

HELICOPTER DECKS AND FACILITIES (HELIDK AND HELIDK(SRF))

APRIL 2008

NOTICE NO. 2 – June 2012

The following Rule Changes become **EFFECTIVE AS OF 1 JUNE 2012**.

(See <http://www.eagle.org> for the consolidated version of the Guide for the Class Notation Helicopter Decks and Facilities (HELIDK and HELIDK(SRF)) 2008, with all Notices and Corrigenda incorporated.)

Notes - The date in the parentheses means the date that the Rule becomes effective for new construction based on the contract date for construction. (See 1-1-4/3.3 of the ABS Rules for Conditions of Classification (Part 1).)

SECTION 2 STRUCTURAL DESIGN AND SAFETY CRITERIA

5 Helicopter Deck Arrangements

5.1 Size

(Revise Subparagraph 2/5.1.1, as follows.)

5.1.2 (15 June 2012)

Where adverse climatic conditions are prevalent for normal helicopter operation, a helicopter deck is to have sufficient size to contain a circle of a diameter at least equal to the overall length of the largest helicopter using the helicopter deck. The approach/departure sector is to be not less than 210° free of obstruction and is to intersect the periphery of the circle described above, as shown in Section 2, Figure 1. Outside the approach/departure sector, obstructions within one-third of the helicopter's overall length from the periphery of the circle described above are not to extend more than $\frac{1}{20}$ of the helicopter overall length above the level of the helicopter deck. The overall length of a helicopter (*D* or *D-value*) is the distance from the tip of the main rotor blade to the tip of the tail rotor when the rotor blades are aligned along the longitudinal axis of the helicopter.

9 Safety

9.5 Visual Aids

(Revise Subparagraph 2/9.5.1, as follows.)

9.5.1 General (15 June 2012)

Coastal States may have specific requirements and must be incorporated into the design. Those requirements are to be specified and acceptable documentation to verify compliance with those specific requirements is to be submitted to ABS. Where the Coastal State has no requirements, the following requirements for wind indicator, marking, and lights are to be complied with.

(Revise Paragraph 2/9.7, as follows.)

9.7 Markings (15 June 2012)

9.7.1 Vessels

The flag Administration or the cognizant authority (in which territorial waters the vessel or unit is being operated) may have specific requirements on helicopter deck markings. Those requirements are to be specified and acceptable documentation to verify compliance with those specific requirements is to be submitted to ABS. In the absence of such requirements, the helicopter deck is to be marked in a contrasting color as follows (see also Section 2, Figure 1):

- i) The perimeter with a continuous line of 400 mm (15.75 in.) in width
- ii) Vessel identification
- iii) Aiming circles in yellow, taking into account deck configuration, helicopter type and operational requirements
- iv) A white “H” centered on the landing area with the horizontal bar of the “H” on the bisector of the obstacle-free sector. The “H” is to be 3 m (9.85 ft) high, 1.8 m (5.9 ft) wide and 0.4 m (1.3 ft) wide lines.

9.7.2 Mobile Offshore Drilling Units and other Offshore Units

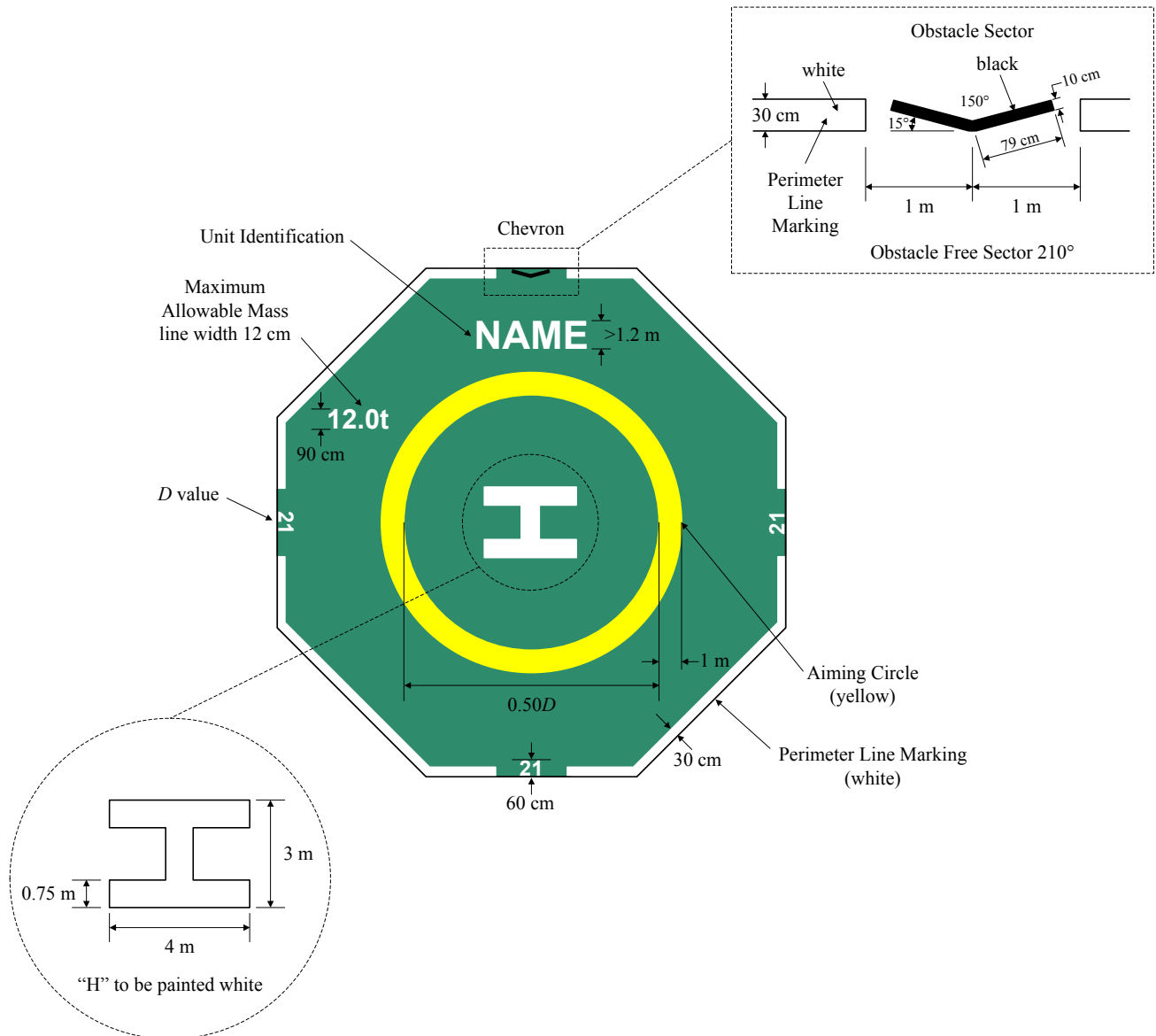
Unless specific requirements are provided by the flag Administration or the cognizant authority (in which territorial waters the vessel or unit is being operated), the helicopter deck on MODUs and other offshore units is to be marked as follows (see also Section 2, Figure 2):

- i) The perimeter with a continuous white line of at least 0.3 m (1 ft) in width. Perimeter marking for single main rotor helicopters is typically for a 1 *D value*, where the *D-value* is the reference diameter as described in 2/5.1.2.
- ii) Unit identification, positioned between the origin of the obstacle-free sector and aiming circle, with characters not less than 1.2 m (4 ft) in height in a color contrasting with the background.
- iii) Aiming circles in yellow, taking into account deck configuration, helicopter type and operational requirements. The inside diameter is to be equal to 0.5 *D* and the width of the line is to be 1 m (3.3 ft).
- iv) A white “H” centered on the landing area with the horizontal bar of the “H” on the bisector of the obstacle-free sector. The “H” is to be 4 m (13.15 ft) high, 3 m (9.85 ft) wide and 0.75 m (2.45 ft) wide lines.
- v) A black chevron positioned in the perimeter marking, each leg being 0.8 m (2.6 ft) long and 0.1 m (4 in.) wide forming an angle that indicates the origin of the obstacle-free sector and the directions of the limits of the sector.
- vi) The actual *D-value* of the helicopter deck inboard of the chevron in alphanumeric symbols of 0.1 m (4 in.) in height.
- vii) The *D-value* in the perimeter marking every 90 degrees starting from the chevron, in color contrasting with the helicopter deck (preferably white, but not black or grey for night use). The *D-value* is to be expressed to the nearest whole number with 0.5 rounded down (i.e., 18.5 marked as 18). Markings for some helicopters may require special consideration.
- viii) The maximum allowable mass marking consisting of a two- or three-digit number followed by the letter “t” to indicate the allowable helicopter mass in tonnes (1000 kg) expressed to one decimal place, rounded to the nearest 100 kg. The marking is to be located in a position which is readable from the preferred final approach direction (i.e., towards the obstacle-free sector origin), and the height of the figures is to be 0.9 m (2.95 ft) with a line width of approximately 0.12 m (4.75 in.) and in a color contrasting with the helicopter deck (preferably white, but not black or grey for night use). Where the coastal State requires the marking in pounds, it is to consist of a two- or three-digit number to indicate the maximum allowable mass in thousands of pounds, rounded to the nearest 1,000 pounds.

The helicopter deck is to be painted preferably in dark green color as background to the markings. Markings on aluminum helicopter decks of natural light grey color are to be enhanced with contrasting colors.

(Add new Section 2, Figure 2, as follows.)

FIGURE 2
Helicopter Deck Markings (15 June 2012)



9.9 Lights

(Revise Subparagraph 2/9.9.1, as follows.)

9.9.1 Perimeter Lights (15 June 2012)

9.9.1(a) Vessels. Each helicopter deck is to be fitted with perimeter lights to the requirements provided by the flag Administration (or the cognizant authority). Those requirements are to be specified and acceptable documentation to verify compliance with those specific requirements is to be submitted to ABS. In the absence of such requirements, omni-directional yellow and blue lights, in alternate order, are to be fitted to enable the landing area to be easily identified at night. These lights are to be positioned around the perimeter of the deck not more than 3 m (9'-10") apart.

9.9.1(b) Mobile Offshore Drilling Units and other Offshore Units. The perimeter of the helicopter deck is to be fitted with green lights visible omni-directionally from on or above the landing area. These lights are to be above the level of the deck, but not to exceed 0.25 m (10 in.) in height for helicopter decks sized to a 1 D value. These lights are to be positioned around the perimeter of the deck not more than 3 m (9'-10") apart, coincident with the perimeter line as per 2/9.7.2(i). In the case of square or rectangular decks, at least four lights are to be fitted along each side, including a light at each corner. Flush fitting lights may be used at the inboard edge of the helicopter deck (150° limited obstacle sector origin) where there is a need to move a helicopter or large equipment off the helicopter deck.

SECTION 3 HELICOPTER REFUELING SYSTEMS

1 Steel Vessels (Greater than 90 meters in Length)

1.5 Spill Containment

(Revise Subparagraph 3/1.5.2, as follows.)

1.5.2 Drainage (15 June 2012)

Arrangements for drainage from within the coaming area are to be as follows.

- i)* Permanent piping and a suitable holding tank are to be fitted so that drainage can be either led to the holding tank (for draining oil) or discharged overboard (for draining water) through a three-way valve. No other valve is permitted in the drain piping.
- ii)* The cross sectional area of the drain pipe from the fuel tank coaming is to be twice that of the fuel storage tank outlet pipe.
- iii)* The area within the coaming is to be sloped towards the drain pipe.

Where the area within the fuel tank coaming is not provided with drainage arrangements, the height of the coming is to be sufficient to contain the full volume of the fuel storage tank plus 150 mm (6 in.).

For drainage of a helicopter deck, see 4-6-4/3.9.2.

3 Steel Vessels (Under 90 meters in Length) and Liftboats

3.3 Fuels with Flash Point at or Below 60°C (140°F) – Installations on an Open Deck

(Revise Subparagraph 3/3.3.5, as follows.)

3.3.5 Spill Containment (15 June 2012)

To contain spillage and retain fire extinguishing agents, a coaming of at least 150 mm (6 in.) in height is to be provided. The coaming is to surround the fuel storage area, which consists of the fuel tank, associated piping and any pumping unit adjacent to the storage tank. Where the pumping unit is remote from the tank, a separate coaming is to be provided around the pumping unit.

Drainage is to be provided for the area enclosed by the coaming, complying with the following:

- i)* The area within the coaming is to be sloped toward the drain line.
- ii)* Drainage from the area within the coaming is to be led through a valve designed for selective output (e.g., 3-way valve) either to a holding tank complying with 4-4-8/3.3.2 and 4-4-8/3.3.3 above or directly overboard. No other valves may be fitted in the drain line.
- iii)* The cross sectional area of the drain line from the fuel tank coaming is to be at least twice that of the fuel storage tank outlet connection.

Fuel tank coamings not provided with drainage arrangements in accordance with the above are to be sized to contain the full volume of the fuel storage tank plus 150 mm (6 in.) of foam.

5 Steel Barges

5.1 Helicopter Fuel Oil Storage and Transfer Facilities

(Revise Subparagraph 3/5.1.6, as follows.)

5.1.6

To contain spillage and retain fire extinguishing agents, a coaming at least 150 mm (6 in.) in height is to be provided. The coaming is to surround the fuel storage area, which consists of the fuel tank, associated piping and any pumping unit adjacent to the storage tank. Where the pumping unit is remote from the tank, a separate coaming around the unit is to be provided. A coaming will be required only around the fuel pumping unit where the installation is such that the fuel storage tank is cantilevered from the barge and arranged to be jettisoned.

Drainage is to be provided for the area enclosed by the coaming and complying with the following:

- i)* The area within the coaming is to be sloped toward the drain line.
- ii)* Drainage from the area within the coaming is to be led through a valve designed for selective output (e.g., 3-way valve) either to a holding tank complying with 3/5.1.2 and 3/5.1.3 or directly overboard. No other valves may be fitted in the drain line.
- iii)* The cross-sectional area of the drain line from the fuel tank coaming is to be at least twice that of the fuel storage tank outlet connection.

Fuel tank coamings not provided with drainage arrangements, in accordance with the above, are to be sized to contain the full volume of the fuel storage tank plus 150 mm (6 in.) of foam.

7 Mobile Offshore Drilling Units

(Revise Paragraph 3/7.5, as follows.)

7.5 Spill Containment (15 June 2012)

To contain spillage and retain fire extinguishing agents, a coaming at least 150 mm (6 in.) in height is to be provided. The coaming is to surround the fuel storage area, which consists of the fuel tank, associated piping and any pumping unit adjacent to the storage tank. Where the pumping unit is remote from the tank, a separate coaming around the unit is to be provided. A coaming will be required only around the fuel pumping unit where the installation is such that the fuel storage tank is cantilevered from the platform and arranged to be jettisoned.

Drainage is to be provided for the area enclosed by the coaming complying with the following:

7.5.1

The area within the coaming is to be sloped toward the drain line.

7.5.2

Drainage from the area within the coaming is to be led through a valve designed for selective output (e.g., three-way valve) either to a holding tank complying with 3/7.1.2 and 3/7.1.3 or directly overboard. No other valves may be fitted in the drain line.

7.5.3

The cross sectional area of the drain line from the fuel tank coaming is to be at least twice that of the fuel storage tank outlet connection.

Fuel tank coamings not provided with drainage arrangements in accordance with the above are to be sized to contain the full volume of the fuel storage tank plus 150 mm (6 in.) of foam.

SECTION 4 FIRE SAFETY SYSTEMS

5 Mobile Offshore Drilling Units

(Revise Paragraph 4/5.1, as follows.)

5.1 General (15 June 2012)

Where areas of a unit are designated for helicopter operations, details of the facilities are to be submitted and the firefighting systems of 4/5.3 are to be provided and stored near the access to those areas.

Deckhouse tops directly below helicopter decks are to have no openings. See 3/7.3 for helicopter deck drainage.

A firefighting system as required by 4/5.3 is to be provided and arranged so as to adequately protect both the helicopter deck and helicopter fuel storage areas where provided. See 4-2-6/7 of the *MODU Rules* for the fuel storage requirements.

(Combine and revise Paragraphs 4/5.3 and 4/5.5, as follows.)

5.3 Firefighting Systems (15 June 2012)

5.3.1 Hoses and Nozzles

At least two approved combination solid stream and water spray nozzles and detachable applicators and hoses sufficient in length to reach any part of the helicopter deck are to be provided.

5.3.2 Portable Extinguishers

The helicopter deck area is to be protected by at least two approved dry powder extinguishers of a total capacity of not less than 45 kg (100 lb). At least one portable extinguisher is to be located at each helicopter deck access point.

5.3.3 Back-up System

A back-up firefighting system is to be provided, consisting of CO₂ extinguishers of a total capacity of not less than 18 kg (40 lb) or equivalent, one of these extinguishers being equipped so as to enable it to reach the engine area of any helicopter using the deck. The back-up system is to be located so that the equipment would not be vulnerable to the same damage as the dry powder extinguishers required by 4/5.3.2.

5.3.4 Fixed-Foam System

A fixed-foam fire-extinguishing system consisting of monitors or hose streams or both is to be installed to protect the helicopter landing area in all weather conditions in which helicopters can operate and fuel storage areas, when provided onboard. The helicopter landing area is the area contained within a circle of diameter “D” where “D” is the distance across the main rotor and tail rotor in the fore and aft line of a helicopter with a single main rotor and across both rotors for a tandem rotor helicopter or the full area of the deck, whichever is less. The system is to be capable of delivering foam solution at a rate of 6.0 liters per square meter per minute (0.15 gpm per square foot) of the areas protected for at least five minutes. The pump is to be capable of maintaining a pressure of 7 bar (7 kgf/cm², 100 psi) at the foam installation. The foam agent is to meet the performance standards for Level B foam in the International Civil Aviation Organization’s Airport Services Manual (Part 1 Chapter 8, Paragraph 8.1.5, Table 8-1) and be suitable for use with sea water. Foam delivery at the minimum application rate is to start within 30 seconds of system activation.

The operation of the foam system is not to interfere with the simultaneous operation of the fire main.

5.3.5 Deck Integrated Fire Fighting System (DIFFS)

When permitted by the flag Administration, a deck integrated fire fighting system (DIFFS) may be provided as an alternative to the fixed-foam fire-extinguishing system protecting the helicopter landing area. DIFFS typically consist of a series of 'pop-up' nozzles, with both a horizontal and vertical component, designed to provide an effective spray distribution of foam to the whole of the landing area. DIFFS is to be capable of supplying performance level B foam solution at an application rate and for a duration, which at least meets the minimum requirements stated in 4/5.3.4 above.

DIFFS performance criteria need to consider several pop-up nozzles rendered ineffective by the impact of a helicopter on the landing area. The number of pop-up nozzles rendered ineffective by a crash situation will depend on the pattern (spacing) of the nozzle arrangement and the type(s) of helicopters operating to the helicopter deck, but not less than 15% of the nozzles installed. The remaining pop-up nozzles are to be capable of delivering finished foam to the landing area at or above the minimum application rate, considering the individual supply pipes to the damaged pop-up nozzles ruptured.

DIFFS activation is to be initiated manually. Activation controls are to be located in at least two positions having immediate access to the helicopter landing area and separated as far as practicable. Foam delivery at the minimum application rate is to start within 30 seconds of system activation.

The operation of DIFFS is not to interfere with the simultaneous operation of the fire main.

(Renumber Paragraph 4/5.7 as 4/5.5.)