

# Regulations relating to helicopter aviation – use of offshore helidecks

Adopted by the Civil Aviation Authority Norway on 14 May 2019 pursuant to the Act of 11 June 1993 No 101 relating to Aviation, Sections 9-1 and 15-4, cf. Delegation Decision of 10 December 1999 No 1273.

## Chapter I. Scope and definitions

### Section 1 Scope

These regulations apply to helicopter operators holding specific approval for offshore operations, and who perform offshore operations to and from helidecks, except helidecks on Norwegian military vessels.

### Section 2 Definitions and abbreviations

For the purpose of these regulations, the following definitions shall apply:

- a) *installation*: Collective term for fixed and mobile installations used in connection with petroleum activities or other activities on the continental shelf.
- b) *helideck*: A landing platform on an installation or vessel, purpose-built and intended for helicopter take-offs and landings.
- c) *periphery circle*: The largest circle that can theoretically be drawn around the centre of the helideck within its periphery.
- d) *moving helideck*: A helideck, fitted on an installation or a vessel, that can move in such a way that the pitch and roll movements exceed 1 degree in relation to the horizontal plane, or such that the vertical movement exceeds 2 metres.
- e) *helideck operator*: Operating company for an installation or vessel with a helideck.
- f) *helicopter operator*: Enterprise holding specific approval for offshore operations, cf. Regulations of 7 August 2013 No 956 relating to aircraft operations, Section 4a.
- g) *night*: The hours between the end of evening civil twilight and the beginning of morning civil twilight. Civil twilight ends when the sun's geometric centre is 6 degrees below the horizon in the evening, and begins when the sun's geometric centre is 6 degrees below the horizon in the morning.

For the purpose of these regulations, the following abbreviations shall apply:

- a) *D*: The largest overall dimension of the helicopter when the rotors are turning.
- b) *D<sub>H</sub>*: The diameter of the helideck measured inside the periphery circle when all requirements in these regulations are met.
- c) *HLO (Helicopter Landing Officer)*: The person in charge of the day-to-day supervision of work on the helideck.

## Chapter II. Responsibilities

### Section 3 Requirements for the use of helidecks

A helicopter operator may only use helidecks that the helicopter operator finds adequate for use and that, as a minimum, are in compliance with the requirements of these regulations.

Helidecks on installations and vessels other than those that have been granted consent by the Petroleum Safety Authority Norway or certified by the Norwegian Maritime Authority may only be used if the helideck has been appropriately approved by the competent authority in the country in which the installation or vessel is domiciled.

#### Section 4 *Suspension of flight operations*

If use of a helideck entails a risk of injury or damage, flight operations shall be suspended immediately until the situation has been remedied. The situation shall be investigated and appropriate corrective and preventive measures shall be taken before flight operations may be resumed.

### **Chapter III. Documentation and organisation**

#### Section 5 *Management system*

Helicopter flights to and from a helideck are contingent on the existence of a management system that ensures that the operation of the helideck, and the handling of helicopter passengers, baggage and cargo, are in compliance with relevant requirements, and that the level of risk associated with the operation is acceptable. The management system must ensure that operations are based on documented risk assessments and adapted to the helideck concerned.

Documentation of the management system must include as a minimum:

- a) procedures for normal operation, abnormal situations, emergencies and accidents;
- b) training programmes for helideck personnel, personnel handling passengers, baggage and cargo, and other personnel involved during helicopter operations;
- c) procedures for initial and recurrent training and periodic exercises and drills in connection with normal operation, abnormal situations, emergencies and accidents;
- d) a maintenance and spare parts system for the helideck;
- e) the meteorological service; and
- f) procedures to ensure that helidecks that are temporarily or permanently closed for normal flights are marked in a way that does not pose a danger in the event of an emergency landing.

Helicopter operators who intend to use a helideck must have available documentation of the management system for the helideck.

#### Section 6 *Record-keeping*

A helicopter operator may only use a helideck where the helideck operator keeps records that document the operation and use of the helideck.

#### Section 7 *Helideck data etc.*

A helicopter operator may only use a helideck where the helideck operator has documented and maintained data about the helideck and other data with a bearing on aviation safety. Such documentation must be available to helicopter operators and others who need it.

The helideck operator must have sent the helideck data to the aeronautical information service in a form and of a quality decided by the aeronautical information service. If the data are published through an aeronautical information publication system, the helideck operator must monitor the published helideck data and ensure that necessary changes are made so that the helideck data are correct at all times.

#### Section 8 *Helideck report*

The helicopter operator must have received an updated helideck report before flight to a helideck.

#### Section 9 *Nonconformity system*

A helicopter operator may only use a helideck that is covered by the helideck operator's nonconformity system.

Helicopter operators must make sure that helideck operators report incidents on and in the vicinity of helidecks to relevant helicopter operators.

## **Chapter IV. Helideck personnel**

### *Section 10 Helideck personnel*

A helicopter operator may only use a helideck where helideck personnel are available for helideck duties. An HLO must supervise work on the helideck during helicopter operations. The HLO must keep the offshore installation manager or vessel's master informed about the status of the helideck, equipment and services.

The HLO must maintain radio contact with the helicopter crew from before landing until after departure. Before landing the HLO shall inform the helicopter crew whether the helideck is clear for landing.

At the earliest possible opportunity before landing, the helicopter crew must be informed of any changes to the information reported in the helideck report, for example the status of moving obstacles, weather conditions and deck movements.

The HLO and other helideck personnel must immediately inform the helicopter crew of any abnormal situations.

A helicopter operator may only use a helideck where at least three members of the helideck crew under normal circumstances is present during take-off and landing. This may include the HLO. Where manually operated foam monitors are available, at least one person must stand next to the foam monitor that is most appropriately positioned for use under the prevailing weather conditions, wearing a complete fire protection kit, cf. Section 48 first paragraph.

The HLO must ensure that passengers are guided during embarkation and disembarkation.

### *Section 11 Competence*

A helicopter operator may only use a helideck where the helideck personnel have undergone training in compliance with requirements from the helideck operator and the helicopter operator. Completed initial and recurrent training must be documented.

The helicopter operator's requirements for training of the HLO and other helideck personnel must be described in the helicopter operator's operations manual and be communicated to the helideck operator.

## **Chapter V. Design etc.**

### *Section 12 Location*

A helicopter operator may only use a helideck that is placed so that the obstacle-free approach and take-off sector has the most favourable orientation relative to the prevailing wind conditions. The helideck must be positioned so as to minimise the effect of any turbulence or gas emissions in the take-off, approach and landing areas.

If the helideck is positioned so that turbulence can be generated from an underlying compact part of the installation or vessel, sufficient separation must be provided to enable air

to flow freely between the helideck and the underlying structure. Under all circumstances, the air gap must be at least 1 m.

Wind and turbulence conditions and gas emissions must be documented by wind tunnel tests or use of computational fluid dynamics analysis.

#### Section 13 *Design and construction*

A helicopter operator may only use a helideck that is constructed of suitable anticorrosive material.

The helideck must be designed so that water does not collect on the deck, but the slope must not exceed 2%.

The helideck must be leakproof and designed to maintain ground effect.

#### Section 14 *Size*

A helicopter operator may only use a helideck that has a minimum diameter ( $D_H$ ) corresponding to 1.25 times the D-value of the helicopter that is to use the helideck.

#### Section 15 *Loads*

A helicopter operator may only use a helideck where the helideck operator has documented which helicopter types can be used based on the helideck's design and structure.

#### Section 16 *Non-slip protection*

A helicopter operator may only use a helideck having a surface skid-resistant to both helicopters and personnel.

A helicopter operator may only use a helideck where the helideck operator has identified and monitors all factors affecting the helideck surface characteristics and has procedures and measures in place to ensure adequate non-slip protection.

#### Section 17 *Landing net*

A helicopter operator may only use a helideck where the landing area is equipped with a landing net.

The size of the landing net depends on the helicopter types to be used. The minimum size shall be

- a) small: 9 x 9 m or 9 m diameter.
- b) medium: 12 x 12 m or 12 m diameter.
- c) large: 15 x 15 m or 15 m diameter.

The mesh must be designed to prevent the net from snagging on the helicopter. The landing net must be fastened at intervals of 1.5 m. To ensure that the landing net is kept sufficiently taut, at least half of the fastenings must be equipped with tightening mechanisms.

Helicopter operators may use non-moving helidecks without a landing net provided adequate skid-resistance is ensured. The same applies to moving helidecks with permanent friction arrangements that prevents the helicopter from skidding in any direction. A landing net must nonetheless be installed if there is a risk of snow or ice on the helideck.

#### Section 18 *Paint*

A helicopter operator may only use a helideck where certified low flame-spread paint is used on and in the immediate vicinity of the helideck.

#### Section 19 *Safety kerb*

A helicopter operator may only use a helideck where the edge of the helideck is fitted with an approximately 5 cm high safety kerb. The kerb must not prevent effective drainage to the gutter.

A safety kerb does not have to be installed if measures have been established to ensure that firefighting foam and water are led into the gutter.

#### Section 20 *Gutter*

A helicopter operator may only use a helideck surrounded by a gutter that collects liquids in an efficient manner. The gutter must be designed to resist burning fuel and have a minimum dimension of 20 x 20 cm.

The drainage system must function effectively and lead directly to sea during all angles of heel where helicopters are allowed to land.

#### Section 21 *Safety net*

A helicopter operator may only use a helideck where the helideck is surrounded by a safety net capable of catching anyone who falls off the edge of the helideck. Parts of the helideck perimeter where other structures provide sufficient fall protection along the edge of the helideck do not need to be equipped with a safety net.

The safety net must extend a minimum of 1.5 m from the outer edge of the gutter, and it must be capable of catching anyone who falls into it without inflicting injuries. The safety net must be made of a flexible corrosion-resistant and fire-resistant material. The combined width of the safety net and the gutter, cf. Section 20, must not exceed 2.0 m. The mesh of the safety net must not exceed 10 cm square. The safety net must be fastened below the helideck and have an upward slope of approximately 10° so that its outer edge is level with the helideck.

On older helidecks, when necessary to accommodate particular structural features, the outer edge of the safety net may be up to 25 cm above the level of the helideck.

Where necessary due to access points and the placement of equipment for helideck operations, the combined width of the gangway, gutter and projections may nonetheless be up to 3.0 m from the edge of the helideck.

#### Section 22 *Access points*

A helicopter operator may only use a helideck that has at least two access points in addition to the main access. Insofar as it is possible, the other access points must be located at an angle of 120° in relation to the main access.

Access to control positions for the foam monitors must be arranged so that it does not require crossing any part of the helideck.

#### Section 23 *Tie-down points*

A helicopter operator may only use a helideck where the helideck and any parking areas are equipped with tie-down points to secure parked helicopters. The tie-down points must not be more than 25 mm above the helideck. Tie-down points must be dimensioned to allow for the use of relevant tie-down equipment.

#### Section 24 *Approval etc.*

A helicopter operator may only use a helideck that is approved by the competent authority in the country in which the installation or vessels is domiciled, or where it is otherwise documented that the design, construction and maintenance are satisfactory pursuant to the requirements.

## Chapter VI. Obstacles

### Section 25 *210° obstacle-free approach and take-off sector*

A helicopter operator may only use a helideck with a 210° obstacle-free approach and take-off sector. The sector shall extend horizontally from the helideck level. The origin of the sector shall be a chosen point on the helideck's periphery circle. The bisector shall normally pass through the centre of the helideck. The angle of the sector may, if necessary, be 'swung' by up to 15°.

The horizontal extent of the sector shall be calculated on the basis of performance requirements for the most critical helicopter type used, but must nonetheless be minimum 500 m.

### Section 26 *180° obstacle-free sector*

A helicopter operator may only use a helideck with an obstacle-free sector at a 180° angle through the centre of the heliport identification marking (H), perpendicular to the bisector of the 210° sector in a plane with a fall gradient of 5:1 from the outer edge of the safety net or the gangway down to the sea level.

The horizontal extent of the sector shall be calculated on the basis of performance requirements for the most critical helicopter type used, but must nonetheless be minimum 500 m.

### Section 27 *Obstacles in the 210° obstacle-free approach and take-off sector*

A helicopter operator may only use a helideck where no obstacles protrude above the helideck level in the 210° approach and take-off sector. The following is nonetheless permitted on the helideck:

- a) safety kerb, cf. Section 19,
- b) outer edge of the safety net, cf. Section 21 third paragraph,
- c) foam monitors, signs as described in Section 35 second paragraph, perimeter lighting, floodlights, status lights and repeater lights, up to 25 cm above the helideck level,
- d) alternative lighting, up to 25 mm above the helideck level, cf. Section 36 third paragraph.

### Section 28 *Obstacles outside the 210° obstacle-free approach and take-off sector*

A helicopter operator may only use a helideck where the 150° sector contains no obstacles higher than 25 cm within a distance of 0.12  $D_H$  going outwards from the edge of the helideck. From 0.12  $D_H$  outwards to a distance of 0.33  $D_H$  from the edge of the helideck, no obstacles may protrude above a plane that rises at a gradient of 1:2 (height to distance) starting at a height of 0.05  $D_H$ .

## Chapter VII. Markings and visual aids

### Section 29 *Windsock*

A helicopter operator may only use a helideck with a windsock installed so as to indicate as clearly as possible the wind conditions on the helideck, both the direction and the speed. The windsock must be clearly visible. The windsock must be installed so as to minimise exposure to turbulence generated by nearby structures and rotor downwash. The windsock must be solid-coloured: orange or white, or two-coloured: orange and white, red and white or black and white. The windsock must be conical and of adequate size.

A second windsock must be installed where turbulence generated by certain wind directions may influence the functioning of the primary windsock.

Windsocks must be illuminated for night operations.

A spare windsock must always be available. The second windsock must be stored so that it can be installed before the next helicopter arrival.

### Section 30 *Marking of helideck and landing area*

A helicopter operator may only use a helideck that is green or grey in colour, and with the following markings:

- a) The perimeter shall be marked with a 0.3 m wide white line.
- b) A yellow 1 m wide reference circle for touchdown guidance. The inside diameter of the reference circle must correspond to half the  $D_H$ -value of the helideck. When dictated by special operational circumstances, the centre of the reference circle may be displaced by up to  $0.1 D_H$  from the centre of the helideck, along the bisector of the  $210^\circ$  angle, towards the outer edge of the helideck.
- c) Heliport identity marking in the form of a white 'H' in the centre of the reference circle. The orientation of the letter 'H' must be such that the bar of the letter is parallel to the bisector of the  $210^\circ$  sector. The letter shall measure 3 x 4 m.

### Section 31 *Name marking*

A helicopter operator may only use a helideck that is marked with its name. The name must be clearly visible from all directions of approach. The marking must as far as possible be placed on the helideck towards the  $150^\circ$  sector, between the reference circle and the limited obstacle area. The marking must be white or another appropriate contrasting colour, with a character height of at least 1.2 m.

### Section 32 *Marking of obstacle-free sector*

A helicopter operator may only use a helideck where the  $210^\circ$  obstacle-free sector is marked. The marking must consist of 10 cm wide black markings along the sector borders, that mark the angle where the obstacle-free sector (chevron) starts. The height of the angle must be equal to the width of the helideck's perimeter marking.

For helicopter flights to helidecks with alternative arrangements, cf. Section 49, the two  $150^\circ$  sectors must be marked as specified in the first paragraph second and third sentences.

### Section 33 *Marking of helideck size and maximum allowable mass*

A helicopter operator may only use a helideck that is marked with the actual  $D_H$ -value of the helideck in whole metres. The marking must be in white or another appropriate contrasting colour with  $90^\circ$  spacing in at least three places along the helideck perimeter. For helicopter flights to helidecks with alternative arrangements, cf. Section 49, the helideck size must be indicated in two places with  $180^\circ$  spacing.

The helideck must be marked with the maximum allowable take-off and landing mass, indicated in tonnes to one decimal place, followed by the letter 't'. The marking must be in white or another appropriate contrasting colour, and be clearly visible from all directions of approach.

The figures must have a height of approximately 90 cm.

### Section 34 *Marking of obstacles*

A helicopter operator may only use a helideck where fixed obstacles within the 150° sector or along its boundaries, or obstacles that represent a hazard to flight operations, are marked in a contrasting colour and, if necessary, equipped with steady red obstruction lights with a minimum intensity of 10 candelas.

The highest point of derricks, crane booms, crane cabins, legs on jack-up installations or other obstacles that represent a hazard to flight operations must be marked with steady red obstruction lights, visible from all sides. In addition, derricks, flare stacks, crane booms and legs on jack-up installations and other obstacles that represent a hazard to flight operations must be fitted with steady red obstruction lights in a plane at intervals one-third of their total length, reckoned from the highest point of the obstacle. At least one light in each plane must be visible from all directions. The luminous intensity must be minimum 10 candelas. On flare stacks installed at an angle upwards and outwards from the installation or vessel, the obstruction lights must cover at least three-quarters of the overall length of the flare boom.

If obstacles as mentioned in the first and second paragraphs are not located in or near the approach and take-off sector, the obstacle may be illuminated by floodlights covering the whole structure if this provides corresponding visibility.

Obstruction lights and obstacle floodlighting must be fed from an uninterruptable power supply.

Helicopter operators may only use helidecks where obstacles within a 1 km radius from the helideck are marked with steady red obstruction lights.

#### Section 35 *Signs and physical access barriers*

A helicopter operator may only use a helideck where clearly visible signs at the helideck access points prohibit occupying the deck during take-off and landing, and movement on the deck behind a parked helicopter with the rotors turning. The signs must have English text, as a minimum. It must be possible to physically bar the access points to the helideck.

Exits from the helideck must be clearly marked, preferably with signs bearing the text 'EXIT', as a minimum. The marking must be visible at night.

#### Section 36 *Helideck lighting*

Helidecks to be used for night operations or in conditions of reduced visibility must have:

- a) A floodlight arrangement that is screened to prevent dazzling of helicopter crew during approach, take-off and landing. The average illuminance must be minimum 10 lux measured 0.1 m above deck level. The helideck must be evenly illuminated with an illuminance ratio of 8:1 or better, calculated as the average illuminance divided by the minimum illuminance in a circle with a diameter that is 8 m wider than the inside diameter of the reference circle.
- b) Perimeter lights along the helideck perimeter, spaced at intervals of no more than 3 m. The perimeter lights must emit an omnidirectional steady green light, with a minimum intensity of 30 candelas. The perimeter lights must not be visible below helideck level.

It must be possible to switch off floodlights and perimeter lights, cf. first paragraph letters (a) and (b).

The helideck may be equipped with alternative lighting in compliance with a recognised standard if this provides equally good visual references under all conditions.

It must be ensured that the helideck lights can be easily distinguished from other lights on the installation or vessel, and that other nearby lighting does not distract or disturb the helicopter crew.

Floodlights and perimeter lights must be fed from an uninterruptable power supply.

Section 36 a *Visual warning system*

A helicopter operator may only use a helideck that have installed a visual warning system (status light) that indicates if a situation arises that represents a danger to the helicopter or persons onboard. It must be possible for the HLO to manually override the warning system. The warning system must be fed from an uninterruptable power supply and

- i. be visible to the helicopter crew from all directions of approach and after touch-down on the helideck
- ii. enable dimming to prevent dazzling of the helicopter crew
- iii. be integrated with the installation's gas emission registration system, so that it is activated automatically in the event of hazardous gas levels

An alternative warning system other than that described in the first paragraph may be used on an installation that is permanently manned. The warning system must then ensure that the helicopter crew is informed of the status of the helideck, including issuing a warning if a situation arises that represents an unacceptable risk to the helicopter operation.

**Chapter VIII. (Repealed)**

Section 37(*Repealed*).

Section 38 (*Repealed*)

**Chapter IX. Operational equipment**

Section 39 *Registration of helideck movements*

A helicopter operator may only use a moving helideck where instruments are installed on or near the helideck for continuous registration of

- a) longitudinal movements (pitch)
- b) transverse movements (roll)
- c) maximum inclination (inclination)
- d) vertical movements (heave rate)

The system for detecting helideck movements must be connected to repeater lights (light system) that is activated automatically when the movements exceed the limits. The repeater lights must be visible to the helicopter crew from all directions of approach and after touch-down on the helideck and enable dimming to prevent dazzling of the helicopter crew.

For flight planning, the helicopter crew must have access to data on helideck movements. The helicopter crew must also be provided with updated information about the helideck movements immediately prior to landing. Records must be stored for a minimum of 30 days.

The instruments must be calibrated and maintained in accordance with the manufacturer's instructions.

Section 40 *Communications equipment*

If the radio room on the installation or vessel does not offer an unobstructed view of the helideck, a helicopter operator may only use the helideck if there is a fixed or portable two-way VHF aircraft radio that can be operated from a position that offers such a view.

It must be possible for all members of the helideck personnel to communicate with the helicopter crew by portable two-way VHF aircraft radio at all times.

Radio communication records relating to helicopter operations must be kept for a minimum of 30 days.

#### Section 41 *Video surveillance*

A helicopter operator may only use a helideck that is under video surveillance. The recordings must be kept for a minimum of seven days. If it is likely that the recording will be disclosed to the Norwegian Safety Investigation Authority in connection the investigation of incidents and accidents, or to the police in connection with the investigation of criminal offences, the recording must be kept for a minimum of 30 days.

#### Section 42 *Fuelling facility*

If the installation or vessel is equipped with a helicopter refuelling facility, the facility, user manuals, instructions for fuel checks and the maintenance system must be approved by the helicopter operator before transfer of fuel is permitted.

#### Section 43 *Other equipment*

A helicopter operator may only use a helideck that is equipped with all necessary operational equipment at all times, including

- a) wheel chocks or sandbags
- b) equipment for tying down parked helicopters
- c) scales for weighing baggage and passengers
- d) snow and ice clearing equipment

#### Section 44 *Navigation*

The CAA Norway may order a helicopter operator to establish necessary navigational aids.

All alternative navigational aids established when these regulations enter into force must be maintained.

### **Chapter X. Firefighting and rescue preparedness**

#### Section 45 *Fire and rescue preparedness*

A helicopter operator may only use a helideck where the fire and rescue preparedness meets the requirements set out in Regulations of 18 March 2021 No 815 relating to helidecks on mobile installations chapter 8 . Regulations relating to helidecks on mobile installations Section 41 third paragraph letter (a) does not have to be met if the helicopter type used makes such equipment unnecessary.

#### Section 46 *(Repealed)*

#### Section 47 *Alarm system*

A helicopter operator may only use a helideck where the installation or vessel is equipped with an alarm system that can be released from the helideck or from a place in the immediate vicinity of the helideck. The alarm system's release switch must be clearly marked.

#### Section 48 *Fire protection*

A helicopter operator may only use a helideck where the other helideck personnel during take-off and landing, cf. Section 10 fifth paragraph, have immediate access to an appropriate kit containing a fire protection suit, fire protection gloves, a helmet with visor and boots. The fire protection equipment must be kept in a suitable cabinet or room in the immediate vicinity of the helideck.

All fire protection equipment must have necessary approvals, be kept in good operating condition and be ready for use at all times. Maintenance, periodic testing and inspections must be carried out in accordance with the manufacturer's instructions and in compliance with established procedures and training programmes in the management system.

In situations where there is reason to believe that a dangerous situation may arise during take-off or landing, all members of the helideck personnel must wear fire protection equipment.

## **Chapter XI. Alternative requirements for amidships helidecks on vessels and installations with hulls**

### *Section 49 Obstacle-free sectors*

For helidecks on vessels and installations with hulls, a helicopter operator may also use amidships helidecks, where the following alternative requirements for obstacle-free sectors are met:

- a) The approach and take-off sectors are perpendicular to the centreline.
- b) The obstacle-free sectors must be delimited by a forward and aft 150° sector. The area between the sectors must be an obstacle-free surface above helideck level. The distance between the sectors, the helideck's  $D_H$ -value, must be in compliance with Section 14. The 150° sectors must slope upwards at a gradient of 1:5 from the deck to a width of  $D_H$ , where the area above the sector shall be obstacle-free.

The obstacle-free sectors and the helideck size must be marked in accordance with the provisions in Sections 32 and 33.

### *Section 50 Access points*

A helicopter operator may use an amidships helideck on a vessel or installation with hull with access arrangements other than those described in Section 22, provided this is in compliance with a recognised standard.

## **Chapter XII. Helideck on normally unmanned installation**

### *Section 51 Additional requirements – normally unmanned installation (NUI)*

A helicopter operator may only use a helideck on an installation that is not permanently manned if it is built and equipped to satisfy the requirements in Chapters II to X.

Necessary helicopter flights may be undertaken to and from installations that are not permanently manned and thus have no helideck personnel, provided that they are carried out in accordance with procedures based on documented risk assessments. The procedures shall take account of the circumstances relating to the individual helideck and the individual flight.

Helideck operators and helicopter operators must have coordinated their procedures before the flight operation starts.

As a minimum, the risk assessment shall cover and the procedures take account of the following factors:

- a) the necessity of the flight,

- b) the number of passengers,
- c) the availability of information about helideck status,
- d) the availability of meteorological information and information about helideck movements, if applicable,
- e) communication and surveillance,
- f) fire and accident safety measures, and
- g) training and briefing of helideck personnel and helicopter crew.

A complete helideck crew must always accompany the first flight and, if possible, remain on the helideck until the last take-off if a series of flights are to be carried out. If the risk assessment indicates that flying can be carried out with reduced helideck crew, flying can be carried out with a helideck crew of two members.

Landing with transit passengers on unmanned helidecks is not permitted.

Landing with passengers on movable unmanned helidecks is not permitted.

### **Chapter XIII. Concluding provisions**

#### *Section 52 Sanctions and penalty fees*

If the requirements of these regulations are not met, the CAA Norway may limit, temporarily suspend or revoke the operator's approval for helicopter offshore operations.

Infringement fines pursuant to Section 13a-5 of the Aviation Act may be imposed for breach of the provisions in Chapters II to XII.

#### *Section 53 Permanent exceptions*

Helicopter flights to installations built before 1 June 1993 and vessels built before 1 January 2008 may take place even if the requirements in Sections 12, 13, 14 and 15 and Chapter VI are not met. The requirements as they were worded at the time shall apply instead.

Helicopter flights to helidecks on installations built between 1 June 1993 and 1 January 2008 may take place even if the requirement in Section 14 is not met. The requirements as they were worded at the time shall apply instead.

Helicopter flights to installations and vessels that 1 July 2019 met the requirement where the 150° sector contains no obstacles higher than 0,05 D from the edge of the helideck and outwards to a distance of 0,12 D<sub>H</sub>, may take place even if the requirement of no obstacles higher than 25 cm is not met, cf. Section 28 first paragraph first sentence.

Helicopter flights to installations and vessels built before 1 July 2019 may take place even if the requirement in Section 21 fourth paragraph second sentence is not met. The requirements as they were worded at the time shall apply instead.

In order for flights to helidecks on installations or vessels mentioned in the first and second paragraph to take place, the risk level must nonetheless be equal to or lower than what follows from the requirements in these regulations. If the installation or vessel risk level is higher, the CAA Norway may impose compensatory operational limitations on the helicopter operator.

For flights to installations and vessels exempted under the first and second paragraphs, it must be ensured, when alterations are made to the installation or vessel, that the requirements of these regulations are met as far as possible. The helicopter operator must document that the alteration does not increase the safety risk for helicopter flights to the helideck.

#### *Section 54 Exemption*

The CAA Norway may grant exemption from the provisions of these regulations if this is deemed to be of particular public benefit. Exemption can only be granted if the requirements for safety are deemed to be met following a concrete assessment. Applications for exemption must contain a risk assessment and proposals for compensatory measures. Conditions may be defined for the exemption.

#### **Chapter XIV. Entry into force and transitional rules**

##### *Section 55 Entry into force*

These regulations enter into force on 1 July 2019.

From the same date,

- a) Regulations of 26 October 2007 No 1181 governing continental shelf operations – commercial air traffic to and from helidecks on offshore installations and vessels, are repealed.
- b) Section 2 second paragraph of the Regulations of 28 January 2008 No 81 on aeronautical meteorological service is amended to read as follows: (...)
- c) Section 1a of the Regulations of 7 August 2013 No 956 relating to air operations is amended to read as follows: (...) ‘

##### *Section 56 Transitional rules*

Marking of the helideck's actual  $D_H$ -value in whole metres, cf. Section 33 first paragraph, must be completed by 1 January 2021.

Where the helideck size at the time of entry into force is marked with figures of approximately 60 cm, marking pursuant to Section 33 third paragraph shall be completed by 1 January 2021.

The visual warning system (status light), cf. Section 36 a must be operational by 1 January 2023. Repater lights, cf. Section 39 second paragraph must be operational by 1 January 2023.

Storage of radio communication for a minimum of 30 days, cf. Section 40 third paragraph, must be established by 1 January 2021.

Video surveillance, cf. Section 41, must be established by 1 January 2021.