The primary objective of the 2006-07 holdover time test program was to evaluate the performance of new deicing and anti-icing fluids over the entire range of conditions encompassed by the holdover time guidelines.

The objective was met by conducting endurance time tests. The procedure for these tests consisted of pouring fluids onto clean aluminum test surfaces inclined at 10°. The onset of failure was recorded as a function of time in natural snow and artificial conditions including simulated freezing fog, freezing drizzle, light freezing rain, and rain on a cold-soaked wing. APS conducted a total of 750 endurance time tests with eight fluids, including two Type I fluids, two Type II fluids and four Type IV fluids.

Changes to the holdover time guidelines for the winter of 2007-08 include: the introduction of fluid-specific tables for Lyondell ARCTIC Shield® (Type IV), Aviation Xi’an KHF-II (Type II) and Newave Aerochemical FCY-2 (Type II); significant changes to the Kilfrost ABC-S PLUS fluid-specific table as a result of testing with a higher viscosity sample; increased values in the Clariant Safewing MP IV Launch snow cells as a result of natural snow testing; and reductions to the holdover times in four cells in the below -3 to -14°C row of the Type II generic holdover guidelines (no changes were made to the other generic guidelines). The fluid-specific tables for Kilfrost ABC-TF2 and Clariant Safewing MP IV 2030 ECO were removed, as the fluids were never qualified or produced commercially, respectively. Lowest on-wing viscosity (LOWV) values for dilutions of Type II, Type III and Type IV fluids have now been included in the guidelines. Finally, guidance material and allowance times for ice pellets have been added to the guidelines for use with undiluted Type IV fluid.

It is recommended that any new Type I, Type II, Type III or Type IV fluids be evaluated over the entire range of conditions in the holdover time tables.