



Ministry of Defence

J9 FOI Secretariat

Permanent Joint Headquarters (United Kingdom)
Northwood Headquarters
Sandy Lane
Northwood
Middlesex
HA6 3HP

E-Mail: PJHQ-J9-FOI-Group@mod.gov.uk

Reference: FOI 2019/00464(114)

Mr C Cole
chris@dronewars.net

6 February 2019

Dear Mr Cole,

We refer to your email of 10 January 2019 which requested the following information:

- "1) For each month between October and December 2018, and broken down between i) Reaper, ii) Tornado, and ii) Typhoon:
 - a) the total number of missions undertaken by these aircraft on Operation Shader
 - b) the number of those missions entering Syria
 - c) the number of those missions entering Iraq*
- 2) For each month between October and December 2018, the number of sorties with weapons released by a) Reaper b) Tornado, c) Typhoon, broken down between Iraq and Syria?*
- 3) For each month between October and December 2018, the number and type of weapons released by a) Reapers, b) Tornado, c) Typhoon, broken down between Iraq and Syria?*
- 4) The number of UK air strikes in a) Iraq and b) Syria per month from October to December 2018, broken down between Reaper, Tornado and Typhoon aircraft?*
- 5) Please can you tell me, for each month between October and December 2018, how many hours have UK a) Reapers, b) Tornado and c) Typhoon flown on Operation Shader?*
- 6) Further to your response of 28 December 2018 (FOI 2018/12155) please can you tell me how many UK Reaper airframes are located in the USA and for what purpose?"*

Your correspondence has been treated as a request for information under the Freedom of Information Act 2000 (FOIA). A search for the information has now been completed within the Ministry of Defence, and we can confirm that information concerning part of your request is held and releasable. The information requested can be found below:

With regards to questions 1), 2), 3), 4), and 5), please find the requested information at Annex A.

With regards to question 6) and FOI 2018/12155, one Reaper airframe is located in the USA for decommissioning.

The data contained in this statement is believed to be complete and correct at the time of issue. The MOD operational activity databases are frequently reviewed and any errors and omissions are corrected. It is therefore possible that future statements might not match this statement exactly. The MOD regrets any difficulty that this may cause but emphasises that our aim is to ensure that our records are as complete and correct as possible.

If you have any queries regarding the content of this letter, please contact this office in the first instance.

If you wish to complain about the handling of your request, or the content of this response, you can request an independent internal review by contacting the Information Rights Compliance team, Ground Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail CIO-FOI-IR@mod.uk). Please note that any request for an internal review should be made within 40 working days of the date of this response.

If you remain dissatisfied following an internal review, you may raise your complaint directly to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not normally investigate your case until the MOD internal review process has been completed. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website at <https://ico.org.uk/>.

Yours sincerely,

PJHQ J9 FOI Secretariat

Annex:

A. Operation SHADER Data Tables – October to December 2018.

OPERATION SHADER DATA TABLES – OCTOBER TO DECEMBER 2018

1. Number of missions

Month	Iraq (No Syria Airspace Entry Recorded)			Syria Airspace Entry Recorded			Total		
	Tornado	Typhoon	Reaper	Tornado	Typhoon	Reaper	Tornado	Typhoon	Reaper
October	1	1	1	43	46	35	44	47	36
November	4	2	4	44	49	28	48	51	32
December	5	2	6	42	48	48	47	50	54
Total	10	5	11	129	143	111	139	148	122

Caveat: The MOD records are focused on sorties flown and weapons released. The MOD does not record all cases of entry into Syrian airspace by RAF Reaper, Tornado and Typhoon aircraft. For Reaper, all missions recorded as entering Syrian airspace will have transited through (and possibly operated in) Iraq due to the basing location of this platform. For Typhoon and Tornado, AWC records some Syrian airspace entry cases and these might be for (a) transit to Iraqi airspace or (b) to reach their area of operation in Syria. The AWC records all cases of weapon release in Iraq and Syria so any sortie/mission involving weapon release in Syria will be recorded as having entered Syrian airspace.

The table lists all recorded cases of those two Syrian airspace entry cases (transit through Syria to Iraqi airspace and operating in Syrian airspace) in the 'Syria' columns. The remainder of the missions flown are listed as limited to Iraqi airspace. Some of these might have transited Syrian airspace to reach Iraqi airspace but we have no record of it. Weapon release locations are invariably recorded, i.e. all weapons releases in Iraq and Syria are specifically recorded as such.

Even if the cases of sorties releasing weapons in specific nations are added to the totals of sorties flown in specific nations, that latter total will still not necessarily be the complete total of entry into that nation's airspace. This incompleteness is simply a function of the database design, i.e. focused on weapon expenditure and performance.

2.

a) Number of sorties with weapon releases – Iraq

Month	Tornado	Typhoon	Reaper	Total
October	0	2	0	2
November	0	0	0	0
December	1	1	0	2

b) Number of sorties with weapon releases – Syria

Month	Tornado	Typhoon	Reaper	Total
October	21	11	5	37
November	10	12	0	22
December	18	22	10	50

3.

a) Number and type of weapon releases – Iraq

Month	Tornado		Typhoon	Reaper		Total
	DMSB	PWIV	PWIV	AGM-114	GBU-12	
October	0	0	3	0	0	3
November	0	0	0	0	0	0
December	0	2	2	0	0	4

b) Number and type of weapon releases – Syria

Month	Tornado		Typhoon	Reaper		Total
	DMSB	PWIV	PWIV	AGM-114	GBU-12	
October	2	31	16	5	1	55
November	0	14	19	0	0	33
December	0	29	39	22	4	94

4.

a) Number of airstrikes – Iraq

Month	Tornado	Typhoon	Reaper	Total
October	0	2	0	2
November	0	0	0	0
December	1	1	0	2

b) Number of airstrikes – Syria

Month	Tornado	Typhoon	Reaper	Total
October	25	11	4	40
November	8	15	0	23
December	23	30	22	75

Caveat: Due to the definitions and methodology of sorties with weapon releases and airstrikes there may be disparities in figures when first reviewed. As sortie with weapon releases describes a sortie of one airframe, it can be involved in multiple airstrikes during this sortie; in turn, an airstrike may involve multiple airframes and as such be constituted of multiple sorties with weapon releases.

5. Flying hours

Month	Tornado	Typhoon	Reaper	Total
October	521	558	579	1658
November	505	565	425	1495
December	501	566	738	1805

Caveat: All numbers are rounded to the nearest hour.