

## ROCKETS AND MISSILES

# Reports on Missile Range

THE OPERATION and management by private industry of the Atlantic Missile Range at Cape Canaveral was investigated by Congress.

The important Air Force installation for several years has been managed by Pan American World Airways. The inquiry by Rep. Victor L. Anfuso (D.-N.Y.) for the House Committee on Science and Astronautics was prompted by reports of alleged "irregularities and inefficiencies in range management." Another reason was to determine whether it might not be better and more economically managed by the Air Force and Civil Service.

When the Pan American management contract originally was made with the Air Force, Roger Lewis, now a vice president of Pan American, was assistant secretary of the Air Force. Shortly after the contract was negotiated, he resigned from Government to assume his position with Pan American, which he still holds.

Rep. Anfuso reported an air company official said that Mr. Lewis has "no direct connection with AMR."

Millions already have been invested in range facilities and equipment at the

Atlantic Missile Range, or AMR. A Department of Defense management study indicates that AMR's potential for expansion and development is practically complete, and that the installation already is "substantially saturated with missile launching facilities." The Defense study indicates that private management of the missile range did not involve significant cost differences, but that the expansion probably was done more efficiently under Pan American than it would have been done by the Government.

The Defense findings have been substantiated by Rep. Anfuso, who has stated that under Pan American, "AMR is now being successfully managed and operated," and "that Pan American contract management has not been significantly more expensive than alternative management arrangements . . ."

The Congressional report states that industrial management "especially in the early years" of AMR development "has probably been more effective." However, it recommends "a close and continuing watch on AMR" and a careful review of present management arrangements within a year.

• Science News Letter, 78:84 August 6, 1960

## MEDICINE

# Lie Detector Helps Heart

THE LIE DETECTOR, presently an outlaw in the courtroom, has found new favor with the medical profession. The detector or polygraph may be able to predict likely candidates for coronary heart disease.

Drs. Meyer Friedman and Ray H. Rosenman, of the Harold Brunn Institute, Mount Zion Hospital and Medical Center in San Francisco, report that the typical "go-getter" has clinical coronary heart disease seven times as often as "normal" persons.

This patient usually has certain telltale mannerisms such as rapid, frequently forced and audible intake of breath; explosive intonation or emphasis or certain individual words in sentences; tense facial and body muscles; frequent fist clenching during ordinary conversation; and consistent tendency to hurry the pace of ordinary conversation by finishing the other person's sentences or by rapidly uttering such phrases as "yes, yes," or "I see, I see."

This characteristic behavior pattern is sometimes consciously or unconsciously camouflaged by the patient, or the doctor may overlook it.

The problem is to find some way of measuring those stress reactions that a patient does not voluntarily control. The lie detector may be the answer.

The doctors selected a group of 20 persons suffering from coronary heart disease, another group of 15 normal persons and a third group of seven persons with functional cardiovascular disease. Each underwent a polygraph test while listening to a tape recording of interrupted monologues designed to cause irritation.

The results showed that the coronary disease patients were clearly differentiated from the other two groups by a rapid rise in the respiratory wave when inhaling, by a greater expansion of the upper as compared to the lower half of the chest, by a threefold greater incidence of respiratory deformities, by a twofold greater incidence of body movements and by a frequent clenching of hands.

Anyone who takes this test and shows two or more of these criteria, the doctors assert in the *Journal of the American Medical Association*, 173:1320, 1960, probably has "overt behavior pattern A"—the go-getter. This does not mean he has or will have coronary heart disease. It just means his chances are greater.

The lie detector is one way for an untrained observer to detect behavior pattern A, and this may lead to mass predictive studies, the doctors conclude.

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## PSYCHIATRY

# Troubled Boss Imparts Feelings to Subordinates

A TROUBLED BOSS may communicate his feelings to his subordinates, who in turn pass them on with an increase in intensity.

An editorial in the *Journal of the American Medical Association*, 173:1361, 1960, based on a pamphlet of the American Psychiatric Association titled "Troubled People on the Job," says in part:

"Emotional disturbance is known to pose a serious threat to business in this country. Emotional tensions among employees result in absenteeism and in accidents on the job. A frequent complaint or justification for absenteeism is attributed to the common cold, headache, migraine and gastrointestinal disturbance.

"These excuses, although generally accepted, are probably more often direct effects of managerial mismanagement or misconception of supervision. . . . A boss who is troubled with anxiety, hopelessness, irresponsibility, hostility or anger may communicate these feelings to his subordinates, who in turn pass these reactions along, frequently with an increase in intensity."

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