

The Global Collecting Centre – Chief Inspector of Ship Observations

Dickson Lau

Long records of meteorological observations made by ships under the Voluntary Observing Ship (VOS) scheme are invaluable for the study of climatic conditions in the oceans. In 1993, two Global Collecting Centres (GCCs) were established in Hamburg (Deutscher Wetterdienst in Germany) and Edinburgh (UK Met Office) to collate and process the data received from the VOS of contributing members plying the various oceans globally (Figure 1), to improve the exchange and communication of information, and to standardize quality control procedures.

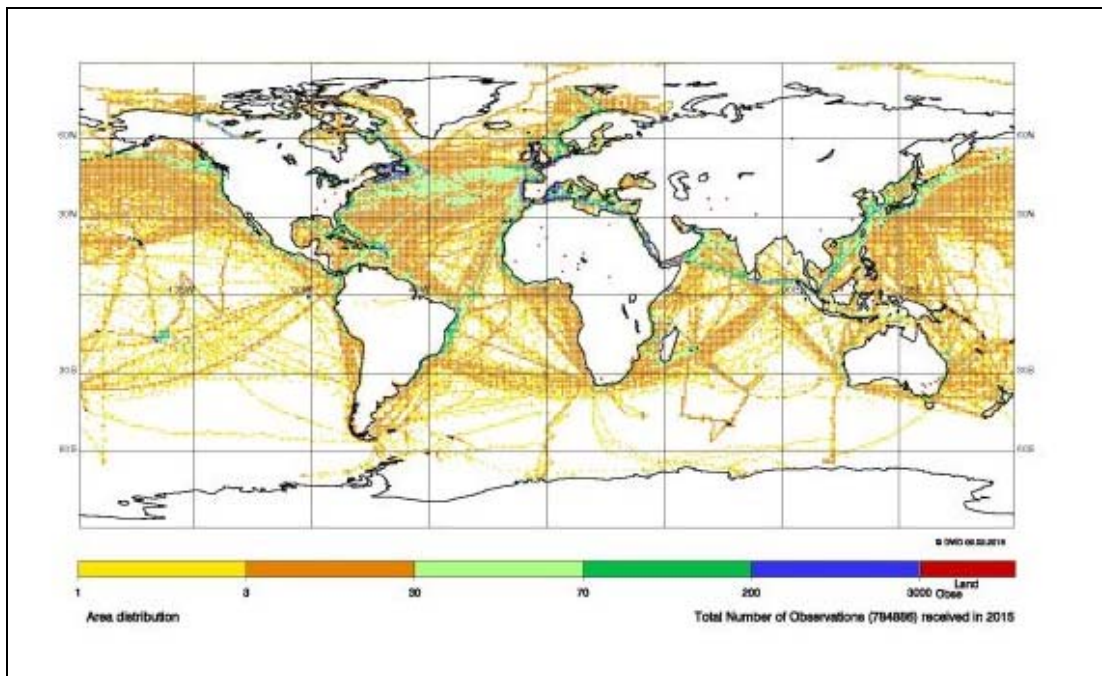


Figure 1. Distribution of observations received in 2015

Under the VOS scheme, Port Meteorological Officers (PMO) will retrieve the weather observation data recorded on board ships either in electronic or traditional hardcopy logbooks. PMO will then compile the data in a digital format standardized for ship observations and carry out preliminary data quality checks according to the Minimum Quality Control Standards of the World Meteorological Organization (WMO). The data sets so prepared will be sent to the two GCCs on a quarterly basis.

In 2015, more than 784,000 ship reports from 15 members of WMO, namely Australia; Canada; France; Germany; Hong Kong, China; Ireland; Japan; Netherlands;

New Zealand; Norway; Poland; Russian Federation; South Africa; United Kingdom and the United States of America, were received by the GCCs. Hong Kong is one of the few members (the others being Germany, Japan and Poland) that are able to contribute data every year since the establishment of the GCCs (Figure 2).

	ISO Alpha-2 code	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Number of Years with Contributions 1994 - 2015	
Argentina	AR								X		X	X	X	X	X	X								7	
Australia	AU							X		X	X	X	X		X	X	X	X	X		X	X	X	13	
Brazil	BR	X	X	X	X																			4	
Canada	CA																		X	X	X	X	X	5	
Croatia	HR				X	X	X	X	X												X	X		7	
France	FR	X	X	X	X	X			X		X	X	X	X	X	X	X		X	X	X	X	X	18	
Germany	DE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22
Greece	GR																	X		X	X			3	
Hong Kong, China	HK	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22
India	IN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	20
Ireland	IE			X	X	X				X						X	X	X	X	X	X	X	X	10	
Israel	IL		X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X			18	
Italy	IT																				X			1	
Japan	JP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22
Kenya	KE																							0	
Malaysia	MY	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	19	
Netherlands	NL	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	20
New Zealand	NZ													X	X	X	X	X	X	X		X	X	9	
Nigeria	NG																							0	
Norway	NO	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X			X	X	X	X	19	
Poland	PL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22
Russian Federation	RU		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21
Singapore	SG		X	X	X	X					X	X	X	X							X			9	
South Africa	ZA						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	17	
Sweden	SE			X													X	X	X		X	X		6	
United Kingdom	GB	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X	X	20
United States	US	X	X	X	X	X	X	X		X	X				X	X	X	X	X	X	X	X	X	X	18

Figure 2. Data contribution from 15 members by year since 1994

On receipt of the ship reports from the contributing members, the GCCs have the responsibilities to verify the proper application of minimum quality control, to assist members having difficulties with data supply or quality checking, and finally to disseminate the combined dataset to the national data centres of contributing members. The information is stored in the Global Information System of WMO and accessible online (<https://gisc.dwd.de/wisportal>).