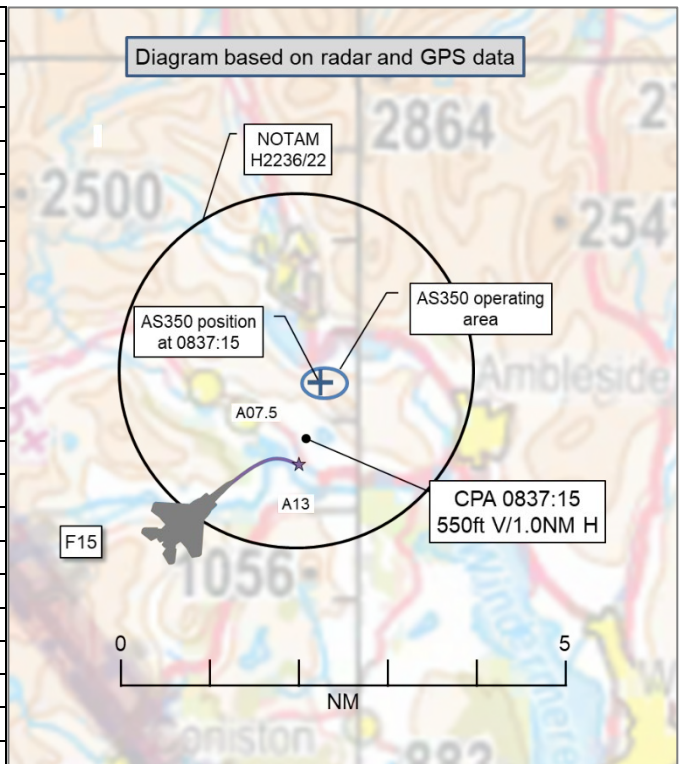


AIRPROX REPORT No 2022069

Date: 26 Apr 2022 Time: 0837Z Position: 5426N 00301W Location: Langdale

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	AS350	F15
Operator	Civ Comm	Foreign Mil
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Other	Unknown
Provider	Company freq'cy	NK
Altitude/FL	750ft	1300ft
Transponder	A, C, S+	A, C, S+
Reported		
Colours	Maroon	Grey
Lighting	HISL	NK
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	<150ft AGL	~500ft AGL
Altimeter	NK	NK
Heading	NK	NK
Speed	30kt	450kt
ACAS/TAS	Other	Not fitted
Alert	Information	N/A
Separation at CPA		
Reported	150ft V/0.2NM H	NK V/1NM H
Recorded	550ft V/1.0NM	



THE AS350 PILOT reports conducting helicopter external sling load operations (HESLO), doing short carries at a maximum height of 150ft AGL over steep terrain, when they just spotted a glimpse of a fast-moving aircraft above the rotor disc. They were informed by the ground crew it was a military jet. The pilot was in VHF radio communication with ground handlers, who estimated the military aircraft to be approximately 200m away from the helicopter. The lift site had a CANP issued.

The pilot assessed the risk of collision as 'Medium'.

THE F15 FORMATION LEAD PILOT reports the 4-aircraft formation was executing low-altitude training in LFA 17. Pre-flight, the formation checked CADS to ensure their booking and route had been entered correctly and utilised the CADS low-flying brief to identify any de-confliction from other sorties booked to low fly. NOTAMS were checked, plotted and briefed to the flight crews. The NOTAM relevant to this incident was noted and plotted and it was identified that the NOTAM spanned a period of 4 days. The flight crew briefed the location and that they would maintain a vigilant lookout for the potential activity whilst operating in the vicinity to ensure that safe VFR separation was maintained. On the flight, they had split into 2 x two-ships with Lead and No2 operating to the east, Nos3 and 4 continuing the route through the Lake District. After flying north up Lake Windermere, No3 was preparing for their low altitude attack. Throughout the low-fly, formation aircraft were searching Mode 3 [civilian Mode A/C] for traffic. No3 was aware of NOTAM'd potential helicopter underslung load activity in the vicinity and was actively looking out for it, visually and on aircraft sensors. As No3 was passing near Ambleside, they gained visual on a helicopter operating near the mountain to the west of their flight path. No3 continued on their route, and executed a ridge crossing to the east toward Ullswater. No3 directed No4 (behind) to route towards the east, in order to deconflict, and gave a visual point out.

The pilot assessed the risk of collision as 'Moderate'.

Factual Background

The weather at Blackpool was recorded as follows:

METAR EGNH 260850Z 10009KT 9999 FEW037 11/05 Q1023=
 METAR EGNH 260820Z 11009KT 9999 FEW037 10/05 Q1023=

TAF EGNH 260709Z 2607/2615 11007KT 9999 FEW035=

NOTAM H2236/22 was active in the area, as follows:

Q) EGTG/QWELW/IV/B0/W/000/025/5426N00301W003
 CIVIL AIRCRAFT NOTIFICATION PROCEDURE - UNDERSLUNG LOADS WILL
 OPERATE LOW FLYING AREA 17 WI 2NM RADIUS OF PSN 542626N 0030103W,
 (ELTERWATER, CUMBRIA). MAX HEIGHT 500FT AGL. ACFT MAY BE RESTRICTED
 IN ABILITY TO MANOEUVRE AND UNABLE TO COMPLY WITH RAC
 OPS CTC 01667 464404. 22/04/157/LFC
 LOWER: SFC
 UPPER: 2500FT AMSL
 FROM: 25 APR 2022 07:00 TO: 29 APR 2022 17:00
 SCHEDULE: 0700-1700

Analysis and Investigation

UKAB Secretariat

The AS350 and F15 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.¹ The F15s were operating for the most part below the base of surveillance cover. An F15 was tracked for 12sec in the vicinity of the Airprox reported position at the Airprox reported time but it is not possible to determine which formation element this was.

Comments

USAFE

Thanks to the AC1 operator utilising the CANP NOTAM the crew was able to have early awareness of potential activity in the area and was actively looking out whilst routing through the area. The vigilant lookout of the USAF crew and the quick communication to the second formation aircraft enabled effective avoiding action to be taken. At 450-500kts this is likely what was seen as 'high energy manoeuvres'. The crew reports executing a ridge crossing which would generally be at a high power setting and high angle of bank to manoeuvre away.

It was noted that this NOTAM spanned a period of 4 days, and speaking with the AC1 operator this was set initially as the specific tasking date and time was unknown. Whilst a general NOTAM such as this can be a useful warning further out, we would request that, where possible, NOTAMs are amended to reflect the window of activity that can be expected. USAF has established routes that have a proven training benefit and on occasion there are multiple NOTAMs in addition to the 'avoids' along this route which cannot all be avoided for the flight to be successful. Pilots will plot and brief all NOTAMs on the route and dynamically assess that the flight can safely be made on each occasion.

¹ (UK) SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

Summary

An Airprox was reported when an AS350 and an F15 flew into proximity near Langdale at about 0837Z on Tuesday 26th April 2022. Both pilots were operating under VFR in VMC, neither pilot in receipt of a UK FIS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and reports from the appropriate operating authorities. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

The Board members were first briefed by the USAFE advisor that they had spoken with the F15 crews and confirmed that all NOTAM relevant to their route had been checked and briefed. A GA member wondered whether the F15 formation could have contacted the HESLO operations on the phone number given on the NOTAM, to which it was noted that the number of NOTAM present precluded contact with every one of them and that the F15's authorised MSD was above the stated maximum HESLO operating height. Members discussed the accuracy of location information available to airspace users planning to avoid operations being conducted below a height of 500ft and recalled their recent Recommendation to the CAA (2021248 - The CAA reviews whether the Centralised Aviation Data Service (CADS) procedures, (Ref: UK IAIP ENR 1.10) generate the publication of sufficiently detailed information about operations below 500ft to enable other airspace users to accurately determine where the activity is taking place). The Board wondered whether the helicopter pilot would have been better served by operating on the VHF Low Level Common frequency but were informed that the degree of communication required with the ground personnel precluded this. Members discussed whether Low Level fast-jet operators were becoming desensitised to routine commercial operations conducted below 500ft, which are notified by CANP or on CADS but have a poor degree of specificity with regard to location.

In the event, the Board agreed that the AS350 pilot had had no situational awareness on the F15s (**CF1**), that they had seen an F15 at a late stage (**CF2**) and had been concerned by its proximity (**CF3**). The Board was unable to determine whether the F15 they saw was the No3 or No4 of the formation but agreed that their fleeting sighting, along with the separation reported by the ground personnel, had contributed to their sense of alarm. Notwithstanding, members observed that the F15 formation members would not have descended below 500ft MSD and that the No3 saw the helicopter and warned their wingman to avoid as well, thereby averting the risk of collision.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

2022069				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Situational Awareness of the Conflicting Aircraft and Action				
1	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
• See and Avoid				
2	Human Factors	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
3	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C.

Safety Barrier Assessment²

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the AS350 pilot had no situational awareness of the approaching F15 flight.

Airprox Barrier Assessment: 2022069		Outside Controlled Airspace						
Barrier	Provision	Application	Effectiveness					
			Barrier Weighting					
			0%	5%	10%	15%	20%	
Ground Element	Regulations, Processes, Procedures and Compliance	○	○					
	Manning & Equipment	○	○					
	Situational Awareness of the Confliction & Action	○	○					
	Electronic Warning System Operation and Compliance	○	○					
Flight Element	Regulations, Processes, Procedures and Compliance	●	●					
	Tactical Planning and Execution	●	●					
	Situational Awareness of the Conflicting Aircraft & Action	●	●					
	Electronic Warning System Operation and Compliance	●	●					
	See & Avoid	●	●					
Key:			Full	Partial	None	Not Present/Not Assessable	Not Used	
Provision	●	●	○	○	○	○	○	
Application	●	●	○	○	○	○	○	
Effectiveness	■	■	■	■	■	■	■	

² The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).