French telecommunications

National data network crashes

Paris

THE technical revolution in the French telecommunications system has been temporarily stopped in its tracks.

After being transformed from rustic to semidigitized in ten years, the change has been so great that it has entered the language. To be fashionable in France these days is to be "*cablé*", or "wired-up". Last year, it was "*branché*" ("plugged-in"), or even better the transposed "*chébran*".

But now and for two months, Transpac, the French and the world's most-used packet-switched data network, will be out of bounds to individual users. Last week, private users so overloaded the system with their messages and consultations of electronic newspapers now on full-text database that the whole network crashed.

The cause is a bug in Transpac software for assembling and disassembling data packets, the groups of a few characters of a message which are given heads, tails and an address and then sent independently through the network so as to make efficient use of the gaps in other messages. "Packet assembler-disassemblers" (PADs) using this software are distributed throughout Transpac, and are designed to shut down when overloaded. At the highest levels of use reached last week, however, one PAD shut-down caused such an increase of traffic through others that they also shut down, leading to a chain-reaction which closed the whole of Transpac almost instantly.

This may have irritated the 800,000 or so home-users who now have access to Transpac through their free "Minitel" terminals, distributed by the telecommunications authority, PTT, to replace printed telephone directories. But it was disastrous for the banks, airlines and other companies with high data traffic that now rely on Transpac for business. Hence the decision by PTT to unplug the poor *cablé* public, until September, by when the Transpac bug should be sorted out.

Meanwhile the free distribution of Minitels (simple screens and keyboards) has now been suspended, but earlier projections were that the number of *Minitelistes* would more than double to 1.7 million this year, and perhaps reach 3 million by 1987. Transpac could cope with this if it were not that *Minitelistes* are not behaving as expected.

The typical "*tapeur*" at the keyboard does indeed consult the few hundred databases available — that much was expected — but, at least until the great crash, he or she spends much more time sending electronic messages to other users through systems such as "Missive", an electronic mailbox supported by PTT. And a little arithmetic shows that while 3 million times a few hundred databases is a large number of connections, 3 million squared is huge, probably too huge for even Transpac to cope with it.

That is why there is now some concern that the apparently logical French approach to create a single giant data network may not be so logical after all. For while the roads and rail seem capable, on the whole, of carrying both goods and people, it may turn out that personal data habits and the needs of industry (transferring large files with infrequent calls on a few trunk routes) are so different that quite different networks and strategies will be needed.

Robert Walgate

Charity for MRC

A MAJOR new institute is to be set up within the University of Oxford to apply molecular biology to medicine. The British Medical Research Council (MRC), which has been the prime mover in founding the institute for Professor David Weatherall but which has not had the cash to do so, has finally enlisted the aid of the Wolfson Foundation to the tune of £1 million. Building should take two years.

The object of the provisionally named Molecular Medicine Institute, which will be on the site of the John Radcliffe Hospital in Headington on the outskirts of Oxford, is "to create a critical mass of good science and scientists within an essentially clinical environment", says Weatherall. Each of the five or six groups within the institute will be fully integrated into the clinical school and will need to be self-sufficient in research money. MRC and Wolfson have provided the capital costs, with help from the university and the Cephalosporin Trust.

For the Wolfson Foundation, this is the first formal collaboration with any research council and the case, says Wolfson director Dr J. Black, was simply considered on its merits, which were considerable, according to Sir James Gowans, secretary to MRC. "Our collaboration is an example of the council not necessarily being resource-led. When something is important enough that it has to be done and government policy means that the resources are not available, it is a question of finding help."

Neither partner will agree that Wolfson bailed out a previously committed MRC, but Black says there has been no discussion of a continued collaboration between the two and any new request would be treated on its merits. With the present financial state of the research councils, it seems likely that they will nevertheless look more eagerly at the £7 million Wolfson dispenses each year, mainly for the capital cost of constructing new laboratories.

Peter Newmark

University of Geneva

Karl Illmensee resigns

DR Karl Illmensee, professor of biology at the University of Geneva, has resigned his post with effect from 30 September 1987, the date on which his present contract would normally expire. Illmensee's decision was submitted some days before a meeting of the professors of the University of Geneva called for 1 July at which the faculty was to have decided whether or not his appointment should be extended. The meeting would have had before it a report on the events of the past two years, during which the validity of some of Illmensee's published work has been questioned.

This latest development is probably a consequence of the report's recommendation that Illmensee's appointment should not be renewed. The report was prepared by a faculty commission appointed last February under the chairmanship of Professor R. Epstein, of the University of Geneva. Professor Illmensee had already been asked to provide a document giving his comments on the events of recent years, which is analysed in the report prepared for last week's faculty meeting. In the event, the matter was not discussed.

The Epstein report says that the quality of Illmensee as a teacher is not disputed, but that there are reservations about his diffidence in sharing his techniques with collaborators. Without "wishing to give too much weight to the matter", the report also finds that Illmensee had over-stated his wife's qualifications for her work as an assistant in his laboratory. Neither of these matters was taken up by the international commission looking into the more serious charges against Illmensee which reported in February last year.

Of the charges that some of Illmensee's published work is false, the report says (in respect of a series of experiments in which parthenogenetic mice were born) that there is no objective basis for proving Illmensee's observations wrong, but that it is a fair complaint that he had made no attempt to repeat the experiments.

The faculty commission makes the same complaint about Illmensee's failure to repeat the experiments involving the transplantation of nuclei into embryonic cells. Dealing with Professor Illmensee's unpublished defence, examined by the Epstein commission, the report says it does not accept his contention that he lacked the time and the means to repeat the experiments.

The commission explains its unwillingness to follow the report of the international commission by saying that that report was more damaging than its failure to find proof of deception would have suggested. The Epstein report also says that repetition of the disputed experiments was a key recommendation. □