



UK Met Office Space Weather & Volcanic Ash Lessons



Major Emergencies in UK

- COBR (Cabinet Office Briefing Room)
 - central government crisis management committee
 - Chaired by PM or other Minister
 - E.g. Volcanic Ash, Fukushima, pandemic flu, etc
- SAGE (Scientific Advisory Group for Emergencies)
 - Chaired by Government Chief Scientific Advisor (GCSA)
 - Attended by leading scientists in the field
 - GCSA represents science in COBR meetings



Space Weather & SAGE

- 2 Space Weather SAGE exercises held
- December exercise ~ 30 people, 10 scientists, 20 from government / key industries
- Walked through very active solar period
 - Multiple X class flares
 - Multiple CMEs – including 2 very fast full halos
- Discussed
 - certainties / uncertainties
 - Likely impacts & timings

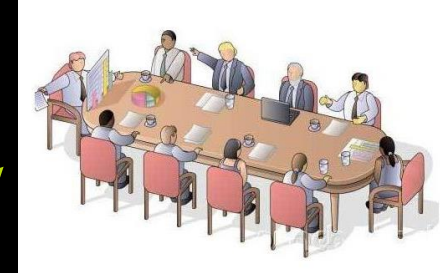


Extreme space weather event in Met Office

Met Office Incident Management Team



SAGE



Dedicated 24/7 forecaster

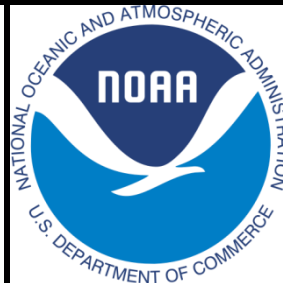
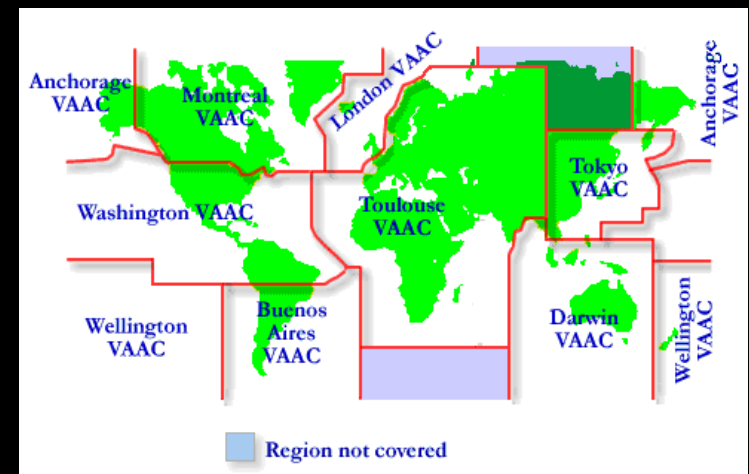
UK & international expert partners





Volcanic Ash Lessons

- Consistent information and communication, nationally & internationally
- Manage expectations
- Provide education and guidance
- Defend the importance of **good, underlying transparent, peer reviewed science**





Space Weather – planning and response challenges

- Nature of underpinning science means there's greater uncertainty about reasonable worst case scenario compared to other risks on National Risk Register and limits our ability to forecast and model impact.
- Interdependence of potential impacts presents high level of complexity in providing resilience.
- Effective communication co-ordinated internationally, both to industry and the wider public, vital to prepare effectively for this risk.
- Very short notice were a major event to happen.
- Impact would be felt internationally. Therefore, international collaboration vital to build resilience.

Public Communication

- Focus on impacts
 - An event may be interesting to us – but not to the public unless it will impact them
- Corroboration
 - The public don't trust one source – will always look for confirmation from another source
 - Joined up communications nationally and internationally
- March '12 event
 - Joined up message in UK (BGS/MO)
 - Didn't match media messaging from US

