



LOSS OF SEPARATION

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A serious incident occurred following a misunderstanding in the course of telephone coordination. When the controllers discovered the conflict, they issued avoiding instructions; however, both aircraft received TCAS RAs instructing them to manoeuvre in the opposite direction. One of the two aircraft followed the controller's instruction, which was the opposite of the TCAS advisory, then belatedly manoeuvred in the manner requested by TCAS. This incident occurred between two centres with superimposed airspace: Paris controls airspace below FL 285 and Brest is responsible for airspace above that level.

Both centres knew about BAW 2486, which had taken off from London and was to be coordinated by Paris to climb to the airspace controlled by Brest. There was another Speedbird at FL 270, BAW 360, which was known and visible only to Paris; and lastly a DAL 27 at FL 290, known and visible only to Brest.

BAW 360 asked Paris if it could climb due to turbulence.

Brest could not see an aircraft, call sign 360

For the Paris radar controller, there was no ambiguity about which aircraft was the subject of the coordination. He commented afterwards, "Traffic was very quiet so I decided to coordinate this request myself. First of all I used the "Display" function for the Brest sector in order to help it identify the aircraft. I was unaware that this function depended on there being a flight plan in the Flight Plan Processing System of the receiving centre."

"Then I called Brest but before I could say anything, I heard, "*what about the Speedbird?*" I assumed that the Brest

planning controller could see Speedbird 360 and therefore knew why I was calling. Nevertheless I confirmed, adding "360" and I explained why he wished to climb. I suggested the next highest odd flight level, FL 290, since the aircraft was bound for Lyon and was not expected to climb."

For this part, the Brest controller was expecting coordination for BAW 2486 and was certain he knew what the call was about. "I had in my hand the strip for BAW 2486 and was expecting a call from the Paris to suggest climb clearance. The button for Paris lit up and I said, "Is it for the Speedbird?"

"Paris replied: "Yes, three six zero". I thought that he was talking about a flight level, that BAW 2486 had asked for FL 360, or that he was answering someone else. I gave FL 290, thinking that we were talking about BAW 2486, but Paris took this level for BAW 360, for which I had neither a strip nor a display."

Paris - Hello?

Brest - What about the Speedbird?

Paris - 360 yes, he's above the clouds and it's getting rough apparently - he'd like to climb.

Brest - Yes, well, you can tell him to climb to...

Paris - 29?

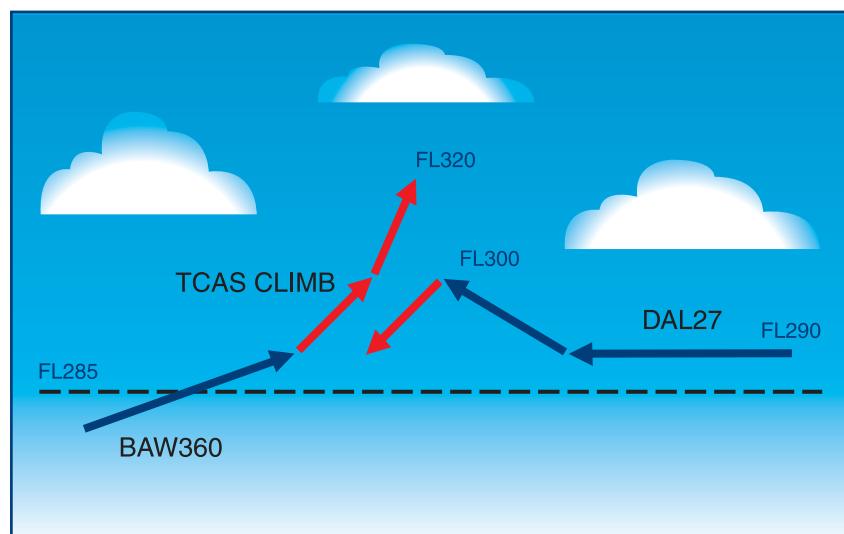
Brest - Yep, 29 is fine.

Paris - OK, I'll make the "MOD" and send it to you.

Brest - OK, thanks.

The climb was about to cause a conflict with another aircraft

Two thousand feet above, DAL 27 was in level flight at FL 290. Only Brest was aware of this aircraft. BAW 360 climbed, having received clearance, and the corresponding "MOD" was made immediately, causing the aircraft to be displayed in the upper airspace (at Brest) and the safety net alert to be triggered. The two aircraft were at the same level, 10 nm apart, and converging.





Contradictory avoidance instructions and TCAS Resolution Advisories

Paris asked BAW 360 to descend again while at the same time Brest asked DAL 27 to climb to FL 300 (using emergency phraseology).

But BAW 360 announced that it was following a TCAS RA to climb. For its part the other aircraft climbed too, reaching FL 300, then belatedly follows the TCAS RA to descend. BAW 360 continued its climb to FL 320 at 4,500 ft/min, since the pilot was visual with the approaching aircraft. Minimum

separation was measured at approximately 1nm and 100 ft.

Contributory causes and factors

The Local Safety Committee identified the cause of this incident as: "confusion between the radar controller for the Paris sector and the planning controller for Brest sector at the time of telephone coordination as regards which aircraft was the subject of the coordination."

The two controllers were talking at cross purposes and the exchanges on the telephone concerning "BAW" (360 for one controller and 2486 for the

other) were not rigorous enough to enable the confusion to be resolved. Furthermore the fact that the "DISPLAY" seemed to be working properly no doubt reassured the Paris controller as regards the way he proposed coordination to the Brest controller.

Lessons Learned

- Controllers must be completely familiar with the limitations as well as the advantages of the technical equipment they operate
- To avoid misunderstanding, controllers must use full call signs and avoid short-cuts when arranging co-ordination with an adjacent sector
- Care must be taken when there is the possibility of confusion between two numbers, to ensure that, for example, a call sign is not mistaken for a level or a heading, or vice-versa

The EUROCONTROL Level Bust Toolkit contains further information to reduce the potential for loss of separation. The Toolkit may be obtained on CD ROM by contacting the Coordinator Safety Improvements Initiative, Mr Tzvetomir Blajev, on

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