AW3D Newsletter Vol.7

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July 19, 2019

Dear Map Lovers,

In Japan, now it's a "Tsuyu " which means rainy season.
It starts from the southernmost tip of Japan in Okinawa at the
beginning of May and slowly moves north over the rest of Japan in June.
The rainy season usually ends around the middle of July around Tokyo.

So, we're excited about having the beautiful (but humid) summer so soon!

Hope you enjoy this issue.

- AW3D sales team

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3D Map of the Month

Q: Do you know where it is?

Hint: It is a national park in the U.S. and it was registered in 1979.
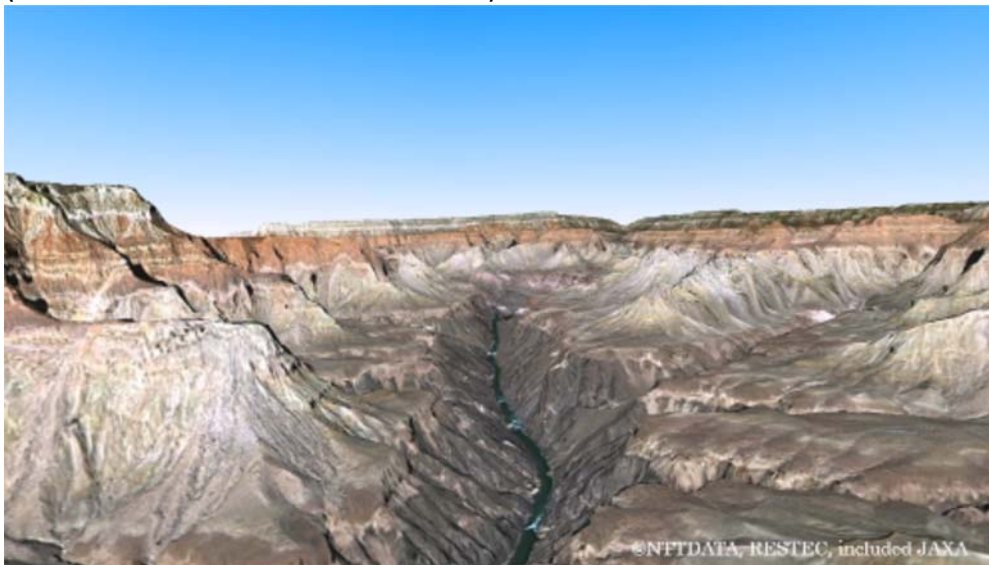
(Scroll down to find out the answer)

Image: AW3D Standard 5m DSM+ Ortho imagery

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Feature Topic:

3D Stereoscopic Sensor on "DAICHI (ALOS)" for AW3D Standard (2.5m/5m DEM)

The unique characteristic of AW3D technology is using satellite imageries acquired by
Advanced Land Observing Satellite "DAICHI" (ALOS) of the Japan Aerospace Exploration
Agency (JAXA).

ALOS is the satellite source of AW3D Standard product (2.5m and 5m resolution DSM/DTM)
and there are more than 3 million images of the entire global land area acquired by ALOS
during its lifetime from 2006 and 2011. On ALOS, an optical instrument called "Panchromatic
Remote-sensing Instrument for Stereo Mapping "(PRISM) was equipped to generate topographic
data with its 3D stereoscopic observation, and there's no blind angle because it acquires data
in three different directions-forward, nadir and backward. The sensor can acquire all surface

undulations, complex and steep terrains.

Also, an image directly under the satellite (nadir image) makes it possible to generate an orthorectified image (true ortho) without any distortion. Because of this, it's able to utilize 3D information (DEM + orthorectified image) with horizontal positions and identify the precise 3D coordinates.
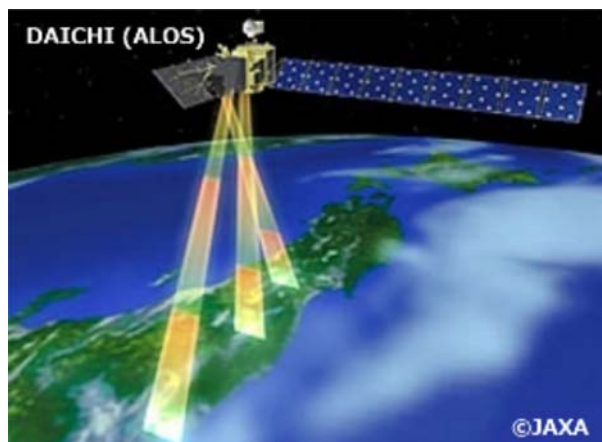

Image: Japanese satellite "DAICHI (ALOS)" with triplet stereo imageries by nadir, forward, and backward (©JAXA)
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Application of the Month: Disaster Mitigation
AW3D offers highly accurate terrain data/artificial objects information and
it is suitable for precise simulations such as a landslide, flood, and building collapse.
Most importantly, these simulations can be implemented by using the DEM which is
produced from satellite imageries before the disaster happens. The high accurate AW3D
allows estimating the areas where would be affected by the disaster and utilize to build a
disaster recovery plan.

Use Cases:
-Disaster simulation (landslide, flood, building collapse)
-Emergency response plan / Disaster recovery plan / Hazard map
-Detect disaster-affected area
-Landslide volume estimation
-Disaster-ready facility management

You can find actual use cases by our customers at AW3D website:
https://www.aw3d.jp/en/casestudy/
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3D Map of the Month
A: Grand Canyon National Park, Arizona in the U.S.
In 1919, the park became a national park (100 years ago!) and it was registered as
a world heritage in 1979.
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