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NAJWIĘKSZY OKRĘT WOJENNY HITLERA ?

W artykule opisano historię być może najbardziej potężnego okrętu wojennego budowanego przez nazistowskie Niemcy i który być może miałby wpływ na przebieg działań wojennych na morzu gdyby jego budowa została zakończona. Prezentowany tu materiał powstał na podstawie badań autora w archiwach niemieckich i brytyjskich oraz książki pt. „Without wings, the story of Hitler’s aircraft carrier” wydanej przez autora w Wielkiej Brytanii w 2007 roku.

Słowa kluczowe: Marynarka Wojenna III Rzeszy, lotniskowiec, Graf Zeppelin, Bismarck, Gneisenau, oddział specjalny.

HITLER’S GREATEST WARSHIP?

This article looks at what was perhaps the most powerful warship ever to be launched in Nazi Germany. Drawing on my book ‘Without wings, the Story of Hitler’s aircraft carrier’ and other archived documentation, I use this opportunity to expand the ‘what if scenario’ put forward in my book by examining that brief period in the early days of the war when this one ship had the potential to alter the course, and maybe even the outcome of the war.

Keywords: Kriegsmarine, Aircraft carrier, Graf Zeppelin, Bismarck, Gneisenau, task force.

INTRODUCTION

Most people had never heard of Nazi Germany’s largest warship until the discovery of her wreck lying deep in the Baltic Sea in June 2006. Those people who knew of her existence probably had no idea as to her fate, as this was shrouded in the mystery of events that took place behind the Iron Curtain that descended over Europe shortly after World War II.

Launched in December 1938 at the Deutsche Werke shipyard in Kiel, she had a waterline length of 250 meters, two huge hangar decks and an upper deck that ran without obstruction for 244 meters of her length. From this description, you might guess

that I am talking about an aircraft carrier, the only aircraft carrier ever built in Germany and Nazi Germany's largest warship, the KMS (Kriegsmarine Schiff) Graf Zeppelin.

1. BEGININGS

It is difficult to believe that until just three years before *Graf Zeppelin's* launch, Germany had been forbidden from developing aircraft carrier technology; a result of the military restrictions imposed on Germany by the Treaty of Versailles in the aftermath of the Great War of 1914 – 18. However by the mid 1930's, following Hitler's repudiation of the 'Versailles Diktat', a new arms agreement was presenting Germany with much greater military freedom.

The Anglo–German Naval Agreement of 1935 would sanction the introduction of aircraft carriers into Hitler's Navy, *Graf Zeppelin's* subsequent rapid pace of construction owing much to the forethought of Germany's marine engineers; they had established the desired size, speed and number of aircraft to be carried by such a vessel in a study completed two years earlier, greatly accelerating the design process.

However, being aware that they had no real knowledge of constructing such a vessel, before beginning work on their own carrier, *Graf Zeppelin's* designers endeavoured to learn from other more experienced aircraft carrier operating navies such as Great Britain's Royal Navy and Japan's Imperial Navy, both of whom they visited.

Germany's engineers would learn little from the Royal Navy (perhaps because they had visited two very early examples of aircraft carriers, perhaps due to a lack of willingness to share information with an old foe), but their visit to the Japanese carrier *Akagi* would be much more successful. Here, Germany's soon to be allies would offer plans for essential carrier equipment such as the arrestor wire brake systems essential for stopping an aircraft returning at speeds of in-excess of 140 Km/h in just 30 meters. The Japanese would also offer their guests the opportunity to stay and study how they operated such a vessel, but this offer was refused - perhaps out of a desire to return to Germany and begin work, driven by the urgency with which the Kriegsmarine intended to expand.

Graf Zeppelin's keel was laid in December of 1936 and less than two years later she was floating in the Kiel Basin. However, she would still need more than a year before the construction of her superstructure was completed and all her machinery had been installed.



Fig. 1. *Graf Zeppelin* alongside the fitting out pier in Kiel in early 1940, She is approximately 85 per cent complete.

Once operational, she would be able to boast at having more horsepower than any other vessel in the German fleet, with her four steam turbines being capable of providing a total output of 200,000h.p. giving her the ability to go from a standing start to 20 knots in just two minutes, and an estimated cruising speed of 32 knots.

When the war began in 1939 *Graf Zeppelin* was no more than a year away from being put into commission. Had she been completed in time for these early days of the war, potentially her contribution to Germany's war effort could have been staggering. For contrary to popular belief, it was not the twin battleships *Bismarck* and *Tirpitz* that Great Britain's Royal Navy (and her allies) feared the most, but Germany's aircraft carrier. The Royal Navy was greatly concerned about the vast area that the ship and her aircraft could reconnoitre, an ability that made the location and destruction of some of the vital convoys of merchant ships heading towards the British Isles inevitable. This situation was made worse by the fact that the Royal Navy in these earlier days of the war consisted of elderly warships, and a Fleet Air Arm that operated obsolete aircraft, all of which were outclassed by those intended to be operated by the Nazi carrier - the famous Bf109 fighter, Ju87 Stuka dive bombers and the purpose built Fi167 torpedo bomber.

2. A MISSED OPPORTUNITY

Luckily for the Royal Navy and her allies, the value of the *Graf Zeppelin* was not recognised by the Kriegsmarine and construction only continued on the carrier for the next few months, work coming to a halt in April 1940 when she was approximately 85 per cent complete; with the advance of the German army throughout Europe seemingly unstoppable the decision had been taken to stop work on the aircraft carrier. For the time being at least, *Graf Zeppelin* was not seen as vital enough to the war effort, and besides, some of her equipment had been traded with Russia in order to secure the Eastern Front prior to the invasion of Poland, a trade that had caused a twelve month delay in the completion of the carrier.

Grand Admiral Erich Raeder (head of the Kriegsmarine) himself had suggested work on the carrier be suspended. This suspension would free up the materials and manpower needed for work being carried out on the submarines the navy needed and the politically favourable battleships (*Bismarck* and *Tirpitz*). On Raeder's orders the carrier was stripped of her weaponry and taken under tow to Gdynia in Poland.

Graf Zeppelin's move from Kiel was viewed as necessary because of the increasing ferocity of the war. There were concerns in Germany that the carrier would be susceptible to aerial attack; concerns that were well founded, as Great Britain's Royal Air Force (R.A.F.) was indeed planning to attack the carrier, though at this time for strategic reasons the attack could not be carried out.

One of the repercussions of *Graf Zeppelin's* lack of operational status was that when the battleship *Bismarck* departed on her one and only mission, she did so without the benefit of any significant aerial support; a situation that directly contributed to her demise.

It seems unlikely now that *Bismarck* would have been lost on her maiden voyage had *Graf Zeppelin* departed with the battleship (as had been the Kriegsmarine's original intention) on that first foray out into the Atlantic Ocean. With the addition of the carrier and her aircraft, history books may well have recorded an alternative outcome. *Bismarck's* story is well known; she had departed on her maiden voyage with one escort, the heavy cruiser *Prinz Eugen*. It was shortly after these ships broke out into the Atlantic Ocean on a commerce raiding mission that they encountered the British battle cruiser HMS *Hood* and the newly commissioned battleship *Prince of Wales* (*PoW*). On sighting each other, both groups of ships opened fire at extreme range, the German fire being particularly accurate. Shortly after action had

commenced, a shell from *Bismarck* pierced one of *Hood's* magazines, the ship exploded and quickly sunk taking 1400 British sailors to their deaths. Immediately after the loss of HMS *Hood*, *Prince of Wales* was forced to disengage owing to the malfunctioning of all but one of her main armament - the newest battleship in the Royal Navy, complete with the civilian technicians who were still onboard due to the hasty commissioning of the ship, retreating away from the battle. *Bismarck*, taking advantage of the *Prince of Wales's* misfortune, used this opportunity to disappear into the grey wastes of the Atlantic initiating one of the most famous pursuits in history, a pursuit that stretched across the Atlantic until *Bismarck* was cornered and sunk by overwhelming British fire power.

These six days in May 1941 had had the potential to become a defining moment in World War II. The presence of the Nazi carrier would certainly have altered some of the events that we today consider historical fact, her name inevitably being as well known (if not more so) as that of the *Bismarck*.

With *Graf Zeppelin* sailing in company with *Bismarck* and *Prinz Eugen*, it would seem most likely that in the early hours of the 24th May 1941, shortly after clearing the Denmark Straits, having been spotted by the British cruisers *Norfolk* and *Suffolk* late the previous evening and subsequently stalked at a distance by the use of *Suffolk's* newly installed radar set, the *Graf Zeppelin* would deploy the first ever German carrier borne air strike, targeting the two British ships - the proximity of which was known to Admiral Lütjens (*Norfolk* having exposed herself to the *Bismarck* late on the 23rd and *Suffolk's* radar transmissions being very detectable to the *Bismarck's* radar search receiver), the task force commander, stationed onboard his flag ship, *Bismarck*.

Though the weather conditions on the 23/24 May had been poor, by the early hours (4.30am) of the 24th they had improved enough to allow the approaching *Prince of Wales* to consider launching her seaplane (however contaminated aviation fuel prevented this), visibility being approximately twelve miles. These improving conditions would of course have been good enough for the Germans to begin their carrier operations also (if indeed they had not already done so).

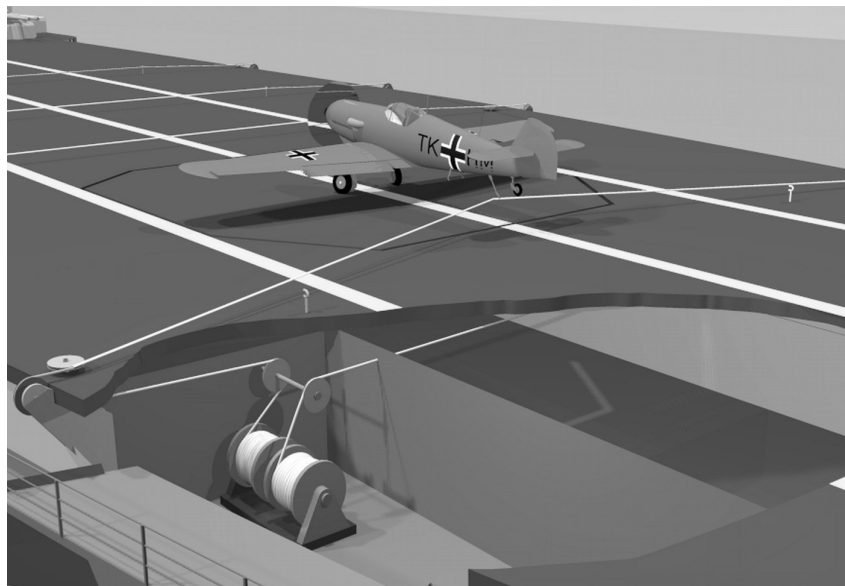


Fig. 2. A Bf109T returns to the carrier's deck. Image courtesy of Joseph Burke

Crucially to the historical events as we know them today, an attack at this time on the *Norfolk* and *Suffolk* by German carrier aircraft would have allowed the *Bismarck* task force to shake-off or destroy its pursuers.

For Admiral Lütjens, knowing that he had been stalked for several hours by British cruisers that were obviously acting as homing beacons for a more powerful fleet, it is also fair to assume that he would have taken this opportunity to order not just an air strike but to fly off some reconnaissance aircraft as well (probably one or more of the *Fieseler*s). With these spotter aircraft aloft, we can be certain that the *Hood* and *Prince of Wales* would have been spotted in ample time to have allowed Lütjens to fully consider his next move. Lütjens would in no way have been compelled to join action with them as actually happened in May 1941 - we know that *Prince of Wales*, though equipped with modern radar, did not have it switched on and thus sailed blind towards its foe, dependent on the radio messages coming from *Norfolk* and *Suffolk* to act as its guide (this was as a result of an order from Admiral Holland on board *Hood* who had declared that in order not to disclose the groups approach to the German ships *Prince of Wales*' radar should only be switched On when action became imminent so as to utilise its capability as a range finder for her main armament).

At this point in our fictitious history of World War II, one of two events could happen, both detrimental to Great Britain's struggle, the repercussions far reaching. The first scenario sees Admiral Lütjens, forewarned of the approaching British ships by his spotter aircraft, deciding to avoid a confrontation. Lütjens would have had ample time and opportunity to alter course and use his superior speed to escape. In this scenario, both the British battle cruiser *Hood* and Germany's battleship *Bismarck* live to fight another day. For *Bismarck*, roaming free in the Atlantic, there would have been ample opportunity to cause havoc. With *Graf Zeppelin*'s aircraft surveying the vastness of the Atlantic Ocean, providing protection from foes and searching for suitable targets, the collateral damage to Britain's convoys would have been extreme, more so than that caused by the preceding missions by Germany's pocket battleships and battle cruisers.

The *Bismarck* task force would have had a huge benefit over the ships being operated by Great Britain. All modern, each of these ships was capable of outrunning every one of their contemporary British rivals; The only British battleships capable of coming close to matching *Bismarck* in speed, armour and firepower being the new *King George the fifth (KGV)* class of which only two had been completed (*KGV* and *Prince of Wales*). As for aircraft carriers, though Germany was at a distinct numerical disadvantage, Britain's carriers were distributed throughout the various theatres of conflict around the world and besides, several of these were elderly slow vessels, not suited for keeping up with a battle group travelling at speed.

There was of course also the matter of British carrier aircraft; had the aircraft flown from the two modern British carriers that were actually present in the hunt for the *Bismarck* been unfortunate enough to locate their targets, they would stand little chance of making it back to their ships, for had the slow Fairy Swordfish of the Royal Navy's Fleet Air Arm survived the ravages of the combined anti-aircraft fire of the *Bismarck* task force, the odds of them surviving the long flight back to their carrier whilst being pursued by a flight of Bf 109s would have been almost nil.

The second scenario in our alternative history would witness Admiral Lütjens emerging from the Denmark Straits and opting to turn towards the British ships in order to make battle. During the action that follows, *Hood* is of course still lost, however the malfunctioning *Prince of Wales* is unable to disengage at will when her main armament malfunctions. With Admiral Lütjens receiving crucial information as to what lies over the horizon via *Graf Zeppelin*'s reconnaissance aircraft - other than the two cruisers and 4 destroyers (which are at best an hours sailing away) that Admiral Holland had detached some hours earlier in order to hunt for the *Bismarck*, there are no British warships within many hours sailing - history may well have recorded that he turned his

small party of ships for the final kill, savaging Britain's newest battleship with devastating fire from *Bismarck's* 380mm (15-inch) main armament whilst carrier aircraft covered his flank to ensure that none of the trailing British warships could come close enough to meddle. It is even conceivable, that at this point in the battle some of *Graf Zeppelin's* torpedo and dive bomber aircraft may have become involved in the mêlée, *Prince of Wales* inevitably sustaining further damage, if not complete destruction from the air - fulfilling her destiny to become the first battleship lost to an aerial assault on the open sea, a full six months before this actually happened at the hands of Japanese aircraft in the South China Sea.

The loss of the *Prince of Wales* at this time may have contributed more than we can possibly imagine for the Nazi war effort; Great Britain, standing alone in the struggle, her army minus much of its equipment having been evicted from first Norway and then Continental Europe 12 months before, followed by the great losses in personnel that went with the evacuation of Greece in the weeks before *Bismarck* had broken out into the Atlantic, coupled with the subsequent collapse on the strategic Mediterranean island of Crete just days after this most devastating of naval battles, but thus far her Empire still intact, may well have sued for peace. Indeed by February 1941 many in Germany believed Britain was ready to capitulate.

If the great series of defeats on land coupled with the naval disaster of May 1941 was not enough to tip British public opinion towards capitulation, the following six months may have done just that. Before the year was done, another modern British warship, the famous aircraft carrier *Ark Royal* was torpedoed and sunk in the Mediterranean by U-81 on November 13 and just twelve days later the battleship HMS *Barham* was lost with significant loss of life – to make no mention of the other warships of varying types and sizes that suffered damage and loss. Furthermore, without *Prince of Wales*, as 1941 drew to a close and the possibility of war with Japan loomed large on the horizon, the only effective capital ship of the Home fleet would have been *King George the Fifth* (the third ship in this class HMS *Duke of York*, would only just be embarking on her shakedown cruise in December of 1941). With the *Bismarck* still in existence and *Tirpitz* now complete, the Royal Navy would have been severely limited as to what ships they could have sent by way of a deterrent to Far Eastern waters; In reality, back in 1941 the Admiralty had of course sent the *Prince of Wales* and *Repulse*, but had *Prince of Wales* been lost the previous May this would of course not have been an option. In this situation the Royal Navy may have been compelled to send the four elderly 'R' class battleship as had been their original idea (it was Winston Churchill himself who had sidelined this plan, insisting the Admiralty despatch the *Prince of Wales* and *Repulse* to this theatre), heralding Great Britain's second, crushing naval defeat in just six months, and perhaps her exit from the war.

Of course the narrative above is thankfully a fictitious one, *Graf Zeppelin* was not present with *Bismarck* on that first fateful mission, and *Bismarck* was lost, British carrier aircraft playing an important role in her destruction.

Though *Bismarck's* loss had so graphically demonstrated Germany's need to possess an operational aircraft carrier, a shortage of steel coupled with the urgency to produce vast numbers of U-boats would prevent the necessary work from being carried out on *Graf Zeppelin*. It would take the near loss of *Bismarck's* sister ship *Tirpitz* to torpedoes dropped by British carrier aircraft early the following year before they would fully realise the necessity of having an operational aircraft carrier of their own. But even then it would still be the end of the year (1942) before the necessary dockyard space, manpower and materials could be found to complete the job.

3. THE END OF A GIGANT

Work had barely restarted on the *Graf Zeppelin* when a bitter argument between Grand Admiral Raeder and Hitler over the future deployment of the fleet once again brought her construction to a halt. Hitler had been complaining for a long time about the lack of successes achieved by the Kriegsmarine, and was now adamant that all the big ships should be withdrawn from service and scrapped - a demand that compelled Raeder to resign immediately. In his place Karl Dönitz (head of U-boat command) was appointed by Hitler to fill the role of Grand Admiral - signifying Hitler's desire that the Kriegsmarine should move away from operating the big ships.

Dönitz quickly realised Hitler's error in withdrawing these ships, and in a meeting with the Führer managed to convince him of the worth of keeping at least some of them in service. *Graf Zeppelin* was amongst those retained, but she was to withdraw at once to Poland as Dönitz had no immediate use for the ship, a decision that was influenced by the Kriegsmarine's chronic shortage of heavy fuel oil and manpower. Also a factor in her re-location was the fear that her presence at Kiel would have attracted still more attacks by the heavy bombers of the R.A.F.

Graf Zeppelin arrived on the river Öder in April 1943.

As Germany's military situation worsened over the coming years, the opportunity to use this ship never materialised and the rest of the war would largely pass Hitler's aircraft carrier by as she sat at her mooring on the river.

She would still be moored on the Öder in early 1945 when, with the advancing Russian army in sight, German troops once again boarded her. With the Soviet advance now clearly unstoppable and the capture of such a prize being completely unacceptable to the Kriegsmarine, the men who boarded her that day went not to defend her, but rather to destroy her. They rigged a series of explosive devices throughout the ship, and when the command was given detonated them by remote control, the ship settling into the shallow riverbed.

Just days after these events the war was over, and it would not be long before Soviet engineers set about trying to raise her, a feat they achieved by September 1945.

Unfortunately for the *Graf Zeppelin*, by 1945, she was of an obsolete design – and had suffered significant damage during her scuttling.

No longer the cutting edge technology that had been launched back in 1938, *Graf Zeppelin's* chance of glory had passed. She had had the potential for a brief period in the early years of the war to give the Kriegsmarine the lead in technology and firepower over the Royal Navy - a task force made up of *Graf Zeppelin*, *Bismarck* and *Gneisenau*, escorted by two heavy cruisers and a dozen destroyers being a phenomenally powerful force that could not fail to have altered at least some of the now historical facts of World War II.

Unfortunately for the *Graf Zeppelin*, the reality is that she played no significant part in Europe's history, her allure being in her unfulfilled potential and the numerous 'what if' scenarios endlessly discussed by 'Graf Zeppelin fanatics' such as myself.

CONCLUSIONS

Today, more than sixty years after those final dramatic days of the war, *Graf Zeppelin* would be completely forgotten had she been broken for scrap where she lay on the river Öder just outside the city of Stettin on Poland's Baltic coast. This after all was to be the fate of the other ships of the Kriegsmarine that had similarly ended in the shallows. However, for some reason Soviet officials took the decision to dispose of the re-floated *Graf Zeppelin* as a weapons target. Sceptics would say this decision came out of a desire to be ready for a potential conflict with Russia's recent allies - namely

Great Britain and America - who had operated many such vessels during the war, vessels which Russia had no experience in either operating or sinking.

In August 1947 *Graf Zeppelin* was towed out into the Baltic Sea, a sea from which she had never left. Here she would endure a series of attacks by Soviet air and naval forces before worsening weather conditions forced the premature abandonment of the weapons test, the ship being sunk immediately by torpedoes.

There is a degree of controversy as to exactly what vessel fired the final torpedoes at the ship, but whatever this vessel was, to it went the honour of sinking the last aircraft carrier of the twentieth century to be sunk by conventional weapons.

The *Graf Zeppelin* was located in 2006 lying in 88 metres of water. She rests with a heavy list over towards her starboard side (approximately 45°), superstructure down. Side scan images of her show that she is very intact, her port side towering more than 20m above the seabed, demonstrating the sheer size of this vessel – she is in excess of 30m wide. Her superstructure and bow are damaged, her bow significantly and a large hole has opened up in her flight deck just aft of her mid-ships elevator - one would presume as the result of the Soviet weapons test.

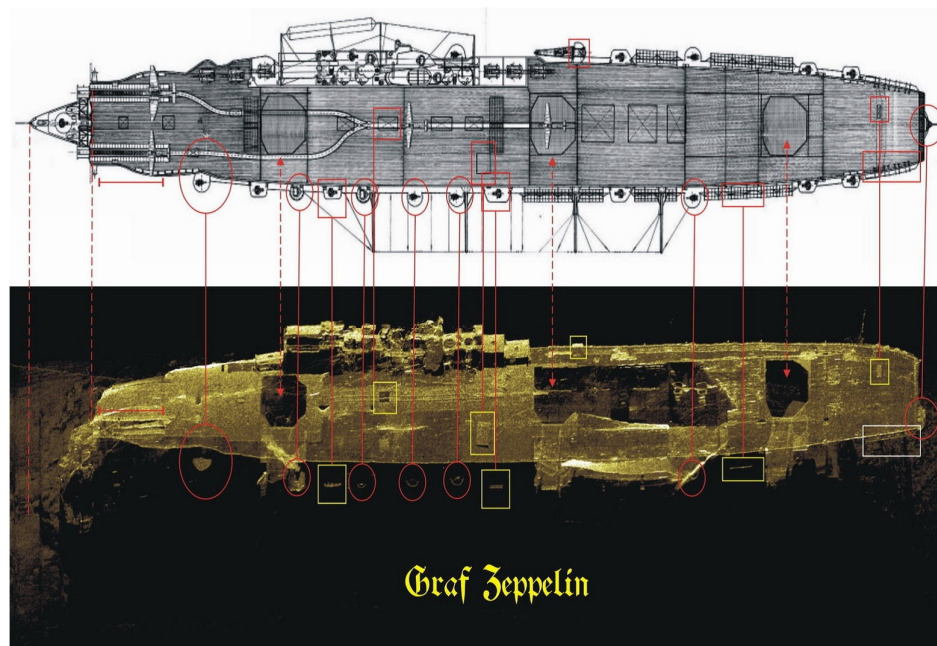


Fig. 3. *Graf Zeppelin* today .Image courtesy of the Hydrographical Support Squadron of the Polish Navy

The Polish naval team that located the wreckage of the *Graf Zeppelin* (the Department of diving gear & underwater work technology), have recently completed a survey of the wreck in conjunction with their Hydrographical Support Squadron and it is their sonar image that we see shown here. Sadly, for the time being at least, there is no possibility of any further diving expeditions to the wreck site. Even for the Polish navy access was a complicated matter. As she fell into Soviet hands at the end of World War II, *Graf Zeppelin* is technically a Soviet warship and this is the first obstacle that any hopeful visitor must overcome; the Russian Federation does not wish to have visitors to the wreck site, and it took much communication between Poland and Russia's Foreign Office before even the Polish navy could visit her. Secondly *Graf Zeppelin* lies very close to a Polish oilfield and the authorities there are not keen to have any unnecessary operations going on in the area.

Hopefully, one day at least, the wreck will become accessible to sports divers – let's remember that she is one of only two realistically dive-able World War II aircraft carriers in the world and the last to be sunk by conventional weapons – and *Graf Zeppelin* will become as well visited as wrecks such as the USS *Saratoga*, the only other dive-able World War II aircraft carrier, a ship that was similarly disposed of in preparation for the Cold War.

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Tytuł artykułu	Statystyczna ocena bezpieczeństwa dekompresji
Autorzy	Kłos R., Konarski M.
Treść / Zawartość	
Tytuły, streszczenia, słowa kluczowe, ...	
Warianty tytułu	
Języki	pl
Abstrakt	pl W artykule przedstawiono metody oceny bezpieczeństwa dekompresji. Zaprezentowano dwa rodzaje modeli matematycznych dekompresji: deterministyczne (przyczynowo skutkowe) i statystyczne.
Słowa kluczowe	pl dekompresja model deterministyczny model statystyczny model matematyczny porównanie
Ścieżka wydawnicza (wydawca, czasopismo, tom, numer,...)	
Wydawca	Polskie Towarzystwo Medycyny i Techniki Hiperbarycznej
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