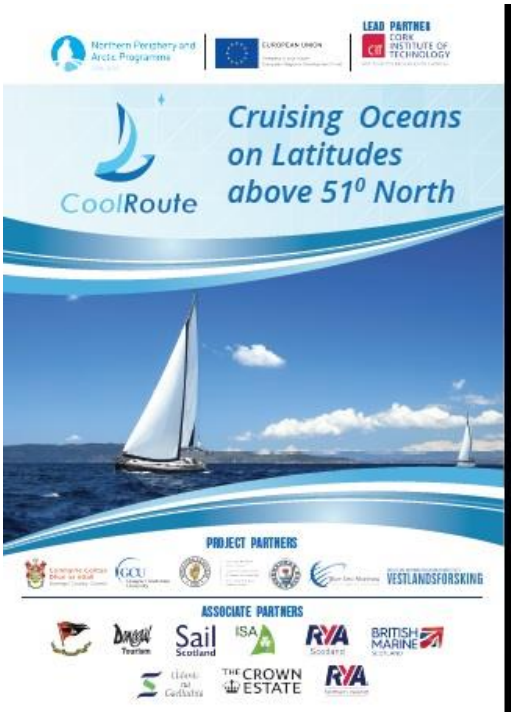
The Cool Route – Traffic Study

A Study of Leisure Cruising Vessel Numbers on the Cool Route and Adjacent Waters



APRIL 2016

Notes:

Contents

The Cool Route Traffic Study- Executive Summary

Introduction

The purpose of undertaking the route traffic study was to estimate the numbers and home location of craft based on the Cool Route and additionally to quantify the volume, number and origin of visiting cruising yachts to the different areas of the Cool Route.

The study employed a variety of methodologies to determine these estimates, including historical Automatic Identification System (AIS) data, locally available data from yacht clubs and marinas, together with a number of telephone interviews.

What is clear from undertaking the study is that data, varying in detail in different Member States, on the locations and numbers of Cool Route yachts, together with visiting vessels, is far from being complete. It is hoped that as the Cool Route project continues, the collection of statistics will also improve.

An important consideration of the Traffic study is that irrespective of its home Port, a yacht voyaging on the Cool Route brings business to local coastal enterprises. This value is irrespective of whether the yacht originated 20 nautical miles or 500 nautical miles away- each yacht and crew bringing business to the destination port or overnight stopover.

An estimated total number of 17,894 sail and motor cruising vessels are based on the overall route. The total estimated number of yacht visits (local and external) to Cool Route ports in 2015, totals an estimated 15,837 of these 13,037 are visits by local boats and 2,800 visits by vessels from areas external to the route. Within these are repeated visits by the same yachts, but at present the level of statistical records does not permit any further breakdown.

External Source Markets

From a Cool Route external source market perspective, Cool Route locations in Southern Ireland, Northern Ireland and Scotland all benefit primarily from visiting yachts from Eastern Ireland, South of England, Wales and to a lesser extend from other ports in Northern Europe, the USA, Canada and the Caribbean.

Norway is a significant beneficiary of yachts sailing from Sweden, Poland, The Netherlands and Germany, together with a small number of Russian vessels.

The Faroe Islands, annually receives between 50 and 100 visiting vessels from Southern Ireland, Northern Ireland, Scotland, Norway and England. The location is not primarily seen as a final destination, but as a one or two night layover for vessels going to or coming from Iceland.

In total, the route welcomes an estimated 2, 880 external visiting vessels. Of these, approximately 1,000 visit Norway, 480 visit the coasts of Ireland, 400 to Northern Ireland and 1,000 to Scotland.

From a direct economic benefit perspective, with an average crew of 3.3 persons and the average daily spend of c. €130.00 visiting yachts can considerably contribute to the turnovers of local enterprises on the Cool route. They additionally bring business in terms of flight for crew changes and may also need winter layover facilities.

The route's most important external source markets are the Western and Southern coasts of England, Wales, Northern and Western France, Netherlands, Belgium and Germany. It is estimated that a total of 150,000 cruising vessels are located within a two day voyage of some location on the Cool Route.

An important focus of the Cool Route Marketing, Business and Commercialisation Plans will be on increasing the maximising this potential market share.

Internal Source Markets

The estimated level of total overnight stopovers on the route in 2015 is calculated at c.73,000. This represents an overnight total visitor number of 237,600- representing a direct local spend of the order of €9.5 million with SMEs and Micro Enterprise.

Cool Route permanently located vessels represent a very sizeable potential for the market development of the route. Within the Route there are a number of distinct reciprocal markets and none is stronger than the bi-directional routes between Donegal in North West Ireland, Northern Ireland and Western Scotland. The route Gap Analysis has examined these waters and coasts in terms of the supply of overnight stopovers and generally it is well catered for in terms of facilities. Other links are bi-directionally between Norway and Scotland with the Faroe Islands, which is the most considerable open sea crossing in the overall route.

C.18, 000 cruising vessels are based within the Cool Route. The average annual standing cost of one of these vessels is estimated at €6,800. This cost covers annual mooring or marinas fees, maintenance and repairs, insurances and winter storage and launching fees. This confers an immediate estimated Cool Route economic benefit, before any movements of vessels, of €122 million. The local multiplier effect of this spending and employment suggests an economic value of over €250 million.

From Cool Route research on cruising preferences, including duration of cruises, it is clear that many yachts capable for cruising, are only used for local day sailing and are seldom if ever used for cruising. The Cool Route Cruising Preferences study suggests that the potential of local route based yachts undertaking longer or more frequent voyages can be developed. This potential is roughly comparable to the potential market for and economic benefits of additional visits by external yachts. Within the route, the locally based yachts have a strong potential to generate substantial growth.

The Route Gap Analysis report is based on Cool Route stopovers every 25 nautical miles. The project's Cruising Preference Study confirms that if there were stops at 25 nm intervals, more people would cruise farther.

In general, the route is very navigable. However, from a voyaging distance perspective there is a significant deficit in facilities on the west coast of Ireland and in particular between the ports of Dingle and Killybegs. These areas will need additional public moorings and anchorages-supported by marinas or pontoons- with a minimum facility of small dinghy pontoons to permit a dry step ashore.

Table 1. Summary of vessel visits and value to local enterprises

Cool Route Segment	Visiting Yachts	Boat Nights	Estimated direct local value
Ireland	480	1930	250,900
Northern Ireland	1257	5028	653.640
Western Scotland	5,000	30,000	3,900,000
Faroe islands	100	300	39,000
Western Norway	9,000	36000	4,680,000
Totals	**15837**	**73258**	**9,484540**

Superyachts and Small Liners

The potential of attracting superyachts and small “garden” liners to the Cool Route has been discussed by partners. Given the decreasing security of more traditional superyacht sailing grounds and coupled with the extensive and varied range of things to do and see on the Cool Route, the partners believe that if the route is properly packaged that more of these vessels will come.

One of the major benefits of these in some ways similar and yet very different types of craft, is that they have the potential to very quickly underpin the economic viability of installing small landing pontoons, essentially to berth small tenders taking passengers ashore.

This aspect of the route, which has significant potential, will be the subject of a short additional study.

Conclusions

The Cool Route is potentially a world class cruising route, based on its natural attractiveness, seascapes, coastlines, history heritage, people and cultures Visitor revenues to SMEs, mainly from vessels of an average size of 11 metres total 9.5 million per annum. In addition the fixed costs of maintaining vessels in these areas brings an income in excess of €100 million to local boatyards, mechanical services and marina operators. The project considers that much more can be done to attract local and foreign yachts to visit locations and to encourage longer stopovers, both en-route and having reached final destinations. This will significantly bring business to peripheral enterprises.

Introduction and Contextualisation

The Cool Route covers a series of extensive interconnected cruising grounds extending from the South of Ireland via Western and Northern Ireland into Western Scotland, the Faroe Islands and Western Norway. The project represents one of the few exercises to promote the development and marketing of a cruising ground across multiple national boundaries. There is however a distinct lack of any significant body of statistical data in parts of the zone, on which to base historical or projected traffic information. The quantification of overall traffic numbers of leisure vessels around the British Isles, in North-Western France, The Benelux Countries and the Baltic and North Seas, is designed to provide key inputs to the development of a number of other project components such as the T2 - Route Marketing Plan, T3 Route Business Plan, T4- Route Booking and Information system and T5- Route Commercialisation and Realisation Strategy.

The Traffic Study is researching volumetric data on numbers of cruising yachts sailing, both on the Cool Route itself and also in geographically adjacent waters.

These adjacent waters are seen as the main source markets for Cool Route future business Development. Therefore, the Traffic Study is an integral element of the future work of the overall project.

The delivery of the Traffic Study is one of the first key components of the work of all partners and has been developed with transnational inputs by project members throughout the consortium.

An important facet of the Cool Route project is that the main focus of the project is not on sailing per se, but on the potential of cruising yachts bringing new businesses opportunities to a wide variety of enterprises in peripheral coastal areas of the Northern Periphery and Arctic coastlines in North Western Europe.

The Route segments extend along the coastlines of the Northern Periphery and Arctic Area in Ireland, Northern Ireland, Western- Northern and North Eastern Scotland, The Faroe Islands and Western Norway.

The length of voyaging capability is not an issue, as the project focus is on Cruising Yachts supporting the viability of various enterprises in coastal locations - ranging from cafes to outdoor activities to marine servicing and other boatyard facilities. The voyage distance to the destination port is immaterial. What is of importance is that the people on the yacht will be staying for some period at their destination, availing of local goods and services and spending money there.

The Cool Route Business Plan will quantify the potential business opportunities, while the Route Marketing Plan, parts of which this document will inform- will set out developing a marketing strategy for the route.

Therefore, the Route Traffic study is an important facet of each of those actions, setting the scene for the potential traffic sources and estimating overall volumes of sailing and other non-commercial private craft and also larger commercial leisure craft such as Garden Liners and chartered superyachts. These will be key factors in the overall commercialisation and realisation of the Cool route as a transnational maritime tourism initiative.

Traffic Study Methodology

Due to the scarcity of a body of developed data or statistics (outside of Norway and the UK), the project had to use innovative approaches to developing its own data sets. Even where data is available on yacht ownership, there is little data on the number of yachts who make overnight stays at marinas ports and anchorages. Whenever possible the project research has used extant hard data and information from reliable sources. The methodology developed is a combination of different approaches to data collection and analysis and involved:

- A wide area Survey of Cruising Preferences- which asked cruising yacht skippers and crew members to document recent voyages and to indicate future plans.
- An Automatic Identification System (AIS) snapshot of the position and nationalities of all Yachts in the European Onshore Northern Atlantic Areas, at a fixed date and time- at the height of the 2015 sailing season. This gives a useful comparative overview of vessels in main market waters
- Partners' local knowledge, which was supplemented by a wide area survey of all stopover facilities and marinas on the Cool route- supplemented by a local Marina Survey on visitor numbers in 2014 and 2015.
- A literature review of sailing studies in North West Ireland and Northern Ireland, Scotland and Norway.

The United Kingdom and Norway are the only countries on the route with firm relevant data. The UK report 'Watersports & Leisure Participation (2014) report by British Marine, British Canoeing, RYA, RNLI, MCA and MMO' was therefore of significant value in determining the UK figures and overall yacht numbers on the route and in contiguous areas.

As noted above, there is a significant lack of statistical and other data on the numbers of European based cruising yachts and their movements. Little or no statistics are available in the Republic of Ireland. The relative small size of the Faroe Islands makes data collection relatively easy. Again there are no statistics for cruising yachts in France-which although outside of the route is a prime market with significant development potential.

Fortunately in the UK, independent research by British Marine, which is a Cool Route Associate Partner and by Tourism Intelligence Scotland, has been very useful and timely in establishing the number of cruising yachts in different geographical areas of the England, Wales Scotland and Northern Ireland.

Similarly in Norway, The Boat Life Survey (2011) presents useful statistical data.

Due to the lack of surveyed data in Ireland, The Cool Route Irish partners undertook a telephone survey on locations around the southern and western coasts of Ireland to get an estimate of the overall number of yachts based in Ireland, while a figure was also provided for the Faroe Islands by Project Partner Torshavn Port Authority.

From these combined sources, coupled with historical AIS data, the project estimated the total number of yachts based on in waters continuous to the Cool Route. The total value of these figures presents an estimate of the potential total market size and the locations of the strongest source markets.

Estimation of the volume of Yachts based on the Cool Route and in adjacent waters.

A key task was to establish how many yachts are resident on the Cool Route, as these are the low hanging fruit in terms of developing business opportunities for local enterprises based on the voyages of these yachts. The calculation of the resident number of yachts based on the Cool Route is as follows:

Table 2 Craft based in Coastal areas

Coastal Area	**Estimated Number of Cruising Craft Based**
Ireland South and West Coasts	1,250
Northern Ireland	1,933
Western Scotland	5,829
Faroe Islands	20
Western Norway	8862
Total	17,894 (18,000)

Within the Cool Route, are permanently based an estimated 18,000 cruising yachts (Sail and Motor), which are capable of making either short or longer voyages. Each of these vessels has potential to bring additional income to enterprises in coastal areas of the route.

When one considers the numbers of yachts based in waters adjacent to the Cool Route, there is an exponential increase in numbers. In general, these waters would be within a day or two sailing to reach a landfall* at some location along the Cool Route.

***From a safety at sea perspective, we wish to stress here that the standard and type of vessels, in terms of size, age and seaworthiness are important factors for anyone planning to make a voyage in open seas to join the Cool Route. In this case prudence is strongly urged before considering such a voyage.**

The Cool Route Market Catchment

The following Figure 1. Shows coastlines within a radius of 220 miles, or two day's fair weather sailing to join a point on the Cool Route. This is also a helpful way of visualising the Cool Route's immediate market catchment.

Figure 1- Cool Route immediate market catchment.

It is important to note here that from a Cool Route perspective anyone sailing or motoring on any part of the c. 1,750 Nautical Mile Coastline is "On the Cool Route". Some may wish to do the entire voyage, but for many the Cool Route will be a very memorable week or two - sailing some section and perhaps overwintering a boat somewhere on the route for a trip to be continued the following season.

In general, the overall route includes two off-shore passages between Northern Ireland and Scotland which is a short day sail and a longer voyage between Scotland and the Faroe Islands/Norway.

An optional route to Norway from Western Scotland is via the Caledonian Canal, which is a highly scenic shortcut across the Scottish countryside, taking in Loch Ness and existing at Inverness- where the route to Norway could be taken via the Shetland Islands. This considerably obviates longer sea passages on the route, other than for those planning sailing to the Faroe Islands.

To estimate the number of Yachts in UK waters contiguous to the Cool Route, this study received very valuable assistance from British Marine* with whose permission we reproduce Table 1

Table 3: Boat ownership by household and by geographic area of the United Kingdom.

Region	**Households with Sailing Yachts**
North East	789
North West	2,976
Yorkshire and Humber	4,302
East Midlands	1,642

West Midlands	1,360
South West	9.092
East of England	17,027
London	1,802
South East	11,753
Wales	1,323
Scotland	5,829
Northern Ireland	1,933
Total Sailing Yachts	59,828

- Data Extract from Watersports & Leisure Participation (2014) report by British Marine, British Canoeing , RYA, RNLI, MCA and MMO'

These statistics from British Marine, which is a Cool Route Associate Partner indicate that in Scotland, there are 5,829 sailing yachts, and 1,933 yachts based in Northern Ireland. When one considers remainder of the UK, most of which is in relative proximity to some point on the Cool Route, the British Marine data shows that there are 42,778 cruising yachts based in these other areas across England and Wales.

With a view to quantifying the general levels of sailing activity in North Western European Waters, leisure craft numbers and the nationalities involved, the Cool Route partners contacted Fleetmon Ltd., in Germany, which provides a fleet monitoring system and can disaggregate marine traffic by means of AIS (Automatic Identification System) signals from transponders aboard vessels.

From the ongoing Cruising Preferences survey being undertaken by the Cool Route Project, it is estimated that a maximum of c. 20 % of private leisure cruising boats, within the Cool Route catchment, transmit an AIS signal. This percentage is subject to fluctuation in different countries, based on costs, local practices etc. However, 20% is considered to be a reasonable average value.

Fleetmon kindly captured and provided the Cool Route researchers with a historical capture snapshot of all sailing craft who were underway at sea within the overall Cool Route and adjacent waters at 1300 hrs GMT on the 1st August 2015.

The absolute number of yachts is not overly important, as a day later, or an hour earlier may have shown a different picture. Similarly, in the summer of 2015, weather conditions generally were not conducive to long sea passages.

Weather notwithstanding, there were a total of 2,600 private leisure craft at sea. A web based mapped version of this data can be accessed at:
https://www.google.com/maps/d/edit?hl=en&authuser=0&mid=zVWdzCfcLmOs.kNEgI3Fo7K7E

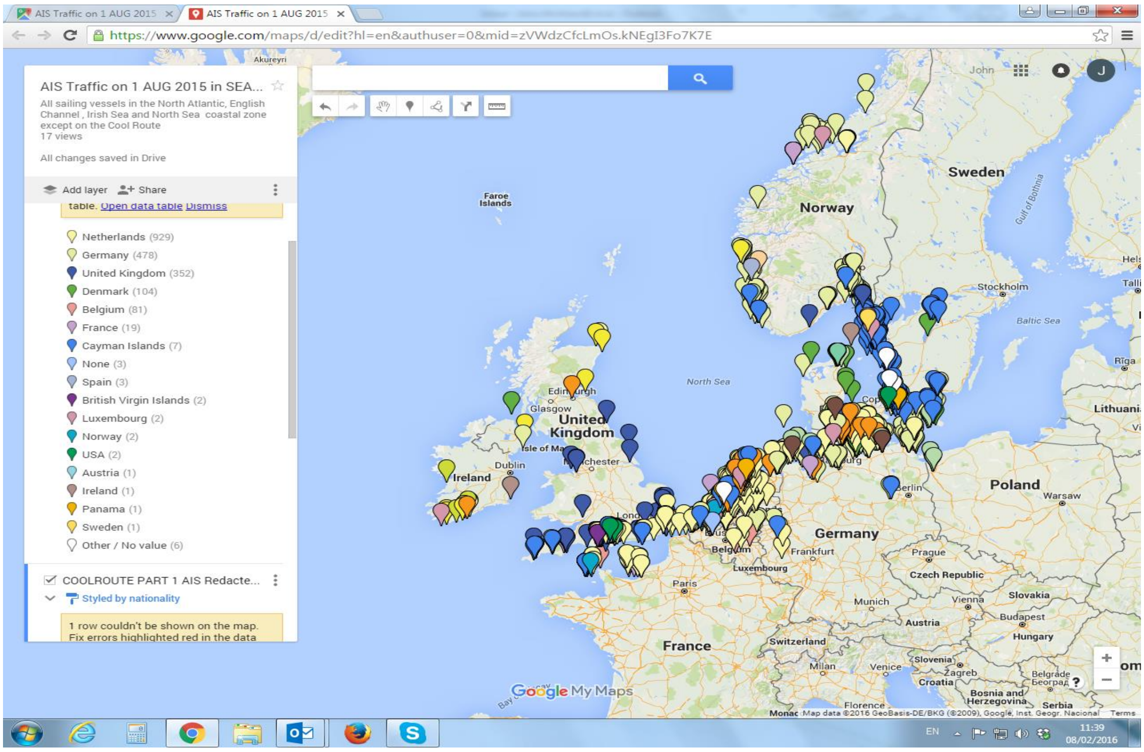
Figure 2. below shows all of the vessels transmitting an AIS signal on the Cool Route in Ireland, Northern Ireland, Scotland and Norway at 1300 hrs on the 1st August 2015; together with all vessels

using AIS transponders within the Cool Route Catchment. Vessel names and call signs were redacted for privacy reasons. Nationalities were then assigned within the database, to each vessel, based on individual MMSI numbers by the Cool Route research team.

It also shows additional vessels located continuous to the Baltic and North Seas, off the Belgium, Netherlands and Swedish Coastlines.

The importance of the data at a macro level is that it clearly highlights the relative number of private cruising vessels in some areas compared to others. In the online version of this report these individual yachts, which are colour coded, can be interrogated by nationally to show additional information such as their size draft, heading speed course and destination. The names of the vessels and call signs for privacy reasons, have been removed.

Figure 2: All AIS Transponders on Sailing Craft 1300 hrs 1st August 2015



The positions of vessels displayed suggest that a voyage to some point along the Cool Route would not present too challenging a trip for many of these vessels.

The overall data is indicative of c.10,000 private leisure craft being at sea at that particular moment.

By adding the UK statistics and also estimated yacht numbers from the East Coast of Ireland and additionally from North Western France, we estimate that the Cool Route's market size, in home and proximate European Waters is of the order of 150,000 private leisure Craft of a size capable of voyaging all, or segments of the route.

Calculating traffic volumes on the different route geographic components

For the purposes of the Route Traffic Study, the Cool Route is subdivided into its naturally occurring components as follows:

- South Coast of Ireland – Youghal Harbour to Dingle Harbour
- West Coast of Ireland – Dingle Harbour to Killybegs Harbour
- KIllybegs Harbour to Bangor Harbour
- Largs Harbour to Lerwick Harbour – Faroe Islands
- Bergen Harbour to Tromsø

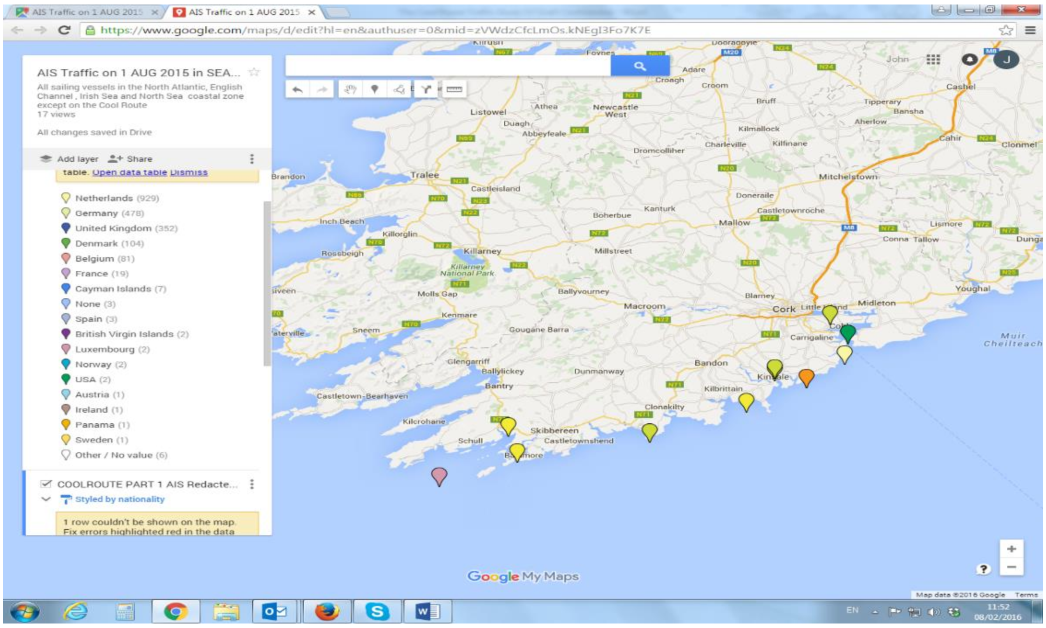
The South Coast of Ireland – Youghal to Dingle Harbour

Ireland's South cost is one of the most established sailing centres in Ireland with significantly sized marinas at Crosshaven (3), Monkstown, East Ferry, Cork City, Kinsale (2), Sherkin, Bere Island, Valentia, Cahirsiveen and Dingle. Additionally there are range of pontoons and local and visitor moorings along the coast. A new marina facility has also been announced for Bantry and on which work is to commence in 2016, with an investment of over €8 million by the Port of Cork.

It is estimated that the resident number of yachts on this segment of coastline from Youghal to Dingle is of the order of 1050 yachts. The coast is a popular destination for yachts mainly from the UK, but it is also frequently visited by other European USA and Canadian Sailors, with Crosshaven, Kinsale and Bantry Bay being main landfalls.

The AIS Survey, see Fig 3 shows that on the date and time of recording, there were a total 11 yachts at sea and transmitting an AIS signal. The breakdown is as follows: Irish 4 Denmark 1 German 1 Caymen Islands 1 UK 3 Netherlands 1

Figure 3: Yachts by Nationality of Irelands South West Coast on 1st August 2015 at 1300 GNT



A linear projection based on AIS records for these nationalities, which would suggest a total of 55 yachts of different nationalities at sea in the area is not a realistic option, however it does show that, even if they were the only yachts in these waters, that the area is a popular one for European and international Cruising Yachts.

Research was undertaken on the number of yachts making a landfall from a southerly (France) or easterly (English/Bristol channel/East Coast of Ireland) point of origin at Crosshaven. It shows that as one goes west of Kinsale, FIG.3 there is a reducing number of visiting yachts. However, yachting facilities at the western end of the Cork- Dingle route segment report that the mainstay of their visiting business comes directly from the UK and France- bypassing the eastern harbours and making a more westerly landfall, with the Fastnet Rock Lighthouse as an iconic waypoint.

The average total number of visiting private leisure craft on the eastern side of the coast totals 400 with perhaps 80 vessels from the UK and Continental Europe visiting directly to the more westerly harbours at Bantry Bay and Dingle.

Figure 4 : South Coast Ireland foreign yachts East to West

Cool Route research estimated a total of 45,000 vessels within Irish, UK and French waters within 2 days of the southern Irish Cool Route segment.

At present the South Coast of Ireland is getting approximately 1% of this market.

The West Coast of Ireland –Dingle to Killybegs Harbour

Leaving Dingle to sail in a north-western direction, yachts have option to stop at Fenit Harbour- a distance of c 50 nautical miles, with the next marina or pontoon facility being located at Kilrush Marina- a further trip of 30 nm north. After Kilrush, a journey of 72nm in waters exposed to the full Atlantic Ocean is required to reach the Port of Galway and thereafter a number of 25 nautical mile steps can be made to different pontoons and small ports such as Rossaveal, Roundstone, Innishboffin, Killary Harbour and Westport.

The current practice for vessels making north would be to leave Dingle directly for The Arran Island (80nm) without putting into Fenit or Kilrush.

The Route Gap Analysis contains a number of recommendations made by the Irish cruising Club for yachts transiting the entire coastline, on the Route between Dingle and Killybegs with optional stops only being made on the West Coast Islands. Notwithstanding same, the Gap Analysis also considers this section of the route from a local sailing perspective – such as for vessels originating in Clare and wishing to sail to Galway or Mayo for example.

Looking at this same coast, when sailing in a southerly (anticlockwise) direction from Killybegs to Dingle, the challenges are similar, but not as great on the northern section Killybegs to Galway, in that a boat can work its way from Donegal to Galway, with a number of options by way of sheltered harbours, if not marinas and pontoons.

The main traffic on the northern end of the west coast of Ireland, in the immediate future more likely to be generated from a northerly direction, drawing on business from Northern Ireland and from Scotland.

Traffic estimations are difficult to make. The southern end of the west coast Dingle/Fenit to Galway faces certain constraints in estimating the future volumes of craft plying this part of the route. Undoubtedly, the general increase in the levels of awareness of cruising the Cool Route in Ireland will add to the number of overall vessels, but not to any significant degree until a daisy -chain of marina or pontoon facilities is installed with ancillary services such as the option to leave a boat and return to it.

In this regard, Kilrush Marina is a major asset and a further suitably sheltered facility in County Clare / South County Galway, would do much to allow vessels to stay inshore and make a number of steps to Galway.

The west coast of Ireland is without doubt one of the most attractive segments scenically and culturally of the Cool Route, following the “Wild Atlantic Way”, which in a very short time has become a doyen of Irish tourism marketing.

Due to consideration of geography, distances, weather and remoteness, a critical element of developing sailing and maritime tourism on Ireland’s west coast may be through the development of more yacht chartering businesses. This would allow people to holiday on the West Coast of Ireland and to sail, rather than to sail to the West Coast of Ireland to holiday. The coastline also offers particular opportunities for the development of visits by superyachts and garden liners- small enough to come inshore and disembark passengers to the many attractions and settlements.

These are potential avenues to be considered further in the Route Marketing, Business and Commercialisation plans.

Northern Ireland

Bangor to Lough Foyle (Derry)

Recent studies, undertaken by Watersports & Leisure Participation (2014) by British Marine, British Canoeing, RYA, RNLI, MCA and MMO’ indicate that there are 1, 933 yachts based in Northern Ireland. Overall the participation rates in water activities among Northern Ireland residents are much higher than anywhere else in the UK, but with only 0.3 % of residents participating in Yacht cruising which is the lowest in the UK.

Belfast Lough is a major centre of sailing in N. Ireland. Bangor Marina, Carrickfergus Marina and Belfast Harbour Marina are well sheltered and accessible at all states of the tide.

Leaving Belfast Lough to go north, it is a 25nm journey to Glenarm Marina, a popular setting off point for the West coast of Scotland. A further 30nm journey north takes you around Fair head to Ballycastle Marina and Rathlin Island Pontoons. The two facilities are good starting points for a journey to the Hebrides.

Going a further 17nm west brings one to Portrush Harbour with its pontoon. There is then a choice of traveling 5nm west to the river Bann to visit Coleraine Marina and Seaton's Marina, or go 7nm further to the entrance of Lough Foyle. A sheltered journey in Lough Foyle of 15nm will bring you to Foyle Port Marinia – at Derry the capital Cool Route partner Derry and Strabane District Council.

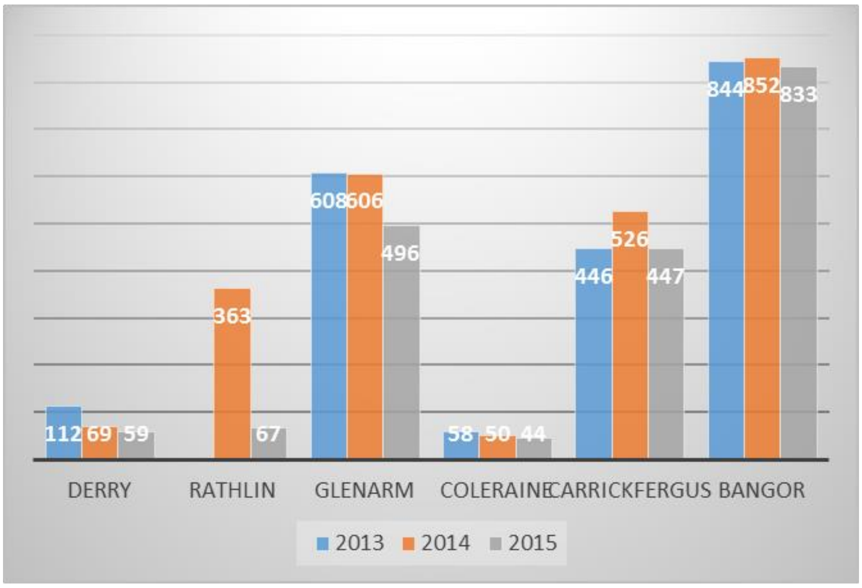
Research has been undertaken by Cool Route with Marinas and Harbours at Derry, Carrickfergus, Rathlin Island, Glenarm, Coleraine, Ballycastle and Bangor along this route to quantify usage figures from 2013 to 2015 and the nationalities of these users.

Belfast Marina could not be included as no data is available as it is an unmanned harbour.

From data received it is estimated that in 2013 ,there was a total of 2068 visiting vessels along this section of the route, which rose to 2466 in 2014 and declined to 1946 in 2015. Figure 5 below shows the breakdown of visiting vessels at each harbour along the Cool Route in Northern Ireland. Overnight stays in 2013 was estimated at 1,717, 2014 recording 1,799 and in 2015 the total overnight statistic was 1,257.

It has been estimated that the number of boat nights in northern Ireland is currently of the order of 5,028.

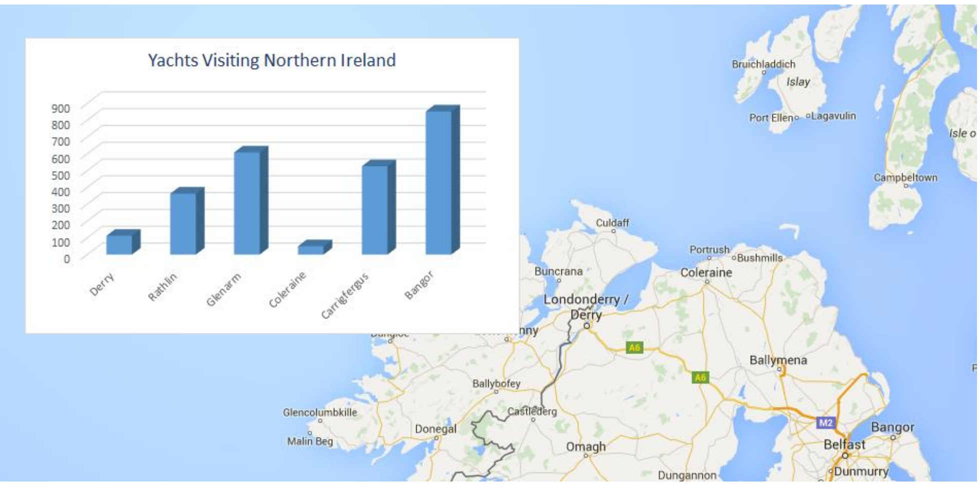
Figure 5 – No. of visiting vessels along the Cool Route in Northern Ireland



The most frequent nationalities using these harbours are Northern Irish, Scottish, English, French, Norwegian, Dutch and Southern Irish. Figure 6 below shows a percentage breakdown of nationalities.

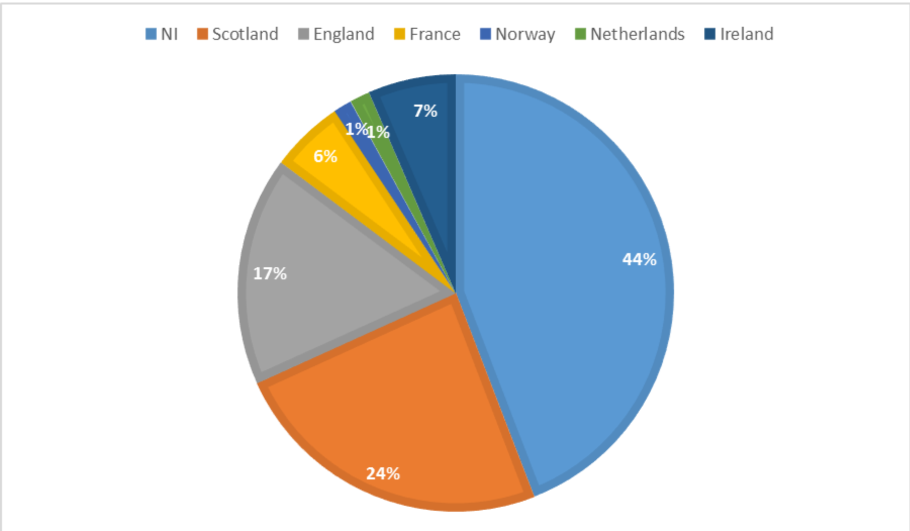
The direction of out-going traffic on this section of the route is mainly westwards as with the coast of Cork, there is a significant decline in vessels numbers voyaging between Bangor and Coleraine, increasing again at Glenarm and declining again in a westerly direction.

Figure. 6 Movement patterns Northern Ireland



As shown in fig. 7, apart from Cool Route based yachts, Northern Ireland also benefits from visits by vessels from England, France and the Netherlands.

Figure 7. Usage by Nationality



Scotland's Cruising Market

The principal markets for cruising in Scotland are locally based boats (5,900), boats cruising from the South and North of Ireland with an estimated number of 4,500 vessels, and boats hailing from northwards of both West and West Midlands UK with 10,000 cruising craft; The Faroe Islands and the coastline of Western Norway with an estimated 9,000 craft – making a total immediately adjacent market size of 29,400 private cruising craft.

Research TRC/EKOS in 2010 indicted that the numbers of craft visiting Scottish Marinas and harbours annually generated 167,652 visitor nights.

Cool Route estimates this to represent 5,000 visiting craft per annum.

Of these, it is estimated from the 2010 research that:

- 56% (2,800) are Scottish in origin
- 29% (1, 450) are other UK
- 15% (750) are other overseas

The 2010 value of the sailing tourism market was estimated at £101 million. The Scottish National Marine Strategy estimates that by 2020, with the continued promotion and growth in sailing in Scotland and with development of the market, this could increase by £44 million to £145 million.

A level of 5,000 visiting yachts represent approximately 17% share of the potential Scottish and adjacent markets in Ireland, UK, Faroe Islands and Norway.

Given the importance and scale of the cruising sector in Scotland, there is a need for improved collection of visitor and berthing statistics in and it hoped that this will be an initiative that may be promoted by the Scottish Marine Tourism Strategy Group, as it works to deliver the Scottish Marine Tourism Strategy. Better statistics would enable the production of more accurate figures for the number of overnight stays and their economic value

Scotland: Portpatrick to Baltasound (Shetlands)

The West Coast of Scotland is one of best serviced cruising grounds in terms of stopovers available and also represents one of the most inclusive sections of the Cool Route in regards to diversity available of cultural attractions, potential activities, food and drink establishments etc.

A 2010 study by TRC/ EKOS in Scotland showed the total numbers of berthing facilities available as follows:

Figure 8 Total Berths and Moorings Scotland in 2010

NATIONAL SUPPLY OF BERTHING FACILITIES – 'RESIDENT' HOME PORT BERTHS				
Area	**Pontoons**	**Moorings**	**Totals**	**Proportion of Resident Berths**
Clyde	2,883	1,844	4,727	43%
West	695	2,351	3,046	28%
North	1,531	215	1,746	16%
East	924	475	1,399	13%
TOTALS	**6,033**	**4,885**	**10,918**	**100%**

Source: TRC

NATIONAL SUPPLY OF BERTHING FACILITIES – VISITING BERTHS				
Area	**Pontoons**	**Moorings**	**Totals**	**Proportion of Visitor Berths**
Clyde	450	194	644	38%
West	335	286	621	37%
North	261	9	270	16%
East	143	5	148	9%
TOTALS	**1,189**	**495**	**1,684**	**100%**

Source: TRC

In all there were a total (2010) of c. 12,500 individual facilities by way of berths and moorings. What is not known is how many of these were occupied by cruising vessels and so, in line with the British Marine Statistic of 5,829 we are operating on the basis of that figure.

There are regular cruising routes on Scotland's west coast that are traditionally popular and as the market has expanded, boats are reaching into the less populated regions of Scotland. The statistics for Scotland are variable at this stage, many marinas do not keep visitor statistics and virtually no moorings groups have reliable visitor figures. One major study is being revisited during 2016 and for this reason we believe that once the Sailing Tourism in Scotland report is updated this section of the traffic study should be revisited.

While the Gap analysis for the Scottish segment is on-going, it can be noted that approximately 130 locations have been identified as potential Cool Route branded layovers that meet the minimum requirements to be considered as such. These stopovers are distributed across the various coastal areas of Scotland, with a principal concentration of facilities around the Firth of Clyde.

For the purposes of the Traffic study, at this stage we have used figures available from British Marine and the results from phone interviews to arrive at best estimates for the current Cruising Yacht visitor nights and it is considered that the figures for visitor nights are conservative. The Scottish coast is broken into a number of different sections as follows:

The Clyde Estuary and Solway Firth

This section of the Scottish coastline, apart from a significant number of local boats also benefits significantly from visiting yachts, cruising mainly from Northern Ireland and other parts of the UK and Ireland.

The area is well catered for in terms of marinas, pontoons and ancillary facilities to attract local and international visitors

West Argyll, Ardnamurchan to Gairloch, and the Outer Hebrides

This is perhaps the most popular of Scottish sailing grounds, given its attractive scenic coastlines and a range of excellent berthage facilities. The region is also very proactive in terms of marketing itself as a Cool Route destination.

North Gairloch to Helmsdale.

This is a less developed area of Scotland in terms of cruising yacht visitor numbers, however facilities continue to develop.

Orkney and Shetland, and Helmsdale to Peterhead

All of these locations are on Scotland's east coast where cruising sailing is not as prevalent as in the west coast of Scotland. The Shetland Islands are within comfortable sailing distance of the Norwegian coast and continue to attract an increasing number of cruising boats each year.

The Faroe Islands

Thanks to its geographical location, the port of Tórshavn annually welcomes up to 100 visiting yachts from abroad. The visiting yachts normally have a crew of 3 – 4. With very few exceptions the visiting yachts are enroute from the UK (Shetland Islands or Orkney) to Iceland or vice versa. The typical yacht stays for 2 days; however this is of course weather dependant. When it comes to nationality, most of the visitors are European – mainly from UK, Germany, Holland and Norway.

Development of the Cool Route may significantly encourage vessels to plan a longer stay-over in the Faroes, allowing crews to spend more time in experiencing the culture and heritage as well as the many attractions of this location.

The distance from the North of Scotland/ Northern Ireland/ Norway is approximately 180 Nautical miles or 1.5 to 2 days sailing. The Faroe Island are reported to be absolutely worth this trip due to their unique beauty. Caution most however at all times of the year, be strictly exercised in terms of sea and weather conditions. Cool Route partner, the Port of Tórshavn Partner, will as part of their partner brief, produce a safety at sea brief for yachts planning to sail to the Faroe Islands.

Norway

Norway, despite its northern latitude possesses a very sheltered cruising ground thanks to the almost continuous line of offshore islands offering protection to the route.

Norwegians continue to use the sea as a convenient means of travel. This is mainly due to the fact of the coast of western Norway being indented by multiple deep and wide fjords, which make landside journeys often very long and arduous, particularly in times of bad weather. Additionally most of the main settlements are coastal and almost everyone has a ferry or other landing place which can accept yachts. The Norwegian Boat Life Survey (2011) Fig. 9 presents useful statistical data on pleasure craft based on the Norwegian section of the Cool Route.
http://knbf.no/images/Baatliv/Faktafolder_baatlivsundersokelse.pdf

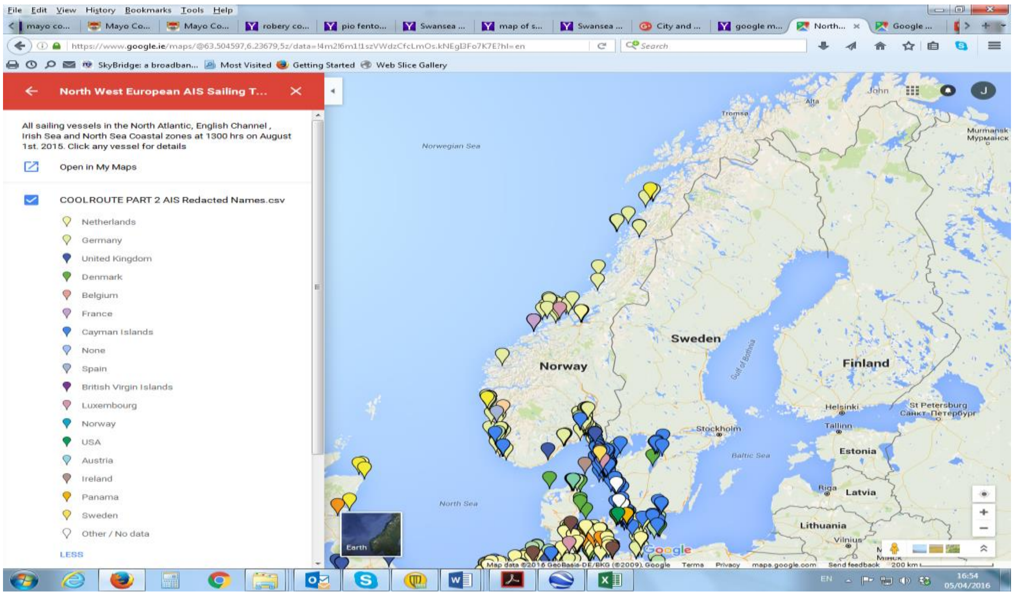
Basing calculations on the total number of boats with sleeping accommodation (84,890) , modified by the usage rate of 87% and then by the percentages of boats usually used for holiday trips, this study concluded that a reasonably estimation for the number of active cruising boats in Western Norway is of the order of 9,000. It is estimated that this fleet generates c36,000 vessel nights in other than home ports.

Figure 9 Norwegian Boat Life survey 2011

Share of households that own a boat	16–47%
Number of leisure boats (incl. kayak and canoe)	295 000
Number of persons (age 18–74) who have been at sea on leisure boat in 2011	653 110
Number of use days in 2011	5 862 341
Motor boat with overnight/sleeping capabilities	75 330
Sailing boat with overnight/sleeping capabilities	9 560
Total boats with overnight/sleeping capabilities	84 890
Percentage of boats used in 2011	87%
Boat usually used for weekend trips with overnight stay	15%
Boat usually used for holiday trips	12%
Went outside to foreign country in 2011	2%

The AIS data prepared by FleetMon for the project shows sailing vessels off the cost of western Norway on the 1st August, 2015, is shown in fig. 9.

Figure 10. AIS Record of vessels on the Norwegian Coast on 1st. August 2015.

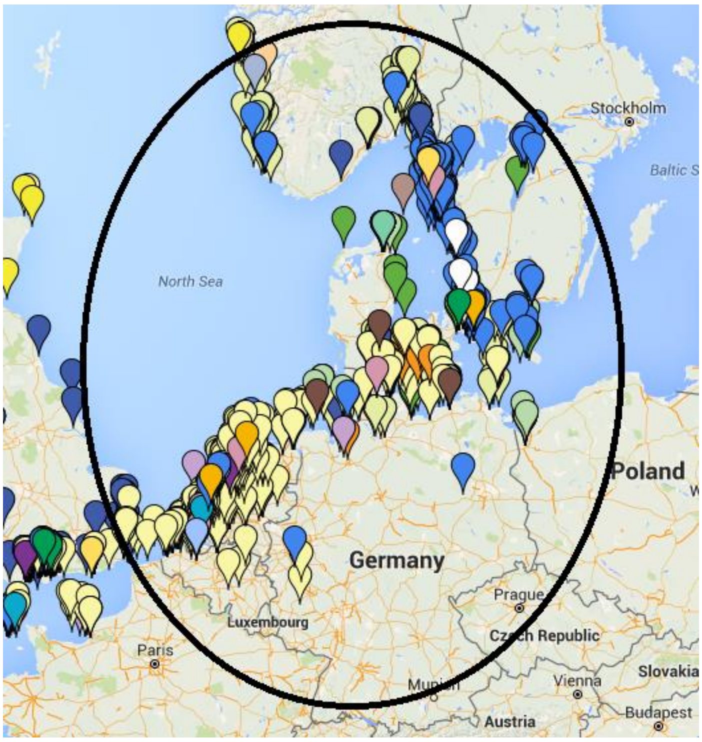


As can be observed there is both a large number of vessels, at sea, together with a significant mix of nationalities – The vessels shown here hail from Norway and from all over North western Europe, with a significant numbers of Polish, German, Dutch and Swedish vessels. In all 50 vessels appear underway at sea on AIS, at the time and date specified.

Of significant interest, is the estimated 2,000 or so AIS targets within relatively easy reach of the Norwegian coast, particularly the large numbers located on coasts from the Netherlands northwards to Sweden.

These live targets represent c. 10,000 yachts at sea see fig. 10 when the AIS picture was captured (1300 hrs on the 1st August 2015). Extrapolating this data to total yacht numbers suggests that within the catchment of the Norwegian coastline there are c. 100,000 yachts, who could voyage in approximately 2 to 4 days to Norway.

Figure 11 Yachts at sea within the Norwegian route catchment



Additionally, a particular benefit for crew changes is the wide availability of small airports along the western coast of Norway, Fig 11 most of which have excellent connections into Oslo. The additional traffic generated may provide an economic stimulus to the operation of these local airports.

Figure 12. Coastal Airports in Western Norway

Conclusions

The Cool Route is potentially a world class cruising route, based on its natural attractiveness, seascapes, coastlines, history heritage, people and cultures. Visitor revenues to SMEs, mainly from vessels of an average size of 11 metres, total 9.5 million per annum. In addition the fixed costs of maintaining vessels in these areas brings an income in excess of €100 million to local boatyards, mechanical series and marina operators. The project considers that much more can be done to attract local and foreign yachts to visit locations and to encourage longer stopovers, both en-route and having reached final destinations. This will significantly bring business to peripheral enterprises.