

## Book Review

# Reaper Force: Inside Britain's Drone Wars



By Dr Peter Lee

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Reviewed by Air Vice-Marshal (Retd) Tony Mason

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**Biography:** Air Vice-Marshal (Retd) Tony Mason was the first RAF Director of Defence Studies. He was subsequently the specialist Air Adviser to the House of Commons Defence Committee while holding a personal Chair in International Security at the University of Birmingham. For many years he has published and spoken internationally on air power and related defence subjects.

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## Introduction

**D**r Lee is Director of Security and Risk Research at Portsmouth University. He moved into Academe after serving from 2001-2008 as a RAF Chaplain. He specialises in air power and ethics in war. Since 2011 he has taken a particular interest in unmanned aerial systems, known colloquially as 'drones'. Between 2015 and 2018 he conducted 90 recorded interviews and many conversations with serving and retired RAF Reaper operators and their partners. In *Reaper Force* he focuses on human issues, but the interviews also reveal many details of the operational environment not hitherto available to the general public.

In the twenty-first century International Conventions have sought to protect non-combatants while belief in the prosecution of a just war has provided ethical grounds for resorting to armed force. Dr Lee reminds us that in the history of air warfare, opponents have always sought technical, tactical and personal advantages. Destruction and killing were normally at a distance while aircrew in World War Two, usually unaccompanied by families, were likely to relax off duty in a local hostelry. Whilst flying, aircrew were vulnerable to both enemy action and the elements.

Through his interviews Dr Lee illustrates the very different operational circumstances of the Reaper Force, with 39 Squadron at Creech AFB in the USA or with 13 Squadron at RAF Waddington in Lincolnshire. The Pilots, Sensor Operators and Mission Intelligence Coordinators work in Ground Control Stations thousands of miles away from their targets and risk of enemy reaction. Yet they may watch their potential targets at very close range for several hours or perhaps even days. They operate under a directive known as CIVCAS: zero civilian casualties. After the assimilation of intelligence from many sources, rules of engagement include meeting seven criteria, with the final decision to attack or not resting with the Reaper captain, a role performed by the pilot. All targets are planned with the option to perform a last-minute attack abort, a procedure that requires the sensor operator to guide the munition to a pre-designated safe area. One pilot summarised one of the fundamental challenges:

*Using lethal force ...requires a mixture of aggression and patience, of calculated professional discipline and empathetic human understanding because every time you hear 'cleared hot' (for weapon release) you have to get the decision right. Failure to do so puts friendly lives in jeopardy or increases the risk to innocents (p. 284).*

The crew may have to decide between killing or ignoring a human target. They will see at close range the impact of their weapons as part of the battle damage process including human remains and the reaction of witnesses.

At the end of a shift, the crews return to their homes in downtown Las Vegas or to the Lincolnshire countryside, moving directly from the trauma of war to the peace of their families. Unsurprisingly many interviews revealed the impact on personal relationships of accumulated physical, mental and emotional stress, sometimes temporary, frequently longer lasting. Inevitably, some were more resilient than others. The enduring spirit of the Force was, however, summarised by a pilot who confessed to exhaustion but 'would do it all again...because I made a difference' (p. 302).

Unsurprisingly in a Service renowned for its determination, courage in the face of the enemy and willingness to make the ultimate sacrifice, many interviewees were reluctant to reveal the pressures induced by their environment, feeling a loss of self-respect and sensing the disdain of erstwhile colleagues only familiar with 'traditional' combat. Dr Lee's own sensitive reaction to the disclosures is understanding and sympathetic, without ever losing his underlying belief in the legitimacy and morality of the Reaper Force's operations.

Indeed, the operational incidents described by the crews reveal details which repeatedly illustrate the adherence of the Reaper Force to both legal and ethical principles of war from 2008 when Reaper began to carry weapons. Crews progress through categories of combat readiness to final clearance to kill individuals. Failure to apply rules of engagement, for example to overlook a transient civilian risk, would lead to an immediate official investigation, detailed remedial training and possible reduction in Reaper operational category. An authority to

fire could be countermanded at any stage in the process from any of the external agencies watching the operation. The crew are in constant contact with friendly forces on the ground as well as their own chain of command within the theatre of operations. Indeed, perhaps the most controversy and severe trauma are generated when the Reaper Force rules of engagement preclude intervention in support of friendly ground forces, especially if they should be taking casualties.

The unique combination of circumstances which distinguish the Reaper Force's way of waging war prompts Dr Lee to reflect on the demoralising impact of a Government announcement in September 2017 of the award of campaign medals for Operation SHADER in Syria and Iraq which did not include the Reaper Force. Yet between August 2014 and December 2018 the Reaper Force flew 3080 missions and released 964 weapons. Criteria traditionally applied to the award of campaign medals have included geographic location in a specific campaign and exposure to the associated 'risk and rigour' in theatre; neither applying to the Reaper Force. In July 2018 however the Defence Secretary announced that the 'Operation SHADER medal will now recognise those making a vital contribution to Op SHADER from outside the conventional area of operations, for example the Reaper pilots taking life and death decisions from back here in the UK' (p. 249). There has been no further amplification of this apparent change in policy.

*Reaper Force* is not an academic source for research on remotely piloted air systems (RPAS) policy, strategy, tactics or personnel. The number of interviews represent only a small proportion of the Force. Moreover, the interviews and conversations were all voluntary with no scientific or statistical basis for selection or evaluation. The well-founded preservation of anonymity precluded the inclusion of details of recruitment criteria, age, experience, rank, gender or psychological predisposition. In seeking to emphasise the human implications of applying deadly force by remote control, the author frequently imposes his own sentiments on interviews. They can be intrusive and impair the objectivity of his conclusions.

But despite such reservations and limitations, *Reaper Force* is a unique and most valuable addition to the lexicon of British air power, easily approachable by the lay reader and thought provoking to the professional.

The RAF is planning to expand its RPAS force with the introduction of the new Protector system. The availability of counselling on Reaper Squadrons and the existence on several RAF stations of medical units specialising in mental health reflect the Service's concern now about more than just physical wellbeing. Dr Lee's 'snap-shots' stimulate many questions which remain unanswered, at least in the public domain. How far can the boundaries between human control and artificial intelligence be expanded? In an air force, how can the interface be managed between those who fly and fight and those who may be engaging similar targets from the security of remote ground locations? By what selection criteria will RPAS crews be recruited? How will their careers be managed? Do current medical categories and procedures require revision to reflect new operational circumstances?

In an Air Force which has always sought technological advantage, *Reaper Force* is a salutary warning that any armed service is only as good as its people and neglects the 'human dimension' at its peril.

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