

2000

016/00 9 Feb 00 involving a B767 and a B767 Risk C

OBSERVATION: Use of the word “maintain” by ATC in UK airspace has a different meaning when used by ATC in USA airspace. This can lead to mistakes by commercial air transport pilots.

CAA ACTION: The ATS Standards Department of the CAA has issued Air Traffic Services Op. Memorandum (ATSOM) No. 35 to all UK civil ATS providers and the Flight Ops Department has issued Flight Operations Department Communication (FODCOM) 11/2000 to all UK operators. These publications alert controllers and pilots to the different interpretations of the word 'maintain'. In addition the ATSOM confirms that the issue will be raised with the appropriate authorities in an endeavour to standardise on the ICAO/UK interpretation.

STATUS – ACCEPTED – CLOSED

027/00 6 Mar 00 involving a B737 and a B737 Risk C

RECOMMENDATION: That the CAA considers with urgency, an examination of the new procedures proposed for Manchester/Liverpool operations.

CAA ACTION: The CAA accepts this Recommendation, partially. The new procedures are not yet mature enough for presentation to DAP. Nevertheless, pending changes in the longer term, NATS has introduced measures to ensure that occurrences similar to Airprox 27/00 do not take place in future.

Shortly after the Airprox occurred, the Letter of Agreement between Liverpool and Manchester was amended to require that all Liverpool departures be subject to a radar release from the appropriate Manchester sector controller. On 15 May 2003, this interim remedial action will be superseded by the introduction of revised airspace and procedures, incorporating twin holding facilities for Liverpool, which will provide “built in” separation between departing and arriving aircraft.

STATUS – ACCEPTED – CLOSED

039/00 20 Mar 00 involving a Shorts 360 and an F3 Risk A

RECOMMENDATION: That the MOD considers including a 'Minimum risk corridor/s' for non exercise traffic, including Commercial Air Transport, as a standard part of the planning process for major exercises.

MOD ACTION: The MOD feels that much more needs to be done to integrate civil and military traffic in as safe a way as is reasonably possible during military exercises. However, it does not believe that Minimum Risk Corridors (MRC) are an acceptable way forward for the following reasons:

- a. CAT ac use multiple routes to and from regional airports and a single MRC would be overly restrictive.

b. The extent of multiple MRCs would rule out effective exercise play for considerable distances round regional airports.

c. Attaching difficulties with notification arrangements for MRCs. Airspace Co-ordination Notices (ACN) are issued prior to exercises and are then published by a NOTAM that refers to the ACN. Unfortunately, ACNs cannot be circulated to all ac operators.

d. MRCs would reduce the size of exercise areas and would severely restrict the operational freedom required by military aircrews.

STATUS - NOT ACCEPTED - CLOSED

074/00 6 Jun 00 involving an A320 and a C550 Risk C

RECOMMENDATION: That the CAA should review the Luton ATC departure "Free Flow" and "Check" procedures, together with personnel responsibilities, with a view to simplifying arrangements without prejudice to safety.

CAA ACTION: The Luton ATC departure release procedure has been simplified and the number of 'Checks' required have been reduced. Responsibility lies with the Luton INT controller to specify which routes need to be checked. When a route does not require a release, the ADC controller can depart aircraft in accordance with the MATS Pt 2 timed departure arrangements, without reference to the Luton INT controller.

STATUS – ACCEPTED – CLOSED

075/00 7 Jun 00 involving a Harrier and a PA28 Risk A

OBSERVATION: Clear definitions of air traffic services are set out in concise terms in a number of aviation documents, yet misunderstanding continues amongst many General Aviation pilots. The most common misconceptions are those attaching to a Flight Information Service. Accordingly, the CAA is invited to consider all effective means of overcoming this apparent 'education blockage'.

CAA ACTION: Composite programme that includes:

a. A winter programme of CAA Safety Evenings with Presentations to GA pilots.

b. An update of AIC 20/1998, plus Safety Sense leaflet 8D (at www.srg.caa.co.uk) both entitled 'Services to Aircraft Outside Controlled Airspace'. (See below for an updated link)

c. Articles placed in GASIL, the UK Flight Safety Committee publication, 'Focus' and RAF 'Airclues'.

STATUS – ACCEPTED – CLOSED

04 Apr 06 updated link for information regarding 075/00 (b)
www.caa.co.uk/docs/33/SRG_GAD_WEBSSL8.PDF

083/00 15 Jun 00 involving a B767 and a B737 Risk C

OBSERVATION: Neither crew reported reacting to a TCAS alert on the RT either during events or subsequently. The Flight Operations Department of the Safety Regulation Group is invited to consider using this Airprox to remind the UK industry of the need to notify ATC as soon as possible when reacting to a 'TCAS RA'.

CAA ACTION: The Flight Ops Department of the CAA Safety Regulation Group believes there is currently sufficient guidance available.

STATUS – NOT ACCEPTED – CLOSED

094/00 28 Jun 00 involving a SAAB 340 and a Tornado Risk A

RECOMMENDATION: That the CAA considers providing controllers with guidance and instructions on bandboxed operations with the aim of ensuring that controllers are able to fulfil the obligations of the relevant ATC task.

CAA ACTION: The CAA partially accepts this Recommendation. It is considered to be the ATS service provider's responsibility to provide guidance and instructions on the bandboxing of positions. Nevertheless, the Authority will issue an Air Traffic Services Operational Memorandum (ATSOM) which will reiterate this responsibility to UK ATC providers. The CAA will continue to assess the relevant unit procedures during inspection audit ATSOM No. 44 of 2001 has been issued.

NATS ACTION: NATS ScOACC has issued Safety Instruction 32/00a, which proscribes the provision of RAS and RIS in bandboxed situations, except where the subject aircraft is displayed on a radar console immediately in front of the controller or controller team.

STATUS - PARTIAL ACCEPTANCE

CAA - CLOSED

NATS - CLOSED

108/00 21 Jul 00 involving a B733 and a Glex Risk C

RECOMMENDATION: That NATS considers including Cambridge TMA departures on TMA N CDIS displays.

NATS ACTION: The TMA N CDIS display for Stansted is now driven by Departure Sequence Information that is input into the system by Stansted staff. These staff have no knowledge of Cambridge departures and would not wish to be involved in extra telephone calls that notification of such information would impose.

STATUS – NOT ACCEPTED – CLOSED

148/00 **15 Sep 00 involving a B737 and a G4** **Risk C**

RECOMMENDATION: That the CAA considers conducting a review of the TC Traffic Managers' Training Programme.

CAA ACTION: A review by LATCC of the Traffic Manager training and competence is underway. The possibility of adapting the Group Supervisor Proficiency Scheme (which currently includes the Traffic Manager, but not exclusively so) will be further examined. In addition, it is intended to create a Traffic Manager section in the LATCC MATS. Once created, it is proposed that any further changes to the Traffic Manager hardware or software, together with any procedures, will be formally promulgated. Inevitably this whole process will take some time, but it is envisaged that it will be introduced by the end of the Summer.

FOLLOW UP ACTION: NATS has introduced two new parts in the MATS Pt 2 - a Traffic Manager's Section and also a Training Section. Additional hardware/displays have been placed at the Traffic Manager's work position to enable easier access to traffic information.

STATUS – ACCEPTED – CLOSED

149/00 **16 Sep 00 involving a BAC 1-11 and a B747** **Risk B**

RECOMMENDATION: That the CAA considers:

a. A review of the way that ATC instructions are given in sequence to aircraft so that a change of frequency is not given in the same transmission as an instruction requiring an acknowledgement.

b. Adopting as policy that controllers should issue either a landing clearance or a go around instruction by 2 NM finals at Manchester and other busy airports.

CAA ACTION:

a. The CAA accepts this Recommendation and will review the appropriate procedures and instructions through the SRG ATC Procedures Group and Phraseology Working Group. This review is expected to be complete by December 2001.

b. The CAA accepts this Recommendation. The Safety Regulation Group's Air Traffic Services Standards Department has considered the policy guidelines relating to the point at which a landing clearance or go-around instruction is issued at Manchester and other busy airports. The review determined that current guidelines are in accordance with ICAO requirements and are sufficiently robust to ensure a safe and expeditious flow of air traffic.

STATUS - a. ACCEPTED - CLOSED

b. ACCEPTED – CLOSED

159/00 **2 Oct 00 involving an A330 and an A340** **Risk A**

RECOMMENDATION: That the CAA considers putting forward recommendations to the appropriate international bodies:

- a. To review overtaking procedures, taking into account the different lateral separations used in radar and non-radar ATC environments.
- b. To consider adopting lateral track offset procedures that are independent of wind direction, with a view to introducing them as standard.
- c. To reconsider the need for aircraft commanders to inform ATC of all lateral offset manoeuvres of less than 2 NM in Oceanic airspace, irrespective of the reason for the manoeuvre.
- d. That the 'turbulence induced' capture of α prot law (in circumstances such as those encountered in this Airprox) should be introduced in Airbus flight simulator training, firstly to establish a norm for the size of level deviations across the Airbus pilot population, and secondly to train pilots to cope promptly with the situation.

CAA ACTION: The CAA accepts Recommendations a, b and c and will extend the scope of its ongoing work on AAIB Recommendation 2000-67 to take account of the different lateral separations used in the radar and non-radar ATC environments.

RECOMMENDATION: Is not accepted by the CAA. The CAA is not aware of a device that would be able accurately to reproduce circumstances such as those described in the incident. It is possible to simulate turbulence and this can vary from light to severe, but the effect is normally to produce fluctuations of height and airspeed around a mean. It would be difficult to introduce a scenario where the aircraft encounters an updraft that induces a climb of 1000+ feet and at the same time reduces airspeed sufficiently to activate alpha prot and alpha floor. However, training is already given during conversion training on the affects of alpha prot and alpha floor. These items may not be a specific part of recurrent training but will be regularly encountered as part of other recurrent training and checking items such as GPWS and windshear.

STATUS a, b AND c – ACCEPTED - CLOSED
d - NOT ACCEPTED - CLOSED

Follow up action:

The UK Airprox Board (UKAB) strongly supported the AAIB Safety Recommendations 2000-67 to 2000-70 made following the AAIB investigation into the title Airprox, provided that “*account was taken with 2000-67 of the different lateral separations used in the radar and non-radar environments.*” In response, the CAA undertook to extend the scope of its ongoing work on AAIB recommendation 2000-67 to take account of the UKAB Recommendation. The original AAIB Recommendation, together with the CAA follow-up action, is recorded below.

RECOMMENDATION: It is recommended that the CAA take forward a recommendation to the appropriate international bodies to review overtaking procedures in RVSM airspace.

STATUS – FULLY ACCEPTED – CLOSED

CAA RESPONSE: The CAA accepts this Recommendation. The CAA brought this Safety Recommendation to the attention of the ICAO (North Atlantic) Operations and Airworthiness Sub-Group of the North Atlantic Systems Planning Group. The final report of the Sub-Group has yet to be issued, however, the Recommendation was well received and will be passed on for further consideration by the main Group.

CAA ACTION: The North Atlantic Systems Planning Group (NATSPG) met in June 2001. One of the conclusions from that group was as follows : "That the Implementation Management Group develop, on behalf of the NAT SPG, lateral offset procedures that would mitigate the impact on risk of the increasing lateral overlap probability that would be applicable in NAT RVSM airspace." In addition, it is understood that another ICAO group, called the Separation and Airspace Safety Panel (SASP), discussed lateral offsets in relation to procedural airspace at their November 2001 meeting.

With regard to the UKAB Observation, following receipt of the AAIB and UKAB reports, the Eurocontrol Reduced Vertical Separation Minimum in Europe (EUR RVSM) Programme commissioned an independent assessment of the AAIB report and its findings. One of the recommendations made following this review is: -

"It is recommended that Air Traffic Control, pilot, airline and other relevant organisations seek to develop practical procedures to ensure deliberate lateral separation between aircraft on the same track overtaking with no more than 2,000 ft vertical separation. This will greatly reduce the collision risk from any involuntary height change by either aircraft."

Eurocontrol are now considering this recommendation, taking into account the UK Airprox Board comments regarding the use of lateral offsets in a radar environment.

172/00 11 Oct 00 involving a G4 and a SB20 Risk: B

RECOMMENDATION: That NATS considers the following for Thames Radar:

- a. Fitting STCA equipment
- b. A review of the number of posts needed to carry out its day-to-day function.

NATS Action:

a. STCA is technically incompatible with the existing HARPS radar, which would need to be replaced with a new radar system to meet the Recommendation. Since the life expectancy of HARPS is no more than 5 years and the location of Thames radar in 2006 remains undecided, NATS believes that, in the interim period, procurement of a new radar system would be an expensive and partially nugatory activity.

b. New procedures have been incorporated within Heathrow Unit Policy Statements. These ensure that sufficient levels of ATCO staff remain available to open all Thames Radar positions at the end of morning and afternoon shifts.

c. Additionally, a Working Group of has been formed that has reviewed low level holding facilities and routings within Thames Airspace. Changes are being progressed urgently in association with LATCC Terminal Control staff.

STATUS – a NOT ACCEPTED – CLOSED
b ACCEPTED – CLOSED

192/00

22 Nov 00 involving a B757 and an F15 Risk A

RECOMMENDATION: The UKAB supports the conclusions reached by the AAIB and asks the CAA and the MOD to consider the following for action:

- a. Military and civil aircraft should each transmit SSR information, particularly in controlled airspace, to enable STCA and/or TCAS equipment to warn controllers and pilots of conflicting flight paths that hold the potential for a mid-air collision.
- b. Introduce procedures that provide safety assurance, based on the use of SSR, for aircraft operating in formation.
- c. Introduce specific procedures that prevent transponding aircraft, flying in formation in controlled airspace, from triggering unnecessary STCA warnings owing to the proximity of their SSR returns.

Additionally, it is recognised that a full technological answer to resolve all the problems involved may be some way off. Therefore, the UKAB supports strongly any interim solution on procedures for aircraft formations flying in controlled airspace under radar control that *ensures both the controller and the formation leader knows jointly the height or flight level of each aircraft within that formation.*

CAA and MOD Action:

Following discussions between the CAA, the Ministry of Defence (MOD) and the National Air Traffic Services Ltd (NATS), new military ATC procedures for formations of military aircraft crossing controlled airspace have been agreed and introduced, subject to the constraints imposed by the limitations inherent in current ground based radar equipment. These procedures will reduce the risk of elements of military formations not being at their assigned levels, and will complement the protection given to all aircraft by ACAS and STCA. Additionally, the MOD and NATS have independently but co-operatively commissioned research to consider whether further enhancement of the protection can be obtained within those constraints to allow all elements of a formation to be allocated individual SSR codes and hence full protection provided by ACAS/STCA.

Follow up action:

A meeting, was held on 16 Sep 02 Chaired by ATSSD, to finalise agreements reached on these recommendations.

STATUS – ACCEPTED – CLOSED

201/00

9 Dec 01 involving an A319 and an A320 Risk: C

RECOMMENDATION: That the MOD and the CAA considers a review of mandatory checks to be carried out by controllers, on communications continuity, whenever Sectors and/or Control positions are band-boxed or split.

MOD Action:

The MOD accepts this recommendation and has prepared new orders to cover all aspects of bandboxing and splitting control positions. These orders will be introduced into JSP318A at the next amendment (Approximately February 2002).

CAA Action: The CAA Safety Regulation Group has reviewed the issue of mandatory checks under the recommendation and has concluded that the guidance contained in the Manual of Air Traffic Services (MATS) Part 1 is sufficient for providers to produce detailed local instructions for controllers. In the context of the subject Airprox, the situation at Terminal Control (TC) Heathrow was exacerbated by a lack of specific written procedures in the relevant MATS Part 2. This has been rectified by the publication of TC Supplementary Instruction 19/01 on 12 March 2001.

**STATUS – ACCEPTANCE BY THE MOD AND PARTIAL ACCEPTANCE BY THE
CAA – CLOSED**