196

Time Source CONTENT Time Source

FLIGHT International, 20 January 1979

Content

1706:09.61 KLM 4805 Ah—Roger sir, we are cleared to the
Papa beacon flight level nine zero,
right turn out zero four zero until
intercepting the three two five. We
are now at take off.
At 1706:17.79, the co-pilot's repetition. of the ATC instruc-tions ended. At 1706:11.08, the brakes in the KLM 5805 were released. At 1706:12.25, the aircraft captain said, "Let's go . . . check thrust", ending this sentence at 1706:16.11. The following was ascertained from the DFDR (Digital Flight Data Recorder) data:
1706:11.70 (37.33 seconds before impact): it was deduced from the LONG that the plane began to move with longitu-dinal acceleration. 1706:13.99 (35.04 seconds before impact) the EPR have risen above the figures for idling (1.12-1.12-1.14-1.14). 1706:14.94 (34.09 seconds before impact).
From everything that happened during this time, it is seen that while the first officer was repeating the ATC instructions given by the controller, KLM 4805 had already started its ground run, while at 1706:14.00, moreover, the sound of engines starting to accelerate is observed.
At 1706:18.19, the controller replied to the read-back of his ATC clearance in the following way: "OK", and at 1706:20.08, i.e., 1.89 seconds later, added: "Stand by for take-off ... I will call you," ending said message at 1706:21.79. During this time, at 1706:19.35, the KLM 4805 take-off EPR had already been reached and stabilised (1.39 to 1.42). Simultaneously, in the Pan Am cockpit, on hearing this con-versation, the pilot says "No, uh", and the co-pilot says, "and we are still taxiing down the runway, the Clipper one seven three six". This communication caused a shrill noise in the KLM cockpit, which started at 1706:19.39 and ended at 1706:22.06.

At 1706:25.47, the tower controller confirmed reception of the Pan Am message in the following way: "Papa Alpha one seven three six report runwav clear." This was audible in the KLM cockpit. The message ended at 1706:28.89.
At 1706:29.59, the PAA replied: "OK, will report when we're clear." This reply was audible in the KLM cockpit. The control tower replied: "Thank you", and then the following sentences were spoken in the KLM cockpit.

Time Source CONTENT
1706:32.43
1706:34.10
1706:34.15
1706:34.70
1706:35.70

C3
CI
PA
C3
CI

Is he not clear, then?
What do you say?
Yup.
Is he not clear that Pan American?
Oh, yes (emphatic).
At 1706:43.49, the co-pilot intoned the VI and subsequently on the DFDR . . . the following were observed: a pulling of the control column, with the aircraft nose pointing up, 16 per cent of the way back from a 44 per cent forward position and from Pitch 2, nose pointing up.
At 1706:46.04, i.e., 2.99 seconds before impact, increased direction toward the right is observed in the HEAD; 0.46 seconds later, a curving of the aircraft to the left is seen in the Roll parameter (ROLL) and, 1.54 seconds before impact, a roll to the right is observed in the Roll Control Wheel Position parameter (RCW).
At 1706:47.44, the captain utters an exclamation, while the impact takes place shortly afterwards.
On listening to the PAA CVR, it may be deduced that its crew saw the KLM 9.5 seconds before the impact . . .
The conversations which took place in the Pan Am cockpit and between the planes and the control tower were as follows (The times were taken from the PAA CVR):

1702:08.4

1702:16.4
1702:18.4

1702:20.6
1702:21.9
1702:26.4

1702:32.2
1702:33.1

1702:39.2

1702:41.6

1702:46.6

1702:49.8

1702:55.6

1702:59.9

APP

RDO-2
CAM-3
CAM-?
APP
CAM-1
CAM-2
- CAM-?
CAM-2
CAM-1

CAM-1

CAM-4

CAM-1

CAM-X
APP

KLM

APP

1703:09.3
1703:11.0
1703:12.1

1703:14.2
1703:16.6
1703:19.1

1703:21.6
1703:21.6

1703:29.3

1703:35.1
1703:36.4

1703:38.3
1703:39.0
1703:39.2
1703:40.1

1703:42.9
1703:44.0
1703:44.9
1703:46.5
1703:47.6

1705:22.0
1705:23.5
1705:25.7
1705:26.5
1705:27.2
1705:28.1
1705:28.5

1705:30.6
1705:32.4

1705:35.9
1705:39.8
1705:40.0

1705:44.8
1705:44.8

1705:53.4

1706:09.6

CAM-2
CAM-1
CAM-2

CAM-1
CAM-1
CAM-2

CAM-1
CAM-2

RDO-2

CAM-1
APP

CAM-?
CAM-1
RDO-2
CAM-1

CAM-3
CAM-1
CAM-3
CAM-1
CAM-3

CAM-1
CAM-3
CAM-1
CAM-2
CAM-1
CAM-3
CAM-3

CAM-1
CAM-1

CAM-3
CAM-?
CAM-2

CAM-?
CAM-?
KLM

APP

KLM

Affirmative, taxi into the runway and — ah—leave the runway third, third to your left, ((background conversa-tion in the tower)).
Third to the left, OK (17:02.18.3).
Third he said.
Three.

—drd one to your left.
I think he said first.
I'll ask him again,
[non pertinent word.]
Left turn.

I don't think they have take-off mini-mums anywhere right now.
What really happened over there to-day?
They put a bomb (in) the terminal Sir, right where the check-in coun-ters are.
Well we asked them if we could hold and—uh—I guess you got the word, we landed here.
[non-pertinent word]
KLM four eight zero five how many taxiway—ah—did you pass?
I think we just passed charlie four
now.

OK ... at the end of the runway make one eighty and report—ah— ready — ah — for ATC clearance ((background conversation in the tower)).
The first one is a ninety degree turn. Yeah, OK.
Must be the third . . . I'll ask him OK.
again.
We could probably go in it's ah. . . . You gotta make a ninety degree turn.

Yeah, uh.
Ninety degree turn to get around this . . . this one down here it's a forty five.
Would you confirm that you want the clipper one seven three six to turn left at the third intersection? (1703:35.4). ([PAA: "third" drawn out and emphasized]).
One, two.
The third one Sir, one, two, three, third third one ((1703:38.3)).
One two (four).
Good.

Very good, thank you ((1703:40.4)). That's what we need right, the third
one.

Uno, dos, tres.
Uno, dos, tres.
Tres—uh-si.
Right.
We'll make it yet.

* *

That's two.

Yeh, that's forty-five there.
Yeh.

That's this one right here.
(Yeh) I know.
OK.

Next one is almost a forty-five, huh yeh.
Rut it goes . . .
Yeh, but it goes . . . ahead, I think (it's) gonna put us on (the) taxiway. Yeah, just a little bit yeh.
OK, for sure.

Maybe he, maybe he counts these (are) three.
Huh.

I like this.

Uh, the KLM . . . four eight zero five is now ready for take off . . . uh and we're waiting for our ATC clearance.

KLM eight seven * zero five uh you are cleared to the Papa beacon climb to and maintain flight level nine zero . . . right turn after take off proceed with heading zero four zero until intercepting the three two five radial from Las Palmas VOR.

((1706:08.2)).
Ah roger sir we're cleared to the Papa beacon flight level nine zero, righ interceptin we'rte • no turwn (a ou g tht takeoff) t zer e threo fou e. tw ((1706:17.9)) r zer o fivoe unti and l.