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Press release

ArianeGroup awarded two study contracts for future Moon missions by Airbus DS

Lampoldshausen, 16 March, 2021

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- **ArianeGroup is bringing its propulsion system architect expertise to support Airbus Defence and Space in potential ESA Moon missions, the Cis-Lunar Transfer Vehicle and the European Large Logistics Lander**
 - **ArianeGroup has outstanding capabilities and unique experience in spacecraft propulsion for exploration, from ATV to the ESM Orion vehicle**
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ArianeGroup has been awarded two study contracts to facilitate potential Moon missions covering phase A/B1 studies by Airbus Defence and Space in preparation for the next European Space Agency (ESA) Ministerial Council in 2022. An ArianeGroup team from Lampoldshausen, Bremen, and Ottobrunn, Germany will bring its propulsion architect expertise to the Cis-Lunar Transfer Vehicle (CLTV) and the European Large Logistics Lander (EL3) missions.

The EL3 European Large Logistics Lander is intended to provide Europe with the capability to transport up to 1.7 tons of cargo, propellant or equipment to the lunar surface. The lander is scheduled to fly on an Ariane 64 (the four-booster Ariane 6 version) around 2028 and will reach Moon orbit after four days after launch.

After several days in lunar orbit, it will descend to the surface of the Moon using up to five engines. In order to ensure precise landing, all engines will be throttled simultaneously. The landing site chosen is located close to the landing zone of the American Human Landing System (HLS) lander, so as to safely supply astronauts with additional provisions. (NASA has selected three companies to design and develop HLS under the Artemis program.)

EL3 is a European complement to the U.S. Artemis program designed to take humans back to the Moon. ArianeGroup is already involved in the Artemis project, providing propulsion equipment for the European Service Module (ESM) for the Orion spacecraft.

The CLTV Cis-Lunar Transfer Vehicle draws on all the expertise and technology acquired throughout the five European Automated Transfer Vehicle (ATV) missions plus new functions and capabilities. Its main mission is to re-supply the planned Lunar Gateway Station. *“With the support of Airbus DS, ESA successfully developed and flew five ATVs, the last of which was launched in 2014 with mission end in 2015,”* said Jörg Krüger, who leads the study team for both the EL3 and the CLTV projects. *“These two projects are of strategic interest for ArianeGroup to maintain a position in propulsion, and to leverage all the expertise from ATV and ESM MPCV to extend its involvement in ESA’s future exploration programs.”*



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Communiqué de presse

CLTV will offer even greater operational versatility than ATV and provides ArianeGroup with an opportunity to demonstrate its proven competences and innovative new products, beyond traditional propulsion systems, in the lead-up to a completely European spacecraft.

The study phase will last until the 2022 ESA Ministerial Conference. If the proposed concept is approved at the conference, the next phase could start as soon as early 2023 – creating the first step to building the highway to the Moon.

About ArianeGroup

ArianeGroup develops and supplies innovative and competitive solutions for civil and military space launchers, with expertise in all aspects of state-of-the-art propulsion technologies. ArianeGroup is lead contractor for Europe's Ariane 5 and Ariane 6 launcher families, responsible for both design and the entire production chain, up to and including marketing by its Arianespace subsidiary, as well as for the missiles of the French oceanic deterrent force. ArianeGroup and its subsidiaries enjoy a global reputation as specialists in the field of equipment and propulsion for space applications, while their expertise also benefits other industrial sectors. The group is a joint venture equally owned by Airbus and Safran, and employs approximately 9,000 highly qualified staff in France and Germany. Its 2019 revenues amounted to 3.1 billion euros.

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