
DROPS
DROPPED OBJECTS PREVENTION SCHEME

0930-09.50	**Welcome, Safety Brief & Introductions** **DROPS Global Update**	Allen Smith DROPS
09.50-10.05	**DOF**	John Cameron DOF
10.05-10.20	**Maintenance to Operations Handover Certificate**	Kevin Pope KCAD
10.20-10.40	**StepChange Joined-Up Thinking Packs**	Steve Murphy TAQA
10.40-10.55	**COFFEE BREAK**	All Attendees
10.55-11.15	**DROPS Gap Analysis**	Nick Adams and Andy Flisher OES
11.15-11.35	**Helideck Inspections – Dynamic Dropped Objects**	Kirsty Walker Schlumberger / IOGP
11.35-11.50	**DROPS Online Survey Results** **AOB and Close**	Brodie Smith DROPS
12.30 – 14.00	**Festive Lunch** *generously supported by* **OES**	Registered Diners

Next meeting – Thursday 26 March 2020, Marcliffe Hotel

DROPS

Forum Proceedings to conclude around noon with coffee break mid-point

Pre-lunch short recess / networking

Festive lunch with kind financial assistance from

OES | ASSET INTEGRITY MANAGEMENT

Todays Format


A2SEA
ABS
aibel
ALATAS
ALCOTT
Allrig
ALPACCESS
Alphasource
ALTUS Intervention
AMOSCO
Apache
APEX AIS
Applus RTD
AquaTerra
Archer
ARIES
ARMULTRA
ASCO
ASG inspection
ASP
ASTRON
ATLANTICA
ATR
AHI
AXESS
Baker Hughes
Balfour Beatty
BECHTEL
BHP
BiLFINGER
international safety solutions
bloxwich
bp
breight
BUREAU VERITAS
CRN
CAN
CAROIL
Caspian Drilling Company Ltd
Cenergy
CCSI
CHRYSAOR
cnooc
CONSTELLATION
CONTROLUNION
D-OCEAN
DBC GROUP
Dips
DENHOLM ZIROLDAS
DM NDT
DSL
DIAMOND OFFSHORE
DCF
Dolphin Drilling
Dropsafe
dusup
EDC
ELEGANT
encana
energy drilling
EnerMech
ECT
EnQuest
ENSIGN
eog resources
equinor
EXALO
EXPRO
SGS Firstrank
gac
gbp
CPS
GLOBAL ENERGY GROUP
Global Lifting Services Nigeria
globalREMOTE
GULFCRANE
GULF DRILLING INTERNATIONAL
GULF ENERGY
GWC
HALLIBURTON
HEICO
HELIX
HESS
HIGHLAND
Husky Energy
I3P Energy & Marine Consultants
IADC
INDEPENDENCE CONTRACT DRILLING
ISP
JC International Limited
KCA DEUTAG
LEECMOORE
LEEA
Lloyd's Register Energy
MAERSK DRILLING
MARINE Safety Forum
MAS
MATRIX SERVICE COMPANY
McDERMOTT
MEGARME
Mencast
MESSER
MHI VESTAS OFFSHORE WIND
mhwirth
MINTEG
MS
MOGIT
motive
MPC KINETIC
NABORS
NACHER
NEFT ENERGIES
NILE
NLG
NORD-LOCK
NORTH
NORTHERN OFFSHORE
NOV
OXY
OCEANEERING
ocyan
ODFJELL DRILLING
OES
OMV
OOCEP
OPAL
Otaolif Services Limited
PARKER DRILLING
PETERSON
PETRONAS
Marriott
PremierOil
PRETECT
PREZIOSO Linjebygg
PrimaDRILL
Pro3 Safety
PROMETRIC
PETROVIETNAM
QUALITECH
RAI
REPSOL SINOPEC
RIGREPAIRS
RIG RESOURCES
RIG SOLUTION
rigsurveys
rigmar
ROCKROSE ENERGY
Rope Access Trade Solutions
RSS
Safer Together
SAIPEM
Sapura
Schlumberger
SCOTGRIP
Seadrill
SeaTec
SEENOPEX
SEFtec
Setcore
SGB - CAPE
Fairness
SILVERDOT
SIMPLES OIL & GAS
siwa
SIGS
S.M.P
BAHCO
SNC·LAVALIN
Southey
sparrows
SPIRIT ENERGY
SRG GLOBAL
StanleyBlack&Decker
Stena Drilling
STEP CHANGE IN SAFETY
STORK
subsea 7
SUNCOR ENERGY
TAQA
TASMAN ROPE ACCESS
TechnipFMC
TEST
TEXO GROUP
TIANWU OFFSHORE
TOOL@REST
TOPAZ
Toprope
TOTAL
TPS
trac
Transocean
TRENDSETTER
TRIANGLE Oilfield Services
TUBESTAR
TULLOW OIL
TÜV SÜD
VALARIS
VELOSI
VERTECH GROUP
SAFETY
WAGENBORG FOKDRILL
Weatherford
WELL-SAFE SOLUTIONS
wood.
Worley
ZAMIL

Finances (reduce overheads, retain fee structure)

Global Steering Group

North Sea Chapter

Terms of Reference

Seeking New Members

GLOBAL CHAPTERS

North America

Europe

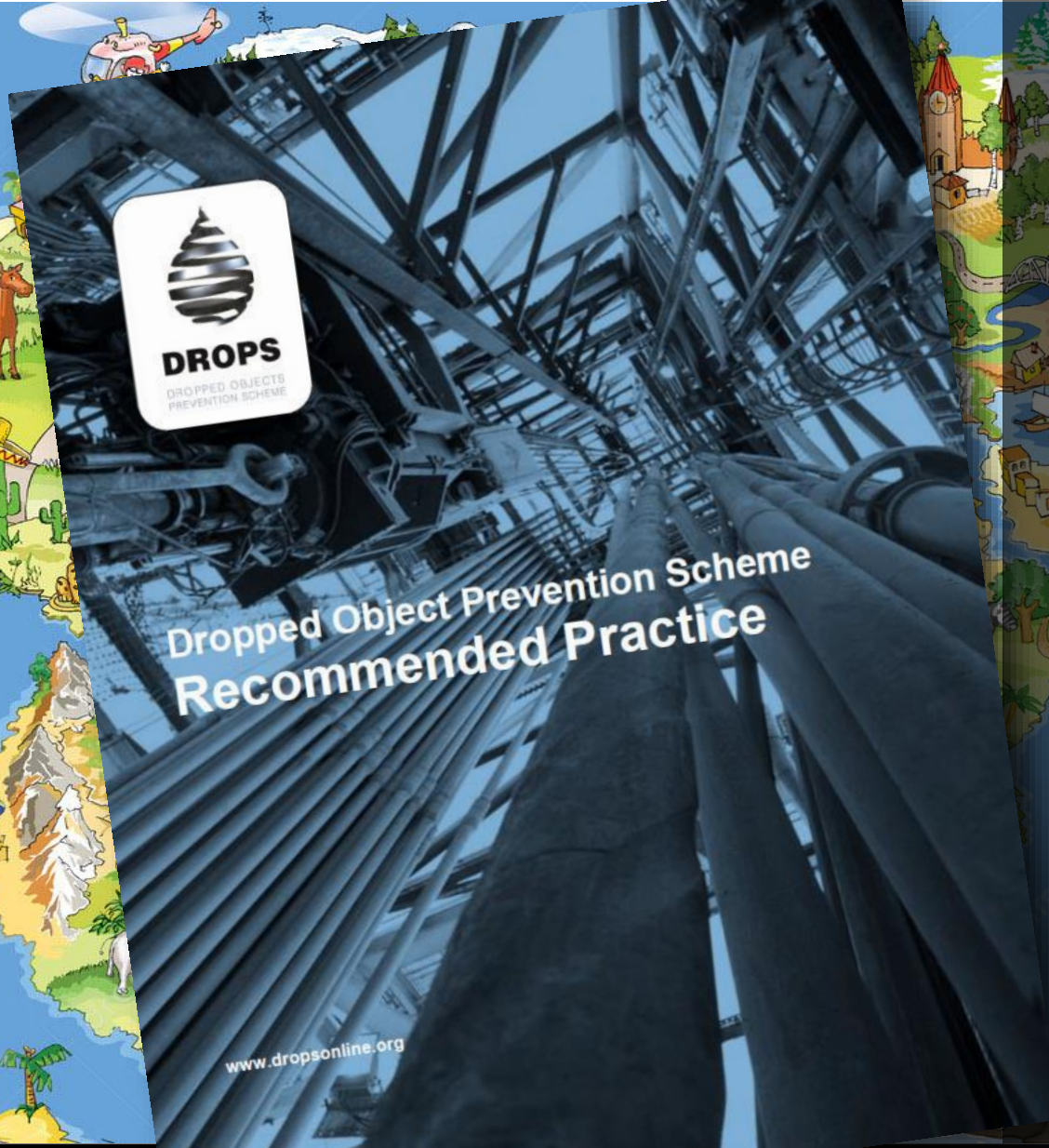
Saudi Arabia

Oman

Asia

Canada (2020)

North Caspian (tbc)



GUIDANCE UPDATES

- Recommended Practice
- Restricted Access Areas
- Survey and Inspection
- Check Lists
- PreTask Prompts

Regular **UK** TTT Sessions, 2020 update to align with revised Guidelines.

Tailored events in Ghana, Denmark and Kazakhstan.

Online help and guidance from DROPS Training.

eLearning program in development (NA Chapter).

VR program concepts.

DROPS Training

Task Planning and Risk Assessment

Effective task planning and risk assessment will ensure appropriate resources and personnel are assigned for the task to eliminate or reduce the likelihood of a dropped object.

When the potential for a dropped object has been identified, the primary focus should be to implement preventive controls to eliminate or minimize the likelihood of the dropped object occurring. However, robust mitigating controls should also be implemented to reduce the consequence of a dropped object should the preventive controls fail.

Tools, equipment, structures, lights, suspended loads, temporary or portable appliances and any pre-existing loose items will always be a threat. **Effective task planning and risk assessment will reduce the consequences and eliminate exposure to personnel.**

Task Planning and Risk Assessment should include but not be limited to:

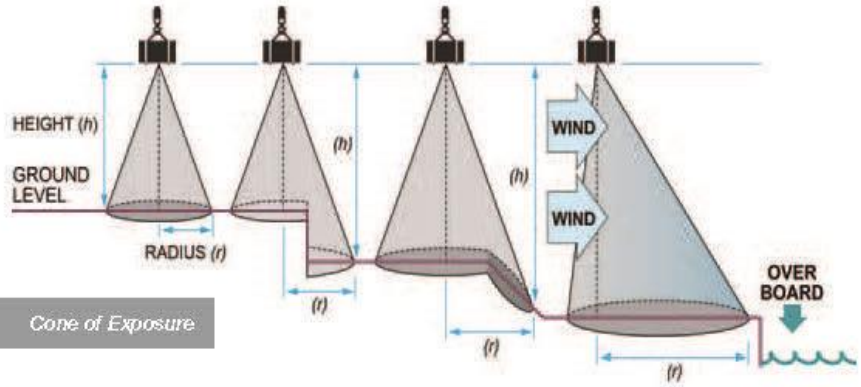
- **Pre and Post Inspections of Worksite** (remember loose items may have been there for years)
- **Load Inspections prior to transportation or lifting** (certification, equipment, loose items)
- **Working conditions, equipment and operative's competence** (consider behavioural influences too)
- **Understanding each phase of the task,** piece of equipment being employed and the associated hazards and challenges (Operators actions are likely to create scenarios where dropped objects can occur)
- **Realistic risk-based identification of dropped object hazards** to ensure correct application of controls and resources (as opposed to identification of dropped object hazards in general)
- **Potential path of travel should the identified item drop** (cone of exposure)
- **Effective control of service partner and/or temporary equipment** (be ready to help, not everyone will be familiar with every element of dropped object prevention best practice).

Wherever possible, **eliminate unnecessary dropped object hazards at source**. For those items that remain, carefully assess the likelihood of static or dynamic failure (based on common causes, experience and site-specific alerts) and determine the potential severity should it fall (using the **DROPS** Calculator).

Remember that controls may already be in place (such as procedures, checklists, safety wires etc), so be prepared to identify these and ensure they are adequate. Where new physical controls are recommended, always consider the potential for new dropped object hazards. Mats, covers and nets can fall too. Additional controls will be subject to **Management of Change** processes.

Consideration should be given to the potential path that a dropped object may take during the Task Planning and Risk Assessment phase.

Considerations should include but not be limited to the potential deflection points, environmental factors, dynamic factors and the potential dropped object's shape as they will affect the shape of the cone. If the object falls overboard, consider if there are subsea assets or critical infrastructure that may be affected. Additional information relating to Subsea dropped objects can be found on the DROPS website.



Cone of Exposure

ENVIRONMENTAL FACTORS:

Gravity is an inherent hazard in every workplace. When combined with constant exposure, sea motion and severe weather conditions, the risk of dropped objects increases significantly. During all tasks, particularly transport, lifting and working at height, take special care to identify and mitigate dropped object incidents that can be caused by environmental factors.

- Temperature (cold hands, sweaty hands, materials perishing)
- Winds and Helicopter Downdrafts (box lids, doors, signage, meteorological equipment, stacked items)
- Sea Motion (stacked items, shelving, loose items, suspended items)
- Load Movement (forces exerted on loads during transportation and lifting, eg. road conditions, turning, braking etc)
- Ice and Snow (icicles, ice build-up, hard packed snow – can also obscure loose items)
- Rain (accumulations in buckets and vessels can add significant weight)
- Mud and Sand (can add weight but also obscures loose items, particularly on cargo units)

Fog, poor light, sun light, darkness can also become contributing factors when vision is critical to safe operations.

WHAT CAN DROP?

Hand tool, sheave, light fixing, guardrail, hatch, pin, bolt, stanchion, basket, tubular, block, cap, waste, flange, cover, bracket, die, spacer, shackle, top drive, latch, board…

WHY WOULD IT DROP?

(Common Causes) Poor fastening, vibration, corrosion, collision, snagging, weather, human interaction, human factors, shock load, incorrect installation, blown over, loss of preload, over tension, overloading, incorrect use of tool or equipment, home made equipment…

WHEN IS IT MOST LIKELY TO DROP?

(Static and Dynamic) During unfastening, during lifting or manhandling, during excessive vibration and shock loading, during rotations or side movements…

WHERE COULD IT DROP?

(Height/Distance) Directly to deck below, over the side, through open hatches, into moonpool, into critical equipment areas, deflect/bounce beyond barricade…

HOW CAN IT BE STOPPED?

Hierarchy of Control! Eliminate, Substitute, Engineered controls (reliable securing), Planning, JSA, TBT, Procedure, collision checks and checklists, pre-use inspection, DROPS inspections, tools and equipment inventories and logs…

HOW CAN RISK BE MITIGATED?

Drops/Red Zones, Barriers, Barricading, ToeBoards, Lanyards, Nets, Safety Securing Devices…

SAFETY SECURING : RESPONSE TO THE RISK

TRAVELLING EQUIPMENT

- Static Drop Potential?
- Dynamic Drop Potential?
- Human Error?
- Moving / Hinged Parts?
- Snagging? Vibration?
- Corrosion?
- **CONSEQUENCE?**
- Primary Securing?
- Secondary Retention?
- Safety Securing?
- Shock Load?
- **WHO INSPECTS IT?**
- **WHAT DO THEY INSPECT?**
- **ANY PREVENTIVE MAINTENANCE?**

Question the Robustness of Fixtures and Fittings

RED ZONE / DROPS ZONE
RESTRICTED ACCESS AREA POLICY

- **Strictly controlled access, approval required from Area Authority** (permit alone does not authorise access);
- **Only personnel required for the task;**
- **Appropriate plan in place for ALL activities;**
- **All personnel aware of all moving machinery and other hazards;**
- **Identify CONE OF EXPOSURE;**
- **Minimise exposure, identify step back areas;**
- **TBT after every shift break, TBT when new personnel join the task.**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NEVER ASSUME THE OTHER FELLOW WILL NOT DO SOMETHING YOU WOULDN'T DO

DONALD RUMSFELD

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Next meeting – Thursday 26 March 2020, Marcliffe Hotel

New Office Address:

Balmoral HUB
Balmoral Business Park
Loirston
Aberdeen AB12 3JG

Tel: +44 (0) 1224 289900

WellsInMind

Working Group establishing standardised approach to Human Factors in O&G, modelled on DROPS structure.

For Information…

Festive lunch with kind financial assistance from

OES | ASSET INTEGRITY MANAGEMENT

Wishing you all continued safe and successful operations and thank you for your support!

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DROPPED OBJECTS

STILL HARMING
STILL KILLING

DROPS

DROPPED OBJECTS PREVENTION SCHEME

NEXT UK FORUM:
Thursday 26th March
Marcliffe Hotel, Aberdeen

www.**dropsonline**.org