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**THE USE OF ELECTRONIC SENSORS IN FIELD MEASUREMENTS OF
AVIATION JET FUEL CLEANLINESS**

Anthony Kitson-Smith¹, and Vic Hughes².

¹*Dr. Anthony KitsonSmith, ExxonMobil Aviation, Ermyn Way Leatherhead KT22 8UX. UK, anthony.kitson-smith@exxonmobil.com*

²*Vic Hughes Associates Limited, Cae Einion, Corwen, LL21 9BY, UK. Thebusker@msn.com*

For decades, conventional technologies and procedures have been used in the cleanliness control and monitoring of jet fuel delivered to aircraft. In recent years the aviation fuelling industry has realised that “fail-safe” as a concept applied to fuel cleanliness, requires not only continuous improvement but also development and deployment of a range of technologies to maintain relevance. Continuous improvement of existing filtration technologies is encouraged in new editions of existing standards but step change is difficult to realise when they are already highly developed. Use of non-traditional technology to augment current practise is needed. An earlier paper¹ reviewed the most promising technologies available at that time and described initial laboratory experience with them. Since then a new industry standard (API/IP 1598) has been published detailing requirements for electronic sensors and draft laboratory test methods published. This paper will briefly summarise and update this position and describe early field experience gained by trialling a number of the most promising fuelling vehicle sensor technologies. Fuel cleanliness control and monitoring looks set to meet the challenges of an expanding 21st Century Aviation fuel business.

KEYWORDS: Cleanliness, Condition Monitoring, Electronic sensors.

¹ Experience with the use of a particle counter in measuring fuel contaminants, Anthony Kitson-Smith et al., 9th International Conference on Stability, Handling and Use of Liquid Fuels, 2005.