August saw a return to the areas west and southwest of Ireland, although the targets were not the ships on the main cross-Atlantic convoys but either those to and from west Africa – OS and SL – or the Gibraltar traffic. Four operations were mounted and there was a considerable commitment of effort, with around 35 boat-days being devoted to each one. As a result the two longer-range convoys attacked lost 23 000 and 31 000 tons of shipping respectively. The only complete failure occurred west of Gibraltar with convoy HG69 which, despite being cued by a German agent in Spain, suffered no losses whatever.

September repeated the same pattern as August inasmuch as there were two Gibraltar convoys attacked and two others. But this time the others were east and southeast of Greenland where two westbound convoys, SC42 and SC44 were set upon. The latter proved reasonably profitable from the German perspective, losing some 26 000 tons of ships but it was SC42 that was to present Dönitz with his best result of 1941 with 16 vessels of 68 000 tons being sunk. The relevant factors in this would appear to have been a large number of submarines (17) combined with a weak escort and a convoy close to the Greenland coast whose manoeuvres were confined by lack of sea-room. The Gibraltar convoys attacked were again profitable in number of hulls if not tonnage.

October saw the mix of cross-Atlantic and Gibraltar convoys repeated, although this time with much less success. Again the Gibraltar convoys repeated the pattern of a small tonnage for the number of hulls, with one operation against an outbound convoy failing totally. Another operation 600 miles west of the North Channel against the eastbound SC48 yielded nine hulls of 51 000 tons, a good result. But the month was to end with two failures, both about 500 miles west of Ireland and at the end of the month.

November, too, saw declining German fortunes. In early November SC52 was attacked off Newfoundland but, despite the efforts of 13 submarines over five days, a mere five ships of 20 000 tons were sunk. Two failures also occurred, ONS33 losing nothing in mid-Atlantic and a further operation at the end of the month north of the Azores also having no result for the Germans.

What trends can be picked out in all this to aid comprehension of the whole; to see the wood for the trees? Initially, perhaps it is best to start with a non-trend, the loss of submarines during *Rudeltaktik* operations. The only general observation that can be made here is that there are no discernible patterns at all, apart from losses being very slight

indeed. On average, there were hardly any at all, and quite often long periods without a loss. The paucity of such occurrences almost suggests them to be random events. Nevertheless losses do occur most notably in March with the losses of the experienced captains, Kretschmer, Schepke and Prien. Similarly, although outside the period of main analyses, the five losses to the escorts of convoy HG76 in December are noteworthy. These specific actions certainly indicate that there was no fundamental lack of skill on the part of the British escorts; perhaps what they do suggest is that rarely were escort resources so generous as to permit the time required to make a kill more likely.

The number of submarines engaged rose slightly, although the figure drops back slightly towards the end of the period. What is more marked, however, is a tendency for the total number of boat-days devoted to operations to rise; from under 10 in February to figures in the twenties and thirties being the norm from June on for the rest of the year.

Results, too, show a number of trends. Once the early months of the period are over, there is a tendency for the number of ships sunk per operation to be in the upper half of the single-figure range, provided contact with a convoy is made. In one particular case, the action against SC42 in September, even this figure is exceeded by a handsome margin. However, this situation is not reflected in the tonnages sunk per operation which show a marked decline in the second half of the year, relieved only again by September's results. This suggests two things: the growing strength and competence of escort forces and the Gibraltar factor.[44] The former should be noted as important and denoting Allied progress; the latter needs further explanation. In the second half of the year, there was a trend away from the main cross-Atlantic convoys towards attacking those between the UK and Gibraltar. Some of the reasons for this have been described above.[45]

The central point remains, however, that whether individual victims were Gibraltar-bound short-sea traders of 1500 tons or ocean tramps of 6000 tons south of Iceland, convoy contact was all-important. Once contact was made, a number of sinkings were almost certain to ensue. Referring back to the productivity flow diagram (Fig. 8.4), the CA (Closure and Attack) stages were likely to be quite frequent and easily repeatable.[46] Perhaps more to the point, they were likely to absorb comparatively little time. A complement to this was that the R (Reconnaissance) stage became even more critical to the ultimate success or failure of the operation. To take a *leitmotiv* well out of its original context – 'only connect'.[47]

The 1941 analysis

What is clear is that 1941 fulfilled neither the promise implicit in a substantially larger fleet of submarines nor Dönitz's aspirations for them. However, attempting to unravel the reasons for this is far less easy. Perhaps the first thing to do is to dismiss immediately the idea that there is any simple monocausal explanation for this phenomenon of failure. The simple statement that the Germans did not win the Battle of the Atlantic in 1941 covers a number of complex systems at various levels of strategic politics, warfare and military economics. Nor did everything of significance occur at sea: the White House, 10 Downing Street, the Admiralty's OIC, the huts of Bletchley Park, the radar laboratories of navies and air forces, and the shipyards of several nations were all important locations too. The other problem is that in all these places and concerning all relevant subjects little of significance stood still, even over the relatively limited period of a single year. As Paul Sutcliffe observed in 1993:

> it was rare for the complex Battle to change without other components changing separately, but concurrently. These changes might stem from the introduction of new Allied equipment, new Allied tactics, increased force levels, or new German equipment or tactics, perhaps in response to an Allied change. In practice, it is exceedingly difficult to disentangle the effects of the two or three changes all occurring at roughly the same time ... the situation was not static long enough for a useful data sample to be obtained.[48]

This encapsulates well one of the central problems in attempting to understand the Battle of the Atlantic in general. Rarely was this so evident as in 1941. However, it might be argued, Sutcliffe's remarks generally refer to the tactical and operational levels at sea – not to the other levels and aspects mentioned above. From an analytical point of view, this would appear a gloomy prospect – can nothing be done?

It should be obvious from some of the description and subsidiary analyses carried out earlier in this chapter that all is very far from being lost. Although it is unlikely that all factors can be totally teased out of the tangle, some progress can be made in sorting them out. At the very least it may be possible to draw a clearer perspective on some of the factors at the time and explanations proffered since then.

The How and Why of 1941

There are a number of mechanisms in operation in 1941, not all of them immediately obvious. It is also very difficult, if not impossible, to rank them in any order of importance. Perhaps this should not be attempted. The factors which accrue to German advantage are: The growing number of submarines and the development of the *Rudeltaktik*.

But significant as both of these were, they were greatly outnumbered by the points working in Allied favour:

- The largely covert assistance given to the British by the Americans
- The diplomatic constraints imposed on the Germans by a policy of not provoking the Americans
- The diversions both strategic and tactical of submarines from the main task
- The extension of the convoy system both geographically and taking in more ships
- The acquisition of near real-time decryption of German signals by the British
- Increasing numbers and skills of both escorts and aircraft.

There were some themes to the year, too, some exhibiting long-term trends, others cyclical. A knowledge of these allows a better understanding of what happened during the year. Some of the more important of these were:

- The trend away from the sinkings being dominated by those of independent ships to ships in convoys
- The attacks on convoys becoming predominantly those conducted using the *Rudeltaktik*
- The *Rudeltaktik* succeeding once it had gained contact but sometimes having difficulty in achieving contact
- The drop in submarine productivity being well established by the second quarter of the year
- Although there were many variations in the timely availability of Ultra, it was at its best in the second half of the year.

The most interesting phenomenon is the productivity drop starting in March. This can largely be attributed to the submarine move westwards, caused in part by a search for an area in which targets might be more readily found; in part because of a failure to connect with convoys in the areas of the northwest approaches to the United

Kingdom and also because of the pressure being brought on submarines in those areas by British aircraft and surface escorts.[49] This operational-level deployment was sufficient in itself to cause a significant drop in productivity but there were consequent factors which made the position even worse.

The first was inherent in the new areas chosen remote from any chance of air reconnaissance. In any case, even when this apparent asset had been present earlier in the year, it was far from being a guarantee of success. This had occurred as early as February and March when operations against an unidentified convoy and OB292 respectively had both failed. These are noteworthy for occurring relatively close to land and both having the advantage of air reconnaissance and some signals intelligence. Further, the British were not able to access German signals in a timely manner at this point. These two failed operations are significant because they indicate that *Rudeltaktik* operations were capable of failing despite the Germans holding several advantages and the British virtually none.

How much more difficult, therefore, from the point of view of finding targets, were those operations of the late spring conducted in much wider waters? Here, with less frequent signal intelligence, no air assistance and a greater area to sweep out, the successes were much harder-earned. The British, with growing assistance from the Americans, were, however, about to make Dönitz's task even more difficult in two different ways, both of which became effective at about the same time. A growing realisation dawned on the British that the policy of taking ships whose service speeds were in the range of 13–15 knots out of the convoy system was thoroughly mistaken. The rationale which had informed this decision was not totally unreasonable. It was certainly the case that confining these ships to convoys, the fastest of which could scarcely lurch up to a giddy 10 knots, meant that their overall capacity was severely constrained. The acceptance of the greater risk was felt to be offset by their ability to make more round-trip voyages over a given period of time. Experience, however, did not vindicate this policy and during the period April–June there were many independent ships sunk, of which a significant number operated at this speed.[50]

Despite the imperfections of the data now available, it is relatively easy to see that bringing such ships back into the convoy system was clearly advantageous, as has been acknowledged.[51] What is far less easy is attempting to produce a similar numerate analysis of the impact of Ultra on the Allied campaign in 1941. There are a number of reasons for this. Firstly, decryption must not only be carried out to be of assistance but it

must also be done in a sufficiently timely fashion. Data exists to suggest the general time-lags for specific signal-decryptions but it is not possible to follow this all the way through the intelligence-operations chain. This could be quite variable and it is difficult to produce a single criterion of timeliness. Patrick Beesly suggested, some years after these skills were practised, that the figure was in the order of 48 hours.[52] This may have been a little generous to the British side and although it may have been adequate when lines were being formed up and convoys were still some hundreds of miles distant, the time-tolerance was probably far more critical as the process of search and passage developed. To truly gain an insight into this it would be necessary to examine the decision process, particularly within the OIC in some detail. This is unlikely ever to occur now as not only are most, if not all, of the participants no longer alive but many of the best evidential records have been destroyed. In any case, as has been stressed, by those there at the time, much business was done orally.[53]

In any case, there is some evidence to suggest that attempts – often successful – were made at evasive routeing before near real-time Ultra became available. This presents a paradox. Most of the credit has been claimed for the period of 'instant Ultra', that is, in the second half of the year, but it may well be that it was the patient application of the information gleaned from signals that were broken days, weeks or even months after their immediate operational significance had expired that was at least as important as the ability to know immediately what Dönitz's game plan was. It cannot be suggested that the effect of fast intelligence was even neutral, let alone negative, but the far less seductive accretion of old operations created the knowledge of the U-boat framework in terms of doctrine, method, performance and plans that enabled the products of near-immediate decryption to be used to best effect. It was this combination of ancient and modern and the structures to use them that made Ultra such a powerful weapon.

The million-ton myth

In the literature dealing with the Battle of the Atlantic, there has been an assertion made over several years which is fairly specific about the consequence of Ultra in the second half of 1941 and expresses this in terms of tonnage that would have been sunk had it not been for Ultra. This has taken the form of general statements about the effectiveness of Ultra in the second half of 1941 as well as the more precise claims.[54] Perhaps the broadest of these come from one of the loftiest authorities:

> In 1941 Ultra had enabled the Navy almost to drive the U-boats back to their bases, such were their losses.[55]

This quotation is given to indicate the extent and pervasiveness of the ideas about Ultra which are now accepted. Without, however, considering the attribution of cause to effect, it is worth noting that not only were the U-boats never even close to being driven back to their bases, but it was only in one convoy battle, that against HG76, that they suffered significant losses.

Before moving on to the specific numerate claims, it is also worth noting another example of the persistence of the perception of Ultra as the sole cause of the 1941 turnround:

> Ultra made its greatest contribution in the winning of the Battle of the Atlantic and at least in 1941 played a decisive role by itself in protecting British convoys. The results speak for themselves.[56]

The results certainly are evident but there is no explanation whatsoever of how they were reached. All, apparently, was Ultra.

More helpful, however, in terms of analysis, are the several statements suggesting that Ultra was responsible for the saving of some 1.5–2 million tons of shipping in the second half of 1941. This is stated in a number of places.[57] More helpful, still in attempting to understand this claim, is F. H. Hinsley's article which in part relates the average monthly sinking figures in the last six months and those of the four months which preceded them:

> In this period [the second half of 1941] their sinkings were reduced to 120 000 tons a month. This has to be compared not with the monthly average of 280 000 tons they had sunk in the four months up to June, but with the sinkings they would have achieved with their greater numbers in the next six months had Ultra continued to be unavailable. It has been calculated that some 1.5 million tons of shipping was saved; and even if Britain's essential imports had not otherwise been reduced to a dangerously low level, the intermission was invaluable in enabling her to build up her reserves of merchant shipping and develop her anti-submarine defences.[58]

So now there was a numerate rationale for the claim. But does it stand up to close examination? The tonnages actually sunk in the two periods are certainly correct, but what about the numbers of German

submarines? Perhaps it is best to start by working from the tonnage figures that are known and surmise what order of increase in submarine numbers is being sought. The difference quoted between the two periods is some 130 000 tons and the notionally saved increment is 250 000 tons (on a monthly average basis). This would therefore suggest that the increased number of submarines would have achieved a monthly average totalling 380 000 tons. This is a relatively modest increment suggesting an improvement of some 52 per cent over the first-period performance.

There are probably three ways of measuring submarine numbers: grand total, operational submarines (*Frontboote*) and those at sea. For the two periods, the average numbers are shown in Table 8.2. Both grand total and numbers at sea produce a good correspondence with the notional Ultra advantage and this would seem to vindicate the 1.5 million tons figure. However, this would ignore a number of factors which tend to vitiate this argument. These would include:

- The significant number of losses in the first period of independent ships, not repeated thereafter
- The general shift to the west of operations in the latter part of the first period and thereafter, leading to marked losses in productivity because of longer passage times

These are both important points and they have been taken into account to some extent already in the literature.[59] However, there are complications, especially with the second. By working in the wider Atlantic, in which there was not even a hope of air reconnaissance, the problem of finding convoys became much more difficult, even without the activities of Bletchley Park and the OIC. Ironically, the best illustration of this comes from the pre-Ultra period when a number of submarine operations in February and March failed to make contact despite being in much easier waters and having the advantage of both

Table 8.2 Growth in the numbers of submarine

	Total	*Frontboote*	*At Sea*
March–June	152	26	22
July–December	240	67	33
Ratios	57.8%	158%	50%

Note All numbers averaged.

air reconnaissance and German Sigint. This suggests that there could well be a natural failure rate even without any specific British effort to induce it.[60] To suggest that this consideration no longer applied after Ultra became available is dubious; to attempt to quantify the respective and relative contributions of the basic problem and its complication by Ultra would be both complex and probably unsound on the evidence likely to be available now. But it is extremely dubious to attribute German failure to connect with convoys in the latter part of 1941 entirely to Ultra.

The extension of the convoy system more generally than the belated inclusion of the 13–15-knot ships, too, worked against the Germans. Now, independent shipping became even rarer than it had been before, reducing the non-convoy contribution to the tonnage figures. It is also useful to address another aspect of these statistics at this point: the claim that Ultra's true worth could be measured in the second half of 1941 by the enormous damage wrought on convoys on those occasions when Ultra had not been successful. The leading case for this must be convoy SC42 in September which suffered extremely heavy losses, but here as well as cryptographic delay, there were some other factors which led to the largest loss from any 1941 convoy. Weakness of the escort, the number of submarines deployed against this convoy and a lack of sea-room were all cogent factors. Apart from this case, the assertion that convoys contacted suffered higher losses than hitherto cannot be supported by the statistics.[61] In fact the opposite was true, with a reduction being seen. When the losses of merchant ships are considered against the deployment of submarines in terms of numbers and days involved in any given operation, then there is a marked drop in the number of ships sunk. When February–June and July–November are considered there is a drop to about two-thirds of the previous efficiency in the latter period. This might suggest greater difficulty – or at least a longer period being spent in the closure process – but equally it could also indicate a growth in the strength and competence of escorts. The statistics are even more persuasive where tonnage is considered, the drop here being from 2328 tons per boat-day in an engaged operation to 846 tons per boat-day for the latter period.[62] This is a marked divergence and is almost certainly caused by the 'Gibraltar phenomenon'.

Because these often had smaller ships sailing on them, rather than the ones on the cross-Atlantic and African routes, there was a tendency for their submarine victims to be of lower tonnage. This was by no means compensated for by sinking more of them: it took just as much

effort to sink a 2000-ton ship as it did a 7000-ton one. Although from a strict comparison of ship-construction and explosive energy, they were probably easier to sink, the critical path was the submarine's problem of lining up an attack and carrying it out. Two further reasons suggested that this was probably, if anything, more difficult, than for a larger ship. Firstly, the smaller length and draught of the target made them a more exacting problem with reduced tolerances and thus more liable to failure, even were their true dimensions to be evaluated correctly. Secondly, such correct evaluation was rarely made. There was a tendency among submarine captains – and not just those who were chronic over-claimers – to consider their targets much larger than they actually were on this particular route.[63] So not only was there the tactical consequence of more difficult torpedo attacks, but there was also the operational point that Dönitz was under the impression that his submarines were doing much better in tonnage terms than they actually were. Whatever the detailed reasons, the overall result did not work to German advantage.

This does, of course, raise the subject of the German motivation for the switch to the Gibraltar traffic rather than either the cross-Atlantic or African routes. Could this have been indirectly caused by Ultra in the sense that continuing failure in other areas forced the decision to go for the less rewarding (in actual as opposed to perceived tonnage terms) and harder-fought Gibraltar route? A study of the literature on the German rationale that exists in English suggests that there was no indirect influence at work here.[64] Indeed, the tension in relations with Berlin, in either the indirect shape of the highest command or, more obviously, that of *OKM* on the subject of submarines deployed to the Mediterranean, provided a more cogent rationale for the selection of the Gibraltar convoys at the operational and, to some extent, the strategic level. By choosing these targets Dönitz was able to claim that he was addressing the main concern of *OKM* – British forces in the Mediterranean – whilst retaining his forces in the Atlantic for what he regarded as the more important matter in the longer term – tonnage warfare.[65] Nor indeed, do there appear to have been any claims made for this rationale post-Winterbotham.

1941: an Allied victory – but why?

In retrospect it is very clear that 1941 was not a good year for Dönitz and his U-boats: the result went very clearly in favour of what started the year as a *de facto* and incomplete partnership and ended as a *de jure*

alliance. Perhaps even more important than the coming of a legal framework and the growth of habit, if not custom, was the deepening and broadening of that relationship during the year and the promise of that process being carried yet further in the future. These were not just fine words and sentiments, for some large schisms lay ahead, but they were of the type that were associated with a proper relationship and not just the casual and incomplete couplings that characterised the so-called Axis.[66] So 1941 saw the first true Allied effort – and the first success.

There can be little doubt about this judgement as far as the Battle of the Atlantic is concerned. Dönitz's forces increased throughout the year but became less effective. Even if nothing changed, common logic suggests that an improvement, not a deterioration, in performance should have followed. Certainly the analysis of other periods in the conflict suggests a general relationship between effort available and results achieved, but there were exceptions, although rarely sustained over long periods.[67] However, the discrepancy between the two halves of 1941 is very marked indeed and the place where the apparent break falls has led to a general acceptance of a monocausal explanation for this dramatic turnround in Allied fortunes.

If one very specific manifestation of this view – the saving of between 1.5 and 2 million tons of shipping – is examined, there are two comments that should be made. The first is that this is, of course, a hypothetical figure: it comes not from reality but from the speculative projection of reality. As such it is a perfectly legitimate construct to warn decision-makers at the time what the outcome of not taking certain actions might be: 'If we do not improve our overall ASW performance over the next six months, then an additional X.x million tons of shipping are likely to be lost.' In that context the specific figures derived from submarine numbers are quite feasible. However, as a post-event tool of analysis, this construct is not only somewhat crude but also wrong.

This lack of refinement is not just intellectually unsatisfying but positively dangerous, in a particular and very plausible scenario – one in which a number of salient causatory components change, not just one. It is hoped that this chapter has demonstrated that in this case there are several of these factors, that they sometimes interact in a complex fashion with others and it is difficult, if not impossible, to attribute quantitative contributions to individual causes.

As an example, it is useful to reconsider the German move westwards in the spring and summer of the year. This was 'caused' by the greater

concentration of surface and air forces by the British in the waters west of the UK and Ireland and 'constrained' in its westward extension by the increasingly robust diplomatic and military actions taken by the Americans in the western Atlantic. Ocean reconnaissance became more difficult 'because' of the open ocean spaces in which operations generally occurred and the lack of air reconnaissance. A further 'consequence' was a loss of submarine productivity, simply brought about by the longer passage-times. At the same time, the convoy system was extended in three ways: taking in more ships, more routes and protecting them more strongly – an important 'factor'. During part of the period, cryptographic improvements occurred and as a 'result' not only was the general understanding of the German submarine system improved but it also become more likely that convoys could evade concentration of submarines. This is only illustrative and there are other instances.

What should be clear from this it is that is very difficult indeed to attribute a single cause to what happened. It is suggested that it is far more difficult still to adopt a single reason for what did not happen. Thus the claim that 1.5–2 million tons was saved by Ultra in the second half of 1941 cannot survive proper scrutiny.

But neither does this mean that Ultra had no utility at all. It did enable – when available in a timely fashion – more reliable evasive routeing of convoys. But this sometimes occurred even before Ultra, although less successfully and, in any case, it was perfectly possible for the Germans to fail to find convoys, even when no Ultra was helping the Allies and they had the advantage of their own intelligence and even sighting by aircraft to assist them. Ultra was a major factor in the events of 1941 but it was not the only one and it is now all but certain that it was not responsible for saving shipping in the order of 2 million tons.

9

Case Study II – Mid-1942 to Mid-1943

By the middle of 1943 – in fact by the end of May – an important point had been reached in the Battle of the Atlantic. This period saw the end of the large-scale convoy battles which had characterised much of the previous year and although Dönitz at the time saw his withdrawal from such tactics as a temporary state of affairs while he regrouped and re-equipped his battered submarine fleet, U-boats were never again to attain the same degree of actual as opposed to potential threat as they had during several prolonged periods in the last four years of war. But this was a judgement which could only be made with the benefit of hindsight enjoyed by historians and, to a lesser extent, operational analysts. The Allied path in the Atlantic from mid-1943 onwards for the remaining years of war was still to be a tough one and sometimes even hard-fought. 1943 thus has a Janus-like quality and two stories about it come together in the middle of the year. The first concerns the causation of the climax reached in May; the what, how and why of that remarkable outcome, and in this the role of Ultra forms a part of the account and analysis. The second deals with what happened next – not until the end of the war, but for the next few months, and in this too Ultra deserves evaluation and attention.

The hard road from July 1942 to May 1943

The phase of the Battle of the Atlantic that started in July 1942 was one of the hardest for both sides in the conflict. It is characterised by large concentrations of submarines, mid-Atlantic battles against convoys and increasing intensity of conflict. More coldly, certain long-term trends began to work in Allied favour and, despite the wildly fluctuating fortunes of the previous three months, the May 1943 outcome is

perhaps better understood in terms of the longer picture rather than the shorter. The period that preceded this one saw U-boats running riot off the east coast of Canada and the United States largely because of the failure or inability of authorities there to institute an effective convoy system.[1] This combination of lack of escorts and dispersion of merchant vessels assured a plethora of targets for the submarines which had made the long passage from the Biscay bases. So much so, in fact, that submarines enjoyed one of their best periods in the whole war with both total sinkings and productivity at very high levels indeed. It thus led to the revival of their phrase *glückliche Zeit* to describe this period.[2] Although there were some at the time and more afterwards who criticised the Americans for being tardy in setting up a convoy system, a series of these were instituted and gradually extended. But as they spread in the western hemisphere, they were often anticipated at worst and reacted to at best by Dönitz moving his submarines further south and west. Thus the field of submarine operations moved slowly from the US east coast into the Gulf of Mexico and then the Caribbean. There weakly protected convoys or, more commonly, ships sailing independently, were easily picked off. It was only the ever-lengthening passage distances and times that limited the productivity of the U-boats. By the middle of the year it was obvious that Dönitz would either have to deploy his boats even further afield or else change his strategy entirely.

The latter was the course adopted and in July the first operation that year which employed more than 10 submarines was mounted against a convoy; ON113A was the object of attention and in the course of a four-day operation during 23–27 July it suffered the loss of two ships of some 12 000 tons, although one submarine was lost. July, too, was the last month for a year in which the sinking figures in the Atlantic were to be dominated by independents, not convoys. From then onwards the pace was to rise by spasms with more anti-convoy operations, more submarines tending to be allocated to each one and operations lasting for longer periods of time. Although some of these were to be undertaken against convoys in and going to or from the Caribbean, together with a few attacks against convoys to and particularly from West Africa, the bulk of the effort was to be deployed against the main cross-Atlantic traffic, that is, the convoys of the ON and ONS series westbound, and the HX and SC ones in the opposite direction. It is with this crucial traffic and these routes that the following narrative and analysis will be principally concerned.

At the operational level, this meant that Dönitz was forced to choose the most vital route, but also the one most likely to be defended well with sea and air bases which could contribute to the defence of convoys. For him, this was a policy of some risk but also the one that gave him, and thus German strategy more generally, the greatest chance of success. Should he not prevail, then the initiative for the Battle of the Atlantic would pass to the Allies almost completely.

The initial portents were good for the Germans as the year moved on. August was to see merchant-ship sinkings rising again over 500 000 tons, with the best result being at the beginning of the month against SC94 when losses were incurred of 12 ships of 53 000 tons sunk for a loss of two submarines. September saw a marked drop in number of convoy engagements attempted, from 11 to six, but a tendency for these to be on a larger scale. Typically here, packs were of 15 boats rather than the seven of the previous month and although one operation failed to make contact, that against SC99, no submarines were lost during any of these operations and results were obtained, albeit on the low side of Dönitz's expectations, averaging some 18 000 tons per operation. This, too, was one of the few months of the period in which losses of independents exceeded those of convoyed ships.

October saw the scale of the average anti-convoy operation moderating but with an increase in the number of operations attempted. Only one of these failed to make contact and the net result of these was an average loss per convoy of six hulls of 35 000 tons, nearly twice as bad as in the preceding month. All but one of these were against mainstream cross-Atlantic traffic, the exception being the Africa–UK SL125 which, despite a relatively small effort of 34 boat-days, nevertheless had the second-highest results of the month, with 12 ships of 80 000 tons being sunk over five days for no submarine loss. At the other end of the scale from both points of view was the attack on the westbound ON137, which occupied 25 boats for four days, the largest operation of this phase so far, but this was thwarted by poor coordination and bad weather, which denied continuous contact on the convoy.[3] As a result, only two convoy ships of 10 000 tons were lost as was one U-boat, a very poor return indeed for such a large expenditure of effort.

November presents a statistical paradox. On a strict calendar-month reckoning this is a better month for the Germans than October, resulting in the loss of over 530 000 tons compared with less than 430 000 tons and over 20 more ships. However, the two most significant operations in terms of loss were those against SL125 (mentioned in the previous paragraph) and that against SC107 both of which started in the