Club Magazine

SUMMER EDITION 2020

Luton & District MBC

.... a club NOT just for boats ....

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EDITORIAL

Trust you are all enjoying the spring weather and have not been down to the lake in Wardown Park every weekend in contravention of the Governments instructions. Having said that, we do appear to have acquired some new members and there has certainly been a lot more people sailing boats at our weekly Sunday meetings prior to the 'Lock Down', perhaps it's the Bacon Roll Sundays that are attracting support, or the Chef?
Don't forget to check the 'CLUB ACTIVITIES' section on the web-site to be certain exactly what meeting are/not taking place.

Trust you will appreciate the lack of content within this magazine due to the fact that no model type meetings have been taking place, maybe we will get a little more modelling action to report on for the autumn issue, however I am not holding my breath.

Whilst being at home 99% of the time I have ventured on another Plastic Magic project to keep me amused. The model in question is a Russian Battleship, Pre dreadnought era. An article on the history of the ship is included in this issue of the magazine together with a picture of my model at its build stage when I was composing this Editorial.

I have also been asked to build an Airfix 1/72 scale Severn Class Lifeboat, so far I have installed the engines and rudders but this has now come to a standstill as I am concentrating on the Battleship. More about the building of this Lifeboat may appear in the autumn issue of this magazine.

We have now started holding Sunday meetings (via Zoom) on the internet in an effort to try and stay in contact with each other

Some major changes are going on in the magazine world in particular the Model Boat Magazine. I had an E-mail from a Mr. Kevin Crozier who is the Editor of RCM&E magazine. He has been asked to re-start a slimmed down version of The Model Boats Magazine – it will now have 52 pages and for the near future, will be published bi-monthly.

Happy Reading ED.

FROM OUR SECRETARY

TO THE SKY OR THE LAKE? FOR ME THAT WAS EASY

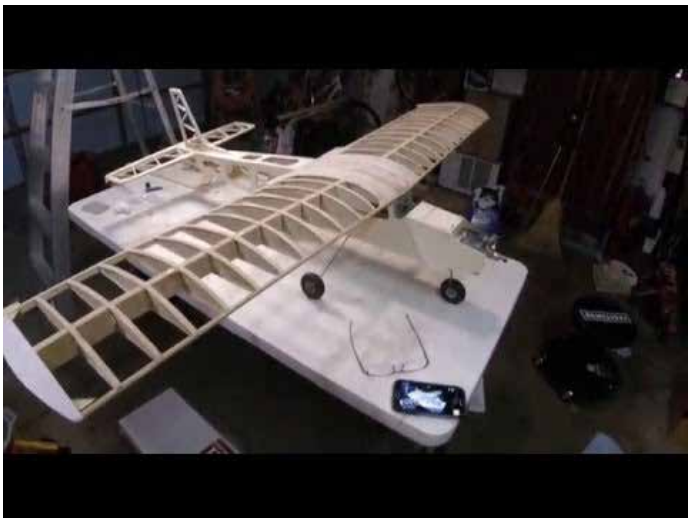
Long, long, ago when the Earth was young, and there were three channels on the TV and a mobile phone was mobile to the end of the cable in the wall, and a lock down meant my Dad had locked the door and I was sleeping in the car.

I worked in the printing trade back then and I was production editor on a magazine called Radio Control Modelling and Engineering. I also worked on others from the same group including Model Boat, Military Modelling, and Creative Crafts.

Up to this point the only models I had in my mind were The Shrimp, and Twiggy and that was as far as it went. I had chucked the odd glider and wound the occasional rubber band but that was about it. So, in this way I was introduced to aeroplanes that could fly and boats that could go on a pond and be controlled by me. At the time this was simply mind blowing and I was hooked.

Unfortunately, wages in those days, did not really keep me in beer never mind expensive toys. However, I read every page of every copy I worked on. I collected all the plans that were published (I actually drew a few) and tried to blag as many freebies as I could get my hands on.

Eventually all my heavy hints, winks and nudges paid off and I managed to get my hands on a VERY naff radio system that had been on review at the magazine, and a half finished trainer plane called a Torri that had been started for a photo shoot that didn't happen. Sucking up to the RCM&E editor had worked. (Picture below)



I was ecstatic and over the next few weeks managed to finish off the plane and paint it. I also joined the Luton flying club and picked up a worn-out engine from one of the members. I re-read the articles, and books on how to set up the electrics and controls. This was going to be fantastic. I was going to play tag with the clouds, and see my beautiful red and white creation soar into the sky with me at the controls. I was Douglas Bader reborn.

Flying day arrived and I loaded everything into my car, and set off for the club field. Back in those days the field was located near Warden Hill. I think the site is now Bushmead. Most of the guys were almost as excited as I was to see the maiden flight of my wonderful Torri, but I couldn't help noticing a certain reticence in some of the older, more experienced members of the club.

I needed help to get her started but eventually the motor fired and plumes of castor oil smoke puffed from the exhaust. So, there I stood with my curious (foreign) transmitter with the bent aerial. My plane, with a very smokey engine held aloft by a club member ready to launch, and another by my side to shout helpful instructions as we soared away to the blue.

With revs to maximum, a little up elevator, a run, a heave, and she was away, at a speed that quite surprised me. I could hardly contain my excitement. Instructions came thick and fast. Not too much up, level off, back on the throttle a bit, a little left rudder now! Throttle back! Left rudder! You had better close the throttle! More left quickly!!!!!!!! Kill the engine!!!!!!!!!!

My thumbs were a blur on the sticks as I tried to follow the ever-quickening commands shouted in my ear. Faintly, in the background I could hear gasps and sighs. Sounds like OH!!!!!!!!! And, LOOK OUT!!!! My input on the sticks was completely ignored. Torri was free and there was no way she was coming back. I stopped playing with the transmitter and watched with my fellow modellers as my pride and joy, my creation, my baby, MY MONEY, chuffed in a gentle climbing curve off towards Lilly and the hills beyond.

How much fuel did you put in it? Said a voice by my side. I filled it up, I replied. Well, keep your eyes on it as long as you can, said the voice. I did, and to my astonishment the right-hand turn was getting tighter. Torri was out over the golf course now leaving a trail of smoke. As she turned, she started to descend. I wondered if it would come back into transmitter range and I could take control again, but now she was turning tighter with more smoke and definitely heading for the ground about half a mile away. I followed the smoke all the way down and watched as parts flew off in all direction until she cart wheeled to a stop still smoking.

After a long walk I managed to find a way through the hedge and onto the golf course. I was getting some real dirty looks from the handful of golfers as I took the walk of shame over to the wreckage. I managed to salvage a few parts but it was mainly matchwood. I scooped it up in my arms and set off the way I had come. Past the scowling golfers, back through the hedge and over to my car.

Back at the field most of my fellow modellers were sympathetic and had words of condolence for me. A few old sages were less sympathetic. You should have tested that before you got here mate, from one. Those crappy transmitters never did have any range, from another. Old Jacks engine seized up eventually then, from a third. I quietly slipped away, back home to lick my wounds, and see what could be recovered.

Fortunately, my wife was a tad more sympathetic and I sat in my shed with a cup of tea and started to recover what bits I could from the wreckage. Was there going to be enough to build another plane? I had a receiver, cracked but ok. I had the servos and the battery pack, but that was about it. I took the motor apart but the shaft was bent, and the piston had picked up in the bore. It was dead. So along with the match wood it was consigned to the dustbin.

Back at work the following week the sorry tale was retold to my benefactor at RCM&E. This is when he told me that they too had found the radio system had very little range and thought that it would be better suited to perhaps a boat. I decided that keeping my mouth shut was probably a good future career move but vowed my model airplane days were over.

A couple of weeks later, while working on the next issue of Model Boat I received a phone call from one of the advertisers, Veron Models. They needed to change copy on their full-page advert and could I make the changes in time for publication. I don’t need to go into details about copy dates, proof dates, origination dates, but let’s just say it was impossibly tight. The changes were extensive to say the least and some midnight oil was needed. I made it, and the new advert came out in time to launch a new model. Veron rang me to say thanks and the conversation came round to boats and my thoughts on

building one. A few days later when copy for another issue arrived there was a box with my name on it.

The box contained a kit for a boat called TARPON and had been featured on the advert. It was a deep-sea sport fishing boat. It had a flying bridge and looked gorgeous with a deep V hull and looked like it was going fast when it stood still. For me the biggest problems were yet to come. This was a whole new world of ply wood, plastic, and fibreglass. I was definitely going to be out of my comfort zone. (Advertisement below)

Fortunately, the Veron kit was quite extensive, and without too much trouble I was able to get it looking pretty good. This time I would dodge the troublesome smelly engine and go electric. An engineer friend of mine had got hold of a 6volt pump motor which seemed to have potential. With a bit of help from him and some sketchy advice from Maple Models (remember him?) we made a flex joint fit the propeller shaft and the motor and found a 6v battery from a workman's lamp. It all worked very well apart from the fact that we had no way to control the speed. A minor flaw in the plan.

We managed to knock up a speed controller using the blower control off a Morris Minor heater. A rather Heath Robinson affair but with a servo to turn it left and right, it did what we wanted it to do. Sort of. Everything else was now working and not having to go to a field we were able to test it in the bath. The speed controller worked more like an on/off switch but it worked, and nothing caught fire, seized up, or disappeared over the horizon. RESULT!!!!!!

The maiden voyage took place over at Stanborough Lakes and turned out to be very successful. We found that the radio had a range of about 70 to 100 feet. Absolutely useless for a plane but not too bad for a boat. I never did find out why this radio was so bad and never saw another one like it. I can't remember the name of it either but it was made of red and cream plastic and had an aerial with a load coil halfway up. If anyone remembers it from the Late 70s, you can let me know.

The power from the pump motor was adequate and she planed beautifully on the deep V hull. I was really pleased with the result and was now firmly set on the road to model boating. I used Tarpon for about a year and then work, children, and the attached responsibilities got in the way of big boys' toys for quite some time. Now I have time on my hands. I have now built seven boats and have started constructing a scratch SRN6 hovercraft. I may have bitten off more than I can chew with that, but if I can use a blower switch as a speed controller, I can crack this too. I'll let you know.

Peter Carmen

FIRST ONLINE CLUB MEETING

Following the government's decision to shut the country down which has resulted in no CLUB meetings of any sort and in order for everyone to keep on touch it was decided to hold 'ON-LINE' meetings the results of which are shown in the attached photos. The meeting below took place on Sunday 22nd March.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Secretary LDMBC</td><td>Captain Nixon</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Mike Skuce</td><td>Tony Martin</td></tr>
<tr><td>  </td><td></td></tr>
<tr><td>Graham Rumble</td><td></td></tr>
</table>

The application used in order to allow all members to communicate on line is 'ZOOM'. Why not join us on Sundays at 2pm Details are as follows: -

Zoom Meetings

From the outset of the Covid Pandemic, I decided to try and keep in contact with most people in the club via Multi Media. One of the new ways was ZOOM. This is a video conferencing platform that can be used across several devices, like tablets, smart phones, laptops etc. After the first meeting at the end of March, the committee decided to pay for monthly subscription. This gave us a 24hr meeting time and up to 100 members joining as opposed to 40 mins and 20 members. The first 2 meetings we had about 10 to 15 members joining, but after that we had 15 to 25 at times. These meetings were lasting from 10 am to noon on a Sunday. Much talking was done as well and taking the Mickey out of certain members. We had those days with ties, loud shirts and a guest appearance by a penguin!

Going forward we will continue these meetings from 2pm on a Sunday, so if you want to join please do.

Some info about zoom

Pc/Mac

- Minimum OS:
  - Mac OS X with Mac OS 10.10 and higher
  - Windows 7 and higher

- Mac OS or Windows OS hardware requirements:
  - 2.5 GHz Dual Core Intel Core i5 and higher desktop CPU (single screen)
  - 2.8 GHz Quad Core Intel Core i7 and higher desktop CPU (dual or triple screen)
  - Dual bank RAM for better performance
  - Download the program here

https://zoom.us/download

Once downloaded, sign up, its free.

On the Saturday before the meeting I send out the relevant details of the Sunday meeting, this includes a direct link, meeting Id and password.

If you use the direct link in the message it will take you into the meeting.

Please note that when you connect you will be put in a waiting room until the host lets you enter. It will then take about 30 seconds to establish the sound.

Any problems I am at the end of my phone.

If you have Zoom already, please make sure you have updated it to version 5. It should automatically update, but please note, once updated you need to turn the machine off and do a hard reboot.

Sunday meeting 29th March

I wonder who this is playing the fool or maybe it's their work gear. Second thoughts 'All dressed up and nowhere to go'

LOOKING FORWARD

Well, we are in June now, and this is the month we would be getting busy with shows etc. we would have been attending Hemel, Stevenage and Northampton in June alone. Mayhem was in May……..you know that weekend when it was really windy! Gazebo flying weather!! Hopefully September will give us some normal resumption of activities. I will of course keep you updated on events that cancelled or going ahead!

On 31 May, we had our first post covid sail. Under the new rules we had 9 members sailing plus 1 Officer of the Day. Fantastic day, and the weather was really good. Tables were set out with spacing between, new signs out for the public to social distance and Photo Membership cards handed out! I think everyone had a great days sailing, the public were much appreciative, as I had conversations with several of them who said it was great to see the boats back on the lake!

A couple of things that were pointed out by club members on the “wrong side of the fence”.

1. At times people were a bit close and not social distancing, me included!
2. In future, each person will be responsible for taking down the table, and ensuring that it’s cleaned before dismantling (I forgot the cleaning stuff!)
3. We will cut the amount of people attending on a Sunday to 5 people plus the Officer of the Day. (OOD) (in line with the new Govt guidelines)
4. Disposable gloves left on the floor, it’s your responsibility to tidy up as well!

This will be brought in on the next sail on the 7th June. The full set of new rules for attending are now on the website for downloading if required (Issue3). Just a few pointers are given below.

To book a place to sail, you need to contact myself after 1pm on the Sunday and before Thursday midnight before the projected sailing date. I will need to know how many boats you will be bringing.

On the Friday I will inform each person who has successfully applied with the Officer of the Days name, and send out this info to all members via messaging, what’s app and email.

Once you have been informed, it would be great if you can message me back to say you have received the message.

On the Sunday of sailing, please do not enter the compound until the OOD has arrived.

Disabled parking is in the same place, but drop off is near the grass area behind the disabled parking.

If you arrive early, please help get the tables etc out.

Please keep the compound clean and tidy. Hand Sanitiser is available as are disposable gloves for your use.

SOCIAL DISTANCE AT ALL TIMES!!!

Keep the steps and landing stage clear.

Sail from the allotted dots on the ground.

At 11:45am the OOD will call time. Please wipe the tables down you have used with the provided cleaner and cloths and flat pack the table and return it to the trolley.

If possible, help to put the trolley away.

That’s it I think.

Pete Carmen

THE DEUTSCHE LUFTHANSA SOUTH ATLANTIC MAIL SERVICE IN THE 1930s

This is an amalgam of two articles that previously appeared in the Shuttleworth Veteran Aeroplane Society's magazine *Prop-Swing*

In 1932, in an experiment to try and accelerate the trans-South Atlantic mail service, DLH chartered the *Westfalen,* a Nord Deutsche Lloyd freighter launched in 1905, and converted her to a depot ship for the Dornier Wal seaplanes intended as mail carriers. She was specially fitted with a large crane at the stern to lift a flying boat aboard, after which, refuelled and fettled, it could be moved forward on a dolly mounted on a set of rails past the superstructure to a bow mounted Heinkel K-6 pneumatic catapult, capable of accelerating a 15 ton aircraft to 94 mph (151 kph), for re-launch. To assist with recovery of the aircraft a large, retractable canvas 'drag sail' was hung from a sort of giant towel rail fitted to the stern for the aircraft to taxi onto. The 'sail' was stiffened by crosswise battens which had a degree of flexibility so that when the Wal taxied centrally on to the rear end its weight lowered the middle of the sail and the sides rose slightly thereby holding the aircraft more steadily. This device obviated the need for the ship to come to a dead stop during recovery and was a great help in reducing the effect of heavy seas.

Tests proved the system sound and *Westfalen* with the Wal *Monsun* steamed to Bathurst in British Gambia, the intended staging point on the east of the ocean, for a final launch and recovery test at sea. This took place successfully on 2nd June 1933 after which the *Westfalen* steamed to a fixed rendezvous some 400 miles out in the Atlantic. *Monsun* took off from Bathurst on 4th June, met the ship, was taken aboard and refuelled, and then catapulted off on the 6th when *Westfalen* had reached a point within range, to reach Natal in Brazil the next day. The flight was completed without incident.

The overall DLH plan was for the mail to be flown from Berlin to Seville by Heinkel He 70, then by Junkers 52 to Bathurst. There it was to be transferred to a Wal which would follow the procedure proved viable in the foregoing test run. Once in Natal the mail was to be transferred to a Ju 52 of Syndicato Kondor which would carry the load to its final destination, Buenos Aires. The scheduled time for the whole route was four days and the first mail run and, incidentally, the first flight of a regular trans-Atlantic airmail service, was made in February 1934.

There were twenty four flights in 1934 but early in the year improvements were already being planned and another converted ship, the Hansa diesel freighter *Schwarzenfels*, launched in 1925, but now renamed *Schwabenland* was chartered and stationed off Bathurst as the eastern depot ship with the *Westfalen* relocated to Fernando de Noronha (the archipelago about 350 km off the Brazilian coast) at the western side of the trans-ocean leg. With *Schwabenland* the aircraft were both recovered and catapulted off abaft the superstructure. At the same time an improved aircraft, the '10-Ton' Wal with longer range than its predecessor, was introduced to service and with a depot ship in sheltered waters at each side of the Atlantic, operations mid ocean were no longer necessary, enabling the carriage of a greater payload per flight.

At the end of April 1935 operating experience had enabled the service to be speeded up so that Rio was reached in three days and Buenos Aires in three and a half. Later that year, on 6th October, the service was extended across the Andes to Santiago and thenceforth the carriage of mail from Europe to the Pacific coast took just four days.

By 1936 the *Ostmark*, the first ship specifically designed for the service, was completed and replaced the *Westfalen.* She was smaller than the previous two but, being bespoke,

had her superstructure and crane aft to enable the fitting of a longer catapult track which allowed the Wals to be both swung aboard straight onto the catapult and then be launched carrying heavier loads. An unusual feature of the ship was that in place of a conventional centrally stepped foremast *Ostmark* had a hinged mast on each beam that could be swung out sideways to allow room for the Wal's wings during a launch.

Piloting the Wals demanded a high level of skill and fitness and the passing of a test to obtain a Licence for High-seas Navigation. Apart from an ability to withstand the forces of a two second long launch from the 38,000 hp catapult, the optimum cruising altitude was around 30 ft to take advantage of the 10 mph speed increase gained from ground effect. Flying that low over the sea for long periods must have taken a lot of concentration!

It should be noted that the French were contemporaneously pursuing the establishment of an efficient air mail route over the South Atlantic. Although DLH set up the first regular service, Air France were not far behind and throughout the period right up to the outbreak of WW2 a spirit of friendly rivalry existed and co-operation between the two companies enabled them to make economies by pooling resources where circumstances allowed.

Here's a brief summary of the three ships' fate after war interrupted the service:

Westfalen was sunk in 1944 by a mine in the Skagerrak.

Schwabenland, carrying two Wals, was used as part of a 1938/39 German Antarctic expedition searching for a suitable site for a whaling station. She was then taken over by the Luftwaffe on the outbreak of war to be equipped with Blohm & Voss BV 138 flying boats. In 1944 she was damaged off Bergen by the British submarine *Terrapin* and beached. Later she was refloated but damaged again in an air attack and never went to sea again. When the war ended she was taken over by the Royal Navy as an accommodation ship then in 1946 loaded with poison gas ammunition and scuttled in the Skagerrak.

Ostmark was sunk off St Nazaire by HM submarine *Tuna* in September 1940 before she could reach Germany to be commissioned for naval service.

When I was researching the above I found a very interesting film about the South Atlantic mail on the Lufthansa web site and later looked it up again following an enquiry from a member of the SVAS. It had disappeared, so I emailed Lufthansa who explained that the film wasn't theirs and for some undisclosed reason permission to display it had been revoked. But they did send me some good quality photos of the ships, some of which I hadn't seen before, and I've appended these here.

The photos include some good ones of the *Ostmark*, the first purpose built DLH catapult ship of which I didn't previously have a decent picture. The previously illustrated *Westfalen* and *Schwabenland* were conversions of existing merchant ships and the arrangements for picking up and catapulting aircraft were severely compromised by immovable objects like the central superstructure and, not least, the funnels. I can imagine that shuffling a Dornier Wal from pick up by the crane aft then over the superstructure and round the funnel of *Westfalen* to the forward catapult might well have daunted lesser protagonists of the concept than the Deutsche Lufthansa of the time. They seem however to have learned a lesson for, with the *Schwabenland*, the second conversion, all the aircraft handling was

done at one end to avoid involving the superstructure and funnel, though this did result in the rather unsatisfactory aft facing catapult which meant that optimally the ship should be facing stern to the wind for a launch.

On to the *Ostmark,* which was completed in 1936 and differed radically from its predecessors with superstructure, engines and crane aft and the whole deck space forward dedicated to the catapult. She was considerably smaller than the others and, unlike them, had room for only one aircraft aboard. (*Ostmark* was 79.8 metres long, *Westfalen* 125-ish - opinions seem to vary! and *Schwabenland* 148.5). Possibly uniquely, as a central mast forward to carry the necessary aerial wires would have been a severe impediment to successful catapulting, she had a mast on each beam which swung outboard to clear the wings of an aircraft during the launch.

The bonus picture here, a 1/72 scale model of the *Ostmark,* is from Rolf Schmidt, Prop-Swing's German correspondent, and was taken at the Deutsches Technikmuseum in Berlin: it shows the colours of the Dorniers which aren't readily apparent in the period black and whites.

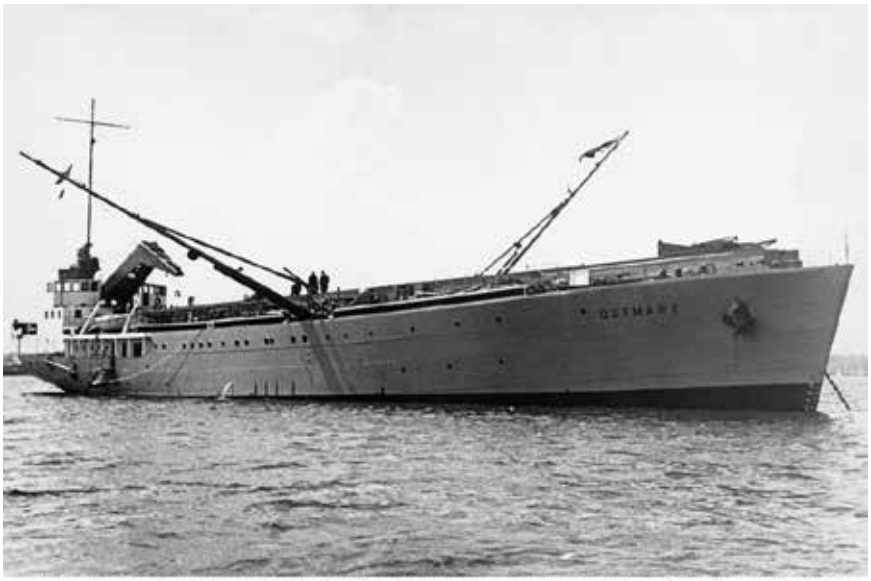
Postscript: Our efforts so far haven't managed to find out how exactly the aircraft were moved about the decks of the *Westfalen* and *Schwabenland*. The pictures show them moved from one set of rails to another and at different levels but, apart from the cranes which only cover the aft part of the decks, by no other apparent means. There must have been some sort of mechanical handling and if anyone knows, please put us out of our misery. By the way, we also still haven't discovered an accurate plan view of the rails on the after deck of *Schwabenland,* so if anyone has one...

Bill Grigg

Dampfer "Westfalen" Erster schwimmender Flugstützpunkt der Deutschen Lufthansa im Transocean-Dienst ab 1934.

Foto: Deutsche Lufthansa AG / DLHD5055-22-4
Nur für redaktionelle Zwecke / For editorial purposes only

SCHWABENLAND



Motorschiff "Ostmark", der dritte schwimmende Flugstützpunkt der Deutschen Lufthansa, für den Luftpostdienst Deutschland - Südamerika (1938).

Foto: Deutsche Lufthansa AG / Lufthansa DLHD 5055-23-1
Nur für redaktionelle Zwecke / For editorial purposes only

TSESAREVICH HISTORY

My current model project mentioned in the editorial is a Trumpeter 1/350 scale Russian Battleship TSESAREVICH the following information is taken from Wikipedia and gives an insight to the history of the vessel. Trust you will find the article interesting as it helps to fill a somewhat depleted magazine.

TSESAREVICH was a pre-dreadnought battleship of the Imperial Russian Navy, built in France at the end of the 19th century. The ship's design formed the basis of the Russian-built Borodino-class battleships. She was based at Port Arthur, northeast China, after entering service and fought in the Russo-Japanese War of 1904–1905. Tsesarevich was torpedoed during the surprise attack on Port Arthur and was repaired, to become the flagship of Rear Admiral Wilgelm Vitgeft in the Battle of the Yellow Sea and was interned in Tsingtau after the battle.

After the war, the ship was transferred to the Baltic Fleet and helped to suppress the Sveaborg Rebellion in mid-1906. While on a Mediterranean cruise, her crew helped survivors of the 1908 Messina earthquake in Sicily. Tsesarevich was not very active during the early part of World War I and her bored sailors joined the general mutiny of the Baltic Fleet in early 1917. Now named Grazhdanin, the ship participated in the Battle of Moon Sound in 1917, during which she was slightly damaged. The ship was seized by the Bolsheviks during the Russian Revolution in late 1917 and decommissioned the following year. Grazhdanin was scrapped in 1924–1925.

DESIGN and CONSTRUCTION

Tsar Nicholas II had desired a warm-water port on the Pacific since his accession to the throne in 1894. He achieved this ambition in March 1898 when Russia signed a 25-year lease for Port Arthur and the Liaotung Peninsula with China. Japan had previously forced China to sign over the port and its surrounding territory as part of the treaty that concluded the First Sino-Japanese War of 1894–1895, but the Triple Intervention of France, Russia, and Germany forced them to return the port in exchange for a sizeable increase in the indemnity paid by the Chinese. Japan invested much of the indemnity money in expanding its fleet, while Russia began a major building programme (For Its Needs in the Far East) to defend its newly acquired port.

Russian shipyards were already at full capacity so the Naval Ministry decided to order ships from abroad. Specifications were issued on 14 June 1898 and a few days later the chief designer of the French shipyard Forges et Chantiers de la Méditerranée proposed a design based on that of the French battleship Jauréguiberry. The Naval Technical Committee approved the design with a few changes to which the French readily agreed. The General Admiral, Grand Duke Alexei Alexandrovich, selected the French design over a competing proposal from the Baltic Works. A contract was signed on 20 July 1898 at a cost of 30.28 million francs (11.355 million roubles) for delivery in 42 months.

Tsesarevich most obvious design feature was her tumblehome hull. This had several advantages because it allowed greater freeboard since the narrow upper decks reduced the structural weight of the vessel's hull, it increased the field of fire of guns mounted on the sides, and it reduced the ship's roll in heavy seas. Its great disadvantage was that it

reduced buoyancy and stability which contributed to excessive heel during turns. During the Battle of the Yellow Sea in August 1904, Imperial Japanese Navy observers thought the Tsesarevich was going to capsize when she suddenly turned out of the battle line.

Tsesarevich was 118.5 metres (388 ft 9 in) long overall, had a beam of 23.2 metres (76 ft 1 in) and a draught of 7.92 metres (26 ft 0 in). The ship displaced 13,105 tonnes (12,898 long tons). Her crew consisted of 28–29 officers and 750 enlisted men.

The ship was powered by two vertical triple-expansion steam engines using steam generated by 20 Belleville boilers at a working pressure of 270 psi. The boilers were fitted with economizers that preheated their feed water. The engines were rated at 16,300 indicated horsepower (12,200 kW) and designed to reach a top speed of 18 knots (33 km/h; 21 mph). Tsesarevich handily exceeded her design speed and reached 18.77 knots (34.76 km/h; 21.60 mph) from 15,254 indicated horsepower (11,375 kW) during her official machinery trials in July–August 1903. She normally carried 800 long tons (810 t) of coal, but could carry a maximum of 1,350 long tons (1,370 t). This allowed the ship to steam for 5,500 nautical miles (10,200 km; 6,300 mi) at a speed of 10 knots (19 km/h; 12 mph). Tsesarevich was fitted with six steam-driven electric generators with a total capacity of 550 kilowatts (740 hp).

Tsesarevich main armament consisted of two pairs of 40-calibre 12-inch guns mounted in electrically powered twin-gun turrets, one forward and one aft of the superstructure. The guns and their mountings were Russian-built, but the turrets themselves were made in France. The guns could be loaded at all angles of elevation and the turrets could traverse 270°. Trials revealed that the ammunition hoists tended to jam when the ship was rolling; the shipyard shipped new hoists to Port Arthur because the Russians wanted the ship in the Far East as soon as possible and they were installed in January 1904. The ship carried 70 rounds per gun. The guns fired one shell every 90–132 seconds. They fired a 731.3-pound (331.7 kg) shell at a muzzle velocity of 2,598 ft/s (792 m/s) to a range of 16,010 yards (14,640 m) at an elevation of 15°.

The secondary armament of a dozen 45-caliber Canet Model 1892 6-inch (152 mm) (QF) guns were mounted in six electrically powered twin-gun turrets on the upper deck. The corner turrets had a 150° arc of fire and the centre turrets could cover 180°. Each gun was provided with 200 rounds. Their rate of fire was 2–4 rounds per minute. They fired shells that weighed 91 lb (41.4 kg) with a muzzle velocity of 2,600 ft/s (792.5 m/s). They had a maximum range of approximately 12,600 yards (11,500 m).

A number of smaller guns were carried for defence against torpedo boats. These included twenty 50-calibre Canet QF 75-millimetre (3 in) guns; 14 in hull embrasures and the remaining six mounted on the superstructure. The ship carried 300 shells for each gun. They fired an 11-pound (4.9 kg) shell at a muzzle velocity of 2,700 ft/s (820 m/s) to a maximum range of 7,005 yards (6,405 m) at an elevation of 13°. Tsesarevich also mounted twenty 47-millimetre (1.9 in) Hotchkiss guns in the superstructure. They fired a 2.2-pound (1.00 kg) shell at a muzzle velocity of 1,400 ft/s (430 m/s) at a rate of around 15 rounds per minute. Eight smaller Maxim QF 37-millimetre (1.5 in) guns were also fitted, but their locations are unknown. They fired a 1-pound (0.45 kg) shell at a muzzle velocity of 1,319 ft/s (402 m/s).

The ship carried four 381-millimetre (15 in) torpedo tubes; two of these were mounted above water in the bow and stern, and the two broadside underwater tubes were located

near the forward 12-inch magazine. Tsesarevich carried a total of 14 torpedoes. The ship also carried 45 mines to be laid to protect her anchorage in remote areas.

The ship was fitted with two British Barr and Stroud coincidence rangefinders that used two images that had to be superimposed to derive the range. The gunnery officer then calculated the proper elevation and deflection required to hit the target and transmitted his commands via a Geisler electro-mechanical fire-control transmission system to each turret.

PROTECTION

Tsesarevich used the latest Krupp armour in a version of the French cellular armour scheme. This consisted of a full-length waterline armoured belt with armoured decks above and below. Behind the belt were subdivided compartments mostly used to store coal. This was intended to keep the ship afloat regardless of the damage inflicted above the upper armoured deck. The waterline armour belt was 2 metres (6 ft 7 in) high, with 1.5 metres (4 ft 11 in) below the waterline at normal load. It had a maximum thickness of 250 millimetres (9.8 in) for a length of 60 metres (196 ft 10 in) amidships which gradually reduced to a thickness of 180 millimetres (7.1 in) at the bow and 170 millimetres (6.7 in) at the stern. The belt tapered to a thickness of 170 millimetres at its bottom edge amidships and presumably tapered proportionally along its length. Above the waterline belt was an upper strake of armour that was 1.67 metres (5 ft 6 in) high and had a maximum thickness of 200 millimetres (7.9 in). It was slightly shorter than the waterline belt and similarly reduced in thickness towards the ends of the ship. Forward it consisted of 120-millimetre (4.7 in) armour plates and 130 millimetres (5.1 in) aft.

The armour of the main gun turrets and their supporting tubes was 250 millimetres thick with roofs 63 millimetres (2.5 in) thick. Below the upper armour deck the armour of the support tubes decreased to 100 millimetres (3.9 in). The turrets of the secondary armament had 150-millimetre (5.9 in) sides with 30 millimetres (1.2 in) roofs. The sides of the conning tower were 254 millimetres (10.0 in) thick and it had a 63-millimetre roof. It had a communications tube that extended down to the upper armoured deck that was protected by 100-millimetre armour. The funnel uptakes were protected by 19 millimetres (0.7 in) of armour for the height of one deck above the upper armoured deck.

Above the upper armour belt there was a deck that ran the full length of the ship that consisted of a 50-millimetre (2.0 in) armour plate laid on 10-millimetre (0.39 in) deck plating. At the top of the waterline belt was two layers of 20-millimetre (0.79 in) armour. It also extended the full length of the ship, but not the full width; it curved downward behind the belt and was connected to the lower edge of the belt by a 20-millimetre plate. It continued downward to the ship's inner bottom plates and formed a sort of torpedo bulkhead. This bulkhead was 2 metres (6 ft 7 in) from the side of the ship and extended for a length of 84 metres (275 ft 7 in). It was backed with coal bunkers.

CONSTRUCTION and SERVICE

Tsesarevich during her sea trials in Toulon, France, 1903

Construction began on Tsesarevich, named after the title of the heir to the Russian throne, on 18 May 1899 at the Forges et Chantiers de la Méditerranée shipyard in La Seyne-sur-Mer, France. The ship was laid down on 8 July 1899 and launched on 23 February 1901. Construction was supervised by Captain Ivan Grigorovich, who became the ship's first captain. Tsesarevich entered service in August 1903 and was assigned to the Far East. She arrived in Port Arthur on 2 December 1903. Upon completion, the Tsesarevich was the Russian Navy's best battleship at the beginning of the Russo-Japanese War.

After the Japanese victory in the First Sino-Japanese War of 1894–1895, both Russia and Japan had ambitions to control Manchuria and Korea, resulting in tensions between the two nations. Japan had begun negotiations to reduce the tensions in 1901, but the Russian government was slow and uncertain in its replies because it had not yet decided exactly how to resolve the problems. Japan interpreted this as deliberate prevarication designed to buy time to complete the Russian armament programs. The situation was worsened by Russia's failure to withdraw its troops from Manchuria in October 1903 as promised. The final straws were the news of Russian timber concessions in northern Korea and the Russian refusal to acknowledge Japanese interests in Manchuria while continuing to place conditions on Japanese activities in Korea. These actions caused the Japanese government to decide in December 1903 that war was inevitable. As tensions with Japan increased, the Pacific Squadron began mooring in the outer harbour at night in order to react more quickly to any Japanese attempt to land troops in Korea.

RUSSO-JAPANESE WAR

A stern view of Tsesarevich dockside at Port Arthur, 1904. Shrapnel holes are visible in her funnels.

She was one of three ships to be struck by Japanese torpedoes in the surprise attack on the night of 8/9 February 1904. Tsesarevich was hit abaft the portside torpedo bulkhead and the ship took on an 18° list that was partially corrected by counter flooding compartments on the starboard side. She got underway, but ran aground at the narrow harbour entrance. She was refloated and moved into the harbour for repairs that lasted until 7 June. Some of the ship's guns were removed during the summer to reinforce the defences of the port. Tsesarevich lost a total of four 75-millimetre, two 47-millimetre and two 37-millimetre guns. The ship was hit twice on 7 August by Japanese 4.7-inch (120 mm) shells fired at long range; a fragment from one of them lightly wounded Vitgeft.

BATTLE of the YELLOW SEA

On the morning of 10 August, the First Pacific Squadron sortied from Port Arthur in an attempt to break through the Japanese fleet blockading the port and reach Vladivostok. The Russian squadron consisted of six battleships, Tsesarevich, Retvizan, Pobeda, Peresvet, Sevastopol and Poltava, along with four protected cruisers and eight destroyers. The Japanese fleet, commanded by Vice Admiral Tōgō Heihachirō, was comprised four battleships, Mikasa, Asahi, Fuji, Shikishima, two armoured cruisers Nishin and Kasuga, as well as seven protected cruisers.

Tsesarevich and Pobeda both suffered mechanical problems within an hour of departure that forced the fleet to slow down to a speed of 13 knots (24 km/h; 15 mph). Tōgō failed in his attempt to cross the Russian's T after spotting them around 12:25 and a general engagement began around 13:25 with the Japanese ships concentrating their fire on Tsesarevich and Retvizan, but the effective Russian fire forced Togo to disengage around 15:20. He closed with the Russians about two hours later and opened fire at 17:35. Neither side was able to mortally damage any ships while the Russians were still in the lead with about a half-hour of daylight left when two 12-inch shells fired by Asahi struck near Tsesarevich conning tower at 18:40. Shell fragments bounced off the conning

tower's overhanging roof into the conning tower, killing Vitgeft, two staff officers and the helmsman. The ship turned to port with the steering wheel jammed and was followed by several other battleships. Tsesarevich became the focus of attention from every Japanese ship so the captain of Retvizan decided to charge the Japanese battle line to buy time for Tsesarevich to fix her steering problem. He succeeded in doing so and the squadron's second-in-command, Rear Admiral Prince Pavel Ukhtomsky gradually asserted command over the scattered Russian ships and ordered them back to Port Arthur in the darkness.[26] Tsesarevich attempted to head north to Vladivostok in the dark, but her damaged funnels greatly increased her coal consumption and reduced her speed to only 6 knots (11 km/h; 6.9 mph) so that she was forced to head for the German treaty port of Tsingtau instead with three destroyers for escort. Upon arrival the following day, Tsesarevich and her companions were interned and disarmed. The ship had been hit by thirteen 12-inch and two 8-inch (203 mm) shells that killed 12 and wounded 47 members of her crew.

POST RUSSO-JAPANESE WAR and WW1

At the end of the Russo-Japanese war, the ship was transferred to the Baltic in early 1906 and helped to suppress the Sveaborg Rebellion on 1 August. Around 1906, her fighting top was removed and her superstructure was cut down. The 75-millimetre guns in the superstructure were apparently removed as well. Tsesarevich made regular winter cruises to the Mediterranean before World War I and aided survivors of the Messina earthquake in December 1908. In 1909–1910 the ship's machinery was overhauled and her amidships casemated 75-millimetre guns were removed and plated over four years later. Tsesarevich was not very active during the early part of World War I and she reportedly received two 37-millimetre anti-aircraft guns during the war.

Her crew joined the general mutiny of the Baltic Fleet on 16 March 1917, after the idle sailors received word of the February Revolution in Saint Petersburg. She was renamed Grazhdanin (Russian: Гражданин (meaning Citizen)) on 13 April 1917 after the February Revolution. The ship took part in the Battle of Moon Sound in October 1917 off the coast of Estonia. During the climatic part of the battle, Grazhdanin engaged the German minesweepers on 17 October with little effect while the predreadnought Slava engaged the German dreadnoughts König and Kronprinz. The latter fired at Grazhdanin and hit her twice, killing one and wounding four crewmen, although neither hit caused significant damage. The German dreadnoughts outranged Grazhdanin, and she was forced to abandon Moon Sound in the face of German pressure.

By December the ship was in Kronstadt, where she came under the control of the Bolsheviks, and she was hulked there in May 1918. Grazhdanin was scrapped beginning in 1924, although she was not officially stricken from the Navy List until 21 November 1925

A Trumpeter 1/350 scale model currently being built by the editor, shown in its final stages of construction