VOS Report for 2012 United States of America

a. Programme description	a. Programme description:						
Category	No. of ships at 31 Dec 2012	Recruitments in 2012	De-recruitments In 2012	Comments			
Selected	273	13	74				
Selected AWS	23	1	1				
VOSClim	1	1	1				
VOSClim AWS	0	0	0				
Supplementary	460	58	93				
Supplementary AWS	3	1	0				
Auxiliary	130	42	145				
Auxiliary AWS	0	1	1				
Other	9	7	56				
National VOS Total	899						

National VOS Target	900
National VOSClim Target	50

b. Data management:			
Total number of ship observations (BBXX) distributed on the GTS in 2012	457534		
Frequency of VOS data submitted to the GCC in 2012	Quarterly		

c. Shipboard Automatic Weather System							
Туре	No. of ships at 31 Dec 2012	Manual Input Yes / No	Method of Comms	2013 Planned installations			
NOAA SCS (Science Computing System) (developed by Alaska Region)	3	No	VSAT EMAIL	Converting these to SEAS for augment capability			
NOAA SCS (Science Computing System) via SEAS E- Logbook	12	Yes	VSAT EMAIL				
Non NOAA (developed by Alaska Region)	7	No	EMAIL				
Ship Developed and implemented system	6	Yes	EMAIL	5 more ships on the Great Lakes currently being outfitted			
	27						

d.	Electronic logbooks: (TurboWin, SEAS, OBSJMA)				
	Software & version	No. of ships at 31 Dec 2012	Implementation plans		
	AmverSEAS 8.0	792	Once SEAS 9.0 is complete, plan to upgrade as many ships as possible.		
An	nverSEAS versions earlier than 8.0	57			
	Turbowin 4.5 or later	30			

e. Major challenges and difficulties:

-Recruiting ships into VOSCLIM. We continue to encourage PMOs to recruit ships. Some PMO concerns include:

Feeling as if we are asking too much of the crew.

Unfamiliar with Turbowin (still the only software available that meets VOSCLIM requirements Insistent the US VOS equipment is not good enough for a VOSClim ship, despite JCOMM requirements.

- -Trying to affect change in the quality of the data has been an obstacle, however we continue to work with the ships and PMOs to acquire the best quality data possible.
- -Properly indentifying ships categories (Select, supplementary auxillary etc)
- -Keeping ships engaged and participating after crew changes
- -Transition to BUFR
- -Populating IVOS ship records with Pub47 metadata
- -Email for weather observations: there seems to be a time delay issue with emailed observations. Reasons are, the time on the ships servers are bad, delay in actual time of delivery due to band width restrictions, connectivity. Email observations will be sent in HTML rather than plain text and they cannot be read.
- -Bulletins/ Collectives for ship observations: It was found that we have ship observations coming over a bulletin SMVX90 KWBC, which is only for regional use. In the process of investigating why this bulletin holds ships BBXX messages, (all BBXX's should be sent global), VOS management discovered that not only are there BBXX messages being distributed on a regional bulletin, but apparently there are 38 different headers that *may* contain ship data that are not being ingested properly or at all. Also, the one bulletin that was identified that should contain most ship observation, SMX01 KWBC, had none. In addition, it was brought to our attention that the U.S. collective process was not following the WMO standard. A trouble ticket has been submitted on this issue and corrective action (fix) is in progress. This is why our numbers and MeteoFrance numbers do not match. Also, VOS management strongly believes this is why U.S. Coastal Forecast offices AWIPS terminals are not able to populate their terminals with ship observations. This has been a major hurdle for many years.

f. Research / development / testing:

New SEAS version 9.0 is complete. IMMT IV compliant however its "sister application" AMVER still requires more work and testing. SEAS 9.0 will not be released without AMVER. New features include:

- -IMMT IV
- -ability to document and send Pub 47 metadata
- -Easier and more user friendly email feature
- SEAS AutoIMET testing to date has been unsuccessful.

g. Other comments:

Code 41: If code 41 is discontinued, we feel that there will be a huge gap in data being received. On an average month we receive well over 400 messages via code 41. For January 2013 as an example, (most of these are U.S. VOS ships) but there is a significant amount from Germany (148) and the UK (64). Other countries use of code 41 was small but is evident that it is relied upon for BBXX transmissions. In addition, noting the problems that have been seen with the internet and email (noted above in major challenges and difficulties) we think that code 41 is a more cost effective way of receiving messages when you note the many undelivered messages due to email issues. Until the email issues are remedied, we believe that code 41 should continue as a mainstream way for ships to transmit observations.

Continuing to pursue smaller better and more accurate reporting ships.

Starting to recruit Pacific Island ships into the Drifter Donation Program (Derek Leeloy)

There has been an improvement in collection of Pub 47 metadata