November 2022

PRESS KIT

VV22

www.arianespace.com

www.avio.com

MISSION DESCRIPTION

Arianespace's **fourth launch of 2022** with the second Vega C of the year will place its satellite passengers into Sun-synchronous orbit. The launcher will be carrying a total payload of approximately 1977 kg.

The launch will be performed in **Kourou, French Guiana.**

DATE AND TIME

Liftoff is planned on **Thursday, November 24, 2022,** at exactly:

- **09:47** p.m. Washington, D.C. time,
- **10:47** p.m. Kourou time,
- **01:47** a.m. Universal time (UTC), November 25,
- **02:47** a.m. Paris time, November 25,
- **10:47** a.m. Tokyo time, November 25.

MISSION DURATION

The nominal duration of the mission (from liftoff to the last AVUM's deorbit ignition) is:
1 hour and 52 minutes.

SATELLITES

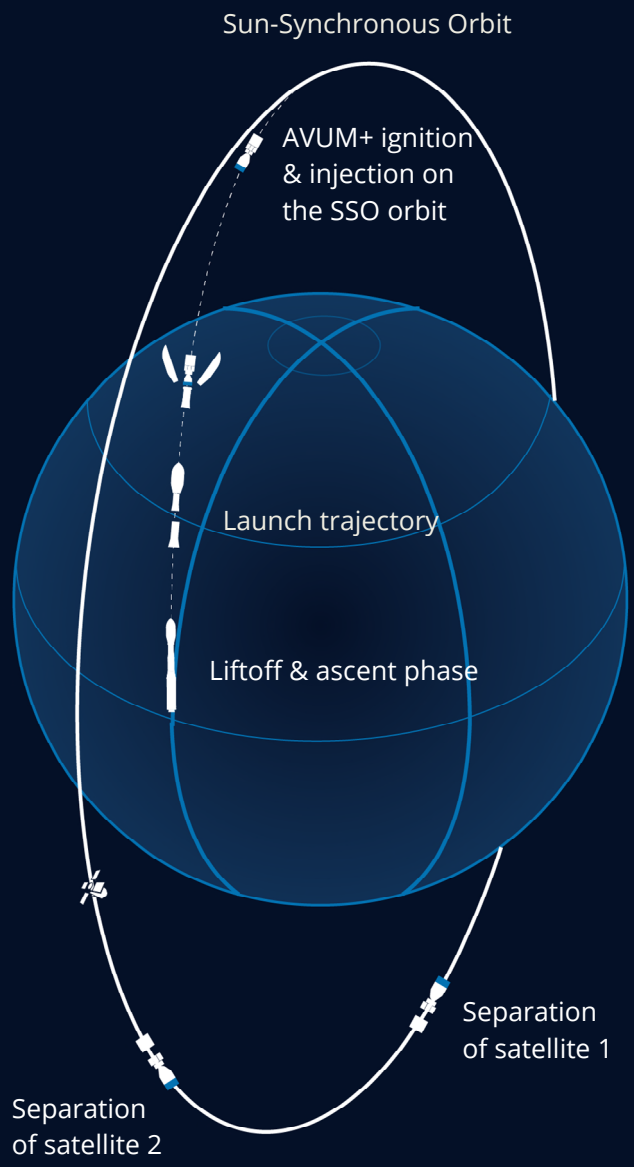
Satellites: **Pléiades Neo 5 and 6**
Payload Customer: **Airbus Defence and Space - Intelligence**

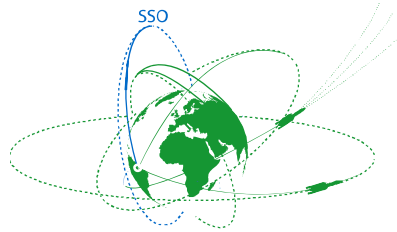
TARGETED ORBIT

For Pléiades Neo 5
- Perigee altitude: 619 km
- Apogee altitude: 637 km
- Inclination : 97.89°

For Pléiades Neo 6
- Perigee altitude : 605 km
- Apogee altitude : 622 km
- Inclination : 97.89°

VEGA C STANDARD SUN-SYNCHRONOUS ORBIT





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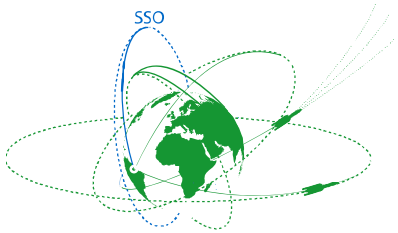
PLÉIADES NEO 5 AND 6

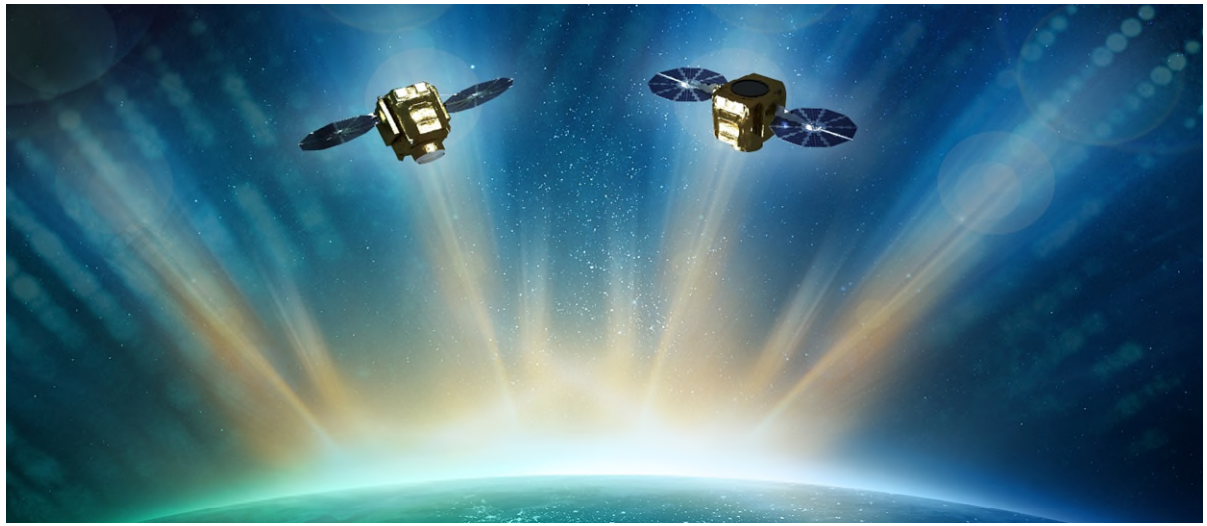
THE FIRST EUROPEAN EARTH OBSERVATION CONSTELLATION AT 30 CM RESOLUTION



DID YOU KNOW?

Tasking and downloading are possible in every orbit, up to 15 times a day per satellite. Mission plans can be updated every 25 minutes to take the freshest meteorological information into account, or urgent requests. Images can be delivered within 2 hours following a tasking request, and a few minutes only with the SpaceDataHighway link.

SATELLITES	Pléiades Neo 5 and 6
OPERATOR	Airbus Defence and Space – Intelligence
MANUFACTURER	Airbus Defence and Space
MISSION	Earth observation
MASS AT LAUNCH	1977 kg (max)
PLATEFORM	Astrobus M Compact
COVERAGE AREA	Global (up to 2 million km² per day)
LIFETIME	10 years (nominal)



Pléiades Neo 5 and 6 are the two final satellites of the Pléiades Neo constellation to be launched. Entirely funded, manufactured, owned and operated by Airbus, Pléiades Neo is a breakthrough in Earth observation domain.

The constellation is made of four identical satellites, built using the latest Airbus' innovations and technological developments, and allows to image any point of the globe, several times per day, at 30cm resolution. Highly agile and reactive, they can be tasked up to 15 minutes before acquisition, and send the images back to Earth within the following hour. Smaller, lighter, more agile, accurate and reactive than the competition, they are the first of their class whose capacity will be fully commercially available.

Thanks to an imaging swath of 14km, the widest in its category, and the satellites' unmatched agility, Pléiades Neo constellation is able to cover the entire Earth landmass five times per year. The orbital configuration of the satellites has been maximized to serve a vast panel of customers and applications, including but not limited to defence, and beyond the ± 40° latitudes. They are all placed on a polar and sun-synchronous orbit, phased at 90°, to deliver consistent quality, both geometric and radiometric. The huge volume of data acquired every day, approaching 2 million km², is ingested into innovative cloud-based ground segment architecture to allow massive production.

- In 2021, Arianespace launched the first two Pléiades Neo satellites on board two separate Vega launchers. Thanks to the upgraded capabilities of Vega C, the latest two satellites of the constellation can be launched at the same time.
- Pléiades Neo 5 and 6 will respectively be the 138th and 139th Airbus Defence and Space satellite to be launched by Arianespace.

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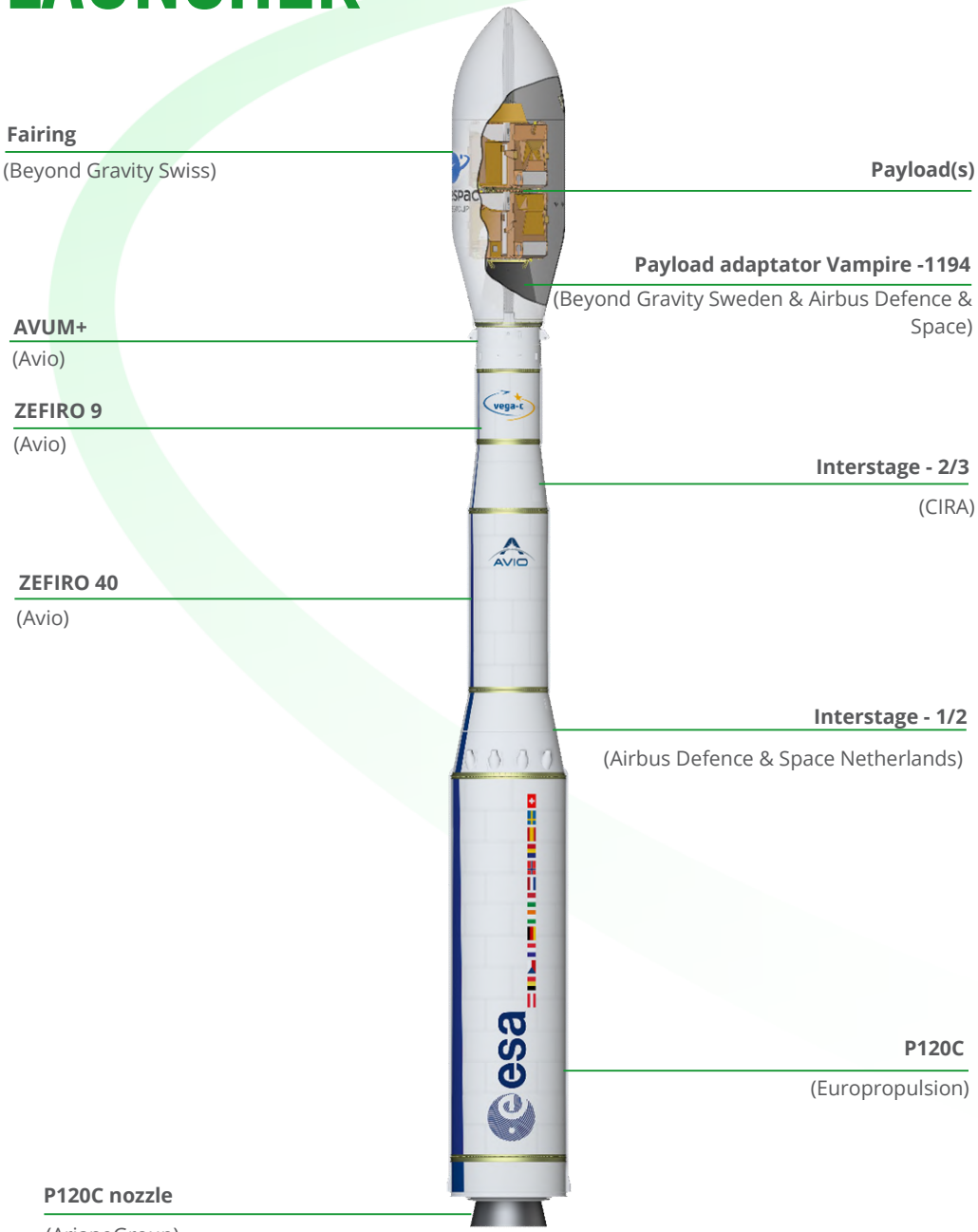
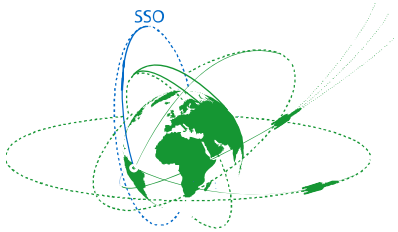
VEGA C LAUNCHER





DID YOU KNOW?

Vega C, which stands for Consolidation, will better respond to customers' needs based on the lessons learned from the first decade (2012-2022) of Vega operations. The launcher has been upgraded with more powerful first and second stage Solid Rocket Motors and with a larger fairing that will significantly increase payload mass (up to 2,350 T in SSO) and double allowable volume.

The launcher also better meets the specific needs of small spacecraft, thanks to its improved SSMS dispenser and to its AVUM+ that will allow seven re-ignitions. Vega C can thus achieve three reference orbits for its multiple payloads on the same mission, instead of the two previously possible with Vega.

Vega C development program is managed by ESA. It associates 12 of Member States of the Agency. As prime contractor for the Vega and Vega C, in charge of development and production, AVIO Spa (Colleferro, Italy) delivers a flightworthy launcher on the launch pad to Arianespace, which sells and operates the launcher from the Guiana Space Center (CSG). During the launch campaigns, Arianespace works closely with CNES, the French space agency and the launch range authority at the European Spaceport in Kourou, who is notably looking after the satellite preparation facilities.

LAUNCH CAMPAIGN

11/24/2022 — Final launch countdown and liftoff

11/21/2022 — General dress rehearsal

11/16/2022 — PAC Ventilation activation and transfer to Vega's Launching Zone

11/15/2022 — Launch readiness review

11/03/2022 — Fairing integration of the two passengers

10/31/2022 — Battery charging

10/27/2022 — Addition of logos on payload fairing

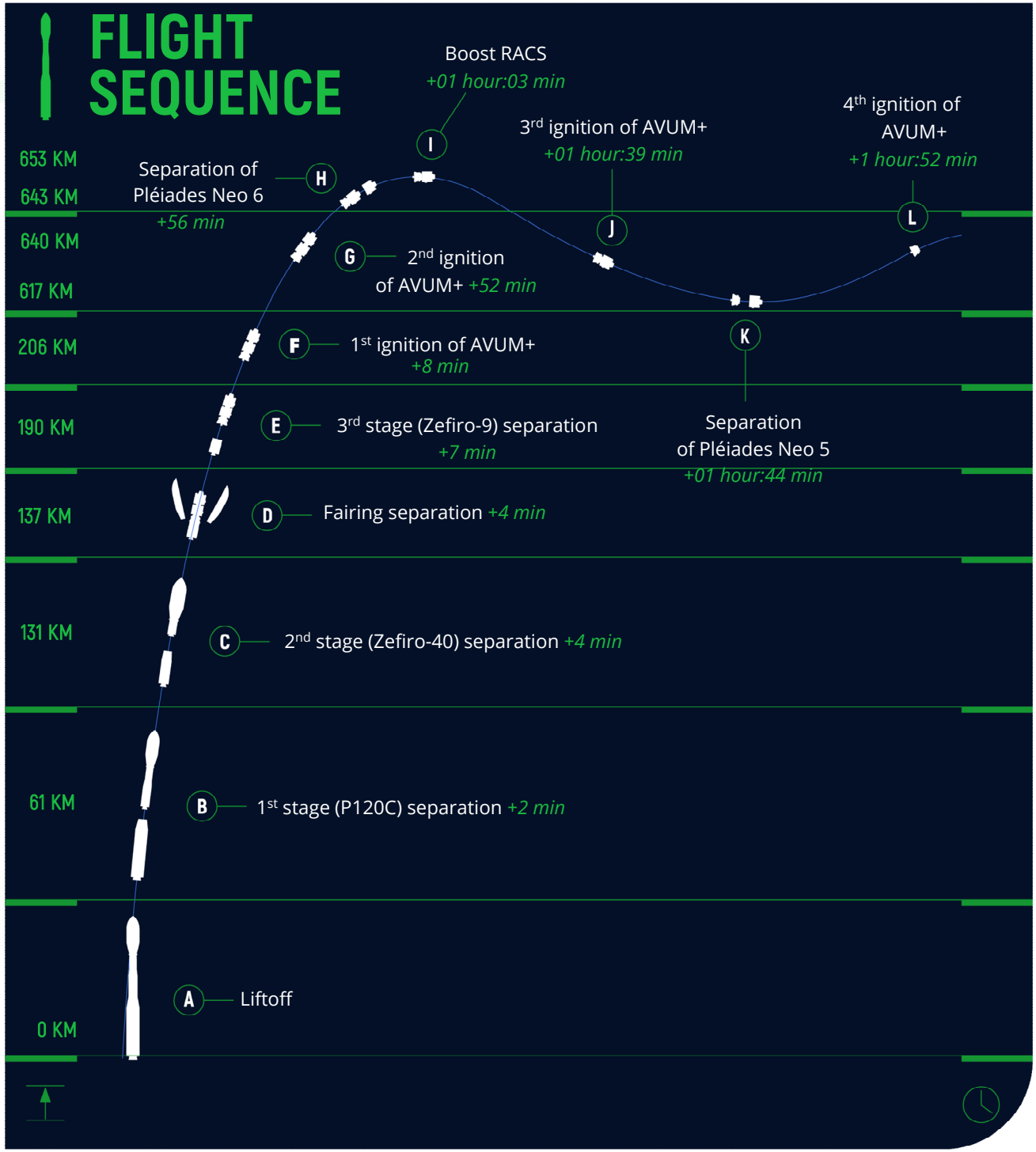
10/26/2022 — Fairing arrival in French Guiana

22/10/2022 — Arrival of Pléiades Neo 5 and 6 in French Guiana

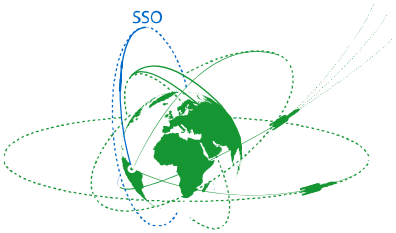
18/10/2022 — Campaign start review

— Launch vehicle operations

— Satellite operations



STAKEHOLDERS OF A LAUNCH



ARIANESPACE

Arianespace uses Space to make life better on Earth by providing launch services for all types of satellites into all orbits.

It has orbited over 1,100 satellites since 1980. Arianespace is responsible for operating the new-generation Ariane 6 and Vega C launchers, developed by ESA, with respectively ArianeGroup and Avio as industrial primes.

Arianespace is headquartered in Evry, near Paris, and has a technical facility at the Guiana Space Center in French Guiana, plus local offices in Washington, D.C., Tokyo and Singapore. Arianespace is a subsidiary of ArianeGroup, which holds 74% of its share capital, with the balance held by 15 other shareholders from the Ariane and Vega European launcher industry, and ESA and CNES as censors.

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AVIO

Avio is a leading international group engaged in the construction and development of space launchers and solid and liquid propulsion systems for space travel. The experience and knowhow built up over more than 50 years puts Avio at the cutting edge of the space launcher sector, solid, liquid and cryogenic propulsion and tactical propulsion. Avio operates in Italy, France and French Guiana with five facilities, employing approx. 1,000 highly-qualified personnel, of which approx. 30% involved in research and development.

Avio is a prime contractor for the Vega program and a sub-contractor for the Ariane programme, both financed by the European Space Agency ("ESA"), placing Italy among the limited number of countries capable of producing a complete spacecraft. Avio also manufactures the forthcoming Vega C launcher and participates in the development of the Ariane 6 launcher thanks to its new solid propellant engines P120C and the Vinci and Vulcain liquid oxygen turbopumps.

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ESA

The European Space Agency (ESA) is an intergovernmental organization with the mission to shape the development of Europe's space capability and ensure that investment in space delivers benefits to the citizens of Europe and the world. With 22 member states, ESA coordinates the financial and intellectual resources of its members, ESA can undertake programs and activities far beyond the scope of any single European country.

ESA has established formal cooperation with the European Union (EU) on implementing the Galileo and Copernicus programs as well as with Eumetsat for the development of meteorological missions.

ESA manages Europe's space transportation programs Ariane, Vega, Space Rider and Boost!

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CNES

French space agency CNES (Centre National d'Etudes Spatiales) defines national space policy and proposes it to public authorities. CNES oversees the application of this policy in five main areas: Ariane, science, observation, telecommunications and defense. ESA chose CNES as prime contractor for the Ariane 6 launch base in French Guiana, including the construction of a new launch pad. CNES also supports ESA, as the contracting authority, and ArianeGroup, as prime contractor for launcher development, and is responsible for applying the French law on space operations. As the owner of the Guiana Space Center (CSG), CNES has a dual mission: maintaining the operational condition of the CSG and modernizing its facilities in anticipation of the arrival of Ariane 6, Vega-C and other future vehicles.
At the CSG, CNES manages operations at the launch base, the reception of satellites, launch vehicle monitoring and tracking, range security and environmental protection.

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