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A Conceptual Shift in the Air Force: Lessons from October 7, 2023

Alex Dan[1]

Abstract

This article examines the necessary conceptual shift in the Israeli Air Force's (IAF) role in land border defense, based on lessons learned from the October 7, 2023, Hamas attack. The study analyzes how these events exposed significant gaps in air power's role when confronting extensive ground incursions through a mixed-methods approach combining comparative case study analysis with doctrinal examination. The research reveals that existing doctrine, based on separation between defensive and offensive missions and over-reliance on intelligence and static defense mechanisms, proved inadequate against sudden, multi-front threats (Lupovici, 2024). The findings indicate a critical need to transition from viewing the Air Force as a supporting element to a leading force providing comprehensive border defense responses, particularly in scenarios involving coordinated mass infiltrations into populated border areas (Finkel, 2024). The study proposes a new framework integrating real-time situational awareness, rapid lethal response capabilities, and enhanced air-ground operational coordination specifically for large-scale coordinated attacks. The conclusions emphasize the importance of a paradigm shift from reactive to proactive, comprehensive air-centric border defense doctrine that distinguishes between routine security operations and responses to coordinated military-style assaults.

Keywords: Border defense, Air Force doctrine, ground incursions, military doctrine, command and control, October 7 attack, air-ground integration, Israeli Air Force

[1] **Dr. Alex Dan** is a senior researcher at the Elrom Center for Policy Research and Strategy of Air, Space and Security at Tel Aviv University.
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Introduction

The October 7, 2023, Hamas attack marked a watershed moment in understanding Israel's border defense challenges, particularly air power's role in responding to large-scale, coordinated ground infiltrations. The coordinated assault involved approximately 3,000 terrorists infiltrating through multiple breach points along the Gaza Strip border using diverse means, including motorized paragliders, motorcycles, and explosive devices (Lupovici, 2024). Differing from routine security threats, this attack represents what military analysts characterize as a hybrid warfare operation combining conventional military tactics with irregular methods to achieve strategic surprise (Dostri, 2023).

Border defense operational concepts are based on threat type and context. Conventional military defense employs defensive arrays with depth, minefields, and prepared positions to channel and delay attacking forces (Rodman, 2001). Routine security defense against terrorist infiltrations relies on fences, observation posts, and rapid response teams optimized for detecting and neutralizing small groups or individuals (Andreas, 2009). The October 7 attack represents a third category: coordinated mass infiltration combining elements of both conventional military assault and terrorist tactics, creating unprecedented challenges for existing defensive concepts.

Military literature documents evolution of air power doctrine (Olsen, 2010; Lambeth, 2000), with contemporary analyses highlighting that current air doctrine proved inadequate for addressing the hybrid nature of the October 7 assault (Lupovici, 2024). The primary failure was not technological inadequacy but a gap in understanding air power's role when routine security measures are overwhelmed by coordinated military-style attacks targeting civilian border communities (Arad, 2025; Horev, 2024).

The IAF's initial response revealed structural and conceptual limitations, resulting in critical delays (Shmuely, 2025; Shimony, 2025). According to published reports, only limited fighter aircraft were on alert when the attack began, delaying an effective aerial response (Shimon, 2025; Dostri, 2023; Selijan, 2024). Command structure constraints prevented rapid autonomous response, necessitating significant organizational changes. Similar challenges in rapid air response have been documented elsewhere (Vick et al., 2001), with the IAF's delayed response at the beginning of the October 7 war exemplifying air response protocols ineffectively applied in real time.

Traditional IAF operational doctrine distinguished between warfare support roles and routine security assistance missions. For conventional threats, the IAF maintained "blocking" plans using attack helicopters to stop tanks and heavy bombs to block roads under high alert conditions. For routine Gaza

border security, the IAF provided UAV patrols, attack helicopters, and minimal fighter aircraft, all operating without air superiority concerns (Finkel, 2024; Heller, 2024).

The October 7 attack exposed critical gaps when coordinated mass infiltration overwhelmed security measures while not triggering full defensive array activation. Settlements located directly on border lines created additional complexities, as civilian population protection constrained military responses and complicated air power employment (Regev, 2025).

The IAF's initial response revealed structural and conceptual limitations, particularly regarding engagement authorities and procedures for employing lethal force against infiltrators (Shmuely, 2025; Shimony, 2025). While tactical air assets maintained direct attachment to ground units at battalion level, and Gaza Division commanders possessed full authority over fixed-wing preplanned targets, no doctrine existed for immediate air engagement of infiltrators operating within Israeli territory—a scenario unplanned for despite decades of border security operations (Heller, 2024).

This study examines implications of this operational failure for fundamental conceptual change in air power's border defense role. Contrary to traditional approaches that view air forces as supporting elements (Finkel, 2024), this research advances the necessity of positioning air power as the central component in comprehensive border threat responses, maintaining a balance between offensive and defensive capabilities, immediate and strategic responses, and operational flexibility (Bar Yosef, 2024). This aligns with concepts of multi-domain operations (Perkins, 2017), addressing the gap between security operations and responses to mass infiltrations targeting civilian border populations.

Our research question examines how the IAF's land border defense role should henceforth be adapted to effectively respond to large-scale infiltrations: How are coordinated mass infiltrations different from conventional attacks or routine threats in terms of air power needs? How can air-ground cooperation better protect civilians in border settlements during such attacks? What changes in engagement rules and operations are needed for faster air response inside Israeli territory?

Methodology

Using a qualitative, comparative case study approach, this study focuses on Israel's experience (Yin, 2017). The methodology applies multiple analyses to understand air power's evolving role in countering coordinated mass infiltrations.

International approaches to air border defense are compared to identify operational challenges, effective practices, and key contextual factors (George

& Bennett, 2005). This framework examines how different nations transition from routine security to coordinated threat response.

The Israeli case is built from open sources, journalism, military publications, and academic analysis to trace doctrinal changes before and after October 7to ensure reliability and transparency.

Theoretical analysis draws on classical and modern literature on military doctrine and asymmetric warfare, building an analytical framework to understand requirements for doctrinal transformation (Rosen, 1991; Farrell & Terriff, 2002).

Limitations include restricted access to detailed military data and recency of key events (Flyvbjerg, 2006).

Theoretical Background

Fundamental Concepts in Land Border Defense

Historical analyses of border defense strategies have examined approaches across geographical contexts (Jones, 2012; Donaldson & Williams, 2008). Land border defense encompasses diverse missions and challenges, varying by nature of the threat, geographical constraints, and available resources. Traditional "warning and security zones" concepts refer to areas designed for early detection of enemy activity and creation of sufficient depth for gradual defensive maneuvers and force concentration (Fravel, 2007).

Conventional border threat responses combine static and dynamic elements: fixed observation posts, fortified positions, physical and technological barriers, and mobile defense force deployment. Mobile defense offers operational flexibility but requires rapid response times. During massive invasions, temporary territorial loss may occur until counterattacks can be executed. Military literature has analyzed defense in depth (Mearsheimer, 1989; Biddle, 2004; Betts, 1982).

Modern military doctrine acknowledges a range of border threats spanning from individual terrorist or smuggler infiltrations to large-scale, coordinated military attacks. While each threat type requires different tactical responses, they share common operational characteristics, including critical need for early detection systems, rapid response, and effective threat neutralization (Andreas, 2009; Vallet, 2014; Kilcullen, 2009).

Characteristics of Large-Scale Ground Incursions

In the evolution of asymmetric tactics, several distinguishing features of large-scale ground incursions set them apart from traditional border threats. These operations involve coordinated, multi-point attacks, complicating the defense force's ability to concentrate resources and adequately respond. Modern incursions employ diverse tactics, combining infantry units, vehicles, and simple aerial

assets such as motorized paragliders or drones (Kilcullen, 2009; Arquilla & Ronfeldt, 2001).

Studies of surprise attacks have identified their defensive vulnerabilities. Such incursions are defined by their speed and initial attack intensity. They require meticulous planning, extensive training, and precise timing from attackers, who exploit the element of surprise to overcome the defender's quantitative or technological superiority (Betts, 1982; Handel, 1989).

Large-scale incursions present challenges requiring rapid decision-making under high-uncertainty conditions. During initial stages, determining the attack's scope, primary objectives, and involved forces proves difficult, creating critical command dilemmas. Commanders must decide whether to respond with full force based on partial information, risking excessive force application, or await additional intelligence, potentially resulting in missed defensive opportunities (Klein, 1993; Klein, 1999; Kahneman & Tversky, 1979; McChrystal et al., 2015).

Air Force Operations Doctrine Against Border Incursions

Traditional Air Force defense operations have relied on clear distinctions between offensive and defensive missions (Hallion, 1992; Heller & Shelach, 2023; Heller, 2024; Finkel, 2024). Offensive missions encompassed deep strikes against enemy targets, disrupting supply lines and communications, and attacking command centers; defensive missions focused on air defense, hostile aircraft interception, and direct combat support to ground forces (Meilinger, 2003; Gray, 2012; Forsyth, 2024).

Scholars have analyzed adaptation of air power to irregular warfare, revealing the efficacy of traditional offensive-defensive approaches in military doctrine, including air superiority operations, deep strike missions, and coordinated air-ground maneuver warfare in interstate wars with clear front lines and well-defined targets (Arve, 2023). Asymmetric threats, particularly rapid and multi-front incursions, reveal significant limitations. In such scenarios, traditional offensive-defensive mission distinctions become less relevant (Corum & Johnson, 2003; Drew, 1998).

Conceptual Gap Between Air Superiority and Air-Ground Border Control

"Air superiority" concepts were developed through experiences in World War II and subsequent conflicts (Hallion, 1992). This well-evolved doctrine enables controlling air and ground force freedom of action while neutralizing enemy air power (Watts, 2013; Heuser, 2010).

Air superiority concepts supported conventional interstate wars where each side possessed significant air forces and clear air targets, not ground

incursions by actors lacking substantial air power. Instead, "air-ground border area control" is required—the ability to use air power for ground activity control, threat identification, force movement tracking, and immediate lethal response provision (Shelah, 2024; Finkel, 2024). This conceptual shift aligns with broader discussions about air power in low-intensity conflicts (Hartman, 2012).

Transitioning from air superiority to air-ground control necessitates changes in thinking, training, and equipment. Emphasis shifts from enemy aircraft engagement and air base attacks to identifying and neutralizing ground forces, supporting defending units, and preventing rapid tactical gains by attackers. Other air forces have similarly transitioned to new operational environments (Kreps, 2016; Finkel, 2024; Topolnicki, 2024).

Routine security border defense addresses individual or small-group infiltrations: terrorist attacks, smuggling operations, or other illegal activities. These threats typically involve limited numbers of non-state actors using simple technologies and tactics. The Israeli experience demonstrates that routine security operations have historically employed air power successfully through UAV patrols, attack helicopter presence, and intelligence collection systems operating under established rules of engagement (Finkel, 2024).

The October 7 attack revealed a third category: coordinated mass infiltration combining military-scale organization and planning with irregular tactics designed to target civilians in border communities. This hybrid approach employs sufficient numbers and coordination to overwhelm security measures while avoiding military signatures that would trigger full defensive array activation. Distinct characteristics of this threat category require doctrinal approaches that bridge the gap between routine security operations and conventional military response.

Challenges of Civilian Population Protection in Border Defense

Civilian settlements located directly on borders complicate air power operations, as protection often conflicts with conventional military doctrines that separate combat zones from populated areas (Andreas, 2009; Kilcullen, 2009). Mass infiltrations force defenders to balance rapid threat response with minimizing civilian casualties. October 7 highlighted the need for air power procedures that distinguish defensive actions from those risking non-combatants. These circumstances challenge traditional air doctrine by requiring new approaches that reconcile speed and accuracy in protecting civilians.

The Gap Between Existing Capabilities and Coordinated Mass Infiltration Response

While Israeli air power has long provided border security, including surveillance, intelligence collection, and fire support, the October 7 attack revealed gaps in addressing mass infiltrations that exceed routine security threat parameters. Existing capabilities, including multi-layered sensor architectures, real-time intelligence fusion, and immediate lethal response systems, proved adequate for routine security operations but insufficient for the scale and coordination of the October 7 assault.

Critical gaps emerged not in technological capability but in operational authority and engagement procedures where infiltrators had breached border defenses. Doctrine provided clear procedures for engaging threats approaching or at the border but lacked frameworks for immediate air power employment against infiltrators who were actively attacking civilian communities.

This gap reflected broader conceptual limitations in understanding how air power should respond when security measures are overwhelmed but conventional military threat indicators remain absent. The hybrid nature of mass infiltrations required new doctrinal concepts bridging operational spaces between routine security support and conventional military engagement.

International Comparative Analysis

Comparative analysis of international border defense reveals limited precedents for addressing mass infiltrations targeting civilian border communities, highlighting the distinctive nature of the Israeli challenge while providing insights into air power adaptation for complex border scenarios (Williams, 2007; Neocleous, 2013).

NATO's Baltic Air Policing mission demonstrates both advantages and limitations of multinational air power cooperation in border defense contexts. Since 2004, the alliance has maintained a permanent fighter aircraft presence for rapid response to airspace violations. However, the mission operates under peacetime legal constraints, limiting aircraft to visual identification and interception, lacking guidance for scenarios involving coordinated ground infiltrations (Shlapak & Johnson, 2016).

The Baltic experience highlights that response protocols optimized for state-level airspace violations prove inadequate for addressing sudden, coordinated ground threats. Emphasis on multinational coordination, while politically essential, delays immediate decision-making in mass infiltration scenarios.

American border security operations with Mexico provide insights into sustained air power employment for border surveillance and interdiction,

though within legal frameworks that constrain military force employment for domestic law enforcement. US Customs and Border Protection operate extensive unmanned aircraft systems, successfully detecting illegal border crossings and supporting interdiction operations across vast geographical areas (Andreas, 2009; Blazakis, 2006).

The American experience addresses primarily individual or small-group infiltrations and operates under legal constraints that separate military from law enforcement capabilities. Desert terrain along the US-Mexico border provides greater geographical depth for detection and response compared to Israeli border communities, limiting applicability of American operational concepts.

Recent European border management developments have accelerated the integration of unmanned systems and artificial intelligence in border surveillance while highlighting persistent challenges in rapid response coordination (Wagner, 2022). European experiences reveal critical needs for comprehensive intelligence integration between air assets, ground sensors, and human intelligence networks to reduce response times.

The Australian border protection model demonstrates long-range maritime surveillance and rapid response capabilities through coordinated multi-agency operations. Australia's Coastwatch program conducts over 15,000 flight hours annually across 8.2 million square kilometers in civil maritime surveillance operations (Coyne, 2019). Maritime environments, however, differ operationally from land border defense.

Indian border management along Pakistan and China illustrates the challenges of mountainous terrain and the need for specialized air-ground coordination protocols. Recent aerial engagements have highlighted the effectiveness of rapid air response capabilities but revealed coordination gaps between service branches during multi-vector attacks.

Clearly, while air power provides essential capabilities for border defense, existing operational concepts focus primarily on state-level threats or individual infiltrations rather than mass infiltrations targeting civilians. A paradigm shift involves developing new operational concepts that can rapidly transition from routine security support to mass infiltration response while maintaining civilian protection.

Israeli Air Force Doctrine Before October 7

Israeli military doctrine pre-October 7 reflected decades of operational experience addressing threat categories through specialized air power employment. The central framework distinguished between conventional military threats requiring

full defensive array activation and routine security operations addressing individual or small-group infiltrations (Rodman, 2001; Kober, 2015).

For conventional threats, the IAF maintained comprehensive "blocking" plans designed to stop advancing forces through coordinated air-ground operations. These plans employed attack helicopters for tank engagement, heavy bombs for road interdiction, and fighter aircraft for air superiority and close air support missions.

Routine security operations in Gaza were optimized for persistent surveillance and rapid response to individual or small-group infiltrations. The IAF provided continuous UAV patrols for intelligence collection and surveillance, attack helicopters for immediate response, and minimal fighter aircraft. These ground activity monitoring and selective engagement operations occurred without air superiority concerns (Finkel, 2024; Heller, 2024).

The doctrine included well-established air-ground coordination mechanisms, with UAV and attack helicopter assets attached directly to ground units at battalion level, providing tactical commanders with immediate air support capabilities. Gaza Division commanders possessed full authority over fixed-wing aircraft employment for preplanned targets, enabling rapid response to emerging threats within established parameters. These arrangements effectively handled routine security operations (Heller, 2024).

However, the doctrine contained a critical gap regarding coordinated mass infiltrations that exceeded security parameters while falling short of conventional military attack indicators. No systematic planning addressed scenarios where infiltrators breached border defenses and operated within Israeli territory against civilian targets, creating operational uncertainty.

The technological foundation of Israeli border defense emphasized advanced surveillance systems, electronic monitoring capabilities, and automated threat detection algorithms designed to identify and track individual or small-group infiltrations. This technological approach, while highly effective for routine security operations, created potential vulnerabilities to coordinated attacks designed to overwhelm sophisticated detection systems through numerical superiority and tactical surprise (Regev, 2025; Horev, 2024).

October 7 Event Analysis

The October 7 attack exposed gaps in existing air power doctrine through operational failures that revealed limitations in addressing mass infiltrations targeting border communities. Hamas achieved tactical surprise through coordinated breaches at multiple points along the Gaza border, rapidly

overwhelming defensive measures and penetrating Israeli territory before an effective air power response could be organized (Bar Yosef, 2024; Horev, 2024).

Command Structure Failures and Procedural Bottlenecks

The IAF's initial response delay on October 7 stemmed from procedural hurdles and approval processes attributable to pre-existing "supporting" doctrine. Traditional command procedures required ground force coordination and central approval before engaging targets in border areas, creating multi-layered, time-consuming approval processes. Doctrine mandated that air assets await specific targeting intelligence from ground units before engaging in combat. However, these ground units were themselves under attack and unable to provide coherent intelligence or targeting data (Shmueli, 2025; Shimoni, 2025; Heller, 2024; Finkel, 2024).

When command headquarters lost connectivity with forward positions, communication breakdowns created information gaps that prevented accurate threat assessment transmission to air units. Centralized command structure required engagement decisions to flow through higher headquarters facilities that were simultaneously managing multiple crises and lacked real-time situational awareness of individual breach points (Shmueli 2025).

This rigid command hierarchy proved inadequate for the rapid, distributed nature of the coordinated border assault, highlighting the need for a more flexible, decentralized air power employment doctrine.

Targeting Authority and Engagement Procedure Limitations

The October 7 attack revealed gaps in engagement authorities and procedures for air power employment against infiltrators operating within Israeli territory. While existing doctrine provided clear frameworks for engaging threats at or approaching the border, no systematic planning addressed immediate air engagement of infiltrators who had breached defensive lines.

Absence of predetermined engagement zones or pre-approved strike areas created decision-making delays during critical initial hours when rapid air response could have significantly reduced infiltrator effectiveness. Traditional rules of engagement emphasized positive target identification and civilian casualty avoidance through detailed coordination procedures, but these requirements proved difficult to fulfill under chaotic conditions where ground forces were simultaneously under attack and unable to provide coherent targeting intelligence (Shmuely, 2025; Shimony, 2025).

Authorization procedures for employing lethal air power within Israeli territory against infiltrators who had breached border defenses was a scenario

for which systematic planning had not been developed. This gap reflected broader conceptual limitations in understanding how air power employment should transition from border security support to civilian population protection (Heller, 2024).

Intelligence and Situational Awareness Limitations

Intelligence assessment frameworks optimized for routine security operations proved inadequate for understanding and responding to coordinated mass infiltration. Existing systems excelled at detecting and tracking individual or small-group infiltrations but lacked analytical frameworks for assessing coordinated, multi-point attacks (Regev, 2025; Shimon, 2025).

Reliance on technological solutions for threat detection and assessment created vulnerabilities when attackers employed tactics specifically designed to overwhelm sophisticated systems through coordinated action. Intelligence assessments focused on conventional military capabilities while potentially underestimating organizational capacity for coordinated ground infiltration using simple technologies (Allen & Chan, 2017). Air doctrine was optimized for responding to traditional attacks and conducting precision strikes, thereby lacking procedures for addressing swarm-style ground infiltrations requiring immediate area engagement rather than precision targeting (Dostri, 2023).

Constructing coherent operational pictures during mass infiltrations proved inherently difficult due to the dynamic, distributed nature of simultaneous attacks across multiple locations. Challenges extended beyond intelligence collection to real-time intelligence processing and decision-making under hybrid threat conditions where traditional analytical frameworks provided insufficient guidance (Shelach, 2024; Heller, 2024, Finkel, 2024)

Air-Ground Coordination Under Crisis Conditions

The October 7 experience revealed air-ground coordination limitations when security operations rapidly escalated to mass infiltration. While existing procedures proved effective for routine operations, they were not designed for simultaneous air support of ground forces and civilian population protection (Shimon, 2025; Shimony, 2025)

Communication breakdowns in command headquarters during the attacks created information gaps that prevented accurate threat assessment transmission to air units. Distributed simultaneous infiltrations at multiple points complicated coordination efforts and overwhelmed command structures designed for sequential crisis management.

Beyond technical communication capabilities, questions arise about command authority and decision-making procedures when routine security operations escalated to scenarios requiring immediate civilian population protection. Existing mechanisms assumed sufficient planning and coordination time, but mass infiltrations created time-critical situations requiring immediate response based on incomplete information (Shelach, 2024; Heller 2025).

Discussion

Doctrinal Gaps and Required Conceptual Changes

The October 7 analysis reveals specific doctrinal gaps requiring systematic address rather than general air power enhancement. The primary gap centers on developing operational concepts for scenarios where coordinated mass infiltrations exceed routine security parameters.

Lessons from the October 7 events suggest a fundamental paradigm shift is necessary in IAF border defense roles. The traditional concept of viewing the IAF as supporting or complementary ground force elements proved inadequate against sudden, multi-front events. Instead, a transition is required toward viewing the IAF as a leading element providing comprehensive border threat responses, fundamentally altering operational relationships between air and ground forces.

Traditional air power doctrine distinguishes between supporting ground forces in conventional military operations and providing assistance for routine security operations. Lacking are frameworks for scenarios where air power must rapidly transition from security support to civilian population protection under active attack. This gap reflects broader conceptual limitations in understanding air power's role when defensive measures are overwhelmed but absent conventional military threat.

Such conceptual change involves developing air power employment doctrine specifically for mass infiltration that recognizes the operational requirements of rapid transition from routine security support to immediate civilian protection response. This doctrine must address engagement authorities, coordination procedures, and command relationships when traditional boundaries between border security and territorial defense become operationally irrelevant.

Real-Time Situational Awareness: Operational Mechanisms

Transformation to air-centric border defense requires sophisticated real-time situational awareness capabilities that integrate multiple sensor inputs into actionable intelligence. The IAF must develop a multi-layered sensor architecture combining electro-optical/infrared systems mounted on persistent UAVs, ground-

based radar networks optimized for low-altitude detection, signals intelligence collection platforms, and human intelligence reporting systems.

Technical integration of these disparate data streams requires AI and machine learning algorithms designed for multi-source data fusion in order to create an instantaneous and coherent threat assessments. These sources include inputs from: radar tracks, visual confirmations, communication intercepts, and human reports.

Dissemination mechanisms must ensure that processed intelligence reaches air and ground units within seconds, not minutes, requiring secure, low-latency communication networks with redundant pathways and mobile command nodes that can maintain connectivity during electronic warfare attacks.

Rapid Lethal Response: Command and Control Mechanisms

Transition to rapid, semi-autonomous lethal response capabilities requires fundamental restructuring of command-and-control relationships between air and ground forces. Delegating operational control for light attack aircraft to territorial division commanders represents a departure from centralized air power employment doctrine.

Enhanced Engagement Authorities for Territory Defense

Addressing the engagement authority gap requires developing predetermined frameworks for air power employment within Israeli territory against infiltrators who have breached border defenses. These frameworks must balance rapid response against civilian protection while providing clear legal and operational guidance for air crews.

The solution involves establishing pre-approved engagement zones and streamlined authorization procedures for air power employment against confirmed infiltrators. These zones must account for civilian population locations while providing sufficient operational flexibility to address dynamic threat situations.

Implementation requires new rules of engagement that specifically address mass infiltration scenarios, including clear identification requirements for fast-moving, unconventional threats and explicit authorization procedures for engaging targets within populated areas. These rules must provide operational guidance that enables immediate action while adhering to international humanitarian law principles and maintaining civilian protection standards.

Air-Ground Coordination Enhancement for Civilian Protection

Enhancing air-ground coordination for civilian protection requires operational procedures that account for the challenges of protecting dispersed civilian

populations under active attack. Traditional coordination mechanisms assume military-to-military communication between organized units, but civilian protection scenarios may require coordination with local security forces, emergency services, and civilian authorities.

The enhanced coordination framework must provide mechanisms for rapid information sharing between air assets, ground forces, and civilian protection agencies while maintaining operational security and avoiding information overload. This requires communication protocols that prioritize critical information flow and decision-making support rather than potentially unattainable comprehensive situational awareness.

Implementation involves creating joint training programs that address coordination between air power, ground forces, and civilian protection agencies under mass infiltrations. These programs must replicate the stress and uncertainty of October 7-type situations to build practical coordination capabilities.

Technological Integration for Enhanced Response Capabilities

While existing technological capabilities provide substantial border security support, coordinated mass infiltrations require enhanced integration of detection, assessment, and response systems to enable rapid transition from routine monitoring to active defensive operations. Technological enhancement focuses on decision-making support rather than expanded surveillance capabilities.

Enhanced sensor integration must provide real-time assessment capabilities that can reliably distinguish between routine security incidents and mass infiltration indicators. This requires developing analytical algorithms specifically designed for coordinated threat detection.

The technological framework must support rapid decision-making under conditions of incomplete information by providing assessment tools that can operate effectively with limited initial data, updated as situations develop. This approach recognizes that perfect situational awareness may be unattainable during coordinated attacks and focuses on providing sufficient information for effective decision-making rather than comprehensive threat assessment.

Implications for Force Development and Air Doctrine

Training Requirements

Addressing doctrinal gaps revealed by October 7 requires creating specialized training programs that focus on coordinated mass infiltration response rather than general air power enhancement. These programs must address the challenges of rapid transition from routine security to civilian population protection.

Pilot and air crew training must emphasize rapid decision-making under conditions of incomplete information and civilian protection, focusing on scenarios where traditional rules of engagement may provide insufficient guidance. Advanced simulator-based training should replicate the cognitive load and time pressure of mass infiltrations, incorporating realistic threat presentations and communication degradation.

Ground controller and coordination personnel training must address challenges of managing air support for civilian protection where traditional military coordination procedures may prove inadequate. This training should emphasize information prioritization, rapid decision-making support, and crisis coordination with civilian protection agencies.

Equipment and Capability Requirements

Equipment requirements focus on enhancing response capabilities for mass infiltration scenarios. Priority areas include communication systems that can maintain connectivity during coordinated attacks, decision-making support tools that can operate effectively with incomplete information, and engagement systems that can provide precise response capabilities in populated areas.

Enhanced communication capabilities must provide redundant pathways for coordination among air assets, ground forces, and civilian protection agencies while maintaining operational security. These systems should prioritize flow of critical information over comprehensive data sharing for focused decision-making.

Decision-making support systems must provide rapid assessment capabilities that can distinguish between routine security incidents and indicators of mass infiltration while supporting rapid response escalation decisions based on incomplete initial information. These systems should focus on providing actionable intelligence rather than comprehensive situational awareness

Doctrine Development for Hybrid Threat Response

Doctrine for coordinated mass infiltration response requires creating new operational concepts that bridge the gap between routine security operations and conventional military response while addressing requirements of civilian protection in border communities. This doctrine must provide clear guidance for rapid transition between operational modes without unnecessary escalation or inappropriate force employment.

The doctrine must address command relationships and authority distribution where traditional service boundaries become operationally irrelevant, providing clear guidance for decision-making and resource allocation during coordinated

attacks. This includes frameworks for prioritizing civilian protection, establishing engagement authorities, and establishing time-critical coordination procedures.

Implementation requires extensive joint training and exercise programs that test doctrinal concepts under realistic conditions while building coordination capabilities between air power, ground forces, and civilian protection agencies. These programs must address challenges of mass infiltrations rather than general joint operations training.

Command and Control System Integration

Creating effective air-ground force integration in command-and-control systems is the most significant challenge in the doctrinal transformation. The rapid, multi-directional attack of October 7 exposed fundamental incompatibilities between traditional air and ground force command cultures, decision-making processes, and operational timelines.

Proposed integrated command centers at the divisional level must create shared authority structures. Each integrated center should be co-commanded by senior IAF and Army officers with equal authority over border defense operations within their respective geographic sectors.

Authority distribution should designate air commanders with autonomous control over intelligence collection, airspace management, and immediate threat engagement. In contrast, ground commanders retain authority over territorial defense, population protection, and sustained operations. This structure requires new legal frameworks that clarify command relationships and responsibility allocation.

Findings and Analysis

Implementation Methodology

The analysis answers the research questions defined at the beginning of this study. First, regarding the characteristics of large-scale ground incursions, four key characteristics are recognized: multi-front nature, initial speed and intensity, tactical diversity, and exploitation of surprise.

Secondly, key components for creation of air-ground force integration include transitioning to integrated command and control models, developing joint situational awareness platforms, and creating continuous joint training programs.

Finally, regarding required force building and doctrine changes four primary areas of change are identified: human resources, equipment and technology, training programs, and doctrine and procedures.

Legal and Ethical Considerations

The conceptual shift raises important questions in key areas. Increasing IAF autonomy in border threat response necessitates the development of new control and oversight mechanisms suitable for rapid and dynamic operational environments. These changes must strictly adhere to international humanitarian law while maintaining operational effectiveness.

Operating in civilian protection areas requires developing special procedures to minimize collateral damage, including advanced identification technologies, specialized training for pilots and system operators, and continuous quality control. These requirements must be balanced against operational necessity for rapid response.

Limitations

This study faces several limitations. Open-source reliance restricts access to detailed operational data, classified intelligence, and specific technological capabilities relevant to October 7. Recency of events limits historical context and may bias interpretation. Focusing on Israel may reduce the relevance of findings for other regions.

Recommendations for Future Research

Future research should investigate psychological and social factors impacting military institutional change for mass infiltration response doctrine, organizational resistance, and effective change management. Comparative studies should analyze how different nations address mass infiltration and similar threats, highlighting effective air power and air-ground coordination for civilian protection. Technical research must prioritize communication systems tailored to rapid response decision-making under uncertainty, upholding civilian safety. Operational research should use real-world simulations and exercises to assess challenges of implementing new doctrine.

Conclusions

The October 7 attack revealed doctrinal gaps in IAF border defense capabilities that require systematic address through targeted conceptual changes. The analysis demonstrates that while existing air power capabilities provide substantial border security support, coordinated mass infiltrations targeting civilian border communities create operational requirements inadequately addressed by current doctrine.

This conceptual shift involves developing air power employment doctrine specifically for scenarios where coordinated attacks targeting civilians exceed

routine security parameters. Enhanced engagement authorities, improved air-ground coordination procedures, and specialized training programs must address the challenges of mass infiltration response.

Implementation requires careful balance between operational effectiveness and civilian protection, recognition of the distinct challenges created by civilian settlements located on international borders, and development of coordination mechanisms that function under crisis conditions. Success depends on addressing specific operational gaps revealed by October 7 rather than general air power modernization.

Transforming IAF roles in border defense from supporting to leading represents a fundamental evolution in military thinking, reflecting contemporary realities, where security threats are increasingly diverse, rapid, and unpredictable. Successful change implementation not only determines the effectiveness of Israeli border security but also serves as a model for other nations facing similar asymmetric challenges.

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