

## AIRPROX REPORT No 2012042

Date/Time: 22 Mar 2012 1527Z

Position: 5154N 00214W (2.5nm  
W GST - elev 101ft)

Airspace: LFIR (Class: G)

Reporter: Gloucestershire APP

Type: 1st Ac AS355 (A) 2nd Ac HS25

Operator: Civ Trg Civ Comm

Alt/FL: FL40 QNH ↓2500ft

Weather: VMC CLNC VMC NR

Visibility: >10km >10km

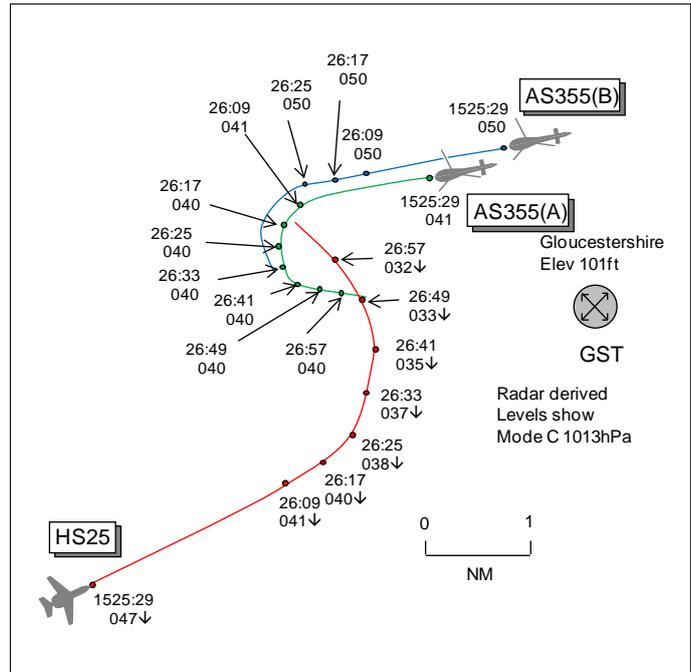
Reported Separation:

400m H >500ft V

Recorded Separation:

>700ft V/0.2nm H

OR Nil V/2.3nm H



## CONTROLLER REPORTED

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

**THE GLOUCESTERSHIRE APP** reports that the RW in use was RW09 LH cct and at about 1520Z Filton pre-noted the HS25 inbound, IFR and coordinated at 3000ft QNH 1026hPa; both units were very busy at the time. The subject AS355 (A) was in the GST hold at FL040 whilst another AS355 (B) from the same company was also in the hold at FL050. A fast moving contact was observed on primary radar about 10nm to the SW routeing NE'bound towards the GST. Two blind transmissions were made to the HS25 flight with no success. After a third transmission the HS25 crew replied (approximately 4nm SW of GST) stating they were at FL050 descending to 3000ft. Essential TI was passed immediately to the HS25 flight on the GST holding traffic at FL040 and FL050 to which the crew replied they were visual. Essential TI on the HS25 was also passed to both AS355 flights. AS355 (A) pilot reported that the HS25 had just passed O/H, he thought [actually under], by about 400ft. The pilot was asked if he wished to file an Airprox to which he replied he would call on the ground.

**THE AS355 (A) PILOT** reports inbound to Gloucestershire, IFR and in receipt of a PS from Gloster Approach, squawking 7000 with Mode C. The visibility >10km in sky clear VMC and the helicopter was coloured blue/gold with anti-collision beacon, nav and strobe lights all switched on. The HP's (student) forward visibility was impaired by IF screens required for IR training. While holding at GST at FL040, heading 094° flying out of sun on the inbound leg at 105kt, separation under a PS was compromised by a HS25 descending through both his level and that of another company AS355 (B) established in the hold at FL050. The HS25 flight was on frequency but not receiving a service. No avoiding action was taken by him or AS355 (B) commander as ATC informed both flights of the approaching HS25 approximately 10sec before both AS355 pilots became visual. The speed of the HS25 and late sighting did not allow for avoiding action but neither he nor the commander of AS355 (B) felt their ac were in danger. The HS25 was descending rapidly, passing through his level about 400m away while it was turning beacon outbound. He assessed the risk as none. As the incident occurred in Class G airspace and involved an ac not receiving a PS, little could be done to prevent

such an event by either commander. He opined that the procedure and its execution selected by the HS25 Capt had added to the incident as an ac of this weight and speed would normally fly a DME arc to the FAT and not fly directly to the GST to fly a non-standard join.

**THE HS25 PILOT** reports inbound to Gloucestershire IFR and in communication with Gloster Approach squawking with Modes S and C. The visibility was >10km in VMC and the ac was coloured white/grey with anti-collision beacon, strobes, landing and nav lights all switched on. Turning L outbound at the GST descending to 2500ft, he thought [actually 3000ft], QNH at 180kt flying out of sun a TCAS TA alerted them to traffic and they saw 2 helicopters, he thought 250m away [see ATSI report], and above his ac by 500ft or more. No avoidance was undertaken owing to the visual sighting and he assessed the risk as none.

UKAB Note (1): The hold is a 1min LH racetrack QDM 094°. The Gloucestershire NDB(L)/DME procedure is outbound GST track 284° (CAT A,B) or 296° (CAT C) at 2800ft descending to 2200ft to GOS 8DME turn L to intercept the FAT 093°. The alternative procedure is to extend the outbound leg of the NDB(L) GST holding pattern descending to 2200ft then continue as the Main Procedure.

**ATSI** reports that the Airprox occurred at 1526:53 UTC, 2.5nm to the W of Gloucestershire Airport (Gloster), within Class G airspace, between an AS355 helicopter and an HS25.

The AS355 (A) was inbound IFR from Blackbushe (EGLK), operating on an instrument training flight and holding at FL040 at the Gloucestershire NDB (GST). A second AS355 (B) was also holding at the GST at FL050.

The HS25 was inbound IFR from Madrid-Torrejon Airport (LETO) and prior to being transferred to Gloster Approach was in receipt of a TS from Filton Radar. The Filton Radar controller reported traffic levels as medium and workload as medium/heavy. Filton Radar is promulgated to provide a LARS between the hours of 0800 – 1800 (Local) Monday – Friday, excluding public holidays, within a radius of 30nm from Filton up to FL95.

The Gloster Approach controller, who was providing an Approach Control (Procedural) Service from a position in the VCR, reported traffic levels as medium and workload as medium/heavy. The Radar room is situated on a floor below the VCR and the radar system has an additional slaved display in the VCR, which is approved for use as an ATM.

Gloucestershire Airport is equipped with a Primary Radar System, without SSR surveillance capability and limited coverage due to the narrow beam width, tilt mechanism and radar overhead limitations. The AIP entry for Gloucestershire Airport AD 2-EGBJ states:

‘Radar services (Primary only) within 25nm below FL80, availability subject to manning. Use of ‘Radar’ suffix denotes availability only. Provision of a specific radar service is not implied Designated Operational Coverage (DOC) 25nm /7000ft.’

CAA ATSI had access to RT recordings for Gloster and Filton, NATS area radar recording, together with the written reports from the 2 pilots concerned and the Gloster Approach controller. The Gloster Airport METAR was provided:

EGBJ 221520Z 07009KT 9000 NSC 18/02 Q1026= and EGBJ 221550Z 08009KT 040V120 9000 NSC 18/03 Q1026=

Gloster ATC had accepted the 2 AS355s for training. At 1504:02 the first helicopter, AS355 (A) flight, was cleared to the GST at FL040 with no delay and the pilot was instructed to report taking up the hold. This was acknowledged and a PS was agreed. CAP774 Procedural Service, Chapter 4, Page 5, states:

‘A Procedural Service shall only be provided by controllers at ATC units with Regulatory approval to provide such a service. Controllers at ATC units that do not have surveillance

information available may routinely apply Procedural Service to pilots of aircraft carrying out IFR holding, approach and/or departure procedures without the need to first elicit the pilots' requirements; however, for other flights the type of service required is to be confirmed.'

'A controller shall provide deconfliction instructions by allocating levels, radials, tracks, and time restrictions, or use pilot position reports, aimed at achieving a planned deconfliction minima from other aircraft to which the controller is providing a Procedural Service in Class F/G airspace.'

At 1509:33, the Filton radar assistant contacted Gloster with an inbound estimate (1523) and level (3000ft) for the helicopter AS355 (B). The Gloster controller replied, "*Okay flight level five zero for him please.*" This was acknowledged by the Filton assistant.

At 1510:33, AS355 (A) flight reported entering the hold at FL040 and the pilot was asked to report ready for the approach.

At 1512:00, Cardiff Radar advised Gloster that the HS25 was positioned 5nm S of EXMOR, estimating Gloster in approximately 10min and likely to be working Bristol after Cardiff.

The Gloster controller later indicated that his plan was to keep the 2 training helicopters in the hold at FL040 and FL050, in order to allow the HS25 to make an approach first. The Gloster controller decided to allocate 3000ft for the HS25, with an expectation that Filton Radar would transfer the flight once it reached 3000ft. The controller then intended to offer the HS25 pilot the option to carry out the direct (8DME arc) arrival, which would expedite the arrival sequence.

(Note: The RW09 direct arrival from the SW, when approved by ATC, requires the inbound to cross the IAF GOS D10 at 2800ft and then turn L to intercept the GOS DME 8 ARC arrival).

The Gloster controller had earlier requested information about the HS25 from Filton. At 1516:37, the Filton Radar assistant returned the call and the following telephone exchange occurred:

Gloster controller: "*Gloster Approach.*"  
Filton assistant: "*Filton Radar Assistant.*"  
[Filton reported that a pre-note had been received on the HS25 from Cardiff]

Gloster controller: "*Cardiff told me he was about he was at Exmor I think about five minutes ago.*"

Filton assistant: "*er yes he's about ten miles northeast of Cardiff at the moment.*"

Gloster controller: "*Ten miles northeast of Cardiff roger is he going to be working you.*"

Filton assistant: "*Sorry say again.*"

Gloster controller: "*Is he going to be working you.*"

Filton assistant: "*He will yes.*"

Gloster controller: "*Okay could I have him at altitude three thousand feet then please.*"

Filton assistant: "*Three thousand feet.*"

Gloster controller: "*My QNH one zero two six.*"

Filton assistant: "*One zero two six for (HS25 c/s).*"

Gloster controller: "*Ah standby please.*"

At 1517:40, during the pause in the conversation, the HS25 flight contacted Filton Radar reporting in the descent to FL080 routeing direct to the GST. The Filton Radar controller was not involved in the conversation with Gloster but became aware that Gloster had given an acceptance level of 3000ft. The controller could be heard in the background saying that he thought this was incorrect because he thought an earlier ac had been allocated 4000ft. The telephone conversation with Gloster then resumed:

Gloster controller: *"Sorry Filton say again."*  
 Filton assistant: *"That's alright can you confirm three thousand feet for the."*  
 Gloster controller: *"Altitude three thousand feet please one zero two six."*  
 Filton assistant: *"Okay and you gave another one four thousand I think earlier is that right."*  
 Gloster controller: *"Er sorry four thousand."*  
 Filton assistant: *"Okay."*  
 Gloster controller: *"Er no no er I've got one in the hold at four zero."*  
 Filton assistant: *"Right Okay that's alright I just as 4000ft feet had been allocated to an earlier arrival right okay alright I just ????????"*  
 Gloster controller: *"Sorry I've got er about twenty aeroplanes calling me at the moment."*  
 Filton assistant: *"Okay is there anything further you need."*  
 Gloster controller: *"Er no three thousand feet the one zero two six."*  
 Filton assistant: *"Three thousand feet one zero two six for (HS25 c/s)."*  
 Gloster controller: *"Affirm."*

The Filton assistant, having confirmed 3000ft, then annotated the fps with red ink, 3000 Q1026, and handed the strip to the Filton Radar controller. It was not clear if the Filton assistant made the Filton controller aware of the traffic holding at FL040. At 1518:01, the HS25 was 16.8nm WNW of Filton, passing FL086 in the descent with 36.8nm to run to Gloucestershire Airport.

At 1518:55, the AS355 (A) pilot reported ready for the procedure next time over the beacon. The Gloster controller responded, *"...maintain the hold flight level four zero I got airways traffic inbound from the s-er southwest now at three thousand feet."* This was acknowledged by the AS355 (A) pilot.

At 1519:34, AS355 (B) flight contacted Gloster Approach, reporting 6DME to the S and passing FL040 for FL050. The AS355 (A) was in the GST hold at FL040. The Gloster controller instructed the AS355 (B) pilot to report level FL050 and then passed essential TI to the pilots of AS355 (A) and AS355(B) about each other.

At 1521:56, AS355 (B) pilot reported level at FL050 and was instructed to report taking up the hold.

At 1522:42, the AS355 (A) pilot reported inbound to the beacon (FL040) requesting an update. The Gloster controller responded, *"(AS355(A) c/s) er affirm I believe that er the Hawker traffic is now about eleven miles er sorry fourteen miles southwest of the field so er expect to go outbound shortly I'll call you back."* This was acknowledged and the controller added, *"If you go once more round the hold then expect to go erm outbound after that one."* The AS355 (A) pilot replied *"Wilco."*

At 1522:50, the HS25 was 16.3nm SW of Gloucestershire Airport maintaining FL050, having passed over 4 contacts in the area at altitudes 2000ft, 2900ft, 3400ft and 2100ft. A number of other ac are shown in the vicinity of Gloucestershire Airport with 3 SSR labels garbled and overlapping. These contacts were the 2 AS355 helicopters at FL040 and FL050 and, unknown to the Gloster controller, a third contact indicating FL048 is shown tracking SE through the holding pattern and passing 0.5nm behind the AS355(B) as it approached the GST. (This ac was squawking 3710 and was subsequently traced as a Tucano, believed to be in receipt of a TS from Brize Norton).

At 1523:45, the Gloster controller called the HS25 flight to check if it was on frequency, with no response.

At 1524:08 the AS355 (B) flight reported taking up the hold at FL050 and was instructed to report ready for the approach.

At 1524:25, the HS25 was at a range of 9.6nm from the GST, indicating FL050.

At 1524:41, the Gloster controller again called the HS25 flight, with no response. The controller advised the AS355(A) pilot, *"...there may be a further delay er I haven't actually got the aircraft yet it's*

*still working Filton it's about seven miles southwest I was hoping he'd be doing the direct arrival from the west but er looks like he's routeing to the G S T at three thousand feet."* The pilot replied (1525:03) *"Okay no problem happy to take a Basic Service and er continue outbound er on my ????? (AS355 (A) c/s)." The Gloster controller replied, "(AS355 (A) c/s) roger I'll call you back er once I've figured out what er approach this aircraft wants."*

Meanwhile at 1524:52, the Filton Radar controller instructed the HS25 pilot, to continue descent to altitude 3000ft on Gloster QNH 1026, which was read back correctly by the pilot. The HS25 was then transferred to Gloster on frequency 128.55MHz.

At 1525:21, the Gloster controller again called the HS25 flight. The HS25 pilot responded, *"Gloster Approach good afternoon (HS25 c/s) affirm we are out of five thousand feet for three thousand feet information Tango inbound G S T."* The Gloster controller responded, *"(HS25 c/s) Gloster Approach roger essential traffic in the hold flight level five zero is a twin squirrel and flight level four zero is also a twin squirrel."* The HS25 pilot replied, *"Okay sir er T-looking out."* The HS25 pilot was instructed to report reaching 3000ft and the pilot confirmed the requirement for the full NDB approach.

At 1525:29, the HS25 was passing FL047, 5.5nm SW of the GST. The 2 helicopters were to the NW of the GST, W'bound on the outbound leg of the hold at FL041 and FL050.

At 1526:03, the controller advised the AS355 (A) flight, *"...traffic which is essential to you is a Hawker which is four miles southwest descending from five thousand three thousand."* This was acknowledged by the AS355 (A) pilot. The controller then asked the AS355 (B) pilot if he had also copied that traffic and the AS355 (B) pilot acknowledged, *"Affirm."*

At 1526:17, the HS25 indicating FL040, was 2.6nm from the GST. The AS355 (A) was in the HS25 10 o'clock at a range of 2.3nm at the same level. Both ac had commenced a L turn towards each other.

At 1526:28, the Gloster controller asked the HS25 pilot to report his level. There followed a crossed transmission ending with the AS355 (A) pilot stating, *"...coming straight through my level turning straight towards me straight through the hold."* The distance between the 2 ac was 1.9nm with the AS355 (A) indicating FL040 and the HS25 indicating FL038 in the descent.

[UKAB Note (2): Immediately after the AS355 (A) transmission the Gloster controller replied, *"Roger it was actually pre-noted from Filton at three thousand for exactly that reason."* The AS355 (A) pilot then enquired, *"Er just confirm he's I F R (AS355 (A) c/s)."*]

The Gloster controller then transmitted, *"(HS25 c/s) report your level."* The HS25 pilot reported, at 1526:37, *"(HS25 c/s) is out of four thousand feet three thousand and we have er the above traffic both in sight."* This was acknowledged by the controller. The distance between the ac was 1.5nm with both ac still in the L turn towards each other, with a vertical separation of 300ft. As the 2 ac converged the vertical separation was 500ft at a range of 1nm (1526:41) and 700ft at 0.4nm (1526:49) as the HS25 crossed through AS355 (A)'s 12 o'clock.

[UKAB Note (3): The next sweep at 1526:57 shows the HS25 descending through FL032 and 0.3nm to the NNW of AS355 (A) with a vertical separation of 800ft the ac having passed. It is estimated, at the CPA shortly before this radar sweep, separation was 0.2nm/>700ft.]

The AS355 (A) pilot reported, *"...passing over the traffic er it's at least four hundred feet."* This was acknowledged by the controller who asked the pilot if he wished to file an Airprox. The pilot reported that he would decide when on the ground. The HS25 completed the NDB approach and landed without further incident.

Later the Filton Radar controller indicated that he had asked the assistant to check the 3000ft level allocated. When this was confirmed the assistant annotated the fps in red (3000 Q1026) and the fps was passed to the Radar controller. The Filton Radar controller indicated that the HS25 had

contacted him when passing W abeam Filton, about 6min flying time from Gloucestershire Airport. Due to the combination of the HS25's speed, other traffic in the area, workload and the controller handover, this had caused the late transfer of communication to Gloster. The Filton MATS Part 2, Section 2, Chapter 4, Page 61, Paragraph 3.2.6, states:

'IFR traffic inbound to, or routeing within 10nm of the GST will be co-ordinated providing at least 10 minutes before ETA and transferred no less than 5 minutes before.'

The Filton RT and telephone recordings showed that the Filton Radar controller's workload was high and, in addition to the number of ac on frequency, the controller was involved in a radar handover to Brize Norton, coordination of a departure with the Tower controller and a controller handover of the radar position. The radar display was set at approximately 30nm range and showed a number of ac operating in the Gloucestershire area with SSR labels overlapping and garbled. The Filton controller indicated that during the handover to the oncoming controller, he realised that the HS25 was late in being transferred and gave the HS25 descent to the acceptance level of 3000ft and immediately transferred communication of the flight to Gloster. The Filton controller stated that with more time he would have passed generic T1 and would have spoken to Gloster Approach about the traffic situation. The Filton controller stated that, had the Gloster controller communicated his plan and requested coordination, he would have either agreed or suggested an alternative plan due to the traffic situation. The Filton MATS Part 2, Section 4, Chapter 3, Page 1, Paragraph 3.3, states:

'Whilst no formal agreements exist, co-ordination is effected whenever possible between Gloucester and Filton, ... Filton, Bristol and Brize Norton are tasked to provide LARS, up to FL095 and may, in certain circumstances, be able to assist in the resolution of procedural conflicts...'

Later the Gloster Approach controller indicated his workload was high due to the number of ac on frequency. When questioned, the Gloster controller reported that, whilst there were no local agreements or procedures, Filton Radar often ensured that ac were at the acceptance levels prior to the transfer of communication. The Gloster controller believed that he had in fact coordinated an acceptance level of 3000ft and advised Filton about the traffic holding at FL040. The Gloster controller's expectation was that the HS25 would be levelled at 3000ft prior to the transfer of communication.

The Gloster controller indicated that had Filton not been able to descend the aircraft to 3000ft or if the flight had been transferred from Cardiff, he would have allocated FL060 and an EAT. The controller was asked why EATs had not been allocated to any of the flights when holding was taking place. The controller indicated that he had not issued EATs for the 2 helicopters because he planned to offer the HS25 a 'direct arrival' in order to expedite the approach sequence.

The Gloster controller indicated that more effective coordination with Filton Radar would have prevented the Airprox and the Gloster ATSU reported that it is reviewing the LoA with adjacent units.

Approach Control will normally assign levels at the holding facility to adjacent area or radar units on the basis of 'lowest and earliest'. MATS Part 2, Section 3, Chapter 1, Page 2, Paragraph 14, states:

'Levels at holding facilities shall be assigned so as to permit aircraft to approach in their correct order. Normally the first aircraft to arrive over a holding facility should be at the lowest level with following aircraft at successively higher levels.'

The Gloster Manual of Air Traffic Services Part 2, Section 4, Chapter 2, Page 2, Paragraph 2.5.1, states:

'Whilst no formal release procedures are established for operations outside Controlled Airspace, adjacent units will normally pre-note arrivals, pass an estimate and/or co-ordinate an acceptance level. When an adjacent unit requests an acceptance level, APC is to issue an EAT.'

With traffic holding at FL040 and FL050, the next available level would have been FL060 with an EAT. The Gloster controller, having formulated a plan to expedite the arrival of the HS25, believed that having coordinated an acceptance level "at 3000ft" with "one in the hold at FL040," Filton radar would descend the HS25 to that level before the transfer of communication. The controller believed that this was normal practice between Gloster and Filton. This very likely predisposed the Gloster controller's thinking and belief, that having allocated 3000ft, the HS25 would be descended by radar to be level prior to the transfer of communication. None of the flights had been allocated an EAT.

It was noted that the previous inbound AS355 (B) was pre-noted by the Filton assistant, at a level of 3000ft. Gloster allocated an acceptance level of FL050 without coordination regarding the AS355 (A) holding at FL040. This resulted in a loss of the deconfliction minima when the AS355 (B) reported passing FL040 for FL050, 6nm from the GST.

The Filton assistant was asked by the Filton controller to check that the 3000ft level allocated was correct. The assistant, having checked the acceptance level of 3000ft, then confirmed the level on the controller's fps in red ink. The traffic situation was complex and the Gloster controller did not 'request coordination' or communicate his plan to the Filton Radar controller, who was the person vested with the authority to agree specific coordination. MATS Part 1, Section 1, Chapter 9, Page 5, paragraph 2, states:

'Co-ordination is the act of negotiation between two or more parties each vested with the authority to make executive decisions appropriate to the task being discharged. Co-ordination is effected when the parties concerned, on the basis of known intelligence, agree a course of action. Responsibility for obtaining the agreement and for ensuring implementation of the agreed course of action may be vested in one of the controllers involved.'

The Filton controller descended the HS25 initially to FL050. This was very likely due to the four contacts below the intended track. A combination of factors caused the Filton controller to further delay the descent and transfer of the HS25. The general traffic situation in the Gloster area was complex and labels were overlapping causing a garbling of the presented information. A handover to the oncoming controller probably distracted the controller and delayed his realisation that the HS25 hadn't been transferred. The transfer of communication was late and the Filton controller did not terminate the TS or pass generic TI.

The Gloster controller became increasingly concerned when the HS25 was not on frequency making 2 blind transmissions to the flight. The controller mistakenly assumed the HS25 was at 3000ft and was surprised when the HS25 flight called passing 5000ft for 3000ft. The late transfer of communication gave the Gloster controller little time to resolve the conflict. The controller passed essential TI to the HS25 crew and subsequently to the 2 helicopter flights.

Both controllers were operating with a medium/high workload. CAP774, Chapter 4, Page 5, states:

'High controller workload or RTF loading may reduce the ability of the controller to pass deconfliction advice, and the timeliness of such information. In the event that an aircraft that requires a Procedural Service makes contact with the controller whilst already within the deconfliction minima, controllers shall pass traffic information to all affected aircraft. In such circumstances, it is recognised that controllers cannot guarantee to achieve deconfliction minima; however, they shall apply all reasonable endeavours to do so as soon as practical.'

CAP774, Chapter 1, Page1, Paragraph 2, states:

'Within Class F and G airspace, regardless of the service being provided, pilots are ultimately responsible for collision avoidance and terrain clearance, and they should consider service provision to be constrained by the unpredictable nature of this environment.'

The Airprox occurred when the Gloster controller allocated an acceptance level of 3000ft, without communicating his plan or requesting coordination to ensure that the 1000ft deconfliction minima was assured. This resulted in the HS25 descending into conflict with traffic in the GST holding pattern and into close proximity with the AS355 (A).

A number of factors were considered to be contributory:

- a) The Gloster controller believed that it was normal practice to allocate an acceptance level with an expectation that Filton would climb or descend the inbound aircraft to be level prior to the transfer. This belief very likely predisposed the Gloster controller into believing that the HS25 was at 3000ft.
- b) Due to a number of factors the Filton Radar controller transferred the HS25 later than was required by the Filton MATS Part 2.
- c) The descent of the HS25 was delayed due to opposite direction traffic.
- d) The range setting of the Filton Radar display showed a number of SSR labels in the vicinity of Gloster overlapping and garbled, which did not give the Filton controller a clear picture of the traffic situation at Gloster.
- e) The workload of both controllers was high and was likely to have prevented additional discussion to clarify the situation.

#### Recommendations

CAA ATSI recommends that Gloster ATSU review their procedures for the allocation of levels and EATs to inbound ac in the provision of a PS, ensuring that when additional coordination is required to resolve procedural conflicts, specific coordination is agreed with the appropriate person authorised to make executive decisions appropriate to the task in accordance with the requirements of MATS Part1, Section 1, Chapter 9, Page 5.

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

Information available included reports from the pilots of both ac, transcripts of the relevant RT frequencies, radar video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC authorities.

The ATSI Advisor informed the Board that Gloucestershire ATC are reviewing the LoAs with adjacent ATSUs regarding level allocation and coordination and any amendments will be incorporated into the MATS Part 2. Controller Members agreed that several assumptions had been made by Gloster APP, which had ultimately led to the HS25 arriving in the Gloucestershire O/H and in conflict with AS355 (A). APP had informed the Filton ATSA that the acceptance level for the HS25 was 3000ft and had assumed the Filton Radar controller would ensure the HS25 was level before transferring the flight. The APP had not conveyed his plan, through coordination, to the Filton Radar controller; coordination may only take place controller-to-controller. Nevertheless, the Filton Radar controller overheard the telephone exchange between Gloster APP and the ATSA and queried the level issued, but the APP had re-iterated that 3000ft was the required level for the HS25. Because APP had not ensured the Filton controller was aware that the GST hold was occupied by 2 ac at FL40 and FL50, there was no compunction on Filton Radar to ensure the HS25 was level 3000ft well before reaching the hold such that deconfliction minima were achieved. It was unfortunate that the Filton Radar controller was busy and that there were several ac in the area which delayed the HS25's descent and he transferred the flight later than required by the MATS Part 2. This late descent and handover resulted in the APP being unable to offer the HS25 flight the DME arc procedure. However, the onus was on the Gloster APP to issue a safe acceptance level (which would have been FL60 in the circumstances) unless precise coordination had been effected, controller to controller, to ensure that

the APP's plan would work. By allocating 3000ft, the APP did not ensure that deconfliction minima were achieved between the HS25 and the AS355 (A) and this had caused the Airprox.

Turning to risk, the APP had told AS355 (A) pilot that his approach would be delayed owing to the impending arrival of the HS25 at the intended altitude of 3000ft. The progress of the approaching HS25 was updated twice more to the AS355 (A) flight but each time including its erroneous level. When the HS25 flight finally called descending through 5000ft, Members commended the prompt action taken by the APP when he passed essential TI quickly to its crew on both AS355s. The APP then passed essential TI on the HS25 to AS355 (A) flight and ensured that AS355 (B) pilot had copied the transmission. The AS355 (A) pilot was undoubtedly concerned that the HS25 was not flying in accordance with the plan that the APP had communicated to him as the HS25 was seen turning towards his helicopter having descended through his level (radar shows separation as 200ft vertical and 1.9nm horizontal). Immediately after this the HS25 crew had reported sighting both AS355s above their ac, the radar showing the HS25 300ft below AS355 (A) with 1.5nm lateral separation. Thereafter the vertical separation increased as horizontal separation decreased, the subject ac passing at the CPA with >700ft vertical and 0.2nm. Although this had had the potential for being a more serious encounter, the visual sightings by both crews and actions taken by the APP and HS25 crew were enough to persuade the Board that any risk of collision had been quickly and effectively removed.

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

Cause: Gloster APP allocated an acceptance level which did not ensure that deconfliction minima were achieved.

Degree of Risk: C.