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AVIO

December 2025

Launch kit

VV28

www.arianespace.com

www.avio.com

MISSION DESCRIPTION

Arianespace's sixth launch of 2025 will place its passenger KOMPSAT-7 into **Sun-synchronous orbit** (SSO), using a Vega C launcher.

The launcher will be carrying a total payload of approximately 1.9 tons.

The launch will be carried out from **Europe's Spaceport in Kourou, French Guiana**.

DATE AND TIME

Lift-off is planned on December 1, 2025 at:
- 12:21 Washington D.C. time,
- 14:21 Kourou time,
- 17:21 Universal time (UTC),
- 18:21 Paris time,
- 02:21 Seoul time, on December 2.

MISSION DURATION

The nominal duration of the mission (from lift-off to separation of the satellite) is: 44 minutes.

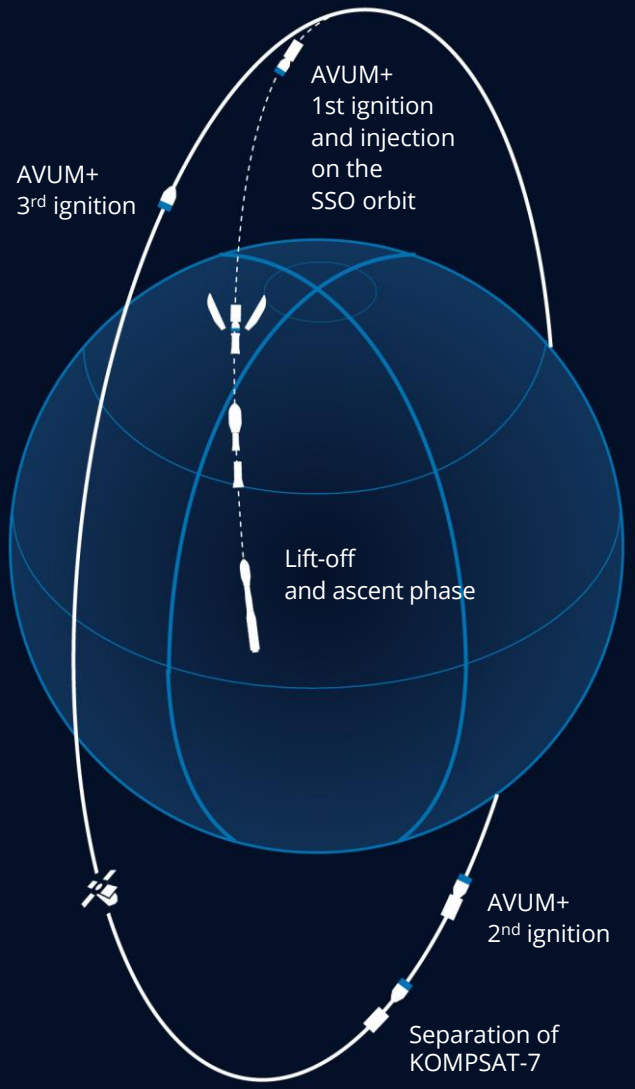
SATELLITE

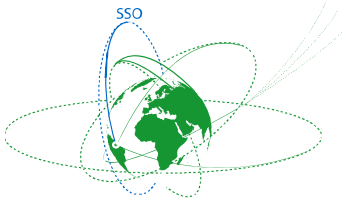
- Satellite: KOMPSAT-7
- Customer: KARI

TARGETED ORBIT

Sun-synchronous orbit (SSO) at an altitude of approximately 576 km

STANDARD VEGA C SUN-SYNCHRONOUS ORBIT (SSO)





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PRESS CONTACTS

Arianespace
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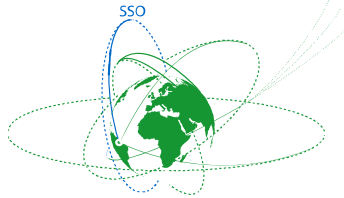
comunicazione@avio.com

WATCH THE LAUNCH LIVE

Link to the 'Road to Space' launch show:
arianespace.com/road-to-space

KOMPSAT-7

An ultra-high-resolution optical satellite for South-Korea

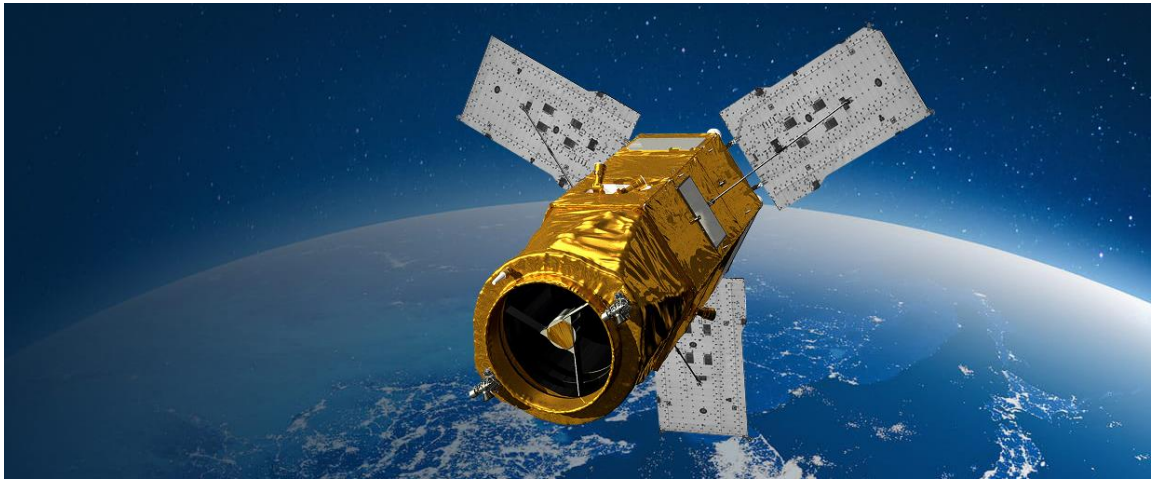


DID YOU KNOW?

KOMPSAT-7 is the successor to KOMPSAT-3A (placed into orbit in 2015) and was developed to be one of the world's most advanced ultra-high-resolution optical satellites. It is designed to support detailed observation of the Korean Peninsula and to meet the growing national demand for high-quality satellite imagery.

For the development of the KOMPSAT-7 optical payload, KARI handled system design, analysis, assembly, alignment, and test verification. Components such as large-diameter mirrors, highly stable lightweight optical structures, and high-speed, low-noise optoelectronic modules were separately developed by South Korean and international research institutes and industries.

SATELLITE	KOMPSAT-7
CUSTOMER	KARI
MANUFACTURER	KARI
MISSION	High-resolution satellite images to satisfy South-Korea's governmental and institutional needs
MASS AT LAUNCH	1810 Kg approximately
INSTRUMENTS	Optical data transmission technology Control moment gyroscope
COVERAGE AREA	Korean peninsula



The KOMPSAT-7 optical payload includes a highly precise optical system and adopts optical data transmission technology - a first for a Korean satellite - to enable real-time processing of large-volume Earth observation imagery via electro-optical modules and onboard storage/processing systems. The system is equipped with more than one terabit of onboard storage and utilizes high-speed parallel processing to enable real-time compression and encryption, ensuring that large volumes of imagery can be transmitted to ground stations within limited time windows.

To maximize the effectiveness of its ultra-high-resolution optical payload, KOMPSAT-7 incorporates a control moment gyroscope (CMG) for enhanced agility and features an onboard computer that is over three times faster than those used in KOMPSAT-3A, significantly improving attitude control performance. The ground image processing system applies advanced parallel processing techniques, enabling it to complete first-stage geometric correction and generate imagery within 15 minutes after receiving satellite data.

The Korea Aerospace Research Institute (KARI), established in 1989, is the aeronautics and space agency of South Korea. Its main laboratories are located in Daejeon, in the Daedeok Science Town.

CONTACTS

KARI
kari.re.kr

VEGA C LAUNCHER

Fairing
(Beyond Gravity Switzerland)

AVUM+
(Avio)

ZEFIRO 9
(Avio)

ZEFIRO 40
(Avio)

Interstage 0/1 (between nozzle & stage 1)
(SABCA)

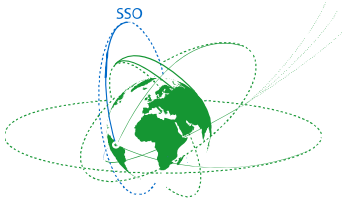
Payload KOMPSAT-7

Payload adapter Vampire
(Beyond Gravity Sweden)

Interstage 2/3 (between stages 2 & 3)
(Avio)

Interstage 1/2 (between stages 1 & 2)
(Airbus Defence & Space Netherlands)

P120C
(Europropulsion)



DID YOU KNOW?

The Vega C launcher has been upgraded with more powerful first and second stage solid rocket motors, bigger AVUM tanks and with a larger fairing that significantly increase payload mass (up to 2.350 tons in SSO – Sun-synchronous orbit) and double the allowable volume. The launcher also better meets the specific needs of small spacecraft, thanks to its improved SSMS (Small Spacecraft Mission Service) dispenser and to its AVUM+ motor that will allow for seven re-ignitions. Vega C can thus deliver its payloads on three different orbits on the same mission, instead of the two previously possible with Vega.

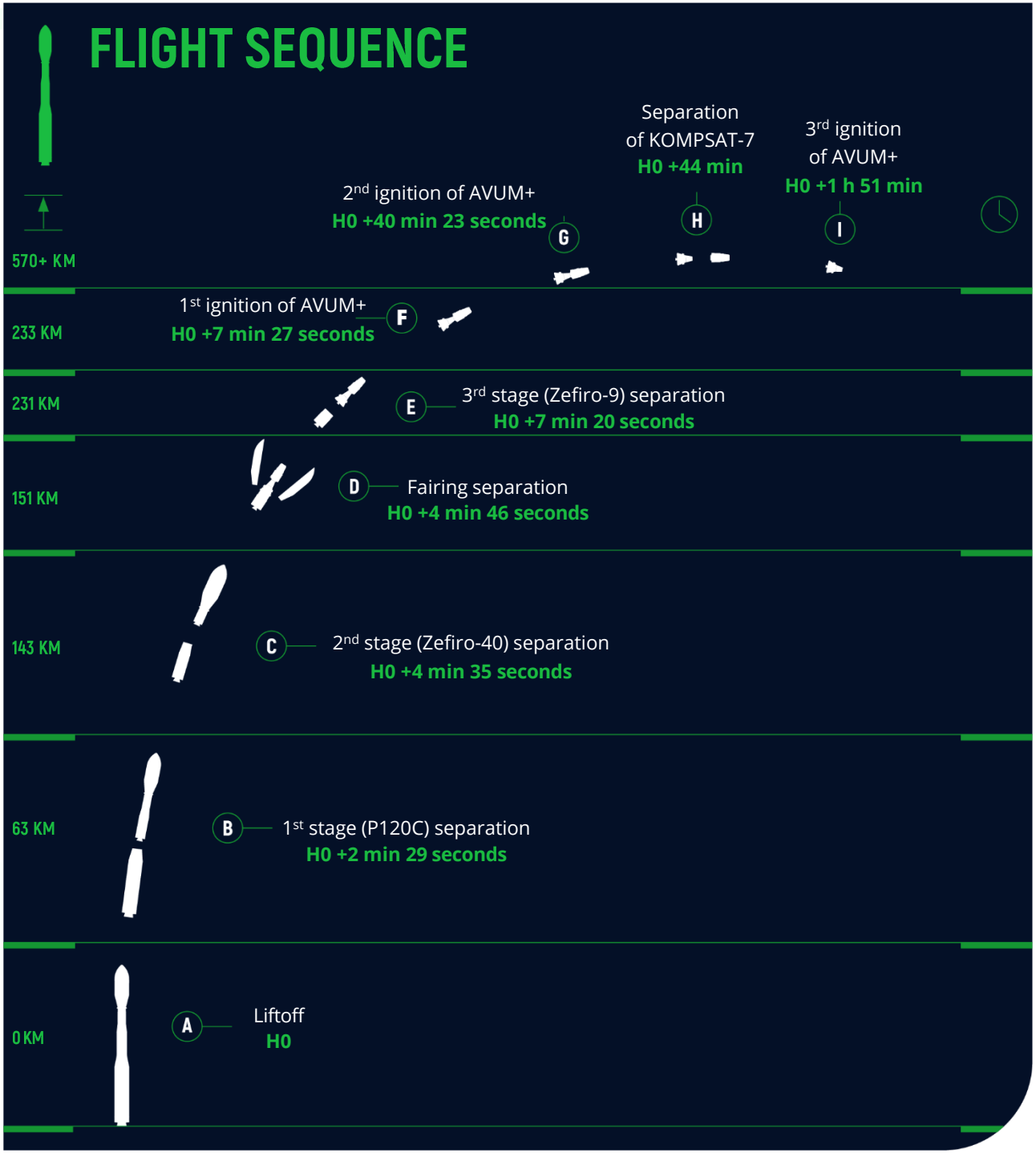
ESA is responsible for the Vega C launch system qualification and is the contracting authority for the development of Vega C, a programme carried out with participation of thirteen ESA Member States. Avio Spa (Colleferro, Italy) is the prime contractor and design authority of the Vega C launchers, delivering a ready to lift-off launcher. Arianespace is the operator of Vega C Flight 28.

LAUNCH CAMPAIGN

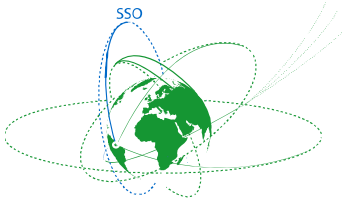
01/12/2025	Final launch countdown and lift-off
29/11/2025	Launch Readiness Review (LRR) Final preparation of launcher and final inspection of the fairing
22/11/2025	Integration of upper composite onto Vega C launcher
21/11/2025	Transfer of upper composite to Vega C launch pad
17/11/2025	KOMPSAT-7 encapsulation under fairing
15/11/2025	KOMPSAT-7 mating on payload adapter
15/10/2025	Fuelling of KOMPSAT-7
08/10/2025	Launcher campaign start
25/09/2025	KOMPSAT-7 arrives in French Guiana Satellite unpacking and transfer to payload preparation facilities on Europe's Space Port

— Satellite operations — Launcher operations

FLIGHT SEQUENCE



LAUNCH STAKEHOLDERS



ARIANESPACE

From Earth to orbit, Arianespace serves its customers and their ambitions, whether they involve scientific missions to study our planet, facilitate communication and navigation, or support many other applications. Arianespace designs and deploys space transportation services for all types of satellites, to all orbits, with the capacity to transport any mass, at any time. Arianespace operates the new-generation Ariane 6 launcher, developed by ESA, with ArianeGroup as prime industrial contractor, and currently manages Vega C launches. With over 45 years of experience, Arianespace has launched more than 1,100 satellites, for over 150 institutional and commercial customers worldwide.

Arianespace is headquartered in Les Mureaux, France. Our launch base is at the Guiana Space Center in Kourou, French Guiana, and we have offices in Tokyo, Singapore and Washington, D.C. 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 rocket industry, and ESA and CNES as censors.

Press contact:
newsroom.arianespace.com

AVIO

Avio is a leading international group engaged in the manufacturing and development of space launchers and solid, liquid and cryogenic propulsion systems.

The experience and know-how built up over more than 50 years puts Avio at the cutting-edge of the space launcher sector and defense program. Avio is present in Italy, France, United States and French Guiana, employing more than 1500 highly qualified personnel.

Avio is the prime contractor for the Vega program and a sub-contractor for the Ariane program, as well as a leading solid rocket motor subcontractor for the design and manufacturing of major European tactical missile programs.

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CNES

CNES (Centre National d'Études Spatiales) is the government agency responsible for shaping France's space policy and implementing it in Europe. Its task is to conceive and orbit satellites, invent the space systems of the future and nurture new services to aid us in our daily lives. Founded in 1961, it is the initiator of major space projects, launch vehicles and satellites, and the partner of choice for industry fuelling innovation. CNES comprises some 2,400 men and women with a passion for space working to open up new and infinite fields of applications in five core areas of focus: Ariane, science, Earth observation, telecommunications and defence.

The agency is a key player driving technology innovation, economic development and industrial policy for the nation. It also fosters scientific collaborations and has forged numerous international partnerships. France, represented by CNES, is one of the leading contributors to the European Space Agency (ESA).

Press contact:
cnes-presse@cnes.fr

ESA

ESA guides the development of Europe's space capabilities and makes sure that space contributes to a safer, more prosperous and sustainable future for its citizens. As an international organisation with 23 Member States, ESA coordinates its members' financial and intellectual resources to undertake ambitious programmes and initiatives that largely surpass the scope of action of a single European state.

ESA oversees the development of Europe's current and future space transportation services and solutions, including Ariane 6, Vega-C, Vega-E, Space Rider, and of technologies for transport in-, to-, and from-space, notably through the Future Launchers Preparatory Programme. On Ariane and Vega, ESA manages the overall programmes while European industry builds the launch vehicles with ArianeGroup (Ariane 6) and Avio (Vega-C and -E) as prime contractors and design authorities. ESA also fosters commercial space transportation services under private lead through initiatives like Boost! and the European Launcher Challenge. ESA Member States fund about two-thirds of the total cost of running and maintaining Europe's Spaceport in French Guiana..

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