

# Invitation

## Giraffe 1X trials in the world's largest offshore windfarm

**You are specially invited to participate and visit this test hosted by Ørsted**

Saab and Ørsted are cooperating on trialing the Giraffe 1X 3D AESA radar system located offshore within the world's largest offshore wind farm, to validate the performance of such radar type for deployment inside or in vicinity of offshore wind farms.

It is predicted that offshore wind will be the principle source of electricity in 2050 for a net-zero Europe. Surveillance and early warning of nations' airspace is crucial for protecting citizens from airborne threats and securing flight safety of civil aviation.

Ørsted will test the Giraffe 1X radar's offshore performance inside, around and above the windfarm on fixed-wing aircraft, helicopters, F-16 fighters from the Royal Danish Air Force, and Unmanned Aerial Vehicles (UAVs).

Ørsted is developing an offshore gap filler radar concept to mitigate the impact of offshore wind farms on air defence surveillance and control. This novel concept utilises a radar placed out at sea. It is based on feedback and dialogue with industry and defence partners.

### Giraffe 1X – small size, great performance

Giraffe 1X from the Swedish manufacturer Saab is an extremely versatile, lightweight and high-performance 3D AESA high-resolution radar. It offers a unique combination of operational flexibility, multitasking capabilities and multi-role use. Giraffe 1X is a radar for surveillance, air space control and protection that simultaneously detects and tracks airborne and other types of targets. The system also offers a small, slow and low-flying-target detection function. The Giraffe 1X radar solution is suitable for surveillance and protection around critical infrastructure at land or at sea.



#### **13 October 2021**

Ørsted, Nesa Alle 1, 2820 Gentofte, Copenhagen (Denmark)

#### **27 October 2021**

Ørsted East Coast Hub, Royal Dock, DN31 3NB Grimsby (UK)\*

**10 AM – 4 PM** incl. lunch & coffee breaks

**R.S.V.P by email before 1 October 2021 to**

[morten.billing@saabgroup.com](mailto:morten.billing@saabgroup.com)

#### **Welcome, introduction and background**

a) A developer's perspective

#### **3D trial deep dive**

- a) Concepts
- b) Environment and test platform
- c) 3D trial activity
- d) 3D radar coverage of the windfarm environment
- e) Flight profiles

#### **Radar deep dive**

- a) Saab radar suite and background
- b) Focus Giraffe 1X

#### **3D test results**

- a) Live flight
- b) Replay test flights
- c) Strength and weaknesses

#### **3D radar deployment**

- a) Legal and regulatory subjects
- b) Monitoring, protection and safeguarding of equipment
- c) Responsibilities

#### **Open discussion**

\* Pending COVID travel restrictions, the UK venue may be moved to Copenhagen.

