Hard Level

CAT ISLAND, BAHAMAS

Cat Island is one of 29 islands, 661 cays, and 2,387 islets that form the Commonwealth of the Bahamas. Named San Salvador prior to 1925, Cat Island has been put forward as a candidate for where Christopher Columbus may have made his first landfall in the Americas.

EGYPTIAN DUST PLUME, RED SEA

This dramatic view of the Red Sea shows the generally parallel margins of the opposing coastlines. The rift, or depression, that now holds the Red Sea has been opening slowly for about 30 million years and is nearly 300 kilometers wide in the region of the dust plume. The depression only began filling with seawater within the past five million years. The satisfyingly good fit between the coastlines allows the viewer to easily visualize how Africa and Arabia were once a single landmass before the Red Sea rift formed.

SOUTHERN ITALIAN PENINSULA AT NIGHT

This astronaut photograph highlights the nighttime appearance of the southern Italian Peninsula. The toe and heel of Italy’s “boot” are clearly defined by the lights of large cities such as Naples, Bari, and Brindisi, as well as numerous smaller cities and towns. The bordering Adriatic, Tyrrhenian, and Ionian Seas appear as dark regions to the east, west, and south. The city lights of Palermo and Catania, Sicily, are also visible.

Sochi at night

In the image, the Olympic flame now burns in the circular Medals Plaza, ringed in gold and bright white lighting in the center of the Olympic Park. The oval-shaped Fisht Olympic Stadium is lit in blue and stands near the shore to the south. (Note that south is to the right in the image.) The Adler Arena Skating Center and the Iceberg Skating Palace both appear as black rectangles north and east of the Medals Plaza, and the Bolshoy Ice Dome has a pink tint and stands to the west.

SMOKE PLUMES OVER IDAHO AND MONTANA

On August 13, 2007, while docked to the International Space Station (ISS), the crew members of Shuttle Mission STS-118 and ISS Expedition 15 reported seeing the smoke plumes from wide-spread fires across Idaho and Montana. The crew photographed and downlinked images of isolated plumes (top image) and regional views of the smoke (bottom image) from different perspectives. Strong westerly winds were driving the smoke eastward.

THE KOREAS AT NIGHT

North Korea is almost completely dark compared to neighboring South Korea and China. The darkened land appears as if it were a patch of water joining the Yellow Sea to the Sea of Japan. Its capital city, Pyongyang, appears like a small island, despite a population of 3.26 million (as of 2008). The light emission from Pyongyang is equivalent to the smaller towns in South Korea.

Hawaii

If anyone has an easy job, it’s the Hawaii tourism authority, the organization responsible for promoting the island as a tourist destination. Using language such as “lush rain forests” and “black sand beaches,” they sum up the Island of Hawaii as a “vast canvas of environments.”

The words are the perfect description for the image, captured by the Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA’s Terra satellite on January 26, 2014. The remarkably cloud-free view shows the range of ecological diversity present on the island. The lower image, an astronaut photograph, shows the island in context. At 10,432 square kilometers, the Island of Hawaii is nearly twice as big as all of the other islands combined.

ISLAND OF CRETE,GREECE

Today, Crete is the largest and most heavily populated island of Greece (or the Hellenic Republic). The island stretches approximately 260 kilometers from west to east, and it is roughly 60 kilometers across at its widest point. The rugged terrain of Crete includes mountains, plateaus, and several deep gorges. The largest city on the island, Heraklion, sits on the northern coastline.

PAVLOF VOLCANO, ALASKA PENINSULA

Astronauts aboard the International Space Station (ISS) photographed these striking views of Pavlof Volcano on May 18, 2013. The oblique perspective from the ISS reveals the three dimensional structure of the ash plume, which is often obscured by the top-down view of most remote sensing satellites.