
BBC LEARNING ENGLISH

Take Away English 随身英语

Planes to fly closer in the wind

机场提议强风时飞机应凑近飞

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Vocabulary: air safety 词汇：空中安全

It may seem **counterintuitive**, but on windy days, **aircraft** should fly closer together. Those are the plans at Heathrow airport anyway.

The problem is that Heathrow is running at **full capacity**. It cannot process more than the 480,000 flights it currently handles per year. With flights booked throughout the day, there is no chance to make up for **delays** later in the morning as there is at quieter airports. And the biggest cause of these delays is wind.



Too close for comfort?

In order to stay safe, airports leave gaps of several kilometres between landing aircraft. This is because as an aeroplane cuts through the sky it creates a **vortex** – a trail of **churned up** air - which is dangerous for other planes to fly through. For a large aircraft like the Boeing A380 the gap can be eleven kilometres.

However, planes measure their speed through the air, not over the ground. **Therefore**, if planes are flying into a **headwind**, scientists say the gap can be safely reduced. **Imagine** a plane is flying over the ground at 400 km per hour, but the air around the plane is moving in the **opposite direction** at 50 km per hour. That means the plane is actually only travelling at 350 km per hour through the air. **By** studying thousands of flying planes using **lasers**, scientists discovered that the wind also has the effect of quickly **smoothing out** their vortices.

The wind's slowing **effect** means that currently on windy days, **arrivals** at Heathrow drop from 45 per hour to as few as 32. With the new system that should be back up to 40 **landings** per hour.

Some people may feel **nervous** at the idea of flying closer together. To make sure the system is totally safe it has **undergone** four years of scientific research and **safety testing**. Designers now hope to sell the new system to the world's 25 busiest airports.

词汇表请参看答案与词汇部分

Quiz 测验

阅读短文并回答问题。

1. How many flights go through Heathrow each year?
2. What causes more delays to flights than anything else?
3. How do aircraft measure their speed?
4. What does wind do to vortices?
5. How many planes will be able to land per hour using the new system?

Exercise 练习

请你在不参考课文的情况下完成下列练习。从每个表格中选择一个意思合适的单词填入句子的空格处。

1. The factory is running at _____ so we can't increase production.

aircraft	full capacity	safety testing	opposite direction
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2. I had to _____ two operations when I broke my knee.

imagine	churn up	undergo	laser
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3. There was _____ to my flight because of the weather.

a headwind	a delay	an arrival	a vortex
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4. I always get _____ before I speak to a large group of people.

counterintuitive	imagine	nervous	landing
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5. Can you _____ what life will be like 100 years in the future?

imagine	undergo	smooth out	therefore
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Answers and Glossary 答案与词汇

Quiz 小测验

1. How many flights go through Heathrow each year? **480,000.**
2. What causes more delays to flights than anything else? **Wind.**
3. How do aircraft measure their speed? **Through the air.**
4. What does wind do to vortices? **It can smooth them out.**
5. How many planes will be able to land per hour using the new system? **40.**

Exercise 练习

1. The factory is running at **full capacity** so we can't increase production.
2. I had to **undergo** two operations when I broke my knee.
3. There was a **delay** to my flight because of the weather.
4. I always get **nervous** before I speak to a large group of people.
5. Can you **imagine** what life will be like 100 years in the future?

Glossary 词汇表

counterintuitive	违反直觉的, 不合常理的
aircraft	飞机
full capacity	全容量
delay	拖延
vortex/vortices	旋风, 漩涡
churn up	搅拌
therefore	因此
headwind	逆风
to imagine	想象
opposite direction	相反方向
laser	激光
smooth out	减缓、消除
effect	效果, 作用
arrival	抵达
landing	降落
nervous	感觉紧张
undergo	经过了
safety testing	安全测试