

July 19th, 2021

Welcome to the latest edition of the AW3D newsletter.

We're excited to share the latest news, tips, and resources for geolocation specialists.

Thanks for reading.

-AW3D sales team

Feature Topic 1: AW3D Case Studies of a big sports event

A leading international sporting event will start this upcoming Friday on 23 July 2021, in Tokyo, Japan, after being postponed for a year due to the COVID-19 pandemic.

Such a global event is desired to be prepared and managed with sustainability considering its impact on society and the economy.

Some of you may know that AW3D products are developed and produced here in Tokyo. Our team has been working on projects related to the event with our Japanese partners, and there are two case studies we'd like to share with you.

1. TOKYO OASIS (a web service to find the best walk route under the shade of trees or buildings)

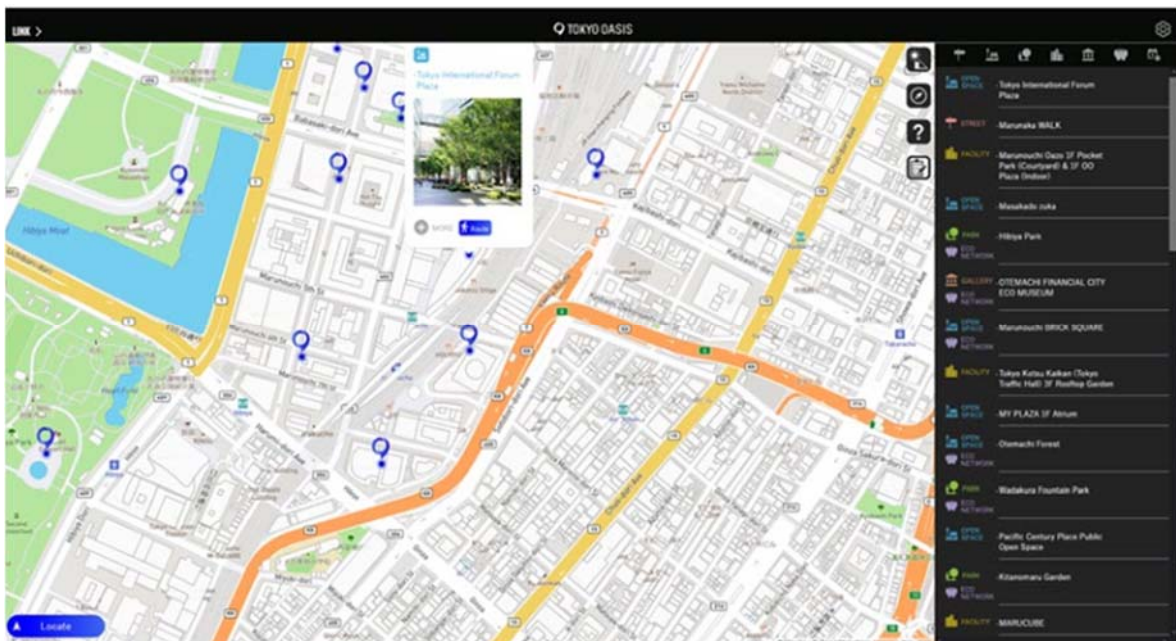


Image: TOKYO OASIS

[AW3D Building](#) dataset has been used for Tokyo OASIS, which is designed as walking route navigation through the shade in Tokyo during the international sports festival, which will be held in hot and humid season.

The project requirement was to generate accurate shade data for one year in advance over a wide area with 1-2m accuracy, and AW3D was perfectly qualified for it.

About Tokyo OASIS (Japanese Only)

<https://green-connection.tokyo/2020/07/30/0730tokyooasis/>

2. Airflow analysis in the urban area (New National Stadium):

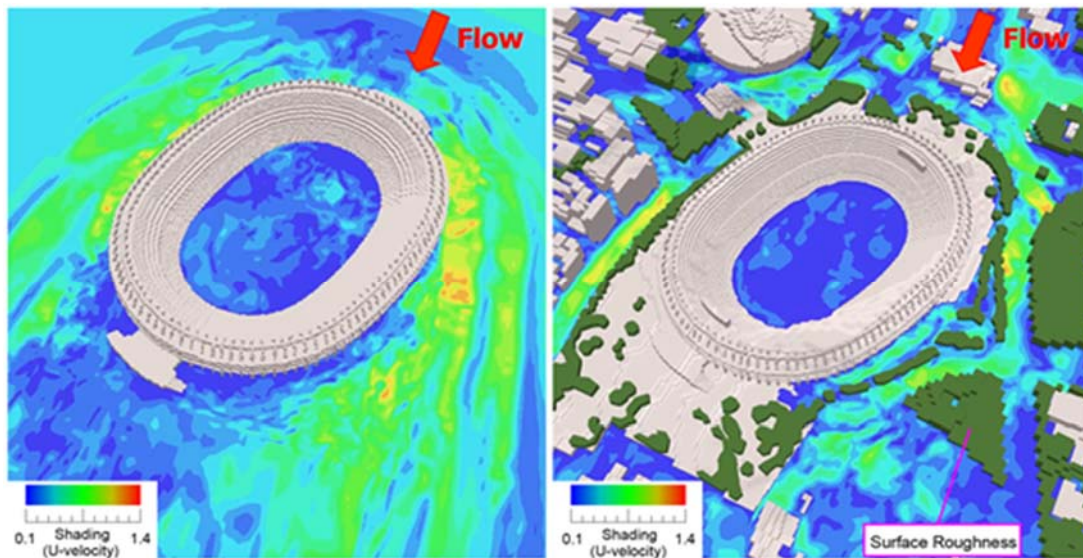


Image: Airflow simulation around the New National Stadium (Created by Environmental GIS Laboratory, Co.,Ltd)
(left) without using AW3D (right) with using AW3D

This is an example of how AW3D data is used with the “Airflow Analyst®” simulation package to analyze wind conditions around the New National Stadium, which is the main venue of the world's foremost sports competition with more than 200 nations participating.

This result clearly demonstrates that taking into surrounding ground objects has a huge impact on 3D computational fluid dynamics (CFD) results.

Nowadays, accurate 3D Geodata plays a key role in defining better boundary conditions in various kinds of environment simulation, such as gas and particle diffusion, sunlight, etc. The 3D Geodata is also useful as an analytics platform for smart city.

AW3D Building dataset, which were used for both projects above, is available for more than 200 cities over 65 countries as off-the-shelf.

Please request samples or ask us for the coverage of your area [here](#).

Feature Topic 2: AW3D Case Study of SDGs

In 2015, the United Nations adopted the "2030 Agenda for Sustainable Development" and established the "Sustainable Development Goals (SDGs)".

AW3D has been used in various fields as a means to solve social issues based on the SDGs. Typical applications AW3D have already been used are:

- *energy development*
- *renewable energy*
- *disaster management*
- *environmental management*
- *rural development*
- *water resource management*
- *transportation*
- *infrastructure development, etc.*

Detailed case studies are available on the following our AW3D website:

(Area: China)

Landslide run-out distance simulation using AW3D Standard DSM

<https://www.aw3d.jp/en/casestudy/case10-2/>

(Area: Nepal) Hazard map for long-term reconstruction plan after the major earthquake

<https://www.aw3d.jp/en/casestudy/case01/>

(Area: The Andres) Efficient and time-saving mineral exploration in its early stage (selection of potential areas)

<https://www.aw3d.jp/en/casestudy/case02/>

(Area: Japan) Selection of Wind Turbine Best Location

<https://www.aw3d.jp/en/casestudy/case03/>

(Area: Nigeria) Identification of "poliovirus infection route" by studying sewage drainage utilizing AW3D

<https://www.aw3d.jp/en/casestudy/case04/>

(Area: Myanmar) Active faults study in nationwide area

<https://www.aw3d.jp/en/casestudy/case06/>

(Area: Vietnam) More than 1,000 hazardous locations were pointed out on National roadways utilizing AW3D

<https://www.aw3d.jp/en/casestudy/case07/>

(Area: Honduras) Extracting landslide hazard area in an urban city of Honduras
<https://www.aw3d.jp/en/casestudy/case08/>

(Area: more than 50 sites around the world) Mitigate Effects of Climate Change
<https://www.aw3d.jp/en/news/202012/002200/>

Feature Topic 3: AW3D Tackles Climate Resilience with JAXA

AW3D team is participating in “Challenge Zero,” a new initiative by Keidanren (Japan Business Federation) in collaboration with the Japanese government to declare its challenge toward a “decarbonized society.”

In this Challenge Zero, we work with Japan Aerospace Exploration Agency (JAXA) to enhance climate resilience by creating new services based on high-precision 3D Maps.

Please read the details of our challenge [here](#).



Episode: DEM use case for SDGs "Climate action"

United Nations Conference on Trade and Development (UNCTAD) implemented “Climate change impacts on coastal transport infrastructure in the Caribbean: Enhancing the adaptive capacity of Small Island Developing States (SIDS)” (UNDA 14150) as a part of their technical assistance project.

In this report, Digital Elevation Model data from SRTM DTM utilized for assessing the vulnerability to marine flooding risk.

As a result of the major lessons learned, this report pointing out the three categories. One of those is “the necessity of better DEMs” because many SIDS lack baseline data. You can reach details and get to know more from the link below.

<https://unece.org/transport/publications/climate-change-impacts-and-adaptation-international-transport-networks-0>

Any questions, comments, or suggestions are always welcome. We can be reached via [here](#).

Thanks for tuning in,