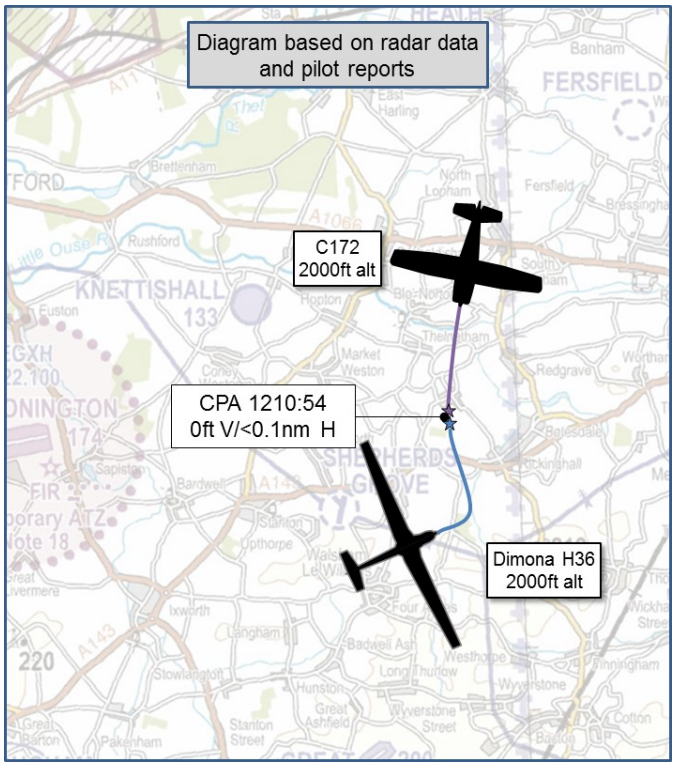
AIRPROX REPORT No 2019081

Date: 26 Apr 2019 Time: 1210Z Position: 5220N 00058E Location: 7nm east of Honington

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Dimona H36	C172
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Basic
Provider	Lakenheath	Wattisham
Altitude/FL	2000ft	2000ft
Transponder	A, C, S	A, C
Reported		
Colours	White, Orange	White, Blue
Lighting	Strobe	Beacon, Strobe
Conditions	VMC	VMC
Visibility	10km	>10km
Altitude/FL	2170ft	2000ft
Altimeter	QFE (1007hPa)	NK (1010hPa)
Heading	020°	184°
Speed	43kt	100kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/100m H	0ft V/0.2nm H
Recorded	0ft V/<0.1nm H	



THE DIMONA H36 MOTOR GLIDER PILOT reports that he was soaring when he observed at close range (400m) a C172 in a slight climbing attitude, just right of his aircraft's nose. He dived left to avoid colliding with the oncoming aircraft's left wing.

He assessed the risk of collision as 'High'.

THE C172 PILOT reports that he was routing towards Wattisham. He was scanning left-to-right and when he looked ahead spotted the other aircraft on a more or less reciprocal track. His passenger spotted it at about the same time. He initiated a descending turn to the left. He believed that the other aircraft saw him at the same time because he also turned left.

He assessed the risk of collision as 'High'.

THE WATTISHAM CONTROLLER reports that he was working on Approach. Only [C172 C/S] was on frequency and there was no mention of any Airprox at that time.

Factual Background

The weather at Wattisham was recorded as follows:

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METAR EGUW 261150Z 19013KT 9999 SCT030 14/07 Q1010 BLU NOSIG
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Analysis and Investigation

NATS Investigation Report

The R/T transcript confirms that the C172 was on Wattisham Approach frequency, 125.8, at the time of the reported event; having made its initial call at 12:08:07UTC. The aircraft was routing via Chelmsford VRP. It was flying at an altitude of 2000ft on QNH 1010hPa. The pilot of the C172 requested a MATZ penetration and a Basic Service from the Wattisham ATCO, both of which were provided and squawk code 4502 was assigned to the aircraft.

At 12:08:48, the Wattisham ATCO passed generic traffic information to the C172 pilot that the gliding site at Rattlesden (situated inside the Wattisham MATZ and to the NW) was active. This was acknowledged.

At 12:13:44, the pilot of the C172 was asked if they were able to climb to altitude 3000ft for the MATZ penetration, due to an aircraft inbound for an ILS approach. The climb to altitude 3000ft on QNH1010hPa was accepted and the pilot reported at 3000ft at time 12:15:47. These RTF transmissions occurred after the reported Airprox event time of 12:10 and gave no indication of the event having occurred. The Wattisham ATCO was working other aircraft on the Approach frequency at the time of the event, as detailed below:

1. An EC45 helicopter receiving a Traffic Service, conducting an ILS approach Runway 23 (multiple ILS approaches).
2. An Apache helicopter receiving a Basic Service, routing between Woodbridge and Bentwaters (East of Wattisham).
3. An Apache helicopter receiving a Basic Service, routing to Woodbridge.

Figure.1 shows the approximate intended routings of the aircraft on Wattisham App frequency around the time of the reported Airprox event.

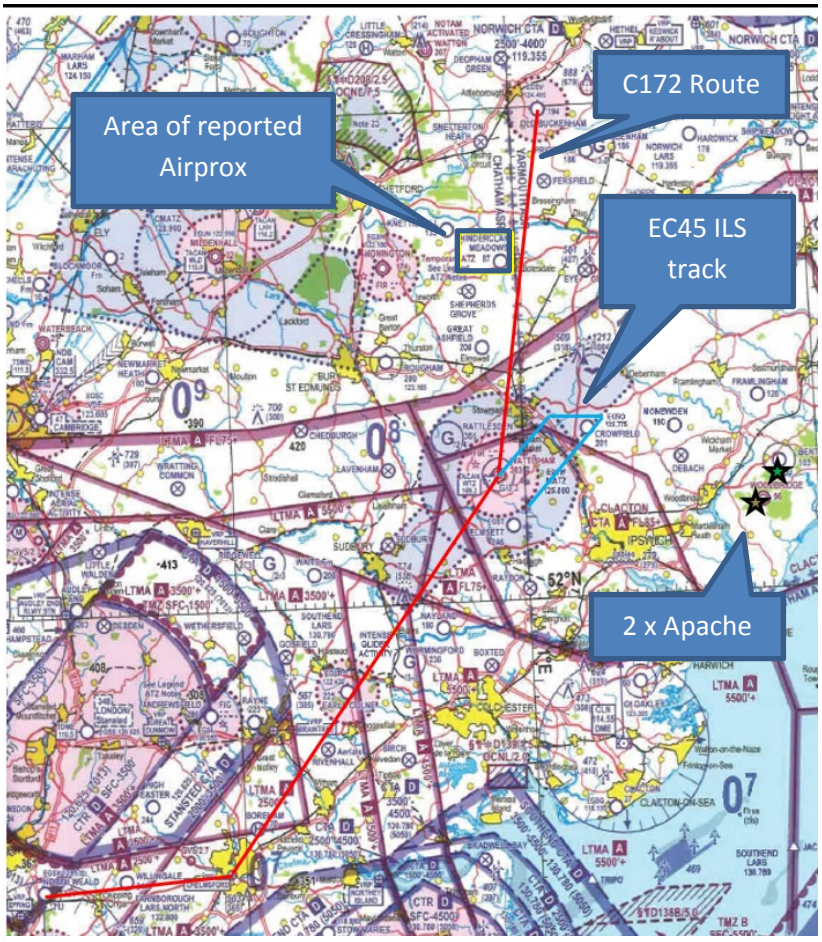

Figure 1: Approximate intended routings of aircraft (from transcript)

The aircraft were operating VFR in VMC, in class G airspace. The Dimona H36 motor glider was listening out on RAF Lakenheath's frequency. The C172 was receiving a Basic Service from Wattisham. Both aircraft were operating at altitude 2000ft.

CPA was at 12:10:54 at 0ft V/ <0.1nm H. The conflict was resolved when the pilots acquired each other visually and both conducted a turn to the left.

The surveillance radar for Wattisham is not recorded. Cossor Monopulse SSR and processed Watchman PSR are provided to Wattisham from RAF Honington, fed via a Remote Radar Combiner (RRC).

The radar screenshot that was included in the UKAB draft report is from a NATS Mode S radar source. It is stressed that this is not representative of the radar at Wattisham, which has no mode S display and has known poor performance. Without the availability of local radar recordings, it is not possible to determine whether the Dimona motor glider would have been visible to the Wattisham ATCO.

The Wattisham ATCO's priority at the time of the Airprox was to the EC45 on a Traffic Service, being vectored for one of multiple ILS approaches on Runway 23. The C172 was operating under a Basic Service and as such, in accordance with the requirements of CAP774 (below), there was no obligation for the Wattisham ATCO to continuously monitor that aircraft.

CAP774 states:

> *Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.*
>
> *Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that he requires a regular flow of specific traffic information shall request a Traffic Service.*
>
> *If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot (SERA.9005(b)(2) and GM1 SERA.9005(b)(2)).*

The Wattisham ATCO had provided earlier generic traffic information to the C172 pilot which included an awareness of gliding activity in the vicinity of Wattisham. CAP774 requires that if a controller observes a risk of collision between the aircraft, they are required to issue a warning. However, at the time the Airprox occurred, the ATCO was occupied with vectoring the EC45 and therefore even if the conflicting aircraft had both been displayed on the radar, the controller was not monitoring the Basic Service traffic at that time.

The following factors were identified:

1. Both aircraft were operating VFR in VMC in Class G airspace, with only the C172 receiving a Basic Service. Each pilot gained visual acquisition of the other, albeit at close range. Both pilots altered their course with a turn to the left to avoid a collision. However, a turn to the left contradicts the Rules of the Air which requires both aircraft to make a turn to the right in this situation.

2. The radar feed provided to Wattisham from Honington via RRC is of known poor performance and has continued to be used operationally long term. It is unable to be determined whether the Dimona glider was detected and displayed on the Approach position.

It is recommended that a project is set up to investigate ways of improving the quality and reliability of future surveillance radar provision at Wattisham ATC.

UKAB Secretariat

The Dimona H36 and C172 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 both pilots were required to turn to the right[2].

Figure 2 is a screenshot from the NATS area radar at the time of the Airprox.

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on.

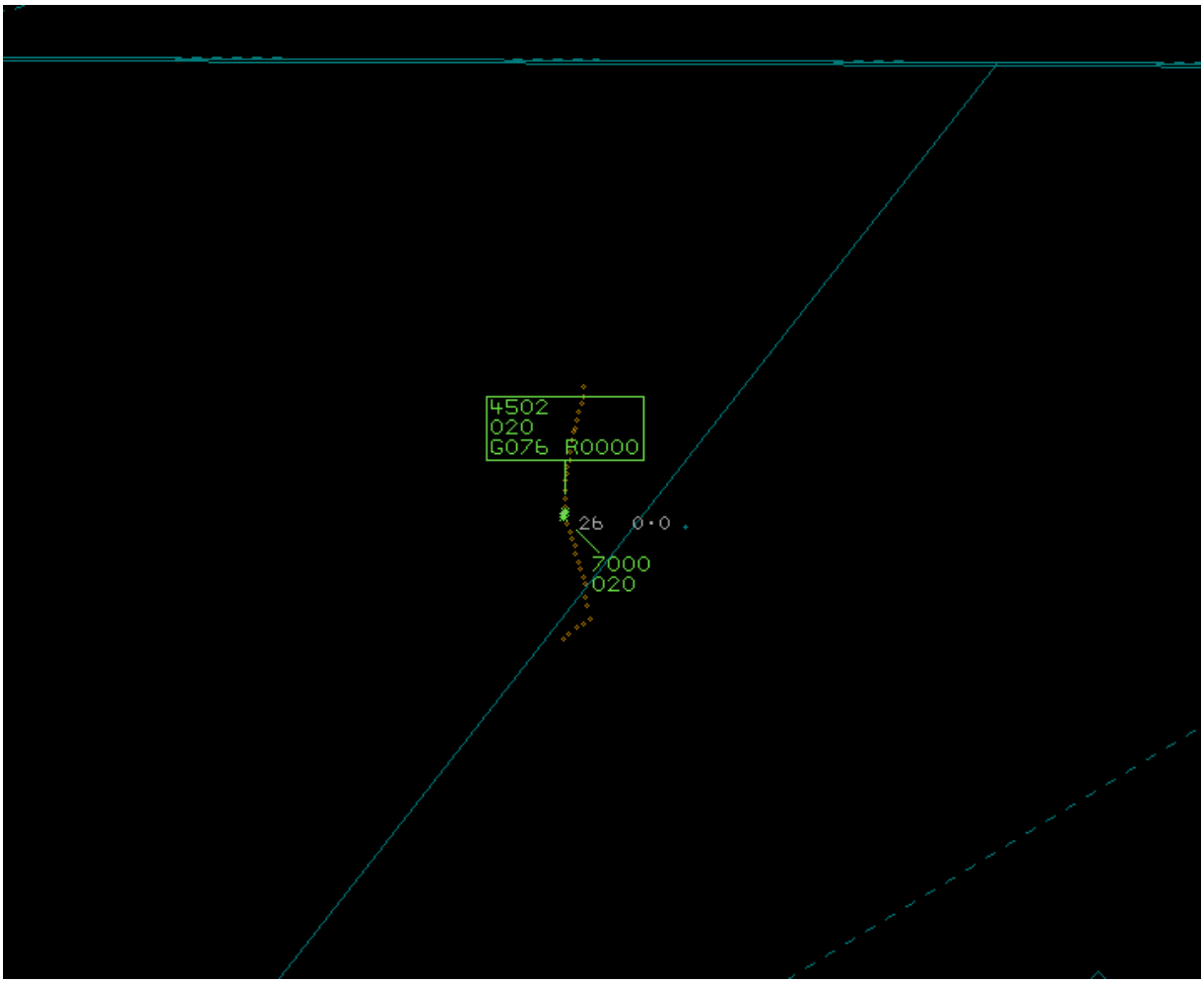

Figure 2: 1210:54 (Dimona code 7000, C172 code4502)

Comments

BGA

'Listening Out' is of limited value as a barrier to Airprox events; other aircraft are unaware of your location and ATS cannot generally help. With no TAS in either aircraft, lookout was the only remaining barrier, which was effective, if late, in this case.

Summary

An Airprox was reported when a Dimona H36 and C172 flew into proximity near Wattisham at 1210hrs on Friday the 26th of April 2019. Both pilots were operating under VFR in VMC, the Dimona H36 pilot listening out on Lakenheath's frequency and the C172 pilot in receipt of a Basic Service from Wattisham.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and reports from the air traffic controller involved. 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 began by hearing from the NATS representative. He said that although the initial report from the Wattisham controller had inadvertently portrayed the controller's workload as low, upon investigation into the incident is was determined that the controller's primary focus had been with an EC145 carrying out multiple instrument approaches in receipt of a Traffic Service, as well as 3 aircraft

receiving a Basic Service, one of which was the C172. He went on to comment that the radar feed to Wattisham (from Honington) was known to be unreliable and so, although the Dimona was squawking at the time, it could not be ascertained for sure whether the Dimona was on the controller's display (the Wattisham radar is not recorded). As a result, there was no evidence that the Wattisham controller had any information regarding the proximity of the C172 to the Dimona. It was, however, reasonable to assume that the controller was busy with the EC145 under a Traffic Service and requiring radar vectors and therefore probably not monitoring the C172 **(CF1)**.

The Board then turned to the actions of the pilots. Members agreed that listening out on a frequency serves little purpose in increasing situational awareness of other pilots, and the Dimona pilot would have been better served by requesting a service; some members also opined that Wattisham may have been a better agency to operate with, ideally requesting a Traffic Service if their flight was compatible with the requirements of such **(CF2)**. With the C172 receiving a Basic Service from Wattisham, and the Dimona Listening Out on Lakenheath, it was clear that neither pilot had any information on the other aircraft **(CF3).** Regardless, both pilots saw the other aircraft, albeit late, and carried out emergency avoiding action **(CF4)**.

Turning to the risk, the Board quickly agreed that the emergency avoiding actions of both pilots had averted a likely collision; therefore, the Board agreed that the risk was Category B.

The delay in obtaining the controllers report and Wattisham carrying out an internal investigation into the incident were compounded by the fact that neither pilot declared an Airprox on their respective frequencies. The Board stressed the importance of doing so to ensure that controllers and pilots involved would be prompted to record pertinent information and retain any relevant material whilst the details are still fresh in their memory - all of which helped the Board have as complete a picture as possible to help determine the risk and contributory factors.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

	2019081		
CF	**Factor**	**Description**	**Amplification**
	Ground Elements		
	• Situational Awareness and Action		
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
	Flight Elements		
	• Tactical Planning and Execution		
2	Human Factors	• Communications by Flight Crew with ANS	Appropriate ATS not requested by pilot
	• Situational Awareness of the Conflicting Aircraft and Action		
3	Contextual	• Situational Awareness and Sensory Events	Pilot had no, only generic, or late Situational Awareness
	• See and Avoid		
4	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: B.

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because the Dimona H36 pilot was not receiving a service, and the Wattisham controller was not required to monitor the C172 because the pilot was receiving a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the Dimona H36 was not receiving a service, and both pilots could have requested a Traffic Service.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any information about the other aircraft.

See and Avoid were assessed as **partially effective** because both pilots saw the other late and took emergency avoiding action.