SHERIFFDOM OF NORTH STRATHCLYDE AT OBAN

[2018] FAI 29

OBN-B21-17

DETERMINATION

BY

SHERIFF PATRICK HUGHES

UNDER THE FATAL ACCIDENTS AND SUDDEN DEATHS INQUIRIES (SCOTLAND) ACT 1976

into the death of

SCOTT MACALISTER

Oban, 28 August 2018

This Inquiry was a mandatory Inquiry in terms of section 1 of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 ("the Act"), into the circumstances surrounding the death of Scott MacAlister, born on 16 November 1972.

The Sheriff, having considered all of the evidence and submissions heard on 4, 5, 6, 7, 8, 11, 12 and 25 June 2018, Finds and Determines in terms of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976 as follows:

In terms of section 6(1)(a), where and when the death and any accident resulting in the death took place:

Scott MacAlister died in the Firth of Lorne, at a point approximately two cables, or four hundred yards, south of Insh Island, on 25 April 2013 at approximately 1308 hours.

In terms of section 6(1)(b), the cause or causes of such death and any accident resulting in the death:

The cause of death was drowning. The accident which resulted in the death was the sinking of a fishing vessel, the *Speedwell*, of which Mr MacAlister was skipper and sole occupant. The sinking was caused by the vessel's aft compartment becoming flooded by seawater coming in through the aft deck hatch, which was not secure or watertight. The increasing weight of this water, combined with a loss of stability due to the "free surface effect" of the water's movement inside the vessel's aft compartment, caused the boat to sink.

In terms of section 6(1)(c), the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided;

Both the accident and the death might have been avoided if the following precautions had been taken:

(i) If the vessel's owner and skipper had ensured that the vessel was in seaworthy condition, and in particular had ensured:

(a) that the problem with the aft hatch, which had already caused the vessel to nearly sink on two occasions in the four weeks prior to 25 April 2013, had been remedied before the boat went back to sea.

(b) that the vessel had been properly equipped with a functioning bilge alarm and bilge pumps, able to draw attention to and expel unwanted water from the vessel.

(ii) If Mr MacAlister, knowing that these precautions had not been taken, had chosen not to take the boat to sea that day.

The death, though not the accident, might also have been avoided

(iii) If Mr MacAlister had been wearing a functioning lifejacket.

(iv) If the Mayday call had been made earlier.

In terms of section 6(1)(d), the defects, if any, in any system of working which contributed to the death or any accident resulting in the death;

No Findings are made under this section.

In terms of section 6(1)(e), any other facts which are relevant to the circumstances of the death.

(i) The vessel's owner and skipper had inadequate regard to the requirements of health and safety. In the four years prior to the accident, no attempts were made to have any of the lifesaving equipment suitably maintained or serviced in accordance with manufacturers' instructions. Nor in that period were any checks carried out to confirm whether any of it was capable of working. No health and safety risk assessments were carried out in that period. By the date of the accident the vessel's flares and smoke signals had passed their expiry date.

(ii) On the day of the accident the boat was operated single-crewed when the Autopilot was not functioning. This meant that when the boat began taking on water, any effort to manually bale out water from the aft compartment required Mr MacAlister to leave the wheel and go aft. The vessel's lack of steering would then lead it to turn and present its whole length to the waves, exacerbating both the loss of stability and the flooding.

Recommendations:

In light of Finding (iii) made in terms of section 6(1)(c), I make the following Recommendation:

That the current recommendation at section 3.17 of the Code of Practice for the Safety of Small Fishing Vessels MSN 1871(F) – that all crew working on the open decks of fishing vessels at sea or in categorized waters wear Personal Flotation Devices (i.e. lifejackets or buoyancy aids) – be replaced with a mandatory requirement to that effect.

NOTE

The evidence and procedure of the Inquiry are set out below. Any reference to "Mr MacAlister" is a reference to the deceased, Scott MacAlister. His father, who was a witness to the Inquiry, is referred to by his full name i.e. "Mr Peter MacAlister".

Rather than detail a long list of findings in fact, I have decided to set out the Determination in a narrative form, from which it will be clear what I have and have not found to be established from the evidence led during the Inquiry. The Determination is divided into the following sections.

I. Introduction

[1] This was an Inquiry held under section 1(1)(a)(i) of the Fatal Accidents and Sudden Deaths Inquiry (Scotland) Act 1976, on the ground that Mr MacAlister died whilst engaged in his occupation as a fisherman. It will be one of the last Inquiries to be undertaken in terms of the 1976 Act. The Inquiry was held under this statute because the application for the Inquiry was lodged on 2 May 2017. For petitions lodged after

15 June 2017, the Inquiries will be conducted in terms of the Inquiries into Fatal Accidents and Sudden Deaths etc. (Scotland) Act 2016.

[2] Under an Inquiry held in terms of the 1976 Act, the sheriff must in terms of section 6(1) make a determination setting out the following circumstances of the death, so far as they have been established to his satisfaction:

(a) where and when the death and any accident resulting in the death took place;

(b) the cause or causes of such death and any accident resulting in the death;

(c) the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided;

(d) the defects, if any, in any system of working which contributed to the death or any accident resulting in the death;

(e) any other facts which are relevant to the circumstances of the death.

[3] The purpose of a Fatal Accident Inquiry is not to find fault. Its purpose is to find facts, so that the public, and in particular the deceased person's relatives, can understand what caused the death, and whether there were any reasonable steps that could have prevented it, in order that lessons may be learned.

II. Procedure

[4] On 8 December 2016 this court issued a declarator of death, which had been sought by the deceased's mother Mrs Eliza MacAlister. The Procurator Fiscal's petition for an Inquiry was lodged on 2 May 2017. The Inquiry was initially scheduled to be heard on 5 June 2017. That hearing was adjourned for Mr MacAlister's family to secure

legal representation. Two further hearings, on 25 September 2017 and 15 January 2018, were adjourned on the unopposed motion of the family to allow for the investigation of specific lines of enquiry.

[5] This hearing commenced on 4 June 2018. Evidence was heard on 4, 5, 6, 7, 8, 11 and 12 June 2018, from the following witnesses:

a) Victoria ("Tori") McNab, Mr MacAlister's partner
b) Robert Neil Gate, a fisherman who had worked on the *Speedwell* with Mr MacAlister shortly before its loss
c) Graeme Bruce, a diver who inspected the wreck
d) Alastair Davidson, a retired detective inspector who had supervised the police contribution to the search for Mr MacAlister
e) Kenneth Thomas Devine, a retired sector manager and inspector with the Maritime and Coastguard Agency (MCA) who had conducted the last MCA inspection of the *Speedwell* in 2009
f) Captain Alan Gray Marsh, the MCA enforcement officer responsible for Scotland and Northern Ireland
g) John Connell, owner of the *Speedwell*
h) Alexander ("Alasdair") McLaughlin, a ferryman who had removed a rope from the *Speedwell*'s propeller a week before the sinking and also responded to the Mayday call
i) Ian David Alexander Paton, a naval architect
j) Kimberley Jean Lappin, Mr Connell's partner
k) Mr Peter MacAlister, father of Scott MacAlister

[6] In addition to oral, documentary and physical evidence, parties entered into three Joint Minutes of Agreement, two of which related to the evidence of witnesses who could not attend the Inquiry, namely Javier Martinez, a former skipper of the *Speedwell* and William MacInnes, a local fisherman who had encountered the vessel returning to port early following one of the previous flooding incidents. On the final day of evidence, the court convened at Cuan Ferry and then at Ellenabeich to gain a clearer

picture of the locations involved in *Speedwell*'s last voyage. After the hearing of evidence concluded, written submissions were lodged and a further hearing on those submissions was held on 25 June 2018.

[7] At the Inquiry, the Crown and the public interest were represented by Mr David Glancy OBE, Procurator Fiscal Depute. John Connell, the owner of the *Speedwell*, was represented by Mr Michael Thompson, Solicitor, of Thompson Family Law. Mr MacAlister's mother, Eliza MacAlister (and informally, the rest of Scott MacAlister's family) was represented by Mr Lewis Kennedy, Advocate, instructed by Rubens Solicitors. I would like to express my gratitude to all three representatives for the considerable assistance that they gave the Inquiry. Mr Glancy in particular deserves commendation for his careful and thorough presentation of the evidence.

III. Scott MacAlister

[8] Scott MacAlister was born on 16 November 1972, and was forty years of age when he died. He lived in the village of Toberonochy on the Isle of Luing, with his partner, Tori McNab, their son Finlay George MacAlister (born 31 October 2012), and Ms McNab's three children to whom Mr MacAlister was step-father. The couple had been in a relationship for six years. During that time, he had worked mostly onshore and on the island ferry, but he was also an experienced fisherman, having worked in the fishing industry intermittently for most of his working life. He held the following certificates from the Sea Fish Industry Authority ("Seafish"):

- Basic Sea Survival

- Basic First Aid
- Basic Firefighting and Prevention
- Safety Awareness

[9] In addition, he had completed the following courses which would have qualified him for a "Seafish" under-16.5 metre skipper's certificate, though he did not apply for the issue of such a certificate:

- Two-day basic engineering course
- Five-day watchkeeping course
- One-day intermediate fishing vessel stability awareness course
- Short Range VHF radio certificate

[10] Like many fishermen Mr MacAlister was not in the habit of wearing a lifejacket or other personal flotation device (PFD) when fishing. He was a good swimmer.

[11] Through his work on the ferry between Luing and Seil, Mr MacAlister came in contact with the skipper of that ferry, John Connell. Some time around Mr MacAlister's fortieth birthday on 16 November 2012, Mr MacAlister and Mr Connell agreed that in exchange for a 50% share (after expenses) of the proceeds of the catch, Mr MacAlister would use Mr Connell's boat for prawn fishing. That boat was the Fishing Vessel (FV) *Speedwell*.

IV. The *Speedwell*

[12] The *FV Speedwell* was an 8.7 metre-long fishing vessel. It had a "Cygnus 28" hull made in 1998 of standard moulded fibreglass construction. This hull was then fitted out by its original owner to be used for inshore trawling.

[13] The *Speedwell* was a decked vessel, with three compartments beneath the deck. The forward compartment was the living accommodation, accessed solely from the wheelhouse since Mr Connell had the deck hatch access sealed. The engine compartment was in the middle, accessed through a hatch to the aft starboard of the wheelhouse. This hatch had a coaming which raised it above the level of the deck. (There was also a second, much larger hatch to this compartment, bolted down, which could be used to remove the engine.) The engine powered the vessel's propeller, whose shaft exited the engine compartment through a stern gland which prevented water coming back up through the propeller tube. The propeller shaft then ran underneath the floor of the aft compartment before exiting the keel to the rear of the vessel.

[14] Behind the engine compartment was the aft compartment, also referred to in evidence as the 'hold' or the 'fish store'. It was accessed by a hatch roughly one metre in length by about half a metre in width. The longer side ran the width of the boat. This hatch was flush with the deck. Its cover sat in a recessed well with a lip. Inside that recess, small pipes around an inch in diameter ran to port and starboard to drain off water. If they became blocked, water would flood to deck or to the compartment below. The hatch cover was hinged to stern and was raised by putting fingers into two rings and pulling. There was no way of securing it; it was held down by its own weight. This

cover, like all other hatch covers on board, was made of a mixture of plywood and fibreglass. It was covered by rubber matting, but in a heavy sea that would slip about the deck. The aft compartment was about three feet deep, so that someone standing in it would find the cover at about waist level.

[15] The compartments below deck were separated from each other by two bulkheads, spanning the width of the hull, which were largely but not completely watertight. The aft bulkhead was between the aft and engine compartments, and the forward one was between the engine and forward compartments. At the bottom of the compartments there was planking on which a person could stand.

The boat's rudder sat on an outrigger called a "skeg". The rudder tube entered the hull vertically into the aft compartment, again through a packed gland.

[16] In June 2008 *Speedwell* was purchased by Mr John Connell for £25,000, which with VAT gave a total cost of £29,307. This was a significant purchase for him; a large part of the money used for the purchase had been gifted to him. Mr Connell was not a fisherman, although he had some maritime experience, having worked as the skipper on the Cuan ferry for about ten years. He had held a boatmaster's licence for around twenty years. His intention was to use the boat for creel fishing. He looked into whether to obtain boat insurance, but on learning that this would cost him around five thousand pounds he decided that he could not afford it, and the vessel remained uninsured throughout his period of ownership.

[17] When Mr Connell acquired the boat in 2008, it had bilge pumps in both the engine and aft compartments. These would pump water out of the boat through a pipe

which exited the hull on the starboard side about three to four inches below deck level. There was also at least one float switch, in the engine compartment. (A float switch is lifted by rising water level in the bilge. Once lifted, it activates the bilge pump which begins expelling water, and usually also activates an audible bilge alarm which alerts the wheelhouse to the presence of unwanted water.)

[18] In June 2009 Mr Kenneth Devine of the MCA carried out an inspection of the vessel. MCA inspections were carried out every five years from a boat's first registration, but could also be triggered by concerns over seaworthiness or, as with *Speedwell*, a change in ownership. This inspection was directed primarily at the vessel's lifesaving equipment, but Mr Devine was alert to visible issues with the boat's fabric, and in particular noticed a problem with the forward hatch being insecure and lacking a watertight seal. Mr Connell subsequently addressed both of these deficiencies by having the hatch sealed shut. The other deficiencies identified by the inspection were addressed by various purchases made by Mr Connell, following which the vessel was issued with a "safety decal" to be displayed on board. The letter which enclosed the decal also stated, amongst other things, that the annual self-certification declaration should be maintained on board and signed by the owner every year, and that the MCA should be informed of any proposed alterations or additions to the vessel.

[19] The inspection did not identify a lack of, or problem with, the bilge pump, bilge alarm, flares, lifebuoys or lifejackets, which a vessel of *Speedwell*'s size was required to have in terms of Annex 1.4 to The Fishing Vessels Code of Practice in force at the time (Merchant Shipping Notice (MSN) 1813(F)).

[20] In April 2009, Mr Connell had purchased a "Rulemate 500 submersible" bilge pump costing £52 plus VAT of £7.89, a total of £59.89.

[21] The next MCA inspection would have been due to take place in June 2014. In the interim, annual "self-certifications" should have been carried out by Mr Connell on each anniversary of the inspection, to confirm that the safety equipment listed at Annex 1.4 of the Code had been suitably maintained and serviced in accordance with the manufacturers' instructions, that it continued to comply with the checklist and that a health and safety risk assessment had been completed. However no such self-certifications were carried out.

[22] Some time between purchasing the trawler and refitting it as a creeler, Mr Connell advertised online for a skipper. A Spanish fisherman, Mr Javier Martinez responded to this and they agreed that he would work the boat, with the proceeds being split on a 50/50 basis after expenses. In November or December 2009 Mr Martinez took the boat to fish in Loch Sunart, off the Ardnamurchan peninsula. He experienced problems with the vessel's weight, steering, winch, and rudder. Most seriously, when in choppy waters he found the aft compartment full of water; the bilge pumps did not work and he had to empty the water by hand.

[23] He returned to Tobermory where a diver found and removed a piece of rope snagged on the rudder. However on returning to Loch Sunart the next day, more water was found in the aft compartment. The water ingress was observed in the area of the rudder. Mr Martinez removed the water as best he could, managing to get a bilge pump working after re-wiring it. The boat was returned to Cuan and Mr Martinez left,

stating that he would not return to the boat until it was fixed; in his view it was not in a condition to be used for fishing. Mr Martinez expected to return to the boat, but Mr Connell had become dissatisfied with his performance and there was no further contact between them.

[24] In 2010 Mr Connell put the vessel up for sale but could not find a buyer. He then embarked upon a process of reconfiguring the boat from a trawler to a creel boat. The net drum and winch were removed, the steel mast was replaced with an aluminium tripod, and the canopy was replaced with a lighter version made of fiberglass. A creel hauler was added to the starboard side. Some of the work was done by him and some by Alastair Robb, an engineer on Luing who was well respected for the quality of his workmanship. One thing done by Mr Robb was the replacement of the rudder. Another change was that the exhaust system was changed from "dry" – i.e. where exhaust gases were expelled well above deck into the open air – to "wet" where they were cooled by the engine cooling water and expelled through the transom at the rear of the boat. This process of conversion was complete by around 2012, with work being done as and when Mr Connell could afford it. It cost between four to five thousand pounds. The MCA was not made aware of the alterations.

[25] Mr Connell then found that he could not afford to purchase the necessary fleet of creels, which would have cost a further twenty-five to thirty thousand pounds.

[26] In the latter part of 2012 Mr MacAlister approached Mr Connell with a view to using the boat for trawling. Their agreement was concluded on or about 16 November 2012. Over the winter Mr MacAlister worked with Alastair Robb to refit *Speedwell* again

as a trawler, though it was not completely returned to its previous condition; for example the exhaust remained "wet". This work too cost Mr Connell several thousand pounds. Again the MCA was not made aware of the alterations. The work was complete by February 2013.

[27] Mr Connell took little to do with this work, or with the subsequent operation of the vessel by Mr MacAlister. He accepted the Crown's characterisation of his approach to ownership as that of an "absentee landlord". Mr Connell came out on one fishing trip with Mr MacAlister. Otherwise his involvement was limited to asking how the fishing was going on occasions when they bumped into each other on the pier, and buying items requested by Mr MacAlister.

[28] Those items included two bilge pumps purchased on 21 November 2012, of a type described in the invoice as "360 submersible pump 12v 24", each costing £15.41 giving a total, including VAT, of £36.98. These pumps were electric and would be powered by being connected to the vessel's battery.

[29] From the combined evidence of Mr Connell and Mr Robert Gate, I consider it more likely than not that these two pumps were purchased to be placed in the engine and aft compartments respectively, one of them being to replace the Rulemate 500 pump purchased in April 2009. Mr Connell left the fitting of these pumps to Mr MacAlister; but neither was properly fitted. The one in the engine room was neither screwed in place nor connected permanently to the battery, as would normally be done; Mr Gate described how someone would have to go down into the compartment and put wires on to the battery to start pumping. The one in the aft compartment was not wired to

anything, nor was it fixed in place, and appeared to have been simply thrown into the compartment. Neither pump was connected to a "float switch" which would provide for automatic activation.

[30] When Mr MacAlister started using *Speedwell* to fish, he was accompanied on five or six occasions by a crewman, his friend Mr Gate. Catches were landed on 27 February 2013, 4 March 2013, 11 March 2013, 18 March 2013, 1 April 2013 and 8 April 2013. Each catch might represent more than one day's fishing. Some days they fished successfully, other days they had to turn back as the weather was too rough. Any wind over 25 miles per hour would generally be too much for them. On two occasions, coming back from Loch Buie, the boat nearly sank, and they had to bail it out with a bucket.

[31] On the first occasion, the problem was discovered when Mr Gate went to the boat's stern to relieve himself. At this point they were about half way across the Firth of Lorne; it was a "rolly" day. Mr Gate saw that the boat was "rolling a bit" due to sea conditions. The waves were "sloshing" the boat, which was "very sloppy" in the water. Something like this had happened to Mr Gate previously on another boat. Normally, on a rough day like this the boat should be "bouncing" a bit more, but it was not. Mr Gate informed Mr MacAlister, and once in calmer water they raised the aft hatch cover. They saw that the aft compartment contained a lot of water, which nearly reached the top of the hatch. Mr Gate baled the water out with a bucket whilst Mr MacAlister steered from the wheelhouse. On their way back in they encountered a local fisherman, Mr William MacInnes, who was later told by Mr Gate what had happened.

[32] Back at the mooring, both men were clear that the water had come in to that compartment through the hatch. The two drain pipes in the recess lip had become blocked by bits of prawn and other rubbish, which they cleaned out.

[33] However the same thing happened a few days later, the next time Mr Gate went out. They were coming back and had almost reached Cuan when they noticed that the boat's stern was down again and was very sloppy. This time they knew where the problem was coming from, and on checking the aft compartment the water was again found to come up to the level of the hatch. The sea this day was a "wee bit rolly"; the problem only arose when there was "a bit of motion". Again the water was baled out by bucket.

[34] On both of these occasions the engine room was checked and was dry. The flooding only happened when weather was poor, when water would come into the boat through the scuppers and wash across deck into the aft compartment through "gaps" in its hatch. A way to prevent this recurring would have been to raise the hatch itself a few inches off the deck by a coaming. Alternatively the hatch cover could have been sealed. Most flush hatch covers sealed, usually by a bar that could be turned, but this one did not, relying on the weight of the hatch to keep it down.

[35] On 3 April 2013 Mr Connell purchased a "Model 12 Rule 24V 2000 GPH" bilge pump costing £88 plus VAT of £17.60, a total cost of £105.60; as its name suggests, this device could pump two thousand gallons per hour. He also purchased a float switch costing £27.73 plus VAT of £5.55 giving a total of £33.28. The combined cost of the

purchases was £138.88. After the sinking these items were found by police in the back of Mr MacAlister's van.

[36] About two weeks prior to the sinking, Mr Gate ceased working on the *Speedwell*, and started fishing on his own boat (which he had bought from Mr MacAlister). Also around this time, there was a breakdown of relations between Mr MacAlister and Mr Connell, as Mr MacAlister considered that money from the catches was being wrongfully withheld from him by Mr Connell. This breakdown, and a period of bad weather, meant that the *Speedwell* did not go out again for between one and two weeks.

[37] A week prior to the foundering Mr MacAlister took the vessel out, but a rope was caught in the boat's propeller and he returned to harbour. His friend Mr Alasdair McLaughlin dived down to remove it for him. Mr McLaughlin used a hacksaw to cut the pieces of rope off and bring them to the surface. This took about 15 minutes. At that time Mr McLaughlin could see no damage to the propeller, shaft or the boat's anti-fouling.

V. The events of Thursday 25 April 2013

[38] On this morning weather conditions in the Firth of Lorne were as follows. The tide was running north-east at a rate of 1.5 knots. Low water at Oban was at 1130 hours. Visibility was good. The wind was blowing from the south-west at Beaufort Scale Force 5 to 6, i.e. a speed of 19-31 miles per hour, likely to be towards the higher end of that scale. The sea state was "moderate" with waves of between 1.25 to 2.5 metres in height; the waves were breaking and forming white "feathers".

[39] Mr MacAlister left his home whilst his partner Ms McNab was still sleeping, probably some time around 0530 hours, and drove in his Vauxhall Movano van to where the *Speedwell* was moored at Cuan. At around 0600 hours he set off to sea in the direction of Loch Buie on Mull, which was his usual fishing-ground. The journey from Cuan to Loch Buie would normally take about an hour. Normally he would get back to Cuan at about 1700 hours.

[40] When he was away fishing it was common for him and Ms McNab to keep in contact using their mobile phones. On this day, she tried to call him at around 0900 hours but could not get a signal. She phoned him again at 1250 hours. He told her that he was sailing towards Easdale Island and was not far off it (this meant that he was sailing away from Loch Buie, back to harbour).

[41] He told her that the vessel was "taking in water through the hatches". They spoke for about three minutes, during which he sounded calm throughout. In her experience, when he was in difficult situations he would sound more stressed than that. She asked him if he wanted her to phone the Coastguard, and he said no. He said that he would not take the boat out again until John (Connell) got the hatches fixed. The conversation ended with him saying that she was to phone him again in an hour.

[42] At 1301 hours Mr MacAlister phoned the landline telephone of Mr Connell and left a short message on voicemail saying "John…is anybody there?" or words to that effect. On this day Mr Connell was away at Lybster, near Thurso.

[43] At 1306 hours Mr MacAlister made a radio transmission to Stornoway Maritime Rescue Co-ordination on VHF Channel 16. The content of the call was as follows:

1306.18 hours: Speedwell

Mayday, Mayday. This is Speedwell, are you hearing us, over? Going down fast off the point of Easdale.

1306.30 hours: Stornoway

Station transmitting on Channel 16; say again your call, over.

1306.35 hours: Speedwell

Just about to go under, just about to go under, off the point of Easdale.

1306.40 hours: Stornoway

Point of Easdale, how many people over?

1306.43 hours: Speedwell

Just me, err one person aboard, one person aboard. I'm on the west side, just to the north entrance.

1306.49 hours: Stornoway

Roger, can you get a lifejacket on? Over.

1306.51 hours: Speedwell

Will do, bye.

[44] Following this call, more than twenty vessels including the Caledonian MacBrayne ferry *Lord of the Isles*, other fishing vessels, leisure craft, two RNLI lifeboats, and a search and rescue helicopter attended and conducted a search in the area of

Speedwell's last reported position. On arrival they found floating debris and a smell of diesel fuel, but found no other signs of the vessel or of Mr MacAlister.

VI. The Search

[45] The initial search continued until nightfall around 10 p.m. on 25 April 2013, with local vessels periodically joining in. It recommenced on the following morning, with a 'grid' of boats being set up to search to the north of where diesel had been seen on the surface, as the tidal drift was there. Police also carried out a search of the coastline in the hope that Mr MacAlister had reached the shore. After the first fifteen hours there was no expectation of his having survived. However search efforts continued in the weeks that followed.

[46] A difference of opinion arose between the police and the MacAlister family about which location the search should focus on. In searching the seabed, the police relied on expert advice and on a state-of-the-art sonar vessel, the *RV Calanus*, provided by the Oban-based Scottish Association for Marine Science. To some extent the search was complicated by conflicting eyewitness reports of where the vessel had gone down, and it was initially decided to take a "broad sweep" of the area. Mr Peter MacAlister, who was very familiar with these waters, formed the opinion that they were looking in the wrong place. Consequently, he and other members of the community began their own search in a different area, using grapnels to trawl the seabed there.

[47] Events were to prove Mr Peter MacAlister right. His search brought to the surface a number of items, in particular an absorption pad which was identified as

coming from the *Speedwell*. The police refocused their search using the co-ordinates that Mr Peter MacAlister provided. Sonar then indicated an object which appeared to be the *Speedwell*, lying to the south of Insh Island, on the north-west side of Easdale Island.

[48] The police negotiated the use of a Remote Operated Vehicle (ROV) sourced from Buccaneer Limited of Aberdeen. The Northern Lighthouse Board volunteered its vessel the *NLV Pole Star* for use as a dive platform. On 7 June 2013 at 1110 hours the ROV confirmed the location of the *Speedwell* at a depth of 87 metres.

[49] The footage recorded by the ROV's camera was not of high quality. Visibility was impaired by the nature of the vehicle's lighting and also by the sediment disturbed by its motors. Nonetheless the ROV was able to identify the *Speedwell*'s registration number; that the wheelhouse door was open; and that there was no indication of shellfish activity which might suggest the presence of human remains. It was therefore considered likely that Mr MacAlister's body was not on the vessel. But the ROV could not enter the vessel to confirm this; for that, the use of divers was required.

[50] The maximum depth which Police divers could reach was thirty metres. For Royal Navy divers, the maximum was fifty metres. The Police investigated the possibility of using commercial divers who were trained to reach greater depths, but the cost of this was assessed as between £175,000 and £200,000 for a two-day exercise. The Police had concerns that if local divers became involved they might put themselves in danger.

[51] In the meantime, contact had been made between the MacAlister family and a resident of Seil Island, Graeme Bruce. Mr Bruce, who was aged 59 at the time of giving

his evidence, was the owner of a company which maintained fire safety equipment. He was also a highly experienced diver who taught and wrote manuals on deep air diving and deep gas diving. He had won a number of awards for diving and had a high profile among divers, to the extent that people sought to dive with him simply to have his name in their logbook. Mr Bruce possessed equipment that he used to locate wrecks; in particular he had a magnetometer which looked for magnetic anomalies on the seabed.

[52] Mr Bruce volunteered to help the family find and identify the shipwreck. Unfortunately the seabed of the Firth of Lorne has an abundance of igneous dykes, which would show up on the magnetometer as magnetic anomalies similar in shape to shipwrecks. The first three sites he dived proved to be igneous dykes. However on 16 June 2013 he dived the site where items from the *Speedwell* had been recovered (at the time of this dive Mr Bruce was not aware that the wreck had been identified there by the ROV). On that dive he found the wreck. The boat was virtually upright on the seabed, leaning slightly to starboard. The wheelhouse door was open. The cover for the engine-room hatch was missing. A green hose came out of that hatch and went over the gunwale. Due to the bulky equipment he was carrying, he could not enter the engine compartment. The other hatch covers were in place.

[53] In the wheelhouse, he found an undeployed liferaft, still contained within its valise. A pair of dungaree waterproofs was floating on the ceiling. The mike for the VHF radio, as well as the keypad could be seen dangling. There were no lifejackets in the wheelhouse.

[54] The fore compartment could not be accessed, as it was full of "prawn tubes" (these are collapsible rectangles of plastic divided into square slots used for the storage of prawns) floating in and blocking the doorway.

[55] Mr Bruce's primary aim in this dive was to find the missing person. He understood that recovery of the body would assist in any insurance claim. He had in the past successfully dived to recover bodies from wrecks. He did not find any evidence of Mr MacAlister in the wheelhouse. Most creatures on the seabed are scavengers, and prawns or starfish in particular would be expected to be found near any food source such as human remains. However the *Speedwell* had no trace of any marine life on it at all. In his opinion, Mr MacAlister was "probably" not on the boat, though as he had not been below deck he could not confirm that categorically.

[56] He was on the wreck for sixteen minutes. The back deck of the boat was absolutely clear. A tangled net was floating along almost all of the port side, from the transom to the wheelhouse. Although he did not inspect the hull in any detail, he saw that the bow was intact, that there was no sign of damage to the hull, and that there was nothing near the boat that could have damaged it. The nearest reef was half a mile away.

[57] A second dive had been planned but was cancelled when Mr Peter MacAlister advised him that the owner, John Connell, did not want anyone going on to the boat. A couple of weeks after the sinking, Mr Connell was asked by Mr Peter MacAlister if he would consent to the boat being raised. Mr Connell declined, partly due to what he considered to be Mr Peter MacAlister's rudeness, and also because he assumed that he

would be responsible for the costs. (In January 2018 Mr Connell announced that he now consented to the boat being lifted).

VII. Theory as to the cause of the sinking

[58] The Crown led opinion evidence from Mr Ian David Alexander Paton. This witness was aged 57 and was a practising naval architect, having graduated from Strathclyde University in 1983 with an honours degree in naval architecture. He was also a chartered engineer and a member of the Royal Institution of Naval Architects. Since 1994 he had been a director of S. C. McAllister & Co., marine consultants, surveyors and naval architects based in Campbeltown. Since 2010 he had been a director of Parkol Marine Engineering Ltd of Whitby, the biggest boat-builder in England and the second biggest in the United Kingdom. Since 1989 he had had boats built in over 25 different yards, ranging in size from six to thirty metres in length.

[59] He had previously provided the Crown with a report assessing a range of possibilities that might have initiated the loss of *FV Speedwell*. That report had been based purely on written material provided to him; he had had no prior knowledge of the boat. Before his evidence began, he was also provided with sight of the joint minutes of agreed evidence.

[60] Mr Paton explained that Cygnus boats were simple robust commercial vessels. The hulls were provided to purchasers who could then fit them out at home, so they could vary considerably in character. The manufacturers were now out of business.

These boats had "a bit of sheer" on them, i.e. an elevated gradient towards the front of the boat.

[61] In his initial report, the witness had suggested that the most likely explanation for the sinking had been flooding of the aft compartment through not only the aft hatch, but also and more significantly through the stern gland. This theory had been based on the premise, derived from John Connell's witness statement, that the stern gland had been located in the aft compartment. It was also based on the speed of the flooding, which Mr MacAlister had seemed calm about when speaking to Ms McNab but decided required a Mayday call sixteen minutes later. Furthermore there had been a suggestion in the Marine Accident Investigation Branch (MAIB) report that, following an incident when a rope was caught in the propeller (i.e. the incident involving Mr McLaughlin), the stern gland had had to be unpacked then repacked. That had suggested the possibility of the shaft having been been left "out of true", perhaps putting stress on the gland and causing fatigue to the screws that held it in place.

[62] Now that it was a matter of agreement that the stern gland had actually been located in the engine compartment, where flooding, if any, had been secondary, the theory could not be maintained and was repudiated by him. The engine could be heard running in the Mayday call, which meant that water had not reached its air intake. Mr Paton went on to discuss various other possibilities for the flooding that he had excluded.

[63] The ROV and diver inspections of the hull, albeit not exhaustive, nonetheless indicated that the hull was intact, as did lack of any comment from Mr MacAlister about a collision. That excluded hull damage as an explanation for the ingress.

[64] Any leak from the stern tube cooling water feed into the aft compartment would have been relatively slow, and could not therefore have been the main cause of the sinking.

[65] The boat had a belt-driven Jabsco pump in the engine compartment which was primarily intended to pump seawater onto the deck to wash the dirt off the catch. However it would have been very unlikely for this to have continued on the way back from Loch Buie.

[66] Another possibility was that cooling water from the "wet" exhaust system could have leaked into either the engine or aft compartments. However in that scenario exhaust gases would also be expected to manifest in that compartment, and would have been seen coming through the hatch. In the absence of any mention of such gases, that could be eliminated as a possible cause.

[67] The witness did not think that the 2009 problems with the rudder spoken to by Mr Martinez were relevant, due to the rudder having been repaired since then.

[68] That left the aft compartment hatch, with water coming in through a faulty or badly fitting hatch cover.

[69] Heading back from Loch Buie, the prevailing weather would have pushed the boat north. The witness knew the area well from sailing here himself. To simply beach the boat in Loch Buie would not have been an option, as the rocks there would have

wrecked it. Easdale would be slightly closer to get to than Cuan, and would offer shelter that the other nearby land, Insh Island, would not. Diverting to Easdale suggested good seamanship on the part of Mr MacAlister, as did the clear location he gave in the Mayday call.

[70] Coming back across the Firth of Lorne, the boat would have been very exposed to the wind and tide, with both coming from the southwest throughout the passage. A sea coming on to the aft starboard quarter was the Cygnus' "Achilles heel"; the boats were known for being "a bit rolly" in that situation, even if flooding were not a factor. The witness had had experience of being out on a friend's Cygnus (a 26 model, not a 28) when the sea had been coming on to the aft starboard quarter, and could say from personal experience that the motion was uncomfortable and that steering was "a handful", making it difficult to leave the wheelhouse. If the skipper left the wheelhouse and there was no autopilot, the boat would have a tendency to quickly go broadside on, parallel to the waves "which is what you don't want". In that position the boat would present its whole length to the waves, and be very vulnerable, rolling from side to side along its centre line. Mr MacAlister might have tried to point the boat into the weather, so that the bow would effectively 'split' the waves. He could then do something about the flooding before having to run back to the wheelhouse. However, doing this would point the boat into open water, away from its course back to port; and any time he was away from the wheel the boat would quickly go broadside on, running the risk of eventually capsizing.

[71] Water coming in through the scuppers or over the gunwales would tend to wash towards the aft deck. The boat would have been pitching, and would "sit down" in a trough, which would decrease freeboard at the stern. As the amount of water in the aft compartment increased, the position would worsen as the boat settled lower and lower, due to the "free surface effect". This effect manifests when water is in a compartment but does not fill it, so that the compartment has a "free surface". As the boat heeled to one side, the water would move to that side of the compartment, which would have the effect of exaggerating any rolling motion. As the aft quarter went lower, and got heavier, it would become more immersed, reducing the freeboard presented to the oncoming waves.

[72] A ton of water in the aft hold in these weather conditions would be sufficient to place this boat in serious difficulty. Had it been a calm day, the boat would have survived notwithstanding having a ton of water in it, because the water would not be moving. The problem was not just the water's weight but the combination of that with its motion, through the free surface effect. It was likely that at the time of the call from Ms McNab, Mr MacAlister had underestimated how quickly the situation would deteriorate. The final phase of the sinking would have been rapid, measured in minutes.

[73] In the witness' opinion the loss must be attributable to the aft hatch. He expressed the caveat that when a boat sank it was often found that more than one factor was responsible, and again remarked on the speed of the change in the skipper's assessments of the situation between the phone call to Ms McNab and the Mayday call sixteen minutes later. However there was no evidence to point to another factor.

"Everything would appear to point back at the hatch". The sinking could be explained by the leaking hatch and the weather conditions prevailing on the day.

[74] Mr Peter MacAlister was the only other witness to express an opinion regarding the cause of the water ingress. He too considered that the main reason for the flooding of the aft compartment was the hatch, but in his view it had also flooded through the drains associated with that hatch. He himself had had a boat with a hatch and drains like this, which in bad weather had taken on water through the drains. When he removed the drains, the water ingress ceased. Unless the drains had non-return valves, "water was bound to get back through". He had conducted an experiment in his boatyard which showed that two small-bore pipes would fill the compartment in one hour and 47 minutes without any leakage through the hatch. If the boat had been rolling, a "double-action pumping" effect would have been produced whereby water would have been forced into these pipes. He indicated that the MAIB appeared to have "come round to his way of thinking" in the last correspondence he had had with them.

VIII. Submissions

6(1)(a), where and when the death and any accident resulting in the death took place

[75] All parties to the Inquiry submitted that the court should make the finding that it has done.

6(1)(b) the cause or causes of such death and any accident resulting in the death

[76] All parties agreed that the cause of death was drowning. Only Mr Thompson's submissions proposed a finding under section 6(1)(b) that the accident was caused by

water ingress into the aft compartment combined with the free surface effect; however it was clear from the submissions of both the Crown and the family that they accepted Mr Paton's theory, (in the family's case, subject to the qualification that the theory was based on the available evidence).

Section 6(1)(c), the reasonable precautions, if any, whereby the death and any accident resulting in the death might have been avoided

[77] The Crown proposed four reasonable precautions whereby the death or accident might have been avoided.

[78] The first precaution would have been for the owner and skipper of the *Speedwell* to ensure it was in a seaworthy state to proceed to sea. In the four weeks prior to the vessel's loss, there had been two near-sinkings caused by flooding of the aft compartment. Nothing had been done to trace or remedy the root cause, for example replacing or resealing the hatch cover.

[79] The second precaution would have been for the owner to have ensured that there were lifejackets on board the vessel. The Crown submitted that at the time of the sinking, there were not. This submission was based on Mr Gate's evidence that he never saw any on board, Mr Bruce's evidence that none were on the wreck when he was on it, and the fact that Mr MacAlister's body had not been found by extensive searches, as would have been expected if an inflated lifejacket had brought him to the surface.

[80] The third precaution would have been for Mr MacAlister to have worn a lifejacket or personal flotation device. Whilst this would not have guaranteed his

survival, it would have brought him to the surface, made him more visible to the boats that were quickly on the scene, and given him a "lively" chance of surviving.

[81] The fourth precaution would have been for the "Mayday" call to have been made earlier than it was. Had it been made at the time when he spoke to Ms McNab – a time when the boat's condition was clearly less acute than it became sixteen minutes later – one of the vessels which responded so promptly could well have arrived in time to save him.

[82] On behalf of Mr Connell, four reasonable precautions were identified. The first of these would have been for Mr MacAlister to not sail the vessel when it was known to take on substantial amounts of seawater in certain conditions. The second was for Mr MacAlister to have advised Mr Connell that it had this problem, which would likely have led to the vessel being repaired. The third would have been for Mr MacAlister to have used the lifesaving equipment available on the vessel, and the fourth was again for Mr MacAlister to have made the Mayday call five to fifteen minutes earlier.

[83] Counsel for the family adopted the submissions of the Crown regarding the first two reasonable precautions identified by the Crown, although it was submitted that the main onus of ensuring seaworthiness lay on the vessel's owner rather than its skipper. It was submitted that in particular Mr Connell ought to have had the replacement bilge pump put in place by an electrician; Mr MacAlister ought not to have been expected to be able to do so himself. The Court was also invited to accept the evidence of Mr Gate that Mr MacAlister had made representations to Mr Connell for repair work to be undertaken in relation to the hatches.

Section (6)(1)(d), the defects, if any, in any system of working which contributed to the death or any accident resulting in the death;

[84] The Crown and Mr Thompson did not seek Findings under this heading. I did not understand counsel for the family to seek a formal Finding, but a suggestion was made to the effect that perhaps single-crewed operation should be temporarily restricted when the autopilot facility on a commercial fishing boat was inoperative, due to the difficulty of multi-tasking in an emergency.

Section 6(1)(e), any other facts which are relevant to the circumstances of the death

[85] The Crown considered that the owner's failure to establish an effective safety regime, specifically with regard to the life-saving equipment on board was a relevant fact. The Crown also suggested a Recommendation that the MCA and/or Seafish should consider means to raise awareness in the fishing industry of the dangers of the "free surface effect".

[86] Mr Thompson did not seek Findings under this heading.

[87] Counsel for the family adopted the position of the Crown, and specifically agreed that given the various modifications to *Speedwell*, Mr Connell should have had the boat surveyed or inspected again. Counsel further submitted that the court should recommend that the MCA completely dispense with self-certification of safety equipment and instead have MCA inspectors conduct annual inspections. The family "would not resist" the Crown's proposed Recommendation on the dangers of the "free surface effect".

[88] The family sought a further recommendation, to the effect that the MCA, Scottish Government and local authorities should insist on compulsory boat insurance or Employers' Liability Insurance being in place as a condition of use for all commercial fishing vessels operated by share fishermen from Scottish fishing ports. It was submitted that this would encourage compliance by owners and would avoid other families suffering the financial hardship suffered by Mr MacAlister's family in the present case.

[89] At the outset of the Inquiry counsel for the family had made clear that they understood that the *Speedwell* was not now going to be raised, and the court was not asked to consider ordering this. However he also expressed the family's dissatisfaction that resources had not been made available to have the *Speedwell* raised. This dissatisfaction was reiterated in the written submissions. It was submitted that the *Speedwell* was smaller and at a shallower depth than another fishing vessel, the *Nancy Glen*, which had sank in Loch Fyne in January 2018 and which was raised at the Scottish Government's expense in April 2018. The submissions also conveyed the family's view that Mr Connell's "complete disregard for safety" ought to have led to his prosecution under section 100 of the Merchant Shipping Act 1995. Had the boat been raised, it would have provided evidence to found such a prosecution and would also provide the best evidence as to the cause of the sinking, without which any theory was "speculative". The family also considered that there was "every possibility" that Mr MacAlister's remains were still on board the vessel.

IX. Conclusions

[90] In making Findings under section 6 of the 1976 Act, the test to be applied is the balance of probabilities. In other words, a Finding can be made if it is more likely than not to be true. The following passages explain why I have been satisfied that the Findings set out at the beginning of this Determination could be made.

The Finding under section 6(1)(a)

[91] The evidence supporting this Finding is unchallenged and there was no submission that the Finding should not be made.

The Finding under section 6(1)(b)

[92] As Mr MacAlister's body has never been recovered, the cause of death cannot be stated with certainty. However I am satisfied on the balance of probabilities that the cause of death was drowning.

[93] As to the cause of the accident which resulted in death, it is unchallenged that the boat sank due to a substantial ingress of seawater. The live issue is what caused that ingress. The starting point is the evidence of Mr MacAlister himself, speaking to Ms McNab at 1250 hours on the day in question, when he said that the boat was taking on water "through the hatches". (The word Ms McNab initially used in evidence was "hatches", but in cross-examination she accepted that Mr MacAlister might have used the singular "hatch". I consider that whatever word Mr MacAlister used to her, he was primarily referring to the aft hatch. The cover for the engine hatch was usually left off,

and it may be that as matters progressed water came through that uncovered hatch, but given that the engine was still running at the time of the MayDay call, any flooding in the engine compartment must have been secondary. The other two deck hatches were sealed or bolted shut.)

[94] The next most important evidence is that of Mr Gate, who spoke to two near-sinkings in the four weeks before the loss of *Speedwell*; on both occasions, the downflooding took place in the aft compartment, with the water coming in through the leaking hatch cover.

[95] Combined with this direct eyewitness evidence, there is the evidence of Mr Paton, whom I found to be an impressive and well-qualified witness. His theory is persuasive and I accept that it explains the cause of the intake of water, as well as the resulting loss of stability and ultimate sinking. With regard to Mr Peter MacAlister's own theory regarding additional flooding through the hatch drains, I found this cogent and do not reject it, particularly as Mr Paton considered that there is often a secondary cause when vessels are lost. However, it lacks the eyewitness evidence which supports Mr Paton's theory. Mr Gate in particular spoke to the problem with the hatch drains being that they were blocked, rather than that they allowed water to enter the boat. Also there was no evidence as to whether the drains did or did not have non-return valves. Whilst I do not reject Mr MacAlister's theory, nor can I say that it is more likely than not to have played a role. In short, the flooding through the hatch, combined with the "free surface effect", was the principal if not the sole cause for the accident.

The Findings under section 6(1)(c)

[96] A Finding under this section can be made if there was a reasonable precaution whereby the death "might" have been avoided. (Carmichael, *Sudden Deaths and Fatal Accident Inquiries*, 3rd edition, p.174, para 5-75).

Who should have taken the precautions?

[97] A Fatal Accident Inquiry is an exercise in finding fact, not fault. But to answer the question of what reasonable precautions could have been taken which might have avoided the death, logically also requires identifying the persons by whom those precautions should have been taken. This is particularly so when the answer may, as in the present case, offer guidance to owners and skippers of other fishing boats in future.

[98] A clear point of dispute at the Inquiry was the division of responsibility between owners and skippers as to matters of vessels' safety and seaworthiness.

[99] The Fishing Vessels Code of Practice for the Safety of Small Fishing Vessels in force at the time of the sinking was issued under Merchant Shipping Notice (MSN) 1813(F), which has since been superseded by MSN 1871(F). Like its successor, MSN 1813(F) was addressed to "Designers, Builders, Owners, Employers, Skippers and Crew of Fishing Vessels". With small vessels such as the *Speedwell* it is common for the owner and skipper to be the same person. However section 3.10 of MSN 1813(F), "Penalties" envisaged situations such as in the present case, where different persons hold these roles:

> "3.10 A vessel that is found, in the course of inspection, not to have been equipped, the safety equipment properly maintained and self-certified in accordance with the Code, or is in an unsafe condition to proceed to sea, may be liable to detention by officers from the MCA. In order to be released the vessel must be inspected by the MCA and this will be charged at the fee rate prescribed in the relevant Merchant Shipping Fees regulations. **An owner** (emphasis added) whose vessel fails to comply with the Code or who makes a false declaration may be liable to prosecution. **A skipper** (emphasis added) who fails to operate the vessel in accordance with the Code may also be liable to prosecution."

[100] Apart from the addressees at the beginning, that is the only mention MSN 1813(F) made of a vessel's skipper. In contrast, it referred to owners repeatedly, specifically their requirement:

- to carry safety equipment on the vessel appropriate to its length and construction (section 3.1);
- to present the vessel for inspection on first registration and at intervals not exceeding five years from the date of last inspection (section 3.2);
- to ensure each year that he or a competent person employed by him inspects the vessel to confirm that safety equipment carried on board has been suitably maintained and serviced in accordance with the manufacturer's instructions, that it continues to comply with the checklist appropriate to the length and construction of the vessel, and that a health and safety risk assessment has been completed; and sign a self-certification declaration confirming that the vessel complies with the Code, and retain a copy of the declaration onboard for inspection purposes (section 3.5).
- on purchase of a new vessel by them, to complete or arrange the completion of a new risk assessment and self-assessment (section 4.7).

[101] It is also noteworthy that section 5, regarding appeals against an inspection, gave various rights to owners, but makes no mention of any other addressee.

MSN 1813(F) required to be read in conjunction with Statutory Instrument 2001/9, The Fishing Vessels (Code of Practice for the Safety of

Small Fishing Vessels) Regulations 2001, which contained the following provisions:

> "**Prohibition on proceeding on any voyage unless Code of Practice complied with**
>
> **6.** A vessel shall not proceed on any voyage unless the vessel complies with the requirements of the Code of Practice.
>
> **Penalties**
>
> **8.**—(1) If a vessel proceeds or attempts to proceed on any voyage, in contravention of regulation 6, then the **owner and the skipper** (emphasis added) shall each be guilty of an offence, punishable only on summary conviction by a maximum fine not exceeding level 5 on the standard scale.
>
> (2) It shall be a defence for a person charged under these Regulations to show that he took all reasonable precautions to avoid the commission of the offence."

[102] I infer from these provisions that owners and skippers have a shared responsibility to ensure the seaworthiness and safe operation of vessels. In particular the owner was given specific responsibilities to ensure that the lifesaving equipment on board was properly maintained. This sharing of responsibility between owners and skippers persists in terms of the current Code, MSN 1871(F).

[103] For Mr Connell, it was submitted that as he was not aware of the previous two "near-sinkings" then he could not have foreseen the third recurrence of this problem. However on the balance of probabilities I conclude that he was aware of them. Generally Mr Connell presented as a forthright witness, but his reliability was called

into question by the qualifying phrases which often accompanied his answers – "I believe so"; "I presume so"; "possibly"; "as far as I know"; "not that I recall".

[104] In particular, when asked if he had been told of the flooding problem in the aft compartment, his answers to the negative were accompanied three times by the qualifying phrase "not that I recall". But it is an undisputed fact that on 3 April 2013, he purchased a bilge pump and float switch. This purchase came just four months after two bilge pumps had already been purchased. Though bilge pumps are perishable, I do not accept that one of them had worn out so as to require replacement so quickly. A bilge pump would not normally be expected to be placed in the fore compartment, so the new purchase cannot be explained by that. I accept the evidence of Mr Gate that at the time of the second near-sinking, Mr MacAlister requested a new bilge pump from Mr Connell. I infer that the pump bought on 3 April 2013 was purchased in response to that request. It was significantly more expensive – presumably with correspondingly greater capacity – than any of the three purchased previously by Mr Connell. He was not an affluent man and clearly struggled to meet the costs of the boat. I do not believe that if Mr MacAlister had simply asked for "a bilge pump" without further detail, Mr Connell would have bought such an expensive one. I conclude that the reason for this additional, more costly purchase was that Mr MacAlister had told him that a new, better pump was needed, because the boat had a problem with water ingress that the existing pumps were inadequate to meet.

Precaution (i)(a) – Remedying the aft hatch

[105] Given the finding made under section 6(1)(b), that the cause of the accident was downflooding through the aft hatch, and given that the same problem had already caused two near-sinkings, it would have been a reasonable precaution to fix the root cause of the problem. This could have been done either by creating a coaming which would have raised the level of the hatch itself above the level of the deck, or else by replacing the hatch cover with a new securable watertight one.

Precaution (i)(b) – The bilge alarm and pumps

The Bilge Alarm

[106] On the balance of probabilities I am satisfied that there was no properly functioning bilge alarm on the vessel. In the Mayday call no bilge alarm can be heard in the background, as would be expected if it had been operational. No bilge alarm was mentioned by Mr Martinez in the flooding incident of 2009. More importantly, no bilge alarm was heard in either of the near-sinkings in 2013 spoken to by Mr Gate.

[107] A properly functioning bilge alarm was a reasonable precaution to have on this or any boat. Annex 3 to Code MSN 1813(F) stated that where there was a watertight bulkhead "sensors should be fitted in the fish hold and engine room". If there had been a functioning bilge alarm then Mr MacAlister would have been alerted to the ingress of water at an early stage, when more could have been done to remedy the situation.

The Bilge Pumps

[108] From the evidence it is clear that Mr Connell purchased four electric bilge pumps for *Speedwell*. One was in 2009 prior to it being operated by Mr Martinez. Two were purchased in November 2012 when the boat began to be fitted out again for use by Mr MacAlister. These pumps were provided to Mr MacAlister but were never properly fitted to the vessel and specifically were not properly wired to the vessel's battery.

[109] Whether someone other than an electrician can wire up a bilge pump seems to depend on (a) the type of pump, and (b) the person's level of skill. I conclude that the reason that the two pumps bought in November 2012 were not properly connected to the battery is because Mr MacAlister was incapable of doing so. Having found himself unable to properly wire up the pumps he should have requested assistance from Mr Connell.

[110] As to the pump and float switch purchased by Mr Connell on 3 April 2013, these were found in Mr MacAlister's vehicle by police after the sinking. Clearly then they had been provided to him at some point between 3 and 25 April 2013. Why they were not brought on to the vessel can only be a matter of conjecture. Again it would have been a reasonable precaution for this equipment to have been properly installed on the vessel before it went back to sea.

[111] When not at sea, the *Speedwell* was moored directly in front of Mr Connell's house. It would have been an easy matter for him to go on board and satisfy himself that the pumps he had bought and provided were properly in place. Given that the *Speedwell* by this point represented a £40,000 investment for him – an investment

unprotected by any insurance policy – it would have not only been easy but also prudent to have done so. There is no point in a boat owner purchasing equipment and giving it to the skipper unless the skipper is using it properly. An owner's responsibility is not merely to provide equipment, but also to actively confirm that the equipment is being used as intended.

[112] For completeness I should add that the Jabsco pump referred to by Mr Paton could be manually reconfigured to work as a bilge pump, using a changeover valve in the engine compartment. It could then pump water out of the engine compartment. For it to pump water out of the aft compartment, a long length of hose and a "jubilee clip" would also be required. Both the manual reconfiguration and the setting up of the hose and clip would be difficult to do whilst operating the vessel single-handed. The Jabsco pump was not used in either of the near-sinkings and there is no evidence that it was used in the final sinking. I infer that the reason for this is that the boat did not possess the requisite hose and/or clips. The boat also had on deck a hand-operated "gusher" pump but again this could not pump water from the aft compartment.

[113] Bilge pumps are an essential part of marine equipment. It would have been a reasonable precaution to have them placed in both the engine and aft compartments, properly connected to the battery and automatically activated by float switches. Had this precaution been taken, water could have been expelled before its weight reached a dangerous level, and without the vessel's skipper having to leave the wheelhouse to manually bale water himself.

Precaution (ii) – Not taking the vessel to sea

[114] On 25 April 2013 Mr MacAlister was the skipper of the *Speedwell* and had been so for over two months. He had worked on its refurbishment for months prior to that. He knew there was a problem with the aft hatch cover which had nearly caused the boat to sink twice. He knew that no bilge pumps were properly wired up, and that neither bilge pumps nor bilge alarms had functioned in the previous two instances of near-sinking. He also knew that the Autopilot was not functioning. Nevertheless he chose to take the vessel out to sea. That decision is almost incomprehensible. I do not accept counsel's submission that it can be explained by pressure from the boat's owner. Mr Connell was not Mr MacAlister's employer; he had no power over him. In court Mr Connell did not present as a forceful individual, and it was hard to conceive of him pressuring anyone into anything. The example set by the previous skipper Mr Martinez is instructive; he refused to return to the boat until repairs were made. The evidence before the court did not suggest that Mr MacAlister was a weak-willed person; indeed, he had continued working as a fisherman despite the fact that his partner Ms McNab disliked the idea and considered such work dangerous.

[115] It seems more likely than not that Mr MacAlister, who clearly had a strong work ethic and who also had a large young family to support, was keen to get out and earn money after having been kept from fishing for two weeks by bad weather and the financial dispute. Having got through the previous two near-sinkings without too much trouble, and knowing that the problem only manifested in choppy weather, he may have thought that it would be safe to take the boat out on this day, and that if any problems

arose he could always come back to port early as they had done before. If this was his thinking, he overestimated how favourable the weather would be on this day, and underestimated how important it had been to have had a second person on board to help out on the two previous occasions. But whatever his thinking was, it would have been a reasonable precaution not to take the boat back out until the issues referred to above had been addressed.

[116] For completeness, I should add that Mr Connell's evidence was that the breakdown of relations between himself and Mr MacAlister had ended with the latter telling Mr Connell that he was "finished", and that Mr Connell's understanding was that their business arrangement was thereafter at an end. There was some suggestion that Mr MacAlister's taking out of the boat on 25 April 2013 was therefore an unauthorised use on his own behalf. I reject that suggestion. Ms McNab spoke to such an act being out of character for him. Given the boat's mooring in front of Mr Connell's house, any unauthorised use would have been easily discoverable. If the use was unauthorised it would make no sense to have enlisted the owner's co-worker, Mr McLaughlin, to remove a rope from the propeller. Finally it would make no sense for Mr MacAlister to call Mr Connell on the day of the sinking if he had taken his boat without authorisation.

Precaution (iii) – Wearing a functioning lifejacket

[117] The reasonable precautions referred to at (i) and (ii) above might have prevented the accident. Obviously if the accident had been prevented then so too would have been

the death. However there are two further reasonable precautions that might have prevented the death even though the accident took place as it did.

[118] The first of these would have been for Mr MacAlister to have been wearing a functioning lifejacket from the point when he started working on the vessel's deck. The wearing of a Personal Flotation Device or PFD does not guarantee survival, but it improves the prospects of survival significantly, by keeping the wearer afloat and giving him enhanced visibility in the water. With a "lifejacket" as opposed to a mere "buoyancy aid", the wearer will also be kept face up in the water.

[119] A live issue at the Inquiry was whether on 25 April 2013 *Speedwell* had had lifejackets aboard. The evidence that there were lifejackets aboard comes first from Mr Connell, who stated that when he bought the vessel it had come with various lifesaving equipment, including a liferaft contained in a valise, two lifebuoy rings on the vessel roof, and three of the larger, more old-fashioned "Board of Trade" lifejackets (which Mr Connell incorrectly described as "flotation aids", rather than "lifejackets") in the forward compartment. Mr Connell added two "Secumar" lifejackets of his own. He was initially reticent about where he had sourced these latter items but said that they "must have been bought [by him], probably online", and "possibly" at the time he had acquired the boat. He had no receipt for this, though he did for all other items purchased by him for the boat. They were still there the last time that he was on board, on a shelf in the wheelhouse.

[120] The other evidence which supports there being lifejackets aboard is that the MCA inspection in 2009 did not note any problem with, or lack of lifejackets; and also

the Mayday call, which records that when the Coastguard asked Mr MacAlister "can you get a lifejacket on?" he responded "Will do".

[121] As against this, there is the evidence of Mr Martinez and Mr Gate that they did not see lifejackets on board; the evidence of Mr Bruce that there were no lifejackets in *Speedwell*'s wheelhouse; and the fact that Mr MacAlister's body was not found on the surface (where an inflated lifejacket would have brought it) by one of the many vessels searching for him.

[122] Mr Martinez' evidence was so distant in time from the accident that its value was necessarily limited. I accept Mr Bruce's evidence that there were no lifejackets in the wheelhouse at the time of his dive, but it was clear that a number of items from *Speedwell* had been lost in the foundering. I accepted Mr Gate as an honest witness who was doing his best to tell the truth. However it was clear that the passage of time had had an effect on his memory; he made one serious error regarding the below-decks arrangements of *Speedwell* which required him to be recalled to clarify matters. Also, some of his evidence was not based on what he himself knew but instead was hearsay of what others had told him – for example his evidence about the liferaft being "full of holes, like something from Noah's Ark" was based on what another man, John Ord (now deceased) had told him, he himself having never actually seen the liferaft.

[123] Mr Connell's evidence about lifejackets had the ring of truth about it. It is undeniable that *Speedwell* had the liferaft in a valise that he referred to; it was found by Mr Bruce on the wreck. That item was not bought by Mr Connell; it came with *Speedwell* when he bought it from the previous owner. Vessels larger than *Speedwell* were required

by MSN 1813(F) to have a liferaft aboard, but vessels of *Speedwell*'s size were not (though they are now, under MSN 1871(F)). If the previous owner had provided the vessel with lifesaving equipment that the vessel did not require to have, then it is reasonable to infer that he also provided lifesaving equipment that it did require to have, i.e. lifejackets.

[124] That was in 2008. It can be inferred that lifejackets were still present in June 2009 when the MCA inspection took place, since that inspection raised no concerns regarding their absence. It is difficult to see any reason why the lifejackets (but not the liferaft) would have been removed between 2009 and 2013. It was suggested on behalf of the family that Mr Connell had temporarily borrowed lifejackets solely to have them on board for the inspection, a "dark practice" which for years has been rumoured to exist in the fishing industry. I reject that suggestion. An invoice lodged by the Crown shows that after the inspection Mr Connell purchased the various items that the inspection had shown were lacking. That and other invoices show that Mr Connell would purchase equipment that he was informed was necessary, usually within a matter of days. The problem with his approach to ownership was that it was passive and reactive, not that it was dishonest.

[125] It is also difficult to accept that Mr MacAlister would have taken a boat to sea repeatedly in 2013 if he knew that there were no lifejackets on board; that would have been to endanger not only himself but also his crewman and friend Mr Gate.
Mr MacAlister himself, though he did not normally wear a lifejacket, saw the necessity of having them available; he had had a lifejacket on his own boat, which was still there when he sold that boat to Mr Gate. Again it is difficult to accept that Mr MacAlister

would include a lifejacket with the sale of that boat, whilst himself continuing to work on a boat that had no lifejackets. However, the strongest evidence of there being lifejackets on board is that when he was asked by the Coastguard if he could get one on, he replied "Will do".

[126] Therefore it seems more likely than not that there were lifejackets on board at the time of the sinking; and that either Mr MacAlister could not put one on in time, due to the speed of the final phase of the sinking, or that he did manage to put one on but it failed to inflate due to lack of maintenance. Therefore the Finding is qualified by reference to the lifejacket being a functioning one.

[127] In the UK fishing industry, the wearing of PFDs is recommended but not mandatory. Practice varies according to the personal preferences of skippers. Counsel for the family provided me with an MAIB review on lifejackets from November 2016, which suggested that between 2000 and 2014 there was no downward trend in the rate of commercial fishermen who have drowned; that there had been minimal change in the safety behaviour of fishermen; and that evidence from other countries showed that education campaigns were generally ineffective unless backed by legislation. Ireland, France, Norway, Belgium, Spain, Portugal and Iceland have all introduced some degree of mandatory requirement for fishermen to wear PFDs. In 1994 South Africa introduced a mandatory requirement for commercial fishermen working on exposed decks at night, when operating within one mile from shore, or in heavy weather, which had "significantly reduced" the number of fatalities.

[128] Traditionally fishermen have opposed any requirement to wear PFDs due to the perceived risk of them getting in their way whilst working. However Captain Marsh gave evidence that, given the developments in lifejacket design, this objection no longer has merit, and that there is now no good reason for the wearing of lifejackets not to be mandatory. Captain Marsh was an impressive witness - a senior officer in the MCA with a half-century of seafaring experience. In addition he himself had in the past worked on fishing vessels, and indeed owned two such vessels himself. I was satisfied by his evidence that there is now no good reason why the existing "strong recommendation" in the Code for PFDs to be worn should not be made mandatory. I was informed that Seafish offered free PFDs to commercial fishermen; consequently cost should not be a barrier to a mandatory requirement. In short:- the use of PFDs significantly improves chances of survival; the practical objections to their use have been overcome; and their use will not become general without a mandatory requirement. I am therefore satisfied that a Recommendation should be made.

Precaution (iv) – The Mayday call

[129] The final reasonable precaution that could have been taken would have been to make the Mayday call earlier. Mr MacAlister spoke with his partner at 1250 hours; on hearing of the boat's condition, her reaction was to suggest calling the Coastguard. Mr MacAlister rejected this. In doing so, he badly underestimated the danger he was in. If the Mayday call had been made at that time, boats would have arrived within twenty minutes, i.e. either before the sinking or immediately after it. Their presence at that time

would not have stopped the boat from sinking but there is at least a lively possibility that they could have got Mr MacAlister off of the vessel in time, or retrieved him from the sea very soon after the loss.

The Findings under section 6(1)(e)

[130] Unlike Findings made under sections 6(1)(c) and (d), Findings under this section do not require a causal connection between the facts and the death – Carmichael, *Sudden Deaths and Fatal Accident Inquiries*, 3rd edition, p.175, para 5-77.

Relevant Fact (i)

[131] All of the lifesaving equipment on the boat was at least five years old, and the flares and smoke signals had passed their various expiry dates. None of the lifesaving equipment had been inspected or maintained over that period. It cannot now be known whether all or any of it would have worked on the day. Therefore it cannot be said whether it did or did not contribute to the death. The lack of evidence for a causal link between this issue and the death means that a Finding cannot be made in terms of section 6(1)(c) or (d). However the lack of inspection or maintenance of a boat's lifesaving equipment is clearly a relevant fact where a death arises from that boat's sinking.

[132] Mr Thompson at one point made the observation that although Code MSN 1813(F) required annual self-inspection, it was not clear whether that requirement applied to vessels which, like *Speedwell*, spent years tied up at the pier rather than going

to sea. Be that as it may, from November 2012 onwards it was clearly envisaged that the boat was going to go back out to sea. Work was done and money was spent to get it ready. Yet nothing was done to make sure that its lifesaving equipment would be in an equal state of readiness. That failure was a clear breach of both the letter and the spirit of the Code.

Relevant Fact (ii)

[133] The boat's Autopilot did not work, and had not done since at least 2008. This meant that when Mr MacAlister left the wheelhouse to address the flooding the vessel was left effectively rudderless. The vessel without direction would have repeatedly turned broadside on, increasing the amount of water that was coming on board and imperilling its stability. Whilst the lack of an Autopilot did not cause the accident, it must nonetheless have exacerbated Mr MacAlister's predicament when trying to deal with the problem, and is therefore a relevant fact.

[134] The foregoing passages explain Findings that have been made. I should now explain why Findings or Recommendations have not been made on other points raised by parties.

[135] With regard to the Crown's proposed Recommendation on the free surface effect, the evidence before me shows that some guidance on this effect is contained in both versions of the Code, albeit it is directed at fuel and fish contained in compartments rather than flood water. No documents from Seafish were before the Inquiry, and it may be that there is further guidance on this topic in such documents. I would expect

the authorities to maintain a review of their guidance in force on this point, but I do not consider a Recommendation to that effect to be necessary.

[136] Both the Crown and the family submitted that given the alterations carried out to *Speedwell*, it would have been at least best practice to have had it surveyed or inspected again. I consider that these submissions have some force. At the very least, the alterations should have been intimated to the MCA, as was stated in the letter sent to Mr Connell enclosing the decal following the 2009 inspection. The MCA could then have made an informed decision as to what, if any, further inspection was required. However, given that most of the alterations were done by an engineer whose work was agreed to be of a consistently high quality, I do not consider that the evidence justifies a Finding that the failure to re-inspect the vessel following the alterations was a relevant fact.

[137] The family sought a Recommendation that the MCA, the Scottish Government and local authorities should insist on compulsory Employers' Liability Insurance being in place as a condition of use for all commercial fishing vessels operated by share fishermen from Scottish fishing ports. It was submitted that the question of insurance might be "tangentially" relevant as boats would require inspections to get insured, and this would encourage owners to be more proactive regarding safety. It was impossible not to feel great sympathy for Ms McNab and her four children, who were left not only bereaved but also without any compensatory provision. However, the Inquiry heard no evidence on either Boat Insurance or Employers' Liability Insurance. It is unclear how the latter scheme would operate in situations like that on *Speedwell*, which was agreed to

be a "share fisherman" arrangement. Consequently I do not consider that a Finding or Recommendation on it can be made.

[138] The family sought a further Recommendation that the MCA should replace self-certification of safety equipment with annual official inspections. As they acknowledge themselves, this would be a significant change to current practice and would have major resource implications. In his 2009 Review into Fatal Accident Inquiry Legislation, Lord Cullen of Whitekirk considered (at paragraph 3.28) that it would be inappropriate for an FAI to be treated "as if it were a public inquiry taking a nation-wide approach and calling for far greater resources". I do not consider that the evidence heard at this Inquiry can justify such a significant change. The system has clearly been tightened up since 2013. The Codes of Practice have now been made mandatory. All inspections are now conducted by surveyors who are themselves master mariners. Furthermore, where MCA inspections identify deficiencies, the owner's confirmation of these having been rectified must now be accompanied by some form of vouching, such as invoices or photographs. I note that section 3.4 MSN 1871(F) provides that "a vessel may be inspected by the MCA <u>at any time</u> (emphasis added) to check compliance with Code requirements." I consider that there may be merit in using this provision to institute a system whereby each year a small number of vessels would be chosen at random for inspection at short notice. This would increase the possibility of non-compliance being detected, but more importantly the industry's knowledge of the possibility of inspection at short notice would encourage a culture of compliance. This would address the family's concerns, yet might not require significant additional resources to be

implemented. However such a system was not discussed at the Inquiry and I raise it only as a matter for consideration by the MCA.

[139] Counsel for the family raised the dangers of single-crewed operation of fishing vessels without a functioning Autopilot. The evidence before me suggested that single-crewed fishing is fairly common; and that not all fishing boats are equipped with Autopilot devices. In the present case, operating a boat single-handed without an Autopilot undoubtedly added significantly to the problems faced by Mr MacAlister. As against that there was the evidence of Mr Peter MacAlister that single-crewed fishing was "fine", and the evidence of Mr Gate that it was "a bit risky but we've all done it". I do not consider that I have enough information to justify making a Recommendation of general application. I therefore limit myself to finding that in the present case it was a relevant fact in terms of section 6(1)(e).

[140] The family's submissions raised the question of whether Mr MacAlister's remains are still on the vessel. Mr Peter MacAlister suggested in evidence that in the final phase of the sinking his son might have been washed from the wheelhouse into the fore compartment. Having regard to the evidence of Mr Bruce that there were no signs of marine life on the wreck, and also that the fore compartment could not be accessed by him due to it being full of prawn tubes, I consider that on the balance of probabilities Mr MacAlister's remains are not on the vessel.

[141] With regard to the family's submissions regarding the decision not to raise the *Speedwell*, and the decision not to prosecute Mr Connell, I consider these matters to be outwith the scope of this Inquiry as set down by section 6(1) of the 1976 Act.

X. Final Comments

[142] Mr Peter MacAlister when giving his evidence took care to express the family's gratitude to all those who had assisted on the day of the search and in the following weeks, sometimes at great cost to themselves – in his words "the assistance was wonderful". It is appropriate that this court too should recognize the impressive display of generosity and community spirit that was shown by so many people, businesses and institutions at that difficult time.

[143] Particular recognition is due to Mr Graeme Bruce, who on four occasions placed his own life at risk by diving to depths that police and even military divers could not reach. He did this to help a grieving family with whom he had had no prior connection. His actions showed altruism in the purest form.

[144] At the close of evidence I expressed my condolences to the friends and family of Mr MacAlister who were present in court. I do so again now. It was clear from the evidence that Scott MacAlister was well-liked and respected within his community. In managing to bring a sinking vessel, in challenging weather, across the Firth of Lorne from Loch Buie to within mere minutes of safety at Easdale, he showed himself to be a seaman of impressive skill and determination. In the final moments of his life, faced with terrible danger, he displayed great courage, retaining the presence of mind to give clear and informative details to the Coastguard. A number of his friends and family attended each day of the Inquiry, and displayed considerable dignity throughout, though the evidence must at times have been very painful for them. From the day of the

sinking onwards they have shown great dedication and resourcefulness in their attempts to find Mr MacAlister. I hope that this Inquiry has gone some way to helping them come to terms with their loss.