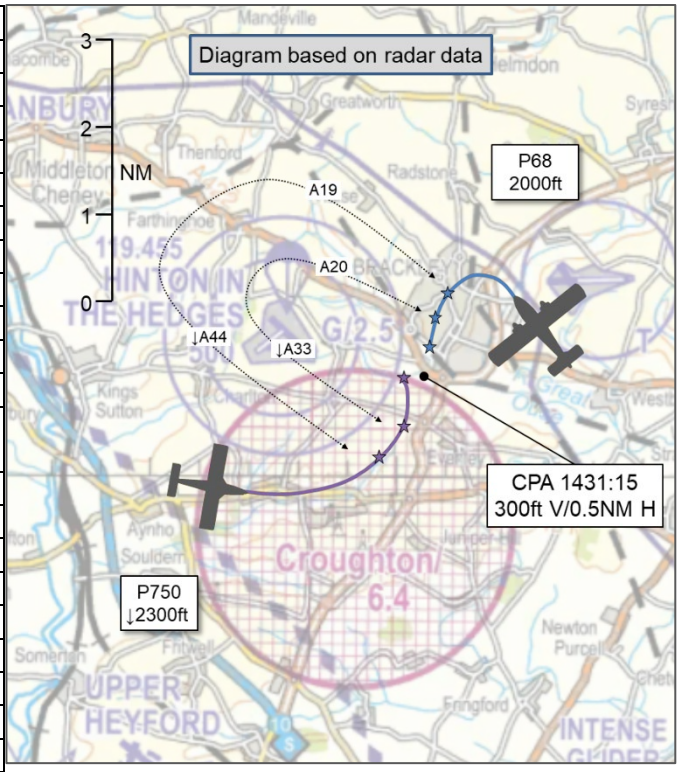
AIRPROX REPORT No 2020120

Date: 10 Sep 2020 Time: 1431Z Position: 5201N 00109W Location: Hinton-in-the-Hedges

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	P68	P750
Operator	Civ Comm	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic	Listening Out
Provider	Oxford	Hinton
Altitude/FL	2000ft	2300ft
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White
Lighting	NR	Nav, Strobes, Beacon, Landing
Conditions	VMC	VMC
Visibility	NR	NR
Altitude/FL	1800ft	2600ft
Altimeter	NR	QNH
Heading	NR	NK
Speed	100kt	140kt
ACAS/TAS	Unknown	PowerFLARM
Alert	Unknown	None
Separation		
Reported	0ft V/0.5NM H	Not Seen
Recorded	300ft V/0.5NM H	



THE P68 PILOT reports that they were just outside of Hinton-in-the-Hedges parachute jumping area to intercept a line on a survey, and were intercepting from the east. Oxford Radar gave Traffic Information on an aircraft which was just south of them, which was not seen. Suddenly, they saw it in a very steep descent and banking a lot, it looked like it was trying to avoid the P68, about 500-600m away. They were not able to see the aircraft earlier as it descended very steeply, almost above them. They did not believe the other aircraft was on the same frequency as them. Oxford Radar told them later to listen on the Hinton-in-the-Hedges frequency, 119.455 MHZ. The parachute plane was in a steep spiral and although they thought the pilot had seen them, it may have been following the parachutists down, and/or getting ready for an approach at Hinton airfield, and not actually doing any avoiding manoeuvres. The pilot noted that they were flying into the sun which may have hindered look-out slightly, although even with this in mind, either of the pilots should have been able to see the other aircraft sooner. They also thought they could have listened into Hinton airfield radio sooner.

The pilot did not assess the risk of collision.

THE P750 PILOT reports that they had just completed a parachute drop from FL120 and were on their final stage of descent before joining a wide and high left base for RW24. They did not see or hear the other aircraft.

The pilot did not assess the risk of collision.

THE OXFORD CONTROLLER reports that they were notified about the Airprox by the UKAB, no mention was made on the RT at the time.

THE TC SWANWICK CONTROLLER reports that they had been providing a service to the P750 pilot within Controller Airspace (CAS). The pilot requested to leave CAS by descent and they responded

with 'roger, QSY, see you later'. They were later informed by the Watch Supervisor that an Airprox had been reported outside CAS. They had no knowledge of the Airprox.

Factual Background

The weather at Oxford was recorded as follows:

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METAR EGTK 101420Z 31005KT 270V330 CAVOK 16/07 Q1022=
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Analysis and Investigation

NATS Investigation

The Hinton-in-the-Hedges paradropping aircraft, the P750, called onto the TC Midlands frequency at 1420:58 (all times UTC) requesting to climb to FL120. The aircraft was identified by the TC Midlands controller and at 1421:13 the P750 pilot was instructed, "*Basic Service outside controlled airspace and you're cleared to enter controlled airspace in the climb Flight Level One Two Zero*." At 1421:46 the TC Midlands controller advised the pilot that they had entered CAS and that the aircraft was now under a Radar Control Service. The aircraft climbed to FL120 in accordance with the issued clearance and at 1425:44 the TC Midlands controller instructed the pilot, "*Drop and descent is approved at your discretion. Report leaving controlled airspace*." The pilot responded, "*Drop and descent approved, Wilco*."

Having released the paradroppers, the P750 left CAS by descent at 1430:11 (Figure 1). At 1430:12 the pilot reported, "[P750 C/S], *descending*," to which the TC Midlands controller responded, "[C/S]*thanks, speak to you later*."

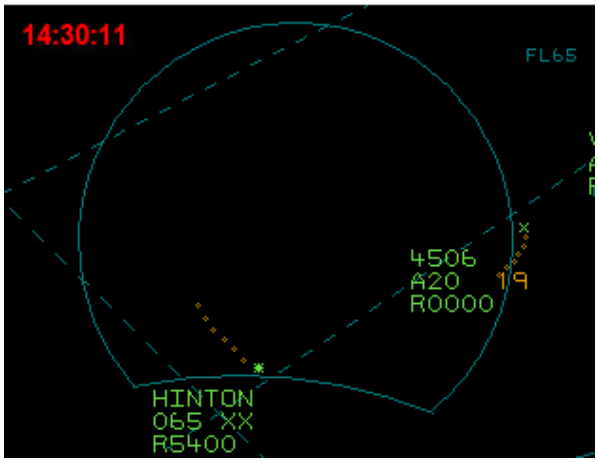

Figure 1

A P68, was operating a survey flight and the pilot was in communication with Oxford ATC, displaying Mode A 4506. The pilot submitted an Airprox report to the UK Airprox Board. The closest point of approach between the P750 and the P68 occurred at 1431:16 and was measured on the LTC Multi-Track Radar as 0.5NM and 300ft (Figure 2).

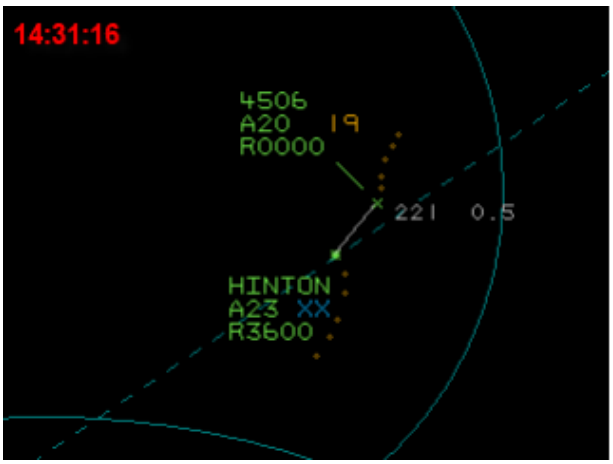

Figure 2

The pilot of [P68 C/S] reported that the event took place to the West of the Hinton Paradropping area, however this occurred to the south east of the 1.5NM area as defined within the UK AIP. The boundary marked within Figures 1 and 2 above related to an extended 3NM area used within TC Midlands procedures. The pilot of the P750 submitted a corresponding Airprox report, which noted that they did not see the conflicting traffic and so were unaware of the close proximity to the P68. Upon leaving CAS, the TC Midlands controller did not advise the pilot of the P750 that their radar service was terminated, however given that the P750 pilot was asked to report leaving CAS and reported within one second of leaving, the pilot was aware of the change of class of airspace. Given the nature of the Hinton Paradropping activity and the regularity of such flights, the pilot was aware of the see-and-avoid nature of the airspace they were frequently operating in. Notwithstanding the above, the requirement to advise the pilot that radar services were terminated has been brought to the attention of the watch Competency and Proficiency Coordinator. This event occurred in Class G airspace with both pilots being aware of the requirements of Class G airspace with regards to separation.

CAA ATSI

An Airprox was reported between a P68 and a P750 aircraft when they came into proximity near Hinton-in-the-Hedges. The P68 pilot was conducting a survey flight, had turned south and was about to take up a line of 162°. The pilot was in receipt of a Traffic Service from the Oxford Radar controller. The P750 pilot had previously been under the control of the Swanwick TC Midlands controller while they completed a parachute drop but had left the Swanwick frequency and changed to the Hinton-in-the-Hedges frequency and was descending inbound to land.

ATSI had access to reports from the pilots of both aircraft and reports from the Oxford controller and the Swanwick TC Midlands controller. The Oxford RTF and the Area Radar replay were reviewed for the period leading up to the Airprox event.

Screenshots within this report are taken from the Area Radar replay and are not necessarily indicative of what the Oxford Radar controller was viewing at the time of the event.

The Oxford Radar frequency was relatively busy in the lead up to the Airprox and the controller had previously been dealing with some additional workload generated by a blocked runway at Oxford. In the interest of brevity only the RTF exchanges between the P68 pilot and the Oxford controller have been included within this report.

Important note: The promulgated area in which paradropping takes place at Hinton-in-the-Hedges, as published within the UK AIP ENR 5.5, is 1.5NM radius of the Airfield. The area depicted within the screenshots below is 3NM radius of the site, this is what is mapped on the Midland TC controller display and is mapped as such in support of TC Midlands operational procedures. The P68 pilot did not penetrate the 1.5NM radius of airspace promulgated as active for para dropping operations.

At 1346:30 the P68 pilot made initial contact with the Oxford Radar controller and advised that they were operating VFR 2000ft, just to the north of Banbury and requested a Traffic Service. The pilot went on to say that they were conducting a survey flight just to the north east of the Oxford ATZ. The pilot was instructed to squawk 4506. The pilot read back the squawk and then asked if Hinton-in-the-Hedges was active. The controller confirmed that it was active with para dropping. A Traffic Service was agreed.

At 1417:00 the P750 was observed to be airborne from Hinton-in-the-Hedges and displaying a 4314 squawk. The P68 was well to the south of the P750 and tracking south at this time.

At 1422:00 the P68 was observed turning northbound toward Hinton-in-the-Hedges and the controller passed Traffic Information on an unrelated aircraft.

At 1425:35 and 1427:10 further Traffic Information was passed on unrelated aircraft.

At 1427:30 the controller passed Traffic Information: "*traffic 12 o'clock, 4 miles, at Flight Level 110, believed to be the paradropping aircraft from Hinton-in-the-Hedges*." The pilot responded that they would be looking out.

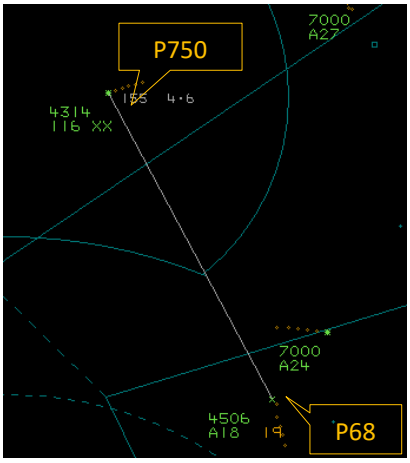

Figure 3 – 1427:30

At 1428:54 the controller passed further Traffic Information, "*the paradropping aircraft, left 10 o'clock, 3 miles, now descending, believed with the Para droppers underneath it*." The pilot responded, "*looking out*."

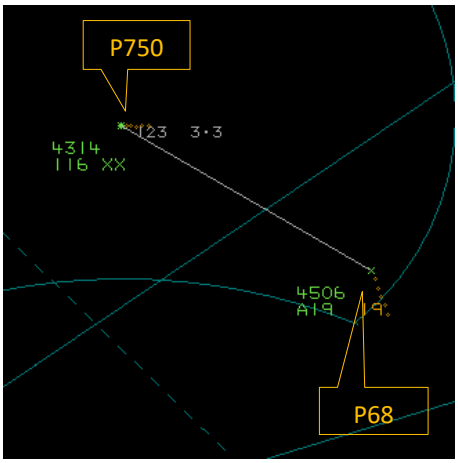

Figure 4 – 14:28.54

At 1430:40 the controller passed further Traffic Information, "*paradropping aircraft southwest, 2 miles, in a wide left turn back towards north easterly, at 4900ft descending*." The pilot responded, "*copied that and I have the parachute jumpers in sight as well*." (Figure 5).

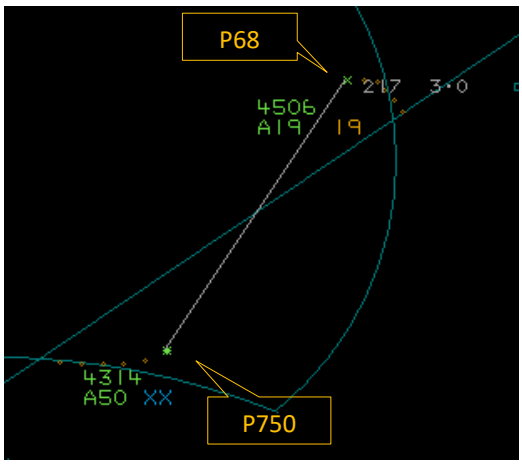

Figure 5 – 1430:40

At 1431:16 CPA occurred, with the aircraft separated by 0.5NM laterally and 300ft vertically (Figure 6).

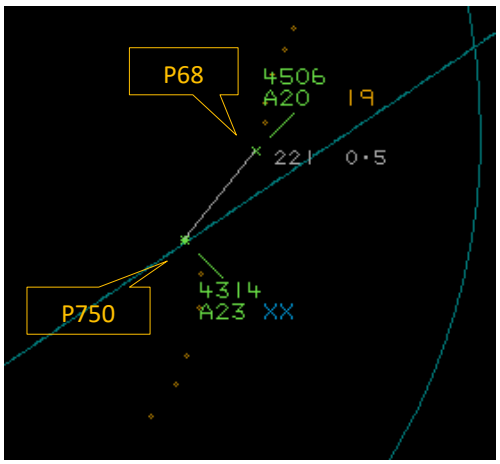

Figure 6 – 1431:16 CPA

During the initial RTF call from the P68 pilot at 1346:30, the controller confirmed that Hinton in the Hedges was active with para dropping. Between 1427:30 and 1430:41 the controller passed 3 specific sets of relevant, reasonably accurate and timely Traffic Information to the P68 pilot.

The pilot responded to the last set of Traffic Information at 1430:41 with the words "*copied that and I have the parachute jumpers in sight as well*." The words "*as well*" used at the end of the pilot's response may have been interpreted by the controller as the pilot having the parachutists in sight as well as the para dropping aircraft when the aircraft were still 3NM apart. However, the P68 pilot confirmed in their report that they had the para jumpers in sight at this point but that they did not gain sight of the para dropping aircraft until there was an estimated 500 or 600m between them, and that the late sighting may have been as a result of the P750 being in a steep descent above them.

CAP 774 Chapter 3 states that a Traffic Service is a surveillance based ATS, where in addition to the provisions of a Basic Service, the controller provides specific surveillance-derived Traffic Information to assist the pilot in avoiding other traffic. Controllers may provide headings and/or levels for the purposes of positioning and/or sequencing; however, the controller is not required to achieve deconfliction minima, and the pilot remains responsible for collision avoidance.

UKAB Secretariat

The P68 and P750 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]

Summary

An Airprox was reported when a P68 and a P750 flew into proximity at Hinton-in-the-Hedges at 1431Z on Thursday 10th September 2020. Both pilots were operating under VFR in VMC, the P68 pilot in receipt of a Traffic Service from Oxford and although the P750 pilot had been in receipt of a Radar Control Service from TC Swanwick at the time of the Airprox was not in receipt of an ATS.

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 first discussed the actions of the P68 pilot. The pilot had received Traffic Information from the Oxford controller but could not see the P750 as it descended from above. The Board thought that, as the pilot subsequently identified in their report, a call to Hinton-in-the-Hedges may have provided the P750 pilot with information on the P68 (**CF1**), that being said, it probably would not have provided the P68 pilot with any additional information given that Oxford had already provided accurate Traffic Information on 3 separate occasions. Members noted that the P68 was not fitted with a CWS, on this occasion the P68 pilot had received situational awareness from the controller and so it was not thought to be a contributory factor, nevertheless they wished to highlight the fact that it would provide another barrier to mitigate against such an event happening again. Despite receiving the Traffic Information, the pilot reported not being able to see the P750 due to the sun (**CF3**), and members thought that there may have also been an element of distraction **(CF4)** as the pilot was trying to intercept a line for their survey. In the end, when the P68 pilot did see the P750 descending quickly in front of them, they were concerned by its proximity (**CF5**).

The P750 pilot, was not receiving an ATS at the time of the Airprox. Members discussed whether they would have been able to receive a Traffic Service but heard from the NATS advisor that they cannot provide a Traffic Service below FL070 in that area because the radar is not assured. Members thought that the rate of descent was such that the pilot could not have been expected to call Oxford and get a Traffic Service from them before they needed to switch to the Hinton frequency. Consequently, the pilot had no situational awareness about the P68 (**CF2**). The pilot reported having a PowerFLARM fitted but did not say whether it had alerted or not. Members briefly discussed whether they would have expected it to alert but those who had experience using it noted that there were plenty of variables that might have prevented it alerting, such as aerial obscuration, system delay and possibly even the rate of descent of the P750. However, without knowing for sure whether it did alert or not, the Board felt that they could not attribute a contributory factor. It was opined that high rate of descent coupled with the pilot looking for the airfield as they turned towards it probably contributed to the P750 pilot not seeing the P68 (**CF3**, **CF4**).

The Board then looked the role of ATC, the Oxford controller provided Traffic Information on 3 separate occasions and members thought that there was little more they could have done to help the P68 pilot see the P750. Turning to the NATS controller, the Board heard that the controller was not able to provide

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

a Traffic Service below FL070 in the area due to radar limitations, therefore once the P750 pilot was clear of CAS the controller could not provide anything other than a Basic Service. Members wondered whether the controller could have provided information if they had seen the P68 in the area, however, it was only a short amount of time between the P750 leaving CAS and changing frequency and the controller would have had other aircraft to deal with, so they agreed that there was probably very little opportunity for the controller to provide Traffic Information, unless they had happened to notice the P68.

In determining the risk, members quickly agreed that the separation was such that there had been no risk of collision. Some members thought that safety had been degraded because neither pilot had seen the other aircraft in time to take avoiding action. However, others thought that the separation, at 0.5NM, meant that normal safety procedures pertained. A discussion followed, but in the end the latter view prevailed; Risk Category E.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2020120		
CF	**Factor**	**Description**	**Amplification**
	Flight Elements		
	• Tactical Planning and Execution		
1	Human Factors	• Accuracy of Communication	Ineffective communication of intentions
	• Situational Awareness of the Conflicting Aircraft and Action		
2	Contextual	• Situational Awareness and Sensory Events	Pilot had no, late or only generic, Situational Awareness
	• See and Avoid		
3	Contextual	• Poor Visibility Encounter	One or both aircraft were obscured from the other
4	Human Factors	• Distraction - Job Related	Pilot looking elsewhere
5	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: E.

Safety Barrier Assessment[3]

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the P68 pilot called have called on the Hinton frequency which may have provided information to the P750 pilot.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **partially effective** because the P750 pilot was not aware of the P68.

Electronic Warning System Operation and Compliance were assessed as **Unassessable** because it was not known whether the PowerFlarm in the P750 alerted.

See and Avoid were assessed as **partially effective** because the neither pilot saw the other in time to take avoiding action, but circumstances were such that separation was adequate.

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

Airprox Barrier Assessment: 2020120 Outside Controlled Airspace