= 1994 Pacific hurricane season =

The 1994 Pacific hurricane season was the final season of the eastern north Pacific 's most recent active string of hurricane seasons that unofficially started in 1981 . The season officially started on May 15 , 1994 in the eastern Pacific , and on June 1 , 1994 in the central Pacific , and lasted until November 30 , 1994 . These dates conventionally delimit the period of each year when most tropical cyclones form in the northeastern Pacific Ocean . The first tropical cyclone formed on June 18 , while the last system dissipated on October 26 . This season , twenty @-@ two tropical cyclones formed in the north Pacific Ocean east of the dateline , with all but two becoming tropical storms or hurricanes . A total of 10 hurricanes occurred , including five major hurricanes .

Of note in this season is an unusual spree of very intense storms . Hurricanes Emilia , Gilma , John , and Olivia all reached a pressure below 930 millibars . Longevity @-@ wise , no tropical cyclone of any basin had previously persisted for as long as Hurricane John , which lasted 31 days . Elsewhere , Hurricane Rosa caused four casualties in Mexico as the basin 's lone landfalling tropical storm or hurricane , and later was responsible for flooding in Texas .

= = Season summary = =

This season , twenty @-@ two tropical cyclones formed in the north Pacific Ocean east of the dateline . All but two of them became tropical storms or hurricanes . In the Eastern Pacific region (140 ° W to North America) , nineteen tropical depressions formed , of which seventeen became tropical storms , nine further intensifying into hurricanes , and five ultimately reaching major hurricanes of Category 3 intensity or higher on the Saffir Simpson Scale . These numbers are slightly above the long @-@ term averages of fifteen tropical storms , nine hurricanes , and four major hurricanes .

In the Central Pacific Hurricane Center 's area of responsibility (140 ° W to the International Date Line) , three depressions , two tropical storms , and one hurricane formed . Overall , there were eleven tropical cyclones , eight tropical storms , five hurricanes , and three major hurricanes that formed or entered the Central Pacific region . These numbers are well above the long @-@ term average of four tropical cyclones , two hurricanes , one tropical storm , and two depressions . The exceptionally high activity was contributed to by an El Niño ongoing at the time .

The only named storm to make landfall this year was Hurricane Rosa , which killed four people in Western Mexico and forced over 400 to be evacuated . Other notable storms include Hurricane Olivia , a high @-@ end Category 4 system , the three Category 5 hurricanes Emilia , Gilma , and John . Both John and Hurricane Li existed in two of the three basins (East , and West) of the Pacific Ocean .

This season marked the end of the Northeastern Pacific 's most recent active period , which began in 1982 , and includes the five most active Pacific hurricane seasons . Beginning in 1995 , multi @-@ decadal factors switched to a phase that suppresses Pacific hurricane activity . Since then , Pacific hurricane seasons have generally been below normal ; the lone abnormally active season since then was in 1997 , where a strong El Nino event was observed .

The 1994 Pacific hurricane season set several records . First , three hurricanes reached Category 5 intensity on the Saffir @-@ Simpson Hurricane Scale , setting a record later tied in 2002 . Hurricane John lasted longer and spent more time tropical than any other tropical cyclone on Earth in recorded history . Eleven tropical cyclones entered or formed in the central Pacific , a record shared with the 1992 season until the 2015 season broke the record . Finally , of the four most intense hurricanes recorded in the Central Pacific , three of them occurred this season .

The season began with the formation of Tropical Depression One @-@ E on June 18 and ended with the dissipation of Tropical Depression Nona on October 26 . No named systems formed in May , three in June , four in July , five in August , six in September , two in October , and none in November . The total length of the season , from the formation of the first depression to the dissipation of the last , was 130 days .

Accumulated Cyclone Energy (ACE) is a measure of how active a hurricane season is . It is

calculated by squaring the windspeed of a cyclone with at least tropical storm @-@ force winds every six hours , summing the results , and dividing that total by 104 . As a tropical cyclone does not have gale @-@ force winds until it becomes a tropical storm , tropical depressions are not included in these tables . For all storms , ACE is given to three significant figures . The ACE in the east Pacific proper (140 ° W to North America) is given ; the ACE in the central Pacific (the International Date Line to 140 ° W) is given in brackets . The table includes the ACE for Li and John only during those storm 's time east of the dateline . Their ACE west of the dateline is part of the totals of the 1994 typhoon season .

The National Hurricane Center uses ACE to rank hurricane seasons as above @-@ normal , near @-@ normal , and below @-@ normal . It defines below @-@ normal as having an ACE less than 95 * 104 kt2 kt2 ; It defines above normal as having an ACE above 150 * 104 kt2 along with the numbers of any two of the following above average : tropical storms (15) , hurricanes (9) , or major hurricanes (4) ; It defines near @-@ normal as having an ACE between 100 * 104 kt2 and 150 * 104 kt2 , or an ACE above 150 * 104 kt2 with fewer than two of the numbers of the following above average : tropical storms (15) , hurricanes (9) , or major hurricanes (4) .

This season has a total of seventeen tropical storms , nine hurricanes , and five major hurricanes . The total ACE of this season is 185 * 104 kt2 . This qualifies this season as above @-@ normal .

= = Storms = =

= = = Tropical Storm Aletta = = =

Tropical Depression One @-@ E formed from an area of disturbed weather on June 18 . It strengthened to Tropical Storm Aletta the next day . It continued intensifying and reached its peak intensity on June 20 . Vertical wind shear began to weaken the storm thereafter . The weakening trend continued , weakening Aletta to a depression on June 21 . The system dissipated June 23 . Aletta 's remnant low , however , could be tracked on satellite images for days following the storm . The low finally dissipated north of Hawaii . Aletta never affected land , and no damage or casualties were reported .

= = = Tropical Storm Bud = = =

Tropical Depression Two @-@ E formed on June 27 about 575 miles (925 km) south @-@ southwest of the tip of the Baja California Peninsula . The depression headed west @-@ northwest , gradually turned to the northwest , and strengthened into Tropical Storm Bud on June 27 . Early the next day , Bud peaked in intensity . Shear caused by a nearby upper level low slowly weakened Bud . Later on June 28 , a second center of circulation developed . The two centers started a Fujiwhara interaction . The second center then became dominant and the first one vanished . This confused structure is similar to what happened to 1993 's Tropical Storm Arlene . This confused structure also weakened Bud to a tropical depression on the afternoon of the same day the second center formed . Bud then headed westward over cool waters and dissipated on June 29 . Tropical Storm Bud spent its entire life over the open ocean far from land areas . No casualties or damage was reported .

= = = Hurricane Carlotta = = =

The tropical depression that would be Carlotta formed on June 28 . It quickly became Tropical Storm Carlotta , and a large eye became visible . Because of this , the NHC upgraded the storm to a hurricane . Carlotta peaked in intensity on July 1 , as a 105 mph (169 km / h) hurricane . It gradually weakened as it moved into cooler waters , dissipating on July 5 . Carlotta did not threaten land .

Carlotta buffeted Socorro Island with sustained winds of 39 mph (63 km / h) on June 30 . Other than there , Carlotta caused no damage or deaths .

= = = Tropical Storm Daniel = = =

On July 8 , a disturbance located about 1 @,@ 000 miles (1 @,@ 600 km) southwest of the southern tip of the Baja California Peninsula developed a circulation and became Tropical Depression Four @-@ E. Convection increased , and the depression strengthened into Tropical Storm Daniel . Upper @-@ level outflow improved , and Daniel peaked in intensity on July 9 . Daniel slowly declined as it continued westward . It entered the central Pacific on July 11 . Wind shear weakened Daniel as it approached the Big Island , and by July 15 had degenerated into an open wave .

When Daniel was approaching Hawaii , moderate surf of 4 to 6 feet (1 @.@ 2 to 1 @.@ 8 m) impacted the south and southeast shores of the Big Island on July 13 and 14 . Daniel 's remnants also passed about 100 miles (160 km) south of South Point , Hawaii on July 15 . That day , they caused rainfall on windward slopes of the Big Island locally reaching 5 inches (130 mm) . No reports of damage or casualties were received .

= = = Hurricane Emilia = = =

On July 16 , an area of low pressure associated with a tropical wave organized into Tropical Depression Five @-@ E. It strengthened into Tropical Storm Emilia later that day . It moved west @-@ northwest and strengthened into a hurricane . It entered the central Pacific on July 17 . It continued intensifying , reaching Category 5 intensity on July 19 , the first Category 5 Pacific hurricane since Ava . Emilia started weakening quickly on July 21 . It weakened to a tropical storm on July 23 and dissipated two days later .

Emilia passed south of the Hawai ? ian Islands , producing swells of 6 to 10 feet (1 @.@ 8 to 3 @.@ 0 m) in height near the Puna and Ka ? ? coasts . Winds caused minor damage , and rain was moderate . No one was killed .

= = = Tropical Storm Fabio = = =

A tropical depression formed on July 19 . Later that day , it strengthened into Tropical Storm Fabio . Fabio headed generally west or northwestward . It entered the central Pacific as a tropical depression , and dissipated on July 24 .

Fabio 's remnants brought locally heavy rainfall to Hawaii , reaching 3 to 4 inches (76 to 102 mm) . No one was killed and there was no damage .

= = = Hurricane Gilma = = =

Part of a tropical wave organized into a tropical depression on July 21 . It headed westward and out to sea , strengthening into a tropical storm the next day . Gilma rapidly strengthened and became a hurricane exactly one day after it was named . It continued to intensify as it entered the central Pacific . Shortly after entering the central Pacific , Gilma reached Category 5 intensity on the Saffir @-@ Simpson Hurricane Scale , the second of the season . It then suddenly weakened for unexplained reasons , and weakened into a tropical storm on July 27 . It became a depression three days after that and dissipated on July 31 . Hurricane Gilma had minor impact on Johnston Atoll . That atoll received light rain , wind gusts to near gale force , and surf . No casualties or damage were reported .

Hurricane Gilma was the second most @-@ intense Pacific at the time . As of 2016 , it remains the ninth @-@ most intense . Gilma is also the strongest July storm in the eastern or central Pacific .

= = = Hurricane Li = = =

A tropical disturbance southwest of Cabo San Lucas organized into Tropical Depression Eight @-@

E on July 31 . It headed west @-@ northwest without strengthening much , and crossed into the central Pacific on August 2 . Eight @-@ E developed a second center of circulation , which became dominant , and then became bound up in the intertropical convergence zone . Eight @-@ E then became disorganized , with multiple centers of circulation , and advisories were discontinued on August 5 . The depression 's remains continued their westward path well south of the Hawaiian Islands . The depression regenerated on August 8 . It soon strengthened into a tropical storm and was named Li , which is Hawaiian for " Lee " . Li approached the dateline on its generally westward heading . Just before crossing , it intensified into a minimal Category 1 hurricane . It crossed the dateline on August 12 and became a storm in the 1994 Pacific typhoon season . Wind shear from a tropical upper @-@ tropospheric trough weakened back into a tropical storm as it crossed the dateline , and the Joint Typhoon Warning Center downgraded Li with its first advisory . Li stayed a tropical storm until August 16 , where it weakened into a tropical depression . The system then began recurving , and dissipated on August 18 . A weakening Tropical Depression Li caused showers on Wake Island . Other than there , Li had no impact on any land , and no casualties or damage were reported .

Hurricane Li is one of only seven tropical cyclones to exist on all three tropical cyclone basins in the Pacific Ocean . It is also one of only five systems to form as a depression in the east Pacific but be named in the central ; the others are Lala , Iniki , Lana and Ela .

= = = Tropical Storm Hector = = =

On August 7 , a tropical depression formed from a tropical wave a few hundred miles south of Baja California . It became Tropical Storm Hector quickly , and as it paralleled the coast of Mexico , it began to weaken , dissipating on August 10 . No damage was reported anywhere .

Tropical Storm Hector was forecast to approach the Baja California Peninsula . A tropical storm watch was issued for part of the peninsula on August 8 . It was lifted later the same day . Hector 's most significant impact was rain . The tropical storm dumped rain along a discontinuous zone of coastal and inland Mexico . The highest point maxima were 7 @.@ 87 inches (200 mm) at Cerro de Ortega / Ixtlahua and 7 @.@ 60 inches (193 mm) at Caduano / Santiago . No damage or casualties were reported .

= = = Tropical Depression One @-@ C = = =

An area of disturbed weather organized into a tropical depression on August 9 while located 740 miles (1 @,@ 190 km) southeast of Hilo , Hawaii . The depression moved westward without organizing , and dissipated on August 14 .

Moisture from the system produced heavy rainfall over the island of Hawaii , totaling to over 15 inches (380 mm) . The flooding closed all major roads in Hilo , and was considered the worst flooding in 40 years . The rainfall destroyed two homes and damaged 214 , 14 severely . It also damaged roads and businesses . Damage throughout the island totaled to $ 5 million (1994 USD ; $ 7 @.@ 98 million 2016 USD) . Flooding occurred in Maui as well , where landslides blocked portions of the Hana Highway . One @-@ C 's point maximum of 15 in (380 mm) makes it Hawaii 's seventh wettest known tropical cyclone .

= = = Hurricane Ileana = = =

A disturbance that was part of the intertropical convergence zone developed several centers of circulation . After it organized , it separated from the ITCZ and became Tropical Depression Eleven @-@ E on August 10 while the system was about 690 miles (1 @,@ 110 km) south @-@ southeast of the southern tip of the Baja California Peninsula . It was upgraded to Tropical Storm Ileana at the second advisory , at the same time as John , the next storm . An eye appeared , and Ileana became a hurricane on August 12 . It began weakening almost immediately thereafter , as it passed over cooler waters and encountered increasing wind shear . Ileana was a tropical storm on

August 13 , and the next day it was a dissipating swirl low @-@ level clouds located about 520 miles (840 km) west of Punta Eugenia . Although Ileana paralleled the coast of Mexico , watches and warnings were not issued because winds of tropical storm @-@ force were not expected to affect land . No one was killed and there was no damage reported in association with this cyclone .

= = = Hurricane John = = =

Tropical Depression Ten @-@ E formed on August 11 south of Mexico . It headed generally westward , and was upgraded into a tropical storm twelve hours after it formed and was named John . John fluctuated in strength as it headed west , always managing to stay at tropical storm strength . On August 20 , steady intensification began , and John was a major hurricane when it entered the central Pacific . It continued westward , reaching Category 5 intensity on August 23 . It passed around 245 miles (394 km) south of Hawaii , and passed just north of Johnston Atoll on August 26 . John stayed at hurricane intensity until it crossed the dateline on August 28 , becoming a typhoon of the 1994 Pacific typhoon season . After weakening into a tropical storm , John recurved , looped , and recurved again . It reintensified , and was a hurricane when it recrossed the dateline to reenter the central Pacific . John headed north @-@ northeast until it went extratropical on September 10 , thirty one days after it formed .

Ahead of the hurricane , the 1100 people at Johnston Atoll evacuated . On the atoll , John caused $ 15 million (1994 USD ; $ 23 @.@ 9 million 2016 USD) in damage . No deaths were reported . Other than on Johnston , Hurricane John had minor effects in Hawaii . Its remnants also affected Alaska .

Hurricane John was the longest lasting and farthest traveling tropical cyclone on Earth in recorded history . It is also one of six tropical cyclones to exist in all three basins of the Pacific Ocean , an uncommon west @-@ to @-@ east dateline crosser , and one of the few tropical cyclone to cross the dateline more than once .

= = = Tropical Depression Twelve @-@ E = = =

On August 14 , an area of convection organized enough to be considered a tropical depression . It was steered by John 's circulation , and it was never expected to strengthen much because it was close to cool waters . The cyclone drifted north , then northeast , north again , northwest , and then west . The National Hurricane Center declared the depression dissipated on August 15 . The depression had no effects anywhere .

= = = Hurricane Kristy = = =

On August 28 , Tropical Depression Thirteen @-@ E formed about 1 @,@ 300 miles (2 @,@ 100 km) southwest of Cabo San Lucas , Mexico . It was named Tropical Storm Kristy on August 30 . As it crossed into the central Pacific , a banding @-@ type eye formed and it became a hurricane . Twelve hours later , it reached Category 2 intensity . Kristy weakened steadily from that point due to wind shear . It passed about 300 miles (480 km) south of Hawaii , and dissipated on September 5 . The lowest central pressure of Kristy is unknown . The last estimate was made when Kirsty was still a tropical storm .

As it approached the Hawaiian Islands , a high surf advisory and a high wind warning were issued for the Big Island of Hawaii . No damage or deaths were reported in association with this system . Its remnants crossed 180th meridian very early on September 7 and was absorbed by a tropical depression which became Typhoon Melissa in the Western Pacific basin .

= = = Hurricane Lane = = =

The same tropical wave that spawned Tropical Depression Five in the Atlantic became Tropical Depression Fourteen @-@ E on September 3 . It quickly became Tropical Storm Lane . A high

pressure ridge centered itself north of Lane , keeping the storm on a westward track . This brought Lane into very favorable conditions , and Lane intensified . When the tropical storm reached hurricane strength , it entered a phase of rapid intensification , reaching winds of about 135 mph (217 km / h) , making it a category four hurricane . The high pressure ridge shifted eastward , and allowed Lane to enter unfavorable conditions . Lane dissipated on September 10 .

= = = Tropical Storm Mele = = =

A tropical disturbance became Tropical Depression Two @-@ C on September 6 . It reached tropical storm strength the next day , being named Mele . The name Mele means " song " in the Hawaiian language and is also the Hawaiian form of " Mary " . Mele headed west @-@ northwest and weakened back into a tropical depression on September . It dissipated later that day without incident .

= = = Tropical Storm Miriam = = =

Miriam formed from a weak disturbance on September 15 . It strengthened slightly into Tropical Storm Miriam , and dissipated on September 21 , having led an uneventful life without impact . In an interesting occurrence , the low @-@ level remnants of Miriam were still visible for weeks after the storm dissipated near 140 ° W.

= = = Tropical Storm Norman = = =

A tropical depression formed on September 19 , and became Tropical Storm Norman the next day . After tracking northwest , it began to turn north in response to a trough , and convection began to diminish . Norman dissipated on September 22 without having ever affected land .

= = = Hurricane Olivia = = =

Hurricane Olivia ultimately formed from a disturbance that had separated from the intertropical convergence zone and become distinct by September 19 . The disturbance slowly headed westward and it organized into a tropical depression on September 22 while located about 720 miles (1 @,@ 160 km) south of the southern tip of the Baja California Peninsula . The depression headed west @-@ northwestwards and strengthened into Tropical Storm Olivia on September 22 . It steadily intensified and was a hurricane on September 24 . It then rapidly strengthened into a powerful major hurricane . It slowly curled to the northwest as it was observed by NOAA research aircraft . Olivia peaked in intensity on September 25 . Meanwhile , a large cyclone off the extreme southern part of California induced a northward path . As Olivia started a small anticyclonic loop , wind shear began to weaken the hurricane . When Olivia was finished the loop , it had weakened to a tropical storm . It then headed westward . It weakened into a tropical depression on September 28 and dissipated the next day . No impact was reported .

At the time , Olivia was the third @-@ most intense Pacific hurricane on record . It has since dropped to Eleventh . The storm also had the lowest barometric pressure of a Category 4 Pacific hurricane on record . In 2001 , Hurricane Juliette joined Olivia as the most intense Cat . 4 on record . In 2014 , Hurricane Odile beat both storms when it attained a minimum pressure of 918 mbars . Olivia was also the most intense September hurricane . Since , Hurricane Linda beat Olivia . Olivia remains the third most intense September hurricane .

= = = Tropical Storm Paul = = =

A nearly stationary cluster of thunderstorms and convection that had been hanging around since September 15 and escaped destruction by Tropical Storm Miriam organized into Tropical Depression Eighteen @-@ E on September 24 . It was located between Miriam 's remnants and the

developing Olivia . It became Tropical Storm Paul on the afternoon of September 25 . It peaked in intensity on September 27 . Then , upper outflow from the nearby Olivia started shearing the tropical cyclone . Paul had been completely destroyed by September 30 . The tropical cyclone never threatened land , and consequently , no damage or deaths were reported .

= = = Hurricane Rosa = = =

An area of disturbed weather organized into a tropical depression at midday on October 8 . It had trouble organizing , and advisories were discontinued for a while . The cyclone finally became a tropical storm on October 11 and was named Rosa . It moved glacially , but eventually a trough steered Rosa north and then northeast . Rosa intensified quickly , peaking at Category 2 intensity just before landfall near La Concepción on the morning of October 14 . Rosa quickly decayed over the mountains of Mexico , and its cloud shield rapidly accelerated northward through the United States , spreading moisture .

On October 12 , a hurricane watch was issued for the coast from Culiacán to Manzanillo and the Baja California Peninsula south of latitude 24 ° N. At the same time , a tropical storm warning was issued from Manzanillo to Tepic . On October 14 , a hurricane warning was issued for the coast between Culiacán and Cabo Corrientes , and a tropical storm warning south of Cabo Corrientes to Manzanillo . All watches and warnings were lifted later that day .

Four deaths , two in each of Nayarit and Durango , were reported . Four people were missing in Sinaloa . All of the deaths were due to drowning . More than 100 @,@ 000 people had their homes damaged in Nayarit . Telephone poles and power lines were downed in Sinaloa . Rain caused landslides and flash @-@ flooding in mountainous areas . In Jalisco , mudslides forced the evacuation of 400 people from two coastal villages . The highest rainfall total in Mexico was 14 @.@ 09 inches (358 mm) at Mesa de Pedro Pablo . The moisture Rosa sent into the United States was a contributing factor in record rains in parts of southeastern Texas from October 15 to 19 . Those rains caused flooding that killed 22 people , destroyed over 3000 homes , and caused US $ 700 million in damage .

= = = Tropical Storm Nona = = =

Tropical Depression Three @-@ C formed on October 21 in the Central Pacific basin . It traveled westward for about 4 days before strengthening to Tropical Storm Nona on October 25 . The name " Nona " is Hawaiian for the Latin name spelled the same way . Nona immediately weakened back into a tropical depression . Upper @-@ level westerlies from a nearby trough destroyed the depression on October 26 . No deaths or damage were reported . Nona was a tropical storm for six hours , the minimum possible time .

= = Other storms = =

= = = Tropical Depression Yuri = = =

According to the Joint Typhoon Warning Center and Japan Meteorological Agency , on October 21 a tropical depression formed west of the International Dateline , and soon it exited CPHC 's area of responsibility ; however , this storm wasn 't included into CPHC database . As it entered into western Pacific , it strengthened as a tropical storm and received the name Yuri .

= = Storm names = =

The following names were used for named storms that formed in the Northeastern Pacific Ocean during 1994 . Names that were not assigned this season are marked in gray . No names were retired , so this same list was used again in the 2000 season . This is the same list used for the

1988 season except for Ileana , which replaced Iva and was used for the first time in 1994 .

For storms that form in the Central Pacific Hurricane Center 's area of responsibility , encompassing the area between 140 degrees west and the International Date Line , all names are used in a series of four rotating lists . The next four names that were slated for use in 1994 are shown below . Three of them , Li , Mele , and Nona , were used throughout the course of the year .

= = Season effects = =

This is a table of all the storms that have formed in the 1994 Pacific hurricane season . It includes their duration , names , landfall (s) , denoted in parentheses , damages , and death totals . Deaths in parentheses are additional and indirect (an example of an indirect death would be a traffic accident) , but were still related to that storm . Damage and deaths include totals while the storm was extratropical , a wave , or a low , and all the damage figures are in 1994 USD .