4^{th} Meeting of the IHO TIDES, WATER LEVEL AND CURRENTS Working Group (TWCWG4) $\,$ And

XVI^{th} Meeting of the IOC GLOBAL SEA LEVEL OBSERVING SYSTEM GROUP OF EXPERTS (GLOSS-GE XVI)

Busan, Korea, 8-13 April 2019

	Monday - 8 April – TWCWG4			
Time	Agenda	Event/Topic	Lead	Remarks
0800	U	Registration	KHOA	
0900	1	Opening	-	
0,00	1.1	Opening address (Mme Gwenaële Jan)	Chair	
	1.2	Welcome remarks (Director Huh Yong (KHOA))	KHOA	
	1.3	IHO comments (Mr David Wyatt)	IHO	
0930	2	Administrative Arrangements		
	2.1	Adoption of the Agenda	Chair/Sec	
	2.2	Conduct of Sessions	Chair/Sec Chair/Sec	
	2.3	Meeting administration	KHOA	
	2.4	Report of Intersessional Activities	Chair	
	2.5	Matters arising from TWCW3/Review of Action	Sec	
		Items	560	
1015		Tea/coffee break		
1045	3	Product Specification Presentations		
	3.1	Progress update brief: S-104	AUS	
	3.2	Progress update brief: S-111	USA/CAN	
	3.3	S-111 test data	JPN	
1117	3.4	Coast Pilot/textual information with the S-111 data	UNH	
1145		Official TWCWG4 photograph	KHOA	
1200		Lunch break		
1330	3	Product Specification Presentations	ATIO	
	3.1	Progress update brief: S-104	AUS	
	3.2	Progress update brief: Recent Progress in the S-111	USA	
	3.3	Product Specification and Data' S-111 test data	JPN	
	3.4	Coast Pilot/textual information with the S-111 data	UNH	
1415	4	Product Specification Work Packages	UNII	
1413	4.1	Progress report on current datasets (S-111)	USA/CAN	
	4.2	Progress report on water level information (S-104)	AUS	Objectives for the
	4.3	Feedback from first encoding tests (with different	USA/AUS/DEU/	meeting
		data sets)	FRA/JPN/NLD	Status on S-1XX
	4.4	Application of encoding tool(s) to additional	CAN/USA	Progress, problems,
		datasets		open discussion
	4.5	Engagement with S-100WG	Chair	
1500		Tea/coffee break		
1530	4	Product Specification Work Packages (cont.)		
	4.1	Progress report on current datasets (S-111)	USA/CAN	Objectives for the
	4.2	Progress report on water level information (S-104)	AUS	meeting
	4.3	Feedback from first encoding tests (with different	USA/AUS/DEU/	Status on S-1XX
		data sets)	FRA/JPN/NLD	Progress, problems,
	4.4	Application of encoding tool(s) to additional	CAN/USA	open discussion
	4.5	datasets	G1 :	1
1700	4.5	Engagement with S-100WG	Chair	
1700		Close Diagon at Shills Stoy	MIO	
1900	<u> </u>	Dinner at Shilla Stay	KHOA	
TD'		Tuesday - 9 April – TWCW		D 1
Time	Agenda	Event/Topic	Lead	Remarks
0900	4	Product Specification Work Packages (cont.)	110 4 / 5 4 3 4	Objectives for the
	4.1	Progress report on current datasets (S-111)	USA/CAN	meeting
	4.2	Feedback from first encoding tests (with different	USA/AUS/DEU/	Status on S-1XX
	1.2	data sets)	FRA/JPN/NLD	Progress, problems,
	4.3	Application of encoding tool(s) to additional	CAN/USA	open discussion
		datasets	1	<u> </u>

1000		4.4	Engagement with S-100WG	Chair	
1100			Engagement with 5 100 W G	Chun	
1100					
1100	1030		Tea/coffee break		
S.1 Standard Constituent List USA		5			
S.2 Sundard for Digital Tick Tables USA	1100			CPP	
S.3 Compare Tidal Predictions					
1200					
1330 5	1200	3.3		USA	
S.1 Standard Constituent List S.2 Standard for Digital Tide Tables U.S.A		-			
S.2 Standard for Digital Tide Tables USA	1330			CDD	
S.3				_	
1530					
1530	1500	5.3		USA	
S.4		_			
S.5	1530			GD D G 10	
1630					
1530 Close					
Close					
New Indicators New Indicators New Indicators New Indicators		5.7		IHO	
Time	1630				
1000			Wednesday - 10 April – TWC	CWG4	
S	Time	Agenda	Event/Topic	Lead	Remarks
5.4 Exchange of Harmonic constants/predictions GBR/USA GBR/NLD	0900	5	*		
5.5 Establishment and Maintenance of VRF GBR/NLD FIN		5.4		GBR/USA	
Change		5.5		GBR/NLD	
Change					
1030				·	
5.8		5.7		IHO	
Tea/coffee break					
6	1030				
Column C		6			
1200 Lunch Review of relevant IHO Charting Specifications IHO				IHO	
Lunch Review draft TWCWG Work Plan Chair/IHO Review of Action Items from TWCWG3 Chair/IHO Chair/IHO Chair/IHO Chair/IHO Chair/IHO Chair Chair/IHO Chair Chai					
Review draft TWCWG Work Plan Review of Action Items from TWCWG3 Chair/IHO Chair Chair	1200				
Review of Action Items from TWCWG3 Venue and dates for 5th TWCWG meeting Closing Remarks Technical visit (KHOA and Busan Tidal Station) Time Agenda Event/Topic Lead Remarks 0830				Chair/IHO	
Venue and dates for 5th TWCWG meeting Chair/IHO Chair	1330				
Closing Remarks Chair					
Time Agenda Event/Topic Lead Remarks National Project presentations Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Secretary Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Secretary Stope Installing GNSS sensors at water level chad at tidal observations Secretary Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations (topic tbd) Stope Installing GNSS sensors at water level stations and tying ellipsoidal beservations (topic tbd) Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentations Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal project presentation Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Stope Installing GNSS sensors at water level stations and tying ellipsoidal elevations to tidal datums Stope Installing GNSS sensors at water level stations Stope Installing GNSS sensors at water level stations Stope Installing GN					
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1.2	0830	-			
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3.5 Hammarklint	1330		National Project presentations		
		3.5		Hammarklint	

		Daldia Care Chart Data and 2000	T	10
		Baltic Sea Chart Datum 2000 – a common		10 minutes per
		reference level for nautical charts and sea level		presentation
	2.6	information in the Baltic Sea	P 11	
	3.6	Common reference frame for Norway – ocean	Ravndal	
	2.7	topography in a long fjord	M	
	3.7	Shipbourne GNSS – geoid model validation in the	Mononen	
	2 8	Bay of Bothnia		
1 / 1 / 5	3.8	Consolite Pelling/Docale mont		
1415	4	Capacity Building/Development	Farms /Larra arres1	
	4.1	IHO Tides, Water Levels and Currents Workshop training material	Farre/Jayaswal	
		Opportunities for coordination and cooperation in		
	4.2	delivery	Chairs/All	
	7.2	derivery	Chans/An	
1500		Tea/coffee break		
1530	5	Historical data recovery/data archaeology	Chairs/Donato	
1630	6	Consideration for further Joint meetings	Chairs/All	
	7	Review of Actions	Secretary	
	8	Closing remarks	Chairs	
1700		Close	2	
1900		Dinner at Shilla Stay	KHOA	
		Friday - 12 April – GLOSS-G		
Time	Agenda	Event/Topic	Lead	Remarks
0900	1	Organization of the session	Mitchum/Aarup	Kemarko
0900	1.1	Opening of the session:	winenum/Aarup	
	1.1	Opening of the session: Opening speech - Director Kim june-sik (KHOA)		
		Welcome address - Kang Hyun-ju (KOC)		
	1.2	Practical arrangements		
	1.3	Adoption of the agenda		
	2	Update of GLOSS implementation plan	Mitchum	
1015		Official GLOSS-GE XVI photograph	KHOA	
1030		Tea/coffee break		
1100	3	Review of progress on actions from GE-XV	Mitchum/Aarup	
	3.1	GLOSS best practices document	Mitchum	
	3.2	Review of GLOSS manuals incl. QA/QC Manual	Rickards/Perez	
1230		Lunch		
1400	3.3	GLOSS data access	Mitchum	
	3.4	GLOSS metadata	Mitchum	
	4	Status of GLOSS networks	Matthews	
1530		Tea/coffee break		
1600	5	GLOSS data access and status reporting	Thompson	
	5.1	Unified access of sea level data	Thompson/Rickards	
	5.2	Station metadata	Mitchum	
	5.3	Sea level station monitoring facility	Hernandez	
1730		Close		
		Saturday - 13 April – GLOSS-C	jE XVI	
Time	Agenda	Event/Topic	Lead	Remarks
0900	6	GNSS @ TGs	Woppelmann	
	6.1	Review of continuous GPS stations	Woppelmann/Schone	
	6.2	TIGA status	Schone	
1030		Tea/coffee break		
1100	7	National and regional sea level activities –	All	
		presentation of a select set of national/regional		
		reports		
	8	Relationship between GLOSS GE and IAPSO	Mitchum	
		CMSLT		
1230		Lunch		
1400	9	Linkages between GLOSS and other programmes	Mitchum	
		and bodies		
	10	Intersessional actions for GLOSS-GE 2019–2021	Mitchum	
1530		Tea/coffee break		

1600	11	JCOMM Reform	Aarup	
	12	UN Decade of Ocean Science for Sustainable	Aarup	
		Development, 2021-2030	_	
	13	Any other business	Aarap	
	14	Date and place of the next session	Aarup	
	15	Closure	Aarup	
1730		Close		

Notes:

1. UN identification letter codes used for countries.

2. Pass venues for TWLWG - TWLWG1 – Niterói, Brazil

TWLWG2 – Stavanger, Norway

TWLWG3 - Jeju Island, Republic of Korea

TWLWG4 - Fish Hoek, South Africa

TWLWG5 - Helsinki, Finland

TWLWG6 – Wollongong, Australia

TWLWG7 – Silver Spring, MD, USA

Pass venues for SCWG - SCWG1 – Silver Spring, MD, USA

SCWG2 - Québec City, Canada

SCWG3 – Tokyo, Japan

Pass venues for TWCWG - TWCWG1 – Niterói, Brazil

TWCWG2 – Victoria, Canada TWCWG3 – Viña del Mar, Chile

TWCWG4 – Busan, Republic of Korea

Plan to continue to late April/early May timings, subject to external influences, such as need to coordinate with other IHO bodies and host preference.