AW3D Newsletter vol. 36

March 23rd, 2022

Welcome to the latest edition of the AW3D newsletter.
We're excited to share the latest news, tips, and resource for Geo-Information experts.

In this issue, we take a look at application with using DSM to understand the meteorological phenomena when it was snowing in Japan.

Thanks for reading.

-AW3D sales team

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AW3D News:

- We added 10 cities of Canada to our off-the-shelf product family.
Available cities/towns of Canada are now 43! Discover the areas here or contact us.

-Brochures of Nationwide 3D Base Map (US, UK, Japan), are now available on our Library page. Find the details of the coverage from the product page.

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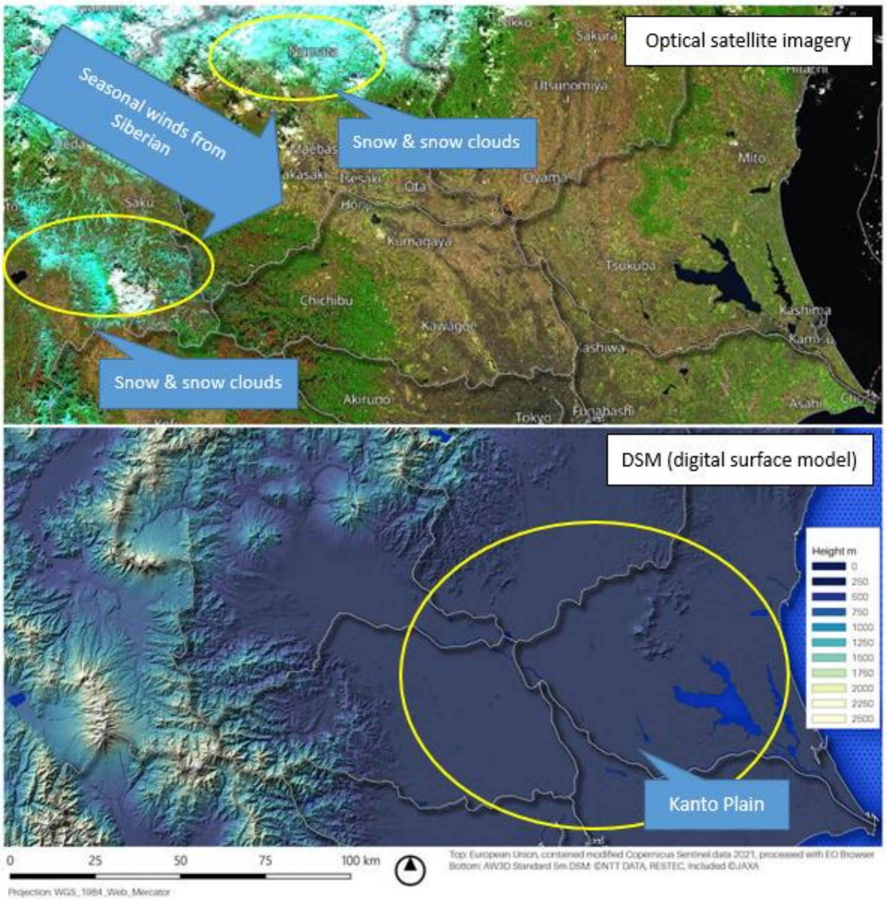
Featured Topic of the Month:

Leveraging DEM to Understand Meteorological Phenomena



AW3D 5m DSM ©NTT DATA, RESTEC, Included ©JAXA ,Copernicus Sentinel-2

Comparison between optical satellite imagery (top) and the DSM (bottom)

Many people remember that three scientists won the Nobel Prize in physics 2021 for their groundbreaking contribution to our understanding of complex physical systems, including global climate change models.

A good simulation model needs good boundary conditions, and a digital elevation model (DEM) is one of the most important data for weather forecasting.

The image above demonstrates how DEM is used to understand meteorological phenomena. It is a comparison between optical satellite imagery (top) and the DSM (digital surface model) (bottom) over the same area in Japan.

Kanto plain and its vicinity (bottom-right) is the place where it rarely snows in winter season, on the other hand, the surrounding mountainous (upper-left) is the place known as heavy snowfall area. During the winter months, seasonal winds from Siberian High blow from the northwest to this place, and the moist winds from the Sea of Japan hit this mountain and make it snow, but as you can see in the image, the snowfall was blocked at mountains on the date the image was taken (December 28, 2021).

For those who are interested in this specific topic, please visit this page and read an explanation with an animated diagram (they are in Japanese-Use machine translation for English text.)

We have a wide variety of DEM products, starting global off-the-shelf 5m DSM to up-to on-demand 0.5m DTM with GCP correction in order to support from local to global scale simulations.

Please contact our sales team if our DEM data can be leveraged in your coming projects.

Any questions, comments, or suggestions are always welcome. We can be reached via here.

Thanks for tuning in.
