

# UK Space Agency WG 1 Update

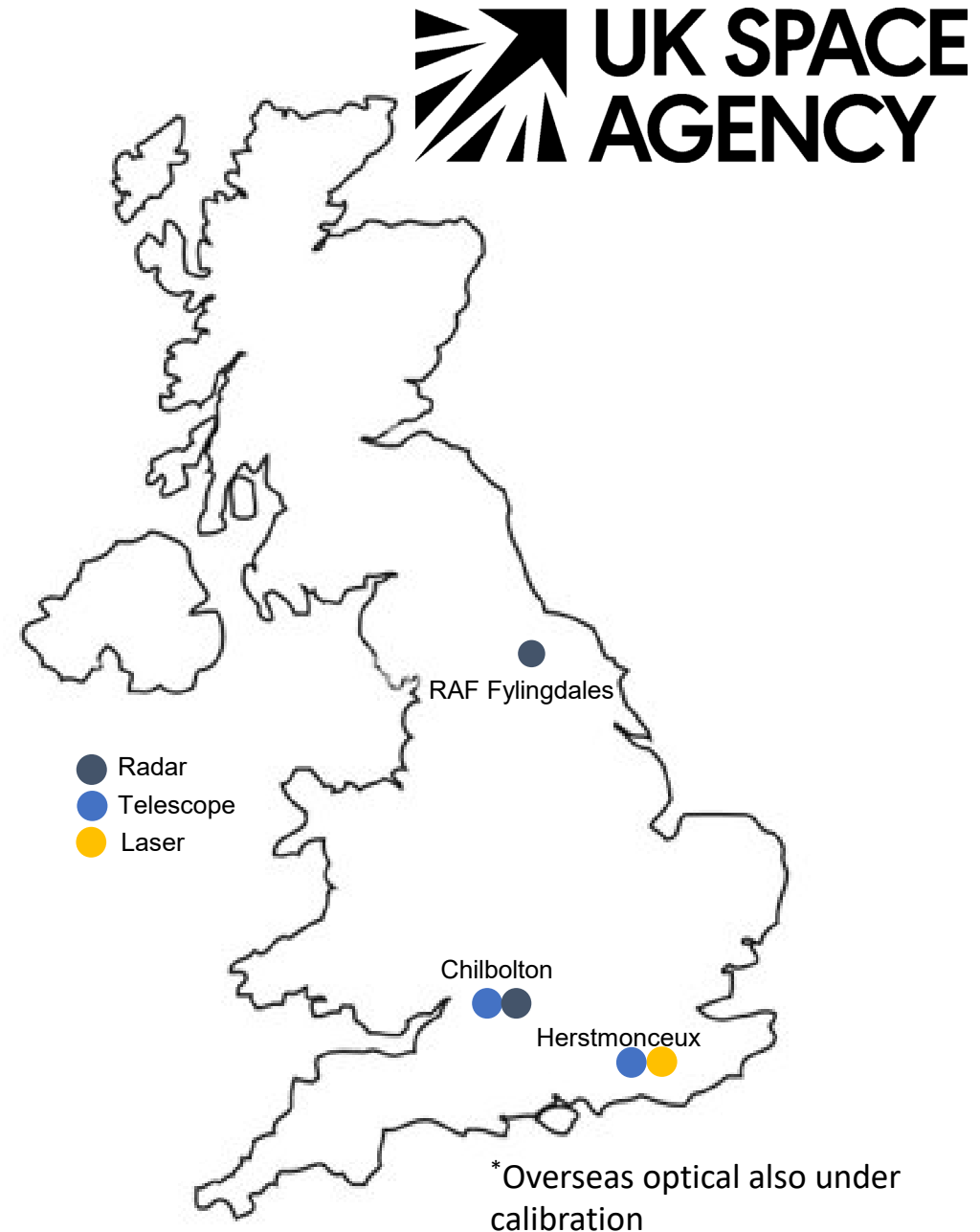
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# Overview of UK sensors and updates

## Highlights:

- New UK optical sensor installed and being calibrated
- HEO Study – ERS 2 re-entry successful
- Potential new sensor deployment studies (Observe)
- R&D utilising neuromorphic sensors
- Commercial data contracts awarded (global networks):
  - Spaceflux
  - Raytheon LOCI



# Overview of UK sensors and updates



## Chilbolton Observatory:

- 25m Radar
- Optical sensor recently upgraded with Infrared Camera for day time tracking



## Herstmonceux Observatory:

- GEOF Laser ranger  
Single-shot range precision about 3mm at distances of from 300km to 40,000km
- Optical sensors as well with increased focus on characterisation



## RAF Fylingdales:

- Phased Array Radar
- Military asset



# Warning services



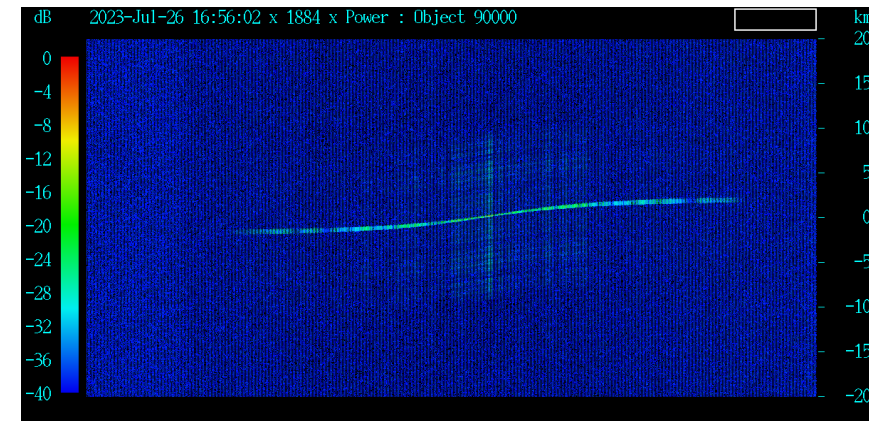
## Monitor your satellites

[Events](#) [Satellites](#) [Account](#) [Support and guidance](#) [Sign out](#)

- Currently Monitor Your Satellites is available to any UK operator and UK Gov, providing Collision Avoidance warning and Re-entry warnings
- UKSA have provided 40,747 Collision Avoidance warnings since our Monitor Your Satellites service started automatically providing data from our Orbital Analysts on 20th October 2023
- From May 2024 we will provide Manoeuvre Trade Space Plots to support operators with their manoeuvre decisions.
- Service will be renamed as part of our change to NSpOC (covered in later slides)

# UKSA contribution to IADC

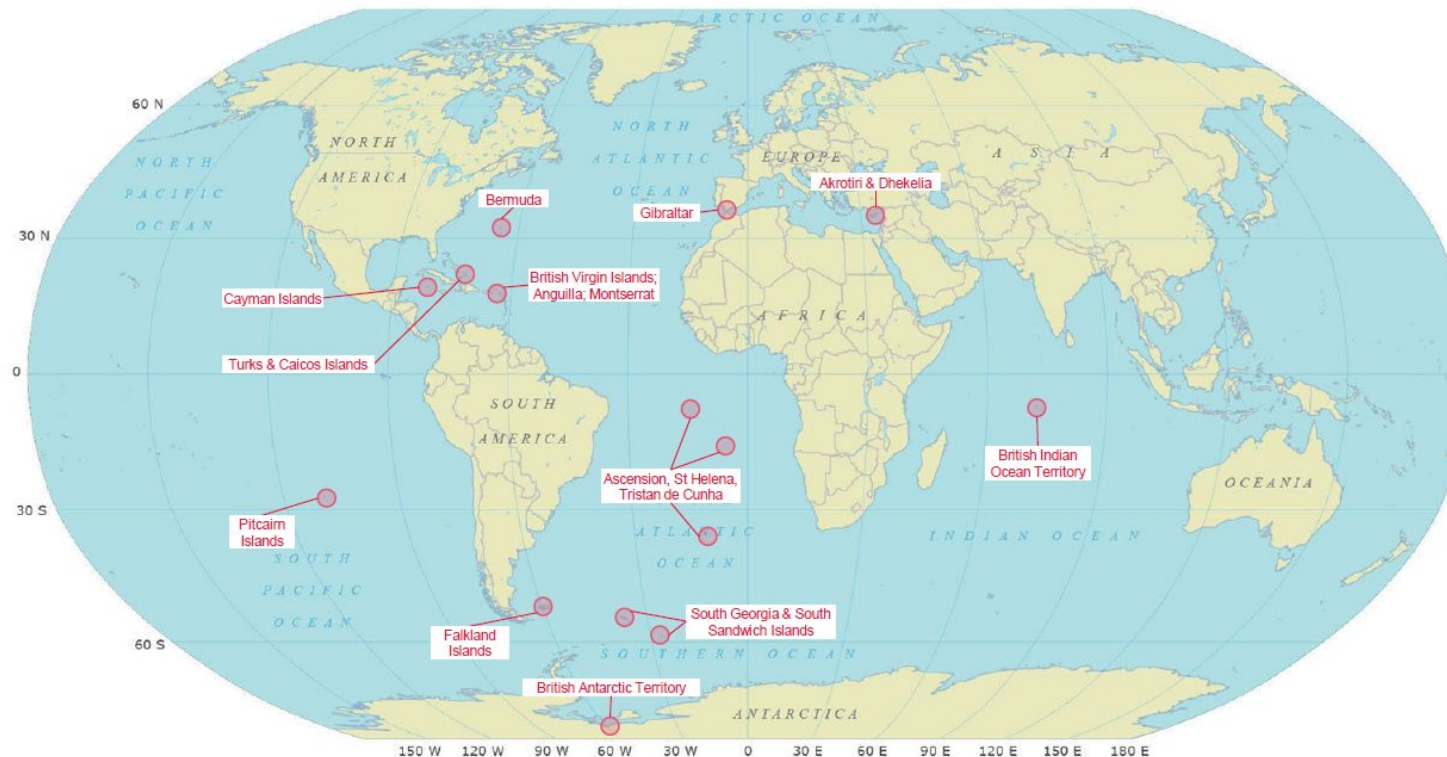
- Re-Entry Observations:  
Tracking of ESA Aeolus and ERS-2
- IT 39.2 fragmentation photometry and light curves:  
Cosmos 1408 Debris  
Additionally, Vespa Module
- IT 41.2 light curves supplied:  
SL-14 R/B (18340)
- IT 41.1 Started work on table, to be discussed later in session 2.2



Aeolus radar track

# UKSA Observe Strategy

- Undertake an evidence-based assessment of the future space environment over the next three, five and ten years.
- Determine future scenarios and plan potential actions based upon these



Overview of the UK's overseas territories and their geographic separation

# NSpOC – changing how we observe



NSpOC will develop and operate the UK Government's space surveillance and protection capabilities.



National Space  
Operations Centre





# NSpOC Civil Operations Dashboard (Draft)

Soon to be live dashboard highlighting key metrics including re-entries and observations



# Any Questions?

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