

## Performance of the Antarctic Observing Network (AntON) SYNOP

### Surface stations

This chart shows the status of SYNOP messages on the GTS during 2011, with 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%. All other stations have 95% or above reception. 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
	<b>Sub Antarctic stations</b> (in Region I, III or V)													
61997	Isle Crozet	X	81		76									
61998	Isle Kerguelen	X	89	88										
68906	Gough Island	X							95	95				
68992	Bouvetoya	X	0	0	0	0	0	0	0	0				
68994	Marion Island	X	81						93	95				
88878	Pebble Island		14	41	24	0	17	0	0	0				
88883	Weddell Island		65	58	33	41	49	20	74	58				
88889	Mount Pleasant Airport	X												
88897	Sea Lion Island		71	75	79	81	85	88		94				
88900	Bird Island		67	61	70	74	72	72	70	54				
88903	Grytviken	X	83		74	93		85	49	49				
88986	South Thule Island		0	0	48	66	62	62	90	89				
93929	Enderby Island AWS													
93947	Campbell Island AWS	X	0											
94997	Heard Island (The Spit)													
94998	Macquarie Island	X												
95997	Heard Island (Atlas Cove)													
	<b>Antarctic stations</b>													
WMO no	Station													
88963	Esperanza	X				93		90	95	91				
88968	Orcadas	X	84	80		72	91	91	95	94				
89002	Neumayer	X												
89003	Halvfarryggen EP11		85	87	87	93								
89004	SANAE	X	63		77		84	85	87	92				
89009	Amundsen-Scott	X												
89013	Baldrick AWS		82	76	85	73	83	81	63	83				

89014	Nordenskiold					85	5	0	0	0				
89016	Wasa EP5					93	89	71	57	76				
89018	Svea EP6		0	0	0	56	0	23	73	0				
89020	Brunt		64	75	66	66	62	73	60	70				
89022	Halley	X												
89034	Belgrano II					93		93	95	93				
89049	AGO-2									37				
89050	Bellingshausen	X												
89053	Jubany							93	95	95				
89054	Dinamet			81	45	74		88	75	75				
89055	Marambio	X				93		90	95	95				
89056	Frei	X			83				82	76				
89057	Arturo Prat				83									
89058	Great Wall				82				79	75				
89059	O'Higgins				75	91			74	62				
89061	Palmer													
89062	Rothera	X					91	90						
89063	Vernadsky	X							95					
89064	Juan Carlos		71	89	0	0	0	0	0	0				
89065	Fossil Bluff	X	71	73	80	70	72	69	62	75				
89066	San Martin			87		94		87		95				
89087	Thiel Mountains		88			84			74	29				
89108	Henry													
89132	Russkaya		0	0	0	0	0	0	0	0				
89251	King Sejong				77	91	91	90	79	74				
89252	Comandante Ferraz		78	13	0	0	0	0	0	0				
89253	Joinville Island		67	0	0	0	0	0	0	0				
89257	Limbart		86	77	83	75	83	78	77	82				
89262	Larsen Ice Shelf	X	79	79	78	71	74	78	75	78				
89266	Butler Island	X	80	74	84	73	81	81	66	83				
89269	Bonaparte Point		13	7	10	12	0	0	28	54				
89272	Sky Blu	X	84	75	85	75	82	10	0	0				
89314	Theresa									95				
89324	Byrd Station	X	42	0	14	60	60	67	45	58				
89327	Mount Siple	X			62	0	0	0	0	0				
89329	Harry	X								95				
89332	Elizabeth													
89345	Siple Dome	X	40	16	32	60	60	62	47	58				

89376	Gill	X		0	18	60	62	60	47	54				
89377	Lettau	X	41	0	15	57	58	67	37	0				
89504	Troll													
89507	Kohnen EP9													
89512	Novolazarevskaya	X												
89514	Maitri		88				90		93	87				
89528	AGO-3				70	75	83	91	95	87				
89532	Syowa	X												
89542	Molodeznaja		0	0	0	0	0	6	15	43				
89564	Mawson	X				83								
89570	Davis (Whoop Whoop)		0	0	0	0	0	0	0	15				
89571	Davis	X												
89573	Zhongshan	X												
89574	Progress	X												
89575	Druzhnaya 4		31	88		77	48	48		92				
89577	Dome A	X												
89578	Eagle													
89586	Davis (Mount Brown)						90	91	86	89	86			
89592	Mirnyj	X												
89606	Vostok	X												
89610	Casey (Cape Poinsett)							92	61	63	93			
89611	Casey	X												
89614	Wilkins Runway West		83	86	86	74	25	0	0	28				
89615	Wilkins Runway East		20		48	0	0	0	0	0				
89625	Concordia	X			82	91	87	83	58	70				
89628	AGO-1					87	73		77	91				
89642	Dumont d'Urville	X												
89643	Port Martin		0	0	0	0	0	0	0	0				
89646	Sitry Point				62	33	20	16	13	19				
89648	Mid Point		69			82	65	20	52	83				
89657	Leningradskaya		33			75	48	46		93				
89659	Priestley (Nevee)													
89661	Cape Phillips		54	69										
89662	Mario Zuchelli Station	X	86	41										
89664	McMurdo	X				85	88	92						
89665	Scott Base		0	0	0	0	0	0	0	0				
89666	Cape Ross													
89667	Pegasus North									94				

A20629	Plateau		0	0	0	0	0	0	0	0				
89734	Dome Fuji		29	0	0	30	62	65	45	61				
89744	Relay Station	X	43	25	34	61	62	65	46	58				
A20631	Pole of Relative Inaccessibility		0	0	0	0	0	0	0	0				
89767	Amery Ice Shelf AWS (G3)													
89768	Minna Bluff			11	0	0	0	0	0	0				
89769	Linda													
89799	Nico									94				
89807	Casey (Snyder Rocks)		79		86	81	20	0	5	31				
89809	Casey Skiway South		0	0	0	0	0	0	0	0				
89811	Casey (Law Dome Summit)					65	8	0	0	0				
89815	Casey (Haupt Nunatak)			86	78	69	23	0	0	0				
89828	Dome C II	X								95				
89832	D-10		35	25	32	43	55	58	41	47				
89834	D-47		32	15	22	45	49	61	38	50				
89864	Manuela									94				
89865	Whitlock	X	0	0	0	0	0	0	0	0				
89866	Marble Point	X								94				
89868	Schwerdtfeger									93				
89869	Marilyn	X								94				
89872	Ferrell	X								95				
89873	Elaine		55	37	34	58	61	67	43	58				
89879	Possession Island	X						80	73	63				
AAALE	Cape King		0	0	0	0	0	0	0	0				
AABIR	Cape Bird		44	28	33	56	54	61	56	55				
AABRI	Brianna		53	31	35	56	54	65	56	61				
AACAR	Carolyn		0	0	0	0	0	0	0	0				
AADIS	Dismal Island		16	8	6	0	0	0	0	0				
AADEN	Cape Denison		0	0	16	8	0	0	0	0				
AAEMI	Emilia		0	0	17	55	51	59	54	56				
AAERC	Eric		52	34	39	60	57	63	56	60				
AAERI	Erin		48	25	35	58	58	67	58	46				
AAKIR	Kirkwood Island		0	0	0	0	0	0	0	0				
AAKOM	Kominko-Slade		51	28	37	61	58	65	57	62				
AALAU	Laurie II		47	33	35	60	53	63	56	61				
AALIT	Little Mac (Mega A)		0	0	0	0	0	0	0	0				

AALOL	Tourmaline Plateau		0	0	0	0	0	0	0	0				
AAMAR	Mary		0	0	0	0	0	0	0	0				
AAMIZ	Mizuho		41	28	33	58	51	55	51	47				
AAPEG	Pegasus South		50	41	37	57	52	61	58	62				
AAPET	Peter I Oy		0	0	0	0	0	0	0	0				
AAPIG	Pine Island Glacier		0	0	0	0	0	0	0	0				
AARIT	Enigma Lake		0	0	0	0	0	0	0	0				
AASOF	Sophia-B		0	0	0	0	0	0	0	0				
AASWI	Swithinbank		0	0	0	0	0	0	0	0				
AAUNI	Union Glacier		87	93	95	83	84	6	71					
AAVIT	Vito		55	32	35	58	52	65	57	61				
AAWIL	Willie Field		0	0	0	0	0	0	0	0				
AAWIN	Windless Bight		0	0	0	0	0	0	0	0				
AAZOE	Zoe (Mega B)		0	0	0	0	0	0	0	0				
AAZOR	Priestley Glacier		0	0	0	0	0	0	0	0				

Notes:

68992 – AWS failed. Replacement not expected before 2011.

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.

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.

## 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	93	96	87	96	96	93	96	93				
68906	GOUGH ISLAND	00	X	77	100	90	80	90	86	87	93				
68906	GOUGH ISLAND	12	X	87	92	70	80	80	80	83	87				
68994	MARION ISLAND	00	X	74	100	90	96	74	90	93	93				
68994	MARION ISLAND	12	X	0	0	0	73	96	96	83	100				
88889	MOUNT PLEASANT AIRPORT	00	X	90	92	96	80	80	80	77	77				
88889	MOUNT PLEASANT AIRPORT	12	X	0	0	32	10	0	10	0	0				
94998	MACQUARIE ISLAND	00	X	90	96	96	96	80	100	96	100				
94998	MACQUARIE ISLAND	12	X	100	100	100	100	96	90	96	100				
89002	NEUMAYER	12	X	96	85	96	90	87	96	90	93				
89009	AMUNDSEN-SCOTT	00	X	100	100	100	93	83	30	19	19				
89009	AMUNDSEN-SCOTT	12	X	96	100	12	0	0	0	0	0				
89022	HALLEY	12	X	96	100	90	86	87	100	90	87				
89055	BASE MARAMBIO (CENTRO MET. ANTARTICO)	12	X	41	42	35	33	45	43	39	32				
89062	ROTHERA	12		83	71	58	53	58	53	48	51				
89512	NOVOLAZAREVSKAJA	00	X	96	100	93	83	93	76	87	83				
89512	NOVOLAZAREVSKAJA	12	X	0	46	0	0	41	0	0	41				
89532	SYOWA	00	X	96	96	93	90	100	90	96	96				
89532	SYOWA	12	X	100	100	100	100	96	100	100	96				
89564	MAWSON	12	X	93	100	93	100	100	93	100	100				
89571	DAVIS	00	X	96	100	96	93	93	83	67	29				
89571	DAVIS	12	X	100	100	90	83	96	90	74	35				
89592	MIRNYJ	00	X	90	96	96	100	93	100	93	93				
89592	MIRNYJ	12	X	0	50	0	0	45	0	0	41				
89611	CASEY	00	X	96	92	96	66	64	63	51	64				
89611	CASEY	12	X	93	82	96	30	0	0	0	0				
89625	CONCORDIA	12		90	89	90	73	61	66	12	12				
89642	DUMONT D'URVILLE	00	X	93	100	96	93	100	63	51	67				
89662	MARIO ZUCCELLI STATION	00		87	0	0	0	0	0	0	0				
89662	MARIO ZUCCELLI STATION	12		61	0	0	0	0	0	0	0				
89664	MCMURDO	00	X	90	100	83	70	80	73	61	58				
89664	MCMURDO	12	X	93	89	0	0	0	0	0	29				

Notes: Balloons at 89009, 89625 and 89664 and to a lesser extent at other Antarctic stations, burst early in the winter months due to the low stratospheric temperature.