

ASTRONOMY

Observatory Named

Best private astronomical observatory in Latin America named for Leon Campbell who headed the American Association of Variable Star Observers for 30 years.

► THE BEST private astronomical observatory in Latin America now bears the name of an American who never visited Mexico yet whose leadership in variable star observing won appreciation throughout the world.

The new Leon Campbell Observatory is the creation and joy of a leading automobile distributor of Puebla, Sr. Domingo Taboada, whose jolly bearded countenance is seen at the professional and amateur astronomical meetings of Mexico.

Leon Campbell was executive head of the American Association of Variable Star Observers for 30 years. He died last May. From Harvard Observatory in Cambridge, Mass., he sent to scores of amateurs, young and old, instructions as to which of the thousands of fluctuating stars in the heavens needed watching.

One of these volunteer observers was Sr. Taboada who began by building his own simple telescope of the sort that is effective for variable star observing. Campbell recognized him as competent and

enthusiastic and there arose a correspondence of scientific friendliness.

Sr. Taboada became as interested in the heavens and telescopes and clocks that look to the stars for their time as he was in the thousands of automobiles and trucks that he sold.

His offices and shops, not far from the center of one of the oldest of Mexican cities, became more and more of an observatory and a museum.

With Campbell's guidance he bought a modern six-inch refracting (lens) telescope from Warner and Swasey, Cleveland, who have made many of the world's big telescopes. He paired with it a 12-inch reflecting (mirror) telescope with photographic attachment. These are suitable for spectra work and photographing comets, novae or new, exploding stars and other objects. Any university would be proud to have such instruments in their special domes and accompanying laboratories and shops.

When Dr. Harlow Shapley, director of Harvard College Observatory, came to Mex-

ico to receive an honorary degree upon the occasion of the 400th anniversary of the National University of Mexico, Sr. Taboada invited him to unveil the name plate of the new Campbell Observatory. Among those at the dedication were the Mayor of Puebla, Nicolas Vazquez, and Dr. Guillermo Haro, director of the National Astrophysical Observatory in nearby Tonanzintla and the Mexican National Observatory in Mexico City.

The Tonanzintla Observatory, which was built eight years ago by the state of Puebla and the Mexican government with the help of Dr. Shapley and his colleagues, has one of the largest and most effective Schmidt photographic telescopes upon which significant discoveries are being made by a staff of professional astronomers who have been trained in both Mexico and the United States.

Sr. Taboada's new observatory has in several cases cooperated in detailed photographing of new discoveries, such as the Haro comet of a few months ago.

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RADIO

Weather Changes Radar Range Near Lake's Surface

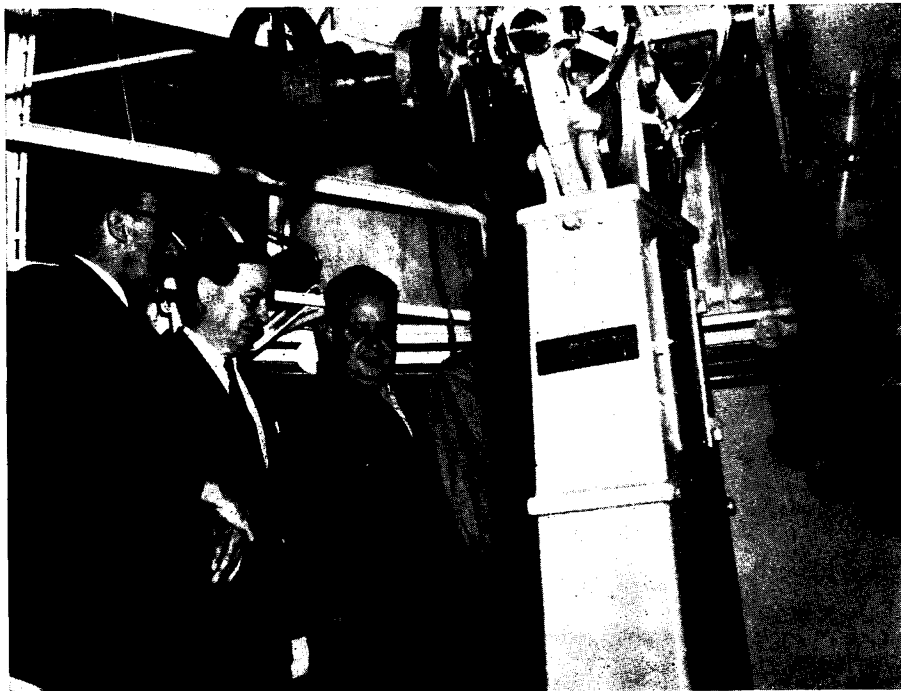
► RADAR RANGE for ship-borne equipment on vessels on the Great Lakes becomes from 10 to 15 times greater than normal under special atmospheric conditions, studies made by the Canadian Research Council show. These special conditions occur largely in summer.

The studies were made on Lake Ontario. The special conditions that increase radar range are quite common on fine summer days. These occur when a layer of air from 50 to 200 feet thick is formed next to the water. The layer traps much of the energy radiated from the radar and guides it along the surface of the water, far beyond the optical horizon.

The trapping of radar waves in these surface layers creates several practical problems. Important among these is the danger that mariners on the lakes may come to think of the splendid radar ranges in fine weather as normal and thus get into difficulties in bad weather. There is also a danger that ship-borne radar antennas may be mounted too high to take full advantage of the remarkable propagation within the surface ducts.

In studies now being made, a typical marine radar is mounted in a cage which travels slowly up and down a cable from the top of a Lake Ontario bluff to the water level. A photograph of the radar screen is taken automatically every 30 seconds. This gives a record of radar performances under prevailing weather conditions for all radar heights from ten feet above the water to 250 feet above.

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CAMPBELL OBSERVATORY—Inspecting its 6-inch refractor at the dedication of observatory at Puebla, Mexico, are (left to right) Domingo Taboada, Dr. Harlow Shapley and Mayor Nicolas Vazquez.