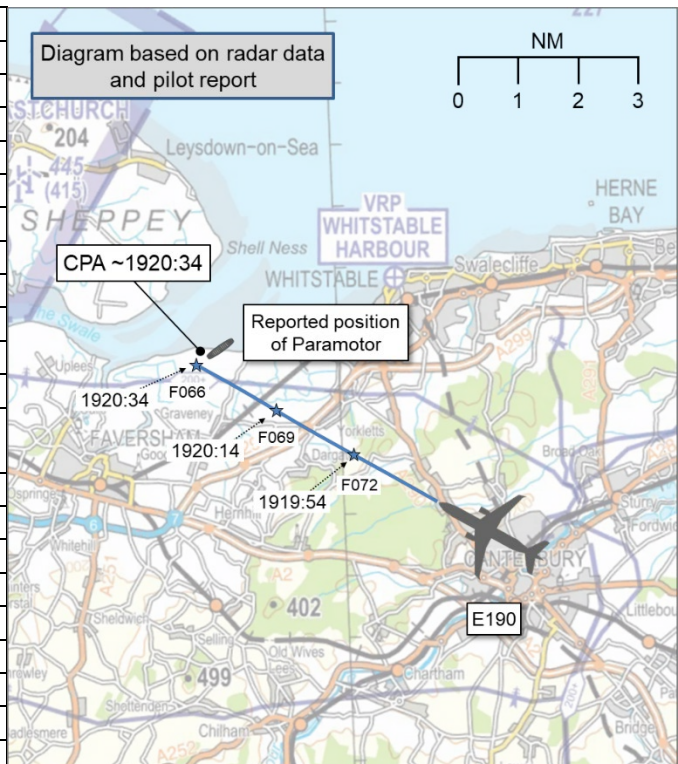


AIRPROX REPORT No 2022133

Date: 10 Jul 2022 Time: ~1920Z Position: 5120N 00055E Location: 2NM NE Faversham

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2															
Aircraft	E190	NK															
Operator	CAT	Civ Hang															
Airspace	London TMA	London TMA															
Class	A	A															
Rules	IFR	NK															
Service	Radar Control	NK															
Provider	Thames Radar	NK															
Altitude/FL	FL066	NK															
Transponder	A, C, S+	NK															
Reported																	
Colours	White, red, blue	Grey															
Lighting	Nav, landing, strobe	NK															
Conditions	VMC	NK															
Visibility	>10km	NK															
Altitude/FL	6600ft	NK															
Altimeter	QNH (1024hPa)	NK															
Speed	250kt	NK </tr <tr> <td>ACAS/TAS</td> <td>TCAS II</td> <td>NK</td> </tr> <tr> <td>Alert</td> <td>None</td> <td>NK</td> </tr> <tr> <td colspan="3" style="text-align: center;">Separation at CPA</td> </tr> <tr> <td>Reported</td> <td>100ft V/500m H</td> <td>NR V/NR H</td> </tr> <tr> <td>Recorded</td> <td colspan="2" style="text-align: center;">NK V/ NK H</td> </tr>	ACAS/TAS	TCAS II	NK	Alert	None	NK	Separation at CPA			Reported	100ft V/500m H	NR V/NR H	Recorded	NK V/ NK H	
ACAS/TAS	TCAS II	NK															
Alert	None	NK															
Separation at CPA																	
Reported	100ft V/500m H	NR V/NR H															
Recorded	NK V/ NK H																



THE E190 PILOT reports that during descent to London City Airport, London Control was advising multiple aircraft of a drone sighting between the DET and DVR VORs at FL150. At this point the aircraft was at FL140 and approaching the area of the reported sighting so both crew were extra vigilant for a possible drone encounter. After handover to Thames Radar and shortly after passing GODLU [2NM W DVR], ATC gave an instruction to fly a heading in the direction of RAVSA [33NM E London City Airport] and to descend to 6000ft. Sometime later, a further clearance was given to fly directly to ATPEV [19NM E London City Airport] to establish on the localiser for RW27. At approximately 1920, during the descent, at an altitude of 6600ft and approaching the north Kent coastline, approximately 10NM east of DET, the crew spotted a paraglider in the 1 o'clock position, slightly below the aircraft. The paraglider passed down the right-hand side of the aircraft at a range of 400-500m and 0-100ft below the aircraft. The appearance was initially difficult to discern as the aircraft was flying into the evening sun, however, the canopy was crescent shaped and possibly light grey or white in colour with the pilot suspended underneath. It may have been powered although it was difficult to tell due to the speed at which it passed by the aircraft. The crew asked the controller about parachuting activity in the area, to which they responded that there was none.

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

THE THAMES RADAR CONTROLLER reports that at 1920, [the E190 pilot] reported seeing a paraglider nearby. Nothing was seen on radar.

Factual Background

The weather at London City was recorded as follows:

METAR EGLC 101920Z AUTO VRB02KT 9999 NCD 28/10 Q1024

Analysis and Investigation

NATS Safety Investigations

[The E190] was inbound to London City and within the Thames Radar sector. The aircraft was cleared to descend to 6000ft. At 1920:53, the pilot of [the E190] asked the Thames Radar controller if they were aware of any parachuting activity. The controller responded that there was no parachuting activity in the vicinity of the aircraft. The pilot then reported that, "We've just had somebody go by in what looks like a parachute on the right-hand side of the aircraft about maybe a hundred feet lower than us". At the time of the pilot report there was nothing observed on radar in conflict with [the E190], and no historic trail dots to indicate the presence of any other aircraft in the vicinity.

The pilot of [the E190], on approach to London City, reported a paraglider approximately 400-500m away from the aircraft and 100ft below, at approximately 6600ft. The pilot subsequently reported the event as an Airprox.

Information available to the investigation included: a report from the Thames Radar controller, and radar and RT recordings. The pilot of [the E190] noted that there was no form of avoiding action required and that the paraglider was observed to be on a course to pass by without collision. Safety Investigations confirmed that there were no NOTAMs in place indicating paragliding may be taking place in the vicinity.

Conclusion: The loss of separation was caused when a paraglider was operating inside controlled airspace without a clearance to do so and came into conflict with [the E190] which was inbound to London City. The incident was resolved by the pilot of [the E190] obtaining visual contact with the [reported] paraglider.

UKAB Secretariat

Analysis of the NATS radar replay was undertaken and the E190 could be positively identified. There was no trace of any conflicting aircraft (see Figure 1). With assistance from the BHPA, it was determined that the other aircraft involved was most likely to have been a paramotor. The paramotor could not be identified on radar and could not be traced. The diagram and measurement of the CPA is an estimation based on the Airprox narrative provided by the E190 pilot.



Figure 1: CPA at approximately 1920:34 – no conflicting traffic visible

The E190 and paramotor 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 Class A [airspace] - IFR flights only are permitted. All flights are provided with air traffic control service and are separated from each other. Continuous air-ground voice communications are required for all flights. All flights shall be subject to ATC clearance.²

¹ (UK) SERA.3205 Proximity.

² (UK) SERA.6001 (a)(1) Classification of airspaces.

Comments

BHPA

Considering the time of day, the weather conditions and the actual geographic location, it is most unlikely that the pilot involved was paragliding. It is more likely an untraceable paramotor pilot was involved in the incident.

Summary

An Airprox was reported when an E190 and a suspected paramotor flew into proximity 2NM northeast of Faversham at approximately 1920Z on Sunday 10th July 2022. The E190 pilot was operating under IFR in VMC and in receipt of a Radar Control Service from Thames Radar. The paramotor pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the E190 pilot, radar photographs/video recordings, a report from the air traffic controller involved and a report from the appropriate operating authority. 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 first considered the actions of the E190 pilot and noted that they had been passed generic information regarding drone activity in the area. Members acknowledged that there had been no information available to the E190 pilot regarding the presence of a paraglider along their track as reported by the E190 pilot. The Board agreed that the TCAS fitted to the E190 would not have provided an alert to the proximity of a drone or other aircraft not fitted with a transponder (**CF8**) and, therefore, the E190 pilot had had no situational awareness in that regard (**CF7**). Notwithstanding, members praised the E190 crew's vigilance for having maintained a good lookout which had led to the suspected paramotor being sighted in their 1 o'clock position.

The Board's attention then turned to the suspected paramotor and members noted that the aircraft was untraceable. However, the Board concluded that it had not been fitted with a transponder (**CF3**) and, consequently, the Thames Controller would not have been alerted to its presence in the TMA (**CF1**). In addition, as this aircraft did not appear on radar, the Thames Controller would not have had any situational awareness of its presence (**CF2**). A member of the Board with specific knowledge of the paraglider and paramotor community explained that it would be extremely likely that the aircraft sighted by the E190 crew would have been a paramotor given the location, altitude and weather conditions at the time and the Board agreed. Further, it was explained that whilst the BHPA strongly encourages prospective paramotor pilots to obtain formal training, it is currently permissible for a paramotor pilot to fly in the UK without any training or the need to obtain a qualification to fly. In consideration of the actions of the paramotor pilot in this instance, members agreed that they had not complied with the applicable regulations for entry into controlled airspace (**CF4**), had not communicated their intentions with the appropriate ANSP (**CF6**) and had infringed controlled airspace (**CF5**). Members of the Board observed similarities in this case with Airprox reports from previous years and, whilst they thought that it was not for the Board to dictate solutions, they felt that the operating risk to airspace users required further understanding. The Board therefore resolved to make a recommendation in two parts that; *In the near-term, the CAA engages in a robust communication campaign to inform paramotor pilots of where and when they can operate* and that; *In the medium-to-long-term, the CAA considers how best to integrate paramotor activity into UK Airspace as part of the Airspace Modernisation Strategy*.

When determining the risk, the Board discussed that the E190 pilot had been concerned by the proximity of the paramotor (**CF9**) and that safety had been degraded, but members were satisfied that there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**Contributory Factors:**

2022133				
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Ground Elements				
• Situational Awareness and Action				
1	Human Factors	• Conflict Detection - Not Detected	An event involving Air Navigation Services conflict not being detected.	
2	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
• Electronic Warning System Operation and Compliance				
3	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
4	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
• Tactical Planning and Execution				
5	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace.	E.g. ATZ or Controlled Airspace
6	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
• Situational Awareness of the Conflicting Aircraft and Action				
7	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
• Electronic Warning System Operation and Compliance				
8	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
• See and Avoid				
9	Human Factors	• Perception of Visual Information		Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C

Recommendation: In the near-term, the CAA engages in a robust communication campaign to inform paramotor pilots of where and when they can operate. In the medium-to-long-term, the CAA considers how best to integrate paramotor activity into UK Airspace as part of the Airspace Modernisation Strategy.

Safety Barrier Assessment³

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

³ 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 paramotor did not appear on radar. Consequently, the Thames Radar controller had no situational awareness of the paramotor.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the paramotor was not fitted with a transponder and, therefore, its presence in the TMA would not have triggered an alert.

Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the paramotor pilot did not comply with applicable regulations to enter controlled airspace.

Tactical Planning and Execution was assessed as **ineffective** because the paramotor pilot did not communicate their intentions nor did they have permission to enter controlled airspace.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the E190 pilot had no situational awareness of the paramotor.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the TCAS fitted to the E190 would not have provided an alert to the presence of the paramotor.

