

AIRCRAFT INCIDENT REPORT

**Report by the France Airprox Board into the incident between aircraft
TF-ATU and HB-IJL at FI-380 near Paris, France on 1 August 2003**

M-04503/AIG-28



The aim of aircraft accident investigation is solely to identify mistakes and/or deficiencies capable of undermining flight safety, whether contributing factors or not to the accident in question, and to prevent further occurrences of similar cause(s). It is not up to the investigation authority to determine or divide blame or responsibility. This report shall not be used for purposes other than preventive ones.

Inquiry final report

Airprox 03/068
Friday 1st August 2003
at CRNA/NORTH
SWR371/ABD2354
IFR /IFR

Initial message: 1st August 2003

Incident report: SWR371 2nd August 2003
ABD2354 5th August 2003

Local service quality/safety board in Paris ACC and Reims ACC: 20th October 2003

Received by the BNA: 25th November 2003

CNSCA (French Air Traffic Safety Board): 18th May 2004

SUMMARY

Nature of the incident: Crossing between two aircraft under IFR

Day, date and time	Friday 1st August 2003 at 2033 UTC	
Location	5NM South of CLM.	
Type of airspace	UTA	
Class of airspace	A	
	FILER OF REPORT 1	FILER OF REPORT 2
IDENTIFICATION	SWR371	ABD2354
TYPE OF AIRCRAFT	A320	B767-300
OPERATOR	Swiss International Airlines	Air Atlanta Icelandic
TYPE OF FLIGHT	Public passenger transport	Public passenger transport
FLIGHT PLAN	IFR	IFR
TRAJECTORY	London Heathrow - Basle Mulhouse	Rome Ciampino - Dublin
CONFIGURATION	FL380 descending	FL376 descending following the RA
SPEED	M0.78 GS=480 knots	GS=440 knots
RADIO CONTACT	SU sector (Paris) 135.305MHz	UY sector (Reims) 132.630MHz
TRANSPONDER	mode A+C 2232	mode A+C 4040
SAFETY NET ALARM in the sector	yes	yes
TCAS ALARM	No RA or TA received	RA "descend"
FLIGHT CONDITIONS (according to pilots)	?	?
EVASIVE ACTION	Yes "level-off at about FL376"	Yes, followed by RA
MINIMAL SEPARATION (according to pilot)	100m horizontally 600 ft vertically	nil horizontally 100-200 ft vertically
MINIMAL SEPARATION according to radar recording: OPERA H=0.7 NM V=344 ft		

FACTUAL INFORMATION

On Friday 1st August 2003 at 2016.20 UTC, SWR371, an A320 under IFR en route from London Heathrow to Basle Mulhouse contacted the CRNA/N (Paris) UZ sector and reported they were reaching FL270 (ceiling level for flights between London and Basle Mulhouse, as planned by the airline in respect of this "city pair"). The controller cleared them direct BARAK.

At 2018.59, SWR371 which had requested a higher flight level (while specifying 390 as a maximum) was cleared to climb to FL310 after coordination with the Brest CRNA/O ZS/ZU sector.

At 2019.27, SWR371 was transferred to Brest ZS/ZU sector which continued to monitor the climb of SWR371 to the FL390 requested.

At 2027.31, a phone call was placed by ZU (Brest) to SU sector (Paris) in order to coordinate SWR371 to FL390. The SU radar controller accepted.

At 2029.00, ABD2354, a B767-300 under IFR, en route from Rome to Dublin, already in contact with the CRNA/N (Paris) SU sector was transferred to the frequency of the CRNA/E (Reims) UY sector, maintaining FL380. It was transferred to the UY sector in Reims before passing BRY, in accordance with the Letter of Agreement (therefore before crossing the route of SWR371 BARAK-GELTA).

At 2032.27, SWR371 contacted the SU sector (Paris), maintaining FL390. The controller cleared them for a direct route to GELTA (which placed them north of their initial route). The SU sector was undergoing training, and the organic and radar controllers had just changed posts (trainee at the radar in the presence of the instructor and first organic controller).

At 2032.54, the radar instructor for the SU sector (Paris) coordinated SWR371 to the UF sector in Reims. Both controllers agreed for SWR371 to come into Reims level at FL350.

At 2032.55, the controller for UY sector turned ABD2354 15 degrees left in order to cross with an overflying traffic (route TSU-RANUX) at the same level. (The Letter of Agreement allows for possible radar guidance prior to entry in UY sector, without changing levels). This heading put them closer to the trajectory of SWR371.

At 2033.42, the SU sector controller requested SWR371 to "start descent FL370, best rate of descent".

At 2034.12, the safety net was triggered.

The SU sector (Paris) controller ordered SWR371 to turn 20 degrees right immediately. SWR371 read back. The radar instructor took over the frequency and requested SWR371 to turn right, then changed his mind immediately, ordering 30 degrees left whilst at the same time giving a traffic information "traffic in your front side, 5NM". SWR371 asked "left, confirm 30 degrees left?" and specified "we have the traffic squawking in sight". The controller said "according to the traffic, you maintain the flight level avoiding the traffic".

At 2034.22, the UY sector (Reims) controller asked ABD2354 to turn 35 degrees right immediately. The pilot did not respond. The controller again issued information of a traffic at 12 o'clock, in the opposite direction. ABD2354 replied "traffic alert" and announced that they were descending.

At 2034.53, at the request of the SU (Paris) controller, SWR371 confirmed visual contact with the traffic "it's rather close, it's passing below us now", then added, "traffic is not on the TCAS, it is not on TCAS". In their declaration, SWR371 insisted on the fact that "we had no TCAS target on our screens" and specified that they observed around them and levelled-off at FL376.

At 2035.03, ABD2354 notified control "we have a traffic resolution and we are descending down to 37".

At that moment SWR 371 was descending towards ABD 2354 which was also descending thanks to the TCAS.

SWR371 had passed 350 feet above ABD 2354 and wrote an Airprox report.

CLASSIFICATION OF THE INCIDENT

Taking into account:

- the minimal separation values of 0.7 NM horizontally and 344 ft vertically according to the radar recording;
 - the sole RA-TCAS received and executed by the pilot of flight ABD2354 ;
- and despite SWR371 announcing visual contact;

this incident is hereby classified as:

"A"

"RISK OF COLLISION"

CAUSAL FACTORS OF THE INCIDENT

- Issuing of a conflicting clearance as a result of forgetting a traffic (ABD2354) which had already been transferred to the next sector's frequency.

- Clearance for SWR371 to climb to FL390 in spite of the Letter of Agreement between Brest and Paris which stipulates a maximum FL270 on this type of trajectory ("city pair").

Contributing factors:

- Complexity of the airspace in this region:

"Triple point" between three CRNAs (Brest, Paris and Reims) and between 11 sectors above FL195 (AO, SU, TL, UR, XR, UY, TS, UZ, ZS, ZI, ZU).

- Training conditions in a complex situation:

Taking into account the knowledge of the pupil, the complexity of the configuration (regrouped sectors with a great diversity of flights) was increased by the unusual profile of SWR371 appearing in exemption of the LOA, north of its route. Furthermore the beginning of its descent interfered with four other flights.

- The fact that the sectors had not been de-grouped lead to a heavy workload situation in the regrouped sector (AO, SU, AR, TM, TL). 40 aircraft in the 20:00-21:00 time slot distributed 12/15/13 by time slice of 20 minutes, for a capacity of 32.

- Lack of discipline when handing over a post, working in pairs unsatisfactory.

The incident happened shortly after the organic and radar controllers changed posts. In this particular case, the controllers did not remind each other of the presence of ABD 2354 when changing posts. With regard to listening to the frequency, the redundancy of the radar controller and the organic controller did not play a part since the organic controller was busy on the phone.

LESSONS LEARNED FROM THE ANALYSIS OF THE INCIDENT

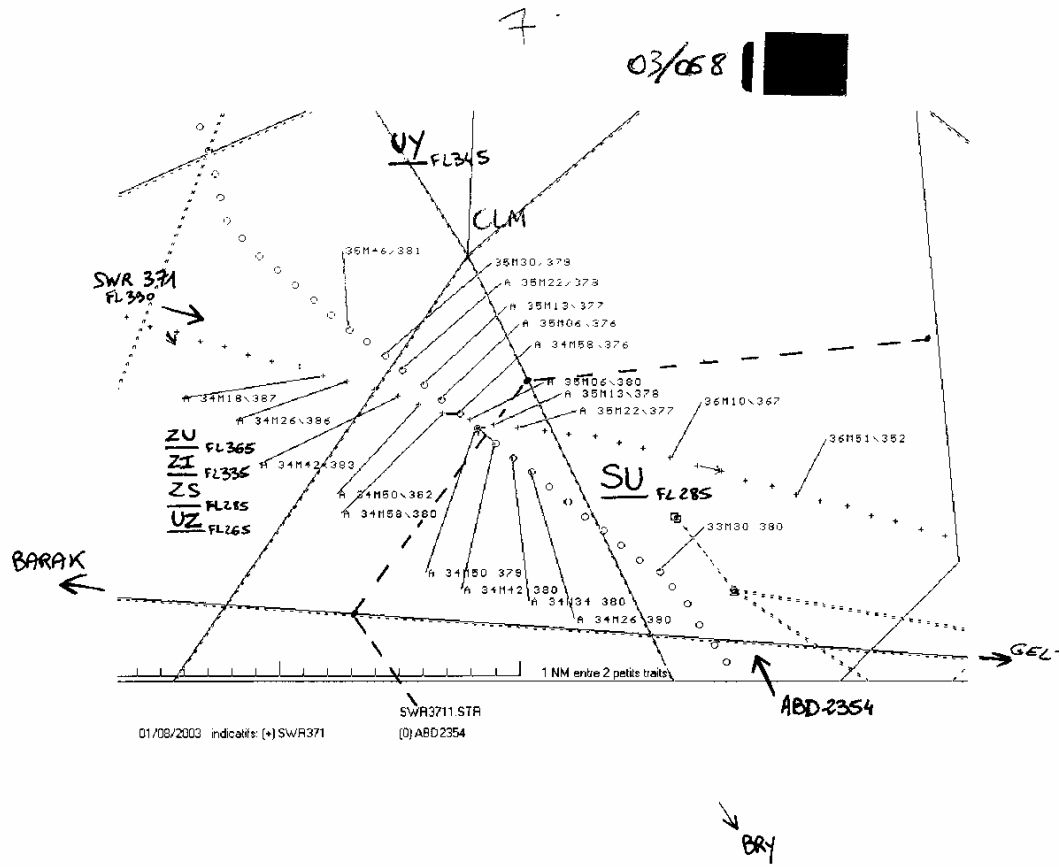
- The responsibility of the Room Manager must be reiterated in terms of staffing the control room.
- There is a need for great discipline during relief of staff, in particular when first organic and first radar controllers change posts.
- One must strive to respect the principle of city pairs (flights with a ceiling) whilst stressing the fact that any exemption given as a result of crews' requests can unnecessarily make traffic management much more complex and jeopardize security.

COMMENT:

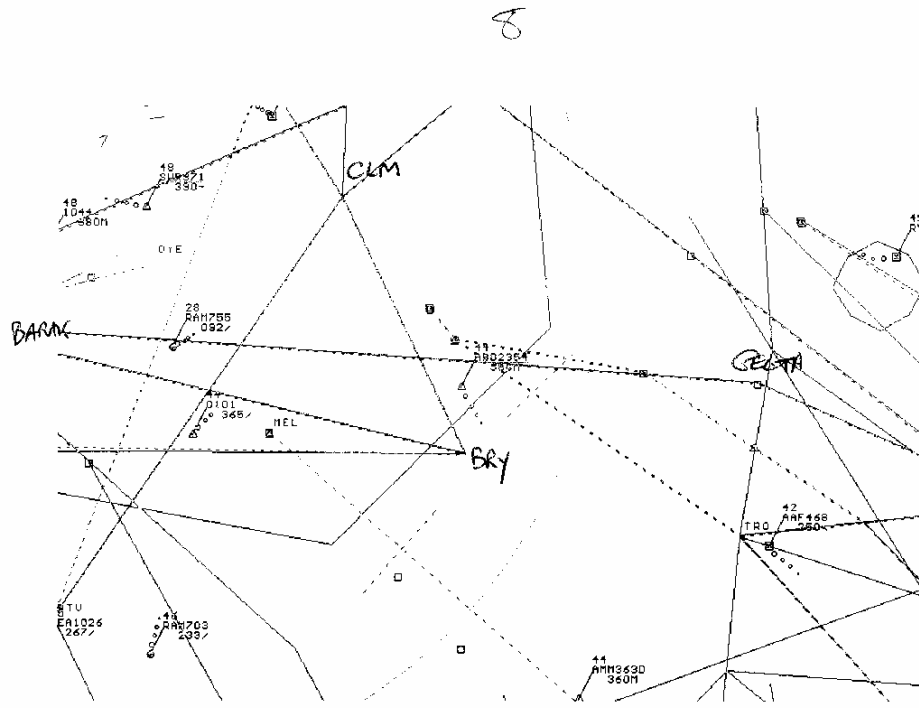
The TCAS simulation done from radar data in RPS format did reproduce resolution advisories coordinated notably with a "climb" correction RA which should have been issued at 2034.25 on board SWR371, during which time SWR371 continued its descent (-1000 ft/min between FL390 and FL380). This corresponds to their declaration regarding the absence of an RA. This non-receipt of an RA on board SWR371 could not be explained.

APPENDICES

Appendix 1



Appendix 2



SWR3711.STR
SWR371: 48N56'15 - 02E05'53 01/08/2003 20H32M38 Couches: ...PQUI5

Appendix 3

