



**AINet ANT-X  
AI Prize Challenge  
27 July 2021**

**Operational Context:**

Understanding the battlespace is critical to Naval operations in a contested, all-domain battlespace. Naval and Joint Forces must have situational awareness including identification of all forces in surface and air domains in order to operate freely. Enhancing situational awareness requires rapidly processing data to understand the location, signature, and predicted course of action of all vessels and forces in the area.

**Data: Airtracks, seatracks, optaskVI, RF**

1. Challenge teams should use AI and ML to understand and predict patterns of life, courses of action, and characterize contacts for red, blue, and white forces based on the data given.
2. Additionally, teams are encouraged to explore and propose other capabilities—including but not limited to understanding, mapping, characterizing, and identifying parts of the RF environment—that would be useful in the given operational context.

A sample description of air tracks data is available in the Q&A. Other data described below.

**Air tracks** – Aircraft status, location, speed, direction, heading, etc. over time.

**Sea tracks** – Ship location, speed, direction, heading, etc. over time.

**Optask Visual Intelligence** – Raw text parsed from Optask VI powerpoints. Includes latitude/longitude and description of contacts between surface craft/aircraft and Navy ships.

**RF** – Wideband RF recordings passed through an energy detector, yielding information like transmission power.