

WHERE INNOVATION MEETS
AVIATION SUPPORT™



**INTERNATIONAL AIRCRAFT MATERIALS
FIRE TEST FORUM
DISINFECTION AGENTS IMPACT
APRIL 20, 2021**



**DOES
EFFECTIVE
DISINFECTION
AFFECT
AIRCRAFT?**

Past Experience with Pathogens

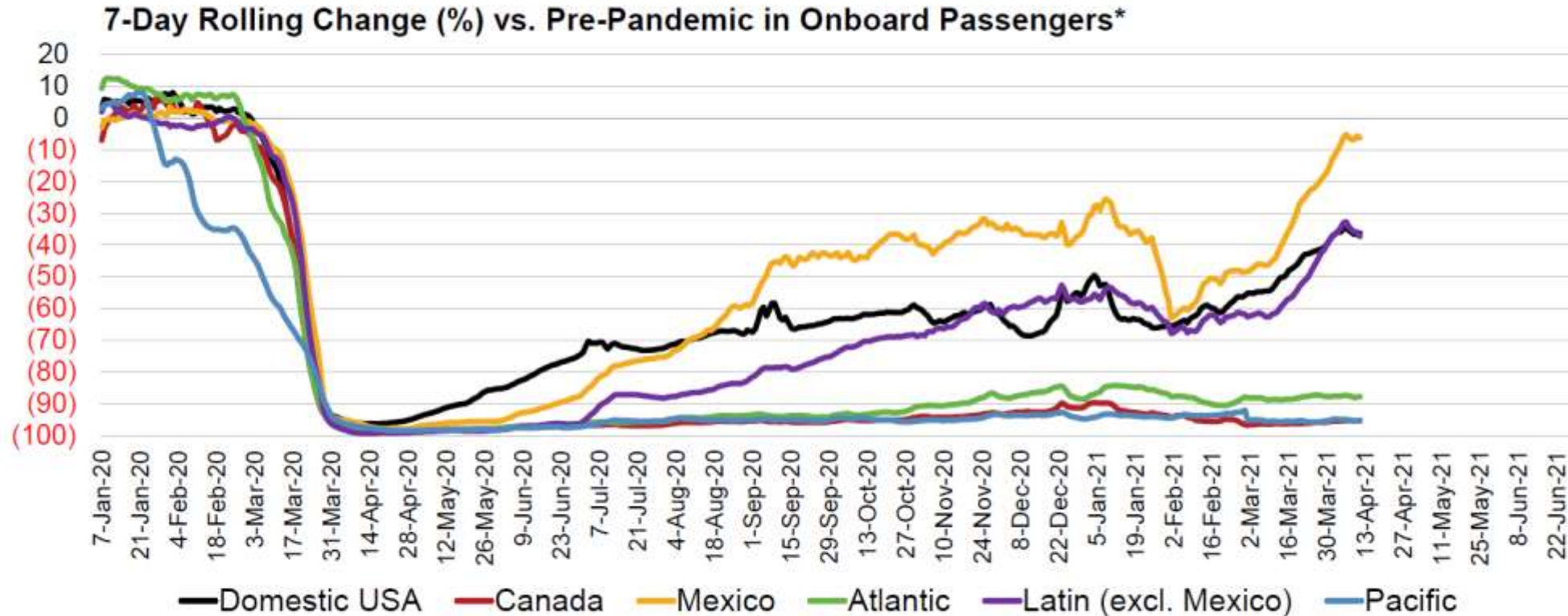
- SARS
- EBOLA
- Quickly and Geographically contained

IAMFTF Objective: Study Effects of Disinfectants

- Other Industry and Regulator Efforts:
 - [SAE/NIAR/FAA](#)
 - [FAA](#)
 - [RTCA](#)
 - [IATA](#)
 - [EASA](#)
 - [A4A](#)
 - Red Cabin

Quick Overview of Efforts: A4A Industry Information

In Most Recent Week, U.S. Airline Passenger Volumes Were 39% Below Pre-Pandemic Levels
Domestic Air Travel Down 36%, International Air Travel Down 56%



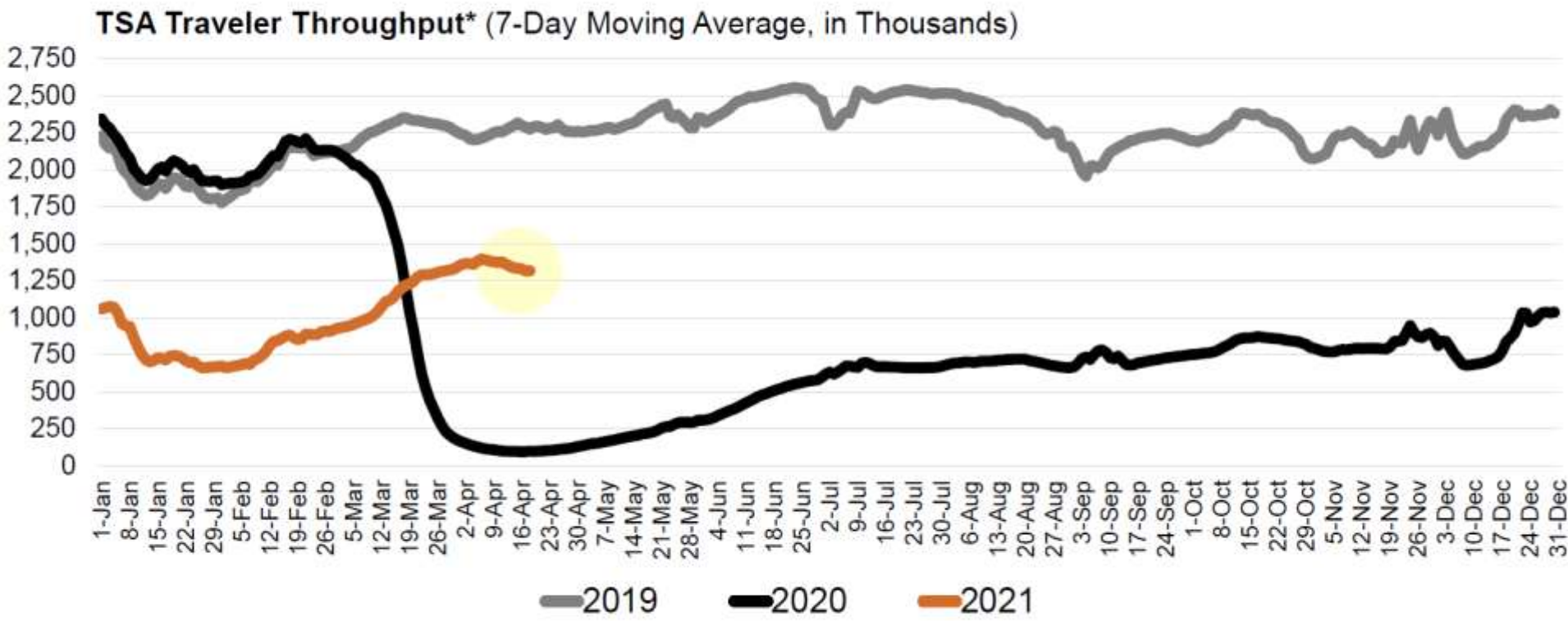
Source: A4A member passenger airlines and branded code share partners

* Onboard ("segment") passengers; "pre-pandemic" precedes March 1, 2020



Quick Overview of Efforts: A4A Industry Information

In Most Recent Week, TSA Checkpoint Volumes Fell 42% Below 2019 Levels



Source: Transportation Security Administration

* U.S. and foreign carrier customers (excluding Known Crewmember* personnel) traversing TSA checkpoints







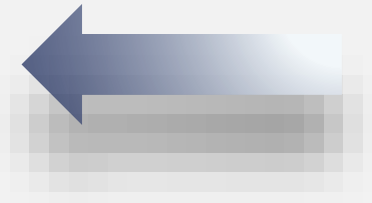
Electrostatic Fogger



Ultra-Low Volume Sprayer



**Ruined Upholstery
(NOT ACCUFLEET!!)**



Quick Overview of Efforts: SAE SEAT / NIAR / FAA

- SAE Aerospace SEAT working group
- Kevin Walsh, Group Leader, Boeing
- Ed Pauly, Working Group Leader, Jamco America
- Luis Gomez, NIAR
- FAA – Guidance and Funding
- American Taxpayer - \$\$

Quick Overview of Efforts: SAE SEAT / NIAR / FAA

- Narrower focus: The safety effects of disinfection methods on aircraft seat safety.
- Actual test program developed.
- First phase done, with results published.
- Document issued, testing continues.

Quick Overview of Efforts:

SAE SEAT / NIAR / FAA



November 2020

Rev. A

Information from the SAE Aircraft Seat Committee concerning the use of cleaners and disinfectants on aircraft seats

Purpose

This updated letter is to provide the aircraft industry with information about cleaning and disinfecting agents (hereinafter "agents") that may be considered for use on aircraft seats. In response to COVID-19, there has been an increased demand for more frequent cleaning and disinfecting of aircraft seats. This letter shares the current knowledge of the SAE Seat Committee and explains the research currently in progress. In an effort to provide information as quickly as possible, the results are evaluated and recommendations are made via this letter as they are determined. Test methods and results will follow at a later time when the testing is completed.

Discussion

Table 1 provides a summary of the existing knowledge within the SAE Seat Committee for cleaning and disinfecting seats and lists agents currently included on the US Environmental Protection Agency's (EPA) website (<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>). This table has been compiled based on seat material manufacturer recommendations, limited testing, and analysis. Standards and data evaluating the repeated use of these agents is not readily available and the table errs on the side of the immediate ability to combat viruses rather than the prevention of degradation to the seat. The recommendations, based on the limited test results, have been determined by concluding minor performance differences in agent treated materials are not significant enough to alter the continued airworthiness of the products when compared to untreated materials. Seats are an integral part of the occupant safety system and the concern is for continued airworthiness and occupant protection. Some degradation in visual appearance is to be expected with the repeated use of these agents and parts may need to be replaced over time. The results of the current testing have shown that plastic materials and seat belt webbing experience no significant loss of performance with the listed agents. Some changes in the aesthetic appearance of the materials occur but there is insufficient data to make a comprehensive conclusion. Agents not listed here are not currently identified as appropriate for use on aircraft seats.

Quick Overview of Efforts:

SAE SEAT / NIAR / FAA

Table 1 – Recommended Disinfectants for Aircraft Seats

Passenger Contact	Material Group	RECOMMENDED Disinfectant	NOT Recommended Disinfectants	Cleaners	Comments
High	Plastics	Isopropyl Alcohol (70%) Calla 1452 Sani-Cide EX3 BactroKill+ PREempt RTU	Citrus based Chlorine based	Mild soap and water	
High	In-Flight Entertainment components	Neutral Cleaner with pH level of 6.0-9.0, Caustic Free & Ammonia Free, Isopropyl Alcohol (70%)	Disinfectants that don't meet all of the recommended specifications.	Neutral Cleaner with pH level of 6.0-9.0, Caustic Free & Ammonia Free. IPA 70%	For more details, see IFE supplier's SIL# S070903-HR rev 3.
High	Fabric - wool	Isopropyl Alcohol (70%)	Chlorine based	Mild soap and water	
High	Fabric - nylon & polyester	Isopropyl Alcohol (70%)	Chlorine based	Mild soap and water	May cause color bleed in polyester and may weaken nylon after repeated application.
High	Seat belt webbing	Isopropyl Alcohol (70%), Hydrogen Peroxide (0.5%) Calla 1452 Sani-Cide EX3 BactroKill+ PREempt RTU		Mild soap and water	

Quick Overview of Efforts: FAA

- Special airworthiness bulletin FAA NM-20-17



FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: NM-20-17

Date: November 4, 2020

SUBJ: Aircraft Interior Disinfection

This document contains information and recommended action. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

Introduction

This Special Airworthiness Information Bulletin (SAIB) primarily advises owners and operators of **transport category airplanes** of important airworthiness information and guidelines with respect to disinfecting airplane interiors. The information and guidelines may also apply to other categories of aircraft.

At this time, the airworthiness concern is not an unsafe condition that would warrant an airworthiness directive (AD) under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

As a result of the coronavirus disease 2019 (COVID-19) public health emergency, aircraft owners and operators may find it necessary to increase the frequency with which they disinfect aircraft interiors and to include additional areas of the aircraft not previously disinfected. Consistent with

Quick Overview of Efforts:

RTCA DO-388

Your Price: \$110.00

- Document Title DO-388 Guidance Document on Aircraft Cleaning and Disinfection
- Description This document contains best practices and technologies for aircraft cabin
 - and flight deck cleaning/disinfecting for use by all aircraft operators. Although the guidance
 - is intended specifically for airline use, it could also be beneficial to large charter operators,
 - corporate and fractional ownership operators, and general aviation operators. It is intended
 - to be a “living” document to be updated in the future as best practices and technologies improve,
 - and so be useful for protection against this and any future pandemics.
- Document Number DO-388

Quick Overview of Efforts: RTCA DO-388

4	
Membership	
RTCA Special Committee SC-241 and EUROCAE WG-121	
Cockpit and Cabin Cleaning Committee	
Co-Chairs	Organization
Chloe Morosetti	United Airlines
Manfred Mohr	IATA
Group Leads	Organization
Iva Pluhackova	IATA
Capt John Taylor	ALPA
Hal Adams	AviaGlobal Corp
Government Authorized Representative	Organization
Jeff Gardlin	Federal Aviation Administration
Secretary	Organization
Patrick Guerin	United Airlines

Quick Overview of Efforts:

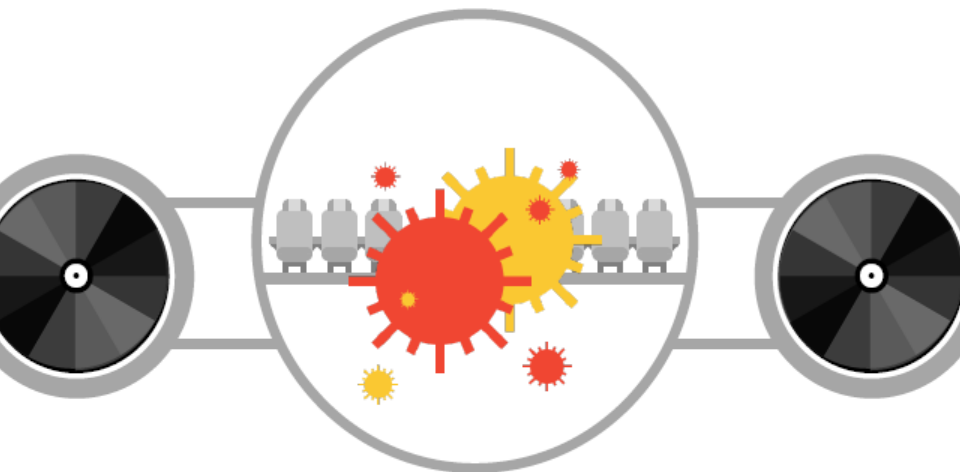
RTCA DO-388

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Quick Overview of Efforts: IATA

Aircraft cleaning and disinfection during and post pandemic

Ed. 2 – 22 January 2021



Disclaimer

The information contained in this publication is subject to constant review in the light of changing government requirements and regulations. No subscriber or other reader should act based on any such information without referring to applicable laws and regulations and without taking appropriate professional advice.

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Quick Overview of Efforts: EASA



Guidance on aircraft cleaning and disinfection in relation to the COVID-19 pandemic

Issue no.: 02
Date: 30.6.2020
Author / FS2 Focal point: Cristian Ionuț Panait, Medical Expert (FS3.1)



Guidance on aircraft cleaning and disinfection
in relation to the COVID-19 pandemic
Issue 02 | 30.6.2020

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Quick Overview of Efforts:

- Aircraft Interiors Materials Hygiene Working Group
- RedCabin
- Michael Miler [Sekisui-Kydex](#)
- Industry Based Working Group, new products



THANK YOU