



Marine Modelling – Revisited

The year 2010 saw twenty five years of Marine Modelling International magazine and for the author fifty years of waterline ship collecting. So here is a chance to re-visit some of those early and not so early articles virtually as they were – minimal editing/updating apart from the addition of new digital illustrations and the deletion of ‘swapmeet & model news’. **Please remember** that reported model availability and any prices quoted were at the time of writing. Each re-issue will attempt to maintain a theme and this time it is various ‘foreign’ warships.

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FEBRUARY 1995 – KRIEGSMARINE

Introduction

Waterlines this issue considers how to collect an entire Navy, well almost. With so many 1/1200-1250 waterline manufacturers, the choices are many ranging from the Austro-Hungarian Navy of the early 1900s (from Navis) to the modern USN (from Trident, supported by Skytrex and Delphin). Relative obscurities such as the Royal Thai Navy (from CM) and the Turkish Navy (from Yorck), both as in the 1930s, have even been produced in the past and the future re-appearance of Mercator’s Russian pre-dreadnoughts through Skytrex



Neptun Tirpitz

is to be welcomed. Apart from the latter, all the manufacturers mentioned above are German, so it is hardly surprising that one Navy comprehensively modelled is the German Kriegsmarine from the period 1935 to 1945. German enthusiasm for waterline models also means that many fine publications with 1/1250 scale plan and profile drawings have been published, typically those by Jentschura, Jung and Mickel for the Imperial Japanese Navy, Terzibaschitsch for the USN, Schulz-Torge for the Soviet Navy and of course Erich Groner for German warships from 1815 to 1945. These books are really useful references for 1200/1250 collectors and fortunately many have been issued in English. Groner's work, in a revised and expanded form, has been published by Conway in two volumes and apart from the deliberate omission of photographs comprehensively describes the ships covered in the article. Also strongly recommended is Conways All the Worlds Fighting Ships 1922 - 1946 which provides photos and 1/1250 plan drawings in abundance.

The Kriegsmarine

Briefly the major units of the Kriegsmarine were the battleships Bismarck and Tirpitz, battlecruisers Scharnhorst and Gneisnau, three panzerschiffe or 'pocket' battleships, two old pre-dreadnoughts, three Hipper class heavy cruisers, six light cruisers (Emden, Nurnberg, Lepizig, three K class), plus some three dozen destroyers mainly of the Maass, Von Roeder and Z23 classes. There was of course also the huge U-boat fleet and a variety of other types from armed merchant cruisers (AMC), minesweeper, minelayers to depot ships. All are represented in 1/1250, with the Bismarck being perhaps the most modelled ship of all time, and as mentioned back in October 1992 there are even models of ships that were only planned or if launched never completed.



Neptun Scharnhorst

The starting point for top quality models of the Kriegsmarine is probably Neptun, with a catalogue listing 154 models 86 of which have been released to date, with half of these available in either plain grey or camouflage. All major vessels have been issued, plus many of the destroyers and a representative sub-set of other smaller and support types. Prices range from £54 for the Tirpitz in camouflage, £30 for the pocket battleship Graf Spee, about £27 for any of the light cruisers, £16 for each of the larger destroyers to £6 for a submarine. The Saar is a typical depot ship and this model costs £14, probably comparable for a decent boxed example of the old Eaglewall kit of the same ship - I wish I'd bought more at 1/11d (about 10p). Seven of the auxiliary cruisers (Handels-Stor-Kreuzer - HSK, or AMCs

in RN parlance) are listed with three issued and HSK 8 Kormoran the most expensive at £34. One future release to relish is the aircraft carrier Graf Zeppelin although this ship has been modelled by Hansa. This firm is the next most important source of Kriegsmarine models in volume if not quality.



Neptun Admiral Scheer

The original Hansa range, numbered S1 to about S450, duplicated many of the Neptuns but were altogether of a lower

standard with corresponding prices. Hansa are presently re-working their models with the emphasis on merchant ships and are using a new five digit catalogue numbering system. S10085, the cruiser Koln, is the only Kriegsmarine ship currently listed and at only a £1 less than the Neptun version, Hansa will need to have made significant improvements to persuade collectors to buy their version. There is still the opportunity to buy many of the original series at bargain prices and continental second hand specialists such as Helmut Just (address given in the November issue) have large numbers of cheap Hansas available. Worth looking out for are S151 Graf Zeppelin, S195/3 Seydlitz (both aircraft carriers) and S159 O-P-Q class battlecruiser, all uncompleted types, plus S194 the Komet (HKS 7). Hansa also listed S320 an H class battleship but this may not have been issued making it necessary to find the discontinued Delphin version (D119).

There are several other manufacturers who can contribute to a Kriegsmarine collection, so taking those in current production first: DH list several minesweepers and submarines; Hai have various of the Italian seagoing torpedo boats pressed into German service, for example TA21 (ex (Insidioso) plus a variety of auxiliary types such as the tanker Monsun and the training ship Beowolf; KM produce a number of R-boote (motor minesweepers) and the Togo, an unsuccessful HSK converted to a fighter direction ship in 1943. This ship passed into Norwegian hands in 1947 and was still at sea under Panamanian ownership as late as 1979. Sextant follow this HSK theme with Atlantis (HSK 2) Pinguin (HSK 5) and Adjutant, a former Norwegian whale catcher captured by the Pinguin in January 1941 and used as a scout and later a minelayer before being sunk for gunnery practice the following July. Sextant's Pinguin is painted as the Norwegian freighter Tamerlane, a guise frequently adopted by these cruisers. Trident as usual provide plenty of landing craft plus auxiliaries such as the tanker Sudetenland (tanker) and are the only source for three more of the HSKs - Orion (HSK 1),

Widder (HSK 3) and Hansa, although the latter was never operational and ended her days, circa 1971, as Glen Line's Glengarry. Mercator, now being gradually re-issued by Skytrex, formerly produced a large number of Kriegsmarine types including old light cruisers (retained from the Imperial Fleet), flak ships, catapult ships, U boats (15 classes), minesweepers, depot ships and landing craft. Unusual models to find are the Zahrigen & Blitz (former pre-dreadnought converted to a radio controlled target ship and the controlling vessel, an ex-torpedo boat), Hessen & Pfeil (the same), and HSK 2 Atlantis as fitted with a second dummy funnel.

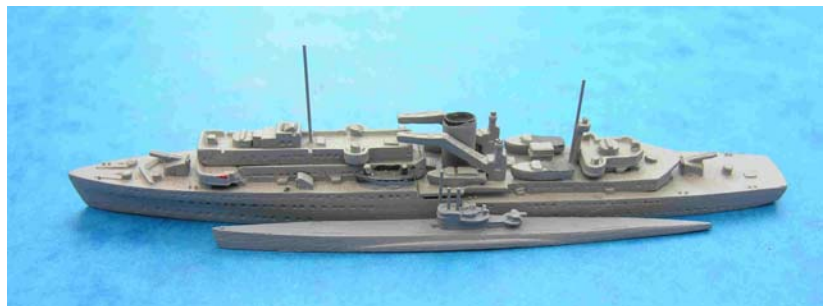


Neptun Leipzig

Research has revealed a further five little known manufacturers listing Kriegsmarine ships; briefly these are: Foerde: naval auxiliaries, the majority converted merchant ships and auxiliary minesweepers, many are camouflage painted; JB: naval harbour craft, also R boote and customs vessels; Luna: merchantmen and naval auxiliaries from the 1920s to 1940s; Nautilus: warship models; mainly uncompleted types such as

schlachtskreuzer O/P/Q, light cruisers, scout cruisers, and destroyers; and lastly Yorck: merchantmen and WW2 auxiliaries, particularly minelayers.

Finally there are the inevitable discontinued makes, in this case Delphin, Star and Wiking, who always seem to have a few ships unavailable from other sources. From Delphin there are seven models: the H class battleship mentioned above, an uncompleted torpedo boat of the T37 class, destroyer ZH1 (a captured ex-Dutch vessel), E-boat depot ship Carl Peters (unusually here the manufacturer has mistakenly called this model Adolf Luderitz), submarine depot ship Isar and the flying boat tenders Falke and Richtofen. The origins of these latter two were the catapult equipped merchant ships designed to support trans Atlantic mail flights during the 1930s, models of which could be found in the original Mercator range. Star featured the training ships Mars and Carl Zeiss, the Woermann Line freighter Togo both as converted to a raider - the Coronel (catalogue R83) - and as a radar ship under her original name, the latter duplicating the Hai model mentioned above. Of particular interest is model R83a, a torpedo armed fast motor launch (leicht schnellboot) designed to be hoisted out by the raider as and when required. The various Wiking models, as listed by different catalogues issued between the early 1960s and 1978 are all small auxiliaries and are as follows: Weischel, Memel, Mosel, Zieten Paul Beneke MT1 Drache, Weser and the Meteor.



Delphin Wilhelm Bauer & IXD2 U-boat

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MAY 1997 – JAPANESE BATTLESHIPS

Over the years Waterlines has addressed a wide range of naval and merchant subjects and, believe it or not, this is my 77th article! If there are any topics you would like to see, please write in and I will do my best. Two more articles, in the August and November issues, are planned for this year so I'll 'see' you there and perhaps as one of the forthcoming swapmeets.

This issue examines some of the most innovative and unusual warship designs ever built - the Japanese dreadnought battleship. A total of just twelve ships (of five classes) need to be considered, but what interesting ships they were. As always the table lists waterline models of the ships concerned, using the following standard abbreviations for the various manufacturers: NM = Navis, N = Neptun, KO = Konishi, Su = Superior, D = Delphin. Apart from Superior and Rovex which are 1/1200, all are to 1/1250. Those models shown with an asterisk are not yet released. Konishi are made in Japan but are available via mail order from Germany (from L. Wiedling, Dr. Maxstrasse, 82031 Grunwald). Delphin are long discontinued and certainly not to the standard of current models, but they do turn up at swapmeets at quite reasonable prices. Anker is another



Neptun IJNS Nagato

discontinued make and unusually for a continental manufacturer produced white metal kits, mainly projected warships from the 1930s and 40s. Only 30 models were issued, for example an uncompleted soviet battleship of 1942, Japanese & Dutch WW2 battlecruisers, and HMS Vindictive both as seaplane carrier and repair ship. Although not in the table, the Revell plastic kits of Yamato and Musashi can also be recommended as superb value and very well detailed for the price. The dates in the table indicate that the model represents the ship concerned at a particular time. This is particularly pertinent for the Japanese battleships as all were modified in service and the earlier ships extensively modernised, to the extent of virtual re-builds for some.

WW1 era:	Date	Manufacturer/Notes
Kongo class	1913	NM 220, KO 111 (Kirishima as in 1915)
Fuso class	1914	NM 202
Ise class	1916	NM 201
Nagato class	1920	NM 200*
WW2 era:		
Kongo class (of 4)		
Hiei	1939	N 1205, KO113*
Kongo	1939	N 1206, KO 112 (1944), Su
Haruna	1939	N 1207*, KO 109 (1944)
Kirishima	1939	N 1208*, KO 110 (identical to 109)
Fuso class (of 2)		
Fuso	1939	N 1204, Su, KO 114*
Yamashiro	1939	KO 115* (probably identical to 114)
Ise class (of 2)		
Hyuga	1936	KO 106; as converted in 1943 D62, KO 108
Ise	1937	N1202* Su, KO 105 (identical to 106); KO 107 (as 108)
Nagato class (of 2)		
Nagato	1942	N 1202, KO 103 (1945), Su
Mutsu	1943	KO 104
Type B-65	projected	Anker 31
Yamato class (of 2)		
Yamato	1943	KO 101, D51, Su, Rovex; N7 (1941), N1201 (1945)
Musashi	1942	KO 102

List: Japanese Battleship Models



Navis IJNS Kongo

The first Japanese dreadnought, Kongo, was built in a British yard - Vickers Armstrong in Barrow, with the three other ships in the class (Hiei, Kirishima and Haruna) built in Japan. All were launched in the period May 1912 to December 1913 and on completion were rated as battlecruisers and as such could manage 27 knots on 27,500 tons. Main armament comprised eight 14" guns with a secondary battery of sixteen 6" plus smaller. In outward appearance the British built ship differed with her first funnel (of three) being nearer to the fore mast and all three being

of equal size; in Hiei, Haruna and Kirishima the first two funnels were closer together with the second being thinner. A further difference is that on Haruna and Kirishima the first funnel was noticeably taller and this detail is picked up in the Navis model. All were refitted during the mid-1920s with the most obvious changes being a large cowl on the first funnel and a substantial increase in bridge size, together with new gunnery directors, giving that 'pagoda' like appearance. With the exception of the Hiei, which was to be de-militarised under the terms of the First London Naval Treaty, all were slowly modernised between 1924 and 1931 with new oil fired boilers (losing the first funnel in the process), additional armour, bulges, gunnery improvements and the installation of an aircraft handling derrick (no catapult) between 'X' and 'Y' turrets, with 3 seaplanes carried.



Navis IJNS Fuso

The Hiei was brought back to an operational state in the mid-1930s and ultimately all four were modernised in a similar fashion, with a new displacement of about 32,000 tons. New engines and boilers, giving a speed of 30 kts, necessitated

an increase in length of 25', a catapult was added and the armament augmented by eight 5" and other smaller guns. The Hiei was fitted with a different bridge to the others, in effect a prototype for the Yamato class and she was the last to complete modernisation in 1940. Kongo and Haruna were each equipped with many additional light AA guns (over a hundred) during the war with six of the 6" guns removed. Hiei and Kirishima were both lost off Guadalcanal in November 1942, Kongo was torpedoed and sunk by the US submarine Sealion off Formosa in November 1944 whilst Haruna was sunk by air attack at Kure harbour in July 1945.



Superior IJNS Fuso

reconstruction during the early 1930s. Other changes at this time were new boilers and turbines (affording a small increase in speed and resulting in the removal of one (out of two) funnels), armament and armour improvements, plus the installation of aircraft & catapult. In Fuso the latter was on 'C' turret, whilst Yamashiro carried hers on the quarterdeck. At 23 knots, both were considered too slow for front line duties during the war but nevertheless were committed to, and sunk at, the Battle of Leyte Gulf in October 1944. Some additional light AA, fewer than 25, were installed by June 1944.



Konishi IJNS Ise

The Ise class (Ise and Hyuga) were of an improved Fuso design with the same main armament rearranged for better arcs of fire. The two ships were completed in 1917 and 1918 but unlike earlier battleships not modified until the 1930s. An initial refit, circa 1930/31, was similar to those already described (bridge, cowl, seaplane derrick), with the advantage of being able to launch aircraft from the top of 'X' turret rather than by lowering them into the water. Between 1935 and 1937 they were thoroughly modernised including boilers, engines, 25' increase in length, speed up to 25 knots, extra AA guns, catapult, armour, armament and lastly the pagoda bridge. New displacement was about 36,000 tons, 5000 more than on completion, and slightly more than the modernised Fusos. Both were actively employed early in the war, but after the heavy aircraft carrier losses at the Battle of Midway (June 1942), it was decided that they would be re-built as carrier-battleships. Work commenced on the Hyuga in March 1943 and both were complete by December that year. As can be seen in the photo, 'X' and 'Y' turrets were replaced by a small flight deck, under which was a hangar for 22 seaplane bombers. For launching, the aircraft would be positioned on either of the catapults to port and starboard of 'D' turret. Landing was to have been on the sea with a derrick to hoist the plane back on board. In the event the newly designed seaplanes did not materialise and towards the end of 1944 the catapults were removed and the whole flight deck area devoted to additional light AA. Both ships were sunk by American air attack in July 1945.



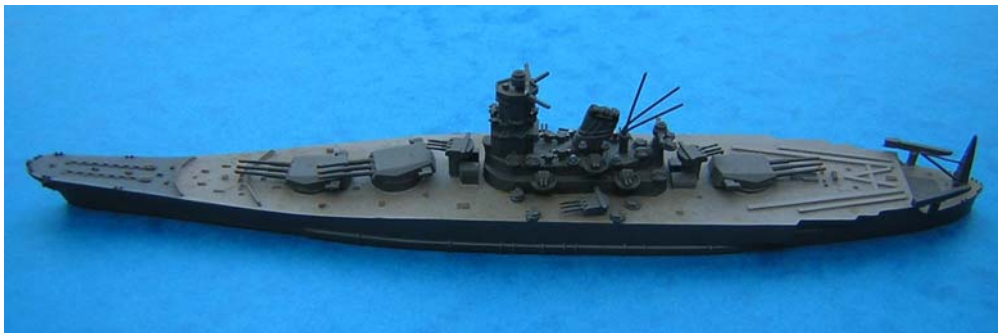
Konishi IJNS Hyuga

The Nagato class (Nagato and Mutsu) were the first two ships of the 8-8 Project planned to provide the battlefleet of the IJN by the end of the 1930s. They introduced the 16" gun with four twin turrets and could achieve 26 knots at full speed on a tonnage of 32,720. Mutsu was completed in 1920 and her sistership the following year; both were modified in 1924 when the fore funnel given a distinctive curve away from the new pagoda bridge. Extensive modernisations were undertaken between 1934 and 1936 with new engines, boilers (fore funnel removed), bulges, new bridge, revised & improved armament, aircraft & catapult, plus a large searchlight platform around the remaining funnel,

with displacement increasing to about 39,000 tons. Mutsu was lost accidentally in June 1943 when one of her magazines exploded, the precise reason not known. Nagato served throughout the war until January 1945, surviving a torpedo hit from the US submarine Skate in December 1943; by early 1945 she was moored at Yokosuka with her funnel and mainmast removed and falling into American hands at war's end was eventually sunk during Atomic bomb tests in 1946.

The Yamato class were intended to overcome American numerical superiority by means of five (possibly seven) super-battleships, equipped with the most heavy guns and armour yet, but still able to sustain 30 knots. Work on the design was initiated in 1934 and progressing steadily through many iterations the first pair - Yamato and Musashi - were laid down in 1937 and 1938 respectively, followed a further two - Shinano and hull number '111' in 1940. Yamato was completed in December 1941 and on 64,000 tons (69,988 full load) carried nine 18.1" guns (3 triples), twelve 6.1", twelve 5" and 28 light AA guns, with a maximum speed of 27 knots, 3 less than the original design aim. Two catapults were fitted aft and six aircraft could be carried. Musashi was completed in August 1942 although work on the next two was suspended at the outbreak of war. A short conflict was envisaged and it was considered that valuable ship building resources were best used elsewhere. After the Battle of Midway, it was decided to complete the Shinano as an aircraft carrier - this was accomplished by November 1944 but that same month whilst on her first trials cruise she was sunk by the US submarine Archerfish. Yamato and Musashi were both modified during the war with the wing 6.1" turrets removed in late 1943 and considerably more light AA added; Yamato alone received a further six 5" twins. Both were lost to US air attack, Musashi in October 1944 and her sistership the following April. Hull '111' was broken up 30% complete and no further vessels laid down. Super-battleships they were, but no match for air power.

The Japanese developed a number of other designs for the 8-8 programme and two 38,000 ton battleships of the Kaga class were ordered in 1918. These ships were to be 760 feet overall, speed 26 kts with ten 16" guns in twin turrets. Both Kaga and sister ship Tosa were under construction when the 1922 Washington Treaty came into force and the former was



Neptun IJNS Yamato

completed as an aircraft carrier and the latter sunk as a target. Four high speed battlecruisers of the Amagi class were ordered in 1919/20 - Amagi and Akagi were the first to be laid down although again the latter was finally commissioned as a carrier. Amagi was severely damaged in an earthquake in 1923 and

subsequently scrapped. These particular ships are mentioned because Superior have released models of both Tosa and Amagi as they might have been completed. The final projected type to be produced as a waterline is a 32,000 ton battlecruiser version of the Yamato class ultimately called type B-65. These ships were very similar in profile to their big sisters and were first muted in 1940 as a 12.2" armed vessel with the design name B-64. In 1942 the design was upgraded to incorporate a new 14.2" gun, nominally to counter the American Alaska class battlecruisers, and re-named B65.

MAY 1996 BATTLESHIPS OF THE WORLD PART 1

This issue returns to a Naval theme by surveying what are loosely termed Battleships of the World. With vessels of the British & German Navies covered in earlier articles and the United States & Imperial Japanese Navies requiring dedicated pieces, the intention here is to look at all remaining dreadnought battleships, with the emphasis on completed rather than projected ships. For the latter please refer to the October and November 1992 magazines.

Firstly a last word, for the moment at least, on colour schemes for the Ensign series of merchant ships concerns RE9 Kyle Rhea. The prefix Kyle suggested incorrectly that this was Monroe Brothers ship - in fact when named Kyle Rea (i.e. 1935 to 1955) she was owned by R. Cameron & Co. of Glasgow and from 1940 by a Mrs E. Cubbin from Douglas, Isle of Man. The ship was completed in 1921 as the Tod Head for A. F. Henry & MacGregor Ltd at which time her colour scheme would have been black hull, red boot topping, buff masts and upperworks and black funnel with white bands. She was stranded at Peterhead, Aberdeenshire during a gale in 1929 and subsequently purchased, refloated and repaired by Grangemouth Dockyard Co. Ltd. before passing to Camerons in 1931. This change of ownership would have seen the funnel bands replaced by a red C but other colour details are not known. In 1955 she was bought by Ramsey SS Co. Ltd. of Douglas, re-named Ben Maye and painted broadly as follows: black hull and vents, red boot topping, buff masts and superstructure, white boats and black funnel with broad red band containing a white Maltese cross. The Ben Maye was finally broken up in 1964. The Kyle Rea colours given in the last Waterlines were those of Monroe Brothers who did own vessels prefixed Kyle but not this particular ship. My thanks to readers Jim McKeown and Brian Miller for the above information - I think I'll stick to warships in future!

So, for 'other battleships of the world' there are nine countries & just over 40 ships to cover and, as with the Royal Navy's ships described back in 1992 (May to July), the intention is to give brief technical details, plus of course sources of 1/1200-1250 models; a table have been used for French ships with abbreviations for the various manufacturers - N (Neptun), D (Delphin), WM (Wiking), NM (Navis), Su (Superior - American 1/1200 models) and AR (Argonaut). There is just too much material for one article so in alphabetical sequence this issue will consider Argentina, Austria-Hungary, Brazil, Chile and France, with Italy, Russia, Spain and Turkey to follow in three months.

Argentina



Argonaut Moreno

The two ships of the Rivadavia class were built in the United States and delivered in 1914 (Rivadavia) and 1915 (Moreno). On a displacement of 30,600 tons full load they carried twelve 12" guns in six twin turrets plus large batteries of 6" and 4" guns to a maximum speed of about 22 knots. Both were modernised in the USA in the mid 1920s and were finally scrapped in 1956. A most unusual postscript occurred over twenty years later when anti-torpedo nets

salvaged from the two ships were hung from the flight deck of the aircraft carrier 25 De Mayo in an attempt to provide a degree of defence against missile attack by Chilean forces during a territorial dispute over Tierra del Fuego. A model of Rivadavia was produced by Star (catalogue R36) but as with most of this now discontinued range has not been available for many years.

Austria-Hungary

The Imperial Navy commissioned four Tegetthoff class battleships between 1913 and 1916, the ships forming the 1st Division of the 1st Battle Squadron. The Szent Istvan was sunk by an Italian torpedo boat in June 1918 with Viribus Unitis disabled by an Italian limpet mine in December 1918 after she had been handed over to the Yugoslav National Council. Tegetthoff herself passed into Italian hands after the war and was scrapped in 1924-25 whilst the fourth ship - Prinz Eugen - was transferred to France and sunk as a target in 1922. On a compact 21,600 tons these ships had twelve 12" (four triples) and could achieve about 20 knots. All four have been modelled, specifically Navis' NM701 & Trident's T1300 (Viribus Unitis); NM702/T1297 (Szent Istvan); T1298 (Tegetthoff); T1299 (Prinz Eugen); T1298a and T1297a are lower hull sections for drydock scenarios.



Navis Szent Istvan

Brazil

When completed in 1910 by Armstrong and Vickers respectively, Brazil's two dreadnoughts, Minas Gerais and Sao Paulo, were briefly the largest and most powerful in the world. On 21,200 tons they featured twelve 12" (six twins) and a secondary armament of twenty two 4.7"; speed was 22 knots. With Brazil joining the war in 1917, both were to join the British Grand Fleet in 1918; Sao Paulo sailed for New York to receive a preparatory refit but broke down en route eventually spending two years in American dockyard hands. Sister ship Minas Gerais was similarly refitted in Brazil and received a major upgrade in the 1930s when the two funnels were trunked



Star Minas Gerais

(see photos). The unmodified and largely immobile Sao Paulo was sold in 1951 but lost at sea on the way to Spanish breakers; Minas Gerais was broken up in 1954. A model of the class as completed is Navis NM801, listed as Sao Paulo, whilst the modernised Minas Gerais has been produced by Star (R75).

Chile



Argonaut Almirante Latorre

Two battleships were ordered from Armstrongs of Newcastle in 1911; the first of these - Almirante Latorre - was purchased by the Royal Navy in 1914 serving as HMS Canada until 1920. Sistership Almirante Cochrane was converted to become the carrier HMS Eagle (as described last December). With the war over, Chile wanted to re-purchase both but with the RN unwilling to release the ex-Cochrane, the Almirante Latorre alone was returned. She was refitted by Devonport Dockyard circa 1929-31 when bilges were fitted and a

catapult installed on the quarterdeck. As late as 1950 the main engines were overhauled and radar added. The following year a fire in the engine room immobilised the ship and she remained unrepaired. In 1959 she was towed to Japan and scrapped. Navis have produced a model of the ship as HMS Canada (catalogue NM117) and this could serve as the Almirante Latorre during the period 1920 to 1928.

France

Like most navies French dreadnoughts were developed in two stages, the pre-WWI Courbet and Bretagne classes and the second generation Dunkerque and Richelieu classes. The four ships of the Courbet class were completed in 1913/14 and carried twelve 12" guns (six twins, including two wing turrets) on 25,579 tons with a top speed of 20 knots. One, the France, was lost in 1922 when she hit an uncharted rock, but the remainder were modernised during the 1920s at which time the two forward funnels were trunked. The Jean Bart was re-named Ocean in 1936 before becoming a training ship



Argonaut Provence

two years later; her two sisters assumed this role in 1939, before falling into British hands in 1940. Courbet was used as part of the Mulberry breakwater in 1944 and the other two were scrapped post war (Paris surviving at Brest until 1950). The Bretagne class (of 3) introduced the larger 13.4" gun with a more efficient arrangement of five centreline turrets;

displacement increased to 26,180 tons and speed remained at 20 knots. All entered service in 1916. All were progressively modernised to increase gun range (1921-23), provide part oil burning (1927-30) and finally in 1932 - 1935 to improve propulsion, protection and armament (new guns, albeit of the same calibre). The Provence was further modified with the midships turret replaced by a catapult and hangar with four seaplanes carried. Uncertain, with the best will in the world, of their ability to deny the ship to the Germans, Bretagne was sunk by the RN at Mers-el-Kebir in 1940; she was later raised and scrapped. Provence was also damaged at Mers-el-Kebir but eventually towed to Toulon where the Germans, in 1943, removed her main guns for use as coastal defence batteries. The hull was scuttled as a blockship but again raised and scrapped post-war. The Lorraine was at Alexandria in 1940 and remaining under national command she joined the Free French Navy in 1943; after the war she became a training ship and was finally broken up 1954.

The fast battleships Dunkerque and Strasbourg were laid down in the early 1930s and completed in 1935 and 1936 respectively. The design was unusual in that the main guns - eight 13" in two quad turrets



Argonaut Lorraine

- were sited forward of the bridge and the quarterdeck area was occupied by a hangar, crane and catapult. A heavy secondary armament of sixteen 5.1" guns, in five turrets, was fitted and with a full load displacement of 35,500 tons, the ships could achieve a top speed of 29 knots. Both were present at Mers-el-Kebir before finding their way to Toulon by February 1942; Dunkerque was in drydock the following November when both were scuttled. Strasbourg was raised by the Italians in 1943, but sunk again in 1944 during an air raid. From 1945 she was used for underwater experiments eventually being scrapped in 1955. The wreck of Dunkerque was cleared from the drydock after the war and she too was scrapped in the 1950s; a sad history for two fine ships.



Delphin Dunkerque

quad turret fore and aft. The Richelieu was completed in 1940 and served firstly against and then with the Allies, notably as part of the British Pacific Fleet in 1944-45. She remained in service until 1956, becoming an accommodation hulk at Brest in 1959 before scrapping in 1964. Jean Bart was partially complete in 1940 and sailed for North Africa in June of that year with just 'A' turret fitted. Work resumed in 1946 and she was eventually completed in 1955 serving in a gun support role off Suez the following year. She too was reduced to an accommodation role in 1961 but survived until 1970 before going to the scrapyards. Some 10% built in 1940, the still incomplete hull of Clemenceau was launched from drydock in 1943 only to be sunk by air attack the following year.



Delphin Richelieu

Class	Ship	Model	Notes
Courbet	Courbet Paris	WM, Su, AR400 NM402, AR401, N1407	all depict 1930s appearance. NM in 1914, AR in 1939, N1407 not released.
Bretagne	Lorraine Provence Bretagne	NM401, AR404, N1405 AR402, N1406 WM, AR403	NM in 1916, others 1930s. both as in 1930s. both as in 1930s.
Dunkerque	Dunkerque Strasbourg	D81, N1404, Su, WM D80, N1403	as completed. as completed.
Richelieu	Richelieu Jean Bart Clemenceau Gascoigne	N1401, N1402, D49, WM, Su D155 not modelled D156	N1401 - 1940, N1402/Su - 1945; others post-45. as in 1958. One for the scratch-builders! design appearance

List: Models of French Dreadnoughts

AUGUST 1996 BATTLESHIPS OF THE WORLD PART 2

This issue provides the second and concluding part of 'other' Battleships of the World (Part 1 back in May) looking at the Italian, Russian, Spanish and Turkish Navies in the dreadnought era. The intention is to give brief technical details, plus of course sources of 1/1200-1250 models.

Italy

The first Italian dreadnought, also the first with triple turrets, was the Dante Alighieri. This 21,600 ton vessel was completed in 1913 and with four centreline turrets carried twelve 12" guns supplemented by over 30 smaller weapons (4.7"

and 3") and three torpedo tubes. She was the first Italian battleship with 4 propellers and on a good day could manage about 20kts. The forward pair of funnels (see photo) were heightened during modernisation in 1923 and from 1925 a seaplane was carried, probably until she was taken out of service in 1928. The Cavour class (of 3) was laid down in 1910 and introduced superimposed turrets fore aft (1 triple, 1 twin above) with a triple amidships. Displacement was typically 24,800 tons and top speed about 21 knots. Leonardo da Vinci was sunk by the Austrians during WWI and although raised in 1919 she was later scrapped. The other two (see table for names) were slightly modified post war but were virtually rebuilt between 1933 and 1937 emerging as small (29,000 ton), slowish (26 knot) battleships with a main armament of ten 12.6" guns and a similar profile to the later Littorio class. Conte di Cavour was sunk at Taranto in 1940



Navis Dante Alighieri

and saw no further active service, being scrapped in 1950-52. Her sistership Giulio Cesare was transferred to the Russians in 1948 and renamed Novorossiysk. Most accounts attribute her subsequent loss in the Black Sea in 1955 to a mine. The final class of WWI era dreadnoughts - Duilio (of 2) - was launched in 1913 and were similar in layout to the Cavours, albeit with an improved arrangement for the secondary gun armament. Again both were rebuilt circa 1937/40 with final details being similar to the earlier class. Caio Duilio was damaged at Taranto but repaired by 1941; both passed into Allied hands in 1943, rejoining the Italian Navy in 1944 and remaining in service until 1953.



Navis Andrea Doria

(completed 1942) both were attacked and hit by German aircraft launched glider bombs, the Roma sinking. The final vessel, Impero was scrapped incomplete in 1948-50, whilst the two survivors passed into Allied hands in 1948 and were broken up in the 1950s. The second pair were given a higher bow freeboard than the earlier vessels and were about nine feet longer.

The table shows all known models 1/1200-1250 of the Italian ships covered above, with abbreviations for the various manufacturers - N (Neptun), D (Delphin), Gr (Grifo - Italian made models), NM (Navis), Su (Superior - American models), AR (Argonaut). All except Grifo, Superior and Revell are 1/1250. The latter are plastic kits which have been marketed under a variety of names over the years. However, as a cheap way of participating in the waterline hobby they cannot be recommended enough.

The last Italian dreadnoughts - the Littorio class - were laid down in two pairs in 1934 and 1938. On a full load of about 49,000 tons the design featured three triple turrets with 15" guns and a speed of 30 knots, which operationally reduced to about 28 knots. The first pair - Littorio and Vittorio Veneto - were completed in 1940 and saw considerable action during the war. Littorio was renamed Italia in 1943 and when on passage to Malta that September with her sister ship Roma



Neptun Conte di Cavour



Delphin Vittorio Veneto

Class	Ship	Model	Notes
-	Dante Alighieri	NM503, AR503	both as in 1913
Cavour	Conte di Cavour Guilio Cesare Leonardo da Vinci	N1503 NM502, D145 not modelled	as in 1938 D as modernised circa 1938
Duilio	Andrea Doria Caio Duilio	NM501 D77, Su	as completed 1916 both post modernisation
Littorio	Littorio Vittorio Veneto Roma Impero	N1501, WM, Su, Gr, Revell D85, Gr, Revell Gr, Revell Revell	all circa WW2; the four Revell kits are identical, but offer great scope for some real 'modelling'

List: Models of Italian Dreadnoughts

Russia

The Imperial Navy built two classes of dreadnought, the Gangut class (of 4) and the Imperatritsa Mariya class (of 3). The 25,850 ton Ganguts were completed in 1914 and carried twelve 12" in four turrets, sacrificing armour protection to achieve the then high speed of 24 knots. Three survived to serve beyond 1918 being modernised with a clipper bow, raised & angled fore funnel and enlarged superstructure, differing in detail from ship to ship. One vessel, the Petropavlovsk, was sunk in shallow water during WW2, and it was not until the mid 1950s that the hulks of all four were scrapped. The Petropavlovsk was renamed Marat from 1923 to 1943 and was present at the Spithead Coronation Review of 1937. The class as built is represented by Navis' NM600 with Neptun N601 earmarked to be Marat circa 1938. There is also a Wiking model of the Marat but, as with the entire range, this is long since discontinued. The Imperatritsa Mariya class were completed in 1915-17 and although similar in layout and armament to the Ganguts opted for armour over speed, losing about 3 knots. All were designed for the Black Sea where one was lost to an internal explosion (faulty cordite) in 1916, one was sunk by friendly forces to avoid capture during the Russian revolution in 1918 and the third survived, briefly in White Russian hands until she was interned by the French in 1920, to be scrapped during the 1930s. Again a model of the class as completed is available from Navis as NM601.

Spain

The Espana class of three were ordered from Ferrol Dockyard in 1908 with the ships concerned, Espana, Alfonso XIII and Jaime I completing in 1913, 1915 and 1921. At 15,700 tons these were the smallest dreadnoughts, with their dimensions constrained by the size of existing Spanish docks. Main armament was eight 12" (four twins) and speed about 19 kts. The Espana ran aground and sunk in 1923, Alfonso XIII was mined in 1937 during the civil war and Jaime I was accidentally damaged whilst in Dockyard hands and later scuttled that same year. She was raised in 1938 but scrapped in 1939-40. Both Mercator and Star have modelled the Jaime 1 with catalogue numbers M200 and R33.



Mercator Jaime I

Turkey

From 1914 the German battlecruiser Goeben became the Yavuz Sultan Selim and nominally joined the Turkish Navy although a Turkish crew did not take over until 1918. She was interned at Ismit after the war and later fully refurbished in situ by French ship builders AC de St Nazaire-Penhoet. In 1936 she was re-named Yavuz and with regular refits she remained in service until 1948. Details in the 1930s were 25,500 tons, ten 11" (five twins) and 27 kts. The Yavuz was decommissioned in 1960 and following an unsuccessful attempt to take the ship back to Germany (offer of sale rejected by the Federal Government) she was broken up in the early 1970s. Navis have issued a highly detailed model of the Goeben in 1912 as NM26N, with the older more basic version listed as NM26.

OCTOBER 1992 PROJECTED WARSHIPS PT 1

Many interesting warship designs never come to fruition and although the ships concerned fail to materialise in 1/1 scale, they are often completed on the modellers workbench. An example of this is the RN 'pocket battleship' described and

modelled in the July 1989 issue but there are plenty of others. Such models may be converted from existing kits or scatchbuilt perhaps making use of pirated parts such as armaments, boats and cranes from a model of a ship of the same nationality thus retaining the overall style of the navy concerned. A couple of continental 1/1250 model manufacturers have in the not too distant past specialised in such projected ships and many manufacturers include a few in their regular lists. These models certainly enhance any collection showing as they do the logical progression of warship design and , for the wargamer, enable a variety of what if scenarios to be enacted.

The table (part this month, the remainder next) gives a non-exhaustive but representative list of commercial models of cancelled and/or uncompleted warships and the emphasis can be seen immediately. Battleships and battlecruisers are the firm favourites, and particularly those of the German Navy which is hardly surprising since all but one manufacturer featured come from that part of the world. In fact heavy warships such as battleships, battlecruisers and carriers have been particularly subject to cancellation as a result of such factors as political events, defence spending restrictions and the limitations imposed by various naval treaties.

Going back to 1918, had the Germans continued with the development of their battlecruiser fleet two new classes would have emerged. The Mackensen class of four were successors to the Derfflingers, although some 4000 tons heavier at 31,000 tons and 40 ft longer at 731 ft. Proposed armament was four twin 14" turrets, the only example of this calibre in the German Navy, and the usual secondary battery of 5.9"s. Speed was to have been an ample 27 kts. Mackensen, Graf Spee and two unnamed vessels were laid down in 1915 with the first three launched by their respective builders Blohm and Voss (Hamburg) , Schichau (Danzig) and B & V again, in 1917. Shortly after launch the programme was suspended and by 1922 the first two had been towed to Kiel for scrapping, number 3 scrapped at Hamburg and number 4 broken up on the stocks at Wilhelmshaven. The Ersatz Yorck class were to have been three 33,000 ton 15" gunned ships, based on the Mackensen design, forming a reply to the Royal Navy's Repulse and Renown. All were laid down in 1916 but little progress was made and all were abandoned in 1917.

German naval construction plans for about ten years from 1935, the year of the Anglo-German Naval Treaty, included a number of ships that were never completed, although some at least made in into the water.



RN projected battlecruiser

An example of the latter was the aircraft carrier Graf Zeppelin. This 23,200 ton ship was authorised in 1935, launched in 1938 and unlike the first carriers of most navies designed as such, rather than being a mercantile conversion. She was 862 ft overall (about 60 ft longer than the RN's Ark Royal) with a defensive armament of sixteen 5.9", twelve 4.1" and 50 light guns, and an air group of 42, nominally 12 Ju 87 dive bombers and 30 Me109 fighters. Construction was suspended in 1940 and resumed to a modified design two years later. The project was finally terminated in 1943 and at no time were her aircraft ready for embarkation. The ship was salvaged by the Russians in 1945 and eventually towed to Leningrad where she was finally broken up in 1948/49. A sister ship, probably to have been named Peter Strasser was authorised in 1936 as part of a programme that included two 14,800 ton cruisers to be known as Seydlitz and Lutzow. Both cruisers were launched although neither were finally completed. Lutzow was sold to the Russians in 1940, surviving in an incomplete state until 1960; Seydlitz languished until 1942 when it was decided to complete her as a support aircraft carrier. Given the name Weser she would have carried 10 Ju87s and 10 Me109s. Dismantling of the superstructure began in December but little progress was made and the incomplete hull was taken over by the Russians primarily as a source of parts for the Petropavlovsk (ex Lutzow); this ship was also scrapped by the end of the 1950s.



Delphin USS Lexington

The German Z plan of 1938 envisaged a build up of the Kriegsmarine, by 1944, adding the following major units to construction already in hand: six 56,000 ton battleships of the H class, three 31,000 ton battlecruisers of the O-P-Q class and six 8000 ton light cruisers of the M-R class plus other smaller scout cruisers and a proportionate number of destroyers and escort types. The

H class were to have been over 900 ft long, similar in profile to the Bismarck and Tirpitz (but with two funnels) and armed with 16" guns. The proposed battlecruisers were to be classics of the type with high speed and limited main armament of six

15" guns. Auxiliary diesels were intended to provide a wide radius of action and a speed of 24kts, whilst bringing in the main turbines gave a maximum of nearer 34 kts. Of the two models that have been produced (see list), Hansa's features the original design for the boat deck amidships and Nautilus has the final version with raised deck. The M-R scout cruisers were again designed for high speed, perhaps 35 kts, and seaworthiness with the same propulsion arrangements as O-P-Q. Armament was to have been eight 5.9" guns and stowage for 160 mines provided. The first three were laid down but little work undertaken.

German naval planners also conducted feasibility studies for a series of follow on ships to the H class; very briefly these were H41 (63,000 tons, eight 16.6" guns - some design completed on this class), H42 (83,000 tons, eight 19.7" guns), H43 (103,000 tons, armed as H42) and H44 (122,000 tons, eight 20" guns). Of models produced, the Hansas will probably be the easiest to find and, except for the H class which has been listed but not issued, most of the major units are present. The primary source for further study of these ships is German Warships 1815 - 1945 Volume 1 by Groner and recently published in English for the first time. The book also covers a number of cancelled aircraft carrier projects. both mercantile and warship conversions. One of the latter was the former heavy cruiser Seydlitz mentioned above as modelled by Hansa and Anker.

The end of the First World War did not herald to end to warship construction and the ship building race as far as the Allied powers were concerned with Great Britain, USA and Japan all contemplating further still larger battleships. Ultimately sanity prevailed and the 1922 Washington Treaty curtailed a number of programmes. In the Pacific as early as 1916 the Imperial Japanese Navy were embarking on the so-called 8-8 Project which comprised eight battleships and eight battlecruiser intended to match or exceed American naval power in that area. Two 38,000 ton battleships of the Kaga were ordered under the 1918 programme and these ships were to be 760 feet overall, speed 26 kts with ten 16" guns in twin turrets. Both Kaga and sister ship Tosa were under construction when the Treaty came into force and the former was completed as an aircraft carrier and the latter sunk as a target. To complement the four Kongos already completed four high speed battlecruisers of the Amagi class were ordered in 1919/20. Amagi and Akagi were the first to be laid down although again the latter was finally commissioned as a carrier. Amagi was severely damaged in an earthquake in 1923 and subsequently scrapped. Perhaps the two most famous Japanese battleships are the 64,000 ton Yamato and Musashi, but less well known are the related battlecruiser class ultimately called type B65. These ships were very similar in profile to their big sisters and were first muted in 1940 as a 12.2" armed vessel with the design name B64. In 1942 the design was upgraded to incorporate a new 14.2" gun, nominally to counter the American Alaska class battlecruisers, and re-named B65. The following year the entire programme was abandoned in favour of the construction of aircraft carriers. Another Japanese project was the so-called super-Yamato with 20" guns in three twin turrets, but this 1941 vision never sailed beyond the drawing board.



Projected Italian aircraft carriers

As early as 1936 the Italian Navy had been contemplating the need for aircraft carriers and this planning turned to substance in 1941 when the liner Roma was taken in hand. The conversion was a virtual rebuild with the hull being lengthened (to 680ft), bulges added and new machinery installed. She was nearly complete at the time of the Italian surrender in September 1943 and having been rendered unusable by allied air attack after that date was eventually broken up in 1951. The conversion

included a full flight deck, island to starboard, lifts and catapults with a planned aircraft complement of 36 RE2001 fighters some of which were to have been modified versions able to carry torpedoes. A second liner, the Augustus, was selected for a much more austere conversion which began in September 1942. Work progressed slowly, however, and twelve months later the original superstructure had been removed, but little else. In appearance the re-named Sparviero would have resembled a rather large (664ft) escort carrier but with no island, two lifts and a single hangar. The hull was scuttled by the Germans and apparently scrapped some years later. Continues next month with a look at the American, British, Russian, French and Dutch projects and the post-1945 era.

NAME	TYPE	DATE	MODEL MANUFACTURER
IMPERIAL JAPANESE NAVY			
Tosa	BB	1921	Superior 1/1200
Amagi	CB	1921	Superior 1/1200
B65 class	CB	1941	Anker 31
GERMAN NAVY			
Mackensen	CB	1919	Navis 21
Ersatz Yorck	CB	1920	Navis 20

O-P-Q class	CB	1940	Hansa 159, Nautilus 13
H class	BB	1944	Delphin 119, Hansa 210
H44 design	BB	1944	Albert (rare!), Nautilus NT31
Graf Zeppelin	CV	1940	Hansa 150
Graf Zeppelin	CV	1942	Hansa 151
Seydlitz	CA	1940	Hansa 195, Nautilus 30
Seydlitz	CVL	1942	Hansa 195/3, Anker 12
Lutzow	CL	1940	Hansa 195/1
M-R class	CL	1939	Anker 17, Nautilus 17
KIE scout cruiser	CL	1939	DH 6 (rare)
Scout cruiser SP 1-3	CL	1941	Hansa 183, Nautilus 6
ITALIAN NAVY			
Aquila	CV	1943	Delphin 137
Sparviero	CVL	1942	Anker 19
Vesuvio	CL	1943	Anker 11

NOVEMBER 1992 PROJECTED WARSHIPS PT 2

This month's Waterline concludes the description of cancelled warship projects, with the emphasis on those vessels of which 1/1250 models have been commercially produced.

United States Navy construction terminated as a result of the 1922 Washington Treaty included a fourth battleship of the Maryland Class (BB47, ironically to have been named USS Washington) and two entirely new classes. BB49 to 54 were the numbers allocated to USS South Dakota and her five sisters; these ships would have carried twelve 16" guns in triple turrets at a top speed of 23 kts on a displacement of 43,000 tons. All six were laid down in 1920/21 and formally cancelled on 17 August 1923, this being the date that the Treaty came into force. A complementary battlecruiser class was also intended and CC1 to 6, the Lexington class, would, on a similar displacement, have been 200ft longer (824 ft) with three times the horsepower giving a speed of 35kts. The first design in 1916 had ten 14" guns, 24 boilers and no less than seven funnels. This was recast in 1917 when the numbers of boilers and funnels was reduced to 20 and five respectively. The third and final design had 16 boilers and just two funnels with a main armament of eight 16", and this is the configuration in the Delphin model listed as USS United States. The ships were laid down in 1920/21 although almost immediately the tactical usefulness of the type was being questioned and the possibility of converting the hulls into aircraft carriers being examined. Little work had been completed by mid-1923 when cancellation was confirmed and just two of the hulls were retained ultimately to be completed as the fleet carriers Saratoga and Lexington.

Perhaps the best known American battleships are the four strong Iowa class, these ships having served in a variety of configurations since first completed in 1943/44. A fifth and sixth were also laid down and of these the Kentucky was retained in an incomplete state until 1959, with various missile conversion possibilities being evaluated during the 1950s. Propulsion machinery from the two ships was used in the Sacramento class fast replenishers completed between 1964 and 1970. A number of conversions were proposed for the Iowas (see illustration) but none were implemented.

The five battleships of the Montana class were authorised in 1940 and at the same time money was voted to construct a new set of locks to enable the ships to transit the Panama Canal. Displacement would have 60,800 tons and main armament four triple 16" turrets. Construction was suspended in April 1942 before any had been laid down, and all five were finally cancelled in July 1943.



Anker Dutch battlecruiser

During the late 1930s Holland perceived a need for capital ships to be capable of operating in the Dutch East Indies and in consultation with German engineers an initial in-house design was refined to resemble in some ways the

Scharnhorst class. German reluctance to reveal most recent technology in the area of armour protection forced the Dutch to approach the Italians for information on their new 35,000 ton battleships but little help was forthcoming. Ultimately further German help was solicited resulting in the final design as illustrated. Displacement was to have been in the order of 28,000 tons, speed 33 kts and main guns nine 11" (three triples).

French battleship construction plans during the 1930s included the 35,000 ton Richelieu and Jean Bart, launched in 1939 and 1940 respectively although the latter was not finally completed until 1952. A third of class to be named Clemenceau was authorised in 1938 and secondary guns apart this ship would have been essentially identical to her predecessors. The most obvious feature of the design was the adoption of just two main turrets, in A and B positions, each with four 15" guns. For the next class, the first of which was ordered in 1939 the two quad turrets were to have been retained but B relocated aft. The lead vessel Gascogne was not laid down although some building material had been assembled and two sisters approved in the Spring of 1940 were abandoned. Various designs were also considered for a further class, to be known as Provence, and these included tonnages from 35,000 to 45,000 and main armaments of three triple 15", three triple 16" and even three quad 16" with all using A, B and Y turret positions. Alsace and Bourgogne were authorised in April 1940 but little more than design work was ever completed. During the 1930s the French decided to build some new aircraft carriers and Joffre and Painleve were laid down in 1938 and 1939 respectively. These ships has a design displacement of 18,000 tons and a length overall of 774 ft. Aircraft complement was to have been 40. The design was unusual in the that the flight deck presented an unencumbered rectangle finishing well short of the bow and stern and the superstructure was separate, albeit in the normal starboard location. Construction was interrupted by the war and both ships scrapped on the stocks.

From the early 1930s the Soviet government had been seeking overseas assistance in the construction of new battleships and by 1936 the Italian yard Ansaldo was working on the overall design and the Americans had agreed to supply the main armament of 16" guns. At one stage the Russians



Anker Soviet battleship

were hoping to persuade the Americans to build the lead ship but this was politically unacceptable in the USA. In 1939 the Americans withdrew from the project completely and the Russians turned to France for the guns. The onset of war ruled out this source of supply and ultimately the Russians managed to produce some guns in-house. Notwithstanding these various difficulties work had been authorised to start in 1938 and the four ships were laid down in Soviet yards by the summer of 1940. The basic design was for a 45,000 ton vessel with nine 16" guns in triple turrets and a speed of 29kts. Construction of all but the Sovjetskaya Ukraina was abandoned in October 1940 and this ship was captured by the Germans in August 41. Photographs of the ship dating from mid 1941 show the shell of the hull to be largely intact with barbettes in place, but in the event the Germans had neither the resources or perhaps the inclination to complete the project. In the pre-war period the American firm Gibbs & Cox drew up a series of designs for the Soviets of a hybrid battleship/aircraft carrier; these included a 44,000 ton vessel with 30 aircraft and ten 16" guns, a 66,000 tonner with 40 aircraft and eight 18" and the largest of all, the so-called design 'B' with 40 aircraft and four triple turrets for 16" guns. The turrets were conventionally located in A, B, X and Y positions but the midships section was given over to a flight deck measuring 405 by 80 ft. This would have been smaller than most escort carriers, but was only intended for landings; take-offs were to be via a pair of catapults at the stern. The funnel and bridge were to starboard and secondary armament to port and starboard. None of these designs were ever laid down and it is unlikely that the American government would have granted permission for such ships to have been built for a foreign power.

The best single source for further reading about cancelled capital ships is Battleships and Battlecruisers 1905 to 1970 by Breyer.

The Modern Era

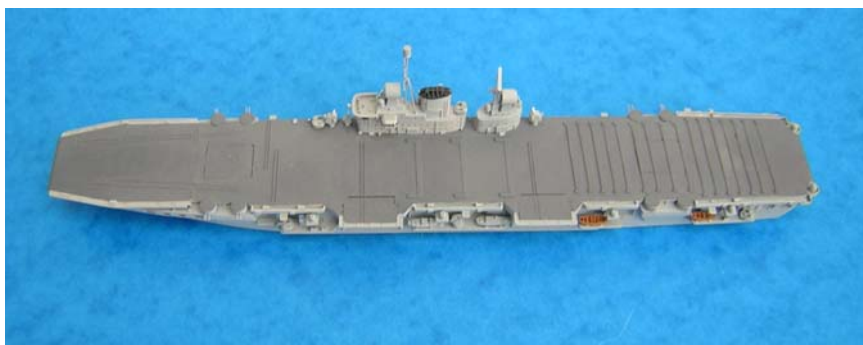
Commercial 1/1250 models of cancelled warship projects since 1945 are few in number, the sole example of which the author is aware being Anker's Sovjetskaya Bjelorossiya. It is even debatable whether or not this ship was cancelled in that it may have not even existed at all. A semi-example could be said to be Hansa's S70 which shows USS Long Beach as first planned circa 1960 with a Regulus missile amidships and



Anker Sovjetskaya Bjelorossiya

without the bridge mounted planar array radar. For RN enthusiasts, two cancelled ships which would certainly be welcome in 1/1200 (or 1250) are the fleet carriers HMS Malta and CVA01, the latter possibly to have been named Invincible or

Furious. These ships represent important stages in the development of the fleet carrier, with the CVA01 ultimately abandoned as a result of the defence review of 1966 and the last example of the type.



Sea Vee HMS Malta

The Malta class were the last wartime designed fleet carriers and represented a gradual increase in displacement from Illustrious at 23,000 (standard), to Ark Royal and Eagle of 36,800, to Malta at 46,900 tons. Four were ordered in 1943 for construction between 1945 and 1949 but all were cancelled by 1946. The ships would have been similar in overall appearance and technical detail to the preceding Eagle class, but with a number of significant differences. Of these the most

apparent were the second island, narrowly separated from the first, with its prominent radar and four rather than two aircraft lifts. Less obvious were the omission of hangar armour and heavy deck armour, and the provision of an open hangar to enable engines to be run up with aircraft still below. This feature, together with the extra lifts, emphasised the requirement for increased speed in aircraft handling although at 81 only three more machines were carried than in Eagle. Flight deck dimensions were 909 by 136 feet and length overall 916 feet, about 115 feet longer than the earlier ship.

CVA01 was designed under severe political and financial constraints and, in attempting to accommodate a range of requirements within a small, approximately 50,000 ton, hull, included a significant number of innovations, more than are wisely undertaken in any new design. According to Conways All the Worlds



Sea Vee CVA01

Fighting Ships 'cancellation was necessary if only to stop the Navy from getting the wrong carrier... a classic example of a design ruined by constraints'. The final design displaced about 63,000 tons fully loaded with an overall length of 925 ft and a flight deck width of 184 ft (122 ft on the waterline). Aircraft complement would have been approximately 40 and self defence provided by Sea Dart and perhaps Sea Cat surface to air missiles. The flight deck featured a mere 3.5o angle and the 'Alaska highway' to starboard of the superstructure was sufficiently wide to permit the passage of aircraft. The provision of just two catapults was a direct result of efforts to control the tonnage. New compact aircraft lifts with a 'scissors' lifting mechanism were planned and ultimately materialised in the Invincible class, the staff requirement for which was produced in outline within a year of the cancellation of CVA01.

During the early post-war era the RN considered a variety of missile ship designs before finally opting for the County class destroyer. Some of these designs were quite innovative and included the conversion of existing aircraft carriers and cruisers to carry one or more Seaslug launchers, and a range of entirely new ships. The final volume of Conways and the Post-war Naval Revolution by Norman Friedman (the latter now remaindered) are the best sources of information on these ships and although none of them have been commercially modelled, it is possible, for the conversions at least, to find models of the original ships and undertake the reconstruction in miniature. A cruiser conversion similar in principle to the USN single end Little Rock CLG is probably a good starting point, using Ensign's HMS Fiji or eventually Skytrex's HMS Tiger. Hansa's spare part pack (catalogue H62) contains a number of missile launchers including a Seaslug or alternatively an imaginative model builder might already have converted a Skytrex HMS Antrim to Chilean Navy service and thus have a spare launcher in hand.

NAME	TYPE	DATE	MODEL MANUFACTURER
SOVIET NAVY			
Sovjetskaya Ukraina	BB	1941	Anker 27
Gibbs & Cox design	BB/CV	1937	Anker 26
Sovjetskaya Bjelorossiya	BB	1953	Anker 28
ROYAL NAVY			
Lion class	BB	1940	Nautilus & Superior 1/1200

'1921' class	CB	1921	Superior 1/1200
Design 'A'	CA	1940	Nautilus 11
UNITED STATES NAVY			
South Dakota	BB	1920	Superior 1/1200
Montana	BB	1943	Superior 1/1200
United States	CB	1921	Delphin 65
FRENCH NAVY			
Gascogne	BB	1940	Delphin 156
Joffre	CV	1940	Anker 7
DUTCH NAVY			
Celebes	CB	1939	Anker 20, Hai 658

A BRIEF HISTORY OF THE 'GUIDE TO WATERLINE MODEL SHIPS'

The first issue of the guide was compiled in 1990 and was based on a series of eight articles published in Marine Modelling magazine during 1989. In producing a booklet it was possible to include much additional detail and to provide listings for certain manufacturers whose ranges were out of production and whose models would therefore not be listed in dealers' catalogues. Issue 1 then contained listings for Eagle*, Ensign, Hornby Minic/Rovex*, Airfix*, Casadio*, Triang*, Delphin, Hansa, Star and Wiking. Issue 2 (which appeared in 1996) repeated those asterisked and added full lists for Len Jordan Models, Pedestal, Fleetline and Nelson. With UK collectors in mind, all British models produced by a further eighteen manufacturers were listed in tables.

Issue 3 appeared in 1999, followed five years later by Issue 4 which was available on CD only but added a digital photo library. Issue 5 in 2008/09 heralded the pdf download version with many new images. With all issues most entries are reviewed and of course new manufacturers added.

Courtesy of Marine Modelling International (see www.traplet.com, then 'Online shop', then 'Marine Modelling', then 'Books') Issue 6 (2010) is the first for many years to find its way into print. With new models constantly appearing (and going out of production) it can only be a snapshot at the time of writing so please refer to the monthly MMI-Waterlines column for all the latest news and that extra level of detail re ships and models. Issue 6 was last amended in January 2010.

