The Strong Monsoon Signal

The Strong Monsoon Signal is issued when winds associated with the summer or winter monsoon are blowing in excess of or are expected to exceed 40 kilometres per hour near sea level anywhere in Hong Kong. Winter monsoon normally blows from the north or from the east while summer monsoon typically blows from the southwest. In very exposed places, monsoon winds may exceed 70 kilometres per hour.

Monsoons

Monsoons are large-scale wind systems caused by differences in the temperatures of land and sea over the seasons.

In winter, the continental land mass cools off rapidly, resulting in very low temperatures over central Asia. As cold air accumulates, pressure rises and a huge continental anticyclone develops over Siberia with the Tibetan Plateau forming an effective barrier blocking the southward spread of cold air from the anticyclone. From time to time, under the influence of upper air disturbances, cold air from this anticyclone plunges southward through China and brings outbursts of cold air to the south China coastal areas. Depending on the time of the season, and the juxtaposition of various weather systems, these surges will arrive in Hong Kong as northerlies, northeasterlies or easterlies.

In summer, intense solar heating leads to scorching temperatures over the Asian land masses. As a result, the overlying air heats up, expands and rises upwards. This leads to the formation of a semi-permanent low pressure area near the heart of the continent. Warm and moist air from the Indian Ocean and the South China Sea flowing into this low pressure area is experienced as the summer monsoon over south and southeast Asia.

Winds associated with the monsoons are generally more persistent than those brought by tropical cyclones and may last for days. In intense surges of the winter monsoon, northeasterlies of up to gale force are not uncommon over the south China coastal waters. However, the full impact of these winds is not always felt in Hong Kong, particularly in heavily built-up areas or where nearby terrain provides some sheltering.

Occasionally, in winter, tropical cyclones traversing the South China Sea pass to the south of Hong Kong just when a monsoon is affecting the coastal areas of south China. Winds in Hong Kong are greatly enhanced due to the very large pressure difference between the continental anticyclone and the centre of the tropical cyclone.

Points to note

1. When the Strong Monsoon Signal is in force, the announcement is always accompanied by an indication of the direction from which winds are expected to blow. It is important to take note of this wind direction and you should be aware that local topography, or, the presence of buildings nearby sometimes modifies the airflow substantially, making it exceptionally gusty in very localised areas.
2. If you are not well sheltered from the monsoon, precautions should be taken against strong gusty winds. Flower pots and other objects likely to be blown away should be taken indoors. Engineers, architects and contractors should ensure that all scaffoldings, hoardings and temporary structures are secured.
3. If necessary, owners of small craft should make arrangements for the safety of their boats and make sure that all deck fittings are firmly fastened.
4. Those engaging in water sports or operations at sea should take special care against high winds and rough sea conditions. Rough seas and swells may affect the coast. You should beware of the risk and stay away from the shoreline for safety sake.
5. Drivers using highways and flyovers should be particularly alert to strong gusts.
6. You should take note of the latest weather information and related announcements broadcast on radio and TV and given in the Observatory's Internet websites viz.

   http://www.weather.gov.hk
   http://www.hko.gov.hk

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Sinyal Monsun Kuat
The Strong Monsoon Signal

HONG KONG 香港

Sinyal Monsun Kuat

Sinyal Monsun Kuat dikeluarkan ketika angin yang terkait dengan monsun musim panas atau monsun musim dingin bertiup dengan kecepatan melebihi atau diperkirakan melebihi 40 kilometer per jam di dekat permukaan laut di mana pun di Hong Kong. Monsun musim dingin biasanya bertiup dari utara atau dari timur sedangkan monsun musim panas biasanya bertiup dari barat daya. Di tempat-tempat yang sangat terbuka, angin monsun bisa melebihi 70 kilometer per jam.

Monsun

Monsun adalah sistem angin berskala besar yang disebabkan oleh perbedaan suhu darat dan laut sepanjang musim.

Di musim dingin, daratan kontinental mendingin dengan cepat, mengakibatkan suhu yang sangat rendah di Asia Tengah. Saat udara dingin menumpuk, tekanan meningkat dan antisiklon kontinental berkembang di Siberia dengan Dataran Tinggi Tibet membentuk penghalang efektif yang memblokir penyebaran udara dingin dari antisiklon ke arah selatan. Dari waktu ke waktu, di bawah pengaruh gangguan udara atas, udara dingin dari antisiklon ini terjun ke selatan melalui Tiongkok dan membawa semburan udara dingin ke wilayah pesisir Tiongkok selatan. Bergantung pada waktu musim, dan penjajaran berbagai sistem cuaca, gelombang ini akan tiba di Hong Kong sebagai badai dari arah utara, timur laut, atau timur.

Di musim panas, pemanasan matahari yang intens menyebabkan suhu yang sangat panas di seluruh daratan Asia. Akibatnya, udara di atasnya memanas, mengembang, dan naik ke atas. Ini menyebabkan pembentukan daerah bertekanan rendah semi-permanen di dekat jantung benua. Udara hangat dan lembab dari Samudra Hindia dan Laut Cina Selatan yang mengalir ke area bertekanan rendah ini dialami saat monson musim panas di selatan dan tenggara Asia.

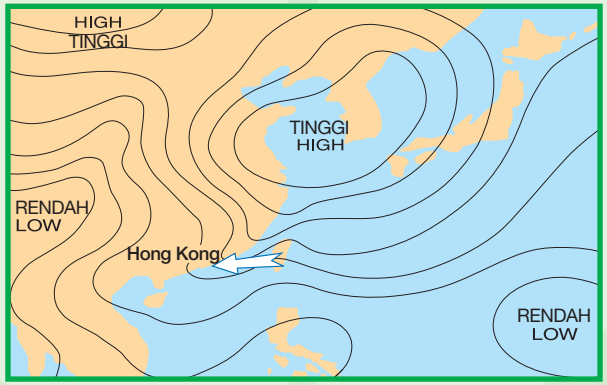
Angin yang terkait dengan monsun umumnya lebih konstan daripada yang dibawa oleh siklon tropis dan dapat berlangsung selama berhari-hari. Dalam gelombang monsun musim dingin yang intens, badai timur laut hingga kekuatan angin topan tidak jarang terjadi di perairan pesisir selatan Cina. Namun, dampak penuh dari angin ini tidak selalu terasa di Hong Kong, terutama di daerah padat bangunan atau di mana daerah di dekatnya menyediakan perlindungan.

Kadang-kadang, di musim dingin, siklon tropis yang melintasi Laut Tiongkok Selatan melintas ke selatan Hong Kong tepat ketika monsun melanda daerah pesisir Tiongkok selatan. Angin di Hong Kong bisa menjadi sangat kencang karena perbedaan tekanan yang sangat besar antara antisiklon kontinental dan pusat siklon tropis.

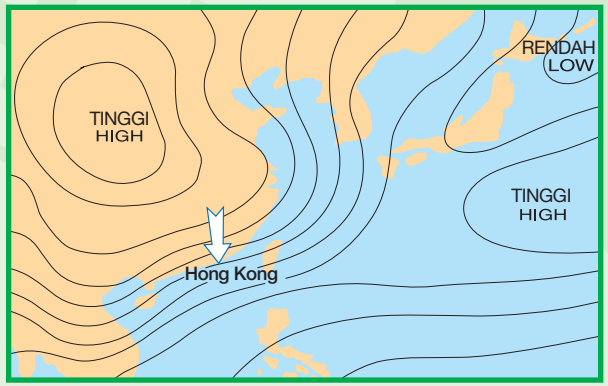
Poin yang perlu diperhatikan

1. Saat Sinyal Monsun Kuat diberlakukan, pengumuman selalu disertai dengan indikasi perkiraan arah angin bertiup. Penting untuk memperhatikan arah angin ini dan Anda harus menyadari bahwa topografi lokal, atau, keberadaan bangunan di dekatnya terkadang mengubah aliran udara secara substansial, membuatnya sangat kencang di daerah yang sangat terlokalisasi.
2. Jika Anda tidak terlindung dengan baik dari monsun, tindakan pencegahan harus dilakukan untuk menghadapi angin kencang yang kuat. Pot bunga dan benda lain yang kemungkinan besar akan tertiup angin harus dibawa masuk ke dalam ruangan. Insinyur, arsitek dan kontraktor harus memastikan bahwa semua perancah, penimbunan dan struktur sementara diamankan.
3. Jika perlu, pemilik kapal kecil harus mengatur keamanan kapalnya dan memastikan bahwa semua perlengkapan dek terpasang erat.
4. Mereka yang terlibat dalam olahraga air atau operasi di laut harus berhati-hati terhadap angin kencang dan kondisi laut yang ganas. Gelombang laut yang deras dan gelombang besar dapat mempengaruhi pantai. Anda harus waspada terhadap risikonya dan menjauh dari garis pantai demi keamanan.
5. Pengemudi yang menggunakan jalan raya dan jalan layang harus sangat waspada terhadap hembusan angin yang kuat.
6. Anda harus memperhatikan informasi cuaca terbaru dan pengumuman terkait yang disiarkan di radio dan TV dan diberikan di situs internet Observatorium yaitu:

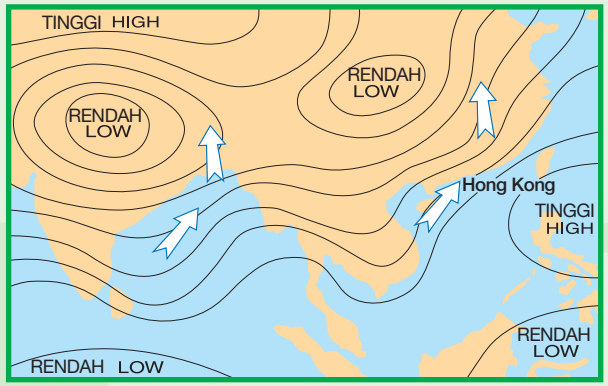
   http://www.weather.gov.hk
   http://www.hko.gov.hk



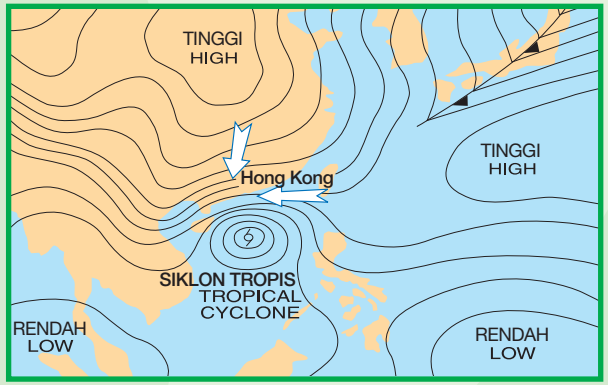
Gelombang monsun musim dingin dari arah Timur
Easterly surge of winter monsoon



Gelombang monsun musim dingin dari arah Utara
Northerly surge of winter monsoon



Monsun barat daya di musim panas
Southwesterly monsoon in Summer



Peningkatan monsun musim dingin oleh siklon tropis
Enhancement of winter monsoon by a tropical cyclone

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