

CONNECTION BETWEEN THE SWELL ALONG THE COAST OF MOROCCO AND THE MICROSEISMIC DISTURBANCES IN WESTERN EUROPE

(From a Note by Mr. PIERRE BERNARD published in the *Comptes-Rendus de l'Académie des Sciences*, Paris, 12th July 1937).

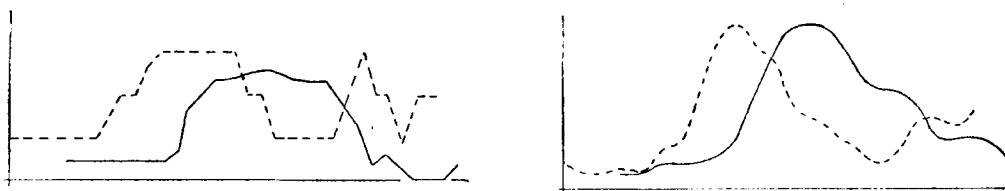
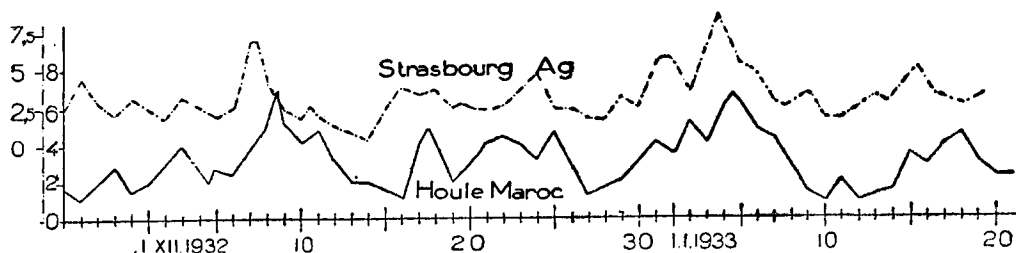
Mr. Pierre BERNARD has had the idea of using the observations of swell made on the North-west coast of Morocco for comparison with microseismic motion recorded at Strasbourg.

The results of the comparison reveal :

1. — A close parallelism between the variations of the magnitude of swell in Morocco and those of the microseismic disturbances at Strasbourg, as will be ascertained from examination of the accompanying figures.

2. — That the maximum disturbances at Strasbourg are *in advance* of the maxima of swell in Morocco.

3. — That the difference in time interval for the arrival of the maximum disturbance at Strasbourg and the corresponding maximum of the swell is *not constant*.



A study of the dates of maximum microseismic disturbance at Strasbourg will show that they correspond to the presence on the ocean of a depression area, more or less marked and the position of which is variable. On the assumption that this state of depression is the common origin of two propagations, one through the bed of the ocean: seismic disturbance, the other through the surface of the sea: swell, it is realised that the propagations are operated with very different speeds — that through the ocean bed attaining a much higher speed than the propagation of the swell. The maximum swell in Morocco lags from one to three days on the corresponding maximum recorded at Strasbourg.

From a practical point of view, a more thorough knowledge of the law of variation of the microseismic disturbances would certainly provide very useful indications for the forecasting of the swell along certain coasts such as that of Morocco.

H. B.