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## INFORMATION LETTER

DATE: **April 01<sup>st</sup>, 2020**No.: **GEN-20-086**

To: All AgustaWestland Products (Civil / Dual Use Helicopters)

**SUBJECT: AW139 and AW169 biocontainment isolation systems installation – technical evaluation.**

Helicopters Affected: All AgustaWestland Products (Civil / Dual Use Helicopters)

Dear Customer / Operator,

Referring to the ongoing SARS-CoV-2 outbreak, European Union Aviation Safety Agency (EASA) and the National Aviation Authorities (NAAs) of the Member States are currently receiving many requests for advice or approval of special uses of helicopters for aeromedical transport of SARS-CoV-2 patients using specialised equipment such as air transportable biocontainment isolation systems.

For this reason, Leonardo Helicopters (LH) would like to provide you with the outcome of the technical evaluation related to the possibility to install biocontainment isolation systems on AW139 and AW169 helicopters.

Please find here attached, as Annex A, a letter issued in order to support all AW139 and AW169 HEMS Operators that will perform emergency air transportation with patients that require biocontainment isolation system installed on aircraft. Purpose of this letter is to support HEMS Operator's risk assessment in accordance with EU 2018/1139 art.71 exemption provisions and National Aviation Authorities requirements.

Should you need any additional information, do not hesitate to refer to the point of contact provided with the Customer Support & Training Worldwide Directory, available on the Leonardo website at this [link](#).

Yours Sincerely,



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Giovanni Cecchelli  
Leonardo Helicopters  
Vice President

Customer Support & Services - Italy

# ANNEX A

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**DATE: March 19th, 2020****No.: AIRW/2020/09****To:** All AW139 and AW169 AgustaWestland helicopters Owners/Operators /Service Centres**SUBJECT:** AW139 and AW169 ISOARK N 36 biocontainment isolation systems installation – technical evaluation.

Leonardo Helicopter, with refers to ongoing SARS-CoV-2 emergency, provides this letter in order to support all HEMS helicopter operators that will perform emergency air transportation with patients that require biocontainment isolation system installed on AW139 and AW169. This letter is to support helicopter operator's proper risk assessment in accordance to EU 2018/1139 art.71 exemption provisions and NAAs. Leonardo Helicopter evaluated:

- the installation of one single ISOARK N 36-2 / 4/ 6/ 7 biocontainment isolation system in cabin equipped with EMS KIT P/N listed in table 1 for AW139;
- The installation of one single ISOARK N36-2 / 4 biocontainment isolation system in cabin equipped with EMS Aerolite STC FLIGHT MANUAL SUPPLEMENT FMS-169-0040200-501 and AW169 RFM SUPPLEMENT 40 Stretcher Installation Layout on AW169.

The installation is compatible with transport operations provided that:

- A specific installation trial Stretcher with the biocontainment system installed is positively executed with regards to the following evidences:
  - ISOARK N 36 biocontainment isolation system is installed in accordance with the prescriptions specified by the Manufacturer, paying particular attention to properly fix the Ventilation system LB36 and relevant ventilation tube and ensuring enough space is left in front of Air Inlet with particle filter to allow proper air flow (see fig. 1)
  - Access to Exit Cabin Doors Handles is ensured on both sides.
  - Emergency EXIT are accessible by operators and relevant indications are visible.
  - Cabin portable Fire Extinguishers accessibility is confirmed by at least one crew member.



- Before any mission ISOARK N 36 biocontainment isolation system shall be installed on helicopter with battery fully charged or with the adequate charge for the next flight. In case the helicopter have appropriate power outlet and is requested to plug the system, please verify the Electrical Load Analysis, specific for each single helicopter configuration to verify the compatibility of the additional power consumption. If necessary contact Leonardo Customer Support.
- In order to ensure complete cabin insulation a cabin/cockpit separation wall shall be installed and the following evidences shall be provided:
  - The cabin insulation is made by means of metallic tape or equivalent suitable means (e.g. American Tape) on all the perimeter of the cabin/cockpit separation wall (both rigid and soft) on all Hinges and Zippers and in general all gaps and apertures. After each flight check the proper installation of the tape of equivalent suitable means. The material of the separation walls (both rigid and soft) are considered water-repellent.
  - If Kit Heating is installed on the helicopter it can be OFF. in this case all cabin ducts shall be closed with metallic tape or equivalent.  
if the kit Heating is requested to be ON, it should be left ON for all the flight;  
On AW139, heating system can be switched to OFF during CAT A Take off and landing phases; in this case it's recommended to close the cockpit left and right outlets, installed near the cockpit floor and adjacent the pilot and copilot pedal sets.
- When installed on the helicopter, each single biocontainment isolation system shall be tested through EMC compatibility check in accordance to the applicable procedure ( e.g. AMP-39-A-00-80-00-06A-369A-A), to verify that the additional equipment when powered up do not interfere with basic aircraft electrical and avionics systems.

The operations are authorized with the following flight limitations with the biocontainment system installed on the stretcher:

- Avoid severe turbulence and harsh maneuvers.

#### Operative limitations

- With reference weight and balance calculation please consider the Stretcher including both the patient and the biocontainment system please refer to the proper RFM applicable limitations (ref. relevant RFM in table 1 for AW139 and ref. RFM STC FLIGHT MANUAL SUPPLEMENT FMS-169-0040200-501 and AW169 RFM SUPPLEMENT 40 Stretcher Installation Layout for AW169).
- The cabin temperature range shall be guarantee between 0°C – 45 °C in accordance to biocontainment system Operative Manual.
- The installation of biocontainment isolation system with a patient shall be performed with Engines OFF.
- At Helicopter Power UP, the Ventilation system (or ECS if installed) in the cabin shall be powered ON and kept ON for all the duration of the mission.

#### Operative Recommendations

Leonardo - Società per azioni

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Referring to the ongoing SARS-CoV-2 outbreak, and in accordance to EASA SD-2020-01, EASA SD-2020-02, Leonardo Helicopters states that the Cleaning procedures of the cabin after a biocontainment isolation mission can be performed in accordance to the LHD SIL GEN-20-082 and LHD SIL GEN-20-084.

LH recommendation is to perform the cleaning with ECS/Ventilation system in cabin kept active during all the procedure.

**Other References**

Please refer to ISOARK N 36-2/4/26/7Tech publication for installation and maintenance tasks.

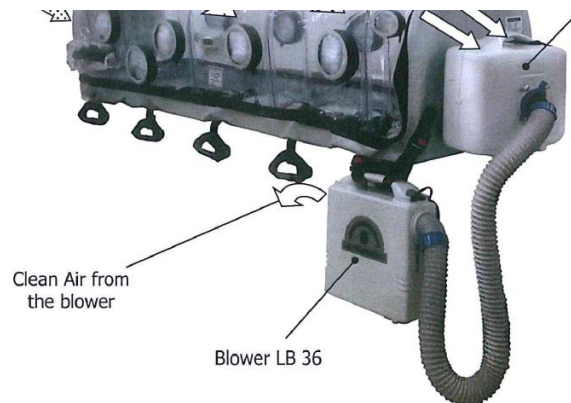


Figure 1 (for ref. only) ISOARK N36-7

P/N STC	STC Holder	RFM	ISOARK N36-2/4	ISOARK N36-6/7	NOTE
139172-501/-502	Aerolite AG	FMS-08-008	YES	NO	ISOARK N36-6/7 is not compatible with transversal stretcher inst.
139001-501 139001-502	Aerolite AG	FMS-502 FMS-510	YES	NO	ISOARK N36-6/7 is not compatible with transversal stretcher inst.
CF1-067-63	LifePort	EGR-831-11-C	YES	NO	ISOARK N36-6/7 is not compatible with transversal stretcher inst.
139127-501	Aerolite AG	FMS-07-011	YES	NO	ISOARK N36-6/7 is not compatible with transversal stretcher inst.
139-0003670-501	Aerolite AG	FMS-139-0003670-501	YES	YES (only with configuration 1 e 2 - longitudinal stretcher inst.)	- ISOARK N36-6/7 is not compatible with transversal stretcher inst. - With the longitudinal stretcher inst., the patient shall be oriented with the head towards the helicopter nose and the Bio-Containment system shall be fixed to the stretcher both transversally and longitudinally.

Table 1: AW139 STC compatible with N36 biocontainment systems

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P/N STC	STC Holder	RFM	ISOARK N36-2/4	ISOARK N36-6/7	NOTE
169-0040200-501	Aerolite AG	FMS-169-0040200-501	YES	NO	ISOARK N36-2/4
NA	NA	AW169 RFM SUPPLEMENT 40	YES	NO	ISOARK N36-2/4.

Table 2: AW169 STC compatible with N36 biocontainment systems

Best Regards

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AW139 Chief Project Engineer  
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