

Mull & Iona Ferry Committee

Craignure-Oban vessel options appraisal

February 2021 (v2, updated with new FOI data and CalMac deployment options)

The publication of Argyll & Bute Council's Outline Business Case for Craignure Pier (January 2021, [here](#)) has clarified the vessel deployment options that remain open to Caledonian MacBrayne. The OBC for 'interim' pier improvements examined the cost of extending Craignure Pier, to enable:

- a) Redeployment of the MV Hebrides as planned in Scottish Government's Vessel Replacement and Deployment Plan
- b) Year-round over-night berthing of vessels that would make an [Island Focussed Timetable](#) possible

As well as the 'interim' OBC, there is an Outline Business Case for the longer-term complete replacement of the pier. It sets out replacement options at between £41-£47 million. The OBC estimates completion of the entirely new pier in between 7 and 15 years' time. It concludes by recommending that due to the anticipated relatively short lifespan of the interim works, pier extension should not go ahead. This makes deployment of the Hebrides as planned in the VRDP impossible.

The remaining service life of Craignure Pier is therefore between 7 and 15 years, regardless of whether the pier is extended in the interim or not. This assessment of options assumes the middle of this range, or 10 years. It should be noted that for Brodick Pier, the time between STAG appraisal and completion was 10 years (2008-2018).

There are no vessel procurement plans that might deliver a new vessel to the Craignure-Oban route within this 10 year horizon. However, the arrival of hulls 801 and 802 may allow the cascade of the ageing MV Isle of Arran or the MV Hebrides (should the pier extension progress) from the summer of 2023. Every iteration of the VRDP since 2013 has planned for the deployment of a large vessel such as the Hebrides to work alongside the MV Isle of Mull, but this has not been delivered. The current deployment of the MV Coruisk (moved from Armadale on Skye to the Mull service in 2015), is the only option open to CalMac because she is the only major vessel in the fleet small enough to berth overnight at the existing pier. The Coruisk deployment was only ever intended to be a temporary 'stop gap' measure.

There are therefore four vessel deployment options for the coming 10 years:

1. MV Isle of Mull remains as main vessel and MV Coruisk remains as second summer vessel. This option only requires only **minimum** pier works.
2. From 2023 the MV Isle of Arran becomes the main vessel, and MV Isle of Mull becomes the second summer vessel. This option requires **additional** pier works.
3. MV Isle of Mull remains as main vessel, but from 2023 MV Hebrides replaces MV Coruisk as the second summer vessel. This option requires the **extension** of Craignure pier.
4. A catamaran currently offered for sale to CMAL is purchased, and becomes the main vessel from 2022. ([details here](#)). The MV Isle of Mull becomes the second summer vessel. This option only requires only **minimum** pier works.

On the following pages we calculate and compare the capital and operating costs of these four options, and lay out the benefits and disbenefits of each.



Key operating cost calculations

	MV Isle of Mull		Potential catamaran		MV Isle of Arran		MV Coruisk	MV Hebrides
	Year round	Summer	Year round		Year round	summer	Summer	Summer
On duty crew count	29	31	(5)	14	27	28	13	33
Total required crew (1)	64	68		30	59	62	28	73
Average crew salary (2)	£45,500	£45,500	(6)	£50,000	£45,500	£45,500	£50,500	£45,000
Weeks on service	52	29		52	52	29	29	29
Total salaries	£2,912,000	£1,725,500		£1,500,000	£2,684,500	£1,573,250	£788,577	£1,832,019
Number of return sailings	1750	930		1750	1750	930	930	930
Fuel cost per return sailing (3)	£475	£475	(7)	£182	£422	£422	£319	(9) £650
Total fuel cost	£831,688	£441,750		£318,500	£738,500	£392,460	£296,670	£604,500
Craignure hbr dues (4)	£548	£548		£278	£382	£382	£181	£639
Total harbour dues	£959,000	£509,640		£486,500	£668,500	£355,260	£168,330	£594,270
TOTAL	£4,702,688	£2,676,890		£2,305,000	£4,091,500	£2,320,970	£1,253,577	£3,030,789

Notes

- 1 Assumes 2.2 x duty crew for live-aboard regime and to cover for holidays.
- 2 CalMac figures, Freedom of Information request of 2019.
- 3 CalMac fuel consumption figures, Freedom of Information request 2019. Assumes fuel price of £0.42 / litre
- 4 Published Argyll & Bute Council rates @ £0.1162 per gross tonne

- 5 Estimated, based on Crewing of MV Alfred (similar design, but higher passenger cap)
- 6 Smaller crew, but with higher percentage of more senior ranks.
- 7 Tank tests, 242 litres/hr @14 knts, 45 mins per crossing + 20% margin

- 9 Data from FOI indicates fuel consumption of 108 litres/ Nm, or £802 for the Craignure-Oban return. This figure has been moderated to £650 however, to reflect the lower speeds of this route compared to the Hebrides' current service.

It should be noted that the totals here are NOT the sum of ALL operating costs. Shore-side costs, head office overheads and so on are not included. These items will all be broadly similar however, and since the object of the exercise is to identify the cost outcome from different vessel deployment choices, we are focussing on the key costs that vary directly as a result of those vessel choices. Insurance and repairs and renewals will definitely vary according to vessel choice, but the quantum of these two items will be lower than the key items above. It is worth noting however that both insurance and repair costs will rise with vessel age, complexity and size.

These calculations feed through into the sheet of comparisons overleaf.

Example:

10 year operating cost for Option 1 (Base Case) overleaf

MV Isle of Mull 10 year year-round operating cost = 10 x £4,702,688

£47,026,880

MV Coruisk 10 year summer-only operating cost = 10 x £1,253,577

£12,535,770

£59,562,650

Comparative 10 year costs of potential vessel deployment options

1 Base Case	2 Redeploy MV Isle of Arran	3 Redeploy MV Hebrides	4 Purchase Catamaran
MV Isle of Mull remains as main year-round vessel, with MV Coruisk remaining as summer Craignure-based vessel	MV Isle of Mull / MV Coruisk until 2022 From summer 2023, the MV Isle of Mull becomes the summer Oban-based vessel, and MV Isle of Arran becomes the main year-round Craignure-based vessel	MV Isle of Mull remains as the main vessel. From summer 2023, MV Coruisk is replaced by the MV Hebrides as the summer Craignure-based vessel	Catamaran currently on offer to CMAL enters service from early 2022, becoming the main year-round vessel. MV Isle of Mull becomes Oban-based summer vessel
10 year operating cost £59.5 million	10 year core operating cost £66 million	10 year core operating cost £73.7 million	10 year core operating cost £50.7 million
Pier works * £1.7 million	Pier works * £3 million	Pier works (lengthening) * £12.7 million	Pier works * £1.7 million
Ferry Purchase cost n/a	Ferry purchase cost n/a	Ferry purchase cost n/a	Ferry purchase cost £12 million
TOTAL £61.2 million	TOTAL £69 million	TOTAL £86.4 million	TOTAL £64.4m
Benefits - Allows retirement of MV Isle of Arran in 2023	Benefits - Island-focussed *might* be possible from 2023, subject to CalMac assessment - Summer capacity increased from 505 cars/day to 605 cars/day - Enables MV Coruisk to return to Armadale service from 2023 - May allow the retirement of a minor vessel (no longer needed for Mallaig-Armadale)	Benefits - Island-focussed timetable delivered from 2023. - Summer capacity increased from 505 cars/day to 680 cars/day - Meets both the detail and aims of the Vessel Replacement and Deployment Plan. - Enables retirement of MV Isle of Arran - May allow the retirement of a minor vessel (no longer needed for Mallaig-Armadale)	Benefits - Cost parity with option 2 achieved after 7 years (ie pay-back time is just 7 years, the shortest conceivable time for complete pier renewal) - Island Focussed timetable delivered from 2022 - Summer capacity increased from 505 cars/day to 730 cars/day - Enables MV Coruisk to return to Armadale 1 year earlier than other options - Adds much-needed new vessel to the fleet, enabling re-deployment options elsewhere in the network (eg alternative use for Hebrides when hull 802 delivered) - Cost of vessel purchase may be partially recovered by disposing of the vessel when permanent replacements for the MV Isle of Mull procured. (or could be re-deployed) - Enables retirement of MV Isle of Arran - May allow the retirement of a minor vessel (no longer needed for Mallaig-Armadale)
Disbenefits - Cannot deliver island-focussed timetable. - Offers no increase in capacity to meet summer demand (remains at 505 cars/day) - Oban - Craignure retains status as most congested in CalMac network, with no prospect of improvement until complete pier renewal in circa 10 years. - Mallaig-Armadale service has to continue without the Coruisk, served by inappropriate vessels with insufficient capacity and tidal restrictions. - Fails to meet aims of Vessel Replacement & Deployment Plan	Disbenefits - Requires the MV Isle of Arran to continue in operation 12 years beyond planned disposal date of 2018, reaching 47 years of age by 2030. - Only partially and uncertainly achieves aims of VRDP, by extending the service life of a vessel already at end-of-life. - Requires pier works that may still not provide an 'all-weather' berth. - Reduced winter carrying capacity relative to the MV Isle of Mull, both in terms of vehicle capacity AND commercial vehicle capacity	Disbenefits - Highest cost option, with £11 million 'sunk' in pier extension that will be demolished when the pier is replaced. - In the likely event that there are further delays to hull 802, Hebrides will not be available and consequently, financial return on the pier extension will be reduced. - Deploys one of the most capable vessels in the fleet to one of least demanding routes (in terms of sea conditions) - Effective capacity of Hebrides reduced to 70 cars since mezzanine not deployable within 15 minute turnaround time of the service.	
* 'Do minimum' option, Craignure Pier OBC, Argyll & Bute Council	* Estimated figure, comprised of Craignure Pier OBC 'Do Minimum' option, PLUS additional works identified as necessary by CalMac: Enlarged roundhead Alternative facility for lifeboat The additional works are not costed, and are not included in the OBC.	* 'Pier Extension', Craignure Pier OBC Argyll & Bute Council. This option is discounted in the draft OBC.	* 'Do Minimum' option, Craignure Pier OBC, Argyll & Bute Council

Conclusion

Option 1, Base Case.

This option would be completely unacceptable to the populations of Mull, Iona and Skye. For Skye, it perpetuates the ramshackle service provided by a variety of mis-matched vessels since the Coruisk left the service in 2015. This was only ever intended to be a temporary solution. For Mull & Iona it offers no prospect of relief from the heavy summer demand and the status as the most congested route in the entire CalMac network. As well as **failing to remedy basic service failings**, it **also fails to provide** a core expectation of the Mull & Iona community – **a year-round Island Focused Timetable** that improves connectivity and lengthens the available day on the mainland. Leaving the Coruisk on the service when alternatives exist would also be **contrary to stated Scottish Government policy** and the objectives of every Vessel Replacement and Deployment Plan since the first Ferries Plan of 2012. It may be an operationally deliverable option, but it is not a politically deliverable or locally acceptable option.

Option 2, Redeploy MV Isle of Arran

This option *might* deliver the Island Focused Timetable from 2023, but this is far from certain. The winter vehicle capacity (both vehicle count and deadweight) would also be reduced. It offers some increase over current summer capacity that would alleviate congestion, it is clearly a **very high-risk option**. The MV Isle of Arran is the oldest vessel in the CalMac fleet, with a worsening reliability record and high maintenance costs (which are not included here). **This option would require the Isle of Arran to remain on year-round service until she is 47 years old, some 12 years longer than was planned** in recent VRDPs. This is clearly not a tenable option. **With Option 4 offering such strong value-for-money arguments, as well as being cheaper in total, we could not support this option.**

Option 3, Redeploy MV Hebrides

This option could also deliver the Island Focused Timetable (but later than option 2, from 2023), and would also deliver the objectives and detail of the VRDP. This is the option that Scottish Government have long planned, but the potential outcome of the Craignure Pier OBC seems set to deny. Summer capacity would be significantly increased; however **this option is £22 million more expensive than option 4**, and much of that cost is 'sunk' in a pier extension that would only be utilised for a short period. As well as being the highest-cost option, **it also carries significant risks** – 1) hull 802 may not be delivered by 2023 as currently planned, further reducing the return on the pier extension expense. 2) The long-term replacement of Craignure pier may be delayed as a result. Competing pressures on infrastructure spending in the wider network at a later date may make pier renewal difficult to justify when pier extension was recent.

Option 4, Purchase Catamaran.

Aside from the completely unacceptable base case, **this is the lowest-cost option, and by a wide margin**. Not only is it the lowest absolute cost, it also offers greatest value for money, since it has the lowest operating costs and **delivers a brand new vessel into the CalMac fleet**. It **enables the Island Focused Service** to be delivered **immediately**; enables the Isle of Arran to be retired; and enables the MV Hebrides to be redeployed to a service more suited to her. Redeployment to the Oban-Barra service is an obvious candidate, thus releasing the Isle of Lewis for retirement. This option is clearly the best outcome, and by a considerable margin.

We firmly recommend option 4, purchase and deployment of the catamaran.

For more on the benefits of catamaran vessels and the vessel currently being offered to CMAL, please [see https://mullandionaferrycommittee.org/future-ferries-for-mull/](https://mullandionaferrycommittee.org/future-ferries-for-mull/)