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Issue Date: 10/10/13

#### SAFETY REGULATION DIVISION

**Title: Offshore Helideck Inspection Form** 

Responsibility: P. van Velzen

# THIS REPORTING FORM FOR INSPECTIONS CARRIED OUT ON HELICOPTER FACILITIES AT OFFSHORE INSTALLATIONS

#### **IRISH AVIATION AUTHORITY APPROVED**

# REPORTING FORM FOR INSPECTIONS CARRIED OUT OF HELICOPTER FACILITIES AT OFFSHORE INSTALLATIONS

Name of Inspector(s):	
Date of Inspection:	
Name of Installation:	
Type of Installation:	
Operator:	
Location:	

A helicopter operator intending to operate to an offshore installation should, as soon as practicable after the arrival of the installation in Irish waters, complete an inspection of the installation helicopter facilities in accordance with this IAA approved checklist. Permanent Installations should be inspected annually.

Copies of inspection reports should be submitted to the Irish Aviation Authority at the address given below:-

Irish Aviation Authority, Flight Operations Department, The Times Building 11-12 D'Olier Street,

Dublin 2, Tel:- (01) 6031117 Ireland. Fax:- (01) 6774460



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### (A) Helideck Dimensions

1	Declared 'D' value		metres
2	Measured 'D' value		metres
3	Deck Shape		metres
4	Elevation of:	<ul><li>a) Installation</li><li>b) Helicopter Landing Area</li></ul>	feet feet
5	Scale drawings (AERAD) available and correct	Yes/No	
6	declared 't' value – maximum helicopter mass		tonnes

### (B) Deck Landing Area Conditions

- 1 Non-slip overall coating and markings
- 2 Aluminium deck sections should incorporate non-slip profiles

3	Does drainage system capture any rainfall/fuel spillage safely?	Yes/No
4	a) Can the exhaust and turbulence from the gas turbine exhaust system affects the helideck performance?	Yes/No
	b) Has the effect on helideck performance been quantified?	Yes/No

5 <u>If Landing Net Fitted:</u> is the size of net correct for the type of helicopter to be Yes/No

Aircraft Type	Minimum Deck Size (D Value) Metres	Landing Net Size
EC 135 T2/T2+	12	Not Required
AerospatialeSA365C/N	14	Small 6m x 6m
Aerospatiale AS332L	19	Medium 12m x 12m
Sikorsky S76	16	Medium 12m x 12m
AW 139	17	Medium 12m x 12m
Sikorsky S92	21	Large 15m x 15m



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6	Is net non-nylon and knotted with mesh size not greater than 200mm?	Yes/No
7	Is net secured every 1.5 metres around the landing area?	Yes/No
8	Net tensioning. Can the net be raised more than 250 mm above the deck?	Yes/No
9	If no Landing Net fitted: Is the platform a fixed installation?	Yes/No
10	What was the date and result of the last surface friction test?  (Less than 0.65 net to be retained)  Date:  Result:	
11	Perimeter Safety Net - Does net cover whole of the exposed landing area of the flight deck?	Yes/No
12	Is the inboard edge of the perimeter safety net fastened just below the level of the helicopter landing deck?	Yes/No
13	Does the perimeter safety net extend outwards not less than 1.5 metres in the horizontal plane with an upward slope of at approximately 10°?	Yes/No
14	Is the general condition of the safety net sound enough to withstand and contain without damage, a 100kg weight being dropped from a height of 1 metre?	Yes/No
15	Is the outboard edge of the perimeter safety net at a height not exceeding the level of the landing area?	Yes/No
16	<u>Tie-down Points</u> – Are there sufficient tie-down points for the type of helicopter that is going to be operated to the installation?	Yes/No
17	Are the tie-down points based on the centre of the touch-down markings?	Yes/No
18	Do they protrude above the deck surface?	Yes/No
19	Are the tie-down points compatible with the dimensions of the helicopters tie-down strops?	Yes/No



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### (C) Obstacle Free Areas (Check with Diagram No. 1 Attached)

Is the obstacle free sector (normally 210°) marked on the deck?

Within the obstacle free sector and out to 1000 metres are there any obstructions other than the specified essentials such as light fittings, safety rails, outboard edge of the safety perimeter net, fire fighting equipment or unmoveable handrails?

Yes/No

Are all the specified essential items less than 2.5cm above the height of the landing area?

Yes/No

#### (D) Limited Obstacle Sector (Check with Diagram No. 1 Attached)

The  $150^{\circ}$  sector has height restrictions measured from the centre of the landing area (To find the 'centre' bisect the chevron, the point of origin, and measure outboard 0.5D).

1	Are any obstacles above 25 cm from the centre of the landing area to 0.62D?	Yes/No
2	Do any obstacles between 0.62D and 0.83D exceed the heights shown in the table below?	Yes/No

–	Maximum Height of Obstacles within the 210° LOS		
Aircraft Type	Out to 0.62D (Fig 1) metres	Between 0.62D and 0.83D (Fig 1) metres	
EC 135 T2/T2+	25 cm	0.61 to 1.88	
Aerospatiale SA365C	25 cm	0.66 to 2.06	
Aerospatiale SA365N/N2	25 cm	0.68 to 2.12	
Sikorsky S76	25 cm	0.80 rising to 2.48	
Aerospatiale AS332L	25 cm	0.94 rising to 2.91	
Sikorsky S92	25 cm	1.05 rising to 3.26	



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### (E) Falling 5:1 Gradient (180° Sector) (Check with Diagrams No. 2 Attached)

Lying centrally, and outboard, within the 210° obstacle free area is the 180° arc taken from the centre of the landing area.

For practical purposes this can be measured from the outboard edge of the helideck perimeter safety netting supports.

1	In the 180° sector are there any obstructions that penetrate a falling gradient of 1 unit outwards for every 5 units of vertical fall?	Yes/No
2	Have the obstructions that infringe the falling gradient been declared and notified to the Authority?	Yes/No
3	Are any Restricted Helideck Approvals imposed or pending as a result of the 5:1 infringements.	Yes/No
4	Does the Thales Avionics Aerad plate reflect any infringements and list any restrictions?	Yes/No

### (F) Deck Markings

1	Is the helideck dark green?	Yes/No
2	Is the perimeter of the safe landing area clearly marked with a white painted line 0.3 metres wide? (Check with Diagram No. 3 Attached)	Yes/No
3	Is the 210° obstacle free sector marked with a black chevron and correctly orientated? (Check with Diagram No. 3 Attached)	Yes/No
4	Has the helideck D value been marked on the perimeter of the helideck in a colour that clearly contrasts with the helideck surface?	Yes/No
5	Does the correct aiming circle, shown in Diagram No. 4, exist?	Yes/No
6	Is the 'H' in the centre of the aiming circle painted white, correctly orientated, and in accordance with Diagrams No. 4 and 4A?	Yes/No
7	What is the maximum allowable weight that is marked on the helideck?	Yes/No
8	Is maximum weight marking at least 0.9 metres tall with a width line of at least 0.12 metres? (The marking should be readable from the preferred final approach direction and where possible, separated from the installation identification marking)	Yes/No
9	Is the installation identification clearly marked, not less than 1.2 metres lettering and not obscured by the deck netting, if fitted?	Yes/No



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### (G) Helicopter Landing Area - Lighting

1	Are omni-directional green lights visible above the landing area level and spaced equally around the perimeter of the safe landing area?	Yes/No
2	Are the safe landing area lights not more than 3 meters apart and coincident with the white perimeter line?	Yes/No
3	The safe landing area lights should be at least 30 candelas intensity. Higher intensity lighting is acceptable for poor visibility daylight flying, but must be fitted with a brilliance control to return to 30 candelas for night use. Are all the lights working and conforming to this requirement?	Yes/No
4	Is floodlighting available and arranged so as not to dazzle the pilot?	Yes/No
5	Can the floodlighting be switched off at the pilot's request?	Yes/No
6	Are there any floodlights in the Limited Obstacle Sector (150°)?	Yes/No
7	Is the floodlighting confined to the landing area with no overspill which could cause sea reflections?	Yes/No
8	Is the lighting under the helideck level sufficient to enhance 'visual cues' for night approaches?	Yes/No
9	Can the wind indicator be seen from the helideck? Is it illuminated? Note: CAP 437 is introducing a requirement to fit lit TD circle and 'H' markings in the North Sea sector. At present these are suitable for wheeled helicopter operations only.	Yes/No Yes/No

### (H) Obstacles - Marking and Lighting

1	Are all the fixed obstacles that may present a hazard to the helicopter readily visible from the air?	Yes/No
2	Does the colour chosen to enhance these obstacles, contrast with the background?	Yes/No
3	Have all the crane booms, and any lattice tower structures that are close to the helideck or to the 150° sector boundary, been marked with contrasting colours?	Yes/No
4	Has omni-directional red lights been fitted at suitable locations to objects that are higher and close to the helideck or the 150° sector?	Yes/No
5	Are all objects that are more than 15 metres higher than the helideck fitted with intermediate red lights of the same intensity spaced at 10 metre intervals down to the level of the helideck? (Floodlights may be used instead of red lights to illuminate structures such as flare booms and towers. If floodlights are used they must not dazzle the pilot.)	Yes/No



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## (I) Fuel System

1	Does the installation have a Jet A-1 refuelling system installed? (If answer to this question is no then go to section J)	Yes/No
2	Is gravity and pressure refuelling available?	Yes/No
3	What is the date of the last Annual Inspection carried out by an Authorised Fuel Inspector?	Yes/No
4	Have you a copy of the last report following an offshore inspection by an Authorised Fuel Inspector?	Yes/No
5	Can you confirm a good general appearance of the refuelling systems storage facilities, transit tanks and delivery system to the helideck?	Yes/No
6	The 'daily storage checks' records should be inspected. If necessary monitor the check taking place and ask to see the fuel sample. Were the check and the sample satisfactory?	Yes/No
7	Is there a remote start/stop button on or immediately close to the helideck?	Yes/No
8	Is there a pump running warning light which is visible from the helideck?	Yes/No
9	Check the full length of the delivery hose for condition. If possible, this check should be carried out while system is subject to pump pressure. Is hose satisfactory?	Yes/No
10	Is the bonding reel in good condition, unbroken and secure?	Yes/No
11	Has the installation adequate supplies of syringes and capsule detector kits?	Yes/No
12	Satisfy yourself that the refuelling crew are conversant with their responsibilities during refuelling.	Yes/No



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### (J) Rescue and Fire Fighting Facilities

Are there at least two access/escape routes to and from the helideck? 1 (Ideally, the routes to the helideck should be located equidistant around Yes/No the perimeter). If the foam monitors are co-located with the access/escape routes, do they 2 Yes/No impede escaping personnel in the event of an emergency situation? Do any of the handrails associated with the helideck access/escape routes 3 exceed the height of 25 cm? If so, can they be retracted, collapsed or Yes/No removed during helicopter take-off and landings? Does the fire fighting equipment conform to the minimum scale requirement below? Main Medium a) i. A low expansion foam application system capable of Yes/No 4 Discharging foam solution at 6.0 litres per square metre per minute onto the prescribed landing area for not less than 5 minutes. b) Complementary Medium One or more dry powder fire extinguishers (not less than 45 kg) with a discharge rate of at least 1.35-2 Kg/sec. i. One carbon dioxide fire extinguisher (not less than 22 kg), Yes/No ii. One halogenated hydro-carbon fire extinguisher (not less than 18 kg) On what date was the foam system last checked using the foam 5 Yes/No concentrate? 6 Were the results within acceptable limits – show documentation. Yes/No 7 Was the foam system demonstrated during your inspection? Yes/No 8 Is all the fire fighting equipment in a satisfactory condition? Yes/No 9 Is the emergency rescue equipment (crash box) located in the vicinity of Yes/No the helideck and suitably protected from the environment?



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10 Check the following emergency equipment is available in the rescue equipment box:-

a)	Adjustable wrench	Yes/No
b)	Rescue axe, small (non wedge or aircraft type)	Yes/No
c)	Bolt cutters	Yes/No
d)	Crowbar, large	Yes/No
e)	Grab Hook or salving	Yes/No
f)	Hacksaw, heavy duty with 6 spare blades	Yes/No
g)	Blanket, fire resistant	Yes/No
h)	Ladder, length appropriate to helicopter in use	Yes/No
i)	Life-line/rescue harness	Yes/No
j)	Pliers, side cutting	Yes/No
k)	Set of assorted screwdrivers	Yes/No
I)	Harness knife complete with sheath <sup>1</sup>	Yes/No
m)	Gloves fire resistant <sup>1</sup>	Yes/No
n)	Self-contained breathing apparatus (2 sets)	Yes/No
1	This equipment is required for each helideck crew member.	

Check all personnel assigned to rescue and fire fighting duties are provided with suitable 11 personal protective equipment, as follows:-

a)	Helmet and fitted visor	Yes/No	
b)	b) Fire tunic and trousers (or one-piece suit)		
c)	Gloves	Yes/No	
d)	Boots	Yes/No	
e)	Harness knife complete with sheath	Yes/No	
1	A minimum of 4 sets of the above equipment should be provided on a Manned Offshore Installation and 2		
,	sets for an Unmanned Offshore Installation.		

All fire fighting equipment for personnel should be located at a point which

has easy access to the helicopter landing area. Confirm that this is being 12 complied with, and that the facility is clearly indicated.

Yes/No



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## (K) Helicopter Operations Support Equipment

1 Is the following miscellaneous equipment available?

a)	Chocks – Appropriate to helicopter in use	
b)	Calibrated scales for baggage/freight and passenger weighing; What was the date of calibration of the scales?	Yes/No
c)	A suitable power source for starting helicopters	Yes/No
d)	Spare windsock	Yes/No
e)	An anemometer positioned in an unrestricted airflow.	Yes/No
f)	Means of measuring air temperature and barometric pressure. The barometric pressure should preferably be determined with a twin altimeter kit or a precision aneroid barometer. What was the date of calibration of the barometer?	Yes/No
g)	Means of measuring visibility, cloud base or cover.	Yes/No
h)	Means of measuring sea state (mobile installations only).	Yes/No
i)	A hand-held anemometer for actual deck wind readings	Yes/No
j)	A stretcher(s)	Yes/No
k)	Landing prohibited marker	Yes/No
l)	2 portable safety lamps	Yes/No
m)	Means of removing heavy freight from the helicopter.	Yes/No
n)	Correct 'airline type' labels for passengers baggage and freight (including dangerous goods)	Yes/No



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2	Has the HLO a portable aeronautical VHF radio for use on the Helideck, which can both, receive and transmit?		
	Is the in	stallation equipped with a non-directional beacon?	Yes/No
	If so, wi	hat is the ident and frequency of the beacon?	
3	Ident: _		
	Freq:		
4		rane driver equipped with a marine band radio or other means of with the helideck?	Yes/No
5	Is the in	stallation capable of measuring pitch, roll and heave?	Yes/No
	What is	the contact callsign and frequency of the installation?	
	C/s: _		
6	Freq:		
	MHz:		
7	Is there frequen	a voice activated recording system for the assigned helicopter cy?	Yes/No
8	Are the	following publications readily available?	Yes/No
	a)	CAP 437	Yes/No
	b)	The Management of Offshore Helideck Operations (UKOOA publication)	Yes/No
	c)	Installation operators own Companies Standing Instructions for duties and responsibilities for HLO, HDA's and radio operators?	Yes/No
	Does the installation operator have a suitable area to show an approved		
9	video? (Video should be produced by RGIT Viscom, but an alternative may be used if approved by the helicopter operator.)		
10		assenger briefing video correct for the type of helicopters. To be d to the installation?	Yes/No



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### (L) Personnel and Training

1	Have all the Helicopter Landing Officers attended courses on: Helicopter firefighting, refuelling (if applicable) and an approved HLO		Yes/No
2	Is the	e HLO familiar with the type of helicopter to be operated to the llation?	Yes/No
3	Have	e the HDA's attended Helicopter firefighting and refuelling courses?	Yes/No
4	Whe	n was the last approved refresher training undertaken for Firefighting?	Yes/No
5	When did the last statutory drill take place or in house training occur for HLO's and HDA's?		Yes/No
6	When did the crash rescue crews last complete a drill?		
7	Is the radio operator's level of training and experience sufficient to confidently be given the flight watch?		Yes/No
8	a)	Are there personnel on the installation who have completed an approved Dangerous Goods Awareness Course?	Yes/No
	b)	Are there personnel on the vessel who have completed a Dangerous Goods Shippers' Course?	Yes/No

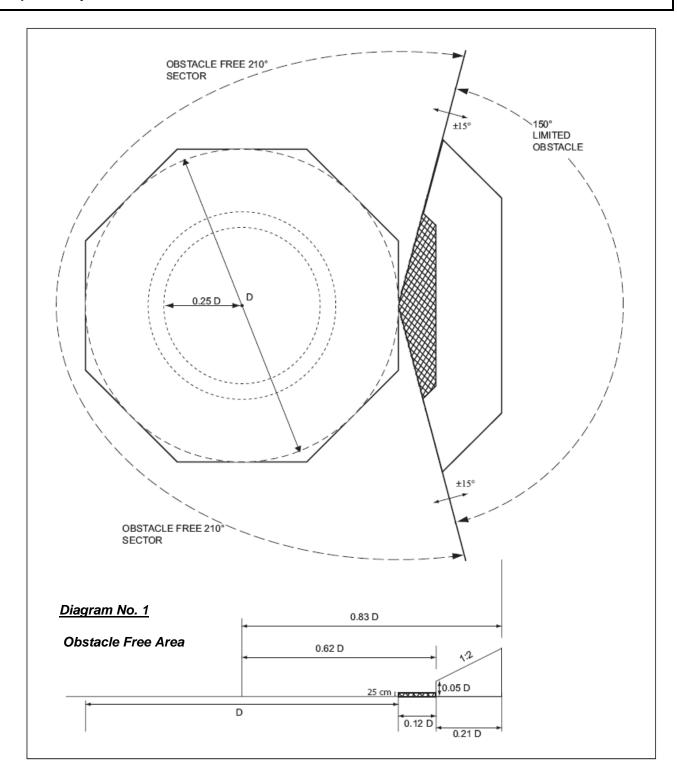


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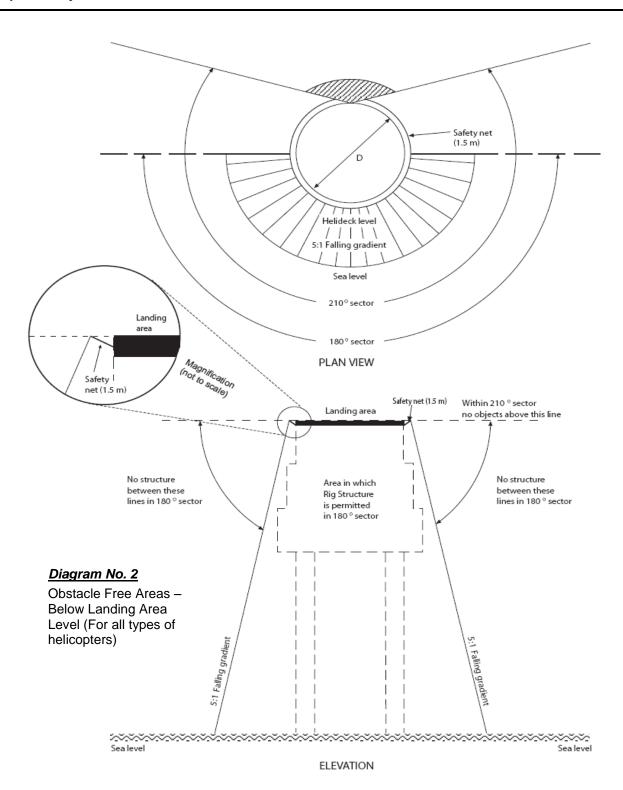


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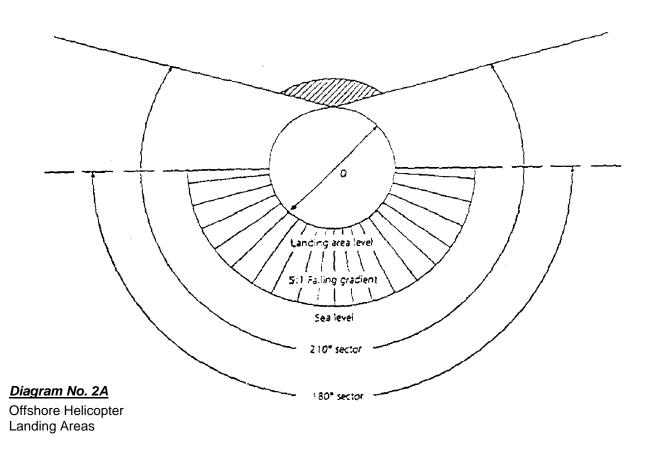


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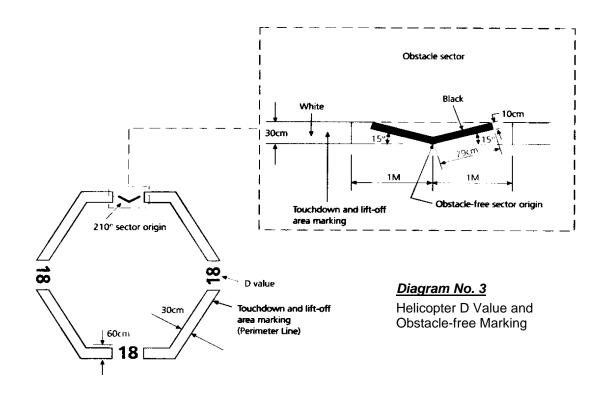
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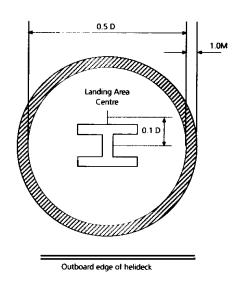
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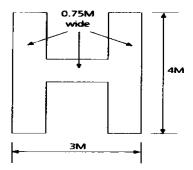
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<u>Diagram No. 4</u> Touchdown Marking (Aiming Circle to be painted yellow)



### Diagram No. 4A

Dimensions of H ('H' to be painted white)



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Name of Inspector(s):	 
Date of Inspection:	 
Name of Installation:	
Type of Installation:	 
Operator:	 
Location:	

A helicopter operator intending to operate to an offshore installation should, as soon as practicable after the arrival of the installation in Irish waters, complete an inspection of the installation helicopter facilities in accordance with this IAA approved checklist. Permanent Installations should be inspected annually.

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### (M) Overall Result of Inspection

	1.	Are there any deficienc operating to the installa		diate rectification prior to	Yes/No
	2.	List any deficiencies or inspection that require to Offshore Operator (Use	further investigating a	s soon as possible by the	Yes/No
	3.	List minor deficiencies of reviewed/replaced. (Us			Yes/No
	Section	n Reference		Comments	
	Section	n Reference		Comments	
Sı	ummary				
<u> </u>	<u>arriiriar y</u>				<del>-</del> 
ln	spection	carried out by:			
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