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# Nucleus 新核心

# 大学英语

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## 快速阅读 2



上海交通大学出版社  
SHANGHAI JIAO TONG UNIVERSITY PRESS

# Nucleus 新核心 大学英语

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# **Nucleus** 《新核心 大学英语》系列教材

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# 前言

21世纪以来,我国相继出版了一批优秀的大学英语教材。如果说这些教材都是以趣味性、可思性、文学性和人文性为课文选材原则,提倡人文素质教育的话,那么《新核心大学英语》系列教材将在这些方面有一个新的突破。

## 一、教材编写依据

《新核心大学英语快速阅读》是以《新核心大学英语读写教程》为依托,从内容上对《新核心大学英语读写教程》做进一步推进,提倡科学素质教育,以 content-based 为编写原则,文章选材上偏向提高学术能力的科普性文章。

目前,我国大学英语教学不再是单单打基础的阶段,不再是单纯地为学语言而学语言,而是趋向于与某一方面的专业知识或某一个学科结合的发展方向结合起来,换句话说,大学英语应当与学生的专业内容结合起来,这样才能体现新时期语言教学中的“需求分析”原则。《新核心大学英语快速阅读》正是为了适应我国大学英语教学转型要求而编写的,是为了帮助大学生达到《大学英语课程教学要求》中阅读部分的一般要求、较高要求和更高要求而编写的一套具有鲜明时代特色的大学英语教材;是培养学生查阅学术文献能力的需要,培养学生在较短时间里通过快速阅读,查到自己所需要的信息。

## 二、教材结构框架

《新核心大学英语快速阅读》是《新核心大学英语》主干教材的配套教材,包括《新核心大学英语快速阅读 基础级》、《新核心大学英语快速阅读 1》、《新核心大学英语快速阅读 2》、《新核心大学英语快速阅读 3》四册。《新核心大学英语快速阅读》系列教材旨在培养学生语篇信息查找能力,训

练学生快速阅读能力以及水平考试中阅读理解文章的能力。

每册分八个单元,每个单元分为四篇阅读材料,其中短文两篇,长篇文章两篇。教材中每个单元所选阅读材料基本与《新核心大学英语读写教程》相应单元的主题内容一致,难度略低于《新核心大学英语读写教程》,短文长度为300~500词,长篇文章长度为700~1 000词。阅读材料的内容突出知识性,涉及自然学科和人文学科,体裁以说明文和议论文为主。

### 三、教材使用说明

作为《新核心大学英语读写教程》的配套使用教材,我们建议《新核心大学英语快速阅读》每个单元的总学时数不少于2个课时,课内学时数不少于1个学时,学生课外自主阅读时间不少于1个学时。在每周大学英语课堂教学中教师根据具体授课进度、单元主题内容指定《新核心大学英语快速阅读》中相应的文章让学生进行阅读训练,教师也可以将本系列教材作为学生课后自主阅读的材料,学生课后自主阅读训练时间不少于1个学时,教师对学生自主学习过程进行监督与评价。

编 者

2013年3月

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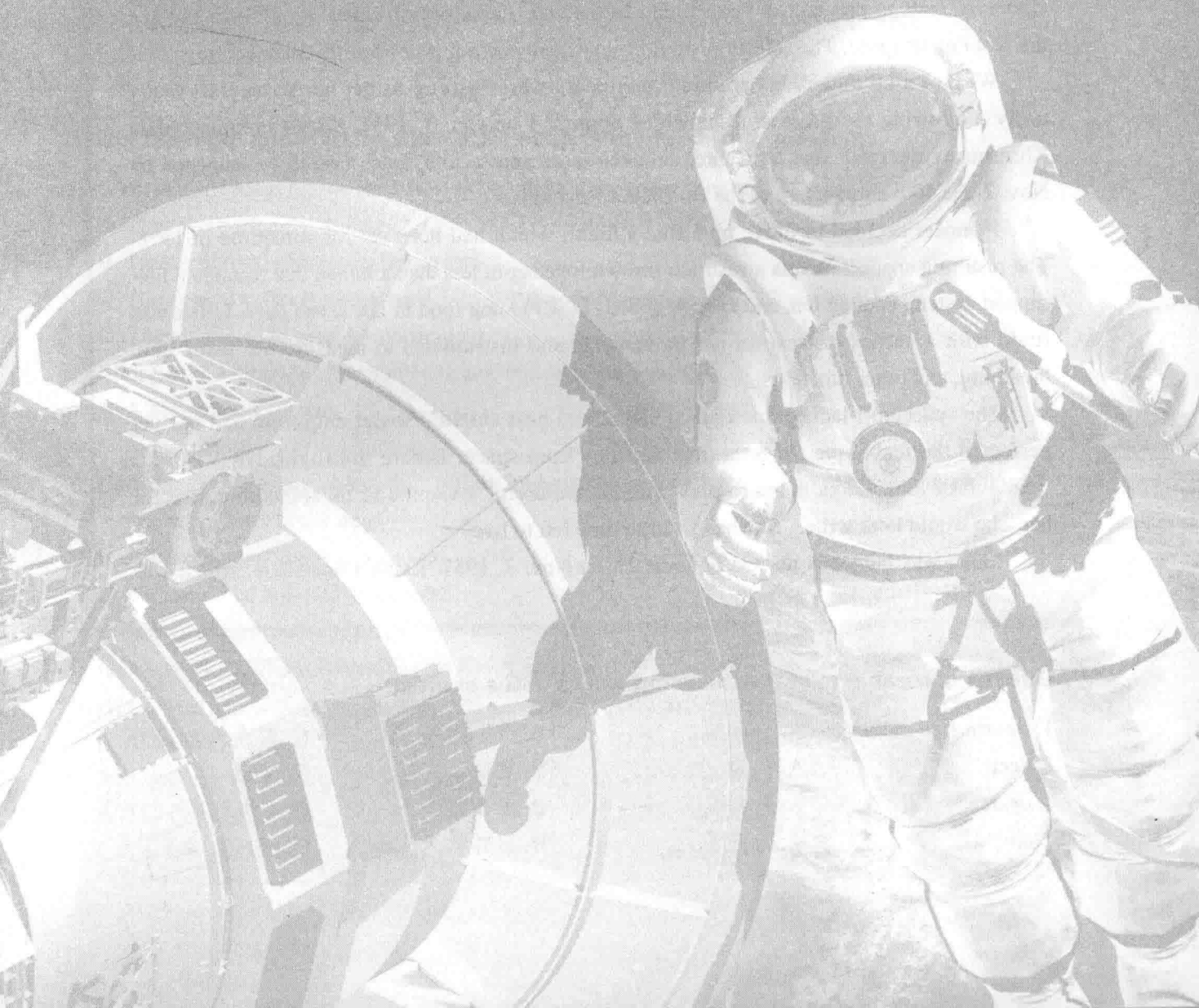
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# **Unit 1**

# **Space Exploration**

# Nucleus





Passage 1

Reading Time: 4 minutes

First Dog in Space

Laika (whose name means “barker”) was a 3-year-old mongrel stray (流浪狗) wandering the streets of Moscow when she was picked up and taken to a secret Soviet space laboratory. Scientists selected strays because they had already learned to adapt to cold and harsh conditions.

Along with two strays named Albina and Muska, Laika was put through a series of **rigorous**<sup>1</sup> tests to prepare for spaceflight. In the end, Laika was **deemed**<sup>2</sup> most fit to become the first dog in space. The selection would have tragic consequences for the friendly stray.

While Laika underwent training, engineers were rushing to get her spacecraft ready to fly. Following the successful launch of Sputnik 1 on Oct. 4, 1957, Soviet Premier Nikita Khrushchev **decreed**<sup>3</sup> that he wanted an even more spectacular space first to be launched by Nov. 7, the 40th anniversary of the Bolshevik Revolution.

Planners decided to move up Laika’s flight, which had been set for sometime in 1958. The resulting spacecraft was a rush job thrown together in less than a month that featured a life-support system, cooling fan, and enough gelled (胶质的) dog food to last seven days. Laika was fitted with a harness to restrict her movements and instruments to measure her heart rate, breathing, and other functions.

The spacecraft lacked one crucial element: a heat **shield**<sup>4</sup>. Soviet engineers had not yet perfected the technique for returning capsules from space. Before the flight, Dr. Vladimir Yazdovfsky took Laika home to play with his children. “I wanted to do something nice for her,” he would later write, “She had so little time left to live”.

Laika was launched aboard Sputnik 2<sup>①</sup> on Nov. 3, 1957. Laika’s heart rate, which was

Guess the meanings of the following words in the context.

- |             |         |         |         |
|-------------|---------|---------|---------|
| 1. rigorous | A. 合理的  | B. 严酷的  | C. 精确的  |
| 2. deem     | A. 认为   | B. 表现   | C. 注定   |
| 3. decree   | A. 发表建议 | B. 发布命令 | C. 裁决结果 |
| 4. shield   | A. 防护屏  | B. 氧气罩  | C. 密封舱  |

103 beats per minute prior to launch, more than doubled to 240 beats per minute as the R-7 rocket accelerated toward orbit. Her heart rate finally settled down three hours into the flight. The first dog in space was alive and eating her food during her early hours in orbit. However, all signs of life ceased about five to seven hours after liftoff. Laika had died of excessive heat and stress, and the causes had not been revealed publicly for 40 years. The Soviets originally claimed the dog had survived in orbit for days.

Laika became famous worldwide as her brave exploits were **hailed**<sup>5</sup> as another glorious feat for the Soviet space program. The first dog in space is honored with a statue that sits in Star City<sup>②</sup>, where Russian **cosmonauts**<sup>6</sup> train. (408 words)

Abridged from

<http://www.rocketcityspacepioneers.com/space/first-dog-in-space>

5. hail

A. 下冰雹

B. 打招呼

C. 赞扬

6. cosmonaut

A. 宇航员

B. 运动员

C. 研究人员

**Select the most appropriate answer for each of the following questions.**

- What was the main reason for strays to be selected for space program?
  - They were friendly animals.
  - They preferred wandering the streets.
  - They could suffer rigorous tests.
  - They got used to severe environment.
- Which of the following was not equipped in Laika's spaceship?
  - A life-support system.
  - A cooling fan.
  - A heat shield.
  - Gelled dog food.
- How did Dr. Vladimir Yazdovfsky feel about Laika as he took her home to play with his children?
  - She was a very brave dog.
  - She would become famous soon.
  - She would be honored by people.
  - She was worthy of sympathy.
- How long did Laika survive after the liftoff of Sputnik 2?
  - 3 hours.
  - 5 to 7 hours.
  - More than 7 hours.
  - Several days.
- According to the passage, what was originally kept as a secret by the Soviet government?
  - The origin of Laika.
  - The causes of Laika's death.
  - The launching time of Laika.
  - The Soviet space program.

## Notes

- ① Sputnik 2: 1957年10月4日, 苏联发射了世界上第一颗人造地球卫星“伴侣号” Sputnik 1。一个月以后, 1957年11月3日, 苏联发射了第二颗人造地球卫星 Sputnik 2。这个人造卫星的体积是首颗卫星的5倍, 为圆锥体, 不仅携带更多的科学仪器, 还带着一只名叫“莱卡”的小狗。
- ② 莫斯科附近的星城, 俄罗斯联邦航天署(RKA)总部位于此处, 承担着航天员训练与航天器发射任务。

## Passage 2

Reading Time: 4 minutes

# Neil Armstrong Remembered as Hero, an Image He Shunned

By Ned Potter

Neil Armstrong<sup>①</sup>, the Apollo 11 astronaut who died Saturday at 82, said he did not want to live his life as an **icon**<sup>1</sup>, remembered only for that electric night in 1969 when he and Buzz Aldrin walked on the moon.

But when you have done what he did — stepped out, alone, onto another world while half a billion **Earthlings**<sup>2</sup> watched your television transmission — the world recalls. Armstrong's moonwalk is one of those events that brought the world together; most people who are old enough to have seen it can tell you exactly where they were when it happened.

“His one small step will inspire generations to come,” said space shuttle astronaut Nicole Stott on Twitter. She quoted Armstrong from a 1994 speech: “There are places to go beyond belief.” “Neil Armstrong today takes his place in the hall of heroes,” said Mitt Romney. “The moon will miss its first son of earth.”

**Guess the meanings of the following words in the context.**

- |              |        |        |       |
|--------------|--------|--------|-------|
| 1. icon      | A. 圣母  | B. 木偶  | C. 偶像 |
| 2. earthling | A. 地球人 | B. 外星人 | C. 僧人 |





- B. conducting a budget battles for their own benefits
  - C. reducing the amount of the budget of space program
  - D. reaching a compromise on the budget of space program
4. The last paragraph implies that Armstrong's family \_\_\_\_\_.
- A. wanted everyone to think of him when walking outside
  - B. asked people to get rid of compliments in memory of him
  - C. called on the public in memory of him in a simple way
  - D. suggested that the public should honor his accomplishment
5. According to this passage, Neil Armstrong is a man of \_\_\_\_\_.
- A. modesty
  - B. inspiration
  - C. confidence
  - D. consideration

## Notes

- ① Neil Armstrong: 尼尔·阿姆斯特朗。他1930年8月5日生于俄亥俄州瓦帕科内塔, 1949~1952年在美国海军服役(飞行驾驶员), 是第一个登上月球的宇航员。2012年8月25日, 阿姆斯特朗因心脏搭桥手术后的并发症逝世, 享年82岁。
- ② NASA: 美国国家航空航天局(National Aeronautics and Space Administration), 是美国负责太空计划的政府机构。

## Passage 3

Reading Time: 8 minutes

## Challenger Disaster Remembered on 25th Anniversary

Two days before the space shuttle Challenger<sup>①</sup> made its final flight, Carl McNair spoke to his brother Ron McNair on the telephone. "He said, 'The weather is not looking good and things are icing up and I don't think we are going to launch,'" recalled Carl McNair, who had come to Florida to watch his brother and six crew members launch into

orbit.

So he headed home to Atlanta with his wife and father, expecting to return in a week to see his brother's second spaceflight. Instead, on a cold Tuesday morning 25 years ago, he turned on the television and "there it was, taking off. I couldn't believe it."

Surprise turned to horror just over a minute later.

"As it got higher and higher, the solid rocket booster started to **veer**<sup>1</sup> off, and I didn't know how I knew. But I knew they were gone," McNair said. "I stood there with tears streaming down my eyes, saying 'Oh my God, oh my God' — what so many people were saying in **unison**<sup>2</sup> around the world."

That moment on Jan. 28, 1986, replayed again and again by news networks, left a scar on the national psyche (灵魂) that **haunts**<sup>3</sup> the country, and NASA, to this day.

The loss of seven astronauts — including New Hampshire teacher Christa McAuliffe — **traumatized**<sup>4</sup> a nation that was fiercely proud of a program that had sent men to the moon. It also shattered the illusion that NASA was infallible — or at least close to it — as a subsequent investigation proved that the disaster could have been prevented.

A select commission led by former Secretary of State William Rogers concluded that the cause of the accident was a faulty O-ring (O形密封圈) in one of two solid-fuel rocket boosters. A breach (裂口) in the O-ring allowed hot gases to escape and burn a hole in the shuttle's 15-story external fuel tank, causing it to explode.

But there was more.

The **frigid**<sup>5</sup> weather — it was 36 degrees at the time of the launch — caused the O-ring to shrink and give hot gases a pathway to escape. Worse, NASA managers had known about, and dismissed, partial failures of O-rings in previous launches and also ignored prelaunch warnings about the rings' **vulnerability**<sup>6</sup> in cold weather.

But it would take 17 years and the loss of another shuttle before NASA finally got the message. A report after the 2003 Columbia disaster noted that — Challenger **notwithstanding**<sup>7</sup> —

### Guess the meanings of the following words in the context.

- |                    |         |         |         |
|--------------------|---------|---------|---------|
| 1. veer            | A. 改变方向 | B. 陡直上升 | C. 释放气体 |
| 2. unison          | A. 分散   | B. 集合   | C. 一致   |
| 3. haunt           | A. 萦绕   | B. 敲击   | C. 忧虑   |
| 4. traumatize      | A. 使同意  | B. 使受伤  | C. 使忧郁  |
| 5. frigid          | A. 恶劣的  | B. 寒冷的  | C. 结冰的  |
| 6. vulnerability   | A. 完整性  | B. 脆弱性  | C. 敏感性  |
| 7. notwithstanding | A. 进而   | B. 假如   | C. 尽管如此 |



NASA had failed to change a culture that often rewarded ambition over safety.

Columbia<sup>②</sup> was doomed when a briefcase-sized chunk of **insulating**<sup>8</sup> foam (泡沫) peeled off the shuttle's fuel tank during launch and punched a hole in the heat-resistant tiles on the leading edge of the orbiter's left wing.

Columbia was cleared to return to Earth on the morning of Feb. 1. When searing gases generated by reentry entered the orbiter through the hole in the wing, Columbia **disintegrated**<sup>9</sup> over Texas, killing the seven crew members.

Foam had been falling off the fuel tank for years, gouging (挖凿) chunks out of the orbiters' heat-resistant tiles and, once before, allowing reentry heat to almost burn a hole in a shuttle's belly. But NASA engineers, lacking a solution that would keep the foam in place, elected to ignore the issue.

"By the eve of the Columbia accident, institutional practices that were in effect at the time of the Challenger accident — such as inadequate concern over deviations from expected performance, a silent safety program, and schedule pressure — had returned to NASA," investigators wrote.

Diane Vaughan, a Columbia University professor who researched the agency's culture after both Challenger and Columbia, said the loss of Columbia was especially painful to employees who had lived through Challenger. "They had felt they had truly fixed things," she said.

Vaughan said that post-Columbia NASA has a far different approach to safety.

"Look at the recent attempts to launch Discovery and how long they've stood down for that," she said.

"It doesn't mean they (NASA engineers) are doing poorly. It means they identified a flaw and are taking safety seriously."

Discovery's next flight, now set for Feb. 24, has been delayed since early November by cracks in five support rods in the center of the external fuel tank. Engineers have worked carefully to figure out the cause, even pulling the shuttle back from the launchpad to the Vehicle Assembly Building for X-rays and other tests.

Outside NASA, the Challenger disaster has **morphed**<sup>10</sup> into one of those shared traumas (心灵创伤) — like the Sept. 11, 2001, attacks or President Kennedy's assassination — that serve as touchstones across generations.

**Accentuating**<sup>11</sup> the grief was the loss of McAuliffe, a high school teacher selected to go

8. insulating

A. 绝缘的

B. 耐寒的

C. 抗旱的

9. disintegrate

A. 辨别

B. 冲撞

C. 碎裂

10. morph

A. 变化

B. 转向

C. 记载

11. accentuate

A. 重读

B. 强调

C. 提倡

into space to boost interest among children, many of whom were watching that day.

One of them was novelist Diana Peterfreund, then a first-grader in Clearwater, Fla. Her teacher had brought the class outside to watch the launch — visible, if remotely, even to those on the other side of the state.

“The teachers were explaining the different parts of the rocket coming off ... when someone came from inside and told them that something went wrong,” she said.

Peterfreund remembers the shock of seeing her teacher cry.

“It was almost like she was teaching us how we were supposed to feel; it made it more understandable,” she said.

President Reagan<sup>③</sup> tried to act as a **surrogate**<sup>12</sup> father to the nation’s students in an address on the night of Jan. 28, 1986.

“I want to say something to the schoolchildren of America who were watching the live coverage of the shuttle’s takeoff. I know it’s hard to understand, but sometimes painful things like this happen,” Reagan said. “It’s all part of the process of exploration and discovery. It’s all part of taking a chance and expanding man’s horizon.” (954 words)

Abridged from

<http://www.latimes.com/topic/science-technology/space-programs/space-shuttle-challenger-disaster>

12. surrogate

A. 宽慰的

B. 暂时的

C. 代理的

**A. Select the most appropriate answer for each of the following questions.**

- What was the weather like when space shuttle Challenger was launched?
  - It was sunny.
  - It was cool.
  - It was hot.
  - It was cold.
- Among the 7 astronauts of Challenger, Christa McAuliffe was a \_\_\_\_\_.
  - worker
  - teacher
  - engineer
  - lawyer
- Before Challenger disaster, people in America firmly believed that \_\_\_\_\_.
  - their country could send man to the moon
  - the country was haunted by a scar
  - their illusion of NASA was shaken
  - the NASA programs were absolutely safe
- According to William Rogers, the explosion of Challenger was caused by \_\_\_\_\_.
  - hot gases
  - a hole in the fuel tank
  - a faulty O-ring
  - rocket booster

5. The later Columbia disaster indicated that NASA \_\_\_\_\_.
  - A. had failed to change their culture
  - B. placed more emphasis on safety
  - C. weighed more ambition than safety
  - D. attached the same importance to ambition and safety
6. Which of the following was **NOT** true as for the foam problem?
  - A. Foam had been falling off the fuel tank for years.
  - B. Foam gouged chunks out of the orbiter's heat-resistant tiles.
  - C. NASA's engineers found a solution to keep the foam in place.
  - D. NASA's engineers chose to ignore the issue.
7. According to Diane Vaughan, the post-Columbia NASA \_\_\_\_\_.
  - A. develops a different approach
  - B. attempts to launch Discovery
  - C. works more carefully
  - D. takes safety more seriously

## B. Complete the sentences with the information given in the text.

1. For all Americans, the Challenger disaster has changed into one of those \_\_\_\_\_.
2. As one member of the astronauts of Challenger, the selection of McAuliffe was to \_\_\_\_\_.
3. On the night of Jan. 28, 1986, President Reagan tried to comfort the school children of America by \_\_\_\_\_.

## Notes

- ① Challenger: 挑战者号航天飞机。美国正式使用的第二架航天飞机。1986年1月28日,挑战者号在进行第10次太空任务时,因为右侧固态火箭推进器上面的一个O形环失效,导致一连串的连锁反应,并且在升空后73秒时,爆炸解体坠毁。机上的7名宇航员都在该次意外中丧生。
- ② Columbia: 哥伦比亚号航天飞机,1981年4月12日首次发射,是美国第一架正式服役的航天飞机。2003年2月1日美国东部时间上午9时,美国“哥伦比亚”号航天飞机在得克萨斯州北部上空解体坠毁,7名宇航员全部遇难。
- ③ President Reagan: 美国总统里根。里根是第一位由影坛跨入政坛,且当选时年龄最大且最长寿的总统。2005年,他被美国在线探索频道评为“最伟大的美国人”。