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**Rommel's Campaign for North Africa
April 1941–December 1942**

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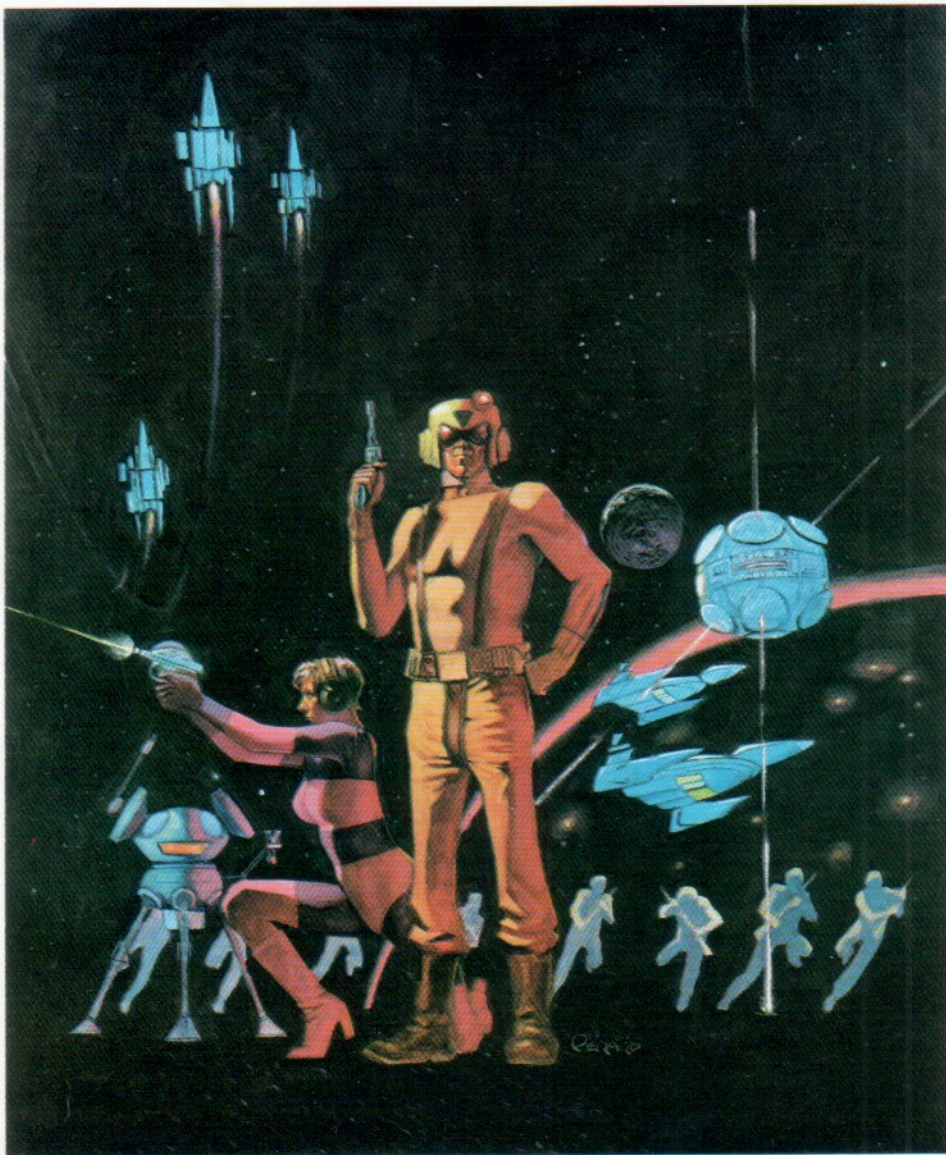
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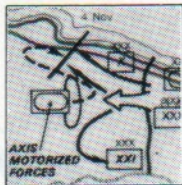
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Looking Ahead to Next Time

The game in S&T 88 will be *BAOR (British Army of the Rhine)* by Charles T. Kamps, Jr., the third release in the Central Front Series. Charles Kamps also contributes an article on the subject of his game; Al Nofi returns with an overview of the 100 Years War between England and France.

When to Expect Nr. 88

Domestic Subscribers: If you have not received your copy of S&T 88 by 16 November 1981, notify our Customer Service Department. Please include your Customer Code and issue of expiration, both of which should be found on this issue's mailing label, just above your name. **Foreign Subscribers:** Add eight weeks to the above date to allow for the indolent pace of international mail.

Outgoing Mail

Works in Progress (p. 2), Who Was That Game Company (p. 18), The Situation Currently (p. 18), Feedback (p. 18), Burnside Our Bridges Behind Us... (p. 18), Gossip (p. 54).

Works in Progress

The following list includes all unpublished projects currently being worked on. The listing for each game includes the title, subject, designer and developer. Titles appear in the approximate order as the products will be published.

Dragonslayer. Gather arms, companions and sorcerers to take on the evil dragon; based on the Walt Disney-Paramount Pictures production. Simonsen/Hessel.

Return of the Stainless Steel Rat. Slippery Jim diGriz, Harry Harrison's beloved rogue, confronts a berserk computer and its programmer. Costikyan/Costikyan. *Ares* 10 game.

Universe GM Screen. 11" x 34" screen for Gamesmaster featuring the most important charts and tables, plus booklet with various logs and character records. Butterfield/Butterfield.

BAOR. The third installment of the *Central Front* series covers the action just north of the *Fifth Corps* map and pits the British against the Warsaw pact. Kamps/Maxwell. S&T 88 game.

Enchanted Woods. *DragonQuest* adventure #3. Jaquays/Klug.



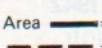
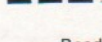
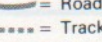
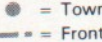
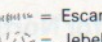
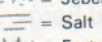
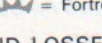
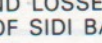
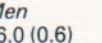
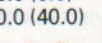
[continued on page 18]

O'Connor's Offensive 9 December 1940 - 9 February 1941

Key for all maps:

British units are in medium face regular type; Axis units are in bold face italic type.

Dates are those of capture by the Attacking Forces.

-  = Assembly Area
 = Camp
 = Advancing unit(s)
 = Retreating unit(s)
 = Road
 = Track
 = Town
 = Frontier
 = Escarpment
 = Jebel Achdar
 = Salt Marsh
 = Fortress

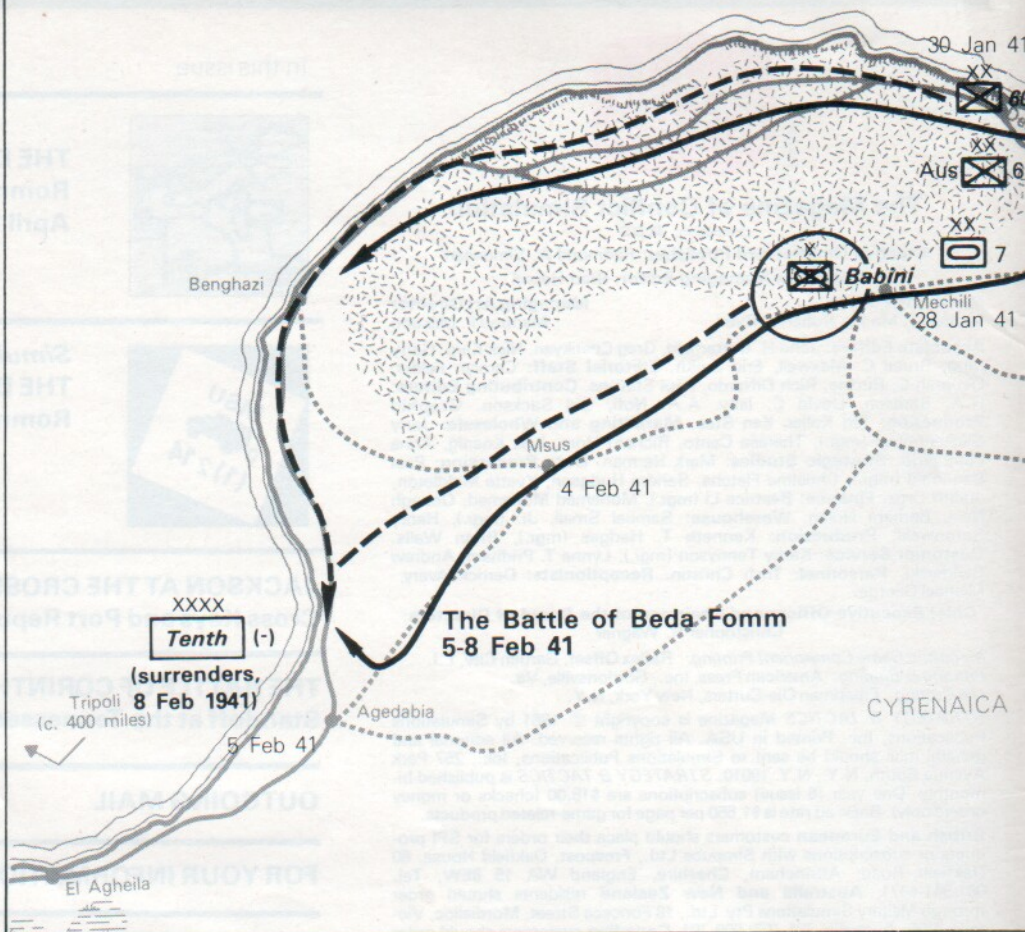
STRENGTH AND LOSSES, THE BATTLE OF SIDI BARRANI

	Men	Tanks
British	36.0 (0.6)	400 (75)
Italians	70.0 (40.0)	450 (200)

For all maps, all figures for men in thousands. Figures in brackets indicate losses from all causes. All figures are approximate for the total number engaged during the operation in question.

STRENGTH AND LOSSES, O'CONNOR'S OFFENSIVE

	Men	Tanks
British	50.0 (2.0)	400 (75+)
Italians	150.0 (130.0)	450+ (450+)



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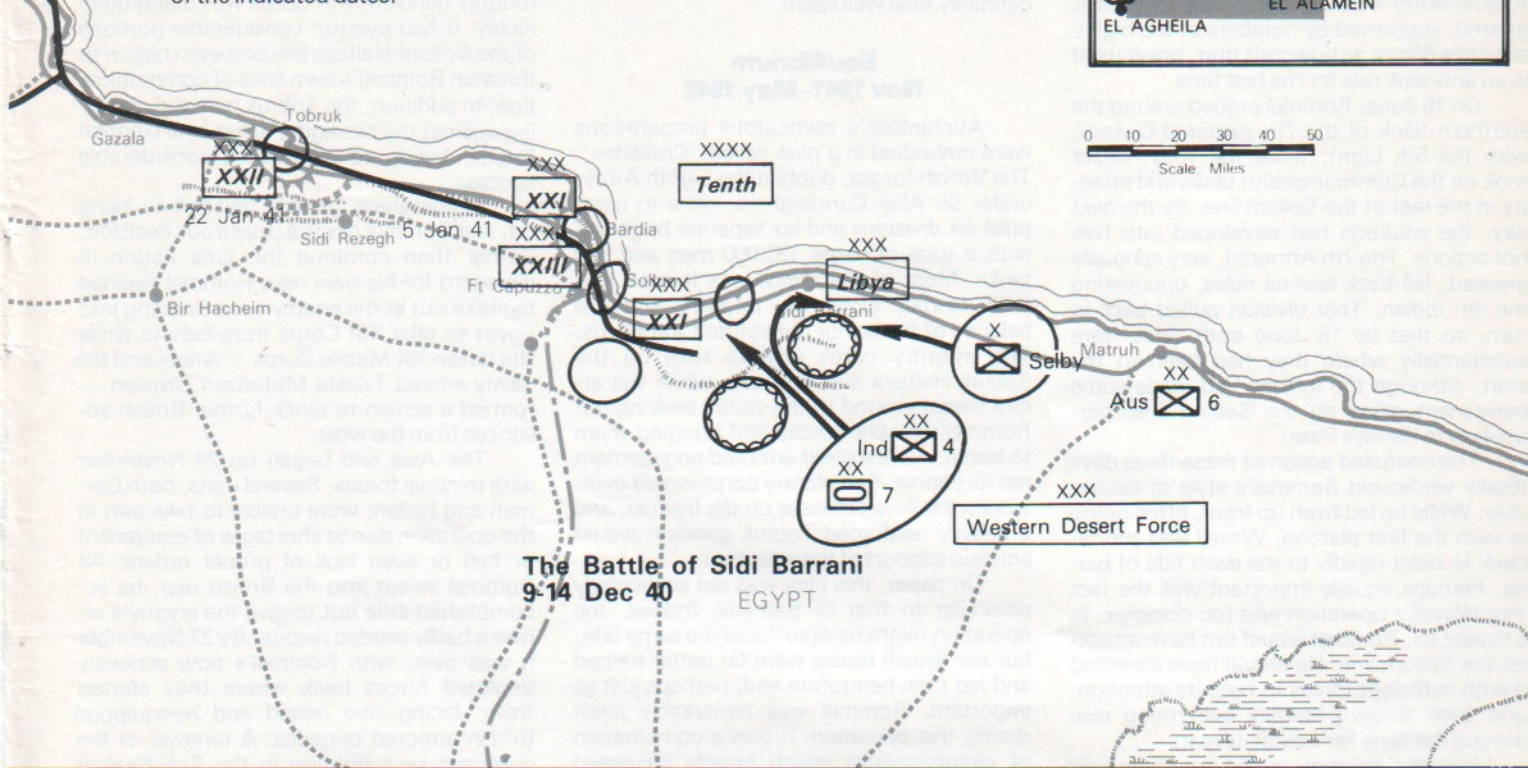
The Desert FOX

Rommel's Campaign for North Africa April 1941–December 1942

by A.A. Nofi

The war in the desert wastes of Egypt and Libya in 1941-42 was unique in the experience of the Second World War. The last honorably conducted campaign in modern times, it was characterized by none of the abominations so common in other theaters of that conflict. Of immense strategic import, it was nevertheless conducted on a shoestring by one side with enormous success, even in the face of the vast resources of a world empire. It was a conflict overwhelmingly dominated by the will and spirit of one man, the only man and commander in the war on either side to win both professional respect and popular admiration from his foes: Erwin Rommel, "The Desert Fox."

Before Rommel: This map is a graphic representation of Sir Richard O'Connor's triumphant two month campaign against Marshall Rudolfo Graziani's Italian 10th Army, which grew out of a planned exploratory raid on 9 Dec 1940. Units are shown in the positions occupied as of the indicated dates.



Birth of a Legend Feb-Oct 1941

Erwin Rommel was selected to command the German motorized troops to be dispatched to North Africa in February of 1941. These troops had been originally intended to support the Italian offensive against Egypt, but by then it was no longer a question of support. The situation in the desert was grim. In a brilliantly conducted offensive, a highly mobile, albeit numerically inferior, British Commonwealth force had virtually extirpated an enormous, non-motorized Italian army in two months of almost continuous combat. Rommel's mission was simple: he was to bolster the defense of Tripolitania, the western portion of Libya, on the El Agheila line, and lay the foundations for an eventual counteroffensive when Axis — specifically German — forces had been built up.

Given his slender resources (less than one German division, plus an Italian armored division and four poor quality Italian infantry divisions) there was little else that anyone could have expected of him. Certainly the British did not consider him a threat. Expecting that it would be summer before the Germans posed any serious threat, the British had shipped most of their desert-wise forces to Greece, leaving behind the newly arrived 2nd Armored Division, 9th Australian Division, and one Indian motorized brigade on occupation stations, rather than in proper defensive positions. But if no one expected Rommel to undertake an offensive, neither

had anyone forbidden him to do so. On 31 March, he struck.

With the 3rd Reconnaissance Battalion supported by infantry and artillery of the 5th Light Division, Rommel undertook a reconnaissance in force. The elements of the British 2nd Armored Division screening the El Agheila line crumbled before his advance. Within days he was pushing his troops to the limit as the British fell back. As the 5th Light and the Italian Ariete Armored Division drove across the desert south of the mountainous Jebel Achdar, the Italian Brescia Infantry Division shepherded the retreating British along the coast road.

Organized resistance began to collapse, particularly after 6 April, when the entire command and staff of the British forces in Libya was captured. By 11 April, having advanced nearly 400 miles and inflicted some 3,000 casualties — mostly prisoners — on the British at almost insignificant cost, Rommel invested the great fortress of Tobruk, held by a battered but game Australian division. As Rommel attempted to take the fortress by storm, small German and Italian formations pressed on to the Egyptian frontier, some 75 miles further east.

Tobruk proved too tough to crack. Uncomfortable in static situations, Rommel proved unable to develop a properly coordinated, systematic assault. A siege began, with Italian and German infantry holding trench lines. The defenders, with their backs to the sea, relied heavily on the Royal Navy to bring up materiel and reinforcements, so a proper blockade never developed. Indeed,

the besieged were usually better supplied than the besiegers.

Meanwhile, to the east, along the Egyptian frontier, a similar trench system developed in the vicinity of Sollum, designed to block easy British passage along the coast. Beyond the southern flank of this position, and slightly to the rear, were concentrated Rommel's principal striking forces, the Afrika Korps, reinforced by late spring to three divisions (5th Light, 15th Panzer, and 90th Light) and the Italian Ariete Division.

Considerable skirmishing occurred on both the Tobruk and Sollum fronts through the spring, but the British made no serious efforts to drive the Axis from Cyrenaica. They were biding their time, building up their strength, and by mid-June they were ready.

Sir Archibald Wavell had available two good veteran divisions, the 7th Armored and 4th Indian, and considerable miscellaneous forces as well. The Indians, bolstered by a heavy tank brigade, were to advance against the Sollum position while the armored division swept around the Axis southern flank. Once having overrun the Sollum line, Wavell believed he could reconcentrate his forces and press on westward in expectations of developing a major tank battle. The undertaking, code-named "Battleaxe," was scheduled for 15 June. British radio discipline was poor, however, and Rommel was alerted to the fact that something was up. He moved the 15th Panzer Division up close behind the Sollum line, holding back the balance of his mobile forces whilst strengthening his troops before Tobruk.

The British offensive began as scheduled. The 4th Indian Division successfully pinned the front of the Sollum line, whilst hooking a brigade each of infantry and armor around into its rear. Meanwhile, the 7th Armored Division pushed on to the west to cover the reduction of the Sollum line. The Axis infantry in the Sollum line held their ground, supported by numbers of the highly effective 88mm anti-aircraft gun, being used in an anti-tank role for the first time.

On 16 June, Rommel probed around the southern flank of the 7th Armored Division with the 5th Light, while the 15th Panzer took on the Commonwealth tanks and infantry in the rear of the Sollum line. By the next day, the situation had developed into two hot actions. The 7th Armored, very seriously pressed, fell back several miles, uncovering the 4th Indian. That division pulled back in turn, so that by 18 June both sides were substantially where they had been at the start, although the Indians had made some permanent gains on the Sollum line, particularly in Halfaya Pass.

The confused action of these three days totally vindicated Rommel's style of leadership. While he led from up front, often going in with the first platoon, Wavell was too far back to react rapidly to the swift tide of battle. Perhaps equally important was the fact that Wavell's operation was too complex. In a similar fix, Rommel would not have attacked the Sollum line. He would have screened it with sufficient forces to keep its attention, and then thrown literally everything else around the flank for a try at its rear.

Wavell, however, ought not to be held fully responsible for the operation's disappointing outcome. He had undertaken his offensive primarily at the urging of Churchill, who thought himself something of a military genius. That he failed was part of the fortunes of war. That Churchill replaced him was petty, albeit beneficial to the Allied cause, for his replacement was Sir Claude Auchinleck, who promptly started laying the groundwork for a future offensive, whilst beating off Churchill's demands for an immediate undertaking.

Both sides began to build up their forces again. Rommel had particular problems in this respect, for North Africa was a sideshow to the Axis, particularly after the invasion of Russia. Compared to the enormity of the Nazi-Soviet conflict, the desert war was a mere skirmish. Rommel's totalitarian masters, neither given to accepting criticism, could not be convinced that the African theater was worthy of support. Moreover, what support Rommel did receive was frequently eroded by Malta, which lay athwart his lines of supply to Europe.

Rommel himself was also at fault. A field commander rather than a cerebral general, he had little interest in logistical matters. The result of his inattention was a considerable muddle in that area. Indeed, it is probable that there was sufficient materiel on hand at most important junctures during the campaign, provided some proper staff work had been undertaken.

The British had different types of problems. Materiel was of minor concern. Auchinleck was, after all, commanding the only British force actually in contact with the

Germans anywhere, so for Britain, North Africa was *the* theater. Anything needed was delivered, but there were some things which could not be bought. Auchinleck needed time to train the sort of army that could defeat Rommel, and he took as much time as he needed: five whole months. It was definitely time well spent.

Equilibrium Nov 1941–May 1942

Auchinleck's meticulous preparations were embodied in a plan called "Crusader." The British forces, dubbed the Eighth Army, under Sir Alan Cunningham, were to comprise six divisions and six separate brigades, with a total of some 120,000 men and 900 tanks. Most of the armor was formed into XXX Corps, while the infantry and the balance of the armor constituted XIII Corps. The infantry corps was to take on the Sollum-Halfaya line frontally, while the armor swept around to the south, seeking out Rommel's mobile forces and bringing them to battle. As this great armored engagement ran its course, the infantry corps would overwhelm the Axis defenses on the frontier, and a heavily reinforced Tobruk garrison would sortie in support of the attackers.

On paper, this plan was not particularly dissimilar to that of Battleax. Indeed, the operation might have suffered the same fate, but the British forces were far better trained and led than heretofore and, perhaps just as important, Rommel was remarkably inept during this operation. It was a combination of circumstances which greatly increased British chances.

Rommel's intelligence services, and particularly his radio interception team, provided him with sufficient warning that a British offensive was imminent. For some reason, Rommel chose to ignore this information, devoting himself instead to the development of a plan for the final reduction of Tobruk, as the opening blow of a renewed offensive which would bring him to the pyramids. This was the first of several egregious errors Rommel would make during this campaign.

"Operation Crusader" began on 18 November. As XIII Corps secured the Sollum position in front and swung around its southern flank, XXX Corps drove deep into the Axis rear even further to the south. Initially the going was relatively easy. Nevertheless, the advancing British armor lost some of its cohesiveness. Rommel reacted slowly, but managed to throw in both his panzer divisions (5th Light had been re-organized as 21st Panzer by this time). A series of short, but very hot tank actions ensued during which the British came out surprisingly well.

Rommel, misreading the situation totally, believed he had inflicted serious damage on the enemy. Intent on delivering a final crushing blow, he concentrated both his armored divisions against what he believed was one tank brigade in the vicinity of Sidi Rezegh, a desert tomb. There he found virtually the entire weight of XXX Corps confronting him. An incredibly confused tank battle raged around Sidi Rezegh from 21 through 24 November. Despite British numerical superiority. German technical ex-

cellence and Rommel's own tactical abilities began to gain the upper hand, particularly after the Ariete and the 90th Light joined the fray, thereby somewhat evening the numbers. British tank losses mounted alarmingly, and Cunningham considered breaking off the action, but, if XXX Corps was being roughly handled, XIII Corps was doing quite nicely. It had overrun considerable portions of the Sollum-Halfaya line and even begun to threaten Rommel's own lines of communication. In addition, the Tobruk garrison, pressing against the besieging Italian and German forces, began to experience considerable success.

Cunningham gamely decided to hang on, and Rommel made a disastrous decision. Rather than continue the tank action in disregard for his own rear, Rommel decided to strike out at the enemy's rear, raiding into Egypt to take XIII Corps from behind while the Italian XX Mobile Corps — Ariete and the newly arrived Trieste Motorized Division — formed a screen to block further British advances from the west.

The Axis raid began on 24 November with minimal forces. Several units, both German and Italian, were unable to take part in the operation due to shortages of equipment or fuel or even lack of proper orders. As Rommel swept into the British rear, he accomplished little but to give the enemy's armor a badly needed respite. By 27 November it was over, with Rommel's now seriously depleted forces back where they started from, facing two rested and re-equipped British armored brigades. A renewal of the confused tank fighting in the Sidi Rezegh area helped restore the Axis position somewhat, but only at the cost of still further depleting their dwindling resources. Italian units became virtually unemployable as they ran out of materiel. German units fought on almost beyond the limits of human endurance, and then the Tobruk garrison broke out, linking up with the New Zealand Division southeast of the fortress.

By 4 December Rommel decided to give it up, probably a week too late. He ordered a withdrawal to the Gazala line, west of Tobruk. By 12 December the sadly depleted Axis forces were in position, save for one Italian infantry division, the Savona, and some thousands of Germans trapped in the Sollum area.

Rommel held on the Gazala line for several days, but the Axis forces were too weak to cope with a serious threat. Had the British attacked, they would have overrun the defenders easily. That they failed to do so was the result of Cunningham's nervous breakdown. He was replaced by the less able and less experienced Neil M. Ritchie. By the time the British sorted themselves out on 15 December, Rommel decided to fall back again, this time all the way to El Agheila, from whence he had set out so many months earlier.

The retreat, masterfully conducted, was a complete success. By the end of the year, the entire Axis force was safe. If Rommel had endangered his command by overconfidence and miscalculation in late November, he had snapped out of it in time to save the situation by late December. Nor was he willing to let the outcome stand. Even

as his troops rested and re-equipped themselves, he began planning to resume the offensive, for the strategic situation had become more favorable. In December of 1941 Japan entered the war, and while this brought the enormous economic resources of the United States more fully to the assistance of Britain, it also had the more immediate effect of draining manpower and equipment from the Eighth Army.

Meanwhile, in Russia, the German armies, despite surprising resistance, seemed likely to finish off the Soviets in short order. In the Mediterranean, Italian underwater demolition teams sank two British battleships, thereby suddenly and dramatically shifting the balance of sea power in the Axis' favor, permitting the freer flow of reinforcements and equipment. On 21 January 1942, not a month after being forced to retreat from Cyrenaica, Rommel was able to resume the offensive.

It was a remarkable undertaking, perhaps the boldest of Rommel's career. Defeated, outnumbered, suffering severe materiel shortages, and without instructions from higher command, Rommel plunged into the desert again. Using momentum and audacity to compensate for his personnel and equipment shortages, Rommel struck hard and fast, inflicting remarkable damage on the British forces in Cyrenaica: 1st Armored Division alone lost more tanks than Rommel possessed.

By 6 February the Italo-German Panzer-Armee Afrika was back on the Gazala line. It had taken two weeks to advance over the same ground which, less than a month earlier, it had required two weeks to retreat across; but at Gazala, Rommel could go no further. The total force available to him — 11 German and Italian divisions on paper — amounted to less than two divisions in practical terms. Exhaustion, rather than the enemy, brought a halt, and it was a long halt.

For four months Axis and British troops glared at each other across the Gazala line, as each side strove to build up its resources for a resumption of the offensive. Both sides were lavishly re-equipped. As the build-up proceeded, it became obvious that the British would eventually outstrip the Axis in their materiel preparations. By late May of 1942, Rommel could easily see that the balance of resources was beginning to tip decisively in favor of the British. He would have to move soon, or they would be too strong for him.

The Lure of the Pyramids May-Sep 1942

The overall situation on the Gazala line had begun to shift generally in favor of the British by the middle of spring. In addition to the quicker build-up in British materiel, British defensive preparations were proceeding with great rapidity. Their entire

Gazala position comprised a series of fortified "boxes" stretching some 40 miles inland from the coast. Each box was a self-contained brigade-sized fortress, independent of the others but tied to them by extensive networks of minefields and barbed wire.

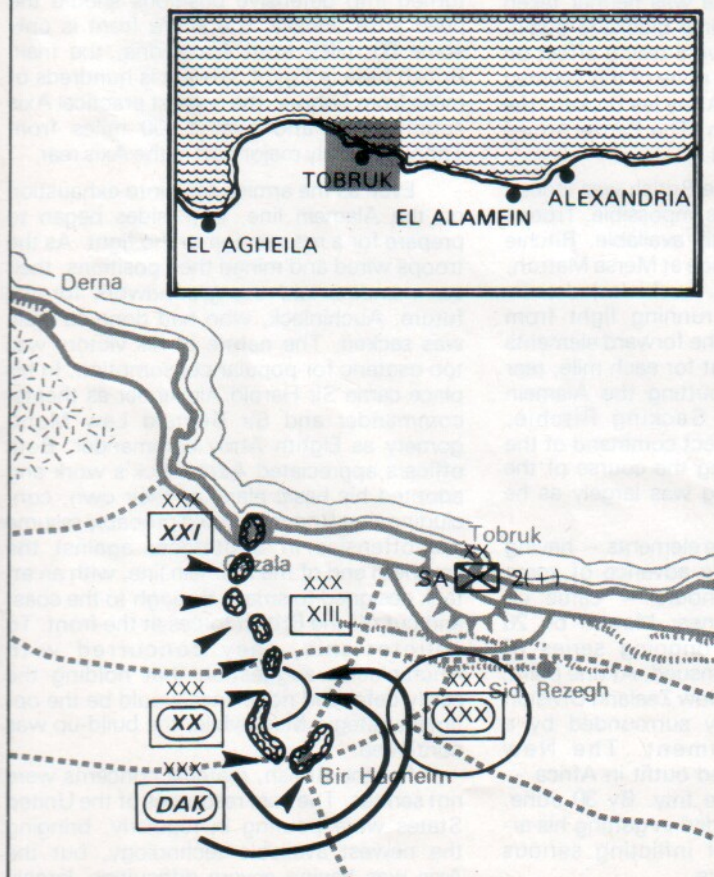
Ritchie, Auchinleck's field commander, believed that by placing infantry in the boxes, keeping additional infantry behind the line supported by some heavy tank formations, and holding back his two armored divisions, he would be able to handle an Axis offensive. Since attempting to assault the Gazala line frontally seemed likely to lead to a massacre of the attacking troops, Ritchie could reasonably assume that any offensive Rommel might launch would have to go around his southern flank. He planned to let Rommel come, get him between the boxes and the British mobile forces, and then use the latter to crush him up against the boxes.

Theoretically, it was not such a bad plan. Indeed, it was something that Rommel himself might have come up with, but it had several flaws. The British armor, positioned too far forward, was given one task too many, for Ritchie's armor was to be employed initially as light cavalry, screening Rommel's advance until the time was adjudged proper for it to reconcentrate and deliver a smashing blow.

Rommel's own operational plan hinged, as always, on a turning movement by the mobile forces around the British southern

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The Battle of Gazala — I 26 May - 2 June 1942

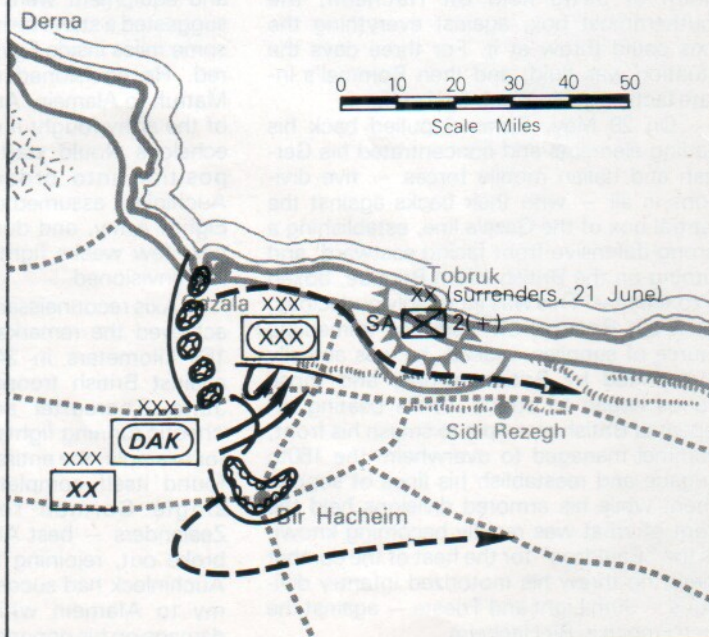


The Battle of Gazala — II 2-13 June 1942

STRENGTH AND LOSSES, THE BATTLE OF GAZALA

	Men	Tanks
British	120.0 (15.0)*	c. 1000 (c.500)
Axis	100.0 (unk)	c. 500 (unk)

*(Excludes troops surrendered at Tobruk, 21 June, about 35,000).



flank. While Italian infantry screened the bulk of the fortified boxes, additional Italian forces would reduce the southernmost pair, while the Italo-German mobile forces would sweep up into Ritchie's rear, bring the British armor to battle and destroy it. With luck, Rommel believed he could do all this, and take Tobruk in the bargain, within four days. Given the relative balance of forces — 100,000 Axis troops with 500 tanks against 120,000 Allied troops with nearly 1,000 tanks — this was a bit optimistic, even considering that Rommel was likely to secure local command of the air: he had obtained a significant reinforcement of his air power specifically for this operation.

Through the spring, German and Italy had greatly bolstered their air forces conducting the siege of Malta. This had been done for two reasons: to neutralize the island's effect on Axis supply lines to Africa and, more significantly, to pave the way for a full scale, five-division invasion to take place later that summer. Rommel, through his connections with Hitler, had managed to "borrow" a considerable portion of these air forces on the understanding that his offensive was designed primarily to drive the British out of Libya and secure a more reasonable front somewhere around Sollum. This was expected to take no more than a week at the outside. With the operation over, the air forces would be returned to Sicily to resume their primary task, the reduction of Malta. This meant that Rommel was operating on a tight schedule.

Gazala began on schedule on 26 May. Thereafter, virtually nothing went according to plan. The basic problem was that both sides, in their advanced planning, had engaged in too much wishful thinking. Rommel did succeed in turning the British flank, but the expected smashing blow from his panzers was never delivered. Likewise, Ritchie's cavalry screen, which managed to inflict serious losses on the advancing Axis armor, had been unable to reconcentrate in order to deliver its own smashing blow. Meanwhile, the heroic resistance of a brigade of Free French supported by a battalion of Jews held Bir Hacheim, the southernmost box, against everything the Axis could throw at it. For three days the situation was fluid, and then Rommel's innate tactical genius asserted itself.

On 29 May, Rommel pulled back his leading elements and concentrated his German and Italian mobile forces — five divisions in all — with their backs against the central box of the Gazala line, establishing a strong defensive front facing eastward, and turning on the British 150th Brigade, boxed in to the rear. This was incredibly audacious, for it cut Rommel off from any immediate source of supplies. Indeed, he was actually surrounded by British troops, and those troops began to attack. While beating off repeated British attempts to smash his front, Rommel managed to overwhelm the 150th Brigade and reestablish his lines of supply. Then, while his armored divisions held the front of what was rapidly becoming known as the "Cauldron" for the heat of the combat there, he threw his motorized infantry divisions — 90th Light and Trieste — against the Free French in Bir Hacheim.

A fortnight of heroic combat followed. As the Free French held out, German and Italian tankers beat off everything the British could throw at the Cauldron. Finally, on 10 June, Bir Hacheim fell. The next day, having moved up his motorized infantry, Rommel sortied from the Cauldron intent on smashing right to the coast, thereby cutting off British troops in the remaining boxes; but the Eighth Army still had plenty of fight left. In a complex tank battle around a map reference point called "Knightsbridge," the British traded men and equipment for time. Though they lost the two-day fight, by 13 June they had succeeded in evacuating two infantry divisions from the Gazala line and getting the reinforced 2nd South African Division into Tobruk. The next day, Ritchie ordered a retreat, confident that Tobruk would occupy Rommel's attention for some time, while he was able to reorganize in the vicinity of Sollum.

Tobruk, which had held for so many months in 1941, fell quickly to a well-coordinated armored assault on 20-21 June. Although burdened with some 35,000 prisoners, Rommel was also blessed with untold tons of British supplies and equipment, much of which was pressed into use to replace worn Axis materiel. Pausing just long enough to catch his breath, Rommel resumed the offensive, and probably lost the war. His operational objective had been achieved. The British were out of Cyrenaica and a strong front could easily have been established in the vicinity of Sollum.

Moreover, the Malta operation hinged on the availability of the air forces which had been loaned to Rommel. It was time to return them. When Rommel pressed on, he scuttled the invasion plans. The aircraft never returned to Sicily. Malta was neither taken nor subject to close aerial blockade again. The island began to have a telling effect on Axis lines of supply, but none of this seemed important. The Eighth Army lay broken: the way to Egypt was open. The PanzerArmee Afrika pressed eastward.

The situation for the British was indeed serious, but by no means impossible. Troops and equipment were still available. Ritchie suggested a stand be made at Mersa Matruh, some miles inside Egypt. Auchinleck demurred. He envisioned a running fight from Matruh to Alamein. As the forward elements of the army fought it out for each mile, rear echelons would start putting the Alamein position into order. Sacking Ritchie, Auchinleck assumed direct command of the Eighth Army, and during the course of the next few weeks fighting was largely as he had envisioned.

Axis reconnaissance elements — having achieved the remarkable advance of some 158 kilometers in 24 hours — came up against British troops near Matruh on 26 June. Thereafter an ongoing series of chaotic running fights ensued. At one point, for example, the entire New Zealand Division found itself completely surrounded by a single German regiment. The New Zealanders — best Allied outfit in Africa — broke out, rejoining the fray. By 30 June, Auchinleck had succeeded in getting his army to Alamein whilst inflicting serious damage on his opponents.

The battles which now began around Alamein were probably the most decisive of the desert war. The First Battle of Alamein (1-27 July 1942) was a highly fluid affair. Units crossed paths, then recrossed them. There were few fixed positions. Ground might one day be dominated by the Axis, the next by the British. For the first two weeks Rommel attacked, trying to slip his depleted formations behind the defending forces. Auchinleck conducted an agile defense, basing his mobile forces on a few well-fortified boxes. Whenever, wherever an Axis unit probed, it was hit with a counterattack.

After two weeks, the troops could do no more, and Rommel began to pull back into more readily defensible positions. Then it was Auchinleck's turn. For two weeks he threw in unit after unit, trying to do to Rommel what the Desert Fox had tried to do to him; but he too met with little success.

By the end of July, both sides were settling down, exhausted, into defensive positions. The battle was over. It had been a British victory. Rommel had failed. More importantly, the Germans had been bested at their own game, mobile combat. Linked with the increasing superiority of Allied equipment, and the lavishness with which that equipment was supplied, this development spelled disaster for the Axis.

The Alamein position has a number of features not common in the desert theater. The most important of these is the fact that it cannot be turned. The position is firmly planted on the sea to its north and the Quatra Depression to its south. Indeed, it is also the narrowest possible line from the sea to the depression. In addition, there are several ridge lines running parallel to the coast in the Alamein area, lines which can readily be turned into defensive positions should the need arise. Finally, the entire front is only some 60 miles from Alexandria, the main British base in Egypt, while it is hundreds of miles from Tobruk, the nearest practical Axis supply port, and over 1,000 miles from Tripoli, the only major port in the Axis rear.

Even as the armies sank into exhaustion on the Alamein line, both sides began to prepare for a resumption of the fight. As the troops wired and mined their positions, their commanders laid the groundwork for the future. Auchinleck, who had done so well, was sacked. The nature of his victory was too esoteric for popular consumption. In his place came Sir Harold Alexander as theater commander and Sir Bernard Law Montgomery as Eighth Army commander. Both officers appreciated Auchinleck's work and adopted his basic plans as their own, concluding that Rommel would probably resume the offensive in September against the southern end of the Alamein line, with an attack designed to smash through to the coast and cut off the British forces at the front. To counter this, they concurred with Auchinleck's suggestion that holding the easily defended ridge lines would be the optimal strategy. Meanwhile, the build-up was continued.

For the British, material concerns were not serious. The vast resources of the United States were pouring in regularly, bringing the newest available technology, but the Axis was having severe difficulties, largely

On 5 November, Rommel found himself some 80 miles west of Alamein on the Via

Balbia with what was left of his army, amounting to no more than two weakened divisions in terms of combat strength. Though the army was defeated and weak, it had nevertheless not broken. The survivors, both German and Italian, had come out in good order, with relatively high morale and a determination to survive. With this tiny force, about half German and half Italian, Rommel would demonstrate his tactical genius as never before.

DESERT WARFARE

The desert is ideally suited to mechanized operations. Its vast distances, untroubled by significant terrain features, offer an almost perfect chessboard for the conduct of operations on almost any scale. Surprisingly, despite the fact that both the Italians and the British had been preparing for war in this region for many years, it was the Germans — and specifically Rommel — who first developed a real understanding of this environment.

The British, and to a considerable extent the Italians, thought of the desert as just another place wherein to use their standard tactics: meticulous preparations, followed by artillery bombardment, followed by infantry attacks supported by heavy tanks, and the whole backed up by lighter, faster tanks both as reserve and pursuit formations. This was essentially right out of 1918, with the lighter tanks substituting for the cavalry. Some British tankers could rise above this view, seeing the possibilities their mobility gave them. Thus, during Sir Richard O'Connor's offensive against the Italians in late 1940 and early 1941, tanks and other mobile forces were used to get around Italian formations, and take them in the rear.

Some British tankers thought of the tank as something of a surrogate horse, capable of taking the enemy in front just as the mounted arm had traditionally done. While such "cavalry charges" could work against relatively unsophisticated troops, and even against rear-area establishments and such targets as lightly escorted truck convoys, they were suicide against well handled, balanced combined arms forces.

Defensively, both the British and the Italians were also more or less stuck in 1918. Large forces were regularly immobilized in well-fortified positions backed up with extensive amounts of artillery and bolstered by vast minefields. In the desert, loss of mobility may be equated with defeat.

Rommel — like most great tankers, an infantrymen — came to the desert uniquely qualified. To be sure, practically any German panzer general would have been considerably superior to his opponents, but Rommel was more than that. To the already innovative German concepts of mobile warfare, he added a number of notions uniquely his own. Perhaps the most important of these was that mobile warfare was "war of the sea on land." This concept, which Rommel

Pressed by Montgomery in what was, to be sure, a leisurely pursuit, Rommel repeatedly juggled his forces around, struck back at any pursuers, threatened counterattacks which never materialized, delivered some which were never threatened, and traded space for time in which to rebuild his army. But time was not on Rommel's side. Even as he skillfully fell back along the coast, American and British forces invaded French North Africa, thousands of miles to his rear.

pioneered during his successful dash across France with the 7th Panzer Division in May of 1940, meant that mobile forces should fight on the move rather than merely using their mobility to get to a place where they would engage in essentially static combat.

In the desert, this idea was even more applicable than in France: consider the innumerable time-worn similes likening the desert to the sea. Linked with the practical fact that non-motorized forces — and motorized forces led by non-motorized minds — are virtually useless in the desert, this innovative use of doctrine had the effect of vastly multiplying the value of the forces under Rommel's command. If you could move, you could fight, using your momentum to make up for deficiencies in quantity.

Rommel always led from the front, a practice far more common among German than Allied generals. While at times this put him out of touch with his headquarters, it frequently enabled him to respond immediately to significant changes in the tactical situation. Most British generals, often headquartered miles behind the fighting, might have a better notion of the overall situation, but they were completely out of touch with the rapidly changing events at the critical points.

Another important element of Rommel's success was surprise: hitting the enemy where and when and how he least expected to be hit. In the desert, with its vast distances impossible to secure properly, surprise was not difficult to achieve if one thought in terms of mobile operations. Significantly, the Alamein line is one of the very few in the theater which permits little surprise based on mobility: it bears a stronger resemblance to the Western Front in 1918 than to the western deserts. Finally, like most great generals, Rommel understood the importance of combined arms operations.

Ultimately it was not the tanks which lay at the root of German tactical success in the desert: it was the intelligent use of tanks in combination with mobile infantry and artillery and anti-tank formations. Sending tanks in without support of the other arms was sending them to a fiery doom, but in a coordinated, well-timed surprise attack, success could be anticipated every time against British forces, provided the quantitative differences were not too great.

Offensively, one sent forward highly mobile reconnaissance formations,

Despite repeated urgings by Mussolini not to abandon Libya, Rommel had no choice consistent with soldierly conduct.

If he could rescue the core of the army, the situation might someday be set aright. So he kept retreating, always threatening and always skillfully avoiding the pursuit. At year's end, the army passed out of the desert into Tunisia. The "Desert Fox" would fight again. But never in the theater where he had won his reputation. □ □

behind which came anti-tank troops supported by infantry, with vast amounts of artillery on call. Behind these forces, in fairly close support, came the main body of armor and mobile infantry. One absorbed the shock of the enemy's armored counterattacks with one's anti-tank forces, throwing in one's own tanks when his momentum was broken, with the primary intention of getting behind him. Having done so, one cut loose and ran wild across his lines of communication, supply, and retreat.

Once your own attack gained a sustained momentum, it was pressed at all costs — fueled by captured enemy supplies, if need be. Any large enemy formations left behind could be taken care of by less mobile infantry — in the desert this meant the bulk of the Italian forces — as one pressed to the limit of one's abilities. In the most extreme case, as shortly after the Battle of Gazala in June of 1942, reconnaissance elements of the Afrika Korps logged 158.7 kilometers in 24 hours, the greatest advance in recorded history, while the main body of the PanzerArmee was still mopping up the battlefield.

Defensive tactics were not much different from offensive tactics. One liberally seasoned the front with minefields lightly held by infantry, holding back the mobile forces. As the enemy intentions became evident, one let him wear himself out against infantry, artillery, and anti-tank forces. Meanwhile, tanks and mobile infantry could search out the enemy's rear, inflicting the greatest materiel damage possible while severing his communication and supply lines.

An important element of German tactics in the desert was that offensive and defensive tactics should be used interchangeably: go from one to the other as the local tactical situation dictated, regardless of whether one was on the operational offensive or defensive. Overall, utilization of such an approach — so much more flexible than that of the British — would always inflict more damage on the enemy than was received. By suffering the least damage, one would emerge the victor. Or rather, one would emerge the victor so long as the quantitative superiority of the enemy was not so overwhelming that he could lose far more men and materiel than you yourself had, and still have vast resources available to continue the fight — which is precisely what occurred in the desert. □ □

THE DESERT FOX

Erwin Rommel (1891-1944) was of bourgeois Swabian Protestant background. At an early age, he entered the Imperial Army, was commissioned, and began garrison duty. His career in World War I was relatively undistinguished until the Caporetto Campaign of Oct-Nov 1917 when, as adjutant and acting battalion commander in the Alpen Korps, he conducted himself and led his unit so aggressively as to capture thousands of the enemy in a series of sweeping infantry penetrations. (He would tactlessly boast of this at times to his Italian colleagues in a later war.) Ending the war as a highly decorated company officer, he was among the highly talented handful selected to remain in the post-war *Reichswehr*, with its 4,000 officers. The next dozen years he spent in garrison, in his spare time reading and composing an account of his wartime activities entitled *Infantry Attacks!*

The rise of Adolf Hitler helped Rommel's career considerably, as the Fuhrer was impressed by the book. By the Polish Campaign of 1939, Rommel was commandant of Hitler's military household. Having already served as a Hitler Youth adviser, he pleased his master so well that he was given the newly raised 7th Panzer Division for the French Campaign of 1940, an unusual command for an infantry officer. In France, Rommel's division earned the nickname "Ghost" as it sped rapidly across the countryside, outstripping most other German formations. At the conclusion of the campaign, Rommel participated in occupation activities. In late 1940, Hitler selected him to command the troops being sent to Africa.

After his remarkable career in the desert, Rommel briefly commanded German forces in Tunisia, despite increasingly difficult relations with his superiors. Later he commanded Army Group B in Northern Italy and was chiefly responsible for the rapidity of the German occupation of much of Italy in the late summer of 1943. Subsequently, he was transferred to France to expedite preparations for resisting the anticipated Allied invasion. Showing remarkable talents as a military engineer and organizer, he was almost single-handedly responsible for the extensive defenses met by the Allies on D-Day, although his strategic defensive plans — to concentrate everything on the beaches — were not adopted.



Rommel was seriously wounded by Allied aircraft shortly after the invasion began, at a time when he was involved in the "July Plot" to assassinate Hitler.

(Rommel was to become Hitler's replacement in a "peace" government.) His popularity in Germany prevented Hitler from putting him on trial but, under threat of harm to his family, he committed suicide on 14 Oct 1944. Hitler gave him a magnificent funeral.

Rommel's stature as a commander has been somewhat tarnished with time. Nevertheless, he clearly ranks among the greater captains. An aggressive, sometimes foolhardy tactician, he was unsurpassed at desert warfare, possessing the remarkable talent of knowing his location at virtually any time, and a keen sense of enemy presence and of danger. He was not always so adept at strategy, sometimes becoming careless of intelligence. He disliked staff work and had no sense of the logistical side of war. Like most great tankers in the Second World War, he was an infantryman.

Like most officers of the *Reichswehr*, Rommel had no political ties before he encountered Hitler. Thereafter, he became personally attached to the Fuhrer, though despising most of the other Nazis. His disillusionment with Hitler appears to have begun around the time of Alamein and to have steadily deepened thereafter. By mid-1944, he was at least marginally involved in the plot to assassinate Hitler, which cost him his life.

Rommel was short and stocky, with fair hair and blue eyes. Aside from philately and photography, he had few interests outside his profession. His familial relationships appear to have been correct, but lacking strong emotion. To outsiders he appeared cold, brusque, excessively confident, and quick-tempered — all characteristics common among many of the Great Captains. □ □

THE WESTERN DESERT

The general area of operations of the desert war stretched some 600 miles from El Agheila, on the Gulf of Sirte in Libya, to El Alamein, on the Egyptian coast not 60 miles from Alexandria. The portion in Egypt is called the Western Desert, that in Libya, the Libyan. Most of the vast expanse is a wasteland of hard, dry sandy or rocky plains broken here and there by stretches of soft, flowing sand seas. There are occasional oases and wells and a few salt marshes scattered thinly about. The interior is separated from the coast by a considerable escarpment usually running some miles inland and generally traversable only at a few well known passes. Here and there the escarpment runs right up to the shore, whilst in other areas it is scores of miles in-land. In places the line of the escarpment breaks into two or even three chains.

There are few significant terrain features. To be sure, the microcontour is

considerable and offers often significant local tactical advantage, but there are few operationally significant terrain features. At the westernmost end of the desert, on the Gulf of Sirte, there are extensive salt marshes about El Agheila, restricting approaches to that place considerably. In Cyrenaica — the more westerly of the two provinces in the Libyan desert — there lie the Jebel Achdar, or Green Mountains, a major plateau with an ample supply of water in comparison to the surrounding regions and a fairly well developed agricultural base. The Jebel Achdar restricts the movement of armies in this region. They are forced to go around it, either along the coast, utilizing the single good road in the entire region, the Via Balbia, or cut right across the desert to the south, unless they try to cut across the vertical expanse. Finally there is the Qattara Depression, most significant strategic obstacle in the entire region.

The Qattara Depression, remnant of an ancient sea, is a vast salt marsh. Stretching about 90 miles from the vicini-

ty of Matruh to that of Alamein, it lies between 100 miles and, at Alamein, 40 miles from the sea. The Depression is not traversable by large formations and is dangerous even for small ones. It is the only obstacle in the entire theater which is impossible to turn.

The desert theater has other interesting features. It is burning hot by day and freezing cold by night in the winter. In the summer it is the home of innumerable tiny insects, dust storms, and heat. Water supply, difficult at all times, is impossible on occasion. About the only problem not posed by the desert as a theater of operations is people, there being no more than a million civilians in the entire region, most oasis dwelling Arabs and Berbers deep in the interior, albeit with a few Italians in the coastal cities and Jebel Achdar. This dearth of humanity helped turn the region into a unique one militarily, as operations could be planned and conducted without regard for the problems inherent in doing so in the midst of civilization. □ □

OUTLINE ORDER OF BATTLE: The Desert War

Division Combat Strengths on Dates Indicated

UNIT	IDEAL	1941					1942							
		2 APR	15 JUN	1 AUG	1 OCT	18 NOV	21 JAN	1 MAR	13 JUN	30 JUN	31 AUG	5 SEP	23 OCT	5 NOV
GERMAN														
15 Panzer	25	4	15	12	14	18	12	8	22	6	16	18	19	5
5 Light	18	8	12	10	(BECOMES 21 PANZER)									
21 Panzer	25	-	-	-	12	18	12	8	22	16	16	8	19	5
90 Light	18	-	8 ^A	6	7	12	8	4	15	4	10	6	13	2
164 Light	18	-	-	-	-	-	-	-	-	-	8 ^A	8	10	2
1 Parachute Bde	10	-	-	-	-	-	-	-	-	-	4 ^A	5	6	1
ITALIAN														
Ariete Armor	10	7	2	5	7	8	7	4	8	2	7	4	8	2
Littorio Armor	10	-	-	-	-	-	3 ^A	4	6	1	6	3	6	1
Trento Mot	13	9	6	8	9	9	3	4	6	2	5	4	5	- ^D
Trieste Mot	13	-	-	-	-	8 ^A	5	6	8	3	7	4	8	2
Bologna Infantry	6	6	6	4	5	6	2	3	4	1	2	3	4	- ^D
Brescia Infantry	6	7	3	5	6	6	3	4	8	2	3	2	6	2
Sabratha Infantry	6	3	2	3	4	4	2	3	4	1	1	1	2	- ^D
Savona Infantry	6	5	6	6	6	6	- ^D	-	-	-	-	-	-	-
Pavia Infantry	6	4	3	4	5	5	2	3	4	1	2	3	4	- ^D
Pistoia Infantry	6	-	-	-	-	-	-	-	-	-	-	-	2 ^A	4
Folgore Parachute	6	-	-	-	-	-	-	-	-	-	1 ^A	2	3	2
Young Fascist Mot	9	-	-	-	-	-	-	-	-	-	-	-	2 ^A	1
BRITISH COMMONWEALTH														
1 Armor	25	-	-	-	-	-	14 ^A	4	15	5	- ^E	- ^E	28	16
2 Armor	25	9	- ^D	-	-	-	-	-	-	-	-	-	-	-
7 Armor	25	- ^E	9	12	14	24	9	14	17	- ^E	14	25	28	13
8 Armor	25	-	-	-	-	-	-	-	-	20 ^A	18	10	22	8
10 Armor	25	-	-	-	-	-	-	14 ^A	16	19	15	16	26	12
44 Infantry	14	-	-	-	-	-	-	-	-	12 ^A	14	12	15	10
50 Infantry	14	-	-	-	-	-	-	12 ^A	14	6	- ^E	- ^E	15	11
51 Infantry	14	-	-	-	-	-	-	-	-	-	-	12 ^A	16	9
70 Infantry	14	14	11	12	15	18	- ^T	-	-	-	-	-	-	-
7 Aus Infantry	14	-	8 ^A	12	14	14	- ^T	-	-	-	-	-	-	-
9 Aus Infantry	14	6 ^A	9	11	12	14	8	- ^E	8	10	14	10	17	6
4 Ind Infantry	12	-	12 ^A	10	12	16	10	3	- ^E	- ^E	- ^E	- ^E	16	11
5 Ind Infantry	12	-	10 ^A	- ^T	-	-	10 ^A	10	14	6	12	7	- ^E	- ^E
10 Ind Infantry	12	-	-	-	-	-	-	12 ^A	12	3	- ^E	- ^E	- ^E	- ^E
2 NZ Infantry	15	-	9 ^A	12	14	17	3	- ^E	16	6	10	8	20	12
1 SA Infantry	12	-	7 ^A	8	9	15	12	12	14	7	11	10	16	6
2 SA Infantry	12	-	-	5 ^A	8	14	11	13	18	- ^D	-	-	-	-
SUMMARIES														
Total Commonwealth Strength		29	75	82	98	132	77	94	144	94	119	99	219	114
Total Axis Strength		53	63	63	70	100	59	51	107	29	88	61	117	29
Commonwealth Strength as Percentage of Axis Strength		55	119	130	140	132	131	184	135	324	135	162	187	393

A: Arrival of unit on combat zone. **T:** Transfer of unit to another theater. **E:** Unit in Egypt for refit. **D:** Unit destroyed. **Bde:** Brigade. **Mot:** Motorized. **Aus:** Australian. **Ind:** Indian. **NZ:** New Zealand. **SA:** South African.

This table presents an outline of the divisions available to each side in the combat zone at various critical periods of the desert war, with a rough indication of the combat strength of each formation at the time. The table excludes most separate brigades — of which the British, in particular, had a fair number — through the expedient of including them with the division to which they were attached at the time. Ratings of combat strengths are approximations only and are based on a variety of factors, including raw manpower and equipment strengths, organizational cohesion, morale, unit leadership, tactical doctrine, available reserves of equipment and ammunition, and actual performance in combat. This rating *excludes* whatever air power might have been attached to a particular unit at one time or another. Note that an ideal theoretical standard unit strength has been indicated for each formation as a basis for comparison with actual field strength. In the case of the Afrika Korps Panzer divisions, it is important to understand that there was a frequent exchange of personnel and equipment between the two, and a single rating for both might have been just as reliable an indication of combat ability as the separate ratings.

At the foot of the table are summaries of the raw combat strength ratio between Commonwealth and Axis forces, plus an indication of the strength of Commonwealth forces as a percentage of the Axis. This comparison makes fairly evident Rommel's abilities as a field commander. Only during his first offensive, in March and April of 1941, did he possess superior combat power. At all other times, his forces were inferior, and occasionally considerably inferior, to those of his opponents. Note also that Axis forces generally inflicted greater loss on the British than they suffered themselves, even when they were on the losing side.

THE DATES

2 Apr 1941: Rommel's first offensive opens. **15 Jun:** Operation Battleaxe. **1 Aug and 1 Oct:** Siege of Tobruk and Operations in the Sollum-Halfaya Line. **18 Nov:** Operation Crusader opens. **21 January 1942:** Rommel's second offensive begins. **1 Mar:** Operations on the Gazala Line. **26 May:** Rommel's Gazala Offensive. **30 Jun:** Arrival on the Alamein Line. **3 Aug:** Rommel's Alam Halfa Offensive. **5 Sep:** Alamein build-up. **23 Oct:** Montgomery's Alamein Offensive begins. **5 Nov:** Retreat from Alamein begins. □□

FOOTNOTES TO THE DESERT WAR

Any discussion of an historical event must necessarily omit consideration of much that is of interest and importance, if only due to the impossibility of developing a truly comprehensive and detailed account of any moment in the past. Thus this article's discussion of Rommel's campaigns in the desert has glossed over or ignored completely numerous matters. What follows is a series of thumbnail sketches of some of these.

The Intelligence Quagmire. As war-time archives gradually yield up their secrets, the standard histories of the events of 1939–1945 are rapidly becoming outdated. Only in the last five years has it been revealed that the Allies possessed the German *Enigma* code machine and were able to read virtually all high level German communications, the famed *Ultra Secret*. For Rommel and his troops, *Ultra* proved overwhelmingly important. Most major communication between the desert armies and higher German headquarters was almost immediately known to the Allies, who could then act accordingly. For example, the Allies were repeatedly able to sink vitally needed tankers en route to Africa because Rommel was notified, through *Enigma*, of their imminent arrival.

To make things worse, the Allies arranged hints and suggestions that pointed to treason in higher Italian military circles as the principal cause of Axis leaks, thereby exacerbating relations — which were not always cordial to begin with — between Italians and Germans. Of course, not all Axis communications went by *Enigma* codes. Couriers were often used, and the more secure Italian cyphers as well. This did fog the Allied intelligence picture somewhat and, of course, intelligence from this source was primarily useful on a strategic level: *Enigma* was not utilized for Nazi intra-theater communications.

On the other side, the Axis forces were by no means destitute of intelligence-gathering skills. The Italians had access to some British codes, and they maintained a well-placed valet in high circles in Egypt. Rommel had a marvelously efficient radio intelligence team, which regularly monitored British radio traffic, becoming quite effective in identifying units by telegrapher's signatures, radio malfunctions, and even voice analysis. This team gave a very complete picture of the locations of Allied units, troop concentrations, and occasionally even imminent offensives. Unfortunately for Rommel, the team was transferred out of the theater shortly before Alam Halfa, to be replaced by a totally green outfit.

Midnight at the Oasis. The desert war was fought in an almost uninhabited waste, but it was never completely uninhabited. Several million people lived

in Libya, some tens of millions more in Egypt. Their position was anomalous, as only that of civilians caught in the midst of war can be. For the Egyptians, the situation was especially peculiar in as much as Egypt was neutral in the Second World War, despite the fact that huge armies maneuvered and fought in her deserts and that her cities and ports were regularly subject to attack!

In Libya, the Arabs, and particularly the Berbers, were decidedly anti-Axis, due largely to the pre-war Italian custom of shoving local leaders out of airplanes at 1,000 meters at the first sign of trouble. Axis forces operated in a generally hostile atmosphere in Libya, marked by occasional outbreaks of insurgency of a very low intensity. Surprisingly, it was the Germans who prevented this from getting out of hand. Rommel forbade retaliation in kind and made strenuous efforts to win local support, a policy which might have paid dividends for the Germans had it been tried in other theaters.

In Egypt, the occupying power — Britain — faced similar hostility. The more educated Egyptians, including such army officers as Gamel Abdel Nasser and Anwar Sadat, were decidedly anti-British and probably were involved in passing information to the enemy. Eventually the situation became so serious that, in the face of a possible Egyptian military coup in their rear, most of the Egyptian regular army was transferred to Iraq, the Sudan, and other areas, where they could be trusted to carry out occupation duties and would not pick up any useful military skills.

Raids and Raiders. Aside from the tank, Britain's greatest contribution to warfare in this century may well prove to have been the raider. To be sure, other powers have developed and used raiding forces, but none to the extent and with the audacity of the British, who seemed to relish such activities. This was partially due to British military inferiority in the early portion of the Second World War. Indeed, Churchill's instructions upon creation of the Commandos virtually admitted that they were the best Britain could do under the circumstances.

No theater lent itself to raid operations better than the desert. Drawing upon a seemingly endless pool of "desert loving Englishmen" with advanced university degrees, numerous organizations conducted regular operations across hundreds, even thousands, of miles. The first desert raiding party moved out in September of 1940. It was typical of most that would follow, with about three dozen men, eleven vehicles, and numbers of automatic weapons, and it became the core of the Long Range Desert Group, which, during its nearly 30 months in the desert, destroyed more enemy aircraft than whole fighter squadrons.

The basic idea was to select a military target deep inside enemy territory, ap-

proach it across the desert using specially trained men and specially equipped vehicles, hit it hard, and disappear back into the desert. In theory the raiders would have inflicted serious material damage on the enemy, spread confusion, and possibly even collected some useful information. Literally scores of such raids were undertaken by the various organizations established to do so, such as the Long Range Desert Group and the Special Air Service Regiment.

Not all raids were spectacular successes, but all were useful in keeping the enemy off balance, and eventually someone conceived the boldest raid of all: against Rommel himself. The attack proved a failure and gave German propaganda a field day with comments about ungentlemanly conduct (apparently wholesale murder is "gentlemanly" whilst retail is not). Had it succeeded, the raid might well have shortened the war in the desert considerably. As it was, the work of the desert raiders helped appreciably.

Lili Marlene. One of the truly unique folk phenomena of the Second World War was a song about a woman who waited outside the barracks for her lover, who was somewhere else. Based on a poem written in 1917 by Hans Leip, one of the Kaiser's riflemen, *Lili Marlene* was several times set to music between the wars, all with little success. In 1938 Norbert Schultze, a composer, tried his hand at writing music for it, and his version was recorded in early 1939 by Lale Anderson, a mildly popular night club entertainer. It was an immediate flop.

Two years later, a copy of *Lili Marlene* was included in a batch of recordings sent to Belgrade, where the Germans were setting up a radio station. It was first broadcast on the evening of 18 August 1941, and it became an instant favorite with the battle-weary men of the Afrika Korps, languishing in trenches and desert camps before Tobruk and Halfaya. Within a few months, Ms. Anderson received over a million letters from soldiers and their families. Thereafter, regardless of how often it was played at other times or by other stations, Radio Belgrade broadcast it at 9:55 p.m. each evening — just before sign-off — for virtually every night of the next three years.

The song's popularity did not long remain confined to the Afrika Korps. The Italians picked it up from their German comrades, who also introduced it to the folks back home. The British and other Allied forces picked it up from Axis prisoners-of-war. It was soon translated into over a score of languages. Its popularity survived its war. Recorded some dozens of times, it provided a modest royalty of several thousands of dollars for Schultze — who ended his days as a successful composer of musicals — into the early 1970's. For the "men who marched where the desert sands are burning," the song remains a most positive memory of their war. □□

DIVISIONS IN THE DESERT, 1941-42

	MEN (INFANTRY)	TANKS/ AG	FIELD ARTY	AA	AT	MG	MV	SUPPLY (TONS/MO)	BNS (TANK/INF)	SUS
BRITISH										
xx ☒	17,500 (8,800)	-	72	48	48	850	4,000	6,100	0:9	14
1940B xx ☒	10,700 (3,260)	342	52	24	24	475	2,456	5,500	6:3	15
1942A xx ☒	13,200 (4,700)	230	66	88	36	440	2,800	5,000	3:3	18
1942B xx ☒	14,200 (4,700)	186	48	54	48	871	2,900	5,800	3:3	25
GERMAN										
xx ☒	13,900 (6,085)	48	52	66	120	643	2,500	4,800	1:8	18
xx ☒	14,400 (4,500)	163	48	30	68	705	2,600	5,200	2:4	25
ITALIAN										
xx ☒	10,589 (6,556)	-	36	8	32	318	381	2,800	0:6	6
xx ☒	12,514 (5,693)	-	48	12	12	281	1,410	3,500	0:9	13
xx ☒	6,500 (1,609)	170	36	58	12	366	750	2,300	3:3	10

Men (Infantry): The total manpower of the unit, and the number of infantrymen, an indication of a unit's ability to engage in sustained combat and incur losses.

Tanks/AG: The number of tanks and fully tracked assault guns. Only the German light division had assault guns for most of the campaign. Tanks and assault guns carried artillery pieces (usually one each) and machineguns (usually two or three) which are not included in the totals for artillery and machineguns. **Field Arty:** The field guns and howitzers of 65mm and larger calibre. **AA:** Anti-aircraft pieces of 20mm and greater, some of which (e.g., the German 88mm and Italian 90mm) might also be used in an anti-tank role.

AT: Anti-tank guns of 37mm and larger calibre, exclusive of those on the tanks themselves (which were normally mounted one per tank). **MG:** The number of machineguns available, exclusive of those on tanks. **MV:** The total number of motor vehicles, exclusive of tanks and assault guns, and also excluding motorcycles, of which the Axis units had a fair number. **Supply (Tons/Mo):** The monthly supply requirement, in tons, needed by a unit to sustain moderately heavy combat while maintaining a small reserve for

future operations. **Bns (Tank/Inf):** The ratio of tank battalions to infantry battalions in the unit. For armored divisions, a one-to-one ratio is ideal so that combined arms combat teams can be formed. **SUS:** An estimate of standard unit combat strength, considering equipment, doctrine, and actual combat performance.

This table's purpose is to illustrate the differences among the divisions which the British, Germans, and Italians committed to the campaign in North Africa. Certain types of units are not included, such as the German and Italian parachute outfits which served in the desert. It is important to note that the figures provided represent ideal totals. In practice, a unit might have a variable TO&E and, in service, units sometimes had more equipment than officially prescribed — particularly captured equipment — nor was it unusual for a division to have less than its normal complement of men and material.

British Infantry Division. This was a solid, effective organization which varied little during the war, and greatly resembled its foreign kin. Although not so designated, it was to all intents and purposes a motorized unit, with 4.4 men per vehicle.



German Mark IV tank
in North Africa

British Armored Division, 1940B. Using the second TO&E adopted in 1940, this formation was tactically unsound, having too many tanks and insufficient infantry. Against the ill-equipped and ill-led Italians, it had few problems, but it tended to display its weaknesses when pitted against the Germans.

British Armored Division, 1942A and 1942B. The A-pattern division was a considerable step in the right direction from the 1940B outfit, but it still had too much armor to form a properly balanced combat force, although the infantry deficiency had been made good in part. The B-pattern organization was closer to the ideal German TO&E and proved highly efficient in combat.

German Light Division. This was essentially a motorized infantry division with some armored capacity in the form of a battalion of assault guns. Extremely potent in both attack and defense, it provided a perfect running mate for the panzer divisions.

German Panzer Division This was the archtypical armored division of the Second World War, with a good balance of all arms and a clearly defined combat role. Right to the end of the desert campaign, it was considerably superior to anything the British — or the Americans in Tunisia later — could field against it.

Italian Semi-Motorized Infantry Division. In theory, this was supposed to have the capacity, with the addition of some transportation companies, for fully motorized operations. In practical terms, it was a "leg" infantry unit with little mobility. It was decidedly inferior to German or British division due to its lack of manpower, poor equipment, and organizational peculiarities. It included 337 motorcycles.

Italian Motorized Infantry Division. This was the only Italian formation in the desert that compared with its German or British counterpart. Well conceived, generally well-equipped, it was capable of sustained mobile combat under even the most difficult circumstances. Although two such units were committed to the desert, one was promptly stripped of its organic motor transport and so never served in its proper role. There were 1,066 motorcycles for about 2,000 infantry, and about seven men per motor vehicle otherwise.

Italian Armored Division. This was an ill-conceived formation, being far too small to properly carry out its function as an assault unit — aside from the faulty equipment with which it was provided. Nevertheless, it was well suited to certain roles, and when well led (that is, when led by Rommel, perhaps the only German in the desert who understood how to employ the Italians and who had any respect for them), it was capable of considerable effort. The unit included approximately 1,000 motorcycles. ■■



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Takes up where volume I left off. Details Japanese army ground arms and services below division size. Describes air service ground units including airborne organizations. Lists the various naval ground units including landing forces and suicide boat organizations. The volume also includes supplementary reference data on the distribution of army ground forces and the replacement system. The two volumes together condense over 1300 pages of mid-1945 Allied intelligence information.

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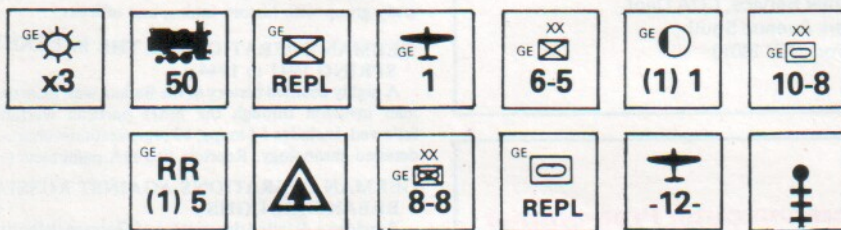


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Abbreviated Sequence of Play

A. JOINT TACTICAL AIR WAR TURN

1. Tactical Air Commitment Phase
2. Tactical Air Combat Phase

B. FIRST PLAYER TURN

1. Reinforcement/Replacement Phase
2. Initial Movement Phase
3. Rail Movement Phase
4. Sea Movement Phase
5. Air Movement Phase
6. Combat Phase
7. Mechanized Movement Phase
8. Air Interdiction Phase

C. SECOND PLAYER TURN

D. HOUSEKEEPING

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OUTGOING MAIL [continued from page 3]

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Alien Encounters. Three alien races and all you wanted to know about them, plus adventures with extraterrestrial beings. Butterfield & Klug/Butterfield.

DragonQuest World Generation. Programmed instruction on how to generate a complete fantasy world, suitable with SPI's *DragonQuest* or other role-playing systems. Jackson/Klug.

Battle Over Britain. Operational level treatment of the intense aerial warfare over the British countryside during WWII. Butterfield/Butterfield.

Antietam. The third grand tactical Civil War game based on the popular *TSS-Great Battles of the ACW* system. Berg/Smith.

Sicily. Three-way fight for control of the island as a dueling Patton and Montgomery face Kesselring. Rustin/Butterfield. *S&T 89* game.

Galactic Trader. Multi-player game of free enterprise in the far expanses of the universe. Karp/Karp. *Ares 12* game.

DragonQuest Level II. Three main sections — *Advanced Monsters*, *Arcane Wisdom* and *Book of Days* — in addition to new skills, special types of combat, severe environments, and more. Klug/Klug.

Monmouth. Washington's post-Valley Forge attack on the British; featuring Molly Pitcher at the cannon. Martin & Milman/Smith. *S&T 90* game.

Ghostship. A mysterious alien artifact-star vessel enters the solar system, creating the potential for first extraterrestrial contact. Pecorini/Karp. *Ares 13* game.

Hot Spots. Tactical modern armor game focusing on major flash points around the world. Duryea/Duryea.

Chickamauga. Another in the *Great Battles of the ACW* series pitting Bragg against Rosecrans in 1863. Smith/Smith.

Julius Caesar. Strategic level overview of campaigns of Julius Caesar in *Gallia est omnia divisa*... Berg/Schacter

Published since last issue: **DeltaVee** (nee **Laserburst**), **Desert Fox**, **Universe**, **The Alamo**, **Spies!**, **Frontiers of Alusia**, **Jackson at the Crossroads/The Battle of Corinth**.

Who Was That Game Company I Saw You With Last Night

Sometime in the near future, you may be bemused by the sight of a new *Avalon Hill* game called *Panzergruppe Guderian* or *Freedom in the Galaxy* or even *Frederick the Great*. Didn't SPI do those, you might say to yourself. Well, of course we did. But we recently sold the rights to five existing SPI games (the three mentioned plus *Panzerarmee Afrika* and *Conquistador*), to Avalon Hill. This may shock some of you who are relatively recent fans of SPI, but it's really nothing so new.

Several years ago we did *PanzerBlitz* for Avalon Hill (their bestselling wargame) and subsequently sold them *France 40* (which appeared first in *S&T*). Avalon Hill can repackage, and sell successfully, SPI games simply because Avalon Hill has a broader distribution net than SPI and can expose the games to many buyers that would otherwise not see them.

So far as the particulars of the arrangement, both AH and SPI are happy with the arms-length deal they concluded and continue as friendly business rivals. SPI is especially happy because a number of the games sold are good candidates for the wider exposure they'll get (particularly *Freedom in the Galaxy*). Since the relationship is an author (SPI)/publisher (AH) sort of arrangement, both parties have a mutual interest in seeing that the games do well in their release. *Redmond A. Simonsen*

The Situation Currently

Those few readers who study changes in the masthead at the front of the magazine will notice a number have been made since last issue. SPI has recently undergone a major reorganization aimed at improving the quality of the magazines and games and streamlining the production process.

The principle change has been the merging of the R&D and Art Departments into a unified Creative Department. Where before a rules manuscript was handed in to editorial from R&D in complete form, it will now be handed in in skeleton form to have the body of the rules fleshed out by **Robert Ryer**, who has been made Managing Editor for rules for all SPI games.

Redmond Simonsen, Creative Director of SPI, and Bob Ryer will meet the designer/developer of a game to discuss the major elements of the map, counters, and rules. As the game grows and changes, Redmond and Bob will stay directly involved with the product so that as it is turned into finished art it will already be a known quantity to the rules editor and graphic designer. Those little glitches that crop up from time to time — the effects of mixed terrain in a hex on combat and movement, contradictions in the rules and so forth — should be reduced dramatically. Bob threatens to de-jargonize the rules in the games to make them more easily accessible and more logical in thought. This re-assignment of duties and departments is intended to make a game an organic whole, from its first inception in the designer's head through the development process to the final product shipped to the printer.

Michael Moore has been appointed Managing Editor of the magazines. With one editor concentrating primarily on rules and another primarily on the magazines, the minor inconsistencies that occasionally arose when two editors worked on the same project will be eliminated.

Mark Herman, a former SPI game designer/developer (*Next War*, *Mech War 2*, *October War*, et al), has returned to the flock to act as Vice-President of Strategic Studies. In addition to designing a random game or two, Mark will concentrate on developing projects for institutional and government use.

Jerry Glichenhouse has been named the new Vice-President of Marketing and will

be active in promoting SPI wares, expanding distribution, and insuring that our wholesale customers are properly served. Under Jerry's guidance SPI will increase its advertisement program and broaden its promotion of the company and the industry in general.

Nick Karp has joined the design staff full-time. Nick is both historically oriented and steeped in role-playing fantasy gaming. He is currently charged with a number of major projects as well as being in charge of SPI's intern program for apprentice game designers.

Feedback

S&T 85 tied with issue nr. 84 as the highest overall score for an issue during the past year. *For Your Information* received its best rating so far, showing continued support among the readership. *Fighting Sail* did not do very well as a game, rating slightly under *Operation Grenade* from *S&T 84*; interestingly enough, both articles on naval warfare — *Nelson's Victory* and *Fighting Sail* — scored exceptionally high, as did the *Task Force* article from *S&T 73*. Hmm, naval articles are well received but not the game. I suggest that *Fighting Sail's* lower solitaire playability rating may be a major factor for its less than enthusiastic response. (Two-thirds of you — 67% — indicated that solitaire playability was quite important to you in *S&T* issue games — a 7 or better response. That should give us something to think about when planning upcoming issues.)

Feedback Results, S&T 85

RANK	ITEM	RATING
1.	Fighting Sail (article)	6.82
2.	For Your Information	6.81
3.	Singapore	6.65
4.	Games Rating Chart	6.65
5.	Outgoing Mail	6.44
6.	Fighting Sail (game)	6.33
7.	Briefings 1	6.06
8.	Briefings 3	5.77
9.	Briefings 2	5.43
S&T 85 Overall		6.71

The greatest response for a game came not from a new idea but from an extension of an old idea. *Caretan*, covering the entire Normandy breakout in July and August 1944 when combined with *Cobra*, garnered a healthy 122, one of the highest *S&T* feedback responses ever. Next in line were *1990* and *Memphis to Vicksburg*, both near the 90 mark which makes them strong candidates for future development. As far as second editions of our older games, both *Dreadnought* and *USN* scored respectably (those ever popular naval games again!) and will probably be added on the calendar. As a matter of fact, *Dreadnought* has already been put on the schedule and should be ready for release some time this fall. *Michael E. Moore*

Burnsiding Our Bridges Behind Us, or the Ford Was a Better Idea... Ruminations on Antietam

The most fortunate aspect of *Antietam* (the umpteenth, but current, working title for our new *TSS*-system game on Sharpsburg/Antietam) is that it began design as we were finishing work on *Bloody April*. This

[continued on page 20]

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OUTGOING MAIL [continued from page 18]

meant, among other things, that the memory of the latter was fresh in my mind. I could gauge instantly the public reaction to many of the changes made to *TSS* in *Bloody April*, which is why most players will find *Antietam* closer to *TSS* than to *BA* — at least in feel.

As with any game — especially of this size — I started work with the map. We are now in our fourth working version of the game-map, and each one is quite different from its predecessor. My initial version was done solely because (a) I always do the map first, and (b) I needed a map to get a decent idea of the initial dispositions. Therefore, I simply grabbed Old Unreliable, *The West Point Military Atlas* (it's truly amazing how inaccurate all those maps are), and dashed off a quickie. Well, at least the creek was in the right place.

The second (and initial playtest) version of the map was done when I finally got the official Antietam Park version of the battlefield, known as the Bowlby map. This is quite a good bird's-eye view of the field, giving all the terrain detail you could possibly want, except for one thing — elevation. For that I had to await the pleasure of the National Archives, which eventually sent us the series of 14 maps known as the Carman-Cope maps. Aside from giving troop dispositions for almost every important period of the battle, the Carman-Cope maps also have elevation lines at 10-foot intervals.

The result was map three, drawn in the time-honored *TSS* style you're all familiar with. Unfortunately, it looked like a spider's idea of heaven, and the line of sight arguments were getting to be a bit insane. The result was that, after several conversations with my developer, Eric Smith, I decided to bite the bullet and adopt the elevation approach as used in *Pea Ridge* and in my own *Corinth* design. I have no idea what color scheme Redmond will choose, but the playtest map is quite attractive and provides the player with an exceptionally accessible view of the field.

The other main problem prior to design is that of OB, and in that area *Antietam* is more of a problem than either of its predecessors. While Gettysburg (*TSS*) and Shiloh (*BA*) have (relatively) abundant information, *Antietam* is missing such data. So again the call went out to our Numbers Man, the eminent Dr. David Martin, and, again, he came through with flying colors. He researched every unit for strength and weaponry and provided us with a listing of each unit, complete with the sources used for strength, plus some invaluable side notes.

Three times the list was revised as new information came to light, the most valuable being the uncovering of the unprinted Carman manuscript on the battle, which provided us with many Confederate regimental strengths hitherto unavailable. It was thru Dr. Martin that we discovered the presence of the Union sharpshooter units with telescopic rifles. Granted, most regiments did not have specific information in this area, so that educated guessing from previous and subsequent battles was widely used. In the main, however, the numerical strengths and weaponry is probably the most accurate ever

done, and its thoroughness even startled the historians at the park when they were shown an updated version!

For morale levels — which are more important in *Antietam* than in any previous *TSS* game — I relied on another old researcher and friend, Jim Bowman. His compilations of unit histories was again invaluable, especially in noting the "green" units. Morale is often a difficult area to assess, especially given the relative worth of both armies, and I often gave the Confederate units the benefit of the doubt — especially where it seemed to need it or history more or less demanded it.

A quick look at the numerical strengths let me know right away that the old 100-men-per point scale was not going to work with *Antietam*. The Confederates alone had over 10 regiments with strengths lower than 50 — some as low as 18 to 20! There were also a large number of units with strengths of 130 to 140, which meant that if I used the 100 scale there would be a major discrepancy in relative overall strengths between the two armies. The obvious decision was to go to 50-men-per-point. This seems simple enough, but the havoc it wrought within the system is still being straightened out.

The obvious and immediate changes were to the CRT's. With losses affecting smaller groups, the 1-6 die-roll was no longer adequate to handle the scale; therefore, the CRT was changed to a 2-12 die-roll. The stacking and density charts underwent minor revisions, and a series of completely new, if minor, rules were implemented. And then we were ready to start work.

It's hard to remember exactly what happened in what sequence, as designing a game often entails keeping track (and oftentimes forgetting) many details, so I have set down the changes not so much as when they happened, but more or less in order of how they appear in the game.

Many of the changes brought about in *Bloody April* were either not working or in some disfavor, and most of this had to do with the record-keeping aspect of *BA*. It was obvious that I would have to do some rethinking in this area.

Most of the testing work has concentrated on the adjustments I made to the fire combat portion of the rules. As *TSS* players know, the Fire CRT of that game is unmercifully bloody. In *Bloody April* we reduced losses on the CRT quite a bit, and in *Antietam* we have reduced actual casualty losses even further (by about 25-30%!). Terrain in *BA* helped keep losses down much further than the CRT would normally indicate, but there was no such cover at Sharpsburg. We therefore found that the opening hours of the battle, which were a head-on, massive meeting engagement, produced a horrendous number of dead and wounded. Granted 12,000+ casualties were actually taken during the first four hours of the real battle, but our numbers were just too much.

Concomitant with the changes in fire came a change in the ammo rules. Gone, you'll be glad to know, is the excessive bookkeeping of *BA*. Ammo depletion is by random die-roll, as with *TSS*, although the supply wagons have a limited capability in resupplying small-arms ammunition. Battery fire is

by rounds, using a simple system that does require a small amount of bookkeeping (but was determined to be quite acceptable by the testers). The amount of ammunition available to both sides is limited, although it should be adequate for a well-supervised battle. Rapid-fire is still available, but it is limited to grapeshot (anti-personnel) now.

Another area that underwent considerable overhaul in terms of effect, if not actual rules, is melee. Again taking the suggestions of many gamers, I tied in the ability to melee and retreat before melee with a unit's morale. The good morale units now assume major importance in the battle as few players will attempt to melee or stand with units of low or unproven morale. They simply will rarely function as you wish them to. This change forces the players to plan in advance to a much greater extent than ever before with the *TSS* system.

The major addition to *Antietam*, in terms of rules indigenous to the specific battle, is the Union Commitment rule. The need for this arose not from the conduct of the battle but from the "why and wherefore" of the battle. Quite simply, if McClellan had not been in command of the Union Army, Lee would not have stood at Sharpsburg; he would have returned across the Potomac. But Lee knew McClellan, and he knew that with McClellan in command he (Lee) stood a good chance of defeating the Union in a defensive battle. Ultimately, although his reasoning was sound, the result failed to bear Lee out, mostly because of the poor state of his troops. However, the major portion of the blame for the Union's failure to thoroughly shatter the Army of Northern Virginia lays squarely on the shoulders of Little Mac, the Union's answer to Braxton Bragg.

McClellan had no idea what was going on and he did even less about it. He waited, he squandered, he committed piecemeal, he failed to inform his subordinates, he did everything that was humanly possible to stop a well-equipped army from defeating a bedraggled force 45% of its size.

This is a situation that the designer has to deal with: the result is the Union Commitment rules. In essence, play is still left in the hands of the gamers in that it is the gamer that still decides what to do. However, the Union player must commit his corps, and he can do this only at certain (albeit plentiful) times. McClellan has a number of *commit points* which he distributes (if he so wishes) amongst his corps commanders. These points are added to those of the corps commanders, producing a total representing a die-roll maximum. Corps are thus committed by die-roll as per the points assigned them. Further adding to the confusion is the fact that corps commanders must then commit their divisions, although this is much easier to do.

Finally, we have the Burnside-Cox problem, in which both of these non-estimable men were having a personality conflict which delayed the transmission of any orders to the IX Corps. So far, the simulation of this aspect of the battle has been quite satisfactory; it has also kept the Confederate player in the game — no mean feat!

Other added fillips are new cavalry charge rules, some optional items such as

[continued on page 54]

For Your Information

A Wide Ranging Survey of Historical Data and Analysis

Volume 1, Number 6
Edited by A.A. Nofi

DID YOU KNOW...?

► The Light Brigade, the "Gallant six hundred" which charged at Balaklava on 25 October 1854, actually numbered 673 British officers and men, plus two Sardinian military observers who went along for the ride. Of the 675 men taking part, 247 became casualties (36.6 percent), of whom 113 (16.7 percent) were killed. Of the 675 horses forced to participate, fully 480 (71.1 percent) did not make it back.

► During World War II, out of every seven American Army casualties, one died, five were wounded, and one was a psychiatric case.

► In 1861, the principal Confederate agent in London — in effect their ambassador — was a Mr. North.

► During the 1967 Arab-Israeli War, Israeli forces on the Golan Heights destroyed a battalion of Syrian Panzer IV tanks which had seen service in *three* armies: they were produced for Germany in 1942, transferred to Spain in 1943, and sold by the wily Spaniards to Syria in the mid-1950's.

► The great tank battles of World War II in the Ukrainian steppes and in the North African deserts threw up so much fine dust that there was a considerable increase in the volume of solid particles suspended in the atmosphere. This was detectable as far away as the Caribbean, fully 70% of the way around the globe, where this increase was blamed by some for a series of wetter than usual years.

► This familiar looking symbol was the emblem of The Girls Club of America around 1910.



► In 1610, when the people of Russia stormed the Kremlin and deposed the "False Dimitri" (1607-1610), they not only tortured the usurper a bit, but afterwards burned his body, loaded a cannon with the ashes, and fired it off in the direction of Poland, which had been Dimitri's principal supporter.

► On 24 June 1839, a Turkish Army was defeated at Nezib in Syria by an Egyptian Army under the command of Ibrahim, son of Mehmet Ali, because its commander, Hafiz Pasha, preferred the advice of his Muslim astrologer over that of his infidel military advisor, Helmuth von Moltke, who later went on to greater glory as the mastermind of the Prussian victories over Austria and France in 1866 and 1870.

From the Dustbin of History

An army which is locked up in a besieged city is not pulling its weight.

— A.J. Baker.

FOOTNOTES

IV-F

Commanders Unfit for Military Service

War is assumed to be for the physically and mentally fit. At least that's what our manpower classification systems tell us. Nevertheless, many generals and admirals of considerable prominence and success possessed handicaps which would bar them from military service in most contemporary armies and navies. Herewith is a list of some prominent commanders with unusual physical problems. Mental disorders, such as megalomania and oedipal complexes, have been excluded, as, along with stupidity, they are not necessarily incompatible with success in a military career. Handicaps incurred during an individual's active service have been indicated by an asterisk (*).

Alexander the Great* (356-323 BC) *Macedonia*
EPILEPSY, ALCOHOLISM

Omar Bradley (1893-1981) *US*
"FOOTBALL KNEE"

Julius Caesar (110-44 BC) *Rome*
EPILEPSY

Enrico Dandolo (c. 1107-1205) *Venice*
BLIND, WINNING AT 90!

Dwight D. Eisenhower (1890-1969) *US*
"FOOTBALL KNEE"

Eugenio von Savoy (1663-1736) *Austria*
HUNCHBACK

Douglas Haig (1861-1928) *Britain*
COLOR BLIND

William F. Halsey (1882-1959) *US*
MYOPIA

Hannibal* (c. 247-183 BC) *Carthage*
EPILEPSY, BLIND IN ONE EYE

Adolf Hitler (1889-1945) *Germany*
INCONTINENT FLATULENCE

Francois de Luxembourg (1628-1695) *France*
HUNCHBACK

Jose Millan Astray* (1879-1954) *Spain*
LACKED AN EYE, ARM, AND FINGER

Daniel Morgan (1736-1802) *US*
ACUTE ARTHRITIS

Naaman (fl. c. 850 BC) *Syria*
LEPROSY, TILL CURED (cf. 2 KINGS, 5)

Napoleon (1769-1821) *France*
HEMORRHOIDS

Narses (c. 478-c. 573) *Rome*
EUNUCH, STARTED WINNING AT 70!

Horatio Nelson* (1758-1805) *Britain*
SEA SICKNESS, MISSING AN EYE AND ARM

George Patton (1885-1945) *US*
DYSLEXIA

Peter I The Great (1672-1725) *Russia*
STRANGURY, EPILEPSY

Thomas Pictou (1758-1815) *Britain*
SEVERE MYOPIA

Jean de Rochambeau (1725-1807) *France*
INFLAMMATORY RHEUMATISM

Maurice de Saxe (1696-1750) *France*
DROPSY, AT HIS BEST AT ITS WORST!

Alfred von Schlieffen (1733-1813) *Germany*
SEVERE MYOPIA

Nicholas Soult (1769-1851) *France*
CLUB FOOT

Pierre de Suffren (1729-1788) *France*
OBESITY

Archibald Wavell* (1883-1950) *Britain*
BLIND IN ONE EYE

William III (1650-1702) *Britain*
ASTHMA

Garnet Wolsely* (1833-1913) *Britain*
BLIND IN ONE EYE

Isoroku Yamamoto* (1884-1945) *Japan*
MISSING 2 FINGERS

Jan Zizka* (c. 1358-1424) *Bohemia*
BLIND IN ONE EYE, LATER BOTH

Equine Movement Rates

PACE	MAXIMUM DISTANCE COVERABLE BY		
	MINUTE (in meters)	HOUR (in kms)	DAY (in kms)
Walk	110	5.5	16-32
Trot	180	12.0	32-48
Gallop	300	12.0	32-48
Charge	350	[21.0]	-

These are theoretical rates, assuming fresh and fit horses and men. Ultimately, the less a horse is pressed, the more work one can get out of him. So one walks one's mount as much as possible and tries to keep the daily advance to no more than six hours. The best sustained rate of advance is derived from a combination of leading one's horse, walking, trotting, and galloping spread over an hour in ten-minute increments, with a break of the same length each hour. Forcing horses beyond this will kill them, Hollywood to the contrary notwithstanding.

The charge, of course, is the most impressive employment of the horse in war, but it cannot be sustained for more than a few seconds or the horses will suffer from "broken wind," making them useless for several days and, more importantly, incapable of engaging in combat immediately, whilst one is surrounded by numerous unfriendly enemy troops amongst whom one has charged. Normally (i.e., intelligently) the charge was a combination of trotting, galloping, and running spread over about four or five minutes, with minor differences in pattern depending on whether or not one was charging other cavalry — and could therefore expect to be counter-charged — or infantry and artillery.

PACE (kph)	TARGET TROOPS	
	CAVALRY [meters (secs)]	INFANTRY [meters (secs)]
Trot (10)	c. 750 (180-210)	c. 600 (150-180)
Gallop (18)	c. 450 (60-90)	c. 600 (90-120)
Charge (21)	c. 100 (9-10)	c. 115 (10-12)
Total Time	4.5-5.0 mins.	4.5-5.0 mins.

This summarizes the optimal pattern for delivering a charge, with approximate rates of advance, distances covered, and time consumed for each part of the attack. Such a charge would leave the horses fit to engage in mounted combat, a useful consideration. Incidentally, the charge is best delivered *up-hill*, at slopes of up to five degrees from horizontal. It cannot be delivered at all downhill if the slope is greater than 9 or 10 degrees nor

[continued on page 22]

under any circumstances at 15 degrees. None of the above seems to impress movie producers, who prefer the rather spectacular downhill charge, usually possible only with carefully groomed slopes.

Who?

Scotti, Fabini, Goglia, Benigni, Merizzi, Marenzi, Leonardi, Fussina, Bonetti, Spondalunga, Martini, San Martino, Monte San Michele, Zanantoni, Peteani, and Madonna del Mare were all names of Austro-Hungarian generals during the First World War. The Empire was a hodge-podge of nationalities — ten different languages were official in the army and mobilization orders were issued in fifteen — and these men were of Italian background. Of course, most of them, along with others such as Ruiz de Roxas, Henriquez, and Braganca, were “Austrianized”; it was possible for a man to be named Boleslav Wolf Freiherr von Monte San Michele, combining Slavic, Germanic, and Italian names. To make matters even more interesting the *kaiserlich-und-koniglich*, or “k-u-k” armies had a *Feldmarschalleutnant* named Karl Kuk! *Osterreich-Ungarns Letzter Krieg*

Daily Ration Scale
German Army at Stalingrad (Feb 1943)
200 grams horsemeat = c. 400 calories
75 grams “ersatz” bread = c. 130 calories
12 grams margarine or fat = c. 85 calories

Total: 287 grams (c. half-pound) = c. 615 calories
The above total is approximately 19% of the amount necessary for a man to live and fight, assuming one actually received it.
Matthew Cooper, *The German Army, 1933-1945*

Who’s Got the Battleship?
Capital Ship Availability in World War II

The battleship — and its swifter, more lightly equipped cousin, the battlecruiser, — was the principal measure of sea power well into the 20th Century. All of the Great Powers, and most of the middle-ranked ones expended enormous sums on construction and maintenance of such vessels. Even after they were displaced from their primacy by the aircraft carrier, numbers were maintained in service if for no other reason than the enormous prestige attached to their possession. Battleships and battlecruisers were at the peak of their importance during the First World War. But they still counted heavily in the calculations of power in WWII and many rendered yeoman service.

The table at bottom left sets forth the operationally available battleships and other gun-armed capital ships of the Second World War period for all powers possessing such vessels. Ships under construction are excluded — most of them were never completed anyway. Figures are given for the end of August of 1939 (Pre-War) and then for 31 December of each indicated year except 1945 (when the end of the War — VE-Day and VJ as appropriate — is used).

Numbers on all tables in this item to the left of the slash are battleships, those to the right battlecruisers (Britain and Turkey), pocket battleships (Germany), or large cruisers (United States). Japanese vessels of the *Kongo* class, originally classed as battlecruisers, had been rebuilt as battleships by 1939. French vessels of the *Dunkerque* class, though usually treated as battlecruisers, were actually small, efficient light battleships. Similarly, German *Scharnhorst* class ships, considered battlecruisers in pre-war and wartime discussions, were actually full battleships save for being somewhat undergunned. Note that Italian figures for 1943-1945 include vessels actually interned by the Allies. These ships remained operationally under Italian control but for political reason were never employed — although Italy was in fact “co-belligerent” by this period. A summary of capital ships available to the Allied and Axis blocs is of interest:

YEAR	ALLIES	AVAILABLE
PreWar	Br, Fr	19/3
1939	Br, Fr	18/3
1940	Br	12/3
1941	Br, Ru, US	29/1
1942	Bz, Br, Ru, US	27/1
1943	Bz, Br, Fr, It, Ru, US	48/1
1944	Bz, Br, Fr, It, Ru, US	49/3
1945	Bz, Br, Fr, It, Ru, Tk, US	48/4
AXIS		
PreWar	Ge	2/3
1939	Ge	2/2
1940	Ge, It	9/2
1941	Ge, It, Ja	20/2
1942	Ge, It, Ja	19/2
1943	Ge, Ja	11/2
1944	Ge, Ja	5/2
1945	Ge, Ja	1/0

Note that the Allies lost no battleships after 1942 — excluding one Italian vessel sunk whilst reporting for internment — all decreases in Allied capital ship strength thereafter being due to vessels being stricken

from active service. Also in 1944 one battleship was transferred from British to Russian service, which was later returned in 1949.

Actual battleship losses during the war were:

Britain	3/2
France	5/0 [3 scuttled]
Germany	4/3
Italy	3/0
Japan	11/0
Russia	1/0
US	2/0

These figures exclude ships temporarily sunk — such as most of the Pearl Harbor contingent. In summary, therefore, Allied capital ship losses were 11 battleships and two battlecruisers, Axis losses 20 battleships — counting the Italian ship sunk after the Armistice by the Germans — and three “pocket battleships.”

Sigfried Breyer, *Battleships and Battlecruisers*; Richard Hough, *Dreadnought*; *Jane’s Fighting Ships, 1939-1947*.

DID YOU KNOW [continued from page 21]

► King Sancho I of Navarre (905-933) was nicknamed “The Expeditor” because he issued rope-soled sandals to his hitherto barefoot troops, thereby greatly increasing their mobility *vis-a-vis* that of their enemies.

► During the American Revolution the much vaunted Hessian troops never once won an engagement unless accompanied by the British regulars.

► Napoleon fought, and won, more battles than Alexander the Great, Hannibal, and Caesar combined.

► The United States dropped more tons of bombs on Viet Nam during eight years of “low intensity” combat than did all the air forces of all the belligerents during the six years of “high intensity” combat known as World War II.

► The senior colonel of the Spanish Army is undoubtedly one Miguel de Cervantes Saavedra, with rank dating from 23 March 1616 in the corps of *Invilados*, still carried on the rolls of the army with the notation, “hero of Lepanto and glory of Spanish literature.”

► When Louis XIV of France (1643-1715) went on campaign he “roughed it” by living in a tent which had six separate chambers, including three bedrooms: one for the Queen, one for the Royal Mistress of the moment, and, of course, one for Louis.

► The German word *schlacht* or “battle” is derived from the verb *schlachten* (“to butcher”) and is cognate with the English “slaughter.”

► The first airplane ever shot down was probably a German Imperial Air Service *Aviatik* brought down by British ground fire near Le Quesnoy in France on 24 August 1914, flown by Sergeant Pilot Karsen, who managed to survive his history-making experience.

POWER	PreWar	1939	1940	1941	1942	1943	1944	1945
Argentina	2/0	2/0	2/0	2/0	2/0	2/0	2/0	2/0
Brazil	2/0	2/0	2/0	2/0	2/0	2/0	2/0	2/0
Britain	12/3	11/3	12/3	12/1	14/1	14/1	13/1	13/1
Chile	1/0	1/0	1/0	1/0	1/0	1/0	1/0	1/0
France	7/0	7/0	7/0	7/0	4/0	4/0	3/0	2/0
Germany	2/3	2/2	3/2	3/2	2/2	2/2	0/2	0/0
Italy	2/0	2/0	6/0	6/0	7/0	5/0	5/0	5/0
Japan	9/0	9/0	10/0	11/0	10/0	9/0	5/0	1/0
Russia	3/0	3/0	3/0	2/0	2/0	2/0	3/0	3/0
Turkey	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
US	15/0	15/0	15/0	15/0	19/0	21/0	23/2	23/2

DATA FILE

The Swiss at War and the Renaissance of Infantry

Seen from the perspective of the Twentieth Century, it is a little surprising to find that 500 years ago Switzerland, a country whose name is now synonymous with neutrality, was one of the most war-like countries in Europe. As far away as Rome and Vienna, people prayed for deliverance from "the terrible Switzers." But the Swiss as warriors present us with more than some small bit of military trivia: it was the Swiss who first developed a universally adaptable tactical system that enabled men on foot to withstand — and defeat — the vaunted knights who had been predominant in combat ever since 378 AD, when their Gothic forebearers had annihilated the Roman legions at Adrianople. The Swiss and the nations who copied their tactics brought warfare from the Middle Ages into modern times.

In 1291 several Swiss cantons declared their independence from the Holy Roman Emperor. To protect themselves these cantons formed a confederation and raised an army that was unique among the feudal levies of that day. Being inhabitants of a poor region, they were unable to equip heavily-armored warriors or cavalry. They consequently had to rely upon their wits to develop an effective force that could withstand attacks of armored horsemen.

The tactical system the Swiss developed resembled the phalanx of Alexander the Great. Its formation consisted of men armed with 21-foot long pikes arrayed in as many as 100 ranks. The formation had a relatively narrow front, perhaps 30 men across, and, as long as no gaps appeared in the line of pikes, it possessed considerable shock power, particularly when attacking downhill. Men in the center of the column were armed with 8-foot long halberds. The halberd was the 14th Century's forerunner of the "Triple Threat": besides being topped with a sharp spike, about 1½-feet long, it also had a curved hook, for pulling horsemen out of the saddle, and a wide-bladed axe for the coup de grace. Legend has it that a Swiss halberdier could behead a horse with a single stroke.

With the pikemen arranged in tight rows, the pikes of the first four ranks protruded in front of the first rank, making a nearly impenetrable hedge of steel points. These pikes were held from the shoulder with a downward slant which made their points harder to deflect. The fifth through eighth ranks held their pikes at an upward angle to protect the front ranks from descending arrows, bolts, or rocks. The remaining ranks held their pikes vertically. The entire formation was screened initially by crossbowmen who attempted to disrupt the enemy's advance and then retired through the formation. Later troops armed with hand-guns (arquebuses) were used for the same purpose.

The battle plan developed by the Swiss was notable in its day of military mediocrity for its swiftness and effectiveness in battle. At a time when feudal levies sometimes took an entire day to align themselves in battle formation, the Swiss were unique in that

they fought and marched in the same formations, sometimes attacking directly from the march. The Swiss army consisted of three similar columns or formations: *Vorhut*, or vanguard; *Gewaltshaufen*, or power mass; and *Nachhut*, or rear-guard. The columns marched along parallel roads, where possible, in order to advance into combat already deployed. If only one road was available, the vanguard advanced directly into combat, with the subsequent formations peeling off to the right or left to form the battle array. The Swiss were so aggressive that the vanguard frequently engaged the enemy before the other columns deployed. On occasion the vanguard would defeat the enemy single-handed. Conversely, it was not unusual, particularly in the Hapsburg-Valois Wars of the early 1500's, for an enemy leader to concentrate his forces against the vanguard and defeat the entire Swiss force in detail.

The Swiss used a number of different battle formations, including echelon to the right rear, echelon to the left rear, center in advance, or wings in advance. The echelons were the most frequently used because the impetus of each successive column attacking the enemy weakened his formations; by the time the rearguard made its weight felt, the enemy was normally in considerable disarray anyway, and the additional impact precipitated a rout.

Little is known about the brigading of the cantons into the three columns, although generally the three original cantons (Uri, Schwyz, and Unterwalden) marched together in the central column. Swiss soldiers took an oath to their canton, and later to their commander, but never to the Swiss Confederation. Rarely, then, did the soldier feel any loyalty to the entire formation. Further complicating the cohesion of the force was the lack of a commander-in-chief. The soldiers elected their officers, and the commanders would carry on the various command functions by a majority vote in a council. Under such circumstances, innovations were rarely permitted, and the Swiss of 1515 fought very much the same way as their ancestors two hundred years previously.

The contingent raised by each canton contained eleven officers or specialists. The officers were the *Hauptman*, or commander; the *Venner*, or banner-bearer, who was second-in-command; the *Untervenner*; and the *Schutzenmeister*, or captain of arquebuses. In addition, the contingent normally contained a clerk, a quartermaster, a surgeon, a chaplain, two hornists, and, last but certainly not least, an executioner. Although there is no evidence that the Swiss had any noncommissioned officers, discipline does not seem to have been a problem. Offenses such as leaving the banner in pursuit of private plunder were punished by "black-listing"; that is, the offender would not be employed by any of the cantons. More serious crimes, such as throwing down one's pike in battle or being the first to leave the battlefield, were punished by summary execution. In an era in which armies were notorious for the laxity of discipline, the Swiss, then, were notable for their strictness and severity.

Perhaps the key to the discipline was the fierce spirit of independence found in the

Swiss soldier of the 14th Century. He represented the military arm of the first republic in modern Europe. His desire to preserve this unique form of government made him a determined warrior. Other nations used war as an excuse to plunder their neighbors or take prisoners who could be ransomed for a handsome sum. The Swiss fought for their country and consequently ignored some of the niceties of chivalric warfare. They were considered quite barbaric for their refusal to take prisoners. They gave no quarter and asked none in return. Along with the English yeomen of that era, the Swiss pikemen demonstrated the superiority of the warrior fighting in the name of national pride over the soon-to-be obsolete practitioners of feudal warfare.

The first contest between the Swiss and their feudal adversaries came at Morgarten in November, 1315. An Austrian army of 8,000 men-at-arms and knights was led into an ambush in a narrow defile with a cliff on one side and Lake Egeri on the other. The invaders suddenly found their way blocked by a barricade of boulders and logs. Perplexed, the Austrians halted. Before they could dismount to clear the obstacle, a shower of boulders and logs from the cliffs above them injured many and threw their army into turmoil. Suddenly a force of Swiss pikemen and crossbowmen seemed to erupt from the ground in front of the Austrians. Unable to charge with their armored lancers, too close together to use their broadswords, they were practically annihilated by the ferocious mountain warriors, who numbered barely 1500 men.

Morgarten did not cause the warriors of feudal Europe any second thoughts, however, as knights had been ambushed in narrow defiles before. In open ground, where the knights could launch a charge, it would be a different story. But in 1339, in an open field battle against the Burgundians, the Swiss defeated a typical feudal army at the Battle of Laupen, and Europe began to take note of this army of mountaineers who could stand up to the armies of chivalry.

It was not until the Battle of Sempach in 1386 that the superiority of the Swiss system became evident. On a hot July day, 1600 Swiss fought an army of 6000 Austrian troops under Leopold III of Swabia. Mindful of previous defeats at the hands of the Swiss, and perhaps in imitation of successful English tactics at the battles of Crecy and Portiers, Leopold dismounted his men-at-arms. The battle, then, became a conflict between two similarly arrayed forces, distinguished only by their relative sizes and the Swiss lack of armor.

At first the more numerous Austrians pushed back the Swiss. The Swiss, however, maintained the cohesion of their formations, and as the day wore on, their heavily-armored adversaries became more and more weary. A sudden Swiss counterattack breached the Austrian formations, and in the ensuing pursuit, the Swiss all but annihilated Leopold's army and preserved the independence of their young nation.

The 15th Century saw the Swiss military system reach its zenith, but it was also a century in which the defects of the Swiss became more and more evident. For one

The Desert Fox

Rommel's Campaign for North Africa

April 1941–December 1942

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[1.0] Introduction

Desert Fox is a brigade level simulation of the war in North Africa from the arrival of Erwin Rommel in March of 1941 until the end of 1942 when the Allies, landing amphibious forces in Western Africa, blockaded any chances for future Axis offensives in North Africa. The Axis player attempts to secure Libya and Egypt by seizing Alexandria, while the Allied (Commonwealth) player seeks to protect Alexandria and to contain the Axis forces. There are two scenarios in *Desert Fox*: a short, five-turn game, covering the Axis drive on Tobruk in the first few months of the conflict; and a campaign game, recreating the entire war in Northeast Africa.

[2.0] Game Equipment

CASES:

[2.1] GAME-MAP

Desert Fox has a two section 17"×44" map depicting the area in which the North African Campaign was fought. The map provided with the game is a single 22"×34" piece. To assemble the map, overlap the western edge of Map E (Egypt) over the Eastern edge of Map L (Libya). When the map is assembled, the coastline should be continuous from Alexandria to El Agheila. Terrain features relevant to desert warfare, and historically significant locations, are shown on the map. A hexagonal grid has been superimposed on the map to regulate movement and other game functions. Each hexagon, or "hex," is numbered. Hexes on the Libya map are referred to with an L prefix, and hexes on the Egypt map are referred to with an E prefix.

Various tracks, boxes, charts, and tables are printed on the map to facilitate play. Note also that each tenth hex along the Via Balbia (the coastal road) has a milestone mark, indicating distance (in hexes) from El Agheila, to allow for rapid reckoning of distances.

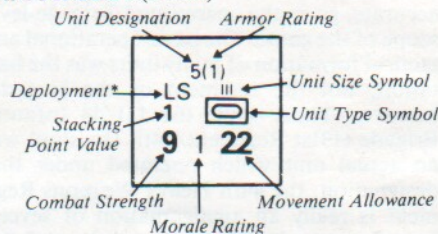
[2.2] PLAYING PIECES

The cardboard pieces, called units, represent the military units which participated in the

historical campaign. Various markers have also been provided as aids in play.

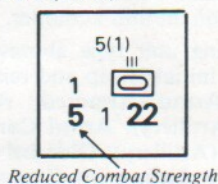
[2.21] Sample Units

ARMOR UNIT (Front)



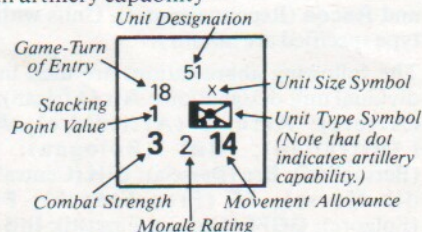
*Units that begin the game on the map are coded **LS** (start on Libya map), **ES** (start on Egypt map), or **RS** (start in Refit Box). See 15.12 and 15.13 for specific hexes of deployment. Reinforcing units have a one or two-digit number in this space indicating the Game-Turn in which they enter; see the Reinforcement schedules on the map. Armor replacement units are indicated with the code **Rpl**; see 13.3.

ARMOR UNIT (Back)

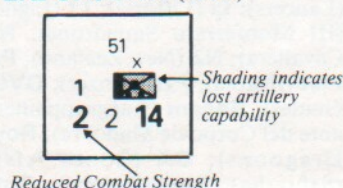


HEAVY WEAPONS UNIT (Front)

With artillery capability



HEAVY WEAPONS UNIT (Back)



Note that the following unit types are considered artillery (and flak) and are subject to the rules of Section 12.0:

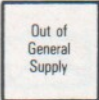



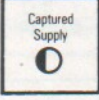

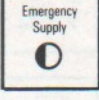




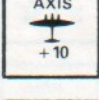



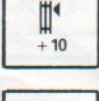

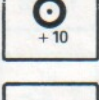
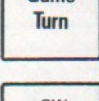
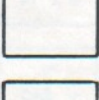

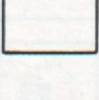


[2.22] Summary of Counter Types

COMBAT AND SUPPLY UNITS

Front		Back
	Infantry	
	Motorized Infantry	
	Armor	
	Mechanized Infantry	
	Artillery	
	Flak (Anti-Tank)	
	Reconnaissance	
	Heavy Weapons	
	Heavy Weapons with Artillery Capacity	
	Glider Infantry	
	Armored Car	
	Armored Artillery	
	Heavy Airborne Infantry	
	Mobile Supply Unit (MSU)	
	Supply Dump	

MARKERS

Front		Back
	Out of Supply	
	Fortification	
	Captured Supply	
	Emergency Supply	
	Railhead	
	Air Points	
	German Refit Points	
	Italian Refit Points	
	Commonwealth Refit Points	
	Game-Turn	
	Commonwealth Air at Malta	

Certain armor units were historically equipped with significantly different tanks at different times during the campaign. Such units are represented in *Desert Fox* by two or more counters, which frequently have greatly different Combat Strengths and Movement Allowances. Only one counter representing a given unit will ever be on the map at a given time, however. When more than one counter is provided for a unit, each counter has an Armor Rating, the only purpose of which is to determine when a particular counter is used during play. See 13.3.

[2.23] Unit Size Symbols

A unit's organizational size is not of direct importance to play, but for those players interested in the history of the campaign, a unit's size is indicated as follows: **II** = Battalion; **III** = Regiment; **X** = Brigade; **XX** = Division.

[2.3] CHARTS AND TABLES

Several charts and tables are used in *Desert Fox* to simplify and condense various game functions. These charts and tables include the Commonwealth Reinforcement/Withdrawal Schedule (5.17), Axis Reinforcement Schedule (5.18), Raid on Malta Table (6.37), Axis Convoy Arrival Table (7.57), Terrain Effects Chart (8.29), Hexside Terrain Effects on Combat Chart (11.37), Combat Results Table (11.8), Refit Chart (13.26), Terrain Key, and the Summary of Supply Sources and Capacities. In addition, information which varies with the Game-Turn is presented in condensed form on the Turn Record Track.

[2.4] GAME SCALE

Each hex on the game-map represents 16 kilometers, and each Game-Turn represents a month. Most of the units portrayed are brigade or regiment-sized, but a few division and battalion-sized units are also depicted. Air Points are abstractions of quality as well as quantity of planes and pilots, and there is no set ratio of planes to each Air Point.

[2.5] UNIT DESIGNATIONS

The Order-of-Battle for *Desert Fox* is quite accurate, given the operational/brigade-level scope of the game. The basic operational and tactical formation of many units was the battalion, not the regiment or the brigade, however. Thus, while the 131/44 Infantry Brigade (131st Regiment/44th Division) was an actual unit which operated under that designation, the 44th Heavy Weapons Regiment is really an amalgamation of several battalions assigned to the 44th: the 6th Cheshire Machinegun Battalion, 44th Recce Regiment, 57th Anti-Tank Regiment, 57th Field Artillery Regiment, 58th Artillery Regiment, 65th Field Artillery Regiment, and 30th Light Anti-Air Regiment. There are several such composite units in the game. Note also that the British often used the term "regiment" to describe battalion-sized units. Whenever a question of a unit's true organizational size arises, refer to the designation on the unit's counter.

The following unit type abbreviations are used in the initial set-up and reinforcement schedules: **Armd** (Armored); **Armd Arty** (Armored Artillery); **Armd Car** (Armored Car); **Arty** (Artillery); **Gldr Inf** (Glider Infantry); **Hvy Airbne Inf** (Heavy Airborne Infantry); **Hvy Inf** (Heavy Infantry); **Hvy Wpns** (Heavy Weapons); **Mech** (Mechanized Infantry); **Mtrzd** (Motorized); **Recon** and **Recce** (Reconnaissance). Units with no type specified are infantry.

The following abbreviations are used in individual unit designations: **Afr** (African); **Ar** (Ariete); **Artclre** (Articelere); **Aus** (Australian); **Bol** (Bologna); **Br** (Bersaglieri); **Brs** (Brescia); **CIH** (Central India Horse); **FF** (Free French); **Folg** (Folgore); **GGFF** (Giovani Fascisti); **Ind** (Indian); **Lan** (Lancia di Novara); **Lanc** (Lancers); **Li** (Littoria); **Lt** (Light); **Monfili** (III Monferrato Squadrone); **Nizz** (Nizza Cavaliera); **NZ** (New Zealand); **Pav** (Pavia); **Pist** (Pistoia); **Pzr** (Panzer); **QVOC** (QVOC Guides); **Recam** (Raggruppamento Esplorante del Corpo di Manovra); **Royals** (Royal Dragoons); **SA** (South Africa); **Sab** (Sabratha); **Sav** (Savona); **Spt** (Support

Group); **Svbd** (Sonderverband); **Tri** (Trieste); **Trn** (Trento); **2DYeo** (2nd Derbyshire Yeomanry). Commonwealth artillery units with single letter designations (e.g., c) are composite units.

[2.6] PARTS INVENTORY

Each copy of *Desert Fox* should contain the following game parts:

One 22" x 34" mapsheet

One sheet of 200 die-cut cardboard playing pieces

One 16-page rules booklet

Two six-sided die (not included) are also required for play.

If any parts are missing or damaged, please write to SPI's Customer Service Department for replacements. SPI can supply replacement parts only in cases of gross manufacturing error or illegibility.

Should you have any difficulty interpreting the rules, please write to SPI, phrasing your questions so that they can be answered by a simple word or phrase. *You must enclose a stamped, self-addressed envelope.* Write to:

SPI
Rules Questions: *Desert Fox*
257 Park Avenue South
New York, New York 10010

[3.0] Sequence of Play

GENERAL RULE:

Desert Fox is played in a series of Game-Turns during which the players move their units, engage in combat, and perform other game functions in attempting to attain their game objectives. The players must play each Game-Turn according to a strict sequence. No segment of a turn may be begun until the preceding segment has been completed. The player whose Player-Turn is currently in progress is the *Phasing* player, while the other player is termed the *non-Phasing* player. The player whose Player-Turn is first in each Game-Turn is determined by the rules for Initiative (4.0).

CASES:

[3.1] SEQUENCE OUTLINE

A. Initiative Determination Phase

The players determine who will be the first player according to rules Section 4.0, Initiative.

B. First Player-Turn

1. Reinforcement Phase. The Phasing player brings in any *reinforcements* due him, (5.1), and notes the arrival of any *Refit* and *Air Points* he is due. The Axis player, if it is his Player-Turn, uses the Axis Convoy Arrival Table (7.57) to determine his supply reinforcements. The Commonwealth player, if it is his Player-Turn, receives any supply units indicated on the Turn Record Track. Captured Supply Markers are removed from friendly supply units.

2. Air Allocation Phase. The Commonwealth player, if he is the Phasing player,

may send Air Points to Malta (6.3). The Axis player, if he is the Phasing player, may initiate a raid on Malta.

3. Initial Movement Phase. The Phasing player determines which of his units are in *General Supply* (7.0). He may then move his units within the restrictions of rules Section 8.0, Movement. Supply units may be expended to provide motorized units with General Supply. Enemy units may be *overrun* (8.3).

4. First Enemy Reaction Phase. All eligible non-Phasing units may undertake Reaction Movement according to rules Case 8.4, Reaction. The non-Phasing player may attempt to destroy his own supply units under certain conditions (7.8).

5. First Combat Phase. Phasing units in enemy Zones of Control (ZOC's) must engage non-Phasing units in combat. All attacks are resolved according to rules Section 11.0, Combat.

6. Motorized Movement Phase. The Phasing player determines General Supply for all his units. His motorized units may then move, within the restrictions of the movement rules.

7. Second Enemy Reaction Phase. Non-Phasing motorized units may conduct Reaction Movement.

8. Second Combat Phase. Phasing units attack, as in Phase 5.

9. Refit Phase. Supply Dumps may be converted to *Mobile Supply Dumps* (MSU's), and vice-versa (7.6). The Phasing player may then refit and rebuild previously affected units. Units may then recover from Disruption results (11.67). The Phasing player may attempt to destroy his own supply units (7.8). The Phasing player rolls for attrition of friendly Unsupplied units (7.32). Random supply expenditure takes place (7.9).

C. Second Player-Turn.

The second player becomes the Phasing player and repeats Phases 1 to 9.

D. Game-Turn Indication Phase

If it is currently the last Game-Turn of the scenario, the game ends. Otherwise the Game-Turn marker is advanced one turn on the Turn Record Track, and a new Game-Turn begins.

[3.2] AXIS INITIAL SURPRISE TURN

The Axis offensive into Cyrenaica in the last few days of March, 1941 caught the Allies completely by surprise. The British had estimated that the Germans would not be ready for desert combat until June, and they had begun to strip their units to reinforce Greece and Syria. A number of special rules reflect this intelligence breakdown. These rules apply only to Game-Turn 1 (except rule 5):

1. The Axis player is automatically the first player (there is no Initiative Phase).

2. Phases 6, 7, and 8 are deleted from the Commonwealth Player-Turn.

3. The Axis player receives no supply units as reinforcements (e.g., he does not consult the Axis Convoy Arrival Table, 7.57).

4. The Commonwealth may *not* construct fortifications (14.0).

5. Four is added to the Combat Strengths of

all Axis units during Game-Turns 1 and 2 for the purposes of Supply Overrun *only* (7.7).

6. The Commonwealth player may not attempt to destroy his own supply units (7.8).

[4.0] Initiative

GENERAL RULE:

The Initiative procedure is used to determine which player will move first in each Game-Turn. The player with Initiative decides whether he wants to be the first or second player during a turn.

PROCEDURE:

The Axis player rolls the dice. If the roll is within the span (inclusive) indicated for the Game-Turn on the Initiative portion of the Turn Record Track, the Axis player has Initiative. If the roll is outside the span, the Commonwealth player has the Initiative. The player with the Initiative must choose whether he wishes to be the first or second player.

DETERMINING INITIATIVE

A. The Axis player automatically goes first on Game-Turn 1. He may not choose to be the second player.

B. The Axis player automatically has the Initiative on Game-Turn 2. He may choose to be either the first or second player.

C. Initiative is determined each Game-Turn and never carries over from one turn to the next.

[5.0] Reinforcements

GENERAL RULE:

There are three types of reinforcements: Refit and Air Points and supply units arrive when indicated on the Turn Record Track, and land unit reinforcements arrive as indicated on the players' reinforcement schedules (5.17 and 5.18). Once in play, reinforcements function exactly like any other units. Note that the Commonwealth player must occasionally withdraw units as indicated on his schedule.

PROCEDURE:

Any land units that the Phasing player is due in a Reinforcement Phase are placed in any hex, not in an enemy ZOC (10.0), that is within two hexes of Alexandria (E2234) for Commonwealth units, or within two hexes of El Agheila (L0701) for Axis units. Any Commonwealth units to be withdrawn are to be moved directly from the map, within the restrictions of 5.2. The Refit/Air Point Track is adjusted to indicate the arrival of Refit or Air Points. Supply reinforcements are deployed in the manner described in Case 7.5.

CASES:

[5.1] REINFORCEMENT ENTRY

[5.11] If all entry hexes are occupied by enemy units or enemy ZOC's, land reinforcements may enter on any land hex on the appropriate side of the map (west edge for the Axis; east edge for the Commonwealth). If

all such hexes are blocked by enemy units or enemy ZOC's, any reinforcements due must be delayed. Reinforcements may be delayed voluntarily at the owning player's option.

[5.12] Previously delayed reinforcements may arrive on any turn following the turn they were due to arrive.

[5.13] Reinforcements indicated to arrive in the Refit Box may enter play only via the refit procedure (13.0).

[5.14] Reinforcements are automatically in General Supply until the beginning of Phase 6 of the Player-Turn in which they enter the map.

[5.15] Armor reinforcements always appear at the highest Armor Rating possible, given the turn and the counters available for each unit (13.3). **Exception:** Previously withdrawn Commonwealth armor units return to play with the Armor Rating at which they were withdrawn.

[5.16] Air and Refit Point reinforcements for both players are listed on the Turn Record Track.

[5.17] Commonwealth Reinforcement/Withdrawal Schedule

See charts and tables.

[5.18] Axis Reinforcement Schedule

See charts and tables.

[5.2] COMMONWEALTH WITHDRAWALS

At various times during the game, the Commonwealth Reinforcement/Withdrawal Schedule indicates that the Commonwealth player must withdraw certain units. All withdrawals must be made during the Commonwealth player's Reinforcement Phase.

[5.21] A unit is available for withdrawal if it is currently in General Supply (i.e., does not have an Out of Supply marker), is on the game-map, and can trace a line of communications (13.2) to Alexandria (E2234) or Tobruk (L2329). If a unit designated for withdrawal meets all these criteria, it must be withdrawn.

[5.22] If a unit designated for withdrawal is not available, another unit must be substituted. The substituted unit must be the same *type* and have a Combat Strength *at least as great* as that of the unit named (when the latter is undepleted). Morale, Movement Allowance and artillery capacity (for Commonwealth heavy weapons units) are irrelevant. Note that two or more units may be substituted for a single withdrawal to achieve a required total Combat Strength. Note also that *any* armor unit may be substituted for any armor withdrawal, regardless of Armor Rating or Combat Strength.

[5.23] If *no* unit of the appropriate type and Combat Strength is available to be withdrawn when indicated, no withdrawal takes place and if the North African Campaign scenario (15.2) is being played, the Axis player gains one Victory Point. Inability to withdraw units has no effect on the Race for Tobruk scenario.

[5.24] Withdrawn units are removed from the map and placed in the Withdrawn Units Box. When a unit is substituted for a scheduled withdrawal, the Commonwealth player should check the Withdrawn Units Box to see if there is a specific space in which the

counterface of the *scheduled* withdrawal is printed. If there is such a space, the substituted unit is placed in it. This procedure is used to keep track of substituted units when a scheduled withdrawal is due to reappear later in the game as a reinforcement (5.25).

[5.25] If a substitution is made for a withdrawal, the substituted unit is returned to play when the original unit is due to return. A unit withdrawn in Depleted status returns in Depleted status, although any Disruption results are removed. If no unit is withdrawn or substituted for a scheduled withdrawal, no unit returns if the scheduled unit withdrawal is later due to return to play.

[5.26] Incoming reinforcements may be used as substitutes for a scheduled withdrawal on the Phase of their arrival.

[5.27] The Commonwealth player may voluntarily withdraw a unit before its withdrawal is required by his schedule.

[5.28] A withdrawn armor unit that later returns to the map, returns with the Armor Rating at which it was withdrawn.

[6.0] Air Support

GENERAL RULE:

Players receive Air Points as indicated on the Turn Record Track. Air Points may be used to support attacks and defense. The Commonwealth player may also assign Air Points to Malta to reduce the number of Mobile Supply Units (MSU's) the Axis player receives each turn, and the Axis player may use his Air Points to raid Malta.

CASES:

[6.1] AIR POINTS

Each Reinforcement Phase, the Phasing player receives the number of Air Points indicated on the Turn Record Track. These Points may be used in all the ensuing Player-Turns until they are eliminated. Players should keep track of available Air Points on the Refit/Air Point Track.

[6.2] USES OF AIR POINTS

[6.21] Air Points may be used once each Player-Turn until they are eliminated (6.23 and 6.3).

[6.22] Immediately before the die is rolled for any combat, the players must decide how many Air Points (if any) they wish to use in the combat. The attacking player must *announce* whether he is allocating any Air Points before the defending player must make his decision. Each Air Point allocated to combat functions exactly like one friendly artillery unit (12.1). Air Points may only *assist* friendly units in combat; they may not attack by themselves.

[6.23] Whenever the final column on the Combat Results Table (11.8) determined for a combat (before any shifts for Air Points, artillery or naval bombardment) is accompanied by an **A**, each player loses one of any Air Points he has allocated to the combat.

[6.24] The Commonwealth player may assign Air Points to Malta, while the Axis player may use his Air Points to raid Malta. Air Points at Malta may not be used to influence combat, and those used to raid may not

be used to influence combat during the Player-Turn of the raid.

[6.3] MALTA

The Commonwealth used the strategic island of Malta as an air base from which to harass Axis convoys. Several times during the North African Campaign the Axis attempted to bomb Malta into oblivion; they never completely succeeded, although they did wreak fearful damage.

[6.31] The Commonwealth player may assign one or two Air Points to Malta in any Commonwealth Air Allocation Phase by removing the points from the Refit/Air Point Track, adjusting the Commonwealth Air at Malta Track. A maximum of two Air Points may be at Malta at one time.

[6.32] The Axis player must add the number of Air Points at Malta to his rolls on the Axis Convoy Arrival Table (7.57).

[6.33] The Axis player may attempt to reduce the number of Air Points at Malta by launching a bombing raid on Malta. In any friendly Air Allocation Phase the Axis player may announce a raid, stating how many Air Points are participating, up to a maximum of three. For every Air Point *over one* allocated to a raid, one Axis dump within three hexes of L0701, Tobruk, or Benghazi (L2306) must be expended (removed from the map). A dump may not be used if it is within five hexes of an enemy combat unit, however. A raid may not be announced unless the appropriate number of dumps are eligible for expenditure.

[6.34] Once the appropriate number of dumps for a raid have been expended, the Axis player rolls a die and consults the Raid on Malta Table (6.37). The result on the Table will be given in terms of Axis and Commonwealth Air Points lost. Lost Commonwealth Air Points must be removed from the Air-at-Malta Track. If the Raid on Malta Table indicates that more Air Points are lost than are present at Malta, the excess loss is ignored. Commonwealth Air Points which are not at Malta are never affected by a raid.

[6.35] Only one raid on Malta may be conducted each turn.

[6.36] Commonwealth Air Points allocated to Malta may not be reassigned to the Refit/Air Point Track.

[6.37] Raid on Malta Table

See charts and tables.

[7.0] Supply

GENERAL RULE:

Combat units must be in supply to function efficiently. There are two types of supply: General Supply and Combat Supply. General Supply primarily affects a unit's ability to move, while Combat Supply affects a unit's combat ability. Supply is provided by permanent supply sources and by supply units (mobile supply units and dumps). A combat unit must be within specific ranges of permanent supply sources or eligible supply units to draw supply from them. Commonwealth supply units arrive as constant reinforcements; Axis supply units arrive as indicated by the Axis Convoy Arrival Table (7.57).

Supply units can be captured or destroyed. A summary of supply sources and capacities is provided (see charts and tables) which condenses the information in this Section. The player should refer to this summary while reading this Section.

PROCEDURE:

At the beginning of each friendly Movement Phase, the Phasing player determines whether each friendly unit is in General Supply, by tracing a supply path from the unit to a friendly supply source or unit. A unit that is out of General Supply has an Out of General Supply marker placed on it, and such markers are removed from units which were unsupplied but have returned to a supplied status. A unit is in General Supply at all times, except when it carries an Out of General Supply marker. Combat Supply is determined at the instant before each combat is resolved.

CASES:

[7.1] TRACING SUPPLY LINES

In order to be in supply, a combat unit must be able to trace a supply line to a friendly dump or supply source. Supply lines are traced as if a motorized unit were moving from the hex occupied by the unit whose supply status is being checked to the hex occupied by the supply unit or source to which the supply line leads. A supply line must be free of enemy units and enemy ZOC's, and it may not pass into or through terrain impassable to motorized units.

[7.11] Dumps and other friendly supply sources provide supply to units within a radius of **12** motorized Movement Points. Mobile Supply Units (MSU's) can supply units within a radius of **6** motorized Movement Points, providing that the MSU itself can trace a supply line to a friendly dump, to a supply source, or to another friendly MSU which can itself trace a line of supply to a dump or supply source. Supply lines may be traced through a chain of any number of MSU's so long as the chain is unbroken by enemy units, enemy ZOC's, and impassable terrain, and the chain eventually ends up at a dump or other friendly supply source. **Example:** A unit is within **6** motorized Movement Points of an MSU which is itself within **6** motorized Movement Points of another friendly MSU; this second MSU is within **12** motorized Movement Points of a friendly dump; the unit can therefore trace supply to the first MSU. MSU's may never be used for supply unless they can trace a supply line back to a friendly dump or other supply source.

[7.12] Friendly units negate enemy ZOC's for purposes of tracing supply lines.

[7.13] The ZOC (10.0) of any unit occupying Tobruk extends two hexes from that city for purposes of blocking enemy supply lines. This extended ZOC is negated if an enemy combat unit is adjacent to Tobruk, however; see 10.14.

[7.14] No more than **10** Stacking Points (9.0) of motorized units may ever trace General Supply to any one dump during any given Phase, nor may more than **10** Stacking Points worth of motorized units ever use any one MSU in a supply line during any one

Movement Phase. Other supply sources are unaffected by this limitation. The number of non-motorized Stacking Points that may trace General Supply to or through a supply unit is unrestricted. If more than **5** Stacking Points worth of motorized units trace General Supply to any one friendly dump during a Movement Phase, that dump is expended (removed from the map) at the end of that Phase. If more than **5** Stacking Points worth of motorized units use any one MSU in a supply line during a Movement Phase, that MSU is expended at the end of the Phase. See 7.16, however.

[7.15] No more than **5** Stacking Points may trace Combat Supply to any one friendly dump during any given Phase, nor may more than **5** attacking Stacking Points trace Combat Supply through an MSU in any one Phase. Any number of defending units may use a dump or MSU for Combat Supply. There is no limitation on the amount of Combat Supply that may be drawn for either attack or defense from L0701, Alexandria, or Tobruk, or from eligible rail hexes. If more than **3** attacking or **6** defending Stacking Points trace Combat Supply to a given dump during the course of a Combat Phase, that dump is expended at the end of the Phase. If more than **3** attacking or **6** defending Stacking Points trace supply through a given MSU in a particular Combat Phase, that MSU is expended at the end of the Phase. Note that, for purposes of Combat Supply, if three or more units worth **0** Stacking Points participate in the same attack, they are treated collectively as a **1** Stacking Point unit. See 7.16, however.

[7.16] During a given Phase, *no more than 2* MSU's may be expended because of 7.14 or 7.15. If more than 2 MSU's have supply traced through them which would indicate that they be expended, the owning player may choose which 2 MSU's are expended. For example, if **9** Stacking Points of motorized units traced General Supply through a chain of 5 MSU's ending at L0701, only 2 of the MSU's would be expended. Note that this Case refers only to MSU's; any number of dumps may be expended in a Phase.

[7.17] A unit worth **2** or more Stacking Points (also, see 12.17) may trace General and Combat Supply to more than one supply source, exactly as if it were several units of **1** Stacking Point each. When supply is determined, however, the entire unit is Out of Supply if *any* part of it cannot trace supply.

[7.18] A player can always choose not to provide General or Combat Supply to any of his units.

[7.2] SUPPLY SOURCES AND UNITS

[7.21] MSU's are motorized units without Zones of Control. MSU's are always automatically in General and Combat Supply.

[7.22] Dumps have no Zones of Control and may not move. Each dump has a Stacking Point Value of **0**; however, a hex may be occupied by no more than one dump at the end of a Phase. Each dump has a supply radius of **12** motorized Movement Points. Dumps are supply sources and, unlike MSU's, have no need to trace to another supply source in order to provide supply. Dumps are always

automatically in General and Combat Supply.

[7.23] Alexandria and Tobruk are permanent supply sources for Commonwealth units so long as a Commonwealth unit was the last unit to enter them. The supply capacity of these hexes may never be destroyed or depleted, although it may be temporarily suspended if the cities are captured. In addition, any rail hex which can trace a continuous line of completed rail hexes to Alexandria or Tobruk uninterrupted by Axis units or ZOC's serves as an undepletable supply source for Commonwealth units. Hex L0701 is a permanent supply source for Axis units, although its capacity is temporarily suspended if the last unit to enter it was a Commonwealth unit.

[7.24] Any oasis hex occupied by a combat unit with a Stacking Point value of **1** or greater can provide General Supply to friendly non-motorized units within **12** motorized Movement Points. MSU's may not extend the supply radius of an oasis. Oases may never provide Combat Supply, nor General Supply to motorized units.

[7.25] Bardia (E2103) provides unlimited General Supply to all Commonwealth units within a radius of **12** motorized Movement Points if occupied by any Commonwealth combat unit with a Stacking Point Value of **1** or greater. MSU's cannot extend this radius.

[7.26] Dumps and MSU's are never affected by any combat results unless they are alone in a hex. If a dump or MSU is alone in a hex and suffers any combat result, it is eliminated. A player may not initiate attacks against friendly supply units.

[7.3] EFFECTS OF SUPPLY

There are two types of supply: General and Combat Supply. Each has a different function and is independent of the other. It is entirely possible for a unit to be Out of General Supply and in Combat Supply.

[7.31] Units which are not in General Supply at the beginning of a friendly Movement Phase are denoted by Out of General Supply markers. A unit's General Supply status changes *only* at the beginning of a friendly Movement Phase.

[7.32] Each friendly Refit Phase, the Phasing player rolls a die once for each of his units which has an Out of General Supply marker. If a roll is less than or equal to the unit's current Morale Rating, the unit rolled for suffers *depletion*.

[7.33] Motorized units which are out of General Supply may move only one hex (expending a maximum of four Movement Points to do so) in any friendly Movement Phase. The Movement Allowances of non-motorized units which are out of General Supply are halved (round down). Units of any type which are out of General Supply have no ZOC and may not use Reaction Movement.

[7.34] Every unit participating in any combat must trace Combat Supply to function at full Combat Strength. If a defending unit cannot trace Combat Supply, its Combat Strength is halved (round down), and **1** is added to its Morale Rating for purposes of determining the effects of the combat. The Combat

Strengths of attacking units are halved (round down) if they are out of Combat Supply; in addition, units attacking while out of Combat Supply suffer *disruption* in addition to any other results. This additional disruption is applied after all results against the defending force, but before other results against the attacking force. Any reductions of Combat Strength are conducted individually for each unit before the Combat Strengths of the units in a force are totalled. Flak and artillery-type units lose their special combat bonuses (12.0) when they are out of Combat Supply.

[7.35] A unit suffers no penalties for being out of General Supply at the instant of combat.

[7.4] EMERGENCY SUPPLY

A unit with a Morale Rating of **1** may use emergency supply if stacked with a friendly dump at the beginning of a friendly Movement Phase. An Emergency Supply marker is placed on the unit, and the dump with which it is stacked is expended.

[7.41] A unit under emergency supply is in General and Combat Supply until the beginning of the next friendly Initial Movement Phase (at which point the Emergency Supply marker is removed, and the unit will have to trace supply normally).

[7.42] Only one unit may gain emergency supply when a given dump is expended.

[7.43] Emergency supply is determined before General Supply, so dumps expended for emergency supply cannot provide General Supply.

[7.5] AVAILABILITY OF SUPPLY UNITS

[7.51] At the beginning of each friendly Reinforcement Phase, the Commonwealth player receives in Alexandria the number of MSU's indicated for the turn on the Turn Record Track.

[7.52] Each friendly Reinforcement Phase following Game-Turn 1, the Axis player rolls two dice. The number of Commonwealth Air Points at Malta (6.3) is added to the roll, which is then checked against the Axis Convoy Arrival Table (7.57) to determine the number of MSU's the Axis player receives that Phase. One MSU from this number may be brought in at either Tobruk or Benghazi (L2306) if an Axis unit was the last to enter the hex the MSU is brought in on. All remaining MSU's must be brought in at L0701. The Axis player can always choose to bring in all MSU's at L0701 rather than send one to Benghazi or Tobruk.

[7.53] No MSU's may be brought into L0701 or Alexandria when enemy-occupied, and any MSU's that would have been brought in are permanently lost. One Axis supply unit may still be brought in at Benghazi or Tobruk if L0701 is enemy-occupied.

[7.54] If the players need more supply counters than are provided, they may make additional ones. The number provided does not constitute a design limit.

[7.55] From Game-Turn 9 to Game-Turn 14 (inclusive), *subtract 1* from the Axis roll on the Axis Convoy Arrival Table. From turn 15 on, *add 1* to the roll (instead of subtracting).

[7.56] Whenever an Axis unit enters Tobruk as a result of advance after combat (11.69),

an Axis dump is immediately placed in Tobruk or in any adjacent hex of the Axis player's choice (9.26). Supply may be drawn from this dump immediately (i.e., no Captured Supply marker should be placed on it; 7.75 does not apply).

[7.57] **Axis Convoy Arrival Table**

See charts and tables.

[7.6] **MSU/DUMP CONVERSION**

A player may convert any number of friendly supply units from MSU's to dumps (or vice-versa) at the beginning of his Refit Phase. To indicate such a conversion, simply flip a supply unit over to its alternate status.

[7.7] **SUPPLY OVERRUN**

Supply units may be overrun in either of two ways: the normal overrun procedure (8.3) or supply overrun, which has fewer restrictions.

[7.71] For purposes of overrun (and combat), any number of supply units stacked together in the absence of combat units are considered to have a total Combat Strength of **1**. Note that a supply unit has a Combat Strength of **0** when stacked with friendly combat units.

[7.72] If the conditions for an ordinary overrun are fulfilled, motorized units may overrun enemy supply units. If a supply unit is overrun via the *normal overrun procedure*, the Phasing player rolls a die once for each overrun enemy supply unit. On a **1, 2,** or **3**, the supply unit is *captured* (7.74). On a **4, 5,** or **6** it is *eliminated*. A player may voluntarily destroy an enemy supply unit rather than try to capture it.

[7.73] Supply units stacked with combat units which are overrun are treated as if they themselves were overrun, as per 7.72. Note that the *supply overrun* procedure (7.74) may not be used against supply units which are stacked with combat units. Only the normal overrun procedure (8.3) may be used against such a stack.

[7.74] In order to conduct *supply overrun*, a unit or stack must be in General Supply, and must be able to expend one Movement Point in addition to the Movement Points to enter the supply unit's hex. A unit need not be motorized to conduct a supply overrun. When conducting a supply overrun, the phasing player rolls a die (when the overrunning units are adjacent to, but have not yet entered the supply unit's hex); if the roll is less than or equal to the number of overrunning Combat Strength Points, the overrunning units enter the hex occupied by the supply unit. The Phasing player then rolls another die for each enemy supply unit in the hex, capturing it on a **1, 2,** or **3**, and destroying it on a **4, 5,** or **6**. A player may choose to destroy a supply unit rather than roll to capture it. Captured supply units are replaced by friendly supply units in the same state (MSU or dump). If the initial roll for the supply overrun is greater than the number of overrunning Combat Strength Points, the overrunning units suffer a **3d** result (11.6), do not enter the supply unit's hex, and must cease all movement for the remainder of the Phase. Supply units may not be overrun in this manner if they are in a friendly ZOC which cannot be infiltrated (10.3), or if they are stacked with friendly units.

[7.75] Captured supply units may not be moved, converted from their status as an MSU or dump, or used in any way for supply purposes until the beginning of the next friendly Reinforcement Phase. Use Captured Supply markers to denote such temporarily incapacitated supply units.

[7.76] **Four** is added to the Combat Strengths of Axis units executing supply overruns (7.74) against Commonwealth supply units during Game-Turns 1 and 2.

[7.77] If a friendly unit advances after combat (11.69) into a hex occupied by an enemy supply unit, the advancing units are considered to have performed a successful supply overrun against the supply units, and the Phasing player may roll to capture the supply units, as per 7.74.

[7.78] Supply overrun may not be conducted against supply units in city, mountain, or fortified hexes.

[7.8] **DESTROYING SUPPLY UNITS**

[7.81] In any friendly Refit Phase, the Phasing player may automatically destroy any friendly dump or MSU that is stacked with a friendly combat unit.

[7.82] If a combat unit begins a friendly Reaction Phase in the same hex as a friendly supply unit, it may attempt to destroy that unit. Unlike 7.81, this attempt is not automatic. The owning player rolls a die; on a **1-3** the supply unit is destroyed; otherwise there is no effect, and no further attempt may be made to destroy that unit for the remainder of the Phase. A unit may only attempt the destruction of one supply unit in a given Phase, and may not conduct Reaction Movement in a Reaction Phase in which it attempts destruction of a supply unit. Only motorized units may attempt to destroy dumps during the second Reaction Phase.

[7.9] **SUPPLY ATTRITION**

At the end of each friendly Refit Phase, the Phasing player must roll the die once for each friendly dump which cannot trace a line of communication (13.2) back to L0701 (Axis), or Tobruk or Alexandria (Commonwealth). If a dump cannot trace an appropriate line of communications, it is expended on a roll of **1, 2,** or **3**. Dumps which can trace lines of communication will never be expended in this manner. MSU's converted to dumps in a Refit Phase must be rolled for in the same Phase if they cannot trace the appropriate line of communication.

[8.0] **Movement**

GENERAL RULE:

During a Movement Phase, the Phasing player may move any or all of his units which are capable of moving. Units may be moved in any direction or combination of directions, limited only by their Movement Allowances, (expressed in Movement Points, which must be expended to enter terrain), the terrain, and the provisions of this Section. Each unit or stack of units is moved one at a time, and must complete its movement before another unit or stack may move. Overruns take place during a Movement Phase. No combat may occur during a Movement

Phase. The Commonwealth player may speed the movement of his units by using rail and sea transport.

PROCEDURE:

Units and stacks are moved one at a time, tracing a path of contiguous hexes through the hexgrid. As a unit enters a hex or crosses certain hexsides it must expend a portion of its Movement Allowance. The Movement Point costs to enter or cross each type of terrain are listed in the Terrain Effects Chart (8.29).

CASES:

[8.1] **MOTORIZATION**

For movement purposes, there are two types of unit in the game: motorized units and non-motorized units. Non-motorized units are designated by a horizontal stripe across their counter; all units without such a stripe are motorized. Note that MSU's are motorized.

[8.11] The Movement Point costs to enter or cross various terrain features are different for motorized and non-motorized units. Consult the Terrain Effects Chart (8.29) for appropriate costs and differences.

[8.12] Motorized units may move in both friendly Movement Phases and may react in both friendly Reaction Phases. **Exception:** MSU's may never react under any circumstances.

[8.13] Non-motorized units may move only in the friendly Initial Phase of their Player-Turn, and in the first Reaction Phase each enemy Player-Turn. Note that non-motorized units may engage in combat in both the first and second Combat Phases.

[8.14] Motorized units may not enter marsh or sand sea hexes, or cross escarpment hexsides, except by moving along a road or track, or by rail movement (8.6).

[8.2] **RESTRICTIONS ON MOVEMENT**

[8.21] Movement may never take place out of sequence; players may move friendly units only during friendly Movement or Reaction Phases.

[8.22] A unit may never expend more Movement Points than its Movement Allowance during any one Phase. The expenditure of Movement Points during one Phase does not affect a unit's Movement Allowance during any other Phase. A unit may move only once during a given Phase, however.

[8.23] A unit must be in General Supply to move its full Movement Allowance; otherwise its movement is severely restricted (7.33).

[8.24] A friendly unit may never enter a hex containing enemy combat units unless it is capable of overrunning the units (8.3), nor may it enter a hex containing enemy supply units unless it succeeds in a normal or supply overrun (7.7). Except for stacking limitations (9.2), friendly units do not affect the movement of other friendly units.

[8.25] Whenever there is more than one terrain type in a hex, the greatest Movement Point cost of the terrain types is used. **Exception:** The Movement Point cost to move along a road, trail, or rail line (when using rail movement) may always be used in place of any other terrain in a hex.

[8.26] A unit must stop immediately upon entering an enemy Zone of Control (ZOC); it may move no further that Phase unless it is capable of *infiltration* (10.3). A unit that *begins* a Movement or Reaction Phase in an enemy ZOC may leave that enemy-controlled hex so long as it does not move directly into another enemy-controlled hex (except through infiltration). It must first move to another hex which is not enemy controlled.

[8.27] Any number of friendly units that begin a Movement or Reaction Phase in the same hex may move together so long as the lowest Movement Allowance among the units is not exceeded and the units end the Phase in the same hex. Once one group of units has begun movement, it must complete its movement before any other friendly unit may move.

[8.28] Units may never voluntarily or involuntarily move off the game-map.

[8.29] Terrain Effects Chart

See charts and tables.

[8.3] OVERRUN

During a friendly Movement Phase, a player may encounter an enemy unit that is so weak that he may eliminate it in passing. Such an elimination is termed an overrun and is treated as part of movement rather than combat. To conduct an overrun, a player moves a unit or stacks of units directly into an enemy-occupied hex, eliminating the enemy unit, which is automatically placed in the Destroyed Units Box (13.2).

[8.31] A unit or stack may continue to move after completing an overrun.

[8.32] Only motorized units may conduct normal overruns; non-motorized units may conduct only supply overruns (7.7). All overruns occur during Movement Phases; they may not take place during a Reaction Phase.

[8.33] A unit must be in General Supply to conduct an overrun.

[8.34] An overrunning unit must pay the normal terrain cost to enter the enemy-occupied hex, plus 2 additional Movement Points. Note that an overrunning unit must pay the normal Movement Point cost for entering the overrun unit's ZOC (if any) when it first moves adjacent to the enemy unit. A unit may not participate in an overrun if it has insufficient Movement Points.

[8.35] A unit or stack must have at least a 10-1 superiority over an enemy unit or stack to conduct an overrun against it. The total Combat Strengths of the forces are calculated normally (11.0). The supply status of the defending unit (7.3), combined arms effects (11.4), and anti-tank effects (12.2) are ignored when calculating the ratio for an overrun. See 8.39, however.

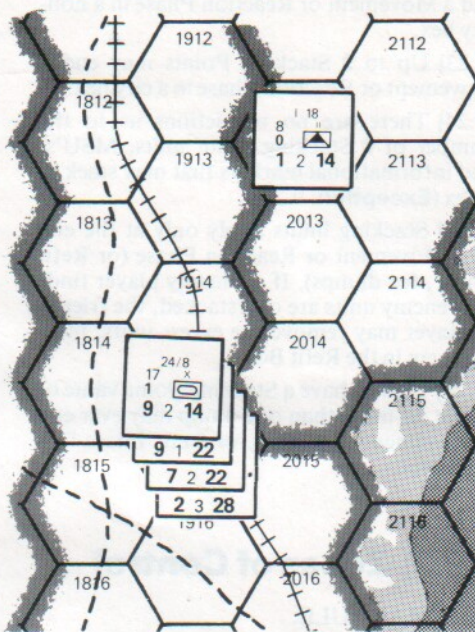
[8.36] A unit in a mountain, city, or fortified (14.0) hex may never be overrun.

[8.37] If a unit about to be overrun would normally be capable of Reaction in the upcoming Reaction Phase, it may react rather than be overrun. Such reaction is conducted (according to the rules for Reaction Movement, 8.4) immediately *following* the Phasing player's declaration of the overrun, but *before* the Phasing units enter the hex of the overrun or expend the two extra Movement

Points for the overrun. A unit may react before an overrun only if the non-Phasing unit has a Movement Allowance greater than that of the fastest overrunning unit. If a unit does react to avoid overrun, it may not react in the following Reaction Phase, nor may it react before another overrun during the current enemy Movement Phase.

[8.38] A non-Phasing unit that is in the ZOC of another friendly unit may not be overrun unless the friendly unit's ZOC is subject to infiltration by the overrunning unit or stack.

[8.39] Hexside effects (11.37) are included when determining the Combat Strength of an overrunning force (e.g., 19 Combat Strength Points would be needed to overrun a unit with a Combat Strength of 1 if the overrunning force enters the hex of the overrun through a Wadi hexside). **Example:**



Commonwealth 3/2(1), 7/7(2), 24/8, and 9/10 *Armd* units move through 1914 (2 Movement Points), 1913 (2 Movement Points); if 1/18 *Flak* had a ZOC, it would have been 3), and then move into 2012 to overrun 1/18 *Flak* (7 Movement Points; 3 for the ridge, 2 for the clear hex, and 2 for the overrun). 24/8, 7/7, and 9/10 *Armd*'s Combat Strengths are 3 each, while 3/2 *Armd*'s Combat Strength becomes a 1. The total Combat Strength of the overrunning units is thus 10, just sufficient for the overrun. Note that 1/18 *Flak* may not employ its anti-tank capacity (12.2) when being overrun.

[8.4] REACTION

Any non-Phasing combat unit in General Supply that begins a Reaction Phase within two hexes (i.e., there is only one hex between the units, regardless of intervening terrain) of an enemy combat unit may move in that Reaction Phase.

[8.41] Motorized units may engage in Reaction Movement in both Reaction Phases. Non-motorized units may react only in the first Reaction Phase. Supply units, units with parenthesized Combat Strengths, and disrupted units may never react.

[8.42] A unit may expend up to one-quarter of its Movement Allowance (retain fractions) during a Reaction Phase. All terrain costs and normal movement restrictions apply to Reaction Movement.

[8.43] A unit may move adjacent to an enemy unit in a Reaction Phase *only* if that enemy unit is already in a friendly ZOC.

[8.44] Non-motorized units may never react more than one hex.

[8.45] Movement Points expended on Reaction do not affect a unit's Movement Allowance at any later point.

[8.46] At the end of each Reaction Phase, the non-Phasing player must roll a die once for each of his units which reacted. If a roll is *less than* the unit's Morale Rating, the unit is immediately disrupted (11.66). Note that units with a Morale Rating of 1 will never be disrupted by reaction movement.

[8.47] Reacting units may leave enemy ZOC's if they begin a Reaction Phase in them, but they may never move directly from one enemy ZOC to another. They may not infiltrate (10.3). Reacting units may enter enemy ZOC's under certain conditions (see 8.43).

[8.48] Reacting units may not conduct overruns or supply overruns.

[8.5] COMMONWEALTH NAVAL TRANSPORT

Beginning on Game-Turn 2, the Commonwealth player can transport units between Alexandria and Tobruk, so long as he controls (was the last player to have a unit in) both cities. He also has a limited transport capacity between Bardia and Alexandria if both of these cities are in his control. Units transported by naval movement are simply picked up and placed at their destination.

[8.51] Each friendly Movement Phase, the Commonwealth player may transport one unit or Stacking Point (whichever is greater) between Tobruk and Alexandria. This capacity may be used in both directions in a single Phase. MSU's count as one unit for this purpose. To be transported, a unit must begin a Movement Phase in Alexandria or Tobruk and may not move during the Phase.

[8.52] In any friendly Movement Phase in which the Commonwealth player does not use his transport capacity between Alexandria and Tobruk, he may transport one MSU from Alexandria to Bardia or from Bardia to Alexandria (but not both).

[8.53] Non-motorized units may not use naval transport in the motorized Movement Phase.

[8.54] Dumps and disrupted units may not use naval transport.

[8.6] RAIL MOVEMENT

At the start of the game, there is a railroad between Alexandria and Mersa Matruh (E2118). The railroad may be extended from Mersa Matruh as far as Tobruk, along the line indicated on the map (only). The railroad may be used by the Commonwealth player to transport units, and as a funnel for supply.

[8.61] During each friendly Movement Phase, the Commonwealth player can use the railroad to transport one unit or Stacking Point (whichever is greater) in each direction along the railroad, so long as no units transported enter an enemy-occupied hex or ZOC, and each rail hex used can trace a line of communication (13.2) back to Alexandria or Tobruk through contiguous rail hexes. An

MSU counts as one unit for purposes of rail movement.

[8.62] A unit must expend a total of **3** Movement Points to use rail movement, regardless of the distance travelled by rail.

[8.63] Non-motorized units may not use rail movement during the Motorized Movement Phase.

[8.64] The Commonwealth player may extend the railroad west from Mersa Matruh by placing an MSU in the uncompleted rail hex adjacent to the last completed rail hex. At the end of any Movement Phase in which the MSU has not moved, its hex and one contiguous rail hex become completed and may be used as part of the railroad. Advance the Railhead marker to indicate the last completed hex. The MSU is *not* expended. Only unfinished rail hexes printed on the map may be completed. The railroad may never be extended more than two hexes during one Movement Phase.

[8.65] Rail hexes may never be destroyed. Capture by Axis units has no effect other than to temporarily deny the Commonwealth player use of the hex.

[8.66] Any completed rail hex that can trace a line of communication (13.2) to Alexandria or Tobruk along contiguous rail hexes is an undepletable Commonwealth supply source (7.13).

[8.67] Axis units may never use the railroad in any way.

[8.68] A unit need not begin nor end its movement on a rail hex to utilize rail movement.

[8.69] A unit may begin rail movement or end rail movement in any completed rail hex (it need not move all the way to Alexandria or the other terminus of the railroad).

[8.7] **FORCED MARCH**

A unit's Movement Allowance may be doubled, at some hazard to the unit, through the use of forced marches.

[8.71] Only non-disrupted combat units with non-parenthesized Combat Strengths in General Supply which do not begin a Movement Phase in a hex adjacent to an enemy unit may employ forced march.

[8.72] Forced marches may not be made during a Reaction Phase.

[8.73] A unit undertaking forced march may not move adjacent to any enemy unit at any time during its movement.

[8.74] Commonwealth units undertaking forced march may not end their Movement Phase in a hex from which they cannot trace General Supply unless they are using Emergency Supply (7.4).

[8.75] Regardless of a unit's basic Movement Allowance, its Movement Allowance can never be increased above **40** by forced march. Thus, all units with a basic Movement Allowance of **20** and above will have a Movement Allowance of **40** when using forced march.

[8.76] At the end of any Phase in which a unit has used forced march, the unit is automatically *disrupted*. In addition, at the end of each friendly Movement Phase the Phasing player must roll the die once for each

friendly unit that used forced march. If the roll is less than or equal to the unit's Morale Rating, the unit is *depleted*.

[9.0] **Stacking**

CASES:

[9.1] **STACKING POINTS**

Every unit has a Stacking Point Value (see 2.21). The number of friendly Stacking Points that may end a Movement or Reaction Phase in a given hex is limited.

[9.2] **STACKING RESTRICTIONS**

[9.21] A unit's Stacking Point Value is constant throughout the game.

[9.22] No more than **6** Stacking Points may end a Movement or Reaction Phase in a non-city hex.

[9.23] Up to **9** Stacking Points may end a Movement or Reaction Phase in a city hex.

[9.24] There are no restrictions as to the number of **0** Stacking Point units, MSU's, and informational markers that may stack in a hex (**Exception:** 9.26).

[9.25] Stacking limits apply only at the end of a Movement or Reaction Phase (or Refit Phase, for dumps). If a friendly player finds that enemy units are overstacked, the friendly player may remove the excess units, placing them in the Refit Box.

[9.26] Dumps have a Stacking Point Value of **0**, but no more than one dump may ever end a Movement, Reaction, or Refit Phase in a given hex.

[10.0] **Zones of Control**

GENERAL RULE:

The six hexes surrounding the hex a unit occupies constitute that unit's Zone of Control (ZOC). Hexes in a unit's ZOC are called *controlled* hexes. The presence of an enemy ZOC may affect movement, precipitate combat, interdict supply, and block friendly retreats. Certain units have no ZOC's. ZOC's do not extend through or into certain types of terrain.

CASES:

[10.1] **WHICH UNITS EXERT ZOC's**

[10.11] Each combat unit exerts a ZOC except units with parenthesized Combat Strengths, disrupted units, units which are out of General Supply, and **0** Stacking Point units.

[10.12] A ZOC extends into and through all types of terrain, with the following exceptions:

1. A ZOC never extends through escarpment hexsides.
2. A ZOC never extends *into* a city; a ZOC does extend out *from* a city, however.
3. A unit's ZOC does not extend into or through any type of terrain into or through which the unit could not move.
4. The ZOC of a pure armor or reconnaissance unit does not extend into mountain hexes.

[10.13] For purposes of 10.12, 3 and 4, a ZOC does extend along roads. Thus, if a unit could enter a hex through a road hexside, that unit's ZOC extends across all road hexsides leading into the hex.

[10.14] If Tobruk is occupied by a combat unit that would normally exert a ZOC, that unit's ZOC extends two hexes out from Tobruk for purposes of blocking supply lines (7.1). The extended ZOC affects supply lines only. If an enemy combat unit is adjacent to Tobruk, however, friendly units lose this extended ZOC.

[10.15] A hex may be friendly-controlled and enemy-controlled simultaneously. Neither ZOC is affected by the presence of the other.

[10.2] **EFFECTS OF ZOC's**

[10.21] A unit entering an enemy ZOC must stop and may move no further that Phase, unless it is capable of *infiltration* (10.3) or *overrun* (8.3).

[10.22] A unit expends one extra Movement Point to enter an enemy-controlled hex.

[10.23] A unit which begins a Phase in an enemy ZOC may move out of that ZOC, but may not move directly from one enemy-controlled hex to another enemy-controlled hex, unless it infiltrates (10.3).

[10.24] A unit with parenthesized Combat Strengths may enter an enemy ZOC only if stacked with a unit with a non-parenthesized Combat Strength, or if entering a hex already occupied by such a unit.

[10.25] Enemy ZOC's block supply lines (7.1) and retreat paths (11.62). If a friendly combat unit is in an enemy-controlled hex, supply lines may be traced into or through that hex without consideration for the ZOC. The presence of friendly combat units does not negate enemy ZOC's for purposes of movement or retreat, however.

[10.26] A friendly combat unit in an enemy-controlled hex at the beginning of a friendly Combat Phase must engage some enemy unit in combat. Each enemy unit exerting a ZOC on a friendly combat unit at the beginning of a friendly Combat Phase must be attacked by some friendly unit. Supply units may never attack.

[10.27] No form of supply may be traced to or through a supply unit in an enemy ZOC unless that supply unit is stacked with one or more friendly combat units.

[10.3] **INFILTRATION**

A hex containing a ZOC exerted by 1 Stacking Point of non-motorized units can be infiltrated. Zones of Control exerted by motorized units or by 2 or more Stacking Points worth of non-motorized units cannot be infiltrated. If a hex can be infiltrated, friendly motorized combat units may enter and exit the ZOC, and/or move directly into another ZOC. A motorized unit need not cease movement when entering a ZOC that can be infiltrated. Each time a motorized unit leaves such a ZOC and moves directly into another enemy ZOC, it must expend one additional Movement Point. Supply units and combat units with parenthesized Combat Strengths may infiltrate only if they are moving with units that could normally infiltrate by themselves.

[11.0] Combat

GENERAL RULE:

A Phasing unit that is in an enemy-controlled hex at the beginning of a friendly Combat Phase must take part in some combat during that Phase. Each enemy unit that exerts a ZOC on adjacent friendly units at the beginning of a friendly Combat Phase must be attacked during the ensuing Combat Phase. If a friendly unit is adjacent to, but not in the ZOC of an enemy unit, combat may be conducted at the discretion of the Phasing player. The Phasing player is always termed the attacker, and the non-Phasing player the defender, regardless of the overall situation. The outcome of each attack is determined by the Combat Strengths, Morale Ratings, and supply status of the units involved, the terrain of the battle, and a random die-roll. Air support, artillery, anti-tank units, and Commonwealth naval bombardment may also affect the outcome of a battle. Combat results include retreats, disruption, depletion, and elimination.

PROCEDURE:

For each attack, the attacking player determines which enemy units will be attacked by which friendly units. The following steps are then performed:

1. The Combat Strengths of the units involved are determined, taking into account the effects of supply (7.3), combined arms (11.4), disruption (11.66), hexside terrain (11.3), anti-tank units (12.2), and fortifications (14.22).
2. The total modified Combat Strength of the attacking force is divided by the total modified Combat Strength of the defending force to arrive at a combat ratio, which is rounded off (always in favor of the defending player) to the nearest ratio listed on the Combat Results Table (11.8).
3. The attacking player then finds the row at the top of the Combat Results Table corresponding to the terrain in the defender's hex, and traces across until he finds the combat ratio determined above.
4. Looking down on the column on which the combat ratio was found, he finds a column number.
5. He then rolls a die, and adds the roll to the column number. This total, the *adjusted column number*, is the number of the column on which the results of the combat may be found.
6. Column shifts are applied (12.1).
7. The adjusted column is cross-indexed with the Morale Rating of each *defending* unit to find the effects of the combat on that particular unit.
8. The intersection of the adjusted column and the *Effects of Attacking Units* row determines the effects of the combat on the entire attacking force.

A complete example of the combat procedure is given in Case 11.9.

CASES:

[11.1] COMBAT RESTRICTIONS

[11.11] The Combat Strength of an individual unit may not be split between

separate attacks. Similarly, a unit's Combat Strength is unitary on defense. An attacking unit may not attack half of a defending unit.

[11.12] One attack must be resolved before another may be initiated.

[11.13] ZOC's do not extend into city hexes, and units in such hexes do not have to attack out of them. If the owning player does choose to have units attack out from a city, not all units in the city need attack, nor need every enemy-occupied hex adjacent to the city be attacked. However, all units in a given hex must be attacked.

[11.14] No unit may attack or be attacked more than once per Phase.

[11.15] A unit with parenthesized Combat Strength may not add its Combat Strength to friendly attacks. A unit's parenthesized Combat Strength may be used only when the unit is attacked *and* is not stacked with a friendly unit with a non-parenthesized Combat Strength. In the latter case, any number of defending units with parenthesized Combat Strengths are considered to have a collective total Combat Strength of 1.

[11.16] An attack may not be made at a combat ratio below those listed on column 1. If a unit or stack would be forced to attack at a ratio below the lowest listed for the relevant terrain type, or if all attacking units have parenthesized Combat Strengths, or Combat Strengths rounded down to 0, the attacking units suffer 4dD results, and the defending force is unaffected. Note that this procedure is not considered an attack for the purposes of 10.26. In other words, an attack may not be conducted at a combat ratio below the minimum on the Combat Results Table if it is possible for the Phasing player to allocate his attacks such that all enemy units which exert ZOC's on friendly units are attacked at a ratio at or above the minimum listed for the terrain they occupy.

[11.17] Whenever a unit's Combat Strength is subject to more than one modification, all such effects are cumulative, and are executed for each unit in the order determined by the owning player except where specifically indicated otherwise (e.g., flank effects, 12.2).

[11.18] A defending stack's Combat Strength can never be reduced below 1. If a defending stack's Combat Strength would ever be rounded below 1, it is treated as 1.

[11.2] MULTIPLE UNIT AND HEX COMBAT

[11.21] A unit may attack units in more than one adjacent hex.

[11.22] Units in two or more different hexes may combine their Combat Strengths to attack any number of defending hexes, so long as all attacking units are adjacent to all defending units.

[11.23] All defending units in a given hex must be attacked as a single entity, totalling their Combat Strengths. Individual units within a stack may not be singled out for attack.

[11.24] Units attacking from a hex may participate in different attacks.

[11.3] EFFECTS OF TERRAIN ON COMBAT

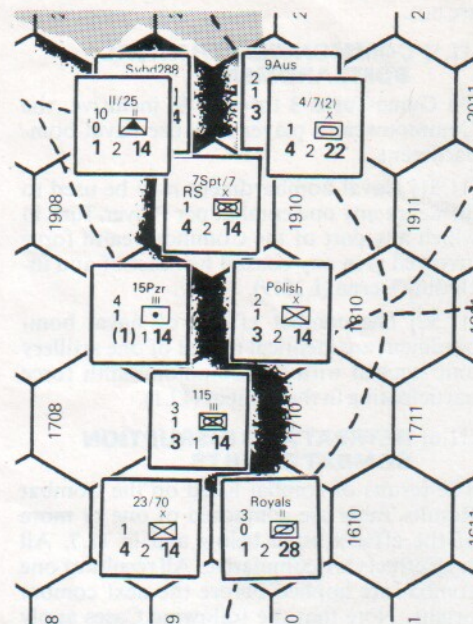
[11.31] The terrain in the defending units'

hex determines the row used on the Combat Results Table (11.8).

[11.32] If there is more than one terrain type in a hex, the defending player chooses which of the terrain types he will defend in. Similarly, if units are defending in more than one hex, the defending player may choose which of the terrain types present in any of the hexes his force is defending in will be used for the defense, and the attack is resolved using the row of the Combat Results Table corresponding to that terrain type.

[11.33] The Combat Strengths of units attacking across various types of hexside terrain are modified, as per the Hexside Terrain Effects on Combat Chart (11.37). Units attacking across such hexsides have their Combat Strengths modified individually.

[11.34] If only part of a defending force is being attacked across hexside terrain, any units attacking any defending units across hexside terrain are subject to the modifications of 11.37. **Example:**



It is the beginning of a Commonwealth Combat Phase. The Commonwealth player allocates his attacks as follows: 23/70, Royals Recce, and Polish attack 115 Mech; 9 Aus Hvy Wpns and 4/7(2) Armd attack 11/25 Flak and Svbd 288 Hvy Wpns. 7Spt/7 Mech cannot attack as it is separated from all enemy units by escarpment hexsides. 115 Pzr Arty need not be attacked because it does not have a ZOC. Polish's Combat Strength is divided by 3 because of the ridge, and becomes a 1. Royals Recce's Combat Strength also becomes a 1, (2 ÷ 3, rounded up). 23/70's Combat Strength remains at 4 as it is not attacking across a ridge. 4/7 Armd's Combat Strength is 2. 9 Aus Hvy Wpns' Combat Strength is 1. 11/25 Flak's ability to reduce the Combat Strength of armor units is unaffected by the ridge, and thus 4/7 Armd's Combat Strength is reduced to 0. Similarly, 9 Aus Hvy Wpns' artillery capacity is unimpaired by the ridge. If it were an Axis Combat Phase and 115 Mech were attacking Polish 23/70, and Royals Recce, 115 Mech's Combat Strength would be reduced to 1 because of the ridge, even though 23/70 is not being attacked across a ridge.

[11.35] The effects of fortifications may be used in place of the terrain in the defending units' hex, at the defending player's option (14.2).

[11.36] Units may not attack across hexsides they could not move across (8.29), although they defend normally when so attacked.

[11.37] **Hexside Terrain Effects on Combat**
See charts and tables.

[11.4] COMBINED ARMS EFFECTS

An armor unit's Combat Strength is halved (round down) unless an eligible infantry unit is stacked with it and participates in the same combat. Infantry units include: Infantry, motorized infantry, mechanized infantry, heavy weapons (both with and without artillery capacity), heavy infantry, glider infantry, and heavy airborne infantry. One infantry-type unit must be present for each armor unit in a stack to fulfill its combined armor needs. For example, if 3 Stacking Points of armor were stacked with 2 Stacking Points of infantry, 1 Stacking Point of the armor (owning player's choice) would be halved in Combat Strength. Defending armor units are affected by this Case, although overrunning units and units being overrun are not.

[11.5] COMMONWEALTH NAVAL BOMBARDMENT

On Game-Turns 3 through 9, inclusive, the Commonwealth player may use naval bombardment.

[11.51] Naval bombardment may be used to influence any one combat per Player-Turn in which any part of the Commonwealth force involved is in any coastal hex east of and including Derna (L2819).

[11.52] The combat effects of naval bombardment are identical to that of one artillery unit stacked with the Commonwealth force participating in the combat (12.1).

[11.6] RETREAT AND DISRUPTION COMBAT RESULTS

The results of combat listed on the Combat Results Table are composed of one or more of the effects listed below and in 11.7. All such effects are cumulative. All results of one combat are applied before the next combat begins. Note that the following Cases apply only to combat units. See 7.26 for the effects of combat on supply units.

[11.61] Units which receive retreat results must immediately be moved by the owning player the number of hexes indicated by the result away from the hex they occupied during the attack (**Exception:** Attacking units may ignore retreat results if all of the hexes that were occupied by defending units are vacated as a result of the attack). If a unit cannot retreat the full amount indicated by the result, it retreats as many hexes as it can (see 11.63, however), and is *depleted*, in addition to any other results of the combat. Within the restrictions of 11.62, a unit may be retreated through any type or types of terrain, without considerations for Movement Point costs. A unit's Movement Allowance during a later Phase is never affected by its having retreated.

[11.62] The following restrictions apply to all combat result retreats:

1. Units may not retreat through enemy units, enemy ZOC's, off the game-map, or through or across terrain prohibited to them.
2. No unit may ever retreat across an escarpment hexside.

3. Motorized units may retreat through or into sand sea or marsh hexes only when following a road. Units may retreat into hexes in violation of stacking limits.

4. Units retreating into a stack which is subsequently attacked do not add to the defense of the stack, but do suffer any adverse results, exactly as if they were defending.

5. If a hex becomes overstacked as a result of a retreat, the owning player has until the end of the next friendly Movement Phase to alleviate the situation, or else 9.25 applies.

[11.63] A player may voluntarily have any of his units ignore a 1, 2, or 3 retreat result, and suffer depletion instead (in addition to any other combat results).

[11.64] Units in cities and fortified hexes subtract 3 from any retreat results. Thus 1, 2, and 3 retreat results have no effect against units in such hexes. If a unit's path of retreat leads it through a city, it may end its retreat in the city, and ignore the remainder of the retreat result.

[11.65] When both attacking and defending units receive combat results, all defending units apply their results before any results are applied against the attacking force.

[11.66] Units suffering from disruption are affected in the following ways:

1. They have half normal Movement Allowances and Combat Strengths (round down individually for each unit).
2. They may not participate in overruns or supply overruns.
3. Disrupted anti-tank and artillery-type units lose their special combat abilities (12.0).
4. They do not have ZOC's.
5. Additional disruption results are treated as depletions.
6. Disrupted units may not be refit (13.0).

[11.67] A unit's disrupted status should be indicated by the placement of a Disrupted marker on the unit. Disruption markers are removed at the end of any friendly Refit Phase from all units in city hexes. Axis units may treat L0701 as a city hex for this purpose. A unit may also be undisrupted if it can trace a supply line during a friendly Refit Phase.

[11.68] A dump is expended if a unit traces supply to it for purposes of removing disruption. All disrupted units which can trace a supply line to a single dump may be undisrupted by its expenditure. Dumps may be expended for purpose of disruption removal in the same Phase as they are converted from MSU's. A unit may not be refit in the same Phase as it recovers from disruption.

[11.69] If a defending hex is vacated as a result of combat, up to six Stacking Points of non-disrupted attacking units may advance into the vacated hex at no cost in Movement Points, and without consideration for enemy ZOC's. The advance must be taken immediately, before proceeding to the next combat. Advance after combat is never mandatory. A unit may never advance more than one hex as a result of combat. Units with parenthesized Combat Strengths may never advance after combat. Defending units may never advance after combat.

[11.7] DEPLETION AND PARTIAL DEPLETION COMBAT RESULTS

[11.71] If a full-strength unit suffers a depletion result, it is flipped over to its reverse (depleted) side. If a depleted unit suffers a depletion result, it is eliminated. Depleted flak and artillery type units lose their special combat abilities (12.0).

[11.72] Eliminated units are placed in either the Refit Box or the Destroyed Unit's Box (13.2).

[11.73] When an attacking force receives a partial depletion combat result, one attacking unit of the defending player's choice suffers a depletion result.

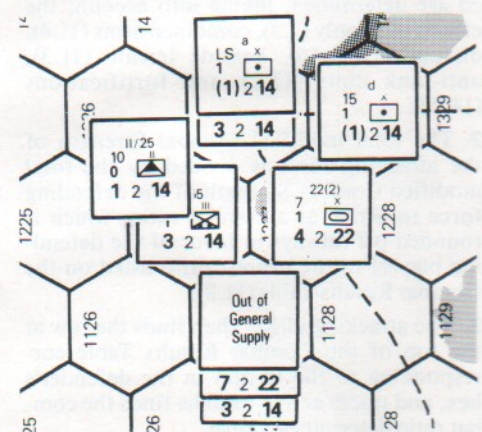
[11.74] Whenever any defending unit in a defending force suffers a partial depletion result, any one defending unit of the attacking player's choice in that force suffers a depletion result. Regardless of the number of defending units which suffer partial depletion results, only *one* defending unit may be depleted as a result of *all* of them.

[11.75] All depletions caused by partial depletion results are performed after any other combat results are applied to a force.

[11.8] COMBAT RESULTS TABLE

See charts and tables.

[11.9] COMBAT EXAMPLE



It is a Commonwealth Combat Phase. "a" Arty, 25/10 Ind Hvy Wpns, 22 Armd, 44 Hvy Wpns, and 1/2 Armd are all attacking II/5 and 155 Mtrzd. "d" Arty is not adjacent to enemy units, and thus may not participate in the attack. 25/10 Ind Hvy Wpns' Combat Strength is 3. "a" Arty adds nothing to the Combat Strength of the attacking force. 22 Armd's Combat Strength is halved because it is not stacked with any infantry-type units (see 11.4, Combined Arms Effects). 1/2 Armd attacks at full Combat Strength because it is stacked with 44 Hvy Wpns. The fact that 1/2 Armd is out of General Supply has no effect on its combat ability. 44 Hvy Wpns functions at full Combat Strength (3). The attacking force's total Combat Strength is thus $3 + 4 + 7 + 3 = 17$. More than 4 of those Combat Strength points are contributed by armor units, however, so Axis II/5 can use its anti-tank ability (12.0) deduct 4 from the total Combat Strength of the attacking force to yield a total Combat Strength of 13. The defending force has a Combat Strength of $4(3 + 1)$. The combat ratio is $13/4 = 3.25$, which is rounded (in favor of the defender) to 3:1. The defending force is in clear terrain, so the attack is executed on column 6. The Commonwealth player rolls a 3 on the die. Adding 3 to 6 (the column number derived above),

the Commonwealth player determines that the adjusted column number is 9. The Commonwealth player may add up to **2** to this column as a result of artillery shifts ("a" *Arty* and *44 Hvy Wpns* each contribute an artillery shift), for the purposes of determining effects on the Axis forces *only*. Artillery shifts never affect the column on which results against friendly forces are determined. Thus Axis losses will be found on column 11, while Commonwealth losses are found on column 9. Cross-indexing column 11 with each defending unit's Morale Rating, it is determined that each defending unit suffers a **4d** result and must retreat 4 hexes and be disrupted. In addition, the attacking player may apply one depletion result (because of the **p**) against either of the defending units. Cross-indexing column 9 with the Effect on Attacking Units row, it is found that the attacking force suffers a **p** result, and thus the defending player can apply one depletion result against any one of the attacking units.

[12.0] Artillery and Anti-Tank Units

GENERAL RULE:

Flak units and units with type symbols containing dots ("artillery-type units") have special effects on combat, in addition to the normal employment of their Combat Strengths. Artillery-type units affect the column on which the effects of combat are read, while flak units reduce the Combat Strengths of enemy pure armor units. Note that the terms "flak" and "anti-tank" are used interchangeably.

PROCEDURE:

For each artillery-type unit participating in an attack, **1** is added to the column number of the final column on which the combat results to the defending force are found. For each defending artillery-type unit, **1** is subtracted from the column number of the final column on which the combat results to the attacking force are found. For each flak unit in an attacking force, **2** is subtracted from the total modified Combat Strength of defending armor units. For each defending flak unit, **4** is subtracted from the total Combat Strength of attacking armor units.

CASES:

[12.1] ARTILLERY SHIFTS

[12.11] If, as the result of attacking artillery shifts, the defending force's losses would be determined on a column higher than 17, they are determined on column 17. Similarly, if an attacking force's losses would be evaluated on a column lower than 1, they are determined on column 1. Note that this case applies to shifts due to Air Points (6.0) and naval bombardment (11.5) as well.

[12.12] Note that if either the attacking or the defending force has artillery shifts, the effects of the combat to the opposing forces will be determined on different columns, even if each force is eligible for an equal number of artillery shifts. Friendly artillery shifts *only* affect the column on which *enemy* losses are determined.

[12.13] Artillery-type units may be used in the manner described in this Section only if they are in Combat Supply.

[12.14] A player may choose not to take all the artillery shifts to which he is entitled; he makes this decision after he sees the combat die-roll. In all cases, the attacking player announces the number of shifts he will utilize before the defending player does so.

[12.15] Neither player can ever shift the column on which his opponent's losses are read by more than four columns by any combination of artillery shifts, air support, and/or naval bombardment. All such effects in excess of four shifts are ignored.

[12.16] Disrupted or depleted artillery-type units lose the ability to shift the results of combat.

[12.17] Artillery-type units are considered to have Stacking Point Values of **2** for the purposes of Combat Supply (7.15), so long as they retain their artillery capacity (i.e., when depleted or disrupted they consume only **1** Stacking Point worth of supply).

[12.18] Within the restrictions of 12.15, friendly shifts due to Air Points, artillery, and naval bombardment are all cumulative.

[12.2] FLAK EFFECTS

German anti-aircraft guns (the famed 88's) were used with great effect as anti-tank weapons during the desert campaign. Although the British had guns of equal quality, British doctrine required that "anti-air" guns be used against airplanes, not tanks, despite the guns' effectiveness against the latter. Thus the Germans have the only distinct anti-tank units in the game.

[12.21] Any subtractions to the Combat Strengths of enemy pure armor units because of friendly flak units takes place after all other modifications to the pure armor units' Combat Strengths.

[12.22] Flak units may never be used to subtract more from an enemy force's Combat Strength than the total modified Combat Strengths of the pure armor units in the enemy force.

[12.23] Flak units may be used in the manner described in this Section only if they are in Combat Supply.

[12.24] Disrupted or depleted flak units lose the ability to reduce the Combat Strength of enemy armor units.

[12.25] Flak units have no effect on the Combat Strengths of overrunning armor units.

[13.0] Refit

GENERAL RULE:

Both players receive Refit Points as indicated on the Turn Record Track. These points may be used to rebuild depleted and eliminated friendly units.

PROCEDURE:

To bring a depleted unit up to full-strength, a player finds the unit's type symbol on the Refit Chart (13.26), and expends the indicated number of Refit Points. Eliminated units in the Refit Box may be brought onto the map within two hexes of L0701 (Axis) or Alexandria (Commonwealth) in depleted condition if the owning player expends the

number of Refit Points indicated to do so on the Refit Chart. Previously eliminated units may also be brought onto the map at full-strength if the owning player expends the sum of the Refit Points listed for the unit's type in both columns of the Refit Chart.

CASES:

[13.1] REFIT POINTS

[13.11] Axis Refit Points are sub-divided into German and Italian points. Points of one nationality may never be used to refit units of the other nationality.

[13.12] Players should keep track of the number of Refit Points available to them on the Refit/Air Point Track. Refit Points may be accumulated from turn to turn. The **+10** sides of the Refit Point markers may be used to indicate stores of **10** to **19** Refit Points.

[13.2] RESTRICTIONS ON REFIT

Whenever a unit is eliminated for any reason, it is placed in the Refit Box, unless it was out of Combat Supply, or could not trace a path of any length through traversable hexes to Alexandria (Commonwealth) or L0701 (Axis) unimpeded by enemy units and ZOC's. Friendly combat units negate enemy ZOC's for this purpose. A path of this type is termed a "line of communication." Non-motorized units that are eliminated and cannot trace a line of communication go into the eliminated motorized unit which is out of Combat Supply or cannot trace a line of communication, the owning player rolls a die; on a **1, 2, or 3**, the unit is placed in the Refit Box; otherwise it is placed in the Destroyed Units Box and may never again appear on the map. Motorized units with Morale Ratings of **1**, which are out of Combat Supply or cannot trace a line of communication are placed in the Refit Box on rolls of **1, 2, 3, or 4**, and only go into the Destroyed Units Box on a **5 or 6**.

[13.21] Only units in the Refit Box may be rebuilt from scratch.

[13.22] Friendly units may only be refit during a friendly refit Phase.

[13.23] Axis units may not be rebuilt from scratch if L0701 is enemy-occupied or in an enemy ZOC. Commonwealth units may not be rebuilt from scratch if Alexandria is enemy-occupied or in an enemy ZOC.

[13.24] Supply units and Air Points may not be refitted.

[13.25] A depleted unit must be in General Supply, may not be in an enemy ZOC, and may not have been disrupted at any point during the current Refit Phase to be refit to full-strength.

[13.26] Refit Chart

See charts and tables.

[13.3] UPGRADING ARMOR UNITS

When units with more than one possible Armor Rating (as indicated by the countermix, see 2.22) are taken from the Refit Box to the rebuilt, they are rebuilt at the highest Armor Rating available given the turn (as indicated on the Turn Record Track) and the counters available for that unit. A player may voluntarily upgrade his armor units if they can trace a line of communication to L0701 (Axis) or Alexandria (Commonwealth) by

removing them from the map, placing them in the Refit Box, and rebuilding them as if they had been destroyed. Once placed in the Refit Box, however, a unit may not be returned to the map except through a refit procedure. Note that only one counter for a particular unit may be on the map at a given time. **Example:** During his Refit Phase of Game-Turn 14, the Commonwealth player decides to refit 7/7 Armd. Looking on the Turn Record Track, he sees that the maximum Armor Rating for that turn is 3. As 7/7 Armd does have a counter with an Armor Rating of 3, the unit is rebuilt at that Armor Rating. If 7/7 Armd was available with Armor Ratings of only 1 or 2, it would appear for this example at the highest Armor Rating available (2). Similarly, if 7/7 Armd appeared in only one form, without any Armor Rating, it would be rebuilt in that form.

[14.0] Fortifications

GENERAL RULE:

Fortifications represent heavily protected lines, usually composed of concrete defenses and other heavy equipment. Fortifications may be constructed by both players. Fortifications may be of two different qualities: Level 1 and Level 2.

CASES:

[14.1] CONSTRUCTING FORTIFICATIONS

[14.11] Fortifications may not be constructed in mountain, city, sand sea, or marsh hexes.

[14.12] The number of fortifications that may be emplaced is not limited by the counters provided. The players may make additional markers, if necessary.

[14.13] Level 2 fortifications may only be constructed in hexes already containing Level 1 fortification markers, which are inverted when the Level 2 fort is completed.

[14.14] To build one level of fortifications in a hex (from nothing to Level 1, or from Level 1 to Level 2) requires the presence of a combat unit with a non-parenthesized Combat Strength and a Stacking Point Value of at least 1, and a dump. The combat unit and dump must start a friendly Movement Phase in which the combat unit could move in the hex to be fortified, and may not move during the entire Phase. At the end of the Phase, the dump is expended and a level of fortification is added to the hex. An Under Construction marker should be placed at the beginning of the Phase to denote such activity. Level 2 forts may not be strengthened by further construction.

[14.2] EFFECTS OF FORTIFICATION

[14.21] At the option of the player defending in a fort, the row of the Combat Results Table corresponding to that fort's Level may be used in place of the terrain in the hex.

[14.22] The Combat Strength of any one non-armored unit of the defending player's choice is doubled if it defends in a Level 2 fort.

[14.23] A fortification benefits any force in its hex, regardless of who first constructed it.

[14.24] Fortifications may never be destroyed.

[15.0] Scenarios

GENERAL RULE:

Two scenarios are provided with *Desert Fox*: "Race for Tobruk," and "The North African Campaign."

CASES:

[15.1] RACE FOR TOBRUK

"Race for Tobruk" is a relatively quick simulation of the first few months of the Axis offensive following Rommel's arrival in North Africa. It can be played in an evening.

[15.11] The "Race for Tobruk" scenario is five Game-Turns long, beginning on Game-Turn 1, and ending at the end of Game-Turn 5.

[15.12] Commonwealth Initial Deployment

L0705: 3/2(1) Armd; **L0704:** 2/2 Mech; **Deployed within 3 hexes of L2308:** 24/9 Aus, 20/9 Aus, 'a' Arty; **L2129:** 3 Ind Mtrzd; **Tobruk (L2329):** 26/9 Aus, 'b' Arty, 1 MSU; **Mersa Matruh (E2118):** 23/70 (Depleted), 1 MSU, the Railhead; **Alexandria (E2234):** 16/70, 22 Mtrzd, 2 MSU's. 7 Spt/7 Mech begins the game in the Refit Box, and may only enter play through the refit procedure (13.0).

The Commonwealth player also deploys a Level 1 fort within 2 hexes of Tobruk. Dumps are deployed in L0704, L1404, L1810, L2317, L2819, L2421, L2408, and L2716. No Refit or Air Points are available to the Commonwealth player at the start of the game.

[15.13] Axis Initial Deployment

Mersa Brega (L0702): German: 5(1) Armd, 200 Mtrzd, 3 Recon, 5 Lt Arty, 3 MSU's; **El Agheila (L0701):** Italian: 132/Ar Armd, 8Br/Ar Mech, Nizz/Ar Recon, 132/Ar Arty, 27 Brs. The Italian 60 Sab unit begins the game in the Refit Box, and may only enter play through the refit procedure (13.0).

The Axis player begins the game with one Air Point and no Refit Points.

[15.14] Both players receive reinforcements and replacements as indicated on the Turn Record Track and their reinforcement schedules.

[15.15] At the end of the game, The Axis player wins if either of two conditions are fulfilled: (1) Any friendly combat unit with a non-parenthesized Combat Strength is in Tobruk and a line of communications (13.2) can be traced from Tobruk to L0701; or (2) Both Bardia (E2104) and Sidi Barrani (E2210) are Axis-occupied or were last entered by Axis units and a line of communication can be traced back from these locations to L0701. The Commonwealth player wins by preventing an Axis victory.

[15.2] THE NORTH AFRICAN CAMPAIGN

"The North African Campaign" re-creates the entire war in the North African theatre, from Rommel's arrival until the Allied landings in Tunisia. Campaign scenarios can generally be played in 15 to 25 hours.

[15.21] "The North African Campaign" is 22 turns long, starting at Game-Turn 1, and ending at the end of Game-Turn 22. It is possible for the game to end before Game-Turn 22 if

the Axis fulfills the conditions for automatic victory (15.25).

[15.22] Commonwealth Initial Deployment

See 15.12.

[15.23] Axis Initial Deployment

See 15.13.

[15.24] Both players receive all reinforcements and points indicated by their reinforcement schedules and by the Turn Record Track.

[15.25] The Axis player automatically wins the game if any friendly combat unit with a Stacking Point Value of 1 or greater and a non-parenthesized Combat Strength is in Alexandria at the beginning of a Commonwealth Refit Phase, or at the end of the game (regardless of supply status). Otherwise, victory is determined according to 15.26.

[15.26] For each hex listed below which an Axis unit occupies at the end of the game, the Axis player receives the indicated Victory Points. The Axis player also receives the indicated Victory Points if an Axis unit was the last unit to move into an indicated hex.

HEX	VICTORY POINTS
Tobruk	20
Mersa Matruh (E2118)	10
Bardia (E2104)	6
Benghazi (E2306)	4
Derna (L2819)	3
Sollum (E2004)	2
Sidi Barrani (E2210)	2
Fort Maddalena (E1502)	2
Each Oasis hex (L0115), (E0303), and (E0106)	1

The Axis player also receives one Victory Point each time the Commonwealth player is unable to make a required withdrawal (5.23).

Total the Axis player's Victory Points, and determine who won and by how much according to the following schedule:

VICTORY POINTS	LEVEL OF VICTORY
52 +	Smashing Axis
38-51	Substantial Axis
20-37	Marginal Axis
12-19	Marginal Commonwealth
2-11	Substantial Commonwealth
0 or 1	Smashing Commonwealth

DESERT FOX DESIGN CREDITS

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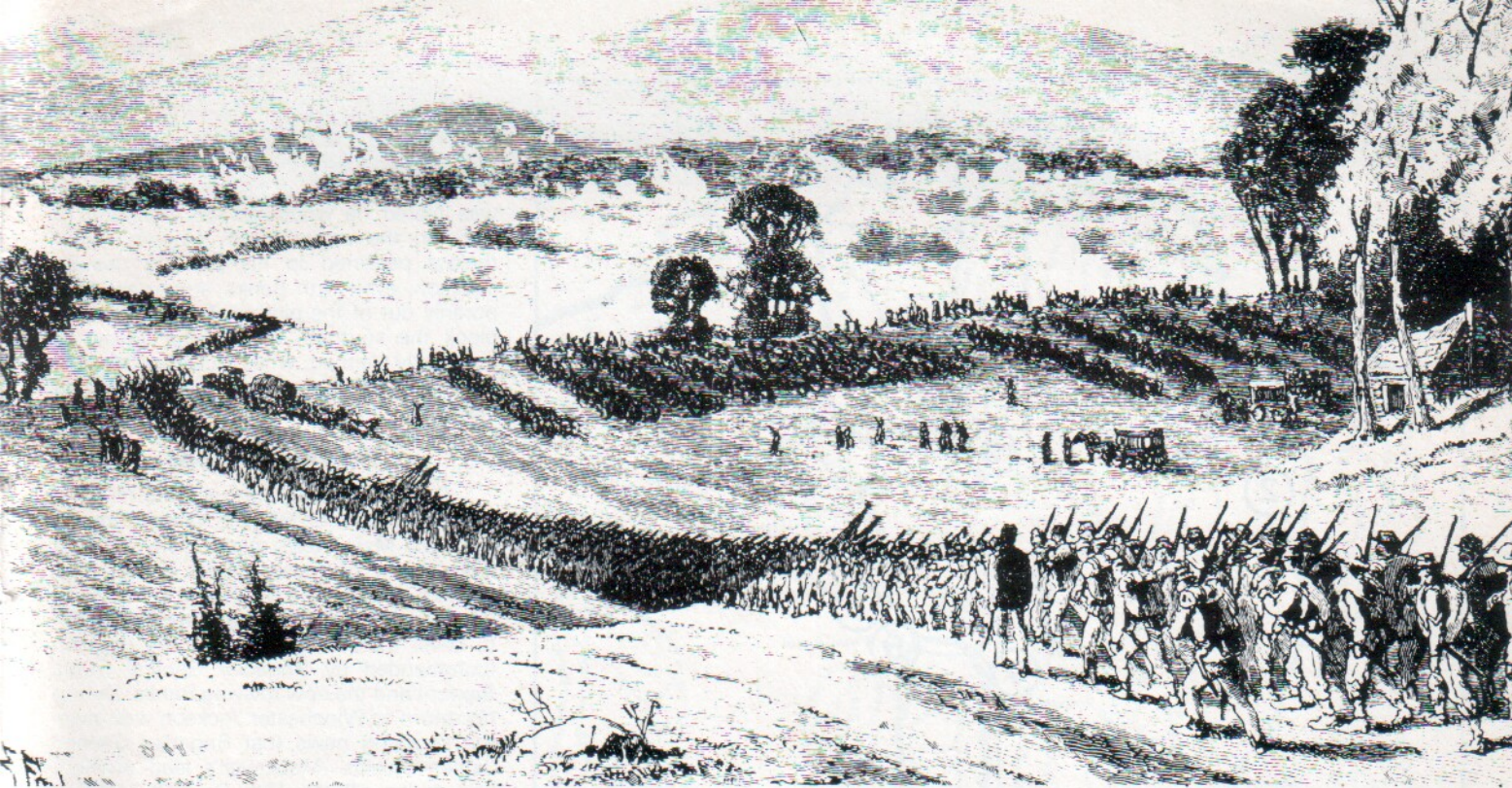
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The Battle of Cross Keys, seen from the Union position.

Jackson

at the Crossroads

Cross Keys & Port Republic

by Dr. David G. Martin

On 24 May 1862, President Abraham Lincoln and his advisors decided that they had been plagued long enough by Major General Thomas Jonathan Jackson and his Confederate Army of the Valley. In the previous two months, Jackson had marched up and down the lush Shenandoah Valley, paralyzing three Union armies that had a strength almost four times his own. Jackson's successes had not only embarrassed Lincoln's government, but also sidetracked reinforcements intended for use by McClellan in his drive on Richmond.

Now came news that Jackson was at it again. On 23 May, he overwhelmed the Union garrison at Front Royal, and was marching against Major General Nathaniel P. Banks' army near Winchester. At least Lincoln now knew for certain where the elusive Jackson was. He had been waiting for such an opportunity, and now he set in motion his plan to capture or destroy Stonewall and his army. Major General John C. Fremont was

ordered to move his army of 15,000 from Franklin, Virginia, east to Harrisonburg to seal off the southern end of the Valley. Major General Irwin McDowell was to send 20,000 men from his corps at Fredericksburg to cover the opening in the Blue Ridge at Front Royal. With Banks' army of 9,000 blocking the northern end of the Valley at Winchester, Jackson and his men would be trapped in the Valley and eliminated.

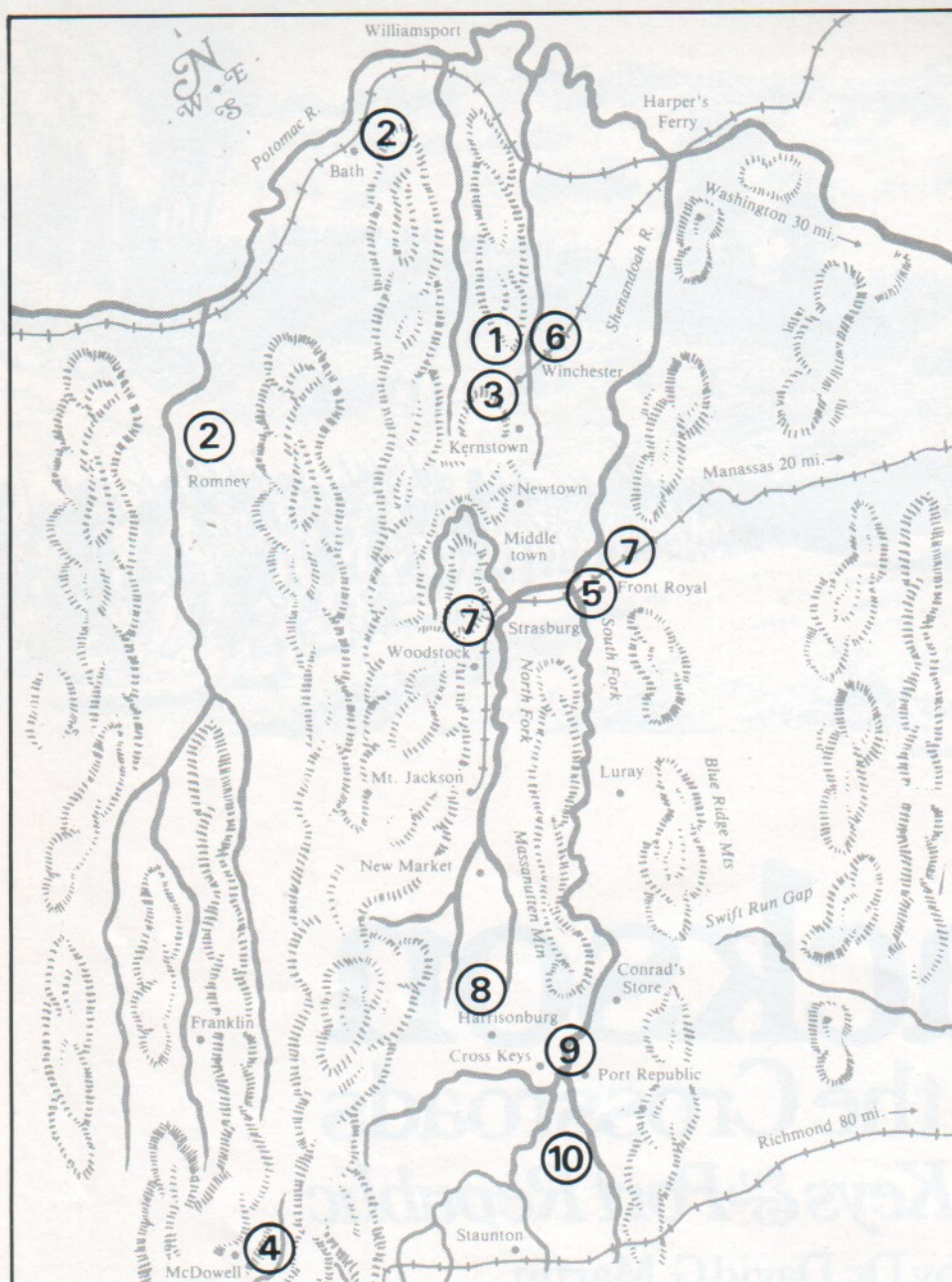
First Stirrings

Jackson, on 24 May, was unaware of Lincoln's plans, but was intent on attacking Banks and driving him out of the Valley. Then he could threaten the Union lines along the Potomac, a movement General Joseph E. Johnston had suggested in order to take some pressure off Richmond. The early stages of this offensive had gone very well. After concentrating his Valley army (now in two divisions, his own and Ewell's, totalling 16,000 men and 48 guns), he had feinted towards Strasburg, where he left Ashby's

cavalry to screen Banks' main force. Jackson then crossed the Massanutten Mountain at New Market and destroyed Kenly's 1,000 man garrison at Front Royal on the 23rd.

The morning hours of the 24th were tense as Jackson waited to hear what Banks was doing: staying at Strasburg, retreating north to Winchester, or withdrawing west to join Fremont or east toward Washington. Once it was determined that Banks was heading north, Jackson roused his tired men to catch and destroy Banks before he reached Winchester. This goal was not achieved, however, due to effective Union rearguard actions, and because much of the Confederate cavalry stopped to loot a captured supply train. That night, Banks formed his men in a relatively strong position on some hills at the southern edge of Winchester.

Early the next morning (25 May) Jackson attacked and carried Winchester in what was one of his better tactically directed battles. All that was lacking to destroy Banks' smashed army was a determined



MAP 1: Jackson in the Valley

- 1: 21 Oct 1861. Jackson is assigned to command of the Valley District, Department of Northern Virginia. He arrives in Winchester on 4 Nov.
- 2: Early Jan 1862. Jackson fails to capture Federal garrisons at Bath and Romney.
- 3: 23 March 1862. Jackson attacks Shields at Kernstown and suffers a tactical defeat, but achieves strategic victory when large forces intended as reinforcements to McClellan near Richmond are diverted to the Valley.
- 4: 8 May 1862. After beginning an apparent march to Richmond, Jackson unexpectedly turns and defeats part of Fremont's army at McDowell.
- 5: 23 May 1862. Jackson advances towards Banks' position at Strasburg, and then quickly crosses the

Massanutten at New Market and overwhelms a Federal detachment at Front Royal.

6: 25 May 1862. Banks, who had fallen back to Winchester, is defeated there by Jackson and retreats across the Potomac.

7: 1 June 1862. Jackson escapes Lincoln's trap by hard marching as his rearguard holds back Fremont at Strasburg and Shields at Front Royal.

8: 6 June 1862. Turner Ashby is killed in a skirmish near Harrisonburg.

9: 8-9 June 1862. Jackson defeats Fremont at Cross Keys and Shields at Port Republic.

10: 17 June 1862. Jackson breaks camp at Weyer's Cave and begins march to join Lee at Richmond ending the Valley Campaign.

cavalry pursuit, which was not possible because of command and organizational problems. Ashby took a wrong road, and "Maryland" Stuart, head of Ewell's cavalry, refused to take orders directly from Jackson. Stonewall attempted to improvise a pursuit by mounting men on artillery horses, but the tired animals gave out after a few miles, as did most of Jackson's exhausted men.

The remnants of Banks' command did not stop running until they reached the other side of the Potomac. The Federals lost during the day 500 battle casualties, and over 3,000 captured (many in hospitals), besides two cannons, 9,000 rifles, and large quantities of food, medical supplies, and other stores. Confederate losses were less than 400 all told.

After giving his men two days of much needed rest, Jackson moved them north to the Potomac and began preparations to attack Harpers Ferry. His movements brought brought trepidation to Washington, where it was feared he would invade Maryland or threaten the capital itself. Lincoln nevertheless persisted in his plan to destroy Jackson, even with Banks' army now temporarily out of the picture. Fremont was to block the southern end of the Valley, as previously planned, while McDowell's whole corps of 40,000 hunted down and defeated Jackson.

The Trap Escaped

On 30 May, Jackson received news of Fremont's advance into the Valley from the west and McDowell's march from the east. Fully aware of these threats to his rear, Jackson withdrew his small army back to Winchester, leaving the Stonewall Brigade to cover the strong Harpers Ferry garrison (commanded by Brigadier General Rufus Saxton) and the now reviving Banks. During his return to Winchester Jackson was given the shocking news that Brigadier General James Shields (McDowell's lead division) had driven off the 12th Ga and captured Front Royal. This put Shields' force only 12 miles from Strasburg and the Valley Turnpike, Jackson's only escape route to the south, while most of Jackson's men were at least 30 miles from that city. To make matters worse, Fremont was then but a day's march west of Strasburg, which he had decided to march to instead of Harrisonburg.

How Jackson extricated himself from this trap is one of the great episodes of military history. Not only did he escape Lincoln's trap, but he even turned back to divide and defeat his numerous pursuers.

On 31 May, Jackson drove his men as hard as he could to reach Strasburg before the Federal forces did. First in his column came an eight-mile long train of captured supplies and prisoners. Next came his infantry — Taliaferro's and Campbell's brigades, then Ewell's division. Far to the rear, still the rearguard, came the Stonewall Brigade under Winder. Ashby's cavalry held the flanks, slowing Fremont's advance and fighting Shield's advance guard at Front Royal. Though there was much straggling (mostly from exhaustion), all of Jackson's army safely passed Strasburg by noon of 1 June. Most of his units had marched about 30 miles in a little over 24 hours. It was one of the great forced marches of the war.

Jackson's success was due to a combination of his own hard driving spirit, and a lack of aggressiveness on the part of his opposition. Any of the three pursuing Federal forces (Fremont, Shields, or Banks) could have crushed the weak Confederate forces screening them, but none did so. Each instead feared that Jackson might turn on him alone, and defeat him with a superior force; though the Federals collectively outnumbered Jackson 2-1, each Union general was well aware that Jackson had a force larger than any single pursuer.

Shields was detained too long by Ashby near Front Royal. He had arrived there on 30 May and did not reach Strasburg, but 12 miles away, until late on 1 June. Banks and

Saxton lost an excellent chance at least to isolate and destroy Jackson's rearguard, the Stonewall Brigade, parts of which had to cover 38 miles in order to reach Strasburg. Fremont had been delayed by muddy roads and then by part of Ewell's division. Though ordered by Lincoln to advance on Harrisonburg, Fremont had instead taken his time on another route and turned up, too late to trap Jackson, at Strasburg. This lack of Union drive and coordination clearly pointed out the need for an overall Federal field commander in the Valley. Lincoln's attempt to direct operations from Washington had so far been a clear failure.

Crisis to Crisis

Though Jackson had passed the crisis at Strasburg, he was not yet in the clear. The Union forces were finally united and cooperating against him. However, the geography of the Valley soon forced another division of the Federal armies. The whole Valley is divided in two for 50 miles from Strasburg to near Harrisonburg by the Massanutten Mountain: to the west, between the Massanutten and the Alleghenies, the North Fork of the Shenandoah River flows in the Shenandoah Valley proper; to the east, between the Massanutten and Blue Ridge, the South Fork of the Shenandoah River flows in the Luray Valley.

The Massanutten itself has only one pass at about its midpoint, from New Market to the town of Luray. Fremont's army was advancing west of the Massanutten, spearheaded by Brigadier General George Bayard's unusually active cavalry brigade. Shields' force was advancing on the other side of the Massanutten, in the Luray Valley. Jackson was well aware that he was relatively safe as long as the two Federal forces were in separate valleys; there was always the possibility that he could attack either force while it was isolated. But it was a dangerous game of cat and mouse. If either Federal force used the New Market pass to get behind him, Jackson himself would be trapped in one of the valleys.

To avoid being isolated north of New Market gap, Jackson continued his retreat up the Valley. The weather turned rainy, and the men were exhausted, especially those in Ashby's cavalry screen. New Market was reached on 3 June, and temporary security from Fremont was obtained when the bridge over the North Fork was burned. However, when Fremont's engineers unexpectedly put a pontoon bridge across the river, Jackson had to continue his withdrawal. His march was hastened because of news from Ashby's scouts that Shields was advancing quickly up the Luray Valley, perhaps with the goal of circling the Massanutten near Harrisonburg and trapping Jackson between that city and Fremont's army advancing from New Market.

As Jackson advanced south along the Valley Pike from New Market, the rains continued and a new problem arose: the rivers were rising, and there was a strong possibility he might be checked by the North River, which flows east from the Alleghenies to Port Republic, where it joins the South River to form the South Fork of the Shenandoah River. Fortunately, there was a bridge over the North River at Port Republic that would

give Jackson an escape rout to the east. The Port Republic bridge thus became Jackson's next goal, since he could not afford to have it fall into enemy hands or be destroyed. Control of this bridge was to be the key to the rest of the campaign.

Ambush

The 6th of June was a day of heavy skirmishing as Bayard's cavalry caught up with Brigadier General Turner Ashby's command and pressured him all day. In a hot skirmish late in the day, Ashby captured 60 Federals, including Sir Percy Wyndham, an English professional soldier who commanded the 1st NJ cavalry. Elated by this success, Ashby borrowed two infantry regiments from Ewell (58th Va and 1st Md) and prepared an ambush for the advancing Federals, who were led by the famous Pennsylvania Bucktails (13th Penn Reserves).

This time the tables were turned, and Ashby himself led the 58th Va into a Federal ambush. Here the Confederates again ended up the winners, this time capturing Lt. Col. Kane of the Bucktails. But the victory came at high cost: Ashby was killed while fighting in the front lines, where he enjoyed battle best. He was the first Virginia General to die in battle, and his men mourned him deeply as he soon assumed the status of martyred hero. His replacement as Confederate cavalry commander was Col. T.T. Munford of the 2nd Va cavalry, who was a good commander, but much less colorful than Ashby.

On 7 June, Jackson won the third leg of his race as he reached Port Republic ahead of Shields. He then had several options open, including evacuating the Valley entirely. Instead he chose to remain at Port Republic and await developments, since he still hoped to attack and defeat either or both of the Federal armies before they joined together. Jackson knew that he had control of the situation as long as he held Port Republic and its bridge. If things got too hot, he could always burn the bridge to keep Fremont and Shields from uniting, and go on his way.

Jackson's troop positions on the night of 7 June were made awkward by local topography. The town of Port Republic is located on a peninsula at the confluence of the North River (flowing from the west) and the South River (flowing from the south), which come together to form the South Fork of the Shenandoah River. The North River had but one crossing in that vicinity, the bridge at Port Republic which had been Jackson's goal for several days. The South River had but two crossings near the town, both fords.

These rivers divided Jackson's army into three parts: Ewell's division was positioned north of the North River to face Fremont's advance, most of Jackson's own division camped east of the South River to await Shield's arrival, and Jackson himself with the army's wagons spent the night in Port Republic. Any advantage of a central position Jackson was going to have in the anticipated conflict with Fremont and Shields would be largely negated by the communications difficulties posed by the bridge and two fords. Ominously, the three river crossings on the night of 7-8 June were guarded only by small detachments.

Narrow Escape

These dispositions set the stage for one of the more exciting escapades of the war. The time was 8:00 a.m. on 8 June. Jackson was in Port Republic, chatting with some of his staff outside the home of a Dr. Kemper, where he had spent the night. Almost out of the blue, Col. Samuel Carroll and part of the 1st W Va cavalry galloped towards Port Republic from the east and forced their way across the lower of the two fords over the South River. Most of the few Confederate troops in town panicked and fled. Jackson himself and most of his staff fled under fire across the North River bridge to Ewell's side of the river.

Had he been shot or captured, the whole course of the battle — and of the war — would have undoubtedly been different. As it was, Col. Crutchfield, Jackson's chief of artillery, was captured along with a lieutenant. The Union cavalry headed straight up Port Republic's Main Street to where Jackson's wagon train was conspicuously parked. There their attack was momentarily checked by a squad of infantry and two guns of Carrington's newly formed battery.

Jackson reacted quickly once he recovered his breath. He knew that his army would be in terrible straits if the Union cavalry burned the bridge and separated his two divisions, each to face a superior enemy force. Hastily he directed Poague's battery to form on the ridge north of the bridge and engage two Union guns that had taken position in the town south of the bridge. He then ordered the first infantry unit he met (Taliaferro's 37th Va) to charge the bridge at all costs. The fire from the two Federal guns destroyed the bridge's superstructure, but could not stop the 37th Va. The Federal guns were captured, and the Union cavalry retreated as suddenly as it had appeared. Col. Crutchfield even managed to escape in all the commotion. On the other hand, many of the Confederate wagoners, who had taken off at full speed when the Union raid began, did not stop until they approached Staunton, some 18 miles to the southwest.

As Carroll's cavalry retreated, they met the infantry force that was accompanying their advance. The recombined Union force was then shelled by three Confederate batteries (Wooding, Poague, and Carpenter) until they were out of range. Having suffered about 40 casualties, Carroll retired to the east, and quiet returned temporarily to Port Republic. Jackson posted Taliaferro's brigade in the town to prevent any replays of his near disaster.

In the meantime, the situation had become tense for Ewell on the north side of the South Fork. Ewell had formed a line on a wooded ridge about two miles southeast of the village of Cross Keys and seven miles northwest of Port Republic. To his front were generally open fields sloping down to a branch of Mill Creek. The road from Harrisonburg to Port Republic crossed the center of Ewell's line, which was held by four batteries supported by Elzey's brigade, serving also as a reserve. The left of the line was held by Stuart (now commanding an infantry brigade), while Trimble was assigned to the right. The 15th Ala was ordered to picket

the front of the whole line. All together Ewell had about 5,000 men and 22 guns.

Fremont's army approached Ewell's position that morning (8 June) and began attacking about 10:00 a.m. On Fremont's left, opposite Trimble, were posted Stahl's and Bohlen's brigades; the rest of Blenker's German division (primarily Koltes' brigade) was held in reserve. Milroy's and Cluseret's brigades formed the center of Fremont's line, and Schenck's brigade the right. After a sustained artillery duel, Fremont attacked with his left about noon. Stahl's brigade moved forward steadily against the Confederate skirmishers until Trimble permitted his men to open fire at close range. The Germans wavered and then retreated. Supported by the 13th and 25th Va of Elzey's brigade, Trimble advanced to outflank Blenker, and drove back the whole Union left flank.

Meanwhile, Milroy advanced against the Confederate center in what was no more than heavy skirmishing. An attack about 1:00 p.m. by Schenck's brigade met more success. Here the 44th Va was driven back until supported by the remainder of Elzey's brigade (12th Ga and 31st Va). The tide of the battle on this flank turned with the arrival of Patton's brigade and Taylor's 7th and 8th La, which had been sent as reinforcements by Jackson. Defeated on both flanks, Fremont withdrew his whole force to Cross Keys.

So ended the battle of Cross Keys, termed by Tanner "essentially a rambling skirmish." Trimble's defeat of Blenker's attack, and his own skillful use of reserves, permitted Ewell to win in spite of the fact that he was outnumbered 3-2 (2-1 at the start of the engagement). Union losses totalled about 700 — 430 from Stahl's brigade alone. Ewell lost less than 300, including two wounded brigade commanders — Elzey (replaced by Walker) and Stuart (replaced by Scott).

Fortunately for Jackson, who had committed two-thirds of his force at Cross Keys, Shields' division did not concentrate quickly or aggressively against the forces guarding Port Republic. That night, after Ewell's success at Cross Keys, Jackson had to decide what to do next. His basic choices were to withdraw or attack, since he would have little chance of success maintaining his present position with his two divisions each facing superior enemy strength. Withdrawing would yield control of the Valley to the united Federal armies. This option was safer, but did not agree with Jackson's combative nature.

Instead, he decided to take advantage of his central position and attack one of his adversaries and then the other. It was a bold plan, depending on quick movement and a lack of cooperation between the two Union commanders. There was also the risk that the rain-swollen rivers might rise to threaten the two fords on the South River and divide his own army in half.

Plan of Battle

Jackson soon formed his battle plan as follows. Trimble, with his own and Patton's brigade, was to occupy Fremont, while Jackson with the army's other five brigades dealt with the weaker Shields. Jackson could not use his whole force against

Shields, because abandonment of the north bank of the South Fork would give Fremont excellent positions from which to enfilade the Confederates as they engaged Shields. Once Shields was defeated — hopefully by 10:00 a.m., Jackson told Patton — Stonewall would lead his whole command across the North River to attack Fremont a second time.

Preparations for the attack began shortly before 4:00 a.m., when Winder's Stonewall Brigade crossed the North River bridge and then crossed the South River on an unstable bridge hastily constructed of boards and wagons. Taylor's brigade (the army's strongest) was to cross next, followed by Scott and Walker. Winder, now accompanied by Poague's and Carpenter's batteries, advanced east of Port Republic until

he ran into Federal skirmishers. Driving them northeast along the river, the Stonewall Brigade reached the main Union position about a mile east of Port Republic by 7:00 a.m.

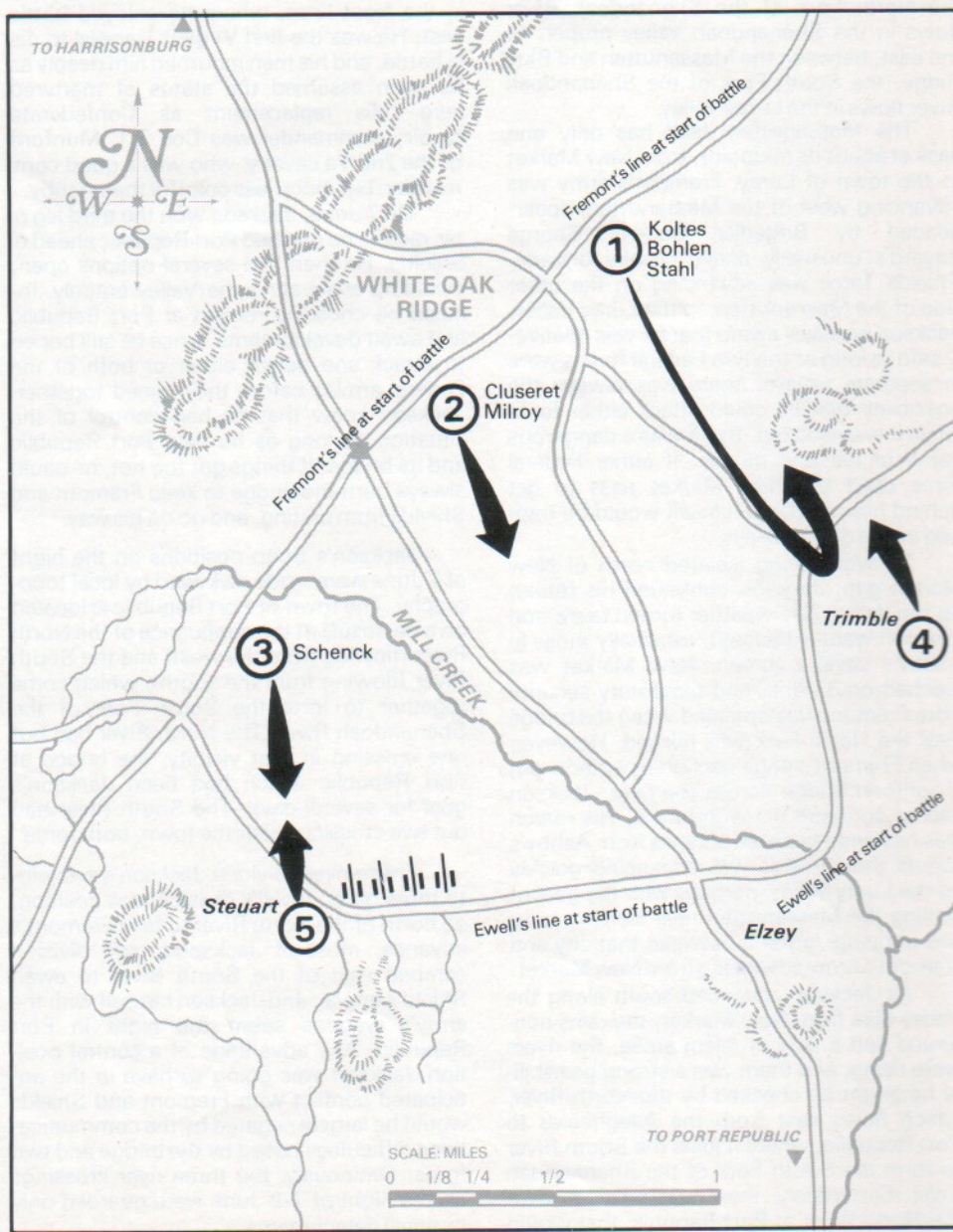
Here Tyler's and Carroll's brigades, about 3,000 men in eight regiments, were drawn up awaiting the arrival of Shields and the rest of his division (Jackson mistakenly believed all of Shields' command was already facing him). The Union line was well posted with its right on the river (the South Fork) and its left on a wooded ridge near an old coal pit. Its regiment from right to left were as follows: 7th Ind, 29th Ohio, 7th Ohio, 5th Ohio, 1st W Va, 84th Pa, 110th Pa, and 66th Ohio. Any Confederate advance from Port Republic had to cross a mile of open sloping wheatfields well covered by artillery fire.

MAP 2: Cross Keys 8 June 1862

ATTACKS

1. Blenker's attack at noon repulsed
2. Milroy's limited advance
3. Schenck's attack at 1 P.M.

4. Trimble counterattacks with 13 Va and 25 Va and breaks the Union right
5. Schenck's attack stopped by 12 Ga, 31 Va, Patton and 7 La and 8 La



Though uncertain of the size of the Union force, Jackson opened battle as soon as Winder had his men in position. The 2nd and 4th Va with two guns of Poague's battery were sent to turn the Federal left, while the 5th and 27th Va held the main line awaiting the arrival of the rest of the attack force; the 33rd Va had become separated from its brigade and was not yet up. The Confederates immediately ran into numerous difficulties. Their flanking movement stalled in heavy woods, while superior Union artillery raked the rest of Winder's line. Taylor's brigade and the units behind it were delayed by a huge traffic jam in Port Republic caused by the near collapse of the improvised wagon bridge. Jackson's timetable was severely off schedule, and he was in fact on the verge of suffering a disastrous defeat.

Faced with this crisis, Jackson decided he had no choice but to concentrate his whole army against Shields. Trimble was directed to withdraw slowly from Fremont's front and then burn the North River bridge; too quick a withdrawal would permit Fremont to post his guns on Jackson's exposed left flank. Burning the bridge would prevent Fremont from giving aid to Shields, but would also mean the scrapping of Jackson's plans to fight both Federal armies on the same day.

Reinforcements

At length Confederate reinforcements began reaching Winder. Taylor's brigade arrived first. His leading regiment, the 7th La, was immediately detached to support Winder's sagging left (15 and 27 Va). There an

advance was begun that initially succeeded against Carroll's extreme right regiment, the 7th Indiana. Soon the 5th, 7th, and 29th Ohio regiments joined the fray. After a half hour's combat, the outnumbered Confederates, who were running low on ammunition, broke and ran. Jackson sent the 31st Va and then the 52nd to stem the tide, but they too were engulfed. The Union right, reinforced by the 84th and 110th Pa began to advance on Port Republic and its vital fords. In a spirited charge the 5th Ohio captured one of Poague's guns. Affairs again looked desperate for the Confederates, until the Federals were checked by a counterattack by the 44th and 48th Va.

While this fighting raged near the river, the bulk of Taylor's brigade was advancing against the weakened Federal left. Taylor's progress was greatly slowed by heavy underbrush. Finally the Louisianians struck the 66th Ohio near the old coal pit. In desperate fighting the Confederates captured several guns of Battery E 4th US, but then lost them to a countercharge by the 5th and 7th Ohio, which had been recalled from the Federal right. As Tyler was reforming his lines, his left center was struck by a new attack spearheaded by Ewell with the remnants of the 44th and 58th Va.

Supporting Ewell's attack was Walker with most of Elzey's brigade (13 Va, 25 Va, and 12 Ga). The Union line staggered, and finally broke when Taliaferro's fresh brigade arrived to enter the fray. Munford's cavalry led the pursuit, and the hard fought battle was over. The Federals had battled well, losing only 500 battle casualties (plus another 500 captured); they inflicted 800 casualties on Jackson's force, in spite of the fact they were outnumbered over 3-1. Jackson's tactical handling of his troops had indeed been far from inspiring, especially compared with Ewell's fine job against Fremont's superior forces the day before. Jackson indeed might well have lost at Port Republic if he had not had such a preponderance of strength.

Final Stage

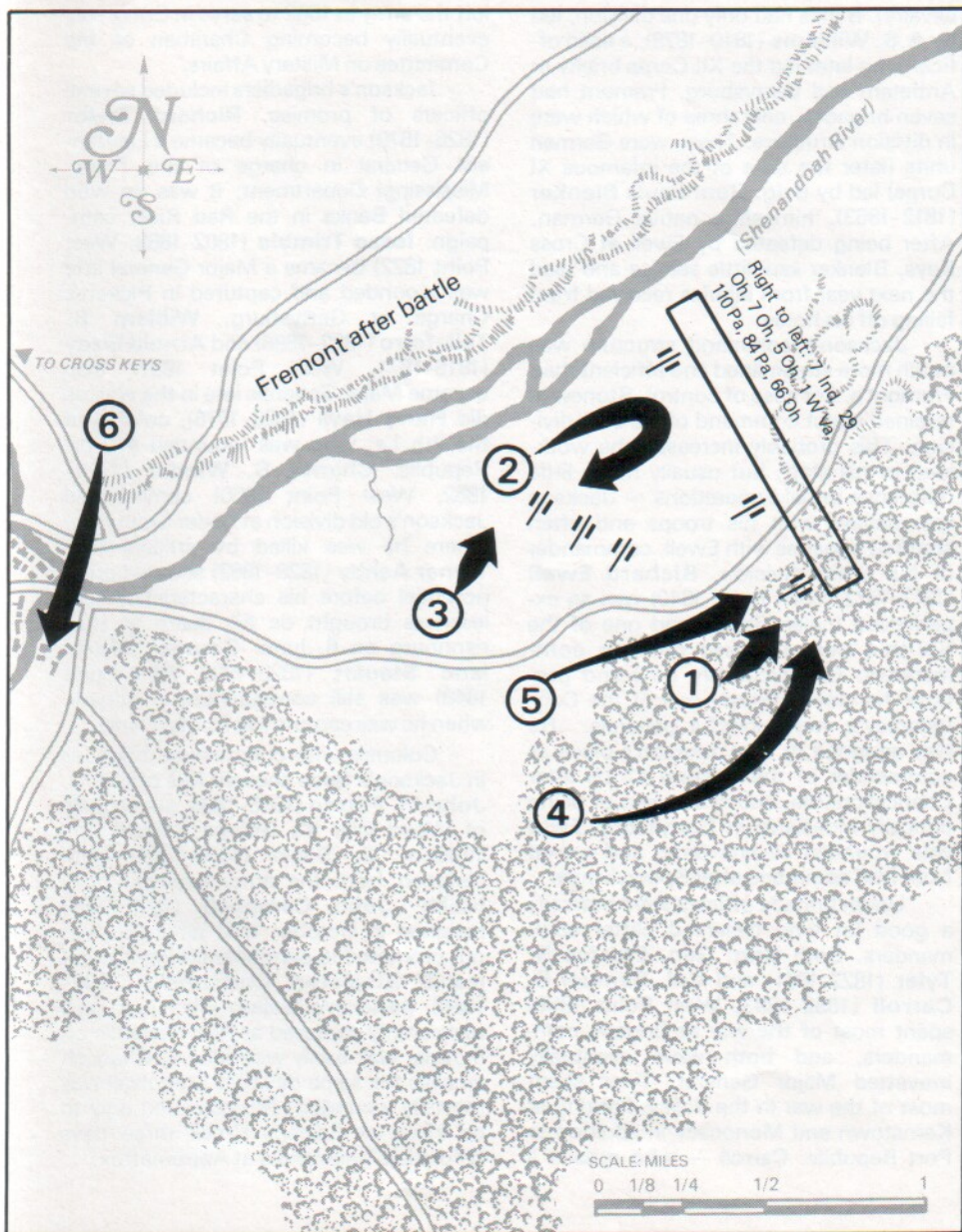
As the battle drew to a close, Trimble withdrew his brigade across the North River and burned the Port Republic bridge. Fremont then rolled his guns to the river bluffs, but was too late to affect the fighting south of the river. Later in the afternoon Jackson withdrew his tired men to the east, and the campaign was virtually over. Shields retreated under orders to Front Royal. Fremont left Cross Keys on 10 June and retired to Strasburg, where he met Banks' tardily advancing force. Jackson moved his men to a pleasant camp site at Weyer's Cave, about six miles south of Port Republic. On 17 June, he led his refreshed Valley army to join Lee at Richmond. Stonewall was forbidden by fate to see his beloved Shenandoah Valley again.

The seventeen days from Front Royal to Port Republic showed Jackson at his strategic best and tactical worst. Throughout this period he was the master strategist, constantly outwitting and outmarching his more numerous opponents. He pushed his men hard, and by the end of the campaign both he and they were exhausted. The result was that his plans were overambitious (the aborted attempt to defeat both Shields and

MAP 3: Port Republic 9 June 1862

ATTACKS

1. 2 and 4 Va
2. 5 Va, 27 Va, and 7 La repulsed
3. 31 Va, 44 Va, 52 Va, 58 Va check Union advance
4. Taylor's Louisiana brigade captures Union battery
5. Union line broken by 44 Va, 58 Va, 13 Va, 25 Va, and 12 Ga
6. Trimble withdraws from north bank and burns bridge over North River



Fremont on 9 June), and his men were unable to continue the superhuman feats he expected. In his haste to defeat the Federals at Port Republic, Jackson showed poor tactical leadership, and could well have lost the battle if Shields' whole force had been present. Nevertheless he won, chiefly because his strategic planning had given him the opportunity to concentrate his forces while preventing his opponents from doing so. This strategic skill is what we should remember him best for. □□

PERSONALITY PROFILES

Winners and Losers

The major reason for the Union disasters during the Valley Campaign was the fact that right down the line Federal commanders and command structure were inferior to those of the Confederates. As mentioned in the text, lack of an overall field commander and interference by Lincoln contributed significantly to lack of coordination among the scattered Union forces. Jackson, on the other hand, had free reign to do what he pleased to carry out general directions given by Richmond. The success he enjoyed bears testament as much to his own ability as to the wisdom of the decision to put him in command of the Valley District. As a native of the Valley, he knew first hand its quirks of geography and so gained a tremendous homecourt advantage over his opponents.

Unlike Jackson, the head Union Generals in the Valley Campaign were chosen more for their political connections than their military experience. **John C. Fremont** (1813-1880) had earned the nickname "The Pathfinder" while exploring the Rockies, and in 1856 was the first Republican party candidate for President. His political connections earned him an appointment as Major General in 1861, but he did little to deserve his rank. Given command of the Western Department at St. Louis, he almost lost Missouri to the enemy in late 1861. He was given a second chance when he was assigned command in West Virginia in March 1862, relieving the almost equally inept William S. Rosecrans. His decision in late May to march to Strasburg instead of Harrisonburg as he had been ordered ruined the North's best chance to corner Jackson. Fremont was clearly outgeneraled by Ewell at Cross Keys. Later in June he chose to resign rather than serve under Pope, whom he outranked.

The two other Federal army commanders in the Valley were both Democratic politicians. **Maj. Gen. Nathaniel P. Banks** (1816-1894) had been a member of Congress and Governor of Massachusetts before the war. In March 1862, he received command of a corps, and was defeated later by Jackson at Winchester and Cedar Mountain. Sent west to try greener pastures, Banks captured Fort Hudson, but failed so miserably in the 1864 Red River campaign that he resigned.

James Shields (1806-1879) had a similarly lackluster career. He was a native of Ireland and had been a General in the Mexican War, as well as Democratic Governor of Oregon and Senator from Oregon and Minnesota. He is said to have

challenged Lincoln to a duel once, but later became his friend. Shields was given command of a division in the Valley and commanded the victorious Union forces at Kernstown, though he had little influence on the course of the battle. Nevertheless, he boasted of the triumph for the rest of his life. Shields was conspicuous for his absence at Port Republic. He had only two of his four brigades in position to fight Jackson on 9 June, and was not himself present on the battlefield. His poor performance here got him shelved from command, and he soon resigned from the army (March 1863).

There were strangely only two Union division commanders fighting in the campaign (three counting Shields, whose "army" was only a division with attached cavalry). Banks had only one division, led by **A.S. Williams** (1810-1878), a solid officer who later led the XII Corps briefly at Antietam and Gettysburg. Fremont had seven brigades, only three of which were in division structure. These were German units (later the core of the infamous XI Corps) led by **Brig. Gen. Louis Blenker** (1812-1863), himself a native German. After being defeated by Ewell at Cross Keys, Blenker saw little service and died the next year from injuries received from falling off his horse.

Jackson's command structure was much more streamlined and efficient than Fremont's. For ease of control, Stonewall retained direct command of his own division. This probably increased the workload of his staff, but usually made little difference in field operations — Jackson was always with his troops and often shuffled brigades with Ewell, commander of his other division. **Richard Ewell** (1817-1872, West Point 1840) was an experienced Indian fighter and one of the South's best fighting division commanders. Conspicuously bald and profane, he was definitely one of the Confederacy's more colorful generals. He was assigned to take Jackson's place as commander of the Second Corps after Chancellorsville, and is accused of being critically indecisive at Gettysburg. Ewell was wounded several times and retired from field command after Spotsylvania.

Union brigade officers were basically a good lot who deserved better commanders. Both **Brig. Gen. Erastus B. Tyler** (1822-1891) and **Col. Samuel S. Carroll** (1832-1893, West Point 1856) spent most of the war as brigade commanders, and both were eventually brevetted Major General. Tyler spent most of the war in the Valley, fighting at Kernstown and Monocacy in addition to Port Republic. Carroll — who missed a

chance to capture Jackson or burn the Port Republic bridge on the morning of 8 June — fought at Kernstown, Cedar Mountain, and Gettysburg. The most famous of Fremont's Brigadiers was **Julius Stahl** (1825-1912), a veteran of the 1849 Hungarian revolution who rose to command a division later in the war. Other foreign officers with Fremont were **Gustave Cluseret** (1823-1900), a Frenchman who resigned to return home in 1863, and **Henry Bohlen** (1810-1862), a German who was killed in a skirmish two months after Cross Keys.

Fremont's other brigade commanders were **Robert Milroy** (1816-1890) and **Robert Schenck** (1809-1890). Milroy is best known for his defeat by Ewell at Second Winchester in June 1863; Schenck left the army in 1862 to serve in Congress, eventually becoming Chairman of the Committee on Military Affairs.

Jackson's brigadiers included several officers of promise. **Richard Taylor** (1826-1879) eventually became a Lieutenant General in charge of the Trans-Mississippi Department; it was he who defeated Banks in the Red River campaign. **Isaac Trimble** (1802-1888, West Point 1822) became a Major General and was wounded and captured in Pickett's Charge at Gettysburg. **William B. Taliaferro** (1822-1898) and **Arnold Elzey** (1816-1871, West Point 1837) also became Major Generals late in the war, as did **Harry Hays** (1820-1876), colonel of the 7th La, who was wounded at Port Republic. **Charles S. Winder** (1829-1862, West Point 1850) commanded Jackson's old division at Cedar Mountain, where he was killed by artillery fire. **Turner Ashby** (1828-1862) showed great potential before his characteristic recklessness brought on his death at Harrisonburg on 6 June. **George "Maryland" Steuart** (1828-1903, West Point 1848) was still commanding a brigade when he was captured at Spotsylvania.

Colonels who commanded brigades in Jackson's force showed less potential. **John M. Patton** (1826-1898, great-uncle of World War II's George Patton) and **William C. Scott** (1809-1865) both resigned from the army because of ill health. **John Campbell** (1823-1886) resigned in October 1862 when he was not promoted to permanent brigade command. **Stapleton Crutchfield** (1835-1865), Jackson's artillery chief who was temporarily captured at Port Republic on 8 June, was badly wounded at Chancellorsville the same day that Stonewall was mortally wounded. He recovered only to be killed at Saylor's Creek three days before Lee's surrender at Appomattox.



The defense of Battery Robinett.

The Battle of Corinth

Standoff at the Tennessee

by Richard Berg

In April of 1862, the first major battle of the American Civil War — Shiloh — had effectively driven the Confederacy from Tennessee. Further losses to the east, coupled with Union riverboat successes on the Mississippi, now threatened to cut the Confederacy in half, depriving her of the valuable communication and rail links that ran both east-west and north-south.

Grant's maneuvering along the Tennessee River in that spring had taken place with the specific objective of striking inland and cutting these rail lines, thus isolating a large area of the Confederacy. Before he was surprised by Albert Sidney Johnston's bold and desperate attack at Pittsburg Landing, Grant's immediate target had been the town of Corinth, located in Mississippi just south of the Tennessee border.

Corinth was a typical, bucolic Southern town: mostly farming with some local industry. It certainly did not seem to be a military target of even minimal import, except for one thing: the Mobile & Ohio and the Memphis & Charleston railroads met right at the edge of town. This small, quiet Mississippi town was thus the hub of two of the most important rail lines in all of the Confederacy. And both sides knew it.

Inertia and Indecision

In the aftermath of the Confederate retreat from Shiloh in April, the main Union column, under the direct command of Henry Halleck, moved toward Confederate-held Corinth. General P.G.T. Beauregard, now in command after Johnston's death, had retired to Corinth and hastily constructed fortifications, which partially ringed the city. These fortifications, however, were poorly built, and as Halleck advanced, Beauregard realized that he could not defend the city, outnumbered greatly as he was. On May 30th he therefore withdrew from the town south towards Tupelo. The following day, Halleck entered Corinth.

Late in June 1862, General Braxton Bragg was placed in charge of Beauregard's army. Bragg, only minimally competent when it came to leading an army on the field, still had an excellent administrative grasp of the strategic situation. He realized that the Confederacy could not stand still and defend; it must counterpunch — and quickly. So while the Union, having made such great strides in a short time, sat on its political butt trying to decide what to do next, Bragg struck. Leaving Major-General Sterling Price behind with 15,000 men at Tupelo, Bragg gathered his force and, at the end of July, moved towards Kentucky and Union commander Don Carlos Buell.

Price's orders were to keep General Ulysses Grant, who commanded the Union forces from Memphis to Corinth, engaged so that he could not reinforce Buell from his 40,000+ army. Even so, Grant managed to transfer two divisions towards Buell in August as Bragg continued his advance northward through Tennessee.

While in the spring the south had appeared to be on the ropes, now, following the disastrous second battle of Bull Run in Virginia, two major Confederate armies (the second being Lee's) were heading north against a seemingly disorganized Union command. With all these events rapidly unfolding, Bragg telegraphed Price to do *something* to keep Grant pinned. Price looked around and his eye fell on Corinth, now held by Major-General William S. Rosecrans with a force estimated to be around 30,000.

Price knew that any move against Rosecrans would be futile with the 15,000 men he now commanded. He immediately ordered Major General Earl Van Dorn, now commanding the Confederate garrison at Vicksburg, to join him against Grant.

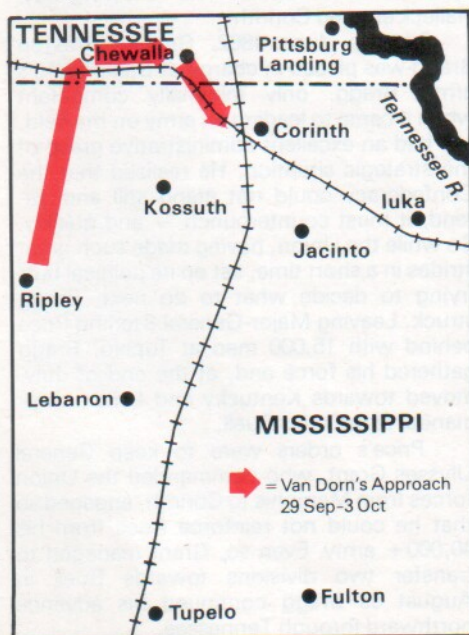
Price's telegram did not sit well with the impetuous and oft-disappointed Van Dorn, whose taste for military glory and women was looked upon with distaste by Price. Van Dorn had only recently suffered a severe setback at Pea Ridge (with Price as his second-in-command), and he was now looking for a way to recoup his reputation. Thus, rather than join Price against Rosecrans, who according to Confederate information had a large field army (false) and could quickly be reinforced by Grant by means of rail (true), he attempted a raid on Baton Rouge. The strike proved abortive, and by mid-August Van Dorn was back in Vicksburg ready to listen to Price.

Iuka: Prelude to Corinth

By this time Bragg was virtually foaming at the mouth at Price's failure to move. Thus, while Van Dorn ruminated over Price's plans against Corinth, Price decided to move. In the second week of September, he marched his small army northeast from Tupelo, which lay directly south of Corinth, intent on heading into Tennessee.

Unknown to Price, an ironic twist of fate was about to deprive him of his command even as he marched under Bragg's orders.

Corinth Campaign Fall, 1862



Van Dorn had telegraphed Price that for him to move to Price's aid he would need more men; Price refused (having little available to cover such a movement). Van Dorn then informed President Davis of the situation, parenthetically asking Davis for command of both his and Price's army. Davis, out of touch with Bragg, granted the request; on 11 September, Van Dorn was given command of all forces in the Mississippi/Tennessee area.

By this time, Price, completely unaware of the political developments, advanced his small force towards Iuka, a hamlet directly east of Corinth and astride the Memphis & Charleston rail line. Price now learned that Rosecrans had stripped his army of three divisions to aid Buell and had only two divisions available for the defense of Corinth.

At virtually the same time, Price received a telegram from Bragg urging him to continue northward and join him in Kentucky. Price hesitated; what should he do? The latter move was what Grant and Buell feared most. Their only option was to strike at Price before he had a chance to make that move. Thus, while Union General Stephen Hurlbut made some noise to the west to confuse Van Dorn, Rosecrans set out against Price at Iuka.

The result was almost a major travesty for the Confederacy. Price, still vacillating over what to do, had just learned on 18 September that Van Dorn was now in command. Instead of joining Bragg, as he was inclined to do, he made up his mind to return southward and wait for Van Dorn's reinforcements.

While loading his wagons on the afternoon of 19 September, Price was somewhat taken aback to learn that Ord's division of Rosecrans's force was rapidly approaching from the west. He immediately turned southward, only to run instead into another Union division, this one under Brig.-Gen. Hamilton. With two-thirds of his force to the north guarding against Ord's advance, only Little's division was available to counter the approach of Hamilton (with Stanley right behind him). The Union had Price in a pincer, but in time-worn Union fashion they could not close it. Little's division put up a stubborn resistance in mostly wooded terrain, and the Union could not quite get their entire force to combine in an attack.

Despite taking fewer losses than the Union (535 to 790), the Confederate army was forced to beat a hasty retreat southward from the bumbling Union army. The Confederate foray northward had been halted, and just two short days earlier Lee's first invasion of the North had been halted at Antietam. The tide had turned again.

The Battle of Corinth

Van Dorn, seemingly reborn by his reappointment to supreme command, swung into immediate action. Having been stung a second time at Baton Rouge, Van Dorn was not about to sit around and wait for another opportunity. He deployed along the Mississippi as much as he could spare of his moderate command, grabbed Mansfield Lovell's division of 8,000 men, and marched eastwards in late September, joining up with Price's army of two divisions (Maury's and

Hebert's, the latter replacing Little, who had been killed at Iuka), some 14,000 strong, at Ripley. Two sizeable cavalry brigades under Armstrong and William Jackson augmented a not inconsiderable artillery train of 60 guns. Van Dorn's plan? Attack Corinth, smash Rosecrans, and link up with Bragg.

Price, having just suffered smartly at the hands of Rosecrans, argued against such an advance, especially so soon after the escape from Iuka. Van Dorn's army was only some 23,000 men, and Rosecrans was known to have at least that number with additional troops available as reinforcements by rail. The town was supposedly strongly fortified (as it turns out this was only partly true), and the number of men needed to take that type of position was much greater than what Van Dorn possessed.

Price urged his commander to wait for a large number of reinforcements due any day from Jackson, Mississippi. These were actually about 13,000 exchanged prisoners from the Fort Donelson fiasco, and they were presently reorganizing for Van Dorn's use. Van Dorn refused; to wait would be folly. The strike must be made immediately, as some sort of surprise was important. Furthermore, the prize to be won — the obviously vital railroad crossings at Corinth — far outweighed the risk of waiting for the Jackson reinforcements. It was thought that Rosecrans, upon hearing of Van Dorn's arrival, would also be regrouping and adding to his strength.

After some dialogue, Price finally agreed with Van Dorn, and on 29 September Van Dorn's army of three divisions left Ripley and headed due north with the intention of confusing Grant and Rosecrans, as Ripley was some distance to the west of Corinth. Corinth, however, was their target, and Grant and Rosecrans began to reassess their position.

The countryside in and around northern Mississippi is not the best to campaign in. Although most of the ground is gently rolling, it is (or least was) covered with thick woods and occasional marshes. Roads were narrow and few, and the only clearings were the occasional farm. Streams were difficult to cross because their beds and high banks were usually composed of muddy, sticky clay. The same conditions pertained to the immediate vicinity of Corinth, except that a fairly large area directly around the town had been cleared away when the Confederates had first constructed their outer line of fortifications.

Rosecrans, who was following Van Dorn's movements avidly, now suspected that Van Dorn was feinting at Corinth and, instead, intended to move north to cut rail and disrupt communications. Actually, Rosecrans had little knowledge of the countryside outside Corinth because Grant, upon retiring to the south, had taken all his maps with him! Rosecrans was thus in the position of having a large enemy force stalking him (possibly), but not knowing exactly how, or whether, he might attack at all.

Forces and Fortifications

At the end of September, Rosecrans had under his immediate command at Corinth

four divisions: two (Stanley's and Hamilton's) were from Rosecrans's Army of the Mississippi; the other two (Davies' and McKean's) were nominally assigned to the Army of West Tennessee. There was a small "division" (really a brigade) of cavalry under Colonel John Mizner, plus some 80 guns.

In anticipation of a renewed Confederate attack, Halleck, back in the spring, had ordered that the fortifications around Corinth be rebuilt and augmented. Several miles north and northeast of the town, in a sharply defined semi-circle, there was a long stretch of breastworks and abatis which had fallen into disrepair while under the Confederates and even now were of little value, except that they impeded movement somewhat. However, directly outside these works was a stretch of felled timber some 400 yards wide over which any approaching Confederate force would gingerly have to pick its way. The outer works then would be a good first line of defense, if only to force the Confederates to develop their attack while reducing their movement. Rosecrans was also ordered to construct a second line of defense about a half a mile outside the city, covering the area that had been cleared of trees some months back.

By the end of September, the only progress that had been made was a series of unconnected redoubts used to house batteries, five of which were ready to the south and northwest. Rosecrans immediately ordered a sixth (Powell's redoubt) constructed directly north of the city, but made no effort to dig rifle pits or erect connecting breastworks. Even so, these redoubts housed some fearsome weaponry — heavy 30-pounder Parrotts and 8-inch howitzers which would later become the bulkwork of a desperate Union defense.

As Van Dorn began to maneuver north of the town, Rosecrans began to react. One division was sent southwest toward Kosuth, a probable area of approach for Van Dorn, while a second was sent northwest towards Chewalla. As rumors and sketchy reports abounded, Rosecrans gradually pulled in his four divisions to the immediate vicinity of Corinth and awaited further information. He knew that Van Dorn was planning something, but just what — and where — he could not tell. Although Mizner's cavalry was just reconnoitering Van Dorn's movements, it was simply impossible to guess where Van Dorn would go next. Rosecrans was, in essence, pinned by his indecision.

Further reports began to filter in; this time a spy sent a message that Van Dorn's objective was Bolivar, some 30 miles to the northwest. Then Mizner's cavalry patrols reported that a large force of Confederates appeared to have entered Chewalla, only 10 miles northwest of Corinth, but this information could very well have been indicative of a drive northward.

By the morning of 3 October, Rosecrans decided that it was time to do something, in case a move against Corinth did develop. He detached Oliver's brigade from McKean's division and sent it out on the road to Chewalla to see what it could find out. Meanwhile, he deployed his forces in a wide arc around the town. Hamilton was sent

directly north, straddling the Purdy Road, while Davies was deployed directly to his left covering the area just south of the outerworks between the two rail lines. McKean's division covered a wide area to the west and northwest with only two brigades (Oliver was out scouting), while Stanley and his 3,500 men were kept just west of the town as a mobile reserve.

By 9:00 a.m., Rosecrans had his troops in position, ready for any Confederate attack. He was just in time: Van Dorn, having finished his feinting two days before, rested his men for one day, and then, on the morning of the 3rd, began the 10-mile march towards Corinth.

First Encounter

About five miles from the town, Van Dorn's vanguard and Oliver's brigade collided. The latter assessed the situation immediately and beat a hasty retreat toward Corinth as Van Dorn ordered his divisions into battle formation for the approach. He sent Lovell to the right of the Chewalla Road, while Hebert and Maury moved to the left. The Confederate army gradually spread out into line, while Oliver's brigade raced back to Rosecrans with the news of the impending attack. Rosecrans ordered John McArthur (grandfather, by the way, of General Douglas McArthur) to move his brigade forward to support Oliver while the other divisions braced for the assault. At some time before noon, it came.

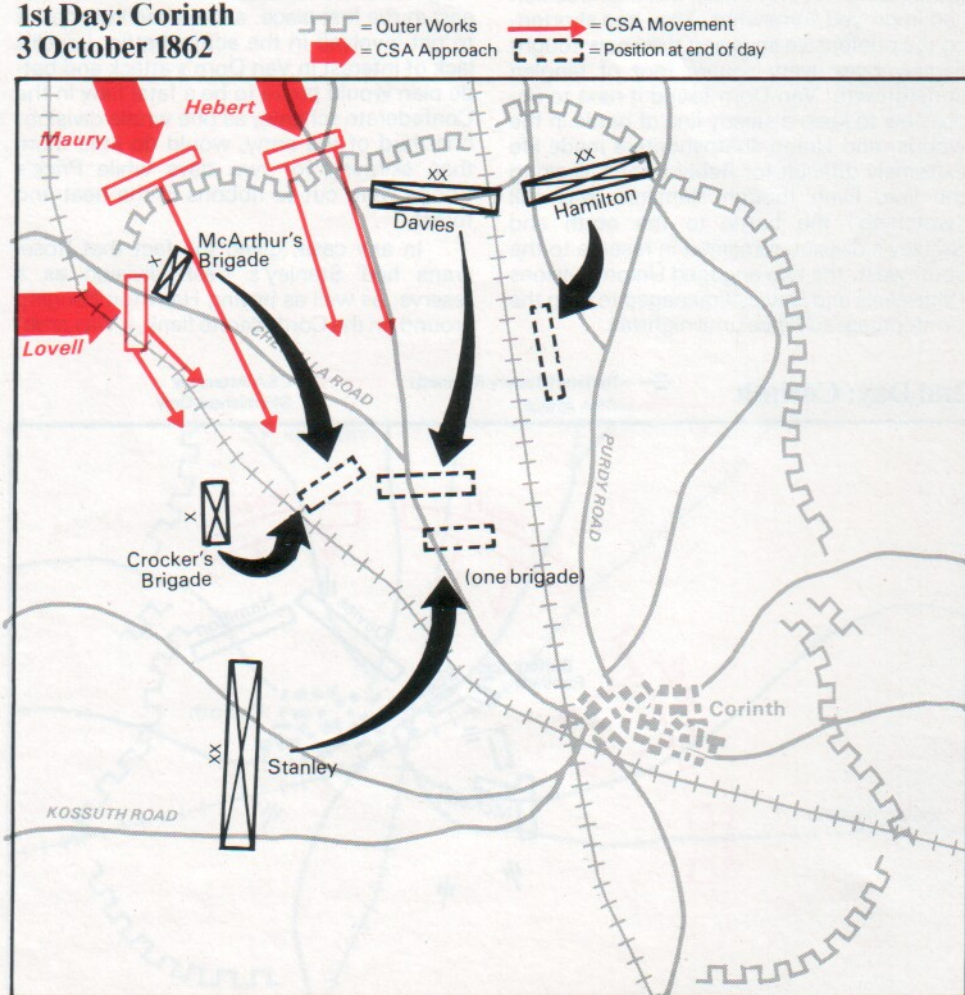
Lovell's division emerged from the woods first, somewhat to the Union left of the far end of the outerworks, an area that was pretty heavily wooded. While Lovell swung slightly to the southwest, both Maury's and Hebert's men charged out of the woods, stopping momentarily to assess the fallen timber. This obstacle did not stop the screaming Rebels, however, and dodging and jumping over the fallen wood, they stormed their way under heavy fire toward the Union first line of defense (see accompanying map).

Rosecrans had committed only half his force to the area under immediate attack, and that force was now under heavy assault from Van Dorn's entire army. Davies' division plus part of McKean's felt the brunt of the assault, and they were outnumbered at the barrier by at least 2-to-1.

By 1:30 p.m., the massive Confederate assault had achieved its aim; under the severe pressure of the rebel attack Davies' men broke and ran, losing several pieces of artillery in the process. McArthur's brigade, on the Union left, had joined Oliver's brigade and had managed to slow down Maury's attack here (Lovell was maneuvering around the Union left flank, albeit in desultory fashion), but Davies in the Union center had suffered fearsome casualties from Hebert's attack.

The entire Union line immediately fell back about half a mile, finally stopping to reform in the thick woods north of the town.

1st Day: Corinth 3 October 1862



The Confederates rushed to the pursuit, sensing a possible rout; however, with the temperatures in the mid 90° and the sun directly overhead, the attack ground to a virtual halt as both sides stopped for a brief respite — and some water.

Lost Opportunity

In the meantime, Rosecrans, informed of the developing strategic situation, realised that although Van Dorn had caved in his center, the Union right — Hamilton's division — was untouched and, with Hebert's headlong charge, was in the rear flank of the Confederate left! Rosecrans immediately ordered Hamilton to wheel and launch an attack on Hebert.

Now ensued a series of messages between Rosecrans and Hamilton in which Rosecrans, for some reason, insisted on being vague about what he wanted done while Hamilton insisted on being equally obdurate — possibly deliberately, although from the conflicting reports it is hard to tell — in interpreting them. Needless to say, as both sides gathered their second wind Hamilton simply stood in place, passing up a magnificent opportunity to smash the Confederate left. It was not until 5:00 p.m. that Rosecrans sent a message that was clear and concise, and by that time it was too late for Hamilton to do anything but move his division into position as night fell.

By mid-afternoon the battle had picked up again. This time, however, the Union troops were not only ready, but their position had improved somewhat. They had shortened their defensive lines and they now fought fiercely over every square foot of tangled undergrowth. Van Dorn found it next to impossible to keep a steady line of battle in the woods, and Union sharpshooters made life extremely difficult for Rebel troops all along the line. Even though Hamilton was still "watching" the battle to the north and Stanley's division remained in reserve to the southwest, the two engaged Union divisions (McKean's and Davies') managed to stop the Confederate advance until nightfall.



Trooper of the Virginia Cavalry, 1862

As the sun began to set, both sides felt the almost total exhaustion brought on by the blinding sun and lack of water and stopped in their tracks. Van Dorn considered continuing the attack, as Lovell's division was virtually unscathed. Lovell, however, had no intention of continuing any fight. He had not been too happy that Van Dorn had dragooned his division into following him east in the first place, and he had little desire to get involved in the actual battle. Lovell's lack of interest in Van Dorn's attack and battle plan would prove to be a fatal flaw in the Confederate scheme, as one whole division, one-third of the army, would do little more than skirmish for two days while Price's troops were cut to ribbons in the heat and forest.

In any case, given the fact that Rosecrans had Stanley's fresh division as a reserve, as well as having Hamilton hanging around on the Confederate flank, it was prob-

ably just as well that Van Dorn cut off any further assault. Under the cover of night, the Federal troops withdrew to Corinth to plan their second day of defense.

The Second Day

Van Dorn's plan for the second day assault was a good one. Unfortunately, Van Dorn was working under the misapprehension that Rosecrans had only some 15,000 men at his disposal, far less than Van Dorn's strength. Van Dorn seemed to be unaware that the Union had one fresh division in reserve, and he also seemed to have (conveniently) forgotten the two railroads and Grant's ability to use them to reinforce. So, while Mizner's small cavalry brigade acted as a shield against any Confederate information gathering, Rosecrans moved all four of his divisions — his full strength — into defensive positions around Corinth. Using the recently built battery redans — specifically batteries Powell, Robinett, Williams and Phillips — as key strongpoints, the Union army deployed in a huge semi-circle around Corinth, from the old outer works to the east to the battery redans to the south and west of the town. Hamilton's fresh division held the far right, while McKean and the unused Stanley guarded the west.

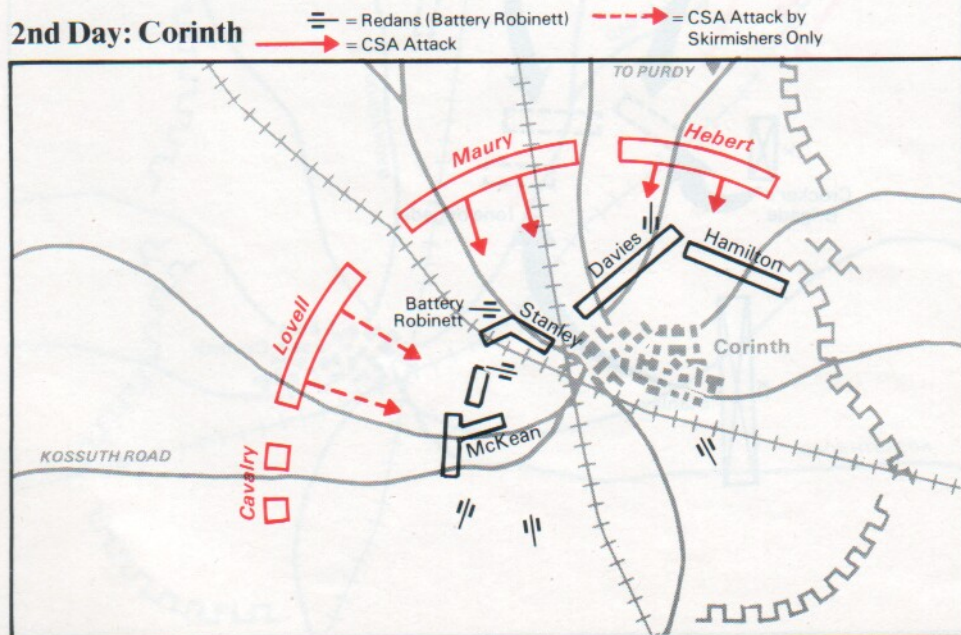
Unfortunately, in the center of this ring stood Davies' division, which had taken quite a mauling on the previous day and was in poor condition for any additional fighting. Davies' position opposite the heart of the Confederate attack proved an almost fatal flaw in Rosecrans' defense, as Van Dorn was planning a morning push that would hinge upon Confederate success against the Union center (see accompanying map of the second day of battle).

Van Dorn's plan consisted of deploying his troops some hours before daybreak in a wide battle line encircling the town. Hebert would take the Confederate left, Lovell the right, and Maury would assume the center. The cavalry brigades of Jackson and Armstrong would guard the Rebel right against any developments in that area. (The Confederate left — and the Union right — was guarded not only by the old outer works, but by a large patch of marsh and muddy undergrowth several hundred yards wide, all of which precluded any movement in that area.)

At dawn, Hebert was to attack the Union right, followed by a similar advance by Lovell on the Union left. Both sides were to roll up the Union flanks (Van Dorn still estimated he outnumbered Rosecrans by 50%!) and then Maury was to deliver the hammer blow against the center, smashing the Federal army and driving it out of Mississippi. As a prelude to the assault, Van Dorn ordered a pre-dawn bombardment of the town by about 15 Rebel guns from the west.

The Trouble with Estimates

The plan was admirable, tactically. Unfortunately, Van Dorn's estimate of the situation was — as usual — wrong and, with only one exception, the entire plan rapidly fell apart. At about 4:15 a.m., the Confederate batteries began to rain shell on the town and the troops immediately around it. After about 10 minutes of firing, mostly with little



effect, the long-range, heavy Federal artillery opened up in answer to the Confederates. Within a half-hour the more powerful Union guns had silenced Van Dorn's batteries, and the first phase of his plan quickly dissipated into failure.

As the day began to dawn, it was soon apparent that 4 October would, if anything, be hotter than the previous day. (Rosecrans stated that the temperature by mid-morning was 94° in the shade!) The Union troops, many of them lying prone in anticipation of the coming assault, watched and waited.

And waited...and waited. Hebert was to have led the Confederate attack with an assault on the Union right at daybreak. By 7:00 a.m., however, no one had moved. Van Dorn sent messengers to determine what was wrong; they all reported that Hebert was nowhere to be found. With Van Dorn close to apoplectic seizure, Hebert strolled into Van Dorn's tent at about 7:15 to announce that he was too ill to lead his division. Van Dorn immediately appointed brigadier Martin Green to temporary command. Green, however, seemed a bit overwhelmed by his sudden elevation. After the battle, one of his regimental officers stated that Green not only seemed to be "bewildered," but he was also "ignorant of what was to be done." At 8:00 a.m. the Confederates had yet to launch their assault against the Union right.

On the Rebel left Lovell, who was to follow Hebert with frontal assault against the Union left, also remained absent from front-line duty. Although having been ordered to the attack the previous evening, and despite being urged by his subordinates to direct the battle and order the assault, Lovell remained in his tent refusing to issue any battle orders. Lovell's division remained out of contact for most of the second day as Price's boys bore the full fury of the Union army.

Fog of Battle

In the meantime, Maury, in the center, was oblivious to all these developments. And by 9:30, thinking that Hebert and Lovell had carried out their plans, his division moved to the assault. As Maury's brigades were advancing towards a gradually narrowing frontage, the troops were forced to march in dense ranks, as opposed to the normal line of battle. Their maneuvers brought them opposite Davies' weary brigades, all of whom were guarding the center — and the immediate approaches to the town of Corinth itself.

Davies' troops had borne the brunt of the first day's fighting; they were depleted and exhausted. As they looked over the battlefield, they now saw not one but two Confederate divisions heading toward them (Green had finally been told what he was supposed to do and had belatedly joined Maury's advance). Several hundred yards from the Union line the two divisions drew up into full battle line and, with a piercing yell, charged over the flat, featureless ground toward Davies.

Maury's left and Green's (Hebert's) right slammed into Davies at the same time. The result was an immediate rout, as the Union troops broke and ran back through town. With a cry of exultation, the Rebels poured through the hole after the fleeing Union

soldiers right into the heart of Corinth, sweeping away all of Rosecrans' artillery reserve, in park in the town square, and rolling in a giant wave up to within a hundred yards of Rosecrans' HQ itself. It appeared that Van Dorn's long sought victory was about to be won by this tremendous charge, but appearances were indeed deceiving.

While the onrushing troops of Maury and Green had created a huge break in the Union line, the flanks had stood their ground. Where Hamilton had hesitated the previous day, no such delay was taken now. Both Hamilton and Stanley, seeing the Confederates rush by, ordered their men to wheel and fire into the passing Rebel columns. The result was now a withering crossfire directed at a stunned Confederate column. When Davies managed to rally his men and return them to battle, the Confederates were faced with fire from three sides.

Within a few short minutes of having seemingly gained a smashing victory, the Rebel soldiers wavered under the blistering fire and then melted away, many surrendering on the spot while hundreds of others died in a hail of Yankee bullets. Maury, tragically, refused to believe the truth of what he had just seen and immediately ordered Cabell's brigade to the assault a second time. Cabell could not believe his ears, his Arkansas troops having just narrowly escaped from the seeming jaws of death. Reluctantly, Cabell issued the orders for a second charge and with tears streaming down his face, led his men forward. At a full run, his brigade swept up to the Union line, took a ferocious volley of fire, and then broke, leaving more than one-third of their force behind.

Doubt and Redoubt

Maury was not finished yet, however. He still had Moore's brigade on his right flank, and he now ordered Moore to send his men in against the regrouping Federals. The object of the assault was the left of where Davies' division had previously been, which was now held by Stanley's right. Stanley had maneuvered slightly to the south to take advantage of the crossfire situation, and the position could have been vulnerable except that it was guarded by Battery Robinett, a redan that had to be taken for the Confederate charge to have any effect. Maury realized this. Unfortunately, so did Stanley.

Swiftly moving into perfect battle line, the brigade marched steadily forward, led by the commanding officer of the 2nd Texas regiment, Colonel William Rogers, on horseback. Rapidly they approached to within 100 yards of the redan, but the cost to do so was great. Battery Robinett consisted of three heavy siege-type guns — two 30-pounder Parrots and an 8-inch howitzer. With members of the 1st US Infantry acting as crew, the guns were loaded with shot and canister and fired double fire. The onswEEPing ranks of Confederates were ripped to shreds, but they still kept coming.

Hurling themselves over the walls, the Rebels streamed into the redan, routing the few crewmen still manning the guns. Rogers, still in the lead, grabbed the regimental flag and hoisted it in triumph — only to be shot from his horse and killed. As if that were a signal, four Union regiments

stationed behind the battery in a quasi-ambush, rushed out from their positions and caught Moore's brigade in another crossfire. Confederates began to fall like straws in the wind, and within a few minutes most of the brigade had either routed or surrendered. It was the concluding Confederate charge of the battle.

By noon, Van Dorn was in full retreat. Price's army was shattered; Maury's division had suffered over 50% casualties and Hebert had lost some 1,500 men from his division. Lovell's losses of 500 came mostly from the first day. Total Confederate losses for the entire battle were over 4,800, or almost 20% of total strength. The Rebels had taken a ferocious pounding.

Rosecrans' army, in the meantime, lost only 2500 men, and the majority of these were on the first day. The opportunity to pursue the devastated Rebel army was obvious, but Rosecrans' men were too worn out from fatigue and the heat to even attempt such a chase immediately. The arrival of General McPherson with his five-regiment brigade late that afternoon (Grant's reinforcements from the southeast) provided Rosecrans with some fresh troops, and early the next morning he began to chase the weary Confederates northwest toward Chewalla. He almost caught them, too, when 5,000 more of Grant's reinforcements under Hurlburt and Ord stopped Van Dorn from crossing the Hatchie River at the Hatchie Bridge. However, Armstrong's cavalry managed to find another crossing downstream that was unknown to the Federals, and Van Dorn's army slipped across the river late on the night of the 5th and headed south.

For the next several days he managed to outdistance Grant's pursuit column, and when Van Dorn had reached deep into southern Mississippi Grant felt that it would be futile to follow without sufficient supplies. It mattered little, because Van Dorn's command was no longer a factor in the field.

Aftermath

Whether or not Van Dorn should have attempted his assault on Corinth is one of those questions that can be answered only in light of the situation and personalities. Van Dorn was obviously a man with a mission. His passion for that one "big" victory — especially after his defeats at Pea Ridge and Baton Rouge — led him to take risks that perhaps a less compulsive general would not have overlooked. Whereas at Pea Ridge he had run into bad luck and some incompetent tactical blundering on the part of his subordinates, at Corinth he simply took a bad gamble: he played the wrong number and lost.

Hindsight tells us that Van Dorn's attempt to smash Rosecrans at Corinth was doomed to failure. He did not outnumber Rosecrans as he had thought at the end of the first day, and his failure to wait for the Jackson reinforcements was a poor decision. In fairness, though, it should be added that Grant was equally ready to reinforce Rosecrans, as is shown by the quick arrival of McPherson and the availability of Ord's division. Furthermore, despite his adroit maneuvering on the days preceding the actual battle, movements which truly had

[continued on page 53]

BATTLE OF CORINTH ORDER OF BATTLE

CONFEDERATE FORCES Army of West Tennessee



Maj. Gen. Earl Van Dorn

Army of the West

Maj. Gen. Sterling Price

HEBERT'S DIVISION

Brig. Gen. Louis Hebert

First Brigade

Col. Elijah Gates

16th Ark, 2nd Mo, 3rd Mo, 5th Mo,
1st Mo Cav, Wade's Battery.

Second Brigade

Col. W. Bruce Colbert

14th Ark, 17th Ark, 3rd La, 40th Miss,
27th Tex Cav*, 3rd Tex Cav*, Clark's Battery,
Saint Louis Battery.

Third Brigade

Brig. Gen. Martin E. Green

7th Miss Btln, 43rd Miss, 4th Mo, 6th Mo,
3rd Mo Cav*, Guibor's Battery,
Landis' Battery

Fourth Brigade

Col. John D. Martin

37th Ala, 36th Miss, 37th Miss, 38th Miss,
Lucas' Battery

MAURY'S DIVISION

Brig. Gen. Dabney H. Maury

Moore's Brigade

Brig. Gen. John C. Moore

42nd Ala, 15th Ark, 23rd Ark, 35th Miss,
2nd Texas, Bledsoe's Battery

Cabell's Brigade

Brig. Gen. W.L. Cabell

18th Ark, 19th Ark, 20th Ark, 21st Ark,
Jones's Ark Bn, Rapley's Ark Bn
(sharpshooters), Bryan's Battery

Phifer's Brigade

Brig. Gen. C.W. Phifer

3rd Ark Cav*, 6th Texas Cav*, 9th Texas
Cav*, Stirman's Sharpshooters,
McNally's Battery

ARMSTRONG'S CAVALRY

Brig. Gen. F.C. Armstrong

Wirt Adam's Regiment, 2nd Ark Cav,
2nd Mo Cav

RESERVE ARTILLERY

Hoxton's Battery, Sengstak's Battery

Army of the District of Mississippi

FIRST DIVISION

Maj. Gen. Mansfield Lovell

First Brigade

Brig. Gen. Albert Rust

4th Ala Bn, 31st Ala, 35th Ala, 9th Ark,
3rd Kent, 7th Kent, Hudson's Battery

Second Brigade

Brig. Gen. J.B. Villepigue

(exact composition of this brigade is
uncertain) 1st Ala, 1st Confederate Bn,
33rd Miss, 39th Miss, La Zouave Bn,
McClung's Battery

Third Brigade

Brig. Gen. John S. Bowen

6th Miss, 15th Miss, 22nd Miss, Caruther's
Miss Bn, 1st Mo, Watson's Battery

JACKSON'S CAVALRY

Col. William H. Jackson

1st Miss Cav, 7th Tenn Cav

* = Fought as infantry during the battle.

UNION FORCES



Maj. Gen. William S. Rosecrans

Army of the Mississippi

SECOND DIVISION

Brig. Gen. David S. Stanley

First Brigade

Col. John W. Fuller

27th Ohio, 39th Ohio, 43rd Ohio, 63rd Ohio,
Jen's III Cav, 3rd Mich Light Artillery, 8th
Wisc Light Artillery, 2nd US Artillery Battery F

Second Brigade

Col. Joseph A. Mower

26th Ill, 47th Ill, 5th Minn, 8th Wisc,
2nd Iowa Light Artillery

THIRD DIVISION

Brig. Gen. Charles S. Hamilton

First Brigade

Brig. Gen. Napoleon B. Buford

48th Ind, 59th Ind, 5th Iowa, 4th Minn,
26th Mo, 11th Ohio Light Artillery,
1st Mo Artillery Battery M

Second Brigade

Brig. Gen. Jeremiah C. Sullivan

56th Ill, 10th Iowa, 17th Iowa, 10th Mo, Co F
24th Mo, 80th Ohio, 6th Wisconsin Artillery,
12th Wisconsin Artillery

Cavalry Division

Col. John K. Mizner

7th Ill Cav, 11th Ill Cav, 2nd Iowa Cav,
7th Kan Cav, 3rd Mich Cav, 5th Ohio Cav

Unattached

64th Ill (Yates Sharpshooters), 1st US
Infantry (manned siege guns)

Army of West Tennessee

SECOND DIVISION

Brig. Gen. Thomas A. Davies

First Brigade

Brig. Gen. Pleasant A. Hackleman

52nd Ill, 2nd Iowa, 7th Iowa, Union Brigade

Second Brigade

Brig. Gen. Richard J. Oglesby

9th Ill, 12th Ill, 22nd Ohio, 81st Ohio

Third Brigade

Col. Silas D. Baldwin

7th Ill, 50th Ill, 57th Ill

Artillery

1st Mo Light Artillery batteries D, H, I, and K

Unattached

14th Mo (Western Sharpshooters)

SIXTH DIVISION

Brig. Gen. Thomas J. McKean

First Brigade

Brig. Gen. John McArthur

21st Mo, 16th Wisc, 17th Wisc

Second Brigade

Col. John M. Oliver

Ford's Ill Cav, 15th Mich, 18th Mo,
14th Wisc, 18th Wisc

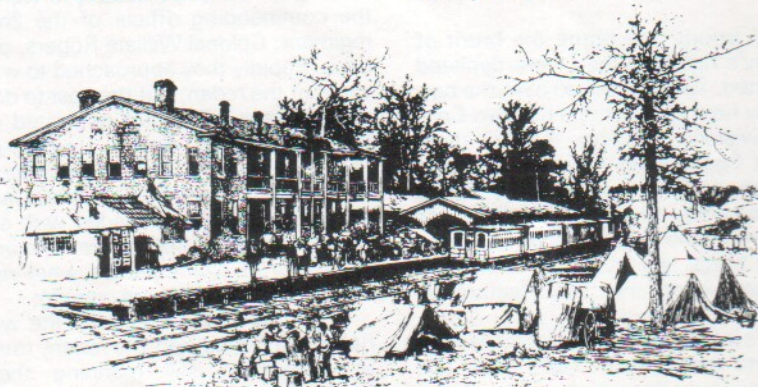
Third Brigade

Col. Marcellus M. Crocker

11th Iowa, 13th Iowa, 15th Iowa, 16th Iowa

Artillery

Battery F 2nd Ill Artillery, 1st Battery Minn
Artillery, 3rd Battery Ohio Artillery, 5th
Battery Ohio Artillery, 10th Battery Ohio
Artillery, Battery Robinett, Battery Williams,
Battery Phillips



Railway Station and Tishomingo Hotel near Corinth

Feedback Questions

S&T nr. 87, published June/July 1981

How to use the Feedback Response Card: After you have finished reading this issue of *S&T*, please read the Feedback questions below, and give us your answers by writing the answer numbers on the card in the response boxes which correspond to each question number. See enclosures for card.

What the Numbers Mean: When answering questions, 0 always means *no opinion* or *not applicable*. When the question is a yes or no question, 1 means *yes* and 2 means *no*. When the question is a rating question, 1 is the *worst* rating, 9 is the *best* rating, 5 is an *average* rating, and all numbers in between express various shades of approval or disapproval.

1-3. No question

The following questions ask you to rate the articles in this issue on a scale of 1 (poor) through 9 (excellent); 0 = no opinion.

4. Desert Fox (game)
5. Desert Fox (article)
6. Jackson at the Crossroads (article)
7. The Battle of Corinth (article)
8. Outgoing Mail
9. For Your Information
10. Briefings 1
11. Briefings 2
12. Briefings 3
13. Games Rating Chart
14. This issue overall
15. Was this issue better than the last one?
16. Assume that you don't subscribe to *S&T*. Would the quality of this issue alone motivate you to subscribe?
17. For how many issues have you had a continuous subscription to *S&T*? 0 = I don't subscribe; 1 = This is my first issue; 2 = This is my second or third issue; 3 = This is my fourth or fifth issue; 4 = This is my sixth issue; 5 = This is my seventh issue; 6 = This is my eighth through twelfth issue; 7 = This is my thirteenth through eighteenth issue; 8 = This is my nineteenth or subsequent issue; 9 = I am a *Lifetime Subscriber* to *S&T* (regardless of number of issues received).
18. Did you send in the feedback card for your last issue of *S&T*?
19. Your age: 1 = 13 years old or younger; 2 = 14-17; 3 = 18-21; 4 = 22-27; 5 = 28-35; 6 = 36 or older.
20. Your sex: 1 = Male; 2 = Female.
21. Education: 1 = 11 years or less; 2 = 12 years; 3 = 13-15 years; 4 = 13-15 years and still in school; 5 = 16 years; 6 = 17 years or more.
22. How long have you been playing conflict simulation games? 0 = less than a year; 1 = 1 year; 2 = 2 years... 8 = 8 years; 9 = 9 or more years.
23. What is the average number of hours you spend playing simulation games each month? 0 = none; 1 = 1 hour or less; 2 = 2-5 hours; 3 = 6-9 hours; 4 = 10-15 hours; 5 = 16-20 hours; 6 = 21-25; 7 = 26-30; 8 = 31-40; 9 = 41 or more hours.
24. How many simulation games (of all publishers) do you possess? 1 = 1-10; 2 = 11-20; 3 = 21-30; 4 = 31-40; 5 = 41-50; 6 = 51-60; 7 = 61-70; 8 = 71-80; 9 = 81 or more.
25. What level of complexity do you prefer in games? Rate your preference on a 1-9 scale, with higher numbers indicating increased complexity. Use the following games as guidelines. 4-5 = *Chickamauga*; 7 = *Terrible Swift Sword*; 9 = *Air War*.
26. Pick the *one* area about which you would most like to see games and articles done: 1 = Ancient and Dark Ages (3000 BC to 1000 AD); 2 = Middle Ages and Renaissance (1000 AD to 1790); 3 = Napoleonic (1790 to 1830); 4 = American Civil War (1830 to 1900); 5 = World War I (1900 to 1930); 6 = World War II (1930 to 1945);

7 = Modern (1945 to present and near future hypothetical); 8 = Science Fiction; 9 = Fantasy

27. Overall, which of the following features in the past few issues of *S&T* are most in need of change (to make them better through changes in quality, quantity, format, etc.)? 0 = don't change anything; 1 = the game; 2 = the lead article, on the same subject as the game; 3 = the second major article; 4 = Outgoing Mail; 5 = Briefings; 6 = For Your Information; 7 = Games Rating Chart; 8 = Feedback; 9 = some other aspect of the magazine that bugs you.

28. How did you purchase this copy of *S&T*? 1 = by subscription; 2 = by mail as a single copy; 3 = in a store; 4 = it was passed along to me by a friend; 5 = other means (please describe).

29. If a month has passed since you last ordered something from SPI, please answer the following questions about the service. 1 = I ordered a game(s) and received my order complete within three weeks of sending it in; 2 = I ordered a game and received my order complete within three weeks of sending it in, but with a game part(s) missing from one of the games; 3 = I ordered a game and received my order within three weeks, but one of the games was the wrong game; 4 = I didn't receive my order within three weeks, but *did* receive out of stock notice; 5 = I ordered a pre-publication sale game and didn't expect to see it for a while; 6 = Over three weeks have passed, and I have still received no game or notification; 7 = My last order was for a subscription; 8 = My last order was for a non-subscription, non-game item and was handled all right; 9 = My last order was for a non-subscription, non-game item and I consider service to have been unjustifiably slow or otherwise unsatisfactory.

30. Please indicate the primary reason for not ordering through SPI's mail order service for items other than subscriptions. 0 = Do use SPI's mail order service regularly; 1 = Don't want SPI products other than *S&T*; 2 = Never buy anything by mail order (from any company); 3 = Stopped using SPI's mail order service because of long delay in receiving products (game not being sent out according to published dates); 4 = I have all the games I can handle; 5 = Products too expensive; 6 = Prefer to buy in store; 7 = Haven't seen anything worth purchasing but still may buy; 8 = Product damage due to shipment (on part orders) has discouraged me from ordering by mail; 9 = other.

We would like to find out what problems various publishers (including ourselves) are having with getting all the right parts in a game. If you have bought a game from one (or more) of the following publishers within the last 12 months, please answer the question with the appropriate response. Consider only the last game you bought. 0 = Have not bought a game from this publisher in the last 12 months; 1 = bought a game retail, no problem; 2 = bought a game direct mail, no problem; 3 = bought the game direct mail and it had a defective or missing component; 4 = bought the game retail and it had a defective or missing component; 5 = bought a game direct mail and received the wrong game.

31. Avalon Hill

32. SPI

33. GDW

34. Yaquinto

35. Would you like to see role-playing adventures rated in *S&T* Feedback and then listed in the Games Rating Chart? 1 = yes; 2 = no. 0 = no opinion.

36. Would you like to see computer games rated in *S&T* Feedback and then listed in the Games Rating Chart? 1 = yes; 2 = no. 0 = no opinion.

37. Do you own or plan to buy one of the following microcomputer systems? 0 = I have no interest in microcomputers or microcomputer gaming; 1 = I own an Apple II; 2 = plan to buy an Apple II; 3 = own a Radio Shack TRS-80; 4 = plan to buy a TRS-80; 5 = own an Atari 800; 6 = plan to buy an Atari 800; 7 = own some other microcomputer; 8 = plan to buy some other microcomputer; 9 = have no plans to buy a microcomputer because I already have access to a microcomputer.

Questions 38 through 59 ask about your income and possessions. Since feedback cards are anonymous, we hope you'll be willing to help us develop statistical information to help us attract advertisers; if you'd rather not, simply respond "0" for your answers. Thanks.

38. Your individual personal income: 1 = less than \$5000; 2 = between \$5,000-10,000; 3 = between \$10,000-12,500; 4 = \$12,500-15,000; 5 = \$15-17,500; 6 = \$17,500-20,000; 7 = \$20-22,500; 8 = \$22,500-25,000; 9 = over \$25,000.

39. Your total household income: 1 = less than \$10,000; 2 = between \$10-15,000; 3 = \$15-17,500; 4 = \$17,500-20,000; 5 = \$20-22,500; 6 = \$22,500-25,000; 7 = \$25-30,000; 8 = \$30-40,000; 9 = over \$40,000.

Question 40 through 59 ask about purchases you've made during the past twelve months or plan to make. Please answer the questions with the statement that is most correct: 1 = I have bought such an item within the past twelve months; 2 = someone else in the family or house has bought this item within the past twelve months; 3 = I plan to purchase this item in the near future; 4 = someone in the family/house plans to purchase this item in the near future; 5 = there is no intention of buying this item.

40. Hand-held electronic game

41. Television video game

42. Video cassette recorder

43. Video disk player

44. Hand-held electronic calculator

45. Digital or LED clock radio

46. Digital or LED watch

47. Portable color television set

48. Console color television set

49. Polaroid-type camera

50. Instamatic-type camera

51. 35mm camera

52. Super 8-type movie camera

53. Videotape camera

54. Hi-fi or stereo component system

55. Hi-fi or stereo modular system

56. Cassette tape recorder/deck

57. Radio/speakers/tape deck for car

58. Portable electric typewriter

59. Food processor

60. Do you belong to a record/tape club?

61. Do you belong to a videotape club?

62. Do you belong to a military book club?

63. Do you belong to a science fiction book club?

64. Do you belong to a mystery book club?

65. Do you belong to a history book club?

66. Do you belong to a theatrical book club?

67. Do you belong to a literary/publisher book club?

68. Do you belong to a book-of-the-month club?

69. Do you belong to a computer book club?

Please rate the following games on a 1 to 9 scale with 1 indicating a particularly strong dislike for a game, and 9 an especially favorable opinion. Please rate only those games which you have played (against an opponent or solitaire) at least once in the last year. If you have not played the game in the last year, please do not rate it (respond "0" in the space). All games listed are SPI published, unless otherwise specified.

70. Cedar Mountain

71. Ragnarok

72. DeltaVee

73. Task Force

74. Sword and the Stars

75. Dawn of the Dead

76. Guns of August (AH)

77. The Fall of France (GDW)

Rate the following game proposals on a scale of 1 to 9, with 1 indicating very little inclination to buy the game if published and 9 indicating a definite intention to purchase if it is published.

78. **Shuttle Wars.** By 1990, the US and possibly USSR space shuttles may be operational. These space vehicles will be involved in launching and recovering most military satellites, and may become involved in special reconnaissance and satellite interdiction. *Shuttle Wars* posits combat between the superpowers, and focuses on orbiting weaponry. The game will include not only the mechanics of space combat, such as fuel requirements for orbital changes, but will also include tactical and strategic considerations, from determining whether or not to blow apart an enemy's disabled spacecraft to the decision to protect either early warning, communications, or recon satellites. The game system would cover the various weapons packages (e.g., particle beam weapons, fire-and-forget missiles, lasers, etc.), fuel requirements, orbital bombardment, and ramming/boarding an opponent's vessel. A new fast-play system, incorporating

movement and combat resolution, will be specially tailored to this kind of warfare. *Shuttle Wars* would contain a 22" x 34" map, 200 counters, and detailed rules. To sell for \$12.

79. The Korean War, 1950-51. A re-design of *Korea*, covering the same time period, but with a more accurate map and order of battle on a regiment and brigade scale. The game would use a variation of the *Victory in the West* system, in that unit strengths would be unknown and variable. Rules would cover the different doctrine and tactics of the UN, Imnun Gun, and Chinese armies, with emphasis on the supply problems of each side, UN airpower, UN amphibious tactics, and UN naval power. A key to the game would be the political system, which would cause shifts in strategies and victory conditions, as well as triggering Chinese and Soviet intervention. A UN peace treaty table (as in *Berlin '85*) would also be used. The game would recreate not only the operational aspects of a limited war, but how these strategies were shaped by political changes. Thus, the UN player might be able to invade China. Would include 400 counters and one 22" x 34" game map. A possible *S&T* game to sell for \$12.

80. Gallipoli. Considered by many historians to be the most inept operation in modern British military history, the Gallipoli campaign was an attempt by the allies in World War I to create a safe sea link with Russia. This game would show the potential of this fascinating amphibious assault that could have changed the course of the war. Operational in scale, with battalion and regiment sized units, one small scale and one large scale map would show the Gallipoli peninsula and the areas around Constantinople. The rules would cover shore bombardment, amphibious invasions, logistics, submarines, mine warfare, coast defenses, and even the primitive but significant use of airpower. Scenarios will cover crucial battles, and a Campaign game will cover the whole campaign with a "strategic turn" system to pass over weeks of relative inactivity. Command control will play a major part, as will seapower; individual ships will be represented. *Gallipoli* will include two 22" x 34" maps, 400 counters, and will sell for \$18.

81. Modern Battle Quad Redux. The two *Modern Battles Quads* offered in 1975 and 1977 covered extremely popular subjects and were very well received. With the passage of time, however, the game system has become somewhat obsolete and much has changed with respect to both weapons systems and OB's. *MBQ Redux* will offer a thorough reworking of three of the most popular *MBQ* titles and add a brand new title to round out the quad. The titles to be included are Bundeswehr, Mukden, Yugoslavia, and Trondheim, the latter covering a Soviet invasion of Norway with mechanized, airborne, and amphibious forces and a NATO defense with Norwegian, British, and US troops, including the US Marine brigade recently earmarked for this theatre. The game system would be the state of the art version developed so successfully in *Berlin '85*. All of the maps, counters, and OB's would be constructed from scratch, providing for a fresh approach to the topics, while still retaining the simplicity and ease of play of the old games. Would include four 22" x 17" game maps, 400-600 counters, and would sell for \$25.

82. Modern Battles Deluxe. This package would take the *MBQ Redux* proposal two steps further. First, rather than publish a single quad, we would publish a whole series of modern battles games to be sold in one package. Second, mapsheets would be increased to full size 22" x 34" versions where the topic warranted an increase, and counters would be backprinted to allow for step reduction or hidden movement. The titles to be covered would include: (1) *Bundeswehr*, one 22" x 34" mapsheet and 200 counters; (2) *Wurzburg*, one 17" x 22" mapsheet and 100 counters; (3) *Yugoslavia*, one 17" x 22" mapsheet and 100 counters; (4) *Mukden*, one 22" x 34" mapsheet and 200 counters; (5) *Trondheim*, one 17" x 22" mapsheet and 100 counters; (6) *Abadan*, one 17" x 22" mapsheet and 100 counters. The games would emphasize ease and brevity of play, but they would vary in size sufficiently to allow players to tailor their playing choices to the amount of time available, while still offering a whole library to choose from. By offering a series of this size in one package, we can offer a great deal of optional chrome for advanced play and put a lot of R&D effort into exclusive rules, maps, and OB's while still presenting bite sized games to our customers. You get a monster game without the monster. The *MBQ Deluxe* package would sell for \$40.

83. The Star and the Crescent. This game package will present in quad format four major battles of the Arab-

Israeli wars, using the state of the art version of the *Modern Battles* game system which was so well received in *Berlin '85*. *Jerusalem* would cover the '67 West Bank campaign using a full size 22" x 34" map and 200 counters. *Gaza Strip* will cover the ferocious border fighting of the opening days of the '67 Sinai campaign, using a 17" x 22" map and 100 counters. *Golan* will cover the initial Syrian assault of the October War, using a 17" x 22" map and 100 counters. *Third Army* will cover both the Israeli counterattack across the Canal and the subsequent encirclement of the Egyptian Third Army, using a full size 22" x 34" map and 200 counters. As with previous *Modern Battles* games, each game would share a common set of Standard Rules and possess its own set of exclusive rules with detailed chrome. All of the games would be designed from scratch and take advantage of the latest research, with the design emphasis falling on ease of play and short playing times. To sell for \$40.

84. Cannon and Sail. Ship-to-ship combat in the age of fighting sail. *Cannon and Sail* would be a vastly expanded version of the *S&T* 85 game, *Fighting Sail*, and would include 50 to 60 scenarios in addition to those provided in the original game plus one or more additional maps (including "terrain" maps) and counters representing virtually every ship which participated in a major engagement during the Wars of the Revolution (and some previous wars). Scenarios would include: the "Moonlight Battle," the Battle of the Chesapeake Capes, Battle of the Virginia Capes, the five battles of Suffren's Indian Ocean campaign, the Battles of the Saintes, the Glorious First of June, Cape St. Vincent, Camperdown, the Nile, Copenhagen, Trafalgar and more. Special rules for sounding, narrow passage, shore defenses, fire ships, anchoring and other elements not covered in the original would be included. The complete game would consist of 400+ one-inch by half-inch counters, 400 half-inch counters, two to five 22" x 34" mapsheets, and 48+ pages of rules, scenarios and support material; it would come packaged in a 4" box with trays for \$40.

85. Blue and Gray Deluxe Library of Games. A beer and pretzels monstergame consisting of 12 to 15 Civil War battles, each using an updated version of our Standard Rules for the Blue and Gray system and consisting of a 17" x 22" folio mapsheet, 100-200 back printed die-cut counters and 4 to 8 pages of Exclusive Rules. Though many of the games included would be already existing titles, each would be rebalanced (and, in at least two cases, entirely redesigned) for inclusion in this package. In addition, 3 to 6 entirely new games (never before published) would be included in the package. Games included in the package would be chosen from among the following battles: Antietam, Gettysburg, Chickamauga, Shiloh, Chattanooga, Fredericksburg, Chancellorsville, The Seven Days, Battles of Bull Run, The Wilderness, Murfreesboro, Corinth, Perryville, Champion's Hill, Spotsylvania and Cold Harbor. The entire package would consist of 12 to 15 22" x 17" mapsheets, 1600-1800 counters, and 48+ pages of rules, scenarios and support material; it would come in a 4" box with tray for \$40.

86. The Central Front. A single package drawing together all of the games of the Central Front series either in print or planned (*Hof Gap*, *Fifth Gap*, *BAOR*, and *North German Plain*) together with the six additional maps of the front, additional markers, counters for the units not portrayed in the existing games which would participate in an extended battle (more Class II Soviet divisions, Reforger units, French troops, etc.), and a book of scenarios, with additional rules for special situations and naval and air rules (counters for which would also be provided). Changes in the counters, maps, set-ups, etc., in the existing games (to reflect better information or changes in TO&E or doctrine) would also be made as necessary. The finished product would include ten 22" x 34" maps of the Central Front, 2400 counters, 32 pages of Standard Rules and 48 pages of Exclusive Rules, scenarios and support material for two dozen scenarios and a Campaign Game. Packaged in a 4" box with trays for \$50.

87. The Central Front. Same as question 86 except that the maps for *Hof Gap*, *Fifth Corps*, *BAOR* and *North German Plain* would not be included (being published separately). Packaged in a 4" box with trays for \$40.

88. Battle Cry! This game would be a solitaire, tactical simulation of squad action during World War II. Using the popular *Voyage of the Pandora* paragraph-story game system, *Battle Cry!* would follow the action of an American squad as it makes its way through the European battle front. The player would equip the squad and prepare them for D-Day; when they are ready to hit the beaches, the player consults paragraphs which indicates the

deployments and actions of the enemy the squad faces. Depending on the player's choices, the squad will either succeed and keep moving or possibly be reduced or destroyed altogether. *Battle Cry!* would contain eight 8½" x 11" tiles showing beaches, forests, towns, open fields and other terrain, 200 playing pieces (including the squad, enemy units, armored vehicles, weapons, and special information markers), 8 pages of rules and 24 pages of interlooped story paragraphs. A possible *S&T* issue game to sell for \$12.

Second Edition Games. Over the years *SPI* has produced a large number of excellent simulations which have been pushed into the background by newer, flashier games. A "face lift" involving research revision, state-of-the-art game mechanics, improved rules composition, and more attractive and utilitarian graphics could turn these classics into the latest word on their respective subjects. Each game would remain close to the original in design intent, complexity level, and component value. We are considering the following titles (numbers 89 through 94) for this treatment. Please rate each one separately.

89. Patrol. Man-to-man combat in the 20th Century. The 6 existing map panels would be replaced by 4 separate folio maps which would be mated together to represent realistically the various terrain configurations that are portrayed abstractly in the first edition of the game. A non-simultaneous method of playing the game would be provided, and the existing errata would be input in the game, and the rules would be rewritten for ease of comprehension. One countersheet containing additional special weapons and markers might also be added. The finished product would include four 22" x 17" maps, 400-600 counters and a 32-page rules booklet. It would come boxed in a 2" box with tray for \$20.

90. Global War. The entire Second World War at the grand strategic level. A complete redesign of the existing title with 2 or 3 full-size maps, 1200 backprinted counters and 32 pages of rules in a 4" box with two plastic trays for \$30.

91. Invasion America. The conquest of the US and Canada by Asian, European and South American regional alliances. The existing map and counters would be practically untouched, but 200 counters would be added to the game (for use with new scenarios), and the rules would be entirely rewritten to eliminate confusion and make various subsystems (notably the air system) work properly. The existing scenarios would be rewritten and rebalanced (especially the Campaign Game) and several new scenarios would be added. *Invasion America Second Edition* would include two 22" x 34" maps, 600 backprinted die-cut counters and 32+ pages of rules and support material and would come packaged in a two-inch box with tray for \$25.

92. Sniper! Man-to-man urban combat in the 20th Century. The existing game-map would be replaced by four separate folio maps which would be mated together to represent realistically various street and building configurations that may be found in a wide variety of cities and towns. A simultaneous movement system that does not require the written plotting of moves would be provided. The finished product would include four 17" x 22" maps, 400-600 counters and a 32-page rules booklet. Packaged in a 2" box with a tray for \$20.

93. Constantinople. Our game of the great siege that ended the Roman Empire in the East was seriously flawed by the necessity of fitting it into the rigid *S&T* format of the period. The second edition of the game would correct these shortcomings by expanding both the rules and countertermix to incorporate the naval rules missing from the original game and the necessary naval counters plus markers for filled in ditches and additional breach markers. The complete package would include a 22" x 34" mapsheet, 400 counters and 32 pages of rules and support material in a 2" box with tray for \$15.

94. Stonewall. The battle of Kernstown using the Great Battles of the Civil War game system. The second edition would involve a rewrite of the existing rules to make them conform to the GBCW system, a new map treatment to bring the game in line with the style of other GBCW maps, and the replacement of some of the existing subsystems with new systems more in line with the state-of-the-art. Additional artillery counters (including breakdown markers for gun sections), strength markers and other mnemonic devices would be provided to expand the counter mix to 200. The entire package would consist of a 22" x 34" map, 200 counters and 32 pages of rules and support material in a 2" box with tray for \$15.

95-96. No question

Briefings

Briefings One: Recently Published Adventure Games

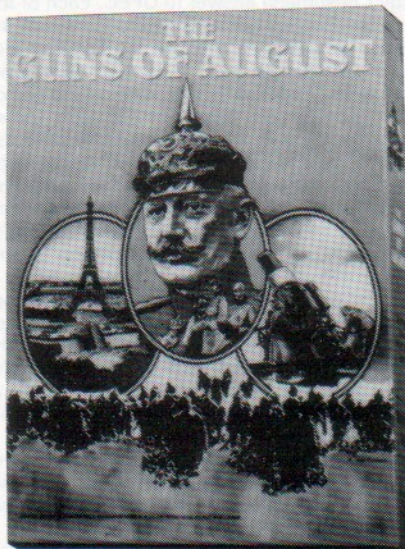
Gladiator (The Avalon Hill Game Co., 4517 Harford Rd., Baltimore, MD 21214, \$9) Gladiatorial contests in ancient Rome. This is a relatively straight forward presentation of hand-to-hand combat in the arena. The game includes an 11"×16" mounted tactical combat map, an 8"×11" card with game tables, gladiator log pad, 12 1"×1½" gladiator counters, 36 weapon and position counters, and 16-page rules booklet. Players familiar with *Arena of Death* (Ares nr. 4) will find no surprises in this revamp of the old Heritage game. Sequence of play breaks each turn into eight phases or steps, which may include movement, weapon/shield recovery, kicking, recovery from stun, net attacks, or combat. Each gladiator is given certain physical characteristics (training, strength, agility, wound factors, etc.) which determine his ability to withstand the punishment of combat. Movement for a character must be plotted and is resolved simultaneously; gladiators who still have phases left may participate in combat if close enough to an enemy. Additional rules cover items such as weapon and shield loss, stuns, kneeling, stumbles, and wounds. An advanced game adds rules for the Retarius (a gladiator armed with trident and net) and for team combat. The campaign game adds a certain role-playing flavor as players attempt to keep their best gladiators in action until they develop one who is the Emperor's Champion. The campaign game also teaches players the joys and sorrows of betting, since the ultimate winner must not only win a sufficient number of matches, but must also be able to pay off his debts to other players. A bit limited with weapons and character skills, but the system works well.

Amoeba Wars (The Avalon Hill Game Co., 4517 Harford Rd., Baltimore, MD 21214, \$16) Space Lord against Space Lord against hungry space amoebas. This game will not strain your tactical skills; chance plays too heavy a role in each segment of the game and a player blessed with good luck will usually walk away victorious, assuming the amoebas don't get him first. It seems a vast Galactic Empire has conveniently disintegrated, and the barbaric Space Lords (from two to six) are ready to seize power. A minimum number of planets surrounding the capital planet, Saestor, must be occupied in addition to the old seat of Empire itself. Complicating matters are two mighty Doomsday Machines, a gaggle of multiplying giant amoebas (who find space ships delectable), and fellow Space Lords. A player uses power points to create space ships which blast off to conquer new worlds.

Game components include a four-section 22"×28" mounted (not of the usual high Avalon Hill quality); 360 space ship counters; a deck of 53 Power cards; six 8"×8" player aid cards; and short rules booklet.

The play of the game does offer an interesting new approach; players are dealt three power cards that are kept face down before them. On a turn, a player selects one card; the player with the highest numbered card goes first. He may use his card and then, in descending order, the cards of the other players. The first player removes his Power card, and the second player can use the remaining Power cards in descending order, and so forth. The higher numbered cards usually provoke an

amoeba or Doomsday Machine attack, so the first player may not always have the advantage by his position in play. Optional rules allow for additional hyperjumps per turn, sending losing space ships into a time warp, and watching amoebas gulp down friendly and enemy ships one at a time, instead of their usual double helping. Some nice ideas for simple gaming but less than perfect for simulation. A mindless way to spend several hours.



The Guns of August (The Avalon Hill Game Co., 4517 Harford Rd., Baltimore, MD 21214, \$16) All's lethargic on the Western Front. World War I may have a few devotees in the hobby, but this strategic level simulation will not draw newcomers to this historical period. As a simulation, it's main point works well; two massive forces came to a head-to-head blow and stood still for years on end. Both sides destroyed military unit after unit in useless campaigns, worth a few miles at best. As a game it boggles down too quickly; it just ain't that much fun, folks. *Guns* is quite a presentable package with its 22"×32" mounted map, 600 counters, 2 information charts, and rules book, and the mechanics are relatively simple. The main problem, aside from some game information scattered around in difficult areas to discover, is that each side has more than enough units to keep the Western Front secure, therefore, static. The Eastern Front is more wide open for action, but there is not enough strength on either side to make a big push. More chrome could have been added, especially for the *stosstruppen* who have an advantage in combat but not in infiltration, at which they were better. Unlike the popular *The Russian Campaign*, there is simply not enough mobility after breakthrough to make important gains in ground. A nice try at a fast-paced WWI game that did not hit the mark.

Suez '73 (Game Designer's Workshop, PO Box 1646, Bloomington, IL 61701, \$12.98) The Battle of Chinese Farm, October 15-19, 1973. On October 14, 1973, an Egyptian attack to relieve the pressure on Syrian forces in the Golan Heights was squelched, and immediately the Israelis began Operation Strongheart, their drive to cross the Suez Canal and isolate the Egyptian Third Army. This game is a tactical look at the dash to set up the Israeli bridge from Matzmed to Deversoir before the devastating Egyptian artillery could shatter the crossing force. Each game turn consists of a variable number of impulses during each of which 8 phases take place: Decision, Barrage Commitment, Movement, Barrage Resolution, Defensive Fire, Assault Decision, Simultaneous Fire, and Withdrawal. During each impulse a player decides how many of the total movement points for the whole turn he will allow his units to expend; though the movement factor initially seems low —

10 points during daytime and 7 or 5 at night — for a game-turn that represents 12 hours, it does suffice when units only expend 1/8 of a point to travel along a road. Components include an attractive 22"×29" mapsheet (even though mostly desert, not everything is in shades of yellow and brown as other mapsheets of desert warfare have been colored), 480 die-cut counters, 4 sheets of charts and tables, 2 pages of OB's, a 16-page rules booklet, and 12-page historical notes/scenarios booklet. The game is a fairly standard, well detailed, modern tactical system. Heavy emphasis is placed on various types of fire — barrage, opportunity, defense, antitank, and support — and on methods of crossing the canal — the amphibious Gilwas, rafts, and the pre-constructed bridge. My only complaint is that attack and defense values in addition to other information is crammed onto the back of the counters; if stacks of opposing units come together, it's easy for butterfinger players to spill counters all over the map. A highly detailed game using only one map — almost a rarity nowadays.

Gallipoli (Paper Wars Game Co., PO Box 2342, Isla Vista, CA 93018, \$14) The Allied attack on the Ottoman Empire. Though not the complete campaign of the Allied powers in 1915 to knock Turkey out of the First World War, this game does cover three British landings at Cape Helles, Anzac Cove, and Suvla Bay and includes a naval contest of British and French battleships pounding the Turkish forts and ships. Included are three separate maps of various sizes (22"×26" map for Suvla Bay and Anzac, 13"×16" for Cape Helles, and 11"×26" for the Dardanelles), 504 die-cut playing pieces, 4-page tables booklet, 2 damage charts, and 32-page rules booklet. There is nothing in the game that is overwhelmingly new. The land games have each side reinforced, try to make a landing (Allies only), move, and have combat; the naval game's sequence of play is Allied Movement Phase, Mine Clearance Sub-phase, Turkish Movement Phase, Turkish Gunnery Phase, and Allied Gunnery Phase. Missing from the land game are some vital rules — command control and supply — both elements vital to the historical event. The naval game is basically two-player solitaire; once the Turkish mines are emplaced, it becomes a simple matter of trading shots and hoping for some mines to blow away the enemy. The graphics are a bit much, all screaming red, yellow, green, and blue, and each terrain type fills its hex to the brim. Still despite the drawbacks, the game is rather enjoyable. The historical research for the game is good, but the translation of history into game mechanics is poor. A good playin' game.

Ironbottom Sound (Quarterdeck Games, PO Box 929, Oceano, CA 93445) Naval warfare off Guadalcanal during 1942. One way to eliminate pesky aircraft, if you want to see how effectively ships can blow each other to pieces, is to place all your scenarios in the dark of the night. Then it becomes torpedoes against gunnery to see who'll come out the best. *Ironbottom Sound* does not give a player insight into the Guadalcanal campaign (indeed, aside from a bibliography there is almost no information about one of the bloodiest contests in the Pacific), but it does give a rousing game of naval combat. Unfortunately, the game uses plotted movement which can make any game a limping bore. The sequence of play is notating movement, plotting and launching torpedoes, executing movement and then gunfire, determining effects of torpedoes, and finally evaluating how badly fires are burning on the ships. Included is a 22"×34" open water map (over which a cut-out of the island of Suka can be placed), 165 double-sized ship counters, 112 information counters, separate sheets for game tables, for scenarios, and for ships' logs (which must be photocopied for repeated play). Optional rules cover radar, use of starshells, searchlights, and silhouetting fires. The main problem with the game as simulation is the very fact that all engagements take place at night;

visibility is limited to a certain range of hexes, yet players can see each other's pieces on the map. Each side struggles towards the other until the enemy comes into an arbitrary visibility range and combat can begin. Technically, the weaker player could just keep moving away from the stronger enemy, hoping to deny him victory points. Some of the rules need translation into simpler English, and it takes a while to root through all the paper to make the game sensible, but, all in all, fairly enjoyable.

Michael Moore

Briefings Two: Recently Published Selected Non-Wargames

Dimension Demons, by Fred Askew, provides an excellent introduction for the novice to adventure gaming and a pleasant interlude for the initiated. In the basic scenario the "human" player chooses, within his point allotment, between infantry units and tanks of two types is assembling his army. The "demon" player can choose between warriors, breeders, and trans-dimensional transports. The board is divided into two halves, each in a different dimension. The demons can use a transport to send one or two units across the divide. A target hex is picked, but dice throws can send the units off target, sometimes to disaster. The closer the target hex is to the "mirror image hex," the better the chances of landing as desired. When the demons capture a human city they automatically construct another transport. This is useful in keeping their forces across the divide, but it can be captured by the humans, thus allowing them to invade the demon dimension. Movement in a single dimension and combat are straightforward. At the end of a player's turn, however, all units in the enemy dimension not within five hexes of a friendly transport must "pop-back," aiming at the mirror hex. Each demon breeder remaining in the human dimension creates a new warrior every turn, and these do not have to pop-back. Basically the object is to annihilate the enemy, but alternate scenarios and optional rules bring other goals into play. (Metagaming, Box 15346, Austin, TX 78761. \$3.95 + \$.50 postage per order.)

The Lords of Underearth, by Keith Gross, although also at an introductory level, is considerably harder for a beginner to follow — the instructions leaving a number of questions that the one, two, or three players must answer for themselves. The board shows a large number of caverns of various sizes, connected by wide or narrow corridors, and tunnels. The board can be cut into three pieces and reassembled in different ways. The character counters include four races — dwarves, orcs, men and goblins — and a variety of animals from dragons to wolves. Depending on the scenario chosen, a player may control a force of various types. Counters representing gold pieces of different values come into play in some scenarios. Movement and combat is affected by the type of passage in which it occurs, but is otherwise not unusual. The scenarios and optional rules provide for a wide assortment of play possibilities, once the gaps have been filled in. (Metagaming, \$3.50 + \$.50 per order.)

Gone Flying, by Allen Ryan, calls for luck in drawing the right cards and good judgment in playing them correctly. To start their flight, each of the two to six players must play a "Cleared to Taxi" card. But this can be withdrawn by an opponent covering with a "Hold on Taxi." Past this hurdle, a "Cleared for Takeoff" card allows a player to become airborne. With a "Mileage" card a player throws one die and advances ten miles for each number showing. "Tailwind" and "Headwind" cards call for specific advances or retreats and are useful in reaching the end of the three hundred mile course by exact count. Cards such as "Storm" and "Engine Trouble" can slow an opponent's progress. On any turn a player may play as many cards as desired. Before passing the half

way point, a player draws as many cards as played; after passing the point, however, he draws only one card. To end the game, a player must play another "Cleared to Taxi" card, and in following turns, if still Cleared, throw a double with the dice. (A.R. Games, Allen Ryan, 75 Elmsley St. N., Smiths Falls, Ont. K7A 2H1, Canada. \$13.55 + \$1.50 postage.)

The Schnozzle Game, by Norman Sauvage, is OPEC's (Organization of Protecting Energy Consumers) answer to OPEC. Each of the two to four players operates two tankers with the objective of sailing — through the Strait of Hormuz, the Perishable Gulf, and other well-known waterways — to five different oil fields and one oil deposit, picking up a barrel of oil at each. Movement is by the sum of two dice or by their difference — a useful aid since a tanker must berth by exact count. When a tanker is berthed, the player can use the dice throw to similarly move his oil barrel through the pipeline to the vessel. An opponent's tanker reaching the berth forces the original vessel to retreat three spaces. In open water a player ending a move on the same space as an opponent's tanker causes it damage; one barrel of oil is spilled (returned to the nearest field) and the tanker must make its way back to its home port for repairs. Frequent spaces in both the waterways and the pipelines call for the drawing of a "schnozzle" card. A "schnozzle power" card allows a player to ignore any unwanted cards, but this protection ends when an opponent draws another power card. (OPEC Inc., P.O. Box 44040, Tacoma, WA 98444. \$9.95.)

Command Ship Invasion, by Buck Rodgers and Ken Roddy, adds a space flavor to what is basically an abstract game combining strategy and luck in a novel manner. Each of the two players controls a fleet of two "command ships," four "cargo ships," and twelve "fighters." Ten of each fleet are started at opposite ends of ten columns, and the remainder can be entered as ships move towards the enemy. Movement is controlled by three dice. The first die indicates the type of ship that can move — with fighters showing on four faces. The second sets the distance moved — from one to three spaces along the column. The third indicates the color on which the move must end — either yellow or red. (White spaces on the board are ignored.) On the third die, one face of each color shows an explosion. If an enemy ship of the type indicated by the first die is on a space of this color, the player may destroy it instead of moving. An enemy ship can also be destroyed by landing on it with a ship of equal or greater power, command ships being the most powerful. A player wins by moving various combinations of ships — from a single command ship to four fighters — into the enemy "command base." Destroying both enemy command ships is also a victory. (McJay Game Co., 17 E. Moulton St., Decatur, AL 35601. \$12.00 + 2.00 postage.)

The Prospector, by Helen Adkins, is a deductive game at an elementary level. One each from eight "prospector" and eight "strike site" cards are hidden at the start of the game. As the two to six players race to equip themselves with a burro, shovel, pick, food, water, and a map, they land on spaces that allow them to pick up prospector or strike site cards. Other spaces permit a player to question an opponent as to whether he has a particular card. With a "yes" answer, the questioner can continue questioning the same opponent or another, etc. When a player is completely equipped and thinks he knows the identity of the two hidden cards, he can enter the "strike" path. The first to reach the end of this path with the correct information wins. (McJay Game Co., \$12.00 + 2.00 postage.)

Energy Systems, calls upon the players — from two to four — to make a number of hard choices. Starting with \$10,000 apiece, they pick an energy system for their home, from electric the cheapest to solar the most expensive. They can also invest in various levels of insulation, in storm

doors and windows, and in other energy saving devices. Then, using one die, players move along a four year path, each space representing a month. Depending on where they land, they must pay for their utilities — with solar now the cheapest and electric the most expensive. Other spaces call for paying out or collecting money, in general favoring those who invested in improvements. "Sun spot" cards add other features, including a "zap" which allows the holder to wait for the opportune time to blackmail an opponent. Most money remaining at the end of four years wins. (McJay Game Co., \$12.00 + 2.00 postage.)

Gas Crisis, by Roger and Rita Platten, hits home to all of us who see the price of gasoline higher every time we pull into a station. Here the price starts at \$1.00 and goes up each time any of the two to six players lands on a "raise gas prices" space, with \$500.00 the top. Players begin with a million dollars and attempt to lay in supplies of gas to cover the one thousand gallons they must have for each trip around the board. At first they use a small car that travels by the throw of one die. Hitting a "change cars" space moves them into a gas guzzler that moves with three dice. When a player is out of money and gas, he is out of the game, the lone survivor winning. As presented, the game is fun but purely luck. To add some choice I came up with the following change. When a player lands on "raise gas prices," he throws one die. If even, he raises the gas price one level; if odd, he can either raise or lower one level. (McJay Game Co., \$12.00 + 2.00 postage.)

Sid Sackson

Briefings Three: Selected Books for the History-Gamer

Each review is followed by the initials of the reviewer. RLD (Richard L. DiNardo), DCI (David C. Isby), AAN (A.A. Nofi).

The Best of Board Wargaming by Nicholas Palmer. New York: Hippocrene Books Inc., 1980. 194 pp. \$16.95.

Just when you thought it was safe to go back into the bookstores, here's yet another book on the subject. Admittedly, however, this one is somewhat better than most of the others. The first part of the book deals with various types of games (e.g., operational, monster, science fiction, etc.), while the second part contains short reviews of almost every wargame currently on the market. The book also contains lists of companies, clubs and conventions. Although useful, it does have some limitations. Several major games are not mentioned at all, including *Wellington's Victory* and *Bonaparte in Italy*. Also the section on the key elements in the playing of a wargame is very scanty. All told, this book would be useful for the novice, but not for a stiff \$16.95. (RLD)

Uniforms of the French Revolutionary Wars 1789-1802, by Philip J. Haythornthwaite; illustrated by Christopher Warner. Poole, Dorset, England: Blandford Press, 1981. 147 pp. Illustrated. No price given.

Here is a book truly dedicated to its title. Of the 147 pages, only 15 are devoted to historical text. The rest of the book deals with the uniforms worn by all the belligerent armies during the wars of the French Revolution. Over 100 color plates show the various uniforms in fine detail, and descriptions for each plate are provided in the back. Although there is not much information here for the serious military historian or military buff, this work should certainly catch the eye of many a French Revolutionary/Napoleonic miniatures grognard. (RLD)

The Guinness Book of Tank Facts and Feats, by Kenneth Macksey. Enfield, Middlesex, England: Guinness Superlatives Ltd., 1980. 256 pp. Illustrated, maps, appendices, glossary and index. \$17.95.

In this third edition of the work, which was originally published in 1972, is an extended compilation of facts about tanks, although a good deal of information is included on what might be considered armored fighting vehicles from antiquity to World War I. The text is decently written and is interspersed with a number of excellent photographs, including some very fine color plates. Unfortunately, the book has some severe flaws. The maps in the book are very poor and in at least two cases inaccurate. Also a fair amount of the information in the book is incorrect. For instance, the machine built by Burstyn in 1911 is referred to as a "land torpedo-boat." In fact, Burstyn called his a "Motorgeschütz," the proper translation of which is "motor-gun" (for more details, see FYI in *S&T* 83). The book is also hurt by a number of omissions — by the fact, for instance, that during World War II Germany produced several versions of each type of tank, which made field maintenance difficult. Another serious omission is the complete absence of any mention of the Russian T-64. Although the book would probably be a useful primer for the novice, it is certainly not worth the \$17.95 price tag. (RLD)

Cannon Fodder, by A. Stuart Dolden. Poole, Dorset, England: Blandford Press, 1980; Distributed by Sterling, New York. 185pp. Illustrated, index. \$12.96.

This is the personal, and illegal, diary of a young Englishman who enlisted in the London Scottish late in 1914 and spent the next four years as one of His Majesty's riflemen on the Western Front. In straightforward language the author discusses the hours of boredom and moments of terror which were trench warfare, from the mud, the lice and the bloodshed to the well-earned leaves home and passes to a few hours of civilized living in the rear. *Cannon Fodder* is not a work of great literary merit. It is by an ordinary soldier with a better than average education and a considerable loyalty to his comrades, which leads him to turn down a commission. The book is chock full of interesting and often amusing anecdotes, such as when the cooking gear gets "wounded" or the difficulties of putting on frozen boots or living in one's clothes for 25 days on end. Valuable reading for those interested in the Great War in particular, but also useful for anyone trying to see things from the point of view of the rank and file. (AAN)

Course 095 to Eternity, by Elwyn E. Over-shiner, Santa Rosa, CA: Privately published, 1980. xxiv, 224pp. Illustrated, tables, appendices. \$4.95.

The largest number of ships ever lost by the United States Navy in a single incident occurred in peacetime. On the evening of 8 September 1923, seven vessels of the Pacific Fleet's Destroyer Squad Eleven ran aground at Honda Point on the California Coast one after another in the space of five minutes. Miraculously, "only" 23 men perished in this inexcusable disaster. Naturally the United States Navy has never been precisely comfortable with these events and something of a "cover up" has shrouded the precise details. *Course 95 to Eternity* is an extremely detailed, concise discussion of these circumstances. The book is well written, full of interesting information, and delves into a number of technical aspects of the situation — such as the influence of the Great Kanto Plain earthquake on tides and currents off California and the poor opinion of radio-navigation held by many naval officers. The appendices are stuffed with useful information about "four-piper" destroyers, plus detailed excerpts from the log of the flotilla leader. Altogether a very fine piece of work, though seriously marred by the lack of maps. (AAN)

Our Enemies the French, by Anthony Mockler. London: Leo Cooper (distributed in the United States by Arcon), 1976. xix, 252pp. Illustrated, maps, introductory note, index. \$18.00.

The brief war between Britain and Vichy France over control of Syria in 1941 has generally been ignored in the literature of the Second World War. The French were, after all, sort of on the right side — at least some of them — and the incident

was embarrassing. Nevertheless, though brief, it was fairly hot and had important strategic implications for Britain's position in the Arab world. Anthony Mockler's book is therefore a useful addition to the small amount of material available on the subject. The book does a fairly good job of putting the Syrian Campaign in strategic perspective — at a time when Britain had an Italo-German supported insurrection in Iraq on the one hand and Rommel boiling up out of Cyrenaica on the other. There is a general discussion of the military situation of the Vichyites and British, a wealth of anecdotal material, and a fast-paced description of the actual operation. The book does have some drawbacks, however. Nowhere does Mr. Mockler give the reader a clear presentation of the forces available and committed to action; one must pick through the text for strength and order of battle information, which is difficult. Nor is the description of personal motivations sometimes useful. Furthermore, there are occasionally muddy passages, and his rather flippant dismissal of the necessity of a bibliography does not sit well. In the main an interesting book, but flawed. (AAN)

Bomber! Famous Bomber Missions of World War II by Robert Jackson, New York: St. Martin's, 1980. 155pp., \$5.95.

A slender volume, this is a collection of 13 accounts of noteworthy bomber missions (or series of missions) of the Second World War. While well written, and relatively accurate, there is little information to be learned here; the author seldom comes anywhere near capturing the high drama of the occasions he writes about. The bombers in this book do not soar or take wing; they seem to drone from page to page. He seems to have relied on the ultimate source for his research — back issues of *RAF Flying Review* from the 1950's and the 1960's. The publishers did not even spring for a single black and white photograph for this tired volume, thereby reducing its value to readers under 14 years who one might think would be a prime audience. *Bomber's* mission, I fear, should have been aborted before take-off. (DCI)

MiG Master: The Story of the F-8 Crusader, by Barrett Tillman. Nautical and Aviation Publishers, 1980. 224pp. Illustrated. \$17.95.

The navy's single-seat F-8 Crusader fighter was known as "The Beast." Mean and hot, making controlled crashes rather than landings, it was still loved by many as what seems to be the last dogfighter. The Beast has met its Boswell in Barrett Tillman, an experienced naval aviation writer, who gives a professional and sympathetic account of the F-8's procurement and development process, its introduction to service and, the heart of the book, its combat against MiG's over Vietnam (where F-8's downed 19 MiG's while losing only three of their number — the best ratio of any US aircraft). The accounts include both operational and first person details, and are useful to anyone interested in the dynamics of modern air combat. A veritable balbo of appendices provide statistical back-up for the text. While very expensive, this is a good book of its type, and can be recommended to those interested in modern air combat. (DCI)

How to Use the Freedom of Information Act (FOIA), by L.G. Sherick. New York: Arco, 1978. 138 pp. \$3.95 (paperback).

While not particularly new or noteworthy, this slim volume is potentially of great value to anyone doing research on military topics, and can have a value that far outweighs its price in material gathered. It is a basic guide to America's marvelous Freedom of Information Act, one of the few worthwhile legacies of the governmental excesses of the 1960's and the 1970's. It gives a sample letter, addresses of major agencies, and some case histories of rather involved FOIA situations. It does not tell you the details for getting a specific document, (you have to know what to ask for) or that government agencies vary in cooperation between the snowed-under and formal (CIA) to those delighted to help with serious research. The strategy and tactics of the FOIA is another story,

but this book serves to remind those interested in modern military affairs, that there is a potential mine of information that can be tapped by skillful use of the FOIA. The truth shall make you free. (DCI)



CORINTH [continued from page 47]

Rosecrans confused, he had the bad luck to have Rosecrans guess *right* and pull his troops back into position just before the assault. Had Van Dorn attacked Corinth a few hours earlier, he might have caught Rosecrans with his troops badly split. A defeat in detail would not have been impossible. Then again, Lovell's failure to cooperate to the point of actually refusing to attack the second day did not help, either.

The second day assault was Van Dorn's biggest mistake. He wrongly assumed that Rosecrans had committed all of his troops on the first day, and this intelligence failure caused him to believe that he could take the town with his exhausted troops. Even after the battle he still believed that he had outnumbered the Union, stating in his reports that only late arriving "reinforcements" (Stanley and Hamilton!) turned the tide.

Most of all, Corinth was simply not a good place to attack, especially without strong superiority. Although there were no significant defensive terrain features, such as Cemetery Ridge (Gettysburg) or Mayre's Heights (Fredericksburg), Van Dorn was aware of the defensive perimeter that had been constructed by his own troops, and he was also aware that on the defensive the Union would gradually fall back through the thick woods toward the town and the rail lines, creating shorter, interior lines for the Union and an attack frontage problem for the South.

Van Dorn either was unaware or chose to ignore each of these problems. Instead of using his large force to harass and confuse Grant, thereby accomplishing Bragg's aim of keeping Grant out of Kentucky, he chose the direct approach — and lost. Not only was Bragg's offensive along the Ohio River now an impossibility, but the devastation to Van Dorn's army opened the way for Grant's first march towards Vicksburg.

Late summer had seemed so bright for the Confederacy. Lee was deep in Union territory, and Bragg was driving through the Cumberland. It all ended too quickly. Lee's Army of Northern Virginia, tired in body if not in spirit, only barely managed to hold its own against the monumentally incompetent McClellan at Antietam Creek, and four days after Van Dorn abandoned the Tennessee/Mississippi border region, a massive Union army under Buell drove Bragg from the field at Perryville (Kentucky). As Bragg retreated south through the Cumberland, it was obvious that the Confederate offensive of 1862 was over. The handwriting was on the wall; unfortunately, it would take three more long years to read it. ■■

OUTGOING MAIL [continued from page 20]

bees and infantry armed with captured naval artillery.

Antietam represents yet another step — hopefully forward — in the evolution of this popular battle-level game system. The main reason for *TSS*'s popularity is, so I have felt, its playability, and to this end I have tried to keep playability uppermost in designing and redesigning. Each battle has its own unique problems. With Shiloh it was terrain and surprise; at Antietam it's command and survival. As befits its history, *Antietam* is a bloody game, a battle in which both players are truly trying to destroy each other in terms of manpower. So far it has also turned out to be a remarkably tense game as the Confederate player shifts brigade after brigade in an effort to keep his sagging line from collapsing, trying to keep one step ahead of the Union player, who is valiantly trying to get as much of his immense force in play as he can, only to see division after division destroyed by terrible charges and bloody, toe-to-toe firefights. It is somewhat sobering to realize and appreciate the horrifying immensity of the loss in human life at Antietam, the bloodiest day in US military history. Hopefully, *Antietam* will shed some light on the reasons behind and about the battle, and that appreciation will become even greater.

Richard Berg

Gossip

Gossip is written by Howard Barasch of Heritage USA, Inc. The opinions, allegations, rumors and reportage contained in Gossip are solely those of the author and published purely for entertainment purposes. All inquiries should be directed to Mr. Barasch.

GDW announced a number of summer convention offerings including number of *Traveller* products: *Adventure #5: Trillion Credit Squadron*; *Double Adventure #3: The Argon Gamble/Death Squadron*; *Double Adventure #4: Marooned/Marooned Alone*; and *Supplement #8, Library Data*. In the offering, GDW will also release a *Deluxe Traveller*. Two independent science fiction games are scheduled: *Fifth Frontier War* (Battles of the Spinward Marches) and *Invasion: Earth* (the Final Battle of the Solomani Rim War). Rounding off the *Traveller* assault of products is *Striker*, rules for 15mm *Traveller* Miniatures. Not abandoning the historical gamer, GDW will release *Trenchfoot* (what a title!!), a WW I game, *A House Divided*, American Civil War, and *Assault*, tactical combat in Europe.

GDW's historical magazine, *The Grenadier*, has been sold to Jeffrey Tibbetts of Berkeley, California. Jeff will expand the format to cover gaming in general.

Soon *Traveller* and *Space Opera* will not be alone, SPI is aiming for the stars with their science fiction role-playing game, *Universe*. TSR has never really gotten off the ground with their *Metamorphosis Alpha*, but they are currently hard at work constructing their newest SF project which will be mass market and in *D&D* mode.

The Chaosium is exploring the technical side of SFRP with Niell Shapiro's *Other Suns* (still on the drawing board). They hope to support this effort with background articles by Poul Anderson and Larry Niven. Naturally,

Metagaming doesn't want to be left out of the SF deluge, so Howard Thompson will author *Star Leader* (formerly *Starman*). Metagaming's SFRP game will be modular micros: *Star Leader Assault* (basic character combat) and *Star Leader Warp Ships* (basic ship combat and integration into first micro system). Other companies are sure to hop on the SFRP bandwagon. Even I've thought of doing one!

Joe Balkoski (formerly of SPI) has joined the Avalon Hill staff with a field of concentration in AH's sports games. SPI has reorganized its product development department and R&D Manager, David Ritchie, has left the company. Redmond Simonsen will become Creative Director with responsibilities for both product and art. Mark Herman has returned to SPI as government contract VP bringing with him two years of Washington "think-tank" experience.

Avalon Hill has announced a number of summer releases: *Battle of the Rhine* will be revised; *Gunslinger* may appear and possibly Kevin Zucker's Napoleonic Leipzig game, *Struggle of Nations* with ¼" counters (does the game include tweezers?). In the works is a John Prados' 1973 Arab-Israeli War game, being developed by Frank Davis; *Down With the King*, a 17th Century power politics game by Glenn and Ken Rahman. One of Don Greenwood's perpetual *Squad Leader* gamettes is ready for release — *G.I. Down the Avalon Hill road* is a 200-page master *Squad Leader* book, a la *Advanced D&D*.

SPI and Avalon Hill are discussing a joint venture. (See *Who Was That Game Company*.) At one time, talk in the industry was that Avalon Hill would jointly distribute SPI's SFRP game *Universe*. However, that proved to be wrong.

The Wargamer, the English magazine modeled on *S&T*, is published by World Wide Wargamers. They have been aggressively seeking out American game designers for their magazine games and so far seem to be successful. Upcoming in issue #15 is Vance von Borries' (AH's *Air Assault on Crete*) *Drive on Damascus*, the Vichy defense of Syria in 1941. Richard Berg's *Birth of a Nation* (Battle of Saratoga) will run in issue #18. *Sturm Nach Osten* (Russo-German WW II conflict) by Lou Coatney will appear in issue #19, and *Bloody Run* (tactical Gettysburg) by the designer's of OSG's *Devil's Den* — Dr. David Martin and Leonard Millman — is scheduled for issue #20. Other games on the schedule include: *Napoleon at Austerlitz* (issue #17) and *Carrier Strike* (issue #16), a WW II tactical and strategic Pacific battle game with 455 counters including 65 one-inch long major ships counters. Plans are to make this one the largest issue games to date. All issue games will have at least 260 counters and full color maps. Each ensuing issue looks better and better.

Dave Hargrave's *Arduin Adventure* is making the rounds in the FRP circles. It is a great improvement in both content and packaging over his original *Arduin Trilogy*.

Metagaming has launched its house organ magazine *Interplay*. Since it is not a slick mass market magazine, *Space Gamer* has not got to sweat it. New Metagaming products for this summer include: *Command at Sea* (1/4800 scale naval miniatures about

deadnoughts to 1945); also *The Trojan War*; *Hitler's War*; and the long awaited, much anticipated *The Air Eaters Strike Back*. The games carry a purchase price of \$6-\$10. Metagaming also has a number of micros on line and ready to go. Phil Kosnett's answer to *Orge is Hell Tanks*, which is the first of a projected series. Greg Costikyan's *Trailblazers* (space exploration and economic development) SF game is out. *Trailblazer* is a paper and pencil game and one which you definitely can't get into and out of in one hour. *Masters of the Amulet* (another Fantasy Trip microquest) is due to be released soon.

The cryptic copy reads *Kanev, Parachutes Across the Dnepr, September 1943*. I hope that means something to you. It is the next scheduled release for Jack Rady's People's War Games. The prolific John Prados is the designer and Jack Rady is the developer.

Another new hobby magazine has just been launched with the subtle name of *Adventure Gaming*. At the helm is a gaming old timer, Tim Kask, former editor of TSR's *The Dragon*. They will cover all aspects of the hobby and the first issue is due out this summer. Best of luck, Tim!

Yaquinto is breaking out of album size game mode with two hefty historical games: *Battles and Leaders* (American Civil War) and a highly complex WW I air war game.

The Chaosium has Steve Perrin (*Runequest*) hard at work on *Worlds of Wonder*, a basic role-playing game aimed at the mass market (don't they wish!). This one will have different modules for different worlds: Magic, Science Fiction and a Setting for Superheroes. Look for a fall release on this little number. Also in the works, *Age of Sail*, a naval role-playing game from the stories of John Williams (*Tradition of Victory*).

TSR has been casting around trying to beef up its Product Development Department. Serious talks had taken place with the ailing OSG but came to no avail. Now Michael Gray, Milton Bradley's top game designer, has moved to Lake Geneva. With this move, a whole new breed of products may be forthcoming from TSR. Gray brings with him a great deal of experience in putting together games for successful mass market distribution and has done a study of the role-playing market.

Speaking of OSG, it looks like the final curtain is coming down. Avalon Hill is negotiating to buy all the existing titles with the exception of *Starquest*, *Rommel in Tunisia*, *Bonaparte in Italy*, and *Dark December*. Another one bites the dust... *Howie Barasch*

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Michael Moore
Managing Editor
SPI
257 Park Avenue South
New York, NY 10010

Frontiers of Alusia

ADVENTURE MAP

Designed by Rudy Kraft

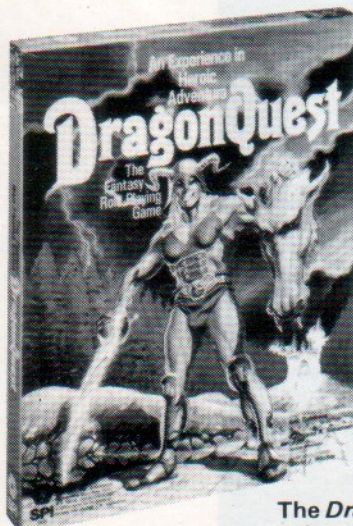
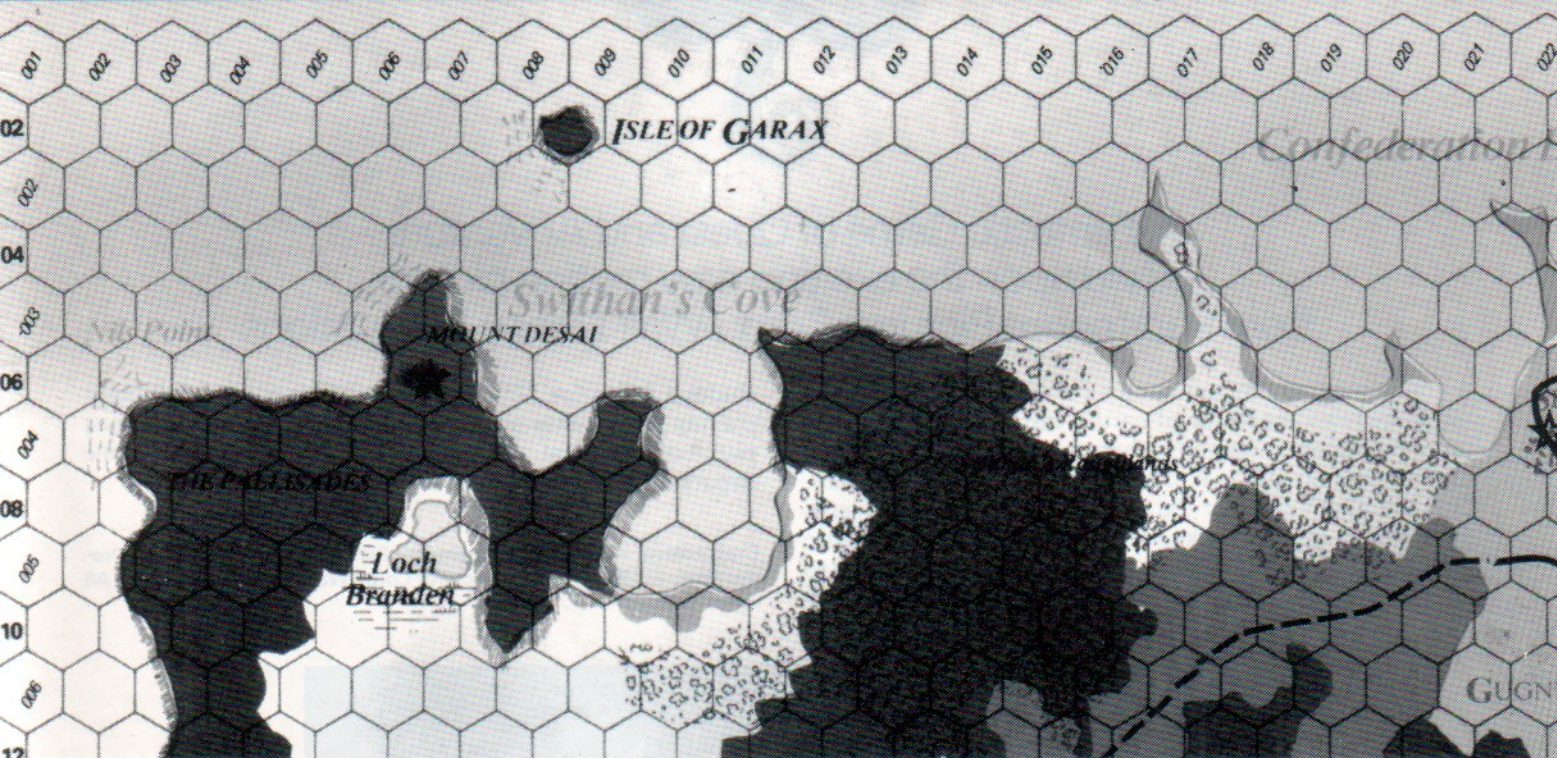
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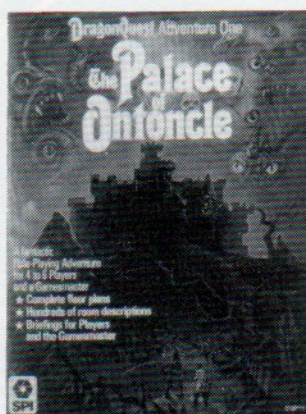
DragonQuest

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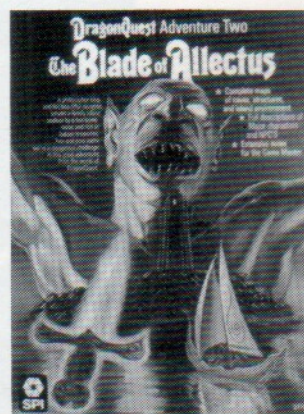
The leading-edge product of a complete fantasy role-playing line. *Book I* includes rules for character generation and combat; *Book II* covers the casting of spells and the various colleges of magic; *Book III* contains character skills, descriptions of monsters and setting up adventures. A 17" x 22" mapsheet features various types of terrain in which encounters may occur, and 100 cardboard pieces indicate weapons, characters, and beings which may be used on the map.

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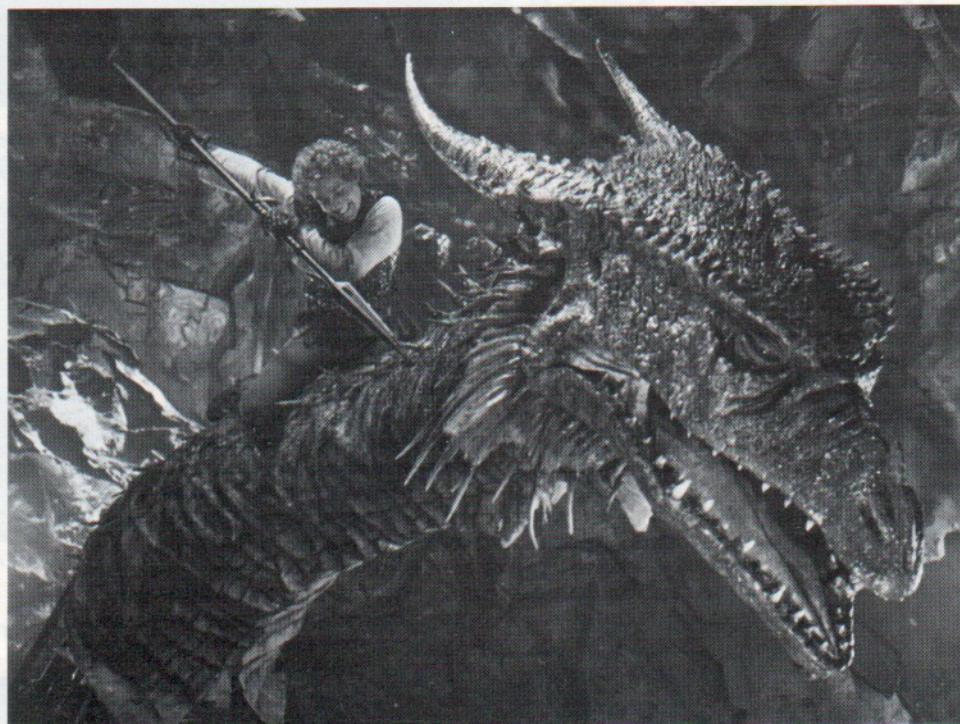
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Jackson at the Crossroads

The Battle of Corinth

BUYER'S GUIDE FOR JACKSON/CORINTH

Age Range: 12 years to adult

Number of Players: 2

(Suitable for solitaire play)

Average Playing Time: 4 to 10 hours

Complexity Rating: High (6.8)

For purposes of comparison, *Monopoly* is considered to have a complexity rating of 2.34.

Wagon
Bridge



Two important battles that affected the course of the Civil War have been combined in one package! *Jackson at the Crossroads* simulates the battles of Cross Keys and Port Republic on June 8-9, 1862 in which the Valley Army successfully defeated two encircling Union armies. *The Battle of Corinth* recreates the desperate October 3-4, 1862 sneak attack by the Confederate Army of the Trans-Mississippi to retake the vital railroad juncture of Corinth. Both games use the *Great Battles of the American Civil War Series* standard rules, which cover melee attack, small-arms and artillery fire, cavalry charges, and the effects of leadership. Each game has a 16-page booklet of exclusive rules to cover the unique features of each battle and an historical article about each event. The game includes two 22" x 34" maps, 800 cardboard counters (200 counters per game plus 400 common markers), Standard Rules and Exclusive Rules booklets, and various playing aids.

ARMY COMMANDER: Front

Name → **Van Dorn**



Rank

Command Points →

1

DIVISION COMMANDER: Front

Name → **Hamilt**

3/AM

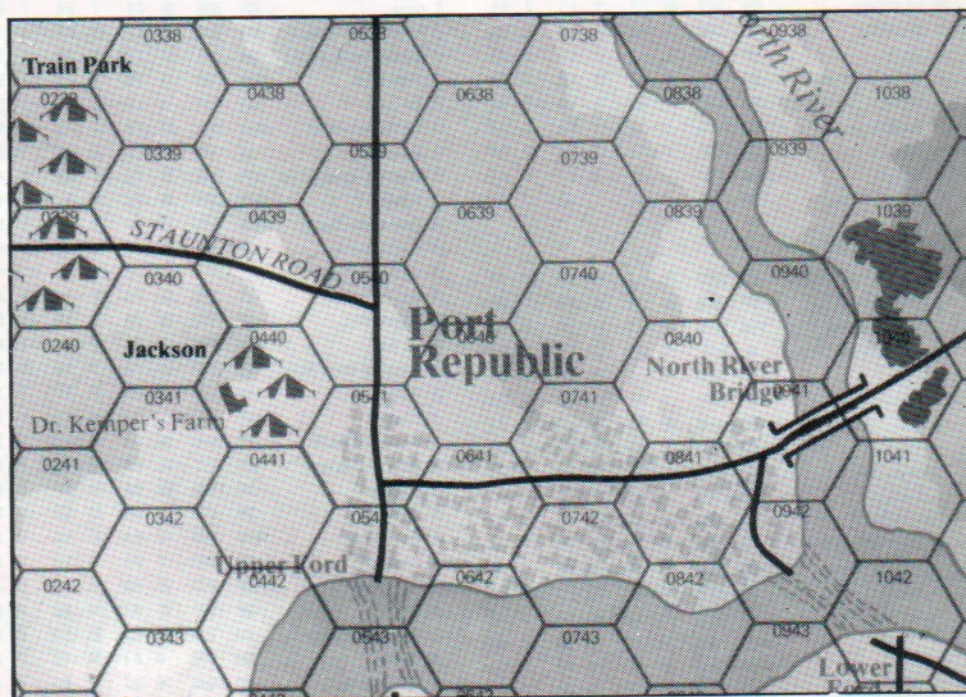
Historical Command

Rank

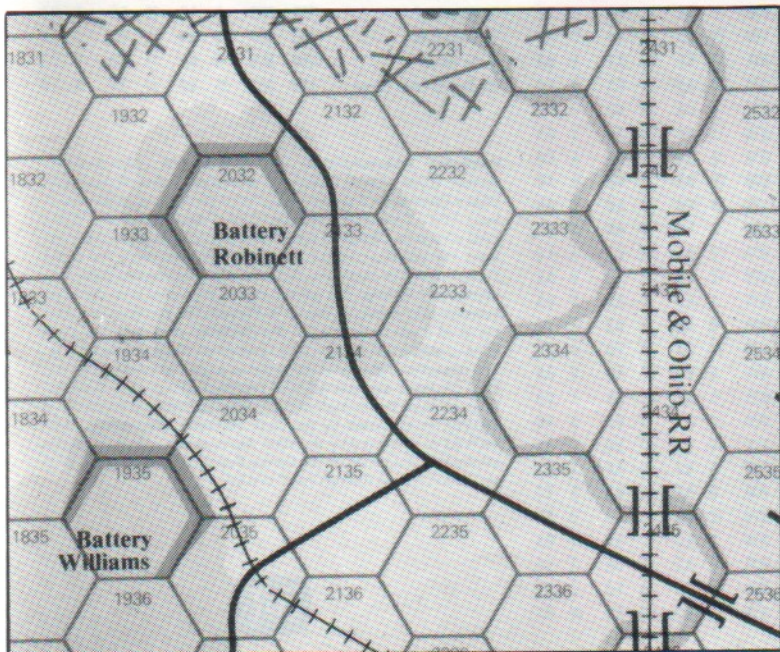
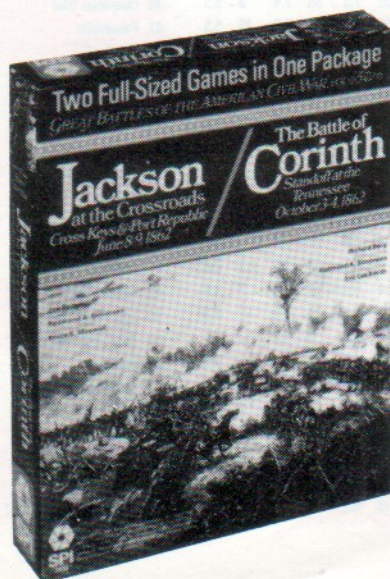


Command Points →

1



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GAMES RATING CHART

Title	Pub.	Pub. Date	Price (\$)	Accept. Rating	% Played	Complex Rating	Playing Time	Solitaire Playability
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ANCIENT AND DARK AGES

1. The Conquerors	SPI	5/77	20	6.5	14	6.5	7	5.0
2. Caesar Alesia	AH	7/76	14	6.4	22	5.4	4	4.4
3. Acre	SPI	1/79	9	6.4	9	6.0	5	5.1
4. Spartan	SPI	2/75	12	6.2	18	6.0	3	6.0
5. Viking	SPI	2/75	12	6.2	16	6.0	3	6.0
6. Legion	SPI	2/75	12	6.2	16	6.0	3	6.0
7. Ancient Conquests	EG	na	11	6.2	6	3.0	5	2.0

MIDDLE AGES AND RENAISSANCE

1. Empires	SPI	4/80	20	7.2	11	5.8	6	6.0
2. Kingmaker	AH	6/74	14	6.9	33	5.2	4	1.4
3. Fredrick the Great	SPI	4/75	12	6.6	22	5.7	3	5.0
4. Samurai	AH	7/80	14	6.5	7	5.4	na	na
5. A Mighty Fortress	SPI	7/77	12	6.4	14	5.6	5	2.9
6. Nordlingen	SPI	4/76	4	6.4	13	4.4	3	6.7
7. Battle of Prague	GDW	6/80	6	6.4	6	5.2	2	0.7
8. Muskets & Pike	SPI	3/73	12	6.3	14	5.2	3	5.9
9. Lutzen	SPI	4/76	4	6.3	11	4.7	3	6.6
10. Art of Siege	SPI	1/79	40	6.3	10	6.3	6	5.5
11. Breitenfeld	SPI	3/76	5	6.2	34	3.9	3	6.6
12. Frigate	SPI	7/74	12	6.2	21	6.1	3	4.5
13. 30 Years War Quad	SPI	4/76	16	6.2	16	3.9	3	6.0
14. Rocroi	SPI	4/76	5	6.2	16	5.0	2	6.5
15. Tamburlaine	SPI	1/79	5	6.2	13	5.5	4	5.0
16. Lille	SPI	1/79	9	6.2	10	6.4	7	5.8
17. Torgau	GDW	9/74	9	6.2	8	7.1	6	4.0
18. Battle of Lobositz	GDW	7/78	6	6.2	7	5.2	2	0.7

NAPOLEON

1. Napoleon's Last Battle	SPI	10/76	16	7.2	29	5.6	6	7.0
2. Wellington's Victory	SPI	10/76	30	7.2	20	7.4	8	5.0
3. Napoleon at Bay	OSG	11/78	18	7.2	12	6.5	8	3.0
4. Wood Ships/Iron Men	AH	10/75	14	7.1	37	6.7	1	4.4
5. Ligny	SPI	10/76	4	7.0	25	5.2	2	6.9
6. La Belle Alliance	SPI	10/76	4	7.0	24	5.2	2	6.8
7. Nap at War Quad	SPI	8/75	16	6.9	29	4.8	3	7.2
8. Wagram	SPI	8/75	4	6.9	28	4.7	3	7.2
9. Quatre Bras	SPI	10/76	4	6.9	31	5.1	1	7.0
10. Marengo	SPI	8/75	4	6.7	26	4.6	3	7.2
11. Borodino	SPI	4/72	12	6.7	22	4.1	2	6.9
12. Ney vs Wellington	SPI	5/79	72	6.6	89	6.6	5	5.8
13. Battle of Nations	SPI	8/75	4	6.6	26	4.8	3	6.8
14. Wavre	SPI	10/76	4	6.6	22	5.2	3	6.9
15. War and Peace	AH	2/80	15	6.5	60	6.0	2	8.0
16. Eylau	GDW	6/80	10	6.4	7	5.9	3	0.0
17. Eylau	SPI	8/79	12	6.3	53	6.0	3	6.8
18. Jena-Auerstadt	SPI	8/75	4	6.3	25	4.5	3	6.6
19. La Grande Armee	SPI	10/72	12	6.2	17	5.3	3	5.5

AMERICAN CIVIL WAR (1830 to 1900)

1. Ironclads	YAO	6/79	15	7.4	11	7.0	2	4.0
2. Terrible Swift Sword	SPI	7/76	25	7.3	35	7.4	9	5.5
3. Bloody April	SPI	9/79	25	7.0	22	7.6	25	5.5
4. Chickamauga	SPI	4/75	4	6.8	34	4.6	6	4.5
5. Pea Ridge	SPI	4/80	10	6.8	25	6.8	4	4.5
6. Drive on Washington	SPI	4/80	10	6.8	18	6.7	4	4.0
7. Blue and Grey	SPI	4/75	15	6.7	31	4.7	2	6.6
8. Blue and Grey 2	SPI	12/75	15	6.7	26	4.6	2	6.6
9. War Bet the States	SPI	5/77	25	6.6	23	7.0	2	6.0
10. Stonewall	SPI	4/78	12	6.5	48	6.7	4	5.5
11. Wilson's Creek	SPI	5/80	10	6.5	44	7.0	6	5.5
12. Antietam	SPI	4/75	4	6.5	28	4.6	2	6.0
13. Shiloh	SPI	4/75	4	6.4	28	4.6	2	6.6
14. Chattanooga	SPI	12/75	4	6.4	23	4.6	5	6.6
15. Crimean War Quad	SPI	4/78	20	6.4	14	5.9	3	6.0
16. Inkerman	SPI	4/78	4	6.3	12	6.2	4	6.5
17. Crimea	GDW	5/75	10	6.3	6	6.7	7	4.8
18. Fredricksburg	SPI	12/75	5	6.2	25	3.9	2	6.6
19. Hooker & Lee	SPI	12/75	5	6.2	22	3.9	2	6.6
20. Tchernya River	SPI	4/78	4	6.2	16	6.3	2	6.0
21. Sevastopol	SPI	1/79	9	6.2	9	6.4	5	5.5
22. Shenandoah	AH	na	10	6.2	7	6.0	2	3.5
23. Source of the Nile	AH	7/78	16	6.2	5	5.0	6	7.0

WORLD WAR I

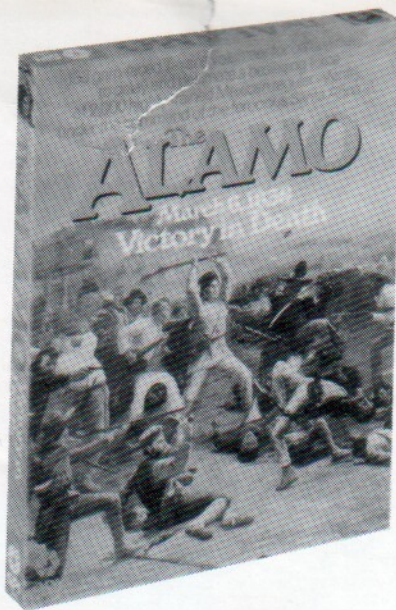
1. To the Green Fields	SPI	5/78	15	6.9	20	7.0	8	7.0
2. Great War in East	SPI	11/78	20	6.9	14	5.9	5	4.4
3. Red Star/White Eagle	GDW	6/79	12	6.8	7	6.3	3	4.0
4. Serbia/Galicia	SPI	11/78	5	6.6	13	5.8	4	5.5
5. Caporetto	SPI	11/78	5	6.6	13	5.6	4	5.5
6. Diplomacy	AH	6/61	17	6.5	34	4.4	6	2.2
7. Von Hindenburg	SPI	11/78	5	6.5	14	5.8	4	4.4
8. Soldiers	SPI	8/72	12	6.2	15	5.5	3	6.0
9. Brusilov	SPI	11/78	4	6.2	11	5.8	3	5.5

WORLD WAR II

1. Crescendo of Doom	AH	6/80	16	7.6	17	6.8	2	5.0
2. Battle for Stalingrad	SPI	6/80	15	7.5	8	6.0	7	6.0
3. Squad Leader	AH	7/77	17	7.4	38	6.6	3	5.0
4. Cross of Iron	AH	7/78	14	7.4	27	7.8	2	5.0
5. War in Europe	SPI	11/77	50	7.4	15	7.4	90	5.0
6. Kursk	SPI	6/80	20	7.4	7	6.8	7	6.2
7. Panzergruppe Guderian	SPI	8/76	12	7.3	45	5.9	5	7.3
8. Highway to the Reich-2	SPI	2/77	35	7.3	16	7.3	8	7.5
9. White Death	GDW	11/79	13	7.3	8	7.3	7	5.0
10. Air Force	AH	7/76	16	7.2	15	6.6	2	2.0
11. DNO/Unentschieden	GDW	10/73	29	7.2	11	7.2	15	4.3
12. Dauntless	AH	7/77	16	7.2	10	6.8	1	2.0
13. War in the East-2nd Ed	SPI	11/76	35	7.1	21	6.9	8	4.5
14. Narvik	GDW	12/74	15	7.1	12	6.7	6	4.0
15. Road to the Rhine	GDW	8/79	12	7.1	8	5.6	5	5.0
16. Ardennes Quad	SPI	1/79	20	7.0	18	5.8	25	6.0
17. Wacht am Rhein	SPI	1/77	30	7.0	16	7.0	60	6.5
18. War in the West	SPI	3/76	40	7.0	16	7.1	8	4.5
19. Atlantic Wall	SPI	6/78	35	7.0	15	7.0	30	6.5
20. St. Vith	SPI	1/79	5	7.0	13	5.5	4	6.0
21. Camp. for North Africa	SPI	6/79	50	7.0	7	8.5	50	5.5
22. Flattop	AH	7/77	16	6.9	17	6.9	9	1.0
23. Clervaux	SPI	1/79	5	6.9	14	5.9	4	6.0
24. War in the Pacific	SPI	5/78	50	6.9	14	8.1	9	0.0
25. Drive on Stalingrad	SPI	12/77	18	6.8	16	6.0	7	5.8
26. Typhoon	SPI	11/78	25	6.8	14	6.3	5	6.9
27. Sedan	SPI	1/79	5	6.8	12	5.5	4	6.0
28. Marita-Merkar	GDW	6/79	13	6.8	10	6.0	5	6.0
29. Leningrad	SPI	1/80	8	6.8	9	5.5	5	6.5
30. Case White	GDW	6/77	13	6.8	8	7.0	5	4.5
31. Cobra	SPI	12/77	12	6.7	38	6.2	8	6.9
32. Russian Campaign	AH	7/76	14	6.7	29	5.3	6	5.0
33. Arnhem	SPI	2/76	4	6.7	24	4.9	3	8.0
34. Bismarck-79 Ed	AH	6/79	16	6.7	17	6.5	5	4.0
35. Winter War	SPI	8/72	12	6.6	18	4.5	3	5.8
36. Celles	SPI	1/79	5	6.6	13	5.4	4	6.0
37. Patton's 3rd Army	SPI	1/80	10	6.5	55	5.4	5	6.0
38. Panzer Leader	AH	11/74	16	6.5	35	7.1	4	5.0
39. Third Reich	AH	11/74	16	6.5	32	6.5	6	6.0
40. Operation Star	SPI	6/79	5	6.5	14	6.0	3	6.5
41. Panzerblitz	AH	10/70	11	6.4	38	7.0	3	5.4
42. Kharkov	SPI	6/78	12	6.4	37	5.8	6	6.8
43. Army Group South	SPI	6/79	25	6.4	9	6.0	5	7.0
44. Panzerkrieg	OSG	11/78	18	6.4	9	5.8	5	6.0
45. Big Red One	SPI	1/80	8	6.4	8	4.0	5	6.0
46. Sniper	SPI	9/73	12	6.3	22	7.1	4	4.5
47. Panzer Armee Afrika	SPI	10/73	12	6.3	21	5.3	5	6.2
48. Korsun	SPI	6/79	5	6.3	14	6.0	3	6.5
49. 1940	GDW	6/80	6	6.3	6	5.2	2	na
50. Rommel in Tunisia	OSG	1/79	18	6.3	5	7.0	4	4.0
51. Battle for Germany	SPI	8/75	5	6.2	32	4.0	3	6.5
52. Bloody Ridge	SPI	10/75	5	6.2	20	5.0	2	6.5
53. The Fast Carriers	SPI	8/75	14	6.2	19	8.0	5	4.5
54. West Wall Quad	SPI	2/76	16	6.2	19	5.0	2	6.5
55. Cauldron	SPI	7/76	5	6.2	18	4.8	2	6.4
56. Crusader	SPI	7/76	5	6.2	18	4.8	2	7.1
57. Patrol	SPI	10/74	12	6.2	17	7.1	3	5.0
58. Bastogne	SPI	2/76	5	6.2	17	5.0	2	6.5
59. Kiev	SPI	6/79	5	6.2	15	6.0	3	6.5
60. Boda Fomm	GDW	6/79	6	6.2	8	6.0	2	0.0
61. Pearl Harbor (2nd ed.)	GDW	8/79	15	6.2	6	6.8	10	0.0

MODERN

1. The Next War	SPI	7/78	50	7.4	23	7.9	24	5.5
2. Air War 80	SPI	12/79	25	7.4	9	9.0	4	2.0
3. NATO Division Cmdr	SPI	6/80	40	7.3	8	7.1	3	3.0
4. Tacforce	GDW	6/80	12	7.0	4	7.1	3	2.5
5. Berlin '85	SPI	3/80	10	6.9	49	6.8	5	6.0
6. Firefight	SPI	8/76	20	6.9	21	6.5	3	5.5
7. Red Star/White Star	SPI	6/79	20	6.9	16	8.0	2	6.0
8. Mech War II	SPI	6/79	35	6.8	16	8.0	2	6.0
9. Barlev	GDW	5/74	13	6.8	10	6.7	6	5.0
10. Fulda Gap	SPI	6/77	12	6.7	19	7.0	5	6.5
11. Fifth Corps	SPI	9/80	10	6.6	54	7.1	5	3.0
12. Bundeswehr	SPI	7/77	4	6.6	23	5.3	2	6.0
13. Mod Quad I	SPI	6/75	16	6.5	25	5.0	2	6.5
14. Wurzburg	SPI	6/75	4	6.5	23	5.0	2	6.5
15. Mod Quad II	SPI	7/77	16	6.5	17	5.3	2	6.0
16. Suez to Golan	SPI	6/79	25	6.5	14	8.0	2	6.0
17. Sinai	SPI	2/73	12	6.4	22	5.7	3	6.



The Alamo recreates the heroic stand by a small force of Texan defenders inside the famous Alamo mission against a Mexican army over ten times its size. The Mexican player chooses from among six entry areas to bring on his four main columns and, later, his reserve column. The Mexican forces must withstand the withering Texan fire until a weak spot along the walls can be found and the Alamo finally breached. Once inside, desperate hand-to-hand fighting takes place. Special rules cover fire and melee combat, artillery batteries, leadership and leader losses, and ferocious Texan counterattacks.

BUYER'S GUIDE FOR *THE ALAMO*

Age Range: 12 years to adult

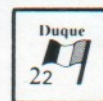
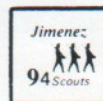
Number of Players: 2 (Suitable for
solitaire play)

Average Playing Time: 2 hours

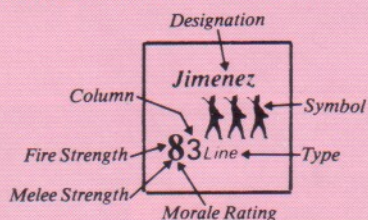
Complexity: Moderate (5.8)

For purposes of comparison, *Monopoly* is considered to have a complexity rating of 2.34.

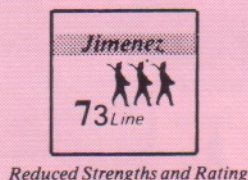
The ALAMO



SAMPLE COMBAT UNIT (Front)



SAMPLE COMBAT UNIT (Back)



SEQUENCE OF PLAY

Mexican Replacement Phase

Mexican Reserve Unit

Placement Phase

TEXAS PLAYER-TURN

Movement Phase

Combat Phase

Rally Phase

MEXICAN PLAYER-TURN

Mexican Reserve

Commitment Phase

Movement Phase

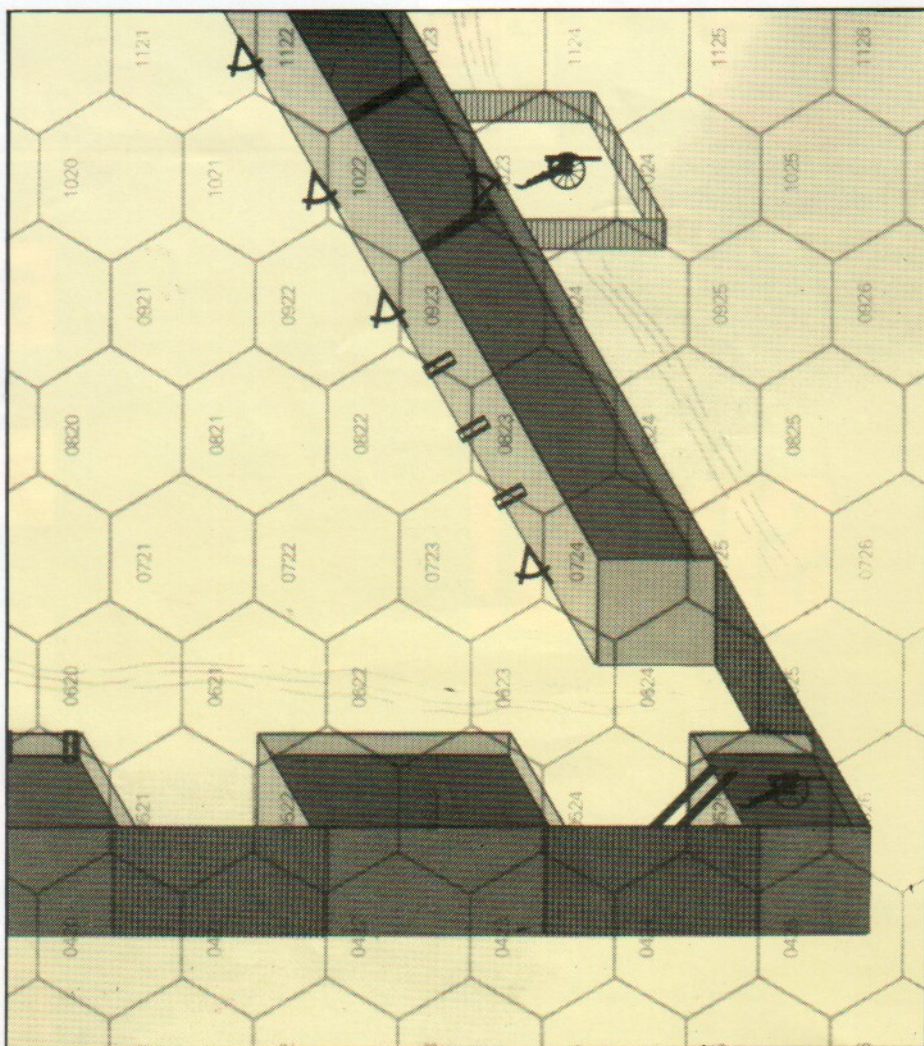
Combat Phase

Rally Phase

Mexican Withdrawal

Check Phase

Game-Turn Indication Phase



THE ALAMO: \$12

Now available in stores nationwide



Europe, 1933...

Beneath the fragile peace, a net of intrigue stretches throughout the back alleys and dusky avenues of a continent's glittering capitals. Through this baffling maze, fraught with the dangers of hostile police and double-dealing, a breed of solitary men and women pursue the closely guarded secrets of nations. Despite the ceaseless threat of capture and sudden death, these silent fugitives conduct their covert war — where stealth and cunning are weapons, and the warriors are...

SPIES!

Spies! is the exciting game of espionage and intrigue, where you guide the destinies of major European nations through the turbulent years of 1933-39. Two to five players — representing Germany, Italy, Russia, France, and Britain — vie with one another to uncover the mysteries of the atomic bomb, the Enigma code device, sophisticated electronics, and other top secrets. Your spies move by rail, air, and sea throughout Europe, North Africa, and the Middle East in search of their quarry, constantly endangered by the security cordons of your opponents' police and counterspies. Uncover an enemy secret, rush home to your capital — but don't get caught! The competition will be fast and furious, and everything depends on your **Spies!**

Spies! comes complete with a 22" x 34" four-color, cardstock map depicting Europe, North Africa, and the Middle East; 250 cardboard playing pieces; a four-page booklet of easy-to-learn rules; and further rules for an optional long game. **Spies!** is an exciting 2-3 hours for two to five players, ages 12 through adult.

These are the spies...

Alexi 3	Ernst 2	Mario 1	Cynthia 3	Theo 2
------------	------------	------------	--------------	-----------

...who'll do anything...

Sanction 20£	Recruit 4£	Intercept 10£	Double Cross 1£ XXX	Discovery 3£
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...to get these super secrets...

Heavy Bomber 2	Magnetic Mine 1	Enigma Code 4	Atomic Bomb 5	Nerve Gas 3
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...and avoid the security police...

NKVD 2	Gestapo 3	RACC 1	Scotland Yard 4	Police 2
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...while the world moves towards war!

1938-39
Polish Crisis!
Ge 2*
3c: Berlin, Warsaw.
2c: Danzig, Riga, Prague.
2£: Vienna, Paris, London, Bucharest, Moscow, Rome.

1934-37
Italy invades Ethiopia!
It 8
2c: Rome.
1c: Cairo, Port Said, Bengazi, Malta.
3£: London, Paris, Moscow.
2£: Geneva, Berlin.

Desert Fox Counter Section Nr. 1 (200 pieces): Front

Quantity of Sections of this identical type: I. Total quantity of Sections (all types) in game: 1.

5(1) LS 1	200 LS 1	3 LS 0	5Lt LS 1	33 2	104 2	115 3	8(1) 3	155 3	15Pz 4
9 1 22	8 1 14	2 1 28	(1) 1 14	2 1 28	3 1 14	3 1 14	10 1 22	3 2 14	(1) 1 14
580 6 0	1/18 8 0	11/25 10 0	368 10 0	114 12 0	1/6 12 0	Svbd288 14 1	14Afr 15 1	190 16 1	125 19 1
2 2 28	1 2 14	1 2 14	1 2 14	1 2 14	1 2 14	5 2 14	(1) 3 14	(1) 2 14	3 2 14

GERMAN

164 19 0	11/5 19 0	362 19 1	433 19 1	220 19 1	5(2) Rpl 1	8(2) Rpl 1	MSU 0	MSU 0	MSU 0
2 2 28	1 2 14	4 2 14	3 2 14	(1) 2 14	11 1 22	12 1 22	(1) 2 14	(1) 2 14	(1) 2 14
MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0
(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14

MSU 0	AXIS 1	361Afr 5 1	27Bc LS 1	132/Ar LS 1	88/Ar LS 1	Nizz/Ar LS 1	132/Ar LS 1	7Bz/Tm 2 1	102/Tm 2 1	2 1
(1) 2 14	(1) 2 14	3 3 14	7 3 14	6 3 14	5 2 22	6 3 14	(1) 3 28	5 2 22	4 3 14	(1) 3 14
REFIT 1	11 1 14	18 1	RS 3	25Bd 2 3	60Cab RS 3	17Pav 2 3	25Bd 2 3	55Sav 2 4	61/Tm 2 1	62/Tm 2 1
3 3 14	11 1 14	18 1	7 3 14	6 3 14	6 3 14	6 3 14	6 3 14	6 3 14	2 3 14	2 3 14

ITALIAN

1	1	Game Turn	Recam 7 1	65/Tri 8 1	66/Tri 8 1	REFIT 1	16Pst 19 3	Folg 19 3	GGFF 20 3
1	1	1	2 3 28	2 3 14	2 3 14	2 3 14	4 3 14	4 2 14	3 4 14
98r/Tri 8 1	101/Tri 8 1	133/Li 11 1	128r/Li 11 1	Lan/Li 11 0	Artcile 18 1	Monfilli 18 0	(1) 2 14	(1) 2 14	1 3 28
5 2 22	2 3 14	5 3 22	3 2 22	1 3 28	(1) 2 14	1 3 28	(1) 2 14	(1) 2 14	1 3 28

MARKERS

Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Emergency Supply	Emergency Supply	Emergency Supply
Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Emergency Supply	Emergency Supply	Emergency Supply
Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Emergency Supply	Emergency Supply	Emergency Supply
Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Out of General Supply	Emergency Supply	Emergency Supply	Emergency Supply

COMMONWEALTH

17 1	131/44 18 1	132/44 18 1	133/44 18 1	152/51 18 1	153/51 18 1	MSU 0	MSU 0	MSU 0	MSU 0
(1) 2 14	3 1 14	3 1 14	3 1 14	3 2 14	3 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14
3/2(2) Rpl 1	4/7(3) Rpl 1	7/7(3) Rpl 1	22(3) Rpl 1	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0
7 2 22	11 1 22	13 1 22	8 2 22	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14

MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0	MSU 0
(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14	(1) 2 14
CW 1	REFIT 1	CW 1	24/9Aus LS 1	26/9Aus LS 1	23/70 ES 1	16/70 ES 1	Polish 2 1	18Aus 1 1	MSU 0
1	1	1	2 2 14	2 2 14	4 2 14	4 2 14	3 2 14	5 2 14	(1) 2 14

5/4Ind 2 1	7/4Ind 3 1	11/4Ind 3 1	6/2NZ 1 1	5/1SA 3 1	14/70 4 1	4/2NZ 1 1	5/2NZ 4 1	1/1SA 4 1	2/1SA 4 1
2 2 14	2 2 14	2 2 14	3 2 14	2 3 14	4 2 14	3 2 14	4 2 14	2 3 14	2 3 14
9/5Ind 5 1	3/2SA 5 1	6/2SA 5 1	10/5Ind 5 1	29/5Ind 5 1	4/2SA 6 1	1FF 11 2	2FF 14 1	18Ind 17 1	1Greek 18 1
3 2 14	2 3 14	2 3 14	3 2 14	3 2 14	2 3 14	4 2 14	3 2 14	1 2 14	3 3 14

Desert Fox Counter Section Nr. 1 (200 pieces): Back

9Aus 1 2 2 14	4Ind 1 1 3 14	CIH 0 1 4 28	22 1 1 2 14	75pt/7 1 1 2 14	b 1 1 2 14	3Ind 1 1 2 14	a 1 1 2 14	2/2 1 1 2 14	32(1) 1 2 3 28
4/6SA 0 1 3 28	2SA 1 1 2 14	150/50 1 1 2 14	1Army 1 1 5 2 14	2NZ 1 1 2 14	7/7(2) 1 1 5 1 22	4/7(2) 1 1 4 2 22	1/2(2) 1 1 4 2 22	Royals 0 1 2 28	9Aus 0 1 4 28
151/50 1 1 2 2 14	89/50 1 1 2 2 14	8/10 1 1 6 2 22	1/1 1 1 2 14	12Lanc 0 1 2 28	2/1(2) 1 1 5 1 28	20/10Ind 1 1 2 2 14	c 1 1 2 14	1SA 1 1 2 3 14	22(2) 1 1 2 2 22
2DYeo 0 1 3 28	24/8 1 1 5 2 14	10QVOC 0 1 2 28	25/10Ind 1 1 2 2 14	21/10Ind 1 1 2 2 14	20/10Ind 1 1 2 2 14	9/10 1 1 4 2 22	d 1 1 2 14	18Ind 1 1 3 14	
2/1(3) 1 8 1 28	44 1 1 2 2 14	154/51 1 1 2 2 14	153/51 1 1 2 2 14	152/51 1 1 2 2 14	133/44 1 1 2 2 14	132/44 1 1 2 2 14	131/44 1 1 2 2 14	e 1 1 2 14	
DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	22(3) 1 1 4 2 22	7/7(3) 1 1 7 1 22	4/7(3) 1 1 6 1 22	3/2(2) 1 1 4 2 22	
DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	DUMP 0 0 (1) 2 0	26/9Aus 1 1 1 3 14	20/9Aus 1 1 1 3 14	24/9Aus 1 1 1 3 14	REFIT +10	CW +10
18Aus 2 3 14	Polish 1 1 2 3 14	16/70 1 1 2 2 14	23/70 1 1 2 2 14	ES 1 1 2 2 14	4/2NZ 1 1 2 2 14	5/2NZ 1 1 2 2 14	6/2NZ 1 1 2 2 14	11/4Ind 1 1 3 14	7/4Ind 1 1 3 14
2/1SA 1 1 4 14	1/1SA 1 1 4 14	5/2NZ 1 1 2 2 14	4/2NZ 1 1 2 2 14	14/70 1 1 2 2 14	5/1SA 1 1 4 14	10/5Ind 1 1 3 14	6/2SA 1 1 4 14	3/2SA 1 1 4 14	9/5Ind 1 1 3 14
1Greck 1 1 2 3 14	18Ind 1 1 3 14	2FF 2 2 3 14	1FF 1 1 2 2 14	4/2SA 1 1 4 14	29/5Ind 1 1 3 14	29/5Ind 1 1 3 14	29/5Ind 1 1 3 14	29/5Ind 1 1 3 14	29/5Ind 1 1 3 14

[5.17] COMMONWEALTH REINFORCEMENT/WITHDRAWAL SCHEDULE

Game-Turn 2: Polish; 18 Aus Hvy Inf (enters depleted); 5/4 Ind; CIH Recce; 4 Ind Arty; 9 Aus Hvy Wpns; 9 Aus Recce.
Game-Turn 3: 7/4 Ind; 11/4 Ind; Royals Recce; 6/2 NZ (enters depleted); 1/2 Armd (enters in Refit Box); 5/1 SA; 4/7 Armd (enters in Refit Box); 7/7 Armd (enters in Refit Box).
Game-Turn 4: 14/70; 4/2 NZ (enters depleted); 5/2 NZ; 2 NZ Hvy Wpns; 1 Army Armd; 150/50 Mtrzd; 1/1 SA; 2/1 SA. *WITHDRAW:* 16/70(4); 23/70(4); 5/3 Ind(3).
Game-Turn 5: 9/5 Ind; 3/2 SA; 6/2 SA; 10/5 Ind; 29/5 Ind. *WITHDRAW:* 14/70(4).
Game-Turn 6: 4/2 SA; 2 SA Hvy Wpns; 4/6 SA Recce. *WITHDRAW:* 150/50 Mtrzd(3); 18 Aus Hvy Inf(5); 9/5 Ind(3).
Game-Turn 7: 22 Armd; 1 SA Hvy Wpns; 16/70*; 23/70*. *WITHDRAW:* 24/9 Aus(2); 9 Aus Recce(1); 9 Aus Hvy Wpns(3); 10/5 Ind(3).
Game-Turn 8: "c" Arty; 14/70*. *WITHDRAW:* 26/9 Aus(2); 20/9 Aus(2).
Game-Turn 9: 2/1 Armd; 12 Lane Recce; 1/1 Hvy Wpns

Game-Turn 11: 1FF. *WITHDRAW:* Polish(3); 3/2 Armd.
Game-Turn 12: 8/10 Armd; 69/50 Mtrzd; 151/50 Mtrzd; 50 Hvy Wpns. *WITHDRAW:* 14/70(4); 23/70(4).
Game-Turn 13: 161 Ind Mtrzd; 10/5 Ind*. *WITHDRAW:* 4/2 NZ(3); 5/2 NZ(4); 6/2 NZ(3); 2 NZ Hvy Wpns(3); 16/70(4).
Game-Turn 14: 2 FF; 9/5 Ind*; 3/2 Armd*. *WITHDRAW:* 7/4 Ind(2).
Game-Turn 15: "d" Arty; 9/10 Armd.
Game-Turn 16: 20/10 Ind Hvy Wpns; 21/10 Ind Hvy Wpns; 25/10 Ind Hvy Wpns; 10 QVOC Recce; 4/2NZ*; 5/2 NZ*; 6/2NZ*; 2 NZ Hvy Wpns*.
Game-Turn 17: 18 Ind; 23/8 Armd; 24/8 Armd; 2dYeo Recce; "e" Arty; 20/9 Aus*; 24/9 Aus*; 26/9 Aus*; 9 Aus Hvy Wpns*. *WITHDRAW:* 3 Ind Mtrzd(3).
Game-Turn 18: 131/44 Mtrzd; 132/44 Mtrzd; 133/44 Mtrzd; 1 Greek; 152/51 Mtrzd; 153/51 Mtrzd; 154/51 Mtrzd; 51 Hvy Wpns. *WITHDRAW:* 1 Army Armd; 25/10 Ind Hvy Wpns(3).
Game-Turn 19: 44 Hvy Wpns. *WITHDRAW:* 22 Mtrzd(3).
Game-Turn 20: *WITHDRAW:* 9/5 Ind(3).
Game-Turn 21: *WITHDRAW:* 20/9 Aus(2); 24/9 Aus(2); 26/9 Aus(2); 9 Aus Hvy Wpns(3).
Numbers in parantheses following designations of withdrawn units indicate the minimum Combat Strength of substitutions for the indicated unit. *Indicates that unit was previously withdrawn.

[11.8] COMBAT RESULTS TABLE

DEFENDER'S HEX	COMBAT RATIO (Attacker-Defender)											
	Alexandria	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	OR MORE		
Mountain/Fort 2/Tobruk/Benghazi	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1	8-1	OR MORE		
Rough/Fort 1/Bardia	1-2	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1	8-1	OR MORE	
Clear/Sand Sea/Marsh	1-3	1-2	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1	8-1	OR MORE
COLUMN NUMBER	1	2	3	4 ^A	5	6	7	8	9	10 ^A	11	12
DEFENDER'S MORALE	1	-	-	-	-	-	-	1	1	2	p	d3p
	2	-	-	-	-	-	1	2	p	d3p	d4p	d6p
	3	-	-	1	2	p	d3p	d4p	d6p	d3D	d4D	d5D
	4	-	-	1	2	p	d3p	d5p	d6p	d2D	d4D	d6D
	5	-	1	2	p	d3p	d5p	d6p	d3D	d5D	E	E
EFFECT ON ATTACKING UNITS	E	d6D	d5D	d4p	d3p	p	1	-	p	-	p	1

#: Retreat indicated number of hexes. d: Unit(s) disrupted. D: Unit(s) depleted. E: Unit(s) eliminated. p: See 11.7 for explanation. A: See 6.23. (-): No result. ▶: Indicates that the next higher Combat Ratio is to be found in the next column to the right. Note also that the "no result" entries scattered through the Effect on Attacking Units line are intentional. See 11.6 for the effects of attacking at a ratio below the minimum listed; see 11.6 and 11.7 for detailed explanation of all results; see 11.0 for explanation of use of this table.

[11.37] HEXSIDE TERRAIN EFFECT

UNIT ATTACKING ACROSS...	EFFECT ON COMBAT STRENGTH
Wadi	Attacker's Strength
Ridge	Attacker's Strength
Escarpment	Attacker's Strength



Table with 8 columns (11-17) and 4 rows (p, d3p, d4p, d5p) showing terrain effects on combat strength.

TERRAIN EFFECTS ON COMBAT
EFFECT ON COMBAT STRENGTH
Attacker's Strength halved (round up)
Defender's Strength divided by 3 (round up)
Attacker's Strength divided by 3 (round down)

[8.29] TERRAIN EFFECTS CHART AND KEY

TERRAIN TYPE
Motorized Unit: Movement Point cost to enter or cross
Non-Motorized Unit: Movement Point cost to enter or cross

CLEAR
Motorized: 2
Non-Motorized: 2

ROUGH
Motorized: 4
Non-Motorized: 2

MOUNTAIN
Motorized: 6
Non-Motorized: 3

SAND SEA
Motorized: 2 (see 8.14)
Non-Motorized: 2

OASIS
Motorized: 2
Non-Motorized: 2

CITY
Motorized: 1/2
Non-Motorized: 1

MARSH
Motorized: 2 (see 8.14)
Non-Motorized: 3

VILLAGE
Use cost of other terrain in hex for all units.

ROAD
Motorized: 1/2
Non-Motorized: 1

TRACK
Motorized: Use half the cost of other terrain in hex.
Non-Motorized: 1

RAIL HEX
Use cost of other terrain in hex for all units.

UNFINISHED RAIL HEX
Use cost of other terrain in hex for all units.

ESCARPMENT
Motorized: Prohibited
Non-Motorized: +5

RIDGE
Motorized: +3
Non-Motorized: +2

WADI
Motorized: +2
Non-Motorized: +1

BORDER
Use cost of other terrain in hex for all units.

DISTANCE INDICATOR
Use cost of other terrain in hex for all units.

VICTORY POINT HEX
Use cost of other terrain in hex for all units.

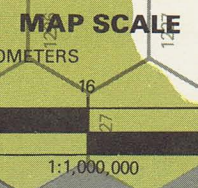
SUPPLY HEX
Use cost of other terrain in hex for all units.

...to **CONDUCT SUPPLY OVERRUN**
Motorized: +1
Non-Motorized: +1

...to **CONDUCT OVERRUN**
Motorized: +2
Non-Motorized: Prohibited

...to **INFILTRATE**
Motorized: +1
Non-Motorized: Prohibited

- SEQUENCE OF PLAY**
- INITIATIVE DETERMINATION
FIRST PLAYER-TURN
1. Reinforcement Phase
 2. Air Allocation Phase
 3. Initial Movement Phase
 4. First Enemy Reaction Phase
 5. First Combat Phase
- SECOND PLAYER-TURN
GAME-TURN INDICATION
6. Motorized Movement Phase
 7. Second Enemy Reaction Phase
 8. Second Combat Phase
 9. Refit Phase



AXIS REFIT BOX

COMMONWEALTH REFIT BOX

TURN RECORD TRACK

CW REFIT POINTS
CW MSUs
CW AIR POINTS
CW MAX ARMOR RATING

1 Mar

See 4.11

AXIS MAX ARMOR RATING
AXIS AIR POINTS
IT REFIT POINTS
GE REFIT POINTS

AXIS REFIT/AIR POINT TRACK

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

COMMONWEALTH REFIT/AIR POINT TRACK

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

[13.26] REFIT CHART

REFIT ELIMINATED UNIT TO FULL-STRENGTH STATUS

REFIT DEPLETED UNIT TO FULL-STRENGTH STATUS

REFIT ELIMINATED UNIT TO DEPLETED STATUS

UNIT TYPE

III	II	I	0	2	1	3
III	II	I	0	3	2	5
III	II	I	0	2	2	4
III	II	I	0	3	1	4
III	II	I	0	6	3	9

Numbers indicate Refit Points that must be expended to refit the specified unit type.

1941

GAME-TURN/MONTH	1 Mar	2 Apr	3 May	4 Jun	5 Jul	6 Aug	7 Sep	8 Oct	9 Nov	10 Dec
REINFORCEMENTS	CW, IT, GE	CW, IT, GE	CW, GE	CW, GE	CW, GE	CW, GE	CW, IT	CW, IT, GE	CW	GE
SPECIAL NOTES	Start: NT	Start: NT	Start: NB	End: RFT	End: RFT	3-9	3-9	3-9	End: NB	3-9
INITIATIVE DIE SPAN	0 0 0 1	0 1 1 1	1 1 0 1	1 2 0 1	1 2 1 1	3 3 0 1	2 3 0 1	2 4 1 1	5 5 0 1	4 3 1 2

1942

GAME-TURN/MONTH	11 Jan	12 Feb	13 Mar	14 Apr	15 May	16 Jun	17 Jul	18 Aug	19 Sep	20 Oct	21 Nov	22 Dec
REINFORCEMENTS	CW, IT	CW, GE	CW	CW, GE	CW, GE	CW, GE	CW	CW, IT, GE	CW, IT, GE	CW, IT	CW	
INITIATIVE DIE SPAN	3-9	3-9	3-9	3-9	3-9	3-9	2-7	2-7	2-7	2-7	2-7	
	3 2 0 2	2 2 0 2	3 4 1 2	2 1 0 2	2 2 1 2	5 4 1 2	1 2 0 2	2 4 0 2	5 5 1 2	1 2 0 2	0 0 0 2	0 0 0 2

SUMMARY OF SUPPLY SOURCES AND CAPACITIES

SOURCE	ALEXANDRIA, RAIL HEX TOBRUK (CWI); 10701 (AXIS)	OASIS (7.24)	BARDIA (7.25)	DUMP	MSU (As a link only)
Radius	12	12	12	12	6
General Supply					
Non-Motorized (NE)	U	U	U	U	U
Motorized (NE/EX)	U/-	O/-	U/-	1-5/6-10	1-5/6-10*
Combat Supply					
Attack (NE/EX)	U/-	O/-	O/-	1-3/4-5	1-3/4-5*
Defense (NE/EX)	U/-	O/-	O/-	1-6/7+	1-6/7+ *
Remove Disruption (NE/EX)	U/-	O/-	O/-	O/U	U/U/-

NE: Supply unit not expended. EX: Supply unit expended. U: Unlimited. (-): Not applicable. *See 7.16.

[6.37] RAID ON MALTA TABLE

DIE	1	2	3
1	1/0	1/0	0/0
2	0/0	0/0	1/1
3	0/0	1/1	0/1
4	0/0	0/1	0/1
5	1/1	0/1	1/2
6	0/1	0/1	0/2

AXIS SUPPLY EXPENDED

0	1	2
---	---	---

#/#: Axis/Commonwealth Air Points eliminated. See 6.33.

[7.57] AXIS CONVOY ARRIVAL TABLE

DICE	MSU's AVAILABLE
1-3	4
4-5	3
6-7	2
8-10	1
11+	0

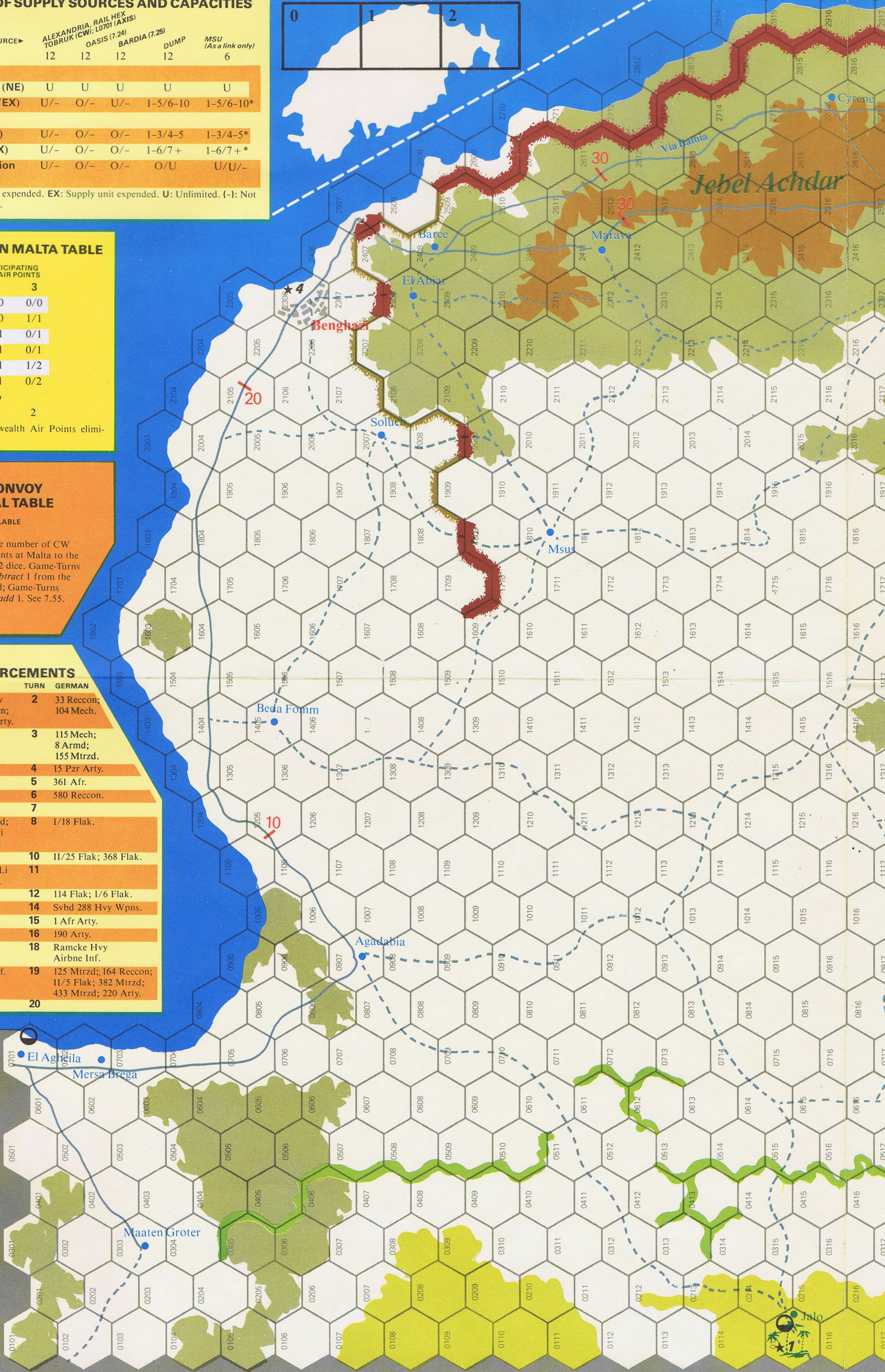
Add the number of CW Air Points at Malta to the roll of 2 dice. Game-Turns 1-9, subtract 1 from the dice roll; Game-Turns 15-22, add 1. See 7.55.

[5.18] AXIS REINFORCEMENTS

ITALIAN	TURN	GERMAN
17 Pav; 25 Bol; 55 Sav	2	33 Recon; 104 Mech.
7Br/Trn Mech; 61/Trn; 62/Trn; 102/Trn; 2 Arty.	3	115 Mech; 8 Armd; 155 Mtrzd.
	4	15 Pzr Arty.
	5	361 Afr.
	6	580 Recon.
Recam Armd Car.	7	
9Br/Tri; 65/Tri Mtrzd; 66/Tri Mtrzd; 101/Tri Hvy Wpns.	8	1/18 Flak.
	10	11/25 Flak; 368 Flak.
133/Li Armd; 12Br/Li Mech; Lan/Li Mech.	11	
	12	114 Flak; 1/6 Flak.
	14	Svbd 288 Hvy Wpns.
	15	1 Afr Arty.
	16	190 Arty.
Monf III Recon. Artclre Armd Arty.	18	Ramcke Hvy Airbne Inf.
16 Pist; Folg Gldr Inf.	19	125 Mtrzd; 164 Recon; 11/5 Flak; 382 Mtrzd; 433 Mtrzd; 220 Arty.
GGFF.	20	

DESTROYED UNITS BOX

COMMONWEALTH AIR POINTS AT MALTA

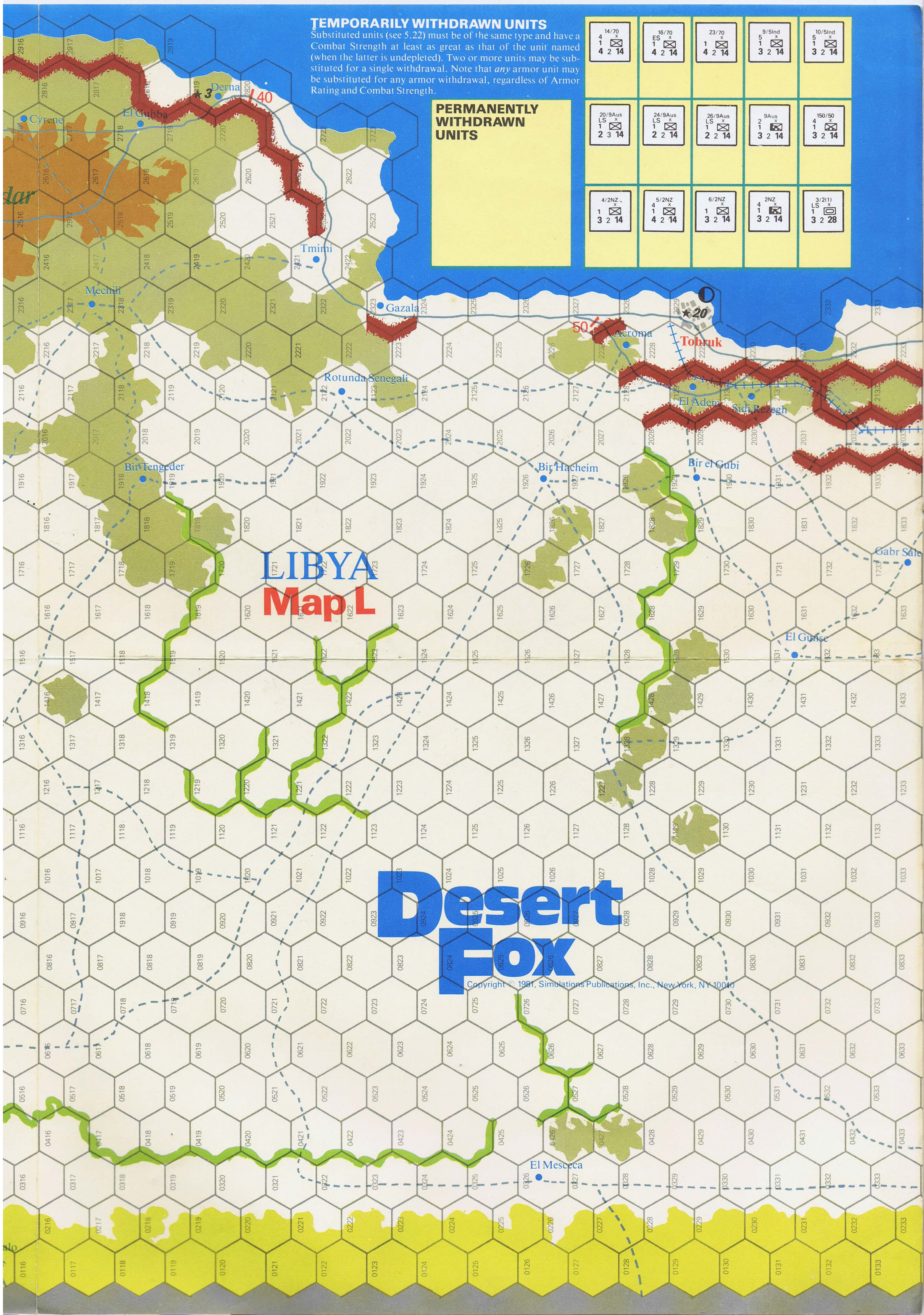


TEMPORARILY WITHDRAWN UNITS

Substituted units (see 5.22) must be of the same type and have a Combat Strength at least as great as that of the unit named (when the latter is undepleted). Two or more units may be substituted for a single withdrawal. Note that *any* armor unit may be substituted for any armor withdrawal, regardless of Armor Rating and Combat Strength.

PERMANENTLY WITHDRAWN UNITS

<div>14/70 1 14 4 2 14</div>	<div>16/70 ES 1 14 4 2 14</div>	<div>23/70 1 14 4 2 14</div>	<div>9/5Ind 5 1 14 3 2 14</div>	<div>10/5Ind 4 1 14 3 2 14</div>
<div>20/9Aus LS 1 14 2 3 14</div>	<div>24/9Aus LS 1 14 2 2 14</div>	<div>26/9Aus LS 1 14 2 2 14</div>	<div>9Aus 2 1 14 3 2 14</div>	<div>150/50 4 1 14 3 2 14</div>
<div>4/2NZ 1 1 14 3 2 14</div>	<div>5/2NZ 4 1 14 4 2 14</div>	<div>6/2NZ 1 1 14 3 2 14</div>	<div>2NZ 4 1 14 3 2 14</div>	<div>3/2(1) LS 1 14 3 2 28</div>



LIBYA
Map L

**Desert
Fox**

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SUMMARY OF SUPPLY SOURCES AND CAPACITIES

SOURCE	ALEXANDRIA RAIL HEX TOBRUK (CW: 1070) (AXIS)	OASIS (7.24)	BARDIA (7.26)	DUMP	MSU (As a link only)
Radius	12	12	12	12	6
General Supply					
Non-Motorized (NE)	U	U	U	U	U
Motorized (NE/EX)	U/-	O/-	U/-	1-5/6-10	1-5/6-10*
Combat Supply					
Attack (NE/EX)	U/-	O/-	O/-	1-3/4-5	1-3/4-5*
Defense (NE/EX)	U/-	O/-	O/-	1-6/7+	1-6/7+*
Remove Disruption (NE/EX)	U/-	O/-	O/-	O/U	U/U/-

NE: Supply unit not expended. EX: Supply unit expended. U: Unlimited. (-): Not applicable. *See 7.16.

[6.37] RAID ON MALTA TABLE

DIE	1	2	3
1	1/0	1/0	0/0
2	0/0	0/0	1/1
3	0/0	1/1	0/1
4	0/0	0/1	0/1
5	1/1	0/1	1/2
6	0/1	0/1	0/2
AXIS SUPPLY EXPENDED	0	1	2

#/#: Axis/Commonwealth Air Points eliminated. See 6.33.

[7.57] AXIS CONVOY ARRIVAL TABLE

DICE	MSU'S AVAILABLE
1-3	4
4-5	3
6-7	2
8-10	1
11+	0

Add the number of CW Air Points at Malta to the roll of 2 dice. Game-Turns 1-9, subtract 1 from the dice roll; Game-Turns 15-22, add 1. See 7.55.

[5.18] AXIS REINFORCEMENTS

ITALIAN	TURN	GERMAN
17 Pav; 25 Bol; 55 Sav 7Br/Trn Mech; 61/Trn; 62/Trn; 102/Trn; 2 Arty.	2	33 Recon; 104 Mech.
	3	115 Mech; 8 Armd; 155 Mtrzd.
	4	15 Pzr Arty.
	5	361 Afr.
	6	580 Recon.
Recam Armd Car. 9Br/Trn; 65/Trn Mtrzd; 66/Trn Mtrzd; 101/Trn Hvy Wpns.	7	
	8	1/18 Flak.
	10	11/25 Flak; 368 Flak.
133/Li Armd; 12Br/Li Mech; Lan/Li Mech.	11	
	12	114 Flak; 1/6 Flak.
	14	Svbd 288 Hvy Wpns.
	15	1 Afr Arty.
	16	190 Arty.
Monf III Recon. Artclre Armd Arty. 16 Pist; Polg Gldr Int.	18	Rameke Hvy Airbne Inf.
	19	125 Mtrzd; 164 Recon; 11/5 Flak; 382 Mtrzd; 433 Mtrzd; 220 Arty.
GGFF.	20	

DESTROYED
UNITS
BOX

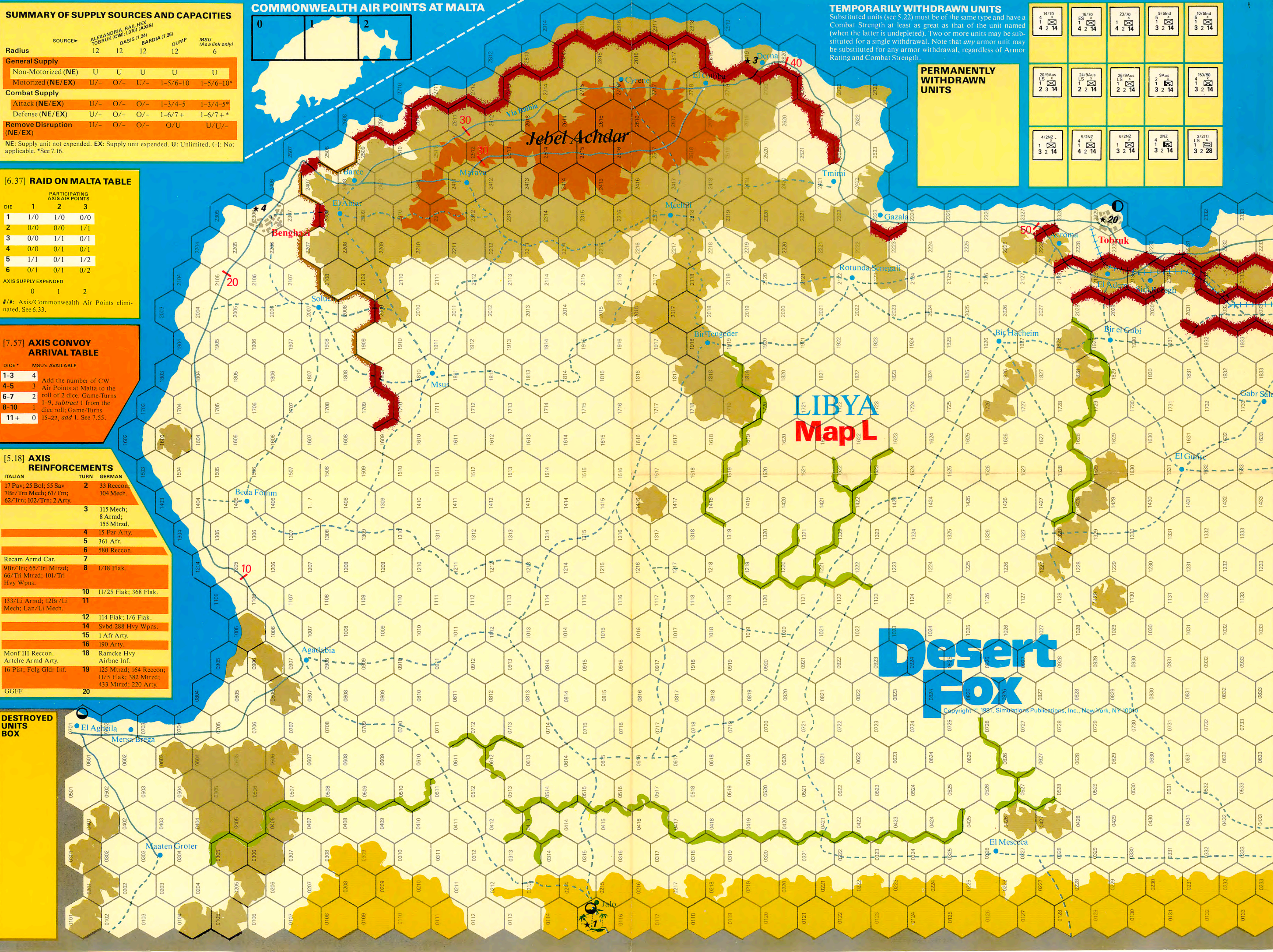
COMMONWEALTH AIR POINTS AT MALTA

0	1	2

TEMPORARILY WITHDRAWN UNITS
Substituted units (see 5.22) must be of the same type and have a Combat Strength at least as great as that of the unit named (when the latter is undepleted). Two or more units may be substituted for a single withdrawal. Note that any armor unit may be substituted for any armor withdrawal, regardless of Armor Rating and Combat Strength.

PERMANENTLY
WITHDRAWN
UNITS

14/70 4 1 4 2 2 14	16/70 ES 1 4 4 2 14	23/70 1 4 2 2 2 14	9/5ind 1 3 2 3 2 14	10/5ind 5 1 3 3 2 14
20/8Aus 1 2 3 2 3 14	24/8Aus 1 2 2 2 2 14	26/8Aus 1 2 2 2 2 14	9Aus 1 3 2 3 2 14	150/50 1 1 3 3 2 14
4/2NZ 1 3 2 3 2 14	5/2NZ 1 4 2 4 2 14	6/2NZ 1 3 2 3 2 14	4/2NZ 1 3 2 3 2 14	10/3(21) 1 3 2 3 2 28



[3.17] COMMONWEALTH REINFORCEMENT SCHEDULE

Game-Turn 2: Polish; 18 Aus Hvy Inf (enters depleted); 5/4 Ind; CIH Recce; 4 Ind Arty; 9 Aus Hvy Wpns; 9 Aus Recce.

Game-Turn 3: 7/4 Ind; 11/4 Ind; Royals Recce; 6/2 NZ (enters depleted); 1/2 Arm (enters in Refit Box); 5/1 SA; 4/7 Arm (enters in Refit Box); 7/7 Arm (enters in Refit Box).

Game-Turn 4: 14/7 Ind; 4/2 NZ (enters depleted); 5/2 NZ; 2 NZ Hvy Wpns; 1 Army Arm; 150/50 Mtrzd; 1/1 SA; 2/1 SA. *WITHDRAW:* 16/70(4); 23/70(4); 5/3 Ind(3).

Game-Turn 5: 9/5 Ind; 3/2 SA; 6/2 SA; 10/5 Ind; 29/5 Ind. *WITHDRAW:* 14/70(4).

Game-Turn 6: 4/2 SA; 2 SA Hvy Wpns; 4/6 SA Recce. *WITHDRAW:* 150/50 Mtrzd(3); 18 Aus Hvy Inf(5); 9/5 Ind(3).

Game-Turn 7: 22 Arm; 1 SA Hvy Wpns; 16/70*; 23/70*. *WITHDRAW:* 24/9 Aus(2); 9 Aus Recce(1); 9 Aus Hvy Wpns(3); 10/5 Ind(3).

Game-Turn 8: "e" Arty; 14/70*. *WITHDRAW:* 26/9 Aus(2); 20/9 Aus(2).

Game-Turn 9: 2/1 Arm; 12 Lane Recce; 1/1 Hvy Wpns

Game-Turn 11: IFF. *WITHDRAW:* Polish(3); 3/2 Arm.

Game-Turn 12: 8/10 Arm; 69/50 Mtrzd; 151/50 Mtrzd; 50 Hvy Wpns. *WITHDRAW:* 14/70(4); 23/70(4).

Game-Turn 13: 161 Ind Mtrzd; 10/5 Ind*; *WITHDRAW:* 4/2 NZ(3); 5/2 NZ(4); 6/2 NZ(3); 2 NZ Hvy Wpns(3); 16/70(4).

Game-Turn 14: 2 FF; 9/5 Ind*; 3/2 Arm*. *WITHDRAW:* 7/4 Ind(2).

Game-Turn 15: "d" Arty; 9/10 Arm.

Game-Turn 16: 20/10 Ind Hvy Wpns; 21/10 Ind Hvy Wpns; 25/10 Ind Hvy Wpns; 10 QVOC Recce; 4/2NZ*; 5/2 NZ*; 6/2NZ*; 2 NZ Hvy Wpns*.

Game-Turn 17: 18 Ind; 23/8 Arm; 24/8 Arm; 2dYeo Recce; "e" Arty; 20/9 Aus*; 24/9 Aus*; 26/9 Aus*; 9 Aus Hvy Wpns*. *WITHDRAW:* 3 Ind Mtrzd(3).

Game-Turn 18: 131/44 Mtrzd; 132/44 Mtrzd; 133/44 Mtrzd; 1 Greek; 152/51 Mtrzd; 153/51 Mtrzd; 154/51 Mtrzd; 51 Hvy Wpns. *WITHDRAW:* 1 Army Arm; 25/10 Ind Hvy Wpns(3).

Game-Turn 19: 44 Hvy Wpns. *WITHDRAW:* 22 Mtrzd(3).

Game-Turn 20: *WITHDRAW:* 9/5 Ind(3).

Game-Turn 21: *WITHDRAW:* 20/9 Aus(2); 24/9 Aus(2); 26/9 Aus(2); 9 Aus Hvy Wpns(3).

Numbers in parentheses following designations of withdrawn units indicate the minimum Combat Strength of substitutions for the indicated unit. *Indicates that unit was previously withdrawn.

[11.8] COMBAT RESULTS TABLE

DEFENDER'S HEX	COMBAT RATIO (Attacker-Defender)																	
Alexandria	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	OR MORE									
Mountain/Fort 2/Tobruk/Benghazi	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1	8-1	OR MORE								
Rough/Fort 1/Bardia	1-2	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1	8-1 OR MORE								
Clear/Sand Sea/Marsh	1-3	1-2	1-1	2-1	▶	3-1	4-1	5-1	6-1	7-1 8-1 OR MORE								
COLUMN NUMBER	1	2	3	4 ^A	5	6	7	8	9	10 ^A	11	12	13	14	15	16 ^A	17	
DEFENDER'S MORALE	1	-	-	-	-	-	-	1	1	2	p	d3p	d4p	d5p	d3D	d4D	d5D	
2	-	-	-	-	-	-	-	1	2	p	d3p	d4p	d6p	d2D	d3D	d5D	d6D	E
3	-	-	-	1	2	p	d3p	d4p	d6p	d3D	d4D	d5D	d6D	E	E	E	E	E
4	-	-	1	2	p	d3p	d5p	d6p	d2D	d4D	d6D	E	E	E	E	E	E	E
5	-	1	2	p	d3p	d5p	d6p	d3D	d5D	E	E	E	E	E	E	E	E	E
EFFECT ON ATTACKING UNITS	E	d6D	d5D	d4p	d3p	p	l	-	p	-	p	l	-	-	-	-	-	-

#: Retreat indicated number of hexes. d: Unit(s) disrupted. D: Unit(s) depleted. E: Unit(s) eliminated. p: See 11.7 for explanation. A: See 6.23. (-): No result. ▶: Indicates that the next higher Combat Ratio is to be found in the next column to the right. Note also that the “no result” entries scattered through the Effect on Attacking Units line are intentional. See 11.6 for the effects of attacking at a ratio below the minimum listed; see 11.6 and 11.7 for detailed explanation of all results; see 11.0 for explanation of use of this table.

[11.37] HEXSIDE TERRAIN EFFECTS ON COMBAT

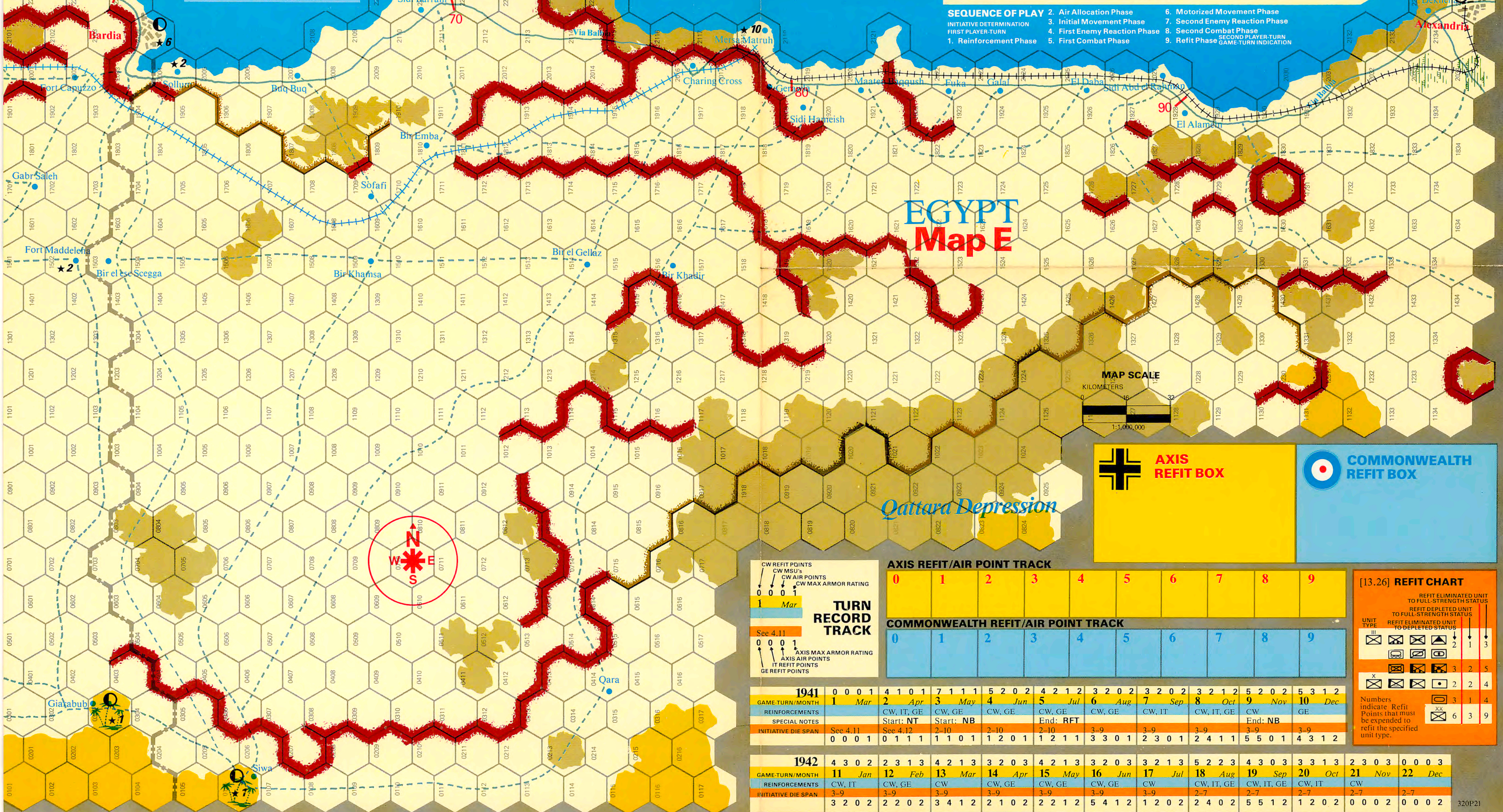
UNIT ATTACKING ACROSS...	EFFECT ON COMBAT STRENGTH
Wadi	Attacker's Strength halved (round up)
Ridge	Attackers Strength divided by 3 (round up)
Escarpment	Attacker's Strength divided by 3 (round down)

[8.29] TERRAIN EFFECTS CHART AND KEY

TERRAIN TYPE

Motorized Unit: Movement Point cost to enter or cross
Non-Motorized Unit: Movement Point cost to enter or cross

CLEAR Motorized: 2 Non-Motorized: 2	MARSH Motorized: 2 (see 8.14) Non-Motorized: 3	RAIL HEX Use cost of other terrain in hex for all units.	DISTANCE INDICATOR Use cost of other terrain in hex for all units.
ROUGH Motorized: 4 Non-Motorized: 2	VILLAGE Use cost of other terrain in hex for all units.	UNFINISHED RAIL HEX Use cost of other terrain in hex for all units.	VICTORY POINT HEX Use cost of other terrain in hex for all units.
MOUNTAIN Motorized: 6 Non-Motorized: 3	ROAD Motorized: 1/2 Non-Motorized: 1	ESCARPMENT Motorized: Prohibited Non-Motorized: +5	SUPPLY HEX Use cost of other terrain in hex for all units.
SAND SEA Motorized: 2 (see 8.14) Non-Motorized: 2	TRACK Motorized: Use half the cost of other terrain in hex. Non-Motorized: 1	RIDGE Motorized: +3 Non-Motorized: +2	CONDUCT SUPPLY OVERRUN Motorized: +1 Non-Motorized: +1
		WADI Motorized: +2 Non-Motorized: +1	CONDUCT OVERRUN Motorized: +2 Non-Motorized: Prohibited
		BORDER Use cost of other terrain in hex for all units.	INFILTRATE Motorized: +1 Non-Motorized: Prohibited



- SEQUENCE OF PLAY**
- INITIATIVE DETERMINATION
FIRST PLAYER-TURN
1. Reinforcement Phase
 2. Air Allocation Phase
 3. Initial Movement Phase
 4. First Enemy Reaction Phase
 5. First Combat Phase
 6. Motorized Movement Phase
 7. Second Enemy Reaction Phase
 8. Second Combat Phase
 9. Refit Phase
- SECOND PLAYER-TURN
GAME-TURN INDICATION

TURN RECORD TRACK

See 4.11

CW REFIT POINTS	0	0	0	1
CW MSU+1	0	0	0	1
CW AIR POINTS	0	0	0	1
CW MAX ARMOR RATING	1	Mar		

See 4.11

AXIS MAX ARMOR RATING	0	0	0	1
AXIS AIR POINTS	0	0	0	1
IT REFIT POINTS	0	0	0	1
GE REFIT POINTS	0	0	0	1

AXIS REFIT/AIR POINT TRACK

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

COMMONWEALTH REFIT/AIR POINT TRACK

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

[13.26] REFIT CHART

UNIT TYPE	REFIT ELIMINATED UNIT TO FULL-STRENGTH STATUS	REFIT DEPLETED UNIT TO FULL-STRENGTH STATUS	REFIT ELIMINATED UNIT TO DEPLETED STATUS
III	2	1	3
IV	3	2	5
V	2	2	4
VI	3	1	4
VII	6	3	9

Numbers indicate Refit Points that must be expended to refit the specified unit type.

1941	0	0	0	1	4	1	0	1	7	1	1	1	5	2	0	2	4	2	1	2	3	2	0	2	5	2	0	2	5	3	1	2
GAME-TURN/MONTH	1	Mar	2	Apr	3	May	4	Jun	5	Jul	6	Aug	7	Sep	8	Oct	9	Nov	10	Dec												
REINFORCEMENTS																																
SPECIAL NOTES																																
INITIATIVE DIE SPAN	0	0	0	1	0	1	1	1	1	0	1	1	2	1	0	1	1	2	1	1	3	3	0	1	3	3	0	1	5	5	0	1

1942	4	3	0	2	2	3	1	3	4	2	1	3	3	2	0	3	4	2	1	3	3	2	0	3	3	2	0	3	4	3	0	3
GAME-TURN/MONTH	11	Jan	12	Feb	13	Mar	14	Apr	15	May	16	Jun	17	Jul	18	Aug	19	Sep	20	Oct	21	Nov	22	Dec								
REINFORCEMENTS																																
SPECIAL NOTES																																
INITIATIVE DIE SPAN	3	2	0	2	2	2	0	2	3	4	1	2	2	1	0	2	5	4	1	2	1	2	0	2	5	5	1	2	1	2	0	2