

SECTION 2. NARRATIVE OF EVENTS OF 5 MAY 1998

EVENTS TO 1030

The bridge

2.1 HMAS WESTRALIA departed Fleet Base West (FBW) at 0900 on Tuesday 5 May 1998. Prior to sailing, a pre-departure brief was held at 0830 and Special Sea Dutymen (SSD) closed up ten minutes later.[T1137, T3146] The ship, with its crew of 98, including two members of HMAS TORRENS' ship's company, was scheduled to transfer some of its approximately 20,000 tonnes of F-76 diesel fuel cargo to HMAS SUCCESS at 1300 in the Western Australian Exercise Area and then proceed to northern waters.

2.2 SSD remained closed up as the ship proceeded north from FBW, first through the Parmelia-Success Channel into Gage Roads and then through the Deepwater Channel between the coast and Rottnest Island.[T3146] As was the ship's usual practice, the Standing Sea Fire Brigade (SSFb) was exercised shortly after sailing.[T3147]

2.3 At 1025 the vessel was approaching the number one buoy in the Deepwater Channel on a course of 005°.[E91] Just before 1030, HMAS WESTRALIA reached the wheel over position for the final leg out of the Deepwater Channel and started to alter course to 325°(see Figure 7). When the vessel reached a heading of 335°, 10° of starboard rudder was applied to check the swing. A few seconds later, just before 1031, the bridge received a request to 'emergency de-clutch'.[E91] At the time, WESTRALIA was proceeding at half ahead with 70% pitch set for a speed of 14 knots. The chart in use was Aus 112, 'Approaches to Fremantle'. [E19B]

The MMS and machinery control room

2.4 Earlier that morning both main engines (MEs) were started, tested and then shut down. By 0815 the Deputy Marine Engineering Officer (DMEO), WOMT Bottomley, was able to report to the Marine Engineering Officer (MEO), LCDR Crouch, that the main machinery was ready for sea. SSD closed up in the Main Machinery Space (MMS) at 0840. Between 0840 and about 1030, there were no significant incidents in the MMS.[T23]

Discovery of the port main engine fuel leak

2.5 At sometime before 1030, POMT Hollis entered the MMS from the machinery control room (MCR) via the starboard door for a routine roving check.[T1804] He proceeded aft to the tiller flat, then forward to the starboard ladder outside the MCR door and descended to the middle plates. Arriving on the middle plates he checked each diesel alternator (DA) then went down the starboard side of the middle plates, past the oil purifiers and turned left towards the centre line at the forward end. He did not recall seeing anyone else in the MMS during this time.[T1849]

2.6 Approaching the centre line of the middle plates, he checked the top of MEs and noticed some liquid 'spewing' out from the inboard side of the port main engine (PME).[T1804] Initially unsure as to whether this was water or fuel, he descended the

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short centre line ladder to the rocker cover catwalk and advanced part of the way between both MEs to about level with number 13 cylinder of the PME. From there, he saw that the liquid was spraying onto the deck between both MEs, apparently coming from the vicinity of the inboard fuel rail. He looked down onto the bottom plates and smelt fuel.[T1864-1865] When giving evidence, PO Hollis described the quantity of fuel leaking as greater than a stream from a garden hose and that it was spraying downwards at a 45° angle.[T1850] The fuel was also spraying onto the catwalk between the engines, into the bilge and going under the starboard main engine (SME).[T24, T1856] PO Hollis made the discovery close to 1030, as the ship was leaving the number one buoy to port and heading towards the Fairway buoy at the northern end of the Deepwater Channel.[E91]

2.7 At around this time, LSMT Smith was also doing a set of visual rounds in the MMS. He was on the middle plates in the vicinity of the DAs and, on hearing engines (which could have been either the DAs or the MEs) ‘racing’, returned to the MCR to check that everything was running properly. This change in engine speed occurred during an attempted transfer of the electrical load to the shaft driven alternators. He did not notice a fuel leak.[E99]

2.8 Because there were no effective communications between the MMS and the MCR when machinery was running, it was necessary for PO Hollis to return to the MCR to report the fuel leak.[E3, E124, T1622] He went via the starboard middle plates and the starboard ladder to the top plates and entered the MCR for about ten seconds to report the leak to the Engineering Officer of the Watch (EOOW), POMT Herridge.[T25, T1804] He did not see anyone in the MMS on his way back to the MCR.[T1866]

2.9 The following personnel were in the MCR when PO Hollis reported the leak:

LCDR Crouch	[E188, T2835]
MIDN Pelly - under training	[E3, T42, T1804, E109, T1458, E115A, T1622]
WOMT Bottomley	[E3, T28]
CPOET Ledlie (I/C switchboard)	[E3, T42]
POMT Herridge	[E3, T28]
POMT Smith	[E124, T1804]
POMT Hollis	[E124, T1804]
LSMT Meek	[E115A, T1622]
LSMT Smith	[T1804]
ABMT Carroll	[E109, T1458, E115A, T1622, E390]
ABMT Liddell (third hand)	[E109, T1458, E115A, T1622]
LSET Elliott	[T446]

THE FUEL LEAK: 1030-1034

The bridge

2.10 The following personnel were on the bridge for most of the relevant period:

CMDR Dietrich	Commanding Officer (CO) [T3144-3220]
LCDR Triffitt	Navigating Officer [T101-185]
LEUT Conole	Assistant blind pilot safety officer
LEUT Humphrey	SSD assistant officer of the watch
LEUT Read	Blind pilot safety officer [T3336-T3342]
SBLT Plummer	SSD officer of the watch (OOW) [T1135 – T1175]

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CPONPC Walters	Coxswain [T790-T815]
POSY Chambers	Yeoman of signals [T728 – T755]
LSSIG Orrell	Signalman
LSBM Hepple	SSD quartermaster (QM) [T1119 – T1135]
LSRO Hird	Bridge talker [T3469 – T3475]
ABET Sheppard	Echo sounder operator
ABSIG Busby	Signalman
ABSIG Pietzsch	Signalman [E71]
SMNSIG Wallace	Signalman

2.11 At 1030:55, the EOOW reported a major fuel leak to the bridge and requested an emergency de-clutch of the PME.[E14, E29, E91] After receiving the EOOW's request, the OOW ordered, 'emergency de-clutch' but because of a timely intervention by the Navigating Officer, the order was rescinded and the correct order to 'stop' was substituted.[T114-116] Had the Navigating Officer not intervened, the ship would have lost power to both engines for about four minutes while in confined waters.[T114-116]

2.12 The request to stop engines was confirmed by a mismatch of the engine telegraph from the MCR. The MCR pointer was moved to stop. The bridge then matched this by moving the telegraph to stop. In addition, the Navigating Officer spoke with the EOOW using the machinery broadcast to confirm that what was required was not an emergency de-clutch. The Engineer ordered the PME to be shut down and reported to the bridge, 25 seconds after the EOOW had first reported the leak, that he had de-clutched the PME and was shutting it down.[E188, T2835, E3, E115, T1622, E91]

2.13 Fifteen to 20 seconds after the fuel leak on the PME was reported, the OOW ordered the wheel amidships.

2.14 The Navigating Officer stated in his evidence that, 'we were still in the vicinity of number one buoy and still in the vicinity of dangerous shoals on both sides' when the PME was shut down.[T116] Steerage way was difficult to maintain with the propeller pitch at zero. This caused an immediate concern to the Navigating Officer as there was a sheep carrier fine on the port bow at about 1,000 yards, effecting a boat transfer and WESTRALIA's head was falling off to port. With the loss of the propulsion, the ship continued to swing to port until the swing was eventually checked when the telegraph was put to 'half ahead' on the SME and the wheel put to starboard.[T114-116, T120, E91]

2.15 The Navigating Officer prompted LCDR Crouch to request that the SSFB be closed up as a precaution.[E91] At 1032, the QM broadcast that the SSFB was to muster in the MCR and the Navigating Officer used the main broadcast to inform the ship's company of the fuel leak and that the SSFB were closing up in the MCR as a precaution.[E14, E29, E91, T2834]

2.16 The Navigating Officer was also pro-active by talking to the OOW and encouraging her to think about what would happen if the spilled fuel were to ignite and about what precautions should be taken. These anticipated actions included sending the ship to 'emergency stations', preparing keys, books and other items for transfer to HQ1 and starting the 'check-offs'. In addition, the Navigating Officer considered what actions he would take if the SME had to be shut down or became unserviceable.[T122, E91]

The MMS and machinery control room

Isolating the leak

2.17 WO Bottomley and PO Hollis went to the bottom plates where WO Bottomley saw fuel coming out at a 45° angle into the bilge from somewhere about number eight or number nine cylinders on the PME. He described the situation as a ‘major high pressure fuel leak’. He went on to say that he had seen enough and decided to get help. He headed for the MCR but not before he saw PO Hollis preparing to manually isolate the fuel to the PME. While on the way WO Bottomley noticed a rising, misty vapour cloud above the PME.[T24] He noted in his evidence that the SSFB was needed.

Attempt to fix the leak

2.18 WO Bottomley then returned to the MMS via the port side and headed straight between the MEs to find the leak. The leak had stopped but neither WO Bottomley nor PO Hollis could find where it had come from. POMT Smith was with them. They found a banjo bolt loose on a line that fed into one of the fuel return lines. WO Bottomley went to take out his shifting spanner to remove the banjo bolt but discovered that he had left it behind in the MCR. POMT Smith, who had a spanner commenced taking out the bolt and WO Bottomley headed for the workshop around the SME to get a new banjo bolt. PO Hollis and POMT Smith remained at the site of the leak on the PME.

Preliminary precautions

2.19 ABMT Carroll was directed by the EOOW to go to the middle plates to set up the fire hoses.[T25, T1622, T26] On his return to find the leak, WO Bottomley dragged the trolley mounted, 90 litre AFFF extinguisher behind the fuel boost pumps off the main thoroughfare. AB Carroll came to assist and WO Bottomley took the hose off the extinguisher and put it into AB Carroll’s hands advising him to set it off ‘if there was any problem’ where they were working.[T25]

2.20 In the MCR, the EOOW directed LSMT Smith to assist AB Carroll to run out the hoses on the middle plates.[T1242] LSMT Smith returned to the middle plates through the workshop using the port side ladder, crossed to the starboard side and ran out a fire hose on that side of the middle plates. He returned to the port side to see how AB Carroll was getting on, then proceeded forward along the port side middle plates towards PO Hollis, who at that time was at the forward end of the middle plates.

Movements of other personnel into the MMS

2.21 The EOOW gave evidence that he saw LSMT Meek go from the MCR to the top plates.[T1622] WO Bottomley also saw LS Meek on the middle plates and thought that he may have run out the fire hoses with AB Carroll.[T26]

2.22 POMT Francis was in Damage Control Headquarters (HQ1) and heard the broadcast that the PME had a fuel leak. He reported to the MCR and the EOOW directed him to assist POMT Smith with the leak.[T1455] Entering the MMS via the starboard ladder to the middle plates, PO Francis noticed a fire hose flaked out on the middle plates. He proceeded directly down to the bottom plates via the starboard ladder, then forward outboard of the SME, across the forward end of the SME and between both MEs. He did not notice anyone on his way down to the bottom plates.

2.23 During SSD, MIDN Pelly appears to have been logging engine orders in the MCR.[T1416] At the time the fuel leak was reported, she was in the MCR but then went into the MMS soon after the PME was shut down.[T23, T42, T1417] WO Bottomley stated that when he was coming up from the bottom plates, he saw her standing near the Diesel Alternators.[E3, T43, E115, T1622, T3453] He was surprised that she was there because she had been informed that 'during a real incident [she was to] stay out of the way and stay in the MCR'.[T3454]

2.24 SMNMT Robb said that for a couple of days prior to sailing, MIDN Pelly had been assigned to shadow him during his rounds of the MMS. On 4 May, SMN Robb was transferred from the MMS. He thought, therefore, that on 5 May 1998, MIDN Pelly would have shadowed AB Carroll, his replacement in the MMS.[E156]

2.25 On hearing the broadcast that the SSFB was to muster in the MCR for a fuel leak, LEUT Walters went to the MCR and was directed by the EOOW to go to the bottom plates to change the gearbox cooling water.[T582, T583] He entered the MMS via the starboard side ladder to go to the middle plates and noticed MIDN Pelly on the starboard side of the middle plates. He proceeded forward to a position on the middle plates immediately forward of the top of the ladder leading from the rocker cover platform. Whilst standing on the centre line middle plates forward of both MEs, LEUT Walters noticed two other members of the crew on the level of the rocker covers but was unable when giving evidence to identify either of them. He stated that one was between the MEs and the other in front of the PME.

Deployment of the Standing Sea Fire Brigade

2.26 While the technical personnel were investigating the size and location of the leak the SSFB arrived in the MCR.[T2834] The team members were PORS Manderson (I/C) dressed in basic rig, LSBM(FF) Nunn and SMNBM Darwish (attack team 1) dressed in basic rig and equipped with a hand-held extinguisher and LSET Smith and ABMT Munday (attack team 2) dressed in intermediate rig.[T279, T282, T284, T384] Basic rig comprises combat overalls, steel toed boots and anti-flash gloves and hood. Intermediate rig includes basic rig plus an open circuit compressed air breathing apparatus set (OCCABA). The SSFB is intended as a first aid firefighting team only and does not wear the protective Fearnought suits.

2.27 It was SMN Darwish's first day as a member of the SSFB and LSET Smith had been changed around within the team on the day before.[T282] As a result, LSET Smith arrived at the MCR without an OCCABA set and had to return to the junior sailors' change room to get one.[T429] This had the effect of delaying the full assembly of the team by one to two minutes but the majority of the team was assembled at approximately 1033.[T438]

2.28 Having gathered in the main switchboard room, the SSFB waited for a direction.[T275] The EOOW told PO Manderson that he wanted the SSFB in the MMS as a precautionary measure but the Engineer countermanded the order. The LCDR Crouch wanted to keep as many people out of the MMS as possible.[E31, T275] He gave evidence that he was worried about 'slip hazards' that could be on the decks and ladders as a result of the fuel leak and that the two members of the SSFB in OCCABA would have additional difficulty in descending the ladders in the MMS.[E1888, T2835]

2.29 Less than 4 minutes after the fuel leak had been reported, the Engineer advised the bridge that the PME had been shut down. He also advised that the cause of the leak was a leaking banjo bolt around numbers 11 or 12 cylinders and there was a lot of fuel over the PME which was still fairly hot. He gave an estimate of the time to repair the leak as about 30 minutes and that he wanted the SSFB to remain closed up in the MCR until the fuel had been cleaned up. Twenty eight seconds later the EOOW reported a fire in the MCR.[E91]

The medical response

2.30 At the time the information about the fuel leak was broadcast, the two medical sailors onboard, POMED Plant and ABMED Moffatt, were in the sick bay.[E97] HMAS WESTRALIA did not carry a medical officer and the medical complement onboard is supplemented by members of the ship's medical emergency team (SMET) who are medically trained sailors, usually from the supply department. They were in their normal workplaces. On hearing the broadcast, LSSTD Nix and LSWTR Page proceeded to the sick bay.[E161, E97]

FIRE INITIATION: 1034 – 1038

The MMS and machinery control room

Observations of the start of the fire

2.31 As LSMT Smith proceeded forward along the port side middle plates towards PO Hollis, he noticed 'bubbling liquid' on the SME exhaust covers around number 9 cylinder.[T1243] When he was almost to the centre line of the forward middle plates a flame about one metre in diameter erupted from the liquid. This was followed by a big fireball which went up and out and covered a major part of the MMS, mostly on the starboard side. LSMT Smith could feel the heat from it.

2.32 PO Hollis was on the middle plates immediately forward of the SME when he noticed a small flash of flame on the outboard side of the SME. This flash passed and was followed a few seconds later by the eruption of a huge flame over the top of the SME rising to a 'mushroom' across the underside of the MCR deck.[T1806]

2.33 LEUT Walters was just about to proceed down the ladder to the rocker cover level when he saw a flame come out of the outboard side of the SME, extending to the deck of the MCR. He gave evidence to the Board that the flame resembled that of a blowtorch. In his opinion the fire was clearly being supplied by a high-pressure fuel source, as the flame height was approximately six metres.[T583] He described the fire, at the commencement of the flame, as being narrow with a minimum width at the base gradually increasing in size with the flame becoming slower and smoky at the top.[T583]

2.34 PO Francis found POMT Smith working on the PME between numbers eight and nine cylinders and asked him what he was doing. Almost immediately, PO Francis, who was standing on the bottom plates between the two MEs, noticed fire on the top of the SME near number nine cylinder covering about half the area of the top of the SME with flames about two to three metres high.[T1459]

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2.35 LSMT Smith, PO Francis and PO Hollis gave varying evidence as to the size and nature of the fire that they observed.[T1806, T1242, T1459] Comments from this group detailed how they perceived the fire from its commencement until they evacuated the MMS. In one case, evidence was given that the fire was drawn back into the SME before erupting again, while other comments suggest that the fire burnt with considerable intensity from its commencement.[T1243, T1806]

Location of personnel at the outbreak of the fire

2.36 Based on the evidence available, it would appear that, at the outbreak of the fire at 1034, the following eight personnel were located in the MMS in the following locations:[E28]

- a. **Bottom plates:** PO Francis and POMT Smith were between the MEs attending to the fuel leak.[T25]
- b. **Forward middle plates:** LEUT Walters was about to descend to the rocker cover catwalk and PO Hollis and LSMT Smith were also in the same area.[T582-83, T25, T1243]
- c. **Aft middle plates:** MIDN Pelly was forward of the DAs apparently observing.[T43, T1622]
- d. **Port middle plates:** AB Carroll was apparently tending the trolley mounted, 90 litre AFFF extinguisher.[T25, T583]
- e. **Middle plates:** The exact location and activity of LS Meek are uncertain, but the probability is that he was attending to a fire hose on the starboard side.[T1622]

Immediate effects of the fire

2.37 The flames from the fire on the SME hit a bulkhead adjacent to the engine on the outboard side and extended up to the steel plates that form the deck of the MCR and the main switchboard room (see Figure 6). It appears that on hitting the underside of the deck the flames rolled both forward and aft as well as to the port side.[T1857]

2.38 Various electrical cables directly above the MEs were quickly burnt in the fire severing power supplies for machinery, communications to the bridge and the MMS evacuation siren.[E246,T1625, T2835]

2.39 Smoke and toxic gases being given off by the burning insulation covering the cables added to the quantity of gases being generated in the MMS. Smoke entered the MCR through one or more cable or control penetrations in the MCR deck.[T9, TT2835]

2.40 WO Bottomley observed what was happening in the MMS by opening the starboard MCR door. On seeing the flames and heavy smoke coming up from below, he retreated into the MCR.[T26]

Fire in the MMS

2.41 On seeing the commencement of the fire, LEUT Walters quickly proceeded aft along the port side of the middle plates towards the MCR and yelled to AB Carroll as he

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went past to, 'get out or, lets go'.[T583] He noticed a significant build up in the amount of smoke as he neared the MCR and exited via the port ladder into the workshop. On entering the MCR LEUT Walters advised there that a fire had broken out on the SME.[T583]

2.42 PO Hollis commenced to run aft down the starboard side middle plates and LSMT Smith, 'only metres' behind, instinctively followed. They were protected from the flames by a bulkhead. PO Hollis described the fire as 'like a waterfall.'[T1806, T1858] He dragged the trolley mounted, 90 litre AFFF extinguisher across to the starboard stairwell and attempted to extinguish the fire. The fire hoses which had been run out were not charged and not available for immediate use.

2.43 LSMT Smith continued aft past the DAs looking for an exit. Realising there was no exit that way, he returned forward along the port side of the DAs to the base of the port ladder. By this time there was very thick black smoke in the MMS and visibility was rapidly decreasing.[T1244, E99]

2.44 When the fire started, PO Francis yelled, 'follow me' to POMT Smith and ran forward, then to the port side of the PME on the bottom plates level and aft along the outboard side of the PME.[T1459] En route they passed a point where three emergency life saving respiratory devices (ELSRDs) are stored but neither man took one. PO Francis climbed the port side ladder to the middle plates with POMT Smith close behind him. He noticed MIDN Pelly on the middle plates between the two DAs, about three to four metres from the port ladder and PO Hollis on the middle plates spraying AFFF from aft of the SME. PO Francis took a portable, hand-held, fire extinguisher from forward of the port main lube oil filter. AB Carroll came running aft yelling 'get out', followed closely behind by someone who may have been LEUT Walters. PO Francis also noticed another person directly forward of the starboard DA close and to the right of PO Hollis, but when giving evidence, was unable to identify the person or what he or she was doing.[T1461]

2.45 On arriving at the base of the port side ladder on the middle plates, LSMT Smith saw LS Meek there, together with PO Francis and AB Carroll. He also noticed several other personnel there, but could not identify them and was unsure of their numbers. He observed that one had a hand-held fire extinguisher, but he could not remember whether it was being used. LS Meek yelled 'Everyone get out!' LSMT Smith proceeded up the ladder between the intermittent fireballs that were engulfing the ladder before he reached the safety of the workshop.[T1244] PO Manderson saw LSMT Smith emerge from the MMS trailing smoke and heard him say, 'It's gone up. There's someone behind me'.[T289, T275-276, T319]

2.46 Whilst directing AFFF onto the SME, PO Francis stated in his evidence that he heard one long blast on the MMS siren that meant that the space was to be evacuated immediately. At this point, a massive fireball erupted from on top of the SME and he heard a 'woof' sound. He noticed that the air seemed to be on fire, with intense heat; the MMS was filling with thick dense black smoke that reduced visibility to nil.[T1461]

2.47 PO Francis proceeded aft on the middle plates towards the centre line of the ship to look for MIDN Pelly. He felt around the area between both DAs, proceeding to the aft end. Moving forward to the guardrail and across to port, he then went aft down the port side of the port DA and then between the evaporator and the port DA, still searching for MIDN Pelly. At this time, he was gasping for breath and starting to choke. He tried unsuccessfully to find an ELSRD on the port side bulkhead of the middle plates and so headed for the port side ladder to the top plates. PO Francis commenced to climb the

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ladder but went back down when a small fireball, apparently from the PME, engulfed the ladder. He then went back up the ladder and initially forward towards the junior sailors' change room, but was driven back by the heat. As a result, he turned around and felt his way to the workshop door from where he was assisted in to the workshop by WO Bottomley.[T1461-1462]

2.48 Shortly after PO Hollis started to fight the fire, a second fireball erupted in the centre of the SME. By this time thick black smoke was being produced.[E124A] Realising the size of the fire was beyond the capacity of the extinguisher and that it was almost empty, PO Hollis gave up the attempt. He went across the middle plates to the port ladder holding the guardrail to guide him as he was unable to see. He then exited up the port ladder, burning his left hand on the outboard rail that, to his surprise, was hotter than the inboard rail. On arriving at the top of the port ladder, he proceeded towards the workshop door, but was unable to find it. Overcome by fumes, he was found by WO Bottomley who had opened the door to look into the MMS and dragged to safety.[E124A] Visibility at the workshop door at the time was nil.

2.49 At a point immediately after the commencement of the fire, LSMT Bromage entered the MMS from the fridge flat and observed the rapid development of the fire. From his location on the fridge flat level it appears that he observed PO Hollis' escape into the workshop. Due to the density of the smoke he quickly withdrew from the MMS.

2.50 ABBM Noles entered the MMS from the tiller flat and viewed the fire from the top plates. Having assessed the size of the fire as being very large he quickly withdrew to the fridge flat via the escape ladder from the tiller flat.[T2802] Because the door between the tiller flat and MMS was held open by rope lashings he was unable to close it before escaping.[E178]

2.51 In summary, the five personnel who escaped appeared to do so in the following order and in the manner noted:

- a. LEUT Walters – from the port middle plates and the port ladder to the workshop;
- b. ABBM Noles – from the tiller flat via the escape ladder to the fridge flat;
- c. LSMT Smith – from the starboard middle plates, then aft of the DAs, returning forward to exit via the port ladder to the workshop;
- d. POMT Francis - from the port aft middle plates he moved to starboard, searching aft between the DAs for MIDN Pelly, then via the port ladder to the workshop; and
- e. POMT Hollis - from the starboard to the port aft middle plates, then via the port ladder to the workshop door being dragged in by WO Bottomley.

2.52 LSMT Smith, PO Francis and PO Hollis, the last three to evacuate, gave evidence of the extensive spread of the flame on bulkheads, the density of the smoke and of the fireballs travelling up the 'chimney', all of which inhibited their escape.[T1807, T1455, T1244]

2.53 The four members of the crew who did not escape were last seen in the following positions:

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- a. MIDN Pelly - on the middle plates between the DAs;
- b. POMT Smith - moving from the bottom plates between the MEs;
- c. LSMT Meek - at the base of the port ladder; and,
- d. ABMT Carroll - with the trolley mounted, 90 litre AFFF extinguisher on the port middle plates.

Report of fire in the machinery control room

2.54 Not long after WO Bottomley re-entered the MCR a 'woofing' sound was heard and some of the occupants noticed smoke coming from behind an urn on the port outboard side.[T26] Personnel within the area immediately reacted, thinking that there was a fire in the MCR.[T275] It was quickly realized that the source of the smoke was from a fire in the MMS and this was confirmed by escaping people entering the MCR from the MMS.[T275] Both LEUT Walters and LSMT Smith reported fire on the SME to those in the MCR.[T275, T583]

2.55 In the MCR, the Engineer activated the MMS evacuation button but did not hear it and thought that it had failed to operate. PO Francis gave evidence, however, that he heard one blast on a siren while in the MMS.[T1461] Thinking that the fire had damaged the cabling LCDR Crouch opened the MCR door to the MMS, stepped out onto the catwalk and yelled for everyone to evacuate the area.[T2835]

2.56 The EOOW reported a fire in the MCR to the bridge at 1035.[E91]

2.57 In the MCR, appropriate actions were taken to shut down the SME and other machinery despite the difficulties caused by the fire damage to cabling. The EOOW attempted to keep an alternator running to ensure that the fire pump operated.[T1626] Isolating all electrical equipment would have meant shutting off power to the fire pump which was then supplying water to the fire main.

2.58 As two members of the SSFB were dressed in OCCABA, the team leader, PO Manderson, asked LCDR Crouch if he wanted them to enter the MMS. The Engineer replied, 'No'. [T276] PO Manderson reported to HQ1 that the MCR was filling up with smoke.[T276] PO Manderson again told LCDR Crouch that he had people on air and asked whether he wanted them to go into the MMS to search for missing personnel. He was again told no by LCDR Crouch. PO Manderson stated that LCDR Crouch said, 'Just wait mate.' [E31, T276]

Emergency stations

2.59 At the same time that the EOOW notified the bridge of a fire in the MCR, fire alarms sounded on the bridge.[T2835, E91] The Navigating Officer immediately queried whether the fire was in the MCR or the MMS to which the EOOW responded that the fire was in the MCR.[E91] The fact that the fire was in the MMS became evident when the EOOW requested, 18 seconds after the initial report and the alarm sounding, approval to shut down the SME as it was on fire. A broadcast was made from the bridge 31 seconds after the fire was reported that the ship's company was to close up at emergency stations.

Evacuation of the machinery control room

2.60 By 1038 it became necessary for the Engineer to order the evacuation of the MCR.[T2835] The SSFB assisted the casualties to exit the area via the emergency escape in the main switchboard room.[T26]

2.61 As the standard operating procedure required the EOOW to shut down all machinery and be the last to vacate the area, the EOOW put on OCCABA. WO Bottomley assisted the EOOW. Despite their best efforts, they were unable to shut down the starboard DA.[T1626] The last three people to evacuate the MCR were WO Bottomley, the EOOW and CPOET Ledlie.[T2836]

2.62 WO Bottomley took the name pegboard off the wall and gave it to the EOOW and they went to HQ1.[E3, T27] The pegboard was used to indicate the whereabouts of engineering personnel and specifically, those who entered the MMS.

Damage control headquarters (HQ1)

Manning

2.63 Damage control headquarters, HQ1, is a small compartment on 01 deck originally designed as a technical office. It has been adapted as a control centre for directing shipboard emergencies. Its after bulkhead is common to the MMS, about 17m above the bottom plates.

2.64 On hearing the broadcast for the SSFB to muster in the MCR, LEUT Shawcross and POET Edmonds went directly to HQ1.[E126, E157] LEUT Shawcross made the broadcast, ‘HQ1 manned, all reports to HQ1’. Shortly after, a message was received in HQ1 from the I/C of the SSFB that there was a fuel leak on the PME and the SSFB were standing by.[T1901, T290] LEUT Gishubl then arrived and was informed of the shut down of the PME and the precautionary measures which were being taken.[E38, T497]

2.65 Shortly after ‘hands to emergency stations’ was broadcast, LCDR Crouch arrived in HQ1 followed by other personnel. Within four minutes, personnel closed up in or near HQ1 were:

LCDR Crouch	(action NBCDO)
LCDR Jones	(rover)
LEUT Gishubl	(HQ1)
LEUT Shawcross	(HQ1)
LEUT Walters	(HQ1)
CHAP Gebski	(rover)
POET Edmond	(communications and HQ1 incident log)
POMED Plant	(I/C Ship’s emergency medical organisation)
LSSTD Nix	(SMET)

The bridge

2.66 Just after the outbreak of the fire at 1035, the Navigating Officer stated aloud that, ‘we’ve got to decide whether to anchor.’[E91] Three minutes after the fire

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commenced, the CO called for the position of the ship and the Navigating Officer recommended a hard turn to starboard to get the way off the ship.[E91]

2.67 Shortly before 1039, the Coxswain reported that the ship had lost steerage way. The priority of the bridge then became the containment of the fire and determining if there were any casualties. The ship's position continued to be fixed but with initial difficulty as electrical power to the ship's gyros was lost and power spikes were affecting the power supply to other navigation equipment. Following the outbreak of the fire and the loss of both MEs, HMAS WESTRALIA was 'not under command'. The ship was disabled and drifting in the Deepwater Channel, on either side of which were shoals. The ship lay beam onto the wind with the head to the east.[T124]

2.68 The CO, in consultation with the Navigating Officer, made a conscious decision to avoid anchoring.[T3154, E91] This decision was based on a lack of power to raise the anchor should the fire situation deteriorate to the point where it became necessary for the ship to be towed clear of the coast or, if the fire was extinguished, for the ship to be towed to FBW.[T3154]

2.69 Within four minutes of the fire alarm being raised, LSSIG Orrell asked whether the ventilation flaps to the MMS should be closed.[E204] The Navigating Officer ordered the Signals Yeoman to ensure that the ventilation flaps were closed. Within a minute this was reported as complete.

The medical response

2.70 When the broadcast was made for the ship's crew to close up at emergency stations, this was followed shortly afterwards by a second broadcast for the SMET to muster in the MCR. POMED Plant proceeded to HQ1, accompanied by LSSTD Nix.[E97, E383] All the other SMETs made their way towards the aft hydraulics room, having collected their SMET jackets or bags, and two oxy-vivas.[E161, E151, E158, E378, E150, E211, E383, E158]

2.71 On arriving at the aft hydraulics room, LSWTR Page saw the first of the casualties, LSMT Smith, being pushed out of the door, coughing and spluttering and she directed him towards the starboard boat space.[E161] She told ABSTD Osmon and ABSN Hutchinson to go to the MCR, however, both were almost immediately required to leave as it was being evacuated.[E158, T2244, E158]

INITIAL RESPONSE: 1038 – 1102

Damage control headquarters (HQ1)

Initial actions

2.72 Following the broadcast, 'hands to emergency stations', the ship's company, with the exception of those on watch and those who were SSD, closed up at their emergency stations and missing personnel were identified and reported to HQ1.

Operations

2.73 WO Bottomley and the EOOW arrived from the MCR with the name pegboard. It was not accurate as not all evacuating personnel had 'pegged out'. While the initial indications were that as many as seven people were missing, when information was combined from the Forward and Aft Section Bases and the SMET, it was determined that MIDN Pelly, POMT Smith, LS Meek and AB Carroll were missing.[T2950] Calls were made over the main broadcast system for the missing crewmembers.[T497]

2.74 The Engineer advised the Aft DC Section Base to prepare a hose team as quickly as possible for an entry into the MMS through the fridge flat.² The damage control (DC) organisation is such that each of the two DC section bases has a hose team. At about this time, the bridge reported to HQ1 that the MMS ventilation flaps had been closed.[E188]

2.75 The Forward DC Section Base advised that the emergency diesel driven fire pump was running, but as the only fire main pressure gauge was in the MCR, the Engineer asked WO Bottomley to return to the MCR and read the gauge.[E188, T2837] Wearing intermediate rig, WO Bottomley went to the MCR, observed that the fire main pressure was 110 psi and then went to the workshop door. Having found the door ajar, he opened it and stepped out about two feet onto the top plates. He could see nothing and returned to the MCR. Before exiting the MCR, he attempted to shut down the starboard DA (which was running on no load) but was unsuccessful. WO Bottomley returned to HQ1 and reported the fire main pressure and that the paint on the deck of the main switchboard room and the MCR was blistering.[E3, T28]

2.76 In HQ1, LEUT Gishubl directed the Aft DC Section Base to start setting up smoke boundaries and boundary cooling all around the MMS.[E38, T497] HQ1 also directed that a third hose team be established.[E38, T497] At the Forward DC Section Base, POB Body formed the additional hose team from spare hands and it was designated hose team 3.

2.77 On being notified by the Aft DC Section Base that hose team 1 was ready, the Engineer directed them to enter the MMS at 1049.

Command priorities

2.78 The Engineer telephoned the bridge at 1039 and spoke with the CO informing him that there was a major fire in the MMS and that he recommended a CO₂ drench although at this stage he thought that there was at least one person still in the MMS. The Engineer believed that the CO₂ from the drench would be far more benign than the carbon monoxide and that if anyone was still in the MMS, they would have a far better chance of survival with the drench. He also stated in evidence that he believed that there was a possibility that anyone still in the MMS would get an ELSRD or get to an area that was relatively smoke free such as the bilges.[E188, T2836, T3150, E38, T497] The CO declined to activate the drench and directed that a hose team be sent to search for missing personnel. The CO was concerned about the quality of the telephone communications and went to the Fire control room (FCR) where he spoke to the EOOW to ensure he had received the correct message.[T3150]

² Descriptions of a hose team and firefighting equipment can be found in Annex F.

2.79 At some time following his arrival at HQ1, the EOOW proceeded to the Fire Control Room (FCR) in accordance with the standard operating procedures. Once in the FCR he established communications with the bridge by the sound powered telephone and told them that he was standing by to CO₂ drench the MMS.[E115, T1628] He also closed the remote fuel shutoff valves.[T1629]

2.80 At about 1056, the CO went to HQ1 to discuss the situation with the Engineer who strongly recommended that the MMS be drenched then with CO₂. The Engineer believed that the CO instructed him to continue searching for five minutes and then to activate the CO₂ drench.[T1057, E188, E199, T3151, T2839] Confirmation of the intention to drench was passed by HQ1 to CPO Jenkins; he was also directed to withdraw the hose team from the MMS.

2.81 The CO, however, stated in his evidence that the discussion he had with LCDR Crouch did not amount to command approval to CO₂ drench after five minutes had expired. Shortly after the CO returned to the bridge he concluded that it would not have been possible for anyone to have survived in the 25 minutes since the fire started given the heat and smoke. After the five minutes had expired LCDR Crouch sought further command approval. The CO then told LCDR Crouch to, 'Pull [hose team 1] out and execute the CO₂ drench.' [T3151]

Aft damage control section base

2.82 The Aft DC Section Base is a sub-unit of HQ1 which is set up outside the junior sailors' change room.[T543] In addition to the I/C, CPO Jenkins, there are 38 personnel including a 2IC, a communications number with a standby, a five person hose team with a breathing apparatus board operator, four scene leaders, a four person SMET and support parties for hose handling and boundary cooling.[T543, E347]

2.83 Initially, CPO Jenkins and LS Bromage were involved with the removal of firefighting equipment and protective clothing from the junior sailors' change room to the port hose flat.[T539,E133, T2002] A roll call was undertaken to ascertain if any of the 38 personnel designated to the Aft DC Section Base were missing.[E40] The names of those missing was finalised and PO Sellick handed the list to AB Mortimer who informed HQ1 of those people who had not reported in.[E39, T540, T573, E133, T2003]

2.84 CPO Jenkins directed AB Justice to check that the supply and exhaust ventilation flaps to the MMS were shut. After some early difficulties where she had to seek additional advice from CPO Jenkins, she reported that the flaps were shut.[T4116, T571]

Boundary cooling

2.85 CPO Jenkins instructed personnel to set up boundary cooling inside the superstructure, on the funnel casing and in the aft pump room from about 1049.[T541] Boundary cooling continued intermittently for some time. There is no evidence to conclude precisely when boundary cooling ceased but it may have been as late as 1330.

2.86 The SSFB was given the responsibility to monitor the temperature of the bulkheads in the accommodation on 01 deck. The two members of the SSFB dressed in intermediate rig, commenced boundary cooling in the fridge flat inside the smoke boundary.[E39, T539, T551]

2.87 SBLT Manders, AB Shingles and LS Quigley commenced boundary cooling in the aft pump room and were relieved some time later by SMN Robb, LS Nixon and PO Sellick.[T3373-3374] During this period there were varying reports as to the temperatures in the aft pump room.

2.88 The first boundary cooling team was dressed in basic rig and they attempted the cooling with hand-held, 9 litre extinguishers.[T3348] Some difficulty was experienced connecting a fire hose to a hydrant and the hose was moved to another area.[T3373] As the casualties were in this immediate area, the hose was not initially used.[T2279]

2.89 The freon cylinders within the fridge flat area were moved at the direction of CPO Jenkins to prevent them overheating. The water spray system on the starboard hose flat was activated to cool acetylene cylinders stored there.[E39,T542]

Forward damage control section base

2.90 Like the Aft DC Section Base, the Forward DC Section Base is a sub-unit of HQ1. The Forward DC Section Base is set up in the replenishment at sea control position (RASCO); PO Body was in charge.

2.91 The first task undertaken by PO Body was to check off names against a list and prepared the RASCO as a base for OCCABA repair and cylinder recharging. Hose team 2 was dressed at the Forward DC Section Base and despatched to the tank deck to standby and then to the Aft DC Section Base.[T382] Personnel were despatched to start the forward fire pump and to de-isolate the fire main to deliver water to the aft part of the ship.[T382]

The MMS

Hose team 1 - preparation

2.92 Hose team 1 was formed at the Aft DC Section Base. Dressed in full firefighting rig, the hose team was made up of the following personnel: [E44, T626]

ABBM Smith	(No 1 waterwall)
ABCK Miskiewicz	(No 2 attack nozzle)
LSBM Daly	(No 3 (I/C))
LEUT Johnson	(No 4)
ABRO Lindley	(No 5)

2.93 When hose team 1 was ready to enter the MMS, HQ1 was advised.[T497] There was some conflicting evidence as to the instructions given to the team prior to entry. Although the Engineer was aware that the CO's priority was for search and rescue, there is no clear evidence that this direction was actually passed to the team leader.

Hose team 1 - entry

2.94 The team was logged onto an OCCABA control board and made a standard entry into the MMS at 1050 via the fridge flat.[E38, T497, E188, T2837] Shortly after, CPO Jenkins reported that hose team 1 had found nothing, visibility was zero and temperatures were extremely high.[E188, T2837, E38, T498] HQ1 kept the CO informed on the progress of hose team 1.

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Hose team 1 - withdrawal

2.95 After initially setting up an attack from the top platform on the fridge flat ABBM Smith, (waterwall) was able to descend the ladder onto the top plates and momentarily set up his waterwall. As he was trying to pull more hose down the ladder, however, jerking on the hose indicated that he should withdraw.[E206]

2.96 LS Bromage was the scene leader. His Maxon radio set was rendered unserviceable by water from the sprinkler system in the hose flat.[E133, T2004] Having obtained another Maxon radio set he attempted to obtain information from hose team 1 but was not always able to make radio contact. Runners were used to relay messages from the team to LS Bromage at times.[T2003] A Maxon radio was successfully used to inform hose team 1 to exit in preparation for the CO₂ drench.[T2004]

2.97 Hose team 1 exited the MMS, taking the two hoses, and closed the door to the fridge flat after them. Almost immediately after, at about 1101, the pipe, 'drench, drench, drench' was made and the EOOW released the CO₂ from the FCR.[T1629]

2.98 Although hose team 1 had only been in the space for approximately 11 minutes it proceeded to the RASCO to change OCCABA cylinders and prepare for the next entry.[T971] While servicing the OCCABA sets a team member had a problem with an O-ring and another could not release the cylinders.[T971, T990]

Initial casualty management

2.99 The SMET members mustered in the starboard boat space to treat the casualties. In quick succession, PO Hollis and PO Francis exited the aft hydraulics room and were directed to the starboard boat space.[E161] Each SMET member were allocated an individual patient and initial treatment was started.

2.100 In HQ1, PO Plant received notification of the first three casualties and proceeded to 1 Deck.[E97] By the time of his arrival, oxygen therapy had been commenced on all casualties.[E161] PO Plant assessed the condition of the casualties and determined that they were stable.[E158] Additional equipment was obtained from the sick bay.[E97, E161] AB Moffatt inserted an intravenous cannula in PO Francis.[E151]

2.101 On completion of initial treatment, PO Plant provided a situation report to HQ1 advising that all the casualties were stable.[E97] The bridge audio tape³ records him as briefing the CO on the casualty status at 1046 [E91] but neither he nor the CO, subsequently recalled the conversation.

2.102 PO Plant returned to the starboard boat space at 1100. He also administered analgesic medication to PO Hollis after obtaining concurrence from Dr Currie at HMAS STIRLING by mobile telephone.[E365, E57B, E97, T2291] At about the same time he was told by CHAP Gebski that four personnel were unaccounted for.[E97, E388]

The bridge

2.103 Maritime Headquarters Australia West (MHQ West) received the first news of the fire less than 7 minutes after it was first detected. This was via a mobile telephone call

³ An abridged version of the transcript of the bridge tape can be found in Annex D.

from the Navigating Officer who requested tugs, helicopters and other ships.[T127] The second mobile telephone call by the Navigating Officer was to the Port Services Manager (PSM), LCDR Jempson, at FBW. The call included a request for a MO. The Signals Yeoman, PO Chambers, used a mobile telephone to pass seven formal signals to the Naval Communications Area Local Station Fremantle (NAVCALS Fremantle) for onward transmission through the Defence communications network.[T128,E48] Over the next 1½-2 hours, the Navigating Officer was in regular communications by mobile telephone with the Operations Officer at MHQ WEST or the PSM at FBW. The CO was also in contact with Maritime Headquarters Australia (MHQ) by mobile telephone.[T3155-3156]

2.104 Communications with the Fremantle Port Authority (FPA) were established using a VHF radio and by 1046, the Harbour Master, Captain Atkinson, was aware of HMAS WESTRALIA's predicament. The message which was passed included the information that the ship had had a major fire in the MMS, both engines were disabled but the situation was under control and the vessel was at anchor between the number one Deepwater Channel and Fairway buoys.

2.105 At 1050 there was a burning smell on the bridge.[E204] The QM located the source, opened a panel and turned the MCR talk-back radio off. He also placed an extinguisher nearby.[T1120]

2.106 Shortly afterwards smoke started entering the bridge to the extent that the Navigating Officer ordered one bridge door be closed and the CO the other.[E91] Between 1057 and 1058, PO Sellick reported 'thick, black smoke on the port side of 04 deck near the magazine and pyrotechnics locker.'[E91] This smoke, which originated from the port MMS ventilation intake, was then being blown into the bridge.[T1126] The QM used the bridge GX91 meter and measured 120 parts per million of carbon monoxide. The Navigating Officer consequently ordered all unnecessary personnel off the bridge. Those who were required, were only allowed to return to the bridge for short periods.[T1120, T1122]

External agencies

Fremantle Port Authority

2.107 On receipt of the VHF radio advice from HMAS WESTRALIA at about 1046, the Harbour Master immediately placed the port safety and emergency response vessel on standby.[T2452] During a telephone call at 1050 the PSM advised the Harbour Master that the decision was not to anchor the ship. The use of tugs was discussed; this included the possibility of Fremantle Tug Operators (FTO) claiming salvage if WESTRALIA was outside port limits.[T2452-2453] The PSM also requested that the Harbour Master inform the Chairman of the State Marine Oil Pollution Combat Committee of the situation. This was done and all services were placed on standby.[T2452]

Fleet Base West

2.108 As soon as the PSM had finished speaking with the Navigating Officer, he telephoned Defence Maritime Services Pty Ltd (DMS) and requested two tugs be despatched to WESTRALIA. The PSM suggested the Garden Island based tug TAMMAR and a large port tug from Fremantle. The fact that the tugs had been ordered was passed to

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WESTRALIA's Navigating Officer together with a warning concerning the possibility of a salvage claim.

2.109 Shortly after the first report of the fire, the CO HMAS STIRLING, CMDR Johnson, took charge of the shore support assistance for WESTRALIA.[E387]

2.110 By about 1115 LEUT Stone, a medical officer, and CPOMED Bonner embarked with medical equipment in a rigid hull inflatable boat (RHIB). This was the first surface craft to arrive alongside WESTRALIA and did so at 1143.[E91, T1033, T1055, T1076-1077, E387, E91]

RAN Surface Units

2.111 At approximately 1051 a message was received from MHQ West stating that WESTRALIA had a MMS fire and requesting units prepare to offer assistance, if required. At the time, HMAS ADELAIDE was in company with HMA Ships DARWIN, SYDNEY, SUCCESS, with the latter's Sea King helicopter airborne, engaged in a photographic exercise. The surface units were 26 nautical miles west of Rottnest Island on a course and speed of 240° at 14 knots.

2.112 The CO ADELAIDE was Officer in Tactical Command (OTC) and he conferred with the COs of the ships in company by VHF radio and advised that all units, embarked aircraft and shore agencies would be coordinated by ADELAIDE. He also briefed the ships that he intended to detach units to close WESTRALIA at best speed to provide support. HMAS SYDNEY was detached at 1055 and HMAS DARWIN at 1102.

TAMMAR

2.113 The tug TAMMAR was the first of the FBW units to be despatched to WESTRALIA. The vessel proceeded at full speed after about only 5 minutes notice.[E387]

Fremantle Tug Operators

2.114 DMS telephoned FTO at about 1100 and negotiated an hourly rate towing contract under the company's hourly hire rates. The tug WAMBIRI, which had been taken out of service the day before for maintenance, was immediately made ready.

CO₂ DRENCH: 1102 – 1126

Activation of the drench

2.115 When the five minute period had elapsed, LCDR Crouch sought further confirmation from the CO before ordering the CO₂ release.[E199, T1629] The CO confirmed the order at 1101 and the broadcast 'drench, drench, drench' was made throughout the ship from HQ1.[E38, E39, T498, T540]

2.116 The EOOW then discharged the CO₂ from the FCR; this was reported to HQ1.[E155, T1629-1631] As the EOOW was leaving the FCR, the CO who was then standing outside the FCR asked him whether he had activated the drench and this was confirmed.

2.117 The EOOW went to the CO₂ bottle storage room on 1 deck to check if all the cylinders had discharged. Because of some leaking CO₂ there was a thick mist in the room and he was unable to enter to confirm that all the cylinders had been discharged. He went to HQ1 and reported this.

2.118 As a consequence, WO Bottomley went to the CO₂ bottle room in OCCABA and found that not all the cylinders had discharged.[T1629-1631] Having checked with the EOOW as to which cylinders supplied the MMS, WO Bottomley concluded that it would be necessary for him to manually activate all the remaining cylinders. Approval was obtained from HQ1 and WO Bottomley activated the undischarged cylinders of CO₂ seven minutes after the initial discharge.[T28, E129] Personnel in HQ1 again heard the CO₂ discharge through the pipes.[E38, T498]

Decision to re-enter after the drench

2.119 The ship's company followed the laid down procedure and waited for 15 minutes to elapse after the second release of CO₂ before re-entry into the MMS.[T3158] Evidence was given that the re-entry decision was based on the fact that temperatures had not fallen after the introduction of the CO₂ drench and in fact, the temperatures seemed to be rising. The first 'documented' temperature, however, was taken at 1125 showing a temperature of 50 with a downward arrow.[E128] The second hose team entered at 1126.

2.120 Between 1125 and 1136, seven temperatures were recorded to monitor the MMS boundaries in four different places. Although it was stated in evidence that temperatures other than those recorded were taken there is no evidence to confirm this statement.[T3974]

2.121 Evidence of low levels of oxygen in the MMS was demonstrated by the nature of the smoke from the exhaust of the starboard DA which continued to run for an hour or so after the fire started. The exhaust was described as being like that from 'Thomas the Tank Engine' with bursts of smoke puffing out at regular intervals.[T1492]

Aft Pump Room

Fire

2.122 As a result of concerns over what was happening in the aft pump room the XO was asked by LCDR Crouch to take charge of the area. Some of the messages recorded were, 'nil hot spots aft pump room – 1114, hot aft pump room – 1116, aft pump room blistering –1120 and fire in aft pump room out – 1124'. No evidence has been found to indicate that a fire ever started in the aft pump room.

Casualties Relocated to the RASCO

2.123 Shortly before the CO₂ drench, the XO advised PO Plant that the casualties were too close to the scene of boundary cooling efforts and that they should be moved forward to the RASCO.[T1567, T1526] PO Plant directed the SMET to move the casualties, a process which took approximately 10 minutes.[E97, E211, T2291]

2.124 PO Plant then returned to HQ1 where he was informed that two medical officers were in transit to the ship. He also obtained confirmation of the four missing

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personnel.[E97] Observation and treatment of the three casualties continued at the RASCO, PO Plant reviewing them again.[E97]

2.125 At about 1145, PO Plant went to the bridge to meet HMAS SUCCESS's medical officer, LEUT Eggerling, who arrived in the first helicopter, the Sea King from SUCCESS.[E14] He escorted her to the RASCO, briefing her on the casualty state and the four missing personnel.[E97] He almost immediately returned to the port boat space to meet LEUT Stone and CPO Bonner who had arrived from FBW by RHIB at about the same time.[E97, E15, E17A, T135] Both medical teams brought additional equipment, including Thomas packs and oxy-vivas. LEUT Eggerling inserted a cannula in PO Hollis.[E151]

External Agencies

RAN Surface Units

2.126 HMAS ADELAIDE completed a RAS with HMAS SUCCESS and at 1109 both ships commenced passage at best speed to join WESTRALIA which was 38 nautical miles to the east.[E52]

Fleet Base West

2.127 At approximately 1115, the CO STIRLING advised the Harbour Master that there were casualties in WESTRALIA and requested that the Rous Head helipad be readied to receive them. Police assistance was sought to ensure emergency access for ambulances due to the major industrial action which was taking place on the nearby wharves at the time.[T2454]

Fremantle Tug Operators

2.128 By 1125, the tug WAMBIRI left her berth with a crew of six which included two additional hands.[T2437]

HOSE TEAM OPERATIONS: 1126 – 1232

Hose team 2

2.129 Hose team 2 formed at the Forward DC Section Base immediately after 'emergency stations' was piped. HQ1 was notified that the team was ready and they were handed over to the Aft DC Section Base. The team was made up of the following personnel: [E45, T663]

LSBM Durnan	(No. 1 - waterwall)
ABBM Noles	(No 2 - attack nozzle)
LSETW Mitchell	(No 3 - I/C)
ABET Hunter	(No. 4 - hose handler)
SMNBM Morris	(No. 5 - hose handler)

2.130 CPO Jenkins directed LS Bromage to be the scene leader.[E133, T2005] LSMT Bromage briefed LS Mitchell on the conditions within the MMS and then HQ1 was

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informed that the team was ready. They waited for HQ1 approval to enter the MMS.[E133, T2005]

2.131 At 1126 hose team 2 entered the MMS from the fridge flat. The five team members were appropriately dressed and OCCABA procedures were followed. There was zero visibility in the dense smoke and the team reported intense heat.

2.132 Again, there were difficulties with the Maxon radio sets. LS Bromage directed AB Street and AB Richardson to visually confirm that hose team 2 had entered the MMS. The runners confirmed the entry and shortly after, Maxon radio communications were established.[E133, T2005] Radio communications between the hose team and the scene leader remained a continuing problem.

2.133 At 1135, LS Mitchell reported that the thermal imaging camera (TIC) was showing hot spots everywhere and the screen had completely whited out.[T668] Despite the thick smoke and intense heat the team went down the ladder to the top plates.

2.134 The team progressed to the top plates handrail area, cooling oil drums and directing foam over the MEs and onto hot spots identified with the TIC.[E133, T2005] The team also reported that their boots were sticking to the plates and hot water or molten plastic was dripping on them.[E133, T517, T669]

2.135 LS Mitchell noticed that he was running out of air. He pulled his D-ring to activate the reserve air supply and started to leave the MMS with his team. On the way out, he became lost in the smoke but was found by SMN Morris and guided to the ladder.[T670] The team left the hoses on the top plates.[T671] While handing over to LS Cain within the smoke boundary, LS Mitchell ran out of air completely.[T670]

2.136 Hose team 2 proceeded to the RASCO to service the OCCABA and rest. Unfortunately, there was no water for the team to drink, only frozen fruit juice packs.[T671]

Hose team 3

2.137 At the Forward DC Section Base LS Cain volunteered to be the team leader of hose team 3. The team was made up of the following personnel: [T758]

LSET Elliott	(No.1 waterwall)
ABMT Croasdale	(No 2 attack nozzle)
LSBM Cain	(No 3 (I/C))
SMNBM Williams	(No. 4)
POWTR Mackinnon	(No. 5)

2.138 Hose team 3 went aft. Prior to entering the fridge flat at 1151 to replace hose team 2, the scene leader, LS Bromage briefed them as to the conditions and that four people were missing.[T758] The team was correctly dressed in protective clothing and OCCABA and their names were placed on a control board.[T466]

2.139 The change over occurred outside the MMS but LS Cain was still briefed by LS Mitchell.[T759] Hose team 3 followed the hoses onto the top plates, found the nozzles and then started attacking the fire. By using the TIC, LS Cain could see what were apparently flames and directed his team to apply water and foam. He said he could see the water hitting the fire through the TIC.[T760]

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2.140 During hose team 3's attempt to descend to the middle plates to aid in reaching the seat of the fire, they found LS Meek on the top landing of the port side ladder from the middle plates to the top plates.[T760] LS Cain checked for a pulse, found none and notified the scene leader by Maxon radio of the discovery which was recorded by HQ1 at 1205.[E50, E18] As LS Meek was impeding the progress of the hose team, LS Cain decided to move him to the base of the fridge flat ladder.[T760]

2.141 WO Baker and LS Nunn observed this action from the fridge flat door.[E159, T2400, T1312] WO Baker sent a runner to the Aft DC Section Base to report that he had seen a casualty while LS Nunn descended to the top plates, arriving at the same time as the hose team. As LS Meek was placed on the deck, LS Nunn heard what he thought was a moan.[E101A] LS Nunn checked that LS Meek had no perceptible pulse, and confirmed by other observations that he was dead.

2.142 Observing from the fridge flat landing, WO Baker was uncertain as to whether the casualty was in fact deceased. He tasked LS Bromage to get ELSRDs, one specifically for the casualty.[T2008, E159] A Paraguard stretcher was obtained from the Junior Sailors' Mess, assembled, and with some difficulty, LS Meek was placed in it.[E172, E101A] At the same time, at 1215, an ELSRD was placed on LS Meek.[E159, E41, E172] At around 1220, all personnel in the vicinity apart from AB Liddell ran out of air and he was left alone to care for LS Meek.[E101A, E390A, E236]

2.143 Hose team 1 continued their attack from the top plates and LS Cain encouraged his team that they were going to beat the fire.[T760] LS Cain received a radio message from the scene leader that foam was about to be dumped through the funnel and that the team was not to panic.[T760-761] They reported that the AFFF which was pumped in through the funnel felt like snow except that it was very hot.[T760-761]

2.144 Hose team 3 was getting low on air when hose team 1 arrived with LS Daly in charge. LS Cain gave a comprehensive handover and then hose team 3 assembled at the base of the ladder on the top plates to ensure that the whole team was present and nobody had been left behind. The area was hazardous and difficult to negotiate due to the number of fire hoses on the deck and the close proximity of the body to the ladder.[T762, T467-468] LS Cain stayed behind for a short time to assist AB Liddell who was attempting to place LS Meek in a stretcher.[E41, T762]

2.145 On returning with replenished OCCABA, WO Baker descended to the top plates for a second time and confirmed that LS Meek was neither breathing nor had a pulse. He arranged for him to be moved further away from the base of the ladder and for a further situation report to be passed to the Aft DC Section Base by AB Munday.[E159] LS Meek's ELSRD was changed regularly by a number of personnel until 1255 when PO Plant and LEUT Eggerling arrived in the MMS.[E386, E36A]

2.146 While exiting up the ladder LS Elliott ran out of air and had to pull his D-ring. Within 30 seconds he had completely run out of air and had to remove his mask.[T468] The hose team changeover was recorded by the Aft DC Section Base at 1210. Hose team 3 proceeded to the Aft DC Section Base and then to the RASCO to service the OCCABA and rest.

Hose team 1 re-entry

2.147 Having received their handover, hose team 1, which was made up of the same people who had entered earlier, continued to fight the fire. AB Smith, (waterwall) was

directed to go down to the middle plates via the port ladder. AB Miskiewicz and LS Daly followed shortly after.[T629]

2.148 The team leader, LS Daly, continued to direct the operation and kept the attack hose directed towards the hot spots, although by this time he could see no flame.[T630-632] As LS Daly was looking around the middle plates he found POMT Smith's body near the port ladder on the middle plates. He found no pulse. Because his Maxon radio was not working and no-one had come down for a situation report, LS Daly left his hose team and went up to the fridge flat cat walk to make a report.[T630] After his return to the middle plates, he found the bodies of AB Carroll and MIDN Pelly between the DAs.[T631] Neither had a pulse.

2.149 Because LS Daly still had no means of communication, he again went up to make a report, this time that he had discovered two more bodies on the middle plates.[T632] He told LS Durnan whom he believed was from another team and coming to relieve hose team 1 that he had found three casualties and that he believed that the fire was out. He waited on the top plates for the rest of his team which had been relieved and then exited the MMS with them. On the way out with his hose team, LS Daly met LSETW Mitchell and gave him a handover.[T632] He then told WO Baker that he had found three bodies on the middle plates and that while there were hot spots, the fire was out.[T632] At 1232, the Aft DC Section Base recorded that the fire was out.

The bridge

2.150 Between 1108 and 1220, the ship drifted north at a rate of about 0.5 of a knot over a distance of 1350 yards. Once it was known that the tug TAMMAR was on its way, the Navigating Officer continuously calculated its ETA at the ship and the time that HMAS WESTRALIA would drift on to the 8.2 metre shoal. Initially, fixes were taken every three minutes by the OOW and plotted by the Assistant OOW but as the northerly drift towards the 8.2 metre shoal became more apparent, the time interval between fixes was dropped to two minutes.

2.151 The tow by TAMMAR was established at 1220 when the ship's bridge was less than 200 yards from the shoal patch. Had it been necessary for the vessel to anchor in that position, the length of the ship, the scope of cable and the prevailing wind, would have made grounding almost certain.

External agencies

RAN surface units

2.152 The OTC advised all units to prepare fire teams with a priority on teams comprising ex WESTRALIA sailors and preferably those with an engineering background. At 1142 the OTC informed all units that he was taking command as the On Scene Commander (OSC) in order to co-ordinate support for WESTRALIA. Communications were established between the OSC and WESTRALIA at 1146 and priorities were established as OCCABA, Fearnought suits, Maxon radios, portable pumps and diesel fuel to operate them. HMAS SUCCESS had a suitable pump which was to be transferred to WESTRALIA. At 1206 WESTRALIA repeated that a pump was a priority item to support the fire teams fighting the fire.[E52]

NARRATIVE

2.153 At 1210 the OSC executed a screen 'Cordon' based on WESTRALIA in order to facilitate the transfer of stores and 'deconflict' units.

RAN aircraft

2.154 The first assignment of the Sea King helicopter embarked in HMAS SUCCESS, was to fly a medical officer, LEUT Eggerling, medical equipment, OCCABA sets and Fearnought suits to WESTRALIA and the aircraft launched at 1125. During the flight, radio communications and call signs were ordered to be in plain language.[T849] The flight crew was warned that the vertical replenishment (vertrep) deck would be manned by only a marshaller. To assist the marshaller, the Sea King helicopter aircrewman or the observer were winched down to the vertrep deck on each occasion to assist in controlling it during aviation operations.[T850]

2.155 After LEUT Eggerling was winched to the deck at 1143, the stores were transferred in a Billy Pugh net that is normally used for scooping an injured person out of the water.[E17A, T863]

2.156 The Sea King helicopter then flew to the Helicopter Support Facility (HSF) at FBW and embarked fire crews from HMAS ANZAC and offloaded the fire crews and their equipment on to WESTRALIA by 1228.[T851, E52] There was a minor problem with the winch at that time but this was overcome.[T852]

2.157 The HMAS ADELAIDE Seahawk helicopter was first readied for the transfer of an ADELAIDE fire team at 1137 but was not launched until 1210. Its load included OCCABAs, Fearnought suits, Maxon radio sets and diesel fuel for the fire pumps that were being transferred to WESTRALIA by the Sea King helicopter. The Seahawk helicopter had to hold off until the Sea King cleared from WESTRALIA before it could commence its transfer at 1230.[E52]

Fremantle Tug Operators

2.158 By 1151, DMS had confirmed the order for the provision of tug services by facsimile message to FTO.

2.159 On the bridge of WESTRALIA, however, there was some apprehension that the Master of WAMBIRI had made an open claim for salvage as the tug approached the ship. The Navigating Officer thought that the Master of WAMBIRI used the words:

I reserve the right to negotiate the terms of this charter at a later date.

2.160 The Navigating Officer took this to mean that the Master was leaving a salvage claim open for a later time.[T141] What was read out by the Master of WAMBIRI was in fact a general instruction to all the firm's tug masters that in local emergency cases within port limits where tugs are called out to assist a ship that has sustained a grounding or collision, tug masters must advise the casualty's master as follows:

We acknowledge your call and will render assistance immediately. My owners reserve the right to negotiate the terms under which these services are rendered.[E162]

NARRATIVE

2.161 It would appear that the message that the tug was under a fixed towing contract was either not passed to WAMBIRI or WESTRALIA, or was passed, but lost in the flow of messages reaching the Naval vessel.

2.162 WAMBIRI is fitted out for ocean rescue work and has a bollard pull of 61 tonnes; she is also fitted with firefighting equipment which includes a water cannon with a capacity of 10,000 litres a minute and about 13 tonnes of foam.

2.163 WAMBIRI arrived at WESTRALIA shortly after TAMMAR commenced the tow.

FIRE EXTINGUISHED: 1232 ONWARDS

Hose Team 2 re-entry

2.164 At 1230 hose team 2 replaced hose team 1 and proceeded to the middle plates to cool hot spots. LS Mitchell could not see any fire or hot spots and also reported that the fire was out.[T672] With their air getting low, hose team 2 exited from the MMS at 1258.

Overhaul and smoke clearance

2.165 Hose team 3 lead by LS Cain received a handover and at 1258 proceeded into the MMS to continue overhauling the fire. The team broke into pairs and continued cooling hot spots until relieved by re-flash sentries who were members of hose team 1. LS Cain reported to the EOOW and CPO Jenkins that there were no hot spots or spot fires.[T764]

2.166 When the hose team 1 re-flash sentries exited the MMS a number of other people were rotated as re-flash sentries. The re-flash sentries were appropriately dressed and wore OCCABA. Smoke clearance continued until just after 1400.

Medical activities

Further casualties

2.167 About 1215 an erroneous report was received in HQ1 that a missing crewmember had been found alive in the MMS. This resulted in the establishment of a casualty reception area on the port side of the tank deck immediately forward of the superstructure, with necessary equipment and a team of personnel including the medical officers, standing by.[E57A, E150] Approximately ten minutes after the resuscitation bay was set up, AB Street became a casualty and was initially taken to the resuscitation bay and then to the RASCO at about 1230. Not long after this, AB Liddell presented as a casualty to RASCO and was also cared for.[E57B, E150, E158 T1033]

2.168 LS Nunn became a further smoke inhalation casualty, reporting to the RASCO at 1350.[E57B, E61] He was treated and returned to duty but required further treatment shortly afterwards.[E57B] Following the second treatment, he again returned to duty. Although no other casualties were formally seen during the day, it became evident during the Board's hearings that a number of personnel suffered smoke inhalation but who did not report for medical treatment.[T291, T967, T2001, T2961-2962, E173]

NARRATIVE

Medical staff supplementation

2.169 WESTRALIA requested additional medical staff from other ships at 1236.[E52, T175] HMAS DARWIN provided an ABMED3 who was transferred at 1240 and HMAS SYDNEY despatched a POMED4 and an ABMED3 who arrived at 1252 along with additional medical equipment.[E17A, E54] These personnel mustered at the resuscitation bay set up in the port boat space. WOMED4 Smith was transferred from HMAS ADELAIDE by Sea King helicopter at 1251 and went to the RASCO.[E17A]

Identification of the deceased

2.170 At the time the fire was reported out the CO formed the view that the situation was coming under control. His priority then became to confirm the fate and identities of the four missing crewmembers, particularly as MHQ was concerned to inform the next of kin. He instructed LCDR Crouch to arrange for the medical teams to recover the bodies to the fridge flat as soon as possible so that he could personally identify them.[T3155, E57A]

2.171 LEUT Eggerling and PO Plant proceeded to HQ1 and were briefed by LCDR Crouch as to what they might expect when they went into the MMS.[T2967, E97] They entered the MMS at 1250 and identified and certified as deceased, the following casualties:[E41]

LSMT Meek at 1255; [E438]

POMT Smith at 1308; [E438]

ABMT Carroll at 1310; [E438] and,

MIDN Pelly at 1315.[E438]

2.172 At 1325, they left the MMS, went to the bridge to brief the CO on their findings and then to HQ1 to brief LCDR Crouch.[E41] The decision was taken to remove the bodies from the MMS to minimise the stress for personnel attending to the aftermath of the fire. Medical teams were arranged for the extrication of the casualties.

Management of the injured at the RASCO

2.173 Care of the casualties at the RASCO continued; they were made more comfortable and additional medication was given by LEUT Stone.[T1033]

2.174 A discussion regarding evacuation ashore took place between the Staff Officer Health Services, LEUT Spehr, and CPOMED Bonner onboard WESTRALIA. The decision was made that the injured should be taken to St John of God Hospital, Murdoch.[E84] At about 1205 the command was requested to arrange a helicopter for a medevac.[E51] At that stage the priority for air assets was the firefighting effort and the casualties were stable. LEUT Stone left the RASCO at about 1240 to assist the resuscitation team aft and CPOMED Bonner left shortly after that. The care of the casualties was left under the supervision of LS Page. Medical evacuation of casualties.

2.175 At sometime after 1250, the CO considered that the situation was under control and that sufficient additional personnel and equipment had been embarked in WESTRALIA.[T3155-3156] The intention to conduct the medevac as the next air tasking was communicated to the OSC at 1301 and the Sea King helicopter was re-tasked a minute later.[E52] Initial information passed to the OSC at 1309 advised that there were three casualties, one of whom required winching in a stretcher, and that they would be ready in

NARRATIVE

approximately 15 minutes. At 1326, the number of casualties was revised to four and then at 1329, to five.[E52]

2.176 The casualties were taken to 04 deck and positioned just aft of the bridge.[T2293] There was some concern about whether the two casualties with intravenous lines could be safely winched. The vertrep marshaller, LCDR Opie, checked with LEUT Eggerling and WO Smith who confirmed that the procedure would be safe if the intravenous lines were turned off and the bags tucked into their overalls.[E61, E155]

2.177 The medevac commenced at 1340, all casualties being winched in a double-lift strop to the Sea King helicopter.[E17A] No medical escort was sent. By 1406, the medevac of the casualties to St John of God Hospital was successfully completed.[E61, E52]

Casualty extrication

2.178 During the return to FBW, and prior to the extrication teams starting operations two SMET personnel were sent into the MMS at 1416 to cover the bodies with blanket.[E57A, E18, E236]

2.179 The first of the teams entered the MMS at 1515, dressed in intermediate rig.[E18] The four casualties were placed in body bags.[E150, T2512] MIDN Pelly was carried via the port ladder to the middle plates and then aft towards the tiller flat before the team had to exit as they had run out of air.[E57A, E54A] The time that this team departed from the MMS was not recorded.

2.180 The second team, again in intermediate rig, entered the MMS at 1551.[E18] WO Baker arranged to set up a two-fold purchase from the tiller flat into the fridge flat and the bodies of LS Meek and MIDN Pelly were lifted and placed in a refrigerated compartment.[T2512] An attempt was made to lift POMT Smith's body from the middle plates to the top plates, but this was abandoned as being too difficult. WO Wilson rigged a second handy billy to assist, but by this time, the team's air had run out and they were forced to leave at 1617.[E60A, E54A, E18]

2.181 On their return to the upper deck following this second entry, the CO discussed the casualty extrication process and the difficulties associated with it with LEUT Eggerling and PO Plant. Given the fatigued condition of the medical teams, he ordered the suspension of recovery operations at around 1642 until it was safe to continue to do so without breathing apparatus.[E18, T3156]

2.182 The third entry of the teams occurred at 1707, OCCABA not being required as the compartment had been declared oxygen safe.[E18]

2.183 Using the previously rigged handy billy, the bodies of POMT Smith and AB Carroll were lifted from the middle plates to the top plates and then via the tiller flat escape ladder to the fridge flat.[E97A, E54A, E84A] Extrication times were recorded as 1721 and 1734 respectively.[E18] The team left the MMS at 1738.[E18]

External agencies

TAMMAR

2.184 A synthetic rope was used for the towline and the tug, with its 35 tonne bollard pulled WESTRALIA clear of the 8.2 metre shoal. Unfortunately WESTRALIA's rudder was locked at 30° and in order for the tug to pull the ship on a particular course, it had to position itself about 60° to port of the ship's head. This placed an additional strain on the towing line, which parted at 1250.[E17A, T142]

Fremantle Tug Operators

2.185 After TAMMAR's synthetic rope line snapped, WAMBIRI attempted a hook up using its 48-millimetre wire line. There were insufficient numbers of WESTRALIA's crew on the forecastle at the time and those who were there placed the messenger over a bollard. Eventually the towing wire was brought inboard and secured for towing at 1314.

RAN surface units

2.186 At 1234 the OSC amended the screen 'Cordon' to facilitate the transfer of stores by boat which commenced at that time. By 1244 it became evident that sufficient firefighting equipment was either onboard WESTRALIA or en route to the ship. Based on the shift in priorities, a team of Sea Training Group DC specialists was transferred by air to WESTRALIA.[E52]

2.187 Considerable congestion was developing around WESTRALIA while at the same time navigable waters were decreasing. Accordingly, the OSC cleared non-essential units from the area. At 1300 WESTRALIA reported that the fire was extinguished and that the search for casualties had commenced. At 1310, HMAS DARWIN's boat responded to a request for intravenous fluids. HMA Ships SYDNEY and ADELAIDE supplied water and victuals at 1330 and the ADELAIDE CISM team joined WESTRALIA at 1335.[E52]

2.188 By 1330 the situation had de-escalated to the point where various vessels were ordered to detach. DARWIN and the DTV SHARK were ordered to remain with WESTRALIA, to proceed to FBW when ready and provide ongoing support as necessary.[E52]

RAN aircraft

2.189 Airspace congestion caused by media helicopters reached a point where, at 1332, the OSC requested that Flight Information Services Perth keep civil aircraft out of the immediate vicinity of WESTRALIA. By 1325, Flight Information Services Perth had established an exclusion zone around WESTRALIA and congestion then eased noticeably.[E52]

2.190 At 1308, the Seahawk helicopter winched a fire team from HMAS SUCCESS onboard WESTRALIA. On completion, the aircraft flew to the HSF at FBW to embark a critical incident stress management (CISM) team for WESTRALIA. They were winched onboard by 1414 prior to the aircraft recovering to HMAS ADELAIDE at 1420.[E52]

2.191 The Sea King helicopter's next sortie was to take 14 members of the Sea Training Group and HMAS ADELAIDE's fire crews with equipment to WESTRALIA.

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The next assignment was to medevac the casualties. While they were being prepared, the Sea King helicopter flew to ADELAIDE to fuel and return to WESTRALIA.[T854]

2.192 The medevac of the five casualties to St John of God Hospital at Murdoch was without incident. The air traffic control authority assisted greatly and on completion, the aircraft returned to HMAS SUCCESS where it was placed on alert 30.[T855-856]

Fleet Base West

2.193 Subsequent to a request by the Navigating Officer, the PSM arranged for 25 FIMA staff to embark in DTV SHARK to assist WESTRALIA's crew with their firefighting efforts.[T1742] DTV SHARK also carried spare Fearnought suits, OCCABAs and TICs.[E387] The firefighters and the equipment was offloaded onto WESTRALIA at 1320.

2.194 FBW also provided a CISM team which had been requested by the CO WESTRALIA which was airlifted to the ship by Seahawk helicopter at 1414.[E387]

2.195 In order to relieve the Navigating Officer, the PSM embarked in WESTRALIA at 1456 to act as pilot to bring the ship down the Parmelia-Success Channel to FBW.[T1738 and E387]

2.196 Before WESTRALIA entered the Parmelia-Success Channel, WO Bottomley and 2 members of the STG centred the rudder by hand pump, a task which took about 10 minutes.[T905-906, T910] After the rudder was centred, the tow to FBW was without incident and WAMBIRI and TAMMAR were joined by a second FTO tug, WYONG, at 1515 to assist with the move down the Parmelia-Success Channel. WESTRALIA berthed on Parkes Wharf at FBW at 1811.[E162]

2.197 At the direction of the Minister for Defence, the CO STIRLING held a press conference at 1510 and was otherwise occupied with the media until after the ship berthed.[E387] Other personnel from FBW assisted relatives and friends of the crew of the ship before it arrived. By the time WESTRALIA berthed, hot food and STD telephones were available and accommodation arranged for those who required it.[E387]

2.198 A legal officer, CMDR Vickridge, arranged for the Arson Squad of the Western Australian Police Service (Police) to attend. This assistance was sought in order to conduct formal identification of the deceased, determine their cause of death and the cause and origin of the fire. A mobile Police unit was also established adjacent to the wharf before WESTRALIA berthed. The unit, a Disaster Victim Identification Team comprised an Emergency Operations Unit, a Forensic Division and members of the Arson Squad arrived at 1830. The duty forensic pathologist, Dr Cadden, also formed part of the unit which acted on behalf of the State Coroner.[E452, T78]

2.199 On arrival of WESTRALIA at FBW, Police members embarked and carried out formal identification of the deceased with the assistance of PO Plant.[T1200] The MMS and fridge flat were secured by Police boundary tape and photographed by both still and video photographers. The Arson Squad examined the MMS and, within a relatively brief period, isolated what appeared to them to be the origin of the fire. Evidence was collected and taken into custody by CMDR Vickridge.

2.200 A duty watch from STIRLING was embarked in WESTRALIA so that her ship's company was able to proceed on leave that night.[E387]

NARRATIVE

2.201 The deceased were landed after WESTRALIA's crew had left the ship and the media had departed. Each of the deceased was piped over the side and marks of respect paid by gangway staff and all personnel in the vicinity. A Naval police vehicle was arranged to escort the hearses to the HMAS STIRLING gangway.