

International Association of Drilling Contractors



**IADC Advanced Rig Technology (ART) Committee
Data, Controls and Sensors (DCS) Subcommittee
09.30-11.00 Thursday, 2 March 2023
Hybrid meeting
IADC HQ, 3657 Briarpark Dr Ste 200
Houston, TX 77042**

Minutes

ART DCS Chair Nathan Moralez, BP, and Vice Chair Andy Westlake, Seadrill, opened the meeting and welcomed the attendees. IADC's Linda Hsieh gave an overview of the [IADC antitrust policy](#).

Curt Braun, BP America, Human Performance Advisor, gave a guest presentation on Designing Automation for Human Operations. Dr Braun, a psychologist and former professor, shared his experiences consulting for the nuclear power, medical and aerospace industries. He also talked about situation awareness and attention allocation in relation to the automation interface, as well as things that the drilling industry can learn from Tesla's Autopilot technology.

Nathan Moralez presented a new project proposal, drafted by a consulting group for what is intended to be a joint IADC ART DCS project with SPE DSATS. The proposal states:

“This proposal lays out foundations to developing guidance and engineering specification on the integration of Human Factors into the drilling automation solutions in order to reduce the risk and improve user acceptance.

In order to achieve this goal, the process would be to:

1. Determine the current tasks and process, their interdependencies and relationships, as well as the decisions and situation awareness (SA) needs of drilling operators.
2. Review current automated solutions from the human factors point of view.
3. Develop design guidance and specification that could be used by various providers of drilling automation solutions to support effective human oversight and interaction.”

The group agreed that the current project proposal is too broad in scope and has no clearly defined deliverables. Nathan Moralez will re-engage with DSATS leadership to reassess the approach for this project, define the industry's needs around human factors/drilling systems automation, then focus them into smaller pieces. An initial project could take one piece as a deliverable as a starting point, primarily calling for

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industry volunteers to do the work and only bringing on a consultant if needed for a small portion of the project. It was also agreed that the project would need to be drilling contractor-led to ensure successful implementation on drilling rigs. Nathan Moralez noted that anyone who would like to be involved may ask to be added to be a part of the discussion as the project is re-shaped. Interested individuals may contact IADC (linda.hsieh@iadc.org).

Guidelines for Minimum Safety Features for Drilling Control Systems and Assets: Andrew Zheng with SLB has agreed to lead a small workgroup to finish this document, which has been under development for several years.

DROPS: Nathan Moralez noted operators' continued interest in DROPS prevention through technologies and engineered solutions. Suggested this could be a topic for a future meeting.

The meeting was adjourned at 11:00am.

Attendance:

Andy Westlake, Seadrill

Curt Braun, BP

Daniel John Meinders, NOV Grant Prideco

John de Wardt, DE WARDT & COMPANY

John Sutler, BP

Juan Pablo Arias Tamayo, Training

Consultors

Kevin Scherm, NOV

Linda Hsieh, IADC

Martin L Kershman, Teqnisolutions

Nathan Moralez, BP

Renato Rios, Wellconstruction.com

Robin Macmillan, Data Gumbo