



## INTEGRATED AVIONICS MAINTENANCE TRAINER

The Integrated Avionics Maintenance Trainer (IAMT) is the culmination of many years delivering generic avionic maintenance training to the UK Royal Air Force. It prepares technicians for type specific training on operational fast jet, multi-engined or rotary wing aircraft including Eurofighter Typhoon, F-16, Apache, Tornado, C130, A400M or Hawk. The system is comprised of two unique elements - the classroom based Avionics Systems Trainer (AST) and the generic cockpit Part Task Trainer (PTT).

### CLASSROOM BASED TRAINING

#### Avionics System Trainer (AST)

The AST software has been developed to meet the specific generic avionic training requirements of the UK Royal Air Force and has been fully supported by the company over the past 15 years.

During this time, numerous upgrades have been implemented, including COTS operating systems and the introduction of new operational capabilities (such as Defensive Aid Suites) into the generic training requirement.

The IAMT upgrades the AST software to take students from classroom instruction and training to the flight line environment, already familiarised them with aircraft avionic systems and associated maintenance and test procedures.

#### Part Task Trainer (PTT)

The IAMT generic cockpit Part Task Trainer has been designed and developed to take the proven generic AST classroom training software into an immersive training environment. The IAMT creates a training environment where technicians can experience full aircraft avionic maintenance activities in a controlled environment.

Students are provided with generic cockpits on which to practise the execution of maintenance procedures, exercise fault finding techniques and carry out testing procedures.

Team sessions allow flight line maintenance scenarios to be generated. Here, technicians can practise complex multi-role operations such as LRU removal and replacement, where the authorisation of maintenance and 'safe-for-flight' decisions must be officially signed off and promulgated.

## FEATURES

The IAMT avionics training capability has been specifically designed for and by the UK RAF and the company for generic avionics training of military technicians at the Defence College of Aeronautical Engineering RAF Cosford.

It is applicable for ab initio generic fast jet, rotary wing and multi-engined aircraft avionic technician training. It is also applicable for cross training, continuation training and retraining for aircraft avionic technicians.

The system is based on hardware and software supported with full system manuals, test procedures and fault-finding diagnostics that can be tailored to meet specific customer requirements. It allows for the replication of a real-time first line/hangar aircraft maintenance environment by providing LRU removal, replacement and test together with full sign off, tool control and aircraft documentation procedures.

The IAMT can be complimented by the use of the commercial aircraft maintenance training course which can deliver EASA accreditation for trainees.

## SYSTEMS

IAMT covers the following aircraft systems:

- Aircraft safety
- Autoflight
- Communications
- Electrical power
- Hydraulic power
- Instruments
- Aircraft lighting
- Navigation
- On-board maintenance
- Forward looking sensors
- Electronic Warfare and Defensive Aids
- Weapons electrical
- Gunnery
- APU and engines
- Head up display
- Databus systems
- Multi-function displays.

## KEY POINTS

The proven avionics training solution has over 15 years inservice track record with the UK Royal Air Force and offers benefits which include:

- Improvement of training output standards and reduction of on-aircraft training time by over 30%
- PTT availability higher than 99.9%
- Rigorous training output standards
- No type specific and no security classification implications
- Reduced training time by common software in the classroom and PTT
- Generic training for fast jet, rotary wing and multiengine avionic technicians
- Direct delivery of training or 'train the trainer' option to allow the host nation to become self-sustainable in the training delivery
- Full system and test documentation support
- Classroom hardware locally sourced COTS and supported in-country
- 'Free-play' emulation for trainees to freely navigate systems as in a real aircraft cockpit unlike procedural trainers.