

## 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>

## Ang Hudyat ng Malakas na Hangin

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02/2009

## Ang Hudyat ng Malakas na Hangin

Ang Hudyat ng Malakas na Hangin ay inilalabas kapag ang hangin kaugnay ng panahong tag-araw o taglamig ay umihip sa bilis na lampas sa o inaasahang lalampas sa 40 kilometro bawat oras sa ibabaw ng karagatan saanman sa Hong Kong. Ang hangin ng taglamig ay karaniwang nanggagaling mula sa hilaga o sa silangan habang ang hangin ng tag-araw ay karaniwang nanggagaling sa timog-kanluran. Sa mga masyadong nakalantad na lugar, ang ihip ng hangin ay maaaring lumampas sa 70 kilometro bawat oras.

## Malakas na Hangin

Ang malakas na hangin ay malawakang sistema ng pag-ihip na sanhi ng pagkakaiba ng temperatura ng lupa at dagat sa paglipas ng panahon.

Sa taglamig, mabilis lumamig ang kontinental na lupa, na nagresulta sa napakababang temperatura sa gitnang Asya. Habang naiipon ang malamig na hangin, tumataas ang presyon at may malaking kontinental na anticyclone na namumuo sa Siberia kasama ang Tibetan Plateau na nagiging isang mabisang harang na pumipigil sa pagkalat ng malamig na hangin papuntang timog mula sa anticyclone. Pana-panahon, sa impluwensya ng paggalaw ng hangin sa itaas, ang malamig na hangin mula sa anticyclone na ito ay bumabagsak papuntang timog sa Tsina at naghahatid ng pagkalat ng malamig na hangin sa mga baybaying lugar ng Timog Tsina. Depende sa tiyempo ng panahon, at kaayusan ng iba't ibang sistema ng panahon, ang mga silakbo na ito ay dumarating sa Hong Kong na pahilaga, philagang-silangan o pasilangan.

Sa tag-araw, ang matinding init ng araw ay naghahatid ng nakakusunog na temperatura sa masang lupain ng Asya. Bilang resulta, nakapaligid na hangin ay iinit, lalaki at aangat paitaas. Ito ay humahantong sa pagkabuo ng pansamantalang lugar na mababa ang presyon malapit sa gitna ng kontinente. Ang mainit at basang hangin mula sa Dagat ng India at ng Karagatan ng Timog Tsina na dumadaloy dito sa lugar na mababa ang presyon ay nararanasan bilang malakas na hangin ng tag-araw sa timog at timog-silangang Asya.

Ang hangin na nauugnay sa malalakas na hangin ay karaniwang mas tumatagal kaysa sa mga dala ng tropikal na bagyo at maaaring tumagal ng ilang araw. Sa matinding pagbulwak ng malalakas na hangin sa taglamig, ang mga hanging pahilagang-silangan na umaabot sa puwersa ng unos ay karaniwan sa karagatan ng timog Tsina. Gayunpaman, ang buong epekto ng hangin na ito ay hindi palaging nararamdaman sa Hong Kong, lalo na sa mga lugar na may maraming gusali o kung saan may kalapit na lupain na nagbibigay ng harang.

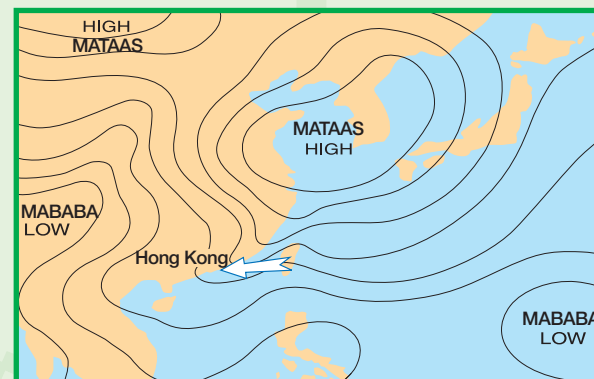
Paminsan-minsan, sa tagalamig, ang mga tropikal na bagyo na tumatawid sa Karagatan ng Timog Tsina ay dumadaan sa timog ng Hong Kong kung kailan may malakas na hangin na umaapekto sa mga baybayin ng timog Tsina. Ang hangin sa Hong Kong ay lubos na tumitindi dahil sa napakalaking pagkakaiba ng presyon sa pagitan ng kontinental na anticyclone at ng gitna ng tropikal na bagyo.

## Mga puntong dapat tandaan

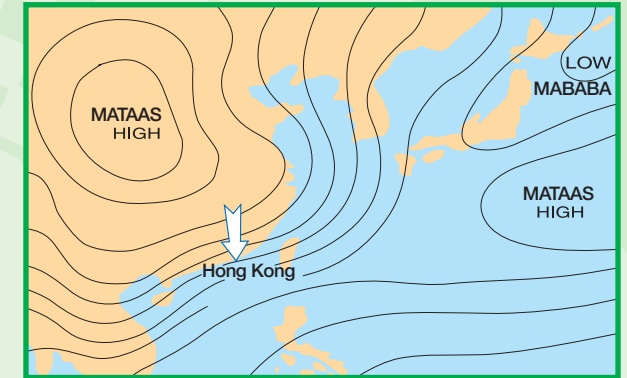
1. Kapag ang Hudyat ng Malakas na Hangin ay inilabas, ang anunsyo ay palaging sinasamahan ng isang pahiwatig ng direksyon kung saan inaasahang hahampas ang hangin. Mahalagang tandaan ang direksyon ng hangin na ito at kailangang alam mo na ang lokal na topograpiya, o, ang pagkakaroon ng mga malalapit na gusali minsan ay nakakapagpabago sa daloy ng hangin ng husto, at ginagawa nitong mas mahangin ang ibang bahagi ng lugar.
2. Kung hindi ka nahaharangan ng maayos mula sa malakas na hangin, dapat gawin ang pag-iingat laban sa mga bugso ng hangin. Ang mga paso ng halaman at ibang kagamitan na maaaring malipad ay dapat ipasok sa loob. Ang mga inhinyero, arkitekto at mga kontratista ay dapat tiyakin na ang lahat ng mga akyatan, imbakan, at mga pansamantalang istraktura ay ligtas.
3. Kung kinakailangan, ang mga may-ari ng maliliit na sasakyang pandagat ay dapat gumawa ng pag-aayos para sa kaligtasan ng kanilang mga bangka at tiyakin na ang lahat ng kagamitan sa kubyerta ay mahigpit na nakakabit.
4. Ang mga nakikibahagi sa mga palakasan sa tubig o mga gawain sa karagatan ay dapat mag-ingat ng husto laban sa kundisyon ng malalakas na hangin at maalong dagat. Ang magulong dagat at malalaking alon ay maaaring makaapekto sa baybayin. Kayo ay dapat mag-ingat sa peligro at lumayo sa baybayin para sa kaligtasan.
5. Ang mga nagmamaneho na dumadaan sa mga highway at mga flyover ay dapat partikular na alerto sa malalakas na unos.
6. Dapat mong bigyan pansin ang mga pinakahuling impormasyon sa panahon at mga kaugnay na mga anunsyong isinasahimpapawid sa radyo at TV at inilagay din sa websayt ng Obserbatoryo sa internet.

<http://www.weather.gov.hk>

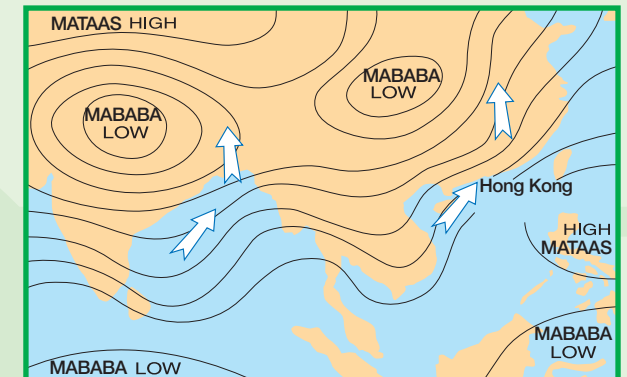
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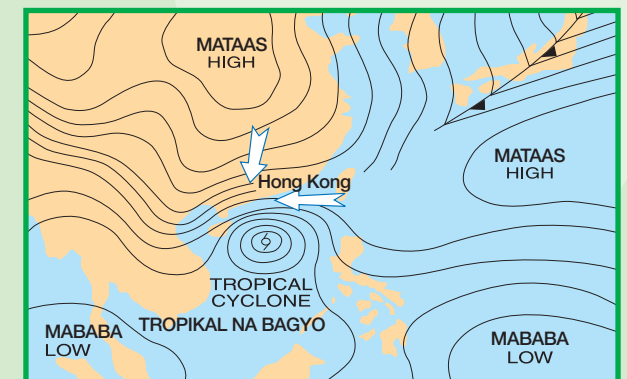
Pasilangang silakbo ng malakas na hangin sa taglamig  
Easterly surge of winter monsoon



Pahilagang silakbo ng malakas na hangin sa taglamig  
Northerly surge of winter monsoon



Patimog-kanlurang malakas na hangin sa tag-init  
Southwesterly monsoon in Summer



Ang pagtindi ng malakas na hangin sa taglamig ng isang tropikal na bagyo  
Enhancement of winter monsoon by a tropical cyclone

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