

VOS Report for 2014

Country = 

a. Programme description:				
Category	No. of ships at 31 Dec 2014	Recruitments in 2014	De-recruitments In 2014	Comments
<i>Selected</i>				
<i>Selected AWS</i>				
<i>VOSclim</i>	19	2	1	I-RAWS installed in Chartered ship is decommissioned
<i>VOSclim AWS</i>				
<i>Supplementary</i>				
<i>Supplementary AWS</i>				
<i>Auxiliary</i>				
<i>Auxiliary AWS</i>				
<i>Real-time ship mounted wave height meter</i>	1			
<b>National VOS Total</b>	20			

<b>National VOS Target</b>	Nil
<b>National VOSclim Target</b>	100

b. Data management:	
<i>Total number of ship observations (BBXX) distributed on the GTS in 2014</i>	36000
<i>Dates when VOS data submitted to the GCCs in 2014</i>	-----



e. Standard Meteorological Equipment: (Types and Settings)		
Equipment Type / Element	Manual Instrumentation	AWS Instrumentation
Barometer		Setra –Barometer 270
	<i>Default national setting</i>	<i>Station Level or Mean Sea Level</i>
Barograph		
	<i>Default national setting</i>	<i>Station Level or Mean Sea Level</i>
Thermometers		
Sea Surface Temperature		Wetlab FLNTUS- Ecco
Wind Speed		Gill –Ultrasonic
Wind Direction		Gill –Ultrasonic

f. PMO ship visit activities: (if a visit is for dual purposes, include all purposes)			
Activity	Manual Ship	AWS Ship	Comment
Routine VOS inspections	Nil	60	Maintenance visits
VOS recruitment visits	Nil	40	Breakdown visits
VOS de-recruitment visits	Nil	3	Decommission visits
VOS courtesy or foreign visits	Nil	Nil	
<i>Total visits to VOS</i>	103		
Routine ASAP inspections	Nil		
ASAP recruitment visits	Nil		
ASAP de-recruitment visits	Nil		
ASAP courtesy visits	Nil		
<i>Total visits to ASAP</i>			
Routine SOOP visits			
SOOP recruitment visits	---		
SOOP de-recruitment visits	----		
SOOP courtesy visits	---		
<i>Total visits to SOOP</i>			
Visits in support of DBCP (drifting buoys)			
Visits in support of Argo (profiling floats)			

<i>Total visits to other programs</i>			
<b>Total visits by national PMOs</b>		<i>Sum of all ship visits (VOS + ASAP + SOOP) + visits to other program (DBCP + Argo)</i>	

**g. Major challenges and difficulties:**

Integrating the instruments with Indian satellite (INSAT)  
 Convening the shipping companies for installations  
 Utilization of the data for ocean services

**h. Research / development / testing:**

Published the results in high impact factor Journals such as JAOT, Ocean Engineering, IEEE (JSTARS)

**i. Other comments**

Improving ship based real time wave measuring systems are must for the ocean forecast services