

MOSWOC – 4 years old!

April 2014

24/7 Operations began



**What have we achieved
and where are we going?**

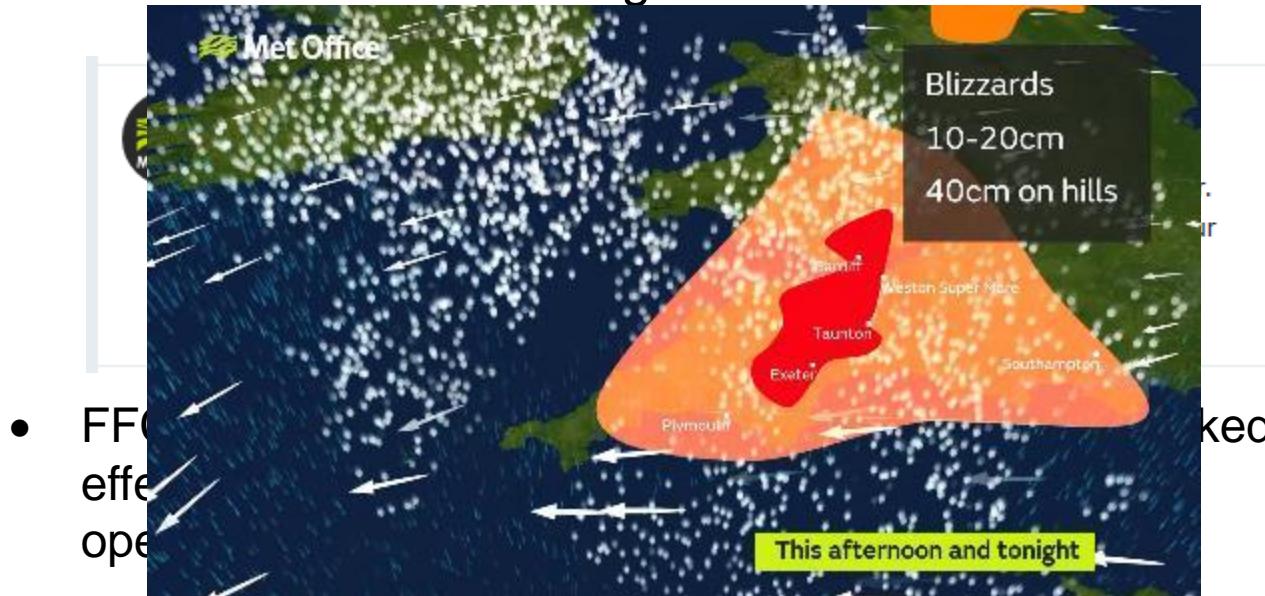
Mark Gibbs

17th April 2018

The last year's snapshots

Should have been a quiet year – right?

- Business Continuity
 - HQ Fire
 - Snow & Freezing rain/ ice





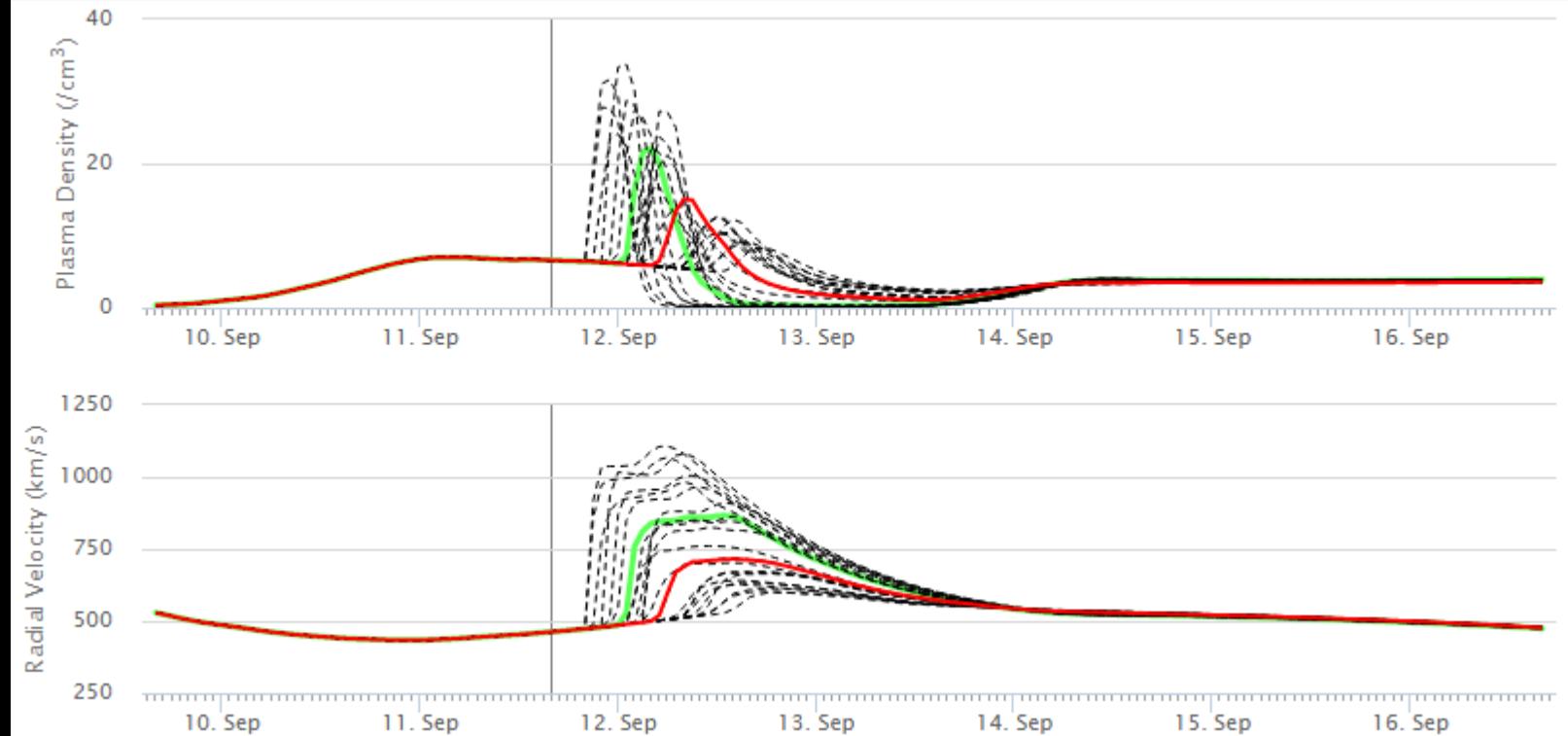
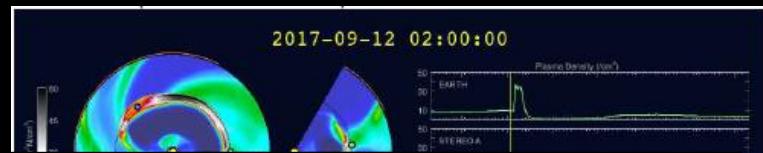
Met Office

The last year's snapshots

- Business Continuity
 - HQ Fire
 - Snow & Freezing rain/ ice
- September event – Lessons Learned to be implemented
- Models
 - Ovation Prime 2013
 - ENLIL CME Ensemble



Met Office



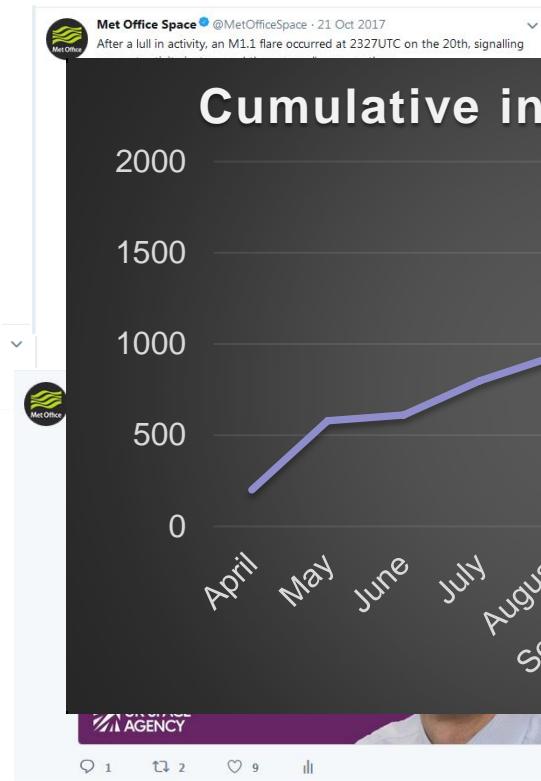


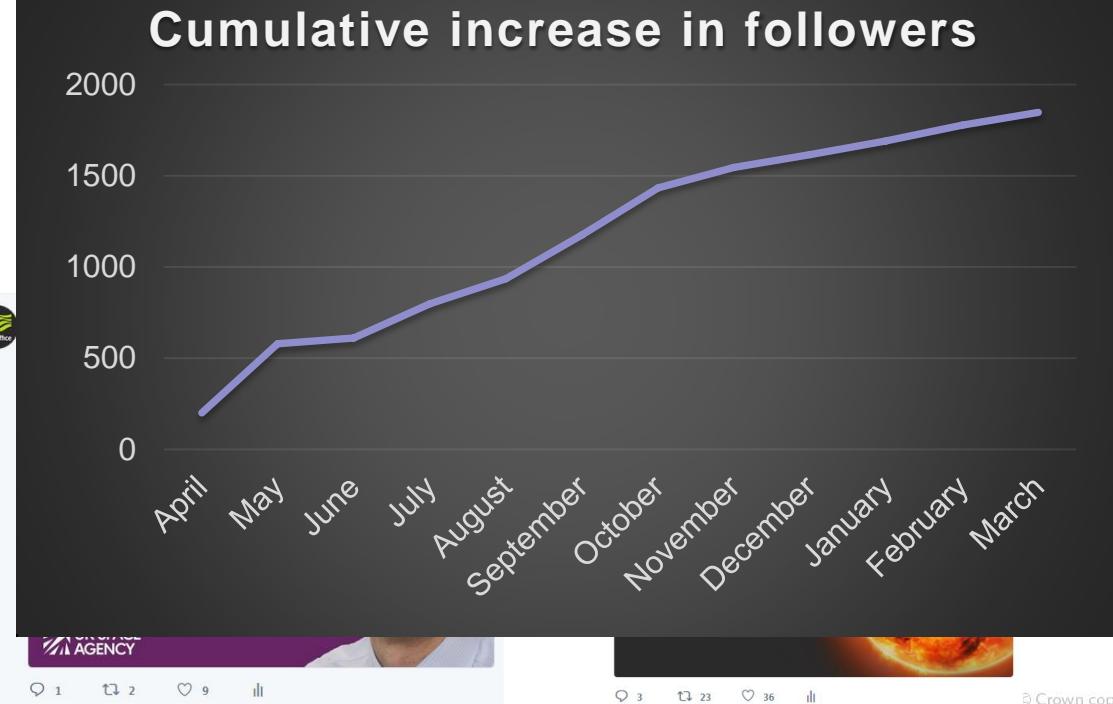
Met Office

The last year's snapshots

- Business Continuity
 - HQ Fire
 - Snow & Freezing rain/ ice
- September event – LL to be implemented
- Models
 - Ovation Prime 2013
 - ENLIL CME Ensemble
- ESA Lagrange mission 'start'
- Social media use
- ICAO/WMO Audit

@MetOfficeSpace

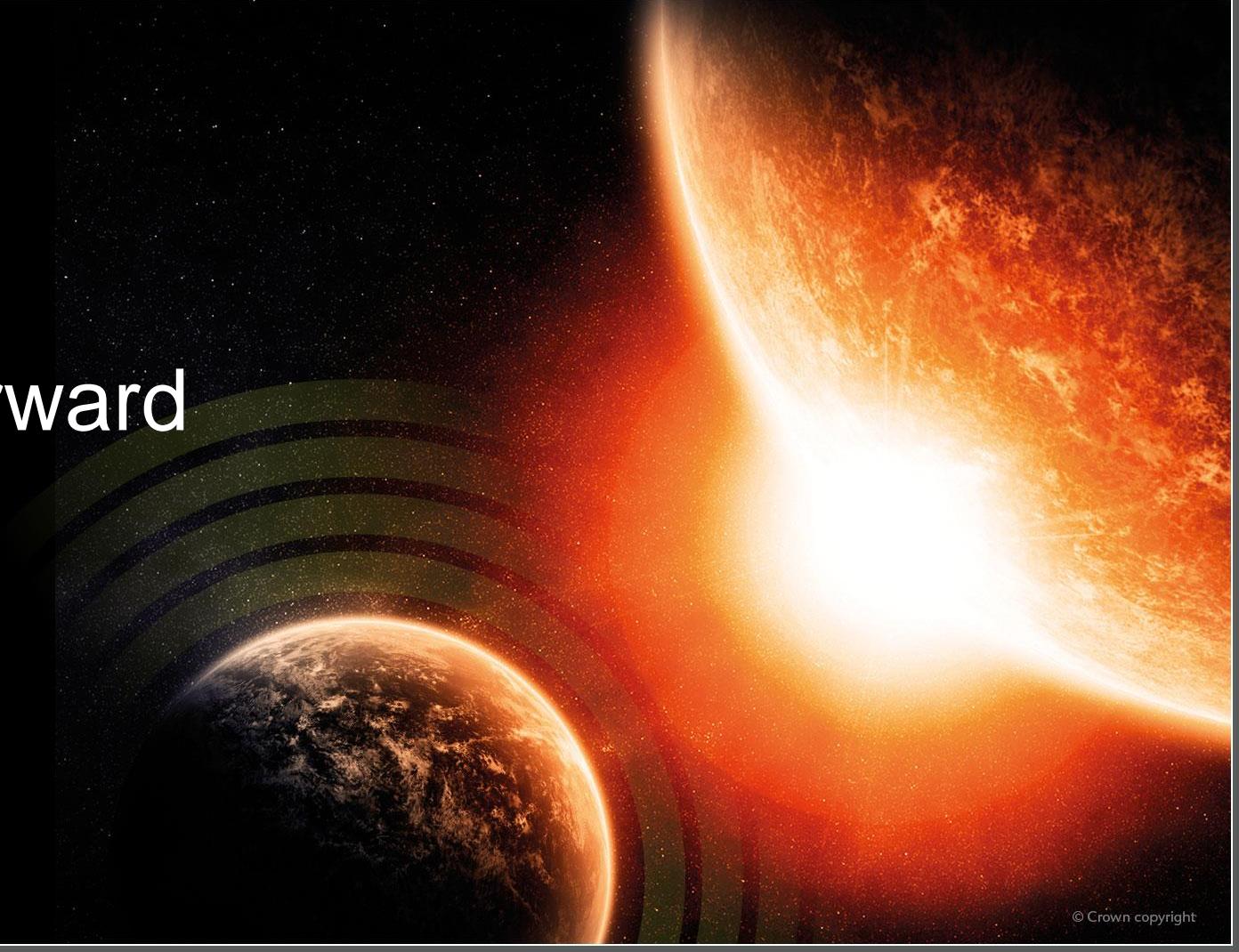







Met Office

Looking forward



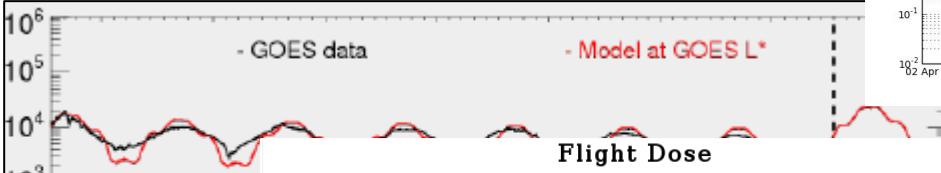
Big challenges

- ESA L5 mission
 - Work with UK Space Agency to secure UK contribution
 - With ESA, UKSA & German delegation to gain support from other member states
- Transform IT / forecaster system
 - Develop & transition to cloud-based technology
 - Continue BAU developments
 - Enhance business continuity
- Research project started to 'raise' top of UM from 85km to ~120 to 150km

Geomagnetic developments

- Enhancing ENLIL
 - Evaluate & implement AFRL ADAPT
 - Continue evaluation of DuMFriC & implement
 - NLFF (Yeates & Mackay)
 - Continue IPS evaluation
- With BGS & energy sector finalise new Geomagnetic scale (ΔB / 15 min)
- Magnetospheric model
 - Implement SWMF/Bats-R-US

Radiation developments

- Operationalise SPARX SEP model
- Continue evaluation of BAS RBM (&
- 
- 

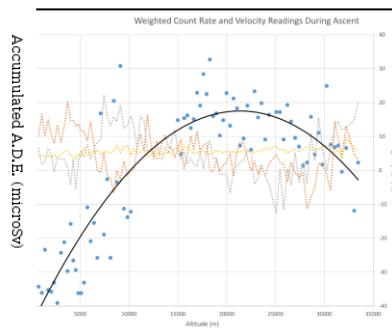
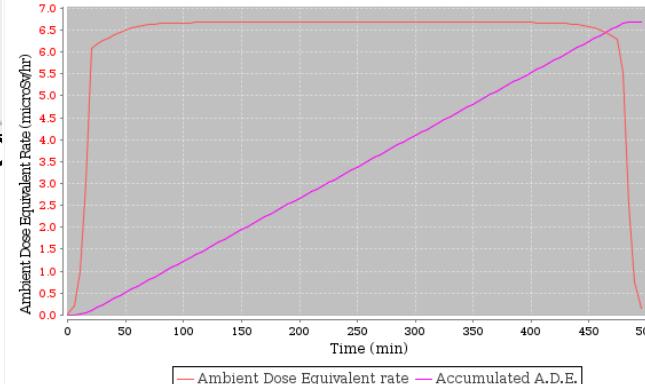
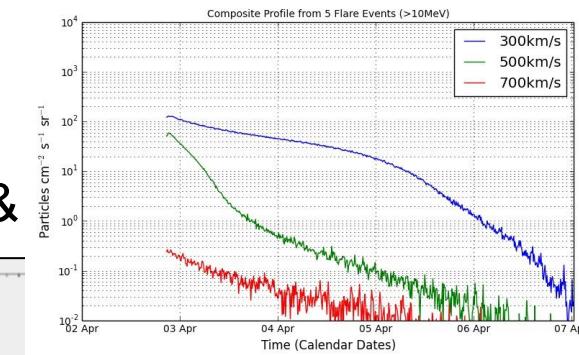
Flight Dose

GOES data

Model at GOES L*

Ambient Dose Equivalent Rate (microSv/hr)

Time (min)
- Further proc



Web Pages

Space Weather Energy

NOTIFICATIONS

No.	Type	Level	Alerts
2	2MeV Electron Flux	1.0×10^3 pfu	Jul 18th 2016 07:30 UTC
1	Electron Fluence Extension		

TECHNICAL FORECAST OVERVIEW

Space Weather Forecast Headline: High energy electron fluence above 2 MeV is expected to continue. NOTE: An intermittent fault means that a 2MeV Electron Flux notification is not being sent as real. Please use other alerts or warnings as real. At time of issue a 2MeV Electron Flux alert was issued.

Analysis of Space Weather Activity over past 24 hours

Solar Activity: Solar activity has been low. A small solar flare (M1.1) was seen in the region on the disc (Dhi Beta-Gamma). No other solar flares have been seen in the last 24 hours. No other alerts or warnings are available imagery.

Solar Wind / Geomagnetic Activity: The solar wind has been in the range 3-5nT. The Bz (north-south) component has been in the range -3nT to +3nT. The Phi angle was larg

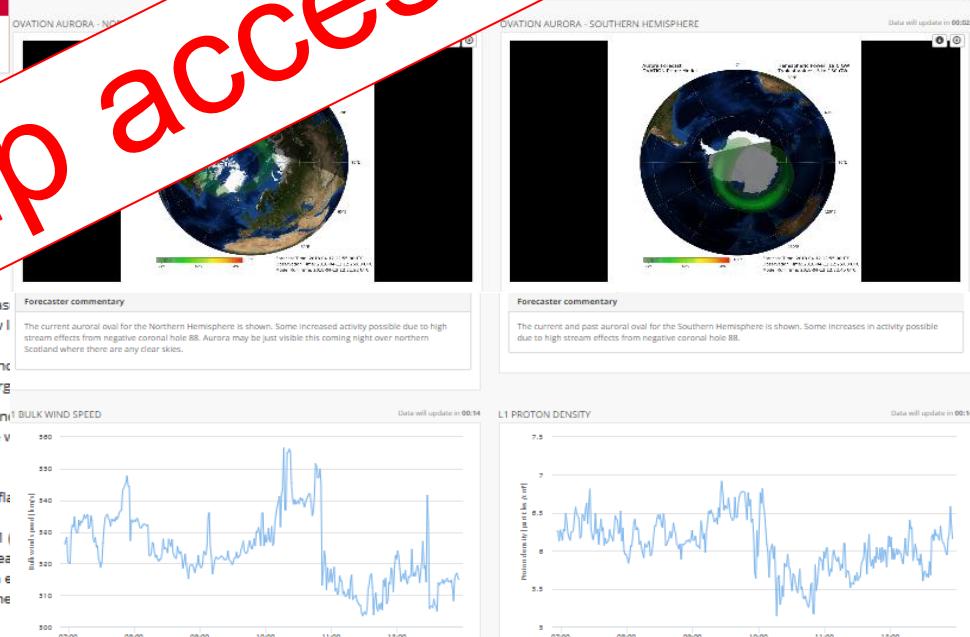
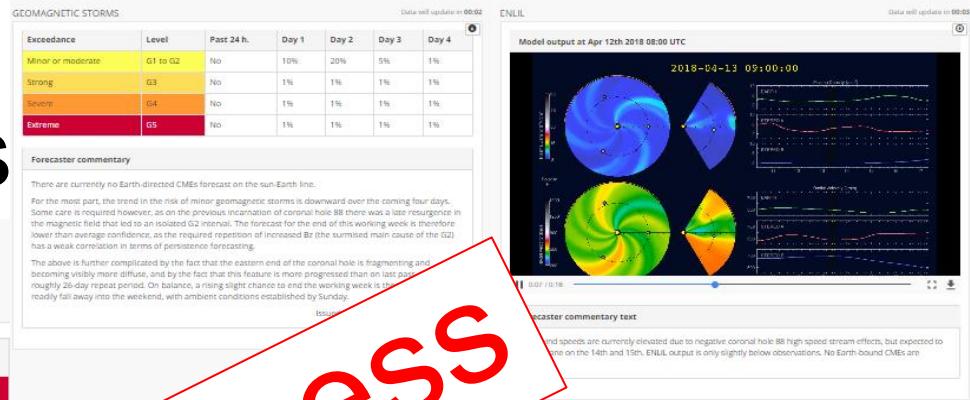
Energetic Particles/Solar Radiation: The high energy electron flux (greater than 10 MeV) has been at background levels. The flux was at Moderate to High levels, with a peak flu

Four-Day Space Weather Forecast Summary

Solar Activity: Solar activity is expected to continue at mainly Low levels, with a slight chance (20%) of M-class flares.

Solar Wind / Geomagnetic Activity: Geomagnetic activity is expected to remain at mainly quiet levels on day 1 (19th April). Days 2 and 3 (20th and 21st) due to the possible arrival of a weak CME and the onset of another high speed stream.

Energetic Particles / Solar Radiation: No solar radiation storms are expected during the period, with the high energy electron flux (greater than 2MeV) is expected to continue at mainly Moderate to High levels, with the high energy electron flux (greater than 10 MeV) has been at background levels. The flux was at Moderate to High levels, with a peak flu



Open up access



Met Office

Thank you and questions?

