

METEOROLOGY

# Great Flood Weakened China; May Have Precipitated War

## Rainfall Figures of 1931 Inundation Explain Why Reserve Supplies Were Lost, Leaving Nation Vulnerable

FROM the interior of war-torn China have come the first official reports of the drenching rains of last summer which sent the Yangtse river into roaring flood and by laying waste to lives and property impaired the resistance which can now be offered invading Japanese armies.

### Waited for Chance

The financial straits China now experiences are largely due, the legation of this oriental nation at Washington stated, to losses from the flood. It was also stated that Japan waited until the raging waters left their cruel mark and then took advantage of the opportunity to attack a weakened country. At the time of the disaster the U. S. Department of Commerce reported that the majority of China's reserve clothing, foodstuffs, and machinery had been destroyed by the flood.

Although gathering rainfall records in America is an easy and rapidly accomplished task, in China there is a lack of meteorological organization, and it is months after such a calamity as the recent flood before the telltale figures can reach the outside. At many of the weather stations, the Department of Commerce reveals, information must be carried either by airplane or along the treacherous Yangtse in a frail boat, as there are no roads in that wild section of the interior.

Stations in the Yangtse drainage area have yielded precipitation figures which explain why the 1931 inundation was the worst since 1850. At the city of Hankow, where the flood waters surged most disastrously, the rainfall increased steadily from 1.6 inches for 11 days of rain in January of last year, to 21.5 inches for 22 rainy days in July, 1931, when the flood was at its peak.

This 21.5 inches represents approximately half the total average annual rainfall for that city during the last decade, and almost equals the amount of rain the western part of the American grain belt receives in an entire year. Hankow is situated directly on the Yangtse

some few hundred miles west of Shanghai, near where the now peaceful river empties into the ocean as Japanese warships and bombing planes continue the destruction initiated by the flood. Figures from other Chinese cities also show how the rainfall began increasing from January and February until the summer months when the rains poured in destructive torrents.

The flood rains were greater than in former years. Changsha, south of Hankow in the province of Hunan, had 33.7 inches of rainfall during May, June, and July last year, while the average precipitation for these months over the past 14 years is only 20.94 inches. At Ichang, where the Yangtse roars out of its high rock walls, the early summer average for the last 11 years is 18 inches of rainfall, but in 1931 32.5 inches fell from May through July, and during July it rained fourteen days at an average of an inch per day. Rainfall figures for these months were also in excess of previous years at the Chengtu weather station in the Szechwan uplands.

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NATURE STUDY

### Nature Calendar Shows Outdoor Life for Month

THE Nature Calendar as a museum exhibit is a feature of the Buffalo Museum of Science. Month by month throughout the year the exhibits in the two cases devoted to the Nature Calendar are changed so that natural objects to be found out of doors during the month are shown in season.

In the top of each case is a large headline label bearing the title of the case—Out-of-Doors This Month. Beneath this is a dial on which are indicated the months and seasons, with a hand pointing to the current month.

The March exhibit features one of the earliest spring flowers in Western New York, the pussy willow. The mourning-cloak and tortoise-shell butterflies which have been in hibernation

during the winter and so appear early are given a place with the first spring arrivals among the birds. A promethea moth cocoon also figures in the exhibit. Of the birds are shown robin, song-sparrow, meadow lark, and bluebird. A bluebird house of simple design suggests that the house should be ready for occupancy in time if one wishes to have these birds nest near by. This bird house is made to simulate a section of tree trunk and may be constructed of packing-box material.

Among the small mammals which may be looked for in the woods are the squirrels which are in evidence the year around. Black, red, and flying squirrels are shown this month in the Nature Calendar.

Each object is labeled and a few lines of poetry conveying a thought for the month form the subject of a card displayed on the back wall of the case.

Exhibits must be of such nature as will permit their being kept in a closed case for a month. This precludes wild flowers generally unless modeled in wax. The willow catkins used this month have been forced into bloom in the house. They will remain on the dry stems for several weeks.

*Science News Letter, March 12, 1932*

A transparent adhesive tape that requires no moistening has been produced from cellophane.



**MARCH HARE AND OTHERS**  
*The new Nature Calendar of the Buffalo Museum of Science.*