

Arran & Campbeltown Mainland Port Options – Appraisal of Options

Inception Report



On behalf of **Transport Scotland**



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Revision	Date	Description	Prepared	Reviewed	Approved

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1 Introduction

1.1 Overview

- 1.1.1 The Inception Meeting with Transport Scotland for the Arran & Campbeltown Mainland Port Options – Appraisal of Options was held on 6th December 2016. This brief Inception Report confirms the methodology and sets out the key actions emerging from the meeting.

2 Understanding the Brief & Methodology

2.1 Understanding Your Requirements

Scope of Study / Proportionality

Our previous experience of carrying out maritime STAG studies of this nature suggests that a full STAG appraisal would take in the region of 6-8 months. However, given the need for a relatively quick decision on the future mainland landfall for the Arran / Campbeltown services (with a new vessel being on order) and impending pre-election period in relation to local authority elections, this study has to be complete by the end of February 2017. This allows an elapsed time of just under 12 full weeks (excluding the Christmas period). The study will therefore be tightly focussed and the tasks (particularly the consultation) proportionate to the timescales and the outcomes being sought from the study. It will nevertheless be carried out in line with the underlying principles and techniques outlined in STAG.

The ability to deliver within the above timescales is assisted to some extent by the scope of the study itself. The brief is more tightly focussed than what would traditionally be anticipated in a STAG study. Rather than being an open consideration of all the options based on the transport problems, the brief requires consideration of Ardrossan and Troon only. In addition, it is our understanding from the Inception Meeting that designs / plans / costs will be worked up in sufficient detail for this appraisal for both ports by the end of January 2017, which will assist in providing a degree of certainty for the appraisal. This level of certainty means that the option generation, development and sifting process will be truncated with, in all likelihood, two options (with some potential variants) on the table from start to finish. This will significantly simplify the appraisal.

Related to the above point, the output of this study will be an options appraisal report which provides a detailed appraisal of the strengths and weaknesses of the respective cases for Ardrossan and Troon as the mainland destination for the Arran and Campbeltown ferry services. We do not envisage the selection of a preferred option or the rejection of any option throughout the process.

Key Issues for Study

At this stage, we anticipate that the following issues will be key for this study.

Connectivity

Ardrossan and Troon each provide a different level of connectivity by both car and public transport to local and strategic destinations across Scotland. This is a key issue to consider as this will be the primary impact of the change of mainland port location from the travelling public's perspective. We will therefore undertake a detailed assessment of the connectivity provided by both ports.

Cost, Deliverability and Risk

Both Ardrossan and Troon require investment to create suitable ferry terminals to accommodate the new 100m vessel planned for the route. The scale of the public funding required, the deliverability of these works in the timescale required, and the level of risk and uncertainty surrounding (i) the engineering cost estimate and (ii) the timely deliverability of the works, are all clearly key issues for the study.

The Inception Meeting confirmed the assumption that the work undertaken to date and further pending submissions will provide sufficient information in these key respects for inclusion in the

appraisal, i.e. we have not budgeted for additional works in terms of infrastructure planning and costing.

Fares & Crossing Time

Switching the route from Ardrossan to Troon would increase the crossing distance by 4-5 nautical miles. This could potentially impact on crossing times unless the new vessel and the MV *Caledonian Isles* were able to steam faster (or manoeuvring and / or turnaround times are reduced) and maintain the current crossing times. There may also be a cost penalty associated with this compared to continuing to run to Ardrossan, an issue we will seek to discuss with the operator.

The longer crossing time would lead to a higher fare if the RET formula were to be applied to the longer crossing distance. We would assume at this stage that the fare would be pegged to the Ardrossan level but would set out the RET fare for Troon as a sensitivity.

It is recognised that the ferry crossing is only one component of the total end-to-end journey and analysis needs to be undertaken to assess the impact of the increased ferry crossing time has on the total journey time.

Local and National Economic Impact

The impact of relocating the port is a key issue locally, where it is thought that moving the terminal out of Ardrossan would have a negative impact on the town. The direct employment effects will be determined through discussions with both port operators and CalMac. We will also review the analysis undertaken to date to quantify the wider impact at Ardrossan and set out the underlying socio-economics of both areas.

Whilst relocating the ferry terminal may have a neutral impact at the national level, any differential in port related reliability would create a local level impact – see *Reliability* below.

Annual Operating Costs

We assume that the work undertaken to date will provide a quantification of the likely berthing and pier dues at both ports.

Public & Stakeholder Acceptability

The potential change of mainland port may be a major issue in Arran and Campbeltown, and will raise issues for some people in Ardrossan and Troon. It is important that the public and stakeholders are provided with objective and impartial information and we will ensure that this information is produced in a format which is comprehensible. The acceptability of the two options will be tested through the consultation process, where we will run open public drop-in, online and stakeholder consultation workstreams.

Reliability

We are aware that the issues surrounding gaining access to the current berth at Ardrossan is the principal issue driving the poor winter reliability record on the Ardrossan-Brodick routes (although this fact remains to be confirmed). A key issue which requires consensus to be reached at the outset is the extent to which the proposed investment at Ardrossan would tackle this issue. If the investment at Ardrossan would bring reliability up to the same level as Troon, then reliability ceases to be an issue for the study.

Timescales

Notwithstanding the above point, successful delivery of the project by the end of February will require:

- prompt provision of all requested data and documents;
- a willingness amongst stakeholders to engage with us up to and including the week before Christmas; and
- prompt return of comments from Transport Scotland on all documents / deliverables.

2.2 Methodology

Task 1: Inception and Project Management

Robust project management will be key to the successful delivery of this important project on-time (a particularly key issue on this study given impending purdah related to Council elections), on-budget and to your expectations. Given the centrality of project management to our approach, we have included it as a discreet task and describe our approach in detail below.

The inception stage will involve the proposed PBA and Transport Scotland project management teams. Following on from the Inception Meeting, which was held on 6th December 2016, we will maintain close liaison throughout the study. We will provide weekly updates of progress, which will be supplemented by an updated Gantt Chart. We will also discuss and seek a steer from you, if necessary, about key decisions which need to be made during each stage of the study, before moving on to the next phase.

Robust Project management will be integral to the delivery of this project on-time, on budget and to your satisfaction. Whilst there are several set-piece management events, we will ensure that continuous project management underpins every aspect of the study.

Task 1	Inception and Project Management
Objective	To obtain clear agreement on the project work programme and clarify any aspect of our proposal. To agree 'acceptance criteria' for project milestones. To establish lines of communication and data sources. To exchange relevant information.
Task Outputs	Full and detailed agreement on the way forward at Inception and throughout the study.
Client Deliverables	Project Inception Report detailing any substantive changes to this Proposal if required (i.e. this report) Actions of Inception Meeting and subsequent Meetings Weekly progress reports with baselined Gantt Chart
Assumptions	None
Inputs	PBA Proposal
Processes	Inception Meeting 6 th December 2016. Project Management throughout study
Staff Deployment	Scott Leitham, Paul McCartney and Stephen Canning
Completion Date	Inception Meeting 6 th December 2016. Project Management throughout study.

Task 2: Review of Preliminary Work and Initial Stakeholder Consultation

Review of Existing Material

A number of preliminary comparative assessments have been carried out by Caledonian Maritime Assets Limited (CMAL), CalMac and Transport Scotland. Prior to consulting with stakeholders, we will review this material and produce a summary Working Paper which lays out the main findings of these assessments, and also notes 'gaps' in knowledge or understanding which will require to be addressed in the study.

As part of this initial review we will plan early meetings with CMAL and CalMac Ferries Limited (CFL) to discuss their respective workstreams undertaken to date.

We assume here that the findings of this review can be referred to when consulting with the other stakeholders.

Stakeholder Consultation

Given the timescales in which this project is being undertaken, we do not propose to undertake full public consultation in the early stages. In our view, this early consultation should be focussed on fact finding – i.e. establishing the operational situation at both Ardrossan and Troon, plans for future investment and, from a stakeholder perspective, the impact of locating the mainland landfall on each of the two settlements.

We would therefore propose to hold initial telephone or face-to-face consultations at this stage with:

- Associated British Ports (ABP);
- Peel Ports;
- Isle of Arran Ferry Committee;
- North Ayrshire Council; and
- South Ayrshire Council.

A note of each consultation will be prepared and circulated to each stakeholder for approval / amendment. This initial and concentrated process of engagement will ensure we have the necessary factual information to feed into the appraisal.

Whilst the public in Arran and Campbeltown will have strong views on where they think the mainland landfall should be, this will be predominantly shaped by their typical journey purpose and final destination. Given the compressed timescales and the proximity to Christmas, we would not recommend carrying out public engagement at this stage, rather we think that the public should be consulted when the appraisal of each option has been worked up in detail. We would instead propose at this stage to write to community councils in Arran, Campbeltown, Ardrossan and Troon, seeking an early expression of views, issues and concerns.

Task 2	Initial Review & Stakeholder Consultation
Objective	To develop a clear understanding of current operations at Troon and Ardrossan and potential future investment.
Task Outputs	Working Paper summarising work undertaken to date. A series of consultation notes which will feed into the Pre-Appraisal.
Client Deliverables	None – outputs will feed into the Pre-Appraisal Report.
Assumptions	Stakeholder consultation will be either face-to-face or telephone based. The public will not be consulted at this stage.
Inputs	None
Processes	Desk-based review, Consultation meetings and phone calls
Staff Deployment	

Task 2	Initial Review & Stakeholder Consultation
Completion Date	w/c 9 th January 2017

Task 3: STAG Appraisal

Whilst this study is badged as a STAG appraisal, it is in reality a slightly narrower STAG-based options appraisal considering the impacts of two discrete options. This assists in making the appraisal more focussed. In recognition of this truncated scope and the project timescales, we therefore propose to combine the Pre-Appraisal, STAG Part 1 and STAG Part 2 stages into a single STAG Appraisal with supporting analysis.

Each of the key study issues is taken in turn below, and the proposed analysis in each case is outlined.

Connectivity

Public Transport Service Analysis

After car, train is the main mode of access to and from Ardrossan Ferry Terminal. The nature of the two train services from Troon and Ardrossan Harbour is therefore a key issue. We will produce a graphical analysis showing train departures per day from Troon and Ardrossan Harbour to Glasgow (and other key destinations) together with the journey time of each service across the day for weekdays, Saturdays and Sundays. For Ardrossan, we will include a representation of current ferry / rail integration. This will provide a clear visual encapsulating the number of connections to Glasgow and the associated journey times suitable for use in a public context.

Maps of key bus connections, annotated with service frequencies from each port will also be produced to illustrate bus connectivity.

Census Travel to Work Analysis

Existing commuters from and to Arran (albeit small in number) could potentially be affected by a switch of mainland landfall. We will undertake an analysis of the 2011 Census travel-to-work data for commuting from and to Arran, and map this data to show the key flows. This will provide context for a quantification of those who would or would not be affected by the change – this can be determined from the accessibility analysis which follows.

Accessibility Analysis

As noted, a key issue here is the relative levels of connectivity provided by a landfall at Troon as opposed to Ardrossan. This will be analysed in detail using:

- the TRACC accessibility planning software for analysis of present day public transport connections, and
- GIS-based tools for car-based connectivity, both used in combination with publicly available Census data. These tools allow a highly granular analysis to be undertaken based on Census Output Area population data, Quarter 3, 2016 public transport services and observed road speed data.

(i) Public Transport (all bus and rail services)

The TRACC software returns the shortest journey times between a given set of origins and destinations, within the time period specified. In order to avoid results being skewed by one irregular, fast connection, multiple runs covering different 'time slices' will be undertaken within a wider time period and the average value of these will be reported.

A sensitivity test surrounding the potential impact of the longer sailing distance / crossing time between Brodick and Troon will also be included as part of this process. Otherwise, the Arran ferry service will not be included in the analysis, which will instead focus on onward travel by public transport and car from both potential ferry terminals.

A ferry terminal to Troon Station bus service will be coded into the TRACC model. This will be coded with a very regular frequency to simulate the intended high level of connectivity which would be offered.

Local Accessibility

A detailed analysis of accessibility between both the Ayrshire ports and a study area comprising East, North and South Ayrshire, Inverclyde, Renfrewshire, East Renfrewshire, Glasgow and South Lanarkshire will be undertaken. For the best level of accuracy, this analysis will use the maximum level of spatial disaggregation i.e. (Census output areas).

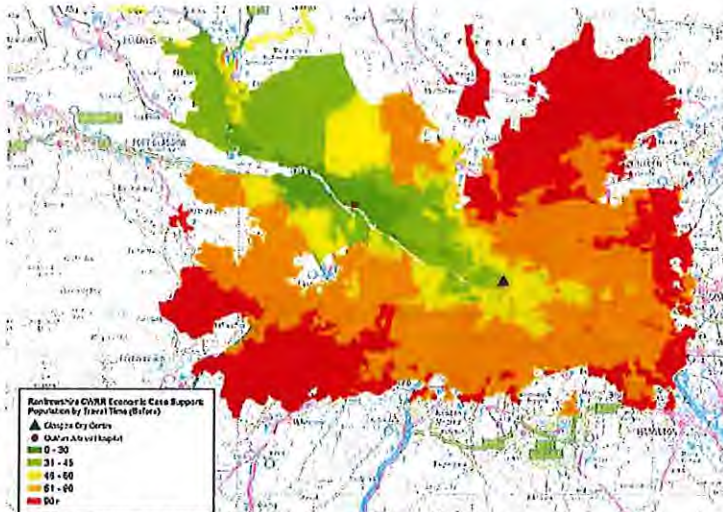
The following time periods will be considered:

- AM Peak, 0700-1000, comprising an average of journeys undertaken within the following times: 0700-0830, 0730-0900, 0800-0930, 0830-1000; and
- Inter Peak, 1000-1600, comprising an average of journeys undertaken within the following times: 1100-1400, 1200-1500, 1300-1600

Alternatively, these time slices could be configured to reflect typical ferry arrival / departure times across the day

The output from this process will be an average time from Ardrossan and Troon ports to all destinations within the study area in these time periods. There is little value in undertaking the same analysis in the reverse direction (i.e. all points to Troon and Ardrossan) as the results will be very similar. Similarly, PM-based accessibility will be very similar to AM so it is not proposed to undertake the analysis for the PM period.

When mapped, as shown in a similar sample map here, these travel times provide a highly visual illustration of absolute travel times from each port in each time period. Maps will also be produced to show the difference in travel times involved in a move from Ardrossan to Troon – this will illustrate the areas to which travel times would reduce and increase in the event of a move from Ardrossan to Troon. These maps will be produced showing both the absolute change and the percentage change in travel times and they will also provide evidence for stakeholders to consider where to direct future resources to mitigate the loss of accessibility caused by any potential move.



Catchment Area Quantification

The changes in travel times will be cross-referenced with Census (population) and Census travel-to-work data (for employment) to quantify the 'catchment' of each port within different travel times as follows:

- Number of mainland residents within e.g. 30, 45, 60 and 90 minutes of each port in the AM peak period and the inter-peak period; and
- Number of mainland jobs within e.g. 30, 45, 60 and 90 minutes of each port in the AM peak period and the inter-peak period (based on employment data at the datazone level).

Key Destinations

A set of key local destinations will be agreed with Transport Scotland but will likely include:

- Cunninghame House, Irvine (North Ayrshire Council), and any other key NAC sites, recognising that moving the landfall to Troon splits the NAC area;
- Crosshouse Hospital, Kilmarnock;
- Ayrshire Central Hospital;
- Ayrshire College Campus locations;
- Ardrossan town centre; and
- Prestwick Airport.

A specific model output (i.e. travel time) will be derived for each of these locations for travel from Troon and Ardrossan. These locations can also be shown on the thematic maps of travel times and changes in travel time.

Strategic Accessibility

A similar analysis of wider accessibility covering the rest of Scotland beyond the local study area will be undertaken using the more spatially aggregate level of 'intermediate geographies' as destinations. This would highlight areas such as Edinburgh which has a direct rail connection to and from Troon.

These calculations will be undertaken for the inter-peak period only, given the nature of these longer distance trips.

Graphical outputs as described above will be produced for this wider study area.

(ii) Car-Based Accessibility

A similar set of outputs will be derived from car-based journey times. 'Traditional' car-based journey time analysis uses speed-limit derived traffic speed assumptions. However, datasets comprised of data collected from e.g. mobile phones and Bluetooth devices, are now available. These datasets offer a more accurate representation of real-world drive times and we therefore propose to use a dataset ('Here' Data, also known as NAVTEQ) recently acquired by PBA for this analysis. Routines within ArcGIS are used to estimate the shortest travel times between prescribed origins and destinations and the analysis described above for public transport will be repeated for car-based access.

Results

The results of the accessibility analysis will be produced in a PowerPoint format. This is the most effective means to report highly visual results of this nature, where the key maps will be supported by data tables where appropriate. These graphics will also be suitable for use in the public drop in sessions. A subset of the key graphics will be included in the final report.

Where do people actually go?

The programme of onboard surveys carried out in the 2015 and 2016 as part of the Arran RET Evaluation Study provides a substantial sample of travel behaviour on the Ardrossan-Brodick route. This will provide a good indication of the volumes of travel to and from mainland locations, and these can be cross-referenced with the journey time data to determine the scale of 'winners' and 'losers' associated with a move from Ardrossan to Troon, e.g. 65% of trips 'win' and 35% 'lose', split by Residents and Islanders. This will provide a key element of quantification for the study.

A similar exercise could be undertaken for the Campbeltown service if such data were collected and are available from the evaluation of that service.

Cost, Deliverability and Risk / Annual Operating Costs

We assume that costing appropriate to the level required in a STAG will be provided by Peel Ports and ABP in their forthcoming submissions.

In this task, we propose to produce a *comparative cost* model, based on a 30 year discounted appraisal period. This model will quantify the cost differential between the two port options and will include:

- Capital cost to the public (subject to appropriate optimism bias);
- Other capital cost (for the record);
- Anticipated berthing and pier dues for each option;
- Estimated additional fuel costs of the longer crossing, reflecting the relevant propulsion technology;
- Any associated crewing cost issues; and
- Revenue issues associated with any fares changes, noting that any increase in fares will lead to a reduction in demand

The purpose of this exercise will be to lay out the potential differentials in terms of both upfront capital costs and ongoing net operating costs over the 30-year period. It is assumed that CalMac will provide appropriate cost data to inform this process.

We will also lay out any risk and deliverability issues identified or raised in the review and stakeholder consultation process.

Local and National Economic Impact

The economic impact on Ardrossan of any relocation of the ferry terminal is a key issue locally, and we are aware that there has been media coverage of this issue based on figures produced by North Ayrshire Council.

Having briefly set out the socio-economic context (SIMD, census / NOMIS etc), we will critically review the assumptions underlying the existing analysis and undertake additional analysis to inform this.

For example, in the onboard surveys undertaken as part of the Arran RET Evaluation study, people were asked to estimate the level of spending on their trip (split by accommodation / excluding accommodation). For Arran residents, we can therefore isolate those trips going no further than Ardrossan and determine the level of spend per trip to Ardrossan by Arran residents. This will inform the debate on the value of the ferry terminal to Ardrossan and the potential loss to the local economy. These surveys did not however ask about visitor spend in Ardrossan *en route* to Arran.

We will also analyse Census Travel to Work data to understand how many people living in Arran work in Ardrossan and vice versa. We will also assess how the change in mainland location could impact on commuting time/costs for those currently making the journey.

The impact in terms of direct employment associated with ferry-based employment at Ardrossan and potentially Troon, in terms of Full Time Equivalents should be straightforward to determine. It is assumed that there will be no impact on ship based employment.

We will also comment on the extent to which the evidence allows a judgement to be made on whether switching from Ardrossan to Troon be a straight transfer of footfall and hence a net-zero economic impact at the Scotland level.

Interim Report

Task 3 STAG Appraisal – Emerging Draft	
Objective	Development of the Interim Report, which will consist of an early draft of the STAG report.
Task Outputs	Interim Report
Client Deliverables	Interim Report Progress Meeting
Assumptions	All required material from CMAL, CalMac and the respective local authorities is provided in a timely fashion. The environmental appraisal will be informed by published material
Inputs	Task 2 outputs Operator data Harbour Investment plans and other relevant material
Processes	STAG appraisal against objectives, the STAG criteria and the Scottish Government's purpose, together with supporting analysis
Staff Deployment	
Completion Date	w/c 23 rd January 2017

Task 4: Consultation

At this stage, it is envisaged that the key analysis has been undertaken and the findings of this will then be used to inform an intensive programme of consultation with stakeholders and the public.

Stakeholder Consultation

The **stakeholder consultation** will be undertaken in a similar vein to the initial consultation. We will prepare a consultation pack summarising the appraisal of both ports and send this to the stakeholder group. We will then hold telephone or face-to-face consultations with these stakeholders, seeking views on the options presented in the consultation pack. The views will be recorded in a brief note and sent to stakeholders for approval or amendment as appropriate.

The list of stakeholders set out earlier will be supplemented by the main haulage companies in Arran (Arran Transport, Arran Parcels & John Thomson Construction) and Kintyre (McFadyens Transport Ltd and Peter McKerral) with a view to understanding the potential impact of port relocation on the haulage sector.

Public Consultation

The stakeholder consultation will be supplemented by engagement with the wider public, with a view to setting out the options appraised and ascertaining views on the public acceptability of the two options. Our proposed approach to this strand of the consultation will be to hold a **public exhibition / drop-in session** in both Brodick or Lamlash and Campbeltown. These meetings will run from the late afternoon into the early evening, with the public invited to stop-by at any time of their choosing. We will display a series of poster boards around the room which will set out the context for the study, the process followed, the options and the outcomes of the appraisal. Members of the public will be encouraged to read the material presented and speak to a member of our team before filling up a brief exit questionnaire.

We have used this approach to good effect in the Orkney and Shetland Inter-Island Transport studies and on the Northern Isles Ferry Services appraisal on behalf of Transport Scotland. The drop-in format has been well received and proven to be highly effective, ensuring flexibility and a democratic airing of views (i.e. no one individual / group dominates as can be the case at a public meeting). The exit questionnaire data will be analysed and reported alongside the stakeholder material in another short consultation working paper. We anticipate that the exit questionnaire will allow people to express a clear view on the Ardrossan and Troon options having seen the evidence presented. All of the consultation material (and the feedback questionnaire) will also be made available online (and promoted locally), although the timescale for responses will have to be compressed given the required completion date of the study.

Following discussions at the Inception Meeting, we would not recommend holding Public Exhibitions in Ardrossan or Troon, as the public in these towns is less directly affected by the potential change. Consultation would be via the local authorities and community councils.

Task 4	Final Consultation
Objective	To hold stakeholder and public consultation meetings with the aim of obtaining views on the public acceptability of the two mainland port options.
Task Outputs	Consultation paper – this will feed into the refinement of the final report.
Client Deliverables	Consultation paper
Assumptions	Public drop-in sessions will not be required in Ardrossan or Troon – feedback will be collected through stakeholders.
Inputs	Consultation pack Public exhibition boards
Processes	Telephone or face-to-face meetings with stakeholders Public drop-in sessions in Brodick and Campbeltown
Staff Deployment	
Completion Date	w/c 13 th February 2017

Task 5: STAG Report

The outcomes of the consultation will be included within the final STAG report to produce a Draft Final Report for comment. The draft report will be updated / refined to reflect Transport Scotland comments and a Final STAG report produced.

Task 5	STAG Report
Objective	Provision of a final STAG report.
Task Outputs	Final STAG Report
Client Deliverables	Final STAG Report

Task 5	STAG Report
Assumptions	None
Inputs	Outputs from Tasks 2-4
Processes	Development of Draft and Final STAG Reports
Staff Deployment	
Completion Date	w/c 27 th February 2017

3 Inception Meeting Actions

	Action	Owner
1	PBA to discuss availability of the EKOS report with North Ayrshire Council	PBA
2	TS to send through contact details for rail team.	TS
3	PBA / TS to jointly draft a letter setting out key facts / assumptions which will underpin the appraisal.	TS / PBA
4	TS to request that PBA sign an End User Agreement to ensure that commercially confidential information is held securely and not disclosed to third parties.	TS
5	TS to inform PBA when initial stakeholder meetings can be organised.	TS