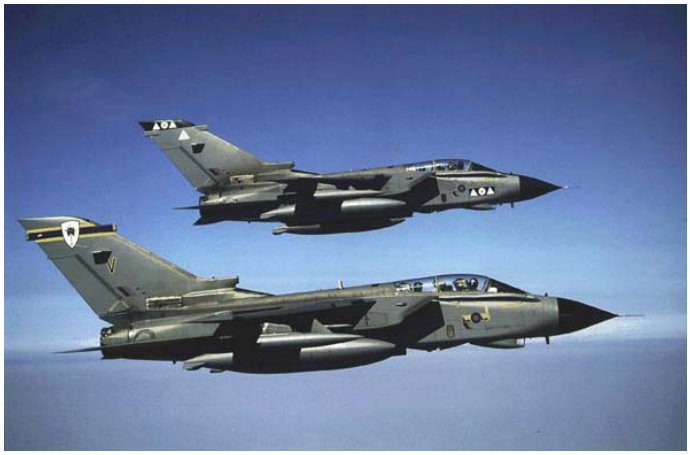
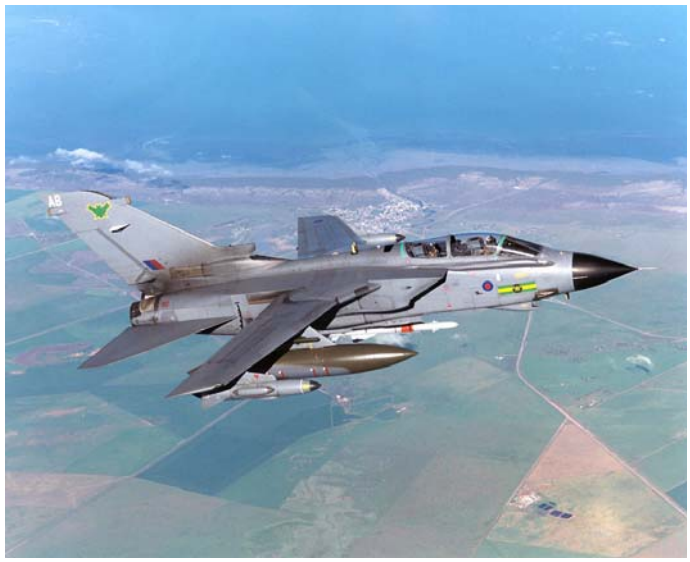
RAF Tornados get HiTech Support



During the Gulf War the Royal Air Force's Tornado Squadrons were equipped with the new Thermal Imaging Airborne Laser Designator (TIALD) pods for use with 'smart weapons' systems and it was soon realised that the TIALD pods require a clean environment for maintenance of the laser heads.

HiTech Controlled Environments Ltd were approached by Ministry of Defence contractors and asked to design and build a cleanroom suite for maintenance of the laser head and for test firing of the TIALD pod for calibration and testing prior to being loaded onto the aircraft. The design of the cleanroom suite itself did not present a problem since laser technology requires nothing more than an ISO Class 7 environment with ISO Class 5 work stations. However, it is unusual to fire fairly large scale lasers inside a cleanroom and certain health and safety requirements had to be considered. For instance, it is a requirement for all surfaces to have a flat matt finish and that is not as easy as it sounds. Consider that all electrical sockets, panels and fittings will be manufactured using some form of plastic or 'bakalite' material. Now consider that these materials are glossy. Consider also that so called matt paint has a certain shine to it; it is certainly not flat matt as required by laser safety protocols. Now also consider the usual materials used in cleanroom construction and their limitations because of particle shedding and you will begin to understand the size of the problem.



After careful consultation and research, HiTech's engineers were able to overcome these problems using a unique approach to the construction of the cleanroom suite, which we will not enter into here, but we did satisfy all the requirements of a rather complicated specification.

As well as the construction issues, we had to install dual level lighting with interlocks between the doors, lights and laser control panels. All doors, transfer grilles and pressure regulators had to be light proof and we had to install an aircraft wiring loom to imitate the workings of a Tornado GR4 fighter along side special gases and other systems. The cleanroom suite has been operational for over a year now and there have been no problems with any of the systems reported to us. The Royal Air Force are extremely pleased with their new facility and we have been asked to build another one.

HiTech Controlled Environments Ltd, St Andrews Castle, 33 St Andrew's St South, Bury St Edmunds, Suffolk. IP33 3PH Tel: 01284 774765