

Are You Safe

Routine checks, daily inspections and pre-flight checks help us verify our aircraft is airworthy, and remind us to perform vital actions before we decide to get airborne. But how do we check the most complex system in our aircraft – the human body – and ask ourselves 'Am I fit to fly today?'

The mnemonic I'M SAFE is often used in aviation to employ a systematic approach to assessing the state of mind and body before take-off. Pilots who have worked their way through the Pilot Development Structure foundation level may be familiar with it. Let's look at the mnemonic in the context of our particular air sports.

I – Illness. Certain medical conditions can affect a pilot's fitness to fly. This article isn't intended to address these. However something relatively simple like a cold can have quite a pronounced impact in flight. Air pressure changes on the ears and sinuses can cause discomfort and occasionally severe pain. If you are not feeling fit and well, keep your wing in its bag.

M – Medication. If you are taking medication and considering flying, you should be asking yourself 'What is the illness for which I am taking this medication?' Even over-the-counter treatments for colds can have sedating effects. If you are prescribed a drug by your doctor, it is worthwhile asking if this may affect your ability to take part in flying activities. Needless to say, recreational drugs and aviation do not mix.

S – Stress. Stress is the body's reaction to feeling under pressure. Many pilots choose to fly as a way of relieving stress from the issues that everyday life throws at us. Stress is not always a negative thing – it can motivate people or elevate their awareness in order to take action to avoid an incident. Stress can manifest itself in many ways, some potentially critical like the highly-stressed pilot's brain filtering out or 'unhearing' audible information (for example a radio message to 'Throw your emergency parachute').

Dealing with the effects of stress first requires you to acknowledge you are experiencing stress. Take a deep breath and reassess. It may be that you deal with the stress of a series of failed launches by unclipping and taking yourself away from launch for a while to reflect. Removing an external source of pressure (for example, a family member who is filming you) may be all that is needed.

A – Alcohol. There is an UK aviation-specific legal limit for alcohol - generally one quarter of the drink-drive blood-alcohol concentration in England and Wales. Many of us will know that alcohol can affect our coordination and ability to make rational decisions. It can also affect our spatial orientation and tolerance of g forces.

F – Fatigue. Fatigue has been a contributory factor in many aviation incidents. Among the negative aspects of fatigue is a reduced ability to maintain attention and make decisions based on situational awareness. Proper sleep is a good way to begin the day. However fatigue accumulates through physical exertions like carrying your kit back to take-off, failed launches in light winds, and even a day spent out in the sun.

We are often the last to realise how our performance is compromised when we get tired. Any competent time-served instructor will be able to recognise the effects of fatigue in their students – evident in the student's decision-making before the student realises it themselves. The key is recognising you are fatigued – don't let the desire to 'push through' fatigue or to carry on regardless mean that you take the chance on one more risk of making errors at critical moments.

E – Eating. A long flight in thermic conditions or on a busy site can be exhausting, and many pilots carry fluids and energy bars for a recharge during or in between flights. It can be a short-term fix however – it is important to acknowledge your body's requests to stop and take a break.

E – Emotion. The American FAA's variation of I'M SAFE incorporates 'E for Emotion', whereas the CAA version stops at 'E for Eating'. Emotion can be a significant factor in the decision to fly. It can drive people to make irrational decisions and take chances, even when their internal alert lights are flashing red. Many pilots will be familiar with their desperation to fly causing them to overlook something like their accelerator system being unhooked on one side, or changed conditions.

All of the elements in the I'M SAFE mnemonic can compromise our ability to make decisions, alter our perception of risks, or ignore them altogether. The above information is an introduction only. If you want to find out more on human factors, visit the Pilot Development Structure online.