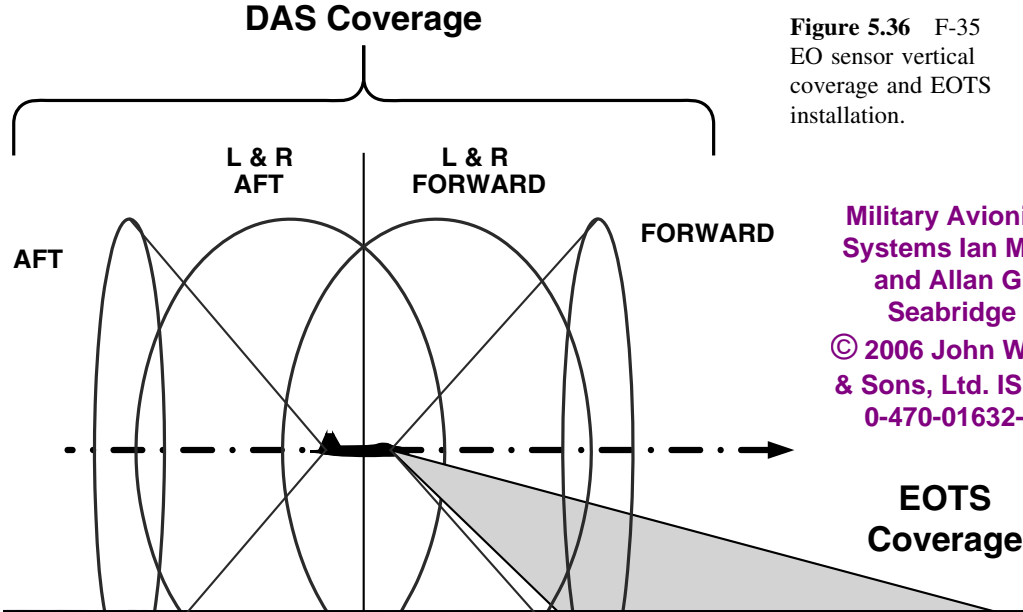


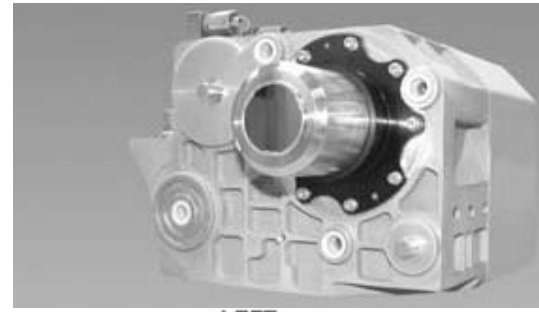
1. The electro-optic targeting system (EOTS) being developed by Lockheed Martin and BAE SYSTEMS. This is an internally carried EO targeting system that shares many common modules with the SNIPER XR pod already mentioned. The EOTS looks downwards and forwards with respect to the aircraft centre-line, as shown in Figure 5.36. The EOTS installation and EO sensor window are shown.



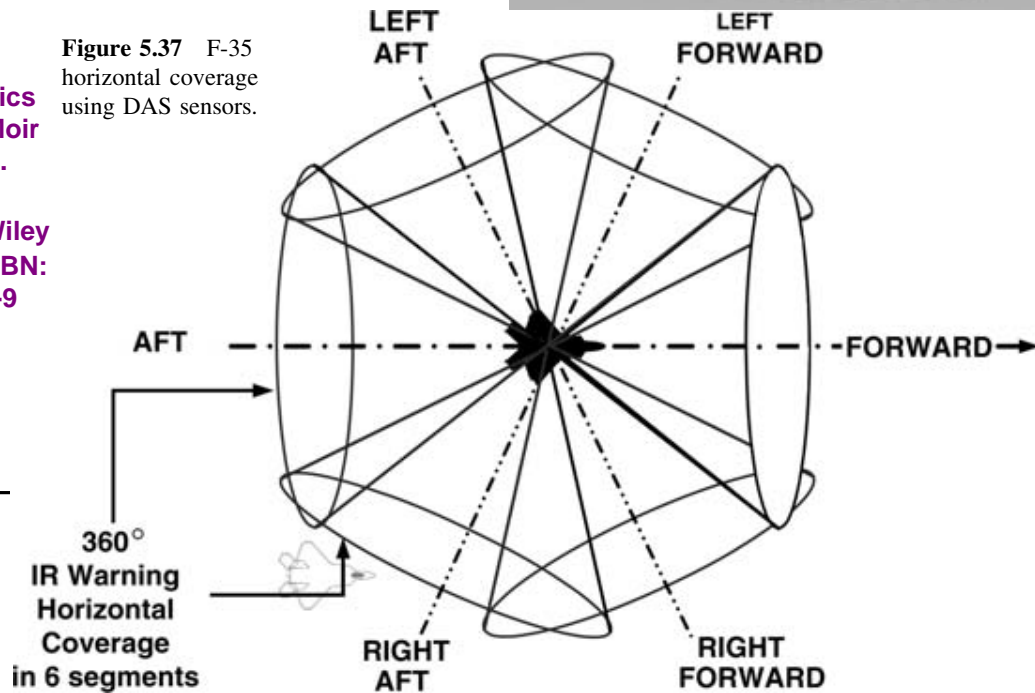
**Figure 5.36** F-35 EO sensor vertical coverage and EOTS installation.

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<http://www.helitavia.com/books/Mil%20Av%20Sys/Wiley%20-%20Military%20Avionics%20Systems.pdf>



**Figure 5.37** F-35 horizontal coverage using DAS sensors.



2. The distributed aperture system (DAS) being developed by Northrop Grumman together with BAE SYSTEMS comprises six EO sensors located around the aircraft to provide the pilot with 360° situational awareness information that is detected by passive means. The concept of horizontal coverage of the DAS is depicted in Figure 5.37. The six DAS sensors provide a complete lateral coverage and are based upon technology developed for the BAE SYSTEMS Sigma package (shown in the inset). Key attributes are dual-band MWIR (3–5  $\mu\text{m}$ ) and LWIR (8–10  $\mu\text{m}$ ) using a  $640 \times 512$  FPA. Each sensor measures  $\sim 7 \times 5 \times 4$  in, weighs  $\sim 9$  lb and consumes less than 20 W. Sensor devices with megapixel capability ( $1000 \times 1000$ ) are under development and will be incorporated.



F-35 Fur Installation (Lockheed Martin)



F-35 Fur Window (Lockheed Martin)