

PHILIPPINES

Five Typhoons

August 31 to November 19, 1970

... leave 2,474 people dead or missing—over 1,000 injured—almost 2 million homeless—over 273,000 homes and 31,000 classrooms destroyed—thousands of acres of crops, bananas, rice, coconuts, destroyed or damaged—total estimated dollar damage \$186 million.

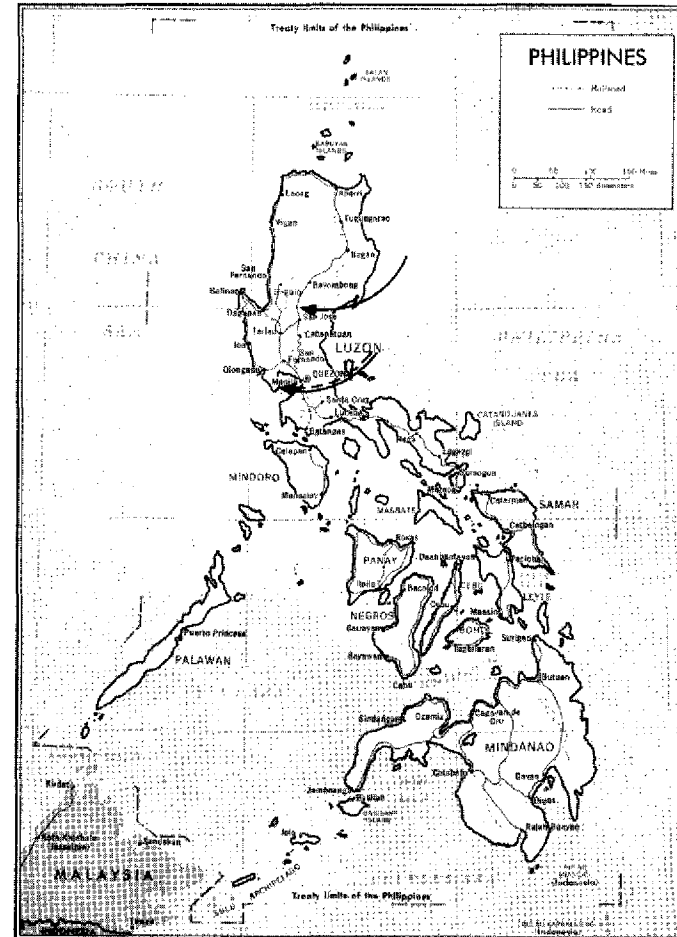
This was the devastating effect of five major typhoons which lashed the Philippines from August 31 to November 19, 1970, with winds ranging from 90 to 150 miles per hour, accompanied by torrential rains and floods.

Values of U.S. Assistance	\$4,991,423
Value of Assistance by Other Nations	323,310
	<hr/>
	\$5,314,733

DETAILS

Typhoon Fran (Meding)—42 dead
 12,000 homeless
 2,000 homes destroyed
 \$989,867 estimated dollar damage

This storm combined with local weather fronts to bring record rains and flooding to the Manila area. Beginning with a thunderstorm in the early morning hours of Monday, August 31, continuous torrential rains fell on Manila for six days. Heavy



flooding was observed in many parts of the city as early as Monday evening. Tuesday morning, September 1, several major rivers began overflowing. On this day the heaviest rainfall of any 24-hour period in 103 years occurred—an estimated 15 inches. The Presidential museum and office building were flooded, and schools became emergency shelters for many evacuees. Other hard hit areas besides Manila were Bulacan and Pampanga.

Typhoon Georgia (Pitang)—95 dead
66,000 homeless
11,400 homes destroyed
\$1,362,730 estimated dollar damage

Hardly had disaster relief centers established for Typhoon Fran's victims been closed when, on September 12 Typhoon Georgia struck, bringing further death and destruction, especially to Aurora sub-province of Quezon province on the east coast of Central Luzon. Wind and rain damage extended across Northern Luzon from Aurora through Nueva Ecija, Nueva Vircaya, Isabela, Tarlac, Pangasinan and Zimabales. There was, however, little flooding in Manila as a result of this typhoon. Casiguran in Eastern Luzon and two nearby towns were virtually flattened by the more than 90 miles per hour winds. All public buildings in Casiguran were reportedly destroyed, bridges washed out; up to 95 percent of the houses were destroyed or damaged and livestock losses were heavy. It was said that inadequate typhoon warning resulted in hundreds of the townspeople being caught on their fishing vessels causing almost 100 to drown. Loss of life ashore, despite very heavy property damage, was limited to two persons. News of the disaster was slow to reach Manila because of downed telephone lines. There was a more than 48-hour delay in reporting the devastation caused by Georgia.

Typhoon Joan (Sening)—723 dead and missing
910 injured
978,000 homeless
150,800 homes destroyed
\$73 million estimated dollar damage

On Tuesday, October 13, Typhoon Joan battered the Bicol area with winds up to 150 miles per hour—the strongest for that region in 30 years. Substantial villages on the unprotected east coasts of Catanduanes, Albay and Camarines Sur were totally levelled by wind action, while floods from the accompanying rains made giant lakes many kilometers in length in part of western Camarines Sur, from which the water did not recede for several days. Crop losses to flooded rice and to coconuts were great, the Camarines Sur “rice bowl” being one of the areas seriously affected.

This is what happened in one town in the Bicol region—Baao. At 10 00 a.m. the children were all sent home from school. Early in the afternoon lashing winds collapsed the central school building leaving only a foot of the concrete walls standing. Soon thereafter the entire galvanized iron roof of the public market flew across the street. In the evening the Baret dam of the National Power Corporation at the Buhi-Baao boundary broke. Rushing water wiped out five houses and a health center at the foot of a hill.

Almost all communications facilities in Bicol were destroyed by the winds. The first direct information from the area to reach Manila the afternoon after the storm was a telegram to Church World Service through the radio services of the Volcanology Watch Service, which maintains an observation station at the foot of Mt. Mayon at Tiwi, Albay. This pitiful message appealed for aid stating that Tiwi had been almost totally destroyed with many killed and injured. It was forwarded to President Marcos who read it on an emergency TV broadcast. Radio communications were soon reestablished with the Albay Provincial capitol, Legaspi, which was on the southern fringe of the destructive winds. Philippine and U.S. aerial reconnaissance followed. By October 15, this aerial observation showed that hundreds of barrios in Catanduanes, Camarines Sur and Albay had been flattened and were totally isolated. The people had little food except for damaged bananas and downed coconuts. Local grain supplies had been mostly destroyed and were almost unobtainable in the region.

After passing through Bicol, Joan roared with somewhat diminished but still damaging fury through parts of Quezon, Laguna,

Batangas, Rizal, Bulacan, Pampanga, Bataan and Zambales before moving west into the China Sea. The Manila area also received heavy winds and rain but relatively light damage.

Although hundreds of lives were lost, the death toll was considered small in light of the almost incredible destruction of homes and public buildings. This was attributed to good advance warning on the typhoon's arrival.

On October 26, it was reported that epidemics of dysentery, diarrhea and typhoid had broken out in two of the typhoon-ravaged provinces.

Typhoon Kate (Titang)—828 dead and missing
75 injured
236,000 homeless
40,000 homes destroyed
\$12.5 million estimated dollar damage

Almost before Typhoon Joan had stopped blowing in the north, the next typhoon of the season, Kate, struck the east coast of Southern Mindanao on October 18. Though its winds lacked the fury of Joan, it brought high tides and waves to a part of the Philippines unaccustomed to and unprepared for typhoons. Kate swept through Palawan, buffeting the Western Visayas as it moved on.

Since this part of the Philippines is considered almost typhoon-free, most houses are of very light construction. Many of the people living along the coastlines of the region are fishermen. Farmers and fishermen also live in the wide flatlands along the rivers of Mindanao, especially North Cotabato. Most of these rivers overflowed their banks, flooding large areas of farmland and damaging crops. Mindanao is a major coconut area, especially in its eastern provinces. Kate's winds were great enough to damage part of the trees. Kate did more damage and caused much more loss of life than would normally be expected of a typhoon of similar intensity in the usual typhoon belt, i.e., the Eastern Visayas and Bicol.

Typhoon Patsy (Yoling)—786 killed and missing
2,074 injured
68,900 homes destroyed
430,000 homeless
\$97,656,250 estimated dollar damage

November 19, 1970, dawned in Manila with gray skies and brisk winds. Early morning newscasts advised that the city was already in the radius of Typhoon Patsy, whose moderate winds were expected to pass somewhat to the south during mid-afternoon. No real alarms were given so most Manilans proceeded to work as usual.

Driving rains commenced about eight in the morning with increasingly heavy gusts of wind. By ten, sheets of rain had reduced visibility to a few blocks. Winds rapidly increased. About 10:45 power failed. Screaming winds carried heavy objects such as sheet roofing and flying timbers through the air. As one eyewitness put it "*galvanized rooftops sailed away like flying carpets*." Offices were ordered closed, but roads were already blocked by floods, downed trees, wires and stalled autos.

The U.S. AID Mission reported that its 18th floor Disaster Center in the Ramon Magsaysay Building swayed almost as heavily as in recent grade 6 earthquakes. Looking out the window from this vantage point, mission personnel could see whole roofs and trees blow by 200 feet in the air.

Windshields were blown out and hoods were torn from parked cars, some autos were bowled over like toys. Those familiar with killer typhoons in Okinawa and Taiwan realized that Manila was having a big one.

Suddenly—at about noon—the winds stopped, and a wan sun appeared through a veiled overcast. Despite warnings from the experienced that this was the typhoon eye, many seized what looked like an opportunity to get from their offices and schools to their homes. Some died, some were injured, others were forced to seek shelter as the typhoon winds abruptly returned in full force from the opposite direction following a

twenty-five minute lull. It buffeted Manila for four hours with peak winds ranging from 90 to 125 miles per hour. The Philippines Weather Bureau said Patsy's winds were the most powerful to hit Manila since 1882.

Patsy smashed into Manila eight days before the much-heralded arrival of Pope Paul VI, for which the city had been making elaborate preparations. Triumphal Papal welcoming arches were toppled on the broad four lane Roxas Boulevard, smashing cars. Huge trees, billboards, signs, walls, windows, cars and ships were knocked down, ripped apart, shattered, turned upside down and sunk.

The domestic and Manila International Airports were closed for three days. Three ocean-going vessels went aground along Manila Bay's wall. The bow of one, a training vessel of a maritime academy actually pressed against the wall while another, the *President Roxas*, a passenger liner of the Philippines President Lines, lay but 50 yards out. Harbor officials reported 21 vessels of all types had been sunk. One fishing boat went down with 27 persons aboard. Only 13 could be saved.

Thousands of downed light poles and telephone wires, including both reinforced concrete and steel poles, made it immediately evident that the central electricity supply would be unavailable for many days and that this would affect the water supply.

Patsy's fury was also felt in the rural areas. Pampanga province north of Manila reported 40 percent of the roofing on houses and public buildings had blown off and 70 percent of the sugar and rice crops had been damaged. By November 21 a radio report reached Manila telling of the tremendous damage that had occurred in Quezon Province where Patsy first struck before reaching Manila. It swept into the Philippines just below the 15th parallel striking a number of unprotected offshore islands in Quezon and Camarines Norte Provinces. Some of them were totally engulfed by high seas with almost total destruction and heavy loss of life. Patsy also brought heavy damage to areas slightly north and west of Manila before whirling into the China Sea.

ACTION TAKEN BY THE GOVERNMENT OF THE PHILIPPINES AND LOCAL ORGANIZATIONS

With *Fran's* floods, the Government of the Philippines (GOP) used police and armed forces to evacuate people from areas flooded by the overflowing rivers. The President declared a disaster and a GOP disaster coordinating center was organized. Most telephones were out, as was power in many parts of the city. Communication was by heavy, high clearance vehicles only.

New Philippine Disaster Coordination Center in Manila.



Initial coordination with the Department of Social Welfare and other responsible GOP offices was difficult because most building complexes were flooded and telephone lines were down. However, key government officials were contacted in their homes and disaster liaison with government agencies commenced.

The GOP coordinated its food distribution program closely with the U.S. AID Mission and voluntary agencies. It began

distributing rice to emergency evacuation centers set up in schools, churches and government buildings where cooking facilities were available. Nutribuns were distributed and became famous overnight. The President even appeared on television eating one. (Nutribuns were recently introduced in the Philippines through an AID/voluntary agency-assisted school nutrition program. The high protein, extra nutritious roll was created to tackle the problem of undernourished children in elementary schools of Tondo, one of Manila's most crowded slum areas. So successful was the test program of the new

Delivery of the famous nutribuns to one of the typhoon stricken regions.



supplemental food that plans were made for it to replace the regular school feeding program. Because of its ready-to-eat state and nutritional value, it was a product easily adapted into a disaster relief program.)

The Government, unable to use its newly-established Disaster Relief Center in the flooded Department of Social Welfare, established an emergency center in the Military Communications Operations Infrastructure Center at Camp Aguinaldo. This cen-

ter was better prepared for emergencies with its radio and military and police telephone nets. Nevertheless, the telephones were so overburdened that getting a call into the Center proved virtually impossible until several days after the worst flooding was past. President Marcos convened several disaster coordination meetings at Camp Aguinaldo. Mrs. Estela Sindico, Undersecretary for Social Welfare, was detailed to coordinate civilian relief and established her headquarters there.

Filipino and American response and organization for the typhoon disaster proved quite effective. A high spirit of service was noted in the Filipino community. Radio and TV stations gave excellent coverage and served as collection points for substantial public donations of food, clothing and money. Value of these contributions was not available.

The GOP had not yet closed its disaster coordination effort at Camp Aguinaldo for the Manila flood, when it swung into action on the Typhoon **Georgia** disaster in Quezon Province. It set up a regional task force there under the command of a senior constabulary general officer. He moved into Casiguran and through his leadership soon brought strong coordination to relief and rehabilitation efforts. He also developed a six-month assistance program, including rehabilitation phases for the region, which was carried out through him by troops assigned to civic action work.

Considering the remoteness of the area and communications difficulties, relief operations to Casiguran for Typhoon Georgia were considered most effective.

When Typhoon **Joan** hit Bicol, the National Disaster Control Center (NDCC) immediately set up a Regional Disaster Coordination Center in the provincial athletic stadium at Pili, Camarines Sur. This was headed by General Guadencio Tobias and followed NDCC's successful pattern for disaster relief operations at Casiguran for Typhoon Georgia.

Although some Department of Social Welfare personnel were detailed to assist in disaster relief, because of the elections principal civilian responsibility for relief distribution was en-