

## **AIRPROX REPORT No 2014123**

Date/Time: 26 Jul 2014 1510Z (Saturday)

Position: 5101N 00238W  
(Yeovilton)

Airspace: Yeovilton ATZ (Class: G)

Aircraft 1                      Aircraft 2

Type: Lynx                      B206 Jetranger

Operator: RN                      Civ Comm

Alt/FL: 500ft                      800ft  
QFE (1014hPa)      QFE (1015hPa)

Conditions: VMC                      VMC

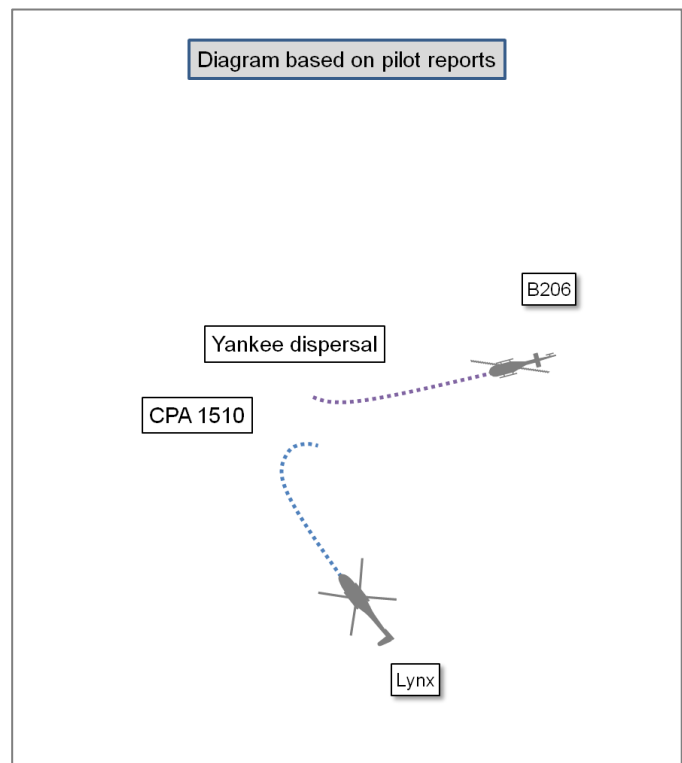
Visibility: NK                      25km

Reported Separation:

'75ft'                      0ft V/100m H

Recorded Separation:

NK



### **PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

**THE LYNX PILOT** reports recovering to Yeovilton after a role demonstration at the Yeovilton Air Day. The grey camouflaged aircraft's lighting state was not reported. The SSR transponder was not selected on. The aircraft was not fitted with an ACAS or TAS. The pilot was operating under VFR in VMC within the Yeovilton ATZ. The pilot, callsign Lynx 1, was recovering to Yankee dispersal with Lynx 3 in line astern. Having crossed RW27 from the south, he requested ATC permission to land at Yankee. At this point ATC asked if his aircraft was fitted with pyrotechnic flares, and, if so, to recover to the 'arming spots' on the south side [of the airfield]. He stated that all flares had been expended and visually checked by the aircrew and that his intention was to return to Yankee. He was overruled and ordered by his command authority to return to the south side. At this point, heading 320° at 40kt, he turned right to exit from the approach and leave Lynx 3 clear to recover. As he turned, a black and silver/grey civilian B206 was seen approaching from the low 2 o'clock position. The Lynx pilot took avoiding action by turning right, whilst the B206 pilot flared, turned right and descended.

He assessed the risk of collision as 'Medium'.

**THE B206 PILOT** reports conducting pleasure flights at the Yeovilton Airshow. The dark grey and silver aircraft had anti-collision and navigation lights selected on, as was the SSR transponder with Modes A, C and S. The aircraft was not fitted with an ACAS or TAS. The pilot was operating under VFR in VMC, listening out on both Yeovilton GND and 'Adventure Ops'. The pilot was one of a 5-helicopter operation at Yeovilton airfield for the Yeovilton Airshow. Their flights were to be carried out in a right-hand predetermined circuit on the northern side of the airfield (1000ft QFE) to provide separation from the flying displays. On one of these five-minute circuits, at approximately 1520 local time, as he made a right-hand turn to begin final approach, he saw two Lynx Wildcat helicopters to the left, one in front of the other. They were flying at about the same height, heading and speed as himself, and were approximately 100m off to his 9 o'clock. He was in a gradual descent, heading 260° at 80kt and was keeping an eye on both helicopters when the lead aircraft made a gentle but increasing right turn towards him. He made a relatively steep right turn through 30° of heading and initiated a steeper than usual descent (500-700fpm) to make his intentions clear. He then made a shallower approach than usual back to the landing pad due to lost height, and landed without incident. He stated that he never felt under threat of collision and heard no reaction from the passengers who were also aware of the two Lynx aircraft. He stated that when he landed, he heard nothing of the incident from radio operators, ground handlers, fellow pilots or passengers. He had

used the radio on both frequencies throughout the day and was satisfied that it worked. He didn't notice where the two aircraft had gone after he turned, although he was under the impression that as he turned right and descended that the lead aircraft had gone over the top of him but to the rear of his aircraft in a possible heading reversal.

He assessed the risk of collision as 'Low'.

## Factual Background

The weather at Yeovilton was recorded as follows:

METAR EGDY 261350Z 28007KT CAVOK 26/13 Q1017 BLU NOSIG  
 METAR EGDY 261550Z 29007KT CAVOK 27/10 Q1016 BLU NOSIG

## Analysis and Investigation

### Military ATM

The incident occurred on 26 July 14 at about 1510 at RNAS Yeovilton, between a Lynx and a Jetranger. The Lynx pilot was in communication with Yeovilton Tower and the Jetranger pilot with Yeovilton Ground.

At 1508:12, the Lynx pilot (the lead of a formation) had declared, "*Lynx 1 and 3 north side, number 2 armed south side*". Tower had replied, at 1508:28, with, "*From command, the one that fired the flares needs to come south side*".

On the Ground frequency, at 1508:31, the instruction was transmitted, "*All Adventure callsigns, Yeovilton Ground, hold on deck, multiple rotary inbound north dispersal*". At 1508:33, a reply came, "*Adventure 1 just lifted and visual with them on my right*". Adventure 1 was not the subject Jetranger but was the only pleasure flight pilot who responded to the instruction passed on Ground frequency.

On Tower frequency, the Lynx pilot declared, at 1508:35, that, "*Flares have been visually cleared in aircraft, returning to Yankee*". Tower replied with, "*Negative, need an engineer check, request you go south side*". At 1508:44, The Lynx pilot replied, "*This was cleared yesterday but I am going south side*". An Airprox was declared by the Lynx pilot at 1210:07, following the aborted approach to Yankee dispersal.

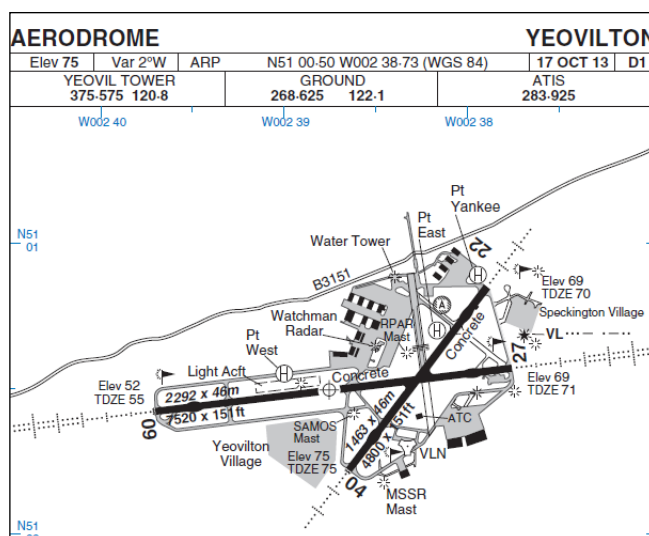


Figure 1: Yeovilton Aerodrome

The thorough unit Occurrence Safety Investigation reviewed the procedures and produced a number of recommendations. The Lynx pilot had been visual with the Jetranger but had lost contact whilst conducting checks for finals and querying the ATC instruction to return to the south side. The mistaken belief that he did not need to adhere to the briefed and authorised landing plan resulted in a late change and a broken-off approach by the Lynx pilot. The workload of the approach and re-negotiated landing plan combined to lower the situational awareness of the Lynx pilot, who believed from a previous rehearsal and conversation that aircraft with 'cleared flares' could land at Yankee. The communications with the pleasure flights were not as planned; the hold call was made when the formation was already inbound and only one aircraft responded on RT; the Jetranger pilot maintained that he had serviceable radios throughout the day. It was pre-agreed with the formation that the pleasure flights would not be grounded; a subsequent transmission from a Lynx pilot requested a hold on the pleasure flights until the formation was clear.

The normal barriers to mid-air collision in the visual circuit are Traffic Information, lookout and safe procedures. All aircraft were aware of the other users from pre-briefs and rehearsals. The procedures for the day had been rehearsed but confusion over the status of aircraft with flares had led to a deviation from the planned activity. Lookout had been maintained by the Jetranger pilot coming in to land but the Lynx pilot had been momentarily distracted by a broken-off approach and had lost sight of the Jetranger.

### **UKAB Secretariat**

Both pilots shared an equal responsibility for collision avoidance and not to fly into such proximity as to create a danger of collision<sup>1</sup>. Both pilots were required, when landing, to pass landing aircraft on their left<sup>2</sup>.

### **RNAS Yeovilton Occurrence Safety Investigation**

The Yeovilton occurrence investigation established that there were issues concerning the understanding and authorisation to which dispersal the Lynx pilot was required to return and with the coordination and control of pleasure flight helicopters. Additional measures were planned to increase risk mitigation for the next Yeovilton Air Day.

## **Comments**

### **Navy HQ**

There was confusion between the Lynx aircrew and Yeovilton ATC as to what the recovery brief would be. This led to an RT exchange that sapped capacity and created exasperation. Had the recovery brief been transparent and understood by both parties then this scenario is unlikely to have occurred. ATC instructions within the ATZ are mandatory and, unless the instruction given has a safety implication, it is important that aircrew respond swiftly. Acknowledging information when passed helps to ensure understanding and builds situational awareness.

## **Summary**

An Airprox was reported when a Westland Lynx and a Bell 206 Jetranger flew into proximity at about 1510 on Saturday 26<sup>th</sup> July 2014. Both pilots were operating under VFR in VMC, the Lynx pilot within the Yeovilton ATZ and in contact with Yeovilton Tower and the B206 pilot in receipt of an Aerodrome Control Service from Yeovilton Ground.

<sup>1</sup> Rules of the Air 2007 (as amended), Rule 8 (Avoiding aerial collisions) and as reflected in Military Flying Regulations.

<sup>2</sup> *ibid.*, Rule 14 (Landing and take-off) and as reflected in Military Flying Regulations.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from the pilots of both aircraft and reports from the appropriate ATC and operating authorities.

The Board first considered the pilots' actions. The Jetranger pilot was operating in one of five helicopters that were conducting pleasure flights from Yankee dispersal. They were operating on Yeovilton Ground frequency and separated procedurally from flying display activities by remaining on the north side of the airfield. The Jetranger pilot had seen the Lynx closing from his left-hand side as he approached his landing point, and was able to take avoiding action to the right and downwards as the Lynx pilot turned right towards him. The Lynx pilot had been operating under the mistaken belief that he would be able to recover to Yankee dispersal after his flying display. This had been caused by a conversation after the previous day's practice display regarding the armed state of his aircraft after firing pyrotechnic flares, during which it was agreed that the aircraft could be recovered to Yankee dispersal if the flares had been visually checked by the Lynx crew as being expended. However, this was in effect a 'local agreement', was not approved through authorised means, and was in contravention of the Air Day flying orders. Consequently, confusion was created between the Lynx pilot and ATC that was resolved by the direct instruction from ATC to the Lynx pilot to return to the 'south side'. It was evident to the Board that the Lynx pilot then became frustrated and distracted by this turn of events and lost awareness of the Jetranger as he turned right to return to the south side.

The Board were appraised of the findings of the Yeovilton Incident Investigation and agreed that all salient safety issues had been addressed. They agreed with the Navy HQ comment in particular about pilots responding without question to ATC instructions when inside an ATZ unless there were safety implications, and commented that it had been unwise for the Lynx pilot to cross the runway onto the live side of Pleasure Flight operations without a positive clearance. It was noted that the Yeovilton Air Day was a complex and busy event which required additional risk mitigation due to public involvement, and which was subject to the added complexity of possible loss of 'corporate knowledge' due to the turnover of personnel in the course of their military careers. These factors demanded careful knowledge management in order to preserve the mitigations learnt from past 'lessons identified'.

In considering the cause and risk, the Board agreed that the Lynx pilot had flown into conflict with the Jetranger but, although the helicopters' separation had been less than desirable, they felt that timely and effective action had been taken to prevent aircraft colliding. Finally, the Board commended the Lynx pilot on his professionalism in filing a somewhat unflattering report which nonetheless highlighted important safety issues. Members unanimously agreed that in doing so he demonstrated exactly the kind of approach to safety that underpins successful 'just culture' and which served as an exemplar for others.

## **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The Lynx pilot flew into conflict with the Jetranger.

Degree of Risk: C.

ERC Score<sup>3</sup>: 21.

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<sup>3</sup> 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.