

SAFETY BULLETINwww.airservicesaustralia.com**07 December 2010****Meeting ATC level requirements**

ATC frequently uses level requirements in CTA to provide separation with other traffic. Level requirements may take the form of an ad hoc requirement to reach a level, either on climb or descent, by a distance or time, or a standard level requirement on a SID or STAR. There have been a number of recent incidents in which pilots have not met a level requirement, resulting in a breakdown of separation with other traffic.

Some example incident reports in Appendix 1 illustrate the problem.

Accepting an ATC level requirement

It is the responsibility of the pilot in command when accepting an ATC level requirement, including a clearance on a SID or STAR that has such a requirement, to comply with the requirement. In assessing whether it will be possible to meet a requirement, there are many factors to consider. Incident reports have shown that items that require careful consideration include:

- the effects of possible wind and temperature variations on aircraft performance
- automation issues, including the time required to program flight management systems
- the ability of the crew to monitor and assess progress against the requirement.

Where aircraft performance is likely to be a limiting factor, for example when accepting a level requirement near top of climb, it is necessary to ensure that there is sufficient performance in hand to cater for contingencies.

If unable to accept an ATC level requirement

If you are not able to meet a proposed level requirement, you should refuse the clearance using the phrase 'UNABLE'. Alternatively, you may propose or request a different clearance to enable you to meet the requirement, for example on a STAR "REQUEST TRACK STRETCHING TO MEET THE [...] REQUIREMENT".

If unable to meet a level requirement, once accepted

When a level requirement has been accepted, it is necessary to monitor progress against the requirement. Sometimes circumstances or conditions can change quickly and if at any stage it becomes apparent that a level requirement may not be met, **it is essential that you notify ATC as soon as possible so that they can begin to formulate an alternative separation plan.**

Important

A challenge from ATC about your ability to meet a requirement indicates that the controller has assessed that your progress toward meeting the requirement is in doubt.

You should take such a challenge seriously and carefully re-assess your progress against the requirement.

However, do not rely on ATC to alert you – this may not always be possible, particularly outside surveillance coverage.

If, after accepting an ATC Level Requirement, you are unable to comply you need to notify ATC as soon as possible to ensure that separation with other traffic is not compromised.

Further information

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Appendix 1 to Safety Bulletin Meeting ATC Level Requirements

The following incident reports illustrate problems associated with failures to meet ATC level requirements:

- **ESIR** - *[An Airbus A320] was issued height requirement F370 by 40NM to run KACEY. Aircraft failed to meet requirement. Pilot advised change of wind contributed to difficulty in meeting requirement. [A Boeing 737] was given a heading to avoid conflict. No loss of separation.*

Airline report - *During climb [the A320] was cleared to F370, with a restriction to reach F370 by 40nm to run Kacey. FMGC showed that the aircraft would reach F370 at least 15nm before the restriction point until passing F330, at which point it slowly reduced to 10nm passing through F350. At F361 with an indicated 5nm margin over the altitude restriction point, the aircraft encountered a wind change (increasing tailwind) and increase in temperature of 2 degrees with associated light turbulence. The aircraft performance reduced to a point where it maintained Mach number but could not climb. The altitude restriction was missed by around 400 feet. ATC were informed of the performance reduction and the aircraft that was maintaining F360 was given a radar heading to avoid confliction.*

- *[A Boeing 747] was issued with a requirement to reach FL390 x time 0243. At approx. 0243 the aircraft contacted HF and advised they were unable to meet the requirement.*
- *[A Cessna Conquest] failed to meet inbound height requirement on STAR. Outbound aircraft vectored off SID.*
- *[A Beech King Air] was issued with a requirement to reach FL150 by 55nm Adelaide to ensure separation with crossing PC9 aircraft which was assigned FL160. [The King Air] was asked if the requirement was still achievable approaching 70nm to run Adelaide. The pilot reply was positive.*

Upon further questioning, the pilot of [the King Air] advised they would no longer be able to meet the vertical requirement, and avoiding action was taken by way of a radar vector.

- *[An Airbus A320] was climbing through A070 tracking via the RWY 27 DOSEL SID when the pilot advised that they would not meet the 10,000 FT SID height requirement at RIDAL. [A Dash 8] was inbound descending through the transition layer tracking via the RWY 27 ARBEY STAR. The Departures North Controller immediately turned [the A320] left heading 040 degrees to maintain radar separation with [the Dash 8] - the aircraft passed 5NM horizontally and approx 1000FT vertically apart.*