

通信科技英语

文选

南京大学外文系公共英语教研室编



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第二辑

南京大学外文系公共英语教研室编

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Rivers in the Sea

People who cross the Atlantic Ocean by boat^① often see a strange sight. Suddenly they see a band of blue water in the green sea. The water is warm. The band of blue is like a warm river in the cold, dark ocean. It is the Gulf Stream. The Gulf Stream starts in the Gulf of Mexico. It travels past Florida, across the Atlantic Ocean, to Europe. The Gulf Stream is an ocean current. Like all ocean currents, it has its own path in the ocean. The path hardly changes from year to year.

The earth is like a big spinning top. It spins around its axis. At one end of the axis is the earth's North Pole. At the other end is the South Pole. It is cold at the Poles. That is why the Arctic and Antarctic Oceans are cold and covered with ice.

Halfway between the poles is the equator.^② It is hot near the equator. The oceans near the equator are very warm. That is why the Gulf Stream and the Sargasso Sea are warm.

The warm oceans are saltier than the oceans where it is cold.^③ Deep currents flow from colder, less salty water to warmer, saltier water. So there are deep currents that carry water from the poles to the equator.

There are many currents near the surface of the oceans, too. The strongest of them are the Japan Current, the Gulf Stream and the Cromwell Current.

There are winds above the earth that always blow in the same direction. These winds also help make the ocean currents.

The turning of the earth helps make① the ocean currents, too.

词 汇

Atlantic [ət'læntik] *a.* 大西洋的

band [bænd] *n.* 带; 带形物

gulf [gʌlf] *n.* 海湾

the Gulf Stream 墨西哥湾流

Mexico ['meksikəu] *n.* 墨西哥

Florida ['flɒrɪdə] *n.* 佛罗里达

(美国州名)

Europe ['juərəp] *n.* 欧洲

current ['kʌrənt] *n.* 海流

spin [spin] *v.* 自旋

top [tɒp] *n.* 陀螺

axis ['æksɪs] *n.* 轴

pole [pəʊl] *n.* 极

the North Pole 北极

the South Pole 南极

Arctic ['ɑ:ktik] *a.* 北极的

the Arctic Ocean 北冰洋

Antarctic [æn'tɑ:ktik] *a.* 南极的

the Antarctic Ocean 南冰洋

equator [i'kweɪtə] *n.* 赤道

sargasso [sɑ:'gæsəu] *n.* [植]果

囊马尾藻

the Sargasso Sea 马尾藻海

salty ['sɔ:lti] *a.* 含盐的

surface ['sə:fɪs] *n.* 表面

Japan [dʒə'pæn] *n.* 日本

Cromwell ['krɒmwəl] *n.* 克伦

威尔

短 语

(to) travel across 横穿

from year to year 一年一年地

(to) spin around 绕……自旋

at one end of 在……的一端

at the other end 在另一端

(to) carry ... from ... to 把……

从……带到

in the same direction 朝同一

方向

(to) be covered with 覆盖着

注 释

① ...who cross the Atlantic Ocean by boat: 由关系代词 who 引

导的定语从句,修饰前面的 people。注意本文还有几个定语从句。

- ② Halfway between the poles is the equator. 这是倒装词序,为了与上文连得紧密些,把表语 halfway between the poles 放在句首,而把主语 the equator 放在谓语动词 is 之后。按正常词序,原句为: The equator is halfway between the poles.
- ③ The warm oceans are saltier than the oceans where it is cold. 其中 than the oceans 是比较状语从句; where it is cold 为定语从句,修饰 the oceans。全句可译成:温暖的海洋比气候寒冷的海洋含盐多。
- ④ ...helps make: make 为不定式,作 help 的宾语,不定式符号 to 省略了。

Waves

Drop a pebble into a pond. The pebble pushes the water when it touches it. Waves move out from the place where the pebble pushes the water.

Over the ocean, the wind pushes against the water. The wind makes ocean waves. The ocean waves move in the same way as the waves made by the pebble①. If the wind is very strong, the waves are very big. That is why there are big waves during storms.

Waves keep moving forward until something gets in their way.② The shore gets in their way. The waves can't move forward any more. So they lift themselves high up and break on the shore with a loud roar. These waves are called breakers. The water in the breakers pulls back over the shore into the sea. This is the undertow. The undertow pulls so hard that it carries pebbles, shells and sand with it.③ It makes swimming in the ocean dangerous.④

Waves have a lot of power. They can even lift rocks and throw them far. There is a lighthouse in Scotland that stands more than 300 feet above the sea. Its windows have been broken by rocks thrown up by storm waves.

Waves can smash cliffs. Waves pounding on a cliff^⑤ are like a great hammer. They break pieces of rock from the cliff and carry them away.

Waves can grind cliffs away. The waves carry sand and pebbles. The sand and pebbles rub against the cliffs and wear them down. On the East Coast of England, waves wear away as much as 15 feet of cliff in a year.

Waves can break up old beaches. They pick up the sand of the beaches and wash it into the sea.

Waves can build up new beaches. They drop sand on the shore. Then the piled-up sand becomes a beach.

In all these ways, the waves keep changing the shape of the shore.

词 汇

pebble ['pebl] *n.* 卵石
roar [rɔ:] *n.* 怒号, 呼啸
breaker ['breikə] *n.* 碎波
undertow ['ʌndətəu] *n.* 回头浪
shell [ʃel] *n.* 贝壳
lighthouse ['laɪthaus] *n.* 灯塔
Scotland ['skɒtlənd] *n.* 苏格兰
foot [fʊt] ([复] feet [fi:t]) *n.* 英尺
cliff [klɪf] *n.* 悬崖, 峭壁

pound [paʊnd] *v.* (连续)猛击
grind [graɪnd] (*ground* [graʊnd])
v. 磨, 碾
wear [wɛə] (*wore* [wɔ:], *worn* [wɔ:n]) *v.* 磨损
coast [kəʊst] *n.* 海岸
England ['ɪŋɡlənd] *n.* 英格兰
beach [bi:tʃ] *n.* 海滩
shape [ʃeɪp] *n.* 形状

短 语

- | | |
|--|--|
| <p>(to) drop ... into 把.....投入</p> <p>(to) move out from 从.....搬走[本文中可解释为(浪)从...
...向外涌去。]</p> <p>(to) push against 推着</p> <p>in the same way 同样</p> <p>(to) move forward 前进</p> <p>in the way; in one's way 妨碍;
妨碍它</p> <p>any more 再; 不再 (用于否定句)</p> <p>(to) lift ... high up 把.....高举起</p> <p>so...that... 这样.....以至于.....</p> <p>a lot of 许多, 大量</p> | <p>(to) throw...far (up) 把.....抛
远(起)</p> <p>(to) pound on 对.....连续猛击</p> <p>(to) break...from 从.....把.....
打破</p> <p>(to) carry away 带走</p> <p>(to) rub against 擦着</p> <p>(to) wear...down 把.....磨损</p> <p>(to) wear away 磨掉</p> <p>as much as 和.....一样多</p> <p>(to) break up 损坏</p> <p>(to) pick up 捡起</p> <p>(to) build up 造成</p> |
|--|--|

注 释

- ① ...as the waves made by the pebble: 由连接词 as 引导的方式状语, 可译成: 就象由卵石激起的波浪一样(运动)。made by the pebble 为过去分词短语, 修饰 the waves。一般说, 分词短语作定语, 放在被修饰词的后面。
- ② Waves keep ... way. 这是主从复合句, 主句是 Waves ... forward, 时间状语从句为 until ... way。全句可译成: 波浪不停地向前运动, 直到受阻为止。moving 为动名词, 作 keep 的宾语。注意动名词的这种用法。
- ③ The undertow ... with it. 这是主从复合句, 其中连接词 so ... that 引导出结果状语从句 it ... it。全句可译成: 回头浪的力量如此之大, 它可带走卵石、贝壳以及砂子。
- ④ It ... dangerous. it 指上句的内容, 句子可译成: 它使得在海洋里游泳有危险。

- ⑤ ...pounding on a cliff: 现在分词短语作定语, 修饰 waves, 意为: 猛击悬岩的浪头。

Tides

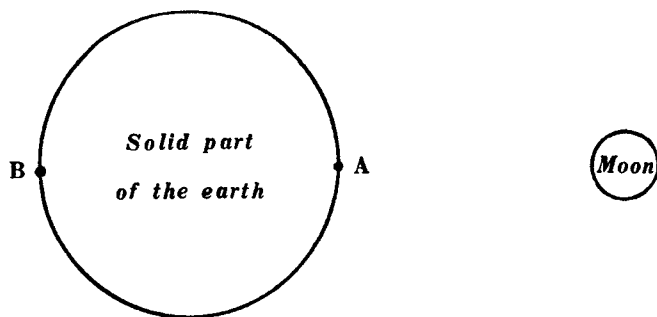
In many harbours ocean ships cannot put out to sea as they choose. They must be sure that the harbour is deep enough for them to leave safely. They must wait for high tide.

The place the ocean reaches on the shore① keeps changing all day long. First the level of the water keeps getting higher. When the level is highest it is high tide. Then the level of the water begins to fall. When the level is lowest it is low tide. In most places there are two high tides and two low tides each day.

In some places there is almost no difference between high and low tide. In other places the water rises so much that it could cover a 7-story building.② The Bay of Fundy is a pocket of the Atlantic Ocean where Canada touches the state of Maine.③ At the Bay of Fundy the difference between high tide and low tide is 70 feet.

The moon makes the tide by pulling on the earth④. The side of the earth that faces the moon is pulled more than the side of the earth that faces away from the moon.⑤ The picture shows how this pull makes the tides.

The ocean at A is nearer to the moon than the solid part of the earth or the ocean at B. So the ocean at A is pulled harder by the moon. This makes it bulge⑥ away from the solid part of the earth. This makes a big bulge in the ocean at A. It is high tide at A. But the solid



part of the earth is nearer to the moon than the ocean at B. So the solid part of the earth is pulled away from the ocean at B. This makes a big bulge in the ocean at B. It is high tide at B, too. The two bulges and the moon are almost in a straight line.

But the earth is spinning all the time. Different parts of the ocean are in a straight line with the moon at different times. So high tide comes to different places at different times. Each part of the ocean is in line with the moon twice each day. That is why there are two high tides.

When the sun is in line with the earth and the moon the pull on the oceans is even stronger. Then the high tides are extra-high. These tides are called spring tides. This happens twice each month. It happens when there is a full moon and when you can see no moon at all. Twice each month you can see a quarter moon. Then the high tides are not as high as they usually are. These tides are called neap tides.

词 汇

tide [taɪd] *n.* 潮汐
harbour ['hɑ:bə] *n.* 海港
story ['stɔ:ri] *n.* (层)楼
bay [beɪ] *n.* 海湾
the Bay of Fundy 芬迪湾
Canada ['kænədə] *n.* 加拿大
Maine [meɪn] *n.* 缅因[美国州]

名]
the state of Maine 缅因州
bulge [bʌldʒ] *v. & n.* 上涨; 凸出
extra-high ['ekstrə'hai] *a.* 特别高
spring tide ['sprɪŋtaɪd] *n.* 大潮
neap tide ['ni:ptaɪd] *n.* 小潮

短 语

(to) put out to 出航
(to) be sure 有把握的
(to) wait for 等待
all day long 整天
more than 大于
(to) face away from 背着
(to) bulge away from 向背着……

方向凸出
(to) pull ... away from 把……
 拉离
in a straight line 在一直线上
all the time 一直
at all 根本(常用于否定)
as ... as 象……一样

注 释

- ① ...the ocean reaches on the shore: 这是省略了关系副词 *where* 的定语从句, 可译成: 海洋及岸的地点。
- ② In other places ... building. 在其它地方, 水上涨得那末多, 以至于可以淹没一座七层楼房。
- ③ The Bay of ... Maine. 芬迪湾是大西洋的口袋, 在那地方, 加拿大与缅因州相接。
- ④ ...by pulling on the earth: 介词短语, *pulling* 为动名词, 作介词 *by* 的宾语。短语意为: 通过吸引地球的方式。
- ⑤ The side ... moon. 这是一个较复杂的主从复合句, 主句是 *The side ... more*; 连接词 *than* 引导出一个比较状语从句 *the side ... moon*; 而在主句与从句中又各含有一个定语从句 *that faces the*

moon 及 that faces away from the moon, 分别修饰 the side of the earth. 全句可译成: 地球面向月亮的一边所受的吸引力要比背着月亮的一边大。

- ⑥ ...makes it bulge: bulge 为不定式, 作宾语补足语。注意 bulge 前没用 to。不定式在 let, make, see, hear, watch, notice, feel 等动词后作宾语补足语时, 不用不定式符号 to。

The Space Shuttle

Space travel can only become an everyday event if it is made much cheaper. No country in the world can devote money and materials at the present rate to sophisticated machinery that can only be used once.① It was for this reason that space technologists are concentrating their research on the development of a new kind of spaceship which could be used again and again to send capsules, satellites and other craft into space.② This project has already received a name: "The Space Shuttle".

In size, the space shuttle will resemble a modern shorthaul airliner, such as the Boeing 737, and will have a pilot, a co-pilot and two flight engineers. Initially, the rest of the space on the shuttle will be used to carry teams of scientists into space, and for equipment such as satellites or modules, and supplies.③ It is expected to be particularly used in connection with earth-orbiting space stations.④

Of course, it would be impossible for a craft as small as this to leave the earth's atmosphere by itself,⑤ so it will be attached to a number of tanks with booster engines. The main tank will contain liquid fuel (liquid

fluorine and liquid hydrogen) and the other smaller tanks, two or four in number, will contain solid fuel.

The shuttle ship will ride on the back of these booster tanks until a height of about forty-seven miles above the earth is reached. Then the empty tanks will separate and drop back to earth with the aid of parachutes, so that they can be used again. Then the shuttle ship, called a Delta-winged Orbiter, will continue through space under its own power. Apart from supplying a space laboratory, the space shuttle could undertake rescue missions after accidents in space, such as the one which happened to Apollo 13.^⑥ The great advantage of this kind of spacecraft is that its passengers need not be trained astronauts; they could be ordinary doctors and engineers — or even tourists! — and they will wear ordinary clothes, not expensive, uncomfortable space-suits.

When the Orbiter has completed its mission, it will return to the upper atmosphere of the earth under its own power and then glide down to a normal runway. After a week of servicing it will be ready for another mission, and will be able to complete a hundred or more missions like this before being overhauled or refitted^⑦.

词 汇

shuttle ['ʃʌtl] *n.* 航天飞机, (星球)往返飞船; 梭子
event [i'vent] *n.* 活动
rate [reit] *n.* 价格
sophisticated [sə'fistikeitid] *a.* 高级的, 尖端的

machinery [mə'ʃi:nəri] *n.* [总称]机械、机器
technologist [tek'nɒlədʒist] *n.* 技术专家
capsule ['kæpsju:l] *n.* 密封舱、宇宙容器; 小盒

satellite ['sætəlaɪt] *n.* 人造卫星;
卫星
craft [krɑ:ft] [单复数同] *n.* 航
空器、飞机、飞船等
resemble [ri'zembl] *v.* 类似
shorthaul ['ʃɔ:tho:l] *a.* 短程的,
短期的
airliner ['eə,laɪnə] *n.* 客机, 班机
Boeing ['bəʊɪŋ] *n.* 波音
pilot ['paɪlət] *n.* 飞行员
co-pilot ['kəʊ,pailət] *n.* (飞机)
副驾驶员
module ['mɒdju:l] *n.* (宇宙飞船
上各个独立的)舱
earth-orbiting ['ə:θ,ɔ:bitɪŋ] *a.*
地球轨道的
atmo sphere ['ætməsfɪə] *n.* 大气层
attach [ə'tætʃ] *v.* 附加

tank [tæŋk] *n.* (盛液体或气体
的)大容器
booster ['bu:stə] *n.* (火箭的)助
推器
fluorine ['flu(:)ərɪn] *n.* 氟
hydrogen ['haɪdrɪdʒən] *n.* 氢
parachute ['pærəʃu:t] *n.* 降落伞
orbiter ['ɔ:bɪtə] *n.* 轨道飞行器
mission ['mɪʃən] *n.* 使命, 任务
Apollo [ə'pɒləʊ] *n.* 阿波罗
astronaut ['æstrənɔ:t] *n.* 宇宙
飞行员
tourist ['tuəɪst] *n.* 旅行者, 游
览者
overhaul [ˌəʊvə'hɔ:l] *v.* 彻底检
修, 详细检查
refit ['ri:'fɪt] (rifitted; refitting)
v. 整修, 重新装配

短 语

(to) devote ... to 把.....用于
(to) concentrate on (upon) 集
中.....在上
(to) send ... into 把.....送入
such as 例如
in connection with 有关
by itself 独自

with the aid of 借助于
so that 因而
under its own power 以它自己
的动力
apart from 除.....外
trained astronaut 训练有素的宇
宙飞行员

注 释

- ① No country ... once. 世界上没有哪个国家能够以现在的价格把
经费和材料花在仅能使用一次的尖端机械上。that ... once 为定
语从句, 修饰 sophisticated machinery。

- ② It was for this reason that ... into space. 这是强调句型, 这里强调原因状语。which could be ... into space 是定语从句, 因为它较长, 在翻译时不必硬放在被修饰的 a new kind of space-ship 之前, 可以作为一个分句来译。整个句子可译成: 正是由于这一原因, 宇宙技术专家正集中研究发展一种新的宇宙飞船, 这种飞船可以一再使用, 把密封舱、卫星及其它航空器送入宇宙。
- ③ Initially ... and supplies. 开始时, 航天飞机的其余空间将用来把一组组科学家送入宇宙 (将用来给科学家乘坐, 把他们一组组地送入宇宙), 以及安置诸如卫星、舱和供应等设备用。
- ④ It is expected to be particularly used ... stations. it 是主语, 指 space shuttle; to be ... stations 是主语补足语。句子可译成: 期望它特别能和绕地球运行的宇宙空间站联用。
- ⑤ ...it would be impossible for a craft ... itself: it 为形式主语, 真正主语是后边的不定式短语。在不定式短语中有 for a craft as small as this 作不定式 to leave 的逻辑主语, 表示不定式所体现的动作的执行者。另外请注意这里用 would 而不用 will; would 表示一种委婉语气。句子可译成: 当然, 对这样小的航天飞机来说, 由它自己飞离地球大气层是不大可能的。
- ⑥ Apart from ... Apollo 13. 除了提供一个宇宙实验室之外, 当宇宙里发生阿波罗 13 号曾经遭遇的那种事故时, 这类航天飞机还能担任抢险任务。句中的 could 与上边的 would 一样, 表示委婉语气。
- ⑦ ...before being overhauled or refitted: being overhauled 和 being refitted 均为被动语态的动名词, 作介词 before 的宾语, 可译作: 在彻底检修, 重新装配之前。

The Star Wars of the Future

A book entitled "Outer Space — Battlefield of the Future" has been published recently in the West. It says

both the United States and the Soviet Union are developing killer satellites to destroy or capture each other's space spies and are researching on killer beams which could vaporise enemy spacecraft.

Highlighting the dangers of this research,^① the book says in a separate commentary: "The increasing militarization of space which provides accurate damage assessment for prompt retaliation, precise targeting and centralised control over military forces may condition man to the idea that a limited nuclear war can be fought and won."^②

It says it was originally thought outer space would be a zone of peace.^③ But in recent years about 60 per cent of both U. S. and Soviet space shots have put military satellites into orbit.

It points out that the treaty banning nuclear weapons in outer space does not prohibit the superpowers from going ahead with satellite killers or from ultimately having an anti-missile system deployed in space^④.

The book reviews research on a new system of killer beams called electric ring accelerators currently being developed by both the U. S. and the Soviet Union.

"If such a system is constructed in the future it will probably be used as an anti-ballistic missile and will be placed outside the earth's atmosphere, that is, satellite-based^⑤," the book says.

Earth-based anti-satellite systems are either missiles or laser beams. Lasers, transported into space can, when their beams are accurately focussed over a distance, vaporise an enemy intelligence satellite.^⑥

Another line of research which could radically affect