SCUTTLEBUTT

30th Year

NEWSLETTER OF THE CANBERRA MODEL SHIPWRIGHTS' SOCIETY

December 2018

Established 21 April 1988. Incorporated 16 January 1991

OBJECTIVES: To foster and maintain interest in building model ships, boats, associated fittings, gear, equipment, armaments and relevant items and structures and the pursuit of excellence in this field.

Scuttlebutt: *1. A drinking fountain on a ship. 2. A cask on a ship that contains the day's supply of drinking water. 3. Gossip or rumour.*

INSIDE

4,5 - We Visited
6 - Tribute to Nobby Clark
7 - SA Maritime Museum
9 - HMS Janus
13 - Small River's Big History
16 - Lady Nelson Sails On
18 - At Sea in HMB Endeavour
19 - Member Profile - Warwick Riddle
21 - Building the John Oxley
26 - Moving Moments in Modelling
28 - Restricted Modelling
30 - The Fiji Gas
32 - Dornier Flying Boats

PRESIDENT'S LETTER

It seems I was a little too enthusiastic and shared my wife's unshakeable faith that our home would be snapped up as soon as it appeared on the market. Not so!!!
As a result I am still here to make December's Letter. Our resolve remains though and as soon as we have a buyer we will be off, sometime in the New Year.
You will have seen the works in progress on the models being built by students of the Mount Rogers School. I am pleased to say that these models of the Duyfken have now been completed and hopefully reside proudly in their builders' homes. Ray Osmotherly and I had the pleasure of presenting Certificates to the young modellers at a School Assembly in November. Thanks to Elizabeth Hodsdon for the Certificates and of course again to Steve Batcheldor for producing the kits and also to those who assisted during the term.
Which brings me to Expo 2019. I have been able to secure Mount Rogers again for 2019 and their continued support is greatly appreciated; without it there would not be an Expo. Please put the dates (September 21-22) in your diary so that 2019 can see yet another great week-end. We will try to entice more people through the door, though the general opinion among the modelling fraternity was that the occasion allows like-minded people to get together to share ideas and catch up with those they may not see during the year.
The ACTSMS again held their Expo at the Kaleen School, and again it was a real pleasure to attend and to admire the work of proponents of plastic modelling. The usual temptations were there with the abundance of traders in attendance as well as the ever popular swap and sell. Again I didn't see a great deal of swapping!
In the last Newsletter I bemoaned the fact that only Bruce Kirk and I manned the CMSS display at Malkara. I was delighted when nine volunteers put their hands up for the ACTSMS Expo, sincere thanks to you all. Not only does this considerably lighten the load, but it also allows us to spend quality time absorbing the great models on display.

COMMITTEE MEMBERS - 2018-19

President Bob Evans
Vice-President Edwin Lowry
Secretary Bill Atkinson
As.Secretary Ray Osmotherly
Treasurer Peter Hateley
Members Bruce George, Bruce Kirk, Rod Carter
Appointments:
Member Liaison Max Fitton
Web site – Steve Batcheldor

MEETINGS

The Society will meet until further notice, at the Men's Shed at Melba on the third Tuesday of each month (except December and January) commencing at 7.30 pm.
Visitors are welcome.

Society Web-page

CMSS members are encouraged to visit our website at:
http:// / www.canberramodelshipwrights.org.au.
Instructions for using this website are on the site itself where members will need to register. The webmaster will help you in any way possible.
We seek content for the website - everything from photographs of your models through interesting web-links and chat.

Society Facebook Page

The Society has a Facebook group to promote the Society and to attract new members. So please feel free to post items on the page and share it with your Friends.

Subscriptions

Annual Membership:

a. Canberra Area-Single $30.00, Couple $45.00.
b. Country/Interstate-Single $15.00, Couple $22.50.

Payment Details:
By Cash to treasurer at meetings/gatherings;
Post by cheque/Money Order to PO Box 158, Fyshwick, ACT, 2609; or
Bank Deposit to
Beyond Bank - BSB 325185
Acct Name - Canberra Model Shipwrights Society (or CMSS)
Acct No 03452396.

EDITOR'S NOTE

I seem to remember that Christmas was the time of 'bumper editions', when magazines and periodicals arrived with the promise of plenty of reading to tide one over the holiday season. Well, I didn't set out to produce this edition of 'Scuttlebutt' with that in mind especially, but as it turns out that's what we have to offer, with 35 pages of material to entertain, amuse and even instruct. I am sure you will join me in thanking our contributors and you will notice some new ones along with the tried and true.

And, of course, without wanting to whip a dead horse, I do ask you, dear reader, to consider sending me an email with your own story (and pictures too if you can), or even just a picture, a drawing, a plan. I have made suggestions before about what might interest our readers and won't repeat them now, as I'm sure they are stuck on your fridge door to keep in the forefront of your mind. My email address is: bvoce@ozemail.com.au or Phone: 6238 1446.

Finally, in this 30th anniversary year, it is timely to thank those who through happenstance came together three decades ago to establish this society - and one of them, Nobby Clark, passed away recently and is remembered in this issue in a tribute compiled by Warwick Riddle, another foundation member.
Seasons greetings to all of you and best wishes for a memorable and safe Christmas and New Year. - Brian Voce

Continued, page 3

President's Letter *Continued from page 1*)

We have a few new Members now and it was great to see them participate. The aim of our attendance at other events is not to teach people how to make models, but rather to let people know what the CMSS is all about and how newcomers to the hobby can get as much advice as they want and a helping hand where needed.

At the beginning of November we attended the Wagga Wagga Model Railway and Hobby Exhibition.

It was great to catch up with our Wagga Members Phill and Steve and of course the stalwarts of Task Force 72. A good time is always had by all and the exchange of ideas, different approaches by the railroad people and the great company makes the relatively short trip to Wagga Wagga well worth the effort. This time we were also joined by Bruce and Sue George with Peter doing his usual railway stuff as well as lending a helping hand at our display. It's always good to see the venerable Murray Burfitt at these events; a new tool never goes astray!

A special thanks goes to the news hound, Brian Voce, who has produced some stunning Newsletters which I am sure you all enjoy. Brian has the uncanny knack of eliciting articles from Members (or is it harassing?) and putting them together to make such a varied and professional Newsletter.

Thanks Brian for your great efforts in showcasing the CMSS.

Overall I think it has been another good year. The "show and tell" format of the meetings appears to be working and the venue is working out well with good attendances at meetings.

If you are not a CMSS Member, think about joining us, you will be most welcome and I am sure you won't be disappointed.

It remains now only for me to wish all CMSS Members a fantastic Christmas, a wonderful New Year and safe travels.

Best wishes

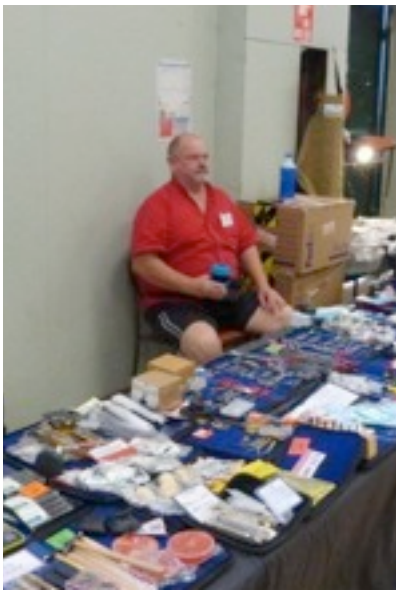
Bob

President CMSS.

WONDERFUL WAGGA WAGGA

Another great week-end with our colleagues at the Wagga Wagga Model Railway and Hobby Exhibition. This year the CMSS was well represented by our local Members Steve Batcheldor and Phil Murray in addition to myself, Peter Hately (half ship, half train man!), Bruce and Sue George and of course the venerable Murray Burfitt selling his great tools. Thanks to all of you. For those who have never been, try it, you'll like it.

Bob Evans



Clockwise from top: Murray on coffee break; 'What's this doohickey, Bruce?'; Bruce ponders a visitor's model; Action stations for Task Force 72; Bob Evans' models of Pacific Gas and John Oxley; Phil and Steve man the CMSS stand.

Photos: Bob Evans and Elizabeth Hodson.

And after Wagga Wagga, it was Scale ACT ’18 in Canberra

ScaleACT is the ACT Scale Modelling Society’s Annual Competition and Exhibition. Clockwise from top: Bruce Kirk demonstrates modelling techniques; Crowded tables in the main hall; Bob Evans in deep conversation; Task Force 72 out in force; Part of the CMSS exhibit. Photos: Brian Voce.

Nobby Clark 1938 to 2018

Tribute by Warwick Riddle

Nobby Clark

Nobby and I had the same interests in models and we would often meet at his or my house to discuss the problems we were having with our models. Nobby rang me one day in 1988 and told me about an article in the 'Canberra Chronicle' about a chap (Roy Vizard) wanting to start up a model shipbuilding society in Canberra. Nobby rang the number and lo and behold the chap lived in the same street as Nobby, just two houses down, and that was the start of his involvement in the CMSS. Nobby was at the first meeting held at the old Canberra Club and if I remember rightly Nobby was the first Treasurer and I was a committee member.

Nobby built model tall ships at first, all very good quality, and later branched out to all types of model ships and maritime items. One was a diorama of a shipyard with shipwrights which even included the outhouse. It was always a talking point at exhibitions. One of his models needed life rings, so to fix the problem Nobby found that the 'Lifesaver' lollies were the ideal size and I think they are still attached to the model to this day. He loved building ships in bottles down to very small ones. One I remember was a ship in a bottle-in a bottle. How he had done it, I don't know. He didn't let me have a close look. He built working steam engines and was looking into jet engines early this year.

Nobby contributed a lot of work to the establishment of the CMSS in the early days and will be missed. #

Below - Some mementoes from Nobby's shed - Clockwise from main: The article in the paper that started the CMSS, Early draft of the CMSS logo, Flyer and a raffle ticket at the first exhibition, List of the original members.

Roy Vizard of Macquarie with his model of the Cutty Sark.

Calling tall ships...

By TERRY CRAIG

Tired by the vista of the T'all Ships fleet, a Canberra modeller hopes to bring together an exhibition of intricate scale models of tall ships for those who miss the visiting fleet, and "raise a few coins for a deserving charity".

The retired public servant who wants to contact other tall ship modellers to create the exhibition is Roy Vizard, of Macquarie, who shares his home with several, metre long scale models of tall ships and a Viking longship he has built from kits.

A couple of hundred man hours have gone into his models of the Cutty Sark, a grain carrying square rigger which has been preserved in the U.K., and the Danmark, a still operational Danish training ship.

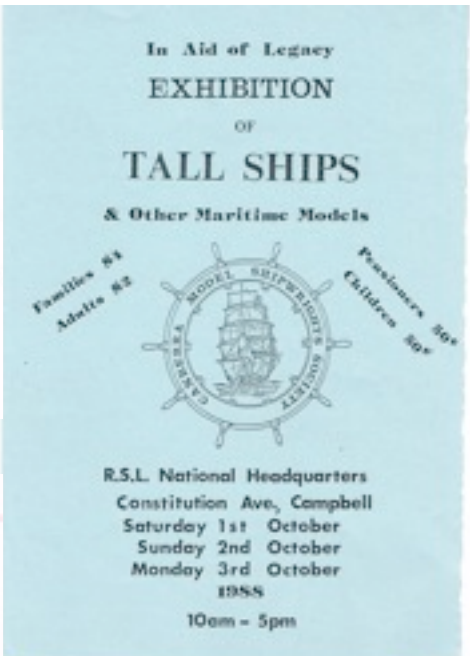
Mr Vizard said that "the best part of a kilometre of rigging" went into each tall ship model.

"I used up a dozen needle threads putting the rigging through 200 little pulleys, after a while of that, you go cock-eyed."

"My wife, Billie, made the cloth sails and attached them to the spars."

Mr Vizard's next model will be one of the Bounty, which Captain Bligh commanded on a voyage that ended with a mutiny.

Mr Vizard said he was surprised he could not find a ship modeller's club in Canberra or discover other ship modellers, so he is appealing for tall ship modellers who are interested in contributing to the exhibition to contact him at home on 51 1241.



S.A. MARITIME MUSEUM, PORT ADELAIDE

On a quick visit to the South Australian Maritime Museum recently, Brian Voce had less than a half an hour for a quick tour to refresh memories of earlier visits. An imposing exhibit is the historic ketch Active II, reflecting the important part those vessels played in SA's local maritime history. An entry ticket also gains access to both the SA Railway Museum and the SA Aviation Museum just down the road; good value indeed. Also there is an interesting, well-stocked shop just across the road that specialises in historic photographs of ships and boats from the early days of Port Adelaide as well as migrant ships and other maritime items.

Photos Brian Voce

More photos next page


ACTIVE II

#

Royal British Navy "J" (Javelin) Class Destroyer - HMS JANUS, 1939-1944

Part 1

Bruce Kirk


HMS JANUS

Having acquired a dusty and antiquated looking "Penguin" British J Class destroyer kit, one can be forgiven for building in wood and plastic. The kit itself dates from somewhere round 1946 when the International Model Aircraft's (IMF) "Frog" branding kits included powered model aircraft. To differentiate the company's newly released plastic aircraft and ship kits, they used the IMF brand name "Penguin". Why that name? – perhaps "Penguins" don't fly.

Destroyers were lightly armoured, fast and meant to survive by avoiding being hit at all. The Admiralty's attitude was that destroyers were somewhat expendable.

"J" Class Destroyers

The "J" Class destroyer followed on from the Tribal Class destroyers. They differed from the latter in having a two-boiler room layout resulting in a reduced hull length and single funnel. They were easier to build due to longitudinal framing being used along with electric arc welding techniques, although transverse frames were still required around machinery spaces for structural support.

Although more expensive to build than the Tribal Class and having only six 4.7" guns compared with the Tribal Class's eight, never-the-less the "J" Class proved to be effective ships. Altogether there were eight ships in this Class – HMS *Jervis* (flotilla leader), HMS *Jersey*, HMS *Jaguar*, HMS *Juno*, HMS *Jupiter*, HMS *Janus*, HMS *Jackal* and HMS *Javelin*. During the Second World War they served mainly in the Mediterranean, with five being sunk before the end of 1942 and only two ships surviving the war.

The "J" Class's sound design formed the basis of numerous follow-on destroyer variations. Altogether a total of 124 ships entered service, although 28 of these were completed after the end of hostilities. These included, for example, "K" Class of which HMS *Kelly* was the flotilla leader and "N" Class of which HMAS *Napier*, HMAS *Nizam*, HMAS *Nestor* and HMAS *Norman* served with the Australian Navy.

HMS *Janus*

As the kit represented only a generic "J" Class destroyer, I decided, if possible, to build a specific ship within this Class. I came across a very faded photograph taken at a distance of the camouflaged HMS *Janus* entering the port of Alexandria, Egypt in 1940. This would be my ship and camouflaged at that!

Continued on following pages

HMS *Janus* was built by Swan Hunter & Wigham Richardson, at Wallsend, Newcastle, UK. It was launched on 29 September 1937 and commissioned on 5th August 1939 for service in the 7th Destroyer Flotilla, Home Fleet, with Pennant Number F53.

The ship had 3 of 2x QF 4.7" Mk X11 main armament, 1x quadruple QF 2 pounder and 2x quadruple 0.5" MK 111 anti-aircraft guns, 2x quintuple 21" torpedo tubes and 20x depth charges plus 1x rack. Changes in 1940-41 were subsequently made to improve anti-aircraft capabilities: the aft torpedo tubes were removed and replace by a QF 4.7" gun, the 0.5" machine guns replaced by 20mm oerlikons and an additional pair of 20mm oerlikons opposite the main searchlight platform, 2x depth charge throwers added as well as radar. Later in 1942, the QF 4.7" gun was removed and torpedoes returned, oerlikons updated to twin mountings and the radar updated.

HMS *Janus* was serving on North Sea duties when on May 1, 1940 she assisted in the evacuation of allied troops from Namsos, Norway, and later on May 13-14, 1940 assisted in rescues from the Hook of Holland.

From July 1940, HMS *Janus* operated in the Mediterranean with the 14th DD Flotilla based at Alexandria, Egypt and from 1941 was based at Malta. The ship participated in the March 1941 Battle of Cape Matapan, as well as providing Malta escort duties, shore bombardments and troop evacuations.

On 9 June 1941 while off Sidon (Syria), HMS *Janus* engaged the Vichy French destroyers *Guepard* and *Valmy*. During this encounter, HMS *Janus'* boiler room was damaged and three shells hit the bridge, killing or wounding all except the captain. The damaged destroyer retired to Simonstown, South Africa for repairs and later resumed duties on 17 April 1942.

On 14 June 1942, HMS *Janus* received extensive damage from an acoustic mine and had to retire to the UK for repairs. The ship subsequently resumed duties with the Home Fleet in October 1943.

In December 1943, HMS *Janus* re-oined the 14th Destroyer Flotilla in the Mediterranean. The ship was sunk off the Anzio beachhead on 23 January 1944 after being hit by a Henschel Hs 293 anti-ship guided missile dropped from a German Dornier Do 217 aircraft. (There, however, is some thinking that this may have been caused by a torpedo dropped from a German aircraft.). HMS *Janus* sank in 20 minutes with only 80 crew surviving.

How effective was this ship in performing her duties?

Apart from rescue and convoy duties, HMS *Janus* was involved:

- on 15 April 1941, with destroyers HMS *Jervis*, HMS *Nubian* and HMS *Mohawk* in sinking three Italian destroyers and five merchant ships;
- on 23 April 1941 as a member of cruiser force HMS *Dido*, HMS *Ajax* and HMS *Orion* and destroyers HMS *Isis*, HMS *Imperial* and HMS *Kimberley* participated in attacking and destroying an enemy convoy. This resulted in the sinking of several caiques-motorised schooners and small steamers

and one Italian torpedo boat, with an estimated 4,000 German troops perishing;

- during December 1941 with destroyers HMS *Javelin* and HMS *Kelvin* in sinking the Italian torpedo boat *Lupo* and freighter *Veloce*; and
- on 22 December 1941, was ordered to sink the destroyer HMS *Iles* which was damaged and becoming unsalvageable.

Henschel Hs 293 *Pictured below*

The German air force used this weapon in 1943 and 1944.

The Hs293 weighed some 1,045Kg (2,304lb) and carried an explosive warhead of 295Kg (650lb). It was 3.82m (12.5ft) in length and had a diameter of 0.47m (1.5ft) and powered by a liquid-propelled rocket HWK 109-507 motor with 5.5 kilonewtons (1,300lb) thrust for 10 seconds. It had an operational range of 2.2Km at 7,200ft altitude, out to 8.5km at 28,000ft altitude. Its average speed was 230 m/sec (750ft/sec) up to a maximum speed of 260m/sec (850ft/sec). Guidance was through a joystick arrangement in the launching aircraft.

First used on 25 August 1943 against the sloop HMS *Bideford*, but the warhead failed to detonate and only caused minimal damage. Then on 27 August 1943, the British sloop HMS *Egret* was attacked and sunk by Dornier (Do 217) aircraft dropping Hs 293's. As a consequence, this resulted in a temporary halt of allied anti-U boat patrols in the Bay of Biscay.

On 26 November 1943, while transporting troops to the China-Burma-India Theatre of War the British troop transport HMT *Rohna* was sunk in the Mediterranean Sea off North Africa with losses of around 1,000 US troops. This was the single greatest loss of lives at sea during a war in United States history.

The justification by British and American allies at the time for not divulging this sinking was that they did not want German military commanders to know how successful one of their guided missiles had been. However, this sinking was further cloaked in secrecy by the British and American allies for some 50 years after the event. Caitlin McHugh in her article "Unraveling the Secret Behind the HMT *Rohna*"(1) notes reasons put forward for this secrecy was the need initially to keep the success of the guided missile attack from their own civilians (not the Germans) to preserve home civilian morale, the poor condition of the ship at that time and the presence of American soldiers on a British ship. Even now after the cloak has been lifted, this sinking is a little-known event in America.

HMT *Rohna* (*below*) was a British India Steam Navigation Company passenger and cargo liner that was built on Tyneside in 1926 as SS *Rohna* and requisitioned as a troop ship in 1940.

Length: 141 m

Launched: 24 August 1926

Draft: 10 m

Builder: Hawthorn Leslie and Company

Crew: 195 (peacetime); 200 crew + 12 DEMS gunners (as troop ship)

Yard number: 542

Decks: 3

The Henschel Hs 293 (pictured) is believed to have damaged or sunk some twenty-six ships and another four unconfirmed (as they may have been hit by an aerial torpedo rather than Hs 293). Interestingly, the missile was also used in Normandy in early August 1944 to attack bridges over the River See and River Selume. One bridge was slightly damaged for the loss of six of the attacking aircraft

Operationally in combat, the HS 293 was carried only by the Heinkel He 111 (of 1. and 11. *Gruppen*/ KG 40), certain variants of the Focke-Wulf Fw 200 (of 111./KG 40).and the Dornier Do 217 (of 11./KG 100 and 111./KG 100).*

References:

1. McHugh, Caitlin. Unraveling the Secret Behind the HMT *Rohna*. Ezra's Archives. https://ecommons.cornell.edu/bitstream/handle/1813/47928/1.6%20Unraveling.pdf?sequence=3&isAllowed=y

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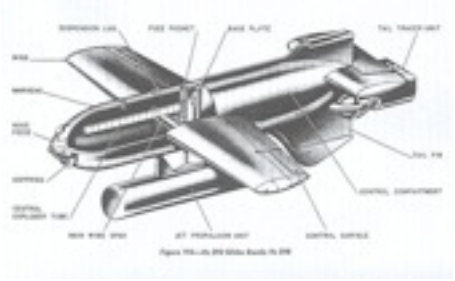
- 

* Note: The Wikipedia article "Organization of the Luftwaffe (1933-45)" gives a good overview of how the Luftwaffe organised its aircraft "unit" designations. https://en.wikipedia.org/wiki/Organization_of_the_Luftwaffe_(1933%E2%80%9345). #

In Part 2, next issue, Bruce will cover the building of the model and its diorama

NURSING HOME? - OR PLAN G?

Say you are an older senior citizen and can no longer take care of yourself and the government says there is no nursing home care available for you. So, what do you do? You opt for Medicare Plan G.

The plan gives anyone 75 or older a gun (Plan G) and one bullet. You are allowed to shoot one worthless politician. This means you will be sent to prison for the rest of your life where you will receive three meals a day, a roof over your head, central heating and air conditioning, cable TV, a library and all the health care you need. Need new teeth? No problem. Need glasses? That's great. Need a hearing aid, new hip , knees, lungs, heart or sex change? They are all covered.

As an added bonus, your kids can come and visit you at least as often as they do now. And, who will be paying for all of this? The same government that told you they can't afford for you to go into a nursing home. And you will get rid of a useless politician while you are at it. And now, because you are a prisoner, you don't have to pay an more income taxes! Is this a great country or what? Now that I've solved your senior financial plan, enjoy the rest of your week.

Item supplied by Max Fitton.

SMALL RIVER WITH A BIG HISTORY

The River Cart, near Paisley, Scotland, a tributary of the Clyde River, is just a kilometre long, but has a long and rich maritime history. Modern development, however, has obliterated almost all traces of the river's maritime past. On the following pages is an extract from research Douglas Gordon undertook while compiling the Clan Gordon family history. Douglas is a member of CMSS and is now retired and living in Balingup, WA. Further extracts will be published in later editions of Scuttlebutt.

Above - Blytheswood House, a neo-classical mansion at Renfrew, which was built in 1821 on the north-east bank facing the River Cart at its junction with the Clyde. This large estate belonging to Archibald Campbell, MP for the Glasgow District of Burghs, had a farm and beautifully landscaped gardens (now a very fine golf course). This J.P. Neale engraving portrays the developing week-end recreational pursuit of yachting and pleasure boating on the River Cart.

The scene shows three different levels of income enjoying the water. The lady and gentlemen are rowing, the two working men are doing a spot of fishing whilst sailing their clinker-built open boat with a lug sail, whilst the wealthy merchant and his family have run out of wind and are becalmed in their smart private yacht with its clean white sails. The large number of old trees to the south of the house produced a well-recognised area of calm water and fluky winds at this point on the Rivers Clyde and Cart, resulting in navigational delays for sailing ships moving up and down the river.

(Continued on following pages)

The Cart Before the Horse by Douglas Gordon

Why compile a short history of the River Cart navigation, shipbuilding and harbour trade since the early 17th century?

It all started as a result of my desire to research and write the Clan Gordon family history for my children. While doing so, I needed to find relevant historical details about my time employed managing Archibald Young (Paisley) Ltd at the Paisley harbour. I also wanted to compile the history of Archibald Young's long connection with the salt and mineral importation through Paisley Harbour, if that were possible.

Douglas Gordon

My initial enquiries revealed the importance of the River Cart as a communication artery in the history of the town and also the absence of a complete record of the river and its development. **Fifty years have passed since the navigation was closed and massive airport, residential and industrial development has taken place along the river-banks, obliterating almost all the traces of the river's maritime heritage.**

I started writing with details from my own files, photographs and personal recollections, supported by notes given to me by Sir John Boyd our company legal adviser. My enquiries from Glasgow University Archives and Paisley Heritage produced no complete account of the river history. A detailed examination of Google and Wikipedia produced many random and unconnected stories and bits of information about various aspects of the River Cart traffic and events from the end of the 17th century up to the time that I discharged the last ship at the harbour and the navigation was officially closed in 1964.

The more I researched the net, the greater became my interest. Each new discovery added another piece to the jigsaw. During the period of the Victorian industrial revolution and its great importance to the commercial development of the Burgh, Paisley's dependence on the river for transport was paramount until the arrival of the railways. Gradually the larger picture of the overall development of river traffic and the Harbour became apparent.

Modernising Ports and Cargo Handling

In the 1960's I was employed by James Spencer & Co the major stevedore in the Port of Glasgow. We had just come through the transition in cargo handling from the age-old system of using men, slings and nets with cranes to move cargo to and from ship's holds. Now the goods were on pallets and lifting was done by new battery electric forklift trucks operating in ships holds and on the quay, to move palletised cargo. My boss Captain Essery had achieved a smooth transition to this new system by sensitive negotiations with the Scottish Transport and General Workers Union without producing any serious labour unrest on the waterside. A unique situation compared to the other UK ports.

The Government of Harold Macmillan was concerned about the under-developed state of British Ports as shipping tonnages and the size of ships increased. Britain had not modernised its ports since the introduction of steam ships, and the European ports were fast attracting the larger modern cargo ships.

The Government commission Lord Rochdale to chair a committee to enquire into the structure of the dock industry

and make recommendations for appropriate action to modernise British Ports and the waterside industry.

Viscount Rochdale was President of the National Union of Manufacturers and Governor of the BBC. His report recommended the formation of a National Ports Council (NPC) to take charge of the British Ports, reporting to the Minister of transport. The Government and the Opposition by and large accepted the report and introduced a Bill to parliament in 1963.

The formation of Clydeport

Armed with rare Parliamentary unanimity, the National Ports Council recommended that all the smaller UK ports be brought under the control of the major port authority in their estuary or area, and all stevedoring should be concentrated in the hands of the major employers of that area. This resulted in the Port of Paisley on the River Cart being absorbed into the greater Port of Glasgow soon to be renamed Clyde Port Authority CPA, or just Clydeport. This left Archibald Young (Paisley) Ltd. the stevedore, to be taken over by James Spencer. Not being a Master Mariner, (all stevedoring superintendents are MM's come ashore,) I was sent to Paisley Harbour to manage this very small re-organisation in the very much larger scheme of things.

Archibald Young (Paisley) Ltd. was primarily a mineral trading merchant, and my remit from the Spencer Board was to examine what could be done with the trading arm of the company, and with the injection of some capital, improve its potential earnings.

This all went according to plan and when the Cart navigation was eventually closed, I received Board agreement to buy the now deserted Lobnitz shipyard on a 30-acre site, with its own private wharf on the River Clyde and I moved the company and its now established storage warehousing business to Renfrew.

As the North Atlantic shipping routes to Canada and the USA were about to become containerised, and benefitting from my Rotterdam training, I recognised that there was a major opportunity for Archibald Young (Storage) Ltd. to establish the first empty freight container storage and refurbishing depot in Scotland. I registered the name Containercare. Containercare was the first such facility in Glasgow and Dublin to store, valet, repair and refurbish liner and leased empty containers and tanks.

Later I made application to the Collector of Customs for a licence to operate a bonded warehouse under the proposed new scheme for packing less than container loads (LCL) of Scotch Whisky, but this licence was never granted. Instead I received an invitation from James Davidson, CEO of the new Clyde Port Authority, to undertake a position as consultant on an HMCE committee enquiring into the best location for a central common user Inland Container Consolidation Depot. This Depot was finally established on Clyde Port Authority property at Braehead Renfrew. #

The Black Cart river which runs into the Cart River has provided a navigable waterway between the centre of Paisley, the Abbey and the river Clyde since man took to the water in small boats of shallow draught. The coracle may have been the first form of human water transportation.

Next issue: 700 Years of Navigation on the River Cart

CMSS LADY NELSON PROJECT -PART 6

THE SETTLEMENT OF PORT DALRYMPLE

BRUCE GEORGE - Lady Nelson Co-ordinator continues the story

In May 1804 Governor King received instructions to close the settlement at Norfolk Island and transfer its existing settlers from there to a new settlement at Port Dalrymple in Van Diemens Land (Tasmania). Bass and Flinders had discovered Port Dalrymple during their circumnavigation of the island. Lt Col. Paterson was placed in charge as Lieutentant Governor of the new settlement. Preparation of the new settlement for the people of Norfolk Island saw Paterson departing Port Jackson in the cutter Integrity with the sloop Contest on June 7, 1804, but bad weather forced both vessels back to port. This resulted in Paterson departing on the October 15, 1804 on the Buffalo, with the Lady Nelson, Francis and Integrity. The evacuation of Norfolk Island commenced in 1804, but was not competed until 1813 (further details are included in the next part.)

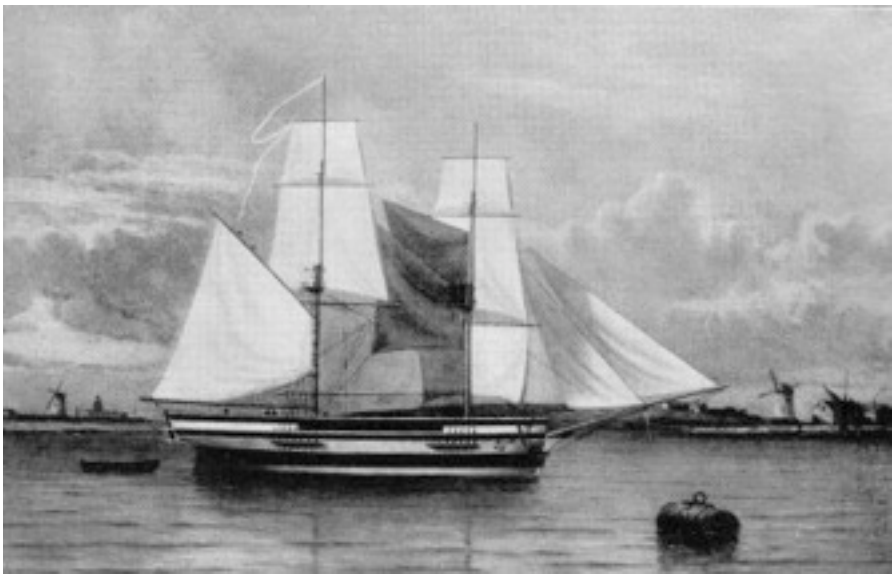
Although good progress was made down the coast on the October 22, Lady Nelson encountered strong gales with a heavy sea from the south-west causing considerable damage to the ship. This included a boat, the binnacle and two compasses being washed overboard, the main sheet carrying away and breaking the tiller. The next day the fore-keel was found to have broken off and Acting Lieutenant Symons decided to head into Twofold Bay to shelter and affect repairs.

Lady Nelson anchored off the southern shore of the bay and the crew again improvised a raft made of the ships spars to get ashore. The ship got under way on November 3, but an attempt to leave the bay was aborted due to the adverse weather conditions. Upon

Image Brian Voce

departing, she encountered the sloop George which was bound for the Derwent (Hobart) and after clearing Twofold Bay, its master gave the Lady Nelson a boat's compass to replace those lost previously. Bad weather continued, on the November 5 the main top sail was blown out and lost, November 6 saw all sail taken in, and on November 7 the fore stay-sail was blown away and the main stay-sail was split. The vessel was again suffering considerable damage caused by the adverse weather.

The Lady Nelson headed down the western side of Flinders Island, sighted Cape Barren on November 9 and on the November 10reached Kent's Bay.On the south side of Cape Barren Island the schooner Francis was



Lady Nelson - a contemporary engraving

found at anchor. Lady Nelson remained in Kent's Bay until November 13 to repair the storm damage then both ships got under way The following day she sought shelter at Waterhouse Island, remaining there until November 20 until the weather improved. The two ships finally reached Port Dalrymple on November 21, with the Integrity arriving the following day. The Buffalo, a larger vessel had arrived on November 4.

After unloading the cargo, Lady Nelson was tasked to survey the channels and erect beacons in the harbour to assist the safe entry of ships into the port. Buffalo and Integrity departed on November 27, with the Francis leaving on the November 29. The Lady Nelson was the last to leave on the January 11, 1805. The settlement was initially located at Outer Cove on the east side of the Tamar River, but soon relocated to York Cove on the west side of the river. Eventually the settlement was again moved up the river to a spot near the junction of the North and South Esk Rivers. Paterson named this location Launceston, where today a vibrant city now thrives. Lady Nelson then proceeded back to Port Jackson, arriving on the January 23, 1805.

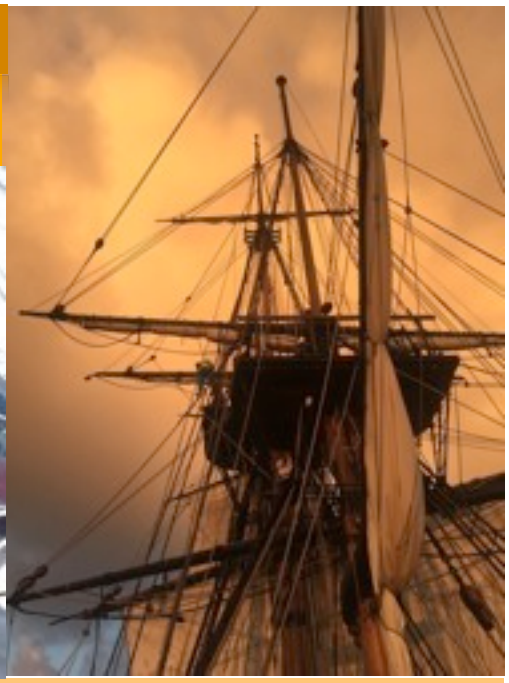
#

The next episode sees the Lady Nelson making voyages to New Zealand, numerous trips to Van Diemen's Land (Tasmania), exploration of Port Macquarie and establishing settlements on Melville and Bathurst Islands in the Timor Straits to the north of Australia and her eventual demise at the hands of Malay pirates.

Life as a crew member of HMB ENDEAVOUR: Rachel Slatyer tells of her experiences. Story next page.

At Sea In HMB Endeavour

Rachel Slatyer recently spoke to members on her involvement with the replica HMB Endeavour.



Rachel Slatyer was a member of the 'professional crew' aboard the Australian-built replica of HMB Endeavour for several sectors of the vessel's passage in Australian waters. She started her presentation with an overview of the types of tall ships and the dates when they were built.

The original Endeavour was built in 1765 as The Earl of Pembroke and was a coal carrier whose design maximised hull space for cargo. The replica was built to be part of Australia's National Maritime Museum. The keel was laid in October 1988, it was launched in 1993 and commissioned in 1994. The vessel is constructed from Western Australian Jarrah with detail on the top deck and first deck authentic to the original, with the exception of modern safety equipment. Other functions of the vessel were accommodated where space could be found. This included crew sleeping accommodation and an engine, kitchen, showers and toilets on the lower deck, which would originally have been used for cargo.

Rachel has also sailed on the Naval training ship New Endeavour (a gift from the British Government to commemorate Australia's bi-centenary) as a member of the voyage crew when she sailed from Broome to Exmouth in Western Australia to HMAS Leeuwin in Fremantle, Western Australia.

She subsequently joined the professional crew of HMB Endeavour which has 16 professional crew and up to 40 additional 'voyage crew', who come on for single voyages and need not have any sailing experience. She spoke of the steep learning curve once on board with over 300 different lines to learn, as well as being able to perform sailing duties atop the masts. (She said that this was her preferred position aboard ship!). She gave a rundown on how work was divided among the crew, described the operation of the seven watch/dog watch system, and described activities on board during a typical day, including steering, maintenance, cleaning, and sail handling. The sails were manufactured from a modern synthetic fibre specifically developed to have the identical feel and colour of the vessel's original canvas sails. She noted that all professional crew aboard had to undergo safety courses, and mentioned that the only non-authentic fittings throughout the ship related to current safety requirements.

#

Member Profile

WARWICK RIDDLE TELLS HIS STORY

I was born in Canberra in 1947 at the old Canberra Hospital and brought up in the suburb of Braddon. I completed school at St Edmund's college.

My first job was at the Australian Archives until my security check was finished. I then worked at Prime Minister and Cabinet until I obtained a job with PMG (now Telstra) looking after the TV transmitters while I studied for my Technician Certificate. When the Telstra tower was finished, we moved operations to the lower area where the TV Transmitters operated. The old mast and building were removed and the area made into the car park. I later moved to the upper sections of the tower which housed the communication equipment.

One of the most unusual jobs I did while working for Telstra was to make a model of the Telstra Tower, some 2 meters tall for the 75th anniversary of Canberra. It was used on the Telstra float in the anniversary parade. All went well until a low branch met the top mast section and the branch won. It was soon repaired.

I was involved in the first flight of the Space Shuttle on April 12-14, 1981 and other later flights as some of the communications between NASA and the space craft came through the Tower. The other jobs were setting up outside broadcast links for commercial channels around Canberra, Bruce Stadium and video links from country race meetings, a very interesting job.

My ship modelling started in the 70's with my first model the Cutty Sark. It started as a kit, but soon became a scratch model. During this time, I met up with Wayne Masters, Australian War Memorial model builder, who helped me out with techniques of modelling for which I

Warwick works on RMS Orion

am very grateful. My next model was the Lady Hopetoun which was a scratch-built model. I also helped Wayne Masters in the construction and repair of models for the Australian Maritime Museum before it opened. They were HMAS Australia, Lightning and repair of the 100-year-old colonial war ship HMCS Katoomba. Later I built a 1/48 model of a World War 2 Corvette, HMAS Junee, for the Junee Council which now is on display, I think, in the Junee RSL club.

Over the years I have done restorations and a survey of all models at the Australian War Memorial annexe at Mitchell. The model of HMHS Centaur was interesting as all the fittings came in a box and needed sorting out, painting in original colour and refitting. After it was completed, I had no bits left over so all was good. The most recent restoration was the World War 1 hospital ship Warilda, now on display in the museum galleries. I have repaired and built models for the Navy and the Department of Defence. One was a model of the Pacific Patrol Boat, a great model to construct and good plans were supplied. I have been restoring the model of RMS Orion for the Sydney Heritage Fleet over the last 18 years. (See CMSS Newsletters June 2018 and September 2018).

On retirement I volunteered to work at the AWM's Mitchell annexe and got the job of working on G-for-George's starboard wing. I have been involved in the restoration of a 1:1

ship in Sydney for the last 15 years, the ex-lighthouse supply and maintenance vessel MV Cape Don. One of the volunteers was involved in trains and so I got roped into doing some work on a diesel-electric engine, another interesting time.

I was one of the founding members of the CMSS doing a stint as President and was on the committee for several years. #

Some of Warwick's models over the years: Clockwise from above - One of the more unusual Defence jobs; Katoomba; HMAS Junee; Lady Hopetoun; Model of hospital ship Centaur.

Building a Working Model

THE JOHN OXLEY

by Rob Lees

Rob Lee's model of the John Oxley on launch day

At the Port Macquarie model exhibition a few years back, Richard Keys had his excellent static model of the SS John Oxley on display. In our discussions about it, I mentioned that it would be a very good model to build as a radio control working model if one could get suitable working plans, to which Richard indicated that he could possibly obtain them for me.

In due course I received an email with the works plans attached. I had them printed to a scale of 1:72, which would give a finished model 720mm long, just a nice size to handle for an old guy.

There were quite lot of photos on the web showing the vessel as she was at different times in her lifetime.

Richard also sent me a few photos which were a great help. He also mentioned that I should contact Bob Evans of the Canberra Model Shipwrights Society. Bob sent a lot of very good photos that he had taken on the ship before the start of the restoration by the Sydney Heritage Fleet.

With all the information and photos I had, I felt that I should be able to construct a presentable model.

SS John Oxley was built in 1927 by Bow McLachlan & Co. Ltd. Thistle Works of Paisley, Scotland

She was built to the order of the Queensland Harbours and Rivers Board for service as pilot vessel in Moreton Bay and as a buoy tender and lighthouse tender along the Queensland Coast

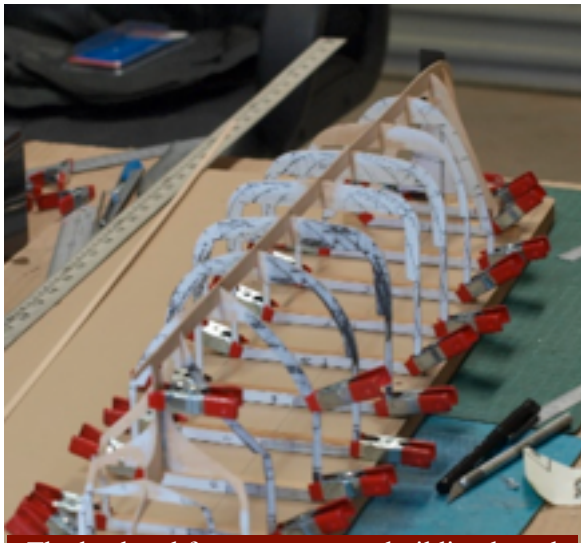
Length 168 feet (51 m) Beam 32 feet (9.8m) Depth 15 feet (4.6m) Tonnage 540 gross tons Displacement 760 tons Speed 14 knots

She was originally coal fired but was converted to burn oil in 1946.

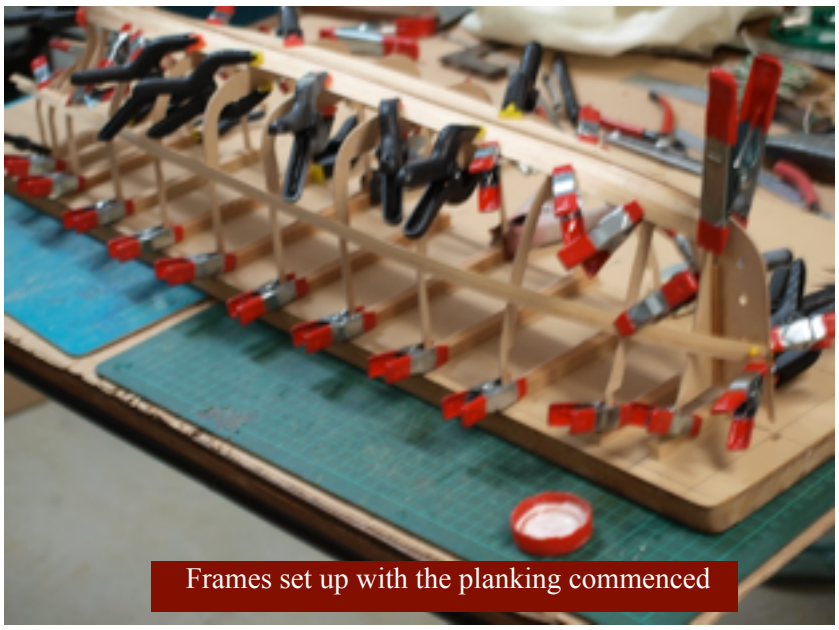
John Oxley was taken over by the RAN during WW II for use as an examination vessel.

John Oxley continued in service until 1968 and was officially donated to the Sydney Heritage Fleet in 1970.

The frames were made by photocopying the lines plan, drafting a datum line on it so that all frames would sit on the building board. I then photocopied the lines plan mirror reversed. Two more photo copies were made of each. Original copies were cut down the centre line, the mirror-reverse copy was trimmed 20mm away of the centre-line. Both were then stuck together at the centre-line. I then had a lines plan for each frame - port and starboard. I then printed several copies with a reduction of 3mm across the ship's beam. This allowed for the 1mm planks plus fibreglassing of the hull. Each frame was highlighted, internal cutting lines were drawn, the deck line was drawn with a 1.5mm camber and notches were drawn for the keel. Templates were then stuck onto 1mm plywood. (Note: This was a *mistake; I should have used 3mm plywood. 1mm was a bit flimsy).* All frames were then cut out ready for fixing to the building board. A centre-line was drawn on the building board, the frame spacing drawn at right-angles to the centre-line. A 5x5mm block of wood was stuck at each frame line. *(Continued on following pages)*



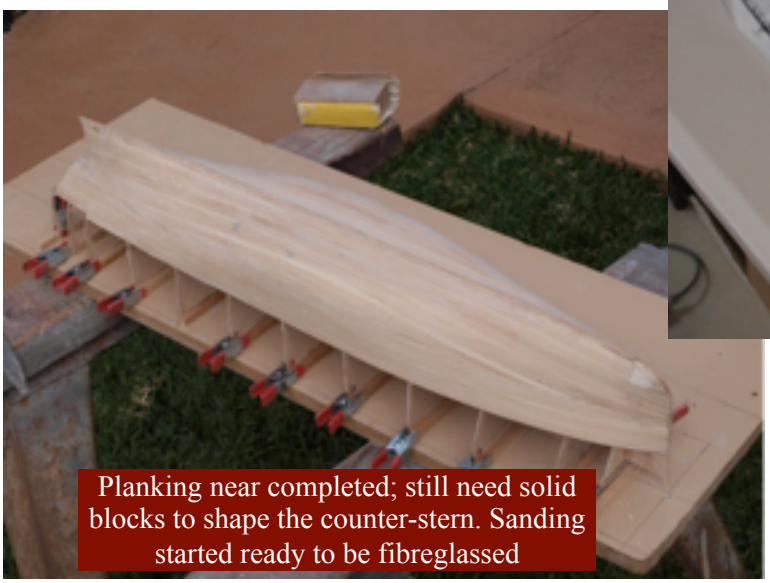
The keel and frames set up on building board ready for planking with 5mm x 1mm limewood timber planks



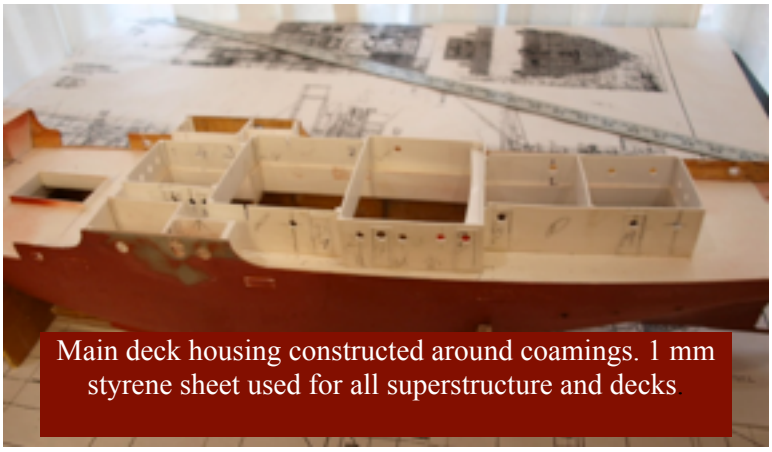
Frames set up with the planking commenced

SS JOHN OXLEY - Step-by-step construction details on this and following pages. Photos: Rob Lees.

Bulwarks of 1mm plywood have been installed. Hull has been fibre-glassed and prime-coated. Main deck partly installed, strengthened around openings where frames deck sections have been removed. Servo plus rudder have been installed and prop and prop shaft fitted.



Planking near completed; still need solid blocks to shape the counter-stern. Sanding started ready to be fibreglassed



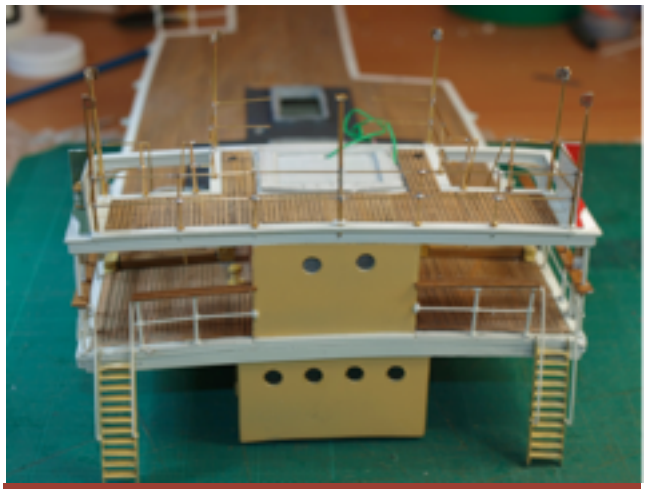
Main deck housing constructed around coamings. 1 mm styrene sheet used for all superstructure and decks

Installing the boat deck

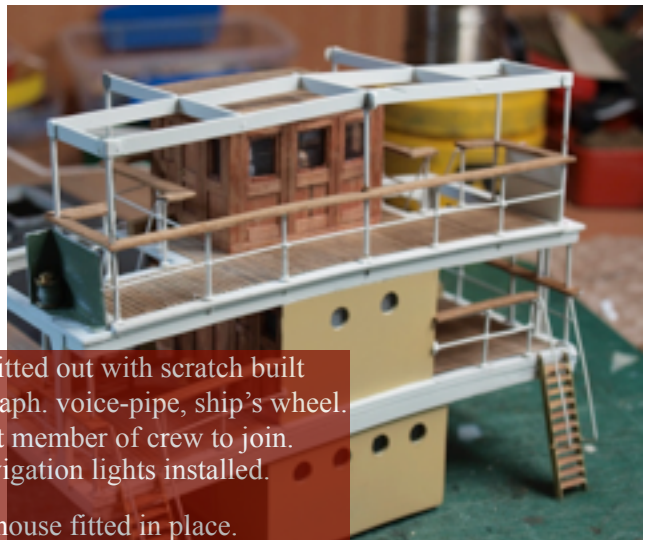
Commencing to build flying bridge over the Captain's cabin / chartroom. It is constructed with 1mm plywood with 0.5mm timber overlay to form panelling (built around 1mm styrene deck and removable deckhead). Wheelhouse similarly constructed with .5 timber overlay to simulate panelling. Funnel constructed from PVC waterpipe.

Flying bridge and beams, wheel-house, and funnel with steam whistle completed. Ladder constructed from brass wire and tube. Mast and derrick begun, using brass tube. Scratch-built lifeboats placed in their position. 0.8mm plywood cut for timber decks ready for the planking to be scribed.

Hull, deckhouse, funnel, cowl ventilators, mast have been painted. Main deck hatch has received a tarpaulin covering also simulated steel batten timber wedges to each side of hatch. Navigation board each side of flying bridge installed. Lifeboat radial davits constructed from brass tube /wire, painted before installed. Lifeboats painted ready to be fitted out. Scribed timber planking has been fixed to the sub-decks.



Hand rails to flying bridge being built in situ. When completed they will be removed to spray paint. Rails and companion ladders fitted to boat-deck. Stanchions are 1mm brass turnings (obtained from UK many moons ago; no longer available), rails 0.5mm brass wire. Companion ways soldered up from thin brass strip, constructed in jig.



Left - Wheelhouse fitted out with scratch built compass binnacle telegraph. voice-pipe, ship's wheel. Helmsman, the first member of crew to join. Working side navigation lights installed.

Right - Wheelhouse fitted in place.

I was not conversant with the John Oxley's steam windlass and winch though I have built a lot of standard versions for different models. Richard Keys provided a photo taken on the Sydney wharf of them both before being restored. Using the plan for sizes and some photos of the vessel's deck, I drew up a rough sketch plan. Above is what I hope is a reasonable representation of each. Made from styrene sheet, scribed circles, tube brass and wire. Drums were turned from plastic knitting needles.

Well deck showing cargo winch also cargo hatch. The rails can be removed, bulwarks fixed in their place (see below). Below: bridge and boat-deck.

Boatdeck with scratch built fibreglass lifeboats.

Rear of main deck and boatdeck.

THE END RESULT

One spends time in the researching, obtaining the necessary plans and drawings, finding as much information and photos of your planned vessel to model as you can. Deciding what materials one will use on the all the different sections/parts of the model. Working out a rough sequence of how of how the model will be developed. Then comes the enjoyable time spent building the model to its completion (there may be a few times of frustration when something does not go to plan).

The day comes when the final bits are put in place, the model is completed. Studying it on the table, around all the sides it all looks just as you had hoped it would look. You pat yourself on the back saying I'm pleased with what I have achieved I've made a reasonable job of it.

A working model has to have a flotation test so as to test the electrics, to see that the rudder turns to port or starboard in tune with the transmitter, the same with forward and astern movement. It needs also to be ballasted so as it will float on an even keel down to the waterline. When this has been completed satisfactorily, the vessel is ready for launch day. Your sailing group's next sailing day

arrives, so off to the pond you go where you place your new grown-ups' toy on the table for the critical look-over by your fellows sailors. If all goes well, you should get no adverse comments. The time has come to switch on the transmitter, then the model's electrics. A quick test to make sure all is working OK. Then down to the water to launch her, hoping that all the ballasting done in the bath was OK. If so, put the transmitter into forward. SS John Oxley now steams off, just has her namesake did in 1923.

At the end of the day, this is what you have been aiming for, from when the seed of an idea was planted at the Port Macquarie Exhibition, to now when you are at the helm guiding her on the water.

One now has pleasure in sailing her as well as admiring her when on show at home.

#

Macquarie Lighthouse in Sydney celebrates its 200th birthday this year. Macquarie was Australia's first lighthouse and was first lit on November 30, 1818.

In 1976, Peter Schirk flicked the switch in the Macquarie Lighthouse for the last time. Its light, which was once the world's most powerful and beamed 40 kilometres out to sea, had been fully automated and no longer needed a keeper.

"I used to go in there every morning and every night to turn on and off the lights," he recalled. "It was a lovely spot to be, looking out at the harbour." Mr Schirk felt a touch of nostalgia as he joined former colleagues at the station on November 30 to mark its 200th anniversary.

Macquarie Lighthouse is Australia's oldest navigational light; the site at Vaucluse near the entrance to Sydney Harbour has been operating since 1791. The original lighthouse tower was completed in 1818 by convict architect Francis Greenaway, who earned a pardon from Governor Lachlan Macquarie for his work. At the time, the structure was powered by oil-burning lamps set against reflectors.

The only part of the first station that remains is a section of sandstone wall that surrounded it. Due to erosion, the lighthouse was replaced in 1883 with a larger design that could produce a light, the equivalent of six million candles. *(Edited report of the celebration – ABC News)*

Moving Moments in Modelling

by BOB EVANS

I would like to share with you all the latest moving moments in my modelling experience. Some time ago now, and after another of our frequent trips to New Zealand, I made the suggestion, half in jest I think, to my good wife Elizabeth, that we move across to New Zealand to live. To my probable horror (at the time) she agreed and plans were immediately put in place to achieve this goal.

Being winter gave me a small reprieve as apparently spring is the optimum time to sell properties. In the meantime, accountants were engaged, removalists consulted on costs, pet transport and vets contacted and a real estate agent engaged.

I was then hit with the horrible realisation that I would need to pack the entire contents of my workshop (aka garage), in itself a daunting task, which included quite a number of models of the extremely-difficult-to-pack variety. The collection of unbuilt ones (including the once taboo plastic kits) were easy and now reside in boxes patiently waiting to see the light of day.

For those of you who have not experienced a feeling of rising panic and despair, I can assure you it applies to the thought of moving, at least it did in my case.

I had to move quickly, spring was almost upon us and my better-half assured me that once on the market, the house would sell in a heartbeat. What to do? Obviously individual boxes were out of the question, too expensive, and would necessitate yet another container.

Finally I resolved to build large boxes of a similar size into which I could pack a varying number of models. Easy, but how to secure these treasures and protect them from the ravages of sea transport and the gentle process of wharf handling? You can get the idea from the photo below.

I purchased a large number of 12mm plywood sheets from a store in Canberra. They were second-grade, but suitable for this task. My local Menshed offered plenty of advice and eventually three of us found a quiet day and cut all the pieces to size ready for me to build crates. All crates are 1000x600x800mm. The removalist suggested screwing the models to the bases and in turn screw the whole thing to the crate. I could see that this might well "screw" the very things I was trying to protect so instead I elected to line the base with non skid material, tie the models to the stand and hold the stand down with wooden brackets which were glued to the floor of the crate using hot melt glue. This stuff sticks like the proverbial to a blanket should resist most shocks (I hope!!). Finally strips of towelling were gently positioned between the models. As a precaution the New Zealand quarantine were contacted to ensure that the plywood was acceptable and that the models were not going to be problematic. All along I have found that whatever authorities we contacted over there were prompt and helpful with their advice.

The more astute readers will realise that spring didn't weave its real estate magic and we are still awaiting that elusive buyer. I'm sure there is one out there, but until then I can't tell you if my method of transport will be successful! I sincerely hope so!

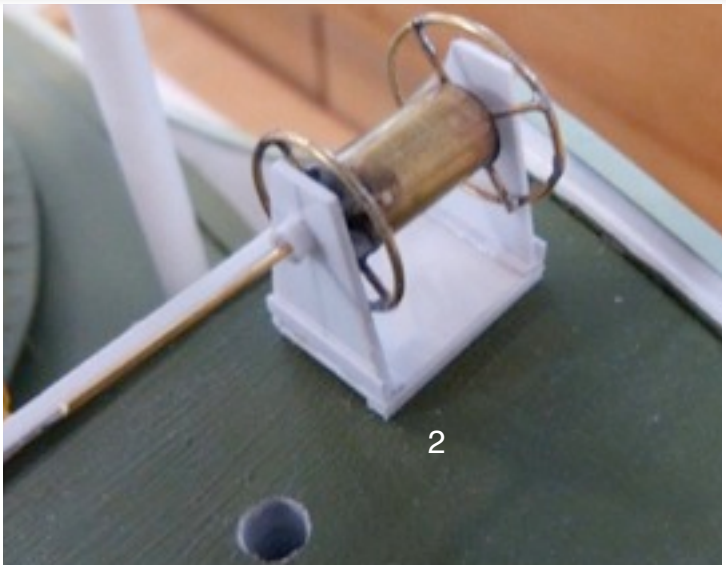
#

Left - This is how things used to look, and hopefully will again; Below left - This is how things look now; and below how the protective labelling to be appended to the outside of the crate will look.

Bob Evans, despite an empty workshop and packed models, hasn't shutdown

RESTRICTED MODELLING


1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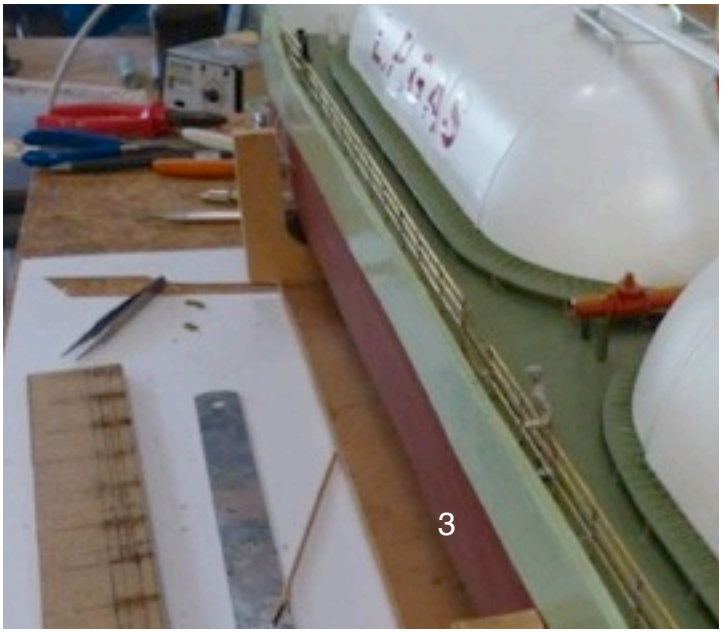
Elsewhere in this esteemed publication I have described the process of moving models. The "impending move" I referred to in the September issue is still impending. Unfortunately this leaves me somewhat restricted in what I can produce, but at least I am now forced to continue to work on unfinished models rather than start a new project; they now all having been tucked up in boxes.
Since not much has been done I will put all three models currently under construction in one short article.

PACIFIC GAS

In Photo 1 I have started making the railings and also the rope reels on the forecastle deck. In photo 2 you can see the completed reel with the brass rod yet to be cut off. The "handles" for these reels were the rims of the drum itself. After much experimenting I have decided to abandon the idea of illuminating the compressor room. The light was to have gone where the hole in the deck is, but the batteries and switch arrangement proved problematic in coming up with something even remotely in scale to house the required batteries and switch. The additional problem for anyone wanting to look inside would have been the loss of an eye and demolished


3

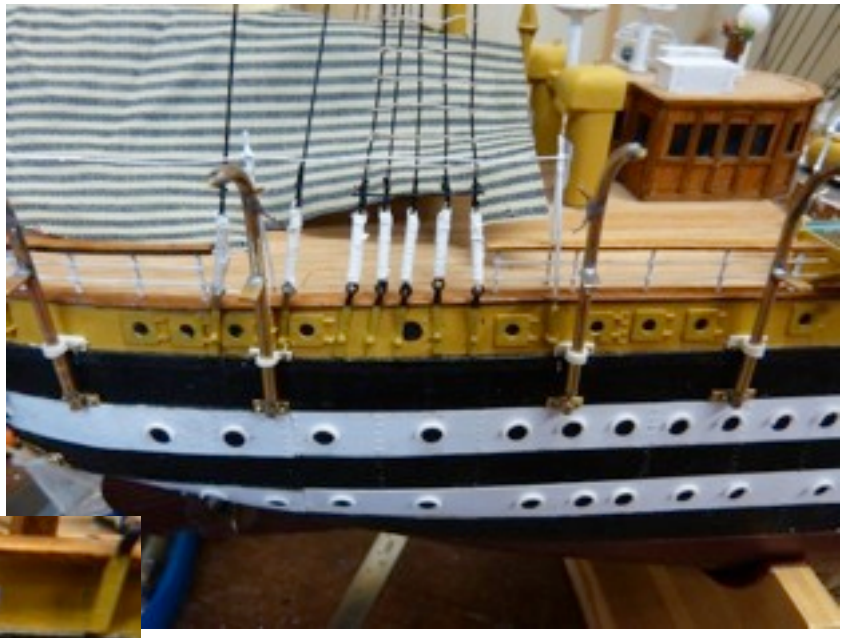
ventilators! The proper position for the rope reel is over the hole in any case, so, problem solved.
Photo 3 shows the starboard side main deck railings. There are two openings in these railings, one for the cargo manifold and the other further aft for Pilot access. The simple jig I have used can also be seen. It is simply a matter of laying out the pieces and taping them down in strategic places.
Curved railings are slightly more problematic but only in ensuring they are of the correct length, for instance in allowing for the curve around the after end of the

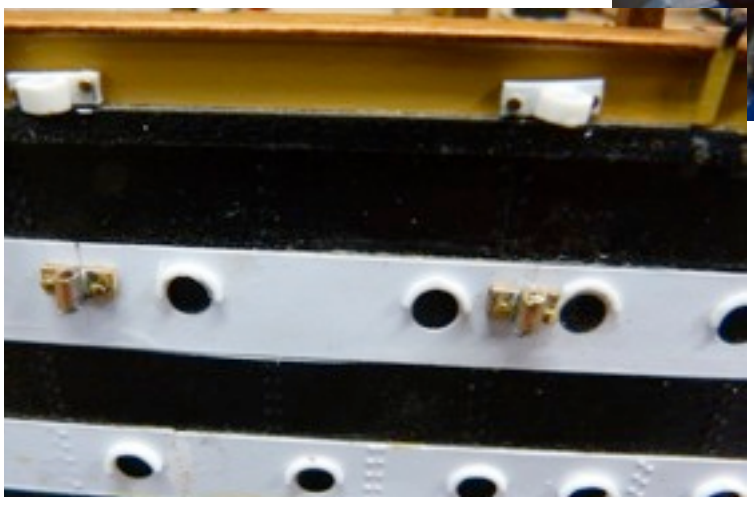
poop deck. The gentleman hanging over the railing is one of five I purchased from Kerroby's at the last Wagga show. The brass rods are a mix of K&S and Albion which I bought on line from Frontline Hobbies in Newcastle. The customer service I experienced with them was excellent and the items arrived within two days.
Photo 4 shows the plug I have made for the life boats. The original plug I made turned out to be a disaster when I attempted some miniature fibreglass work. This was consigned to the bin and another plug made. I'm not sure how the hull will be made but I'm still doing my homework on this one.


4

AMERIGO VESPUCCI

All I have managed on this one is the lifeboat davits.
The photos are all self-explanatory and show various stages of construction. Since there are a dozen davits it is essential to have the curvature, hence the bottom photo which shows the highly technical jig I used. After 12 davits it was not much good for further use!





On the following pages, Bob continues his story with news of his latest scratch-built venture, again with personal associations.

THE FIJI GAS

BOB EVANS continues his story

I haven't shown this one previously because there simply was not much to show. My younger son Ian was visiting from New Zealand a while back and happened to mention that he had made a voyage with us on the Fiji Gas and what were the chances of a model for him. No problem said I, it's only another project!

The Fiji Gas was another vessel I had command of and while larger than the Pacific Gas at 83 metres, it was also quite cramped, especially when family travelled with me! She originally had two tanks, but was later lengthened to have three and resembled a pencil-like shape which was surprising good in a seaway and was a great ship to handle. No bow or stern thrusters and a single screw, but plenty of power.

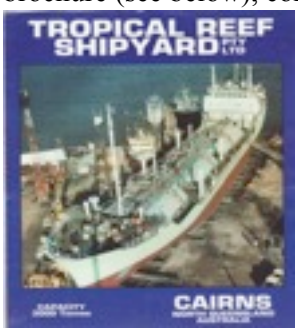
I was obviously not going to make the model at 1:50 as is the Pacific Gas but chose 1:120 and a waterline configuration for ease of transport and of course construction. I am extremely hampered by a lack of plans and the ship itself would not be in existence any more so have to rely on a number of photos and a fading memory. Cameras on deck were a no-no naturally, not being intrinsically safe.

After drawing up a simple plan and some lines based on what I could glean from some photos and a dockyard brochure (see below), construction began.

A simple framework using a centre profile and bulkheads and planked in the usual manner was built up with the stern being made up with balsa segments. This was all sanded smooth and covered with 0.5mm plastic sheet and using contact cement. Avoid using too much as the plastic will tend to bubble as I discovered when building the "Chindwarra" and had to start again!

In photo 1 you can see the construction. The tanks will be made from the plastic balls ordered at the same time as the ones for the "Pacific Gas" although obviously smaller. This was where progress ceased for some time, but with the impending visit of Ian for Christmas, I thought I had better get something done!

Photo 2 shows the completed tanks, the decks and hull covered with plastic sheet (who says we can't use plastic!!). Portholes have been inserted in the poop area with eyebrows fitted. The tanks will be secured once the deck has been painted. The green skirt around the centre tank represents the tank-sealing arrangement. Obviously there is the same amount of tank under deck.



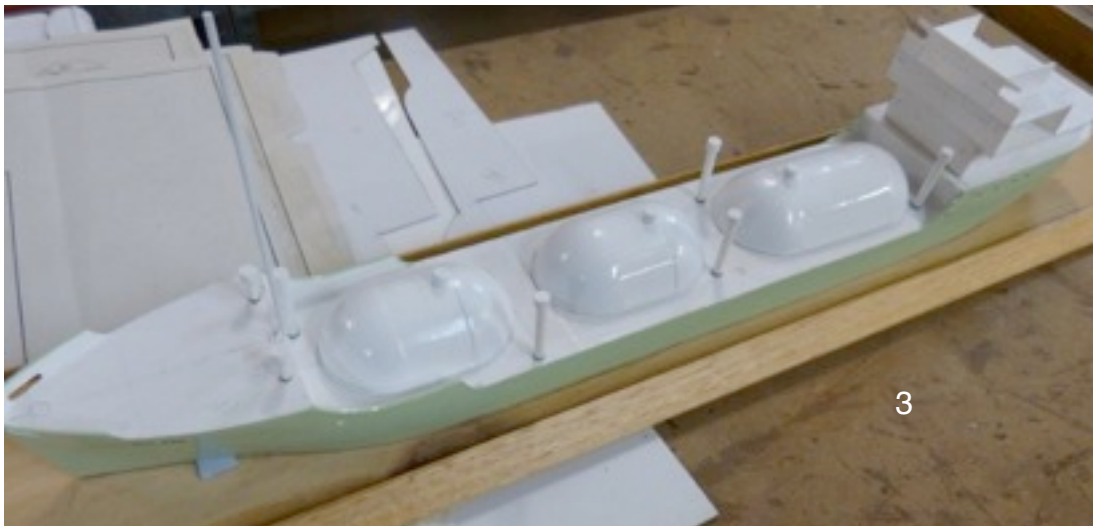
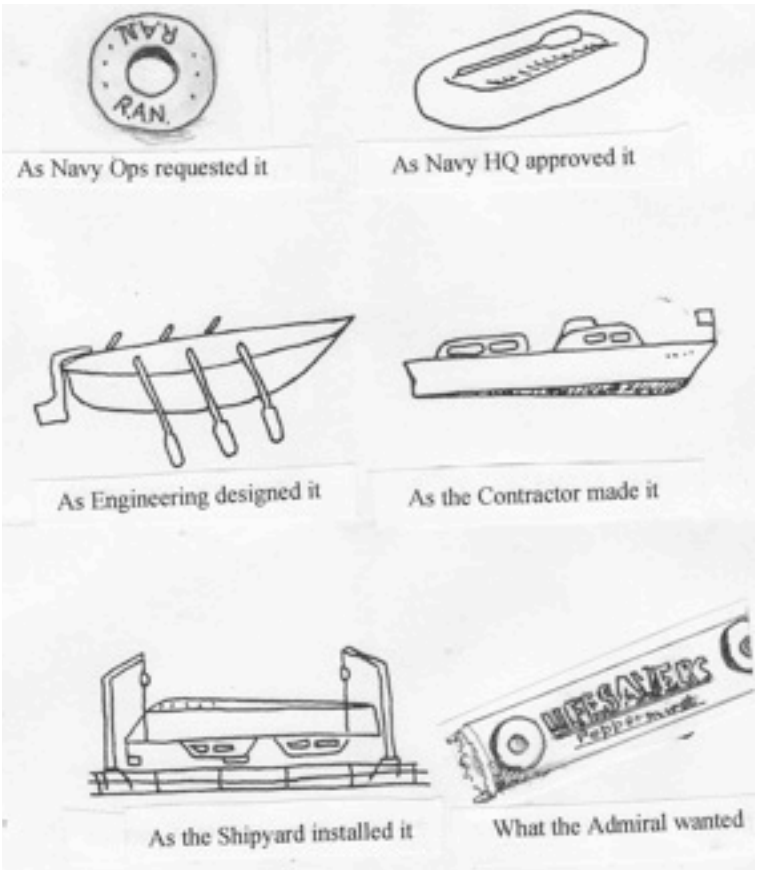


Photo 3 shows where I am up to now. Mercifully the accommodation block is just that, a block. The difficulty I have is in determining what is aft of the funnel so I'll just have to hope that I get things as accurate as possible. The superstructure is all plastic card, 1mm providing quite adequate strength at this size.

It is at this stage the difference between motorised and non-motorised became patently obvious. There is no need to be making things removable. Much easier! How much more I get done before moving depends on when we manage to sell our home , so if I'm still here for the next issue, I might be able to report further. #



Cartoon sent in by Max Fitton

ROD CARTER continues his story of the part Dornier played in the development of flying boats

The Dornier Do X

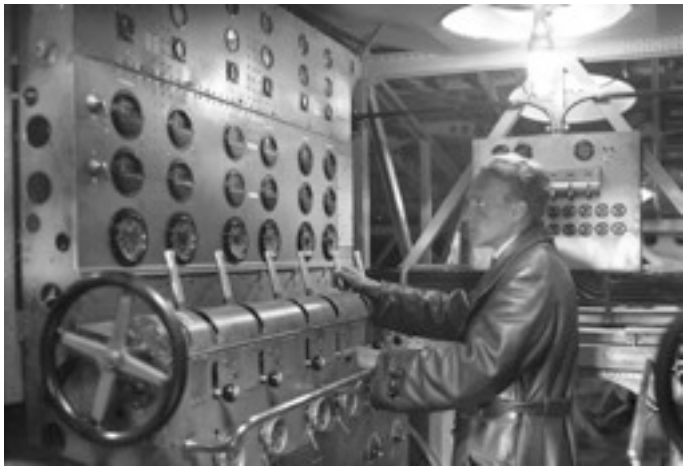
The Dornier Do X was the largest and heaviest aircraft in the world in 1929. Tupolev's ANT-20 'Maksim Gorkii', flown a few years later, was larger, but 3 metric tonnes lighter, and the Do X retained its title for the next 13 years until the production of the Hughes Spruce Goose and the Martin Mars. A further development of the Dornier Wal, Its construction was subsidised by the German Transport Ministry and the airframe was constructed at a specially built plant on the Swiss shore of Lake Constance (to circumvent the Versailles Treaty which forbade construction of aircraft in Germany which exceeded maximum speed and range limits). Build time was 570 days. The hull was all Duralumin and the wing structure was of steel-reinforced Duralumin and leading edge covering, otherwise covered with heavy linen fabric. Design form was semi-cantilever monoplane (the wings partially supported by struts between Dornier's trademark stabilizer sponsons and the wing) with 12 engines mounted in tandem pairs on struts above the wing, joined by an auxiliary wing. The engines were controlled by the Flight Engineer responding to the pilot's call for power via the engine order telegraph although two emergency throttles in the cockpit afforded the pilot direct control of the port and starboard engines. Initially, the engines were Siemens-built Bristol Jupiter air-cooled radial engine offering 524 hp but test flights indicated over-heating problems with the rear six engines. After 103 flights, these were replaced with 610-hp Curtiss V-1570 Conqueror V-12 water-cooled engines, alleviating the over-heating problem, but the 'boat was still under-powered since it struggled to reach an altitude of over 500 Metres.

Accommodation was provided for 66 passengers on long-haul flights, or 100 on short trips, and approached the standards of luxury found in trans-oceanic liner ships. The upper deck comprised the cockpit, and the navigation, radio and engine control rooms. On the mid deck was a smoking room and wet bar, a dining salon and seating for the passengers which, on long flights, could be converted to sleeping berths. An all-electric galley, lavatories and cargo hold were situated aft of the passenger's accommodation. The lower deck contained fuel tanks and nine watertight compartments, seven being sufficient for full hull flotation.

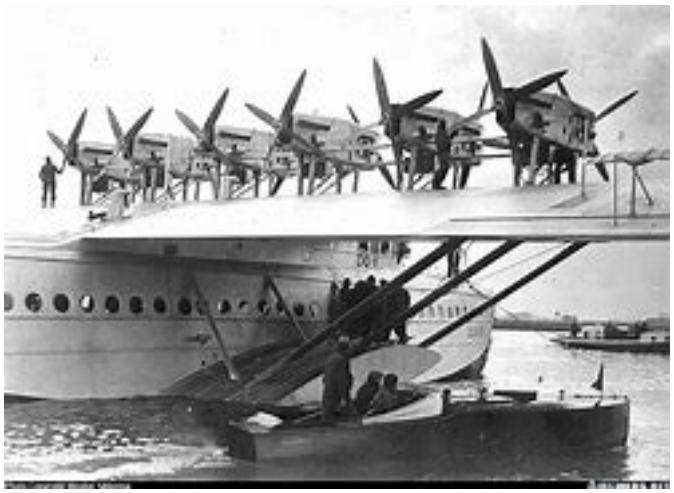
The Do X undertook its first flight on 29 July 1929 with a crew of 14. The 70th test flight, a proving flight to silence skeptics, carried 10 crew, 150 passengers (mostly production workers and their families with a few journalists) and nine stowaways who hadn't bought a ticket. This set a world record for souls-on-board which wasn't broken for 20 years. The flight lasted 40-50 minutes and was aided by passengers asked to crowd on one side of the cabin or the other to assist the aircraft in turning.

The first, and only, flight to America, hopefully to inaugurate a regular Europe-America service, wasn't a success. The Do X took off from Friedrichshafen, Germany, on 3 November 1930 bound for New York via the Netherlands, England, France, Spain, Portugal and Brazil. Regrettably, the voyage was interrupted at Lisbon on 29 November when a tarpaulin came in contact with a hot exhaust and ignited the fabric of the port wing. Supply of replacement parts and re-covering of the wing took six weeks. The route-proving flight continued along the West coast of Africa, with another three-month interruption due to hull damage on take-off in the Canary Isles, and reached the Cape Verde islands by 5 June 1931, whence it crossed to Natal in Brazil. The Do X continued North via San Juan, reaching New York on 27 August 1931, ten months after taking off from Friedrichshafen. Overhaul of the engines and

displays of the flying boat for sightseers occupied the next nine months and it departed New York on 21 May 1932 flying via New Foundland and the Azores for Europe. It landed on the Mugglesee in Berlin on 24 May 1932 to be greeted by 200,000 cheering Berliners, proving what could have been given favourable circumstances. Regrettably, hopes for a regular service were crushed by the Great Depression. The first Do X was passed on to Lufthansa, and engaged in a tour of German coastal cities throughout 1932, and then started a 1933 flight to Vienna, Budapest and Istanbul. The tour came to an end when the boat's tail was torn off during an attempted overly steep landing on a reservoir lake at Passau. The accident was said to have been covered up but the boat was still out of service for the next three years and, after it was flown back to Bodensee in 1936, it ended its career as the centrepiece of Berlin's new Aviation Museum. It was finally destroyed during an RAF bombing raid on November 23-24, 1943.



Two more examples of the Dornier Do X were built, ordered by the Italian state airline, Societa Anonima Navigazione Aerea (SANA), the Do X2 entering service in August 1931 and the Do X3 in May 1932. The Italian Do X s were slightly larger and powered by 12 Fiat A-22R V-12 water-cooled engines, each offering 570 hp with the engine mountings enclosed by stream-lined fairings. Their original role, a projected service between Genoa and Gibraltar, was deemed unprofitable and they were requisitioned by the Regia Aeronautica. In Air Force service they were used for aeronaval exercises, prestige flights, training and public spectacles, initially based at the seaplane station at La Spezia on the Ligurian Sea. Do X2 however had a short life - just one month after Do X1 was fatally damaged in a failed landing, Do X2 also suffered a broken tail during a botched landing. Both airframes were finally moth-balled in 1935 and broken up for scrap in 1937.



DoX General characteristics

Crew: 10-14 Capacity: 66-100 passengers Length: 40 m (131 ft 4 in) Wingspan: 48 m (157 ft 5 in) Height: 10.25 m (33 ft 7 in) Wing area:450 m^2 (4,844 ft^2) Empty Weight: 28,250 kg (62,280 lb) Max Take-off Weight: 56,000 kg (123,460 lb) Engines: 12 × Curtiss Conqueror water-cooled V12, 455 kW (610 hp) each

Performance

Maximum Speed: 211 km/h (131 mph) Cruising Speed: 175 km/h (109 mph) Range: 1,700 km (1,056 mi) Service Ceiling: 3200 m (10498 ft) Wing Loading: 94 kg/m^2 (19.3 lb/sq ft) (at 46 tons weight)

Dornier Do S

The Dornier Do S, with the appearance of a scaled-down Do X, was a development of, and intended replacement for, the Do R4 Super-Wal. Its general design form echoed the Super Wal, but the Do S's hull was significantly improved with seating for 22 passengers and increased wing area, reducing the wing-loading by 30 % and the landing speed by 25 km/h (16 mph or 13 kn).

The main wing of the Dornier S was rectangular in plan (8.8 m or 28 ft 10 in chord) in three parts, with a central panel attached to the crew's compartment on top of the main fuselage, and two outer panels. It was built around three duralumin trellis spars, with dural ribs and skin, the inner panel supported by two vertical struts from the sponsons. Main outer bracing was provided by a single strut from the inner sponson to the central spar of each outer panel at about half-span. These were assisted by steel flying wires from below, between the forward and rear spars and the sponsons, and from above by a single wire from the raised engine mountings and their cross-bracing auxiliary wing, to the forward spar. Ailerons occupied the full trailing edge of the outer panels, aerodynamically balanced by small auxiliary surfaces mounted forward and well above the hinge line. The lower part of the fuselage followed Dornier's usual practice, with a narrow-V cross-section forward changing to a flat bottom, with a deeper centre region, near the single step and a V-section aft ending with a water rudder. The forward cabin accommodated twelve passengers in front of a lobby accessed by a starboard side door and containing a cloakroom, toilet, library and medicine cabinet. Behind it was a second passenger compartment for ten, with a kitchen aft. At the stern the empennage was conventional, with a swept leading edge fin, carrying a rudder which reached down to the top of the fuselage. The tailplane, also of rectangular plan, was braced underneath by a pair of parallel struts on each side and was adjustable in flight. The elevators were aerodynamically balanced in the same way as the ailerons.

The crew were housed in a separate structure above the cabin which also formed the central connection between wing and fuselage. It began well forward of the leading edge and ended just aft of the trailing edge. The pilot's open cockpit near the front had a pair of side-by-side seats with dual controls. Further aft, there were positions for a flight engineer, a navigator and a radio operator, one of whom could act as co-pilot. The Do S was powered by four 347 kW (465 hp) Hispano-Suiza 12Lbr water-cooled V-12 engines, mounted above the wings in tandem configuration pairs and driving four-bladed propellers. Each engine in a pair had a radiator occupying half the front of the rectangular section nacelle and each pair was mounted on two V-struts and two wider-spread inverted V-struts to the forward and central spars. The upper engine mountings were braced together centrally by a narrow-chord structure which acted as an auxiliary wing as well as being part of the main wing bracing structure. With a span of almost 9 m (29 ft 6 in), it reached out beyond the engines.

The Do S's first flight was made on 23 September 1931 from the Bodensee. On 16 November 1931 it flew from Friedrichshafen in Germany to Paris for the 12th annual Salon (aero show), landing on the Seine at Suresnes but displayed indoors in Paris. It returned to Friedrichshafen in the new year in a series of short demonstration flights. Despite Dornier's efforts. no orders were placed and only one Do S was built. It was used as a hydrodynamic test vehicle until 1933, when it was transferred at the Ministry of Transport's request to the Deutsche Verkehrsfliegerschule (DVS) flying school at List auf Sylt. It was lost in the Baltic in 1935.

DoS General characteristics

Crew: four; pilot, engineer, navigator and radio operator Capacity: 22 passengers Length: 25.75 m (84 ft 6 in) Wingspan: 31.00 m (101 ft 8 in) Height: 7.85 m (25 ft 9 in) from keel to propeller tip Wing area: 209 m2 (2,250 sq ft) including sponsons and the upper winglet Empty weight: 10,000 kg (22,046 lb) (a later source gives 9,100 kg (20,100 lb)) Gross weight: 15,000 kg (33,069 lb) Fuel capacity: 3,500 l (770 imp gal; 920 US gal) Powerplant: 4 × Hispano-Suiza 12Lbr water-cooled V-12 engine, 470 kW (630 hp) each take-off, 347 kW (465 hp) continuous Propellers: 4-bladed wooden fixed pitch

Performance Cruising speed: 215 km/h (134 mph; 116 kn) Range: 1,100 km (684 mi; 594 nmi) with 22 passengers and maximum payload, 3,600 km (2237 mi, 1943 nmi) with maxumum fuel Service ceiling: 2,700 m (8,900 ft) Landing speed: 90 km/h (56 mph; 49 kn)

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