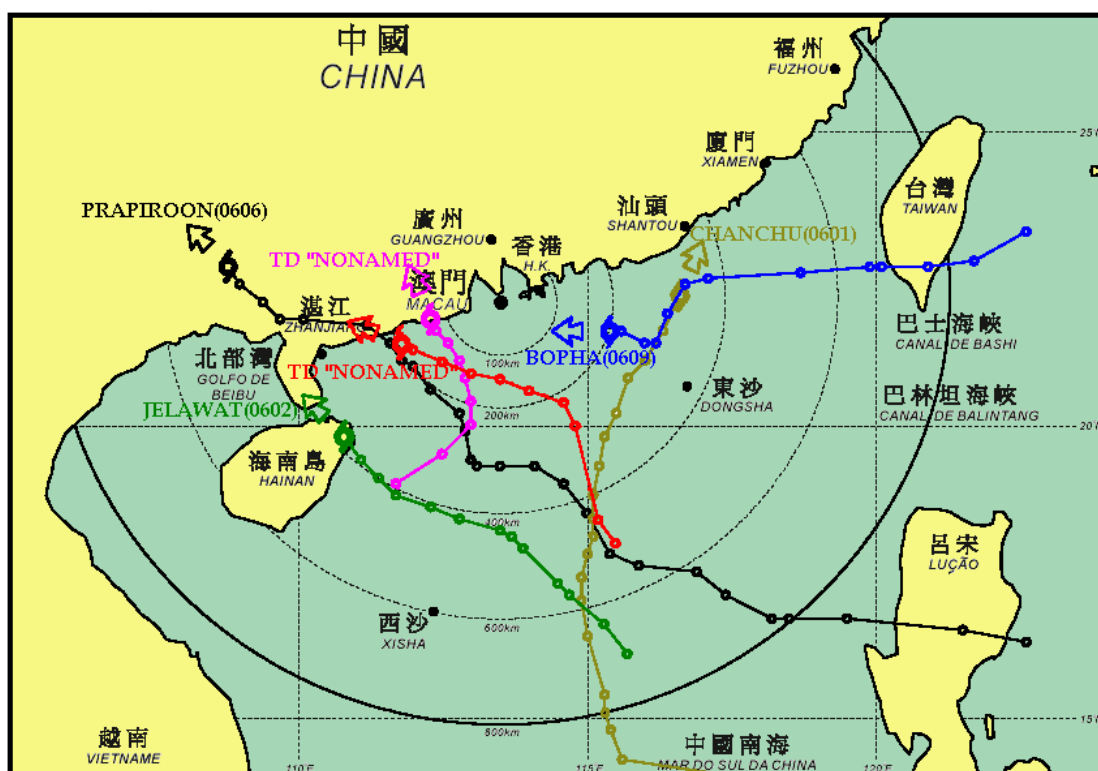


Review of the Typhoon Season Macao, China

Overview:

From October 2005 to September 2006, Macao was affected by four tropical cyclones CHANCHU(0601), JELAWAT (0602), PRAPIROON(0606), BOPHA(0609) and two tropical depressions (TD). (As shown in following Figure)



Typhoon CHANCHU(0601) necessitated the hoisting of the first tropical cyclone warning signal in 2006. It was also one of the earliest warnings issued in May since 1990. CHANCHU was at its closest position to Macao at about 263 km to the east-southeast around 11:00L.T. on 17th May 2006. The minimum station pressure recorded was 986.0hPa, while maximum mean wind of 52km/h and gust wind of 90 km/h were recorded respectively. Average of about 10mm of precipitation were generally recorded but with no report of flooding.

Typhoon PRAPIROON(0606) was the only one necessitated the hoisting of the local tropical cyclone warning signal No.8. During its passage, minimum station pressure recorded was 979.9hPa, while maximum mean wind of 94km/h and gust of 136km/h were recorded respectively. Average of about 150mm of precipitation were generally recorded but with no report of flooding. PRAPIROON was at its closest position to Macao at about 200km to the southwest around 13:00L.T. on 3rd August 2006.

Typhoon “CHANCHU” (0601)

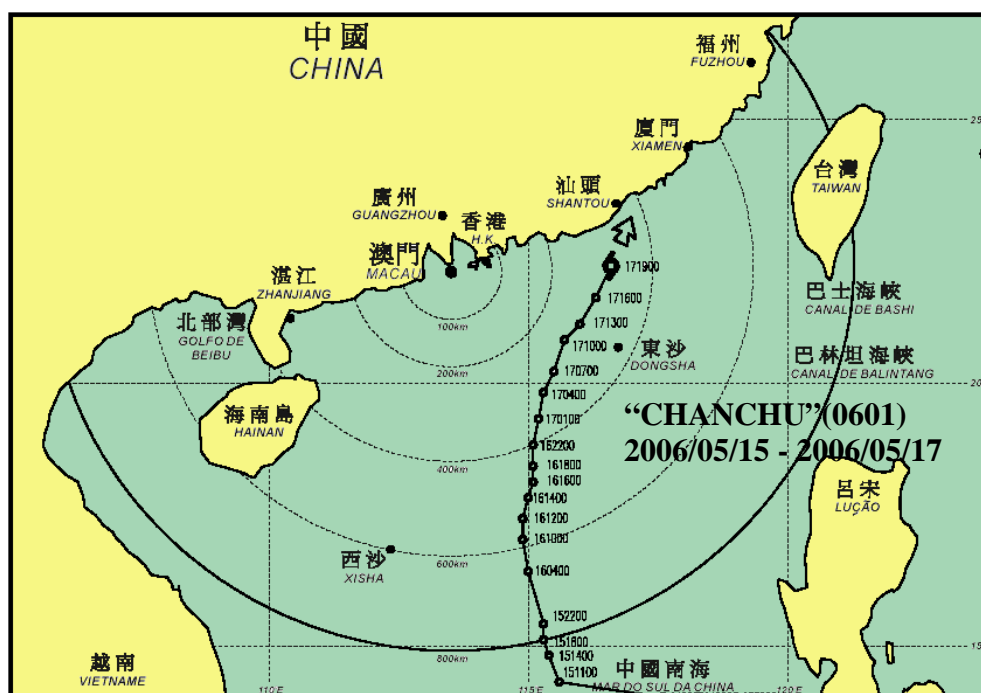


Table 1 shows the extreme values recorded during the passage of typhoon Chanchu. As seen in the table, during its passage, minimum station pressure recorded was 986.0hPa, while maximum mean wind of 52km/h and gust wind of 90km/h were recorded respectively. Average of about 10mm of precipitation were generally recorded but with no report of flooding. Chanchu was at its closest position to Macao at about 263km to the east-southeast around 11:00L.T. on 17th May 2006.

Table 1: Extreme Values Recorded During the Passage of Typhoon "CHANCHU" (0601) (2006/05/15 - 2006/05/17)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date	
986.0	05-17 15:14						
Minimum distance of the centre of storm from Macao	Taipa Grande	N	48.6	05-17 10:00	90.0	05-17 13:32	11.8
	Ponte de Amizade Sul	NNW	49.3	05-17 10:00	77.8	05-17 09:50	--
263km ESE of Macao (05-17 11:00)	Fortaleza do Monte	NW	29.6	05-17 10:00	70.9	05-17 10:17	8.0
	Parque Urbano Dr.Sun Yat Sen	NNE	22.6	05-17 11:00	52.6	05-17 12:31	9.2
	Ka-Hó	NNE	52.3	05-17 03:00	77.0	05-17 03:55	12.8
	E.T.A.R. de Macau	NNW	30.2	05-17 10:00	66.6	05-17 08:26	10.2
	Ponte de Sai Van	NNW	42.1	05-17 10:00	75.2	05-17 18:49	--
			Signal No.1 was hoisted at 19:00 on 05-15 L.T. Signal No.1 was substituted by signal No.3 at 18:30 on 05-16 L.T.. All signal was lowered at 20:00 on 05-17 L.T..				

Tropical Storm "JELAWAT" (0602)



Table 2 shows the extreme values recorded during the passage of tropical storm Jelawat. During its passage, minimum station pressure recorded was 992.0hPa, while maximum mean wind of 34km/h and gust wind of 74km/h were recorded respectively. Average of about 33mm of precipitation were generally recorded but with no report of flooding. Jelawat was at its closest position to Macao at about 380km to the southwest around 20:00L.T. on 28th June 2006.

Table 2: Extreme Values Recorded During the Passage of Tropical Storm "JELAWAT" (0602) (2006/06/27 - 2006/06/28)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date	
992.0	06-28 17:17						
Minimum distance of the centre of storm from Macao		Taipa Grande	SE 28.2	06-28 07:00	74.2	06-28 08:31	34.2
		Ponte de Amizade Norte	E 33.9	06-28 16:00	56.5	06-28 06:52	--
380km SW of Macao (06-28 20:00)		Ponte de Amizade Sul	ESE 34.3	06-28 07:00	64.1	06-28 08:33	--
		Fortaleza do Monte	ENE 12.9	06-28 15:00	34.2	06-28 07:01	29.8
		Ka-Hó	S 23.5	06-28 09:00	61.2	06-28 08:27	29.2
		E.T.A.R. de Macau	ESE 22.6	06-28 07:00	49.3	06-28 08:34	39.6
		Ponte de Sai Van	ESE 33.2	06-28 07:00	51.8	06-28 06:55	--
			Signal No.1 was hoisted at 11:00 on 06-27 L.T. All signal was lowered at 20:15 on 06-28 L.T..				

Typhoon "PRAPIROON" (0606)

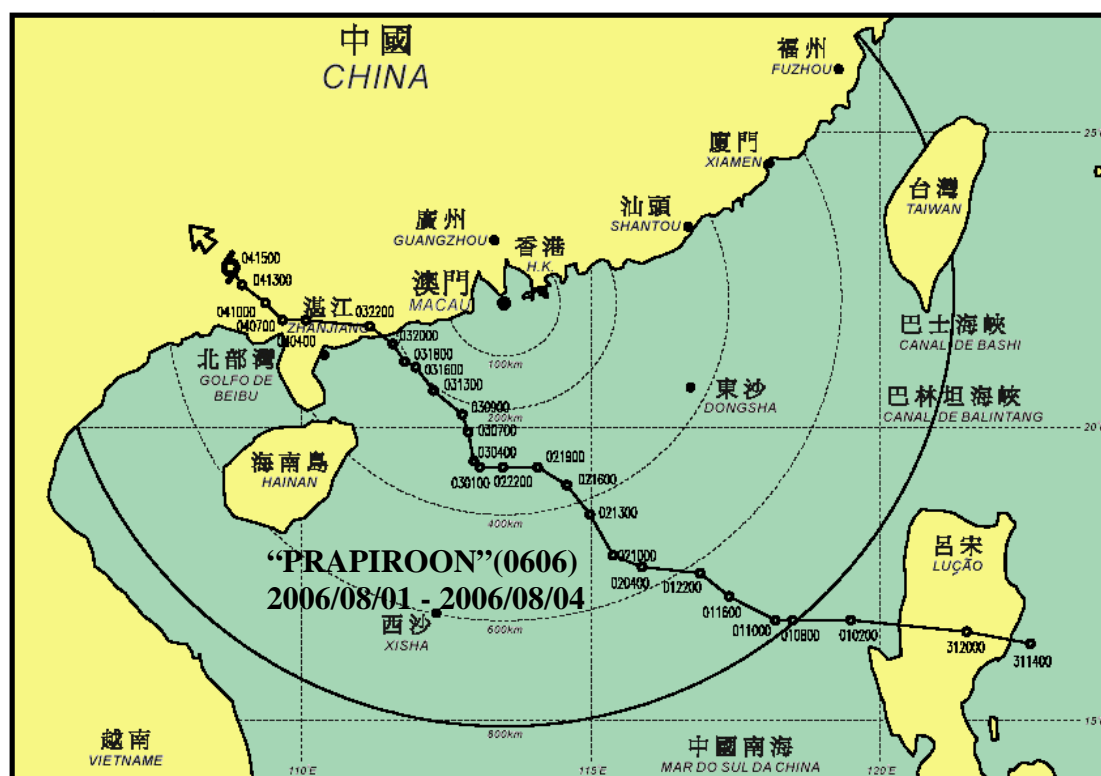


Table 3 shows the extreme values recorded during the passage of typhoon Prapiroon. During its passage, minimum station pressure recorded was 979.9hPa, while maximum mean wind of 94km/h and gust wind of 136km/h were recorded respectively. Average of about 150mm of precipitation were generally recorded but with no report of flooding. Prapiroon was at its closest position to Macao at about 200km to the southwest around 13:00L.T. on 3rd August 2006.

Table 3: Extreme Values Recorded During the Passage of Typhoon "PRAPIROON" (0606) (2006/08/01 - 2006/08/04)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date	
979.9	08-03 16:13						
Minimum distance of the centre of storm from Macao		Taipa Grande	SE 72.0	08-03 18:00	136.8	08-03 16:29	162.0
		Ponte de Amizade Sul	E 94.4	08-03 16:00	132.5	08-03 16:29	--
200km SW of Macao (08-03 13:00)		Fortaleza do Monte	E 29.1	08-03 15:00	92.9	08-03 16:26	133.2
		Ka-Hó	NE 55.3	08-03 02:00	105.1	08-03 16:22	155.8
		E.T.A.R. de Macau	E 61.4	08-03 17:00	102.6	08-03 16:41	136.8
		Ponte de Sai Van	E 91.3	08-03 16:00	124.6	08-03 16:35	--
		Taipa Grande	SE 72.0	08-03 18:00	136.8	08-03 16:29	162.0
			Signal No.1 was hoisted at 10:30 on 08-01 L.T.. Signal No.1 was substituted by signal No.3 at 18:00 on 08-02 L.T.. Signal No.3 was substituted by signal No.8SE at 09:30 on 08-03 L.T.. Signal No.8SE was substituted by signal No.3 at 04:00 on 08-04 L.T.. All signal was lowered at 15:30 on 08-04 L.T..				

Tropical Storm "BOPHA" (0609)

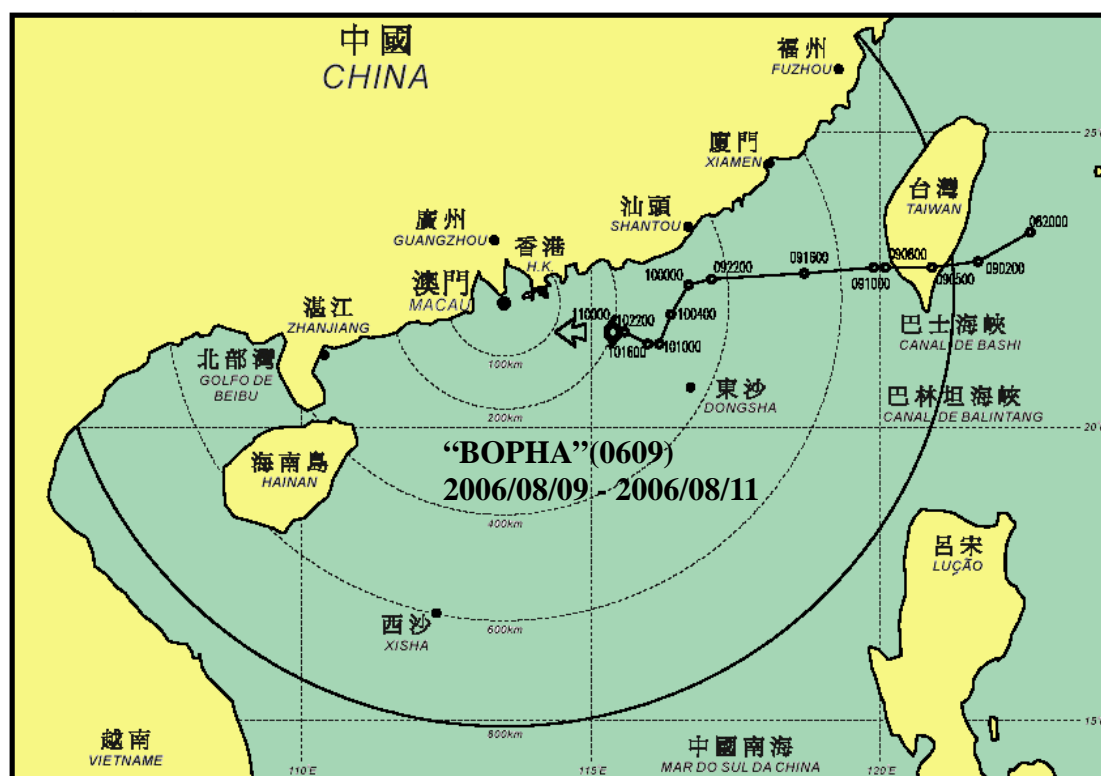


Table 4 shows the extreme values recorded during the passage of tropical storm Bopha. As seen in the table, during its passage, minimum station pressure recorded was 986.0hPa, while maximum mean wind of 38km/h and gust wind of 74km/h were recorded respectively. Average of about 43mm of precipitation were generally recorded but with no report of flooding. Bopha was at its closest position to Macao at about 205km to the east-southeast around 00:00L.T. on 11th August 2006.

Table 4: Extreme Values Recorded During the Passage of Tropical Storm "BOPHA" (0609) (2006/08/09 - 2006/08/11)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)	
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date		
986.0	08-10 17:42							
Minimum distance of the centre of storm from Macao		Taipa Grande	SSW	21.8	08-10 17:00	64.8	08-10 01:20	31.8
		Ponte de Amizade Sul	E	38.8	08-10 02:00	69.1	08-10 01:19	--
205km ESE of Macao (08-11 00:00)		Fortaleza do Monte	ENE	14.8	08-10 02:00	41.8	08-10 01:23	54.6
		Parque Urbano Dr.Sun Yat Sen	SW	10.2	08-10 17:00	38.5	08-10 01:19	48.0
		Ka-Hó	NE	22.2	08-10 02:00	74.2	08-10 01:14	31.6
		E.T.A.R. de Macau	ENE	26.8	08-10 02:00	55.1	08-10 16:32	48.6
		Ponte de Sai Van	E	33.2	08-10 02:00	67.3	08-10 01:23	--
			Signal No.1 was hoisted at 11:00 on 08-09 L.T.. All signal was lowered at 00:30 on 08-11 L.T..					

"NONAMED" TD

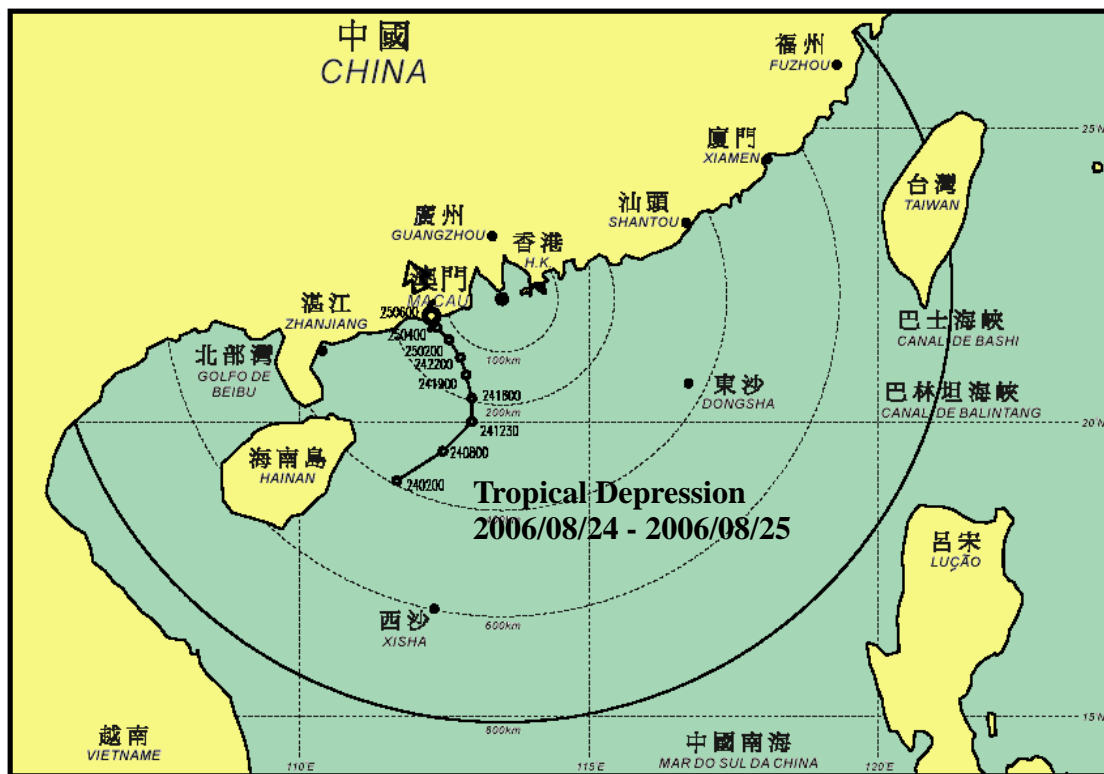


Table 5 shows the extreme values recorded during the passage of tropical depression. As seen in the table, during its passage, minimum station pressure recorded was 991.2hPa, while maximum mean wind of 40km/h and gust wind of 63km/h were recorded respectively. Average of about 14mm of precipitation were generally recorded but with no report of flooding. Tropical depression was at its closest position to Macao at about 120km to the southwest around 02:00L.T. on 25th August 2006.

Table 5: Extreme Values Recorded During the Passage of Tropical Depression "UNNAMED" (2006/08/24 - 2006/08/25)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)	
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date		
991.2	08-24 16:38							
Minimum distance of the centre of storm from Macao		Taipa Grande	SSE	37.9	08-25 03:00	63.4	08-25 02:54	18.2
		Ponte de Amizade Norte	SE	40.9	08-25 03:00	53.6	08-25 02:53	--
120km SW of Macao (08-25 02:00)		Ponte de Amizade Sul	ESE	36.7	08-24 17:00	52.9	08-25 00:50	--
		Fortaleza do Monte	E	12.9	08-24 17:00	37.1	08-25 03:08	10.0
		Ka-Hó	S	34.5	08-25 03:00	55.1	08-25 03:00	20.6
		E.T.A.R. de Macau	SE	28.4	08-25 01:00	54.7	08-25 00:13	10.6
		Ponte de Sai Van	E	35.0	08-24 17:00	46.8	08-25 02:47	--
			Signal No.1 was hoisted at 12:30 on 08-24 L.T. All signal was lowered at 07:15 on 08-25 L.T.					

"NONAMED" TD

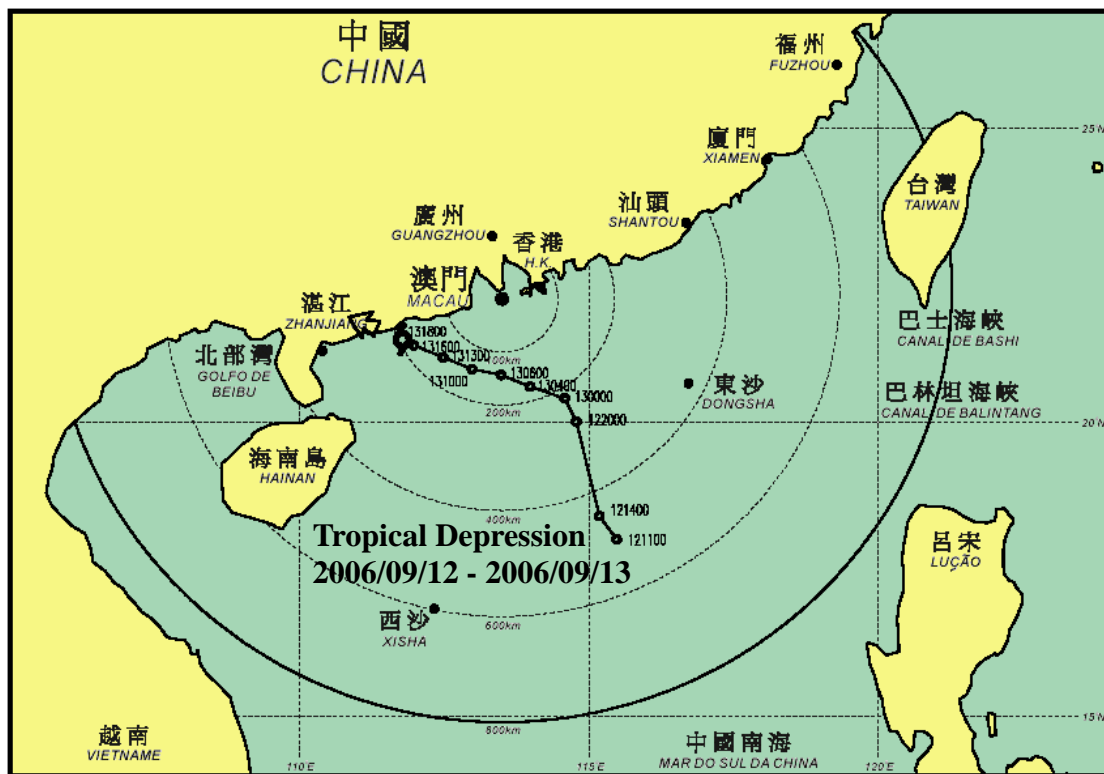


Table 6 shows the extreme values recorded during the passage of tropical depression. As seen in the table, during its passage, minimum station pressure recorded was 993.9hPa, while maximum mean wind of 45km/h and gust wind of 61km/h were recorded respectively. Average of about 42mm of precipitation were generally recorded but with no report of flooding. Tropical depression was at its closest position to Macao at about 130km to the south around 07:00L.T. on 13th September 2006.

Table 6: Extreme Values Recorded During the Passage of Tropical Depression "UNNAMED" (2006/09/12 - 2006/09/13)

Minimum Station Pressure		Station	Maximum Wind Speed and Corresponding Direction				Precipitation During the Signal Hoisting Period (mm)
Instantaneous Minimum (hPa)	Date		Hourly Maximum (km/h)	Date	Maximum Gust (km/h)	Date	
993.9	09-13 04:05						
Minimum distance of the centre of storm from Macao		Taipa Grande	N 39.4	09-13 04:00	61.6	09-13 03:21	45.8
		Ponte de Amizade Norte	NNE 41.3	09-13 11:00	54.7	09-13 08:26	--
130km S of Macao (09-13 07:00)		Ponte de Amizade Sul	N 38.5	09-13 05:00	56.9	09-13 06:32	--
		Fortaleza do Monte	NNW 18.3	09-13 05:00	44.6	09-13 04:10	46.2
		Ka-Hó	NNE 45.0	09-13 03:00	64.8	09-13 03:09	52.4
		E.T.A.R. de Macau	N 22.1	09-13 04:00	46.1	09-13 02:35	74.8
		Ponte de Sai Van	NNE 34.3	09-13 11:00	54.7	09-13 04:57	--
			Signal No.1 was hoisted at 22:00 on 09-12 L.T. Signal No.1 was substituted by signal No.3 at 06:40 on 09-13 L.T. All signal was lowered at 18:00 on 09-13 L.T.				