

Review of Ferry and Coastal Shipping Service: Baseline Assessment and Data Synthesis with Demand Study EXECUTIVE SUMMARY

A report for the Falkland Islands Government September 2021

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1 Introduction

The current contract for the Ferry and Island Shipping Service will come to an end in April 2025. FIG awarded a contract to Workboat Services Ltd to provide a "Baseline Assessment and Data Synthesis with Demand Study"; not as a review of the current service, but as a 'lookahead' as to what future demand might look like, with a view to informing consideration of what kind of a service may best meet that demand. The results of this Demand Study are presented in this document.

1.1 Current Service provision

The current Ferry and Island Shipping service includes both a ferry route between New Haven (on East Falkland) and Port Howard (on West Falkland); and a coastal shipping route that services the Outer Islands. Both routes are operated by Workboat Services Ltd using a 45.5m landing craft, the *Concordia Bay*. The vessel is flagged in the Falkland Islands as a passenger/cargo vessel and owned by Workboat Services Ltd. The *Concordia Bay* is supported by a small 'Wave Lander' landing craft (the *Concordia Baby*) to access shallow landing sites and challenging locations; the *Concordia Baby* is owned by the Falkland Islands Government but operated and maintained by Workboat Services Ltd as part of the current Charter.

1.2 Context

When considering what future demand for a ferry and Island shipping service may be, as well as considering the views of users and stakeholders, it is important to consider, beyond a purely business case perspective, what wider policy aims are underpinned by the service and the economic activity and social-cultural benefit it facilitates. Given the low population density and geographic spread of the Islands, good transport links are a key enabler for the rural economy and economic development of the Islands. It is clear that the ferry and coastal shipping service currently enables or fulfils numerous wider FIG policy objectives and goals, including objectives stated in the Islands Plan, and in Rural, Economic and Tourism Development strategies. Whether the existing service model will be able to meet future objectives will need to be considered in any future decision making.

2 Baseline Assessment and Data Synthesis

A Baseline Assessment and Data Synthesis was undertaken using usage data provided by the current operator, supplemented by the results of an online survey and interviews with users and the information gathered at a number of workshops. The Ferry, Island Shipping and Fox Bay Consolidation Service elements were all considered separately. Complete annual data from 2009-2019 were used to analyse the historical and current usage of the ferry service. Whilst the data provided is comprehensive, it is still a relatively small data set so caution should be exercised in drawing any conclusions. Whilst the data may usefully indicate patterns and trends, analysis may not be able to explain why those patterns or trends are occurring so the results of the user interviews and surveys are important in understanding what underpins usage trends.

2.1 The Ferry Service

The data were broken down into the following categories for analysis:

- Number of monthly crossings
- Number of monthly passengers carried
- Number of monthly domestic vehicles carried
- Number of monthly commercial vehicles/linear metres carried

Across all categories, usage shows strong seasonality, with busy summers and quiet winters. Peak usage across all categories is between December and March, with a dramatic decline in usage to July/August (when the vessel ordinarily undergoes routine maintenance/dry dock).

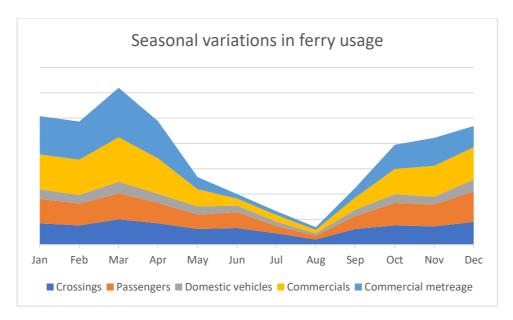


Figure 1 - Graph showing seasonal variations in ferry usage across all categories (scale adjusted for clarity, trends are accurate but relative scales of categories are not).

When considering usage of the ferry service, strong and fairly consistent growth was observed from the start of the service in 2008 until approximately 2015. However, when looking at the trends in annual usage from 2015-2019, growth appears to have plateaued. The trend is clear across all categories.

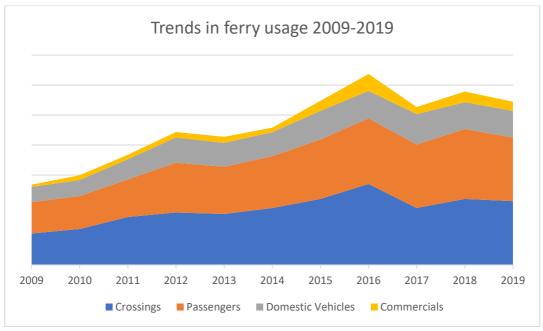


Figure 2 - Graph showing trends in annual ferry usage 2009-2019

As the potential for annual growth is finite, this plateau in growth may not necessarily indicate an issue, but it does raise a number of questions. Are there constraints which are limiting continued growth, or is the service adequately meeting existing demand? If there are constraints, what might they be? Examples include:

- Is capacity of the service an issue?
- Is scheduling limiting further use?
- Is the cost of using the service prohibitive?
- Is the availability of the vessel due to other commitments limiting growth?
- Is it something else entirely other issues?

These issues were considered individually, using usage data and the feedback received from the online surveys and workshops. When attempting to answer these questions it is important to consider what different use cases people have for the ferry service — it is different things to different people, particularly in relation to where people live. From the online surveys carried out in 2021, the different use cases between residents on East and West Falkland were clear, with 76% of West Falkland respondents using the ferry primarily for business or work travel, while 88% of East Falkland respondents use the ferry primarily for holiday or visiting friends and family.

2.1.1 Capacity of the current service.

If capacity of the vessel is a constraining factor, a pinch point will be reached if the vessel approaches its maximum capacity for either passengers or deck space.

In order to ascertain if there are any specific pinch points in vessel daily crossing data for the whole of 2019 was undertaken as a representative year. Capacity rates were calculated utilising maximums of 30 passengers, 14 domestic vehicles or 72m of commercial vehicle (or a combination of both). 14 domestic vehicles is a theoretical maximum based on small domestic vehicles, but as most vehicles in the Islands are large it is often difficult to reach the theoretical capacity. Likewise, very heavy commercial vehicles might fill the vessel earlier

than expected, either due to how they have to be lashed on the deck or due to the vessel reaching maximum draft for passenger operations.

The data was further refined to consider East-West crossings vs West-East crossings, and weekday vs weekend usage, however now meaningful differences were identified in this further analysis.

In general terms, it appears that, on average, capacity of the current service is not in its own right a constraint to continued usage growth. Whilst raw numbers indicate that the ferry service is rarely ever 100% full in any way, the experience of West Falkland residents is that it is often difficult to book on specific ferries, particularly at short notice or with stock trailers or commercial vehicles. However, raw capacity is a separate issue to whether capacity is available when it is needed (at peak times), so needs to be considered further when discussing scheduling. It appears that whilst capacity isn't an issue *per se*, capacity issues are sometimes created by scheduling.

2.1.2 Scheduling

The schedule followed by the current service has evolved over time, and attempts to meet the needs of ferry users whilst facilitating commercial traffic and operating an island shipping service. With competing needs and demands, it is inevitable that the schedule is a compromise. The schedule is variable due to supporting Island runs and livestock movements, so some months have more crossings than others, and may also see more weekday crossings and fewer weekend crossings. There isn't therefore a fixed, long-term schedule which can reliably be used for planning purposes.

67% of East Falkland respondents to the online surveys felt that the current service schedule meets their needs, compared to only 24% of West Falkland respondents.

The majority of scheduling issues raised relate to the impact of the schedule on business and tourism due to gaps in service (when the vessel is away on Island Shipping runs), particularly around peak times such as school holidays. Many commented that the focus of the ferry

service on weekend sailings has an impact on West Falkland residents' visits to Stanley with the schedule accommodating either a quick turnaround Sunday-Monday visit which does not enable conduct of business in Stanley as the schedule falls outside normal business hours, or an extended visit from Sunday to Thursday which is longer than some residents would wish to spend in Stanley given commitments in Camp. West Falkland residents also commented this constitutes a direct barrier to use of the service, particularly to those who do not have accommodation in Stanley or may not be able to afford to pay for a hotel. In the 2015 survey the following comment was made: "hauliers like to be able to do a round trip in a day. The fact that they were unable to do so was raised at the November meetings. This now appears to have been implemented in the case of West- East – West flows, but remains an issue for hauliers based on East Falkland who are still unable to do a round trip in a day." This is an issue that has not been resolved and has been raised during this survey. Whilst efforts are made to accommodate increased crossings to service business and tourism demand in the constraints of the current schedules, neither is fully achievable within the current service model without reducing the Island Shipping service.

2.1.3 Dual use of the vessel

The current service provides both a Ferry and Island Shipping service, which, depending on demand, may create constraints on one or either aspect of the service as it places limits on the regularity, flexibility and scheduling of both services. 93% of West Falkland respondents felt this dual use places constraints on their business, as opposed of 50% of East Falkland respondents. This disparity in views is likely due to different primary use cases, with the majority of West Falkland residents using the ferry for business reasons as opposed to social/leisure purposes.

Fundamentally, there are limits to what a single vessel can achieve when trying to fulfil multiple roles. The difficulty of prioritising roles is illustrated below. Users were asked in the online surveys:

In considering future ferry and coastal shipping services, how highly would you rank the following aspect of the service in terms of importance (with 1 being the highest priority and 5 being the lowest):

	Ferry	Island	Livestock	Sub-contract	FIG works
		Shipping	movements	works	
East respondents	2.2	2.6	2.7	2.8	2.7
West respondents	2.1	2.5	2.6	3.1	2.8
Island respondents	2.0	1.9	2.0	2.5	2.4
Average	2.1	2.3	2.4	2.8	2.6

Table 1 – average priority rankings of service aspects

It is very difficult to establish a meaningful priority list from these scores, with a difference between highest and lowest priorities of 0.7/5. Ultimately, every role the service fulfils is important.

Due to the fact the vessel has multiple roles and doesn't operate as a dedicated ferry service, issues with capacity and scheduling (which in isolation may not be constraints in their own right) are compounded.

2.4 Other considerations

Cost:

Given the results of the online surveys and comparison with alternative travel options, it is highly unlikely that cost is a constraining factor to further use of the ferry. Cost of the ferry service was not an issue that was raised at any of the public workshops.

Reliability:

The current service is generally very reliable, with the primary cause of delays being weather related. Whilst unplanned delays cannot be mitigated against, particularly as far as weather is concerned, the impacts of delays are wide ranging and illustrate the importance and vulnerability of the ferry service.

Maintenance periods/dry dock:

A repeating theme in the survey responses and the workshops was that "there is no good time" for the vessel to be in dry dock, and that August "is the least-worst time" for this to take place. However, delays to maintenance works and the absence of the vessel do present risks which are discussed separately.

Booking:

In general, it appears that the process of booking on the ferry is largely simple and efficient, with few issues raised. However, a significant issue repeatedly raised is that of capacity at peak times, where it may not be possible to book, particularly at short notice.

2.2 The Island Shipping Service

Accurate data for Island Shipping only exists between 2012-2019. Due to the relatively small number of Islands supported by the service, this data set is extremely vulnerable to being skewed – for instance one new house being built on an island in one year will skew the annual data, creating a 'bump'. As such, it is extremely difficult to draw any meaningful conclusions from the data.

2.2.1 Cargo Capacity

In general, it appears that the volume of dry cargo to island destinations is growing year-on-year, with volume of fuel, wool and numbers of sheep all relatively stable (with some considerable annual variation). However, the small dataset means that trends in the data should be treated with caution. Perhaps more meaningful than attempts at interpreting a small dataset are the results of the online user surveys and interviews, with 80% of respondents responding that the current vessel's cargo capacity meet their needs. Largely, users do not appear to think that the capacity of the current service is a constraining factor. Other than mention of the crane lift capacity on the *Concordia Bay*, where issues have been raised, they largely relate to infrastructure limitations at the particular island as opposed to issues with the vessel itself.

2.2.2 Scheduling issues

Largely users do not appear to consider scheduling as a constraining factor. The frequency of visits seems to be broadly adequate to meet current demands, though some users felt a higher frequency of summer visits would facilitate livestock movements. Interestingly responses were very similar to those for the survey carried out in 2015, where 70% of respondents felt the 6-weekly visit frequency was sufficient.

2.2.3 Dual Use of the vessel

The current vessel provides both a Ferry and Island Shipping service, which, depending on demand, may create constraints on one or either aspect as it places limits on the regularity, flexibility and scheduling of both services. Respondents to the Islands shipping service were asked for their perspectives on the impact of the dual use of the vessel on the Island shipping service, with 33% responding that they felt this 'dual use' places constraints on their business.

Due to ferry service commitments, there are limits on how flexible scheduling for the Island shipping service can be. Whilst best efforts are made, delays (for weather or otherwise) can have substantial knock-on effects which may not be recoverable within the constraints of the service, and can be significant particularly in terms of animal movements.

2.2.4 Reliability

On the whole, the Island Shipping Service is reliable, with the primary reason for delays being weather related. Delays can have a significant impact when they do occur. The importance of the Island Shipping service was referenced at the workshop focussed on agricultural issues, in terms of the service "only being one part of a supply chain" for wool exports. If there is a delay in the service collecting wool from the Islands, then the bales may miss the vessel exporting the wool from the Falklands, having a knock-on effect which could have serious impacts on cash-flow for those farms.

Similarly, the Island Shipping service is part of the supply chain for the abattoir. FIMCo noted two issues with delays – that the plant has to keep running, so if animals scheduled for processing can't be delivered from the Islands, then they need to backfill those animals at

short notice from East Falkland. This places pressure on farmers (to gather and select sheep at short notice) and for the farmer or haulier to arrange for transportation of the stock. A particular issue with cattle is that the farmer finishes the stock to get the best price. A weather delay that results in a collection window being missed might result in a delay of several weeks, during which time the condition needs to be maintained or lost, resulting in a lower price when processed.

Whilst unplanned delays cannot be mitigated against, particularly as far as weather is concerned, the impacts of delays described are wide ranging and illustrate the importance and vulnerability of the island shipping service.

2.2.5 Other issues

Cost

No users raised the issue of cost being a constraining factor to use of the Island Shipping Service

Maintenance/Drv dock

A repeating theme in the survey responses and the workshops was that "there is no good time" for the vessel to be in dry dock, and that August "is the least-worst time" for this to take place. However, delays to maintenance works and the absence of the vessel do present risks which are discussed separately.

Ability to land cargo

Largely, users do not appear to think that the capacity of the current service is a constraining factor. Other than mention of the crane lift capacity on the *Concordia Bay* or the suitability of the *Concordia Baby*, where issues have been raised they largely relate to infrastructure limitations at the particular island as opposed to issues with the vessel itself.

2.3 Fox Bay Consolidation Service

The majority of users felt that the current vessel's cargo capacity for this service meets their needs. Concern over stowage on an open deck was raised by one user but has not been a significant concern raised elsewhere in the study.

Whilst more users (than the ferry and island shipping users) feel the Fox Bay Consolidation Service is too expensive, there was no clear evidence that this is a significant barrier to use of the service.

It appears that users are broadly happy with the frequency of visits and reliability of the service, with some concerns over communication of arrival times as an operational frustration. This is likely due to the fact that there is no facility or process at Fox Bay to receive cargo, requiring people to travel from all over the West to help "work the boat" if they have cargo on board, meaning accurate arrival times are important for planning.

As with the ferry and island shipping service responses, a repeating theme is that "there is no good time" for the vessel to be in dry dock, and that August "is the least-worst time" for this to take place. However, delays to maintenance works and the absence of the vessel do present risks.

2.4 Risks identified during the Demand Study

A single vessel, particularly one which provides multiple essential services, is a potential single-point-failure which presents a number of significant risks. This is an issue that was raised as a concern throughout the workshops (particularly as the December 2020 accident has raised awareness of the vulnerability of the service) and is reflected in several comments received from the surveys. Key risks raised include:

Fuel provision – all fuel for West Falkland is delivered by the *Concordia Bay* to Fox Bay, and all Islands receive their fuel via the island shipping service. Fox Bay has storage for 6 weeks' worth of fuel. In the event the vessel is delayed or damaged for a significant time, there is a serious risk of West Falkland and the Islands running out of fuel, both for heating, back-up generators and vehicles.

Materials and essential stores – as with fuel, all cargo (essential or otherwise) for the Islands and West Falkland is carried via the *Concordia Bay*. In the event the vessel is delayed or damaged for a significant time, there is a serious risk of West Falkland and the Islands running out of essential supplies.

Livestock movements — all livestock transported to the abattoir from the Islands and West Falkland are transported via the Ferry and Island Shipping Service. In the event the vessel is delayed or damaged for a significant time, all livestock movements from these destinations would cease, impacting income for the farms affected and the Falkland Islands Meat Company. Compounding issues would include; unexpected pressure on grazing land, animal welfare and interruptions to abattoir supply and productivity.

Wool export - all wool from the Islands and West Falkland is transported via the Ferry and Island Shipping Service for onward shipping and sale. Whilst wool from West Falkland could theoretically be stored and cored for sampling at Fox Bay, it could not be exported for sale, having a potentially serious impact on the cash flow and income of affected farmers in the event the vessel is delayed or damaged for a significant time.

Tourism – the introduction of the ferry service has allowed a new (primarily domestic) tourism industry to grow in the form of self-catering accommodation on West Falkland. Due to the absence of any car-hire businesses on the West, this industry is particularly reliant on the ferry service, with some farms "relying on the self-caterings to provide cash flow". In the event the vessel is delayed or damaged for a significant time, self-catering businesses on West Falkland could be significantly impacted.

2.5 Summary of Baseline Assessment and Data Synthesis

The Ferry and Island Shipping Service is essential to the lives of all those living on Islands and West Falkland. It is the only provider of fuel and essential supplies, and underpins the agricultural and tourism sectors of these areas. It helps fulfil multiple Government policy goals, and has improved the quality of life for many. Several people on West Falkland

commented that they "wouldn't live on the West without the ferry service, as it would be too isolating." One farmer discussed how the ferry service has improved their ability to hire and retain workers, due to the reduced feeling of isolation the service provides. The current service is generally held by users to be a substantial improvement on previous service provision, and has seen substantial growth in use since 2009.

However, growth in usage has plateaued. Scheduling (times and frequency) of the ferry service was raised during the Study as an issue, and can be a barrier to usage. However the vessel is unable to provide a fuller schedule within the constraints of its other roles. The current service is stretched in trying to meet the varying demands on its time – simply, a single vessel cannot be in two places at once. Trying to satisfy varying roles always results in compromise, but there is a theme amongst the comments received from surveys, interviews and workshops that users often have to fit around the constraints of the service, as opposed to the service fitting around the needs of the users.

The context in which comments were invited in the surveys should be considered, with people being asked to explain their frustrations or concerns, and provide suggestions for changes in a future service. With that in mind, the comments should not detract from the broadly positive light the service is held in, and the acknowledgments made that the operator and vessel often do their best within the constraints described.

3 Future Demand Study

Whilst the baseline assessment is based on empirical data, assessing likely future demand is purely subjective. It is important to consider that the issue of conflicting priorities is likely to apply to any future service, with users' rankings of service priorities (recorded in the 2021 survey) almost indistinguishable:

The differing use cases identified in the current service will need to be reflected in any future service, with 76% of West Falkland residents using the service primarily for business purposes, and 88% of East Falkland residents primarily using the service for tourism or social purposes.

The information for the Future Demand Study was acquired through the various workshops and interviews held as part of the survey work. The sections below note some of the points raised by the participants and discussed at the workshops.

As noted in the baseline assessment, scheduling of the current service is a constraint on use, particularly for West Falkland residents. As such, there is clear demand from users for a more regular ferry service. Improvements to the ferry service are likely to have quality-of-life benefits for residents rather than direct growth impacts. The 2016 census shows that the population of West Falkland grew 19% between 2012 and 2016. Irrespective of whether this growth rate continues, the numbers of people involved are unlikely to lead to a substantial growth in demand in the short term.

3.1 Future demand in the agricultural sector

It was noted that there may be structural changes to how FIMCo might operate in future to increase efficiency, respond to markets and increase profitability; structural changes to the ferry and island shipping service would be vital in supporting this. However, changes in practice could create wider issues around movement of animals in winter, when the roads on West Falkland may not be able to support increased commercial traffic, with increased reliance on the island shipping service to service remote locations as a consequence. If this were the case, the ferry and island shipping service would be vital in supporting that growth, however there is no clear business plan in place at present for this to happen.

A comment made by a West Falkland stakeholder which appeared to be supported when raised at the Fox Bay workshop and the agriculture-focussed workshop in Stanley was that, "anyone who could be moving livestock or wool on the existing service is probably already doing so." Substantial future growth in demand arising from agriculture is therefore unlikely.

3.2 Future growth in tourism sector demand

There is potential for modest future growth in the tourism sector in a number of areas, both domestic and international.

A regular ferry schedule through summer could see more tourists utilising the service, even just for the experience of a 'round robin' trip and a few hours on West Falkland, and allow the development of coach trips to the West for visiting international tourists. With daily or more regular ferry crossings, a shuttle service between Stanley and Newhaven could potentially develop, increasing use of the service by foot passengers and 'round-robin' travellers, with corresponding development of services at Newhaven (e.g. toilet and catering facilities).

Potential for growth in domestic tourism could be greatly helped by improved scheduling, particularly around school holidays (the August dry-dock conflicting with the long school holidays being an example). The grant applications received by FITB for accommodation extension or development would indicate that demand may still grow for self-catering accommodation. It is questionable as to whether the current service could accommodate increased demand given the time spent operating as a ferry, and given that the increased demand for tourism would likely fall on what are already times of peak demand.

3.3 Future growth in freight, construction and road development demand

Road maintenance and capping are likely to continue at current levels, with no significant increase anticipated. There aren't any significant FIG construction projects planned on West Falkland anticipated in the short or medium term which would raise demand above current levels. A number of West Falkland residents have indicated an interest in building, developing or expanding self-catering accommodation in future, but if this were to go ahead any increase in freight volumes would likely be relatively modest and short-term. Of more relevance to a future service would be increased passenger numbers development of the self-catering accommodation may generate.

The current level of demand for/occupancy of Camp self-catering accommodation appears to indicate that there is scope for the provision of additional facilities, which would, by extension, stimulate additional demand for the ferry service.

3.4 Future demand – island shipping service

The planned improvements to Island jetties may provide an opportunity for growth in the Island shipping service. Responses to this 2021 Demand Study indicate that there may be demand for an increased frequency of visits in summer months to facilitate livestock movements and to deliver stores to support the tourism industry.

Additional growth opportunities for the island shipping service could include the provision of overnight passenger accommodation on the vessel for island runs. It should be noted that *Concordia Bay* does frequently move passengers around the Islands to assist with some of the above scenarios, but the lack of overnight accommodation mean that there are limits to what can be achieved.

Another potential growth opportunity for a future service could include calling at additional, currently unsupported destinations.

3.5 Summary of Future Demand

There are two types of demand – one which can (to an extent) be projected (for example a % growth in use due to increased tourism), and demand in terms of what the users of the service want, which may not be necessarily underpinned by a clear and compelling business case. For users, improving the convenience and reducing the limitations and frustrations of utilising the service may be a more important issue than seeing a compelling business case.

At the Fox Bay workshop, it was observed that at the start of the current service, a 'leap of faith' was required by decision makers, with a proportion of the community doubting the usefulness and likely uptake for a ferry service. The previous (2015) review noted that "usage has exceeded expectations, and it has enabled significant development of economic activity on the islands, notably with regard to agriculture/agri-business." It appears to be almost universally held that the ferry service has been transformational, and is now essential to life

in the Falklands. However, the Demand Study responses indicated views that the current service is stretched to the limits of what can be achieved with a single vessel.

There is potential demand for more frequent Island visits in summer months to support livestock movements and supplies for development of the tourism industry in those locations. There is potential for growth in the Island shipping service to call at additional remote locations to move livestock, deliver fuel and collect wool, particularly in winter when roads are degraded. There is potential future demand for West Falkland residents to better utilise the ferry service for shorter or even day trips to Stanley if a more frequent schedule were realised. There is potential future demand arising from growth of the tourism industry, with further development of self-catering businesses and increased domestic tourism. Other tourism growth opportunities might include short or day trips for international tourists, potentially with coach trips to West Falkland.

Final decision making on any future changes to the service, utilising the analysis contained in this report, will need to weigh up the investment required for the service to address conflicting demands identified in the Study, against the achievement of wider Government priorities (including economic and social considerations) that such investment would enable.

References

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