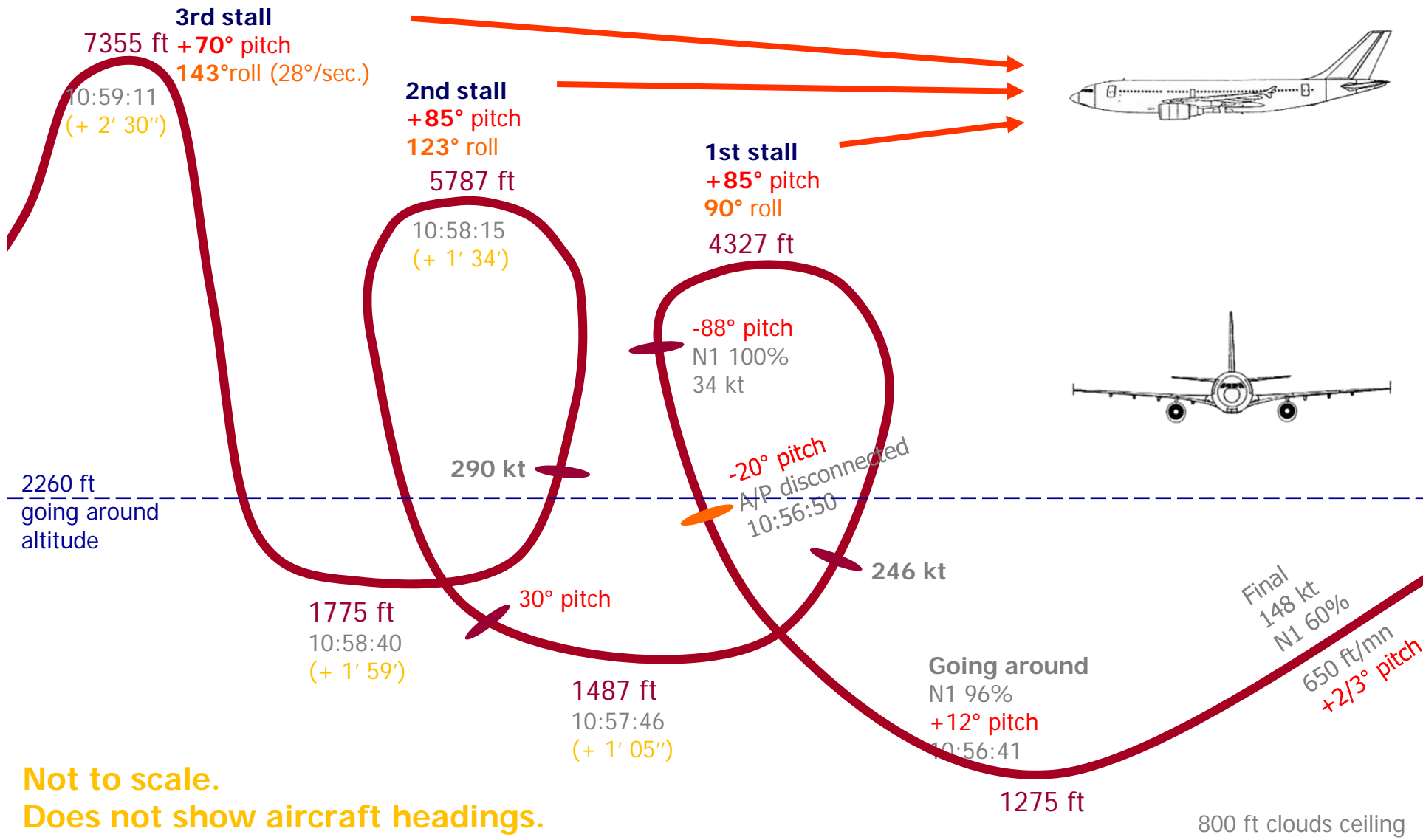
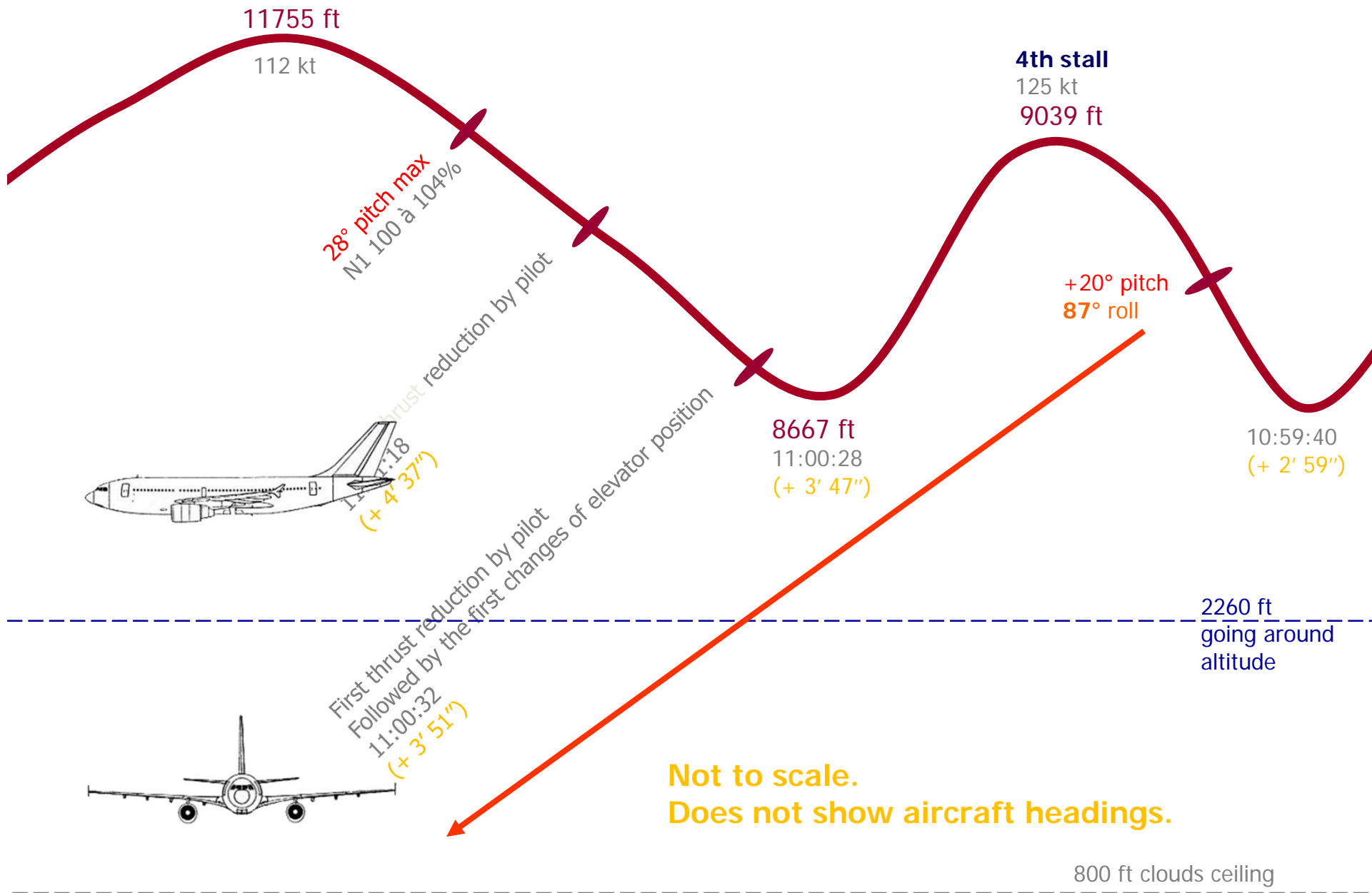


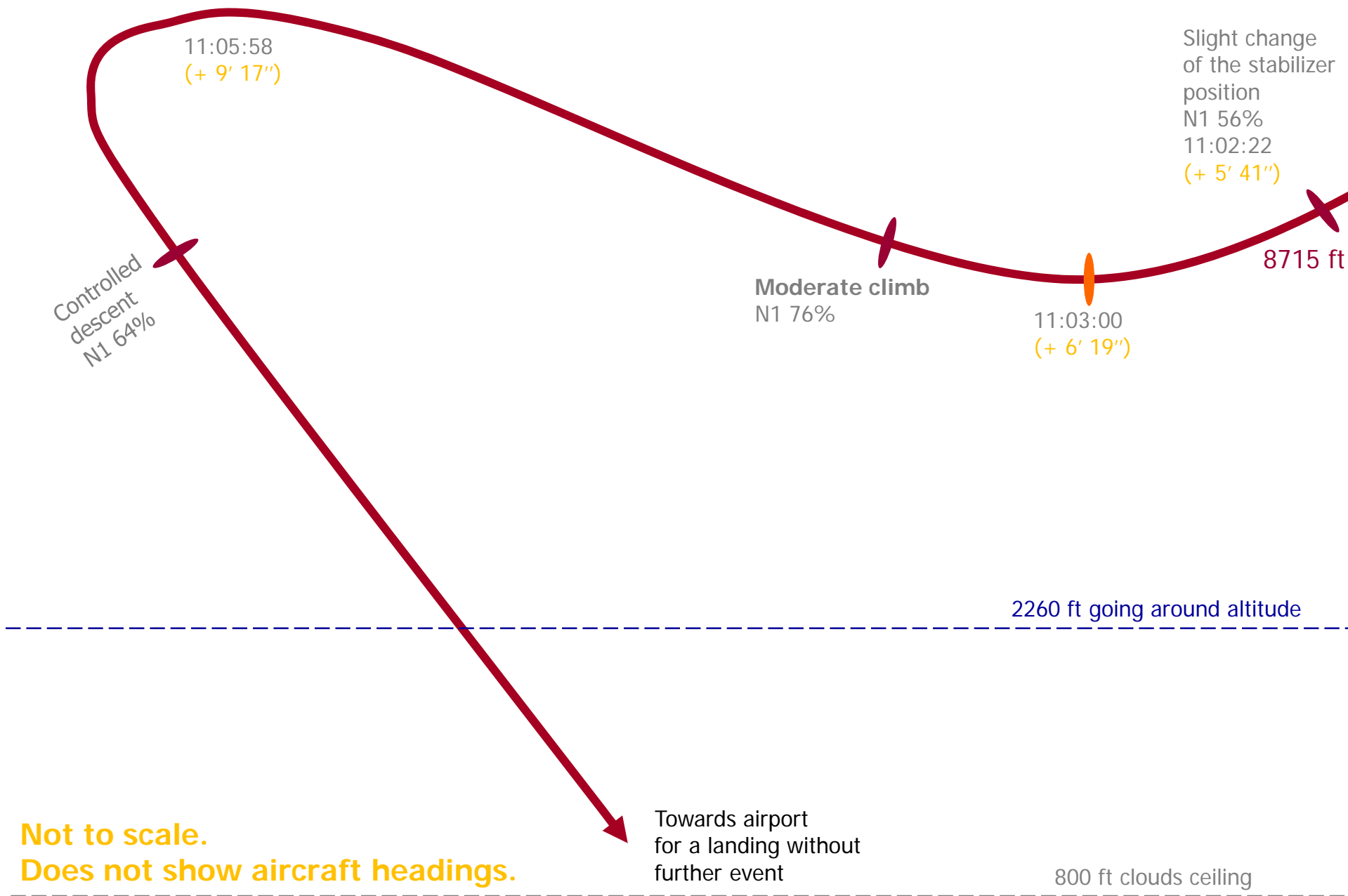
# 1990: A310 Moscow

- Operational context
  - Commercial flight Berlin-Moscow
  - 100 pax and 9 flight crew
  - Short final in Moscow
  - METAR: 2300 SN OVC 008
  - ATC order of going around (RWY occupied)
  - Automatic going around procedure
- Aircraft auto-pilot status
  - TOGA Mode
  - Dual autopilots
  - Auto-throttles
  - Pilots react on the yoke
  - Hybrid pilotage through the autopilot system



**Not to scale.**  
**Does not show aircraft headings.**





# 1991: A310 Moscou (con'd)

## ■ Analysis

- Load factors between 0.2 et 2.4 g
- A/P disconnected by the pressure applied on yoke
- But the crew was never aware of:
  - ➔ Autopilot disconnect
  - ➔ Trim at full deflection position
- Aircraft control was totally lost for 6'10"  
(from 10:56:50 to 11:03:00)
- The airbus stalled:
  - ➔ 4 times
  - ➔ Altitude loss from 2800 to 3800 ft
  - ➔ Without pilots reaction...

# 1990: A310 Moscow (end)

## ■ Analysis (end)

- Aircraft control recovered by pilots, whom instinctively
  - ➔ Reduced thrust
  - ➔ Changed the stabilizer position

## ■ Consequences :

- **Normal** landing after the uncontrolled flight
- No injury
- No structural damages even though some speed limits were exceeded.

## ■ Conclusion (German BFU)

- The aircraft abnormal behavior is attributable to movement of the control column by the pilot while the plane was flying in go-around mode under autoflight system authority.