

NASA ARTEMIS 1

<https://www.nasa.gov/artemis-1>

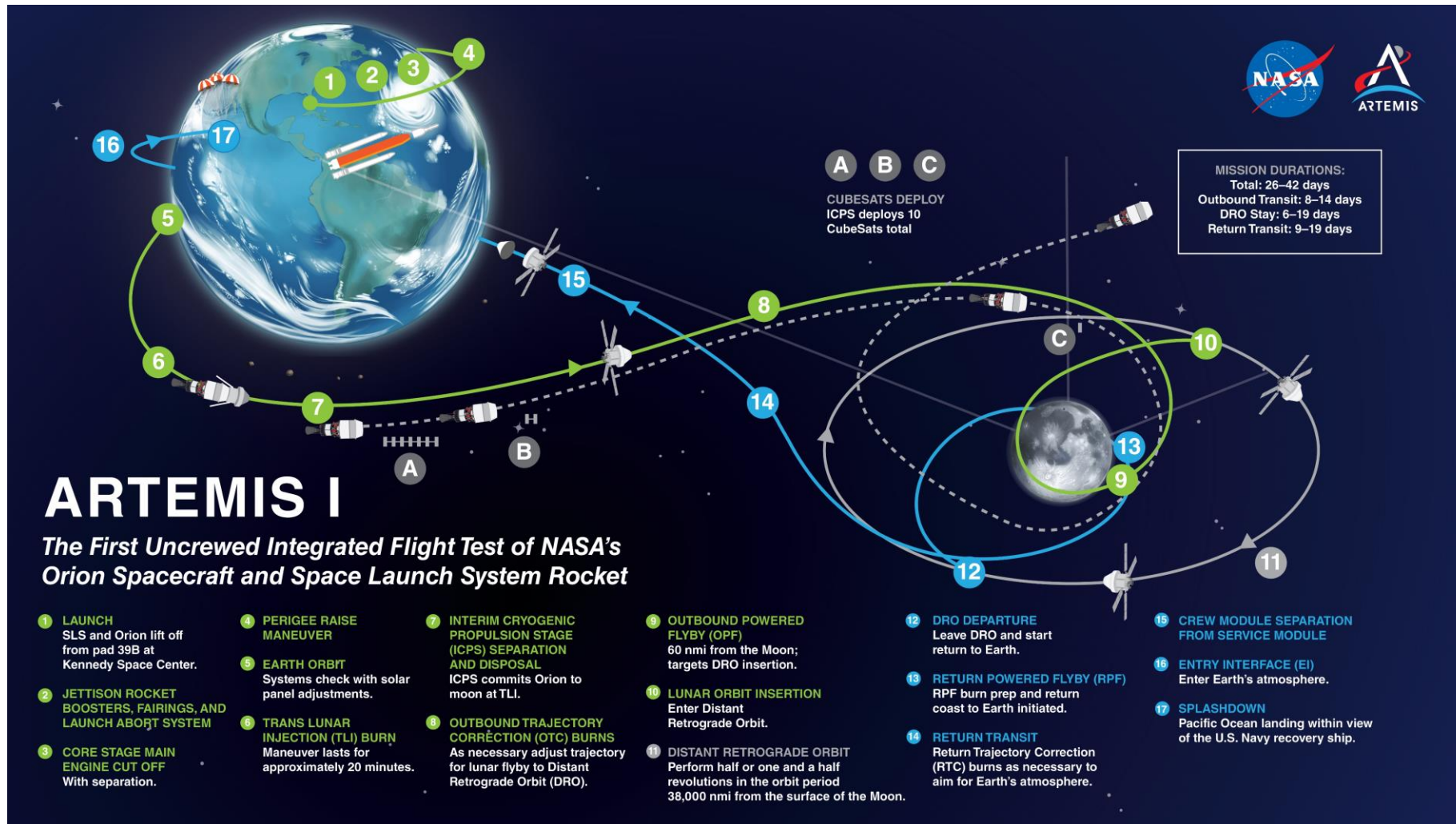
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in Space and on Earth*

NASA Artemis 1



<https://www.nasa.gov/image-feature/early-morning-artemis-i>

NASA Artemis 1



https://www.nasa.gov/sites/default/files/thumbnails/image/artemis_i_3_28_22.jpg

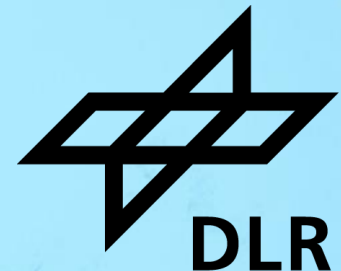
MARE https://www.dlr.de/mare_en/



STEMRAD[®] LOCKHEED MARTIN



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NASA Artemis 1: Orion



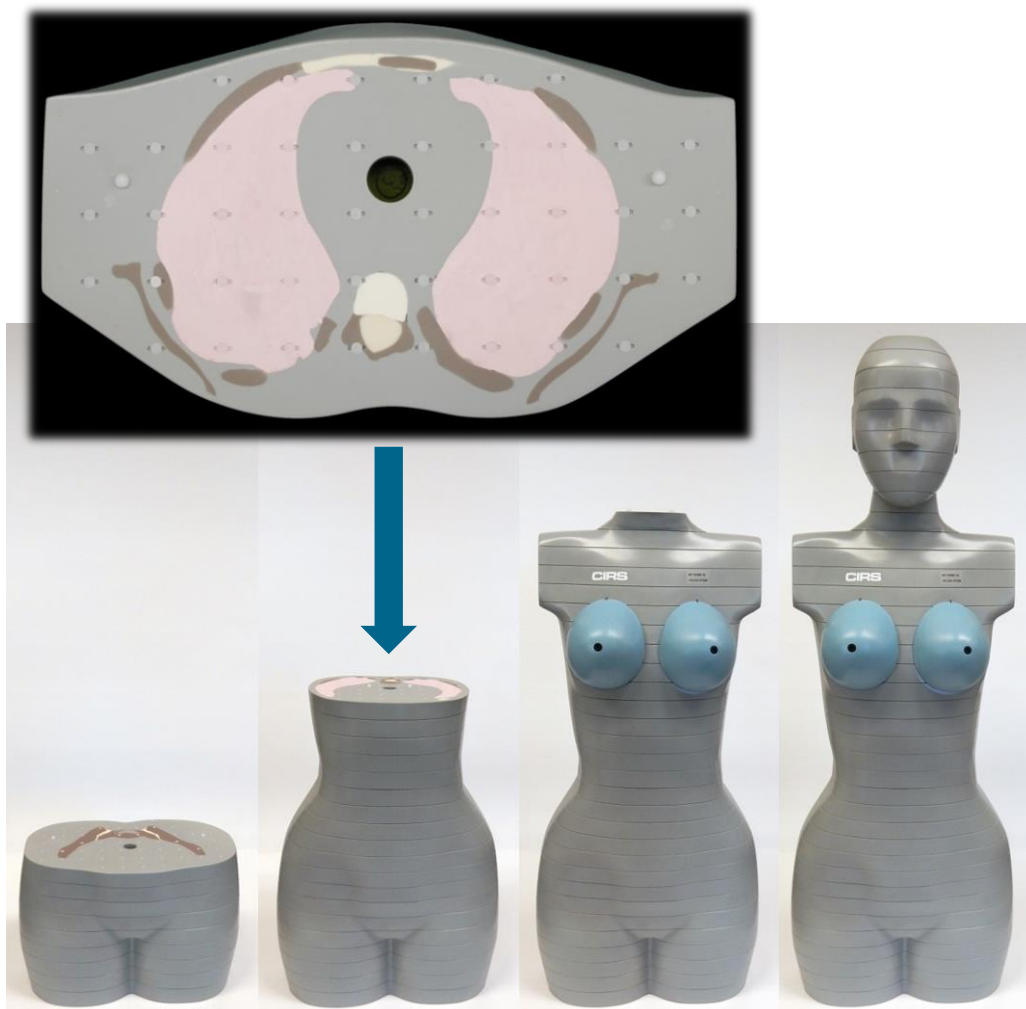
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NASA Artemis 1: MARE Helga & Zohar



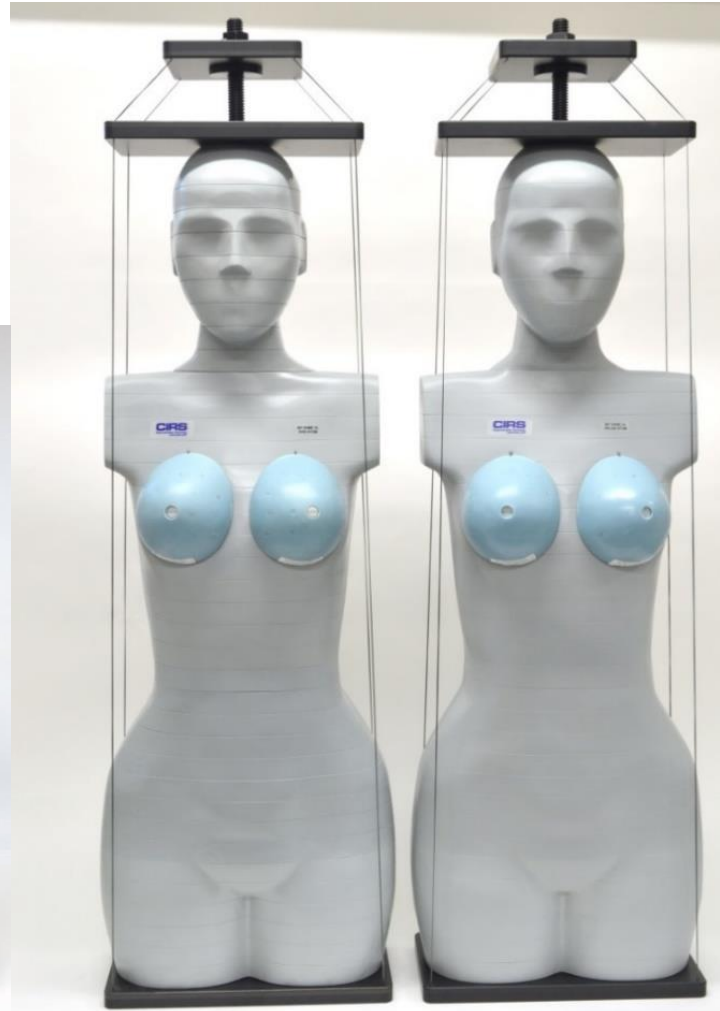
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NASA Artemis 1: MARE Helga & Zohar

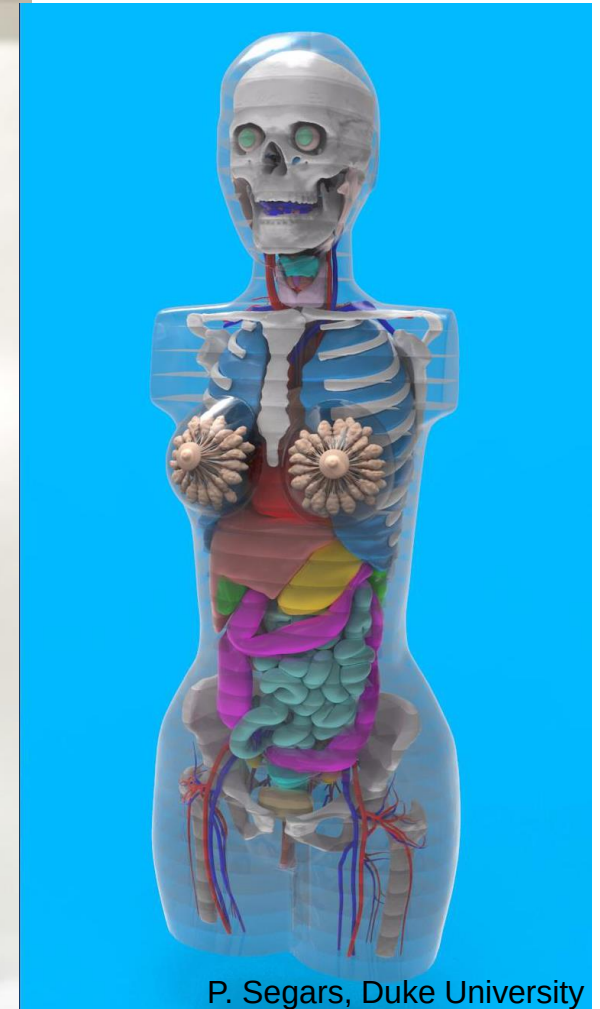


<http://www.cirsinc.com/products/modality/33/atom-dosimetry-verification-phantoms>

Thomas Berger, DLR-ME-SBA, 25th WRMISS 06 - 08 Sep. 2022



https://www.dlr.de/mare_en/



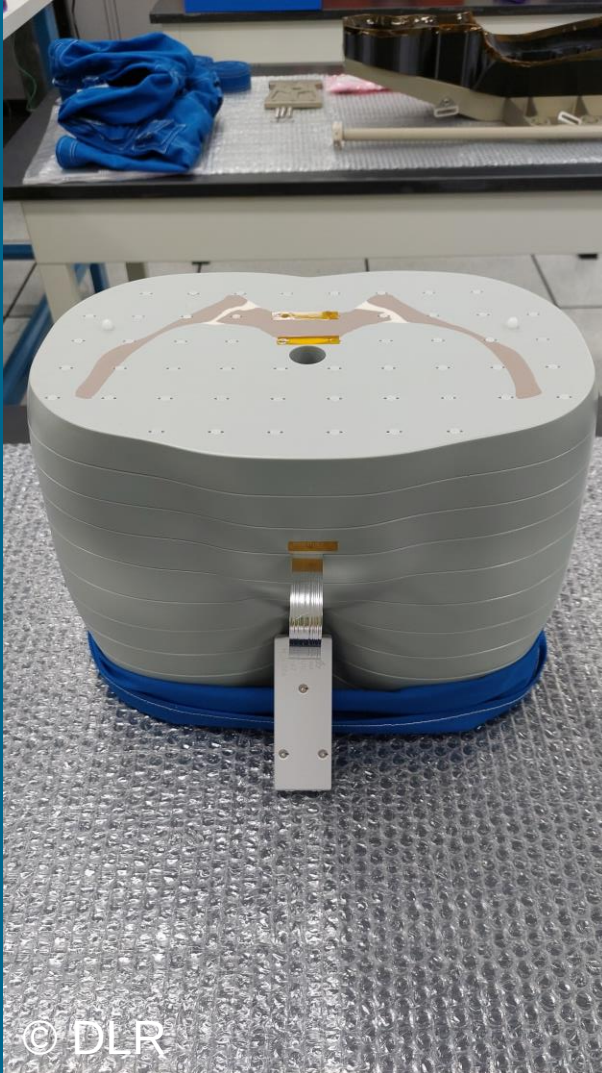
P. Segars, Duke University

Bio model

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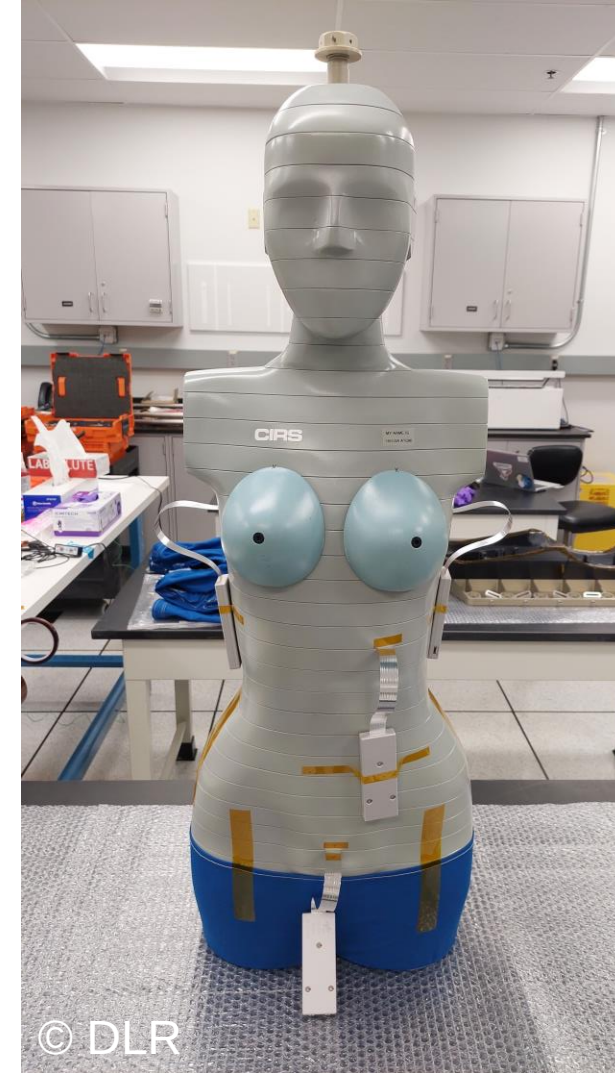
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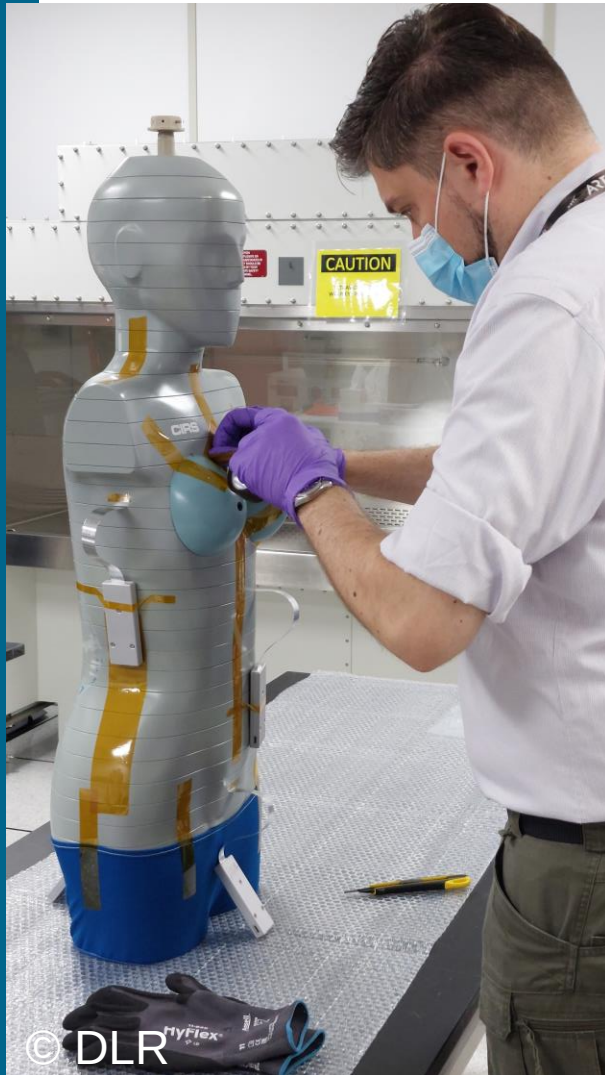


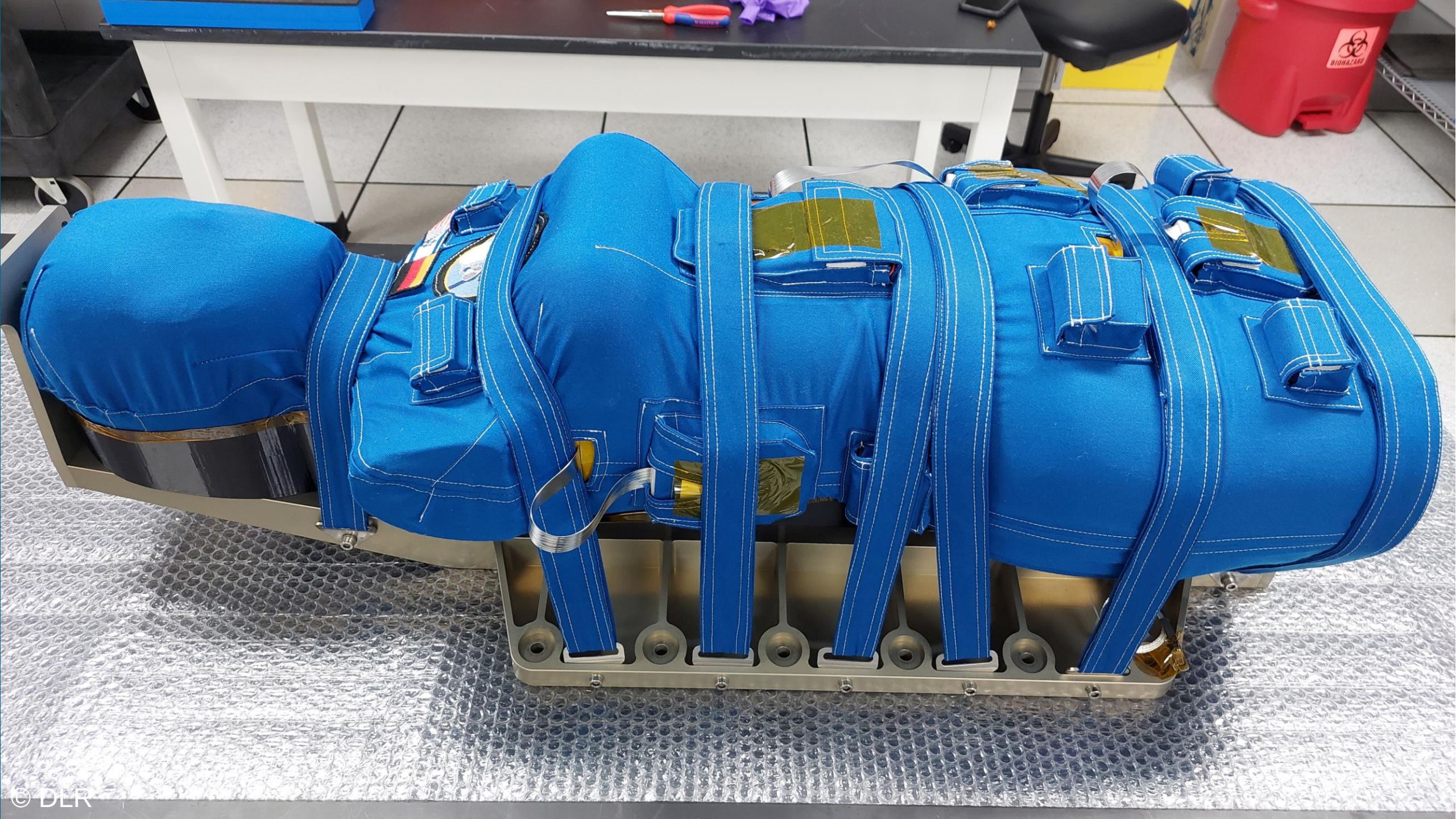
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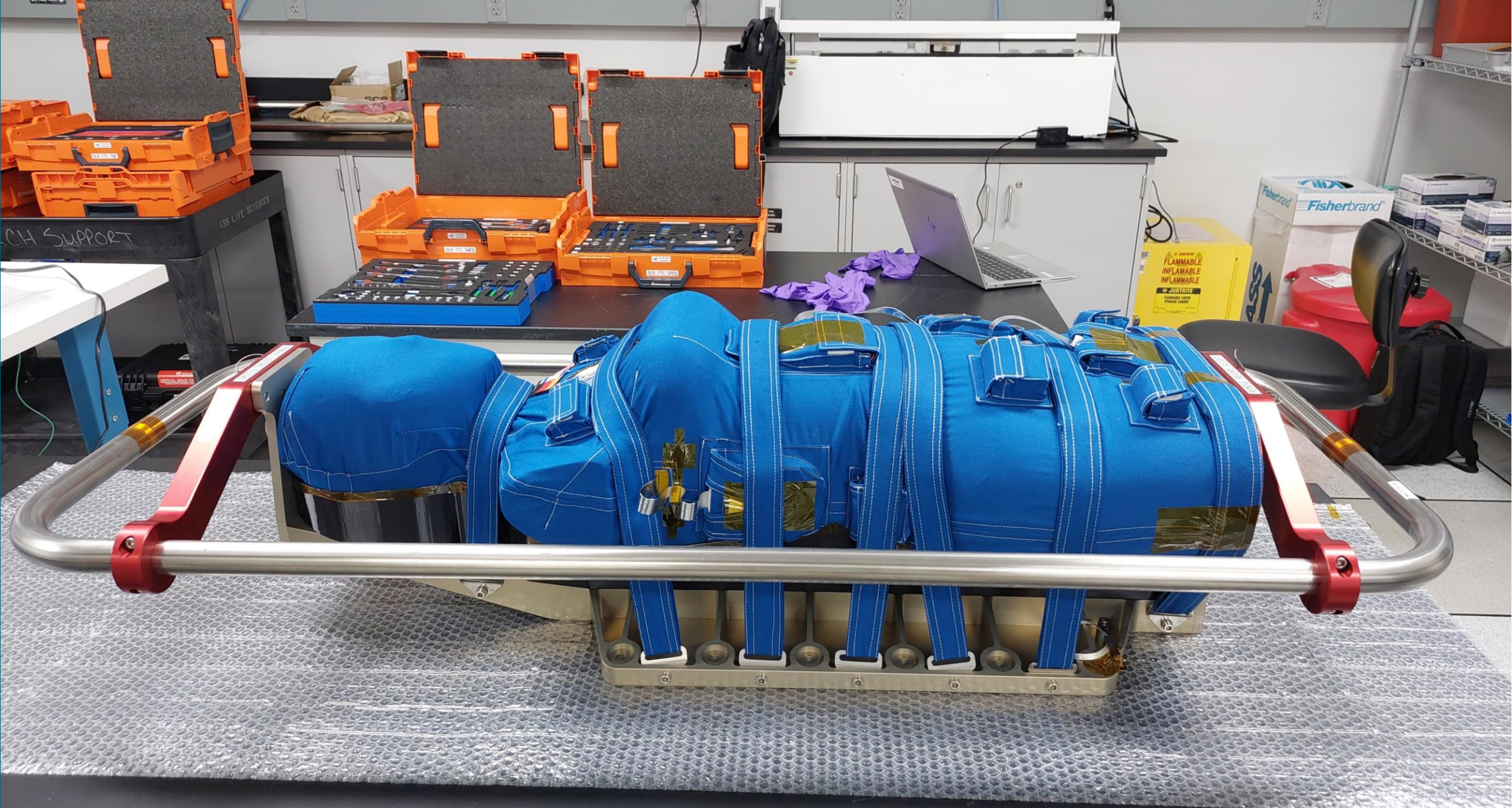


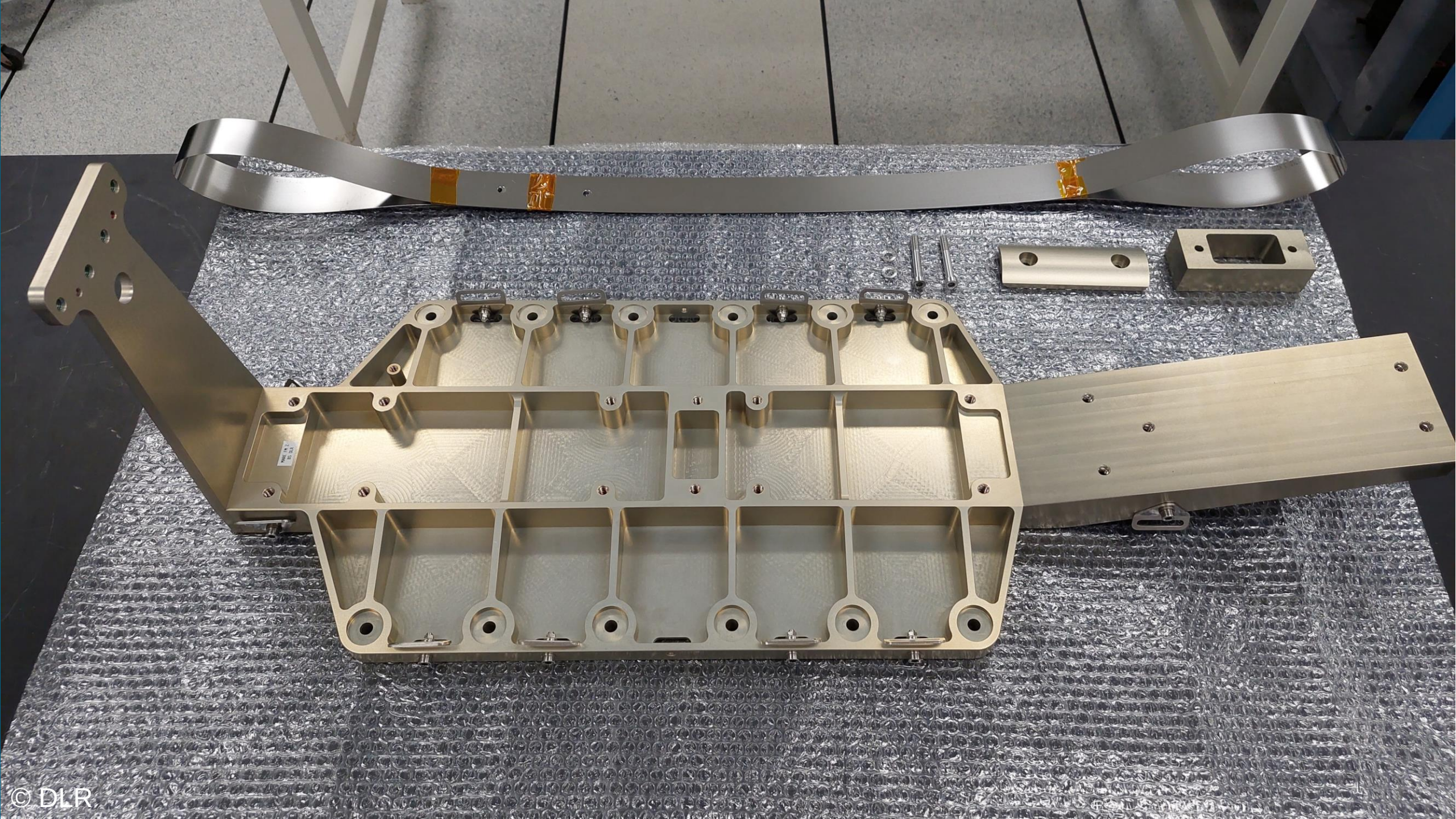
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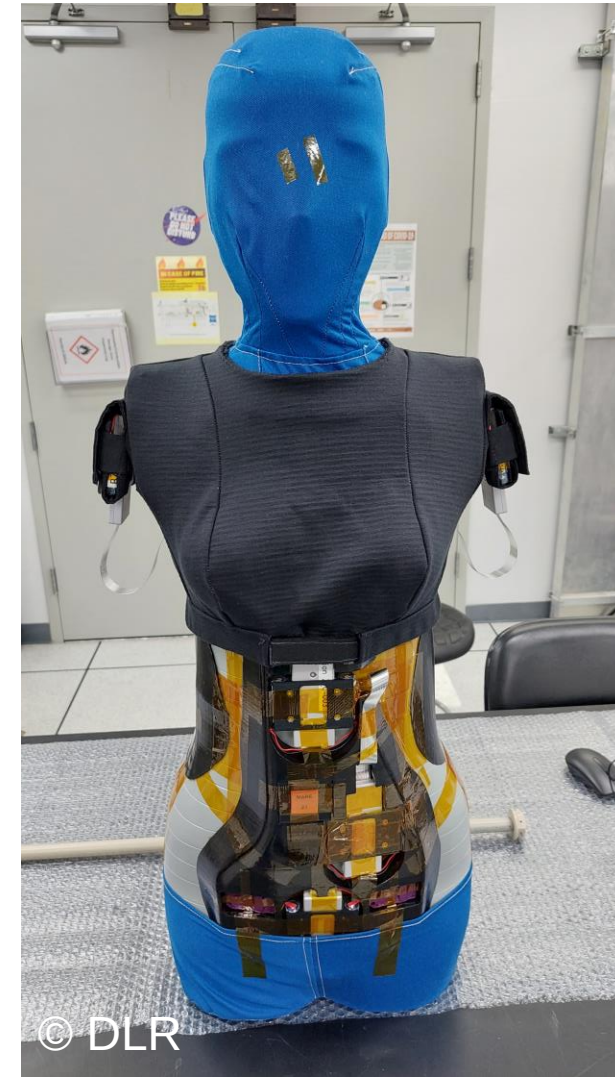
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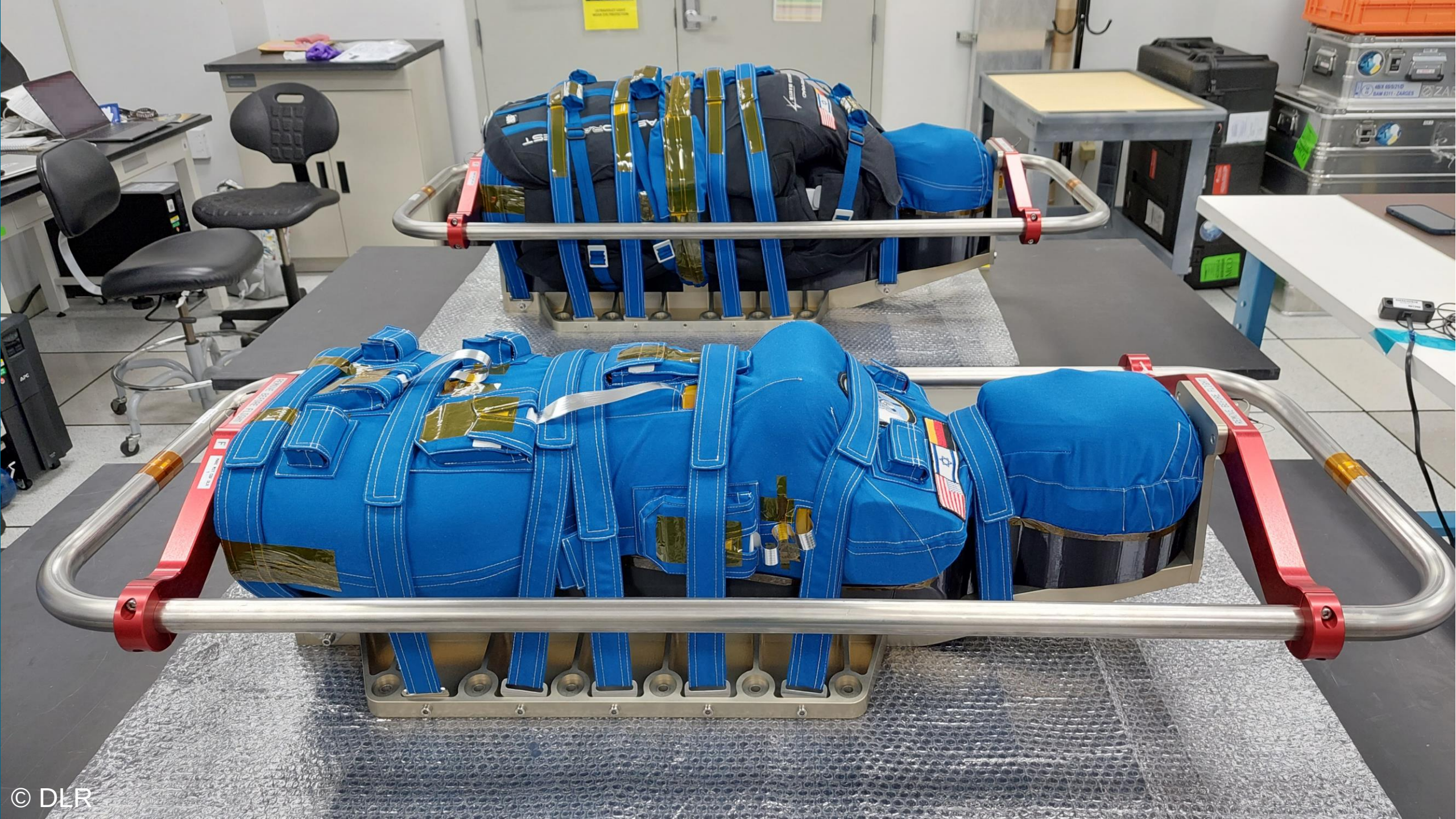
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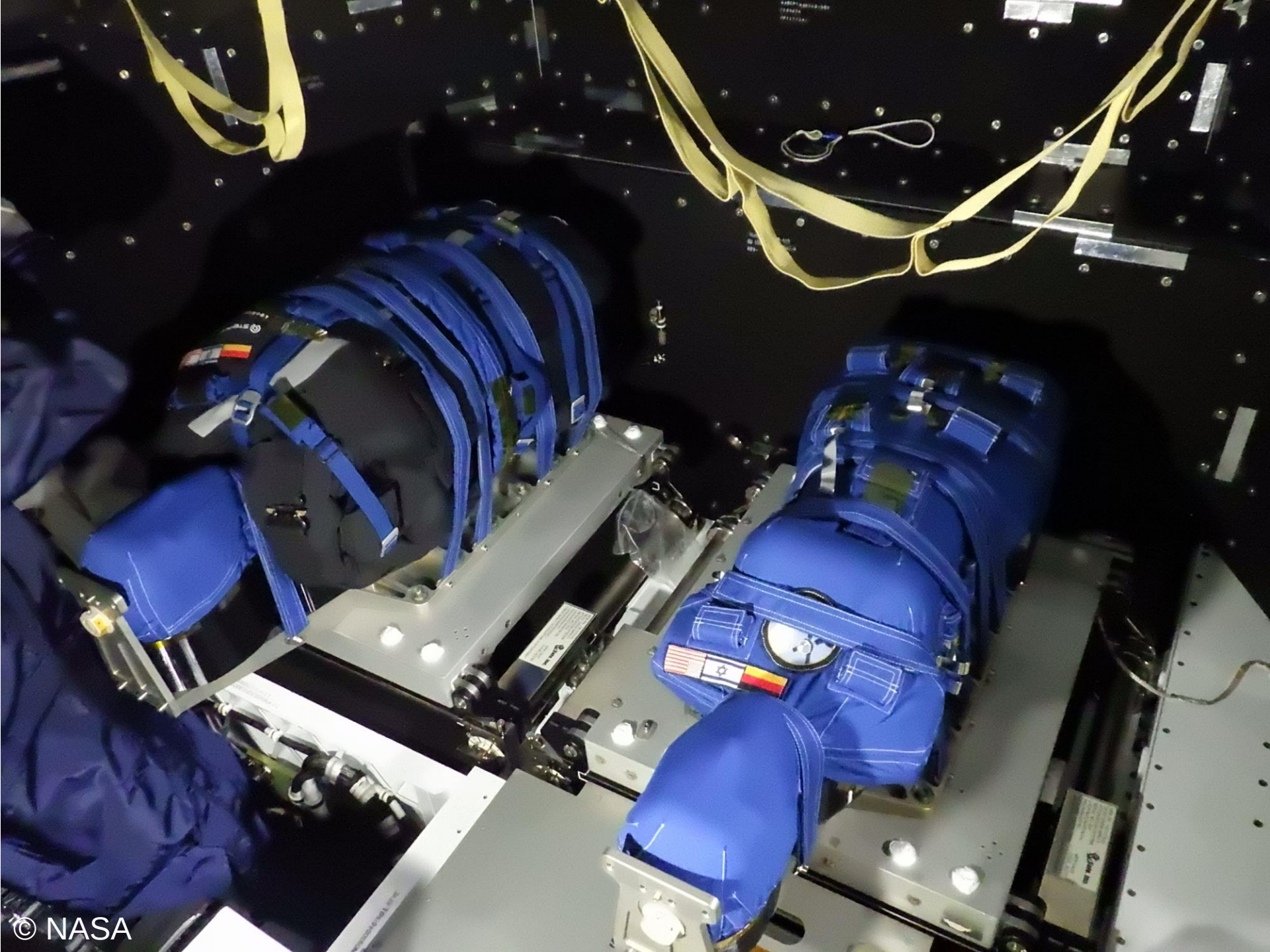


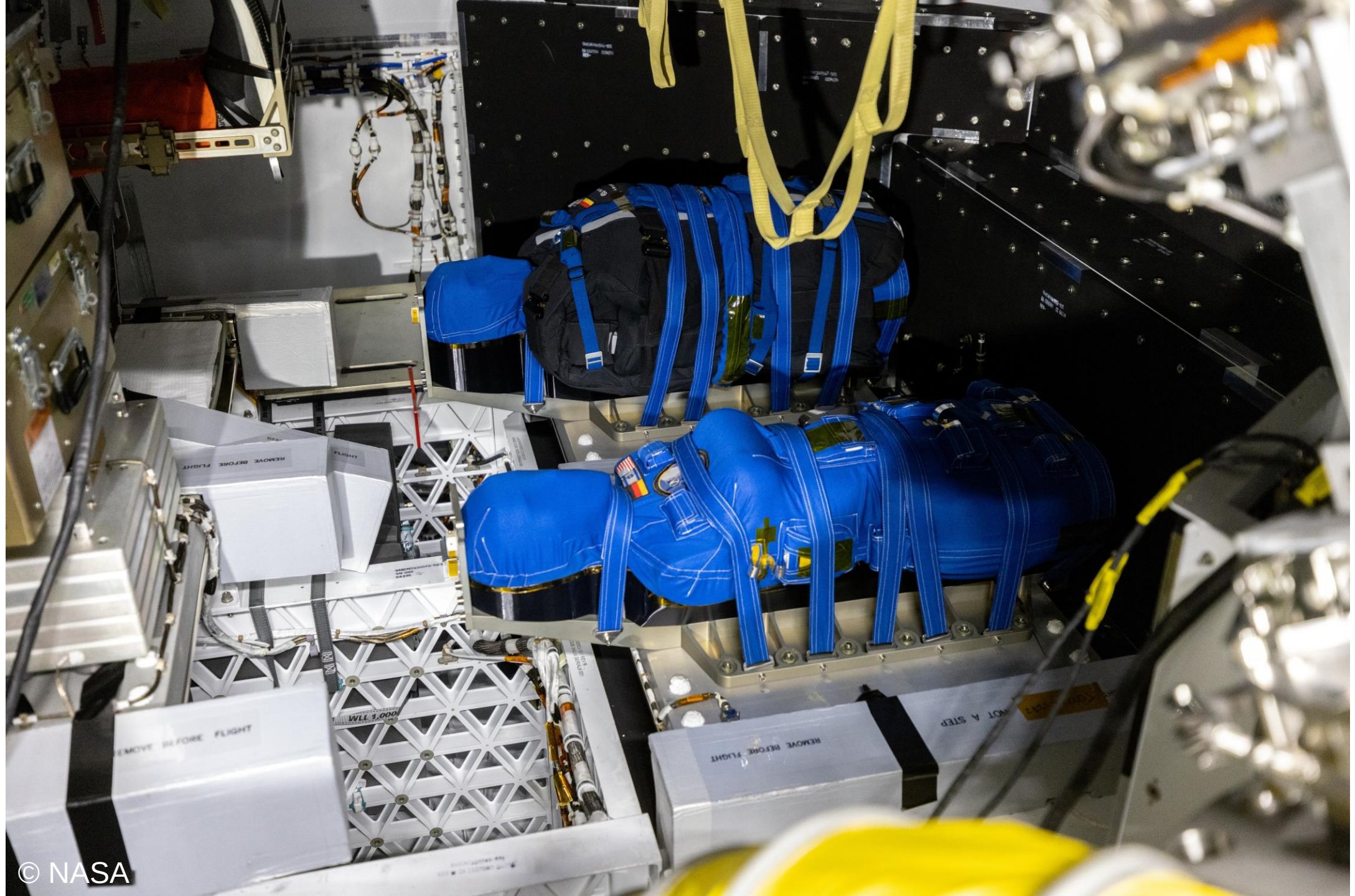


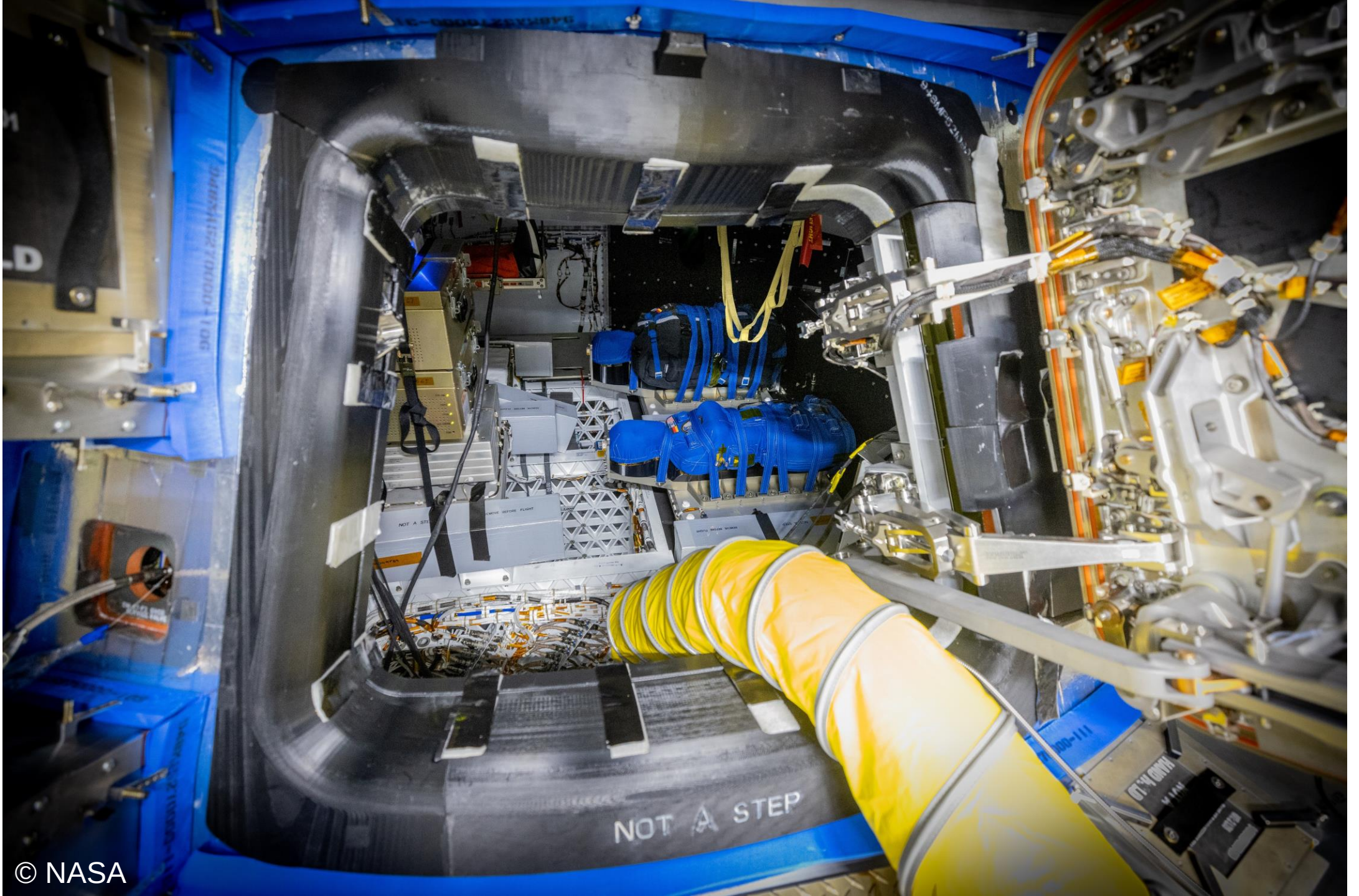










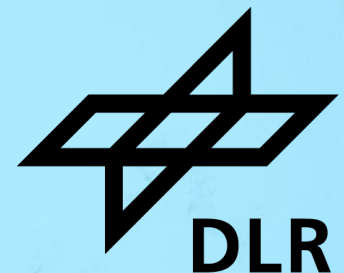


EAD – ESA ACTIVE DOSIMETER

ESA Contract: No. 4000125486/18/NL/PG/gm



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ESA ACTIVE DOSIMETER (EAD): From the ISS to NASA Artemis 1 (state of the art radiation detector system)

EAD-MU for NASA Artemis 1



→ Thomas Pesquet

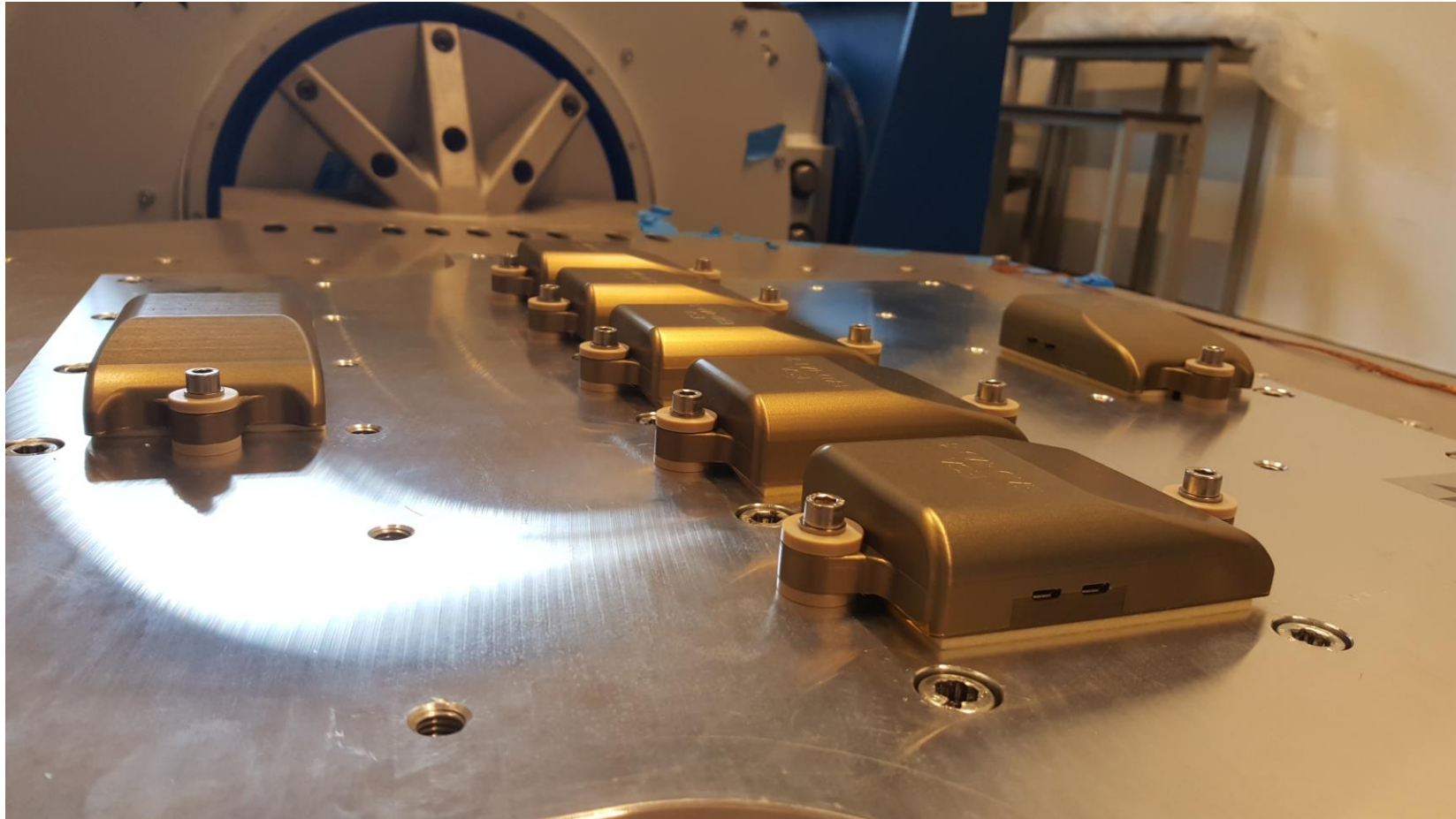
- With the Mobile Unit as developed by a DLR led consortium for ESA
- Picture Thomas Pesquet with MU in Columbus in 2016



ESA ACTIVE DOSIMETER (EAD) on the NASA Artemis 1 mission: Vibration Test DLR, Bremen



EAD-MU-O at DLR, Bremen

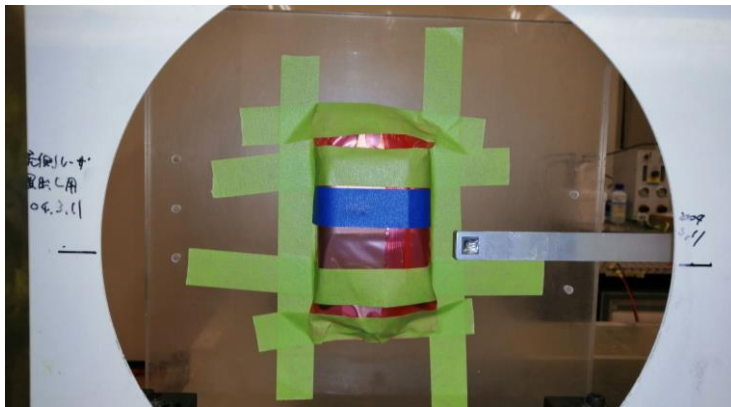


ESA ACTIVE DOSIMETER (EAD) on the NASA Artemis 1 mission: Calibration and Radiation tests



Calibration runs

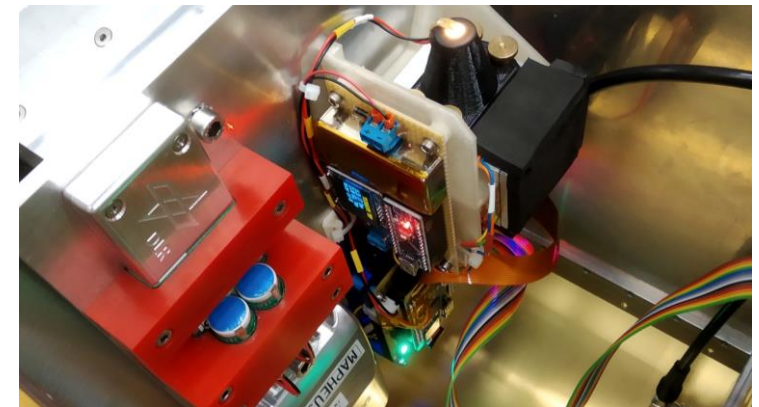
NIRS, Chiba, Japan



PTB, Germany



MAPHEUS



- Calibration of the EAD radiation detector systems at NIRS, Chiba, Japan; PTB, Braunschweig, Germany and during the MAPHEUS 10 Mission

ESA ACTIVE DOSIMETER (EAD) on the NASA Artemis 1 mission: Hardware „close out“ at NASA, KSC



„Close out“

From start



to



finish



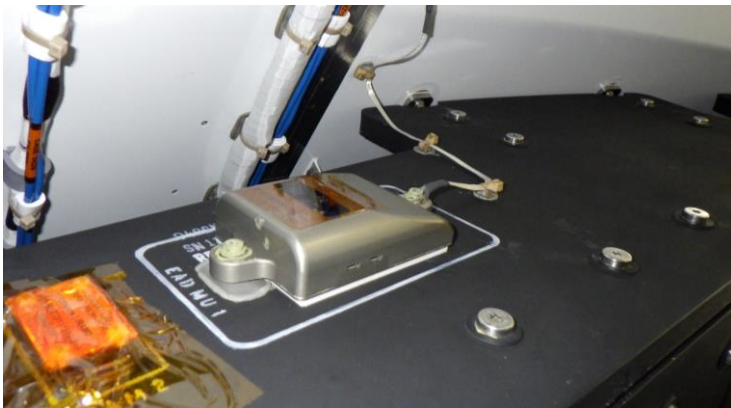
- Five Flight Units (FM) Units handover at NASA, KSC for integration in the Orion spacecraft
<https://blogs.esa.int/orion/2022/04/11/european-technology-to-map-radiation-on-the-way-to-the-moon/>

ESA ACTIVE DOSIMETER (EAD) on the NASA Artemis 1 mission: EAD-MU-O



„Close out“

MU-1



MU-3



MU-4



- Five Flight Units (FM) Units inside the Orion spacecraft
<https://blogs.esa.int/orion/2022/08/18/sensors-ready-for-radiation-ride-to-the-moon/>

NASA Artemis 1: Current status 08 September 2022

