

No. 248

A Science Service Feature

Feb. 27

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University.
discusses:

EARTHQUAKES AND STORMS

The coincidence of earthquakes and intense cyclones has often been noted. Where conditions are ripe for an earthquake the earth's crust is in an unstable condition. It is possible that the stresses accompanying the passage of a severe cyclone may be sufficient to initiate the quake.

It is clear that tropical cyclones subject the earth's crust to an appreciable and relatively sudden strain, especially on coasts. A drop of two inches in barometric pressure means that a load of about two million tons is removed from each square mile of land, while over the neighboring sea a 10 foot rise of water commonly associated with such a storm would add about nine million tons, less two million tons for reduced air mass, or seven million tons, per square mile of sea-bottom. When a tropical cyclone passes, a difference in pressure of millions of tons per square mile on land and sea-bottom is created and dissipated within relatively few hours.

A typhoon, or tropical cyclone of the Pacific, commenced at Yokohama just before the great earthquake and affected Tokio soon after. The winds of the typhoon made the fires terribly destructive to life and property. Refugees fleeing to windward found themselves to leeward of the flames as the wind shifted while the typhoon passed. Unfortunately the storm center did not come close enough to give rain.

(Tomorrow: Observe the Weather)

All rights reserved by Science Service

Science Service,
1115 Conn. Ave.,
Washington, D.C.