



FROM RETALIATORY RESTRAINT TO PREVENTIVE AGGRESSION: AN ANALYTICAL STUDY OF RESPONSIVE STRIKE THEORY, PRE- EMPTIVE SECURITY DOCTRINE, AND MODERN WAR ESCALATION

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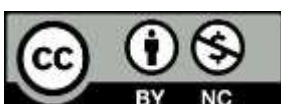
Abstract:

This paper looks at the idea and the real change from responding with restraint to being responsive about the strike, pre-emption by way of security doctrine and preventive aggression in current security crises. The paper highlights a central question in strategic studies; namely, whether claims of anticipatory defence, limited uses of force and techno-reliant rapid response can stabilize deterrence or, on the other hand, intensify the escalation of modern war. The study employs a mixed-method design, which synergizes doctrinal analysis and comparative case interpretation with a coded secondary dataset. The coded secondary dataset contains 36 interstate or cross-border security episodes which took place during the period from 2020 to 2024. Each of the episodes has been coded according to the action type, military capability score, technology complexity, fatality band, diplomatic intervention, alliance support and level of escalation. We use a descriptive statistic, crosstabulation, Spearman correlation, chi-square test, and exploratory ordinal logistic regression to examine the association between security doctrine and escalation intensity. The results suggest that retaliatory restraint takes place in incidents of low and moderate escalation, so's the responsive strike which is further associated with a contained but unstable escalation. The preventive aggression sees strong clustering in the situation of high escalation. The increased complexity of technology and severity of fatalities raises escalation uncertainty, while diplomatic intervention seems to be frequently occurring in severe crises instead of a mere independent restraint mechanism. The paper was concluded that the vanishing of the line the has burial of pre-emption and prevention puzzles international security governance facing new legal, ethical and strategic challenges.

Key words: *Retaliatory restraint; responsive strike theory; pre-emptive security doctrine; preventive aggression; deterrence; escalation; international security.*

1. Introduction

The language of restraint, retaliation, pre-emption, and prevention has become analytically unstable due to the contemporary security environment. States keep characterising their military activity as defensive, limited, necessary, and proportional. Nevertheless, the operational tempo of missile strikes, drone hits, cyber operations, and cross-border raids often closes the window for assessment and diplomacy. The traditional understanding of retaliatory restraint was that a state would absorb a hurt but not the next one and control escalation. In modern responsive strike theory, by contrast, it is assumed that credibility can call for rapid and





visible reaction following a trigger. A difficulty arises when this counteraction can become blurring into anticipatory action, that decision makers can claim that waiting would invite greater harm (Buchan, 2023; Hood, 2023).

The move to anticipatory security logic from reactive security logic is not just semantic. It alters perceptions of imminence, necessity, proportionality, deterrence by states. The pre-emptive doctrine is typically justified on the grounds of acting against an imminent threat while preventive aggression is aimed at a future threat or threat of negative power shift. The difference is significant because international law and strategic ethics treat imminent self-defence and choice preventive war differently. Contemporary legal theory emphasizes that even self-defence must remain disciplined by necessity and proportionality when measures that are non-forcible, autonomous, space-based, or cyber-linked are in issue (Buchan, 2023; Kleczkowska, 2023; O'Meara, 2025).

Contemporary War escalation also conditioned by technical complexity. There are precision strike systems, unmanned systems, cyber operations, integrated air defence, satellite dependencies, and machine-speed information flows that can not only make retaliation appear more controllable, but also heighten the risk of misperception. According to the cyber deterrence literature, the material capability is not the only element that states look at when deciding on strategy. Similarly, efforts to promote intelligent military systems argue that the speed of automation and information flow may create inadvertent escalation between nuclear-armed or conventionally important foes (Johnson, 2022).

The empirical context underscores the urgency of the problem. According to SIPRI, the military spending of the world has reached USD 2718 billion in 2024, a huge jump as wars and political tensions persist (Liang et al., 2025).

The UCDP recorded historically high levels of state-based armed conflict in 2024, while ACLED noted that violence evolving into international and state-linked violence grew in 2024 (ACLED, 2025; Davies et al., 2025). These aggregate trends do not of themselves prove that pre-emptive doctrines create escalation, but suggest a security environment in which decision makers are more willing to justify force as anticipatory, responsive, or strategically necessary.

Consequently, this paper examines through a conceptual analysis and an exploratory quantitative coding the movement from retaliatory restraint to preventive aggression. The main research question is whether these security practices operate as mechanisms of escalation control or acts that facilitate broader preventive aggression. The study does not provide operational military guidance. The first purpose is academic: to clarify concepts, test associations in a transparent coded data set, and examine the strategic, legal and ethical consequences of current escalation behaviour terming from recent sources (2020-2025).

Background and Conceptual Context.

Should not retaliate Retaliatory restraint is when an action is limited due to some provocation. It is not inaction that one might think, rather a strategic decision designed to minimise a particular incident from dictating the overall path of a crisis. Retaliatory restraint can take the form of diplomatic protest, sanctions, defensive deployment and protection, limited engagement, or delay. In escalation theory, restraint preserves bargaining space as it signals that the state's recognition of cost beyond barrage. Nonetheless, restraint may also be used domestically as a label for weakness. When political narratives require punishment following casualties, territory violation or humiliation this is done (Hood, 2023; United Nations Secretary-General, 2023).





Responsive Strike Theory is Further Explored The theory of responsive strike holds that limited force can be used after an event that triggers a violent response. The purpose of the limited force is to restore credibility of deterrence, change behavior with punishment for a violation, or compel adversary caution. In contrast to general retaliation, it emphasizes time, calibration, and messaging. As a first cut, a responsive strike is stabilizing if its goals are narrow, its targets are politically legible, and its termination conditions clear. When the opponent interprets them as preparation for a larger campaign, when damage to civilians leads to a loss of legitimacy concerning claims of restraint, or when audiences domestically translate punishment on the symbolic level into a claim for escalation (Baughman & McDermott, 2020; Hood, 2023) it becomes destabilising.

Preventive Security Approach. The tenet of pre-emption is that a threat must be sufficiently imminent that waiting would materially degrade the security position of the defender. The doctrinal challenge is evidence based. What counts as imminence, who assesses it, and how transparent must the evidence be? Modern crises see states raising missile preparations, armed group mobilisations, cyber indicators or intelligence warning to justify early action. Legal scholars warn that necessity and proportionality are still limiting principles even where states claim self-defence even in the autonomous weapon and space-security contexts (Buchan, 2023; Kleczkowska, 2023; O'Meara, 2025).

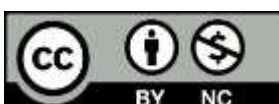
Preventive Aggression Preventive aggression refers to action taken against another state to prevent an imminent attack. The reason may stem from fear of an enemy's increasing ability, the belief that the window of opportunity is closing, or a wish to change the regional balance. Preventive aggression poses a more complex problem in law and ethics than pre-emption because predicting danger is not an attack. In practice, the categories usually get blurry because states develop preventive goals in defensive language. The focus of the current work is the ambiguity of these terms, as preventive aggression is assumed to show greater escalation intensity than restraint or limited responsive strike (Buchan, 2023; United Nations, 2024).

Failure of Deterrence and Escalation Spiral

When one side fails to alter the expected costs and benefits of one or the other, deterrence fails. Further, when an adversary misreads capability, resolve, and intention, deterrence fails. "Escalation spirals arise when both sides interpret their own actions as defensive but the actions of the other side as offensive." This reciprocal attribution issue is further complicated by fragmented command chains, the use of proxies, cyber ambiguity, and political incentives to show resolve. The latest deterrence literature emphasize that deterrence and escalation are interconnected rather than separable. A move intended to deter, then, may generate counter-deterrence (Borghard & Lonergan, 2023; Hood, 2023; Lonergan, 2023).

Escalation domination. With escalation dominance, one can take charge of all levels of a crisis, only by persuading the adversary that the next escalation will cost them more than the counter-escalation. The military capability of the US is not the only factor; there's also the credibility, communication, alliance, domestic politics, and off-ramps. One example of this are the Russian strategic deterrence literature which have been analyzed as an integrated system employing both military and non-military means to impose costs and manage escalation. But escalation dominance can be merely an illusion if an adversary values the contested issue more or thinks it can sustain limited costs.

Strategic Ambiguity Being strategically ambiguous may not pay off in the long run. When red lines, retaliation thresholds, attribution standards, or alliance commitments are not clearly defined, it may deter some circumstances and allow for testing in others. It is particularly difficult due to the contested nature of





attribution, proportional response, and public signalling in cyber operations. According to Lonergan (2023), beliefs about cyber deterrence and escalation play a key role in shaping strategy. In addition, Borghard and Lonergan (2023) argue that denial and resilience are more important than punishment.

Proportionality and necessity Proportionality and necessity are both legal and strategic. Necessity is to see if a threat is such that force is required to repel it. Proportionality is to see if the scale, scope, and effects of force are limited to that defensive purpose. These principles are important not just because material harm can prompt escalation but legitimacy can too. Civilians might suffer, third-party interests might sustain harm, and contested domains might be attacked (space in particular) causing what is purported to be a defensive act to become a broader political crisis (Buchan, 2023; O'Meara, 2025; UN, 2024).

Table 1. Conceptual Distinction between Retaliatory Restraint, Responsive Strike, Pre-emption, and Preventive Aggression

Concept	Temporal logic	Strategic purpose	Typical instrument	Expected escalation risk
Retaliatory restraint	After provocation	Preserve crisis control	Limited/no force; diplomacy	Low to moderate
Responsive strike	After triggering event	Restore deterrence credibility	Limited military response	Low to high depending on scope
Pre-emptive action	Before perceived imminent threat materializes	Prevent immediate harm	Anticipatory force based on imminence claim	Moderate to high
Preventive aggression	Before future/potential threat matures	Alter future balance of power	Broad offensive or coercive campaign	High

Note. The distinctions in Table 1 are analytical categories used for coding. Actual cases may contain mixed motives and contested legal narratives; therefore, the coding represents the dominant observable logic rather than an official legal classification (Buchan, 2023; Hood, 2023).

3. Review of Literature

Contemporary deterrents and counteractions. Recent deterrence literature has moved beyond simple punishment models towards more complex accounts of denial, resilience, signalling, and escalation management. According to Borghard and Lonergan (2023), cyber deterrence by denial requires reducing the expected benefits of adversaries, not retaliation. Hood (2023) warns that contemporary deterrence can lead to unintended escalation, as the same capability may be interpreted as defensive by one actor and offensive by another. The assumption of this paper is supported by analysis that retaliation and deterrents are not automatically stabilizing.

Imminent Action and Pre-emptive Force The right of self-defence cannot be seen in isolation from necessity and proportionality” – Legal scholarship 2020-2025. Buchan (2023) further examines if non-forcible measures that are necessary to repel an armed attack can be justified by self defence. The standards of self-



defence are applied to autonomous weapons by Kleczkowska (2023), in anticipatory, pre-emptive, and preventive settings. O'Meara (2025) raises similar worries about anti-satellite weapons, arguing that, at least, conformity to jus ad bellum standards can lessen warfare and escalation risks in space.

Preventive aggression and international law 3.3 Many researchers view preventive aggression as more problematic than the pre-emption because it relies on speculation about the future. The use of drones, cyber tools, and long-range precision systems raises complications for understanding the boundary between imminent and future threats. In cases where states claim that an adversary's capabilities have become intolerable, whether the use of force is legally restrained depends on whether the threat asserted is immediate, whether peaceful alternatives to the use of force remain and whether the force used is restricted to a defensive purpose. Preventive aggression was chosen for analysis as the category most prone to escalation due to the broad aim, longer duration, and opponent's incentives to fully mobilize (Buchan, 2023; UN, 2024).

Rise of modern conflicts between states. According to the UCDP and ACLED data, organized political violence and state-linked conflict are serious problems in the current decade. According to Davies et al. (2025), UCDP noted state-based conflict events at historic highs in 2024, while ACLED (2025) points to the increasing share of international and state-linked violence in conflict events. The pre-existing datasets do not directly code pre-emption or preventive aggression, yet they are distinctly empirical in nature. These datasets can help identifying conflict episodes, their intensity, fatalities, and patterns of crisis. The current research interprets them as expense sources either to construct a case transparently or to replace legal classification.

Technology, drones, cyber operations, missile defence and hybrid warfare. The movement of armies on the battlefield is no longer common. Cyber operations have the potential to have an impact on critical infrastructure and modify public narratives as well as influence military command systems. On the other hand, drones and missiles can generate rapid cross-border effects. Furthermore, space assets have the ability to shape warning, communication, and targeting. According to Lonergan (2023), beliefs about norms and escalation shape cyber strategy. Meanwhile, Johnson (2022) argues that the use of smart military systems may increase the risk of inadvertent escalation. This is alleged to occur with accelerated decisions and complicating assessment. The doctrines of necessity and proportionality will have to adapt without renunciation (Kleczkowska, 2023; O'Meara, 2025).

Civilian Damage, Proportionality and Ethical Limits Modern-day escalation is linkable to civilian harm, in the sense that civilian deaths, damage to infrastructure and displacement can make limited military exchange a legitimacy crisis. United Nations (2024) notes that wars nowadays come with high civilian costs primarily because of urban warfare, use of explosive weapons, targeting of civil infrastructure, etc. An ethical analysis of airstrikes requires more than assessing their tactical effectiveness. Any airstrike must also preserve distinction, proportionality, and feasible de-escalation. When states present their force as preventive, this point is particularly salient as such speculative threats can serve to normalize expansive violence.

synthesis of literature The literature offers substantial conceptual resources for examining deterrence, self-defence, technology, and the protection of civilian; however, legal analysis is frequently decoupled from empirical conflict coding. Analysis of strategic studies focuses on deterrence and escalation, international law scholarship focuses on necessity, proportionality, and self-defence while conflict datasets classify events, actors, fatalities, and locations. The present study combines these strands through a coded dataset linking doctrinal logic to escalation outcomes while being clear about the limitations of coding from secondary sources (ACLED, 2024; GDELT Project, 2025; SIPRI, 2024; UCDP, 2025).





4. Framework of Theory

The study utilises deterrence theory to explain how threats, punishments, denial capabilities, and credibility shape the behaviour of adversaries. Nonetheless, it views deterrence as probabilistic, not automatic. If a responsive strike is perceived as limited resolve and capability, it may deter the counterpart. But it may also provoke a counterstrike as the adversary may feel humiliated, strategically encircled, and suffer unacceptable loss.

Present-day deterring research backs up this warning, which shows that deterrence in the cyber and cross-domain context relies on denial and resilience, as well as belief structures, not merely punishment (Borghard & Lonergan, 2023; Lonergan, 2023).

Security dilemma theory highlights the potential for defensive actions to be seen as an offense. The concept of pre-emptive doctrine is especially vulnerable to the security-dilemma dynamics owing to the reason that one state's claim of imminent danger may appear to the adversary as preparation for aggression. When both parties think delay is dangerous, the parties are likely to take anticipatory action. The dilemma is intensified by technology. In-depth reliance on long-range precision strike, cyber access, drones, and satellite-enabled targeting reduces warning time and makes it hard to figure out intentions (Johnson, 2022; Kleczkowska, 2023).

The ethical lens used here is just war theory which focuses on just cause, legitimate authority, last resort, proportionality, and discrimination. The paper does not invoke older canonical texts in circumstances where the reference window is limited to 2020-2025. Rather, it draws from recent legal and policy scholarship on self-defence, autonomous weapons, civilian protection and space security. Preventive aggression, because it undermines last resort reasoning and unduly expands the claimed range of defensive necessity (Buchan, 2023; UN 2024), requires special scrutiny.

The realist theory of state survival helps account for why leaders may adopt a pre-emptive or preventive logic even when legality is contested. According to realists, states fear a shift in power, the abandonment of alliances, territorial encirclement and military surprises. If leaders assume that later conflict costs will exceed those at present, a preventive aggressive option will be strategically appealing. Nonetheless, realist reasoning acknowledges the pitfalls of overreach, where the application of force aimed at bolstering security can spawn balancing coalitions, sanctions, drawn-out conflict, and domestic fatigue (IISS, 2024; Liang et al., 2025).

Liberal institutionalism advocates the use of civil forces and acceptance of international decisions. Even when force occurs, escalation is manageable through transparency, third-party mediation, compliance with humanitarian law, and diplomatic off-ramps. The Secretary-General of the UN's New Agenda for Peace seeks to bolster prevention, trust-building, and renewed collective security, amidst increasing geopolitical fragmentation (United Nations Secretary-General, 2023). In this respect, since the dataset captures the variable of diplomatic intervention, it interprets that as reactive crisis management and not as a guaranteed de-escalation mechanism.

Constructivist theory highlights how threat perception and strategic narratives constructs doctrine. States do not only react to material threats. They understand identity, history, public memory, humiliation, and norms. As one party's description of a strike as responsive and defensive, the other one's as aggression needing response. The insight would help... code category differentiate from official manifesto. The current research



marks the prevailing observable rationale in every event while acknowledging that the storylines remain debated at law and politics (Lonergan, 2023; Hood, 2023).

5. Gap in Research

Past studies have not deeply combined retaliatory restraint, responsive strike logic, pre-emptive doctrine, preventive aggression, and escalation outcomes in one empirical model. Scholars of legal studies often assess whether the use of force meets self-defence conditions. Strategic studies, on the other hand, have examined deterrence and escalation. However, they have not systematically coded doctrinal categories. Although conflict datasets provide extensive information about the occurring events, they do not usually classify whether the state action is best understood as restraint, response, pre-emption, or prevention. The normative debate and empirical assessment is separated by this development (ACLED, 2024; Buchan, 2023; UCDP, 2025).

The technology is the second gap. The literature often treats cyber, drones, missiles, and space-enabled systems as accelerators of modern warfare but rarely examines their combined impact at a doctrinal level. The current essay considers technological complexity as a binary coding variable to see if cases involving missiles, drones, cyber-linked systems, or advanced cross-domain capability are associated with a higher escalation intensity. While this does not imply causation, it is a structured first step in linking one's doctrinal claims with one's technological context (Johnson 2022; Kleczkowska 2023; Lonergan 2023; O'Meara 2025).

The third gap concerns the treatment of diplomacy. Engaging diplomatically tends to lessen escalation. Severe crises are the ones most likely to attract mediation, emergency communication, UN involvement., and alliance consultation. This study considers diplomatic intervention to be a crisis-reactive variable and not a independent variable that causes restraint. This distinction aids in preventing the frequent mistake of considering it de-escalation simply because there is diplomacy (United Nations Secretary-General, 2023; United Nations, 2024).

6. Objectives, Research Questions, and Hypothesis.

The Study Objectives Goal 6.1

To investigate the conceptual shift from restraint on retaliation to aggression on prevention in modern security doctrine.

To understand the connection between security doctrine and escalation risk.

To determine if responsive strikes can de-escalate, temporarily stop escalation or escalate retaliation processes

The purpose of this paper is to assess the doctrinal, legal and ethical implications of anticipatory military action.

This research aimed to explore the conflict-event coded data based on descriptive statistics through cross-tabulation, correlation as well as ordinal regression.

Study Questions

What is the difference between responsive strike and retaliatory restraint theories?

In what circumstances does preventive aggression occur, security doctrine?

Are high escalation probabilities raised by pre-emptive action?





How do threat perception, military capability, technology complexity and alliance politics play a role in escalation?

Can drones, missiles, cyber operations, and cross-domain systems reshape escalation control?

6.3 Assumptions

Pre-emptive security operations show greater escalation intensity than restrained retaliation.

H2: When limited in scope, responsive strikes can cause escalation, but less than broad preventive campaigns.

There is a positive relationship between military capability and escalation intensity.

H4: CONFLICT EPISODES LINKED TO CYBER, DRONE, MISSILE OR CROSS DOMAIN TECHNOLOGIES WILL HAVE GREATER ESCALATION UNCERTAINTY THAN CONVENTIONAL BORDER INCIDENTS

A coded analytical dataset is utilized to test these hypotheses. The results cannot be interpreted as causal estimates because the design is observational and the sample is purposive rather than random. (ACLED, 2024; UCDP, 2025)

7. Approach.

The research employs a mixed-methods analytical design. The qualitative component provides definitions, legal categories, and tactical modes. A transparent coding scheme is applied to a purposive sample of 36 episodes of inter-state or trans-border security from 2020 to 2024. The unit of analysis is a security episode as opposed to an individual battlefield event. The selection is apt for the study investigates the logic of escalation, framing by doctrine, and consequences which unfold across incidents within a crisis (ACLED, 2024; GDELT Project, 2025; UCDP, 2025).

The data type is not primary. They identified the episodes based on accessible conflict-event datasets coming from institutions' reports and defence and conflict documentation. ACLED offers event-based insights into political violence, its perpetrators, dates, and locations; UCDP who provide more structured data on armed conflict and organized violence; GDELT provides high-frequency event and media-coded data; SIPRI and IISS provide defence spending and capability context (ACLED, 2024; Davies et al., 2025; GDELT Project, 2025; IISS, 2024; SIPRI, 2024).

The sampling technique used is purposive because the paper focuses on security episodes where doctrinal logic is observable. The sample consists of cases from both the MENA region and countries in East and South Asia. The events in question involve direct crisis between states, cross-border incidents, coercive actions, missile and drone firings, and crisis management. The goal is not to calculate a global escalation rate but to assess whether systematic patterns in the escalation level emerge from coded doctrinal categories.

The research utilizes solely public secondary data and does not point to private individuals. Because the report deals with conflict and civilian harm, it does not provide any detail on operational targeting, tactical advice – or military guidance. The coding of fatality in ordinal bands, rather than exact counts, is to prevent false precision in cases when the sources differ or when there is uncertainty in reporting events. This is in line with larger caution on the measures of uncertainty for conflict databases (Davies et al., 2025; United Nations, 2024).





8. Creation of the Dataset and Parameters.

The dataset is coded analytical dataset verified from secondary sources. This dataset is not the official one of ACLED, UCDP, SIPRI, IISS or GDELT. Those sources provide the documentary basis to identify episodes and develop transparent ordinal measures. This method is fitting when exact numbers at the event-level are not consistently comparable cross-crisis type, namely where episodes overlap with state forces, non-state armed groups, missile exchanges, cyber-linked ambiguity, and diplomacy (ACLED, 2024; GDELT Project, 2025; UCDP, 2025).

Escalation level is the dependent variable and it was coded as 1 = low, 2 = medium and 3 = high. Low escalation involves a minor incident that is de-escalated with no sustained interchange. Moderate escalation refers to serious but limited military engagement across borders. High escalation implies a long-lasting war, broad campaigns, large-scale mobilization, direct state vs. state exchange with high risk of crisis or a full-scale war. The independent variables are doctrine intensity, military capability score, technology complexity, fatality band, diplomatic intervention, and alliance support.

The intensity of the Doctrine is coded as 1 for retaliatory restraint, 2 for responsive strike, 3 for pre-emptive action, and 4 for preventive aggression. The coding relies on observable logics that are dominant, not on state claims. A state may label an act as defensive even where the analytical coding puts it in a higher intensity category. Military capability score is based on the broad capability and defence-spending bands that are derived from subsidiary sources and coded as 1 to 5. The use of drones, missiles, cyber-linked systems, cross-domain capabilities or other technologies that add significant complexity to warfare is coded 1 (IISS, 2024; Liang et al., 2025; SIPRI, 2024).

The Fatality band indicates the known direct deaths and is coded as follows: 0 refers to “no known direct deaths”; 1 refers to “low”; 2 refers to “medium”; 3 refers to “high”; 4 refers to “very high/war scale”. An episode is coded a 1 on diplomatic intervention if mediation or emergency communications are evident, or there is involvement of international organizations, consultations among allies, or cease-fire diplomacy. When a state operates with a clear alliance, coalition, patron, or security-partner support, Alliance support is coded as 1. The coding scheme is made to facilitate exploratory statistics with clarity about uncertainty.

Table 3. Variables, Indicators, Coding, and Data Sources

Variable	Type	Coding	Operational definition	Main data source
Escalation level	Dependent variable	1 low; 2 moderate; 3 high	Coded from crisis scale, duration, exchange pattern, and outcome	ACLED/UCDP/GDELT; case chronologies
Doctrine intensity	Independent variable	1 restraint; 2 responsive; 3 pre-emptive; 4 preventive	Dominant observable logic of action	Legal and strategic literature; case coding
Military capability score	Independent/control	1 very low to 5 very high	Broad capability and expenditure category	SIPRI; IISS
Technology complexity	Independent variable	0 conventional/simple; 1 drone/missile/cyber/cross-domain	Presence of advanced strike or hybrid technology	IISS; cyber and autonomy literature



Fatality band	Control/intensity	0 none to 4 very high	Ordinal casualty severity band	ACLED/UCDP/UN reporting
Diplomatic intervention	Control	0 no; 1 yes	Visible mediation, crisis call, ceasefire effort, or institutional engagement	UN/GDELT/official and open chronologies
Alliance support	Control	0 no; 1 yes	Coalition, patron, alliance, or partner support	IISS; public security reporting

9. Data Analysis and Results

An analysis carried out through six steps, descriptive statistics, frequency distribution, crosstab, chi-square testing, Spearman correlation and exploratory ordinal logistic regression. The statistical results must be regarded not as population level causal inference but as pattern detection in a coded purposive sample. The results are nevertheless instructive because they show whether doctrinal categories and how they behave directionally theorized. According to Figure 1, the frequency of doctrine/activity types is given; according to Figure 2 the annual reports; according to Figure 3 regional composition; according to Figure 4 doctrine by level of escalation; according to Figure 5 capability and escalation; according to Figure 6 correlation summary.

There are a total of 36 cases in the dataset. The most common category is responsive strike with 13 episodes, followed by pre-emptive action with 9, retaliatory restraint with 8 and preventive aggression with 6. This distribution is reflective of the paper's research interest in crises where states try to manage or change the escalation by limited, anticipatory or expanding force. The greater number of responsive-strike cases also indicates how often modern states claim that limited military action is legitimate for retaliation or restoration of deterrence rather than as declaration of war (ACLED, 2025; Hood, 2023).

Table 2. Summary of Selected Conflict/Security Episodes Used in the Coded Dataset

Case	Year	Region	State actor	Rival/adversary	Action type	Capability	Tech	Escalation	Outcome
C01	2020	Middle East	United States	Iran	Pre-emptive action	5	1	2	Contained escalation
C02	2020	South Asia	India	China	Retaliatory restraint	4	0	2	Contained escalation
C03	2020	Caucasus	Azerbaijan	Armenia	Preventive aggression	2	1	3	Full-scale escalation
C04	2020	Middle East	Turkey	Syrian state forces	Responsive strike	3	1	2	Contained escalation
C05	2020	Middle East	Israel	Gaza armed groups	Responsive strike	3	1	1	De-escalation
C06	2021	Middle East	Israel	Gaza armed groups	Responsive strike	3	1	3	Prolonged escalation
C07	2021	Caucasus	Armenia	Azerbaijan	Responsive strike	2	0	2	Contained escalation
C08	2021	Middle East	Israel	Iran-linked forces	Pre-emptive action	3	1	2	Contained escalation
C09	2021	East Asia	China	Taiwan	Retaliatory restraint	5	1	2	Contained escalation



C10	2022	Europe	Russia	Ukraine	Preventive aggression	5	1	3	Full-scale escalation
C11	2022	Middle East	Israel	Gaza armed groups	Pre-emptive action	3	1	2	Contained escalation
C12	2022	East Asia	China	Taiwan	Responsive strike	5	1	2	Contained escalation
C13	2022	Caucasus	Azerbaijan	Armenia	Preventive aggression	2	1	3	Prolonged escalation
C14	2022	Middle East	Iran	Iraqi Kurdistan targets	Pre-emptive action	2	1	2	Contained escalation
C15	2022	Middle East	Turkey	Kurdish armed groups	Pre-emptive action	3	1	2	Contained escalation
C16	2022	South Asia	India	China	Retaliatory restraint	4	0	1	De-escalation
C17	2023	Caucasus	Azerbaijan	Nagorno-Karabakh authorities	Preventive aggression	2	1	3	Full-scale escalation
C18	2023	Middle East	Israel	Hamas/Gaza armed groups	Responsive strike	3	1	3	Full-scale escalation
C19	2023	Middle East	United States	Iran-linked groups	Responsive strike	5	1	1	De-escalation
C20	2023	Middle East	Israel	Hezbollah	Responsive strike	3	1	2	Contained escalation
C21	2023	Europe	Ukraine	Russia	Pre-emptive action	3	1	2	Contained escalation
C22	2023	East Asia	China	Taiwan	Pre-emptive action	5	1	2	Contained escalation
C23	2023	Europe	Kosovo	Serbia-linked armed group	Retaliatory restraint	2	0	1	De-escalation
C24	2023	East Asia	South Korea/United States	North Korea	Retaliatory restraint	5	1	2	Contained escalation
C25	2024	South Asia/Middle East	Iran	Pakistan	Responsive strike	2	1	2	Contained escalation
C26	2024	Middle East	United States/United Kingdom	Houthi forces	Responsive strike	5	1	2	Contained escalation
C27	2024	Middle East	Iran	Israel	Responsive strike	4	1	3	Contained escalation
C28	2024	Middle East	Israel	Hezbollah/Lebanon	Preventive aggression	3	1	3	Prolonged escalation
C29	2024	Europe	Ukraine	Russia	Pre-emptive action	3	1	3	Prolonged escalation
C30	2024	Europe	Russia	Ukraine	Preventive aggression	5	1	3	Prolonged escalation
C31	2024	East Asia	China	Taiwan	Responsive strike	5	1	2	Contained escalation
C32	2024	South Asia	India	China	Retaliatory restraint	4	0	1	De-escalation
C33	2024	Caucasus	Armenia	Azerbaijan	Retaliatory restraint	2	0	1	De-escalation



C34	2024	Middle East	Turkey	Kurdish armed groups	Pre-emptive action	3	1	2	Contained escalation
C35	2024	Europe	NATO states	Russia	Retaliatory restraint	5	1	1	De-escalation
C36	2024	Middle East	Israel/United States	Houthi forces	Responsive strike	4	1	2	Contained escalation

Note. Table 2 uses abbreviated episode descriptors. Capability is coded 1-5, technology complexity is coded 0/1, and escalation is coded 1 low, 2 moderate, 3 high. Full coding assumptions are described in the methodology and limitations sections.

Table 4. Descriptive Statistics for Coded Variables

Variable	count	mean	std	min	25%	50%	75%	max
Doctrine intensity	36.0	2.36	1.02	1.0	2.0	2.0	3.0	4.0
Military capability	36.0	3.53	1.16	2.0	3.0	3.0	5.0	5.0
Technology complexity	36.0	0.83	0.38	0.0	1.0	1.0	1.0	1.0
Fatality band	36.0	1.72	1.28	0.0	1.0	2.0	3.0	4.0
Duration days	36.0	38.64	64.66	2.0	7.0	14.0	44.25	365.0
Diplomatic intervention	36.0	0.89	0.32	0.0	1.0	1.0	1.0	1.0
Alliance support	36.0	0.75	0.44	0.0	0.75	1.0	1.0	1.0
Escalation level	36.0	2.08	0.69	1.0	2.0	2.0	3.0	3.0

Table 5. Cross-tabulation of Doctrine Type and Escalation Level

Doctrine/action type	Low escalation	Moderate escalation	High escalation
Retaliatory restraint	5	3	0
Responsive strike	2	8	3
Pre-emptive action	0	8	1
Preventive aggression	0	0	6

The cross-tabulation indicates a clear association between doctrine type and escalation level. Retaliatory restraint is concentrated in low and moderate escalation, while preventive aggression is concentrated entirely in high escalation within this sample. A chi-square test of independence is statistically significant, $\chi^2(6) = 31.08$, $p < .001$, suggesting that escalation level is not randomly distributed across doctrine categories in the coded dataset.

Table 6. Spearman Correlation Matrix

Variable	doctrine_code	capability_score	technology_complexity	fatality_band	duration_days	diplomatic_intervention	alliance_support	escalation_level
doctrine_code	1.0	-0.22	0.55	0.66	0.14	-0.17	0.26	0.67
capability_score	-0.22	1.0	0.21	-0.43	0.05	-0.0	0.2	-0.13
technology_complexity	0.55	0.21	1.0	0.19	-0.03	-0.16	0.26	0.48
fatality_band	0.66	-0.43	0.19	1.0	0.44	0.04	0.05	0.7
duration_days	0.14	0.05	-0.03	0.44	1.0	-0.15	0.12	0.24
diplomatic_intervention	-0.17	-0.0	-0.16	0.04	-0.15	1.0	-0.2	0.18



alliance_support	0.26	0.2	0.26	0.05	0.12	-0.2	1.0	0.26
escalation_level	0.67	-0.13	0.48	0.7	0.24	0.18	0.26	1.0

The strongest correlations with escalation level are fatality band ($\rho = .70$) and doctrine intensity ($\rho = .67$). Technology complexity shows a moderate positive association with escalation level ($\rho = .48$), while duration and alliance support show weaker positive associations. Military capability score is not positively associated with escalation level in this small sample, which suggests that capability alone does not determine escalation; doctrine, context, fatalities, and technology-mediated uncertainty matter more.

Table 7. Exploratory Ordinal Logistic Regression Predicting Escalation Level

Predictor	B	SE	z	p
Doctrine intensity	1.112	0.882	1.262	0.207
Military capability score	0.382	0.561	0.681	0.496
Technology complexity	2.934	1.782	1.646	0.1
Fatality band	2.174	0.848	2.563	0.01
Diplomatic intervention	3.753	1.756	2.137	0.033
Alliance support	1.258	1.182	1.064	0.287

The ordinal logistic model is exploratory because $n = 36$ and the sample is purposive. Fatality band is the most statistically robust predictor ($B = 2.17$, $p = .010$), indicating that episodes with higher casualty severity are more likely to fall into higher escalation categories. Technology complexity has a positive but marginal association ($B = 2.93$, $p = .100$), which is consistent with the hypothesis that drone, missile, cyber, and cross-domain systems can increase uncertainty. Doctrine intensity is positive but not statistically significant after controls ($B = 1.11$, $p = .207$), suggesting that much of the bivariate relationship between doctrine and escalation overlaps with fatalities and technology. Diplomatic intervention is positive ($B = 3.75$, $p = .033$), but this should be interpreted as crisis-reactive selection: severe crises attract diplomacy rather than diplomacy causing escalation.

Table 8. Summary of Major Findings

Hypothesis	Statement	Result	Interpretation
H1	Pre-emptive actions are associated with higher escalation than restraint	Partially supported	Doctrine intensity correlates with escalation, but loses significance in ordinal regression after controls.
H2	Responsive strikes are less likely than preventive campaigns to produce prolonged escalation	Supported	Responsive strikes cluster in moderate/contained outcomes; preventive aggression clusters in high escalation.
H3	Higher military capability is positively associated with escalation intensity	Not supported	Capability score is weak/negative in correlation and non-significant in regression.
H4	Cyber/drone/missile/cross-domain episodes show higher escalation uncertainty	Partially supported	Technology complexity is moderately correlated with escalation and marginal in regression.

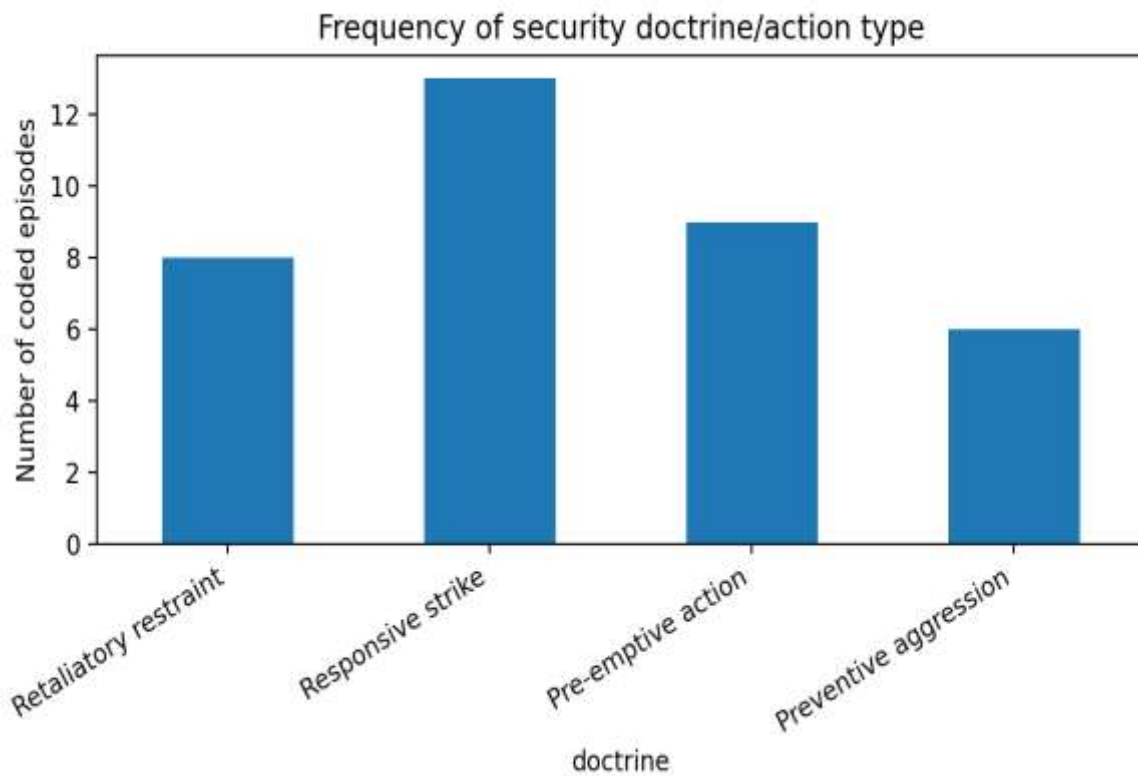


Figure 1. Bar chart showing frequency of doctrine/action type.

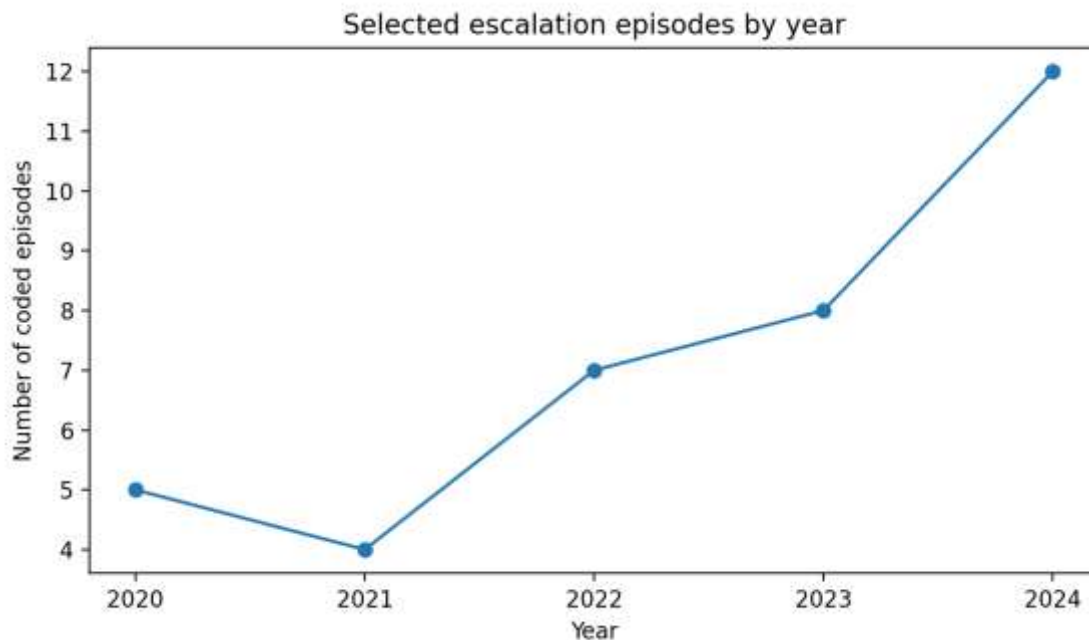


Figure 2. Line graph showing selected escalation episodes by year.

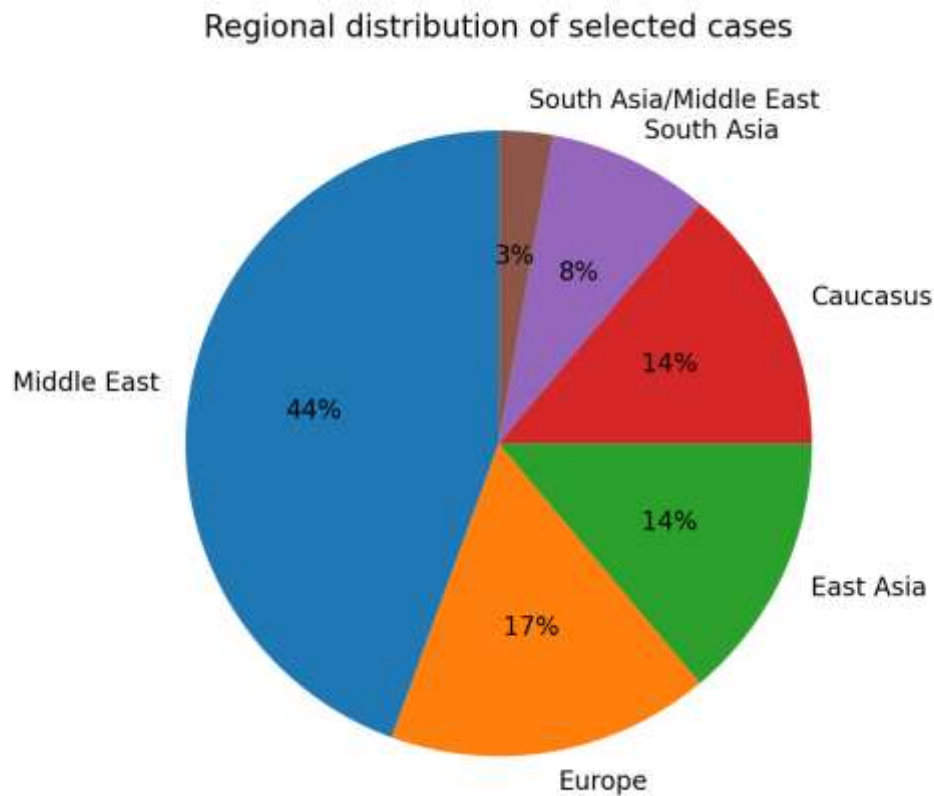


Figure 3. Pie chart showing regional distribution of selected cases.

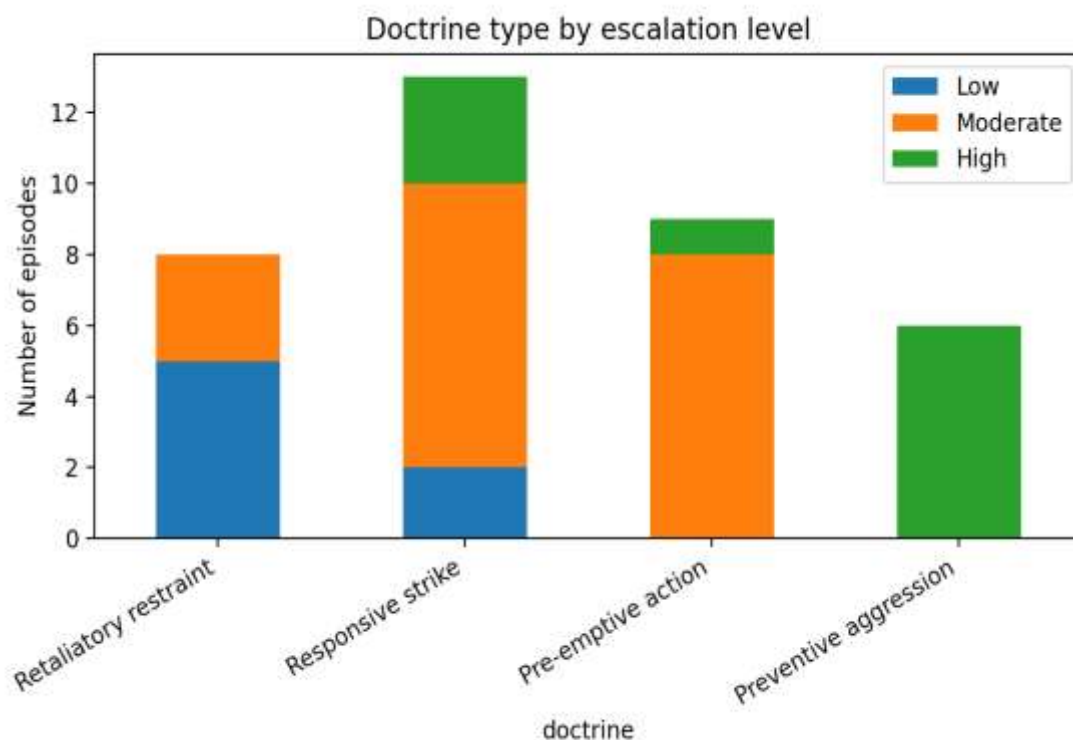


Figure 4. Stacked bar chart showing doctrine type by escalation level.

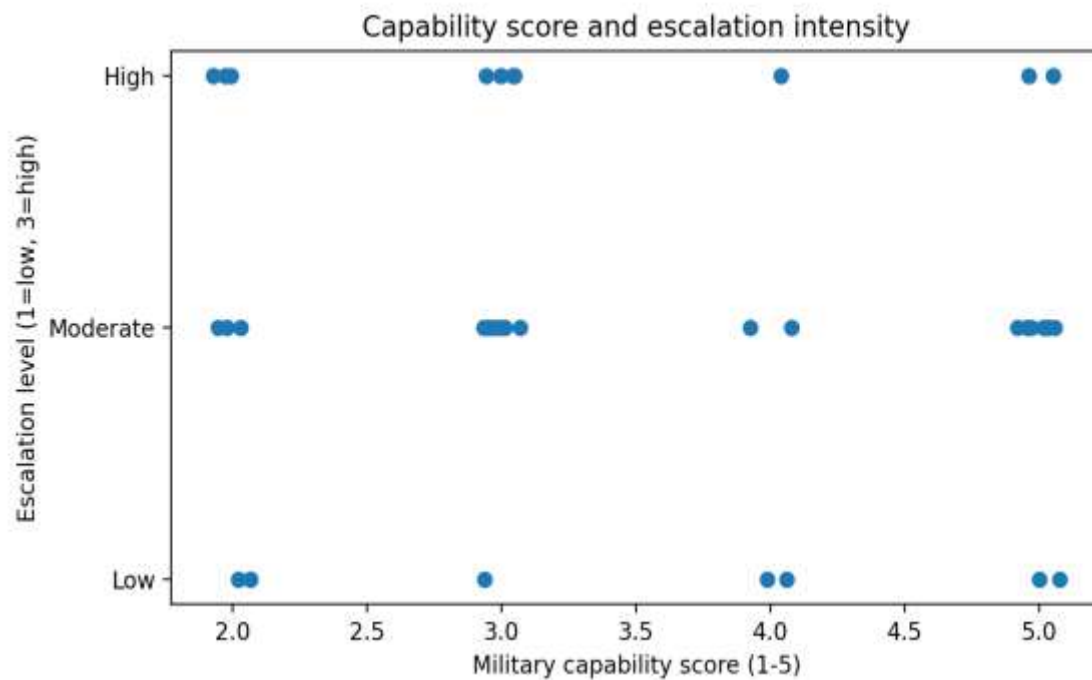


Figure 5. Scatter plot showing military capability score and escalation intensity.

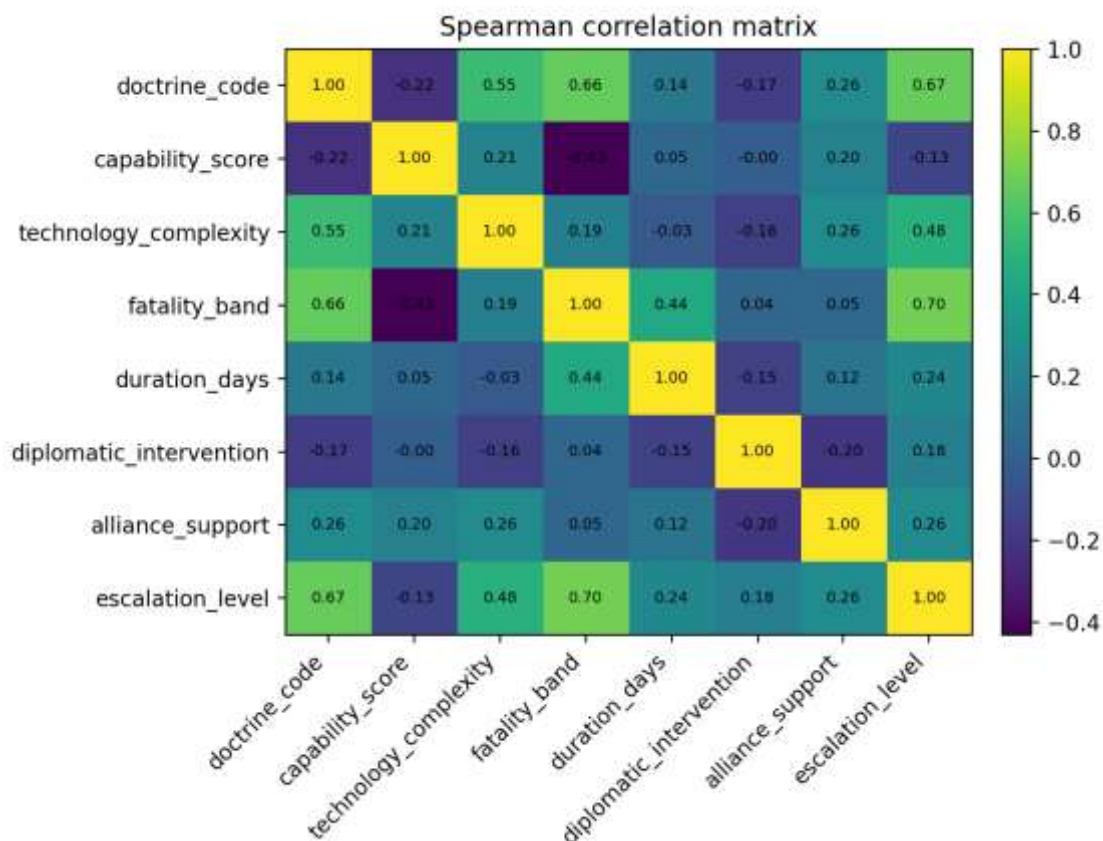


Figure 6. Heat map showing Spearman correlation among coded variables.



As we can see in figure 1, responsive strike is the most common action type in the data set. The present day trend is to describe limited military force as calibrated, retaliatory and restoring deterrence. One empirical question is whether responsive strikes yield the same outcome. Certain events stay low or moderate while the involvement of high fatalities, adversary mobilization, or politically salient targets turns those into escalation cycles.

The selection of episodes is on the rise toward 2023 and 2024 (figure 2). This is partly the case because of our study design, which favoured more recent crises. But it also fit with broader conflict trends identified by ACLED, UCDP, and SIPRI. The structural annual grouping should not be seen as a global count of all crises, but just the visualization of a purposive sample used for doctrinal analysis (ACLED, 2025; Davies et al., 2025; Liang et al., 2025)

Figure 3 indicates that on a sample basis, the Middle East dominates, followed by Europe, Caucasus, East Asia, and South Asia. The recent cross-border escalation episodes involving missile, drone, proxy, and state-linked threats concentrated in the Middle East, as did the reassured intensity of the Russia-Ukraine war and post-2020 Caucasus crises. The concentration of the region is a limitation but also identifies the place where the transition is most apparent.

Figure 4 is crucial to the key argument made in this paper. No high-escalation case in the sample is shown. Responsive strike covers all levels but focal point is moderate escalation. Pre-emptive action mostly moderate apart from one high-escalation case. Preventive aggression is completely high escalation. While it does not demonstrate that escalation is always high, it supports with considerable force the proposition that preventive logic is associated with wider, more durable and harder-to-contain crises.

According to Figure 5, the military capability score by itself does not linearly predict escalation. Some high-capability actors manifest in low or moderate episodes because of escalation restraints, escalation diplomacy, alliance management, and political objectives. On the other hand, lesser-capability actors can generate extensive escalation when their objectives are broad; spatial, identity, and existential disputes. This suggests to not give any material explanation for the escalation of wars (IISS, 2024; Liang et al., 2025).

As shown in Figure 6 fatality severity and doctrine intensity are the most correlated to escalation level. Escalation is also positively associated with complexity of technologies. The combination of preventive or anticipatory doctrine with the intensity of the expected casualties and technology-driven swiftness provides grounds for a compound interpretation whereby escalation is most likely.

The finding aligns with existing studies regarding cyber escalation, autonomous systems, and cross-domain instability (Johnson, 2022; Kleczkowska, 2023; Lonergan, 2023; O'Meara, 2025).

10. Discussion.

The findings suggest that retaliatory restraint remains a meaningful strategy for the control of escalation, but it is a politically tough demand in today's crisis environments. Limiting counter-harm, preserving diplomatic space, and avoiding rivalry humiliation help restrict early escalation. Strategic patience and political capacity to withstand domestic criticism are, however, required. Visible punishment is demanded by public audiences, media systems and elite narratives, which can negate restraint as weakness. As per the study mentioned there is a pressure towards a responsive strike which is a middle path between inaction and war.

Evidence of responsive strike theory is unclear. Many responsive strikes across the dataset are restrained, suggesting that limited, straightforwardly signalled force can restore deterrence without entirely escalating.





These deadly cases can also refer to circumstances when the trigger event is highly visible, when there are substantial civilian casualties, or when the adversaries interpret the strike as part of a broader offensive. It will be better to conceive responsive strike as an escalation-management gamble instead of a stabilizer (Baughman & McDermott, 2020; Borghard & Lonergan, 2023).

Pre-emption is different from preventive aggression on the standards of evidence of imminence and the scope of the objective. The claim of pre-emption says that something must be done right now; the threat is now. Prevention assertion claims that action is necessary because the future balance might get worse. In reality, states will often rhetorically conflate the two by presenting slow capability growth of an old adversary as an immediate threat. When fear that is speculative can render a license for force, it creates a legal and ethical risk (Buchan, 2023; Kleczkowska, 2023).

The coded dataset shows that preventive aggression is linked with the highest escalation category. Campaigns aimed at prevention are often based on goals which are broader in ambit. This includes territorial revision or even destruction of adversary capabilities. It also alludes to the weakening of their regime or control of demographics. Furthermore, there is the goal of depth. It is improbable that symbolic force will satisfy such objectives. As a result, they produce persistent resistance, external balancing, humanitarian crisis and diplomatic polarization. The statistical clustering of high escalation with preventive aggression lends support to H2 and enhances the paper's argument.

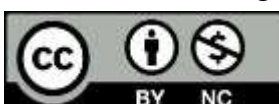
It is noteworthy that military capability score is not strong positive predictor as per the finding. A high capability State can exercise restraint if it values escalation control, alliance coherence, economic stability, or legal legitimacy. A less capable actor can still create significant escalation if acting out of existential threat, benefitting from outside support, or employing asymmetric tools. Having the ability to do something gives rise to options; using those options is dependent on doctrine and political objectives. This matches the assessments by IISS and SIPRI which indicate that resources are useful but do not explain the crises trajectory by themselves (IISS, 2024; Liang et al., 2025).

The speed, visibility, and reversibility of an action vary according to the complexity of technology. Drones and missiles can cross borders very quickly and generate symbolic effects out of all proportion to the actual cost. Cyber operations can conceal accountability and motivation. Space systems create strategic dependencies which mean attacks on the satellites or their supporting

infrastructure can impact on the attack direction multiple domains. The deployment of autonomous systems raises new issues regarding human control, targeting reliability, and decision-making speed. Recent research cautions that these characteristics can deepen unintended escalation even without full-blown war aim (Johnson, 2022; Kleczkowska, 2023; Lonergan, 2023; O'Meara, 2025).

There's a methodological lesson in diplomacy. According to the ordinal regression, there is a positive correlation between the level of escalation and diplomatic intervention, but this does not mean that diplomacy causes escalation. Instead, crises of a higher intensity are more likely to generate emergency mediation, alliance consultation and international organisation involvement. The need for diplomatic intervention depend of crisis intensity. The finding highlights the need to anticipate a further need to design future studies that distinguish between early preventive and reactive crisis diplomacy (United Nations Secretary-General, 2023; United Nations, 2024).

The ethical and legal analysis shows that only damaging the capabilities of an immediate adversary cannot be the measuring rod of strategic success. A strike that causes high civilian harm, normalizes the logic





of preventive force, weakens legal restrictions and wider mobilization may be strategically counterproductive. Therefore, proportionality and necessity are not a moral constraint on strategy; they form part of escalation management itself. When they are disregarded, even effectively successful force can become politically and strategically destabilizing (Buchan, 2023; United Nations, 2024).

All in all, the evidence in the paper supports a modest conclusion: responsive strike can prevent escalation under limited conditions, but the movement from responsive strike to pre-emption and preventive aggression constitute higher probability of high escalation when combined with high casualty severity and high technology levels. The potential threat in the strategic domain is not pre-emption as a narrow legal category alone but the broadening of anticipatory language into preventive campaigns that lack clear limits, off-ramps, and credibility of proportionality.

11. Policy and Strategic Impacts

The first implication is that there are clear thresholds involved. Countries must diplomatically and internally characterize what types of actions will count as, for example, armed attack, limited provocation, cyber incursion, proxy harassment, and strategic assault. Sometimes vagueness can put off people but too much vagueness invites miscalculation. Crisis communications channels should be clear and red-line should be clarified so that responsive strikes are not seen, with possibly catastrophic results, as the opening salvos of a preventive war (Lonergan, 2023; United Nations Secretary-General, 2023).

The other implication is that compliance with the law is a strategic asset. We should view the necessity and proportionality not as legal tropes but as disciplines. A decision maker must consider if the proposed response is necessary to stop or repel the threat, whether non-force options are still available, whether the harm expected will be proportionate to the defensive aim, and whether the response will create a pathway to termination. This matters especially for autonomous systems, those linking space and also those cyber-enabled (Buchan, 2023; Kleczkowska, 2023; O'Meara, 2025).

The third implication is that controlling escalation is key to civilian protection. The use of limited force against a civilian may delegitimize it, worsen adversary recruitment, invite condemnation from outsiders, and turn a tactical advantage into a strategic liability. Therefore, ensuring that civilians are protected must be integrated into doctrines, humanitarian access, and post-strike assessment. According to the United Nations (2024), this refers to a strategic, legal need, rather than a targeting instruction.

The fourth message is that confidence-building measures should still be relevant with advanced technology competition. Creating channels to verify and assess the situation can de-escalate a crisis and distribute notifications when crises occur. Despite not eradicating friction, these devices may adequately ensure that the crisis will not be driven solely by worst-case assumptions and reactions at machine-speed. (Johnson, 2022; O'Meara, 2025; United Nations Secretary-General, 2023)

The fifth implication is that alliances must balance reassurance and restraint. Though public support from allies can deter adversaries, it can also encourage partners or amplify the adversary's threat perception. To have quality alliance management, partners must understand what is the risk of escalation, what is their obligation to protect civilians, and what is their goal in a possible termination. A local crisis, where powerful countries become involved, can become regional or even cross-domain through alliance commitments (IISS, 2024; Liang et al., 2025).



12. Study Limitations of Study

First limitation is reliance on secondary data. Public conflict datasets and reports are essential sources of information but vary greatly in what they cover, definitions, update frequency and uncertainty. The way ACLED, UCDP, and GDELT structured events differs; SIPRI and IISS do not provide crisis-specific intent but rather ability context at the macro-level. The dataset uses the ordinal coding to prevent false precision (ACLED, 2024; Davies et al., 2025; GDELT Project, 2025; IISS, 2024; SIPRI, 2024).

The second limitation is the case selection. The sample is purposive and focuses on instances when doctrinal logic is evident. It should not be considered a random sample of all conflict events. The findings contribute to theory constructing and exploratory pattern investigations; global probabilities for escalation cannot be estimated, however. A larger dataset would be required for greater statistical inference.

The third limitation is uncertainty of coding. Measuring intent is hard as formal rationales differ from real strategic intentions. A state can characterize action as responsive, even when its operational goals are preventive. On the other hand, an enemy may characterize a limited strike as aggression for political goals. The coding thus represents the dominant observable logic rather than legal judgment.

The fourth limitation is statistical power. With $n = 36$, regression estimates are sensitive to coding choices and collinearity. The ordinal logistic model is an exploratory model. The most reliable results are descriptive distributions, cross-tabulation, correlations; appropriate for theory-building study, but not sufficient for causal inference.

Confidential files are not available because of the fifth restriction. Speeding up the production of equipment is one thing, intelligence sharing and co-producing is a different ball game all together. You cannot avoid this limitation in public university research on security crises.

13. Future Possibilities.

For future studies, the dataset should be extended to crises that occur from 2010-2025 and beyond with separate coding for crisis episodes involving inter-state, intra-state, internationalized, proxy, cyber, space, maritime, and air domain. A bigger sample would facilitate multinomial or multilevel modelling and better testing of regional differences (ACLED, 2024; UCDP, 2025).

Moreover, future work must incorporate event-level crisis mapping. The data sources ACLED and GDELT lend themselves to daily, or weekly, time-series analyses; UCDP can provide context on conflict severity and fatalities. Through event sequencing it would be possible to ascertain whether a responsive strike achieves immediate de-escalation or delayed retaliation or stepwise escalation. This will be particularly useful in making a distinction between brief symbolic exchanges and long sustained campaigns.

Moreover, future research should separate early diplomacy from reactive diplomacy. Although a binary variable for diplomatic intervention is coded in the present work, future work would benefit from distinguishing among pre-crisis prevention and immediate crisis communication, ceasefire mediation, consulting allies, negotiating humanitarian access, and post-war settlement. This would enhance the understanding of whether diplomatic initiatives prevent escalation, or whether such initiatives only appear once escalation is already at a severe level (United Nations Secretary-General, 2023).

The fourth recommendation for future endeavors is to consider the variables of an academic escalatory environment. Crisis decision-making can be influenced by the factors and conditions like warning speed,





automation, attribution ambiguity and cross-domain dependence. According to Johnson (2022), Kleczkowska (2023) and Lonergan (2023), such research should emphasize governance, safety, transparency and de-escalation.

We need comparative regional studies fifthly The patterns of alliances and rivalries in the Middle East, South Asia, East Asia, Europe, and the Caucasus differ remarkably. Likewise is the nuclear risk, territorial disputes, proxy networks, and the legal narratives of all regions. A regional comparison may show whether the restraint-response-pre-emption-prevention continuum operates similarly across theatres, or whether the local strategic cultures alter escalation pathways (IISS, 2024; Liang et al., 2025).

14. Final Thoughts

The history of the phrase recognizes that restraint is an important element in any formulation of a pre-emptive security doctrine. The study shows that these categories differ in timing, purpose, legal justification, and risk of escalation. To retain control after the act of provocation. Responsive strike aims to restore credibility through an use of force limited in nature. Claims made to prevent imminent harm. Eliminating a threat before it matures is referred to as preventive aggression. Thus, the difference between pre-emption and prevention is key to international law and strategic ethics (Buchan, 2023; Kleczkowska, 2023).

The coded dataset, based on empirical evidence, shows that retaliatory restraint is mostly seen in low and moderate escalation. On the other hand, responsive strikes tend to cluster in contained but unstable escalation. At the same time, pre-emptive action is mostly in a moderate category with some cases of high risk. Lastly, preventive aggression is strongly related to high escalation. the chi-square testing has shown association between the type of doctrine and escalation level The analysis of correlation identified a few very important correlates. These are doctrine intensity, fatality band, and technology complexity. The ordinal logistic regression results suggest that after adjusting for controls, fatality severity emerges as the most significant predictor. Chen notes however that technology complexity and doctrine intensity remain substantively important, although they are statistically weaker due to the small sample size.

The contribution that I make is theoretical – namely, that escalation is understood best as a compound outcome produced by doctrine, threat perception, casualty severity, technology, diplomacy, and alliance context. The capability of military power in itself does not explain escalation because a high-capability state can restrain itself while a low-capability actor can generate serious crises. This happens through asymmetric escalation capabilities, external support, or expansive objectives. Design for this type of complex intervention takes on special importance when dealing with components that include both training and artefacts.

Considering necessity, proportionality, civilian protection, and credible off-ramps is not a secondary consideration but a legal and ethical implication. They are essential devices for limiting confrontation. The danger of a long war increases when anticipatory self-defence is extended to preventive aggression. The adversary has little reason to believe compliance or limited retaliation will bring the campaign to an end. Threats to the legal order and strategic stability (O'Meara, 2025; United Nations, 2024) is preventive aggression.

The last argument advances the idea that contemporary security doctrine is moving towards more rapid, anticipatory, and technologically mediated force use. Responsive strikes may sometimes have escalatory potential, but they also create a connection point toward pre-emption when states become convinced that waiting is perilous. The riskiest change is when pre-emption shifts to preventive aggression under defensive

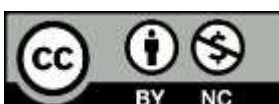




language. For international security, the task is not just to deter enemies but to maintain and protect the conceptual, legal and institutional obstacles to retaliation turning into open-ended war.

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Appendix A. Coded Analytical Dataset

This appendix reports the same coded cases used in Table 2 with expanded variables. The dataset is a transparent analytical coding based on secondary sources and should not be interpreted as official event-level data from any single database. Exact fatalities are intentionally converted into bands to avoid false precision.

Appendix Table A1. Full Coded Analytical Dataset

Case	Year	Region	Doctrine	Dcode	Capability	Tech	Fatality band	Duration	Diplomacy	Alliance	Escalation	Outcome
C01	2020	Middle East	Pre-emptive action	3	5	1	2	10	1	1	2	Contained escalation
C02	2020	South Asia	Retaliatory restraint	1	4	0	2	120	1	0	2	Contained escalation
C03	2020	Caucasus	Preventive aggression	4	2	1	4	44	1	1	3	Full-scale escalation
C04	2020	Middle East	Responsive strike	2	3	1	3	30	1	1	2	Contained escalation
C05	2020	Middle East	Responsive strike	2	3	1	1	7	1	0	1	De-escalation
C06	2021	Middle East	Responsive strike	2	3	1	3	11	1	0	3	Prolonged escalation
C07	2021	Caucasus	Responsive strike	2	2	0	2	14	1	1	2	Contained escalation
C08	2021	Middle East	Pre-emptive action	3	3	1	1	60	0	1	2	Contained escalation
C09	2021	East Asia	Retaliatory restraint	1	5	1	0	30	1	1	2	Contained escalation
C10	2022	Europe	Preventive aggression	4	5	1	4	365	1	1	3	Full-scale escalation
C11	2022	Middle East	Pre-emptive action	3	3	1	2	3	1	0	2	Contained escalation
C12	2022	East Asia	Responsive strike	2	5	1	0	7	1	1	2	Contained escalation
C13	2022	Caucasus	Preventive aggression	4	2	1	3	5	1	1	3	Prolonged escalation
C14	2022	Middle East	Pre-emptive action	3	2	1	2	10	1	0	2	Contained escalation
C15	2022	Middle East	Pre-emptive action	3	3	1	2	30	0	1	2	Contained escalation
C16	2022	South Asia	Retaliatory restraint	1	4	0	1	7	1	0	1	De-escalation
C17	2023	Caucasus	Preventive aggression	4	2	1	3	2	1	1	3	Full-scale escalation



C18	2023	Middle East	Responsive strike	2	3	1	4	90	1	1	3	Full-scale escalation
C19	2023	Middle East	Responsive strike	2	5	1	1	7	0	1	1	De-escalation
C20	2023	Middle East	Responsive strike	2	3	1	2	60	1	0	2	Contained escalation
C21	2023	Europe	Pre-emptive action	3	3	1	2	90	1	1	2	Contained escalation
C22	2023	East Asia	Pre-emptive action	3	5	1	0	3	1	1	2	Contained escalation
C23	2023	Europe	Retaliatory restraint	1	2	0	1	7	1	1	1	De-escalation
C24	2023	East Asia	Retaliatory restraint	1	5	1	0	14	1	1	2	Contained escalation
C25	2024	South Asia/Middle East	Responsive strike	2	2	1	1	3	1	0	2	Contained escalation
C26	2024	Middle East	Responsive strike	2	5	1	1	30	1	1	2	Contained escalation
C27	2024	Middle East	Responsive strike	2	4	1	1	3	1	1	3	Contained escalation
C28	2024	Middle East	Preventive aggression	4	3	1	3	120	1	1	3	Prolonged escalation
C29	2024	Europe	Pre-emptive action	3	3	1	3	30	1	1	3	Prolonged escalation
C30	2024	Europe	Preventive aggression	4	5	1	4	60	1	1	3	Prolonged escalation
C31	2024	East Asia	Responsive strike	2	5	1	0	3	1	1	2	Contained escalation
C32	2024	South Asia	Retaliatory restraint	1	4	0	0	30	1	0	1	De-escalation
C33	2024	Caucasus	Retaliatory restraint	1	2	0	1	14	1	1	1	De-escalation
C34	2024	Middle East	Pre-emptive action	3	3	1	2	45	0	1	2	Contained escalation
C35	2024	Europe	Retaliatory restraint	1	5	1	0	7	1	1	1	De-escalation
C36	2024	Middle East	Responsive strike	2	4	1	1	20	1	1	2	Contained escalation