

Level Bust Risk Factors



››› Airspace and Procedures

Opportunities for busting levels increase with:

- Complex multi-level SID and/or STAR
- Low level off altitudes in SIDs;
- Sectors design forcing stepped profiles
- Complex & not standardized charts design

Potential consequences increase with:

- Departure routes beneath Arrival routings and Holds, and Arrival routes above departure routings

Level Bust Risk Factors



››› Crew preparation

- Incomplete briefings present opportunities to forget clearances
- Low QNH reduces your level-off room
- Adverse weather on departure/arrival gets you thinking horizontally
- Inadequate route planning and NOTAM services means you might miss recent changes to departure/arrival airspace
- No formal training on level bust avoidance will impact level bust risks and defences
- Reporting of level bust risk factors not encouraged decreases awareness of level bust incident rates

Level Bust Risk Factors



››› Air Ground Communications

Confusion and miscommunication is more likely when:

- Headsets are not being worn
- Only one pilot is listening to and recording clearances
- Unfamiliar languages are used (air-ground, or in cockpit)
- Non-standard RTF is used
- Multiple clearances are issued
- There are undetected simultaneous transmissions
- Aircraft on frequency with similar call-signs
- Many and frequent level changes issued by ATC
- ATC clearances are issued late

Level Bust Risk Factors



››› Deviation from SOPs

- No altitude call-outs ("passing" and "Xft to go")
- No altimeter setting cross-checks or monitoring undertaken
- Reliance on manual level-capture
- High rates of climb and descent employed within last 1500ft
- Addressing unnecessary cabin issues below 10,000ft

Level Bust Risk Factors



»»» Not Working Together

Teamwork can fail when:

- CRM/TRM skills are not applied
- Operating under stress (personal, operational, or commercial)
- There is distraction
- High workload is demanded

Level Bust Risk Factors



››› Aircraft

- Autopilot failure to capture the selected altitude
- Altitude keeping performance



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