

STATUS OF GLOBAL VOS AUTOMATION AS AT DECEMBER 2013

Table 1 - Status of VOS Automatic Weather Stations

Country	Type of AWS	Method of Comms	Manual Entry Facility	Number of Ships with AWS										
				31/12/2002	31/12/2004	31/12/2005	31/12/2006	31/12/2007	31/12/2008	31/12/2009	31/12/2010	31/12/2011	31/12/2012	31/12/2013
Australia	Vaisala Milos 500 AWS	Inmarsat C (Data Mode)	Yes	9	11	10	8	9	9	8	8	8	6	6
	TECHSAS/ Other	Inmarsat Fleet Broadband	No	-	-	-	-	-	-	-	1	1	1	1
Brazil	VAISALA Maritime Observation System MAWS410	(not known)	No						-		4	6	6	(6)
Canada	AVOS – AXYS Technologies	Inmarsat C	Yes	13	14	14	39	41	45	35	18	4	2	-
		Iridium	Yes	-	-	-	-	1	1	17	35	48	49****	52
China	DJQ-1	BDS	No	-	-	-	-	-		-	33	(2)	2	(2)
	XZC2-2SA	Inmarsat C CDMA,BDS	No	-	-	-	-	-		-	12	(12)	12	(12)
	XZC2-2SC	Inmarsat C CDMA,BDS	No	-	-	-	-	-		-	-	(36)	36	(36)
	XZC6-1	Inmarsat C CDMA, BDS	No	-	-	-	-	-		-	35	(17)	17	(17)
Hong Kong China	AMOS	Iridium	No	-	-	-	-	-	-	-	-	-	-	1¥
	Metoccean deck drifter	Iridium	No	-	-	-	-	-	-	-	-	-	-	1
Croatia	BAROS	Iridium SBD	No									1*****	1*****	1*****
Denmark	BATOS	Inmarsat C (Data Mode)	Yes	-	-	-	2	*****	*****	*****	*****	*****	*****	*****
EUMETNET	BATOS	Inmarsat C (Data Mode)	Yes	-	-	-	-	5	5	6	8	10	10	11
	BAROS	Iridium SBD	No					0	4	9	13	15	16	17
France	BATOS	Inmarsat C (Data Mode)	Yes	19	30	39	45	48	54	56	58	56	58	58
	Mini BATOS	Inmarsat C (Data Mode)	No		1	2	3	3	1	-	-	-	-	-
	MINOS	Argos	No		6	7	8	8	7	8	7	6	5	4
	BAROS	Iridium	No					1	-	-	-	-	-	-
Germany	Vaisala Milos 500 AWS	Meteosat DCP	No	23	21	21	17	18	17	16	17	17	17	16
	AbWst Mk2	Email	No	-	-	-	-	-	-	-	-	-	-	3
	Ships' own data logger	Inmarsat/ Iridium	Yes	-	-	-	-	-	2	2	2	2	2	-

Indonesia	TECHSENSE MET	Inmarsat/Thuraya	No								(6)	6		12
	PROJEX DX4 PRO	GPRS	No								(1)	1	(1)	-
Ireland	Vaisala Milos AWS	Meteosat	No	1	1	1	1	1	1	-	-	-	-	-
	BATOS	Iridium	No	-	-	-	-			1	2	-	-	2****
Italy	BAROS ++	Iridium	No										3****	3****
	BAROS	Iridium	No										3****	6****
Japan	Integrated System for Marine Met Observation (Koshin Denki Kogyo Co)	Inmarsat (4) MTSAT(2)	Some	13	12	13	9	9	9	9	6	6	6	6
	Weather Observation System (Nippon)	Inmarsat C	Some	-	-	-	4	5	5	6	6	6	5	5
	SOAR - Shipboard Oceanographic & Atmospheric Radiation (Brookhaven National Laboratory)	Inmarsat C	Yes	-	-	-	1	1	1	1	1	1	1	1
	Ogasawara Keiki Seisakusho Co (Japan)	Inmarsat	No	-	-	-	3	1	1	-	-	-	-	-
	JRCS MFG. Co. Ltd (Japan)	Inmarsat F	No	-	-	-	-	1	1	-	-	-	-	-
New Zealand	Sutron 9000RTU	MTSAT	Yes	1	1	1	1	1	1	1	1	1	1	1
	mSTAR-SHIP	GPRS Cell	No	-	-	-	-	1	1	1	1	1	1	1
Norway	AWS	VSAT	some	-	-	17	17	18	16	(15)	(15)	(15)	(5)	(5)
Portugal	BAROS ++	Iridium	No	-	-	-	-	-	-	-	-	-	-	1
Russia	GM6	Inmarsat C	Yes	-	38	(38)	(38)	(38)	(38)	0	0	0	0	-
South Africa	Vaisala Milos 520	Inmarsat C	Yes	-		1	-1	1	1	1	1	1	2	(2)
Spain	Vaisala MAWS 410	Inmarsat C	Yes	1	1	(1)	1	1	1	1	1	1	1	(1)
United Kingdom	Automet	Inmarsat	No	1	1	1	1	1	0	0	0	0	0	0
	MINOS –GP	Argos	No	-	-	1	2	6	5	5	5	3	2	2
	MINOS-GPW	Argos	No	-	-	1	2	1	1	1	1	1	1	1
	BATOS	Inmarsat C (Data Mode)	Yes	-	-	-	1	3	3	2	5**	4**	4**	1
	AVOS	Inmarsat	Yes	-	-	-	-	1	1***	0	0	0	0	0
	Metpod	Iridium	No	-	-	-	-	-	1	1	0	0	0	0
	Metocean Deck Buoy	Iridium	No	-	-	-	-	-	2	2	2	1	0	0
AMOS - Automated Marine Observing System	Iridium	No	-	-	-	-	-	-	-	-	21	33	37	

United States	SEAS-Version 8.00/6.57 Autolmet NOAA SCS (Science Computing System) Type 1	VSAT Email	Yes	-	3	(3)	0	3	16*	25	9	12	12	10
	SEAS-Version 9.1 Autolmet NOAA SCS (Science Computing System) Type 2	VSAT Email	No	-	-	-	-	-	-	0	0	0	0	5
	NOAA SCS Type 3 (developed by Alaska region)										8	3	3	0
	Non NOAA (developed by Alaska Region)	Email	No	-	-	-	-	-	-	-	-	7	7	7
	Other ship owned AWS systems	Email	Yes	-	-	-	-	-	-	-	12	5	6	11
TOTAL AWS SYSTEMS				81	140	171	202	227	250	229	331	333	327	351

Notes -

Shaded cells indicate that a national SOT VOS report was not received

Numbers shown in brackets are not confirmed

Sweden advised 1 AWS system in 2012 but details not yet confirmed

*2008 number corrected in 2009 - different from 2008 report

** includes 3 systems installed on UK VOS on behalf of E-SURFMAR

*** AVOS system on UK VOS Transferred to Environment Canada

**** includes 2 systems on training establishments

***** systems installed on behalf of E-SURFMAR (and also included Eumetnet figures above)

¥ Met Office AMOS system installed on Hong Kong VOS but managed by UK Met Office

Total AWS figures exclude duplicate systems reported both more than one VOS operator

AWS SYSTEMS 2002 to 2013

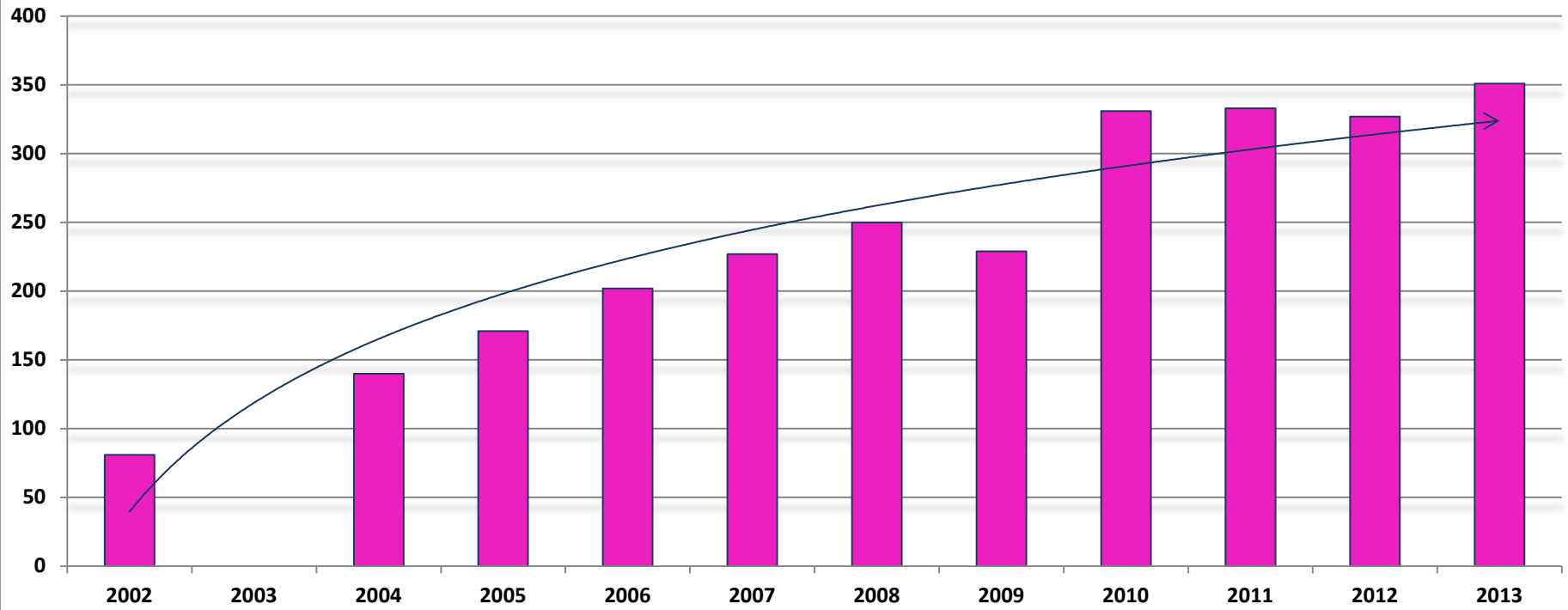


Table 2 – Status of VOS using Electronic Logbook Software (excludes AWS software for manual data entry)

Country	Electronic Logbook type	Number of Ships at 31/12/2002	Number of Ships at 31/12/2004	Number of Ships at 31/12/2005	Number of Ships at 31/12/2006	Number of Ships at 31/12/2007	Number of Ships at 31/12/2008	Number of Ships at 31/12/2009	Number of Ships at 31/12/2010	Number of Ships at 31/12/2011	Number of Ships at 31/12/2012	Number of Ships at 31/12/2013
Australia	TurboWin	33	41	50	51	64	61	58	57	72	64	69
Canada	TurboWin	-	-	-	-	-	-	-	2	2	1	1
Chile	TurboWin										10	10
Croatia	TurboWin	3	4	3	7	(7)	(7)	(7)	(7)	-	-	-
Denmark	TurboWin	-	-	-	32	0	-	-	-	-	-	-
France	TurboWin	-	7	6	7	10	4	4	2	3	2	1
Germany	TurboWin	315	412	556	600	709	730	780	800	825	695	637
Greece	TurboWin	2	0	0	0	1	3	1	4	3	2	2
Hong Kong	TurboWin	-	-	1	2	2	2	2	3	22	34	44
India	TurboWin	-	21	28	33	(33)	(33)	(33)	(33)	-	40	(40)
Indonesia	TurboWin									-		12
Italy	SEAS										-	7
Ireland	TurboWin	-	-	-	-	-	-	-	2	2	2	(3)
Japan	OBSJMA	-	49	61	70	74	95	102	100	141	129	162
Netherlands	TurboWin	200	259	198	195	193	195	185	172	112	96	97
	TurboWeb or TurboWin+	-	-	-	-	-	-	-	-	-	6	5
New Zealand	TurboWin	0	12	15	22	20	19	22	24	25	26	25
Poland	TurboWin	-	-	-	-	-	-	-	61	-	-	-
Singapore	TurboWin	-	-	2	3	1	1	1	(1)	-	7	-
South Africa	TurboWin	5	5	8	(8)	8	14	14	19	15	17	-
Sweden	TurboWin	-	-	-	-	-	1	1	3	20	-	20
United Kingdom	TurboWin	82	104	147	241	261	286	272	276	268	263	263
	TurboWeb	0	0	0	0	0	0	0	0	0	1	1
United States	SEAS	353	439	447	622	129	344	524	507	722	849	1115
	TurboWin	-	-	-	-	-	-	3	-	5	30	67
	TurboWeb	-	-	-	-	-	-	-	-	-	-	2
TOTAL		993	1353	1522	1893	1512	1795	2009	2073	2237	2274	2583

Electronic Logbooks 2002 to 2013

(excluding AWS software for manual data entry)

