

2019年6月·第3套 英语六级长篇阅读（信息匹配） 第1篇·36-45 题 答案与解析

STATEMENTS & ANALYSIS • 信息匹配题和解析

信息匹配题和解析·36-45 题

本页 36-45 题的段落匹配答案与逐句解析由懒笔记基于2019年6月·第3套 英语六级长篇阅读（信息匹配）原卷逐题核对整理。与试卷排版同一卷面：先是 Directions 与 13 段字母标号长文（逐段附中文翻译）；之后 10 句陈述逐句排列，每句英文陈述后紧接本句解析——陈述句中译、信息所在段落、锚点强弱、定位句中英对照、陈述句与原文的同义改写对照与易混相邻段辨析。

真题卷第3套(2019-06) · 六级

Part III Section B

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter. Answer the questions by marking the corresponding letter on **Answer Sheet 2**.

The future of personal satellite technology is here—are we ready for it?

A) Satellites used to be the exclusive playthings of rich governments and wealthy corporations. But increasingly, as space becomes more democratized, they are coming within reach of ordinary people. Just like drones(无人机) before them, miniature satellites are beginning to fundamentally transform our conceptions of who gets to do what up above our heads.

卫星曾经是富裕政府和大型企业的专属玩物。但随着太空变得越来越民主化,它们正逐渐进入普通人的触及范围。就像无人机之前的情况一样,微型卫星正开始从根本上改变我们关于谁有资格在我们头顶上空做什么的观念。

B) As a recent report from the National Academy of Sciences highlights, these satellites hold tremendous potential for making satellite-based science more accessible than ever before. However, as the cost of getting your own satellite in orbit drops sharply, the risks of irresponsible use grow. The question here is no longer "Can we?" but "Should we?" What are the potential downsides of having a slice of space densely populated by equipment built by people not traditionally labeled as "professionals"? And what would the responsible and beneficial development and use of this technology actually look like? Some of the answers may come from a nonprofit organization that has been building and launching amateur satellites for nearly 50 years.

正如美国国家科学院最近的一份报告所强调的那样,这些卫星在使基于卫星的科学研究比以往任何时候都更容易获取方面具有巨大潜力。然而,随着将自己的卫星送入轨道的成本急剧下降,不负责任使用的风险也在增长。这里的问题不再是"我们能吗?"而是"我们应该吗?"让一片空间密集地布满由传统上不被

称为"专业人士"的人所建造的设备,其潜在的负面影响是什么?这项技术负责任且有益的开发和使用实际上应该是什么样子?一些答案可能来自一个近50年来一直在建造和发射业余卫星的非营利组织。

- C) Having your personal satellite launched into orbit might sound like an idea straight out of science fiction. But over the past few decades a unique class of satellites has been created that fits the bill: CubeSats. The "Cube" here simply refers to the satellite's shape. The most common CubeSat is a 10cm cube, so small that a single CubeSat could easily be mistaken for a paperweight on your desk. These mini-satellites can fit in a launch vehicle's formerly "wasted space." Multiples can be deployed in combination for more complex missions than could be achieved by one CubeSat alone.

将你的个人卫星发射到轨道上可能听起来像是科幻小说里的想法。但在过去几十年里,一类独特的卫星被创造出来,正好符合这个要求:立方体卫星。这里的"立方体"仅仅指的是卫星的形状。最常见的立方体卫星是一个10厘米的立方体,小到单个立方体卫星很容易被误认为是你桌上的镇纸。这些微型卫星可以装入运载火箭以前"浪费的空间"中。多个立方体卫星可以组合部署,以完成比单个立方体卫星独立完成更复杂的任务。

- D) Within their compact bodies these minute satellites are able to house sensors and communications receivers/transmitters that enable operators to study Earth from space, as well as space around Earth. They're primarily designed for Low Earth Orbit (LEO)—an easily accessible region of space from around 200 to 800 miles above Earth, where human-tended missions like the Hubble Space Telescope and the International Space Station (ISS) hang out. But they can attain more distant orbits; NASA plans for most of its future Earth-escaping payloads (to the moon and Mars especially) to carry CubeSats.

在它们紧凑的机体内,这些微型卫星能够容纳传感器和通信接收器/发射器,使操作者能够从太空研究地球,以及地球周围的太空。它们主要设计用于近地轨道,这是一个容易到达的空间区域,距离地球表面约200至800英里,像哈勃太空望远镜和国际空间站这样的载人任务就在那里运行。但它们也可以到达更远的轨道;NASA计划让其未来大部分脱离地球的有效载荷(特别是前往月球和火星的)携带立方体卫星。

- E) Because they're so small and light, it costs much less to get a CubeSat into Earth's orbit than a traditional communications or GPS satellite. For instance, a research group here at Arizona State University recently claimed their developmental small CubeSats could cost as little as \$3,000 to put in orbit. This decrease in cost allows researchers, hobbyists and even elementary school groups to put simple instruments into LEO or even have them deployed from the ISS.

因为它们如此小巧轻便,将一颗立方体卫星送入地球轨道的成本比传统通信卫星或GPS卫星要低得多。例如,亚利桑那州立大学的一个研究小组最近声称,他们开发的小型立方体卫星送入轨道的成本可能低至3000美元。这种成本的降低使研究人员、爱好者甚至小学生团体都能将简单的仪器送入近地轨道,甚至让它们从国际空间站部署。

- F) The first CubeSat was created in the early 2000s, as a way of enabling Stanford graduate students to design, build, test and operate a spacecraft with similar capabilities to the USSR's Sputnik(前苏联的人造卫星)。 Since then, NASA, the National Reconnaissance Office and even Boeing have all launched and operated CubeSats. There are more than 130 currently in operation. The NASA Educational Launch of Nano Satellite program, which offers free launches for educational groups and

science missions, is now open to U.S. nonprofit corporations as well. Clearly, satellites are not just for rocket scientists anymore.

第一颗立方体卫星创建于21世纪初,作为一种使斯坦福大学研究生能够设计、建造、测试和操作一颗具有与前苏联人造卫星类似能力的航天器的方式。从那时起,NASA、国家侦察局甚至波音公司都发射并操作过立方体卫星。目前有130多颗正在运行。NASA的纳米卫星教育发射计划为教育团体和科学任务提供免费发射,现在也向美国非营利公司开放。显然,卫星不再只是火箭科学家的专属了。

- G) The National Academy of Sciences report emphasizes CubeSats' importance in scientific discovery and the training of future space scientists and engineers. Yet it also acknowledges that widespread deployment of LEO CubeSats isn't risk-free. The greatest concern the authors raise is space debris—pieces of "junk" that orbit the earth, with the potential to cause serious damage if they collide with operational units, including the ISS.

美国国家科学院的报告强调了立方体卫星在科学发现以及培训未来太空科学家和工程师方面的重要性。然而它也承认,近地轨道立方体卫星的广泛部署并非没有风险。作者提出的最大担忧是太空碎片——围绕地球运行的"垃圾"碎片,如果它们与包括国际空间站在内的运行单元相撞,有可能造成严重损害。

- H) Currently, there aren't many CubeSats and they're tracked closely. Yet as LEO opens up to more amateur satellites, they may pose an increasing threat. As the report authors point out, even near-misses might lead to the "creation of a burdensome regulatory framework and affect the future disposition of science CubeSats."

目前,立方体卫星数量不多,而且它们被密切跟踪。然而,随着近地轨道向更多业余卫星开放,它们可能构成越来越大的威胁。正如报告作者指出的那样,即使是险些相撞也可能导致"创建一个繁琐的监管框架,并影响科学立方体卫星的未来部署"。

- I) CubeSat researchers suggest that now's the time to ponder unexpected and unintended possible consequences of more people than ever having access to their own small slice of space. In an era when you can simply buy a CubeSat kit off the shelf, how can we trust the satellites over our heads were developed with good intentions by people who knew what they were doing? Some "expert amateurs" in the satellite game could provide some inspiration for how to proceed responsibly.

立方体卫星研究人员建议,现在是时候思考比以往任何时候都更多的人能够获得他们自己的小块太空可能带来的意外和非预期后果了。在一个你可以直接从货架上购买立方体卫星套件的时代,我们如何能相信我们头顶上的卫星是由知道自己在做什么的人怀着良好意图开发的?卫星领域的一些"专家级业余爱好者"可以为如何负责任地推进提供一些启示。

- J) In 1969, the Radio Amateur Satellite Corporation (AMSAT) was created in order to foster ham radio enthusiasts'(业余无线电爱好者) participation in space research and communication. It continued the efforts, begun in 1961, by Project OSCAR—a U.S.-based group that built and launched the very first nongovernmental satellite just four years after Sputnik. As an organization of volunteers, AMSAT was putting "amateur" satellites in orbit decades before the current CubeSat craze. And over time, its members have learned a thing or two about responsibility. Here, open-source development has been a central principle. Within the organization, AMSAT has a philosophy of open sourcing everything making technical data on all aspects of their satellites fully available to everyone in the organization, and when possible, the public. According to a member of the team responsible for FOX 1-A,

AMSAT's first CubeSat, this means that there's no way to sneak something like explosives or an energy emitter into an amateur satellite when everyone has access to the designs and implementation. 1969年,无线电业余卫星公司成立,目的是促进业余无线电爱好者参与太空研究和通信。它延续了始于1961年的Project OSCAR的努力——这是一个美国团体,在Sputnik升空仅四年后就建造并发射了第一颗非政府卫星。作为一个志愿者组织,AMSAT在当前立方体卫星热潮之前的几十年里就一直在将"业余"卫星送入轨道。随着时间的推移,其成员已经学到了关于责任的一两件事。在这里,开源开发一直是一个核心原则。在该组织内部,AMSAT有一个将一切开源的理念,使其卫星各个方面的技术数据完全向组织内的每个人开放,并在可能的情况下向公众开放。据负责FOX 1-A(AMSAT的第一颗立方体卫星)的团队说,这意味着当每个人都能访问设计和实施方案时,不可能偷偷将爆炸物或能量发射器之类的东西放入业余卫星中。

- K) However, they're more cautious about sharing information with nonmembers, as the organization guards against others developing the ability to hijack and take control of their satellites. This form of "self-governance" is possible within long-standing amateur organizations that, over time, are able to build a sense of responsibility to community members, as well as society in general. But what happens when new players emerge, who don't have deep roots within the existing culture?

然而,他们对与非成员分享信息更为谨慎,因为该组织要防范其他人发展出劫持和控制其卫星的能力。这种形式的"自我管理"在长期存在的业余组织中是可能的,这些组织随着时间的推移,能够建立起对社区成员以及整个社会的责任感。但当新的参与者出现,而他们在现有文化中没有深厚根基时,会发生什么?

- L) Hobbyists and students are gaining access to technologies without being part of a long-standing amateur establishment. They're still constrained by funders, launch providers and a series of regulations—all of which rein in what CubeSat developers can and cannot do. But there's a danger they're ill-equipped to think through potential unintended consequences. What these unintended consequences might be is admittedly far from clear. Yet we know innovators can be remarkably creative with taking technologies in unexpected directions. Think of something as seemingly benign as the cellphone—we have microfinance and text-based social networking at one end of the spectrum, and improvised(临时制作的) explosive devices at the other.

爱好者和学生正在获得技术的使用权,而不是长期业余机构的一部分。他们仍然受到资助者、发射提供商和一系列法规的约束——所有这些都限制了立方体卫星开发者能做什么和不能做什么。但有一种危险是,他们没有能力充分考虑潜在的非预期后果。诚然,这些非预期后果可能是什么还远不清楚。然而我们知道,创新者在以意想不到的方向使用技术方面可以非常有创造力。想想像手机这样看似无害的东西——我们在光谱的一端有小额信贷和基于文本的社交网络,在另一端有临时制作的爆炸装置。

- M) This is where a culture of social responsibility around CubeSats becomes important – not simply to ensure that physical risks are minimized, but to engage with a much larger community in anticipating and managing less obvious consequences of the technology. This is not an easy task. Yet the evidence from AMSAT and other areas of technology development suggests that responsible amateur communities can and do emerge around novel technologies. The challenge here, of course, is ensuring that what an amateur community considers to be responsible, actually is. Here's where there needs to be a much wider public conversation that extends beyond government agencies and scientific communities to include students, hobbyists, and anyone who may potentially stand to be affected by the use of CubeSat technology.

这就是围绕立方体卫星的社会责任文化变得重要的地方——不仅仅是为了确保物理风险最小化,而是要与更广泛的社区一起预测和管理该技术不太明显的后果。这不是一项容易的任务。然而来自AMSAT

和其他技术发展领域的证据表明,负责任的业余社区能够而且确实围绕新技术出现。当然,这里的挑战是确保业余社区认为负责任的东西实际上是负责任的。这就是需要进行更广泛的公众对话的地方,这种对话不仅限于政府机构和科学界,还包括学生、爱好者以及任何可能受到立方体卫星技术使用影响的人。

陈述句与逐句解析

36. Given the easier accessibility to space, it is time to think about how to prevent misuse of satellites.

鉴于进入太空变得更加容易,现在是时候考虑如何防止卫星被滥用了。

【答案】 I 段 (强锚点)

【锚点】 易得后防止误用

【定位】 CubeSat researchers suggest that now's the time to ponder unexpected and unintended possible consequences of more people than ever having access to their own small slice of space.

CubeSat 研究者建议,眼下正是要思考这样一件事的时候:当比以往任何时候都更多的人能够拥有头顶这一小片太空时,可能带来什么意想不到、非本意的后果。

【改写】 it is time to think about how to prevent misuse of satellites ↔

now's the time to ponder unexpected and unintended possible consequences

时间催促句+宾语上位

Given the easier accessibility to space ↔

more people than ever having access to their own small slice of space

易得性的同义重写

【辨邻】 B B 段的落点是把问题从能不能改写为该不该,是论域转换; Q36 强调此刻就要思考如何防止——动作和时间标记都更贴 now's the time to ponder

The question here is no longer "Can we?" but "Should we?"

M M 段已经在谈 a culture of social responsibility around CubeSats becomes important 这样的解决路径与 a much wider public conversation, 是承接呼吁后的对策章节;而 Q36 锁定的是初次发出此刻该思考误用的提醒,源头仍在 I 段

This is where a culture of social responsibility around CubeSats becomes important

37. A group of mini-satellites can work together to accomplish more complex tasks.

一组微型卫星可以协同工作以完成更复杂的任务。

【答案】 C 段 (强锚点)

【锚点】 迷你卫星组合完成复杂任务

【定位】 Multiples can be deployed in combination for more complex missions than could be achieved by one CubeSat alone.

多颗 CubeSat 可以组合部署，去完成单颗 CubeSat 独自无法达成的更复杂任务。

【改写】 A group of mini-satellites ↔ **Multiples can be deployed**

数量词同义

work together ↔ **in combination**

协同方式同义

accomplish more complex tasks ↔

for more complex missions than could be achieved by one CubeSat alone

目标短语近义+对比补足

38. The greater accessibility of mini-satellites increases the risks of their irresponsible use.

微型卫星更容易获取增加了其被不负责任使用的风险。

【答案】 **B** 段（强锚点）

【锚点】 易得性提升不负责任使用风险

【定位】 However, as the cost of getting your own satellite in orbit drops sharply, the risks of irresponsible use grow.

然而，随着把自家卫星送入轨道的成本大幅下降，被不负责任使用的风险也在增大。

【改写】 The greater accessibility of mini-satellites ↔

as the cost of getting your own satellite in orbit drops sharply

易得性与成本下降互为表里

increases the risks of their irresponsible use ↔ **the risks of irresponsible use grow**

近乎逐词对应

【辨邻】 **I** I 段确实呼应了风险话题，但用的是 more people than ever having access to their own small slice of space 来引出此刻该思考的号召；首次把 accessibility increases the risks of irresponsible use 这层因果落到纸上的是 B 段，I 段更对应 Q36

now's the time to ponder unexpected and unintended possible consequences of more people than ever having access to their own small slice of space

39. Even school pupils can have their CubeSats put in orbit owing to the lowered launching cost.

由于发射成本降低,即使是在校学生也能将他们的CubeSats送入轨道。

【答案】 **E** 段（强锚点）

【锚点】 小学生借成本下降把 CubeSat 送上轨

【定位】 This decrease in cost allows researchers, hobbyists and even elementary school groups to put simple instruments into LEO or even have them deployed from the ISS.

这种成本下降使研究人员、爱好者乃至小学生团体也能把简单的仪器送入低地球轨道，甚至从国际空间站释放。

【改写】 Even school pupils ↔ **even elementary school groups**

用词不同的同义群体

have their CubeSats put in orbit ↔

put simple instruments into LEO or even have them deployed from the ISS

上位概括+具体场景

owing to the lowered launching cost ↔ **This decrease in cost allows**

因果指示词同义

40. AMSAT is careful about sharing information with outsiders to prevent hijacking of their satellites.

AMSAT对与外部人员分享信息持谨慎态度,以防止其卫星被劫持。

【答案】 **K** 段 (强锚点)

【锚点】 AMSAT 对外谨慎以防劫持

【定位】 However, they're more cautious about sharing information with nonmembers, as the organization guards against others developing the ability to hijack and take control of their satellites.

然而，他们在向非成员分享信息这件事上更为谨慎，因为该组织在防范他人获得劫持并接管其卫星的能力。

【改写】 AMSAT is careful about sharing information with outsiders ↔

they're more cautious about sharing information with nonmembers

形近词+同义群体

to prevent hijacking of their satellites ↔

guards against others developing the ability to hijack and take control of their satellites

防御性动词同源

【辨邻】 **J** J 段说的是 making technical data on all aspects of their satellites fully available to everyone in the organization，是对内开源；而 sharing information with outsiders to prevent hijacking 的关键词在对外+防劫持，与 J 段方向相反，应配 K 段

AMSAT has a philosophy of open sourcing everything making technical data on all aspects of their satellites fully available to everyone in the organization

41. NASA offers to launch CubeSats free of charge for educational and research purposes.

NASA为教育和研究目的免费提供CubeSats发射服务。

【答案】 F 段 (强锚点)

【锚点】 NASA 免费发射教育与科研 CubeSat

【定位】 The NASA Educational Launch of Nano Satellite program, which offers free launches for educational groups and science missions, is now open to U.S. nonprofit corporations as well.
NASA 的纳卫星教育发射计划为教育团体和科研任务提供免费发射，如今也对美国的非营利机构开放。

【改写】 NASA offers to launch CubeSats ↔

The NASA Educational Launch of Nano Satellite program, which offers free launches

主体专名同形

free of charge ↔ **free launches**

免费用语同义

for educational and research purposes ↔ **for educational groups and science missions**

用途词同义

42. Even with constraints, it is possible for some creative developers to take the CubeSat technology in directions that result in harmful outcomes.

即使存在限制,一些富有创造力的开发者仍有可能将CubeSat技术引向导致有害后果的方向。

【答案】 L 段 (强锚点)

【锚点】 约束之下仍可能走向有害方向

【定位】 They're still constrained by funders, launch providers and a series of regulations—all of which rein in what CubeSat developers can and cannot do. But there's a danger they're ill-equipped to think through potential unintended consequences.

他们仍然受到资助方、发射方和一系列法规的约束——这些都限制了 CubeSat 开发者能做什么、不能做什么。但是，他们可能没准备好去思考潜在的意外后果，这本身就是风险。

【改写】 Even with constraints ↔

They're still constrained by funders, launch providers and a series of regulations

约束类型清单回收为名词

some creative developers to take the CubeSat technology in directions that result in harmful outcomes

↔ **innovators can be remarkably creative with taking technologies in unexpected directions**

走偏方向+创造性同义

【辨邻】 I now's the time to ponder unexpected and unintended possible consequences
强调的是该思考的时机，而 Q42 强调的是即便有约束仍可能走向有害方向；后者必须落在有明确约束清单+但仍可能的 L 段

now's the time to ponder unexpected and unintended possible consequences of more people than ever having access to their own small slice of space

43. While making significant contributions to space science, CubeSats may pose hazards to other space vehicles.

CubeSats在为空间科学做出重大贡献的同时,可能对其他航天器构成危险。

【答案】 G 段 (强锚点)

【锚点】 重大贡献的同时威胁其他航天器

【定位】 Yet it also acknowledges that widespread deployment of LEO CubeSats isn't risk-free. The greatest concern the authors raise is space debris—pieces of "junk" that orbit the earth, with the potential to cause serious damage if they collide with operational units, including the ISS. 但报告也承认，在低地球轨道大规模部署 CubeSat 并非毫无风险。作者最大的担忧是太空碎片——绕地球运行的垃圾，一旦与正在运行的设备（包括国际空间站）相撞，可能造成严重损坏。

【改写】 making significant contributions to space science ↔

emphasizes CubeSats' importance in scientific discovery and the training of future space scientists and engineers

贡献语同义改写

pose hazards to other space vehicles ↔

cause serious damage if they collide with operational units, including the ISS

威胁词+对象上位

【辨邻】 H H 段确实谈论威胁，但接着 near-misses 谈 creation of a burdensome regulatory framework，重点落在监管后果而非首次把贡献与威胁并列；Q43 的 while 句式要求贡献与威胁并列出现，这只在 G 段同时具备

even near-misses might lead to the "creation of a burdensome regulatory framework and affect the future disposition of science CubeSats"

44. Mini-satellites enable operators to study Earth from LEO and space around it.

微型卫星使操作者能够从近地轨道研究地球及其周围空间。

【答案】 D 段 (强锚点)

【锚点】 在 LEO 同时研究地球与周边空间

【定位】 Within their compact bodies these minute satellites are able to house sensors and communications receivers/transmitters that enable operators to study Earth from space, as well as space around Earth.

在迷你身躯之内，这些微型卫星能够容纳传感器以及通信收发设备，使操作者得以从太空研究地球，同时也研究地球周边的空间。

【改写】 Mini-satellites enable operators ↔

these minute satellites are able to house sensors and communications receivers/transmitters that enable operators

主体词+动词同义

to study Earth from LEO and space around it ↔

to study Earth from space, as well as space around Earth

并列宾语近乎逐字

45. AMSAT operates on the principle of having all its technical data accessible to its members, preventing the abuse of amateur satellites.

AMSAT的运作原则是使其所有技术数据对成员开放,以防止业余卫星被滥用。

【答案】 J 段 (强锚点)

【锚点】 AMSAT 内部数据全开放防滥用

【定位】 Within the organization, AMSAT has a philosophy of open sourcing everything making technical data on all aspects of their satellites fully available to everyone in the organization, and when possible, the public. According to a member of the team responsible for FOX 1-A, AMSAT's first CubeSat, this means that there's no way to sneak something like explosives or an energy emitter into an amateur satellite when everyone has access to the designs and implementation.

在组织内部，AMSAT 奉行将一切开源的理念，把卫星各方面的技术数据完全向组织内每一个人开放，并在可能时面向公众。据 AMSAT 第一颗 CubeSat (FOX 1-A) 负责团队的成员介绍，这意味着——只要所有人都能接触到设计和实现，就没有办法偷偷把炸药或能量发射器这类东西塞进一颗业余卫星里。

【改写】 AMSAT operates on the principle ↔ AMSAT has a philosophy of open sourcing everything

原则与理念同义

having all its technical data accessible to its members ↔

making technical data on all aspects of their satellites fully available to everyone in the organization

近乎逐字对应

preventing the abuse of amateur satellites ↔

there's no way to sneak something like explosives or an energy emitter into an amateur satellite when everyone has access to the designs and implementation

防滥用的具体场景上位概括

【辨邻】 K more cautious about sharing information with nonmembers 与 guards against others developing the ability to hijack and take control of their satellites 强调的是对非成员不分享、防被劫持，而 Q45 的关键是 accessible to its members + preventing abuse，源头段必须是对内全面开放的 J 段

they're more cautious about sharing information with nonmembers, as the organization guards against others developing the ability to hijack and take control of their satellites

PARAGRAPH MAP • 段落主旨图

13 个段落各讲了什么

逐段一句主旨 + 该段最具区分度的「信息指纹」，是逐句回扫定位的工作台。

A 卫星过去是富国和大公司的专属玩具，如今随着太空民主化，正像无人机一样走入普通人手中，根本性地改变了头顶上方是谁在做什么的格局。

信息指纹 无人机类比+太空民主化

B 国家科学院报告指出微型卫星让卫星科学前所未有地普及，但成本暴跌也带来不负责任使用的风险，问题已从能不能变成该不该。

信息指纹 可不可以变该不该

C 介绍 CubeSat 这一独特类别：边长 10 厘米的立方体，可塞进运载火箭过去被浪费的空间，多颗组合能完成单颗做不到的复杂任务。

信息指纹 10 厘米立方体+组合发射

D 迷你卫星体内装有传感器和收发机，主要在距地面 200 到 800 英里的低地球轨道运行，既可研究地球本身、也可研究地球周边空间，未来还可能跑得更远。

信息指纹 在 LEO 同时研究地球与周边空间

E 正因为小而轻，CubeSat 入轨成本远低于传统卫星，连研究人员、爱好者乃至小学生团体都用得起，亚利桑那州立大学的项目甚至声称只需三千美元。

信息指纹 三千美元+小学生也能上天

F 回溯 CubeSat 起源：本世纪初由斯坦福研究生发起，如今 NASA、国家侦察办公室、波音都在运行 CubeSat，且 NASA 的纳卫星教育发射计划免费向教育与科研团体开放。

信息指纹 NASA 免费发射教育卫星

G 国家科学院报告强调 CubeSat 对科学发现和培养新一代航天人才的重要意义，但同时承认在低地球轨道大规模部署并非零风险，最担心的是与 ISS 等可能相撞的太空碎片。

信息指纹 贡献伴随太空碎片威胁

H 目前 CubeSat 数量不多、能被密切追踪，但随着低地球轨道开放，威胁可能变大，连险些相撞都可能催生繁琐的监管框架，反过来影响科研 CubeSat 的未来。

信息指纹 险些相撞催生监管

I CubeSat 研究者呼吁，正是因为购买套件就能上手，现在该认真思考更多人涉足太空可能带来的意外后果，要确保头顶上的卫星出自怀有好意且懂行的人之手。

信息指纹 易得后思考误用风险

J 介绍 AMSAT：1969 年成立，承袭 1961 年 Project OSCAR 的努力；作为志愿者组织，几十年来在组织内部全面开源所有技术资料，从而防止有人偷偷往业余卫星里塞炸药或能量发射器。

信息指纹 AMSAT 内部全面开源防滥用

K AMSAT 对非成员则更为谨慎，警惕外界获取信息后劫持并接管自家卫星；这种自治在老牌业余组织里行得通，但新玩家入场时未必。

信息指纹 对外谨慎防劫持

L 爱好者和学生未加入老牌业余组织的情况下就能拿到技术，虽受到资助方、发射方和监管的约束，但仍可能把技术带向意想不到的方向；以手机为例，从普惠金融到简易爆炸装置两端皆有。

信息指纹 受约束仍可能走偏的手机类比

M 因此围绕 CubeSat 的社会责任文化十分重要，不只是降低物理风险，还要在更大社区里预见和管理不那么显眼的后果；需要一场把学生、爱好者和潜在受影响者也包括进来的更广泛公共对话。

信息指纹 更广泛公共对话

SENTENCE INSIGHTS • 句子精讲

8 句真题句逐层精讲

下列真题句各有独立的句子解析页——中文翻译、结构树逐层拆解、成分与时态、考点讲解与真题高频词。点击句子进入完整解析。

Satellites used to be the exclusive playthings of rich governments and wealthy corporations.

A段，第1句

'used to' 结构和主系表句型在考试中较为常见，表语后接介词短语作定语也是高频结构。但本句整体过于简洁，缺少从句、复杂修饰或多层嵌套等典型考点，代表性中等，学习后可部分迁移但覆盖面有限。

What are the potential downsides of having a slice of space densely populated by equipment built by people not traditionally labeled as "professionals"?

B段，第4句

本句成分划分训练价值高。一是疑问句的倒装结构（表语前置、主语后置）需要识别；二是主语内部包含介词短语作定语、动名词短语作介词宾语、多层过去分词短语作后置定语等多种修饰成分，覆盖了定语、介词短语、非谓语动词等常见易错考点，且嵌套层次深，适合训练剥离修饰、定位核心成分的能力。

For instance, a research group here at Arizona State University recently claimed their developmental small CubeSats could cost as little as \$3,000 to put in orbit.

E段，第2句

本句的主句 + 宾语从句 结构是四六级和考研阅读中的高频句式。主句谓语为陈述类动词（claimed）引出宾语从句、从句中使用情态动词表可能性，这种模式在学术类、科技类文章中极为常见。掌握此句的分析方法可直接迁移到大量类似句子（如 研究表明/报告指出 + 宾语从句）。结构典型性较高，值得作为基础句型反复练习。

As the report authors point out, even near-misses might lead to the "creation of a burdensome regulatory framework and affect the future disposition of science CubeSats."

H段，第3句

"As" 引导的状语从句位于句首修饰主句，这是学术写作和考试阅读中非常典型的句式；主句的情态动词加 "lead to" 表示可能性结果，也是常见表达；整体结构代表性强，学习后可应用于多种语境

They're still constrained by funders, launch providers and a series of regulations—all of which rein in what CubeSat developers can and cannot do.

L段，第2句

句子成分丰富：主句包含主语、被动谓语、时间状语still、方式状语by短语；非限制性定语从句涉及特殊主语all of which和宾语从句；宾语从句中what既是引导词又充当宾语。涵盖了被动结构、定语从句、宾语从句、情态动词等多个常考成分，适合作为综合练习

What these unintended consequences might be is admittedly far from clear.

L段，第4句

句子涵盖主语从句、系表结构、情态动词结构等多种成分，且主语从句内部还有主谓表的完整结构，成分类型丰富。特别是 What 在从句中既引导从句又充当表语，是值得练习的易错点。

The challenge here, of course, is ensuring that what an amateur community considers to be responsible, actually is.

M段，第4句

本句涵盖了系表结构、动名词作表语并带宾语从句、"what" 引导的主语从句兼作宾语、宾语补足语 ("consider...to be")、插入语等多种成分。尤其 "what" 在从句中既作引导词又充当宾语的双重角色、以及宾语从句中省略表语的现象，都是常见易错点。成分种类丰富且具有代表性，非常适合作为划分练习。

Even school pupils can have their CubeSats put in orbit owing to the lowered launching cost.

第39题题干

覆盖主谓宾、宾语补足语、原因状语、定语等多种成分，尤其 "have + 宾语 + 过去分词" 的使役结构是高频易错点，值得专项练习；owing to 引导原因状语也是常考搭配；分词作定语的识别同样有训练价值。

HIGH-FREQUENCY • 真题高频词

本篇出现的 140 个英语六级真题高频词

下列单词既在本篇真题中出现，又是 **英语六级** 历年真题的高频词（在该考试真题中出现的句子数均不少于 8）。每个词标注本篇 出现次数与该考试真题句频，点击可查看该词的释义、音标、词形与真题例句。

satellite B2

n. 人造卫星

本篇25次 · 真题 45 句

amateur B2

n. 业余爱好者

本篇11次 · 真题 13 句

launch B1

v. 推出

本篇10次 · 真题 56 句

orbit B2

n. 轨道

本篇9次 · 真题 17 句

organization B1

n. 组织

本篇6次 · 真题 73 句

community B1

n. 社区

本篇5次 · 真题 163 句

potential B2

adj. 潜在的

本篇4次·真题 92 句

consequence B2

n. 结果

本篇4次·真题 66 句

responsible B1

adj. 负责的

本篇4次·真题 40 句

risk A2

n. 风险

本篇3次·真题 167 句

design B1

n. 设计

本篇3次·真题 119 句

simply B1

adv. 仅仅, 只不过

本篇3次·真题 119 句

access B1

n. 进入

本篇3次·真题 101 句

responsibility B1

n. 责任

本篇3次·真题 69 句

enable B1

v. 使能够

本篇3次·真题 68 句

operate B1

v. 运转

本篇3次·真题 52 句

educational B1

adj. 教育的

本篇3次·真题 44 句

accessible B2

adj. 可达到的

本篇3次·真题 25 句

corporation B2

n. 公司, 企业 (尤指大型的、有限责任的)

本篇3次·真题 20 句

mission B1

n. 任务

本篇3次·真题 16 句

unintended B2

adj. 非故意的

本篇3次·真题 8 句

researcher B2

n. 研究人员

本篇2次·真题 363 句

less A1

det. 较少的

本篇2次·真题 273 句

author A2

n. 作者

本篇2次·真题 264 句

actually A2

adv. 实际上, 事实上 (用于纠正或补充信息)

本篇2次·真题 182 句

data B1

n. 数据

本篇2次·真题 181 句

decade B1

n. 十年

本篇2次·真题 120 句

affect B1

v. 影响

本篇2次·真题 116 句

scientific B1

adj. 科学的

本篇2次·真题 103 句

creative B1

adj. 有创造力的

本篇2次·真题 65 句

easily A2

adv. 容易地

本篇2次·真题 65 句

complex B2

adj. 复杂的, 难懂的

本篇2次·真题 61 句

ensure B2

v. 确保

本篇2次·真题 57 句

principle B2

n. 原则, 准则

本篇2次·真题 54 句

currently B1

adv. 目前, 当前

本篇2次·真题 42 句

emerge B2

v. 出现;浮现

本篇2次·真题 32 句

vehicle B1

n. 交通工具

本篇2次·真题 32 句

technical B2

adj. 技术的

本篇2次·真题 23 句

pose B2

v. 摆姿势 (供拍照或绘画)

本篇2次 · 真题 22 句

unexpected B1

adj. 意外的

本篇2次 · 真题 18 句

academy B2

n. 学院

本篇2次 · 真题 15 句

operator B1

n. 操作员

本篇2次 · 真题 11 句

deploy C1

v. 部署, 调动 (军队或资源)

本篇2次 · 真题 9 句

nonprofit B2

adj. 非营利的

本篇2次 · 真题 8 句

would A1

aux. (will 的过去式) 将要, 会

本篇1次 · 真题 568 句

accord C1

n. (国家、团体间的) 协议

本篇1次 · 真题 167 句

challenge B1

n. 挑战

本篇1次 · 真题 119 句

project A2

n. 项目

本篇1次 · 真题 116 句

expert B1

n. 专家

本篇1次 · 真题 114 句

claim B1

v. 声称

本篇1次 · 真题 111 句

gain B1

v. 获得; 赢得

本篇1次 · 真题 96 句

physical B1

adj. 身体的

本篇1次 · 真题 91 句

concern B1

v. 涉及

本篇1次 · 真题 88 句

evidence B1

n. 证据

本篇1次 · 真题 87 句

traditional B1

adj. 传统的

本篇1次·真题 84 句

graduate B1

n. 毕业生

本篇1次·真题 82 句

professional B1

adj. 专业的

本篇1次·真题 82 句

increasingly B2

adv. 越来越;日益;不断增加地

本篇1次·真题 78 句

region B1

n. 地区

本篇1次·真题 78 句

exist A2

v. 存在;实际上有

本篇1次·真题 77 句

recently A2

adv. 最近

本篇1次·真题 76 句

source B1

n. 来源

本篇1次·真题 75 句

current B1

adj. 现在的

本篇1次·真题 72 句

engage B2

v. 参与;从事

本篇1次·真题 68 句

significant B2

adj. 重要的

本篇1次·真题 65 句

available A2

adj. 可获得的

本篇1次·真题 63 句

importance B1

n. 重要性

本篇1次·真题 60 句

device B1

n. 设备

本篇1次·真题 54 句

unique B2

adj. 独特的

本篇1次·真题 54 句

label B1

n. 标签

本篇1次·真题 52 句

threat B1

n. 威胁

本篇1次·真题 51 句

aspect B2

n. 方面

本篇1次·真题 50 句

track A2

n. 小路

本篇1次·真题 48 句

damage B1

n. 损害

本篇1次·真题 46 句

charge B1

v. 收费

本篇1次·真题 44 句

fully B1

adv. 完全地

本篇1次·真题 43 句

novel B1

n. 小说

本篇1次·真题 43 句

agency B2

n. 代理机构

本篇1次·真题 42 句

player A2

n. 运动员

本篇1次·真题 41 句

outcome B2

n. 结果

本篇1次·真题 40 句

wealthy B2

adj. 富有的

本篇1次·真题 39 句

central B1

adj. 主要的

本篇1次·真题 36 句

instance B2

n. 例子

本篇1次·真题 35 句

series B1

n. 系列

本篇1次·真题 33 句

clearly A2

adv. 清楚地, 明白地

本篇1次·真题 32 句

harmful B1

adj. 有害的

本篇1次·真题 32 句

era

B2

n. 时代

本篇1次·真题 31 句

obvious

B1

adj. 明显的

本篇1次·真题 31 句

transform

B2

v. 使彻底改变;使转变

本篇1次·真题 30 句

closely

B1

adv. 紧密地

本篇1次·真题 28 句

decrease

B1

v. 减少, 降低

本篇1次·真题 28 句

extend

B1

v. 延伸;延长

本篇1次·真题 28 句

regulation

B2

n. 规则, 条例

本篇1次·真题 28 句

increasing

B1

adj. 越来越多的

本篇1次·真题 26 句

lower

A2

adj. 较低的;下方的

本篇1次·真题 26 句

highlight

B2

n. 最精彩的部分

本篇1次·真题 25 句

root

A2

n. 根

本篇1次·真题 25 句

beneficial

B2

adj. 有益的

本篇1次·真题 24 句

ordinary

B1

adj. 普通的

本篇1次·真题 24 句

provider

B2

n. 供应者

本篇1次·真题 24 句

potentially

B2

adv. 可能地

本篇1次·真题 23 句

widespread

B2

adj. 广泛的

本篇1次·真题 23 句

foster B2

v. 培养

本篇1次·真题 22 句

anticipate B2

v. 预料, 预期 (某事将发生)

本篇1次·真题 21 句

contribution B2

n. 贡献

本篇1次·真题 21 句

emphasize B2

v. 强调

本篇1次·真题 21 句

fiction B2

n. 小说

本篇1次·真题 21 句

multiple B2

adj. 多个的

本篇1次·真题 21 句

primarily B2

adv. 主要地

本篇1次·真题 21 句

acknowledge B2

v. 承认 (事实、错误等)

本篇1次·真题 20 句

capability B2

n. 能力

本篇1次·真题 20 句

creation B2

n. 创造

本篇1次·真题 20 句

debris C1

n. 残骸

本篇1次·真题 20 句

rocket B1

n. 火箭

本篇1次·真题 19 句

sensor B2

n. 传感器

本篇1次·真题 19 句

accomplish B2

v. 完成, 实现 (任务、目标)

本篇1次·真题 18 句

combination B1

n. 结合

本篇1次·真题 17 句

minimize B2

v. 使减少到最低限度

本篇1次·真题 15 句

spectrum C1

n. 范围

本篇1次·真题 15 句

seemingly B2

adv. 看似，似乎（表面上看起来是这样，但...

本篇1次·真题 14 句

tremendous B2

adj. 巨大的

本篇1次·真题 14 句

constraint B2

n. 限制

本篇1次·真题 13 句

equipment B1

n. 设备

本篇1次·真题 13 句

participation B2

n. 参与

本篇1次·真题 13 句

sharply B2

adv. 急剧地

本篇1次·真题 13 句

philosophy B2

n. 哲学

本篇1次·真题 12 句

distant B1

adj. 遥远的，远处的

本篇1次·真题 11 句

inspiration B2

n. 灵感

本篇1次·真题 11 句

owe B1

v. 欠（债、钱、人情等）

本篇1次·真题 11 句

proceed B2

v. 继续进行

本篇1次·真题 11 句

hazard B2

n. 危险

本篇1次·真题 10 句

constrain C1

v. 限制，约束（行动或自由）

本篇1次·真题 9 句

drone B2

n. 无人机

本篇1次·真题 9 句

establishment B2

n. 机构

本篇1次·真题 9 句

fundamentally C1

adv. 根本上

本篇1次·真题9句

junk B1

n. 废物

本篇1次·真题9句

attain B2

v. 达到

本篇1次·真题8句

intention B1

n. 意图

本篇1次·真题8句

spacecraft B2

n. 航天器

本篇1次·真题8句

traditionally B2

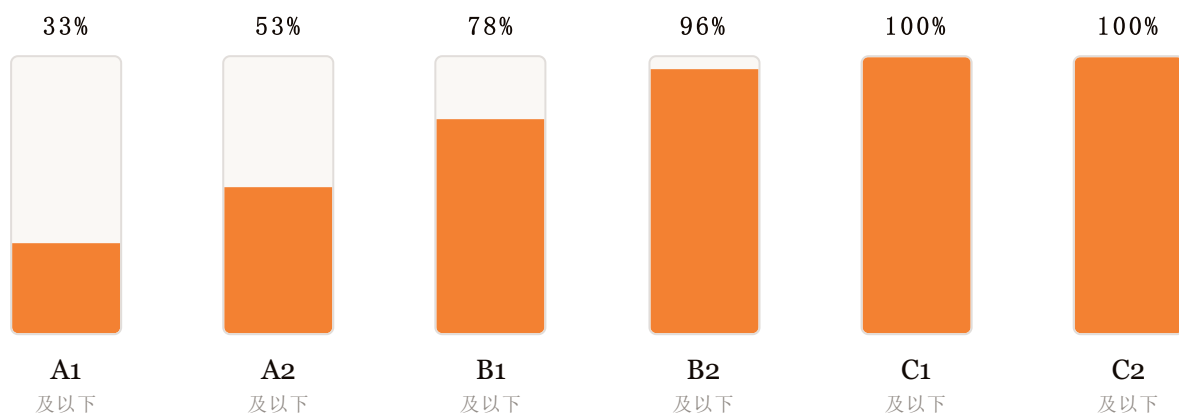
adv. 传统上;按照传统

本篇1次·真题8句

VOCABULARY · 词汇难度分布

全文 414 词按 CEFR 难度累积覆盖

全文去重后共 **414** 个单词，按欧框 CEFR 等级统计。每根柱表示「该等级及以下」的累积占比（CDF），最右一柱为 100%。B2 以上（C1/C2）为高阶词，本篇共 18 个·约 4%。



每柱为「按 CEFR 等级及以下」的累积覆盖率（CDF）·数据为全文去重词 414 个·末柱为 100%

去重总词数

414

B2 以上难词

4%

B1 及以下覆盖

78%

英语六级 2019年6月·第3套 · 全卷构成

Part I	写作	题目解析 →
Part II	听力	与2019年6月第1套共用 · 题目解析 →
Part III Section A	完形填空（选词填空）	题目解析 →
Part III Section B	长篇阅读（信息匹配）	本题
Part III Section C (1)	阅读理解（四选一）	题目解析 →
Part III Section C (2)	阅读理解（四选一）	题目解析 →
Part IV	汉译英（段落翻译）	题目解析 →