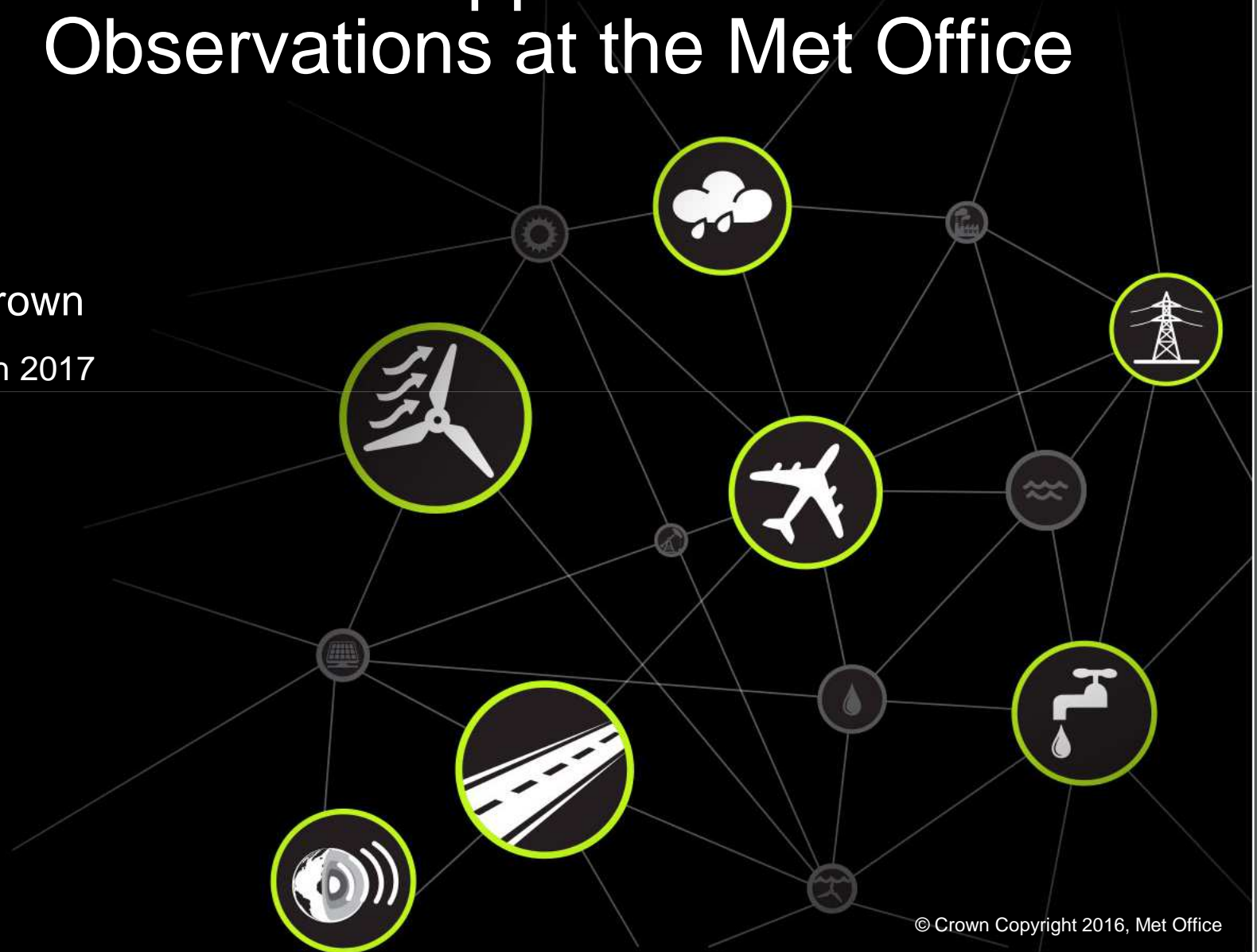


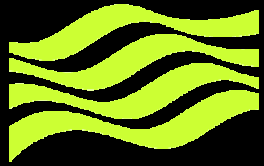


WOW: Crowd Sourced, Citizen Science & Opportunistic Weather Observations at the Met Office

Jake Brown

2nd March 2017





Met Office

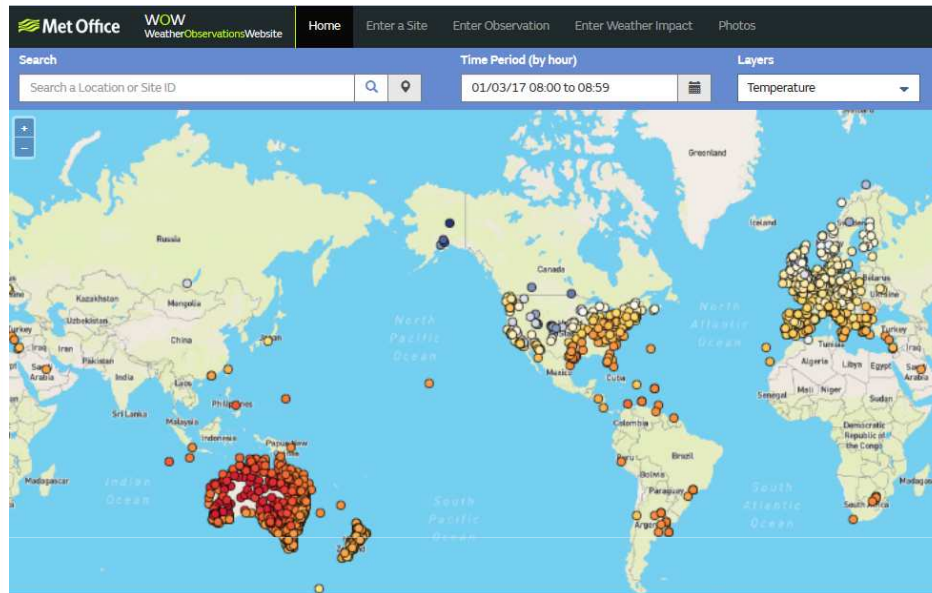
Overview:

- What is WOW?
- Background
- Present
 - Weather Impacts
 - WOW Engine
 - WOW Partners
 - OBD (Car) data
- Future
 - Data availability
 - Partnerships, challenges and opportunities
- Questions

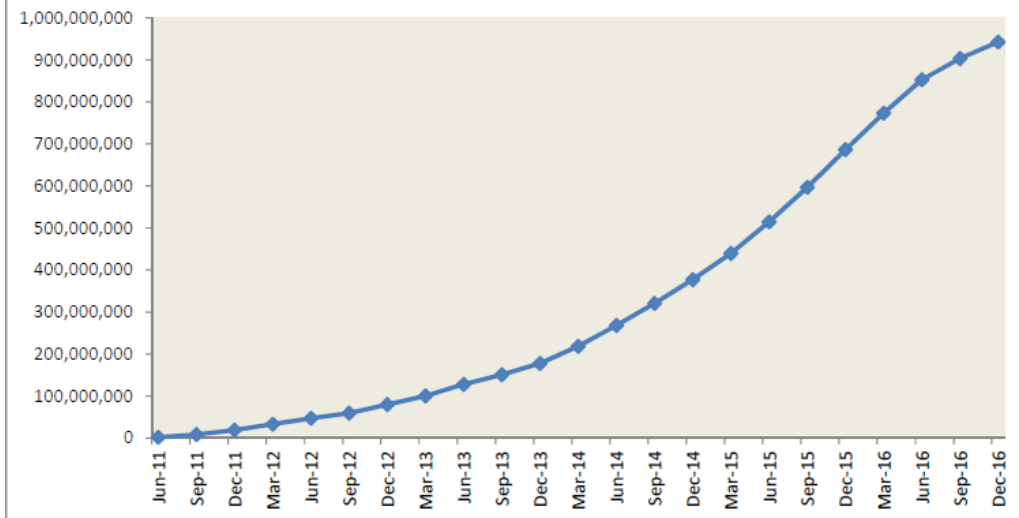


Met Office

Weather Observations Website



Observations submitted to WOW: 2011 - 2017





Met Office

WOW: Background



Met Office WOW Weather Observations Website

Home Sites Enter Observations Photo Gallery Support Education Forum

Enter a location or Site ID

Some example searches: "Exeter, UK", "56.737, -3.408" or "Exeter Airport". The time slider below changes the time period on the view.

Map | Settings

View the one hour period from: 22/12/2016 12:00 to: 22/12/2016 12:59

To enter a specific time & date, drag the time slider fully to the left.

Layers

Weather

- Temperature
- Rainfall Rate
- Present Weather
- Wind Speed / Direction
- Humidity
- Pressure (MSLP)
- Snowfall
- Soil Moisture
- Weather Impacts

Other

- Photos

Filters

- WOW Observations
- Official Observations
- Sites with no data in this time frame

Map legend

Temperature (°C)

Color scale legend: 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100

Meteorological Log kept on board

Date	Latitude	Longitude	Baromet. at sea level	Baromet. at height	Therm. at height	Therm. at surface	Wind direction	Wind force	Sea surface	Sea bottom	Remarks
1871											
1872											
1873											
1874											
1875											
1876											
1877											
1878											
1879											
1880											
1881											
1882											
1883											
1884											
1885											
1886											
1887											
1888											
1889											
1890											
1891											
1892											
1893											
1894											
1895											
1896											
1897											
1898											
1899											
1900											





WOW: Current use within Met Office

- Observations routinely stored within MetDB
- Not currently assimilated into NWP
- Used for verification purposes, especially weather impacts
- Available to forecasters via website
- Flexible platform for hosting novel sources of observations
- Potential for use in climate monitoring and understanding of fine scale meteorology being explored



Met Office

WOW: Weather Impacts



Cornwallis Close, Folkestone ✕

☆☆☆☆

10:26 (GMT +00:00) on
13/01/2017

Quick Summary

Forecast

Travel Disruption

Severity

1 - Difficult travelling conditions resulting in slow moving traffic, minor delays to commuting and public transport.

Hazards

Ice, Snow, Frost.

Personal Health & Safety

Severity

1 - Potential for minor injuries due to slips or trips.

Hazards

Ice, Snow, Frost.



View Full Observation

View Weather Impact

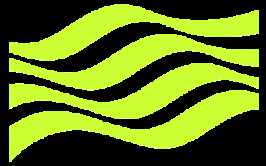
Weather Impacts

Weather Impact Type

- Travel Disruption
- Utility Disruption
- Property & Infrastructure Damage
- Personal Health & Safety
- Service / Business Disruption
- Leisure Event Disruption
- Agriculture / Habitat Damage
- Multiple

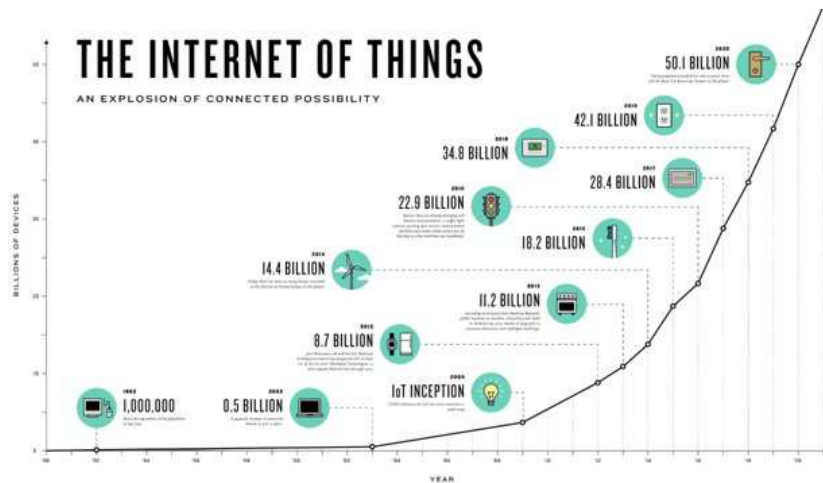
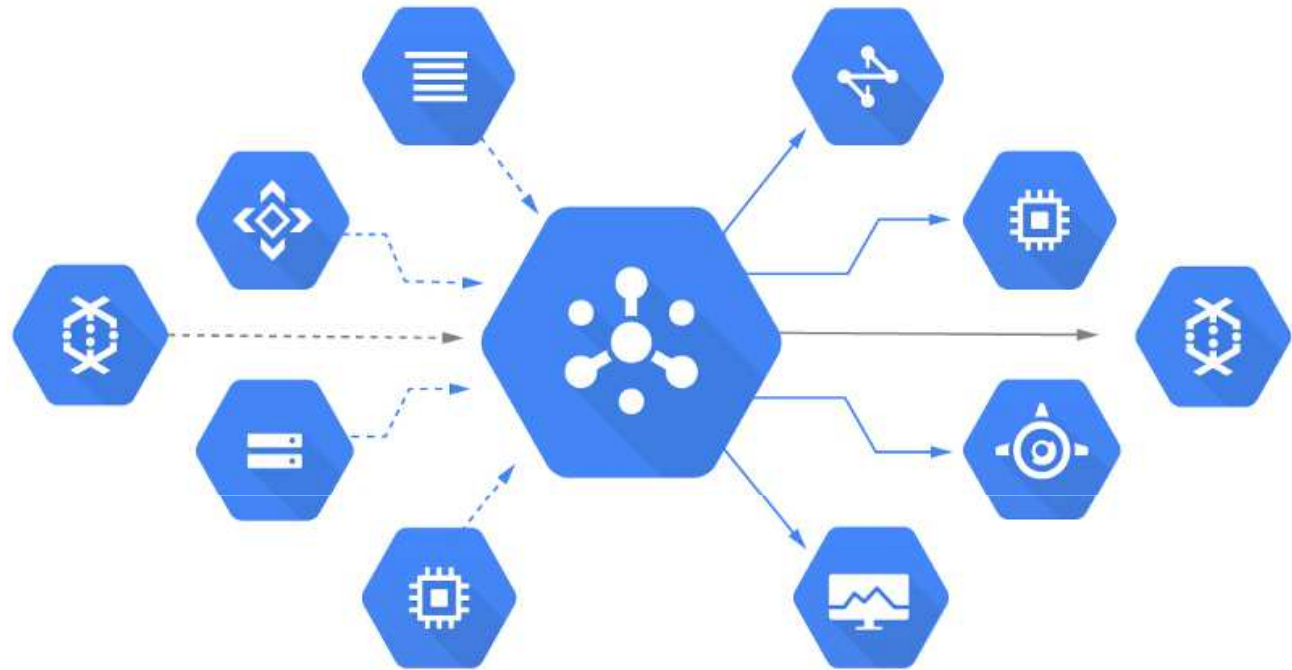
Weather Impact Severity

- Low
- Medium
- High
- Very High



Met Office

WOW Engine





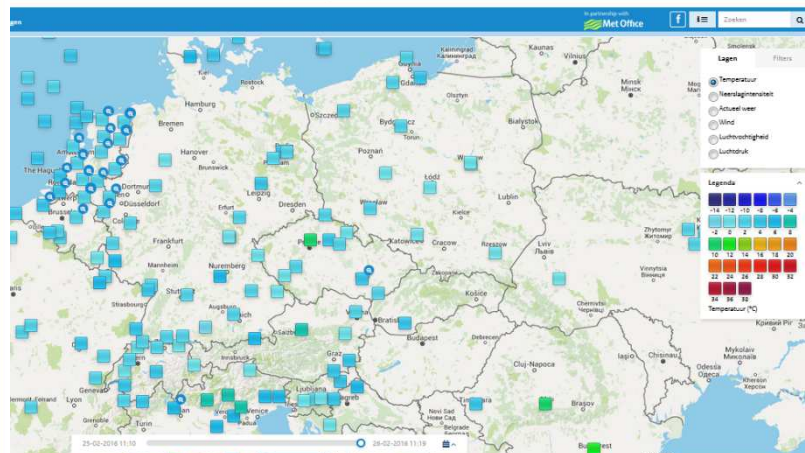
Met Office



Koninklijk Nederlands
Meteorologisch Instituut
Ministerie van Infrastructuur en Milieu

Partnerships

- Existing very positive collaborations with National Meteorological Services of Australia, New Zealand and the Netherlands



WOW
Weather Observations Website

Home Sites Enter Observations Photo Gallery Support Education Forum

Would you like to switch to a regional version of WOW? [Click here](#)

We're partnering with multiple meteorological services around the world to offer a more tailored WOW. Given your location, we thought you might prefer to visit [this version of WOW](#) created by The Met Office (the UK's National Weather Service). The link to do so is here: <http://wow.metoffice.gov.uk>

Welcome to the Bureau of Meteorology Weather Observations Website

The Bureau of Meteorology has collaborated with the Met Office (the UK's National Weather Service) so Australians may easily locate and share weather observations, information and photos. Find out more about WOW and read the [Bureau's Disclaimer](#). For official Australian data, forecasts and warnings, go to www.bom.gov.au

Enter a location or Site ID [Locate](#)

Some example searches: 'Melbourne, AU', '13.22, 145.8' or 'Darwin'. The time slider below changes the time period on the view.

Map Scale: Indonesia Papua New Guinea

View the one hour period from: 28/02/2016 00:00 to: 28/02/2016 00:00

The slider is specific time & date, drag the time slider (left) to the left.

Layers

Weather

- Temperature
- Rainfall Rate
- Present Weather
- Wind Speed / Direction
- Humidity
- Pressure (MSLP)
- Snowfall
- Soil Moisture
- Weather Impacts

Other

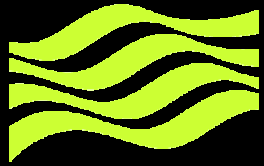
- Photos

Filters

Map legend

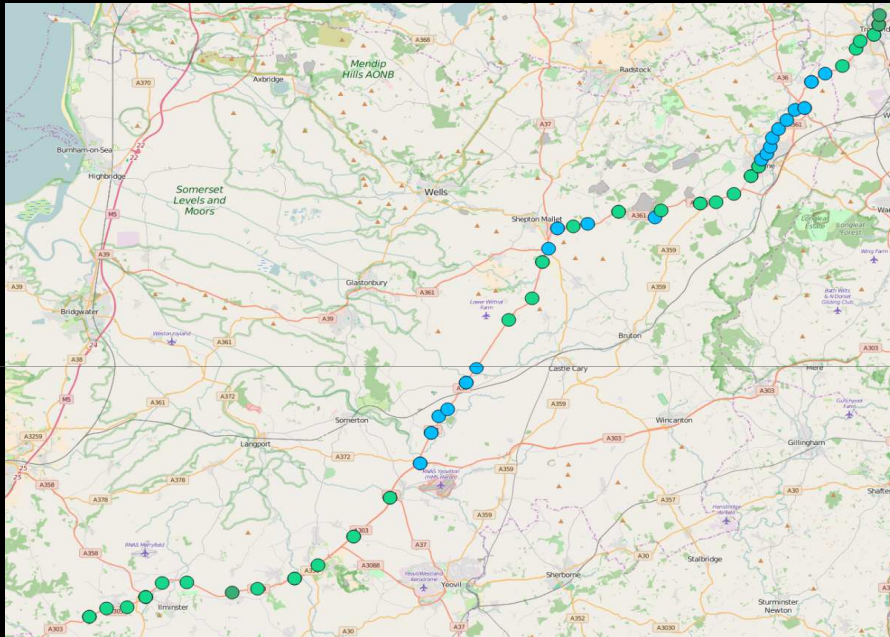
Temperature (°C)

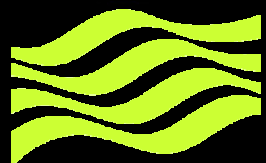
14	12	10	8	4	2	0
0	2	4	6	8	10	12
12	14	16	18	20	22	24
24	26	28	30	32	34	36



Met Office

Cars: OBD data





Met Office

WOW: The future

- Publically available APIs



Met Office DataPoint



Open Government Licence
for public sector information



Met Office

WOW: The future

- Extension of platform to new partners
- Research to make better use of existing data
- Horizon scanning for new sources of observations



Department
for Environment
Food & Rural Affairs



Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales



Met Office

Thank you

Any questions?

www.metoffice.gov.uk

jake.brown@metoffice.gov.uk

