

12th January 2018

Directorate General of Civil Aviation
Aurobindo Marg, Opp. Safdarjung Airport
New Delhi - 110 003

Kind Attention: Shri B.S. Bhullar, Director General, DGCA

Dear Sir,

Subject: Seeking relaxation of Civil Aviation Requirements by way of:

- 1) Extending the timeline for installation of Helicopter Approach Path Indicator on Mobile Offshore Drilling Units for night Medical Evacuation (Medevac), where adequate visual surface cues for night landing exist; and
- 2) Exemption from Obstacle Limitation Survey (OLS) requirement for Mobile Offshore Drilling Units which have already completed pre-contract commencement survey by Helicopter Operators/Authorised agencies;

References;

- 1) DGCA letter dated 4th August 2017, addressed to Helicopter Operators regarding the subject "Approval of VFR by Night for Offshore Medevac Helicopter Operations";
- 2) Email circulated on 27th July 2017 by Sr. FOI, DGCA, Western Region regarding Obstacle Limitation Survey (OLS) requirement followed by a meeting at ONGC, 11 High Office Complex on 27th December 2017;
- 3) DGCA Notice F.No.9/11/2017-IR dated 5th September 2017, outlining the "Procedure for seeking exemption from Civil Aviation Requirements";

Dear Sir,

International Association of Drilling Contractors (IADC) is a trade association representing the interests of drilling contractors, onshore and offshore, operating worldwide. IADC serves as a forum for all oil & gas drilling industry stakeholders to connect, share knowledge, tackle common problems and develop solutions to critical issues. The IADC's region specific efforts, are undertaken by various Chapters, organized across the world.

The IADC South Central Asia Chapter (IADC-SCA) based in India, constantly engages with government officials and regulators and strives to develop a dialogue on issues critical to the industry and advocates better regulatory practices.

IADC-SCA appreciates the efforts of Directorate General of Civil Aviation (DGCA) which has been regularly enhancing the safety of helicopter operations, by revising the relevant Civil Aviation Requirements (CAR) from time-to-time and is now in the process of enhancing certain requirements for Visual Flight Rules (VFR) by Night, for Offshore Medevac.

During the various interactions of IADC-SCA Chapter members and the helicopter operating companies in India, it was learnt that the Standard Operating Procedures (SOP) were also being modified with certain additional requirements & restrictions.

Offshore drilling contractors who are members of the IADC-SCA Chapter, have certain concerns with respect to the additional requirements for VFR for night medevac and Obstacle Limitation Surfaces (OLS) survey requirements, which is summarised below:



- 1) None of the Helicopter Approach Path Indicator (HAPI) vendors could provide convincing proof of their experience in fitting, operating, maintaining and providing after sales service of this equipment, especially in the offshore environment, (which requires explosion proof housing, turntable etc.), probably due to the fact that except in India this HAPI is not required elsewhere in the world for Mobile Offshore Drilling Units (MODUs);
- 2) Further, it is learnt that a very short time limit of 6 months with effect from 4th August 2017, has been specified for installing suitable HAPI on the MODUs, as compared to the period of 15 months' time allowed elsewhere, for compliance; and
- 3) Despite the fact that MODUs have already completed pre-contract commencement survey by Helicopter Operators/Authorised agencies regarding the helideck in question, certain provisions of the CAR and related rules & regulations have been interpreted differently and a communication has been circulated by the Flight Standards Directorate of Western Region insisting that "Till Date, OLS Survey despite being a pre-requisite requirement for a safe Helipad/Helidecks Operations have not been carried out by your company for many years." and a list of Survey Agencies empanelled by AAI as on 21st April 2017 has also been provided, for undertaking such OLS survey.

As required by DGCA, IADC-SCA Chapter hereby submits the required details in the prescribed format of DGCA seeking relaxation of Civil Aviation Requirements for installation of HAPI on MODUs and exemption of OLS Survey requirements for MODUs, along with the required mitigation measures desired by DGCA, like the Visual Verification survey by DGCA officials, in place of OLS survey by external agencies.

IADC-SCA Chapter members would be very much obliged if DGCA can kindly consider the requests as submitted in the detailed application enclosed herewith. We would be pleased to meet with the concerned officials to discuss these issues and in particular, the possibility of developing a program of trials for installation of HAPI prior to its being mandated for MODUs.

Thanking you in anticipation of a positive and early response.

Yours Sincerely,



Jt. Secretary
IADC-SCA Chapter

Enclosures:

- 1) APPENDIX - 1: Application for seeking exemption from installation of HAPI on helidecks of Mobile Offshore Drilling Units along with annexures/documents cited therein;
- 2) APPENDIX - 2: Application for seeking exemption from Obstacle Limitation Surfaces (OLS) Survey of helidecks of Mobile Offshore Drilling Units along with annexures/documents cited therein;

Copy To:

- 1) Capt. Umesh Chandra Yadav, Dy. CFI (H), Flight Standard Directorate (Helicopter), Opp. Safdarjung Airport, New Delhi – 110 003;


APPENDIX -1

Application for seeking exemption from installation of HAPI on helidecks of Mobile Offshore Drilling Units

1. DETAILS OF APPLICANT	
1.1 Name of Applicant/ Organization and Address	International Association of Drilling Contractors, South Central Asia Chapter (IADC-SCA) , Abhishek Apartment, B Wing, Flat G-1, Shradhanand Road, Behind Abhinav Apts., Vile Parle (East), Mumbai – 400 057
1.2 License / Approval / Certificate Number	Not Applicable. This application is made on behalf of all Offshore Drilling Contractors working in India, who are members of IADC-SCA Chapter.
2. DETAILS OF EXEMPTION SOUGHT	
2.1 Relevant CAR:	CIVIL AVIATION REQUIREMENTS SECTION-4, AERODROME STANDARDS AND LICENSING SERIES 'B', PART III Issue II 10th November, 2016
2.2 Provisions of CAR for which exemption is sought.	5.3.6 Visual approach slope indicator
2.3 Reasons why the exemption is needed. <i>(The reasons provided should be detailed and self-explanatory)</i>	<p>Firstly, International Standards and Recommended Practices contained in the, Annex 14 to the Convention on International Civil Aviation, Volume II, Heliports, has only recommended and has not made it mandatory to install a visual alignment guidance system or "Helicopter Approach Path Indicator (HAPI)" on helidecks. ICAO has specifically qualified its recommendation in §5.3.4.1 with the following 3 criteria:</p> <ul style="list-style-type: none"> a) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown; b) the environment of the heliport provides few visual surface cues; and c) the characteristics of the helicopter require a stabilized approach. <p>For the purposes of ICAO's recommendation, the offshore environment in which Mobile Offshore Drilling Units (MODUs) operate is free of requirements for noise abatement and traffic control procedures requiring a particular slope to be flown. The operating environment is also free of the myriad of other visual distractions typically found onshore.</p> <p>The existing helidecks of our members with a required full helideck lighting scheme (periphery lighting, obstacle lighting, flood lighting etc.) provides adequate visual surface cues for night landing of helicopters. To the best of IADC's knowledge, nowhere else in the world has it been determined that a visual alignment guidance system or HAPI is to be made a mandatory installation for helidecks on Mobile Offshore Drilling Units (MODUs).</p>

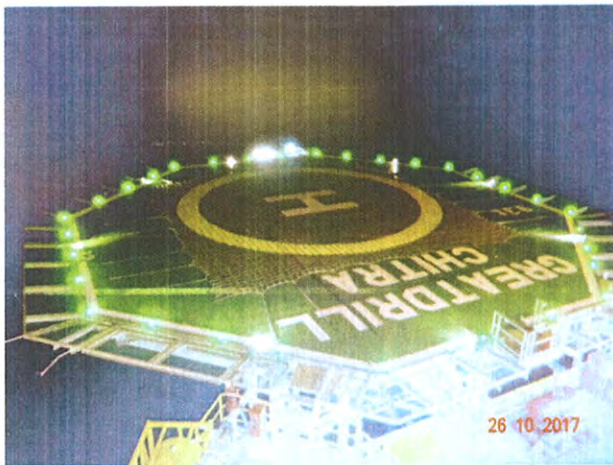
	<p>Secondly, whenever a new standard is mandated by any regulatory body worldwide, (for example CAP 437 in UK), the time allowed for compliance with the revised standard is seen to be around 15 to 18 months.</p> <p>However, it is seen that the time allowed by DGCA for complying with the requirements for VFR is just 6 months from August 2017, which will expire on 4th February 2018.</p> <p>Further, during the efforts made by IADC-SCA members to source a suitable HAPI for fitment on the MODUs, the following major limitations were encountered:</p> <ol style="list-style-type: none"> 1. <u>None of the HAPI vendors could provide convincing proof of their experience in fitting, operating, maintaining and providing after sales service of this equipment, especially in the offshore environment</u>, (which requires explosion proof housing, turntable etc.), probably due to the fact that except in India this HAPI is not required elsewhere in the world; 2. Training of the vendor personnel by the OEM, who in-turn will be training the MODU crew, in maintenance, inspection and operation of the equipment is suspect, which could lead to a mishap if a helicopter pilot is overly reliant on the HAPI. 3. Related to the above, and outside of the MODU owner's control, is the training of helicopter pilots and the reliance they may place on HAPI. IADC is concerned that over-reliance on HAPI could lead to mishaps as the pilot may choose to rely solely on the slope indicated by this equipment, rather than use his own judgement, visual clues provided by the MODU's lighting scheme and information from the MODU's radio operator, which he would otherwise be doing in the absence of this HAPI. 4. Even if the HAPI is ordered waiving the experience criteria and turning a blind eye to the lack of expertise in operating the equipment, in most cases it may not be fitted and fully operational before the deadline of 4th February 2018 due to the lead time for procurement of about 12 weeks combined with the need to obtain statutory clearances like MoHA/MoD for offshore visit of the vendor personnel (Indian/Foreign experts) which takes about 6 to 10 weeks. 5. To add to this, it is seen that the OEM vendors who manufacture these equipment are having facilities outside India and their ability to provide aftersales support services in India is completely untested. 6. Lastly, the time for visiting the MODU has to be meticulously planned as the well being drilled could be undergoing "well testing" during which hydrocarbons would be flowing to the surface or being flared by a boom and 'hot-work' is not permitted during such times, as it poses a significant hazard.
2.4 Period for which exemption is required.	<p>Complete exemption is requested by IADC-SCA. This can be reviewed periodically every year in December before being extended. One reason for not extending the exemption would be evidence that other jurisdictions are mandating installation of visual alignment guidance systems on MODUs.</p>

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	<p>If complete exemption cannot be granted due to any reason, additional time period of 1 year upto 31st Dec 2018 is requested as a minimum, in view of the constraints outlined above and for the sake of conducting night landing trials by installing HAPIs on a few MODUs deployed in Indian waters, before mandating it to be fitted it on all MODUs.</p>
2.5 If the exemption will affect a particular kind of operation, the details thereof	<p>Night VFR for offshore Medevac operation, the probability of which is very low.</p>
2.6 Action plan for rectification, including the safety assessment and mitigation measures adopted for ensuring the safety during the exemption period.	<p>At present the Offshore MODU's are fitted with a full helideck lighting scheme as required for TLOF which includes:</p> <ol style="list-style-type: none"> 1) Perimeter lights and 2) Flood Lights / ASPSL / LPs, obstacle lighting <p>A few sample photographs of the helidecks illuminated with the above lighting system & fluorescent painting at night is attached herewith.</p>
2.7 The mitigation measures, including the safety assessment proposed to be adopted to ensure safety of aircraft operation. Note: Attach safety assessment report	<p>In addition to the above point at 2.6, Aiming Circle & H marking on the helidecks shall be painted with fluorescent paint, in order to provide adequate visual cues to the pilot for performing night medevac operations, in line with the existing practice allowed by DGCA.</p> <p>Further mitigation measures such as night landing training of pilots, on a trial basis on a few MODUs fitted with HAPIs, can be done to check the effectiveness of this system and add to the experience of pilots and crew, in coordination with helicopter operating companies to ensure safety of operations.</p> <p>Since some E & P companies are already proceeding with installation of this equipment on its rigs / platforms, these locations could be used as test sites to ensure safety, applicability and effectiveness of this equipment for Offshore MODU's.</p> <p>Lessons learnt from these trials of night landing on a few MODUs with HAPIs installed, can then be used to further refine the requirement/specification of equipment etc., before being implemented on a full scale on all MODUs in Indian waters.</p>
	<p style="text-align: center;"> SIGNATURE OF APPLICANT (for IADC-SCA)</p>
DATE: 12th January 2018	NAME: Mr. Aniruddha Pattnaik
	POSITION HELD: Joint Secretary



Picture of Helideck of Jack-Up MODU “Greatdrill Chitra” with Night Lighting:



Picture of Helideck of Drillship MODU “Aban Abraham” at night with fluorescent painting:



Picture of Helideck of Semi-Submersible MODU “Actinia” with Night Lighting:



APPENDIX-2

Application for seeking exemption from Obstacle Limitation Surfaces (OLS) Survey of helidecks of Mobile Offshore Drilling Units


1. DETAILS OF APPLICANT	
1.1 Name of Applicant/ Organization and Address	International Association of Drilling Contractors, South Central Asia Chapter (IADC-SCA) , Abhishek Apartment, B Wing, Flat G-1, Shradhanand Road, Behind Abhinav Apts., Vile Parle (East), Mumbai – 400 057
1.2 License/ Approval/Certificate Number	Not Applicable. This application is made on behalf of all Offshore Drilling Contractors working in India, who are members of IADC-SCA Chapter.
2. DETAILS OF EXEMPTION SOUGHT	
2.1 Relevant CAR:	Email from Flight Standard Directorate (WR) with References made to the recommendations post Special Helipads/Helidecks Audit ordered by DGCA Hqrs. & to Para 3.3.1 & 3.3.2 of Civil Aviation Requirements Section-8 Helicopter Operations, Series 'O' Part IV issue II. Dated 28th Mar 2017, CAR Sec 4 Series B Part III, Para 4, Appendix 2 Dated 28 Aug 2006, para 2.1.6 of Air Safety Circular 02/2014 & para 5.2 of ASC 02/1981. Note: Copy of email printout and the content of various paras referred therein are reproduced and attached herewith for ready reference.
2.2 Provisions of CAR for which exemption is sought.	Obstacle Limitation Surface (OLS) survey for Mobile Offshore Drilling Units
2.3 Reasons why the exemption is needed. <i>(The reasons provided should be detailed and self-explanatory)</i>	It can be seen that OLS survey is not mandated for Mobile Offshore Drilling Units (MODUs) from a reading of the above cited references. The following reasons further supports the view that adequate safeguards are already in place and periodic OLS survey is not relevant and serves no useful purpose for MODUs. 1. Whenever the MODUs are contracted in India the helideck on the MODUs are surveyed by a Helicopter Operating Company based on DGCA CAR SEC-4, SERIES 'B', PART III requirements for Offshore Helidecks. (Please refer to attached sample Helideck inspection Certificates and extracts of sample audit reports conducted by Helicopter operators/Authorised Agencies). Also the helicopter operating company does a trial take-off and landing test on the MODU after the above helideck audit/inspection is completed. 2. Further, generally OLS survey is carried out periodically for onshore heliports & airports, as there is a possibility of plantation growth, new infrastructure such as telecommunications towers & buildings being



	<p>built around the runway/helipads etc., which can be an obstacle during an approach / take-off.</p> <p>3. MODUs operate in the offshore environment and their helidecks are elevated and always situated away from the types of obstructions encountered onshore. Procedures are in place for notification to be provided to helicopter service providers in the rare event that another offshore facility encroaches upon the approach surface for the MODU's final approach and take-off area (FATO).</p> <p>4. All the equipment and structures present on the MODU around the helideck like a crane etc., are recorded in the MODU's drawings (Please refer to the sample Helideck Drawings reviewed/approved by the unit's classification society (ABS), attached herewith).</p> <p>5. Further the only equipment that could reach/obstruct the helideck is the crane boom and the highest obstacle on Jack-Up MODUs are their legs which is also fitted with omnidirectional red obstruction lights and floodlights for easy visual verification.</p> <p>6. Also, as required by chapter 14 of the MODU Code, the Field Operations manual of all drilling contractors clearly states that during helicopter landing & take off operations, crane booms must be positioned in such a way that there is no possibility of interference and the crane operations are suspended near the Helideck when helicopter operations are underway and this is strictly enforced by E&P operators for the past so many years across the world. (Please refer to attached sample Helicopter Operations extracts from a few Field Operations manuals.)</p> <p>7. Also the external agencies, who are being entrusted with this task are yet to provide/present their prior experience credentials for such offshore helideck surveys, before the IADC members can rely on their services.</p>
2.4 Period for which exemption is required.	<p>Permanent exemption for this OLS Survey by external agencies is sought. Instead IADC-SCA hereby requests DGCA to kindly consider occasional Visual Verification surveys by DGCA officials as an alternative to check/verify compliance.</p> <p>Such a verification survey by DGCA officials would be in-line with the move by UK Civil Aviation Authority (CAA), after the CAA's strategic review of Offshore Helicopter Operations (CAP 1145), based on which an action was raised notifying the CAA's intention to assume responsibility for the certification of UK helidecks.</p> <p>Kindly refer to the Screenshot of relevant UK Civil Aviation Authority (CAA) Web Page enclosed herewith, showing intention of CAA to take-over the responsibility of certification of UK helidecks (instead of relying on external agencies).</p>
2.5 If the exemption will affect a particular kind of operation, the details thereof	<p>Helicopter Landing & Take off operation will not be affected due to this exemption.</p>

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<p>2.6 Action plan for rectification, including the safety assessment and mitigation measures adopted for ensuring the safety during the exemption period.</p>	<p>Safeguards are already in place and no further rectification / mitigation is warranted. However, DGCA may kindly consider occasional Visual Verification surveys by DGCA officials as an alternative to check/verify compliance.</p> <p>If DGCA officials require training on this specialized subject matter, the Helideck Certification Agency, which was established in cooperation with the UK CAA to conduct inspections of offshore helidecks may be considered as they have the required experience and is widely used by IADC members.</p> <p>However, the outcome of the UK CAA consultation noted above will affect how this organization is used in future. Further information can be seen on their website: http://www.helidecks.org/</p>
<p>2.7 The mitigation measures, including the safety assessment proposed to be adopted to ensure safety of aircraft operation.</p> <p>Note: Attach safety assessment report</p>	<p>Operational safeguards are already in place and no further mitigation is warranted for MODUs. However, DGCA may kindly consider occasional Visual Verification surveys by DGCA officials as an alternative to check/verify compliance as outlined above.</p>
	<p style="text-align: center;"> SIGNATURE OF APPLICANT (for IADC-SCA)</p>
<p>DATE: 12th January 2018</p>	<p>NAME: Mr. Aniruddha Pattnaik</p>
	<p>POSITION HELD: Joint Secretary</p>



Screenshot of UK Civil Aviation Authority (CAA) Web Page showing intention of CAA to take-over the responsibility of certification of UK helidecks:

CAP 1145 Action A13: The CAA's intention to assume responsibility for the certification of UK helidecks

During the CAA's strategic review of Offshore helicopter Operations (CAP 1145), an action was agreed whereby the CAA's intention to assume responsibility for the certification of UK helidecks. This consultation is being undertaken as a result of that action.

Consultation

Sponsor	Safety and Airspace Regulation Group: Flight Operations
Status	Closed
Start Date	11 May 2016
Closing Date	24 July 2016
Outcome	Response to comments
Consultation Document	CAP 1296 Consultation: The CAA's intention to assume responsibility for the Certification of UK Helidecks

Our work

Our work is to ensure that the UK's aviation system is safe, secure and efficient. We work with industry, government and the public to achieve this.

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Web page link:

<http://www.caa.co.uk/Our-work/Consultations/Closed/2015/CAP-1145-Action-A13--The-CAA-s-Intention-to-assume-responsibility-for-the-certification-of-UK-helidecks/>

Webpage of www.helidecks.org:

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HCA

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Our Services

Our Staff

Our Location

Safety Alerts

Welcome

11/04/2015 05:52 PM 08-01-2018

-----Forwarded by Shiw2 Shankar Prasad/ONGCL on 07/27/2017 12 18PM -----

To: Prasad_Shiw2@ongc.co.in, Ravinder.Sethi@ril.com, S.Rajaram@shell.com, Rajesh.L.Kumar@ril.com, pramod.sapra@fbaol.com, Sajid.sayed@deepwater.com, Paritosh.nath@jindalmumbai.com, shaleens@aban.com, Salah.madani@shelfdrilling.com, Subramani@aker-fp.com, Durga.prasad@aker-fp.com, Rajiv.upadhyaya@cairnindia.com, Sunilpinto@haloffshore.com, kakkar_r@ongc.co.in, morbale_a@ongc.co.in, himanshu.srivastava@pawanhans.co.in, lr.gaind@pawanhans.co.in, Anand Mohan <anand.mohan@pawanhans.co.in>, AE N Rao <an.rao@pawanhans.co.in>, 'Allan D'Gama' <amd@gvhl.net>, 'Kaushik Pathak' <kp@gvhl.net>, bp@gvhl.net, uday.gelli@heligo.in, COO@heligo.in

From: CaptJS Chauhan SFOI - DGCA

Sent by: jsc.dgca@nic.in

Date: 06/13/2017 06:23PM

Cc: csr99@hotmail.com, UC <yooocge@gmail.com>

Subject: OLS Regulatory Compliance on priority for Helidecks Operations

Sir,

1 Reference is made to the recommendations post Special Helipads/Helidecks- Audit - ordered by DGCA Hqrs & to Para 3 3 1 & 3 3 2 of Civil Aviation Requirements Section-8 Helicopter Operations, Series 'O' Part IV issue II, Dated 28th Mar 2017 CAR Sec 4 Series B Part III, Para 4, Appendix 2 Dated 28 Aug 2006, para 2 1 6 of Air Safety Circular 02/2014 & para 5 2 of ASC 02/1981.

2 The above documents annotate the necessity of ascertaining Obstacle Data along the Flight Path and around Helidecks for safe Operations and assisting PIC for calculating the Take Off, Enroute and Landing performance of Machines operating from their Helidecks prior undertaking Helicopter Operations from any Helidecks

3 Till date, OLS Survey despite being a pre-requisite requirement for a safe Helipad/Helidecks Operations have not been carried out by your Company for many years

4 This non-compliance is a cause of concern as mostly the Helicopter is regularly used. Such OLS surveys are to be conducted by an approved agency that is empanelled by the Airport Authority of India to safeguard the integrity of Obstacle and approach/Take off path data. Subsequently survey needs to be renewed every two years to comply with the regulatory provisions

5 Non compliance of the above requirements grossly lowers safety standards of normal day & Night Ambulance Offshore flying and thus is hazardous to air safety. In view of foregoing, it is requested that an urgent corrective action be undertaken in this regard failing which action as deemed appropriate will be initiated

Sincerely,

Capt J S Chauhan
Senior Flt Ops Inspector (WR)
Flight Standards Directorate (WR)
Directorate General of Civil Aviation (Western Region)

PS: List of Survey Agencies Empanelled by AAI as on 21.04.2017

- 1 Ray Technologies, Nasik (Maharashtra)
- 2 Geokno India Pvt Ltd, Bangalore
- 3 Go Soft E-Solutions, Chennai
- 4 ICT Ltd, Delhi
- 5 IIC Tech, Hyderabad
- 6 Aero India Ltd

OLS survey requirement by DGCA for Mobile Offshore Drilling Unit (MODUs)

An email from Flight Standards Directorate (Western Region) was sent in July 2017 to all offshore rig and platform operators to carry out OLS Regulatory Compliance.

The email cites the references to the following requirements/rules/regulations the relevant contents of which are reproduced below for ready reference:

1. Special Helipads/Helideck Audit ordered by DGCA Hqrs.
2. Para 3.3.1 & 3.3.2 of Civil Aviation Requirements Section-8 Helicopter Operations Series 'O' Part IV issue II. Dated 28th Mar 2017

3.3.1 The operator shall have a system to obtain details of all obstacle data along the flight path and calculate the take-off, en-route and landing performance taking into account such obstacle data. For Indian airports the operator may obtain obstacle data for calculating the performance of the aircraft from the Airports Authority of India.

3.3.2 The operator shall take account of charting accuracy when considering such obstacle data.

3. CAR Sec 4 Series B Part III. Para 4. Appendix 2 Dated 28 Aug 2006 (DGCA has revised the referred document on 10th November, 2016 - SERIES 'B', PART- III, Issue-II)

Annexure 2: Recommendations are for FATO & it recommends TLOF to have

"2. Heliport dimensions and related information

The following additional data shall be measured or described, as appropriate, for each facility provided on an instrument heliport:

a) distances to the nearest metre or foot of localizer and glide path elements comprising an instrument landing system (ILS) or azimuth and elevation antenna of a microwave landing system (MLS) in relation to the associated TLOF or FATO extremities."

4. Para 2.1.6 of Air Safety Circular 02/2014

2.1.6 The flight crew shall google helipad coordinates to check their correctness, suitability and other flying aspects like obstacles (like tall trees, high tension wires), landing, take-off directions, etc.

5. Para 5.2 of ASC 02/1981

5.2 Before Commencement of the flights, the Pilot/operator shall ensure that the take-off/descent path is free from obstacles.

SAFETY AUDIT REPORT

HELIDECK – GD CHAAYA

09.02.2013



EXECUTIVE SUMMARY

Safety audit of GD Chaaya helideck and its safety services was conducted at Mumbai High on 09.02.2013 as per the International standards outlined in ICAO Annexure 14 Volume II, ICAO DOC 9261, CAP 437 and Indian DGCA CAR Section 4 Series B Part III.

The steel helideck has been painted green with marking in compliance with the documents as mentioned above. The helideck D value is 22 meters with load capacity of 12.8 ton. Helideck has been fitted with net of adequate size. This may be a requirement if wheeled helicopters are required to operate. Flood lights and green lights around helidecks are fitted correctly. Crash box is located below the helideck which needs to be shifted as close to helideck as possible in compliance with ICAO Doc 9261. CCTV and VHF R/T recordings of helicopter operations on helideck are needed as a good safety practice. The cost of this will not be prohibitive with available technologies. This certainly will help investigation in case of any unforeseen incident/accident.

The findings and recommendations were discussed with the available rig management. The summary of observations and recommendations are given in section 4 of the report. Rig has no major non-compliances

It is confirmed that the helideck will be able to meet the operational status for civil helicopter operations subject to compliance of recommendations mentioned in section 4 of the report. Section 6 contains Helideck Fitness Certificate.



Capt R S Dangi (Auditor)

UHPL

09.02.2013



ASRY OFFSHORE SERVICES

P.O Box 50110, Hidd,
Kingdom of Bahrain

Attn.: Mr. Aji Rajan, Engineering Manager

Via Client Interface

15 September 2013

File Ref.: S-1

Refer to: IHR/T1064415

Oracle ID: 3072229

Class No.: 8302987

Re: **“VICTORY DRILLER” ex. “GSF ADRIATIC VIII”**

Self-Elevating Drilling Unit (Republic of Vanuatu)

234.08' (Loa) x 200.50' x 26.00'

Euroasia Shipyard Co., Hull ER-02

Gentlemen,

We have received the following drawing through ABS Eagle Engineering Manager system:

Drawing No	Revision No	Drawing Title
N-1001	0	Helideck Marking as per CAP 437 2013

for the subject unit.

As requested, the above drawing has been reviewed for compliance with the applicable requirements of CAP 437, February 2013. The arrangement and details as indicated are found satisfactory subject to the works being carried out to the satisfaction of the attending Surveyor.

Please be advised that ABS review is limited to the Visual Aids in Chapter 4 of the above mentioned regulation.

Soft copy of the drawing stamped to indicate our review is being returned.

Very truly yours,

K.M. Wong
Senior Vice President of Engineering
ABS PACIFIC

by:

In-Hyun Ryu
Senior Engineering Specialist
Ship/Offshore Structures & Statutes

c.c. ABS Surveyor - via O2E

PACIFIC DIVISION

Al Joud Center, 1st Floor, Office #111, Sheikh Zayed Road, P.O. Box 24860, Dubai, United Arab Emirates
TEL: 971-4-330-6000 FAX: 971-4-330-6020 EMAIL: ABSDubai@eagle.org WEB: www.eagle.org



CERTIFICATE

SEMI SUBMERSIBLE MOBILE OFFSHORE DRILLING UNIT:

JACK BATES

The above mentioned helideck has been inspected in accordance with CAP 437 and DGCA CAR SEC-4, SERIES 'B', PART III requirements for Offshore Helidecks.

The Helideck has been found suitable for helicopter operations.

Detailed Audit Report has been presented to TRANSOCEAN LTD

21 September 2016

A handwritten signature in blue ink, appearing to read "Sanjay Mittal", is positioned above the name "(SANJAY MITTAL)".

(SANJAY MITTAL)

CHIEF PILOT

HELIGO CHARTERS PVT LTD

SAFETY AUDIT REPORT --ACTINIA

DATED 16.01.2016



LOCATION KAKINADA PORT INDIA

CIN : U74120MH2012PTC238689

Corporate Office & Lab: 152D, First Floor, Udyog Bhavan,
Sonawala Road, Goregaon (E), Mumbai-400063. ●Tel.:022-26861264 ● www.mastaviation.com

Registered Office : B-201, Sliver Leaf, Akurli Road, Kandivali (E), Mumbai-400101. Email:
info@mastaviation.com ●Tel.:022-28878097



EXECUTIVE SUMMARY

Safety audit of Actinia helideck and its safety services was conducted at Kakinada Port on 16.01.2016 as per the International standards outlined in ICAO Annexure 14 Volume II, DOC 9261, CAP 437 and Indian DGCA CAR Section 4 Series B Part III.

The helideck D value is 22 meters usable is 21 M. The steel helideck has been painted with grey paint with proper marking in compliance with the documents as mentioned above. Management has assured that the helideck will be repainted with dark green paint on certain patches with marking as per the CAP 437. The mass marking is 9.3 ton with correct chevron marking. The name of the installation written on the deck is at correct location. Net is not provided at present. This may be requirement if wheeled helicopters are required to operate. Crash box is correctly located with contents as required by CAP 437. Fire Fighting facilities were checked with adequacy of foam contents and complimenting agents. Stock on location is more than required and is considered a good practice. Fire fighting crew PPE were also checked and found that the PPE meets the basic requirement of NFPA standard.

The findings and recommendations were discussed with the available rig management. The summary of observations and recommendations are given in section 4 of the report. There were no non-compliances

It is confirmed that the helideck is in compliance with an operational status for civil helicopter operations subject to compliance of recommendations mentioned in section 4 of the report. Section 6 contains Helideck Fitness Certificate.

Capt R S Dangi

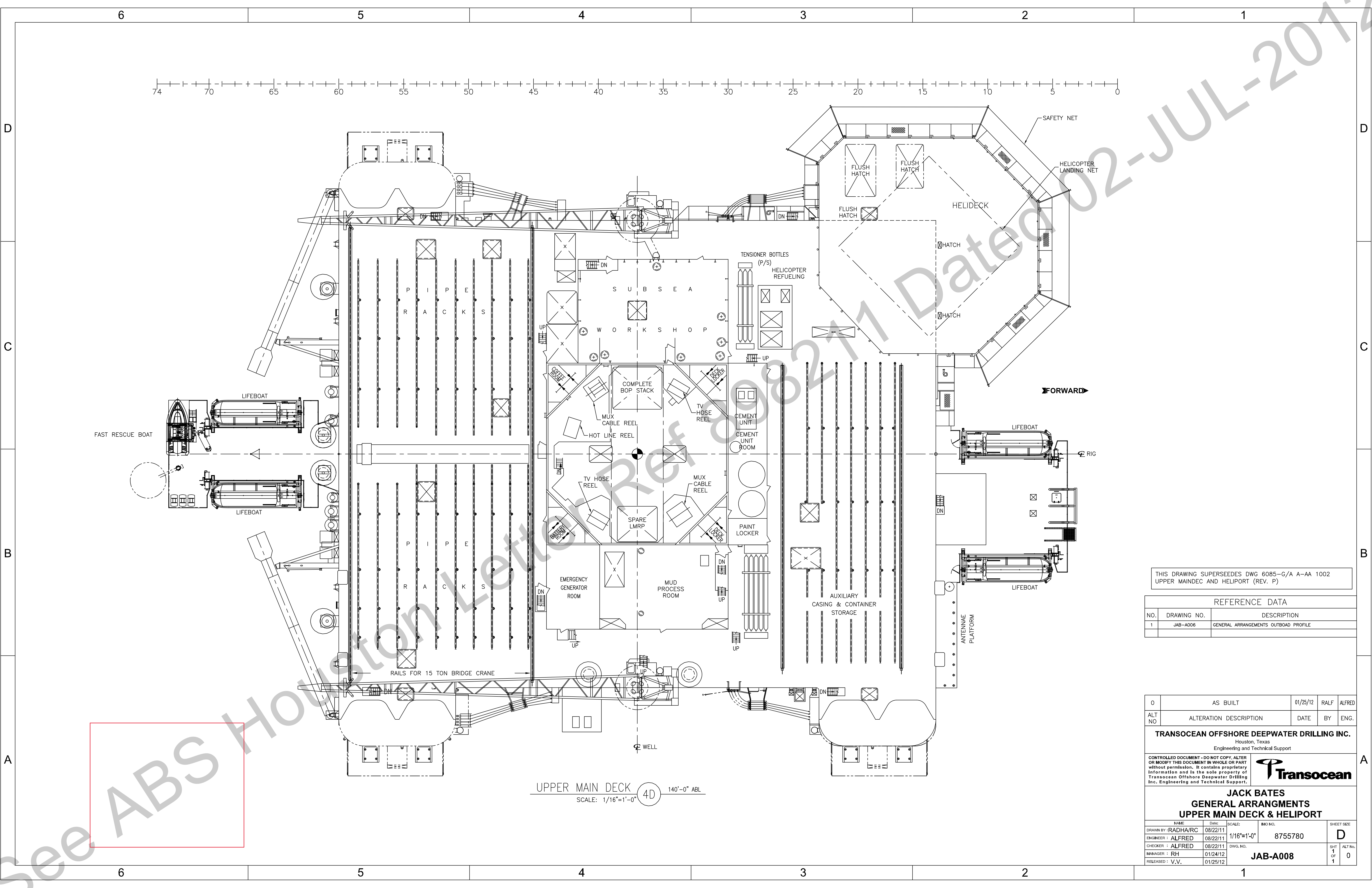
Auditor

CIN : U74120MH2012PTC238689

Corporate Office & Lab: 152D, First Floor, Udyog Bhavan,
Sonawala Road, Goregaon (E), Mumbai-400063. •Tel.:022-26861264 • www.mastaviation.com

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info@mastaviation.com •Tel.:022-28878097



THIS DRAWING SUPERSEDES DWG 6085-G/A A-AA 1002
UPPER MAINDEC AND HELIPORT (REV. P)

REFERENCE DATA		
NO.	DRAWING NO.	DESCRIPTION
1	JAB-A006	GENERAL ARRANGMENTS OUTBOARD PROFILE

0	AS BUILT	01/25/12	RALF	ALFRED
ALT NO	ALTERATION DESCRIPTION	DATE	BY	ENG.

TRANSOCEAN OFFSHORE DEEPWATER DRILLING INC.
Houston, Texas
Engineering and Technical Support

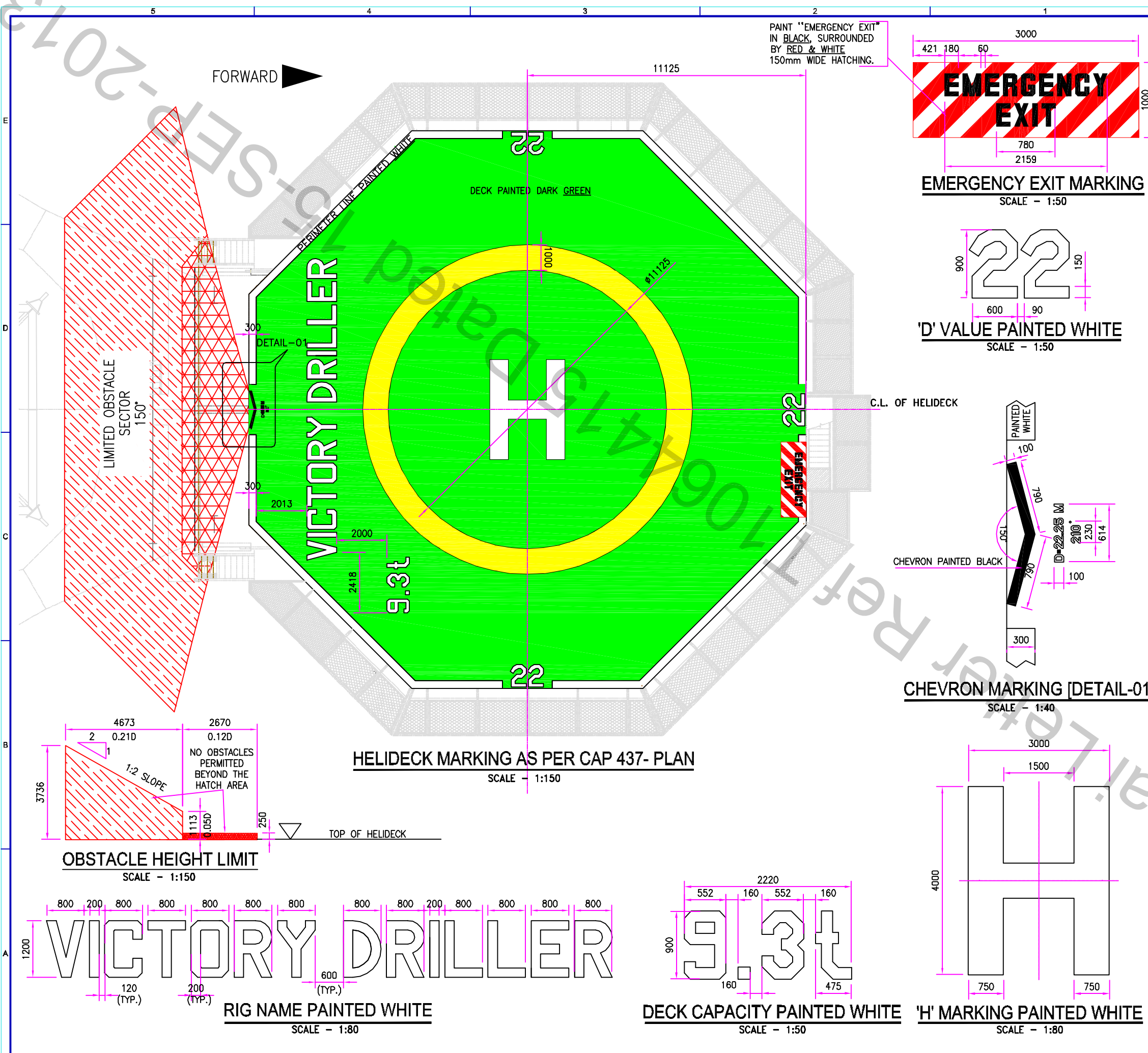
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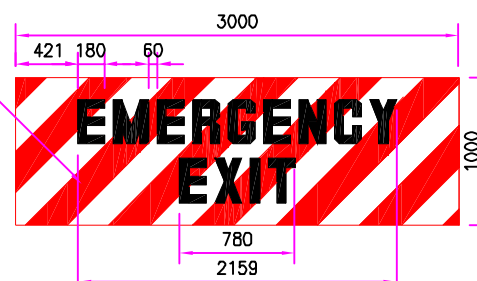
JACK BATES
GENERAL ARRANGMENTS
UPPER MAIN DECK & HELIPORT

NAME	Date	SCALE	BAO NO.	SHEET SIZE
DRAWN BY : RADHA/RC	08/22/11	1/16"=1'-0"	8755780	D
ENGINEER : ALFRED	08/22/11			ALT No.
CHECKER : ALFRED	08/22/11			1 OF 1
MANAGER : RH	01/24/12			0
RELEASED : V.V.	01/25/12			

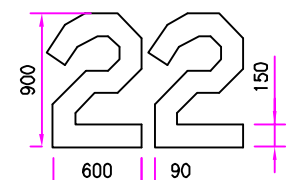
JAB-A008



PAINT "EMERGENCY EXIT"
IN BLACK, SURROUNDED
BY RED & WHITE
150mm WIDE HATCHING.

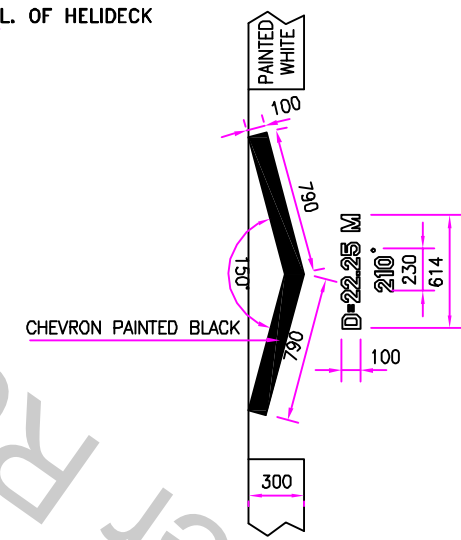


EMERGENCY EXIT MARKING
SCALE - 1:50

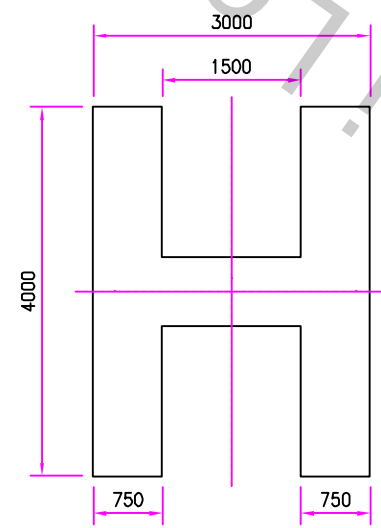


'D' VALUE PAINTED WHITE
SCALE - 1:50

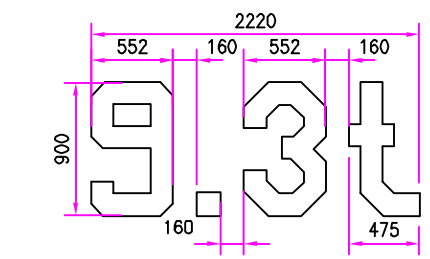
C.L. OF HELIDECK



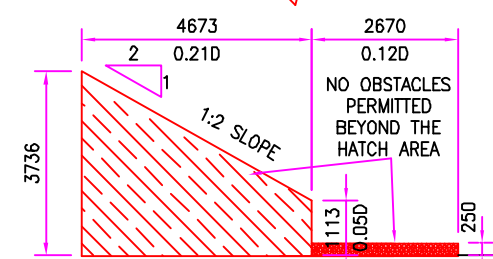
CHEVRON MARKING [DETAIL-01]
SCALE - 1:40



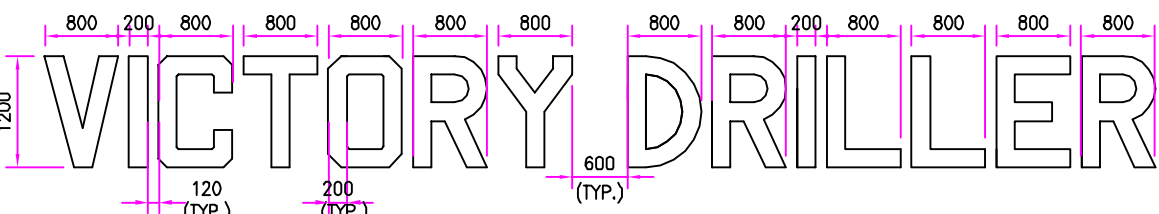
'H' MARKING PAINTED WHITE
SCALE - 1:80



DECK CAPACITY PAINTED WHITE
SCALE - 1:50



OBSTACLE HEIGHT LIMIT
SCALE - 1:150



RIG NAME PAINTED WHITE
SCALE - 1:80

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES. UNLESS NOTED OTHERWISE.
2. DECK CRANES ARE NOT CONSIDERED IN OBSTRUCTION FREE SECTOR.
3. THIS DRAWING IS ONLY FOR HELIDECK MARKING AS PER CAP 437 2013
DRAWING DOES NOT COVER ANY STRUCTURAL, PIPING OR ELECTRICAL ASPECTS REGARDING HELIDECK.
4. LANDING AREA COATING AND MARKINGS ARE TO BE NON SLIP MATERIALS IN ACCORDANCE WITH CAP 437 REQUIREMENTS
5. ALL TIE-DOWNS TO BE FLUSHED FITTING IN ACCORDANCE WITH CAP437-3/8.1

COLOUR SCHEME:

1. **DARK GREEN**
BS 381C: 267 (Deep Chrome Green)
BS 4800: 14.C.39 (Holly Green)
2. **YELLOW**
BS 381C: 309 (Canary Yellow)
BS 4800: 10.E.53 (Sunflower Yellow)
3. **RED**
BS 381C: 537 (Signal Red)
BS 4800: 04.E.53 (Poppy)
4. **WHITE**
RAL 9010 (Pure White)
RAL 9003 (Signal White)
5. **BLACK**
RAL # : 9005

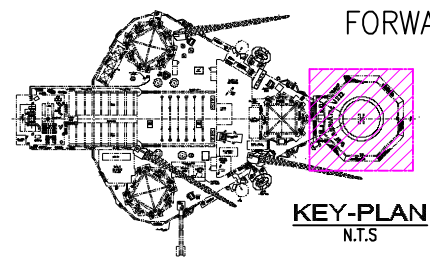


REFERENCE DRAWINGS

TITLE	DRAWING NO.
	-

REVISION HISTORY

A	ISSUED FOR APPROVAL
B	-



REV	DATE	DESCRIPTION	BY	CHKD.	APPD.
0	14.07.2013	ISSUED FOR CONSTRUCTION	DK	JMV	AJI
B	13.07.2013	ISSUED FOR APPROVAL	DK	AK	AJI
A	20.04.2013	ISSUED FOR APPROVAL	DK	AK	AJI



ASRY OFFSHORE SERVICES
P.O. BOX 50110,
Hidd, Kingdom of Bahrain.
E-mail: aos@asry.net
Web: www.asry.net

CLIENT: DYNAMIC DRILLING PTE LTD

TITLE: VICTORY DRILLER
HELIDECK MARKING
AS PER CAP 437 2013

DRAWING NUMBER	AOS JOB No.	SHT. No.	REV.	AOS ORDER No.
N-1001	-	01/01	0	137061
SCALE	HULL No.	RIG CLASS		
AS SHOWN	-	ABS		

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aban	QUALITY, HEALTH, SAFETY AND ENVIRONMENT	Policy SAF 510 00
		Revision No 0
		Issued Date 1 September 2009
SECTION:	<i>SAFETY</i>	Approved By: Adrian Gray
SUBJECT:	<i>HELICOPTER OPERATIONS</i>	

4.1c9 Control steps to ensure only passengers manifested are allowed to board

4.1c10 The process for refueling

4.2 Prior to Helicopter Arrivals or Departures

4.2a The helicopter landing area shall be inspected to ensure it is clear of obstructions, debris, or loose articles.

4.2b Safety nets, if provided around the landing area, shall be properly secured and in good condition.

4.2c The standby vessel, if provided, shall be informed that helicopter operations are underway and arrival or departure is imminent.

4.2d **All crane operations shall stop whenever there is any form of helicopter activity such as arrival, loading, unloading, and departure.**

4.2d1 Exemption may be granted to this requirement for certain cranes on some rigs if a written rig-specific safety action plan approved by the Operations Manager is in place. The plan should be agreed to by the client and Helicopter operating Company.

- The safety action plan shall address the issue and consideration of the possibility of crane operations interfering with the flight path or safe operation of a helicopter.
- An approved copy of the rig-specific safety action plan authorizing exception to this requirement shall be posted inside the crane cab and on the bulletin board or other prominent location inside the living quarters.

4.2e Appropriate firefighting equipment for the helicopter landing area should be regularly inspected and manned during all helicopter activity at the rig site.


4.2f Access to the helideck shall be restricted.

4.2g Helicopter approaches/departures to/from helideck shall be monitored for any abnormalities and pilot shall be warned if any are observed.

4.3 Helideck Operations

4.3a Helicopter on the Helideck

4.3a1 Arriving passengers shall remain seated with lifejackets donned and wait for instructions from either the pilot or the HLO before disembarking.

	QUALITY, HEALTH, SAFETY AND ENVIRONMENT	Policy : SAF 510.00
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SUBJECT:	<i>HELICOPTER OPERATIONS</i>	

4.3a2 On floating vessels, chocks may be required against the main wheels unless advised otherwise by the pilot.

4.3b **Helicopter Arrivals**

4.3b1 The HLO shall receive a copy of the manifest for incoming passengers/cargo from the pilot.

4.3b2 Passengers shall be mindful to keep clear of the tail rotor and the main rotors at the front of the helicopter and follow the instructions of the HLO.

4.3c **Helicopter Departures**

4.3c1 The pilot shall be given a copy of the manifest, with accurate weights, for outgoing passengers/cargo from the HLO.

4.3c2 Passengers shall follow the directions of the pilot and HLO during boarding and be mindful to keep clear of the tail rotor and the main rotors at the front of the helicopter. Passengers shall wear the proper attire: lifejackets and ear protection with seat belts fastened.

4.3c3 Survival suits shall be worn in geographical areas where required.

4.3c4 The HLO shall check the closure of doors and the security of hatches; check for fuel and oil leaks; clear the helideck prior to take off; and give the all clear signal to the pilot for takeoff.

5.0 **RECORDS**

5.1 Helicopter Rig Specific written procedures, rig, current

5.2 Passenger/Freight Manifest, rig, 6 months

5.3 Exemptions for Crane Operations Cessation, rig and operations ashore, current

5.4 Safety Action Plan, Rig and Rig Manager, current

5.5 Safety Action Plan, posted in Crane Cab and on Bulletin Board, current

	Barge Supervisor	Assistant Barge Supervisor	Helicopter Landing Officer (HLO)	Radio Operator	Helideck Crew
Verify the Helideck Lighting System is fully functional prior to any helicopter operations. [P1]	IM	IM	V		
Verify the helideck fire suppressing equipment is ready for immediate use prior to any helicopter operations. [P1]	IM	IM	PM		
<p>During helicopter operations, crane booms must be positioned so that there is no possibility of interference with the helicopter. Crane Operator must not be in the crane cab. [P1]</p> <p>REF: HQS-HSE-PP-01, Sec. 2, Sub. 29, Para. 4.3, "Helicopter Operations"</p>	IM	IM	PM		
<p>Confirm with the Helicopter Pilot the status of the following: [P1]</p> <ul style="list-style-type: none"> Helideck clear for landing 					
<ul style="list-style-type: none"> Fuel Requirements Current weather and vessel motions Barometric pressure Temperature Number of passengers to depart the Installation Total body weight Total baggage weight Method of loading passengers 	IM	IM	PM	PM	
The standby vessel (if available) must be notified in advance of arrival or departure of a helicopter. [P3]	IM	IM		PM	
Suspend all hot work in the vicinity of the helideck prior to a helicopter arriving and departing the Installation. [P1]	IM	IM	PM	PM	