

Helicopter Passenger Suit Status Update Presentation to the C-NLOPB

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Presentation Overview

- **Fit Process & Statistics**
- **E-452 Modification Process & Status**
- **Custom Suits – Options**
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- **HTS-1 Process & Status**
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Fit Process & Statistics

Steps:

- **Fit test for E-452 (fly/no fly)**
- **Fit test for modified E-452 (fly/no fly)**
- **Fit test for HTS-1 (fly/no fly)**
- **True custom suit**

Statistics (as of Sept 30):

- **150 on current no fly list**
 - approximately 25% have been successfully fitted in the HTS1 suit
 - approximately 65% still have to be assessed
 - Expect that between 8-10% will require custom suits (either HTS1's or E452's)
- Note: these are aggregate numbers which include onshore personnel who do not regularly travel offshore

E-452 Modification Status & Process

- **A modified E-452 is the solution for approx. 91 of the no fly personnel (across all operators)**
- **Helly Hansen created a pool of modified suits with hood change only**
 - essentially incorporating smaller components on existing E-452 suit
 - suits are identical in appearance to the existing E-452 suit
 - dual approved to Aviation and Marine standards
- **Roll-out process**
 - Modified suits were delivered in batches
 - Operators developed a process of ensuring modified suits are available at check-in for those approved for flight in these suits prior to an individual's arrival at heliport
- **Status: production commenced in July, sufficient modified suits in circulation now**



Custom Suits

- **The process for providing a custom suit is significant; includes: determining, designing and testing changes, building and testing suits and completing the Transport Canada (TC) approval process**
- **Two options have been identified by Helly Hansen to address the custom suit requirements**





Custom Suits – Options

- **Option 1 – Custom modify existing E-452 suits**
 - Suits would be identical in appearance to the existing E-452 suits
 - Timeline to complete is lengthy, includes TC approval process
- **Option 2 – Adopt modifications that have been in design/testing on an alternate Helly Hansen suit (known as HTS-1)**
 - Work has been underway for some time to address boot, hood and suit length – therefore the timeline to complete would be shorter than Option 1
 - Suits would have different appearance and features than the existing E-452 suits
 - Testing is in progress, TC approval (Aviation) not yet complete
- **Option 2 is preferred given higher likelihood of TC approval and shorter timeline to deliver suits approved for flight**
- **Decision by Operators based on Transport Canada Aviation certification**

HTS-1 Suit Features



- Hood adjustment allows the hood to be tightened
- Suspenders (attached to the boots, zipper base & hood) allows the fit in the legs to be adjusted



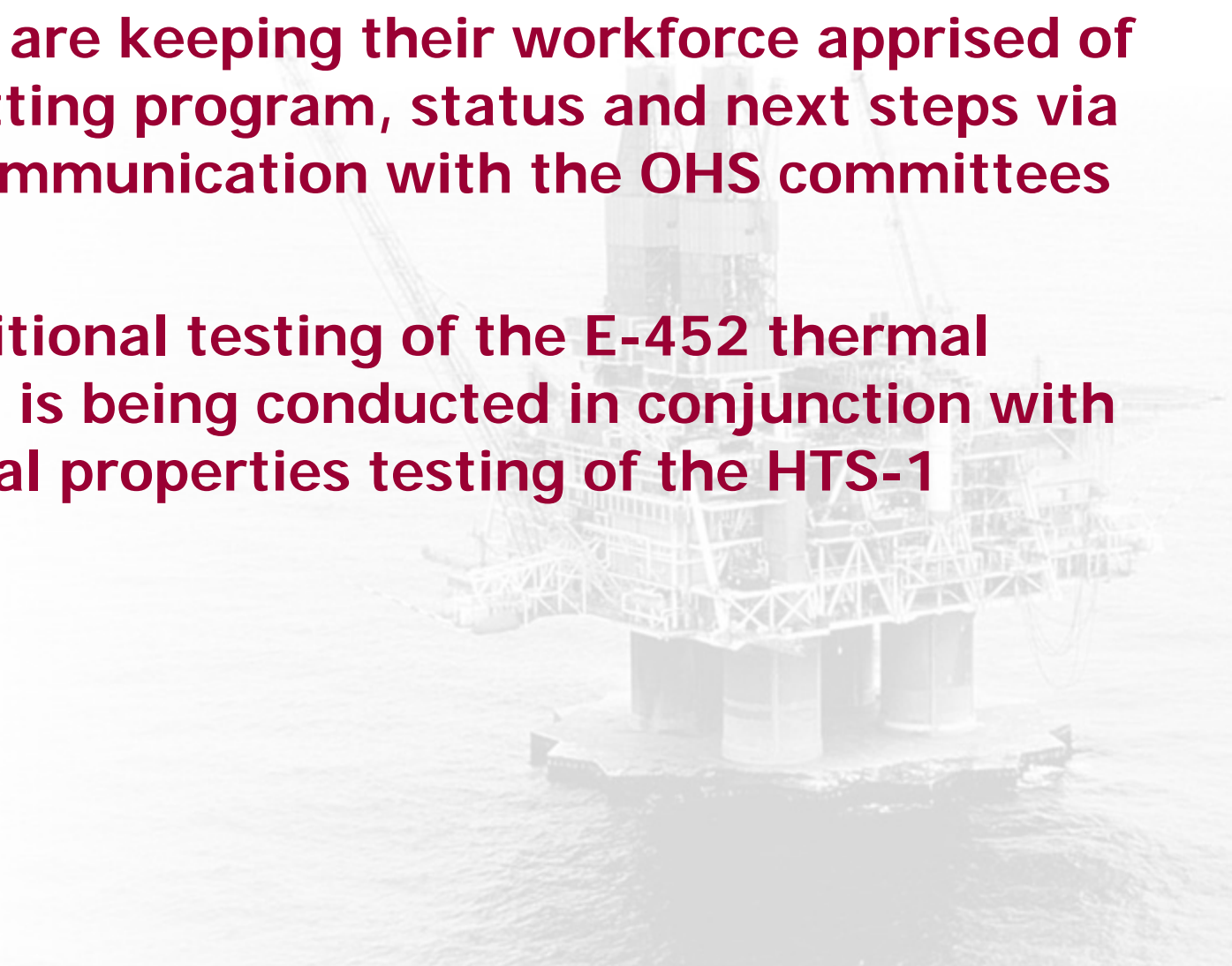


HTS-1 Process & Status

- Personnel who are on the custom suit list will be required to go to Helly Hansen for HTS-1 fit testing
- Production of HTS-1 will match the volume of personnel fit for flight in this suit
- Similar to the modified suits delivery process, Helly Hansen will deliver the suits in batches; to address, operators will confirm availability prior to scheduling personnel for helicopter transport
- Pending Transport Canada Aviation approval, the intention is to have sufficient HTS-1 suits available by end of October

Communication & Testing

- **Operators are keeping their workforce apprised of the suit fitting program, status and next steps via regular communication with the OHS committees**
- **Some additional testing of the E-452 thermal properties is being conducted in conjunction with the thermal properties testing of the HTS-1**





Glove Enhancement Project

- **Some passengers noted that they had difficulty donning the original gloves in the E-452 suit**
- **Helly Hansen undertook an enhancement project to improve the glove from dexterity and donning perspectives**
- **The new glove is a higher stretch Neoprene fabric and has redesigned Velcro wrist straps which assists in donning the glove**
- **The new gloves have been introduced offshore**

Glove Enhancements

Original Glove



- Change in wrist strap attachment (less stitching and smaller attachment area) provides more stretch when donning the glove

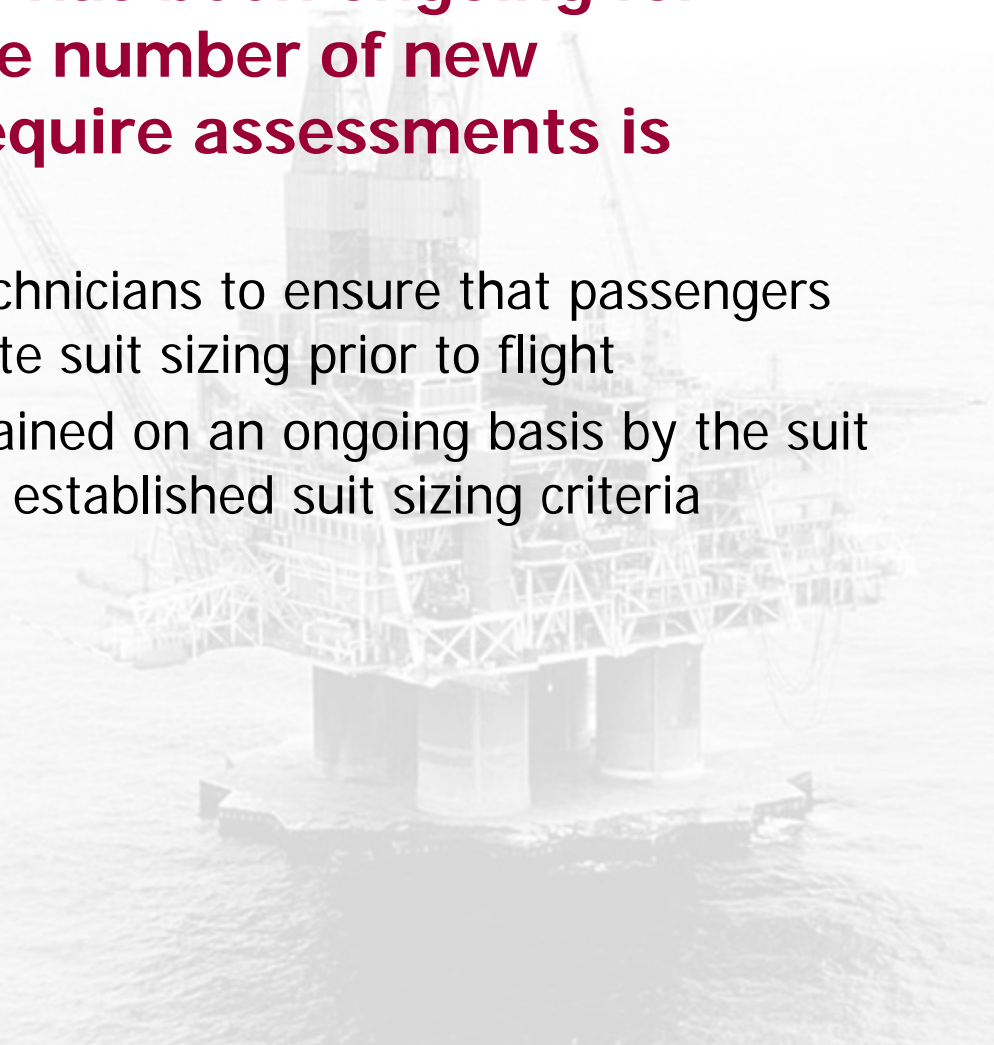
New Glove



- Higher stretch
Neoprene allows the glove to stretch for easier donning

Heliport Suit Fit Protocol

- **The suit fitting process has been ongoing for many months, thus, the number of new passengers who will require assessments is limited**
 - Cougar will have trained technicians to ensure that passengers are evaluated for appropriate suit sizing prior to flight
 - Cougar personnel will be trained on an ongoing basis by the suit manufacturer to administer established suit sizing criteria





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