

The Royal Air Force's Ability to Realise Mission Command in the Information Age

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Academic Declaration

“Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.”

Mark Ridgway - 20 July 2021.

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Abstract

This research seeks to determine the extent to which the Royal Air Force (RAF) is capable of realising mission command - a leadership concept closely associated with empowerment - in the Information Age. It does so through a literature review, followed by a predominantly inductive analysis of 21 semi-structured interviews of senior RAF officers.

The research highlights the importance of mission command to the modern RAF, but also that there are inherent limitations to its delivery. It further shows how the innate characteristics of the Information Age make mission command simultaneously more important and more difficult. The research therefore explores whether the RAF is facing an inherent paradox whereby its conceptual approach - insisting on mission command - is potentially at odds with the demands of modern organisational realities. It then seeks to reconcile this paradox by suggesting ways the RAF can improve its realisation of mission command.

The interviewees broadly agreed with the existence of this paradox and verified, with some nuances, the thematic limitations of mission command revealed by the literature review. This research concludes that the RAF has an evident desire and intent to realise mission command in the Information Age. It identifies a number of factors that will affect the extent to which the RAF can achieve this aim. Of these, this research concludes that the most important factor is the need for persistent advocacy and drive from the senior RAF leadership, and throughout the organisation, towards these ends.

This research bases a series of recommended improvements for the RAF around a newly-developed pentagrammic model for mission command. This model is novel as an academically rigorous conceptualisation of the term. As such it enhances and extends existing academic theory. Similarly unique, and an additional contribution to the knowledge base, is the more specific analysis of mission command's limitations and its consequences in the context of the RAF and the Information Age. The methodology of doing so via systematic interviewing of a focused and influential cadre of RAF leaders is also a first.

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Contents

Title	i
Academic Declaration	ii
Acknowledgements	iii
Abstract	iv
Contents	v
List of Figures	ix
List of Tables	x
1. INTRODUCTION	1
1.1. Structure	1
1.2. Practical and academic rationale	2
1.3. Research Objectives and Research Questions	3
1.4. Research Boundary	4
2. LITERATURE REVIEW	6
2.1. Mission command	6
2.1.1. Concept and definition	6
2.1.2. Within the RAF	9
2.1.3. Links with empowerment	9
2.2. Information Age	12
2.2.1. Concept and definition	12
2.2.2. Within the RAF	13
2.3. Importance of mission command in the Information Age	14
2.4. Limitations of mission command	17
2.4.1. Common limitations of mission command	18
Mission command can be reluctantly given	18
Mission command can be reluctantly received	20
Mission command can be difficult to deliver	20
Mission command is not always relevant	22
2.4.2. The impact of the Information Age	23
Mission command is now more reluctantly given	24
Mission Command is now more reluctantly received	25
Mission Command is now harder to deliver	26
Mission Command is now even less relevant	27
2.4.3. The paradox of intent versus reality	28
2.5. Future prospects for mission command	29
2.5.1. Potential improvements	29
Make mission command more willingly given	29
Make mission command more willingly received	30

Make mission command less difficult to deliver	31
Make mission command more relevant	32
2.5.2. Adjusting for the Information Age	33
2.5.3. The RAF's ability to realise mission command in the Information Age	34
2.6. Research gaps	35
3. METHODOLOGY	38
3.1. Introduction	38
3.2. Research paradigm	38
3.2.1. Research philosophy	38
3.2.2. Research approach	40
3.3. Research methods	42
3.3.1. Why interviews?	42
3.3.2. Alternative methods considered	43
3.3.3. Phenomenology	44
3.3.4. Interview structure	44
3.3.5. Sample strategy	45
3.3.6. Research validity	47
3.4. Interview practicalities	48
3.4.1. Pilot interviews	48
3.4.2. Approach and recruitment	49
3.4.3. Interview locations and timings	49
3.4.4. Recording and transcription	50
3.4.5. Research cost and resourcing	50
3.4.6. Uniqueness of the research methodology	51
3.5. Interview protocol and content	52
3.6. Ethical considerations	53
3.6.1. Informed consent	55
3.6.2. Confidentiality	55
3.6.3. Consequences	57
3.6.4. The researcher's role	58
3.7. Conclusions	60
4. RESULTS	61
4.1. Introduction and analytical methods	61
4.2. Interviewee definitions and understanding of the key concepts	62
4.2.1. Mission command and empowerment	62
Descriptions and understanding of the terminology	62
Their role and importance to the RAF	64
Doctrinal accuracy	67
4.2.2. Information Age	67
4.3. The conceptual limitations of mission command	67
4.3.1. Perceptions of mission command	69
Clarity of understanding	70
Superior's personality and actions	71

Subject's personality	71
Enabling mission command	72
4.3.2. Limitations experienced on mission command	74
Permissions	76
Obligations	78
Organisation	79
Individuals	80
4.3.3. Comparison with the theoretical limitations on mission command	81
4.3.4. Conclusions	85
4.4. The Impact of the Information Age	85
4.4.1. Advantages	87
4.4.2. Disadvantages	88
4.4.3. Conclusions	89
4.5. The paradox between concepts and realities	89
4.6. Future improvements	90
4.6.1. Improvements suggested	91
People Management	92
Rules and Resources	94
Organisational Leadership	95
Individual Leadership	96
4.6.2. Assessment of Achievability	97
Encouraging achievability	98
Limiting achievability	99
4.7. The perceived extent of mission command in the Information Age RAF	101
4.8. Conclusions	103
5. DISCUSSION	105
5.1. Introduction	105
5.2. A review of concepts and terminology	105
5.2.1. Mission command's utility as a term?	106
5.2.2. The Information Age's utility as a term?	107
5.3. First Research Question: The limitations in theory and reality	107
5.4. Second Research Question: The impact of the Information Age	113
5.5. First Research Objective: The existence of a paradox?	115
5.6. Second Research Objective: Recommendations for the RAF	116
5.6.1. Analysing the models created	116
5.6.2. Strategising the approach: "Ends, Ways, and Means"	117
5.6.3. The "Ways": A new model for mission command	118
5.6.4. The "Means": Improvements and recommendations	122
5.6.5. Validation against the theory: A return to the literature review	122
5.7. Primary Research Aim: The RAF and mission command in the Information Age	123
5.7.1 Current perceptions	123
5.7.2. Achievability	124
5.7.3. Validation against the practice: Astra checked	125

5.8. Conclusions	129
6. CONCLUSIONS	131
6.1. Summary of the research	131
6.2. Research contributions	132
6.2.1. Contributions to theory	132
6.2.2. Contributions to practice	134
6.3. Research limitations and opportunities for further work	134
7. PERSONAL DEVELOPMENT AND REFLECTIONS	136
REFERENCES	139
APPENDICES	166
Appendix A: Interview Schedule	166
Appendix B: Interview Protocol and Proposed Questions	167
Appendix C: Ministry of Defence Research Ethics Committee Favourable Opinion Letter	169
Appendix D: University of Portsmouth Research Ethics Review Checklist – Form UPR16	170
Appendix E: The Ends, Ways and Means of Improving Mission Command	171

List of Figures

Figure 4.1: Thematic coding of reasons for importance of mission command to the RAF.....	64
Figure 4.2: Comparison of perceptions of being enabled versus enabling mission command	72
Figure 4.3: Final thematic coding of mission command limitations	74
Figure 4.4: Final thematic coding of the impact of the Information Age on mission command	86
Figure 4.5: Final thematic coding of suggested improvements	91
Figure 4.6: Thematic coding of achievability assessments for realising mission command in the Information Age	98
Figure 4.3 [repeated]: Final thematic coding of mission command limitations	108
Figure 5.1: The Mission Command Pentagram (adapted from Ford, 2013)	118

List of Tables

Table 4.1: Perceptions of ability to exercise mission command	70
Table 4.2: Perceptions of ability to enable mission command	72
Table 4.3: Initial coding of mission command limitations	75
Table 4.4: Initial thematic coding of mission command limitations	75
Table 4.5: Initial thematic coding of suggested improvements	92

CHAPTER 1: INTRODUCTION

Mission command is the leadership concept that underpins UK military activities in the modern era (UK. DCDC, 2014). It is defined in UK military doctrine as *“the absolute responsibility to act or, in certain circumstances, not to act, within the framework of a superior commander’s intent”* (UK, MOD, 2016, p.1-2). This modern era has also been labelled the Information Age (Castells, 2010). Consistently identified as the successor to the Industrial Age, this new Age recognises that information has replaced industrial capabilities as the most important raw material, consequently becoming the most important source of power (Cebrowski, 2000; USA, Department of Defense, 2005; UK. DCDC, 2018a). This thesis seeks to determine the extent to which the Royal Air Force (RAF) is capable of realising mission command in the Information Age. It will also suggest future improvements that can be made towards achieving this end.

1.1 Structure

The thesis is divided into seven chapters. This Introduction Chapter sets out the practical and academic rationale for the research, describing the overall aim, objectives and questions to be addressed. It then confirms the research gap to be filled and the contribution to academia and applied reality that will be made. A Literature Review Chapter follows, providing a detailed examination of the existing knowledge. This chapter centres on the core concepts of mission command, empowerment, and the Information Age, analysed in the context of relevance to the modern RAF. As part of an inductive approach to this research, this conceptual phase also provides the theoretical answers to the research questions identified.

The Methodology Chapter sets out the reasoning behind, and details of, the research methods used in this thesis. These methods are intended to explore whether the theories identified are borne out in reality. They are focused on a series of semi-structured interviews of senior-ranking RAF officers. The Results Chapter describes the findings from the research using a predominantly thematic analytical approach. The Discussion Chapter next compares these findings with the earlier theoretical conclusions, presenting a consolidated response to the Research Objectives and confirming the resulting contribution to both theory and practice. The penultimate Conclusions Chapter reaffirms the conclusions drawn and highlights the unique contributions made to the academic knowledge base and the RAF. The final Personal Development and Reflections Chapter examines the author’s professional, personal and academic development journey throughout the production of the thesis.

1.2 Practical and academic rationale

This thesis is expected to generate influence and effect across a range of **academic**, **professional**, **personal** and **organisational** themes. These are important considerations in measuring the research's potential and actual success (Halse & Mowbray, 2011).

Academically, the planned research approach will draw on military experiences of mission command, alongside non-military and multi-disciplinary practice and concepts of empowerment. This research is believed to be academically unique in:

- Generating an academic foundation for mission command;
- Explicitly connecting that mission command is simultaneously subject to increased demand and enhanced difficulties;
- Placing this observation in the context of the RAF and the Information Age;
- Examining whether such a paradox exists in reality;
- Exploring it with an influential cadre that have not been systematically interviewed before;
- Confirming whether the RAF is able to deliver against its own stated requirement for mission command; and
- Proposing a conceptual model for the realisation of mission command.

These are therefore the academic gaps that this research aims to fill. They are believed to provide considerable opportunity to make an original academic contribution that will *"extend the frontier of knowledge"* (European Higher Education Authority, 2005, n.p.).

Channels exist for the promulgation of the research and its conclusions, thereby increasing its academic and practical reach and influence. As the research is financially sponsored by the RAF, the offices of the Directorate of Defence Studies and Tedder Leadership Academy can be used to do so. This access and sponsorship opens opportunities such as possible publication in the in-house peer-reviewed journal, *Air and Space Power Review*¹, and exposure at the annual, high profile RAF Leadership Conference.

There are also a range of benefits that the author can obtain through this study, on both **professional** and **personal** levels. The author should gain directly, and the organisation

¹ Available at: <https://www.raf.mod.uk/what-we-do/centre-for-air-and-space-power-studies/publications/>

indirectly, through the enhanced experience, deepened and broadened perspective of an operational leader, senior officer and mentor to other RAF personnel. Such benefits are anticipated throughout and after the research, for the remainder of the author's RAF career. Similar gains could be derived and projected through the thoughts and actions of the interviewees - a deliberately influential cadre - as they reflect on the nature of the discussions held and apply their own lessons to their span of command and influence.

Finally, from an **organizational** perspective, the most immediate contributions lie in the practical recommendations offered. If truly impactful these could result in changes to policies, in-service education and cultural approaches to mission command and leadership. Such changes could ultimately improve the RAF's enduring effectiveness in Information Age activities, in both peace and conflict. Given the close ties that the RAF and its personnel have with other Allied air forces, and the open and ongoing debates around mission command and Information Age military organisations, this research could even impact beyond the UK.

1.3 Research Objectives and Research Questions

Central to this research is the idea that the Information Age demands the greater use of mission command as a leadership model. However, the same defining characteristics of the Information Age simultaneously make mission command harder to deliver (Potts, 2002; Krabberød, 2014).

The increased demand for mission command in the Information Age is both conceptually derived and reinforced by the RAF's current strategic intent (Pulford, 2013; Atha, 2017; UK. RAF, 2017). As the Chief of the Air Staff (the RAF's head) wrote in the Introduction to the latest RAF Leadership publication: "*The future operating environment demands different approaches to leadership: [specifically including] more empowerment and mission command*" (UK. RAF, 2020a, p.3).

Conversely, wide-ranging literature is available that describes the existence of limitations to the actual delivery of mission command (for example: Pigeau & McCann, 2002; Singer, 2009). More literature then shows how these are enhanced within the context of the Information Age (Krabberød, 2014; Hoeben, 2017).

The practical and academic imperative, and hence the **Primary Research Aim**, is therefore to:

Determine the extent to which the RAF is capable of realising mission command in the Information Age.

Initially it will be necessary to confirm whether or not an apparent contradiction, between the demand for mission command and a decreased ability to deliver it, actually exists. To do so, the **First Research Objective** is therefore to:

Explore whether the RAF is facing an inherent paradox whereby its conceptual approach - insisting on mission command - is at odds with the demands of modern organisational realities.

The paradox highlighted, if it exists and is not fully understood or addressed, could have significant consequences for the RAF's ability to successfully deliver its required outputs. Where the First Research Objective seeks to understand existing practical issues, the Second Research Objective is intended to assist in solving these, in accordance with the intent behind a Doctorate of Business Administration programme (Cranfield, 2018). The **Second Research Objective** is therefore to:

Suggest how future improvements can be made to the RAF's approach to mission command in the Information Age.

The First Research Objective further requires two subordinate Research Questions to address its component parts:

First Research Question: *To what extent are the conceptual limitations of mission command borne out in the reality of the modern RAF?*

Second Research Question: *To what extent has the arrival of the Information Age exacerbated the inherent limitations of mission command, and/or created new ones?*

1.4 Research Boundary

The focus of this research, towards the Primary Research aim and its subordinate objectives, will primarily be on the organisational aspects of the RAF's approach to mission command, vice the operational ones. This is intended to ensure a holistic approach to leadership across the entire RAF, resisting the temptation to focus predominantly on leadership of and by individuals in the cockpit of aircraft, whilst also

realistically bounding the scope of the research to ensure achievability. There will be references to the role of mission command in combat and conflicts, but these will be illustrative towards the ends of understanding the organisational limitations and realities around realising mission command in the RAF more widely. Hence, for example, related discussions around the impact of autonomous aircraft on the conduct of warfare will not be addressed. The impact of technologies that directly affect RAF leaders' ability to implement mission command across all its workforce, however, will be.

CHAPTER 2: LITERATURE REVIEW

This literature review defines, analyses and critically reviews the RAF's concept of mission command in the Information Age. It examines the historical development of mission command, its strategic and leadership implications for the RAF, how the Information Age might impact it, the challenges and limitations inherent in delivering it, and how these might be overcome. The review establishes what is already known and discussed in the available literature on mission command in the Information Age, before assessing what questions this raises that might inform future research (Arshed & Danson, 2015). It concludes by confirming the Research Gaps that this thesis will address.

2.1 Mission command

2.1.1 Concept and definition

The UK military's doctrinal definition of mission command is: *"the absolute responsibility to act or, in certain circumstances, not to act, within the framework of a superior commander's intent"* (UK, MOD, 2016, p.1-2).

This definition provides a direct link between concepts and ideas around leadership, a responsibility to act (or not) within specified guidance, and the implied importance of a commander's intent. The delivery of mission command requires a range of additional attributes. Most frequently cited are initiative, creativity, trust, shared understanding, unity of effort, decentralised decision-making, speed, and freedom of action (Fischer, 1995; Pigeau & McCann, 2002; House of Commons, 2003; Kometer, 2003; Storr, 2003; Stewart, 2009; Yardley, 2009; Lamb, 2010; Shoupe, 2012; USA. HQ Department of the Army, 2012; Ancker, 2013; Vego, 2018; Vandergriff, 2019). Combining these attributes should provide subordinates the intellectual and practical ability to conceive and carry out necessary (in)actions, realising their commander's intent towards a singular goal. These elements, in turn, are enabled by a mutual trust between commanders and subordinates which circularly permits and encourages such activity and thinking (Parker & Bonin, 2015; Carpenter, 2016; Fox, 2017; Matzenbacher, 2018; Vego, 2018).

General Patton's assertion (cited in Burton-Brender, 2016, n.p.) to *"Never tell people how to do things. Tell them what to do and they will surprise you with their ingenuity"* neatly captures the core requirements of mission command. It also reinforces the underpinning assumptions around trust, willingness, and ability.

Mission command has a particular attraction for the military. Firstly, it is fundamentally a leadership concept (UK. DCDC, 2014) and leadership is widely considered and stated as being very important to the military (Wong et al., 2003; Jupp, 2009; UK. Defence Leadership Centre, 2010). Secondly, as Parker & Bonin (2015, p.17) observed, it *“provides a framework for handling unknowns”*, a facet of military activities that was recently explored extensively by retired US General McChrystal (2015). Mission command is therefore necessary, because the perpetual absence of an omniscient leader means delegation of some form is required; mission command is simply the most efficient and effective method to achieve this (Feltey & Madden, 2014; Glenn, 2017). Critically, the mission command protagonist is able *“to wage war faster than the enemy, despite the fog and friction of war, and drive him to a state of paralysis or collapse”* (Fischer, 1995, p.14). Moreover, it does so by bridging theory and practical direction in providing both a *“philosophy of command and a warfighting function”* (USA. HQ Department of Army, 2012, p.v; also Feltey & Madden, 2014).

The relevance of mission command is evident in the widespread adoption of the term by a range of militaries. Doctrinal references, and entire volumes, can be found in official UK, American, Canadian, Australian and NATO military publications (respectively: UK. Defence Leadership Centre, 2010; USA. HQ Department of the Army, 2006; Australia. Department of Defence, 2010; Canada. Defence Academy, 2005; NATO. NSO, 2017). Moreover, 21st Century academic articles include those written on, or by members of, the British Army, US Air Force, US Army, Canadian Armed Forces, Norwegian Navy, Swedish Armed Forces, and Israeli Defence Force (respectively: Storr, 2003; Carpenter, 2016; Fox, 2017; Pigeau & McCann, 2002; Krabberød, 2014; Granåsen et al., 2018; Ben-Shalom & Shamir, 2011). These articles reaffirm that mission command is a concept of significant importance to a wide variety of modern militaries. As Barnes succinctly put it in 2016 (n.p.): *“Mission command is seemingly everywhere of late”*.

Mission command is also not a uniquely modern phenomenon. Storr (2003) identified the first use of the term by the British military in 1987, whilst Ancker’s (2013) systematic longitudinal study of US doctrine highlighted its initial explicit appearance there in 2003. However, its underpinning principles can be traced back millennia to, at least, Sun Tzu (c400BC/1998). The 1806 defeat of the Prussian Armies at the battles of Jena and Auerstedt is consistently highlighted as a seminal moment for the formal recognition of mission command’s importance (Yardley, 2009; Shamir, 2010; Bezooijen & Kramer, 2015; Vego, 2018). After these battles Bungay (2005) described how the Prussians recognized that the primary cause of their losses was the hierarchical, highly centralized discipline of their armies, which had resulted in an organization where *“nobody took any action without*

orders to do so” (p.23). Consequently, as Yardley (n.d., p.14) noted in an excellent description of the requirement for and benefits of mission command, the more agile French forces were critically able to:

Seize the unpredictable advantages that any battle produces to exploit success and limit failure through swift local action that did not rely on the production of formal orders.

The Prussians subsequently revolutionised the idea of discipline, developing a school known as “*Auftragstaktik*”, or “*Mission-type tactics*”, that changed the focus of leadership from following orders to that of following the intent behind them (Yardley, n.d.). This moment therefore provides potentially the first clear link to mission command’s later definition and foundational concepts.

Over the following decades *Auftragstaktik* became progressively inculcated into the Prussian and then German military doctrine and practice. In doing so *Auftragstaktik* necessarily became, as Hughes (1993, p.10, quoted in Shamir, 2010, p.648) explained, “*more than a system of command; it was part of a particular life style*”. The radical overhaul implied (and achieved) here, changing not just a style of leadership but a way of life, provides an early indication of the inherent challenges in realizing mission command. It also offers an initial explanation of why it has taken so many military organisations so long to achieve any success.

Regardless, the intent to achieve mission command has undoubtedly now become widespread. Moreover, throughout doctrine and academia, the consistent appearance of keywords and attributes such as “*responsibility*” and “*commander’s intent*” confirms the agreement around mission command’s core principles and meaning. Such attributes have been explicitly identified in the American Civil War (Parker & Bonin, 2015; Glenn, 2017), the Boer War of 1899-1902 and the Russo-Japanese War of 1904-05 (Bungay, 2005), the German Armies in World War One and World War Two (Storr, 2003; Clark, 2017; Matzenbacher, 2018), in conflicts involving the Israeli Defence Force since at least 1967 (Shamir, 2011), and in modern French, US and UK experiences in Mali, Iraq and Afghanistan (Kometer, 2003; Shamir, 2010; Picco, 2015; Wavell Room, 2017a).

These authors portray the benefits that mission command brings in these different scenarios, implying an enduring relevance of the term. Most notably, the German Blitzkrieg in World War Two and the US Army’s “*Thunder Runs*” into Baghdad in 2003 are cited several times as the perfect examples of mission command in action, where

opportunities were successfully seized in the pursuit and understanding of intent (Fischer, 1995; Bungay, 2005; Shamir, 2010; Wright, 2013). Storr (2003, p.122) further highlighted one of the best examples of such intent, employed effectively, in that provided to a German soldier in World War One who had managed to penetrate deep behind British lines; he had been told simply to go *“so weiter, so beßer...the further, the better”*. Collectively, these examples provide a rich stream that this review will draw on as it analyses mission command’s successes and failures over time, and seeks to apply the lessons identified to the organisation and running of the Information Age RAF.

2.1.2 Within the RAF

UK military doctrine stresses mission command’s modern importance by declaring that it is *“the UK military’s enabling philosophy of command...the principle to be used behind all leadership in the RAF”* (UK, MOD, 2016, p.1-2). Jupp (2009) and Mahoney (2018) both noted how this idea evokes similar intent from throughout the RAF’s history, originating with the RAF’s founder, Lord Trenchard. Monahan (2018), in his thesis on RAF culture, described how the RAF’s ethos and values were derived from the emerging *“aviator identity”* (p.43). Amongst other aspects, these values placed considerable importance on encouraging personal initiative and were, consequently, naturally conducive towards the devolution of authority. This identity also proved *“enormously important in the development of attitudes, assumptions and deep cultural structures of the RAF”* (Monahan, 2018, p.44), generating an instinctive self-confidence, from Trenchard himself, alongside a liberal approach to rules that together permitted a broader focus on overall intent. Mahoney (2018) and Monahan (2018) further described how these characteristics subsequently became engrained throughout the RAF, assisted by the natural organisational dominance of the pilot and associated ethos. The RAF’s current insistence on mission command, and the importance it holds in the RAF’s conceptual approach, thus appears logical and linked directly to the organisation’s own foundational documentation and approach.

2.1.3 Links with empowerment

Being grounded in military doctrine and originating from warfighting situations, mission command is a concept focused around the military environment. For similar reasons, it does not appear to have a firm foundation in academic theory. Indeed, Moilanen (2015) and Buchler et al.’s (2016) articles on mission command are apparently unique in appearing in non-military journals. A relevant theoretical framework for mission command could, though, exist in related research areas.

A range of military-based literature make the direct link between empowerment and mission command (Yardley, 2009; USA. HQ Department of the Army, 2012). The wider literature surrounding empowerment is, however, diffuse and contested, leading to a number of broad definitions (Page & Czuba, 1999; Carr, 2003; Greasley et al., 2015; Wahid et al., 2017). For this research, Ford's (2013, p.11) assertion that "*empowerment is about giving people the confidence, competence, freedom and resources to act on their own judgement*" offers a helpfully practical framework for subsequent analysis within a military context. It also introduces an overlap with mission command, reinforced by the then-head of the RAF in his observation that mission command "*is a philosophy of empowerment*" (Pulford, 2013, p.2). Shoupe (2016) and UK military doctrine (UK. MOD, 2016) reiterated this point, as did a range of practitioners across the military rank structure speaking at an RAF Conference on Mission Command (from the transcripts in Edell, 2013, and French, 2013). Common characteristics emerge from these and other literature, of which trust and initiative are the most prominent (Rothstein 1995; Yardley, n.d.; Honold, 1997; Shamir, 2011). This commonality of attributes to both mission command and empowerment justifies a link between the two.

Examining the precise nature of the link between mission command and empowerment, Pulford's (2013) description suggests that the former is a subset of the latter. Yet this perspective is not universally agreed. For example, Lieutenant General Nugee, then the UK Chief of Defence People², acknowledged in a 2019 interview that the concepts were clearly related and had common characteristics, but suggested they differentiated in their application (Army Leader, 2019). Specifically, he claimed empowerment was more suited to a headquarters role whilst mission command was more appropriate for leadership on operations (Army Leader, 2019). Alberts & Hayes (1995) and Stewart (2009) had previously made similar points. General Nugee justified his argument with the logic that operations are generally bounded, thus clear commander's intent can be provided. Headquarters work, conversely, presents more complex and wicked problems that are not conducive to broad intent and direction.

The two positions of Pulford and Nugee are reconciled by accepting that mission command and empowerment both require the setting of conditions and intent, within which subordinates will be expected to act with initiative; by definition, this will not always be prescriptive but it should reduce any ambiguity that might otherwise exist (Nykodym et al., 1994; Layton, 2017). Thus, with common key characteristics, it appears reasonable to conclude that mission command is indeed a subset of empowerment, applied within the

² In effect, the MOD's Human Resources Director.

peculiarities of a military context. As Storr (2003, p.127) put it succinctly: *“mission command empowers people”*.

With the link between empowerment and mission command established, empowerment’s theoretical framework and academic theories can now logically be applied to mission command. The breadth of literature on empowerment is advantageous here, with an extraordinarily wide range of disciplines and countries of studies (Calvès, 2009). These range from mental health to sport and biology (respectively: Lord & Hutchison, 1993; Moran et al., 2017; Salge et al., 2014) and from Taiwan to India (Jung et al., 2003; Bangari, 2014; Pradhan et al., 2017).

The contested nature of empowerment provokes a range of theoretical discussions and inspirations. In one seminal article, Rappaport (1987) drew on theories of community psychology to explore the existence of empowerment on three different levels: the personal; small group; and community. This discussion is part of a broader recognition that empowerment is fundamentally a social process, and one of change (Page & Czuba, 1999; Lord & Hutchison, 1993). In another influential work, Zimmerman (1995) examined whether empowerment is a process or an outcome. Each of these articles and studies present empowerment in a different situation, viewed from a different perspective or bias. Yet, like mission command’s parallel emergence, empowerment’s underlying attributes reveal a provenance and consistency of conceptual basis over time (Wilkinson, 1998; Amundsen & Martinsen, 2014). Ford’s (2013, p.10) point that *“initiatives to involve employees in organisational decision-making are as old as industrial democracy”* suggests that the concept, if not the label, of empowerment has been around for at least two centuries. The consistency, whether implied or explicit, is revealed in persistent themes of trust, communication, giving and accepting responsibility. Given these themes mirror those found in the mission command literature, they reasonably provide a coherent theoretical basis for both.

A range of examples demonstrate the social, organisational and economic advantages to be derived by organisations who encourage empowerment and its related attributes (Johnson, 1994; Honold, 1997; Cooper, 2018). Together these reinforce the importance of empowerment and provide further useful theoretical foundations. Both qualitative and quantitative studies highlight how empowered employees are more motivated (Argyris, 1998; Pradhan et al., 2017), satisfied with work (Conger & Kanungo, 1998; Fernandez & Moldogaziev, 2011), innovative (Cooper, 2018; Marsh, 2019), committed (Soyeon & Mannsoo, 2017), and involved (Menon, 1995; Wilkinson, 1998).

Empowerment appears to drive a circular, self-serving process that reduces the need for complex organisations, increasing efficiencies and mutual trust throughout (Wilkinson, 1998; Lee et al., 2018b). Consequently, empowered employees apparently perform better as individuals and teams (Williamson, 2002; Fernandez & Moldogaziev, 2011; Pradhan et al., 2017; Soyeon & Mannsoo, 2017; Stewart et al., 2017) and, ultimately, provide organisations with a competitive advantage (Campbell & Campbell, 2011). Vego's (2018) description of the benefits of mission command bears remarkable resemblance to this list, again reinforcing the links between the concepts.

Collectively, this breadth of theories and situational applications confirms the academic opportunities provided by multidisciplinary comparison (Calvès, 2009). There is thus abundant potential for the transferability of ideas and practices from one area to the other. Furthermore, the available literature on mission command and empowerment provide evidence of the enduring relevance of both to the UK military. The wide discussions provide an excellent research opportunity to draw on broader debates and examples when applied to the specifics of the RAF, the more so as such direct comparisons appear limited to date. This literature review will now place mission command in its modern context of the Information Age and its specific application to the RAF in this era.

2.2 Information Age

2.2.1 Concept and definition

The concept of the Information Age largely emerged in academic writing in the 1990s (see, for military-based examples, Cebrowski, 2000; Skipton-Leonard, 2003; Oprean, 2012). It is consistently introduced as the successor to the Industrial Age. For this research it is defined as:

The time from when information became the most important raw material (Castells, 2010; UK. DCDC, 2018a), where vast quantities of information are available at a previously unknown speed, through multiple channels, to those who need it (Crane et al., 2009).

The Information Age's defining features are technologically-enabled rapid availability of huge quantities of information, reflecting increases in the "*volume, veracity and velocity*" of information (UK. DCDC, 2017a, p.1). These features are agreed whether described from economic (Cairncross, 2001) or military (Alberts et al., 2001; Cartwright, 2017) perspectives. The literature examines how such emerging rapid transfer of information

has been enabled and accelerated by specific technological advances; the microprocessor, computers, silicon-based circuits, the internet and the World Wide Web are highlighted as particularly key (Alberts et al., 2001; Castells, 2010; Kainikara, 2015).

As would be expected from a concept that replaces the Industrial Age, academic research on the Information Age has spanned a range of different disciplines. Literature is available in journals on, inter alia: psychology; ethics; knowledge management; and human resources (Skipton-Leonard, 2003; Mattox, 2008; Crane et al., 2009; Trevor & Kilduff, 2012). The widespread agreement over the Information Age's origins and attributes across such disciplines is therefore encouraging. It further offers ample opportunity for comparative analysis and transference of suggestions and commentary.

2.2.2 Within the RAF

As Arquilla & Ronfeldt (1998) and Kometer (2007) pointed out, if "*information*" is reshaping politics, economic and society, then the Information Age should similarly have a significant impact on grand strategy, the conduct of warfare and, hence, on military organisations. The RAF specifically links its activities in the Information Age with the phrase "*next-generation*" (Bronk, 2016; Adamson & Snyder, 2017; Atha, 2017). This phrase is derived from the suggestion that inter-state conflict has evolved over several generations (Lind, 2004; Reed, 2008). Lind et al. (1989) had directly linked the first four generations to the progression through the Industrial and Information Ages. Their fourth generation bridges these two Ages. Thus, the phrase "*fifth-generation*" was adopted in early descriptions of Information Age warfare (Lind, 2004; Hammes, 2007). Reed (2008) pointed out an evident limitation with this model as the first generation begins with the Treaty of Westphalia in 1648, sometime after human warfare began. Regardless, the defining characteristics of fifth-generation military activities mirror those of the Information Age. Understanding the nature of these activities is therefore critical to understanding a military organisation's approach to the Information Age.

Initial descriptions of fifth-generation air force activities are consistently based around particular aircraft, usually the F-22 Raptor and F-35 Lightning II (Carlisle, 2012; Parsons, 2014). The critically relevant features of these aircraft are their low-observability or stealth characteristics, multi-mission (i.e. the ability to be a fighter, bomber, intelligence collection, and command and control aircraft all in one sortie), networked systems and near-real time information fusion capabilities (Hostage, 2014; Parsons, 2014; Jamieson & Calabrese, 2015; Kainikara, 2015; Layton, 2017). Collectively these capabilities are intended to

significantly enhance situational awareness, thereby harnessing the Information Age and using it to create a competitive advantage.

This focus on particular aircraft types does not, though, fully reflect the idea that warfare in the Information Age is about much more than just capabilities and equipment. Indeed, a chronological trend is apparent in the air power-related literature on the topic, with early works tending to focus on particular aircraft types and their Information Age capabilities (Carlisle, 2012; Parsons, 2014). However, as a fuller appreciation of the nature and consequences of the Information Age emerges, the perspectives are broadened to include a greater, organisational impact and requirement to change (Lawson & Barrons, 2016; Atha, 2017).

The argument has thus steadily emerged that next-generation militaries need to embrace the new primacy of information in their approach and organisation, both when on operations and when in barracks, the latter to ensure readiness for the former (Hammes, 2007; Jamieson & Calabrese, 2015; Bronk, 2016; Atha, 2017; UK. DCDC, 2017a; Layton, 2018). Doing so requires a revolution in culture and attitudes (Berkowitz, 1995, an outlier in his early identification of this requirement; Lawson & Barrons, 2016; Layton, 2017). Indeed, Lawson & Barrons (2016) observed how militaries in the Information Age faced the requirement for a wide organisational approach and rethink. The RAF's then-Deputy Commander evidently agreed with this point, using it to explain why the RAF would be using the phrase "*next-generation*" rather than "*fifth*", given the latter's traditional association with aircraft types (Atha, 2017; Layton, 2017). It is this phrase, therefore, that defines the context for the RAF's approach to the Information Age.

2.3 Importance of mission command in the Information Age

The impact of the Information Age on modern militaries is therefore broad and significant. More specifically, Wong et al. (2003) described how, in demanding a new approach to warfare and military organisations, it necessarily affects military leadership. Jantzen (2001, p.65) underlined this point in citing US General Sullivan's comment that "*leaders of America's Information Age Army will "think differently" than those of the Industrial Age*". As academics and military practitioners consider these consequences for leadership and organisations within the Information Age, a number of themes have emerged. These are now explored, reinforcing the increasing importance of mission command in this context for the RAF.

Firstly, the realities of increasingly vast quantities of rapidly changing information demand enhanced organisational flexibility and agility (USA. Department of Defense, 2005; Kemp, 2016). Perfect situational awareness becomes simply unachievable and risk-taking by commanders therefore becomes increasingly essential, at the same time as tactical actions have greater strategic effects (Krulak, 1999; Kometer, 2003; Hoeben, 2017). Flattened hierarchies, widespread empowerment and the associated trust by leadership are consequently suggested as necessary to enable and deal with such situations (Castells, 2010; Jamieson & Calabrese, 2015; Kemp, 2016; UK. DCDC, 2018b). Arquilla & Ronfeldt (1998, p.122, acknowledging Gelernter, 1991) captured these requirements in the need for *“tactical decentralization, coupled with strategic “top-sight”*” in the Information Age, a description that evokes the UK doctrinal definition of mission command.

Relatedly, vast quantities of information, allied with limited human processing capacity, create the inevitable issue of information overload that, in turn, further demands delegation (Crane et al., 2009; Wong et al., 2013). Studies have shown how increasing the volume of even accurate information has a detrimental effect on decision-making (Misner 2014; Marusich et al., 2016). Indeed, both these articles suggested that each layer of leadership must consequently prioritise and delegate in order to cope. The commonality of terms here with mission command again reinforces that this concept fits the required specification for leadership of an Information Age military.

In parallel, though, the Information Age presents opportunities for leadership. Connor (2017) noted how technological advances have significantly enhanced the individual and collective ability to be interconnected. The core attributes of mission command could become easier to realise as communications across organisations are eased, intent is passed on more directly and trust is built as a consequence.

This literature appears to confirm that, in theory, mission command should be considered more important in the Information Age. Before exploring whether or not the RAF acknowledges this conclusion, it is worth seeing if other modern militaries have increased the emphasis on mission command and its associated attributes in recent years.

Immediately noticeable here is the publication in 2012 of a *“Mission Command White Paper”* by General Dempsey, then-Chairman of the Joint Chiefs of Staff, the senior US military position. This paper formalizes the direction to the US military to embrace and inculcate mission command institutionally (Dempsey, 2012). Townsend et al. (2019, p.4) later confirmed the continuing relevance of this direction by observing how, in the US Army, *“leaders at every level, from warfighters to doctrine writers and squad leaders up to*

general officers, are talking about mission command". More recently, on his appointment as head of the US Air Force, General Brown issued a paper entitled "*Accelerate Change or Lose*" that included the line (2020, p.2): "*Most importantly, we must empower our incredible Airmen to solve any problem.*"

Similar senior leadership direction, if more implicit, was apparent from the online biography of another of the UK's allies. The then-New Zealand Vice Chief of Defence Force, Air Vice-Marshal Davies, described how he considers himself an active promoter of innovation and empowerment at all ranks (New Zealand Defence Force, 2018). More organisationally, the Royal Australian Air Force (RAAF) initiated Plan Jericho in 2015 to understand the characteristics of next-generation warfare and reshape itself accordingly (Adamson & Snyder, 2017; Australia. RAAF, 2017a; Australia. RAAF, 2017b; Nicholson, 2019). In his accompanying direction to Plan Jericho the then-head of the RAAF explained the need for agility, rapid innovation and exploitation to meet the demands of the Information Age. To deliver these needs, empowerment is a fully integrated element to the Plan (Brown, 2015).

The importance of mission command to the RAF should thus be in evidence, not least as recognised by three of its major Allies (UK. MOD, 2015) in the context of the Information Age. In confirmation, the designation of 2019 as the "*year of empowerment*" by the UK Chief of the Defence Staff appears a clear statement of intent and direction (Marsh, 2019, p.3). This was reinforced in a public speech the following year through his direction that "*We must empower our young sailors, soldiers, airmen and airwomen to unlock their potential*" (Carter, 2020, n.p.).

Further examination of RAF literature affirms that this increased emphasis has been reflected in more recent organisational statements and strategies. For example, one of the RAF's then-Deputy Commanders summarised much of this discussion by stating that "*the Next Generation Royal Air Force is about Information, Integration and Innovation, enabled by imaginative and motivated people*" (Atha, 2017, n.p.). The latest RAF Strategy also explicitly places empowerment as a stated objective to delivering a next-generation capability (UK. RAF, 2017). Finally, another RAF Deputy Commander introduced the Astra campaign towards a Next-Generation RAF as specifically seeking "*seismic empowerment of our people*" (Air Marshal Turner in UK. RAF, 2019, p.2).

Collectively, then, theoretical and conceptual approaches suggest a specific link between the characteristics of Information Age RAF activities and those of mission command. Moreover, such a link is openly made and directed by senior RAF personnel and the

related organisational strategies. It therefore seems reasonable to conclude that, whilst mission command has long been of importance to the RAF, the demands of the Information Age have made it even more so.

2.4 Limitations of mission command

Mission command is evidently of significant relevance to contemporary and future military leadership. The leadership direction to embrace and enact it as a conceptual approach throughout many military organisations, and specifically the RAF, is also unambiguous. With widely agreed guiding and defining subordinate principles, it might appear that mission command should be easily and universally achieved. However, various literature suggests it is not that straightforward, with a range of examples suggested of when mission command has failed or not been delivered (Singer, 2009; Shamir, 2010). Furthermore, as will be expanded on below, a number of potential limitations have been highlighted that can restrict the realisation of mission command.

If mission command is indeed vulnerable to limitations then a paradox could exist between the RAF's clear intent and direction to deliver mission command, and the realities faced in attempting to do so. At worst, the RAF senior leadership would then be asking the impossible of its personnel. At the very least, if mission command is very difficult to deliver, then the same senior leadership would presumably want to understand why that is so and how such difficulties could be successfully mitigated. These potential limitations are now investigated and categorised, firstly in general before examining whether the Information Age exacerbates them. As empowerment provides the broader cross-disciplinary perspective behind mission command, analysis of each category will first review the empowerment literature, before narrowing its focus to that of mission command.

Whilst there is near-universal agreement on empowerment's benefits, there is also much discussion around its surprisingly controversial nature and the difficulties inherent in its delivery (Rothstein, 1995; Honold, 1997; Cooper, 2018). Rothstein (1995, p.30) put it bluntly in saying that: "*empowerment is a long and difficult journey. Resistance to it is frequent, predictable, and often fierce.*" Thematic analysis of the literature suggests that it is commonly agreed that empowerment is **reluctantly given** (Greasley et al., 2005; Wahid et al., 2017), **reluctantly received** (Johnson, 1994; Randolph & Sashkin, 2002), **difficult to deliver** (Koch & Godden, 1997, Forrester, 2000), and **not always relevant** (Wilkinson, 1998; Campbell & Campbell, 2011).

The potential limitations associated with mission command unsurprisingly mirror these categories. Similar references are made to an inherent reluctance to enable mission command or take it on, the difficulty in delivering it, and doubts over its ubiquitous relevance (Pigeau & McCann, 2002; Parrington & Findlay, 2003; Kometer, 2007). These four facets provide a useful categorisation and structure for the analysis of the potential limitations of mission command, if acknowledging that all are inherently interconnected.

2.4.1 Common limitations of mission command

Mission command can be reluctantly given

Greasley et al. (2005) introduced the idea that neither mission command nor empowerment is necessarily welcomed by managers. The opening limitation, then, is that empowerment may simply not be willingly given as a result (Randolph & Sashkin, 2002; Ben-Shalom & Shamir, 2011). Senior leaders may make their intent to empower and enact empowerment clear, but this generates no guarantee that they themselves, or other leaders throughout an organisation, will readily and willingly hand over power to their subordinates (Forrester, 2000; Ford, 2013).

The available literature is mixed on how well the reasons behind such obstructionism are understood. Stewart et al. (2017) confirmed the idea that leaders often actively hinder empowerment initiatives, before admitting that little is known about the reasons behind such hindrance. Conversely, Klein's (1984, p.90) analysis had investigated precisely that over 30 years earlier, listing 5 different types of "*resistors*". She also pointed out, in what is perhaps the simplest explanation for resistance, that only 31% of supervisors perceived empowerment as something that would be beneficial to themselves. Campbell & Campbell (2011) produced qualitative research to reinforce Klein's quantitative study, demonstrating the dichotomy of managers fearing loss of control through empowerment and not understanding the benefits to themselves that might arise. Fast et al. (2014), meanwhile, provided an equally compelling reason in demonstrating how empowerment could pose a threat to leaders' egos.

The military are not, perhaps counter-intuitively, immune from accusations of a similar reluctance to permit mission command (Ben-Shalom & Shamir, 2011; Carpenter, 2016). Storr (2003) and Stewart (2009) both described occasions within the British Army when military commanders have exhorted mission command but not enacted it themselves, primarily due to a lack of trust in their superiors' willingness to accept failure. Steed (cited

in Burton-Brender, 2016, n.p.) reinforced this perspective in his description of a reluctance to enact mission command resulting from:

The fear of subordinates making mistakes, the discomfort of superiors feeling out of control, and the angst of leaders chancing their careers on others' mistakes.

Marsh's (2019) interviews of RAF personnel revealed similar concerns amongst RAF leadership. Such evidence appears contrary to the instinctive suggestion that the RAF's ethos and values are naturally inclined towards mission command, reinforced over time by Monahan's (2018, p.43) "*aviator identity*". Here, interestingly, is potentially the dichotomy between traditional, romantic views of the RAF and the organisational realities, a point Monahan (2018) himself acknowledged in his recognition that the RAF, in its founding years, was not "*ignoring all contemporary military norms*" (p.54).

At a political and senior leadership level, numerous historical examples are available to illustrate and explain why mission command is not always permitted to the levels it perhaps should be, and the predominantly negative consequences of this. Vietnam features prominently with, for example, tales of micromanagement in air operations from the White House (Jantzen, 2001; Smith, 2002; and, more generally, Pigeau & McCann, 2002). Here, buoyed by their ability to actually make the decisions, the evident belief from the leadership is that they are better placed to do so, given the impact of the consequences.

Remarkably similar vignettes abound from recent conflicts in Iraq and Afghanistan, with Singer's pertinently named article "*Tactical Generals*" (2009) describing, in some detail, a lack of mission command in action. Here the titular general is transfixed by the air assets that allow him to spend hours in his office watching a battle, rather than focusing on activities that uniquely apply to his span of command responsibilities. Feltney (2014, p.3) astutely captured the limitations of this approach by commenting that:

The senior commander may indeed be able to make a better decision on any single problem than any one of his subordinate commanders, [however] he cannot make better decisions than all of them all at once.

Regardless, the temptation and impetus not to enable mission command is apparent; through these perspectives it entails unnecessary personal risk that does not necessarily generate a better result.

Mission command can be reluctantly received

Other aspects exist which mean mission command and empowerment are not necessarily welcomed by subordinates. In the first instance, such individuals may simply be unwilling to accept increased levels of responsibility and accountability (Johnson, 1994; Randolph & Sashkin, 2002). Indeed Zhang et al., (2020, n.p.) concluded, on the basis of several quantitative and qualitative studies, that *“it is fairly common to see someone choose not to lead”*. This could be because, as Nykodym et al. (1994, p.48) stated, *“some workers do not want to participate in decision making”*. They might be uncomfortable with the extra responsibilities because, as Forrester (2000) highlighted, they feel untrained for it, or fearful of the additional workload, burden or stress anticipated (Ford, 2013; Lee et al., 2018a). They might also *feel “under-compensated...or under-appreciated”* for the same (Ford, 2013, p.17). At a more base level, employees may simply not understand what mission command entails, with Townsend et al. (2019, p.4) suggesting that many in the US Army *“find the idea of mission command confusing or insincere”*. Storr (2003, p.127) reinforced this with his observation that *“there is no point in giving subordinates freedom of operation when they simply do not know what to”*.

Alternatively, or as well, employees could have an innate scepticism that the offer of mission command will be no more than empty rhetoric (Buchanan & McCalman, 1989; Denham et al., 1997; Forrester, 2000). This scepticism could be derived from a *“say/do gap”* in credibility between management pronouncements and employee experience (Argyris, 1998; Greasley et al., 2005). Farrell (2008) and Guthrie (2012) provided the link with the mission command literature on this point. The former described an instinctive scepticism within the military, whilst the latter stated (p.26) that the military *“cannot afford to preach one thing and do another”*.

Mission command is difficult to deliver

It should already be apparent that mission command is not guaranteed to be realised, however important it is deemed to be conceptually. Reinforcing this position is the idea that mission command and empowerment can actually be very difficult to deliver (Shamir, 2011; Krabberød, 2014). Whitford (2015) explained this initially by noting the low starting point, suggesting that they are not naturally occurring phenomenon, particularly in peacetime militaries. Evidence exists suggesting this is a current issue in the UK military. Jonathan Slater, the MOD's then-Director General Transformation, claimed fairly recently that *“I would judge that it [the MOD] is the least empowered organisation I have ever worked in”* (Slater, 2013, p.105). More starkly, and by implication viewed from lower down

the management levels, a Wavell Room blogger (2017b, n.p.) commented that “*real decision-making authority [in the MOD] is limited to Ministers and senior officers*”. Perceptions are clearly critical as, regardless of leadership pronouncements, mission command becomes much harder to deliver if employees, or even leadership, do not believe it does or could exist (Rothstein, 1995, using a powerful corporate vignette; Argyris, 1998; Wong & Giessner, 2018). Overcoming such cultural and organisational defaults would be no easy task.

Certainly, from the outset, significant effort is required to ensure widespread understanding of potentially complex strategy (Quinn & Spreitzer, 1997; Fox, 2017). Intent further needs to be communicated in a way that is correctly and consistently understood (Crain, 1990; Cooper, 2018). Even if a basic understanding and ability can be assumed then the essential elements of mutual trust and communication are challenging to realise and sustain, the more so given that military postings tend to rotate frequently (Rothstein, 1995; Argyris, 1998; USA. Department of the Army, 2012; Parker & Bonin, 2015). These attributes are also impossible to obligate, even assuming that leaders actually know how to motivate and empower their staff (Johnson, 1994; Forrester, 2000; Campbell & Campbell, 2011).

Other instances demonstrate the difficulties inherent in delivering mission command. Shamir (2010) provided operational examples of when it has been sought after, but has failed. Matzenbacher (2018) provided organisational examples of the same. Different reasons are provided for why mission command has proved too difficult in these cases. Duhan (2010) suggested that an abrogation of command responsibility, rather than delegation of the means to exercise it, takes place in such circumstances. Conversely, Mahoney (2015) described how Air Chief Marshal Dowding’s loss of control of his Big Wings in the Battle of Britain in 1940 could have derived from over-empowered staff diverging from unified efforts, rather than cohering around a commander’s intent. Both explanations, though, confirm that mission command’s theory is not always easy to deliver.

Such challenges remain relevant today, as does the continuing need for the UK military to work hard to overcome the difficulties inherent in delivering mission command. Recent military activity may not help in this regard. Townsend et al. (2019) noted how mission command is harder to deliver because recent experiences in Iraq and Afghanistan, combined with budgetary tightening, had tacitly encouraged greater control. This has consequently eroded the instincts and experience of initiative and delegation on both operations and in barracks. Put more simply, mission command is harder to deliver when

it is not practised. Assertions abound that this does not occur, especially when militaries are not permanently engaged in conflict (Stewart, 2006; Blackett, 2019).

Mission command is not always relevant

The fourth thematic limitation is based around the idea that mission command might not be universally applicable. Wilkinson (1998) acknowledged that the mixed origins, language and usage of empowerment could confuse and mislead, if taken out of organisational and historical context. It also appears logical that there is still some accuracy in the assertion that *“historical evidence weighs against its being the best way to manage in all situations”* (Bowen & Lawler, 1992, n.p.). Certainly, a number of authors affirm that neither mission command nor empowerment is appropriate for all organisations, all of the time (Foster-Fishman & Keys, 1995; Forrester, 2000; Campbell & Campbell, 2011). Such a point further draws on theories of the situational approach to leadership (Campbell & Campbell, 2011).

Militarily, it is conceivable that the consequences of certain actions - the employment of nuclear weapons as an extreme example - are so significant that the default requirement would be to not empower subordinates, but to retain command at a very high level (Feltey & Madden, 2014; UK. MOD, 2016; Hoeben, 2017). As empowerment can encourage *“creative rule-breaking”*, it is unsurprising that this should not be considered appropriate in all circumstances (Fernandez & Moldogaziev, 2011, p.40).

Similarly, in some scenarios a centralised command could have a better appreciation of all the facts and consequences, and therefore should most appropriately make the key decisions (Kometer, 2007). Feltey & Madden (2014, p.1) made a related point that commanders have the confidence in their own ability, alongside the partial justification that they have, borne of experience, *“better knowledge, understanding, and judgment”* than their subordinates.

Relatedly, and in a return to an earlier discussion, it could be that mission command is more relevant on active military operations than whilst in barracks (Hearn, cited in Helmer, 2015; Lieutenant General Nugee, cited in Army Leader, 2019). A Wavell Room blogger (2017c, n.p.) reinforces this point in suggesting starkly that the British Army is *“arguably good at Mission Command in the field but is less so within barracks”*. Whitford (2015, p.46) does likewise in suggesting that one of the challenges of mission command is *“preserving its spirit in garrison”* when bureaucratic frictions and demands, and less appetite for risk, erode the natural focus that operations bring. Marsh’s (2019) interviews

of RAF personnel revealed similar feelings. His interviewees explained that on military operations there were less bureaucratic restrictions and distractions, and simultaneously increased resources and focus. Collectively these conditions created a much more empowering environment.

A different analytical approach to mission command's relevance examines whether there are situations where its core attributes might be unattainable. This approach assumes that mission command is definitionally unachievable and irrelevant if its core attributes are unrealisable. Fox (2017) specifically mentioned mutual trust in this regard, whilst Stephenson (2016) went broader in suggesting that not all military cultures may be immediately compatible with the concepts behind mission command. There may also be a temporal element to this issue, with commanders needing time to establish mutual trust and understanding with their subordinates; mission command is arguably less relevant in these early stages of a command relationship (Stewart, 2006).

It could, of course, be that where mission command or empowerment appears not to be relevant or successfully delivered (in a link to the previous limitation), this could reflect employers or commanders failing to implement it effectively (Honold, 1997; Ahearne et al., 2005). Almost either way, a natural resolution of this debate is to accept that mission command does have its limits. It must therefore be individualised to reflect the culture of an organisation and its personnel (Greasley et al., 2005), and the nature of the environment (Hoeben, 2017).

Finally, the suggestion around the need for agility in leadership approach is one that intriguingly occurs in literature to both justify (Farrell, 2008; McChrystal, 2015) and query (Hill & Niemi, 2017) the importance of mission command. The former argument suggests that mission command is uniquely placed to encourage an agile approach by its practitioners; the latter suggests that an overly doctrinal application of mission command fails to recognise those situations when it is not appropriate. These arguments are not mutually exclusive but neatly link the four categories of limitations to mission command; when mission command is not willingly or effectively applied it is guaranteed not to be applicable to a particular scenario, and has no chance of being seen as relevant.

2.4.2 The impact of the Information Age

As it has impacted broader society and military activities, the Information Age should inevitably have an effect on leadership and mission command. Most pertinently, mission command has apparently become more difficult to deliver in the Information Age

(Parrington & Findlay, 2003; Lawson & Barrons, 2016) and appears hardest to deliver when it is most needed (Krabberød, 2014; Potts, 2002; Hoeben, 2017). Storr (2003) linked these points in his suggestion that the very characteristics that make mission command more important also make it more challenging; it demands greater openness at the same time as enabling and encouraging greater control. New information technologies and interconnectivity are therefore working together to “*open closed systems...[whilst] creating incentives to reassert centralized control*” (Arquilla & Ronfeldt, 1998, p.131). The same categorisation of the limitations of mission command will be used to analyse the effect of the Information Age on these aspects.

Mission command is now more reluctantly given

One of the most prominent explanations for an increased reluctance to give mission command in the Information Age is linked to the issue of information overload (Simon, 1971, cited in Misner, 2014, p.47; Ryan, 2015). This is certainly not a new phenomenon in war (Jantzen, 2001), with Botsford (2005) using examples from 1940 and the Falklands War. But the limits of human capacity are undoubtedly exacerbated within the Information Age, particularly where the volume of available information far exceeds the human ability to digest it (General McColl, cited in House of Common, 2003, n.p.; Crane et al., 2009; Marusich et al., 2016; Buchler et al., 2016).

Psychologically, information overload “*consumes the attention of its recipients...[creating] a poverty of attention*” (Misner, 2014, p.47; also Jantzen, 2001). This draining of capacity counter-intuitively limits the enthusiasm to empower. In times of heightened stress, and facing the prospect of greater task uncertainty, Creveld (1989) noted how a commander chooses between centralisation and decentralisation (also Fischer, 1995). Krabberød (2014) demonstrated quantitatively which choice is the more instinctive. He showed how an increase in task uncertainty, and hence an increase in the requirement for mission command, directly correlated with leadership behaviours divergent from mission command. Marusich et al. (2016) later used command and control simulations in a study of the relationship between information volume and decision-making. They firmly concluded that increases in volume were detrimental to decision-making performance, regardless of the accuracy and relevance of the information provided. Once again, the attributes of the Information Age appear to discourage the giving of mission command by leadership.

At a political level various authors have demonstrated how the Information Age exacerbates the temptation for higher command to get involved in greater tactical detail

than they perhaps should (Gentile, 2000; Smith, 2002; Cohen, 2003). Mission command is therefore potentially less willingly permitted because it is more tempting not to allow it. This is due, firstly, to Information Age technology easing the ability of high political and military command to get involved; they can now micromanage increasingly at will (Bunker, 1998; Coletta & Feaver, 2006; Kometer, 2007; Wavell Room, 2017c; and as already described in Singer's 2009 Tactical Generals). The idea of a "*long screwdriver*" has emerged from such debates where, enabled by technology, commanders can directly intervene in operations from many miles away (Storr 2003; House of Commons, 2003; Singer 2009; Hoeben, 2017).

Relatedly, the idea of the "*strategic corporal*", as famously introduced by Krulak (1999), emphasises how the Information Age has connected tactical and strategic actions in previously unachievable ways and speeds, to the point where tactical actions now have significant strategic impact. Thus, at the same time as technology has enabled high command involvement, the perceived need to get involved has increased; the actions of one lowly soldier are more likely to have political and/or strategic ramifications than previously (UK. DCDC, 2017b). Whilst Krulak's (1999) solution to this was to reinforce the need for mission command for the strategic corporal, not all politicians would necessarily agree. Indeed, politicians and senior commanders may judge that they are even better placed to make the decisions in such situations, by dint of their years of service and better appreciation of their own intent and the potential consequences (Jones, 2000; Cohen, 2003; Kometer, 2007). To permit mission command, politicians have to resist the instinct not to delegate when they know that political damage could occur (Burton-Brender, 2016), at just the time when political micro-management of military activity is easily enabled by Information Age technology (Storr, 2003). Through such logic, an increasing reluctance to give mission command appears sound.

Mission command is now more reluctantly received

The Information Age's characteristics have been shown to imbue additional personal risk, greater proclivity for oversight and increased strategic implications of local actions. It would be reasonable to deduce that these consequences might further discourage individuals from taking on extra responsibility. As Marsh (2019, p.22) observed, in direct relation to the modern RAF, this situation:

Engenders a culture of risk aversion...the "Mother may I" culture, where...[individuals become] more prone to referring or asking upwards for

permission when in fact they have no formal need to, which evidently runs counter to the principles of empowering leadership.

In a similarly demotivating way, employee scepticism is potentially exacerbated in the Information Age. If mission command is indeed more reluctantly given, then the say/go gap between the advocacy for mission command and the lived experience will only widen, thereby reinforcing a reluctance to receive what looks like an empty offer. A Wavell Room blogger (2017c, n.p.) points out how the perceptive British military man and woman does not miss this differential:

Operational experience in Iraq and Afghanistan has left many with the impression that Mission Command is simply another doctrinal buzzword which is preached but not practiced.

In a self-reinforcing manner, the Information Age therefore appears to compound any instincts for employees not to take on mission command.

Mission command is now harder to deliver

Other attributes and consequences of the Information Age add to the difficulties involved in delivering mission command. Firstly, the construction, delivery and receipt of a commander's intent, the starting point for mission command, has apparently become harder. This is attributed to the fact that the sheer complexity of modern conflict and organisational realities require a commander to capture the nuances of more detailed and varied laws and policies; subordinates everywhere then need to understand and interpret such direction. As Hill & Niemi (2017, p.97) observed: "*Amid significant ambiguity and situational complexity, we should expect that shared understanding will be much more difficult to achieve*". Any failure in this appreciation, or differences across different individuals, suggests likely mission (command) failure (Parrington & Findlay, 2003; Stewart, 2006; Smith, 2017). Add in the challenges of common appreciation when working increasingly with other nations, without shared culture, background and native language, and these difficulties are exacerbated again (Storr, 2003)

On a personal level, the fact that mission command is intuitively difficult for the human to do has already been highlighted; it goes against core instincts to control. The Information Age, and information overload in particular, only reinforces these instincts. Thus it is not just that commanders are reluctant to give mission command but, and in partial

explanation, it is that their instincts are telling them not to, making the very act itself harder to do (Jantzen, 2001; Misner, 2014).

More organisationally, it has already been described how the Information Age demands flatter structures, with innate flexibility and agility that can respond to the speed and variety of change. Indeed, Alberts & Hayes (2003) described how true power, for so long perceived as being centralized, now lies at *“the edge”* of organisations. Whilst many militaries are less hierarchical than the stereotypical view of them, they are still undoubtedly hierarchical (Hargrove & Sitkin, 2011; Dempsey, 2012); the RAF is an organisation of approximately 31,000 personnel with 20 different rank levels (UK. RAF, n.d.). As the Information Age has increased the requirement for mission command, the task to deliver it is made harder as militaries still have to use legacy Industrial Age models (Ben-Shalom & Shamir, 2011). Moreover, the *“dramatic shifts in mental and organizational models”* (McChrystal, 2015, p.viii) required to realise institutionalised mission command are, in themselves, extremely hard to achieve. Collectively, these Information Age characteristics conspire to make mission command even more difficult.

Mission command is now even less relevant

Finally, the Information Age has potentially increased the prevalence of scenarios for which mission command may not be applicable. The theme of discord between the RAF's organisational structure and culture, and the demands of the Information Age, further suggests how mission command could be less relevant now. It is certainly conceivable that a naturally hierarchical organisation, with deeply embedded behavioural structures and cultural norms (Wong et al., 2013; Monahan, 2018), will have some institutional and individual resistance to embracing a flattened structure (Alberts et al., 2001; Stewart et al., 2017). Indeed Alberts et al. (2001) specifically highlighted an evident military nervousness to flattening hierarchies, alongside cultural and organisational impediments to change. Implied from this conclusion is that mission command will remain an elusive and irrelevant concept, at least until the RAF changes its cultural attitudes and instincts towards hierarchy and is able to persistently deliver the required attributes for mission command.

Returning to the increasing strategic impact of actions in the Information Age this, too, could be used as justification for the decreasing relevance of mission command. The extension to the public of available information around military activities, not least by rapid and largely uncontrolled social media, has inevitably intensified political consequences (House of Commons, 2003; Parrington & Findlay, 2003). Political judgements, and those

of military staff, are now subject to instantaneous and then prolonged public moral judgement, based on the primacy of perceptions over reality (Mattox, 2008; Wavell Room, 2017b). Thus the political calculus of what is politically relevant military activity has changed, and not in favour of mission command; through this lens, it is simply less relevant in the Information Age.

2.4.3 The paradox of intent versus reality

The literature on mission command and empowerment thus reaffirms the requirement for, and limitations of, both concepts. In doing so, it appears to confirm the existence of a potential paradox between the need and stated intent for mission command, and the complexity of realising it in reality; its importance to the RAF is in evidence, but so is the difficulty for the RAF in delivering it. This paradox appears to have been exacerbated by the inherent characteristics of the Information Age, making mission command harder to deliver at the same time as it has become more important (Potts, 2002; Krabberød, 2014).

The literature does recognise a number of related paradoxes, including: between the increased ability to delegate and the increased reluctance to do so (McChrystal, 2015); the increase in situational awareness but the reduced time to make decisions (Alberts et al., 2001); the differential between the advocacy of mission command and the lived reality (Vandergriff, 2019); and the generically increased requirement for mission command coinciding with the greater difficulty in delivery (Storr, 2003). Where the inherent difficulties around implementing mission command appear in UK military writings, the focus is on the Royal Navy or the British Army (Knowles, 2016; Ansell, 2016; Beaumont, 2016; Cartwright, 2017; Blackett, 2019; in a succession of Staff College papers). Yet there is no apparent explicit recognition, or confrontation, of the challenges and implications created for the RAF of such a paradox.

Assuming this identified paradox does exist, then it poses some awkward questions: given that RAF senior leadership have clearly stressed the importance of mission command for the next-generation RAF, are they asking and expecting the impossible? Is there a fundamental contradiction between what the RAF senior leadership is actively encouraging its personnel and organisation to do (conduct mission command), with what the RAF is meaningfully able to deliver? Is the RAF's conceptual approach at odds with practical, organisational and cultural realities? Does Vandergriff's (2019, p.55) description of a *"disconnect between the intentions of the [US] Army's senior leaders and the execution to achieve those intentions by the organisation itself"* also hold true for the modern RAF?

At the very least, accepting the existence of the paradox described suggests that mission command requires significant efforts to ensure widespread delivery, reflecting both its increasing importance and its greater challenges. The final section of the literature review examines what theoretical suggestions exist to mitigate these limitations and, consequently, what future improvements could be made to the RAF's approach to mission command in the Information Age.

2.5 Future prospects for mission command

2.5.1 Potential improvements

There are a number of meaningful perspectives related to how the challenges of delivering mission command and empowerment could be overcome and how the paradox could be mitigated (Nykodym et al., 1994; Krabberød, 2014; Lee et al., 2018a). The literature reviewed has already highlighted that mission command can be both controversial and difficult to deliver (Greasley et al., 2005; Wahid et al., 2017). Mutual trust, communication and understanding have further been suggested as especially critical in underpinning successful mission command (Parrington & Findlay, 2013; Shamir, 2011). Feltey & Madden (2014, p.2) even suggested that the first of these is "*mission command's greatest challenge, underlying all others*". Many of the recommended improvements therefore focus on ensuring that the controversy and difficulties around mission command are minimised and that the above traits are encouraged and attained. They can also be aligned with Ford's (2013, p.11) previously noted definition of empowerment, affirming the importance of providing individuals the "***confidence, competence, freedom and resources to act on their own judgement***" to realise mission command. Referencing these attributes, the same four limitations to mission command as above will be used as opportunities for potential improvements.

Make mission command more willingly given

The first line of improvement focuses on how to make leaders more receptive to giving mission command. Acknowledging a natural reticence to empower in certain personality types, Stewart et al. (2017) addressed this by reconciling the tension between established strong personal identities and the requirement to delegate and share responsibility with subordinates. They achieved this primarily by encouraging the idea that these two states were actually mutually reinforcing rather than incompatible; empowerment did not pose a threat to such individuals, but an opportunity.

The more general point is to actively describe, discuss and convince leaders of the benefits to them personally of mission command. Reassurances and **confidence** can be derived, as Bungay (2005, p.29) suggested, from an evident *“readiness of their superiors to back up their decisions; [and] the tolerance of mistakes made in good faith”* (also Honold, 1997; Vego, 2018). To inspire others with both the confidence and the will to enact mission command, McChrystal (2015) strongly emphasised the importance of leadership through personal example, derived from his own significant military leadership experience. Lord & Hutchison (1993) made a similar point, emphasising how such example reinforces individuals’ self-motivation to empower.

Lamb (2010, n.p.) captured these points whilst providing a possible template for such encouragement to staff, encouraging the responsibility required for mission command by exhorting the need to:

Embrace its discipline, train and educate your department in its application, understand the authorities that need to be delegated and be prepared to shape your work force around them.

Make mission command more willingly received

The next thematic approach examines improvements that result in mission command being more willingly received. Initially these are derived from an extension of the advocacy provided to leaders to embrace mission command. Hence Fast et al. (2014) recommended reinforcing the **freedom** for employees take on extra responsibility, actively encouraging employees to speak up with their ideas in order to force a cultural acceptance of this style (also Zhang et al., 2020).

Furthermore, an obvious way to create **confidence** amongst employees that mission command and its additional responsibilities are manageable, and not burdensome, is to practice it. Such a truism can and should be applied to mission command across all aspects of military activity, thereby developing the **competence** in its delivery (General Milley, cited in Townsend et al., 2019). In the military context this would involve its use in training and when on exercises; as Vandergriff (2019, p.19) noted, for a military to achieve mission command effectively they *“must practice in war and in peace, every day in everything they do”* (also Whitford, 2015). General Dempsey (2012, p.6) reinforced this point in his demand that mission command becomes a *“learned behavior to be imprinted into the DNA”* of the US military.

Proactive, through-career training and education should simultaneously reinforce the necessary cultural changes required (Buchanan & McCalman, 1989; Storr, 2003; Glenn, 2017). Vandergriff (2011) even extended this aspect to the entire personnel management system. This approach is again enhanced if employed alongside a system that rewards and promotes mission command's defining attributes, such as inquisitiveness and initiative (Bowen & Lawler, 1992; Shamir, 2010; Hargrove & Sitkin, 2011).

Separately, with scepticism already identified as one of the key reasons why employees are reluctant to receive extra responsibility, Wong & Giessner (2018) suggested that expectations should be appropriately managed on the extent of empowerment (also Lee et al., 2018b). Doing so should mitigate instinctive cynicism and reluctance, closing the say/do gap and enhancing credibility. Demonstrable action that is clearly tied to a related narrative would have a similar impact (Argyris, 1998; Brown, 2020).

Make mission command less difficult to deliver

Looking next for improvements that can mitigate the difficulties inherent in implementing mission command, an initial recommendation is based around the need for consistent commitment by the organisation itself (Marquet, 2015). This is, as Guthrie (2012, p.26) put it, the "*stomach*" to deliver cultural change. If demonstrated credibly this approach eases the difficulties of mission command by convincing employees that it is achievable, thereby encouraging their personal commitment to, and **confidence** in, the task.

The following step is to ensure that everyone in an organisation understands the commander's intent, as without this mission command is destined to fail. Generation of common understanding is considerably alleviated if such intent is clearly, consistently and widely issued (Quinn & Spreitzer, 1997; Krabberød, 2014; Parker & Bonin, 2015; Yardley, n.d.; Glenn, 2017). Intent which is evidently personally drafted should have greater impact, not least in generating trust by displaying transparency, a point made particularly powerfully when associated with widely renowned military leaders (Stewart, 2009, p.50, quoting Field Marshal Slim; Parrington & Findlay, 2013; McChrystal, 2015). Investing time and effort in communicating this intent widely, and ensuring it is understood, are therefore likewise recommended (Botsford, 2005; McChrystal, 2015).

Ways to ease the attainment of mutual trust, given its frequent description as the most important element for mission command, should further be pursued. Here the personalisation of interaction is again cited as a particularly effective attribute and activity

(Rothstein, 1995; Carpenter, 2016; Fox, 2017). Barnes' (2016, n.p.) goal of establishing a “*speed of trust*” between leaders and subordinates captures neatly both the requirement and the goal that should result in rapid, empowered initiative. Throughout the application of these principles, the benefits of practicing mission command should be self-evident in making it easier to realise.

Finally, mission command can be made less difficult to deliver via the corollary of Kern's (2009, p.12) assertion that “*any successful exercise of Mission Command rests on the sufficient allocation of **resources***”. The provision of necessary resources, and the **freedom** to employ them, towards a leader's intent cannot always be assumed, whether due to intent, awareness or availability. As Honold (1997, p.208, citing Foster-Fishman & Keys, 2005) reinforced, to realise a culture of empowerment:

Management must be willing...to allow them [their staff] to have greater access to resources, and to have more discretionary choice in the way they do their work.

Providing such resources also, as Biemann et al. (2015, p.778) observed, “*signals to subordinates that their leader trusts them*”, mutually reinforcing that critical attribute.

Make mission command more relevant

The last theme of improvements examines the issue of mission command's situational relevance. Where the literature acknowledges that mission command may not be suitable for all scenarios, it then suggests various mechanisms by which such situations could be adjusted to make them more conducive for mission command. First among these is the linked requirement for leaders to willingly take on the personal responsibility of delivering mission command and empowerment (Bungay, 2005; McChrystal, 2015; Cooper, 2018). A Wavell Room blogger (2017b) even challenged the existing doctrine in this vein, suggesting that the emphasis placed on the subordinate's responsibility to act undermined the importance of the commander's role in creating the conditions for mission command.

Said leaders should therefore seek to understand the nature of the scenario they are presented with. Particular attention should be paid to where the best situational awareness lies, what relevant capabilities are held, and what sort of personalities exist at different levels (Harvard, 2013). Subsequently leaders should set the conditions for increased levels of mission command by encouraging a culture of: participative management and openness (Nykodym et al., 1994; Randolph & Sashkin, 2002); initiative and willingness (Cooper, 2018); and tolerance of risk (Cox, 2013; Parker & Bonin, 2015;

Vego, 2018; Marsh, 2019) and mistakes (Storr, 2003; Bungay, 2005; Burton-Brender, 2016). Reinvoking Krulak (1999), these traits should be overseen with an appropriate level of guidance and mentoring that assures progress without descending into micro-management. Collective realisation of these attributes should ensure that the situation and environment is more conducive to mission command.

2.5.2 Adjusting for the Information Age

Further analysis of the available literature was undertaken to identify any additional suggestions specifically linked to the Information Age, and/or whether the characteristics of the Age enhanced the requirement for the suggestions already made. The latter turned out to be more prevalent, with many of the characteristics of the Information Age reinforcing the importance and challenges around mission command. Consequently, the criticality and extent required of the recommendations already made was reemphasised.

For example, the enhanced situational complexities and rapidly changing scenarios of the Information Age reassert the need to generate understanding and trust. Similarly, in order to understand the situation and then transmit the command intent, the requirement for self-awareness, agility, imagination, and effective communication has also increased (Crane et al., 2009; Hargrove & Sitkin, 2011; Misner, 2014).

With such added complexity, Jamieson & Calabrese (2015) reaffirmed the importance for leaders simply to be comfortable with empowering staff, and being empowered, in an Information Age context. This point, linked to the requirement for self-awareness, reaffirms the need to willingly and proactively encourage the responsibilities of giving and receiving mission command. Developing and practising the attributes that enable this, such as removal of zero tolerances for error, are even more important (Vego, 2018).

With respect to the difficulties of delivering mission command in the Information Age, a range of practical recommendations address the need to harness and focus the vast quantities of changing information. Adamson & Snyder (2017), in particular, suggested that both human and technological networks need to be suitably capable and resilient to optimise the flow of information, enabling situational awareness, mutual understanding and mission command (also Crane et al., 2009). For similar reasons, Brown (2015) stated that the available information needs to be managed, stored and shared in a very different way to that previously, given the sheer quantities and speed with which it can be transferred.

Finally, taking these points to an organisational level, Stewart (2010) emphasised that effective mission command in the modern era demands the correct culture and approach, enabled by processes and technology, across an entire military structure and ethos. Leadership strategies therefore need to change to meet Information Age demands. Embracing such principles re-emphasises the importance of non-hierarchical, flattened and networked structures that naturally encourage mission command and empowerment (Kometer, 2003; Trevor & Kilduff, 2012, doing so via an especially pertinent case study of a UK public sector organisation; Kemp, 2016). These observations, in turn, have evident implications for recruitment, training and employment policies for the RAF.

2.5.3 The RAF's ability to realise mission command in the Information Age

The potential existence of a paradox between what the RAF is being told to do and might be capable of doing has been described. This section now focuses on whether the UK MOD in general, and the RAF specifically, has recognised the context, requirement and limitations of mission command, as well as its own shortcomings in such an environment. If it has then it is reasonable to assume that, at least at an organisational level, the RAF is capable of mitigating the inherent difficulties and seeks to do so.

A detailed examination of extant UK military doctrine is encouraging in this regard. Now familiar references are made in a variety of relevant documents to the organisational need for flatter leadership structures and resilient networks (UK. DCDC, 2017a. UK. DCDC, 2017b). The importance of leaders and leadership models being suitably agile is also emphasised, in recognition of the range of situations that can exist in the Information Age and the speed with which they can be transformed (UK. DCDC, 2017a, UK. DCDC, 2017b). The doctrine further describes the importance of creating a culture of learning, not least through acceptable failure, and an emphasis on the recognisable attributes of innovation, initiative, consistent communication and mutual trust (UK. DCDC, 2017a. UK. DCDC, 2017b).

The importance that the RAF accords to mission command has already been explained, as has its recognition of the new challenges presented by the Information Age. It also appears that the RAF is searching for suitable mitigations, even if it has not explicitly acknowledged the paradox identified. Throughout its history the RAF has celebrated its focus on modernity, claiming that its foundation around the technological demands of aviation insists on such a focus. This, in turn, has generated a distinctive culture and ethos that encourages innovative, if occasionally undisciplined, thinking (Mahoney, 2018; Monahan, 2018).

The “*Thinking to Win*” programme introduced in 2016 was designed to reinvigorate these traits, in particular the RAF workforces’ contributions to and ownership of air power conceptually. This programme implied a recognition of the organisation’s current conceptual and cultural weaknesses, but a willingness to tackle these (Wheeldon, 2016; UK. RAF, 2016). Wheeldon (2016) further noted, with an implicit nod to mission command, that the RAF deliberately supplied a clear vision towards that end as part of the programme.

Ahead of the RAF’s Centenary Year in 2018 the organisation reconsidered and reasserted the opportunities presented by its second century and the realities of the Information Age, as well as the leadership intent to confront the difficulties identified (Atha, 2017; UK. RAF, 2017). Once again, the importance of leadership, a focus on people and the need to think differently and broadly in a rapidly evolving, information-dominant environment was apparent. That same year 11 Group was re-established as the RAF’s first multi-domain operations group. This organisational change provided tangible evidence of the required direction, with its foundational intent explicitly calling on the organisation to think and act in a networked manner and confront the challenges of the Information Age (ITV, 2018).

Subsequently, the Chief of the Air Staff introduced a campaign named “*Astra*”³ that brigades all the transformational activities required to create a Next-Generation Air Force (Wigston, 2019a). *Astra* is intended as a 20-year project that builds on *Thinking to Win* (RAF News, 2020). From these evolving programmes it does appear that the RAF recognises the challenges it faces in delivering mission command and is trying to create the right environment to address these. Yet its success, or not, in doing so has yet to be researched or confirmed.

2.6 Research Gaps

This literature review has established that mission command is a very important concept for the RAF. Furthermore, it has evidently become even more important since the advent of the Information Age. However, despite this importance, there does not appear to exist in the available literature any real consideration of the extent to which the RAF is actually capable of delivering mission command in the Information Age, or whether it has been able to do so thus far. The primary aim of this research is to fill such a gap.

³ From the RAF motto “*Per ardua ad astra*”, which translates as “*through adversity to the stars*”.

The requirement for this research is reinforced by the identification that mission command, despite its importance, is not always successfully realised (Pigeau & McCann, 2002; Shamir, 2010). Moreover, the inherent characteristics of the Information Age not only make mission command more important to deliver, but theoretically harder to do so too (Potts, 2002; Hoeben, 2017). Analysis of the literature has suggested the existence of a paradox between the conceptual and leadership direction given to the RAF to deliver mission command, and the limits of its ability to do so practically, organisationally and culturally in the Information Age.

The available literature does not test whether this paradox exists in reality. The First Research Objective will fill this gap. To this Objective's end, the subordinate First Research Question examines and confirms whether the conceptual limitations identified in this literature review are borne out in the reality of the modern RAF, as it is these that would undermine any achievement of mission command. The Second Research Question then analyses whether the Information Age has indeed exacerbated the inherent limitations of mission command for the RAF.

A number of theoretical suggestions are provided in the available literature as to how the limitations of mission command could be overcome or diminished. These have included addressing any unwillingness to deliver or receive mission command, the difficulties in enacting it, and the situational relevance of mission command and its component parts (Glenn, 2017; Cooper, 2018; Lee et al., 2018b). Some confidence is implied from these that, in theory, the RAF could have the ability to realise mission command in the Information Age, albeit none of the proposals made are directly applied to the organisation itself. The second Research Objective looks to fill this gap in knowledge, suggesting future improvements that can be made to the RAF's approach to mission command in the Information Age.

In doing so this thesis will also fill a broader research gap derived from the limited academic literature that examines the RAF's human element from an organisational perspective. Monahan (2018) had originally identified this gap and, admittedly, did fill one aspect of it by examining RAF culture and ethos.

An evident limitation of the available literature on mission command, particularly in an Information Age context, is its lack of strong academic, conceptual and theoretical underpinning, beyond that provided by the academic theory around empowerment. Discussions around this topic are largely driven from responsive open-source media such as blogs, personal and institutional websites, articles and speeches (for example: Carlisle,

2012; Hostage, 2014; Mitchell, 2016; Atha, 2017; Wavell Room, 2017b). This research will aim to fill such a gap in confirming the academic foundation for mission command.

Overall, the potential practical benefits of research that could improve the RAF's delivery of mission command are considerable. At a detailed level, as Jantzen (2001) identified, it could release information technologies to free-up capacity. More generally, realisation of the full organisational and operational advantages of empowerment and mission command - of an efficient, focused, innovative and trusting entity working to a common purpose - will bring significant benefits to the RAF and its personnel alike. This is the opportunity and requirement that this research is intended to assist in understanding and grasping, thereby filling a gap in the existing knowledge base.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter describes the research paradigm and methodology used for this study. It explains why selections were made and why they are particularly relevant and useful towards the Primary Research Aim and the subordinate Research Objectives, as well as ultimately towards the generation of new knowledge.

The chapter starts by confirming the Research Aim, Objectives and Questions. It then defines the overall paradigm and philosophy within which the research sits, before outlining its consequential ontological, methodological and axiological assumptions. Specifically, these are based around an interpretivist approach that, when applied to the Research Aim, resulted in the decision to use semi-structured interviews with a cadre of senior RAF officers in designated command appointments. The methods and sampling logic are then explained, preceding an account of the interview process and practicalities. The subsequent description of the Interview Protocol outlines the content and approach of the interviews, alongside how continuous evaluation of these resulted in adjustments during the research process. This chapter concludes with a detailed examination of the ethical issues and considerations around the research, and the mitigation measures that were put in place for these. Given the nature of this research, particular emphasis was placed here on the challenges and opportunities around insider research.

3.2 Research paradigm

3.2.1 Research philosophy

Understanding the philosophical assumptions that underpin this research is important, not least as they shaped its design, perspectives and outcomes (Saunders et al., 2012; Creswell & Poth, 2018; Lincoln et al., 2011; King et al., 2019). The reality that empowerment and, by association, mission command involve interaction and social activities between individuals has already been described (Rappaport, 1987). In analysing these social activities this research will seek to understand the perspectives of modern operational leaders in the RAF, and specifically whether and how they feel constrained in their ability to deliver or receive mission command. Such perspectives will inevitably vary and will therefore require interpretation and analysis. Accepting this subjectivity means that viewpoints and values are a critical element of this research, in

turn allowing the rejection of positivist and realist philosophies where objectivity is deemed crucial (Saunders et al., 2012; Fulton et al., 2013; King et al., 2019).

Conversely, an interpretivist approach would assert that the best way to research the limitations of mission command in the RAF, in studying humans as fundamentally social actors in an organisation, is from the point of view of those directly involved (Saunders et al., 2012; Bell & Thorpe, 2013; Ransome, 2013; Creswell & Poth, 2018). This is, indeed, the intent. Thus, reality for this research is viewed through multiple subjective perspectives and is inherently social. Hence the ontological and epistemological assumptions for this research - reflecting respectively the core assumptions on the nature of social reality and what “good” knowledge looks like (Anderson et al., 2015) - are based on an interpretivist philosophy (Saunders et al., 2012; Bryman & Bell, 2015; Creswell & Poth, 2018).

Alternatives to interpretivism were considered. As a submission for a professional doctorate this research is intended to have direct application in the real world. To do so, it is necessary to bridge the theory-practice gap and offer relevant solutions to the identified leadership challenges around mission command (Lee, 2009; Bell & Thorpe, 2013). The research conclusions and their subsequent presentation could result in changes to ways of thinking in the RAF. Under Creswell & Poth’s (2018) definition this suggests that a postmodern philosophical approach could be relevant. Similarly the same authors, citing Mertens (2003), define a transformative philosophy as one that is explicitly intended to improve the organisation under study. Noting that the relevant organisation (the RAF) is funding the research this approach, too, is relevant in providing a direct link and mutual interest between the research outcomes and the organisation being studied. However, the research intent does not place as much emphasis on changes in thinking or truly transformational direction as these philosophies require; the Primary Research Aim and two Research Objectives lead towards a balanced combination of theoretical observations and practical actions, for which interpretivism is best suited.

Research within the interpretivist philosophy is traditionally conducted qualitatively, with a focus on words that are analysed non-numerically or non-quantifiably (Saunders et al., 2012; Creswell & Poth, 2018; King et al., 2019). Qualitative research permits the researcher/observer to inhabit the organisation being studied, to view and analyse it in its natural, rather than contrived, state (Denzin & Lincoln, 2011). This is a clear requirement of the First Research Objective’s need to understand perspectives on mission command. Indeed, Pratt (2009, p.8) specifically emphasises the strength of qualitative research in “*understanding the world from the perspective of those studied*”, or “*informants*” as he

describes them. Furthermore, with a prescient reference to one of the research's core concepts, Creswell & Poth (2018, p.45) state that:

We conduct qualitative research when we want to empower individuals to share their stories, hear their voices, and minimize the power relationships that often exist between a researcher and the participants in a study.

Combining these definitional features with the research objective to explore organisational realities confirms the applicability of qualitative research to this study.

3.2.2 Research approach

With the ontological view of this research established, the next step in confirming the philosophical paradigm is to define the research approach: the logic applied to take the data collected towards the analytical conclusions derived (Saunders et al., 2012). The First Research Question provides an explicit task to confirm the RAF's conceptual approach to mission command and then compare it with the lived experience. This could imply the need for a deductive approach, where the data collected follows logically from the concepts identified (Dubois & Gadde, 2002; Rowley, 2012; Hart, 2014; Anderson et al., 2015). However, the overall research aim, and identified gap in knowledge, is not to confirm these theories but to understand the RAF's ability to realise mission command. The specific focus of the research on the RAF also means that theories from other organisations may not prove directly relevant, or adequately reflect the nuances of the RAF's culture and reality. Thus, whilst existing theories will be used to inform the research process, it is the experiences and perspectives gathered that will drive the improvements sought under the Second Research Objective; these may, or may not, relate to the theories identified. The lack of direct flow from theory to data collected therefore rejects a predominantly deductive approach (Dubois & Gadde, 2002). This primacy of the experiences gathered further means that the research process needs to be adaptable, ensuring that the research approach and philosophy can capture and respond to emergent ideas.

That said, whilst the existing theories will not be considered as preconditions, they did inform the collection of practical experience. This interaction between concepts and reality resulted in consideration being given to an abductive approach, especially as the Research Aim suggests the need for a spiral development of theory and practice. However, an abductive approach implies a much closer interchange between theory and

practice than is deemed appropriate for this research (Dubois & Gadde, 2002; Saunders et al., 2012; Halecker, 2015).

The research philosophy therefore needs to provide for:

- agility in approach;
- the fusion of new data with concepts to create generalizable conclusions for the RAF;
- the ability to actually deliver against the research's Primary Aim; and
- compatibility with the overarching intent of a professional doctorate to generate practical improvements based on theory.

A predominantly inductive approach appears epistemologically best suited to meet these requirements (Lee, 2009; Saunders et al., 2012; Mariotto et al., 2014; Anderson et al. 2015; Bryman & Bell 2015; Creswell & Poth, 2018). That said, the interaction between concepts and reality does inject some deductive impurity. Both Strauss & Corbin (1990) and Saunders et al. (2012) suggest such a combination is entirely appropriate.

The intended research approach will therefore be primarily inductive, with elements of theoretical deduction to focus the research if necessary. In further reinforcement, this approach fits into Creswell's (2013, p.44, cited in Creswell & Poth, 2018, p.43) description of qualitative research as including "*data analysis that is both inductive and deductive*".

Finally, particularly given the subjective approach of this research, it is important to set out what axiological approach will be taken. This will explain the emphasis placed on the values of the organisation and the individuals within it (Creswell & Poth, 2018). An inter-subjective approach may be relevant where, as Anderson et al. (2015) emphasise, everything is shaped by the interactions between individuals. However, fully embracing this focus would likely place too much emphasis on the researcher's role, a point that nonetheless reinforces the need to monitor and mitigate any impact of this on the research.

Regardless, the characteristics of the research mean that its axiological approach and assumptions will be in line with those of more general qualitative and interpretivist research. The research will therefore take value-laden and inherently subjective perspectives - of researcher and subjects alike - as to be expected, encouraged, tracked and analysed throughout (Saunders et al., 2012; Creswell & Poth, 2018). An immediate consequence of this approach, especially as the research will be conducted by an insider,

is that reflexivity will be critical throughout (Brannick & Coghlan, 2007; Riach, 2009; Saunders et al., 2012; Galletta, 2013; Ransome, 2013). So, similarly, will be an appreciation of the practical and ethical implications of the researcher's perspectives and presence. These are further discussed below.

3.3 Research methods

This section describes the method used in this research and, as Galletta (2013, p.21) encourages, demonstrates how it "*shows the greatest promise in studying this research topic*". In short, the Research Aim of this study will be met through conclusions drawn and extrapolated, with suitable validity, from semi-structured interviews of senior RAF personnel.

3.3.1 Why interviews?

In selecting the primary method of research for an interpretivist study such as this, interviews were quickly identified as the natural starting point for investigation. They are used prolifically in subjectively focused, qualitative research (Riach, 2009; Rowley, 2012; Castillo-Montoya, 2016). Interviews offer a unique ability to explore and understand opinions, perspectives, human experience and social interactions (Rowley, 2012; Saunders et al., 2012; Brinkmann & Kvale, 2015), a clear match with the requirements of the Research Aim and Objectives. Indeed, Brinkmann & Kvale (2015, p.3) describe interviews as "*attempts to understand the world from the subjects' point of view*", whilst King & Horrocks (2010, also citing Kvale, 1996) point out the evident logic that actually conversing with people enables them to share their experiences and understandings. Furthermore, as Patton (2015) notes, interviews offer the potential to uncover, intentionally or otherwise, information and opinions that no other research method would.

There are, of course, limitations to interviewing as a research method. Brinkmann & Kvale (2015, pp.196-7) describe ten criticisms, based predominantly around its lack of objectivity and scientific rigour and the consequential lack of apparent reliability and validity. They rebut each, pointing out the clear benefits of qualitative research and explaining how the objections can be mitigated. Moreover, when applied to the Research Aims and Objectives of this study, many of the criticisms are essentially strengths. For example, subjectivity could be seen as unhelpful as it does not deliver objective facts. However, it is actually vital in understanding the realities around the social activity of mission command (Brinkmann & Kvale, 2015).

The potential issues over generalisability to the broader RAF are acknowledged and will be addressed later in the detailed construct of the interview process. Notwithstanding, some alternative research methods were investigated for relative practicality and relevance.

3.3.2 Alternative methods considered

The first alternative method to interviews explored was a **questionnaire**. Rowley (2012, p.261) notes how a questionnaire's *"big advantage...is that it is easier to get responses from a large number of people"*, and that the conclusions may consequently be considerably more generalisable across an organisation. These facets would likely have been decisively useful for a largely deductive approach, where the theories identified could be directly tested with a series of narrow, standardised questions (Saunders et al., 2012). However, these are not the primary attributes or requirements of this research. Moreover Rowley (2012, p.262) subsequently and tellingly describes one of the advantages of interviews as when *"there is insufficient known about the subject to be able to draft a questionnaire"*. Although a questionnaire could potentially be drafted from the available literature towards elements of the Primary Research Aim, the critically inductive nature, particularly of the First Research Objective, precludes doing so comprehensively. This facet reinforces the relative merits of interviews over questionnaires for this study.

Focus groups were also considered, as interaction between multiple simultaneous interviewees could generate insights and iterative discussions that a one-on-one situation could not (Krueger & Casey, 2014; Creswell & Poth, 2018). However, the potential for a focus group to inhibit rather than encourage free and balanced conversation dissuaded from this method (Saunders et al., 2012), particularly on a topic that is likely to require very personal opinions and perspectives. The sheer impracticality of organising such a group with an intended sample that are geographically dislocated throughout the country confirmed this intent. Moreover, with hindsight this impracticality would have been exacerbated by the national COVID-19 restrictions that were put in place just as the interview schedule began.

Acknowledging the advantages and disadvantages of the various methods described, an obvious consideration would be to seek to maximise the benefits of each by employing **mixed methods** of research, or even including a quantitative element of investigation (Johnson et al., 2007). On the latter, the qualitative focus of the Primary Research Aim implies that there would be few benefits from generating an additional quantitative study. Brinkmann & Kvale (2015) also remind the researcher of the sheer complexity of

managing and delivering mixed methods, even if only as a mixture of questionnaires and interviews, given the different administration and analytical techniques demanded. An element of pragmatism was therefore employed in judging that the inherent challenges involved in employing mixed methods would not offset the academic benefits to be derived.

3.3.3 Phenomenology

Having confirmed interviews as the method to be used in this research, this section will now explain the most suitable approach for the interviews and the type of interviews required. The First Research Objective's focus on understanding the perspectives of RAF personnel leads naturally to the philosophical tradition of phenomenology, which emphasises the importance of understanding the lived experience (Brinkmann & Kvale, 2015; Patton, 2015). Helpfully, King et al. (2019, p.239) reinforces this conclusion by noting that "*Interviews are widely used in phenomenological research*", whilst Brinkmann & Kvale (2015) point out its prevalence in qualitative research more generally. Acknowledging a phenomenological approach allows the interviews' conduct and analysis to be focused on drawing out views and descriptions from interviewees' experiences. It also permits less focus on the narrative of the interviews, the nature of the interview discourse, or a hermeneutic approach that would emphasise interpreting the meaning or form of words used (Hollway & Jefferson, 2013; Brinkmann & Kvale, 2015; Creswell & Poth, 2018).

A further consequence of the phenomenological and interpretivist approaches is an expectation that, beyond extracting existing knowledge from the interviewee, the interview process itself will result in the direct construction of knowledge (Rowley, 2012). Indeed, an interpretivist approach draws on a social constructionist viewpoint that "*is concerned with how we construct versions of ourselves and our reality through language*" (King et al., 2019, p.309). Similarly, the expectation that knowledge will have to be constructed appears intuitive, assuming (as proved the case) that not all prospective interviewees would have fully considered the challenges of mission command in the Information Age in advance. This was, however, an important recognition for formulating the questions to be used and the conduct of the interviews themselves.

3.3.4 Interview structure

As for the type of interviews the solution is, again, relatively straightforwardly derived from the inherently subjective, phenomenological, inductive and exploratory nature of the

Research Aims and Objectives, alongside the proposed philosophical and methodological approaches. All these attributes and approaches naturally lend themselves to a semi-structured interview (Rowley, 2012; Saunders et al, 2012; Galletta, 2013; Brinkmann & Kvale, 2015; King et al., 2019). As Galletta (2013) describes, semi-structured interviews provide a unique flexibility that allows the lived experience and its perspectives to be explored. Yet they also allow a suitable focus to be provided - derived from the research objectives, existing literature and theories - that channels the interviews towards the research ends (Galletta, 2013; Brinkmann & Kvale, 2015). This focus further generates the commonality across interviews that, in turn, provides a consistent basis for analysis and comparison (Rowley, 2012). This consistency is an essential element towards identifying the potential dichotomy between the theoretical limitations of mission command and reality, as required by the First Research Objective.

Ideally, this research would capture the perspectives of the sample at a single moment in the RAF's modern history, thereby removing time as a variable for consistency of analysis. The research was therefore originally intended to be cross-sectional in approach (Saunders et al., 2012). In reality, the time taken to conduct the full programme of interviews meant that the actual time horizon was just over 3 months. This is significant in that the main interviews started just after the implementation of national COVID-19 restrictions. The impact of these restrictions on work practices and approaches meant that some perspectives relevant to mission command were evidently evolving and emerging through this period. The implications of this are explored more in the Results and Discussion Chapters. The relevance for this Methodology Chapter is that the aspiration for a cross-sectional approach was undermined. Whilst this situation was unavoidable, its consequences were offset by the analytical benefits of conducting research into mission command at this unique time, as will be subsequently described.

3.3.5 Sample strategy

This research's Primary Aim, and First Research Objective in particular, involves an examination of the realities of mission command in the RAF. The research population could therefore consist of all regular, uniformed members of the RAF. However, as this is approximately 33,000 people (UK. MOD, 2020), a smaller, representative population was sought for practical purposes. Such a population should have relevant experience and (ideally considered) perspectives on the phenomenon of mission command in the RAF, as well as the authority and knowledge to provide insight across as much of the RAF as possible (Rowley, 2012; Creswell & Poth, 2018). Having taken a stratified and purposeful sampling approach (Robinson, 2014; Creswell & Poth, 2018), the intent is to focus the

interviews at senior-middle manager level, and specifically at the RAF ranks of group captain and air commodore. In 2015 there were approximately 290 group captains and 80 air commodores in the RAF (UK. MOD, 2015⁴). This is therefore considered to be the research population, from which the proposed interview sample was drawn.

Maximising the focus on organisational leadership resulted in an additional concentration on individuals in designated leadership and command appointments. For the RAF, such individuals usually hold command of an RAF Station or Force (UK. RAF, 2020b). Logic suggests that such individuals' perspectives on mission command will best reflect the wider RAF's views and realities, given their daily interactions and issues cover a necessarily broad span of the RAF hierarchy, upwards and downwards from their own position.

Analysis of the RAF website (2020c) identified 29 such posts. A further expectation was that, over the course of the interview process, some individuals would be replaced in post, resulting in more than one potential interviewee per post. This proved to be the case. Allowing for this element meant that the initial interview sample size was estimated as 33 individuals.

Viewing this sample from a theoretical standpoint appeared to validate the logic applied and conclusions drawn. Admittedly Baker & Edwards' (2012) wider research into the "*correct*" number of interviews to be conducted revealed a variety of suggestions, both specific and generic. They concluded, as did a number of their contributors, that "*it depends*" upon a range of practical, methodological and epistemological factors (p.6). Pratt (2009, p.8) also confirmed that "*there is no "magic number" of interviews or observations that should be conducted in a qualitative research project*". However, Adler & Adler (in Baker & Edwards, 2012, p.10) helpfully recommended a mean of 30 interviews, whilst Saunders & Townsend's (2016) study into the number of interviews used in academic articles on organisation and workplace research revealed "*a median of 32.5 participants*" (p.836). They subsequently recommended "*initial estimates of around 30 when planning to choose participants from a single organization*" (p.847). These numbers are judged appropriate to obtain the right balance between data saturation, research and analysis inefficiency, and resource constraints, all whilst providing sufficient data to actually answer the research questions posed (Francis et al., 2010; Adler & Adler, in Baker & Edwards, 2012; Patton, 2015; Saunders & Townsend, 2016). Thus, in the context of this study, a sample of 33 did appear to offer the potential to provide sufficient

⁴ Figures rounded to the nearest 10 at source.

and varied insight into the Primary Research Aim, whilst remaining realistically achievable (Baker & Edwards, 2012; King et al., 2019).

That said, and as Marshall (1996) advises, the requirement to continue the interview process was consistently reviewed as the research period progressed. Data saturation issues - as forewarned and discussed by a number of authors (Guest et al., 2006; Francis et al., 2010; Baker & Edwards, 2012; Galletta, 2013) - were monitored throughout. In the end, 21 interviews were secured and conducted. By this stage in the research process it was apparent that the interviews were generating different perspectives on existing themes, rather than any new themes (Marshall, 1996). It was therefore assessed that the diminishing probability of securing any more interviews with busy individuals, and the considerable effort required to do so, would not generate the necessary benefits (Patton, 2015; Saunders & Townsend, 2016). Most importantly, it was judged that sufficient data had been gathered to answer the research objectives.

3.3.6 Research validity

In a study such as this, where the Research Aim relates to the RAF as a whole organisation but a relatively small research sample is under investigation, there is a need to ensure suitable internal and external validity of the research conclusions. This process confirms whether the research has measured what it was supposed to, and whether the conclusions are suitably generalisable (Ransome, 2013). The former of these concerns will be mitigated by the processes and procedures enacted to deliver academically robust interviews and analysis (Brinkmann & Kvale, 2015).

The plan for external validity is based on the analytical generalisation suggested by Brinkmann & Kvale (2015). It is acknowledged that, by dint of the purposeful and stratified approach taken, a relatively narrow sample of two rank layers is used. Strictly, therefore, the results are robust only for this specific group. However, it is contended that this sample are uniquely well-placed, as commanders at group captain and air commodore level, to have the most holistically informed and judged perspectives on the RAF's attitudes and realities around mission command. The organisational structure of the RAF (MOD. RAF, 2020c), and eminent status accorded to Station and Force Commander positions (MOD, RAF, 2020b), suggests that such post-holders are considered critical to the delivery of the RAF's output and leadership. Collectively, they command a significant proportion of the RAF's workforce, whilst reporting directly into the RAF's senior leadership. Their perspectives should thus, by definition, be representative and reflective of the broader RAF; their positions require them to act as deliverers, receivers, translators

of, and potentially barriers to, mission command. Notwithstanding, in recognition of this assumption on the sample's role and perspectives, reflexivity was used throughout the research process to check this logic and ensure both elements of validity (King et al., 2019).

3.4 Interview practicalities

3.4.1 Pilot interviews

Two pilot interviews were conducted to refine the format, focus, flow and content of the interviews (King & Horrocks, 2010; Rowley, 2012; Castillo-Montoya, 2016). The interviewees for these were strictly outside of the sample - to preserve the purity of the sampling - in that neither was in a Station or Force Command appointment. However, as Maxwell (2013, cited in Castillo-Montoya, 2016) advised, they deliberately mirrored the sample's characteristics, with one about to be in such an appointment and the other in a related position. They were therefore considered close to the sample for research purposes; both also clearly demonstrated that they had relevant perspectives on the lived experience of mission command in the RAF. The two pilot interviewees further offered the practical advantage of being easily accessible to the researcher, permitting a more detailed discussion around the study's nature and content.

Both pilot interviewees validated the appropriateness and effectiveness of the approach to them for the interview, the content and clarity of the Participant Information Sheet, and the style and focus of the interview itself. At their suggestion, the interview questions were moved to a more prominent place in the invitation e-mail (Group Captain Bravo). A quote of the doctrinal definition for mission command was also built into subsequent interviews at the end of the section exploring its meaning, thereby baselining understanding for the remainder of the interview (Group Captain Bravo). A suggestion to include this definition in the Participant Information Sheet was rejected, so as not to distort the interviewee's perspective in advance. Reflection on the pilot interviews also provoked the addition into the last section of the interview of the literature review's four potential limitations to mission command. This allowed a direct and consistent analysis of whether the theoretical limitations of mission command were borne out, or perceived as such, in practice. The conclusions of this are found in the Results and Discussion Chapters.

3.4.2 Approach and recruitment

Potential interviewees, once identified, were invited to participate in the study via an e-mail from the RAF's Directorate of Defence Studies, acting as a credible and independent advocate. This third-party approach was a condition of the MOD Research Ethics Committee approval. The e-mail included the Participant Information Sheet and Consent Form. Interest was confirmed by a response to the Directorate or by contacting the researcher directly through the University e-mail supplied. Any initial points of clarification were resolved and interview times and locations then arranged. The two pilot interviews were conducted on 2 and 3 March 2020, with 19 main interviews subsequently conducted between 2 April 2020 and 24 June 2020. Anonymised details of the Interview Schedule are at Appendix A.

3.4.3 Interview locations and timings

The interviews were originally planned to be conducted in person, whether in the interviewees' office or at a mutually convenient location on a military base. It was provisionally expected that practical realities associated with a group of interviewees spread across the UK would mean that some video-conferencing would be inevitable as the next-best option. In reality, the imposition of national COVID-19 restrictions just as the main interviews were due to start meant that no interviews, other than the 2 pilots, were conducted in person. Interviews by video-conference were the next preferred option, to prevent the loss of honesty, nuanced understanding and observational benefits from audio-only interviews without visual cues and interaction (Bruce, 1995; Ransome, 2013). This was achieved in all bar one interview when a late, unresolvable technical failure meant that a telephone call was the only option. The 18 video-conferenced interviews were conducted using Skype, FaceTime, WhatsApp or the MOD video-conferencing system. Noting the limitations of these means of interview, additional attention was taken throughout to ensure that clarity of meaning was not lost or distorted between interviewer and interviewee (Sanders et al., 2012; King et al., 2019).

Time slots of 60 minutes were requested for each interview, seeking Rowley's (2012) balance between the theoretical time to address the issues under study with a pragmatic and reasonable impingement on busy subjects' diaries. In reality, this projection proved both practical and sufficient, with interviews lasting an average of 50 minutes and varying between 37 and 60 minutes.

3.4.4 Recording and transcription

In accordance with Brinkmann & Kvale's (2015) advice, an audio recording device was used in all interviews. This provided a full transcript of the interviews whilst also enabling the researcher to focus on the content and management of the interview. Video-recording was considered but deemed too complex to conduct and review, particularly given the use of video-conferencing for nearly all of the interviews and the limitations of MOD security policies. The researcher took additional notes by hand to capture emphasis and initial observations (King et al., 2019).

King et al. (2019) observed that interviewees could be inhibited by being recorded. Explicit feedback from the interviewees did not highlight any concerns over the recording of the interviews. A very few interviewees (n=3) did reference, or remind themselves of, the recording mid-interview (Group Captain Oscar; Air Commodores Quebec and Romeo). However most, given the blunt honesty of their thoughts, were clearly not self-censoring, encouragingly so from a research perspective.

The audio recordings were initially transcribed using commercial software⁵ before being manually compared with the recordings and corrected to provide a verbatim account. These records were cross-referenced with the hand-taken notes to ensure that a link was maintained between the oral and physical conversation and the final written transcription (Brinkmann & Kvale, 2015). An early lesson identified was the importance in conducting these activities as soon as possible after each interview, in order to preserve the context of what was said and avoid Brinkmann & Kvale's (2015, p.203) "*road to hell...paved with transcripts*".

3.4.5 Research cost and resourcing

There were very limited cost and resource implications for this research. Financially there were no costs in setting up and managing the interviews. The overall study was conducted under the auspices of a Chief of the Air Staff's Fellowship award. Resource-wise the cost for the interviewees lay in giving up their time to participate, and for the Directorate of Defence Studies in doing likewise to make the introductions between interviewer and interviewee. Any financial estimate of this would be unrepresentative; for example, pro rata costs of an averagely senior group captain's annual salary of £91,000 (Armed Forces Pay Review Body, 2019) work out at just over £10 per hour for their time. Notwithstanding, it is acknowledged that RAF Station and Force Commanders are very

⁵ Otter Voice Meeting Notes.

busy individuals, even more so during the early phases of the COVID-19 crisis. Hence their willingness to participate, for those able to do so, was significant.

3.4.6 Uniqueness of the research methodology

With the proposed methodology and method of this research now explained, the unique contribution to knowledge that this approach brings will be described. Admittedly, both methodology and method fit firmly in the tradition of qualitative and interpretative research. King et al. (2019, p.7) state that *“in qualitative research interviewing is one of the most frequently used methods when generating data”*. Rowley (2012, p.262) similarly states that *“the most common type of interview is the semi-structured interview”*, albeit Galletta (2013, p.1) did alternatively suggest the following year that semi-structured interviews were underused.

Focusing on the particular discipline under study, Schyns et al. (2017, p.3) note *“the great variety of methods applied in leadership research”*, citing Colquitt’s (2013) review of editorials in the Academy of Management Journal that identifies a breadth of research design and techniques in this area. However, narrowing the focus again, the literature review demonstrated how much of the existing work on empowerment and mission command, before and since the inception of the Information Age, was conducted qualitatively and involved semi-structured interviews. Krabberød’s (2014) study provides a rare quantitative and statistically analysed exception in this field.

That said, it is by honing in on the RAF’s approach to leadership and mission command that a niche gap emerges. Jupp’s (2009) Anthology did conduct and compile a series of wide-ranging interviews on leadership across the RAF, including longitudinally through the use of historical archives. More recently Marsh (2019) was commissioned by the RAF Tedder Academy of Leadership to conduct *“a qualitative research study, comprising of ten diverse semi-structured interviews, of a variety of RAF leaders from senior NCOs [Non-Commissioned Officers] to senior officers”* (p.2). The study specifically examined *“in what sense is “empowering leadership” possible, in the context of a rank-based organisation”* (p.2).

There is, however, little mention of mission command in either of these works (an interesting observation in itself), or discussion of the impact of the Information Age, explicitly or otherwise. Both the RAF Directorate of Defence Studies and the RAF Tedder Academy also confirmed that there is no existing, comprehensive coverage of the views of RAF commanders on leadership - let alone on mission command and in the context of the

Information Age - within or outwith the academic realm (Director RAF Defence Studies, personal communication, March 2, 2020; Commandant, Tedder Academy, personal communication, March 2, 2020).

The exclusive methodological gap that this research fills therefore lies in the access to the particular sample and the insight they can provide into the research problem, already identified and validated as of academic and organisational interest. That the researcher had relative ease of physical and empathetical access to such a key population, of which more below, generated additional considerable opportunity to conduct uniquely enlightening interviews towards the Research Aim. Furthermore, the unprecedented context of the initial COVID-19 restrictions, and resulting leadership response, provided a uniquely relevant occasion to conduct such research.

3.5 Interview protocol and content

Moving from the conduct of the interviews into their content, the format of the interviews followed Galletta's (2013) proposed protocol of Opening, Middle and Concluding Segments. This protocol proved useful in providing a self-evident and mutually reinforcing sequence of questions that proceeded naturally to and through the research objectives (Rowley, 2012). A full description of the Interview Protocol and the proposed questions, with their intent and provenance, is at Appendix B.

The first of these segments was primarily intended to build rapport, whilst confirming the interviewees' understanding of, and comfort with, the interview process and their rights (Galletta, 2013; Rowley, 2012; Hollway & Jefferson, 2013; King et al., 2019). With these aims the questions in this segment were straightforward - or "*Introductory*" and "*Transitory*" in Castillo-Montoya's (2016, p.822-823) categorisation - in order to ease the interviewee into the process and discussion. They also enabled analysis of the interviewees' understanding of the key concepts of mission command, empowerment and the Information Age.

With rapport established, the Middle Segment was designed to focus on the heart of the research (Rubin & Rubin, 2012; Castillo-Montoya, 2016; Galletta, 2013). The questions here - Castillo-Montoya's (2016, p.823) "*Key Questions*" - were explicitly linked to the research's Primary Aim and to the specific Research Objectives and Questions. Phraseology was only adjusted to turn an academic query into one that would better resonate with interviewees (Maxwell, 2013; Castillo-Montoya, 2016).

The final Concluding Segment was intended to culminate and complete the interview, using Castillo-Montoya's (2016, p.823) "*Closing Questions*". As a predominantly inductive study, the intent of the (consequentially open-ended) questions was to elicit original perspectives. However, the option was built into this Segment to offer theoretical suggestions from the literature towards the research ends, if deemed necessary or appropriate at the time (Rowley, 2012; Galletta, 2013). Experience from the pilot interviews introduced a more explicit listing of some of the theoretical suggestions into the main interviews.

To assist in easing interviewees out of the process by offering them some control, and to capture any uncovered areas, an open request was also made for any additional points (Galletta, 2013; King et al., 2019). This Segment was further used to clarify any issues or ideas and, finally and importantly, express appreciation for the interviewee's time and involvement (Rubin & Rubin, 2012; Galletta, 2013).

For optimum balance and focus, timing for the three segments was provisionally intended to be at a ratio of 1:4:1. Thus, in a 60 minutes interview the Opening and Concluding Segments should have lasted 10 minutes each and the Middle Segment would have lasted 40 minutes. That said, and noting the very nature of a semi-structured interview, it was expected that the questions proposed, and the timings allocated, would provide a framework not a rigid script (Galletta, 2013). Flexibility was deliberately built into the protocol as a key requirement of an investigative and inductive research project, allowing perspectives and opinions to be explored as they emerged (King et al., 2019). The pilot interviewees further tested these initial assumptions, providing guidance on the timings and peer review on the questions, the latter for clarity of comprehension and to ensure they were not too closed, vague, or sensitive (Rowley, 2012; Castillo-Montoya, 2016; King et al., 2019).

In reality, across all the interviews the ratio for the three segments turned out more consistently closer to 1:2:1. This reflected longer than anticipated answers to the interviewees' understanding of the key concepts in the Opening Segment (some of which pre-empted the questions in the Middle Segment), and greater discussion over the theoretical limitations of mission command in the Concluding Segment.

3.6 Ethical considerations

In any research there must be significant consideration given to ethical issues at all stages of the study (Creswell & Poth, 2018; King et al., 2019). Such consideration was

particularly pertinent for this study given the involvement of human participants, alongside Galletta's (2013) view that the inherent flexibility of semi-structured interviews makes them even more susceptible to ethical challenges. Brinkmann & Kvale (2015, p.83) similarly observed that "*interview research is saturated with moral and ethical issues*". Taking this as a cue, this research considered ethical issues under the framework that Brinkmann & Kvale (2015, p.93) subsequently suggested. This framework was a condensation of a number of other academic and institutional checklists, principles and codes of conduct, including that from: the Belmont Report (USA. Department of Health, Education, and Welfare, 1979); Bell (2007); Lindorff (2007); the New Brunswick Declaration (2013) Ransome (2013); Israel (2015); Patton (2015); and King et al. (2019). This framework offers "*four fields of uncertainty: **informed consent; confidentiality; consequences; and the researcher's role***" (Brinkmann & Kvale, 2015, p.93, researcher's emphasis). These fields provide the structure for this section. As will be evident, the particular nature of this research required different emphasis and depth of consideration to be given to each field.

This research takes a principlist approach to ethical considerations. Here key principles are used as default in deciding normatively the basis on which an act or decision is the right thing to do. This approach helpfully and pragmatically offers "*calculability and simplicity in ethical decision-making*" (Israel, 2015, p.14). Collectively the principles used provide the philosophical assumptions and guidance around which the ethics of this research will be viewed and undertaken; their use will be explicitly highlighted, and implicitly apparent, throughout. The principles adhered to are those described in the previous paragraph's references, with the core formed around the Belmont Report's (USA. Department of Health, Education, and Welfare, 1979) three basic utilitarian principles, or "*general prescriptive judgments*" (p.3), of justice, beneficence and respect for others (pp.4-6, principles also highlighted in King et al., 2019, p.30).

Ransome's (2013, p.53) point that "*ultimately, it is the personal conscience of the social researcher that moderates ethical research activity*", alongside a broader obligation to academia and the sponsoring organisation, adds the intent to deliver integrity throughout the research process and results provided (Israel, 2015). Most immediately, employing the principle of justice meant that the following stipulations, offers and restrictions were applied equally to each potential and actual interviewee (Lindorff, 2007; Israel, 2015).

This research as proposed met the criteria necessary for submission to the Ministry of Defence's Research Ethics Committee for approval (MODREC; UK. MOD, 2019). This submission occurred and MODREC's favourable opinion for the research was provided on December 12, 2019. The formal approval letter from MODREC and the University Ethics

Review Checklist are at Appendices C and D respectively. The University of Portsmouth Ethics Policy states that MODREC approval is sufficient for University purposes (University of Portsmouth, 2019).

3.6.1 Informed consent

The first ethical principle to be applied is that of informed consent. Described by Ransome (2013, p.174) as “*essential and non-negotiable*” in social research this principle requires that participants are suitably aware of, and voluntarily involved in, the research (Israel, 2015). In doing so it incorporates the related principles of beneficence and respect for others. These respectively protect the well-being of interviewees and ensure their freedom of action in full appreciation of the situation (Lindorff, 2007; Brinkmann & Kvale, 2015; King et al., 2019). For this study the comprehension element of this requirement was primarily achieved through the distribution of a Participant Information Sheet and Consent Form to each potential participant in advance of the interview. The format for both was set by the MODREC Application Form. They provide, amongst other details and as recommended by King et al. (2019), information on the purposes of the research, the reasons for individual selection, research requirements and interviewee options.

Ahead of the interviews one interviewee requested (and satisfactorily received) an additional understanding of the procedures in place to preserve confidentiality. This was, by their explanation, to permit suitable confidence for a fully frank interview. At the start of all interviews positive confirmation, of both understanding and voluntary involvement, was sought and unanimously provided.

Cognisant that informed consent is not a one-off requirement, interviewees were also allowed to withdraw their consent to be part of the research, without need for justification, and were briefed accordingly (Ransome, 2013). This was permitted at any time up to December 31, 2020, a reasonable practical deadline offered to prevent late rewrites of the research (King et al., 2019). However, no interviewees withdrew their consent.

3.6.2 Confidentiality

Confidentiality and the related principle of anonymity respectively refer to the protection of information from, and the identity of, research participants (Bell, 2007). The ethical position for this research, reflecting the idea of respect for persons, was that confidentiality and anonymity were offered and assured to all participants to the level they wished (King

& Horrocks, 2010). Pseudonyms were therefore used throughout this thesis (Bell, 2007; Galletta, 2013; King et al., 2019).

An ethical dilemma was, however, encountered in balancing report readability and interviewee anonymity. Originally the intent was to describe each participant as "*Interview [A]*". On proof-reading report drafts, this proved distracting and turgid. Hence the decision, following research into the use of pseudonyms, to use the interviewees' rank and the phonetic alphabet as a descriptor. This presented a more personable read whilst protecting anonymity. It further reflected Galletta's advice (2013, p.177, mirrored by Allen & Wiles, 2016) to "*convey some dimensions about your participants...without revealing too much*". That said, the pseudonyms chosen deliberately did not imply the interviewee's sex or ethnicity. This was, firstly, because to do so would likely be revealing for the (sadly) small minority of female commanders and, secondly, as it was felt that implying either would introduce an unwelcome cognitive bias or distraction in the reader's interpretation of quotes and results.

After careful reflection, there were no occasions where greater context or detail of an individual's position or background would provide additional credibility or analytical weight to their comments (Galletta, 2013, Israel, 2015). Moreover, as an additional anonymisation procedure, on occasion a particular point is not explicitly referenced to an interviewee, where doing so would offer an indication as to their identity.

For similar reasons of readability, only the pseudonym is provided for in-text quotations and references. Using the strictly APA-compliant [eg] "*Group Captain Zulu, personal communication, January 1, 2020*" format for every interviewee referenced proved very disruptive for the reader. Details of each interview date and media used are instead provided at Appendix A.

Separately, given the very title of the research, organisational anonymity was obviously neither desirable nor feasible. As such it was waived by the RAF's Director of Defence Studies as a condition of research sponsorship.

Methodologically, data storage is an important element of both the provision and assurance of confidentiality and prudent research techniques (Creswell & Poth, 2018; King et al., 2019). All relevant forms and notes were therefore stored securely in accordance with the requirements of the Data Protection Act 2018, with this fact included in the Participant Information Sheet. The principle of integrity was also applied throughout the analytical stage to ensure that the confidentiality and anonymity of interviewee

involvement was not used as an alibi for convenient interpretation (Brinkmann & Kvale, 2015).

3.6.3 Consequences

The uncertainty field of consequences is intended to ensure consideration of how research could cause benefits or harm to those involved (Brinkmann & Kvale, 2015). This study accepts Patton's (2015, p.495) premise that "*Interviews are interventions. They affect people*". The philosophical intent was that any benefits do not distort the analytical process or conclusions and that, in accordance with the principle of beneficence, any harm is minimised as far as possible (Brinkmann & Kvale, 2015; King et al., 2019). No direct benefits or incentives were offered, expected or realised for the research participants in this case.

As for potential harm, whilst this study did involve human subjects it was not physically intrusive. Interviews took place in a benign office or home-working environment, at both ends of the video- and audio-conferencing, with no greater associated risks than in normal daily work. The interview process was further not expected to be particularly psychologically intrusive. However, it was recognised that the research was relatively open-ended in its exploration of mission command. This made appreciating and anticipating specific ethical consequences of the research on the participants challenging (Lindorff, 2007).

That said, it was noted in advance that one of the premises of the research, particularly against the First Research Objective, was to understand whether interviewees had failed to achieve something they had been taught and directed to do: deliver mission command. This could potentially have generated an uncomfortable discussion and/or revived distressing experiences in participants' professional backgrounds. Doing so would have harmed both the individuals and the research (Brinkmann & Kvale, 2015). Overt sponsorship of the research by the RAF Directorate for Defence Studies helped to reassure participants and mitigate this issue in advance, whilst the interview conversations were actively monitored for signs of discomfort. As already mentioned, there were very few evident instances of self-censorship, whilst a number of interviewees appeared comfortable in making statements that they would unlikely want to (and, of course, will not) have publicly attributed to them. Broader signs of discomfort with the subject matter were not observed, albeit significant curiosity and engagement with it was. Bridging the principles of confidentiality and consequences, one interviewee did seek additional reassurance on the former, given some of their comments could have breached

commercial sensitivities and had potential consequences for contractual relationships (reference deliberately omitted to protect anonymity).

3.6.4 The researcher's role

The final ethical element considered for this study is the role of the researcher. As already noted, this is a particularly significant element for this research, given the dual role of researcher-employee and the use of semi-structured interviews involving direct and flexible interaction with participants (Lindorff, 2007; Galletta, 2013). Awareness of the issues around insider research was critical, as was the importance of reflexivity in identifying and mitigating these. The potential for conflicts of interests was also monitored, in particular that the RAF was both the sponsoring organisation and the organisation under scrutiny, and that the researcher remained a member of the RAF throughout the research. Consistently applying the principle of integrity was therefore especially important, “*decisive*” in Brinkmann & Kvale’s (2015, p.97) words, in ensuring a just and effective ethical and practical approach throughout the research process.

Philosophically, scrutiny of the role of the researcher in this study accepts Galletta’s (2013, p.104) argument that “*no researcher conducts interviews free of interference*”. This factor consequently imposes a responsibility to anticipate, monitor, mitigate and analyse such impact at least, but not exclusively, to ensure beneficence for the interviewees (Lindorff, 2007). It is also a key feature in, and consequence of, a thesis for a Doctorate in Business Administration, where there is an inherent interdependence of purpose between researcher and research (Anderson et al., 2015).

Reflecting this philosophy, the approach to this research firmly disputes Morse’s (1998, p. 61, cited in Brannick & Coghlan, 2007, p.59) opinion that:

It is not wise for an investigator to conduct a qualitative study in a setting where he or she is already employed...[as] the dual roles of investigator and employee are incompatible.

Instead it agrees with Brannick & Coghlan’s (2007) subsequent counter-argument: that insider research can generate credible new knowledge by taking advantage of unique primary access, instinctive cultural and practical understanding, and the ability to generate an unmatched level of professional empathy with participants (also Chavez, 2008). Indeed, the choice of interviewees as peers to the researcher was deliberately intended to maximise the benefits of these features, as well as mitigate the hierarchical distinctions

inherent in the RAF and the awkwardness and power imbalances that could have affected the conduct or outcomes of the interviews (Lindorff, 2007; Brinkmann & Kvale, 2015; Creswell & Poth, 2018). The researcher was also promoted mid-interview period, allowing the interviews to be sequenced across the ranks of group captain and air commodore such that the researcher was always a peer to the interviewee.

Other possible risks from insider research were also considered. The potential for conflicts of interest, or equally critically perceptions of such, existed given the dual role of the researcher-employee (Ransome, 2013; Bell & Thorpe, 2013; Israel, 2015). Sponsorship of the research by the organisation under study provided a similar concern (Lindorff, 2007; Israel, 2015). Analytically, should empathy become sympathy then this could remove the ability to critically analyse the results (Bell & Thorpe, 2013). Creswell & Poth's (2018, p.57) "*Pollyanna*" warning of only displaying positive conclusions might then be realised. Similarly, familiarity or indoctrination - what Brannick & Coghlan (2007, p.68-69) describe as "*preunderstanding*" - should not allow assumptions to go unchallenged because they are cultural or professional norms (Alvesson, 2003; Ross, 2017). Separately, amongst a peer group, concerns could have existed with competitive misgivings over the researcher's motives, in turn generating a reluctance to engage (Riach, 2009). Organisationally, the RAF's sponsorship of the research, and implied knowledge of senior leadership interest in it, could have induced pressure to skew interview responses or analytical conclusions away from negative findings (Lindorff, 2007).

In mitigation, reassurance and discussion with the interviewees were used to address such concerns. Peer group competitive concerns should have been offset by the published knowledge of the author's promotion, potentially removing any consideration of the researcher as a professionally competitive threat. Organisationally, to mitigate any concerns of conflicted loyalties, the RAF's Directorate of Defence Studies emphasised in their introductory e-mail to potential interviewees that they were sponsoring the research and that they had no intent to influence the analysis; their interest was in the academic conclusions. Doing so further contributed through transparency to informed consent.

The primary mitigation against the risks of insider research, however, and indeed many of the ethical concerns identified, was via the use of reflexivity - the "*self-examination and evaluation of your attitudes and beliefs*" (Saunders et al., 2012, p.679) - throughout the research process. This generated a constant assessment of the researcher's and participants' biases in perspective and action, in turn permitting the maintenance of a critical approach to the research and analysis (Bell & Thorpe, 2013; Galletta 2013; King et

al., 2019). Collectively, the mitigations allow for any risks associated with insider research to be more than offset by the considerable benefits derived, not least from the unique access and insights that the researcher achieved.

3.7 Conclusions

This chapter has described how and why the research was planned to be conducted, specifically through a qualitative, interpretivist approach, using semi-structured interviews of a cadre of senior RAF officers in command appointments. An inherently and necessarily subjective and value-laden analytical approach was demonstrated as the most effective and suitable. Conclusions were derived in a predominantly inductive manner, except when elements of theoretical deduction were appropriate. The interview cadre were identified as uniquely positioned to provide a holistic perspective and appreciation of the RAF's overall approach to mission command in the Information Age. Moreover, this research is unique in the access available to such a cadre, at such a pivotal time, and the academic enquiry into their perspectives on this important topic. Interviewing this group of key individuals, in a focused but flexible manner, therefore provided the best opportunity to gather data and opinions towards the Research Objectives, ultimately fulfilling the Primary Research Aim and adding to the academic knowledge base.

To ensure that meaningful analytical conclusions could be drawn throughout the research process, and that they would be appropriately generalisable to the RAF, significant consideration was given to interview practicalities and content. The critical requirement to ensure that the research would be conducted ethically further heavily influenced the interview and overall research design. This was intended to ensure suitable levels of informed consent and confidentiality, and to understand and mitigate any negative consequences of the research. Particular importance was placed on understanding the potential impact of the researcher, given his insider status and the nature of the research. This resulted in a marked emphasis on reflexivity and critical analysis of the research processes throughout the study.

CHAPTER 4: RESULTS

4.1 Introduction and analytical methods

The most appropriate method for interview data analysis was considered in advance of conducting the interviews (Braun & Clarke, 2006; Brinkmann & Kvale, 2015). A thematic analysis was preferred, recognising the nature of the research objectives, the interpretivist and phenomenological approach, and the use of semi-structured interviews. This form of analysis involves “*searching across a data set...to find repeated patterns of meaning*” (Braun & Clarke, 2006, p.86). Thematic analysis also allowed focus on the perspectives of the interviews, drawing them towards the research aim. This approach compares favourably with, for example, a linguistic or conversation analysis that would focus on the language or verbal interaction of the interviews, potentially missing the details of their content (Brinkmann & Kvale, 2015).

The methodology used was broadly based on Braun & Clarke’s (2006, p.87) “*six Phases of Thematic Analysis*”:

- Phase 1: Familiarizing yourself with the data.
- Phase 2: Generating initial codes.
- Phase 3: Searching for themes.
- Phase 4: Reviewing themes.
- Phase 5: Defining and naming themes.
- Phase 6: Producing the report.

The Phases were, though, applied to varying extents depending on the precise nature of the objective or question. More specifically, the Opening and Middle Segments used inductive, data-driven coding, as the open-ended nature of the questions focused on exploring interviewees’ thoughts and perspectives (Braun & Clarke, 2006; Brinkmann & Kvale, 2015). In the Concluding Segment the questions sought to validate, or otherwise, the theoretical limitations of mission command identified in the literature and the potential existence of a paradox. For this section, therefore, concept-driven coding and deductive analysis was used, based around the themes from the literature review (Brinkmann & Kvale, 2015).

The structure of this Chapter has been aligned with the Research Aim, Objectives and Questions, rather than the exact chronological sequence of interview questions. This is because the results of the literature review analysis were deliberately withheld from the

early stages of the interview in order not to distort or lead responses. Thus, whilst each interview question was initially analysed separately, the subsequent analysis, as presented, combined relevant responses into consolidated results towards the research ends.

Throughout this chapter, for ease and consistency of understanding, **themes** are highlighted in bold in the text and sub-themes are underlined. For similar reasons references to specific interview questions are correlated to their Segment and order (for example, **Q1.2** was the second question of the Opening Segment), with further details provided in the Methodology Chapter and Appendix B.

4.2 Interviewee definitions and understanding of the key concepts

The Opening Segment of the interviews set the scene for the discussion and baselined interviewee understanding of mission command, empowerment and the Information Age (Galletta, 2013). Open-ended questioning drew out from interviewees the themes they felt defined these concepts, whilst highlighting variances in their understanding of the same. It also revealed the level of consideration and forethought that interviewees had given to the concepts, their practical application and the interview itself. Some interviewees had clearly prepared for the interview, including taking notes beforehand to collect their thoughts. Others admitted they had simply not had the time to do so (references deliberately omitted). Appreciating this variance proved analytically valuable, with both prepared and more instinctive responses offering useful insights.

4.2.1 Mission command and empowerment

Interviewees were asked the following question to expose their understanding of the main themes relating to empowerment and mission command:

(Q1.2) What is your understanding of the terms “empowerment” and “mission command”, and their role and importance to the RAF?

Descriptions and understanding of the terminology

One of the main issues that became apparent was a range of comfort levels with defining these terms. For example, Group Captain Delta commented, *“Phwoah! Quite a Question”*. That said, there was evident consistency in the definitional themes that

interviewees provided. For both terms, these centred around the key themes of **delegation, intent, trust, and levers**.

Interviewees also confirmed that the concepts of mission command and empowerment were strongly linked, best captured by Group Captain Kilo's statement that *"you can't have mission command without empowerment"*. A slight distinction and subordination between the two terms was identified, with the difference often a recognition of mission command's specifically military context (Group Captain Oscar; Air Commodore Uniform). Yet Air Commodore Papa captured the practical reality in that they *"used them as interchangeable terms"*.

In defining the two terms, 52% (n=11) of interviewees made some reference to **delegation**. Most assertively, Group Captain Golf stated that empowerment *"is all about delegation"*. Further, similar descriptions suggested the terms were related to *"driving down"* responsibility (Group Captain Hotel).

The key phrase **provision of intent** was surprisingly used sparingly and then more so for mission command than for empowerment. The principle behind the phrase was, though, in evidence for both concepts, often based around the idea of setting a *"left and right of arc"* within which subordinates should act towards agreed outputs (Group Captains Bravo and Charlie; Air Commodores Papa and Uniform). Group Captain Lima extended this idea in describing how:

It's about the person who's leading the situation giving the "what" and the "why" very clearly. So "what are we doing" and "why we're doing it". But giving the person enacting it the freedom on the "how".

Across both mission command and empowerment, the familiar importance of **trust** appeared numerous times (for example, Group Captains Echo, Lima and Mike). Group Captain Charlie was the most adamant of these in stating that *"a lot of mission command is fundamentally based around the idea of trust"*.

The essential provision of appropriate **levers** to enable subordinates to deliver against the assigned intent was also raised (Group Captain Juliet; Air Commodore Romeo). Indeed, the latter interviewee made the reasonable point that *"to feel empowered, I would need to be given the levers of power, if you like, to actually deliver that change"*.

Group Captain Hotel combined these themes to capture the overall concept of mission command and empowerment using the analogy of:

A metaphorical box within which they [subordinates] can operate, where the boundaries are. And then allowing them to have free rein really within that box to do things in the way that they think is the most appropriate.

Their role and importance to the RAF

The second half of **Q1.2** queried the importance of mission command and empowerment to the RAF. Every interviewee (n=21) agreed that they were, in some way, important. Responses particularly focused around descriptions of their “critical” and “instrumental” nature (Air Commodore Papa and Group Captain November respectively, also Group Captains Hotel, India and Mike; Air Commodore Tango). Group Captain Alpha was especially adamant in stating that “I think it's, I think it's everything we should be doing”. In describing the importance of mission command Group Captain India also provided a link to the modern era:

So if we're going to be responsive and flexible in a world that changes really quickly, we're going to need to make sure that people in all of those, in all of the Air Force's nodes, all of its touchpoints, understand your overriding intent and can, can act accordingly...So I think it's, I think it's critical to the RAF.

Thematic coding of the reasons provided suggested a range of mutually supportive explanations for this importance. Subsequent analysis, using Braun & Clarke's (2006) model, resulted in the following representation of these themes, which are explained after:

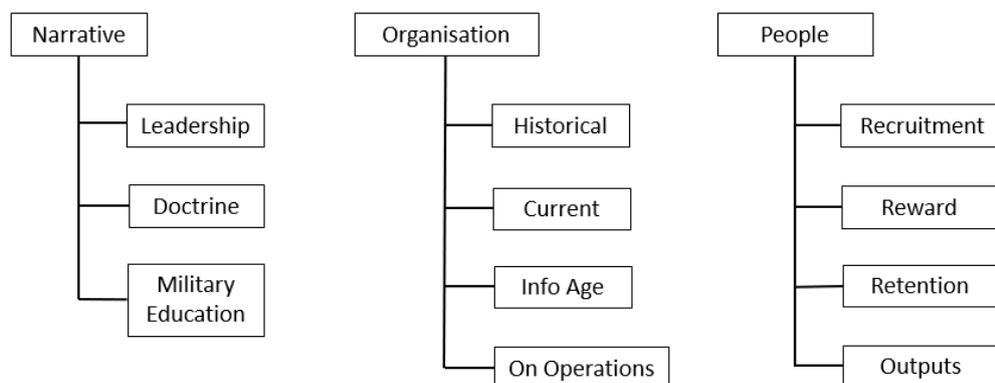


Figure 4.1: Thematic coding of reasons for importance of mission command to the RAF (Source: interview data).

Narrative. The first grouping recognised the emphasis placed on mission command in the RAF's strategic narrative:

“So, I mean, the organisation constantly tells us that it's incredibly important” (Group Captain Hotel).

Indeed, mission command and empowerment's importance are reflected in RAF senior leadership direction, UK military doctrine, and as taught at military schools (Group Captains Charlie, Hotel and Lima; Air Commodore Quebec). On the first of these the personal and genuine sponsorship of the Chief of the Air Staff for empowerment was particularly mentioned:

“There's huge advocacy from the Chief. The Chief genuinely means his words and he doesn't [just] talk, he believes it” (Group Captain Delta, also Air Commodore Papa).

Likewise, other senior RAF leaders were felt to be advocating the same message, with the same conviction:

“They are telling us that they [mission command and empowerment] are very, very important” (Group Captain Kilo).

“I think the seniors believe it, they genuinely believe it. And they believe it for the right reasons as well” (Group Captain Delta).

Meanwhile, the ubiquity of the message from military schools was confirmed by Group Captain Charlie's comment that *“every single “College of Knowledge” lecture that you sit in, everybody always professes mission command and empowerment.”*

Organisation. The next explanation took a more organisational perspective that could be sub-divided chronologically. Mission command was described as important to the RAF because, from the past, the organisation's historically-derived technical emphasis and competence made it instinctively well-suited to the concept:

So, I think by the nature of our Service, in terms of being very much a technically minded, technically focused Service, we do need to push that down to, the empowerment, down to people. It's always been important in that respect (Air Commodore Tango, also Group Captain Foxtrot).

Meanwhile, in the present the RAF's current complex and hierarchical structure made it necessary to maintain efficiency and effectiveness:

"Because mission command and empowerment should allow us to make our decisions much quicker" (Air Commodore Romeo, also Group Captains Bravo and Golf).

Thirdly, for the future, the interconnected and information-heavy demands of the Information Age are forcing the RAF into a much more networked structure. This demands ever-more flexibility and, in turn, mission command (Group Captains Delta and Echo).

Organisationally a distinct, but connected, explanation then focused on the importance of mission command to the RAF's operational outputs. Again, history and doctrine were referenced here, with the doctrinal mantra of air power's "*decentralised execution*" on operations mentioned as evidence of links with mission command (Group Captains Bravo and Oscar).

People. The final theme linked all previous, explaining the importance of mission command and empowerment to the RAF in terms of its people. Here the two concepts were vital as a means of personnel encouragement and attraction. They allowed the RAF to compete to employ the talented individuals needed, both from a recruitment and a retention perspective, not least through the provision of psychological rewards (Group Captain November; Air Commodore Papa). Group Captain Kilo explained this criticality as follows:

Empowerment is vital, because we're the kind of organisation that requires a pretty talented workforce. And we need to compete for those people. And we're unable to compete on some of the ground that our competitors could traditionally choose, like remuneration. On the other hand what we can offer is, is the kind of non-financial recompense. And part of that is job satisfaction.

Hence mission command is a necessary motivational tool that unlocks the full potential of capable, innovative individuals, thereby ensuring the best organisational outputs (Group Captains Lima and Mike; Air Commodores Papa and Uniform).

In neat summary, Air Commodore Quebec captured all three themes covering the importance of mission command and empowerment to the RAF:

So I think they're pretty much enshrined in the Air Force's way, of the doctrine of doing things. Both at staff and on ops. And it's, it's down to the commanders.

Doctrinal accuracy

At this stage the doctrinal definition of mission command was read out to the interviewees. This was suggested in a pilot interview (Group Captain Bravo) and provided a singular, consistent definition for the remainder of the interview(s), without biasing earlier responses. The implications of similarities and differences between the doctrinal definition and interviewee responses are considered in the Discussion Chapter.

4.2.2 Information Age

Having established interviewee views on the themes underpinning mission command and empowerment, the interview then sought to do the same for the Information Age. The next question therefore asked:

(Q1.3) What is your understanding of the nature of the Information Age and its impact on the RAF?

Immediately apparent in many interviews was the pause that followed this question. This suggested it was one that either interviewees had not extensively considered, or did not have an easy answer for. Group Captain Oscar was especially honest, admitting *"I don't know how to define the Information Age"*. Group Captain Juliet perhaps captured the broader view in suggesting that, whilst it was widely talked about in the RAF, *"the Air Force as a whole doesn't understand the Information Age"*.

A few interviewees did challenge the very notion of the Information Age. Air Commodore Quebec and Group Captain Bravo respectively posited the *"Data Age"* or *"Synthetic Age"* as alternatives. Air Commodore Romeo, meanwhile, questioned whether the concept was new as *"it's been there all the time"*. Group Captain Kilo made a similar point in suggesting that *"the Information Age has been with us since the invention of the printing press"*.

Air Commodore Sierra separately claimed the term was simply unhelpful in placing “*inert epochal boundaries*.” This interviewee and Air Commodore Romeo both evoked the Dowding System from the Battle of Britain to demonstrate this position. This system was described as a means of getting information into the right place for commanders to make decisions in the right timeframe. Their point was that this basic requirement remains unchanged.

Notwithstanding, there was an evident consistency in the characteristics assigned to the Information Age by the interviewees. Both Group Captain Echo and Air Commodore Sierra quoted directly from UK doctrine the idea of significantly enhanced “**volume, veracity, velocity**” of information (UK. DCDC, 2017a, p.1). These provide the main themes that others paraphrased in their offered definitions. For example, Group Captain Delta felt that “*I think we are in a data hungry, data gathering age at the moment*”, whilst Group Captain Kilo described the Age as “*characterised by a paradigm shift in the volumes and the importance of data*”. Group Captain Echo, meanwhile, recognised the “*instant, instant [sic] access to information...[through the unprecedented] speed with which information can be passed*”.

As for the impact of the Information Age on the RAF, there was unanimous agreement that it was very significant (n=21), even by those who had earlier challenged the notion itself (Group Captain Kilo; Air Commodore Sierra). Two themes emerged explaining this importance: **reliance** and **narrative**.

The first theme of **reliance** was best captured by Group Captain Bravo querying “*are we really able to operate without it [information at the scale of the Information Age] anymore?*” The ubiquity of this reliance was reinforced by Air Commodore Uniform’s observation that “*it changes everything...it’s all-pervasive*”.

Echoing the thematic explanation for the importance of mission command to the RAF, interviewees similarly recognized that the RAF’s strategic **narrative** emphasised the organisation’s direction to embrace the Information Age. Group Captain Kilo specifically highlighted how the RAF Strategy included the line that “*information is our lifeblood*” (UK. RAF, 2017).

Notwithstanding this clear requirement and direction, some interviewees did reaffirm their doubts over whether the RAF yet fully understood what the Information Age offered (Group Captains Alpha and Juliet). They also asserted that the RAF had not yet achieved

status as an Information Age Air Force in approach or equipment (Group Captain Juliet; Air Commodore Papa).

4.3 The conceptual limitations of mission command

The interviews now moved into their Middle Segments to directly address the Research Objectives. The First Research Objective had two subordinate Research Questions, the results of which will be initially presented before the overall response to this Objective. The First Research Question was:

To what extent are the conceptual limitations of mission command borne out in the reality of the modern RAF?

The interviews sought to answer this initially through an open-ended question on whether interviewees felt they could exercise mission command (**Q2.1**). This was followed with another open question asking what limitations might exist to the delivery of mission command (**Q2.2**). Later, in the Concluding Segment (so as not to bias the Middle Segment discussions), the four thematic limitations of mission command identified in the literature review were explained to interviewees. They were then asked if they recognised or disputed these, and for any comments (**Q3.1**). Analysis of the responses to these three interview questions then provides a collective response to the First Research Question.

4.3.1 Perceptions of mission command

To open this Segment, therefore, interviewees were asked:

(Q2.1) Do you feel that, in your current position, you are suitably empowered and able to exercise mission command?

The responses to this question were extremely varied. Examples ranged through:

“Yes, very much so” (Air Commodore Tango, emphatically).

“No, no, no” (Group Captain Oscar, equally emphatically).

“Yes, but only in a very limited sense” (Air Commodore Sierra, with cautious caveat).

“One of those situationally dependent questions really” (Group Captain Hotel, with a chuckle).

The balance of these responses, with paraphrased themes derived from the examples above, is captured in the following table:

Emphatic “Yes”	“Yes, but...”	Emphatic “No”	“No, but...”	“Yes and No”
7	2	4	0	8

Table 4.1: Perceptions of ability to exercise mission command (Source: interview data).

Analysis of these answers could identify no causal factor or theme that triggered any particular response; they were inconsistent across geography (where the command was), physical proximity to higher leadership (at the same location or not), personal background of the interviewee (for example, pilot or engineer), or time spent in command (towards the beginning, middle or end of their posting). The conclusion is that perceptions on an individual’s ability to exercise mission command are down to the individual themselves, their experiences and personality.

Following on from this conclusion, three themes were identified that interviewees described, in varying ways, as enabling mission command. These were: **clarity of understanding**; the **actions of superiors**; and the **personality of the subjects**. A fourth theme was also identified, that of **physical proximity between subject and superior**. This was derived from the suggestion that mission command was much more likely if the individuals were not co-located “*because it’s harder for people to peer over my garden fence*” (reference omitted to protect anonymity). However, there were contrary examples provided where co-location occurred and mission command was still strongly felt to exist; this theme was therefore discounted from the coded analysis.

Clarity of understanding

The first theme of **clarity of understanding** covered the critical appreciation of what a superior’s intent was, and where the boundaries and overlaps of interest and responsibilities lay. Interviewees who were comfortable with their superior’s intent, whether articulated in person or in organisational-level documents, were more confident in their ability to deliver mission command (Group Captain Bravo; Air Commodore Papa). Hence:

“So why do I feel empowered? I've got the Chief's intent. I've got the AOC's⁶ intent”
(Group Captain India).

This was reinforced when commanders had held discussions to confirm freedoms and constraints (Group Captains India and November), with the latter having had *“substantial conversations...making sure that we set up some rigid boundaries of responsibility”*. The clarity of focus provided on operations was further used as a demonstration of why mission command was much more achievable in these circumstances (Group Captains Alpha and Golf; Air Commodore Sierra).

Superior's personality and actions

The next theme, based on the inverse of the “reluctantly given” limitation theme identified in the literature review, suggested a number of traits and **actions of superiors** which helped enable mission command. The first of these is where superiors explicitly encouraged and advocated the use of mission command. For example, Group Captain Golf described how *“commanders will tell me that I have the freedom of movement”*, whilst Group Captain India noted how *“they talk in the language of intent”*. Overt and evidenced trust of subordinates similarly stimulated and confirmed perceptions of mission command (Group Captains Alpha and Delta).

Interestingly, other interviewees felt that mission command was significantly more likely when superiors either did not understand, have enough knowledge of, or have substantial interest in, a particular area (Group Captains Delta and Mike; Air Commodore Tango). As one interviewee admitted (reference omitted): *“I'm very lucky...I've got above me a world that doesn't understand [the interviewee's business]”*. In such circumstances individuals felt that mission command was enabled out of necessity - superiors could not get overly involved because they did not understand how to - or disinterest, or both.

Subject's personality

The third theme recognised that mission command, as well as being offered, needed to be taken (thereby evoking the reverse of the “reluctantly received” literature review limitation). Thus the **personality of the subjects** was relevant as individuals themselves needed to accept trust and act on it. As Group Captain November put it, *“you need to be comfortable in how it works”*. Group Captains Charlie and Foxtrot took this another step in their intent and direction to respectively:

⁶ Air Officer Commanding - two echelons above a group captain.

“Empower until it feels uncomfortable”; and
 “Do more and, when you're uncomfortable, do more again”.

Group Captain Kilo neatly captured the individualistic nature of this aspect in observing that their ability to deliver mission command depended on “*frankly, how much of a worrier I am*”.

Enabling mission command

A sub-question emerged in this section from reflections on the early interviews. This queried whether interviewees felt that *they* were able to empower and enable mission command (i.e. downwards to their subordinates, rather than from their seniors). The responses offer a fascinating contrast to Table 4.1:

Emphatic “Yes”	“Yes, but...”	Emphatic “No”	“No, but...”	“Yes and No”
16 (+9)	3 (+1)	0 (-4)	0 (=)	2 (-6)

Table 4.2: Perceptions of ability to enable mission command (Source: interview data).

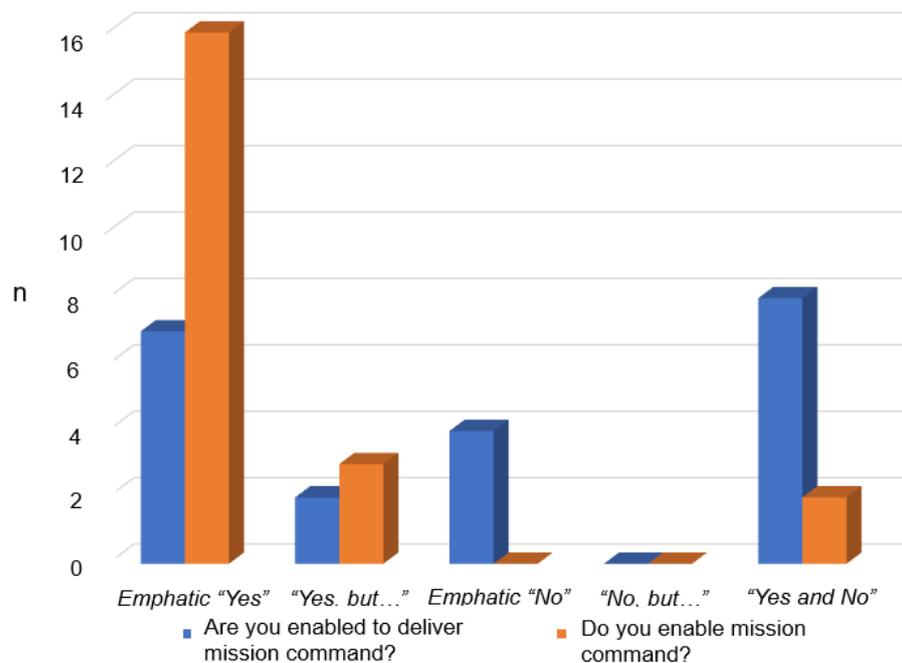


Figure 4.2: Comparison of perceptions of being enabled versus enabling mission command (Source: interview data).

The differences between the Tables, provided in parenthesis and in Figure 4.2, are stark: far more interviewees were confident that they were enabling mission command than believed that they were likewise enabled. Most obviously, all four interviewees who emphatically believed they were not empowered by their superiors did feel able, at least in part, to empower their subordinates. For example, Group Captain Oscar's response to the former was the forceful "No, no, no". To the latter, it was the more balanced "Yes. *Although I found that stymied at times*".

On this note, recognising that the freedom able to be provided is limited, Group Captain Hotel's metaphorical box made an explanatory reappearance:

If my higher command gives me a big tri-wall box in which to operate then, if all I give my people is a small shoe box, that's my own fault. But...if my higher-level command gives me something not much larger than a shoe box to operate in, then I can't give my people much more than a shoe box to operate in.

Interestingly, in that context, Group Captain Mike was the only interviewee to explicitly suggest that "I feel like you asked the wrong person. You better ask those below me *whether they are empowered*". Together these observations hint at a broader point around perceptions of mission command across an organisation that will be explored below.

The reasons given why individuals could enable mission command mirrored the themes already identified. Interviewees provided a range of personal examples of how they had communicated their intent, how they made deliberate choices not to get involved in the delivery of tasks, and the importance of trust in doing so (Group Captains Alpha and Delta; Air Commodore Quebec). Hence, for example:

"I don't tell them exactly what to do" (Air Commodore Quebec).

"I do not tamper too much with how they deliver their outputs" (Group Captain Bravo).

There was also an additional emphasis on circumstance, with suggestions that mission command was necessary given the large span of responsibility. Hence Group Captain India's remark that "I don't really have a choice to be honest [to enable mission command]. *Because it's so big* [their span of command]".

The COVID-19 crisis further provided a circumstantial opportunity:

The most mission command I felt in my current role was in the first week or so of COVID...And honestly, I've never felt more empowered as a Station Commander than in those phases, because we could just get on with it (Group Captain Charlie).

4.3.2 Limitations experienced on mission command

In response to the question on their ability to exercise mission command (Q2.1), many interviewees inevitably began to identify limitations in their ability to do so. A specific question was also posed that asked what such limitations could be (Q2.2). Themes and sub-themes that categorised these limitations were subsequently generated, reviewed and defined using Braun & Clarke's (2006) Six Phases of thematic analysis. This ultimately resulted in the following thematic coding, the path to which will be explained after:

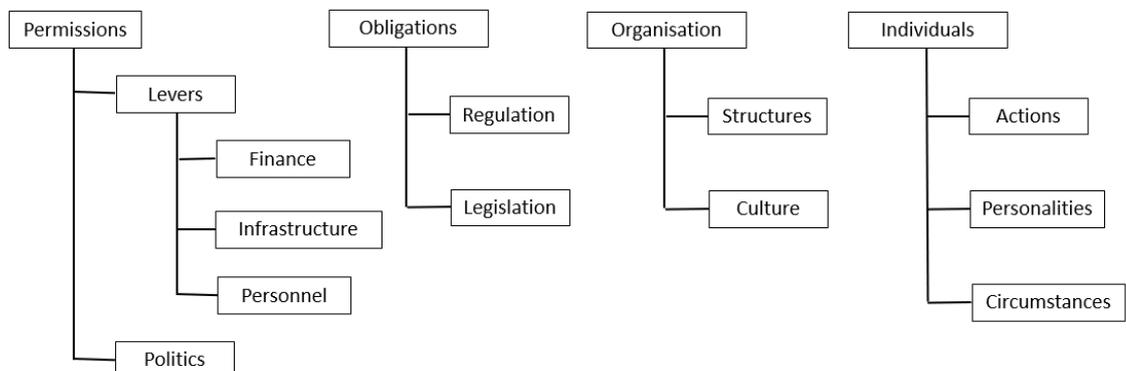


Figure 4.3: Final thematic coding of mission command limitations (Source: interview data).

Towards this final thematic analysis, the provisional outcomes of Phases 1 (data familiarisation) and 2 (generating initial codes) had initially identified 24 explanations for why mission command might be limited. These were:

Lever	Resources	Finance	Infrastructure
Personnel	Structures	Processes	Ranks
Professions	Culture	Clarity of intent	Communication
Regulation	Legislation	Personalities	Trust
Politics	Reluctance	Irrelevance	Connectivity
Say/do gap	Proximity	Expertise	Preoccupation

Table 4.3: Initial coding of mission command limitations (Source: interview data).

Applying Braun & Clarke’s (2006) Phases 3, 4 and 5 resulted in four main themes being identified from this initial coding and then being reviewed, defined and named. These themes refer to the limitations on the ability to exercise mission command caused by, respectively:

- **Permissions:** What individuals were allowed to do;
- **Obligations:** What they were obliged to do;
- **Organisation:** What the organisation encouraged them to do (or not); and
- **Individuals:** What other relevant individuals enabled them to do (or not).

The 24 initial coded explanations were allocated to these four themes as follows:

Permissions	Obligations	Organisation	Individuals
Lever	Regulation	Structures	Clarity of intent
Resources	Legislation	Processes	Communication
Finance		Culture	Trust
Infrastructure		Ranks	Reluctance
Personnel		Professions	Personalities
Politics			Connectivity
			Say/do gap
			Proximity
			Expertise
			Preoccupation

Table 4.4: Initial thematic coding of mission command limitations (Source: interview data).

Further analysis, as part of the iterative nature of Phase 4, resulted in consolidation of the various themes and sub-themes. Specifically, under the **Permissions** theme, Resources

was folded into the sub-theme of Levers, into which were subsumed Finance, Infrastructure, and Personnel. These sub-sub-themes were retained given the significant amount of times they were raised. The **Obligations** theme was left as is whilst, in the **Organisation** theme, Ranks and Professions were subsumed into a Structures sub-theme, and Processes into a Culture one. On the **Individuals** theme: an Actions sub-theme was created to capture Clarity of Intent, Communication and the Say/do gap; a Personalities sub-theme to subsume Trust, Reluctance and Connectivity; and a Circumstances one to reflect Proximity, Expertise and Preoccupation. This consolidation reflects that these codes were not extensively raised.

The final, consolidated thematic visualisation, as at Figure 4.3 above, provides the structure for the subsequent exposition. Doing so completes Braun & Clarke's (2006) cycle with Phase 6 (producing the report).

Permissions

The most consistently and instinctively raised limitation to mission command by the interviewees was a lack of resources and Levers to actually deliver it. Interviewees were frustrated that they had been given a job title and tasks but were not appropriately enabled to achieve what was asked of them. As an exasperated Air Commodore Romeo described: *"I've been given a mission, but I can't get on with it. Because I've got to go and ask permission to get those resources."*

Group Captain Charlie reinforced this perspective in saying:

And you get given this title of you know, for example, aerodrome operator or, for example, Head of Establishment or, for example, Station Commander. But you have no levers to do anything about it. It's almost nonsensical.

These concerns, whilst widespread, were not universal. A few interviewees had reconciled themselves to a lack of resources and did not see this as a mission command issue, just an inevitable constraint (Group Captains Kilo and November; Air Commodores Papa and Tango). Indeed, Air Commodore Tango suggested that a mismatch of task and resources simply reflected bad intent and that, in such cases, individuals should not accept the task.

Of all the limitations mentioned the sub-sub-theme of Finance was comfortably cited the most, with 57% of interviewees (n=12) raising or agreeing that it was a significant

constraint. 38% of interviewees (n=8) raised this issue unprompted. Half of these (19%, n=4) immediately asserting that it was the primary limitation, including:

“Finance is the big one” (Group Captain Golf).

“Financial levers, first and foremost” (Group Captain Charlie).

The remaining 19% of interviewees (n=4) agreed it was a limitation when prompted. These interviewees clearly and strongly felt they did not have the financial levers and authorities needed, with very evident frustrations resulting from the inability to meet the intent provided. As Group Captain Oscar commented: *“it completely stymies your ability to do things”*.

The associated feeling of a lack of trust and accountability further undermined the very principle and advocacy of mission command. Hence Group Captain Golf’s plea to *“give me the money and give me the rope to hang myself...I’ll be judged accordingly”*. The extent of auditing and checking further weakened trust and was ultimately financially and practically inefficient. As Group Captain Lima observed: *“I think the irony is we waste taxpayers’ money with the layers of bureaucracy”* (also Group Captain Hotel).

The next most commonly cited limitation was Personnel. 33% (n=7) of interviewees raised the commander’s (in)ability to select, reorganise and reapportion their people to meet the intent provided. The centralised and heavily controlled nature of the RAF personnel system means that commanders have very limited ability to create the best team for the task. Air Commodore Romeo (echoed by Group Captain Bravo) put it most bluntly: *“I can’t pick and choose my own team”*. Consequently, as Group Captain Charlie observed, commanders are *“stuck in a status quo where you just cannot change anything in any sensible way”*.

Similar frustrations were highlighted over Infrastructure, where commanders felt their freedom to act was constrained by processes, ownership of levers, and contractual regulations (Group Captains Hotel and Mike). Group Captain Bravo lamented here that *“we do have our hands tied significantly at the moment”*. Consequently, the inability to reinvest savings from one area (for example, physical infrastructure) into another (for example, technical infrastructure) limited opportunities to enhance efficiencies and outputs against wider intent (Group Captains Charlie and Juliet). Group Captain Juliet provided an example of how this could, but did not, work:

The classic is that £12 million is allocated for new SLAM [living] accommodation. Now, rather than building 2 SLAM blocks, if I could have the money, I would build one SLAM block, refurbish another SLAM block or another older accommodation, and have 5 million left over which I could spend on IT infrastructure to deliver [better outputs]...Therefore, I would bring half the number of people to the site and deliver probably twice as much output.

This observation led to a broader point about permissions, in that there was an apparent knock-on effect on mission command when junior personnel saw that their seniors, especially the senior officer on a base (i.e. generally the interviewees), had far fewer levers than was assumed. The credibility, and perceived achievability, of mission command lower down the command chain was felt to be significantly undermined as a result:

Because, you know, if an SAC⁷ sees that a Group Captain cannot go and fix an issue on the Station quickly, then, you know, that does call into question a whole bunch of things for that individual (Air Commodore Papa, also Group Captains Juliet and Oscar).

The final sub-theme of **Permissions** was Politics. This aspect was focused on the political considerations and implications, both globally and domestically, that are linked to RAF activity. Simply put, some decisions require higher control and therefore restrict mission command, “because the political ramifications are also so dramatic of getting it wrong” (Air Commodore Tango). When compared to the Levers sub-theme, however, this issue was raised far fewer times and was readily recognized and accepted as an inevitable and reasonable limitation (Air Commodore Romeo and Tango).

Obligations

The theme of **Obligations** covered the Regulations and Legislation that limit a commander’s freedoms. The latter of these was accepted as an expected constraint to be worked within (Group Captain Kilo). The former, however, generated more diverse comments, many based around the Duty Holder construct that provides the principles and approach by which Defence manages and balances Risk to Life (UK. DSA, 2018). One viewpoint, mirroring that for Legislation, accepted the construct as an inevitable and appropriate constraint that, particularly given its universal applicability, was not therefore a limitation on mission command (Group Captain November).

⁷ Senior Aircraftsman or Aircraftswoman - a junior rank.

The alternative, in another nod to the “reluctantly received” theme, highlighted the potential for individuals who were not Duty Holders to defer to the regulations and not take on extra responsibilities:

“In some cases, it makes people more reluctant to make a decision because they think “oh, that’s the DDH’s [Delivery Duty Holder] decision”” (Group Captain India).

In more general reinforcement, and in a link to organisational culture, it was suggested that *“it is our intuitive response to regulate more”* (Air Commodore Sierra). Such an approach is unlikely to be conducive to mission command.

Organisation

The **Organisation** theme brings together those aspects of the RAF’s Structures and Culture that were cited as limiting mission command. Covering both these elements was the observation that making key decisions in the RAF often requires a significant amount of process and people (Group Captains Alpha and Foxtrot). Seeking change in policy, for example, necessarily involves a lot of stakeholders. This created the problem that, as Group Captain Golf reflected, *“there are few people that truly feel empowered to make decisive change”*. A lot of negotiation was also required, leading to Air Commodore Sierra’s claim that *“even the simplest of activity takes an enormous amount of time and effort”*.

This situation is exacerbated by an apparent culture where issuing centralised policy, rather than delegations, was the default response to problems (Group Captain Mike; Air Commodore Sierra). The follow-on point was made that an organisation which gets used to such a reality is likely to be instinctively disinclined to exercise mission command: *“I, like peers, predecessors or successors, do grow habituated to those permissions and authorities”* (Air Commodore Sierra).

Another structural and cultural impediment identified was the RAF’s rigid system of rank and professions. Both were felt to create unconscious biases that hindered perceptions of competency, trust and willingness to empower (Group Captains Lima and Papa; Air Commodore Uniform). Assumed knowledge and abilities, or lack thereof, were often based on an individual’s rank or professional background (“Branch and Trade” in RAF parlance), reinforced by cultural prejudices within and across professions. This led Group Captain Lima to observe that *“we still judge people on rank”* and that mission command

was not always provided unless the rank or background were perceived relevant to the task.

Another aspect of organisational culture felt to limit mission command was a fear of failure that encouraged micromanagement and discouraged innovation. Group Captain Golf illustrated this with a stark *“I don't think we're an organisation that accepts mistakes”*, whilst Group Captain Delta observed that *“we don't take a punt”* (also Group Captain Juliet; Air Commodore Sierra). This perspective sat alongside a corporate outlook that *“assumed you're doing the wrong thing”* (Group Captain Lima), with the resulting regulation and checks creating a feeling that every decision needed to be justified.

On a contrary note, and somewhat ironically, the can-do culture of RAF personnel reportedly also destined mission command to fail. Under this logic, people accepted tasks without the necessary resources and became, as Air Commodore Tango described, *“victims of our own forward-leaningness”* (also Group Captain Mike).

Individuals

The first part of the **Individuals** theme brings together those limitations identified by the interviewees that are Actions of those involved. These relate initially to the delivery and receipt of intent, without which mission command is definitionally impossible to achieve. Thus interviewees noted how mission command was limited where their superior's intent and boundaries were unclear or overly complicated (Group Captain Kilo; Air Commodore Papa). The associated risk was that intent was buried in *“unwieldy documents that people don't necessarily refer to, beyond having said, “Yeah, I've seen that””* (Group Captain Foxtrot). The absence of two-way conversations and discussions on where those boundaries were, and how tasks were progressing, likewise hindered mission command as well as revealing, as Group Captain Kilo spotted, *“the difference between delegation and abdication”*.

Connected to the “reluctantly received” theme was Group Captain Mike's comment of an expectation of absolute clarity rather than broad intent: in the context of the COVID-19 response *“they wanted tramlines not guidelines”*. Relatedly, Group Captain Foxtrot observed how *“no matter how many times you communicate it, I'm still not sure that everybody...necessarily believes it”*. This point further emphasises the familiar need for credibility and personal example to eliminate the say/do gap in the advocacy of mission command (Group Captain Lima).

The Personalities section then explored the inherent dependency on individual approaches and attitudes to leadership and mission command. Group Captain Alpha in particular felt this was an important element: *“I think all these things are personality driven”*.

Interviewees recognised that some personalities were not naturally inclined to loosening control and empowerment (“reluctantly given”), whilst other individuals evidently failed to see the benefits - Group Captain November’s *“absolute golden positives”* - that mission command could generate (Group Captains Alpha and Oscar; Air Commodores Tango and Uniform).

The use of available communications was suggested as a litmus test of a particular personality. If used to enable discussion and sharing of intent, without excessive control, such connectivity could definitely encourage mission command (Air Commodores Tango and Uniform). Conversely if misused, or overused, the access afforded could very easily be *“not necessarily the friend of mission command”* (Group Captain Delta).

The final limitation to mission command identified in the interviews was thematically coded as Circumstances. With clear overlaps to other elements of the Individuals category, and the literature review’s “not always relevant” theme, this sub-theme captured limitations imposed by situations encountered. Across the interviewees there was a divergence of opinion on whether these limitations were surmountable. Hence, as already mentioned, some interviewees felt that the physical proximity of their superior directly hindered mission command, as did their superior’s knowledge base and interest levels in particular areas. However, others explicitly disagreed (references deliberately omitted).

Relatedly, and also linked to the Organisation category, the sheer volume of workload meant that the thinking time required to enable mission command was rarely available to commanders (Air Commodores Romeo and Sierra). As the former observed, in obvious reflection, *“my ability to feel empowered, to actually get on with what I think important, is constrained by the general battle rhythm and the general pace [of RAF business]”*.

4.3.3 Comparison with the theoretical limitations on mission command

In the interviews’ Concluding Segments the four limitations to mission command from the literature review were described and interviewees asked to comment (**Q3.1**). By way of reminder these limitations are that mission command can be: **reluctantly given**; **reluctantly received**; **difficult to deliver**; or **not always relevant**. A deductive analysis

of the interviewees' responses follows. This tested the literature review's conclusions towards the First Research Question, acknowledging that the inductive analysis of the earlier questions had already revealed some related concepts.

When prompted with the idea that mission command might be **reluctantly given**, there was no outright dissent from the interviewees. Indeed, 14% (n=3) responded "*absolutely!*" (Group Captains Hotel and Oscar; Air Commodore Papa). Many of the comments drew on earlier observations linked to individual personalities, the fear of failure, a risk-averse culture, the human instinct to retain control, and the difficulties in gaining and maintaining trust (Group Captains Bravo, Echo, Foxtrot, and India).

Group Captain Oscar summarised these neatly by stating that:

And I come back to, I think people are too scared to do it. They just haven't got the [profanity] balls. And they're not supported, they don't, clearly don't trust the person above them not to punish them for doing it.

They later expanded the point:

The guy above me, or the guy above him, might be like, "err, I'm not very comfortable with that [mission command], 'cos I might get in trouble."

In balance, consistently raised was that such reluctance was not a ubiquitous trait, with Group Captain Kilo particularly adamant that it existed in only a minority of cases. Others made the same point more implicitly, suggesting that it was related to, in Group Captain Delta's words, an "*old school Defence*" that was rapidly disappearing. It was also suggested that comfort levels with loosening control were simultaneously on the rise (Air Commodores Papa and Uniform).

The suggestion that mission command might be **reluctantly received** generated the widest range of responses from interviewees. Some interviewees were adamant that they had never encountered such reluctance: "*that is absolutely not my experience*" (Group Captain Oscar, also Group Captain Charlie). Others were equally confident that the phenomenon did exist: "*Reluctantly received? Ab-so-lutely!*" (Group Captain Hotel).

The general view coalesced around an acceptance that it did occur, but that it was a small and declining minority of RAF personnel (Group Captains Echo and Kilo; Air Commodore Papa). This was attributed to the idea that people usually join the RAF to overcome

challenging situations, and that most thrive on doing so; they *“really just want to do a cracking job”* (Group Captain Alpha, also Group Captain Hotel) and *“almost everybody wants to be empowered”* (Group Captain Echo, also Group Captain Golf). Hence not taking on responsibility would be an instinctive anathema.

Explanations were provided as to why it did occur, if again emphasised that it did so in small numbers. These included the inherent range of personalities that exist in any organisation, inevitably containing those less comfortable with working within ambiguous and broad intent. Consequently, there will always be those who have a *“thirst for specific guidance on how to behave”* (Group Captain Kilo, also Group Captains Mike and November; Air Commodore Uniform).

More malign reasons for reluctantly receiving mission command included: the *“pockets of workshy individuals there in the Service”* (Air Commodore Papa); *“the disinvested leader who doesn't want to own it”* (Group Captain Delta) and take on extra responsibilities; those who refused to empower in a defensive measure as their roles faced obsolescence (Group Captain Delta); a *“frozen middle”* that defaulted to old ways of working (Air Commodore Uniform); or those who were afraid of failure and therefore insisted on deferring decisions upwards (Group Captain Juliet). Group Captain Echo captured these collectively as: *“a very small minority that, quite frankly, if they self-isolated for a month, you might be better off without them”*.

A more understandable reluctance was linked to a lack of training and practise in conducting mission command, with Group Captain Golf observing that *“I wouldn't necessarily describe them as afraid, more unaccustomed to”* mission command. A potentially laudatory explanation was ascribed to those individuals who were reluctant to take on the *“hospital pass”* of a task without the necessary resources (Group Captain Juliet).

Responses to, and concurrence with, the suggestion that mission command might be **difficult to deliver** were much more consistent. Interviewees collectively agreed that, as Group Captain Alpha put it, *“actually letting go is really, really hard”*. Similarly agreed was that enabling mission command is counter-instinctive and, as Air Commodore Sierra explained, requires *“an enormous amount of organisational time, effort and practice”*. These difficulties are compounded by the need to be universally applied, with everyone in a command chain requiring a shared understanding of the intent and a willingness to empower; one broken link and it fails (Group Captain Foxtrot). The same interviewee provided an example on the challenge of pushing personal boundaries, admitting an

uneasiness in having blind trust in the early part of their tour based on an individual's reputation: *"it's about saying "well, okay, I'm trusting you because my predecessor trusted you, and your reputation says I should trust you.""*

The only occasion when it was declared easy to deliver was, as previously mentioned, on operations where it is enabled by the singular focus of the task (Group Captain Kilo). At all other times, mission command required deliberate thought, dedication and bravery to enact (Group Captains Kilo; Air Commodore Romeo). As Group Captain Lima reinforced, *"it's not only brave, it's genuinely hard to remember to do it"*.

The fourth and final theoretical limitation raised was that mission command might be **not always relevant**. There were, again, split opinions on this from the interviewees, largely reflecting a different interpretation of the circumstances involved. Those who asserted that it was not always relevant highlighted situations when either the strategic impact of a task was so great, the job tempo or risk so high or, conversely, the task so simple and/or prescriptive, that mission command was not appropriate. Thus, sometimes tasks required a senior decision-maker whilst other times *"you just want them to get on and do the frickin' job"* (Air Commodore Tango, also Group Captains Alpha, Hotel and Juliet; Air Commodore Uniform).

The potential inefficiencies of mission command were also mentioned, particularly for relatively straightforward tasks or where the commander had pre-existing detailed knowledge. Here, as Air Commodore Tango noted, mission command *"actually takes more effort and time and resource than you actually gain"*. Group Captain Mike provided an example, that sometimes:

You have to stand on the back of the lorry and say "all of you people move over there", rather than finding the corporal and saying, "my intent is I just don't want crowds on that point. Can you go and deliver it nicely?"

For these interviewees, there was an evident comfort with the idea that mission command was not a panacea. Air Commodore Sierra summarised this view with their (doctrinally correct, if not necessarily doctrinally expressed) comment that *"we exist in a one-size-does-not-fit-all environment"* for leadership approaches.

Other interviewees took an alternative perspective responding, often quickly, with the assertion that empowerment and mission command are always relevant. Group Captain Bravo put it most strongly:

Well, I can't think of any circumstances where it wouldn't be relevant. It just really depends on how grandiose you want to make mission command.

This point accepts that mission command is not an absolute concept but one that is necessarily scaled up or back according to circumstances. Hence, in this interpretation, withholding decision-making authorities because of their strategic impact was not a failure of mission command, but an appropriate narrowing of its scope and intent. As Air Commodore Romeo described, *“actually, if you'd written your intent right, then those kind of constraining factors should have been in that intent”*.

4.3.4 Conclusions

In summary, and in direct response to the First Research Question, it did appear that the interviewees generally, if not universally, agreed that the conceptual limitations of mission command were borne out in the reality of the modern RAF. All four conceptual limitations themes were, in different ways, raised pre-emptively across the interviews, with examples provided of where they did occur. Moreover, when prompted with them subsequently, there was consistent recognition of the principles and attributes described. However, not all interviewees agreed with the proposals or existence of the limitations, providing evidence of conceptual and interpretive disagreements and balance. The consequences of this will be explored further in the Discussion Chapter.

4.4 The impact of the Information Age

Having analysed interviewee reflections on their experiences of mission command and its limitations, the interviews moved on to investigating the impact of the Information Age. Doing so focused the interviews towards the Second Research Question:

To what extent has the arrival of the Information Age exacerbated the inherent limitations of mission command, and/or created new ones?

In the interviews this Question was explored through the following:

(Q2.3) *Do you think that the advent of the Information Age has changed your ability to exercise mission command?*

It was evident from a number of interviews that the COVID-19 crisis and resulting lockdown had provided significant insights and accelerants to the debate around the Information Age, and specifically its impact on mission command. Notwithstanding, the question generated a broadly balanced series of answers. Descriptions were provided of both the **advantages** and **disadvantages** that the Information Age had brought to the interviewees' ability to exercise mission command, a distinction that provides the two main analytical themes for the responses. Interviewees even recognised the double-edged impact of the Information Age. Here, for example, the potential for greater situational awareness was balanced with the increased risk of information overload and senior officers "screwdriving" into tactical detail (Group Captains Bravo, Charlie and Oscar; Air Commodore Uniform). Group Captain November described both aspects as such:

Because the fact [of the Information Age] is a greater ability at very quick notice, at quick timescales, to actually either communicate or actually get feedback: I think you have a good ability to actually mission command. I think, actually, it would improve it. However, I think there is also the potential, the pitfall is, that it could allow you to micromanage at a greater level.

As will be seen the **advantages** tended to relate to an individual's ability to deliver mission command downwards, whereas the **disadvantages** reflected hindrances on their ability to do so from higher up the management chain. This reinforces the observation made above on the differences in perspectives between being enabled for mission command and being able to enable it, the latter being viewed much more positively. Thematic analysis of the advantages and disadvantages generated the following sub-themes:

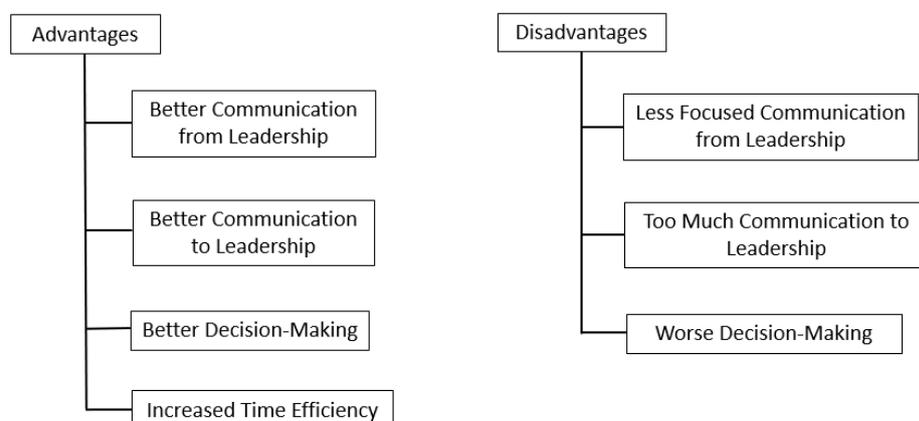


Figure 4.4: Final thematic coding of the impact of the Information Age on mission command (Source: interview data).

4.4.1 Advantages

Four sub-themes of **advantages** that the Information Age brings to mission command were identified. The first of these was a leader's increased ability to Better Communicate Downwards. Here, the enhanced communications technology of the Information Age significantly improved the commander's ability to pass on intent and messages to a larger population, including to those who would not previously have received them, and with less distortion on the way (Group Captains India, Kilo and Lima). This resulted in, as Group Captain Foxtrot described, communications happening "*more quickly and more openly*" with their staff. Likewise, Group Captain Delta described how their messages were now "*getting out to more people as you would wish it to...I don't need to have it filtered*". Video-conferencing and social media to mass audiences were mentioned as particularly effective in this regard (Group Captains Foxtrot and India).

The second sub-theme captured the reciprocal benefit of Better Communication Upwards. Derived from the greater connectivity and changing cultures associated with the Information Age, commanders could now themselves receive better information more quickly. This encouraged greater access to experts and hence greater innovation, thereby speeding up decision-making and enabling rapid and more effective activities to meet wider intent and deliver mission command (Group Captain Delta; Air Commodore Romeo). Direct access to a larger proportion of the workforce further increased a commander's ability to get feedback. Consequently, they gained a better appreciation of reality, could check general understanding of their intent, and were able to adjust messages and messaging if required (Group Captain Golf).

The third sub-theme was directly linked to the second, as interviewees described how the More Information Made Available by the Information Age improved their abilities to realise mission command. More information reportedly led to enhanced situational awareness meaning, in turn, that decisions were better informed. This allowed commanders, in Air Commodore Tango's words, to "*get clarity really quickly, and move forward*".

The last sub-theme identified was that of Increased Time Efficiency, an advantage that 19% (n=4) of interviewees raised unprompted. They observed that using Information Age communications technologies had freed up capacity which could be reinvested into better leadership and decision-making (Group Captains Charlie and Echo). Greater ease of connectivity also meant less travelling for busy leaders. Again, the time saved from travelling could be reinvested into more thinking space to generate and disseminate intent (Group Captains Delta and Foxtrot). Most tellingly, Group Captain Echo admitted that the

time freed up in reduced travel and more efficient meetings during lockdown meant that *“I was actually able to concentrate on being a Station Commander for what felt like almost the first time”*.

4.4.2 Disadvantages

Reflecting the double-edged sword already identified, potential **disadvantages** from the Information Age were the corollaries to the benefits. Hence, whilst commanders were able to communicate more widely to their subordinates, this also resulted in Less Focused Communication Downwards. Delivering to larger audiences meant that messages were inevitably less tailored, increasing the chances that they were misunderstood, misinterpreted and/or poorly received. Social media was suggested as especially vulnerable to this aspect (Group Captain India). The same interviewee also noted a secondary consequence of this, with *“greater opportunities for people to exercise poor judgement and... [the increased likelihood] of that poor judgement being visible to people”*.

From a broader leadership perspective, there were also concerns over *“losing the personal touch”* (Group Captain Delta) through more indirect communication, with a resulting negative impact on subordinate motivation and understanding of intent. Group Captain Bravo reinforced this point with the observation that *“Leadership is still a human-to-human function and not a human-to-machine-to-human function”* (also Group Captain Kilo).

Interviewees also identified the pitfalls of Too Much Communication Upwards. Here the flattened hierarchy, enhanced situational awareness and connectivity generated by the Information Age can result in enhanced levels of detailed meddling by senior leaders. Group Captain November acknowledged *“the fact that the freely available information could allow them to get into people's chilli much more. And, you know, that's unhelpful”*. Thus the *“long screwdriver”* reappears, undermining mission command (Group Captains Alpha and Oscar).

Being widely connected further meant that leaders are more contactable. This aspect undermined some subordinates' willingness to exercise mission command by having commanders easily accessible for more guidance, even when the intent provided is sufficient (Group Captain Mike; Air Commodore Quebec). As Air Commodore Romeo put it, reaffirming a potential reluctance to receive:

Now part of that is awareness, and part of that is arse-covering, because now he's had a copy [of, for example, an email], so he's kind of bought into it.

The third sub-theme recognised that the Information Age can make Too Much Information Available to leaders. Interviewees identified the propensity for information overload, with the resulting diminished capacity reducing the inclination for individuals to empower and frame, communicate and check understanding of intent. As Group Captain Alpha admitted, *“when you get busy, you just go inwards”* (also Group Captain Bravo). The perceived lack of toolsets, skillsets, and cultural instincts to process and manage the vast amounts of information undermined this aspect further (Group Captain Alpha; Air Commodores Quebec and Romeo). As Group Captain Mike observed wryly: *“We need 5G IT like we've got fifth generation aircraft”*.

Relatedly, given the quantity of information received, leaders could gain the impression that they were best-placed to make any decisions. Yet, as Group Captain Lima observed, this could create a false confidence as leaders would *“not [be] realising you're still missing something”*.

4.4.3 Conclusions

In summary, in response to the Second Research Question the general view of the interviewees appeared to be that the advent of the Information Age had changed their ability to exercise mission command. However, there was doubt and disagreement as to whether such change had been positive or negative, with evidence of both apparent. The importance of recognising and taking the opportunities presented by the former, whilst mitigating or avoiding the latter, will be returned to under the Second Research Objective.

4.5 The paradox between concepts and realities

The two Research Questions above, in combining perceptions of mission command and its realities in the Information Age, were intended to provide the answer to the First Research Objective:

To explore whether the RAF is facing an inherent paradox whereby its conceptual approach - insisting on mission command - is at odds with the demands of modern organisational realities.

In addition to the responses received thus far, this potential paradox was explicitly described in the Concluding Segment and interviewees were asked for their thoughts (Q3.2). It is acknowledged that there was an element of leading the interviewee in describing the paradox before asking whether they recognised or disputed its existence. Likewise, the responses that preceded this question will also have undoubtedly biased answers. Notwithstanding, 86% of interviewees (n=18) agreed with the existence of the paradox to some extent. Some were adamant:

“Yeah, I think definitely” (Group Captain Lima).

“Yeah, absolutely right. I think that is the case” (Group Captain Oscar).

“Oh, completely fair” (Group Captain Delta).

Others provided a balanced and more tentative opinion, best captured by Air Commodore Papa’s *“I don’t think they’re setting us up for a fail”* (also Group Captain India). Only Group Captain Kilo explicitly disputed its existence.

Those interviewees who did recognise the paradox largely drew on their previous answers to explain why they thought so. In effect they juxtaposed the themes identified in Figure 4.1, identifying the reasons why mission command was important to the RAF, with those in Figure 4.3 that identified the limitations in realising it. The frustration with being given intent and tasks without the resources and levers to deliver them was particularly re-emphasised.

Those that outright disputed the existence of a paradox simply stated that they felt they had the direction and resources needed, and could see evidence of mission command and empowerment in action (Group Captains Juliet, Kilo and November). More pointedly, as Group Captain Kilo put it, if reflecting on their own personnel rather than other commanders: *“the ones who complain about not being able [to exercise mission command] because of the constraints placed upon them...they’re just using it as an excuse”*.

4.6 Future improvements

Having examined the challenges and realities behind mission command in the Information Age RAF, the interviews then explored what could be done to improve the situation. This reflects the Second Research Objective’s requirement:

To suggest how future improvements can be made to the RAF's approach to mission command in the Information Age.

In the interviews this was addressed in the second half of the Middle Segment with two specific questions (**Q2.4** and **Q2.5**). These respectively requested potential improvements and an assessment of their achievability.

4.6.1 Improvements suggested

The first of these questions therefore asked:

(Q2.4) Given your comments thus far, what improvements would you suggest could be made to the RAF's approach to mission command in the Information Age?

Thematic analysis of the responses to this question again lent itself to Braun & Clarke's (2006) Phased approach, ultimately resulting in the following themes of suggested improvements:

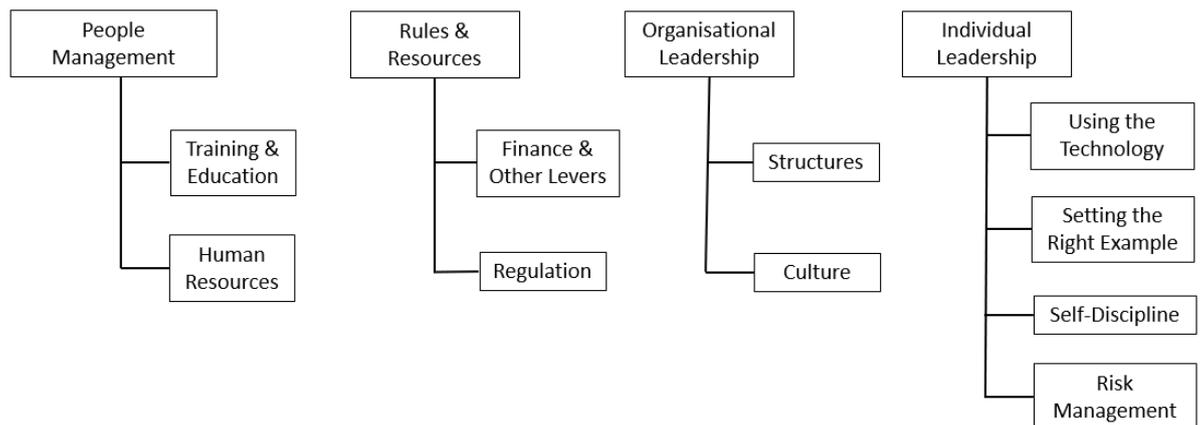


Figure 4.5: Final thematic coding of suggested improvements (Source: interview data).

To arrive at this final thematic coding, the initial coding from Phases 1 and 2 generated 10 proposed themes that appeared on multiple occasions, with an eleventh **Miscellaneous** theme capturing unique suggestions. These were:

Training and Education	Finance and Levers	Personnel Management
Rewards	Risk Management and Regulation	Using Technology Better
Self-Discipline	Leadership	Structures
Cultural Change	Miscellaneous	

Table 4.5: Initial thematic coding of suggested improvements (Source: interview data).

Further analysis of these themes through Phases 3, 4 and 5 resulted in their consolidation under four macro-level themes of **People Management**, **Rules & Resources**, **Organisational Leadership**, and **Individual Leadership**. Accepting that there was considerable overlap between them, these themes refer to:

- **People Management:** How individuals are managed and developed to encourage greater mission command;
- **Rules & Resources:** How rules and policies can be changed to encourage it;
- **Organisational Leadership:** What organisational changes would improve it; and
- **Individual Leadership:** What individuals could do to make improvements.

The consolidation of the sub-themes was as follows and resulted in Figure 4.5, with greater detail on the definition and aspects of each provided thereafter: Training and Education was folded into a sub-theme for **People Management**; some elements of the initial Rewards code were allocated to a new sub-theme of Human Resources under **People Management**, others to that of Finance and Other Levers under **Rules & Resources**; Risk Management and Regulation was separated across the two main themes of **Rules & Resources** and **Individual Leadership**; Structures and Cultures were allocated to the theme of **Organisational Leadership**; and Using the Technology and Self-Discipline were added as sub-themes to **Individual Leadership** alongside Setting the Right Example.

People Management

Under the broader banner of People Management, the most consistently raised suggestion for improvement, by 62% of interviewees (n=13), was in Training and Education. The focus and nature of such training varied according to interviewees' previous thoughts. An initial suggestion simply encouraged better use of what already existed; as Air Commodore Papa acknowledged, "*there's some great courses out there*".

Others emphasised the need to change the content of training, emphasising Air Commodore Papa's "*importance of information, the manipulation of information*" and/or Group Captain Mike's "*more of the "how we achieve something", less of the "what do we achieve?"*". Yet more, like Group Captain Echo and Air Commodore Romeo, advocated discussions on non-hierarchical leadership and the realities of implementing mission command, as well as addressing concerns over the "*long screwdriver*" effect. Air Commodore Romeo specifically encouraged:

Understanding how to be an information and data-driven organisation...[and separately] to understand what your part in the game is. So senior people are not tempted to disappear into the tactical weeds of what's going on.

Another element, exemplified by Air Commodore Uniform, stressed the importance of style of training in moving to a more coaching and mentoring approach. Group Captain Charlie, echoing the suggestions from the literature review, further reminded of the need to actually practice mission command through military exercises, not least as "*it's only through the lived experience that people understand it*" (Group Captain November).

In terms of targeting the training, there was a realization that it needed to be fully incorporated into initial training, but also provided "*end-to-end*" career-wise (Group Captain Mike; Air Commodores Quebec and Uniform). However, the middle management layer was mentioned several times as needing prioritized education. Here lay, reportedly, those most likely to be non-technically aware, given "*those of us that are getting older...don't have a natural affinity for tech*" (Group Captain India). A minority of this layer could be frozen in some attitudes and yet, as leaders, are in a critical position to accelerate or dampen a culture of mission command (Group Captains Charlie and Mike; Air Commodore Uniform). The younger generation, conversely, were felt to be more instinctively attuned to the demands of the Information Age (Air Commodores Quebec and Uniform). Combining the two elements created the risk that this younger generation meet, in Group Captain Mike's concern, the "*leader who's not in the same space. And I think he smashes it [mission command] out of them a little bit early*". Hence, the recommended focus of training and education to prevent this occurring.

From a more general Human Resources perspective, the observation has already been made about the inability of a commander to shape their team as they saw fit. The related recommendation was to decentralise, or at least increase the agility and flexibility of, the overall personnel management system (Group Captain Bravo; Air Commodores Papa and

Sierra). Doing so, with appropriate checks, would give a local commander more levers to employ their personnel in the most effective way to meet given intent. They could then be better held to account against such intent.

Still linked to human resources was the point that encouraging mission command and empowerment requires active encouragement through the personnel system and, critically, by leadership at all levels. Group Captain Delta strongly advocated for “*genuine, genuine, rewarding of empowerment*” (also Group Captain Mike). Thus, for example, it is not enough to talk about the freedom to fail on the way to meeting intent, individuals must be (seen to be) rewarded for it (Group Captain Delta; Air Commodore Uniform). If, as the grander vision of mission command suggests, success is measured in how people conduct activities that lead to strategic innovation and effects, rather than necessarily short-term outputs, then the appraisal system should recognise such empowerment in action. As Group Captain Mike suggested:

I'm not sure organizationally we celebrate how the results have been achieved. And that is what we should celebrate, and accept that those that may empower the best, and deliver mission command the best, might sometimes not deliver the best results.

Similarly, where the rewards system is currently geared largely around promotion, this could disenfranchise those experts who have relatively little inclination or ability for management. Yet these individuals could hold exactly the sort of expertise and innovative attitudes that mission command is trying to unleash (Group Captains Delta, Lima and Mike).

Rules and Resources

Unsurprisingly, given its primacy as a source of frustration and limitation, Finance featured passionately in the **Rules and Resources** theme amongst the broader appeals for greater allocation and delegation of resources. Put most adroitly by Group Captain Golf: “*If we want to empower our people, if we want to unleash the intellect of people at the tactical level, we've got to give them a bit of cash to go out and get after it*”.

This recommendation would bring important material benefits, efficiencies across multiple areas at the local level, and encourage innovation as a result. Yet particularly emphasized was the much broader impact that this improvement could have. The visible demonstration of mission command, displayed through more delegated financial

authorities and resources, would inspire belief in and reinforce the principle (Group Captains Delta and Golf). Moreover, it was felt that this could be achieved with relatively little cost, in any sense, as reinforced by Group Captain Delta's point that "*the greatest wins [on mission command] I've got with the smallest amount of money*".

On the related question of Regulation, but linked to that of culture, the suggestion was made that mission command would be stymied until the RAF was able to shed its instinct to "*bureaucratise things...[and to] unpick our professionalism in regulatory compliance*" (Group Captain Kilo). Developing a default for deregulation would naturally empower and remove the layers of complexity that pervaded (Air Commodores Romeo and Sierra). This would not, as portrayed, undermine statutory requirements or sensible safety concerns. Rather it was a means of better risk management and efficiencies, by not over-processing or exceeding the thresholds and, somewhat ironically, the original intent. Moreover, where the RAF had the freedom to change its own policies for the better, it should ensure that it does so appropriately and, if required, quickly; the fixation should remain on the intent and the outputs, not the processes within (Group Captains India and Juliet).

Organisational Leadership

The more radical suggestions for improvement were Structural. These were built around the logic that a complex, very hierarchical organization would be unlikely to fully realise mission command. Hence, for example, such suggestions challenged the origins and extent of the hierarchy in the RAF, querying the "*bottom-fed*" nature of the entry system (Air Commodore Uniform) and "*Do we need all these middle ranks?*" (Group Captain Delta, also Group Captain Golf; Air Commodore Sierra). In this respect the relative simplicity of the Duty Holder chain, which in effect reduces the relevant stakeholders for safety to 3 key individuals, was highlighted as a model for how rapid decision-making could be enabled. Indeed, Group Captain Golf suggested that "*we need to replicate that throughout the command chain*".

Structural improvements would further have to both drive and be driven by Cultural changes. As Group Captain Lima stated, "*whatever your strategy and your rhetoric says, if your culture isn't matching that it won't happen*". Most fundamentally, as will be evident from the continual references to it thus far, the creation of a trusting culture with greater acceptance of risk and (appropriate) failure was seen as critical to the realization of mission command. Hard evidence of this trust, likely associated with less process, was seen as a core element. Bridging both aspects, Group Captain Lima continued:

So I think we absolutely have to get this trusting culture. And that comes down to [removing] all of the red tape I was talking about (also Air Commodores Sierra and Uniform).

Beyond wholesale change, and on a softer note, there was also a recognition that the RAF was not a monolithic organization, or filled with homogenous individuals. In Air Commodore Sierra's words *"we're not, you know, we're not a mass organisation after a single, single, objective. We're a mass organisation after a mass of objectives"*. Hence structural and cultural changes should reflect the need to be adaptable and flexible, following the same interviewee's recommendation to *"apply intelligently"* any intended improvements.

Individual Leadership

The theme of **Individual Leadership** has repercussions for all the previous. Ultimately it was considered that it is the attitude, approach and activity of individual leadership that will initiate and force through the changes in training and education, rules and organizational-level leadership. The following improvements, then, are what was suggested individual leaders at all levels need to do better and more of. Elements of the comments in this section have already been raised but are now reinforced in this context, with the emphasis around the personality-driven nature of leadership and the issues associated with it.

From the opportunities inherent to the Information Age came suggestions to ensure that the RAF was able to take full advantage of the circumstances. These focused around the need to use technology to better deliver mission command. Allied to this suggestion was a reminder to make better use of the technology that already existed, *"to use our systems more effectively"* (Group Captain Foxtrot), even where it was not necessarily cutting edge (also Air Commodores Papa and Romeo). Notwithstanding, equipment and skills needed to be acquired that could significantly enhance individual and collective situational awareness, the decision-making process, and the understanding and dissemination of intent (Group Captain Foxtrot; Air Commodores Papa and Romeo). For example, Group Captain Foxtrot wanted to ensure that:

When you want to know what the strategic vision [i.e. the intent] is for your organisation, it's two clicks away...actually accessible for all to see.

Similarly emphasised, particularly by Group Captain Bravo, was to need to ensure that technology was employed in a way that enriched, rather than diluted, human-to-human contact and hence mission command.

Related to the importance of the personality-driven nature of leadership was the importance of leaders consciously Setting the Right Example. Group Captain Alpha emphasised that you should “*do as you do, not as you say...[remembering that] wherever you sit, you always take the example from the person above you*”. Similarly advocated was the need to recognise and take on the responsibility that leadership brings, ensuring that intent is considered, concise, articulated and understood, and that mission command is not reluctantly given (Group Captains Charlie and Hotel).

Others highlighted the criticality of maintaining an open mind, and the power of consciously being aware when the principles of mission command could be undermined (Group Captain Hotel; Air Commodore Tango). Specifically raised in this regard was the importance of Self-Discipline and, in Group Captain Bravo’s words, of “*sitting on our hands*” by not getting involved in the detail and allowing subordinates to fail and learn, even when the leader could have done it faster and better. Group Captain Hotel reinforced this point by commenting that “*just because we can change something doesn't mean we should*”, whilst Group Captain Alpha linked this with the increased access to information in asserting that “*you don't have to send the WhatsApp, you don't have to look at the feed*” (also Air Commodores Uniform and Victor).

The final aspect of this section bridges across many of the previous elements, covering the recommended need for improved risk management. In this respect, a fear of failure is eroded by understanding the benefits and consequences, whilst trust becomes an acceptable risk. Success, in Group Captain Kilo’s neat phrase, becomes an unequivocal focus on outputs over any instincts for “*showing due diligence, ass-covering and complying with a series of regulations*”.

4.6.2 Assessment of achievability

With this range of suggested improvements having been collated, the second question in this section then sought to verify whether interviewees felt they were actually realistic. Hence, they were asked:

(Q2.5) *How achievable do you believe these improvements might be to realise?*

Responses to this question were varied, with confidence levels reflecting in part the ambition or difficulty associated with the recommendations raised. They included:

“Yes, yeah, definitely, definitely achievable” (Air Commodore Quebec, enthusiastically).

“No chance!” (Group Captain Alpha, equally adamantly).

“Yeah, I’m an optimist; I think about 70% yes” (Group Captain India).

The latter quote provided an intriguing caveat that captured the most consistent, if paraphrased response, of *“yes, but...”* provided by 86% (n=18) of interviewees. That said, there was considerable variance in the scale and difficulty of the *“buts”* that then followed.

This range resulted in the ensuing analysis identifying top-level themes of **Encouraging Achievability** and **Limiting Achievability** of the improvements recommended. The final thematic analysis of these responses generated the following visualisation:

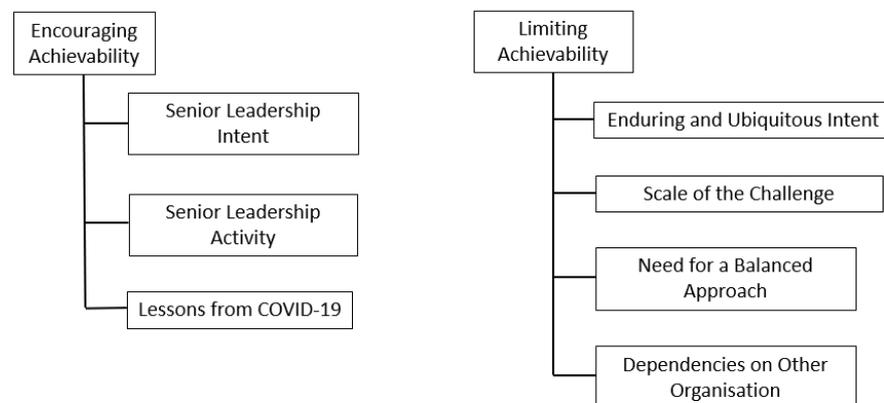


Figure 4.6: Thematic coding of achievability assessments for realising mission command in the Information Age (Source: interview data).

Encouraging achievability

For those interviewees who believed the improvements could be realised, the primary source of **encouragement**, confidence and hope lay in the clear Senior RAF Leadership Intent to do so. These emotions derived from a recognition that senior leadership sponsorship and drive for mission command were essential components for successful realization of the fundamental change required (Group Captains Bravo, Juliet and Mike; Air Commodore Tango). Critical to both confidence and hope was the credibility of such

intent, as suggested by Air Commodore Papa's comment that *"I think they, they absolutely believe in it"*.

Similar emotions resulted from the evident belief that the current RAF Senior Leadership Activity recognised the challenges identified and were deliberately seeking to address them (Group Captains Bravo and Echo). This sub-theme acknowledged the need to underpin the declared intent with real structural changes and overt demonstrations (Group Captains Echo and Lima). Doing so would undermine doubters whilst building trust and momentum in the concepts and their practical application (Group Captain Hotel). The Astra campaign was seen as firm evidence of this senior-level ambition and activity, and the *"vehicle"* (Group Captain Echo) to push through the improvements discussed. As Group Captain India recognised *"I mean, this [empowerment] is what Astra is about"*.

Interviewees also described how the response to COVID-19 had, perhaps unexpectedly, increased confidence in the achievability of greater mission command, as well as providing an accelerant towards these ends. As Group Captain November observed, *"as tragic and horrific as the current crisis is...we must recognise that there is huge opportunity here."* Interviewees reflected how significant progress had been made in both mission command and Information Age practices under the COVID-19 lockdown, with Group Captain Charlie adding *"...and if we can do that with no training..."* (also Group Captains India and Juliet, and Air Commodore Uniform). Group Captain Kilo even relayed the presciently apocryphal story of the corporate executive who had concluded that COVID-19, not their Chief Operating Officer or Chief Information Officer, had provided the greatest impetus for successful digital transformation in their company.

Limiting achievability

Conversely, other interviewees highlighted a series of **limits** to the RAF's ability to achieve the improvements suggested for mission command. The foremost of these was the need for the impetus and advocacy provided to be enduring and ubiquitous across the organisation. Thus, for the cultural and organizational change necessary to realise better mission command in the Information Age to prevail, it needed to outlast the current top leadership. Memories were still fresh of the Thinking to Win programme from 2015 (UK. RAF, 2016), which was perceived to have failed because it did not have that enduring sponsorship, and because its detailed intent was not easily understood. In fairness, there were greater degrees of confidence in Astra than in Thinking to Win, if admittedly not universally so (Group Captains Golf, India and Oscar). But Group Captain Juliet remained a clear sceptic in this regard:

Because of all the problems that we have actually sticking with an idea and following it through. Because something will come on and meddle with it...[because] Astra is today's idea, but you can bet your bottom dollar it will not be tomorrow's idea.

Air Commodore Papa captured the same concern with the question: *"the key is a Chief-to-Chief handover: does the drive remain?"*

Inherently linked to the enduring nature of the intent was its organisational ubiquity. The drive and desire for mission command had to be replicated all the way down the leadership chain, with buy-in throughout the RAF (Air Commodore Tango). Tellingly, Group Captain Mike expressed the concern that enthusiasm for the principles and application of empowerment had *"not quite met in the [organizational] middle yet"*.

The next sub-theme of potential limits to achievability considered the scale of the challenge. Group Captain Alpha's wry *"there's a lot to do"* succinctly captured the sheer extent of (especially cultural and structural) challenges faced. Related concerns noted the likely lack of individual and collective capacity and resources to address these challenges (Group Captains India and Lima; Air Commodore Romeo).

Yet, in confronting the undoubted scale of the challenge, interviewees acknowledged that the RAF needed to simultaneously take a balanced approach and be patient. For example, Group Captain India noted that *"it takes time for that intent [to embrace mission command] to permeate down any organisation"*. The journey towards achievement would further be fragile as *"You say one wrong word and the whole thing's messed up"* (Group Captain Alpha). Moreover *"it is dangerous to pontificate on something and not deliver it"* (Group Captain Oscar, also Group Captain Foxtrot). Group Captain Lima summarised this sub-theme with this sage comment: *"So it is achievable. But I think you have to be realistic about the pace and the timeline. Because otherwise you've just got chaos"*.

The final limitation sub-theme was the RAF's dependence on other organisations in making the improvements required (Group Captain India; Air Commodores Quebec and Uniform). These dependencies were both practical and cultural and could prevent or limit the institutional changes required. As Group Captain India asserted: *"I think it's not just changing the mindset of the Air Force. It's the mindset of the MOD and it's the mindset of Government"*.

4.7 The perceived extent of mission command in the Information Age RAF

By this point, in answering the two Research Objectives the interviews had examined both the perceptions and realities around mission command in the Information Age RAF, and made a series of suggestions around how and if it could be improved. These Objectives were collectively intended to provide an answer to the Primary Research Aim:

To determine the extent to which the RAF is capable of realising mission command in the Information Age.

Building on all the responses thus far the last part of the interviews' Middle Segments explicitly focused on this Aim, turning it into the following question:

(Q2.6) To what extent do you believe the RAF is able to realise mission command in the Information Age?

There were, once again, a full range of answers provided. Fused with earlier answers, then analysed and organised into a logical sequence, the themes that emerged were:

- Whether the RAF **needs to** realise mission command in the Information Age.
- Whether it **wants to**.
- Whether it **knows how to**.
- Whether it **could** do so.
- **How far** it still has to go.

Generally agreed across all interviews was that the RAF **needs to** realise mission command in the Information Age, to seize the Age's opportunities and demands and ultimately remain competitive in conflict (Group Captains Hotel and Lima). Equally agreed was that the RAF **wants to** do so, and that its conceptual perspective and advocacy backed this desire up. As Group Captain Mike affirmed: *"it certainly wants to!"*

However, concerns remained over the RAF's ability to **know how to** do so. The doubt emerged from the suspicions of an inherently cynical audience that was not yet convinced the RAF fully understand the nature and implications of the Information Age, nor entirely knew how to transform the organisation to avoid its pitfalls and grasp its opportunities (Group Captains Delta, Juliet and Lima; Air Commodore Sierra).

Consequently there were mixed views as to whether the RAF **could** succeed in making the significant cultural and organisational changes necessary. Group Captain India stated that *“I think we are well placed to exploit”* the situation, with references to an existing culture of technically savvy and innovative individuals that would enable this. Group Captain Kilo expanded this view as follows (echoed by Air Commodore Tango):

The people who are taking the key decisions in the organization, whether or not they're process monkeys,⁸ have, a large proportion of them have a first-hand experience of delivering operations in the real world. And so, so they've operated in contexts where the reality of our ability to exchange, and profit from, information is right in front of their faces.

Others were less confident, feeling it would take a strategic event to force through the changes, whether that be COVID, political and/or financial realities. Concerns existed that the realisation of impending irrelevance after an ally or adversary had achieved the changes would be required. Group Captain Delta, in particular, suspected that *“we're gonna need it handed to us in a fait accompli complete from another nation”* (also Group Captains Hotel and Lima).

In assessing **how far** the RAF still had to go towards realising mission command in the Information Age, the idea that the RAF was on a journey towards those ends recurred. The hope and confidence derived from the RAF's evident ambitions was caveated by the doubts described over its ability to realise them. An acknowledgement of the distance still to travel was thus prefaced with the assertion by both Air Commodore Papa and Group Captain November that the RAF was *“in the foothills”*.

To end encouragingly, though, the positivity of the interviewees broadly shone through. There was clear belief in the RAF's intent to make the changes necessary, and a relative conviction in the likely success, particularly when compared to historical experiences. This had further been reinforced by recent advances in attitudes and practical measures, with the response to COVID-19 having generated a forcing function in pushing forward Information Age ways of working onto the RAF. Indeed Group Captain Charlie noted how RAF personnel were *“embracing technology like never before”* (also Air Commodore Uniform), whilst Air Commodore Papa also suggested that recent progress had been *“by at least an epoch”*.

⁸ Meaning: individuals who insist on following bureaucratic processes.

The balance of all these opinions was best described by Group Captain Foxtrot: *“it feels like a 10-year vision...but I think we’ve made 2 years” worth of progress in the last 2 months, comfortably*”.

4.8 Conclusions

In summary, analysis of the 21 interviews identified a number of consistent themes. Having confirmed the close links between the concepts of empowerment and mission command, the themes of **delegation**, **intent**, **trust**, and **levers** emerged as definitionally key. Three major themes then explained the importance of mission command to the RAF, based around the organisation’s **strategic narrative**, the concept’s criticality to the **organisation’s** performance and to its **people**.

The research’s other key concept, that of the Information Age, was variably understood by the interviewees. It was, though, consistently defined by its significantly increased **volume**, **veracity** and **velocity** of information. Moreover, the importance of the Information Age to the RAF was explained by the organisation’s **reliance** on the emerging technologies and realities of the Age, and the emphasis again placed on this in the RAF **narrative**.

Focused towards the First Research Objective, interviewee perception of their ability to realise mission command ranged from a straight **Yes**, through **Yes and No**, to a straight **No**. However, using the same themes, far more interviewees felt that they enabled mission command in their subordinates than were themselves enabled.

Where interviewees felt that they were able to exercise mission command, three themes were identified as particularly enabling: the achievement of a **clear understanding** of intent; the **personality and actions of superiors** in actively encouraging mission command; and the **personality of the subjects** being reciprocally ready and willing to receive and enact it.

Conversely, the analysis also identified four major themes explaining the limitations that interviewees felt existed in realising mission command. These lay in the **permissions** of what individuals were allowed to do and the **obligations** of what they were obliged to do, alongside what the **organisation** encouraged them to do (or not) and what relevant **individuals** enabled them to do (or not).

As for the impact of the Information Age on Mission Command, the interviewees described both **advantages** and **disadvantages**. This, in turn, highlighted the double-edged effect of the Information Age whereby the same characteristic can make mission command easier or harder to realise, depending on by whom and how it was employed. This analytic conclusion reinforced the broad, if not universal, perspective of the interviewees in ratifying the paradox suggested in the First Research Objective; that the RAF conceptual approach insisting on mission command is at least partially at odds with the demands of modern organisational realities.

Interview analysis then identified four themes against the Second Research Objective's aim of suggesting future improvements that can be made to the RAF's approach to mission command in the Information Age. Each had a number of sub-themes that, in turn, incorporated a range of specific improvements. The **People Management** theme included those improvements that improved how RAF individuals could be managed and developed to encourage greater mission command; the **Rules & Resources** theme recommended how rules and policies could be changed to encourage mission command; the **Organisational Leadership** theme highlighted what organisational changes would improve it; whilst the **Individual Leadership** theme suggested what individuals could do to make improvements.

In querying how likely these improvements might be to realise, thematic observations emerged from the interviews that would both **encourage** achievability and **limit** it. These themes captured the contrasting confidence and doubt that existed amongst the interviewees towards the Primary Research Aim: the extent to which the RAF could realise mission command in the Information Age. The conclusions of the interviewees were broadly that the RAF **needed** and **wanted** to do so, but with mixed views on whether it **knew how to** and **could** do so. Recognition that the RAF had **some way to go** to those ends was balanced with, admittedly varying, confidence that the journey had started and had gained positive momentum from recent experiences in response to COVID-19.

In conclusion, the 21 interviews provided a range of thoughts, perspectives and observations against the Research Aim, Objectives and Questions. Some of the views were diametrically opposed whilst others were mutually reinforcing and consistent. The research concepts and issues were also variously challenged and affirmed. The implications of these collective responses will now be discussed.

CHAPTER 5: DISCUSSION

5.1 Introduction

Having presented the results of the 21 interviews conducted for this research, this chapter discusses the issues raised and conclusions drawn. In doing so it will compare and fuse the analysis from the interviews and the literature review. Initially it will re-evaluate the core concepts and terminology that underpin this research - mission command, empowerment and the Information Age - to confirm what has been revealed about their nature, construct and context. It then discusses the issues around the Research Questions and Objectives, highlighting the conclusions made and providing direct responses to each. It culminates with the same for the Primary Research Aim, revealing the extent to which this research believes the RAF is capable of realising mission command in the Information Age.

5.2 A review of concepts and terminology

The definition and core attributes of mission command have been shown as largely consistent across the literature and over time. Its current UK military doctrinal definition neatly captures the common emphasis on understanding and following command intent. Interviewees proved slightly less able to pinpoint this definition, but were broadly able to describe mission command's main principles.

The links between mission command and empowerment were consistently agreed across both the literature and interviews. The general (if not entirely universal) conclusion was that mission command could be considered a military-specific subset of empowerment. Definitions of empowerment were arguably inconclusive across the range of different academic disciplines that have considered it through history. Yet the interviewees did provide a noted level of consistency in their conceptual appreciation and understanding of empowerment and its associated characteristics.

Regardless, what was agreed across the literature and the interviews was the significant importance of the applied concepts of mission command and empowerment to the RAF. Thematic analysis of this importance, derived from the interviews, demonstrates that these concepts are embedded within the organisation's historical culture and are critical for the demands placed on it by the present and future. Such criticality is recognised and strongly advocated by the RAF senior leadership, not least in its own strategic narrative (UK. RAF, 2017). Similar themes of these concepts' relevance and requirement relating

to other organisations are available (for example, Bungay, 2005; Heyward, 2013). However, outside of RAF-produced literature, this research appears to be the first to academically validate and link this importance directly to the RAF.

5.2.1 Mission command's utility as a term?

In this context, then, it is interesting to reveal some apparent doubt amongst the interviewees over the term mission command. Group Captain Foxtrot echoed the sentiment of a number of interviewees in stating that *"I think that I feel more comfortable with the term of empowerment than I do with mission command."* Group Captain Foxtrot explained this in part by suggesting that mission command had a *"pejorative feeling about it to some"*, whilst Air Commodore Uniform relatedly suggested that empowerment was *"a slightly more accessible term [particularly] to people who aren't in the military."*

This commentary generated a refreshed review of the literature. A chronological element to the term mission command was identified that evolved through the research period. Its use appeared to peak around 2016, when Barnes (2016, n.p.) noted that *"Mission command is seemingly everywhere of late."* This was not long after the publication of US General Dempsey's (2012) *"Mission Command White Paper"* and the 2013 RAF Leadership Conference on Mission Command. Subsequently empowerment became the more widely used term, as demonstrated in the words of the 2017 RAF Strategy, the 2019-onwards Astra campaign, and the MOD's 2019 "Year of Empowerment". This progression culminated in the reflections of the 2020 interviews, when Group Captain Juliet wondered: *"is mission command now an old, too old a phrase?"*

Evoking Air Commodore Uniform's point above, this position probably reflects empowerment's accessibility to a wider audience and assumes that this attribute was the focus of the RAF Strategy and Astra. It could also reflect a potential focus on leadership of the RAF "in barracks" vice "on operations" in this period. This aspect recalls the debate in the literature on the differentiation between the two and mission command's traditionally greater role in the latter (Whitford 2015; *Army Leader*, 2019; also Group Captains Alpha, Golf and Kilo and Air Commodore Sierra).

This discussion raises an important question. Fundamentally, the RAF's ability to realise mission command is unlikely to be embraced if it is considered pejorative or inaccessible as a term. This realisation could, in turn, undermine any ability to deliver mission command and any campaign seeking to do so. The apparent phasing out of *"mission command"* as a term over the last few years, at the same time as *"empowerment"* has

become very widely advocated, may have added to the confusion. The heretical conclusion is thus to challenge whether, whilst acknowledging the undoubted relevance of its core principles, mission command continues to be a helpful term for the RAF in achieving its stated aims of empowered staff. The suggestion is that its relatively narrow contextual application, and slightly opaque appreciation, could unnecessarily distract and confuse the organisation and its leaders from their broader intent.

5.2.2 The Information Age's utility as a term?

As for the Information Age, it appears to be a well-known but nebulous concept. The literature identified some consistent characteristics of the Age, which the interviewees recognised thematically whilst evidently struggling to define the Age conclusively. Regardless, given the impact of technology, information and data on the RAF, it is undoubtedly a relevant and important concept to the RAF, an assertion supported by available literature and interviews (Lawson & Barrons, 2016; Atha, 2017; Group Captain Bravo; Air Commodore Uniform). Thus, noting it appears to be a useful concept, but one that is not fully understood, the question recurs as to whether it is a helpful concept. The available literature did not appear to directly address this issue. But the interviewees appeared unconvinced over its utility and impact as a memorable phrase. Some found the term constraining as well as difficult to define (Group Captain Oscar; Air Commodore Sierra). Moreover, the Age's vague nature means it is less effective when seeking to explain and justify more detailed requirements. For these, use of its associated themes - particularly the "***volume, veracity and velocity***" of available information (UK. DCDC, 2017a, p.1) - appear more compelling.

Thus, in the case of both mission command and the Information Age, this research has revealed that the concepts are critically important to the modern RAF. Yet they also appear, to some extent, to be stymying their own realisation and capitalisation by not being naturally and universally understood.

This research's first recommendation, then, is for the RAF to consider how these terms themselves can be best defined, focused, explained and used, if at all.

5.3 First Research Question: The limitations in theory and reality

This section now examines each of the research questions and objectives in turn. As the initial step towards the Primary Research Aim - of determining the extent to which the RAF is capable of realising mission command in the Information Age - the First Research

Question seeks to investigate the potential limitations to such realisation. Specifically, it asks:

To what extent are the conceptual limitations of mission command borne out in the reality of the modern RAF?

Both the literature review and interviews recognised that, despite its firm advocacy and relevance, mission command was not necessarily easy to realise. The literature review generated four thematic limitations to mission command, of it being: **reluctantly given**; **reluctantly received**; **difficult to deliver**; and **not always relevant**. The interviews' open questions (particularly **Q2.2**) also revealed four themes, coded as: **permissions**; **obligations**; **organisation**; and **individuals**. The final visualisation of the interview themes, with sub-themes, is reproduced below:

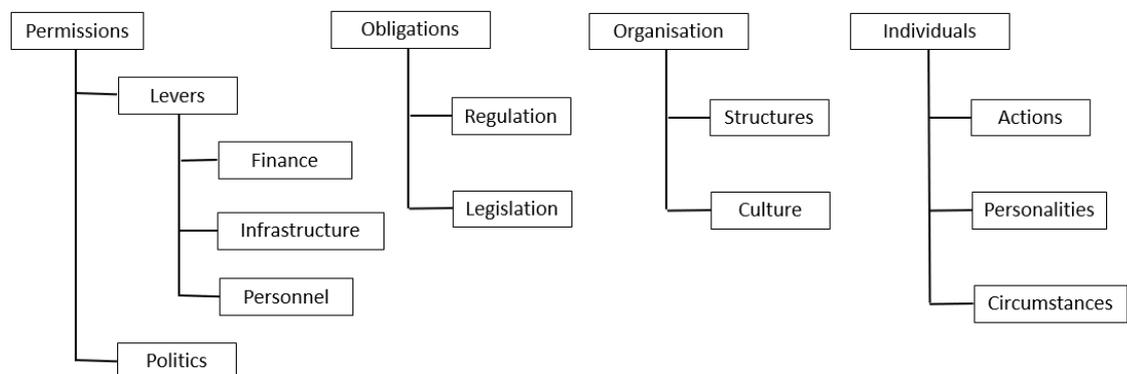


Figure 4.3 [repeated]: Final thematic coding of mission command limitations (Source: interview data).

The First Research Question required a comparison between the findings of the literature review and the interviews. Under the interviews' **Permissions** theme, the Levers sub-theme appears to most closely align with the **Difficult to Deliver** theme from the literature review. Simply put, if commanders are not given the levers by which they can demonstrate and deliver mission command then it is, by definition, harder to do. There may be some overlap with the **Reluctantly Given** theme here, if the levers are not provided by choice as a means of retaining control. Relatedly, and potentially depending on an individual's point of view, the Politics sub-theme sits across the **Reluctantly Given** and **Not Always Relevant** themes. Kometer (2007) explains both sides of this debate in a balanced description: the former is justified by the extension of political control into details that should not require it; the latter by the inherently political nature of some decisions.

Reconciling the **Obligations** theme requires a similar examination of perspectives, not least on the very nature of mission command. By one view Regulations and Legislation provide a constraint on mission command that make it more **Difficult to Deliver** (Air Commodore Romeo). By another they are imposed by choice to do exactly that, reflecting that mission command can be **Reluctantly Given** (Pigeau & McCann, 2002). Conversely, such regulations could exist to safeguard those decisions that should not be delegated, where mission command is **Not Relevant**. Alternatively, again, they simply provide the bounds within which mission command operates. Regulations are therefore not a limitation but an inevitable and appropriate manifestation of mission command (Group Captains Kilo and November).

The **Organisation** theme also highlights limitations on mission command that demonstrate how **Difficult to Deliver** it can be, evoking Air Commodore Sierra's lament that "*even the simplest of activity takes an enormous amount of time and effort*". An institutionally bureaucratic and hierarchical organisation will inevitably reinforce such instincts and processes. Yet the fact that the Astra campaign is directly seeking to address many of these restrictions suggests that this is not down to a **Reluctantly Given** corporate approach.

Finally the **Individuals** theme, through its Actions and Personalities sub-themes, touches both **Reluctantly Given** and **Reluctantly Received** elements. Here the responsibility is placed on individuals to ensure that they both enable mission command in their subordinates and grasp the opportunity when they are being enabled themselves. Its Circumstances sub-theme neatly completes this section by variably encompassing all four of the literature review themes, depending on what the circumstances are and the element of choice in surmounting the difficulties presented.

By this analysis, all the themes and sub-themes identified in the interviews align with those identified in the literature review. Similarly, the reverse is true with all literature review categories identifiable in those from the interviews. Moreover, neither model highlighted a new limitation that could not be incorporated into the other and only the **Reluctantly Received** theme received relatively little emphasis in the interview model. That said, the considerable overlaps between the two models - with no one category in one model naturally aligning with only one in the other - suggest that they are not reconcilable into a single one. Instead, they simply represent different ways of viewing the same issue. Their respective utility will be examined under the Second Research Objective.

Noting that the First Research Question asks whether the conceptual limitations identified are borne out in reality, a more direct comparison between the interviews and the literature was also conducted. Here the interviewees were presented with the literature review's categories and asked to comment (in **Q3.1**). These responses were compared against the earlier interviewee responses to validate in reality, or at least in the perceptions of current practitioners, the conceptual limitations identified. As observed in the Results Chapter, the interviewees did generally recognise the conceptual limitations, either spontaneously or when prompted. However, acceptance of their existence or their extent was certainly not unanimous. The four literature review categories will now be compared in turn.

On the first conceptual limitation of **Reluctantly Given**, recognition of its existence was actually universal across interviewees. There was, though, a common assertion that it was a scarce and declining trait. Klein's (1984) research had identified that 31% of supervisors struggled to see empowerment as beneficial to themselves. Extrapolating from the interviews implied that, if repeated for modern RAF supervisors, this number would be much lower. Conversely, the interviewees would certainly recognise, in the reluctant RAF minority, Fast et al.'s (2014) identification of empowerment as a threat to ego. Interviewees also highlighted the risk and occasional realisation of a say/do gap between RAF leaders advocating but not applying mission command themselves (Group Captains Delta and Lima), as Storr (2003) and Stewart (2009) had previously described within the British Army. This point reinforced the similar conclusions derived from Marsh's (2019) RAF interviews.

As for the suggestion that mission command might be **Reluctantly Received**, interviewees provided a full range of responses. Arguably, any suggestions of its existence - recalling Group Captain Hotel's "*Reluctantly received? Ab-so-lutely!*" - by definition negate those of its denial. However, it did not appear to be an endemic trait in the modern RAF and was likewise potentially in decline as the organisation's culture goes through a generational and leadership-driven evolution (Group Captain Kilo; Air Commodore Papa).

That said, amongst the minority that do display such reluctance, the explanations were reminiscent of those from the literature. Hence, Johnson's (1994) description of those unwilling to accept greater responsibility was echoed by Group Captain Delta and Air Commodore Papa. Likewise, Forrester's (2000) and Farrell's (2008) suggestions of an inherent scepticism that the responsibility promised would be realised was matched by Air

Commodore Quebec. In balance, the interviewees did provide some positive explanations for a reluctance to receive, not least through Group Captain Juliet's reasonable reluctance to take on impossible tasks. Thus, amongst broad alignment between literature and interviews, the latter did offer some resistance and nuance to the idea that mission command might be **reluctantly received** in the RAF.

As for the suggestion that mission command can be **Difficult to Deliver**, the literature review and the interviews consistently agreed that it required both deliberate thought and effort to achieve. The former provided numerous historical examples demonstrating how mission command had failed to be realised, explaining the considerable organisational hindrances that had prevented the realisation of clear intent across centuries. The interviews then provided the, remarkably similar, contemporary RAF explanations. Forrester (2000, p.70) précised a consistent observation that:

If executives don't accept that it is stunningly hard for middle managers to let go of the reins, their empowerment programs will always run aground. There are just too many forces within managers telling them to keep a grip on things.

When presented with this limitation, interviewees mirrored the literature's focus on intellectual and emotional challenges. Mixing themes, Group Captain Alpha and Air Commodore Sierra, amongst others, clearly recognised that they did not want these difficulties to result in their being labelled "**reluctant to give**" mission command. But they were having to fight a number of impulses to prevent this: "*I still couldn't let go quite enough. I still wanted to know*" (Group Captain Alpha). Such recognition confirmed Wilkinson (1998) and Greasley et al.'s (2005) prediction of a need to overcome this counter-instinctive loss of control to empower, if also demonstrating that it was both acknowledged and being proactively addressed in the modern RAF.

In contrast, interviewees placed clear emphasis in open questioning on the practical challenges of delivering mission command, most notably when constrained by a lack of levers (Group Captain Oscar; Air Commodore Romeo). This angle had been less evident in the literature, beyond the idea that a lack of training and practice makes mission command harder, a point made by both Stewart (2006) and Group Captain Golf. Thus, the conceptual limitation that mission command is **difficult to deliver** was definitely borne out in the perceptions of the interviewees, who added greater emphasis on the practical, vice intellectual, issues faced.

The opening argument to the suggestion that mission command is **Not Always Relevant** is based simply on the premise that no single leadership approach can be universally applicable. Both Air Commodore Sierra and Campbell & Campbell (2011) had made this point in describing the idea of situational leadership.

Separately, mission command's ubiquitous relevance was challenged by the idea that some decisions are considered just too important to be delegated (as acknowledged by Group Captain Juliet, Air Commodore Uniform and Hoeben, 2017). Alternatively, some actions could be too simple to necessitate empowered interpretation (Group Captain Mike; Air Commodore Tango).

Interviewees further recognised that mission command may not be relevant when its core attributes were not achievable, accepting that these can be difficult to achieve too. This view mirrored similar comments by Fox (2016) and Stephenson (2017). Relatedly Stewart (2006) had identified that gaining trust took time, and thus there might be a temporal aspect to mission command's relevance. However, this was in part rejected by Group Captain Foxtrot's recognition of the need for "*blind trust*" initially to foster a culture of mission command.

The interviews did highlight, in a way not readily apparent from the literature, a debate around the interpretation of mission command and its acceptable limits. For example, Group Captain Kilo felt that some constraints were appropriate, whether for democratic, legislative or financial reasons, and these provided rightful bounds within which a form of mission command could be exercised. That said, Group Captain Hotel's metaphorical box aligned with a previous description of empowerment by a then-Chief of Air Staff as "*freedom in a gilded cage*" (Pulford, 2013, p.4). By this logic, mission command is always relevant, just variably limited in other ways. To repeat Group Captain Bravo's observation: "*it just depends on how grandiose you want to make mission command.*"

In summary, and in direct response to the First Research Question, the conceptual limitations of mission command did appear from this research to be largely, if not unanimously, borne out in the reality of the modern RAF.

The available literature, drawing on empowerment theories and studies into other organisations (military, wider governmental and corporate) over time, had made a series of predictions over mission command's potential limitations. From the literature this research developed a novel categorisation of these limitations, based around four themes. The interviews largely confirmed these predictions whilst simultaneously revealing that the

realisation of mission command is indeed constrained in the modern RAF. They also validated the literature review's thematic categorisation of the limitations. Analysis of the interviews further resulted in the generation of a second new model that captured the limitations in a different, but mutually compatible way.

5.4 Second Research Question: The impact of the Information Age

The Second Research Question builds on the conclusions of the First by exploring the impact of the Information Age on the RAF's ability to deliver mission command.

Specifically, it asks:

To what extent has the arrival of the Information Age exacerbated the inherent limitations of mission command, and/or created new ones?

With their perspectives heightened by ongoing COVID-19 experiences, the interviewees agreed that the Information Age had affected their ability to exercise mission command. However, across the two themes of **advantages** and **disadvantages** they did appear more even-handed in their responses to this question, emphasising the potential benefits of the Information Age for mission command in a way that had not been apparent in the literature review. Moreover, the interviews recognised the double-edged nature of the Information Age in bringing (occasionally competing or contradictory) advantages and disadvantages. For example, Group Captains Mike and November, and Air Commodore Uniform, were all able to articulate how the Information Age had affected their ability to empower both positively and negatively.

The impact of the Information Age in flattening the RAF's organisational hierarchies neatly illustrates this debate. On the one hand, the ability to communicate virtually, not least under the constraints of COVID-19, resulted in several interviewees revelling in a newfound opportunity to engage directly with more of their staff (for example Group Captain Delta and Air Commodore Romeo). Here they clearly felt that the Information Age had enabled mission command by allowing them to pass on unfettered intent.

Conversely, references to the idea of a "long screwdriver" in both literature and interviews (Singer, 2009; Group Captains Alpha, November and Oscar) highlights that not all such increased access is welcome.

Viewing the limitations thematically, the literature and interviews suggested that the Information Age had exacerbated existing ones rather than created more. For example,

common to both the literature and the interviews was the acknowledgement that information overload was increasingly prevalent in the Information Age, given the immense volume of information now available (Crane et al., 2009; Wong et al., 2013; Group Captains Alpha and Bravo). This assertion combines with a recognition that the natural reaction to this situation was to decrease mission command (Krabberød, 2014; Group Captain Alpha), which thus becomes more **reluctantly given**. At the same time, other commanders may feel emboldened by their access to more information to make decisions at a higher level than previously. This results in the same outcome: less mission command provided.

Similarly, with the Information Age bringing added complexity of scenarios and intent, mission command may demand weightier responsibilities that are more likely to be **reluctantly received**. More generally Storr (2003), amongst others, had summarised the impact of the Information Age by observing that its attributes - primarily information volume, speed and access - had all made mission command more **difficult to deliver**. Finally, the greater connectivity between local actions and strategic and political impact (evoking Krulak, 1999), and the ease with which mistakes can gain greater exposure (as Group Captain India's concern), mean that mission command could have become **less relevant** in some eyes. Either way, the debate on the appropriate strength of the gilded cage's bars is heightened.

Overall, in response to the Second Research Question, it appears from this research that the arrival of the Information Age has indeed exacerbated many of mission command's limitations, if not necessarily created new ones. Yet it has also offered opportunities to better mitigate some of the limitations and, in turn, better realise mission command.

Perhaps the most interesting conclusion to be drawn lies in the importance of perspective in mission command. The interview analysis highlighted that many interviewees saw advantages of the Information Age for mission command when it enabled them and their staff, but saw disadvantages in the same when it similarly enabled their own chain of command. This phenomenon will be examined further in the discussions around the Second Research Objective. Regardless, alongside the coexistence of both limitations and opportunities for the delivery of mission command in the Information Age, its inherently paradoxical nature is reinforced.

5.5 First Research Objective: The existence of a paradox?

Combining the discussion and conclusions of the First and Second Research Questions provides insight into the response to the First Research Objective. This Objective recognises the potential for a paradoxical situation with respect to mission command in the Information Age that could, if realised, fundamentally affect the RAF's ability to achieve it. The Objective is therefore a necessary waypoint on the route to the Primary Research Aim's goal of understanding the extent to which the RAF could achieve these ends. Hence, it sets out:

To explore whether the RAF is facing an inherent paradox whereby its conceptual approach - insisting on mission command - is at odds with the demands of modern organisational realities.

The literature reviewed did not explicitly identify such a paradox for the RAF. Indeed, one of the unique contributions of this research is to recognise and investigate its existence. Analysis of the literature did expose the component parts to the paradox, highlighting:

- the nature of mission command and its inherent limitations;
- its importance to, and advocacy within, the RAF;
- the demands on the organisation today; and
- how all above have been affected by the Information Age.

The conclusion drawn was that the characteristics of the Information Age appeared to make mission command more important whilst simultaneously making it harder to deliver.

The interviewees largely endorsed the existence of the paradox. They did so implicitly by describing how the strong advocacy and direction, received from the RAF senior leadership to implement mission command, coexisted with the evident difficulties faced in delivering it. They also did so explicitly by concurring with the paradox's existence when it was explained to them (**Q3.2**). One exception rejected the paradox as they did not consider themselves constrained in their delivery of mission command (Group Captain Kilo). Two others questioned the validity of its existence by crediting the senior leadership with attempting to ease the limitations identified; the senior leadership were not blindly demanding the impossible, rather they recognised the difficulties and were helping to work through them (Group Captains Bravo and Echo). Indeed, the difference between the perspectives of the group who rejected the paradox and those who, often enthusiastically,

endorsed it, appeared to primarily lie in their belief in senior leadership commitment and sincerity.

In addressing the First Research Objective it does therefore appear from this research that an element of paradox exists between the RAF's conceptual approach in insisting on mission command, and the sheer practical difficulties in realising it consistently and universally. Moreover, the Information Age has, equally paradoxically, exacerbated these difficulties whilst reinforcing the conceptual requirement for it.

That said, there was evident hope and anticipation amongst the interviewees that the RAF was attempting to confront the issues raised (Group Captain Foxtrot; Air Commodore Tango). This hope was admittedly tinged with some cynicism borne from experience (Group Captain Juliet; Air Commodore Papa) and reinforced by the literature (Argyris, 1998; Forrester, 2000). Notwithstanding, the anticipation was exemplified in the Astra campaign that was emerging as the interviews took place. Thus, the following discussion around the Second Research Objective's search for potential improvements to the situation will focus as much on a validation of ongoing RAF activities, as on recommendations for new ones.

5.6 Second Research Objective: Recommendations for the RAF

5.6.1 Analysing the models created

To this point the research has combined a literature review with interview findings to understand the limitations around the delivery of mission command for the RAF in the Information Age. Recognising that one of the core objectives of a professional doctorate is to ensure practical application of research (Fulton et al., 2013; Anderson et al., 2015), the discussion now turns to identifying how the RAF could improve its delivery of mission command in this Age. Specifically, the Second Research Objective sought:

To suggest how future improvements can be made to the RAF's approach to mission command in the Information Age.

Both the literature review and the interviews identified a range of recommendations for the RAF. These varied from generic principles that needed to be adopted or honed, to detailed suggestions for implementation. Examples of the former included ensuring that mutual trust exists between commanders and subordinates (Shamir, 2011; Parrington & Findlay, 2013; Air Commodores Sierra and Uniform), whilst those of the latter included

using personal interactions as much as possible to attain this (Carpenter, 2016; Fox, 2017; Group Captain November). There are inevitably significant overlaps between these recommendations, not least as the detailed suggestions can and should be linked to a particular principle. This section will create a model of recommendations, derived from the research, that connects them all. This model can then be usefully employed to capture, steer and check the RAF's approach to improving its delivery of mission command in the Information Age. Doing so will also reveal a new model for mission command itself.

Analysis of the interviews had already generated a potential model for suggested improvements, derived from the participants' recommendation and illustrated in Figure 4.5 [on page 92]. This provided an accurate categorisation of the interviewees' ideas. However, given the thematic way it was constructed, it does not necessarily provide a logical flow that links the recommendations to the key concepts involved in mission command. Consequently, initial attempts to fuse the recommendations with those from the literature review, and generate a workable model for the RAF, proved problematic. Specifically, the themes above appeared isolated without the context and focus that would highlight the connections between them. Further reflection suggested that a more useful model could be generated based on a logical and conceptually-driven flow. This would start with the aim of mission command, before moving through the principles and requirements that underpin it, to the recommendations that can enable these.

5.6.2 Strategising the approach to mission command in the Information Age RAF: "Ends, Ways, and Means"

In light of the above conclusion, a fresh look at the problem set was deemed necessary. Such a re-evaluation was entirely consistent with the inductive and iterative approach of the research methodology (King et al., 2019). A solution for a way to conceive the RAF's strategy towards improving the delivery of mission command in the Information Age was discovered in military theory and doctrine. Drawing from, amongst others, Clausewitz's (1832/1976) seminal work, Lykke (1989, p.2) proposed that military strategy is the sum of the associated "*ends, ways, and means*". Extant NATO doctrine affirms this theory's modern relevance and defines the terms involved in stating that "*A successful military strategy hinges on the balanced application of **ends** (objectives), **ways** (broad approaches) and **means** (resources)*" (NATO, 2017, p.3-2). This combination, with a little conceptual licence, will be applied to the RAF's approach to mission command in order to provide a better conceptual understanding of its limitations, requirements, achievability and realities.

To start this approach, the “**Ends**” in the context of this research can be straightforwardly derived from both the Research Aim and the recognition of mission command’s importance to the modern RAF. Thus, the “*ends*” are of ensuring that “*Mission Command is delivered and realised throughout the Information Age RAF*”.

5.6.3 The “**Ways**”: A new model for mission command

Identifying the “*ways*” required a re-appraisal of the principles and detailed recommendations from both the literature review and the interviews. Doing so further offered the potential to build a conceptual model for mission command that could usefully form the basis of recommendations for the RAF’s pursuit of it. The proposed model is visualised as a pentagram in the following diagram, with full explanation provided after:

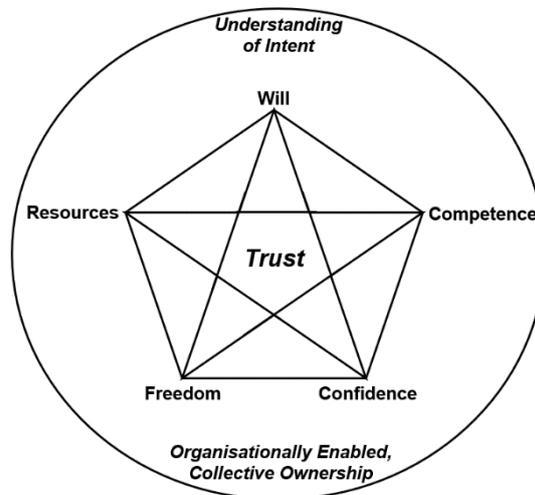


Figure 5.1: The Mission Command Pentagram (adapted from Ford, 2013).

Initially returning to the first principles of mission command placed the focus on the term’s definition. A re-examination of both the literature review and the interviews highlighted the definitional importance of “*intent*”. This element had been consistently emphasised as critical in the literature and interviews, being one of “*mission command’s cornerstones*” (Glenn, 2017, p.29; also Parker & Bonin, 2015; Townsend et al., 2019; Group Captains India and Oscar). Simply put, if a subordinate does not understand their commander’s intent, then they cannot successfully deliver mission command on their behalf. Equally, a leader cannot expect their subordinates to deliver mission command if they have not appropriately articulated their intent to them. Moreover, as Barnes (2016) noted, “*the further down command authority is passed, the clearer things need to be*” (p.4).

It therefore seems sensible that any conceptual approach to delivering and improving mission command should start by ensuring that such **intent** is carefully constructed, effectively disseminated, clear, and universally and consistently understood (Whitford, 2015; Carpenter 2016).

Further analysis of the discussions throughout the literature and interviews identified another critical theme that underpins mission command: that the organisation and individuals should share **collective ownership** of the responsibility for realising mission command. This theme arose from the observation that the interview's thematic analysis of limitations and improvements had both generated separate top-level themes relating to **Organisational Leadership** and **Individual Leadership** (Figures 4.2 and 4.4). It links and combines numerous suggestions that variously highlighted how individuals and the organisation can improve mission command. Interestingly, this point was not explicitly found in the literature review or interviews, although references to "*shared ownership*" of outputs and empowerment across organisations, leaders and followers were in the former (Cooper, 2018, p.2; also Brown, 2015).

For individuals, the discussions emphasised that leaders and subordinates at all levels bore a number of responsibilities. These particularly extended to the need: to understand what mission command entails and the commander's intent (Storr, 2003; Glenn, 2017; Group Captains Charlie and Hotel); to know how to deliver it (Lamb, 2010; Heyward, 2013; Vandergriff, 2019; Air Commodores Quebec and Uniform); and to want to do so (Kern, 2009; Wong & Giessner, 2018; Group Captains Echo and Lima; Air Commodore Romeo).

On the organisational side it was further apparent that the RAF's responsibility was primarily as an **enabler** for mission command. For example, various interviewees commented on the RAF's perceived excessive regulation and lack of resourcing that hindered attempts to realise mission command, to deliver against their commander's intent or enable their own (Group Captains Bravo, Golf, and Hotel; Air Commodores Romeo and Sierra). Thus, the RAF should ensure that it does not unnecessarily or inadvertently constrain mission command, at the same time as actively encouraging and rewarding mission command's associated principles and activities (Shamir, 2010; McChrystal, 2015; Cooper, 2018; Group Captains Delta and Hotel).

Also perennial in the literature and interviews was the assertion that "**trust**" is an essential attribute for mission command, underpinning all these individual and collective

responsibilities. For example, US Army doctrine has “*Build cohesive teams through trust*” as its first principle of mission command (USA. Department of the Army, 2019, p.1-6), whilst it is also “*first on the Behaviours list*” for RAF leadership (UK. RAF, 2020a, p.26). More generally the literature and interviews variously describe trust as another “*cornerstone*” (Yardley, n.d., p.23; Carpenter, 2016, p.51; Glenn, 2017, p.25), “*an absolute core foundation*”, the “*most common element*” and fundamental basis of mission command, one of its “*prerequisites*” and “*pillars*” and, ultimately, “*the glue that bonds everyone together and makes Auftragstaktik work*” (respectively: Air Commodore Papa; Shamir, 2011, p.26; Group Captain Charlie; Granåsen et al., 2018, p.15; Long, 2018, p.145; and Vandergriff, 2019, p.101).

This consistent and convincing advocacy appears to confirm the **centrality of trust**, as the principle on which all other attributes and requirements depends. Indeed, such were the persistent references to trust that the only area of tension identified amongst the literature and interviews was whether or not trust should be provided blindly or credibly (Feltey & Madden, 2014; Picco, 2015; Group Captains Alpha and Foxtrot; versus Dempsey, 2012; Carpenter, 2016); the former provides an unmatched speed of trust, whereas the latter provides additional levels of assurance and derisking.

Collectively, this re-examination of mission command reduced the concept to a series of requirements. Together, they describe the necessary “*ways*” to deliver the “*ends*” of mission command. Hence, towards these ends:

Individuals need to:

- Understand leadership intent;
- Understand conceptually what mission command involves (i.e. which attributes are important);
- Want to realise and encourage mission command;
- Know how to deliver or enable mission command; and
- Have the practical ability (the tools and the permissions) to deliver and enable mission command.

Whilst the RAF organisationally needs to:

- Ensure its structures, policies and processes enable, rather than constrain, mission command.

All these requirements need to be underpinned by trust, amongst individuals - as leaders, followers and colleagues - and between individuals and the RAF.

With these “ways” established, the next step is to visualise them in a model for mission command. Such a model could have wide application in better understanding, delivering and improving mission command. In the development of such a model it was identified that the above requirements evoked, in part, Ford’s (2013, p.11) definition of empowerment; of demanding that individuals have the “*confidence, competence, freedom and resources to act on their own judgement*”. From the above analysis, to these are added a fifth requirement of “*will*”.

Combining these attributes, and adjusting to a more logical order, created the following list:

<i>Individuals understand their commander’s requirements...</i>	Intent
<i>Individuals want to do it...</i>	Will
<i>Individuals know how to do it...</i>	Competence
<i>Individuals feel able to do it...</i>	Confidence
<i>Individuals are allowed to do it...</i>	Freedom
<i>Individuals have the tools to do it...</i>	Resources

Similarly identified is that these attributes are mutually supporting and enhancing. For example, competence in mission command will breed confidence in delivery, thereby reinforcing the will to do so. Conversely a lack of resources and freedoms will undermine confidence in an individual’s abilities and will to deliver it. Furthermore, all these attributes need to be driven by an understanding of the commander’s intent and underpinned by trust. Also critical is the shared ownership and responsibility of delivering mission command between individuals and the organisation, with the latter enabling the former. The creation of a pentagrammic model of mission command captures these mutual dependencies, centred on trust and surrounded by an understanding of intent, organisational enablement and collective ownership.

This model provides the first academically rigorous conceptualisation of mission command, as an enhancement and extension of Ford’s (2013) definition of empowerment. It has been developed from both a comprehensive literature review and an associated interview programme.

Through its components, the model also presents the “ways” or broad approaches that are necessary to realise mission command. Collectively, these “ways” and this model offer a useful basis against which potential improvements can be identified and incorporated.

5.6.4 The “Means”: Improvements and recommendations

With a conceptual model for mission command developed, and in pursuit of the Second Research Objective, potential improvements to the RAF’s approach to mission command can be allocated to the thematic “ways”. For this study, the NATO doctrinal definition of “means” is expanded, beyond merely “resources” (NATO, 2017), to one that includes all mechanisms through which the “ways” can be realised towards the strategic “ends”. Captured from across the literature and interviews, these are presented in turn against the pentagram’s component themes in Appendix E. As pervasive elements, the organisational enabling and collective ownership recommendations have been incorporated into the other attributes. Appendix E therefore provides a consolidated response to the Second Research Objective’s search for recommendations that could improve the RAF’s delivery of mission command.

5.6.5 Validation against the theory: A return to the literature review

This research has therefore developed a new conceptual model for mission command. From the available literature this appears to be the first academically rigorous model of mission command. The confirmed linkages with empowerment further suggest that it could have utility as a contribution to the broader academic knowledge on this subject. More practically, the model has been successfully applied in providing a novel and useful framework for improvements to mission command, themselves suggested by the research.

The iterative analytical process of this research required further reflection on, and a validity check of, the pentagram model. Through this process it became apparent that the literature review’s four themes for the limitations of mission command had additional utility. Specifically, they could be helpful in testing how effective recommendations for improvement might be. This realisation, too, adds to the available literature by proposing a validated set of themes that both capture limitations to mission command and empowerment, and judge any change over time.

The concluding recommendation then is to use these themes as tests and (absolute and comparative) measures of effectiveness for the realisation of mission command. Thus, for each proposed activity the following questions should be considered. Adjusting the opening tense of each further allows it to be used before, during and after enactment:

- **Reluctantly Given:** Will it encourage leaders to enable mission command amongst their subordinates?
- **Reluctantly Received:** Will it encourage individuals to accept greater responsibility and deliver mission command themselves?
- **Difficult to Deliver:** Will it make mission command less difficult to deliver?
- **Relevant:** Will it ensure that mission command is a relevant approach?

5.7 Primary Research Aim: The RAF and mission command in the Information Age

The last section of this chapter focuses the conclusions drawn on the Primary Research Aim:

To determine the extent to which the RAF is capable of realising mission command in the Information Age.

In providing a response to this Aim this section addresses three sub-elements. Initially it will confirm whether the interviewees, as representatives of the RAF, believe they can realise mission command now. This sets the baseline for what the RAF might be able to achieve from here. Secondly, it examines whether the recommendations, or “*means*”, identified from the research are achievable. This element will determine whether the RAF could potentially improve its approach to mission command. Finally, it compares these recommendations against those released as part of the RAF’s ongoing Astra campaign. This will inform an assessment of whether the RAF are currently heading in the right direction towards one of its stated aims and priorities. Taken together, reflections on these sub-elements should describe the RAF’s overall prospects for achieving mission command in the Information Age, thereby achieving the Primary Research Aim.

5.7.1 Current perceptions

Having deemed the interview cadre a valid representation of the RAF as a whole, analysis of their own perceived ability to realise mission command should offer a valid indication of the RAF’s current ability to do so. Accepting that current times are, at the very least, in

the foothills of the Information Age further provides an initial impression of the RAF's ability to deliver mission command in this era.

Analysis of the interviews concluded that mission command is perceived as being very variably delivered across the RAF. This matched Marsh's (2019) conclusion from related research, involving a smaller pool of RAF interviewees but from a wider rank range. These perceptions of mission command ranged from confidence that it did exist, through a balanced view or uncertainty, to equal confidence that it did not. However, positive or negative views on mission command could not be causally linked to any particular factor. For example, neither geography, role, or background could be correlated with a perception of mission command's presence or absence. This resulted in the conclusion that it was the experiences, personalities and relationships of the individuals involved that are the key determinants of perceptions of mission command.

It is also telling that noticeably more interviewees believed they successfully enabled mission command in their subordinates, than believed that they were similarly enabled. Two conclusions could be derived from this observation: either that the enablement of mission command significantly decreases above the ranks of group captain and air commodore in the RAF; or there is an imbalance in perceptions that makes it easier for an individual to believe that they enable mission command than are enabled. Crudely, this second conclusion juxtaposes the unspoken sentences of *"no, I am not empowered to do my job"* with *"yes, of course I empower my subordinates."*

A reasonable conclusion, in turn, from this discussion is that the RAF has a foundation of mission command to build upon, but that it has some challenges to overcome across its personnel. Moreover, perceptions and personal relationships will be critical in doing so.

5.7.2 Achievability

The next segment examines whether the recommendations made by this research are potentially achievable. If not, the RAF is unlikely to be able to improve its approach to mission command in the Information Age.

As with interviewee perceptions of the current state of mission command, their views varied considerably on whether the RAF could improve the situation. Doubts were expressed on the RAF's ability to generate and sustain the necessary cultural change, whether the organisational intent and leadership drive would endure over a long period of time, and the extent to which elements beyond the control of the RAF (for example, the

budgetary and political context) might constrain efforts. There was, though, a general positivity around the RAF's top-level recognition of the problems around mission command in the Information Age, the requirement to address them, and their intent to do so.

The literature reviewed reinforces these observations and prospects. It widely acknowledges that cultural change is very difficult - Farrell (2008) demonstrates this in a military context - but sets out numerous models by which it can be achieved. One of the most seminal of these, Kotter's (2012) 8-Step Change Model, is even reproduced in the RAF's leadership manual, AP7001 (UK. RAF, 2020a, p.40). The RAF's own literature further sets out a clear recognition of the challenges, the intent to confront them, and a commitment to doing so over time (Wigston, 2019b; RAF, 2020b).

This research therefore suggests that the RAF has the requisite organisational and leadership attitude and drive to improve its approach to mission command in the Information Age. Consequently, the primary limitations to the RAF's ability to do so are likely to be practically based, either related to the difficulties in delivering the recommendations and action required, or the RAF's inability to control all the relevant levers. It is these that are expected to determine the achievability of the RAF's undoubted ambitions to improve its approach to mission command.

5.7.3 Validation against the practice: Astra checked

Thus far, this section has confirmed that the RAF has a suitable, if fragile, basis for delivering mission command. It has also described how the RAF recognises the importance and challenges of doing so in the Information Age and has a plan to address these. This plan is also theoretically achievable and has, broadly, the confidence and commitment of a key cadre of RAF personnel. This final segment will therefore conduct a provisional examination of that plan, as manifested in the Astra campaign. It measures Astra against the pentagrammic model that this research has established, alongside the themes and recommendations that have emerged through this study.

Astra was launched in the latter part of the research. The RAF Leadership manual, AP7001, was also updated and reissued in parallel, and makes explicit reference to the campaign (UK. RAF, 2020a, p.6). Clearly, this timeliness reinforces the currency of this research. But it is also important to recognise that Astra would likely have both influenced, and been influenced by (given their influential positions), the interviewees. Hence, analytically and reflectively it is acknowledged that recurring themes between both

may be circular as well as collateral reinforcement. Notwithstanding, examination of the available Astra references provides a well-timed insight into the RAF's thinking, intent and ability to achieve mission command in the modern era.

Firstly, the Astra campaign evidently recognises the importance, size and extent of the challenge that is being set, particularly given the changing demands of the Information Age. The following quotes are from, respectively, the RAF's Chief of the Air Staff and the Deputy Commander for Capability:

"The status quo is not an option. We must adapt at pace, in depth and across our Service" (Wigston, 2019b, p.3).

"Astra will drive change in all aspects and areas of our business" (UK. RAF, 2019, p.2).

Astra further acknowledges that this scale of change will require time and continued drive:

"Astra is our journey for the next 20 years" (RAF, 2020b, p.5).

"Astra is a long-term initiative" (Wigston, 2019b, p.7).

Such recognition reinforces the interviewee concerns that the momentum behind Astra might fade over time, but reassures that the RAF is aware of this risk and is seeking to ensure a long-term approach.

The Astra messaging is also clear on the importance of people in achieving its goals, they being *"at the heart of the Next Generation Air Force"* (Wigston, 2019b, p.5). It likewise recognises that leadership needs to evolve to meet the new demands: *"we require substantial changes to...how we command"* (Wigston, 2019b, p.3). To attain this, embedded throughout the Astra Directive from the Chief of the Air Staff are continual references to the need for empowerment:

"Astra must be about empowering ideas from across the Service and beyond" (Wigston, 2019b, p.4).

"Astra will empower all elements of the RAF Whole Force to innovate and accelerate the changes we need to be fit and ready for the future" (Wigston, 2019b, p.4).

"We will deliver Astra through inspiring leadership, good governance, [and] strong empowerment" (Wigston, 2019b, p.6).

Drawing from the mission command pentagram, and evident from the above quotes, the Astra media provides clear **intent** towards its aims. This reinforces the perceptions

around the current RAF leadership's advocacy of empowerment and mission command, as highlighted throughout this research. Moreover, mirroring this research's recommendations, Astra's key messages and programmes are consistent and communicated via a range of different approaches. These includes videos, in-house websites, and a core narrative issued to leaders for more direct interactions (RAF, 2020a; RAF, 2020b). Indeed, linked to the building of **trust**, the latter reference re-emphasises the primacy of face-to-face discussions by insisting that.

Cascading this narrative via email, leaving a tri-fold in a crew room, hoping that someone reads it, or quoting sections on social media is not the right answer - it must be personal (RAF, 2020b, p.14).

Doing so should generate maximum exposure and collective ease of understanding, as also recommended from this research.

With respect to **will**, the campaign confronts the possibility that not all RAF personnel may wish to embrace Astra's provisions. The Astra observation that "*we cannot take the goodwill of our people for granted...[and] some of our colleagues will greet Astra with scepticism*" (RAF, 2020b, p.14) is familiar from the literature and the interviews (Denham et al., 1997; Farrell, 2008; Air Commodore Quebec). It is also particularly reminiscent of the discussion around **reluctantly received** extra responsibility.

Similarly, the language of the Astra messaging certainly appears intended to inspire **confidence** amongst RAF personnel. It reminds them of their historical antecedents and their current abilities, whilst reassuring personnel that the related initiatives and attitudes are expected and strongly endorsed. As AP7001 (UK. RAF, 2020a, p.3) emphasises: "*we will rely on the quality and talent of our outstanding people as much as at any time in our history*". It also both acknowledges **shared responsibilities** by accepting the organisational need for delivering Astra whilst actively encouraging all RAF personnel to take on such responsibility themselves. Thus: "*I expect local initiative*" (Wigston, 2019b, p.5).

The messages further advocate for increased **freedoms**, if primarily intellectually, by making a "*Promise...to create a psychologically safe environment, allowing us all to think fast [and] fail fast*" (RAF, 2020a, n.p.). The importance of this particular attribute was raised in both interviews and literature (Bernoff & Schadler, 2010; UK. DCDC, 2017a; Group Captains Hotel and Juliet). In parallel AP7001 demands "*fewer layers of bureaucracy*" (UK. RAF, 2020a, p.3) in its vision of leadership in an Information Age RAF,

evoking the literature's demands for flattened hierarchies (Amundsen & Martinsen, 2014; Kemp, 2016; Wong, & Giessner, 2018). Astra also implies enhanced delegation of some **resources**, with a noticeable reference to the need to "*modernise our HR systems*" that will be appreciated amongst interviewees that suggested the same (RAF, 2020b, p.6; Group Captains Bravo, November and Oscar).

Finally, the importance of **trust** is in evidence, implicitly throughout the Astra messaging, and explicitly in AP7001. Described in the latter as "*an enduring principle*" of exemplary leadership (UK. RAF, 2020a, p.3), it is mentioned 38 times in that document. Indeed, the recognition of trust's criticality is captured in the statement that:

It is no accident that Trust is the first on the [required leadership] Behaviours list - it runs through all Behaviours but is especially applicable to Mission Command, Empowerment and Authentic Leadership (p.26).

All that said, there are some gaps in a direct comparison between the Astra campaign, as so far revealed, and this research's mission command model and recommendations. For example, there is little in the available Astra messaging about how to deliver the strongly advocated empowerment: how to ensure the **competence** theme of mission command. This is particularly pertinent given that the Training and Education sub-theme was the most frequently recommended improvement by interviewees.

Similarly missing is a positive commitment to ensuring that individuals are suitably enabled by the RAF - with resources, deregulation and non-constraining policies - to realise its goals of empowerment. A long section on the criticality of improving Infrastructure, for example (RAF, 2020b), makes no mention of an intent to delegate greater budgetary control of such, as many of the interviewees clamoured for (including Group Captains Juliet, Lima and Oscar, and Air Commodore Romeo). This could reflect the evolving maturity of the campaign, which may simply not have reached that level of detail. Likewise, there could be an expectation that specific recommendations on these aspects would emerge, bottom-up, through the mechanisms established to do so. In fairness, the sentiments expressed would certainly appear supportive in principle of such focus, presuming again that the RAF controls the levers to deliver against them.

Overall, this research has highlighted the significant limitations and challenges that exist in delivering mission command and empowerment in the Information Age. The available Astra media have certainly recognised and confronted many, but not all, of these limitations. Using the thematic checklist established, Astra appears to be actively seeking

to remove any **reluctance to give** or **reluctance to receive** mission command. It also recognises that mission command and empowerment may **not always be relevant** - AP7001 is clear that leadership is situational (UK. RAF, 2020a) - but suggests that the benefits to be gained are significant and mission command should, therefore, be the default approach. However, the Astra campaign does not appear to fully acknowledge or confront all the **difficulties** that have been identified in trying to realise mission command in practice.

On balance, therefore, the verdict on Astra's ability to demonstrate the extent of the RAF's ability to realise mission command in the Information Age is largely positive, but caveated.

5.8 Conclusions

This Chapter has drawn together the analysis derived from the literature review and the interviews towards the research ends. A summary of the research overall, and the direct responses to the Research Aim, Objectives and Questions, is provided in the next Chapter. This Section, therefore, captures the main issues discussed and raised around those responses.

Initially, a review of the concepts and terminology behind mission command and the Information Age highlighted consistency in their defining characteristics and attributes, as well as agreement over their importance to the RAF. Yet it also highlighted some doubt over both terms, specifically whether they were actually universally understood and deemed relatable. For mission command this was compared to the term empowerment, which was agreed as directly linked but apparently much more widely accessible and understood. From this observation came a recommendation for the RAF to reconsider usage of both terms, to ensure they do not end up stymying their own realisation through a lack of widespread understanding.

Each of the research questions and objectives were then examined in turn. Against the **First Research Question**, both the literature review and the interviews confirmed that mission command had some inherent limitations to its delivery, conceptually and practically. The two different models generated to capture these limitations proved entirely mutually aligned in their themes. However, such were the overlaps that a single, reconciled model could not be produced.

For the **Second Research Question**, whilst again confirming the impact of the Information Age, the interviews highlighted both the advantages and the disadvantages

that the Age brought for the delivery of mission command. These attributes, often occurring simultaneously, identified in turn the double-edged characteristic of the Information Age. They further reinforced the idea of the **First Research Objective's** paradox in the implementation of mission command, as it has become both more important and harder to deliver. The component parts of this paradox had been identified in the literature review and the interviews, if not the consequential realisation of the paradox itself. When presented with the paradox, though, interviews near-unanimously agreed with its existence.

Towards the **Second Research Objective**, it became apparent that a new model would be required to best corral the various recommendations for improvements made across the literature review and interviews. This was created, based on the military strategy idea of "*ends, ways and means*" (Lykke, 1989, p,2), and incorporated a newly developed pentagrammic model for mission command. This model was successfully validated against the four themes of limitations derived from the literature review. It was also realised that these themes can act as wider validity tests of progress against measures employed to improve mission command in organisations.

Finally, the response to the **Primary Research Aim** took a three-step approach. It first explored whether mission command is realised now, as seen through the perspectives of the interviewees. It subsequently examined whether the improvements recommended are achievable, and then whether the RAF is on the right path to achieve them, primarily through its Astra campaign. Collectively this approach, and the underlying analysis and fusion of data from the literature review and interviews, generated a suitably robust answer to the Primary Research Aim and its component objectives. Doing so confirmed the extent to which the RAF can realise mission command in the Information Age.

CHAPTER 6: CONCLUSIONS

6.1 Summary of the Research

Mission command provides the core of the RAF's philosophy of leadership. It is also critical to the RAF's approach to the Information Age. If effectively employed, the RAF can develop and enable an empowered, innovative, and effective organisation, ready to operate in a technologically advanced and rapidly evolving era. Without it, the RAF cannot transform to meet the essential and challenging demands of the same.

But this research has confirmed that mission command is hard to realise. It is counter-instinctive to give mission command to others. These same individuals might not actually want to receive it. Moreover, if they do, they might have no idea what to do with it, or how to achieve it. Mission command might not even be the most appropriate or effective approach in all circumstances. And the very attributes of the Information Age that make mission command more important conspire paradoxically to make it even more difficult to realise.

This research recognised and explained such a paradox. It similarly acknowledged that the RAF's leadership and strategy are strong advocates for mission command. Consequently, it explored whether this created an additional inherent paradox between what the RAF leadership was demanding of its personnel, based on the RAF's conceptual approach, and what was achievable by them in the Information Age. In their consolidated response to the **First Research Objective** the interviewees for this research agreed, if not universally so, with the existence of such a paradox.

The interviewees also recognised, with some nuances, the same thematic limitations of mission command in their lived experiences that the literature review had revealed. Such limitations appear to have been exacerbated by the arrival of the Information Age. However, in another paradox, the Age simultaneously provides opportunities that, if used properly, could actively enable mission command. Regardless, the interviewees broadly agreed that the RAF senior leadership recognised these concerns and their related issues, and were committed to resolving the conflicts identified. The emerging Astra campaign provided the most evident manifestation of this commitment. Indeed, it was the belief, or doubt, in such commitment that appeared critical in defining the interviewees' perspectives on the potential realisation of mission command in the Information Age RAF.

In pursuit of the **Second Research Objective**, this research then provided a series of recommended improvements that could assist the RAF. To do so, it first reconceptualised mission command into a new, pentagrammic model, as illustrated in Figure 5.1 [on page 118]. This model confirms five main, interwoven themes and components of mission command: **will; competence, confidence; competence; freedom; and resources**. These components are founded on mutual **trust**, underpinned by a clear understanding of a commander's **intent**, and **enabled** by the RAF, whilst being **owned equally** by both the organisation and its personnel.

Harnessing the military approach to strategizing, these themes were employed as “*ways*” to the “*ends*” of achieving mission command. A series of recommendations, derived from both the literature reviewed and the interviewees, then provided the “*means*” against each of these attributes.

Finally, the **Primary Research Aim** was to determine the extent to which the RAF is capable of realising mission command in the Information Age. This research concludes that the RAF has an evident desire and intent to do so. This intent has been clearly and increasingly consistently advocated by RAF senior leadership. The Astra campaign has further created significant momentum around the same, and the response to COVID-19 has forced through relevant initiatives. The most significant challenges expected to the RAF's ability to realise mission command are the requirement for embedded and sustained cultural change to fully embrace mission command, and its associated attributes, within the context of Information Age demands and realities. That said, the RAF's early efforts towards these ends, based around the Astra campaign, are encouraging and in line with the research recommendations.

As with all cultural change it will, however, take time. The research further concludes that the biggest risk to the realisation of mission command in the Information Age for the RAF, is the persistence of such advocacy and drive throughout the organisation. This will be particularly critical beyond the tenure of the current leadership.

6.2 Research Contributions

6.2.1 Contributions to theory

This analysis and the conclusions from this research have provided a number of unique additions to the academic knowledge base. The literature review identified that mission

command did not have a particularly strong foundation in academic theory. This thesis has enhanced and expanded that academic foundation.

The research has also analysed mission command's conceptual and practical basis in the Information Age. This was an aspect which had not been subject to significant previous academic study, with the online debate on the topic appearing more current and advanced than that taking place in peer-reviewed papers. The research has then uniquely captured, thematically, the inherent and perceived limitations faced in realising mission command in such context.

A key outcome of this research is the novel generation of a conceptual model for mission command. Derived from the conclusions of this research, it adds to Ford's (2013) theoretical definition of empowerment and extends it into mission command. Using this new model, this research has provided theoretical and practical evidence of the conceptual links between mission command and empowerment, then applied lessons and theories from the latter to the former in a military, and specifically RAF, setting. It has further reconceived the traditional focus of mission command - in warfighting scenarios - to examine its organisational applications and relevance for the RAF.

This research has highlighted and confirmed a previously unarticulated and unexplored potential paradox between the increasing importance accorded to mission command in the RAF and the growing practical difficulties in delivering it in the Information Age. Combining these elements into a study on the RAF's ability to realise mission command in the Information Age has delivered uniquely focused and novel research findings on an area of considerable importance to the organisation.

These contributions have been derived from the exclusive access to RAF leaders and commanders that permitted capture of this influential cadre's views, perspectives and ideas in a way that had never been achieved before. These commanders were, at the time of interviews, confronting the challenges of leadership through the early stages of the COVID-19 pandemic. Taking this opportunity has therefore generated research from a potentially pivotal, and hopefully exceptional, moment in history. Collectively, these aspects show how and where this research has added to the existing academic knowledge base.

6.2.2 Contributions to practice

More practically, this research should also have an impact on the application and realisation of mission command within, and potentially beyond, the RAF. On an individual level, a number of interviewees commented on how the interview process and discussions had caused them to review their leadership style and approach. The researcher's similar personal reflections are below. As a group of senior commanders in the RAF such reflections should translate into improved, more considered and knowledgeable leadership activities.

Organisationally, by building on the conceptual discussion around mission command, this research has identified and categorised a range of improvements that the RAF could consider making. It has also offered a framework within which such improvements could sit and be assessed. This could result in the RAF being increasingly able to take advantage of the highlighted benefits of mission command, becoming an increasingly innovative, empowered, motivated and focused organisation fit to take on the challenges of the future. Such a vision aligns with that of the Astra campaign:

We must prepare our people to exploit the Information Age, challenge inefficiency and take a proactive role in defining our shared future. To do this, we will empower them to make evidence-based real-time decisions, guided by leadership throughout (RAF, 2020b, p.6).

6.3 Research limitations and opportunities for further work

It is proffered that this research achieved its envisaged objectives. However, reflections throughout the research process did identify a series of limitations in the methodology, scope and results. On the research subject itself, it was evident early on that confirming definitions and assumptions in what was a rapidly evolving practical debate would prove academically challenging. This situation was exacerbated given the lag of peer-reviewed academic literature behind both online discussions and the RAF's own organisational evolutions. It did, however, provide a useful reminder of the need to constantly refresh the literature review to see how that discussion had evolved over time.

Methodologically, the use of semi-structured interviews did, as intended, provide a balance between a rigid structure required for consistency and an element of free-form that allowed advantage to be taken of particular points as they emerged. Through the analytical phases it became apparent that more structure, not necessarily at the expense

of the less structured elements, would have permitted greater comparative analysis across the interview cohort. For example, asking each interviewee a direct, closed question such as *“do you feel there is clear and consistent advocacy for mission command from the RAF Senior Leadership?”* would have provided usefully quantitative analysis on this aspect. From a reflexive standpoint, this technique could also have mitigated any unconscious variations in the interviewer’s approach to individual interviews (Riach, 2009).

Other limitations identified present opportunities for further research. This research took place at a particular segment in time, and the interviewees were those in specific posts at certain ranks at that moment. This scope arguably limited the research’s internal and external validity, most obviously given that a narrow layer of interviewees were expected to reflect potentially much wider RAF perspectives. Measures were put in place through the methodology used to mitigate these concerns, alongside the reasonable logic that the sample selected were uniquely placed to consider, realise and reflect a very wide range of RAF views.

Notwithstanding, evident opportunities exist for further research that could seek to validate and extend the conclusions drawn. For example, near-term research could extend the validity with a wider sample to include lower and higher ranks. Studies involving the latter could test whether the overall intent was received as designed, whilst the former could investigate whether the interviewees in this research accurately represented their staff, and what their staff think (generically) of those command positions. Alternatively, a longitudinal study could return to the same interviewees and examine whether and how their perspectives change over time.

Parallel research could also investigate whether COVID has indeed had an enduring impact (positively, negatively, or both) on the RAF’s realisation of mission command, or whether Astra has worked as envisioned in actively delivering empowered staff at all levels. Whilst the research has deliberately not focused on mission command in the RAF’s operational and combat environment, research on the impact of the Information Age here could also enhance the debate, conceptualisation and practical realisation around mission command. Regardless, the research conducted for this thesis provides a new foundation, conceptually and practically, on which all such subsequent research suggestions could build.

CHAPTER 7: PERSONAL DEVELOPMENT AND REFLECTIONS

Reflecting on my personal journey through the research period provides insights into my own development, the benefits I have accrued and those I can now offer. In context, the research period has been fairly turbulent domestically, including a Study Interruption caused by a 6 months deployment to Iraq, subsequent attendance on a Defence Academy Command and Staff Course followed by a family move to a new job in Florida.

That said, over this time I have been variously embedded in RAF, tri-Service, Coalition and American organisations. The variety of circumstances and people encountered has provided rich opportunities for thought, reflection, discussion and conclusion-testing around the research topic. This has included incorporation of all these aspects into a formal leadership training session on the challenges of mission command, with over 100 attendees from 16 different nations' militaries. Timing-wise, the benefits of conducting the interview process in the early stages of COVID lockdown have also variously been described.

Inevitably, and rightfully, extended academic study of leadership has caused significant reflection on my own leadership style and approach. Throughout the research period I have deliberately experimented with the lessons that I identified from the literature and the interviewees. I have used these as a means of testing their validity and applicability to my own personality, and also as a mechanism of self- and team-improvement. For example: linked to the feedback from the Global Competencies Index process at the start of the DBA and the 360-degree appraisal process from my Defence Academy course, I am now very particular in providing clear and consistent articulation of my overall intent. I am further constantly looking for signs of understanding of this intent, and am much more proactive in attempting to build trust in all directions. I have also discovered, in something unsurprisingly not revealed by the literature or interviewees, that one of the most convincing ways of advocating mission command amongst staff was to reveal that I was conducting doctoral research in it.

My personal academic journey on this topic is definitely not yet complete. In another example of the research's practical benefits, the capacity freed up by completion of this research will allow reinvestment of the knowledge and experience gained into the various empowerment initiatives underway across Defence. The RAF's Astra campaign is the most obvious of these but others, centrally in the MOD and within the other Services and Strategic Command, have recently emerged. These have actively requested advocacy and contributions and the researcher is now very well-placed to provide both, with the

clear opportunity to directly contribute to the RAF's envisioned "*cerebral restructuring*" (Drwiega, 2020) under Astra. These inputs can be achieved through a variety of potential mechanisms ranging from formal publications and events to informal consultancy, not least through the offices of the RAF Defence Studies Directorate and Tedder Leadership Academy.

Constant leadership-by-example in the workplace will, of course, continue to offer more immediate and practical opportunities, if acknowledging my own research's observations on how difficult this can be. Regardless, these are fitting and exciting prospects for the future. They also neatly reinforce, and complete the circle on, the original attraction of undergoing a DBA programme vice a PhD: to apply practice-oriented research to real organisational challenges (University of Portsmouth, n.d.; Cranfield, 2018).

As for my academic journey, I started this research with a fairly substantial academic background (with 3 Masters degrees). The initial challenge on starting doctoral study thus proved to lie in recognising where my academic experience was counter-productive in the step up. For example, a fresh approach to note-taking was needed to reflect the additional emphasis on critical, over descriptive, analysis and to take greater ownership of the literature. Notwithstanding, I believe my professional background as an analyst has been useful in conducting this research, and the reciprocal benefits provided to my skillset by this academic study are undoubted.

The critical nature of the ethical approach to this research has already been described. In particular it was identified that, given the insider nature of the research, reflexivity would be especially important (Riach, 2009; Brannick & Coghlan, 2007). This proved the case through the research period, with a constant need for self-prompted challenge of the researcher's cultural and professional assumptions, thereby ensuring that Brannick & Coghlan's (2007, p.68-69) "*preunderstanding*" did not distort analysis. Exposure of the debates to coalition perspectives in Iraq definitely helped in this regard. They also provided a better, if informal, appreciation of the different national approaches (doctrinal and practical) to mission command, undoubtedly enhancing and refreshing the debate around mission command as a consequence.

In summary, this has proved a fascinating, challenging and undoubtedly fulfilling journey of academic and personal discovery. Old and new academic and analytical techniques have been (re)discovered, tested and applied. Lessons have been identified from a variety of successful and unsuccessful approaches to leadership in a range of scenarios. Many of these lessons and their associated recommendations are directly applicable to

the environment within which the modern RAF sits. They also appear entirely aligned with the direction clearly articulated by the organisation's current leadership. I therefore close this thesis with the firm intent to take full advantage of the knowledge gained.

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INTERVIEW SCHEDULE

1.	Group Captain Alpha (Pilot Interview 1)	02 March 2020	In person
2.	Group Captain Bravo (Pilot Interview 2)	03 March 2020	In person
3.	Group Captain Charlie	02 April 2020	By VTC*
4.	Group Captain Delta	07 April 2020	By VTC
5.	Group Captain Echo	08 April 2020	By VTC
6.	Group Captain Foxtrot	16 April 2020	By VTC
7.	Group Captain Golf	29 April 2020	By VTC
8.	Group Captain Hotel	06 May 2020	By VTC
9.	Group Captain India	07 May 2020	By VTC
10.	Group Captain Juliet	13 May 2020	By VTC
11.	Group Captain Kilo	18 May 2020	By VTC
12.	Group Captain Lima	21 May 2020	By VTC
13.	Group Captain Mike	29 May 2020	By VTC
14.	Group Captain November	29 May 2020	By VTC
15.	Group Captain Oscar	03 June 2020+	By VTC
16.	Air Commodore Papa	09 June 2020	By VTC
17.	Air Commodore Quebec	09 June 2020	By VTC
18.	Air Commodore Romeo	11 June 2020	By VTC
19.	Air Commodore Sierra	11 June 2020	By VTC
20.	Air Commodore Tango	12 June 2020	By Telephone
21.	Air Commodore Uniform	24 June 2020	By VTC

* VTC = VideoTeleConference, in reality one of Skype, WhatsApp or Facetime.

+ The researcher was promoted to air commodore on 05 June 2020, meaning all interviews were conducted at equal rank.

INTERVIEW PROTOCOL AND PROPOSED QUESTIONS

Segment (Galletta, 2013)	Question	Intent / Provenance
1. Opening		Build rapport, confirm participants' understanding of, and comfort with, the interview process and their rights (Rowley, 2012; Galletta, 2013; Hollway & Hefferson, 2013; King, Horrocks, & Brooks, 2019)
	1.1 [Reconfirm Consent Form approvals and understanding, and check for any queries.]	Confirmation of informed consent
	1.2. What is your understanding of the terms "empowerment" and "mission command," and their role and importance to the RAF?	Scene-setting and baseline understanding
	1.3. What is your understanding of the nature of the Information Age and its impact on the RAF?	Scene-setting and baseline understanding
2. Middle		Gain insights against Research Objectives and Questions (Rowley, 2012; Rubin & Rubin, 2012; Galletta, 2013;)
	2.1. Do you feel that, in your current position, you are suitably empowered and able to exercise mission command?	First Research Objective, First Research Question
	2.2. [If not, what has limited this?]	First Research Objective, First Research Question
	2.3. Do you think that the advent of the Information Age has changed your ability to exercise mission command?	First Research Objective, Second Research Question

	2.4. [Given your comments thus far] What improvements would you suggest could be made to the RAF's approach to mission command in the Information Age?	Second Research Objective
	2.5. How achievable do you believe these improvements might be to realise?	Primary Research Aim
	2.6. To what extent do you believe the RAF is able to realise mission command in the Information Age?	Primary Research Aim
3. Concluding		Expand and clarify as required, express appreciation, close interview (Rowley, 2012; Rubin & Rubin, 2012; Galletta, 2013; King, Horrocks, & Brooks, 2019)
	3.1. [Depending on responses, establish whether the participant recognises any of the theoretical limitations to mission command.]	First Research Objective, link back to theories from the literature (Galletta, 2013)
	3.2. [Depending on responses, explore whether the participant recognises a potential paradox between the RAF's conceptual approach and the demands of the Information Age.]	First Research Objective, link back to theories from the literature (Galletta, 2013)
	3.3. Do you have any further points that you would like to make relating to this research?	Opportunity to capture anything not covered, whilst offering control back to interviewee (Galletta, 2013; King, Horrocks, & Brooks, 2019)
	3.4. [Clarify any points and thank participant.]	Final confirmation opportunity and to express appreciation for interviewee involvement (Rubin & Rubin, 2012; Galletta, 2013;)



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Gp Cpt Mark Ridgway
 Air Warfare Centre
 Hurricane Block
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 HP14 4UE

Our Reference: 913/MODREC/18

Date: 12th December 2019

Tel: 01494 .

Email: markridgway

Dear Gp Cpt Ridgway,

The RAF's Ability to Realise Mission Command in the Information Age.

Thank you for submitting your revised application (913/MODREC/18) with tracked changes and the covering letter with detailed responses to the MODREC letter. I can confirm that the revised protocol has been given favourable opinion ex-Committee.

This favourable opinion is valid for the duration of the research and is conditional upon adherence to the protocol – please inform the Secretariat if any amendment becomes necessary.

Please note that under the terms of JSP 536 you are required to notify the Secretariat of the commencement date of the research, and to provide copies of the consent forms and submit annual and final/termination reports to the Secretariat on completion of the research.

Yours sincerely,

A handwritten signature in black ink, appearing to read "D Jones".

Professor David Albert Jones
 Vice Chair, MODREC

FORM UPR16

Research Ethics Review Checklist



Please include this completed form as an appendix to your thesis (see the Research Degrees Operational Handbook for more information)

Postgraduate Research Student (PGRS) Information		Student ID:	UP750794
PGRS Name:	Mark Ridgway		
Department:	Business and Law	First Supervisor:	Professor James McCalman
Start Date: (or progression date for Prof Doc students)	1 st October 2018		
Study Mode and Route:	Part-time <input checked="" type="checkbox"/>	MPhil <input type="checkbox"/>	MD <input type="checkbox"/>
	Full-time <input type="checkbox"/>	PhD <input type="checkbox"/>	Professional Doctorate <input checked="" type="checkbox"/>
Title of Thesis:	The Royal Air Force's Ability to Realise Mission Command in the Information Age		
Thesis Word Count: (excluding ancillary data)	49,219		
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I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)			
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If you have not submitted your work for ethical review, and/or you have answered 'No' to one or more of questions a) to e), please explain below why this is so:			
The thesis was submitted to and approved by the Ministry of Defence Research Ethics Committee, (MODREC) as per Appendix C. University of Portsmouth Ethics Policy states that MODREC approval is sufficient for University purposes			
Signed (PGRS):			Date: 20 th July 2021

THE ENDS, WAYS AND MEANS OF IMPROVING MISSION COMMAND

ENDS	WAYS	MEANS	REFERENCES
<p>Mission Command is delivered and realised throughout the Information Age RAF</p>	<p>The Commander's Intent is consistently and correctly understood.</p>	<p>Leaders at all levels should invest time and effort in:</p> <ul style="list-style-type: none"> - Formulating and writing their intent (do it personally; make it simple and concise). - Communicating the intent (face-to-face where possible; easily available to all; use the technology to enhance in parallel). - Ensuring it is understood (check understanding at all levels). 	<p>Stewart, 2009; Parrington & Findlay, 2013; Feltey & Madden, 2014; McChrystal, 2015; Group Captain Charlie; Group Captain Hotel.</p> <p>Jantzen, 2001; Crane et al., 2009; Carpenter, 2016; Group Captain Bravo; Group Captain Foxtrot; Group Captain Kilo.</p> <p>Crain, 1990; Storr, 2003; Glenn, 2017; Group Captain Charlie; Group Captain Hotel; Group Captain Kilo.</p>

ENDS	WAYS	MEANS	REFERENCES
		Subordinates at all levels should ensure they invest time and effort in understanding their commanders' intent.	Crane et al., 2009; Ancker, 2013.
	The Will to deliver mission command exists.	<p>At organisational and individual levels, leaders should:</p> <ul style="list-style-type: none"> - Create a culture that actively encourages mission command: <ul style="list-style-type: none"> -- Reward the attributes that underpin mission command, and taking on the responsibility it requires. -- Consider whether the current reward system is adequate to do so, or appropriately configured (primarily appraisal-focused and promotion-based?). - Seek to erode scepticism (remove say/do gaps; manage expectations). - Promote an understanding of, and discussion around, the benefits of mission command (inspire). 	<p>Bowen & Lawler, 1992; Bungay, 2005; Shamir, 2010; McChrystal, 2015; Cooper, 2018; Group Captain Bravo; Group Captain Delta; Group Captain Hotel.</p> <p>Group Captain Delta; Air Commodore Uniform.</p> <p>Wong & Giessner, 2018; Lee, Willis & Tian, 2018b; Group Captain Mike.</p> <p>Kern, 2009; UK. DCDC, 2017a; Group Captain Echo; Air Commodore Romeo.</p>

ENDS	WAYS	MEANS	REFERENCES
	<p>The Competence to deliver mission command exists.</p>	<p>Educate on mission command:</p> <ul style="list-style-type: none"> - Place increased emphasis on the importance of information, communication and discussion around the concept and realities of mission command. <p>Train for and with mission command:</p> <ul style="list-style-type: none"> - Adjust content and style of training to encourage the necessary attributes and skills (focus on the “how” of achievements over the “what”; explore non-hierarchical leadership). <p>Practice mission command (on military exercises).</p>	<p>Buchanan & McCalman, 1989; Storr, 2003; Lamb, 2010; Glenn, 2017.</p> <p>Townsend, Crissman & McCoy, 2019; Group Captain Echo; Air Commodore Papa.</p> <p>Heyward, 2013; Vandergriff, 2019; Group Captain Mike; Air Commodore Romeo.</p> <p>Dempsey, 2012; Vandergriff, 2019; Townsend, Crissman & McCoy, 2019; Group Captain Charlie; Air Commodore Uniform.</p>

ENDS	WAYS	MEANS	REFERENCES
		<p>Do the above for all personnel, throughout a military career.</p> <p>- Consider a particular focus on middle management and senior management (to ensure knowledge and drive; to limit resistance).</p>	<p>Group Captain Mike; Air Commodore Quebec; Air Commodore Uniform.</p> <p>Group Captain Charlie; Group Captain India; Group Captain Mike; Air Commodore Uniform.</p>
	<p>The Confidence to deliver mission command exists.</p>	<p>Leaders should:</p> <p>- Actively encourage a culture of:</p> <p>-- Participative management and openness.</p> <p>-- Inquisitiveness and initiative.</p>	<p>Nykodym et al., 1994; Randolph & Sashkin, 2002; Group Captain Hotel; Air Commodore Tango.</p> <p>Hargrove & Sitkin, 2011; Glenn, 2017; Cooper, 2018.</p>

ENDS	WAYS	MEANS	REFERENCES
		<ul style="list-style-type: none"> -- Tolerance of risk and mistakes. -- Self-awareness. - Lead by example, at all levels. - Demonstrate consistent and firm organisational commitment to mission command. 	<p>Cox, 2013; Parker & Bonin, 2015; Vego, 2018; Marsh, 2019; Group Captain Golf; Air Commodore Uniform.</p> <p>Storr, 2003; Bungay, 2005; Burton-Brender, 2016.</p> <p>Crane et al., 2009; Hargrove & Sitkin, 2011; Misner, 2014; Group Captain Alpha; Air Commodore Tango.</p> <p>Guthrie, 2012; Marquet, 2015; Group Captain Juliet; Air Commodore Papa.</p>
	<p>The Freedom to deliver mission command exists.</p>	<p>Leaders should:</p> <ul style="list-style-type: none"> - Drive the cultures required for intellectual freedom and mission command, ensuring they are not hindered by organisational processes or structures. 	<p>Kometer, 2003; Vandergriff, 2011; Trevor & Kilduff, 2012; Kemp, 2016.</p>

ENDS	WAYS	MEANS	REFERENCES
		<ul style="list-style-type: none"> -- Focus and apply structural and cultural changes intelligently and flexibly for best effect. -- Consider whether the organisational structure suitably enables mission command (challenge the existing layered hierarchies, ranks and professions). - Ensure the practical freedoms exists (deregulate wherever possible). -- Ensure policies are focused on intent and outputs, not processes (ensure they are enabling not constraining). - Decentralise and delegate wherever possible (particularly on finance, infrastructure and personnel management). - Encourage self-discipline amongst leaders (not to get involved in the detail, even when they can). 	<p>Air Commodore Sierra.</p> <p>Group Captain Delta; Group Captain Golf; Air Commodore Sierra; Air Commodore Uniform.</p> <p>Group Captain Kilo; Air Commodore Romeo; Air Commodore Sierra.</p> <p>Group Captain India; Group Captain Juliet.</p> <p>Jantzen, 2001; Vandergriff, 2011; Group Captain Bravo; Air Commodore Papa; Air Commodore Sierra.</p> <p>Krulak, 1999; Singer, 2009; Marsh, 2019; Group Captain Bravo; Group Captain Hotel.</p>

ENDS	WAYS	MEANS	REFERENCES
	<p>The Resources to deliver mission command are provided.</p>	<p>Leaders should provide the necessary levers and resources to enable mission command and its associated intent.</p> <ul style="list-style-type: none"> - Delegate relevant financial levers to the appropriate level. 	<p>Marsh, 2019; Group Captain Juliet; Group Captain Golf.</p>
	<p>Mutual trust between superiors and subordinates exists.</p>	<p>Leaders and subordinates at all levels should:</p> <ul style="list-style-type: none"> - Trust each other as default, even before it is earned. - Take risks and delegate beyond the level of instinctive comfort. - Communicate often; rapidly build and reinforce relationships; use personal interaction. 	<p>Felley & Madden, 2014; Picco, 2015; Group Captain Alpha; Group Captain Foxtrot.</p> <p>Yardley, n.d.; Horton, 2014; UK. RAF, 2020a; Group Captain Hotel; Group Captain Oscar.</p> <p>Rothstein, 1995; Jupp, 2014; Carpenter, 2016; Fox, 2017; Group Captain November.</p>

ENDS	WAYS	MEANS	REFERENCES
		<ul style="list-style-type: none"> - Recognise the fragility of trust and that it takes much longer to attain than to lose; do not undermine it (stay out of the details wherever possible; accept mistakes). - Inspire trust through character, consistency and competence (be trustworthy). 	<p>Storr, 2003; Vego, 2018; Marsh, 2019; Group Captain Alpha; Group Captain Oscar.</p> <p>UK. RAF, 2020a.</p>