

# *Club Magazine*

*Autumn Edition*

*September 2014*

# **Luton & District MBC**

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

# **Contents Page**

<b>EDITORS NOTES</b>	<b>Page 3</b>
<b>BUSHMEAD COMMUNITY FAYRE</b>	<b>Page 4</b>
<b>OPEN DAY</b>	<b>Page 8</b>
<b>HOMEMADE BOW THRUSTER</b>	<b>Page 11</b>
<b>BISMARCK, A BRIEF HISTORY</b>	<b>Page 12</b>
<b>CHATHAM DOCKYARD</b>	<b>Page 25</b>
<b>BLACK PARK</b>	<b>Page 29</b>

# Editors Notes

Well, it's that time of the year when the AGM is. It is also time to think about new winter builds or restoration/overhaul projects. In the last few weeks we have seen Terry Martin purchase a new boat, a fishing cruiser which is already up and running on the water as well as Mike Skuse, who purchased a Billings Krabbentkutter, which is now up and running as well! No excuses either of you now, we all want to see them on the water. Also Mike Dowsett has also purchase 2 new boats! A Flower class corvette and a small 1/72 vosper.

I would also like to take this opportunity to say a big THANKYOU to Terry Martin, as he is standing down from the committee this year as Treasurer. He has worked hard over the few years he has been on the committee playing devil's advocate when we want to spend money!!

On a side note, we have been invited to put on a static and water display in Hitchin Market in October. We will be asking for volunteers to help out at this event. It will be on a Saturday between 10 till 4, date to be confirmed. We have also been asked if we could put on a "have a go" boats section This is in the early stages at present but will be a club 500 scenario which will of course be throttled back!. See Tony Martin, Tony Dalton or Pete Carman for further details.

Another issue that has popped up is the continued use of the Fire station as our club meeting hall. As of the AGM, if the membership agrees, we would like to hold the monthly meetings at the Bushmead Community Centre. This will hopefully encourage members to come back to the meetings as the restrictions being placed on us with parking etc. was becoming untenable. Also, if anyone has any suggestions for a club night meeting, please approach a committee member and have a chat!!!

I have still not received a picture of Graham Rumble sailing a boat this year! And Chris Jackson won a prize for the last magazines caption competition.

As some of you know, Pete has been involved with selling some boats on behalf of an elderly lady who contacted the club, if anyone wishes to see pictures or visit to see the boats in question please see Pete Carman.

# Bushmead Community Fayre

On 13<sup>th</sup> of July, a certain Mr Anthony Dalton approached me to ask if I would be interested in doing an exhibition table with him on the 19<sup>th</sup> at Bushmead community hall. Info was a bit lacking, like how many tables etc., but I semi agreed pending a meeting he was having with the organisers on the Tuesday. He duly rung me on the Tuesday evening with more info, we had gone from 1 table to a hall! Eeeeeeeek. Tony rung a few peeps, I rung a few peeps and we were sorted.

I turned up with Mike Scuse and a carload of boats hovercraft and small helicopters, Tony D turned up with a car load of models of various guises. The next person we saw was a bit of a shock as Gordon Catchpole turned up to go shopping at the nearby minimart!!!! I had mentioned to Tony D on the Tuesday night that If Graham Rumble turned up, which Tony said he was going to, I would buy all the members who attended the show a pint. At this time Tony neglected to mention that he had invited about 10 members to come along! On the Saturday there was about 13 members, this was looking decidedly expensive!!! Chris Jackson, the Thompson Brothers, Mike Dowsett, Tony and Lyn with a not so small nipper, Terry and Jill, Graham Crisp made up 'The Company'. The tables were set out and in the center we had a table tennis table! Mike Dowsett even purloined the pool table outside the door for his own show!!!

The Tables were filled with plastic models, steam models, boats, submarines, hovercraft, helicopters, and quad copters. Virtually everything this club does!! I'll let the pics speak for themselves.



Mamod fire engine, traction engine and RLS Rocket, with Tony Dalton's plastic magic.



Another pic of plastic magic and the Thompson brother's plastic aircraft built in Luton.  
Lyn's wooden owl never blinked!



Tony Martins Military plastics and Mike Dowsett's helicopters!



The Thompson Brothers boats and Graham Crisps steam boat and Engines.  
It should be noted at this point that Pete Carman bought a Victoria sponge off the WI stand and Chris Jackson made the tea for everyone! Also on offer was jelly babies humbugs and American hard gums. Another show where we eat sweets! This is becoming a habit!! NOT ONE BACON ROLL IN SIGHT!!!!





Centre table full of boats



From large to small, all types of boats were represented.



The centre table and Mike Dowsett's table!

We all felt that the show was a great success with members all turning up with a great variety of models. A big thanks to all those who attended, and an especial BIG thanks to Graham Rumble for not turning up and saving my wallet from being hit!!



Looking through the entrance into the hall.



# *Open Day 2014*

20<sup>th</sup> July.

Weather forecast..... Warm, muggy but overcast.

Starting at 8am in the morning the small crew of Tony Dalton, Mike Skuse, Pete Carman and Dave. We got all the tents tables and safety gear and went to the compound. Tony took up the broom to sweep down while us others put the white marquee up, then the blue one! We were all set up by 9-15! People started to trickle in around 10. As usual there were a lot of questions, and we even had a few visitors from other clubs.



A study in motion, if you have never watched Jo, he never moves!!! I'm sure sometimes he is asleep! An old club member, George Izzard came down from Stoke to join us. Nice to see him, he even bought me a sub to play with, which in my own special way I broke!!! The prop spun off!!! It was great to see a lot of different boats again, Jo even had a new barge with a crane! Ps the log in the picture is a new submarine made by Mike Skuse!





Subs, yachts and tugs were in abundance.



Empress of Britain, Robbe Seawolf and a lifeboat.



Hovercraft more tugs and Dave Seth's impressive 1/35 landing craft, still a work in progress.



Before most people turned up, it was quiet!



The all-important tea tent with residents. From the other side, it almost looks tranquil! We also held a small BYO bbq which James gallantly helped out at. The day was a small success, it would have been nice to have a few more members down, but the day was busy with plenty on show. Nice to see our club secretary, would have been a miracle if he actually took a boat over and had a sail though! Proof is still required that he actually sails!!!



# Home Made Bow Thruster MKII

To gain more control of my model tugs, I decided a bow thrusters was the way forwards (or sideways).

Having searched the model trade, I could find nothing suitable for a large, heavy tug. Anything available was so flimsy and underpowered; I would have to make one.

First attempt was the usual prop in a tube, but I found it would only accept limited power, when it reached a certain r.p.m. cavitation would prevent it from working! It would probably have worked with further development but my brain was already onto mark II.

One day at Billing I was watching these mad Jet Ski things, I had a eureka moment. I would fit 2 Jet Ski units to the front end of my Northsider. (Not the full size stupid!)

Two units quickly made up, mainly from copper plumbing bits, SUCCESS! Output and thrust is much more than you think. So much water was sucked up from the bottom of the boat and literally blasted out the other side.

Unit fitted into Northsider hull (I had serious doubts about making four large holes, each of 28mm) but, all fibre glassed in and secured, Hull is as strong as before.

Tested at Black parks Regatta passed all requirements (although at the moment a bit noisy) I suppose I should fit a speed controllers to each Thruster, but that's for next development.

**Plus points** Cheap, easy to make and very efficient, can be made in different sizes

**Minus Points** Requiring large holes in hull. Bit noisy, Takes up room in hull.

Two pictures attached show component parts

*Happy Boating - Terry Stagg*





# BISMARCK, A Brief History

You may have read my article in the Model Boat Magazine (April 2013) on making a 1/700 scale plastic model of the Bismarck and converting it to Radio control. What I did not include within the article is any sort of history about the vessel, the following aims to correct this omission.

Tony Dalton

## Construction and Design

Bismarck was ordered under the name Ersatz Hannover ("Hannover replacement"), a replacement for the old pre-dreadnought SMS Hannover, under contract "F". The contract was awarded to the Blohm & Voss shipyard in Hamburg, where the keel was laid on 1 July 1936. The ship was launched on 14 February 1939 and during the elaborate ceremonies was christened by Dorothee von Löwenfeld, granddaughter of Chancellor Otto von Bismarck, the ship's namesake. Adolf Hitler made the christening speech. Fitting-out work followed the launch, during which time the original straight stem was replaced with a raked "Atlantic bow" similar to the Scharnhorst-class battleships. Bismarck was commissioned into the fleet on 24 August 1940 for sea trials, which were conducted in the Baltic. Kapitän zur See Ernst Lindemann took command of the ship at the time of commissioning.

Bismarck displaced 41,700 tons as built and 50,300 tons fully loaded, with an overall length of 823 ft. 6 in, a beam of 118 ft. 1 in and a maximum draft of 32 ft. 6 in. The battleship was Germany's largest warship, and displaced more than any other European battleship, with the exception of the later HMS Vanguard. Bismarck was powered by three Blohm & Voss geared steam turbines and twelve oil-fired Wagner superheated boilers, which developed a total of 150,170 shaft horsepower and yielded a maximum speed of 30.01 knots (34.53 mph) on speed trials. The ship had a cruising range of 8,870 nautical miles at 19 knots. Bismarck was equipped with three FuMO 23 search radar sets, mounted on the forward and stern range-finders and foretop.

The standard crew numbered 103 officers and 1,962 enlisted men. The crew was divided into twelve divisions of between 180 and 220 men. The first six divisions were assigned to the ship's armaments, divisions one through four for the main and secondary batteries and five and six manning anti-aircraft guns. The seventh division consisted of specialists, including cooks and carpenters, and the eighth division consisted of ammunition handlers. The radio operators, signalmen, and quartermasters were assigned to the ninth division. The last three divisions were the engine room personnel. When Bismarck left port, fleet staff, prize crews, and war correspondents increased the crew complement to over 2,200 men. Roughly 200 of the engine room personnel came from the light cruiser Karlsruhe, which had been lost during Operation Weserübung, the German invasion of Norway. Bismarck's crew published a ship's newspaper titled Die Schiffsglocke (The Ship's Bell); this paper was only published once, on 23 April 1941 by the commander of the engineering department, Gerhard Junack.

Bismarck was armed with eight 38 cm SK C/34 guns arranged in four twin gun turrets: two super-firing turrets forward—"Anton" and "Bruno"—and two aft—"Caesar" and "Dora". Secondary armament consisted of twelve 15 cm (5.9 in) L/55 guns, sixteen 10.5 cm (4.1 in) L/65 and sixteen 3.7 cm (1.5 in) L/83, and twelve 2 cm (0.79 in) anti-aircraft guns. Bismarck also carried four Arado Ar 196 reconnaissance floatplanes, with a single large hangar and a double-ended catapult. The ship's main belt was 320 mm (13 in) thick and was covered by a pair of upper and main armoured decks that were 50 mm (2.0 in) and 100 to 120 mm (3.9 to 4.7 in) thick, respectively. The 38 cm (15 in) turrets were protected by 360 mm (14.2 in) thick faces and 220 mm (8.7 in) thick sides.

## Service history



☐ **Bismarck in port in Hamburg**

On 15 September 1940, three weeks after her commissioning, Bismarck left Hamburg to begin sea trials in Kiel Bay. Sperrbrecher 13 escorted the ship to Arcona on 28 September, and then on to Gotenhafen for trials in the Gulf of Danzig. The ship's power-plant was given a thorough workout; Bismarck made measured-mile and high speed runs. While her stability and manoeuvrability were being tested, a flaw in the ship's design was discovered. While attempting to steer the ship solely through altering propeller revolutions, the crew learned that Bismarck could be kept on course only with great difficulty. Even with the outboard screws running at full power in opposite directions, they generated only a slight turning ability. Bismarck's main battery guns were first test-fired in late November. The tests proved she was a very stable gun platform. Trials lasted until December; Bismarck returned to Hamburg, arriving on 9 December, for minor alterations and the completion of the fitting-out process.

The ship was scheduled to return to Kiel on 24 January 1941, but a merchant vessel had been sunk in the Kiel Canal and prevented usage of the waterway. Severe weather hampered efforts to remove the wreck, and Bismarck was not able to reach Kiel until March. The delay greatly frustrated Lindemann, who remarked that "[Bismarck] had been tied down at Hamburg for five weeks ... the precious time at sea lost as a result cannot be made up, and a significant delay in the final war deployment of the ship thus is unavoidable. While waiting to reach Kiel, Bismarck hosted Captain Anders Forshell, the Swedish naval attaché to Berlin. He returned to Sweden with a detailed description of the ship, which was subsequently leaked to Britain by pro-British elements in the Swedish Navy. The information provided the Royal Navy with its first full description of the vessel, although it lacked specificity on important facts, including top speed, radius of action, and displacement.

On 6 March, Bismarck received the order to steam to Kiel. While en route, the ship was escorted by several Messerschmitt Bf 109 fighters and a pair of armed merchant vessels, along with an icebreaker. At 08:45 on 8 March, Bismarck briefly ran aground on the southern shore of the Kiel Canal, though she was freed within an hour. The ship reached Kiel the following day, where her crew stocked ammunition, fuel, and other supplies and applied a coat of dazzle paint to camouflage her. British bombers attacked the harbour without success on 12 March. On 17 March, the old battleship Schlesien, now used as an icebreaker, escorted Bismarck through the ice to Gotenhafen, where the latter continued combat readiness training.



### **Bismarck on Trials**

The Naval High Command (Oberkommando der Marine or OKM), commanded by Admiral Erich Raeder, intended to continue the practice of using heavy ships as surface raiders against Allied merchant traffic in the Atlantic Ocean. The two Scharnhorst-class battleships were based in Brest, France, at the time, having just completed Operation Berlin, a major raid into the Atlantic. Bismarck's sister ship Tirpitz rapidly approached completion. Bismarck and Tirpitz were to sortie from the Baltic and rendezvous with the two Scharnhorst-class ships in the Atlantic; the operation was initially scheduled for around 25 April 1941, when a new moon period would make conditions more favourable.

Work on Tirpitz was completed later than anticipated, and she was not commissioned until 25 February; the ship was not ready for combat until late in the year. To further complicate the situation, Gneisenau was torpedoed while in Brest and damaged further by bombs when in drydock. Scharnhorst required a boiler overhaul following Operation Berlin; the workers discovered during the overhaul that the boilers were in worse condition than expected. She would also be unavailable for the planned sortie. Attacks by British bombers on supply depots in Kiel delayed repairs to the heavy cruisers Admiral Scheer and Admiral Hipper. The two ships would not be ready for action until July or August. Admiral Günther Lütjens, the officer chosen to lead the operation, wished to delay the operation at least until either Scharnhorst or Tirpitz became available, but the OKM decided to proceed with the operation, codenamed Operation Rheinübung, with a force consisting of only Bismarck and the heavy cruiser Prinz Eugen.

### **Operation Rheinübung**

On 5 May, Adolf Hitler and Wilhelm Keitel, with a large entourage, arrived to view Bismarck and Tirpitz in Gotenhafen. The men were given an extensive tour of the ships, after which Hitler met with Lütjens to discuss the upcoming mission. On 16 May, Lütjens reported that Bismarck and Prinz Eugen were fully prepared for Operation Rheinübung; he was therefore ordered to proceed with the



mission on the evening of 19 May. As part of the operational plans, a group of eighteen supply ships would be positioned to support Bismarck and Prinz Eugen. Four U-boats would be placed along the convoy routes between Halifax and Britain to scout for the raiders.

By the start of the operation, Bismarck's crew had increased to 2,221 officers and enlisted men. This included an admiral's staff of nearly 65 and a prize crew of 80 sailors, which could be used to crew transports captured during the mission. At 02:00 on 19 May, Bismarck departed Gotenhafen and made for the Danish straits. She was joined at 11:25 by Prinz Eugen, which had departed the previous night at 21:18, off Cape Arkona. The two ships were escorted by three destroyers—Hans Lody, Friedrich Eckoldt, and Z23—and a flotilla of minesweepers. The Luftwaffe provided air cover during the voyage out of German waters. At around noon on 20 May, Lindemann informed the ship's crew via loudspeaker of the ship's mission. At approximately the same time, a group of ten or twelve Swedish aircraft flying reconnaissance encountered the German force and reported its composition and heading, though the Germans did not see the Swedes.

An hour later, the German flotilla encountered the Swedish cruiser HMS Gotland; the cruiser shadowed the Germans for two hours in the Kattegat. Gotland transmitted a report to naval headquarters, stating: "Two large ships, three destroyers, five escort vessels, and 10–12 aircraft passed Marstrand, course 205°/20'." The OKM was not concerned about the security risk posed by Gotland, though both Lütjens and Lindemann believed operational secrecy had been lost. The report eventually made its way to Captain Henry Denham, the British naval attaché to Sweden, who transmitted the information to the Admiralty. The code-breakers at Bletchley Park confirmed that an Atlantic raid was imminent, as they had decrypted reports that Bismarck and Prinz Eugen had taken on prize crews and requested additional navigational charts from headquarters. A pair of Supermarine Spitfires were ordered to search the Norwegian coast for the flotilla.

German aerial reconnaissance confirmed that one aircraft carrier, three battleships, and four cruisers remained at anchor in the main British naval base at Scapa Flow, which confirmed to Lütjens that the British were at that point unaware of his operation. On the evening of 20 May, Bismarck and the rest of the flotilla reached the Norwegian coast; the minesweepers were detached and the two raiders and their destroyer escorts continued north. The following morning, radio-intercept officers on board Prinz Eugen picked up a signal ordering British reconnaissance aircraft to search for two battleships and three destroyers northbound off the Norwegian coast. At 7:00 on the 21st, the Germans spotted four unidentified aircraft, though they quickly departed. Shortly after 12:00, the flotilla reached Bergen and anchored at Grimstadfjord. While there, the ships' crews painted over the Baltic camouflage with the standard "outboard grey" worn by German warships operating in the Atlantic.



**✪ Aerial reconnaissance photo taken by Flying Officer Michael Suckling shows Bismarck anchored in Norway**

While in Norway, a pair of Bf 109 fighters circled over Bismarck to protect her from British air attacks. Nevertheless, Flying Officer Michael Suckling managed to fly his Spitfire directly over the German flotilla at a height of 8,000 m (26,000 ft.) and snap several photos of Bismarck and her consorts. Upon receipt of the information, Admiral John Tovey ordered the battlecruiser HMS Hood, the newly commissioned battleship HMS Prince of Wales, and six destroyers to reinforce the

Scapa Flow. Eighteen bombers were dispatched to attack the Germans, but weather over the fjord had worsened and they were unable to find the German warships.

Bismarck failed to replenish her fuel stores while anchored in Norway, as her operational orders did not require her to do so. She had left port 200 tons short of a full load, and had since expended another 1,000 tons on the voyage from Gotenhafen. Prinz Eugen, meanwhile, took on 764 tons of fuel. At 19:30 on 21 May, Bismarck, Prinz Eugen, and the three escorting destroyers left Bergen. At midnight, when the force was in the open sea and headed toward the Arctic Ocean, Raeder finally disclosed the operation to Hitler, who only reluctantly consented to the raid. The three escorting destroyers were detached at 04:14 on 22 May, while the force steamed off Trondheim. At around 12:00, Lütjens ordered his two ships to turn toward the Denmark Strait to attempt the break-out into the open Atlantic.

By 04:00 on 23 May, Lütjens ordered Bismarck and Prinz Eugen to increase speed to 27 knots to make the dash through the Denmark Strait. Upon entering the Strait, both ships activated their FuMO radar detection equipment sets. Bismarck led Prinz Eugen by about 770 yds. mist reduced visibility to 3,300 to 4,400 yds. The Germans encountered some ice at around 10:00, which necessitated a reduction in speed to 24 knots. Two hours later, the pair had reached a point north of Iceland. The ships were forced to zigzag to avoid ice floes. At 19:22, hydrophone and radar operators aboard the German warships detected the cruiser HMS Suffolk at a range of approximately 13,700 yds. Prinz Eugen's radio-intercept team decrypted the radio signals being sent by Suffolk and learned that their location had indeed been reported.

Lütjens gave permission for Prinz Eugen to engage Suffolk, though the captain of the German cruiser could not clearly make out his target and so held his ship's fire. Suffolk quickly retreated to a safe distance and shadowed the German ships. At 20:30, the heavy cruiser HMS Norfolk joined Suffolk, but approached the German raiders too closely. Lütjens ordered his ships to engage the British cruiser; Bismarck fired five salvos, three of which straddled Norfolk and rained shell splinters on her decks. The cruiser laid a smoke screen and fled into a fog bank, ending the brief engagement. The concussion from the 38 cm guns' firing disabled Bismarck's FuMO 23 radar set; this prompted Lütjens to order Prinz Eugen to take station ahead so she could use her functioning radar to scout for the formation.

At around 22:00, Lütjens ordered Bismarck to make a 180-degree turn in an effort to surprise the two heavy cruisers shadowing him. Although Bismarck was visually obscured in a rain squall, Suffolk's radar quickly detected the manoeuvre, allowing the cruiser to evade. The cruisers remained on station through the night, continually relaying the location and bearing of the German ships. The harsh weather broke on the morning of 24 May, revealing a clear sky. At 05:07 that morning, hydrophone operators aboard Prinz Eugen detected a pair of unidentified vessels approaching the German formation at a range of 20 miles, reporting "Noise of two fast-moving turbine ships at 280° relative bearing.

### **Battle of the Denmark Strait**

At 05:45, German lookouts spotted smoke on the horizon; this turned out to be from Hood and Prince of Wales, under the command of Vice Admiral Lancelot Holland. Lütjens ordered his ships' crews to battle stations. By 05:52, the range had fallen to 28,000 yds. and Hood opened fire, followed by Prince of Wales a minute later. Hood engaged Prinz Eugen, which the British thought to be Bismarck, while Prince of Wales fired on Bismarck. Adalbert Schneider, the first gunnery officer aboard Bismarck, twice requested permission to return fire, but Lütjens hesitated. Lindemann intervened, muttering "I will not let my ship be shot out from under my ass. He demanded permission to fire from Lütjens, who relented and at 05:55 ordered his ships to engage the British.

The British ships approached the German ships head on, which permitted them to use only their forward guns, while Bismarck and Prinz Eugen could fire full broadsides. Several minutes after opening fire, Holland ordered a 20° turn to port, which would allow his ships to engage with their rear gun turrets. Both German ships concentrated their fire on Hood; about a minute after opening fire, Prinz Eugen scored a hit with a high-explosive 8.0 in shell; the explosion detonated Unrotated Projectile ammunition and started a large fire, which was quickly extinguished. After firing three four-gun salvos, Schneider had zeroed in the range to Hood; he immediately ordered rapid-fire salvos from Bismarck's eight 38 cm guns. He also ordered the ship's 15 cm secondary guns to engage Prince of Wales. Holland then ordered a second 20° turn to port, to bring his ships on a parallel course with Bismarck and Prinz Eugen. Lütjens ordered Prinz Eugen to shift fire and target Prince of Wales, to keep both of his opponents under fire. Within a few minutes, Prinz Eugen scored a pair of hits on the battleship that started a small fire.



Bundesarchiv, Bild 146-1984-055-14  
Foto: Lagemann | 24. Mai 1941

### **Bismarck as seen from Prinz Eugen after the battle of the Denmark Strait**

Lütjens then ordered Prinz Eugen to drop behind Bismarck, so she could continue to monitor the location of Norfolk and Suffolk, which were still some 12 to 14 miles to the east. At 06:00, Hood was completing the second turn to port when Bismarck's fifth salvo hit. Two of the shells landed short, striking the water close to the ship, but at least one of the 38 cm armour-piercing shells struck Hood and penetrated her thin deck armour. The shell reached Hood's rear ammunition magazine and detonated 112 tons of cordite propellant. The massive explosion broke the back of the ship between the main mast and the rear funnel; the forward section continued to move forward briefly before the in-rushing water caused the bow to rise into the air at a steep angle. The stern similarly rose upward as water rushed into the ripped-open compartments. Schneider exclaimed "He is sinking!" over the ship's loudspeakers. In only eight minutes of firing, Hood had disappeared, taking all but three of her crew of 1,419 men with her.

Bismarck then shifted fire to Prince of Wales. The British battleship scored a hit on Bismarck with her sixth salvo, but the German ship found her mark with her first salvo. One of the shells struck the



bridge on Prince of Wales, though it did not explode and instead exited the other side, killing everyone in the ship's command centre, save Captain John Leach, the ship's commander, and one other. The two German ships continued to fire upon Prince of Wales, causing serious damage. Guns malfunctioned on the recently commissioned British ship, which still had civilian technicians aboard. Despite her problematic main battery, Prince of Wales scored three hits on Bismarck in the engagement. The first struck her in the forecastle above the waterline, but low enough to allow the crashing waves to enter the hull. The second shell struck below the armoured belt and exploded on contact with the torpedo bulkhead, inflicting minimal damage. The third shell passed through one of the boats carried aboard the ship and then went through the float plane catapult without exploding.

At 06:13, Leach gave the order to retreat; only two of his ship's ten 14 in (360 mm) guns were still firing and his ship had sustained significant damage. Prince of Wales made a 160° turn and laid a smoke screen to cover her withdrawal. The Germans ceased fire as the range widened. Though Lindemann strongly advocated chasing Prince of Wales and destroying her, Lütjens obeyed operational orders to shun any avoidable engagement with enemy forces that were not protecting a convoy, firmly rejected the request, and instead ordered Bismarck and Prinz Eugen to head for the North Atlantic. In the engagement, Bismarck had fired 93 armour-piercing shells and had been hit by three shells in return. The forecastle hit allowed 1,000 to 2,000 tons; of water to flood the ship, which contaminated fuel oil stored in the bow. Lütjens refused to reduce speed to allow damage control teams to repair the shell hole which widened and allowed more water into the ship. The second hit caused some flooding and splinters damaged a steam line in the turbo-generator room, though Bismarck had sufficient generator reserves that this was not problematic. The flooding from these two hits caused a 9-degree list to port and a 3-degree trim by the bow.

### **The chase**

After the engagement, Lütjens reported, "Battlecruiser, probably Hood, sunk. Another battleship, King George V or Renown, turned away damaged. Two heavy cruisers maintain contact. At 08:01, he transmitted a damage report and his intentions to OKM, which were to detach Prinz Eugen for commerce raiding and to make for St Nazaire for repairs. Shortly after 10:00, Lütjens ordered Prinz Eugen to fall behind Bismarck to discern the severity of the oil leakage from the bow hit. After confirming broad streams of oil on both sides of Bismarck's wake. Prinz Eugen returned to the forward position. About an hour later, a British Short Sunderland flying boat reported the oil slick to Suffolk and Norfolk, which had been joined by the damaged Prince of Wales. Rear Admiral Frederic Wake-Walker, the commander of the two cruisers, ordered Prince of Wales to remain behind his ships.

The Royal Navy ordered all warships in the area to join the pursuit of Bismarck and Prinz Eugen. Tovey's Home Fleet was steaming to intercept the German raiders, but on the morning of 24 May, was still over 400 miles away. The Admiralty ordered the light cruisers Manchester, Birmingham, and Arethusa to patrol the Denmark Strait in the event that Lütjens attempted to retrace his route. The battleship Rodney, which had been escorting RMS Britannic and was due for a refit in the Boston Navy Yard, joined Tovey. Two old Revenge-class battleships were ordered into the hunt: Revenge, from Halifax, and Ramillies, which was escorting Convoy HX 127. In all, six battleships and battlecruisers, two aircraft carriers, thirteen cruisers, and twenty-one destroyers were committed to the chase. By around 17:00, the crew aboard Prince of Wales restored nine of her ten main guns to working order, which permitted Wake-Walker to place her in the front of his formation to attack Bismarck if the opportunity arose.

With the weather worsening, Lütjens attempted to detach Prinz Eugen at 16:40. The squall was not heavy enough to cover her withdrawal from Wake-Walker's cruisers, which continued to maintain radar contact. Prinz Eugen was therefore recalled temporarily. The cruiser was successfully detached

at 18:14. Bismarck turned around to face Wake-Walker's formation, forcing Suffolk to turn away at high speed. Prince of Wales fired twelve salvos at Bismarck, which responded with nine salvos, none of which hit. The action diverted British attention and permitted Prinz Eugen to slip away. After Bismarck resumed her previous heading, Wake-Walker's three ships took up station on Bismarck's port side.

Although Bismarck had been damaged in the engagement and forced to reduce speed, she was still capable of reaching 27 to 28 knots, the same maximum speed as Tovey's King George V. Unless Bismarck could be slowed, the British would be unable to prevent her from reaching St Nazaire. Shortly before 16:00 on 25 May, Tovey detached the aircraft carrier Victorious and four light cruisers to shape a course that would position her to launch her torpedo bombers. At 22:00, Victorious launched the strike, which comprised six Fairey Fulmar fighters and nine Fairey Swordfish torpedo bombers. The inexperienced aviators nearly attacked Norfolk on their approach; the confusion alerted Bismarck's anti-aircraft gunners. Bismarck even used her main and secondary batteries to fire at maximum depression to create giant splashes in the paths of the incoming torpedo bombers. Nevertheless, none of the attacking aircraft were shot down. Bismarck evaded eight of the nine torpedoes launched at her. The ninth struck amidships on the main armoured belt and caused minor damage. The concussive shock threw one man into a wall and killed him; five others were injured.

The explosive shock from the torpedo hit caused minor damage to electrical equipment, though the high speed and erratic manoeuvres used to evade the torpedoes inflicted more serious damage. The rapid shifts in speed and course loosened collision mats, so that flooding from the forward shell hole increased; eventually the port side number 2 boiler room had to be abandoned. The loss of now two boilers on the port shaft, coupled with decreasing fuel levels and the increasing bow trim, forced a reduction in speed to 16 knots. Divers repaired the collision mats in the bow, after which speed increased to 20 knots. The command staff had determined that this was the most economical speed for the voyage to occupied France.

Shortly after the Swordfish departed the scene, Bismarck and Prince of Wales engaged in a brief artillery duel. Both ships failed to score any hits. Bismarck's damage control teams resumed work after the short engagement. The sea water that had flooded the number 2 port side boiler threatened to enter the number 4 turbo-generator feed water system, which would have permitted saltwater to reach the turbines. The saltwater would have destroyed the turbine blades and thus greatly reduced the ship's speed. By morning on 25 May, the danger had passed. The ship slowed to 12 knots to allow divers to pump fuel from the forward compartments to the rear tanks; two hoses were successfully connected and a few hundred tons of fuel was transferred.

As the chase entered open waters, Wake-Walker's ships were compelled to zig-zag to avoid German U-boats that might be in the area. This required the ships to steam for ten minutes to port, then ten minutes to starboard, to keep the ships on the same base course. For the last few minutes of the turn to port, Bismarck was out of range of Suffolk's radar. At 03:00 on the morning of 25 May, Lütjens ordered the ship increase to maximum speed, which at this point was 28 knots. He then ordered the ship to circle away to the west and then north. This manoeuvre coincided with the period during which his ship was out of radar range; Bismarck successfully broke radar contact and circled back behind her pursuers. Suffolk's captain assumed that Bismarck had broken off to the west and attempted to find her by steaming west, too. After half an hour, he informed Wake-Walker, who ordered the three ships to disperse at daylight to search visually.

The Royal Navy search became frantic, as many of the British ships were low on fuel. Victorious and her escorting cruisers were sent west, Wake-Walker's ships continued to the south and west, and Tovey continued to steam toward the mid-Atlantic. Force H, centred on the aircraft carrier Ark Royal

and steaming up from Gibraltar, was still at least a day away. Unaware that he had shaken off Wake-Walker, Lütjens sent long radio messages to Naval Group West, based in Paris. These signals were intercepted by the British, from which bearings were determined. They were erroneously plotted, which kept Tovey's fleet on wrong courses for seven hours. By the time the mistake had been discovered, Bismarck was gone.



### **Aircraft Carrier Ark Royal with a flight of Swordfish overhead**

British code-breakers were able to decrypt some of the German signals, including an order for Lütjens to make for Brest. The French Resistance provided the British with confirmation, as Luftwaffe units were relocating to Brest to provide support. Tovey could now turn his forces toward France to converge in areas through which Bismarck would have to pass. A squadron of Coastal Command PBY Catalinas based in Northern Ireland joined the search, covering areas where Bismarck might be headed in her attempt to reach occupied France. At 10:30 on 26 May, a Catalina piloted by Ensign Leonard B. Smith of the US Navy located her, some 790 miles northwest of Brest. At her current speed, she would have been close enough to reach the protection of U-boats and the Luftwaffe in less than a day. There were no British forces close enough to stop her.

The only possibility for the Royal Navy was Ark Royal with Force H, under the command of Admiral James Somerville. Victorious, Prince of Wales, Suffolk, and Repulse were forced to break off the search due to fuel concerns; the only heavy ships remaining apart from Force H were King George V and Rodney, but they were too distant. Ark Royal's Swordfish were already searching nearby when the Catalina found her. Several torpedo bombers also located the battleship, about 69 miles away from Ark Royal. Somerville ordered an attack as soon as the Swordfish returned and were rearmed with torpedoes. He detached the cruiser Sheffield to shadow Bismarck, though Ark Royal's aviators were not informed of this. As a result, the Swordfish, which were armed with torpedoes equipped with new magnetic detonators, accidentally attacked Sheffield. The magnetic detonators failed to work properly, and Sheffield emerged unscathed.

Upon returning to Ark Royal, the Swordfish loaded torpedoes equipped with contact detonators. The second attack comprised fifteen aircraft and was launched at 19:10. At 20:47, the torpedo bombers began their attack descent through the clouds. While the Swordfish approached, Bismarck fired her main battery at Sheffield, straddling the cruiser with her second salvo. Shell fragments rained down on Sheffield, killing three men and wounding several others. Sheffield quickly retreated under cover of a smoke screen. The Swordfish then attacked; Bismarck began to turn violently while her anti-aircraft batteries attempted to destroy the incoming bombers. She evaded most of the torpedoes, though two found their mark. One hit amidships on the port side, just below the bottom edge of the main armour belt. The force of the explosion was largely contained by the underwater protection system and the belt armour, but some structural damage was effected, which allowed minor flooding.

The second torpedo struck Bismarck in her stern on the port side, near the port rudder shaft. The coupling on the port rudder assembly was badly damaged and the rudder could not be disengaged, locked in a 12° turn to port. The explosion also caused major shock damage. The crew repeatedly attempted to regain steering control. They eventually managed to repair the starboard rudder, but the port rudder remained badly jammed. A suggestion to sever the port rudder with explosives was dismissed by Lütjens, as damage to the screws would have left the battleship helpless. At 21:15, Lütjens reported that the ship was unmanoeuvrable.

### **Sinking**

With the port rudder jammed, Bismarck was now steaming in a large circle, unable to escape from Tovey's forces. Though fuel shortages had reduced the number of ships available to the British, the battleships King George V and Rodney were still available, along with the heavy cruisers Dorsetshire and Norfolk. Lütjens signalled headquarters at 21:40 on the 26th: "Ship unmanoeuvrable. We will fight to the last shell. Long live the Führer. The mood of the crew became increasingly depressed, especially as messages from the naval command reached the ship. Intended to boost morale, the messages only highlighted the desperate situation in which the crew found itself. In the growing darkness, Bismarck briefly fired on Sheffield, though the cruiser quickly fled. Sheffield lost contact in the low visibility; Captain Philip Vian's group of five destroyers were now tasked with keeping contact with Bismarck throughout the night.

The ships encountered Bismarck at 22:38; the battleship quickly engaged them with her main battery. After firing three salvos, she straddled the Polish destroyer Piorun. The destroyer continued to close the range until a near miss at around 39,000 ft. forced her to turn away. Throughout the night and into the morning, Vian's destroyers continually harried Bismarck, illuminating her with star shells and firing dozens of torpedoes, none of which hit. Between 05:00 and 06:00, Bismarck's crew attempted to launch one of the Arado 196 float planes to carry away the ship's war diary, footage of the engagement with Hood, and other important documents. The third shell hit from Prince of Wales had damaged the steam line on the aircraft catapult, rendering it inoperative. Unable to launch the aircraft, the crew simply pushed it overboard.

After daybreak on 27 May, King George V led the attack. Rodney followed off her port quarter; Tovey intended to steam directly at Bismarck until he was about 9.2 miles away. At that point, he would turn south to put his ships parallel to his target. At 08:43, lookouts on King George V spotted her, some 25,000 yds. away. Four minutes later, Rodney's two forward turrets, a total of six 16 in (406 mm) guns, opened fire, then King George V's 14 in guns began firing. Bismarck returned fire at 08:50 with her forward guns; with her second salvo, she straddled Rodney.

As the range fell, the ships' secondary batteries joined the battle. Norfolk and Dorsetshire closed and began firing with their 8 in guns. At 09:02, a 16-inch shell from Rodney struck Bismarck's forward superstructure, killing hundreds of men and severely damaging the two forward turrets. According to

survivors, this salvo probably killed both Lindemann and Lütjens and the rest of the bridge staff. The forward main battery was now effectively disabled, though it would manage to fire one last salvo at 09:27. One of Bismarck's shells exploded 20 feet off Rodney's bow and rendered her starboard torpedo tube useless—the closest Bismarck came to a direct hit on her opponents. The main gunnery control station was quickly destroyed. Lieutenant von Müllenheim in the rear control station took over firing control for the rear turrets. He managed to fire three salvos before a shell destroyed the gun director, disabling his equipment. He gave the order for the still active guns to fire independently, but by 09:31, all four main battery turrets had been neutralised.

By 10:00, Tovey's two battleships had fired over 700 main battery shells, many at very close range; Bismarck had been reduced to a shambles, aflame from stem to stern. She suffered from a 20° list to port and was low in the water by the stern. Rodney closed to 3,000 yds. point-blank range for guns of that size, and continued to hammer away at the battered hulk. Tovey could not cease fire until the Germans struck their ensigns or it became clear they were abandoning ship. Rodney fired two torpedoes from her port-side tube and claimed one hit. According to Ludovic Kennedy this claim, "if true, is the only instance in history of one battleship torpedoing another.

First Officer Hans Oels ordered the men below decks to abandon ship; he instructed the engine room crews to open the ship's watertight doors and prepare scuttling charges Gerhard Junack, the chief engineering officer, ordered his men to set the demolition charges with a 9-minute fuse, but the intercom system broke down, and so he sent a messenger to confirm the order to scuttle the ship. The messenger never returned, and so Junack primed the charges and ordered the crew to abandon the ship Junack and his comrades heard the demolition charges detonate as they made their way up through the various levels. In the meantime, Oels rushed throughout the ship, ordering men to

abandon their posts. After he reached the deck a huge explosion killed him and about a hundred others.



### **HMS Dorsetshire picking up survivors**

The four British ships fired more than 2,800 shells at Bismarck, and scored more than 400 hits, but were unable to sink Bismarck by gunfire. At around 10:20, running low on fuel, Tovey ordered the cruiser Dorsetshire to sink Bismarck with torpedoes, and sent his battleships back to port. Dorsetshire fired a pair of torpedoes into Bismarck's starboard side, one of which hit. Dorsetshire then moved around to her port side and fired another torpedo, which also hit. By the time that these torpedo attacks took place, the ship was already listing so badly that the deck was partly awash. It appears that the

final torpedo may have detonated against Bismarck's port side superstructure, which was by then already underwater. Around 10:35, Bismarck capsized to port and slowly sank by the stern, disappearing from the surface at 10:40. Some survivors reported they saw Captain Lindemann standing at attention at the stem of the ship as she sank. Junack, who had abandoned ship by the time



it capsized, observed no underwater damage to the ship's starboard side. Von Müllenheim-Rechberg reported the same assessment, but assumed that the port side, which was then under water, had been more significantly damaged. Around 400 men were now in the water; Dorsetshire and the destroyer Maori moved in and lowered ropes to pull the survivors aboard. At 11:40, Dorsetshire's captain ordered the rescue effort abandoned after lookouts spotted what they thought was a U-boat. Dorsetshire had rescued 85 men and Maori had picked up 25 by the time they left the scene. A U-boat later reached the survivors and found three men, and a German trawler rescued another two. One of the men picked up by the British died of his wounds the following day. Out of a crew of over 2,200 men, only 114 survived.

Bismarck was mentioned in the Wehrmachtbericht (armed forces report) three times during Operation Rheinübung. The first was an account of the Battle of the Denmark Strait; the second was a brief account of the ship's destruction, and the third was an exaggerated claim that Bismarck had sunk a British destroyer and shot down five aircraft. In 1959, C. S. Forester published his novel *Last Nine Days of the Bismarck*. The book was adapted for the movie *Sink the Bismarck!*, released the following year. For dramatic effect the film showed Bismarck sinking a British destroyer and shooting down two aircraft, neither of which happened. That same year, Johnny Horton released the song "Sink the Bismarck".

### **Discovery by Robert Ballard**

The wreck of Bismarck was discovered on 8 June 1989 by Dr Robert Ballard, the oceanographer responsible for finding the RMS Titanic. Bismarck was found to be resting upright at a depth of approximately 15,719 ft., about 400 miles west of Brest. The ship struck an extinct underwater volcano, which rose some 3,300 ft. above the surrounding abyssal plain, triggering a 1.2 mile landslide. Bismarck slid down the mountain, coming to a stop two-thirds down.



**Painting by Ken Marshall depicting ARGO exploring the wreck of the Bismarck**

## The Royal Historic Dockyard Chatham.

We decided to have a weekend away and plumped for the Royal Historic Dockyard as a place of interest for both my wife and myself. Car parking is free, and they have a very large car park.

We travelled down on the Friday and arrived at the dockyard at about 3pm, we thought we would save some time the next day by buying the tickets early, they are valid for a year.



A model of HMS Victory, built at Chatham

We had some time before closing and the dockyard looked very interesting so, decided to do the tour of the Ropery. This is an amazing building, a quarter of a mile long. We were the only ones on the tour, so given some excellent information from the very knowledgeable guide. I was interested to learn of the different fibres used, sisal, hemp (cannabis fibre), copra and coir (coconut fibre), they all have a different uses on the ship. Much of the equipment is original but still in use. HMS Victory (in dry dock at Portsmouth) was built at Chatham, all the ropes used in her rigging still have to be made in the old way at Chatham, Victory needs over 20 miles of rope so keeps the Ropery busy.



A view of the ships on display at Chatham.

We returned to our hotel, looking forward to the next day's return visit to Chatham.

Next day the first place we opted to visit was HM Submarine Ocelot (built 1961), only a few people are allowed on at once, so places need to be booked. This was very interesting and tricky to negotiate, due to the small round openings that lead from one section of the boat to the next. The guide spoke about life on a sub and many of the difficulties encountered by the sailors.

The dockyard has a very good exhibition on Submarines, to be found near the Ropery. In the smithy, they have many valuable items, paintings models and the like.

They also pay tribute to Chatham workers during First World War, a large percentage of the staff were women as the men were away fighting.





HM Submarine Ocelot

We then visited HMS Gannett (1878) a Victorian sloop and HMS Cavalier (1944) a WWII Destroyer. Two very different ships but interesting in their own ways.



The dockyard has a large Royal Naval Lifeboat Institution, exhibition with 15 lifeboats detailing the 170 year history of the RNLI, the display is housed in several of the old covered slips. Access onto some of the boats is possible via high walkways.





There is a very good Model shop on site where I managed to get several items to be used in various projects. There are also several other exhibits including a shed housing a section of police memorabilia.

The highlight of the trip was a visit to the tug boat TID 164, in private restoration and moored at the dockyard. One of the restorers came onto dry land and luckily we got into conversation with him about the TID tugs and the role they played as harbour tugs. I have TID 172, as a RC Model. He invited us on board to look round, the climb down was a little hairy, about twenty feet, and the iron rungs were slippery, and stepping onto the gunnel was interesting but manageable. There were three men on-board working and only too happy to stop to give us a guided tour. We spent at least 45 minutes on board.

The RHD Chatham a brilliant place to visit we will be going again before the end of the year.

## Black Park

Saturday afternoon car packed and ready for another Regatta at Black Park. Sunday was overcast and cool but no rain forecast. So off we go. A quick 40 minute drive saw us arriving at the country park at the back of Pinewood Studios. The intrepid duo of Dave and Sharon were already in attendance so we started to unload the car. Gazebo first then tables and models. We choose a spot that was flatter than last year so the less mobile of us could be better catered for. Lots of other model clubs started to turn up with familiar faces and some very nice models. These are all working models, not show models so they were rough ready and dust covered in some cases!

At 10 Tony and Lyn arrived with kids so we left them to set their bits up and Mike, Dave, Sharon and myself adjourned for breakfast in the café. Upon ordering food I decided to start calling Sharon Mum for the day, And like a real mum I wasn't allowed ice cream or sweets for breakfast, I had to have a full English. She did say I could use the chalk board but wouldn't let me write naughty words on it!

Upon arrival back at the gazebo, we had been joined by Terry, Jill and Dave Abbott. This made up the Luton stands occupants. We had a good selection of boats from fast brushless to sedate yachts. The first problem we had was Dave Abbotts landing craft was slow, upon further investigation it was found that a coupling had come loose, Tony M to the rescue.





Another 2 problems that lasted all day, the complete lack of wind for the yachts, and Pete's shorts constantly falling down, the latter causing merriment and consternation! It was noted that compared to last year they Regatta was about 70 boats down, so a smaller turn out this year! I would also like to point out that our club secretary also turned up!! Graham showed his face and really enjoyed himself.



Terry and Jill supplied some very nice ginger cake which was gobbled up over the day. Another big surprise was Tony Martin, as can be seen in the above picture, he multitasked! Tea in hand, transmitter sailing my Atlantis, he sailed the yacht the yacht for a couple of hours and even nodded off! Nice to see him relaxing.





As can be seen above.....no wind!



Looking down the line of club stands. Getting a picture of Dave is illusive! About 3pm we had Jim and Mary turn up, in Jim's usual style he wanted to buy a boat! Instead I let him have a sail with the Atlantis. He now wants a sailing boat!





Evidence that graham was present! Terry loves pictures being taken of him. Sharon (MUM) was pretending to read!



A good day was had by all and the sun even made an appearance about 1pm so it stayed dry and was nice and warm. As a side note Nikki couldn't let a dog pass by without a comment or going to stroke it! If she could have I think she would have dog knapped a few!! James gave a running commentary on the grand prix as it happened and his long arms came in handy while lifting boats in and out the water!