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

UK & international expert partners

Dedicated 24/7 forecaster

SAGE
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.
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