

Tropical Cyclone Report
Tropical Depression Two-C
(CP022009)
28 August 2009 – 30 August 2009

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Tropical Depression (TD) Two-C originated from a west-moving trade wind disturbance in the extreme southwestern portion of the central Pacific basin. Despite atmospheric and oceanic conditions that appeared to be conducive for further development, the depression never attained tropical storm intensity, as it tracked west across the date line out of the Central Pacific Hurricane Center's (CPHC) Area Of Responsibility (AOR), and into the western Pacific basin, before eventually dissipating.

CPHC started tracking a trough in the trade wind easterlies at 0600 UTC 26 August, about 925 n mi southwest of Honolulu, Hawaii near 12N 171W. Near 1800 UTC 27 August, satellite imagery revealed that the low-level trough axis appeared to be developing a closed low-level circulation, and deep convection began to increase near the core of this low. It is estimated that a tropical depression formed around 1200 UTC 28 August, while centered about 1125 n mi west-southwest of Honolulu, Hawaii near 14.5N 176.3W. The best track positions and intensities are listed in Table 1.

The depression initially moved westward at 6-7 kt to the south of the subtropical ridge, while maintaining sporadic convection near the low level circulation center. The depression accelerated toward the west after crossing the International Date Line, and this appeared to correspond to a weakening system, increasingly influenced by the steering in the lowest levels of the atmosphere. The system was completely devoid of deep convection by 0600 UTC 30 August, at which time the Joint Typhoon Warning Center (JTWC) indicated a weakening system, lowering the maximum sustained winds to 25 kt. The system continued to be classified as a 25 kt depression at 1200 UTC 30 August, but was deemed to have weakened to a disturbance by 1800 UTC 30 August. A low cloud swirl was tracked westward by JTWC for several days, after which the remnant weak circulation dissipated well west of CPHC's AOR.

The genesis of Tropical Depression Two-C was not well anticipated, although its pre-existing low-level vorticity center was being tracked by CPHC for several days, with the disturbance first mentioned in CPHC's Tropical Weather Outlook issued 0200 UTC 25 August. CPHC's experimental 48 hour tropical cyclogenesis probabilities indicated a "low" probability (less than 30%) that the incipient Two-C would develop into a tropical cyclone until the day that the disturbance began to show improved organization. No coastal tropical cyclone watches or warnings were issued in association with Two-C, as it remained over water and away from any significant or populated Pacific islands.

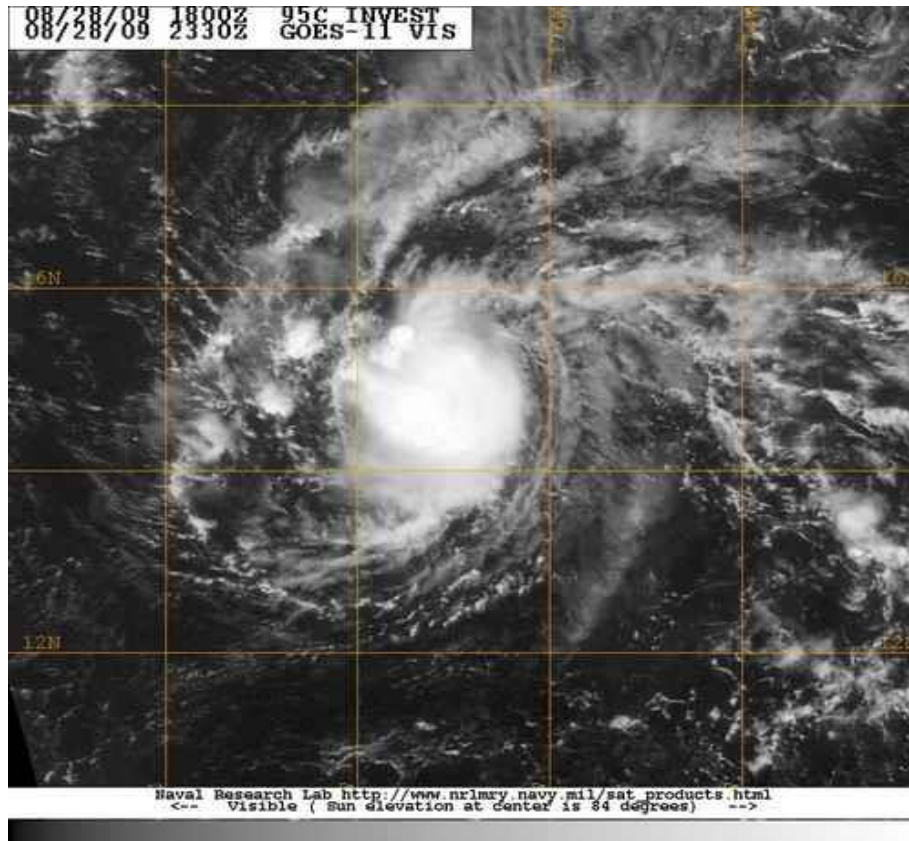


Figure 1. Visible image of tropical depression Two-C at 2330 UTC 28 August 2009, as it approaches the International Date Line. (Image courtesy Naval Research Laboratory)

Table 1. Best track for Tropical Depression 02C, 26 August–2 September 2009.

Date/Time (UTC)	Latitude (°N)	Longitude (°W)	Pressure (mb)	Wind Speed (kt)	Stage/Notes
26/0600	11.9	170.9	1009	20	Disturbance
26/1200	12.2	171.5	1009	20	"
26/1800	12.6	172.1	1009	20	"
27/0000	12.8	172.6	1009	20	"
27/0600	13.1	173.0	1009	20	"
27/1200	13.5	173.4	1009	20	"
27/1800	14.0	173.6	1009	20	"
28/0000	14.4	174.5	1009	25	"
28/0600	14.5	175.5	1008	25	"
28/1200	14.5	176.3	1007	30	Tropical Depression
28/1800	14.5	177.0	1007	30	"
29/0000	14.5	177.6	1007	30	"

29/0600	14.5	178.3	1007	30	"
29/1200	14.6	179.0	1007	30	"
29/1800	14.6	179.6	1007	30	"
30/0000	14.7	179.1E	1007	30	"
30/0600	15.3	177.5E	1007	25	"
30/1200	15.6	175.9E	1007	25	"
30/1800	15.3	174.5E	1007	20	Disturbance
31/0000	15.4	173.3E	1007	20	"
31/0600	15.8	172.1E	1007	20	"
31/1200	16.0	170.9E	1007	20	"
31/1800	16.2	169.8E	1007	20	"
01/0000	16.2	168.9E	1007	20	"
01/0600	16.3	168.1E	1007	20	"
01/1200	16.4	167.2E	1007	20	"
01/1800	16.8	166.2E	1007	15	"
02/0000	16.9	165.6E	1007	15	"