CIU Orbital Risk Brief

Full Moon Edition · Issue 01 · November 2026

A market report for orbit, published every full moon

Each issue turns the whole public space catalogue into a few clear numbers: where risk is building, what is worth removing, and what it means for the people who fly, insure, fund and regulate satellites.

CIU Orbital Risk Index

59.9

High-hazard objects per 1,000 tracked. November 2026 baseline. Measures prevalence, not collision probability.

33,065
Objects tracked and scored

1,980
High-hazard objects (risk 60+)

8 of 10
Top removal targets are rocket bodies

269
Orbital launches in 2026, to 20 Nov

Debris fragments **10,454** Dead satellites **1,487** High removal priority **1,435** Orbits under 1 day old **23%**

Data warnings **698** Top risk **YAOGAN-50 02 DEB · 72.3**

A note from CIU

Why this brief is different

Most space news covers launches and funding rounds. Very little tells you, plainly and regularly, what is happening to the orbital environment itself. We built CIU's platform to do that, and this brief is how we share what it shows.

The CIU Orbital team

Every object, not just the headlines

All 33,065 objects in the public catalogue are scored, not a handful of famous ones.

Neutral and transparent

Our formulas are published and versioned. Anyone can see how a score is made, and no client data appears in the brief.

One number to follow

The CIU Orbital Risk Index gives a single, comparable reading of orbital risk each month.

A rhythm you can remember

A new issue every full moon, roughly every 29.5 days, with the same core charts so trends are easy to spot.

How it helps you

Insurers and underwriters	See which orbital shells are getting riskier, and spot accumulation before it shows up in claims.
Satellite operators	Benchmark your orbits against the whole catalogue and back up conversations with insurers and regulators.
Removal and servicing companies	Track where the highest-priority removal targets are and how the pool changes month to month.
Investors	Follow the growth and direction of the orbital sustainability market with consistent data.
Agencies and policymakers	Use a neutral, method-transparent reference for space sustainability decisions.

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One in every 17 tracked objects is a long-lived hazard in a crowded orbit

CIU now scores and ranks all 33,065 objects in the public catalogue. 1,980 of them score 60 or more on our long-term hazard scale, about 6% of everything tracked.

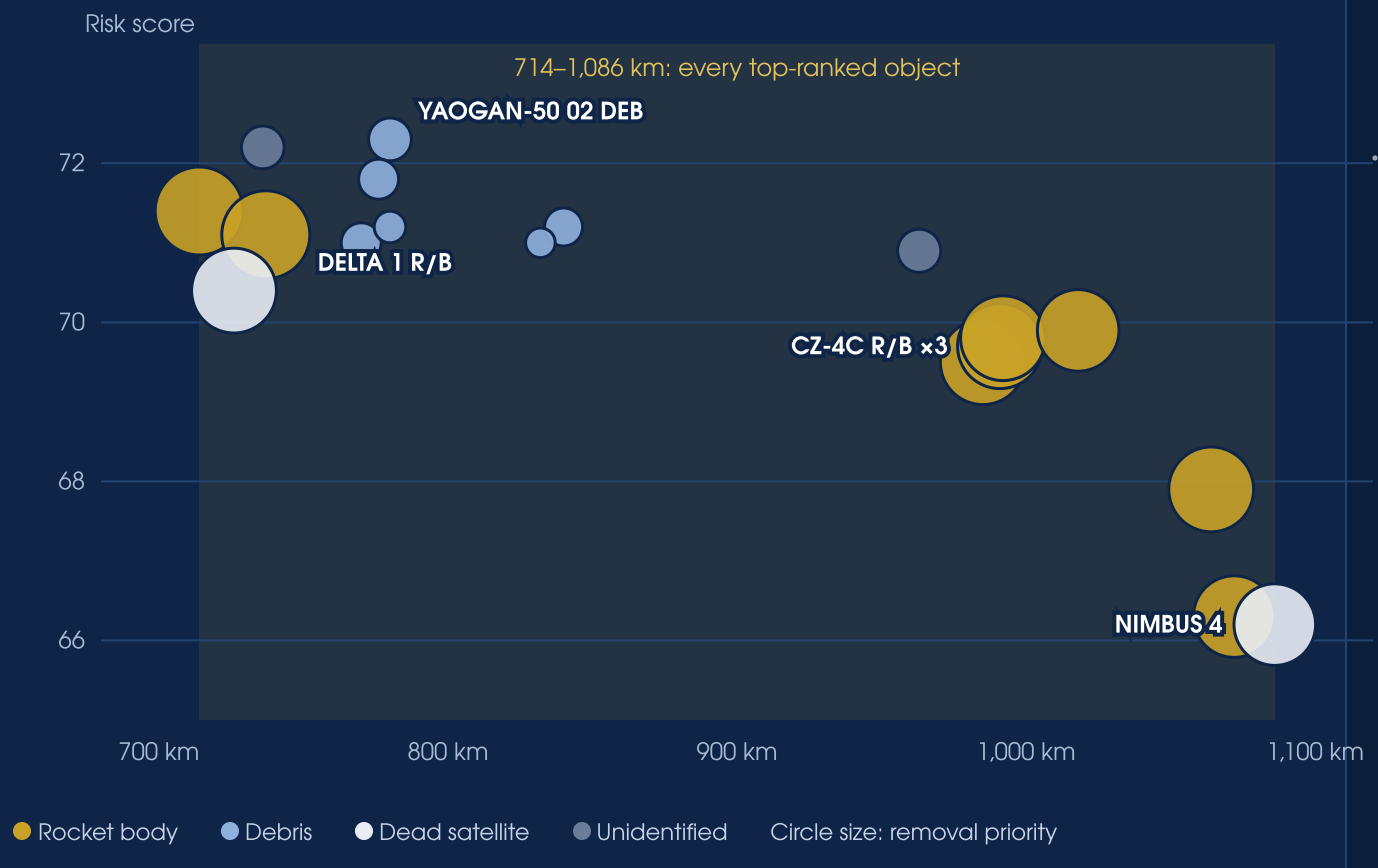
33,065
Objects tracked

10,454
Debris fragments

1,980
High-hazard (60+)

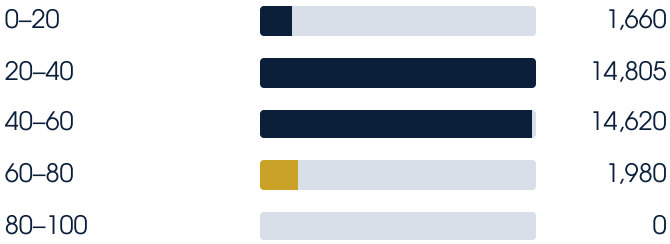
23%
Orbits under a day old

The danger belt: all 18 objects on this month's two top-10 lists sit between 714 and 1,086 km



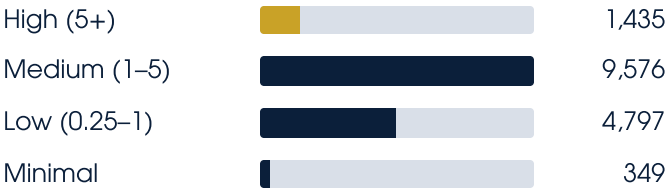
Top 10 by risk score plus top 10 by removal priority (18 unique objects). Horizontal: perigee altitude. Vertical: CIU risk score (risk-v2).

Most objects sit in the middle; the high-hazard tail is 6% of the catalogue



Objects by CIU risk score (risk-v2, 0–100). No object currently scores 80 or more.

Removal value is concentrated: 1,435 targets rate High priority



16,157 scored removal candidates; working satellites excluded. Removal Priority Index: 1.0 is a baseline object.

Featured insight

Debris is the volume; rocket bodies are the value

8 of 10

of the highest-priority removal targets are spent rocket bodies: large, intact and long-lived. Their median removal priority is nearly three times that of fragment debris.

Object type	Count	Avg risk	Median priority
Debris	10,454	50.9	1.1
Rocket body	2,220	50.7	**3.0**
Unknown	587	54.3	1.6
Satellite	19,804	33.4	1.9

Median priority covers scored removal candidates only; working satellites are not scored.

> Fragment debris makes up most of what's out there, but the removal market will be built on a few thousand large, intact rocket bodies, and on whoever owns them.

The removal-priority top 10 spans launchers from the United States, China, India and the former Soviet Union. Under the Outer Space Treaty an object stays its launching state's responsibility, so the first funded removals will have to be owner-approved. That is why CIU's planned Debris Bounty Fund starts with consent-cleared targets.

League tables

Top 10 by long-term hazard

	Object	NORAD	Perigee	Risk	Priority
1	YAOGAN-50 02 DEB	101057	780 km	72.3	3.3
2	TBA – TO BE ASSIGNED	270082	736 km	72.2	3.3
3	TANSEI 3 DEB	9982	776 km	71.8	2.9
4	BPA 1/SL-24 R/B R/B	36600	714 km	71.4	14.0
5	DELTA 1 DEB	37656	840 km	71.2	2.6
6	SL-16 DEB	39713	780 km	71.2	1.8
7	DELTA 1 R/B R/B	7616	737 km	71.1	14.0
8	DELTA 1 DEB	28266	832 km	71.0	1.6
9	FREGAT DEB	46524	770 km	71.0	2.9
10	TBA – TO BE ASSIGNED	89177	963 km	70.9	3.4

Top 10 by removal priority

	Object	NORAD	Perigee	Risk	Priority
1	DELTA 1 R/B R/B	7616	737 km	71.1	14.0
2	BPA 1/SL-24 R/B R/B	36600	714 km	71.4	14.0
3	SL-16 R/B R/B	27006	985 km	69.5	13.0
4	IRS P6	28051	726 km	70.4	13.0
5	CZ-4C R/B R/B	39411	991 km	69.7	13.0
6	CZ-4C R/B R/B	40276	992 km	69.8	13.0
7	CZ-4C R/B R/B	40879	1,064 km	67.9	13.0
8	THOR ABLESTAR R/B R/B	1428	1,018 km	69.9	12.0
9	THORAD AGENA D R/B R/B	3892	1,072 km	66.3	12.0
10	NIMBUS 4	4362	1,086 km	66.2	12.0

Gold tags mark rocket bodies. Two unidentified objects ("TBA – to be assigned") rank in the hazard top 10; unidentified objects score higher by design.

Launch activity

Launches are running near record pace, and the new satellites are mostly going to a few mega-constellations

269
Orbital launch attempts in 2026, to 20 Nov

261
Successful, with 8 failures

329
Record full-year total, set in 2025

Launches by country, to 13 Nov 2026



SpaceX flew 126 of the 265 launches to 13 Nov (48%). China targeted about 140 launches in 2026, after a national record of 92 in 2025.

Why it matters for risk

Each new constellation adds hundreds or thousands of objects to a small number of altitude shells. From Issue 02 on, CIU will track which shells gain objects and whether their high-hazard share rises.

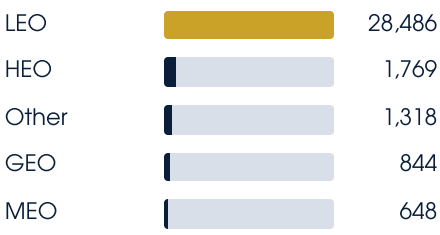
The constellation race

Constellation	Operator	Launched	Status
Starlink	SpaceX	13,015	11,156 in orbit, 11,142 working (13 Oct)
Guowang	China SatNet	279	224 operational (9 Nov); 9 more launched 20 Nov
Qianfan	Shanghai Spacesail	274	50 short of the 324 needed for initial service
Amazon Leo	Amazon	396 + 36	36 more on Ariane 64, 24 Nov; FCC 1,616-by-July milestone missed

Sources: Wikipedia "2026 in spaceflight" (20 Nov); Flight Atlas (13 Nov); Orbital Intel; Jonathan McDowell via LEO Sat Network (Starlink, 13 Oct) and Orbital Intel (Guowang, 9 Nov); Yicai via KeepTrack (Qianfan, 3 Nov); Orbital Radar (Amazon Leo, 11 Nov); Universe Magazine (Ariane 6, 24 Nov). Counts differ slightly between trackers.

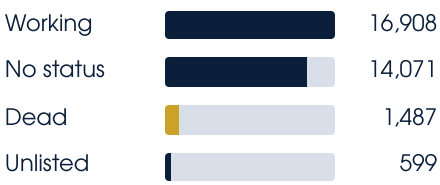
Catalogue mix

Orbit mix



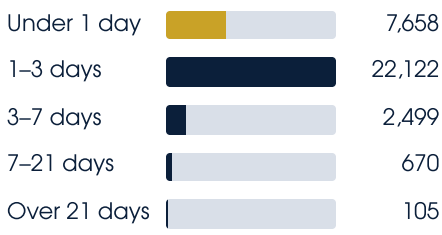
86% of tracked objects are in low Earth orbit.

Operating status



1,487 dead satellites are prime removal candidates.

Age of newest orbit data



698 objects carry a data-quality warning.

Removal gets funded, rules tighten, and insurers stay cautious

Removal

ESA commits €102M to ClearSpace-1

ESA awarded OHB a €102 million prime contract for the ClearSpace-1 debris removal mission, with ClearSpace supplying navigation and capture.

Why it matters: Government money is moving from studies to building removal hardware.

Via Satellite, 18 Nov 2026

Removal

Astroscale lines up ADRAS-J2

Astroscale picked Isar Aerospace to launch ADRAS-J2, aiming to capture and remove a large H-IIA upper stage in Japan's fiscal 2027. ADRAS-J has been deorbiting since March 2026.

Why it matters: The first capture of a large rocket body is the test case for every removal market.

Payload, Sep 2026; KeepTrack, Oct 2026

Removal

Disposal becomes a contracted service

Starfish Space's standalone SDA contract, worth up to $52.5 million, covers end-of-life disposal for as many as seven defence satellites.

Why it matters: Disposal is being bought as a service, not a demo.

SatNews, 7 Oct 2026

Regulation

FCC rewrites its debris rulebook

The FCC's space modernization order moves orbital debris rules into a new part 100 and turns many certifications into affirmative obligations. The 5-year post-mission disposal rule remains in force.

Why it matters: Operators serving the US market need documented disposal plans and evidence.

FCC, Jul 2026; SpaceNexus

Insurance

A thin market after a big loss

Aon estimated 2025 space premiums above $650 million with a 77.4% loss ratio. In January 2026 SpainSat NG II, insured near $400 million, became a likely total loss.

Why it matters: Underwriters need better risk data to price LEO cover cheaply.

Aon Q1 2026 via Starpath; SpacePolicies.org

Technology

Debris shielding for spacewalks

Atomic-6 reported that its Space Armor tile stopped a roughly 16,100 mph impact in a test at Texas A&M's hypervelocity lab.

Why it matters: Protection is becoming a product category alongside removal.

Atomic-6, 20 Nov 2026

Around the world

Space is going global, and so is the debris question

Asia-Pacific

India

India's first industry-built rocket is ready

ISRO says PSLV-N1, the first PSLV built entirely by the HAL–L&T industry consortium, is targeting its maiden launch in the first quarter of 2027. The consortium is building five.

Why it matters: India's private sector is becoming a launch supplier, adding capacity and future objects to orbit. · ISRO chairman, 24 Nov 2026, via Indian Masterminds and NewsBytes

Japan · India

JAXA and ISRO show their Moon-water rover

JAXA unveiled a test model of the LUPEX rover it is building with ISRO to search for water at the Moon's south pole.

Why it matters: Asian agencies are pairing up on flagship missions, not only working with the US. · AFP via Prothom Alo, 25 Nov 2026

South Korea

Nuri's fifth flight and a 20-launch goal

KASA confirmed the fifth Nuri launch deployed five NEONSAT satellites (one CubeSat failed to deploy). Its space committee is targeting more than 20 launches a year by the mid-2030s.

Why it matters: Another country is scaling up its own launch cadence. · KASA, 18 and 24 Nov 2026; Seoulz

Australia

A national space debris research community

The Australian Space Agency held the first meeting of its Australian Space Debris Research Community on 23 Nov, and announced A$34 million for local space capabilities the next day.

Why it matters: Debris is becoming a national research priority beyond the US and Europe. · Australian Space Agency, Nov 2026

Europe

United Kingdom

UK funds a two-satellite removal mission

The UK Space Agency awarded ClearSpace UK £61 million for its first national debris removal mission: capture two defunct UK-licensed satellites, launching from SaxaVord in 2029. The public can suggest a name until 10 Dec.

Why it matters: Governments are now paying to remove their own legacy objects. · E&T, 16 Oct 2026; Unmanned Airspace, 2 Nov; Smithsonian

Middle East

United Arab Emirates

Sirb-1 radar satellite passes design review

The UAE's first synthetic aperture radar satellite, led by the UAE Space Agency with EDGE Group's FADA as prime, cleared a key design stage ahead of a 2028 launch as the first of a constellation. The UAE's asteroid-belt mission is also on track for early 2028.

Why it matters: The UAE is moving from buying satellites to building and operating its own fleet. · Arabian Business, 11 Nov 2026; WAM via Emirates 24|7, 2 Nov

UAE · Africa · Spain

UAE builds partnerships across regions

The UAE Space Agency signed an MoU with the African Space Agency at ASPEX 2026 in Abidjan, and hosted 13 Spanish space companies under its "Space Means Business" initiative.

Why it matters: Abu Dhabi is positioning itself as a hub connecting space programs. · SatellitePro ME; UAE Space Agency, 16 Nov 2026

Saudi Arabia

Saudi Space Agency picks a lunar rover partner

Lunar Outpost was selected to co-develop a lunar rover engineering prototype with the Saudi Space Agency, with some work done in Saudi Arabia.

Why it matters: Gulf states are investing in in-country space engineering. · Lunar Outpost, 24 Nov 2026

Africa

Nigeria · South Africa

Africa's space budgets rise

African governments allocated about $828 million to space in 2026, up from $627 million in 2025. Nigeria is nearing contracts for new satellites ahead of its Abuja space conference (24–27 Nov), and South Africa is weighing how to finance a $372 million communications satellite programme.

Why it matters: A new wave of national satellites is coming, mostly built and launched abroad. · Space in Africa; African Leadership Magazine; Nov 2026

Americas

Brazil

Brazil creates a government satellite system

A 17 Nov decree places the SGDC-1 satellite and future state communications satellites under a permanent management framework, with Telebras implementing it.

Why it matters: Latin America's largest space program is formalising sovereign satellite capacity. · New Space Economy, 19 Nov 2026; BNamericas

Coming up

What to watch before the next issue

26 Nov	**Progress MS-36 docks at the ISS**	Russian cargo resupply. China's crewed Shenzhou-24 was scheduled to launch from Jiuquan on 24 Nov.
NET Dec	**SDA Tranche 1 and 2 launches**	Several Falcon 9 missions are listed for the Space Force's proliferated LEO architecture.
NET Dec	**OneWeb #21 and Globalstar**	More constellation replenishment, adding objects to established shells.
NET Dec	**Metop-SG B1 on Ariane 62**	Europe's next-generation polar weather satellite.
Dec	**Qianfan and Guowang batches**	Qianfan needs about 50 more satellites to reach its 324 initial-service target.
23 Dec	**Issue 02 · next full moon**	The first month-on-month move in the CIU Orbital Risk Index.

Dates as listed by Next Spaceflight, RocketRune, Space Launch Schedule and SpacePolicyOnline on 24–25 Nov 2026. "NET" means no earlier than; launch dates often slip.

Baseline scorecard

The numbers every future issue will compare against

Measure	November 2026 baseline	Next issue, 23 Dec
CIU Orbital Risk Index	**59.9**	Issue 02
Objects tracked	**33,065**	Issue 02
Debris fragments	**10,454**	Issue 02
High-hazard objects (60+)	**1,980**	Issue 02
Dead satellites	**1,487**	Issue 02
Scored removal candidates	**16,157**	Issue 02
High removal priority (5+)	**1,435**	Issue 02
Orbits under 1 day old	**23%**	Issue 02
Objects with data warnings	**698**	Issue 02
Highest risk score	**72.3**	Issue 02

Baseline values from the CIU platform at 25 Nov 2026, 01:31 UTC. ESA's 17 Nov census lists about 47,370 regularly tracked objects, including data that isn't public; CIU scores the 33,065 objects in the public catalogue.

Method

How to read this brief

Measures

Risk score (risk-v2): long-term debris hazard from 0 to 100, weighted 40% altitude, then 15% each for eccentricity, drag, object type and tracking uncertainty. It is not a collision probability.

Removal Priority Index: how valuable an object is to remove, relative to a baseline object (1.0). It combines risk, radar size, orbit priority, retrieval difficulty and data uncertainty. High is 5 or more. It is a ranking, not a price, a mission cost or an offer.

CIU Orbital Risk Index: high-hazard objects (score 60 or more) per 1,000 tracked objects. It measures prevalence, not the chance of any collision.

Full methodology: every weight, threshold and limitation is published at cleanitup-web.onrender.com/methodology.

Data and limits

Sources: Space-Track.org catalogue (24 Nov 2026), CelesTrak orbits (25 Nov 2026) and CelesTrak status (23 Nov 2026). CIU publishes derived scores only.

Public catalogue only: objects under about 10 cm in LEO and classified objects are missing.

No conjunction data and no orbit propagation are used. Altitudes can be off by up to about 20 km.

Get the brief every full moon

For operators, insurers, investors and agencies who need a neutral view of orbital risk. Custom portfolio and sector reports are available on request.

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