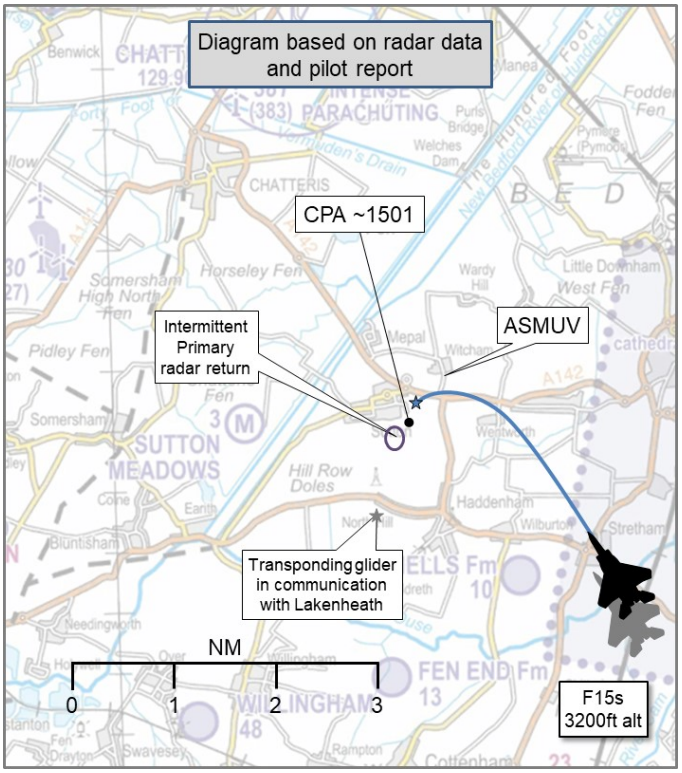
AIRPROX REPORT No 2020096

Date: 11 Aug 2020 Time: ~1501Z Position: 5223N 00007E Location: Sutton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	2xF15	2xUnknown Glider
Operator	Foreign Mil	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic	Unknown
Provider	Lakenheath	
Altitude/FL	3200ft	NK
Transponder	A, C	None
Reported		
Colours	Grey	White
Lighting	Anti Col, Position	None
Conditions	VMC	NK
Visibility	Not reported	
Altitude/FL	3000ft	
Altimeter	QNH (1015hPa)	
Heading	Turning	
Speed	NK	
ACAS/TAS	Not fitted	Unknown
Separation		
Reported	0ft V/150m H	NK
Recorded	NK	



THE F15 PILOT reports that they were a formation of 2 F15s being vectored for the TACAN approach RW11, Approach control was in contact with a single glider below them at 1300ft and passed Traffic Information on that glider. They first saw the 2 [Airprox] gliders about 1000ft away and between 2500ft and 3000ft, they immediately selected max afterburner and climbed away. The incident occurred with the 2 gliders that, to their knowledge, were not in contact with Lakenheath.

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

THE UNKNOWN GLIDER PILOTS could not be traced.

THE LAKENHEATH CONTROLLER reports that the F15s were issued vectors for a TACAN approach to RW11 at RAF Mildenhall. The F15 pilots were given control instructions and repeatedly updated on glider traffic to the northwest of the airfield near the initial approach fix, ASMUV. Four separate traffic calls were issued to the F15 pilots regarding the glider traffic along their flightpath, traffic was also issued to the glider pilot on the Lakenheath frequency about the approaching flight of F15's. The glider pilot was not under the control of Lakenheath, so the controller suggested a heading of 280°, in order to try to alleviate any conflict, the glider pilot responded with unable. As the F15s approached ASMUV, they requested their own navigation for the approach. The F15 pilots made a sharp left-hand turn upon reaching ASMUV and climbed to avoid the [C/S] glider, even though the [C/S] glider was 5NM southwest of the F15s last position and was indicating 1000ft [UKAB note: The [C/S] glider was squawking 7000 and in contact with Lakenheath, 2 intermittent primary only tracks appear on the radar replay in the vicinity of the F15s but fade just before the F15 pilots climb to avoid, it is not clear if these were visible on the Lakenheath controllers radar display]. The F15s then proceeded inbound and executed the approach as published.

Factual Background

The weather at Lakenheath was recorded as follows:

METAR EGUL 111456Z AUTO 00000KT 9999 CLR 31/16 A2994 RMK AO2 SLP142 T03050157 57009

Analysis and Investigation

UKAB Secretariat

The 2 F15 pilots and 2 unknown glider 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] If the incident geometry is considered as head-on or nearly so then the pilots were required to turn to the right.[2] If the incident geometry is considered as converging then the F15 pilots were required to give way to the Gliders.[3]

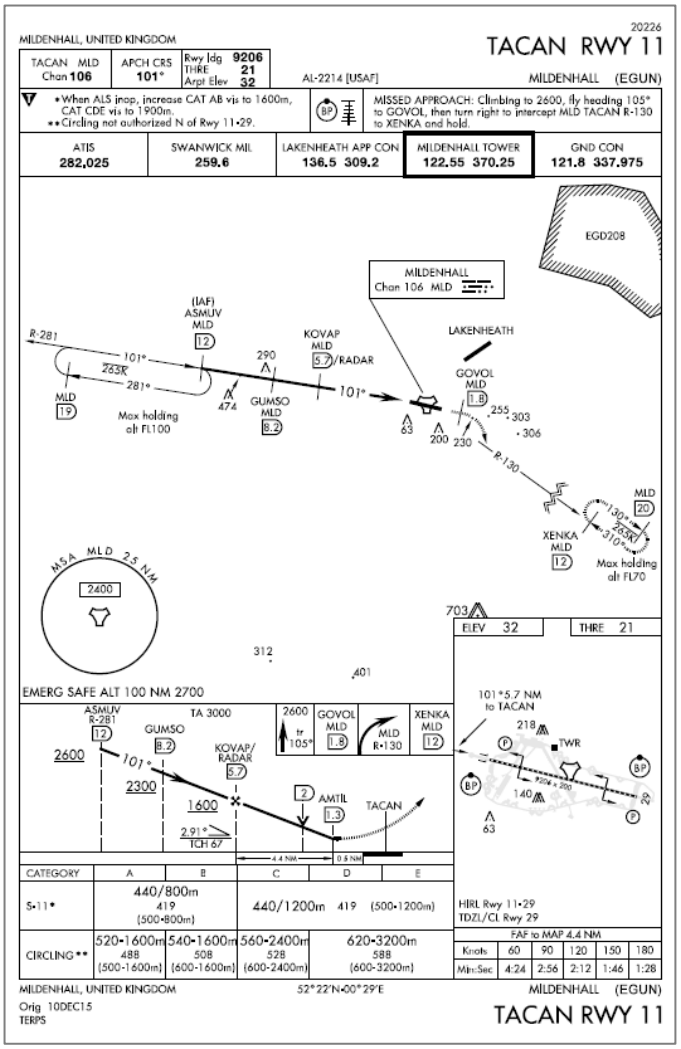


Figure 1: Mildenhall IAP TACAN RW11

Comments

USAFE

This event occurred during a busy period for RAF Lakenheath ATC (RAPCON), who were controlling a mix of VFR/IFR approaches and departures for Lakenheath and Mildenhall (MLD); there was also VHF traffic, including the non-Airprox glider on a listening watch. The formation of F15s were carrying out a TACAN approach to MLD and were routing via ASMUV (the initial approach fix (IAF) for MLD's RW11 TACAN App). This route brings aircraft very close to Sutton Meadows Airfield –

[1] SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.
[3] SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

home to the Cambridgeshire Microlight Club – so our aviators and air traffic controllers are always especially vigilant when operating in this area. RAPCON executed their responsibilities well, informing the F15 formation and the glider on frequency of each other, the controller even went as far as offering the glider on frequency a solution to a potential confliction. However, unknown to RAPCON, an additional two gliders were operating in the area; they appear to have been non-squawking and not in contact with an ATC agency. While the Lakenheath controller's statement says that the F15s climbed to avoid the non-Airprox glider, on reflection we do not think that this was the case. As the F15s turned in the vicinity of ASMUV the pilot became visual with the two non-squawking gliders in close proximity ahead of them; this required an aggressive climb to ensure safe separation.

The USAFE UK Host Nation Coordination Cell, on behalf of USAFE operated RAF stations, encourages all airspace users to contact their RAPCONs when they are operating in close proximity to said stations. If airspace users are experiencing difficulties in receiving a service from a USAFE RAPCON then it is requested to pass the details to usafe-uk.a3@us.af.mil.

BGA

It is unfortunate that the two gliders could not be traced. The BGA strongly encourages pilots operating in busy areas such as this to call ATSU's and squawk wherever possible, but at almost 17 miles from Lakenheath, 12 miles from Mildenhall and well outside the MATZ it was reasonable for them not to have done so on this occasion. The Board has commented elsewhere on the problems for VFR pilots operating in Class G being aware of the location of IAP's.

Summary

An Airprox was reported when 2 F15s and 2 unknown gliders flew into proximity at Sutton at about 1501Z on Tuesday 11th August 2020. The 2 F15 pilots were operating under IFR in VMC and in receipt of a Traffic Service from Lakenheath. The unknown glider pilots could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments.

The Board began by looking at the actions of the Lakenheath controller. They had been communicating with a glider that was not involved in the Airprox and had passed Traffic Information to the F15 pilots about that glider, it was this Traffic Information that had meant the F15 pilots were looking out at the time and saw the 2 gliders in confliction, these gliders were not visible on the controllers screen (**CF1 & 2**). When the F15 pilot reported the confliction with the gliders the controller mistakenly assumed it was the glider visible on their screen that the F15 pilots had climbed to avoid.

Turning to the actions of the glider pilots, the Board were disappointed that they could not be traced or that they had not reported an Airprox when they had been so close to 2 F15s climbing with afterburner engaged. Although the gliders were operating outside the Lakenheath/Mildenhall Combined MATZ, and were not required to contact Lakenheath, members agreed that it would have been prudent to contact Lakenheath when on the extended runway centreline of an instrument approach procedure. Members agreed that it was unfortunate that the Lakenheath and Mildenhall charts were not available for airspace users through the Mil AIP site, like other military airfields are. Members agreed that if the charts had been available airspace users would have a better indication of the positions and altitudes that they could conflict with instrument approach procedures, and either contact Lakenheath or avoid the area

by a greater margin. The Mil USAFE representative said they were keen to talk to other airspace users when they are operating in the area to ensure a safer environment for all. The BGA member backed up this sentiment by saying that the glider pilots should have communicated with Lakenheath, as indeed the other glider pilot did, and restated that they actively encourage glider pilots to talk to the relevant authority when operating anywhere near their area (**CF3 & 4**).

The Board then looked at the actions of the F15 pilots. They had been setting up for a TACAN Instrument Approach to Mildenhall and were in a turn onto the IAP. Although they had been passed Traffic Information on the transponding glider, that was talking to Lakenheath, the 2 gliders that were involved in the Airprox were unknown to them or the Lakenheath controller (**CF5**). It was just as they were rolling out of the turn that they saw the 2 gliders about 1000ft away at a similar level (**CF7**), the pilots quickly engaged the afterburner to increase their climb rate as they increased their altitude to increase the separation from the 2 gliders.

Finally the Board looked at the risk. Unfortunately the glider pilots could not be traced and, although it cannot be determined, it is unlikely that the glider pilots did not see or hear the F15s, regardless the glider pilots would probably not have had enough time to react and therefore it was the actions of the F15 pilots, after seeing the gliders late, that prevented a collision. The Board agreed that the emergency avoiding actions of the F15 pilots served to increase the separation and therefore safety was not assured, a Risk Category B (**CF6**).

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2020096		
CF	**Factor**	**Description**	**Amplification**
	Ground Elements		
	• Situational Awareness and Action		
1	Contextual	• Situational Awareness and Sensory Events	The controller had only generic, late or no Situational Awareness
2	Human Factors	• Conflict Detection - Not Detected	
	Flight Elements		
	• Tactical Planning and Execution		
3	Human Factors	• Insufficient Decision/Plan	Inadequate plan adaption
4	Human Factors	• Communications by Flight Crew with ANS	Pilot did not communicate with appropriate ATS provider
	• Situational Awareness of the Conflicting Aircraft and Action		
5	Contextual	• Situational Awareness and Sensory Events	Pilot had no, late or only generic, Situational Awareness
	• See and Avoid		
6	Contextual	• Near Airborne Collision with Aircraft, Balloon, Dirigible or Other Piloted Air Vehicle	Piloted air vehicle
7	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: B.

Safety Barrier Assessment[4]

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

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **ineffective** because the gliders were not visible on the Lakenheath controllers radar display.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the gliders were operating in the instrument approach path of Mildenhall without communicating with Lakenheath.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the 2 F15 pilots or the 2 glider pilots had any information on the other aircraft.

See and Avoid were assessed as **partially effective** because the F15 pilots took emergency avoiding action to increase the separation between themselves and the gliders. It is unknown if the glider pilots took any action to increase the separation from the F15s.