

SEVERE WEATHER WARNING: ISLANDS, LIFELINE LINKS AND SUSTAINABILITY

Paul Finch, BEng (Hons), MSc, CMILT, MIHT
Associate Director, Faber Maunsell

1. INTRODUCTION

The Scottish Government is currently undertaking a National Ferries Review¹. This will influence the forthcoming spending plans, patterns of future ferry and infrastructure procurement, network development, and options for the next round of tendering of Clyde & Hebrides and Northern Isles ferry networks. The work has already benefited from the outcomes of a Scottish Parliament Committee Report (*Scottish Parliament, 2008*); the consultation, policy and appraisal work recently completed by Regional Transport Partnerships and Local Authorities; and some more recent work sponsored by Caledonian Maritime Assets Limited (CMAL)². Central to this work is the understanding of the relationship between the provision of lifeline links and the success of an island and its community.

Based on the work that Faber Maunsell has undertaken over the last ten years within Scotland, this paper aims to provide an overview of the provision of Scottish Island links, considering:

- a) Some background to the provision of Scottish Island links;
- b) A review of current policy approaches;
- c) An Examination of a number of case studies across Scotland;
- d) Confirmation of some key issues being faced on Scotland's Islands; and
- e) A review of possible approaches for securing the future of Scotland's island lifeline links.

The key messages of this paper are that at this time there are significant requirements for new capital investment in Scotland's ferry infrastructure. This is accompanied by pressures to deliver improved levels of service to Scotland's island communities to help safeguard their future viability. However, with constraints on the availability of capital and revenue, the National Ferries Review will require to combine difficult decisions on the future allocation of resources, whilst promoting a holistic approach to sustainable rural community development.

2. BACKGROUND

2.1 Scottish Islands

Scottish islands are a key element of Scotland's national identity, culture and heritage. Island destinations are heavily promoted within Scottish tourist material, and contain many of the nation's natural and historic highlights.

More importantly, they are the strongholds of unique Gaelic and Norse culture, and sustain some of Scotland's most distinctive communities and livelihoods.

Within Scotland forty-nine individual inhabited island groupings can be identified³. At the last census (*GROS, 2003*) they collectively had a population of just under 100,000 people, or 2% of Scotland's population. Overall they suffered a population decline of 3% between 1991 and 2001. The main island groupings are Shetland, Orkney, the Outer Hebrides, the Inner Hebrides, and the islands of the Clyde.

The vast majority of Scotland's inhabited islands are thinly populated. Based on the 2001 statistics, thirty-seven islands (76%) have populations less than 1,000; thirty-three (67%) have populations less than 500; and eighteen (37%) have populations less than 100. By contrast, the three island groupings of Lewis and Harris, Orkney Mainland, and Shetland Mainland account for 56% of Scotland's Island Population.

2.2 Lifeline Ferry Services

A fleet of sixty-three Ro-Ro vehicle ferries serve Scotland's island and peninsula communities, supplemented by a small number of passenger-only and freight-only services. The principal ferry operator is Caledonian MacBrayne (CalMac) who operate thirty vessels to the islands of the Clyde and Hebrides. CalMac are wholly owned by the Scottish Government, and following a tendering exercise currently receive a £42m pa⁴ subsidy to operate services until October 2013. Whilst CalMac are the ferry operators, it is CMAL who own the vessels and port infrastructure.

Northlink Ferries provide ferry services to Orkney and Shetland. Following a tendering exercise, it currently receives a subsidy of £32m⁴ pa to operate services until 2012. Orkney Ferries, Shetland Islands Council, and Argyll and Bute Council each provide ferry services to their respective off-shore islands, whilst Highland Council also supports a limited number of ferry services. These are directly supported by each Council, with support totalling around £20m pa⁵, although financing arrangements with the Scottish Government do recognise this additional expenditure.

Private operators Western Ferries and Pentland Ferries provide unsubsidised and competing vehicle services between Gourock and Dunoon, and Caithness and Orkney. The Glenelg Ferry to Skye is operated by The Isle of Skye Ferry Community Interest Company.

In addition to these links, there a number of passenger-only services complementing the network of vehicle ferries, such as the Port Appin-Lismore service, the Kerrera service, and links to Knoydart and Ardnamurchan.

2.3 Air Services

There are commercial, scheduled air services connecting many of Scotland's principal islands to the Scottish Mainland. Residents of Orkney, Shetland, Islay, Jura and the Western Isles benefit from the Scottish Government's Air Discount Scheme, offering 40% discount on fares. Services between Glasgow, Barra, and Tiree also receive public support, through a Public Service Obligation (PSO) arrangement. Orkney and Shetland both support inter-island air services to a number of their most remote island communities. Argyll and Bute have recently commenced services between Oban and Tiree, Coll, and Colonsay.

2.4 Nature of Island Links

Island transport links are not analogous to a bus service; they are more like a moving piece of tarmac, upon which all an island's personal and goods movements are facilitated. Many may regard the ferry service as being the "true" lifeline. However, in many cases the air service can be considered the lifeline. For example Orkney and Shetland's inter-island air services are frequently far more important for many of the needs of the outer islands. Similarly, the scheduled air services from Orkney and Shetland to the Scottish Mainland are an essential element of the NHS patient transfer system. Recognising the reliance of communities upon their transport links, one commentator has promoted the concept of regulating the provision and costs of lifeline links in a manner similar to other essential utilities, such as telecoms, electricity and water supply – particularly where there is private operator interest.⁶

Lifeline links need to maintain adequate levels of service throughout the whole year; they need to be affordable, safe and physically accessible. They also need to be dependable throughout the whole year, with robust contingencies in place to cater for scheduled and unscheduled maintenance. In particular, there also needs to be a capability and flexibility to cope with any special or particular needs of a community which may occur from time to time.⁷

2.5 Policy Position

The Scottish Government has maintained a broadly consistent policy position with respect to the provision of ferry services. The 2006 National Transport Strategy (*Scottish Government, 2006*) stated that "*We are committed to maintaining lifeline ferry services and to ensuring that wherever technically and financially possible, ferry services are developed to improve access to vulnerable island ... communities.*" It continued to pledge that the Government remained "*committed to ensuring that lifeline ferry services remain affordable.*"

This policy position can be contrasted with the policy aspirations of other stakeholders. An example of a more ambitious outlook was provided by the Scottish Parliament's transport and climate change committee, which demanded that the forthcoming ferries strategy "...fully meets the needs and aspirations of the communities that rely upon them and promotes the long term sustainability of these communities".

Reflecting the views of his own organisation as well as other stakeholders, the chair of Highlands and Islands Enterprise has previously gone further: Championing the wider investment needs of the area, in 2005 he stated: "A sustained long-term commitment to major capital investment and transport in this region – that's what people want and that's what we have to make sure is delivered... Our ambitions for this are bigger than they have ever been in any generation in the past." Such sentiment is strongly prevalent amongst many stakeholders and island communities.

3. SOME ISLAND CASE STUDIES

The following section presents a range of island case studies, informed both by our own work, and also a review of a series of investment evaluations.

3.1 Gigha, Argyll and Bute

Located to the west of the Kintyre peninsula, the island of Gigha currently has a population of around 150. Its ferry service is provided by CalMac, providing regular return sailings over a ten hour operational day. Fares are £5.90 for a passenger return, £21.90 for a car return.

The community completed a buy-out in March 2002. Since then, reports by Highland and Islands Enterprise have determined that there has been:

- a) Increased community spirit and confidence;
- b) Significant housing investment and population growth;
- c) Increased skills amongst the community; and
- d) A number of new community and private enterprises.

Clearly, the island appears to have experienced a positive turnaround in fortunes, with the community buy-out a catalyst for new homes and new enterprises. Interestingly, this appears to have been achieved without significant investment or upgrading in ferry services.

3.2 Islay, Argyll and Bute

Islay is one of Scotland's main centres for whisky production. Located to the west of the Kintyre peninsula, in 2001 the island's population had reduced to around 3,500. The ferry service is provided by CalMac, and typically provides

two timetabled return sailings per day. Fares are £17.60 return for a passenger, and £94 return for a car.

In 2003 Faber Maunsell undertook a STAG appraisal of island ferry links. At that time the island suffered accessibility constraints due to lack of capacity on the ferry service, peak period pricing on the ferry service, and the total distance and time required to reach the island from the main centres of Scotland's population.

To relieve severe capacity constraint on the sailings, a second ferry was introduced to the service during the summer, enabling passenger numbers to grow from 72,000 pa in 2002 to 87,000 pa in 2004, with car numbers increasing from 22,700 to 26,700 over the same period. An evaluation of this intervention (*Reference Economics, 2006a*) was also able to show positive reported business impacts on the island. CMAL are now planning for the replacement of the existing ferry, and associated terminal improvements on the island. No negative impact on the air service has been reported.

Investment in the island's links is contained in future budgets, to include a new vessel, and upgrades to existing ferry terminal facilities. These interventions have the potential to continue to improve the viability of the island.

3.3 Barra, Outer Hebrides

Barra is located at the southern end of the Western Isles archipelago, with a population at the last census of 1,172, declining from 1,316 in 1991. An eight hour ferry service is provided by CalMac to connect the island to Oban / South Uist (Lochboisdale). Eight ferries per week are provided during the summer, reducing to four per week during the winter. Costs are £97 return for a car, £21.90 for a passenger. There is also a short ferry crossing across the Sound of Mull to Eriskay, and onwards to South Uist. Ferry users are currently benefiting from the Road Equivalent Tarriff (RET) fares pilot.

The island's transport connections are complemented by a daily flight to Glasgow, costing £144 return. The flights are supported by a Public Service Obligation, enabling the Government to subsidise its operation. An evaluation of this subsidy (*Reference Economics, 2006b*) found the following:

- a) *"It is estimated that the lower fares have increased traffic on the route by 18%, resulting in 1,087 additional trips by air."*
- b) *[the intervention] "facilitates the employment patterns of those who are based locally but work away for periods of time in, for example, the offshore oil industry."*

3.4 Unst, Shetland

Unst is Britain's most northerly island. It has a population of around 500, but has suffered several shocks over the last decade due to the closure of the local airport which was used by oil companies, and the more recent closure of RAF Saxa Vord.

The island benefits from a frequent ferry service, which operates an 18 hour day, and offer free fares to the neighbouring islands of Yell and Fetlar. Onward ferry connections to Shetland Mainland are available for £7 return, and operate (albeit to a reduced level of service) overnight.

The high levels of accessibility have clearly enabled the population levels to be resilient, despite its locational restrictions. It has a clear "Unique Selling Point" being the most northerly island; however, it has taken an enterprising culture, and supported policies to enable this to be capitalised upon. In recent years, there have been reports of increased tourist visits, and for the local population a wave of weddings, births, and new house building.

The main threat for the future is the maintenance of the current levels of service and (free) fares. Ferries serving the route are aged and require replacements; there have been particular difficulties in maintaining the existing ferry terminals. No capital funding has been allocated to the route, and there is concern on the island of a steady deterioration in service levels from the aged ferries and terminals, which will undermine lifestyles and economic development on the island which is based upon relatively high levels of access.

3.5 Fetlar, Shetland

Fetlar is one of the three northern isles of Shetland, and shares its ferry services with Unst. It typically has nine return services per day, and an 18 hour operating day. Fares are free for trips to Unst and Yell, but £7 for onward trip to Shetland Mainland.

In contrast to Unst, the population is around sixty, and the primary school is about to close. Secondary school pupils are required to board on Shetland Mainland, principally due to access constraints. The island has an increasingly elderly population, and the most elderly frequently move to care homes off the island comparatively sooner than in other locations, due to problems in providing carers. The island clearly benefits from (at least in a Scottish context) high levels of accessibility and low fares, but clearly there are wider issues of island vitality, possibly caused by lack of economic opportunity on the island itself. Clearly, low fares and accessibility in itself has not prevented population decline.

Despite a constraint on funding, initiatives have been developed to respond to the issues faced by Fetlar. Removal of fares has enabled one of the vessels to operate with one less crew member, and in turn enabled a more flexible and island-centred timetable to be developed. A European funding application has also been accepted, and with Council match funding a new breakwater and small berth facility is due to be constructed. This will enable all year round island berthing of the island's ferry, and also provide an economic opportunity related to fishing / tourism. However, concerns remain over longer term crewing of the ferry service, and replacement of the ferries operating on the route.

3.6 Whalsay, Shetland

Whalsay is a traditional fishing island, which hosts half a dozen pelagic trawlers. It is successfully sustaining a population of just over 1,000, although the population, overall, is ageing. The island benefits from a two-ferry service, operating over an 18 hour day, with 18 return ferry trips. For car drivers, this costs £7 return.

Analysis of ferry carryings show increasing demands for peak period sailings off the island in the morning and returning to the island in the evening. Vehicle carrying capacity on these peak sailings is now severely constrained and space requires to be booked some time in advance. There is other evidence of increased commuting off the island, as well as evidence of a growing number of young people living on Shetland Mainland instead of Whalsay.

It appears that the provision of peak period ferry capacity enables the island to retain its population, but this has led (in part) to a requirement for larger ferries and terminals to cater for future growth, which would be at a significant capital cost, and increased operational costs.

3.7 Burra and Trondra, Shetland

Two single lane bridges were constructed in the 1970s to connect these traditional fishing islands to Shetland Mainland. Whilst the population on these islands is being sustained, there has been significant change in local and social structures; there are few viable local enterprises; and the majority are working off-islands on Shetland Mainland. There are few local services, but the commuting demand has led to improved road access, and regular public transport provision.

3.8 Fair Isle, Shetland

Fair Isle is one of the most remote inhabited islands in UK. The island is managed by the National Trust, with a population of about eighty. On

average there is a twice weekly passenger cargo ferry service, and a four days a week air service, available at a cost of £62 return. There are significant transport unreliability issues, caused by rough seas (ferry), and fog and cross winds (air services).

The population on the island is vibrant and largely viable. The island attracts a large number of visitors to the bird observatory, as well as National Trust volunteers. The island has a primary school, shop, B&Bs, and a number of smaller enterprises. A nurse is resident on the island. Overall, there is a strong and reasonably stable community structure, with housing and other properties largely managed by the National Trust.

The main transport constraint is caused during the summer when fog can ground flights for days at a time. When fog clears, there is often a backlog of trips, which can be very difficult to clear using the eight-seater aircraft. During peak “tourism” periods, there is also conflict between use of the flights for visitors, and the needs of islanders themselves.

4 A SUMMARY OF KEY ISSUES

From our work we can identify the following overall points.

- a) Demographic and economic pressures are threatening the viability of a number of Scottish Islands.
- b) There are large and increasing amounts of capital and revenue expenditure required to **sustain** island links, this presents real challenges for the future.
- c) There are increasing tensions between expectations and operational/financial constraints – again significant challenges for the future.
- d) For a successful island, good transport in the mix with housing, health care, education, community, and economic opportunity. Typically, transport is a necessary, but not sufficient, element of a successful island.

4.1 Demographic and Socio-Economic Issues

The 2001 census revealed that between 1991 and 2001, whilst the population of almost a quarter of islands increased, over half decreased by more than 4%. Almost three-quarters of islands experienced reductions in their population aged under 16, and over two-thirds experienced increases in the populations beyond retirement age. Clearly, the picture is of some islands maintaining vibrant communities, but of a larger number presenting signs of ongoing and underlying population deterioration.

With reference to the larger Scottish Islands, Arran, Mull, Skye, Orkney Mainland and Shetland Mainland have all increased or broadly maintained their populations. However, at the time of the census clear decreases could

be demonstrated on Islay, and the principal islands of the Outer Hebrides. Within the smaller islands, whilst there appears to be a large amount of population “volatility”, the underlying trend is for population reduction.

Our most recent work on Shetland’s offshore islands has confirmed that the main trends highlighted above have continued, with reducing rolls at many island primary schools, increasingly aged island populations, and prevailing background influences leading to families and the economically active to relocate to more accessible locations.

4.2 Requirement for Capital and Operational Investment

A second key issue is the identified requirement for significant levels of investment in Scotland’s ferry fleet over the next five years. Ferry operators typically seek to renew their vessels on a twenty to twenty five year cycle, as older vessels can be associated with greater risk of unreliability, maintenance difficulties, requirements for expensive overhauls, and legislative compliance issues.

Out of a fleet of fifty-eight publicly funded vehicle ferries in Scotland, twenty-eight are aged over 20 years; of these thirteen are aged over 25 years. This list includes five vessels deployed on the Orkney inter-island network, six vessels deployed on the Shetland inter-island network, four major route vessels used on the CalMac network, seven of CalMac’s “Loch class” vessels, and the three “Streakers” utilised on the Upper Clyde. In relation to Argyll and Bute Council, the ferry serving Luig was constructed in 1971. Overall, the average age across the publicly funded fleet is 18 years.

An estimated replacement value for this aged fleet would be around £240m over the next five years, based on out-turn prices published for recently constructed ferries now operating in Scotland⁹. A lower estimate, which retained some of the aged fleet as relief vessels, and did not replace CalMac’s “Streakers” would still total an estimated £175m over the next five years.

It is known that a number of the replacement vessels require to be physically larger than the vessels they would directly replace – due to a combination of needing to provide additional capacity, and the impacts of modern vessel design requirements set out in recent legislation. This has subsequent knock-on costs for the provision of new ferry berthing structures. Even where vessel sizes remain broadly consistent, there are a further number of ferry terminals within Scotland that now require refurbishment or replacement as they are at the end of their design life. These costs could vary between £50m and £80m.

In the context of a predicted requirement for future public spending constraint, and an identified requirement to fund the replacement Forth Road Crossing through traditional borrowing mechanisms, it is clear that sums of between

£230m and £320m over the next five years will be particularly challenging to allocate within current budgets. For comparison purposes, quoted Scottish Government budgets for vessels and piers are £6.5m in 2008-09, £14.4m in 2009-10, and £14.8m in 2010-11.¹⁰

4.3 Constraints on Revenue Expenditure

Despite demands for improved service levels, and policy commitments, operational budgets are very constrained. Furthermore, revenue support for the CalMac and Northlink networks are at a record high.

A key reason for operational cost increases has been significant historic increases in the cost of marine fuel. Despite recent decreases, costs are high compared to costs several years ago, and there is still apparent volatility in prices.

There are also longer term increases in operational costs due to the progressive introduction of larger, more complex vessels (which consume more fuel), and the introduction of a number of timetable enhancements / fares subsidies / increased capacity by increasing vessel deployment.

Given that fares revenue typically only covers a limited proportion of operational costs, disproportionate increases in fares are required to compensate for increased fuel costs. This conflicts with affordability considerations.

4.4 Demand for Improved Levels of Service

Island communities, by definition, experience constrained accessibility. However, there is evidence that many island communities are depending to an increasing extent on their lifeline links to provide access to employment, education, health services, shopping, as well as leisure and social needs.

Many communities, seeking to attract, or retain, viable populations seek an improved level of transport service – either to provide easier, quicker, or cheaper access to the nearest service centre, and/or to the Scottish Mainland. Demands range from cheaper fares, increased frequencies, longer operating days, or improved capacities. For a population “under threat” these can be viewed as legitimate demands, particularly if they offer prospect of a “step-change” – perhaps opening up access to new job opportunities; enabling a full day on the Mainland without need for an overnight stay; or enabling secondary school pupils the chance to return “home” at the weekend.

Demands for improved levels of access can also be generated by those providing services to an island – carers providing support to an increasingly aged population; the supply of teachers and specialist staff; and those

delivering goods to the island. Tourism adds an additional seasonal demand which can conflict with an island's main accessibility requirements.

4.5 Packages of Measures

Our work confirms that the success of an island, is not wholly linked to the level of accessibility provided by its transport links. Issues such as inherent economic opportunity, community structures, housing, education and healthcare are also wholly inter-linked and the degree of inter-dependence appears to increase as the population decreases. As has been stated elsewhere, transport is a necessary, but not sufficient element for the success of an island.

5 POSSIBLE POLICY RESPONSES

5.1 Application of Best Practice

The Ferry Services Review needs to consider, and promote, the wider application of "best practice". From our work, the following points have been observed as being key elements of best practice.

- a) Provision of a transport service that is easy to understand, easy to use, and physically accessible. This includes the provision of clear timetables and information, patterns of service that are broadly predictable, and ensuring that booking, marshalling, boarding and ticketing procedures that are straightforward.
- b) Transport services which are flexible, and responsive, within the bounds of operational constraints. For many smaller islands, real value can be added by having the ability to adjust service patterns / levels of service at particular times for specific events.
- c) Good communication between operator and community, and commitment to customer care. This is particularly important during periods of schedule or unscheduled service disruption.
- d) Operational and more fundamental service developments should be facilitated by joint working between operators and communities.
- e) Progressive, clear and consistent fares policies should be in place.
- f) Services which are integrated into the wider transport system. This includes, for example, the use of demand responsive transport connections; integrated timetables, ticketing, and information.
- g) For many island communities, it is necessary to consider the inter-actions between both ferry services, and air services – particularly where the air service provides the dominant role in providing access.

5.2 Focussing on Individual Islands

With significant investment required on the ferry network, including vessels and berthing facilities, there will be opportunities to consider new ways of delivering services. The challenge will be to do this in a way that is affordable (both in terms of capital investment and revenue support) and effective, yet recognises the needs of each island community.

Facilitating this, it is also necessary to consider wider island development issues. Consideration of transport provision must build upon the key strengths and opportunities of each island. Particular emphasis needs to be placed on the core *raison d'être* of each island community, particularly in the case of the smaller islands.

It can also be argued that island centred transport and investment plans, need to be developed alongside island centred housing plans, island centred service delivery plans, and island centred development plans.

At the same time, there must also be recognition that “More and Cheaper Transport” does not necessarily mean success – but it may sustain a population. In some instances seeking to increase or maintain an island population may actually run counter to a goal of developing island communities that are more sustainable and less dependent upon frequent transport links. This point potentially has growing relevance given the anticipated restrictions on capital investment and public sector revenues.

5.3 Some Wider Considerations

Across the island network, there are currently a number of inconsistencies in the approach to fares. For air services, there is a mixture of the Air Discount Scheme (subsidising users), and Public Service Obligations (providing support to the operator). Even where the air service provides the real lifeline link, passenger fares can be considerably higher than the equivalent ferry fare. For ferries there is a mixture between different approaches to subsidies, and this includes the current RET pilot. Developing consistent, and affordable (to user and supplier) fares policy is a key element of the Ferries Review.

A further key consideration is whether or not there can be more opportunity for the innovation, and “island centred” delivery that could be provided by private companies, or community based enterprises. Furthermore, it is considered that there may be opportunities to remove apparent historical anomalies where CalMac provide the majority of services on the west coast, with the exception of number of seemingly comparable services provided by Argyll and Bute Council, and Highland Council. Is a one-sized fits all approach responsive to the needs of the islands? If alternative structures to be

considered, are the legislative structures correct for this in order to protect island communities from both operator failure, and excessive fares?

A recurring theme is dichotomy between meeting an island's needs and expectations against the costs and practical difficulties of doing this. In the present climate levels of spending restraint, it is unlikely that the full investment needs can be secured in the short to medium term. If this situation prevails, there needs to be an objective means of developing a hierarchy of service levels for island services, and effectively prioritised investment plans. The challenge would appear to be a focus on protecting current service levels, and making any accessibility improvements in a targeted cost-effective manner.

1. Further details on the National Ferries review available from <http://www.scotland.gov.uk/Topics/Transport/ferries-ports-canals/14342/Review>
2. CMAL work includes Lismore STAG, Islay Business Case, and forthcoming review Ullapool-Stornoway route. Available from <http://www.cmassets.co.uk/news.html>
3. Whilst a range of different approaches to classifying islands is possible, this work has counted islands that are physically connected as a single entity, eg Barra and Vatersay count as single island as they are joined by a causeway.
4. Figures published in Scottish Transport Statistics 27, 2008 Edition, Table 11.1
5. Figures compiled from Orkney Islands Council, and SPICe Briefing 07/56 Ferry Services in Scotland (2007)
6. Prof Neil Kay, Fraser of Allander Institute, Strathclyde University has maintained a commentary of Scottish Executive/Government handling of ferry tendering process, particularly in relation to its interpretation of EU state aids. His views are presented at <http://www.brocher.com/Ferries/Ferries.htm>
7. A detailed examination of issues related to the user and operation of lifeline links can be found within JJ Laird, J Nellthorp, PJ Mackie (2004) *Option Values, Business and Population Impacts in Transport Assessment*. ITS (Leeds) for Highlands and Islands Enterprise.
8. See HIE publication, Gigha prospers after community takes the lead, available at <http://www.hie.co.uk/HIE-community-case-studies-2005-06/gigha-cs05.pdf>
9. Based on published out-turn prices for the most recently constructed vessels on the Scottish network, we have assumed £20m for a major route vessel; £10m for inter-island vessel (Shetland/Orkney); £7.5m for Loch Class vessel.

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