I

In that hour after dawn the horizon did not seem far away. The line where the watery sky met the grey sea was not well defined; it was as if the cheerless clouds grew denser out towards that circle until at the final meeting, all the way round, there was not an abrupt transition, but a simple mingling of twin elements. So the area confined under that low sky was not a large one. Beyond the circle, in every direction, the sea extended for a thousand miles, and beneath it the water was two miles deep; neither figure was easily to be grasped by the imagination, although acceptable as an academic fact. Two long miles below lay the sea bottom, darker than the centre of the longest and darkest tunnel ever built by man, under pressures greater than any ever built up in factory or laboratory, a world unknown and unexplored, to be visited not by men but perhaps by their dead bodies encased in and made part of the iron coffins of their crushed-in ships. And the big ships, to insignificant man so huge and so solid, sank to that sea bottom, to the immemorial ooze in the darkness and cold, with no more ado or stir than would be caused comparatively by specks of dust falling on a ballroom floor.

On the surface the limited area enclosed by the near horizon bore many ships. The long grey rollers from the north-east swept in endless succession across the area, each demonstrating its unlimited power. To each one as it arrived the ships made obeisance, rolling far over, and then heaving up their bows, mounting towards the sky, next rolling far over the other way, bows down, sterns up, slithering down the long slope before beginning the next roll and the next pitch, the next rise and the next fall; there were many ships in many lines and many columns, and by looking at the ships the course and position of each wave could be traced diagonally across line and column – ships here rising on the crest and there sinking in the trough until the mastheads only were visible, ships here rolling far to port and ships there rolling far to starboard, towards each other and away, as long as patience could endure to watch.

And the ships were diversified like their motions – big ships and small, Samson posts and cargo booms, freighters and tankers, new ships and old. Yet they all seemed to be animated by one will, all heading doggedly to the east, their transient washes all parallel; furthermore, if they were watched for any length of time it would be seen that at long irregular intervals they changed their direction a few degrees to port or a few degrees to starboard, rear ships following their leaders. But despite these variations of course it would soon be apparent to the observer that the resultant

general direction of travel of this mass of ships was eastward, doggedly and steadily, so that with every hour that passed they had covered a few of the thousand miles that lay between them and their easterly goal, whatever it might be. The same spirit animated each ship.

Nevertheless, continuous observation would also reveal that the animating spirit was not infallible, that these ships were not faultless machines. Hardly one of those alterations of course failed to produce a crisis somewhere among those thirty-seven ships. That might have been expected by the experienced observer even if each ship had been a mere machine not subject to human direction, because every ship was different from her neighbours; each reacted slightly differently at the application of the rudder, each was influenced in a different way by the waves which met her from dead ahead, or on the bow, or on the beam, and each was variously influenced by the wind. With ships hardly half a mile apart in one direction, and hardly a quarter of a mile apart in the other, these small differences of behaviour grew into matters of intense importance.

This would have been true even if each ship had been perfect in herself, and that was far from the case. The labouring engines grinding away in each of them were not capable of quite consistent performance, nor was the fuel absolutely uniform, and as time went on tubes might clog and valves might stick, so that the propellers that the engines drove would not continue

to turn at a uniform rate. And compasses might not be absolutely true. And with the consumption of fuel and stores and with the consequent change of displacement the thrust of the propellers would bring about a different result even if miraculously they were kept turning at uniform speed. All these variables might bring about a relative change of position of only a few feet in a minute, but in those close-packed columns of ships a few feet's difference in one minute could bring disaster in twenty.

Above and beyond all these variables was the human variable, the greatest variable of all. Men's hands turned wheels, men's eyes watched the gauges, men's skill kept the compass needles steady on the cards. All kinds of men, of slow reactions and of fast, cautious men and reckless men, men of vast experience and men of almost none; and the differences between the men were of more importance than the differences between the ships; the latter differences might bring about disaster in twenty minutes, but the human variable – a careless order or a mis-heard order, a wheel turned the wrong way or a calculation brought to a wrong conclusion – could bring disaster in twenty seconds. The alterations in course were directed by the leading ship in the centre column; the hauling down of the signal flags which blew stiffly from her halyard indicated the exact moment when the turn had to be begun, one turn of a series planned days before. It was easy enough to make a wrong turn; it was easier still to feel a slight doubt

about which turn was due to be made; it was just as easy to doubt the competence of one's neighbours. A cautious man might linger awhile before giving the order, waiting to see what the others were doing, and those moments of delay could bring the bows of a ship in the next column pointing right at the beam, at the centre and heart, of the ship that hesitated. A touch could be death.

Compared with the immensity of the sea on which they floated, the ships were tiny, insignificant; it might seem miraculous that they should cross that immensity in the face of the forces of nature and arrive with certitude at their destination. It was the intelligence and ingenuity of man which made that possible, the accumulation of knowledge and experience since the first flint was chipped and the first picture signs were written. Now it was the intelligence and ingenuity of man which were adding to the hazards. There was menace in that lowering sky and in those huge waves, yet despite that menace the ships were continuing their complex and difficult manoeuvres, close-packed to within a hair's breadth of disaster, for should they discontinue those manoeuvres, should they spread out to a safe distance, they were facing worse disaster still.

A thousand miles ahead of them men were waiting for those ships to arrive, men and women and children, although they did not know of the existence of those particular ships, not their names, nor the names of the men inside them with three quarters of an inch of iron

between them and the cold immensity of the sea. If those ships, if thousands of other ships equally unknown, did not reach their destination, the men and women and children who awaited their arrival would be hungry, cold, diseased. They might be torn to pieces by explosives. They might suffer a fate even worse – a fate they had years earlier decided, coldly, would be worse; they might be subjected to a tyrant of alien thought, their liberties torn from them, and in that case – they knew it by instinct even when they were not capable of logical deduction – not only they, but the whole human race would suffer, and liberty would decline throughout the world.

On board the ships there were men imbued with the same knowledge, even if that knowledge was forgotten in the urgency of keeping station and maintaining course and speed, and even though in the same ship with them were plenty of men who did not have that knowledge, men who were there amid those perils for other reasons or for no reason, men who desired money or drink or women or the security that money can sometimes buy, men with much to forget and half-wits with nothing to forget, men with children to feed and men with problems too difficult to face.

They were engaged upon the task of keeping the propellers turning, or of keeping the ships afloat, or of maintaining them in their stations or of keeping them in working condition, or they were engaged in feeding the men who occupied themselves with these tasks.

But while they carried out their duties, whether from motives lofty or base or non-existent, they were no more than parts of the ships they served – not machined to any measurable tolerance thanks to their human variability – and they, or their ships (not to differentiate between ships and their crews), were things to be fought for, things to be protected by one side or destroyed by the other; things to be escorted across the ocean or things to be sent down into the freezing depths.

2

Wednesday. Forenoon Watch: 0800–1200

There were nearly two thousand men in the convoy; there were over eight hundred in the four destroyers and escort vessels that guarded it. Expressing uselessly values quite immeasurable, three thousand lives and property worth fifty million dollars were in the charge of Commander George Krause of the United States Navy, age forty-two, height five feet nine, weight 155 pounds, complexion medium, colour of eyes grey; and he was not only escort commander but captain of the destroyer *Keeling* of the Mahan class of fifteen hundred tons' displacement, commissioned in 1938.

These were bald facts; and facts may mean very little. Back in the centre of the convoy was the tanker *Hendrikson;* it was of no importance that in the books of the company that owned her she was valued at a quarter of a million dollars and the oil that she carried at another quarter of a million. That meant literally nothing; but the fact that if she should arrive in England her cargo would provide an hour's steaming for the entire British Navy meant something too important to be measured at all – what money price can be put on an hour's freedom

for the world? The thirsty man in the desert pays no heed to his pocketful of bank notes. Yet the fact that Commander Krause tipped the scale at a hundred and fifty-five could be of appreciable importance; it could be a measure of the speed with which he could reach the bridge in an emergency, and, once on the bridge, it might give some faint indication of his ability to withstand the physical strain of remaining there. That was something of far more importance than the book value of the *Hendrikson*; it was of more importance even to the men who owned her, although they might not believe it, never having heard of Commander George Krause of the United States Navy. And they would not have been in the least interested to hear that he was the son of a Lutheran minister, that he had been devoutly brought up, and that he was a man very familiar with the Bible. Yet these were matters of primary importance, for in war the character and personality of the leader is decisive of events much more than minor questions of material.

He was in his cabin, having come out from under the shower, and he had towelled himself dry. It was the first opportunity he had had in thirty-six hours to take a bath, and he did not expect to have another for a long time. This was the blessed moment after securing from general quarters with the coming of full daylight. He had put on his thick woollen underclothes, his shirt and his trousers, his socks and his shoes. He had just finished combing his hair – a rather perfunctory gesture, for the mouse-coloured bristles, recently cropped short,

were insusceptible to treatment. He stared into the mirror to check that his shave had been all that it should be. His eyes (grey by courtesy; more hazel than grey, and with a stony quality) met those of the reflection in the mirror without recognition or sympathy, as they would meet those of a stranger – for Krause was indeed a stranger to himself, someone to be regarded impersonally if regarded at all. His body was something to be employed upon duty.

This bathing and shaving, this putting on of a clean shirt at this hour of the morning, all this dressing with the day far advanced, was a distortion of the proper order of things caused by the exigencies of war. Krause had already been on his feet for three hours. He had gone to the bridge in the darkness before general quarters had sounded, ready for the crisis that dawn might bring, and he had stood there as the blackness of the night turned slowly into the grey of dawn, with his ship and his men braced for action. With full daylight – if that melancholy greyness merited the term – the ship had secured from general quarters, and Krause could read the accumulated messages brought him by the communications officer, and he could receive brief reports from his heads of department, inspect with his own eyes, by the aid of his binoculars, the fighting ships under his command to starboard and port, and the vast mass of the convoy manoeuvring far astern of him. With dawn an hour ago it might be considered that the safest moment of the day had come, and Krause could briefly

retire. He could offer up his prayers on his knees. He could take his breakfast. And then he could bathe and change even though it seemed highly irregular to do so at this time and not at the beginning of a new day.

He turned away from the stranger in the mirror, satisfied that he was properly shaved, and then he stood still, with one hand on the chair back and his eyes cast down to the deck on which he stood.

'Yesterday, and today, and for ever,' he said to himself, as he always did when he had passed his own inspection. That was a passage from Hebrews XIII; it marked the fact that he was starting out on a fresh stage of his journey through the temporary world, to the grave and to immortality beyond it. He gave the necessary attention to that train of thought; and while his mind was so occupied his body automatically retained its balance, for the ship was rolling and pitching as only a destroyer can roll and pitch – as she had rolled and pitched without ceasing for the past several days. The deck was rising and falling beneath his feet, inclining sharply to port and starboard, forward and aft, sometimes seemingly changing its mind, with a tremor, in mid-movement, interrupting the rhythm of the rattle of the scant furnishings of the cabin under the urging of the vibration of the propellers.

Of the twenty years which had elapsed since Krause's graduation from Annapolis, thirteen had been spent at sea, and mostly in destroyers, so that his body was amply accustomed to retaining its balance in a rolling ship,

even at those moments when Krause himself was thinking about the immortality of the soul and the transience of earthly things.

Krause raised his eyes and reached for the sweater that was the next garment he had planned to put on. Before his hand touched it there came a loud note from the bell on the bulkhead, and from the voice tube issued the voice of Lieutenant Carling, who had taken over the deck when the ship secured from general quarters.

'Captain to the bridge, sir,' said Carling. 'Captain to the bridge, sir.'

There was urgency in the voice. Krause's hand changed its objective. It snatched, not the sweater, but the uniform coat dangling on its hanger. With his other hand Krause swept aside the Fiberglas curtain that screened the doorway, and in his shirtsleeves, still holding the coat, he plunged for the bridge. Seven seconds elapsed between the time when the bell sounded its note to the time when Krause entered the pilothouse. He did not have another second in which to look around him.

'Harry's made a contact, sir,' said Carling.

Krause sprang to the radio telephone – the TBS, the 'talk between ships'.

'George to Harry. George to Harry. Go ahead.'

He swung to his left as he spoke, staring out over the heaving sea. Three and a half miles to port was the Polish destroyer *Viktor*; three and a half miles beyond her was HMS *James*; she was on *Viktor*'s quarter, considerably aft; from the pilothouse she was only just visible

round the corner of the superstructure, and at that distance she was often invisible, when both she and *Keeling* were down in the trough. Now she was off her course, heading northward away from the convoy, presumably following up her contact. It was the *James* who called herself Harry in the TBS code. As Krause's eyes focused on her the telephone bleated. No amount of distortion could disguise the peculiar English intonation of the voice.

'Distant contact, sir. Bearing three five five. Request permission to attack.'

Eleven words, one of which might possibly be omitted; but they presented a problem of enormous complexity, in which a score of factors had to be correlated – and to which a solution had to be found in as few seconds as possible. Krause's eye sought the repeater and a well-accustomed mind simplified one factor in a moment. A contact bearing three five five lay, on the present leg of the zigzag, just forward of the port beam. *James*, as the wing ship of the four-ship escort, was three miles to port of the convoy. The U-boat – if indeed the contact indicated the presence of a U-boat, which was by no means certain – then must lie several miles from the convoy, and not far forward of the convoy's port beam. A glance at the clock; in fourteen minutes another change of course was due. This would be to starboard, turning the convoy definitely away from the U-boat. That was a point in favour of leaving the U-boat alone.

There were other factors favouring the same decision.

There were only four fighting ships for the whole screen, only sufficient when all were in station to cover the whole immense front of the convoy by sonar search. Detach one – or two – and there would be practically no screen, only gaps through which other U-boats might well slip. It was a weighty factor, but there was a factor more weighty still, the question of fuel consumption – the factor that had burdened the mind of every naval officer since sail. *James* would have to work up to full speed; she would be detached far off the convoy's course. She might be searching for hours, and whatever the result of the search, she would have to rejoin the convoy, which most likely would be heading away from her during the whole search. That would mean an hour, or two, or three, at high speed, with an extra consumption of some tons of fuel. There was fuel to spare, but little enough, only a small reserve. Was it advisable, at this moment, with action only just beginning, to make inroads upon that reserve? During Krause's lifetime of professional training no point had been more insisted on than that every wise officer kept a reserve in hand to employ at the crisis of a battle. It was an argument – the constant argument – in favour of caution.

But then on the other hand a contact had been made. It was possible – it might even just be called likely – that a U-boat might be killed. The killing of a U-boat would be a substantial success in itself. And the consequences might be more important still. If that U-boat were allowed to depart unharmed, she could surface, and by her radio she could inform German U-boat headquarters of the

presence of shipping at this point in the Atlantic – shipping that could only be Allied shipping, that could only be targets for U-boat torpedoes. That was the least the U-boat might do; she might surface, and, making use of her surface speed, twice that of the convoy, she might keep the latter under observation, determine its speed and base course, and call up – if German headquarters had not already issued such orders – a wolf pack of colleagues to intercept and to launch a mass attack. If she were destroyed, nothing of this could happen; if she were even kept down for an hour or two while the convoy again made good its escape, the business of finding the convoy again would be made much more difficult for the Germans, much more prolonged, possibly too difficult altogether.

'Still making contact, sir,' squawked the telephone.

It was twenty-four seconds since Krause had arrived on the bridge, fifteen seconds since he had been confronted with the complex problem in its entirety. It was fortunate that during hours on the bridge, during hours solitary in his cabin, Krause had thought deeply about similar problems. No possible amount of thinking could envisage every circumstance; the present case – the exact bearing of the contact, the current fuel situation, the position of the convoy, the time of day – added up to one out of thousands of possible situations. And there were other factors that Krause had envisaged as well; he was an American officer whom the chances of war had tossed into the command of an Allied convoy. A freak of

seniority had put under the orders of him, who had never heard a shot fired in anger, a group of hard-bitten young captains of other nations with the experience of thirty months of war. That introduced a number of factors of enormous importance but not susceptible of exact calculation like a fuel-consumption problem – not even as calculable as the chances of effecting a kill after making a contact. What would the captain of the *James* think of him if he refused permission to attack? What would the seamen in the convoy think of him if other U-boats got in through the screen so dangerously attenuated by that permission? When the reports started to come in would one government querulously complain to another that he had been too rash? Or too cautious? Would officers of one navy shake their heads pityingly, and officers of another navy try halfheartedly to defend him? Gossip flies rapidly in an armed service; seamen can talk even in wartime until their complaints reach the ears of congressmen or members of parliament. Allied goodwill depended to some extent on his decision; and upon allied goodwill depended ultimate victory and the freedom of the world. Krause had envisaged these aspects of his problem, too, but in the present case they could not affect his decision. They merely made his decision more important, merely added to the burden of responsibility that rested on his shoulders.

'Permission granted,' he said.

'Aye aye, sir,' said the telephone.

The telephone squawked again instantly.

'Eagle to George,' it said. 'Request permission to assist Harry.'

Eagle was the Polish destroyer *Viktor*, on *Keeling*'s port beam between her and the *James*, and the voice was that of the young British officer who rode in her to transmit TBS messages.

'Permission granted,' said Krause.

'Aye aye, sir.'

Krause saw the *Viktor* wheel about as soon as the words were spoken; her bows met a roller in a fountain of spray, and she heaved up her stern as she soared over it, still turning, working up speed to join the *James*. *Viktor* and *James* were a team that had already achieved a 'probable sinking' in a previous convoy. *James* had the new sound-range recorder and had developed a system of coaching *Viktor* in to make the kill. The two ships were buddies; Krause had known from the moment the contact was reported to him that if he detached one it would be better to detach both, to make a kill more likely.

It was now fifty-nine seconds since the summons to Krause in his cabin; it had taken not quite a minute to reach an important decision and to transmit the orders translating that decision into action. Now it was necessary to dispose his two remaining escort ships, *Keeling* and HMCS *Dodge*, out on his starboard quarter, to the best advantage; to attempt with two ships to screen thirty-seven. The convoy covered more than four square miles of sea, an immense target for any torpedo fired 'into the brown', and such a torpedo could be fired advantageously

from any point of a semicircle forty miles in circumference. The best attempt to cover that semicircle with two ships would be a poor compromise, but the best attempt must still be made. Krause spoke into the telephone again.

'George to Dicky.'

'Sir!' squawked the telephone back to him instantly. *Dodge* must have been expecting orders.

'Take station three miles ahead of the leading ship of the starboard column of the convoy.'

Krause spoke with the measured tones necessary for the transmission of verbal orders; it called attention to the unmusical quality of his voice.

'Three miles ahead of the leading ship of the starboard column,' said the telephone back to him. 'Aye aye, sir.'

That was a Canadian voice, with a pitch and a rhythm more natural than the British. No chance of misunderstanding there. Krause looked at the repeater and then turned to the officer of the deck.

'Course zero zero five, Mr Carling.'

'Aye aye, sir,' answered Carling, and then to the quartermaster, 'Left standard rudder. Steer course zero zero five.'

'Left standard rudder,' repeated the helmsman, turning the wheel. 'Course zero zero five.'

That was Parker, quartermaster third class, aged twenty-two and married and no good. Carling knew that, and was watching the repeater.

'Make eighteen knots, Mr Carling,' said Krause.

'Aye aye, sir,' answered Carling, giving the order.

'Make turns for eighteen knots,' repeated the man at the annunciator.

Keeling turned in obedience to her helm; the vibration transmitted from the deck up through Krause's feet quickened as the ship headed for her new station.

'Engine room answers eighteen knots,' announced the hand at the engine room telegraph. He was new to the ship, a transfer made when they were in Reykjavik; serving his second hitch. Two years back he had been in trouble with the civil authorities for a hit-run automobile offence while on leave. Krause could not remember his name, and must remedy that.

'Steady on course zero zero five,' announced Parker; there was the usual flippant note to his voice that annoyed Krause and hinted at his unreliability. Nothing to be done about it at present; only the mental note made.

'Making eighteen by pit, sir,' reported Carling.

'Very well.' That was the pitometer log reading. There were more orders to give.

'Mr Carling, take station three miles ahead of the leading ship of the port column of the convoy.'

'Three miles ahead of the leading ship of the port column of the convoy. Aye aye, sir.'

Krause's orders had already set *Keeling* on an economical course towards that station, and now that she was crossing ahead of the convoy would be a good moment to check on it. But he could spare a moment now to put

on his coat; until now he had been in his shirtsleeves with his coat in his hand. He slipped into it; as his arm straightened he dug the telephone talker beside him in the ribs.

'Pardon me,' said Krause.

'Quite all right, sir,' mumbled the telephone talker.

Carling had his hand on the lever that sounded the general alarm, and was looking to his captain for orders.

'No,' said Krause.

Calling the ship to general quarters would bring every single man on board to his post of duty. No one would sleep and hardly anyone would eat; the ordinary routine of the ship would cease entirely. Men grew fatigued and hungry; the fifty odd jobs about the ship that had to be done sooner or later to keep her efficient would all be left until later because the men who should be doing them would be at their battle stations. It was not a condition that could long be maintained – it was the battle reserve, once more, to be conserved until the crucial moment.

And there was the additional point that some men, many men, tended to become slack about the execution of their duty if special demands were continually made on them without obvious reason. Krause knew this from observation during his years of experience, and he knew it academically, too, through study of the manuals, in the same way that a doctor is familiar with diseases from which he has never suffered himself. Krause had to allow for the weaknesses of the human flesh under

his command, and the flightiness of the human mind. *Keeling* was already in Condition Two, with battle stations largely manned and watertight integrity – with its concomitant interference with the routine of the ship – strictly maintained. Condition Two meant a strain on the hands, and was bad for the ship, but the length of time during which Condition Two could be endured was measurable in days, compared with the hours that Battle Stations could be endured.

The fact that *James* was running down a contact at some distance from the convoy, with *Viktor* to help her, was not sufficient justification for sounding the general alarm; it was likely that dozens more such contacts would be reported before the convoy reached home. So Krause said 'No' in reply to Carling's unvoiced inquiry. Glance, decision, and reply consumed no more than two or three seconds of time. It would have taken at least several minutes for Krause to have given verbally all the reasons for that decision; it would have taken him a minute or two at least to assemble them in his mind. But long habit and long experience made the reaching of decisions easy to him, and long thought had familiarized his mind beforehand with the conditions surrounding this particular emergency.

And at the same time his memory made a note of the incident, even though apparently it passed out of his mind as soon as it was disposed of. Carling's readiness to sound general quarters was an item added to Krause's mental dossier about Carling. It would affect, to some

possibly infinitesimal extent, how much Krause could trust Carling as officer of the deck. It might eventually affect the 'fitness report' which in course of time Krause would be making on Carling (assuming both of them lived long enough for that report to be made), with special bearing on the paragraph regarding Carling's 'fitness for command'. A tiny incident, one in thousands that made a complex whole.

Krause picked up his binoculars, hung them round his neck, and trained them towards the convoy. In the crowded pilothouse it was impossible to get a clear sight, and he stepped out onto the port wing of the bridge. The transition was instant and prodigious. The north-east wind, from almost dead ahead on this course, shrieked round him. As he raised the glasses to his eyes his right armpit felt the bitter cold strike into it. He should be wearing his sweater and his greatcoat; he would have been doing so if he had been left undisturbed for a minute longer in his cabin.

They were passing the convoy flagship, an ancient passenger vessel with upper works lofty in comparison with the rest of the convoy. The convoy commodore whose pennant flew in her was an elderly British admiral back from retirement, undertaking a difficult, monotonous, dangerous and inglorious duty of his own free will, as of course he ought to do as long as the opportunity presented itself, even though that meant being under the orders of a young commander of another nation. His present duty was to keep the ships of the convoy as nearly in

order as possible, so as to give the escort every chance of protecting it.

Beyond the convoy flagship the rest of the convoy spread itself in irregular lines; Krause swept his binoculars round to examine them. The lines were certainly irregular, but not nearly as irregular as they had been when he examined them at the end of the night, in the first light of dawn. Then the third column from starboard had been revealed in two halves, with the last three ships – five ships in that column, four in each of the others – trailing far astern, out of the formation altogether. Now the gap had been nearly closed. Presumably No. 3 ship, the Norwegian *Kong Gustav*, had experienced an engine room defect during the night and had fallen astern; in the radio silence and the blackout that were so strictly enforced, and with flag signals invisible in the darkness, she had been unable to inform the others of her plight, and had fallen farther and farther astern, with the ships following her conforming to her movements. Apparently the defect had been made good and *Kong Gustav* and her two followers were slowly crawling up into position again. The *Southland*, immediately astern of *Kong Gustav* – Krause had checked the name on his list soon after dawn – was smoking badly, perhaps in the effort to steam an extra half-knot to regain station, and several other ships were making more smoke than they should. Luckily with the wind from ahead, and blowing hard, the smoke was lying low and dispersing rapidly. In calmer conditions the convoy would have been

surmounted by a pillar of cloud visible fifty miles away. The commodore had a signal hoist flying; almost for certain it was the signal so frequently displayed in every navy – 'Make less smoke'.

But conditions in the convoy could generally be described as good, with only three ships badly out of station and only a certain amount of smoke being made. There was time for a rapid glance round the *Keeling*; it was significant that Krause's first care had been for the convoy and only his second care had been for his own ship. He lowered his binoculars and turned to look forward, the wind hitting him in the face as he did so, and, along with the wind, a few drops of spray hurled aft from the heaving bows. Aloft, the 'bedspring' of the radar antenna was making its methodical gyrations, turning round and round while the mast, with the rolling and pitching, was outlining cones, apex downward, of every conceivable dimension. The lookouts were at their posts, seven of them, all bundled up in their Arctic clothing, their eyes at the binoculars in the rests in front of them, traversing slowly to left and to right and back again, each sweeping his own special sector, but with each having to pause every few seconds to wipe from the object glasses the spray flying back from the bows. Krause gave the lookouts a moment's inspection; Carling, with his mind preoccupied with the duty of taking the ship to her new station, would not be giving them a glance at present. They seemed to be doing their work conscientiously; sometimes – unbelievable

though it might be – lookouts were found wanting in that respect, tiring of a monotonous job despite frequent relief. It was a duty that had to be carried out with the utmost pains and method, without an instant's interruption; a U-boat would never expose more than a foot or two of periscope above the surface of the sea, and never for more than a half a minute at most; search had to be constant and regular to give any chance, not speaking of probability, of the transient appearance being detected. A second's glimpse of a periscope could decide the fate of the convoy. There was even the chance that the sight of torpedo wakes streaking towards the ship and instantly reported might save at least the *Keeling*.

This was as long as he dared stay out on the wing of the bridge; half his force was heading towards battle out there to port – *Viktor* had 'peeled off' to join *James* some time ago – and he must be at the TBS to exert control if necessary. Young Hart was approaching the port pelorus to take the bearings for Carling in his task of taking up station. Krause gave him a nod and went back into the pilothouse. The comparative warmth of it reminded him that in that brief time outside, without sweater or pea jacket, he had been chilled through. He stepped to the telephone; it was bleating and gurgling. He was overhearing the conversations between the British officers in *James* and *Viktor*.

'Bearing three six oh,' said one English voice.

'Can't you get the range, old boy?' said another.

'No, damn it. Contact's too indistinct. Haven't you picked it up yet?'

'Not yet. We've swept that sector twice.'

'Come ahead slowly.'

From where Krause stood *James* was indistinguishable in the murk of the near horizon. She was only a little ship and her upper works were not lofty. *Viktor* was bigger and higher and nearer; he could still see her, but she was already vague. With visibility so poor and the ships separating rapidly he would not have her in sight much longer, although she would be prominent enough on the radar screen. Carling's voice suddenly made itself audible; he might have been speaking before but Krause, concentrating on the TBS, had not listened to him, as what he was saying had no bearing on the problem in hand.

'Right standard rudder. Steer course zero seven nine,' said Carling.

'Right standard rudder. Course zero seven nine,' repeated Parker.

Keeling was at her new station now, or near it, evidently. She swung round, turning her stern almost directly towards *Viktor*. The distance between the two ships would now be widening more rapidly than before. *Keeling* rolled deeply to starboard, unexpectedly; feet slipped on the pilothouse deck, hands grabbed for security. Her turn had brought her into the hollow of the next roller without the opportunity to lift to it. She lay over for a long second, levelled herself abruptly, and equally abruptly lay over

to port as the roller passed under her keel, so that feet slipped in the opposite direction and Carling came sliding down upon Krause.

'Sorry, sir,' said Carling.

'All right.'

'Steady on zero seven nine,' announced Parker.

'Very well,' answered Carling, and then to Krause, 'Next zigzag is due in five minutes, sir.'

'Very well,' said Krause in his turn. It was one of his standing orders that he should be called five minutes before any change of course on the part of the convoy. The turn would bring the convoy's sterns exactly towards *Viktor* and *James*. It was nine minutes since *James* had peeled off; she must be more than three miles from her station now, and the distance would be increasing by a quarter or even half a mile every minute. Her maximum speed in this sea would not be more than sixteen knots. It would take her half an hour – and that half-hour one of maximum fuel consumption – to regain her station if he recalled her now. And every minute that he postponed doing so meant she would spend five extra minutes overtaking the convoy; in other words, if he left her out there for six more minutes it would be a full hour before she would be back on station. Another decision to be made.

'George to Harry,' he said into the telephone.

'I hear you, George.'

'How's that contact of yours?'

'Not very good, sir.'

Sonar notoriously could be inconsistent. There was

much more than a faint chance that *James* was pursuing something that was not a submarine. Possibly even a school of fish; more likely a layer of colder or warmer water, seeing that *Viktor* was finding difficulty in getting a cross-bearing on it.

'Is it worth following it up?'

'Well, sir. I think so, sir.'

If there really was a U-boat there the German captain would be well aware that contact had been made; he would have changed course radically, and would now be fishtailing and varying his depth; that would account at least in large part for the unsatisfactory contact. There was a new German device for leaving a big bubble behind, producing a transient sonar effect baffling to the sonar operator. There might be some new unknown device more baffling still. There might be no U-boat there.

On the other hand, if there was, and if *James* and *Viktor* were recalled, it would be some minutes before the U-boat would venture to surface; she would be doubtful as to the bearing of the convoy, which would be heading directly away from her; she would certainly not make more than sixteen knots on the surface in this sea and probably less. The risk involved in leaving her to her own devices had been considerably diminished by those few minutes of pursuit. There was the matter of the effect such a decision would have on his British and Polish subordinates; they might resent being called off from a promising hunt, and sulk on a

later occasion – but that reply to his last question had not been enthusiastic, even allowing for British lack of emphasis.

'You'd better call it off, Harry,' said Krause in his flat impersonal voice.

'Aye aye, sir.' The reply was in a tone that echoed his own.

'Eagle, Harry, rejoin the convoy and take up your previous stations.'

'Aye, aye, sir.'

There was no guessing whether the decision had caused resentment or not.

'Commodore's signalling for the change of course, sir,' reported Carling.

'Very well.'

This slow convoy did not zigzag in the fashion of fast convoys; the passage would be prolonged inordinately if it did. The alterations of course were made at long intervals, so long that it was impossible for merchant captains to maintain station on the difficult lines of bearing involved in the fast convoy system – it was hard enough for them to maintain simple column and line. Consequently every change of course meant a ponderous wheel to left or to right, only a matter of ten or fifteen degrees, but that was a major operation. One wing had to maintain speed while the other reduced speed. Leaders had to put their helms over gently, and it seemed as if the ships following would never learn the simple lesson that to follow their leaders round in a

wheel to starboard it was necessary to wait and then to turn exactly where the ship ahead turned; to turn too soon meant that one found oneself on the starboard side of the leader, and threatening the ships in the column to starboard; to turn too late meant heading straight for the ships in the column to port. In either event there would be need to jockey oneself back into one's proper place in the column, not too easily.

Moreover, in this wheeling movement of the whole mass, it was necessary for the ships in the outer flank to move faster than those in the inner flank, which actually meant – seeing that those on the outer flank were already steaming as hard as they could go – that the ships in the inner columns must reduce speed. The large mimeographed booklet of instructions issued to every captain laid down standard proportionate reductions in speed for every column, but to comply with those instructions meant leafing hurriedly through the booklet and doing a rapid calculation when the right place was found. And if the correct figure were ascertained there was still the difficulty of getting an unpractised engine room staff to make an exact reduction in speed; and there was always the difficulty that every ship responded to the rudder in a different way, with a different turning circle.

Every wheel the convoy made was in consequence followed by a period of confusion. Lines and columns tended to open out, vastly increasing the area the escort had to guard; there were always likely to be stragglers, and experience had long proved that a ship straggling

from the formation would almost certainly be sent to the bottom. Krause went out onto the starboard wing of the bridge and levelled his binoculars at the convoy. He saw the string of flags at the commodore's halyard come down.

'Execute, sir,' reported Carling.

'Very well.'

It was Carling's duty to report that hauling down even though Krause was aware of it; it was the executive moment, the signal that the wheel was to begin. Krause heard Carling give the order for the new course, and he had to train round his binoculars as *Keeling* turned. The ship leading the starboard column six miles away lengthened as she presented her side to his gaze; the three 'islands' of her superstructure differentiated themselves in his sight now that she was nearly broadside on to him. A heavy roll on the part of *Keeling* swept the ship out of the field of his binoculars; he found himself looking at the heaving sea, and he had to retrain the glasses, balancing and swaying with the roll to keep the convoy under observation. There was confusion almost instantly. The convoy changed from an almost orderly checkerboard of lines and columns into a muddle of ships dotted haphazardly, ships sheering out of line, ships trying to regain station, columns doubling up with the tail crowding on the head.

Krause tried to keep the whole convoy under observation, even though the farthest ships were hardly visible in the thick weather; a collision might call for instant

action on his part. He could detect none, but there must be some tense moments in the heart of the convoy.

The seconds, the minutes were passing. The front of the convoy was an indented line. To all appearances there were not the nine columns that there should have been, but ten, eleven, no, twelve. On the starboard quarter of the commodore an intrusive ship appeared. Ships were straying, as was only to be expected, out beyond the starboard leader. If one single ship did not obey orders exactly, did not reduce speed at the correct moment, or turned too soon or too late, ten ships might be forced out of station, jostling each other. As Krause watched he saw one of the most distant ships turning until her stern was presented to him. Someone out there of necessity or from recklessness was turning in a full circle; squeezed out from his position he was about to try to nose his way into it again. And out there on that heaving expanse of water could be a U-boat, possibly one commanded by a cautious captain, hanging on the skirts of the convoy. An outlying ship like that would be a choice victim, to be torpedoed without any chance of one of the escort running down to the attack at all. Be sober, be vigilant; because your adversary the devil, as a roaring lion, walketh about, seeking whom he may devour.

There were flag hoists ascending the commodore's halyards, presumably orders designed to straighten out the confusion. Inexperienced men would be trying to read them, through ancient telescopes, and with their

ships heaving and swaying under their feet. Krause swung round to examine the port column over *Keeling*'s quarter. That was in the least disorder, as might be expected; Krause looked beyond them. In the haze on the far horizon he could see a dot with a line above it. That was *Viktor*, coming up at her best speed to resume her station – *James*, with her poor sixteen knots, must be far astern of her.

As Krause turned back to re-examine the convoy, a bright flash of light caught his eye, a series of flashes from the commodore. She was sending a searchlight signal, and her searchlight was trained straight at *Keeling*. It would be a signal for him: P–L–E – He fell behind with his reading of it, for the transmission was too fast for him. He looked up at his signallers; they were reading it without difficulty, one man noting the letters as read to him by the other. A longish message, not one of desperate urgency then – and for moments of desperate urgency there were far more rapid means of communication. Up above they blinked back the final acknowledgement.

'Signal for you, sir,' called the signalman, stepping forward, pad in hand.

'Read it.'

'"Comconvoy to Comescort. Will you please direct your corvette on the starboard side to assist in getting convoy into order question would be grateful."'

'Reply "Comescort to Comconvoy. Your last. Affirmative."'

'"Comescort to Comconvoy. Your last. Affirmative." Aye aye, sir.'

Comconvoy had to word his signal like that, presumably; he was making requests of an associate, not giving orders to a subordinate. Let thy words be few, said Ecclesiastes; the officer drafting an order had to bear that recommendation in mind, but a retread admiral addressing an escort commander had to remember the Psalms and make his words smoother than butter.

Krause went back into the pilothouse, to the TBS.

'George to Dicky,' he said in that flat distinct voice. The reply was instant; *Dodge* was alert enough.

'Leave your station,' he ordered. 'Go and –' he checked himself for a moment; then he remembered that it was a Canadian ship he was addressing, so that the phrase he had in mind would not be misunderstood as it might be by the *James* or the *Viktor*, and he continued:

'Go and ride herd on the convoy on the starboard side.'

'Ride herd on the convoy. Aye aye, sir.'

'Look to the commodore for instructions,' went on Krause, 'and get those stragglers back into line.'

'Aye aye, sir.'

'Keep your sonar searching on that flank. That's the dangerous side at present.'

'Aye aye, sir.'

I say to this man, Go, and he goeth; and to another, Come, and he cometh. But what of the 'great faith' that centurion had? *Dodge* was already wheeling round to

carry out her orders. Now there was more to be done. The front of the convoy had been inadequately enough screened already, and now nearly all of it was wide open to attack. So there were more orders to give, orders to set *Keeling* patrolling along the whole five-mile front of the convoy, her sonar sweeping first on one side and then on the other as she steamed back and forth in a stout-hearted attempt to detect possible enemies anywhere in the convoy's broad path, while as *Dodge* moved about on the right flank of the convoy, her captain shouting himself hoarse through his bullhorn at the laggards – the words of the wise are as goads – at the same time her sonar kept watch behind him. I was eyes to the blind, and feet was I to the lame.

Krause walked from the starboard wing of the bridge to the port side as *Keeling* made her second turn about. He wanted to keep his eye on the convoy; he wanted to use his own judgement as to when *Dodge* would have completed her task on the right flank, and as to when *Viktor* would be available to take her share of the patrol across the front. Even on the wing of the bridge, with the wind blowing, he was conscious, when he thought about it, of the monotonous ping-ping-ping of the ship's sonar as it sent out its impulses through the unresponsive water. That noise went on ceaselessly, day and night, as long as the ship was at sea, so that the ear and the mind became accustomed to it unless attention was called to it.

The commodore's searchlight was blinking again, straight at him; another message. He glanced up at the

signalman receiving it. The sharp rattle of the shutters of the light in reply told him that the signalman had not understood a word and was asking for a repeat; he checked his irritation, for perhaps the commodore was using some long-winded English polite form outside the man's experience. But the time the message took to transmit did not indicate that it was long.

'Signal for you, sir.'

'Read it.'

The signalman, pad in hand as before, was a little hesitant.

'"Comconvoy to Comescort," sir. "Huff Duff" –'

There was an inquiring note in the signalman's voice there, and a second's pause.

'Yes, Huff Duff,' said Krause, testily. That was HFDF, high frequency direction finding; his signalman had not met the expression before.

'"Huff Duff reports foreign transmission bearing eight seven range from one five to two zero miles," sir.'

Bearing eight seven. That was nearly in the path of the convoy. Foreign transmission; that could mean only one thing here in the Atlantic; a U-boat fifteen to twenty miles away. Leviathan, that crooked serpent. This was something far more positive and certain than *James*'s possible contact. This was something calling for instant decision as ever, and that decision had to be based as ever on a score of factors.

'Reply. "Comescort to Comconvoy. Will run it down."'

'"Comescort to Comconvoy. Will run it down." Aye aye, sir.'

'Wait. "Will run it down. Thank you."'

'"Will run it down. Thank you." Aye aye, sir.'

Two strides took Krause into the pilothouse.

'I'll take the conn, Mr Carling.'

'Aye aye, sir.'

'Right smartly to course zero eight seven.'

'Right smartly to course zero eight seven.'

'All engines flank speed. Make turns for twenty-two knots.'

'All engines flank speed. Make turns for twenty-two knots.'

'Mr Carling, sound general quarters.'

'General quarters. Aye aye, sir.'

The warning horns blared through the ship as Carling pressed down on the handle; a din fit to wake the dead, to wake the exhausted sleepers in their bunks far below, summoning every man to his post, starting a torrent of men up the ladders. Clothes would be dragged on, unfinished letters flung aside, equipment snatched up. Through the din came the report, 'Engine room answers flank speed, sir.' *Keeling* was heeling as she turned; Heeling-Keeling was what the men called her, Heeling-Keeling, Reeling-Keeling.

'Steady on course zero eight seven,' said Parker.

'Very well. Mr Hart, how does the commodore bear?'

Ensign Hart was at the pelorus in a moment.

'Two six six, sir,' he called.

Practically dead astern. The Huff Duff bearing in itself would be exact enough. No need to plot a course to the estimated position of the U-boat.

Already the pilothouse was thronging with newcomers, helmeted figures, bundled-up figures, telephone talkers, messengers. There was much to be done; Krause went to the TBS.

'Eagle, I am running down a Huff Duff indication bearing zero eight seven.'

'Oh eight seven. Aye aye, sir.'

'Take my place and cover the front of the convoy as quickly as you can.'

'Aye aye, sir.'

'You hear me, Harry?'

'I hear you, George.'

'Cover the left flank.'

'Cover the left flank. Aye aye, sir. We are four miles astern of the last ship, sir.'

'I know.'

It would be more than half an hour before *James* would be in her station; it would be nearly fifteen minutes before *Viktor* would be in hers. Meanwhile the convoy would be unprotected save by *Dodge* on the starboard wing. The risk run was one of the score of factors that had been balanced in Krause's mind when the commodore's message came through. On the other hand there was clear indication of an enemy ahead – Huff Duff was highly reliable – and there was the poor visibility which would shroud *Keeling* while her radar

could see through it. There was the need to drive the enemy under; there was the need to kill him. Even twenty miles ahead of the convoy *Keeling* would be of some protection to it.

Here was Lieutenant Watson, the navigator, reporting having taken over as officer of the deck from Carling. Krause returned his salute; it took only two sentences to inform him regarding the situation.

'Aye aye, sir.'

Watson's handsome blue eyes shone in the shadow of his helmet.

'I have the conn, Mr Watson.'

'Aye aye, sir.'

'Messenger, my helmet.'

Krause put the thing on; it was for form's sake, but at the same time the sight of the thickly clad men about him reminded him that he was still wearing only his uniform coat and that he was already chilled through by his sojourn on the wing of the bridge.

'Go to my cabin and bring me the sheepskin coat you'll find there.'

'Aye aye, sir.'

The executive officer was reporting by voice tube from the chartroom below. Down there was an improvisation of the combat information centre already fully developed in bigger ships. At the time when *Keeling* was launched, sonar was in its infancy and radar had hardly been thought of. Lieutenant Commander Cole was an old friend; Krause told him how matters stood.

'You're likely to get her on the radar screen any time now, Charlie.'

'Yes, sir.'

Keeling was pulsating as she tore along under nearly full power. She lurched and she shuddered as a green roller burst over her forecastle. But the huge rolling waves were just regular enough and convex enough to permit her to maintain her present high speed. Eighteen miles away or less was a surfaced U-boat; at any moment the radar antenna far above the pilothouse might pick her up; the reports had all come in that battle stations were manned. The men who had been roused from their tasks, even the men who had abandoned their routine work to seize their equipment and go to their posts, were ignorant of the reason for this sudden call. Down in the engine room there must be plenty of men wondering why there had been the call for flank speed; the men at the guns and the men at the depth charge racks must be warned to be ready for instant action. A second or two must be spared for that. Krause walked to the loudspeaker. The bosun's mate stationed there saw him coming, put his hand to the switch and received an approving nod. The call sounded through the ship.

'Now hear this. Now hear this.'

'This is the captain.'

Long training and long-practised self-control kept his voice even; no one could guess from that flat voice the excitement which boiled inside him, which could master him if he relaxed that self-control for an instant.

'We're running down a U-boat. Every man must be ready for instant action.'

It might almost be thought that *Keeling* quivered afresh with excitement at the message. In the crowded pilothouse as Krause turned back from the loudspeaker every eye was upon him. There was tenseness in the air, there was ferocity. These men were on their way to kill; they might be on their way to be killed, although for most of those present neither consideration weighed beside the mere fact that *Keeling* was heading for action, towards success or failure.

Something obtruded itself upon Krause's attention; it was the sheepskin coat he had sent for, offered him by the young messenger. Krause was about to take it.

'Captain!'

Krause was at the voice tube in a flash.

'Target bearing zero nine two. Range fifteen miles.'

Charlie Cole's voice was genuinely calm. He was speaking with the unhurried care of a thoughtful parent addressing an excitable child – not that he thought of Krause as an excitable child.

'Right smartly to course zero nine two,' said Krause.

At the wheel now was Quartermaster First Class McAlister, a short skinny Texan; Krause had been his division officer in the old days in the *Gamble*. McAlister would have made Chief by now had it not been for a couple of deplorable incidents in San Pedro in the early thirties. As he dryly repeated the order, no one would imagine the fighting madman he had been with liquor in him.

'Steady on course zero nine two,' said McAlister, his eyes not moving from the compass repeater.

'Very well.'

Krause turned back to the voice tube.

'What do you make of the target?'

'Dead ahead, sir. Not too clear,' said Charlie.

This Sugar Charlie radar was a poor job. Krause had heard of Sugar George, the new radar; he had never seen one, but he wished passionately that *Keeling* had been equipped with one.

'Small,' said Charlie Cole. 'Low in the water.'

A U-boat for certain, and *Keeling* was rushing down upon her at twenty-two knots. We have made a covenant with death, and with hell are we at agreement. Comconvoy's radio operator must be wonderfully good to have estimated the distance so accurately merely by the strength of the signals.

'Bearing's changing a little,' said Charlie. 'Bearing zero nine three. No, zero nine three and a half. Range fourteen miles. She must be on a nearly reciprocal course.'

The range had decreased by a mile in one minute and sixteen seconds. As Charlie said, she must be heading nearly straight towards *Keeling*, coming to meet her. Hell from beneath is moved for Thee to meet Thee at Thy coming. In five more miles, in seven minutes – less than seven minutes now – she would be within range of the five-inch. But *Keeling* had only two guns that could bear dead ahead. It would be better not to open fire at extreme

range. With a high sea running, the range rapidly changing, and a radar that might or might not be accurately lined up, instant hits with a two-shell salvo were unlikely. Better to wait; better to hold on in the hope that *Keeling* might come rushing out of the murk to find her adversary in plain sight at easier range.

'Range thirteen miles,' said Charlie. 'Bearing zero nine four.'

'Right smartly,' said Krause, 'to course zero nine eight.'

The U-boat was apparently holding a steady course. This turn to starboard would intercept her, and if the target were to reveal itself it would be fine on the port bow instead of right ahead; only a small additional turn would then be necessary to bring the after guns to bear as well.

'Steady on course zero nine eight,' said McAlister.

'Very well.'

'Stop that noise,' barked Watson, his voice suddenly cutting through the tension. He was glowering at a telephone talker, a nineteen-year-old apprentice seaman, who had been whistling through his teeth into the receiver before his mouth. From the telephone talker's guilty start it was obvious that he had been quite unconscious of what he was doing. But Watson's sharp order had been as startling as a pistol shot in the tense atmosphere of the crowded pilothouse.

'Range twelve miles,' said Charlie. 'Bearing zero nine four.'

Krause turned to the telephone talker.

'Captain to gunnery officer. Do not open fire without orders from me unless enemy is in sight.'

The talker pressed the button of his mouthpiece and repeated the words, with Krause listening carefully. That was not a good order, but it was the only one that would meet the present situation, and he could rely upon Fippler to understand it.

'Gunnery officer replies aye aye, sir,' said the talker.

'Very well.'

That boy was one of the new draft, fresh out of boot camp, and yet it was his duty to pass messages upon which the fate of a battle might depend. But in a destroyer there were few stations which carried no responsibility, and the ship had to fight even with seventy-five recruits on board. With two years of high school to his credit the boy had at least the educational requirements for his station. And only experience would tell if he had the others; if he would stand at his post amid dead and wounded, amid fire and destruction, and still pass on orders without tripping over a word.

'Range twenty thousand,' said the talker. 'Bearing zero nine four.'

This marked an important moment. Calling the range in thousands of yards instead of in miles was the proof that the enemy was almost within range; eighteen thousand yards was the maximum for the five-inch. Krause could see the guns training round ready to open fire on the instant. Charlie was speaking on the circuit to gunnery control and captain. And the bearing had not altered

either; *Keeling* was on a collision course with the U-boat. The climax was approaching. What was the visibility? Seven miles? Twelve thousand yards? Apparently about that. But that estimate was not to be relied upon; there might be a clear patch, there might be a thick patch. At any moment the U-boat might come into sight over there, where the guns were pointing. Then the shells would be sent winging to the target. It must be hit, shattered, before the U-boat crew could get below at the sight of the destroyer rushing down upon them, before they could dive, before they could armour themselves with a yard of water as impenetrable to *Keeling*'s shells as a yard of steel, and armour themselves with invisibility as well. Hide thyself as it were for a little moment, until the indignation be overpast.

'Range one nine oh double oh. Bearing steady on zero nine four,' said the talker.

A constant bearing. U-boat and destroyer were nearing each other as fast as was possible. Krause could look round the crowded pilothouse, at the tense faces shadowed by the helmets. The silence and the immobility showed that discipline was good. Forward of the bridge he could see the crew of one of the starboard side forty-millimetre guns, staring out in the direction the five-inch were pointing. The tremendous spray that *Keeling* was flinging aft from her bows must be driving against them but they were not taking shelter. They certainly were keen.

'Range one eight five double oh. Bearing steady on zero nine four.'

The silence was of course even more impressive because the pinging of the sonar had ceased for the first time for thirty-six hours. Sound ranging was quite ineffective with the ship making twenty-two knots.

'Range one eight oh double oh. Bearing steady on zero nine four.'

He could open fire now. The five-inch were straining upwards, their muzzles pointing far above the grey horizon. A word and they would hurl their shells upwards and outwards; there was the chance that one of them might crash into the U-boat's hull. One shell would be enough. The opportunity was his. So was the responsibility for refusing to take advantage of it.

'Range one seven five double oh. Bearing steady on zero nine four.'

On the U-boat's bridge would be an officer and one or two men. The shell would come through the murk instantaneously for them; one moment they would be alive and the next moment they would be dead, ignorant of what had happened. In the control room below the Germans would be stunned, wounded, flung dying against the bulkheads; in the other compartments the crew would hear the crash, would feel the shock, would stagger as the boat staggered, would see with horrified eyes the water rushing in upon them, in those few seconds before death overtook them as their boat went down, spouting great bubbles of air forced out by the inrushing water.

'Range one seven oh double oh, bearing steady on zero nine four.'

On the other hand the salvo might plunge into the sea half a mile from the U-boat. The columns of water thrown up would be clear warning. Before another salvo could be fired the U-boat would be gliding down below the surface, invisible, unattainable, deadly. Better to make sure of it. This was only a Sugar Charlie radar.

'Range one six five double oh. Bearing steady on zero nine four.'

Any moment now. Any moment. Were the lookouts doing their duty?

'Target disappeared,' said the talker.

Krause stared at him; for a couple of seconds he was uncomprehending. But the boy met his gaze without flinching. He was clearly aware of what he had said, and showed no disposition to amend it. Krause sprang to the voice tube.

'What's this, Charlie?'

'Afraid he's dived, sir. It looked like it the way the pip faded out.'

'Radar's not on the blink?'

'No, sir. Never known it so good before.'

'Very well.'

Krause turned back from the voice tube. The crowd in the pilothouse were looking at each other under their helmet brims. By their attitudes, heavily clothed though they were, their disappointment was clearly

conveyed. They seemed to sag in their bundled clothing. Now every eye was on him. For two and a half minutes it had been in his power to open fire on a U-boat on the surface; every officer in the United States Navy craved an opportunity like that, and he had made no use of it. But this was no time for regret; this was not the moment to be self-conscious under the gaze of eyes that might or might not be accusing. There was too much to be done. More decisions had to be taken.

He looked up at the clock. *Keeling* must be about seven miles ahead of her station in the convoy screen. *Viktor* would be there by now, with her own sonar trying to search five miles of front. The convoy might now be in order, with *Dodge* on the starboard flank free to pay all her attention to antisubmarine duty; *James* would be fast coming up on the other flank. Meanwhile *Keeling* was still hurtling forward, away from them, at twenty-two knots. And the enemy? What was the enemy doing? Why had he dived? Watson, the ranking officer on the bridge, ventured to voice his opinion.

'He couldn't have seen us, sir. Not if we couldn't see him.'

'Maybe not,' said Krause.

Keeling's lookouts were perched high up; if the U-boat had been visible to them only *Keeling*'s upper works would have been visible to the U-boat. But visibility was a chancy phenomenon. It was possible, barely possible, that in the one direction visibility had been better than in the other, that the U-boat had sighted them

without being sighted herself. She would have dived promptly enough in that case.

But there could be other theories almost without limit. The U-boat might be newly fitted with radar – that was a development that must be expected sooner or later, and this might be the time. Naval Intelligence could debate that point when the reports came in. Or she might have been informed of the course and position of the convoy and have merely gone down to periscope depth as soon as she was squarely in its path – her course up to the moment of disappearing had been apparently laid to intercept the convoy. That was a good tactical possibility, perhaps the likeliest. There were others, though. It might be merely a routine dive – she might be exercising her crew at diving stations. Or more trivial yet. It might be the U-boat crew's dinner-time and the cook might have reported that he could not prepare a hot meal with the boat tossed on the sea that was running, and that might have decided the captain to take her down into the calm below the surface. Any explanation was possible; it would be best to retain an open mind on the subject, to remember that about eight miles ahead there was a U-boat under the surface, and to come to a prompt decision regarding what should be done next.

First and foremost it was necessary to get *Keeling* close to the U-boat, within sonar range. So flank speed should be maintained at present. The point where the U-boat had dived was known; she could be proceeding

outwards from that point at two knots, four knots, eight knots. In the plot down below circles would be drawn spreading out from that point like ripples round the spot where a stone drops into a pond. The U-boat would be known to be within the largest circle. In ten minutes she could travel a mile easily, and a circle with a radius of a mile would be over three square miles in area. To search three square miles thoroughly would take an hour, and in an hour the maximum circle would expand to enclose a hundred square miles.

It was most unlikely that the U-boat would linger near the point where she dived. She would head somewhere, in some direction, along one of the three hundred and sixty degrees radiating out from her centre. Yet it seemed the most reasonable assumption that below the surface she would continue the course she had been following on the surface. Even a German submarine, cruising in the North Atlantic in search of prey, did not wander about entirely aimlessly. She would make a wide sweep in one direction and then a wide sweep in another. If she had dived for some trivial reason she would probably maintain her course; if she had dived to attack the convoy she would probably maintain her course, too, seeing that was the course that would bring her square into its path. If she was on any other course it would be hopeless to seek her with a single ship; hopeless, that was the right word, not difficult, or arduous, or formidable, or nearly impossible.

Then was it worthwhile to make the attempt to regain

contact? It would be something over ten minutes before *Keeling* would cross the U-boat's path if both ships maintained course, but as the convoy was almost following them, *Keeling* could conduct a search and regain station in the screen without being away much more than that time. The alternative was to head straight back and, in the regular position in the screen, to hope that the U-boat would come into contact as she crept into ambush. Defence or offence? Move or countermove? It was the eternal military problem. The attack was worth trying; it was worth making a search; so Krause coldly decided, standing there in the crowded pilothouse with every eye on him. He that seeketh findeth.

'Give me a course to intercept if the target maintains course at six knots,' he said into the voice tube.

'Aye aye, sir.'

It would hardly be different from the present course; on the surface the U-boat must have been making about twelve. He could have produced a close approximation in his head. The tube called him.

'Course zero nine six,' it said.

A trifling variation, but it would make a difference of a full mile in ten minutes at this speed. He turned and gave the order to the quartermaster, and then turned to the tube.

'Warn me when we are within two miles,' he said.

'Aye aye, sir.'

'Steady on course zero nine six,' said McAlister.

'Very well.'

About nine minutes to go; it would be best if the ship's company were told of the situation. He addressed himself to the loudspeaker again.

'The U-boat has dived,' he said into the unresponsive instrument. 'He appears to have dived, at least. We are going on looking for him.'

A more sensitive man than Krause, a man with the telepathic perception of the orator, might have been aware of the atmosphere of disappointment that pervaded the ship as he stepped away from the instrument. He looked at the clock again and strode out onto the wing of the bridge. The wind there was tremendous, what with *Keeling*'s twenty-two knots practically added to the north-easterly wind. There was dense spray flying too, freezing cold. As he looked aft he could see the unfortunate men stationed at the depth charge racks cowering for shelter; it was well that the routine even of battle stations allowed them regular relief. He raised his glasses. He could just make out in the murk, very vaguely, *Viktor*'s peculiar foremast, a speck of more solid grey in the general greyness. With *Keeling* leaping and rolling as she was, and with the spray flying, it was impossible to make out more detail than that, and although he swept the rest of the horizon astern with the glasses he could see nothing else at all. Radar would tell him instantly where the convoy was, but that was not what he wanted. He wanted to see with his own eyes what would be the condition of the battlefield if battle there should be, if miraculous good fortune

should lead to a U-boat's being located between *Keeling* and *Viktor*. He turned and swept the horizon ahead; the same grey murk, the same vague junction of sky and water. But should a U-boat surface within range of the forty-millimetre guns, her bridge would be visible enough to lookouts and gun crews and gunnery officer.