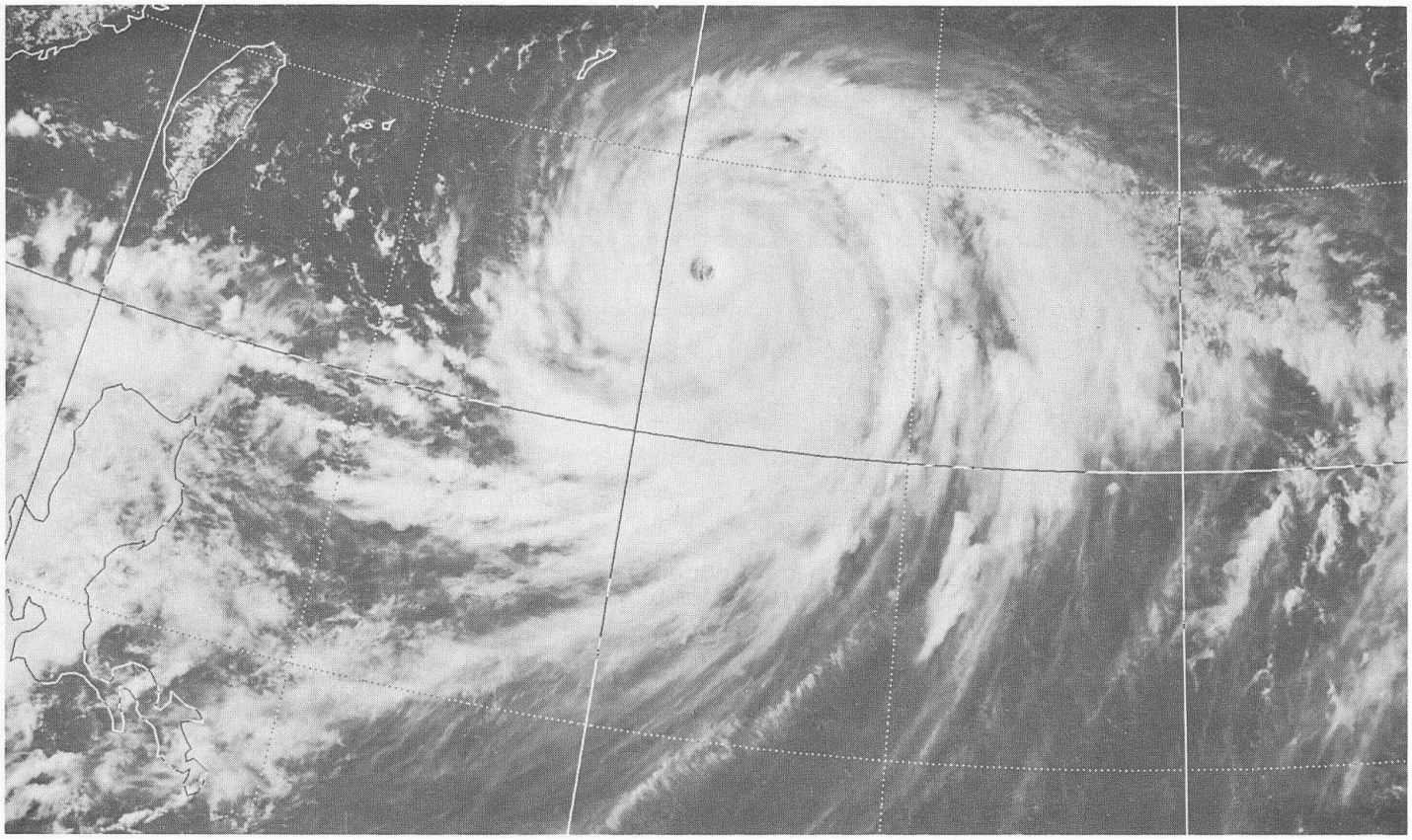

Satellite image of tropical cyclone in the North-west Pacific. WMO

back into the column of warm air and suppressing further rainfall.

Residents in many coastal communities south of the equator believe that once a tropical cyclone is south of the latitude of their town they are out of danger. The convoluted twists and turns in the tracks of almost all tropical cyclones conclusively disprove this dangerous myth. It cannot be overemphasized that people should continue listening to all announcements while warnings are still being issued in their area.

In the southern hemisphere tropical cyclones occasionally form right on the monsoon through, where they tend to move quite slowly and very erratically.

Cyclone Warnings

What should a Tropical Cyclone Warning tell the residents of threatened communities? Traditionally people have wanted to know when the centre or eye of the tropical cyclone will arrive. But in large tropical cyclones the onset of dangerous conditions can precede the eye by many hours. A Tropical Cyclone Warning contains information about the time of onset of gales and destructive winds, and specifies the zones of coast under threat. The strongest winds are usually an hour or two before the arrival of the eye and again after its passage. Residents should take careful note of all this information. The time of arrival of the eye is not the most important item in a Tropical Cyclone Warning. It is much too late by then to begin taking precautions against dangerous conditions.

Although winds in tropical cyclones cause spectacular devastation, it has been the inundation of low-lying coastal areas by storm tides that has historically caused the greatest toll in human lives. For example the death toll from the storm tide caused by the November 1970 cyclone in Bangladesh was estimated at between 300,000 and 700,000.

A storm tide is the sea level attained when a storm surge generated by a tropical cyclone is added to the normal or astronomical tide. A storm tide comprises a slight rise in sea level due to the reduced air pressure and a larger rise due to wind stress on the sea surface. This effect is greatest over a sloping sea bed where the water is piled up in the shallows along a coast.

The height of a storm surge is determined by the intensity of a tropical cyclone, its speed of movement and angle of approach to a coast, the slope of the sea bed and the shape of the coastline. When a tropical cyclone makes landfall the storm surge will be highest at that point on the coast where the onshore winds are at a maximum.

A storm tide may inundate the coastal plain for hundreds of metres