

Before the landings

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After Hitler's first victories (Poland, September 1939; France, May 1940; the invasion of Russia, June 1941), the tide of battle began to turn at Alamein (October 1942) and Stalingrad (January 1943). Hastened on by Anglo-American landings in their rear (November 1942), the Germans retreated non-stop from Alamein to Tunis; when they could go no farther, 330,000 of them surrendered on Cape Bon in May 1943. On their eastern front, German armies were in the Caucasus and the Crimea at the beginning of 1943, but after Stalingrad (where 100,000 surrendered) they were steadily pushed back until most of Russia was free by the end of the year.

An assault on 'Fortress Europe' by the British and Americans (allies since Pearl Harbor in December 1941) was not practicable during 1942, although Stalin called for it to bring relief to his hard-pressed country, and although Roosevelt at first favoured it. Instead, the Allies adopted Churchill's plan and landed in north-west Africa. But even before victory was won there, the question of a 'Second Front' in Europe had again been raised at the Casablanca Conference of January 1943; once more American opinion, at first favourable, gave way before British warnings (amply justified by later events) that to attempt so tremendous an enterprise with inexperienced troops would be to court disaster. It was agreed to attack Germany in 1943 through Sicily (July) and Italy (September) rather than by direct assault. Only when the Italian front had advanced to about half-way between Naples and Rome shortly before Christmas were Eisenhower, Montgomery and some of their now battle-trained divisions withdrawn for a decisive assault on Europe in 1944.

Command structure

Both sides set up a command structure for the invasion during the winter of 1943–4. General Eisenhower was appointed Supreme Allied Commander on 6 December and arrived in England on 15 January, by which time General Montgomery, commanding 21 Army Group (which was to control the invading armies), was already at work examining and criticizing the draft plans for the operation. Special Liaison Units (SLUs) were established at both headquarters (which until now had been kept abreast of Ultra information by the three service ministries), and the first signal was dispatched to Supreme Headquarters Allied Expeditionary Force (SHAEF) on 26 January; *VL 4789*¹ gave the not very momentous news that I K G 30 had flown from Istres to Piacenza on the previous day, i.e. that some thirty-five German bombers had moved from the south of France to the Italian front.

On the other side, Rundstedt had been Oberbefehlshaber West² since May 1942. Rommel was transferred from the command of Army Group B in Italy on 5 November 1943 to examine the state of the western defences and report directly to Hitler on them. He was assigned a special staff for the purpose, and Ultra identified it on 2 March when a situation report on the Russian front was sent to 'Staff Rommel' via OB West. Six weeks earlier this special staff had already been formally rechristened with the name of Rommel's old Italian command and put in charge of coastal defence, but Ultra's first glimpses of Army Group B in the west did not come until mid-March; in *VL 8693* the Senior Signals Officer of Army Group B was asked to say where one of his subordinates was to be posted, and the

1. The Ultra signals series are explained in the Bibliography, p. 248.

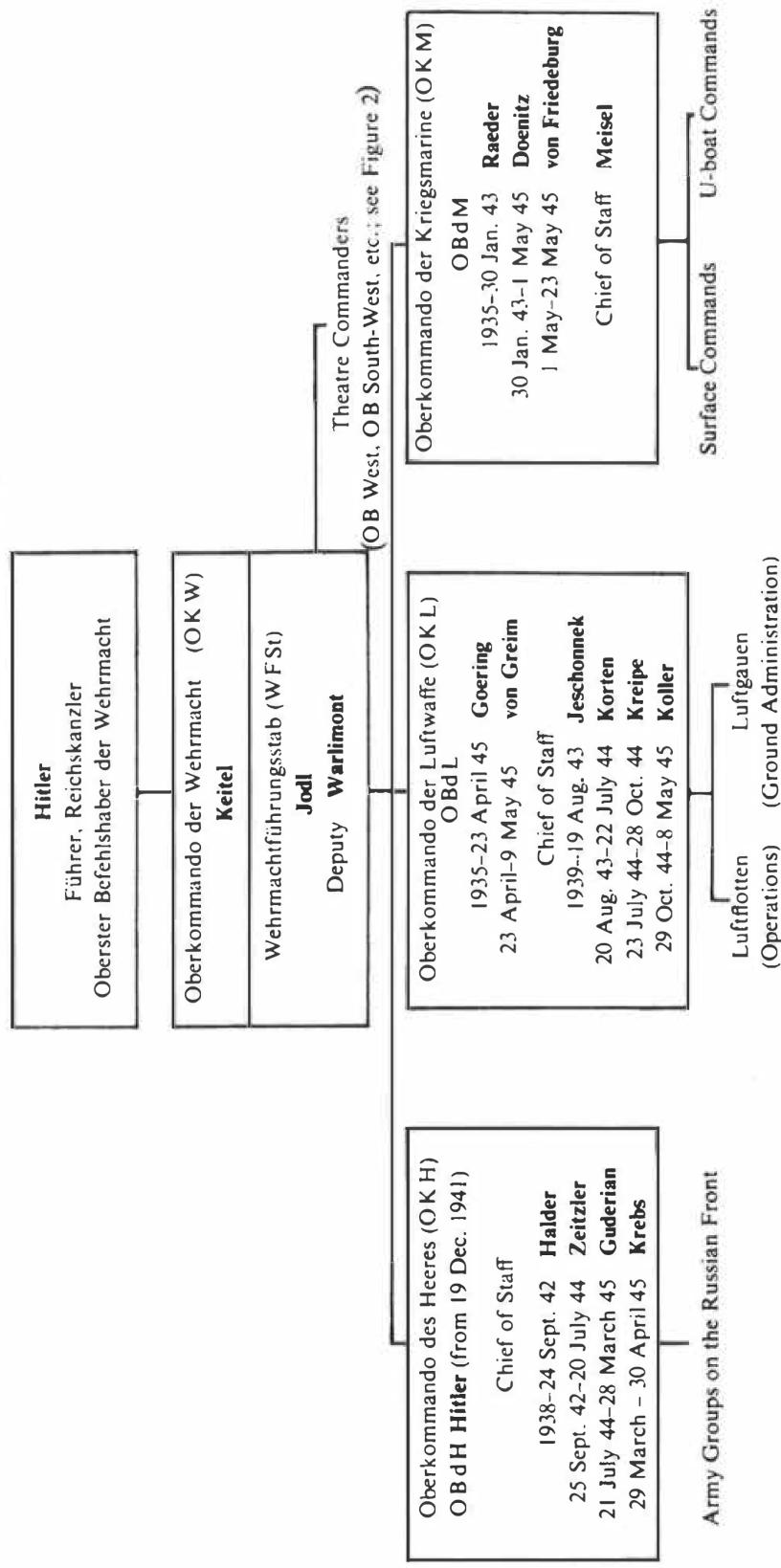
2. Commander-in-Chief West. The title was regularly abbreviated to OB West and the abbreviation was often used, like SHAEF, to signify the headquarters rather than the man.

extremely cautious comment which was agreed with MI 14¹ and appended to the signal reads oddly today: 'No mention of Army Group B since December and no location since it left North Italy. But suggest former connection with Rommel may have been maintained.' By 21 March Army Group B's headquarters had been tentatively located in the St Quentin area. The armoured striking force, Panzergruppe West, turned up for the first time in a mention of its signals section on 6 March. The four armies in Rundstedt's command were well known. In the north, Army Group B controlled 7 Army on the western sector of the Channel coast and 15 Army on the eastern (15 Army's jurisdiction extended as far east as the Dutch-German frontier). Farther south, Army Group G was established in May to control 1 Army on the Atlantic coast and 19 Army on the Mediterranean.

Behind these arrangements for assaulting and defending German-occupied Europe lay the organization of the High Command on both sides. The two systems are set out for comparison in Figures 1, 2 and 3. The German was the neater and the more logical – or, rather, it had been so until December 1941, when Hitler dismissed von Brauchitsch from the post of Supreme Commander of the Army and appointed himself instead (thus giving himself two places in the hierarchy of command at different levels) and deprived OKH (Supreme Command of the Army) of strategic control over all theatres but the Russian. The apparently superior merits of the German system were enough to convince Hitler even as late as September 1944 that the whole world envied Germany her OKW, but in fact the Allied system worked far more smoothly and far more efficiently. Just because they depended on an overriding compulsion to consult and co-operate if victory was to be won for the common cause, even the apparent weaknesses of the Anglo-American scheme proved strengths in the end; when the long and sometimes bitter disputes of 1942 and 1943 (priority for the German or the Japanese war? Europe to be invaded from the Atlantic or the Mediterranean?) were eventually resolved, both parties held as firmly to the joint decisions as if they were not two completely separate sovereignties but only one. Conversely, the formal simplicity of the German system (a single head – not two heads separated by three thousand miles of ocean and advised by two sometimes opposed committees – and a streamlined arrangement for integrating all three services under the OKW) scarcely hid several serious flaws, the devastating consequences of which it was nevertheless easy to under-estimate at the time. The OKW was not a full-blown Ministry of Defence truly combining

1. The War Office department in charge of German intelligence.

Figure 1 The command of the German Armed Forces



Notes: Oberster Befehlshaber der Wehrmacht = Supreme Commander of the Armed Forces.
 Oberkommando der Wehrmacht, des Heeres, der Luftwaffe, der Kriegsmarine = Supreme Command of the Armed Forces, the Army, the Air Force, the Navy.

Wehrmachtführungsstab = Armed Forces Operations Staff.

O BdH, O BdL, O BdM = Oberbefehlshaber = Supreme Commander of the Army, the Air Force, the Navy.

Figure 2 The German command in the west, January–August 1944

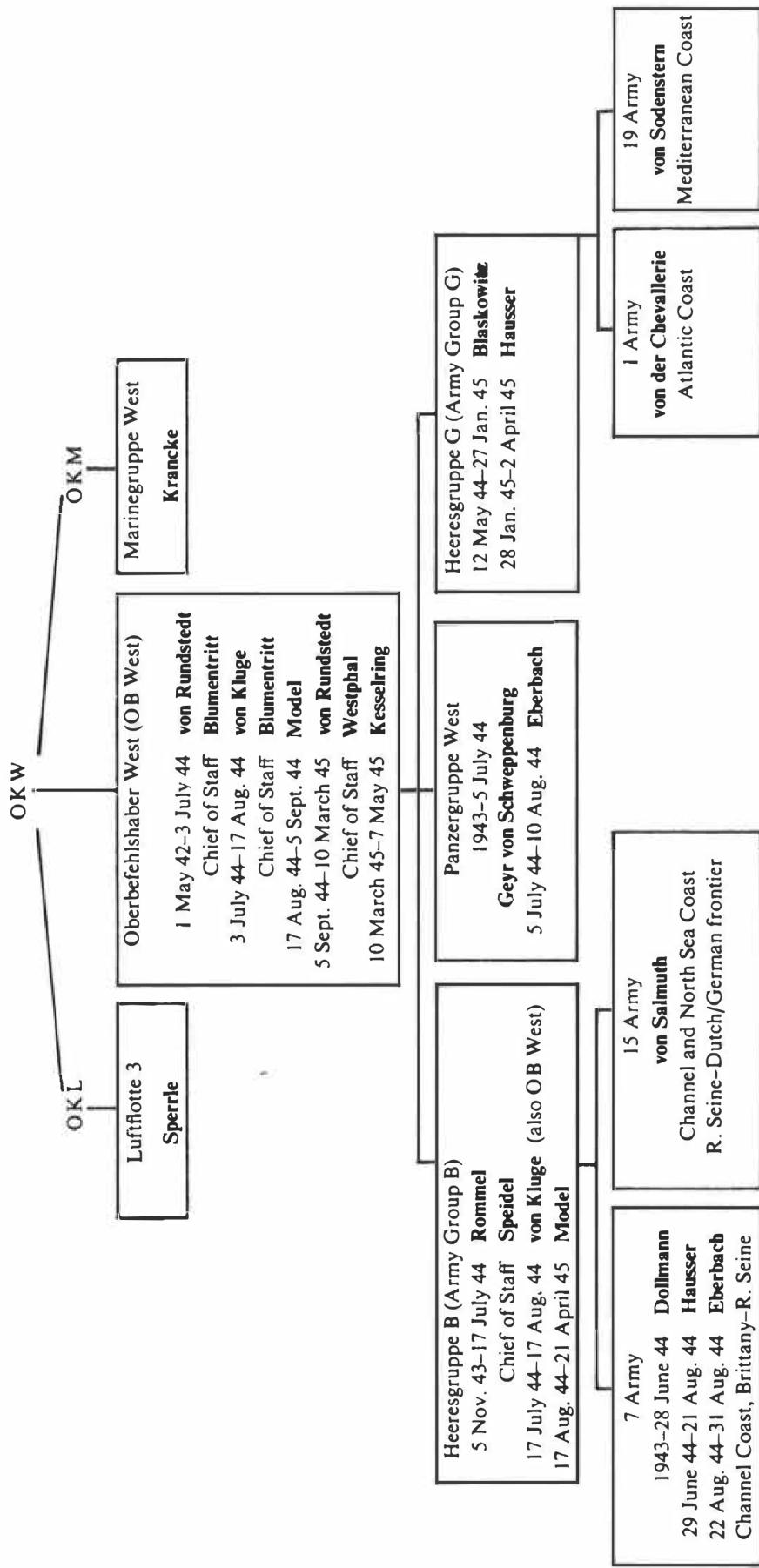
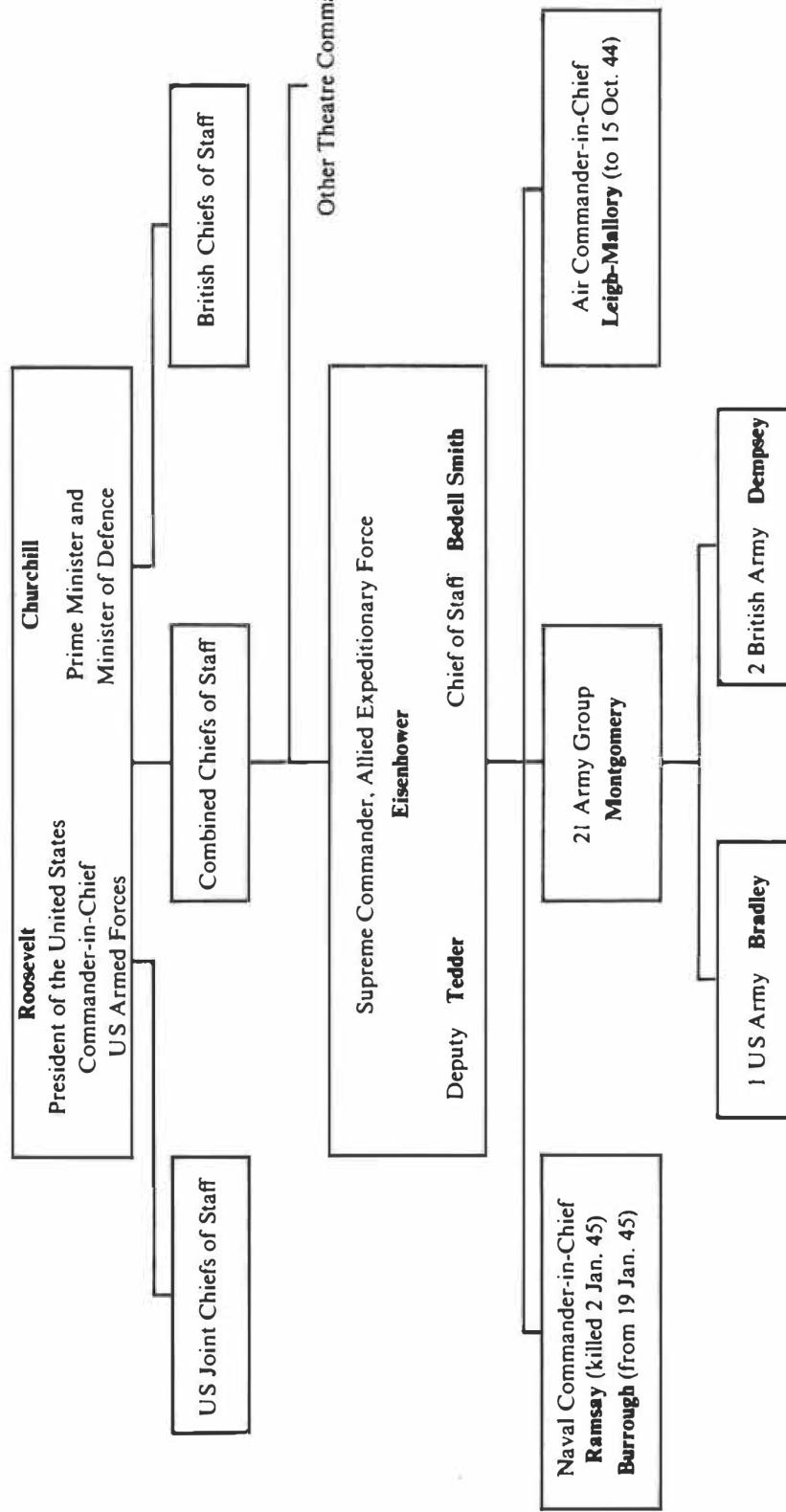


Figure 3 The Allied command in the west, January–August 1944



Notes: The arrangement of the land command was altered on 1 August 1944.
See Figure 4.

and representing all three services, but little more than a handful of senior officers, none of whom had recent experience of field command, living an artificial life at the *Führerhauptquartier* in East Prussia, where they were almost completely cut off from normal contacts. Keitel ('Lackeitel' he was sometimes called – *Lackei* is the German for 'lackey') and Jodl seldom disagreed with Hitler, and willingly accepted a humiliating subservience which one of those who had suffered the same thing by remote control at Stalingrad described as like being 'reduced to the position of a highly paid NCO.' For Hitler intervened with increasing frequency and arbitrariness at all levels. Convinced by the German victories in Norway and France in 1940 and by the success of his 'Stand fast' policy outside Moscow in December 1941 – all of them cases where events had proved his boldness right and the generals' timidity wrong – that he was a military as well as a political genius, Hitler was never content to leave the conduct of operations to those into whose hands he had himself consigned it. He insisted on certain divisions (and stocks of ammunition and petrol) being kept in reserve until he personally released them for action, denying Rundstedt the tanks for a counter-attack on 6 June until the best opportunity had already passed; he wasted troops which could otherwise have defended their homeland by shutting them up in Cherbourg, Brest and the other 'fortresses' he ordained; the Mortain–Avranches attack in August and the Ardennes offensive in December were his alone, planned and persisted in against the advice of those best qualified to judge their feasibility.

Hitler's interference wrecked the very real advantages which the German system might have possessed. But even on paper the simplicity and comprehensiveness of the OKW was never reproduced in the command arrangements for the western or any other theatre of war – whereas, paradoxically, the Allies secured to themselves the benefits of unified command in every theatre although, in the nature of the case, they could not attain it in Washington or London. Eisenhower was given authority over all three services of both nations, but Rundstedt had none over the navy or the air force in the west, and only limited power over the SS troops in his armies, and he had to tolerate the occasional interference of Doenitz, Goering and Himmler as well as Hitler's control over his strategic reserve. Finally, the demands of a war on three fronts, and the severe industrial damage inflicted by the RAF and USAAF, kept Rundstedt short of men and equipment.

- All this may easily give the impression that the odds were very heavily on an Allied victory and a German defeat right from the moment of the landings, and it has become a familiar feature of historical writing in both English and German to take this line. It is

no doubt true that the disparity in resources was so great, and the application of them so well organized on the Allied side by 1944, that there could be only one end in the long run. But this is not how it appeared to most people at the time, nor is this an appropriate starting-point for an appraisal of the Ultra evidence. There was certainly confidence in ultimate victory, but the campaign of 1940 had etched the habit of considering German armies invincible so deeply into the western consciousness that neither Alamein nor Cape Bon nor the Russian advances could yet erase it.

The Ultra evidence itself still warns against too complacent a hindsight, just as in early 1944 it seemed to lift but a corner of the veil hiding a still-mighty Nazi war machine. Many of the SS Panzer divisions were only being raised and trained in the spring of 1944, it was plain, but their expected fanaticism and their enormous size (20,000 men) would probably more than compensate for the reduction of some infantry divisions to only 8000 men apiece, and they were to be equipped with large numbers of the dangerous Mark V (Panther) and Mark VI (Tiger) tanks.¹ Shortages of ammunition and fuel were reported, but maldistribution might account for them and there was always the suspicion that units might be exaggerating their own shortages in order to ensure that they, and not others, got the lion's share of whatever supplies were available. New types of aircraft, like the jet-propelled Me 262, would probably outpace and outgun the Allies' piston-driven machines – and such fears were justified to the extent that it is now widely held that one of Hitler's most serious mistakes was to give priority to his 'secret weapons' and not to manned jet fighters. The secret weapons themselves, the V1s and V2s, seemed the more menacing in the first months of 1944 because so little was known about them and because none had yet landed in England.² The first U-boats fitted with the Schnorkel³ appeared in January 1944 and for a short time threatened to reverse the ascendancy over the U-boats which the Allies had so suddenly and so completely secured during the previous spring.

Nothing that came through on Ultra before mid-September ever hinted at despair or the expectation of defeat, but rather at a continuation of the dogged resistance under pressure which prolonged the battle of Normandy; there were even signs of skilful improvisation in the escape of some divisions from the threat of encirclement

1. See p. 57 below.

2. The first V1s fell on 13 June, the first V2s on 8 September.

3. Tubes which enabled them to take in air and use their diesel engines when submerged, thus avoiding the dangerous necessity to surface in order to recharge electric batteries.

in the Falaise pocket. Ultra reported nothing of Keitel's and Jodl's alarm after only ten days' fighting in the bridgehead, nor of Rundstedt's and Rommel's disagreement with Hitler at the Berchtesgaden conference of 29 June, still less of Rundstedt's irritated 'Make peace, you fools'¹ on the telephone to Keitel two days later, just before he was dismissed. It was only when Paris fell on 25 August, British tanks advanced from the Seine to Brussels and Antwerp in four days (30 August–3 September) and Bradley at Chartres was poising 12 Army Group for an American drive to Frankfurt and the Rhine (2 September) that Ultra began to show unmistakable evidence of large gaps in the German front and thereby offered some encouragement (by no means unqualified, however) to the dangerously exaggerated optimism about an imminent German collapse which seems to have pervaded the Allied command in the first days of September when the Veghel–Nijmegen–Arnhem operation was being planned.

Until then – that is to say from early 1944 until three months after the landings – Ultra intelligence, like all other intelligence, was seen at the time against a sombre background. Particularly during the last weeks before D-Day, there was an anxious awareness of the magnitude of the task ahead and an urgent need for every scrap of information about the state of German preparedness and the disposition of German troops. There was no inclination to expect that victory would be quick and easy or to under-rate the opposition. It is in this light that the intelligence provided by Ultra during the first six months of 1944 must be seen.

German preparations and Allied deception

'Where will they land, and in what strength?' 'How strong will the opposition be, and where are its resources concentrated?' – these were the questions uppermost in the minds of the rival leaders during the spring and early summer. Ultra provided a good deal of information under both heads, but it could not draw a complete picture either of what the Germans expected or of how they had disposed their troops. It could do neither of these things, so long as the enemy relied – as he could until the middle of June – on telephones and teleprinters in preference to the slower business of encoding and decoding wireless messages. But there was a compensating advantage, and it went some way towards levelling the balance. During these same months, the cryptographers managed to break a number of isolated

¹ In answer to Keitel's querulous 'What shall we do?' after the British attack across the river Odon. On the other hand, Ultra succeeded in piecing together most of the evidence which led to this outburst, and this is a good example of the point made on pp. 34–5. See also p. 94.

days' traffic in hitherto impregnable army keys. It was so difficult to do this that they were sometimes held up for a week or more, but the effort was abundantly worthwhile. Most of the late decodes quoted in this chapter were obtained in this way; they conveyed information of immense value, and their lateness seldom detracted much from it.

In an appreciation of invasion prospects, drawn up on 28 October 1943, Rundstedt pointed to the Channel coast, the French Riviera and the Bay of Biscay as the probable assault areas, perhaps in some combination. This was quickly followed on 3 November by Hitler's Directive 51, which laid it down that Germany was now in more danger from the west than from the east, and added that the forces stationed there should not be reduced but that more tanks and guns should be allotted to the western theatre of war; however, the directive was quite unspecific about the point at which the blow to be expected 'at latest in the spring' would fall. Both of these, it has been asserted, became known through Ultra: the evidence to confirm this cannot be consulted, since both date back to a time before signals were sent to field commanders in the west.

The first invasion news to appear in these signals was a rhetorical order promulgated to the troops in Italy by Hitler on 28 January: the Allies' invasion year, he said, had already begun at Anzio,¹ the landings at which were designed to tie down German troops as far away from the Channel as possible, and the battle for Rome would soon flare up. 'Fanatical determination therefore required . . . holy hatred of enemy conducting a merciless campaign of extermination . . . destruction of European civilization . . . enemy to be made to realise that German fighting spirit was unbroken and that the great invasion of 1944 would be stifled in the blood of its soldiers.' (This bombast, of little value as either intelligence or propaganda, happened to be accompanied on the same day by a signal in which Kesselring explained his plan for a counter-attack south of Rome in great detail: a lot would soon depend on whether this sort of thing, long familiar in Africa and Italy, appeared in western Ultra as well.) After this, there was silence on the subject until March, when a succession of reports showed how difficult the German command was finding it to determine whether any one point on the European coastline from Norway to Spain was more threatened than another, and to decide where the Mediterranean figured in Allied plans. (Jodl had in fact already begun to plot agents' reports of possible landing areas on a large-scale map, only to find that there was hardly a mile of this whole coastline which was not threatened by one or another of them.) OK M (Supreme Command of the Navy) believed

1. The landings at Anzio, south of Rome, took place on 22 January.

on 5 March that there might be as many as six British divisions in Scotland ready for an operation 'of limited scope' in central or southern Norway, and clung to its opinion well into May. (Fortitude North, the deception plan, was in fact suggesting this, and the heavy-water plant at Rjukan in Norway had been blown up on 20 February.) Foreign Armies West¹ could not be more precise about the assault area than 'somewhere between the Pas de Calais and the Loire valley' (that is, more than half the northern and western coasts of France!) on 20 March, but Rundstedt received from Kesselring on the same day a description of the Allies' assault procedures and their use of new types of landing-craft. A long appreciation from OB West next day said that preparations were complete but that agents reported that the invasion had been postponed; an attack on the south-west of France was possible and this, OK H concluded a week later, might be synchronized with landings from England.

April brought nothing but a proclamation from Doenitz on the 17th along much the same lines as Hitler's of 28 January. A large-scale landing was to be expected at any moment; its success or failure would decide the issue of the war and the fate of the German people. 'Throw yourselves recklessly into the fight . . . any man who fails to do so will be destroyed in shame and ignominy.' The absence of any reference to the interception of Exercise Tiger² off Slapton Sands ten days later, however, suggested that Doenitz 'at any moment' might be generalized alarm rather than rational deduction, and that the Germans could do little but guess at the date of D-Day.

The fullest information yet came in a lengthy appreciation from Rundstedt on 8 May decoded a week later. Agents had forecast a number of different landing dates, he said, but most of them were in the first half of May; Allied preparations were complete and more than twenty divisions would be landed in the first wave. This was four times the number of divisions then preparing for the first day of the assault, and was therefore a valuable indication of the state of German intelligence. Rundstedt was nearer the mark when locating the main concentration between Southampton and Portsmouth, but could not narrow the assault area down more closely than somewhere between the Scheldt and the tip of Brittany, most probably 'between Boulogne and Normandy'. It would be essential for the Allies to capture large ports like Le Havre and Cherbourg; they were modi-

1. The Intelligence department of OKH responsible for estimating the strength and order of battle of the British and American armies.

2. One of several practice landings carried out by Allied troops during the spring on the south coast of England. A flotilla of German motor torpedo boats encountered it by chance and sank two landing ships. A later German radio broadcast seemed not to connect the exercise with preparations for invasion.

fying their landing techniques to cope with the new outer beach obstacles and would attack 'not only on the incoming tide before dawn' but also later. The main assault would take place as soon as there was a series of fine days, but commando raids on the southern French coast might occur at any time.¹ On the same day Luftflotte 3, the senior air command in the west, made the best forecast so far picked up by Ultra – the landings would be between Le Havre and Cherbourg – and this was decoded at once; three weeks later Luftflotte 3 wrongly thought they might be as far east as Dieppe. Practice anti-invasion exercises were held at various points along the coast from Bruges to the mouth of the Loire; one assumed a bridgehead 50 km long between Ouistreham and Isigny (just where the assault forces landed on 6 June), but no particular importance was assigned to this over other areas. Foreign Armies West's last appreciation before the invasion was dated 1 June but was not decoded for ten days. It forecast 12 June as the beginning of the next danger period and deduced that a landing might take place in south France because Montgomery and Wilson were said to have met in North Africa (perhaps one of the very few known repercussions of Operation Copperhead, the visit of an actor disguised as Montgomery to Gibraltar and Algiers on 26 and 27 May?), adding that there was evidence of preparation for a landing in the Balkans as well.

It looks as if Ultra gave a fair sample of the confused ideas about the probable landing place which competed for the attention of senior German officers all through the spring, but did not manage to pick up a hint of Hitler's conviction that Normandy and Brittany were the likely target area. Since neither Rundstedt nor anyone else seems to have agreed with him or acted upon his conviction much more than obvious geographical logic compelled, however, Ultra may have given something like the right impression, although of course this could not be realized at the time. Nor was anything revealed by Ultra about the bitter disagreements between Rundstedt, Rommel and Geyr von Schweppenburg over the relative merits of beach defences and mobile armoured reserves. Ultra, it would seem, was useful but was not able to give either full reassurance or clear warning either about the enemy's efforts to identify the landing area or about his probable counter-measures.

It was just as important to deceive the enemy about date as about place. Here Ultra's evidence was slender. On 8 May Rundstedt was clearly quite uncertain when the attack would come, and he seems

1. Two evidently similar appreciations, dated 24 April and 15 May, are quoted in Ellis i. 129, but not the one mentioned above. Cave Brown 491 has Blumentritt, Rundstedt's Chief of Staff, sending an appreciation on 8 May, but gives it a different content.

still to have suspected nothing on the 27th, since he was prepared to review progress with the building of fortifications (he complained of being allotted too little concrete, and of inadequate rail transport) after 10 June; but confirmation that Berlin believed that nothing would happen before 12 June was, as has been seen, not available until after the event. However, this slender evidence was sufficient to suggest that in all probability no inkling of the truth had dawned on the German command. More could hardly be expected of a source which was still denied access to nearly all communications at the highest level.

Somewhat better results seem to have been achieved with the more negative aspect of the deception plan. Analyses of the radio networks of British and American formations in the United Kingdom and deductions therefrom were distributed to German headquarters in Enigma code and intercepted from January 1944 onwards. A three-fold comparison between these deductions, the actual distribution of troops in England, and the fictitious distribution which it was hoped to induce the enemy to believe could, if made at intervals of (say) a month between February and August 1944, show the various stages of the Fortitude deception plan and the extent of their success. The Ultra evidence for what the Germans believed is now available. But evidence for the other two limbs of the comparison – the true and the false Allied order of battle and locations – is hard to discover and would be laborious to compile into a form in which it could usefully be set beside Ultra. By early autumn the disparity in force between the two sides was so great that it probably mattered very little – save perhaps, during the Ardennes offensive – whether the Germans did or did not know where the Allied troops were and what their strength was, but until then it was important to deceive them in order to prevent undue interference with the build-up of this disparity and with the break-out from the original bridgehead. Ultra gave regular information about the German assessment of Allied dispositions all through the vital months, and this was presumably of considerable value both to the deception planners (as confirmation that their deceit was a success) and to the operational staffs (because it showed them why some divisions were being kept away from the Normandy battle, and consequently enabled them to forecast with some confidence how long they would remain uselessly aloof from the fighting). But without a strict and detailed comparison between the three types of information, no precise assessment of the extent to which Ultra revealed the success of the deception plan can be made. To seek the evidence (mostly unpublished) essential for such a comparison and to set it out in parallel with Ultra would have been a major undertaking and would have entailed a long digression from an account of

Ultra's part in operations. What follows is therefore not this strict comparison; it aims only at outlining the way in which Ultra helped the deception planners and makes no claim to completeness.

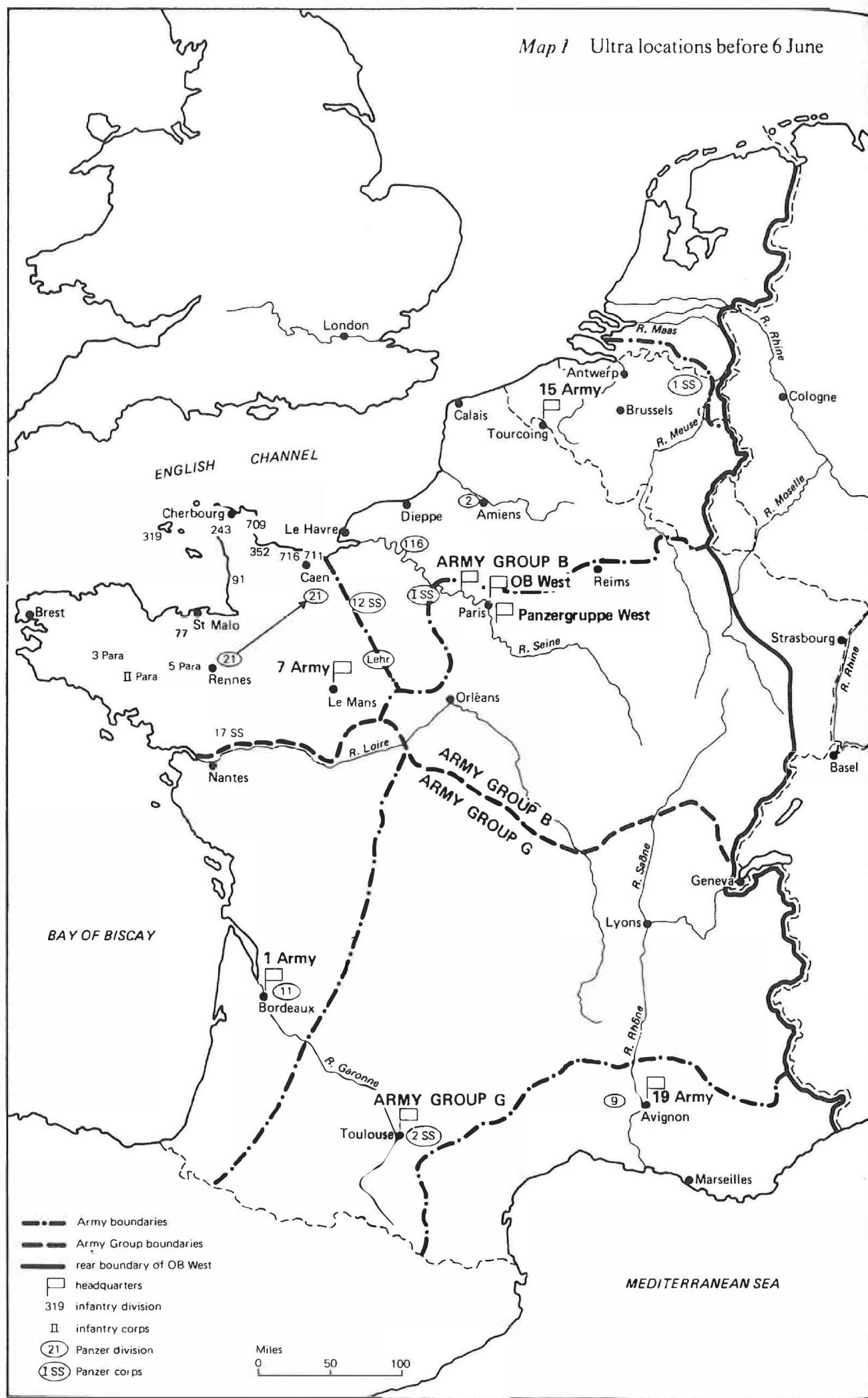
Fortitude¹ sought to persuade the enemy that the First United States Army Group (FUSAG – which had no real existence at all) under General Patton would land in the Pas de Calais during July and that this, not the Normandy landing, would be the chief invasion effort. The object, of course, was to ensure that German troops and armour were retained north of the Seine for as long as possible, and so to prevent the reinforcement of the German forces in Normandy until the invaders were too strong to be dislodged. Some indication that the deception was proving successful came when FUSAG first appeared in Enigma traffic on 9 January 1944 and again on 23 March, and when Patton was mentioned in this context in late March; evidence that its (entirely imaginary) threat to 15 Army in Calais and the Netherlands was still being taken seriously persisted until late July. Apart from Rundstedt's expectation that more than twenty divisions would be landed in the first wave, which has already been quoted, there does not seem to have been any direct confirmation of the over-estimate of Allied strength which it was hoped to implant in the enemy's mind, save for such false or inaccurate identifications as may have been revealed to the deception planners by lists of Allied units like that in K v 5792 of 27 May. The best evidence that the bait was being swallowed was that the largest single category of pre-invasion Ultra evidence concerned the location of German army and air formations, that a great deal of it suggested that the enemy was taking the threat from Kent and Sussex to the Calais–Boulogne area seriously enough to keep this part of the Channel coast strongly manned, and that none of it gave any hint to the contrary.

Divisions located

Some twenty-eight German divisions manned the coast between Amsterdam and Brest on 6 June; Ultra had mentioned fifteen of them at least once in a French context (not always very precise) by the end of May. From Brest along the Biscay coast to the Spanish frontier, the figures are seven and five, and on the French Riviera seven and four. By D-Day, therefore, Ultra had identified (and in a good many cases located) well over half the garrison-type divisions which would be the first line of resistance to the landings. In addition, all the army and corps commands along the coast had been identified at least once, many of them together with evidence showing what units or formations each controlled. This probably did not provide more

1. For an outline of the plan, see Masterman, *The Double Cross System* 145–63.

Map 1 Ultra locations before 6 June



than a hard core to other information about the tactical disposition of German troops manning the coastal defences, and it no doubt fell a good deal short of what was desirable. Thus 352 Division, a field division of good quality which moved into the Côte d'Opale in March and right up to Omaha beach a few days before the landings, received only a single mention in Ultra before the fighting began: this was on 22 January in an OK H order which provided the first evidence that this division existed but did nothing to locate it beyond showing that it was under OB West's command. In view of the initial difficulties of the Omaha landing, much has been made of the failure of Allied intelligence to locate 352 Division and some accounts appear to contain the veiled implication that Ultra might have been expected to give a hint of its position. The reason why Ultra could not be relied on to know anything about troops with satisfactory land communications has already been sufficiently explained, but it is also worth pointing out that this was not an isolated or exceptional case. For just the same reason, Ultra was even less well informed about 352 Division's right-hand neighbours in the British landing area, 716 and 711 Divisions: there was no mention at all of 716 Division in Ultra signals before D-Day and only the bare record of a fusilier battalion reaching 711 Division on 23 May.

There were two exceptions to the general rule that Ultra knew only a little about the infantry divisions which guarded the beach obstacles and which were to provide the hard shell of the defence under the scheme Rommel had devised and Hitler accepted: there were fuller reports on 77 Division (St Malo) and 91 Division (in the Côte d'Opale) than on any others. The arrival of the newly formed 77 Division in OB West's area on 3 and 4 May was known four days later, and so was the fact that it was 8000 men strong and fit for a defensive role only. OK W declared 91 Air-Landing Division part of its central reserve for all theatres (i.e. regarded it as of high fighting quality) on 29 March and ordered it to remain in Strasbourg, but it was beginning to move into OB West's area on 4 May along with 77 Division, was allotted to 7 Army next day and directed on 10 May to a 'new area' which proved to be the base of the Cherbourg peninsula. It had in fact only been ordered there at the beginning of the month, when Jodl reminded Rundstedt that Hitler attached particular importance to Normandy, so that Ultra got the news of the move very promptly indeed and also quickly disclosed the new dispositions Rundstedt accordingly made after a tour of inspection by Rommel: LXXXIV Corps was to have under command 709 Division (Cherbourg), 243 Division (Cherbourg–Port-Bail–Canville),¹ 91 Division (Carentan–

1. Rundstedt added a self-contradictory postscript to the effect that 243 Division was to hold back a strong mobile reserve – on bicycles.

Montebourg-La Haye du Puits) and 6 Parachute Regiment (Périers-Lessay).¹ Thus fuller information was available about the first line of defence near and just within the right boundary of the US sector than for any other part of the line.

With the exception of 91 and 352 Divisions and 6 Parachute Regiment, all these were static, second-quality troops. It was far more important to know the whereabouts of the armour and whether there were any other paratroops in the vicinity. Both were of superior battle capability, and the location of the armour on D-Day would determine the speed with which a counter-attack on the bridgehead could be mounted and would indicate which roads and railways should be bombed in order to delay it. In point of fact Ultra revealed far more about the paratroops which had been drafted in to strengthen the defence after Rommel's strictures² and about the armoured striking force than it did about the almost immobile divisions which guarded the coast. It showed the consequences of the awkward and unsatisfactory compromise Hitler imposed on Rommel's and Rundstedt's disagreements; there was much to be said either for defending the beaches so strongly that the invasion would be repelled on them or for launching a heavy armoured counter-attack as soon as the main landing point had been identified, but nothing at all for a plan which tried to reconcile these contradictory views, scattered the Panzer divisions instead of concentrating them, and denied Rundstedt sole control of the armoured counter-attack force.

II Parachute Corps had an equipment staff at Châlons-sur-Marne on 7 February and was known to be interested in 3 Parachute Division in the Reims area, and its headquarters was at Melun on 6 April. Part of 1 Parachute Division was moving to Brest a month earlier, and a series of reports in May linked 2 (from the Russian front), 3 and 5 Parachute Divisions with II Parachute Corps and various locations in Brittany. II Parachute Corps was listed as 7 Army reserve on 30 May.

The Panzer divisions in the west were even better documented. 2 Pz was heard of in a western context in late March and firmly located at Amiens on 20 April; 9 Pz (upgraded from 155 Reserve Division) was at Nîmes in the spring and was frequently noted in the same area thereafter; on 2 May 9 Pz and two other new armoured

1. Only a month earlier, 6 Parachute Regiment had been the sole OKW reserve for Reich defence.

2. To which particular attention has lately been drawn by Irving 287-99.

divisions, 11 Pz and 116 Pz, were to be equipped with motor transport during the late summer months; 21 Pz was moving to a new location in March, which was known early in April to be Brittany and precisely located as Rennes a month later, and its composition figured in two later signals; 116 Pz (formerly 179 Reserve Division) was taking over 21 Pz's old positions on 22 March and was near Paris on 2 April, but its distribution along the lower Seine was not apparent from the decodes which formed the basis of several later signals; Pz Lehr (formed from several high-quality training units, it was a formidable fighting force until the disaster which overtook it at the end of July¹) had shared in the occupation of Hungary in mid-March² but was also taking over a workshop in Versailles, and it had thereafter appeared in OB West contexts several times before it was seen moving up to the Côtentin on 15 May.

Towards the end of April, Pz Lehr figured alongside 1, 12 and 17 SS Divisions (the first two armoured, the third lorried infantry) in one of Ultra's best hauls in the west so far. On 26 April Hitler ordered that I SS Panzer Corps, consisting of these four divisions, was to constitute the OKW reserve in the west and was not to be moved without his prior permission. Jodl's signal announcing this and the reserves for all other theatres of war except the Russian was in the hands of Allied commanders just three days later. I SS Pz Corps had been steadily located by Ultra in Brussels since the middle of December 1943 before it moved to the west of Paris later in May, and all its four component divisions were regularly reported.

A real plum, had it only been available a little earlier, was a long OB West return of 19 May which gave full details of 1 SS Pz Division's strength (over 20,000 men) and some information about its equipment; the section covering its tanks was missing, but the same return showed that 2 SS Pz, then still at Toulouse, had fifty-five Mark IVs and thirty-seven Mark Vs (Panthers), with forty-six and sixty-two respectively still to be delivered. The division had been regularly reported at Turnhout in Belgium in late April and early May. 12 SS Pz, also in Belgium in February, could be followed to south Normandy in April and was still firmly located in the Evreux area right up to D-Day, while 17 SS Panzergrenadier³ Division remained consistently at Tours and westwards throughout the spring and early summer. Farther south, 2 SS Pz was regularly reported between Bordeaux and Toulouse from February to May and the

1. See pp. 105–6 below.

2. The abundant Ultra evidence about the occupation was summarized in VL 9625 of 28 March.

3. Lorried infantry. Abbreviated to PzGr.

allocation of 11 Pz (not 10 Pz, as first intended) to the same area in early May for rest and refit was duly noted.

If to all this it be added that the transfer of II SS Pz Corps (9 and 10 SS Pz Divisions) from Normandy (to which it had come from Italy in December 1943) to the Russian front in March and April, in accordance with Hitler's decision of 26 March to accept a temporary weakening of the west in spite of his previous ruling to the contrary, could be clearly followed, then Ultra will be found to have kept a close watch on the movements of all the main armoured forces in the western theatre of the war. A sentence in the OKW War Diary lends extra sharpness to this point: the Allies were believed not to have realized that II SS Corps had left France, but OKW nevertheless ordered in mid-April that the three new Panzer divisions just mentioned (9, 11 and 116) be created by upgrading reserves in order to make good the resultant defensive weakness. In point of fact, Allied commanders knew about all this shortly after it happened and in ample time to take full account of it when making their plans for the invasion.¹

Valuable confirmation that Ultra had correctly identified and located all the armour in the west was provided by an announcement by the Inspector General of Panzer Troops, Guderian, of his itinerary for a western tour on 20 April; this gave a splendid insight into the distribution of the armour a month before the landings. He was first to spend three days with various SS tank units at Mailly-le-Camp near Reims before calling on Rundstedt and Rommel in Paris on the 26th. After this he would inspect 2 Pz at Amiens and 12 SS Pz at Dreux, and take in a visit to Dollmann (commanding 7 Army) on the way westwards to 21 Pz at Rennes² and 17 SS PzGr at Thouars. Moving south, he would next see Blaskowitz (just about to take over the new Army Group G) and inspect 10 Pz at Bordeaux, 2 SS Pz at Montauban and 9 Pz at Nîmes, returning to Paris to call on 116 Pz on 8 May. Mailly-le-Camp was a well-known SS tank training area (it was reported in this connection from March to May) and it was heavily raided, with 400 casualties, while Guderian was on his way to Paris, possibly as a result of Ultra information.

1. In order not to overburden the text, nothing has been said above about units below the size of a division, several of which were reported by Ultra and later played an important part in the fighting.

2. The move, shortly after this inspection, of 21 Pz from Rennes to Caen (whence it attacked the beach-head on the afternoon of D-Day) seems to have escaped explicit mention in Ultra; it could with some probability be inferred, however, from the absence of 21 Pz from a long list of military locations in the towns (including Rennes) of Brittany and western Normandy dated 15 May. The move was evidently known from other sources.

The evidence quoted so far has been almost entirely concerned with the location of corps and divisions, so far as this could be discovered. From the middle of April onwards information about strength began to accumulate too, and this gave a different but equally valuable indication of the resistance a landing would encounter. OB West reported on the strength and state of training of two of his armoured divisions on 20 April. 2 SS Pz Division had 412 officers, 2536 NCOs and 14,077 men; its basic training had not progressed beyond the sixth week, and only one battle-group was ready for offensive operations; there were deficiencies in NCOs, men, motor transport and signals equipment, and fuel was short. 12 SS Pz's strength was 484 officers, 2004 NCOs and 19,920 men, it was still under basic training and was short of fuel. On the same day the Denmark command reported that 363 Division (which was to be moved to France in July) was still being set up, was short of young officers, and had almost no motor transport but 8000 sick horses. A fortnight later, and again in May, 17, 84 and 85 Divisions, newly formed and belonging to the twenty-fifth conscription class, were reported pretty well up to their recently reduced establishment-strength at around 8000 men each. Just before the landings 17 SS PzGr Division was in its twenty-second week of training, short of officers, NCOs and transport, but well provided with guns.

A useful index to OB West's capacity to counter-attack a landing would have been given by two tank returns he rendered in May (decoded 6 and 7 June), had they been fully intelligible at the time. They were of a type not yet encountered in the west although familiar in Italy, and were rendered according to a pro-forma, the paragraph headings of which were not yet understood. The meanings were only penetrated when more examples of this and similar pro-formas accumulated in later months. Between them they covered 9 Pz, 21 Pz, 1 SS Pz, 12 SS Pz Divisions and some other less heavily equipped units.

Most of the statements made in a handful of wide-ranging situation reports from Rundstedt and Rommel have already been recorded, but a few additional points may be mentioned here. Rundstedt said on 21 March that much work had lately been done on beach defences and that he considered it three-quarters complete in 7 Army area, two-thirds in 1 Army; he was improving the defensive grouping behind 7 Army by bringing 21 Pz Division up to Brittany. His report of 8 May already quoted again recorded good progress on beach defence (progress was slowed down three weeks later by a serious fuel shortage, however) and noted that 2 Parachute Division and 7

Werfer Brigade (mortars and rockets) were now strengthening the most endangered part of the front. This suggests that it was the Breton-Norman frontier area which the western command thought the most likely landing place. On the other hand, throughout the late spring the fighter command in Brittany was constantly reporting no air activity in his area, and at the opposite end of the front it was the number and intensity of the R A F's and USA A F's raids on the Pas de Calais which helped the Germans to deduce (as they were intended to do) that the landings would take place there.

Signs of a serious German manpower shortage were soon evident. At the beginning of March, Kesselring wanted to withdraw the Italian front to a shorter line because of his lack of trained troops and was still complaining in May. Keitel gave Rundstedt a solemn warning on 19 April when he said that OK W was well aware of the weakness of 1 Army in south-west France and was constantly trying to remedy it, but that the general situation forbade any reinforcement at present, so that if Rundstedt wished to strengthen 1 Army he would have to do so by transferring troops from some other part of his command. What was very likely part of Rundstedt's rejoinder was signalled on 16 May. It expressed disquiet on the same subject and talked about a duty to comb out rear echelons in order to maintain the combat strength of fighting units. These were the strongest indications yet received of the scarcity of German reserves; some other examples will be given in a moment. The formation of Army Group G to control 1 Army in south-west France and 19 Army in south-east France a week later may have been the most effective response to this warning which Rundstedt could devise, for he had long been conscious that there was a serious weakness at the junction between his and Kesselring's commands on the Franco-Italian frontier: he had told Kesselring and OK W as long ago as 6 January that in his opinion it would not be possible to mount a counter-attack against a landing on this coast (OK H thought at the end of March that a secondary landing might be made here, timed to coincide with the main cross-channel attack).

If considerably less can be said from Ultra about the location and strength of G A F units in France, this is not so much because of any scarcity of information as because of the difficulty of attaching exact significance to it. Tanks and infantry had to be in position ready to meet the invaders, but aircraft could be used for the defence of the Reich until the landings and then flown to France at a moment's notice. Reports of airfield occupation in France, which were regular and frequent, were therefore valuable mainly because

they showed where the bases would be in the event of an invasion; on their own, they could scarcely indicate the scale of the opposition to be expected. A strength return by Fliegerkorps X (anti-shipping) for 16 May was available ten days before the landings, and so were returns from Fliegerkorps IX (bombers) and two fighter Gruppen, but their value was limited by the reflection that reinforcements would be flown in directly the emergency arose. That a plan to do this existed was apparent in mid-March when it was announced that with the approval of Luftflotte Reich (the air defence of Germany) General Buelowius, commanding the close-support aircraft of Fliegerkorps II in France, would shortly inspect 'the units which are to be transferred in case of emergency'. There was further reference to the transfer plan just before the middle of May.

All through the spring there was also a steady flow of information about the strength and location of GAF units in Germany, but no attempt has been made to record and analyse it here. Maximum value could only be extracted from this sort of evidence, from whatever theatre of war, by a statistical analysis of the detail collected from day to day; this was undertaken at the time by Hut 3's Air Section and by its research departments. A GAF code was Hut 3's most regular source, and it provided material of this kind in great profusion. Only a relatively small proportion of it was signalled at once; the rest was not urgent enough in the form in which it arrived. But everything went down in the index, from which the signals were annotated, and everything went to the Air Ministry, which compiled intelligence summaries from it. Neither card-index nor intelligence summaries are now available. Without them, it has not been easy to avoid giving the quite false impression that Ultra gave a clearer picture of the German army than of the Luftwaffe. If anything, the contrary is true. But the army evidence almost speaks for itself; the significance of a division moving from one place to another can hardly be missed, and until the landings such moves were usually made with deliberation and seldom cancelled in a hurry. With an air force, the case is different. To move fighters or bombers over considerable distances is comparatively simple, and the operation can be reversed more quickly than that of a comparable number of tanks, for instance. Moreover, since GAF moves were frequent, often concerning several quite small units with different types of aircraft in the course of a single day, the broad significance of the mass of detail can only be effectively grasped when it is compiled into a statistical table and set out on a map – which, of course, every headquarters concerned did at the time. A good example of what could be done by collecting scattered evidence in this way is provided by KV 8819, which gave a complete list of GAF fighter units and their bases in mid-June; but

because it was seldom necessary for Hut 3 to signal summaries of that kind, it is a comparative rarity amid the surviving evidence. This is very far from implying a paucity of information about the GAF, however, as would at once become plain if it were possible to consult the many other such compilations made at the time but not signalled. On the contrary, as D-Day approached, the locations, preparedness and strength of all the GAF units likely to be engaged came under ever closer scrutiny.

Problems of the defence

The most striking emphasis in GAF messages during the late spring was on shortages of all kinds. Bomber units were required on 16 March to submit the names of volunteers for day and night fighting, and since this scheme was 'over and above that ordered by the Air Officer for Bombers' it was evidently a second appeal. It was presumably the same scheme which was mentioned a few days later by the Balkan air command and a transport Gruppe, both of which referred to the strained manpower situation for the air defence of the Reich and to the need for volunteers. Attention was drawn to another aspect of the manpower shortage by a Berlin order of 4 May halting the recruitment of paratroops among GAF flying and technical personnel in order to maintain operational readiness; other similar recruiting had already been stopped. Finally, on 9 May OKL (Supreme Command of the Air Force) refused Fliegerkorps IX an increased establishment of bomber crews because of the growing demands of the fighter programme and the general tense aircrew replacement position. In view of the imminent assault, fighters were urgently needed, of course, but the competition for manpower¹ here shown was further reflected by the unsatisfactory scale of effort by all branches of the GAF from June onwards; cries for help and complaints of the lack of it by the army were rife, and refusals by the GAF command nearly as frequent.² It was possibly manpower shortage, too, which explained why the first mention of defensive sea-mining in the Channel for many months came as late as 27 May.

Equipment was as much in demand as men. The Balkan air command announced a ruthless comb-out of spare parts for Me 109,³

1. Because of the shortage of labour, even the privileged fighter pilots were ordered to spend twelve off-duty hours a week helping to prepare new dispersal areas to protect aircraft from the mounting Allied air attacks.

2. See, for instance, pp. 102, 109, and 116 below.

3. Wings for the Me 109s were in particularly short supply at the beginning of June.

Me 110 and Fw 190 aircraft on 27 March in order to maximize the production of new fighters for home defence; results were to be achieved within a fortnight, and units would have to live from hand to mouth in future. There was no reason to suppose that the combat-out was restricted to the Balkans, but rather that we had chanced to intercept the Balkan copy of a widely distributed order. The wide application of the order was taken for granted in a comment to *KV* 3530 of 12 May, which authorized the establishment of teleprinter links between the fighter staff of the German Air Ministry and certain factories with effect from 3 May, evidently to speed up production, and when similar links were set up between the fighter staff and front repair workshops. A connection may be surmised between all this and an OKL instruction of 28 April: in view of a recent severe decline in the serviceability of transport Gruppen, a temporary Gruppe of forty-eight Ju 52s was to be set up, and all Luftflotten were invited to contribute aircraft to it. A number of signals during the next ten or fourteen days bears out the seriousness of the transport problem, caused by Allied air attacks on roads and railways.

There were just two mentions of new types of aircraft. The names of highly qualified pilots were to be submitted by 15 March for retraining on Arado 234s, Dornier 335s and Messerschmidt 262s. The novelty and value of this information is sufficiently indicated by an Air Ministry comment appended to *VL* 7389 to the effect that the Me 262 was known to be jet-propelled but that the other two types were unknown. (In July the Me 262 was in fact the first jet aircraft in the world to enter operational service with any air force.) Just a month later the Director-General of GAF Equipment announced that the Me 163 would be operational sooner than anticipated but that the continual difficulties with the power-unit made it necessary for all servicing personnel to be trained by the manufacturers, Walter of Kiel. The Air Ministry comment to *KV* 1417, which conveyed this information, was that the Me 163 was a rocket-propelled aircraft of short endurance.

More valuable than any of this, in all probability, was the high-level confirmation received in the last pre-invasion weeks that the petrol and oil situation was becoming really serious for the enemy. Naval Gruppe West, one of its subordinates said on 19 May, had just ordered a substantial reduction in fuel consumption because of Allied raids on Rumanian oil-fields and German hydrogenation plants, and it expected the June allocation to be considerably below previous quotas. That this was no mere alarmist report was evident from an OKL order issued while the assault forces were at sea and signalled to commands just after the first troops landed on 6 June. Even essential training and production requirements could scarcely

be covered with the reduced fuel stocks consequent upon Allied action, it stated, and the only quota-classes which could be considered for aircraft fuel allocations in June were bombers, fighters, ground attack and supply formations. It had been necessary to break into the OKW strategic reserve in order to ensure the defence of the Reich and prevent collapse in Russia. Present stocks would have to last until the beginning of July; only very small adjustments could be made, and then only 'provided the Allied situation remains unchanged'. The strictest economy was essential, and duty journeys were to be made by rail if at all possible.

Thus during the months before the landings Ultra confirmed that the Allied offensive against the fighter arm of the GAF and against the oil industry was having effect; the quality of the evidence was high, because much of it came from Berlin or senior commands, though its quantity was not very great.¹ Much the same can be said about another aspect of the air offensive, the effort to disrupt communications and slow down the rate at which reinforcements and supplies could reach the armies facing the invader. As early as 1 April, only a few days after the disagreements between the Allied commanders had been settled and the transport interdiction plan given high priority, Keitel complained to Rundstedt and others that OKW's directions for the repair of air-raid damage to railways were not being carried out with sufficient energy, and ordered maximum effort to speed up repairs. Locomotives were so short because of air attacks in his command area by 10 May that Rundstedt asked whether he might employ prisoners on repair work; Kesselring had made a similar request in Italy a little earlier. In an appreciation of Allied air-raids on the night of 26-7 May, Luftflotte 3 concluded that there was a deliberate plan to prevent reinforcements reaching the front and that this plan had largely succeeded, adding that attacks on the Seine bridges pointed to a landing at or near Dieppe and thus again confirming the success of the Fortitude deception plan. Two signals in June showed that Allied raids were rendering daylight traffic between the Seine and the Atlantic coast too hazardous to be risked.

There is a similar story to tell about damage to airfields and the interruption of telephone lines. One example of the former may serve to represent the very considerable number received; 75 tons of aircraft fuel were delivered to Argentan on 6 June, but nearly half it had been destroyed from the air less than two days later. Bomb-damage reports, whether positive or negative, enabled the serviceability of a

1. In addition, there was a considerable number of reports of air-raid damage to towns and factories in Germany. For an appreciation of some tactics used on these raids by the USAAF see VL 7822 of 6 March and VL 9205 of 23 March.

given airfield for the next few days to be forecast with some confidence, even when a specific report on this did not (as it often did) come in later. The best proof of the success of the Allies in interrupting German army and air force telephone and teleprinter communications was the tremendous upsurge in Enigma traffic which began from the moment of the landings; it was of course in part due to the change from static to mobile conditions, but this was by no means always the reason. Rundstedt's senior signals officer reported a number of problems over repairing damaged land-lines on 17 May. An air-raid on 31 May cut the GAF's Paris-Rouen cable so badly that it was expected to be out of action for three days, interrupting Paris-Rennes and Paris-Caen contact for that period. By 8 June the navy was in even worse plight: Captain U-Boats West at Angers reported that all lines to Berlin, Nice, Wilhelmshaven, Paris, Brest and La Rochelle were down because of enemy action and that he had only one teleprinter line to Paris, which was working intermittently.

Until the heavy raids of May and June began to put land-lines out of action, comparatively little news was received about the location and equipment of the radar installations used to detect the bombers' approach: κ v 2536 of 30 April, which gave the location of a Wuerzburg Giant array, was an exception, but after the landings information of this kind could often be passed on to air commands for their guidance.

Finally, as D-Day approached and the success of the operation might depend on weather conditions, the weather reports and forecasts which had for years been one of the least interesting features of Enigma traffic suddenly acquired a greater potential importance. One was sent as κ v 6169 to commands with very high priority in the late evening of 2 June, for instance; it may conceivably have contributed a little to the pool of information at Eisenhower's headquarters and to the agonizing 'To go or not to go' debates of the next two or three days. Since they were very often received and decoded well before the period covered by the forecasts, and since they were often associated with intended raids by the GAF, it was often worthwhile to give them high priority during the next few weeks and to provide information on Continental conditions which were difficult for Allied weather bureaux to ascertain.

From the moment the British army left the Continent at Dunkirk in June 1940, the Germans' need for radio communications diminished sharply. Garrison conditions prevailed as soon as the invasion of England was called off in September, and the few troops left on guard

were well provided with land-lines. Ultra in France and the Low Countries sank to a trickle, and the lively Enigma traffic in the Balkans and North Africa in 1941–2 and in Italy in 1943 did not spill over into the west. There, only the GAF – and principally squadrons moving from airfield to airfield, not major commands – had much occasion to use wireless telegraphy.

This situation still prevailed when the SLU was set up at Eisenhower's headquarters in January 1944. One moderately useful bit of intelligence was soon passed over this link – Hitler's proclamation of 28 January, already quoted¹ – but this arose out of Italian conditions and must have been intercepted on its way to Kesselring's troops. After this, there was almost nothing with a bearing on Overlord until the end of the first week in February, and less than one signal of any significance was passed each day until the end of that month. A higher level was reached early in March and maintained in April, although March was the more productive of the two. There were still odd gaps of a day or two even later, but May was the best month yet from the Ultra point of view, and probably saw more signals passed to commands in the west than the previous three put together. If Ultra had not told the Overlord commanders a great deal by 6 June, therefore, this was because there was not much traffic to intercept; it had in any case probably produced rather more than could have been forecast with any confidence when the service to SHAEF opened in January, and the volume of intelligence derived from this source during the first five months of 1944 was nothing in comparison with what was to come.

The number of Enigma intercepts, and hence of Ultra signals, increased with dramatic suddenness even on D-Day itself and rose still further during the following weeks, and the high traffic levels of June 1944 were maintained with remarkable consistency until the last few days of the war. There were occasional fluctuations, but never a really serious decline. A lull in the fighting might reduce signals traffic for a day or two, just as the helter-skelter out of France in the second half of August naturally increased it. New cryptographic refinements introduced at the New Year caused delays with some keys in the spring of 1945, but were countered by improved bombes. As the area within which Enigma was used grew smaller and smaller when the western and eastern fronts closed to within a few miles of each other in March and April, the total volume of traffic dropped away; but the value of what remained was increased by a much higher proportion than formerly of messages originating with Hitler, Keitel or Jodl – presumably because they could no

1. On p. 49 above.

longer rely on undamaged telephone lines. There were gradual changes like this in the type and provenance of Ultra information during the eleven months of the campaign, but astonishingly little diminution in either volume or intelligence value.

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AND FINAL .

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XO 1444 & 1444

PART TWO AND FINAL .

DENMARK & DENMARK, NORTHERN & NORTHEAST, TWELVE ARMY, T
ARMY GROUP VISTULA & VISTULA WITH NINE ARMY, ARMY EAST
. RUSSIA & EAST PRUSSIA, AND ARMY GROUP COURLAND & COURLAND.
(THREE) OPERATIONAL DUTIES OF OPERATIONS STAFF ABLE UNDER
GROSSEADMIRAL DOENITZ & DOENITZ NOT & NOT TO COME INTO FORCE
FOR TIME BEING. (FOUR) PRINCIPLE TASK OF OKW & OKW REMAINED
THE REESTABLISHMENT OF CONTACT ON BROAD FRONT WITH BERLIN &
BERLIN BY ATTACKING WITH ALL FORCES AND MEANS AND GREATEST
POSSIBLE SPEED FROM NORTHERN & NORTHEAST, SOUTHWEST
SOUTHEAST, AND SOUTH AND THEREBY BRING THE BATTLE OF BERLIN
& BERLIN TO A VICTORIOUS DECISION. (FIVE) OPERATIONS GRUPPE
OF THE GENERAL STAFF AND INSPECTOR GENERAL OF PANZER TROOPS
TO COME UNDER COMMAND OF CHIEF OF ARMED FORCES OPERATIONS
STAFF. (SIX) CMO & CMO OF HEER & HEER AS ARMED FORCES CMO & CMO
DIRECTLY UNDER CHIEF OF OKW & OKW. (SIX) ORDER FOR COMMAND
OF OAF & OAF WERE TO FOLLOW

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Notes

Chapter 1

- p. 21 *50,000 men in 1944*: Speidel 64.
- p. 24 *U-boats and so on*: Beesly 64–5.
- p. 26 *responsible for their activities*: Winterbotham 21–4, 88–9, etc.
- p. 32 *fact never have existed*: Schramm 1764. After reading ‘mountains of records’ for his book *The Siegfried Line Campaign*, Macdonald concluded: ‘Yet one major element often is missing: the “why” behind a commander’s decision. Indeed, it is difficult in many instances to determine even who made the decision’ (Macdonald 629).
- p. 33 *not support the claim*: made, for instance, by Winterbotham 47, 116, 145, 150.
- p. 37 n. *Charybdis of the recipient*: PRO 31/20/3, 17.

Chapter 2

- p. 41 *to Hitler on them*: Schramm 256, *Rommel Papers* 453.
Rommel’ via OB West: VL 9032.
charge of coastal defence: Schramm 263–7.
come until mid-March: VLS 8693, 8846.
- p. 42 *the St Quentin area*: VL 9037.
section on 6 March: VL 8758.
envied Germany her OKW: Schramm 1636.
- p. 46 *a highly paid NCO*: Schramm 37.
- p. 48 *fighting in the bridgehead*: Schramm 1593.
conference of 29 June: Ellis i. 323, Schramm 1594, Irving 362–4.
‘Make peace, you fools’: Lewin, *Montgomery* 208.
the Rhine (2 September): Pogue 253.
- p. 49 *perhaps in some combination*: Ellis i. 54.
the spring’ would fall: Schramm 1530–34.
became known through Ultra: Winterbotham 190, Cave Brown 356.
blood of its soldiers’: VLS 5160, 5309.
- p. 50 *Rome in great detail*: VL 5449.
or another of them: Schramm 1798.
central or southern Norway: VL 9126, not decoded until 22 March.
opinion well into May: VL 5426.

- France!) on 20 March: KV 773, decoded 12 April.*
types of landing-craft: VL 9183.
OB West next day: KV 353, decoded 6 April.
concluded a week later: KV 628, 727, decoded 10 April.
in shame and ignominy': KV 1705.
- n. *with preparations for invasion: Ellis i. 133.*
Rundstedt on 8 May: KV 3763.
- p. 51 *between Le Havre and Cherbourg: KV 3242.*
far east as Dieppe: KV 5446.
this over other areas: KV 3434, 4728.
decoded for ten days: KV 7502.
- p. 52 *transport) after 10 June: KV 5689, signalled 29 May.*
- p. 53 *on 9 January 1944: VL 4834, decode and signal 26 January.*
again on 23 March: KV 190 of 4 April.
context in late March: VL 9732.
persisted until late July: XL 5226, decode and signal 8 August.
- p. 55 *the Côte d'Or in March: Schramm 271.*
under OB West's command: VL 6997.
to locate 352 Division: Pogue 171, Bradley 272, Ellis i. 138–9,
Churchill vi. 4, Strong 139, Harrison 319 among many others.
711 Division on 23 May: KV 5399.
3 and 4 May: KV 3990, 3183.
a defensive role only: KV 3185.
to remain in Strasbourg: KV 828, decode 12 April.
along with 77 Division: KV 3183.
7 Army next day: KV 3892 of 15 May.
the Cherbourg peninsula: KV 5320, 5437, 5416, all of 26 and 27 May.
particular importance to Normandy: Ellis i. 128, Schramm 302.
6 Parachute Regiment (Périers-Lessay): KV 5416 of 27 May;
see also KV 5081 of 24 May.
- n. *OKW reserve for Reich defence: KV 2388.*
in the Reims area: VL 5892.
Melun on 6 April: KV 456.
Brest a month earlier: VL 7992 of 8 March.
various locations in Brittany: KV 3763, 5320, 5437, 4917, 5416,
5554 of various dates in May; KV 5050 gave details of their battle-readiness.
reserve on 30 May: KV 6888 of 8 June.
context in late March: KV 2189.
Amiens on 20 April: KV 2624, 2721.
- p. 57 *the late summer months: KV 353, 3970, 5193.*
new location in March: VLS 8955, 9363, 9644.
April to be Brittany: KV 353 of 6 April.
Rennes a month later: KV 2624 of 2 May.
in two later signals: KV 3892, 6348 of 15 May and 4 June.
positions on 22 March: KV 131.
a workshop in Versailles: KV 218.
Côte d'Or on 15 May: KV 5081 of 24 May.
without his prior permission: Schramm 302, Ellis i. 119. The latter unaccountably omits 17 SS Division.
just three days later: KV 2388.

- middle of December 1943: e.g. VL 6626 of 19 February.*
Paris later in May: KV 6131 of 2 June.
still to be delivered: KV 7583 of 11 June.
April and early May: KV 2760, 4608, 4723.
in Belgium in February: VLS 7347, 7430.
south Normandy in April: KV 1333, 2624, 2721.
right up to D-Day: KV 6240, 6377 of 3 and 6 June.
spring and early summer: e.g. VL 7384, KV 2624, 2721.
from February to May: VL 7576, KV 4723.
refit was duly noted: KV 3070, 5193.
Italy in December 1943: VL 6626.
in March and April: KV 181, 325, 485.
ruling to the contrary: Schramm 275.
the OKW War Diary: Schramm 116.
- n. *Normandy dated 15 May: KV 5081 of 24 May.*
n. *known from other sources: Ellis i. 128.*
116 Pz on 8 May: KV 2624, 2721 of 2 May.
from March to May: VL 8703, KV 771, 3840.
his way to Paris: KV 3763.
p. 59 *divisions on 20 April: KV 2295.*
but 8000 sick horses: KV 2002, 2649.
around 8000 men each: KV 1171, 3185, 4371, 6160.
well provided with guns: KV 8866, not available until 20 June.
decoded 6 and 7 June: KV 6705, 6799.
said on 21 March: KV 353 of 6 April.
report of 8 May: KV 3763.
a serious fuel shortage: KV 5689.
p. 60 *lack of trained troops: VL 8072.*
still complaining in May: KV 3482.
warning on 19 April: KV 2612, 2678 of 2 May.
strength of fighting units: KV 5588 of 28 May.
France a week later: Schramm 300, Ellis i. 120.
ago as 6 January: KV 4819 of 26 January.
main cross-channel attack: KV 628, 727; see also VL 9689.
p. 61 *days before the landings: KV 5555.*
and two fighter Gruppen: KV 6540, 6476, 7102.
in case of emergency: VL 9471 of 26 March.
the middle of May: KV 3616, 3684.
p. 62 *required on 16 March: VL 9024.*
the need for volunteers: VL 9356, 9463.
had already been stopped: KV 3606.
tense aircrew replacement position: KV 3353.
n. *mounting Allied air attacks: KV 5335 of 26 May.*
late as 27 May: KV 5762.
n. *the beginning of June: KV 6257.*
p. 63 *to mouth in future: VL 9724.*
and front repair workshops: KV 3423 of 10 May.
instruction of 28 April: KV 2555.
considerably below previous quotas: KV 4762.
p. 64 *if at all possible: KV 6673.*
industry was having effect: cf. Ehrman v. 293–7, 396.
to speed up repairs: KV 3015.
prisoners on repair work: KV 5314.

- Italy a little earlier: KV 2405.*
at or near Dieppe: KV 5446.
Two signals in June: KV 8562, 8818.
than two days later: KV 6943.
 p. 65 *land-lines on 17 May: KV 5554.*
contact for that period: KV 6618.
which was working intermittently: KV 7075.

Chapter 3

- p. 72 *in the immediate future: Schramm 299; Ellis i. 129.*
same 'parachutists' were dropped: KV 8950, 8997.
not be ruled out: KV 6724.
coast were believed threatened: KV 6859, 6978, 6992, 7071,
7305, all of 7 and 8 June.
ferry over the Seine: KV 6822.
far upstream as Paris: KV 7546.
hours on 5 June: KV 6548, 6581.
 p. 73 *I SS Pz Corps: KV 6854, 7035.*
out its planned operations: KV 7383.
four hours to spare: KV 6638, 6642, 6671.
A comprehensive list: KV 6735.
front by 10 June: Ellis i. 567; compare Tedder 550.
to be left untried': KV 6788, 6801.
central and northern Brittany: Ellis i. 237-8; Schramm 313.
 p. 74 *the American right wing: KV 6893, 6933, 7002, 7112.*
a thrust into Belgium: KV 6834.
command it had just left: KV 7415, 7587, 7638, 7645, 7798,
7978, 8376, 8589.
directly under 7 Army: KV 6958, 7002.
and received his orders: KV 7435.
Geyr's staff were killed: KV 7681.
more than a fortnight: Speidel 100.
 p. 75 *cancelled before it started: KV 7450.*
speaks of a 'crisis': Schramm 313, cf. Harrison 373, Pogue
194.
target before the raid: Cave Brown 690.
decisively to the Allies: Lewin, Montgomery 201, Speidel 99.
was very serious indeed: Ellis i. 258.
shells the day before: KV 6682, 7715.
to deliver it in: KV 7260.
army units near Caen: KV 7468, 7292.
be forced into action': KV 7134.
early as 8 June: KV 7497.
attack his tanks attempted: KV 7998.
 p. 76 *its men and equipment: KV 7382.*
in much better heart: KV 7371.
made by 8 June: KV 6978, 6992.
support thus asked for: KV 7236.
would have on morale: KV 7555.
available two days late: KV 7518, 7539.
 p. 77 *Isigny at all costs: KV 7213.*
19 Pz (very ill-equipped): KV 7767.
north-east France and Belgium: KV 7986, 7987, 8024.

- off the Côte d'Or peninsula: KV 7864.*
fight to the last: KV 7845.
operation on the 9th: KV 7383; cf. p. 00.
to support the troops: KV 7713.
morning of 13 June: KV 7779.
- p. 78 *Hut 3's series of signals: Bradley 293.*
them on 14 June: KV 8008.
day by LXXXIV Corps: KVs 8303, 8334.
Corps appealed to Goering: KVs 7976, 8465.
to meet its needs: KV 8393.
in an air-raid: KV 8240, 7743, 7830.
Cherbourg on 16 June: KV 8450.
forty-eight hours later: KV 8776.
ability to hold on: KV 8606.
running out of ammunition: KV 8800.
3 Para suffered 'heavy losses': KV 8695.
Americans on 17 June: KV 8618.
by the American thrust: KV 8234.
latest 'no withdrawal' order: Ellis i. 262.
as long as possible: KV 8760.
landings on the coast: KV 8899.
Commander of LXXXIV Corps: KV 8790.
- n. *Corps on 20 June: KV 9097.*
to demolish Cherbourg harbour: KV 8774.
Divisions were in Cherbourg: KV 8952.
are too mixed up: KV 8986.
were also too old: KV 9461.
exhausted for their task: KV 9001.
to be carried out: KV 9167.
grenadier regiment by sea: KV 9382.
the harbour was closed: KV 9366.
will do my duty': KV 9173.
all his reserves committed: KV 9255.
for the eastern front: KV 9319.
meant guns or ammunition: KV 9274.
man, last round' message: KV 9409.
Cherbourg ten days earlier: KVs 9384, 9443.
by refusing to surrender: KV 9501.
the Epsom battle began: KVs 9422, 9563.
the south was over: KV 8707.
La Haye du Puits: KV 8741.
to II Para Corps: KV 9144.
- p. 79 *St Lô on 23 June: KVs 9313, 9351.*
to cover that area: KVs 9492, 9559.
on the American front: Rommel Papers 476.
in Belgium and Holland: KVs 7986, 7987, 8024.
first identified in action: Ellis i. 254, 260–61 and notes 24 and 43 from unpublished sources; cf. Montgomery, Normandy 221; Pogue 181.
filled the awkward gap: KV 7975.
remarks about a 'crisis': Ellis i. 266, Tedder 552.
order of 11 June: KV 7912.
review at this time: e.g. KVs 7705, 8192, 8849.