Country =	Singapore
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a. Programme description:						
Category	No. of ships at 31 Dec 2014	Recruitments in 2014	De-recruitments In 2014	Comments		
Selected	20	0	0			
Selected AWS	0	0	0			
VOSClim	0	0	0			
VOSClim AWS	0	0	0			
Supplementary	0	0	0			
Supplementary AWS	0	0	0			
Auxiliary	0	0	0			
Auxiliary AWS	0	0	0			
Other	0	0	0			
National VOS Total	20					

National VOS Target	25
National VOSClim Target	0

b. Data management:				
Total number of ship observations (BBXX) distributed on the GTS in 2014	Data No Available			
Dates when VOS data submitted to the GCCs in 2014	0			

C.	Shipboard Automatic Weather System						
	Туре	No. of ships at 31 Dec 2014	Manual Input Yes / No	Method of Comms	Year1 Plans		
Nil							

d. Electronic logbooks: (Tu	I. Electronic logbooks: (TurboWin, SEAS, OBSJMA)				
Software & version	No. of ships at 31 Dec 2014	Implementation plans			
TurboWin V4.0	7				

Eminus A Time / Element	Manual Instrumentation	AVAIC In admission and adding
Equipment Type / Element	Manual Instrumentation	AWS Instrumentation
Barometer	Barigo model 585 barometer	NA
Default national setting	Mean Sea Level	
Barograph	SATO Sigma-II No 7237 barograph	NA
Default national setting	Mean Sea Level	
Thermometers	From ship's owner	NA
Sea Surface Temperature	From ship's owner	NA
Wind Speed	From ship's owner	NA
Wind Direction	From ship's owner	NA

f. PMO ship visit activities: (if a visit is for dual purposes, include all purposes)				
Activity	Manual Ship	AWS Ship	Comment	
Routine VOS inspections	4	0	Many ships have change their shipping route and temporary not calling Singapore port.	
VOS recruitment visits	0	0		
VOS de-recruitment visits	0	0		
VOS courtesy or foreign visits	12	0	At the request of the Master or fellow PMOs	
Total visits to VOS	1	6		
Routine ASAP inspections	0			
ASAP recruitment visits	0			
ASAP de-recruitment visits	0			
ASAP courtesy visits	0			
Total visits to ASAP	0			
Routine SOOP visits	0			
SOOP recruitment visits	0			
SOOP de-recruitment visits	0			
SOOP courtesy visits	0			
Total visits to SOOP	0			
Visits in support of DBCP (drifting buoys)	0			
Visits in support of Argo (profiling floats)	0			

Total visits to other programs	0	
Total visits by national PMOs	16	Sum of all ship visits (VOS + ASAP + SOOP) + visits to other program (DBCP + Argo)

g. Major challenges and difficulties:

h Research / develonment / testing

The major challenges will be to convince the shipping company or Ship captain to enrol their ships into the VOS program. I spoke with a few captains and some crew and most common comment is that although the ship is getting bigger but at the same time the crew is also getting lesser which means that everymen onboard will have to share more work load. Thus, doing voluntary work will be at a lower priority.

Recoulent, development, testing.	
NIL	
i. Other comments	
NIL	