step. The bar is one call for the whole phase; the steps carry no class or number.

Band 5 of 5 · 13:13–13:24 pad · 18:13–18:24Z · 12 min

NO-GO WINDOW CLASS

(stand-down recommended; the team may still fly and the risk is theirs)

The band opens at 18:13Z.

Segments in this band: pre-ignition CLEAN · launch NO-GO · operating life ELEVATED RISK.

> Against the band before (band 4):
> Pre-ignition: opens on a state change.
> Pre-ignition: a degraded subsystem enters the pre-ignition cover, carried in 4 of 12 min at signal 0.12.
> Against the planned T-0 band (band 1):
> Pre-ignition: a corrective that misfires enters the pre-ignition cover on the launch component, carried in 11 of 12 min at signal 0.03.
> Pre-ignition: a degraded subsystem weakens the pre-ignition cover, signal 0.18 to 0.12.
> Pre-ignition: pre-ignition cover mean p 0.18 against 0.26 (-0.08); the move is carried by the pre-ignition signal.
> Launch: a corrective that misfires enters the launch cover on the launch component, carried in 12 of 12 min at signal 0.03.
> Operating life: operating-life cover mean p 0.45 against 0.42 (+0.03); the move is carried by the operating-life signal.
> Launch: Unchanged from the band before: same class, same issues, same components; launch cover mean p 0.95 against 0.95, inside the 0.02 move that names a change.
> Operating life: Unchanged from the band before: same class, same issues, same components; operating-life cover mean p 0.45 against 0.44, inside the 0.02 move that names a change.

> **The house's read of this band · NO-GO**
> The new short Centaur upper stage and the payload side carry the exposure: engine chilldown, restart after coast and propellant conditioning on the cryogenic stage, alongside guidance, telemetry, the fairing and the satellite-release interfaces working with little margin behind them. First-stage and solid-motor ignition on the revised nozzles is exposed as well, though it is the lighter part. What sets this liftoff time apart is that the cold-conditioning strain peaked roughly four hours earlier, during loading, and is easing by ignition, so it is carried off the pad and into the upper-stage burns instead of stopping the count.
> Weather: Weather is exposed at the pad during the cryogenic loading hours and again on ascent: it would first show as a hold against a range weather constraint or an upper-level wind limit, with the count recycled inside the window or moved to a later attempt.

IF FLOWN — THE NAMED MODE · BAND 5, LIFTOFF TO THE LAST STEP

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
liftoff	T+00:00:00	The two first-stage engines and the six solid motors carry the ignition exposure, with the revised nozzles taking flight load for the first time; the read expects the first stage to absorb it. The team would first see a chamber or igniter reading out of family at start or a brief thrust imbalance, and possibly a frozen display or a reversed go/no-go call on the ground data path in the last seconds.	—
max-Q	T+00:01:xx	The solid motors and their nozzles are at peak load while the steering function works with little margin. It would first show as uneven chamber readings between motors and larger-than-planned steering commands to hold the trajectory.	—
SRB jettison	T+00:01:5x	The exposure moves to burn tail-off across six motors: unequal thrust decay just ahead of release. It would first show as a short thrust asymmetry and jettison confirmations arriving late or incomplete on telemetry.	—
BECO; stage separation	T+00:05:xx	Engine cutoff timing on the first stage is the exposed function, early or late against the published timeline. The team would first see a cutoff time off plan and staging confirmation delayed through a degraded data path; the read still places the first stage as doing its job.	**F3 F6**
Centaur MES-1	T+00:05:xx	This is where the cold-conditioning exposure carried from loading first bites: chilldown and start of the two upper-stage engines on a stage flying in this short form for the first time. It would first show as chilldown temperatures slow to settle, a late start, or thrust below plan in the opening seconds of the burn.	—
fairing jettison	T+00:05:xx	The fairing and its release function carry a reduced-margin exposure of their own, distinct from the propulsion items. It would first show as a late or partial jettison indication on telemetry while the upper stage is already burning.	**F3**
MECO	later	Guidance and upper-stage performance are exposed together: a burn that runs long or cuts off short of the planned velocity. The first indication would be burn duration off the timeline and a parking orbit outside its planned figures.	**F1 F3 F6**
coast	later	Thermal and propellant conditioning on the cryogenic stage carry the exposure through the quiet phase: stratification, ullage behaviour and feed-line temperatures drifting. It would first show as tank and line temperatures wandering from plan and intermittent or stale telemetry between ground stations.	**F1 F3 F6**

STEP	WHEN	THE NAMED MODE AT THIS STEP, IF FLOWN IN THIS BAND	DAY-READ ISSUES
MES-2	later	Engine restart after the cold soak of coast is the most exposed propulsion event of the flight in this read. It would first show as a prolonged chilldown, a delayed or shortened second burn, and an insertion orbit lower or off-plane against target.	**F1 F3 F6**
spacecraft separation	later	The release sequence for the forty satellites and their first health data are exposed through the same reduced-margin interfaces and data path. It would first show as release confirmations arriving slowly or incomplete, satellites left in an off-target orbit to be made up with their own propulsion, and degraded function that becomes visible only in early orbit operations.	**F1 F3 F6**

Named issues on the flight with no single step named: F2 F4 F11 F13.

Each row is this band's own read of that step: what the read names if the vehicle is flown in this band, never a forecast that it happens. The F refs are the day read's named issues outside CLEAN in this band whose own text names the step; their literals are in the named-issues register.

Band 5 of 5 (13:13–13:24 pad) is rated NO-GO: the house recommends standing down; the team may still fly and the risk is theirs. Pre-ignition reads CLEAN (0.18); Launch reads NO-GO (0.95); Operating life reads ELEVATED RISK (0.45). Against band 1 ★: every phase holds its class. 7 named issues sit on a phase outside CLEAN, 3 of them on a named step.

PRE-IGNITION — CLEAN 0.18 — down 0.08 vs ★

LAUNCH — NO-GO 0.95 — up 0.01 vs ★

liftoff T+00:00:00 · max-Q T+00:01:xx · SRB jettison T+00:01:5x · BECO; stage separation T+00:05:xx F3 F6

Centaur MES-1 T+00:05:xx · fairing jettison T+00:05:xx F3 · MECO · coast · MES-2 · spacecraft separation later F1 F3 F6

Launch, named issues with no step named: F2 F4 F11 F13

OPERATING LIFE — ELEVATED RISK 0.45 — up 0.03 vs ★

Ticks are the sequence steps. A step before T-0 sits under pre-ignition, a step from lift-off under launch, and a step after orbit is reached under operating life. A tag marks a named issue of the day read whose own text names that step; the steps carry no signal of their own.

Minute strip (sealed, UTC): 18:13–18:16 (4 min): Pre-ignition 0.17, Launch 0.95, Operating life 0.44; 18:17–18:19 (3 min): Pre-ignition 0.16, Launch 0.95, Operating life 0.44; 18:20: Pre-ignition 0.14, Launch 0.95, Operating life 0.44; 18:21: Pre-ignition 0.24, Launch 0.95, Operating life 0.46; 18:22–18:23 (2 min): Pre-ignition 0.22, Launch 0.95, Operating life 0.46; 18:24: Pre-ignition 0.20, Launch 0.95, Operating life 0.46.

Minutes by class: Pre-ignition CLEAN 12 min; Launch NO-GO 12 min; Operating life ELEVATED RISK 12 min.

Against band 1 ★, the planned T-0: Pre-ignition 0.26 to 0.18 (down 0.08); Launch 0.94 to 0.95 (up 0.01); Operating life 0.42 to 0.45 (up 0.03).

Against band 4 (the band before): Pre-ignition 0.17 to 0.18 (up 0.01); Launch 0.95 to 0.95 (unchanged); Operating life 0.44 to 0.45 (up 0.01).

Named issues outside CLEAN: F1 F2 F3 F4 F6 F11 F13 (each ref's literal is in the named-issues register at the head of the band pages).

Quiet in this band: Pre-ignition CLEAN: F8; Launch NO-GO: F5 F7 F9; Operating life ELEVATED RISK: F10 F12.

Marked in this band: rocket, vehicle, payload · the day's named modes, filed the same on every band: a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion (what enters or leaves this band is in the change lines at the head of this page) · these bear on: the flight, the operating life.

GRADING BAND 5: IF THE ACTUAL T-0 FALLS IN THIS BAND

How this band grades: this band is NO-GO. HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record.

GRADE KEY, EVERY CLASS:

CLEAN — HIT on a clean flight (with or without a hold or delay) or a successful flight with risk on record · MISS on a flight with a named anomaly or a serious or catastrophic failure

ELEVATED RISK — HIT on a successful flight with risk on record or a flight with a named anomaly · MISS on a clean flight (with or without a hold or delay) or a serious or catastrophic failure

NO-GO — HIT on a flight with a named anomaly or a serious or catastrophic failure · MISS on a clean flight (with or without a hold or delay) or a successful flight with risk on record ◄ this band

NO FLIGHT: NO BAND GRADES. A SCRUB GRADES THE DAY CALL, AS THE GRADING SECTION STATES.

Not sealed: a signal per step. The bar is one call for the whole phase; the steps carry no class or number.

03 · WHAT IT MEANS

§ 12–13

12 THE STAKES — ORDER OF MAGNITUDE BY PHASE

Pre-ignition (count · pad)

EXPOSURE
clean

COMPONENTS
countdown schedule only (recycle or slip — schedule, not an insurable event)

DRIVERS
F8, F9, F10

Launch (ignition → separation)

EXPOSURE
no-go

COMPONENTS
GEM 63XL solid boosters and revised nozzles, booster jettison and stage separation, Centaur V upper stage: cryogenic conditioning, RL10 burns, coast, avionics, guidance and telemetry, fairing, adapter and dispenser; spacecraft separation, launch-commit decision

DRIVERS
F1, F2, F3, F4, F6, F11, F13

Operating life (early orbit · service)

EXPOSURE
elevated

COMPONENTS
satellite batch after release: early-orbit checkout, delivered orbit against target (propellant spent raising, life shortened), long-duration reliability of the satellites

DRIVERS
F1, F3, F4, F12

Escalation candidate: vehicle prior flights 4 is below 5: an immature vehicle: the market weighs a vehicle sharply harder until about five flights.

For the launch team: the operating-life phase is the stake this day carries past the window, and it is rated on its own line.

13 MONEY VALUE — EXPECTED LOSS AVOIDED, MARKED ESTIMATE

No priced lane is in the sealed values, so no figure below is a ledger row. The envelope is the public order of magnitude of what is at stake in this mission; the tilde (~) on each figure marks it approximate.

figures	Each carries a tilde (~): approximate, order of magnitude from a public list, not a ledger row
launch service	Vulcan Centaur: no public range is filed for this vehicle
payload class	communications satellite: ~$100 million to ~$500 million · source: house order-of-magnitude judgment: communications satellite replacement value, whatever the orbit; no public price list exists for this class · read 2026-11-06
together	not summed: one or both ranges are not filed

The house does not price cover: these are public ranges for the reader's own sizing, not a figure for any policy. Nothing here reads the books: mission economics only; convergence, not causation. The decision is the launch team's and the cover decision the insurer's.

04 · THE MISSION

§ 14–19

14 MISSION DATA AS CHECKED

Before the engine ran, in the house's pre-read check, every field below was read against house pad and vehicle table, Launch Library 2 (The Space Devs) at 2026-11-11 17:02 UTC. Verdict: agree.

FIELD	AS SUBMITTED	AS USED	VERDICT	SOURCE	WHY
Vehicle	Vulcan Centaur	Vulcan Centaur	AGREE	the house tables	named in the house table
Provider	ULA	ULA	AGREE	the house tables	named in the house table

FIELD	AS SUBMITTED	AS USED	VERDICT	SOURCE	WHY
Pad	SLC-41	SLC-41	AGREE	the house tables	named in the house table
Site	Cape Canaveral SFS	Cape Canaveral SFS	AGREE	the house tables	pad SLC-41 is at Cape Canaveral SFS
Country	US	US	AGREE	the house tables	pad SLC-41 is in US
Window 1	2026-11-13 17:54 UTC → 2026-11-13 18:24 UTC	2026-11-13 17:54 UTC → 2026-11-13 18:24 UTC	AGREE	arithmetic	30 min
Schedule	2026-11-13 17:54 UTC	2026-11-13 17:54 UTC	AGREE	Launch Library 2 (The Space Devs)	Vulcan VC6L | Amazon Leo (LV-01) · NET 2026-11-13 17:54 UTC · Space Launch Complex 41 · Cape Canaveral SFS, FL, USA · Go — 0 min from the submitted T-0
Schedule.pad	SLC-41	SLC-41	AGREE	Launch Library 2 (The Space Devs)	the listing names the pad Space Launch Complex 41; the house reads that as SLC-41, the filed pad
Orbit	LEO	LEO	AGREE	Launch Library 2 (The Space Devs)	Vulcan VC6L | Amazon Leo (LV-01) · orbit Low Earth Orbit
Payload class	comms-sat	comms-sat	AGREE	Launch Library 2 (The Space Devs)	Vulcan VC6L | Amazon Leo (LV-01) · mission type Communications

No field was changed.

15 THE MISSION AS READ

The words of this read stood on the vehicle as filed: Vulcan (United Launch Alliance), a cryogenic stage flies, expendable. Mission Vulcan VC6L | Amazon Leo (LV-01) · goal Communications · orbit LEO · payload class communications satellite. Lab gate green.

STAGE	PROPELLANT	KIND	REUSE
0–6 GEM-63XL solid rocket boosters	solid (HTPB)	solid	EXPENDED
first stage (2× BE-4)	liquid methane / LOX	methalox	EXPENDED (ENGINE RECOVERY PLANNED)
Centaur V (2× RL10)	LH2 / LOX	hydrolox	EXPENDED

STEP	EVENT
T+00:00:00	liftoff
T+00:01:xx	max-Q
T+00:01:5x	SRB jettison
T+00:05:xx	BECO; stage separation
T+00:05:xx	Centaur MES-1
T+00:05:xx	fairing jettison

STEP	EVENT
later	MECO · coast · MES-2 · spacecraft separation

generic; mission kit replaces it

The mission as researched: 12 of 15 facets observed from 52 dated sources. Context for the words, never a weight; a facet marked not observed is unknown.

FACET	AS RESEARCHED	SOURCES (DATED)
business pressure	ULA holds 38 Vulcan launches for Amazon and went nine months without flying the vehicle; its military customer paused Vulcan missions in February. A KeepTrack review reports a $71 million charge disclosed on 22 April in first-quarter results tied to the GEM 63XL anomaly (the excerpt read did not make clear which company booked it). Amazon has more than 1,000 satellites built and awaiting launch against 396 in orbit, has missed a regulatory deployment milestone, and is working toward initial service before the end of 2026 while competing with Starlink. Amazon says it plans to double its yearly launch cadence, and its other ULA vehicle, Atlas V, has no remaining slots for Leo.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); Amazon Leo will launch 40 satellites on ULA (2026-11-11); Amazon Leo targets Vulcan debut: Orbital Briefing, 9 November (2026-11-09); Amazon Leo targets Vulcan: Orbital Briefing, 11 November (2026-11-11); Vulcan Is Grounded and the Pentagon Is Down to One Rocket - KeepTrack [date per search index age] (2026-11-05); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29)
consensus	SpaceNews, NASASpaceflight and Aviation Week pieces on this flight were not retrieved, so their view is not observed. Among sources read: Spaceflight Now (28 Oct) frames the launch as Vulcan's return after a nine-month grounding. KeepTrack (29 Oct) records a stated doubt: ULA cited "several potential contributors" without publishing specific findings, and testing continues alongside the flight. technology.org (29 Oct) notes further analysis runs in parallel with the mission. ppc.land (10 Nov) points out that Amazon's LV-02 timing is conditioned on a nominal LV-01 and that two hardware firsts fly together.	United Launch Alliance announces mid-November return to flight for Vulcan rocket (2026-10-28); Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); Amazon's satellite internet relies on Vulcan rockets for 1,500+ satellites [date per search index age] (2026-11-10)
context	The flight comes now because ULA closed enough of its booster-nozzle investigation in late October to name a return-to-flight date, and Amazon's batch was next in line. It follows the February USSF-87 anomaly and nine months without a Vulcan launch. Downstream, LV-02 is already in preparation in VIF-G and Amazon expects it within weeks of a nominal LV-01; an Ariane 6 Leo mission (LE-04) is listed no earlier than 23 November. Atlas V's remaining vehicles are reserved for Starliner, leaving Vulcan as the only ULA path for Amazon. Space Systems Command is reported to want LV-01 flight data before Vulcan carries national security payloads again.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); Amazon's satellite internet relies on Vulcan rockets for 1,500+ satellites [date per search index age] (2026-11-10); United Launch Alliance - Company Profile, Milestones & Funding - Venture Atlas [date per search index age] (2026-10-29)
goal	Success, in Amazon's framing, is 40 satellites delivered to low Earth orbit on Vulcan's opening Leo flight, starting a 38-launch run meant to place more than 1,500 first-generation satellites, close to half the constellation. The operating purpose is Amazon's satellite broadband service. Two further stakes hang on a clean flight per late-October reporting: Amazon's deployment resumes on ULA hardware, and the Space Force gets flight data on the redesigned booster nozzle. The exact injection altitude and inclination for this flight were not observed in a dated source.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); Amazon Leo targets Vulcan: Orbital Briefing, 11 November (2026-11-11)

FACET	AS RESEARCHED	SOURCES (DATED)
history	Four Vulcan flights precede this one. A GEM 63XL nozzle failed on flight two (October 2024) and again on USSF-87 on 12 February 2026, under 30 seconds after liftoff; both payloads still reached orbit. A nine-month grounding followed, and on 26 February the Space Force paused national security launches on Vulcan. Northrop Grumman static-fired a booster with the new nozzle in spring 2026; ULA ran a wet dress rehearsal with the LEO-optimised Centaur V on 6 August. On the Leo side, tracking data showed 396 satellites launched across 14 production missions by 11 November, on Atlas V, Falcon 9 and Ariane 64. No prior countdown attempt or scrub of LV-01 was observed; aggregator dates moved from 30 September to late October, then 30 November, then 13 November.	Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); Vulcan Is Grounded and the Pentagon Is Down to One Rocket - KeepTrack [date per search index age] (2026-11-05); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); Amazon Leo targets Vulcan: Orbital Briefing, 11 November (2026-11-11); United Launch Alliance - Company Profile, Milestones & Funding - Venture Atlas [date per search index age] (2026-10-29)
identity	Leo Vulcan 1 (LV-01), which ULA calls Vulcan Leo 1, is Amazon Leo's debut on United Launch Alliance's Vulcan. ULA is the launch provider; Amazon, through its Leo broadband programme (formerly Project Kuiper), is the customer and satellite owner. Forty Leo broadband satellites make up the cargo, bound for low Earth orbit from SLC-41 at Cape Canaveral Space Force Station, with 13 November 2026 as the target day. Amazon counts it as number one of 38 Vulcan flights it has under contract with ULA. For ULA the same flight doubles as Vulcan's return to flight after a nine-month grounding.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); United Launch Alliance announces mid-November return to flight for Vulcan rocket (2026-10-28); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29)
implications	Political: the Space Force halted national security launches on Vulcan in February 2026, and its return to the military manifest is reported to depend on data from this commercial flight plus acceptance of the nozzle fix. Amazon also faces regulatory deployment deadlines, one already missed per a 9 November briefing. Business: for ULA, a 38-launch Amazon backlog and the NSSL manifest sit behind this flight; for Amazon, Vulcan is slated to carry close to half its first-generation constellation as it competes with Starlink. Public: the launch has drawn general tech-press attention as a Friday-the-13th return to flight; broadcast arrangements were not observed in a dated source.	Vulcan Is Grounded and the Pentagon Is Down to One Rocket - KeepTrack [date per search index age] (2026-11-05); United Launch Alliance - Company Profile, Milestones & Funding - Venture Atlas [date per search index age] (2026-10-29); Amazon Leo targets Vulcan debut: Orbital Briefing, 9 November (2026-11-09); Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29)
market line	not observed (Looked for insurance trade press and broker or the market public statements (2026) on the launch and space market's treatment of Vulcan or of Amazon Leo batch launches, including capacity and recent losses; the search budget ended before any dated source was retrieved, so nothing is stated.)	—
other factors	Range: late-October reports describe the 13 November date as subject to range approval. A second mission, USSF-317, is listed for 04:23 UTC the same day in a 9 November schedule briefing; that briefing does not say which range it uses. Hardware: ULA, Northrop Grumman and the Space Force investigated the February nozzle failure; the fix flies here while testing and analysis continue in parallel, and specific findings have not been published. Ground systems: VIF-A and the new launch platform see their first operational use. Not observed in dated sources: FAA licence status, labour or supply issues, and airspace or maritime notices for this launch.	Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); ULA Targets November 13 for Vulcan Return to Flight With 40 Amazon Leo Satellites (2026-10-29); Amazon Leo targets Vulcan debut: Orbital Briefing, 9 November (2026-11-09); Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09)
payload	Forty Amazon Leo broadband satellites sit inside the fairing, the largest Leo batch yet assigned to a single launch. Amazon's own programme builds the spacecraft; trade reporting on 11 November has Amazon saying more than 1,000 are built and waiting for a ride. Several schedule aggregators still carry an older figure of 45 satellites per Vulcan flight, which conflicts with Amazon's 9 November statement of 40. Not observed in any dated source read: the satellite bus designation, per-satellite or total mass, and the dispenser or deployment arrangement.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); Amazon Leo will launch 40 satellites on ULA (2026-11-11); ULA Amazon Leo (LV-01) Vulcan VC6L Rocket Launch [date per search index age] (2026-11-09)

FACET	AS RESEARCHED	SOURCES (DATED)
pending	Three items are named as open. (1) Range approval of the 13 November date: reported as still required on 29 October (KeepTrack, technology.org); no later source read confirms it was granted. (2) Booster nozzle work: on 28-29 October ULA was reported to be continuing testing and analysis in parallel with the launch campaign, with detailed findings unreleased. (3) Space Force clearance for national security payloads on Vulcan: not restored as of a late-October profile, and tied to review of LV-01 data; this affects later flights, not this commercial one. FAA licence status and notices to airmen or mariners were looked for and not observed.	Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); ULA Sets Vulcan Return to Flight for November 13 With 40 Amazon Leo Satellites (2026-10-29); ULA Targets November 13 for Vulcan Return to Flight With 40 Amazon Leo Satellites (2026-10-29); United Launch Alliance - Company Profile, Milestones & Funding - Venture Atlas [date per search index age] (2026-10-29)
sequence	not observed (Looked for ULA's Vulcan Leo 1 mission page, mission overview booklet or press timeline giving countdown and ascent event times (booster jettison, MECO, Centaur burns, satellite deployment) for LV-01; none was retrieved, only the family's generic profile is known.)	—
timeline	Aggregators using Launch Library data listed LV-01 for 30 September 2026, then 31 October, then 29 October, without a ULA-posted date; on 11 September ULA told Ars Technica (as relayed by a company profile) that no date would be shared until the booster investigation finished. A placeholder of 30 November appeared before ULA announced 13 November on 28 October. Amazon confirmed 13 November on 9 November. Current listing: liftoff 17:54 UTC on 13 November, with one schedule site showing the window closing at 18:24 UTC. Backup dates were not observed in a dated source.	United Launch Alliance - Company Profile, Milestones & Funding - Venture Atlas [date per search index age] (2026-10-29); Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); United Launch Alliance announces mid-November return to flight for Vulcan rocket (2026-10-28); Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); ULA Amazon Leo (LV-01) Vulcan VC6L Rocket Launch [date per search index age] (2026-11-09); Amazon Leo targets Vulcan: Orbital Briefing, 11 November (2026-11-11)
vehicle configuration	Six Northrop Grumman GEM 63XL strap-on solids ride on this Vulcan, a first for the family (listed as VC6L), and the flight is Vulcan's fifth overall. Its Centaur V is a new shorter version tuned for low Earth orbit, also a first, which lets the stack lift more satellites. The solids carry a revised nozzle design that came out of the February anomaly investigation. Stacking took place in the new Amazon-funded VIF-A, and the vehicle uses a new mobile launch platform built for Leo missions. Not observed in any dated source read: whether the core booster is new, the fairing dimensions, and any recovery plan.	Amazon Leo to launch 40 satellites on its first Vulcan mission (2026-11-09); Vulcan Returns to Flight November 13 - KeepTrack (2026-10-29); ULA Targets November 13 for Vulcan Return to Flight With 40 Amazon Leo Satellites (2026-10-29); ULA Amazon Leo (LV-01) Vulcan VC6L Rocket Launch [date per search index age] (2026-11-09)
weather	not observed (Searched for the 45th Weather Squadron / Space Launch Delta 45 launch mission execution forecast for Vulcan Leo 1 (LV-01) at SLC-41 on 2026-11-13 and for ULA or press relays of it; only forecasts for earlier Vulcan missions (Cert-2, USSF-106, USSF-87) surfaced. No probability of violation or threatened constraint for this T-0 was found.)	—

Sources: Vulcan Centaur — https://en.wikipedia.org/wiki/Vulcan_Centaur (filed 2026-11-06, sealed d71da4d525cd on 2026-11-06). Context facets — business pressure: read · consensus: read · market line: not read (no dated source).

LAB LINE	LANE	STATE	WHY
M1 vehicle family matched to a row of the house vehicle table	mandatory	green	**VULCAN**
M2 every stage carries its propellant and kind (cryogenic or not)	mandatory	green	**0:SOLID 1:METHALOX 2:HYDROLOX**
M3 reuse state of the family stated	mandatory	green	**EXPENDABLE**
M4 payload class on the draw	mandatory	green	**COMMS-SAT**

LAB LINE	LANE	STATE	WHY
M5 orbit on the draw or the schedule	mandatory	green	LEO
M6 mission goal from the schedule listing (a plain noun when the listing has none)	optional	green	COMMUNICATIONS
M7 published launch sequence on file (family generic until the mission kit is read)	mandatory	green	7 STEPS (GENERIC; MISSION KIT REPLACES IT)
M8 the pre-read schedule check ran and did not refuse	mandatory	green	VERDICT AGREE
M9 every vehicle fact names its source url and filed date	mandatory	green	HTTPS://EN.WIKIPEDIA.ORG/WIKI/VULCAN_CENTAUR · 2026-11-06
M10 vehicle fact source copy sealed on disk (evidence rule)	optional	green	SEALED D71DA4D525CD 2026-11-06T16:53:20.955Z
M11 provider anomaly history: the house vehicle notes or the house record	optional	green	VOICE WEAK POINTS OR HOUSE RECORD PRESENT
M12 consensus · business pressure · market line (not observed until a dated source is filed)	optional	green	READ FROM A DATED SOURCE: CONSENSUS, BUSINESS PRESSURE; NOT OBSERVED: MARKET LINE
M13 mission brief on file with dated sources (a dated web read of the house facets)	optional	green	BRIEF 0FD579E98138 · 12/15 FACETS OBSERVED · 52 DATED SOURCES
M14 weather at T-0 for the pad on file (from the brief)	optional	red	WEATHER AT T-0 NOT OBSERVED

16 THE SEALED TEXT

THE DAY	● STAND DOWN: at the planned T-0 (17:54Z) launch reads NO-GO and operating life reads ELEVATED, and the band holding the T-0 reads NO-GO; no later band in this window reads CLEAN for the flight.
IF FLOWN	THE NAMED MODE — a degraded subsystem; cryogenic and thermal margins; fluids and weather; ignition and combustion.
THE WINDOW	no clean band in this window.
EXPOSURE	if flown, the band that holds the actual lift-off grades, never the day call: a NO-GO band or an ELEVATED RISK band flown clean is a MISS, with or without a hold or delay. A scrub is a scrub and grades the day call.
SEALED	2026-11-11 17:21 UTC · for Fri, Nov 13, 12:54 EST → Fri, Nov 13, 13:24 EST (2026-11-13 17:54 UTC → 2026-11-13 18:24 UTC) · house signal 0.974 (no-go) · confidence calibrated on 26 graded launches, Brier 0.033 (the published calibration file, launch rows)

Three classes, fixed before the window and graded after it: CLEAN, the day reads clear · ELEVATED RISK, a named anomaly class on the timeline with the sub-window it threatens · NO-GO, the day reads adverse at the level of the mission. The class is derived from the sealed values on this device; the same values give the same words.

17 FRAME AND SCOPE — WHAT THIS READ COVERS

Vulcan Centaur · ULA · Amazon Leo (LV-01) from Cape Canaveral SFS SLC-41, a communications satellite to low Earth orbit.



Sealed 2.0 days before the window opens. Clocks at the pad (America/New_York), UTC in the second figure.

WINDOW	AT THE PAD	PLANNED T-0	ZONE
primary	Fri, Nov 13, 12:54 EST → Fri, Nov 13, 13:24 EST	Fri, Nov 13, 12:54 EST	America/New_York

What this advisory claims: a sealed, gradeable call on the day and the window, by phase, with the mode named if flown. What it does not claim: a go/no-go or a verdict on the vehicle's engineering. The posture ladder in the decision package lays three postures before the launch team and marks one; the call stays the team's.

18 BACKGROUND

vehicle	Vulcan Centaur
provider	ULA
flight	Amazon Leo (LV-01)
site	Cape Canaveral SFS · SLC-41 · US
pad clock	Eastern Standard Time (America/New_York)
payload class	communications satellite
orbit	LEO

House record on Vulcan Centaur: 1 sealed call, 1 graded, 1 hit, since 2024-01-03.

19 THE PUBLIC PRIOR

No public prior is filed for this vehicle, so no lift is computed.

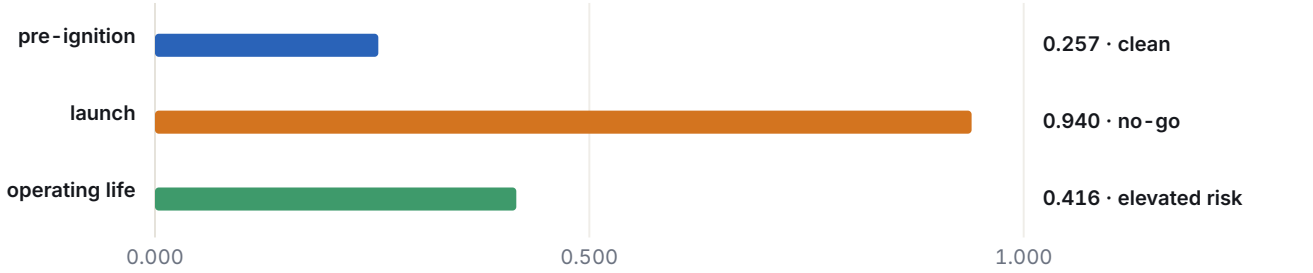
PHASE	EVENT THE PRIOR COUNTS	BASIS
Pre-ignition (count · pad)	not in the sealed values	NOT OBSERVED
Launch (ignition → separation)	not in the sealed values	NOT OBSERVED
Operating life (early orbit · service)	not in the sealed values	NOT OBSERVED

Columns left out because this read files no value for them: prior, lift.

A prior counts the event named beside it, for that phase only: a hold is a delay and never an insurable loss; an under-burn is a partial loss. Where the event is not filed, the prior cannot be read as a loss frequency, and the house says so rather than let a hold and a loss share one "1 in N".

20 FACTOR TABLE — EVERY STANDARD PHASE, RATED BY THE HOUSE

House signal by phase per phase · same axis



PHASE	IN PLAIN WORDS	HOUSE SIGNAL	CLASS	EVENT	CONFIDENCE
Launch (ignition → separation)	about 9 in 10	0.940	NO-GO	not in the sealed values	calibrated on 26 graded launches, Brier 0.033 (the published calibration file, launch rows)
Operating life (early orbit · service)	about 2 in 5	0.416	ELEVATED RISK	not in the sealed values	calibrated on 26 graded launches, Brier 0.033 (the published calibration file, launch rows)
Pre-ignition (count · pad)	about 1 in 4	0.257	CLEAN	not in the sealed values	calibrated on 26 graded launches, Brier 0.033 (the published calibration file, launch rows)

Columns left out because this read files no value for them: prior, lift.

The house signal is the house's measured signal for the phase on the standard series; the band names its place in the calibration. No dollar and no cover choice enters this table — the house rated all three phases without knowing which you cover.

House overall 0.974 (better than 9 in 10), no-go: the house's rating over all three phases, sealed and graded as printed. Chained on this device, 1 − Π(1 − p) over the three phases = 0.974 (better than 9 in 10); the record grades on the rating, and the chained figure is the one your arithmetic below applies to the phases you cover. Where the two differ, the house rating carries a weighting of the phases that is not printed; the record grades on the rating.

Two class rules, said once. A phase's rating and a band mean on the curve are classed by the two thresholds on the signal (CLEAN below 0.35 · ELEVATED RISK from 0.35 · NO-GO from 0.6). The signals differ: (1) a phase's house signal is the house's rating of that phase on the standard series; (2) the window map's band means and the risk curve use the sweep's per-minute p, classed CLEAN below 0.35 · ELEVATED RISK from 0.35 · NO-GO from 0.6; (3) the DAY'S word and each band of the overall strip are a judgment, not a threshold: the house's decision table over the operating period in force. A band worded NO-GO can therefore hold minutes whose p sits below the no-go line, and the band row says so where it happens. A band mean and a phase signal can carry different class words at the same number because they are different scales.

21 GRADING PROTOCOL — PRE-COMMITTED

1. The anchor is the last officially announced pre-window T-0; a T-0 move inside the window after the seal expands the record by addendum, never by edit.
2. Every call grades against a public channel named here: the webcast, the public catalogs and trackers, the provider's own statements. With no flight no band grades: a scrub grades the day call.
3. A row with no public resolution by its check date is UNRESOLVED, never a hit. Alignment with the outcome is scored; influence never claimed.
4. The factor table is the sealed yardstick: the bands grade, the minutes never.

The graded surface is "The band table — what grades if the rocket flies" under The call: if the rocket flies, the band that holds the actual T-0 grades on its own row, by the grade line printed beside it.

The rubric: graded from the seat of the money

This lane is graded from the seat of whoever has money on the line: the underwriter, the owner, the investor. The question is whether our band let them price the window well, and whether their investment was protected. The rest of the house record is graded on whether a sealed call proved correct. This lane is graded on what the call cost, or saved, the party who priced on it. A band that sounds cautious and costs them money is a MISS.

BAND CLASS	WHAT IT TELLS THE PARTY WITH MONEY ON THE LINE
CLEAN	A clean flight is expected. Minor issues, holds and delays may happen and cost the money nothing. No payout is expected on this window.
ELEVATED RISK	Real risk is present on this window. Some small trouble is expected, and the odds of something worse are high. Price it with terms. The named risk may show on the day without growing into an anomaly. A band whose heavy reading sits only before ignition is in this class: expect holds or a scrub on the ground.
NO-GO	The risk of a serious loss in flight is very high, and so is the payout. Launch or operating life reads NO-GO inside this band. The house recommends standing down or slipping to a band where the flight reads CLEAN.

WHAT HAPPENED	CLEAN BAND	ELEVATED RISK BAND	NO-GO BAND
clean flight (with or without a hold or delay). It flew, nothing happened that costs the money, and the public record shows none of the risk an ELEVATED RISK band named. A hold, a delay or a recycle before lift-off does not change this: a hold is the launch team doing its job.	HIT — they priced a clean day and paid nothing; a hold or delay on the way costs them nothing	MISS — we told them to price for trouble and the public record shows none of the risk the band named, hold or no hold	MISS — we said stand down; it flew clean and money that stayed out lost the business
successful flight with risk on record. It flew with no named anomaly, and the public record shows that a risk the band named ahead of time was present on the day: for example weather that kept the launch in doubt until the last hours, or thin flight margins. The row carries the read's words, the record's words and an evidence link.	HIT — they priced a clean day and paid nothing; the risk on the day did not touch the money	HIT — the risk the band named was on the public record on the day and stayed below an anomaly; terms priced weeks ahead were the right price	MISS — we said stand down; it flew with no named anomaly, and money that stayed out lost the business, risk on record or not
flight with a named anomaly. It flew and an anomaly is named on the public record.	MISS — they priced a clean day and pay for the anomaly	HIT — the trouble they priced for showed, and the terms covered it	HIT — we said stand down; it flew and the day bit
serious or catastrophic failure. The vehicle, the payload or the mission was lost. The money pays in full.	MISS — they priced a clean day and pay in full	MISS — we said small trouble; the money pays in full, which is a no-go outcome	HIT — we said stand down; money that listened was not on the loss
scrub. No flight inside the sealed window. The countdown found an issue too great to fix in time, or the operator chose not to fly.	VOID — nobody can be made to fly; no flight took place and the money lost nothing, so the row is not counted	HIT — the countdown found an issue too great to fix; the risk showed before lift-off and the money was protected	HIT — we said stand down; the window was not flown

- A band reads NO-GO only when launch or operating life reads NO-GO inside it. A heavy reading that sits only before ignition makes the band ELEVATED RISK: trouble before ignition is met with the vehicle still on the pad.
- A clean flight with no risk on the public record is a HIT only on a CLEAN band. An ELEVATED RISK band flown that way is a MISS, with or without a hold.
- An ELEVATED RISK band is a HIT on a successful flight when the public record shows that the risk the band named was present on the day, even though it did not grow into an anomaly. Underwriters price weeks ahead; a band that said then that the day would carry real risk priced it well.
- That HIT needs evidence. The row must link to a public source, and the risk on the record must be one the band named before the flight. With no such evidence the flight is a clean flight.
- A NO-GO band needs a named anomaly at the least. Flown without one it is a MISS, even with risk on record.

- Holds and delays never change the band grade. They are graded only on the pre-ignition segment line, which has its own count.
- An event is graded as what happened, not as what it is called afterwards. It counts as planned only when a public document dated before lift-off listed it. A later statement that it was planned does not change the grade and never makes a row VOID.
- A scrub on a CLEAN band is VOID and not counted: nobody can be made to fly, and the money lost nothing.
- There is no half credit. Every counted row is a HIT or a MISS at full weight.
- If the launch flies, the band that holds the actual lift-off time is graded. The day call is the house's recommended course for the planned T-0: fly at open, fly with watch, slip or stand down. It is a recommendation, and it is graded only on a scrub.
- A course names where the trouble sits; it does not change a grade. Fly with watch says the launch and operating-life segments read CLEAN at the planned T-0 and the heavy reading sits before ignition, where trouble shows as holds, delays or a scrub. Such a band reads ELEVATED RISK, never NO-GO. A scrub is graded on the band that holds the planned T-0, and a flight on the band that holds the lift-off.
- Every anomaly, failure and scrub carries a second grade, named in advance: yes, no or not yet public. It has its own count and never changes the band grade or the score.
- A band that priced for trouble is still a HIT when a different trouble comes: the money was protected. The second grade shows plainly that we did not name it.
- Every graded read also carries three segment grades: pre-ignition, launch and operating life, each against the class that segment carried in the graded band. They have their own count and never change the band grade or the score.

How a band gets its class

Every band is read on three segments: pre-ignition, launch and operating life. Launch and operating life are the flight: trouble there is paid for in hardware. Trouble before ignition is met with the vehicle still on the pad, where it can be fixed, held or scrubbed.

WHEN	THE BAND READS
launch or operating life reads NO-GO	NO-GO
launch or operating life reads ELEVATED RISK	ELEVATED RISK
pre-ignition reads ELEVATED RISK or NO-GO and both flight segments read CLEAN	ELEVATED RISK
all three segments read CLEAN	CLEAN

A band never reads NO-GO on pre-ignition alone. Reads sealed before 11 November 2026 (rubric 0.6.0) keep the band words they were sealed with.

The second grade: named in advance

When trouble came, had our sealed read already said what it would be? The band grade asks whether the money was protected. This second grade asks the harder question: did we say exactly what the trouble would be. It is shown beside the band grade on every anomaly, failure and scrub, and it is never mixed into the band score. In the table above, a named anomaly means an anomaly named on the public record. This line asks whether our read named the same thing first.

ANSWER	WHAT IT MEANS
YES	The sealed read named the system, the phase or the cause that the public record later confirmed.
NO	Trouble came, but not the trouble the read named. A general warning, a neighbouring system or a different phase counts as no.
NOT YET PUBLIC	The cause is not on the public record yet. The row stays open and is settled when it is published.

Three segment grades

Beside the band grade, every graded read carries one grade for each segment: pre-ignition, launch and operating life. Each is graded against the class that segment carried in the graded band, on what the public record shows for that segment alone.

The band grade answers the money's question for the whole flight. The segment grades show where the read was right: on the ground, in ascent, or in the life of the payload. This is finer than the hand lane, which grades one call.

Pre-ignition: the count, from the start of the window to ignition. Settles at window close.

WHAT THE RECORD SHOWS	CLEAN	ELEVATED RISK	NO-GO
quiet count. The count reached ignition with no hold on the public record.	HIT	MISS — the count ran quiet	MISS
hold that cleared. A hold, recycle or delay inside the window is on the public record with its cause, and the launch went the same window.	HIT — a hold that clears is the launch team doing its job; nobody pays	HIT — the trouble showed on the ground and was cleared there	MISS — a hold that clears is less than this segment priced
scrub. The attempt was called off for the window.	VOID — nobody can be made to fly	HIT	HIT
ground anomaly. Damage or a named anomaly on the ground before ignition, short of the loss of the vehicle or payload.	MISS	HIT	HIT
loss on the ground. The vehicle or the payload was lost before ignition.	MISS	MISS — we said trouble that clears; the ground cover pays in full	HIT

Launch: ignition to payload release. Settles at window close, once the payload is released or the flight has ended.

WHAT THE RECORD SHOWS	CLEAN	ELEVATED RISK	NO-GO
clean ascent. Ignition to payload release with no named anomaly and none of the segment's named risk on the public record.	HIT	MISS	MISS
clean ascent with risk on record. No named anomaly in ascent, and the public record shows a risk this segment named was present. The row carries both sets of words and an evidence link.	HIT	HIT	MISS
anomaly in ascent. A named anomaly between ignition and payload release.	MISS	HIT	HIT
loss in ascent. The vehicle, the payload or the mission was lost between ignition and payload release.	MISS	MISS — the money pays in full	HIT
not flown. The attempt was scrubbed, so this segment has nothing to grade.	VOID	VOID	VOID

Operating life: payload release through first light plus 30 days. Settles at first light plus 30 days.

WHAT THE RECORD SHOWS	CLEAN	ELEVATED RISK	NO-GO
clean operation. No named anomaly from payload release through first light plus 30 days.	HIT	MISS	MISS
clean operation with risk on record. No named anomaly in that period, and the public record shows a risk this segment named was present. The row carries both sets of words and an evidence link.	HIT	HIT	MISS
anomaly in operating life. A named anomaly after payload release, inside first light plus 30 days.	MISS	HIT	HIT
loss in operating life. The payload or the mission was lost after payload release, inside first light plus 30 days.	MISS	MISS — the money pays in full	HIT
not flown. The attempt was scrubbed, so this segment has nothing to grade.	VOID	VOID	VOID

On a scrub the pre-ignition segment is graded as a scrub and the two flight segments are VOID. Holds are graded here and nowhere else: a hold never changes the band grade. Segment grades have their own count. They never change the band grade, the score or the information yield.

The ladder, in one paragraph

A row is HIT when its named class shows on its channel, and a rated window flies as rated. There is no half credit on this read: a counted row is a HIT or a MISS. MISS is full weight and stands only on an affirmatively established falsifier, never on silence.

Silence is UNRESOLVED, never a hit or a MISS. The read is graded from the seat of whoever has money on the line: did the band let them price the window well. A clean flight is a HIT only on a CLEAN band; a NO-GO band or an ELEVATED RISK band flown clean is a MISS, with or without a hold or delay, because holds and delays are never graded. The day call is not graded on a flight. With no flight no band grades and the day call is the one row that grades: VOID on a CLEAN day call (nobody can be made to fly) and HIT on an ELEVATED RISK or NO-GO day call. A named sub-class inside an acceptable window is an annotation, never a MISS. A VOID row names the trigger that never arose and is not counted. Any MISS, and any VOID of a row whose trigger arose, is proposed by the house's grading engine and stands only on the house reviewer's confirmation (the Principal). Probabilities are printed at most 0.99.

What voids a row

- This read binds to one T-0: 2026-11-13 17:54 UTC. A new date is a new reading, not a re-anchor.
- A T-0 outside 2026-11-13 17:54 UTC to 2026-11-13 18:24 UTC voids every row of this window; the rows print VOID and are not counted.
- A scrub is a scrub: with no flight no band grades, and the day call is the one row that grades, by the scrub row of the rubric; nothing transfers to a reschedule.
- A conditional row whose trigger never arises is VOID: in suspense, not refuted; an unreached call is never scored as a hit. A slip is VOID plus a new reading.

Influence never claimed: no reading in this document says that any call moved the outcome.

The grade words

GRADE	MEANS
HIT	the named class showed on its channel inside the flagged window, or the rated window flew as rated; full credit and no more: a caution beside it is an ANNOTATION, never a second hit
MISS	the falsifier is affirmatively established on its channel; full weight; graded by the house's grading engine and PROPOSED until the house reviewer confirms it; silence never grades a MISS
VOID	the precondition the row was sealed on never arose (an untriggered window, a T-0 outside the window, a scrub against a CLEAN day call); printed by name and never counted
OPEN	a sealed read whose channels have not yet been asked: a status, not a grade word; excluded from the record totals
ANNOTATION	a caution, never a scored row: a named sub-class inside an acceptable window, a consequence the outside cannot verify, or a fork component resolved against its priced side; one typed reason
UNRESOLVED	the channel has not spoken by its check date; excluded from scoring and kept visible; silence is never a hit and never a MISS
BRANCH	the realized path selected these conditional rows; neither hit nor MISS; the activated rows grade on their own clocks

The older house record still carries rows graded NEAR or PARTIAL at half weight, from calls graded before this rubric. They are counted in the house record figures as printed there. No row of this read can earn either word.

A scrub is a scrub. A slip is VOID plus a new reading.

22 GRADING SHEET

ROW	CALL AS SEALED	GRADES ON	CHECK DATE	STATE
If it flies: the band that holds the actual T-0	5 bands sealed: 5 NO-GO	IMMEDIATE — public, resolves at the window or within days. Public proxy: webcast · telemetry call-outs · provider statement at separation.	Fri, Nov 13, 13:24 EST	UNRESOLVED
If there is no flight: the day call	STAND DOWN (0.974)	no lift-off inside the sealed window, on the same public channel	Fri, Nov 13, 13:24 EST	UNRESOLVED

ROW	CALL AS SEALED	GRADES ON	CHECK DATE	STATE
Second grade: named in advance	the issues this read names	the cause, once it is on the public record	when the cause is published	UNRESOLVED

Only one of the first two rows grades: the band row on a flight, the day call row with no flight. The second grade is filled only on an anomaly, a failure or a scrub.

The phase reads (Pre-ignition (count · pad) CLEAN (0.257) · Launch (ignition → separation) NO-GO (0.940) · Operating life (early orbit · service) ELEVATED RISK (0.416)) are how the classes were reached. They are not graded rows.

Every row is UNRESOLVED at the seal by construction; the grading fills the state, never this document.

23 POST-FLIGHT MEASUREMENT

If flown, two channels are measured after liftoff from the public record and published as an evidence pack: the ascent profile against prior flights of the same vehicle family (velocity at time, burn length, margins at stage events) and the communications and sensor imprint (loss of signal without precursor, pass degradation, safe mode after a comms timeout), each with one dated checkpoint. Neither is scored unless the grading sheet names a row for it.

ascent performance	pending — the benchmark set is named before liftoff
sensor imprint	pending — one look at the dated checkpoint; not in the sealed values
on a scrub	not published: there is no ascent to measure

☑ 06 · THE RECORD

§ 24–28

24 ACCURACY

1 sealed call on Vulcan Centaur, 1 graded, 1 hit.

A hit: the row that grades, the band that holds the actual T-0 or the day call when there is no flight, carried the class the rubric's table pairs with what happened. If it flies, the band that holds the actual lift-off grades; the day call is the house's recommendation and is not graded on a flight. A clean flight grades HIT against a CLEAN band and MISS at full weight against an ELEVATED RISK or NO-GO band, with or without a hold or delay: holds and delays are never graded, only the flight is. A scrub is a scrub: with no flight no band grades, and the day call is the one row that grades, by the scrub row of the rubric; nothing transfers to a reschedule. There is no half credit on this read: its one graded row is a HIT or a MISS at full weight. The count above is therefore a count of calls, not of losses. The Brier score and the realized hit share, flagged against unflagged windows, ride below in the house record figures, recomputed from the published calibration file on the house site (space-insurance · underwriter-brief).

Criteria: alignment with the public channel per row of the grading sheet; the bands grade, the minutes never; a scrub grades the day call. Nothing here claims a hit before the channel speaks.

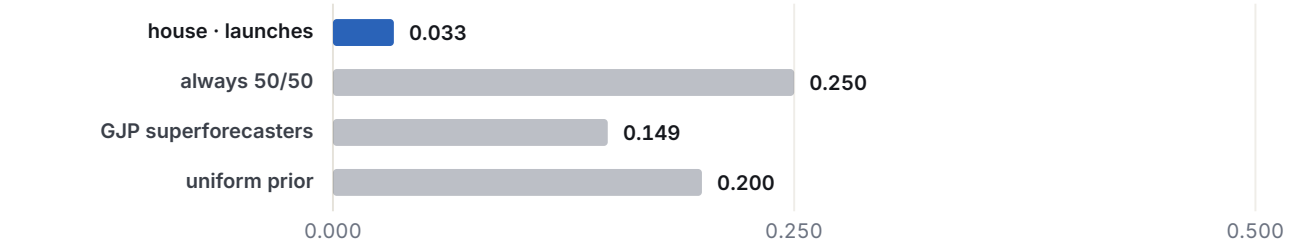
25 THE RECORD, SEALED AND PUBLIC

Sealed with this advisory

SEALED CALLS ON THE VEHICLE	GRADED	GRADED LAUNCHES, HOUSE-WIDE	HOUSE BRIER
1	1	26	0.033
Vulcan Centaur · since 2024-01-03	1 hit	the published calibration file, launch rows	superforecasters 0.149 · 50/50 0.250

Brier score

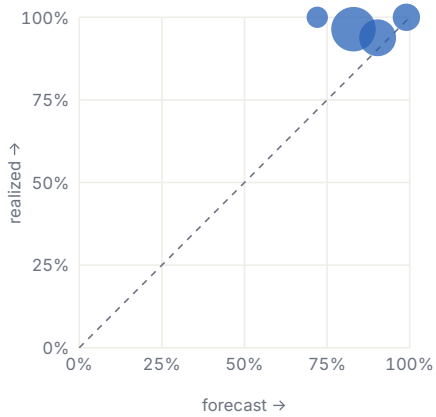
lower is better · 0 is perfect



The house rows are blue; the grey rows are the published references every forecaster is read against. A shorter bar is a better score.

Reliability

sealed bins · forecast against outcome



virtually certain: 3 · forecast 99% · realized 100% · very likely: 8 · forecast 90% · realized 94% · likely: 14 · forecast 83% · realized 96% · more likely than not: 1 · forecast 72% · realized 100%

Realized when flagged: 96% of 26 flagged windows; when not flagged: no unflagged window graded yet.

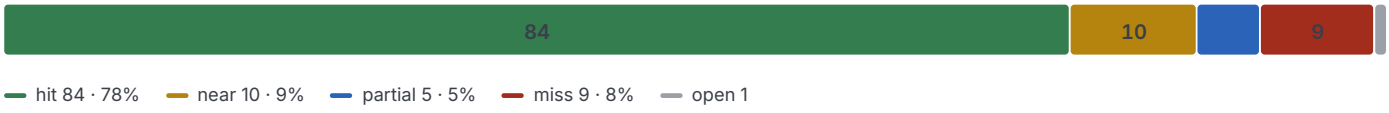
The public record

CLOSED CALLS, WHOLE HOUSE	HIT SHARE	BRIER, WHOLE HOUSE	BRIER, LAUNCH CALLS
108	78%	0.089	0.033
108 graded · 1 open	84 hit of 108 graded	log loss 0.397	26 closed launch calls

BRIER, AUTOMATED READS
0.048
1 graded of 1 sealed · own ledger · n < 5, not read

Every closed call

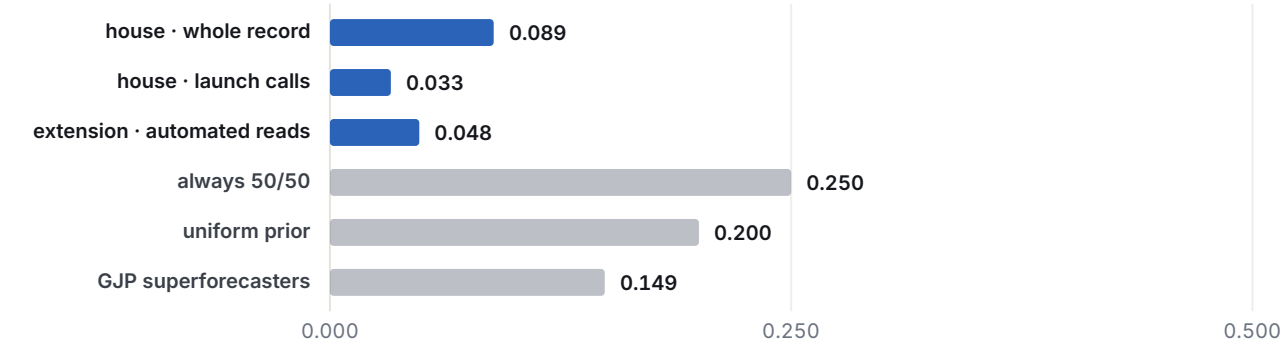
108 calls · 108 graded



hit 84 · 78% — near 10 · 9% — partial 5 · 5% — miss 9 · 8% — open 1

Brier score

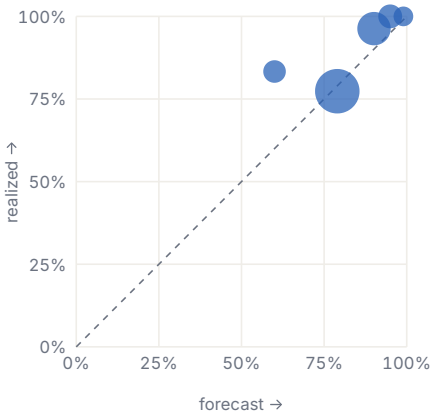
lower is better · 0 is perfect



The house rows are blue; the grey rows are the published references every forecaster is read against. A shorter bar is a better score.

Reliability

public bins · forecast against outcome



Virtually certain: 3 · forecast 99% · realized 100% · Extremely likely: 8 · forecast 95% · realized 100% · Very likely: 27 · forecast 90% · realized 96% · Likely: 64 · forecast 79% · realized 77% · More likely than not: 6 · forecast 60% · realized 83%

This mission's classes

The same public record cut four ways — the vehicle, the operator, the payload class and the orbit named on this advisory. The number is the hit share on that cut; the strip is its verdicts.

VEHICLE	OPERATOR	PAYLOAD CLASS	ORBIT
100%	100%	100%	92%
hit rate on Vulcan Centaur · Peregrine · 1 graded of 1	hit rate on ULA · 1 graded of 1	hit rate on comms-sat · 7 graded of 7	hit rate on LEO · 12 graded of 12
Brier 0.000	Brier 0.000	Brier 0.000	Brier 0.021

Similar missions on the record

Nearest first — scored by the classes shared with this mission. Each tile opens the sealed advisory on the house site.

HIT
LA-003
Vulcan Cert-1 — Peregrine Lunar-Mission Loss
sealed 2024-01-03 · shares Vehicle, Operator

HIT
LA-024
USSF-366 / Falcon 9 — 15 Aug Launch-Day Read Sealed Before the Window · Recommend Scrub & Reschedule · Sixteen-Window Branch Map · Payload-Contamination Call at Certainty
sealed 2026-08-14 · shares Payload class, Orbit

HIT
LA-022
New Glenn NG-3 — 19 Apr Day-Wide No-Go · Window 2 Liftoff → Catastrophic-Class Payload Loss
sealed 2026-04-18 · shares Payload class, Orbit

HIT
LA-021
New Glenn NG-3 — 18 Apr Day-Wide No-Go & Hot-Fire Stand-Down
sealed 2026-04-15 · shares Payload class, Orbit

HIT
LA-020
New Glenn NG-3 — Engine Replacement & Hot-Fire Hold
sealed 2026-04-11 · shares Payload class, Orbit

HIT
LA-019
New Glenn NG-3 — 2CAT Tank-Test Anomaly & Window Slip
sealed 2026-04-05 · shares Payload class, Orbit

HIT
LA-013
LVM3-M5 / GSAT-7R — Weather Impedance & Cryogenic Anomaly
sealed 2025-10-25 · shares Payload class

HIT
LA-006
Falcon 9 GSAT-N2 — Minor Blemish on a Clean Bird
sealed 2024-11-17 · shares Payload class

In plain words

- The public record holds 108 closed calls: 84 hit, 10 near, 5 partial, 9 miss, 1 still open. Brier 0.089 across the whole record, against 0.149 for published superforecasters and 0.250 for always-50/50. Lower is better.
- The launch subset: 26 closed launch calls, Brier 0.033.
- The automated lane — reads this extension produced for house-run launches, on its own ledger: 1 sealed read, 1 graded, Brier 0.048 (under 5 graded: printed, not read); never blended with the hand number.
- Vehicle Vulcan Centaur · Peregrine: 1 sealed call, 1 graded, 1 hit (hit rate 100%, Brier 0.000).
- Operator ULA: 1 sealed call, 1 graded, 1 hit (hit rate 100%, Brier 0.000).
- Payload class comms-sat: 7 sealed calls, 7 graded, 7 hit (hit rate 100%, Brier 0.000).
- Orbit LEO: 12 sealed calls, 12 graded, 11 hit, 1 partial (hit rate 92%, Brier 0.021).
- 8 similar missions on the record, nearest first: LA-003 (hit), LA-024 (hit), LA-022 (hit), LA-021 (hit), LA-020 (hit), LA-019 (hit), LA-013 (hit), LA-006 (hit).

Read from jyotishintelligence.com/api/v1 · file generated 2026-11-11 16:57Z · fetched for this print 2026-11-11 17:21Z.

THE HOUSE RECORD — FIGURES

graded launches	26
Brier (house)	0.033
Brier (always 50/50)	0.25
Brier (uniform prior)	0.2
Brier (published superforecaster)	0.149
realized when flagged	96% of 26
realized when not flagged	no unflagged launch in the graded record yet
basis	the published calibration file, launch rows

BAND	N	MEAN P	REALIZED
virtually certain	3	0.990	100%
very likely	8	0.903	94%
likely	14	0.830	96%
more likely than not	1	0.720	100%

Reliability reads band by band: mean p against the realized share. Flagged = the house named the class at p ≥ 0.5. These are the published file's rows recomputed; the file and its hash are on the house site.

26 SEALED BEFORE THE EVENT

sealed	2026-11-11 17:21 UTC
lead before the window	2.0 days
verification	every hash, key and version is in the verification exhibit at the end

The record is the credential: the values object was hashed and signed before the window opened, and the house holds only the encrypted form. The same sentence could not be written after the fact.

27 STRESS TEST — WHAT WOULD BREAK THIS CALL

- Pre-ignition: no public prior is filed for this phase (no catalog row) — not in the sealed values
- Launch: no public prior is filed for this phase (no catalog row) — not in the sealed values
- Operating life: no public prior is filed for this phase (no catalog row) — not in the sealed values
- A T-0 move outside the window is a new reading, never a re-anchor: the rows of the sealed T-0 are VOID. A move inside the window selects another band of this record and rides as an addendum with its own hash.
- A scrub is a scrub: with no flight no band grades, and the day call is the one row that grades, by the scrub row of the rubric; nothing transfers to a reschedule.

28 ADDENDUM AND RE-SEAL BLOCK

The anchor is frozen at the seal. A T-0 move inside the window expands this record by an addendum with its own hash; an error is an erratum; no sealed byte is ever edited. A re-seal for a T-0 slip is an addendum under the same advisory id; what it costs is a matter of the terms of service, never of this document.

Addenda and errata on this record

No addendum and no erratum at the seal: this is the record as first sealed. An erratum, if one is ever needed, is sealed before the outcome is known or it is not an erratum.

No change was taken at filing.

What we do not know

Every checked mission field agreed with an independent source. What follows is what this read could not stand on.

- Still pending at the brief (2026-11-11): Three items are named as open. (1) Range approval of the 13 November date: reported as still required on 29 October (KeepTrack, technology.org); no later source read confirms it was granted. (2) Booster nozzle work: on 28-29 October ULA was reported to be continuing testing and analysis in parallel with the launch campaign, with detailed findings unreleased. (3) Space Force clearance for national security payloads on Vulcan: not restored as of a late-October profile, and tied to review of LV-01 data; this affects later flights, not this commercial one. FAA licence status and notices to airmen or mariners were looked for and not observed.
- The market line: not observed (Looked for insurance trade press and broker or the market public statements (2026) on the launch and space market's treatment of Vulcan or of Amazon Leo batch launches, including capacity and recent losses; the search budget ended before any dated source was retrieved, so nothing is stated.).
- Sequence: not observed (Looked for ULA's Vulcan Leo 1 mission page, mission overview booklet or press timeline giving countdown and ascent event times (booster jettison, MECO, Centaur burns, satellite deployment) for LV-01; none was retrieved, only the family's generic profile is known.).
- Weather at the planned T-0: not observed (Searched for the 45th Weather Squadron / Space Launch Delta 45 launch mission execution forecast for Vulcan Leo 1 (LV-01) at SLC-41 on 2026-11-13 and for ULA or press relays of it; only forecasts for earlier Vulcan missions (Cert-2, USSF-106, USSF-87) surfaced. No probability of violation or threatened constraint for this T-0 was found.).

- Pre-ignition: no public prior is filed for this phase (no catalog row)
- Launch: no public prior is filed for this phase (no catalog row)

- Operating life: no public prior is filed for this phase (no catalog row)

07 · WATCH AND PLEDGE

§ 29–30

29 THE WATCH PLAN

PHASE	WINDOW	INSTRUMENT	THE BAND PICTURE	OBSERVABLE	NOT OBSERVED
Pre-ignition (count · pad)	12:54–13:24 EST at the pad	provider count net · webcast · range statements	signal 0.118–0.257 across the window; peak 12:54–13:24 EST (0.257); clean 12:54–13:24 EST.	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion	no public prior is filed for this phase (no catalog row)
Launch (ignition → separation)	12:54–13:24 EST at the pad	webcast · telemetry call-outs · provider statement at separation	signal 0.921–0.955 across the window; peak 12:54–13:24 EST (0.955); no clean range.	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion	no public prior is filed for this phase (no catalog row)
Operating life (early orbit · service)	12:54–13:24 EST at the pad	public catalogs and trackers · operator statements · first-light reports	signal 0.297–0.448 across the window; peak 13:03–13:24 EST (0.448); lightest 13:00–13:02 EST (0.297); clean 13:00–13:02 EST.	a degraded subsystem · cryogenic and thermal margins · fluids and weather · ignition and combustion	no public prior is filed for this phase (no catalog row)

Columns left out because this read files no value for them: counts as the event.

The band-by-band clocks are drawn on the window map and the risk curve; this table says where to look, for what, and what counts.

30 THE DATA PLEDGE

The operating-life row resolves on public data that may take longer than 90 days to show. For that row silence across the named public channels (public catalogs and trackers · operator statements · first-light reports) stays UNRESOLVED at every horizon, including past 90 days: silence never grades a MISS. The 90-day clock triggers the house reviewer's ruling on the row (PROPOSED), never a grade by itself. The pledge is sealed as its own addendum one day after the window; this line pre-commits it.

08 · METHOD AND EXHIBITS

§ 31–36

31 EXHIBITS AND THE CONSENSUS FREEZE

Sources read before the seal: house pad and vehicle table · Launch Library 2 (The Space Devs) · https://ll.thespacedevs.com/2.2.0/launch/upcoming/?search=Amazon%20Leo&net__gte=2026-11-10T17:54:00Z&net__lte=2026-11-16T17:54:00Z&limit=10&mode=normal.

FIELD	SOURCE	AS FOUND	READ AT
Vehicle	house pad and vehicle table	Vulcan Centaur	2026-11-11 17:02 UTC
Provider	house pad and vehicle table	ULA	2026-11-11 17:02 UTC
Pad	house pad and vehicle table	SLC-41	2026-11-11 17:02 UTC
Site	house pad and vehicle table	Cape Canaveral SFS	2026-11-11 17:02 UTC
Country	house pad and vehicle table	US	2026-11-11 17:02 UTC
Window 1	arithmetic	2026-11-13 17:54 UTC → 2026-11-13 18:24 UTC	2026-11-11 17:02 UTC

FIELD	SOURCE	AS FOUND	READ AT
Schedule	Launch Library 2 (The Space Devs)	2026-11-13 17:54 UTC	2026-11-11 17:02 UTC
Schedule.pad	Launch Library 2 (The Space Devs)	SLC-41	2026-11-11 17:02 UTC
Orbit	Launch Library 2 (The Space Devs)	LEO	2026-11-11 17:02 UTC
Payload class	Launch Library 2 (The Space Devs)	comms-sat	2026-11-11 17:02 UTC

Public callers before the seal: not in the sealed values; no count is printed.

The consensus is frozen at the seal: what the public schedule said, when it said it. A later change is an addendum, never an edit.

32 CHAIN OF CUSTODY

The paper trail a stranger can verify, on the six axes and the one lane. Convergence, not causation: nothing on this register grades anything.

WHO	the house, reading the public schedule before the seal
WHAT	Vehicle, Provider, Pad, Site, Country, Window 1, Schedule, Schedule.pad, Orbit, Payload class
WHERE	house pad and vehicle table · Launch Library 2 (The Space Devs) · https://ll.thespacedevs.com/2.2.0/launch/upcoming/?search=Amazon%20Leo&net__gte=2026-11-10T17:54:00Z&net__lte=2026-11-16T17:54:00Z&limit=10&mode=normal
WHEN	2026-11-11 17:02 UTC
WHY	a premise checked against an independent source grades; an unchecked premise cannot
HOW	copy and seal at capture — every row carries the value as found and the value as used
WHAT TO WATCH	the channels of the watch plan, fixed before the window

The register grows, dated, from seal day on the house site; this document carries the seal-day rows only.

33 METHOD AND BOUNDARY

The method is a black box and is argued nowhere in this document. The advisory augments the launch team's own judgment; it is never a go/no-go.

What this read is. The house reads the day's conditions for a mission flown with full diligence: the weather for a team that does its best. It is not a reliability model, not a prediction of a specific failure and not a substitute for engineering review. A CLEAN day does not cure negligence; an adverse day compounds it. Outcomes on any day remain the launch team's. The read is one input beside the buyer's own model, given without warranty and without liability for any underwriting decision, and it is graded publicly after the fact under the sealed rules.

Boundary of the grade: the grade is pre-committed in the sealed text and is never set by this advisory. Any MISS, and any VOID of a row whose trigger arose, is proposed by the house's grading engine and stands only on the house reviewer's confirmation (the Principal); a silent channel is UNRESOLVED, never scored either way.

1. Vijay Jyotish is not an insurer, an insurance producer or an adjuster; nothing here binds, sells or adjusts cover.
2. What is delivered is an assessment of a named mission, never a price or a figure for cover; the class words CLEAN, ELEVATED RISK and NO-GO speak to posture, and every figure for cover stays the underwriter's.
3. No coverage advice is given to an insured; the buyer's own underwriting judgment and licensed advisers decide what is bound.
4. No controlled technical data is received, held or produced; the mission is identified by public identifiers only.

Attestation

1. Opinion: the read is the house's opinion on the sealed values, given without warranty; it is not a recommendation to bind.
2. No non-public information: every input is public; no non-public information was used to write the read.

3. The values SHA-256 is bound inside the sealed text: the seal line under the Verification exhibit carries it, and a changed value changes the hash.
4. No position: the house holds no position in the mission, the vehicle, the operator or any instrument on them.

34 THE LAWS OF FORESIGHT

doctrine	the house laws of foresight
sealed under	door law 0.23.8 · read engine 0.9.8 · read module 0.9.8 · window health 0.4.9 · rules edd0fb85bb0a

A citation names what governs a claim; the method stays a black box.

35 VERIFICATION EXHIBIT — HOW A STRANGER CHECKS THIS RECORD

Recompute sha256 over the canonical values object and compare it with the line below; verify the house line against the pinned key at /.well-known/jyotint-keys.json; the template digest is the # templates line of /extension-verify.txt.

house line	VERIFIED — house line verifies (sign-3fd74b1d, 2026-11-11T17:21:07.987Z)
values sha256	cab0dbb8e4e34a5aee36fa8b0f8e421c568c45a14d519ed4e727a4968c4abcad
template	customer · 9381e080aac8bcdd…
key epoch	2026 · week 46
sealed	2026-11-11T17:21:07.144Z
engine	decision package · mode frontier · 26 s · law 0.4.0
model	claude-fable-5-2

GLOSSARY FOR UNDERWRITING

Brier score	the mean squared error of a probability forecast against what happened (0 or 1). Lower is better; a confident wrong call costs the most. It is scored on the house's graded record, not on this one day.
Calibration	whether the stated probabilities match how often the event happens: days called at roughly 1 in 10 should show the named class about 1 time in 10 over many calls.
Confidence	what the house signal has been tested against: the count of graded launch calls and their Brier score, printed beside the signal as the count it was calibrated on. It is not a statistical interval.
Out-of-model signal	a day-specific probability from the house's measured series, outside the vehicle and base-rate model. It moves when the day's facts move, so it sits beside the model and does not replace it.
House signal	a chance on a 0-to-1 scale: the house's rated likelihood that the named anomaly class shows for this vehicle on this day (0 none, 1 certain). 0.90 reads as 9 in 10; 0.12 as roughly 1 in 8. Where a public base rate is filed for the vehicle and phase it prints beside the signal; where none is filed the document says so.
Public prior / base rate	the catalog's public base rate for the vehicle and phase before any day-specific reading. 'Times the base rate' is the house signal divided by this prior.
Lift	the ratio of the house signal to the public prior, as the house prints it; the gloss beside it recomputes the same ratio from the printed numbers.
CLEAN	the day reads clear for the named vehicle. Write on your standard terms; the day places no named anomaly on the timeline.
ELEVATED RISK	a named anomaly class is placed on the flight timeline, with the window it threatens. Write with terms on the named anomaly class for that window, or a condition that names it; the load is yours. Where your authority sets a referral trigger, this read is it.
NO-GO	the day reads adverse at the level of the mission. The house would not write this window; where you write, write on the named terms. Where the read names a clean range, that range is what the read speaks to; the bind and the date stay with the underwriter.
Sealed	the values were hashed and recorded before the window opened. No sealed byte is edited afterwards: a T-0 move adds an addendum with its own hash, and an error is an erratum. Sealing matters in a claims dispute because it fixes what was said, and when, before the event.

Era-2 risk product	**the house's second-era convention: a read names a risk class and the window it threatens, as a probability band, rather than an exact outcome. It is graded only on its sealed text: a flagged risk that showed inside its window is a hit, a clean flight against a NO-GO band or an ELEVATED RISK band is a miss at full weight, with or without a hold or delay, and with no flight no band grades: a scrub grades the day call. There is no half credit. Era-1 reads called exact outcomes; an underwriter prices era-2 bands.**
Published record	**the house's graded calls, Brier score and realized flags inside the named class are published on the house site under space-insurance and underwriter-brief. The same figures, as they stood at the seal, ride in this document under The record, sealed and public; the live record on the house site carries the score after the seal.**
Verify the seal	**recompute the sha256 over the canonical values object and compare it with the seal line; check the seal line against the pinned key at /.well-known/jyotint-keys.json on the house site, as the Verification exhibit prints.**

36 ONE THIRD PARTY

the mission packet was read by a frontier model at a US vendor under the house key (disclosed); the vendor saw the packet, never your key, never the read's destination

Rendered on your device from the sealed values; the house holds only the encrypted form. Vijay Jyotish LLC.