



making the UK the Place for Space

2014: The Year in Review

Dr David Parker, Chief Executive

4 December 2014

<http://www.bis.gov.uk/ukspaceagency>

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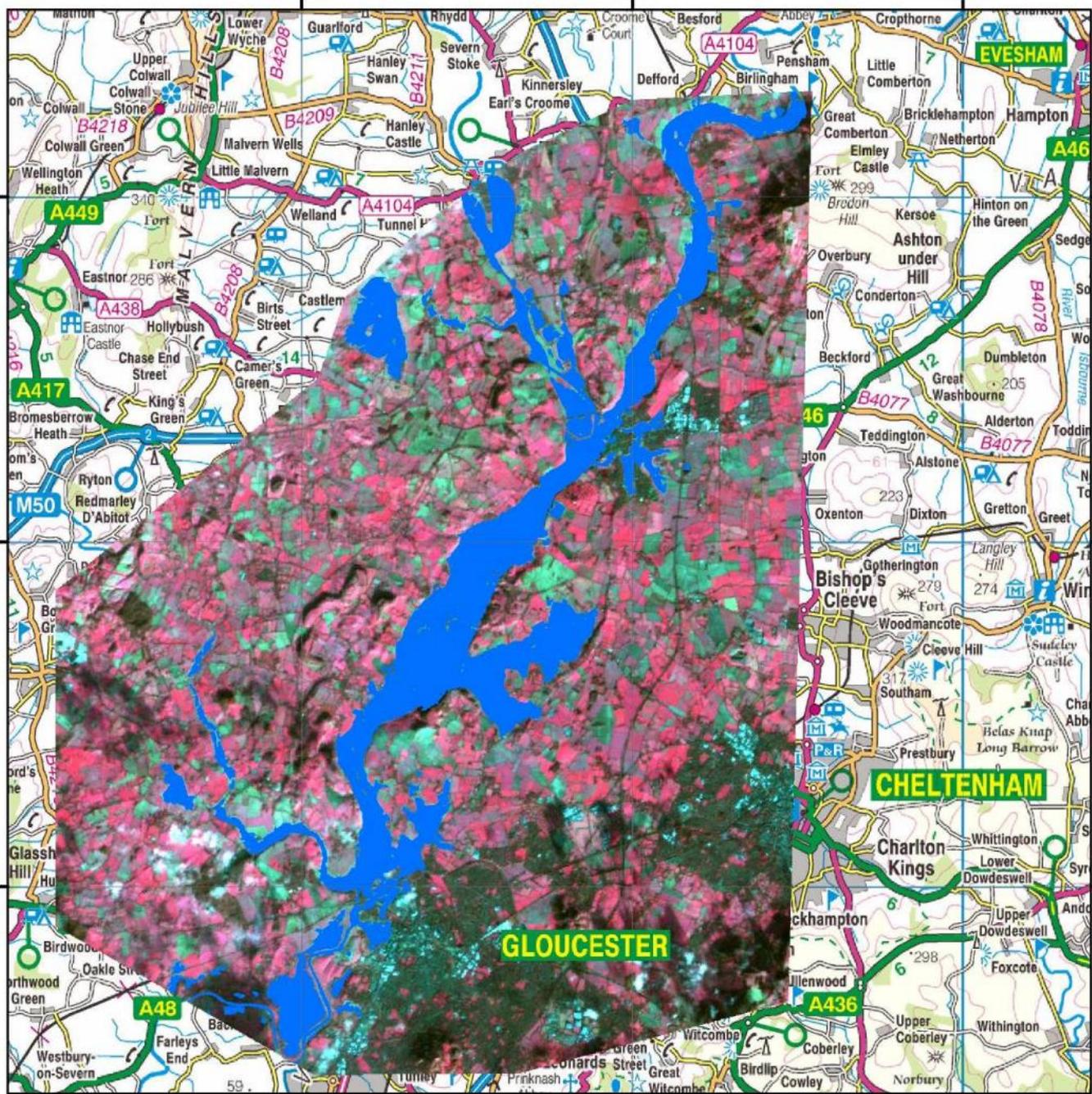
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Flood mapping of River Sever derived UK DMC-2 satellite data acquired on 07/01/2014.

Legend

- Water Extent
- UK DMC-2 Image**
- Red: NIR band
- Green: Red band
- Blue: Green band



The water extent was estimated from UK DMC-2 satellite data with 22 metre resolution acquired at 10:15 UTC on 07/01/2014. The extent of the analysis is limited to the area covered by the imagery shown.

These data were used to map the water extent within the flood analysis area. The image contained a great deal of cloud and cloud shadow and so the analysis area is restricted.

Some of these areas are water under normal conditions (e.g. rivers or lakes).



Map generated by Environment Agency, National Operations, Geomatics.

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 Ordnance Survey 100024198.

DMC International Imaging
 UK-DMC image 2014 ©2014
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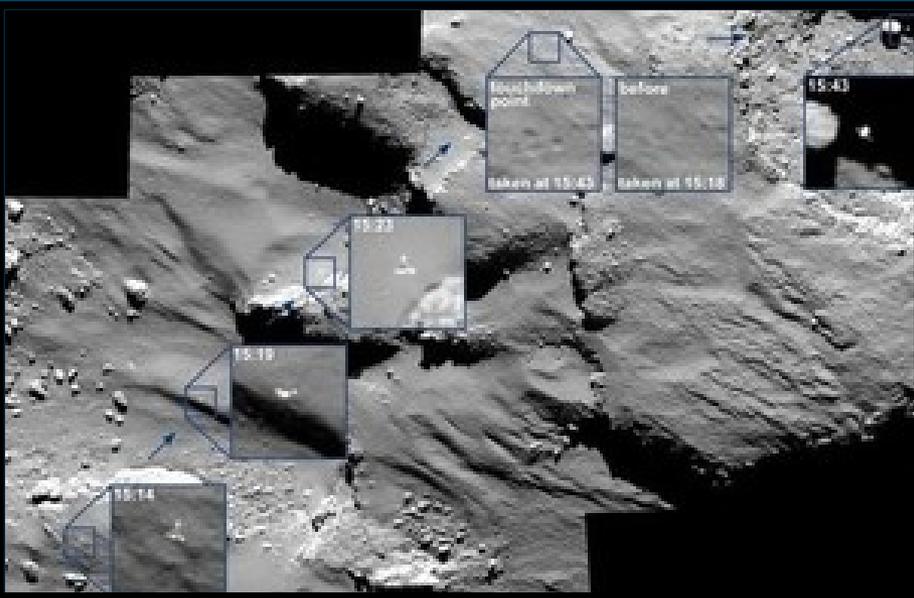
The satellite data in this map were provided under the International Charter Space and Natural Disasters.

Some Recent Highlights

9 October: at RAeS President's Conference, Minister announces latest economic data with sector growth of 7% year to £11.3B



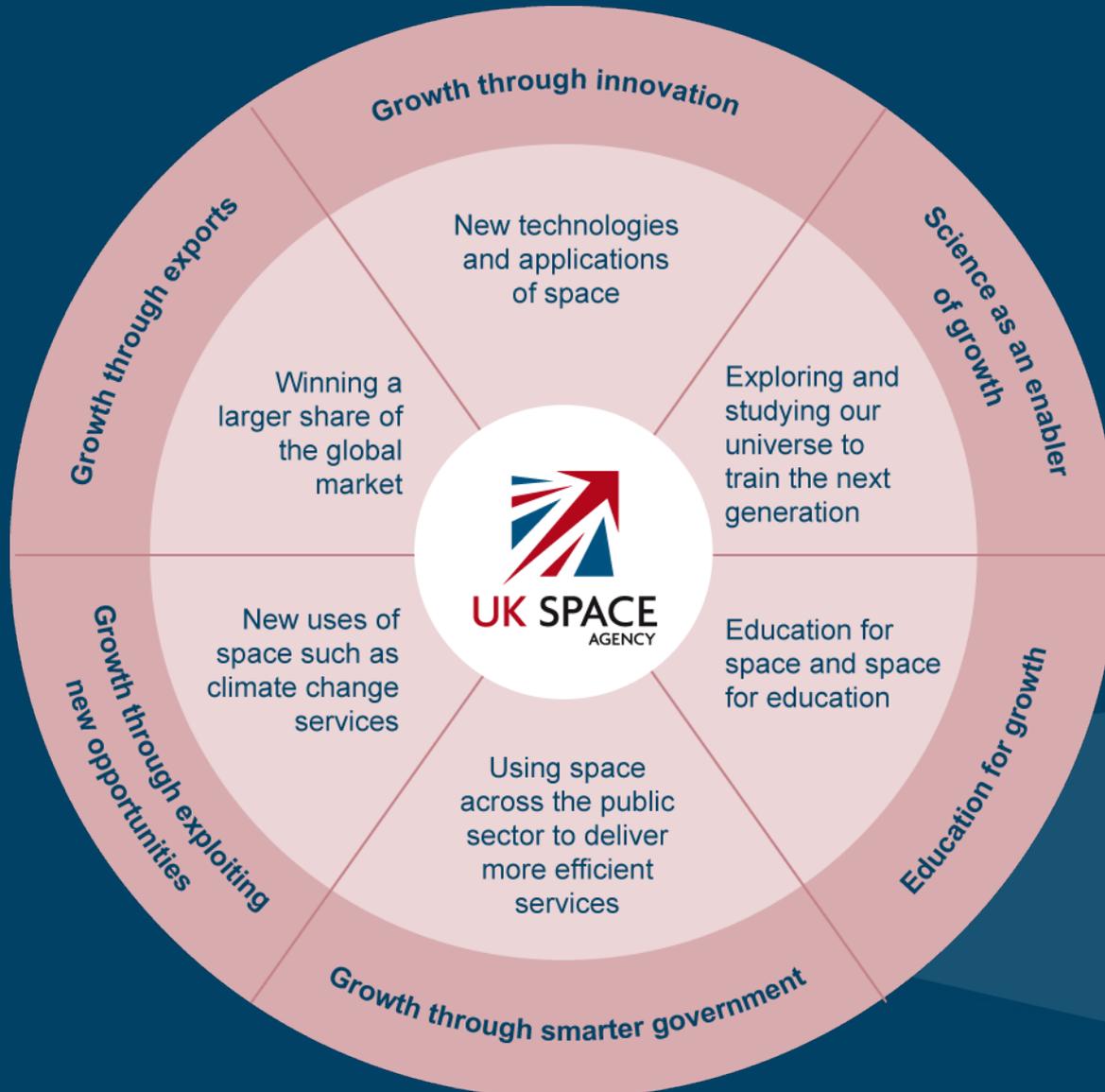
12 November: Rosetta comet rendezvous spacecraft (UK platform) deploys Philae lander with UK Ptolemy instrument aboard.



17 November: Minister launches International Partnership Space Programme at Airbus Stevenage with IET Engineer of the Year Abbie Hutty and astronaut Tim Peake



Civil Space Strategy – six themes



Goal:
£40B sector
by 2030

ESA C-Min 14

- ESA C-Min this week approved three resolutions giving policy direction to the next Director General
 - Access to space
 - ISS and exploration
 - Evolution of ESA
- Key decisions on new European launcher family
- The UK Space Agency was empowered to invest in the following programmes:

- **£47.7 million for Mars exploration including the the ExoMars programme, ensuring the continuation of the cutting-edge exobiology mission and its UK-built rover.**
- The pan-European ExoMars mission will address the outstanding scientific question of whether life has ever existed on Mars by drilling, collecting and analysing samples.
- We not only helped guarantee that this high impact programme will go ahead as planned, but ensured the UK gains leadership of the complete rover module.

- **£130 million for telecommunications technologies research & development in the ARTES programme**
- Satellite telecommunications is at the heart of the UK space industry, with previous investments generating more than £750 million of private investment and sales to date.
- This investment will be match-funded by industry, with a real return for the UK economy.

- The new ARTES investment will include:
- **£56.9 million for AnySat**
- Through this investment the UK will secure contracts for the development of a new type of smart, lower cost telecommunications satellite plus the first order from major European satcom operator Eutelsat.
- Industry estimates that further commercialisation of this technology could win orders worth a total of £1.2 billion.

- **£28.4 million for the Integrated Application Promotion (IAP) programme**
- The UK's £28.4 million investment will continue the successful IAP programme which is managed at European Centre for Space Application and Telecommunications in the UK and is already driving the creation and growth of businesses based on space data for markets including agriculture, fisheries and rail.
- European Space Agency supplier evaluation suggests that the £26 million investment could generate returns of up to €365 million.

- **£29.4 million for developing commercial applications of satellite communications**
- This new investment will fuel application research, development and manufacturing within the High Capacity Satellite environment. Joint partnerships with industry will be run with the Satellite Applications Catapult, small businesses and academia. Industry expects the creation of over 250 high skilled jobs in the UK and significant export opportunities.

- **£4.9 million for the European Data Relay System (EDRS)**
- EDRS will be an independent, European satellite system designed to reduce time delays in the transmission of large quantities of data from the Copernicus constellation and similar low-Earth orbit satellites.
- The UK is already host to the first of four operational EDRS receiving stations and aims to benefit from the real-time Earth Observation

- **Nearly £11 million for Inmarsat Communications Evolution (ICE)**
- ICE is a joint programme with Inmarsat to develop an optimised and open platform for mobile satellite services to be developed within a business ecosystem from space manufacturers to application developers.
- The programme will support SMEs to innovate rapidly and will make space accessible across all sectors including automotive, utilities, media, transport and energy.

- **£49.2 million for the International Space Station (ISS) programme**
- New investment in the ISS will give UK researchers access to the \$100 billion ISS programme, allowing them to use the unique environment of space to carry out research and make important advances in areas such as materials science, additive manufacturing and medical/biological sciences

But what is a Ministerial like ?



Formal...

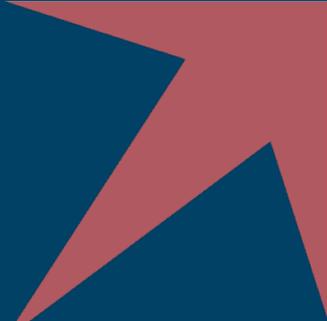


...and Informal

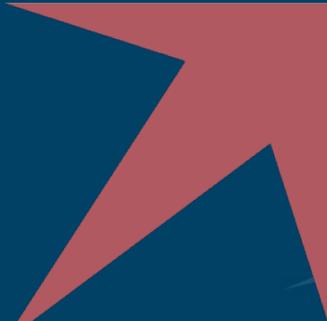


What's next ?

A lot will have
happened by
December
2015...



Copernicus data becoming
available and further
Sentinel and Galileo
launches



Tim Peake launched on six
month mission to the ISS plus
a big education and outreach
programme



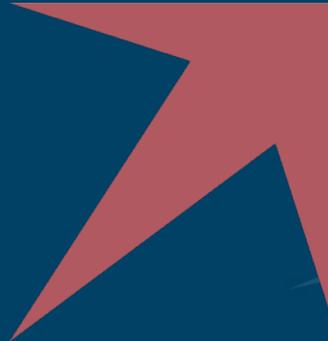
Completion of ECSAT and
RALspace buildings

...And most significantly:

Government
Spending Review:
Spring 2015



Evidence – hard, economic data showing impact and relationship to solving the nation's challenges



Examples – not someone else's job to record these, but all our duty



Explanation – telling the story clearly and convincingly as to why space deserves precious public investment

Finally...

- When all else fails, where does the Director General of ESA get his space policy advice from ?
- Our intrepid reporter Sue Horne can reveal all in our photo exclusive...

