

# Use of radar technology in Environmental Impact Assessments

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VP Wind and Environmental Practice

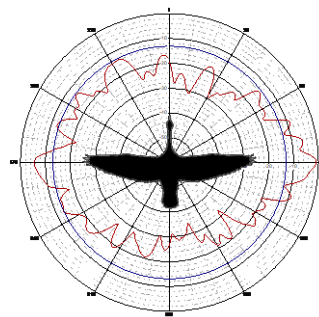
**ROBIN RADAR**

27-10-2022



# Introducing Robin – Facts & Figures

30+ YEARS OF  
SCIENTIFIC RESEARCH



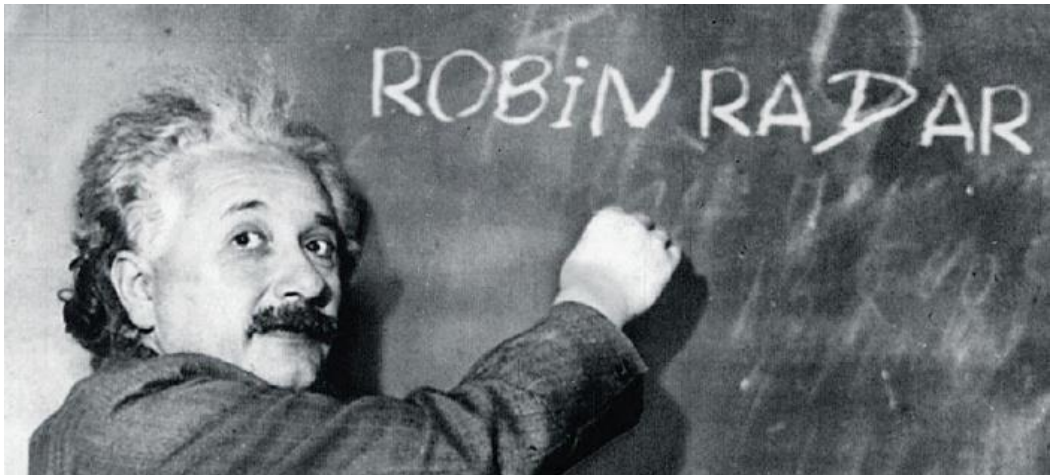
80+ DEDICATED  
EMPLOYEES



150+ SYSTEMS  
INSTALLED







GLOBAL TECHNOLOGY  
LEADER

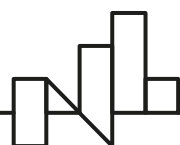


TRANSPARENCY, TRUST,  
RESPONSIBILITY



SETTING THE STANDARD  
IN 4 SEGMENTS

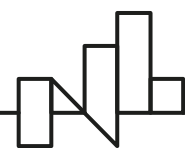
-  Civil Aviation
-  Defence & Security
-  Military Aviation
-  Wind & Environment





# Introducing Robin - Mission

Advanced radar technology + State of the art software =





# WE FACILITATE THE TRANSITION TO RENEWABLE ENERGY

WE PROVIDE SOLUTIONS WHICH BENEFIT BOTH  
CONSERVATION AND DEVELOPMENT GOALS



# COMPLETE AWARENESS OF THE SKY

DETECT, MONITOR AND ACT ON POTENTIAL  
BIRD COLLISIONS





# REALTIME MONITORING OF BIRD BEHAVIOR

INCLUDING SIZE, SPEED, HEIGHT, LOCATION  
AND FLIGHT PATH





# RADAR : intelligence tool for Wildlife Monitoring and Management



## *“Tactical”*

Using bird radar real time & extending the visibility and for implementing SDOD



## *“Strategic”*

Using bird information for analysis, as input for planning/ permitting & reporting



# Application of radar data - Models





# SHUTDOWN BASED ON LIVE INFORMATION

ALLOWS TO SWITCH OFF A SINGLE TURBINE OR CLUSTER  
AVOIDING LOSS OF BIRDS AND DOWNTIME



A man and a woman are standing in front of a presentation backdrop. The man, on the left, is wearing a dark suit jacket over a light-colored button-down shirt. The woman, on the right, has long brown hair and is wearing glasses, a purple top, and a dark blazer. The backdrop is dark blue with white text and green line graphics. On the right side of the backdrop, there is a large, stylized image of a bird's head, possibly an eagle or hawk, with its beak open. The text on the backdrop is arranged in several lines, with the most prominent words being 'ADVANCED RADAR', 'TECHNOLOGY TO', 'MONITOR', 'AND PROTECT', 'BIOLOGICAL', and 'IND FA'. Below these, the words 'LOCATION AND' are visible. The man's hands are clasped in front of him.

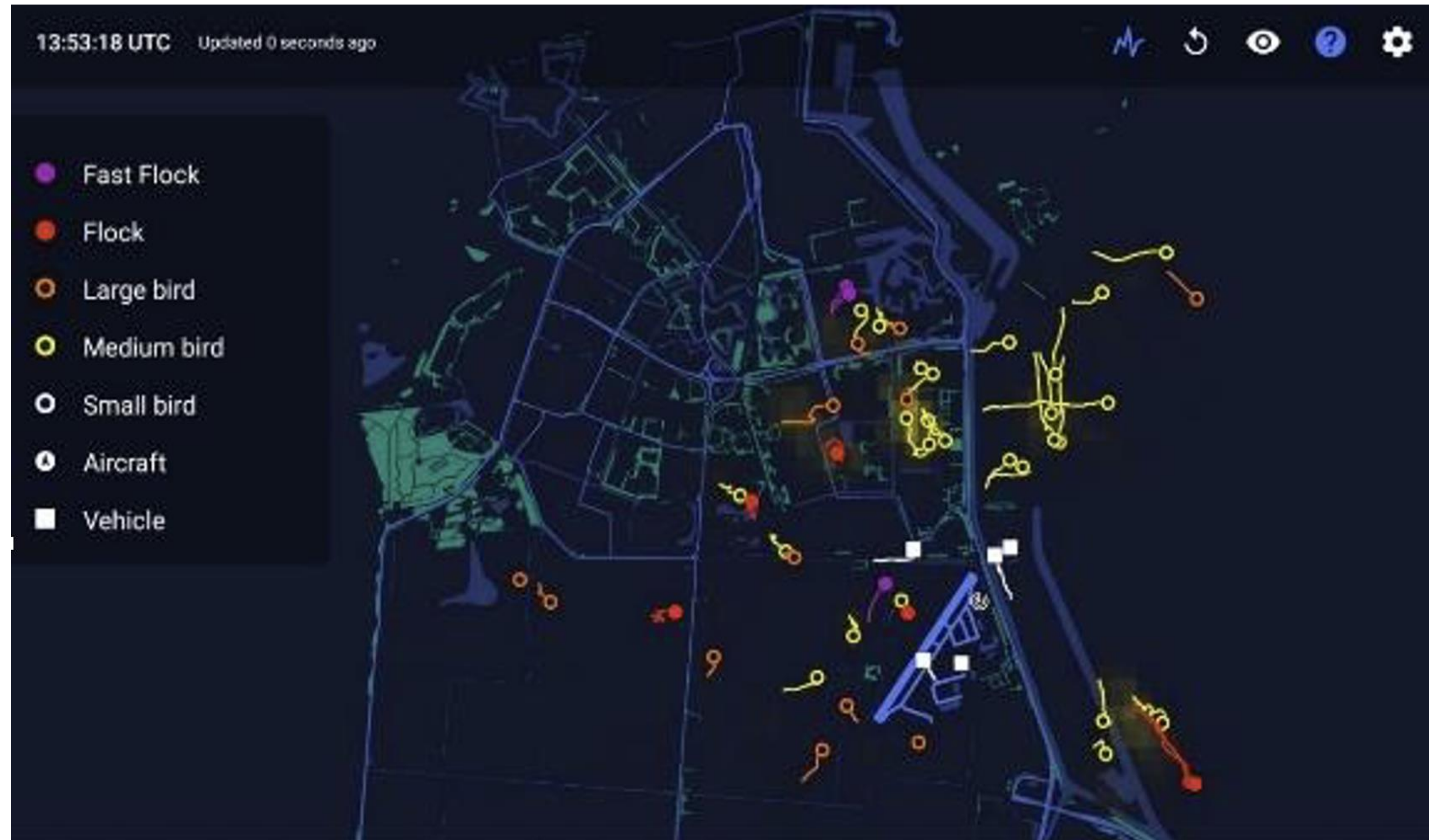
# ADVANCED RADAR TECHNOLOGY TO MONITOR AND PROTECT BIOLOGICAL IND FA

LOCATION AND



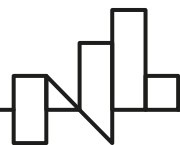
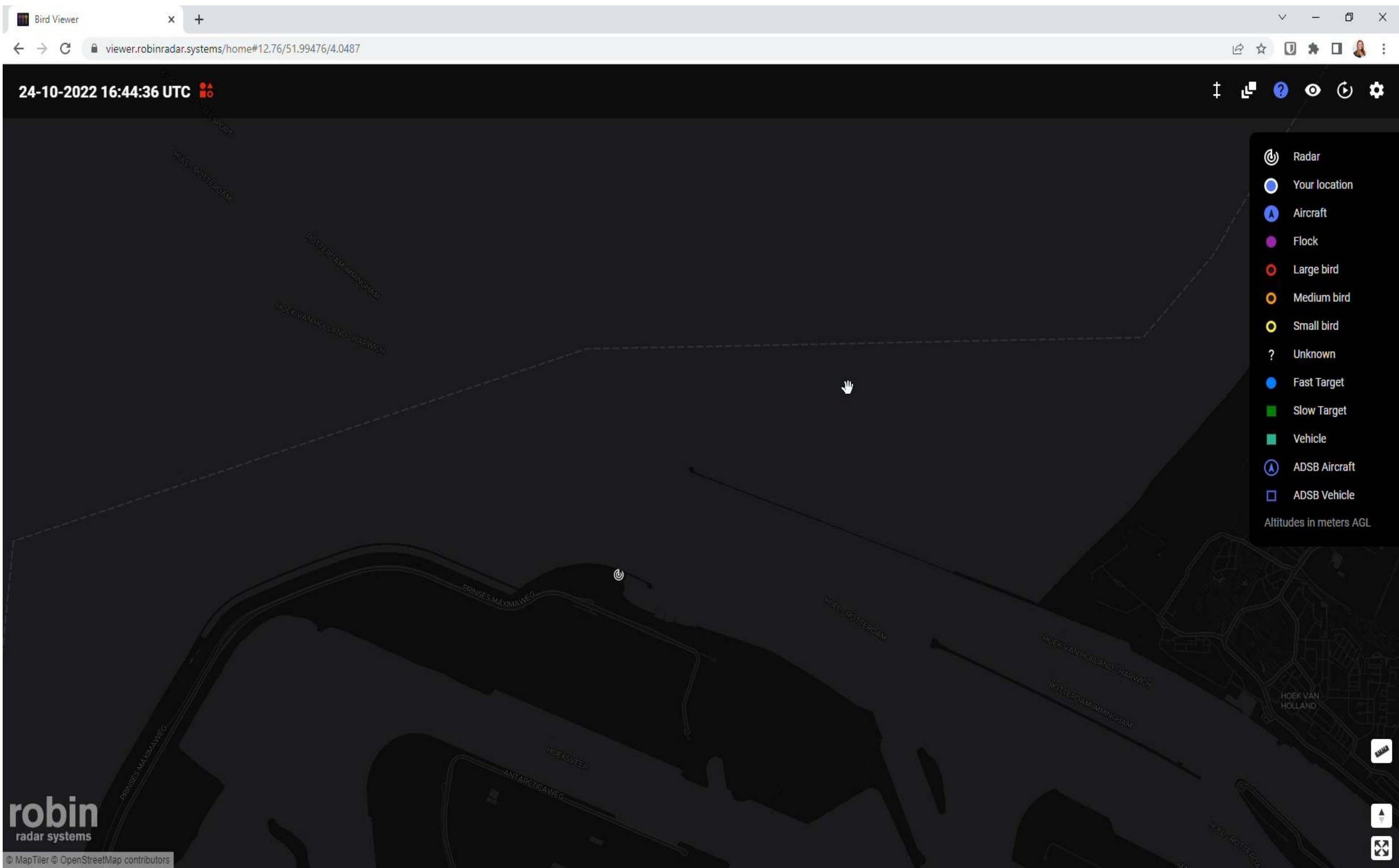
# Bird viewer

- Settings
- Altitude filter
- Heat Map
- Observation
- Replay



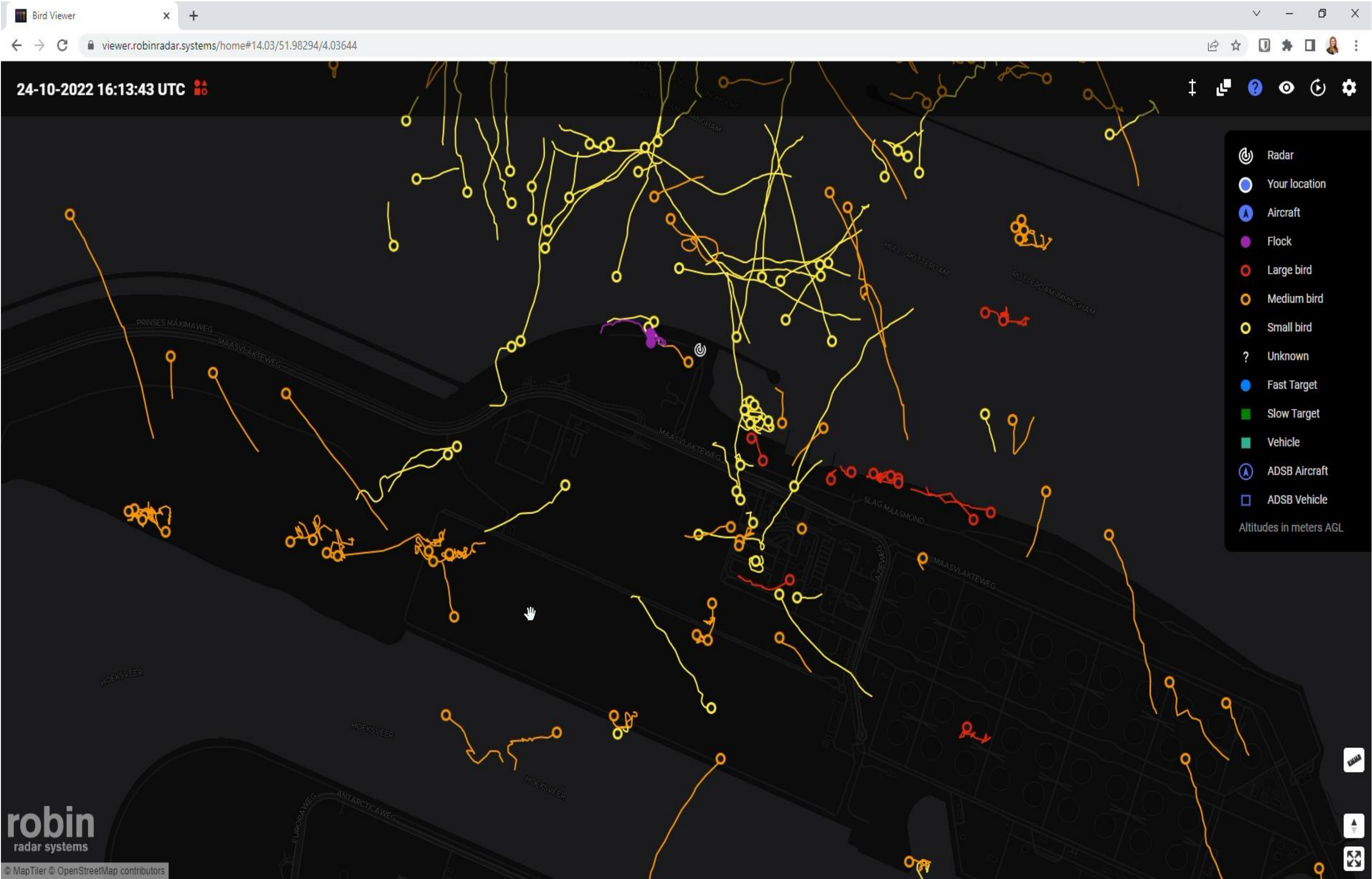


# Classification (RCS - 'size')

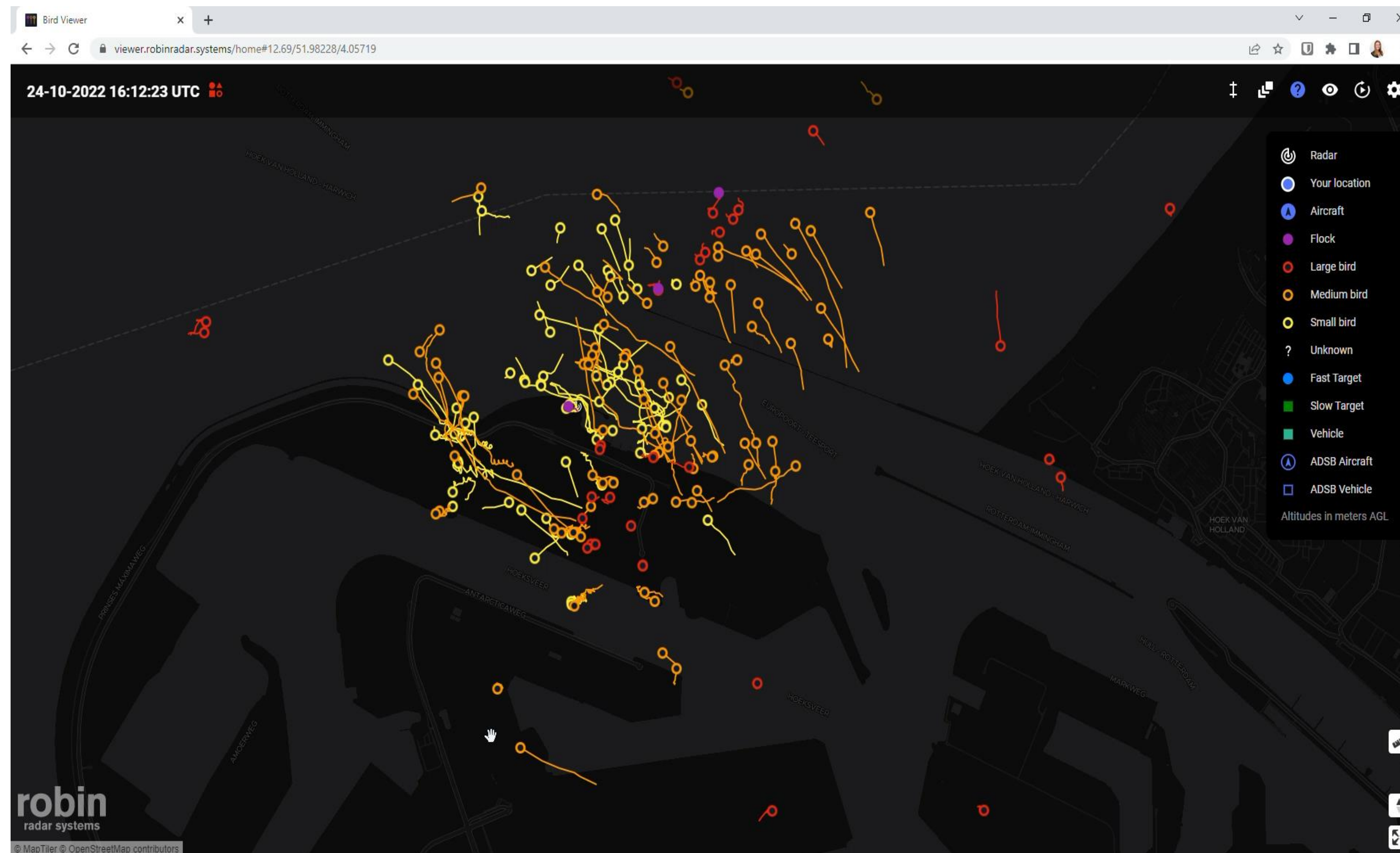




# Altitude Filter

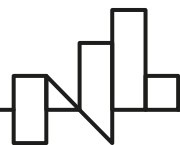
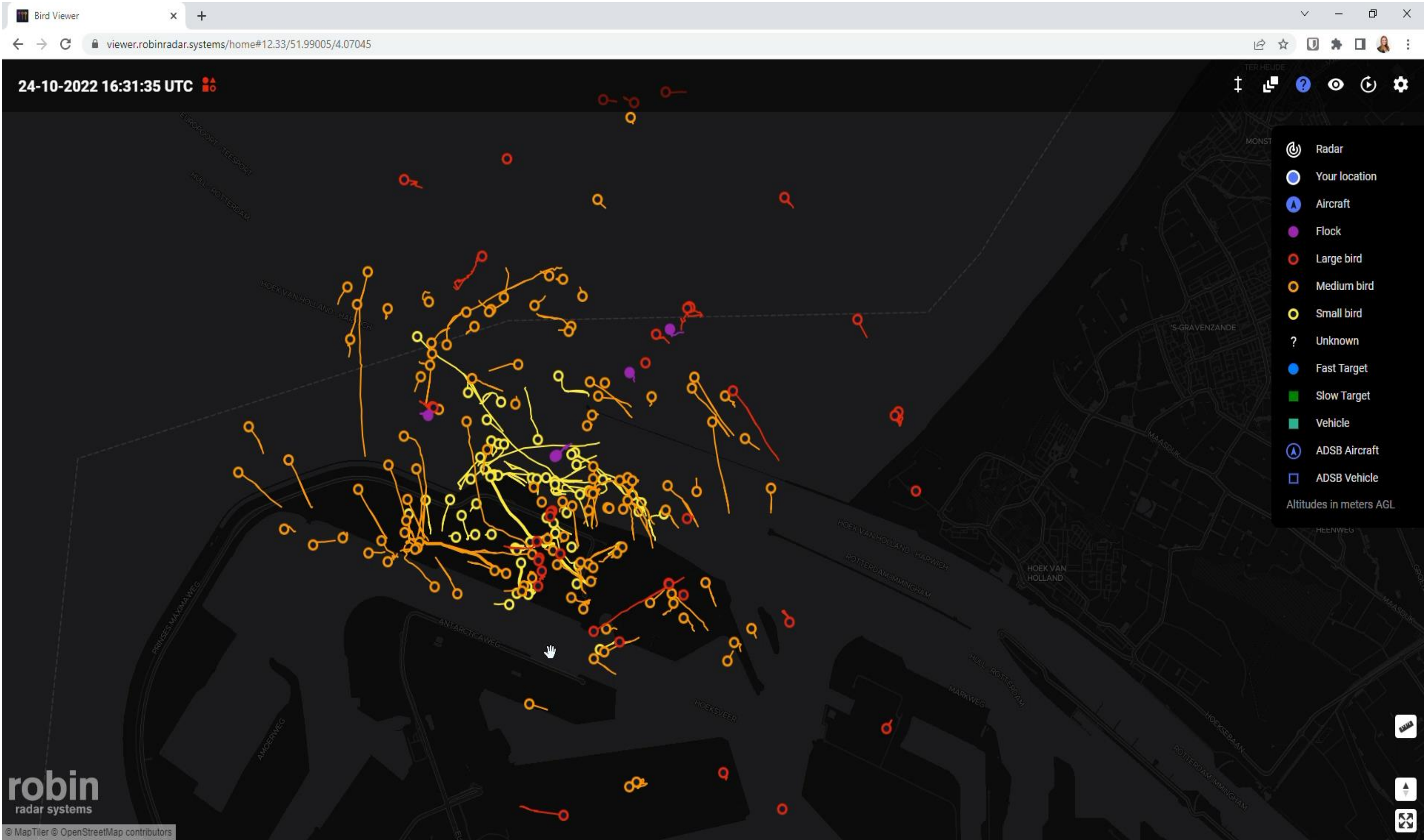






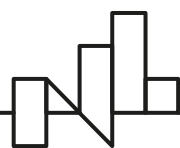
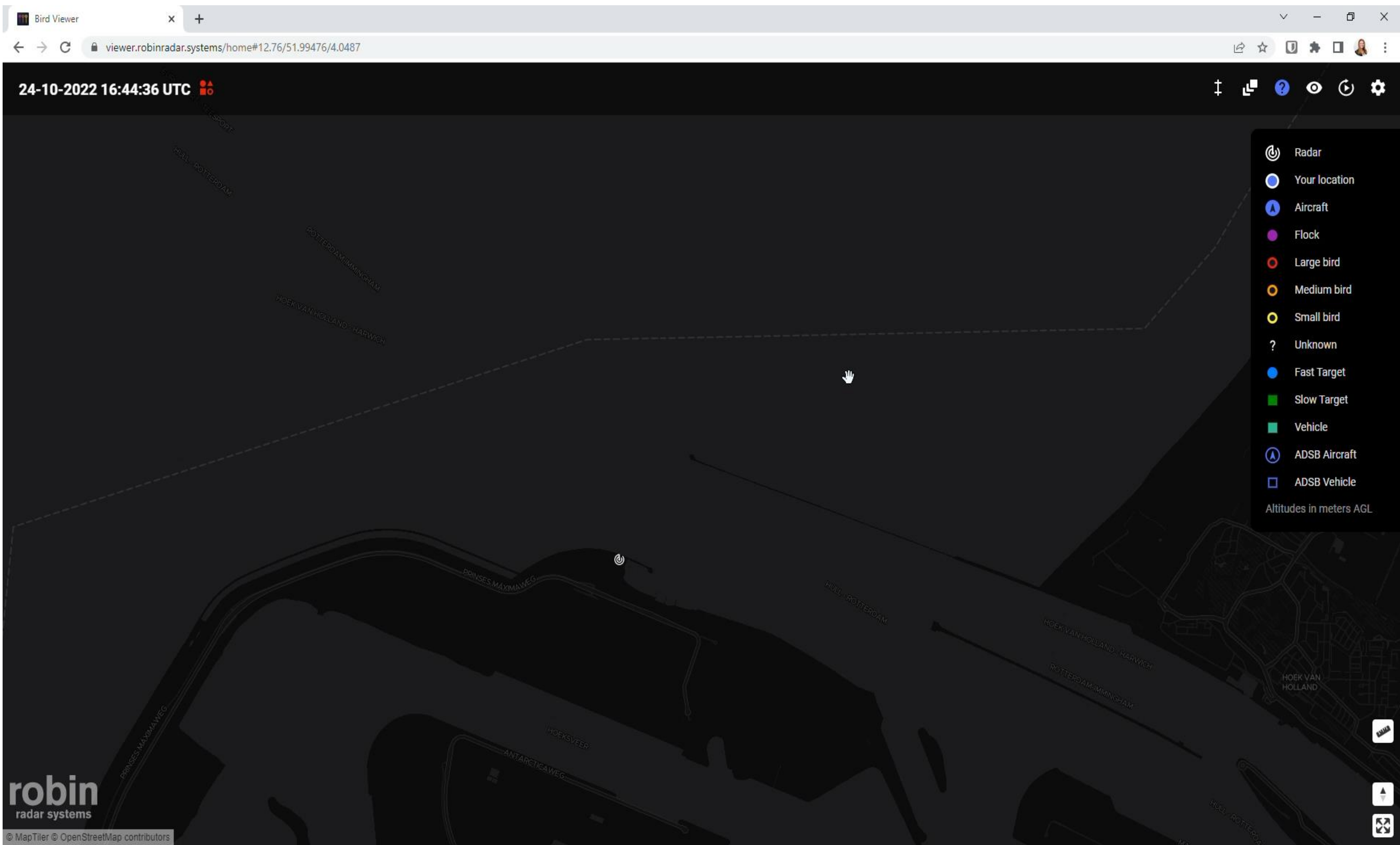


# Replay





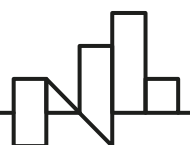
# Observation





# REPORT VIEWER

**robin**  
radar systems





# SOLUTIONS FOR ALL CONDITIONS

EVERY OFF- OR ON-SHORE OPERATION  
IS UNIQUE







## Every project is different and need tailor made solutions

- Purpose : eg. EIA/monitoring/SDOD
- Type of bird challenge (local/migration)
- Definition of the area of interest
- Clear & optimum line of sight : Depending on infrastructure or the topography; it could be necessary to build specific infrastructure like tower or using a micro-shelter for onshore; for offshore deployment on turbine or substation
- Connectivity via 4G and stable power
- Radar can part of a holistic approach: visual, acoustic monitoring, camera,etc





EQUINOR- HYWIND TAMPEN





TAIWAN (ORSTED)



Earth



# HAPPY TO DISCUSS

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