Command

The Capture of *Unit 621*: Lessons in Information Security Management from the North Africa Campaign

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Abstract

Army's military history is not some curio simply to be admired. Events that took place many decades ago, many thousands of kilometres away and against very different adversaries to those faced today still provide valuable lessons for modern commanders. This article examines the little-known capture of Rommel's signals intelligence unit by an Australian battalion in North Africa in July 1942 as a case in point. It identifies how risks taken by German commanders compromised not just Rommel's intelligence efforts, but also the broader German military signals intelligence capability. It further demonstrates how a lack of understanding of the German unit's intelligence value limited the Australians' ability to fully exploit the personnel, information and material they captured. And it explains why those lessons are relevant to modern commanders.

Introduction

In the early hours of 10 July 1942, Rommel's *Panzerarmee Afrika* lay within reach of Cairo and the Suez Canal. With just one more push, the newly promoted Field Marshal Rommel could deal the Allies a decisive blow in the Middle East. But when news reached him of an attack at Tel el Eisa on his northern flank, Rommel abandoned his eastern advance and rushed north to rescue the situation. When at around 9.00 am Rommel asked Second Lieutenant Wischmann, an officer from his signal intelligence company, *Unit 621*, for the latest intercept reports, Wischmann,

> Had to tell him that we still had not established radio contact with the company yet. 'Where is the company positioned?' he asked. I showed him on the map. 'Then it is futsch — lost!' he said, absolutely furious.[1]

In addition to having his flank turned and being forced onto the defensive, Rommel knew that his premier source of battlefield intelligence was also gone. An avid consumer of signals intelligence, Rommel recognised that the nature of warfare in North Africa meant that 'radio was the only possible form of communication — a medium as dangerous as it was valuable — and the British used it more carelessly than ever'.[2] *Unit 621* provided him,

> With accurate and welcome information, on which he could base his bold and varied tactics. His peculiar talent for gaining unexpected success in armoured warfare, where radio communication played a vital role, had already brought him a number of startling victories as commander of a panzer division in the Campaign in the West. In the desert Rommel encouraged this new method of tactical reconnaissance, especially since the results of German air reconnaissance were limited by British air superiority.[3]

While this incident occurred more than 70 years ago and half a world away, it provides valuable and relevant lessons on the importance of managing the security risks associated with the forward deployment of sensitive intelligence, surveillance and reconnaissance (ISR) assets.

Unit 621

Panzerarmee Afrika's first radio monitoring (*horchzug*) platoon arrived in theatre in February 1941 and was joined in April by the remainder of Captain Alfred Seebohm's *3rd Company*, *56th Signals Battalion*. Quickly renamed *Nachrichten Fernsehsendung Aufklarung Kompanie 621* (*Signals Intercept Company 621*),[4] Seebohm's soldiers referred to themselves as the 'Circus'[5] because of the unit's 'nondescript gaggle of buses and wireless lorries'.[6] Many of these were civilian vehicles commandeered in France or elsewhere in Europe, and their non-military nature meant that *Unit 621* looked quite unlike *Panzerarmee Afrika*'s other front-line units.

Many of *Unit 621*'s 10 officers, 63 non-commissioned officers and 259 other ranks,[7] were English-language cryptanalysts with experience in intercepting British traffic from the French and Belgian campaign, and 'therefore knew the weaknesses of the British radio system'.[8] They were organised into eight platoons: headquarters, signals, analysis, intercept, short and medium-wave direction-finding, and two transport platoons.[9] Their equipment included 'receivers and direction-finding instruments suitable for use in a tropical climate'.[10] However, with only five machine pistols and six light machine-guns, the unit could not defend itself against any threat greater than an infantry patrol.[11]

Since early July, *Unit 621*'s headquarters had been located with *Panzerarmee Afrika*'s main headquarters while the majority of the unit had deployed behind the Italian *60th (Sabratha) Division* near Tel el Eisa. There, the unit's 200 men and 40 vehicles occupied an area of around 700 metres by 300 metres close to the beach.[12] This echelon included almost 75 per cent of the intercept platoon and 60 per cent of the analysis platoon, one direction-finding platoon, signals personnel and members of the transport element.[13]

Seebohm's considerations in selecting this forward site included its suitability for intercepting British communication. The location close to the beach provided 'uninterrupted reception' from his priority targets, namely 'Cairo, Middle East Headquarters, Eighth Army, 30th Corps and the allied armour in front of him'.[14] Further considerations included the need to maintain communications with his own direction-finding detachments, as well as with Rommel's very mobile forward headquarters.[15] Timely reporting was essential, and,

> Not infrequently, the intercepted enemy signals had been deciphered and were in Rommel's hand whilst the [less well positioned] enemy signallers were still querying them. Rommel thus often had signals in his hands before the enemy commanders to whom they had been addressed.[16]

Seebohm's men questioned his decision to site the unit there. Lieutenant Habel (who succeeded Seebohm as unit commander) questioned why the site was 'so far forward'.[17] Separately, Staff Sergeant Hässler commented that Seebohm 'personally chose the position at Tel-el-Eisa and refused to budge even when his subordinates warned of the conspicuously frequent reconnaissance flights by enemy planes'.[18] While those flights did not necessarily mean the British knew of the presence of *Unit 621*, they nonetheless signalled British interest in the area.

German accounts ascribe much of the reason for *Unit 621*'s capture to Seebohm's decision to 'imprudently station [his unit] far in advance of Rommel's headquarters and only a few kilometres behind an Italian sector of the front'.[19] Seebohm had 'rather apologetically' told Lieutenant Behrendt 'that he knew his position was very far advanced, but he would get much better results from there'.[20] Hässler recalled that Seebohm had been 'accused of cowardice before the enemy, and threatened with court-martial' for withdrawing from Mersa Matruh at the end of June.[21] Wischmann thought 'Seebohm was extremely ambitious and always wanted to win glory in Rommel's eyes by obtaining impressive results from our company,' concluding that,

> It was to achieve such brilliant results that Seebohm had taken the risk of putting our company in such an exposed position by the sea, just a few hundred yards behind a sector defended by Italian troops. In the event, when the enemy attacked, the Italians fled.[22]

Panzerarmee Afrika's command environment was also a factor. Rommel's career and reputation were built on throwing caution to the wind as he urged his units ever forward. *Unit 621* was no exception, and had twice previously come close to peril. On 24 December 1941,

> Radio Direction Finder 3rd Section was overrun by enemy tanks and taken prisoner. Thanks to prudent action by the commanding officer of Direction Finding Section 3 this section escaped from captivity. The section salvaged its equipment, which is being taken to Company for repair.[23]

Then, on 24 January 1942,

> Direction Finding 4th Section was surprised by the enemy on its way to the new assignment area. The commanding officer was captured with wireless documents but freed himself by cool action and personally took seventeen prisoners.[24]

It says much of the command environment that the alleged Mersa Matruh incident could have influenced Seebohm's decision-making process more than the two close calls he and his men had earlier experienced.

Lessons/insights

Unit 621's experience demonstrates that 'chasing ground' is as much a temptation when siting ISR assets as it is with any weapon system. A further lesson is that Seebohm accepted — or ignored — the security risks inherent in his decision to locate the unit so far forward because *Panzerarmee Afrika*'s command environment tolerated risk to the point of recklessness. However, *Unit 621*'s non-military appearance worked in its favour and meant that the Australians initially overlooked its intelligence value.

Tel el Eisa

Despite their location behind the Italian *60th Sabratha Division* and less than 5000 metres from the front line, Seebohm's men did not expect to be attacked. Similarly, when the men of the Australian 2/24th Battalion assaulted the ridge north of Tel el Eisa railway siding, they did not expect to pull off one of the Second World War's greatest intelligence coups, although they only became aware of this achievement long after the war.

The 2/24th Battalion's attack was part of the First Battle of El Alamein. As Rommel's advance on Cairo lost momentum near Alamein, the British Eighth Army commenced a limited counteroffensive towards Tel el Eisa. Under cover of a heavy artillery barrage, the Australian 26th Brigade (9th Australian Division) attacked from a line along the coast and secured the low ridge to the north of the railway. In doing so, the Australians scythed through the inexperienced *Sabratha Division*, which had only just occupied underprepared defences in the sector, and took more than 1500 prisoners. Indeed, the Luftwaffe commander in Africa, Lieutenant General van Waldau, later concluded that it was Seebohm's unit that had mounted 'the first real resistance' to the Australians.[25]

While some of the Circus's vehicles managed to escape during the 90-minute firefight, some 100 unit members were killed or taken captive.[26] Among the captured were the mortally wounded Seebohm and his second-in-command, Lieutenant Herz. According to Herz, the speed of the Australian attack meant 'methodical destruction of the documents, etc, was no longer possible'.[27] This view is supported in the German signals intelligence service's history, which concluded,

> There was no opportunity to destroy the valuable intercept files. Thus, the enemy captured the German records of intercepted British messages and codes, the analyses prepared by the German intercept service, as well as German and Italian radio schedules and ciphers.[28]

Lessons/insights

ISR assets are rarely capable of defending themselves and require protection by combat units. Emergency destruction plans for sensitive information and equipment must be effective and capable of rapid implementation.

The haul

It is difficult to determine precisely what the Eighth Army knew about *Unit 621*'s presence at Tel el Eisa. According to Lieutenant Behrendt's post-war research, the relevant British Army files were subject to a 100-year embargo from public release, which limited his assessment as to whether British commanders knew that *Unit 621* lay in the path of the Australian attack.[29] More recent research indicates that the British signals intercept effort ('Y' Service) had 'through intercepts fixed the location of [Unit] 621'.[30] But even if the British knew that *Unit 621* was located behind the *Sabratha Division*, there is no evidence to suggest the Australians did. A member of the 26th Brigade's intelligence staff recalled 'the surprise engendered by a headquarters camp being so far forward, and that some prisoners were sent on with great rapidity'.[31]

Interrogation of Lieutenant Herz and 16 other members yielded further insights into *Unit 621*'s capabilities.[32] Results were initially limited as Seebohm's men underplayed the unit's successes and demonstrated a 'stubborn resistance to interrogation', which suggested they had been provided 'frequent and intensive indoctrination in security'.[33] Nonetheless, two prisoners alerted interrogators to their 'communication with two *Abwehr* [German Military Intelligence] agents in Cairo'.[34]

In addition to the prisoners, the Australians captured sensitive documents and signals interception equipment. A collection of *Unit 621*'s daily and monthly reports, including some dating back to the Battleaxe Offensive on 14 June 1941, provided insights into the inadequacy of British communications security countermeasures.[35] The Eighth Army's heavy reliance on speech led Herz to comment that *Unit 621* did 'not have to bother too much about ciphers, all we really needed [were] linguists, the sort who were waiters at the Dorchester before this war started'.[36] According to British records, many of the captured reports appeared to have been carried by Seebohm, who was visiting his forward echelon at the time.[37]

While no British codebooks were recovered, there was evidence that British codes had been compromised.[38] Also captured were the results of direction-finding and traffic analysis, including a list of British callsigns.[39] *Unit 621* identified individual units by tracking their Morse operators' distinctive 'fist'.[40] It had also exploited poor British radio discipline, including 'clear-text radiotelephone and telegraph messages mentioning geographical data, the names of individuals, unit designations; the failure to mask such terms properly; and the use of extremely simple ciphers and routine call signs'.[41]

The captured documents also indicated that the Germans knew the British signals intercept service enjoyed successes against German *en-clair* communications, and that the 'British were decoding [German and Italian] enciphered messages both simultaneously and retroactively, using the quantities of captured signals and by means of captured keys and cryptanalysis'.[42] More ominously, 'the captured material … contained much detail about the penetration of the Black Code'[43] used to convey information to Washington from briefings with senior British military leadership in Cairo by the US Military Attaché in Cairo, Colonel Fellers. Fellers' reports were so reliable that the Germans referred to him as the 'Good Source'. Reassuringly for the Allies, there was no evidence to suggest that the British success against the German Enigma communications had been compromised.[44] While there is no evidence that an Enigma machine was part of the booty at Tel el Eisa, the capture of German ciphers and radio schedules led *Panzerarmee Afrika* to change these during the El Alamein battle.[45]

Lessons/insights

Resistance to interrogation training is effective in delaying the intelligence exploitation of prisoners. Adherence to the need-to-hold principle, under which documents of strategic value that were not needed at the front line should not have been held, is particularly vital when moving to areas of greater security risk. Intelligence and security are two sides of the same coin — poor communications security significantly improves an adversary's signals intelligence.

Few clues

The Australians were largely ignorant of the significance of their prize. The war diaries of the 2/24th Battalion and its parent formations, the 26th Brigade and the 9th Division, provide few clues on the capture of Seebohm's unit. The most substantial reference is in the 9th Division's Intelligence Summary No. 245 (13 July), which identified *Unit 621*,

> 69 … German POWs … were identified as belonging to NACH.FERNSP. AUFKL. KLMP 621 (3 Coy 56 Sig Bn). Some very valuable documents including wireless intercept messages were captured from this Coy.[46]

The 26th Brigade War Diary entries refer to German prisoners, but not their unit, while comment in the 2/24th Battalion War Diary is limited to a note that 'appreciation has been expressed concerning captured material and documents sent back, much valuable information has been gained'.[47] Over the following days, War Diary entries implore soldiers to hand in any souvenirs and documents of potential intelligence value.

Security may be one reason these records barely mention *Unit 621*'s capture. British signals intelligence channels did not extend below corps level, and so divisional, brigade and unit commanders were unaware of the extent of the signals intelligence threat. It was also imperative to keep the Germans guessing on the extent of knowledge gained concerning the Axis signals intelligence capability through the capture of *Unit 621*.

This was particularly important in the field of signals intelligence. Eight months earlier, the British had captured one of the German 'headquarter radio cars … complete with Enigma machine and several days' messages in plain text'.[48] This would have provided an important break for British cryptanalysts seeking to unravel the German military's most sophisticated cipher machine. But because the Germans were aware of the Enigma machine's loss, the intelligence coup proved 'a minor disaster, as with effect from 23rd November all *Afrika Korps* cipher settings had been changed [and were] not read again until April 1942'.[49]

But there were probably other more mundane explanations as to why the 2/24th Battalion did not record *Unit 621*'s capture. It was not until late July that the battalion commenced issuing intelligence summaries, and in the immediate aftermath of the Tel el Eisa action there were more pressing issues — the battalion's commanding officer was captured when his vehicle took a wrong turn during the battle.

The damage

Unit 621's capture caused 'irreparable damage' to Rommel's campaign.[50] The unit had been,

> The source of much of Rommel's order of battle and operational intelligence. The consequent reduction of its effectiveness was a severe blow to Rommel who depended during the remainder of July on inadequate information from local sources.[51]

As one authority concluded, 'many of the bold *Afrika Korps* manoeuvres which are recorded in the war histories as "lucky" or "strokes of genius" were only made possible by the information furnished by the listening companies'.[52]

However, the damage did not stop there. At the operational level, the Eighth Army was confronted by the extent of its poor communications security and quickly improved its countermeasures.[53] The British rapidly 'formed a "J" Service in North Africa … to monitor Base, Army and Corps communications for breaches of security',[54] and the Germans noted that 'in a very short time the British corrected their numerous, costly mistakes'.[55] Thereafter, even though *Unit 621* was rebuilt in Germany in September 1942, its performance suffered.[56] According to Lieutenant Habel,

> After the company was reactivated we succeeded in breaking a British supply code and were again delivered some valuable results but there was no way of regaining the consistently excellent results that had been obtained before 10th July 1942. But the flow of good results resumed upon our arrival in Tunisian soil [in December 1942] when we came within range of the American wireless traffic. They were still happy-go-lucky and careless of their signals procedures; they had not had the bad experiences of the British.[57]

There was also damage at the strategic level. While the British had discovered through human intelligence sources in late June that Axis intelligence was reading Fellers' reports, *Unit 621*'s capture not only confirmed this, but provided details of the results they had obtained, which exceeded British understanding.

More broadly, *Unit 621*'s capture provided the British with a plausible cover for other signals intelligence successes. It also provided valuable reassurances that the Germans did not suspect that the British had successfully attacked their secure communication. As the British Director of Military Intelligence Middle East, Colonel de Guingand, noted to the British Radio Security Service, 'the Germans are under the impression that we have not obtained any success as regards their cipher'.[58]

Lessons/insights

Providing tactical commanders with the ability to reachback to national–strategic intelligence capabilities carries with it the risk of compromise of those capabilities.

Conclusions

Unit 621's capture offers nine lessons that remain relevant to modern armies. First, commanders must balance the opportunities for improved collection against the risks of their loss or compromise when siting ISR assets in forward areas. Seebohm prioritised collection over security when he positioned his forward echelon close to the front line at Tel el Eisa. The forward siting of ISR elements not only affords better collection opportunities, but also offers local commanders tactical advantages based on the enhanced potential to speedily exploit the intelligence they might gain. However, their vulnerability to physical compromise increases the risks to the broader strategic intelligence capabilities of which they form part, and with which they are connected.

Second, a formation's tolerance for accepting (or ignoring) risks is shaped by the command environment established by senior leadership. Seebohm, and probably his senior leadership, accepted risks in siting his collection echelon forward in order to improve *Unit 621*'s ability to provide timely, relevant and accurate intelligence. On 10 July 1942, the consequences of that deployment were realised and *Panzeerarmee Afrika* suffered a devastating intelligence loss.

Third, as ISR units are rarely capable of providing their own security, other forces need to be assigned to their defence. Given its location at Tel el Eisa, a British attack on *Unit 621*'s forward echelon was always a possibility, but more could have been done to mitigate the likely consequences of the unit being overrun. This is particularly the case today given the potential reach of both conventional and unconventional forces, and the nature of threats in an insurgency. This is a significant challenge given the increased proportion of ISR elements in modern force packages and a commensurate decrease in the number of combat forces available to ensure their protection.

Fourth, combat units need to be alert to, and apprised of potential intelligence prizes. Leaders at all levels need to be alert to opportunities for intelligence exploitation and must be able to prioritise the evacuation of personnel, equipment and information that is likely to be of intelligence value. *Unit 621*'s presence at Tel el Eisa came as a complete surprise to the Australians. While allowing for the possible sanitisation of the Australian records, the omission until the late 1980s of any mention of *Unit 621*'s capture from post-war accounts indicates that, while the Australians knew they had captured German communicators, they did not appreciate the full significance of their catch. As a result, intelligence exploitation of captured personnel, equipment and documents was delayed. Tactical questioning was conducted much further behind the lines than it might have been, allowing high-value prisoners to overcome the shock of capture, contributing to their 'stubborn resistance' of their eventual interrogation. As suggested by the subsequent requests for the return of 'souvenirs', it is likely that the sensitive site, document and material exploitation were compromised through a lack of knowledge and awareness among the 2/24th Battalion soldiers.

The fifth lesson is the need for an effective emergency destruction plan. The 90-minute battle did not allow time for the emergency destruction of records and equipment that later fell into British hands. Emergency destruction protocols must be rapid if they are to account for the unforeseen, suggesting that they need to be explosive or fast burning to ensure swift and complete destruction. The April 2001 emergency landing of a US Navy EP-3E ISR aircraft on Hainan Island provides just one example of the challenges of emergency destruction in the digital age. In that incident, the aircrew, lacking other options, resorted to using hot coffee in an attempt to destroy on-board hard drives.[59]

Sixth, *Unit 621*'s experience demonstrates the value of preparing high-value personnel, including commanders and intelligence staff, for conduct after capture to reduce the speed at which an adversary can obtain actionable intelligence through their interrogation.

Seventh, Seebohm's capture with documents of strategic value that were not needed at the front line demonstrates the value of the 'need-to-hold' principle. With the hindsight that studying military history provides, the wisdom of *Unit 621*'s forward echelon holding so many old reports, including those carried by Seebohm, is questionable.[60] Today, the risk of compromise is even greater given the ability of electronic media to store prodigious amounts of information in a readily searchable format.

Eighth, intelligence and security are two sides of the same coin — the poorer a force's communications security, the more effective its adversary's signals intelligence. If one side enjoys intelligence successes against the other side's communications, it is dangerous not to assume that the reverse situation also applies.

Ninth, providing tactical commanders with intelligence reachback carries with it the risk of compromise of national–strategic intelligence sources. Today, there is also a potential broader cyber risk if national–strategic ISR communications networks are compromised.

Modern commanders face similar dilemmas to Rommel and Seebohm. Achieving mission success while limiting friendly force casualties and avoiding harm to non-combatants remains the highest priority for commanders at all levels and for governments. That pressure encourages commanders to deploy their ISR elements forward, while maintaining their ability to reach back to national–strategic agencies. But commanders must balance those requirements against the potential risk of compromise or loss of national strategic ISR capabilities, and the consequences for national security and long-term mission success. As modern armies rely on intelligence advantages to offset a reduced tactical footprint, the cautionary lessons from the Australian capture of *Unit 621* are of even greater significance to modern commanders. ■

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Colonel Tim Gellel is a serving Australian Army officer with experience as an intelligence officer from postings at the tactical, operational and strategic levels.

Endnotes

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27 Ibid., p. 172.

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32 Ibid., pp. 184–86, quoting unidentified British records.

33 Ibid., pp. 179, 186.

34 Van der Bijl, *Sharing the Secret*, at loc. 1168.

35 Behrendt, *Rommel's Intelligence in the Desert Campaign*, p. 183.

36 N. Barr, *Pendulum of War: The Three Battles at El Alamein¸* London: Jonathan Cape, 2004, p. 113, citing Hugh Skillen, *Spies of the Airwaves: A History of Y Sections During the Second World War*, self-published, 1989, p. 186.

37 Behrendt, *Rommel's Intelligence in the Desert Campaign*, p. 179.

38 Ibid., p. 180.

39 Ibid., p. 178.

40 Ibid., p. 50. Every telegraphist had a unique style and pattern when transmitting a message. An operator's style was known as his 'fist'. To other telegraphers, every fist is unique, and can be used to identify the telegrapher transmitting a particular message.

41 Praun, *German Radio Intelligence*.

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43 Baillieu, *Both sides of the hill*, p. 8.

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46 AWM52 1/5/20 War Diary of the 9th Australian Division General Staff, July 1942, Folio No. 54; 9th Australian Division Intelligence Summary No. 245, dated 13 July 1942.

47 AWM52 8/3/24 War Diary of the 2/24th Infantry Battalion, June to August 1942, Folio 113; 2/24th Australian Infantry Battalion, Intelligence Summary No. 8 from 0700hrs 24 July to 0700hrs 25 July 1942.

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49 Ibid.

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[51] F.H. Hinsley, *British Intelligence in the Second World War: Its Influence on Strategy and Operations*, Vol. 2, London: Her Majesty's Stationery Officer, 1981, p. 404n.

[52] Paul Carell, *The Foxes of the Desert*, trans Mervyn Savill, London: Macdonald, 1961, p. 243. Carell authored several books on the German Army, and had been Nazi Germany's chief Foreign Ministry press spokesman.

[53] Behrendt, *Rommel's Intelligence in the Desert Campaign*, p. 190.

[54] Van der Bijl, *Sharing the Secret*, at loc. 1168.

[55] Praun, *German Radio Intelligence*.

[56] Behrendt, *Rommel's Intelligence in the Desert Campaign*, p. 187.

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[58] Johnston and Stanley, *Alamein: The Australian Story*, p. 66, citing Deputy Director Military Intelligence to Military Intelligence Section 8 (Radio Security Service), War Office, 9 August 1942, WO 208/5040, Public Records Office.

[59] '"Compromise by the People's Republic of China of undestroyed classified material . . . is highly probable and cannot be ruled out," a Navy report issued in September, 2003, said.' Cited by Seymour Hersh, 'The Online Threat: Should we be worried about a cyber war?', *The New Yorker*, 1 November 2010, http://www.newyorker.com/magazine/2010/11/01/the-online-threat.

[60] It was probably with this in mind that E.D. Swinton, in his classic 1907 military history primer *The Defence of Duffer's Drift*, chose to name his protagonist 'Lieutenant Backsight Forethought'.