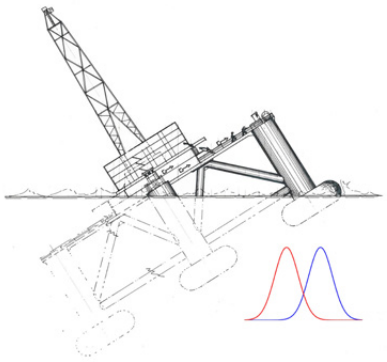


The 3rd Offshore Structural Reliability Conference

OSRC2016

14–16 September, Stavanger, Norway

Welcome to the 3rd OSRC

Oseberg Field Centre - Photo: Statoil

PROGRAM

DNV·GL

International Association of Oil & Gas Producers

NTNU – Trondheim
Norwegian University of Science and Technology

Statoil

The 3rd Offshore Structural Reliability Conference (OSRC) takes place in Stavanger on September 14-16 2016. The venue is Statoil Business Centre, Stavanger, Norway. This event is organized under the auspices of International Association for Oil and Gas Producers (IOGP); with a strong link to the International Organization for Standardization (ISO) in connection with the development of standards for offshore structures. The event will hence gather major stakeholders from the offshore oil and gas industry to discuss safety issues of importance to the industry and society for a safe and sustainable exploitation of hydrocarbons. Three keynote lectures and about 30 other invited lectures will be delivered as a basis for exchange of opinions on important issues such as service experiences, target safety level, extension of service life of existing platforms, floating platforms, the need for safe yet cost efficient technological solutions and standards.

We would like to welcome you to three interesting and rewarding days in Stavanger.

Time and place

When:
14–16 September 2016

Where:
Statoil Business Centre, Stavanger, Norway
Address: Forusbeen 50, 4035 Stavanger

Organising Committee

Alf Reidar Johansen, IOGP
Suzanne Lacasse, NGI
Henrik O. Madsen, DNVGL
Torgeir Moan, NTNU (chair)
Simen Moxnes, Statoil

Conference program – overview

DAY	TIME	SESSION	TOPIC	CO-CHAIRS
Wednesday 14.09.2016	0900-1000	Opening & Keynote No. 1	Opening What Characterizes a Reliable Structure?	T. Moan; A. R. Johansen
	1000-1110	S1	Metocean Conditions	P. Tromans; O. T. Gudmestad
	1110-1130	Break		
	1130-1220	S2	Wave Environment and Loads	C. Swan; S. Haver
	1220-1310	S3	Reliability of Jackets in Severe Wave Conditions	M. Birades; J. Waegter
	1310-1400	Lunch		
	1400-1450	S4	Reliability based Calibration of ULS Code Criteria	H. O. Madsen; A. Mangiavacchi
	1450-1600	S5	Accidental Collapse Limit States	Y. S. Choo T. Sildnes
	1600-1620	Break		
	1620-1730	S6	Reliability of Concrete Platforms	J. Moksnes C. O'Brien
	1800	Reception		

DAY	TIME	SESSION	TOPIC	CO-CHAIRS
Thursday 15.09.2016	0900-0940	Keynote No. 2	Should Global Standards Specify Reliability Values for Design and Assessment?	S. Moxnes; T. Moan
	0940-1030	S7	Reassessment of Jacket Platforms in Operation	F. Nadim; J-L. Colliat-Dangus
	1030-1050	Break		
	1050-1200	S8	Inspection Planning with respect to Crack Control	H. O. Madsen; P. Frieze
	1200-1250	S9	Reliability of Mobile Units	O. Dalane; C. Wang;
	1250-1340	Lunch		
	1340-1430	S10	Stability of Floating Platforms in a Reliability Perspective	J. Stear; T. Moan
	1430-1520	S11	Reliability of Floating Platforms	A. van der Stap; T. Vestbøstad
	1520-1540	Break		
	1540-1630	S12	Reliability of Ship type Production Units	T. Sildnes; C. Wang
	1630-1720	S13	Reliability of Station-keeping Systems	P. Smedley; E. Hovland
	1900	Dinner		

DAY	TIME	SESSION	TOPIC	CO-CHAIRS
Friday 16.09.2016	0900-0940	Keynote No. 3	API 2GEN – Overarching Document for Developers of the API Series 2 Standards	S. Lacasse; T. Moan
	0940-1030	S14	Floating Arctic Structures	P. Liferov; M. Maes
	1030-1045	Break		
	1045-1255	S15	ISO 19900 – Presentations & Discussions	M. Maes; H.O. Madsen
	1255-1300	Closing	Closing Remarks	T. Moan
	1300-1345	Lunch		

Keynote Lectures

➲ Keynote No. 1:

What Characterizes a Reliable Structure?
Simen Moxnes, Statoil, Norway

➲ Keynote No. 2:

Should Global Standards Specify Reliability Values for Design and Assessment?
Philip Smedley, BP, UK

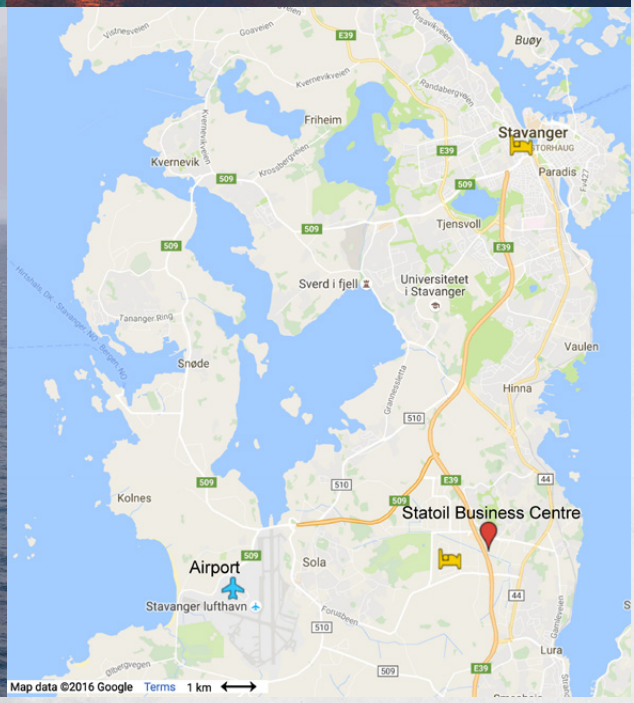
➲ Keynote No. 3:

API 2GEN – Overarching Document for Developers of the API Series 2 Standards
Dave Wisch, Chevron, USA

Sleipner A platform storm - Photo: Øyvind Hagen - Statoil

Arctic Princess left port at Melkøya - Photo: Allan Klo - Statoil

Visund - Photo: Kjetil Alsvik - Statoil



Sessions

➲ Session 1: Metocean Conditions

Co-chairs: P. Tromans and O.T. Gudmestad

Waves and Associated Current – Experiences from a Five Year Measurement Campaign in the northern North Sea
Kjersti Bruserud, Statoil and Sverre Haver, UIS/NTNU, Norway

Airgap and Safety: Metocean Induced Uncertainties Affecting Airgap Assessments
Sverre Haver, UiS/NTNU, Norway

Wave Kinematics and Hydrodynamic Loads on the Tyra Jacket Inferred from Systematic Model Testing and Field Measurements
Jesper Tychsen, Maersk Oil, Denmark

➲ Session 2: Wave Environment and Loads

Co-chairs: C. Swan; S. Haver

Demonstrating Draugen ALS/ULS Compliance despite Significant Wave/Ringing Load Increases since Original Design
Guido Kuiper, Norske Shell, Norway

Slamming Loads from Steep and Breaking Waves
Gunnar Lian and Tone Vestbøstad, Statoil, Norway

➲ Session 3: Reliability of Jackets in Severe Wave Conditions

Co-chairs: M. Birades; J. Waegter

Summary of the Impact on Reliability by the Tyra Field Extreme Wave Study 2013-15
Jesper Tychsen, Maersk Oil et al., Denmark

The Loads JIP: The Loading and Reliability of Fixed Steel Structures in Extreme Seas
Chris Swan, Imperial College

➲ Session 4: Reliability Based Calibration of ULS Code Criteria

Co-chairs: H.O. Madsen; A. Mangiavacchi

Risk-Based Codification of Structural Design and Assessment: Benefits and Challenges
Marc Maes, University of Calgary, Canada

Uncertainty Assessment of Geotechnical Design and Calibration of Resistance Factors for Offshore Piles
Farrokh Nadim, NGI, Norway

➲ Session 5: Accidental Collapse Limit State

Co-chairs: Y.S. Choo; T. Sildnes

Standards – Targets and not Risk Management
Dave Wisch et al., Chevron, USA

Assessment of Ship Collision Risk in the North Sea: Recent Guidelines
Gerhard Ersdal, PSA, Norway, et al.

Non linear, Dynamic Analysis of Long term Blast Loading on a Topsides Compression Skid
Himanshu Singh, Shell Global Solutions, the Netherlands

➲ Session 6: Reliability of Concrete Platforms

Co-chairs: J. Moksnes; C. O'Brien

Reliability of a Concrete Floating Barge – the NKP Case
Pascal Collet, Total, France

Experiences with the Safety and Durability of Concrete Offshore Platforms
Kolbjørn Høyland, Olav Olsen AS, Norway

ALARP in Decommissioning Brent D
Frank Lange, Shell Global Solutions

➲ Session 7: Reassessment of Jacket Platforms in Operation

Co-chairs: F. Nadim; J-L. Colliat-Dangus

Risk-based Structural Integrity Management for Jacket Structures
Francis Guede, Bureau Véritas, France

Reassessment of Offshore Structures: the Geotechnical Issues
Thomas Langford, NGI, Norway, et al.

➲ Session 8: Inspection Planning with Respect to Crack Control

Co-chairs: H.O. Madsen; P. Frieze

Lessons Learned from Predicted Versus Observed Fatigue of Offshore Steel Structures (Jackets, Semis) in the North Sea
Ole Tom Vårdal, Axess AS and T. Moan, NTNU, Norway

Guidelines for Probabilistic Inspection Planning of Offshore Steel Structures
Gudfinnur Sigurdsson, DNVGL, Norway

Fatigue Analysis, Lifetime Extension and Inspection Plans
Michel Birades, Total and Laurent Verney, Bureau Véritas, France

➲ Session 9: Reliability of Mobile Units

Co-chairs: O. Dalane, C. Wang

Operational Experiences and Design Codes for MODU
Tore Sildnes, DNVGL, Norway

Reliability of Jack-up Platforms
Mike Hoyle, DNVGL

➲ Session 10: Stability of Floating Platforms in a Reliability Perspective

Co-chairs: J. Stear; T. Moan

Assessment of Intact and Damage Stability Regulations for Offshore Floating Structures – in a Reliability and Risk Perspective
Christina Wang, ABS

Reliability of Floating Platforms with respect to Stability
Dag Erling Engberg, DNV GL, Norway

➲ Session 11: Reliability of Floating Platforms

Co-chairs: A. van der Stap; T. Vestbøstad

Industry Standards for Integrity Management of Floating Systems
Jim Stear, Chevron, USA

ALS Design in Practice – Floating Platform Application
Rolf Løken, Aker Solutions, Norway

➲ Session 12: Reliability of Ship type Production Units

Co-chairs: T. Sildnes; C. Wang

FPSOs in Harsh Environment. Status and Main Learnings after 30 years' Experience with One of Our Most Robust, Reliable and Flexible Concepts
Erlend Hovland, Statoil, Norway

Design Basis of World's First FLNG to Achieve Good Reliability
Andre van der Stap, Shell Global Solutions, the Netherlands

➲ Session 13: Reliability of Station-keeping Systems

Co-chairs: P. Smedley; E. Hovland

NorMoor JIP – Mooring Design Code Calibration
Siril Okkenhaug, DNVGL, Norway

Reliability of DP Systems
Haibo Chen, Lloyds Register, China

➲ Session 14: Floating Arctic Structures

Co-chairs: P. Liferov; M. Maes

Sea Ice Management and Reliability of Floating Structures
Richard McKenna, McKenna & Associates, and Brian Wright, Canada

Applying the Limit State Definition in Ice Class Rules for Ships to Offshore Structures
Kaj Riska and R. Bridges, Total, France

➲ Session 15 - on ISO 19900 WG1 ongoing work

Co-chairs: M. Maes and H.O. Madsen

Background: Developing a third edition of ISO 19900 by WG1 (M. Maes, M. Abraham, S. Balasubramanian, M. Birades, P. Frieze, M. Hoyle, K. Høyland, A. Mangiavacci , T. Moan, S. Moxnes, P. Smedley, J. Waegter, D. Wisch)

The session consists of presentations and discussion of the preliminary results of the work of technical panels on:

- Limit States & System Effects
  (T. Moan -lead), (ALS/ULS Clarification, Accidental vs. Abnormal Actions, Damaged Members, Robustness and System Effects, Non-structural Robustness, Representative vs. Characteristic Actions and Resistances)
- Risk, Consequence, and Reliability Classes/Targets
  (P. Smedley -lead)(Exposure Levels, Consequence Classes, Quality Control, Reliability Targets)
- Uncertainty Assessment
  (P. Frieze-lead) (Actions, Action Effects, Resistances – also Geotechnical – and Impact on ULS and FLS Requirements
- Lifetime Extension
  (S. Moxnes –lead)

Sword in rock Hafrsfjord – Photo: Richard Larssen/visitnorway.com

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