



HSAC

Helicopter Safety Advisory Conference

Helideck Committee Update

HSAC General meeting

Houston, TX

19 January 2023



INDUSTRY UPDATES

HeliOffshore, IOGP & Other Updates



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HELI-OFFSHORE

Master Minimum Helideck Equipment List (MMHEL):

- Terms of Reference drafted
- Setting up trials between Helicopter Operators and Helideck Owners

Industry Action Plan for Night Deck Landing Practice:

- HeliOffshore released a new paper titled 'Industry Action Plan: Night Deck Landing Practice'.
- HOHWG considering what could be done to support this from a helideck operator perspective.



IOGP

- IOGP 697 Airfield, Heliports, Helidecks and Facilities out for comment. Feedback gathered until end of November 22.
- V1.0 sent to printer; however, some late feedback has already been compiled for V2.0.
- Next slide(s) show broad overview of contents.



IOGP REPORT 697

AIRFIELDS, HELIPORTS, HELIDECKS AND FACILITIES RECOMMENDED PRACTICE

- ✚ Currently only helidecks
- ✚ Contents:
 - Design
 - Design Review
 - Maintenance
 - Operations – Process
 - Operations – Hazards
 - Operations – Aviation Fuel
 - Personnel – Training
- ✚ Review of this document against HSAC RP 163 needed upon distribution
- ✚ Uses HSAC RP 160 series as reference/guidance documents
- ✚ Alignment with ICAO Annex 14 Volume II
- ✚ Less detailed than HSAC RPs
- ✚ Initial review does not indicate major misalignment with HSAC RP 160 Series
- ✚ Recommend detailed review to assure no conflicts exist.

OTHER

ASG:

- UK CAA Helideck Technical Meeting will discuss adopting the MMHEL.
- Windfarm construction discussion re location. OHSLG workgroup with helicopter operators and UK CAA.
- Helideck inspections between HCA inspections. CAA confirmed that Helideck operator has responsibility. IOGP 697 will contain some guidance.

UK CAA (CAP 437):

- 15cm height restrictions will remain CAP437 Revision 9.
- Plan was to publish CAP 437 Revision 9 before year end. Still pending.



WINDFARM SUB-GROUP UPDATE

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Objective

- The purpose of this subcommittee is to determine if there is a need for additional guidance by HSAC regarding offshore helicopter facilities in support of offshore wind operations, and...
- If it is determined that there is a need for additional guidance, to develop and recommend the appropriate design standards and recommended practices for approval by the HSAC Helideck Committee



Resources

- HSAC RPs 161-164
- UK CAA CAP 437 ed. 8 amend. 02/2021 dated July 2021
- G+ Global Offshore Wind: Good Practice Guidelines for Safe Helicopter Operations in support of the Global Offshore Wind Industry Sections A&B
- HeliOffshore Wind Farm Recommended Practice (WinRep) Version 1.0
- Bureau of Ocean Energy Management Guidelines for Lighting and Marking of Structures Supporting Renewable Energy Development, dated 28 April 2021
- U.S. Federal Aviation Administration (FAA) Advisory Circular AC 70/7460-1M Obstruction Marking and Lighting, dated 16 Nov 2020



WINDFARM SUB-GROUP

- Develop Windfarm specific design requirements for Winching Areas
- Compile these design requirements into a new HSAC RP 166
- Proposed title for RP 166:
 - “Design and Maintenance Requirements for Windfarm Helicopter Landing Areas and Winching Areas”



FOAM SAMPLING REQUIREMENTS FOR AFFF

Align with NFPA Guidance



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LIMIT OR ELIMINATE THE NEED TO DISCHARGE FOAM CONCENTRATE

- “[NFPA 11](#) explicitly recognizes proportioning test methods that limit or eliminate the need to discharge foam concentrate.

Note:

The use of fluorinated foams for system testing is banned in a number of nations and states in the United States.

- The functional changes proposed would be that the testing of foam at the nozzle would no longer be required on an annual basis to eliminate the discharge of AFFF for testing purposes only. Water Equivalent Testing (WET) alternative.
- The annual sampling and testing of the concentrate with associated lab test certificate is still required.
- Sub-workgroup will review references and come up with proposal for potential updates of RPs in the 160-series.

HSAC RP UPDATES

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HSAC RP UPDATES

- AFFF Testing in HSAC RP 161 and 163 as discussed previously
- HSAC RP 161 – Hot Air/CFD guidance update



HSAC RP 161 – 2ND EDITION – REV. 1

➤ Proposed text:

4.7 Hot Air, Raw Gas, and Hydrogen Sulfide (H₂S) Discharge

4.7.1 Hot Air Discharge

Hot air discharges from compressors and cooling systems adjacent to helidecks may be hazardous to helicopter operations and can drastically affect helicopter performance and appropriate restrictions shall be imposed on the use of the helideck where either of the above exists.

All new-build offshore helidecks, modifications to existing topside arrangements which could potentially have an effect on the environmental conditions around an existing helideck, or helidecks where operational experience has highlighted potential airflow problems should be subject to appropriate wind tunnel testing or Computational Fluid Dynamics (CFD) studies to establish the wind environment in which helicopters will be expected to operate.

As a rule, **a limit on the standard deviation of** the vertical airflow velocity of 5.75 ft./s (1.75 m/s) shall not be exceeded. **The helicopter operator should be informed at the earliest opportunity of any wind conditions for which this criterion is not met. Operational restrictions may be necessary.**

When the results of such modelling and/or testing indicate that there may be a rise of air temperature of more than 2°C (averaged over a three-second time interval), the helicopter operator should be consulted at the earliest opportunity so that appropriate operational restrictions may be applied.

HSAC RP 161 – 2ND EDITION – REV. 1 - CONTINUED

➤ Proposed added Note and Figures

NOTE 1:

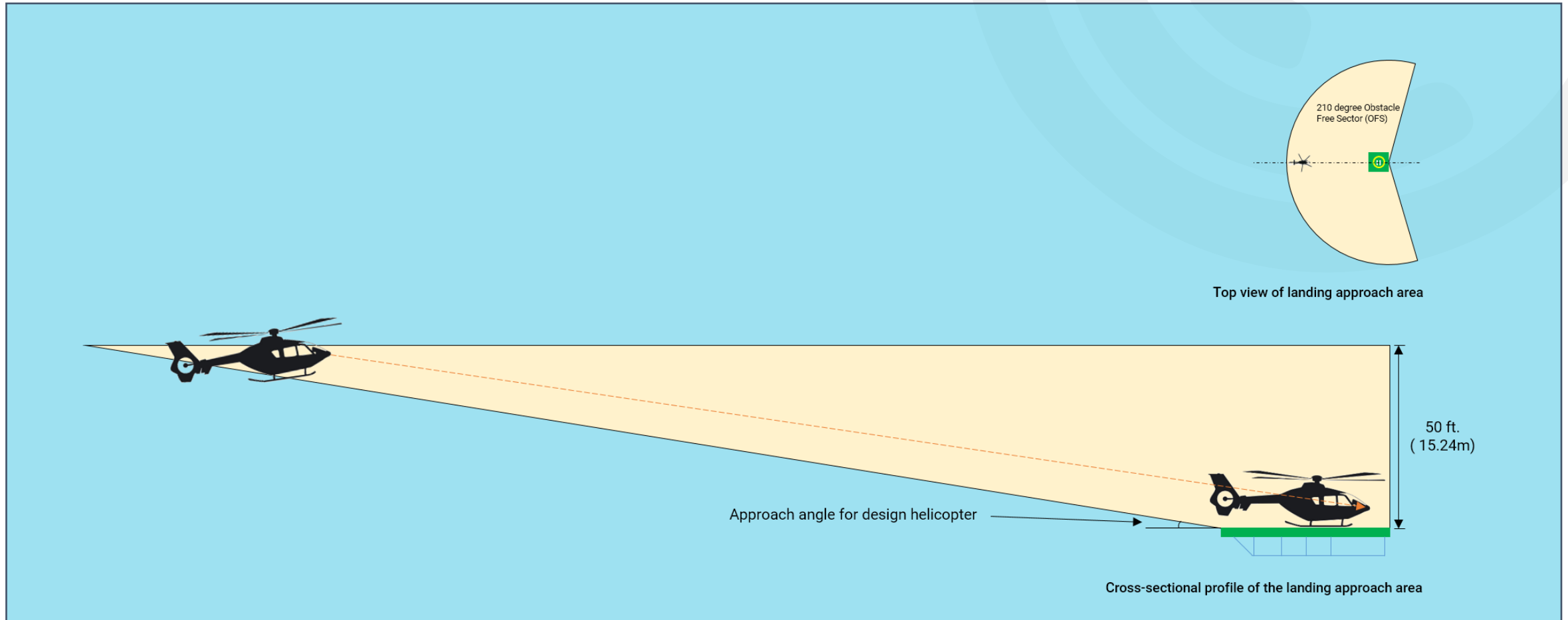
When considering the volume of airspace to which the following criteria apply, installation designers should consider the airspace up to a height above helideck level which takes into consideration the requirement to accommodate helicopter landing and take-off decision points or committal points.

(See Figures below).

NOTE 2:

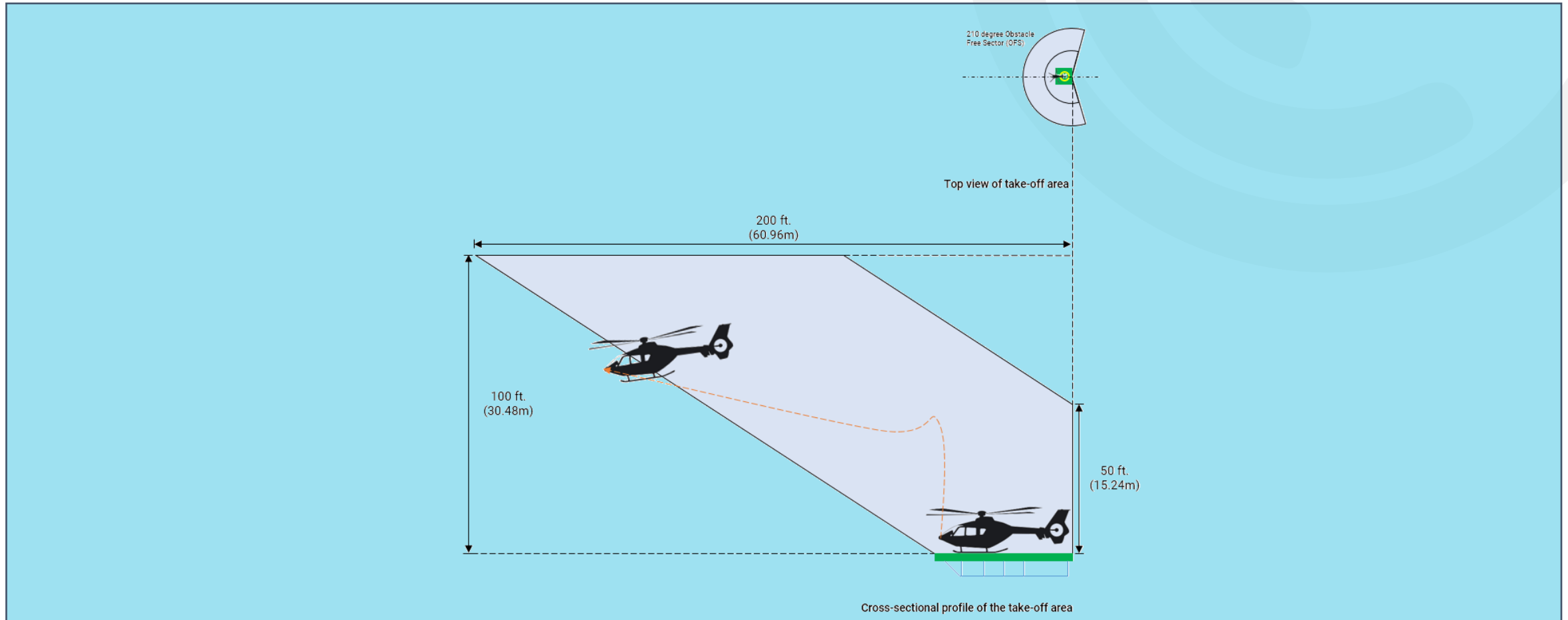
See HeliOffshore RP Flight Path Management for additional industry guidance on Take-off and Approach profiles

HSAC RP 161 – 2ND EDITION – REV. 1 - CONTINUED



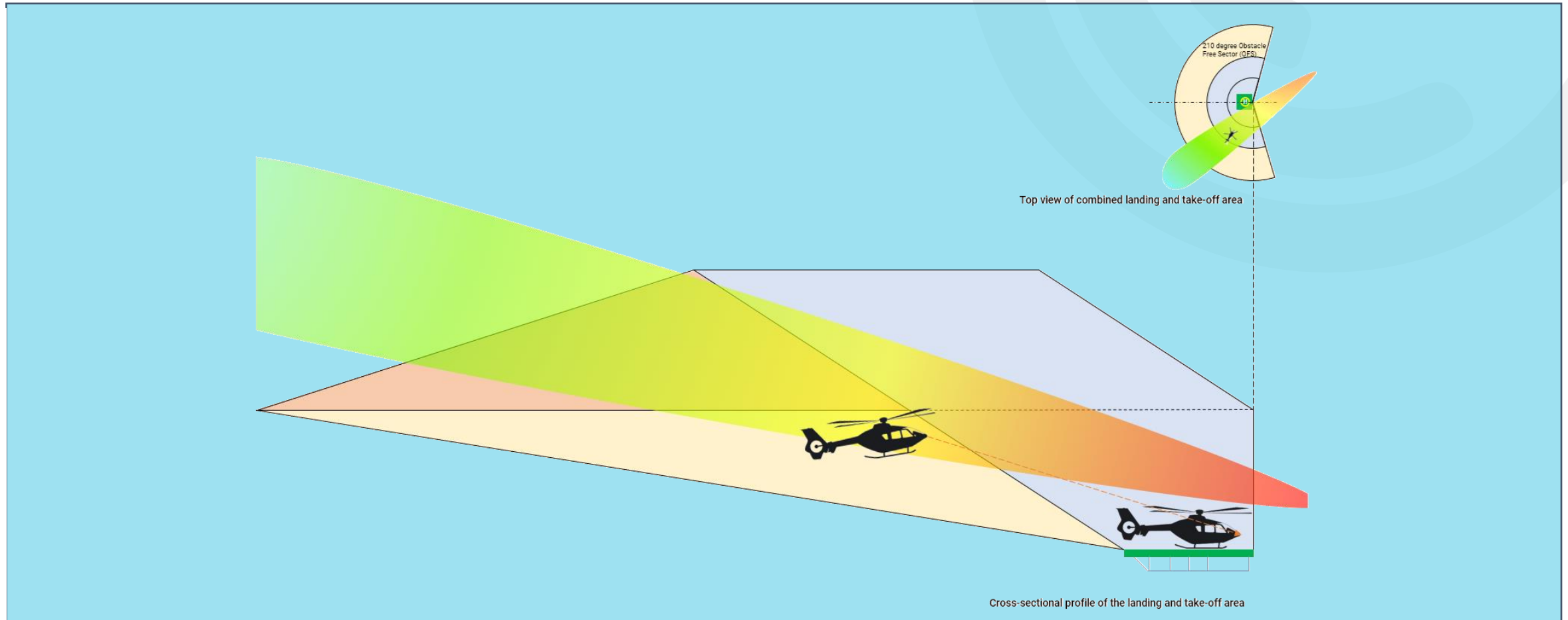
Example: Approach Profile for use in CFD analysis

HSAC RP 161 – 2ND EDITION – REV. 1 - CONTINUED



Example: Take-off Profile for use in CFD analysis

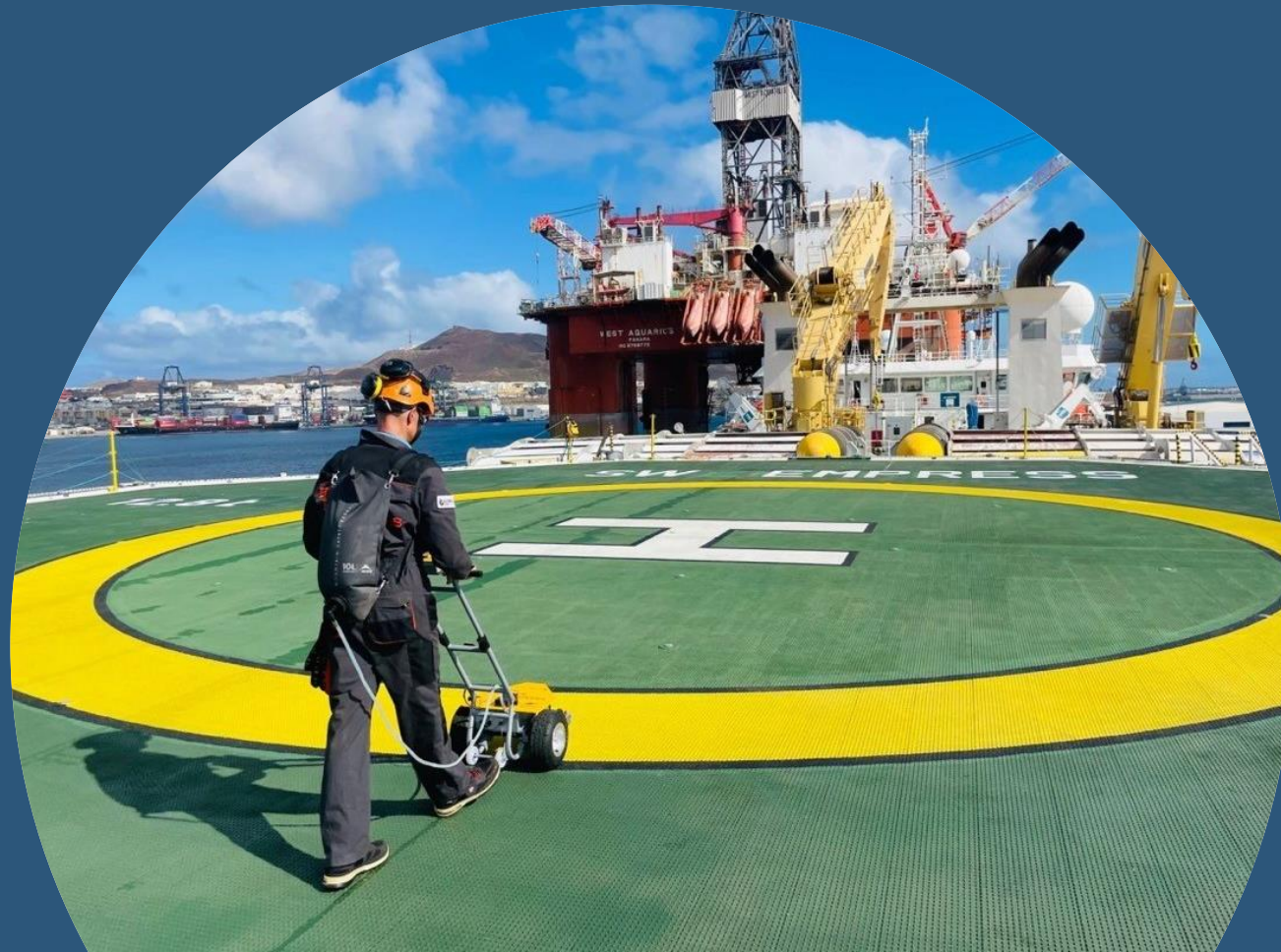
HSAC RP 161 – 2ND EDITION – REV. 1 - CONTINUED



Example: Combined Approach and Take-off Profile for use
in CFD analysis with hot-air dispersion plot

FUTURE WORK

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DISCUSSION FUTURE WORK

- HeliOffshore MMHEL incorporation into HSAC RP 163
- Upon OPITO adoption of Offshore Helicopter Landing Area Inspection Initial Training into training library, incorporation of into HSAC RP 163 par 10.2.9 Helideck Inspector Training
- Upon OPITO adoption into training library, incorporation of OPITO HOIT + Helideck Initial Emergency Response and Refueling Training into HSAC RP 163 par 12.1 Table 34 and 12.2 Helicopter Landing Officer (HLO) and Helideck Assistant (HDA)
- Reinstate weekly online Helideck Committee meetings (1hr/wk)



DISCUSSION FUTURE WORK - CONTINUED

- Reach-out to Top 10 helideck owners in GOM to obtain contacts for used Engineering Companies related to Helideck Design and Modification, to promote HSAC RP 10 series
 - See above, also for Vessel Class organizations
- Promote HSAC RPs at HAI Heli-Expo 2023
- Have HSAC RP 160 Series translated to Spanish
 - Reaching out to companies that provide translation services for technical documentation.
 - Forward recommendations to HSAC Board for approval and funding



PROPOSED TIMELINE





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THANK YOU!



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<http://www.hsac.org/>