

WHEN CAN I USE MY PED EXACTLY?



The use of Portable Electronic Devices (PED) on board flights present some level of flight safety risk, as the devices may emit electromagnetic signals that may cause interference with the aircraft's navigation and communication systems. As these devices become more commonplace in our daily lives, more passengers are bringing at

least one such device on board when they fly. International regulations on PED usage may vary at different destinations. This adds to passengers' confusion and at times affects their willingness to cooperate in turning off their devices. So, what are the regulations on the use of portable electronic devices (PEDs) on board flights? Bridging Skies shares Singapore's recently revised regulations and highlights some common misconceptions on the use of PEDs in-flight.

In May 2012, CAAS commenced a review of Singapore's regulatory framework for the usage of PEDs on board aircraft and set about analysing reports on scientific data regarding flight safety risk posed by PEDs, as well as international best practices and the regulations of other well-established regulators such as the United States' Federal Aviation Administration (FAA) and Transport Canada (TC). CAAS also consulted Singapore-registered airlines on the proposed changes to existing regulations.

What are PEDs?

PEDs cover the gamut of electronic devices from mobile and smart phones to two-way radios, tablets, personal computers, personal digital assistants (PDAs) and even heart pacemakers. These devices are also classified into intentionally and unintentionally transmitting devices (please see below on types of PEDs).

Types of PEDs

● *Intentionally Transmitting*

Certain PEDs intentionally transmit electromagnetic (EM) signals and radio frequency (RF) to accomplish their intended functions. Examples include cell phones, satellite phones and remote control devices.

•**Unintentionally Transmitting**

Other PEDs unintentionally transmit EM signals. These signals are not needed to accomplish the device's intended functions. Examples include PDAs, laptops, digital cameras and video devices.

•**Unintentionally Transmitting (with low levels of emission)**

Certain devices emit weak signals that are not deemed a risk to aircraft's navigation instruments. These include heart pacemakers, hearing aids and digital watches.

Regulations Enhanced to Keep Pace with Industry Developments

Taking on board all analyses with safety foremost in mind, CAAS recommended the change in rules to allow the use of PEDs during the taxiing in to the gate after the aircraft has landed and cleared the runway. At this point, the pilot relies on ground markings or lights for taxiing instead of the onboard navigation system, therefore any potential interference would not adversely impact the pilot's ability to taxi the aircraft safely. This change now allows passengers to enjoy the benefit of earlier telephone connectivity.

However, before Singapore registered airlines may permit the use of PEDs when the aircraft is taxiing in after landing, they must however first establish cabin management procedures that include making appropriate announcements to inform passengers when the PEDs may be turned on, as well as the conditions and restrictions of use. Operators must also ensure that their crew members are trained on the procedures for this provision.

The prohibition on use of PEDs during taxiing before take-off however, remained, as this phase of taxiing is immediately followed by the critical phases of takeoff and climb (up to 10,000 feet), where dependence on aircraft radio-navigation and communications systems is critical and is more vulnerable to EM interference from PEDs. If passengers are permitted to use PEDs during taxi-out, it would be difficult to ensure that all PEDs are switched off before takeoff, especially as the cabin crew members are required to be seated at their stations and be ready to react to any emergency that may require the expeditious evacuation of passengers.

The new regulations, which took effect on 20 February 2013, are summarised in the table below:

Common misconceptions on the use of PED in aircraft

Question: I've left my phone on while in-flight before and nothing ever happened. There's no safety issue with mobile phones at all.

Answer:The global aviation industry takes a robust stance to ensure the utmost safety for passengers and crew. There have been incidents of crew members reporting interference during flight. Until new PED technology is developed and supported by conclusive evidence that its use onboard is safe at all flight phases, current rules will remain unchanged.

Question: I don't have to switch my phone off while in-flight. I can simply put it on flight mode.

Answer: Passengers should not just set their phones to flight mode and leave it on throughout the duration of the flight as the phone will still unintentionally transmit EM signals which might interfere with the aircraft's navigation systems during critical phases of flight. It is good practice

for passengers to set their mobile phones to flight mode before turning it off once they are seated in the plane, especially if they intend to turn on their phones again during non-critical phases of the flight to read or play games. If passengers do not intend to use their phones at all during the flight, then it is recommended that they switch their phones off once they are seated in the plane and leave it off for the whole duration of the flight until the aircraft lands.

Question: Some airlines use PEDs such as tablets as part of their In-flight Entertainment (IFE). Surely if these devices are allowed in-flight, I can use my own PED?

Answer: This type of IFE is new to the local aviation industry and CAAS has worked one of our local carriers to implement the use of iPads as part of its IFE system. They are only available for use during the non-critical phases of the flight, with their transmission capabilities disabled and so there is no difference in use to that of a passenger's personal PED. The regulations were reviewed to accommodate such industry changes and the industry's adoption of new technology.