

International Buoy Programme for the Indian Ocean
~ an Action Group of the Data Buoy Cooperation Panel ~



Report of the IBPIO

2010/11 Intersessional Period

Presented to DBCP-XXVI

26 – 30 September, Geneva, Switzerland

Graeme Ball
Chairman IBPIO

with contributions from Jean Rolland



Objective of the IBPIO

- To establish and maintain a network of platforms in the Indian Ocean to provide meteorological & oceanographic data for both real-time operational requirements and research purposes, including support for:
 - » the World Weather Watch Programme (WWW);
 - » the Global Climate Observing System (GCOS);
 - » the World Climate Research Programme (WCRP);
 - » the Global Ocean Observing System (GOOS);
 - » tropical cyclone forecasts and monitoring; and
 - » the research activities of participating institutions.

Outline

- Programme Committee
- Program Review & Plans
- Drifting Buoy Network Status
- Drifting Buoy Performance Monitoring
- Moored Buoy Networks
- Recommendations to DBCP



Programme Committee

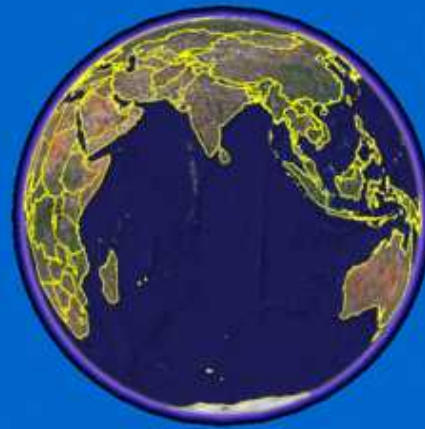


IBPIO Programme Meetings

SESSION	DATE	LOCATION
IBPIO-1	Sept 1996	St Denis, La Reunion.
IBPIO-2	July 1997	Perth, Australia.
IBPIO-3	July 1998	Kuala Lumpur, Malaysia.
IBPIO-4	July 1999	Cape Town, South Africa.
IBPIO-5	Oct 2001	Perth, Australia (with DBCP-17).
IBPIO-6	July 2002	Cape Town, South Africa (with ISABP-IX).
IBPIO-7	Oct 2004	Chennai, India (with DBCP-20).
IBPIO-8	Oct 2005	Buenos Aires, Argentina (with DBCP-21).
IBPIO-9	Oct 2006	La Jolla, USA (with DBCP-22).
IBPIO-10	Oct 2007	Jeju, Republic of Korea (with DBCP-23).
IBPIO-11	Oct 2008	Cape Town, Republic of South Africa (with DBCP-24)
IBPIO-12	Sept 2009	Paris, France (with DBCP-25)
IBPIO-13	Sept 2010	Oban, Scotland (with DBCP-26)
IBPIO-14	Sept 2011	Geneva, Switzerland (with DBCP-27)

IBPIO Programme Committee

Chairman	Graeme Ball	Australian Bureau of Meteorology
Vice Chairman	Shaun Dolk	Global Drifter Center, NOAA/AOML, USA
Programme Coordinator	Jean Rolland	Météo France
Members	Johan Stander	South African Weather Service
	Mayra Pazos	Global Drifter Center, NOAA/AOML, USA
	R. Venkatesan	National Institute of Ocean Technology, India
	Fialho Nehama	Eduardo Mondlane University, Mozambique
	Paul Freitag	Tropical Moored Buoy Implementation Panel
	Vitalis Ahago	Kenya Meteorological Department
	M. Ravichandran	Indian National Centre for Ocean Information Services



Programme Review & Plans



Programme Review

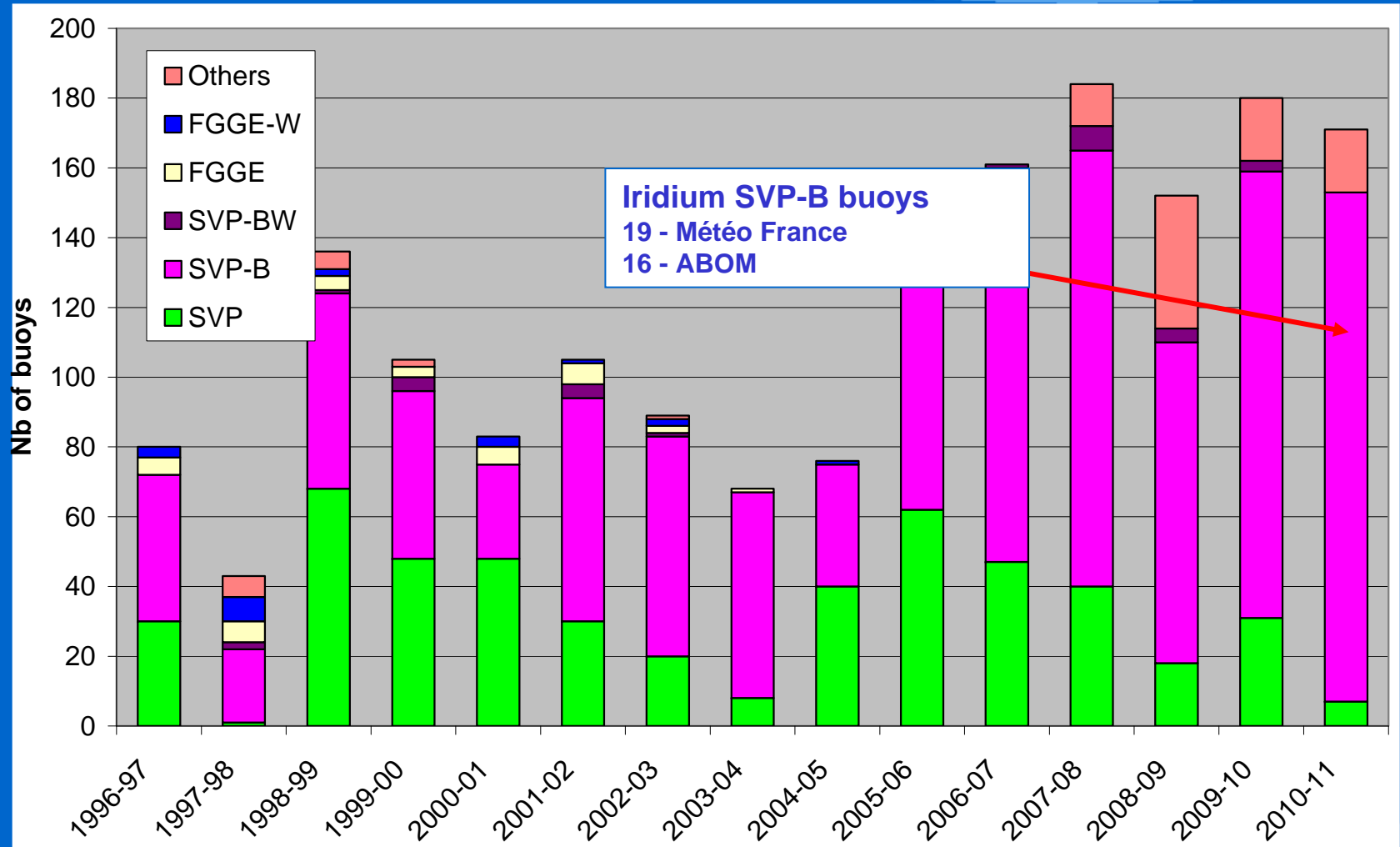
IBPIO CONSOLIDATED BUOY DEPLOYMENT PLAN - 2010/11

AGENCY	OWN PROGRAM					FOR GDP			TOTAL
	Moored	Other	SVP	SVP-B	SVP-BW	UPG	SVP	SVP-B	
GDC	0	0	40	75	0				115
ABOM	0	0	0	20	0	8	0	20	48
MF	0	0	0	0	0	43	0	0	43
NAVO	0	0	0	0	0	0	0	0	0
NIO	0	0	0	25	0	0	0	0	25
NIOT	11	0	0	0	0	0	0	0	11
SAWS	0	0	0	0	0	20	0	0	20
EMU	0	0	0	0	0	0	0	0	0
KMD	0	0	0	0	0	0	0	0	0
TIP	40	0	0	0	0	0	0	0	40
INCOIS	0	0	0	0	0	0	0	0	0
TOTAL	51	0	40	120	0	71	0	20	302

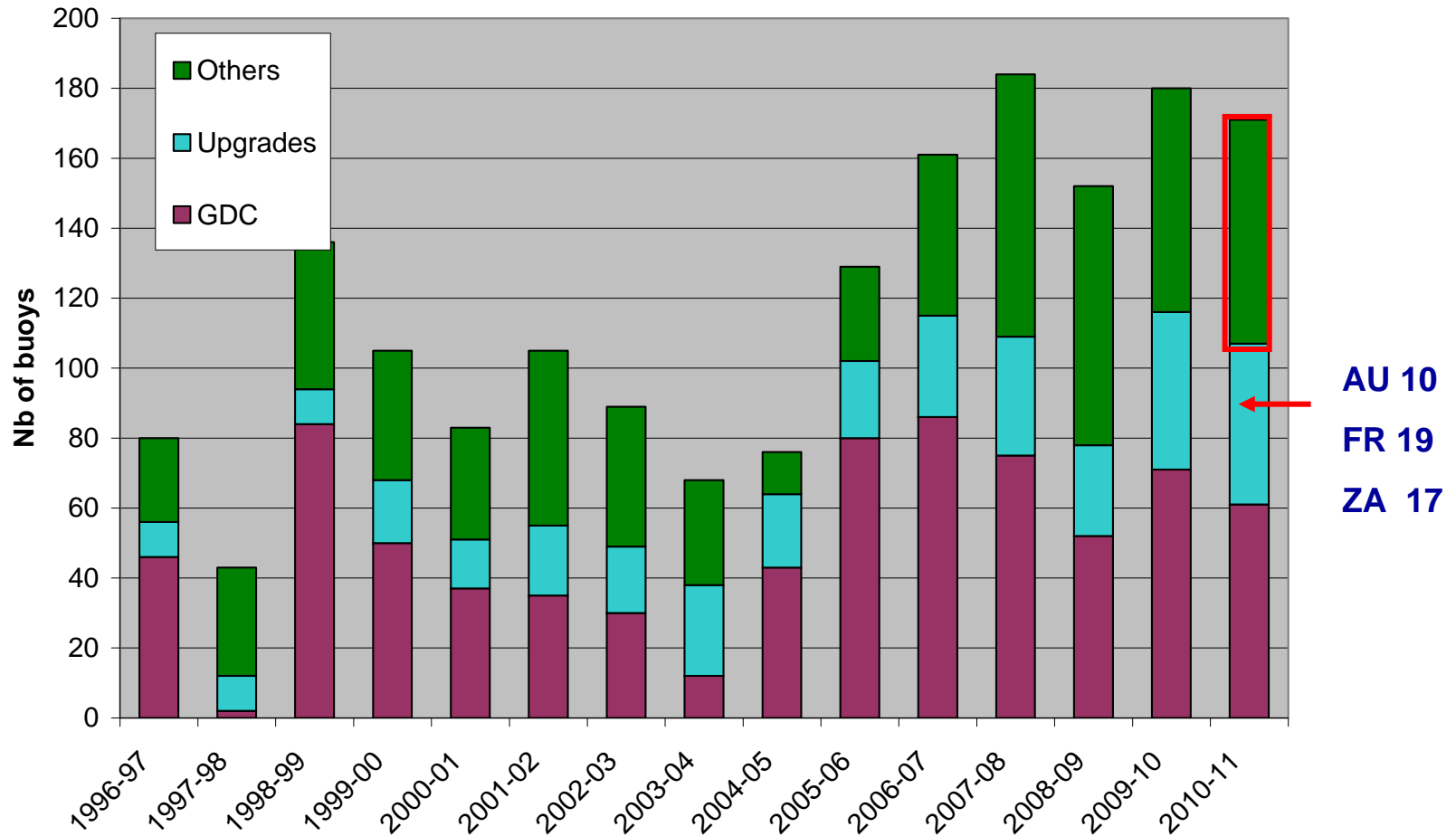
SUMMARY	
Moored	51
Other	0
SVP	40
SVP-B	211
SVP-BW	0

302

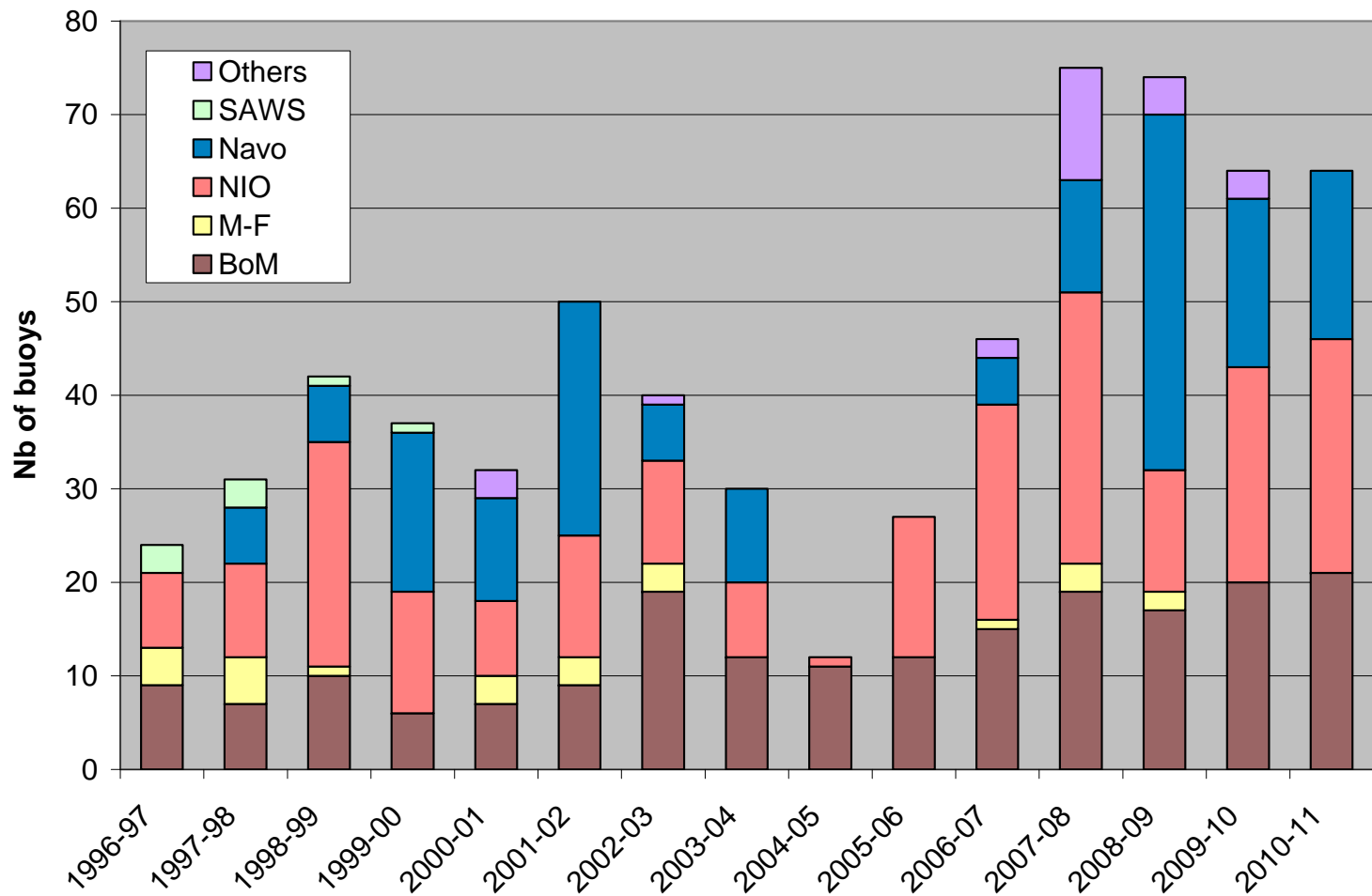
Drifting Buoy Deployments by Type



Drifting Buoy Contributions to IBPIO



Drifting Buoy Contributions by Others



Programme Plans

IBPIO CONSOLIDATED BUOY DEPLOYMENT PLAN - 2011/2012

AGENCY	OWN PROGRAM					FOR GDP			TOTAL
	Moored	Other	SVP	SVP-B	SVP-BW	UPG	SVP	SVP-B	
GDC	0	0	30	75	0				105
ABOM	0	0	0	20	0	8	0	20	48
MF	0	0	0	0	0	40	0	0	40
NAVO	0	0	0	0	0	0	0	0	0
NIO	0	0	0	30	0	0	0	0	30
NIOT	12	0	0	0	0	0	0	20	32
SAWS	1	0	0	0	0	0	0	0	1
EMU	0	0	0	0	0	0	0	0	0
KMD	0	0	0	0	0	0	0	0	0
TIP	34	0	0	0	0	0	0	0	34
INCOIS	0	0	0	0	0	0	0	0	0
MMD	0	0	0	0	0	0	0	0	0
TOTAL	47	0	30	125	0	48	0	40	290

SUMMARY	
Moored	47
Other	0
SVP	30
SVP-B	213
SVP-BW	0

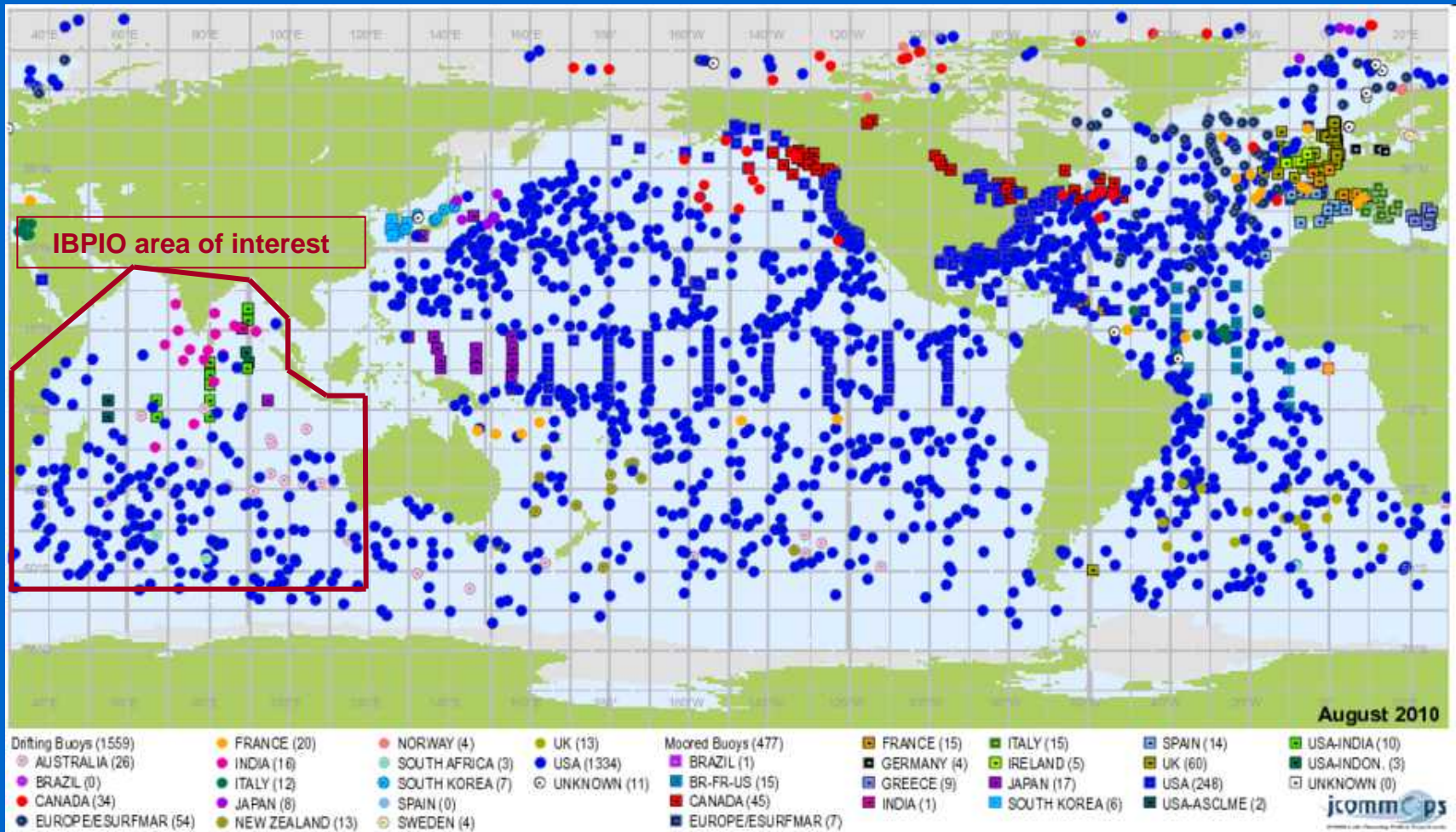
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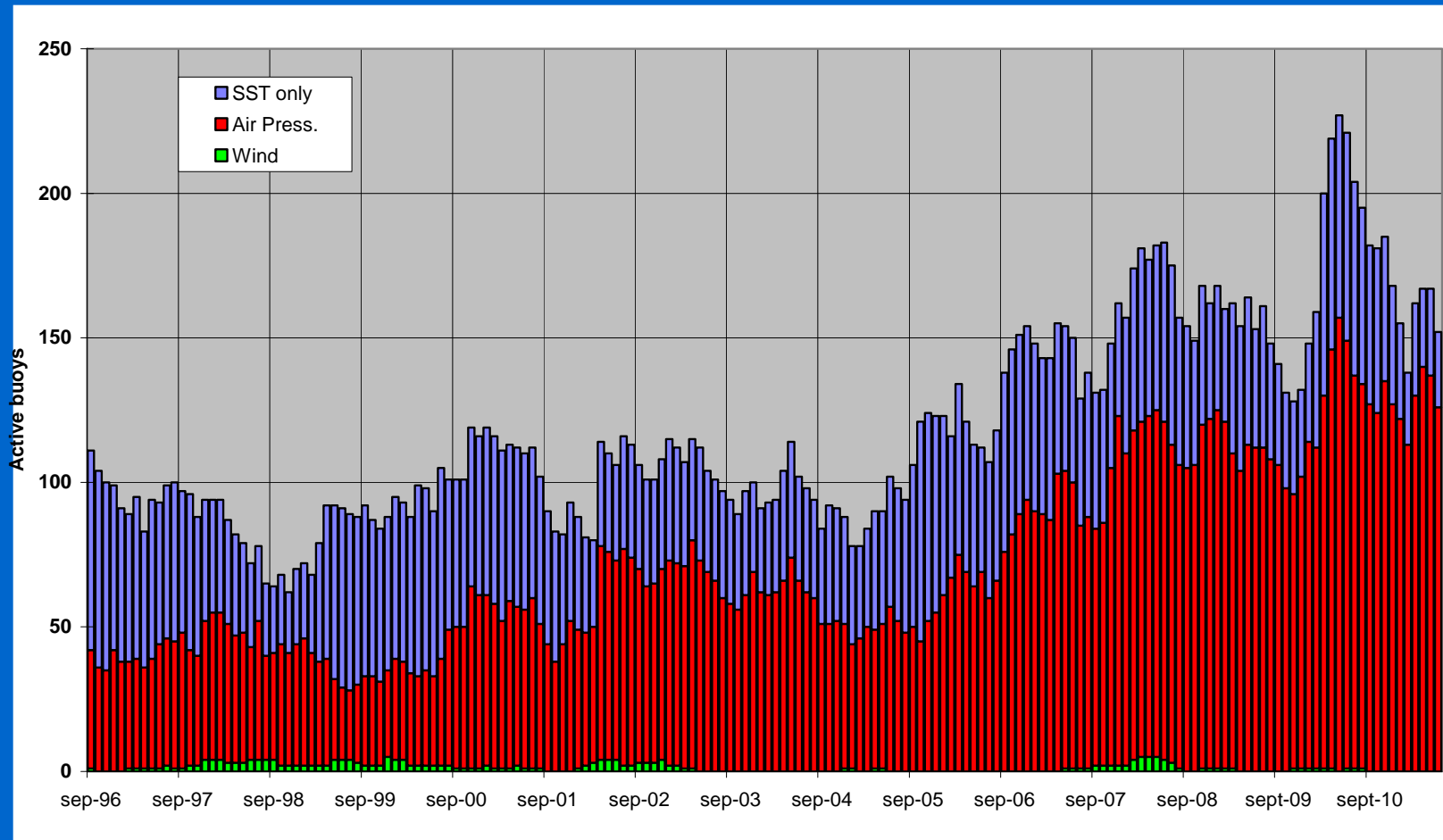
Network Status



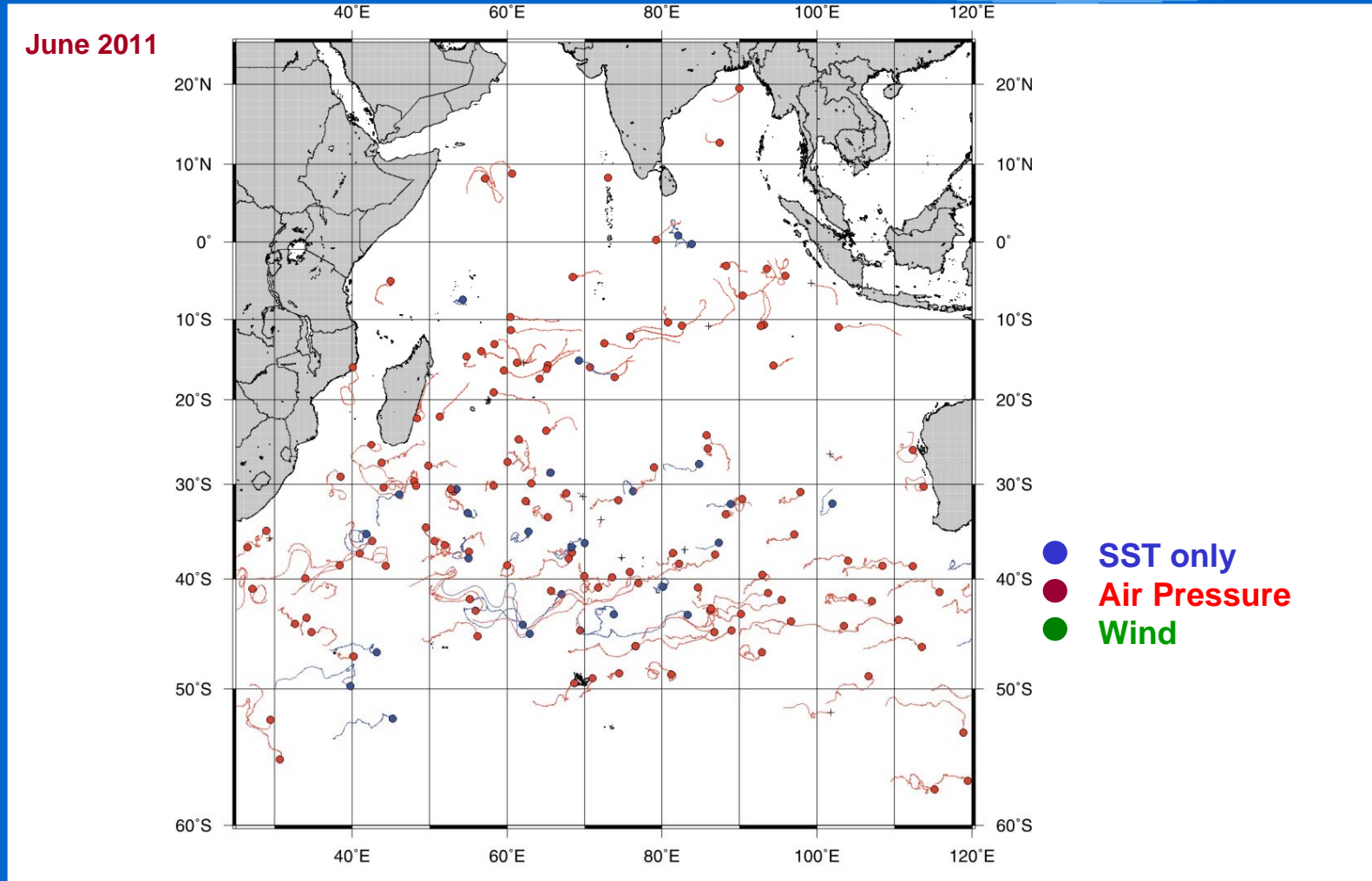
Global Buoy Network



Drifting Buoy Network



Drifting Buoy Trajectories

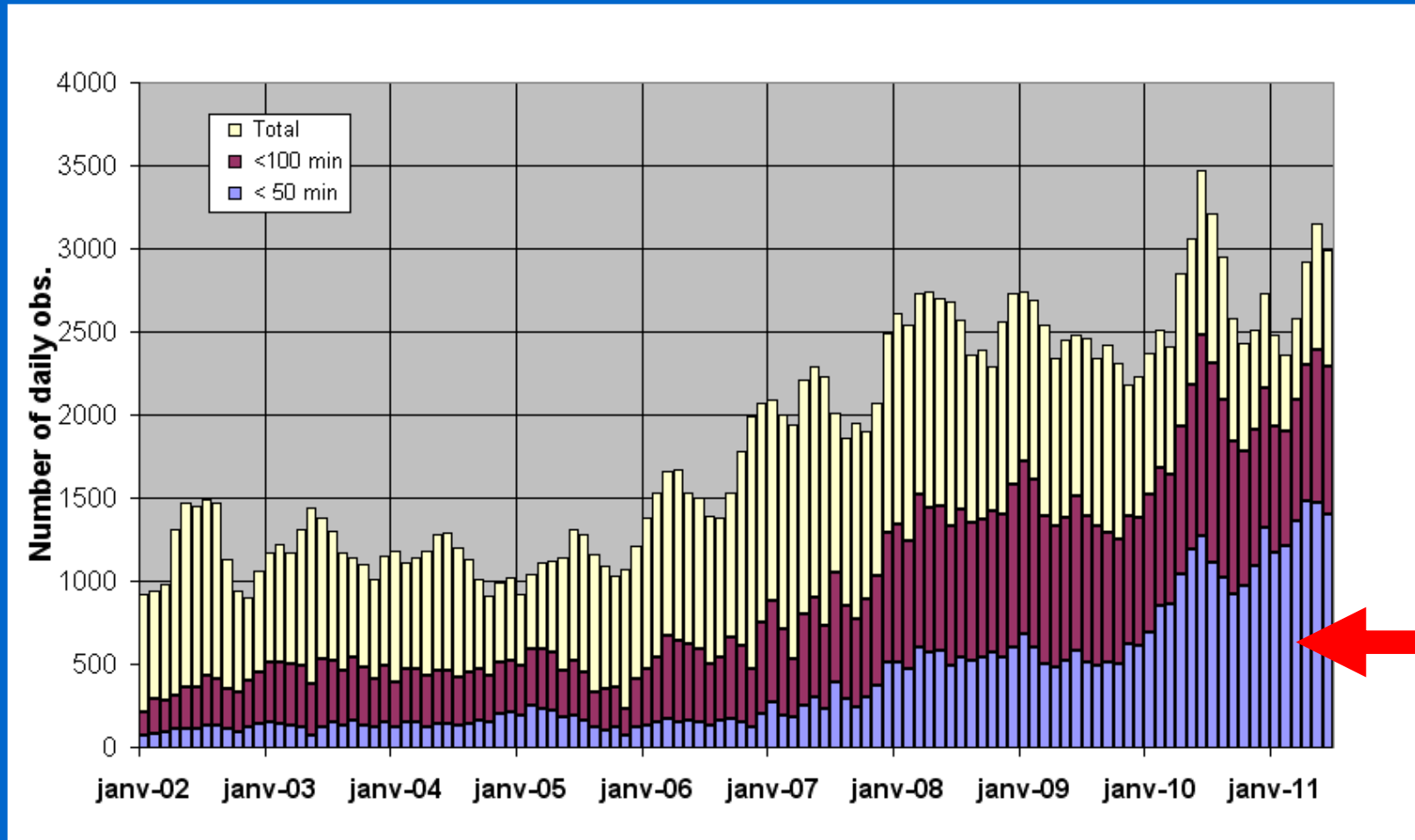




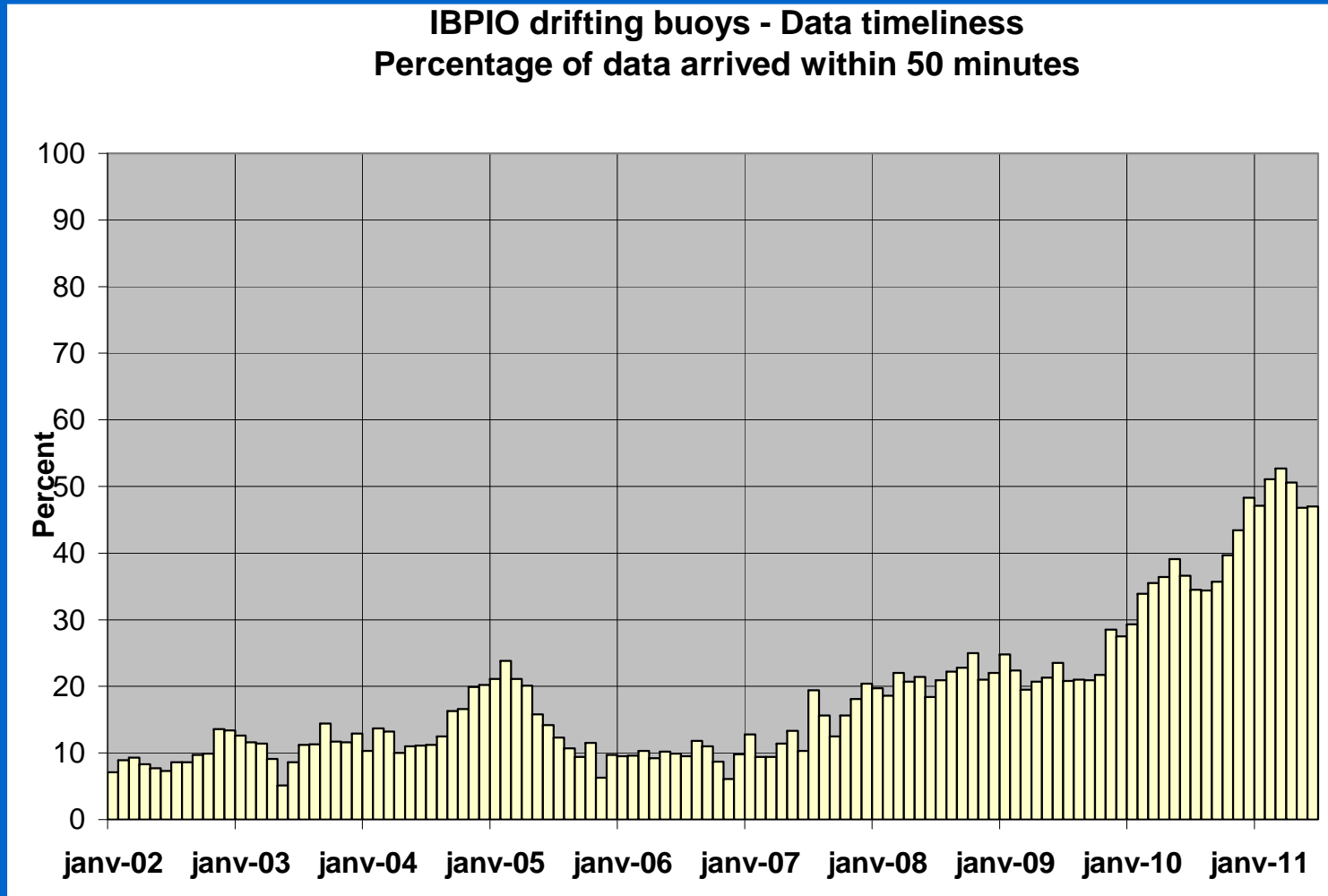
Performance Monitoring



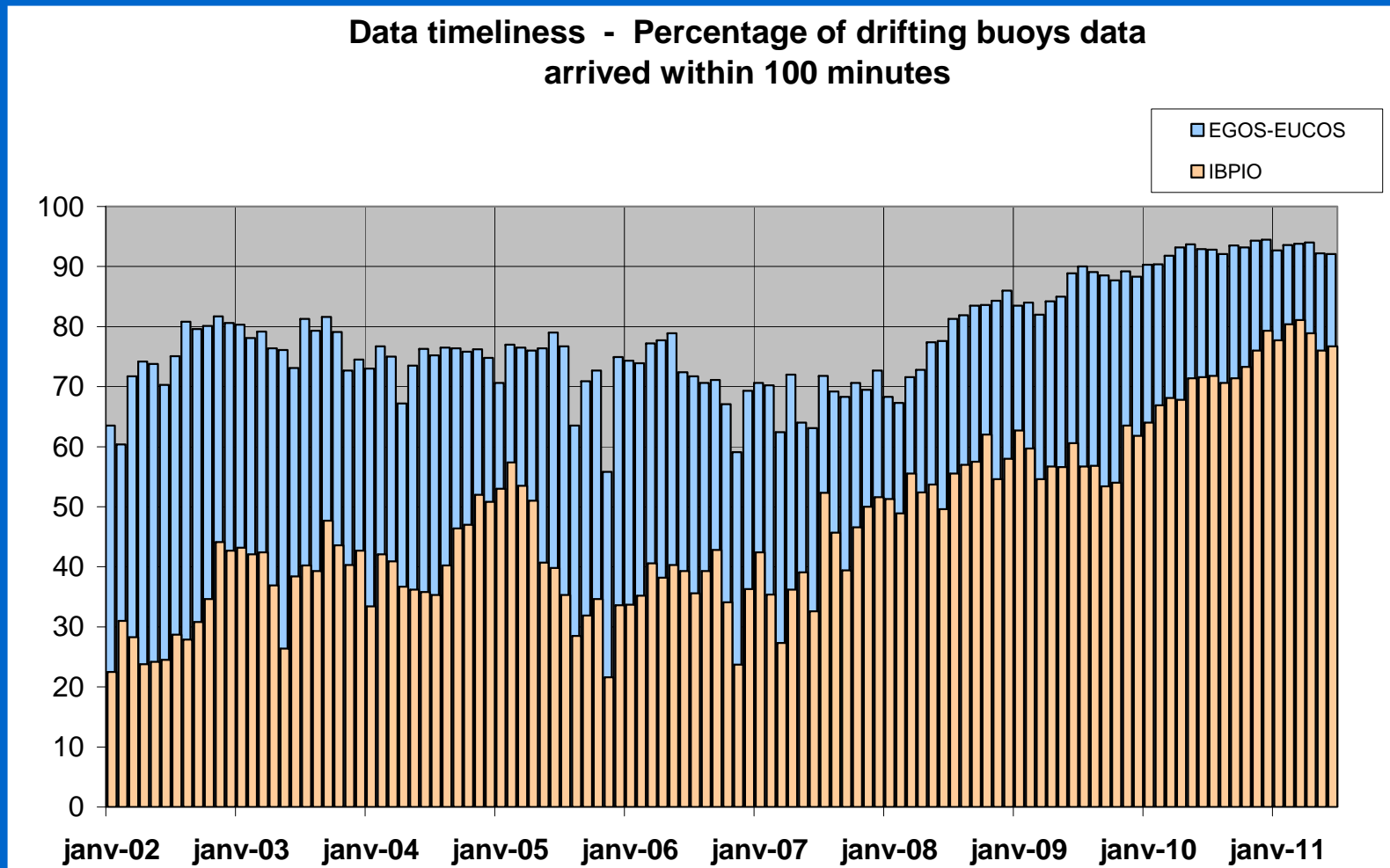
Data Availability – Drifting Buoys



Data Timeliness – Drifting Buoys

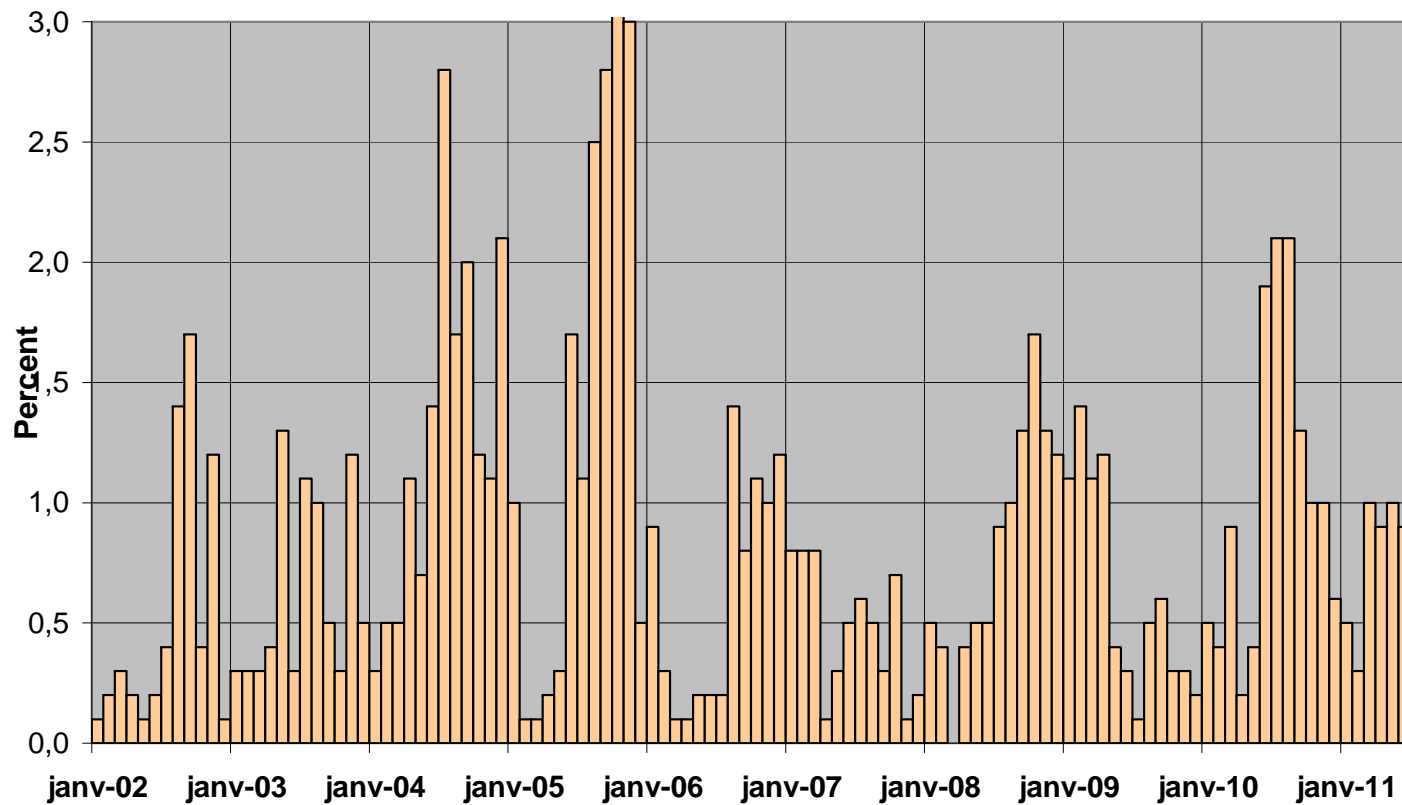


Data Timeliness Comparison – Drifting Buoys



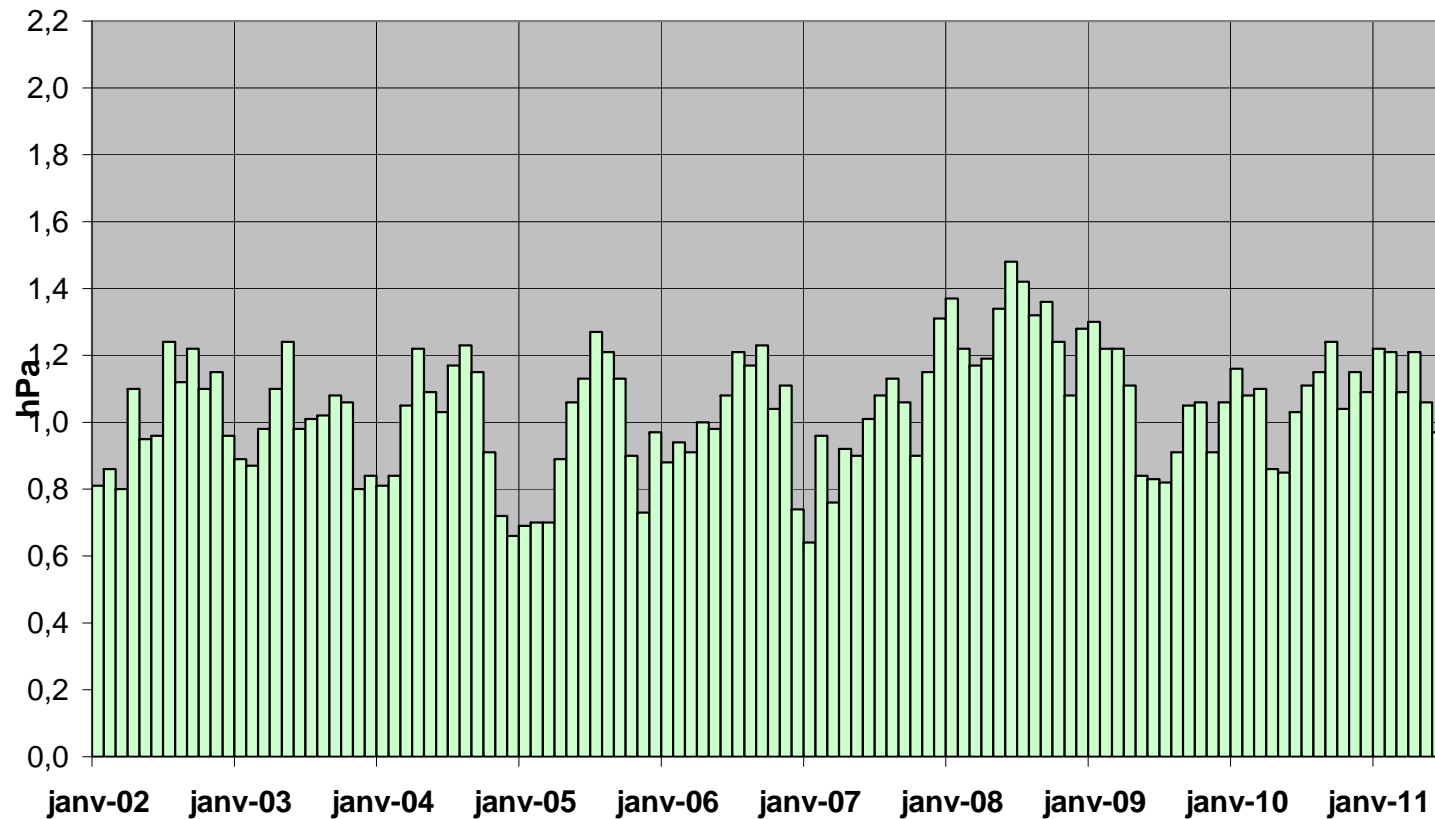
Gross Errors – Drifting Buoys

IBPIO drifting buoys - Data quality
Gross Errors of differences with the French model outputs



MSLP RMS Errors – Drifting Buoys

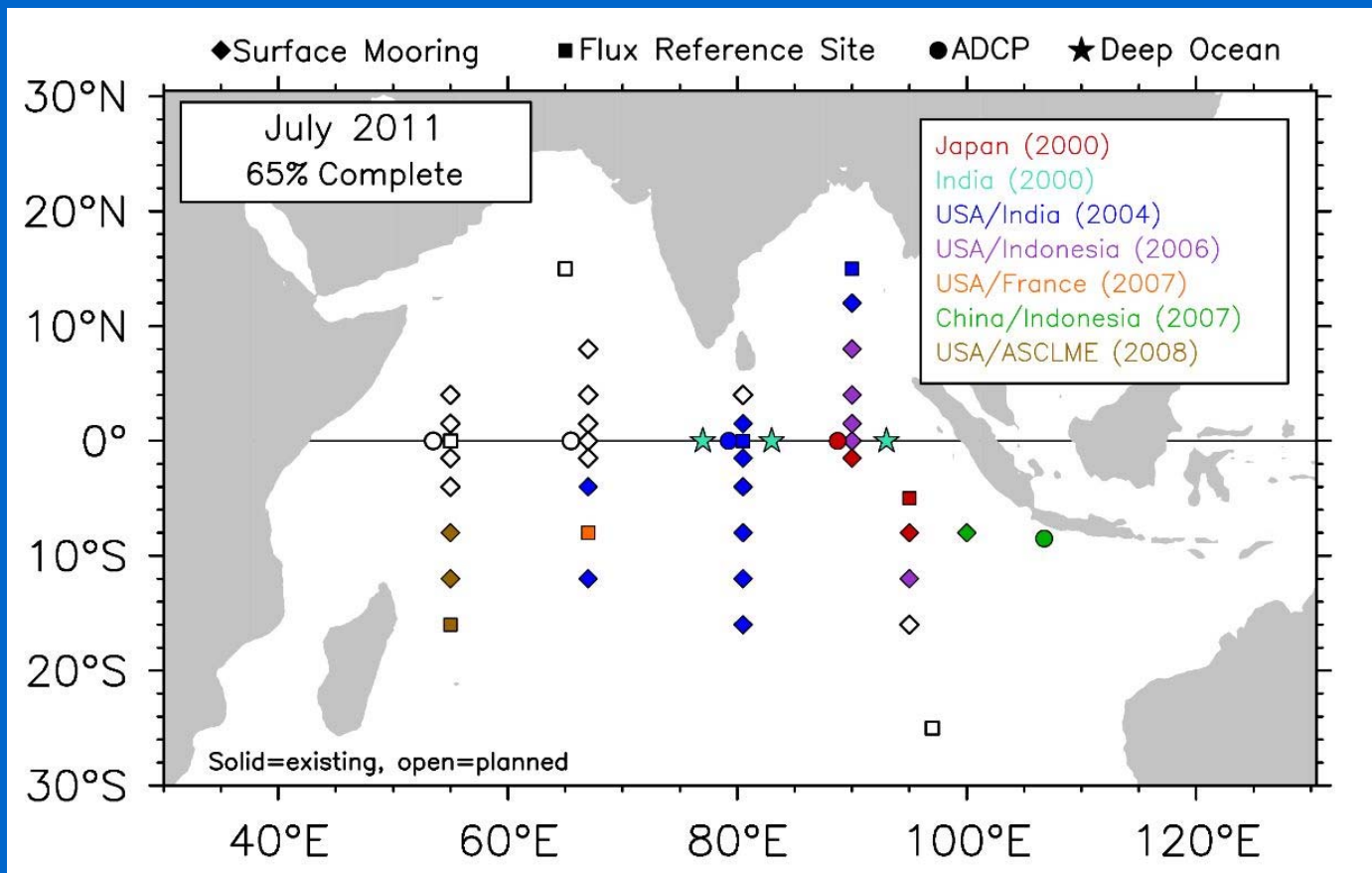
IBPIO drifting buoys - Data quality
RMS of differences with the French model outputs



NIOT Moored Buoy Network



RAMA Array



Recommendations

- Noting the gaps in ocean observations in the WIO, and with reference to the Nairobi Ministerial Declaration at the first African Ministerial Conference on Meteorology (AMCOMET) held in Nairobi, Kenya on 15 and 16 April 2010;

the IBPIO requests WMO to request all African countries to provide their plans to the various Action Groups of the DBCP with specific reference to buoy deployments in the Indian and Atlantic Ocean, and including all logistical arrangements.

