
OPERATORS INFORMATION TRANSMISSION - OIT

SUBJECT: ATA 21 – Virus Outbreaks - Novel Corona Virus (2019-nCov)

AIRCRAFT TYPE: A300,A300-600,A310,A318,A319,A320,A321,A330,A340,A350,A380,AST

OUR REF.: 999.0008/20 Rev 00 dated 06-FEB-2020

OIT CATEGORY: **General information**

NOTICE: This OIT provides recommendations on Maintenance and Engineering issues/information. It is left to each Operator's discretion whether to distribute this OIT, or to distribute the information contained in this OIT, to all of their applicable Maintenance and Engineering organizations for information or application of the recommendation.

REFERENCED DOCUMENTS:

Aircraft Maintenance Manual
Line Maintenance Document
OIT 999.0032/09

1. PURPOSE

This OIT presents Airbus advice and recommendations regarding virus outbreaks. It is equally applicable to the novel Corona virus (2019-nCov) outbreak in China (Wuhan), as well as the prior outbreaks of SARS, Avian Flu, and MERS (OIT 999.0032/09).

Note: For A220 aircraft, please refer to Airbus Canada AOM ref: CS-AOM-21-00-0001.

2. BACKGROUND

Due to the current concern and speculation regarding the outbreak of a novel Corona virus (2019-nCov) in China (Wuhan), Airbus has been asked by some operators to provide recommendations and guidance in relation to this subject. Aspects of interest are related to maintenance and operational recommendations. Previously OITs were issued in relation to SARS, Avian Flu and MERS. The advice and information given in this OIT applies equally to those earlier virus outbreaks, and it is Airbus' intention to revise this OIT going forward, with any additional information applicable to future virus outbreaks as required.

3. DESCRIPTION

Airbus would like to inform operators that they should comply with the recommendations of the medical authorities for the countries where they are operating. The requirements of the relevant medical authority take precedence over any Airbus guidelines in these matters and their advice must always be sought. In the absence of local governmental guidelines or requirements, operators are encouraged to follow those published by recognized international organizations, including the World Health Organization (WHO), US Center for Disease Control and prevention (CDC), European CDC and International Airline Transport Association (IATA). Operators are encouraged to follow this subject by reference to WHO press releases (www.who.int).

Additional useful sources of information include;

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US CDC: Updated situation report regarding corona virus;
www.cdc.gov/coronavirus/2019-ncov/summary.html

IATA : This page includes Corona virus updates, and some aviation specific information;
www.iata.org/en/programs/safety/health/diseases

European Centre for Disease Control: This page has Corona virus update;
www.ecdc.europa.eu/en/novel-coronavirus-china

EASA have produced a Safety Information Bulletin SIB 2020-02 entitled - Coronavirus '2019-nCoV' Infections – Operational Recommendations, which can be found on the EASA website;
<https://ad.easa.europa.eu/ad/2020-02>
a document entitled "Coronavirus – Advice for Airlines and Crews" is also available at the following link;
www.easa.europa.eu/document-library/general-publications/coronavirus-advice-airlines-and-their-crews

The FAA have relevant information including a document entitled "Guidance for Air Carriers and Crews" in the "Novel Coronavirus Update" section of their website;
www.faa.gov/

3.1 RECOMMENDATIONS FOR MAINTENANCE

Questions from operators have referred to the cabin air recirculation filters. Airbus understands that generally, any virus retained in the cabin air recirculation filters is expected to have a short survival time. This is due to very low humidity environment in the filter, and the lack of live cells. If the cabin air recirculation filters are replaced for any reason following flight with a person confirmed or suspected of having such infection, the environmental health authorities should be contacted for advice regarding handling the used cabin air recirculation filters and the appropriate precautions that must be taken to protect maintenance personnel, and dispose of the used filters. Note that the aircraft filter replacement procedures (in the AMM and Line Maintenance documents) contain advice to protect maintenance crew from infectious material, and the disposal of used filter elements. However, these procedures should be reviewed against any specific procedural advice that may come from the relevant health authorities.

Operators' attention is also drawn to the following IATA best practices for cleaning crew and maintenance crew which may also be useful, and found on the "Emergency Response Guidelines" tab;
www.iata.org/en/programs/safety/health/diseases/

The following US Centre for Disease Control (CDC) link gives some information relating to in-flight and post-flight clean-up/disinfection:

www.cdc.gov/quarantine/air/managing-sick-travelers/commercial-aircraft/infection-control-cabin-crew.html

If operators are required by their medical authorities to disinfect an aircraft following a flight with an infected person, they are reminded that disinfection procedures together with Airbus currently approved disinfection agents are contained in each relevant Aircraft Maintenance Manual (AMM) chapter 12 or 25 (depending on aircraft type) or line maintenance document Chapter 12.

Airbus operators are reminded that they can use any disinfectant product that complies with the widely used industry specifications AMS1452 or AMS1453. Note that the product "ENVIROTRU 1453" meets the requirements of AMS1452 and AMS1453. Disinfection agents that do not comply with AMS1452 or AMS1453 may not be compatible with the aircraft and any operator finding it

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necessary to use such a disinfectant agent should follow the following basic precautions and refer to Airbus customer support for further information;

- 1) Efforts should be made to ensure the materials do not come into contact with the aircraft structure. If they do, do not allow the products to dwell longer than necessary.
- 2) If the aircraft structure is contaminated by any of these products the area should be rinsed immediately with water. Ensure correct rinsing with water and wipes. Do not use high pressure water.
- 3) No contact is allowed on high strength steel or carbon brake units.
- 4) The materials may affect the cabin interior furnishing causing colour fading, or cracking in some plastic items.
- 5) Materials should be applied where possible using pre-impregnated wipes to keep the materials localised.
- 6) Personnel using such products should follow the manufacturer's safety advice and use gloves or other protective equipment as necessary.

3.2 OPERATIONAL RECOMMENDATIONS

Operators must refer to their relevant medical authorities regarding any disease outbreak and follow their recommendations. Specific advice should be sought from the relevant authorities regarding the transport of livestock.

All Airbus current production aircraft with airconditioning recirculation systems, have High Efficiency Particulate Air (HEPA) filters fitted in the cabin air recirculation systems. HEPA filters provide the best level of filtration currently available for recirculated cabin air. However, some A300-600 and A310 aircraft are not fitted with HEPA filters.

Note: Operators of A310 and A300-600 aircraft are reminded it is possible to fit these aircraft with HEPA filters by service bulletin 21-2057 (for A310 aircraft) and service bulletin 21-6046 (for A300-600 aircraft).

Operators may find it useful to view the centre for disease control (CDC) website which contains practical information about managing suspected cases of passenger or crew infection in-flight:

www.cdc.gov/quarantine/air/managing-sick-travelers/ncov-airlines.html

Also from the US CDC is a link for information related to aviation aspects of communicable diseases. This contains latest information on Virus outbreaks and further links including "Preventing Spread of Disease on Commercial Aircraft: Guidance for Cabin Crew". Additionally, you will find from this page other relevant documents.

www.cdc.gov/quarantine/air/index.html

Based on available information and Airbus' understanding, Airbus do not expect that any special precautions or operational procedures are necessary, for example, to operate with the cabin

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air recirculation fans switched off, because:

1. The efficiency of HEPA filters is at least 99.97 per cent at 0.3 micron (Dop Test, MIL STD 282). The efficiency increases with bigger particles and also with smaller particles. This characteristic, whereby efficiency increases with smaller as well as bigger particles is achieved by the use of multiple capture mechanisms and the filters are similar to those used in hospital applications. Therefore the efficiency of the HEPA cabin air recirculation filters is greater than the above statement for particles within the size range encompassed by a typical virus (0.01 to 0.2 microns).
2. The airflow induced by the cabin recirculation fans is designed to assist in maintaining the correct cabin airflow pattern. The cabin conditioning air enters at the top of the cabin and leaves at floor level and is designed to prevent longitudinal airflow within the cabin. Importantly, the toilets and galley are areas where air is extracted and directed overboard without re-entering the cabin areas (it is not recirculated).
3. The recirculated air flow is a significant part of the total airflow which flows over the passengers and removes locally generated contaminants downward where it exits the passenger compartment at floor level local to the source of the contaminant. The cabin air exchange rate is approximately once every 3 minutes for outside air, but this figure improves to once every 2 minutes with the use of recirculated air.

Neither do Airbus recommend to change the current MMEL provisions for dispatch (such as recirculation fan or ECS pack inoperative).

4. FOLLOW UP

No specific update of this OIT is foreseen, however further information will be released should it become available.

5. CONTACTS

Questions about the technical content of this OIT are to be addressed to Airbus Customer Services through [TechRequest](#) on Airbus World, selecting Maintenance & Engineering, Engineering Support Section and ATA 21

Best Regards,

Stephen MONTGOMERY
SENIOR DIRECTOR – Propulsion, Fuel, APU & Air Engineering Support
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