**EUROPE READY FOR ARTEMIS**

**A-ROLL - EUROPE READY FOR ARTEMIS**

**10:00:00**

**ESA STING**

**10:00:05**

**ARTEMIS ANIMATION (CREDIT: ESA)**

ESA plays a crucial role in NASA’s first Artemis mission. Not only will the European Service Module or ESM power the Orion spacecraft and propel it around the Moon…

**10:00:20**

**EXT. DRONE SHOTS ESTEC, THE NETHERLANDS PLUS GROUND SHOT OF ERASMUS SUPPORT FACILITY (ESF) BUILDING**

… there will also be key support on the ground via the Erasmus Support Facility at ESA’s ESTEC facility in The Netherlands.

**10:00:29**

**INT. GVS ESF, ARTEMIS SIMULATION**

To ensure everything runs smoothly, ESA and NASA are running joint multiple simulations at different stages of the mission. Forty engineers, working for the ESM programme, will be based at ESTEC & Houston. During today’s exercise, they will carefully monitor the spacecraft’s behaviour as well as its propulsion, power, solar wings, avionics and thermal properties.

**10:00:58**

**PTC SUE NELSON**

*“The simulation is well underway with data coming in from NASA’s Johnson Space Center in Texas. Now you’d assume that what you don’t want to hear coming from here are the words Houston we have a problem… but actually that’s not the case.”*

**10:01:16**

**INT. GVS ACTUALITY ESF, ARTEMIS SIMULATION**

“Well it looks like there is a problem in the …”

During a simulation any problems - or anomalies in engineering speak - are deliberately manufactured and not known in advance by the trained team. These are vital for the teams at NASA and ESA to learn how to react, identify and solve any issue, and communicate with each other.

*“And I’ll be stepping off console now and have a good one…”*

**10:01:45**

**KEVIN PASAY**

**ERASMUS SUPPORT FACILITY MANAGER, ESA**

*“Today’s simulation is what they call an inspection simulation so the idea is during a launch they will do a systematic inspection of the entire spacecraft. The European Service Module sits on top of the NASA SLS rocket so basically on a pre-launch check they will just really systemically look at every piece of those vehicles trying to identify any potential anomalies as such before they fly.”*

**10:02:16**

**INT. GVS ACTUALITY ESF, ARTEMIS SIMULATION**

Everyone at the Erasmus Support Facility - whether working for ESA or industries such as Airbus and Thales Alenia Space - has a specific area of expertise from working on the ESM.

**10:02:31**

**GUILLAUME POINNIER**

**MISSION INTEGRATION & PERFORMANCE ENGINEER, ESA**

*“These are key people that have contributed to the design, the development and all the IT phases of the ESM, so basically people who know the system, who know their sub-systems and that’s what we are looking for: knowledgeable people to provide real time and active support and monitoring during flight operations.”*

**10:02:52**

**ARTEMIS ANIMATION**

After each simulation, the teams at NASA and ESA are debriefing about the simulation scenarios and how they have performed. This will ensure that the Artemis I launch proceeds as smoothly as possible and that the team is fully prepared for an important part of space history.

**10:03:15**

**ESA STING**

**10:03:25**

**[ENDS]**

**B-ROLL**

**10:03:27**

**ESA STING**

**10:03:30 [TITLE] EUROPE READY FOR ARTEMIS: B-ROLL**

**10:03:33**

1. **ERASMUS SUPPORT FACILITY, ARTEMIS MISSION SIMULATION**

Exterior and interior shots plus actuality of ESF (Erasmus Support Facility) at ESTEC in The Netherlands, and the Artemis mission simulation.

2. **GUILLAUME POINNIER (ENGLISH)**

MISSION INTEGRATION & PERFORMANCE ENGINEER, ESA

*“The simulation today is about a survey of the spacecraft. More than two days, two days and a half after the launch, that’s the first visual survey we do that’s planned for the mission using the four cameras at the tip of the four solar wings and we move the solar wings to take some video and screenshots of the spacecraft to have that visual inspection.”*

*“So there are mainly two types of support, that’s basically two types of situation: nominal situation - everything goes fine. Here we are actively supporting, actively monitoring the spacecraft, looking at the trend of the parameters to try to predict as much as we can if something, if a failure is building up or if everything is nominal. And again anticipation is the key, meaning that you have to know your mission. You have to know what’s coming up, what’s coming next. For instance, if it’s two, three, four hours we are having a burn, minor or major, there are certain equipments which have to be prepared, switched on, switched off. So that’s for the nominal case. And then things we cannot predict. And that’s why we are training with failures in the simulations. These are failures and to failures how we react, how we talk on the voice loops, how we communicate throughout the position between the sub systems, to quickly identify what is the failures, to investigate it, to understand root cause and also any likely impact onto the other sub systems, on the system and also on the mission.”*

**GUILLAUME POINNIER [FRENCH]**

MISSION INTEGRATION & PERFORMANCE ENGINEER, ESA

**KEVIN PASAY [ENGLISH]**

ERASMUS SUPPORT FACILITY MANAGER, ESA

*“These folks here are specifically taking care of the European Service Module which provides the human capsule part of that with all of its power and life support. So this team here is really taking care of the crew who will be going to the Moon and beyond.”*

*“I mean it’s human spaceflight and you’re always going to have anomalies. We don’t say a problem…A problem is indicative of something you don’t know but anomalies come from engineering. You can find them, solve them and continue on and that’s what the teams have been working through. Recently through the wet dress rehearsals, there were dress rehearsals to make sure everything right.”*

*“Today’s simulation is what they call an inspection simulation so the idea is during a launch they will do a systemic inspection. It’s of the entire spacecraft. The European Service Module sits on top of the NASA SLS rocket so basically on a pre-launch check they will just systemically look at every piece of those vehicles trying to identify any potential anomalies as such before they fly.”*

**OLIVIER MONGRARD (FRENCH)**

ESM SYSTEM ENGINEER, ESA

**FRANCOIS TRINQUARD (FRENCH ONLY)**

ESM ENGINEER, ESA