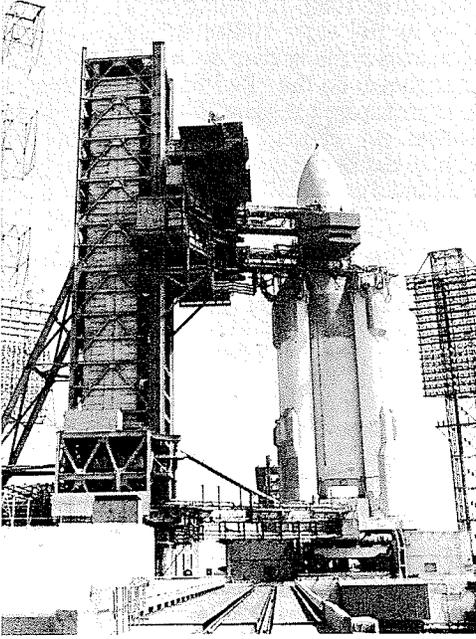


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The Soviet rocket carrier Energia, shown here in a May 1987 test at the Baikonur Cosmodrome. The Energia will launch the Soviet space shuttle, which, unlike its U.S. counterpart, can change course during its final descent to Earth.

Soviets in Space

"Sputnik's Heirs: What the Soviets Are Doing in Space" by Peter Pesavento, in *Technology Review* (Oct. 1987), Mass. Institute of Technology, Building W59, Cambridge, Mass. 02139.

For most Americans, the "space race" between the United States and the Soviet Union ended with the Apollo 11 moon landing in 1969. But during the past two decades, Soviet efforts in space have far surpassed those of the United States. Soviet cosmonauts, for example, have logged 13 years in orbit, eight years more than their American counterparts.

Pesavento, a free-lance writer, details the "ambitious and accelerating program of space activity" on which the Soviets have embarked. Some of their achievements:

- Eight space stations (holding up to 12 people) have been launched since 1971. Over 3,000 experiments, lasting up to 100 hours, have been conducted on these stations. In June 1987, the Soviets began renting laboratories on their *Mir* station, capable of manufacturing crystals, pharmaceuticals, and biological products, to Western corporations.

- The *Energia*, now undergoing final tests, is the world's "heaviest, and most powerful launcher," capable of putting payloads exceeding 41 metric tons into orbit. Because Saturn V rockets have been abandoned, the U.S. will not have a comparable launcher available until at least 1993.

- The Soviet space shuttle program, Pesavento predicts, will become operational within a year, and will employ many shuttle craft.

Among other future Soviet space undertakings is a joint French-Soviet

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Mir exercise, scheduled for November 1988. An Austrian astronaut will be aboard a Soviet space station by the early 1990s. And an extensive exploration of Mars is planned, including the landing of an unmanned roving vehicle (with a 500-kilometer range) on the "Red Planet" in 1994 or 1996; a possible manned flight is anticipated at about the same time.

"We do not intend to slacken our efforts," Soviet leader Mikhail Gorbachev said in a 1986 speech at the Baikonur Cosmodrome, "and lose leading positions in space exploration."

An End to Militance?

"The New Industrial Relations: British Electricians' New-Style Agreements" by Leonard Rico, in *Industrial and Labor Relations Review* (Oct. 1987), 207 ILR Research Building, Cornell Univ., Ithaca, N.Y. 14851.

British unions have been well known for their militant resistance to change. But high unemployment and new restrictions on union activities imposed by Prime Minister Margaret Thatcher's Conservative government have resulted in declines in union membership of between 17 and 20 percent over the past eight years.

Can the 90 labor unions constituting the Trades Union Congress (TUC) adapt to hard times? One solution may be found in the controversial organizing strategy adopted by the Electrical, Electronic, Telecommunications, and Plumbing Union (EETPU). Rico, associate professor of management at the University of Pennsylvania's Wharton School, shows how EETPU actions may provide a way to ensure union survival.

The EETPU has negotiated a series of "new-style" agreements with high-technology firms. These are open-shop agreements under which employees are free to join any union or no union, but the EETPU is recognized as the sole bargaining representative. In return, its leaders pledge not to strike, and to resolve all disputes by binding arbitration.

"New-style" agreements have proved popular, particularly with British-based Japanese employers traditionally wary of unions. From 1981 to 1985, the EETPU made agreements with 14 employers, including the British affiliates of Toshiba, Sanyo, and Hitachi. In 1986, publisher Rupert Murdoch replaced striking printers with EETPU members.

Other unions have reacted harshly to EETPU's "no-strike" collaborative deals. The print unions, for example, called for the suspension of the EETPU from the TUC for cooperating with Murdoch. In September 1987, the Transport and General Workers' Union proposed that the TUC ban "no-strike" agreements. But most EETPU members support the new order. "Our people," argued Joan Griffiths, senior union representative at EETPU's Toshiba chapter, "are far more concerned with the right to work than with the right to strike."

The EETPU has become a model; the United Auto Workers' deal with General Motors' planned new Saturn plant in Tennessee "strongly resembles" EETPU agreements. Rico predicts that the new arrangements made by Britain's electricians will continue to have wide influence. The "innovative pacts," he argues, "demonstrate that fundamental changes in collective bargaining relationships are taking place."