= 1984 Pacific typhoon season =

The 1984 Pacific typhoon season has no official bounds , but most tropical cyclones tend to form in the northwestern Pacific Ocean between May and November . These dates conventionally delimit the period of each year when most tropical cyclones form in the northwestern Pacific Ocean . Tropical Storms formed in the entire west pacific basin were assigned a name by the Joint Typhoon Warning Center . Tropical depressions that enter or form in the Philippine area of responsibility are assigned a name by the Philippine Atmospheric , Geophysical and Astronomical Services Administration or PAGASA . This can often result in the same storm having two names .

A total of 30 tropical depressions formed in 1984 in the Western Pacific , of which 27 became tropical storms , 16 reached typhoon intensity , and two reached super typhoon strength . Eight tropical cyclones moved into mainland China , four struck Vietnam , four moved through the Philippines , and one cyclone moved into South Korea . The second consecutive typhoon season with a late start , all of the season activity was contained between June and December , with August and October the most active months , contributing to half of the seasonal tropical cyclone count .

= = Season summary = =

Despite its late start , a total of 30 tropical depressions formed this year in the Western Pacific , of which 27 became tropical storms . A total of 16 storms reached typhoon intensity , of which 2 reached super typhoon strength . Three of the systems formed in June , four in July , seven in August , four in September , eight in October , three in November , and one in December . Eight tropical cyclones moved into mainland China , four struck Vietnam , four moved through the Philippines , and one cyclone moved into South Korea . The most damaging and deadly typhoon this season was Ike , which led to significant damage and two @-@ thirds of the overall seasonal death toll , mainly from the Philippines . The longest lived cyclone was Bill , which persisted for two weeks during mid November . Despite the eight tropical cyclones moving into China , Hong Kong received only 18 percent of its annual rainfall from tropical cyclones , which was 35 percent below the annual average .

= = Storms = =

= = = Tropical Storm Vernon = = =

Tropical Storm Vernon , the first of the year , developed in the South China Sea on June 7 . It moved northwest , and then westward in an environment of strong vertical wind shear , Vernon moved inland into Vietnam on June 10 . Flooding of rice , sweet potato , and sesame crops in Quang Nam @-@ Danang province was caused by Vernon . Combined with 1983 's late formation of Tropical Storm Sarah in June , this is only known time that two consecutive years had their first storm develop as late as June .

= = = Severe Tropical Storm Wynne (Asiang) = = =

The monsoon trough established itself across the South China Sea eastward into the Philippine Sea on June 14 . A tropical disturbance formed within this trough on June 16 in the northern Philippine Sea . Moving westward for much of its existence to the south of a narrow subtropical ridge , an upper level high developed over the strengthening low level circulation early on June 19 , which became a tropical depression that day . By that evening , the cyclone had strengthened into a tropical storm . Strong upper level ridging over mainland China led to easterly vertical wind shear , which limited intensification . The cyclone passed by the southern coast of Taiwan , which caused slight weakening as it entered the South China Sea . Passing south of Hong Kong , a U. S. Naval ship and Hong Kong both reported winds of 60 knots (110 km / h) , with gusts to 82 knots (152 km

/ h) reported at Tate 's Cairn and 70 knots (130 km / h) noted out at sea . Southwest flow to the south of Wynne led to flooding in Luzon , where 100 square kilometres (25 @,@ 000 acres) of riceland was destroyed . Three fisherman drowned north of Luzon . Late on June 25 , Wynne made landfall in China near the Luichow Peninsula , and then weakened rapidly inland .

= = = Typhoon Alex (Biring) = = =

On June 28 , a surface circulation formed in the Philippine Sea . Development of the system began in earnest on June 30 , and a tropical depression had formed early on July 1 , with tropical storm status attained later in the day . A ridge to its north eroded , allowing Alex to move north @-@ northwest towards Taiwan . Alex became the first typhoon of the season shortly before moving across the mountainous island . On July 5 , extratropical transition of Alex had begun . By late in the day , it was an extratropical cyclone along a frontal zone in the Sea of Japan .

= = = Severe Tropical Storm Betty (Konsing) = = =

Development of this system was slow within the eastern portion of the monsoon trough . By midday on July 2 , the disturbance was first noted about 1 @,@ 020 kilometres (630 mi) southwest of Guam . The system moved northwest for much of its life cycle , initially following Alex and then the southwest side of the subtropical ridge . A broad tropical depression formed on the afternoon on July 5 within the disturbed weather area , weakening as it passed over Luzon . Late on July 7 , ship reports indicated the system had become a tropical storm . The cyclone moved within the radar fence of Hong Kong near its peak intensity before making landfall 250 kilometres (160 mi) to its west @-@ southwest during the early afternoon of July 9 . Winds gusted to 70 knots (130 km / h) at Green Island . Weakening over the topography of China was rapid thereafter , and the system dissipated by early on July 10 .

= = = Typhoon Cary = = =

Initiated by the tropical tropospheric trough (TUTT) , an area of convection was first noted southeast of the upper trough in an area with favorable upper level divergence on July 2 near 18N 168E . The disturbance moved west @-@ southwest and evolved into a tropical depression late on July 6 and a tropical storm soon after . The cyclone moved northwest towards a break in the subtropical ridge and reached typhoon status late on July 9 forming a large eye about 55 kilometres (34 mi) in diameter . Rapid development continued for another 12 hours as it slowly moved through the ridge axis . The cyclone turned northeast late on July 10 as it began to be sheared significantly from the northwest . Shearing relented on July 11 allowing the eye to reform , this time 75 kilometres (47 mi) wide . As the typhoon progressed more poleward , increased vertical wind shear and the entrainment of cooler and drier air began its extratropical transition . By late on July 14 , Cary had become an extratropical cyclone . The nontropical system then moved westward , eventually dissipating south of Japan .

= = = Typhoon Dinah = = =

For two weeks after Betty and Cary , high pressure dominated the northwest Pacific , with no sign of a monsoon trough . A cold front dropped into the area from the north , and remained stationary across much of the central North Pacific just north of Wake Island for nearly a week . An area of convection along the tail of the old frontal boundary formed on July 21 , and closed off a wind circulation just northwest of Wake Island . Drifting westward , the system did not develop considerably until July 23 . By late on July 24 , it became a tropical depression . Intensifying while moving west @-@ southwest , the system became a typhoon late on July 25 with a 55 kilometres (34 mi) wide eye .

Meanwhile , Tropical Storm Ed was approaching from the northwest and the ridge north of Dinah

moved east , which turned the typhoon northwest . For 48 hours between July 26 and July 28 , Dinah and Ed were between 1 @,@ 165 kilometres (724 mi) and 1 @,@ 670 kilometres (1 @,@ 040 mi) from one another , and fujiwara interaction did impart a slight change onto Dinah 's track . On July 27 , while the cyclones were at their closest approach , Dinah weakened due to the more dominant outflow from Ed . The westerly shear led to a change in track to the east @-@ northeast for Dinah . On July 28 , once the cyclones moved farther apart , Dinah restrengthened rapidly and reached its maximum intensity by noon on July 29 . Moving north @-@ northeast around the western fringe of the subtropical ridge , Dinah 's motion accelerated , moving close to Marcus Island late that afternoon , causing extensive vegetation damage . The coast guard station on the island sustained US $ 30 @,@ 000 in damage (1984 dollars) when sustained winds reached 63 knots (117 km / h) , with gusts to 89 knots (165 km / h) . Weakening as it continued to move north @-@ northeast , Dinah regained tropical storm status on July 31 . Veering more northeast and interacting with a nearby upper trough in the Westerlies , Dinah became an extratropical cyclone late on August 1 . The nontropical cyclone moved off the east , eventually crossing the International Dateline .

= = = Typhoon Ed = = =

Ed formed along the tail of a weakening cold front just south of Japan on July 23 . It took a day to become detached on satellite pictures , and become a tropical disturbance . On the morning of July 25 a surface circulation had formed and the cyclone became a tropical depression . By July 26 , it became a tropical storm . Initially it moved southeast during this period of strengthening as it approached Typhoon Dinah . As a shortwave trough in the Westerlies approached Ed , the cyclone turned north and moved away from Dinah . Ridging built in quickly behind the shortwave , and the cyclone turned west @-@ northwest ; a course it would maintain until landfall in mainland China . Strengthening continued , and Ed became an intense typhoon just south of Ky?sh? . As it moved across the East China Sea , cooler waters and drier air led to weakening . Late on July 31 , Ed made landfall 110 kilometres (68 mi) north of Shang @-@ Hai as a strong tropical storm . Turning northwest after landfall , Ed moved along the Chinese coast and gradually weakened . By late on August 1 , it had dissipated as a tropical cyclone . The Korean ship Ishlin Glory sank in the Korea Strait on July 29 , which led to one death and 11 others declared missing . The launch of the weather satellite GMS @-@ 3 was delayed by this typhoon 's passage nearby Japan .

= = = Severe Tropical Storm Freda (Ditang) = = =

The tail end of a trough extending southwest of Dinah west of Guam led to the development of this system . A tropical disturbance formed there on August 2 and developed a surface cyclone in the Philippine Sea later that day . A broad surface cyclone , the system tracked northwest and slowly developed . By late on August 5 , it became a tropical depression . During the morning of August 6 , it strengthened into a tropical storm while maintaining its broad center and a pair of circulation centers . The new northern center became dominant overnight . The system jumped northwest and quickly moved through the Formosa Straits before striking mainland China very early on August 8 . Two died in Taiwan due to Freda . After two days inland , Freda finally dissipated as a tropical cyclone , but its cloud pattern remained identifiable for an additional day or two thereafter .

= = = Tropical Depression 09W (Edeng ? Gloring) = = =

A broad surface low formed in the near equatorial trough on August 7 about 1 @,@ 225 kilometres (761 mi) south of Guam . Moving northwest , the disturbance slowly organized as it moved into the southeast portion of the monsoon trough . On August 10 , the low jogged northward for a day towards an upper level low northwest of Taiwan . Late on August 11 , the low became a tropical depression , which was named Edeng by PAGASA and designated 09W by the Joint Typhoon Warning Center . It then moved west @-@ northwest along the northern side of the monsoon trough as a sheared system due to moderate southerly flow aloft . A new circulation center developed ,

which led to PAGASA renaming the system Gloring as it neared the southern coast of Taiwan . The depression ultimately merged with a low pressure area over the South China Sea , which would develop into Tropical Storm Gerald .

= = = Severe Tropical Storm Gerald (Isang) = = =

Gerald formed within the monsoon trough in the northern South China Sea , where it meandered for its existence . The initial surface low formed on August 12 near 18N 117E . Slow development continued , and when the remains of Tropical Depression 09W / Gloring became absorbed by this cyclone , thunderstorm activity increased significantly . The system was a monsoon depression , with a central pressure of 997 hectopascals (29 @.@ 4 inHg) and winds of up to 30 knots (56 km / h) a bit to the south of the circulation center . The storm 's maximum sustained winds began to migrate closer to the center , and it became a tropical storm on the morning of August 16 . Drifting west , Gerald slowly intensified for the next couple days . As Holly developed east of Taiwan , its outflow sheared Gerald , keeping the system from becoming a typhoon . Holly 's proximity led to Gerald completing a small cyclonic loop on August 17 . As Holly turned northwest , Gerald drifted westward once again . By August 20 , Holly 's large circulation over the East China Sea lured Gerald northeast . Shearing again increased , weakening Gerald . The cyclone made landfall 95 kilometres (59 mi) east @-@ northeast of Hong Kong as a tropical depression . Winds gusted to 62 knots (115 km / h) at Tate 's Cairn . Once inland , it turned to the north and weakened rapidly .

= = = Typhoon Holly (Huaning) = = =

This system formed in the eastern end of the monsoon trough that spawned Gerald . A very large cyclone , it did not close off a wind circulation until it achieved tropical storm strength on the morning of August 16 . Like Freda and TD 09W , it had a broad center with light winds for much of its life cycle . Kadena Air Force Base , on Okinawa , measured 425 millimetres (16 @.@ 7 in) of rainfall from this cyclone , and two periods of winds exceeding 50 knots (93 km / h) on August 18 , and then again late August 19 and early August 20 . The cyclone moved westward under the base of the subtropical ridge and reached typhoon strength on the morning of August 18 . The system turned northwest and then north around the ridge 's periphery at a relatively slow rate of speed . As the system turned northeast and accelerated out of the East China Sea into the Korea Strait , it led to considerable damage in the Korean peninsula and across Ky?sh? . One perished , eleven were injured , and nine went missing . Miyazake , on Ky?sh? , measured 381 millimetres (15 @.@ 0 in) of rainfall in a 24 ? hour period during Holly 's passage . This rainfall led to flooding and landslides . Interaction with nearby landmasses began to weaken Holly , and interaction with a mid @-@ level trough led to its extratropical transition . Holly became an extratropical cyclone as it approached Hokkaid? early on August 23 .

= = = Tropical Depression 12W (Lusing) = = =

Convection formed in the eastern end of the monsoon trough just north of Guam on August 20 , leading to the formation of a weak low pressure area by late morning August 21 . The system slowly consolidated as it moved northwest , and was separating from the monsoon trough on August 23 . Although convection increased in organization , the surface wind field did not respond . Nevertheless , it was deemed a tropical depression on the morning of August 24 . By the next morning , the surface circulation became exposed as upper level conditions worsened due to strong southerlies aloft . The cyclone was no longer deemed tropical at that time . The surface cyclone moved northwest , crossing the Ry?ky? Islands before it merged with a frontal zone in the northern East China Sea late on August 26 .

= = = Typhoon Ike (Nitang) = = =

This tropical cyclone formed on August 27 in the Philippine Sea , and strengthened as it moved westward into the southern Philippines , becoming a typhoon on August 31 . Typhoon Ike caused extreme wind and flooding damage when it crossed the Philippines , resulting in 1492 fatalities , one of the Philippines ' worst natural disaster in modern times , and its worst typhoon since Amy struck the archipelago in 1951 . A total of 200 @,@ 000 to 480 @,@ 000 were left homeless . Emerging from the Philippines as a strong tropical storm , Ike restrengthened as it tracked northwest through the South China Sea across northeast Hainan Island . Weakening back into a tropical storm , Ike moving inland into mainland China . In Hong Kong , winds gusted to 49 knots (91 km / h) at Tate 's Cairn . Extensive crop damage was experienced in southern China , with Ike becoming the most significant tropical cyclone to strike Guangxi since 1954 . Total damage was reportedly US $ 111 million (1984 dollars) . The name Ike was retired after this season .

= = = Typhoon June (Maring) = = =

A surface low formed within the monsoon trough on August 25 . The low drifted westward as convection tried to consolidate around the center . Strong upper level wind shear inhibited development for the next couple of days . It took until late on August 28 for a single circulation center to consolidate , and when it did , gale force winds around the center forced an upgrade from a monsoon depression to a tropical storm about 200 kilometres (120 mi) east of Luzon . Moving westward , it struck Luzon early on August 29 . By late morning , the system turned west @-@ northwest over the mountainous island , emerging into the South China Sea . A total of 121 lives were taken by June across the Philippines , and damage totaled US $ 5 million (1984 dollars .) A weakness in the subtropical ridge to its north led to a turn to the northwest , and the system made landfall 240 kilometres (150 mi) east of Hong Kong . Winds gusted to 38 knots (70 km / h) at Tate 's Cairn , and total rainfall at Cheung Chau reached 187 @.@ 3 millimetres (7 @.@ 37 in) . When Tropical Storm June hit southeast China on August 30 , 67 people were reported dead due to extensive flooding from June 's broad circulation .

= = = Typhoon Kelly = = =

Developing at the southern end of a shear line , a low level circulation formed on September 13 with increasing convective organization to the south of a cold core cyclone . Completing a cyclonic loop , the cyclone continued to develop despite cool air becoming entrained within its circulation . Approaching the upper level low , Kelly slowed down its northward motion and reached its maximum intensity . Soon afterwards , it rapidly accelerated northeast . Losing its tropical character late on September 17 , it became an extratropical cyclone on the morning of September 18 . This cyclone continued moving northeast for another few days , past the International Dateline and into the Gulf of Alaska .

= = = Tropical Storm Lynn (Osang) = = =

First noted as an area of poorly organized thunderstorms near Guam on September 19 , the disturbance moved westward across the northern Philippine Sea . As an upper tropospheric cyclone weakened east of Luzon on September 22 , upper level conditions improved , but no reflection at the surface was yet witnessed . The thunderstorms entered the South China Sea on September 23 while a lee side surface low formed along the monsoon trough west of Luzon due to the strong easterly low @-@ level flow . The disturbance rapidly consolidated , and it became a tropical depression early on September 24 . Slowly intensifying as it moved west @-@ northwest , Lynn became a tropical storm on September 25 . At this point , the storm track became west @-@ southwesterly and upper level winds began to shear thunderstorms north of the center . Weakening ensued , and Lynn struggled to maintain tropical storm intensity as it made landfall about 95 kilometres (59 mi) southeast of Da Nang , Vietnam . The depression then turned northwest and dissipated near the Vietnam / Laos border early on September 28 .

= = = Tropical Depression Paring = = =

= = = Severe Tropical Storm Maury = = =

The system formed near the intersection of the northeast end of the monsoon trough with a frontal boundary near Marcus Island just as Nina was developing 1300 km to its west on September 27 . By early on September 28 , it had become a tropical depression with tropical storm strength reached by noon as Maury moved north around Nina . Instead of recurving quickly around the subtropical ridge to its east and southeast , Maury slowed as it entered Nina 's larger circulation . Nina absorbed Maury 's circulation on October 1 as it overtook the storm from the southwest .

= = = Tropical Storm Nina = = =

Like Maury , Nina formed near the intersection of a frontal zone and the monsoon trough . On September 27 , a circulation formed about 925 kilometres (575 mi) north @-@ northwest of Guam . An upper level high north of Guam allowed for further development . Moving north , the system detached from the monsoon trough , and it became a tropical depression on September 28 . Southerly shear across the system led to an initially subtropical appearance , as thunderstorms moved away from the center . This also prevented significant development . On September 29 , the main belt of the Westerlies captured the cyclone , displacing thunderstorms even farther east of the center . With the low level circulation exposed , Nina weakened into a tropical depression . By late on September 30 , the low level circulation moved back under the convection , which resulted in reintensification back to a tropical storm at the same time Maury was absorbed into its circulation . By late morning October 1 , Nina reached its maximum intensity , but extratropical transition was already underway . Central convection decreased , and Nina became an extratropical cyclone by October 2 .

= = = Typhoon Ogden = = =

A weak surface low formed west of Truk on October 3 , which contained little thunderstorm activity . Moving northwest , it joined the eastern section of the monsoon trough . Following the flow around the east side of the trough towards the north , poorly organized convection became associated with the persistent low . Once it neared the northeast fringe of the trough , convective organization improved . Although still a very broad system , it became a tropical depression on the morning of October 7 . Moving around the southwest part of a retreating subtropical ridge , Ogden sharply recurved . By early October 8 , it strengthened into a tropical storm and passed just east of Marcus Island . The cyclone attained typhoon intensity partially due to translational motion as it began to undergo extratropical transition on October 9 . Southwest shear began to significantly impact the system thereafter , which weakened the system into a tropical storm on October 10 . By noon , the system had fully evolved into an extratropical cyclone . The nontropical storm continued northeast towards the International Dateline .

= = = Typhoon Phyllis = = =

Phyllis formed within a surface trough left behind by Ogden . By late on October 7 , a surface low had formed east of Guam . The system drifted northeast . A compact system , the system became a tropical depression late on October 10 and a tropical storm on the morning of October 11 . Northward acceleration had begun , and Phyllis became a typhoon the morning of October 12 . A cut off low south of Honsh? helped lead to strong southerly flow over Phyllis , which weakened the storm . The shear vector changed from southerly to easterly as the main belt of the Westerlies impacted the cyclone , which caused faster weakening . By the morning of October 14 , Phyllis

became a wave along the cold front approaching the system from the west .

= = = Tropical Storm Roy = = =

Developing southwest of Guam as Phyllis was forming to its northeast , a weak circulation developed on October 9 . Upper level wind shear from Ogden slowed development into October 10 . Thereafter , convection became better organized with the system and it became a tropical depression by October 11 . A compact system , it became a tropical storm later that morning . Strong upper level easterlies halted development due to vertical wind shear . The low @-@ level monsoon flow became diverted from Roy to Phyllis , which removed a potential source of low @-@ level vorticity . Roy was an exposed circulation center on October 12 with decreasing convection when its lowest central pressure was reached . By the morning of October 13 , it lost its defined circulation center and had dissipated as a tropical cyclone .

= = = Tropical Storm Susan = = =

On October 10 , a circulation had formed in the central South China Sea . Slow to consolidate , the low accelerated west along the axis of the monsoon trough as it became a tropical depression late on October 11 . Developing as it veered west @-@ northwest , Susan became a minimal tropical storm as it made landfall just north of Nha Trang , Vietnam . The system turned northwest up the Mekong river valley , maintaining its identity as a convective area for the next three days . Extreme flooding struck eastern and central Vietnam on October 12 and caused 33 casualties and moderate crop damage .

= = = Tropical Depression 23W = = =

Developing within the monsoon trough , convection increased near Truk on October 16 . A central convective feature formed , and the system became a tropical depression that afternoon . Moving northwest , the depression weakened as it became sheared from the north and a larger circulation formed to its southeast , which evolved into Thad .

= = = Typhoon Thad = = =

Developing southeast of Guam as Tropical Depression 23W was dissipating , this convective cluster moved north @-@ northwest . Forming a circulation center near Truk , Thad became a tropical storm as it approached Guam on October 19 . Moving east of the island , Thad became an intense typhoon very early on October 22 . Recurving into the Westerlies thereafter , the cyclone slowly weakened as it accelerated northeast and became an extratropical cyclone by October 24 .

= = = Super Typhoon Vanessa (Reming) = = =

This system formed in the near equatorial trough southeast of Ponape a few days after Thad on October 20 . The system moved northwest to just north of Ponape as it slowly developed . The disturbance strengthened into a tropical depression by October 22 and a tropical storm October 23 despite some northwesterly shear from Thad . As a minimal typhoon , Vanessa moved about 165 kilometres (103 mi) south of Guam , where winds gusted to 59 knots (109 km / h) on Nimitz Hill . Damage on the island totaled US $ 1 @.@ 7 million (1984 dollars) , mainly to the banana crop .

Moving west @-@ northwest , Vanessa continued to strengthen , becoming a super typhoon . Super Typhoon Vanessa was the strongest typhoon of the season , reaching maximum sustained wind speeds of 190 miles per hour (310 km / h) over the open waters of the West Pacific . At its peak , it had a pressure of 880 mb , only 10 millibars higher than the record @-@ setting Typhoon Tip of 1979 . Its central pressure fell 100 mb in 48 hours . The intense cyclone recurved on October 27 and October 28 as a cold front approached from the northwest . Vanessa slowly merged with the

frontal boundary , becoming a storm @-@ force extratropical cyclone late on October 30 .
Though the storm did not directly impact the Philippines , its outer bands triggered flooding that killed 63 people .

= = = Severe Tropical Storm Warren (Toyang) = = =

The initial disturbance formed at the end of a shear line about 555 kilometres (345 mi) northeast of Mindinao . Embedded within the monsoon trough , it was a broad depression . It slowly weakened as it moved west @-@ southwest through the Philippines into the South China Sea on October 22 . Due to strengthening northeasterly low level flow , the circulation became better defined and conditions aloft favored strengthening . The system formed into a tropical depression late on October 23 despite easterly vertical wind shear . By early on October 24 , Warren became a tropical storm which then turned to the north . Between October 24 and October 26 , the cyclone performed a small cyclonic loop . On October 26 , Warren strengthened into a typhoon .
The steering flow weakened around Warren at that time as Vanessa was moving to its northeast . Warren became entrained into Vanessa 's southwestern circulation , and turned east @-@ northeast . As Vanessa moved away from Warren , the cyclone performed an anticyclonic loop and turned back to the west on October 28 . Clark Air Force Base recorded 222 millimetres (8 @.@ 7 in) of rainfall on October 28 and October 29 due to Warren . The heavy rains over the Philippines led to landslides which killed 42 people . The passenger ferry MV Venus capsized on October 28 , which led to an additional 36 deaths . The 930 @-@ ton ship Lorenzo Container VIII sank that day , which led to eight missing crew members .
Another surge in the low @-@ level northeast flow to Warren 's north led to an expansion of its wind field . This cooler and drier air was also weakening the cyclone . On October 30 , the storm turned west @-@ southwest and continued weakening . By October 31 Warren had weakened to a tropical depression and it dissipated as a tropical cyclone over water . Its remaining convection moved into central Vietnam on November 1 . Its weakening center led to gales along the coast . By November 2 , Warren 's circulation center dissipated .

= = = Tropical Depression Seniang = = =

= = = Typhoon Agnes (Undang) = = =

This system began as an area of convection along the equator on October 28 . Moving northwest , the system developed . On November 1 , the system became a tropical depression and then strengthened into a tropical storm . The storm turned west @-@ northwest due to a broad ridge to its north . Intensifying into a typhoon , Agnes became an intense typhoon as it approached the Philippines . Two months after Typhoon Ike hit the central Philippines , 140 miles per hour (230 km / h) Typhoon Agnes struck just south of Borongan on November 4 . It crossed the islands and briefly weakened . Strengthening began as it moved through the South China Sea . It hit Quinhon , Vietnam as a 115 miles per hour (185 km / h) typhoon on November 7 . Once onshore , Anges weakened rapidly before dissipating on November 8 .
Across the Philippines , Agnes wrought catastrophic damage . A total of 201 @,@ 014 homes were destroyed and another 163 @,@ 506 were damaged , with loses amounting to 1 @.@ 9 billion pesos (US $ 96 @.@ 6 million) . At least 895 people perished in the storm while 275 others were reported missing . Another 2 @,@ 526 people were injured by the storm . Altogether , approximately 1 @.@ 9 million people were affected by the typhoon . Extensive damage also took place in Vietnam where at least 134 people were killed . At least 30 @,@ 000 homes were destroyed and another 120 @,@ 000 were flooded or damaged .

= = = Super Typhoon Bill (Welpring) = = =

An area of convection organized into a tropical depression on November 8 while east of Guam . It executed a small loop , reached tropical storm strength later on the 8th , and reached typhoon intensity on the 11th . Bill continued to strengthen as it tracked westward , reaching maximum sustained winds of 150 miles per hour (240 km / h) on the 14th . Strong upper level winds weakened the storm , and as a break in the subtropical ridge brought the storm northward , upper level winds from Typhoon Clara weakened Bill to a tropical storm on the 18th . It looped southeastward while just east of Luzon , and looped again to the southwest on the 20th . Bill dissipated as a tropical cyclone on the November 22 , after causing minor damage on its path .

= = = Typhoon Clara (Yoning) = = =

A large , low @-@ latitude disturbance formed in the eastern Caroline islands on November 11 . By November 13 , the surface low was gaining significant amounts of convection . Its circulation was aided by a tropical disturbance to its south in the Solomon islands which enhanced westerly flow between the two systems , increasing the low level vorticity within the northern hemisphere system . Consolidation of the system began , and the system became a tropical depression on November 14 . Further development of this system into a tropical storm and typhoon was accompanied by an expansion in the size of its circulation . As Clara recurved east of 132E , it passed within 930 kilometres (580 mi) of Bill , which radically changed Bill 's course and weakened both cyclones . Once Bill moved farther away , Clara reintensified into a strong typhoon by November 20 . Recurvature of Clara continued , and it became an extratropical cyclone along an approaching frontal zone , and was able to be followed through November 22 . Iwo @-@ Jima reported 40 knots (74 km / h) winds with gusts to 63 knots (117 km / h) as Clara passed by to the north .

= = = Typhoon Doyle (Aring) = = =

Its initial tropical disturbance was first noted near 5N 156E on December 1 . The system moved west @-@ northwest , slowly developing . A low @-@ level circulation in the Coral Sea helped enhance westerly flow to its south , which developed into a tropical depression late on December 4 and a tropical storm early on December 5 . Intensification continued , and typhoon strength was reached late on December 6 . Turning more northwest , the typhoon became intense early on December 8 . As it recurved northward , the cyclone weakened quickly late on December 9 and early on December 10 . The cyclone became an exposed circulation , and dissipated as a tropical cyclone over water late on December 11 .

= = Storm names = =

During the season 27 named tropical cyclones developed in the Western Pacific and were named by the Joint Typhoon Warning Center , when it was determined that they had become tropical storms . These names were contributed to a revised list which started on 1979 .

= = = Philippines = = =

The Philippine Atmospheric , Geophysical and Astronomical Services Administration uses its own naming scheme for tropical cyclones in their area of responsibility . PAGASA assigns names to tropical depressions that form within their area of responsibility and any tropical cyclone that might move into their area of responsibility . Should the list of names for a given year prove to be insufficient , names are taken from an auxiliary list , the first 6 of which are published each year before the season starts . Names not retired from this list will be used again in the 1988 season . This is the same list used for the 1980 season . PAGASA uses its own naming scheme that starts in the Filipino alphabet , with names of Filipino female names ending with " ng " (A , B , K , D , etc .) . Names that were not assigned / going to use are marked in gray .

= = = Retirement = = =

Due to a high death toll caused by Typhoon Ike , the name Ike was later retired and was replaced by Ian and was first used in the 1987 season . PAGASA did the same and retired the name Nitang and was replaced by Ningning for the 1988 season .