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THE EFFECTS OF ALLIED AIR SUPREMACY
ON GERMAN SUBMARINE WARFARE

A memorandum by Admiral Doenitz
dated 8.6.1943.

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TRANSLATED BY:
A. H. B. 6 AIR MINISTRY
15.9.1947.

The war at sea is at present characterised by a decrease in the victories of our Navy against enemy merchant shipping. The principal exponent of this type of warfare, the submarine, is limited in operational capacity by the ever-growing strength of the enemys anti-submarine-defences and in particular by the enemy Air Force, using as yet unknown equipment and weapons.

Consequently, our hitherto successful tactics against convoys on the main enemy shipping routes in the North Atlantic have had to be abandoned for the time being, and our submarines are compelled to withdraw to sea - areas which are not so strongly defended until such time as effective counter-measures against the new enemy weapons have been discovered. It is to be hoped that the submarine will eventually regain its striking power: in the meantime we must expect a decline in submarine victories, consequent on the necessity of evacuating the principal area of operations in order to avoid unbearably high losses.

This situation has been appreciated by the enemy. Whereas until a few weeks ago official pronouncements described the general war situation as being everywhere favourable, with the exception of the shipping war which hampered all enemy plans and constituted the gravest menace for the future, successful defensive actions against German submarines and the resulting gain in merchant-shipping tonnage now form the most important news concerning the conduct of the war.

This fact and the evolution of the war until now reveal the drastic effect which our operations against merchant shipping have had on the overall position of the enemy. This effect can only be assessed in the light of experiences during the first World War, and of the fact that only relatively weak forces have been employed against the Reich in the present war. Conclusions may however be drawn from the fact that approximately 9,8 million tons of steel have been used alone by the anglo-saxon merchant-shipping fleet of 15,3 million G.R.T., an amount that would satisfy the overall-requirements of the German Navy (sea going and on shore) for five full years, and also from the fact that in the U.S.A. merchant shipping requirements planned for 1943 have taken up 1/8 of the total steel production.

Even greater are the figures of men and materials engaged on active anti-submarine operations; the elimination of the submarine menace would certainly release an enemy war potential of incalculable size for operations on other fronts. Consequently, as far as the naval situation is concerned, - apart from the effects on the ground and air situation, - considerable light naval forces would be available for operations against our own sea - communications: the resulting enemy supremacy in German coastal waters would be more than a match for the already inadequate German defences, so that Norway, for example, dependent on sea-borne supplies, could be neutralised without an invasion by means of a blockade.

The maintenance of anti-shipping warfare is therefore an important factor in the German conduct of the war. Measures necessary for the regaining of submarine striking power are at present being taken or under preparation. Even if submarine warfare cannot fully overcome the present difficulties and win the same successes as formerly, all possible efforts in this direction must nevertheless be made, since our operations will destroy or tie down a large part of the enemy war potential.

The employment of the new mine-fuse-apparatus is expected to produce the increase in sinkings that is so urgently needed. This weapon cannot be effectively used by naval forces alone; they must be supported by strong Air Force elements in maritime areas beyond the range of the surface craft. A well-planned mine-offensive carried out by the Air Force and Navy in close co-operation could seriously interfere with the sea lanes, particularly those around the English Isles along which at present a huge volume of sea traffic sails in comparative immunity from attack.

The operational employment of the German Air Force in sea warfare has, apart from minelaying operations, been very slight up till now because of the

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great demands placed on our air units for other tasks and because of the rapid shrinking of the small Naval Air Forces available at the beginning of the war.

The fact that the German Air Force has been slowly forced back onto the defensive by the growing material superiority of the enemy is largely responsible for the present position, in which Germany is waging the War at sea practically without an Air Force. The enemy, on the other hand, confronts us with large Air Force formations specially trained and experienced in sea warfare, and equipped with weapons brought to a high level of perfection.

The air sea warfare waged by our Allies, Italy and Japan, has also differed from ours in its development. Whereas the Italian Air Force after initial successes at the beginning of the war was slowly paralysed by the increasing material and numerical superiority of the enemy, the excellently trained and equipped Japanese Naval Air Force has affected the whole course of the sea war in South East Asia and is continuing to do so at present.

The German position, on the other hand, is characterised by:-

- (1) the absence of operations against merchant shipping,
- (2) the lack of extensive long range reconnaissance over sea, and of adequate protection in coastal waters for our own shipping and submarine movements,
- (3) the lack of torpedo bombing units ready for combat, and
- (4) the inadequacy of the training given in air sea warfare.

Experience gained until now has clearly shown that the Air Force is destined to play an important part in sea warfare. While in the open sea sea supremacy is no longer possible without simultaneous air supremacy, in coastal waters the Air Force has become a weapon of decisive importance. We have experienced this ourselves during operations in the Mediterranean, (favourably in Crete, and unfavourably in Tunisia), and also in the North Sea.

During recent weeks remarkable successes have been achieved in bombing attacks by single aircraft operating off the Spanish coast. It is also known that our air attacks on ports and wharves, have had considerable indirect effect on enemy sea power.

Even more instructive have been the lessons to be learned from the employment of the enemy Air Force. The British have so far deliberately directed their heaviest attacks against sea communication lines, and even when advancing with their land forces concentrated on throttling sea supply channels. The bridgehead of the Axis Powers in North Africa was lost because:-

- (a) our supply lines could no longer be effectively defended against the enemy air attacks
- (b) enemy supply lines in the Mediterranean could not be disrupted.
- (c) extensive long range reconnaissance was not available to direct our numerically strong submarine forces against convoys in the Atlantic.

The non-existence of a Naval Air Force has gravely affected submarine warfare, which is the most vital task of the German Navy. In view of the fact that the main difficulty experienced hitherto has not been the submarine attack itself, but the location of the objective, it is clear that adequate long range reconnaissance would have multiplied our successes.

The enemy has employed his Air Force with considerable effect against our submarines, and at the present time devotes a large proportion of his effectives to the protection of the convoy routes in the Bay of Biscay. Due to these measures, enemy successes have grown to such an extent that the enemy aircraft is the most

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dangerous opponent of our submarines.

The crisis in submarine warfare is therefore due to enemy air supremacy in the Atlantic, and we must remedy this defect in the conduct of the war at sea as quickly as possible by providing our submarines with relief and better reconnaissance.

No military decision can be expected as a result of dislocation and terror-attacks of the German Air Force on England. The reaction of our population to even the heaviest air attacks has proved that as long as morale remains unbroken, such attacks tend to strengthen the defensive spirit of the nation. Particularly where the British character is concerned, little psychological effect will be achieved by isolated air attacks. The British are far more disturbed by losses of naval and merchant shipping, in which they rightly see a threat to their very existence.

Our aim must therefore be to exploit the enemy's dependence on sea - communication lines by employing all aircraft not urgently required for the defence of the European position against enemy sea power, that is against ships and ports.

(Signed) DOENITZ.

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