Heliport and Airways Committee

HSAC
New Orleans, LA
20 October 2016

Helideck Agenda

- Rotor Magazine Article
- API RP 2L-1 Update
- Helideck RP Workgroup Update
- Industry Update ICAO Annex 14 and CAP 437
- Aircraft Grounding During Refueling
- BSEE Presentation

Rotor Magazine (HAI) Article

- **HSAC approached HAI at HeliExpo and they agreed to publish article on HSAC RP 2016-1 “ New Builds”**
- **Article published Rotor Magazine Summer 2016, total of 4 pages with extracts from the RP**

HSAC Develops Guidelines for New-Build Helidecks

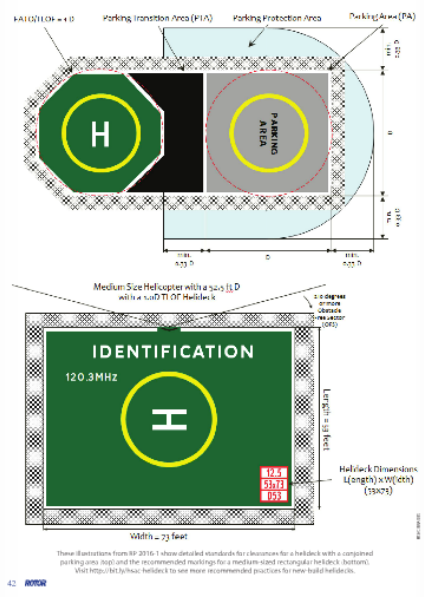
By Eric Shores

First Standards for Helidecks with Conjoined Parking

HSAC: A Proactive Approach to Offshore Helicopter Safety

Guidelines for Helideck Markings

HSAC RP 2016-1 is a one-stop shop for guidance on new-build helideck planning, design, marking, lighting, fuel stations, and equipment for weather reporting, communications, and emergency response.



Safety through Cooperation

Rotor Article

- **HAI provided this background:**

> The helideck RP released in May was the result of a significant three-year collaboration involving a host of experts from industry and government, the FAA, and military services and state agencies. These included some old friends like John Leverton from Leverton Associates International, Bill Schroeder from Chevron, and Bob Williams from ExxonMobil, all of whom have worked closely for years with HAI and the International Federation of Helicopter Associations on the ICAO Heliport Design Working Group.

- **Special thanks to Eric Shores of PHI who agreed to write the article, from HAI:**

> Some participants in creating the RP were new to us, like Eric Shores, an operations manager at PHI and an HSAC member, who volunteered to write an article explaining this new safety document for ROTOR. We extend a special thanks to him.
>
> Again, HAI salutes — and thanks — HSAC and all the people and organizations involved in this important safety project.
>
> *– David York*
> *HAI vice president for regulations and international affairs*

API RP-L1 Update

- Meeting was held on 8 September 2016 in Houston
- After discussion it became apparent that some members of the API workgroup would never accept a minimal helideck size of 0.83D for new builds and there was no way forward given the API RP process.
- HSAC withdrew its support from the workgroup and advised API in writing of the following:

a) HSAC believes to allow these substandard sized helidecks to continue to be built poses a liability risk to helideck designers, builders, owners and helicopter operators as well as a safety risk to helicopter operations.

b) API would be better served to have no new build helideck design guidance rather than to have substandard guidance that has been proposed in the ballot comments for the new DRAFT RP for New Builds which would allow decks smaller than 0.83D.

c) API should remove / withdraw the current API RP2L document as reference due to time elapsed since it was last updated in 1996, and remove the draft RP2L-1 from the ballot process as discussed and agreed at this most recent workgroup meeting.

API Update

Continued from previous slide: Going forward, HSAC member companies including those with API membership will:

a) Not recognize any API reference with regard to helideck design guidance and recommend government agencies do the same.

b) Only support withdrawal of the old API RP 2L Design RP, and would comment ballot / negatively on any attempt to further revise the old document.

c) Have its members with API membership actively support ONLY the above positions through the normal API processes.

(We need HSAC API members to contact their API contacts and advise of HSAC position and convey the message)

If for some reason it is required that there be further ballot efforts for the old API RP2L or the Draft 2L-1, both HSAC and its API members respectfully recommend that only voting members who were included in the original ballot of 2L-1 be allowed to participate.

HSAC RP 2016-2

DRAFT Revision 4

Assessment, Upgrades, Modification, Replacement and Marking of Existing and Temporary Helidecks

(Legacy Helidecks)

Helideck Workgroup
(Forward Plan)

1. ***API RP:***
   a) *Continue to reinforce to HSAC members with API membership in API to reinforce the HSAC position on API's helideck guidance.*
   b) *Review / seek support of HSAC position with federal agencies.*

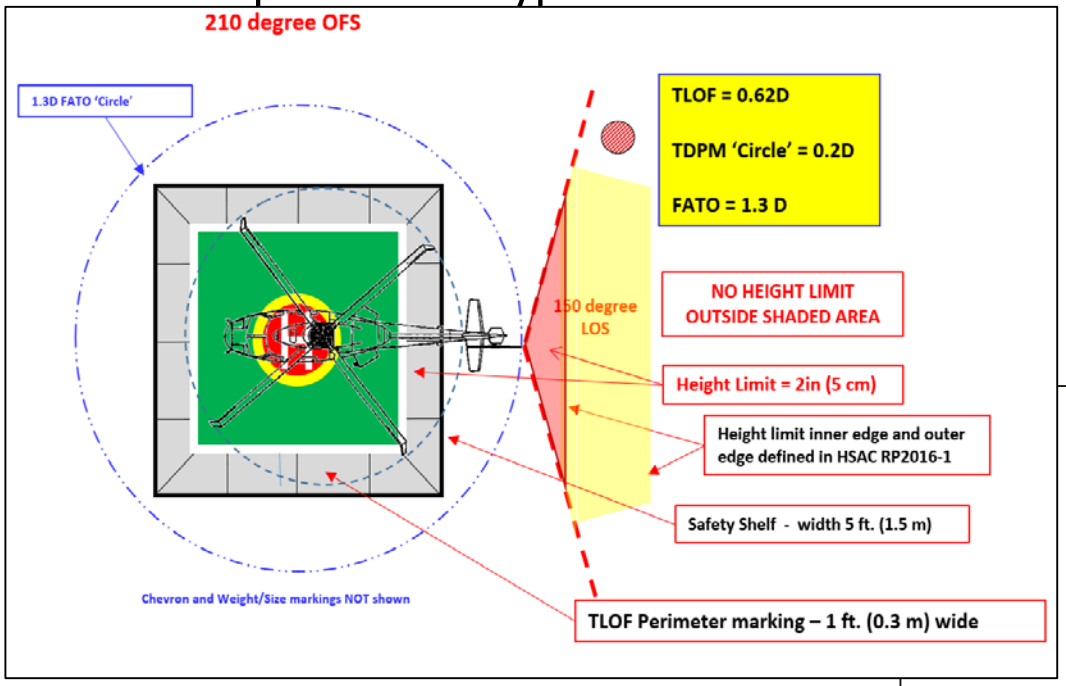
2. **HSAC RP 2016-2: Assessment, Upgrades, Modification, Replacement and Marking of Existing and Temporary Helidecks** (Legacy Helidecks):
   a) *Complete RP and publish. Complete before year end.*
   b) *Withdraw RPs 2008-01 and 2013-01. Complete before year end.*

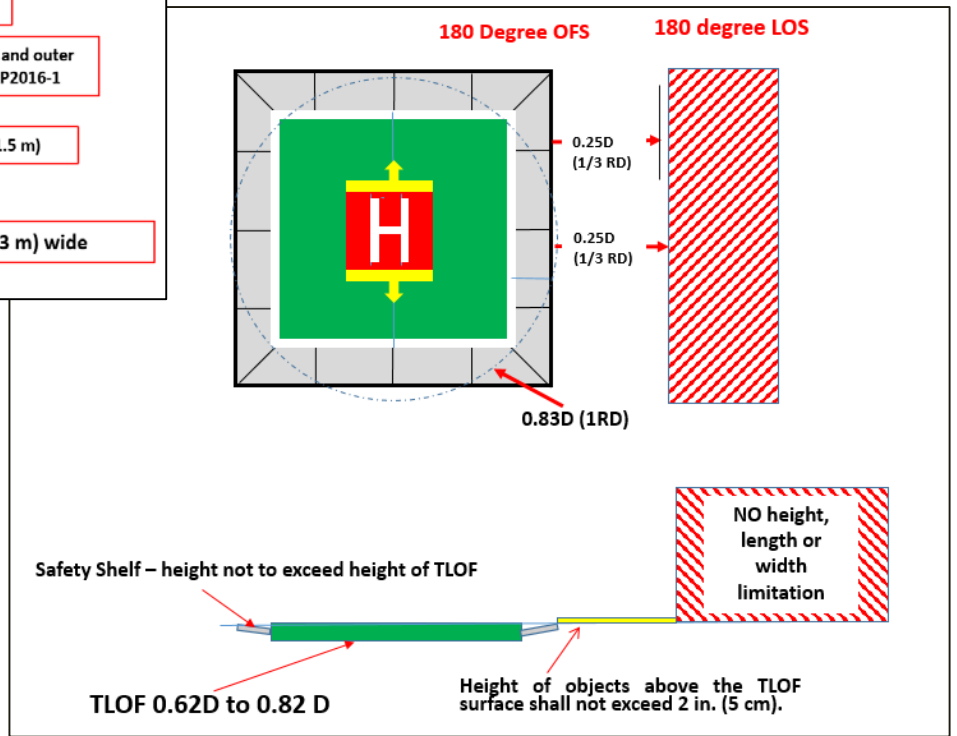
3. **HSAC RP 2016-1 rev 1: Helideck Design Guidelines (New Builds):**
   a) Align with 2016-2, correct some errors, and reinsert paragraph numbers, etc. *Following release of RP 2016-2 issue Rev 2 to HSAC RP 2016-1. Target Year end.*

4. **HSAC RP 2016-3: Inspection, Maintenance and Management of Offshore Helidecks:**
   a) Align with current industry best practices. Bill Schroeder (Chevron) and Pat Bosman (Shell) are co-chairs. *Pending after RP 2016-1 and RP 2016-1 Rev 2 are issued. Target mid 2017.*

HSAC RP 2016-2

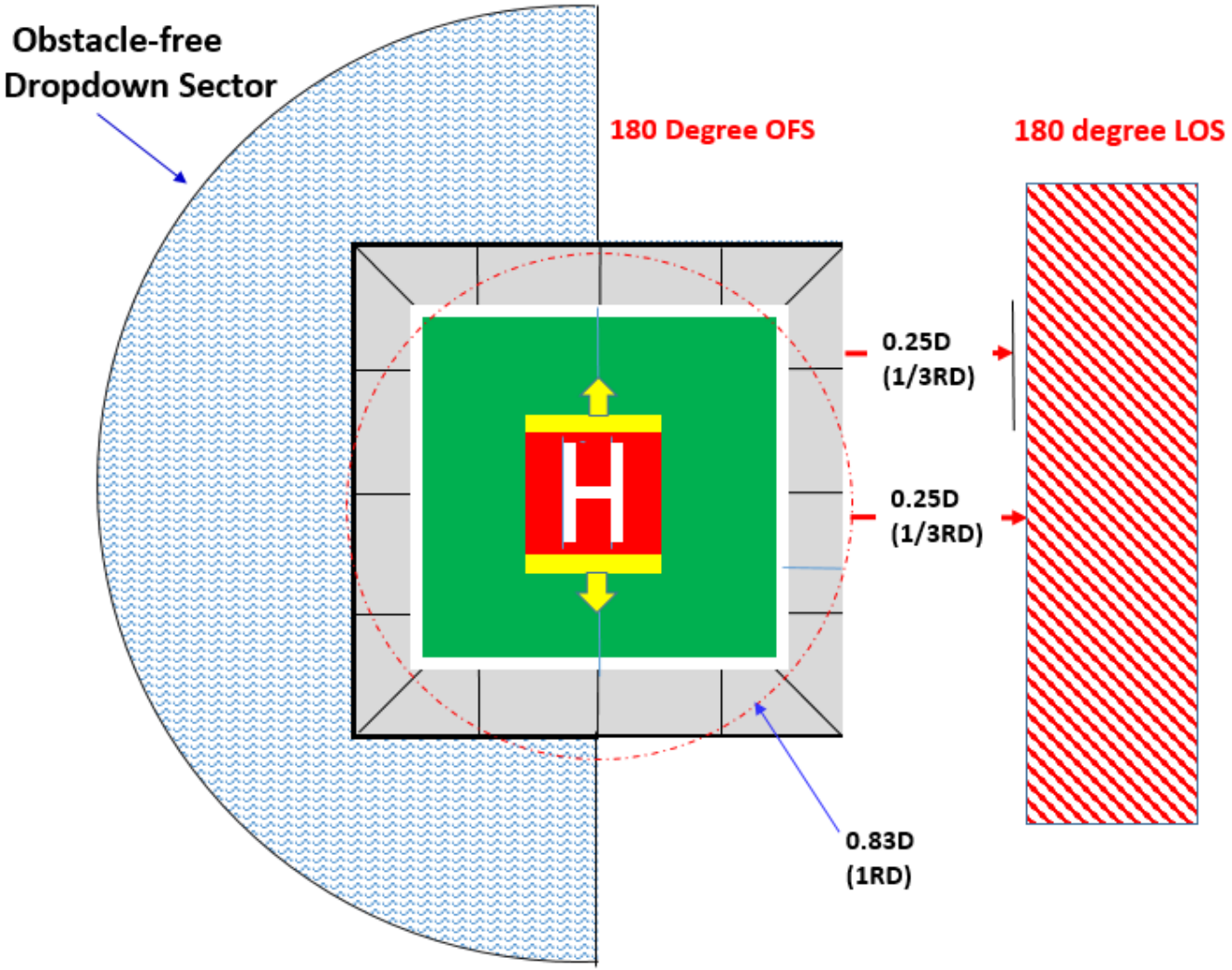
Provides option for 2 types of obstacle clearances





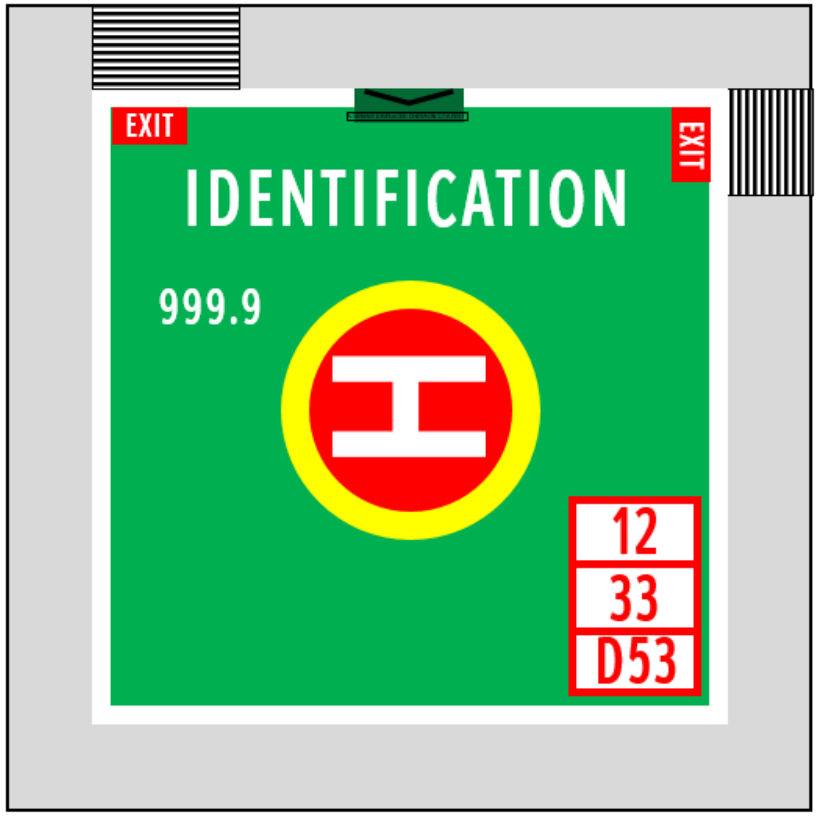
HSAC RP 2016-2

Restrictions to 0.62D decks with 180 degree LOS



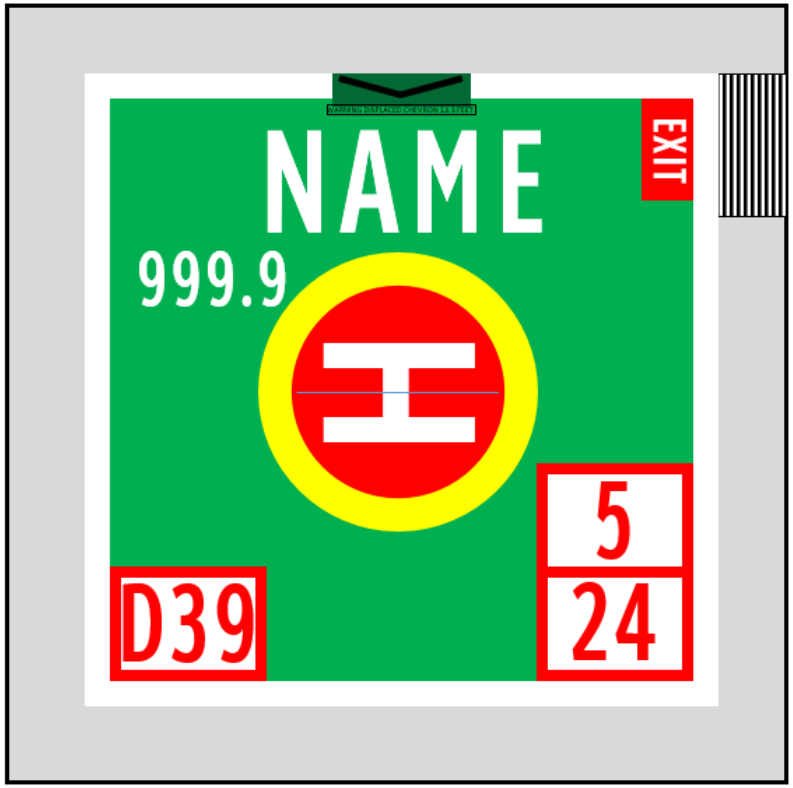
HSAC RP 2016-2

Sample Markings 0.62 TLOF



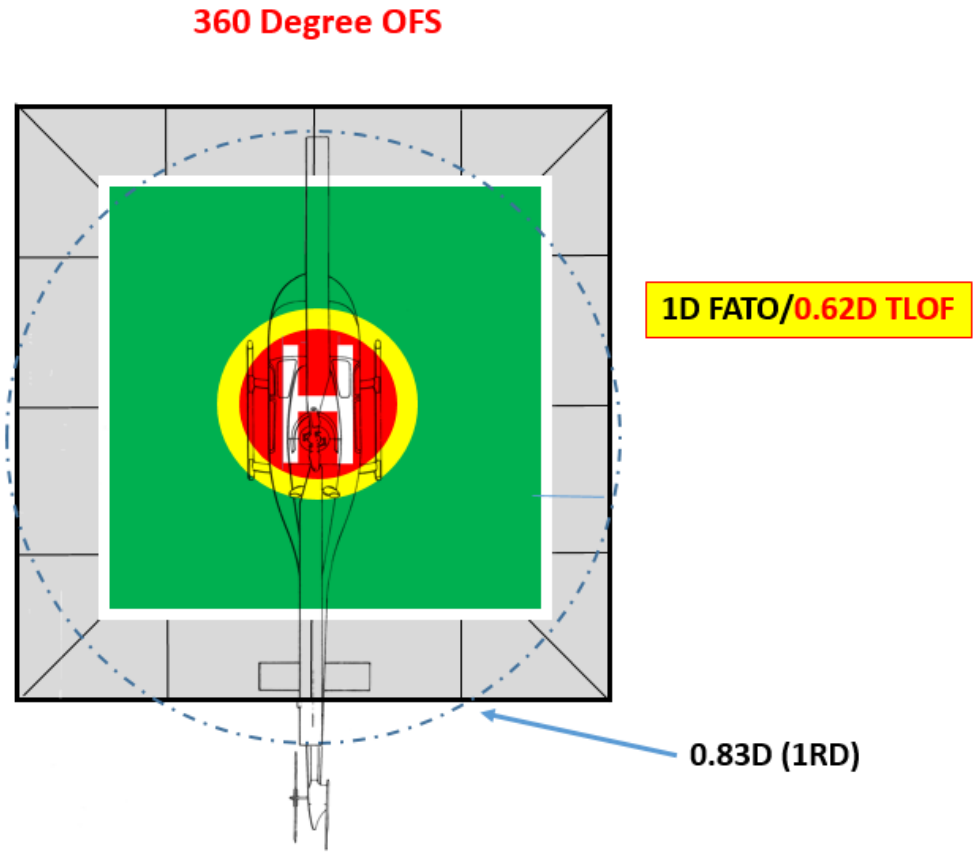
S76 with 0.62 TLOF

B206 with 0.62 TLOF



HSAC RP 2016-2

For decks with no obstacles, allows for 360 degree operation



Industry Update

ICAO Annex 14

Revision 7 pending publication year end

ICAO Heliport Manual

To be published mid 2017.

Adopted several HSAC recommendations from RP 2016-1

- Parking Area
- Fonts
- Markings

CAP 437

Revision 8 will be published first quarter of 2017

Adopted several HSAC recommendations from RP 2016-1

- Parking Area
- Fonts
- <1D helidecks with a risk assessment
- Fuel System requirements

Aircraft Bounding/Grounding During Refueling

Bonding

vs.

Grounding

Aviation Training Academy

Aircraft Bonding/Grounding

Grounding versus Bonding

- Grounding - Grounding is an electrical **connection** to an electrode that establishes a connection to the earth. This permissive wiring is only useful to provide a path for lightning, shunting high-frequency noise, or reducing static discharge.

- Bonding - Bonding is used to electrically connect metal parts together to provide a conductive path for the **equalization** of electrical potentials. Bonding prevents dangerous static electrical discharges during fueling operations; Static sparking cannot take place between objects that are at the same potential.

Aircraft Bonding/Grounding

Grounding versus Bonding

- In offloading operations at typical fuel farms, when a connection is made between the fuel farm equipment and the delivery vehicle, it is Grounding.
- Connections made between hydrant pits and hydrant carts, and between fueling cabinets and aircraft are also typically **Grounding**.
- Bonding will be the standard practice when fueling aircraft from fueling vehicles, hydrant carts, and between sampling buckets and any metal container.

BSEE Presentation

- **BSEE Safety Alert published 30 August 2016 on Helideck Hazards**

SAFETY ALERT

BSEE
Bureau of Safety and Environmental Enforcement

Safety Alert No. 322
30 August 2016

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Phone: (571) 594-8383

Helideck Obstructions and Compounding Procedural Errors Contribute to Five Near Misses on OCS

In the past 4 months there have been at least 5 near misses involving helideck hazards on OCS oil and gas facilities.

Helicopter Safety Advisory Conference (HSAC) statistics for 2015 state that there have been 26 helicopter accidents associated with Gulf of Mexico oil and gas operations since 1999. Five of those accidents involved fatalities (19%), which resulted in 13 deaths and 16 injuries. The leading causes of the accidents since 1999 are listed below (some accidents fit in more than one category). **Significantly, the helideck size or design related issues are considered contributory in 11 of these accidents.**

- 21 engine related,
- 25 loss of control or improper procedures,
- **17 helideck obstacle strikes,**
- 11 controlled flight into terrain or water, and
- 11 other technical failures.

The following near misses involved BSEE personnel or have been reported to BSEE:

- **Presentation by BSEE**

Questions?