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SEPTEMBER 2022

LAUNCH KIT
VA258

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MISSION DESCRIPTION

Arianespace's **third launch of 2022**, with the second Ariane 5 of the year, will embark a geostationary satellite: EUTELSAT KONNECT VHTS. The launcher will be carrying a total payload of approximately **6.4 tons.**

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

DATE AND TIME

Liftoff is planned on **Tuesday, September 6, 2022,** as early as possible within the following launch window:

- Between **05:45 p.m.** and **06:51 p.m.** Washington, D.C. time,
- Between **06:45 p.m.** and **07:51 p.m.** Kourou time,
- Between **09:45 p.m.** and **10:51 p.m.** Universal time (UTC),
- Between **11:45 p.m.** and **00:51 a.m, September 7th** Paris time,
- Between **06:45 a.m.** and **07:51 a.m, September 7th** Tokyo time.

MISSION DURATION

The nominal duration of the mission (from liftoff to separation) is:

28 minutes and 46 seconds.

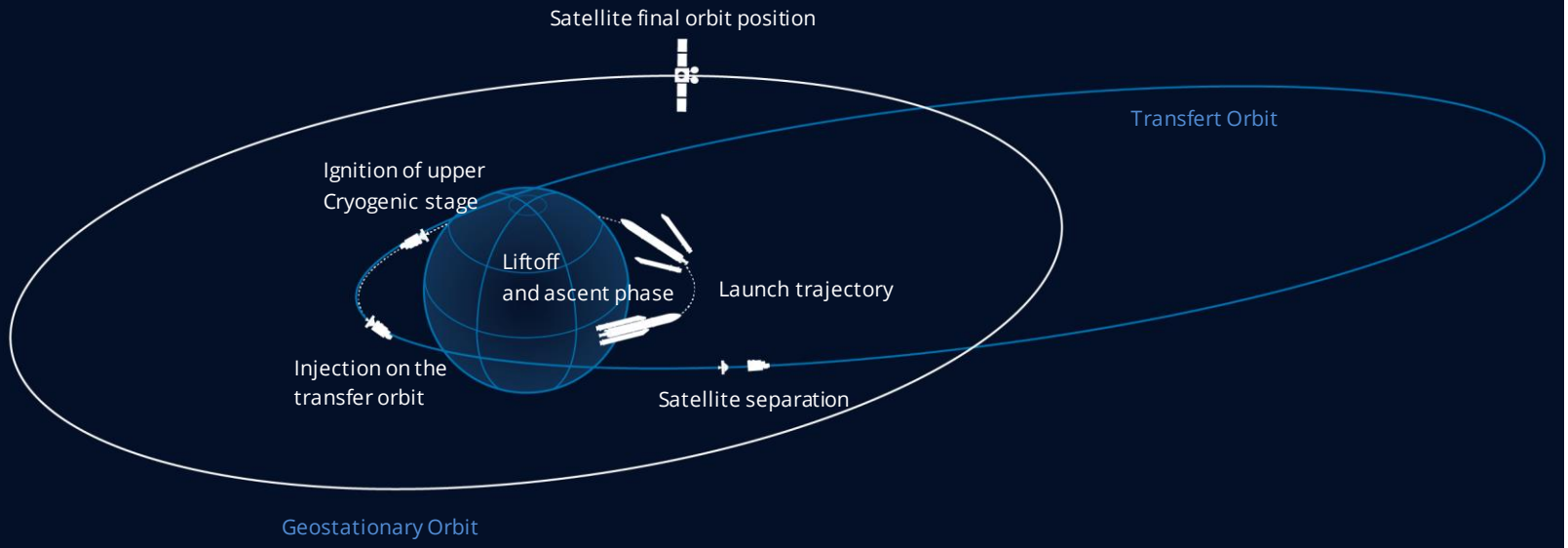
SATELLITE

- Satellite: **EUTELSAT KONNECT VHTS**
- Customer : **Eutelsat**

TARGETED ORBIT

- Perigee altitude: **250 km.**
- Apogee altitude: **60 351km.**
- Inclination : **3.5 degrees**

ARIANE 5 – FLIGHT VA258



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EUTELSAT KONNECT VHTS

AN EXCEPTIONAL SATELLITE TO CONNECT ALL OF EUROPE

DID YOU KNOW?

EUTELSAT KONNECT VHTS (Very High Throughput Satellite) is the largest ever built by Thales Alenia Space. It stretches 8.8 meters high (about 29 feet), as tall as a three-story building, and weighes 6.4 metric tons.

SATELLITE	EUTELSAT KONNECT VHTS
OPERATOR	Eutelsat
MANUFACTURER	Thales Alenia Space
MISSION	Telecommunications
MASS AT LAUNCH	6.4 tons
PLATEFORM	SpaceBus Neo
COVERAGE AREA	Europe
LIFETIME	15 years

With an instantaneous rate of 500 Gbps, **EUTELSAT KONNECT VHTS** will provide high-speed internet access throughout Europe, in particular in isolated regions with low coverage, offering a service comparable to fiberoptic networks in terms of performance and cost, thus making a significant contribution to bridging the digital divide. **EUTELSAT KONNECT VHTS** will also address the broadband connectivity needs of fixed and mobile telecommunications networks, on land, sea or in the air.

EUTELSAT KONNECT VHTS was built in France by Thales Alenia Space around the Spacebus NEO all-electric propulsion platform. It carries a cutting-edge payload using disruptive technologies developed with the support of the French Government, via the Centre National d'Etudes Spatiales (CNES) and the "Investing in the Future" program (PIA), together with the European Space Agency (ESA). The payload notably comprises the most powerful digital processor in the world which combines agile capacity allocation, optimized spectrum use and support, and gradual deployment of network coverage on the ground.

- KONNECT VHTS will be the 37th Eutelsat satellite launched by Arianespace
- It will be the 166th Thales Alenia Space satellite to be launched by Arianespace.

PRESS CONTACT

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ARIANE 5 LAUNCHER

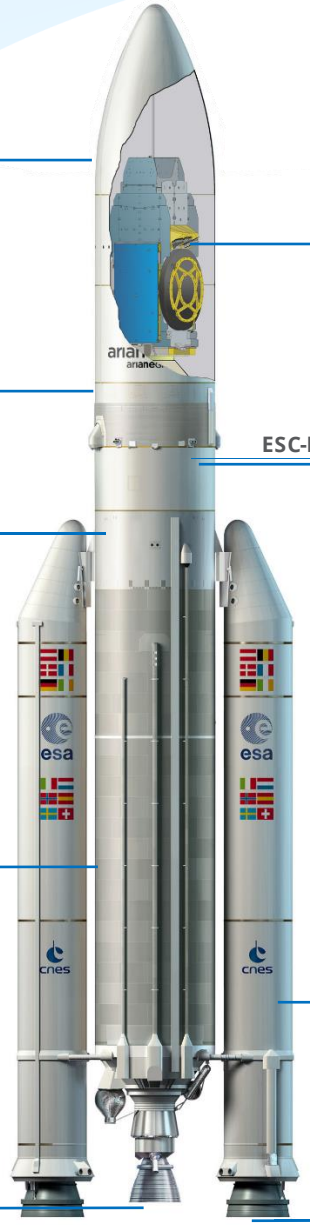
Fairing
(Beyond Gravity Schweiz AG)
Height: 17 m.
Mass: 2.4 t.

Vehicle equipment bay
Height: 1.13 m.
Mass: 1,100 kg.

HM-7B engine
Thrust: 67 kN. (in vacuum)
995 sec. of propulsion

EPC – Cryogenic main stage
Height: 31 m.
Mass: 190 t.

Vulcain 2 engine
Thrust: 1,410 kN. (in vaccum)
520 sec. of propulsion



13,000 kN. at liftoff (atT+7.3 sec)

PA – Payload adaptor
(Beyond Gravity)

ESC-D – Cryotechnic upper stage
Height: 4.71 m.
Mass: 19 t.

EAP – Solid rocket boosters
Height: 31.6 m.
Mass: 277 t.

MPS – Solid rocket motor
Average thrust: 5,060 kN.
Max thrust: 7,080 kN. (in vacuum)
133 sec. of propulsion

DID YOU KNOW?

ArianeGroup, as prime contractor for Ariane 5, leads a number of European companies in launcher production, including management of upgrades and the flight software for each mission. This team effort underpins the success of Ariane 5.

ArianeGroup's responsibilities on Ariane 5 include structures and equipment, propulsion systems, integration of the different stages and integration of the launcher at the Guiana Space Center in French Guiana. It coordinates more than 600 European companies contributing to the launcher, including some 350 small and medium-size enterprises.

We continuously improve the competitiveness of the Ariane 5 system, while also ensuring that it benefits from the production improvements developed on the Ariane 6 program.

LAUNCH CAMPAIGN

09/06/2022 Start of launch countdown, cryogenic main stage (EPC) and cryogenic upper stage (ESC-A) filling with liquid oxygen and liquid hydrogen. **Liftoff.**

09/05/2022 Roll-out from BAF to the launch pad

09/02/2022 Launch Readiness Review

09/01/2022 Arming of launch vehicle

08/31/2022 Dress rehearsal

08/27/2022 Fairing integration on launch vehicle

08/26/2022 EUTELSAT KONNECT VHTS integration on launch vehicle

08/22/2022 EUTELSAT KONNECT VHTS integration on adaptator

08/18/2022 Transfer from BIL (Launcher Integration Building) to BAF (Final Integration Building)

08/16/2022 TO 08/17/2022 EUTELSAT KONNECT VHTS fueling operations

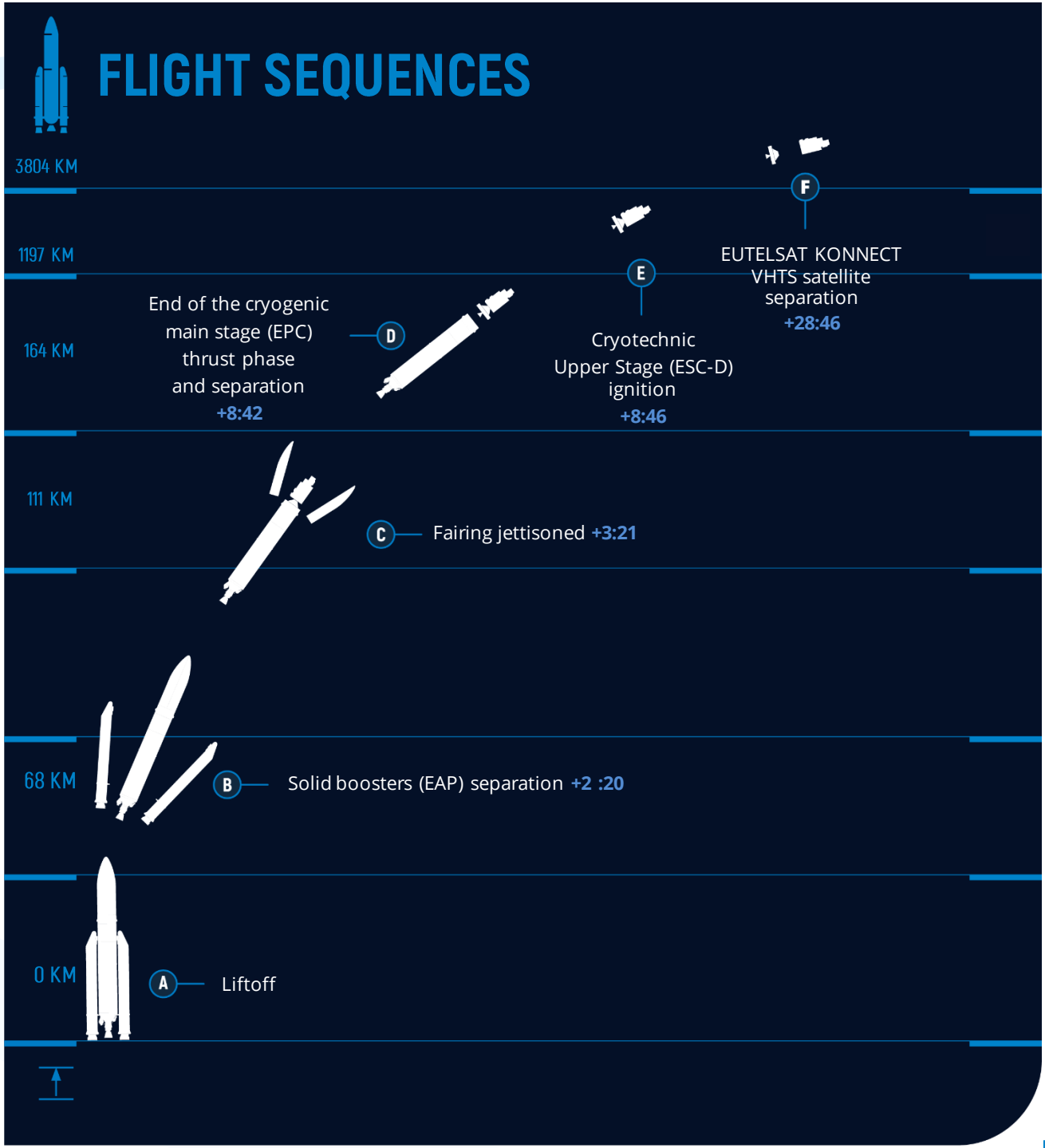
08/02/2022 Arrival of EUTELSAT KONNECT VHTS in French Guiana

08/02/2022 BIL Campaign start

— Launch vehicle operations

— Satellite operations

FLIGHT SEQUENCES



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.

Starting in 2022, Arianespace will operate the new-generation Ariane 6 and Vega C launchers, developed by ESA.

Arianespace is headquartered in Evry, near Paris, and has a technical facility at Europe's Spaceport 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 European launcher industry. ESA and CNES are advisory board members.

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ARIANEGROUP

ArianeGroup is the prime contractor for the development and production of Ariane 5 and Ariane 6 launchers. The company coordinates an industrial network of more than 600 companies (including 350 SMEs).

ArianeGroup oversees the entire industrial supply chain, from performance optimization and the corresponding studies associated with Ariane 5 to production, from the supply of mission-specific data and software to the marketing of the launcher through Arianespace. This chain includes equipment and structures, engine manufacturing, integration of the various stages, and launcher integration in French Guiana.

ArianeGroup delivers a flight-ready launcher on the launch pad to its subsidiary Arianespace, which operates the flight from lift-off, on behalf of its customers.

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ESA

The European Space Agency (ESA) is tasked with guiding the development of Europe's space capabilities and making sure that its investments in space benefit the citizens of Europe and worldwide. An international organization with 22 member states, ESA coordinates its members' financial and intellectual resources to conduct programs and activities that largely surpass the scope of action of a single European country. ESA is now coordinating Europe's future launcher programs, Ariane 6 and Vega C. On Ariane 6, ESA supervises the overall launch system procurement and architecture, while European industry builds the launcher, with ArianeGroup as prime contractor and design authority.

ESA also provides the launcher's specifications for institutional missions. Thirteen European countries contribute to funding for the Ariane 6 program, led by France, Germany and Italy, along with Austria, Belgium, Spain, Ireland, Norway, the Netherlands, Romania, Sweden, Switzerland and the Czech Republic.

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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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