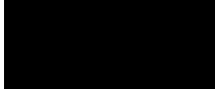


CORRECTED
COPY *Bob*

B O'Sullivan


Commander K Radburn RAN
Commission Secretary
HMAS SYDNEY II
Commission of Inquiry
Office of the Chief of Defence Force
270 Pitt Street
Sydney 2000

Dear Commander Radburn,

I attended the Inquiry meeting on Monday 12 January 2008.

The following may assist in clarifying some of the information presented

VENTILATION.

SYDNEY II was fitted with a system commonly known as the PUNKA LOUVRE internal ventilation and fitted in all British Passenger ships built from the early 1930s, and utilised after ship's converted to Air Conditioning.

Where the trunking passed through a fire or watertight bulkhead, a flap controlled by an extension arm was fitted, when activated and secured in place, stopped the flow of air into that compartment.

This system persisted until new tonnage was built with air conditioning, when the unsightly spherical nozzles were replaced with grills fitted to deckheads /bulkheads.

Forced draught for boiler combustion. Insufficient air 'jetted' into the boiler's furnace, caused the ship to "make smoke"

SHIP'S SIDE FRAMES.

HMAS SYDNEY was fully riveted, with surfaces of the ship side plating being overlapped on all sides to the adjacent plates. The result would cause a very uneven surfaces and reduce the ships speed/fuel consumption. To lessen this affect, the ship's side frames were 'Joggled', recessed in the way of alternate strakes of plating. This was not detrimental to the ship's constructional strength. (If required, further information can be given to methods of ship construction before prefabrication and welding, but will take considerable time).

WATER-TIGHT CLOSURES.

The water tight integrity of the ship is enforced for the ship's departure to sea, and at any time risk from collision or any such dangerous action is expected, when, a 'Pipe' is made, "Close all 'X' openings."

Sidelights (portholes) are closed and the Deadlights (Cast steel covers) swung to cover the glass, the three screw fittings tightened down, ensuring the ship is secured, even during the most violent weather.

Water Tight Hatches, are fitted where access to and from two decks are required. These consist of the hole in the deck being fitted with a vertical coaming, which in the case of SYDNEY, would have been secured to the deck with a riveted angle iron around the four sides. Attached to one side was a hinged hatch lid or cover. This was made of steel, with reinforcing diagonals attached to the upper surface. On the under side, a

rubber insertion about 3cm wide and 1cm thick was attached by screws around the perimeter in such a manner as to fit exactly over the vertical edge of the coaming. The lid may have been fitted with open ended lugs attached and extruding from the upper surface of the lid. Attached to the coaming by a heavy ringbolt, was another ringbolt, which had a screw threaded on its upper end. These 8 bolts were then lifted and fitted into the lugs of the lid, and heavy butterfly screws were tightened, the rubber insertion was pressed hard against the top edge of the hatch coaming, ensuring the hatch was then water tight. An alternative method of securing was by 'dogs' as are now fitted in current Naval Ships.

Upper deck and open deck entry doors were the same as they are today, which are familiar to all.

WATER-TIGHT DOORS, for access between Water-tight Compartments.

The bulkheads are part of the ship's main constructional strength, therefore, any opening requires a heavier and stronger door than the norm.

These doors are heavy steel plates which slide into place, being secured within heavy steel guides, which causes the door, when in place, to fit very 'snugly', so much so, that water is unable to leak into the adjoining compartment.

The operation of these doors requires mechanical assistance. This is done by fitting cog toothed racks to both the upper and lower edges of the door.

2 vertical shafts are fitted and bracketed to bulkhead above and below the door opening. Each shaft is free to turn, cog wheels are 'shrunk' onto shafts and so located to fit into the clogged racks on the door.

The doors can be operated manually, usually from the deck above, by using a 'Tee-handled Key', which can be slotted into the head of the shaft. Others have electric motors fitted, which may be operated locally, and/or at a distance, as in, 'from the bridge of the ship'.

Although it was stated SYDNEY, was not fitted with such doors, I feel, one would have been fitted between the Forward (No.1 unit) and After (No 2 unit) Machinery and Boiler spaces, as well as the shaft tunnel accesses from the respective machinery spaces.

STEERING GEAR

Telemotor steering gear transmission from the Bridge Reservoir, to the steering motors control, is through 2 copper tubes. The tubing is less than a centimetre in diameter. And is usually led from the Bridge to the Engine room in the same 'conduit' carrying the Engine room Telegraph cables, telephone wires, and in some cases, voice tubes. From the engine room, the telemotor conduit then passes along the Shaft tunnel to the escape ladder at the after end, where the ladder ascends through a trunkway to the Steering Motor Room.

The drawing produced on Monday, traced the direction/path of the transmission lines, to both sides of the ship, then down aft. I feel this is incorrect, and is taken from an earlier class cruiser, than the modified Leander, HMAS SYDNEY. The tracing I feel is that of the Rod and Chain Steering Gear, which I briefly mentioned on page 10 of HMAS SYDNEY II A Deduced Reckoning.

It may be of some help in establishing a date of the change over to the Telemotor method of steering, when I state, J&C HARRISON of London, had a class of ship built in 1930, they had both counter sterns and Rod and Chain steering Gear, whereas the class built in 1932, had elliptical sterns and Telemotor Gear. This then gives a reason for the mistake.

It was also stated, the telemotor would affect the steering should one of the lines be broken the ship would veer off course. This is not so, should a line be broken, then the system which requires to be balanced on both sides, would cause the oil/glycerine mix to drain from the cistern in front of the wheel, and cease to function.



I have written of the reason for the SYDNEY veering to port was caused by the loss of the forward port engine, followed after a short interval by the loss Starboard engine.

To give a simular example. In a 'pairs' racing, shell, should the port oar break, and before the starboard oar can stop rowing, no amount of application of correction to the rudder will prevent the boat from turning to port.

This will happen in a Quadrupled Screwed ship, should it be the forward engine. Firstly, the propeller is the farthest from the ship's centreline, therefore having greater affect, and compounded by the transverse thrust of the outward turning propeller. In SYDNEY'S case, the starboard engine

BOATS.

The boat davits fitted to SYDNEY were the simple Radial Davit. No power other than 'Jolly Jack' Mark 1 to 100, the latter number being almost the number of men required to launch the boat from its housed position inboard. The boat is lifted from its chocks, with a help from two threefold pulley blocks, (maybe Navy has 'double luff'). When hanging clear of the chocks, the boat is pushed forward to clear the stern of the after davit, which is then swung outboard; the bow then pushed aft, and when the bow is clear of the forward davit, pushed outboard, the boat squared off and between the davits, and will be plumbed over the water, ready for lowering. A time consuming procedure and not recommended in emergency.

Peace time procedures required the whaler to be swung out ready for "Man-over Board" when other than the boats crew, only two men are required to lower the boat to the water, ensuring a rapid launching and completion of task, whether to rescue a man over board, or secure a cable to a buoy.

During the war, all ships, including merchant ships had their boats slung out board and ready for instant launching, with the exception of ships fitted with gravity operated davits, which only require the lifting of the weighted brake. (Whelan gear, is an example).

GUNNERY

I attended HMS PEMBROKE, Chatham, UK. For my 6 weeks Gunnery Course.

Basically, we had to be trained to march and behave in the manner of Naval Officers. The then intention for the 'Emergency' employment of RNR List 1 Officers, (Professional and Certificated Officer of the Merchant Navy), was in Type 15 Frigates, (converted Emergency Class Destroyers, Australian 'Q' class, ie. QUIBERON, etc) , whose wartime deployment was to be as Anti-Submarine Escorts. The other was in Mine Sweeping, where our knowledge of Practical Seamanship, would come to the fore.

It is therefore the reason in the main part, our Gunnery Training was with 4inch guns, and Bofors, with the control system to be used, was that associated with the Close Range Blind Fire Director, (CRBFD), which was similar to that used in the Twin Bofors S.T.A.A.G system.

Having said that, we did have one period which explained the 6 inch Gun System. About one and a half hours, and that was in 1956. It is with that in mind, my following recollections may not be 100% accurate, but is a lot more than was expressed on Monday.

The 6 inch gun control was of the Low Power Follow-up System. The range and bearing of the target was transferred from the Gunnery Control Tower to the LP Transmission Room, where this information was entered into the (Plot ?) Table, other information such as, ships speed, direction and force of wind etc. had already been entered. The resulting information was the corrected training and elevation for the guns. This was then transmitted through the LP system. A 'box' with a graduated centre, and a dial controlled pointer. This was then turned to the appropriate corrected angle from the bow, green to starboard, red to port. It was this pointer which controlled an LP transmission to the gun turret's Gun Trainer, who then followed the direction of a light (showing on a similar type 'Box') with his pointer.. This resulted in two actions, Low power transmission to the High Tension (HT) (I think) transmission , which in turn activated the electrical

motors and turned the turret on it's training ring. The other was, as the turret turned, the movement was recorded back to the Transmission Room's "box", indicating the signal had been carried out. A similar system was used for the Gun Layer, who was responsible for 'laying' of the gun at its correct angle of elevation. In both instances, the target would be visual to both the layer and Trainer through their gun sights, when they would then call out. "Trainer on". "Layer on", the Gun Ready light was then activated in the Gunfire Control Tower.

Prior to Radar, 'fall of shot' could only be checked visually, and when shooting at a distant target, the Walrus, with it's Observer on board was launched. The 'ladder system' was used, ie, If the Shot fell short, the range was lengthened to "up 800" (800 yards"). Should this result in the next shot over shooting, then the range shortened, by ordering "down 400" and so on. These ranging of shots were carried out by one turret at a time. When a hit or a near miss was registered, then "Broadside" were ordered.

4 inch guns I gave a cursory explanation on Page 7, HMAS SYDNEY II, A.D.R.

The correct weight of the fixed ammunition, as explained by the Chief GI on my DEMS Course was, for an inert or practice shell, 64 pounds, while the live ammunition was 62 pounds and a 'alf, (spoken in a Cockney accent), and a reason none of us who attended that course ever forgot

Gun direction for the 4 inch guns was by voice via a telephone system, that is through hands free Earphones and microphone hooked around the neck and resting on the chest.

Information passed through the Transmission Room was, Altitude of the approaching and attacking Aircraft, which allowed the Communications Number to set the nose fuse on the projectile.

While one hoped to shoot down the aircraft, the main reason was to deter the aircraft from dropping its bombs or torpedo with any accuracy. The projectile exploding at a set altitude/range, burst, scattering shrapnel within the area of the approaching attacking aircraft, even if they missed the aircraft, shrapnel could damage the aircraft, and possibly maim or kill crew members.

A surface shoot was invariably over open sights, any long range targets would be left to the main armament.

SPIRIT ROOM

The Lysander Class Cruisers were built for the Royal Navy, whose Sailors, until recent years, were issued with an eighth of a pint of rum per day. With a complement of approximately 600 sailors, with possibly 500 entitled or requiring this rum (62.5 pints or 7.8 gallons) would be issued each day. With Rum usually carried in 4.5 and 9 gallon barrels. Rum alone, a spirit, would require considerable storage space, and may have required two storage spaces. Other spirits would include methylated spirit, (for French Polish etc) and other spirits associated with paint mixing,

KORMORAN Explosion.

This explosion in most reports took place at midnight. So immense was the explosion which included not only the mines, but also other explosives, torpedos, gun ammunition, and of course some 1000 or more tons of diesel fuel. Such an explosion can be likened to the "Test" of the Kilo-ton bomb which was exploded on the York Peninsular, North Queensland during the '60s.

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In 1967, I had occasion to transfer a sick man from the ship in Portland Roads to Iron Range Landing Strip, for transport to Cairns by Air Ambulance. The road passed through the devastated area.

That experience made me realize, to survive, Detmers Boat would have to be at least one mile away, which means, the last boat to depart KORMORAN would have had to be before 2300/19th November, 1941.

Yours sincerely,

Bernie O'Sullivan