

standing, signed last spring, obliges the signatory countries to adopt uniform ISDN methods and to complete the range of services offered by the end of 1992. However, it is recognized that user experience and requirements must be taken into account before services are made available to the public. Tarjanne added that "if we go too far ahead we may find ourselves in the wrong direction".

While there may be scope for competition in the future, HT and the PTT are adopting similar experimental tariffs at a price equivalent to two analog lines. However, with the price of a 2B + D ISDN card for a personal computer costing around \$2000, roughly the same price as the highest speed dial-up modems, it is already cost-effective to use ISDN. Use will increase rapidly as nearly 100 2 Mbps lines have been supplied to date, mainly in the Helsinki area where they are widely used by businesses for the pre-ISDN Diginet 64 kbps service.

► Asian conference calls for papers

Matching technology to the market is the theme of the sixth CommunicAsia/InfotechAsia, to be held May 29 through June 1, 1990, in Singapore.

The conference is aimed at helping decision makers assess the changes currently taking place in technology, regulation and in the Asian marketplace. The shows will particularly highlight the interdependence of these problematic issues when there are no unique answers available.

CommunicAsia/InfotechAsia is expected to draw more than 500 delegates from throughout Asia. The conference will run concurrently with the CommunicAsia/InfotechAsia exhibition and the BroadcastAsia showcase and conference.

Papers to be presented during the conference will be selected by an advisory panel of representatives from regional PTTs, key user groups and industry associations. Further information, along with the official Abstract Form which must be submitted by Nov. 1, are available from Overseas Exhibition Services, London, phone 01-486-1951 or fax 01-935-5637.

► Companies rally to restore communications after Hugo sweeps through Caribbean region

Hugo placed a harassing phone call to Puerto Rico and surrounding islands the week of Sept. 17, slamming into the "Shining Star" of the Caribbean and wreaking havoc with all telecommunications facilities on the island.

Hotels in the Condale area were left with a sea of broken glass, with downed wires laying on the streets and sidewalks. Water backed up J.F. Kennedy Boulevard to the depth of several feet in some places. San Juan Harbor looked like a lily pond as floating debris—including pieces of houses, boats and clothing—bobbed past a harbor ferry boat jammed atop a small, man-made island supporting a channel marker. Farther east, on the island of Culebra, more than 500 of its 700-some homes were destroyed and all communications facilities were virtually torn apart.

The 120 mph winds struck especially hard at communications facilities on the eastern and southeastern sections of Puerto Rico. The central office (CO) in Isle Verde had its windows blown in and absorbed copious amounts of water, drowning the equipment.

Several COs in smaller towns were lost to tornadoes spawned by the storm; at *TE&M* presstime, communications were still nonexistent in those areas. Due to a loss of power, Puerto Rico Telephone Co. (PRTC) was running the Cappare main toll switch on batteries until help could arrive. With 15 hours left on battery power, a resourceful BellSouth International was able to locate a 100 kV generator in Atlanta and a 115 kV in Mississippi and managed to fly them in on two C-130s from the U.S. Air Force.

T1 and microwave links throughout eastern Puerto Rico were devastated, as standing structures fell like tenpins before the combined forces of high winds and falling trees. In an even more serious situation, the El Yunque main microwave and cellular hub atop Mt. Diablo had to be operated by diesel generator after the storm, with fuel supply rapidly diminishing. Attempts to fuel by helicopter were being thwarted by a heavy fog which settled over the eastern hills, making flying in

the high peaks of the rain forest out of the question. If the hub continued to be wrapped up in fog for much longer, Gov. Raphael Hernandez-Colon would perhaps have to bulldoze a road up the mountain to facilitate fuel delivery.

On a more positive note, both the AT&T earth station and Caribbean Satellite antennae survived Hurricane Hugo with relatively little damage; indeed, the biggest problem was loss of facilities to and from these stations. Caribbean Satellite kept its dish locked onto its bird (which normally is thought to be a mistake) and suffered no damage whatsoever. AT&T placed its dish in "foul weather mode," or a full, horizontal position, and suffered no physical damage; however, water was forced into the electronic equipment and downed a third of the station's long distance circuits.

US Sprint's satellite dish nestled between two mountains was protected from the high winds as well. Sprint was able to bring up additional circuits for handling heavier traffic volume than usual.

One effect from the hurricane's destruction will be a Disaster Response Coordination function to be established by the Caribbean Telecommunications Council at its meeting this month in—where else—Puerto Rico. This group will be able to source equipment and labor plus outline storage for necessary supplies should this disaster ever occur again.

Photos and a complete article on the restoration efforts not only in the Caribbean but in South Carolina will follow in an upcoming issue of *TE&M*. —*Milt Ganley, Latin American correspondent.*

► PTAT transatlantic cable doing its job

PTAT, the first privately funded transatlantic digital fiber optic cable system, is fully operational and carrying commercial traffic.

The cable crosses the Atlantic from Somerset, England, to New Jersey, U.S., with spurs which will link Bermuda and Ireland. The availability of PTAT

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