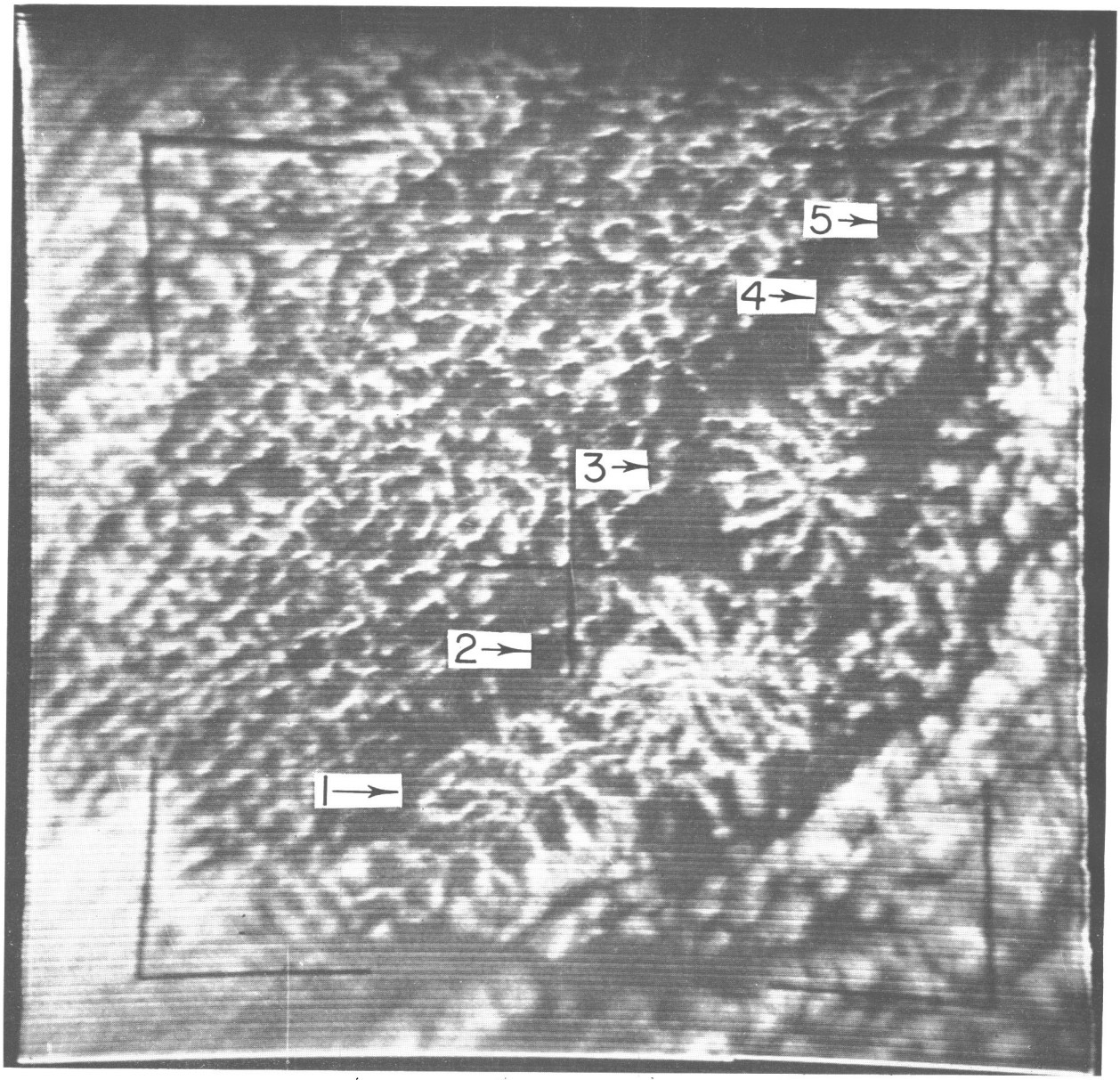
PICTURE OF THE MONTH



TIROS V, 1500 GMT, October 7, 1962. Numbered cloud pattern is along 7° S between 87° and 97° W.

It is appropriate that this series begins with a type of cloud pattern discovered on TIROS pictures. The numbered arrows indicate a line of actinoform patterns presumably in various stages of development. Numbers 4 and 5 almost merge and 1 is poorly organized, but the typical pattern is easily seen in 2 and 3.

The first example of this was seen on August 16, 1962 when TIROS V revealed a single pattern such as this, centered about 100 miles south-southwest of Hawaii. The simultaneous surface observation at Hilo, Hawaii, reported "low cloud 8" made up of 2500 ◑, 5000 ◐. Although Hilo was within 30 mi. of the edge of this pattern the clouds of interest lay 30 to 200 mi. cross-wind from the observation point and it is possible the observations are not entirely representative. Since then several other pictures of like patterns have been obtained, but none near surface observations.

The common features of these actinoform patterns are:

1. All have occurred in the Tropics or subtropics.
2. All have occurred where there was an observed inversion or the likelihood of one. The Hawaiian Island case showed a well-developed trade wind inversion somewhat below normal height. The location of the case pictured here suggests the probability of an even lower inversion.
3. The individual pattern near Hawaii was about 200 mi. in diameter. The ones pictured here are about 125 mi. in diameter.
4. The cloud field in the vicinity is the type already known to be associated with low-level inversions.
5. The radial arms have a weak tendency to curve in one sense. The case in the Northern Hemisphere curved clockwise outward, those in the Southern Hemisphere, counterclockwise outward.