

# NASA 黑客松 (Space Apps Challenge) 2017 - 五大類挑戰題目分類預覽

***您好, NASA 黑客松 (Space Apps Challenge) 的隊員們 !***

自從我們宣布了2017年的主題「地球」以來, 許多人不斷詢問我們, 想知道更多今年挑戰的相關訊息。

我們跟您一樣對我們的家「地球」感到興奮和好奇 - 以下是即將宣布之五大挑戰題目類別的概要預覽!

## A SNEAK PEAK AT THE SPACE APPS 2017 CHALLENGE CATEGORIES

***Greetings, Space Apps crew!***

Ever since we announced the new theme for Space Apps 2017, Earth, we've been receiving a flood of requests for more information about this year's challenges.

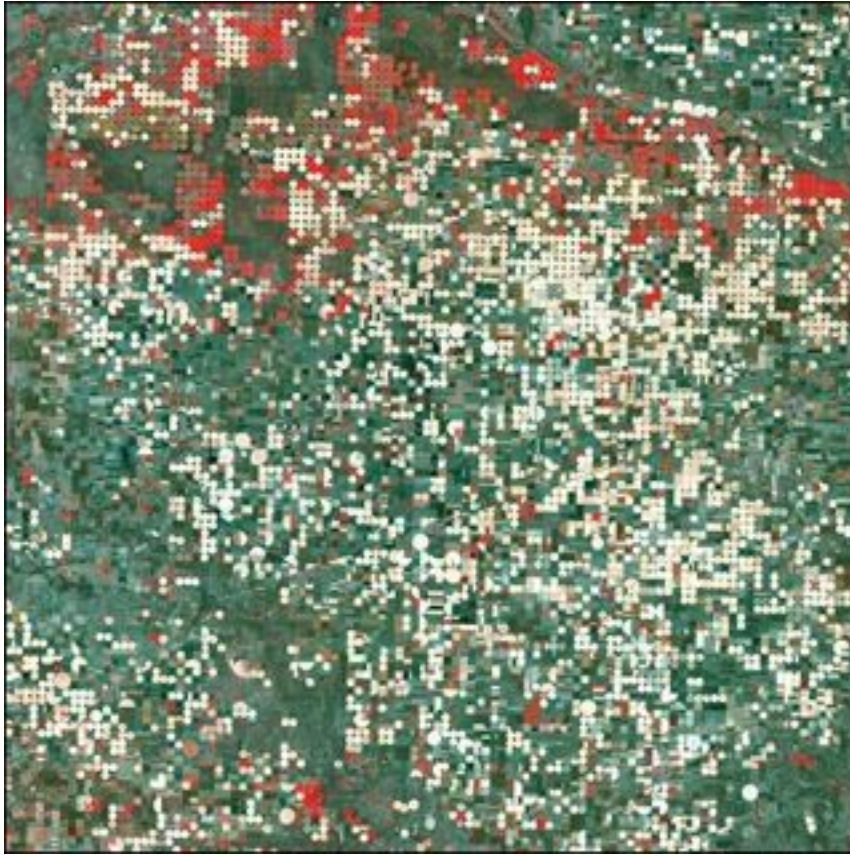
We share your excitement and curiosity about our home planet – so, here's a preview of the five categories of challenges that you will solve!

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本文翻譯自 A Sneak Peak at the Space Apps 2017 Challenge Categories

<https://2017.spaceappschallenge.org/blog/sneak-peak-space-apps-2017-challenge-categories>

如中、英文互相歧異或抵觸時, 以英文原始文本為準。



## 1. 地球與我們

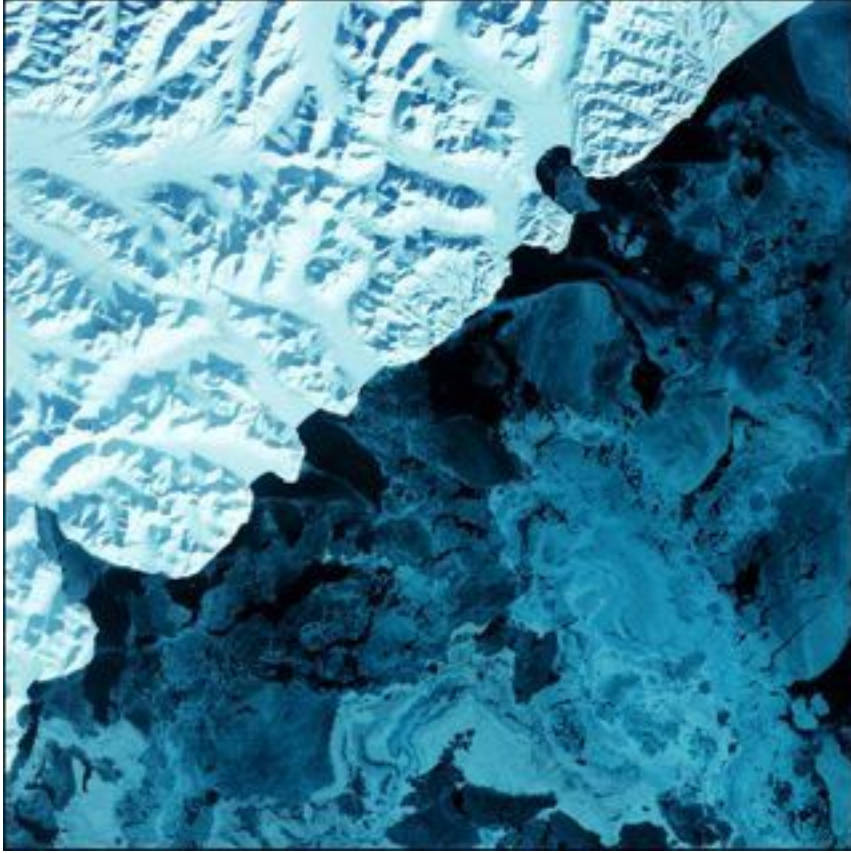
「NASA 地球科學計畫」利用太空和航空載具所量測的結果，協助我們分類、理解、和預測地球系統的變異性和趨勢，以作為研究與特定的開發應用。地球是我們目前唯一知曉的適居地，而地球的各種現象 - 包括氣候和天氣，以及森林和海洋等天然資源 - 都全面地影響著我們的生活。NASA地球科學計畫的數據和產品使我們能夠了解地球及其對自然或人為因素變化的反應，以幫助我們做出明智的決定來改善我們的生活。

在本類別的挑戰中，您需要結合 NASA 地球科學計畫的數據與社會學暨經濟資訊，以期能激發出對於「人與環境交互作用」的新理解和遠景。

## 1. The Earth and Us

NASA Earth Science uses space-borne and aircraft measurements to help us characterize, understand, and predict variability and trends in Earth's system for both research and specific applications. As our only known habitat, this planet — including its phenomena like climate and weather, and natural resources like forests and oceans — influences all aspects of our lives. NASA Earth Science data and products allow us to understand our home planet and its response to natural or human-induced changes, which helps us make informed decisions to enhance our lives.

Challenges in this category will ask you to combine NASA Earth Science data with sociological and economic information to generate new understanding and perspectives on human-environment interactions.



## 2. 蔚藍的地球

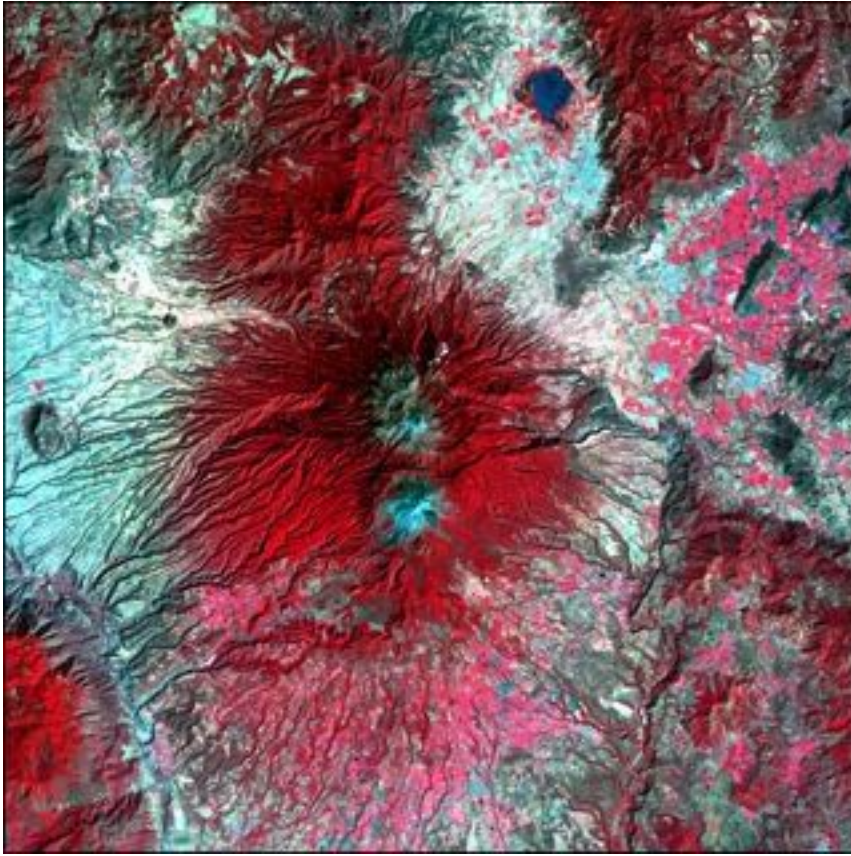
人體大約60% 的組成及地表70% 以上的覆蓋面積，都是液態或固態的水，因此當NASA在探索其他行星上的水資源和生命時，以及嘗試滿足地球上與日俱增之乾淨水的需求時，都對水這個議題有興趣。NASA地球科學計畫的數據和產品能使我們更有效率地管理水資源的質和量，並預測全球水循環的過程。

在本類別的挑戰中，您需要分析並繪出NASA在水圈 (hydrosphere) (含地表水和地下水等) 及冰圈 (cryosphere) (含海冰及冰蓋等)的數據。

## 2. Planetary Blues

Making up roughly 60% of the mass of our bodies and over 70% percent of the surface of the Earth, liquid and frozen water are naturally of interest to NASA as we search for water and life on other planets, and try to meet the increasing demands for freshwater here on Earth. NASA Earth Science data and products allow us to better manage water quality and quantity, and to predict processes of the global water cycle.

Challenges in this category will ask you to analyze and visualize NASA's data on the hydrosphere (surface and groundwater, etc.) and the cryosphere (sea ice and ice sheets, etc.).



### 3. 警告！危險將至！

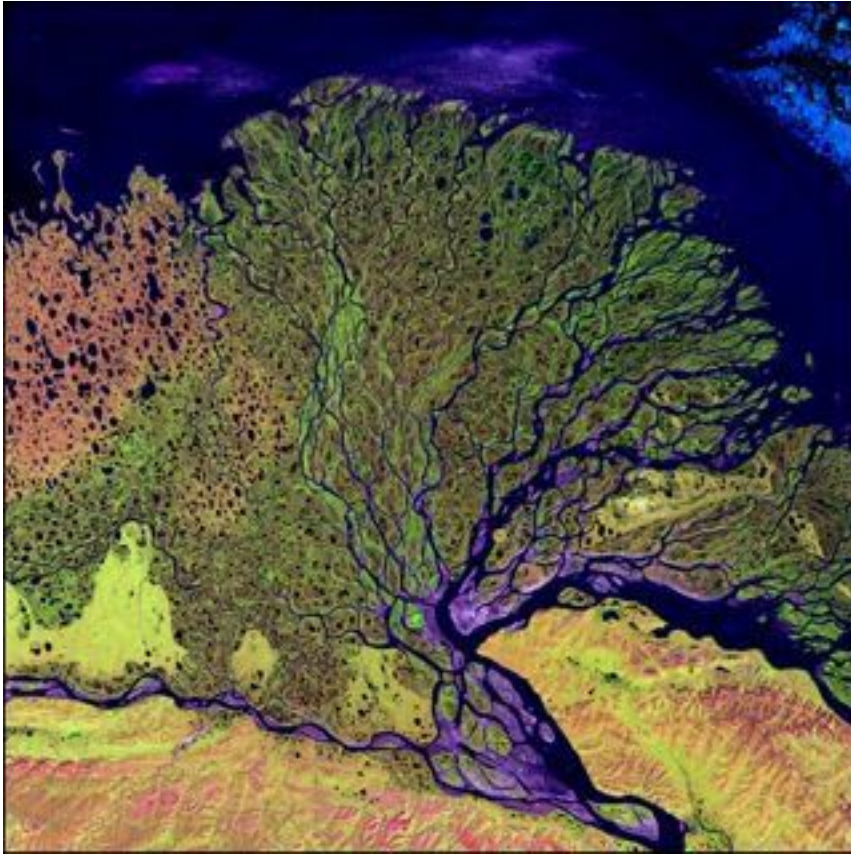
各式的天然災害，如野火、地震和塌方等，每年都危害著全世界無數的生命。此外，許多的天然現象也造成了危險化學物質和污染物的暴露，因而增加了增加人類死亡和生病的風險，以及傳染病的傳播。NASA的地球觀測數據，可以改進我們對這些天然災害的理解和預測，並進而提升我們對這些威脅的預防機制以及應變能力。

在本類別的挑戰中，您需要分析NASA數據，以協助監測與那些和健康風險相關的自然災害及現象，並評估其對人類身家及財產的影響。

### 3. Warning! Danger Ahead!

Natural disasters, like wildfires, earthquakes, and landslides, wreak havoc on the lives of people all over the world every year. Additionally, many natural phenomena bring with them increased risks of deaths and illnesses from exposure to hazardous chemicals and pollutants, and the spread of communicable diseases. NASA's Earth observations allow improved understanding and forecasting, and thus, better preparation for and response to these threats.

Challenges in this category will ask you to analyze NASA data to assist in monitoring natural disasters and phenomena associated with health risks, and to assess their impacts on life and property.



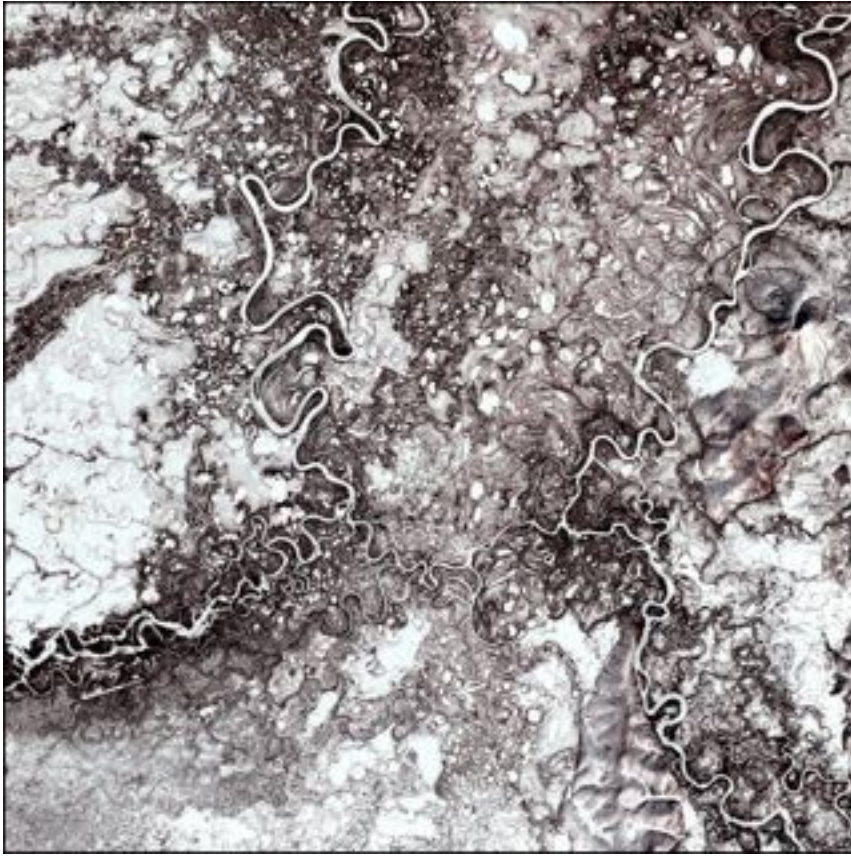
#### 4. 比鄰的生態圈

NASA不僅在其他行星上探索生命，也同時嘗試了解我們地球上的生命。由18個繞行地球之衛星所形成的地球科學計畫，提供了我們關於生態圈內之環境與物種的線索，並協助我們解答關於生物圈的問題。

在本類別的挑戰中，您需要使用NASA地球科學計畫的數據來研究生態系統，並提出解決方案，來幫助我們進一步了解地球上的生命。

#### 4. Our Ecological Neighborhood

NASA conducts explorations in search of life not only on other planets, but also to understand life right here on our home planet. The 18 Earth Science missions that orbit the Earth reveal clues about the environments and species that make up our ecological neighborhood, and help us answer questions about our biosphere. Challenges in this category will ask you to use NASA Earth Science data to study ecological systems and generate solutions to understand life here on Earth better.



## 5. 構思與創造！

如果沒有探險家的創新和創造精神，人類將無法探索深遠的宇宙並深究地球的奧秘！NASA 地球科學計畫連結了像您一樣充滿想像力的科學家、工程師及說書人，一同來解決我們在地球上所面臨的挑戰。

在本類別的挑戰中，您需要運用創造力來解讀NASA地球科學計畫的數據，並設計出新方式來用以體驗NASA地球科學計畫的數據及科技。

## 5. Ideate and Create!

Reaching out to the farthest expanses of our universe and diving deep to understand the mysteries of our own planet would not be possible without the innovative and creative spirit of explorers! NASA Earth Science channels the imagination of scientists, engineers, and storytellers like YOU to solve challenges that we face here on Earth.

Challenges in this category will ask you to interpret NASA Earth Science data creatively and design new means to experience NASA Earth Science data and technologies.

倒數 5 ...4 ...3 ...2 ...1 ....

快報名加入我們，參加 [NASA 黑客松 \(Space Apps Challenge\)](#) !

NASA 黑客松 (Space Apps Challenge) 全球團隊

圖片來源：“[Earth as Art 地球就是藝術](#)”，NASA; NASA [地球觀測站](#)  
Image credits: "[Earth as Art](#)," NASA; NASA [Earth Observatory](#)

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