



You Get Things Done Better And Faster

The BOARDMASTER saves time The BOARDMASTER saves time, cuts costs and prevents errors. You see what is happening. Shows facts at eye level. For Production, Scheduling, Inventory, Sales, Traffic, Etc. Simple to operate. Write on cards, post on board. Fully flexible. Million in use. Price \$49.50 with cards.

FREE 24 Page BOOKLET No. V-10
Mailed Without Obligation

GRAPHIC SYSTEMS, Box 398, Yanceyville, N.C.



Add 25c p.p. handling each order.

NOVEL PRODUCTS CORP. 31 Second Ave., Dept. B35
New York, N. Y. 10003

amateurs who hav of exploring our m joyment begins ri	9 Signature 1949
Choose fr DYNASCOPES Picking a telescop	an be shared at modest cost. om a Full Range Of 8 4" Starting at \$49.95 be to fit your needs and your
more than 150 so atories. Prices be	imple when you select a e same instruments used by chools, colleges and observ- egin as low as \$49.95, and is guaranteed by a full-
FASCINATING YOURS F Read these valuab fore buying any tele coupon or postca complimentary co helpful guide.	REE! lle facts be- escope. Mail
	curing Co. artford, Conn. 06101 stered U.S. Pat. Office
CRITERION MANUE	FACTURING CO., Dept. NL-23 rtford, Conn. 06101
	ree Telescope Guide.
Address	
City	State

LETTER FROM MEXICO CITY

Coping with quakes

With the exceptions of British Columbia and the northern part of Chile, no other part of the American Continents has seismic activity as intense as that in southern Mexico, especially in the states of Guerrero and Oaxaca, and in submarine areas off the coasts of these two states.

Seismic engineering, despite the fact that Mexico is a land of both earthquakes and volcanoes, has been a relatively neglected specialty largely because really destructive quakes, which have rocked the Republic, can be counted on the fingers of one hand. But since the major quake of July 28, 1957, which affected a wide area of Mexico and destroyed buildings in hinterland areas as well as in the capital city, there has been a change of heart. By 1963, a year before the next great quake, there was so much interest in seimic engineering that the Mexican Society of Seismic Engineering was formed with a membership roster of 100. It has since almost doubled.

Some 27 accelerographs, costing about \$4,000 each, have now been distributed throughout the country to obtain data on oscillations of large buildings under tremors of various intensities. The shocks registered by this equipment are being analyzed at the National University of Mexico's School of Engineering, where they are providing a key to the earth movement patterns produced by quakes in different zones of the Republic.

The largest concentration of the instruments, of course, is in Mexico City, where valuable data on earth displacement have already been charted. "We know," says Jorge Prince of the School of Engineering, "that differences in composition of soil in various parts of the city cause different terrestrial movements." Thus one of the instruments has been placed in the principal University City building, four at the vast Nonoalco-Tlatelolco housing unit, one in the Latin-American Tower skyscraper, another in the Hotel Maria Isabel and one in an insurance office building on Paseo de la Reforma.

All major Mexican dams have accelerograph installations, as do key locations in such quake-prone areas as Acapulco, Chilpancingo and Veracruz.

"With the aid of this apparatus," says Prince, "in the next few years we will have data of great importance for the development of the construction industry and the erection of as many quake-proof buildings as is possible."

Intensified studies and construction reforms based on quake experiences have shown that structures built in accord with modern techniques, as counseled by seismic engineers, have withstood damage. The 42-story Latin-American Tower in Mexico City, for example, did not suffer even one broken window in either the 1957 or 1964 quakes. Other structures, however, including the Hilton-Continental Hotel, had major wall cracks, floors weakened, and cornices tumbling, while quite a number of buildings were leveled.

Even with design and construction in accord with seismic engineering standards, however, major damage can be expected if a violent quake should hit a major population center and last more than the 15-to-60 second shocks experienced so far.

'But the odds against anything like this happening are large," says Prince. "And that is why construction now and in the last five years or so has been on principles designed to resist quake damage. Costlier construction pays off, since a building resistant to quakes saves the costs of continuous repairs."

Birth control

With the third highest abortion rate in Latin America, Mexico is struggling toward birth control, despite heightened opposition from the Catholic Church.

There is as yet no official birth control program, but private organizations are active and lately the clinics of Mexican Social Security Institute have begun warning women against abortion and instructing them in birth control methods. The program, however, is kept quiet.

In a nation of 42 million people, illegal abortions are running about 600,000 a year, reports the Mexican health department's Center for Reproductive Research. This figure, while very high, includes only known cases of abortion—women who turn up at public health centers with post-abortion hemorraghing. The death rate from illegal abortions is also very high, at 32,000 per year.

The research center stressed that birth control is a necessity and said the government must not remain indifferent to the problem. According to a recent private study of 1,500 women from low income areas, 90 percent expressed an interest in birth control.

Emil Zubryn

510/science news/vol. 93/25 may 1968