

Additional Q&A for CRC Project AV-19-14 RFP – 08-22-2014

Comment: The Phase II overview discusses experimental investigation of the effect of temperature and fuel composition on water settling times. However, the primary objective is to qualitatively identify if there are significant differences in the settling times of water emulsions (high ratio of water/fuel) over an 8-hr period.

Question: Is there interest in providing quantitative data on the effect of the test variables on the corresponding micro-droplet size distribution and corresponding settling rates (e.g., data that can be used to generate curves shown in Fig 3-1 of the CRC Aviation Fuels Handbook)?

Answer: This level of detail would be of great interest, and the bidder is encouraged to propose this as an optional alternative method to accomplishing the goals of Phase II. Possibly modern video microscopes/particle size analysis would offer a convenient and accurate route for obtaining these data within the scope of the project. A comprehensive study of droplet size vs settling times might also be contemplated if the baseline data indicate indistinguishable behavior with the alternative fuels. Such information could then be used to guide the formulation of a more refined examination of settling rates vs water droplet size, and the impact of variables such as temperature and fuel viscosity.

This could possibly be a valid topic for a proposal to CRC as a follow-on to this RFQ which could also include the settling times of standard test dust (e.g., rust), as water and sediment are generally evaluated together.

In conclusion, the point is well-taken and if possible, it would be very useful if the performer could report the droplet size ranges in the water emulsions prepared during the course of this work.