



Turtle Island Space B.V. is participating in the
ESA Business Incubation Centre Noordwijk



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Turtle Island Space.

Providing practical and affordable
educational experiences

Industry



Thomas Kaakeh
Founder at Terraprisma

“the lack of experience in satellite operations poses a challenge in effectively utilizing geospatial data”



Abe Bonema
Founder at ISISPACE

While they're well-versed in theory through lectures, many struggle to apply this knowledge in real-world settings.”

Academia



VJ Ph
Senior engineer at S4 GmbH

there's a noticeable gap in hands-on training when it comes to satellite operations ”



Aleksander Fiuk
Founder at Revolv Space

“poor hands-on training related to satellite operations is hindering graduates' preparedness for real-world challenges.”

Our mission

To offer access to practical and affordable experiences relevant to the Space industry to students

Our offering

A platform which supports students to track satellites and capture their signals. Using real hardware, students are challenged to downlink satellite signals, use them and learn.



The Problem

1. Limited access for students to real-world/practical experiences.
2. Space agencies lack the time to develop and deliver these experiences.
3. Current activities are difficult to scale and reach a large number of students (+1000).

The Solution

We supply access to a unique educational and research platform that allows direct real-world experience with satellite communications.



1. Receives an exercise

Student is given an exercise based upon their skill level.



2. Target a satellite

Student selects a geostationary or polar-orbiting satellite to track.



3. Operates a ground station

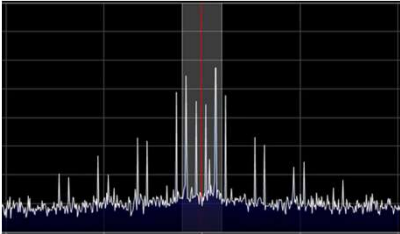
Student plans the satellite link and configures the ground station to track the satellite.



4. Learns from results

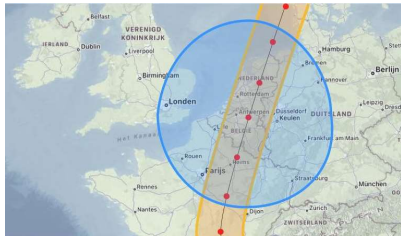
Student receives a data pack with results and post-processes the signal.

The Exercise



1. Recieve a signal

The students are first tasked with receiving a signal from a GeoStationary satellite.



2. Track a satellite

Students use the dashboard which guides them to track a polar-orbiting weather satellite and receive a signal.



3. Use the data

Students are given an example of EO data to perform a climate science task.



4. Learn from results

Using the results and the online educational platform students learn more about their results.

The Dashboard

The dashboard is titled "Dashboard" and includes a navigation menu on the left with icons for home, back, forward, and settings. A "BT" indicator is in the top left, and an "ORDER" button is in the top right.

Control Panels:

- Target selector:** Includes checkmarks for "Ground station selector" and "Satellite selector", and buttons for "Radio configurator" and "Waypoint selector".
- Ground station selector:** Includes a "Select satellite" dropdown set to "MetOp - B", a "Time" field set to "10/12/2023 22:48", a "Select width (km)" field set to "100", and "CLEAR" and "MAP" buttons.

Map: A map of Europe showing a blue circle for "Ground station reception" centered on London, a yellow oval for "Satellite swath area" covering a large portion of Europe, and a red line with dots for "Waypoints" passing through cities like Paris, Rome, and Athens. A "Map legend" is overlaid on the map.

Data Visualizations:

- 3D Model:** A 3D rendering of a satellite dish antenna with the text "22-01-02-1000000" and "e3ps" overlaid.
- Spectrum Plot:** A graph showing signal strength across a frequency range, with a prominent signal at the top.
- Radial Plot:** A circular plot with a grid, showing signal strength or directionality across different angles.

Key benefits

Easily incorporate this practical experience into an existing Public Outreach Initiative. Designed to be flexible to students' schedules and skill levels while saving educators time.



Skill Level

Agencies can tailor the exercise to suit a range of student skill levels found in every group.

Flexibility

Students can use the platform independently to complete the exercise anytime over a few weeks.

Reach Potential

The exercise is designed to be scalable with the ability to support over 1000 users per month.

UN Sustainable Development

Exercise supports four of the UN's Sustainable Development Goals

Do you want a demo?

We're on the lookout for launch customers
September of 2024.

Reach out to us at b.treacy@turtleislandspace.com.
Let's Discuss.

