

Advice provided by the C-NLOPB's Offshore Helicopter Safety Inquiry (OHSI) Implementation Team to the C-NLOPB Board

Advising Document

OHSI Phase I, Recommendation 28

Regarding the review of regulations, guidelines, and standards related to offshore helicopter transportation



In November 2010, the Honourable Robert Wells, QC, submitted the Report for Phase I of the OHSI to the C-NLOPB, containing 29 recommendations for enhancing the safety of helicopter travel offshore. Each Advising Document contains the text of the recommendation for which the advice is offered.

The Team's advice for Recommendation 28 was accepted in principle by the C-NLOPB Board at their meeting on April 28, 2011. At that time, the C-NLOPB took responsibility for developing its strategy to implement the recommendation.

The OHSI Reports, other Advising Documents, C-NLOPB OHSI Action Plans, and more can be found on the C-NLOPB website: http://www.cnlopb.nl.ca/ohsi_main.shtml

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Recommendation

It is recommended that the Regulator review on an ongoing basis its regulations, guidelines, and standards regarding offshore helicopter transportation; that formal reviews be undertaken at least every three years; and that input be invited from oil operators, workers, helicopter operator(s), and other stakeholders.

Method

A working group of the C-NLOPB's OHSI Implementation Team reviewed the recommendation, identified the system safety deficiency, and developed an implementation plan.

The group reviewed current regulations, guidelines and standards in the C-NL Offshore Area and highlighted regulations related to offshore helicopter transportation. The C-NLOPB's Manager of Industrial Benefits, Policy and Regulatory Co-ordination was consulted on implementing and revising regulations, and on the enforcement of non-regulatory documents.

The working group presented their information to the complete OHSI Implementation Team, and this information became the basis for the Team's proposed implementation strategy that will be considered by the C-NLOPB.

System Safety Deficiency (SSD)

The present approaches to regulatory review do not engage stakeholders in the regular, proactive review of regulations, guidelines, and standards. Consequently, there is potential for gaps in regulatory performance to evolve, and for misunderstanding by the industry and the regulator regarding regulatory requirements.

Background

In its submission to the Inquiry, the Government of Newfoundland and Labrador stated:

In Canada, matters related to the safety and airworthiness of helicopters used in the transportation of workers to and from the offshore area remains within the exclusive jurisdiction of the federal government through Transport Canada. Worker safety while travelling to and from the Newfoundland and Labrador offshore area is a subject of regulation by the Canada-Newfoundland and Labrador Offshore Petroleum Board which was established by the Atlantic Accord Agreement. (OHSI Report, v. 3, p. 251)

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Many regulations, guidelines, standards, and best practices – above and beyond Transport Canada regulations – have been born of the unique operating environment Offshore NL. There is currently no one document referencing all of these materials.

The C-NLOPB's regulations pertaining to helicopter operations are spread out over several sets of regulations. The following is a small sample of the Board's regulations pertaining to offshore helicopter transportation:

1. The Drilling and Production Regulations

Section 69 states: *The operator shall ensure that all support craft are designed, constructed and maintained to supply the necessary support functions and operate safely in the foreseeable physical environmental conditions prevailing in the area in which they operate.*

Section 69.4.3 of the Drilling and Production Guidelines further states that Helicopters and other aircraft are required to have a Certificate of Airworthiness issued by Transport Canada. It also lists the factors an operator should consider when developing a functional specification for helicopters. Sections 69.4.4 and 69.4.5 of the guidelines refer to Helicopter Deck Operations and Flight Crew Experience respectively.

2. The Newfoundland and Labrador Petroleum OHS Regulations (Draft)

Section 12.18 states:

(1) Any passenger of a helicopter travelling over water to an offshore work place shall wear a helicopter passenger suit.

(2) The suit referred to in subsection (1) shall meet the standards set out in the Canadian General Standards Board Standard, CAN/CGSB-65-.17-M88, Helicopter Passenger Transportation Suit System.

3. The Newfoundland Offshore Area Petroleum Geophysical Operations Regulations

Section 15 states: *Where a helicopter is used in a geophysical operation, the operator shall ensure that (a) the helicopter deck on the vessel or platform from which the operation is conducted is designed, constructed and operated in accordance with the Guidelines Respecting Helicopter Facilities on Ships, TP 4414, published in December 1986 by the Canadian Coast Guard, as amended from time to time; and (b) an immersion suit that complies with the Canadian General Standards Board Standard CAN/ CGSB-65.17-M88, Helicopter Passenger Transportation Suit System, published in January 1988, as amended from time to time, is worn by every member of the geophysical crew who is on a flight to or from the vessel or platform from which the operation is conducted.*

Section 22 states (paraphrased): *Every operator shall ensure that every member of the geophysical crew has successfully completed a helicopter underwater escape course*

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approved by the Chief Safety Officer, where regular changes of geophysical crew by helicopter are planned.

4. Newfoundland Offshore Petroleum Installations Regulations

Section 5 states: (1) Every helicopter deck or facility that forms part of an installation shall (a) conform to Transport Canada TP 4414, Guidelines Respecting Helicopter Facilities on Ships; and (b) be equipped so that any fuel stored on or adjacent to the helicopter deck or to the accommodation areas (i) can be jettisoned by action taken at another location on the installation, or (ii) is protected against damage or impact. (2) Every helicopter deck that forms part of an installation shall be in a location that is readily accessible to and from the dependent personnel accommodation of the installation.

In addition to Section 5 of the NL Offshore Installations Regulations consideration for helicopter operations has been given in other sections including Section 12 (Emergency Electrical Power), Section 14 (Winterization), Section 17 (Gas Relief System), Section 19 (Escape Route), Section 24 (Fire Hydrant Systems), Section 30 (Firefighting Equipment), Section 36 (Communication Systems), and Section 63 (Operations and Maintenance).

While some of the Board's guidance documents give some indication of a review cycle (for example, the Drilling and Production Guidelines), most of these regulations have no standard review cycle.

In addition to these regulations that specifically reference helicopter transportation, the C-NLOPB has other regulations that indirectly apply. Such regulations include emergency response, general safety, incident reporting and a number of other activities.

There may also be new regulations, guidelines, and/or standards developed as a result of other recommendations from the OHSI. Recommendations 2, 10, 13, 14 and 16 all propose that the Regulator set performance based goals in the areas of SAR, equipment, training, physical fitness, and PPE. Any new goals set by the Regulator will require a review cycle.

Further to all of the regulations, guidelines, and standards in place to govern offshore helicopter transportation, the Operators and Helicopter Service Provider(s) over time develop their own best practices to manage their helicopter transportation business. These should also be referenced.

Discussion

The working group determined that there is a lack of a formal mechanism for review of regulations, guidelines, and standards associated with offshore helicopter transportation. It was noted that many of the regulations, guidelines, and standards that govern helicopter transportation have been written by Transport Canada and are meant for helicopter transportation in general. The review process recommended by this Team will be limited to C-NL Offshore-specific regulations, guidelines, standards, and best practices.

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Without a formal review period for regulations, guidelines, and standards, there is a risk that they will only be reviewed reactively (i.e., when an incident occurs). Without proactive review, there is little opportunity to incorporate lessons learned or technological advances in the aviation industry. Without incorporating the latest information on helicopter transportation safety, it is difficult to maintain risk ALARP.

Therefore, there is need for a formal review of regulations, guidelines, and standards to ensure that lessons learned and technological advances in the aviation Industry will be identified and incorporated to maintain risk ALARP and provide a mechanism for improvement and stakeholder involvement.

In considering how the Board should review its regulations, guidelines, and standards related to offshore helicopter transportation, the working group determined that a single document consolidating the C-NLOPB regulations, guidelines and standards that apply to helicopter transport would be valuable for the C-NL Offshore Area.

The group searched for such documents in other jurisdictions. No document for offshore helicopter travel was found, however there are consolidating documents for items such as Nova Scotia's drilling and production regulations (Province of Nova Scotia) and New Zealand's helicopter regulations (New Zealand Civil Aviation Authority), as well as an informational brochure on UK offshore helicopter regulation (UK Health and Safety Executive). The group did not find the format of any of these documents to be applicable for the C-NL Offshore, but they were encouraged that such documents are in use.

The work group developed a list of items for possible inclusion in a document for the C-NL Offshore Area (Appendix A). This document would be comprised of two parts: 1) Regulatory guidelines, with references to the C-NLOPB regulations, guidelines, and standards relating to offshore helicopter transportation; as well as 2) an informational section of industry best practices for transporting personnel to the C-NL Offshore Area.

The C-NLOPB should be accountable for developing and maintaining the document. However, stakeholders need to be involved in its development and subsequent revision. The working group believed that this document should be easily understood so that any worker, Operator, or Helicopter Service Provider new to the C-NL Offshore area would gain an understanding of what is expected of them when conducting business in the C-NL Offshore Area.

The working group considered a three-year review cycle as sufficient to identify gaps between regulations, guidelines, and standards and existing best practices in aviation in the global offshore oil industry. Once gaps have been identified, a process to review the gaps shall be established and steps taken to implement changes in the C-NL Offshore. Furthermore, when any regulations, guidelines, and/or standards change are introduced, the reference document will need to be updated.

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Conclusion

The Team recommends that the C-NLOPB, with input from stakeholders, develop a reference document that consolidates all of the C-NL Offshore's regulations, guidelines, standards, and best practices that apply to offshore helicopter transportation. The Team recommends that the C-NLOPB review this document, including the regulations, guidelines, and standards contained within, on a periodic basis not to exceed three years.

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Appendix A

Items for consideration for C-NL Offshore Area Helicopter Operations Manual

The following is a list of items for consideration when developing a reference document for helicopter operations in the C-NL Offshore Area. It is the result of the working group's brainstorming efforts and is not meant to be exhaustive. It was discussed and endorsed by the complete Team.

- Existing Regulations Related to Helicopter Transportation
- Operating Environment
 - Description of the C-NL Offshore Area
 - Distance to facilities
 - General weather
- Helicopter Operations and Safety Steering Committee (see Advising Document for Recommendation 20)
- Operating Limits
- Dispatch Protocols
- Passenger Movement
 - POB Monitoring System
 - Check-In Procedures
 - ID Requirements
 - Delayed Flights
 - Vessel Transfers
 - Shared Flights
- Passenger and Pilot PPE
 - Helmets
 - Hearing Protection
 - Suits
 - HUEBA
 - PLBs
- Training and Qualifications
 - Flight Crew
 - Helideck Crew
 - Passengers
- Flight Following
- Search and Rescue
- Medevac Coverage
- C-NLOPB Oversight
- Night Flights

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- Briefings
 - Pilot Briefings
 - Airworthiness Directives, Alert Service Bulletins and other appropriate notices
- Hazard / Incident Reporting
- Security
- Helideck Inspections
- Protocols for transporting freight
- Worker Familiarization
- Equipment
 - Survival Equipment
 - Communications
 - Lighting