



# Ministry of Defence

Air Command Secretariat  
Spitfire Block  
Headquarters Air Command  
Royal Air Force  
High Wycombe  
Buckinghamshire  
HP14 4UE

FOI2015/06384

[REDACTED]

4 Aug 2015

Dear [REDACTED],

Your correspondence dated 16 July has been considered to be a request for information in accordance with the Freedom of Information Act 2000 (the Act). You requested the following information in relation to the Typhoon display at the Welshpool air show:

*There should have been a health and safety assessment for flying this way in this environment. I would like a copy of this.....*

*Also a copy of the instruction given to the pilot giving orders/permission to fly at full throttle with afterburner on low to the ground.*

With regard to your request for a health and risk assessment I can confirm that the MOD does not hold this information.

Under Section 16 of the Act the department is required to provide advice and assistance and so you may wish to note that the Civil Aviation Authority regulation, CAP 403, sets out the requirements for civil air displays and stipulates that the civil Flying Display Director (FDD) is responsible for the safe conduct of the flying display. CAP 403 directs an extensive list of duties that the FDD must carry out regarding safety assessments. You may wish to contact the CAA regarding any assessments made by the civil FDD. CAP403 can be found at the following link:

<http://www.caa.co.uk/docs/33/CAP%20403%20Flying%20displays%20and%20special%20events.pdf>

Turning to your request for a copy of the instructions to the pilot, I can confirm that no information is held for this specific flight covering use of full throttle with afterburner low to the ground.

Under Section 16, it might be helpful if I explain how Typhoon pilots are authorised to fly at public displays. Each display pilot is required to have a Public Display Authority (PDA) before they can participate in a display. A PDA sets out the specific display sequences that can be flown by the pilot for that display season and is only authorised after the individual

pilot has performed the display to the satisfaction of Air Officer Commanding No 1 Group, who is personally and legally accountable for the safe operation of Typhoon aircraft. The current Typhoon display pilot PDA is attached. The pilot is required to adhere to the PDA which means that, due to the nature of the manoeuvres, the pilot must use reheat (afterburner), unless otherwise stated e.g. for a low speed pass.

A further authorisation stage follows where the pilot is issued with a Display Pilot Directive by the relevant Station Commander which specifies that the display must be carried out in accordance with relevant regulations and orders, as covered below.

Additionally, all military flying is subject to stringent regulations designed to ensure flight safety, accepting that no flying is without risk. In relation to participation in civil air displays, military pilots are required to comply with whichever is the more restrictive of three<sup>1</sup> separate regulations/orders i.e. the Civil Aviation Authority CAP403, the MOD Military Aviation Regulatory Article 2335 (RA 2335) and any relevant Group orders; for Typhoon pilots this would be 1 Group Air Staff Order 2335 (1Gp GASO 2335). RA 2335 can be found at the following link:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/419009/RA2335\\_Issue\\_5.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/419009/RA2335_Issue_5.pdf)

With regard to speed, all three regulations/orders require that display manoeuvres are subject to a limit of Mach 0.90 or 600 knots, whichever is reached first.

Whilst RA2335 paragraph 47(b) stipulates that aerobatic manoeuvres must not be performed less than 300 feet MSD<sup>2</sup>, 1Gp GASO is more restrictive in that the MSD for aerobatic manoeuvres is set at 500 feet. CAP403 covers height limits at paragraph 3.33 et seq.

Finally, the risk from bird strikes is well known and mitigation measures are put in place. For displays, 1 Gp GASO stipulates that event organisers are to be reminded that birds can be a serious hazard to aircraft operations and are to brief the Display Pilot on local bird activity.

If you are not satisfied with this response or wish to complain about any aspect of the handling of your request, then you should contact me in the first instance. If informal resolution is not possible and you are still dissatisfied then you may apply for an independent internal review by contacting the Information Rights Compliance Team, 1<sup>st</sup> Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail [CIO-FOI-IR@mod.uk](mailto:CIO-FOI-IR@mod.uk)). Please note that any request for an internal review must be made within 40 working days of the date on which the attempt to reach informal resolution has come to an end.

If you remain dissatisfied following an internal review, you may take your complaint to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not investigate your case until the MOD internal review process has been completed. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website, <http://www.ico.org.uk>.

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<sup>1</sup> Furthermore, for any air display where aircraft of more than one NATO nation are appearing then the appropriate NATO regulations also apply.

<sup>2</sup> Minimum Separation Distance from any object

Yours Sincerely,

Air Command Secretariat