The Use of Kinetic Airpower and the Problem of Civilian Casualties

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INTRODUCTION

After more than a decade of war-fighting in Syria, Iraq, and Libya, focus on incidental civilian casualties or collateral damage is high\(^1\). Despite being legitimate in its legalistic sense in line with International Humanitarian Law, it has proven to be troublesome for political, strategic and tactical reasons. Experiences have shown significant downsides to inflicting civilian casualties. Politically, democratic states pursuing basic human rights take a sensible approach to the loss of innocent civilian lives. Militant groups conducting agile propaganda efforts to de-legitimize Western policies have exploited this fact extensively (Nissen, 2015). Strategically, civilian casualties hinder good relations, a key prerequisite for post-war peace sustaining efforts, and therefore it endangers the strategic ends for which states are fighting. Contemporary war fighting is dependent on securing “hearts and minds”. For this reason, a local perception of excessive civilian casualties hampers tactical vigilance by pushing local support away (Fremont-Barnes 2015, Vol-II).

Denmark has been a coalition partner to Operation Inherent Resolve since 2014\(^2\). Denmark has deployed a fighter jet contribution to support the degradation and destruction of the so-called Islamic State (ISIL). The focus of this paper is to explore and discuss Danish approaches to the inevitable problem of inflicting civilian casualties in kinetic air operations where targets on the ground are bombed from the air.

Most air strikes in Afghanistan supported land operations. Intelligence was sufficient. Coordination was good and followed NATO doctrines, techniques, and procedures. Despite these and other features\(^3\) the UN mission in Afghanistan, UNAMA concluded that the ratio between airstrikes and collateral damage was 10:1 –every time 10 air sorties were conducted 1 civilian became an incidental casualty (Rosen 2015).

In contrast to the ISAF operation, Inherent Resolve (OIR) is no NATO operation and a number of features are distinctly different from in the ISAF operation: Firstly, only, few coalition forces are present on the ground and thus the capacity to lead airstrikes is less. Furthermore, intelligence gathering is more difficult. The coalition, to a greater extent, has to rely on Intelligence Surveillance and Reconnaissance technology or second-hand intelligence provided by partners on the ground. Secondly, the coalition is not the only actor conducting airstrikes in the area. As a result, co-ordination is blurred and civilian casualty responsibilities cannot easily be determined. Thirdly, the coalition conducts most operations as dynamic targeting operations. Forth and finally, more strikes fall within built-up areas.\(^4\) According to the US Department of Defence, the coalition, by the end of July 2016 had conducted more than 14,000 airstrikes. Assuming the UNAMA ratio

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\(^3\) NATO developed a mechanism called the “Civilian Casualties Mitigation Process” in order to enhance ISAF’s capacity to respond to allegations about civilian casualties. According to NATO’s own figures, the enhanced focus on what NATO calls CIVCAS resulted in a substantial reduction of collateral damage from 2008 – 2014. See [http://www.jallc.nato.int/products/docs/factsheet_Protection_of_Civilians_CIVCAS.pdf](http://www.jallc.nato.int/products/docs/factsheet_Protection_of_Civilians_CIVCAS.pdf), for more.
is a reliable figure in this conflict it will mean that approximately 1,400 civilians will have been casualties. This is a considerable contrast to the official 20 from April 2016.\(^5\)

It is not my aim to question the reliability of the official figures provided by Operation Inherent Resolve. However, the numbers indicate that this coalition has the ability to carry out air strike operations and at the same time keep civilian casualties to an absolute minimum. This observation is the driving force behind this paper.

For obvious security reasons, we are not able to collect empiric data from on-going operations. The paper derives its empiric data from deployment of Danish F-16 fighters in support of Operation Inherent Resolve in the period 2014 – 2015.\(^6\) From this period of the operation, we can use data with only few classification caveats. We cannot refer to the rules of engagement of the operation because they are still extant. Furthermore, for security reasons, the paper publishes no names of interview subjects.

This paper first establishes the structural and theoretical framework for the subsequent analysis. It then provides an overview of the legal aspects pertaining to civilian casualties. A description of the procedures for kinetic air operations and targeting is then given before an analysis of the political objectives, and the strategic and operative directives regulating the operation in focus. Finally, this paper turns to how the operators, the so-called Mission and Target Approval Authority translated and implemented this guidance into kinetic air operations.

**Method and Theory**

The paper will explore the phenomenon of civilian casualties by analysing how Denmark regulates its use of kinetic airpower and how it commands its application, in terms of decision-making.

The regulation variable is a legal continuum. (Raymond, 2007). Raymond refers an examination of 275 treaties that show movements between minimalist and maximalist positions of how much emphasis has been put on the principle of military necessity in three historic periods. For the purposes of this analysis, we have adapted this approach largely by replacing military necessity as the subject in focus with the principle of proportionality. This is important because in this particular principle, civilian casualties are legal if they are not excessive in relation to the direct and concrete military advantage anticipated in the situation. Accordingly, the paper defines a maximalist approach to encompass a situation in which the principle of proportionality is the only regulating mechanism in the approach to civilian casualties. Hence, in the antagonist position, the minimalist approach, a number of factors restrict the proportionality span in terms of accepting civilian casualties. Sometimes government, for policy reasons, restrains the forces in a given scenario. This was the case in the latter years of the ISAF campaign in Afghanistan.

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\(^6\) Parliamentary bill B123/2014 authorized this operation. It decided support to Operation Inherent Resolve with a contingent of F-16 fighters authorized to operate in support of the Iraqi government over Iraqi territory. The operation ended in late December 2015. [http://www.ft.dk/samling/20131/beslutningsforslag/B123/som_vedtaget.htm](http://www.ft.dk/samling/20131/beslutningsforslag/B123/som_vedtaget.htm)
Schmitt (Schmitt, 2009) argues that targeting decisions in Afghanistan “[..] Were determined less by the law than by either the operational realities of the battlefield or, in a Clausewitzian sense, the policy dictates underpinning the conflict”. Schmitt furthermore argues that USA and NATO in their rules of engagement (RoE) governing ISAF after 2009 emphasized the legitimacy imperative of not inflicting any collateral damage over the legal authorizations provided in the principle of proportionality under International Humanitarian Law. As Schmidt puts it “Clearly, the extensive restrictions placed on US and coalition forces in Afghanistan did not result from legal concerns, but rather apprehension that even legal collateral damage would prove counterproductive in the specific context of Afghanistan” (Schmitt, 2009). Depending on the campaign theme and the military objectives it pursues the application of strict civilian casualties’ operational concepts is often necessary. A successful counterinsurgency emphasizes focus on the population of the country, its needs, and its security. Collateral damage by the counterinsurgent is counterproductive to the strategic ends pursued in a counter-insurgency campaign. Human Rights Watch estimated in 2007 that 312 out of over 1,600 civilian casualties were attributable to US and NATO airstrikes. This fact, amongst others, led, in 2009, to a significant change in US and NATO approaches to the Rules of Engagement governing the usage of airpower in Afghanistan known under the term “courageous restraint”. Courageous restraint involved restricted rules of engagement, to include the use of airpower, and provided NATO with some success in reducing the number of civilian casualties in Afghanistan (Barnes, 2015). We define therefore, the minimalist approach to the acceptance of legal civilian casualties as encompassing situations in which the boundaries in the principle of proportionality are restricted by national policy, operational factors or by the Rules of Engagement’ governing the specific operation.

(7) The San Remo Handbook on Rules of Engagement defines these as “Issued by competent authorities and assists in the delineation of the circumstances and limitations within which military forces may be employed to achieve their objectives”. In practice, Rules of Engagement serve as the authoritative engagement authorizations for the use of force for military forces. Despite variations across states and organizations, a consistent understanding exists that International Humanitarian Law defines the legal framework of Rules of Engagement. Other bodies of international law, national laws, national policies and operational requirements are the typical moderating factors defining the actual scope of the use of force in the concrete situation for the armed forces of a state. See http://www.iihl.org/wp-content/uploads/2015/12/ROE-HANDBOOK-ENGLISH.pdf.
The decision-making variable focuses on target approval authority. Command and control, as is the military term, is important in considering the scope of civilian casualties. A general assumption in many countries has been that the risk of civilian casualties is minimalized if the target approval authority is retained at political or military-strategic levels. For example, the US administration has retained this authority at presidential level.

In general, military forces are led after one of two command principles. The key issue is the extent to which command authority is held tightly at the organisational core, be it at the political or military-strategic level, or if it is delegated to subordinates as in mission command. The former command approach is commonly referred to as centralised and the latter decentralised. Mission command is a command approach, based upon the exercise of local initiative within the framework of command intent. An appropriate delegation of authority and responsibility that allows subordinate commanders the latitude to plan and conduct operations based on their understanding of the local situation enables this. Forces that have the ability to adopt decentralised approaches, such as mission command, retain the advantage in the contemporary operating environment owing to their ability to adapt their tactical activities rapidly as situations evolve (Steward, 2016).

Choosing the right command style should be driven by the operational and strategic context and the need to achieve an appropriate balance of risk. Thus, command approach is part of a class of control levers that commanders can operate in order to optimize effectiveness in the light of operational circumstances and any changes therein. However, the advantages of mission-

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oriented approaches come at a cost and as such, the choice of command approach is, in part, an economic choice. For example, decentralised command requires extensive education and training. The levels of knowledge of tactics, techniques, and procedures within their specialist domains need to be high. They need the ability to diagnose situations, and to formulate, implement, and monitor the plans they devise for dealing with those situations within a commander’s intent. Military organisations that espouse decentralisation tend to expect their personnel to be able to think ‘one or two levels up’. Moreover, this capacity, combined with an appreciation of command intent, necessarily means that commanders should have the ability to appreciate the political, media and strategic factors that engulf the actual military operation (Steward, 2016).

For the analytical purposes of this paper, we will explore how Denmark established its Mission and Target Approval Authority with a view to understanding the degree to which civilian casualties concerns were decisive for the command set up. Who was authorized to provide the final authorization to engage a specific target on the ground? In military terms who were the Mission and Target Approval Authority in the operation?

By combining the two continuums: legal approach to civilian casualties and Mission and Target Approval Authority in civilian casualty situations we can define four possible outcomes to answer the question of how Denmark approaches the problem of civilian casualties in kinetic air operations. See figure 2.

The chosen method for the paper has been an explorative design based on a case study. The case in focus is the Danish kinetic air operations during Operation Inherent Resolve in the period mid-April 2015 to late December 2015. Open sources, access to releasable documents from the Danish Ministry of Defence and Defence Command Denmark provided the empirical basis for...
this paper. We conducted qualitative interviews to provide further insight, explanations, interpretations and clarifications. The number of interviewees was limited due to the restricted number of persons involved in issuing direction and guidance and acting as Mission and Target Approval Authority over the periods in question.

A research paper based on qualitative semi-structured interviews has its advantages as well as disadvantages. Often, the validity relates to the number of interviews – would the conclusions have been different if the researchers had chosen a different set of interviewees and/or conducted more interviews. We mitigated this risk by ensuring that the gallery of eligible interviewees contains practically all key persons involved in the case at military-strategic, operational and tactical levels.

Of course, the limited number of interviewees narrows in the general applicability and validity of the conclusion of this paper. However, we believe this paper helps provide a substantial input to the understanding of the problem of civilian casualties in kinetic air operations. Furthermore, being part of the Danish Armed Forces ourselves we have had the privilege to direct access to key personnel as well as key locations.

The Legal Baseline for Protection of Civilians and Civilian Objects

The legal focus in this paper centres on the Jus in Bello. It aims at obligations and restrictions put on the parties to an armed conflict in regard to their conduct of military operations. International Humanitarian Law regulates these obligations and restrictions. Either International Humanitarian Law derives its primary sources of law from the treaties, the states have ratified, or the rules and norms considered as customary rules under International Humanitarian Law apply and thus parties become subject to universal jurisdiction. Denmark has ratified both the additional protocols to the Geneva Convention of 1977. Furthermore, the principles and rules discussed below are all regarded as customary rules of International Humanitarian Law by the International Committee of The Red Cross (ICRC, 2006). Thus, in a Danish context, these principles and rules are applicable to both international and non-international armed conflicts. On this account, the paper will make no further elaborations as to the classification of the conflict in focus and hence the universal application of the rules applying.

International Humanitarian Law does not explicitly deal with targeting. When targeting is in focus the core obligations are: the requirement of distinction at all times, the prohibition on indiscriminate attacks and attacks causing excessive collateral damage, also known as the principle of...
proportionality, and finally, the requirement to apply all feasible precautions in an attack (Boothby, 2012, s. viii).

The bedrock principle in International Humanitarian Law is the principle of distinction (“International Court of Justice”, 1996). Distinction requires the parties to the conflict at all times to distinguish between the civilian population and combatants and civilian objects and military objects. Thus the parties to a conflict may accordingly only direct their operations against military objects be them combatants, targetable civilians who have lost their protection or objects qualified as military objects.15

International Humanitarian Law not only absolutely prohibits attacks directed against civilians. It also prohibits attacks that are indiscriminate. Indiscriminate attacks are those that will strike military objects and civilians or civilian objects without distinction, notably because they employ means or methods of warfare that cannot be specifically directed at military objects, or their effects cannot be limited as required by International Humanitarian Law. Furthermore, International Humanitarian Law prohibits disproportionate attacks.16 However, this is not to say that civilians cannot be killed or injured legitimately. The rule of proportionality prohibits attacks “…which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”17 As Bootsby puts it, “It is from a legalistic point of view worth noticing the term “excessive” in the rule. The fact that civilians are killed or injured, or civilian property is destroyed, as a result of an attack, does not in itself necessarily render that attack unlawful.” (Bootsby, 2012, s. 475). This is the rule of law behind the phenomenon known as collateral damage.

The principles of distinction and proportionality are both negative obligations, and only part of the full legal targeting picture. Parties to a conflict also have positive duties to protect the civilian population. Necessary precautions in an attack require the parties to an armed conflict, in the conduct of their military operations, to take continual care to spare the civilian population, individual civilians and civilian objects. This rule notably requires “…those who plan or decide upon an attack…” to take “…all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects”.18 The parties to the conflict, no matter whether attack-

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(14) The International Court of Justice (ICJ) in its Nuclear Weapons Advisory Opinion, premise 78 coined this principle as the cardinal principle of International Humanitarian Law.

(15) The principle of distinction was first set out in the preamble to the St. Petersburg Declaration, which stated that the only legitimate object in war is to weaken the military forces of the enemy. This was later also understood as the meaning of the principle of military necessity. The Haag regulations (art. 25) subsequently recognized the principle. The principle has been codified in Article 48 to the additional protocol I to the Geneva Conventions, Additional protocol II of 1977 in article 13(2), the conventional weapons protocol from 1980, 3. Protocol 2(1) and the Rome statute of 1998, article 8(2).

(16) Additional Protocol I Article 51(4).

(17) Ibid, 57(2)(a)(iii).

(18) Ibid 57; additional protocol II, 13 and other bodies of IHL.
ing or defending, must apply all feasible measures to verify the status of the object. They must also take all feasible precautions in the choice of means and methods of the attack with a view to minimizing unintended incidental damage to civilians or civilian objects. When conducting hostilities in populated areas, the rule of precautions may require the parties to choose the most precise weapon available, or consider alternative weapons and/or tactics. Finally, the attacking force must also give an advance warning unless circumstances prohibit this, in order to take the requisite attack precautions.

The assessment of whether an attack is indiscriminate or disproportionate, and whether all feasible precautions have been taken, must not be based on hindsight but on the perspective of the commander based on the information available to him/her at the time of the attack. However, in the end, an attack can be legal even if unintended civilian losses occur. This is the brutal fact of the dilemmas facing those who must make the final decision for launching an attack as well as those who have to conduct it.

Kinetic Air Operations and Targeting

During Operation Inherent Resolve a Danish tactical planning team were deployed to the US Combined Air Operations Centre Al Udaid located in Qatar. The purpose of the planning team was to approve missions and targets on Denmark’s behalf. The organization and size of the Mission and Target Approval Authority (MTAA), as it is called, varied slightly during the operations, but, as a minimum, always included a Legal Advisor, an Intelligence Specialist, an F-16 Detachment Liaison Officer, and a so-called Red Card Holder. The Red Card Holder is a Danish Colonel with an F-16 background, authorized to approve all missions and targets. It is incumbent upon him to ensure that the end of the strategy-to-task link remains clear and he is responsible for regulating the missions in accordance with the mandate vested in him by the Danish Armed Forces. The other members of the Mission and Target Approval Authority all serve as advisors to the Red Card Holder.

The Combined Air Operation Centre is in charge of planning and executing all the sorties in each operation. The targeting process is one of the key drivers of the work in the Combined Air Operation Centre. Every day an Air Tasking Order is released containing all sorties, typically for the next 24 hours. Included in the Air Tasking Order are all the pre-planned strike missions for the same period. Thorough work has gone into all strike missions prior to their execution in order to identify, plan and assess target strikes. Each target is carefully analysed in order to match capabilities with desired effects. In this process, the states represented in the CAOC will be presented with various target packs containing targets to be struck within hours or days. Normally targets are divided into two categories; deliberate or dynamic. The deliberate targets are the

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(19) Ibid, 57(2)
(20) Ibid, 57(2)c.
(21) Visit to CAOC Al Udaid in June 2015 as well as interviews with the four Red Card Holders
(22) One sortie is one aircraft on one mission. If multiple aircraft e.g. 15 are flying together on the same mission, its 15 sorties but still one mission.
result of careful intelligence gathering and each target is thoroughly described in a target pack. The target pack consists of images and various details of the target. Coalition targeteers have evaluated the estimated risk of collateral damage and thereby the risk of civilian casualties using the US Collateral Damage Estimation methodology. The Mission and Target Approval Authority will evaluate all relevant information on the targets presented and the Danish Red Card Holder will decide whether Denmark will strike a given target. In the case of dynamic targets, there are no target packs. Instead, the fighter aircraft will operate in a given area looking for targets or will be designated targets by coalition forces on the ground. In such cases, the Mission and Target Approval Authority will evaluate the target once the pilot has identified it and passed the relevant information to the Mission and Target Approval Authority awaiting final approval by the Red Card Holder. Hence, every time a Danish F-16 is airborne, the Red Card Holder will be in the operations room at the Combined Air Operation Centre and no targets will be hit without his approval.

The Collateral Damage Estimation methodology is a key element in understanding how to evaluate targets and how to implement the principle of proportionality in kinetic air operations. In essence, the Collateral Damage Estimation methodology seeks to mitigate collateral damage through the process of predicting and mitigating collateral damage from conventional, non-nuclear kinetic strikes. The process contains five levels, labelled 1 to 5. The higher the number, the more mitigation has taken place in order to reduce the risk of collateral damage. If the Collateral Damage Estimation is 5, the assumption is that it is impossible to strike without a high risk of hitting civilians or civilian objects.

<table>
<thead>
<tr>
<th>CDE level</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Damage</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Civilian Casualties</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Tactical Restrictions</td>
<td>None</td>
<td>Weapon</td>
<td>Weapon/Fuse</td>
<td>Weapon/Fuse/Delivery Heading</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. The Collateral Damage Estimation Levels and Tactical Restrictions
The figure shows how each target is labelled 1 to 5 and how tactical restrictions are imposed in order to mitigate the risk of collateral damage on structures and civilians, i.e. CDE 3 assumes that there will be no collateral damage to a specific target when using a certain bomb with a certain fuse setting.

(23) A target pack typically includes location and images of the target, a description of the target function (what is the military function of the target), a Collateral Damage Estimation and if necessary the needed mitigation in fusing and weapons. It will also include Desired Point(s) of Impact (the exact place the bomb(s) is (are) supposed to hit) and a prioritisation of these if more bombs are planned for the same target complex. If striking the target involves a risk from enemy ground based systems or the need for special coordination with other friendly aircraft or systems this will also be included the target pack.


(25) Visit to CAOC Al Udaid in June 2015 as well as interviews with the four Red Card Holders

(26) For more information on the Collateral Damage Estimation methodology see https://www.aclu.org/files/dronefoia/dod/drone_dod_ACLU_DRONES_JOINT_STAFF_SLIDES_1-47.pdf slide 15-20
As depicted, there are several ways to mitigate the risk of collateral damage. Precision-guided munitions versus “dumb” bombs, the size of the warhead, fuse setting, angle of delivery, time of the attack, splitting the assigned target into smaller targets and so on.

As mentioned previously, it may be legal, according to International Humanitarian Law, to strike a CDE 5 target causing civilian casualties, as long as the harm caused to civilians is not excessive compared to the military advantage anticipated at the time of the attack. Depending on the Rules of Engagement and the non-combatant cut-off value,27 such a strike could call for an authorization at the political level of the lead nation or alliance.

Strategy to Task
States apply military force to obtain political objectives. This means that the effects of the tactical actions must support the political end state. This effect, directly or indirectly, must support the political reasoning for using military force. The link between tactical action and effect, and political intent and end state, known as strategy-to-task, will provide the analytical structure of the article. We will, therefore, explain it briefly.

The Danish parliamentary process behind a decision on the employment of a military contribution typically begins with a request for a military troop contribution from either NATO, the UN or an allied nation – in this particular case the United States of America. The Ministry of Foreign Affairs is in charge of providing the draft bill for parliament to discuss and decide upon. The bill is the result of a complex process involving, amongst others, the Ministry of Defence. As a vital part of the Ministry of Defence’s input, the Defence Command Denmark produces a military estimate for troops to task.28 This includes a suggestion of suitable force(s) in terms of effect, time, space, and logistics for a given operation. Furthermore, the Defence Command produces a draft directive on the use of force. This estimate outlines the military input for authorisations needed in order to be able to carry out the mission and achieve the desired ends. Together with other aspects, such as a threat assessment, these elements constitute the military input to the final parliamentary bill drafted by the Ministry of Foreign Affairs. The parliamentary bill will also include an assessment on the legal aspects of the proposed mission and the political imperatives set by the government. When the Danish parliament has reached its decision,29 the Ministry of Defence issues a tasking directive30 to the Defence Command. This directive refers to the parliamentary

(27) Since International Humanitarian Law does give way for striking military targets with the risk of civilian causalities, it is common to define a Non-combatant Cut-off Value or NCV. The Non-combatant Cut-off Value represents a threshold for the maximum number of civilian casualties that for planning purpose can be accepted without approval from higher authorities. If the expected number of civilian casualties is higher than the Non-combatant Cut-off Value, the Combined Air Operation Centre must seek approval from higher authorities - often at the political level. The actual Non-combatant Cut-off Value for the overall operation or for specifics missions is classified. It is important to note that the rule of proportionality always outweighs the Non-combatant Cut-off Value.
(28) In Danish: Militærfaglig anbefaling. Troops to task = which troop contributions can solve which tasks?
(29) The parliamentary decision-making processes will not be subject for further elaboration. See the Danish constitution §41 or http://www.ft.dk/Folketinget/Arbejde_og_opgaver/Lovgivning.aspx for further explanation.
(30) In Danish: Bemyndigelsesskrivelse
decision and orders the Joint Forces Command to deploy a unit as described in the parliamentary bill. The directive can also include additional strategic guidance. Against this background, the Defence Command develops the operational order, which names the contribution, defines the task, the task organisation, the command, and control structure, the logistical issues, as well as the directive for use of force\textsuperscript{31}. The tactical units will then deploy and carry out the operations on Denmark’s behalf (Edström m.fl., 2014, s. 45-78).

\textbf{ANALYSIS}

\textbf{The Political Intent}

To analyse the intent behind this reference it is necessary to study the parliamentary processes leading up to the adoption of the final bill. From these parliamentary processes, the military planners can derive important inputs to the profile on the use of force. The most important sources are the final bills with their respective annexes and the Q & As given during the parliamentary process. The Danish parliament proceeded in September 2014 over an initial parliament bill put forward by the government. The parliamentary bill included an explicit reference to ensuring the protection of civilians in Iraq.\textsuperscript{32} It stated that Denmark, as part of a comprehensive political, economic and military strategy, would deploy a fighter jet contribution tasked to participate in intelligence gathering and offensive air-to-ground operations within the US-led operation\textsuperscript{33}. The initial bill stated that the confining regulation for the use of force was International Humanitarian Law. It also stated that specific tasks be given by the coalition and could be carried out in daylight as well as at nighttime.\textsuperscript{34} The subsequent first session of parliament clearly reflected the severity of the situation in light of the on-going armed conflict in Northern Iraq and the grave humanitarian situation.\textsuperscript{35} A number of comments on the risk of civilian casualties, especially in the event of targeting in urban areas, as well as when providing close air support to Iraqi and Kurdish troops on the ground were raised: however, the debate centred mainly on other aspects of the situation.\textsuperscript{36} In the subsequent proceedings in the defence council, 4 out of 82 questions dealt with civilian casualty-related aspects. The government were asked (Q6): What would be the consequences of the kinetic air operations for the civilians? (Q39): What is meant exactly, when the bill states that international law is the confining regulation? (Q68): Were Danish F-16s subject to mission-specific regulations? (Q78): Could the government reject that Danish fighters

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{(31)} In Danish: Magtanvendelsesdirektivet
\item \textsuperscript{(32)} B123/2014
\item \textsuperscript{(33)} \url{http://www.ft.dk/samling/20131/beslutningsforslag/b123/spm/36/svar/1158295/1404228.pdf}, visited 11/5 2016.
\item \textsuperscript{(34)} \url{http://www.ft.dk/Ripdf/samling/20131/beslutningsforslag/B123/20131_B123_fremsaetelsestale.pdf}, visited 11/5 2016.
\item \textsuperscript{(35)} The UN Security Council had expressed its gravest concern about the gross atrocities towards civilians in northern Iraq was already being conducted by ISIL. See \url{http://www.un.org/press/en/2014/sc11571.doc.htm}, visited 11/5 2016.
\item \textsuperscript{(36)} \url{http://www.ft.dk/samling/20131/beslutningsforslag/b123/beh1-107/forhandling.htm?startItem=1#alleindlaeg}, Visited 11/5 2016.
\end{itemize}
\end{footnotesize}
(would) bomb urban areas\textsuperscript{37}? The government, in all its answers, stuck to textual answers using the terminology of International Humanitarian Law. It stated that precision bombings [against ISIL] provided protection of civilians but that collateral damage and thereby civilian casualties could not be out ruled despite very detailed and thorough application of targeting procedures and precautions in attack\textsuperscript{38}. To the question on what it meant to have international law being the confining body that regulates the use of force, the government answered; that the Danish force, obviously, was subject to International Humanitarian Law\textsuperscript{39} and its sources of law. When asked about what restrictions Danish forces would be subject to, the government answered that besides the legal obligation vested in International Humanitarian Law, the forces would be subject to coalition Rules of Engagement. It added that International Humanitarian Law and Danish instructions, such as the use of force directives, take precedence over the Rules of Engagement and other coalition special instructions\textsuperscript{40}. The council, by a vast majority, adopted the parliamentary bill text, reiterated the humanitarian scope of the operations, but added no material amendments in terms of use of force\textsuperscript{41}. The parliament, after a short debate, and by a vast majority, adopted the final bill.

Despite a clause about an overall aim to protect civilians, the Danish politicians intended to provide a Danish military contribution with no caveats for the use of force in the pursuance of the mission objectives. Furthermore, we found no clauses or intents to centralize command and control of the approval process at the political level. The only significant restraining imperatives were explicit references to instruments under International Humanitarian Law such as collateral damage and distinction. We saw no real positive constraints in terms of restricting operational modus, and use of force, e.g. strategic objectives like oil fields or high-level persons. The politicians were very explicit in accepting that civilian casualties might occur in an operation like Inherent Resolve. However, they specified that everything feasible would be done in order to keep these to a minimum.

This finding leads us to conclude that the protection of civilians objective was a sub-objective amended for political legitimizing purposes, not a restraining order to out rule the potential risks of kinetic air targeting. (B123, 2014). In other words, the political level adopted a maximalist approach towards the problem of civilian casualties in an absolute decentralized manner where absolute Mission and Target Approval Authority was delegated to the military strategic level.

\textsuperscript{37} http://www.ft.dk/samling/20131/beslutningsforslag/b123/spm.htm#title2, visited 11/5 2016.
\textsuperscript{39} http://www.ft.dk/samling/20131/beslutningsforslag/b123/spm/39/index.htm#nav, visited 11/5 2016.
\textsuperscript{40} http://www.ft.dk/samling/20131/beslutningsforslag/b123/spm/68/svar/1158263/1404163.pdf, visited 11/5 2016.
\textsuperscript{41} http://www.ft.dk/RIpdf/samling/20131/beslutningsforslag/B123/20131_B123_betaenkning.pdf, visited 11/5 2016.
The Strategic Guidance

The Ministry of Defence tasking directive to the Defence Command revealed that the parliamentary procedural process was a central source of direction and guidance for the Ministry of Defence. Accordingly, the Ministry of Defence authorised the Defence Command to deploy forces with explicit reference to the parliamentary bill in question. The directive refers to the central passages in the bills and underlines that the forces are authorised to operate within the full spectrum of air operations, meaning offensive as well as defensive operations and tactical as well as strategic air operations, including strategic attacks. No further direction and guidance were given in the form of restraints or constraints on the use of force except for statements to the effect that the use of force should follow the rules of international law, especially International Humanitarian Law.

We found no centralizing instructions in terms of Target Approval authority. When interviewed, the Head of the Office for International Operations within the Ministry of Defence explained that this was a deliberate course of action when employing Danish forces. Firstly, he acknowledged that the Ministry of Defence does not have a standing command structure that enables it to monitor, guide, approve and assess an on-going mission. Secondly, Denmark, when employing its forces, transfers authority of operational control of the forces in question to a lead nation - the case in Operation Inherent Resolve to the US. This means that Danish forces are subject to the mission Rules of Engagement governing the specific operation. Finally, he added that the staff at the Ministry of Defence always considers the Rules of Engagement already laid out for the mission in focus. The Ministry of Defence concluded that they indeed did fulfill the Danish needs for regulating the use of force. By this, the civilian casualties issue was upheld as a centrepiece of the operation.

There seems to be a deliberate effort to construct the Danish Air Force’s contribution as a robust force operating, in reality, under no national caveats on the use of force. The strategic level added no strategic restraints or constraints. The strategic level was content that the combination of a decentralized command structure, led by competent officers executing targeting authorization under the confinements of International Humanitarian Law, and including the extant Rules of Engagement, would ensure the lowest level of civilian casualties.

(42) Danish Ministry of Defence tasking directive dated October 2, 2014. Due to the sensitivities of these documents they are not made publicly available.
(43) Ibid.
(45) During Operation Odyssey Dawn and Operation Unified Protector, 2011 the Danish F-16 contribution participated without any national caveats enabling the Danish contribution to participate in all missions across the board.
To all extents and purposes, it seems fair to conclude that the strategic level, in its explicitly decentralised target approval process pursuant to the principle of mission command, adopted a maximalist approach to the principle of proportionality.46

Figure 4. The collateral damage approach in kinetic air operations.
The strategic guidance clearly fell within the field of de-centralized control and a maximalist approach since no restrictions apart from adherence to International Humanitarian Law were applied. It is however, important to note that the Ministry of Defence was aware that the Rules of Engagement, which would also apply the Danish forces, would be more restrictive, and hence, the final leeway for Danish fighters would be less robust than the Danish political mandate.

The Nature of Operational Guidance47
The key national paper when addressing the use of military force, and thus civilian casualty issues, is the directive for the use of force issued by the Defence Command.48 The Danish directive functions as a complementary document to the existing mission Rules of Engagement. This

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(46) Mission Command is a style of military command, derived from the Prussian-pioneered Auftrag tactics doctrine, which combines centralized intent with decentralized execution subsidiarity and promotes freedom and speed of action, and initiative, within defined constraints. Subordinates, understanding the commander's intentions, their own missions and the context of those missions, are told what effect they are to achieve and the reason why it needs to be achieved. They then decide within their delegated freedom of action how best to achieve their missions. Orders provide only enough detail to establish intent and objectives, allowing freedom of action. For more see for instance Muth, Jorg “Command Culture, 2011. In the UK army capstone doctrine (UK ADP Operations) mission command is listed as one of two central command concepts.

(47) The analysis in this paragraph is based on interviews in combination with the use of force directives. The authors have had access to these documents. However due classification of these documents they are not made publicly available.

(48) It is an authoritative annex to the operations plan and is authorised by the Chief of Defence. The annex is thus a military instruction issued by the military guiding its operators as how to secure the political objectives with the use of armed force. Important is the fact that the annex is legally binding to all Danish soldiers under the uniform code of military justice. The annex must be read in a restrictive way meaning that only those instructions given in the annex are allowed to carry out. So given a violation of targeting policies happens, it does not automatically mean that a violation of Danish obligations towards international law has happened. It is however a national military disciplinary matter.
means that the Rules of Engagement prevail for the Danish directive if they do not expand the scope of the Danish authorizations.

A Danish use of force directive will include national positions on issues like self-defence, as well as instructions on legal restraints pertaining to the use of lethal force. It will include clarifications and Danish positions on grey zones in International Humanitarian Law. The operational level drafts the use of force directive in a semi-structured process. The drafting process starts at the very outset of the political process and follows a parallel development process providing an agile and close alignment with the political aspirations in a timely format. The political parliamentary proceedings leading up to the adoption of the parliamentary bill provide most of the input to the process. The drafters interpret the meaning of the terms of the bill in its political context, objectives, and purpose. They assess the intended profile of the mission by closely interpreting the parliamentary debate leading to the final parliamentary decision. In particular, written answers to questions posed in the debate by politicians and the statement from the foreign policy council offer substantial guidance in this respect. After adopting the parliamentary bill, the strategical level authorises the Defence Command to conduct the mission. This is done in the format of a tasking directive to the Defence Command. Because of the close and parallel planning process, these normally do not provide additional direction and guidance to the drafting of the directive on the use of force. The drafters also have operational input as to what is needed from a military perspective – in our case the air force staff. The input from the air force staff included an analysis of existing Rules of Engagement for the mission, the mission statement and the special instructions affiliated with the operation.49

Paramount for analysing the guidance on civilian casualties is the need to look at how the principle of proportionality was operationalized in the directive. The Defence Command adopted a narrow interpretation of the principle of proportionality. They instructed the Mission and Target Approval Authority that “only in imperative cases of military necessary” were they allowed to target military objectives, in other words, only when the concrete and direct military advantage clearly outweighs the risk of incidental loss of civilian life. They further added a Danish interpretation to “risk of collateral damage” to include the risk having to be imminent.50 The addition of the imperatives “military necessity”, “clearly outweighs” and “imminence” restrains the leeway given in the principle of proportionality to the Red Card Holder, and thereby, to the risks that he can run when consenting to engage a proposed target.

The directive covering the operation in focus states that the sole responsibility for ensuring that the targets Denmark engages are in accordance with International Humanitarian Law, mission Rules of Engagement, and the national directives lie with the Mission and Target Approval Authority i.e. the Red Card Holder. The directive, therefore, follows the decentralization of target approval and decision authority to the Red Card Holder and supports the mission command concept of the

49 Interview: Deputy Department of Legal Affairs, Defence Command Denmark, April 13, 2016.
50 Defence Command Denmark Use of Force Directive to OIR. Due to the sensitivity of this document it is not made publicly available.
operations. Furthermore, it requires the Red Card Holder to obtain training in the laws of armed conflict in general and in accordance with the annex specifically.

The Defence Command raised the threshold for allowing the Mission and Target Approval Authority to accept civilian casualties in kinetic air operations. Both interviewees indicated that these limitations were proposed and carried through by the legal department of the Defence Command after negotiations with the Air Force and the strategic level who required complete operational freedom with no or as few caveats as possible beyond International Humanitarian Law.

It is noteworthy that interviews pointed to an understanding at the Defence Command for the need for adding a buffer up to the boundaries given in International Humanitarian Law. These buffers, which raised the thresholds for the use of force when the risk of civilian casualties was present, were added to ensure an alignment of the Protection of Civilians clauses in the parliamentary bill and intent. However, interviews also pointed to a second reason for adding buffers, namely the coalition profile of the operations. Denmark might not have the same obligations towards International Humanitarian Law as other coalition members,51 Denmark does not develop and produce targeting material itself and therefore this buffer is deemed necessary for political and strategic reasons to secure Danish political imperatives.52

We conclude that the operational level restrained the acceptance of civilian casualties. Thereby it adopted a medium position in regard to the principle of proportionality. However, the Defence Command explicitly endorsed the decentralised target approval process in line with the principles of mission command.

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(51) I.e. USA is not party to the 1 Additional Protocol of 1977 to the Geneva conventions.
(52) Interview with Defence Command Denmark’s Legal Department

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Figure 5. The collateral damage approach in kinetic air operations.
Though the operational level guidance also clearly fell within the field of de-centralized control and a maximalist approach, it nonetheless added a slight restriction compared to the strategic level. This is depicted by moving the field of de-centralized target approval and maximalist approach to CIVCAS closer to the minimalist approach.
Tactical Execution

At the tactical level, the Red Card Holder uses the guidance at hand and holds the authority to decide all issues concerning which targets Danish fighters are to strike or not. The Red Card Holder alone holds the responsibility for ensuring that the Danish actions and effects fall within the intended mandate and that the strategy-to-task link is clear.

During the operations, there were no incidents in which the Red Card Holders indicated a need to call higher national headquarters to ask for permission to engage targets – not even in the few incidences where the targets were of a strategic nature.53 Some respondents mentioned a few missions where they consulted senior officers, but the latter showed absolute confidence in their peers, who, in the end, were thought to be the ones with the best situational awareness, operational insight, and position, and therefore, best positioned to make the final decision.

Though the previous analysis shows that the Defence Command slightly tightened the mandates given by the Ministry of Defence, it had little impact on operations. All Red Card Holders interviewed regarded the mandate given them by the Danish authorities as much wider than that mandate in the US Rules of Engagement, which Denmark, as a coalition member, was obliged to follow. None of the four Red Card Holders viewed the Danish mandate in the operations in question as too restrictive or saw them in any way hampering Danish operations.54 All four concluded that the limitations in the Rules of Engagement were met long before the mandate from Denmark was adopted. The rules concerning civilian casualties, in particular, were stricter and left very little room, if any, for strikes with anticipated civilian casualties. The US Rules of Engagement significantly limited the Danish maximalist approach.

Overall, the Danish strategic and operational regulations clearly reflected the need for a robust mandate. At the same time, all of the Red Card Holders understood that minimizing civilian casualties had a specific focus at both levels and they used this knowledge at the tactical level as a centerpiece of the analysis that went into the decision-making and strike authorization by the Red Card Holders55.

In summary, the Red Card Holders all found that the political objectives outlined in the parliamentary bills, in combination with the Danish maximalist approach towards International Humanitarian Law, gave them the best possible chance to accomplish the mission in terms of operational freedom and agility while focussing on minimizing civilian casualties.56

They all adhered to the fact that the mission command and control arrangements provided the Red Card Holders with the greatest chances of mission success while still maintaining operational freedom.

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(53) Interviews with the four Red Card Holders
(54) Ibid
(55) Ibid
(56) Ibid
However, in order to conclude that actual leeway for the Danish forces and the Red Card Holder we must remember that the Danish force acted under US Rules of Engagement with a much more minimalistic approach towards International Humanitarian Law and the concept of proportionality in particular. This, in essence, meant that the Red Card Holders found themselves in a position of decentralized command and control, but with a minimalistic approach to proportionality.

All four also found that no matter whether the approach was minimalist or maximalist, it was imperative that the Red Card Holder was a senior officer with vast F-16 experience in order to ensure that the high degree of mission command was trusted to someone with the right skills and background.

CONCLUSION

This paper concludes that the Danish kinetic air operations in Iraq 2014-15 were conducted under an intent to provide a robust Danish F-16 contribution to the mission with few, or even better, no caveats being imposed by Denmark beyond the dictates of International Humanitarian Law. The analysis revealed a profound confidence throughout the chain of command that International Humanitarian Law provides the right baseline for maintaining operational freedom and agility in the conduct of airstrikes. Only minor national caveats were added to the scope given to the target approval authority in relation to the acceptance of targets containing the risk of incidental civilian casualties. These caveats did not out-rule the Red Card Holder’s authority to accept targets containing this risk. Nevertheless, they raised the threshold compared to the standards found in the principle of proportionality under International Humanitarian Law. The reason for this was the need for a “buffer” owing to national legal obligations, which were not the same for other states in the coalition.
The paper concludes that Denmark applied an unequivocal decentralization of the decision-making authority to the tactical level in the mission area, in the form of mission command to the Red Card Holder. Interviews revealed an acknowledgment that this command and control set-up was the best way of ensuring minimal incidental civilian casualties while sustaining mission agility and focus on mission objectives. An important enabler for this command set-up was the fact that the Red Card Holders all understood the political sensitivities and intents, while adding considerable tactical and technical competence to the decision-making process in the mission and target approval process. Situational awareness and detailed real-time access were further enabling factors.

Thus, the paper concludes that the Danish military, by adding balanced restraints on itself in pursuance of the political intents and mission objectives, adopted a predominantly maximalist approach towards the acceptance of incidental civilian casualties in the kinetic air operations in Iraq 2014-2015. By applying this approach in a mission-command target approval set-up, Denmark is well positioned to carry out kinetic air operations with the intent of inflicting the lowest level of civilian casualties, whilst at the same time not jeopardizing its ability to accomplish the mission objective of destroying or degrading ISIL.

One final observation: despite the predominantly maximalist approach adopted by Denmark, reality showed that it made no significant difference to the actual use of force in the mission, since the mission’s Rules of Engagement put restraining limits on the Danish use of force. In other words, even though Denmark had a robust mandate when it came to the use of force, and was thus able to engage targets that might include the risk of collateral damage, the mission’s Rules of Engagement hindered that engagement.

Finally, the findings of this paper follow a Danish operational tradition for deploying a robust force with very few caveats and then transferring authority in operational control to a lead nation/al- liance headquarters.
The Use of Kinetic Airpower and the Problem of Civilian Casualties

Danish approach:

De-centralized Target approval process within a minimalist approach to CIVCAS

Centralized Target approval process within a maximalist approach to CIVCAS

Danish leeway in the coalition:

De-centralized Target approval process within a minimalist approach to CIVCAS

Centralized Target approval process within a maximalist approach to CIVCAS
PERSPECTIVE

Denmark deliberately adopted a policy of providing integrated forces with as few as possible or no caveats on the use of force in line with mission command principles. We believe this to be a reasonable strategic approach for Denmark. First, a maximalist approach will provide Denmark with a strategic label as a full born coalition partner, willing to invest in pursuance of complicated international security objectives. Thus, Denmark gains access to international political decision-making processes and information not normally provided to small states. Furthermore, Denmark can capitalize on its label as a credible coalition partner in other strategic matters. From an operational and tactical point of view, we see good reasons to apply this force set up. By giving commanders the authority to make tactical decisions within a maximalist use of force profile, governed solely by the legal obligations and extant rules of engagement, we believe that Denmark can best achieve tactical effects in pursuance of political objectives. Thus, the commanders can factor in their real-time, situation-specific awareness of the enemy, the situational factors such as terrain and weather, mission objectives and sensitivities in their decision-making processes in a timely and flexible way. This translates into keeping incidental civilian casualties to an absolute minimum while ensuring the best possible chance of mission success.

The risks, if the target approval authority is centralized, are substantial. The resultant time and space redundancy will only hamper mission flexibility and the ability to engage dynamic and time-sensitive targets. Furthermore, it is impossible for a centralized approval authority to sustain reasonable situational awareness from a distance. This would result in legal and mission-critical targets being disapproved pending more intelligence, intelligence that Denmark is not able to obtain by her own channels. Hence, Denmark would risk losing her strategic profile as a full born coalition member and the advantages that accrue to this status. On the other hand, the benefits of a more centralized control include the difficult and politically sensitive decision of approving targets containing the risk of incidental civilian casualties resting with flag officers, thus relieving the Red Card Holder of this pressure. Nothing in our analysis, however, pointed to the need for centralization.

In the event of a minimalist approach, the risk of more civilian loss of lives could be the result. Reporting has indicated horrendous atrocities to civilians in the areas controlled by ISIL. A zero civilian casualty policy would make it easier for ISIL to continue its inhumane practices. Reporting indicates that the use of human shields is a widespread and systematic practice by ISIL. By forcing civilians to act as human shields, ISIL will, de-facto, have unlimited room to continue its practices. We argue that in cases like this, the need for an acceptance of the risk of potential incidental civilian casualty is prudent. Firstly, because ISIL may never be able to foresee our actions and capitalize on them, i.e. they know our restraints. Secondly, when the mission is to destroy and degrade ISIL, sometimes it is better to engage a target with the potential risk of limited civilian casualties that to mechanically abort the mission. It is the nature of warfare to leverage gains and risks. In this case, it might save many civilians from being subject to atrocities if we dare to run the risks affiliated with engaging a target, i.e. a well-known perpetrator.
We understand the political sensitivities. No one wants to inflict civilian casualties, not the least soldiers. However, civilian casualties are an inherent risk when operations include targeting objectives on the ground from the air. A lot of operational, technical and personal competence can mitigate the risk significantly. Thus, in our perspective, the Danish approach, as concluded in this paper, represents a sensible balance between the political intent to participate in the operations to destroy and degrade ISIL and the provision of practicable working conditions for those tasked to carry out that intent. It is our belief that the trust vested in the Red Card Holders is rooted in the strong strategic culture of trust and mission command existing in Denmark.

That said, we acknowledge that there is no room for alternative command and control arrangements. Denmark does not have a standing command structure that enables it to monitor, guide, approve and assess an on-going mission. If the approval authority were to be placed elsewhere, a robust and swift command structure would have to be established in order to facilitate the process that the Red Card Holder is otherwise responsible for. Neither the Ministry of Defence, nor the Defence Command, have a structure enabling it to man a 24/7 situation room with persons possessing the capability, authority, and situational awareness to decide or even guide the Red Card Holders in their considerations about which targets to strike or not. The small staffs at the various levels simply have no mechanisms to conduct more rigorous control of the military force’s use of force once it is deployed into theatre. The Danish command structure, from the Ministry of Defence down to the tactical unit, is, in our opinion, designed to guide and make policy decisions – not to lead. This not only enables a command structure based on mission command, it also directly leads to a command structure based on mission command given the fact that there is no alternative. The result is a command structure in which mission command becomes as logical as it is inevitable.
The Use of Kinetic Airpower and the Problem of Civilian Casualties

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