

Flying the K21 with a Covid screen

Background

The K21 separation barrier was developed at Southdown Gliding club and has allowed them and a number of other clubs to fly two seaters since the middle of June. The feedback from those clubs is that, although technically from 4th July two seater flying is allowed without them, most instructors feel happier continuing with the screens.

However, they are not without their drawbacks, the obvious one being their effect on communication. So flying with them requires the instructors and pupils to take on board additional considerations.

Firstly; it cannot be claimed that the screens offer total protection. However, a number of people believe that they do offer an additional level of protection. The potential for moist, virus bearing breath to go directly from one pilot to another is eliminated. Air will still be able to pass via other routes, through the airbrake mechanism etc. but the distance that it will have travelled will be greater. In addition, if both pilots train the air intake toward their face the chance of contaminated air getting to the face would seem to be less.

In the final analysis however, no assumptions should be made regarding the level of protection afforded and it is up to both the instructor and pupil to decide if they perceive the level of protection to be acceptable. If they do, set out below are some further considerations that should be taken into account based on feedback from clubs already using the screens.

All of the guidance already issued to do with the cleaning of cockpits should be followed. It is suggested that only instructors clean the dividing screen due to its relatively fragile nature.

In order to maintain separation, rigorous entry and exit procedures must be followed, typically ensuring that one pilot enters the glider and closes their canopy before the second pilot approaches the glider, thus ensuring that social distancing is not compromised. This may be difficult on hot days but if pilots are not willing/able to follow this procedure they might as well fly a K21 without a screen.

There has been some nonsense on social media regarding these screen, suffice to say that they have EASA approval, and do not compromise insurance. Further information on the development and certification of the screen is available for those interested.

Suggested additional instructor briefing points.

With the screen in place the glider should not be flown in excess of 100kts and aerobatics should not be performed.

The screen undoubtedly reduces the ability for the pilots to communicate verbally. Feedback suggested that if the rear seat pilot speaks loudly they will be heard but that the front seat pilot is much harder to hear and so consideration needs to be given to this in the briefing. We must insure that in protecting from Covid we do not create other risks. We do however routinely fly with pilots who are hard of hearing or deaf and so with sufficient forethought and careful briefing any additional risks should be manageable.

Initially flying with the screen is likely to best be done with relatively experienced pilots seeking a check flight, where the need for communication is less. Pilot training will be more difficult and instructors should definitely not allow take-offs or landing with pre-solo pilots until they have satisfied themselves of the pilot's ability and a method of communication has been agreed. The issue of who has control is obviously paramount and instructors should ensure that they have agreed a method of ensuring that there is a way of transmitting this to P2. This should be possible by raising your voice (assuming that the instructor is in the rear) but methods such as shaking this stick might also be employed.

Front Seat considerations

Without the seat back in, the pilot's head is quite close to the screen. Best to have the seat back in, if the size of the pilot allows.

The front cockpit will be quieter than usual and could lead to pilots thinking that they are flying slower.

An extreme look out by the front pilot might touch the screen.

Pilots who are still in the old habit of checking that the rear canopy is shut by reaching back should not (cannot) do so.

Getting out of the cockpit the parachute can catch the screen. One club suggests that the pilot leave the parachute in the cockpit, I'm not keen on this but it may be the best option for less agile pilots.

Rear seat considerations

Some pilots will be used to grabbing the hoop between the canopies for support getting in and out and should refrain from doing so.

Forward vision is good, although with the sun behind there can be reflections.

At this time of year condensation is unlikely to be an issue but will need consideration if we are still using the screen later in the year.

Summary

The screen seems to offer an additional layer of security, although pilots must make their own judgement as to how real that is and no one should be coerced into flying if they do not feel safe to do so. Instructors might be best to fly with another instructor/BI pilot initially to access for themselves the pros and cons of the screen before carrying out any instruction.