



Navigational Risk Assessment and Consultation on the modernisation of La Corbière Lighthouse

Introduction

The current main light source at La Corbière Lighthouse is a 1000-watt metal halide lamp mounted inside a two-panel revolving shutter array, floated on a mercury bath. Due to advancements in LED technology it is proposed to install a 215-watt LED light source. This LED light can be flashed rather than rotated, which means that the mercury associated with the rotating shade can be removed from service.

The current ranges of Corbiere Lighthouse are 18 nautical miles in the white sector and 16 nautical miles range in the red sector. The red sector distinguishes dangers to the north and east. LED light sources are not as efficient as traditional lamps when passing through a red filter. Therefore, there will be a small reduction in the range of the red sector as defined below:

1. The range of the current La Corbière Lighthouse White sector is 18 nautical miles. The range of the new light would be 18 nautical miles.
2. The range of the current La Corbière Lighthouse Red sector is 16 nautical miles. The range of the new light would be 14.5 nautical miles.

The other charted characteristics of the light will remain the same.

Navigational Risk Assessment and Consultation

Ports of Jersey has undertaken a Navigational Risk Assessment (NRA) relating to the proposed changes. The slight reduction in range is deemed to have no significant effect on navigation. Comment was sought during a consultation process with local stakeholders, commercial and leisure mariners. The results are summarised in the below table. The results are overwhelmingly positive. Please note: while no actual changes have been made to the comments and suggestions in the following notes, some grammatical tweaks to the text have been made.



Table 1. Consultation Responses

Jersey Fishermen's Association	<p>Thanks for giving us the opportunity to respond to the Corbiere light consultation. Whilst I really did not agree with removal of the fog horn, which has been an integral part of the Corbiere light function since it was built, I can see no reason why we would want to object to what is a fairly straight forward move from conventional light to LED.</p> <p>In my own experience, when approaching from long distance it is useful to pick up on the light from an early stage and the white range is to remain the same, while the red sector becomes more significant only when you are beginning to close on the danger zone.</p>
Jersey Pilots	<p>Speaking on behalf of the Jersey Pilots, I would support the proposed changes to the main light at Corbiere. The current sectors are regularly checked, but like all traditional lamp sectors graduate from white to pink to red. The proposed new LED system will give a far sharper definition between the sectors.</p> <p>In addition, we have no issue with the small reduction in visible range.</p>
Response 3	<p>Thanks for the email. I do not see any problem with the slight reduction in the range of the red sector light. The view of the light from the north or east is seen against a reasonably dark background, so the light is easily visible.</p>
Response 4	<p>Thank you for copying me in on the consultation document in relation to the proposed changes to La Corbiere Lighthouse light source.</p> <p>I have read the document with interest and can confirm I support the proposed improvements.</p>
Response 5	<p>With reference to the very recent notification of proposed light changes, I would be interested to know what the intention is for the disposal of the considerable amount of mercury, noting its high value.</p> <p>This is a "general" question as I have no first-hand interest in handling its disposal. However, would not like to see it "frittered" away.</p>
Response 6	<p>Great idea. Just get on with it!</p>
Response 7	<p>I have in principle no concerns re the installation of the LED light itself and I understand that the removal of the mercury float is a sound idea.</p> <p>I have been lucky enough to visit the interior of the lighthouse and my concerns are for the amazing interior metal / engineering work.</p> <p>If the mercury float is removed does that mean the bulb will flash and the lenses will remain stationary or will the lenses be removed?</p>

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	Will other alteration to the interior be required to accommodate this work?
Response 8	I would support the conversion providing the failure rate of the LED system is no worse than the existing lantern. Otherwise it is advantageous. The small reduction in red sector range should be of little consequence.

Ports of Jersey confirms its intention to proceed with this project in the modernisation of Corbiere lighthouse as outlined in the introduction of this document.

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