FLOW CHART ON CAUSES OF INITIATION OF EARLY ROTATION

EARLY ROTATION

COMMANDED BY THE CREW

NORMAL
No early rotations on Concorde since 1990 + crew very aware of importance of respecting reference speeds on Concorde

UNCOMMANDED BY THE CREW
Lift off of nose wheel corresponds to a control input on the control column

UNUSUAL

PERCEPTION OF EXTERIOR

VISUAL PHENOMENA (1)

OBSTACLES

B 747
No, since there was no worrying deviation from track at that moment

PERCEPTION OF INTERIOR

OTHER CASES (2)
INSTRUMENT READOUT
No readout errors

OTHER
No, since no known cases
VISUAL PHENOMENA

(1)

FLAME
Does not seem to be visible from the cockpit according to the CNRS

RUNWAY EDGE
No, since at that moment the aircraft was still centred on the runway

(2) OTHER CASES

→ MOVEMENT OF CAPTAIN’S SEAT

There’s no noise thereof on the CVR and examination showed that the seat had stayed in the forward position, almost at maximum forward (in addition, the FO’s seat was in maximum rear position and the FE’s seat in forward position)

→ FALL IN ENGINE READINGS

No, since rotation was before the surge recorded on the CVR

→ SMELL

Possible but not recorded

→ SOUND

Possible since highly unusual background noise recorded

→ VIBRATIONS

Possible since slight variation in vertical acceleration

→ LATERAL ACCELERATION EXPERIENCED IN THE COCKPIT

The simulations show that 2 or 3 tenths of a second before variations in lateral acceleration (ny) at the centre of gravity are recorded, lateral acceleration in the cockpit varies following a sharp rise (much more than that of lateral acceleration as recorded at the centre of gravity). This variation in the cockpit occurs almost simultaneously with the immediate loss of thrust, that’s to say around cycle 602.7