

source like this one could not be detected at the distances of most other galaxies, so for the moment the question whether other spiral galaxies have such sources remains open. However, the wide difference between this source and those of the strong radio galaxies suggests the existence of intermediate strengths, some of which might be detectable.

Whether others are found or not, it remains an advantage to have one such source close by for study. Detailed observations may permit a selection among rival theories of galactic-center development (at least for our own galaxy) and possibly give information on the origin and evolution of radio sources in other galaxies. □

## Monkey motherhood: Two for Primero



National Institutes of Health

*Kraemer and first transferred primate.*

Primero, the infant baboon, has two mothers. He was conceived in one mother, then transferred to another five days after conception. Although he certainly doesn't know it as he plays and develops in his nursery, he is the first step toward a mass-produced primate model for human diseases.

Embryo transfers have been achieved in rats, mice, hamsters, rabbits, pigs, sheep and cows. But Primero, as his name implies, is the first primate produced by embryo transfer. Veterinary researcher Duane C. Kraemer and co-investigators Gary T. Moore and Martin A. Kramen made the transfer last March, and Primero was delivered by Caesarean section on Sept. 5, after a normal gestation period of 174 days. "He was delivered by Caesarean," Kraemer explains, "so that we could obtain blood samples from the umbilical cord and placenta rather than from the infant itself."

The transfer, done at Southwest Foundation for Research and Education in San Antonio, is part of a project to make readily available primate models for various diseases such as atherosclerosis,

diabetes and cancer. "Once we identify a female primate with a certain genetic characteristic," Kraemer says, "—the development of heart disease for example, or glucose intolerance—we could get many more offspring to study in a shorter time through embryo transfer." Rather than one infant per year, the test animal could "produce" many, raised in surrogate mothers.

Kraemer was the first researcher to apply embryo transfer to the commercial production of genetically superior cattle. "This technique allows us to produce 'litters' of superior cattle, taken from an individual female and raised in several." Kraemer presented his primate results to the American Association for Laboratory Animal Science in November and has submitted an account to *SCIENCE*.

Primero was transferred by a somewhat complicated series of surgical procedures—exposure of the donor uterus through abdominal incision, flushing out of the embryo from the oviducts, introduction to the uterus of a second baboon in exactly the same stage of the menstrual cycle. But nonsurgical methods must be developed for removing the embryos, Kraemer says, before primates with the desired traits can be produced cheaply and in greater numbers. □

## Beating developers at their own game

Across the Chesapeake Bay from mainland Virginia runs a narrow peninsula completely disconnected from the rest of the state, called the Eastern Shore. A long string of marshy barrier islands shields the strip from the Atlantic Ocean, and for the past half-dozen years, environmentalists have fought to prevent development of these islands into the high-rise resorts that cover so many other coastal areas. Their success—and their increasingly sophisticated methods—were dramatized last month with the donation of the 13th island to the Nature Conservancy, which now controls a virtually uninterrupted 60-mile stretch of Eastern Shore coastline.

The Nature Conservancy is a group that specializes in preventing overdevelopment by acquiring land outright—either through direct purchase or by donation (usually as someone's tax writeoff). Previous coups have included acquisition of Great Dismal Swamp as a wildlife refuge (SN: 3/3/73, p. 132). But resistance to such efforts has been growing among property owners, who realize they may be able to make more money by selling part of their holdings to developers, while retaining nearby land for its probable appreciation.

To attack this problem, the Nature Conservancy worked with other environmental groups to discourage potential developers, while simultaneously trying to

acquire land without raising suspicion. The Sierra Club, for example, conducted studies that illustrated possible environmental damage development would cause, as well as several practical business problems that had not received public attention. (For example, most of the islands lack fresh water, and builders would have had to provide it through even more extensive development.) Meanwhile, an obscure company called Offshore Islands, Inc., began buying land at depressed prices as formerly enthusiastic developers started backing off.

When the company donated the 2,000-acre Metomkin Island for conservation last month, its true nature was uncovered—rather than being just another land speculation company, Offshore Islands, Inc., was a wholly owned front for the Nature Conservancy. Its donation had helped create what is now billed as one of the largest protected salt marsh systems in the United States. □

## Military lasers

Considering the popularity of "death rays" in science fiction, the general press has been surprisingly quiet about recent advances in laser weaponry reported in *SCIENCE NEWS* and other journals over the last couple of years (SN: 2/2/74, p. 74; 3/29/75, p. 211; 9/20/75, p. 191). That silence has now been broken with wide press coverage of the announcement by the authoritative *Jane's Weapons Systems 1976* that the United States and the Soviet Union are "locked in a costly 'super-scientific' struggle" to develop the first practical laser weapons.

The announcement contained little new information, quoting an estimate that the two countries are basically running neck and neck, but that the United States leads in fabrication techniques, structures and materials. In a follow-up story, the *London Observer* quoted a highly placed NATO source as saying laser weapons are now considered feasible. □

## Energy bill passes

After much haggling over the politically explosive issue of oil price controls, the stalemate between Congress and the President ended with enactment of an energy bill that will roll back crude oil prices, at least temporarily. The bill also included substantial increases for energy research, with total ERDA authorizations of \$2.6 billion. The breeder reactor received the largest slice of the pie—some 20.7 percent—with fossil fuel research closely following with 18.9 percent. Fusion research received 11.4 percent; environment and safety, 9.8 percent; solar, 6.6 percent; conservation, 5.9 percent; other fission, 2.9 percent; and geothermal, 2.1 percent. □