

- 請注意：中文文字内容只提供簡體版

美国国家航空航天局（Nasa）计划于2018年向太阳发射一个太空探测器，这艘探测器飞船将穿过1400摄氏度的高温地带，最终冲入距太阳表面400万英里（约640万公里）的区域。这个探测器将成为有史以来离太阳表面最近的人造物体。该太阳探测计划以天文物理学家尤金·派克（Eugene Parker）的名字被重新命名，这位科学家曾引领与太阳“大气层”带电粒子流现象“太阳风”有关的研究。请听报道。

To understand the **daring** nature of this mission, **bear in mind** a few key numbers: Earth orbits the Sun at a distance of 91 million miles; Mercury is much closer at about 21 million. But the Nasa Solar Probe will get to within four million miles.

This is uncharted and extremely **hostile territory**. The spacecraft will have to endure a temperature of nearly 1400C - the kind of heat generated inside a **blast furnace** in a **steelworks**. So the craft has special protection – a **shield** of **carbon-composite** about 4.5 inches thick. But the slightest error in its flight and the **instruments** sheltering behind the shield will be **fried**.

The motivation for flying so close to the Sun is to explain some of the mysteries about it. Why, for example, the greatest heat is not at the surface, but in the **corona**, a region surrounding the Sun? It's here that vast **flares** are generated that can send streams of particles our way, which can disrupt anything electronic including **satellites** or **power grids**. Understanding this so-called **space weather** is seen as vitally important to our modern economies, and getting very close is the best way to do that.

## 词汇表

<b>daring</b>	大胆的
<b>bear in mind</b>	别忘了，记住
<b>hostile</b>	（环境）恶劣的，严酷的
<b>territory</b>	领域，地区
<b>blast furnace</b>	鼓风机
<b>steelworks</b>	炼钢厂（此处为单数，复数形式也是 steelworks）
<b>shield</b>	保护罩
<b>carbon-composite</b>	碳复合材料
<b>instruments</b>	仪器，器械
<b>fried</b>	被（高温）烧毁
<b>corona</b>	日冕，太阳大气最外层的部分
<b>flares</b>	（太阳）耀斑
<b>satellites</b>	人造卫星
<b>power grids</b>	电网
<b>space weather</b>	“太空天气”，指与太阳活动有关的现象

## 测验

请听报道并回答下列问题。

1. How close will the spacecraft get to the Sun?
2. What kind of protection does the craft have against the heat?
3. True or false? *The hottest region of the Sun is on its surface.*
4. Which word in the text is used to describe a place that has not been explored?

## 答案

1. How close will the spacecraft get to the Sun?  
**The spacecraft will get to within four million miles of the Sun's surface.**
2. What kind of protection does the craft have against the heat?  
**The craft has a shield of carbon-composite about 4.5 inches thick.**
3. True or false? *The hottest region of the Sun is its surface.*  
**False. The greatest heat is not on the surface, but in the corona, a region surrounding the Sun.**
4. Which word in the text is used to describe a place that has not been explored?  
**Uncharted.**