Subject: Aircraft Cleaning - COVID-19 Prevention

Area of Concern: Personnel Safety

Distribution: All Aviation Operations

Discussion: On March 11, 2020, the World Health Organization (WHO) declared the outbreak of COVID-19 a pandemic. As we move towards the season associated with a significant increase in operations, the following cleaning procedures recommended by the Center for Disease Control and Prevention (CDC) should be followed in order to prevent the spread of COVID-19.

Before starting, always check with the aircraft manufacturer to ensure cleaning products used are compatible with aircraft surfaces and electronics.

When cleaning aircraft, it’s critical to clean all touch surfaces thoroughly, which there are many within the tight confines of an aircraft. Pay special attention to every handle, knob, touch screen, yoke, belt buckle, and control that is touched in routine use both inside and outside the aircraft. And don’t forget headsets and helmets. As a precaution, those should be thoroughly cleaned after use and never shared without thorough disinfection in accordance with manufacturer’s guidelines. Current CDC guidance is that the virus that causes COVID-19 can survive for three to seven days on some surfaces. As a result, you should strongly consider keeping your helmet or headset with you and storing shared headsets in separate cases with the date of last use or date cleaned if they are to be used by others.

Hard (non-porous) surfaces. Wear disposable nitrile gloves when cleaning and disinfecting surfaces. If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection. Gloves should be properly discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes.

For a list of products that are EPA-approved for use against the virus that causes COVID-19 visit the EPA website List N: Disinfectants for use against SARS-CoV-2. It’s important to follow manufacturer’s instructions for all cleaning and disinfection products for concentration, application method and contact time, etc.

Additionally, diluted household bleach solutions (at least 1000 ppm sodium hypochlorite) can be used if approved by the aircraft manufacturer and appropriate for the surface. Again, follow the manufacturer’s instructions for application, ensuring a contact time of at least 1 minute, and allowing proper ventilation during and after application. Check to ensure the product is not past its expiration date. Never mix household bleach
with ammonia or any other cleanser. Unexpired household bleach will be effective against coronaviruses when properly diluted. You can prepare a bleach solution by mixing 5 tablespoons (1/3rd cup) bleach per gallon of water or 4 teaspoons bleach per quart of water.

Soft (porous) surfaces. For soft or porous surfaces, such as fabric seats, remove any visible contamination, if present, and clean with appropriate cleaners indicated for use on these surfaces. After cleaning, use products that are EPA-approved for use against the virus that causes COVID-19 and that are suitable for porous surfaces.

For frequently touched electronic surfaces, such as tablets or touch screens, remove visible dirt, then disinfect following the manufacturer’s instructions for all cleaning and disinfection products. If no manufacturer guidance is available, consider the use of alcohol-based wipes or sprays containing at least 70% alcohol to disinfect. Many electronic components are sensitive to harsh cleaning products and moisture. Allowing moisture to penetrate certain areas beyond the surface could result in damage and render the aircraft inoperable.

Contracted aircraft. Contractors should have an Emergency Response Plan that addresses the procedures and frequency for disinfecting the aircraft and protecting personnel against exposure as well as what to do in the event of an exposure or suspected or confirmed case of COVID-19. Most DOI aircraft contracts state:

Section B5.2, "The aircraft interior must be clean and neat with no unrepaired tears, rips, or other damage. The exterior finish, including the paint, must be clean, neat, and in good condition."

Section C9, "The Contractor shall keep and maintain programs necessary to assure safety of ground and flight operations. The development and maintenance of these programs are a material part of the performance of the contract. Examples of such programs are (1) personnel activities, (2) maintenance, (3) safety, and (4) compliance with regulations."

An entry in a cleaning logbook should be made after the completion of the cleaning procedures to document actions taken and prevent the aircraft from being grounded in the event of a suspected or confirmed case of COVID-19. Sealing the aircraft entry areas (doors) with tape or other evidence marking materials to ensure the aircraft remains in a clean state when not used is also recommended.

Ensure that proper PPE is worn during the cleaning process. Gloves and any other disposable PPE used should be removed and properly disposed of after cleaning. Wash hands immediately after removal of gloves and PPE with soap and water for at least 20 seconds or use an alcohol-based hand sanitizer with at least 60% alcohol if soap and water are not available. Using disposable gowns is best practice but often not practicable in most of our operations. As such, one should strongly consider washing work uniforms/clothes worn during cleaning using the warmest appropriate water setting and drying them completely.

Safety of flight is paramount. If any of the procedures noted above conflict with safety of flight, they should be discontinued and reported to management so that alternative solutions can be explored. A SAFECOM should also be submitted to report the issue(s).

Taking shortcuts only prolongs the pandemic. Together, we can manage this challenge.

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