Michael Speed
CS&TS Member

Michael was station commander at RAF Fylingdales during the modernisation from the original "golf ball" radar domes to the more powerful solid state phased array system (SSPAS). In his lecture entitled "We are watching you", he gave a brief history of the development of the station, its main missions and what these entail.

The purpose of the station is "to provide an uninterrupted ballistic missile warning and space surveillance service". It became operational in 1964 and was linked to similar ones in Greenland and Alaska to provide radar coverage over a large part of the Northern Hemisphere. As the science of ballistic missiles became more sophisticated it was necessary to modernise the system. This was completed in 1992 and the station is now linked to four others resulting in much greater radar coverage. The SSPAS now has the ability to simultaneously track up to 800 different objects and its resolution is much greater.

Fylindales is situated in the North Yorkshire Moors National Park and consequently great care has to be taken to ensure there are no adverse effects on the environment. It has responsibility for managing, protecting and maintaining some 3000 acres of the National Park that includes Sites of Special Scientific Interest and many rare species of birds, animals and plants.

There are four missions: To continuously provide warning of ballistic missile events and give the Government (through the UK Missile Warning Centre at RAF High Wycombe) and the United States' authorities (through the Missile and Space Domain, which is situated in the Cheyenne Mountains in Colorado) details of the threat level within four minutes in order that a level of response can be determined. To support the US developing Missile Defence System on a non-interference basis with a warning mission by tracking missile trajectories so that attempts can be made to hit and destroy them in flight. To contribute to the Allied Space Surveillance Network, monitoring the 15,000 objects greater than 10cm long currently in space to try to ensure that collisions can be avoided. This total includes almost 1000 satellites. To operate a Satellite Warning Service to support UK forces worldwide by providing information on satellite orbits and their surveillance patterns.

Because the station must provide continuous surveillance it has its own power generation with emergency back-up, water supply, police and fire services and the main operations building is classed as toxic free.

Given on Wednesday 9 December at the Cirencester Parish Centre