

## Coronavirus Guide for Disinfection of General Aviation Aircraft

The following guide is specifically for General Aviation (GA) aircraft focusing on aircraft that are operated by more than one person. If you own and operate your own aircraft, you are the only person flying it and always fly solo, you will only be exposed to your own contamination within the aircraft. On the other hand, aircraft operated by flight schools, or a flying club, will usually be flown by several people and crew.

The advice appears to be that Coronavirus seems to transmit through body fluids. This implies that droplets exhaled through coughing and sneezing may transmit the virus directly from person to person. However, the virus can survive for a significant amount of time on different types of surfaces. If you touch a surface that has been touched or sneezed upon by an infected person, you may be exposed to the virus.

### Cleaning and Disinfection:

- Disinfect the aircraft between each flight.
- Clean all surfaces where that may have been in contact with other people.
- Do not use compressed air, steamers or pressure washers. Viruses that are stationary on a surface may be sent back up into the air and inhaled.
- Do not start the cleaning process with a vacuum cleaner. Viruses may be blown through the filter and back into the air and inhaled (few vacuum cleaner filters stop the virus). A vacuum cleaner should only be used on surfaces that have already been disinfected. If possible, keep the body of the vacuum cleaner outside the aircraft to ensure that exhaust is blown away to the open air.
- Do not use an ionizer. Although it effectively attacks organic matter, it will also attack parts made of organic material, as rubber, plastics and leather. Be aware of the effect of ozon on rubber hoses.
- Do not use hydrogen peroxide. Although effective, when vaporized it will deteriorate leather, acrylic fixtures and polycarbonate windows.
- Do use a disinfectant that has a documented effect on the corona virus.  
You will find lists of recommended substances here:

[European Centre for Disease Prevention and Control](#)

[United States Environmental Protection Agency](#)

If you cannot get hold of ready-made substances for cleaning purposes, it is possible to mix one. A solution of Isopropyl alcohol (IPA) 60 % and 40 % water is effective on most surfaces, carpets, seat cushion textiles. A 50/50-mix IPA solution will be suitable on most instrument panels. Leather and windows should not be treated with alcohol. A household dishwasher detergent is another option. ***Be careful to apply the right disinfectant on the right surface.***

For example:

- Some chemicals are corrosive. Do not use them on metals.
- Some chemicals make plastic brittle. Do not use them on plastics. Be careful not to spill on electric wires where the insulation may get damaged and arching may ensue.

- Some chemicals are destructive to textiles, so avoid using them on textiles. Special care should be exercised when disinfecting seatbelts.

#### **Electronics and instruments:**

- Use a microfiber cloth to clean electronic displays and glass, as not to cause scratches.
- Do not use wet-wipes, products containing citric acids or sodium bicarbonate. These can etch the display.
- Most disinfecting agents that effectively kill the virus, are dangerous to people. Provide good ventilation wherever are cleaning and wear protective gear as recommended by the manufacturer.

Typical avionics with anti-reflective glass, for example G 1000, may be cleaned with a 50/50 IPA-solution. Some displays have plastic screens (acrylic, lexan or polycarbonate), for example the GNS 430 and 530-series. Use a mild soap solution instead and consult the manufacturer.

When it comes to instruments in the cockpit, more is not always better. Use as little fluid as possible and keep it on as short as possible to kill virus. Then wipe it off. Avoid getting fluids into the instrument panel.

#### **Before you go flying:**

- Use gloves for your pre-flight inspection of the aircraft.
- If you have special flying gloves, feel free to use them in flight as well.
- Use only your own personal equipment. Especially headsets should not be shared between pilots or passengers. Eyes, nose and mouth are gateways for the virus. Using a headset that has been used by others, will represent a high risk, even if the headset has been cleaned.

In a cockpit, a number of switches, handles and levers must be operated during flight. Traditional airmanship has taught us to point our finger and physically touch to verify, even at non-moving items. For instance, we often point at the QNH setting of an altimeter and the heading bug of the heading system. Clean and disinfect every instrument or part of the cockpit that have been touched.

Even with a cleaned and disinfected aircraft, you may still be infected if you enter a small aircraft with an infected person. During the corona outbreak you should only fly with persons in your own household or keep the minimum distance recommended by the health authorities. This means that you may have to postpone flying with an instructor or examiner.