

# DEFENCE RESEARCH: CHANGING WORLD, CHANGING PRIORITIES (R&D in the MoD) Professor Phil Sutton, Director General Research and Technology, UK Ministry of Defence, Whitehall

## 7.30 p.m., Monday 24<sup>th</sup> April, 2006 The Wolfson Lecture Theatre, Churchill College, Storey's Way, Cambridge

### About the lecture:

Up to about twenty years ago, defence-based research was a major driver for science and technology. But following the end of the Cold War, and the rapid growth in civil technology particularly in the information and biological sciences, defence research has largely become a minor influence in the world-wide science and technology landscape. Yet the UK Armed Forces are more stretched now than at any time since the Second World War, and face a more complex range of problems requiring high levels of scientific and technical innovation and responsiveness.

This lecture will address the MoD's changing role and hence it's scientific and technical priorities. Examples of the still wide-ranging research will be given for both the shorter and longer timeframes.

### About the Speaker

Phil Sutton graduated in Physics from Southampton University in 1975 and joined the MoD, obtaining his PhD in Electronics under MoD sponsorship also from Southampton in 1982. His early research activities were in novel pre-detector signal processing techniques for visible and infra-red sensors; this was the subject of his PhD thesis.

In 1982 he became responsible for the Establishment's Electro-Optical (EO) Countermeasures programme. Research priorities then moved towards Electronic Warfare and RADAR signal processing, and consequently Phil led research groups addressing new Electronic Support Measure techniques and development of novel sensors for operational deployment.

In 1989 he was promoted to Individual Merit Senior Principal Scientific Officer and in 1992 was appointed Chief Scientist of the Above Water Sector of the Defence Research Agency

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Italics denote an affiliation other than the University of Cambridge. The CSAR Council is chosen to represent leading scientists and technologies from academe and industry (DRA) within MoD.

Phil was awarded a visiting Professorship in the Department of Aerospace, Power and Sensors of Cranfield University at Shrivenham on Emerging Technologies in 1990, and another at Loughborough University, Mechanical Engineering Department in signal processing in 1992.

In 1996 he was appointed as Head, Battlefield & Vehicle Systems Department, in the newly formed Defence Evaluation and Research Agency (DERA) at Chertsey. The Department, led research related to heavy and light armoured fighting vehicles, battlefield information systems (Army C2), battlefield simulation and training, command system research and Battlefield Digitization (Land).

He was appointed as Director of Corporate Research in MOD in 1998 and as such was responsible for all of the MOD's non-nuclear long term research programme.

In 2002 Phil was appointed as Director of Technology Development and head of the Research Acquisition Organisation in MOD, responsible for the whole of the MOD non-nuclear research programme (worth £460m FY 02). This post involved close and wide-ranging interaction with both industry and academia.

In 2004 he was appointed to the post of Director General Research and Technology in MOD. His main responsibilities are ensuring MOD's non-nuclear research programme is aligned to MOD's needs and is of the right scientific quality, acting as a member of the MOD's Joint Capability Board (which is the customer for MOD's £6Bn pa equipment programme) and ensuring MOD derives full benefit from its national and international research collaboration.

#### The Organising Secretary adds.....

I have family working in the MoD, which is how I found out who to invite; it's not exactly public knowledge!

We don't often get insights into the thinking behind our defence research. I shall attend this lecture with great interest.

**Coffee and biscuits available**, as usual, in the foyer outside the lecture theatre from  $\sim$ 7.00 p.m.

As is now our custom, we shall charge non-members a nominal sum for entry. These provide a valuable contribution to CSAR funds.

Richard Freeman CSAR Organising Secretary