

## Viewpoint

# Eagles and Air Power: The Lord of the Rings as doctrine

By Dr Kenneth Payne

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### Introduction

**J**RR Tolkien had an intuitive feel for air power. Inspired by a throwaway comment from a RAF student about the reconnaissance role of the Great Eagles in Lord of the Rings (LOTR), I bought Kindle editions of the books to learn more.<sup>1</sup>

The keen student of air power theory might at first be disappointed by events in Middle Earth. There are only thirty mentions of eagles in the entire trilogy; only three of the birds are ever named; and just one has just a few lines of stilted dialogue. Tolkien was not obviously an air power enthusiast. Indeed, as his biographer records, he thought aerial warfare both 'immoral and excessively dangerous.'<sup>2</sup> In a wartime letter to his pilot son Christopher, Tolkien gloomily observed the gap between the noble ideal of flight and its actual use, such that 'our devices not only fail of their desire, but turn to new and horrible evil. So we come inevitably from Daedalus and Icarus to the Giant Bomber. It is not an advance in wisdom!'<sup>3</sup>

He had, nonetheless, considerable military experience, having served in France with the BEF in the Great War, where as a signals officer he took part in the British offensive at the Somme in 1916. His Sam Gamgee, he recorded later, was 'a reflexion of the English soldier, of the privates and batmen I knew in the 1914 war.'<sup>4</sup> Much of LOTR, moreover, was written during the Second World War, with the author sending parts of it as a serial to entertain Christopher, then training in South Africa with the RAF. During the Blitz, Tolkien served as an air raid warden in Oxford, which remained unmolested throughout the war, even later when the Germans embarked on the so-called *Baedeker* raids against targets of cultural value, like Exeter and Bath.

Both World Wars seem to have informed his writing, even though Tolkien himself insisted that LOTR was 'neither allegorical nor topical'.<sup>5</sup> He certainly did not intend it as commentary on the Second World War, either writ large as the struggle of the democratic west against totalitarian dictatorship, or in its more tactical details of combat. The fighting for the most part is medieval: cinema goers will remember the huge set-piece battles between massed ranks of infantry, as with the sieges at Helms Deep and Minas Tirith, or perhaps cavalry wheeling in the open steppes of Rohan.

The eagles, however, are an exception. First, as we shall see, they are critical for the plot of LOTR, because of three key episodes where they turn the tide decisively. Air power, as these birds demonstrate, can have a critical impact on what is an essentially land campaign. But more than this, they illustrate, just as I had hoped, some hardy perennials of air power theory and practice. Allegory or not, there are striking parallels between the air war against Sauron and that against Hitler. And for those new to air power, whether theory or practice, the struggles of the Fellowship might be more familiar than the struggles of the Few. I use all of the core air power roles outlined in modern doctrine to explain more.

### **ISTAR<sup>6</sup>**

My student was right: giant, mythical Eagles make an excellent aerial reconnaissance platform. And this, moreover, in a book written at a time when ISTAR itself remained somewhat primitive, being mostly confined to photo reconnaissance, notably by the unarmed Supermarine *Spitfires* and De Havilland *Mosquitoes* of the RAF's newly formed Photographic Reconnaissance Unit (Downing 2011).

Gandalf, held prisoner in Saruman's white tower by that treacherous and power hungry fellow wizard, is the key beneficiary. As he relates to Frodo, 'the Eagles of the Mountain went far and wide, and they saw many things: the gathering of wolves and the mustering of Orcs; and the Nine Riders going hither and thither in the lands; and they heard news of the escape of Gollum. And they sent a messenger to bring these tidings to me'.<sup>7</sup>

The eagles do the most obvious thing we expect of aerial ISTAR: picking out concentrations of enemy fielded forces. This proves comparatively easy, even in the difficult terrain of Misty Mountains and Mirkwood. They also demonstrate an impressive ability to track the movement of individual targets, and to listen in on intelligence about Gollum's escape. It helps, of course, that they can talk. There are limits, however, as we learn later of the council in Rivendell that 'even from the Eagles of the Misty Mountains they had learned no fresh news, of enemy movements or of Gollum's whereabouts'.<sup>8</sup> The problem is likely one familiar from the manhunts of recent wars: that of depth versus the number of platforms available to scour for an individual target.

The eagles are a high altitude surveillance platform. Occasionally in the narrative, the eagles are seen far off in the distance, as when Aragorn sets off in pursuit of Frodo and Boromir, and

sees 'a great bird like an eagle high in the air, descending slowly in wide circles down towards the earth'.<sup>9</sup> Later, Legolas, Gimli and Aragorn track the kidnapped Hobbits, Legolas spots an eagle, flying very high and with great speed towards the North, so far aloft that only the elf can see him. In their ability to scan wide areas in real time the eagles exceed the more primitive photo and signals reconnaissance abilities that would be available to air forces for many years to come. As an autonomous platform, with tremendous range, speed and endurance, the giant eagle outmatches anything else in the trilogy.

But Middle Earth is huge, and a handful of Great Eagles from the Misty Mountains cannot maintain any sort of persistent surveillance over it, no matter what their speed and endurance. In the quality versus quantity debates of today, the same dilemma plays out: exquisite capabilities are of limited utility when set against great depth, or a demanding operational tempo.

### **Air Mobility**

As with reconnaissance, so too with air mobility - Tolkien uses air power in similar fashion to the RAF's rapidly evolving capabilities in the Second World War. The impressive feats achieved by the Eagles include spotting Gandalf from afar and rescuing him, not once, but twice. The first occasion is when Gandalf escapes from Isengard. Alone and trapped at the pinnacle with 'no descent, save by a narrow stair of many thousand steps,' Gandalf fears the worst.<sup>10</sup> But Gwaihir, 'the Windlord, swiftest of the Great Eagles,' spots him in the late summer moonlight. Not bad. Gandalf 'spoke to him and he bore me away before Saruman was aware. I was far from Isengard, ere the wolves and orcs issued from the gate to pursue me.'<sup>11</sup> Mobility to achieve surprise is a key air power capability, ably demonstrated here.

In WW2, air power was used to transport key figures on both sides. This episode recalls the role of the Westland *Lysander* in transporting agents and irregulars to occupied Europe a few years later. Originally intended as an army co-operation aircraft, it performed poorly in that role, but was, as M R D Foot wrote in his history of the Special Operations Executive, an aircraft 'about which Voltaire's remark about God has been applied; if it had not existed it would have had to be invented.'<sup>12</sup> More than 100 successful sorties were made into France for the loss of only two aircraft. Modern doctrine refers to 'special air operations' - an important enabler of special forces operations.<sup>13</sup> Key individuals are retrieved from under the enemy's nose, or transported about the theatre of operations quickly and without attracting attention. As with the *Lysander*, so with Gwaihir - the role of intra-theatre mobility is improvised amidst conflict.

Later in the story, the Eagle reprises his role as a vehicle for rapid intra-theatre mobility. 'We have need of speed greater than any wind,' declares Gandalf, preempting Maverick and Goose. 'The North Wind blows, but we shall outfly it,' Gwaihir declares immodestly.<sup>14</sup> The two then set off to the south, overflying Mordor and approaching Mount Doom itself, raising serious questions about the Integrated Air Defence System available to the Dark Lord, apparently possessed of an 'all seeing eye'. The same thought occurred to a later cartoonist,

who depicts the Eagles overflying Mount Doom and dropping in the Ring at the outset, saving the Fellowship much hardship, and readers considerable time. Guilio Douhet and John Warden one suspects, would have approved.<sup>15</sup>

Gwaihir rescues Gandalf a second time, after the wizard has defeated the Balrog, throwing him from the summit of Moria. The eagle spots the grievously wounded Gandalf lying alone on the mountain, apparently more dead than alive.<sup>16</sup> Eagles, it seems, have great utility in combat Search and Rescue, an important facet of air mobility, especially in casualty averse times. The real value of the Eagles comes from the combination of two air power roles - reconnaissance and mobility. Search and Rescue often involves more than one platform: the Great Eagles, by contrast, are versatile and multirole. In the Second World War, as Tolkien was writing about Gandalf's rescue, the Supermarine *Walrus* flying boat was being used in the Gwaihir role as the RAF's first effective combat Search and Rescue aircraft, retrieving airmen downed over the channel in the Battle of Britain (Franks 1994; Galdorisi and Phillips 2008). Unlike the Eagle, however, the *Walrus* operated in conjunction with other aircraft and with shipping to locate and rescue aircrew, notably the versatile *Lysander*.

## Attack

The Eagles are not the only air power in Middle Earth - the enemy also uses the skies. In *The Hobbit*, the dragon Smaug memorably strikes fear into dwarf and man alike. This is straightforwardly air power for strategic effect - attacking the enemy centre of gravity with immense firepower, in the hope of shattering his will and capacity to resist. This notion of terror bombing was part of public discourse in the pre-war years, when Tolkien penned *The Hobbit*, with many lurid accounts of the sort of mass societal destruction that might result from aerial attack on undefended cities.<sup>17</sup> Just months before it was published, the German Condor Legion had bombed the Spanish town of Guernica, causing extensive damage and mass casualties and earning international opprobrium as a consequence.

'Fire leaped from thatched roofs and wooden beam-ends as he hurtled down and past and round again, though all had been drenched with water before he came [...] Another swoop and another and another house and then another sprang afire and fell; and still no arrow hindered Smaug.'<sup>18</sup> Though of course, a little while later, some effective air defence from one archer does exactly that. In the meantime, though, there is mass panic among the terrified locals.

In LOTR, the Black Riders, having been swept away in a flood, later reappear mounted on appropriately dastardly looking beasts: 'birdlike forms, horrible as carrion-fowl, yet greater than eagles, cruel as death'. These creatures seem designed to strike terror into onlookers, their riders emitting a piercing shriek that reduces one Hobbit to throw himself against a wall in terror, 'panting like a hunted animal'.<sup>19</sup> The psychological effect of this screaming seems even more potent than the actual violence meted out by the riders. Beneath the five 'foul hell-hawks' of the Nazgûl, Lord Faramir and a small patrol are fleeing for the safety of the Pelennor Gate

and the lands of Gondor. This is air power used for precision strike - and in the ground attack role against enemy fielded forces, prosecuting a target of opportunity caught undefended and in open terrain. It looks as if they will not make it and be cut down from the air, but Gandalf arrives on horseback at the last moment, driving the enemy away. Here we need squint only a little to see the flight to Dunkirk by the British Expeditionary Force; the wheeling Ju-87 *Stukas* driven off by air superiority fighters operating from the UK and hastily assembled anti-aircraft artillery operating around the perimeter. A British officer at Dunkirk described the *Stukas* 'diving, zooming, screeching, and wheeling over our heads like a flock of huge infernal seagulls.'<sup>20</sup>

Later, the Nazgûl are merciless in their later attacks on Minas Tirith itself, their voices

filled with evil and horror. Ever they circled above the City like vultures that expect their fill of doomed men's flesh. Out of sight and shot they flew, and yet were ever present [...] At length even the stout-hearted would fling themselves to the ground as the hidden menace passed over them [...] and they thought no more of war; but only of hiding and of crawling and of death.<sup>21</sup>

This in a book begun, remember in 1938, written in part during the Second World War, and completed soon thereafter. This could easily describe the scene at Rotterdam, Warsaw or Guernica, or on the retreat southwards through Crete, beneath lines of sinister gull-winged dive bombers, their sirens howling to terrify those below. Being attacked by *Stukas* was, Air Marshal Victor Goddard wrote, to experience 'a crescendo of diving fury,' and 'to know the denigration that comes to a man unmanned.'<sup>22</sup> 'It was the most hellish, terrific noise you could encounter,' said Private Earnest Leggett, of being attacked by diving *Stukas* outside Dunkirk, 'I threw myself down on the bank, spreadeagled, and I shook just like a jellyfish. The noise was so penetrating and so ominous: it was devilish.'<sup>23</sup>

## Control of the Air

At the height of the battle for Gondor, the eagles play their second, equally pivotal part in LOTR. Sweeping down in 'long swift lines' behind their leader Gwaihir onto the Nazgûl below, 'the rush of their wide wings as they passed over was like a gale.'<sup>24</sup> Capable of operating alone in long range reconnaissance mode, the Eagles here demonstrate remarkable tactical flexibility, adopting a 'big wing' formation and vectoring onto their enemy in line astern. At this, the hitherto dominant Nazgûl, the elite air forces of the enemy, turn and flee. Seeing this, the vast hosts of the enemy waver, as 'doubt clutched their hearts.'<sup>25</sup>

This is the key moment in the whole battle. The Nazgûl are dismounted when surprised by the diving Eagles, and there is no aerial combat. Nonetheless, here is a clear example of Offensive Counter Air (OCA) - attacking the enemy air forces before they can get aloft. The Israeli Air Force achieved this decisively at the onset of the Six Day War in 1967, thereafter exposing the opposing Arab land forces to overwhelming air superiority (Oren 2002). The Coalition achieved likewise in the first weeks of the 1990/1 Gulf War, with Iraqi fighter aircraft staging an

ignominious retreat to neighboring Iran, rather than being destroyed in place. The struggle for control of the air is broader than dogfighting, or even, perhaps, eaglefighting.

This episode is also a classic illustration of the effects of shock action over the destruction of capability. The Nazgûl are not killed by the onslaught from the eagles, merely driven off, but that is sufficient to instantly shatter the resolve of the hitherto dominant armies of Sauron. The loser in battle, as Clausewitz noted, need not always be the side with the most dead, or the greatest loss of materiel, merely the one who has experienced a collapse of will. Air power has long aimed at shattering will, as much as capability, even if it is harder to know *ex ante* how much force it will take to 'influence' - the key term of art nowadays - one's adversary.

The Nazgûl are the vital 'Centre of Gravity' in the enemy's order of battle, and are identified and prosecuted as such by the Eagles. The struggle for control of the air can depend on effective aerial attack, destroying fielded air forces, but also on ground attack pushing supporting air power away from contested territories and ground forces. For example, one effect of the Allied strategic air campaign against Germany, underway as Tolkien wrote, was to channel the *Luftwaffe's* resources into the defence of German cities, thereby depriving the *Wehrmacht* of close air support, and effectively undermining its capacity as an independent strategic bombing force. There are echoes here too in the *Black Buck* raids of the Falklands conflict - pushing Argentinian *Mirage III* fighter aircraft back to the mainland, and reducing thereby their participation in attacks against the British Task Force (Freedman 2005).

### Coalition and Joint Action

Beyond the air power roles, LOTR touches on other aspects of air power doctrine salient to the real world operating environment, then and now. Two in particular stand out - the role of cooperation with other forces, and that of technology and innovation.

On the move in open country, the Fellowship sees 'a great bird high and far off, now wheeling, now flying on slowly southwards.' It is 'A hunting eagle,' Legolas declares, 'I wonder what that forebodes. It is far from the mountains.'<sup>26</sup> The independent nature of the Eagles is a feature throughout LOTR - they share information with the coalition allied against Sauron, and they help out. But their intentions are opaque, both to us the reader, and to the allies themselves. In an earlier episode, Sam fearfully imagines seeing hawks or eagles hovering overhead with 'bright unfriendly eyes' - an intimation that not all eagles might be straightforwardly on the side of the Fellowship.<sup>27</sup>

European war of Tolkien's day featured limited air-ground communication. Identification of aircraft types could be tricky in poor weather, and the possibility of the wrong targets being identified and prosecuted was ever present. While other air forces, notably the *Luftwaffe*, developed with close air support of ground forces as a primary objective, the RAF prioritized strategic air power, targeted beyond the battlefield. Air-land integration was as much a problem for the British as for the Fellowship. As for the shifting balance of allies and

uncertainty about who was an enemy, the role of the Vichy French Air Force attacking the British base at Gibraltar provides a useful Second World War example.

## Innovation

Sauron seems capable of rapid technological innovation - the stealth attributes of the rings themselves, the sudden appearance of the Nazgûl's terrifying flying creatures, or the siege engines that breach the defences of Gondor. But the coalition of Elves, Dwarves and Men remains resolutely stuck in the Middle Ages. Magic is departing Middle Earth, and the best the defenders of Gondor can muster is some capable, if vintage, armour and close quarters weaponry, all of which they have forgotten how to manufacture.

There is, as Smaug demonstrates, considerable risk in relying so much on a single type, no matter that it has been hitherto dominant in a number of roles. With his heavy weight of firepower, speed and stealth Smaug is undoubtedly the premier ground attack platform in Middle Earth. But dragons seem a colourful anachronism in the books, sliding into obsolescence with the development of effective active and passive DCA. Slow and unmanoeuvrable, the dragon is evidently vulnerable to disciplined and concentrated ground fire. In any event, as Bomber Command discovered in the Second World War, the capacity of civilian populations to endure tremendous punishment via aerial bombardment was remarkable (Pape 1996; Payne 2014).

The lesson here is that technology can bring a decisive edge to the struggle for mastery of the air, but that over-concentration on one type, or attempting too great a technological leap brings risks.

## Conclusion

When it comes to air power roles, then, Tolkien and his eagles do a magnificent job of anticipating our modern RAF doctrine and of tracking real developments in aerial warfare then underway in Europe. There are time tested precepts of air power aplenty in Lord of the Rings - the importance of persistence, speed, reach and height should be readily apparent to readers. There is emphasis on precision, and shock; on improvisation and multirole capabilities; on centres of gravity and the constraints of terrain and climate. There is Defensive Counter Air (DCA), via ground based air defences (GBAD) on the ramparts of Gondor. There is passive DCA in the elvish cloaks adopted by Frodo and Sam to foil overflying Ring Wraiths.

There are, of course, many air power features that Tolkien overlooks, in part because he is as much a creature of his times as we all are, in part because of the nature of the wars of the Rings. There is, for example, not much inter-theatre mobility on offer, with air forces in Middle Earth and mid-twentieth century Europe alike having only a limited capacity to transport materiel. And with all the sustained land warfare going on in Middle Earth, air maritime integration doesn't get much of a look in in LOTR - plus ça change, you might think. Stand off weapons too are in short supply too: Smaug excepted, the aerial creatures of Middle Earth cannot bring much weight of firepower to bear from the air. Accordingly, the attack role

of Eagle and Nazgûl alike is limited to precision strike and the psychological effect of shock action.

But in his writings on autonomous ISTAR, long-range networked sensors (via the Palantir), and stealth, Tolkien was not just describing air power, he and the eagles were truly at the cutting edge. The fundamentals of air power, it seems, apply equally to this earth as to others.

## Notes

<sup>1</sup> In the interest of authenticity, I finished drafting this paper over a pint at Tolkien's local, the appropriately named *Eagle and Child*.

<sup>2</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 3347

<sup>3</sup> Tolkien, J. R. R., H. Carpenter, et al. (2012). The letters of J.R.R. Tolkien: a selection (ebook edition). London, HarperCollins., loc 1878

<sup>4</sup> Quoted in Carpenter, H. (1995). J.R.R. Tolkien: a biography (Kindle edition). London, HarperCollins.loc 1399

<sup>5</sup> Tolkien, J. R. R. (2005). The Lord of the Rings (ebook edition). London, Harper Collins., loc 319

<sup>6</sup> Intelligence, Surveillance, Target Acquisition and Reconnaissance - defined in UK Air power doctrine as one of the core roles of air power. MOD (2009). British Air and Space Power Doctrine: AP 3000 (4th edition), Great Britain, MOD Air Staff.

<sup>7</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 5542

<sup>8</sup> Ibid., loc 24692

<sup>9</sup> Ibid., loc 8461

<sup>10</sup> Ibid., loc 5520

<sup>11</sup> Ibid., loc 5546

<sup>12</sup> Foot, M. R. D. (2004). "SOE in France : an account of the work of the British Special Operations Executive in France, 1940-1944". London, Whitehall History Publishing in association with Frank Cass., p. 83

<sup>13</sup> MOD (2009). British Air and Space Power Doctrine: AP 3000 (4th edition), Great Britain, MOD Air Staff., p. 45, See also, Foot, M. R. D. (2008). "SOE : an outline history of the Special Operations Executive 1940-1946". London, Folio Society.

<sup>14</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 18961

<sup>15</sup> See, 'How Lord of the Rings should have ended', Youtube, 9 March 2007, <http://www.youtube.com/watch?v=1yqVD0swvWU> (Accessed 4 January 2014). Douhet, for unfamiliar readers, emphasised the strategic use of air power against key enemy weaknesses, so as to avoid protracted and bloody ground warfare. Warden, a later theorist, also favoured strategic air power used against key parts of the enemy society's 'system'. See Douhet, G. and D. Ferrari (1943). "The Command of the Air ... Translated by Dino Ferrari". London, Faber & Faber and Olsen, J. A. (2007). "John Warden and the renaissance of American air power". Washington, D.C., Potomac Books.

<sup>16</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 10261

<sup>17</sup> Richard Overy provides an excellent review of the popular perception of strategic air power



in the inter-war period: Overy, R. J. "The bombing war : Europe 1939-1945", pp. 19-55.

<sup>18</sup> Tolkien, J. R. R., C. Dixon, et al. (2009). "The Hobbit: Or there and back again" (ebook edition). London, Harper Collins., loc 3437

<sup>19</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 16223

<sup>20</sup> This is Gunner Lieutenant Elliman, quoted in Sebag-Montefiore, H. (2006). "Dunkirk : fight to the last man". London, Viking. p. 387

<sup>21</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 16510

<sup>22</sup> Goddard, V. (1982). "Skies to Dunkirk : a personal memoir". London, W. Kimber., p. 142

<sup>23</sup> Levine, J. and Imperial War Museum (Great Britain) (2011). "Forgotten voices, Dunkirk". London, Ebury., p. 74

<sup>24</sup> Tolkien, J. R. R. (2005). "The Lord of the Rings" (ebook edition). London, Harper Collins., loc 18934

<sup>25</sup> Ibid., loc 18941

<sup>26</sup> Ibid., loc 8010

<sup>27</sup> Ibid., loc 3973

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