

- **351 people died in the world's worst mid air collision**



- **The collision was caused by a level bust**

- A communication error led a crew to descend to the wrong level
- Two aircraft struck head-on



- Level busts are a **major safety threat** in UK skies
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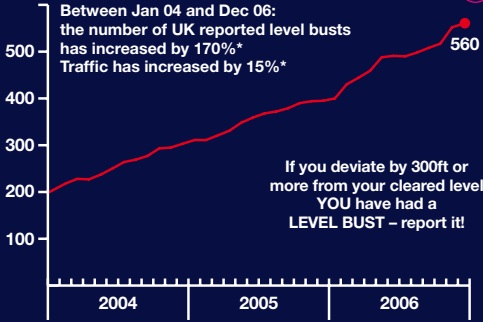
Primary Causes

- Communication error
- SOP issues
- Stepped climb departures
- Altimeter setting error



Number of Reported Level Busts (*12 month rolling average)

Between Jan 04 and Dec 06:
the number of UK reported level busts
has increased by 170%*
Traffic has increased by 15%*



If you deviate by 300ft or
more from your cleared level
YOU have had a
LEVEL BUST – report it!

Most level busts are caused by **communication error**



- IF IN DOUBT check your cleared level with ATC
- CROSS CHECK every MCP/FCU change visually and verbally
- LISTEN CAREFULLY – set up your RT correctly
 - Both pilots should monitor the ATC frequency throughout climb and descent
 - Don't confuse heading and level
- IF YOU HEAR a read back error, alert ATC

In 25% of level busts, pilots say **one thing** - but do something else



- ENSURE pilot read back = pilot action.
Do what you said.
- ASK, don't assume. SAY: *"confirm our cleared level..."* NOT *"confirm we are cleared to..."*
- BE AWARE of problem levels
e.g. FL100/FL110, FL200/FL220, FL250/FL350
- LISTEN AND SET the right flight level
e.g. FL90, not FL190
- SET CLEARANCE RECEIVED, not what you expected to hear



Poor RT causes level busts



- USE the correct standard phraseology at all times
- USE your full correct callsign and be aware of similar callsigns
- ON FIRST CONTACT with ATC after departure report: *callsign, SID, passing Alt/FL and initial cleared Alt/FL*
- ON FREQUENCY CHANGE only report the following: *callsign, cleared Alt/FL and routeing/radar heading/speed restrictions as appropriate*

SOPs are there to protect you



- **MAKE SURE** you use your SOPs
- **MONITOR** what your aircraft is doing
 - Regularly check your FMA
- **MANAGE** your aircraft's performance
 - Don't climb/descend with high rates in busy airspace
 - Monitor rate when approaching cleared level
 - Moderate your rate of descent when holding





10% of level busts are caused by a failure to follow the cleared SID

- WHEN USING THE FMS, programme it carefully
- STEPPED CLIMB SIDs present the biggest challenge, so:
 - Thoroughly brief the profile
 - Understand the profile
 - Fly the profile



Check the altimeter setting



- ENSURE your departure and arrival brief includes the Transition Altitude NB: *several different Transition Altitudes exist in the UK*
- BEWARE when climbing from an altitude to a flight level WHEN THE QNH IS LOW
- RESET the altimeter pressure setting at the correct time
- IN THE UK all pressure settings are given in millibars





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Visit www.levelbust.com and
www.customer.nats.co.uk
for more information
