= 2000 North Indian Ocean cyclone season =

The 2000 North Indian Ocean cyclone season was fairly quiet compared to its predecessor , with all of the activity originating in the Bay of Bengal . The basin comprises the Indian Ocean north of the equator , with warnings issued by the India Meteorological Department (IMD) in New Delhi . There were six depressions throughout the year , of which five intensified into cyclonic storms ? tropical cyclones with winds of 65 mph (40 km / h) sustained over 3 minutes . Two of the storms strengthened into a very severe cyclonic storm , which has winds of at least 120 km / h (75 mph) , equivalent to a minimal hurricane . The Joint Typhoon Warning Center (JTWC) also tracked storms in the basin on an unofficial basis , estimating winds sustained over 1 minute .

The first storm of the season originated toward the end of March in the Bay of Bengal , one of only five March storms at the time in that body of water . Strong wind shear , which plagued several storms during the season , caused the storm to rapidly dissipate over open waters . In August , a weak depression struck the Indian state of Andhra Pradesh , producing additional flooding after a deluge affected the area in July . There were 131 deaths in Andhra Pradesh , mostly by drownings or collapsed walls , while damage was estimated at ? 7 @.@ 76 billion rupees ($ 170 million USD) . There were two short @-@ lived storms in October ? one dissipated offshore India in the middle of the month , and the other struck Bangladesh toward the end of the month . The latter storm destroyed many homes and boats , killing 77 in Bangladesh including 52 fishermen , and damage in the Indian state of Meghalaya was estimated at ? 600 million rupees ($ 13 million USD) . The strongest storm of the season struck Tamil Nadu in November , causing damages of ? 700 million rupees ($ 15 million USD) and 12 deaths . The final storm of the season hit eastern Sri Lanka , leaving 500 @,@ 000 homeless and killing nine .

= = Season summary = =

The India Meteorological Department (IMD) in New Delhi ? the official Regional Specialized Meteorological Center for the northern Indian Ocean as recognized by the World Meteorological Organization ? issued warnings for tropical cyclones developing in the region , using satellite imagery and surface data to assess and predict storms . The basin 's activity is sub @-@ divided between the Arabian Sea and the Bay of Bengal on opposite coasts of India , and is generally split before and after the monsoon season . Storms were also tracked on an unofficial basis by the American @-@ based Joint Typhoon Warning Center .

The season was much less active than the devastating 1999 season . Despite near normal water temperatures over the Arabian Sea , no storms developed in that portion of the basin . Convection was also lower than normal across the Bay of Bengal . The main factor against tropical cyclogenesis was persistently unfavorable wind shear . Overall , there were six depressions , five of which intensified into a cyclonic storm , which has maximum sustained winds of at least 65 km / h (40 mph) .

= = Storms = =

= = = Cyclonic Storm BOB 01 = = =

Toward the end of March , an area of convection increased over the southern Bay of Bengal from an active equatorial trough . The system progressed northward , with a weak center between Sri Lanka and Sumatra by March 25 . On March 27 , a low pressure area developed , which the IMD designated as a depression by 12 : 00 UTC . The storm moved to the north @-@ northwest and failed to strengthen at first . However , the JTWC issued a Tropical Cyclone Formation Alert (TCFA) on March 29 , a signal of further organization . That day , the IMD upgraded the system to a cyclonic storm , and early on March 30 the storm attained winds of 85 km / h (50 mph) while curving to the north @-@ northeast . Increased wind shear from the westerlies imparted rapid

weakening , causing the convection to dwindle to the northeast . According to the IMD , the storm rapidly dissipated on March 30 .

A climatological outlier , the storm was one of only five cyclonic storms at the time in the month of March in the Bay of Bengal . It dropped heavy rainfall in the Andaman and Nicobar Islands , reaching 230 mm (9 @.@ 1 in) on Hut Bay . Although the storm dissipated over the Bay of Bengal according to the IMD , one analysis suggested the storm re @-@ intensified and made landfall on southeastern India between Chennai and Pondicherry on April 1 with winds potentially as high as 110 km / h (70 mph) . The storm did not receive advisories from the JTWC .

= = = Depression BOB 02 = = =

In late August , the monsoon trough spawned a series of disturbances in the Bay of Bengal , including one that developed on August 19 off the Odisha coast . It persisted and gradually organized , becoming a well @-@ marked low pressure area on August 22 . On the following day , the system became a depression , located about 150 km (90 mi) south @-@ southeast of Visakhapatnam , Andhra Pradesh . Moving westward , the system soon moved ashore near Kakinada without intensifying beyond winds of 45 km / h (30 mph) , and quickly weakened into a remnant low on August 24 . The low continued westward , eventually dissipating over Gujarat on August 28 .

While moving ashore , the depression produced torrential rainfall across Andhra Pradesh . The capital city of Hyderabad recorded 240 mm (9 @.@ 4 in) of rainfall on August 24 . During the last week of August , the state recorded the highest precipitation in 46 years , which overflowed lakes and flooded several towns . The rains followed deadly flooding in July and preceded another flood event in September . About 98 @,@ 000 people evacuated their houses to 189 shelters , aided by the military , including about 35 @,@ 000 people in Hyderabad and neighboring Secunderabad . Thousands were forced to ride out the floods on their roofs , and helicopters airdropped food and relief goods . The depression damaged 27 @,@ 026 houses and destroyed another 8 @,@ 651 in 2 @,@ 886 towns or villages . Widespread irrigation systems were damaged , and 177 @,@ 987 ha (439 @,@ 820 acres) of crops were lost , in addition to 5 @,@ 368 killed cattle . Traffic was disrupted after 7 @,@ 435 km (4 @,@ 620 mi) of roads were damaged , impacting 2 @,@ 389 roads . The rains also marred the electrical system , with 6 @,@ 000 power lines damaged . There were 131 deaths in Andhra Pradesh , mostly by drownings or collapsed walls , while damage was estimated at ? 7 @.@ 76 billion rupees ($ 170 million USD) .

= = = Cyclonic Storm BOB 03 = = =

The active monsoon spawned a low pressure area in the central Bay of Bengal on October 12 . The system had an area of convection about 925 km (575 mi) southeast of Kolkata , which moved slowly westward . By October 14 , there was an exposed circulation center east of the convection , although it organized enough for the IMD to classify it as a well @-@ marked low pressure area . On October 15 , the agency classified it as a depression as the circulation moved closer to the thunderstorms . Later that day , the JTWC issued a TCFA and the IMD upgraded it to a deep depression , based on improving outflow and organization . On October 16 , a nearby ship reported winds of 65 km / h (40 mph) , and that day the JTWC began tracking the system as Tropical Cyclone 01B . Early the next day , the IMD followed suit and upgraded the deep depression to a cyclonic storm , estimating peak winds of 65 km / h (40 mph) . However , the system persisted in an area of weak to moderate wind shear , preventing further development . The circulation became exposed from the convection , and the wind shear increased . On October 18 , the IMD downgraded the system to a deep depression , and the storm dissipated on the next day as it approached the eastern coast of India .

While the storm was active , officials issued warnings for fishermen not to venture out at sea . In Odisha , residents organized public prayers in hopes of avoiding a repeat of the deadly 1999 Odisha cyclone . Although it dissipated offshore , the storm brought rainfall to Andhra Pradesh and Odisha ,

but no damage was reported . Strong winds associated with the system killed 100 pelican chicks in Srikakulam after blowing them out of their nests .

= = = Cyclonic Storm BOB 04 = = =

Similar to the previous storm , the active monsoon trough spawned a low pressure area over the Andaman Sea on October 24 . There was a weak center that had good outflow . On October 25 , the IMD classified the system as a depression about 925 km (575 mi) southeast of Kolkata . The system moved to the northwest and developed more convection close to the center , although the thunderstorms were intermittent . Turning more to the north , the depression intensified into a deep depression and later cyclonic storm on October 27 , reaching peak winds of 65 km / h (40 mph) ; the JTWC also classified it as Tropical Cyclone 02B . That day , the wind shear increased , although the convection was able to increase over the center and organize into a comma @-@ shaped rainband . Early on October 28 , the storm made landfall in southern Bangladesh near Mongla , by which time the wind shear had displaced much of the convection to the northeast . It rapidly weakened over land , degenerating into a remnant low over northern Bangladesh early on October 29 .

The storm dropped heavy rainfall , both in the Andaman and Nicobar Islands as well as northeastern India . In Meghalaya state in northeastern India , the storm damaged hundreds of houses , leaving thousands homeless . Many livestock were lost , and crops were decimated . Damage in Meghalaya was estimated at ? 600 million rupees ($ 13 million USD) . While moving ashore in Bangladesh , the cyclone produced a storm tide of 1 @.@ 2 ? 2 @.@ 1 m (4 ? 7 ft) , which wrecked hundreds of boats , and left 100 fishermen missing despite forewarning ; by a day after the storm , only eight fishermen were rescued from four boats , with 52 fishermen killed . Heavy rainfall , totaling 119 mm (4 @.@ 7 in) in Khulna , overflowed rivers and flooded houses after previous deadly flooding in September . High floods and wind gusts up to 100 km / h (60 mph) damaged homes in Satkhira and Jessore districts , forcing thousands to evacuate to storm shelters . The storm knocked over trees , wrecked roads , and destroyed rice fields along its path through the low @-@ lying country . On land in Bangladesh , 25 people died due to the storm , with over 500 injured . After the storm , local governments provided relief goods to the worst affected areas .

= = = Extremely Severe Cyclonic Storm BOB 05 = = =

An upper @-@ level low persisted over the Andaman Sea on November 24 . By the next day , a circulation center was present about 370 km (230 mi) west of Thailand , although convection was dislocated to the west due to wind shear . After the thunderstorms concentrated over the center early on November 26 , the IMD classified the system as a depression . A ridge to the north steered the system generally westward . Outflow and convective organization gradually increased , and late on November 26 the JTWC classified it as Tropical Cyclone 03B . As the rainbands organized around the center , the winds increased ; the IMD upgraded the system to a cyclonic storm on November 27 , and to a severe and later a very severe cyclonic storm on November 28 .

By November 28 , a 20 km (12 mi) wide eye was developing , prompting the JTWC to upgrade the storm to the equivalent of a minimal hurricane with winds of 120 km / h (75 mph) . By comparison , the IMD estimated peak winds of 190 km / h (115 mph) . Wind shear in the region prevented further strengthening , and the storm weakened slightly before making landfall on November 29 in eastern India near Cuddalore . A station there recorded a pressure of 983 mbar (29 @.@ 0 inHg) . The storm rapidly weakened over land , and degenerated into a remnant low on November 30 . The remnants emerged into the eastern Arabian Sea on December 1 , by which time most thunderstorms had dissipated over the deteriorating center . Two days later , the JTWC reissued advisories , based on an increase in outflow and convective organization . This was short @-@ lived , as the thunderstorms soon dwindled , and the JTWC ceased issuing advisories on December 5 . The remnants continued westward without development toward eastern Somalia .

Heavy rainfall , peaking at 450 mm (18 in) in Tholudur , spread across Tamil Nadu . During the

passage of the eye , residents reported a period of calm lasting about 45 minutes . Across Tamil Nadu , high winds knocked over 30 @,@ 000 trees , and many coconuts , plantains , and rice paddy farms were damaged in nearby Puducherry . The winds also damaged about 41 @,@ 000 houses , about 1 @,@ 000 of which lost their roofs . Flooding washed away 14 brick buildings , while 300 others were inundated by the sea . Over 1 @,@ 000 power lines were damaged . Overall damages were estimated at ? 700 million rupees ($ 15 million USD) , and there were 12 deaths .

= = = Extremely Severe Cyclonic Storm BOB 06 = = =

A near @-@ equatorial trough spawned a low pressure area on December 22 in the central Bay of Bengal . A circulation within the system developed into a depression on December 23 about 500 km (310 mi) east @-@ southeast of Sri Lanka . A low @-@ latitude storm , the system organized while moving slowly westward . On December 24 , the depression strengthened into a deep depression , and the following day into a cyclonic storm , the same day that the JTWC classified it as Tropical Cyclone 04B . An eye developed in the center of the blossoming convection , and the system rapidly intensified into a very severe cyclonic storm on December 26 . According to the IMD , the cyclone attained peak winds of 165 km / h (105 mph) , and made landfall at that intensity along eastern Sri Lanka near Trincomalee around 12 : 00 UTC on December 26 . The JTWC assessed lower winds of 120 km / h (75 mph) . Weakening quickly over land , the storm emerged into the Gulf of Mannar on December 27 and failed to restrengthen . Later that day , it made a second landfall in extreme southern India near Thoothukudi as a cyclonic storm . Continuing westward , the system emerged into the Arabian Sea on December 28 as a depression , and degenerated into a remnant low the next day . The low merged with a trough and spread rainfall northward through India .

The strongest storm to threaten Sri Lanka since 1992 , the cyclone produced estimated wind gusts of 175 km / h (110 mph) near where it moved ashore . About 500 @,@ 000 people were left homeless , after the winds destroyed the roofs of many houses . One entire fishing village was destroyed , and about 20 @,@ 000 ha (49 @,@ 000 acres) of rice fields were wrecked . While crossing the country , the cyclone dropped between 4 and 8 inches (100 to 200 mm) of precipitation , compounding the effects of severe monsoonal flooding from the previous month . There were nine deaths in the country . Later , the storm brought heavy rainfall to southern India , with a peak 24 ? hour total of 180 mm (7 @.@ 1 in) in Nagapattinam . The storm damaged 480 houses and wrecked 95 fishing boats .