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THIS WEEK

Accountants find fault with Britain's Alvey programme

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AN INDEPENDENT auditing body has said that Britain's largest collaborative research effort in information technology, the Alvey programme, has failed to meet some of its key objectives.

In a report published last week, the National Audit Office said that the Alvey programme suffered from poor financial control and inadequate funding. The result was inadequate monitoring of progress and delays to many of the programmes. The report also said that the rate at which industry had exploited the fruits of the research had been "below that expected by the Alvey committee".

The government set up the Alvey programme in 1983 to rival Japan's plans for developing a fifth-generation computer. A committee chaired by John Alvey recommended a programme costing £350 million over five years that would unite researchers in academia and industry. Funds from the Department of Industry, as it was then called, the Science and Engineering Research Council and the Ministry of Defence would be administered by a separate body, the Alvey Directorate.

According to the report, the Alvey Directorate expected "early continuous and significant exploitation of the results of the programme. They [the directorate] stated specifically that there was no question of having to wait."

One of the main areas from which the Alvey committee expected most exploitation was software engineering, the report says. The committee's aim was to complete the first generation of advanced software tools by 1985, and to make second- and third-generation tools in successive years. The auditors found that not even the first generation of tools had been developed. Another criticism of the programme was that it failed to attract small companies.

Five large electronics companies dominated the programme; between them they accounted for almost half of the 428 research projects. These problems arose, the auditors pointed out, because the programme had inadequate resources and insufficient experience in coordinating three government departments, industry and academia. Delays occurred in setting up collaborative deals between those participating in the research programmes because lawyers were inexperienced in drafting such agreements.

The findings of the NAO seem to back Lord Young's decision not to continue with the Alvey programme. Those involved with the Alvey programme, however, believe that the auditors misjudged the programme by examining the wrong parameters. According to David Thomas of Imperial College, the auditors simply weighed the objectives of the Alvey directorate against its achievements.

"Research is not like that," said Thomas. "It changes as it progresses as does the eventual outcome of the research." He also criticises the auditors for their "balance-sheet mentality".

He says: "Some of the best things to come out of the programme can't be put on a balance sheet. We have heightened the awareness of artificial intelligence and advanced software engineering in British industry.

Thomas also believes that the auditors overstressed the exploitation of the research. "A lot of good basic research has been done to develop enabling technologies. We have developed a new parallel processing architecture that will be continued in the European Esprit II research programme (see p 23).

According to Lawrence Clarke, the deputy director of the Alvey programme, the results of the research will be seen in five years. "You have to think of precompetitive research on a ten-year timescale. The impact of products arising from the programme at this stage has been greater than anyone has a right to expect." □

Secrets of star wars remain censored

A SECTION of the US's Strategic Defence Initiative Organisation (SDIO) is blocking publication of part of a technical report on star wars by the Office of Technology Assessment.

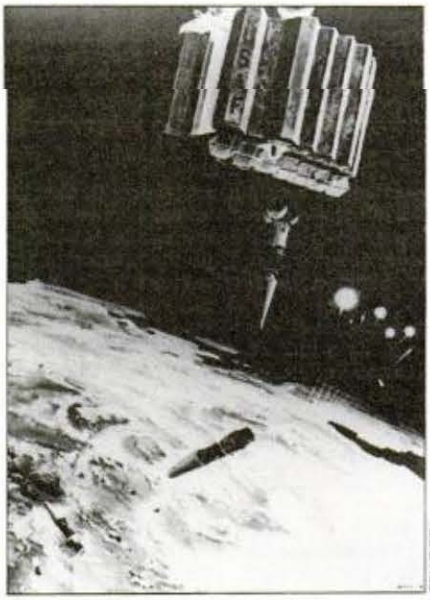
Congressional sources say that the OTA assumed wrongly that it had permission to publish within the next few weeks an unclassified version of its assessment of the SDI. Now, the Pentagon, at the instigation of the SDIO, wants to classify three chapters central to the report. These deal with survivability of the system and countermeasures that the Soviet Union could take to invalidate the technology of star wars.

This week, the Pentagon may overrule the classifiers in the SDIO. Otherwise, the OTA's report will not appear publicly until some time after congressional committees have decided on the SDIO's budget for 1989. The OTA's report is already nine months late, following delays resulting from wrangles about which parts of the report could be unclassified.

● NASA has a new safety device to save the lives of astronauts if their journeys into space aboard a shuttle are aborted in the moments after launch. The astronauts will slide to safety down a pole.

The telescopic pole, which NASA decided on last week, is the final piece in a jigsaw of new safety measures for shuttle crews, developed in the aftermath of the destruction of the shuttle Challenger, with the loss of all hands on board, in January 1986.

If, in an emergency during launch, the orbiter must separate from its fuel tanks and solid rocket boosters, but lacks the power to reach a landing strip, the crew will slide out down the pole. NASA chose the



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SDI: the final chapter remains hidden

Hooker seeks charity

A BAND of astronomers in the US hopes to raise enough money to reopen the 250-centimetre Hooker telescope on Mount Wilson, overlooking Los Angeles. The Carnegie Institution once ran the telescope, but closed it in 1985 to release funds for developing an 8-metre telescope in Chile.

The redundant telescope is important to astronomers because it allows them to Smithsonian Center for Astrophysics in Cambridge, Massachusetts, and a member of the Mount Wilson Institute's Science Advisory Board, says that the telescope closed because once Carnegie pulled out, no single project depended on it. The telescope was open simply for guest observers. A 150-centimetre reflector and two solar towers remain in operation at the same site simply because they were supported