香港志願觀測船舶通訊

Newsletter For Hong Kong Voluntary Observing Ships

香港天文台 HONG KONG OBSERVATORY

香港志願觀測船舶三位新成員

過去一年共有三艘貨櫃船加入香港志願觀測船隊。我們非常感謝「*M.V. OOCL Ningbo*」的鄧耀祖船長、「*M.V. OOCL Atlanta*」的 Llewellyn 船長和「*M.V. OOCL Tianjin*」的李惠民船長對香港志願觀測船舶規劃的鼎力支持。

現時香港天文台的志願天氣觀測船隊有 40 艘以本港爲基地的船舶，在航行時進行天氣觀測。這些天氣觀測提供重要的海上天氣資料，對編製供航運界使用的天氣報告尤爲重要。

我們歡迎經常在香港停泊的船舶參加香港志願觀測船舶規劃。詳情請聯絡我們的海港氣象主任（詳細聯絡資料刊於最後一頁）或瀏覽以下網址:

http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS_recruit_c.pdf

M.V. OOCL Ningbo

M.V. OOCL Atlanta

(東方海外貨櫃航運有限公司提供)
(courtesy of the Orient Overseas Container Line Ltd.)

M.V. OOCL Tianjin

(東方海外貨櫃航運有限公司提供)
(courtesy of the Orient Overseas Container Line Ltd.)

Three New Partners of HKVOS

Three container ships have joined the HKVOS scheme during the past year. We are most grateful to Captain Tang Yiu Tzu (*M.V. OOCL Ningbo*), Captain D. R. Llewellyn (*M.V. OOCL Atlanta*), and Captain Li Wai Man (*M.V. OOCL Tianjin*) for their enthusiastic support to the scheme.

Currently there are 40 locally based merchant ships in the fleet of HKVOS to make weather observations aboard during their voyages. These weather observations provide vital information about the weather conditions at sea and are particularly important for the preparation of weather bulletins for the shipping community.

We welcome any ships routinely calling at Hong Kong to join the HKVOS scheme. Please contact our Port Meteorological Officer (contact details on the last page) or visit the following website for details:

http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS_recruit_e.pdf

海嘯

二零零四年十二月的巨大海嘯震驚全世界，這次海嘯橫掃印度洋影響遍及週邊的 13 個國家，導致超過 23 萬人死亡。這次慘劇提醒我們大自然的威力及海洋的危險。

“**Tsunami**”一詞源於日語“津波”，表示“海港內的波浪”。海嘯是因海水劇烈運動而產生的一連串波浪，通常由發生在海底或近岸的地震、巨大山泥傾瀉和火山爆發所引起，其中百分之九十以上的海嘯由地震所引發。多數的海嘯在太平洋發生，這是由於太平洋覆蓋超過三分之一的地球表面，同時被一系列地震活躍的火山、深海海溝和島弧所環繞。

2004 年 12 月 26 日蘇門答臘北部以西的印度洋海底發生大地震，所引發的海嘯對泰國蔻立造成嚴重破壞。
A great earthquake occurred in the Indian Ocean west of northern Sumatra on 26 December 2004. A tsunami was generated which caused severe damage in Khao Lak, Thailand.

海嘯能對沿岸地區造成巨大的人命和財物損失，但通常不會被在大海中航行船舶上的船員所察覺。海嘯在深海的移動速度可達每小時數百公里，接近噴射機的速度，但其高度在數百公里的範圍內通常不足一米。當海嘯移近海岸，淺水令其速度減慢，從後趕上的海嘯波會推高前面的波幅，使海嘯的高度上升。

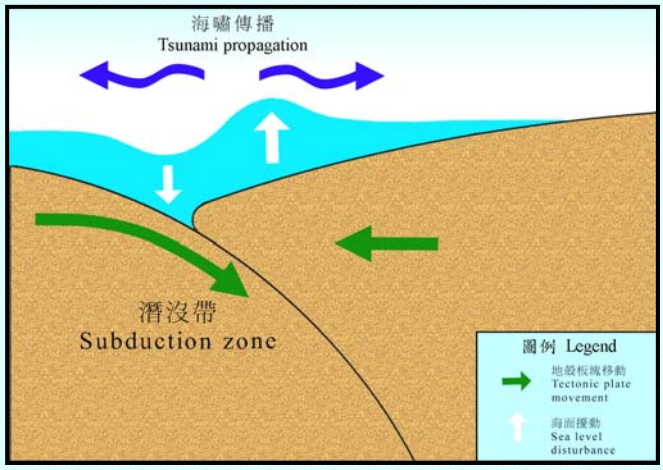
海深、海岸線的形狀及海嘯的移動方向，都會影響海嘯的高度。由於這些差異，即使相距只有數公里的海岸，海嘯高度可以相差很大。

一般而言，在大海的船舶比港灣內的船舶受海嘯的影響較少。

Tsunami

A big tsunami shocked the world in December 2004. The tsunami traversed across the Indian Ocean killing at least 230,000 people in 13 countries around the Indian Ocean. This tragic event reminds us of the destructive force of Mother Nature and the danger of the sea.

"**Tsunami**" is a word originating from Japanese that means "harbour waves". It is a series of sea waves generated by a large impulsive displacement of the sea level such as earthquakes, massive landslides and volcanic eruptions that occur under the sea or near the coast. Over 90% of all tsunamis are caused by earthquakes. Most tsunamis occur in the Pacific Ocean because the Pacific covers more than one-third of the earth's surface and is surrounded by a series of volcanoes, deep-ocean trenches and island arcs where most earthquakes occur.



海底地震引發海嘯
A tsunami generated by submarine earthquake

While tsunamis can cause massive loss of lives and property in the coastal areas, they are usually not noticeable by crews on ships in the open sea. In the deep ocean, a tsunami travels at the speed of several hundred kilometres per hour resembling a jet plane but the height is usually less than one metre spanning across hundreds of kilometres. When a tsunami approaches the coast, the shallow water slows it down. Push from waves behind the front then piles up the water that may shoal up to much greater heights.

Bathymetry, shape of the coastline, and direction of propagation of the tsunami are factors that affect the height of a tsunami at a location. As such, the heights that a tsunami attains at two locations a few kilometres apart can be quite different.

Generally speaking, ships in the open sea are less affected by a tsunami than those in a bay near the coast.

生物發光

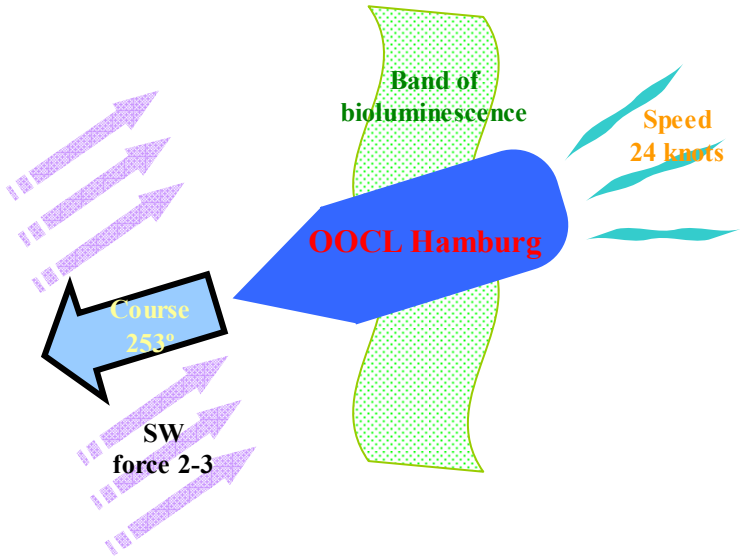
二零零五年六月二日當貨櫃船「OOCL Hamburg」（船長 Lum Chung Fatt 先生）航行至北緯 32 度 34.3 分，東經 156 度 48.3 分處時，二副 Syn Keong Kong 先生觀測到生物發光現象。

一條快速閃亮的淡綠色光帶，在 1205 UTC 時被觀測到。估計這光帶長約 1.5 海里至 2.0 海里、闊約 30 公尺，現象維持了約 5 分鐘。

觀測這現象時船舶正以時速 24 海里向 253 度方向航行，當時吹西南風 2 至 3 級，密雲而最低層的雲底只可隱約看到，海水溫度爲 20 度。

Observation of Bioluminescence

A phenomenon of bioluminescence (light produced by marine organisms) was observed by Mr. Syn Keong Kong, the Second Officer aboard the container ship OOCL Hamburg (Captain Lum Chung Fatt) when it was near 32°34.3'N, 156°48.3'E on 2 June 2005.



圖示觀測生物發光現象時的情況
A schematic diagram showing the observation of bioluminescence

A band of rapid flashes of light in pale greenish colour at sea was observed at 1205 UTC. It was estimated 1.5 – 2.0 nautical miles long and about 30 metres wide. The phenomenon lasted for about 5 minutes.

The ship's course and speed at the time of observation were 253° and 24 knots respectively. The wind was southwesterly force 2 to 3 under overcast sky with the lowest cloud base barely discernible. The sea temperature was 20°C.

智取颱風之旅

在現今的海上貨櫃運輸業競爭中，貨櫃船船長肩負重要的責任，他們需要安全、準時及符合經濟效益地掌舵。要應付這些挑戰，他們須考慮包括行駛最短的航線以及使用最少的燃油等重要因素。

李惠民是一艘可載 5000 個標準貨櫃單位貨櫃船「*OOCL Netherlands*」的船長，他講述了二零零三年十一月在南海面對颱風挑戰的一次刺激航程。在這次航行中，李船長成功駕駛他的船舶遠離颱風，並以最短的時間到達目的地。

二零零三年十一月十六日，「*OOCL Netherlands*」從香港出發駛往新加坡。當時船舶滿載貨物，並因先前泊岸的延誤而比原定船期遲，所以船長希望儘力趕回原先的行程時間。剛巧位於南海的颱風尼伯特正處於船舶的航線上。在 0442 UTC，船長下令船舶全速前進。在 0554 UTC，當船舶經過擔杆列島西面時，航向爲 208 度，平均船速爲每小時 23.5 海里，下一個航向將會是 190 度朝向新加坡。

在 0600 UTC，船長根據香港天文台最新的熱帶氣旋警告得知尼伯特位於北緯 14.5 度，東經 113.3 度，並以時速 9 海里向西北偏西方向移動。按原先訂立的航線，船舶將會在 2330 UTC 與尼伯特相遇，這會相當危險，當時船長決定保持航向並等待香港天文台的下一個熱帶氣旋警告再作評估。

在 0800 UTC，船長從香港天文台的警告中得知尼伯特會以較慢的每小時 7 海里速度向西北偏西移動。這個重要信息幫助船長作出決定。經研究有關資料後，有兩個選擇方案：

方案一：

減慢船速及更改航向至 180 度，船舶會經過尼伯特的後方並在其東面與它保持 150 海里至 200 海里的距離。

好處：

- 沒有被尼伯特趕上的危險。

壞處：

- 在風浪影響下，船速將減慢到每小時 8 至 12 海里。
- 船舶將受到巨大的迎頭風浪影響。船舶會前後顛簸、積水甚至左右傾側。
- 貨物或會損壞甚至跌落海。
- 船舶結構會受到非常大的壓力。
- 主發動機會承受更大的負荷。
- 將需要額外 10 至 15 噸燃油。
- 船員會在不適的環境下活動、工作和煮食，甚至可能受傷。
- 最重要的是到達新加坡的時間會延誤多小時。

方案二：

保持最高航速並更改航向至 226 度，船舶會經過尼伯特的前面轉到它的西面。

好處：

1. 可避免方案一的所有壞處。
2. 能保持順著風浪而行。
3. 可以高速行駛。
4. 更改航線會增加航程，但比原先預計到達目的地的時間只增多一小時。

壞處：

- 如果尼伯特改變移動途徑及加速，船舶將會被它趕上而有危險。

船長透過香港天文台發出的警告嚴密地監視尼伯特的移動情況後，決定採用方案二。後來證明這是正確的決定。

事實上，船長並不容易作出決定。船長肩負重大責任確保他的決定有滿意的成效。成功因素取決於船長對熱帶氣旋警告的信任，今次船長完全信賴警告所述颱風減慢速度的信息。

17 日 0000 UTC ，船舶成功到達尼伯特前方約 56 海里處。在 0200 UTC，船舶最接近尼伯特時與它相距 42 海里。從 16 日 0900 UTC 至 17 日 0630 UTC，船舶大致平穩地航行，並且沒有左右傾側或前後顛簸，同時可以維持每小時 23.5 海里平均船速。

李惠民船長
Captain Li Wai Man

李船長事後的總結：

一. 當作出決定時，首重**安全第一**之原則。
二. 必須對所作決定有信心。
三. 就以上例子而言，船長必須對船舶的主發動機和操舵裝置有信心，否則不應採用方案二。
四. 當風浪從船身後面而來時，船舶可以比較靠近風暴中心。上述情況而言，適當的距離是 40 至 50 海里。
五. 然而，當風浪從船頭而來，情形將急劇改變，船舶需要與風暴保持足夠遠的距離。

最後，李船長指出協助氣象中心於船上觀測天氣其實幫助了航海人員。李船長說：「作爲香港志願觀察船舶的一份子，我們應經常作出高質量的天氣觀測報告」。東方海外貨櫃航運有限公司是一間以香港爲基地的船務公司，李船長在該公司服務了 29 年，船公司有清晰及積極的政策鼓勵船長支持香港志願觀測船舶規劃。

李船長對香港天文台員工的優質服務表示感謝。

Outwitting the Typhoon

Nowadays, competition in the marine container transportation industry has laid heavy responsibility to container ship masters. They have to run their ships safely, punctually and cost effectively. Among many other things, the shortest route and the least fuel consumption are two important factors to be considered to meet the challenges.

Captain Li Wai Man, the master of a 5000 TEU container ship *OOCL Netherlands* is going to tell us about his exciting voyage tackling with a typhoon over the South China Sea in November 2003. During the voyage, Captain Li successfully piloted the ship away from the typhoon and reached the destination in the shortest time possible.

On 16th November 2003, *OOCL Netherlands* was on her way from Hong Kong to Singapore. The ship was fully loaded with cargoes and hours behind her schedule due to previous port delays. The master wished to do everything he could to catch up with the original schedule. However, a typhoon named Nepartak was roaring over the South China Sea and standing right on the shipping route.

At 0442 UTC, a Ring Full Away engine order was given. At 0554 UTC, the course was set to 208 degrees while the ship was passing the west end of Dangan Liedao with an average speed of 23.5 knots. The next course would be 190 degrees towards Singapore.

At 0600 UTC, the master realized from the latest tropical cyclone warning issued by the Hong Kong Observatory that Nepartak was near 14.5°N 113.3°E moving west-northwest at 9 knots. According to the planned route, the ship would meet Nepartak at about 2330 UTC. This was obviously not acceptable. At that moment, the master decided to keep the course and wait for the next warning from the Hong Kong Observatory.

At 0800 UTC, the master noticed from the Hong Kong Observatory's warning that Nepartak would move west-northwest with a lower speed of 7 knots. This was a very important piece of information for the master to make decision. After carefully studying all relevant data, he reckoned that there were two options to take:

Option One :

Slow down the ship and alter the course to 180 degrees to pass the astern of Nepartak by keeping a distance of about 150 to 200 nautical miles to its east.

Plus :

- No risk of being caught by Nepartak.

Minuses :

- The ship's speed will be reduced to about 8 to 12 knots, subject to wind force and sea condition.
- The ship will struggle her way ahead against strong head wind and sea. It will be labouring, pounding or even rolling.
- There is a risk of cargo damage, or even worse, cargo may be fallen over board.
- The ship's structure will suffer from extra high stress.
- The main engine will suffer from additional heavy load.
- More fuel oil of 10 to 15 tons will be required.
- The crews will encounter undesirable conditions adversely affecting their living, work and cooking. There may also be potential crew injury.
- Worst of all, there will be further delays in the arrival time at Singapore by several hours.

Option Two :

Keep at the maximum speed and alter the course to 226 degrees to pass ahead of Nepartak to its west.

Pluses :

- All disadvantages for Option One can be avoided.
- The ship will run in tail wind along the wave.
- An excellent speed can be maintained.
- Only one hour delay for the additional distance due to course alteration is expected.

Minus :

- There will be a risk of being caught up by Nepartak if it changes its track and moves faster.

Having monitored the movement of Nepartak closely by making reference to the warnings issued by the Hong Kong Observatory, the master decided to take Option Two. Later on the development of the story proved that it was a correct decision.

In fact, it was not an easy decision. The master had a grave responsibility to ensure that his decision would come up with a satisfactory result. Here, the success depended on the trust of the master in the warnings received. In this case, the master's trust in the

slowing down of the typhoon as stated in the warning was essential.

At 0000 UTC on 17th, the ship successfully went ahead of Nepartak at a distance of about 56 nautical miles. The ship passed its closest approach to Nepartak at a distance of 42 nautical miles at 0200 UTC. From 0900 UTC on 16th to 0630 UTC on 17th, the ship proceeded smoothly in general without rolling or pitching. Also, an average speed of 23.5 knots could be maintained during the above period.

Captain Li later on commented on this case:

1. SAFETY FIRST is always a respected principle when making decision.
2. If you do not feel comfortable for your decision made, do not take it.
3. Referring to above specific case, the master MUST be confident of the ship's main engine and steering gears. If not, Option Two is not recommended.
4. While wind and sea come from behind your ship's beam, you can get closer to the storm centre. For this case, a distance of 40 to 50 nautical miles is appropriate.
5. However, when wind and sea come from ahead, the whole situation will change dramatically; giving sufficient clearance to the storm becomes necessary.

Lastly, Captain Li pointed out that to help meteorological centres in making weather observations aboard was in fact helping mariners themselves. "*As a member of HKVOS, we shall perform high quality weather observations and make it more frequently.*" Captain Li said. OOCL, a Hong Kong based shipping company that Captain Li has served for 29 years, has a clear and keen policy in encouraging their masters to support the HKVOS scheme.

To end this story, Captain Li would like to express his gratitude to the quality service of the staff of the Hong Kong Observatory.

增強熱帶氣旋資訊服務

香港天文台爲船舶提供的熱帶氣旋警告現已有中文版。以往這警告只以英文發放。

二十世紀五十年代初，天文台開始爲船舶提供熱帶氣旋警告，現已有超過半個世紀的歷史。這警告爲航海人士提供重要的熱帶氣旋資訊，包括熱帶氣旋位置、強度、預測動向以及其周圍的風浪情況。

使用中文的船公司人員和航海人士可在以下的天文台網頁取得爲船舶提供的熱帶氣旋警告中文版：

http://www.hko.gov.hk/wxinfo/currwx/tcswarnc.htm

此外，每當香港天文台發出三號或以上的熱帶氣旋警告信號時，大家可從天文台的熱帶氣旋路徑圖網頁獲知每小時更新的熱帶氣旋最新強度及移動情況。

熱帶氣旋路徑圖網頁：

http://www.hko.gov.hk/wxinfo/currwx/tc_posc.htm

Enhanced Tropical Cyclone Information Service

The tropical cyclone warning for shipping prepared by the Hong Kong Observatory is now available in Chinese. Previously the warning was issued only in English.

The tropical cyclone warning for shipping bulletin was first issued in the early 1950s and has a history of more than half a century. The bulletin provides mariners with essential tropical cyclone information, including location, intensity and forecast movement of the tropical cyclone as well as wind and wave information in its vicinity.

The Chinese version of the bulletin will be available from the following website for use by operators of shipping companies and mariners who operate in Chinese.

http://www.hko.gov.hk/wxinfo/currwx/tcswarnc.htm

In addition, users can refer to the tropical cyclone track on the Observatory's website to obtain hourly updated information on the intensity and movement of the tropical cyclone whenever the Tropical Cyclone Warning Signal No. 3 or above is in force in Hong Kong.

The website for tropical cyclone track is as follows:

http://www.hko.gov.hk/wxinfo/currwx/tc_pos.htm

船舶天氣報告編碼

當觀測員爲船舶天氣報告編碼時，請留意以下各點以便提高資料的質量：

風：風向應當以真實風的來方並以最接近十位數來編碼。如風向是 016 度時，相應的編碼是 02，而不是 16。觀測報告時的風速單位應該與編碼後的單位以及風速單位指示碼相符。

氣壓變化：如果氣壓趨勢編碼是 4（即大氣氣壓與三小時前相等），相應的氣壓變化編碼應是 000。

過去天氣：報告過去天氣的兩個電碼（w1w2）按由大至小順序定先後（即是 w1 大過或等如 w2）。

如果觀測員對觀測天氣或船舶天氣報告編碼有疑問，請聯絡我們的海港氣象主任（詳細聯絡資料刊於最後一頁）。

Coding of Ship Weather Reports

In order to enhance the data quality, observers are reminded to take note of the following when coding ship weather reports:

Wind conditions : The true wind direction from which the wind is blowing, to the nearest ten degrees, should be reported. For example, the observation of 016 degrees is coded as 02, not 16. The unit of wind speed observed should be consistent with the coded one and the wind speed indicator.

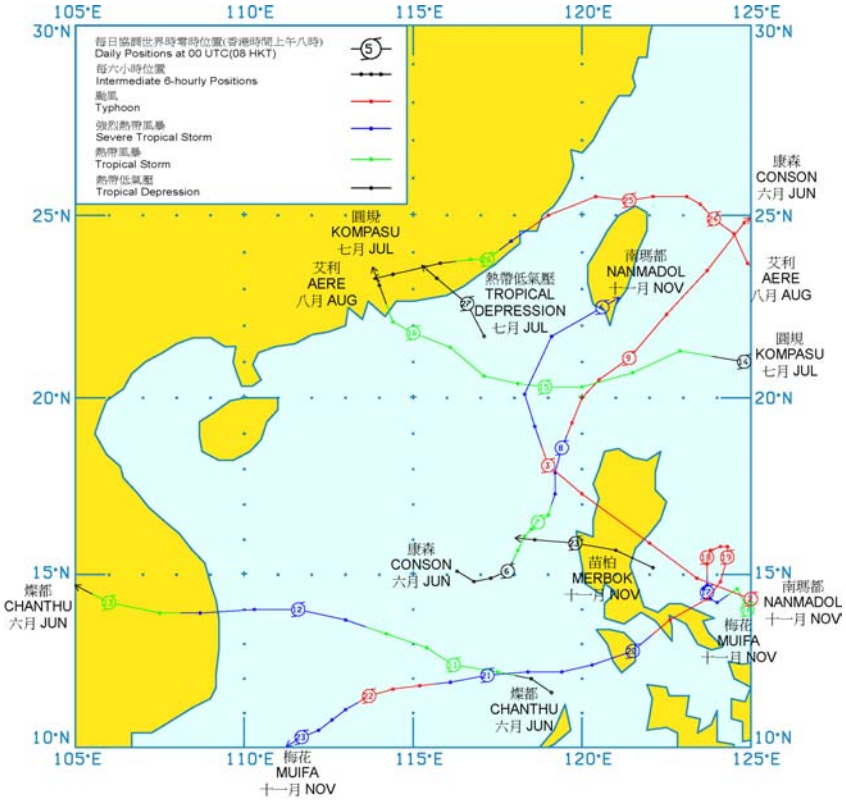
Pressure change : If the characteristic change in atmospheric pressure is coded as 4 (i.e. the pressure is the same in the past three hours), the change of pressure should then be coded as 000.

Past weather : The sequence of the two code figures (w1w2) for reporting the past weather observed should be in descending order (i.e. w1 is greater than or equal to w2).

Please feel free to contact our Port Meteorological Officer (contact details on the last page) if the observers encounter any difficulties in making or coding ship weather reports.

二零零四年南海區域內熱帶氣旋摘要

二零零四年共有 8 個熱帶氣旋影響北緯 10 至 25 度、東經 105 至 120 度的南海地區，比年平均的 12 個爲少。當中有 2 個熱帶氣旋在南海形成，其餘 6 個從北太平洋西部進入南海。以下是二零零四年其中 4 個熱帶氣旋的概要，它們引致繁忙的南海航道上出現烈風或以上的風力。



二零零四年影響南海的熱帶氣旋路徑圖。
The map showing the tracks of tropical cyclones over the South China Sea in 2004.

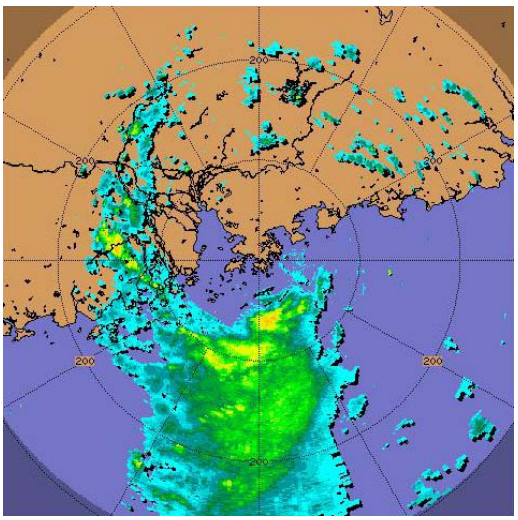
西南風每小時 40 海里。同日傍晚圓規減弱爲熱帶低氣壓，然後在廣東內陸消散。

艾利在八月二十日早上於雅蒲島西北偏北約 550 公里處形成，同日下午增強爲熱帶風暴，隨後在西北太平洋以西北方向移動，大致趨向台灣北部。艾利逐漸增強，並於八月二十二日達至颱風程度。八月二十四日，艾利轉向西移動掠過台灣北部後，翌日在廈門附近登陸。隨後，艾利轉向西南移動，橫過福建沿岸地區，並於八月二十七日在廣東中部減弱爲低壓區。

熱帶低氣壓梅花於十一月十四日在雅蒲

名爲燦都的熱帶低氣壓在六月十日於馬尼拉西南偏南約 390 公里處形成。它向西移動，於翌日清晨成爲熱帶風暴並在六月十二日進一步增強爲強烈熱帶風暴。燦都直趨越南中部並在該處登陸。六月十三日它於泰國消散。

圓規在七月十四日清晨於高雄東南偏東約 620 公里的太平洋形成。它在當天下午增強爲熱帶風暴，並且向西移動，橫越呂宋海峽進入南海北部。七月十六日，圓規在香港登陸。在 0600UTC，一艘香港志願觀測船舶「雙魚星」（呼號 3FWP3）於圓規的南面約 56 公里處，報告

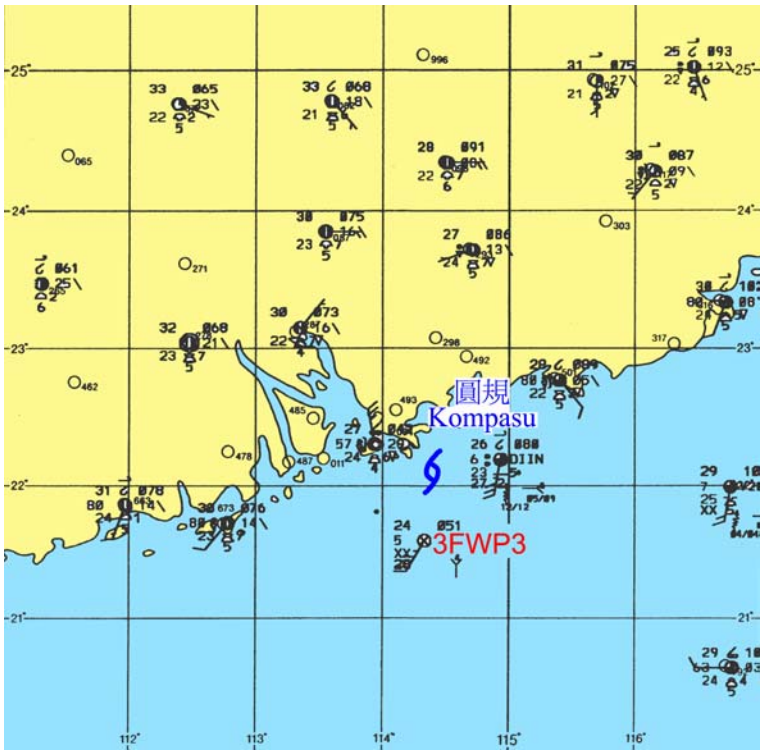


二零零四年七月十六日 0600 UTC 的天氣雷達圖像，當中顯示熱帶氣旋圓規在掠過香港時其雨帶的情況。
A weather radar imagery captured at 0600 UTC on 16 July 2004 showing the rain bands of the tropical cyclone Kompasu during its passage of Hong Kong.

島西北偏西約 840 公里的太平洋形成，並向西北偏西移動。它於十一月十七日開始以順時針方向打圈，並在次日增強爲颱風。梅花打圈後於十一月十九日橫過菲律賓中部，翌日減弱爲強烈熱帶風暴，繼而進入南海。十一月二十一日，梅花在南海中部再次增強爲颱風，翌日轉向西南偏西移動，並變成強烈熱帶風暴。梅花在十一月二十五日早上掠過越南南端，並於當晚橫過泰國灣後減弱爲低壓區。

Summary of Tropical Cyclones over South China Sea in 2004

In 2004, eight tropical cyclones affected the South China Sea, the area bounded by 10°N and 25°N, 105°E and 120°E. This figure was fewer than the normal of 12 a year. Two of these tropical cyclones formed in the South China Sea while six moved into the area from the western North Pacific. A brief summary of four tropical cyclones that brought gale force wind or above to the busy shipping lanes over the South China Sea in 2004 is given below:



二零零四年七月十六日 0600 UTC 的天氣圖。
A daily weather map at 0600 UTC on 16 July 2004.

Chanthu developed as a tropical depression (TD) about 390 kilometres (km) south-southwest of Manila on 10 June. Moving westwards, it became a tropical storm (TS) early next morning and further intensified into a severe tropical storm (STS) on 12 June. Heading towards central Vietnam, Chanthu made landfall there and dissipated over Thailand on 13 June.

Kompasu developed as a TD over the Pacific about 620 km east-southeast of Gaoxiong on the early morning of 14 July. Moving westwards, Kompasu intensified into a TS that afternoon and crossed the Luzon Strait into the northern part of the South China Sea. It made landfall over Hong Kong on 16 July. Kompasu weakened into a TD and dissipated over inland Guangdong that evening. The HKVOS "Star Pisces" (call sign 3FWP3) reported 40 knots southwesterly winds about 56 km south of Kompasu at 0600 UTC on 16 July.

Aere developed as a TD about 550 km north-northwest of Yap on 20 August and intensified into a TS that afternoon. Moving in a northwesterly direction towards the northern part of Taiwan, Aere intensified gradually and reached typhoon strength on 22 August. On 24 August, Aere turned westwards and skirted the coast of northern Taiwan. After making landfall near Xiamen the next day, Aere turned southwest and traversed the coastal areas of Fujian. It degenerated into an area of low pressure over central Guangdong on 27 August.

Muifa formed as a TD over the Pacific about 840 km west-northwest of Yap on 14 November. Moving west-northwestwards, Muifa began to execute a clockwise loop on 17 November and intensified into a typhoon the following day. After looping, it swept across the central part of the Philippines on 19 November. Muifa weakened into an STS the next day and entered the South China Sea. Muifa re-intensified into a typhoon over the central part of the South China Sea on 21 November. It turned west-southwest and became an STS the next day. Muifa skirted the southern tip of Vietnam on the morning of 25 November. It weakened into an area of low pressure that night after traversing the Gulf of Thailand.

二零零四年影響南海的熱帶氣旋
List of tropical cyclones affecting the South China Sea in 2004

熱帶氣旋名稱 Name of tropical cyclone	形成日期 (日/月) Formation date (day/month)	消散日期 (日/月) Dissipation date (day/month)	中心附近最高風力 (公里每小時) Maximum sustained wind speed near the centre (km/h)	最低氣壓 (百帕斯卡) Minimum sea-level pressure (hPa)
颱風康森 Typhoon Conson	5 / 6	11 / 6	130	965
強烈熱帶風暴燦都 Severe Tropical Storm Chanthu	10 / 6	13 / 6	110	975
熱帶風暴圓規 Tropical Storm Kompasu	13 / 7	16 / 7	75	985
熱帶低氣壓 Tropical Depression	26 / 7	27 / 7	55	996
颱風艾利 Typhoon Aere	20 / 8	26 / 8	150	955
颱風梅花 Typhoon Muifa	14 / 11	25 / 11	150	955
熱帶低氣壓苗柏 Tropical Depression Merbok	22 / 11	23 / 11	55	998
颱風南瑪都 Typhoon Nanmadol	29 / 11	4 / 12	165	945

更改電話號碼

香港天文台爲了提供更佳服務而簡化了電話號碼系統，今後在本地只需撥號「1878 200」便可輕易透過香港天文台全新的「打電話問天氣」系統，取得全面的資訊服務。

新系統啓用後，用戶只需單一電話號碼便可以廣東話、普通話或英語收聽香港各區最新天氣報告、本港天氣預報、船舶天氣預報、熱帶氣旋信息、各種天氣警告、潮汐、香港標準時間及其他資料。有關新系統提供各種資料的詳情請瀏覽以下網址：

http://www.hko.gov.hk/wxinfo/news/2005/20050311_new_daw_chi_appendix.pdf

Change of Telephone Number

From now on, comprehensive information on the services of the Hong Kong Observatory can be easily obtained locally by dialing 1878 200, the Observatory's new "Dial-a-weather" System. This is to simplify the telephone numbering system for better service.

In the new system, the latest regional weather information, local weather forecasts, marine forecasts, information on tropical cyclones, weather warnings, tidal information, the Hong Kong standard time and other information can be listened to in either Cantonese, Putonghua or English via a single telephone number. For details on the information available from the system, please visit the following website:

http://www.hko.gov.hk/wxinfo/news/2005/20050311_new_daw_eng_appendix.pdf

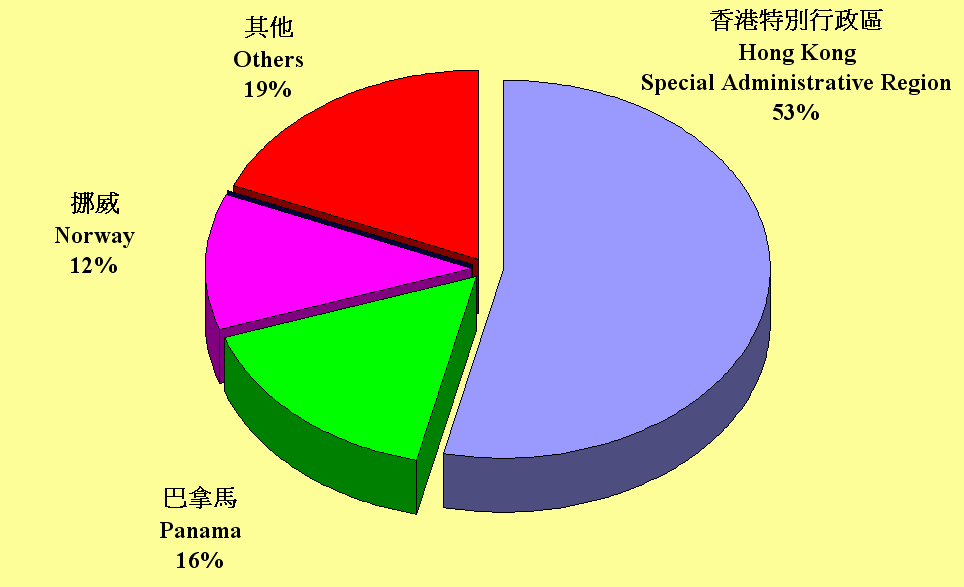
香港志願觀測船舶名表
HKVOS Honour Roll

截至二零零五年七月八日，香港志願觀測船隊共有 **40** 艘船舶，船名如下：
As at 8 July 2005, there were **40** ships in the fleet of HKVOS. In alphabetical order, the ships in this fleet were:

Aegean Leader	Al Mariyah	Asimont	Bunga Pelangi Dua	Cap Colville
Fu Heng Star	Grand Noble	K.I.A. Waleed	Maersk Gairloch	MOL Oasis
OOCL Atlanta	OOCL California	OOCL Chicago	OOCL China	OOCL Exporter
OOCL Fair	OOCL Faith	OOCL Fidelity	OOCL Fortune	OOCL Freedom
OOCL Friendship	OOCL Hamburg	OOCL Hong Kong	OOCL Japan	OOCL Long Beach
OOCL Netherlands	OOCL Ningbo	OOCL Qingdao	OOCL Rotterdam	OOCL San Francisco
OOCL Shenzhen	OOCL Singapore	OOCL Tianjin	Seafalcon	Seamaster
Star Pisces	Tampa	Tapiola	Texas	Toba

註冊地點
Where Registered

下圖顯示香港志願觀測船舶的註冊地點分佈。
The pie chart below shows the places of registration of HKVOS.



船名更改 Ship Name Change	
舊船名 Old name	新船名 New Name
En Yuan	**Fu Heng Star**

世界各地的海港氣象主任 Port Meteorological Officers

名單上的海港氣象主任可爲志願觀測船舶提供海港氣象服務。
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