US HYDRO 2019 TECHNICAL PROGRAM

OPENING CEREMONY

KEYNOTE ADDRESS/HALL OF FAME INDUCTION

https://vimeo.com/325351103/cf347d6580

TECHNICAL SESSION 1

Uchenna Nwankwo	USM	Further Investigations of VDatum to NAD83 Vertical Separations Using United States Geological Service (USGS) Coastal Water Levels Gauge and Hydrolevel Buoy. https://vimeo.com/325355967/5ded623af7
Anand Hiroji	USM	A Direct Comparison of Multiple Orientation Systems Used in Hydrography. https://vimeo.com/325358956/be6f6a5aa7
Johnson Oguntuase	USM	A Performance Evaluation of Multiple GNSS-aided Inertial Navigation Systems. https://vimeo.com/325371950/260e11925c

LIGHTNING ROUND 1

https://vimeo.com/325368533/5a343440f4

Senam Tsei	USM	**00:01:20** - A review of hydrography training opportunities in western Africa leading to the establishment of a Category B Hydrographic Surveying program at the Regional Maritime University.
Lloyd Huff	LChuff Consultancy	**00:07:05** - A closer look at Backscatter Uncertainties.
Travis Hamilton	Teledyne Caris	**00:12:48** - Scalable Bandwidth for Remote Hydrographic Survey Monitoring.
Christie Ence	NOAA	**00:18:30** - From pen and ink charts to ENC-First: Deriving Raster Products.
Jason Creech	David Evans and Associates	**00:23:30** - Using a Mobile Mapping System for Charting Surveys on the Mississippi River.

TECHNICAL SESSION 2

Cliff Mugnier	LSU	Geoid Enhancement in the Gulf Coast Region: Physical Geodesy & Real-Time Network Observations. https://vimeo.com/325380866/c57f53ea21
Denis Riordan	NOAA-NGS	New U.S. Datums in 2022. https://vimeo.com/325384585/a362f73df0
C.Kastrisios	UNH CCOM/JHC	On the effective validation of charted soundings and depth curves. https://vimeo.com/325457490/ab4633020c
Rochelle Wigley	UNH CCOM/JHC	GEBCO- Nippon Foundation Alumni Team technology developments through the Shell Ocean Discovery XPRIZE. https://vimeo.com/325465535/80cab54f42
Coral Moreno	UNH CCOM/JHC	Sensing for Hydrographic Autonomous Surface Vehicles. https://vimeo.com/325498937/8ecb6cee78
Henry M. Mottesheard	NGA	Hypotheses on crowd-sourced data and federated networks to supplement ocean mapping. https://vimeo.com/325506313/f5b7146615

TECHNICAL SESSION 3

Khaleel Arfeen	UNB	Automated Processing of Hydrographic Data While Improving Bathymetric Accuracy and Uncertainty Assessment. https://vimeo.com/325523143/4036b9d9f1
Julien Desrochers	CIDCO	A crowdsourcing approach for capacity building in the Canadian North. https://vimeo.com/325530038/978c1af8e8
Shannon Hoy	UNH CCOM/JHC	The Viability of Crowdsourced Bathymetry for Authoritative Use. https://vimeo.com/325543115/ee50664b92

LIGHTNING ROUND 2

https://vimeo.com/325577797/f8f51e9a11

Brian Connon	USM	**00:01:08** - The University of Southern Mississippi Hydrographic Science Program.
Dan Wright	LLC	**00:06:19** - Hydrographic data processing using distributed compute nodes in a cloud environment.
Eli Leblanc	Teledyne Caris	**00:12:00** - Mosaic artifacts reduction in SIPS Backscatter.
Malik Mashkoor	NOAA and UNH CCOM/JHC	**00:17:15** - Preliminary Evaluation of Multibeam Backscatter Consistency through Comparison of Intermediate Processing Results.
Giuseppe Masetti	UNH CCOM/JHC	**00:22:48** - The Open Backscatter Toolchain (OpenBST) project: towards an open-source and metadata-rich modular implementation.

TECHNICAL SESSION 4

Don Ventura	Fugro	Rapid Coastal/Shallow-Water Mapping with World's First Airborne Multibeam Bathymetric Lidar Mapping System. https://vimeo.com/325589005/ff8773865e
Brian Calder	UNH CCOM/JHC	Resolution Determination through Level of Aggregation Analysis. https://vimeo.com/325591382/55cabc0da2
Yi-Horng Lai	National Sun Yat-Sen University	The detection and identification of drowning human using underwater 3D sonar. https://vimeo.com/325593824/6aa31b72ee

LIGHTNING ROUND 3

https://vimeo.com/325600934/a467db1390

John Doroba	NOAA	**00:01:43** - Variable Resolution Operational Implementation (Bathymetric Data).
Jennifer Rhodes	USM	**00:06:49** - Lessons Learned Integrating an ASV C-Worker 5 with Hydrographic Equipment.
Jonathon Morin	CHS	**00:12:54** - S-100 Bathymetric Data Services Pilot Project – Modernization of Marine Navigation.
Burns Foster	Teledyne CARIS	**00:18:48** - Applications of Machine Learning in Hydrographic Data Processing
Kandice Gunning	USM	**00:24:12** - Modelling Angular Response Curves using An Interferometric Bathymetric Sidescan System.

TECHNICAL SESSION 5

Justin Mcdonald	ARMY	Mississippi Coastal Improvements Program Comprehensive Barrier Island Restoration. https://vimeo.com/325598766/eabfb6ed19
David Bernstein	Geo Dynamics	Full Motion Video in Support of Hydrographic Surveys. https://vimeo.com/325599849/d7c4f16089
Brandon Maingot	UNH CCOM/JHC	High Frequency Motion Residuals in Multibeam Data: Identification and Estimation. https://vimeo.com/325605787/6cd284f975
Natalie Lamberton	NAVY	Human-Machine Optimization for Seafloor Mapping. https://vimeo.com/325601561/d8fce8fe70
T.Faulkes	NOAA OCS	Hydrographic Survey Validation and Chart Adequacy Assessment Using Automated Solutions. https://vimeo.com/325600677/bd717eb348
Derrick Peyton	IIC	A Global Delivery Hydrographic Training Program based on IHO IBSC S-5B Standard (S-5B). https://vimeo.com/325670943/8132c3e180

TECHNICAL SESSION 6

Kevin Tomanko	OARS	Get to the QC Faster – Automated Sonar and SLAM processing. https://vimeo.com/325739710/8f236bc5c7
Julia Powell	NOAA OCS	Data Standards for Navigation Systems and Beyond – The world of S-100. https://vimeo.com/325739912/8e3c8c7231
Arnis Mangolds	(C-2 Innovations)	Estuarine multi-parameter bathymetry via an amphibious, autonomous bottom crawler. https://vimeo.com/325764879/8034cfe4dd

LIGHTNING ROUND 4

https://vimeo.com/325741218/9e6bd7ec6e

Jonathan Morin	CHS	**00:00:28** - Experiences with Autonomous Hydrographic Surface Vehicles (AHSV) at CHS.
LT Anthony Klemm	NOAA	**00:06:30** - NOAA Operational use of LIDAR data for field hydrographic: a discussion of challenges, successes and workflows.
Kolleen Mortimer	NOAA	**00:12:00** - Added Value to NOAA's Bathymetry Products.
Wetherbee Dorshow	ESRI	**00:18:05** - Moving from Data Aggregation to Decision-as-a-Service.
Val Schmidt	UNH CCOM/JHC	**00:25:05** - Operations of an Autonomous Surface Vehicle Aboard the NOAA SHIP Fairweather.

TECHNICAL SESSION 7

Noel Dyer	NOAA OCS	A new approach for applying bathymetry to the chart.
Olivia Hauser	NOAA OCS	Publishing Survey Quality - CATZOC on the ENC - Effects Hydrographic Survey Efforts, Data Partnerships and Review Processes, and Blue Economy in US Ports and Waterways.
Deborah Febres Urdaneta	QPS	Catching the Winds of Change through Automation, Quality and Comprehension. https://vimeo.com/325802987/01d1ece15b
Nathan Wardwell	JOA Survey	GNSS Reflectometry for Water Level Measurements and Earth Centered Earth Fixed Tidal Datums. https://vimeo.com/325803131/008e993747
Nicholas Morgan	NOAA	Using Historic Hydrographic Smooth Sheets to Assess the Validity of NOAA'S Office of Coast Survey's Hydro Health Model Decay term. https://vimeo.com/325807478/3ea6b3246d
Glen Rice	NOAA OCS	The National Bathymetry as Data. https://vimeo.com/325803595/34d641e4ac

CLOSING CEREMONY

KEYNOTE ADDRESS/STUDENT POSTER/CHC2020

https://vimeo.com/325863841/a158db22f9

**First 2 presentations of Technical Session 7 (Noel Dyer and Olivia Hauser) is failed to record due to a technical problems. Please email to MohdMassuoadi.MohdZukri@usm.edu if any of the links not working.*