

Written evidence submitted by Airwars

Credibility Gap

UK civilian harm assessments for the battles of Mosul and Raqqa

Key recommendations

Based on close monitoring of military actions in Iraq and Syria since 2014 by Airwars, the following recommendations are made to the Defense Select Committee inquiry into UK actions at Mosul and Raqqa – with the hope that these may build upon and improve official monitoring, understanding and reporting of civilian casualties:

- That the Ministry of Defence establishes a dedicated civilian harm assessment cell for future conflicts, to which personnel with key skills are assigned.¹
- That the MoD enhances its assessment and investigative capacities in order to properly evaluate allegations of civilian harm. Where possible this should include a proper review of local claims and external field studies; communication with victims and witnesses; and on site investigations.
- In light of most local, credibly reported civilian harm at Mosul and Raqqa occurring within unobservable spaces, that the MoD reviews whether it is over-reliant upon ISR when determining non combatant harm; and assesses whether the statistical modelling used in its own Collateral Damage Estimates for urban actions might undercount civilian casualties.
- The extensive use of larger explosive weapons at Mosul and Raqqa contributed to civilian harm, despite advances in precision guidance. Airwars calls on the MoD to review its present munitions suite in relation to urban warfare.
- That the MoD provides, as a matter of course, compensation or solatia payments for those affected by UK military actions in which civilian harm is conceded.
- That the MoD provides as much locational detail as possible in its public strike logs. This will assist external agencies in evaluating potential harm from British strikes – while preventing the UK from being unnecessarily implicated in events.
- Following due consideration of the above concerns, that the MoD undertakes a full and proper assessment of more than 400 civilian harm allegations during the battles of Mosul and Raqqa in which UK forces might have been involved.

¹ At present, MoD Operations personnel are temporarily reassigned from other key tasks in order to conduct civilian harm assessments. Airwars believes that the UK should follow the example of CENTCOM in having a dedicated civilian harm assessment team.

Airwars and civilian harm monitoring in Iraq and Syria

Based at Goldsmiths University of London, Airwars was founded in 2014 to help better understand the public reporting of civilian harm on the modern battlefield. This is achieved primarily by acting as an all-source monitor of local population claims, as well as by tracking related reporting by belligerents. Airwars also seeks to work with stakeholders to help improve understanding of conflict casualties, with the longer term goal of harm reduction. The British Government has positively cited its engagement with Airwars, as indicative of its commitment towards properly assessing potential civilian harm allegations relating to UK forces.²

The US-led Coalition against so-called Islamic State has comprised more than 60 nations. However the declared kinetic contingent has featured only 14 countries. The UK has consistently been the second most active partner in the war, after the United States. Other nations to have participated kinetically are France; The Netherlands; Belgium; Denmark; Canada; Australia; Turkey; Iraq; the United Arab Emirates; Jordan; Saudi Arabia; and Bahrain. Overall these nations have conducted more than 29,000 airstrikes between them, releasing 105,000 munitions from the air on ISIS positions.

Civilian cost in the Battles of Mosul and Raqqa

The high intensity conflict against ISIS has been costly for non combatants, particularly on urban battlefields. Since 2014, Airwars has tracked more than 2,600 locally alleged civilian fatality events across both Iraq and Syria, which have been linked to possible international Coalition actions in the war against ISIS. In total, these claims allege more than 26,000 non combatant fatalities. Airwars presently assesses that at a minimum, between 6,300 and 9,700 civilians are likely to have died in Coalition actions overall – approximately 40 percent during the recent battles for Mosul and Raqqa.

By any measure, the battles for Mosul and Raqqa marked the most significant periods both of destruction and of civilian harm in the four year fight against so called Islamic State (ISIS). According to monitoring groups and detailed field investigations, at least 9,000 civilians were likely killed in Mosul by all parties to the fighting, with an estimated 2,400 or more civilians killed at Raqqa. Much of the Old City of Mosul and almost 70% of Raqqa's entirety have been rendered uninhabitable, according to the United Nations.

ISIS caused significant destruction and civilian harm at Mosul, as did Iraqi Security Forces and associated units. Even so, much of the damage at Mosul resulted from incoming Coalition actions, with at least 29,000 munitions fired by the international allies alone. Strikes were conducted by the US, the United Kingdom, France, Australia and Belgium among international partners, alongside those by Iraqi forces. Sir Michael Fallon declared shortly after the capture of Mosul from ISIS that the UK was "second only to the United States" in having struck 750 targets in the city.

² See for example Minister for the Armed Forces Penny Mordaunt MP, Written Answers, February 29th 2016: "Airwars has been proactive in submitting written reports of civilian casualties and we are grateful for its efforts and for the value that they add." Hansard, at <https://hansard.parliament.uk/Commons/2016-02-29/debates/16022911000025/ReportingOfCivilianCasualties>

At Raqqa, lightly equipped Syrian Democratic Forces – and limited ISIS heavy weaponry (eg artillery, Vehicle Borne IEDs) – meant that the great majority of destruction appears to have resulted from Coalition, primarily US, actions. Only a relatively small number of strikes were conducted by the UK and France, with the RAF declaring some 216 targets struck.

UK transparency and accountability in the war against ISIS

Airwars has consistently assessed the UK to be the most transparent belligerent among the 14-nation kinetic contingent of the Coalition – an approach which has likely been influential in encouraging other states to improve their own transparency. In an earlier transparency audit of the alliance, Airwars noted the following:

Strike reports are published weekly, which often give significant information about locations and targets, along with the aircraft and munitions used. Additional detail on weapon use, enemy combatants killed and other key metrics has been released in response to parliamentary questions, media enquiries and freedom of information requests.³

Airwars commends the Ministry of Defence for its transparent reporting of airstrikes during the war against ISIS; for its provision of a civilian harm reporting mechanism for external agencies; and for its willingness to engage with concerned NGOs on individual allegations. We call for this to be standard good practice in future conflicts. However there remain significant issues with UK accountability for possible civilian harm events, in particular in urban areas – where the RAF for example struck almost 1,000 targets during recent efforts to capture Mosul and Raqqa from ISIS.

Senior British military officials – like their Coalition and partner counterparts – have often acknowledged the inevitability of civilian casualties in such dense urban operations. "Everything is heightened in a city – the number of troops you need, the amount of munitions you drop, and the amount of suffering... The idea that you can liberate a city like Mosul or Raqqa without – tragically – civilian casualties is a fool's errand," Major General Rupert Jones, who served as deputy commander of the Coalition, told this Defence Committee inquiry in May 2018.⁴

Yet it remains the assertion of the MoD that it has assessed no credible reports of civilian harm resulting from RAF actions in either Mosul or Raqqa. Most recently, in a June 2018 interview with BBC Radio 4's Today programme, Air Chief Marshal Sir Stuart Peach pushed back against allegations that Britain was involved in urban civilian casualties. "I don't accept that – we have absolutely got the most rigorous and thorough process and we have absolutely conducted ourselves professionally and in accordance with international law."⁵

³ 'Limited Accountability: a transparency audit of the Coalition air war against so-called Islamic State,' Airwars, December 2016, at https://airwars.org/wp-content/uploads/2016/12/Airwars-report_Web-FINAL1.compressed.pdf

⁴ 'Oral evidence: UK Military operations in Mosul and Raqqa, HC 999,' Defence Select Committee, May 15th 2018 at <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/defence-committee/uk-military-operations-in-mosul-and-raqqa/oral/82916.html>

⁵ A transcript of Air Marshal Sir Stuart Peach's remarks was provided to Airwars. A recording of the segment

Indeed, the United Kingdom has conceded only one civilian harm event in its entire war against Islamic State, despite more than 1,700 RAF strikes – with a single fatality resulting from a Reaper strike in rural Syria in Spring 2018.

By comparison, the United States has publicly conceded an average of one fatality for every 40 of its own actions in Iraq and Syria. Recent modelling for other conflicts should also be noted. The United Nations Assistance Mission in Afghanistan has found for example that international actions kill non combatants on average every five to fifteen airstrikes.⁶

In light of those numbers – and even allowing for more proscriptive UK Rules of Engagement – it is the view of Airwars that the Ministry of Defence’s claim of zero civilian harm from its actions at Mosul and Raqqa represents a statistical impossibility given the intensity of fighting, the extensive use of explosive weapons, and the significant civilian populations known to have been trapped in both cities.

can be found here:

<https://www.bbc.co.uk/programmes/b0b4z09t&sa=D&ust=1531152722809000&usg=AFQjCNHQbpmOOaZ4Zi1jfNou0LJBkJ98A> . Select portions of Sir Stuart’s remarks are quoted here: <https://www.bbc.com/news/uk-44404828>

⁶ ‘Does the U.S. Ignore Its Civilian Casualties in Iraq and Syria?’, Chris Woods, New York Times, August 17th 2016, at <https://www.nytimes.com/2016/08/18/opinion/does-the-us-ignore-its-civilian-casualties-in-iraq-and-syria.html>

Why the UK may be undercounting civilian casualties

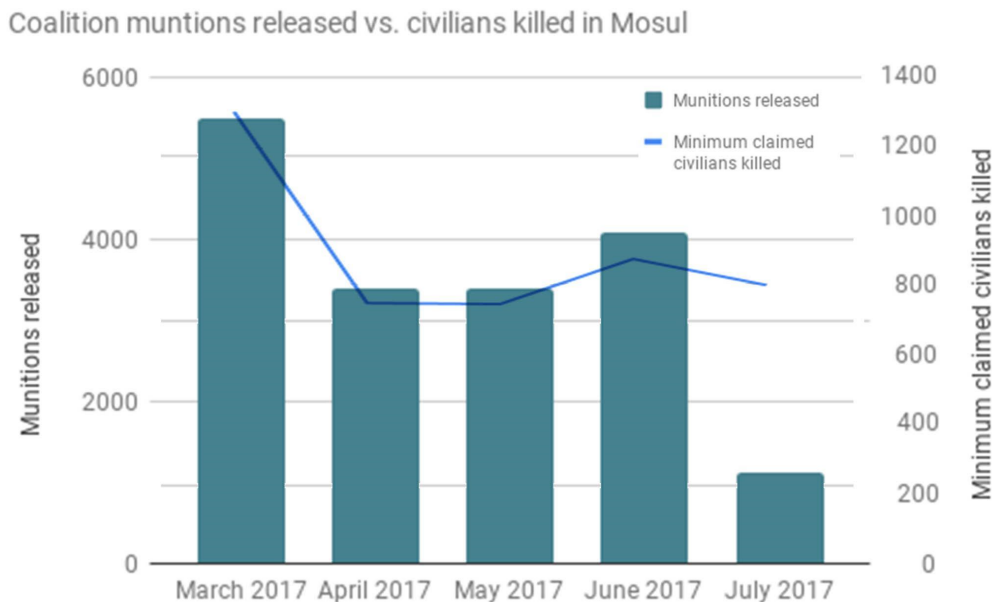
Airwars presently assesses that 2,600 or more non-combatants likely died at Mosul and Raqqa as a result of Coalition actions. Yet among international belligerents, only the United States and Australia have publicly conceded civilian harm for these assaults. The UK, France and Belgium all continue to claim no casualties – much as Russia does for its own urban strikes in Syria. Airwars notes the following factors which point to the likelihood of recent UK actions at Mosul and Raqqa having contributed to civilian harm:

Explosive weapon use in urban areas

Public civilian casualty claims in both Mosul and Raqqa closely tracked the intensity of Coalition and other belligerent bombardments, as might be expected. As Airwars noted for Mosul in an earlier Parliamentary submission:

In March [2017] for example, the Coalition reported firing 5,500 munitions; in the same month, local reports alleged 1,308 civilians were killed by Coalition actions. The following month, the Coalition reported 3,400 munitions released, a drop of 38 percent. Also in April, the minimum number of civilians claimed killed in local reports fell by similar proportions – down to 743, a drop of 43%.⁷

Fig. 1 Airwars modelling shows that casualty allegations against the Coalition in Mosul closely tracked the number of weapons fired

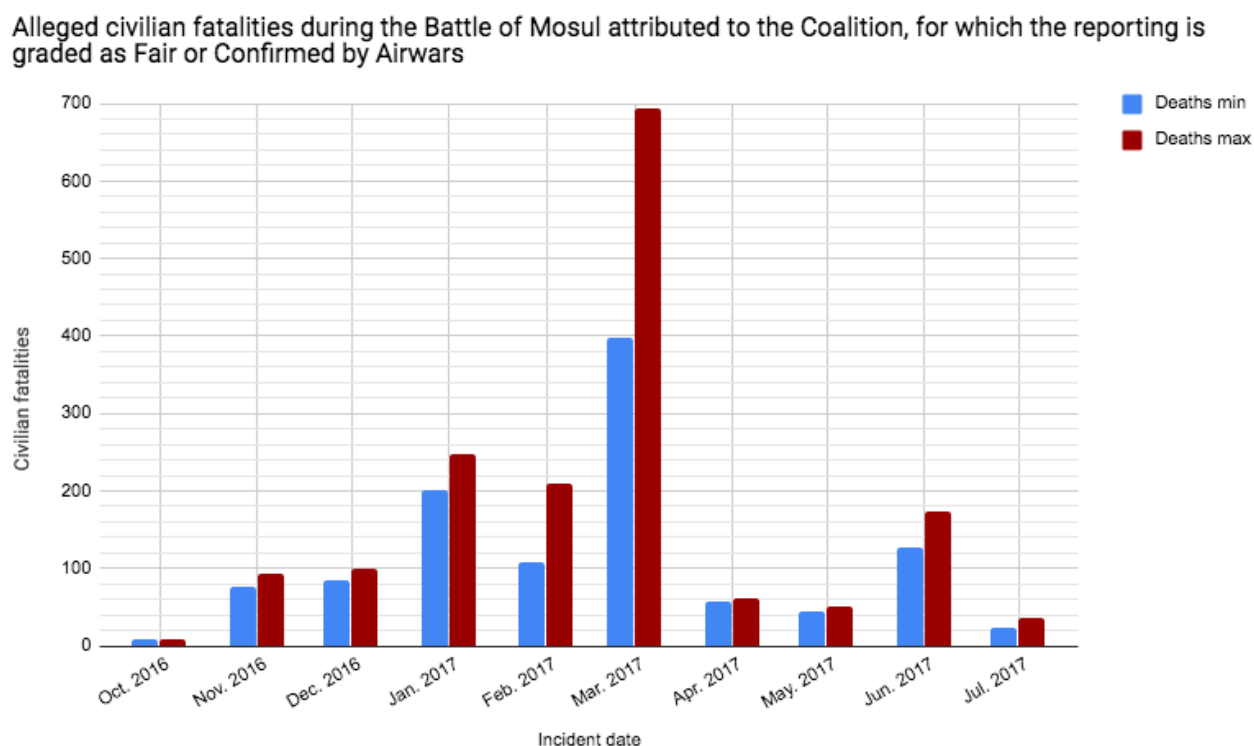


The majority of credibly reported non combatant fatalities at both Mosul and Raqqa related to the damage or destruction of buildings, where civilians had either lived; had taken shelter; or on occasion

⁷ 'Death in the City: high levels of civilian harm in modern urban warfare from significant explosive weapons use' Airwars submission to All Party Parliamentary Group on Explosive Threats, May 21st 2018, at <https://airwars.org/wp-content/uploads/2018/05/Airwars-Death-in-the-City-web.pdf>

had been forcibly detained by ISIS. Mass casualty events were frequent, with large numbers of civilians reported killed and injured when buildings collapsed upon them – often reportedly a result of air and artillery strikes, as well as activity by ISIS.

Fig. 2 Airwars estimate of civilian fatalities caused by Coalition air and artillery strikes during the Battle of Mosul



The intensity of bombardment and the limitations of precision strikes

Airwars monitoring has shown a consistent pattern during military actions in both Iraq and Syria. The greater the intensity of explosive weapons use – predominantly in urban areas – the higher the civilian toll. As noted in a recent report, outcomes for civilians caught in urban battles were far less influenced by the use of Coalition ‘smart’ munitions versus Russian ‘dumb’ bombs than might be expected.⁸

The benefits of precision strikes in mitigating civilian harm are not so much wrong, as significantly overstated in urban environments. This has been termed the ‘Precision Paradox’ by Major Amos C. Fox of the US Army, a former planning officer with Operation Inherent Resolve:

The battle [for Mosul] illuminated a misconception of modern warfare with the precision paradox – the proposition that the employment of precision weaponry can make war antiseptic

⁸ ‘Death in the City,’ Airwars, May 2018, at <https://airwars.org/wp-content/uploads/2018/05/Airwars-Death-in-the-City-web.pdf>

*and devoid of collateral damage or civilian casualties... The Battle of Mosul, a nine-month slog, blending U.S. and coalition precision weapons with Iraqi frontal attacks against an ensconced and determined enemy, precisely leveled the city one building at a time.*⁹

According to reports, the RAF fired over 3,500 munitions during Operation Shader. The most heavily used weapon was the Paveway IV, a 500 lb bomb which overall accounted for more than two in three munitions fired.¹⁰

Coalition and British officials have stressed the degree to which ISIS fighters placed civilians in danger, with the terror group at times deliberately positioning non combatants in areas where air-dropped munitions might harm them. These assertions were backed by independent field investigations conducted by Human Rights Watch and Amnesty International.

However, a key finding of Airwars is that the Coalition did not significantly modulate its use of explosive weapons once operations focused on Raqqa – even though the implications for civilians of high intensity bombardments should by then have been better understood. According to the Coalition, around 29,000 munitions were fired into Mosul between October 2016 and July 2017 – an average of around 3,222 per month. This does not account for munitions fired by Iraqi forces. In Raqqa, the Coalition reported firing some 21,000 munitions between June and October 2017 – an average of around 4,000 per month. That higher rate of fire was directed into a much smaller area than Mosul – leading to proportionally greater destruction in the city overall.

UK targeting of buildings and urban areas

According to public MoD reporting during the battle for East Mosul, British forces targeted buildings in at least 31% of strikes. At Raqqa, the proportion of targets struck which were buildings rose to 63%.

Several years of close monitoring by Airwars, and investigations carried out by others, indicate that the majority of credibly reported civilian casualties during the battles of Mosul and Raqqa were linked to the damage or destruction of buildings, in particular during periods of intense bombardment. This pattern is true not only in areas where the Coalition operated but elsewhere, for instance in Western Syria where Russia conducts extensive military actions.

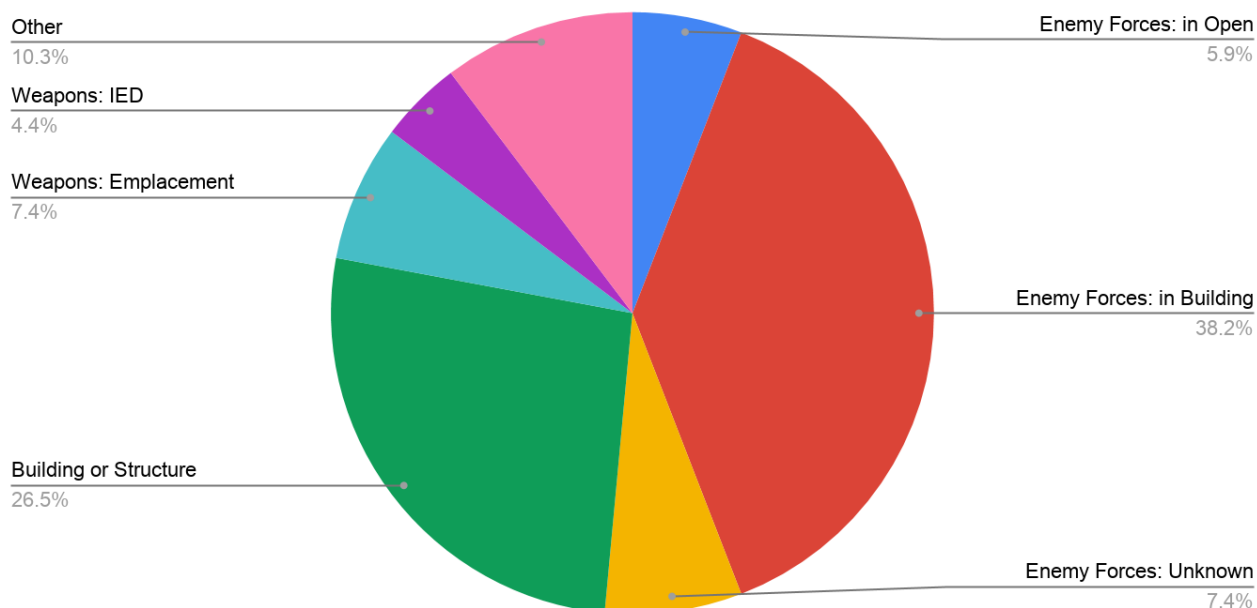
⁹ 'Precision Fires Hindered By Urban Jungle,' Association of the United States Army, Major Amos C. Fox, April 16th 2017, at <https://www.ansa.org/articles/precision-fires-hindered-urban-jun-gle>

¹⁰ 'Cost of UK air and drone strikes in Iraq and Syria reach £1.75 billion,' Drone Wars UK, February 26th, 2018 at <https://dronewars.net/2018/02/26/cost-of-uk-air-and-drone-strikes-in-iraq-and-syria-reach-1-75-billion/>

Fig. 3 Declared targets in strikes publicly reported by the Ministry of Defence during the Battle of Raqqa

Declared targets in strikes publicly reported by the Ministry of Defence for the Battle of Raqqa

Modelling based on 121 declared targets identified by Airwars in the MoD's public strike reports.



Systemic over-reliance upon the observable

Central to what Airwars has identified as a Coalition-wide problem is a tendency for nations to concede only those events which are ‘observable’ – most often via imagery captured by aircraft, and showing civilians visibly present at or near the target area.

Like other Coalition members, the UK relies heavily on such observable and readily available evidence to determine whether it was involved in civilian casualty incidents. In fact as indicated by official releases, some 67% percent of all Coalition civilian casualty admissions to date have come from ‘self-reporting.’ Such incidents would generally involve pilots and analysts directly witnessing the potential presence of civilians via means of Intelligence Surveillance and Reconnaissance (ISR), either while still in the air or during post-strike assessments.

Civilian deaths during urban fighting are by their nature almost always unobservable – with deaths and injuries occurring in spaces where ground spotters, ISR, and post strike assessments generally could not have identified harm even where it occurred. Official Coalition data shows a clear bias towards observable events when concessions of civilian harm are made – meaning that the majority of locally reported civilian harm events at both Mosul and Raqqa will not be reflected in Coalition data.

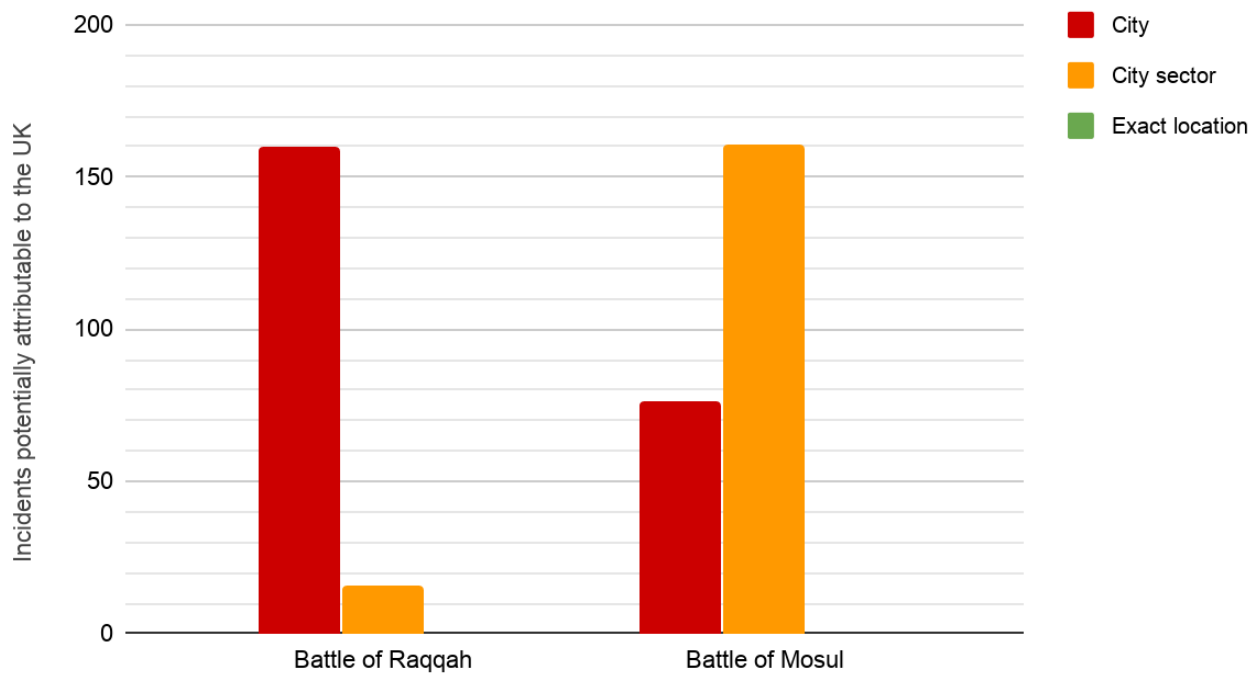
Accuracy of British reporting during Mosul and Raqqa

As noted, for much of the anti-ISIS campaign Britain rated well on transparency among its Coalition partners, issuing public reports of where it had bombed with more refined geographic accuracy. This proved helpful not only for locating the strike itself, but also for excluding Britain from suspected involvement in problem events elsewhere.

Unfortunately this level of detail decreased significantly during operations to liberate Raqqa during 2017. While only 17.5 percent of RAF strikes were identified at city level only for Mosul, this proportion rose to 80 percent of actions in Raqqa, according to official MoD strike releases.

Fig. 4 Accuracy of Ministry of Defence public reporting of strike locations for the battles of Mosul and Raqqa

How did the Ministry of Defence's accuracy of reporting vary?



It is unclear why the UK changed reporting practices so significantly between the battles of Mosul and Raqqa. With Airwars tracking up to 15 separate civilian harm allegations a day in the latter city, British forces were in theory implicated – simply by nature of providing vaguer locations that usually encompassed the entire city – in a far wider range of public civilian casualty claims than was necessary.

Inconsistent quality of Coalition casualty assessments

Recent trends in Coalition reporting show significant variations in the quality of its casualty assessments. The UK should therefore not rely solely on Coalition assessments when making its own determination of possible harm events.

Nine months into operations in Mosul, 43 percent of 101 total completed assessments of civilian harm claims in the city had resulted in a Coalition acknowledgement of responsibility. Nine months after the start of fighting in Raqqa, the Coalition had confirmed involvement in only eleven percent of the 121 reports it had assessed.¹¹ That gap has continued to widen. Of 346 reported civilian harm events for the battle of Raqqa so far known to have been assessed by the alliance, less than five percent (17 events) have been deemed Credible. In stark contrast, Airwars assesses 70 percent of reported Coalition civilian harm events at Raqqa as likely, based on what it views as credible local public reporting.

The UK often relies heavily upon Coalition assessments of civilian harm allegations, declining as a rule to further assess potential UK incidents if the Coalition's own civilian casualty cell has already examined a case.¹² Any flaws in Coalition findings may therefore be reflected in Britain's own modelling. Airwars therefore recommends that the Ministry of Defence wherever possible conducts its own independent assessments of battlefield civilian harm claims, alongside those of any alliance it might be a party to.

A failure to investigate on the ground

The international war against ISIS has primarily been an air war, in support of allied or proxy forces on the ground. An absence of Coalition ground forces in strength, with an ability properly to investigate civilian harm events, has been a contributing factor in the under-reporting of harm by the alliance, in the view of Airwars.

The value of such field studies is clear, and Airwars calls on the MoD both to conduct its own field assessments wherever possible – while engaging constructively with external agencies presenting credible research into reported civilian harm.

18 July 2018

¹¹ 'Raqqa: a city destroyed then forgotten,' Samuel Oakford, Airwars, March 12th 2018, at <https://airwars.org/news/raqqa-a-city-destroyed-then-forgotten/>

¹² "The Ministry of Defence maintains its position that, once a full investigation has been undertaken by the Coalition... there is no utility in a re-examination of the case, unless compelling further evidence were to come to light." Ministry of Defence Operations Directorate in a letter to Airwars, May 19th 2017.