AIRPROX REPORT No 2014190

| Date/Time: | 15 Aug 2014 091 | 0Z |
|-------------------------|---------------------------------|------------------------|
| <u>Position</u> : | 5056N 00143W (Fordingbridge) | |
| <u>Airspace</u> : | London FIR | (<u>Class</u> : G) |
| | <u>Aircraft 1</u> | <u>Aircraft 2</u> |
| <u>Type</u> : | Tutor T1 | Untraced Microlight |
| <u>Operator</u> . | HQ Air (Trg) | |
| <u>Alt/FL</u> : | 1500ft QNH (1012hPa) | |
| Conditions: VMC | | |
| Visibility: | 40km | |
| Reported Separation: | | |
| | 100ft V/0m H | |
| Recorded Separation: NK | | |



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE TUTOR PILOT reports conducting general handling in a predominantly white aircraft with white strobes, landing and navigation lights selected on, as was the SSR transponder with Modes A, C and S. The aircraft was fitted with a TAS. The pilot was operating under VFR, in VMC, in receipt of a Basic Service from Middle Wallop Approach. Whilst the PF practiced a deceleration to 80kt, heading 090°, in level flight at 1500ft altitude, the instructor (PM) saw an aircraft head-on, which passed about 100ft under them. The instructor took control and made a climbing turn to identify the other aircraft. He saw a white high-wing, single-engine, pusher configuration microlight with a thin tail boom. He thought it was a Streak Shadow but was not able to read the registration. The instructor noted that the Tutor was in a nose-high attitude as they decelerated, that the TAS had not given a warning and that, although they were under a Basic Service, ATC had been giving Traffic Information when pertinent 'in a busy period' but that there had been no Traffic Information given on the conflicting aircraft. He reported the Airprox to ATC by phone after landing.

He assessed the risk of collision as 'Very High'.

THE MICROLIGHT PILOT: Extensive tracing action was undertaken, including an email to every registered Streak Shadow owner in the UK, but regrettably, the Microlight pilot could not be located.

THE MIDDLE WALLOP ATC SUPERVISOR reports that there has been much discussion regarding the ATS provided to Army Flying Grading (AFG) Tutors operating to the southwest of Middle Wallop. AFG operations are always conducted in VMC and, as such, the most appropriate service would appear to be a Basic Service. However, due to the nature of the airspace, and in particular the amount of autonomous traffic operating in this area, there was a strong argument for an upgrade to a Traffic Service. That said, the nature of the training carried out by AFG instructors can mean a Traffic Service constitutes a distraction. There was no clear answer; the TAS fit to the Tutor aircraft does enhance the air picture and a Traffic Service would further enhance this but some of the aircraft operating to the southwest of Middle Wallop are very small, not fitted with SSR and consequently are not always seen on radar. The frequency used to provide either the Basic or Traffic Service to AFG aircraft is the ICF for Wallop Approach and is used primarily for RTC traffic. This can mean the frequency is congested, which further impacts on the cockpit workload of the AFG instructors. A solution to this element of the problem would be to provide a quiet frequency, as Middle Wallop does for rotary-wing aircraft operating to the north and northeast of Wallop. In order to ensure this

frequency is monitored correctly and the best possible service is provided to AFG aircraft, another control position and ATCO would be required. Currently the Middle Wallop Approach controller provides the service to AFG aircraft but is also providing Basic, Traffic and, where required, Deconfliction Services. The approach positions can, at times, be busy and, as said, the frequency can be congested. As to this particular incident, the level of service provided was appropriate. The pilot requested a Basic Service, at which point there is no specific requirement for the ATCO to maintain track identity on the aircraft or to pass Traffic Information. Middle Wallop ATCOs are aware of the cockpit workload of AFG instructors and also of the large amount of conflicting traffic. Therefore, they do try to ensure Traffic Information is passed to Basic Service traffic. With a busy frequency this becomes less of a priority than for Traffic Service traffic.

Factual Background

The weather at Bournemouth and Middle Wallop was recorded as follows:

METAR EGHH 150920Z 35010KT 270V020 CAVOK 17/11 Q1017 METAR EGVP 150850Z 31007KT 9999 SCT020 BKN044 14/09 Q1016 WHT BECMG SCT025 BLU METAR EGVP 150950Z 31007KT 9999 SCT017 BKN050 14/10 Q1017 WHT NOSIG

Analysis and Investigation

Military ATM

The Radar Analysis Cell were unable to trace the other pilot and no radar replay of the incident was available.

The Tutor pilot was under a Basic Service with Middle Wallop Approach. No incident was reported on RT at the time and, as such, the Middle Wallop control team were not aware of the Airprox. When the control team were informed, the time lapse was such that the controller could not recall the event and transcripts were not available.

The normal barriers to a Mid Air Collision are lookout, ACAS and information from ATM. The Tutor TAS did not provide a warning and it is not known whether the other aircraft was fitted with a transponder. The Tutor pilot had opted for a Basic Service on a busy ATC frequency; the pilot was responsible for collision avoidance and it was not known if the other aircraft track was displayed on the Middle Wallop Radar (the RAC were unable to detect a conflicting aircraft on a range of radar sources). Had ATM been informed of the incident earlier, more information may have been available for the investigation. The pilot lookout was a key barrier to this event and it would appear that a busy workload and nose high attitude may have contributed to distracting the Tutor crew and obscuring their view of the other traffic until a late stage.

UKAB Secretariat

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision¹. If the incident geometry is considered as head-on then both pilots were required to turn to the right².

Comments

HQ Air Command

A significant barrier to MAC was intentionally weakened in this incident, that of an appropriate ATS. Whilst it may have no bearing on the incident itself (as it is quite likely that the microlight would not have been detected by radar) it is concerning that instructors are routinely opting for a

¹ Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions).

² ibid., Rule 10 (Approaching head-on).

Basic Service because a Traffic Service may become too intrusive – an indicator in itself of how busy the airspace is. The use of TAS, an appropriate ATS, and lookout are complementary; weakening or omitting one element (when available) will mean that greater emphasis is placed on the others. It is probable that the microlight involved in this incident was not fitted with a transponder, placing further emphasis on lookout to remain clear of other aircraft, which was ultimately how the microlight was detected and avoided by the Tutor pilot. The absence of a report from the microlight pilot may indicate that the Tutor was either unseen or that the microlight pilot was content with the separation. Finally, it is worth noting that a number of pilots operating under Military Flying Regulations seem unaware of the requirement of MRP RA1410 to report an Airprox to ATC over the radio at the time of occurrence or shortly thereafter.

Summary

An Airprox was reported when a Tutor and a microlight flew into proximity at about 0910 on Friday 15th August 2014. Both pilots were operating in VMC, the Tutor pilot under VFR in receipt of a Basic Service from Middle Wallop Approach and the microlight pilot most likely under VFR. It was not possible to ascertain whether the microlight pilot had been in receipt of an Air Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the Tutor pilot, radar photographs/video recordings, reports from the air traffic controllers involved and a report from the appropriate ATC authority.

The Board members were faced with a lack of information from the untraced microlight pilot but were nevertheless able to identify several absent mitigations to mid-air collision. The nature of the AFG task was such that the need for extensive in-cockpit dialogue could render a Traffic Service undesirable; however, it was for Middle Wallop airspace users to balance the risk introduced by a lack of surveillance based ATS against the risk of mid-air collision. In this case, the reported proximity to a microlight perfectly illustrated the diverse nature of other local airspace users, and that neither TAS nor surveillance could necessarily provide a barrier in all cases. Members agreed that this served to emphasise the necessity for an effective lookout; the fact that the Tutor pilot's slow speed, and consequent nose-up attitude whilst level had served to further obscure the approaching microlight; and that the Tutor pilot's sighting of the microlight had been at a late stage. Members agreed that the microlight pilot had either not seen the approaching Tutor, or considered himself to be sufficiently separated. If the latter case, disappointingly, he did not consider the encounter warranted filing an Airprox report. Members were therefore of the opinion that this incident was certainly at least partially caused by a late sighting by the Tutor pilot but that there was insufficient information to assess what the microlight pilot had seen or assimilated, or the degree of risk.

The Board noted that the Middle Wallop Supervisor had identified that AFG pilots were not provided with a 'quiet frequency' and this resulted in a situation whereby RT traffic was an impediment to accomplishing the flying task; members agreed that this was highly undesirable.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause</u>: A late sighting by the Tutor pilot.

Degree of Risk: D.

ERC Score³: N/S.

³ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.