Lesson 29
The hovercraft
气垫船

First listen and then answer the following question.
听录音，然后回答以下问题。

What is a hovercraft riding on when it is in motion?

Many strange new means of transport have been developed in our century, the strangest of them being perhaps the hovercraft. In 1953, a former electronics engineer in his fifties, Christopher Cockerell, who had turned to boat-building on the Norfolk Broads, suggested an idea on which he had been working for many years to the British Government and industrial circles. It was the idea of supporting a craft on a 'pad', or cushion, of low-pressure air, ringed with a curtain of higher pressure air. Ever since, people have had difficulty in deciding whether the craft should be ranged among ships, planes, or land vehicles -- for it is something in between a boat and an aircraft. As a shipbuilder, Cockerell was trying to find a solution to the problem of the wave resistance which wastes a good deal of a surface ship's power and limits its speed. His answer was to lift the vessel out of the water by a great number of ring-shaped air jets on the bottom of the craft. It 'flies', therefore, but it cannot fly higher -- its action depends on the surface, water or ground, over which it rides.

The first tests on the Solent in 1959 caused a sensation. The hovercraft travelled first over the water, then mounted the beach, climbed up the dunes, and sat down on a road. Later it crossed the Channel, riding smoothly over the waves, which presented no problem.

Since that time, various types of hovercraft have appeared and taken up regular service. The hovercraft is particularly useful in large areas with poor communications such as Africa or Australia; it can become a 'flying fruit-bowl', carrying bananas from the plantations to the ports; giant hovercraft liners could span the Atlantic; and the railway of the future may well be the 'hovertrain', riding on its air cushion over a single rail, which it never touches, at speeds up to 300 m.p.h. -- the possibilities appear unlimited.

EGON LARSEN The Pegasus Book of Inventors

New words and expressions 生词和短语

hovercraft
n. 气垫船

Norfolk Broads
n. 诺福克郡的湖泊地区

cushion
n. 座垫

ring
v. 围

Solent
n. （英国的）苏伦特海峡

sensation
n. 轰动

dune
n. 沙丘

plantation

n. 种植园

hovertrain

n. 气垫火车

参考译文

本世纪已研制出许多新奇的交通工具，其中最新奇的要数气垫船了。1953 年，有一位 50 多岁名叫克里斯托弗.科克雷的原电子工程师，改行在诺福克郡的湖泊地区从事造船业，他向英国政府和工业界提出了他研究多年的一项计划。他的设想是：用一个低压空气或软垫来支撑船体，软垫周围用高压空气环绕。自那以后，人们很难决定是否应该将这种运载工具列为轮船、飞机，或是陆上交通工具，因为它是介于船和飞机之间。作为一个船舶技师，科克雷尔在寻找解决波浪阻力的方法，因为波浪阻力浪费掉了船在水面行驶的大量动力，从而限制了船的速度。他的解决办法是把船体提离水面，让船在一个气垫上行驶，气垫只有一两英尺厚。船底装上大量环状喷气嘴以实现这一目的。这样，船就能飞了，但飞不高。它的飞行限决于它所悬浮的水面或地面。

1959 年，在苏伦特海峡进行的首次试航引起了轰动，气垫船先是在水面上行驶，后又登上海岸，爬上沙丘，最后停在路上。后来气垫船跨越英吉利海峡，平衡地在波浪上方行驶，波浪不再产生阻力。

从那以后，各种各样的气垫船出现了，并开始了定期航行服务。气垫船在非洲、澳大利亚等交通不发达地区特别有用。它能成为“飞行水果盘子”，把香蕉从种植园动到港口。大型的气垫班轮或许能跨越大西洋。未来的火车或许能成为“气垫火车”，靠气垫在单轨上行驶而不接触轨道，时速可达每小时 300 英里。气垫船的前途是不可限量的。