

SPACE @ SAAB

“SPACE MEETS SECURITY”



Presenter:

Torild Lorentzon, Space Coordinator, Saab AB

Christer Fuglesang, Ex Astronaut, Space Advisor and professor at KTH

Spacefever at Saab





Space Meets Security

Why does a defence company need to go into Space?

- *Enhance present products*
- *Take active part of offset-obligation*
- *Find new business ideas where we can utilize Saab technology*

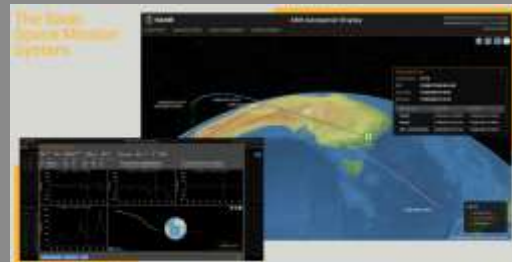


Saab in the space domain

<https://www.saab.com/space>



Space Situational Awareness



Space C2 Capability



Data Fusion Solution



Rapid Response

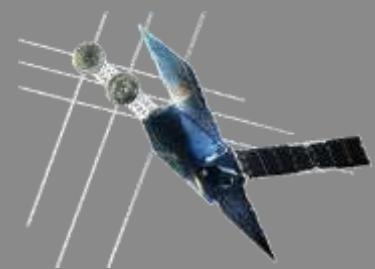
Saab's focus is to enhance our products and services through space capabilities to the benefit for our customers



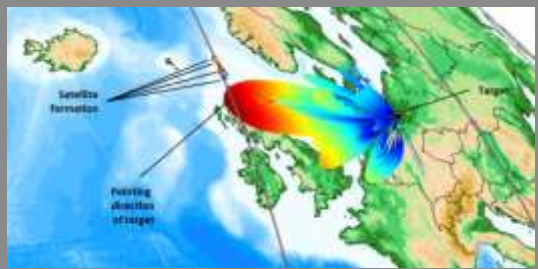
Secure Satellite Communication



Encrypted navigation service



Satellite Payloads



SIGINT & Geolocation





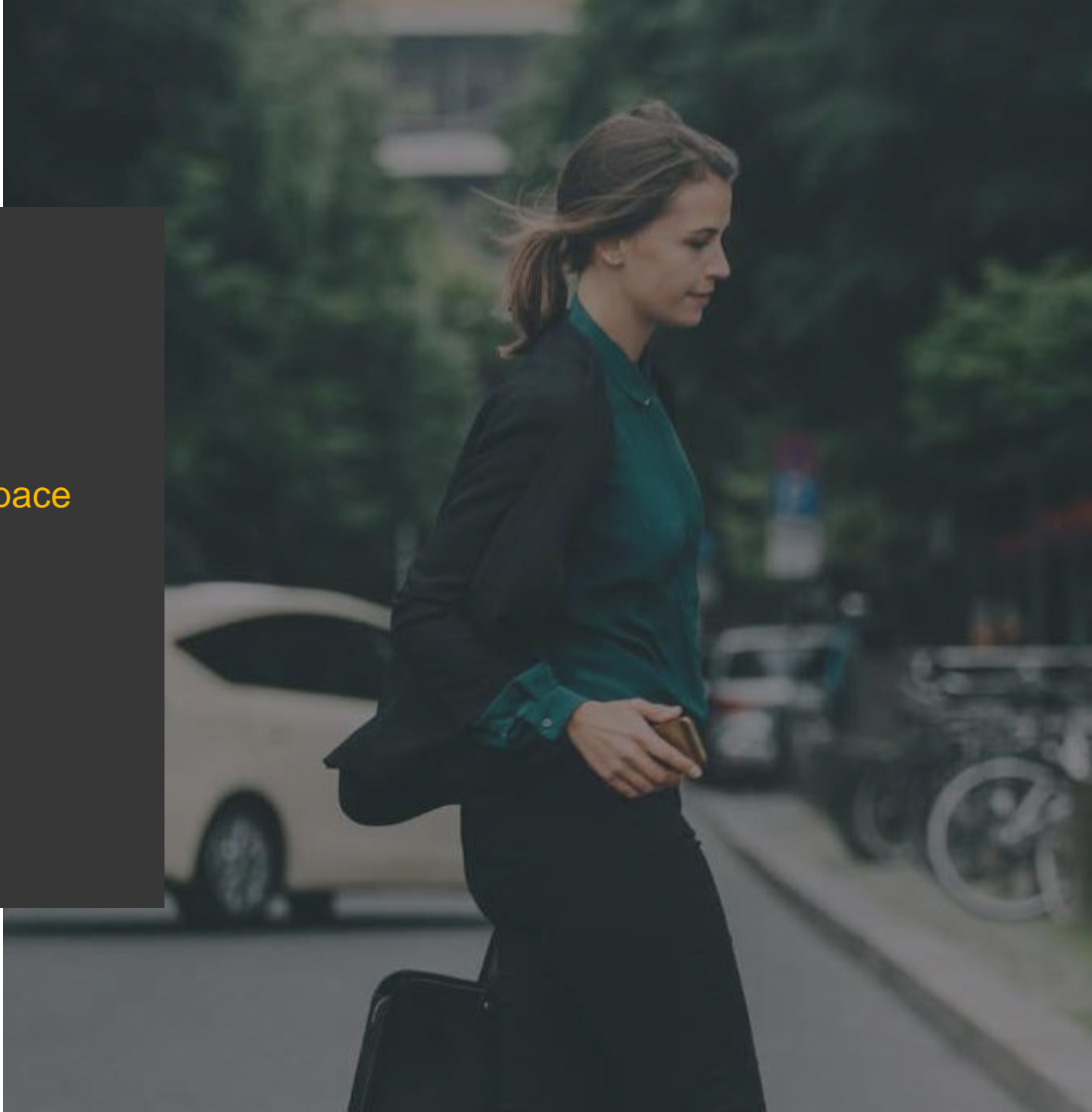
Saab AB, Saab TransponderTech

Satellite VDES presentation at Future Space
Conference

16-17 September 2024

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Saab TransponderTech

Pioneers in AIS

Leading in VDES Technology



Introduction to Saab TransponderTech

- Pioneers in AIS (Automatic Identification System) technology, first company ever to get an AIS type approval

Advanced GNSS/DGNSS vessel navigation systems

More than 25 years of continuous development of products and systems for the maritime domain

- > 25,000 AIS vessel transponder systems
- > 20,000 GNSS navigation systems
- > 3,000 AIS base stations delivered to more than 50 countries
- Major supplier of Airborne AIS transponders
- Unique Secure AIS (encrypted) solutions for qualified customers such as naval forces, coast guards etc.
- Leading in next generation of AIS (VDES)
 - Ensure digital data communication in high traffic density areas
 - New applications for E-navigation, Sea Traffic Management
 - Encryption and Authentication → Secure messaging and services
 - Greener shipping



SAAB TRANSPONDERTECH VDES PRODUCTS

VDES Satellite Station



R6 VDES Satellite Transceiver for LEO

ITU-R M.2092-1

Link Id 26, 32, 33

Link Id 4, 20, 21, 22, (24)

*Handshaking
Retransmission
Resource Request
Bulletin Board*

VDES Ship Station



R6 SUPREME AIS/VDES transponder

Link Id 1-3, 5-7 11, 17, 19

Software Defined Radio (SDR)
is required

R6/R60 SDR
Technology

VDE

ASM

AIS

VDES Shore Station



R60 AIS/VDES Base station
AIS/VDES Network

YMIR-1: EPIC 3U CubeSat Bus from AAC and VDES payload from Saab.

Launched 11 November 2023 and as of today 4 september 2024, healthy in all systems and conducting VDES tests.



Green dots represents merchant ship, navy ship, yacht or aids-to-navigation.
Ymir-1 receives data from onboard AIS transponder.





Picture from YMIR-1 onboard-camera pointing in along-track antenna direction, showing proper deployment of VHF YAGI-antenna (from Oxford Space Systems). Cuba in the Earth blue-colored background.

Thanks for Your attention!



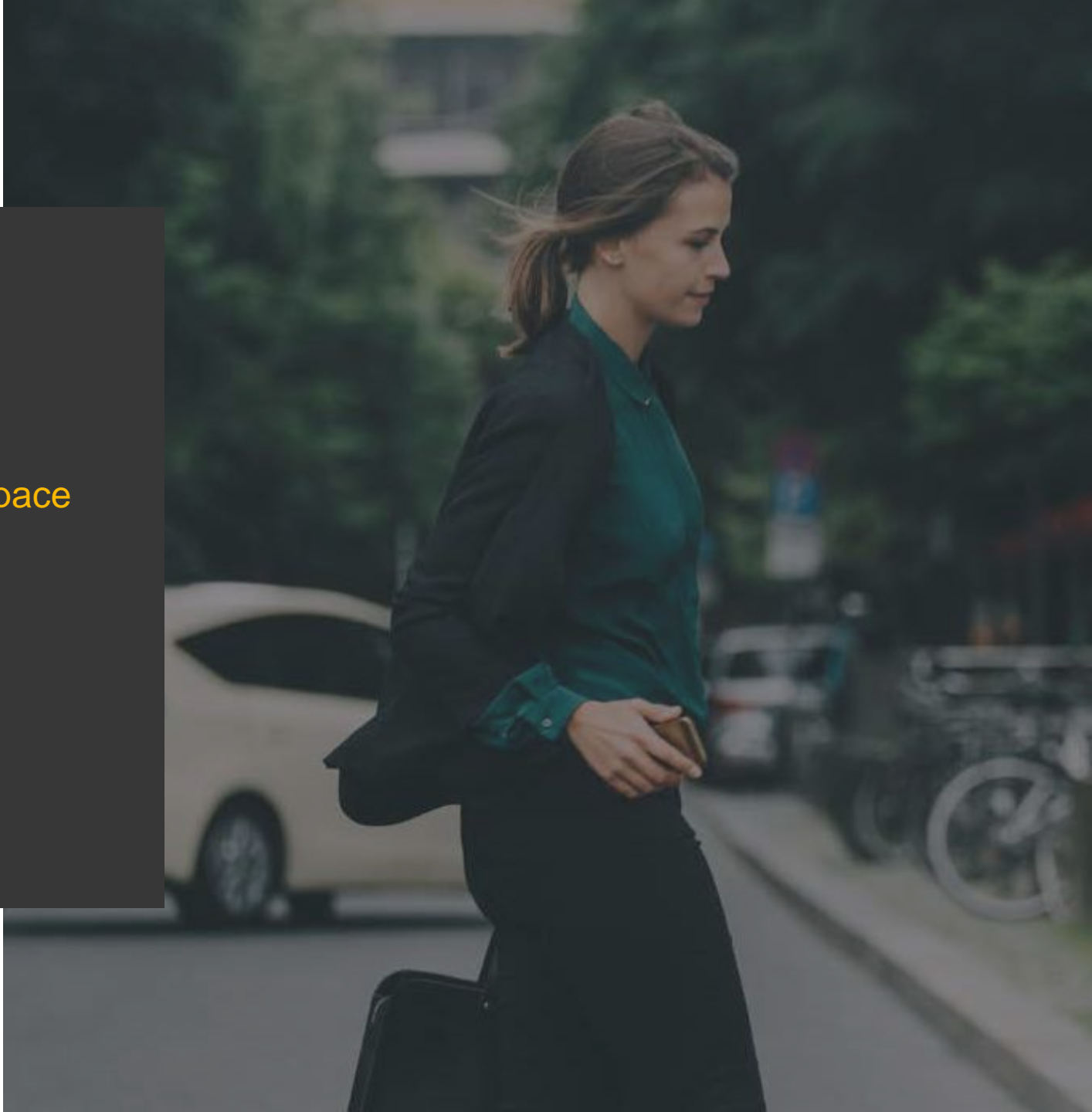
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