Civil Aviation Authority

Helideck Update

A briefing for 01 May 2019 HSRMC

Kevin Payne, 1 May 2019

Contents:

- Helideck licensing/certification
- NUI fire-fighting
- Helideck friction
- Helideck lighting
- Update of ICAO Annex 14 Volume II / Heliport Manual

Helideck Licensing / Certification

- Offshore Review (CAP 1145) Action A13. CAP 1243 and CAP 1386 progress reports are currently being updated.
- Industry consultation conducted (CAP 1295) during 2015.
- CAA proposal to add amendment to the Civil Aviation Act to permit licensing to the “Modernising Aviation” bill in 2015 rejected.
- Proposal to proceed on a voluntary basis pending legislative changes, possibly under a MoU between CAA and HCA.
- CAA/HCA meetings held 26 August 2016 and 06 November 2017.
- Alternative approach is now under consideration.
- Joint CAA/HCA statement will be issued once agreement has been achieved.
- In the meantime:
  - CAA FO(H) staff are being trained to increase oversight of HCA
  - CAA have taken over running the HTC meeting/ producing minutes

NUI Fire-Fighting Scheme (1)

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Safety Directive SD 2019/02 Offshore Helicopter Helideck Operations :

- Dispensations granted for eight of the applicable 86 NUI's as follows:
  - BP/INEOS "Mungo" (100/154) and "Unity" (143/219),
  - ConocoPhillips "North Valiant" (128/150),
  - Spirit Energy "DPPA" (170/180), "Chiswick" (164), "DP8" (148), "DP3 (173) and "Calder" (135/131). DP4 has requested extra 60 landings for 2019.
- In three cases the result has been a fully automated fire-fighting system (DIFFS).
- In three cases, the installations are being decommissioned.
- In two cases the operator has been advised that no further dispensations will be granted unless in direct connection with aviation safety improvements: circle & H lighting and/or fire-fighting systems.
- Number of unattended landings used within agreed dispensation in all cases.

NUI Fire-Fighting Scheme (2)

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Criteria from beginning of 2018 (to limit exposure):

- Need to record & monitor both attended and unattended landing numbers.

Automatic Fire Fighting	H1/H2 Compliant	Circle & H Lighting	01 Jan 2018	01 April 2018	01 Jan 2019	01 Jan 2020
✓	-	✓	UL	UL	UL	UL
✓	-	X	UL	Night ban	Night ban	Night ban
X	✓	✓	120 (UL)	120 (UL)	120 (UL)	120 (UL)
X	✓	X	120 (UL) Night ban*	120 (UL) Night ban	120 (UL) Night ban	120 (UL) Night ban
X	X	✓	120 (200)	120 (200)	120 (160)	120 (120)
X	X	X	120 (200) Night ban*	120 (200) Night ban	120 (160) Night ban	120 (120) Night ban

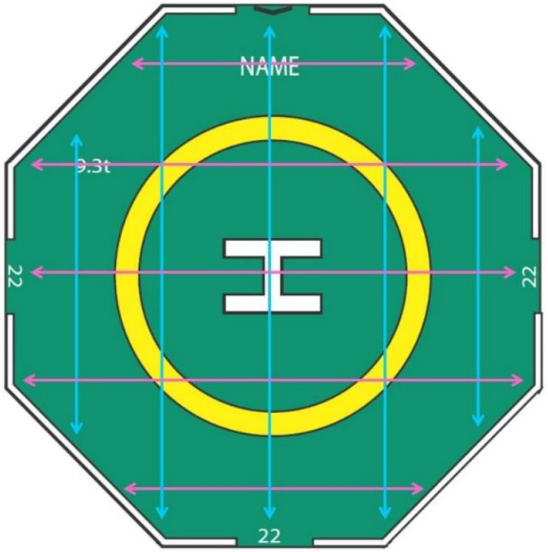
Key:
UL = unlimited
Max unattended landings in red
Max total landings in blue

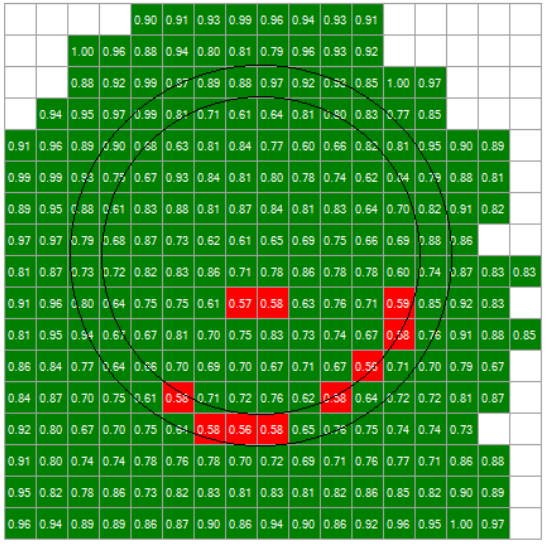
* Night bans prior to 01 April 2018 were applied to unattended landings only. Night time is defined as 30 mins after sunset to 30 mins prior to sunrise.

Helideck Friction (1)

<u>In-Service Testing (1)</u>:

- Proposal to enhance CAP 437 content was completed at last update to clarify test procedure and pass/fail criteria for flat helidecks.
  - Addition of testing with the helideck damp/wet (Ok provided standing water removed).
  - Definition of adjacent 1m areas was clarified (diagonally adjacent not a failure).
  - Definition of moving helideck was added (HMS fitted = moving deck; need to know in order to apply correct mu value).
  - Added mu value for parking areas (μ = 0.5).





Helideck Friction (2)

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In-Service Testing (2):

- Test frequency (now annual) had generated some reaction from industry especially where FricTape NetLite system installed.
- Recognised Friction Surface scheme used to allow longer periods between testing but was withdrawn for various reasons including lack of use. RFS was re-introduced in a simplified form by replacing CAP 437 para. 3.40 with:

3.41 The helideck should normally be re-tested annually. If the friction values (after scaling, where appropriate) exceed the values given in Table 3 by at least 0.1 in all required areas, then re-testing is not required for two years.

(The foregoing assumes that the deck surface remains in good condition and clear of guano or other contaminants that could compromise the surface friction; if this is not the case then more frequent testing (at least annually) should be performed).

Helideck Friction (3)

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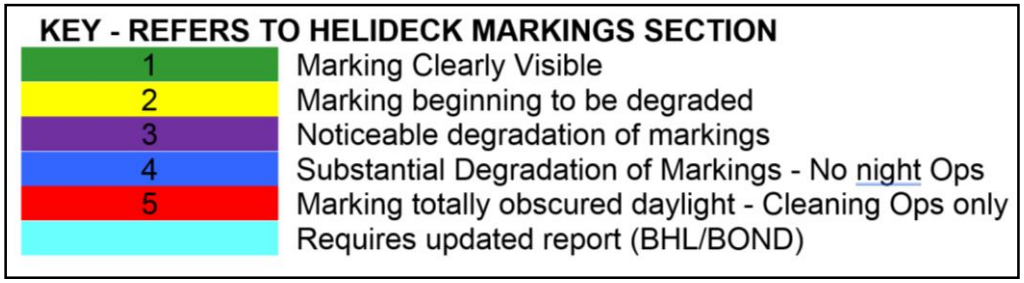
Guano:

- 'HCA contamination scale/scheme 'tightened up':
  - Categories 4 & 5 removed;
  - Category 3 strengthened.
- Table added to CAP 437 at Amdt. 1 to 8th Edition:
- This should help to reduce the problem by either:
  - increasing the frequency of cleaning, or
  - encouraging the use of effective (e.g. laser-based) bird control systems.

Previous HCA Scheme



New Scheme – Helideck Contamination Scale

Score	Description	Operations
1	Markings clearly visible.	Normal operations.
2	Markings beginning to be degraded.	Normal operations – report condition and request cleaning.
3	Noticeable degradation of markings.	Operations to deliver cleaning crew only.

Helideck Friction (4)

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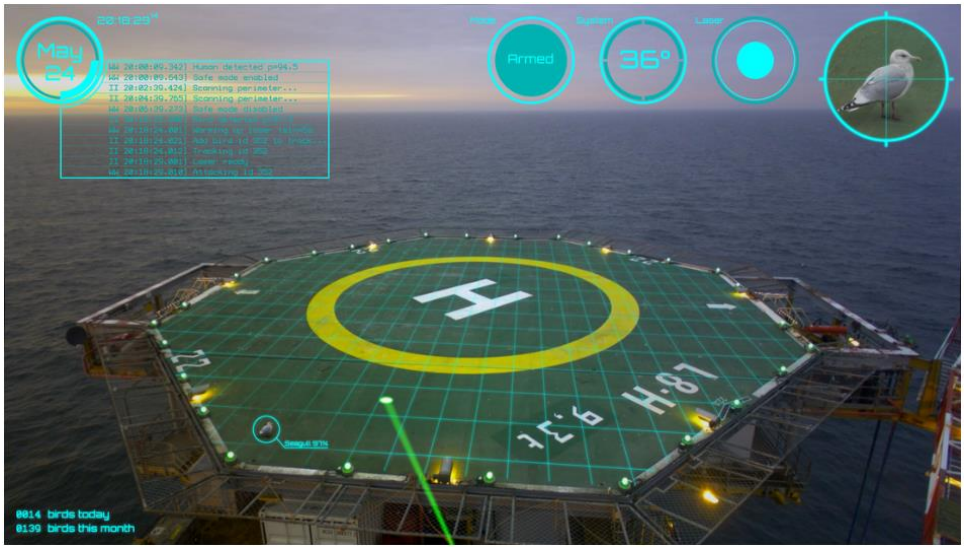
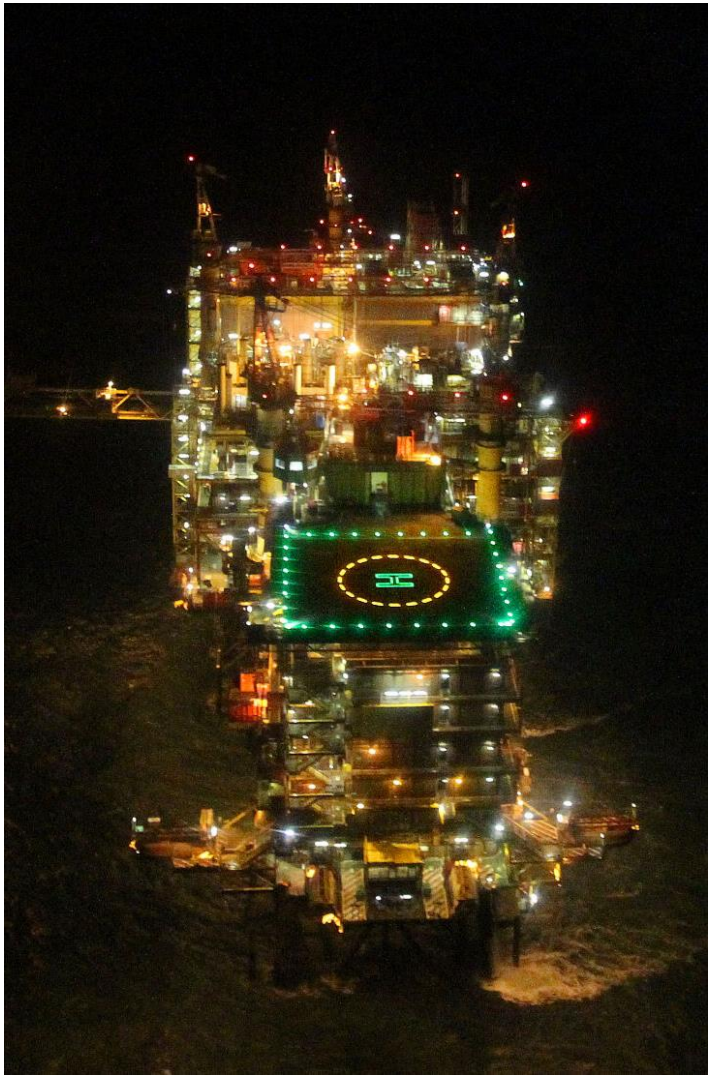
Guano on NUIs:

- Bird Control Group (BCG):
  - HSE acceptance of the BCG risk assessment.
- Kubiko:
  - Presentation at 15 May 2018 HCA HTC.
  - HSE acceptance of the Kubiko RA. Trial commencing on INEOS Mungo helideck.



Helideck Lighting (1)

- Status of approvals:
  - Orga (Gen1 & Gen2), IMT (Mk1 & Mk2), Pharos Marine, and FricTape ‘Netlight’ and ‘Fixed’ systems approved by CAAi. (Tranberg approved by HCA).
  - Further systems ‘in progress’ with CAAi.
  - **Check with HCA and/or CAA before purchasing any other brands.**
- In-Service Issues:
  - Component cracking:
    - Chemicals (cleaning fluids, thread locking fluid, helicopter engine/gearbox oil suspected).
    - Mechanical damage.
  - Condensation in lenses.
  - Helicopter tyre damage
  - Burning.
  - Most/all now resolved.
- Amendment 1 to CAP 437 8th Edition:
  - Minor changes mostly for clarification.

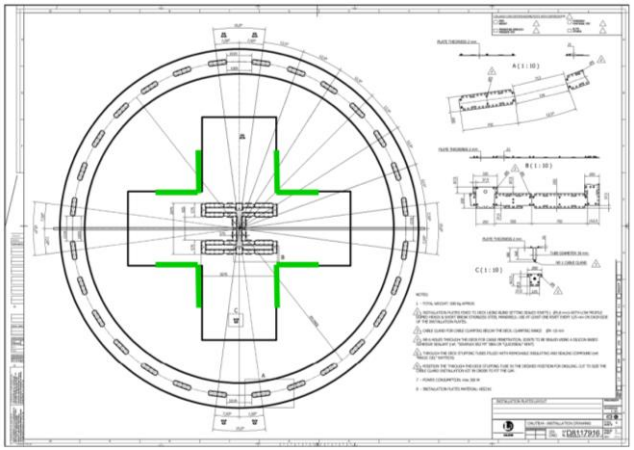


Helideck Lighting (2)

- Changes made at last update of CAP 437 (Amendment 1 to Edition 8):
  - Increase to required rating to IP69 (jet washing).
  - Note that IP67 is not applicable to perimeter lights.
  - Note that where more than one circle is used, both must meet the specification.
  - Improved the guidance on the drainage test to facilitate estimation of the quantity of fluid remaining after 2 mins.
  - Improved guidance on attachment strength for large panels.
  - Increased the list of fluids and add exposure periods.
  - Added azimuth and elevation angle sampling intervals for photometric testing.
  - Added ICAO colour coordinates for LED lights.

Helideck Lighting (3)

- Onshore elevated heliports:



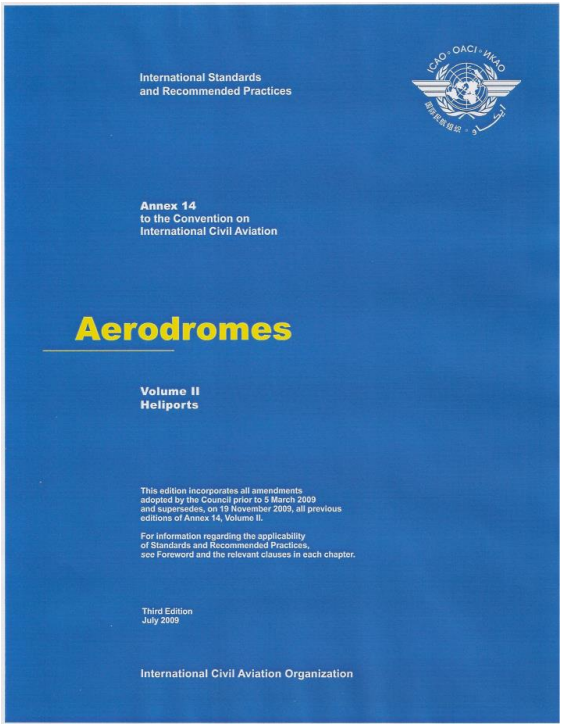
- Original system was installed at St George's Tooting at the end of 2017. Due to the undesirable interaction between the skids and 25mm red H, pilots requested the H be removed to leave just the yellow circle.
- With a view to determining the optimum configuration for an onshore elevated heliport at a hospital, a trial was convened at Bristol Royal Infirmary in March.
- Due to fixings coming loose the trial was not completed and therefore no conclusions could be drawn for the optimum system on an onshore rooftop heliport.

Helideck Lighting (4)

- Onshore elevated heliports:
  - A further dedicated trial is to be convened in Rotterdam Harbour with Orga on 13th June.
  - Photos of the system elements, taken by HeliLED just prior to the March trial, show three configurations:
  - Cross and circle (bottom left)
  - H and circle (bottom right)
  - Cross, H and circle (top right)

Developments with ICAO Annex 14 Volume II

- Major update of Annex 14 Volume II is going through State letter process at present.
- For offshore SARPS the main effect relates to RFFS, where changes have already been incorporated into Chapter 5 of CAP 437, amendment 1 to 8th Edition (September 2018).
- Heliport Manual – published in draft in December 2018. Closely follows UK CAP 437 including UK circle-H lighting spec and a sub-1D risk assessment in Appendix material.



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Thank you for your attention…

Any questions?