



Outer Hebrides STAG Appraisal

Sound of Harris (Berneray –
Leverburgh) Exhibition Boards

What is the study about?

- A transport appraisal of the long-term options for the ferry routes to, from and within the Outer Hebrides, including the Sounds, was a commitment made in the Vessel Replacement & Deployment Plan (VRDP) annual report for 2015
- Peter Brett Associates LLP has been commissioned by Transport Scotland to carry out this appraisal. The study is being informed and guided by a Reference Group, which is being led by Transport Scotland and includes Comhairle nan Eilean Siar, HITRANS, CMAL and CalMac Ferries Ltd
- The appraisal will identify and appraise options for the long-term (i.e. for the next 30 years)

Scottish Transport Appraisal Guidance (STAG)

- The appraisal is being undertaken using a Transport Scotland process referred to as 'STAG', the approved guidance for the appraisal of potential transport projects
- The principle of STAG is that it is **objective-led rather than solution-led**, ensuring that the option(s) ultimately taken forward address the identified transport problems and are the most appropriate when judged against a range of criteria



- The study is currently at the **Initial Appraisal** stage, which will consider problems & opportunities with the current and potential future service

How and when are we engaging with communities?

- **Stage:** Initial Appraisal
- **Purpose:** To collect views on current and future problems and opportunities associated with the current service(s)
- **What engagement will take place?**
 - Public Exhibitions and comments form (May 2018)
 - Resident household survey (May – July 2018)
 - On-ferry surveys on all routes (July – August 2018)
 - Stakeholder consultation (April – June 2018)
- **Stage:** Preliminary Appraisal
- **Purpose:** To seek initial community and stakeholder feedback on the identified problems & issues and the emerging options
- **What engagement will take place?**
 - High level web-based presentation of material together with online questionnaire (paper copies can be provided for those without internet access) – autumn 2018
- **Stage:** Detailed Appraisal
- **Purpose:** To seek further community and stakeholder feedback on the emerging findings from the appraisal
- **What engagement will take place?**
 - Public Exhibitions and exit questionnaire (early 2019)
 - Stakeholder consultation (early 2019)

Berneray - Leverburgh Vessels & Ports

Primary Vessel

MV Loch Portain

Key Characteristics

- **Entered service:** 2003
- **Capacity:**
 - Approx 34 cars
 - 147 passengers
- **Speed:** 10.5kts
- **Overnight berth:** Otternish
- **Refit Cover:** MV *Loch Bhrusda*
- **Other Points of Note:**
 - MV *Loch Portain* has a water jet propulsion system which allows her to operate in the shallow Sound of Harris
 - Only MV *Loch Bhrusda* and MV *Loch Tarbert* are certified to relieve her



Slipways and Route Characteristics

- There are no particular issues with the slipways on this route
- The Sound of Harris is very shallow, has a large tidal range and a series of underwater hazards, including sandbanks and rocks. The timetable for the route has a series of footnotes explaining that sailing times may have to be amended, particularly during spring tides
- The service on this route is also limited to the hours of daylight (defined as one hour before sunrise and one hour after sunset) which, when layered on top of the tidal issues, imposes severe constraints on this route during winter timetable
- There is an emerging issue around the future vessel specification for the route. Any future tonnage must be built to a higher certification (defined as Euro B)
- CMAL is currently working on a potential specification for a Euro B vessel capable of serving the Sound of Harris

Berneray - Leverburgh Connectivity

Timetable – Key Points

- As this service can only be operated during the hours of daylight, there is a standard summer timetable, but numerous permutations of the winter timetable accounting for the progressively decreasing hours of daylight (example shoulder and core winter timetables are shown on the next boards)
- Summer Timetable
 - In a ‘standard’ summer week, Leverburgh – Berneray operates on a broadly clockface timetable, with the same number of sailings and departure times every day except a Sunday
 - However, in summer 2018, a tidal timetable will operate on 67 out of the 206 timetabled days, which is almost one third of the total
 - As the vessel is operated by a single shore-based crew, there is a maximum number of hours which can be operated in any one day
 - Local bus services are timed to connect with departures and arrivals on both sides of the crossing throughout the year
- Winter Timetable
 - The length of the operating day in the example shoulder winter timetable is significantly less than in summer. The service terminates at 19:30 Monday-Saturday during the summer, whereas it terminates at 16:30 in the shoulder winter period
 - The ‘core’ winter timetable, which operates when daylight hours are shortest, requires termination of the service at 14:30. Given that first light is also later, the operating day is significantly truncated and the service reduced to two return crossings per day



Berneray Leverburgh

*Note - Timings may vary due to tidal conditions

Note - From Saturday 27th August sailings may need to leave later/earlier than scheduled

Ferry Departures From Berneray Summer

Berneyay Departures		06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
MON		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
TUE		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
WED		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
THU		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
FRI		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
SAT		Depart	Arrive		Depart	Arrive		Depart	Arrive		Depart	Arrive							
SUN			Depart	Arrive			Depart	Arrive			Depart	Arrive							



Leverburgh Berneray

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Ferry Departures From Leverburgh Summer



Berneray Leverburgh

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Ferry Departures From Berneray Shoulder Winter

26th February - 29th March

Berneray Departures

MON	Depart	Arrive			Depart	Arrive			Depart	Arrive													
TUE	Depart	Arrive			Depart	Arrive			Depart	Arrive													
WED	Depart	Arrive			Depart	Arrive			Depart	Arrive													
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Berneray Leverburgh

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Ferry Departures From Berneray Core Winter

13th November to 6th January

Berneray Departures

MON



TUE



WED



THU



FRI



SAT



SUN



06:00 07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00 16:00 17:00 18:00 19:00 20:00 21:00 22:00 23:00



Leverburgh Berneray

*Note - Timings may vary due to tidal conditions

Ferry Departures From Leverburgh Core Winter

13th November - 6th January

Leverburgh Departures

MON



TUE



WED



THU



FRI



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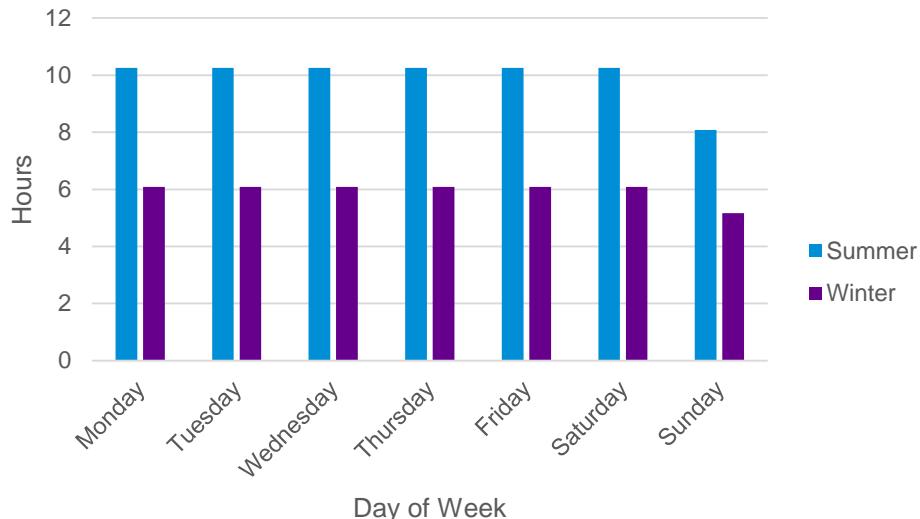


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Time on Harris / North Uist

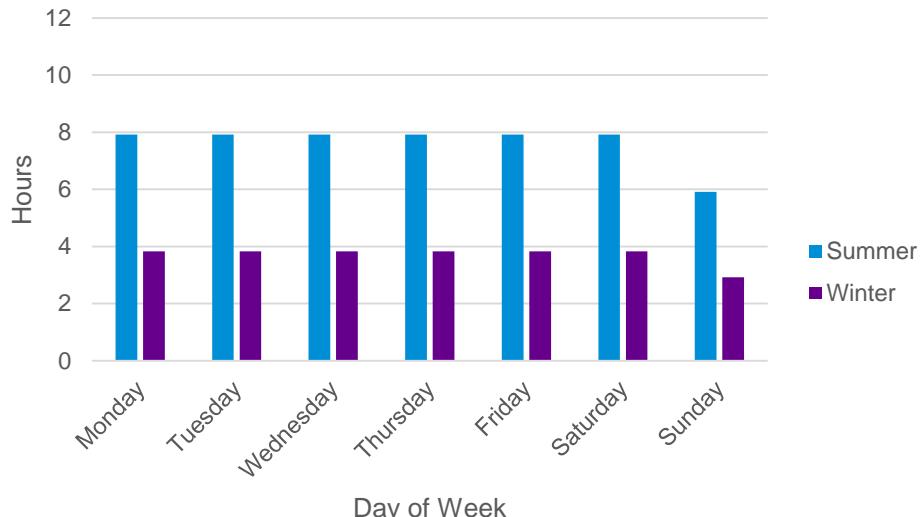
Time on Harris

- A day return trip can be made to Harris in both summer and winter
- Hours on Harris diminish as the length of the operating day is progressively shortened during winter
- As the service always commences from and finishes at Berneray, the daily hours available in Harris are generally around four hours more than in North Uist



Time on North Uist

- A day return trip can be made to North Uist in both summer and winter
- Hours on North Uist diminish as the length of the operating day is progressively shortened during winter

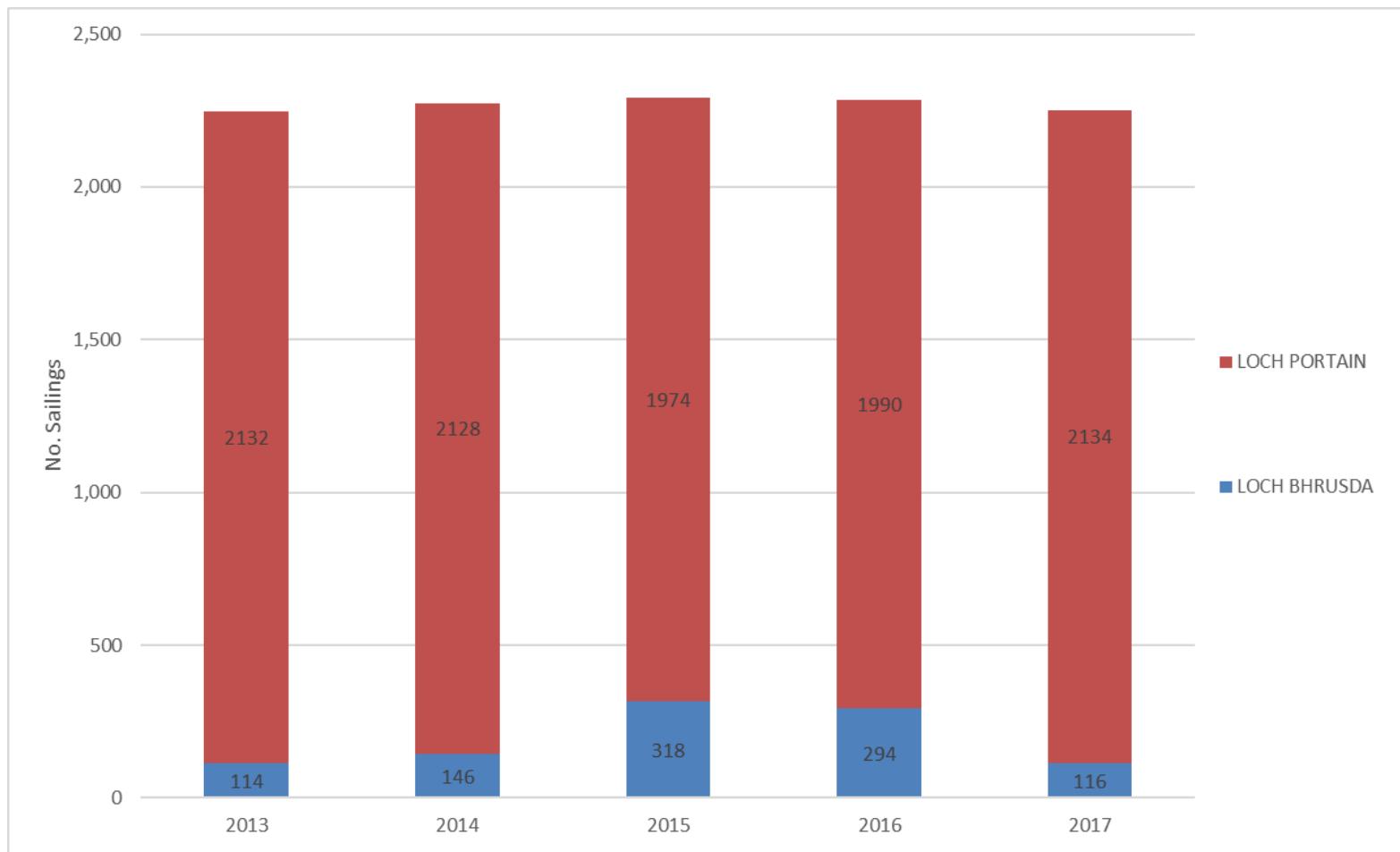


Berneray – Leverburgh Punctuality & Reliability

Punctuality & Reliability

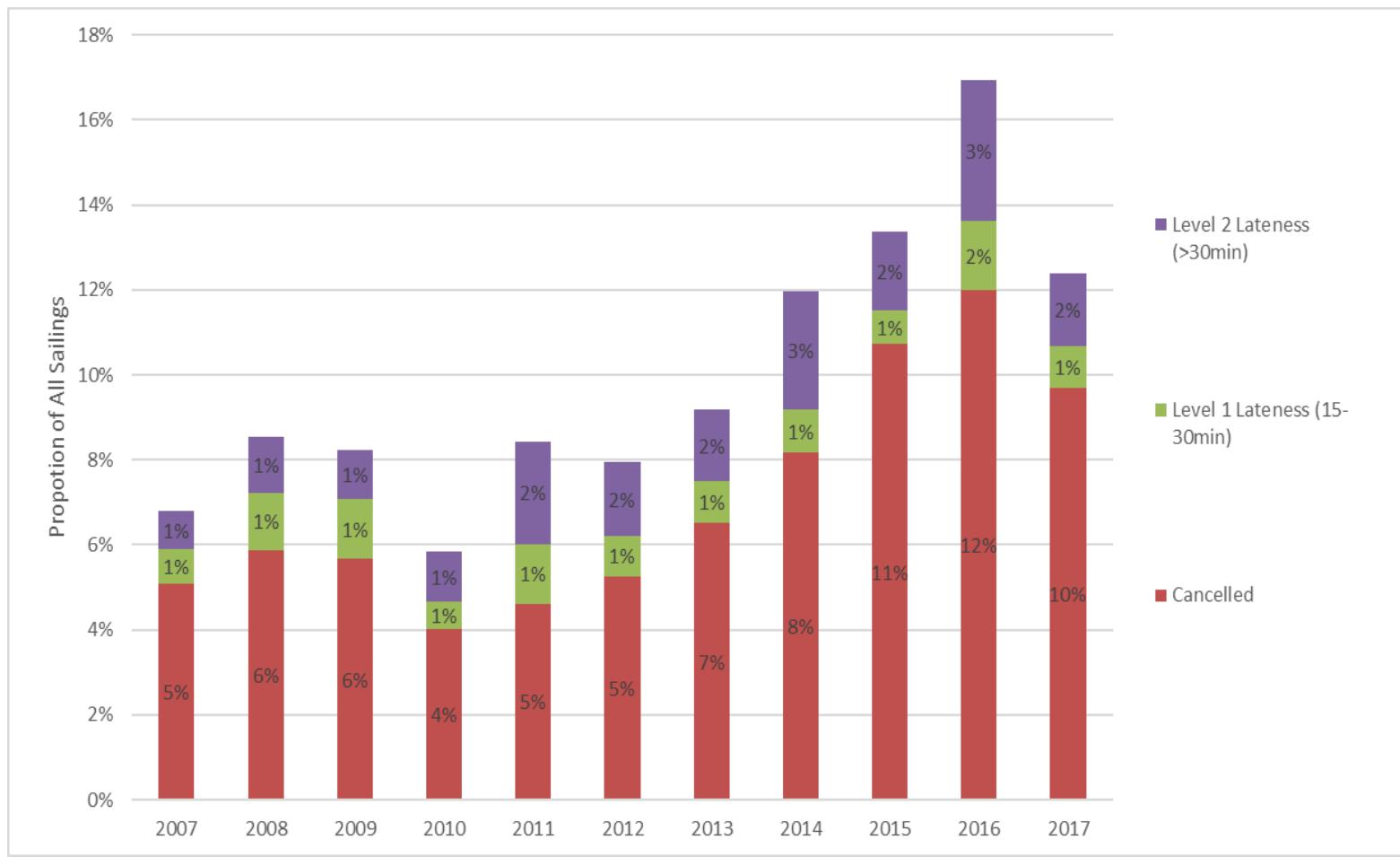
- Punctuality & Reliability are often cited as one of the most important characteristics of any public transport service, something which is particularly true of ferry services.
- CalMac has kindly provided performance data for **every sailing** undertaken on the Berneray – Leverburgh route between 1st January 2007 and 31st December 2017 – the following boards therefore allow us to tell **the punctuality & reliability story of the route**

How many sailings are made by each vessel each year?



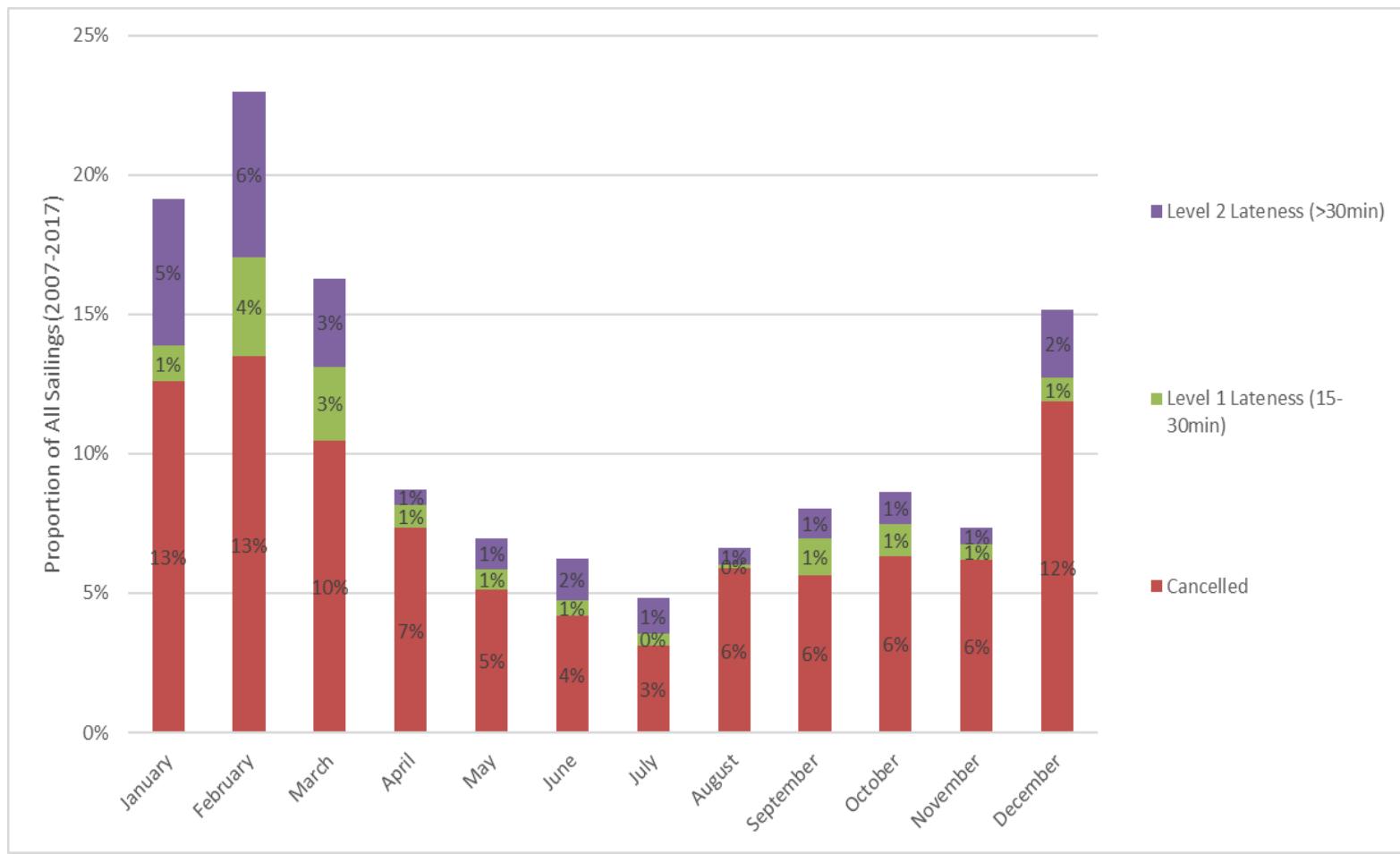
- The MV *Loch Portain* operates the vast majority of sailings on the route. She has only been relieved by MV *Loch Bhrusda* – this is due to both vessels operating water jet propulsion systems appropriate for conditions in the Sound of Harris

How has punctuality & reliability changed over time?



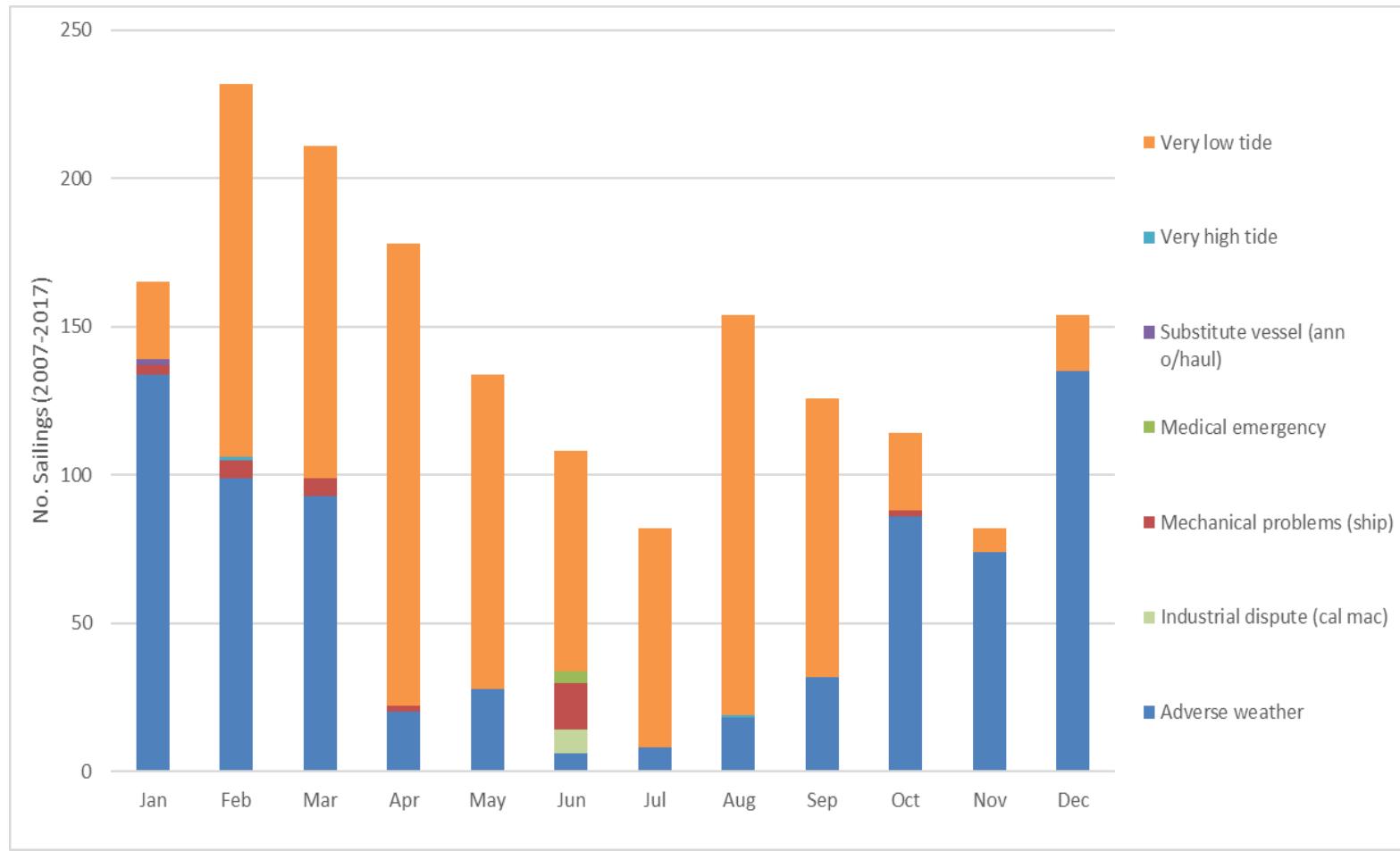
- The number of cancelled sailings progressively increased between 2010 and 2016, although there was a slight reduction in 2017
- The punctuality record of the service is broadly consistent across the years

How does reliability & punctuality vary across the year?



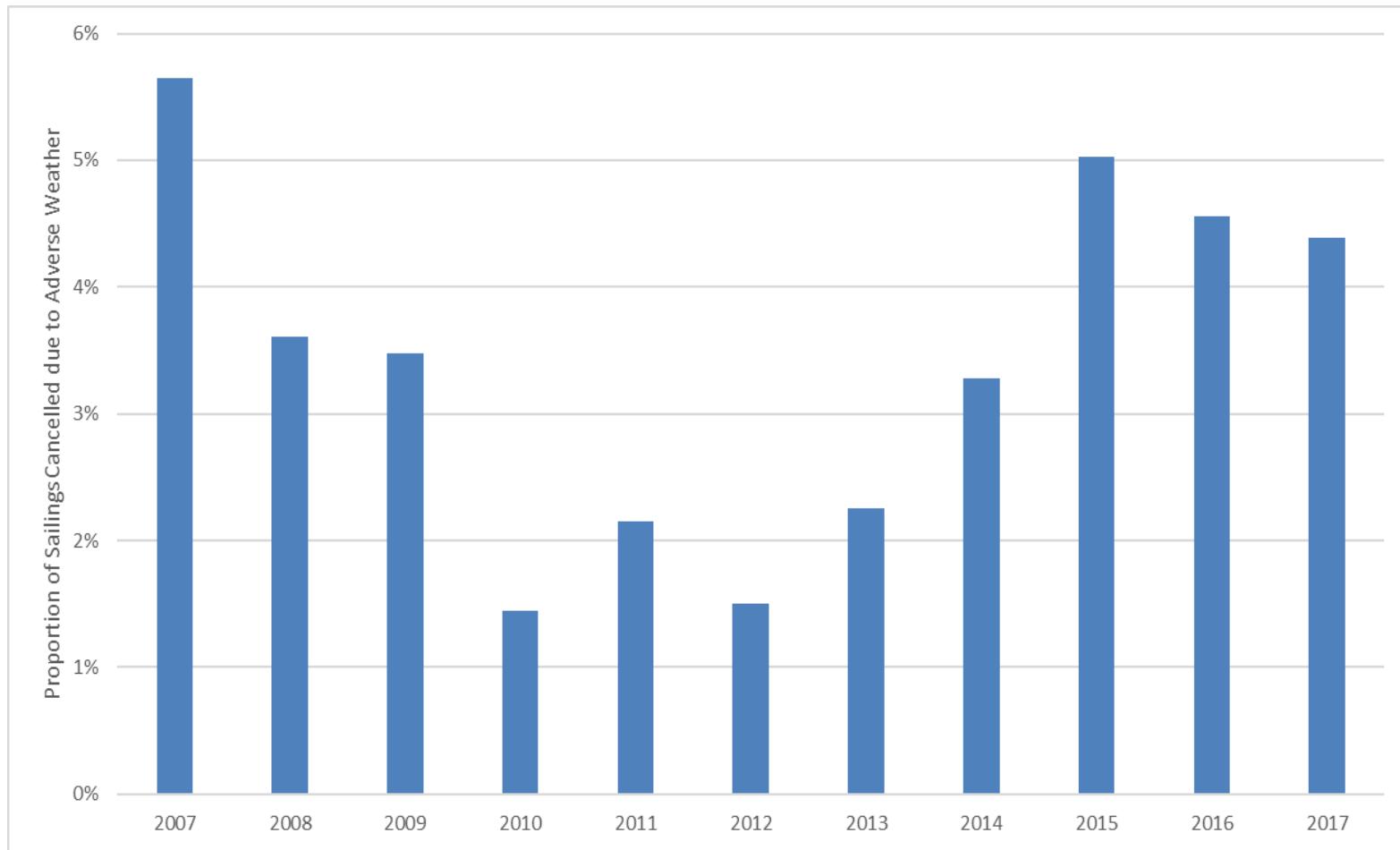
- The largest number of cancellations are in the winter months, which is possibly due to the shorter daylight hours, limiting scope to work around tidal conditions or recover delays

Why are sailings cancelled?



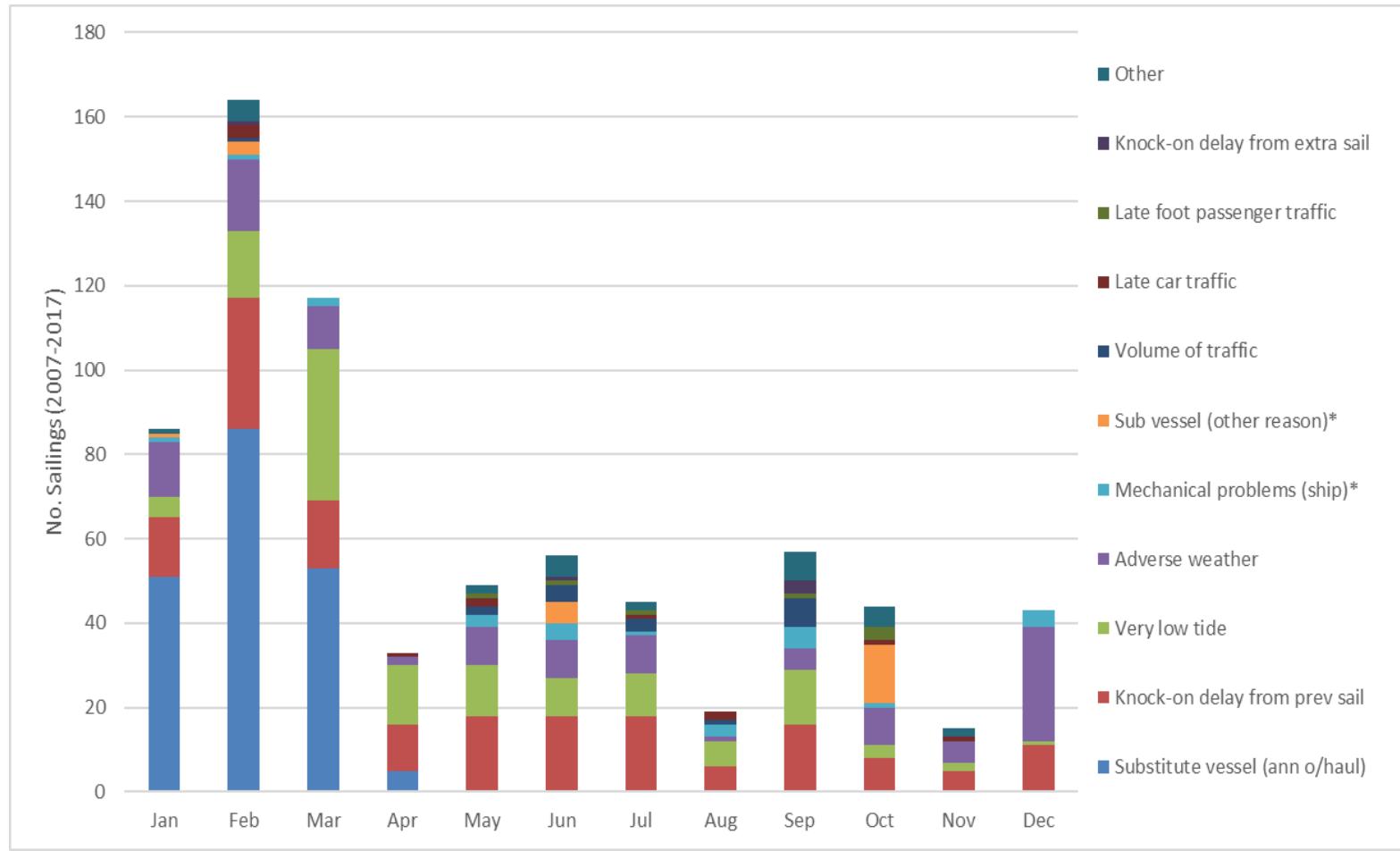
- Adverse weather and very low tides have been the cause of the vast majority of cancellations over the past ten years

Is the weather getting worse?



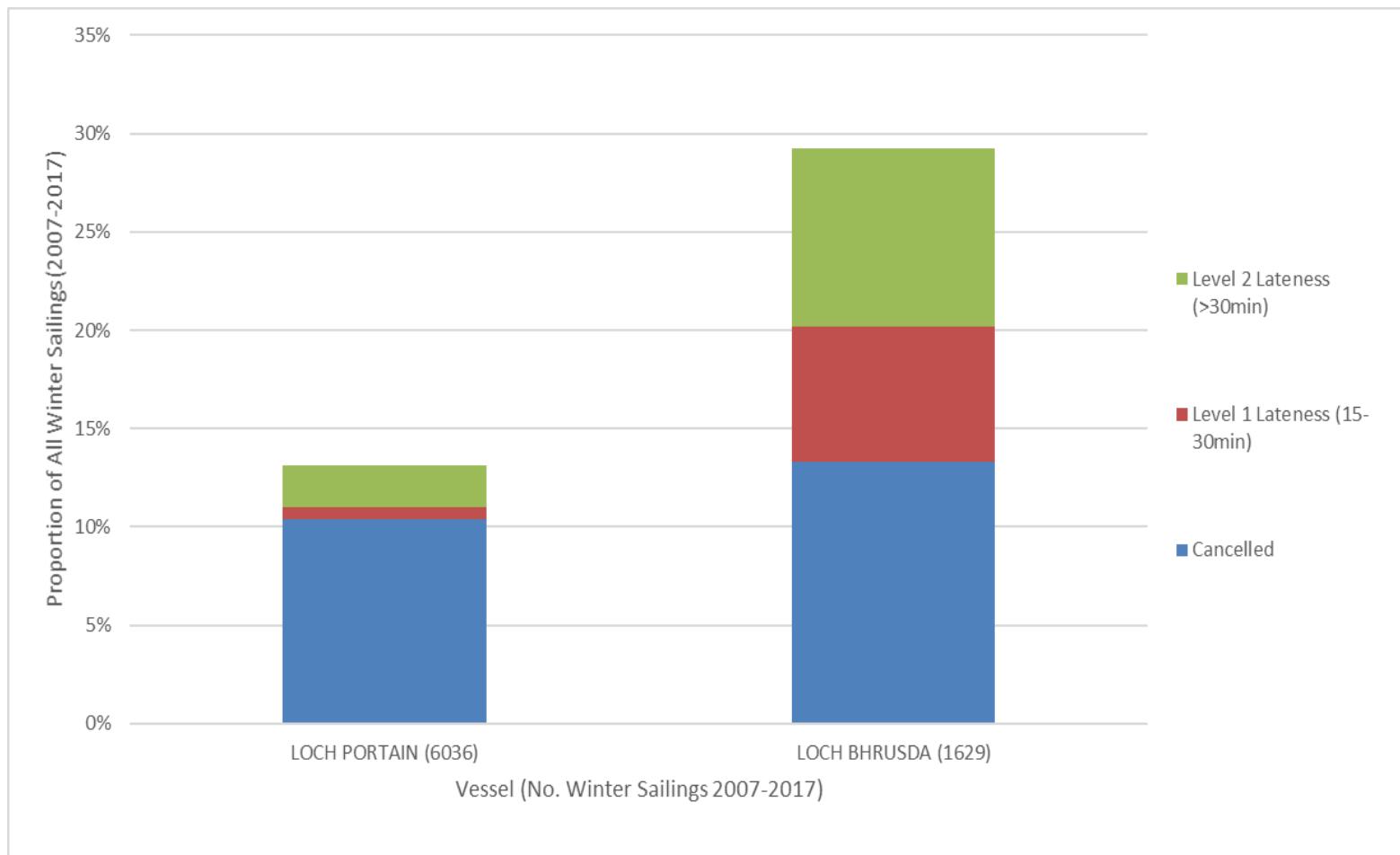
- Weather related reliability has worsened between 2012-2015. 2015 and 2016 in particular show as 'bad weather' years, a common issue across the Outer Hebrides

Why are sailings delayed?



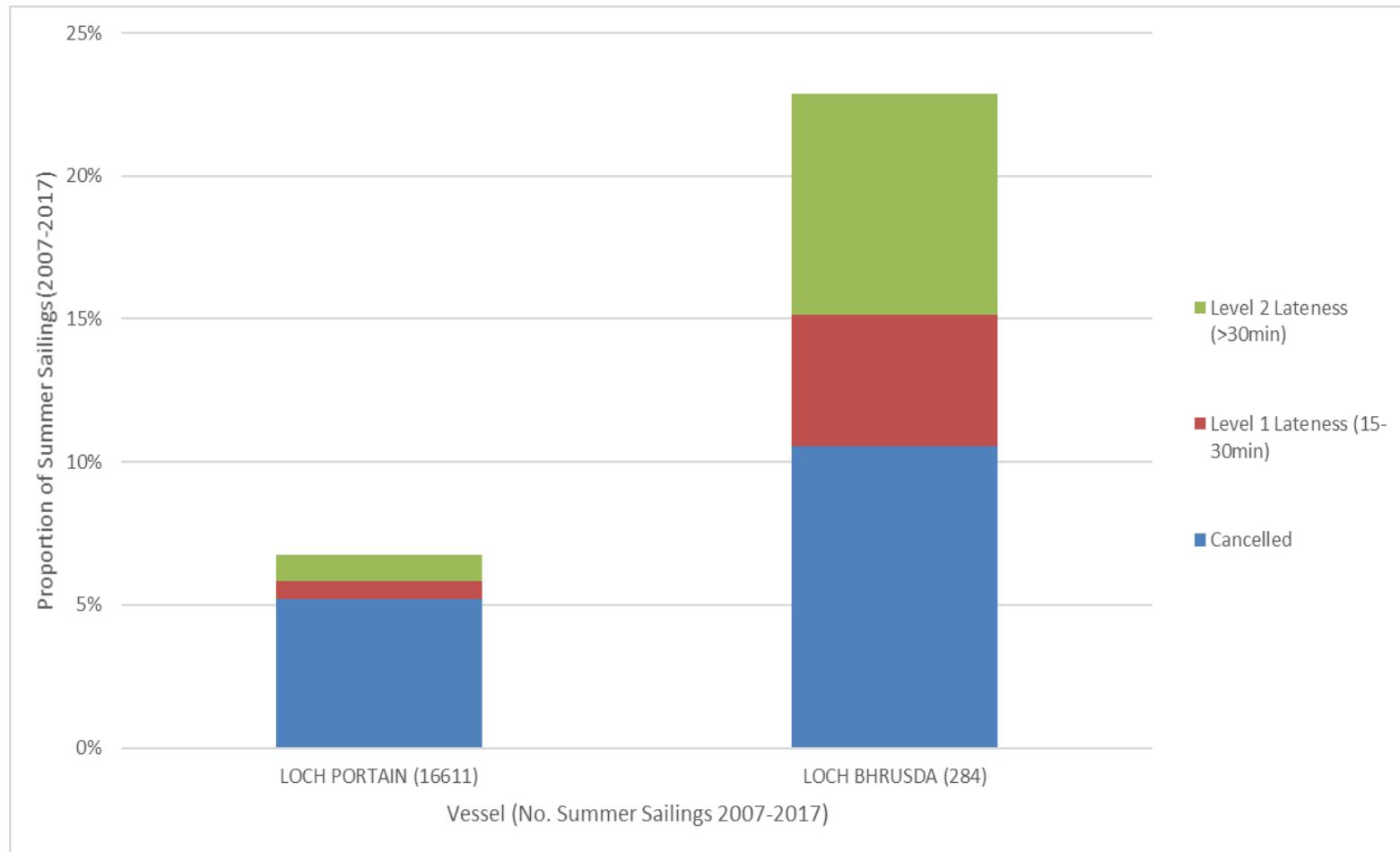
- MV *Loch Bhrusda* is around 2.5 knots slower than MV *Loch Portain*, so this may contribute to the delays in the early months of the year when the latter vessel is in drydock
- Knock-on delays from previous sailings are also a key cause of delay, which is unsurprising given the required flexibility in the timetable
- Very low tides and adverse weather (presumably poor visibility) are also major contributing factors to delays

Does the vessel used affect winter reliability & punctuality?



- MV *Loch Bhrusda* is around 2.5 knots slower than MV *Loch Portain* which may contribute towards her not maintaining the timetable as effectively

Does the vessel used affect **summer** reliability & punctuality?



- MV *Loch Bhrusda* is around 2.5 knots slower than MV *Loch Portain* which may contribute towards her not maintaining the timetable as effectively

Punctuality & Reliability

Summary

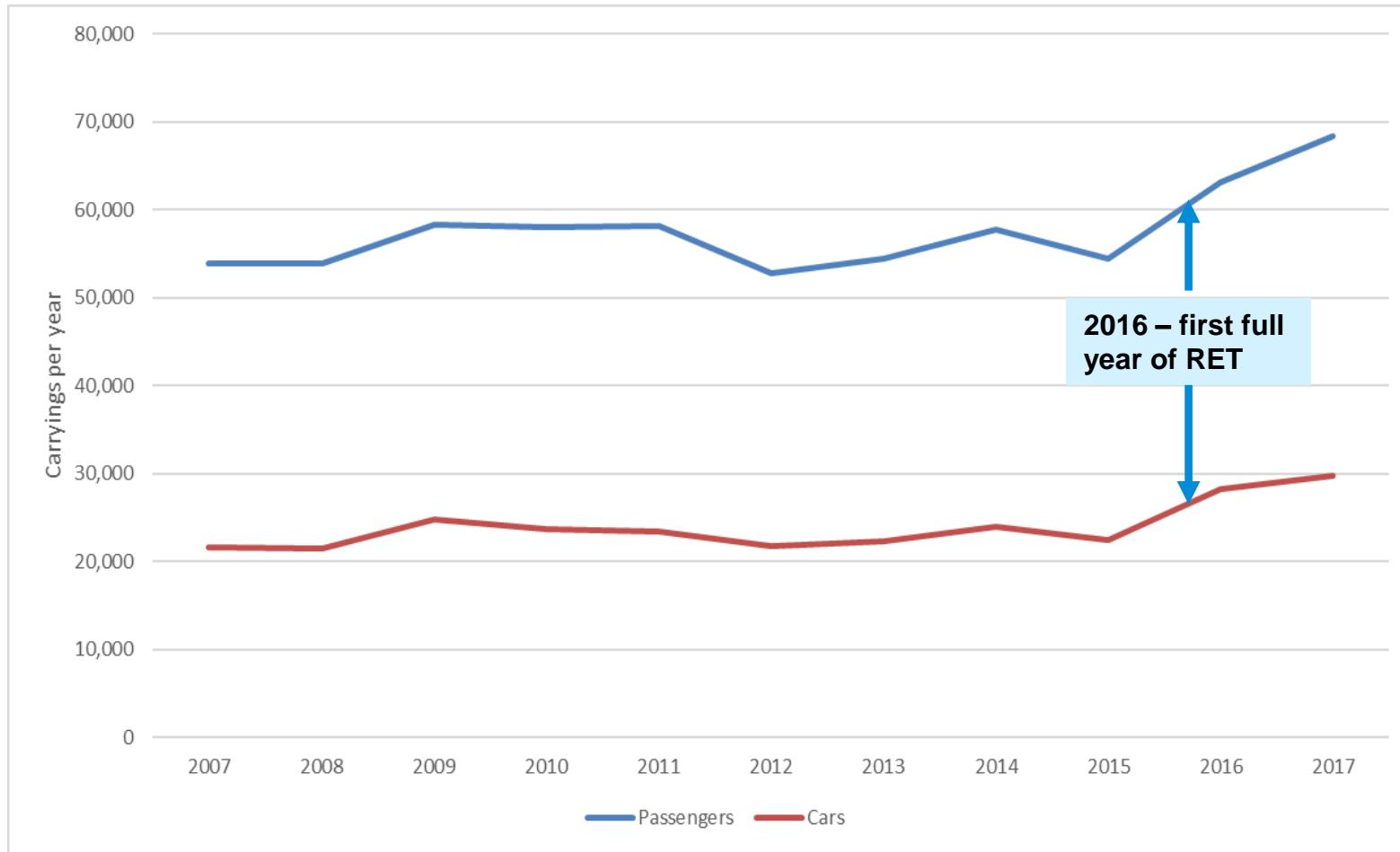
- Punctuality and reliability are highly affected by the tidal conditions, daylight hours restrictions and other operationally challenging factors which affect the route
- When the MV *Loch Portain* is out of service, delays are more common. The MV *Loch Bhrusda*, the only vessel which regularly relieves her, is around 2.5 knots slower, which may contribute to these delays

Berneray – Leverburgh Carryings & Available Capacity

Carryings & Available Capacity

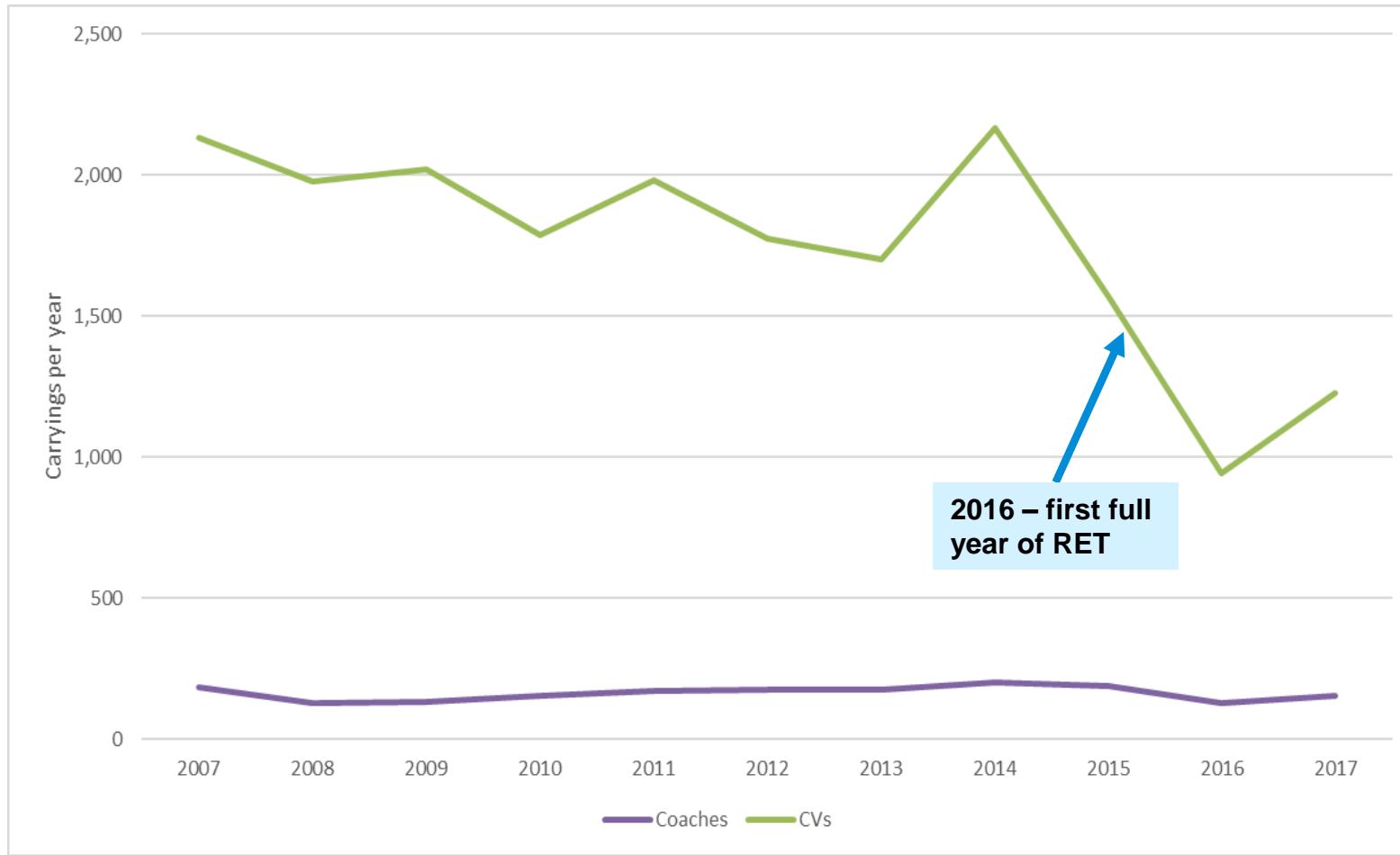
- The availability of capacity on the ferry on the days and at the times people wish to travel is of critical importance to the islands
 - This is particularly the case in terms of vehicle deck availability (the capacity to carry passengers is not generally an issue)
- CalMac has kindly provided sailing-by-sailing carryings data for **every sailing** undertaken on the Berneray – Leverburgh route between 1st January 2007 and 31st December 2017 – the following boards therefore allow us to tell **the carryings & available capacity story of the route**

How have passenger & vehicle carryings changed over time?



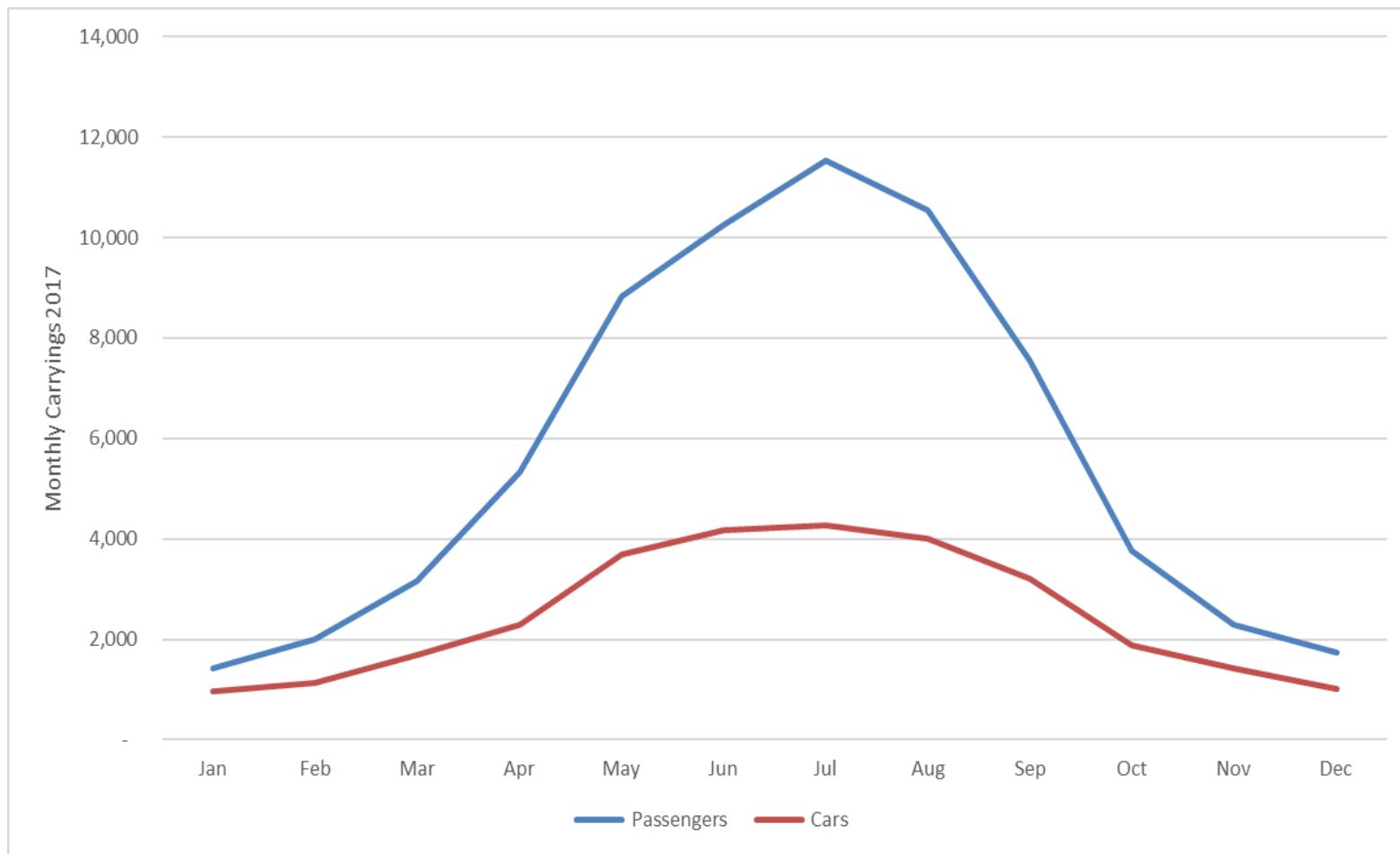
- Carryings broadly stable between 2007 and 2015
- Step change in carryings when RET was introduced in October 2015 – percentage growth in cars (25%) exceeded that of passengers (16%), largely due to previous foot passengers now taking a car

How have coach & commercial vehicle carryings changed over time?



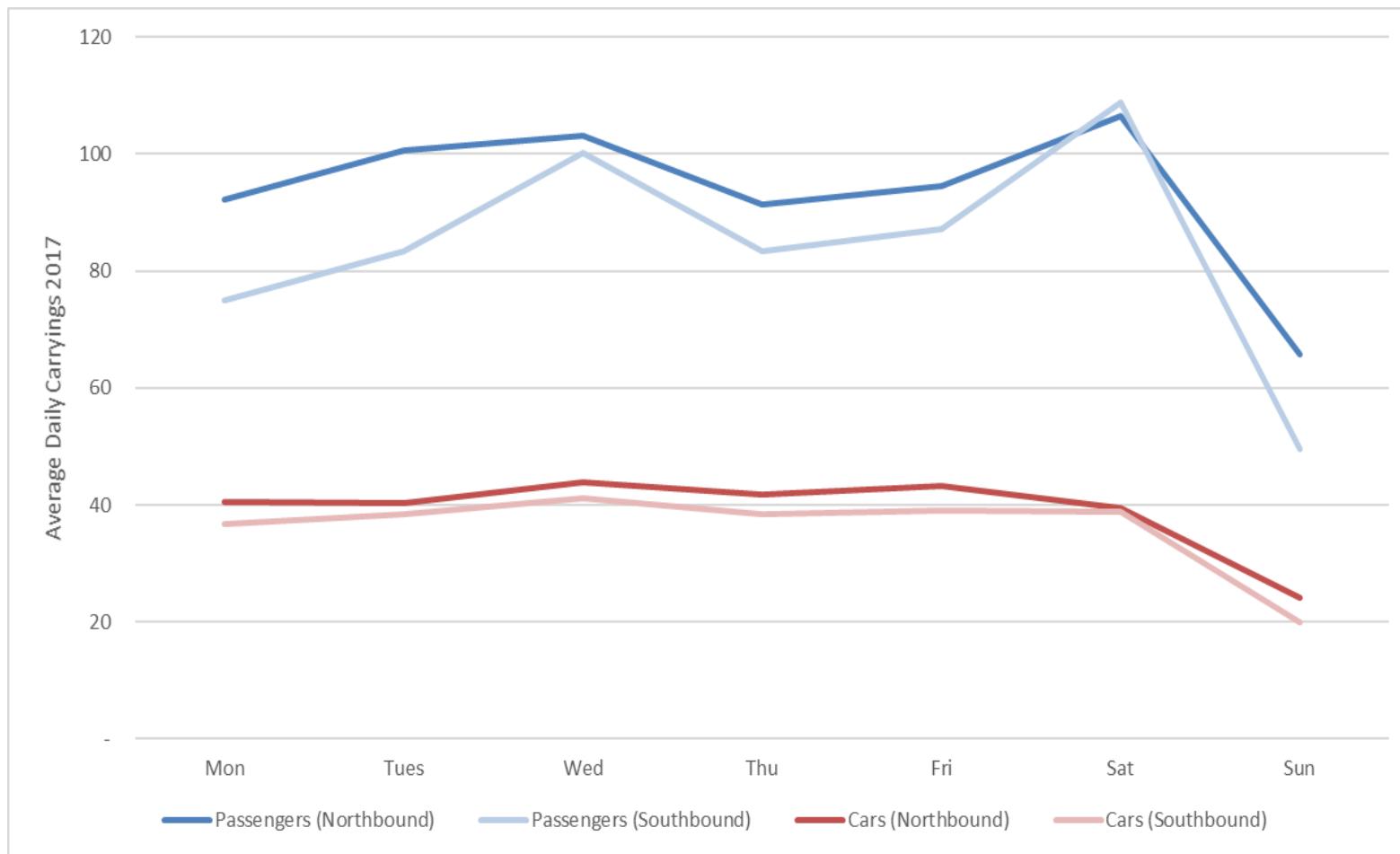
- Gradual decline in CV numbers 2007-13, although sharp increase in 2014
- Redefinition of CV length from 5m to 6m when RET was introduced incentivised a switch of CV traffic into vans. This has contributed to a dramatic reduction in CV carryings on this route, which in 2016 were less than half their 2014 level (although there was a degree of recovery in 2017)

How do passenger & car carryings vary across the year?



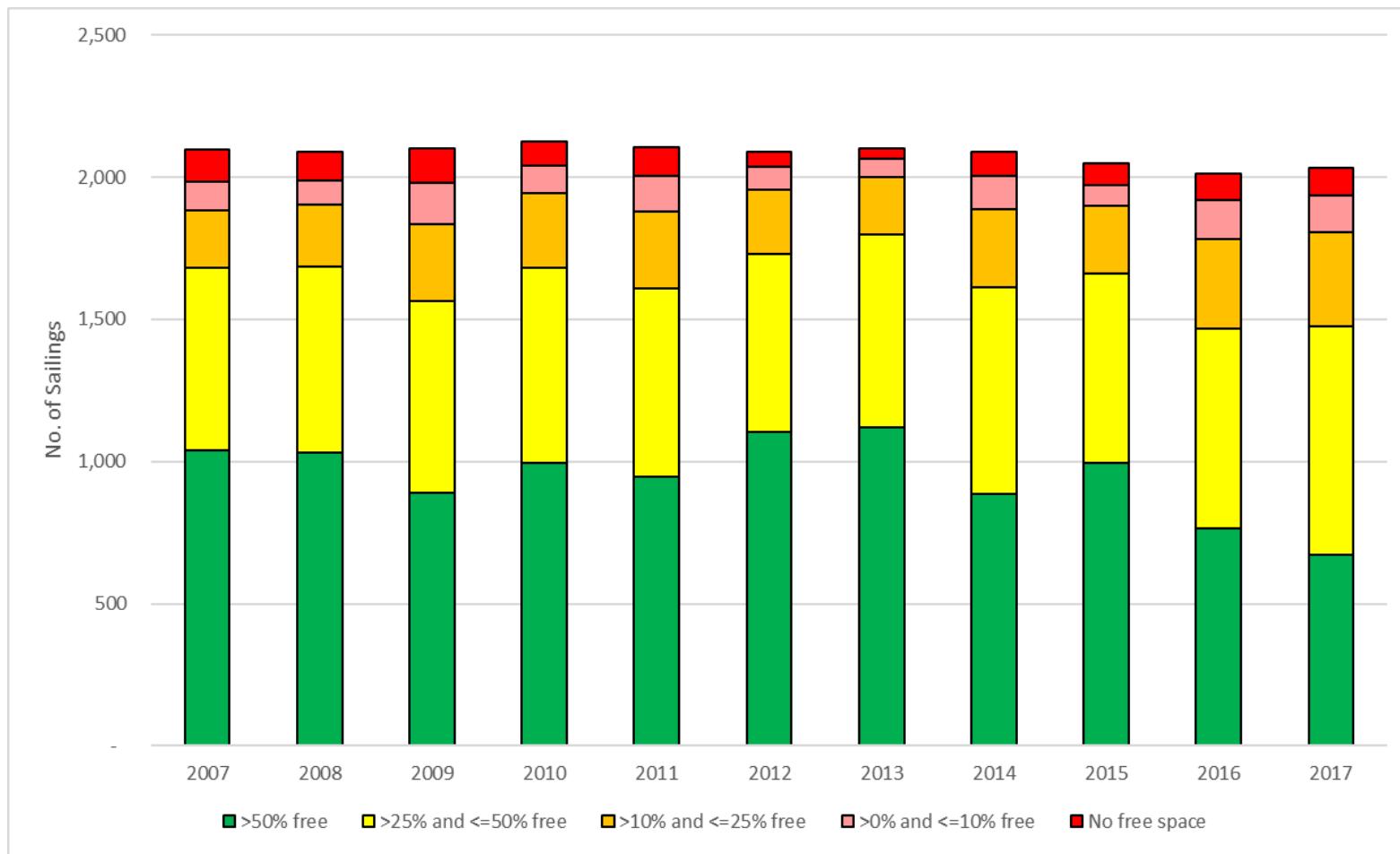
- May – August are the peak months on the route. July is by far the busiest month of the year
- Ferry demand displays a much bigger summer peak than general road traffic in the Highlands & Islands
- Whilst not shown on the graph, it should be noted that CV carryings are fairly flat across the year

How do passenger & car carryings vary by day of the week?



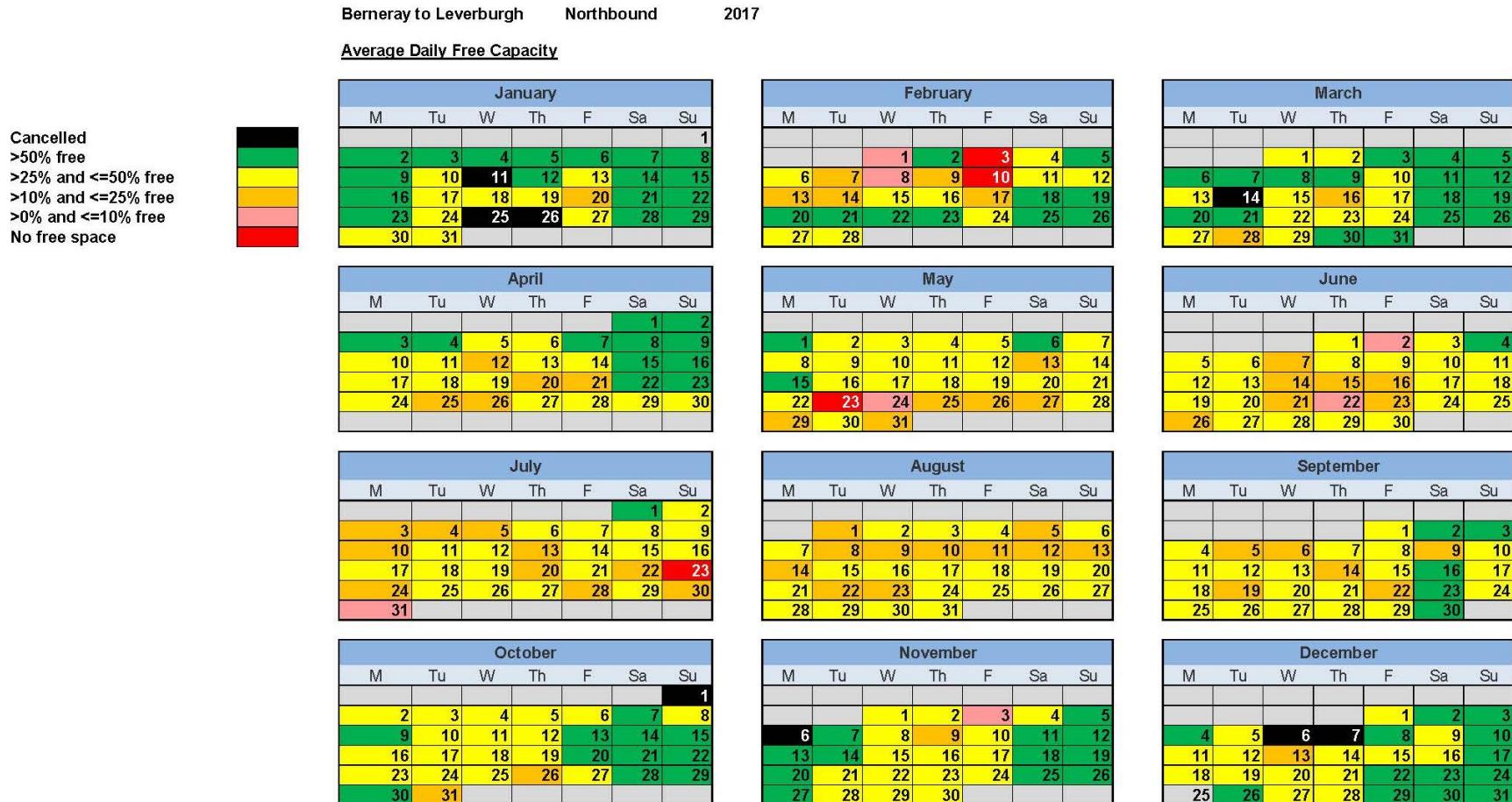
- The pattern of northbound and southbound travel is broadly similar
- Carryings across the Monday – Saturday period are relatively stable, although there is a significant reduction on Sundays

How often has the vehicle deck been full or nearly full?



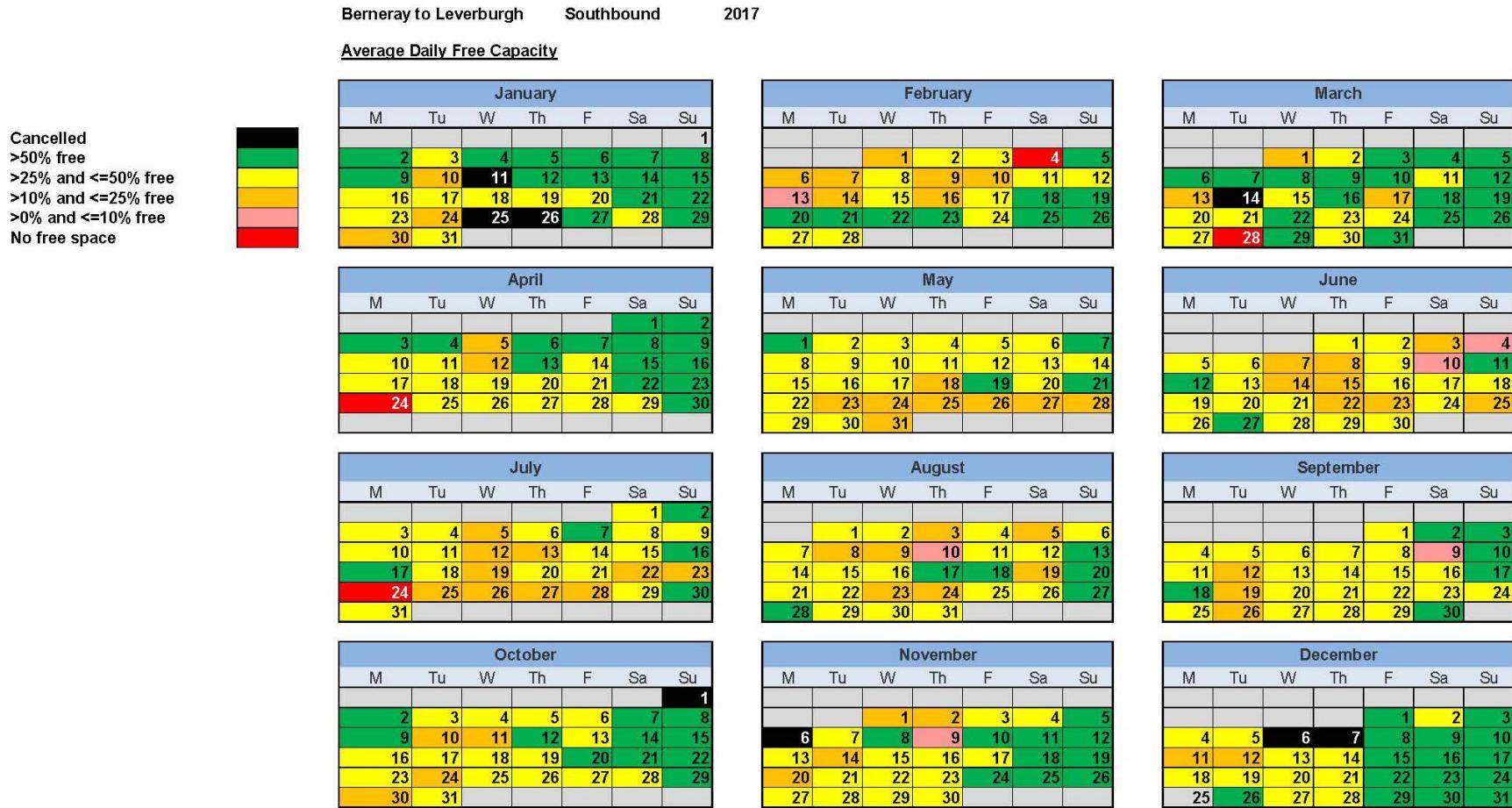
- The utilisation of the vehicle deck on this route has been broadly stable across the period
- However, the introduction of RET has led to an increase in average vehicle deck utilisation, which accords with the marked increase in total carryings recorded

How much available capacity is there across the year? (Berneray - Leverburgh)



- There is a degree of pressure on the vehicle deck between late April and September, with the peak months of June – August recording a number of days where available capacity is less than 25%. However, the data does suggest that there remains scope for expansion on this route
- Unlike other routes in the Outer Hebrides, capacity issues are periodically experienced in the core winter months due to the truncated timetable

How much available capacity is there across the year? (Leverburgh - Berneray)



- The pattern of vehicle deck utilisation in the southbound direction is broadly similar to the northbound. However, the number of days when there is less than 25% capacity remaining is fewer. This suggests that there is greater demand for North Uist – Harris trips than vice versa

Carryings & Utilisation

Summary

- The introduction of RET in October 2015 has led to an increase in passenger & car carryings on this route
- Conversely, CV carryings have declined dramatically due to the 6m rule, with goods previously carried in CVs moving into vans
- May – August are the peak months on the route
- There is a degree of pressure on the vehicle deck between late April and September, with the peak months of June – August recording a number of days where available capacity is less than 25% in both directions. However, the data does suggest that there remains some scope for expansion on this route
- The pattern of vehicle deck utilisation in the southbound direction is broadly similar to the northbound. However, the number of days when there is less than 25% capacity remaining is fewer. This suggests that there is greater demand for North Uist – Harris trips than vice versa