Indeed, in a situation of level-off encounter (i.e. an aircraft capturing with another one levelled 1000ft beyond the intended capture level), the TCAS system ignores aircraft objectives. It anticipates conflicted trajectories in a timescale which is less than RA-triggering thresholds due to the high vertical speed rates reached with current altitude capture control laws. Those RAs are judged operationally “nuisance”, since from a crew’s viewpoint, the job has been done correctly.

Although considered a nuisance, those RAs have to be followed, leading to traffic perturbations and stressful situations.

A new safety initiative has been launched by Airbus in response to airline requests to resolve this issue of nuisance RAs occurring during level-off manoeuvres. The objective of the so-called “TCAP” developed function is to reduce the number of these RAs by providing a new altitude capture control law, which “softens” aircraft arrival at a selected flight level in the presence of air traffic.

The expected benefit from the new Airbus solution is a prevention of almost 100% of nuisance RAs occurring during level-off manoeuvres for TCAP-equipped aircraft.

This new altitude capture enhancement will be available on the A380, A350 and other Airbus fly-by-wire aircraft in the near future.

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**Before**

Classical ALT → 2 RAs

**After**

New ALT → No more RA

Benefit for the non-equipped a/c also!