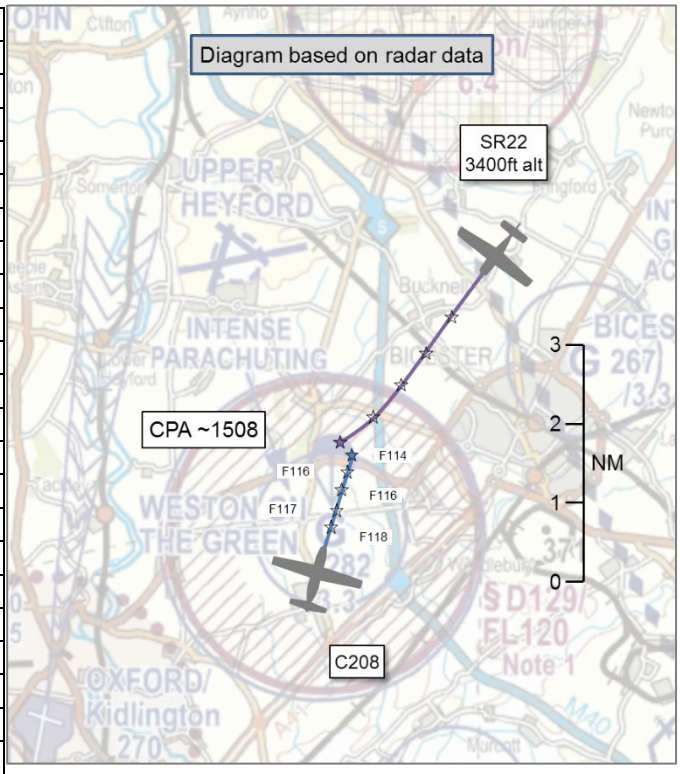
AIRPROX REPORT No 2018082

Date: 15 May 2018 Time: 1508Z Position: 5154N 00113W Location: RAF Weston on the Green

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Parachutists	SR22
Operator	HQ Air (Trg)	Civ FW
Airspace	EG D129	EG D129
Class	G	G
Rules		VFR
Service		Listening Out[1]
Provider		Oxford
Altitude/FL		3400ft
Transponder		A, C, S
Reported		
Colours		Blue, silver
Lighting		HISL
Conditions		VMC
Visibility		>10km
Altitude/FL		3400ft
Altimeter		QNH (NK hPa)
Heading		210°
Speed		160kt
ACAS/TAS		TAS
Alert		None
Separation		
Reported	NK	Not seen
Recorded	NK	



THE PARACHUTE INSTRUCTOR reports conducting an 'advanced parachute course' during which an aircraft infringement of EG D129 was identified whilst parachutists where airborne following successful despatch. The incident occurred on the 7th lift of the day with D129 activated to FL120 with Oxford ATC, RAF Brize Norton ATC and Swanwick Mil ATC by the nominated DZ controller prior to becoming airborne. The aircraft was identified after the parachutists had been despatched and whilst under canopy. It appeared to fly through D129 at a reasonably low altitude. The flight path of the aircraft appeared to enter D129 from the north and leave in a south-westerly direction. Upon recognition of this infringement the nominated DZ controller reported the incident to Oxford ATC and the aircraft was identified using an internet flight tracking app. The centre Chief Instructor was informed immediately and a dynamic risk assessment was conducted; the decision to continue parachuting was made and two further lifts were completed without incident.

He perceived the severity of the incident as 'High'.

THE SR22 PILOT reports they had departed Turweston on the easterly runway and turned right at about 1000ft in order to track to Farnborough via Oxford at 3400ft. The track was chosen to avoid both the more direct track that takes one close to the WCO NDB beacon, where there is a lot of light-aircraft and helicopter training, and also to be above the area from 1500ft-2400ft where the majority of light aircraft are disposed to fly in the London Area. He was unable to establish contact with Brize Radar, the promulgated contact for the Oxford AIAA, nor initially with Oxford, so he set up the Oxford Listening Squawk and associated '833 frequency'. Meanwhile, he realised that the Handling Pilot was straying towards Weston on the Green and he asked him to turn right. Oxford then contacted him. The flight continued on the briefed route with the pilot unaware of any transponding aircraft within +/- 2500ft and 2nm. The SR22 pilot made the following comments: the change from '25' to '833' radio channel spacing

[1] On frequency 127.110MHz.

was difficult to follow with some promulgated changes being cancelled at the last minute (for example, AIP SUP 019/18 concerning Manchester voice channel spacing, due 24th May 18, now planned for November 2018); he had made late contact with Oxford because he had been confused by the NOTAM concerning Oxford frequency changes, which contained 40+ words and numbers with no punctuation and referred to 7 other documents; the flight planning application he used specified that the Oxford NOTAM only applied up to FL23; his route from southeast of London to Turweston had 85 NOTAMs associated with it. The SR22 pilot suggested the following improvements: that all danger areas are changed to be NOTAM'd when active which would have the combined advantage of removing the need to read the 'Reference to Air Navigation' at the bottom of the VFR chart (hard to read in the air) and of highlighting the applicable areas on electronic chart displays; that the status of EG D129 be examined and that MoD should justify the continued requirement for that danger area given that historic levels of activity are no longer present and that greater levels of gliding and parachuting activity take place at other sites without danger area protection.

THE OXFORD CONTROLLER reports that the SR22 entered EG D129 when the danger area was active with free-fall parachuting from FL120. The SR22 was wearing the Oxford listening squawk (4517) but only applied it when close to D129 and was transmitting on the incorrect frequency 127.110MHz. The controller heard him call on a background frequency and told him to call on 125.090MHz. When he did, he was already exiting D129.

Factual Background

The weather at Oxford was recorded as follows:

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METAR EGTK 151520Z 02011KT CAVOK 22/09 Q1020=
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The Oxford frequency change NOTAM, L3382/18, was promulgated as follows:

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Q) EGTT/QCACF/IV/B/AE/000/023/5150N00119W002
A) EGTK
B) FROM: 18/05/03 14:10
C) TO: PERM
E) OXFORD KIDLINGTON AIR TRAFFIC SERVICES COMMUNICATION FACILITIES APPROACH AND RADAR
FREQ 125.090 MHZ (8.33 KHZ CHANNEL) APPROACH AND RADAR FREQ 127.750 MHZ WITHDRAWN
DIRECTOR FREQ 127.110 MHZ (8.33 KHZ CHANNEL) DIRECTOR FREQ 125.325 MHZ WITHDRAWN EGTK
AD 2.18 AND CHARTS EGTK-5-1 AND 8-1, 8-2, 8-3, 8-4, 8-5 REFER
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The qualifier field ('Q' - first line) is decoded as follows[2]:

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EGTT:     applicable FIR
QCACF:    Q: code abbreviation for use in composition of NOTAMs
          CA: COM Communications and Radar facilities: Air/ground (specify service and
          frequency)
          CF: Changes: Operating frequency(ies) changed to
IV:       Applicable to IFR and VFR
B:        NOTAM of operational significance selected for PIB [Pre-flight Information
          Bulletins] entry
AE:       Scope - Aerodrome and En-route
000:      Lower limit - FL000
023:      Upper limit - FL023
5150N     Geographic centre
00119W
002       radius of influence, 2nm
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[2] NOTAM formating is defined in Appendix 6 to ICAO Annex 15 to the Convention on International Civil Aviation.

Analysis and Investigation

UKAB Secretariat

The SR22 pilot was required not to recklessly or negligently cause or permit an aircraft to endanger any person or property[3].

Occurrence Investigation - RAF Weston on the Green Robson Parachuting Centre (Weston) (RPC (W))

An incident occurred on 15th May 2018 in which a third party aircraft infringed both a parachuting drop zone and an active Danger Area. Upon review of the information available, the staff of the RPC (W) assessed the risk to the safety of the parachutists as significant. The parachuting aircraft was being operated in accordance with the British Parachute Association Operations Manual and applicable CAA regulations.

The Caravan became airborne from Weston at 1452Z for the seventh parachute sortie of the day, and the first in a serial of three sorties to high level. In addition to the pilot, twelve parachutists were aboard the aircraft. In accordance with established procedures, the PIC checked-in with Oxford Radar on 125.090 MHz, outlining the detail and confirming that he would maintain a listening watch on the frequency whenever not in communication with Swanwick Mil (required to negotiate access to controlled airspace which has a base of FL085 over EG D129). The transfer to Swanwick Mil usually occurs at an altitude of 4-5000ft. The second radio on the aircraft is constantly tuned to the DZ frequency, 133.650MHz.

The PIC checked in with Swanwick Mil and was cleared to FL120 for the drop, remaining within the lateral confines of EG D129. The PIC notified the DZ Controller two minutes before the drop at which point the DZ Controller gave a 'clear drop' command. The PIC would then have subsequently advised Swanwick Mil of being ready.

The PIC was using a broadly northerly run-in of 015°T with a 'green light' point 0.1nm before the reference point of the pea-gravel parachute landing pit in the centre of Weston airfield. The upper winds had been consistent all day. Based on the aircraft GPS log, the run-in was accurately maintained for 1.1nm, at which point the final group of parachutists would have exited. The pilot began his descent around the eastern side of the Danger Area.

The entire flight was conducted within the lateral confines of EGD129. Upon descending through FL85 the parachute aircraft is released by Swanwick Mil and reverts to listening in on the Oxford Radar frequency. On doing so, the PIC immediately heard the Oxford radar controller talking to an aircraft that had called on the wrong frequency; the controllers are able to monitor alternative frequencies at the same time as the primary frequency. The controller also informed the pilot that he had infringed EG D129 during an active parachute drop. The pilot was then asked to switch to the correct frequency of 125.090MHz. The aircraft had departed Turweston before turning south towards Oxford. The aircraft had been flying at an altitude of approximately 3000ft and entered D129 from the north-northeast before exiting via the western edge. The Oxford controller advised the Caravan pilot that an aircraft had infringed D129 but had been using the wrong frequency and thus the controller had not been able to intervene to prevent it doing so.

The DZ Controller, prior to giving 'Clear Drop' to the parachute aircraft, would have conducted a scan of the skies above the DZ. He first heard the infringing aircraft as the parachute aircraft was finishing the jump run, and first saw it soon after. A haze layer had made visual acquisition more challenging. The pilot of the infringing aircraft did not contact the DZ on 133.650MHz prior to entering EG D129. It is the assessment of the SME staff at RPC (W) that the Risk associated with this incident shall be judged to be 'High' with a risk-to-life that cannot be considered as negligible.

[3] ANO 2016, Article 241.

Comments

HQ Air Command

This Airprox demonstrates once again that each layer of defence to loss of separation events has its weaknesses. The parachuting zone above Weston-on-the-Green (EG D129, SFC-FL120) has been long established but clearly there are no physical barriers to an aircraft unwittingly entering the area. This is why other layers exist, in this case the DZ controller and Air Traffic Control, to mitigate for the imperfections of other barriers. Unfortunately, the SR22 pilot strayed into the area and the Oxford controller was unable to assist as the pilot was not on frequency. The aircraft was seen by the DZ controller but it was too late to abort the despatch of the parachutists or to inform them of the presence of an aircraft in the vicinity of their descent path. Fortunately, it appears that the flightpath of the SR22 within the danger area was not directly underneath the descending parachutists.

Summary

An Airprox was reported when a group of parachutists and an SR22 flew into proximity at 1508 on Tuesday 15th May 2018. The SR22 pilot was operating under VFR in VMC, not in receipt of a Service at the time of the Airprox.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the SR22 pilot and the parachute instructor, radar photographs/video recordings, a report from the air traffic controller involved and reports from the appropriate operating authorities.

Members first discussed the actions of the SR22 pilot and noted that he reported entering EG D129 because he had been distracted by his attempts to establish R/T contact with the Oxford controller. Members acknowledged his concern regarding the number of NOTAMs, and many were sympathetic to his view that the manner of the introduction of '833' frequencies had resulted in increased confusion. The Board also felt that the Oxford NOTAM was not well worded and that it was in error by specifying the limits of the NOTAM as being the Oxford ATZ; members observed that the NOTAM had subsequently been re-issued in a clearer form. Notwithstanding, although some of the SR22 pilot's suggestions may have merit for future flights, proper pre-flight preparation was always required. Whilst it was agreed that his distraction had been contributory to the Airprox, members agreed that the SR22 pilot should nevertheless have ensured that he understood the information in the Oxford NOTAM before he got airborne, perhaps by phoning Oxford if he was in doubt.

Turning to the parachuting site, neither the parachute aircraft pilot, parachute instructor, parachutists or DZ controller had indicated that the SR22 had been in proximity to the parachutists. Although they were understandably concerned by the unauthorised entry of the SR22 to within EG D129 and the potential for disaster, members discussed whether an estimate of proximity could be made based on the SR22 and C208 tracks. Although it appeared that the SR22 and parachutists were separated by about 1½nm laterally given that the 'green light' point was almost directly overhead the airfield, it was agreed that this was not a robust enough basis for an accurate estimate and so it was decided that insufficient information was available to determine the risk of collision involved. Finally, members observed that the SR22 pilot's plan to fly from Turweston to Oxford was evidently not 'fail-safe' in that the route took him through EG D129. Consequently, as he became distracted, the SR22 pilot flew through EG D129 whilst it was active and with parachuting taking place, which was the cause of the Airprox.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The SR22 pilot flew through EG D129 whilst it was active and with parachuting taking place.

Contributory Factors: The SR22 pilot was distracted.

Degree of Risk: D.

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:

ANSP:

Regulations, Processes, Procedures and Compliance were assessed as **partially available** because the Oxford frequency change NOTAM was not as clear as it could have been and was applicable to an area which only included the Oxford ATZ.

Situational Awareness and Action were assessed as **not used** because the SR22 pilot used an incorrect frequency and the Oxford controller was therefore not in a position to be able to influence the situation earlier.

Flight Crew:

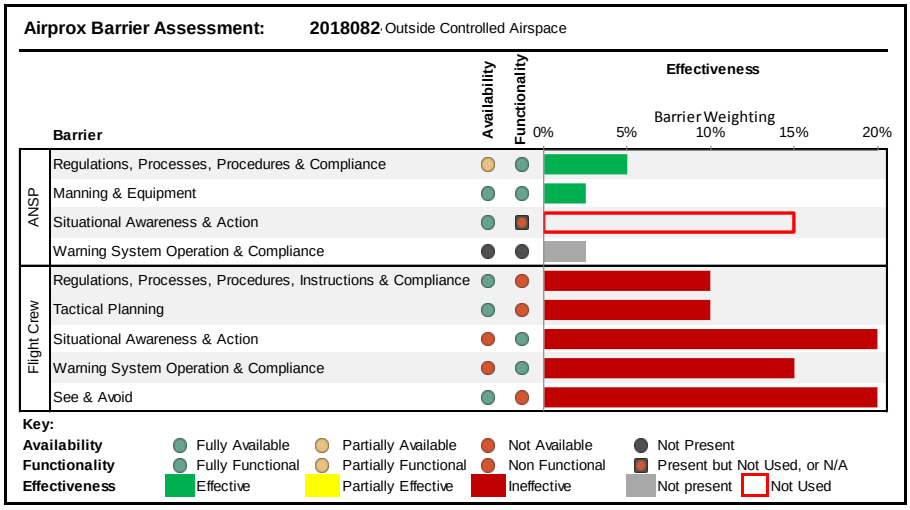
Regulations, Processes, Procedures, Instructions and Compliance were assessed as **ineffective** because the SR22 pilot did not avoid the active and promulgated danger area and used an incorrect frequency when attempting to contact Oxford ATC.

Tactical Planning was assessed as **ineffective** because the SR22 pilot's route plan was not fail-safe; his plan to route from Turweston to Oxford always included transit of EG D129, which was not permitted without clearance, which was not obtained.

Situational Awareness and Action were assessed as **ineffective** because the SR22 pilot was not aware of the proximity of EG D129.

Warning System Operation and Compliance were assessed as **ineffective** because there are currently no systems to warn of the proximity of parachutists to aircraft, other than pilot pre-emptive awareness of the proximity of parachuting sites.

See and Avoid were assessed as **ineffective** because the SR22 pilot did not see the parachutists and the UKAB has not received a report of any of the parachutists sighting the SR22.



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