

Is your department connected to the arms trade?

Bristol University involvement with the arms trade.

Military-industrial research being carried out by Bristol University Engineering Departments.

Aerospace Engineering This department is involved in research projects in collaboration with Agusta-Westland Helicopters, BAE Systems, and QinetiQ. All known arms manufacturers.

Electrical and Electronic Engineering Involved in researching data fusion in a Defence Technology Centre (DTC) in Data and Information fusion, under a £25M MoD contract over 5 years

Engineering Mathematics- Currently researching how to overcome instabilities in helicopter dynamics, a subject "of practical interest to Westland Helicopters Ltd".

Mechanical Engineering Involved in a project on "Concept Design for Fatigue Resistance (2003-6)", sponsored by Land Rover, TRW Aeronautical Systems and the EPSRC.

Engineering Design Industrial placements with arms manufactures such as GKN, Rolls Royce, Smiths Aerospace, and Weir Strachan & Henshaw.

Military-Industrial Research being carried out at Bristol University outside of the Department of Engineering

Computer Science- Research into object recognition with BAE Systems.

Mathematics- The departmental handbook cites QinetiQ and BAe Systems as collaborators. At least two Maths PhD students are being sponsored by QinetiQ to study in Defence Technology Centre relevant areas.

Statistics - Two Professors are working on wavelets in data and information fusion in association with the Data Information Fusion, and Defence Technology Centre.

Neuropsychology- Three PHD students are studying Motion Fusion with Defence Technology Centre funding.

Physics -Most of the military focussed projects here are concerned with Nanotechnology. There is a new Nanotechnology lab being built next to the Physics buildings, the funding for which remains unknown.

The applied spectroscopy (the use of light to study matter) group is sponsored by QinetiQ, The Airforce Office of Scientific Research (US), The Office of Naval Research (US) and The Defense Science and Technology Lab (UK).

Chemistry-The 'CVD Diamond Film Group' is currently linked with QinetiQ who design and manufacture Chemical Vapour Deposition products for military use.

The alternative information guide to

The Engineering, Science & I.T. Fair. 26th October

Over 15 Arms Manufacturers
advertising vacancies for 2006

sponsored by

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This leaflet was brought to you by the Bristol Campaign Against Arms Trade (BCAAT) student research team.

For more information email: lola-rose@riseup.net



Welcome to the annual Engineering, Science and IT fair!

At a first glance, this fair may seem to present you with a number of fine companies that would be wonderful future employers.

Unfortunately (as always) there's a catch.

Many of the companies at this fair are linked to the arms trade and thereby profit from the proliferation of armed conflict. The 15 companies we have researched have shown a lack of respect for human life, selling weaponry to regimes that have launched attacks on their own or foreign populations, and/or have promoted the sale of expensive and inappropriate weaponry to the UK's owned forces. In particular, several of the companies make equipment that was used in the recent Iraq war.

As this is a careers fair, and these companies are trying to recruit you, we thought that they might be a bit less than honest about what effects a career with them may actually have. So that you can fairly judge if working for them is really for you, we produced this: our alternative guide to the fair...

Inside our guide you will find....

1. An expose on some of the myths about the benefits of having a British arms exports industry.
2. Alternative corporate profiles on 7 of the arms manufactures attending the career fair.
3. Bristol University's involvement with the arm trade. What does your department really research into and who is it funded by?

We don't want to lecture you, but we do want to give you more information you may need to make an informed decision about the company you choose to work for and the career you choose to follow.

Some myths uncovered.

DID YOU KNOW...

1. The claim that arms exports are good for British jobs does not stand up.

- Every job that depends upon arms exports is subsidised by the British government to the tune of between **£7,000** and **£14,400**
- The MoD estimated that in 2000-2001 70,000 jobs were created by the arms industry. This represents just **0.24%** of all jobs in the U.K. the majority of these jobs are based in areas of high employment.
- Between 1996 and 2001 the number of recorded jobs directly and indirectly linked to the arms trade fell by **60%** without economists noticing any discernable cost to the economy.

2. The existence of a British based military does not mean that U.K forces are always equipped to world-class standards.

- Evidence suggests that there is pressure to prioritise the need for export orders over the needs for British forces.
- Military industry calls for the British army to purchase its weaponry (which may be of a lower standard) in greater quantities than needed, to maximise arms sales overseas.

3. Military exports do not prevent conflict.

- The British government has not only consistently sold arms to states where it has been used in existing conflicts, but has also adopted a deliberate policy of often targeting rival states vulnerable to conflict.

4. The Arms Industry is not a Defence Industry.

- The UK is the world's second biggest arms exporter, behind the United States, with a market share of about 20%. With exports to so many countries involved in international conflicts, arms exports can hardly be characterised as solely in the interests of Britain.



GKN plc

GKN PLC

Customers have included:

Indonesia: 293 armoured personnel carriers and 13 Tactical water cannons, used against pro-democracy student protestors resulting in 2 deaths and several injuries. Indonesia also uses WASP helicopters manufactured by GKN.

Zimbabwe: Has bought military helicopters from a GKN subsidiary

Iran: consistent abuser of human rights, and a user of AB204/5 and AB212/4 military helicopters

Arms also sold to oppressive regimes (eg Malaysia, Libya), human rights violator states (eg Turkey and Saudi Arabia) and police states (eg South Korea). GKN has also been accused of pressuring the British government to deport exiled Saudi dissident Dr. Muhammed al-Mas'ari, a spokesman for the Committee for the Defense of Legitimate Rights (CDLR).



Rolls-Royce

After being rescued from imminent financial collapse by the British taxpayer in 1973, Rolls Royce was under state ownership until 1987. After 1987, the close links between Rolls Royce and the British government were used to build very strong links between RR and the MoD. RR has since used this useful, reliable market to grow into a dominant player in the defence market, particularly in the USA. Its engines presently power around 25% of the world's military aircraft fleet. RR also provides follow-up technical services and support.

With such a prominent position in the world market, RR's engines and services have been sold to many ethically dubious regimes and have been used to militarise several areas of the world. Customers include:

Indonesia: From 1978 onwards, RR engine powered Hawks were used to bomb occupied East Timor by the Suharto regime. 100,000-250,000 of the original 600,000 population of East Timor dies.

India: In 2002 Rolls Royce launched a new marine support operation in India to maintain their products already in service. Despite the increasing tensions in the region, RR sees Asia as one the most lucrative markets that is still to be targeted.

Other upstanding customers of RR have included **Oman, Saudi Arabia, Zimbabwe** and **Colombia**. Rolls Royce also sells a large percentage of its engines to BAE systems, which has an extremely unethical sales history.

Corporate Profiles



- MBDA supplied the Milan medium range missile (among others) during the Iran-Iraq war to both sides (approximately 1,000,000 casualties, the most military casualties since WWII.).
- The same missile was also supplied to Lebanon and Chad during the civil wars that raged in their respective countries killing tens of thousands of civilians.
- MBDA supplied Turkey with millions of pounds worth of arms during its military dictatorship and during its brutal repression of the Kurdish minority that cost the lives of 30,000-40,000 Kurds.
- MBDA's JDAM ER laser guided systems were used extensively throughout the bombing of Kosovo, Afghanistan and Iraq. JDAM ER guidance systems have a miss rate of about 50%, but their low cost ensures their continued use.
- The current head of the government's worldwide arms and promotion department (Defence Export Services Organisation), Alan Garwood, was former chief operating officer of MBDA and BAE.



Weir Strachan & Henshaw

Between 1991 and 2003, the Weir Group was one of the companies embroiled in the Oil-for-Food scandal in Iraq, where the Hussein regime is believed to have pocketed 11.5 billion pounds in kickbacks between 1991 and 2003. The Weir Group PLC is unable to account for £4.3 million of its Oil for Food cash.

The Royal Navy's submarines are equipped with Raytheon's Tomahawk missiles, which are fired used Weir S&H's weapons handling and launch systems, and which were used in both Afghanistan in 2001 and Operation Telic, the British contribution to the 2003 Iraq War.

Subsequently, Weir Group PLC (the parent company of Weir S&H) was awarded a reconstruction contract in Iraq in 2003, working as a subcontractor to Halliburton. Thus the Weir Group has played a part in both the destruction and subsequent reconstruction of Iraq following the 2003 US/UK invasion.



DML Devonport

In 1997 the Devonport royal dockyards (home, for the last 3 decades, to the four nuclear powered 'Trident' submarines) were purchased from the British government by a consortium led by Brown and Root – a division of Halliburton, the Texas-based energy, engineering and construction multinational (Dick Cheney, current US Vice-President, was previously Chairman and Chief Executive Officer of Halliburton).

DML Devonport and Halliburton – a timeline

October 2001 – the Health & Safety Executive (HSE) fined DML Devonport \$94,000 for exposing 24 workers to asbestos.

July 2002 – the National Audit Office was called in to investigate when Devonport project costs budgeted at \$904 million in 1997 increased by over 50% by 2002. This bill appeared when The Ministry of Defence demanded that a crash barrier be built around the "central pool" where submarines were dismantled. Naval official John Coles said the barrier was needed to stop "ships crashing into that building" and releasing radiation. The British government argues that Halliburton was sloppy with both safety and pricing from the very beginning.

Also July 2002 - DML Devonport has been accused of deliberately concealing information on the potential dangers posed by high explosives and radioactive hazards from Plymouth City Council. The principle of 'the polluter pays' applies to nuclear accidents and there is commercial pressure for DML to convince the council that no plans are necessary since they would be liable to pay for the emergency provision (around \$10 million).

Reports from the Nuclear Installation Inspectorate shows that safety problems continue. The moving crane, which pulls nuclear flasks out of Trident submarines, recently crashed into the HMS Vanguard, and "a few litres of slightly radioactive liquid were spilled onto the floor" of the dock.

Other companies linked with the arms trade include;

- Claverham ltd.
- SEA Group
- Smiths

QinetiQ

QinetiQ was formed by the part-privatisation of DERA (a government agency) in 2001. The current ownership of QinetiQ is split between the MoD (56%), Carlyle Group (31%) and staff (13%).

The Carlyle Group is one of the world's largest venture capital groups and the 11th largest US military contractor. It has close ties to many senior politicians in the UK and the USA, including George Bush Senior and Junior, former UK PM John Major and former US Defence Secretary Frank Carlucci. The Bush family has made massive amounts of money from its investment in (and links with) the Carlyle Group through the recent 'War on Terror', particularly the conflicts in Afghanistan and Iraq.

QinetiQ and the Carlyle Group – Controversies

- The Carlyle Group purchased 33.8% of shares in QinetiQ in 2002 for only £42m, despite the fact that QinetiQ had been valued at £500m.
- Part of QinetiQ's role is to provide independent advice to the MoD about military procurement. The ownership of QinetiQ, however, by a group that invests so heavily in the military sector has led to grave concerns about the 'independence' of the advice the MoD is receiving.
- The Carlyle-QinetiQ relationship was explored in a Defence committee investigation in the House of Commons in 2003. The chairman of a key meeting called the way DERA had been distributed as 'repugnant'.
- The Commons investigation also highlighted concerns that QinetiQ was getting an unfair advantage in receiving MoD contracts. The following example was cited: "In 2001-02 30% of the MoD's £416 million research building block was placed with DSTL [QinetiQ] without competition and of the remainder only £9 million was

- Thales
- DSTL
- Atkins Nuclear
- Laing O' Rourke
- Scott Wilson