Andøya Space & Andøya Spaceport Launch Operations

13.-14.05.2024

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Ownership

Norwegian Ministry of Trade, Industry and Fisheries — 90 %

KONGSBERG — 10 %

Andøya Space

Operations & business support

Sub-Orbital

25 %

Newspace North AS

41 %

Tiepoint AS

Andøya Spaceport Ltd

Andøya Space Education Ltd

Andøya Space Defence Ltd

Andøya Space

Andøya Space Sub-Orbital

- Ballistic sounding rockets for scientific purposes
- Operations since 1962
- Launch site Oksebåsen, Andøya, Norway
- Launch site Svalrak, Ny-Ålesund, Svalbard

- Launch capability for rocket configurations up to 20 metric tons, solid and hybrid fuels
- Requires large impact areas
- Several launches per year
- No restrictions on launches per year

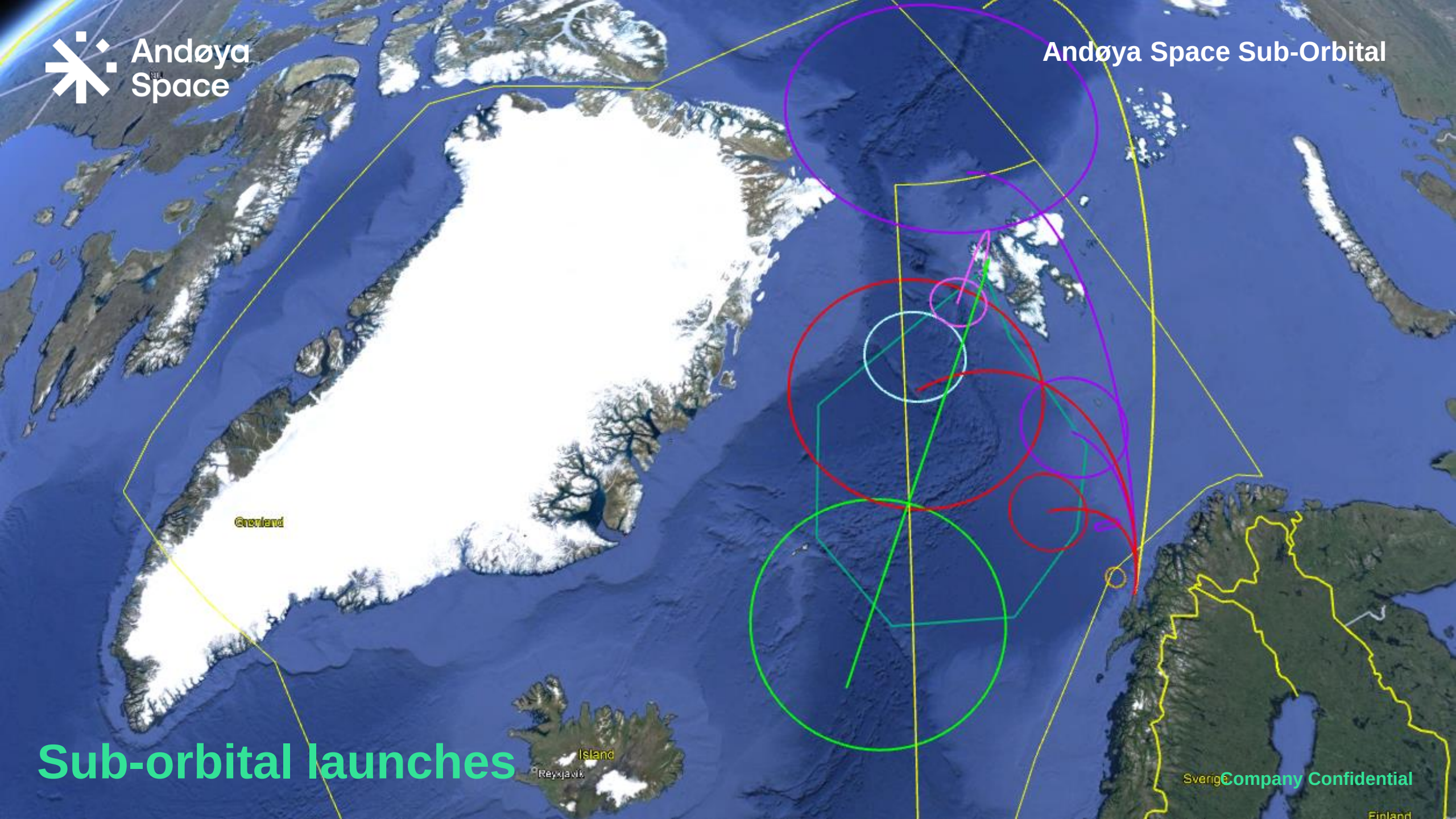
Andøya Space

Timeline & Frequencies

- Expected 1 launch per year relevant for NAT region
- ‘Grand Challenge’ may result in more
- Long term hard to predict

Trajectories & required airspace

- Steep ballistic trajectories from Svalbard and Andøya up to + 1000km
- Wind sensitive, requires lagre areas for re-entry
- Typically ENOB, BIRD (and BGGL) FIRs


Andøya Space
Andøya Space Sub-Orbital
Grønland
Island
Reykjavik
Sverige
Finland
Sub-orbital launches
Company Confidential

Andøya Space

Andøya Spaceport (ASX) Feb 2024

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Andøya Space

Andøya Spaceport AS

- Guided launch vehicles for orbital launches
- Launch site Børvågen, Andøya, Norway
- Launch complex with one launch pad, expansion to three planned

- Launch capability for 1,5 metric tonnes payload
- Approx. 100 metric tonnes liquid fuel launch vehicles
- Polar and sun-synchronous orbits
- Approval for up to 30 launches per year

Andøya Space

Timeline & Frequencies

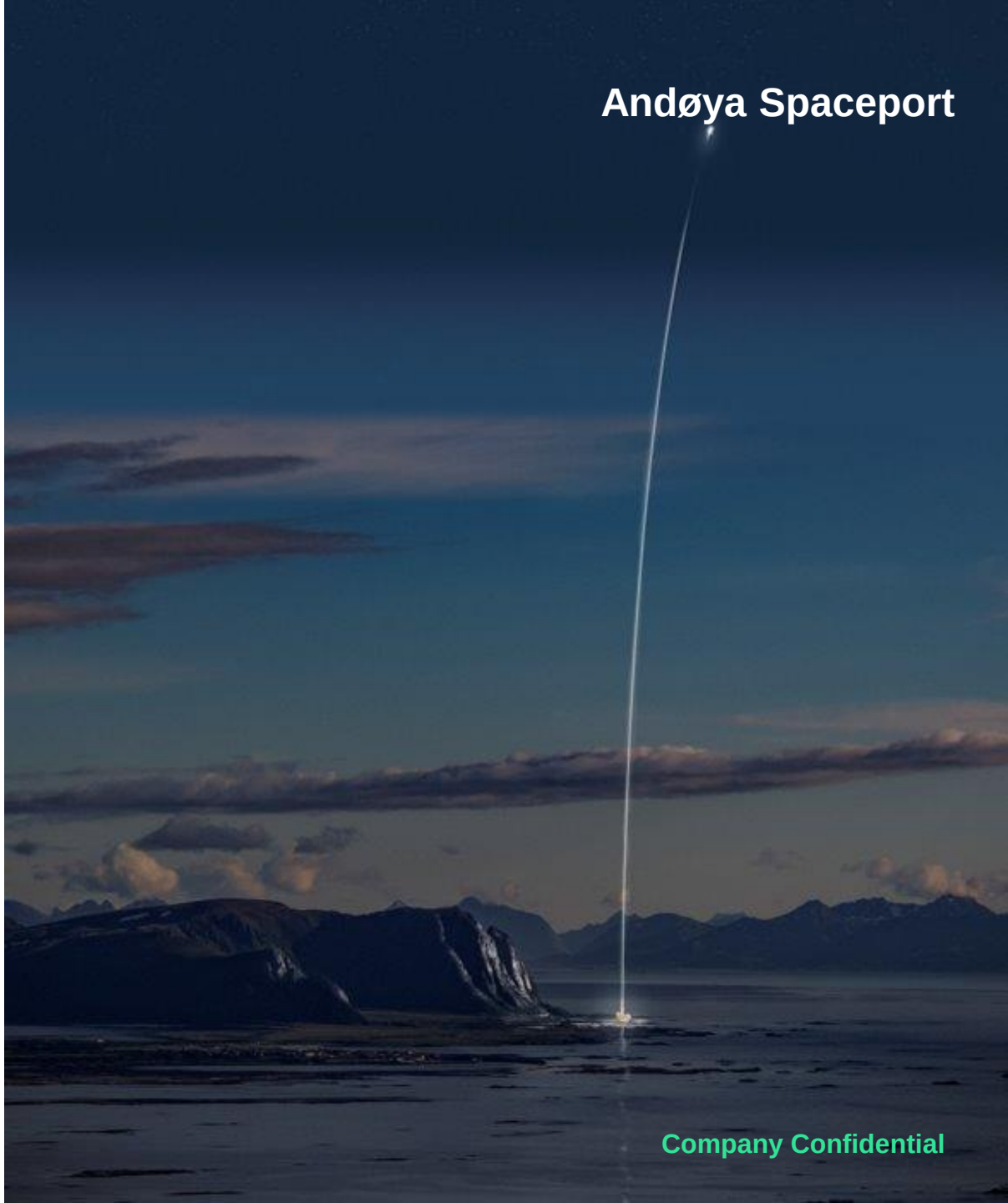
- Initial
  operating capability opened November 2023

- First launch expected 2024
- All launches expected relevant to NAT region
- Exponential increase expected
- Up to 30 launches per year

Andøya Space

Trajectories & required airspace

- Relatively low angle trajectory
- Termination possible
- First stage and fairing fall down relevant for NAT region
- Possible danger area connected with early launch phase
- Typically ENOB, BIRD and BGGL FIRs



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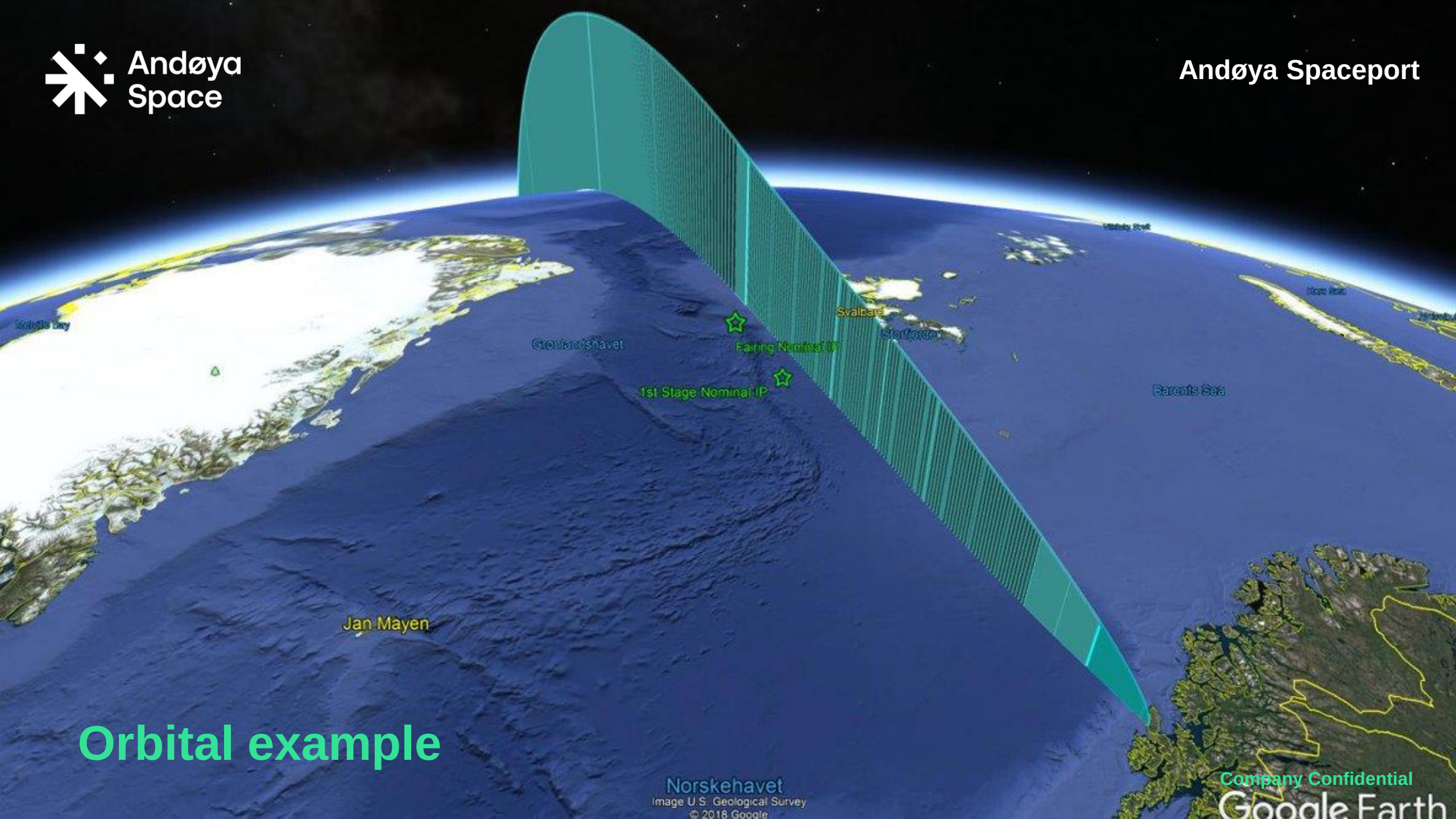
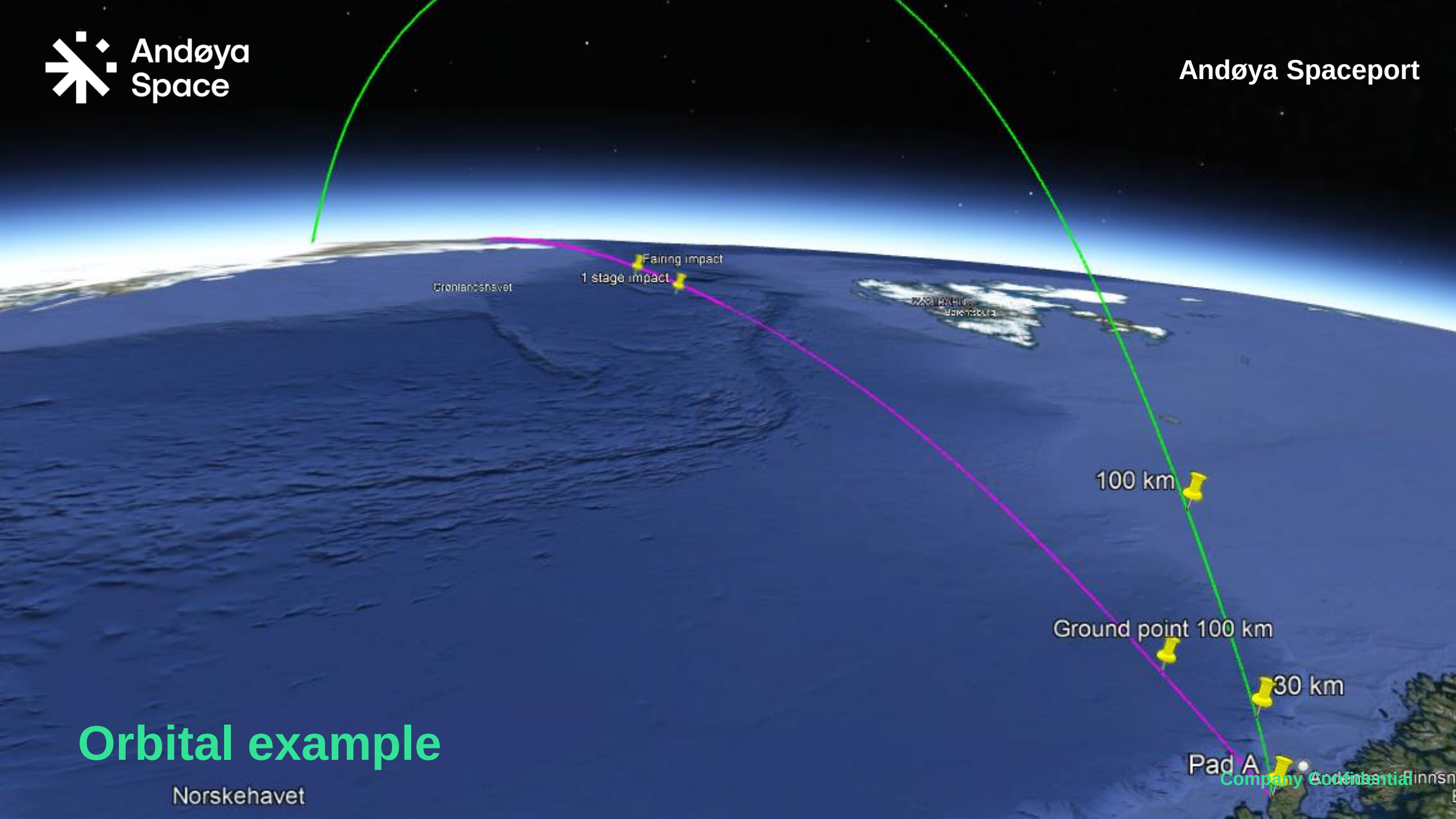


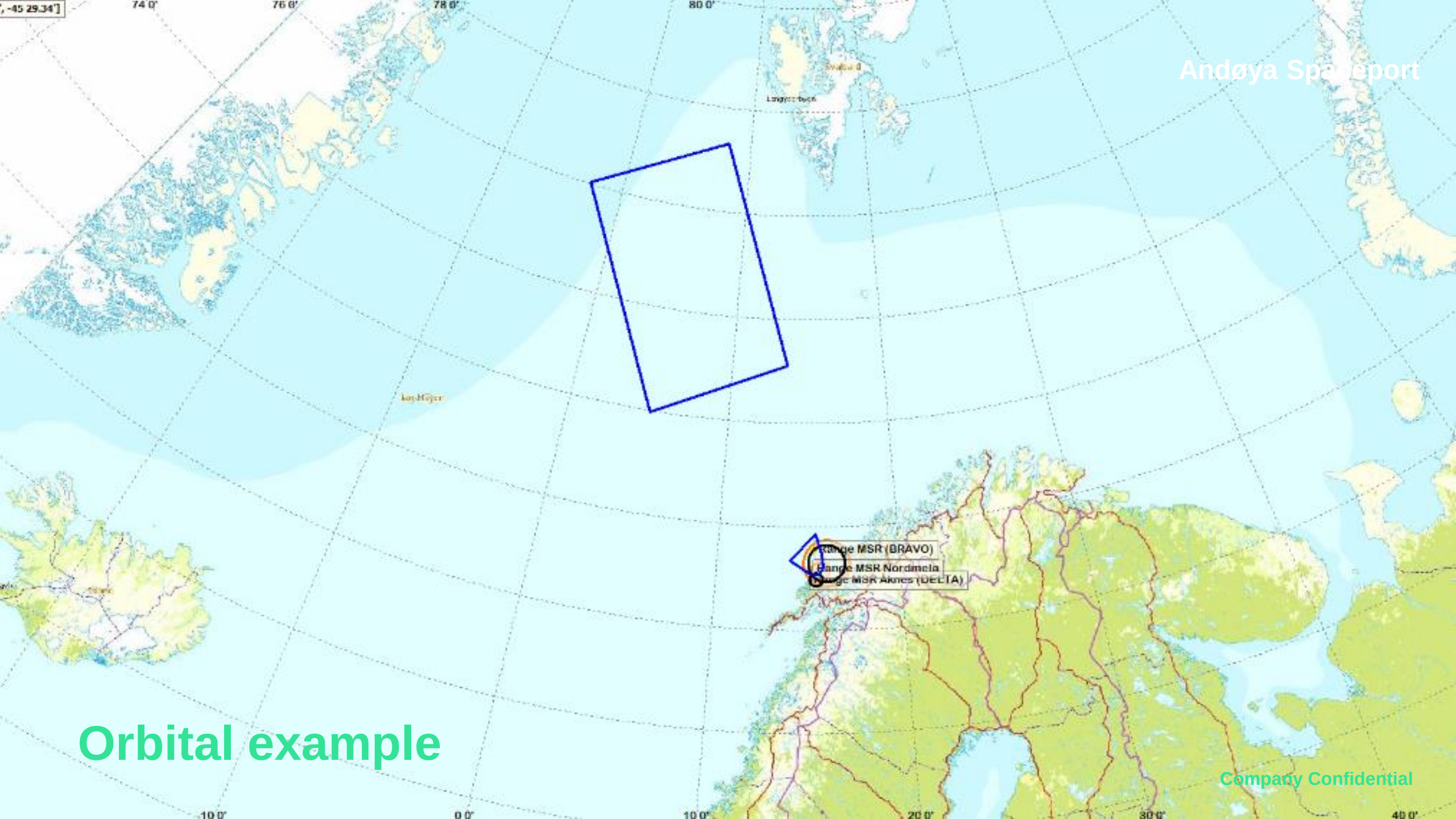
Orbital example

Andøya Space

Andøya Spaceport



Orbital example


Andøya Spaceport
Orbital example
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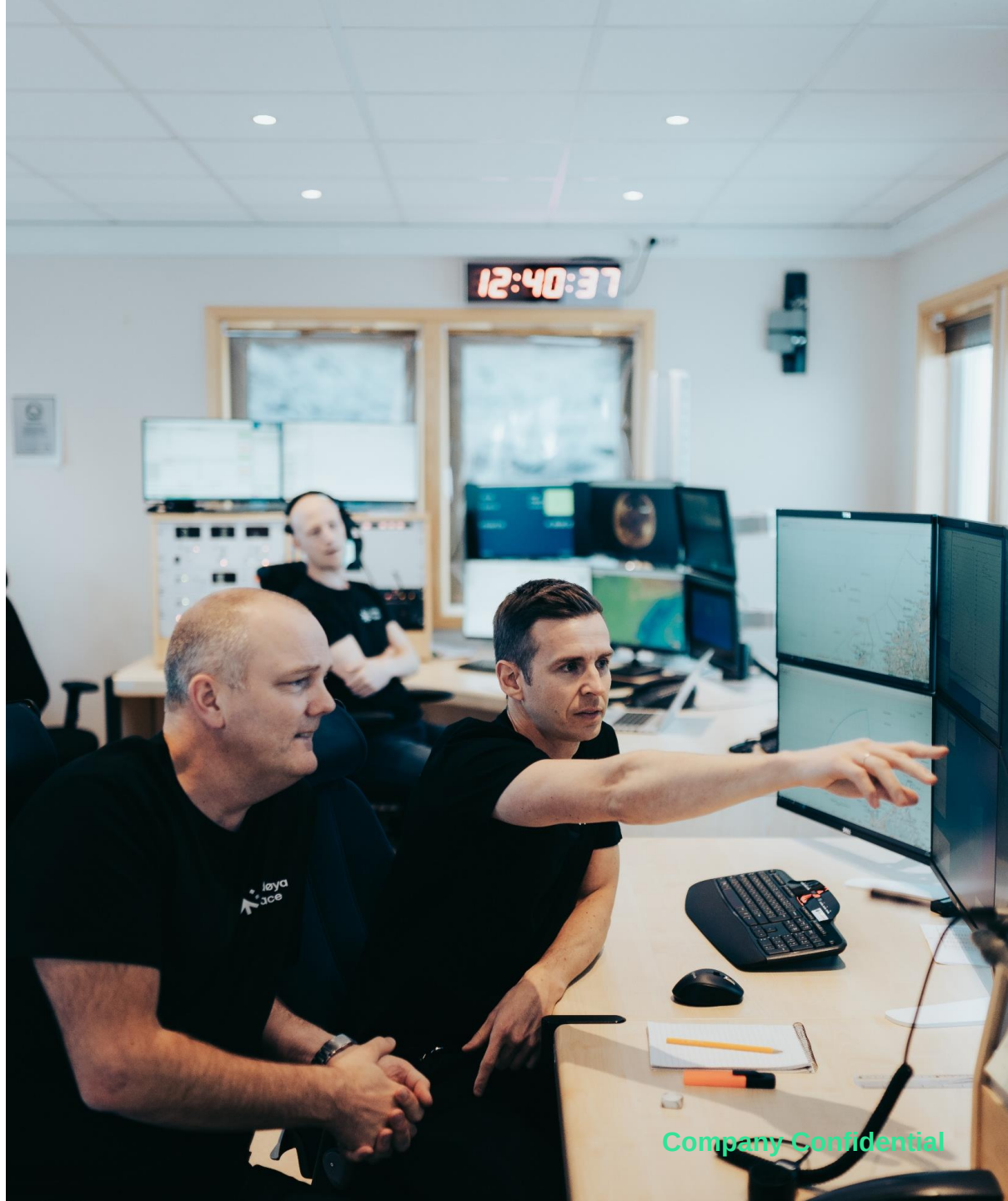
Expected ATC Services

- As relevant/applicable for each launch
- Expected needs to be similar for sub-orbital and orbital operations
- Applications to applicable CAA, e.g. Icetra, CAA-D, CAA-N for Danger Areas
- Coordination agreements as required with relevant ANSP, e.g. Avinor, Isavia etc
- Tactical coordination of activation of Danger Areas from launch control through supervisor at Polaris ACC (Bodø)



Thank you!

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