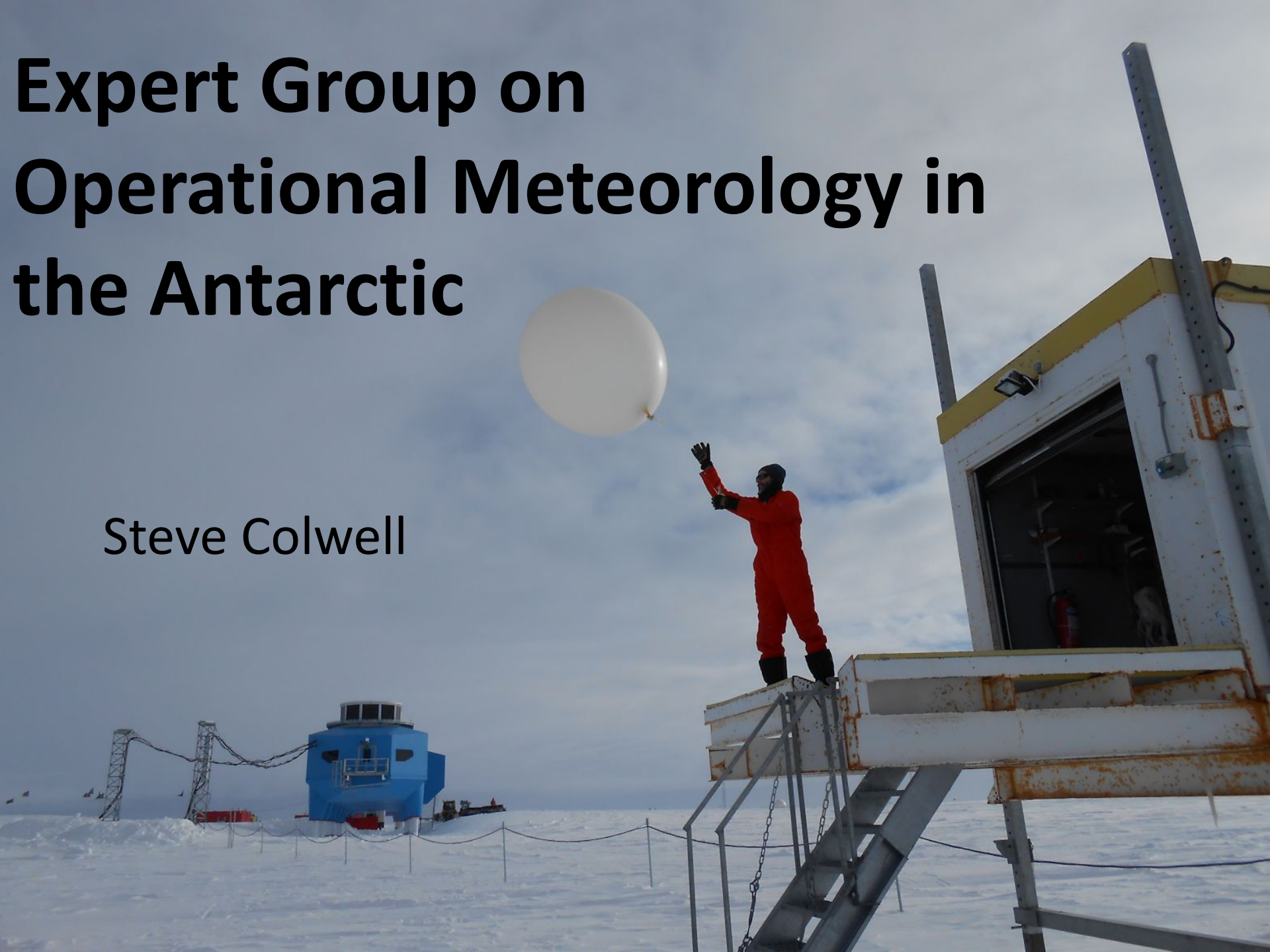


Expert Group on Operational Meteorology in the Antarctic

Steve Colwell



Overview

- OpMet is working closely with the World Meteorological Organisation (WMO) Panel of Experts on Polar and High Mountain Observations, Research and Services (EC-PHORS) group as I sit on the panel and chair the Antarctic Task Team (ATT)
- We are looking to strengthen this relationship by setting up an Memorandum of Understanding / Letter of Agreement to formalize the SCAR/WMO partnership.
- OpMet receives \$2000 per year from SCAR which is mainly used to assist people in attending the annual workshop on Antarctic Meteorology and Climate (AMC).
- OpMet maintains web pages jointly with EC-PHOPRS which gives current news that relates to Antarctic meteorology and also contains resources so that people are able to check their own data quality.



**Scientific
Committee
on
Antarctic
Research**



Web Page for

SCAR Expert Group on Operational Meteorology in the Antarctic & WMO EC-PHORS Antarctic Task Team

The SCAR Expert Group on Operational Meteorology in the Antarctic is a sub group of the SCAR Standing Scientific Group on Physical Sciences (SSG/PS). The Chairman of the Expert Group is Steve Colwell (S.Colwell@bas.ac.uk). If you would like to join the Group please contact him. The Antarctic Task Team is a sub group of the WMO Executive Council team on Polar and High Mountain Observations, Research and Services. The Chair of the ATT is Steve Colwell. Membership is by invitation. Jon Shanklin (J.Shanklin@bas.ac.uk), former chair of the Group and the ATT, currently maintains these pages.

Latest news:

1. 2017 April 3 - To date 102 named ships and many others whose position is only known have visited Antarctic waters this season. Just 29 have contributed synoptic observations.
2. 2017 March 6 - To date 101 named ships and many others whose position is only known have visited Antarctic waters this season. Just 29 have contributed synoptic observations.
3. 2017 February 15 - Halley (89022) has been closed for the winter as the site is threatened by an ice-shelf calving event. Operations may resume in November.
4. 2017 February 3 - AntON and station detail lists updated
5. 2017 February 3 - To date 90 named ships and many others whose position is only known have visited Antarctic waters this season. Only 26 have contributed synoptic observations.
6. 2017 January 6 - To date 61 named ships and many others whose position is only known have visited Antarctic waters this season. Only 20 have contributed synoptic observations.
7. 2016 December 2 - To date 34 named ships and many others whose position is only known have visited Antarctic waters this season. Only 11 have contributed synoptic observations.
8. 2016 November 11 - Tourist ships are now operating in Antarctic waters, though only one anonymous ship has contributed weather observations
9. 2016 October 31 - The first summer visiting supply and research ships are beginning to arrive.

General

▶ Old News	▶ Members of SCAR EG-OMA and WMO ATT (Updated 2014 December 1)
▶ Details of how to register for the .aq (Antarctic) domain.	▶ Antarctic Station details (Updated 2017 February 3 - changes are highlighted)
▶ WMO AntON listing (Updated 2017 February 3)	

Monitoring

▶ UK Met Office global monitoring	▶
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Monitoring

▶ UK Met Office global monitoring	▶
▶ ECMWF global monitoring	▶ NCDC data list
▶ AMPS usage stats (Pressure; site also gives temperature, humidity & wind)	▶
▶ Operational GSN stations with missing CLIMAT messages in the last 12 months (2016 May to 2017 April, updated 2017 June) are: 89262 (April), 89573 (November, December), 89592 (February), 89606 (July), 89662 (May, June, July, September, October, April), 89828 (May, June, July, August, September) and 89879 (June, July, August). Non or partially operational GSN stations are: 68992 and 89327. Please check our GCOS AntON CLIMAT and SYNOP monitoring if your station is listed here and resend the data for the missing month(s). See the latest CLIMATs to check if your report has been received at BAS. See CLIMAT data for Antarctic AWS for all the University of Wisconsin AWS.	▶ The first six stations to submit CLIMAT reports for 2017 May were Neumeyer, Bellingshausen, Mirnyj, Vostok, Frei and O'Higgins. ▶ WMO no longer require distribution of the CLIMAT TEMP message and monitoring of these has ceased. See the TEMP monitoring below for performance.
▶ BAS GTS monitoring	▶
▶ BAS GCOS AntON monitoring: Where we see problems with receipt of SYNOP, TEMP or CLIMAT messages stations or operators will be notified by email. Several AWS experience problems with low battery voltages restricting real-time transmissions during the winter.	▶ All GUAN stations are now carrying out at least some radiosonde flights each month. Several stations experience problems with balloons bursting early during the winter due to low stratospheric temperatures.
<ul style="list-style-type: none"> • AntON CLIMAT monitoring in 2017 (automated) • AntON CLIMAT monitoring in 2016 (automated) • AntON CLIMAT monitoring in 2015 (manual) / 2015 (automated) • AntON CLIMAT monitoring in 2014 • AntON CLIMAT monitoring in 2013 • AntON CLIMAT monitoring in 2012 • AntON CLIMAT monitoring in 2011 • ABCN CLIMAT monitoring in 2010 • ABCN CLIMAT monitoring in 2009 • ABCN CLIMAT monitoring in 2008 • ABCN CLIMAT monitoring in 2007 • ABCN CLIMAT monitoring in 2006 	<p>If the SYNOP or TEMP message percentage given here is lower than you think it should be, please check your GTS routing. Prior to 2015, TEMP monitoring is included with the SYNOP reports.</p> <ul style="list-style-type: none"> • AntON SYNOP monitoring in 2017 (automated), • AntON SYNOP monitoring in 2016 (automated), • AntON SYNOP monitoring in 2015 (manual) / 2015 (automated) • AntON SYNOP monitoring in 2014 • AntON SYNOP monitoring in 2013 • AntON SYNOP monitoring in 2012 • AntON SYNOP monitoring in 2011 • ABCN SYNOP monitoring in 2010 • AntON TEMP monitoring 2017 (automated) • AntON TEMP monitoring 2016 (automated) • AntON TEMP monitoring 2015 (automated)

Ships

▶ Ships reporting in 2004/05	▶ Ships reporting in 2005/06
▶ Ships reporting in 2006/07	▶ Ships reporting in 2007/08
▶ Ships reporting in 2008/09	▶ Ships reporting in 2009/10
▶ Ships reporting in 2010/11	▶ Ships reporting in 2011/12
▶ Ships reporting in 2012/13	▶ Ships reporting in 2013/14
▶ Ships reporting in 2014/15	▶ Ships reporting in 2015/16
▶ Ships reporting in 2016/17 [Updated 2017 April 3]	▶
▶ Sign up to send met reports through Xetrans	▶ Latest list of ships with significant errors/biases in their reports

Ships reporting in 2008/09	Ships reporting in 2009/10
Ships reporting in 2010/11	Ships reporting in 2011/12
Ships reporting in 2012/13	Ships reporting in 2013/14
Ships reporting in 2014/15	Ships reporting in 2015/16
Ships reporting in 2016/17 [Updated 2017 April 3]	
Sign up to send met reports through Yotreps	Latest list of ships with significant errors/biases in their reports
Download electronic met logbook software from the VOS website	Download Turbowin and instruction for sending messages here
Oceanographic ship locations (Sailwx)	Ship locations (Sailwx)
Live ships map (Marine Traffic)	Palmer AIS (APRS.fi)

Planes

Coding aircraft observations (Draft)	
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Overland traverses

Reporting traverse observations (Draft)	
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Forecasting and Forecasts

BAS Antarctic Weather Forecasting Manual	International Antarctic Weather Forecasting Manual [updated 2009 June]
Antarctic Mesoscale Prediction System Forecast products from Byrd Polar Research Center of Ohio State University	UV forecasts from SCIAMACHY
Antarctic ensemble plots from the Australian BoM & CSIRO	Forecasts for Norwegian Antarctic sites
TAFs and Forecast charts generated at Rothera for BAS operations	Forecasts for Dronning Maud Land Air Network (DROMLAN)

Information

University of Wisconsin Real time weather data and displays	WMO Polar Observations, Research and Services
Argentinian Antarctic weather information	Australian Antarctic weather information
Brazilian Antarctic weather information	Chilean weather information
	Italian Antarctic weather information
Russian Antarctic weather information	Russian weather server for Antarctica and sub Antarctic islands
Polar View Antarctic portal	UK Antarctic weather information
SCAR READER database	

Other Programmes

International Polar Year	International Programme for Antarctic Buoys
Automatic Observations on Glaciers	WMO/JCOMM Expert Team on Sea Ice

The SCAR Standing Scientific Group on Physical Sciences	The SCAR Home Page
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Performance of the Antarctic Observing Network (AntON) CLIMAT

Surface stations

This chart shows the status of CLIMAT messages received on the GTS during 2016 for stations in the EC-PHORS zone of interest

M = message on GTS, B = message generated from SYNOP by BAS both are displayed in green.

Yellow = NIL message received, Red = No CLIMAT message received, both of these boxes have the percentage of synoptic reports received for the main synoptic hours displayed.

NOTE monitoring does not distinguish between problems with generation and transmission of messages.

WMO no	Station name	Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
61997	Isle Crozet	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
61998	Isle Kerguelen	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
68906	Gough Island	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
68992	Bouvetoya	GSN station	0	0	0	0	0	0	0	0	0	0	0	0
68994	Marion Island	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
88870	Mount Byron		B	B	B	B	B	B	B	B	B	B	B	B
88878	Pebble Island		0	0	0	17	B	B	B	B	95	94	96	B
88881	Mount Kent		B	B	B	B	B	B	B	B	B	B	B	B
88883	Weddell Island		68	91	B	B	B	B	B	84	B	B	B	B
88889	Mount Pleasant Airport	GSN station	B	B	B	B	B	B	B	B	B	B	B	B
88892	Sapper Hill		0	0	0	0	0	0	0	0	0	0	0	0
88894	Mount Alice		B	B	B	B	B	B	B	B	B	B	B	B
88897	Sea Lion Island		65	21	B	B	B	B	B	B	B	16	B	B
88900	Bird Island		M	M	M	M	M	M	M	M	M	M	M	M
88903	Grytviken	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
88986	South Thule Island		0	0	0	0	0	0	0	0	0	0	0	0
88963	Esperanza	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
88968	Orcadas	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89002	Neumayer	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89003	Halvfarryggen EP11		0	0	0	0	0	0	0	0	0	0	0	0
89004	SANAE	GSN station	M	M	M	89	M	M	M	M	M	M	M	M
89009	Amundsen-Scott	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89011	Soerasesen		20	85	59	5	71	0	0	12	12	85	B	B
89013	Baldrick AWS		M	M	M	M	M	M	M	M	M	M	M	M
89014	Nordenskiold		B	B	B	B	B	B	B	B	B	B	B	B
89022	Halley	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89034	Belgrano II		M	M	M	M	M	M	M	M	M	M	M	M
89047	Filchner		53	81	76	84	B	B	86	B	B	B	B	B
89049	AGO-2	Failed	0	0	0	0	0	0	0	0	0	0	0	0
89050	Bellingshausen	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89053	Jubany		M	M	M	M	M	M	M	M	M	M	M	M
89054	Dinamet		59	50	55	50	26	11	58	62	56	58	63	21
89055	Marambio	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89056	Frei	GSN station	M	M	M	M	M	M	M	M	M	M	M	M
89057	Arturo Prat		B	87	80	86	B	B	B	64	68	56	56	57

Performance of the Antarctic Observing Network (AntON) CLIMAT

Surface stations

This chart shows the status of CLIMAT messages received on the GTS during 2017 for stations in the EC-PHORS zone of interest

M = message on GTS, B = message generated from SYNOP by BAS both are displayed in green.

Yellow = NIL message received, Red = No CLIMAT message received, both of these boxes have the percentage of synoptic reports received for the main synoptic hours displayed.

NOTE monitoring does not distinguish between problems with generation and transmission of messages.

WMO no	Station name	Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
61997	Isle Crozet	GSN station	M	M	M	M	M							
61998	Isle Kerguelen	GSN station	M	M	M	M	M							
68906	Gough Island	GSN station	M	M	M	M	M							
68992	Bouvetoya	GSN station	0	0	0	0	0							
68994	Marion Island	GSN station	M	M	M	M	M							
88870	Mount Byron		B	B	B	B	87							
88878	Pebble Island		B	B	B	B	B							
88881	Mount Kent		B	B	B	40	32							
88883	Weddell Island		76	B	B	B	87							
88889	Mount Pleasant Airport	GSN station	B	B	B	B	B							
88892	Sapper Hill		0	0	0	0	0							
88894	Mount Alice		B	B	B	87	81							
88897	Sea Lion Island		71	B	B	83	B							
88900	Bird Island		M	M	M	M	M							
88903	Grytviken	GSN station	M	M	M	M	M							
88986	South Thule Island		0	0	0	0	0							
88963	Esperanza	GSN station	M	M	M	M	M							
88968	Orcadas	GSN station	M	M	M	M	M							
89002	Neumayer	GSN station	M	M	M	M	M							
89003	Halvfarryggen EP11		0	0	0	0	0							
89004	SANAE	GSN station	M	M	M	M	M							
89009	Amundsen-Scott	GSN station	M	M	M	M	M							
89011	Soerasen		B	B	B	B	B							
89013	Baldrick AWS		M	M	M	M	M							
89014	Nordenskiold		B	B	B	B	B							
89022	Halley	GSN station	M	M	M	M	M							
89034	Belgrano II		M	M	M	M	M							
89047	Filchner		B	B	B	B	B							
89049	AGO-2	Failed	0	0	0	0	0							
89050	Bellingshausen	GSN station	M	M	M	M	M							
89053	Jubany		M	M	M	M	M							
89054	Dinamet		0	0	0	0	0							
89055	Marambio	GSN station	M	M	M	M	M							
89056	Frei	GSN station	M	M	M	M	M							
89057	Antarctic Base		16	8	36	B	B							

Performance of the Antarctic Observing Network (AntON) SYNOP

Surface stations

This chart shows the status of SYNOP messages for the main hours on the GTS during 2016, with green representing good performance, light green representing less than 90% of expected messages (acceptable, but not adequate for CLIMAT), yellow less than 80% and amber less than 50%.

If less than 30% are found then the number of days in the month that observations were received is displayed which may have been on non main synoptic hours which occurs mainly for AWS transmitting via Argos.

When the number of days is displayed a D is shown before the number, greater than 25 days is displayed in green, light green for between 20 and 25 days, yellow for between 10 and 20 days, amber for between 5 and 10 days and red for less than 5 days.

WMO no	Station name	Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
61997	Isle Crozet	GSN station	100	100	98	100	100	100	94	100	94	78	92	87
61998	Isle Kerguelen	GSN station	100	100	99	100	100	100	100	100	94	100	100	100
68906	Gough Island	GSN station	99	100	96	95	96	92	84	87	77	83	86	84
68992	Bouvetoya	GSN station	0	0	0	0	0	0	0	0	0	0	0	0
68994	Marion Island	GSN station	100	100	99	97	97	91	86	88	66	85	90	87
88870	Mount Byron		99	99	95	95	95	93	93	95	97	95	96	99
88878	Pebble Island		0	0	0	D 6	93	93	93	91	93	94	96	97
88881	Mount Kent		99	100	93	91	96	96	93	92	95	95	98	97
88883	Weddell Island		68	91	94	92	95	94	91	84	92	91	95	97
88889	Mount Pleasant Airport	GSN station	100	100	95	92	95	95	94	92	95	94	96	95
88892	Sapper Hill		0	0	0	0	0	0	0	0	0	0	0	0
88894	Mount Alice		98	100	95	91	96	93	95	94	94	94	97	97
88897	Sea Lion Island		65	D 13	93	92	95	93	93	92	93	D 6	96	97
88900	Bird Island		99	97	92	96	99	98	99	96	89	91	78	96
88903	Grytviken	GSN station	98	93	87	97	93	100	93	96	86	97	85	78
88986	South Thule Island		0	0	0	0	0	0	0	0	0	0	0	0
88963	Esperanza	GSN station	93	97	96	97	99	99	98	98	95	96	83	98
88968	Orcadas	GSN station	91	93	91	95	94	97	91	93	90	93	88	92
89002	Neumayer	GSN station	100	100	99	100	100	100	100	99	100	100	100	100
89003	Halvfarryggen EP11		0	0	0	0	0	0	0	0	0	0	0	0
89004	SANAE	GSN station	94	99	91	89	94	91	95	91	75	91	93	94
89009	Amundsen-Scott	GSN station	100	100	95	95	94	91	87	84	87	82	95	88
89011	Soerasesen		0	85	59	0	71	0	0	0	0	85	95	97
89013	Baldrick AWS		80	75	72	81	79	75	79	78	72	77	65	83
89014	Nordenskiold		99	97	98	99	95	97	95	99	97	97	98	99
89022	Halley	GSN station	99	100	99	100	99	99	98	99	95	100	100	100
89034	Belgrano II		92	95	93	96	96	96	86	97	94	95	69	93
89047	Filchner		53	81	76	84	95	94	86	97	93	92	97	91
89049	AGO-2	Failed	0	0	0	0	0	0	0	0	0	0	0	0
89050	Bellinghausen	GSN station	100	100	99	100	99	99	100	99	100	100	100	100
89053	Jubany		85	89	89	99	97	97	98	96	98	98	87	96
89054	Dinamet		59	50	55	50	D 12	D 7	58	62	56	58	63	D 11
89055	Marambio	GSN station	99	98	97	100	100	100	99	98	96	97	89	98
89056	Franz Josef	GSN station	97	100	94	55	86	95	92	93	95	95	95	94

Performance of the Antarctic Observing Network (AntON) SYNOP

Surface stations

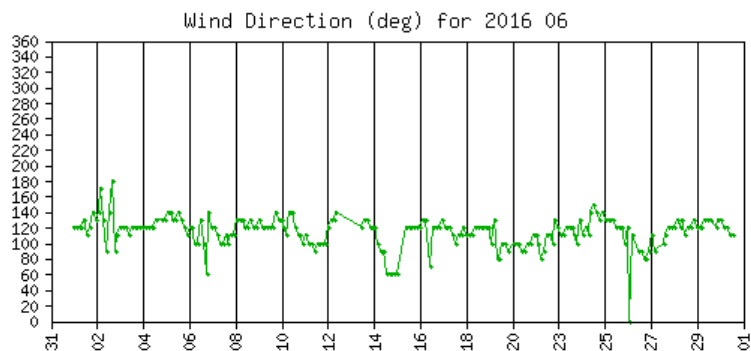
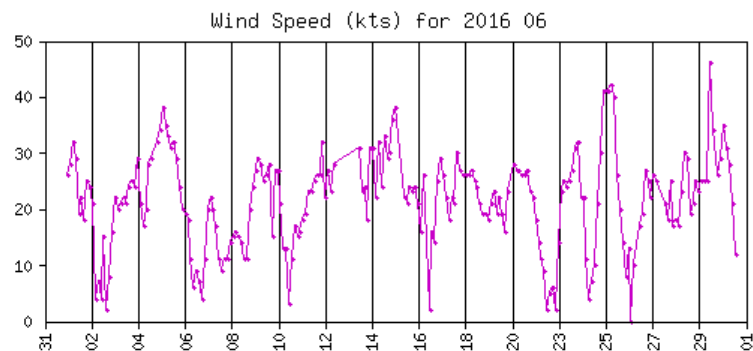
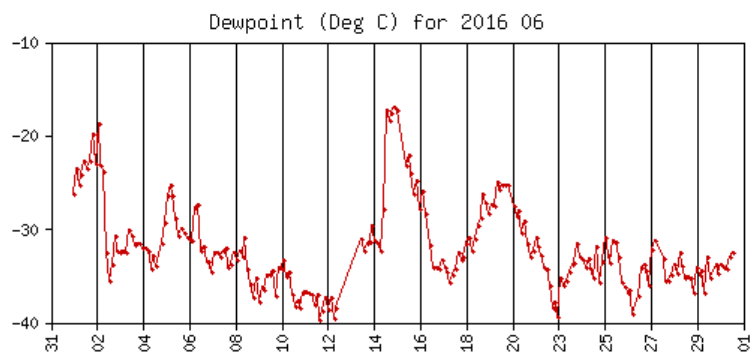
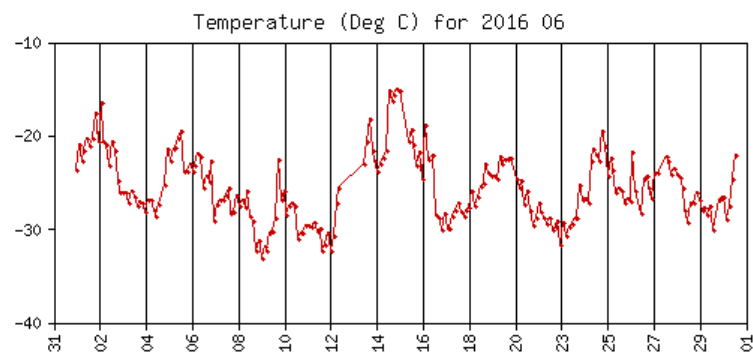
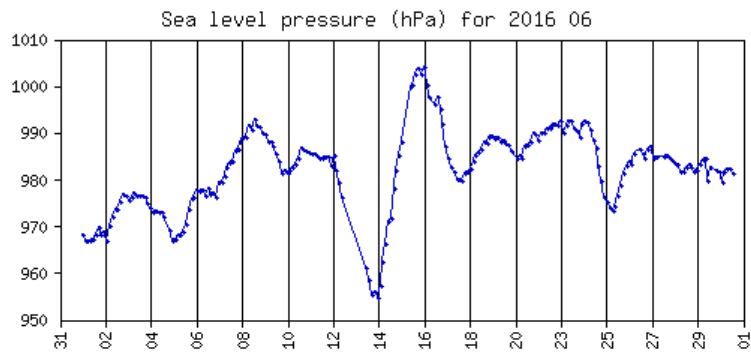
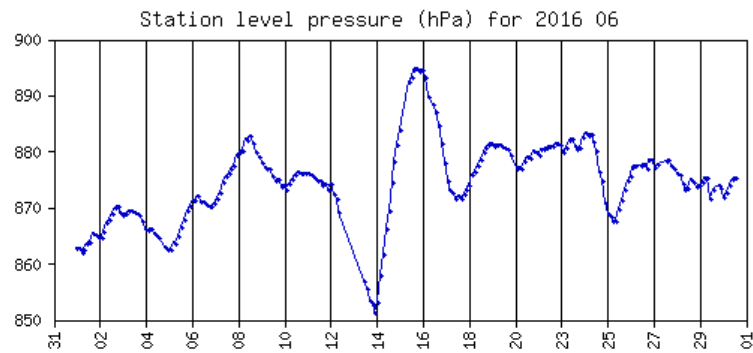
This chart shows the status of SYNOP messages for the main hours on the GTS during 2017, with green representing good performance, light green representing less than 90% of expected messages (acceptable, but not adequate for CLIMAT), yellow less than 80% and amber less than 50%.

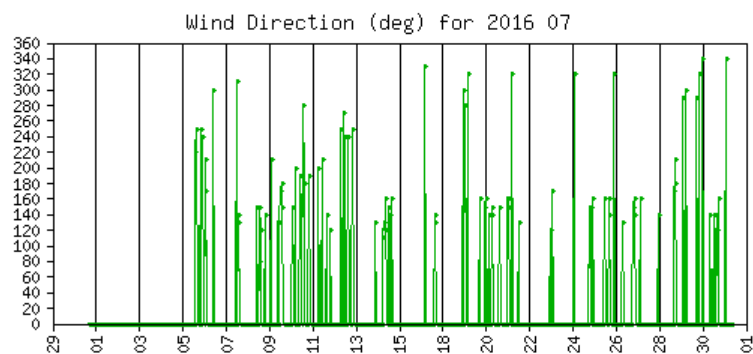
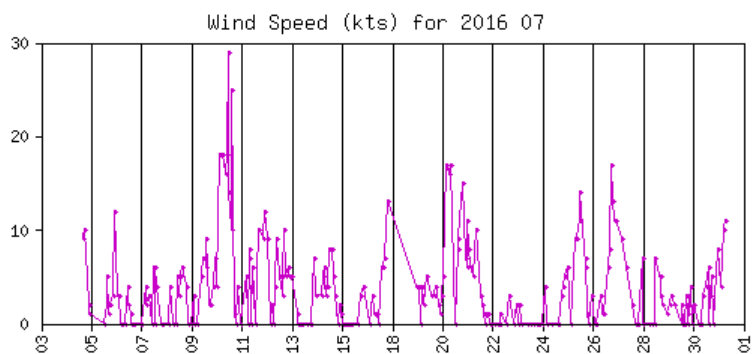
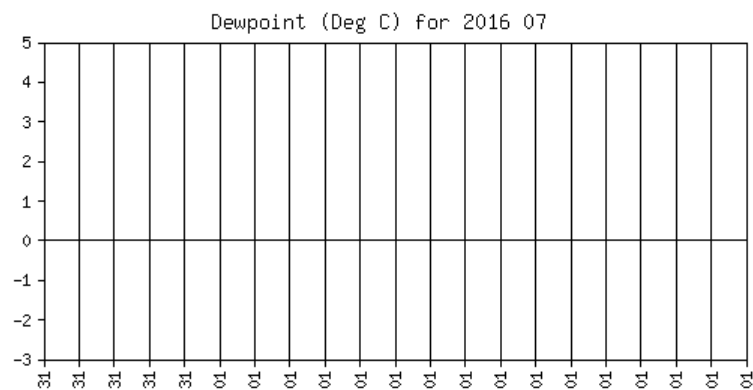
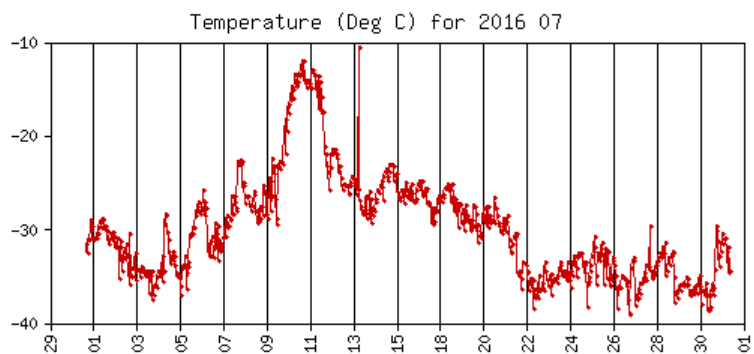
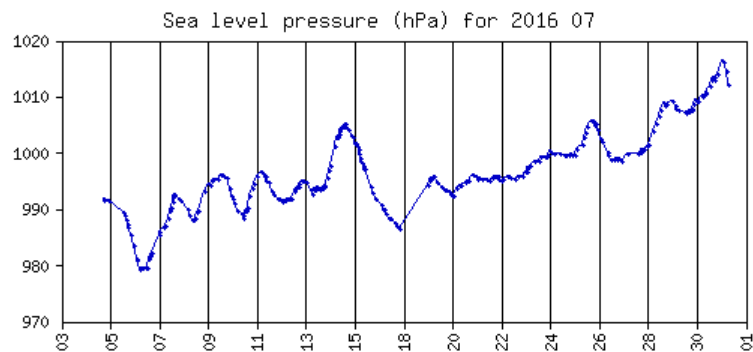
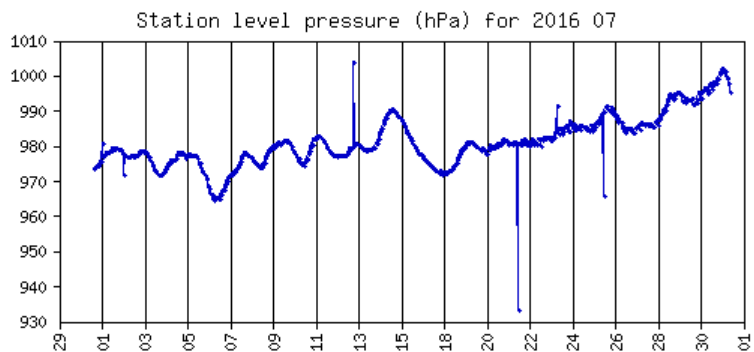
If less than 30% are found then the number of days in the month that observations were received is displayed which may have been on non main synoptic hours which occurs mainly for AWS transmitting via Argos.

When the number of days is displayed a D is shown before the number, greater than 25 days is displayed in green, light green for between 20 and 25 days, yellow for between 10 and 20 days, amber for between 5 and 10 days and red for less than 5 days.

WMO no	Station name	Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
61997	Isle Crozet	GSN station	100	100	99	100	100							
61998	Isle Kerguelen	GSN station	100	100	99	100	100							
68906	Gough Island	GSN station	75	75	80	76	70							
68992	Bouvetoya	GSN station	0	0	0	0	0							
68994	Marion Island	GSN station	67	72	77	70	79							
88870	Mount Byron		99	99	100	97	87							
88878	Pebble Island		98	98	94	99	97							
88881	Mount Kent		99	99	99	40	32							
88883	Weddell Island		76	97	96	96	87							
88889	Mount Pleasant Airport	GSN station	98	99	99	100	98							
88892	Sapper Hill		0	0	0	0	0							
88894	Mount Alice		98	99	99	87	81							
88897	Sea Lion Island		71	99	99	83	96							
88900	Bird Island		96	94	100	100	99							
88903	Grytviken	GSN station	30	63	94	65	93							
88986	South Thule Island		0	0	0	0	0							
88963	Esperanza	GSN station	96	99	94	88	85							
88968	Orcadas	GSN station	86	75	61	82	90							
89002	Neumayer	GSN station	100	100	100	100	99							
89003	Halvfarryggen EP11		0	0	0	0	0							
89004	SANAE	GSN station	94	98	95	99	98							
89009	Amundsen-Scott	GSN station	87	91	89	90	89							
89011	Soerasen		90	97	96	92	100							
89013	Baldrick AWS		79	75	76	77	79							
89014	Nordenskiold		97	97	98	97	96							
89022	Halley	GSN station	100	54	45	55	58							
89034	Belgrano II		95	95	97	99	100							
89047	Filchner		91	98	92	95	97							
89049	AGO-2	Failed	0	0	0	0	0							
89050	Bellingshausen	GSN station	100	100	99	100	100							
89053	Jubany		98	88	94	94	95							
89054	Dinamet		0	0	0	0	0							
89055	Marambio	GSN station	100	98	99	97	99							
89056	Ensenada	GSN station	65	75	80	78	77							

89004 (S.A.N.A.E. AWS) data for 2016 06





Performance of the Antarctic Observing Network (AntON) TEMP

Upper air stations

The monthly columns show the status of TEMP messages with data to 100 hPa (after quality control) on the GTS, with yellow representing less than 70% of expected messages, amber representing less than 40% and red less than 10% of messages. Stations are assessed against their published programme in WMO No 9, Vol A at the beginning of the year.

NOTE monitoring does not distinguish between problems with generation and transmission of messages. Monitoring is automated and may have errors and there are occasional breaks in the BAS GTS feed. The 100 hPa level is chosen as the minimum target level for GUAN stations, but balloon performance often degrades during the polar winter and not all flights reach this level.

WMO no	Station name	Hour	Comments	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
61998	Isle Kerguelen	12	GUAN station	51	75	61	53	74	76	67	61	76	67	86	51
68906	Gough Island	00	GUAN station	90	89	100	66	6	50	93	93	56	80	90	51
68906	Gough Island	12	GUAN station	90	86	93	83	6	50	93	93	66	74	86	38
68994	Marion Island	00	GUAN station	0	6	12	30	64	80	83	90	73	93	83	64
68994	Marion Island	12	GUAN station	0	0	0	20	70	83	83	96	56	93	80	58
88889	Mount Pleasant Airport	00	GUAN station	93	96	96	100	83	93	90	93	86	90	86	87
88889	Mount Pleasant Airport	12	GUAN station	12	0	3	0	0	3	3	9	20	12	16	9
94998	Macquarie Island	00	GUAN station	100	96	93	96	90	90	93	93	93	93	93	100
94998	Macquarie Island	12	GUAN station	93	96	96	93	93	86	90	87	100	93	90	100
89002	Neumayer	12	GUAN station	100	93	90	86	83	96	93	87	86	87	100	80
89009	Amundsen-Scott	00	GUAN station	96	100	93	93	90	53	29	12	46	93	53	74
89009	Amundsen-Scott	12	GUAN station	96	96	9	30	0	13	3	3	0	90	63	83
89022	Halley	12	GUAN station	90	89	87	83	96	93	83	87	93	96	93	77
89055	Marambio	12	GUAN station	25	41	29	30	35	23	19	22	23	29	10	32
89062	Rothera	12	GUAN station	48	55	58	53	58	56	54	54	60	51	53	54
89512	Novolazarevskaya	00	GUAN station	83	93	80	66	45	73	74	54	80	70	70	67
89512	Novolazarevskaya	12	GUAN station	0	34	0	0	32	0	0	32	0	0	43	0
89532	Syowa	00	GUAN station	74	86	87	76	90	76	83	58	70	74	76	61
89532	Syowa	12	GUAN station	74	72	87	83	83	83	83	74	70	90	96	48
89564	Mawson	12	GUAN station	90	68	90	90	83	90	87	83	30	29	76	58
89571	Davis	00	GUAN station	100	96	93	96	93	96	96	100	96	93	100	96
89571	Davis	12	GUAN station	87	79	3	0	0	0	0	0	0	0	56	90
89592	Mirnyj	00	GUAN station	96	100	93	96	93	96	90	93	100	100	96	100
89592	Mirnyj	12	GUAN station	0	44	0	0	45	0	0	45	0	0	43	0
89611	Casey	00	GUAN station	100	96	93	100	93	93	83	96	96	96	100	96
89611	Casey	12	GUAN station	100	96	100	100	100	86	96	93	96	100	100	96
89625	Concordia	12	GUAN station	80	79	67	80	90	50	9	19	40	45	63	90
89642	Dumont d'Urville	00	GUAN station	93	96	77	60	83	73	67	74	80	93	80	64
89662	Mario Zucchelli Station	00	GUAN station	100	27	0	0	0	0	0	0	0	12	80	96
89662	Mario Zucchelli Station	12	GUAN station	93	20	0	0	0	0	0	0	0	16	90	83
89664	McMurdo	00	GUAN station	100	96	90	93	100	80	70	93	93	87	96	83
89664	McMurdo	12	GUAN station	96	100	100	93	96	60	32	45	63	87	86	87
89859	Jang Bogo	00	GUAN station	0	0	80	100	87	100	90	96	93	100	93	29

Monitoring sensor performance

Performance of sensors on stations on 2017-06-15

This table shows where missing measurements inside a synoptic message were received on the GTS during the last 7 days.

Green shows that there were valid values received, yellow indicates between 50% and 80% were valid, orange indicates that between 20% and 50% were valid and red shows that less than 20% were valid.

The actual values themselves are not checked to see if they are suspect at this stage.

WMO number	Station Name	Station Pressure	Sea Level Pressure	Temperature	Depoint	Wind Speed	Wind Direction
01384	OSLO/GARDERMOEN	Red	Red	Green	Green	Green	Green
23345	NYDA	Yellow	Yellow	Green	Green	Green	Green
24923	LENSK	Green	Green	Green	Green	Green	Yellow
85574	PUDAHUEL	Green	Green	Green	Green	Yellow	Yellow
85586	SANTO DOMINGO (85586 0)	Green	Green	Green	Green	Yellow	Yellow
85782	OSORNO	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
85892	COCHRANE	Orange	Orange	Green	Orange	Green	Green
89065	FOSSIL BLUFF	Light Green	Light Green	Light Green	Light Green	Green	Orange
89132	RUSSKAJA	Green	Green	Yellow	Green	Green	Green
89272	SKY BLU	Green	Green	Green	Green	Green	Yellow
89314	THERESA	Green	Red	Green	Red	Red	Red
89376	GILL	Yellow	Yellow	Yellow	Red	Green	Green
89514	MAITRI	Red	Green	Green	Red	Green	Yellow
89577	DOME A	Light Green	Red	Green	Red	Orange	Green
89578	EAGLE	Green	Red	Green	Red	Red	Green
89598	AGO 4	Red	Red	Green	Red	Green	Green
89767	AMERY ICE SHELF (G3)	Green	Green	Green	Red	Red	Red
89828	DOME C II	Green	Green	Green	Red	Red	Red
89865	WHITLOCK	Yellow	Yellow	Green	Red	Green	Green
89866	MARBLE POINT	Green	Red	Green	Red	Red	Red
94348	LAKE JULIUS AWS	Red	Red	Green	Green	Green	Green
94349	NEW MAY DOWNS	Red	Red	Green	Green	Green	Green
94782	GOSFORD AWS	Red	Red	Green	Green	Green	Green
94807	PARNDANA CFS AWS	Red	Red	Green	Green	Green	Green
94847	POINT WILSON	Red	Red	Red	Red	Green	Green
95832	EDENHOPE AIRPORT	Red	Red	Green	Green	Green	Green
95864	ST KILDA HARBOUR RMYS	Red	Red	Red	Red	Green	Green

List of ships that operated in Antarctica during the 2016/17 season, with call signs and names.

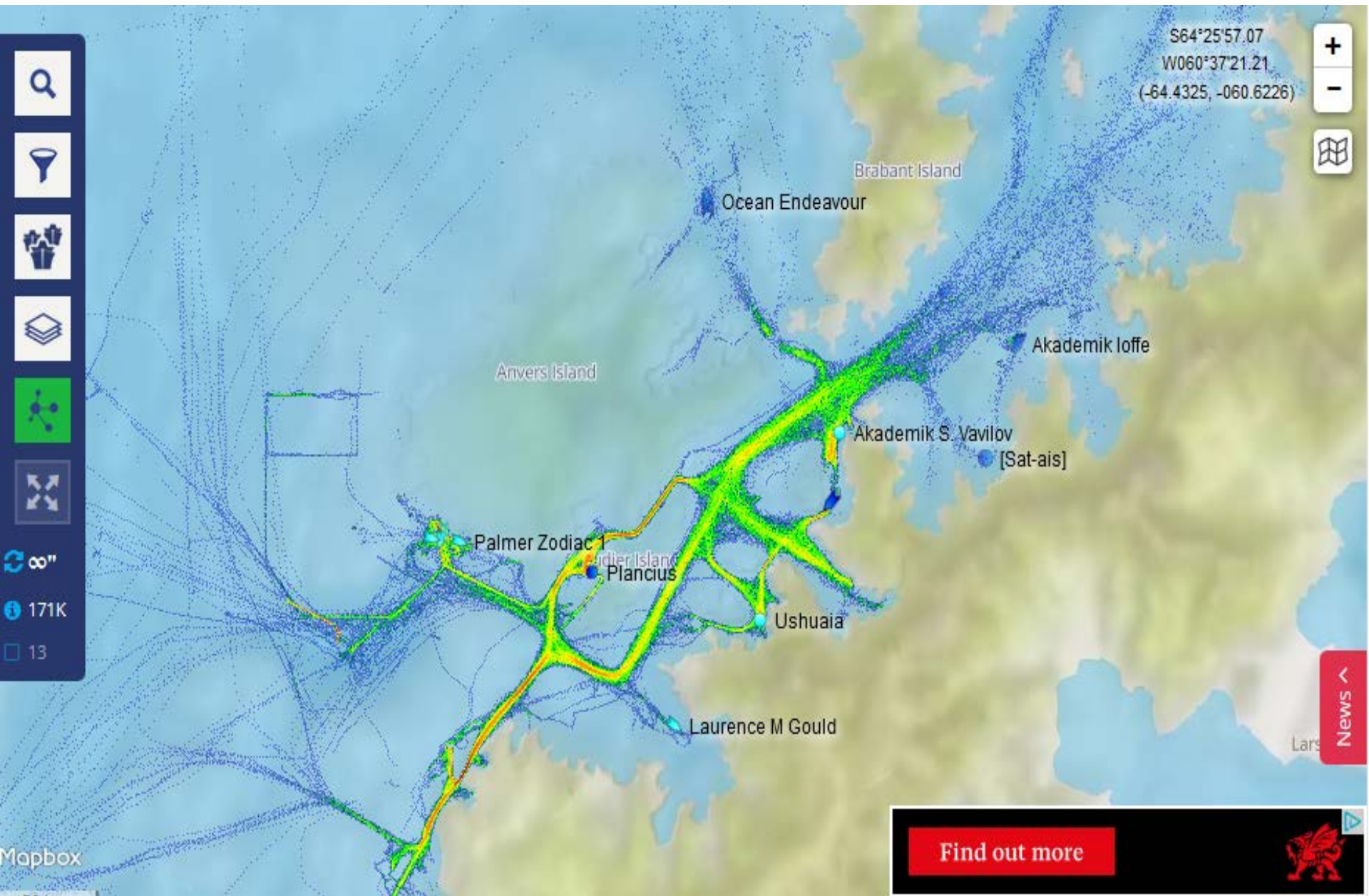
The SCAR and WMO request that all ships operating in Antarctic waters should make meteorological observations and report them on the GTS.

The following ships, which entered Antarctic waters in 2016/2017, made meteorological reports, they may have reported from outside Antarctic waters after the date given here. For most ships the season begins in November or December and ends in March. Country is the country of registration, VOS is the country of recruitment. Monitoring is manual and may miss some ships.

Call sign	Name	Country	VOS	Arrive	Depart	Latest obs	
AMOUK01			UK	2016 December		2017 January	
AMOUK40			UK	2016 November		2017 February	
AMOUK70			UK	2016 December		2017 February	
AMOUK71			UK	2016 November	2016 December	2016 December	
BATEU00			EU	2017 January		2017 February	
SHIP	A			2016 December	2016 December		
SHIP	B (Possibly VNAA)			2017 January	2017 January	2017 January	
SHIP	C (JNSR)			2017 February		2017 February	
9HJD9	Celebrity Infinity (Tourist)	USA	US	2017 February		2017 February	
C6JC3	Bremen (Tourist)	Germany	DE	2016 December		2017 February	3,5
C6SY3	Crystal Serenity (Tourist)	Bahamas		2017 February	2017 February	2017 February	
C6TE3	National Geographic Orion (Tourist)	Bahamas	UK	2016 November		2016 November	
C6WR2	National Geographic Explorer (Tourist)	Bahamas	UK	2016 November	2016 December	2016 December	5,7
C6YZ5	Seabourn Quest (Tourist)	Bahamas	US	2016 December		2016 December	5,7
CCAQ	Aquiles (Supply)	Chile		2016 November		2016 November	5
CCLA	ATF Lautaro (Supply)	Chile		2016 November		2016 December	3,7
DBLK	RV Polarstern (Research)	Germany	DE	2016 December		2017 February	
DSQR7	Woongjin T3600	Korea		2016 November		2017 January	
FHZI	L' Astrolabe (Supply)	France	AU	2016 October		2017 February	
JNSR	Mirai (Research)	Japan		2017 February		2017 February	
OXGN2	Mary Artica (Containership)	Denmark	EU	2017 January	2017 February	2017 February	
PBGH	Prinsendam (Tourist)	Netherlands	US	2017 January	2017 February	2017 February	
PDAN	Zaandam (Tourist)	Netherlands	US	2016 December	2017 February	2017 February	
PDZS	Europa (Ice strengthened tall ship)	Netherlands	FR	2016 December	2017 February	2017 February	5,7
PWAR	Ary Rongel (Navy ice breaker)	Brazil	BR	2016 October		2017 February	
PWPM	Almirante Maximiano (Ice breaker)	Brazil		2016 November		2017 February	
UBXH3	Akademik Tryoshnikov (Research)	Russia		2017 January		2017 February	
UCKZ	Akademik Fedorov (Research)	Russia	RU	2016 December		2017 February	
VLMJ	Investigator (Research)	Australia	AU	2017 January		2017 February	
VNAA	RV Aurora Australis (Supply)	Australia	AU	2016 November		2017 February	4
WCX7445	Laurence M Gould (Oceanographic)	USA	US	2016 June	2017 February	2017 February	
WBP3210	Nathaniel B Palmer (Oceanographic)	USA	US	2016 August		2017 February	
WHKM	Maersk Peary (Oil Tanker)	USA	US	2017 January	2017 February	2017 February	
WTEC	Ron Brown (Oceanographic)	USA	US	2017 January	2017 January	2017 February	
ZDLP	RRS James Clark Ross (Research)	UK	UK	2016 November		2017 February	
ZDLS1	RRS Ernest Shackleton (Supply)	UK	UK	2016 December		2017 February	
ZSNO	SA Agulhas II (Supply)	South Africa		2016 December	2017 January	2017 February	

Some ships, which primarily send messages via an AWS, are listed twice

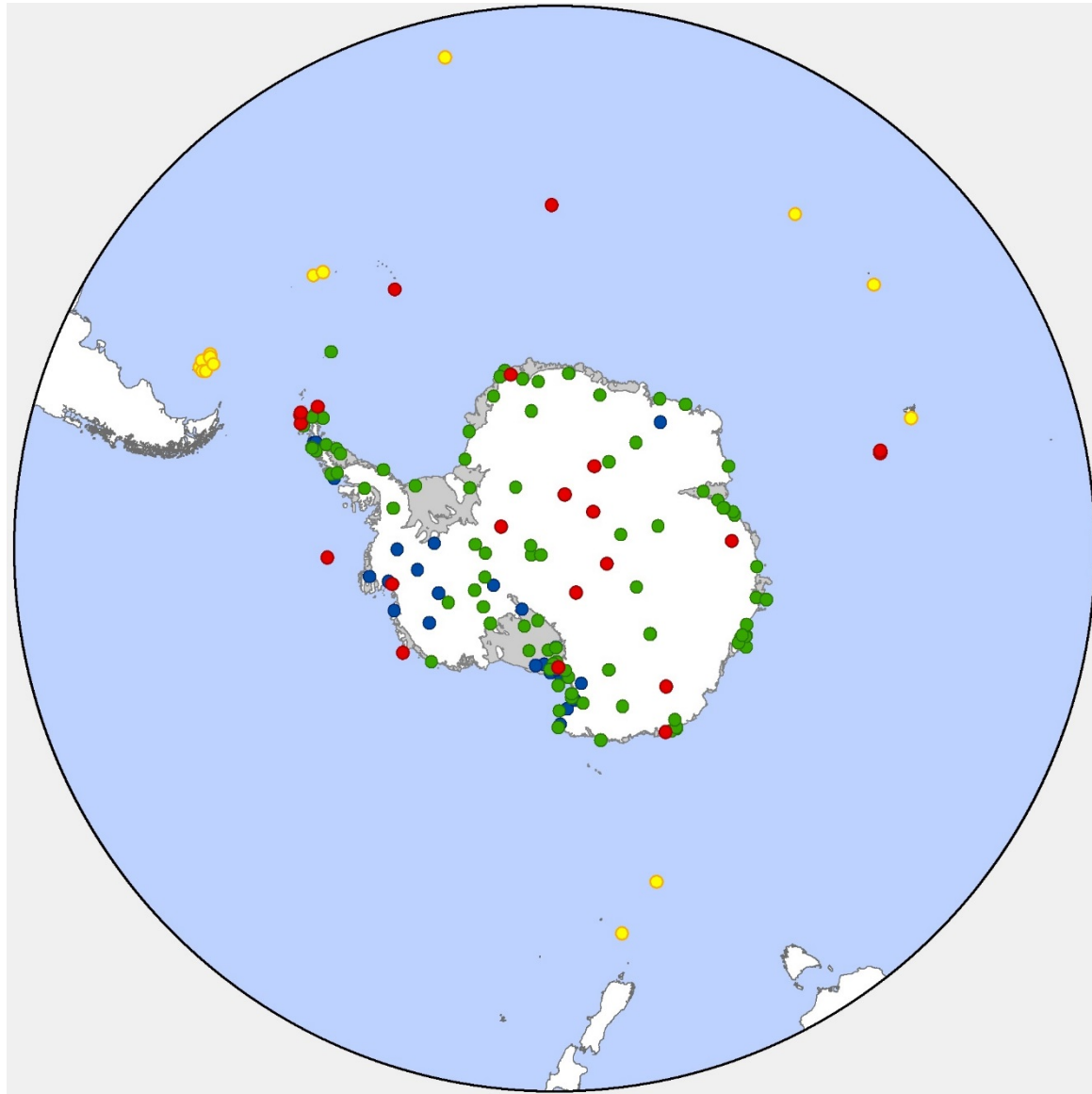
Palmer AIS (Automatic Identification System)



AntON

- AntON is the Antarctic Observing Network
 - It is a list of the staffed and automatic weather stations that are currently in operation in Antarctica.
 - A subset of AntON makes up the Antarctic GSN.
 - New stations that have been added but are not yet part of AntON are.
 - 89011 Soerasen 71°12'S 10°00'W
 - 89047 Filchner 80°30'S 42°30'W
 - 89776 Bharati 69°25'S 76°11'E

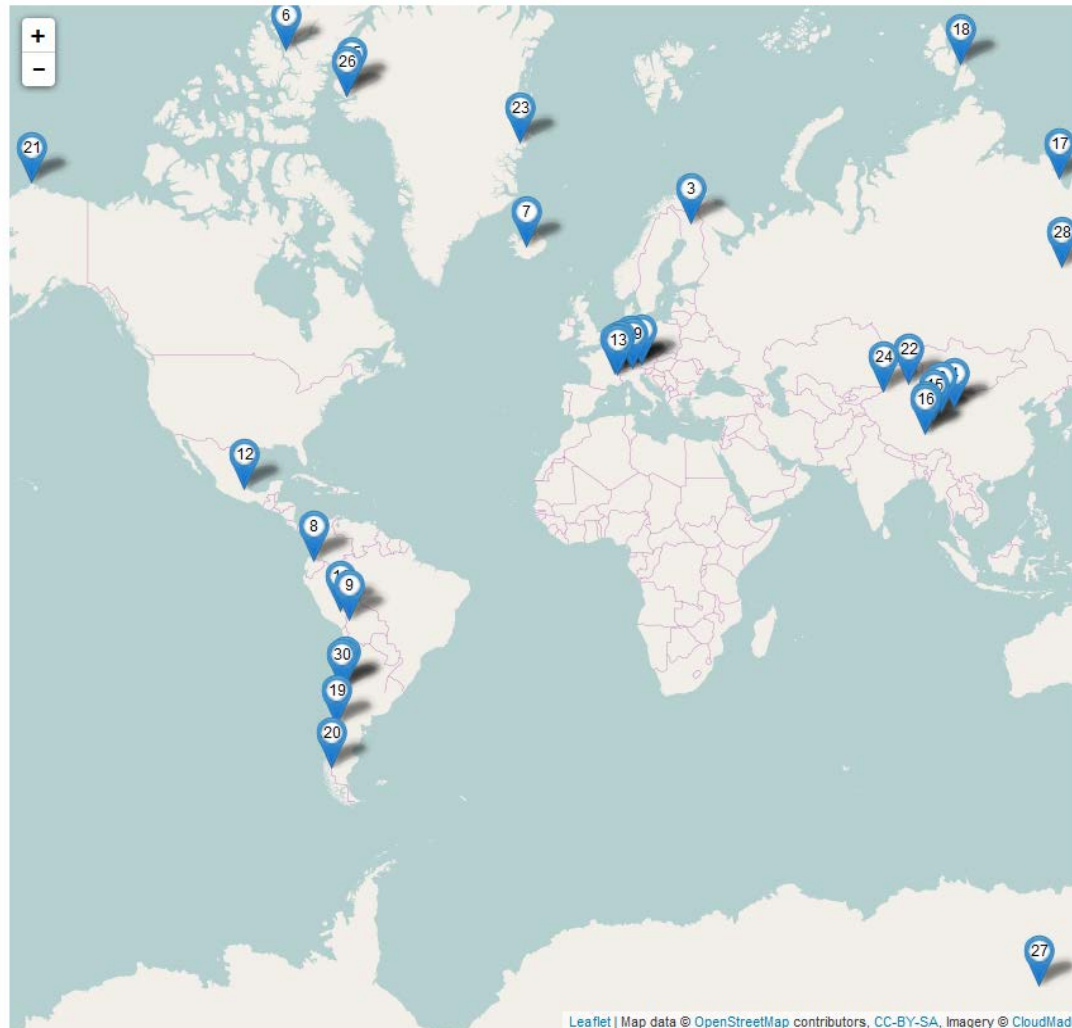
Antarctic Observing Network (AntON)



Green: AntON stations
Blue: AntON associated stations
Red: stations no longer operational
Yellow: subantarctic stations

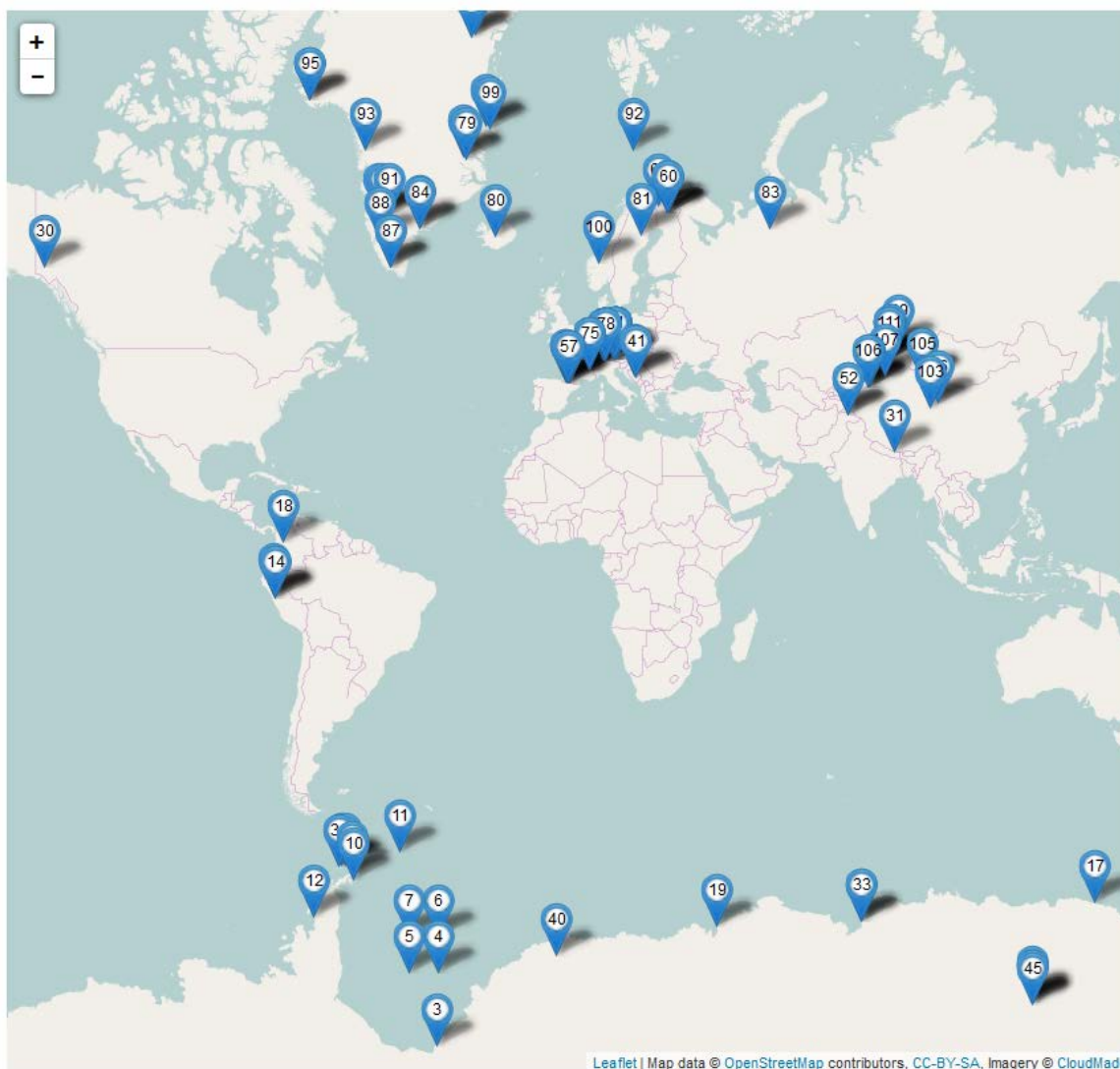
Contributions to the Global Cryosphere Watch (GCW)

Of the 32 approved cryonet stations and sites Concordia station is the only one in Antarctica



Contributions to the Global Cryosphere Watch (GCW)

There are 14 cryonet stations and 7 contributing stations in Antarctica that have been proposed for being considered for inclusion in GCW



The minimum requirements of CryoNet stations

- **Meeting Core CryoNet Measurement Requirements:** The station shall measure at least one of the variables of one of the cryosphere components (i.e. snow, solid precipitation, lake and river ice, sea ice, glaciers, frozen ground and permafrost). The station location is chosen such that cryospheric measurements are representative of the surrounding region, and such representativeness needs to be clearly described.
- **Commitment of Operational Continuity:** The station must be active. The responsible agencies are committed, to the extent reasonable, to sustaining long-term observations of at least one cryosphere component. There must be a commitment to continue measurements for a minimum of four (4) years.
- **Metadata Up to Date and Availability:** The station metadata, including all metadata describing the station characteristics and observational programme, are kept up-to-date and available in the GCW Portal as the interface to the WIGOS Information Resource (WIR).
- **Compliance with Agreed Regulatory Practice:** The station observational procedures, the instruments and method of observations, quality control practices, etc., should follow GCW endorsed regulations, manuals, guides and, to the extent possible, the recommended best practices.
- **Data and Ancillary Data Freely Available:** Data are made freely available, and whenever possible in near real-time. In situ ancillary meteorological observations, as required by CryoNet best practices, must also be available with documented quality.
- **Competency of Staff:** Personnel must be trained in the operation and maintenance of the station.

Antarctic Polar Regional Climate Centre (PRCC)

- Identify stakeholders
 - Research community, national operators, IAATO, SCAR, ATCM etc
- Identify what is already been done that would count PRCC functions
 - **Mandatory Functions**
 - operational activities for long range forecasts (LRF)
 - operational activities for climate monitoring
 - operational data services to support LRF and climate monitoring
 - training in the use of operational RCC products and services
 - **Highly Recommended Functions**
 - climate prediction and climate projection
 - non-operational data services
 - coordination functions
 - training and capacity development
 - research and development
- See how things go with the development and the Arctic PRCC.
- Look at the survey that was carried out for the Arctic PRCC and see if it needs to be modified to be applicable to the Antarctic.
- Forecast skills
 - Some national operators provide additional Antarctic specific training to forecasts before they are allowed to go to Antarctica.
 - This should be encouraged with other national operators.

WMO OSCAR Surface



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Quick access

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WIGOS components

GOS

GAW

WHOS

GCW

Co-sponsored components

GCOS

GOOS

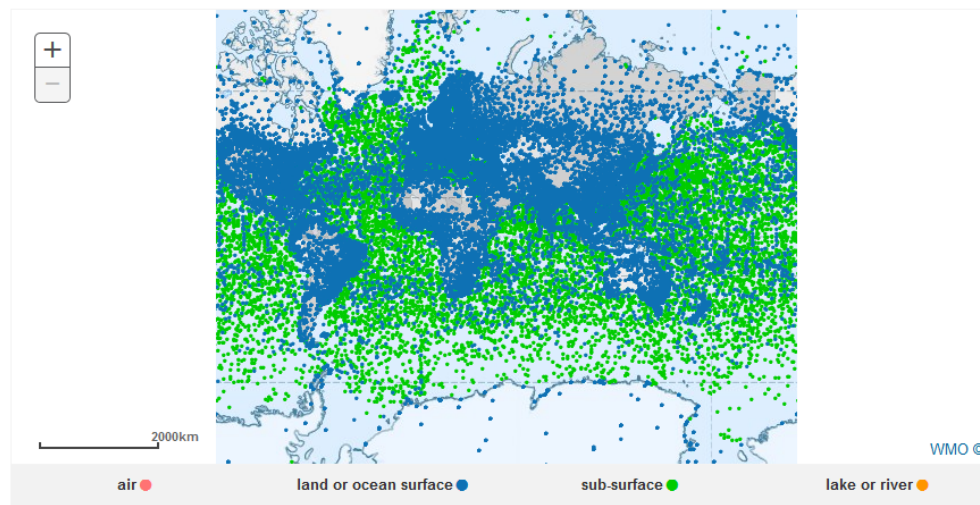
GTOS

Other components

Non affiliated

Welcome to OSCAR/Surface

OSCAR/Surface is the World Meteorological Organization's official repository of WIGOS metadata for all surface-based observing stations and platforms. For more details on OSCAR, please visit the [About](#) section. For additional information about WIGOS, visit the [WIGOS Homepage](#).



Latest news

2017-05-24

[Scheduled maintenance, 31 May 2017](#)
GAWSYS and OSCAR will be unavailable for about 90' on 31 May 2017 between 22.00 and 23.30 UTC for scheduled maintenance of the authentication services. We apologise for any inconvenience.

2017-05-10

[A new version of the VoIA Legacy file is now available](#)
Starting from today the VoIA legacy file contains only stations declared "operational", "partly operational", "pre-operational" and "stand-by".

2016-11-30

[Scheduled maintenance, 13 December 2016](#)
Both GAWSYS and OSCAR will be temporary unavailable on 13 December 2016 between 14.00 and 15.00 UTC due to scheduled maintenance. We apologise for any inconvenience.

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Last updated: 2016-04-28

HENRY (Antarctica)

in WMO Region Antarctica

Station characteristics

Station name:	HENRY
Station alias:	
Date established:	
Station type:	Land (fixed)
Station class(es):	
WMO index No:	0-20000-0-89108
WMO region:	Antarctica
Country / Territory:	> Antarctica
Coordinates:	> 89.0000°S, 1.0166666667°W
Time zone:	
Climate zone:	
Station URL:	
Other link (URL):	
Predominant surface cover:	
Surface roughness:	
Topography or bathymetry:	
Population in 10km / 50km (in thousands):	
Supervising organization:	> NOAA-NWS
Site information:	> The station was originally registered based on WMO Pub 9 Vol A information containing these observation remarks: ANTON;AUT;CLIMAT(C) (see code table A for explanations). These remarks imply the following additional observations that could not be registered automatically: none.
Event at station / platform:	

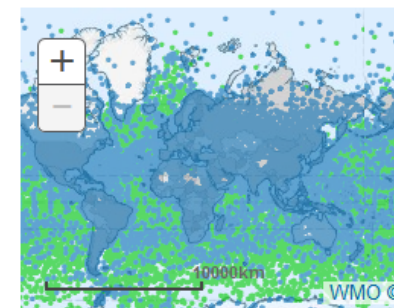


Photo gallery

There are no photos available for this station.

Programs / network affiliation:

Program / network affiliation	Program specific ID	Current recorded status	Declared status	From	To	Status
GOS		Operational	Operational	2016-04-28		Approved
ANTON		Operational	Operational	2016-04-28		Approved
CLIMAT(C)		Operational	Operational	2016-04-28		Approved

▼ Observations / measurements

▼ Atmosphere > Humidity

- > Humidity (at specified distance from reference surface) [Method: (unknown / unspecified)]

▼ Atmosphere > Precipitation

- > Occurrence of precipitation during last period [Method: (unknown / unspecified)]

▼ Atmosphere > Pressure

- > Atmospheric pressure [Method: (unknown / unspecified)]

▼ Atmosphere > Temperature

- > Air temperature (at specified distance from reference surface) [Method: (unknown / unspecified)]

▼ Atmosphere > Wind

- > Wind (surface wind direction and speed, horizontal) - deprecated [Method: (unknown / unspecified)]

▼ Station contacts

- > Mr Walter H. SMITH

▼ Bibliographic references

There are no bibliographic references available for this station

▼ Documents

There are no documents available for this station

OpMet recommendations

- Update OSCAR/surface with metadata about stations.
- Consider which stations can be submitted for consideration at part of GCW.
- Consider what contributions countries could make to an Antarctic PRCC.

Questions

