Optical Fire Detection for Engine Nacelle and Auxiliary Power Unit Fire Detection

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Optical fire detection technology is currently being considered for use on new aircraft platforms. Kidde Aerospace and Defense fire protection systems currently utilize a range of optical fire detection techniques that capitalize on the benefits of optical detection including:

- Improved fire detection coverage
- Low weight
- Easy installation for OEM
- Ease of maintenance for operators
- Lower life cycle cost
- Full built in test capability

While the benefits of optical detection approaches are obvious careful application of this technology is required and a clear understanding of the environment the detector is going to be installed is required. Detector placement for bay coverage and verification through modeling and testing to ensure adequate redundancy and detection need to be considered. In addition, the optical and thermal/dynamic environment need to be fully characterized to ensure the benefits of the detection approach are realized.