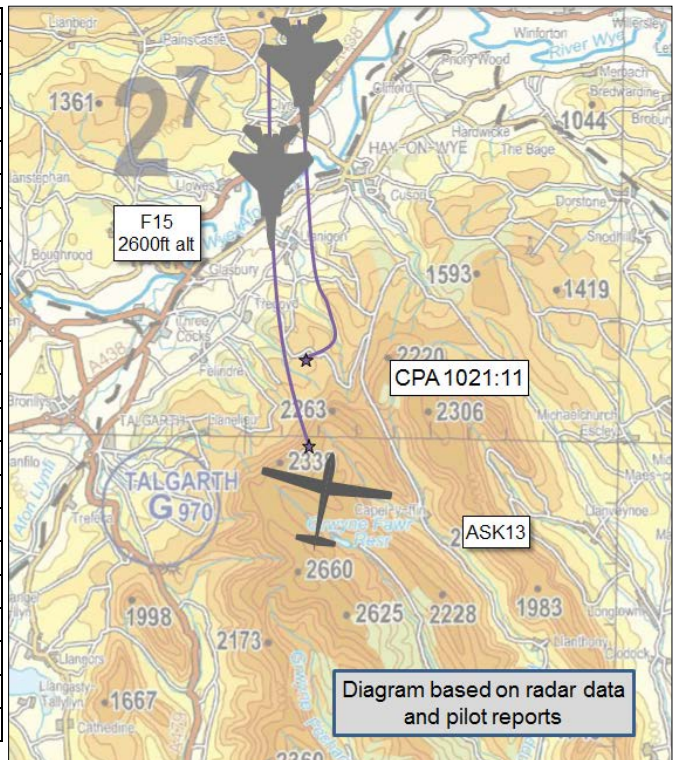


AIRPROX REPORT No 2017073

Date: 26 Apr 2017 Time: 1021Z Position: 5200N 00308W Location: WSW Hereford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK13	F15
Operator	Civ Club	Foreign Mil
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL	NK	FL026
Transponder	Not Fitted	A, C ,S
Reported		
Colours	Blue, White	Grey
Lighting	Nil	Anti-cols, nav
Conditions	VMC	VMC
Visibility	40km	15km
Altitude/FL	2700ft	500ft
Altimeter	QNH	Rad Alt
Heading	030°	180°
Speed	50kt	450kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/500m H	0ft V/1-2nm H
Recorded	NK	



THE ASK13 PILOT reports that he was soaring the northwest ridge of the Black Mountains when the second of two fast-jets was seen flying south. It was seen late, about 1km away, and looked to be manoeuvring aggressively, presumably taking avoiding action. The fast-jet banked sharply and steeply right, pulled hard and rolled inverted. He then continued to roll right until erect and then continued after the first jet in a south-easterly direction. There was no need for the glider pilot to take avoiding action because of the aggressive action taken by the fast-jet.

He assessed the risk of collision as 'High'.

THE F15 FORMATION LEAD PILOT reports that the 2 x F15s were flying in LFA7 towards the Black Mountains. As he was turning, he noticed a group of people on the ground and, moments later, saw the glider. He reversed the direction of his turn and directed the wing-man to flow to the right to avoid the glider. He estimated the glider was 1-2nm east of his flight-planned route in the LFA and at no time was the glider closer than 1nm. The avoiding manoeuvres were standard for the F15 crew on seeing other aircraft in the low-flying environment. He did not see the glider on radar, nor did he see a transponder return.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Gloucestershire was recorded as follows:

METAR EGBJ 261020Z 04007KT 350V070 9999 FEW030 SCT032 08/02 Q1019=

Analysis and Investigation

UKAB Secretariat

The ASK13 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 hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². If the incident geometry is considered as converging then the F15 pilot was required to give way to the glider³.

Comments

The Gliding Club Safety Officer

Fast-jets tactically low-flying at 500 ft agl or less in the valleys are familiar in this part of Wales but do not come in conflict with gliders because gliders are almost never at that low a height in those areas; gliders commonly fly at or above ridge height, and are seldom below 2000 ft QNH. The evidence of the glider pilot indicates that he was seen by the fast-jet pilot and that avoiding action was taken. Many years ago 'Air Clues' contained an article warning fast-jet pilots of the hazards of windward facing mountain ridges and sea cliffs. Even when there are no gliders, there are commonly multitudes of soaring birds. A photograph from Talgarth airfield was taken of the second fast jet, when enlarged the aircraft looks like an F15.

USAFE

The F-15E lead saw the glider in sufficient time to warn his wingman and direct him to “flow to my right side” whereas the ASK13 pilot saw the second F-15E only after it had initiated avoiding action and hence, presumably, the disparity in each pilots’ assessment of the risk of collision.

BGA

The lead F15 pilot’s lookout is to be commended; spotting gliders at these closing speeds and heights is not easy.

Summary

An Airprox was reported when an ASK13 and an F15 flew into proximity at 1021 on Wednesday 26th April 2017. Both pilots were operating under VFR in VMC, neither were in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate operating authorities.

The Board first looked at the actions of the F15 pilots. They were in the low-flying system, and there was no possibility of receiving an ATS in that area at that level. The USAFE advisor commented that the F15s were not fitted with a CWS and, although they were fitted with a radar, gliders have notoriously poor radar cross-section and the one involved in the Airprox was not fitted with a transponder. Therefore, members commented that it was left to see-and-avoid as the final barrier to MAC, which had worked in this instance. The lead pilot had spotted the glider in good time, and had called it to his wingman so that he too avoided it. In doing so, the USAFE advisor noted that the manoeuvre taken by the wingman sounded dramatic but was in fact standard practice at low-level,

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

³ SERA.3210 Right-of-way (c)(2) Converging.

and not some violent manoeuvre conducted at the last minute; it was probable that he reacted to the call even before looking for the glider. Members noted that the F15s' routing was a reasonable distance away from Talgarth, and also that, because the Black Mountains were a known glider operating area, it was to be expected that gliders and fast-jets would likely meet each other if fast-jets also routed through that area. Nevertheless, echoing the BGA comments, they thought that it was a good spot by the lead F15 pilot under difficult conditions, and that his actions had prevented a more serious incident.

Turning to the glider pilot, he saw the F15s take what he perceived to be violent avoiding action and this may have led him to believe that the other pilot saw him late. Nevertheless, once the F15 had taken action, he hadn't felt the need to take further avoiding action himself. There followed a brief discussion about the conspicuity of gliders, a topic frequently raised in this forum, and it was noted that in this case the glider had no FLARM fitted, nor any form of electronic conspicuity (albeit recognising also that the F15s were not fitted with a CWS that would detect electronic conspicuity transmissions anyway).

Turning to the cause of the Airprox, it was quickly agreed that this incident was best described as a conflict in Class G airspace, resolved by the F15 flight lead. The risk was assessed as Category C, although safety had been degraded there had been no risk of collision; timely and effective actions had been taken.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the F15 flight lead.

Degree of Risk: C.

Safety Barrier Assessment⁴

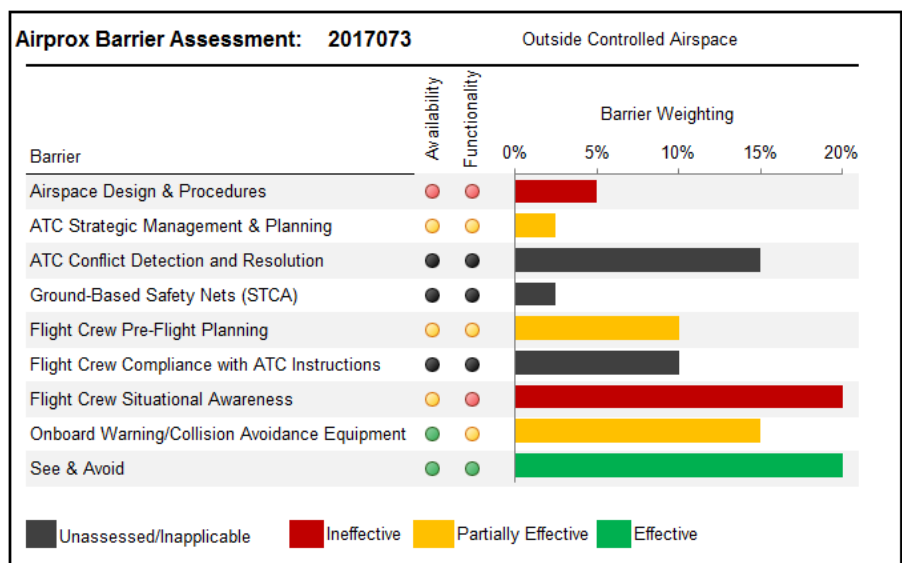
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Crew:

Situational Awareness and Action were assessed as being **ineffective** because neither pilot had any specific situational awareness on the other prior to the encounter.

Warning System and Compliance were also assessed as being **ineffective** because although the F15s had their radars, they couldn't see the glider on them, and neither the glider nor the F15 had any CWS on board.

See and Avoid was assessed as being only **partially effective** because although the F15 pilots saw the glider in time to take avoiding action, it was later than ideal.



⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).