the ruling, claiming that "school boards can now resist pressure to include creationism in science classes". Indeed, as a result of the Little Rock decision, a school board in Tacoma, Washington, last week stopped requiring the teaching of creationism in biology classes.

However, the dispute is not going to wither away and the next major test will come later this year in Louisiana, which also passed a law requiring equal treatment for creation science and evolution in its public schools last year. Ms Martha Kegel, the executive director for the state's ACLU chapter which is mounting a comparable challenge to that raised in Arkansas, said last week that she was "elated" not only by Judge Overton's verdict, but by the detailed critique of creation science that he had developed on the basis of the testimony delivered during the Little Rock trial.

Yet the Louisiana case is far from clear-cut. In the first place, the local judge is under no legal obligation to take Judge Overton's verdict into account, since it is a separate jurisdiction.

Second, the Louisiana bill omits some of the detailed provisions of the Arkansas law, for example its stipulation that creation science must include the notion that the Universe, energy and life were created "from nothing", a requirement which several religious witnesses said clearly implied the necessary existence of a creator. ACLU claims that this change only exacerbates the extent to which the bill is unconstitutionally vague; the creationists hope that this revision will remove the basis for some of the strongest objections.

Third, leading members of the creationist movement are likely to take a much more active role in the prosecution of the Louisiana case than they were permitted to do in Little Rock.

Meanwhile in Arkansas the state attorney general has yet to decide whether to implement his previous promise that he would appeal against the verdict if it went against him. And in ACLU, contingency plans are being discussed for Mississippi, in case it is decided that the law should be contested there as well. **David Dickson**

University of London

Separatists emerge

The University of London, parts of which already live with the threat of bankruptcy, now faces balkanization as well. Last week, University College, the largest multidisciplinary college in the university (with 6,000 students) formally asked that it should in future be dealt with financially as if it were an independent university, with its own grant allocation from the University Grants Committee.

The demand is more like gauntlet thrown down before the university's management than a unilateral declaration of independence. Sir James Lighthill, Provost of University College, nevertheless says that the college would continue to play a full part in the university even if, like Imperial College, it were directly financed.

Especially since last summer's delayed allocation of funds to the London colleges by the court of the university, University College has been a fierce critic of the court's procedures. Last year, Sir James Lighthill won acceptance of the principle that a college's success in obtaining research grants should count — in its favour — in the annual distribution. The precedent for his latest move is Imperial College, which has been directly financed for the past two decades.

The problem now facing the university court, the ultimate authority which shares out funds among the colleges, is tricky. It is certain to regard financial independence for University College as a dangerous precedent. But the court must also be conscious that with the impending retirement of the principal (its chief officer), Mr J. R. Stewart, together with some of his more experienced colleagues, its ability to administer its funds intelligibly may be further impaired.

Discontent about the court's procedures has been simmering since the summer, when the court translated the grants committee's targets for 1983–84 into financial allocations for the present academic year and target student numbers for two years ahead. One difficulty for the colleges is that they are required to adjust to reduced budgets without knowing whether their individual plans for the future will add up to what the grants committee expects of the university as a whole. This gap will be bridged only after the publication (expected next week) of the reports of the committees set up in September to consider the balance of teaching in broad subject areas.

Meanwhile, the non-medical parts of the university have made little headway with reorganization. The announced bethrothal of King's College and Bedford College has not led to marriage but to an agreement to associate. The plan for an association between Queen Elizabeth College (the smallest in the university) and Imperial College has been put on ice, partly because Queen Elizabeth College could not accept that the association should be contingent on conditions, such as the provision of new buildings, that could not be satisfied for some time to come.

The late starters have on the whole done best. Chelsea College, faced with starkly reduced numbers and the continuing cost of buying its new site, began the academic year with a draconian plan which entailed the elimination of whole departments, and is now in a position to make substantial economies while softening its plan. And Royal Holloway College, blessed with a huge site 20 miles from central London, is being reluctantly courted by various suitors hopeful that they may be able to turn their city sites into handsome dowries.

Academic censorship

Shadow ahead

Washington

Admiral Bobby Inman, deputy director of the US Central Intelligence Agency, last week dismissed as "somewhat disingenuous" the blanket claims of scientists to scientific freedom in the light of arrangements routinely made with private, corporate sources of funding, and said that the overlap between technical information and national security "inevitably produces tension".

Admiral Inman, who as head of the National Security Agency under the Carter Administration started a dialogue with the scientific community over how to handle potentially sensitive but unclassified research in cryptography, also urged co-operation between scientists and security agencies to find a mutually acceptable relationship "before significant harm does occur which could well prompt the federal government to overreact". He suggested that a potential balance between national security and science "may lie in an agreement to include in the peer review process (prior to the start of research and prior to publication) the question of potential harm to the nation".

The admiral's remarks, delivered to a session forming part of the annual meeting of the American Association for the Advancement of Science (AAAS) in Washington, provoked a strong protest from some of the scientists present.

Professor Peter Denning, for example, professor of computing at Purdue University and president of the Association for Computing Machinery, claimed that efforts to restrict the publication of technical research data reflected a growing protectionist mood in the government which would stifle scientific communication and ultimately prove destructive to the growth of new technologies.

Responding to such concerns, the board of directors of the AAAS later passed unanimously a resolution opposing government restrictions on the dissemination, exchange or availability of unclassified knowledge. Others who took part in the AAAS session, however, accepted that the issue was not clear cut, and that many of the government's concerns were legitimate — even if they had occasionally been executed over-zealously, or had had their legal ambiguity exploited in the past.

Dr Mary Cheh, for example, professor of law at George Washington University, said in a paper on the government control of private ideas that the real question was not whether the government was justified in imposing secrecy on scientific research, but how far its efforts should be permitted to go.

Similarly, Congressman Paul McCloskey presented a paper, read in his absence, describing his legislative efforts to introduce a new bill aimed at clearing up

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the ambiguities that allowed the government to prosecute *The Progressive* for publishing an article on how the hydrogen-bomb works, even though it was based on material taken from public library shelves.

As Admiral Inman and others pointed out, however, the debate over the national security implications of scientific research is no longer purely a military question, linking up directly with concerns about the "export" of commercially valuable information through open publication.

"Some of our most carefully nurtured technological advances have suffered from a haemorrhage of foreign technology transfer from international trade — the licit or illicit selling of everything from chips to detailed manuals — to explicit espionage efforts", the session was told by Mr Daniel C. Schwarz, an attorney who, as general counsel to the National Security Agency, had helped draw up the proposed prepublication review procedure for cryptography research.

Admiral Inman also suggested, though emphasizing that he was expressing a personal opinion only, that there were several other fields such as computer hardware and software, lasers, crop projections and manufacturing procedures where publication of certain technical information "could affect the national security in a harmful way".

He also reacted to the charge that the National Security Agency had not provided public proof of its concerns about the potential damage that could be caused by the publication of the results of cryptography by arguing that such information was often even more sensitive than the basic information itself.

"Nowhere in the scientific ethos is there any requirement that restrictions cannot, or should not, when necessary be placed on science", he said. "Scientists do not immunize themselves from social responsibility simply because they are engaged in a scientific pursuit."

He quoted several other areas, such as controls on genetic engineering research or on the protection of proprietary data, in arguing that there was nothing inherently wrong with an attempt to impose restrictions on science. "Some of these restrictions are common sense, some are federal requirements, some are simply good business and some are good science," Admiral Inman said. **David Dickson**

Relative prosperity

A gift of $1 million from Mr Harold McGraw, chairman of McGraw-Hill the publishers, has ensured that work on the Einstein papers can continue to completion. But Dr John Stachel, the editor of the project for the past four years, says that although the gift is enough to ensure continuity, more money will be needed if the staff of the project is to be increased from two (at present) to the desired four or five.

For the time being, work is concentrated on the early years of Einstein's academic life. The intention is to include not merely extant letters and published papers but also ancillary documents. Dr Stachel is pleased to have come across already a letter of commendation from Einstein's eventual colleagues at the Eidgenössische Technische Hochschule (ETH), Zurich (where Einstein went from the Patent Office in Berne) saying, in effect, that although Einstein was a Jew, he was "quite a nice Jew, not like the others".

At this stage nobody is prepared to guess how long the project will take, or how many volumes will eventually be published (by Princeton University Press) although there will certainly be a score of them. Dr Stachel expects to be working on the project for twenty years.

Polish crisis

Exiled students speak

Paris

Poland's "independent student association" was disbanded last week by order of the Ministry of Science, Higher Education and Technology. According to this decision, the association was disbanded for continuing militant activity after the declaration of martial law. Activists had, it is alleged, continued to distribute leaflets calling for strikes and other protest actions which represented a "flagrant violation of the decree on martial law".

The day after the decree, a group of Polish students, stranded in the West by the declaration of martial law, set up a "coordination group of the independent student association" with a provisional office in Paris. The group intends to work mainly for the relief of academics and students interned in Poland under the martial law regulation. At a press conference in Paris last week, however, it stressed that the current situation, with the threat that oaths of loyalty must be taken by academics and students who wish to continue working in the universities, will prove disastrous for higher education in Poland.

It has therefore asked students throughout the world to press for the liberation of the interned students, and for all intellectuals to take a similar stand concerning intellectual and academic staff. In particular, it called for a boycott of scientific, economic and sporting cooperation with "representatives of Jaruzelski, Moscow and the Eastern bloc" until martial law is lifted in Poland.

One of the speakers at the conference, Miss Anna Krajewska, a philosophy student from Kracow, said that one of the major "sins" of the independent student association had been its participation in a plan to create a new international student organization independent of all political slant or affiliations.

Recent announcements by General Jaruzelski's military government has accused the association of "striving to create a new anti-socialist student international organization and at the same time to break up the existing international students' association" (a reference to the Prague-based and socialist-oriented IUS).

According to official statements in Poland, the Ministry of Science, Higher Education and Technology (which is at present without a minister) feels sure that members of the former independent student association will "judge correctly" the extremist leaders who "abuse the confidence" of rank and file students. By taking up studies, says the ministry, and "respecting the law", they can be sure of preserving their student status. This is a clear hint that the current process of political "verification" now taking place in Polish industry will be imposed on students before they are allowed to resume their studies. A meeting last week between the rectors of medical academies and political leaders suggests that in medical schools the process will be introduced even more rapidly and strictly. **Vera Rich**

British medical research

Vacancy filled?

Dr J.D. ("Dai") Rees, from Unilever, is for the time being the Medical Research Council's preferred appointment as director of its National Institute for Medical Research at Mill Hill, in suburban London. An appointment has become necessary because Sir Arnold Burgen, the present director, is leaving in the summer to become the Master of Darwin College, Cambridge. A definite proposal has not yet been put to Dr Rees, it is understood.

Dr Rees has been connected with the Medical Research Council for the past two years, since his part-time appointment as co-director of the council's Biophysics Unit based at King's College, London. Recently he has played an important part in suggesting a new management structure for the National Institute, which has an annual budget of £8 million. Part of this proposal, on which senior staff at the institute are being consulted, is that the new director should be advised by a four-member management committee empowered to determine the general pattern of research.

Dr Rees, in his early forties, is a carbohydrate chemist by background who has established a dazzling reputation at Unilever by his work leading to the development of polysaccharides capable of lending physical structure to otherwise fluid materials. The technique is now used commercially in the manufacture of ice cream and of instant desserts.

More recently, Dr Rees has turned to cell biology, including the study of cell movement on surfaces.

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