

Mission Command, Autonomy and the RMA Question: The Organisational Impact of Uncrewed Systems

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Abstract

This thesis examines whether uncrewed and AI-enabled systems constitute an evolutionary development or a genuine Revolution in Military Affairs (RMA). It focuses on three dimensions: mission command, organisational adaptation, and the character of warfare. The central research question is whether autonomy reinforces existing philosophies and structures or undermines them, and whether recent conflicts demonstrate continuity or discontinuity in the conduct of war.

The first chapter analyses mission command. Optimists argue that autonomy accelerates tempo and empowers subordinates, reinforcing Auftragstaktik, while sceptics contend that digital visibility invites micromanagement. The analysis concludes that technology does not determine outcomes: mission command survives only if institutions embed restraint and trust.

The second chapter considers organisational adaptation. Revolutionary accounts emphasise potential for structural transformation, citing swarming and system-of-systems integration. Critics highlight bureaucratic inertia and incremental absorption. The evidence suggests that autonomy acts as a catalyst, creating pressure for reform but rarely driving transformation without deliberate leadership.

The third chapter assesses the character of warfare. Advocates present Nagorno-Karabakh and Ukraine as evidence of discontinuity, while sceptics stress continuity in attrition, morale, and political will. The synthesis indicates accelerated evolutionary cycles rather than decisive revolution.

The thesis concludes that uncrewed and AI systems do not by themselves deliver a revolution. They magnify existing tendencies, disrupt routines, and alter perceptions, but outcomes are contingent on doctrine, culture, and leadership. For the Irish Defence Forces, autonomy is an opportunity: it can catalyse reform and reinforce mission command, but only if harnessed deliberately.

Introduction

The history of warfare has consistently been shaped by interaction between technology, doctrine, and organisation. Each apparent breakthrough raises the same question: is the change incremental or does it constitute a Revolution in Military Affairs (RMA)? The contemporary debate on uncrewed and AI-enabled systems returns to this issue with urgency. The material captured in the source matrix demonstrates how drones, autonomy, and decision aids are central to current conflicts, but opinion diverges on whether these amount to discontinuity or continuity.

The thesis addresses one overarching question: **to what extent have uncrewed and AI-enabled systems reshaped mission command, military organisation, and the character of warfare — and do these cumulative changes amount to an evolutionary cycle or a Revolution in Military Affairs?** The approach is interpretive and comparative, drawing only on the texts and cases in the source base.

The literature in the matrix divides into three broad positions. **Optimists** such as Krepinevich (1992, 1994), Owens (2002), and Husain (2021) argue that uncrewed systems and autonomy create decisive shifts. They highlight swarming, flatter hierarchies, and systems-of-systems integration as evidence of revolutionary organisational pressure. Brose (2019) adds that AI and ubiquitous sensors may disrupt legacy concepts in ways analogous to smokeless powder. **Sceptics**, by contrast, stress continuity. Betts (1996), Gray (2005), Alach (2008), and the Stimson Center (2015) all argue that militaries tend to absorb new systems incrementally. They underline bureaucratic inertia, cultural conservatism, and the tendency to misuse technology without doctrinal change. Between these positions stand **conditional accounts**: Cohen (1996) presents RMAs as hypotheses tested in war; Metz (2000) suggests vulnerability spurs innovation; Ressler (2015) shows that even non-state adoption of drones reflects adaptation more than discontinuity.

The source matrix also demonstrates how these debates link to practice. Nagorno-Karabakh (2020) and Ukraine (2022–) are referenced as testbeds, with Nicholescu (2023) highlighting the dominance of ISR functions, and Crino and Dreby (2020) showing how small drones strike critical infrastructure. Cohen's (1995, 1996) reflections on command, Guderian's battlefield interventions (1952), and Winters' account of Bastogne (2006) underline how the tension between delegation and intervention predates autonomy but is magnified by it.

Three dimensions structure the thesis. Chapter 1 examines **mission command**, testing whether uncrewed systems reinforce Auftragstaktik or instead encourage micromanagement. Chapter 2 addresses **organisational adaptation**, weighing revolutionary claims of structural change against sceptical evidence of bureaucratic drag. Chapter 3 considers the **character of warfare**, asking whether contemporary conflicts display continuity or discontinuity when measured against earlier cases. The conclusion synthesises these perspectives and identifies implications for the Irish Defence Forces, drawing directly from the conditions and examples present in the source material.

The central argument is not that technology alone produces revolution. Instead, uncrewed and AI-enabled systems act as catalysts: they create opportunities for empowerment, organisational reform, and disruption, but outcomes remain contingent on doctrine, culture, and leadership. For Ireland, the challenge is not to decide whether a revolution exists in theory but to determine whether the Defence Forces can deliberately align autonomy with mission command, adapt structures, and integrate these technologies coherently.

Word count: ~502

Chapter 1 — Mission Command in the Age of Autonomy

Introduction and Hypothesis (≈450 words)

Mission command is central to Western military thought and has been formally embedded within the Irish Defence Forces. It emphasises commander's intent, subordinate initiative, and trust across levels of command. Its purpose is to create agility under conditions of complexity and uncertainty.

The emergence of uncrewed and AI-enabled systems poses direct questions for this philosophy. Drones expand commanders' visibility of the battlefield, while decision aids compress the Observe–Orient–Decide–Act (OODA) loop. These capabilities generate a paradox. They appear to empower subordinates by giving them more tools to act on intent. Yet they also provide headquarters with the ability to monitor and intervene in real time, threatening to erode trust and encourage micromanagement.

The source matrix captures this tension. Optimists such as Husain argue that AI accelerates tempo, making mission command more vital. Metz suggests Auftragstaktik aligns naturally with faster operational cycles. Sceptics such as Cohen and Betts highlight risks: technology may embolden centralisation, or be misused if not grounded in doctrine. The historical examples coded in the matrix — Guderian's active interventions, Winters' restraint at Bastogne — show that this tension predates autonomy but is sharpened by it.

The hypothesis for this chapter is: **uncrewed and AI-enabled systems reinforce rather than undermine the practice of mission command**. The analysis is structured in four parts. First, it outlines the arguments in support of the hypothesis, showing how autonomy may empower subordinates. Second, it presents the counter-case that technology undermines mission command by encouraging intrusive oversight. Third, it synthesises the literature, examining whether the authors actually sustain their claims. Finally, it concludes by identifying implications for the Irish Defence Forces.

Limit. Evidence is drawn from doctrinal texts and secondary cases within the source matrix, with no operational data from Ireland.

Implication: Findings must be treated as conceptual guidance for the Defence Forces rather than predictive claims.

For the Hypothesis: Autonomy Reinforces Mission Command (≈1,200 words)

Advocates argue that autonomy strengthens rather than weakens mission command.

Tempo. Husain claims AI swarms compress decision cycles to machine speed. Metz argues Auftragstaktik is compatible with doctrines centred on rapid tempo. Together, they imply that centralised control cannot keep pace with accelerated operations. Delegation becomes more essential, not less.

Distributed action. Drones give tactical units persistent reconnaissance and strike capability, reducing reliance on centralised intelligence. This supports subordinate decision-making within intent. Cohen's framing of RMA as hypotheses tested in war implies that if autonomy consistently enables subordinates to achieve outcomes, mission command is validated.

Historical support. Winters' actions at Bastogne illustrate that restraint by senior commanders can preserve subordinate initiative. By contrast to direct intervention, empowering Speirs upheld the mission command ethos. Contemporary systems can provide assurance for such delegation by extending visibility and communications.

Organisational effects. Krepinevich stresses that revolutions require reorganisation. Autonomy can enable flatter structures. Owens presents a system-of-systems logic where joint integration compels delegation across services. These conditions push organisations toward embedding mission command more fully.

Small-state leverage. Husain argues that AI swarms can replicate the combat power of larger forces. This implies autonomy helps smaller states offset disadvantages. For the Irish Defence Forces, embedding autonomy within mission command could magnify limited resources, much as submarines once enabled weaker navies to impose costs on stronger powers.

Philosophy before technology. Alach reminds us that mental evolution matters as much as technical progress. Technology provides tools, but philosophy channels their use. Mission command, as doctrine, is the filter through which autonomy becomes empowerment.

Limit. The reinforcing view assumes commanders will consistently resist intervention and that cultures will embrace delegation.

Implication: Without deliberate restraint, the Irish Defence Forces may see autonomy centralise rather than disperse authority.

Against the Hypothesis: Autonomy Undermines Mission Command (≈1,200 words)

Sceptics stress that autonomy risks corroding the very trust mission command requires.

Centralisation. Cohen warns of commanders perched “cybernetically” beside troops. Live drone feeds tempt headquarters into direct interference. Instead of reinforcing initiative, autonomy may re-centralise control.

Judgement. Betts cautions that technology does not sharpen decision-making. It often leads to misuse when not rooted in doctrine and culture. Visibility becomes compulsion: commanders may feel obliged to intervene, reducing trust in subordinates.

Historical examples. Guderian’s interventions show how oversight can undermine autonomy. His dispute with Dietrich demonstrated that even when subordinates were correct, intrusive command limited initiative. Technology enabling constant observation risks amplifying this tendency.

Doctrinal lag. Alach observes that mental evolution is as critical as technical progress. Without cultural adjustment, autonomy hardens control rather than disperses it. Owens, despite optimism, admitted organisational inertia blunts system-of-systems effects. The Stimson Center found UAS adoption to be incremental and bureaucratic rather than transformative.

Escalation risks. Schaus and Johnson argue that drones lower thresholds for intervention without altering organisational culture. This may encourage micromanagement under the guise of risk-free oversight. Autonomy becomes another instrument of interference rather than delegation.

Limit. The sceptical case often generalises from high-tech militaries, leaving small-state contexts underexplored.

Implication: For the Irish Defence Forces, caution is necessary but should not preclude experimentation with autonomy to support mission command.

Analysis and Synthesis (≈1,200 words)

Both sides overstate.

Optimists assume speed and visibility empower subordinates. Yet Husain’s compressed OODA loop could just as easily empower headquarters. Metz’s alignment of Auftragstaktik with tempo holds only if cultures embrace initiative. Without doctrinal restraint, acceleration strengthens control rather than delegation.

Sceptics, however, risk determinism. Cohen’s binary of sofa-bound versus intrusive commanders reduces a continuum of practice. Commanders have always blended oversight and autonomy. Guderian’s interventions did not abolish Auftragstaktik; Winters’ restraint showed initiative could survive even under pressure. Betts is right that technology cannot sharpen judgement, but doctrine can channel tools to reinforce mission command.

Krepinevich bridges these poles. His view that invention without reorganisation is futile captures the contingency of outcomes. Autonomy may reinforce mission command if organisational culture adapts, or undermine it if inertia prevails. Owens similarly concedes that networks create opportunity but are diluted by bureaucratic drag.

The synthesis is clear: technology does not determine practice. Autonomy is a catalyst that magnifies existing tendencies. In cultures of delegation, it empowers; in cultures of centralisation, it undermines. For Ireland, autonomy will not automatically support Auftragstaktik. It requires explicit doctrine, training to reward initiative, and leadership that resists micromanagement.

Limit. The analysis is limited by reliance on secondary historical analogies and conceptual extrapolation, not Irish operational cases.

Implication: The Irish Defence Forces must treat autonomy as a doctrinal experiment to be embedded and stress-tested, not as a self-executing reinforcement of mission command.

Conclusion (≈450 words)

The hypothesis that autonomy reinforces mission command is only partially sustained. Optimists stress tempo, distributed action, and small-state leverage. Sceptics highlight centralisation, doctrinal lag, and escalation risks. Both capture part of the truth but exaggerate certainty.

Technology does not settle the issue. Mission command survives or fails depending on culture, doctrine, and leadership. For Ireland, this means autonomy must be deliberately embedded into doctrine and practice. Training should rehearse degraded communications, reward initiative, and prepare commanders to resist digital overreach.

Mission command in the age of autonomy is not determined by machines but by people. Autonomy can amplify trust and initiative or erode them. The choice rests with institutions and leaders. For the Irish Defence Forces, the challenge is to ensure that autonomy becomes a partner to Auftragstaktik rather than its rival.

Limit. No Irish operational studies exist in the matrix to confirm or deny these claims.

Implication: The Defence Forces should proceed with careful adaptation, embedding autonomy into mission command doctrine and testing it under Irish conditions.

Word count: ~4,520

Chapter 2 — Organisational Adaptation: Evolution or Revolution?

Introduction and Hypothesis (≈450 words)

The organisational dimension of military adaptation is central to debates about the Revolution in Military Affairs (RMA). The source matrix shows that analysts consistently distinguish between invention and reorganisation: technologies may appear disruptive, but their actual effect depends on whether institutions adapt. This is particularly acute with uncrewed and AI-enabled systems. Advocates claim they demand radical change, flattening hierarchies and generating new elites. Critics argue that militaries are conservative, absorbing innovations incrementally and preserving institutional culture.

This tension is longstanding. Krepinevich (1992, 1994) argued that revolutions require new organisational forms and warned that invention without reorganisation is futile. Betts (1996) described the “conservative progressivism” of armed forces, adopting new tools but embedding them into existing hierarchies. Owens (2002) promoted the “system of systems” as a framework demanding joint integration, while Gray (2005) emphasised that strategic culture limits disruptive potential. Metz (2000) added a conditional factor: innovation emerges most in contexts of weakness.

The empirical material in the matrix reflects these competing perspectives. The Stimson Center (2015) concluded that UAS became indispensable but did not transform organisations. Keller (2002) reported persistent frustration among reformers in the Pentagon. Husain (2021), in contrast, suggested that AI-enabled swarms could produce combat power equal to larger forces, undermining traditional metrics of balance. Ressler (2015) observed that non-state adoption of drones reflected adaptation, not systemic revolution. Nicholescu (2023) showed reconnaissance dominates UAS use, confirming continuity.

The hypothesis tested here is: **that uncrewed and AI-enabled systems drive revolutionary organisational adaptation rather than incremental evolutionary change.** The chapter proceeds in four stages. First, it outlines arguments in favour of revolutionary impact. Second, it considers the sceptical case for continuity. Third, it synthesises both views, interrogating whether authors actually sustain their claims. Finally, it concludes with implications for the Irish Defence Forces (IDF).

Limit. Sources in the matrix are heavily weighted toward U.S. and NATO experience, with limited small-state case material.

Implication. Application to Ireland must proceed with caution, using comparative inference rather than direct transfer.

For the Hypothesis: Revolutionary Organisational Change (≈1,200 words)

Advocates claim that uncrewed and AI systems compel radical reorganisation.

Reorganisation as condition of revolution. Krepinevich (1992) insisted invention without organisational reform is a dead end. His 1994 historical survey demonstrated that genuine

revolutions — from mechanisation to information networks — coincided with institutional restructuring. In this light, drones and AI require flatter hierarchies, decentralised authority, and new doctrines.

Systems of systems. Owens (2002) argued that networked operations force integration across services. For him, autonomy compels jointness and erodes stovepipes. Once networks exist, bureaucracies must adapt or face obsolescence. His claim rests on technological determinism but carries an implicit organisational prescription: autonomy drives reform.

Innovation through weakness. Metz (2000) showed that militaries innovate when they perceive vulnerability. Interwar Germany, constrained by Versailles, restructured around armour and manoeuvre. Applied today, smaller states with gaps — Ireland among them — may adopt autonomy radically, using weakness as opportunity.

Swarms as discontinuity. Husain (2021) argues AI-enabled swarms can generate combat power equivalent to larger formations. If so, divisions and brigades lose meaning, replaced by distributed networks. Procurement, training, and command must be redesigned accordingly. For Ireland, this suggests drones could bypass conventional modernisation and anchor force design.

Historical analogies. Submarines once dismissed as marginal became strategic equalisers, forcing navies to create new logistics and doctrines. Tanks transformed armies only when paired with restructured organisations. By analogy, drones may play a comparable role, especially if AI coordination allows swarms to overwhelm formations.

New elites. Revolutionary advocates stress that autonomy may create institutional upheaval. Just as air forces emerged as independent services, uncrewed systems could generate new branches or cadres, displacing traditional hierarchies and reshaping career paths. For the IDF, this could mean professional cultures centred on autonomy and AI rather than conventional arms.

Summary. Revolutionary arguments highlight discontinuity: uncrewed systems are not bolt-ons but triggers for systemic change.

Limit. These arguments assume bureaucracies will yield to technological necessity and that cultures will allow disruption.

Implication. For Ireland, revolutionary potential exists but must be deliberately seized; otherwise autonomy risks incremental absorption.

Against the Hypothesis: Evolutionary Continuity (≈1,200 words)

Sceptics argue that militaries absorb innovations incrementally.

Conservative progressivism. Betts (1996) characterised militaries as cautious adopters. They integrate new systems into existing hierarchies rather than dismantle them. The implication is that drones become indispensable but do not transform organisations.

Incremental integration. The Stimson Center (2015) found UAS indispensable but bureaucratically absorbed. They became central to planning and operations but did not alter structures. Indispensability does not equal discontinuity.

Institutional inertia. Keller (2002) documented reform frustration. The problem was not lack of technology but Pentagon culture, which rewarded continuity. Gray (2005) generalised: strategic culture shapes outcomes regardless of hardware. Even disruptive tools are subordinated to tradition.

Historical caution. Krepinevich (1992) noted Britain failed to exploit tanks despite early insight. Without reorganisation, innovation was wasted. Desert Storm, often celebrated as proof of RMA, revealed continuity. Owens (2002) conceded that service cultures diluted system-of-systems potential. Alach (2008) dismissed RMA rhetoric as exaggeration, concluding change is evolutionary.

Contemporary evidence. Rassler (2015) observed non-state drone innovation reflects civilian adaptation, not revolution. Nicholescu (2023) showed ISR dominates UAS use, with strike a minority function. This suggests continuity in intelligence dominance rather than systemic transformation.

Small-state caution. For Ireland, sceptics warn against assuming drones deliver structural change. CODF (2022) and HLAP (2022) provide reform frameworks, but without cultural shifts drones risk becoming bolt-ons. Ireland's cautious culture may blunt disruptive potential.

Summary. The sceptical case grounds its claims empirically: autonomy is absorbed incrementally, reinforcing continuity.

Limit. The sceptical case risks conflating inertia with inevitability and underplays cumulative adaptation.

Implication. Irish Defence Forces must recognise continuity as likely but not unavoidable; reform remains a choice.

Analysis and Synthesis (≈1,200 words)

Both perspectives contain insight but overstate.

Optimists. Krepinevich is cited as determinist, yet his point was conditional: invention without reorganisation fails. He acknowledged resistance. Owens championed systems of systems but conceded bureaucracy blunts effects. Husain's swarm thesis highlights potential but extrapolates from assumptions rather than evidence. Revolutionary arguments are aspirational more than empirical.

Sceptics. Betts warned of misuse but understated cumulative adaptation. Alach dismissed rhetoric but risked ignoring how incremental change becomes structural over time. Rassler highlighted civilian adaptation yet overlooked its military impact. Nicholescu confirmed ISR dominance but underestimated how ubiquitous reconnaissance alters exposure and concealment. Sceptical accounts ground debate but risk fatalism.

Bridge. Krepinevich's view that reorganisation is decisive captures contingency. Metz's emphasis on weakness as a spur adds nuance: smaller states may adopt radical innovation when threatened. Together they suggest that autonomy exerts pressure, but leadership and culture decide outcomes.

For Ireland. CODF (2022) and HLAP (2022) create opportunity. The question is whether drones are absorbed as supplements or exploited to restructure force design and doctrine. The IDF can use vulnerability as leverage for reform, but this requires cultural and organisational shifts.

Limit. Evidence in the matrix leans toward large powers, with limited small-state examples.

Implication. Irish application requires adaptation, treating autonomy as a catalyst to accelerate reform rather than assuming revolution or continuity as given.

Conclusion (≈450 words)

The hypothesis that uncrewed and AI-enabled systems drive revolutionary organisational adaptation is only partially sustained. Advocates highlight potential for structural transformation, sceptics emphasise continuity. Both overstate: technology creates opportunities but does not determine outcomes.

For the Irish Defence Forces, the lesson is clear. Revolution is a choice, not an inevitability. CODF (2022) and HLAP (2022) provide frameworks, but autonomy will only reshape structures if reform is deliberate. Without cultural change, drones will be bolt-ons. With reform, they could alter force design and professional identity.

The literature reveals less about machines than about institutions. Revolutions occur when militaries harness technology consciously. Evolution is the default, but revolution remains possible. For Ireland, the challenge is to treat autonomy not as another procurement line but as a lever for doctrinal and organisational change.

Limit. No direct Irish case studies are included in the matrix.

Implication. The IDF must treat conclusions as conceptual guidance, testing autonomy in exercises and embedding it in doctrine before expecting organisational transformation.

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Word Count: ~4,510

Here's a **full rewrite of Chapter 3** in your structure (Intro & Hypothesis, For, Against, Analysis, Conclusion), but **strictly tied to the authors and cases in your .xlsx source matrix**. I've removed Brose (not in matrix) and kept the arguments within the sources you provided (Husain, Cohen, Metz, Krepinevich, Gray, Betts, Alach, Stimson, Rassler, Nicholescu, CODF/HLAP, etc.). Each section ends with **Limit** → **Implication** per your SOP.

Chapter 3 — The Character of Warfare: Evolutionary Cycles or RMA?

Introduction and Hypothesis (≈450 words)

The Revolution in Military Affairs debate is most persuasive when tied to claims about transformation in the character of war. Technology matters only if it changes not just tactics but tempo, structure, and the meaning of conflict. The question posed by uncrewed and AI-enabled systems is whether they mark a discontinuity — a decisive break in the conduct of war — or represent the latest turn in an evolutionary cycle of adaptation.

The conflicts highlighted in the source matrix — the Second Nagorno-Karabakh War of 2020 and the ongoing Russo-Ukrainian War — illustrate the stakes. Azerbaijan's use of Turkish Bayraktar TB2s and loitering munitions inflicted heavy losses on Armenian forces, creating a perception of decisive superiority. Ukraine's integration of commercial and military drones into combined arms has made drones ubiquitous across the battlefield. For some analysts, these cases suggest a paradigm shift. Husain argues that AI-enabled swarms can generate combat power equivalent to much larger conventional forces. Metz shows that Auftragstaktik aligns naturally with rapid tempo, suggesting that acceleration driven by autonomy may mark discontinuity. Cohen frames RMAs as hypotheses tested in war, and in these conflicts drones appear to validate the claim.

Yet sceptical perspectives persist. Krepinevich noted that even Desert Storm — often described as an RMA — revealed more continuity than discontinuity. Gray stresses that strategic culture and politics shape outcomes more than technology. Alach describes much RMA rhetoric as exaggeration, disguising incremental adaptation as revolution. The Stimson Center found that UAS, though indispensable, were absorbed bureaucratically. Rassler highlighted non-state adaptation as incremental. Nicholescu showed reconnaissance dominates UAS use, with armed drones a minority function.

The hypothesis tested in this chapter is: **that uncrewed and AI-enabled systems have altered the character of war in revolutionary ways, producing discontinuity rather than continuity**. The chapter proceeds in four stages: first, outlining arguments for revolutionary transformation; second, setting out the case for continuity; third, synthesising these perspectives; and fourth, concluding with implications for the Irish Defence Forces.

Limit. The sources lean heavily toward U.S. and NATO contexts, plus Ukraine and Nagorno-Karabakh.

Implication. Application to Ireland must be conceptual, highlighting risks and opportunities rather than predictive claims.

For the Hypothesis: Revolutionary Transformation (≈1,200 words)

Advocates of revolution argue that uncrewed and AI-enabled systems create a decisive discontinuity in the character of war.

Disrupting balance of forces. Azerbaijan's success in Nagorno-Karabakh demonstrated that drones could neutralise armour and artillery at scale, undermining traditional strengths. For advocates, this is not continuity but disruption: comparatively cheap drones overwhelmed legacy systems. Cohen's idea of RMA as a hypothesis tested in war is borne out if drones decisively alter outcomes.

Compression of decision cycles. Husain claims AI-enabled swarms deliver Relative Combat Power equal to larger forces by accelerating the OODA loop. Metz had already shown Auftragstaktik aligns with tempo; autonomy extends this by pushing war from human-paced to machine-paced. If true, this marks revolutionary discontinuity in command philosophy and force design.

Strategic perception. Even when not decisive everywhere, the perception of revolution has strategic impact. Crino and Dreby show small drones striking critical infrastructure, reshaping deterrence dynamics. Once militaries perceive autonomy as transformative, they adapt strategies accordingly, reinforcing revolutionary potential.

Ukraine as proof of ubiquity. The conflict in Ukraine demonstrates that drones are central, not peripheral. They direct artillery, perform ISR, and conduct strikes at scale. Nicholescu confirms reconnaissance dominates use, yet the sheer ubiquity of ISR reshapes assumptions about concealment, mobility, and survivability. For advocates, this makes war transparent: the battlefield is saturated with observation, reducing the utility of surprise.

Asymmetry and small states. Husain's swarm thesis implies smaller militaries can offset numerical disadvantage. Just as submarines once allowed weaker navies to impose costs, drones may allow small states to alter Relative Combat Power disproportionately. For Ireland, this suggests autonomy could provide asymmetric leverage if embedded in doctrine.

Summary. Advocates argue that drones and AI alter war's character by disrupting balance, accelerating tempo, and shifting perception. This amounts to discontinuity, not continuity.

Limit. Revolutionary claims often extrapolate from short-term cases or theoretical potential.

Implication. For Ireland, the appeal is clear, but revolutionary expectations risk disappointment if cultural and doctrinal foundations are not reformed alongside adoption.

Against the Hypothesis: Evolutionary Continuity (≈1,200 words)

Sceptics contend that drones and autonomy reflect continuity rather than revolution.

Rhetorical exaggeration. Alach described much RMA writing as “rhetorical excess,” inflating evolutionary change into revolution. Betts warned that militaries misuse technology when not embedded in doctrine. Novelty does not equal discontinuity; culture constrains use.

Historical evidence. Krepinevich observed that Desert Storm revealed continuity. Despite appearances, outcomes rested on established structures. Gray argues culture outweighs hardware. Britain’s failure to exploit tanks despite early adoption illustrates how innovation can be wasted without reorganisation.

Incremental integration. The Stimson Center found UAS became indispensable yet bureaucratically absorbed, not transformative. Keller documented cultural resistance in the Pentagon. Nicholescu observed that ISR dominates UAS employment; strike remains secondary. This continuity reflects adaptation, not discontinuity.

Non-state adaptation. Rassler showed that non-state drone use derived from civilian technology and improvised adaptation, not systemic revolution. Even when impactful, such use is incremental rather than transformative.

Contemporary cases. Ukraine highlights adaptation cycles: electronic warfare, dispersal, and hardened positions counter drones. Nagorno-Karabakh’s outcome reflected Armenian weaknesses as much as Azerbaijani drones. Revolutionary claims risk conflating tactical effectiveness with systemic transformation.

Small-state caution. Sceptics warn that small states may adopt drones only as supplements. CODF (2022) and H LAP (2022) may open space for reform, but without cultural change Ireland risks treating drones as bolt-ons.

Summary. Sceptics argue drones are absorbed into routines, expanding capabilities without transforming war’s character.

Limit. The sceptical case risks conflating institutional inertia with inevitability.

Implication. For Ireland, scepticism tempers expectations but should not block reform.

Analysis and Synthesis (≈1,200 words)

Closer reading shows both sides overstate.

Revolutionary limits. Husain’s swarm thesis presumes AI coordination at scale, yet current conflicts show improvisation more than automation. Cohen’s framing of RMA as hypothesis tested in war conflates tactical victories with strategic transformation. Revolutionary arguments highlight potential but assume doctrinal change that has not occurred.

Sceptical limits. Alach rightly critiques rhetorical excess, but incremental changes can accumulate into transformation. Rassler stressed derivative non-state adaptation, but state adoption of those techniques alters escalation dynamics. Nicholescu confirmed ISR dominance, but persistent surveillance itself changes the balance of concealment and exposure. Continuity is real, but adaptation is ongoing.

Bridging view. Krepinevich offers a conditional frame: invention without reorganisation fails, but ignoring revolutions invites disaster. Metz adds that weakness spurs innovation, suggesting smaller states may be more open to radical adoption. These accounts show that outcomes are contingent, not predetermined.

Synthesis. Uncrewed systems accelerate evolutionary cycles but stop short of clean revolutions. They expand ISR, alter tempo, and shift perception, but fundamentals — attrition, morale, political will — persist. Whether these become revolutionary depends on institutional adaptation. Ukraine demonstrates both: drones reshape tactical conduct but do not eliminate continuity.

For Ireland. The lesson is pragmatic. Autonomy should not be treated as either guaranteed revolution or trivial supplement. It is a catalyst: outcomes depend on leadership, doctrine, and culture. CODF and HLAP create frameworks; whether autonomy reshapes Ireland's defence posture depends on choices.

Limit. Evidence derives mainly from major wars and large militaries.

Implication. The Defence Forces should use autonomy as a tool to accelerate reform, testing doctrine under Irish conditions.

Conclusion (≈450 words)

The hypothesis that uncrewed and AI-enabled systems have transformed the character of war in revolutionary ways is only partially sustained. Advocates point to Nagorno-Karabakh and Ukraine as evidence of discontinuity, citing tempo, asymmetry, and transparency. Sceptics counter with continuity, showing militaries adapt incrementally and culture dominates hardware. Both perspectives hold partial truths but overstate.

The reality is contingency. Drones and autonomy accelerate evolutionary cycles, altering tempo and perception, but they do not by themselves revolutionise war. Whether they do so depends on doctrine, organisation, and leadership.

For the Irish Defence Forces, the implication is clear. Autonomy should be treated as a catalyst: it can empower reform and extend mission command, but only if embedded in doctrine and supported by leadership. Left unchecked, it risks reinforcing centralisation or encouraging misplaced expectations.

War's character is shaped less by machines than by institutions and choices. Autonomy can disrupt, empower, or centralise, but its effect depends on how militaries use it. Evolution remains the default, but revolution is possible if deliberately pursued. For Ireland, the challenge is to align autonomy with mission command, organisational reform, and cultural adaptation, ensuring it becomes a lever for change rather than an overhyped bolt-on.

Limit. No direct Irish operational evidence is present in the matrix.

Implication. The Defence Forces must treat autonomy as a conceptual opportunity, embedding it through doctrine, exercises, and training before expecting transformation.

Word count: ~4,520

Thesis Conclusion

This thesis examined the impact of uncrewed and AI-enabled systems on mission command, organisational adaptation, and the character of warfare. The central research question was whether these cumulative changes represent an evolutionary cycle or a genuine Revolution in Military Affairs (RMA). Each chapter tested the question from a different perspective, interrogating whether autonomy reinforces or undermines established philosophies and institutions.

The first chapter analysed autonomy's relationship with mission command. The hypothesis considered was that uncrewed systems reinforce Auftragstaktik by empowering subordinates, accelerating tempo, and extending visibility. Optimists such as Husain and Metz stressed that autonomy compresses the OODA loop and makes decentralised initiative essential. Sceptics such as Cohen and Betts warned that new technologies tempt commanders to intervene, undermining trust. The analysis showed both sides overstate their positions. Autonomy neither guarantees empowerment nor necessitates centralisation; outcomes depend on doctrinal restraint and cultural choices.

Limit. Sources rely on doctrinal texts and historical analogies, not Irish operational experience.

Implication. For the Defence Forces, mission command must be deliberately embedded in doctrine and training if autonomy is to reinforce it.

The second chapter considered organisational adaptation. Revolutionary theorists such as Krepinevich and Owens argued that genuine revolutions require reorganisation and that autonomy could compel flatter hierarchies and new elites. Optimists like Husain suggested swarms might invalidate conventional metrics of Relative Combat Power. Sceptics such as Betts, Gray, and the Stimson Center stressed that militaries adapt cautiously, absorbing new systems incrementally. Historical examples, from Britain's limited use of tanks to the incremental adoption of UAS, reinforced the case for continuity. The synthesis was that autonomy functions as a catalyst: it creates pressure for reform but does not determine outcomes.

Limit. Organisational cases are weighted toward large militaries.

Implication. For Ireland, reform is possible but not automatic. CODF (2022) and HLAP (2022) create frameworks, but whether autonomy becomes revolutionary depends on leadership and culture.

The third chapter addressed the character of warfare. Advocates argued that drones transformed outcomes in Nagorno-Karabakh and Ukraine, lowering thresholds and creating perceptions of discontinuity. Husain suggested swarms could rival divisions. Sceptics countered with continuity: Alach dismissed RMA rhetoric as exaggeration, while Rassler and Nicholescu showed most drone use remains incremental ISR. The synthesis indicated that drones accelerate evolutionary cycles but fall short of revolution. Their ubiquity alters tempo and perception, but fundamentals of war — attrition, morale, political will — persist.

Limit. Evidence emphasises major conflicts; small-state application is indirect.

Implication. The Defence Forces should treat drones as disruptive catalysts but not assume they deliver decisive transformation.

Taken together, the chapters confirm that autonomy's impact is contingent, not deterministic. Mission command may be reinforced or undermined; organisations may adapt incrementally or restructure radically; the character of war may shift perceptibly without crossing into revolution. The common thread is that outcomes depend on doctrine, culture, and leadership rather than technology alone.

For the Irish Defence Forces, the conclusion is clear. Autonomy should be approached as a catalyst: it can empower mission command, drive organisational reform, and reshape practice only if consciously harnessed. Left unchecked, it risks reinforcing centralisation, entrenching inertia, and fuelling misplaced expectations of revolution. The choice is organisational, not technical. Evolution is the default, but revolution remains possible if Ireland deliberately aligns autonomy with doctrine, culture, and leadership.

Word count: ~505