

## DO's Drafted With MD's

The drafting of 111 osteopaths in addition to 2,118 medical doctors by the Army and Navy last week gives recognition by the armed services for the first time to the current status of osteopathy. A bill passed by Congress in 1956 authorized the commissioning of osteopathic physicians in the military medical services. And Secretary of Defense Robert S. McNamara ordered it last year.

**There is urgent need** for qualified medical officers, the Defense Department says. Not enough volunteers have offered their services since last April when Sec. McNamara instructed the armed forces to change their regulations dealing with medical commissions so that qualified osteopaths could be accepted.

Training of osteopaths is not confined to the concept of manipulative therapy that is the specialty of this medical system; it hasn't been in many years. In 40 states and the District of Columbia the DO is granted an unrestricted license to practice medicine, including the use of all drugs and the performance of surgery.

**The DO is required** to pass three years of pre-professional training before entering the four-year course in one of five colleges of osteopathy. Officials of these colleges say that 85 percent of the entering students have bachelor's degrees in the arts or sciences, and many have an M.A. degree. Following graduation from an osteopathic college those who wish to specialize take three to five more years of training—surgery requiring the longest time.

The DO takes 5,000 hours of medical training, including 500 hours of osteopathic theory, concepts and manipulative therapy. The MD takes 4,500 hours. The word osteopathy refers to bones that are causing illness through displacement.

The first College of Osteopathy and Surgery was founded at Kirksville, Mo., is one of the five functioning colleges. The others are in Philadelphia, Pa., Des Moines, Iowa, Chicago, Ill., and Kansas City, Mo. A sixth college is nearing completion at Pontiac, Mich.

At the annual convention of the American Medical Association last June in San Francisco, the House of Delegates approved inclusion of doctors of osteopathy in the armed services. DO's have previously served in the Veterans Administration and in the Public Health Service.

## Filling a Weather Gap

A year ago this month, the Environmental Science Services Administration launched its second satellite, appropriately named ESSA-2. For the most part, it has been doing yeoman service, taking more than 32,000 pictures of clouds, storms and other meteorological events and beaming them down to the relatively simple, inexpensive ground stations made possible by its automatic picture transmission cameras.

But there is a hitch. A slight error in its injection into orbit has resulted in a slow daily drift—a sort of "backsliding" around the equator. Originally, the satellite, which circles the earth once a day in a near-polar orbit, was to have made its daily north-to-south crossing of the equator at 9:00 a.m. As a result of the backsliding, it now crosses at about 7:30 a.m. and is getting earlier all the time, which means that more and more of its pictures are of areas of earth bathed in darkness.

**If this happened** to most weather satellites, the scientists in charge would ultimately make do with whatever limited data they could get. ESSA-2, however, is part of a network that collects data about the weather everywhere, every day. "This requires replacement of satellites with no gaps in

coverage," says a program official at Radio Corporation of America, the ESSA system's masterbuilder.

On Jan. 26 of this year, ESSA sent in a replacement to fill the gap. ESSA-4 has the same kind of automatic TV cameras as the satellite whose tracks it must cover.

**Before beginning** the satellite network, ESSA and the National Aeronautics and Space Administration used 10 Tiros satellites in which to try out cameras and other instruments, meanwhile getting thoroughly committed to the idea of a permanent system. The last four are still working, having sent back some 400,000 pictures.

ESSA-1 was the first Tiros Operational Satellite, launched Feb. 2, 1966 and followed 25 days later by ESSA-2. ESSA-3 was called up last October with an advanced camera system that offers resolution as good as or better than satellites traveling only half its 850-odd miles above the ground.

Under present plans the system should get no larger than three satellites, except for replacements. The upcoming international World Weather Watch, however, should require a few more. Future models will also have infrared cameras for night photos.

### WATER RESOURCES

## Grand Canyon Dams Go

Interior Secretary Udall passes the hot potato to Congress.

In a strong attempt to end controversy over its plans for the lower Colorado River, the Interior Department last week announced it has abandoned plans to construct two dams in the Grand Canyon.

However, Interior Secretary Stewart L. Udall left a final decision on one of the dams, Bridge Canyon or Hualapai Dam, up to Congress. He proposed that the other dam site, in Marble Canyon, be included in Grand Canyon National Park.

Both the dams, to have been built just upstream and downstream from the park are vigorously opposed by conservation groups such as the Sierra Club. The dams, they say, are unnecessary and would reduce the mighty Colorado to a muddy creek within the park.

Secretary Udall denied that his revised proposal is in any way a capitulation to the conservation groups. "I think

this plan is a victory for common sense," he told a press conference. ". . . it eliminates the controversy . . . and lowers the cost of the project. The Arizona project doesn't need a dam. . . . This can wait for the future."

Originally, the two dams were to have generated electricity for pumping stations in the Central Arizona Project, a vast irrigation scheme, the power to be sold to finance the project.

Electricity can be obtained cheaper from a private power station, Secretary Udall said, and costs can be made up by raising water rates to municipalities and industry and by a six-tenths mill tax in three Arizona counties.

Total estimated cost of the revised proposals is \$719 million, including an \$88 million prepayment of electric bills. Previous total estimates have run as high as \$1.6 billion for lower Colorado River development.