

Performance of the Antarctic Observing Network (AntON)

SYNOP

Surface stations

This chart shows the status of SYNOP messages on the GTS during 2012, with green representing good performance, off green representing less than 90% of expected messages (acceptable, but not adequate for CLIMAT), yellow less than 80%, amber less than 50% and red less than 10%. Stations shown as white did not transmit in 2011. Note that for AWS transmitting via Argos a normal percentage for real-time transmission is around 70% and the non-real time data is recovered later for use in the CLIMAT message.

WMO no	Station	GSN	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Sub Antarctic stations (in Region I, III or V)													
61997	Isle Crozet	X									94			
61998	Isle Kerguelen	X							89					
68906	Gough Island	X										94		91
68992	Bouvetoya	X	0	0	0	0	0	0	0		0	0	0	0
68994	Marion Island	X							94			94		
88878	Pebble Island		73	65	77	68	70	70	74	70	72	77	74	67
88883	Weddell Island		78	78	79	80	76	71	63	79	75	78	79	81
88889	Mount Pleasant Airport	X												
88897	Sea Lion Island		85	87	79	79	93	64	0	0	10	88	85	85
88900	Bird Island		66	71	66	58	69	73	72	72	74	71	73	
88903	Grytviken	X	70	78	89	71		93				93		
88986	South Thule Island		83	86	91	95	95	90	90	94	95	94	93	
93929	Enderby Island AWS													
93947	Campbell Island AWS	X												
94997	Heard Island (The Spit)													
94998	Macquarie Island	X												
95997	Heard Island (Atlas Cove)			91	55	52	43	35	50	67	80	75	75	47
	Antarctic stations													
WMO no	Station													
88963	Esperanza	X	95	93		95	92		93	95	95		91	
88968	Orcadas	X	90	84	82	82	91	91	87	90	87	89	92	
89002	Neumayer	X												
89003	Halvfarryggen EP11			91	95	90	91	90	91	90	91	85	83	77
89004	SANAE	X	93	93				88	95	70	85	92		
89009	Amundsen-Scott	X												
89013	Baldrick AWS		83	76	82	64	75	78	81	78	86	75	76	77

89014	Nordenskiold		58	91	62	86	45	0	0	0	0	0	36	63
89016	Wasa EP5			85	64	79	86	95				91	80	93
89018	Svea EP6		0	0	0	0	0	0	0	0	0	0	0	0
89020	Brunt		73	38	0	0	0	0	0	0	0	0	0	0
89022	Halley	X		95										
89034	Belgrano II		82	87		95	95	92	91	90	95	92	85	
89049	AGO-2		0	0	0	0	0	0	0	0	0	0	0	0
89050	Bellingshausen	X		95					95					
89053	Jubany		88	85	91	82	86	82	85	80	76	79	86	83
89054	Dinamet		86	84	93	94							95	
89055	Marambio	X	95	90	91	90	94		92	95	94	95	92	
89056	Frei	X	89	88	91	94								
89057	Arturo Prat													
89058	Great Wall		93	93	95	94		95						
89059	O'Higgins			95		93		95						
89061	Palmer													
89062	Rothera	X			94				95					
89063	Vernadsky	X	89	92		75							91	91
89064	Juan Carlos			74	0	0	0	0	0	0	0	0	0	12
89065	Fossil Bluff	X	72	49	66	61	76	69	71	79	90	94	95	90
89066	San Martin		93	94			95	93	91	93	90	87	91	94
89087	Thiel Mountains		79	84	0	0	0	0	0	0	0	0	0	0
89108	Henry													
89132	Russkaya		0	0	0	0	0	0	0	0	0	0	0	0
89251	King Sejong		89	90	94	94	95	95	95		95		95	
89252	Comandante Ferraz		0	0	0	0	0	0	0	0	0	0	0	0
89253	Joinville Island		91					0	0	0	0	0	0	56
89257	Limbert		79	80	78	72	79	85				91		
89262	Larsen Ice Shelf	X	80	68	70	62	77	33	0	0	32	78	95	
89266	Butler Island	X	77	70	79	69	79	84		95	12	91	95	
89269	Bonaparte Point		0	10	5	15	16	21	22	21	7	0	0	0
89272	Sky Blu	X	83	74	83	69	76	34	0	0	89	95		
89314	Theresa													
89324	Byrd Station	X	21	39	52	40	39	35	41	41	35	32	43	19
89327	Mount Siple	X	79	54	28	0	0	0	0	0	7	15	20	8
89329	Harry	X												
89332	Elizabeth													
89345	Siple Dome	X	0	0	45	41	37	35	41	37	30	33	43	20

[illegible]

[illegible]

AALOL	Tourmaline Plateau													
AAMAR	Mary													
AAMIZ	Mizuho		47	39	43	37	31	35	33	27	36	36	40	11
AAPEG	Pegasus South		50	45	54	40	41	44	37	43	36	41	50	22
AAPET	Peter I Oy													
AAPIG	Pine Island Glacier			0	0						0	0	0	0
AARIT	Enigma Lake													
AASOF	Sophia-B													
AASWI	Swthinbank													
AAUNI	Union Glacier		93	94	100	76		95	95	90	85	93	94	
AAVIT	Vito		49	45	50	39	45	44	44	40	34	38	49	27
AAWIL	Willie Field													
AAWIN	Windless Bight													
AAZOE	Zoe (Mega B)													
AAZOR	Priestley Glacier													

Notes:

68992 – AWS failed. Replacement not expected before 2011.

89020 – Annual download

89272 – Batteries not charging.

89327 – Batteries no longer hold charge over the winter. Recovers in late September with the return of sunlight. No immediate prospect of repair.

89865 – Station not operational, and unlikely to be restored. Appears to have recovered after winter 2011.

89879 – Batteries no longer hold sufficient charge to transmit fully over the winter.

AWS transmitting via Argos have variable reception on the GTS, although the data is available non real time. In general 65±15% reception on the GTS indicates full operation.

December totals have been increased by 6% as there was a GTS interruption at BAS on two days during the month

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. Figures in bold include flights that did not appear on the GTS. 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 manual 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.

INDEX	STATION NAME		GUAN	1	2	3	4	5	6	7	8	9	10	11	12
61998	ILES KERGUELEN	12	X	90	93	83	83	80	86	83	93	96	96	90	74
68906	GOUGH ISLAND	00	X	48	0	0	0	0	0	0	0	0	90	100	43
68906	GOUGH ISLAND	12	X	38	0	0	0	0	0	0	0	0	45	10	0
68994	MARION ISLAND	00	X	100	96	74	93	87	96	96	35	0	0	0	13
68994	MARION ISLAND	12	X	100	93	67	96	93	86	87	35	0	0	0	27
88889	MOUNT PLEASANT AIRPORT	00	X	96	100	90	96	90	80	77	87	86	90	93	85
88889	MOUNT PLEASANT AIRPORT	12	X	0	0	0	10	0	16	0	16	13	0	10	0
94998	MACQUARIE ISLAND	00	X	96	100	96	96	100	96	96	90	90	100	93	100
94998	MACQUARIE ISLAND	12	X	93	100	96	100	96	96	87	96	93	100	100	100
89002	NEUMAYER	12	X	100	82	87	100	87	83	96	90	83	87	93	100
89009	AMUNDSEN-SCOTT	00	X	100	89	100	100	100	50	32	0	36	100	100	100
89009	AMUNDSEN-SCOTT	12	X	96	100	16	0	0	0	0	0	0	100	96	100
89022	HALLEY	12	X	100	97	84	93	100	83	61	70	90	100	96	100
89055	BASE MARAMBIO (CENTRO MET. ANTARTICO)	12	X	41	41	39	27	39	27	35	39	40	35	23	32
89062	ROTHERA	12		58	55	58	57	58	57	58	52	53	58	60	54
89512	NOVOLAZAREVSKAJA	00	X	96	93	90	90	93	100	93	100	96	96	96	88
89512	NOVOLAZAREVSKAJA	12	X	0	0	38	0	0	43	0	0	46	0	0	48
89532	SYOWA	00	X	100	93	96	96	93	90	96	93	100	96	96	95
89532	SYOWA	12	X	100	100	100	100	100	100	96	100	100	83	96	92
89564	MAWSON	12	X	96	93	96	96	96	90	90	100	93	96	96	100
89571	DAVIS	00	X	96	96	93	100	100	93	96	93	100	96	96	100
89571	DAVIS	12	X	100	100	100	96	96	96	96	96	96	83	0	95
89592	MIRNYJ	00	X	96	96	100	90	93	90	96	96	96	96	100	100
89592	MIRNYJ	12	X	0	0	45	0	0	40	0	0	43	0	0	48
89611	CASEY	00	X	100	96	93	93	87	83	96	90	93	96	93	100
89611	CASEY	12	X	96	100	96	100	90	90	96	90	100	100	93	100
89625	CONCORDIA	12		96	96	80	90	35	0	0	0	0	0	53	95
89642	DUMONT D'URVILLE	00	X	90	96	100	93	90	70	38	58	100	90	86	78
89662	MARIO ZUCCELLI STATION	00		61	10	0	0	0	0	0	0	0	41	93	61
89662	MARIO ZUCCELLI STATION	12		87	0	0	0	0	0	0	0	0	41	96	61
89664	MCMURDO	00	X	100	89	93	76	64	20	16	0	53	93	93	100
89664	MCMURDO	12	X	96	96	22	0	0	0	0	0	0	80	83	100

Notes: Balloons at 89009, 89022, 89625, 89642 and 89664 and to a lesser extent at other Antarctic stations, burst early in the winter months due to the low stratospheric temperature. The problem seems to be greater than usual this year.

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