

are extremely concerned about his situation and would respectfully urge that he be immediately released. It is our frank opinion that any action taken against Doctor Brailovsky resulting in his imprisonment or internal exile would deepen and extend the gap that has opened between Soviet and American scientists."

—**William J. Broad**

## Percheron: Entrepreneurial Exuberance in Space

On or about 7 July, GCH Inc. of Sunnyvale, California, working under contract to Space Services Inc. of Houston, will test-fire the engines of its Percheron launch vehicle on Matagorda Island, Texas. A suborbital flight should follow soon after. By 1984, if things go well, Percheron will be carrying 1000-kilogram commercial satellites to geosynchronous orbit—at a fraction of the \$30 million that NASA now charges. With the demand for launches soaring, SSI expects to make a mint. And with Texas oil money backing young California aerospace engineers, the scheme may be crazy enough to work. "We see no reason that either launchers or satellites should be as expensive as they are," says Washington representative Charles M. Chafer.

The Percheron project seems truly a child of the Reaganomic 1980's. SSI's founder and president, Houston businessman David Hannah, Jr., congratulates NASA on exploring the frontiers of space but asserts that exploiting those frontiers is better left to private enterprise. "We have organized to make space accessible to the private sector for industrialization and commercialization," he says.

SSI intends to get the capital investments needed for space industry down to levels consistent with other private ventures, such as oil and gas exploration. Hannah sees immediate markets in such things as privately owned earth resources satellites, which could provide their owners with proprietary information on, for example, mineral deposits. NASA must by law share its LANDSAT data with everyone.

The Percheron rocket is the brainchild of California's GCH Inc., headed

by self-taught engineer Gary C. Hudson, 31. To keep launch vehicle costs down, Hudson and his team of 30-odd engineers have tried to design a system as simple and as modular as possible. The engines are pressure-fed rather than pump-fed, and they burn kerosene to produce 75,000 pounds of thrust. The basic Percheron module is 40 feet long; for heavy payloads the modules will simply be strapped together in clusters. The payload capsule, with its expensive avionics systems, will be recoverable. Percheron will use off-the-shelf technology throughout.

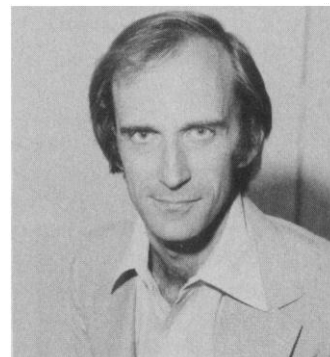
In response to suspicions that this whole thing is some kind of con game, SSI is inviting the press to its July test firings and launch. NASA, according to agency spokesman Charles Redmond, is impressed with the abilities of GCH's top engineers. "Most of the technical people in NASA are saying 'Full steam ahead,'" he says. "If this works, it means space isn't a luxury anymore."—**M. Mitchell Waldrop**

## Rostow Confirmed as Hard-Liner Head of ACDA

Late on the night of 25 June, the Senate confirmed the nomination of Eugene V. Rostow, President Reagan's choice to head the Arms Control and Disarmament Agency (ACDA). As with most top civilians in the Reagan Administration, Rostow is a hard-liner on the Soviets and on the arms control agreements negotiated by previous administrations. "Our 10 years of experience with SALT I and SALT II have been painful and unsatisfactory," Rostow testified at his confirmation hearing. "Our first task therefore is to reassess the role of arms limitation agreements in our foreign and defense policy." The hard anti-Soviet line has not gone down with at least one group, the Federation of American Scientists (FAS), which strongly advocates arms control. In a letter to the committee that held the confirmation hearing, FAS said "We now see that the nominee is considerably more hostile to arms control even than this Administration and, in any case, shows not the slightest appreciation of arms control as we or anyone else defines it."—**William J. Broad**

## Denis Hayes Fired from SERI

Denis Hayes was fired last week as director of the Solar Energy Research Institute. John McKelvey, president of the Midwest Research Institute, which runs SERI for the Department of Energy, said the action was taken "in order



to best achieve the redirection of SERI... consistent with the Department of Energy's revised solar program goals and budget levels."

The request for Hayes' resignation came on Sunday, 20 June, just 2 days after reports leaked to the press about DOE's plans to slash SERI's budget from about \$120 million to \$50 million. The ax would fall hardest on the research that SERI contracts to outside firms and on such activities as providing solar information to the public, supporting solar demonstration projects, and performing socioeconomic impact studies. SERI would be restricted to "high-risk, high-payoff" research—on photovoltaics, for example—performed mostly in-house. Hayes estimated that the proposal might eliminate as many as 350 of SERI's 950 staff positions.

Hayes said that the Reagan Administration does not understand solar energy and tends to think of it in terms of "Jane Fonda and Jerry Brown"—as a radical movement. He also accused Energy Secretary James B. Edwards of a "methodical campaign to destroy what I consider to be America's best energy hope."

Hayes was national coordinator for the first Earth Day in 1970 and for Sun Day in 1978, and was a senior researcher at the Washington-based Worldwatch Institute when President Carter appointed him head of SERI in 1979.—**M. Mitchell Waldrop**