



ICAO



UNOOSA

SPACE2016

Spire Global Inc.

A Satellite-powered Big Data Company

Antoine de Chassy

VP, Business Development

ICAO / UNOOSA Symposium

15–17 March 2016, Abu Dhabi, United Arab Emirates

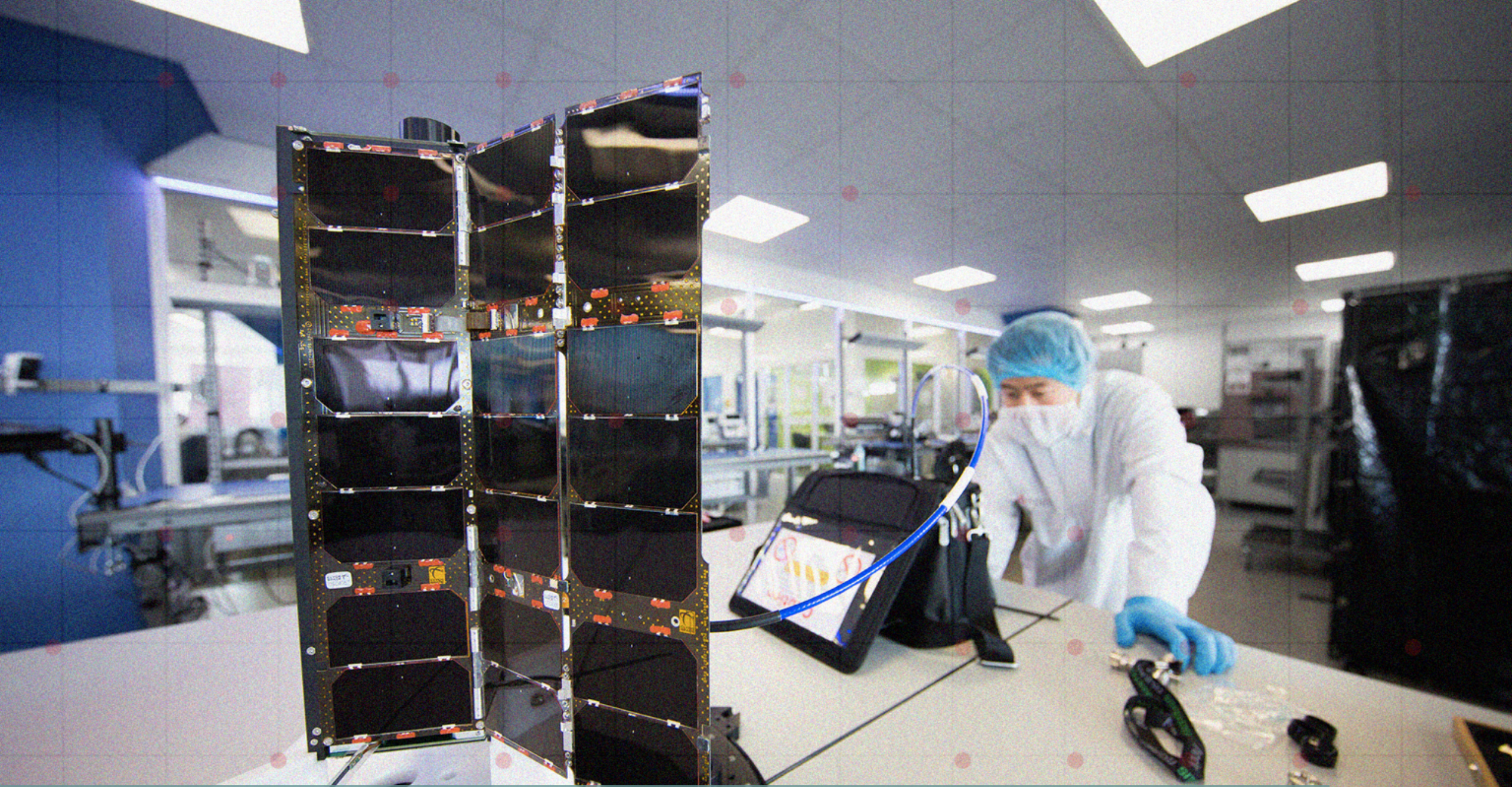
SPIRE AT A GLANCE

***A flexible, upgradeable
nanosatellite
constellation***

***collecting global radio
frequency data***

in near-real time

- A satellite powered data company
- Founded in 2012
- ~100 people in San Francisco, Washington DC, Boulder, Glasgow (UK) and Singapore
- 4 satellites in orbit (8 launched in total)
 - Target of 20+ satellites in orbit by Q2 2016
- 20 global ground stations
- Launching new satellites every single month
- 100 satellites launches; 50 ground stations by end of 2017



Spire Nanosatellite – Glasgow, UK office





Spire Nanosatellite Qualification Model (QM) Assembly

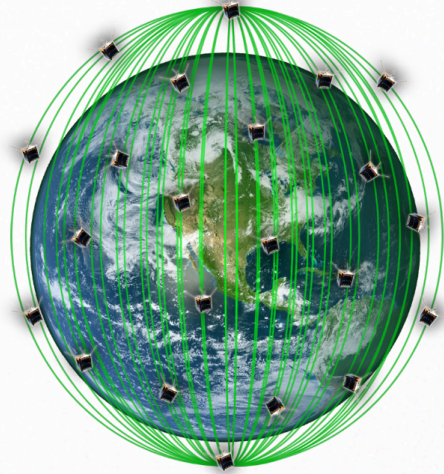


PSLV Launch on September 28th, 2015

Confidential

SPIRE CAPABILITIES OVERVIEW

**Software-Defined
Radio Technology
on a Nanosatellite
Platform**



**A Global Ground
Station Network**



Data for Critical Applications



Ship tracking

*Current
Focus*



Weather data



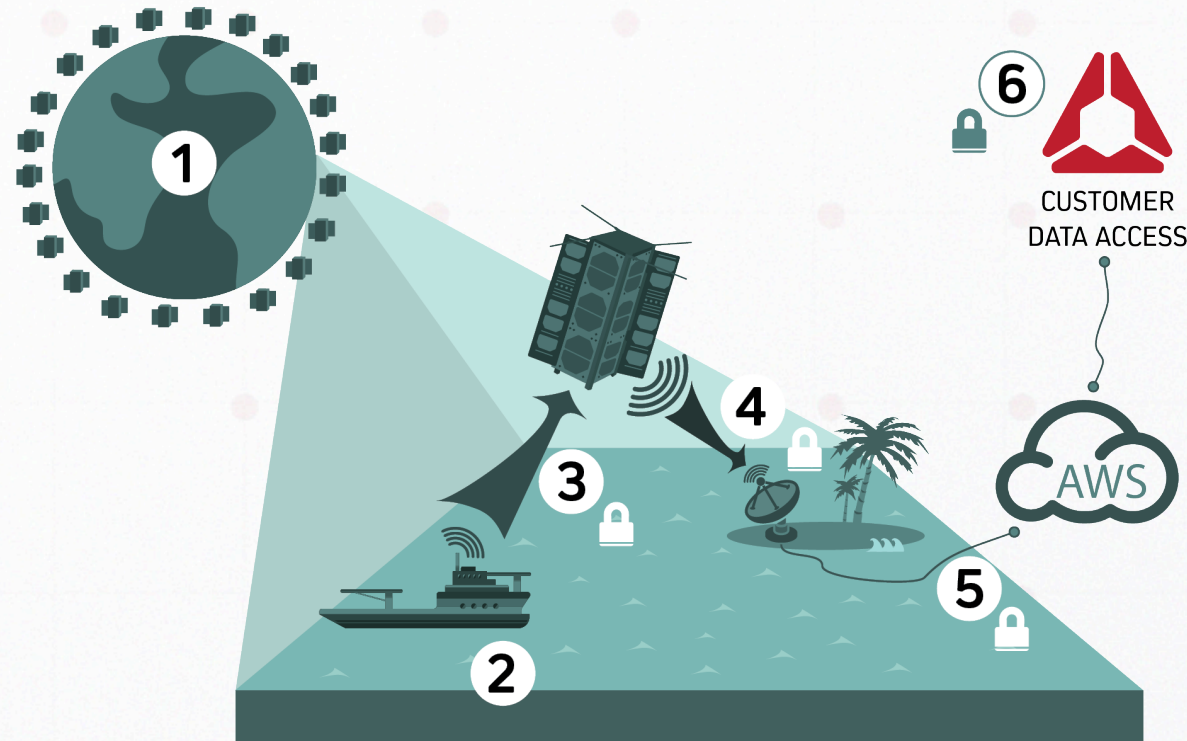
Airplane Tracking

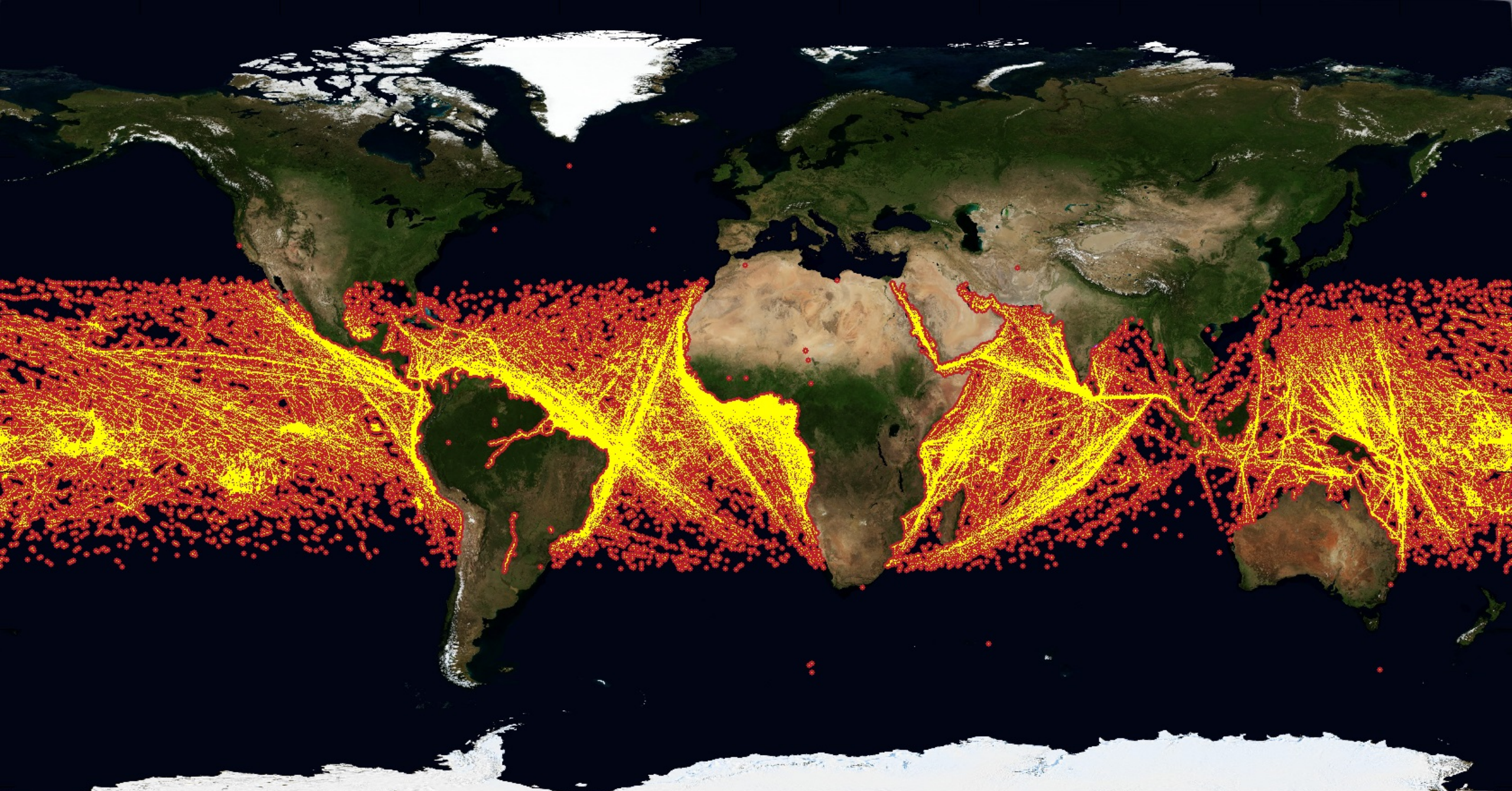


**Machine-to-Machine
Communications**

Market Opportunity: AIS ship tracking

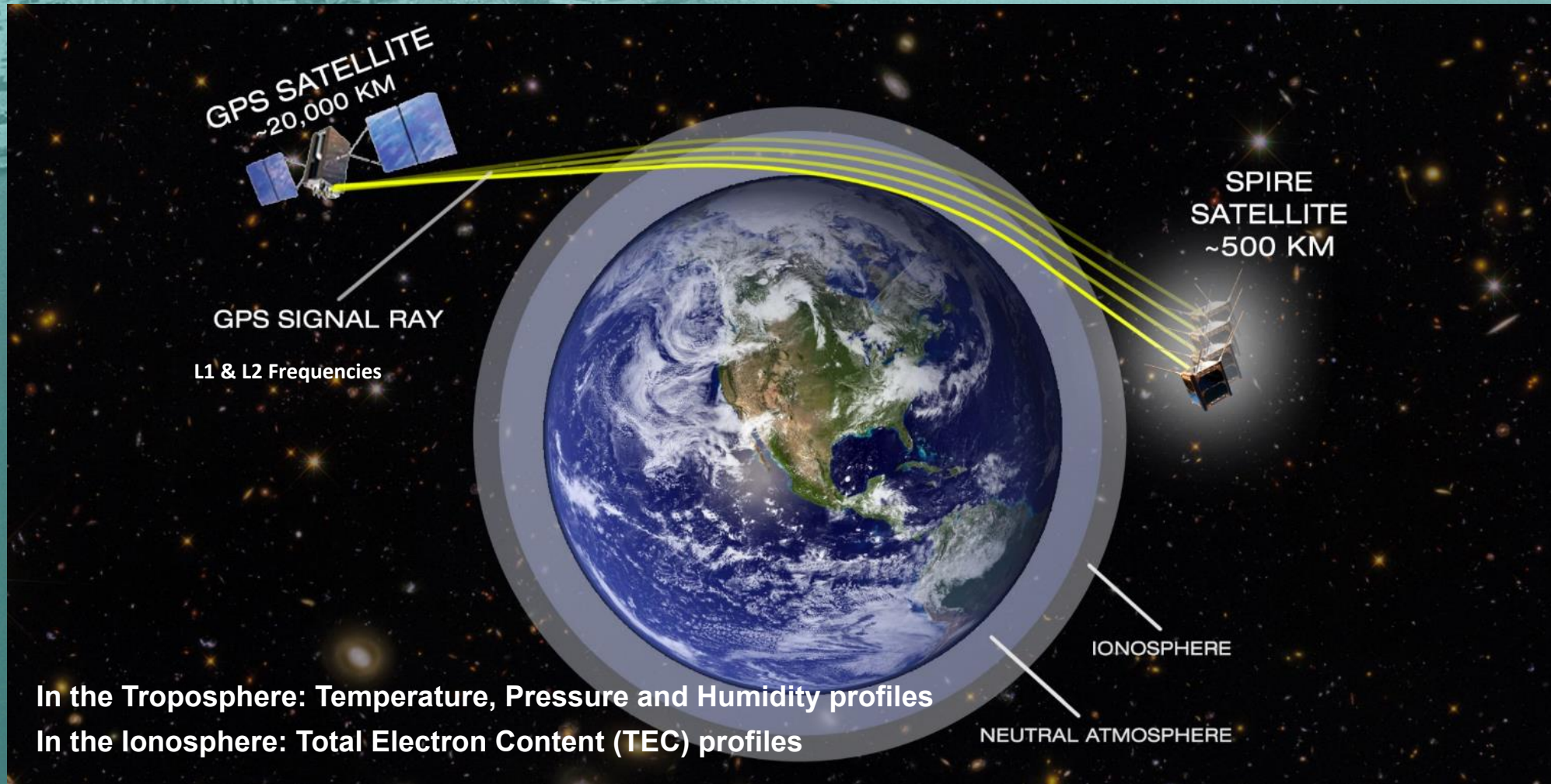
- Up to \$20bn losses in illegal fishing each year
- Ship traffic monitoring and security





Sample data: First 1 million AIS messages

Weather Data from GPS Radio Occultation

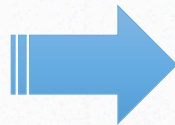


Market Opportunity: GPS Radio Occultation weather data

- **Over \$1.9 Trillion losses due to weather disasters 1995-2015**

RO processing: Vertical profiles of atmospheric P, T, and H

- Proven technology; used in all global Numerical Weather Prediction Models
- Only 10,000 profiles/day available today
- Only **2-3% of the assimilations** in global NWP, yet the **4th most effective** type of data in reducing forecast error



Spire will collect 100,000 Pressure, Temp, Humidity profiles per day

- Global Coverage on a continuous basis
- Improvements up to 130,000+ profiles
- Goal= ubiquitous, holistic and accurate forecasts



High Revisit & Access Time



Sensor Fusion



Persistent and Resilient Service



Fast Technology Upgrade Time



On-board data analysis



Plentiful Launches

SPIRE Global - SPACE 3.0

Moore's law in Space: closing the business case

Thank You
antoine@spire.com

