Plan to outlaw hacking

London

THE definition of three new crimes to deal with the growing problem of computer hacking, the unauthorized entry into computer systems, is recommended in a British Law Commission report released last week. The commission, a statutory body advising the British government on the legal aspects of new legislation, was asked to review the present legal status of hacking.

The commission says that British criminal law at present fails to cover two main problems: the "costs, disruption and uncertainty" caused to owners by unauthorized entry to their computer systems and the loss and damage caused by alterations of stored data and programs. "Such attacks can be particularly serious if they are directed against computers performing industrial or commercial operations", the report says.

The report, *Criminal Law — Computer Misuse*, concludes that an adequate deterrent cannot be constructed simply by

patching up existing criminal law, and recommends the definition of three new crimes. Any attempt to gain entry to a computer system, whether for gain or for fun, should be a criminal offence with a maximum penalty of three months in jail. Entry with intent to commit a crime should be treated more severely, with a maximum penalty of five years' imprisonment.

The commission recommends that there should be a third more serious offence consisting of attempting "intentionally and without authority" to alter data or programs with the use of worms, viruses or logic bombs, or of circulating disks infected with such devices. The maximum penalty for this offence would also be five years' imprisonment. The Trade and Industry Secretary, Mr Nicholas Ridley, welcomed the report and was "inclined to accept" its recommendations.

Law Commissioner Richard Buxton QC, who heads the Law Commission's criminal law team, said the system was designed to operate in a graded manner. The first offence would deter the "widespread activity" of hacking. This will be reinforced by the two more serious offences.

Buxton added that the rules were carefully designed not to penalize computer users whose waywardness consists merely of carelessness.

Ben Webb

■ The prosecution of Cornell University graduate student Robert T. Morris can succeed only by proving that he knowingly intended to gain unauthorized access to a number of federal computers with the

virus that infected the Internet system a year ago (see *Nature* 340, 329; 1989). It has been argued by some in the United States that any law that made unauthorized entry a crime, regardless of intent or authority, would be unworkable: in the Morris case, a number of network users put together "patches" that protected computers from infection and distributed them, in a freelance manner, across the network. Under a law that condemned Morris, would they also be guilty? □

MICROELECTRONICS

JESSI enters critical phase

Munich

As part of its commitment to the European microelectronics initiative known as JESSI (Joint European Submicron Silicon), West Germany announced on 28 September the foundation of a new institute for silicon technology. The institute will concentrate on the development of smaller memory chips, with a diameter of 0.5 micrometres or less, using X-ray lithography and other techniques.

JESSI, a collaboration of five European governments, the European Economic Commission and three of the largest electronics companies in Europe, is an ambitious attempt to combine research with product development across national borders (see *Nature* 339, 652; 1989). The latest announcement reflects the strong West German commitment to JESSI at a time when critical decisions are being made concerning individual JESSI projects and possible US participation.

The Fraunhofer Society for the Advancement of Applied Science was expected to confirm its sponsorship of the institute at a meeting on 18 October. The new institute, which will be located in Itzehoe in the north German *Land* of Schleswig-Holstein, will differ from other Fraunhofer Institutes in that just a few large firms, including European chip producers such as Siemens and Philips, will participate in the research and benefit from the results.

The Research Ministry (BMFT) and the *Land* of Schleswig-Holstein will share the construction and equipment costs of DM 400 million (\$210 million). When the institute begins operation, by 1992, industry will provide 20 per cent of the staff and will share in salaries and costs.

The Fraunhofer Institute for Microstructure in West Berlin, which has worked with X-ray lithography in the past, will lose some researchers to the Itzehoe institute. BMFT has announced that the Berlin institute will be restructured, causing some upset among West Berlin politicians, who had hoped that JESSI would help attract new high-technology investment to their isolated city.

The most important decision that is expected in the next few months concerns

participation by the United States in JESSI. The Europeans have made the participation of firms such as IBM contingent on a reciprocal acceptance of European companies, or their US subsidiaries, into the US electronics consortium Sematech. Both JESSI and Sematech are founded on the principle that Japan is the main competition in designing and producing chips.

According to a spokesman, JESSI representatives paid a visit on Sematech directors in the United States in mid-September and agreed to meet again in Munich in December to "explore possible cooperative efforts in standards, university programmes, equipment and materials programmes" and other areas. But despite these overtures, the question of foreign participation may run into obstacles in the US Congress, which would have to agree to change the rules by which Sematech is constituted if European participation is to be permitted.

Steven Dickman

CHANGE OF POST

New direction at ESA

Paris

REIMAR Lüst, in his fifth year as director-general of the European Space Agency (ESA), will move to Hamburg next autumn to be director of meteorology at the Max Planck Institute there.

The move had been expected: the director-general of ESA is elected for a four-year term, but Lüst had been asked to remain for another two years to avoid a change of leadership during important negotiations at The Hague in 1987.

The list of candidates for the next director-general will be closed at the end of this month, and Lüst's successor will be chosen at the ESA council meeting next March. An ESA spokesman would not speculate on the favoured candidate, but said that "it will not be a German" — successive director-generals have so far never come from the same member state. Meanwhile, Lüst has taken up another function as president of the West German Humboldt-stiftung.

Peter Coles