

《为什么乘坐飞机时手机要调成飞行模式？真实原因是……》

坐飞机时会被要求将手机关机或调成飞行模式，因为在飞机上使用手机会对飞行产生干扰，尤其是起飞和降落的时候，那么这种干扰具体指的是什么呢？来看看这篇干货吧。





We all know the routine by heart: “ Please ensure your seats are in the upright position, tray tables stowed, window shades are up, laptops are stored in the overhead bins and electronic devices are set to flight mode. ”

这句常规提醒我们都烂熟于心：“ 请确保您的座椅靠背垂直，餐桌和遮光板收起，笔

记本电脑放在头顶的行李架上，手机调成飞行模式。”

Now, the first four are reasonable, right? Window shades need to be up so we can see if there ' s an emergency, such as fire. Tray tables need to be stowed and seats upright so we can get out of the row quickly. Laptops can become projectiles in an emergency, as the seat back pockets are not strong enough to contain them.

前几个要求都很合理，不是吗?遮光板收起，我们才能看见起火等紧急状况。餐桌收起，座椅垂直，我们才能迅速离开座位。在发生紧急情况时笔记本电脑会变成乱飞的抛射物，因为椅背的袋子不够牢固。

And mobile phones need to be set to flight mode so they can ' t cause an emergency for the airplane, right? Well, it depends whom you ask.

还有，手机需要调成飞行模式，这样才不会引发飞机紧急事故，对吗?这得看你问谁了。

Aviation navigation and communication relies on radio services, which has been coordinated to minimize interference since the 1920s.

由于飞机导航和通信都依赖无线电服务，自上世纪20年代以来一直都是通过协调尽量减少无线信号干扰。

The digital technology currently in use is much more advanced than some of the older analog technologies we used even 60 years ago. Research has shown personal electronic devices can emit a signal within the same frequency band as the aircraft ' s communications and navigation systems, creating what is known as electromagnetic interference.

目前应用的数字技术比60年前所用的一些老的模拟技术要先进得多。研究显示，个人电子设备会发送与飞机通信和导航系统同一频率范围内的信号，从而造成所谓的电磁干扰。

But in 1992, the US Federal Aviation Authority and Boeing, in an independent study, investigated the use of electronic devices on aircraft interference and found no issues with computers or other personal electronic devices during non-critical phases of flight. (Takeoffs and landings are considered the critical phases.)

但在1992年，美国联邦航空管理局和波音公司联合开展的一项独立研究调查了使用电子设备对飞行的干扰，结果发现，在飞行的非关键阶段使用电脑或其他个人电子设备不会干扰飞行。(起飞和降落被视为飞行的关键阶段。)

The US Federal Communications Commission also began to create reserved frequency

bandwidths for different uses – such as mobile phones and aircraft navigation and communications – so they do not interfere with one another. Governments around the globe developed the same strategies and policies to prevent interference problems with aviation. In the EU, electronic devices have been allowed to stay on since 2014.

美国联邦通信委员会也开始推出手机、飞机导航和通信等不同用途的专用频段，这样它们就不会互相干扰。全球各地的政府也采用了同样的战略和政策，防止飞行干扰问题。欧盟从2014年起开始允许在飞机上保持电子设备开机。

Why then, with these global standards in place, has the aviation industry continued to ban the use of mobile phones? One of the problems lies with something you may not expect – ground interference.

既然有了这些全球标准，为什么航空业还是继续禁止在飞机上使用手机呢？其中一个问题可能是你想不到的，那就是地面干扰。

Wireless networks are connected by a series of towers; the networks could become overloaded if passengers flying over these ground networks are all using their phones.

无线网络通过一系列信号塔来互联，如果飞越地面网络的乘客全在使用手机，网络可能会超载。

Of course, when it comes to mobile networks, the biggest change in recent years is the move to a new standard. Current 5G wireless networks – desirable for their higher speed data transfer – have caused concern for many within the aviation industry.

当然，近年来移动网络的最大改变就是新标准的转换。现行的5G无线网络(由于更高速的数据传输而受到欢迎)引发了许多航空业人士的担忧。

Radio frequency bandwidth is limited, yet we are still trying to add more new devices to it. The aviation industry points out that the 5G wireless network bandwidth spectrum is remarkably close to the reserved aviation bandwidth spectrum, which may cause interference with navigation systems near airports that assist with landing the aircraft.

无线频段是有限的，而我们仍在试图添加更多新设备。航空业指出，5G无线网络频段非常接近航空专用频段，这可能会对机场附近辅助飞机着陆的导航系统造成干扰。

Besides, It would be an inconvenience for cabin crew to wait for passengers to finish their call to ask them if they would like any drinks or something to eat.

除此以外，如果乘客在飞机上打电话，空服人员得等乘客打完电话才能询问他们是否需要饮料或食物，这也会带来不便。

重点词汇

digital technology 数字技术；数字化技术；科技；数码技术；数码科技

in use 在使用

much more 更；何况

some of 中的一些；其中一些；其中的一些

years ago 多年前

frequency band 频带；频带，波段

navigation systems 导航系统；导览系统

what is 是什么；什么是；什麼

known as 被称为；被认为是；以...而闻名

electromagnetic interference 电磁干扰

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