Three teams vie for 'rangeless' system

Three teams have submitted bids to develop a next-generation “rangeless” combat-training system for the US Air Force and Navy. Teams led by Loral, Raytheon and TRW are competing to develop the Joint Tactical Combat Training System (JTCTS), a replacement for the USAF air-combat manoeuvring range and Navy tactical air-combat training system.

The JTCTS is a follow-on to a Navy-only contest, cancelled and then re-opened when the USAF joined in earlier this year. The teams are competing for an engineering-and-manufacturing-development contract to be awarded early in 1995, leading to low-rate initial production in 1997-8.

The JTCTS will use the satellite-based global-positioning system and a new datalink to replace the ground stations used in present, fixed-site, instrumented air-combat ranges. This will allow large-scale training exercises to be conducted at sea and among forward-deployed forces.

Silicon claims visual innovation

Silicon Graphics is claiming a breakthrough into the “mainstream” visual-simulation market with CAE-Link’s decision to upgrade the visual system on the US Air Force’s Lockheed F-117 weapon-system trainer using Silicon Graphics Onyx RealityEngine2 graphics supercomputers.

CAE-Link ATACDIG image-generators will be replaced with the Silicon Graphics machines. Existing visual databases will be converted to run on the new computers. The company says that CAE-Link is also using its machines to upgrade ATACDIG visuals on US Army Sikorsky UH-60 Black Hawk simulators.

Silicon Graphics hardware is also being used by Contraves to modernise the visuals on four US Navy Grumman F-2C flight simulators. McDonnell Douglas is using Onyx systems to update its C-17 engineering simulator.

Several applications require the RealityEngine as an integrated simulator host computer and image generator. These include the upgrade of a Mexican Northrop F-5 simulator by SBS Engineering and an Australian General Dynamics F-111 simulator by Wormald Technology.

Hughes Training is developing Lockheed F-16 and McDonnell Douglas F-15 unit training-devices (UTDs) for the USAF using the RealityEngine as host computer and image generator. The first five will be delivered by mid-1995 and 97 devices are planned. Hughes’ UTD partner, Eidetics, is marketing an F-5 device using the same technology.

Silicon Graphics says that it is now making inroads into the real-time computing market, with use of its equipment by CAE-Link in Northrop Grumman B-2 aircrew-training devices and by Loral in Saab JAS39 Gripen mission simulators. Silicon Graphics says that its hardware has been specified by Lockheed for the training system for its F-16 mid-life-update.

USAF to conduct Talon briefing

The US Air Force is scheduled to brief industry this month in its requirements for modernisation of the Northrop T-38 Talon advanced jet trainer. Upgrading of the supersonic T-38, to extend its service life to 2030, is considered a likely alternative to development of a new bomber/fighter training system.

The last T-38 was delivered to the USAF in 1972 and structural upgrades have already been required to keep the aircraft in service. Northrop Grumman says that it has manufactured more than 1,300 new T-38 wings for the USAF over the past ten years.

Northrop Grumman is proposing upgrades to extend life and improve pilot training, including structural enhancements, a “glass” cockpit and, possibly, new engines. The cockpit would feature head-up displays and liquid-crystal head-down displays.

Eidetics says that it has a launch customer for modification of Northrop F-5Es to F-5F combat-capable trainers. The California-based company says that there is a shortage of two-seat F-5s.