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2019 年港灣環境資訊網
海氣象觀測資料年報
（中雲海域風浪潮流觀測資料）

交通部運輸研究所

中華民國 110 年 2 月

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著者：蔣敏玲、蘇青和、李俊穎、傅怡釧、
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<tr><td colspan="4">摘要：
本港灣環境資訊網觀測海氣象資料年報，包括中雲海域2019年觀測風力、波浪、潮汐及海流等資料之觀測記錄表及逐時資料歷線圖。</td></tr>
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ABSTRACT:

This Annual report 2019 of Harbor Environment Information Website(HEIV) covers the observation data of winds, waves, tides and currents near Chung-Yun offshoe region in Taiwan. The contents in this Annual report include the records of observation and the time series of data.

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誌　　謝

2019 年港灣環境資訊網觀測風力資料，蒐集之中雲海域風力資料，除本中心自行觀測之外，在梧棲氣象站(**測站 E**)、臺中浮標(**測站 V**)，觀測風力資料係交通部 **中央氣象局(CWB)**提供。麥寮氣象站(**測站 H**、**測站 I**)觀測風力資料，係經濟部 **水利署(WRA)**提供。彰濱外海浮標站(**測站 Y**)風力資料，係 **海科中心**(TORI)所設置；彰濱外海一浮標站(**測站 Z**)及彰濱外海二浮標站(**測站 R**)之風速儀屬中興工程所設置，謹致謝忱。

2019 年港灣環境資訊網觀測波浪資料，蒐集之中雲海域波浪資料，除本中心自行觀測之外，臺中浮標(**測站 V**)，係交通部 **中央氣象局(CWB)**提供。在彰濱外海浮標站(**測站 Y**)波浪儀，係 **海科中心**(TORI)所設置；彰濱外海一浮標站(**測站 Z**)、彰濱外海二浮標站(**測站 R**)及彰濱 B 區(**測站 U**)之波浪儀屬中興工程所設置，謹致謝忱。

2019 年港灣海氣象觀測潮汐資料，蒐集之中雲海域潮汐觀測資料，除本中心自行觀測之外，在麥寮(**測站 J**)、芳苑(**測站 K**)等觀測潮汐資料，係經濟部 **水利署** 提供，謹致謝忱。

2019 年港灣環境資訊網觀測海流資料，蒐集之中雲海域海流資料，除本中心自行觀測之外，在彰濱外海浮標站(**測站 Y**) 海流儀，係 **海科中心**(TORI)所設置，彰濱外海一浮標站(**測站 Z**) 、彰濱外海二浮標站(**測站 R**) 及彰濱 B 區(**測站 U**)之海流儀屬中興工程所設置，謹致謝忱。

第 O 章 中雲海域觀測風浪潮流資料蒐集

本年報將彙整包括本所港研中心(IHMT)、氣象局(CWB)、水利署(WRA)、成功大學水文中心(COMC)、國立臺灣海洋大學(NTOC)、海科中心(TORI)、觀光局東北角管理處(TBRC)、台灣中油(CPC)等單位，於臺灣北苗海域、北端海域、宜蘭海域、花蓮海域、臺東海域、屏東海域、高雄海域、嘉南海域、中雲海域、澎湖海域、金門海域及馬祖海域等 12 個海域，海域區分如附圖 A1。

中雲海域觀測風力資料測站統計表如表 WG1，觀測波浪資料測站統計表如表 VG1，觀測潮汐資料測站統計表如表 TG1，觀測海流資料測站統計表如表 CG1。

表 WG1　中雲海域觀測風力資料測站統計表

海域名稱	測站總數	IHMT 測站	CWB 測站	WRA 測站	其他測站	備註
中雲海域	13	6	2	2	3	

表 VG1　中雲海域觀測波浪資料測站統計表

海域名稱	測站總數	IHMT 測站	CWB 測站	WRA 測站	其他測站	備註
中雲海域	6	1	1	0	4	

表 TG1　中雲海域觀測潮汐資料測站統計表

海域名稱	測站總數	IHMT 測站	CWB 測站	WRA 測站	其他測站	備註
中雲海域	6	3	1	2	0	

表 CG1　中雲海域觀測海流資料測站統計表

海域名稱	測站總數	IHMT 測站	CWB 測站	WRA 測站	其他測站	備註
中雲海域	5	2	0	0	3	

註:資料更新時間為 2019 年。

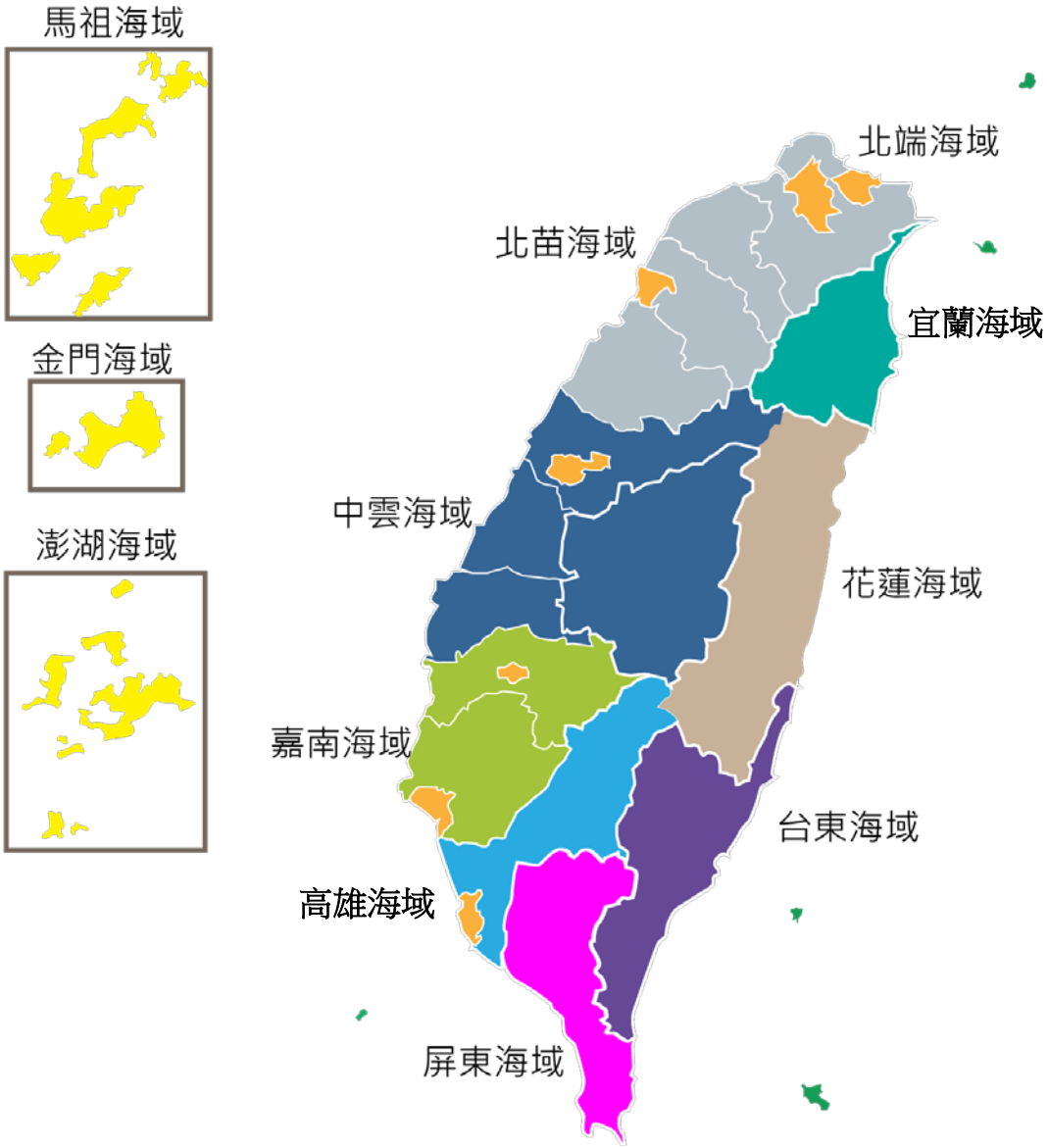

圖 A1 臺灣 12 海域區分示意圖

2019 年中雲海域觀測風力資料

中雲海域(臺中~雲林)風之觀測係 2001 年 6 月，本中心**(IHMT)**於台中港北防風林處(**測站 B**)安裝 Young Brand 風速計，儀器高度約 10m，2009 年 9 月更新為 Gill 二維超音波式風速計，另於 2005 年 9 月在臺中港北防波堤白燈塔頂安裝風速儀(**測站 W**)，2009 年 9 月更新為 Gill 二維超音波式風速計，其位置如附圖 WG1。2017 年於台中港增設**測站 5**、**測站 6**、**測站 8 及測站 9 等測站**。

測站 E 之風速儀屬中央氣象局**(CWB)**設置，**測站 V**(台中港外海浮標站)之風速儀也屬中央氣象局所有。麥寮氣象站**測站 H 及測站 I** 之風速儀則屬水利署所有，**測站 Y**(彰濱外海浮標站)之風速儀屬海科中心**(TORI)**所設置，**測站 Z**(彰濱外海一浮標站)及**測站 R**(彰濱外海二浮標站)之風速儀屬中興工程所設置。各測站歷年觀測風資料蒐集概況如表 WG1。

本中心測站風資料之蒐集係採取每小時測定十分鐘之風速、風向數據加以平均，而得出該小時之平均風速、平均風向、最大陣風風速、最大陣風風向、最大陣風之發生時間。本中心之風力資料以取平均風速及平均風向為主。其他測站資料也是平均風速(m/s)及風向(度)。

表 WG1 中雲海域觀測風力資料蒐集概況表(統計時間至 2019 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
B	24°18'18"N	120°31'52"E	2001/07-2019/11(觀測中)	港研中心	台中港北防風林
W	24°17'59"N	120°29'12"E	1996/09-1997/11 2005/09-2019/11(觀測中)	港研中心	台中港北堤燈塔
E	24°15'25"N	120°31'23"E	1996/09-2019/11(觀測中)	中央氣象局	梧棲站
Y	24°01'12"N	120°13'59"E	2006/08-2016/12	海科中心	彰濱浮標站
H	24°47'9"N	120°9'39"E	2000/01-2009/06	水利署	麥寮氣象站
I	24°47'9"N	120°9'39"E	2009/01-2019/11(觀測中)	水利署	麥寮氣象站
Z	24°06'24" N	119°41'33" E	2016/09-2017/09	中興工程	彰化外海一浮標
R	24°06'56" N	119°51'08" E	2016/09-2017/09	中興工程	彰化外海二浮標
V	24°12'39" N	120°24'33" E	2019/08-2019/11(觀測中)	中央氣象局	台中港外海浮標
5	24°16'28" N	120°30'59" E	2017/01-2019/11(觀測中)	港研中心	台中港 31 號碼頭
6	24°16'13" N	120°31'45" E	2017/03-2019/11(觀測中)	港研中心	港研中心頂樓
8	24°18'39" N	120°31'35" E	2017/09-2019/11(觀測中)	港研中心	北防沙堤
9	24°14'23" N	120°28'18" E	2019/03-2019/11(觀測中)	港研中心	台中港工專二

圖 WG1 中雲海域風力觀測站位置示意圖

2019 年中雲海域觀測波浪資料

中雲海域(臺中~雲林)波浪之觀測本中心**(IHMT)**係於 1999 年 10 月安置挪威 NORTEK 公司表面波浪監測系統於台中港**測站 X0** 處，位置如附圖 VG1，2000 年因臺中港務局北防波堤延長工程開始展開整平拋石工作影響到儀器安全，於 8 月 18 日暫時停止量測並將設備收回。2003 年 5 月臺中港務局北防波堤延長工程完成後本所隨即在 2003 年 7 月 5 日就安裝完成(挪威 NORTEK 公司)潮波流監測系統，安裝在臺中港北防波堤堤頭 150 公尺外、水深 25 公尺處(稱**測站 X1**)。

測站 V(台中港外海浮標站)之波浪儀屬中央氣象局所有。**測站 Y**(彰濱外海浮標站)之波浪儀屬海科中心**(TORI)**所設置;**測站 Z**(彰濱外海一浮標站)、**測站 R**(彰濱外海二浮標站)及**測站 U**(彰濱 B 區)之波浪儀屬中興工程所設置。臺中海域各測站歷年觀測波浪資料蒐集概況如表 VG1。

波浪觀測 AWAC 系統有兩個分離波高量測模式：一個是對平靜波浪時，當資料由傳統式壓力感應器量測時將會因儀器佈放的深度而受很大的影響。此時，表面高度必須用一個聲波式的高度感應器量測波高。AWAC 波向量測範圍：波向的量測從海面下 3 米以上的流向資料與波高資料計算轉換而得。對攪動的海況來說；用於轉換波向的該層深度應該自動被調整為平均水位也就是 $H_{max/2}$。量測的參數為：平均波向及波向分佈，波向單位為度。

表 VG1 中雲海域觀測波浪資料蒐集概況表(統計時間至 2019 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
X0	24°17'54"N	120°29'39"E	1999/10-2000/08	港研中心	北堤外海(延伸前)
X1	24°18'02"N	120°29'05"E	2003/07-2019/11(觀測中)	港研中心	北堤外海
Y	24°01'12"N	120°13'59"E	2006/08-2016/12	海科中心	彰濱外海浮標站
Z	24°06'24"N	119°41'33"E	2016/09-2017/09	中興工程	彰化外海一浮標
R	24°06'56"N	119°51'08"E	2016/09-2017/09	中興工程	彰化外海二浮標
U	24°03'23"N	128°08'01"E	2016/12-2017/12	中興工程	彰化外海 B 區
V	24°12'39"N	120°24'34"E	2019/08-2019/11(觀測中)	中央氣象局	台中港外海浮標

圖 VG1 中雲海域波浪觀測站位置示意圖

2019 年中雲海域觀測潮汐資料

中雲海域潮汐之觀測係於 1981 年 2 月本中心於台中港 4 號碼頭安置潮位站 (**測站 T**) ，位置如附圖 TG1，1999 年因 921 集集大地震整修 4 號碼頭，將潮位站拆除，2001 年 3 月碼頭整修完成後重新安裝 Water Log 潮位計。另本中心於 2003 年 7 月，在臺中港北防波堤堤頭 150 公尺外、水深 25 公尺處(**測站 X**) 安置 AWAC 監測系統，也具量測水位功能。2019 年於台中港內增設即時水深潮位站(稱**測站 S**)。

潮汐鹿港觀測站(**測站 P**)是由中央氣象局設置。麥寮(**測站 J**)及芳苑(**測站 K**)之潮汐儀則屬水利署所有。中雲海域各測站歷年觀測潮汐資料蒐集概況如表 TG1。

潮位**測站 X** 潮波流儀，以壓力感測器測得水壓變化時間序列，取樣方式為每一小時取前 10 分鐘之水位變化，取樣頻率為 2Hz，然後加以平均得出該小時之平均水位值。潮位資料之平均水位以觀測水位資料之平均值為基準，未經高程量測，與一般固定式潮位計不同。**測站 T** 潮位資料取樣方式為每 6 分鐘量測一次水位變化。

表 TG1 中雲海域觀測潮汐資料蒐集概況表(統計時間至 2019 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
T	24°17'16"N	120°31'57"E	1989/12-2019/11(觀測中)	港研中心	台中港 4 號碼頭
X0	24°18'04"N	120°28'59"E	1999/10-2000/08	港研中心	北堤外海(延伸前)
X1	24°18'02"N	120°29'05"E	2003/07-2019/11(觀測中)	港研中心	AWAC 北堤外海
J	23°47'09"N	120°09'38"E	2009/01-2019/11(觀測中)	水利署	麥寮潮位站
K	23°54'53"N	120°17'50"E	2009/01-2012/02	水利署	芳苑潮位站
P	24°5'6"N	120°25'13"E	2019/03-2019/11(觀測中)	中央氣象局	鹿港潮位站
S	24°16'3"N	120°31'27" E	2019/09-2019/11(觀測中)	港研中心	台中港

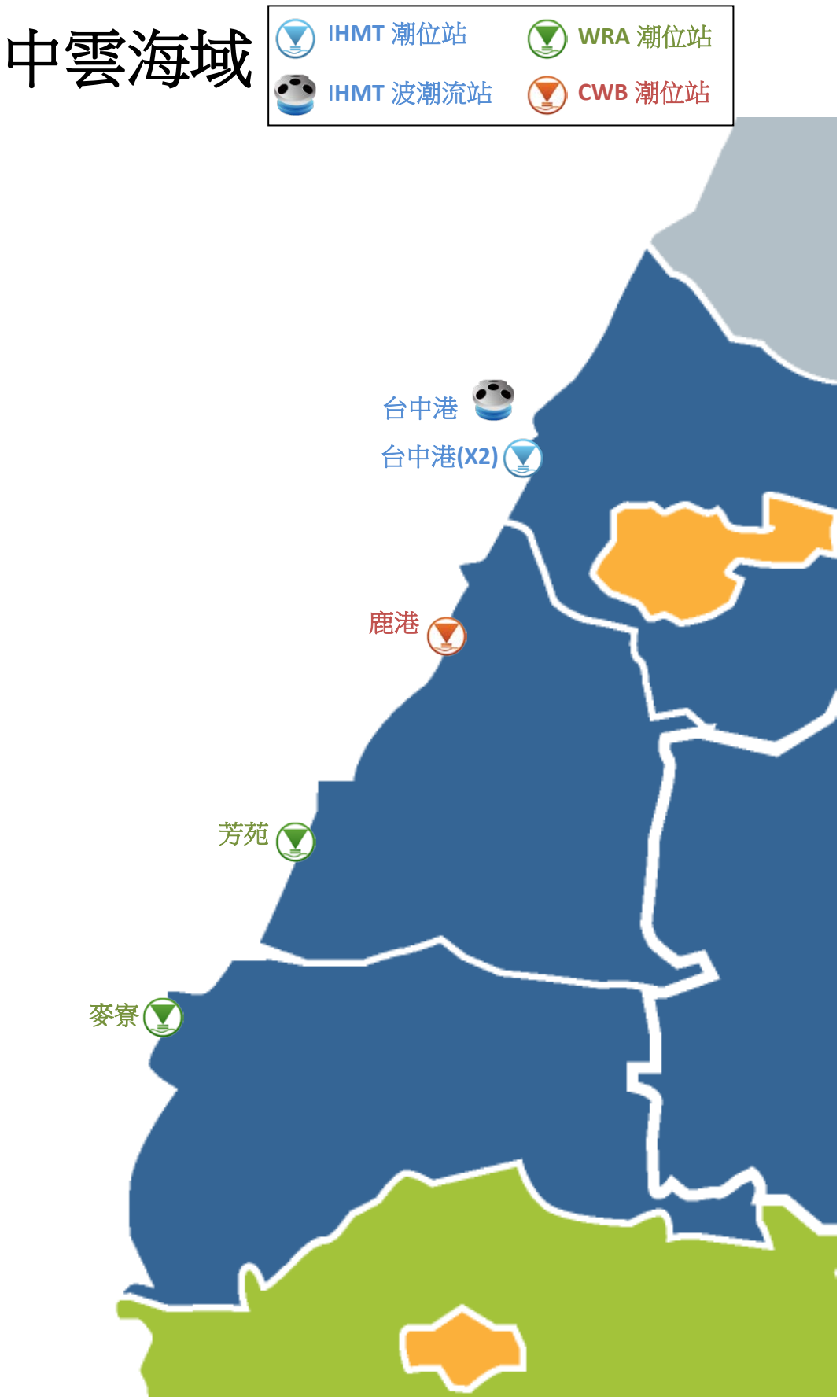

圖 TG1 中雲海域潮汐觀測站位置示意圖

2019 年中雲海域觀測海流資料

中雲海域(臺中~雲林)海流之觀測本中心**(IHMT)**係於 1999 年 10 月安置挪威 NORTEK 公司表面波浪監測系統於台中港**測站 X0** 處，位置如附圖 CG1，2000 年因臺中港務局北防波堤延長工程開始展開整平拋石工作影響到儀器安全，於 8 月 18 日暫時停止量測並將設備收回。2003 年 5 月臺中港務局北防波堤延長工程完成後本所隨即在 2003 年 7 月 5 日就安裝完成(NORTEK)波高波向與剖面海流即時傳送監測系統，安裝在臺中港北防波堤堤頭 150 公尺、水深 25 公尺處(稱**測站 X1**)。

測站 Y(彰濱外海浮標站)之海流儀屬海科中心**(TORI)**所設置;**測站 Z**(彰濱外海一浮標站)、**測站 R**(彰濱外海二浮標站)及**測站 U**(彰濱 B 區)之海流儀屬中興工程所設置。臺中海域各測站歷年觀測海流資料蒐集概況如表 CG1。

剖面海流流速的量測可以依照使用在不同水深即自固定在海床上之儀器位置到水表面來設定量測不同的間距，臺中港觀測站水深間距設定為 1 公尺；每小時連續量測 600 秒，再將總和平均代表其數樣每一間距層之海流流速、流向等資料，記錄在感應器內，並每隔 1 小時經由海底電纜傳訊回接收站之電腦中儲存。

表 CG1 中雲海域觀測海流資料蒐集概況表(統計時間至 2019 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
X0	24°17'54"N	120°29'39"E	1999/10-2000/08	港研中心	北堤外海(延伸前)
X1	24°18'02"N	120°29'05"E	2003/07-2019/11(觀測中)	港研中心	北堤外海
Y	24°01'12"N	120°13'59"E	2012/07-2016/12	海科中心	彰濱外海浮標站
Z	24°06'24"N	119°41'33"E	2016/09-2019/09	中興工程	彰化外海一浮標
R	24°06'56"N	119°51'08"E	2016/09-2019/09	中興工程	彰化外海二浮標
U	24°03'23"N	128°08'01"E	2016/12-2019/12	中興工程	彰化外海 B 區

圖 CG1 中雲海域海流觀測站位置示意圖

第一章　2019 年中雲海域觀測風力資料

2019 年中雲海域風之觀測包括**測站 W、測站 I、測站 B、測站 V、測站 5、測站 6、測站 8、測站 9 及測站 E 等** 8 個測站(測站位置如第 O 章圖 WG1，各測站歷年觀測風資料蒐集概況如表 WG1)。本年報取經檢核及補遺之 **W 站**資料作為主要測站 1，**I 站**資料作為主要測站 2。

1.1　2019 年中雲海域觀測風力資料年報圖表

本章第 1 節**風力**年報**資料處理之圖表包括:**

1. 表 1.1.1a　2019 年**各觀測站**每月**觀測風力**資料**修補前**記錄表。
2. 表 1.1.1b 2019 年**主要測站**每月**觀測風力**資料**修補後**記錄表。
3. 表 1.1.2　2019 年**主要測站 1 修補後**每月(季)及整年風速及風向重要統計量統計表。
4. 表 1.1.3　2019 年**主要測站 2 修補後**每月(季)及整年風速及風向重要統計量統計表。
5. 圖 1.1.1a　2019 年**主要測站 1 修補前後**每月風速歷線比較圖。
6. 圖 1.1.1b　2019 年**主要測站 1 修補前後**每月風向歷線比較圖。
7. 圖 1.1.2a　2019 年**主要測站 2 修補前後**每月風速歷線比較圖。
8. 圖 1.1.2b　2019 年**主要測站 2 修補前後**每月風向歷線比較圖。
9. 圖 1.1.3　2019 年**主要測站 1 修補後**每月風力向量分佈圖。
10. 圖 1.1.4　2019 年**主要測站 2 修補後**每月風力向量分佈圖。
11. 圖 1.1.5　2019 年**主要測站 1 修補後**每月風力向量行進圖。
12. 圖 1.1.6　2019 年**主要測站 2 修補後**每月風力向量行進圖。

第 2 節風力年報資料處理之統計表包括: 2019 年中雲海域**各測站修補前**每月(季)及整年風速及風向重要統計量統計表。

第 3 節風力年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 1 修補後**與**其他測站(修補前)**每月風速及風向歷線比較圖。

第 4 節風力年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 2 修補後**與**其他測站(修補前)**每月風速及風向歷線比較圖。

第 5 節風力年報資料處理之統計圖包括: 2019 年中雲海域**各測站修補前**每月風力向量分佈圖。

第 6 節風力年報資料處理之統計圖包括: 2019 年中雲海域**各測站修補前**每月風力向量行進圖。

表1.1.1a 2019年每月中雲海域修補前各測站觀測風力資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	W	I	B	E			V		5	6	8	9
2018/12月	744(100%)	617(82.9%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	617(82.9%)	744(100%)	744(100%)	*	*	*	*	744(100%)	744(100%)	744(100%)	*
2019/ 2月	672(100%)	621(92.4%)	672(100%)	672(100%)	*	*	*	*	672(100%)	672(100%)	672(100%)	*
2019/ 3月	744(100%)	716(96.2%)	744(100%)	744(100%)	*	*	*	*	744(100%)	742(99.7%)	744(100%)	613(82.4%)
2019/ 4月	720(100%)	705(97.9%)	720(100%)	720(100%)	*	*	*	*	720(100%)	720(100%)	720(100%)	720(100%)
2019/ 5月	744(100%)	721(96.9%)	744(100%)	744(100%)	*	*	*	*	744(100%)	744(100%)	330(44.4%)	744(100%)
2019/ 6月	720(100%)	643(89.3%)	720(100%)	720(100%)	*	*	*	*	720(100%)	720(100%)	211(29.3%)	720(100%)
2019/ 7月	744(100%)	598(80.4%)	744(100%)	744(100%)	*	*	*	*	744(100%)	744(100%)	744(100%)	744(100%)
2019/ 8月	744(100%)	667(89.7%)	744(100%)	744(100%)	*	*	109(14.7%)	*	744(100%)	744(100%)	744(100%)	744(100%)
2019/ 9月	720(100%)	558(77.5%)	720(100%)	720(100%)	*	*	567(78.8%)	*	720(100%)	720(100%)	720(100%)	720(100%)
2019/10月	744(100%)	684(91.9%)	744(100%)	744(100%)	*	*	312(41.9%)	*	744(100%)	744(100%)	744(100%)	744(100%)
2019/11月	720(100%)	706(98.1%)	720(100%)	720(100%)	*	*	*	*	720(100%)	720(100%)	720(100%)	720(100%)
2019/冬季	2160(100%)	1855(85.9%)	2160(100%)	2160(100%)	*	*	*	*	1416(65.6%)	1416(65.6%)	1416(65.6%)	*
2019/春季	2208(100%)	2142(97.0%)	2208(100%)	2208(100%)	*	*	*	*	2208(100%)	2206(99.9%)	1794(81.3%)	2077(94.1%) *
2019/夏季	2208(100%)	1908(86.4%)	2208(100%)	2208(100%)	*	*	*	*	2208(100%)	2208(100%)	1699(76.9%)	2208(100%)
2019/秋季	2184(100%)	1948(89.2%)	2184(100%)	2184(100%)	*	*	*	*	2184(100%)	2184(100%)	2184(100%)	2184(100%)
2019/整年	8760(100%)	7853(89.6%)	8760(100%)	8760(100%)	*	*	*	*	8016(91.5%)	8014(91.5%)	7093(81.0%)	6469(73.8%)
起始年月	2018/12	2018/12	2018/12	2018/12	*	*	*	*	2019/01	2019/01	2019/01	2019/03
結束年月	2019/11	2019/11	2019/11	2019/11	*	*	*	*	2019/11	2019/11	2019/11	2019/11

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表1.1.1b 2019年每月中雲海域修補後各測站風力資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	W	I										
2018/12月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	672(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 3月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 4月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 5月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 6月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/11月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	2160(100%)	*	*	*	*	*	*	*	*	*	*
2019/春季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2019/夏季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2019/秋季	2184(100%)	2184(100%)	*	*	*	*	*	*	*	*	*	*
2019/整年	8760(100%)	8760(100%)	*	*	*	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	*	*	*	*	*	*	*	*	*	*
結束年月	2019/11	2019/11	*	*	*	*	*	*	*	*	*	*

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表1.1.2　2019年中雲海域 W 站修補後風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	744(100%)	13.7	13.3/NNE	26.2/NNE	13.4	9.4	21.6	55.5	88.0	4.7	2.4	4.8	NNE/72.4%
2	2019/01	744(100%)	13.0	12.8/NNE	24.2/NNE	5.0	16.9	28.4	49.7	94.2	1.2	1.5	3.1	NNE/77.6%
3	2019/02	672(100%)	9.9	9.4/NNE	22.0/NNE	12.4	21.6	42.7	23.4	87.4	3.1	2.8	6.7	NNE/49.3%
4	2019/03	744(100%)	8.4	6.5/NNE	21.8/NNE	19.5	29.7	34.4	16.4	72.2	4.3	14.4	9.1	NNE/32.9%
5	2019/04	720(100%)	7.5	2.5/NNE	19.2/NNE	14.6	42.1	33.8	9.6	52.1	4.3	35.6	8.1	NNE/28.1%
6	2019/05	744(100%)	7.0	3.5/NNE	20.7/NNE	28.0	32.4	28.4	11.3	56.9	3.2	29.2	10.8	NNE/26.3%
7	2019/06	720(100%)	6.7	4.1/SSW	15.0/NNE	15.4	47.9	36.0	.7	17.5	14.0	65.0	3.5	SSW/31.0%
8	2019/07	744(100%)	7.1	4.7/SSW	19.5/SW	17.6	35.3	44.6	2.4	14.5	9.9	68.3	7.3	SSW/37.2%
9	2019/08	744(100%)	6.1	1.4/S	20.6/SSW	31.9	39.8	19.0	9.4	27.4	19.4	41.5	11.7	SSW/21.6%
10	2019/09	720(100%)	9.2	8.1/NNE	27.0/NNE	23.1	25.6	23.2	28.2	72.2	6.0	12.4	9.4	NNE/45.7%
11	2019/10	744(100%)	11.2	10.4/NNE	23.1/NNE	10.9	19.6	30.8	38.7	86.2	1.7	7.0	5.1	NNE/56.6%
12	2019/11	720(100%)	13.9	13.7/NNE	28.1/NNE	10.1	13.2	20.4	56.3	93.1	1.9	2.2	2.8	NNE/74.9%
13	2019/冬	2160(100%)	12.2	11.9/NNE	26.2/NNE	10.2	15.8	30.5	43.5	90.0	3.0	2.2	4.8	NNE/67.0%
14	2019/春	2208(100%)	7.6	4.1/NNE	21.8/NNE	20.7	34.6	32.2	12.5	60.5	3.9	26.3	9.3	NNE/29.1%
15	2019/夏	2208(100%)	6.6	3.4/SSW	20.6/SSW	21.7	40.9	33.2	4.2	19.8	14.4	58.2	7.5	SSW/29.9%
16	2019/秋	2184(100%)	11.4	10.7/NNE	28.1/NNE	14.7	19.5	24.9	41.0	83.8	3.2	7.2	5.8	NNE/59.0%
17	2019/年	8760(100%)	9.5	5.8/NNE	28.1/NNE	16.9	27.8	30.2	25.2	63.3	6.2	23.6	6.9	NNE/40.8%

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表1.1.3　2019年中雲海域Ｉ站修補後風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	744(100%)	10.4	10.2/NE	20.0/NNE	13.2	17.2	39.8	29.8	94.1	2.3	2.0	1.6	NNE/46.4%
2	2019/01	744(100%)	9.9	9.8/NNE	18.7/NNE	6.3	28.1	46.4	19.2	96.5	.5	2.4	.5	NNE/69.4%
3	2019/02	672(100%)	7.6	7.3/NNE	16.8/NNE	15.9	34.1	47.0	3.0	92.4	3.4	2.8	1.3	NNE/65.0%
4	2019/03	744(100%)	6.7	5.3/NNE	15.9/NE	17.1	48.9	30.5	3.5	77.6	7.0	11.2	4.3	NNE/51.3%
5	2019/04	720(100%)	5.8	2.3/NNE	14.3/NNE	22.4	54.9	22.2	.6	55.8	10.0	29.3	4.9	NNE/41.1%
6	2019/05	744(100%)	5.6	2.6/NE	15.1/NE	30.5	43.7	25.3	.5	62.4	5.4	25.9	6.3	NNE/29.6%
7	2019/06	720(100%)	5.2	3.3/SSW	11.9/SW	21.3	67.5	11.3	.0	14.7	24.0	59.6	1.7	S /31.4%
8	2019/07	744(100%)	5.6	3.8/S	14.7/SSW	24.9	53.5	21.2	.4	17.7	22.4	54.0	5.8	S /38.6%
9	2019/08	744(100%)	5.4	2.0/S	15.2/WSW	35.8	38.6	24.5	1.2	30.8	20.6	38.0	10.6	S /24.6%
10	2019/09	720(100%)	7.1	5.8/NE	18.8/NNE	25.8	31.5	32.4	10.3	73.2	9.3	10.6	6.9	NNE/43.6%
11	2019/10	744(100%)	8.2	7.4/NE	17.1/NNE	13.7	32.8	46.2	7.3	86.7	3.9	6.6	2.8	NNE/46.4%
12	2019/11	720(100%)	10.4	10.3/NE	20.4/NE	7.6	23.3	39.7	29.3	97.4	1.7	.3	.7	NE /47.9%
13	2019/冬	2160(100%)	9.4	9.2/NNE	20.0/NNE	11.7	26.2	44.3	17.8	94.4	2.0	2.4	1.2	NNE/60.1%
14	2019/春	2208(100%)	6.0	3.4/NNE	15.9/NE	23.3	49.1	26.0	1.5	65.4	7.4	22.1	5.2	NNE/40.7%
15	2019/夏	2208(100%)	5.4	3.0/S	15.2/WSW	27.4	53.0	19.1	.5	21.2	22.3	50.5	6.1	S /31.5%
16	2019/秋	2184(100%)	8.6	7.8/NE	20.4/NE	15.7	29.3	39.5	15.5	85.8	4.9	5.8	3.5	NNE/45.8%
17	2019/年	8760(100%)	7.3	4.4/NE	20.4/NE	19.6	39.5	32.1	8.8	66.5	9.2	20.3	4.0	NNE/39.8%

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

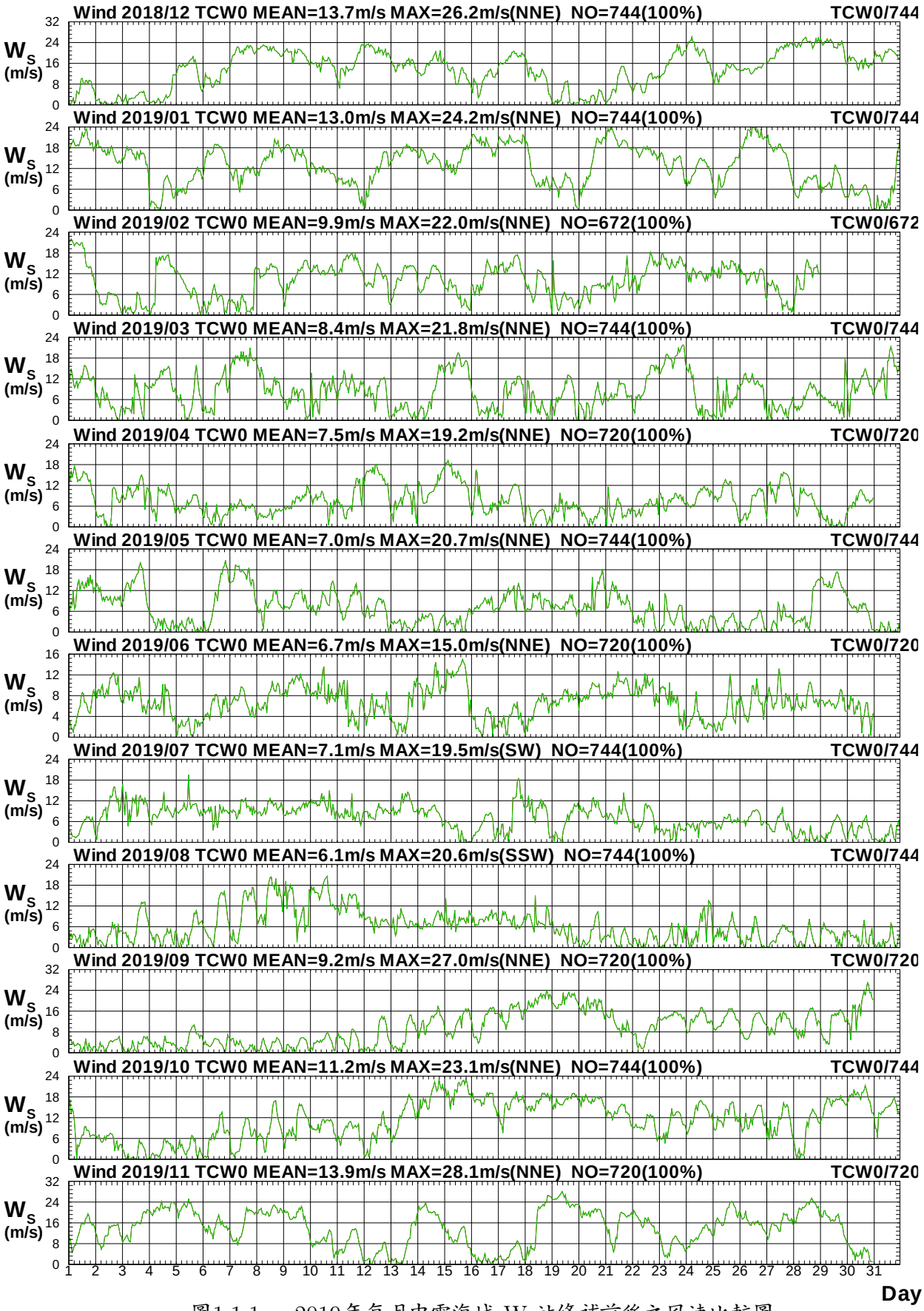

圖1.1.1a　2019年每月中雲海域 W 站修補前後之風速比較圖

W18CTCW0.1HA W18CTCW0.1H0 W191TCW0.1HA W191TCW0.1H0 W192TCW0.1HA W192TCW0.1H0
W193TCW0.1HA W193TCW0.1H0 W194TCW0.1HA W194TCW0.1H0 W195TCW0.1HA W195TCW0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

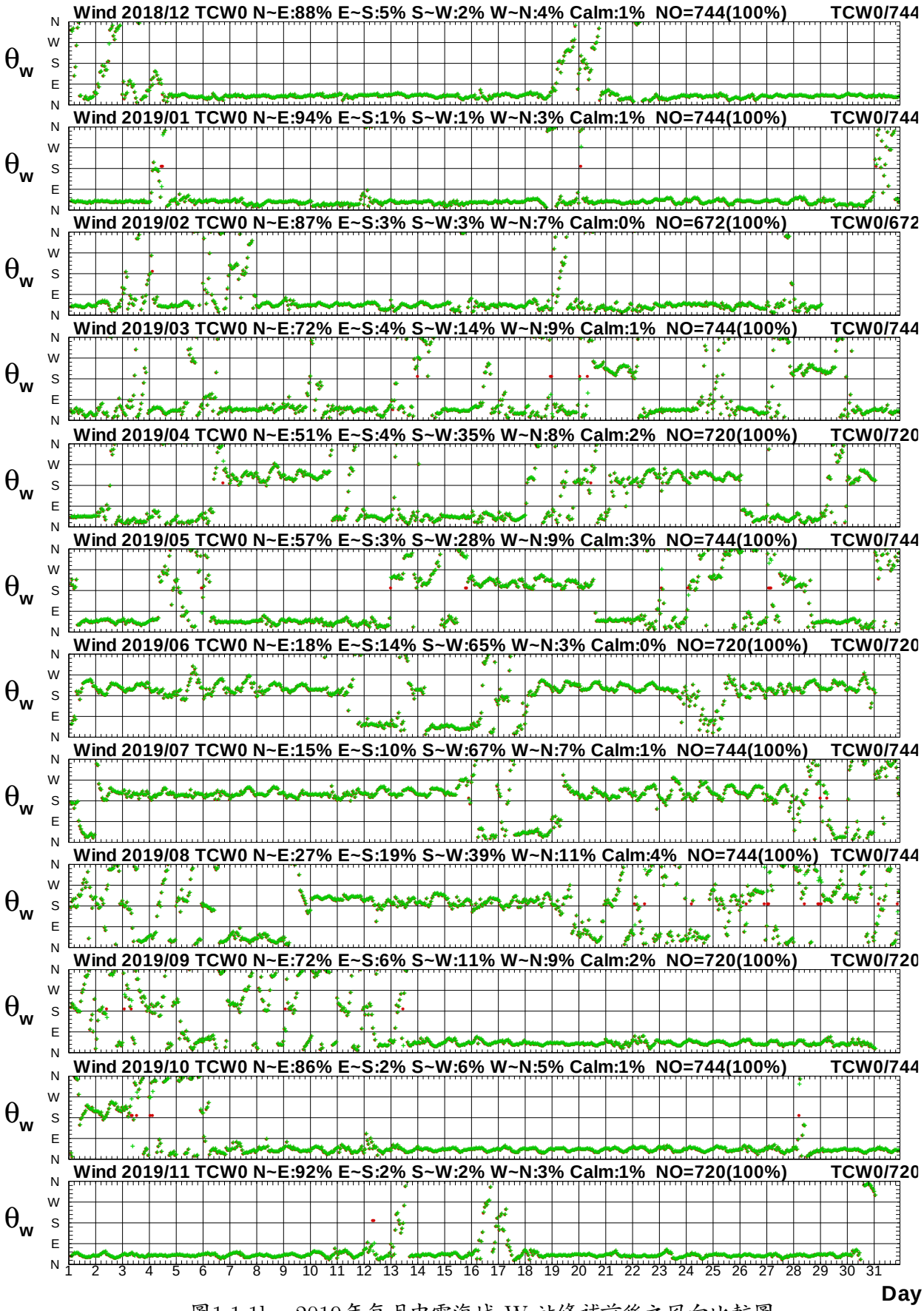

圖1.1.1b　2019年每月中雲海域 W 站修補前後之風向比較圖

W18CTCW0.1HA W18CTCW0.1H0 W191TCW0.1HA W191TCW0.1H0 W192TCW0.1HA W192TCW0.1H0
W193TCW0.1HA W193TCW0.1H0 W194TCW0.1HA W194TCW0.1H0 W195TCW0.1HA W195TCW0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

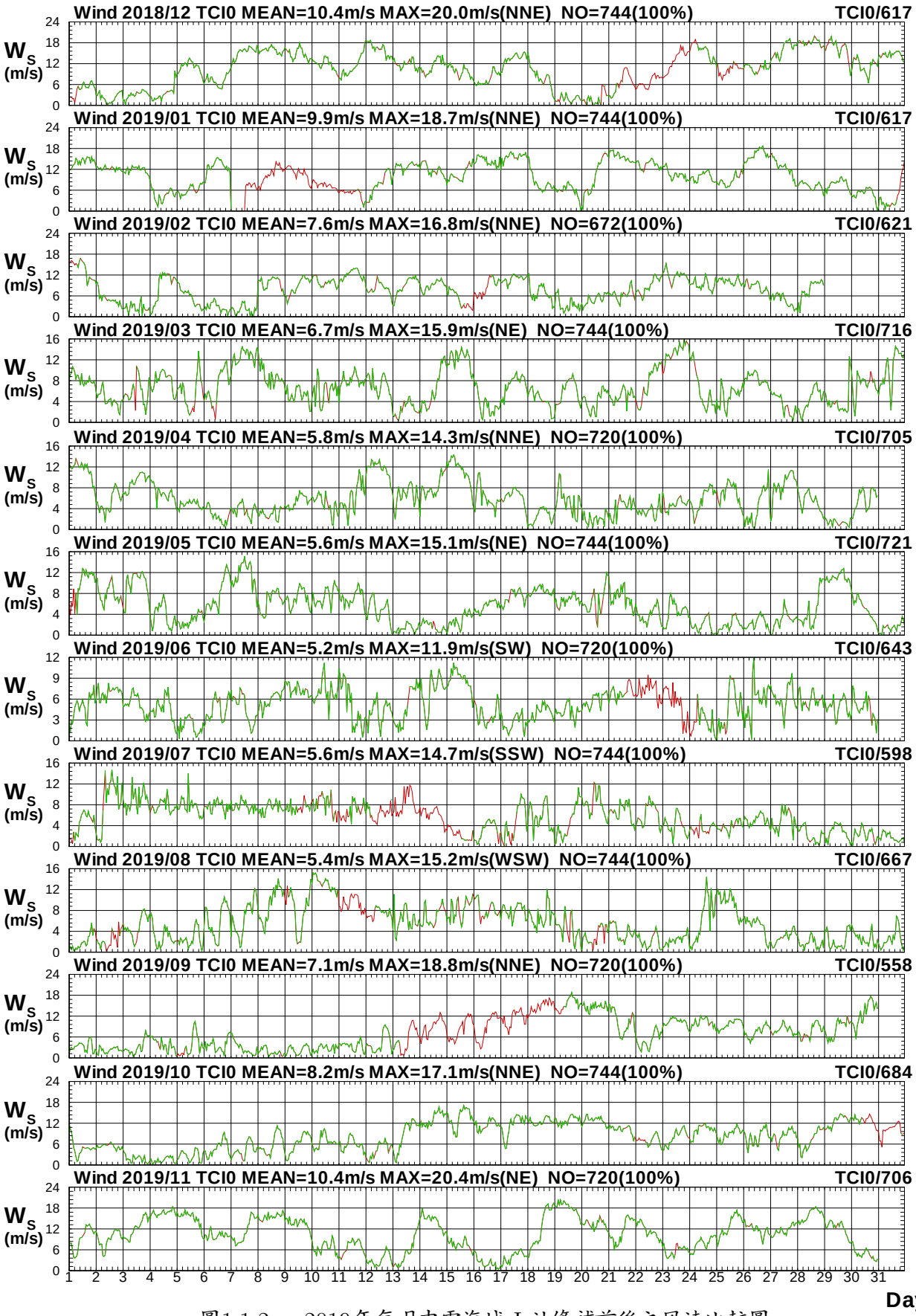

圖1.1.2a　2019年每月中雲海域 I 站修補前後之風速比較圖

W18CTCI0.1HA W18CTCI0.1H0 W191TCI0.1HA W191TCI0.1H0 W192TCI0.1HA W192TCI0.1H0
W193TCI0.1HA W193TCI0.1H0 W194TCI0.1HA W194TCI0.1H0 W195TCI0.1HA W195TCI0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

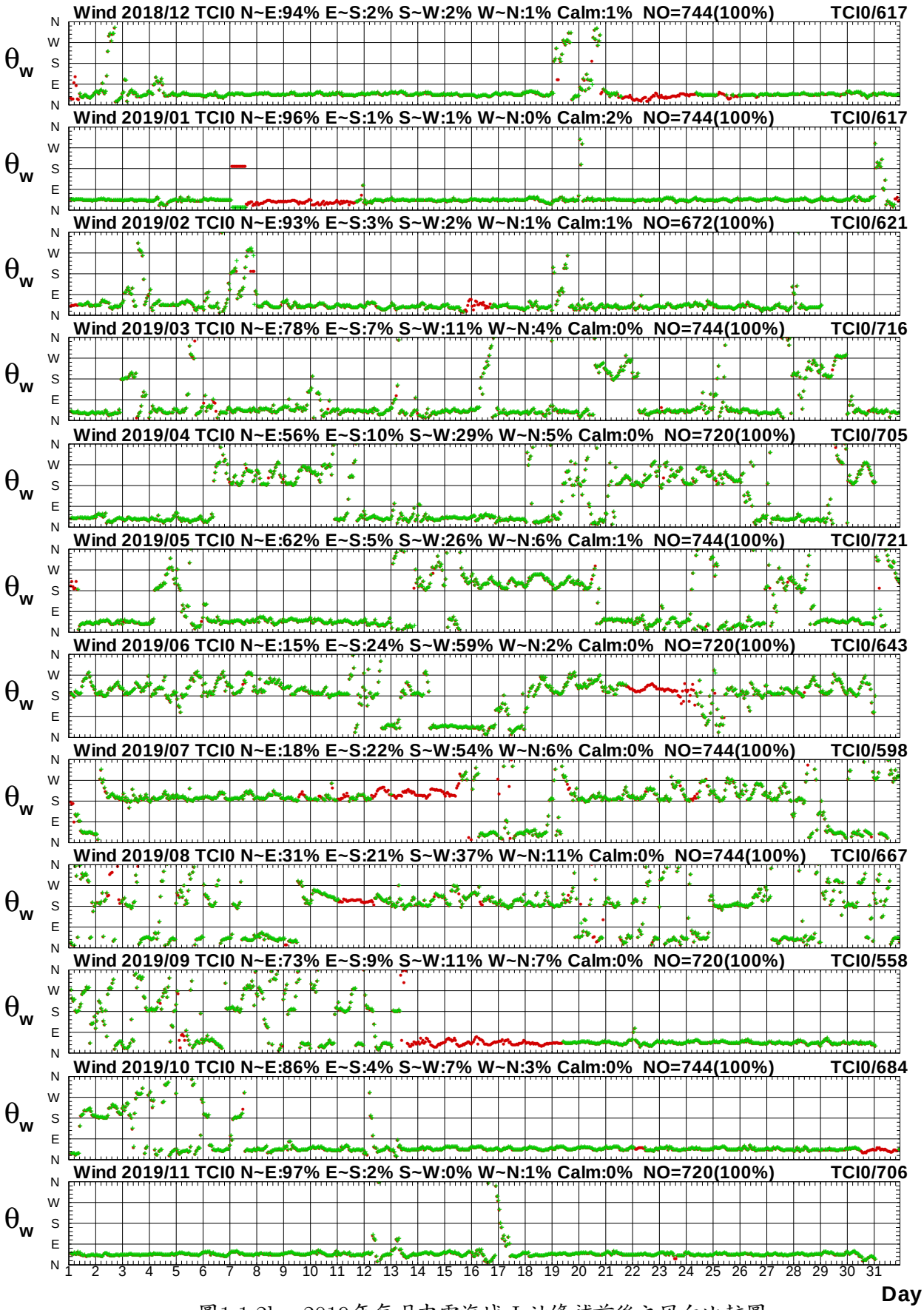

圖1.1.2b　2019年每月中雲海域 I 站修補前後之風向比較圖

W18CTCI0.1HA W18CTCI0.1H0 W191TCI0.1HA W191TCI0.1H0 W192TCI0.1HA W192TCI0.1H0
W193TCI0.1HA W193TCI0.1H0 W194TCI0.1HA W194TCI0.1H0 W195TCI0.1HA W195TCI0.1H0

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Distribution of Wind Vectores

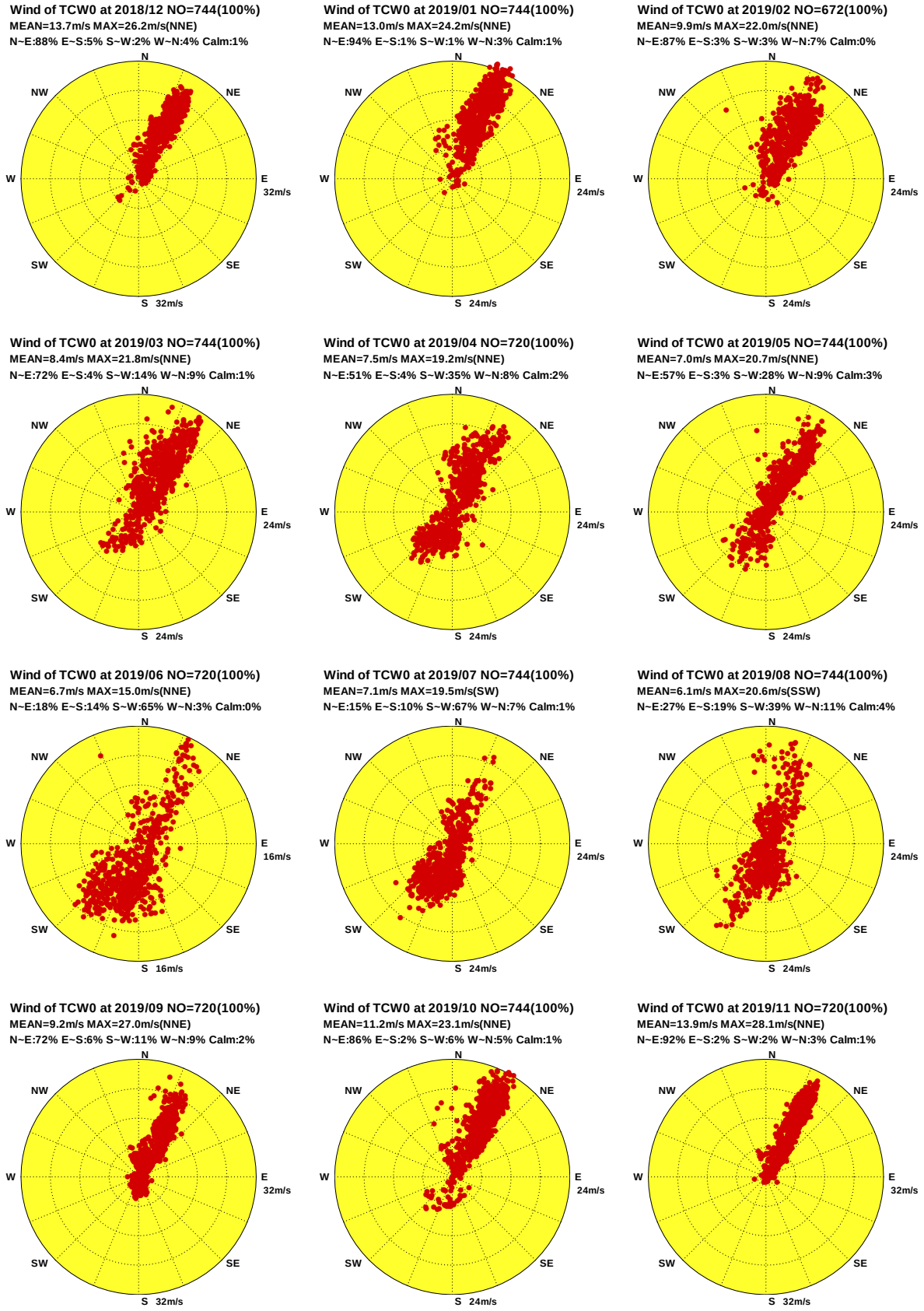

圖1.1.3 2019年中雲海域每月 W 站修補後觀測風力向量分佈圖

W18CTCW0.1HA W191TCW0.1HA W192TCW0.1HA W193TCW0.1HA W194TCW0.1HA W195TCW0.1HA
W196TCW0.1HA W197TCW0.1HA W198TCW0.1HA W199TCW0.1HA W19ATCW0.1HA W19BTCW0.1HA

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Distribution of Wind Vectores

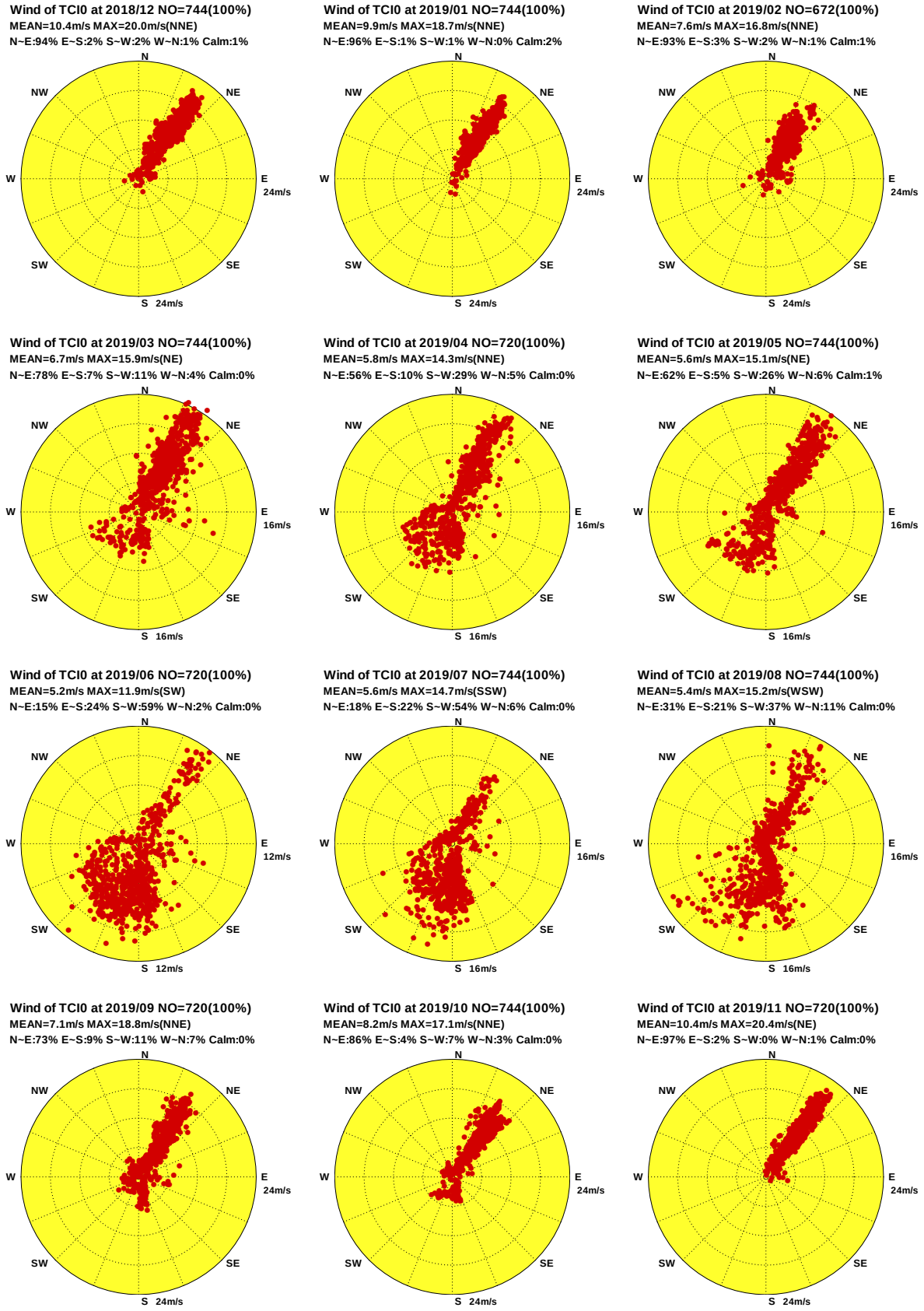

圖1.1.4 2019年中雲海域每月Ｉ站修補後觀測風力向量分佈圖

W18CTCI0.1HA W191TCI0.1HA W192TCI0.1HA W193TCI0.1HA W194TCI0.1HA W195TCI0.1HA
W196TCI0.1HA W197TCI0.1HA W198TCI0.1HA W199TCI0.1HA W19ATCI0.1HA W19BTCI0.1HA

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Progressive Vector Diagram of Wind

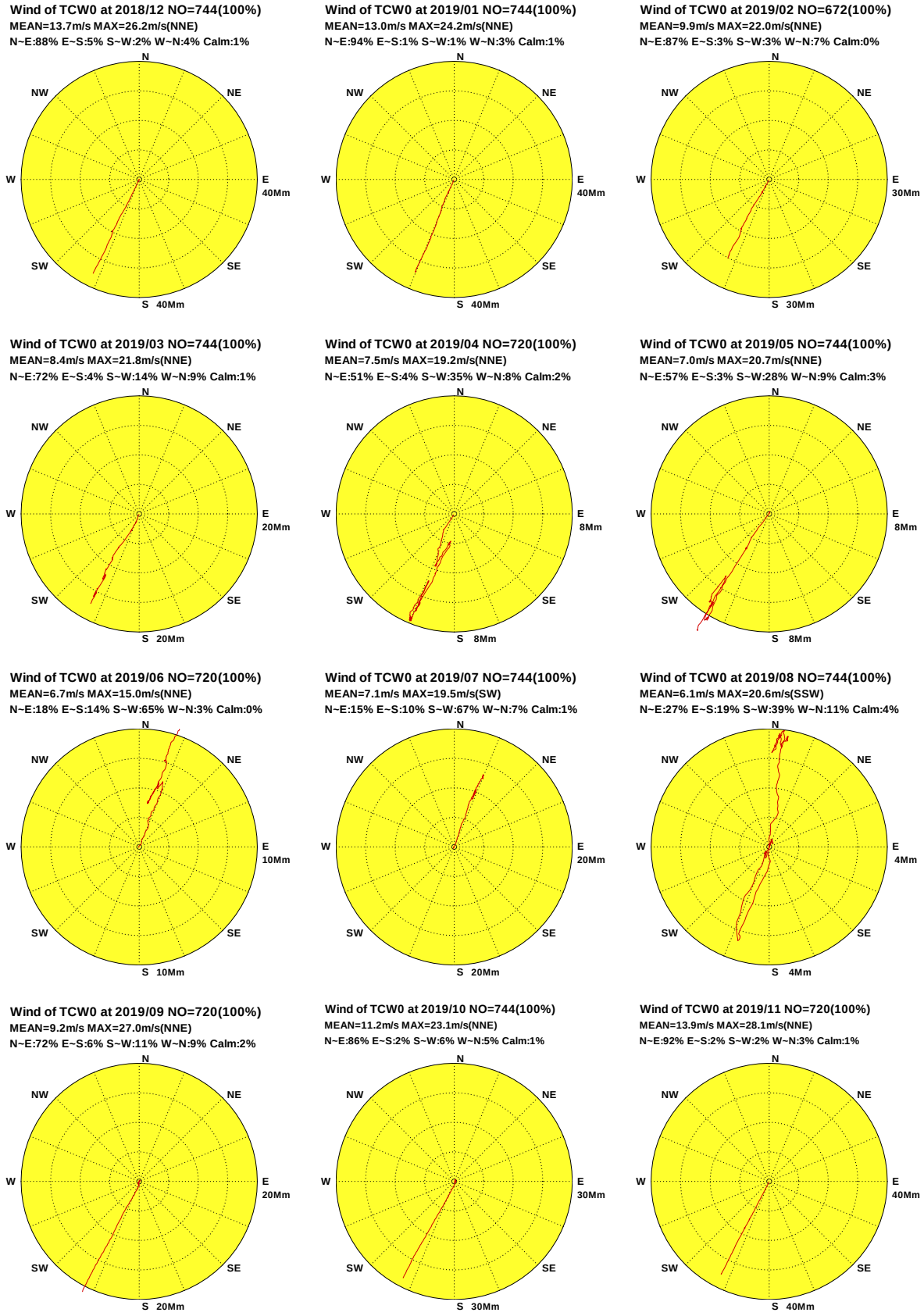

圖1.1.5 2019年中雲海域每月 W 站修補後觀測風力向量行進圖

W18CTCW0.1HA W191TCW0.1HA W192TCW0.1HA W193TCW0.1HA W194TCW0.1HA W195TCW0.1HA
W196TCW0.1HA W197TCW0.1HA W198TCW0.1HA W199TCW0.1HA W19ATCW0.1HA W19BTCW0.1HA

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Progressive Vector Diagram of Wind

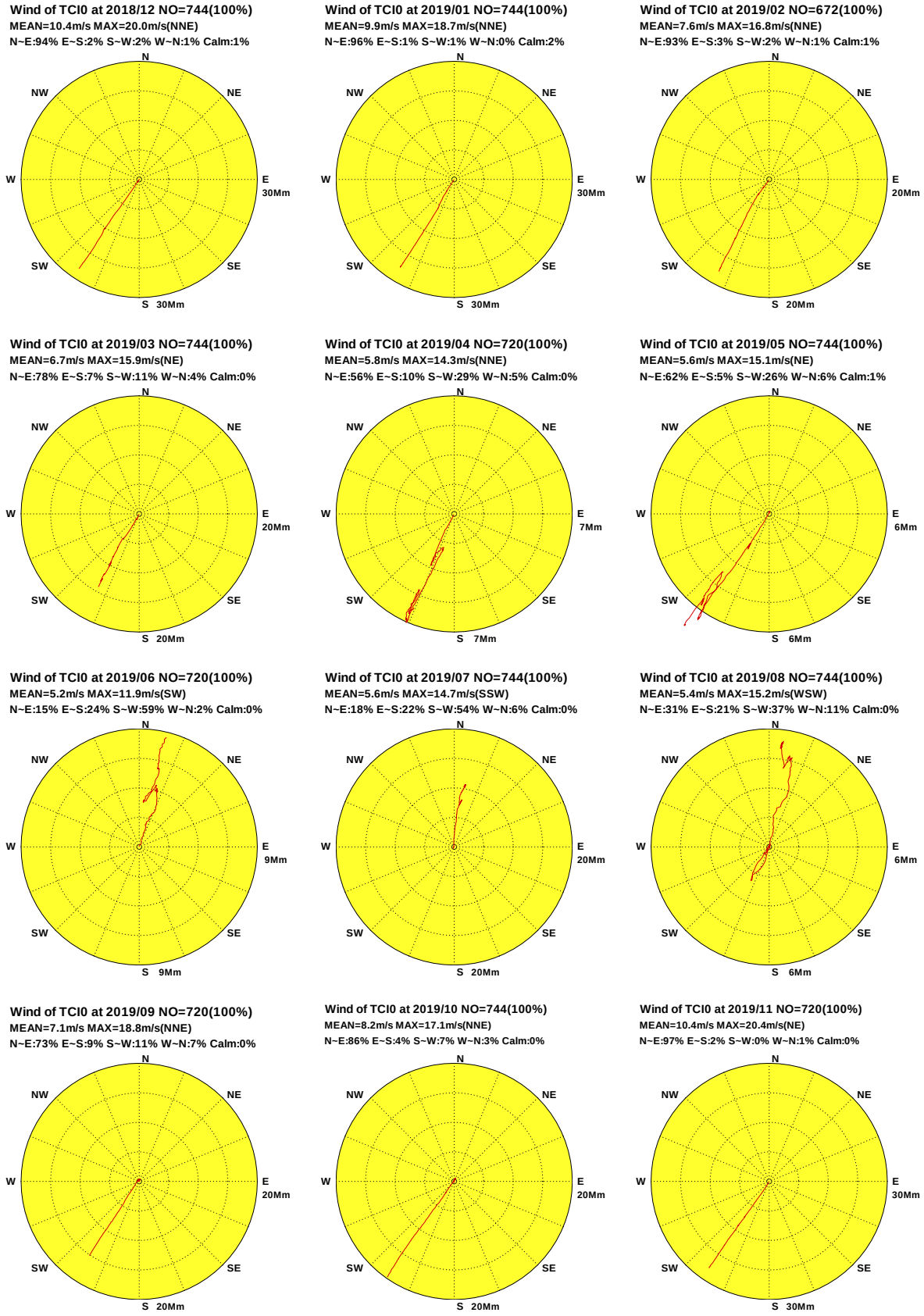

圖1.1.6 2019年中雲海域每月Ⅰ站修補後觀測風力向量行進圖

W18CTCI0.1HA W191TCI0.1HA W192TCI0.1HA W193TCI0.1HA W194TCI0.1HA W195TCI0.1HA
W196TCI0.1HA W197TCI0.1HA W198TCI0.1HA W199TCI0.1HA W19ATCI0.1HA W19BTCI0.1HA

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1.2　2019年中雲海域各測站修補前風力統計量統計表

表1.2.1　2019年中雲海域 W 站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	744(100%)	13.7	13.3/NNE	26.2/NNE	13.4	9.4	21.6	55.5	88.0	4.7	2.4	4.8	NNE/72.4%
2	2019/01	744(100%)	13.0	12.8/NNE	24.2/NNE	5.0	16.9	28.4	49.7	94.2	1.3	1.2	3.2	NNE/77.6%
3	2019/02	672(100%)	9.9	9.4/NNE	22.0/NNE	12.4	21.6	42.7	23.4	87.4	3.1	2.7	6.8	NNE/49.3%
4	2019/03	744(100%)	8.4	6.5/NNE	21.8/NNE	19.5	29.7	34.4	16.4	72.4	4.7	13.7	9.1	NNE/33.1%
5	2019/04	720(100%)	7.5	2.5/NNE	19.2/NNE	14.6	42.1	33.8	9.6	52.1	4.3	35.6	8.1	NNE/28.1%
6	2019/05	744(100%)	7.0	3.5/NNE	20.7/NNE	28.0	32.4	28.4	11.3	57.0	3.4	28.2	11.4	NNE/26.5%
7	2019/06	720(100%)	6.7	4.1/SSW	15.0/NNE	15.4	47.6	36.3	.7	17.5	14.0	65.1	3.3	SSW/30.8%
8	2019/07	744(100%)	7.1	4.7/SSW	19.5/SW	17.6	35.3	44.6	2.4	14.5	10.1	68.1	7.3	SSW/37.4%
9	2019/08	744(100%)	6.1	1.4/S	20.6/SSW	31.9	39.7	19.1	9.4	27.7	19.8	39.9	12.6	SSW/21.6%
10	2019/09	720(100%)	9.2	8.1/NNE	27.0/NNE	23.1	25.6	23.2	28.2	72.5	6.1	11.9	9.4	NNE/46.0%
11	2019/10	744(100%)	11.2	10.4/NNE	23.1/NNE	10.9	19.5	30.9	38.7	86.3	1.7	6.6	5.4	NNE/56.6%
12	2019/11	720(100%)	13.9	13.7/NNE	28.1/NNE	10.1	13.2	20.4	56.3	93.3	1.9	1.9	2.8	NNE/74.9%
13	2019/冬	2160(100%)	12.2	11.9/NNE	26.2/NNE	10.2	15.8	30.5	43.5	90.0	3.1	2.1	4.9	NNE/67.0%
14	2019/春	2208(100%)	7.6	4.1/NNE	21.8/NNE	20.7	34.6	32.2	12.5	60.6	4.1	25.7	9.6	NNE/29.2%
15	2019/夏	2208(100%)	6.6	3.4/SSW	20.6/SSW	21.7	40.8	33.3	4.2	19.9	14.6	57.7	7.8	SSW/29.9%
16	2019/秋	2184(100%)	11.4	10.7/NNE	28.1/NNE	14.7	19.4	24.9	41.0	84.1	3.3	6.8	5.9	NNE/59.1%
17	2019/年	8760(100%)	9.5	5.8/NNE	28.1/NNE	16.9	27.8	30.2	25.2	63.4	6.3	23.2	7.0	NNE/40.8%

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表1.2.2　2019年中雲海域Ⅰ站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風 風速/風向 (m/s)/(來向)	最大風 風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	617(83%)	10.5	10.3/NE	20.0/NNE	14.3	15.4	39.4	31.0	93.7	2.1	2.3	1.9	NE /47.6%
2	2019/01	617(83%)	10.1	10.0/NNE	18.7/NNE	7.3	24.5	46.4	21.9	97.9	.6	.8	.6	NNE/64.8%
3	2019/02	621(92%)	7.6	7.3/NNE	16.8/NNE	15.9	33.7	48.5	1.9	91.9	3.7	2.7	1.6	NNE/65.9%
4	2019/03	716(96%)	6.7	5.3/NNE	15.9/NE	16.3	49.6	30.6	3.5	77.7	6.8	11.3	4.2	NNE/51.5%
5	2019/04	705(98%)	5.8	2.4/NNE	14.3/NNE	22.0	55.0	22.4	.6	56.6	10.1	28.7	4.7	NNE/41.4%
6	2019/05	721(97%)	5.6	2.7/NE	15.1/NE	30.8	43.0	25.7	.6	63.2	5.4	24.8	6.5	NNE/29.7%
7	2019/06	643(89%)	5.2	3.1/SSW	11.9/SW	21.5	68.0	10.6	.0	16.0	25.5	56.6	1.9	S /32.7%
8	2019/07	598(80%)	5.6	3.6/S	14.7/SSW	25.1	51.2	23.2	.5	20.7	25.8	47.2	6.4	S /42.3%
9	2019/08	667(90%)	5.3	1.7/S	15.2/WSW	36.7	39.1	22.8	1.3	33.0	22.3	34.3	10.3	S /23.8%
10	2019/09	558(78%)	6.4	4.9/NE	18.8/NNE	30.3	34.1	26.3	9.3	66.8	12.0	13.1	8.1	NNE/40.7%
11	2019/10	684(92%)	8.1	7.2/NE	17.1/NNE	14.3	33.0	45.2	7.5	86.0	4.2	6.7	3.1	NNE/45.2%
12	2019/11	706(98%)	10.4	10.4/NE	20.4/NE	7.6	22.9	39.7	29.7	97.3	1.7	.3	.7	NE /47.9%
13	2019/冬	1855(86%)	9.4	9.2/NNE	20.0/NNE	12.5	24.5	44.7	18.2	94.5	2.2	1.9	1.4	NNE/58.1%
14	2019/春	2142(97%)	6.1	3.5/NNE	15.9/NE	23.1	49.2	26.2	1.5	65.9	7.4	21.6	5.1	NNE/40.8%
15	2019/夏	1908(86%)	5.4	2.7/S	15.2/WSW	27.9	52.6	18.8	.6	23.4	24.5	45.9	6.2	S /32.6%
16	2019/秋	1948(89%)	8.5	7.7/NE	20.4/NE	16.5	29.7	37.8	16.1	84.6	5.5	6.2	3.6	NNE/44.7%
17	2019/年	7853(90%)	7.3	4.4/NE	20.4/NE	20.1	39.3	31.7	8.9	67.0	9.9	19.0	4.2	NNE/39.6%

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表1.2.3　2019年中雲海域 E 站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	744(100%)	6.0	5.7/N	14.6/N	23.1	47.6	28.8	.5	41.8	5.5	2.6	50.1	N /73.4%
2	2019/01	744(100%)	5.9	5.8/N	14.9/N	19.9	53.5	26.1	.5	32.1	3.2	.1	64.5	N /76.3%
3	2019/02	672(100%)	4.7	4.3/N	11.5/N	28.9	59.8	11.3	.0	49.0	4.5	1.6	44.9	N /61.8%
4	2019/03	744(100%)	3.9	2.8/N	12.3/NNW	42.6	51.7	5.6	.0	46.4	12.2	8.5	32.9	N /49.6%
5	2019/04	720(100%)	3.8	1.2/NNW	10.3/N	45.0	52.2	2.8	.0	31.8	22.8	18.2	27.2	N /31.3%
6	2019/05	744(100%)	3.3	1.5/N	11.4/N	49.7	48.5	1.7	.0	39.0	20.4	13.3	27.3	N /40.7%
7	2019/06	720(100%)	3.5	1.8/S	9.3/N	44.4	54.6	1.0	.0	10.7	53.5	26.8	9.0	SE /23.1%
8	2019/07	744(100%)	3.8	1.9/S	9.0/S	39.8	59.3	.9	.0	7.1	52.8	25.8	14.2	SE /22.0%
9	2019/08	744(100%)	3.4	.3/SSE	12.3/NNW	54.2	41.9	3.9	.0	15.1	44.2	16.4	24.3	SE /22.6%
10	2019/09	720(100%)	4.6	3.8/N	14.9/N	39.2	44.7	15.8	.3	38.1	15.1	2.6	44.2	N /53.8%
11	2019/10	744(100%)	5.0	4.5/N	12.6/N	29.2	54.8	16.0	.0	43.8	7.0	3.1	46.1	N /66.9%
12	2019/11	720(100%)	6.1	5.9/N	15.6/N	24.6	45.1	30.0	.3	43.2	3.1	1.0	52.8	N /77.6%
13	2019/冬	2160(100%)	5.6	5.3/N	14.9/N	23.8	53.4	22.4	.4	40.7	4.4	1.4	53.5	N /70.8%
14	2019/春	2208(100%)	3.7	1.8/N	12.3/NNW	45.8	50.8	3.4	.0	39.1	18.4	13.3	29.2	N /40.6%
15	2019/夏	2208(100%)	3.5	1.3/S	12.3/NNW	46.2	51.9	1.9	.0	11.0	50.1	23.0	15.9	SE /22.6%
16	2019/秋	2184(100%)	5.2	4.7/N	15.6/N	31.0	48.3	20.6	.2	41.7	8.4	2.2	47.7	N /66.1%
17	2019/年	8760(100%)	4.5	2.6/N	15.6/N	36.8	51.1	12.0	.1	33.1	20.5	10.0	36.4	N /46.5%

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表1.2.4　2019年中雲海域 B 站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12	744(100%)	7.5	7.2/NNE	17.3/NNE	23.7	27.4	40.3	8.6	86.4	6.6	2.6	4.4	NNE/72.7%
2	2019/01	744(100%)	7.4	7.2/NNE	17.2/NNE	17.6	37.1	41.3	4.0	92.7	1.7	.5	5.0	NNE/73.5%
3	2019/02	672(100%)	5.2	4.9/NNE	14.0/NNE	28.3	53.0	18.5	.3	85.3	3.9	2.5	8.3	NNE/53.1%
4	2019/03	744(100%)	4.3	3.2/NNE	13.4/NNE	45.4	41.1	13.4	.0	67.3	9.5	12.1	11.0	NNE/39.7%
5	2019/04	720(100%)	3.8	1.3/NNE	11.6/NNE	49.0	44.9	6.1	.0	50.7	12.9	27.1	9.3	NNE/27.5%
6	2019/05	744(100%)	3.3	1.7/NNE	11.9/NNE	58.3	36.7	5.0	.0	54.3	13.7	19.2	12.8	NNE/29.3%
7	2019/06	720(100%)	3.0	1.6/SSW	8.9/NNE	61.5	37.4	1.1	.0	16.4	32.6	46.7	4.3	S /30.6%
8	2019/07	744(100%)	3.1	1.8/SSW	9.3/NNE	53.0	46.5	.5	.0	12.2	31.0	47.0	9.7	S /37.5%
9	2019/08	744(100%)	2.8	.3/SSE	12.1/NNE	70.7	24.7	4.6	.0	24.2	33.1	27.6	15.2	S /20.3%
10	2019/09	720(100%)	4.8	4.2/NNE	16.3/NNE	47.8	27.4	23.1	1.8	71.9	11.0	5.6	11.5	NNE/46.4%
11	2019/10	744(100%)	5.4	5.0/NNE	13.7/NNE	32.4	41.1	26.5	.0	84.0	4.3	5.2	6.5	NNE/62.6%
12	2019/11	720(100%)	7.1	6.9/NNE	16.9/NNE	25.6	28.6	39.3	6.5	91.5	3.9	1.1	3.5	NNE/72.4%
13	2019/冬	2160(100%)	6.7	6.5/NNE	17.3/NNE	23.0	38.7	33.8	4.4	88.2	4.1	1.9	5.8	NNE/66.9%
14	2019/春	2208(100%)	3.8	2.1/NNE	13.4/NNE	51.0	40.9	8.2	.0	57.5	12.0	19.4	11.1	NNE/32.2%
15	2019/夏	2208(100%)	3.0	1.2/SSW	12.1/NNE	61.7	36.2	2.1	.0	17.6	32.2	40.4	9.8	S /29.4%
16	2019/秋	2184(100%)	5.8	5.4/NNE	16.9/NNE	35.2	32.5	29.6	2.7	82.5	6.4	4.0	7.1	NNE/60.5%
17	2019/年	8760(100%)	4.8	3.2/NNE	17.3/NNE	42.9	37.1	18.3	1.8	61.3	13.8	16.5	8.5	NNE/41.9%

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表1.2.5　2019年中雲海域5站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12													
2	2019/01	744(100%)	7.6	7.5/NE	16.4/NE	12.0	39.5	44.8	3.8	95.7	1.5	1.3	1.5	NE /56.2%
3	2019/02	672(100%)	6.0	5.8/NE	15.6/NE	21.3	50.0	27.8	.9	90.3	4.0	2.7	3.0	NE /57.4%
4	2019/03	744(100%)	4.9	4.0/NE	13.4/NE	37.9	40.2	21.9	.0	74.6	8.7	13.0	3.6	NE /41.9%
5	2019/04	720(100%)	4.1	1.7/NNE	11.3/NNE	43.9	46.9	9.2	.0	55.6	5.3	34.7	4.4	NE /26.9%
6	2019/05	744(100%)	4.0	2.3/NE	13.0/NNE	48.8	41.3	9.9	.0	57.8	4.7	28.0	9.5	NE /36.0%
7	2019/06	720(100%)	3.2	1.6/SSW	9.0/NNE	53.9	45.0	1.1	.0	17.2	12.8	67.6	2.4	SSW/29.4%
8	2019/07	744(100%)	3.4	1.8/SW	8.3/SW	46.4	53.2	.4	.0	15.7	7.4	69.8	7.1	SSW/36.4%
9	2019/08	744(100%)	3.2	.3/S	14.2/NNE	59.5	36.3	3.9	.3	29.3	12.4	46.5	11.8	SSW/23.4%
10	2019/09	720(100%)	5.7	4.9/NE	17.9/NE	33.9	38.5	25.3	2.4	77.8	4.7	12.4	5.1	NE /47.8%
11	2019/10	744(100%)	6.5	6.1/NE	15.0/NE	21.1	39.1	38.8	.9	87.5	2.6	6.5	3.5	NE /60.3%
12	2019/11	720(100%)	8.1	7.9/NE	19.2/NE	16.0	30.7	44.6	8.8	92.8	3.3	1.5	2.4	NE /68.6%
13	2019/冬	1416(66%)	6.8	6.6/NE	16.4/NE	16.4	44.5	36.7	2.4	93.1	2.7	2.0	2.2	NE /56.8%
14	2019/春	2208(100%)	4.3	2.7/NE	13.4/NE	43.5	42.8	13.7	.0	62.7	6.3	25.1	5.9	NE /35.1%
15	2019/夏	2208(100%)	3.3	1.2/SSW	14.2/NNE	53.3	44.8	1.8	.1	20.8	10.8	61.2	7.2	SSW/29.8%
16	2019/秋	2184(100%)	6.8	6.3/NE	19.2/NE	23.6	36.1	36.3	4.0	86.0	3.5	6.8	3.7	NE /58.9%
17	2019/年	8016(92%)	5.2	3.3/NE	19.2/NE	36.0	41.8	20.6	1.5	62.9	6.1	26.0	5.0	NE /37.6%

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表1.2.6　2019年中雲海域6站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12													
2	2019/01	744(100%)	5.1	4.8/NNE	13.8/NNE	28.0	59.0	12.9	.1	91.7	2.8	.3	5.2	NE /45.4%
3	2019/02	672(100%)	4.0	3.5/NNE	54.6/NNE	39.7	55.8	4.3	.1	83.0	4.3	2.1	10.6	NE /43.3%
4	2019/03	742(100%)	3.4	2.1/NE	9.9/NNE	51.6	46.6	1.8	.0	66.8	11.5	10.2	11.5	NE /35.7%
5	2019/04	720(100%)	3.4	.5/NE	8.4/NNE	49.7	50.1	.1	.0	48.6	18.5	21.7	11.3	NE /22.2%
6	2019/05	744(100%)	3.0	1.1/NE	10.1/NNE	57.8	41.5	.7	.0	53.6	16.9	15.6	13.8	NE /29.7%
7	2019/06	720(100%)	3.5	2.1/S	8.1/NNE	45.1	54.6	.3	.0	15.7	45.8	33.6	4.9	S /34.7%
8	2019/07	744(100%)	3.7	2.1/SSW	10.2/SW	39.5	59.7	.8	.0	14.0	42.3	33.5	10.2	S /37.9%
9	2019/08	744(100%)	3.2	.8/S	10.8/N	58.9	38.6	2.6	.0	23.9	38.3	20.0	17.7	S /20.0%
10	2019/09	720(100%)	3.9	3.0/NE	12.3/NNE	51.5	40.3	8.2	.0	71.5	13.1	2.9	12.5	NE /39.6%
11	2019/10	744(100%)	4.3	3.7/NE	10.9/NNE	38.3	53.8	7.9	.0	82.1	6.0	3.5	8.3	NE /48.1%
12	2019/11	720(100%)	5.2	4.9/NE	13.0/NNE	31.0	48.6	20.4	.0	89.9	4.0	.8	5.3	NE /56.0%
13	2019/冬	1416(66%)	4.6	4.2/NNE	54.6/NNE	33.5	57.5	8.8	.1	87.6	3.5	1.1	7.8	NE /44.4%
14	2019/春	2206(100%)	3.3	1.2/NE	10.1/NNE	53.1	46.1	.9	.0	56.4	15.6	15.8	12.2	NE /29.3%
15	2019/夏	2208(100%)	3.4	1.7/S	10.8/N	47.9	50.9	1.2	.0	17.9	42.1	29.0	11.0	S /30.8%
16	2019/秋	2184(100%)	4.5	3.9/NE	13.0/NNE	40.2	47.6	12.1	.0	81.2	7.7	2.4	8.7	NE /47.9%
17	2019/年	8014(92%)	3.9	1.7/NE	54.6/NNE	44.7	49.8	5.4	.0	58.1	18.6	13.2	10.1	NE /31.0%

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表1.2.7　2019年中雲海域8站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12													
2	2019/01	744(100%)	9.2	8.8/NNE	19.5/NNE	10.2	28.6	46.0	15.2	92.6	2.2	1.7	3.5	NNE/44.6%
3	2019/02	672(100%)	7.6	6.6/NE	17.0/NNE	11.5	41.8	43.2	3.6	82.9	9.1	3.0	5.1	NE /38.4%
4	2019/03	744(100%)	7.0	3.7/NE	16.5/NNE	13.6	46.5	38.3	1.6	57.1	19.2	16.8	6.9	NE /30.2%
5	2019/04	720(100%)	5.5	2.2/NNE	14.1/NNE	26.0	53.1	20.8	.1	49.9	10.6	29.2	10.4	NNE/17.4%
6	2019/05	330(44%)	5.8	4.6/NE	15.6/NNE	27.0	44.5	26.4	2.1	70.3	8.2	11.2	10.3	NE /38.5%
7	2019/06	211(29%)	3.7	2.6/SSW	7.8/W	38.4	61.6	.0	.0	7.1	28.0	60.2	4.7	S /25.6%
8	2019/07	744(100%)	4.3	2.0/SSW	13.5/NNE	32.3	65.5	2.3	.0	13.4	23.8	52.6	10.2	S /30.2%
9	2019/08	744(100%)	4.0	.1/SSE	16.2/NNE	46.4	44.0	8.6	1.1	24.9	30.1	28.8	16.3	S /20.4%
10	2019/09	720(100%)	6.9	5.9/NE	21.5/NNE	28.6	31.5	31.0	8.9	70.8	12.6	5.1	11.4	NE /31.7%
11	2019/10	744(100%)	8.0	7.3/NE	17.1/NNE	14.4	32.7	46.5	6.5	84.1	4.7	4.3	6.9	NE /43.0%
12	2019/11	720(100%)	10.3	9.9/NE	25.0/NNE	10.7	25.8	33.3	30.1	89.9	5.1	.7	4.3	NE /48.8%
13	2019/冬	1416(66%)	8.4	7.7/NE	19.5/NNE	10.8	34.9	44.6	9.7	88.0	5.4	2.3	4.2	NE /37.3%
14	2019/春	1794(81%)	6.2	3.2/NE	16.5/NNE	21.0	48.8	29.1	1.1	56.6	13.7	20.7	8.9	NE /26.6%
15	2019/夏	1699(77%)	4.1	1.2/SSW	16.2/NNE	39.2	55.6	4.8	.5	17.7	27.1	43.1	12.2	S /25.4%
16	2019/秋	2184(100%)	8.4	7.7/NE	25.0/NNE	17.9	30.0	37.0	15.1	81.6	7.5	3.4	7.5	NE /41.2%
17	2019/年	7093(81%)	6.8	4.4/NE	25.0/NNE	22.4	41.9	28.8	7.0	61.3	13.3	17.1	8.3	NE /27.7%

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表1.2.8　2019年中雲海域9站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12													
2	2019/01													
3	2019/02													
4	2019/03	613(82%)	4.5	3.1/NNE	13.3/N	41.4	43.7	14.8	.0	60.5	12.9	16.6	10.0	NNE/25.6%
5	2019/04	720(100%)	3.8	1.2/NNE	10.6/NNE	48.1	46.7	5.3	.0	51.8	7.9	38.2	2.1	NNE/23.6%
6	2019/05	744(100%)	3.4	1.6/NE	10.9/NNE	52.2	41.9	5.9	.0	55.9	11.3	26.9	5.9	NNE/26.6%
7	2019/06	720(100%)	3.2	2.0/S	9.2/NNE	54.4	44.4	1.1	.0	13.9	39.0	47.1	.0	SSW/28.2%
8	2019/07	744(100%)	3.3	2.1/S	9.6/NNE	50.5	48.9	.5	.0	15.9	31.9	51.6	.7	SSW/30.6%
9	2019/08	744(100%)	3.1	.9/SSE	11.9/NNE	61.4	32.5	6.0	.0	27.8	38.0	31.9	2.3	S /25.4%
10	2019/09	720(100%)	4.9	4.1/NNE	17.0/NNE	46.0	30.6	22.1	1.4	73.1	17.5	8.6	.8	NNE/43.2%
11	2019/10	744(100%)	6.6	5.9/NNE	15.3/N	25.1	33.2	39.7	2.0	78.2	7.9	6.0	7.8	NNE/42.1%
12	2019/11	720(100%)	7.4	7.2/NNE	17.2/NNE	20.3	30.7	44.4	4.6	92.5	3.5	2.1	1.9	NNE/60.3%
13	2019/冬													
14	2019/春	2077(94%)	3.9	1.9/NNE	13.3/N	47.6	44.1	8.3	.0	55.8	10.6	27.8	5.8	NNE/25.3%
15	2019/夏	2208(100%)	3.2	1.6/S	11.9/NNE	55.5	41.9	2.6	.0	19.2	36.3	43.5	1.0	SSW/26.0%
16	2019/秋	2184(100%)	6.3	5.7/NNE	17.2/NNE	30.4	31.5	35.4	2.7	81.2	9.6	5.6	3.6	NNE/48.4%
17	2019/年	6469(74%)	4.5	2.1/NE	17.2/NNE	44.5	39.1	15.5	.9	51.9	19.0	25.6	3.4	NNE/28.9%

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表1.2.9　2019年中雲海域4站修補前風速及風向重要統計量統計表

序號	日期 (年/月)	觀測點數	風速平均值 (m/s)	平均風風速/風向 (m/s)/(來向)	最大風風速/風向 (m/s)/(來向)	輕風 <3.3 (%)	和風 ~7.9 (%)	強風 ~13.8 (%)	疾風 >13.8 (%)	風向 N~E (%)	風向 E~S (%)	風向 S~W (%)	風向 W~N (%)	主要風向 方向/百分比
1	2018/12													
2	2019/01	744(100%)	7.0	6.9/NNE	17.4/NNE	16.3	42.6	39.7	1.5	94.0	1.5	.4	4.2	NNE/50.9%
3	2019/02	672(100%)	5.3	5.0/NNE	13.3/NNE	23.2	58.3	18.5	.0	89.3	1.8	2.1	6.8	NE /47.9%
4	2019/03	111(15%)	4.2	3.7/NNE	10.1/NNE	44.1	42.3	13.5	.0	84.7	1.8	.9	12.6	NE /43.2%
5	2019/04													
6	2019/05													
7	2019/06													
8	2019/07													
9	2019/08													
10	2019/09													
11	2019/10													
12	2019/11													
13	2019/冬	1416(66%)	6.2	6.0/NNE	17.4/NNE	19.6	50.1	29.6	.8	91.7	1.6	1.2	5.4	NE /44.2%
14	2019/春	111(5%)	4.2	3.7/NNE	10.1/NNE	44.1	42.3	13.5	.0	84.7	1.8	.9	12.6	NE /43.2%
15	2019/夏													
16	2019/秋													
17	2019/年	1527(17%)	6.1	5.8/NNE	17.4/NNE	21.3	49.5	28.4	.7	91.2	1.6	1.2	6.0	NE /44.1%

DISW3B.BAT　　測站編號:TC4　　港灣技術研究中心

1.3　2019 年中雲海域主要測站 1(修補後)與其他測站(修補前)風力歷線比較圖

Wind Speed in Chung-Yun Seas of TCW0 at 2019

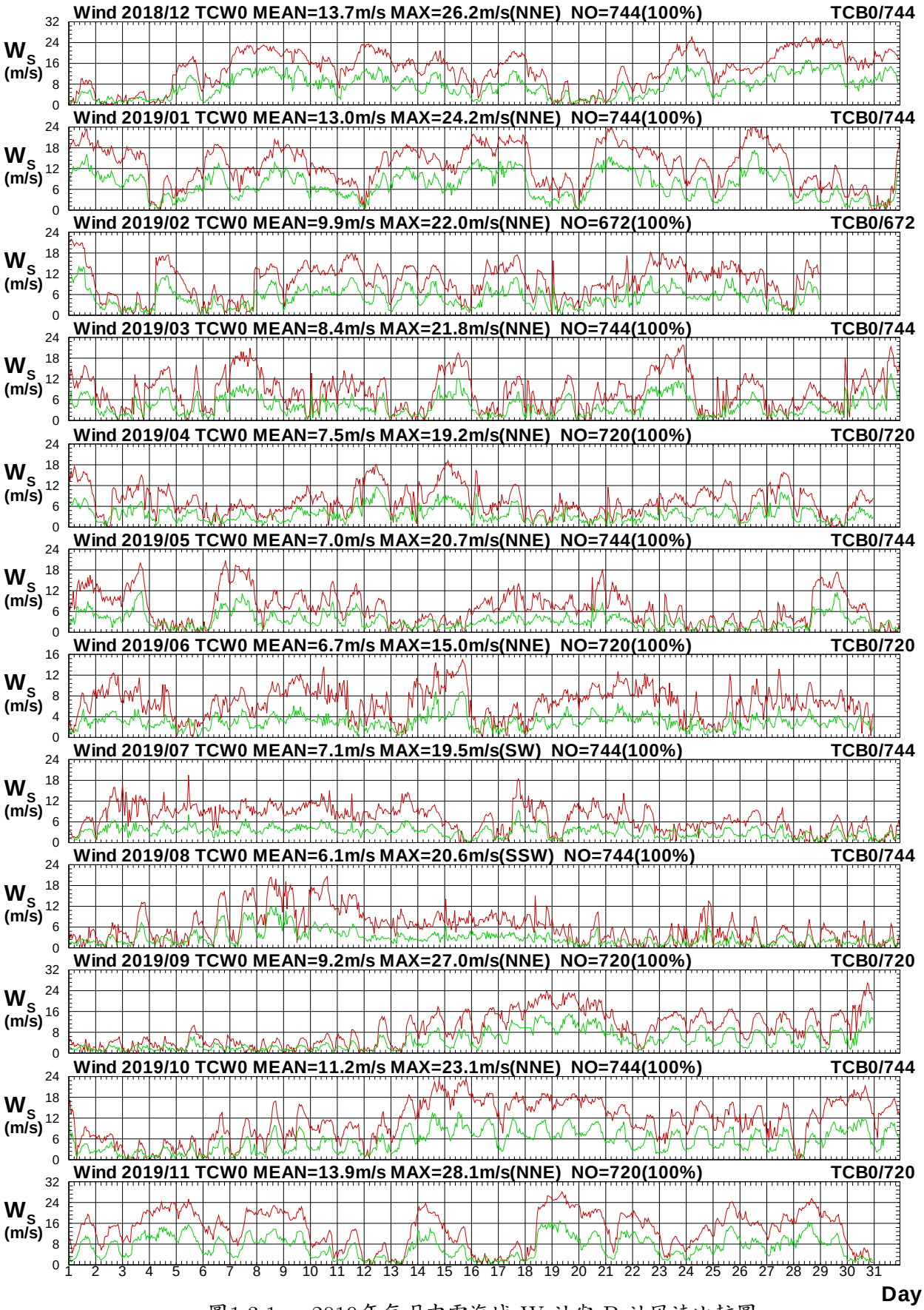

圖1.3.1a　2019年每月中雲海域 W 站與 B 站風速比較圖

W18CTCW0.1HA W18CTCB0.1H0 W191TCW0.1HA W191TCB0.1H0 W192TCW0.1HA W192TCB0.1H0
W193TCW0.1HA W193TCB0.1H0 W194TCW0.1HA W194TCB0.1H0 W195TCW0.1HA W195TCB0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

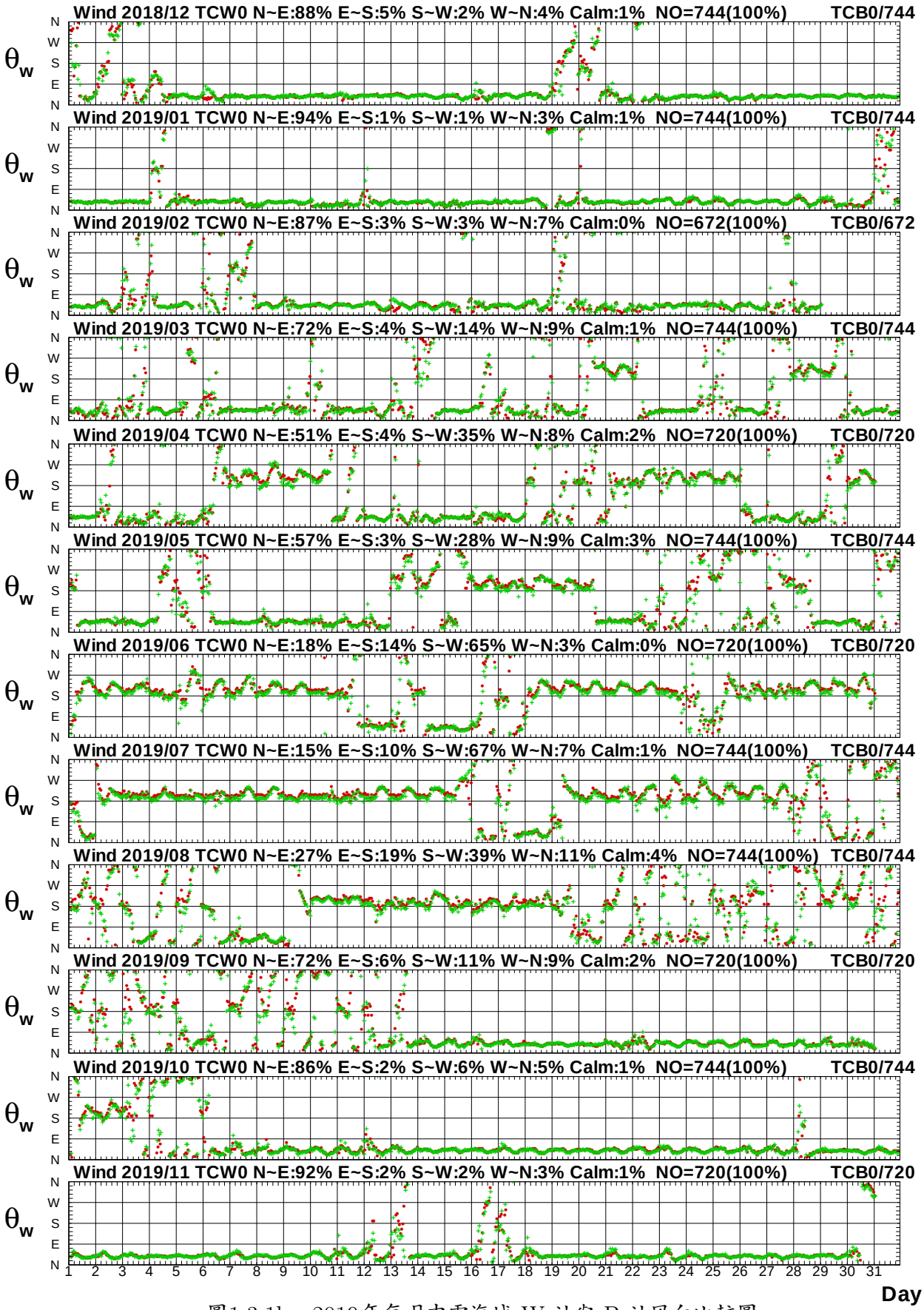

圖1.3.1b　2019年每月中雲海域 W 站與 B 站風向比較圖

W18CTCW0.1HA W18CTCB0.1H0 W191TCW0.1HA W191TCB0.1H0 W192TCW0.1HA W192TCB0.1H0
W193TCW0.1HA W193TCB0.1H0 W194TCW0.1HA W194TCB0.1H0 W195TCW0.1HA W195TCB0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

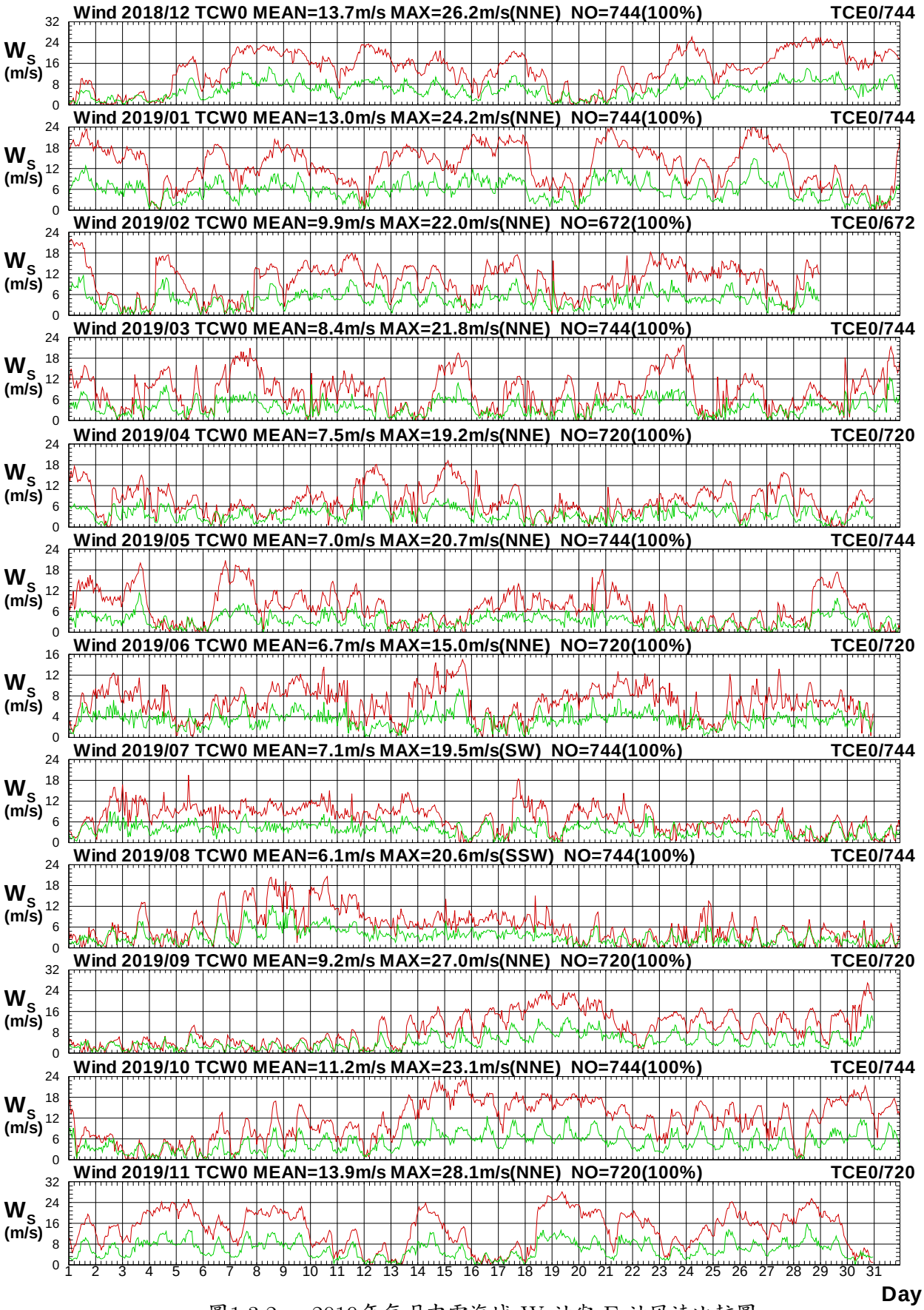

圖1.3.2a　2019年每月中雲海域 W 站與 E 站風速比較圖

W18CTCW0.1HA W18CTCE0.1H0 W191TCW0.1HA W191TCE0.1H0 W192TCW0.1HA W192TCE0.1H0
W193TCW0.1HA W193TCE0.1H0 W194TCW0.1HA W194TCE0.1H0 W195TCW0.1HA W195TCE0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

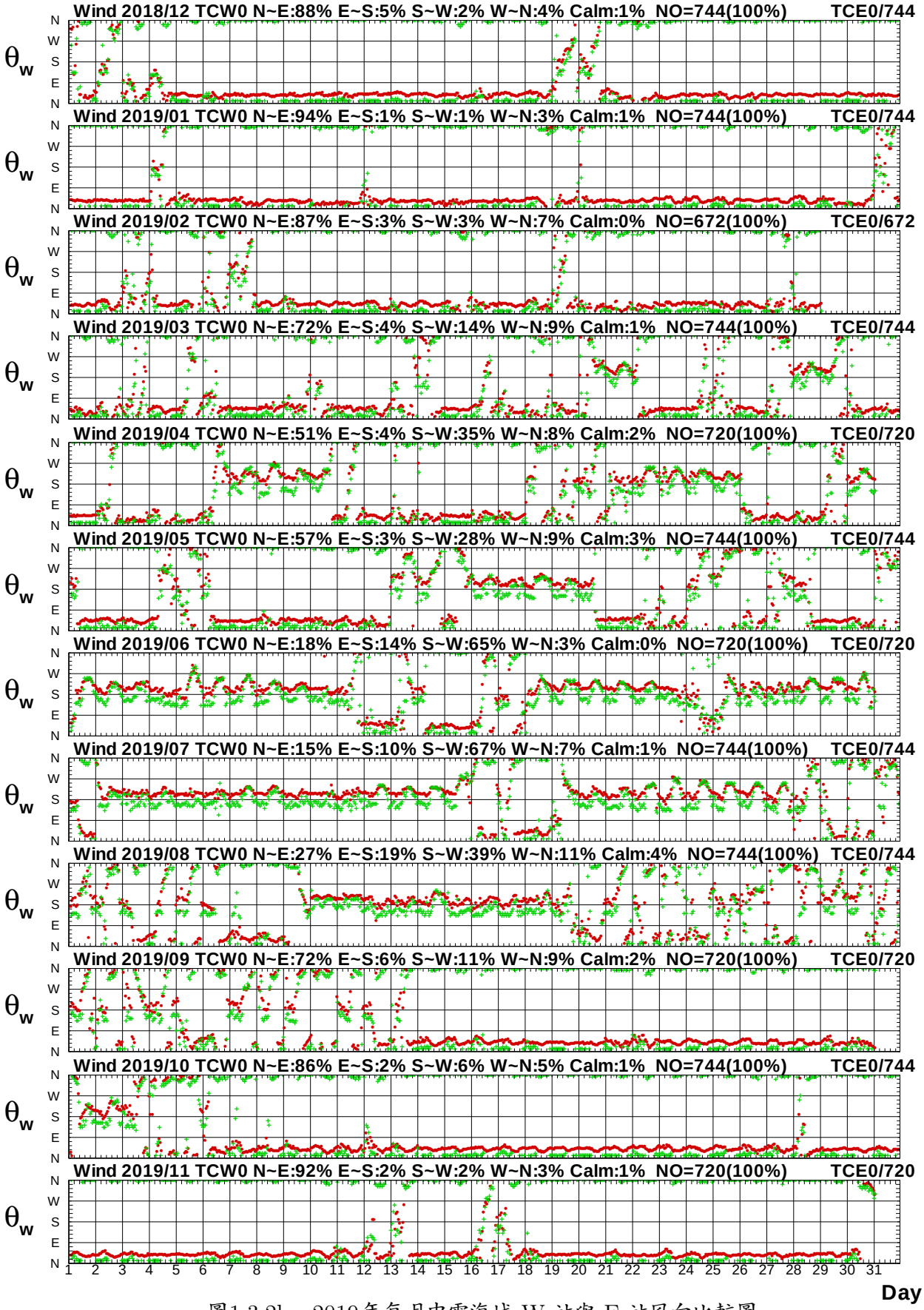

圖1.3.2b　2019年每月中雲海域 W 站與 E 站風向比較圖

W18CTCW0.1HA W18CTCE0.1H0 W191TCW0.1HA W191TCE0.1H0 W192TCW0.1HA W192TCE0.1H0
W193TCW0.1HA W193TCE0.1H0 W194TCW0.1HA W194TCE0.1H0 W195TCW0.1HA W195TCE0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

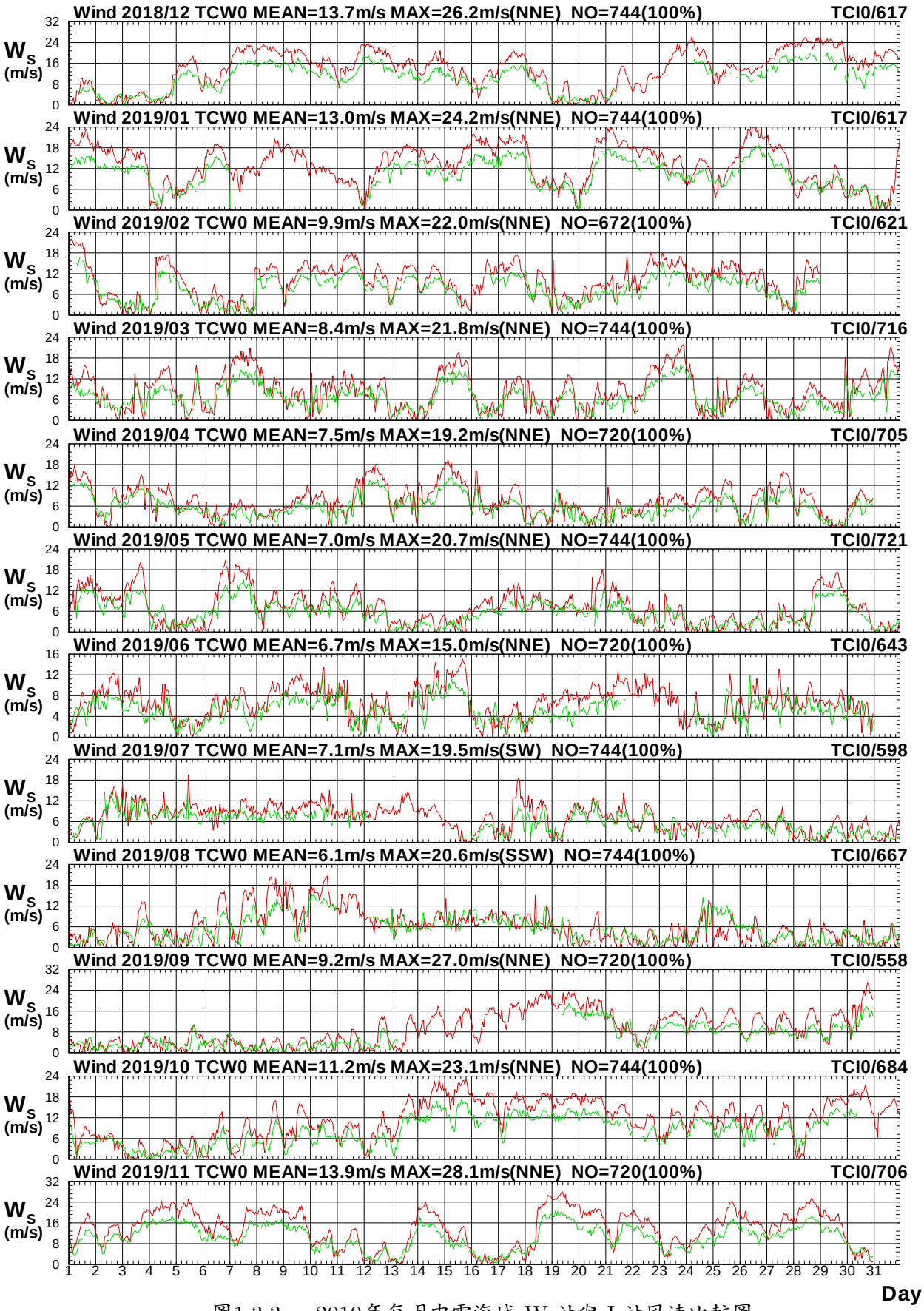

圖1.3.3a　2019年每月中雲海域 W 站與 I 站風速比較圖

W18CTCW0.1HA W18CTCI0.1H0 W191TCW0.1HA W191TCI0.1H0 W192TCW0.1HA W192TCI0.1H0
W193TCW0.1HA W193TCI0.1H0 W194TCW0.1HA W194TCI0.1H0 W195TCW0.1HA W195TCI0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

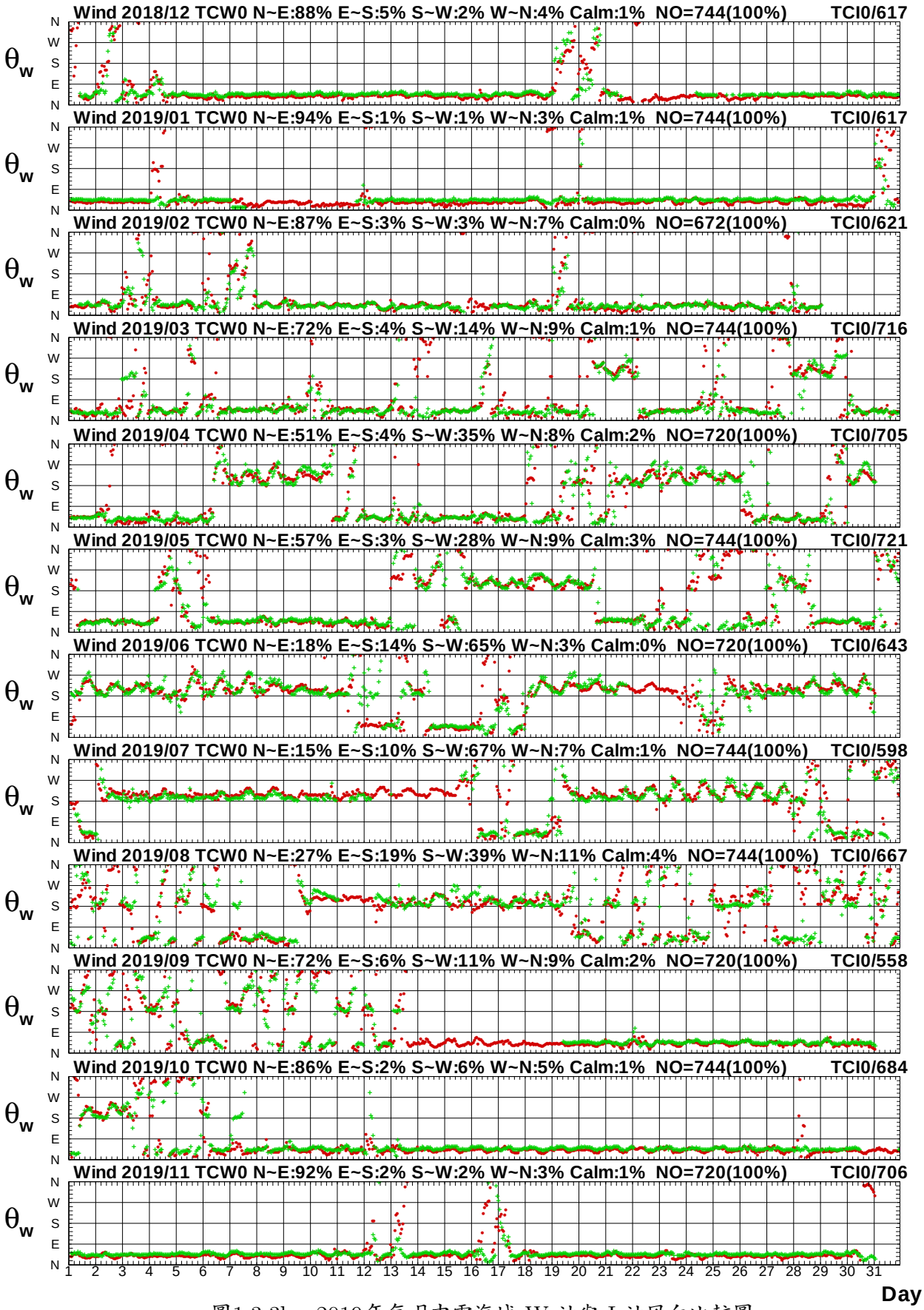

圖1.3.3b　2019年每月中雲海域 W 站與 I 站風向比較圖

W18CTCW0.1HA W18CTCI0.1H0 W191TCW0.1HA W191TCI0.1H0 W192TCW0.1HA W192TCI0.1H0
W193TCW0.1HA W193TCI0.1H0 W194TCW0.1HA W194TCI0.1H0 W195TCW0.1HA W195TCI0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

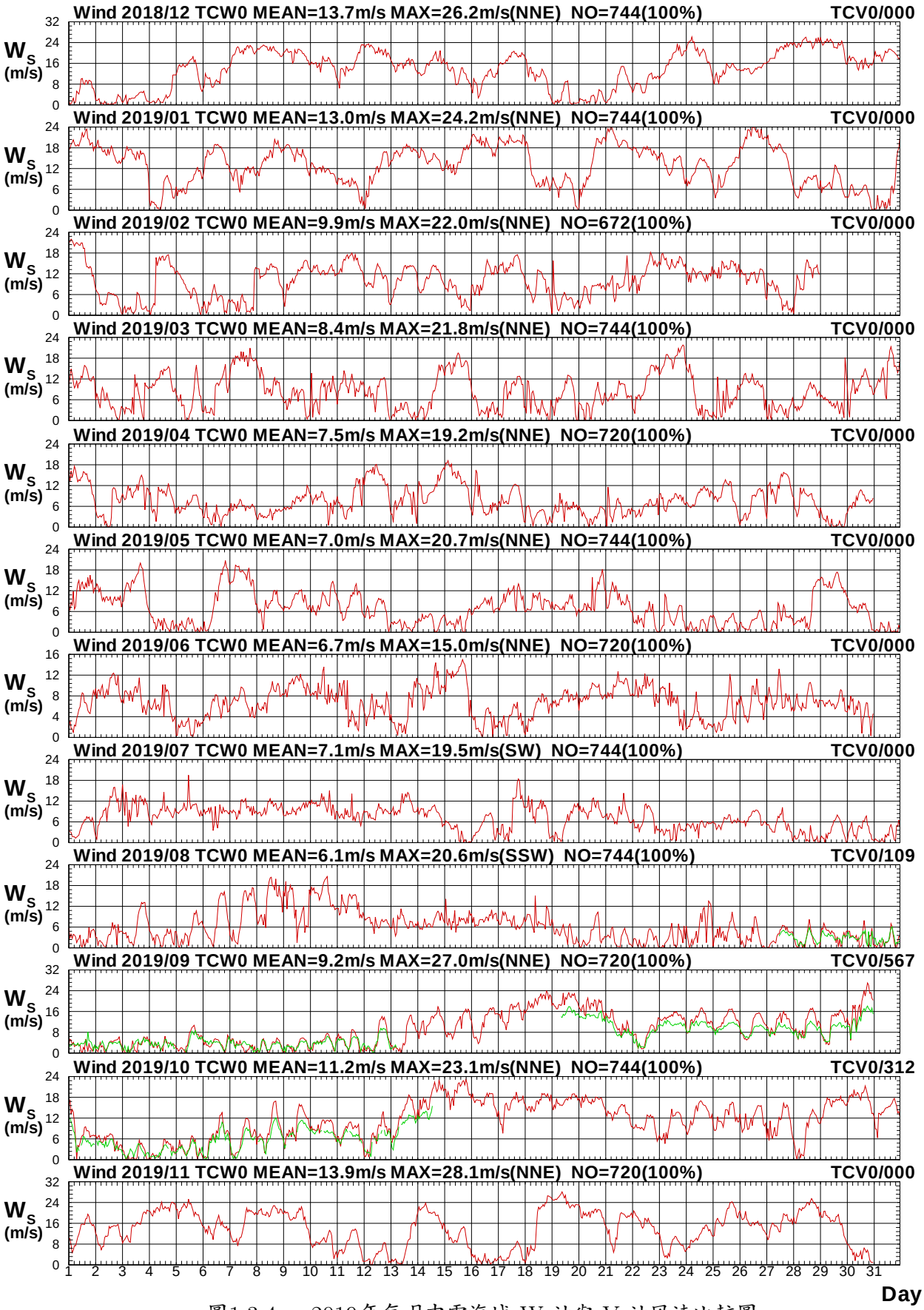

圖1.3.4a　2019年每月中雲海域 W 站與 V 站風速比較圖

W18CTCW0.1HA W18CTCV0.1H0 W191TCW0.1HA W191TCV0.1H0 W192TCW0.1HA W192TCV0.1H0
W193TCW0.1HA W193TCV0.1H0 W194TCW0.1HA W194TCV0.1H0 W195TCW0.1HA W195TCV0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

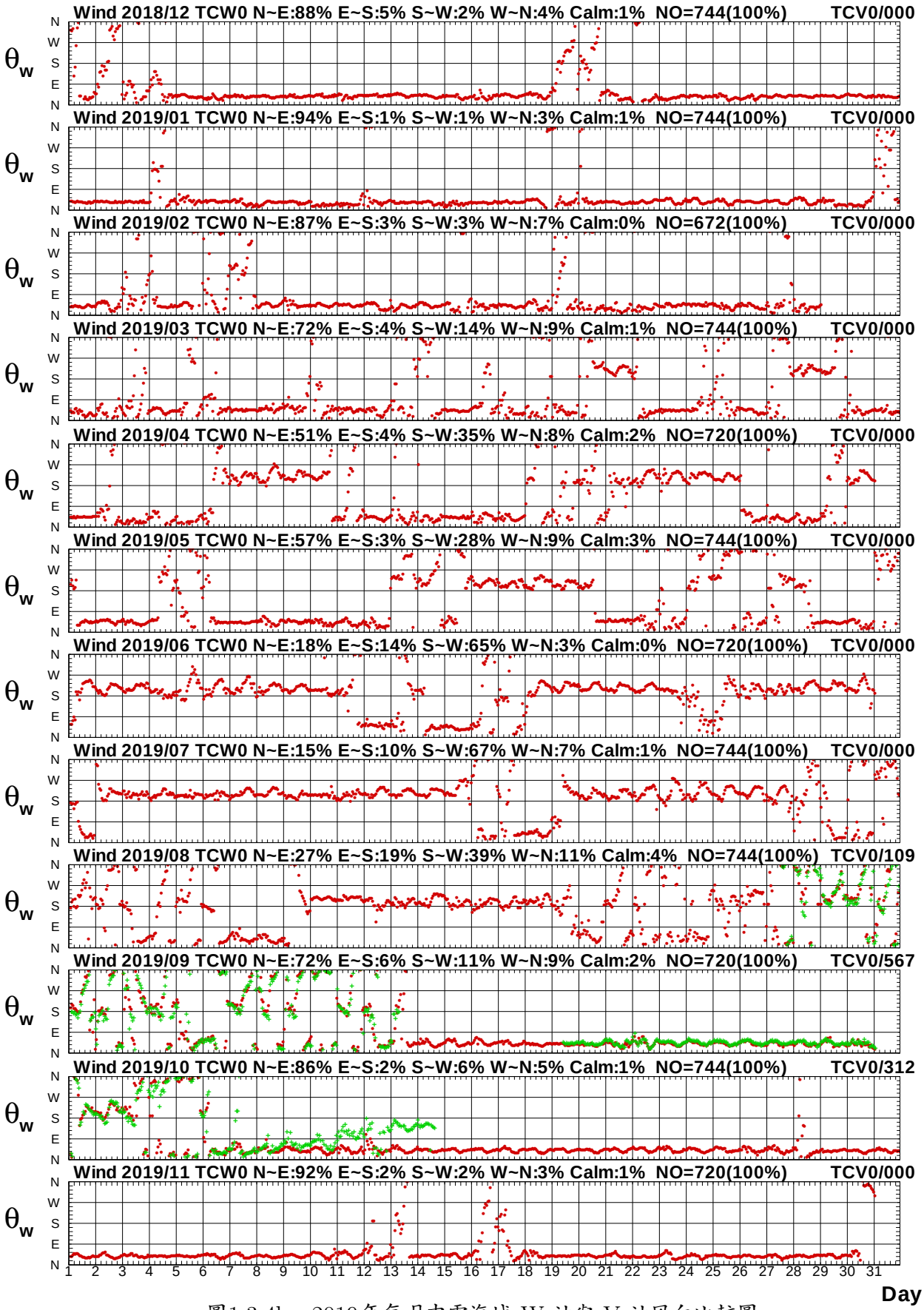

圖1.3.4b　2019年每月中雲海域 W 站與 V 站風向比較圖

W18CTCW0.1HA W18CTCV0.1H0 W191TCW0.1HA W191TCV0.1H0 W192TCW0.1HA W192TCV0.1H0
W193TCW0.1HA W193TCV0.1H0 W194TCW0.1HA W194TCV0.1H0 W195TCW0.1HA W195TCV0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

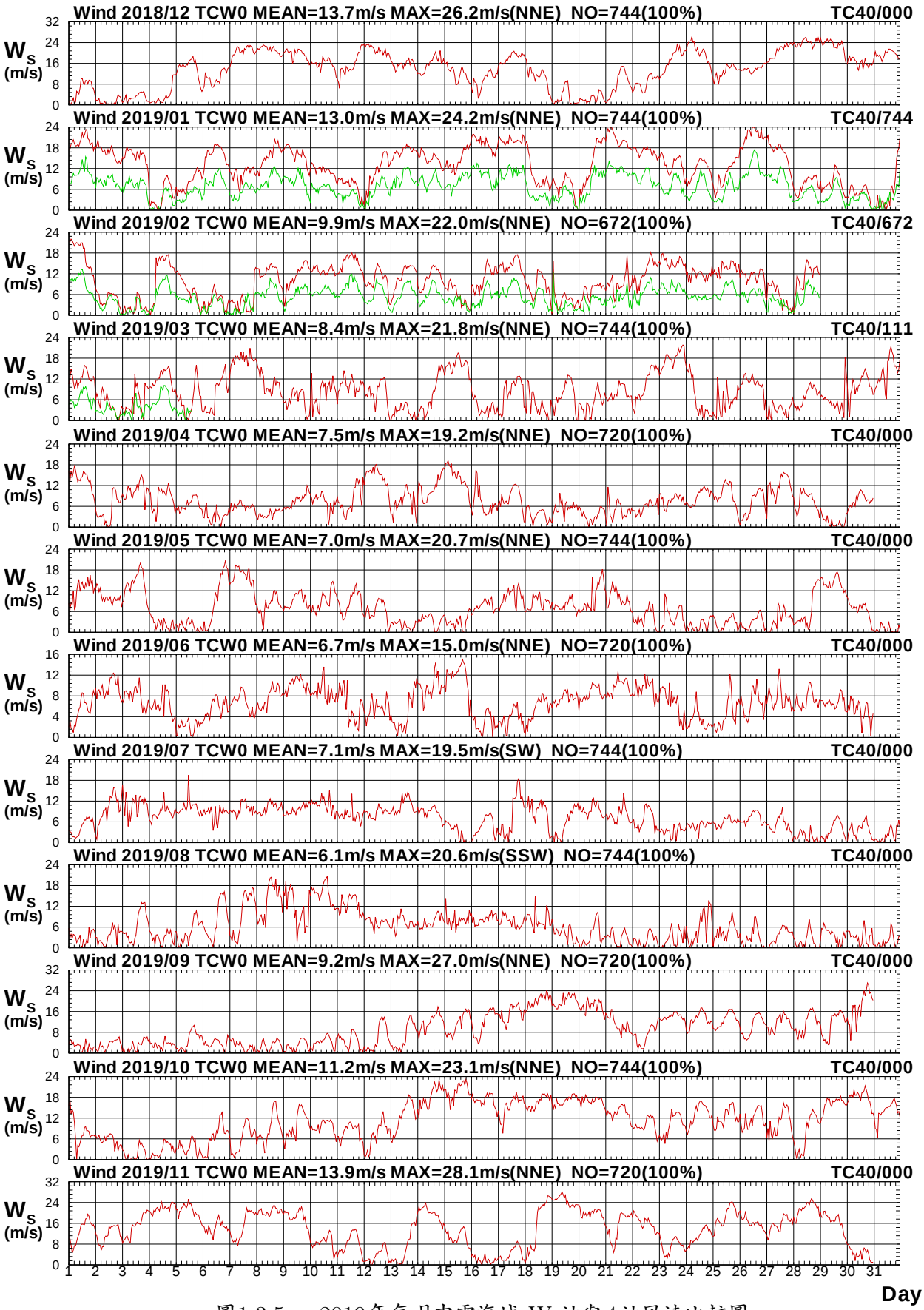

圖1.3.5a　2019年每月中雲海域 W 站與4站風速比較圖

W18CTCW0.1HA W18CTC40.1H0 W191TCW0.1HA W191TC40.1H0 W192TCW0.1HA W192TC40.1H0
W193TCW0.1HA W193TC40.1H0 W194TCW0.1HA W194TC40.1H0 W195TCW0.1HA W195TC40.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

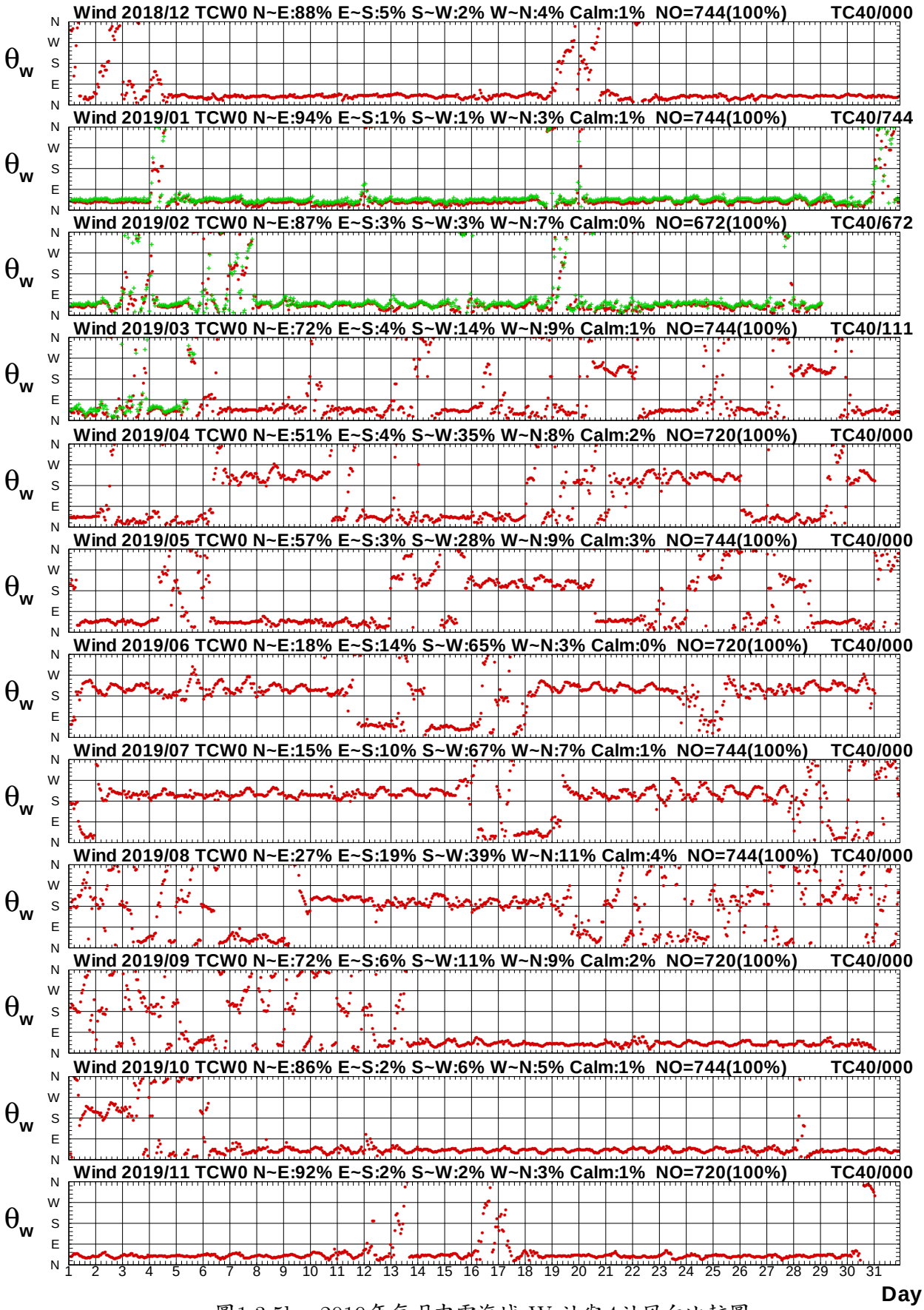

圖1.3.5b　2019年每月中雲海域 W 站與4站風向比較圖

W18CTCW0.1HA W18CTC40.1H0 W191TCW0.1HA W191TC40.1H0 W192TCW0.1HA W192TC40.1H0
W193TCW0.1HA W193TC40.1H0 W194TCW0.1HA W194TC40.1H0 W195TCW0.1HA W195TC40.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

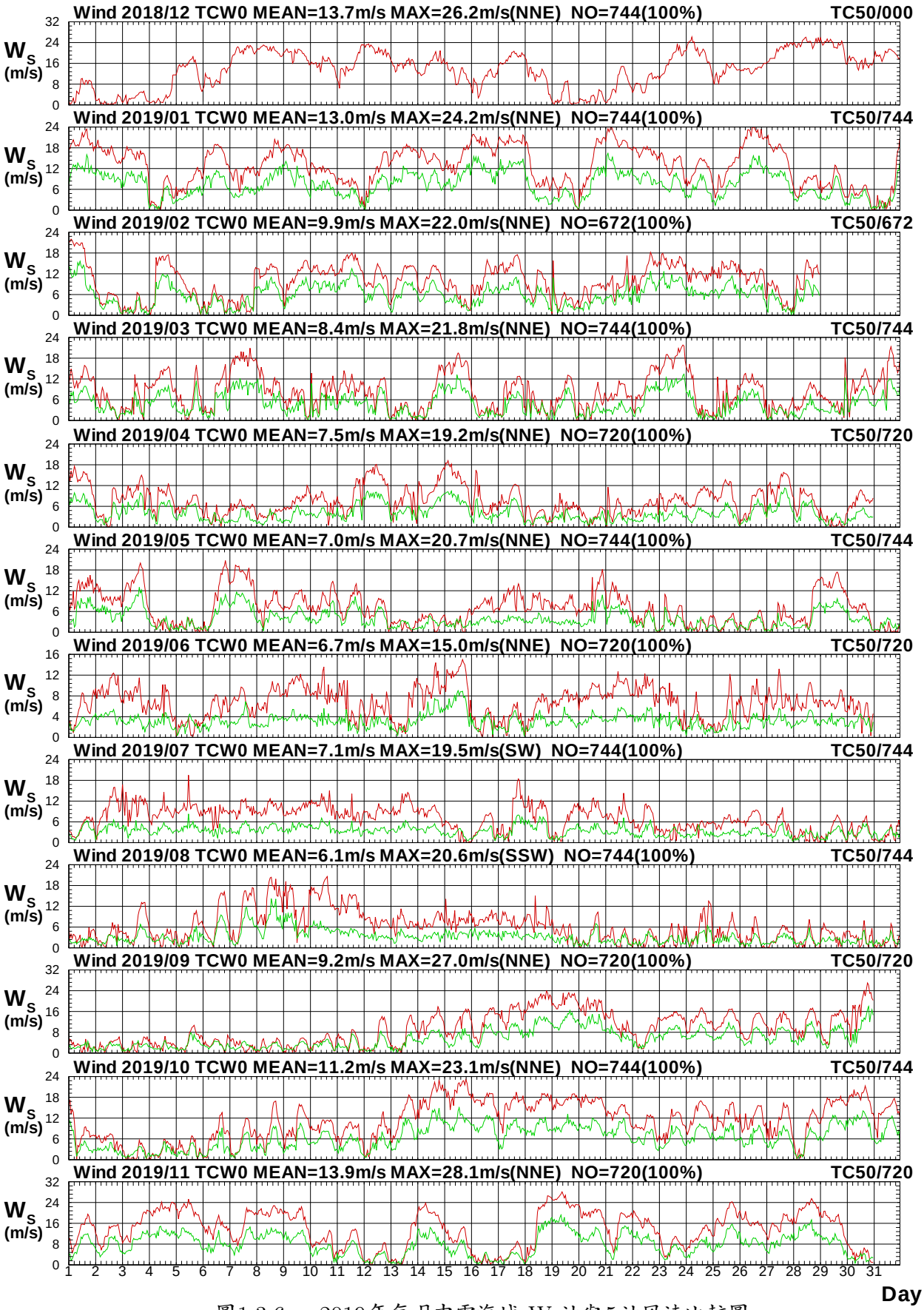

圖1.3.6a　2019年每月中雲海域 W 站與5站風速比較圖

W18CTCW0.1HA W18CTC50.1H0 W191TCW0.1HA W191TC50.1H0 W192TCW0.1HA W192TC50.1H0
W193TCW0.1HA W193TC50.1H0 W194TCW0.1HA W194TC50.1H0 W195TCW0.1HA W195TC50.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

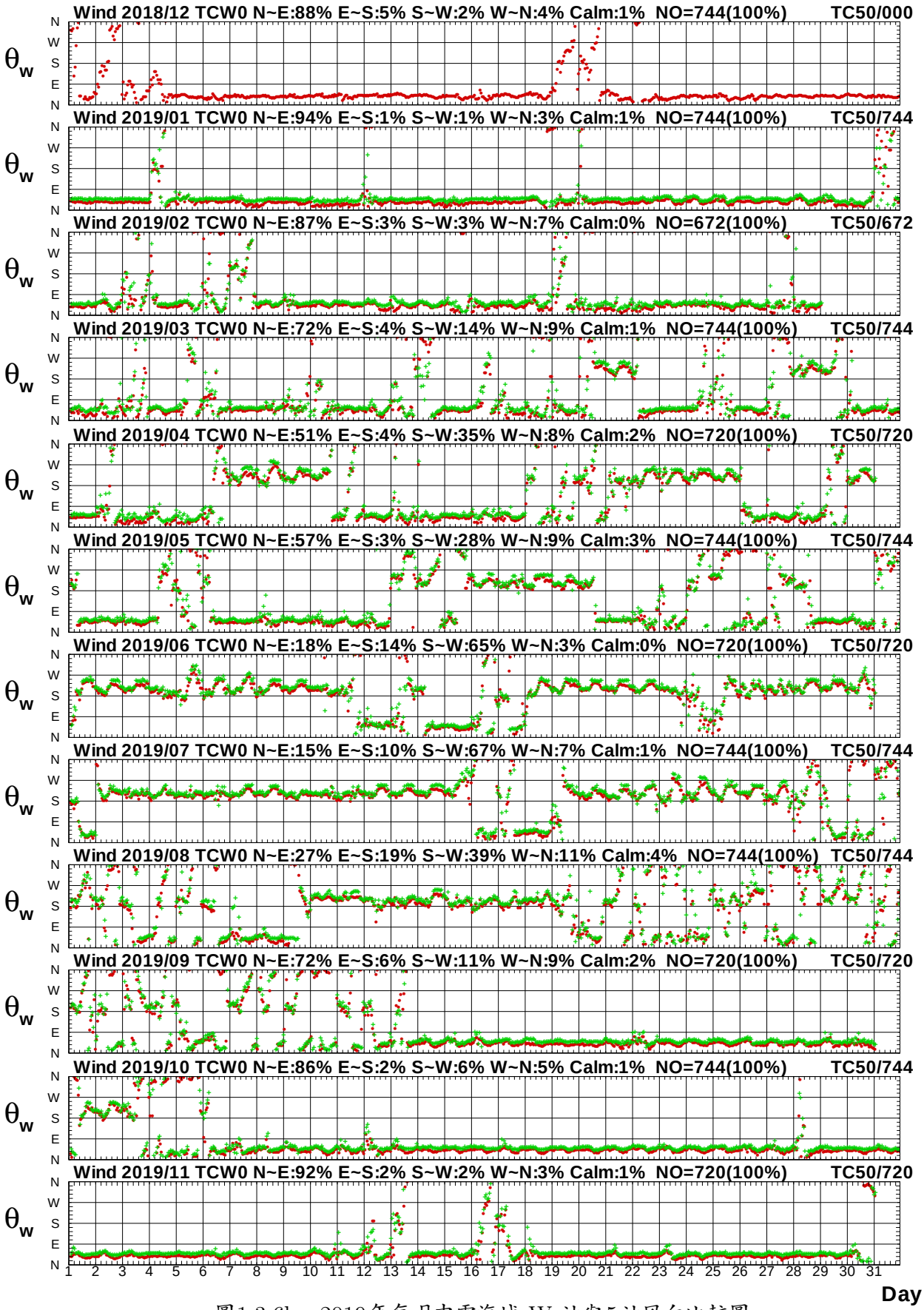

圖1.3.6b　2019年每月中雲海域 W 站與5站風向比較圖

W18CTCW0.1HA W18CTC50.1H0 W191TCW0.1HA W191TC50.1H0 W192TCW0.1HA W192TC50.1H0
W193TCW0.1HA W193TC50.1H0 W194TCW0.1HA W194TC50.1H0 W195TCW0.1HA W195TC50.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

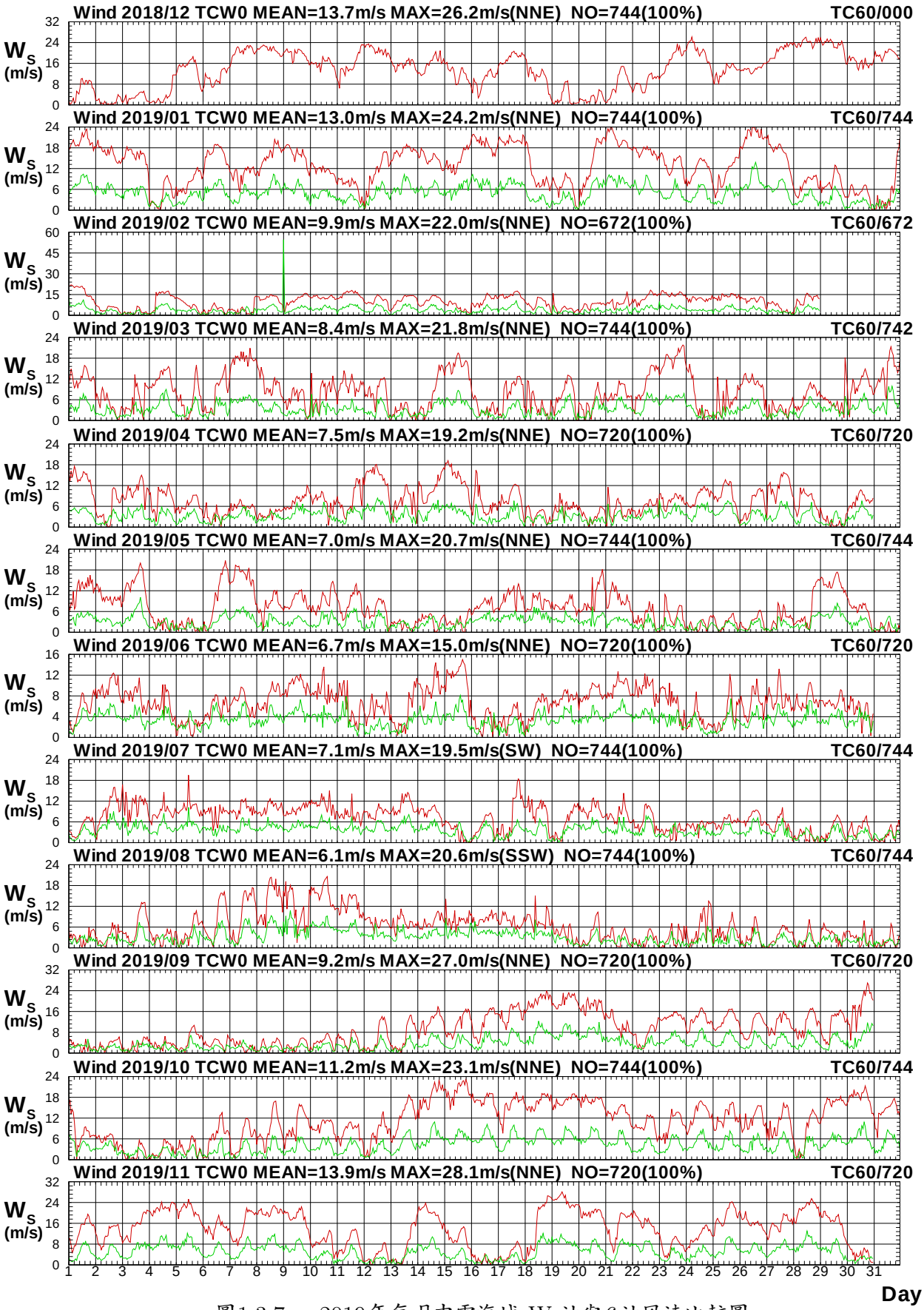

圖1.3.7a　2019年每月中雲海域 W 站與6站風速比較圖

W18CTCW0.1HA W18CTC60.1H0 W191TCW0.1HA W191TC60.1H0 W192TCW0.1HA W192TC60.1H0
W193TCW0.1HA W193TC60.1H0 W194TCW0.1HA W194TC60.1H0 W195TCW0.1HA W195TC60.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

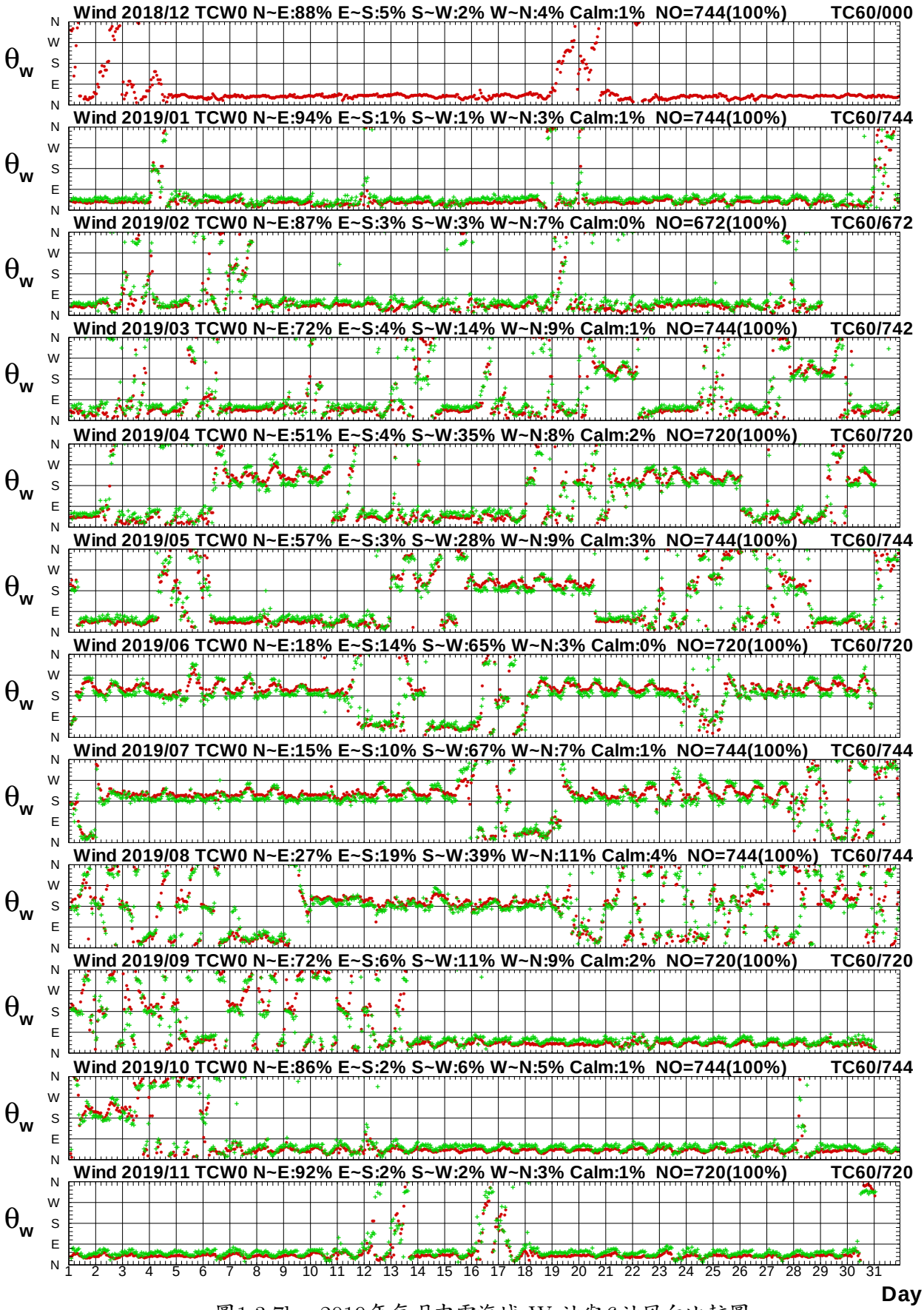

圖1.3.7b　2019年每月中雲海域 W 站與6站風向比較圖

W18CTCW0.1HA W18CTC60.1H0 W191TCW0.1HA W191TC60.1H0 W192TCW0.1HA W192TC60.1H0
W193TCW0.1HA W193TC60.1H0 W194TCW0.1HA W194TC60.1H0 W195TCW0.1HA W195TC60.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

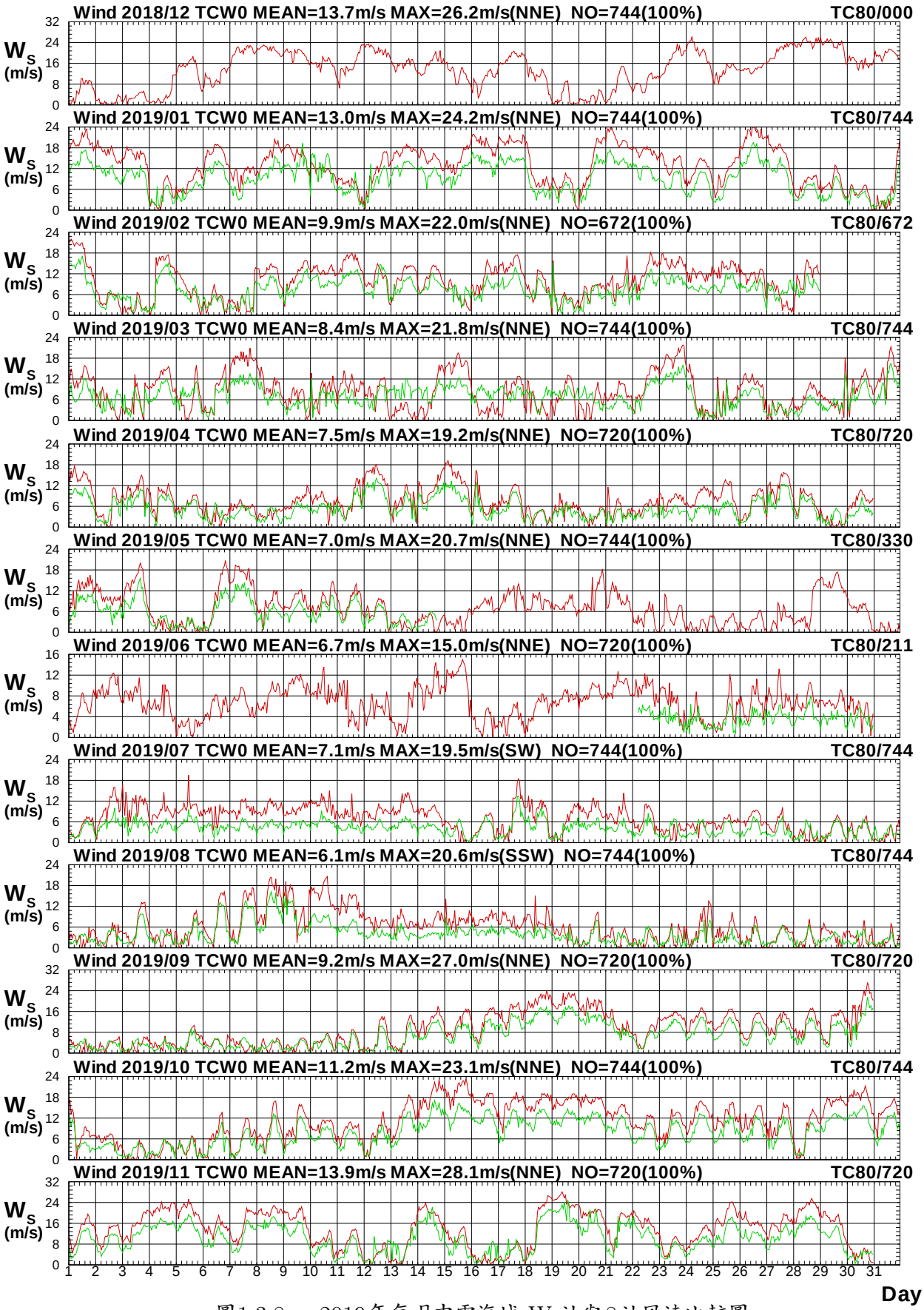

圖1.3.8a　2019年每月中雲海域 W 站與8站風速比較圖

W18CTCW0.1HA W18CTC80.1H0 W191TCW0.1HA W191TC80.1H0 W192TCW0.1HA W192TC80.1H0
W193TCW0.1HA W193TC80.1H0 W194TCW0.1HA W194TC80.1H0 W195TCW0.1HA W195TC80.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

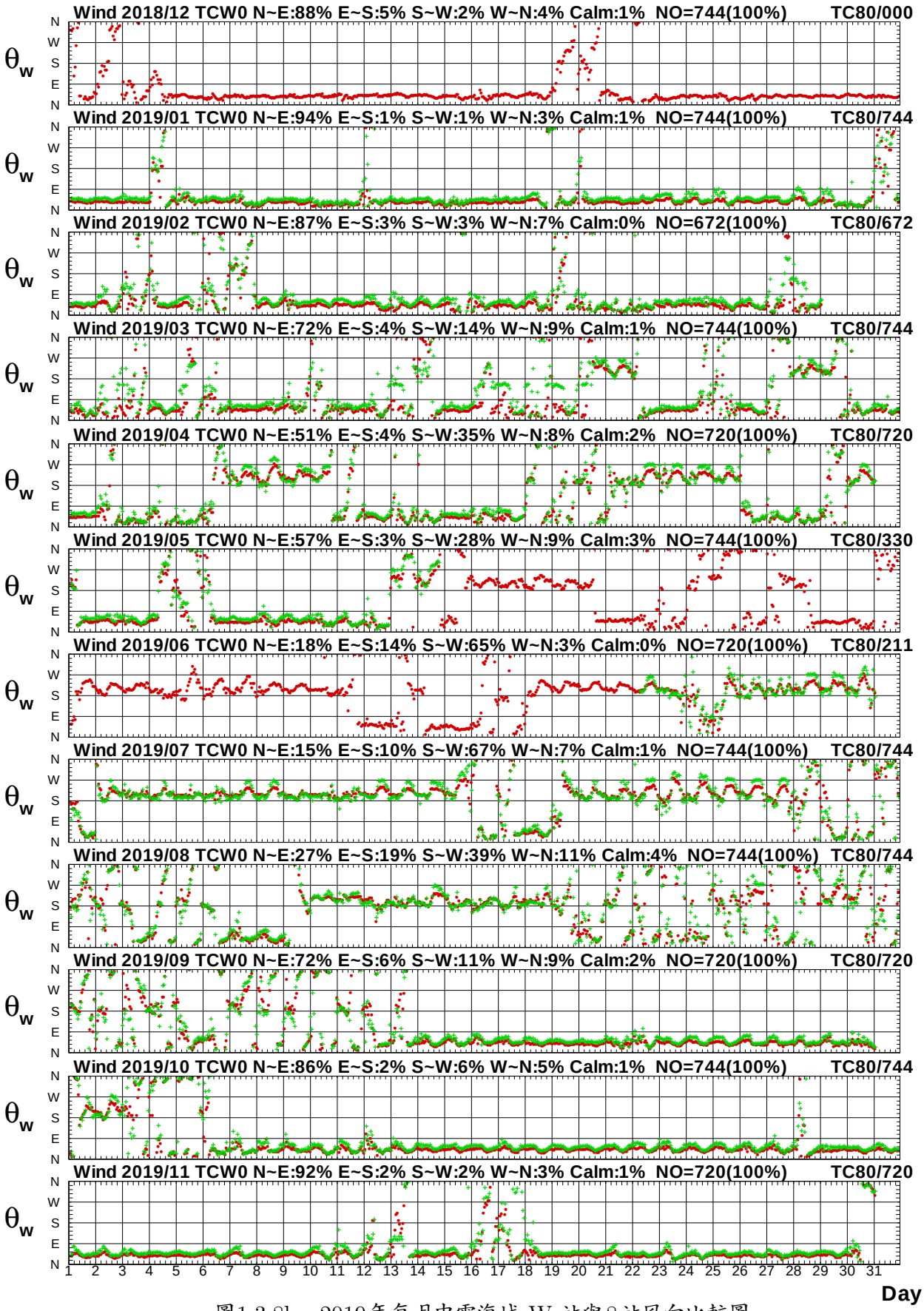

圖1.3.8b　2019年每月中雲海域 W 站與8站風向比較圖

W18CTCW0.1HA W18CTC80.1H0 W191TCW0.1HA W191TC80.1H0 W192TCW0.1HA W192TC80.1H0
W193TCW0.1HA W193TC80.1H0 W194TCW0.1HA W194TC80.1H0 W195TCW0.1HA W195TC80.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

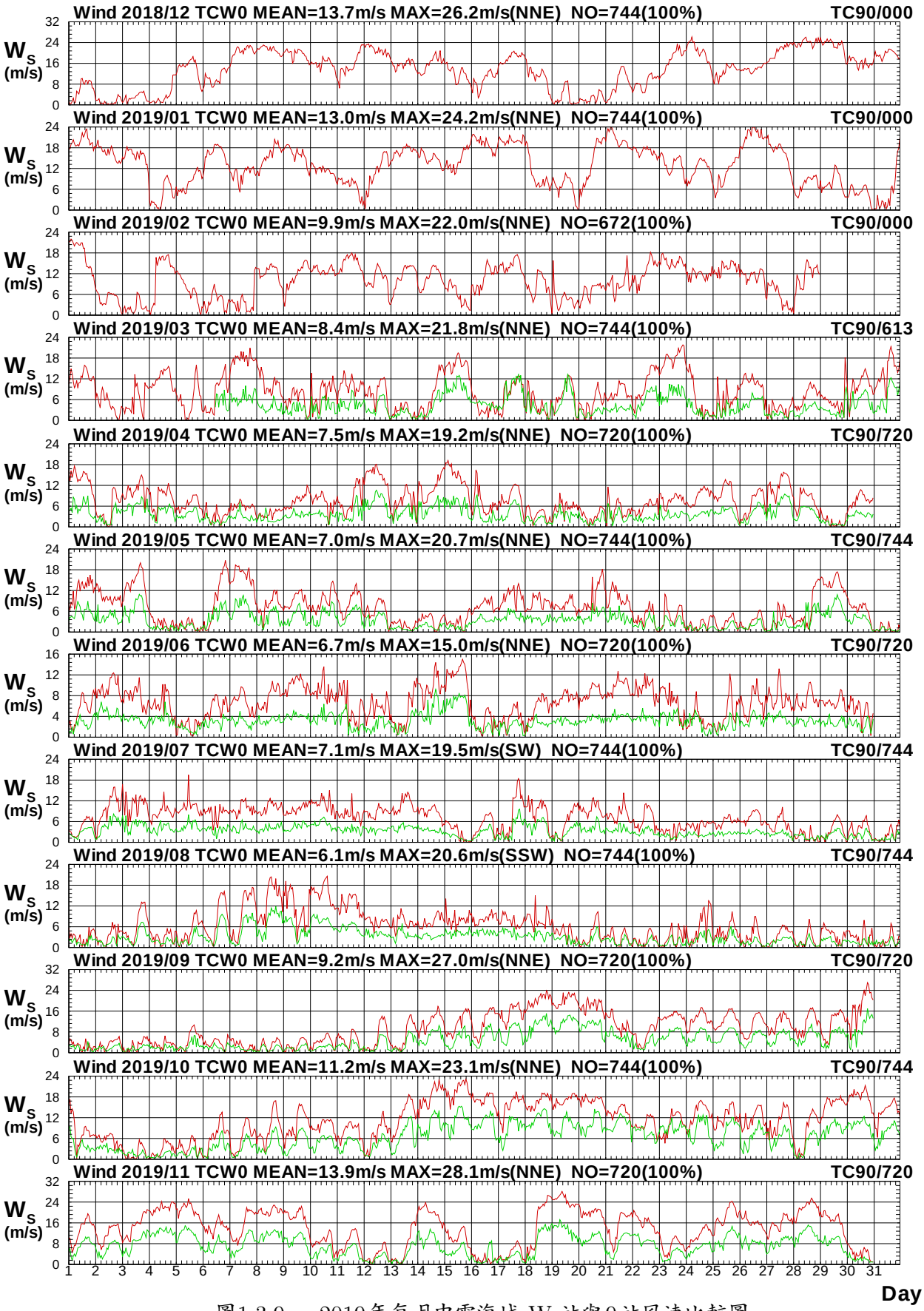

圖1.3.9a　2019年每月中雲海域 W 站與9站風速比較圖

W18CTCW0.1HA W18CTC90.1H0 W191TCW0.1HA W191TC90.1H0 W192TCW0.1HA W192TC90.1H0
W193TCW0.1HA W193TC90.1H0 W194TCW0.1HA W194TC90.1H0 W195TCW0.1HA W195TC90.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

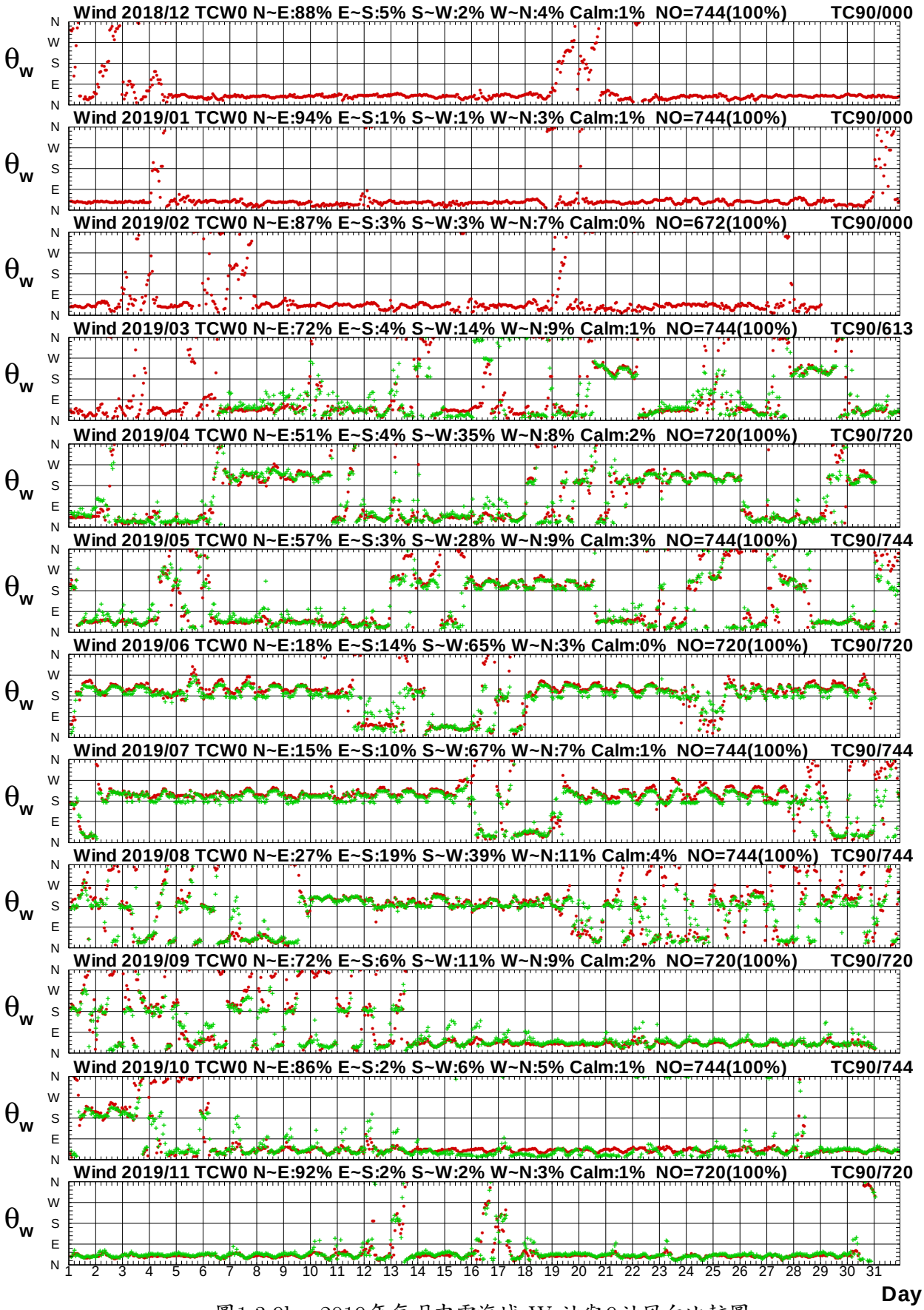

圖1.3.9b　2019年每月中雲海域 W 站與9站風向比較圖

W18CTCW0.1HA W18CTC90.1H0 W191TCW0.1HA W191TC90.1H0 W192TCW0.1HA W192TC90.1H0
W193TCW0.1HA W193TC90.1H0 W194TCW0.1HA W194TC90.1H0 W195TCW0.1HA W195TC90.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

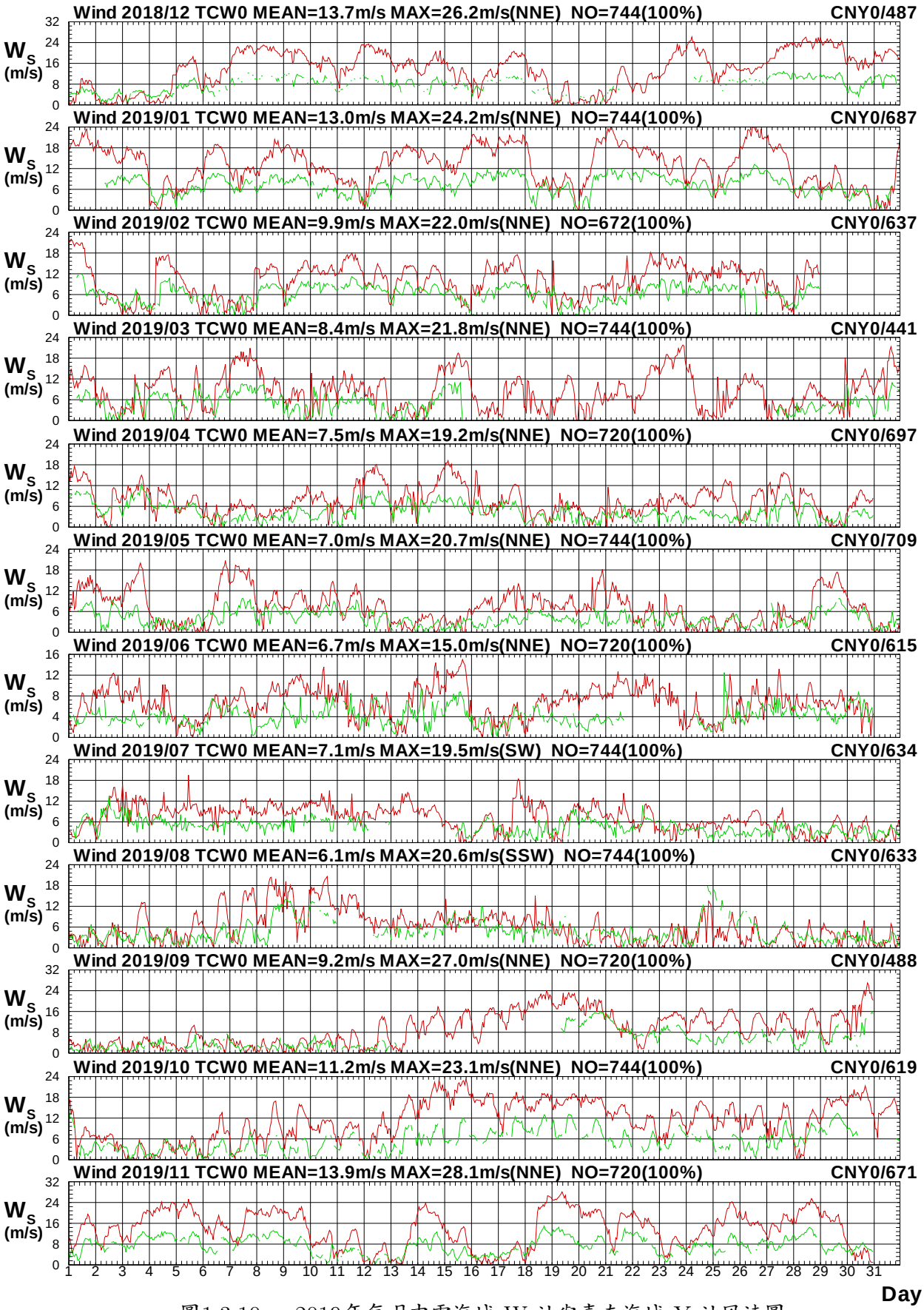

圖1.3.10a　2019年每月中雲海域 W 站與嘉南海域 Y 站風速圖

W18CTCW0.1HA W18CCNY0.1H0 W191TCW0.1HA W191CNY0.1H0 W192TCW0.1HA W192CNY0.1H0
W193TCW0.1HA W193CNY0.1H0 W194TCW0.1HA W194CNY0.1H0 W195TCW0.1HA W195CNY0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

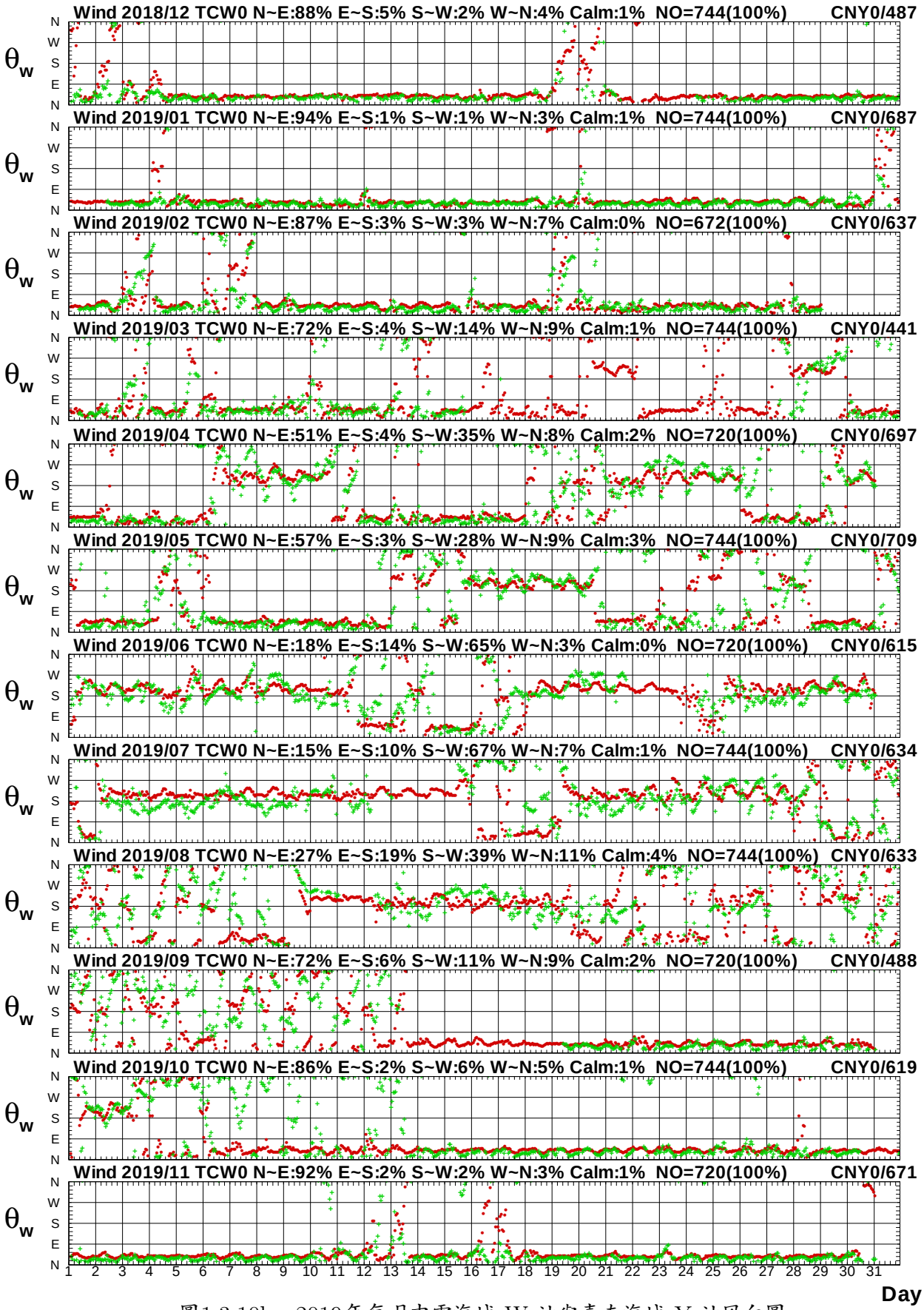

圖1.3.10b　2019年每月中雲海域 W 站與嘉南海域 Y 站風向圖

W18CTCW0.1HA W18CCNY0.1H0 W191TCW0.1HA W191CNY0.1H0 W192TCW0.1HA W192CNY0.1H0
W193TCW0.1HA W193CNY0.1H0 W194TCW0.1HA W194CNY0.1H0 W195TCW0.1HA W195CNY0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

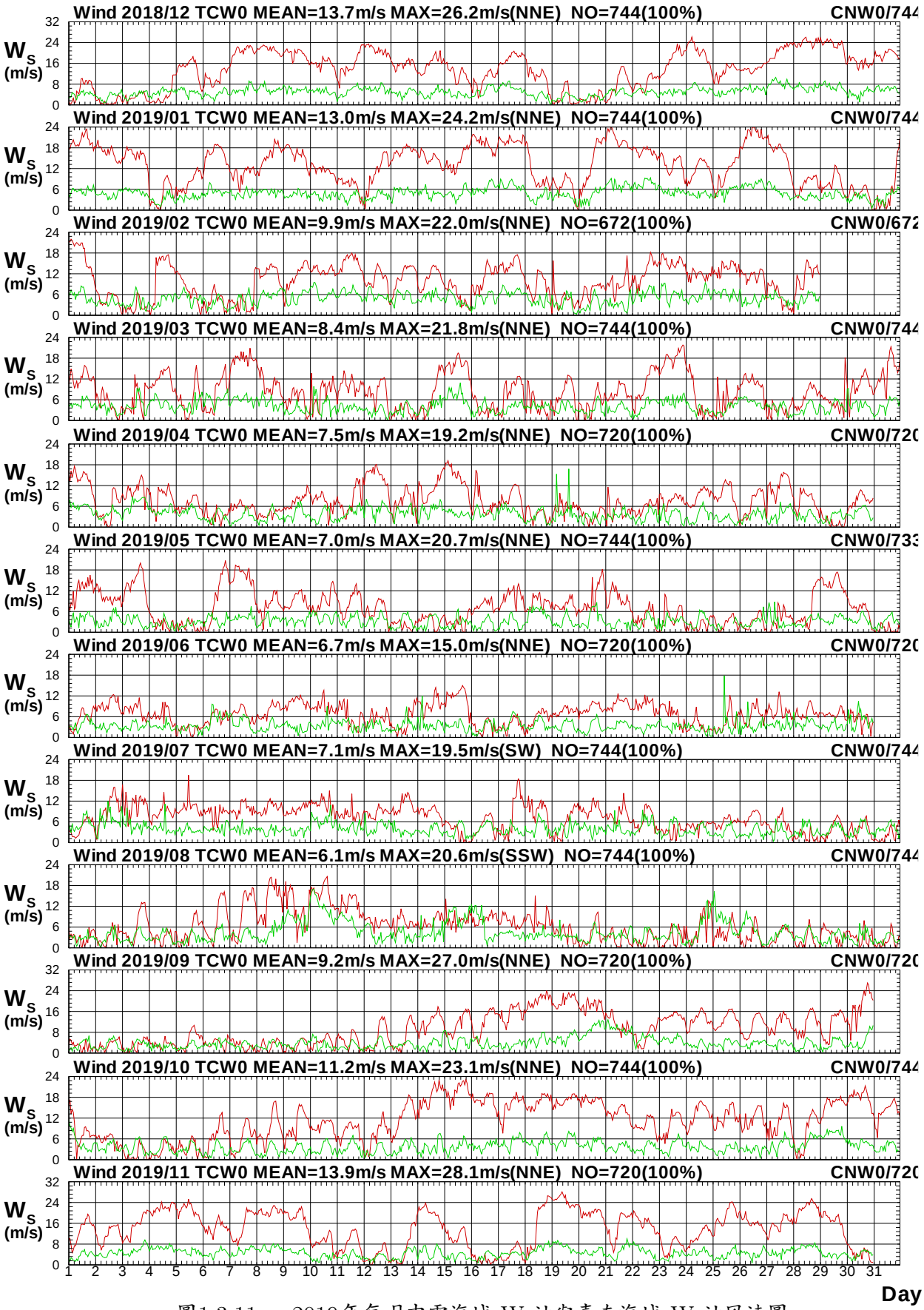

圖1.3.11a　2019年每月中雲海域 W 站與嘉南海域 W 站風速圖

W18CTCW0.1HA W18CCNW0.1H0 W191TCW0.1HA W191CNW0.1H0 W192TCW0.1HA W192CNW0.1H0
W193TCW0.1HA W193CNW0.1H0 W194TCW0.1HA W194CNW0.1H0 W195TCW0.1HA W195CNW0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

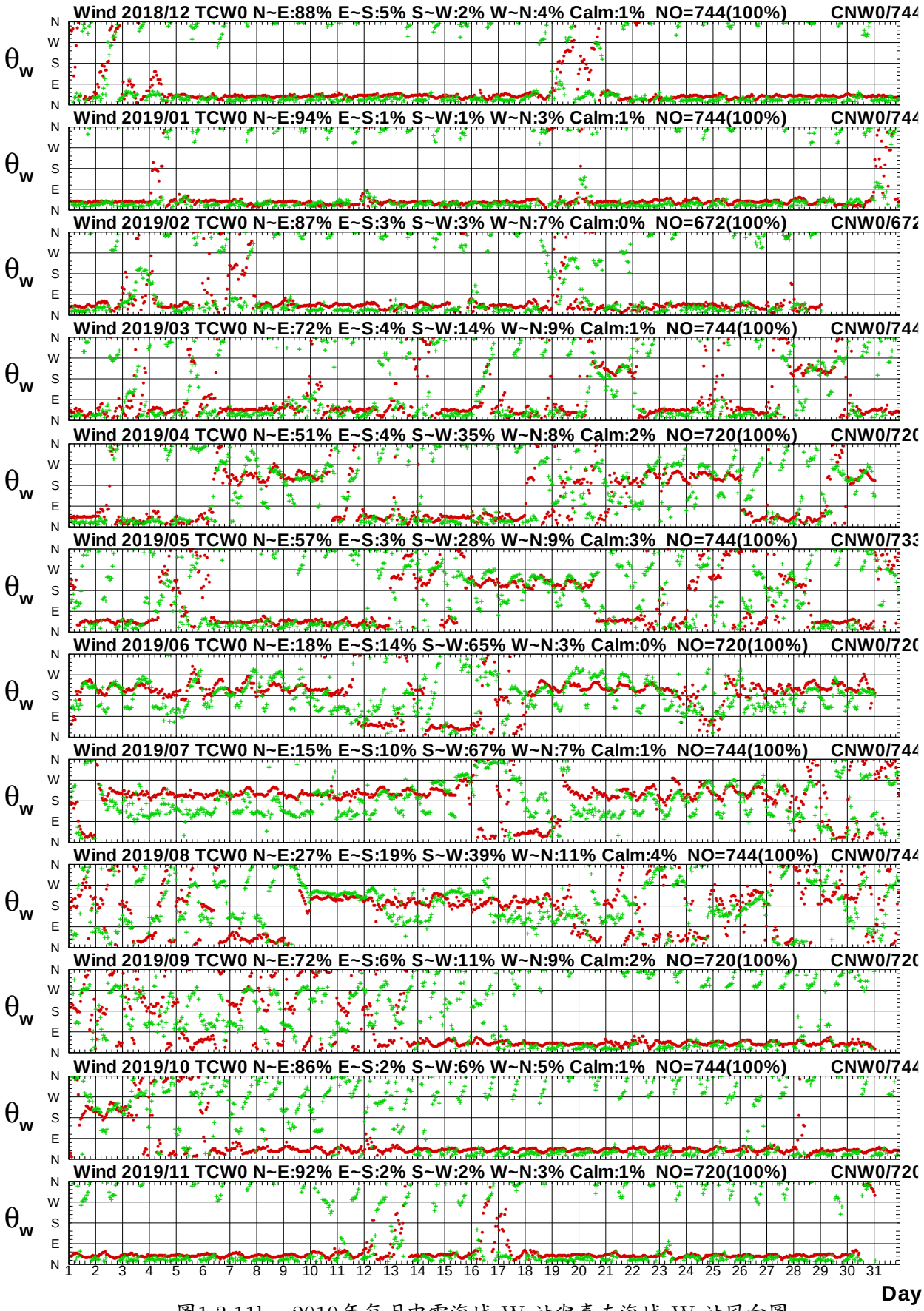

圖1.3.11b　2019年每月中雲海域 W 站與嘉南海域 W 站風向圖

W18CTCW0.1HA W18CCNW0.1H0 W191TCW0.1HA W191CNW0.1H0 W192TCW0.1HA W192CNW0.1H0
W193TCW0.1HA W193CNW0.1H0 W194TCW0.1HA W194CNW0.1H0 W195TCW0.1HA W195CNW0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

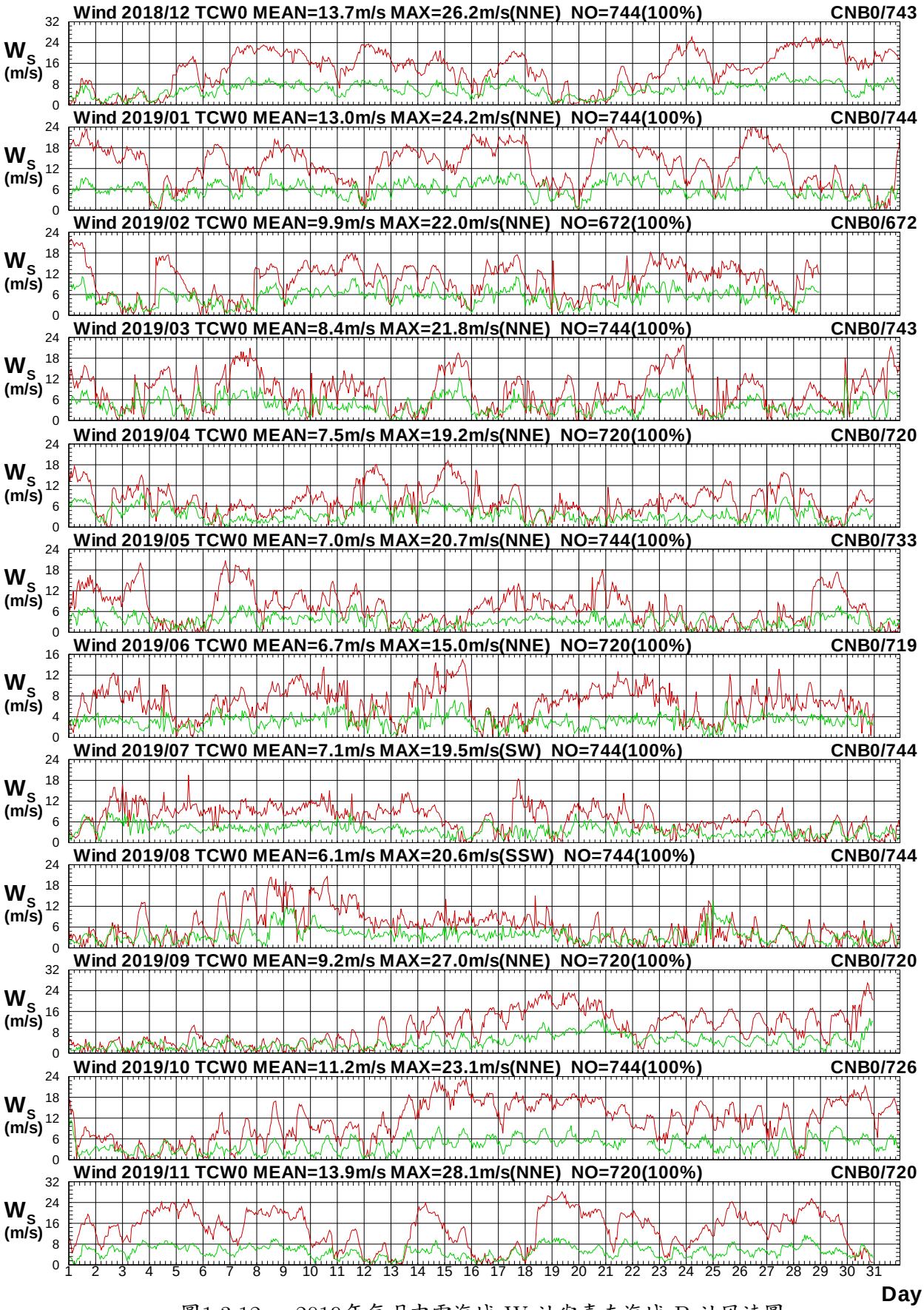

圖1.3.12a　2019年每月中雲海域 W 站與嘉南海域 B 站風速圖

W18CTCW0.1HA W18CCNB0.1H0 W191TCW0.1HA W191CNB0.1H0 W192TCW0.1HA W192CNB0.1H0
W193TCW0.1HA W193CNB0.1H0 W194TCW0.1HA W194CNB0.1H0 W195TCW0.1HA W195CNB0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

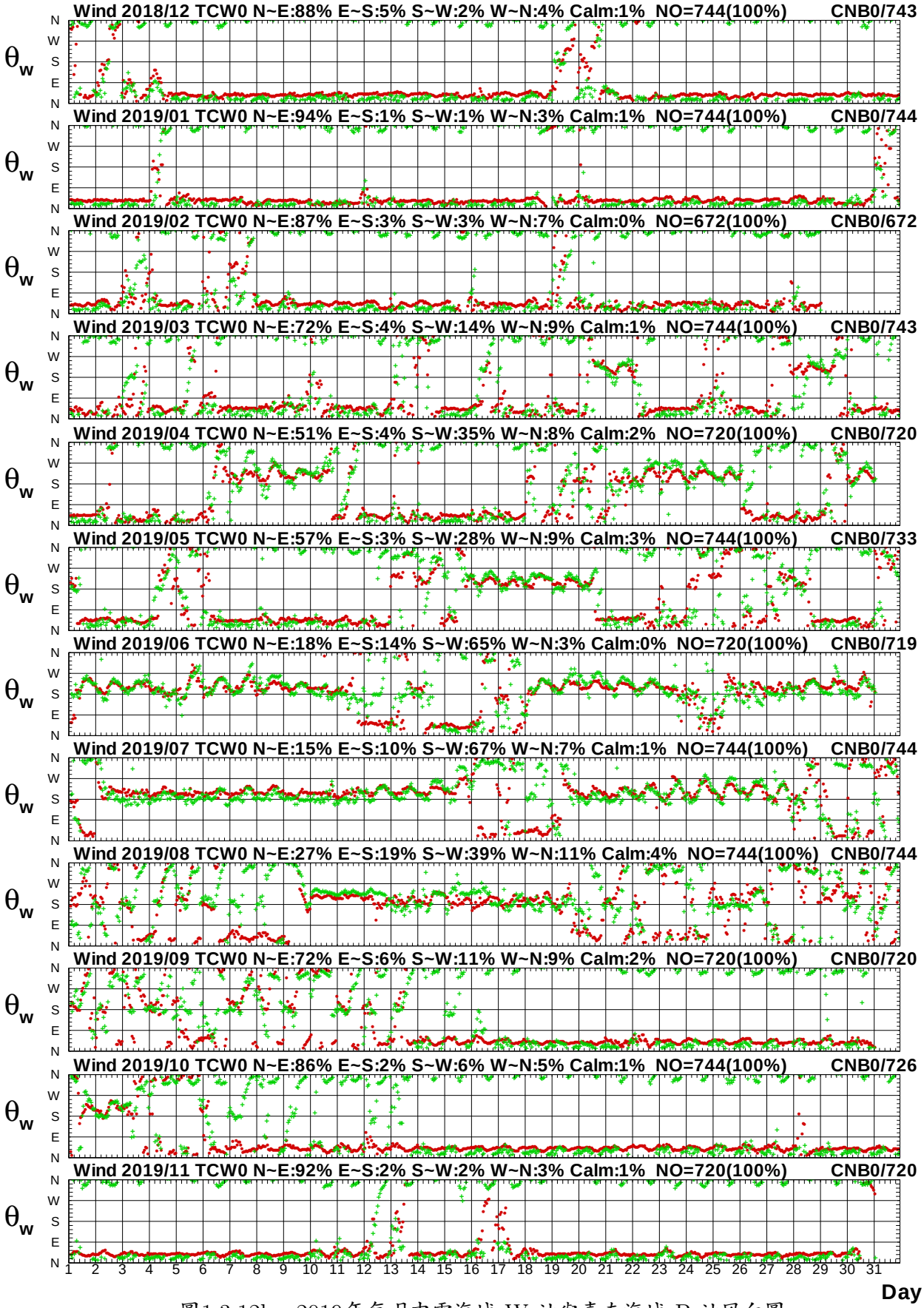

圖1.3.12b　2019年每月中雲海域 W 站與嘉南海域 B 站風向圖

W18CTCW0.1HA W18CCNB0.1H0 W191TCW0.1HA W191CNB0.1H0 W192TCW0.1HA W192CNB0.1H0
W193TCW0.1HA W193CNB0.1H0 W194TCW0.1HA W194CNB0.1H0 W195TCW0.1HA W195CNB0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

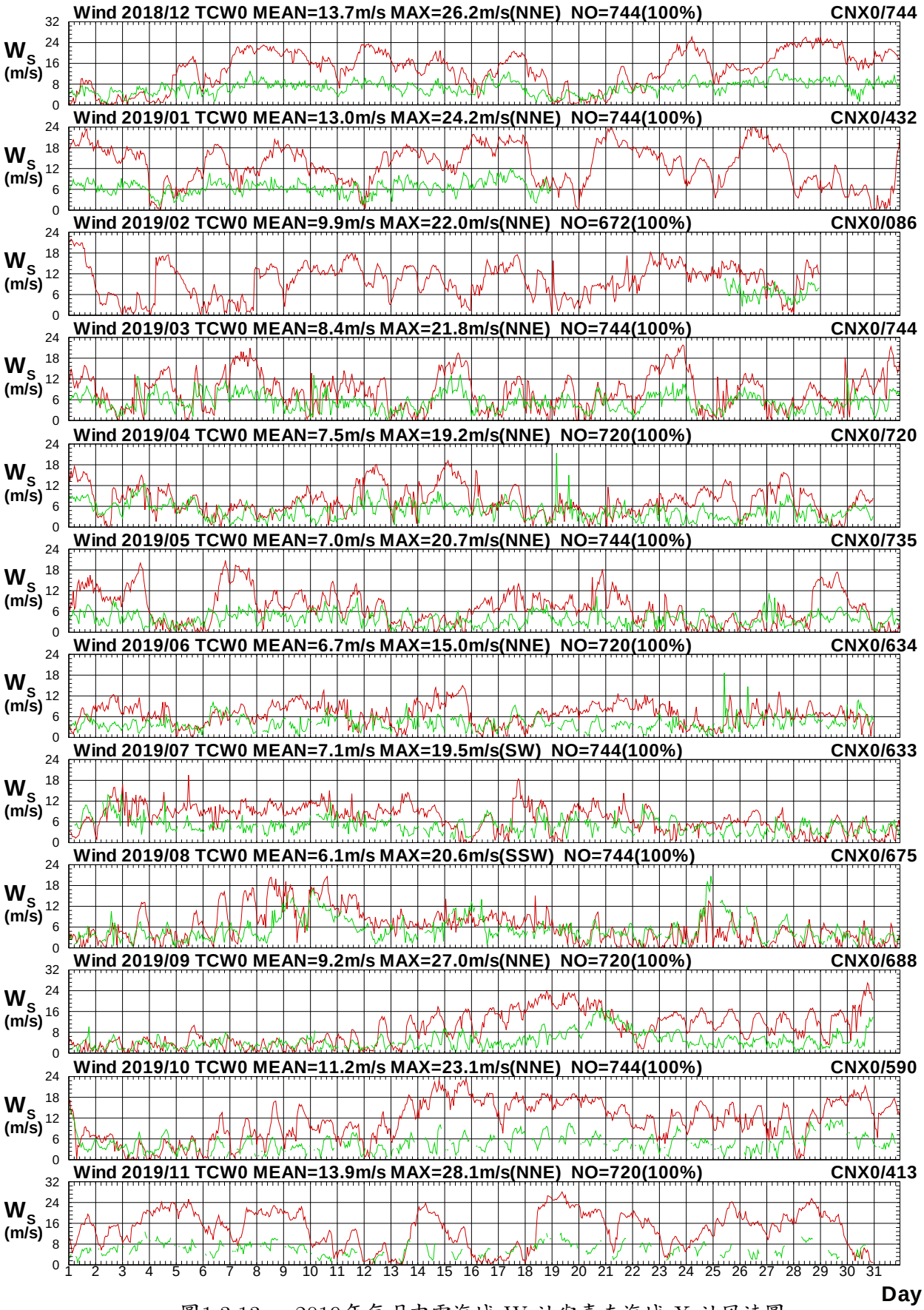

圖1.3.13a　2019年每月中雲海域 W 站與嘉南海域 X 站風速圖

W18CTCW0.1HA W18CCNX0.1H0 W191TCW0.1HA W191CNX0.1H0 W192TCW0.1HA W192CNX0.1H0
W193TCW0.1HA W193CNX0.1H0 W194TCW0.1HA W194CNX0.1H0 W195TCW0.1HA W195CNX0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

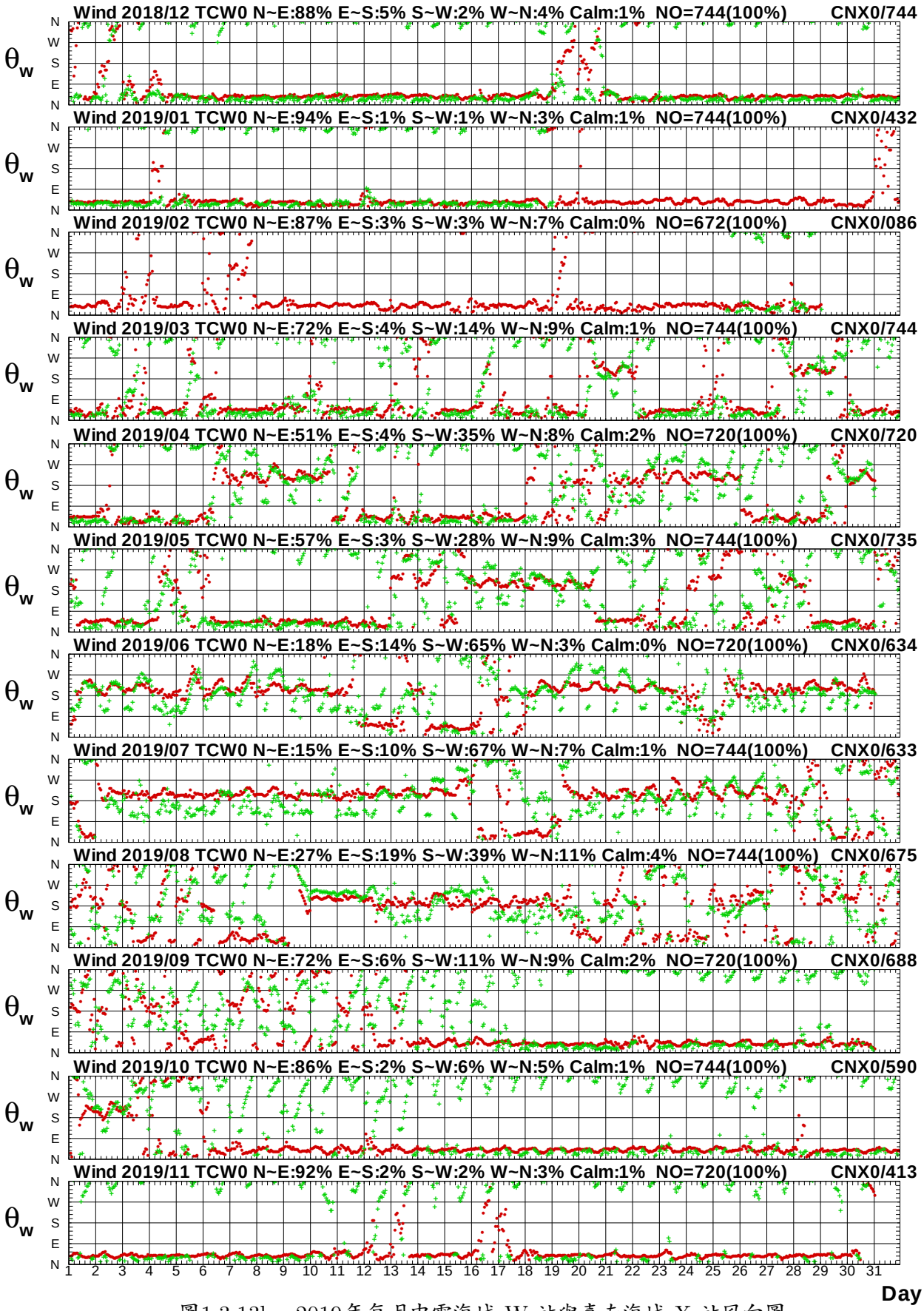

圖1.3.13b　2019年每月中雲海域 W 站與嘉南海域 X 站風向圖

W18CTCW0.1HA W18CCNX0.1H0 W191TCW0.1HA W191CNX0.1H0 W192TCW0.1HA W192CNX0.1H0
W193TCW0.1HA W193CNX0.1H0 W194TCW0.1HA W194CNX0.1H0 W195TCW0.1HA W195CNX0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

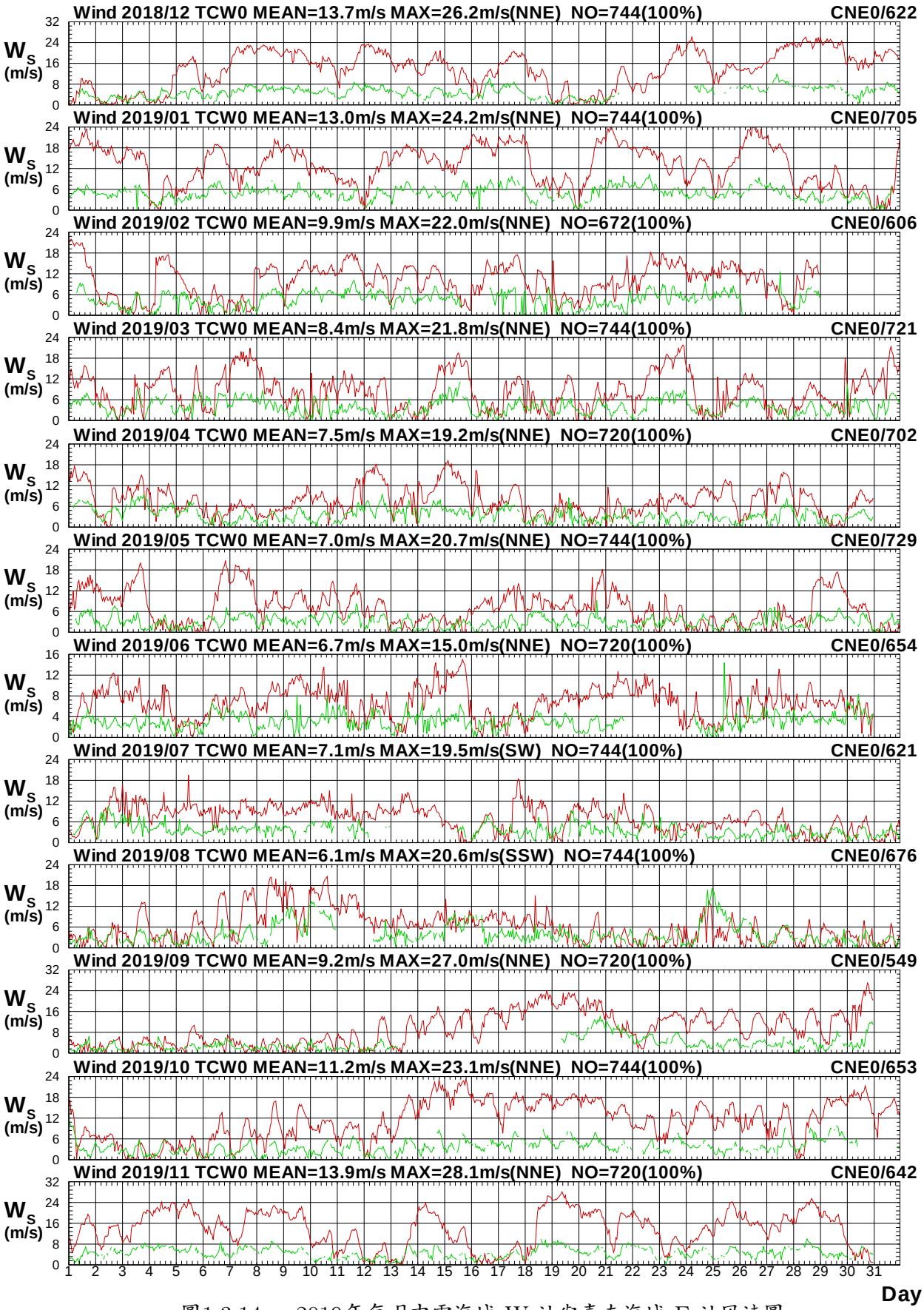

圖1.3.14a　2019年每月中雲海域 W 站與嘉南海域 E 站風速圖

W18CTCW0.1HA W18CCNE0.1H0 W191TCW0.1HA W191CNE0.1H0 W192TCW0.1HA W192CNE0.1H0
W193TCW0.1HA W193CNE0.1H0 W194TCW0.1HA W194CNE0.1H0 W195TCW0.1HA W195CNE0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

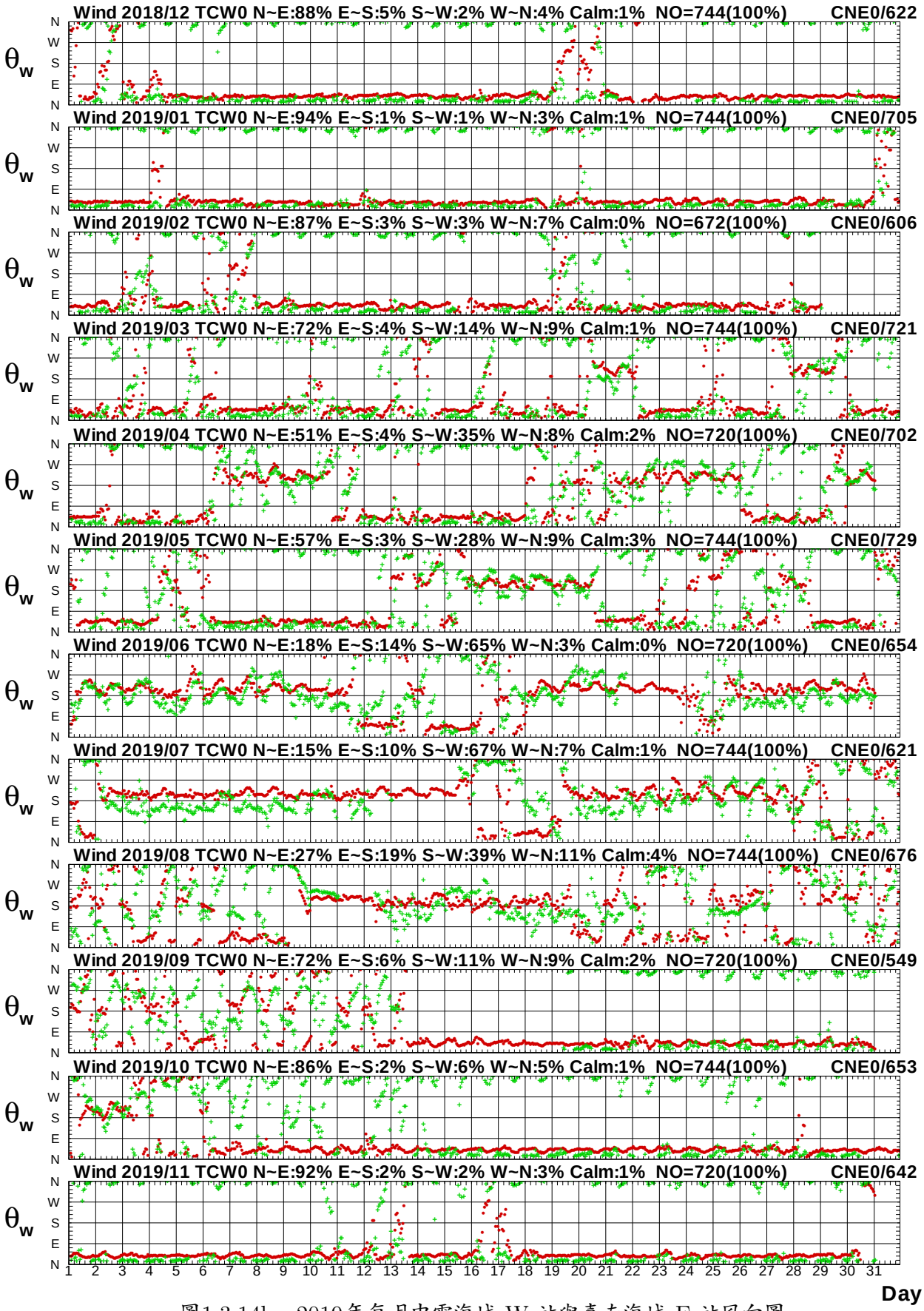

圖1.3.14b　2019年每月中雲海域 W 站與嘉南海域 E 站風向圖

W18CTCW0.1HA W18CCNE0.1H0 W191TCW0.1HA W191CNE0.1H0 W192TCW0.1HA W192CNE0.1H0
W193TCW0.1HA W193CNE0.1H0 W194TCW0.1HA W194CNE0.1H0 W195TCW0.1HA W195CNE0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

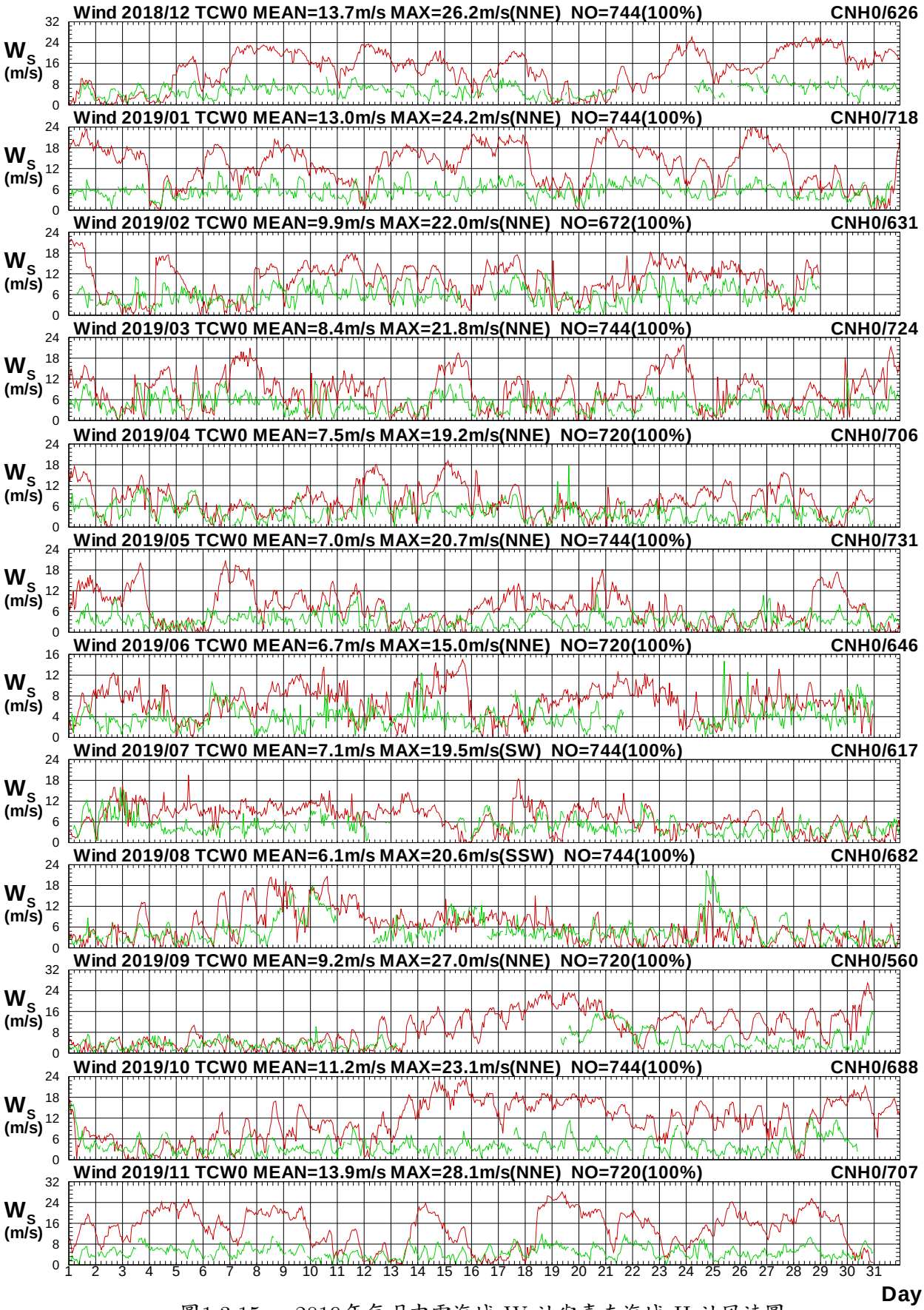

圖1.3.15a　2019年每月中雲海域 W 站與嘉南海域 H 站風速圖

W18CTCW0.1HA W18CCNH0.1H0 W191TCW0.1HA W191CNH0.1H0 W192TCW0.1HA W192CNH0.1H0
W193TCW0.1HA W193CNH0.1H0 W194TCW0.1HA W194CNH0.1H0 W195TCW0.1HA W195CNH0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

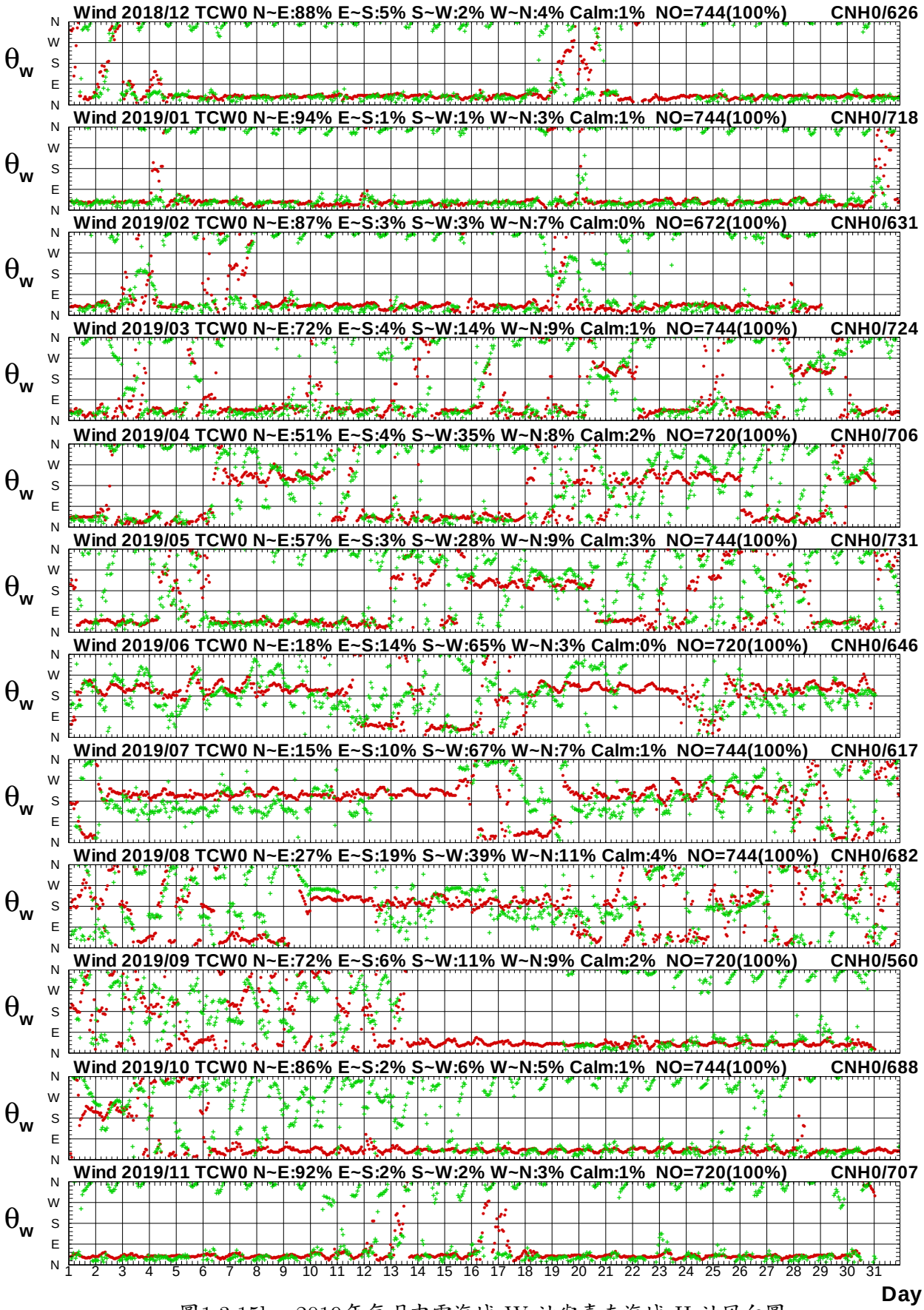

圖1.3.15b　2019年每月中雲海域 W 站與嘉南海域 H 站風向圖

W18CTCW0.1HA W18CCNH0.1H0 W191TCW0.1HA W191CNH0.1H0 W192TCW0.1HA W192CNH0.1H0
W193TCW0.1HA W193CNH0.1H0 W194TCW0.1HA W194CNH0.1H0 W195TCW0.1HA W195CNH0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

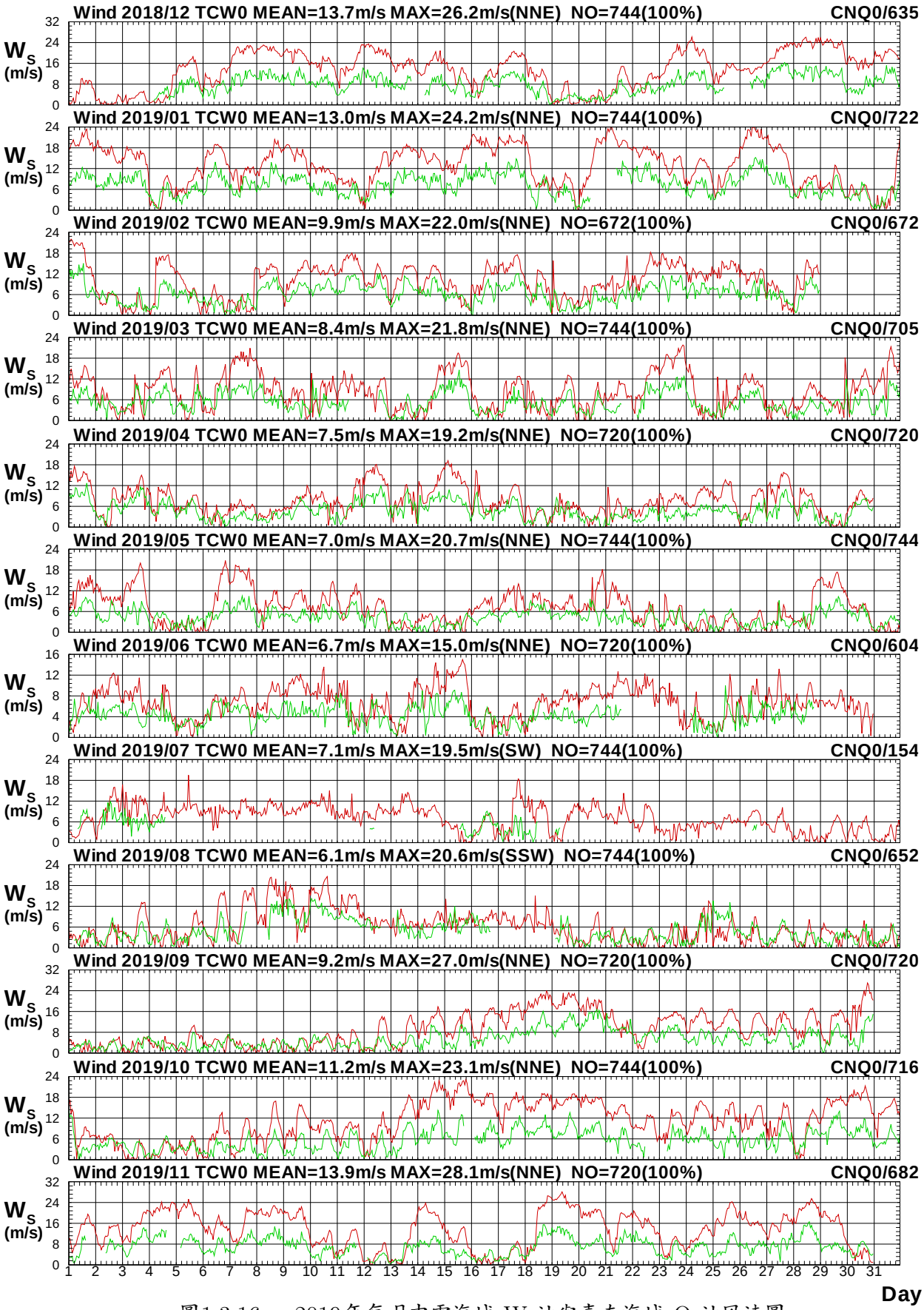

圖1.3.16a　2019年每月中雲海域 W 站與嘉南海域 Q 站風速圖

W18CTCW0.1HA W18CCNQ0.1H0 W191TCW0.1HA W191CNQ0.1H0 W192TCW0.1HA W192CNQ0.1H0
W193TCW0.1HA W193CNQ0.1H0 W194TCW0.1HA W194CNQ0.1H0 W195TCW0.1HA W195CNQ0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

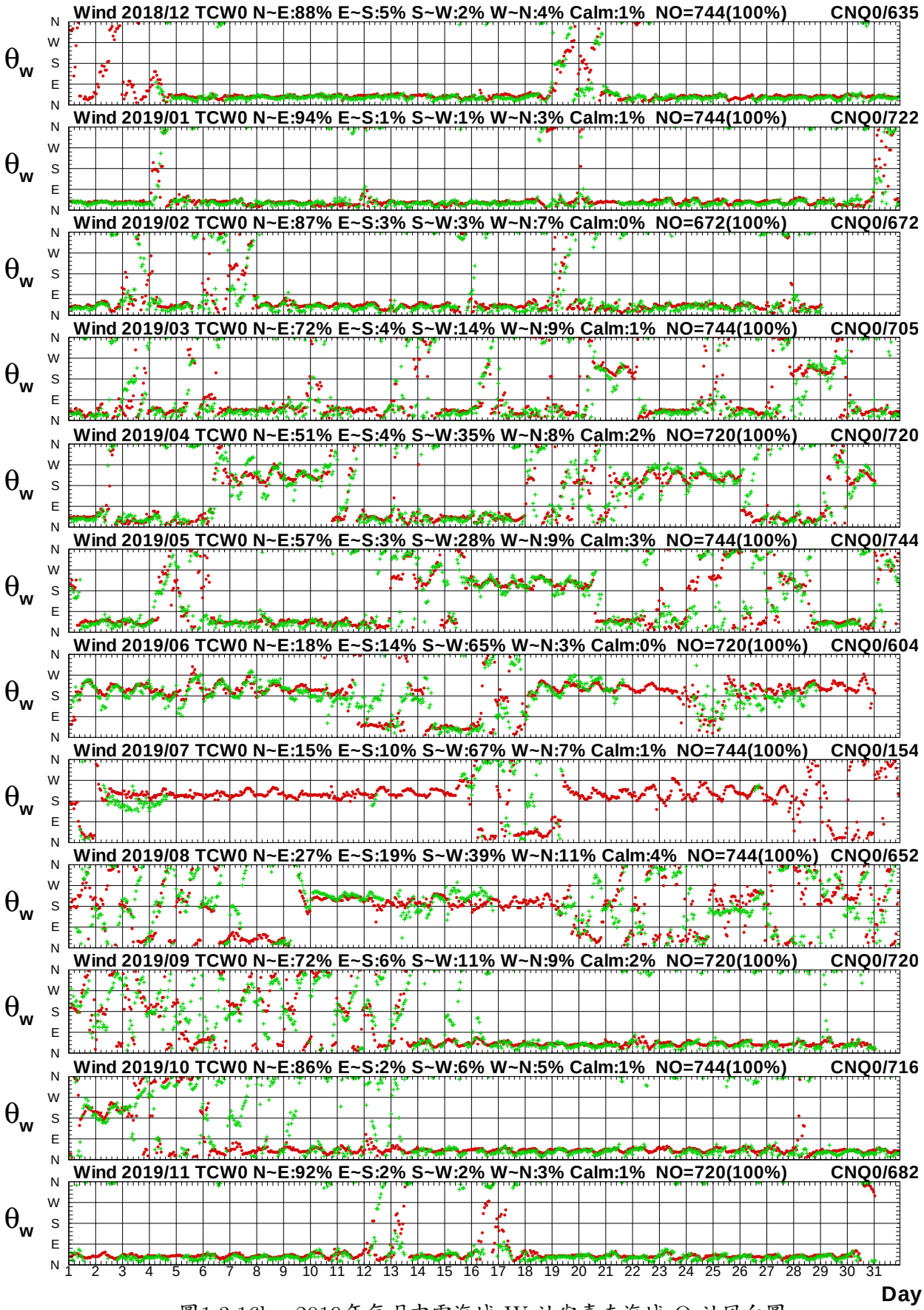

圖1.3.16b　2019年每月中雲海域 W 站與嘉南海域 Q 站風向圖

W18CTCW0.1HA W18CCNQ0.1H0 W191TCW0.1HA W191CNQ0.1H0 W192TCW0.1HA W192CNQ0.1H0
W193TCW0.1HA W193CNQ0.1H0 W194TCW0.1HA W194CNQ0.1H0 W195TCW0.1HA W195CNQ0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

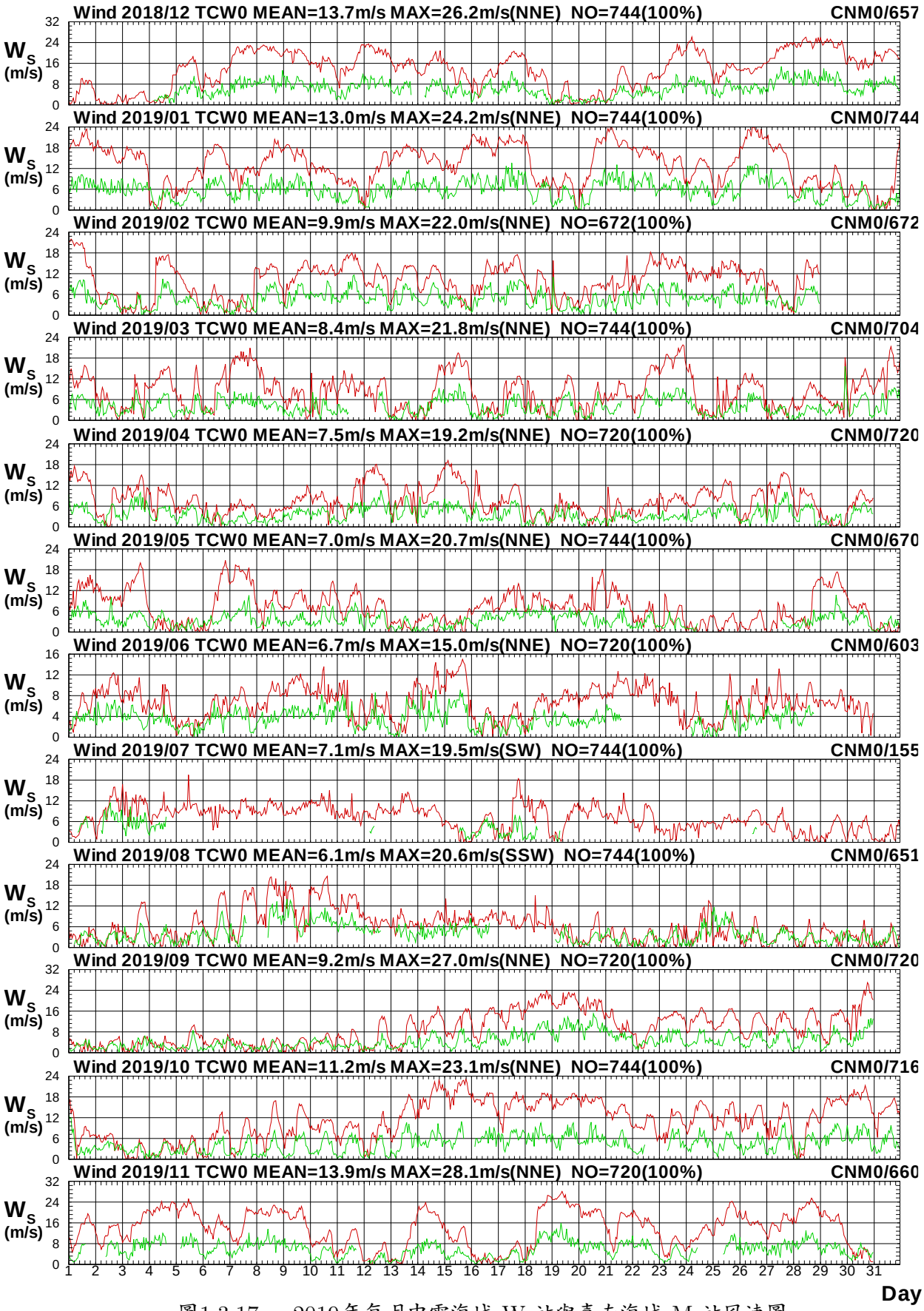

圖1.3.17a　2019年每月中雲海域 W 站與嘉南海域 M 站風速圖

W18CTCW0.1HA W18CCNM0.1H0 W191TCW0.1HA W191CNM0.1H0 W192TCW0.1HA W192CNM0.1H0
W193TCW0.1HA W193CNM0.1H0 W194TCW0.1HA W194CNM0.1H0 W195TCW0.1HA W195CNM0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

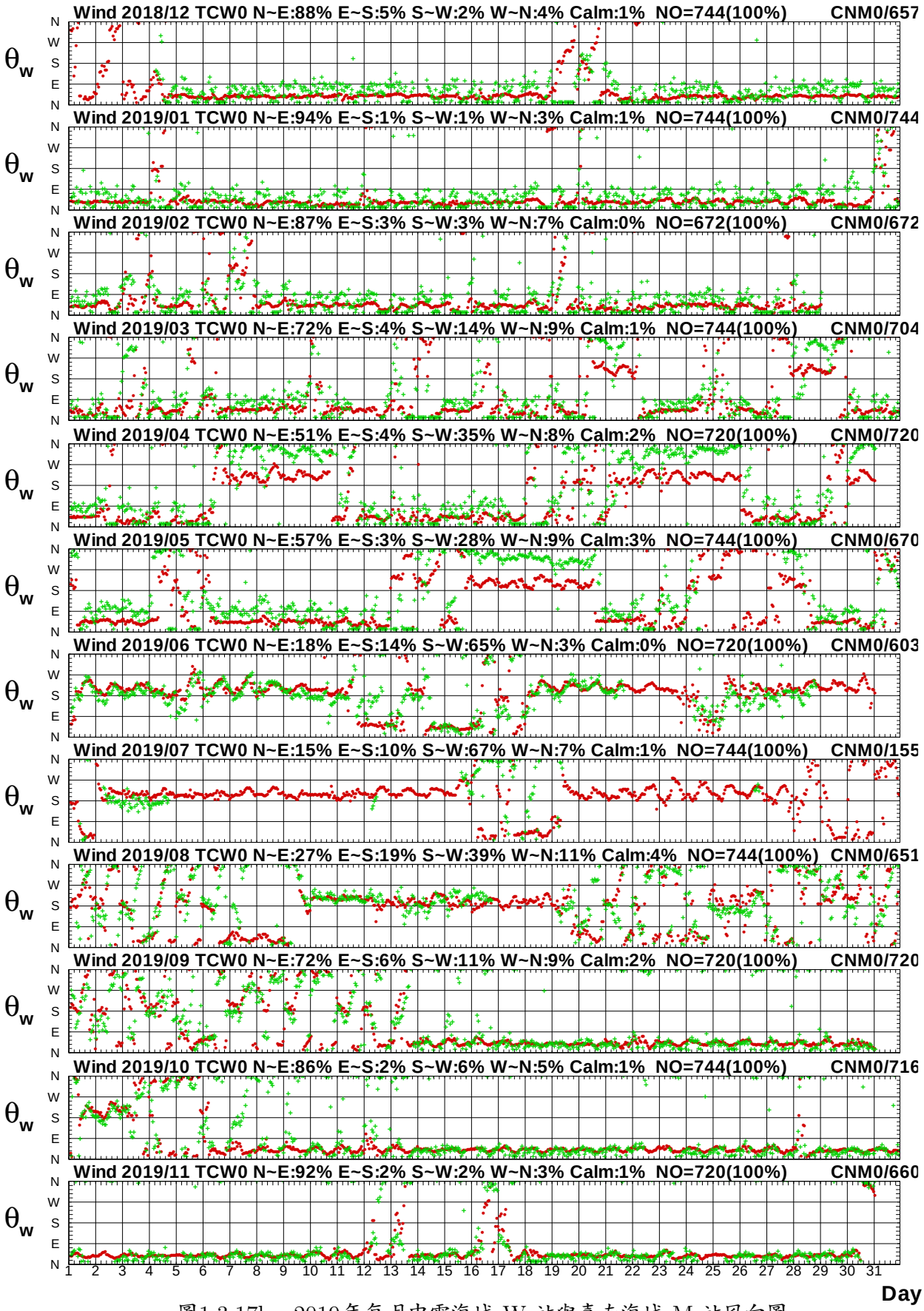

圖1.3.17b　2019年每月中雲海域 W 站與嘉南海域 M 站風向圖

W18CTCW0.1HA W18CCNM0.1H0 W191TCW0.1HA W191CNM0.1H0 W192TCW0.1HA W192CNM0.1H0
W193TCW0.1HA W193CNM0.1H0 W194TCW0.1HA W194CNM0.1H0 W195TCW0.1HA W195CNM0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

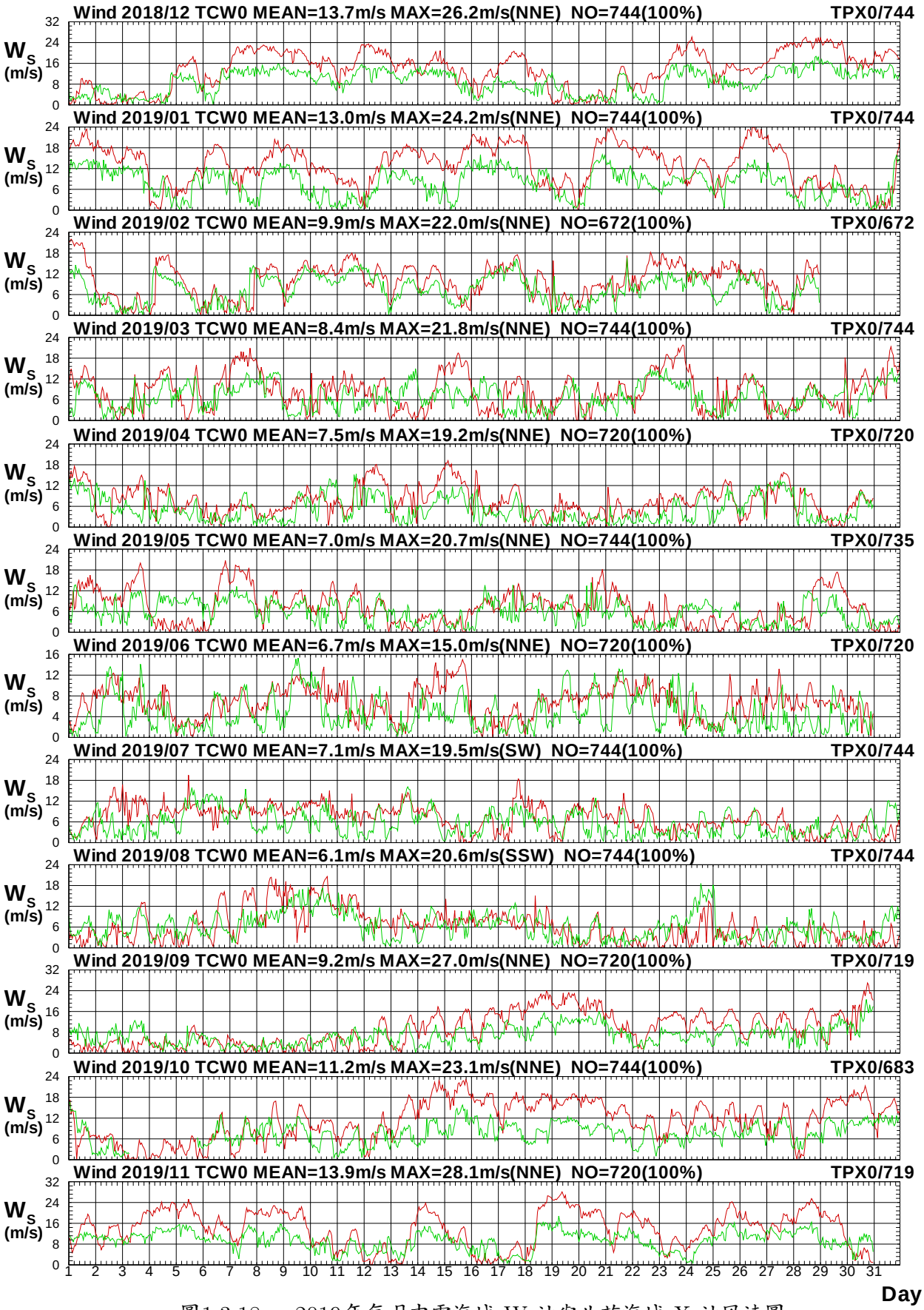

圖1.3.18a　2019年每月中雲海域 W 站與北苗海域 X 站風速圖

W18CTCW0.1HA W18CTPX0.1H0 W191TCW0.1HA W191TPX0.1H0 W192TCW0.1HA W192TPX0.1H0
W193TCW0.1HA W193TPX0.1H0 W194TCW0.1HA W194TPX0.1H0 W195TCW0.1HA W195TPX0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

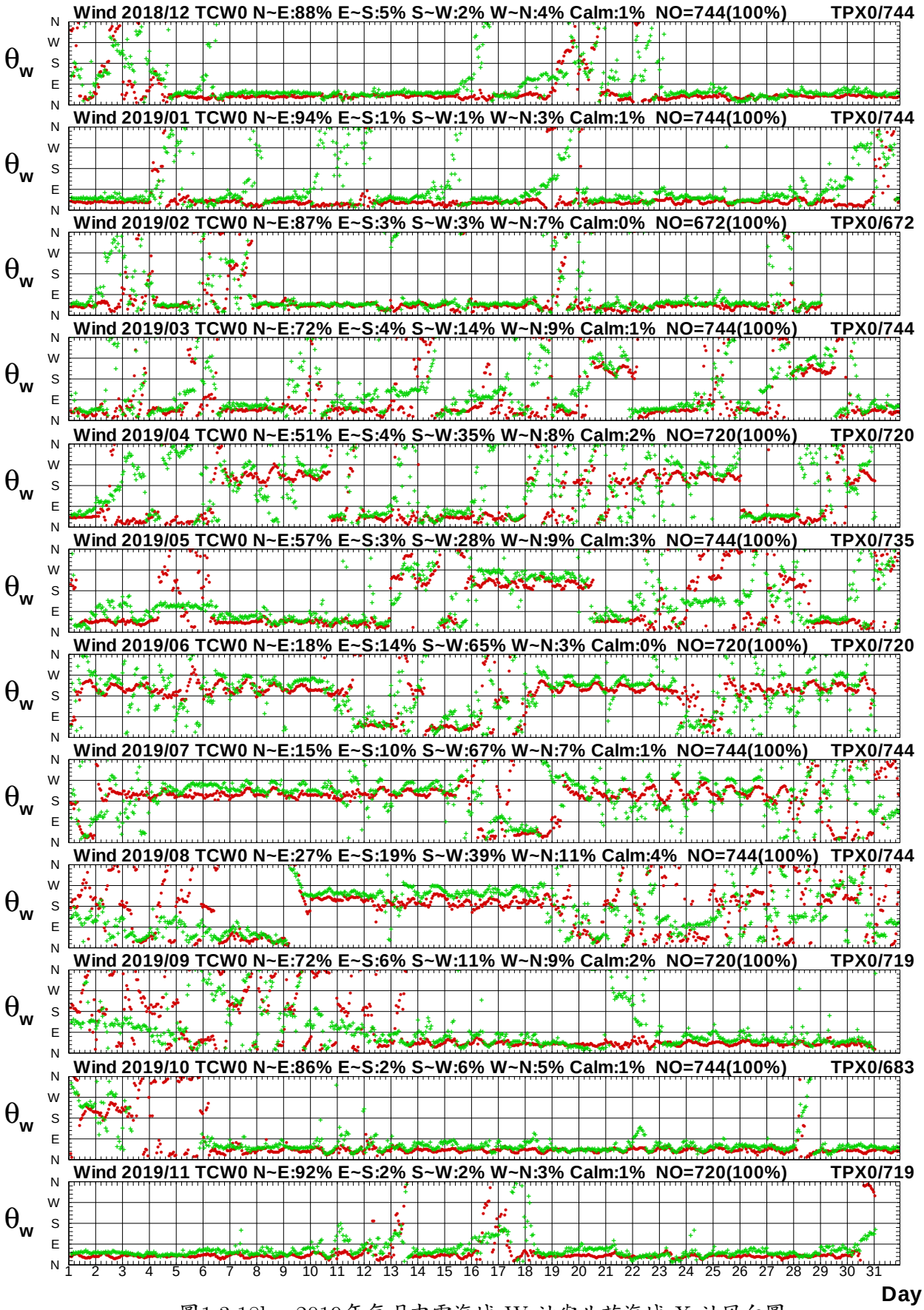

圖1.3.18b　2019年每月中雲海域 W 站與北苗海域 X 站風向圖

W18CTCW0.1HA W18CTPX0.1H0 W191TCW0.1HA W191TPX0.1H0 W192TCW0.1HA W192TPX0.1H0
W193TCW0.1HA W193TPX0.1H0 W194TCW0.1HA W194TPX0.1H0 W195TCW0.1HA W195TPX0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

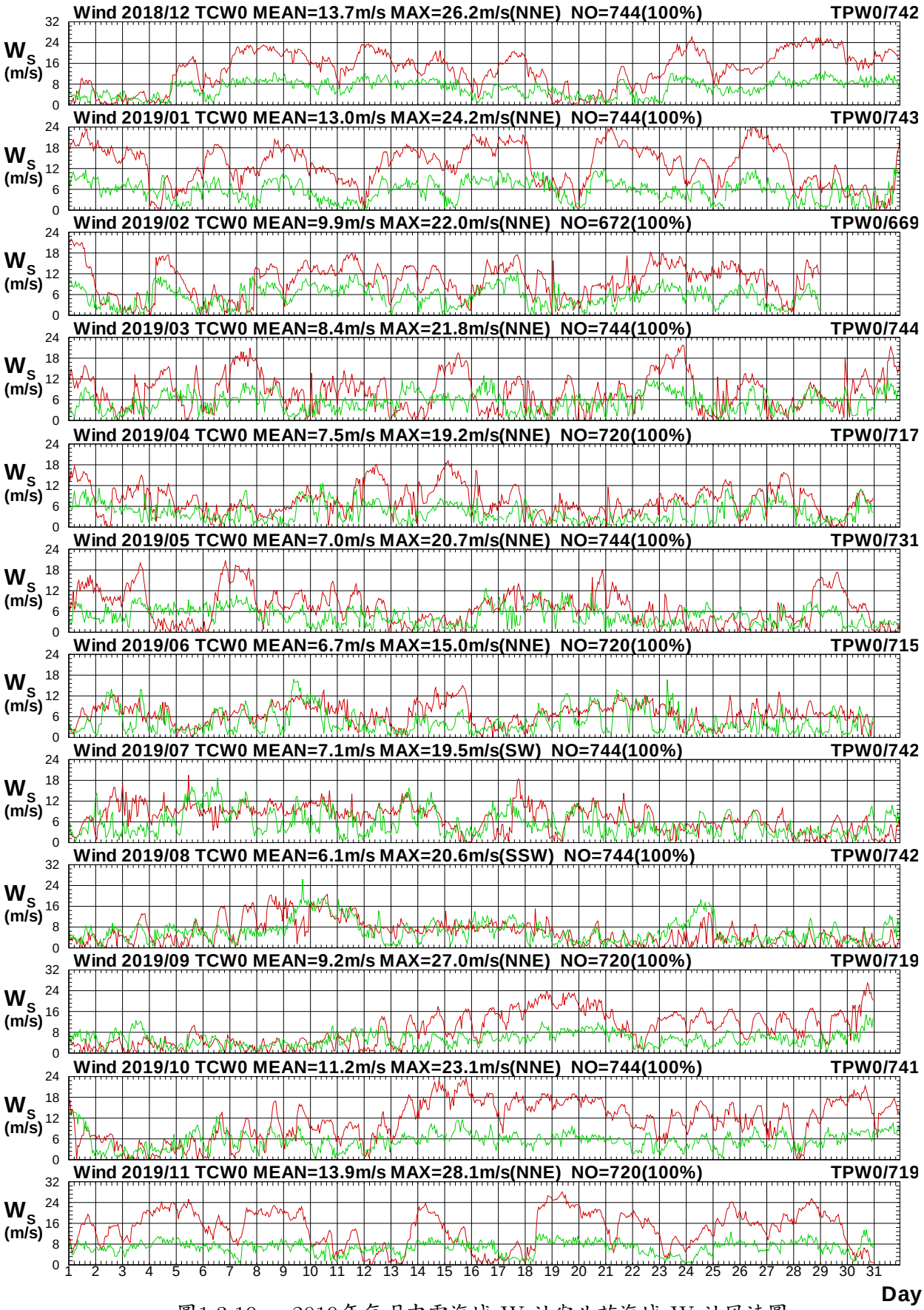

圖1.3.19a　2019年每月中雲海域 W 站與北苗海域 W 站風速圖

W18CTCW0.1HA W18CTPW0.1H0 W191TCW0.1HA W191TPW0.1H0 W192TCW0.1HA W192TPW0.1H0
W193TCW0.1HA W193TPW0.1H0 W194TCW0.1HA W194TPW0.1H0 W195TCW0.1HA W195TPW0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

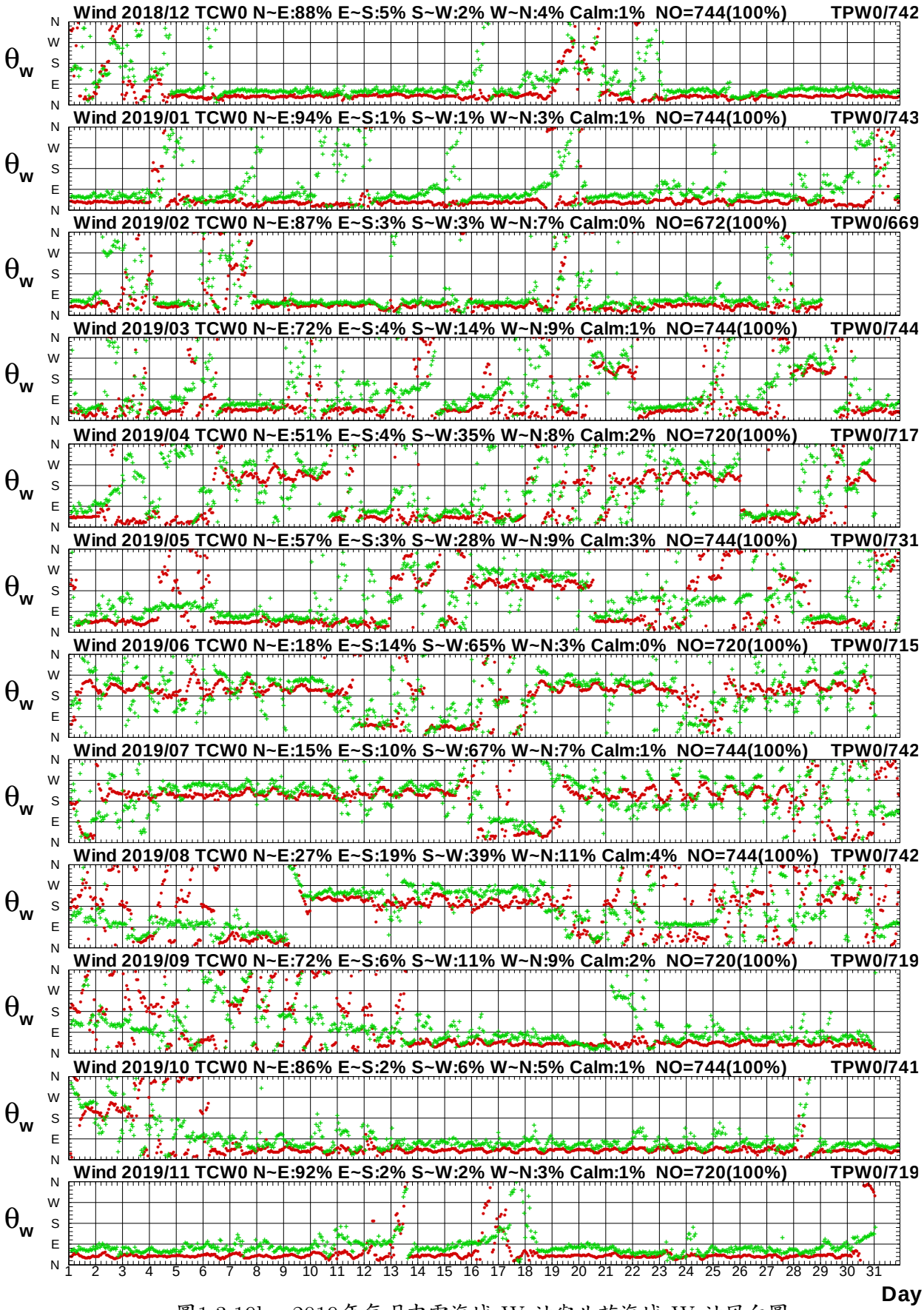

圖1.3.19b　2019年每月中雲海域 W 站與北苗海域 W 站風向圖

W18CTCW0.1HA W18CTPW0.1H0 W191TCW0.1HA W191TPW0.1H0 W192TCW0.1HA W192TPW0.1H0
W193TCW0.1HA W193TPW0.1H0 W194TCW0.1HA W194TPW0.1H0 W195TCW0.1HA W195TPW0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

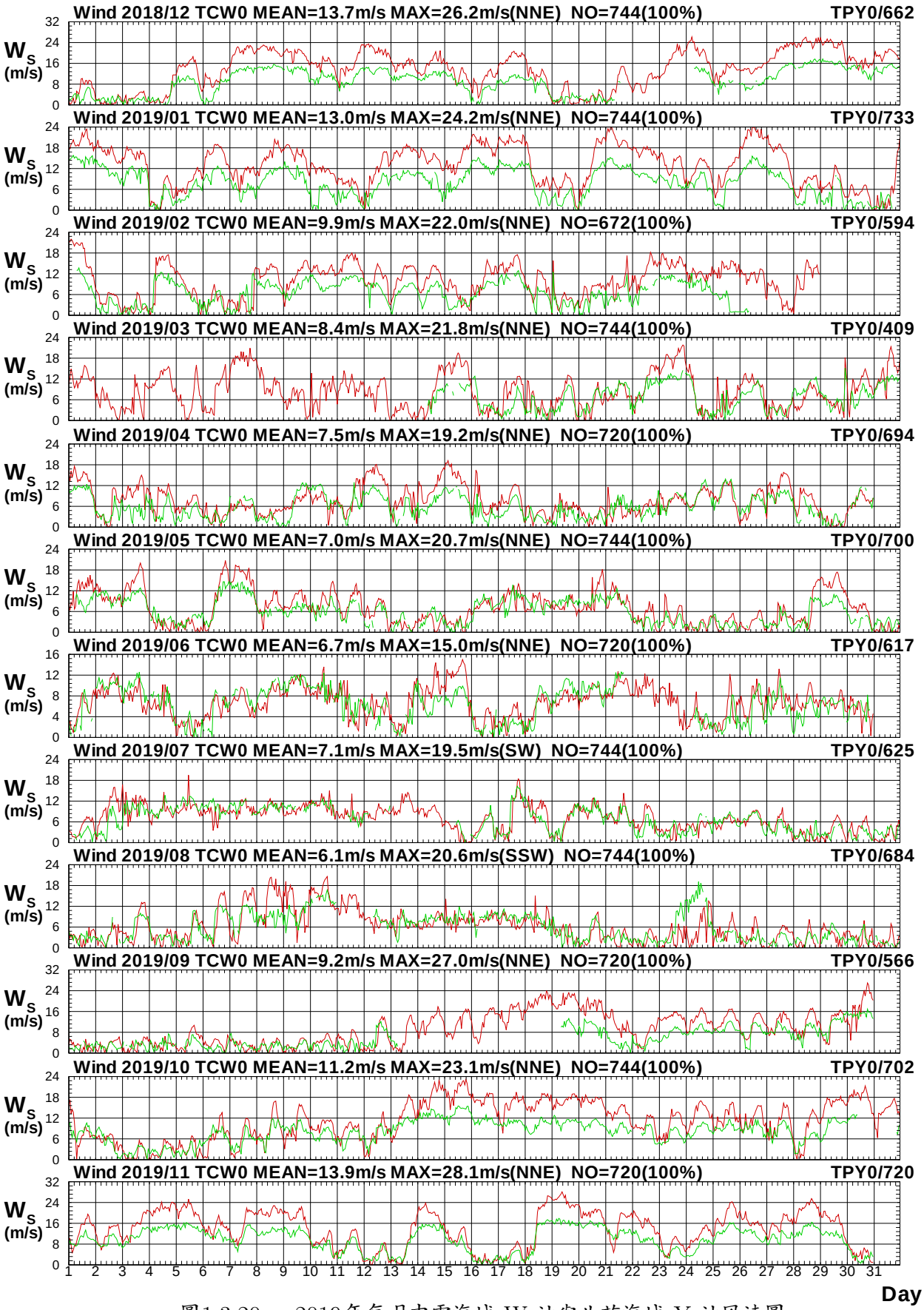

圖1.3.20a　2019年每月中雲海域 W 站與北苗海域 Y 站風速圖

W18CTCW0.1HA W18CTPY0.1H0 W191TCW0.1HA W191TPY0.1H0 W192TCW0.1HA W192TPY0.1H0
W193TCW0.1HA W193TPY0.1H0 W194TCW0.1HA W194TPY0.1H0 W195TCW0.1HA W195TPY0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

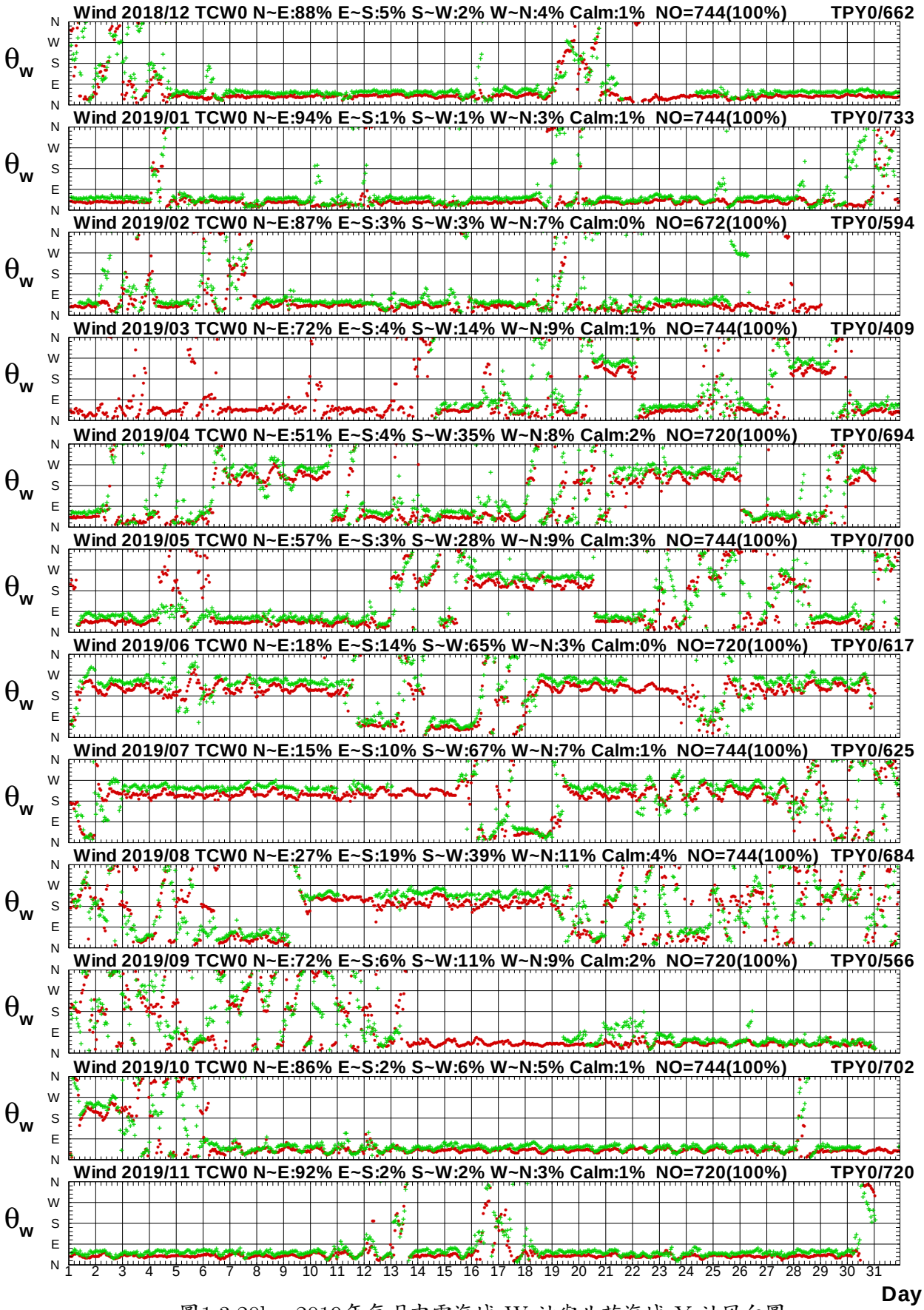

圖1.3.20b　2019年每月中雲海域 W 站與北苗海域 Y 站風向圖

W18CTCW0.1HA W18CTPY0.1H0 W191TCW0.1HA W191TPY0.1H0 W192TCW0.1HA W192TPY0.1H0
W193TCW0.1HA W193TPY0.1H0 W194TCW0.1HA W194TPY0.1H0 W195TCW0.1HA W195TPY0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

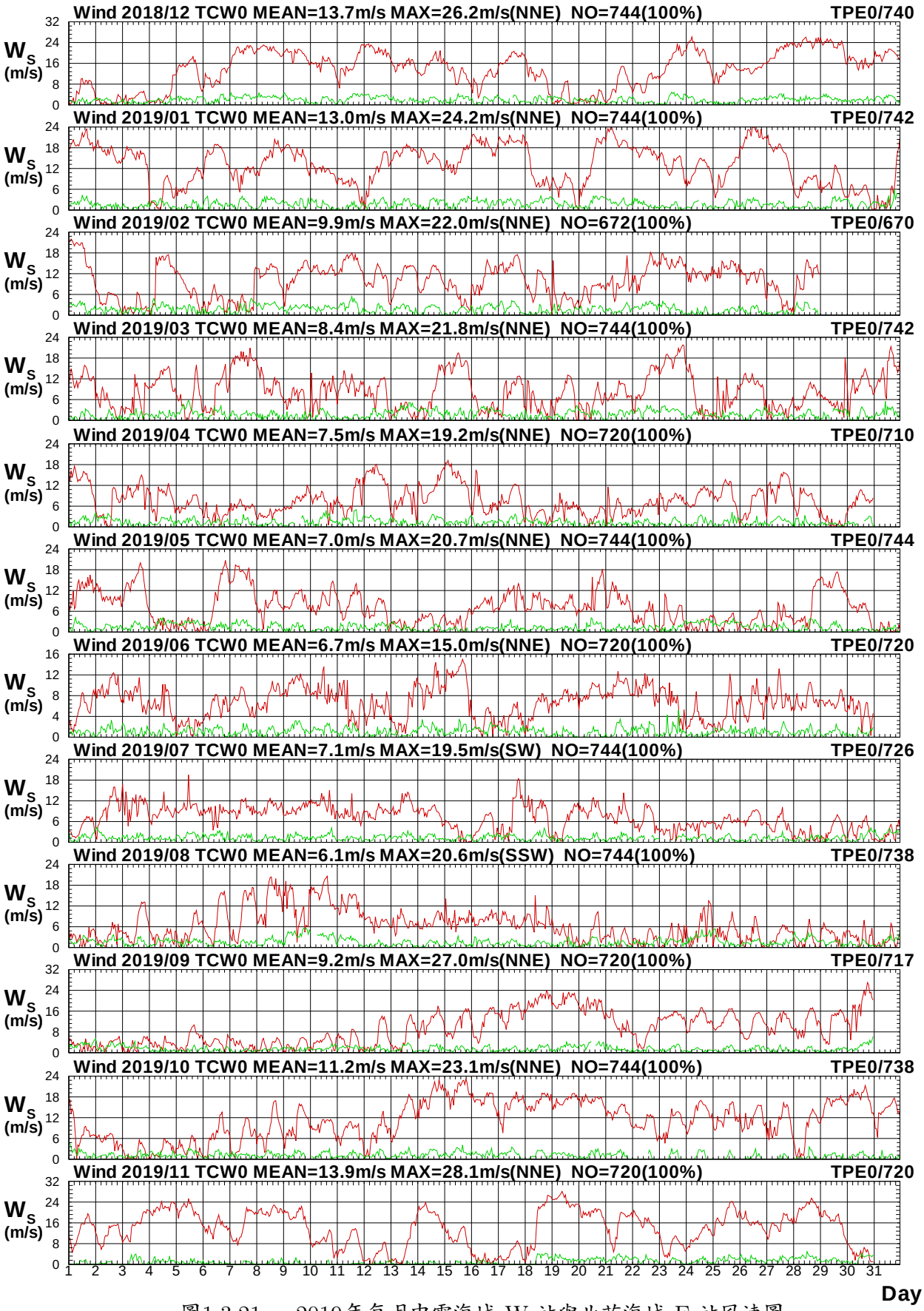

圖1.3.21a　2019年每月中雲海域 W 站與北苗海域 E 站風速圖

W18CTCW0.1HA W18CTPE0.1H0 W191TCW0.1HA W191TPE0.1H0 W192TCW0.1HA W192TPE0.1H0
W193TCW0.1HA W193TPE0.1H0 W194TCW0.1HA W194TPE0.1H0 W195TCW0.1HA W195TPE0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

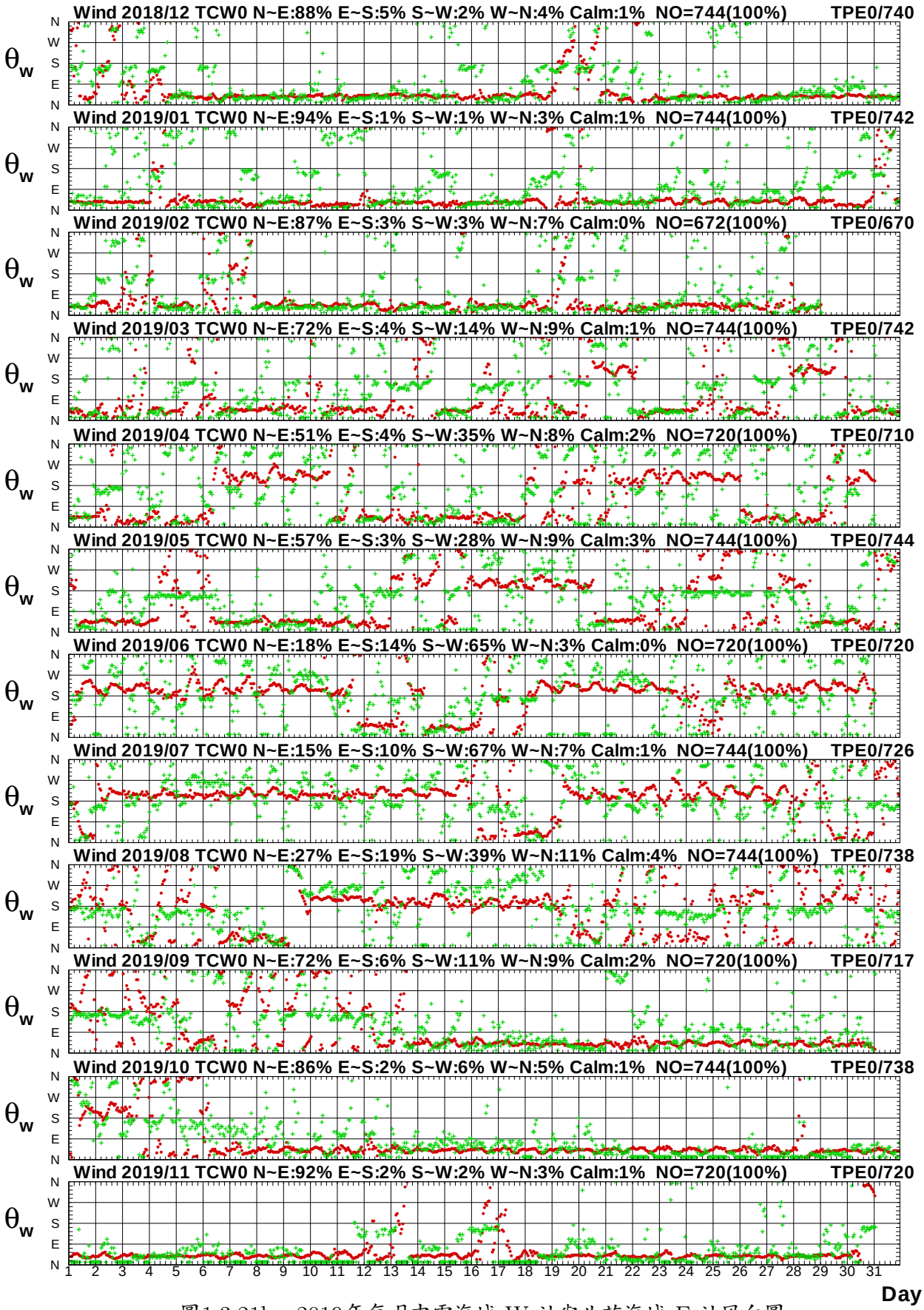

圖1.3.21b　2019年每月中雲海域 W 站與北苗海域 E 站風向圖

W18CTCW0.1HA W18CTPE0.1H0 W191TCW0.1HA W191TPE0.1H0 W192TCW0.1HA W192TPE0.1H0
W193TCW0.1HA W193TPE0.1H0 W194TCW0.1HA W194TPE0.1H0 W195TCW0.1HA W195TPE0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

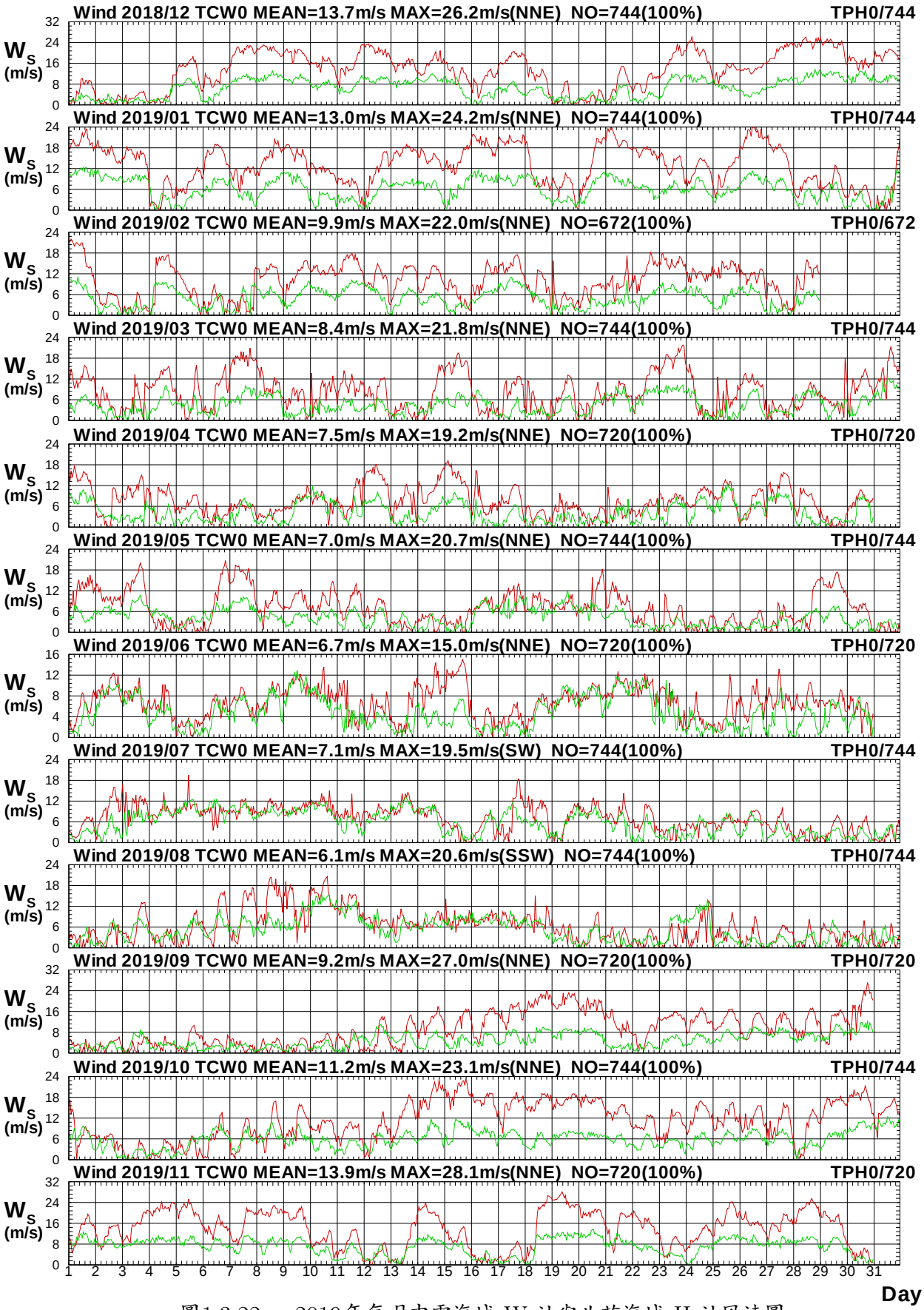

圖1.3.22a　2019年每月中雲海域 W 站與北苗海域 H 站風速圖

W18CTCW0.1HA W18CTPH0.1H0 W191TCW0.1HA W191TPH0.1H0 W192TCW0.1HA W192TPH0.1H0
W193TCW0.1HA W193TPH0.1H0 W194TCW0.1HA W194TPH0.1H0 W195TCW0.1HA W195TPH0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

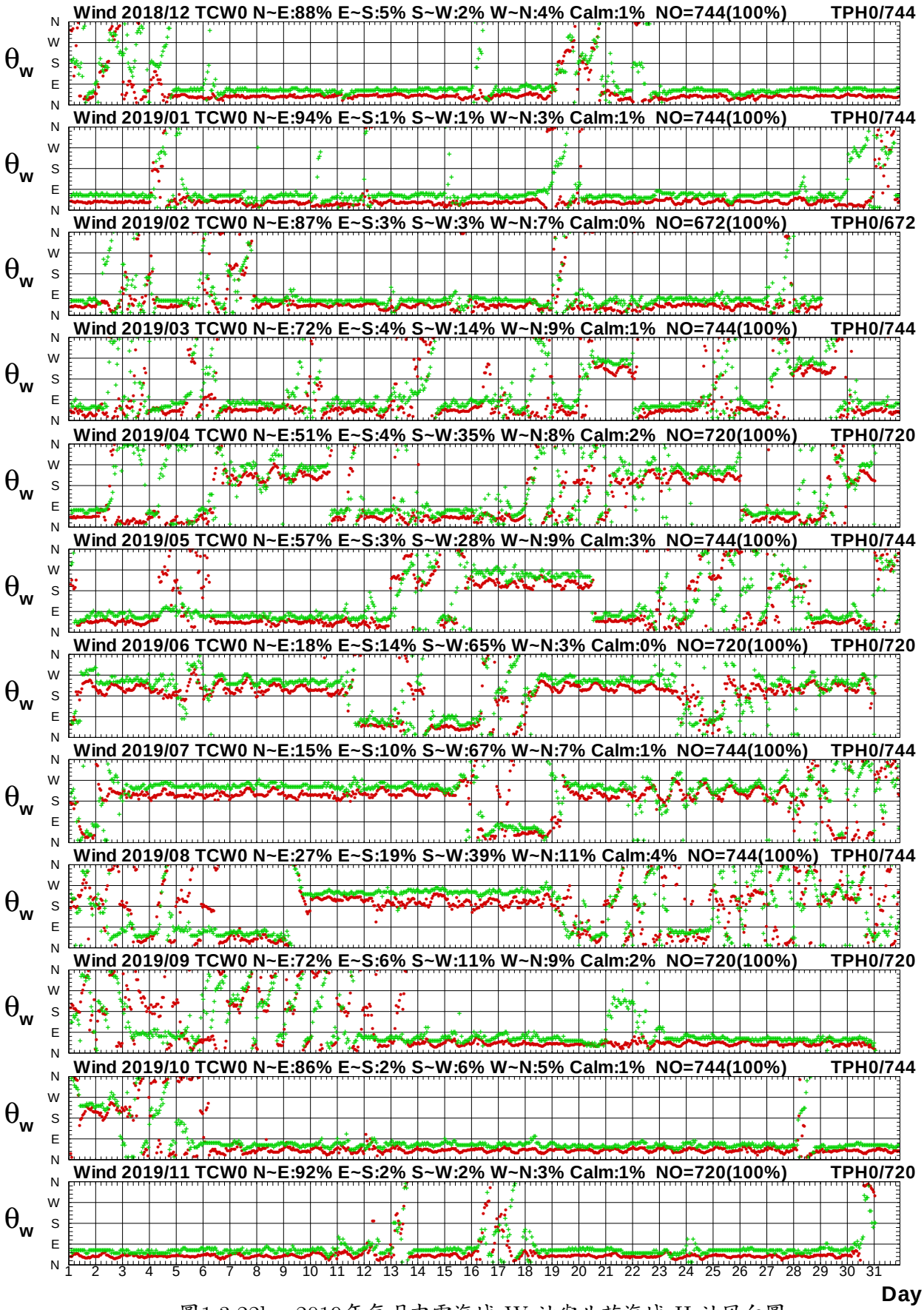

圖1.3.22b　2019年每月中雲海域 W 站與北苗海域 H 站風向圖

W18CTCW0.1HA W18CTPH0.1H0 W191TCW0.1HA W191TPH0.1H0 W192TCW0.1HA W192TPH0.1H0
W193TCW0.1HA W193TPH0.1H0 W194TCW0.1HA W194TPH0.1H0 W195TCW0.1HA W195TPH0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

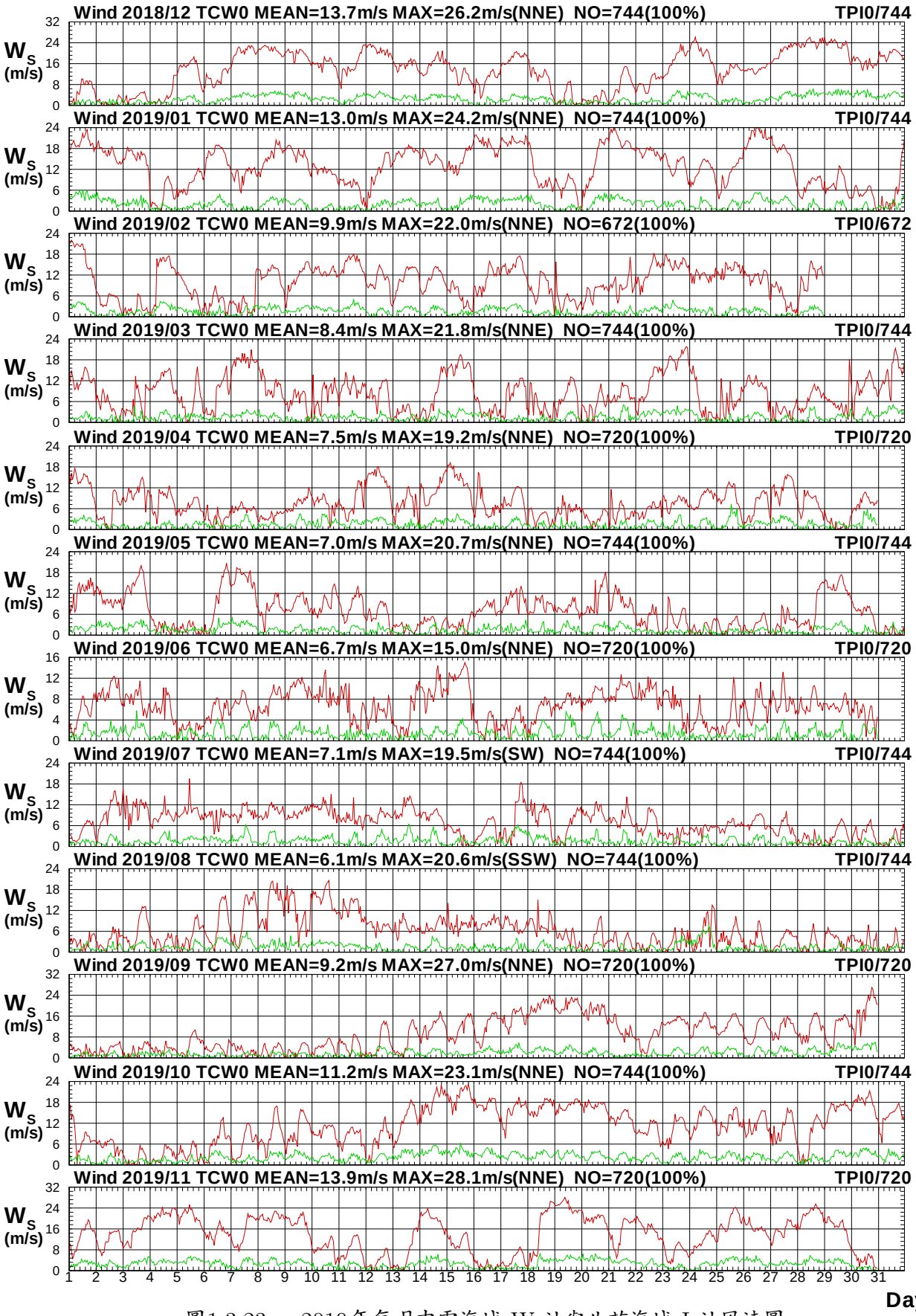

圖1.3.23a　2019年每月中雲海域 W 站與北苗海域 I 站風速圖

W18CTCW0.1HA W18CTPI0.1H0 W191TCW0.1HA W191TPI0.1H0 W192TCW0.1HA W192TPI0.1H0
W193TCW0.1HA W193TPI0.1H0 W194TCW0.1HA W194TPI0.1H0 W195TCW0.1HA W195TPI0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

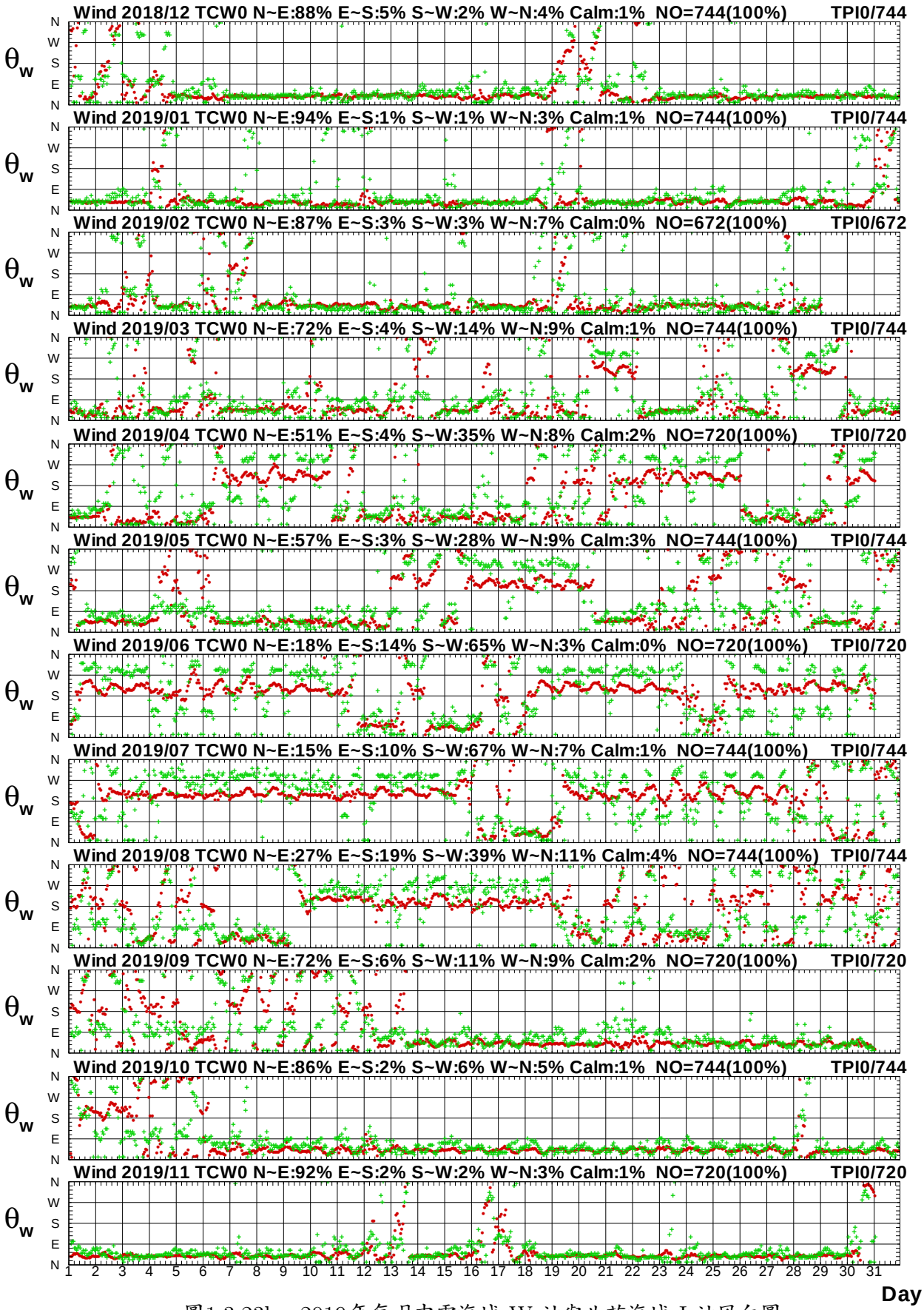

圖1.3.23b　2019年每月中雲海域 W 站與北苗海域 I 站風向圖

W18CTCW0.1HA W18CTPI0.1H0 W191TCW0.1HA W191TPI0.1H0 W192TCW0.1HA W192TPI0.1H0
W193TCW0.1HA W193TPI0.1H0 W194TCW0.1HA W194TPI0.1H0 W195TCW0.1HA W195TPI0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

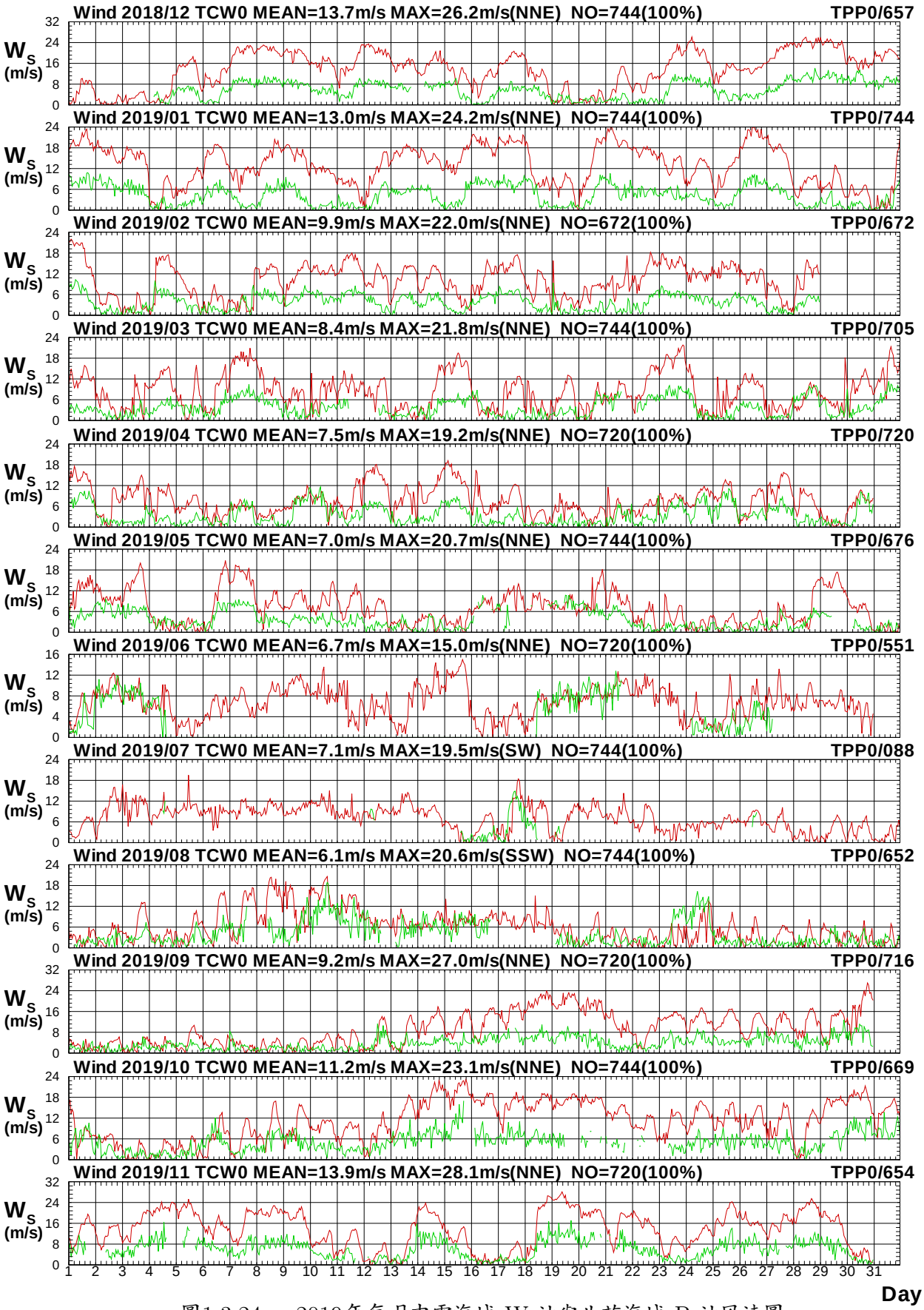

圖1.3.24a　2019年每月中雲海域 W 站與北苗海域 P 站風速圖

W18CTCW0.1HA W18CTPP0.1H0 W191TCW0.1HA W191TPP0.1H0 W192TCW0.1HA W192TPP0.1H0
W193TCW0.1HA W193TPP0.1H0 W194TCW0.1HA W194TPP0.1H0 W195TCW0.1HA W195TPP0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

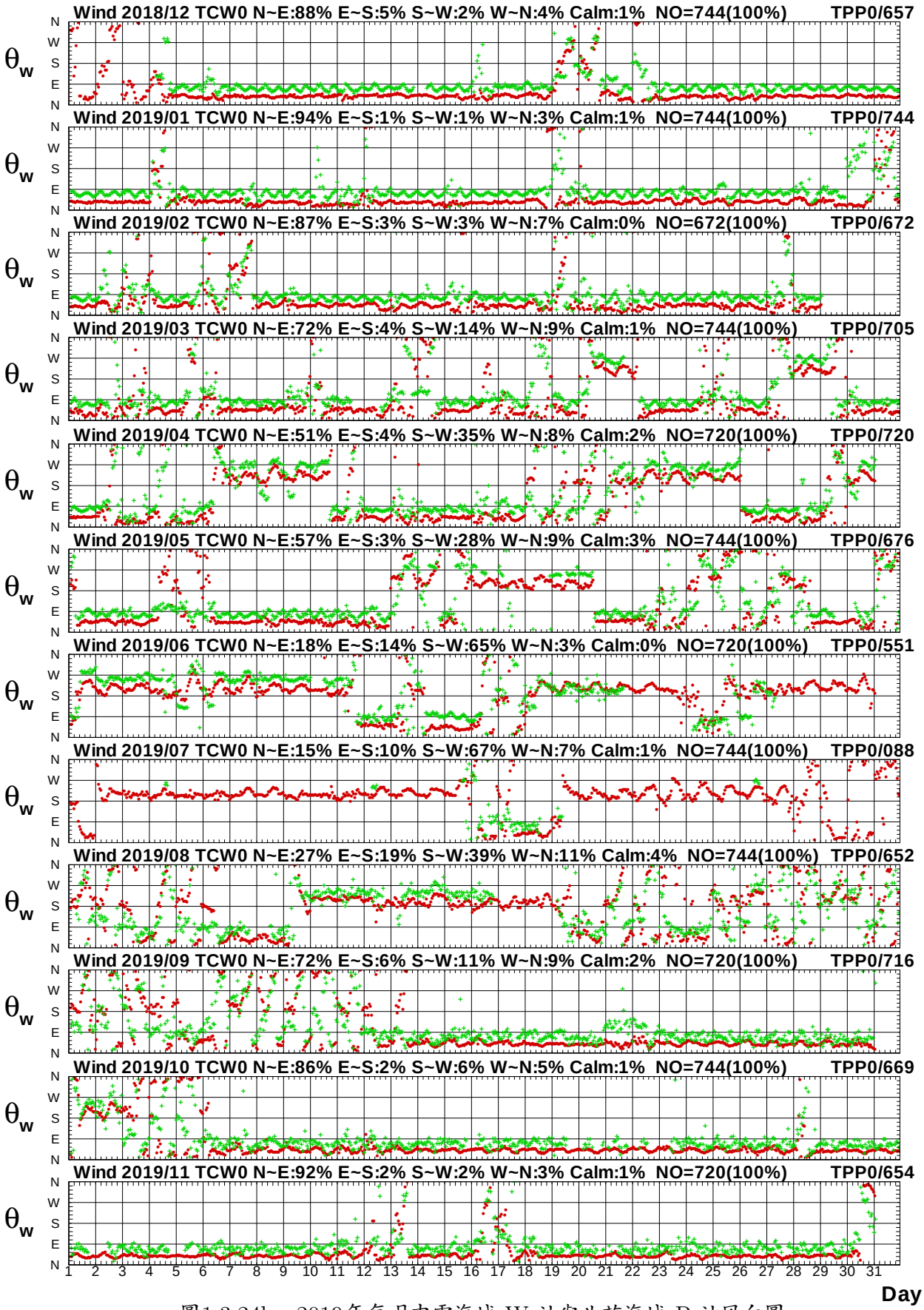

圖1.3.24b　2019年每月中雲海域 W 站與北苗海域 P 站風向圖

W18CTCW0.1HA W18CTPP0.1H0 W191TCW0.1HA W191TPP0.1H0 W192TCW0.1HA W192TPP0.1H0
W193TCW0.1HA W193TPP0.1H0 W194TCW0.1HA W194TPP0.1H0 W195TCW0.1HA W195TPP0.1H0

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Wind Speed in Chung-Yun Seas of TCW0 at 2019

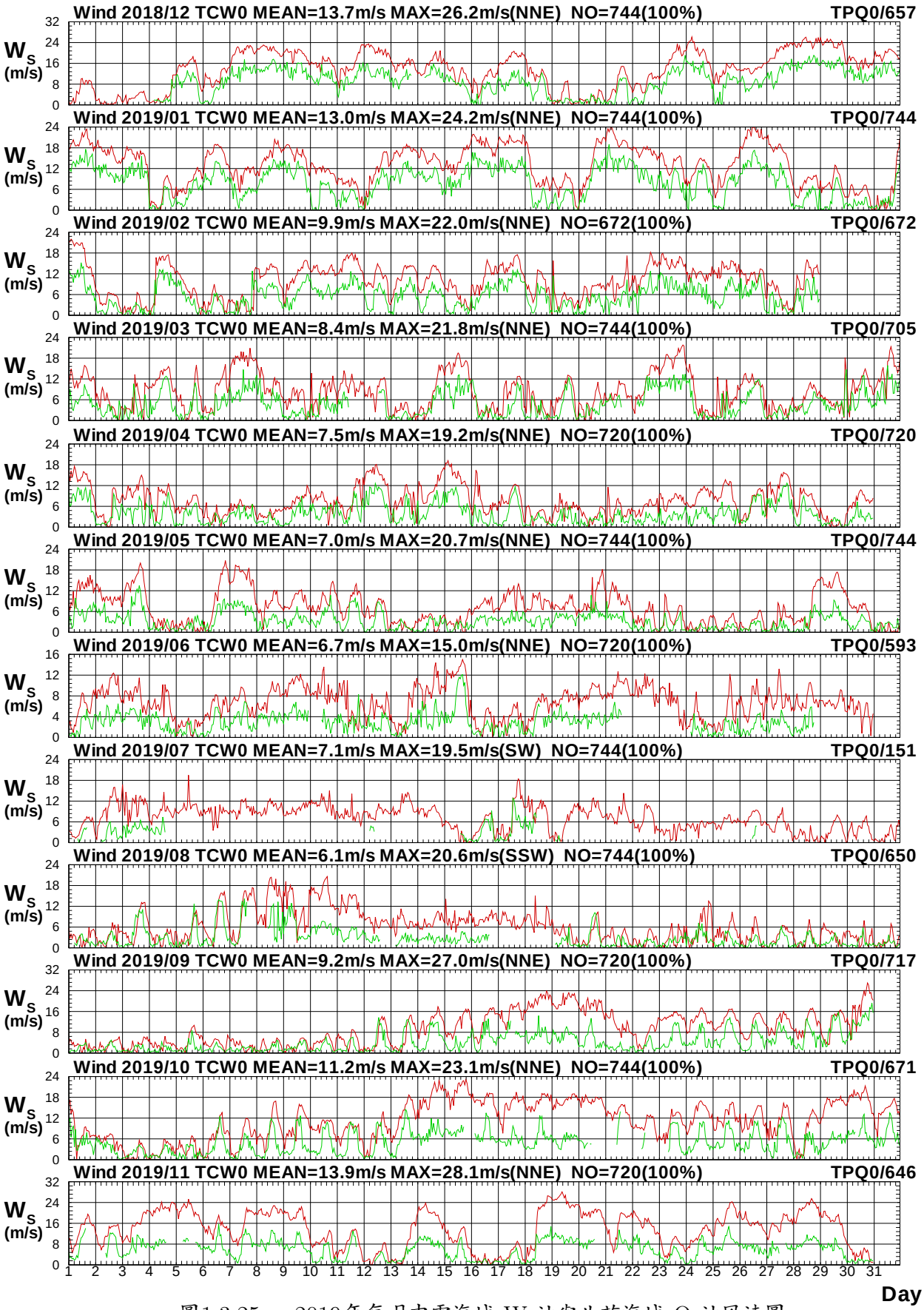

圖1.3.25a　2019年每月中雲海域 W 站與北苗海域 Q 站風速圖

W18CTCW0.1HA W18CTPQ0.1H0 W191TCW0.1HA W191TPQ0.1H0 W192TCW0.1HA W192TPQ0.1H0
W193TCW0.1HA W193TPQ0.1H0 W194TCW0.1HA W194TPQ0.1H0 W195TCW0.1HA W195TPQ0.1H0

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Wind Direction in Chung-Yun Seas of TCW0 at 2019

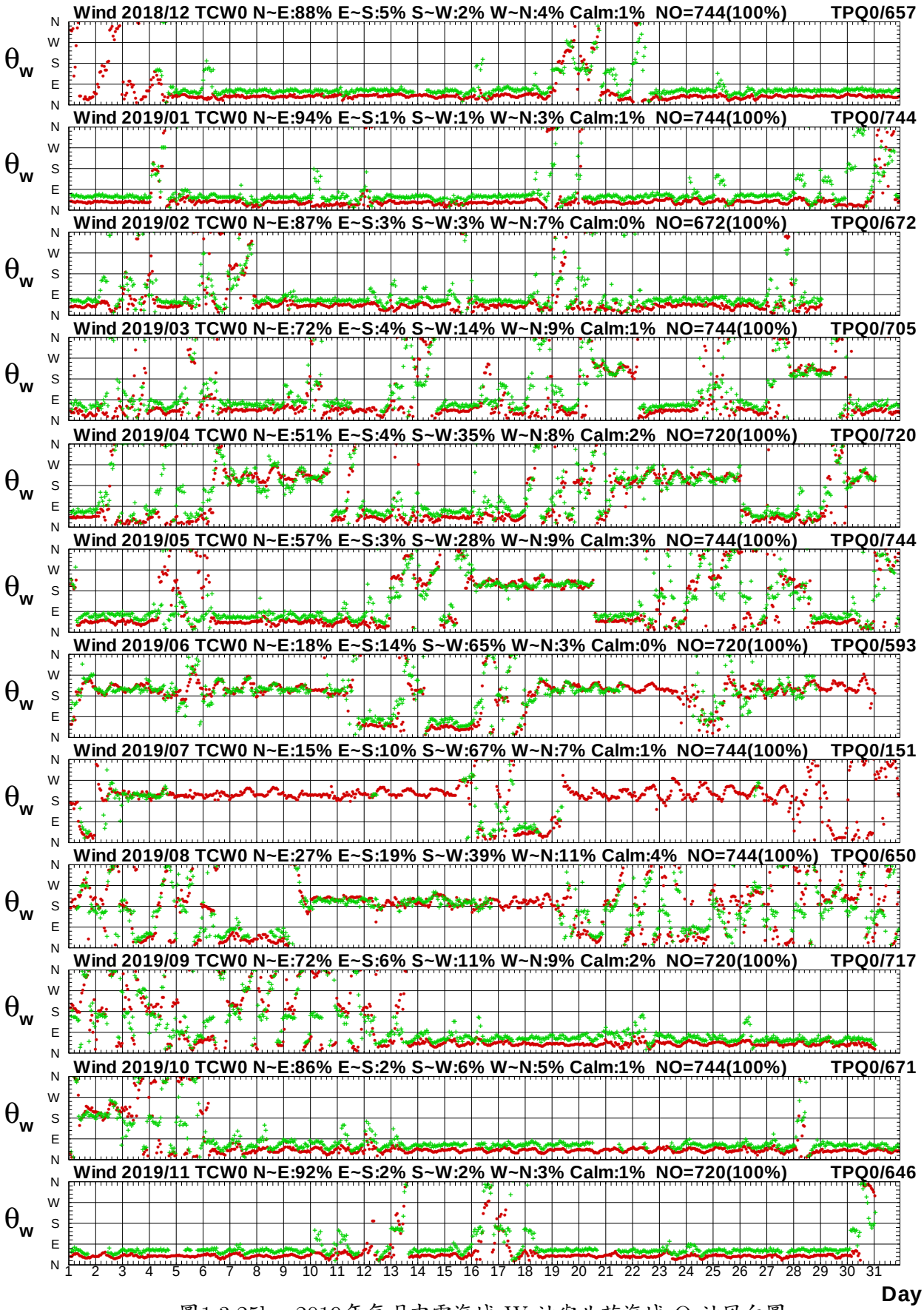

圖1.3.25b　2019年每月中雲海域 W 站與北苗海域 Q 站風向圖

W18CTCW0.1HA W18CTPQ0.1H0 W191TCW0.1HA W191TPQ0.1H0 W192TCW0.1HA W192TPQ0.1H0
W193TCW0.1HA W193TPQ0.1H0 W194TCW0.1HA W194TPQ0.1H0 W195TCW0.1HA W195TPQ0.1H0

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1.4　2019 年中雲海域風力主要測站 2(修補後)與其他測站(修補前)每月風力歷線比較圖

Wind Speed in Chung-Yun Seas of TCI0 at 2019

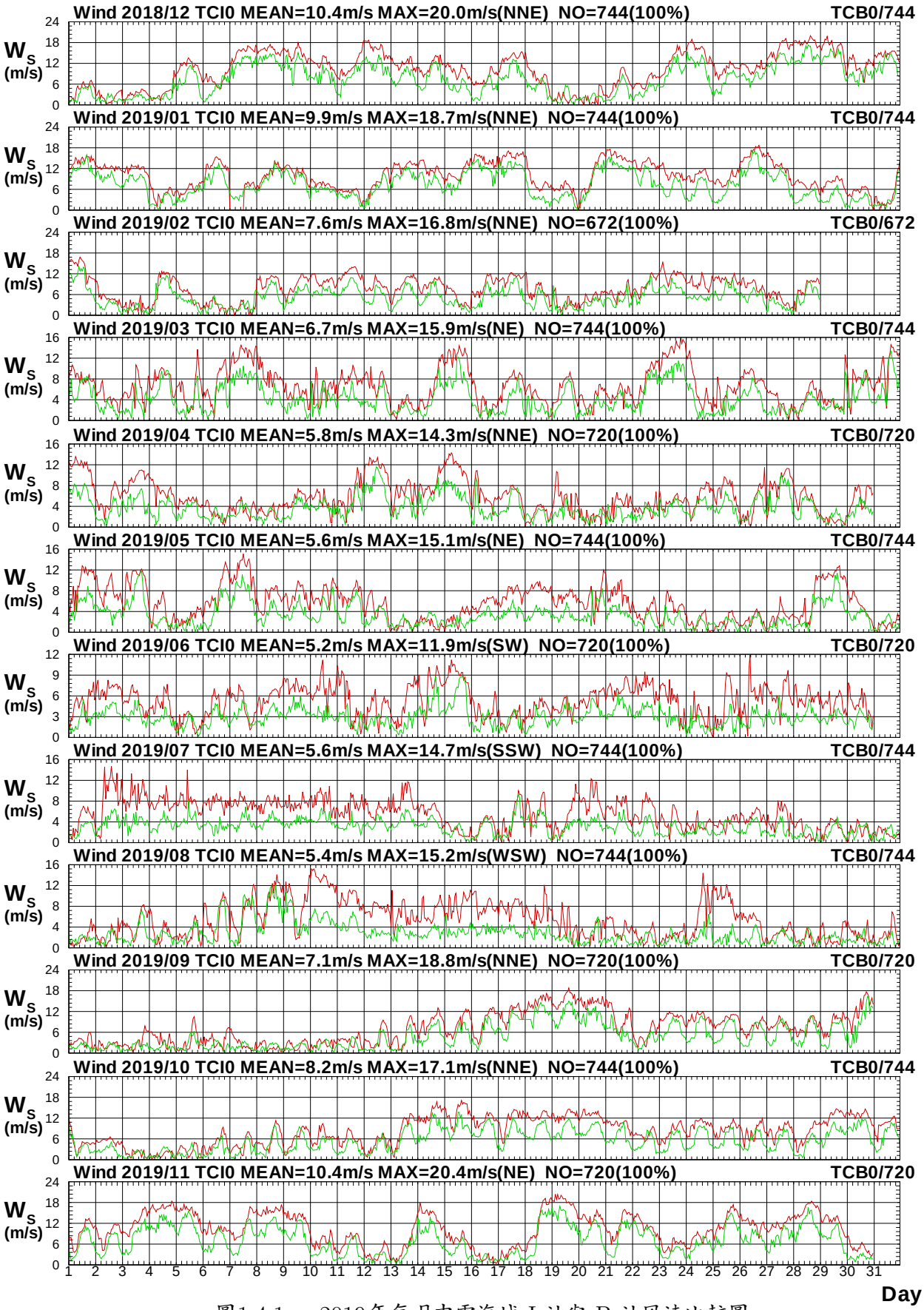

圖1.4.1a　2019年每月中雲海域 I 站與 B 站風速比較圖

W18CTCI0.1HA W18CTCB0.1H0 W191TCI0.1HA W191TCB0.1H0 W192TCI0.1HA W192TCB0.1H0
W193TCI0.1HA W193TCB0.1H0 W194TCI0.1HA W194TCB0.1H0 W195TCI0.1HA W195TCB0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

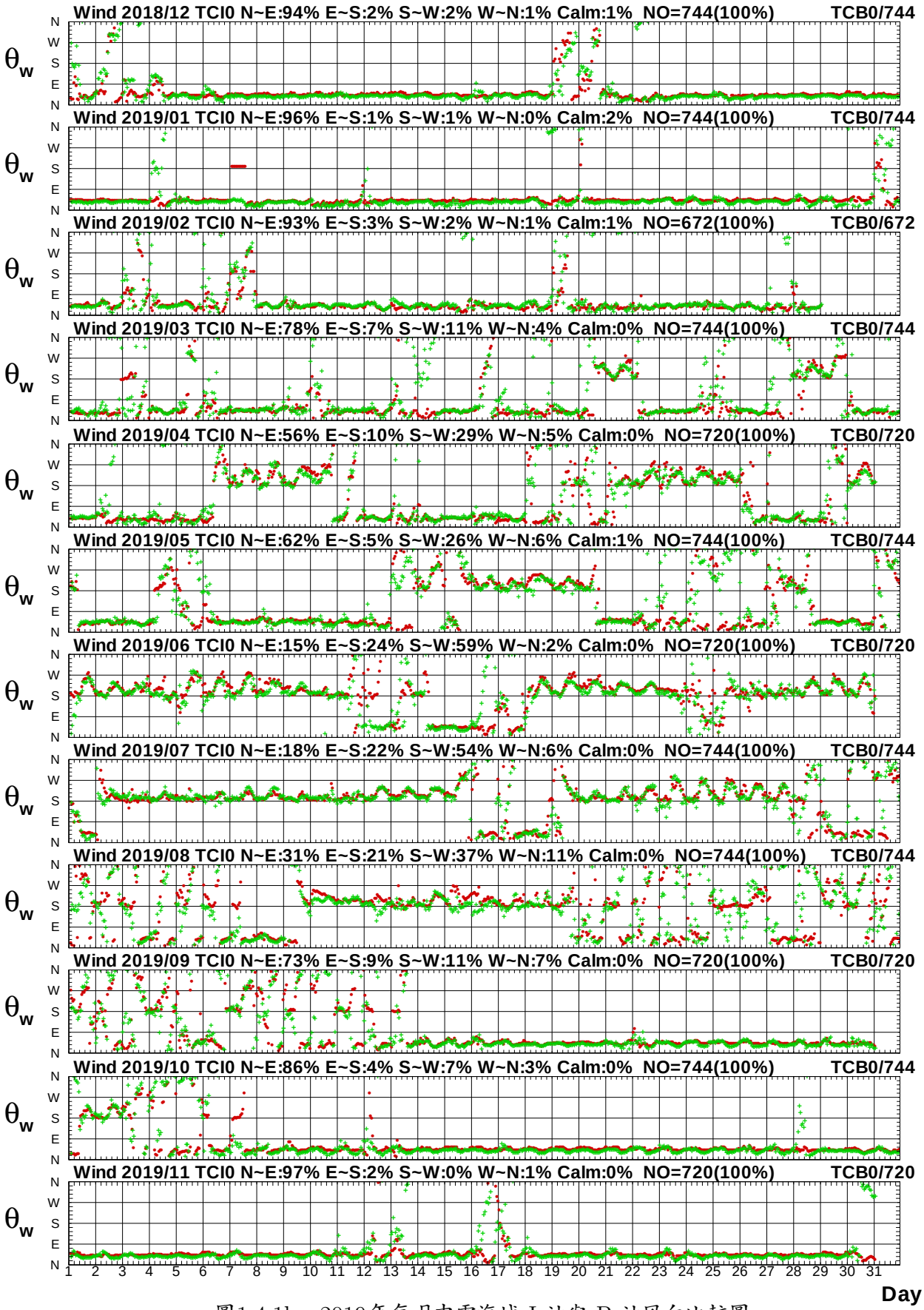

圖1.4.1b　2019年每月中雲海域 I 站與 B 站風向比較圖

W18CTCI0.1HA W18CTCB0.1H0 W191TCI0.1HA W191TCB0.1H0 W192TCI0.1HA W192TCB0.1H0
W193TCI0.1HA W193TCB0.1H0 W194TCI0.1HA W194TCB0.1H0 W195TCI0.1HA W195TCB0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

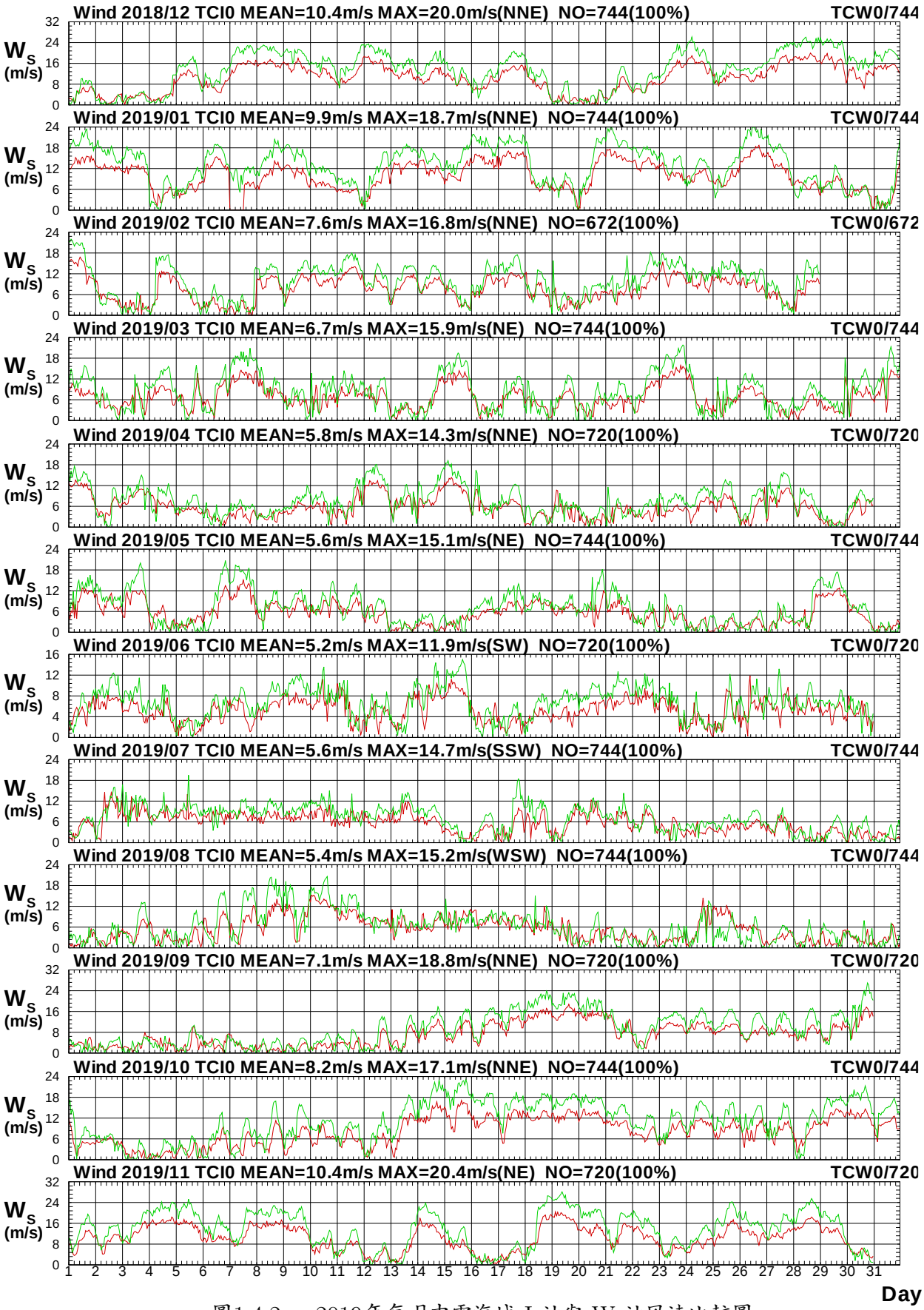

圖1.4.2a　2019年每月中雲海域 I 站與 W 站風速比較圖

W18CTCI0.1HA W18CTCW0.1H0 W191TCI0.1HA W191TCW0.1H0 W192TCI0.1HA W192TCW0.1H0
W193TCI0.1HA W193TCW0.1H0 W194TCI0.1HA W194TCW0.1H0 W195TCI0.1HA W195TCW0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

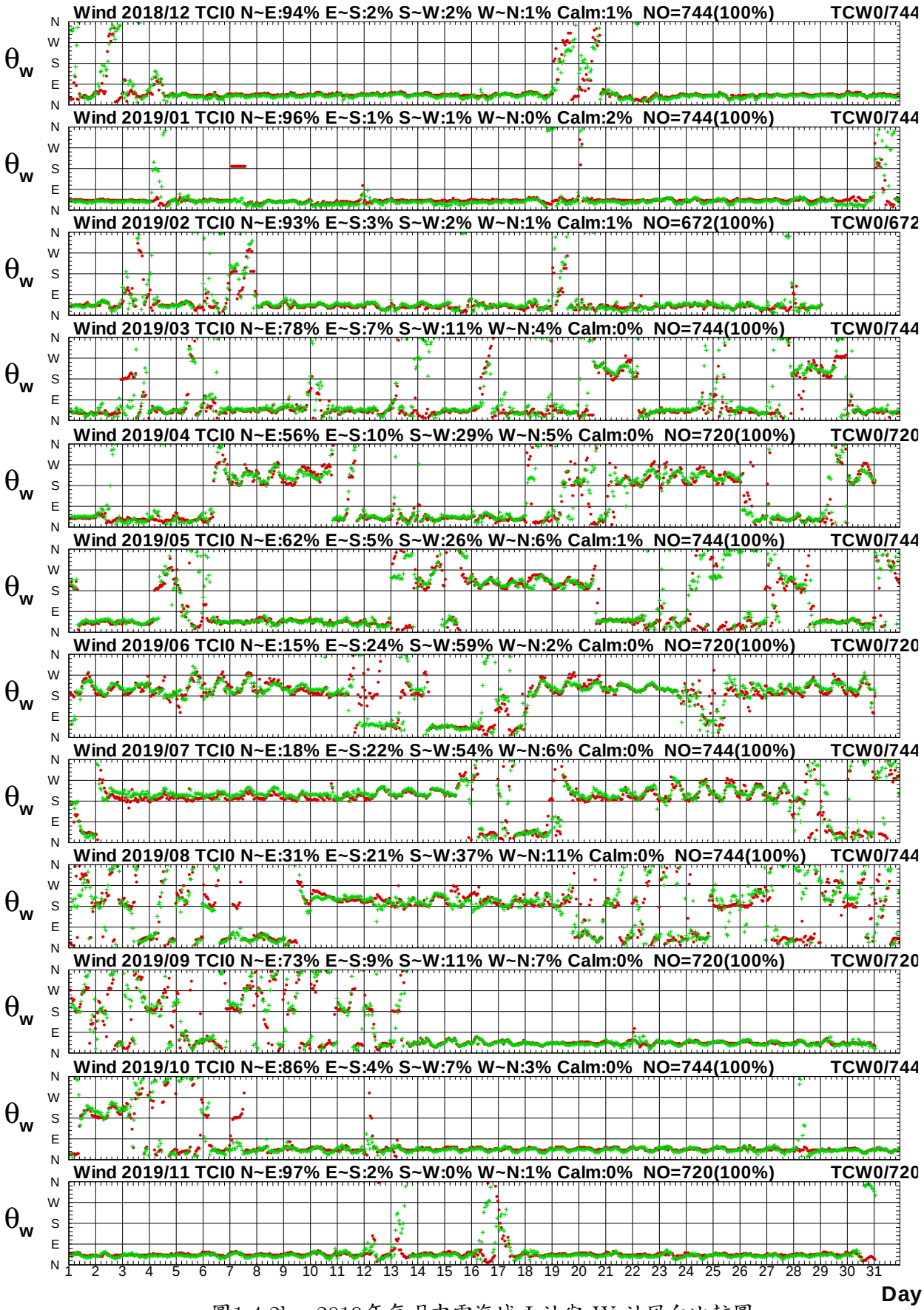

圖1.4.2b　2019年每月中雲海域 I 站與 W 站風向比較圖

W18CTCI0.1HA W18CTCW0.1H0 W191TCI0.1HA W191TCW0.1H0 W192TCI0.1HA W192TCW0.1H0
W193TCI0.1HA W193TCW0.1H0 W194TCI0.1HA W194TCW0.1H0 W195TCI0.1HA W195TCW0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

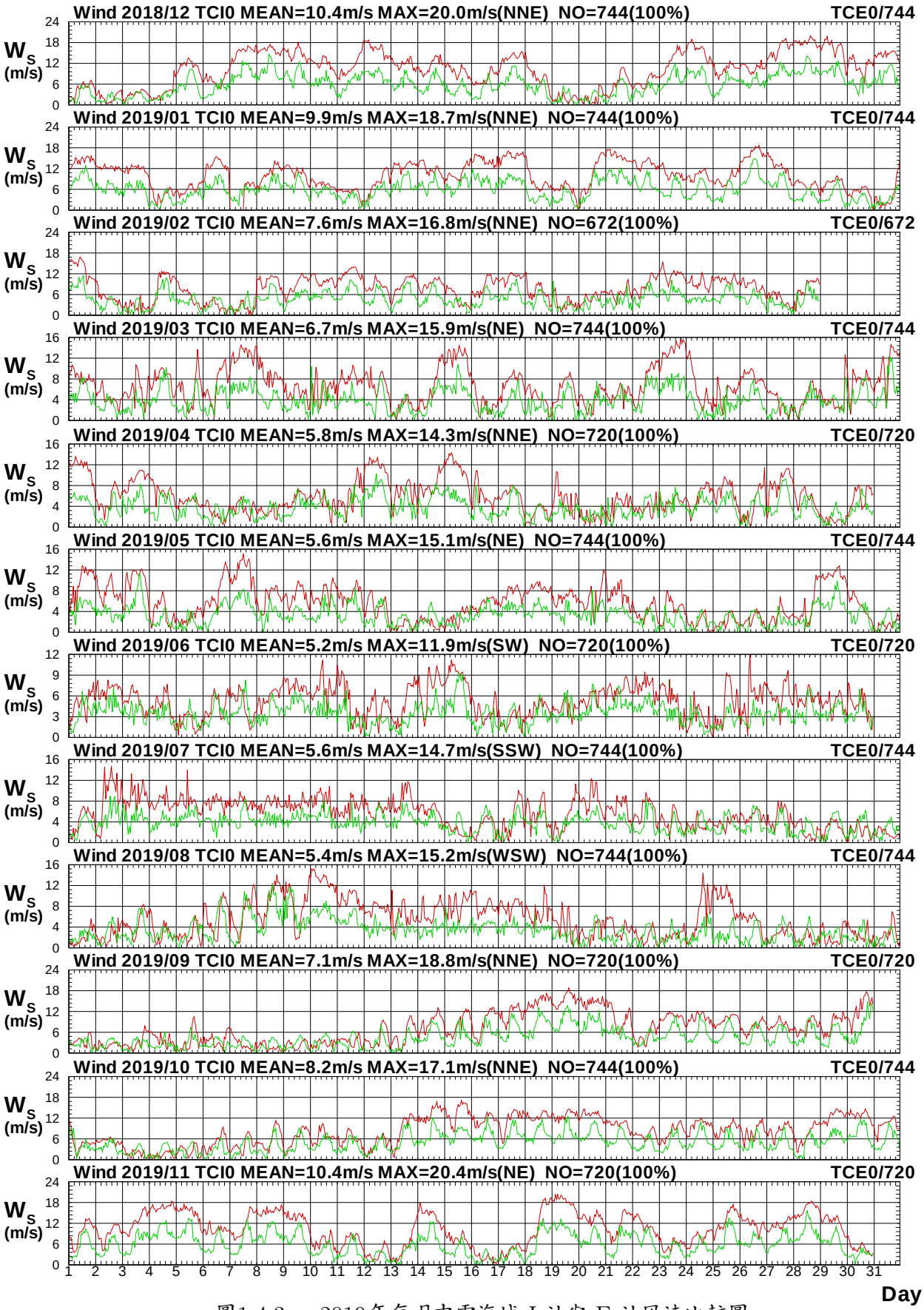

圖1.4.3a　2019年每月中雲海域 I 站與 E 站風速比較圖

W18CTCI0.1HA W18CTCE0.1H0 W191TCI0.1HA W191TCE0.1H0 W192TCI0.1HA W192TCE0.1H0
W193TCI0.1HA W193TCE0.1H0 W194TCI0.1HA W194TCE0.1H0 W195TCI0.1HA W195TCE0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

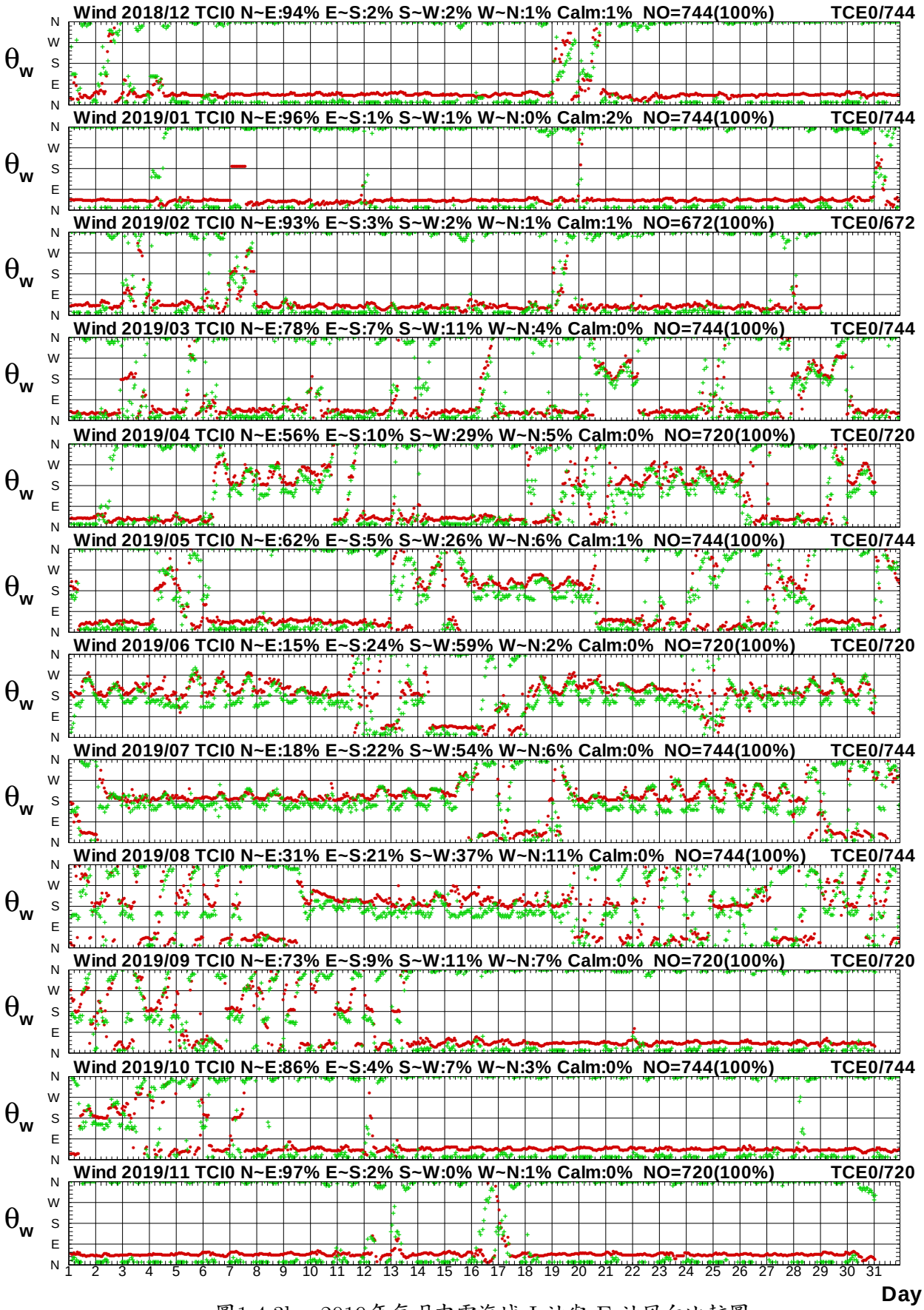

圖1.4.3b　2019年每月中雲海域 I 站與 E 站風向比較圖

W18CTCI0.1HA W18CTCE0.1H0 W191TCI0.1HA W191TCE0.1H0 W192TCI0.1HA W192TCE0.1H0
W193TCI0.1HA W193TCE0.1H0 W194TCI0.1HA W194TCE0.1H0 W195TCI0.1HA W195TCE0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

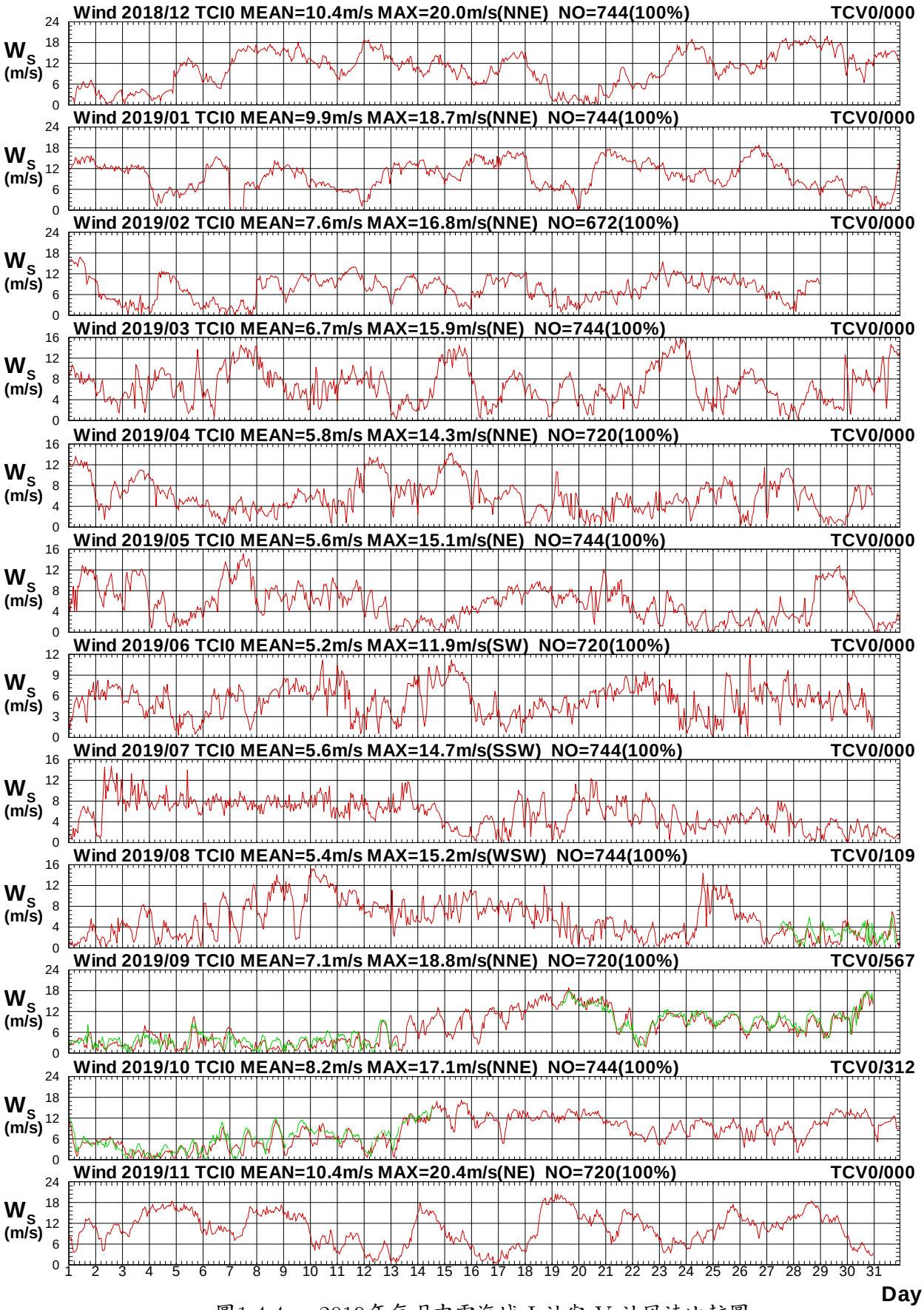

圖1.4.4a　2019年每月中雲海域 I 站與 V 站風速比較圖

W18CTCI0.1HA W18CTCV0.1H0 W191TCI0.1HA W191TCV0.1H0 W192TCI0.1HA W192TCV0.1H0
W193TCI0.1HA W193TCV0.1H0 W194TCI0.1HA W194TCV0.1H0 W195TCI0.1HA W195TCV0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

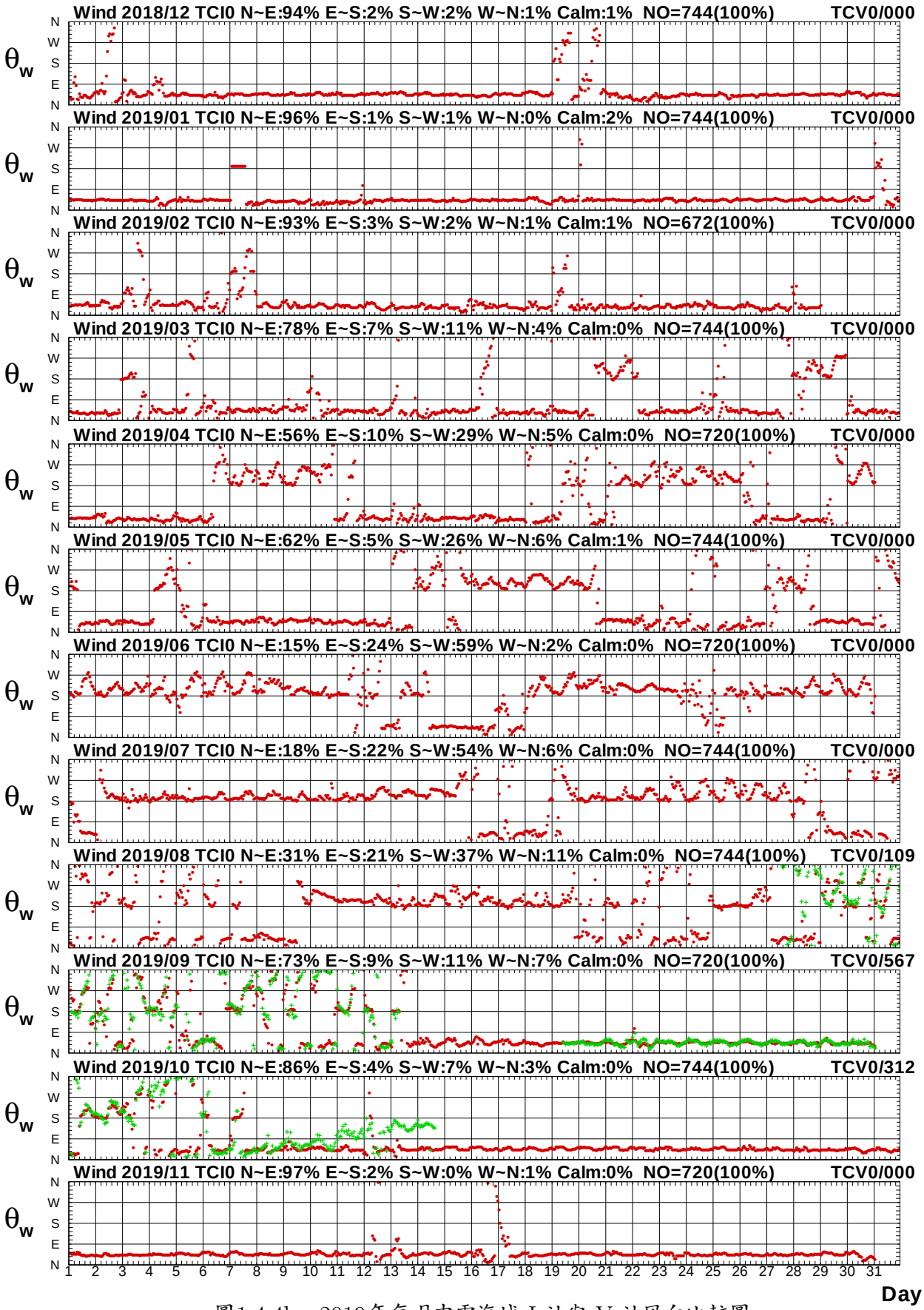

圖1.4.4b　2019年每月中雲海域 I 站與 V 站風向比較圖

W18CTCI0.1HA W18CTCV0.1H0 W191TCI0.1HA W191TCV0.1H0 W192TCI0.1HA W192TCV0.1H0
W193TCI0.1HA W193TCV0.1H0 W194TCI0.1HA W194TCV0.1H0 W195TCI0.1HA W195TCV0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

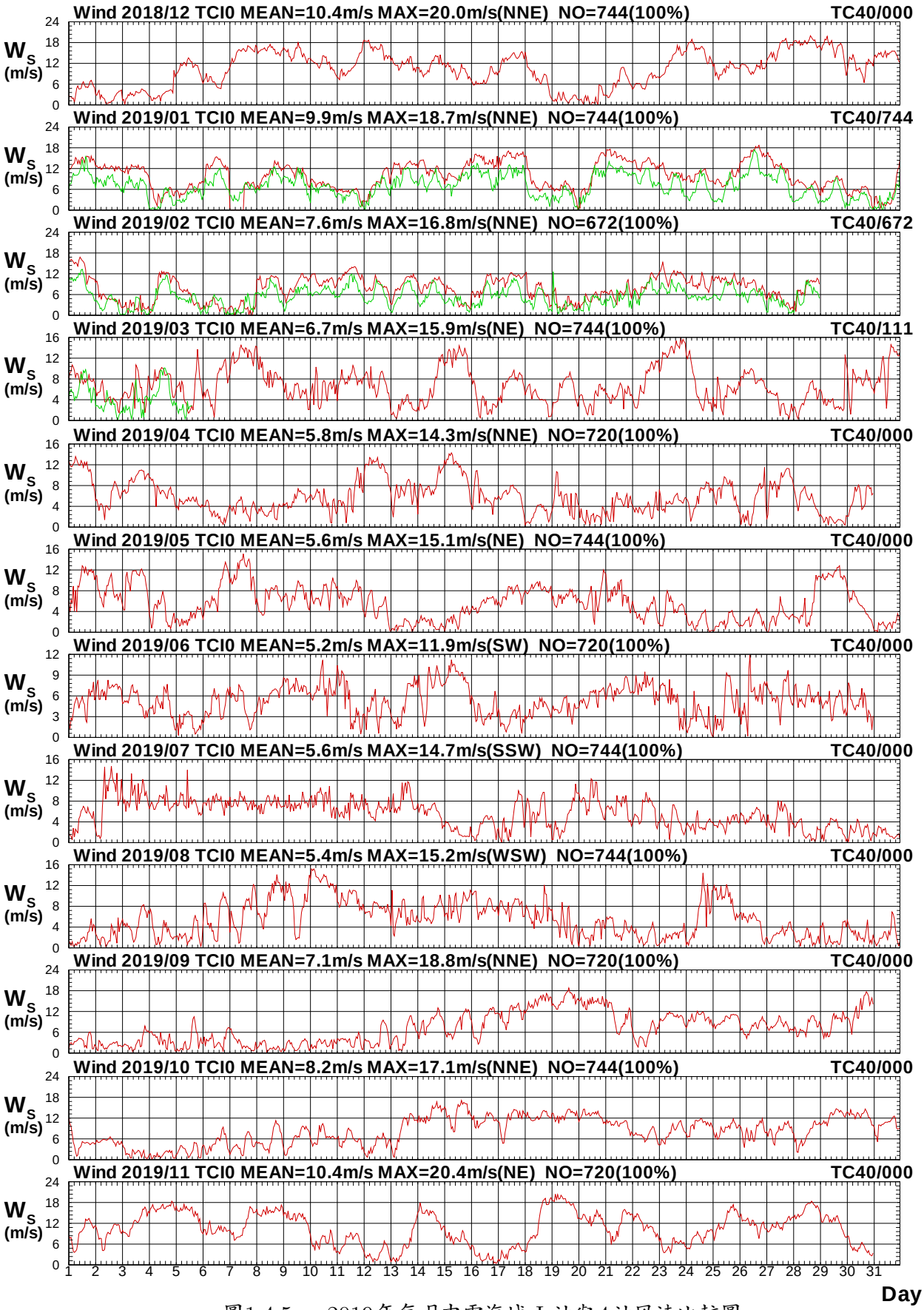

圖1.4.5a　2019年每月中雲海域Ⅰ站與4站風速比較圖

W18CTCI0.1HA W18CTC40.1H0 W191TCI0.1HA W191TC40.1H0 W192TCI0.1HA W192TC40.1H0
W193TCI0.1HA W193TC40.1H0 W194TCI0.1HA W194TC40.1H0 W195TCI0.1HA W195TC40.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

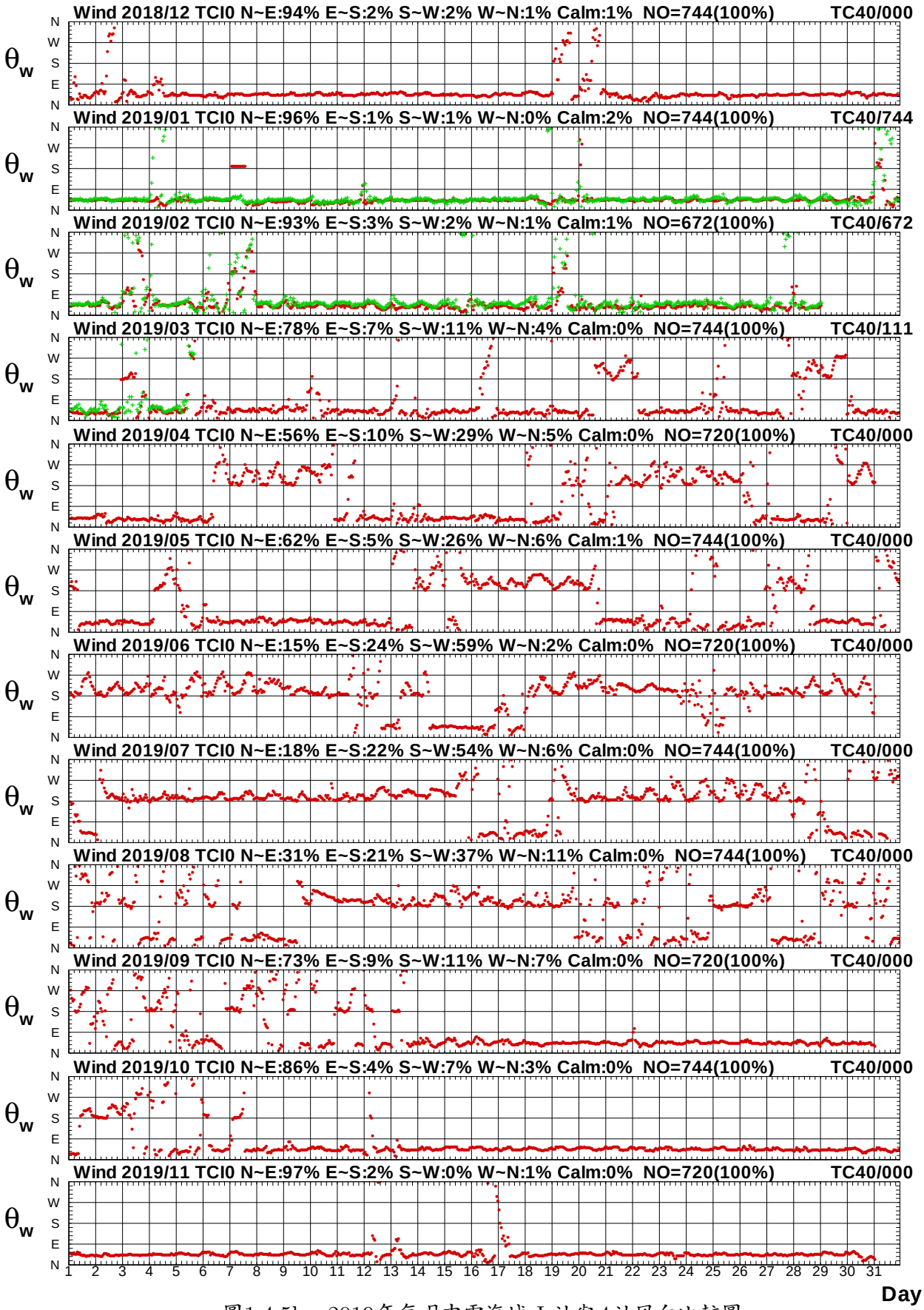

圖1.4.5b　2019年每月中雲海域 I 站與4站風向比較圖

W18CTCI0.1HA W18CTC40.1H0 W191TCI0.1HA W191TC40.1H0 W192TCI0.1HA W192TC40.1H0
W193TCI0.1HA W193TC40.1H0 W194TCI0.1HA W194TC40.1H0 W195TCI0.1HA W195TC40.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

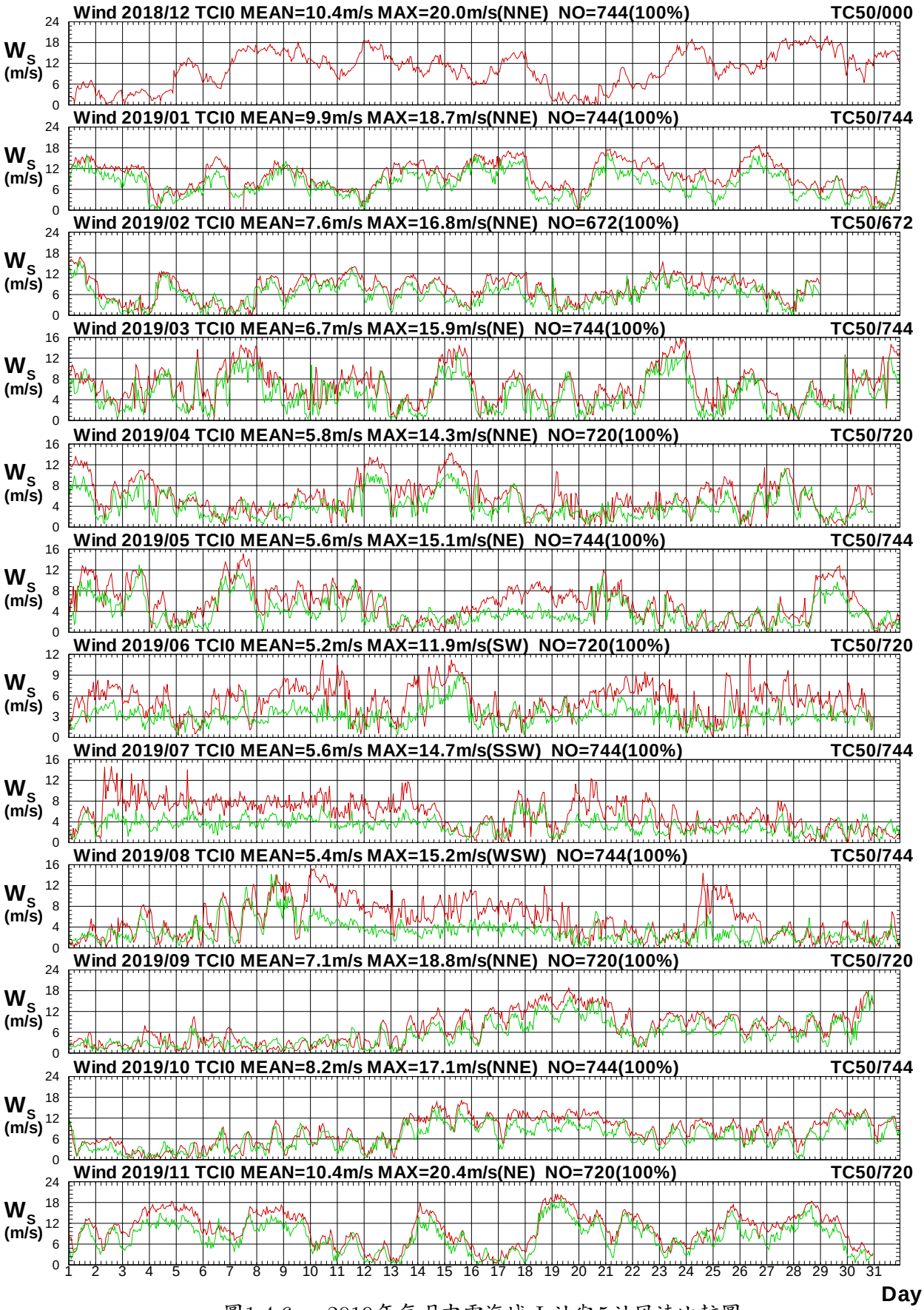

圖1.4.6a　2019年每月中雲海域 I 站與5站風速比較圖

W18CTCI0.1HA W18CTC50.1H0 W191TCI0.1HA W191TC50.1H0 W192TCI0.1HA W192TC50.1H0
W193TCI0.1HA W193TC50.1H0 W194TCI0.1HA W194TC50.1H0 W195TCI0.1HA W195TC50.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

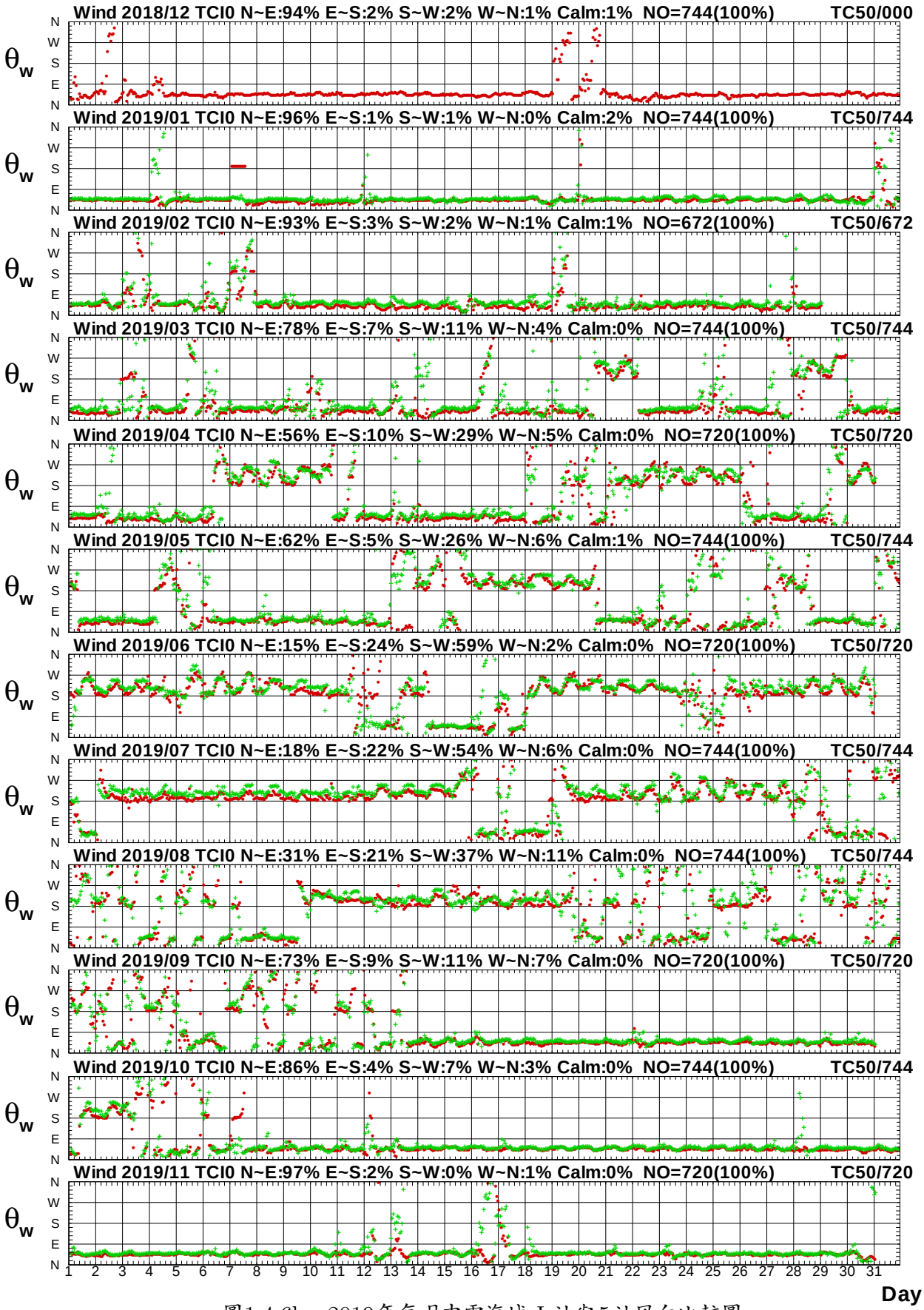

圖1.4.6b　2019年每月中雲海域Ⅰ站與5站風向比較圖

W18CTCI0.1HA W18CTC50.1H0 W191TCI0.1HA W191TC50.1H0 W192TCI0.1HA W192TC50.1H0
W193TCI0.1HA W193TC50.1H0 W194TCI0.1HA W194TC50.1H0 W195TCI0.1HA W195TC50.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

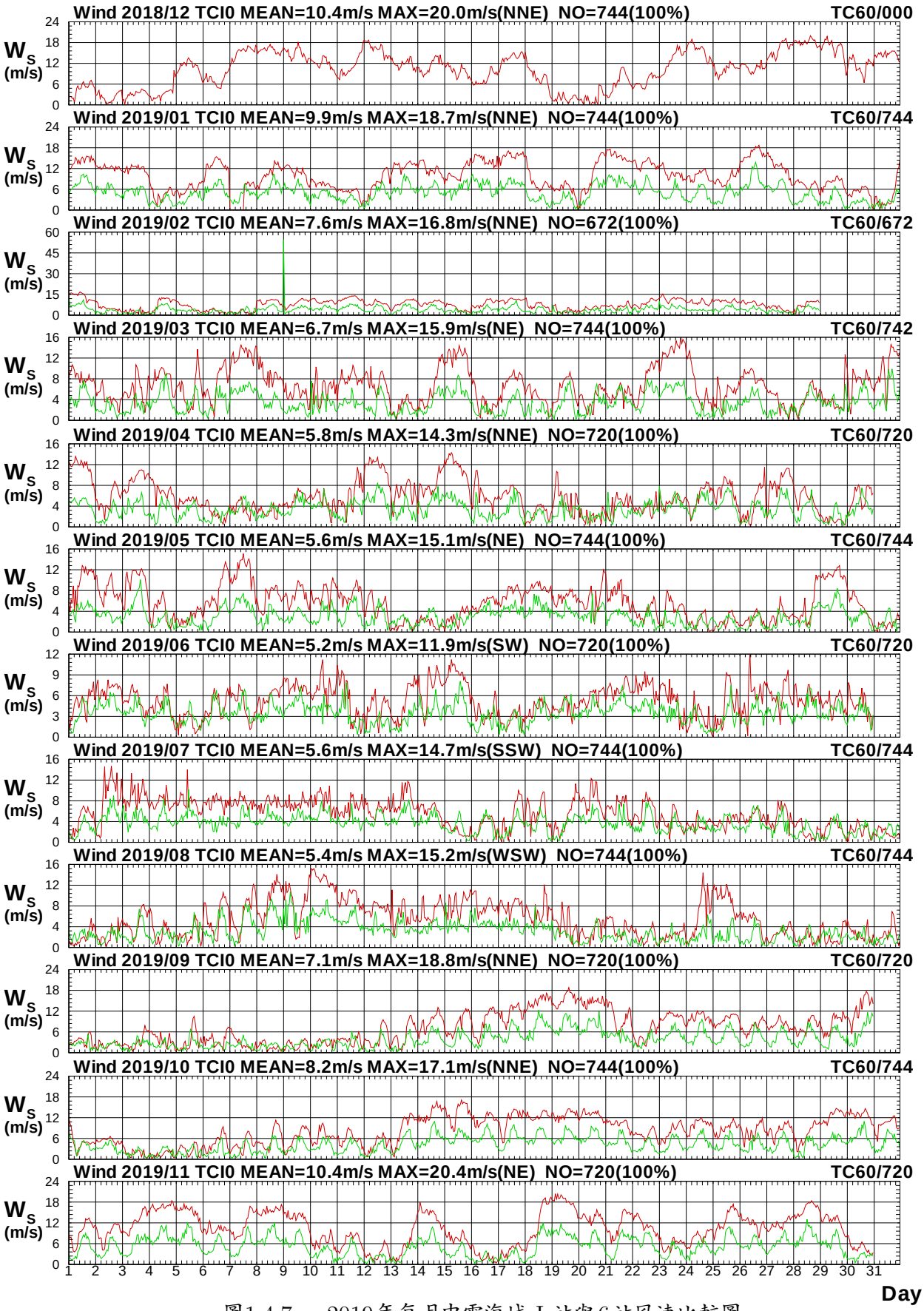

圖1.4.7a　2019年每月中雲海域Ⅰ站與6站風速比較圖

W18CTCI0.1HA W18CTC60.1H0 W191TCI0.1HA W191TC60.1H0 W192TCI0.1HA W192TC60.1H0
W193TCI0.1HA W193TC60.1H0 W194TCI0.1HA W194TC60.1H0 W195TCI0.1HA W195TC60.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

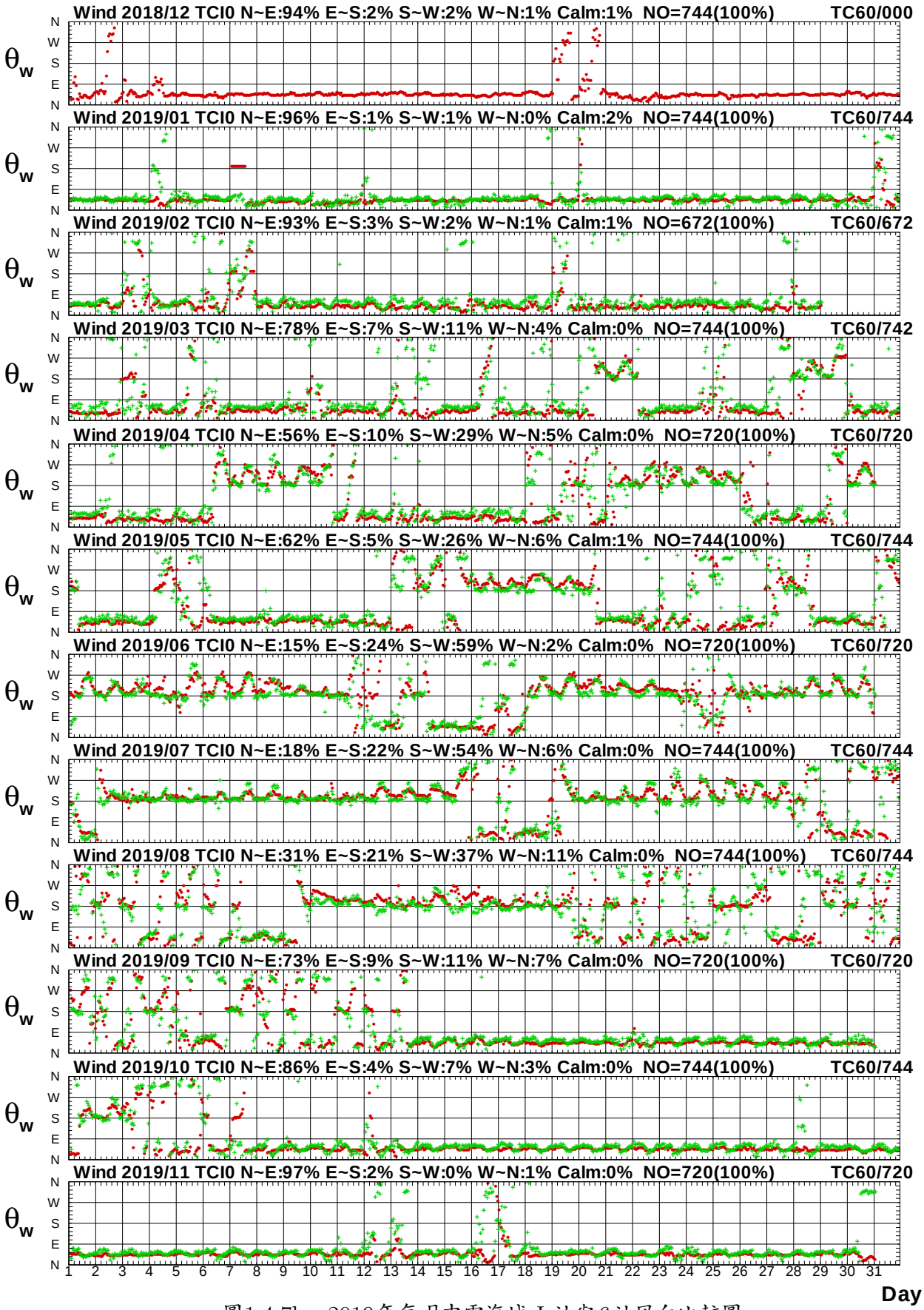

圖1.4.7b　2019年每月中雲海域Ⅰ站與6站風向比較圖

W18CTCI0.1HA W18CTC60.1H0 W191TCI0.1HA W191TC60.1H0 W192TCI0.1HA W192TC60.1H0
W193TCI0.1HA W193TC60.1H0 W194TCI0.1HA W194TC60.1H0 W195TCI0.1HA W195TC60.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

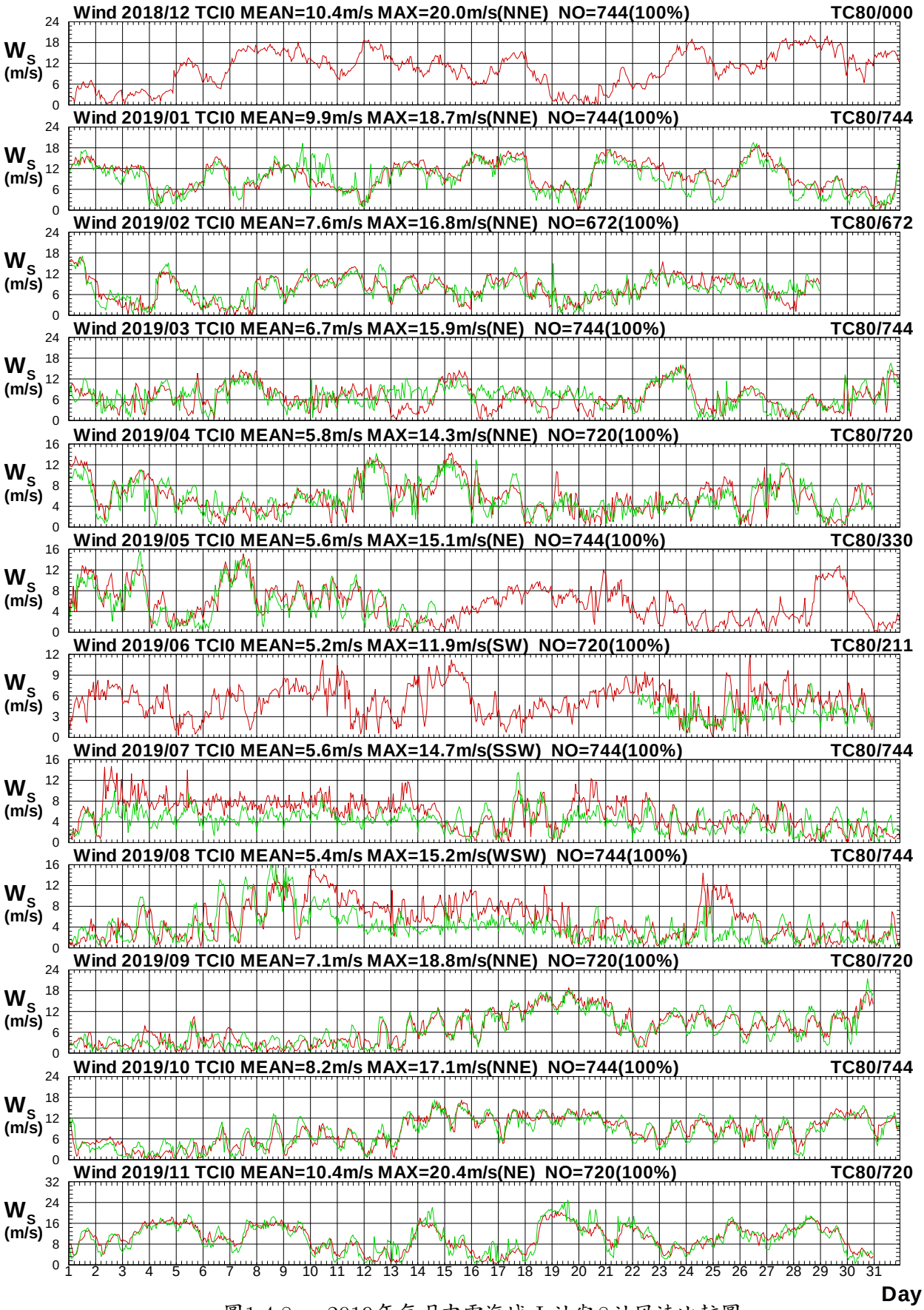

圖1.4.8a　2019年每月中雲海域Ⅰ站與8站風速比較圖

W18CTCI0.1HA W18CTC80.1H0 W191TCI0.1HA W191TC80.1H0 W192TCI0.1HA W192TC80.1H0
W193TCI0.1HA W193TC80.1H0 W194TCI0.1HA W194TC80.1H0 W195TCI0.1HA W195TC80.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

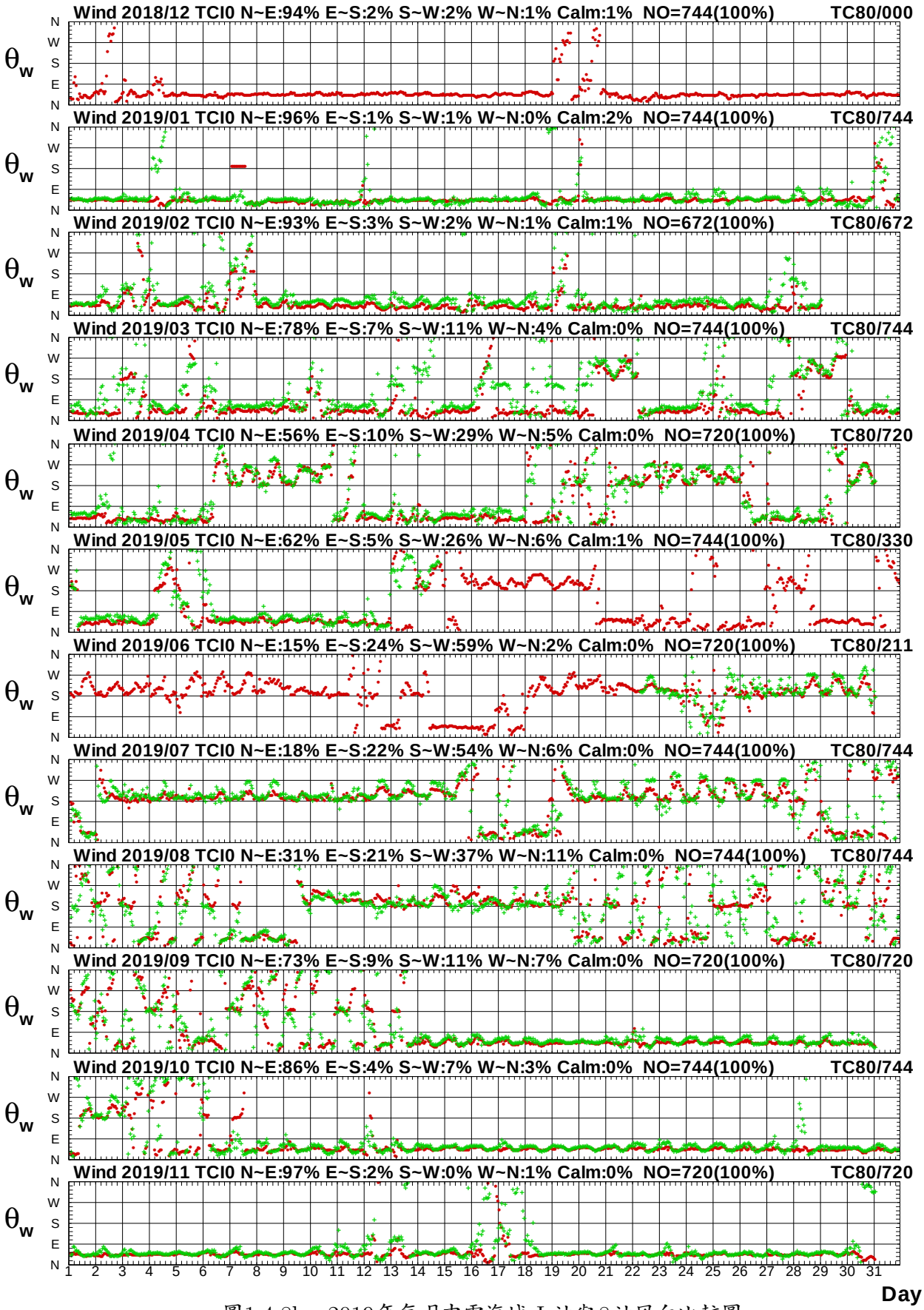

圖1.4.8b　2019年每月中雲海域Ⅰ站與8站風向比較圖

W18CTCI0.1HA W18CTC80.1H0 W191TCI0.1HA W191TC80.1H0 W192TCI0.1HA W192TC80.1H0
W193TCI0.1HA W193TC80.1H0 W194TCI0.1HA W194TC80.1H0 W195TCI0.1HA W195TC80.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

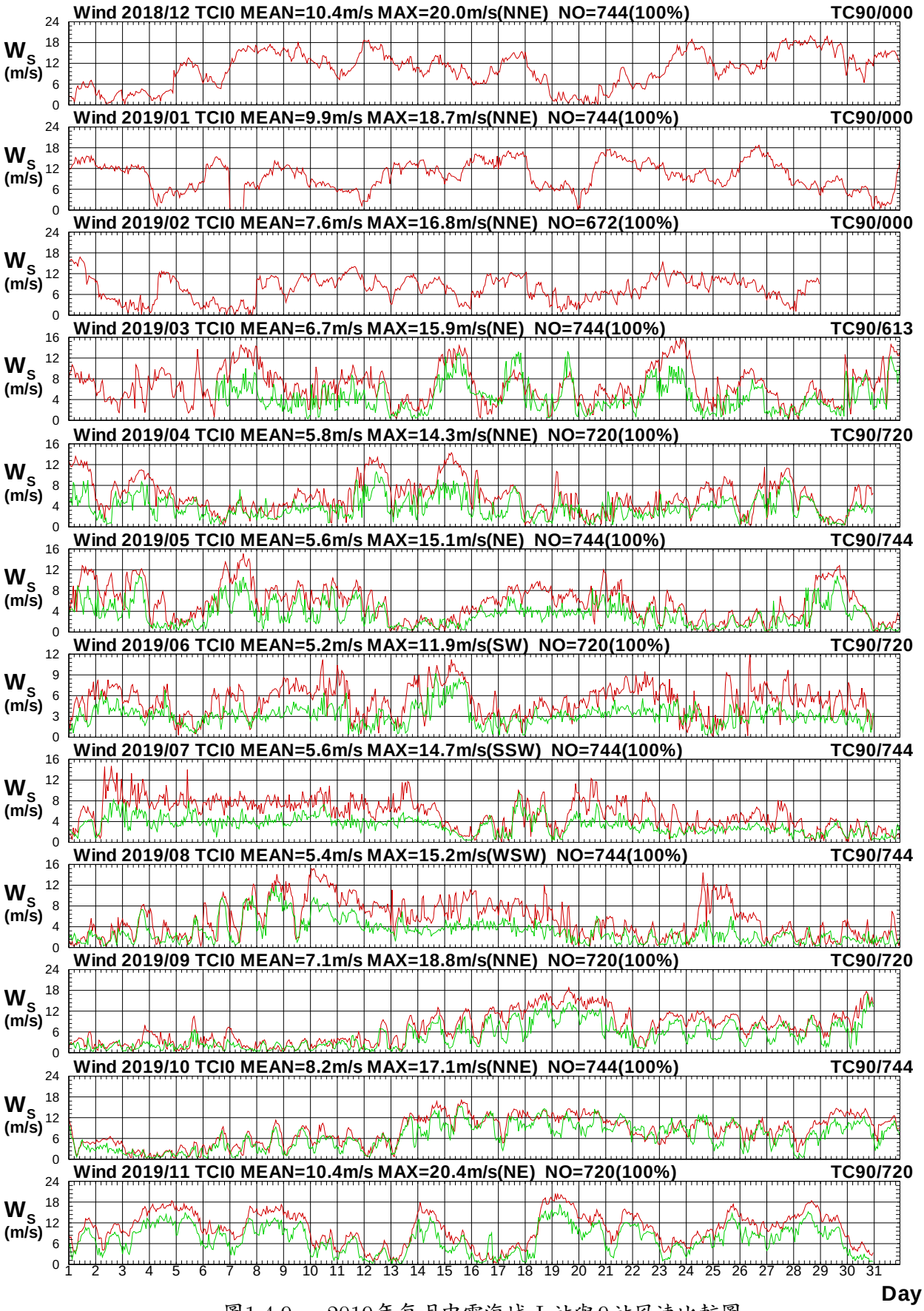

圖1.4.9a　2019年每月中雲海域 I 站與9站風速比較圖

W18CTCI0.1HA W18CTC90.1H0 W191TCI0.1HA W191TC90.1H0 W192TCI0.1HA W192TC90.1H0
W193TCI0.1HA W193TC90.1H0 W194TCI0.1HA W194TC90.1H0 W195TCI0.1HA W195TC90.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

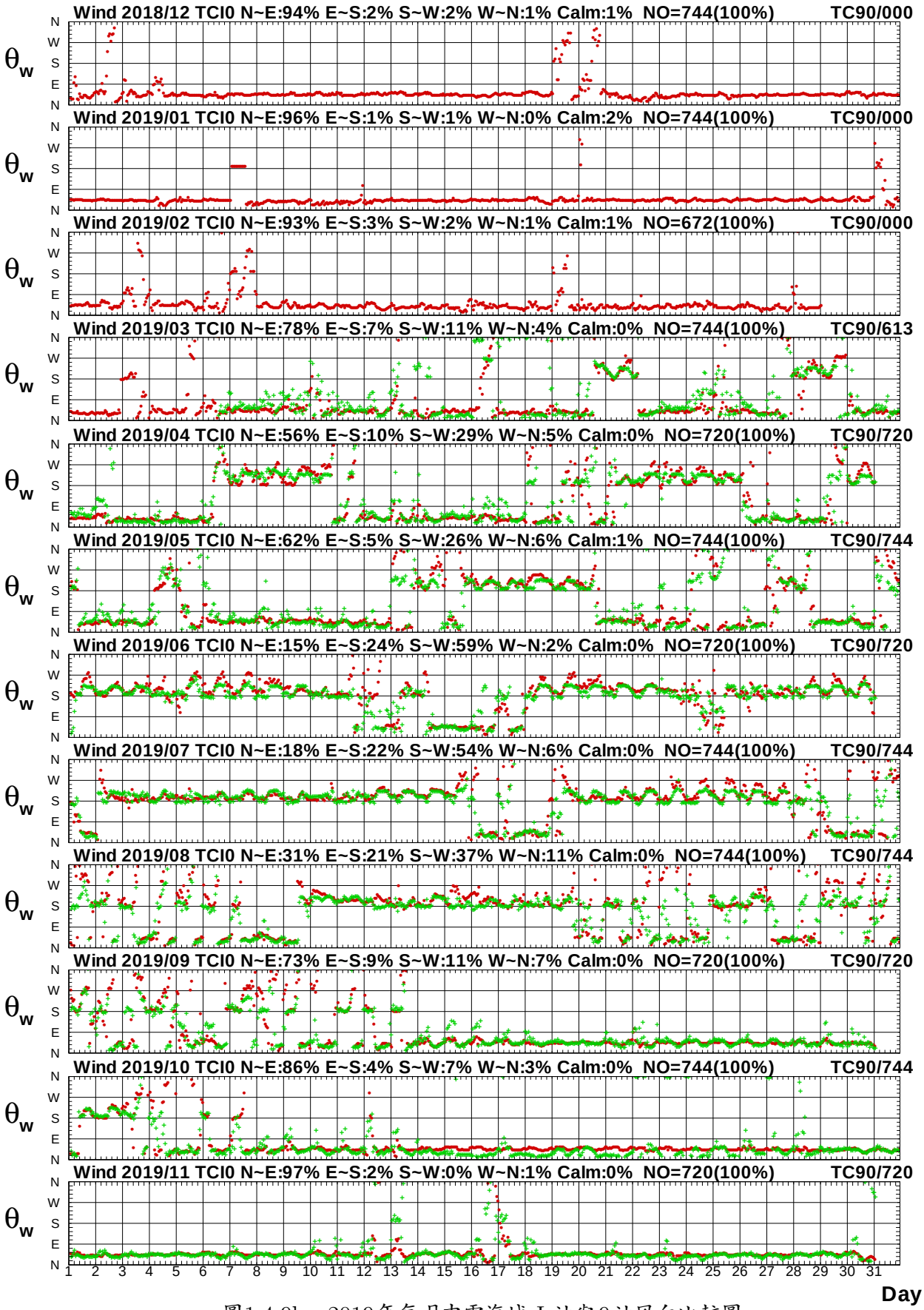

圖1.4.9b　2019年每月中雲海域 I 站與9站風向比較圖

W18CTCI0.1HA W18CTC90.1H0 W191TCI0.1HA W191TC90.1H0 W192TCI0.1HA W192TC90.1H0
W193TCI0.1HA W193TC90.1H0 W194TCI0.1HA W194TC90.1H0 W195TCI0.1HA W195TC90.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

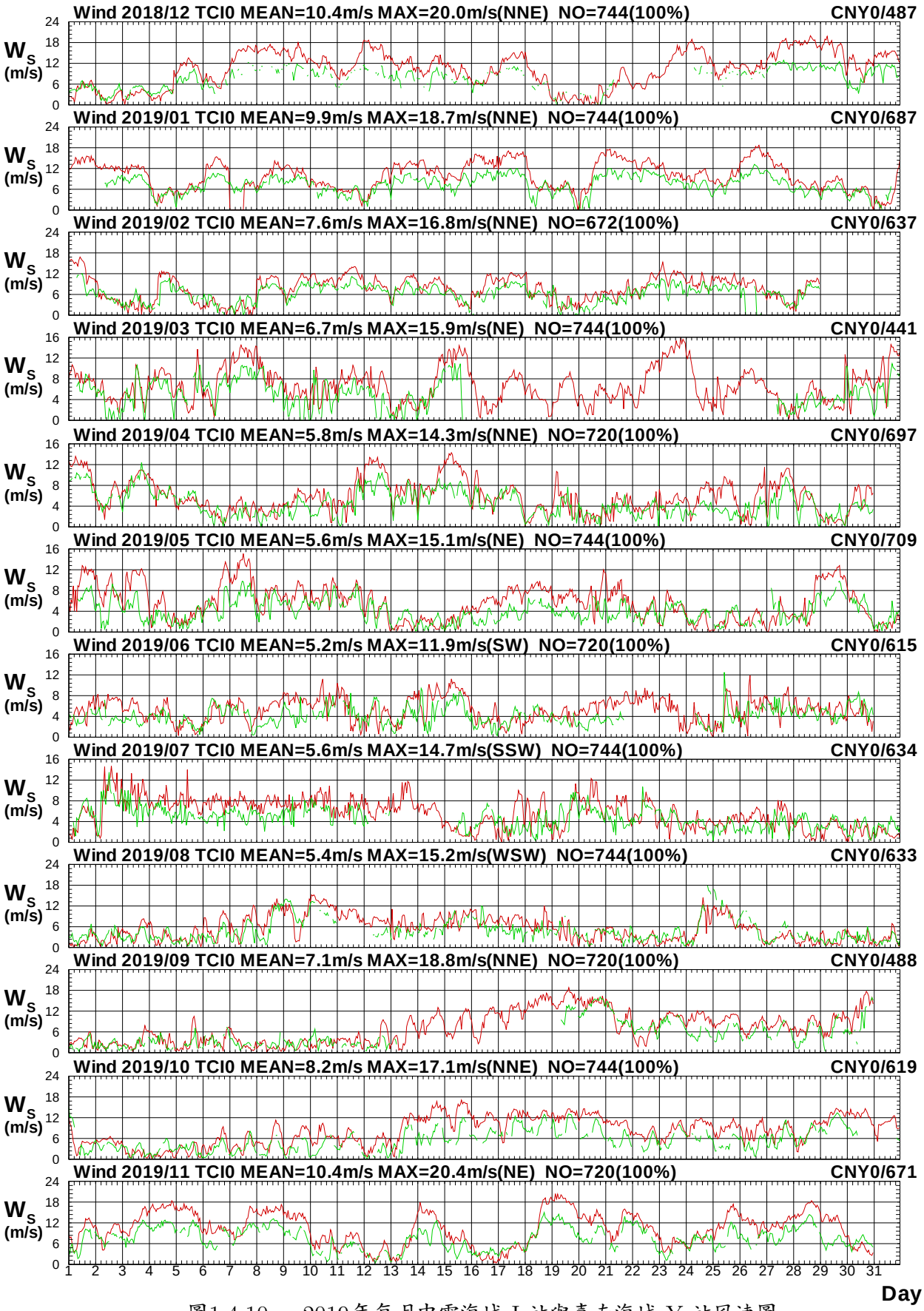

圖1.4.10a　2019年每月中雲海域 I 站與嘉南海域 Y 站風速圖

W18CTCI0.1HA W18CCNY0.1H0 W191TCI0.1HA W191CNY0.1H0 W192TCI0.1HA W192CNY0.1H0
W193TCI0.1HA W193CNY0.1H0 W194TCI0.1HA W194CNY0.1H0 W195TCI0.1HA W195CNY0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

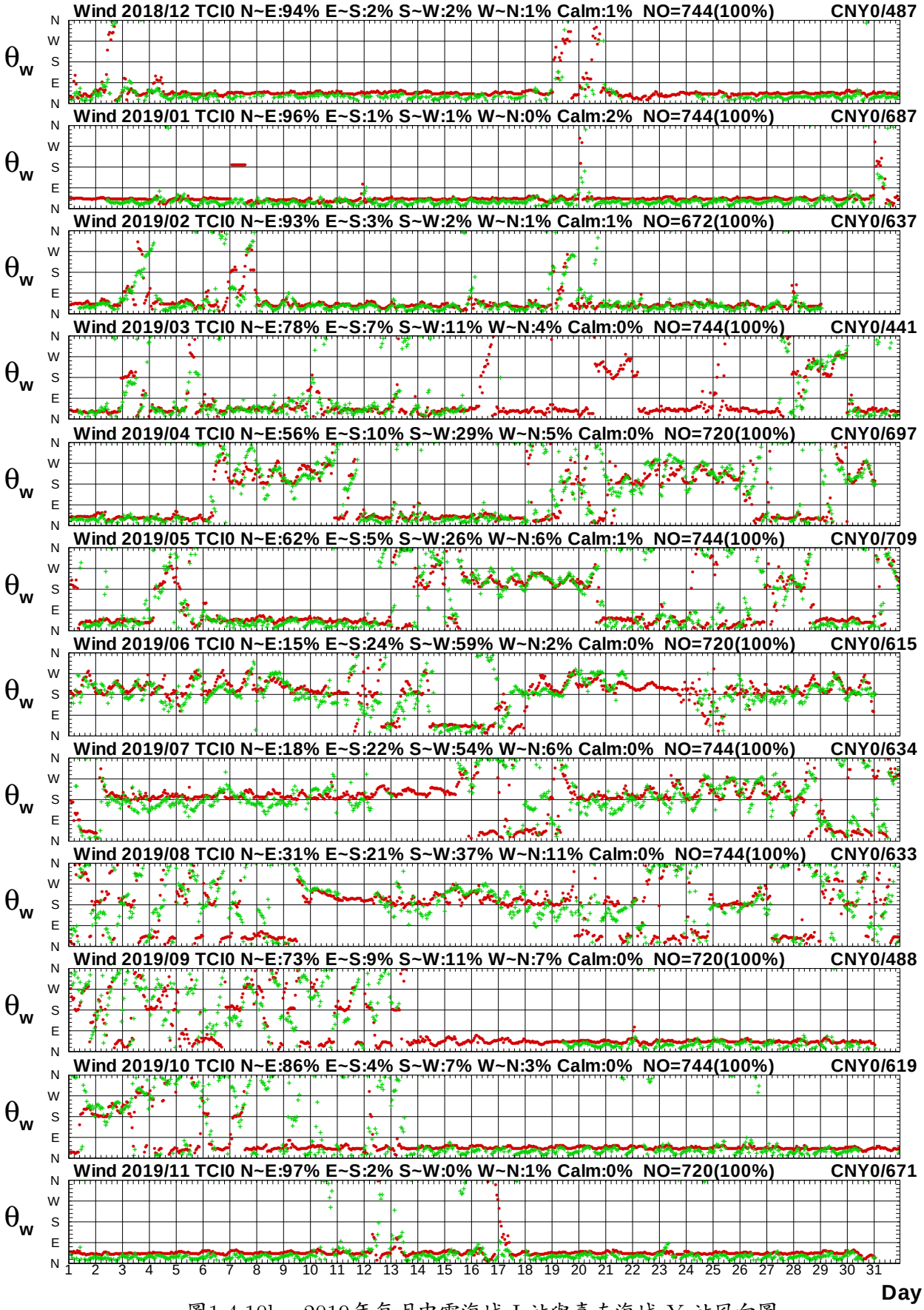

圖1.4.10b　2019年每月中雲海域 I 站與嘉南海域 Y 站風向圖

W18CTCI0.1HA W18CCNY0.1H0 W191TCI0.1HA W191CNY0.1H0 W192TCI0.1HA W192CNY0.1H0
W193TCI0.1HA W193CNY0.1H0 W194TCI0.1HA W194CNY0.1H0 W195TCI0.1HA W195CNY0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

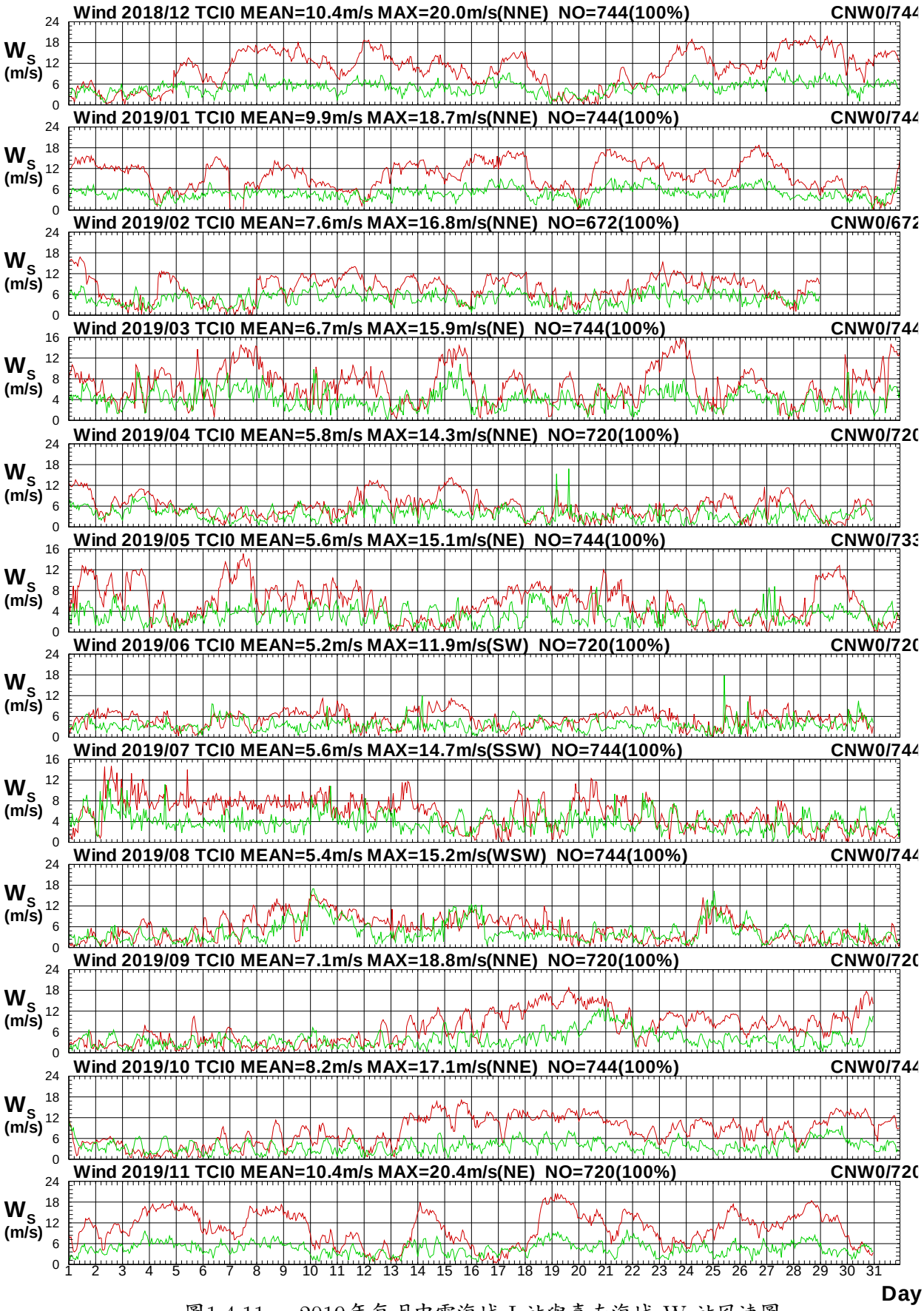

圖1.4.11a　2019年每月中雲海域 I 站與嘉南海域 W 站風速圖

W18CTCI0.1HA W18CCNW0.1H0 W191TCI0.1HA W191CNW0.1H0 W192TCI0.1HA W192CNW0.1H0
W193TCI0.1HA W193CNW0.1H0 W194TCI0.1HA W194CNW0.1H0 W195TCI0.1HA W195CNW0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

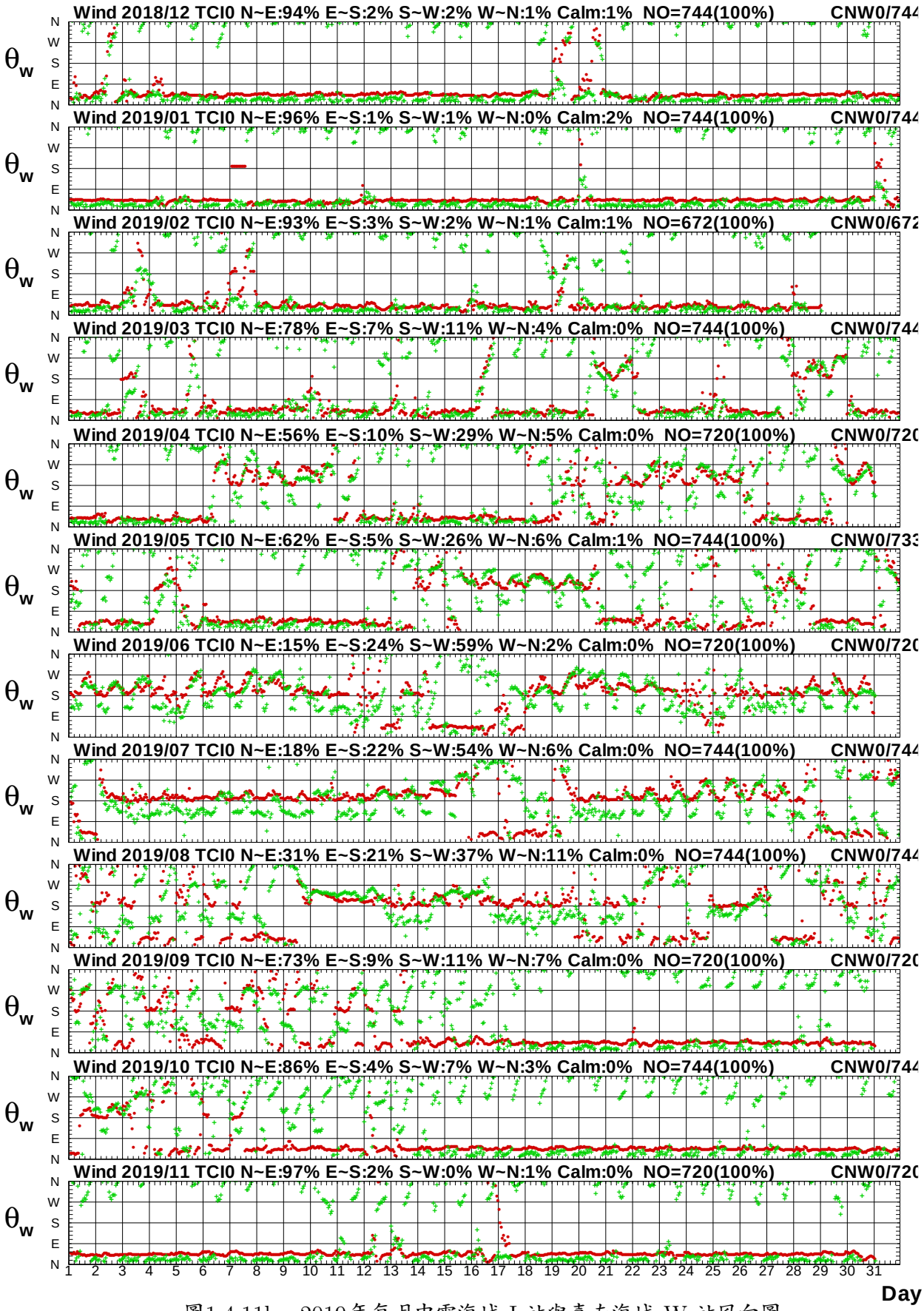

圖1.4.11b　2019年每月中雲海域 I 站與嘉南海域 W 站風向圖

W18CTCI0.1HA W18CCNW0.1H0 W191TCI0.1HA W191CNW0.1H0 W192TCI0.1HA W192CNW0.1H0
W193TCI0.1HA W193CNW0.1H0 W194TCI0.1HA W194CNW0.1H0 W195TCI0.1HA W195CNW0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

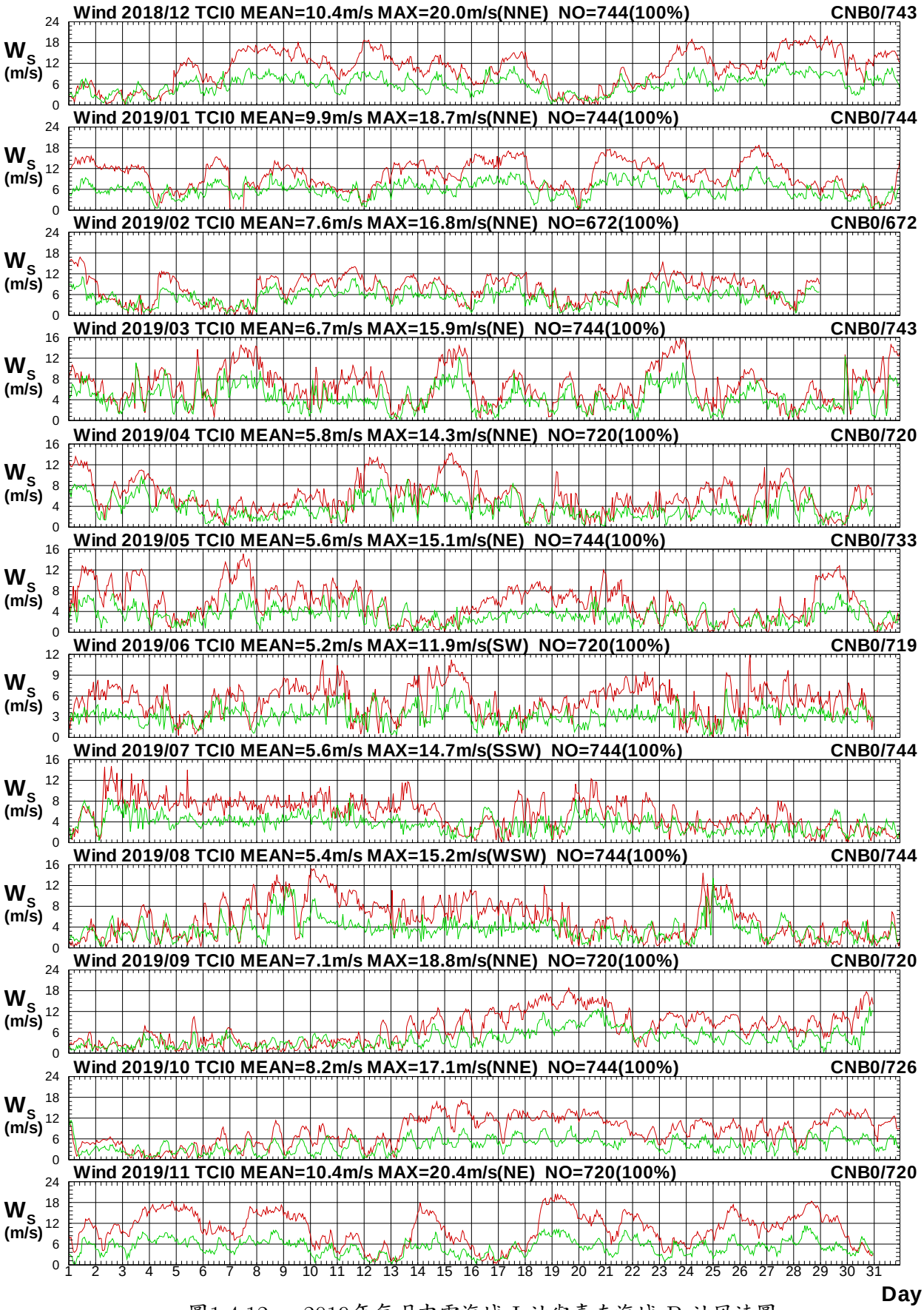

圖1.4.12a　2019年每月中雲海域 I 站與嘉南海域 B 站風速圖

W18CTCI0.1HA W18CCNB0.1H0 W191TCI0.1HA W191CNB0.1H0 W192TCI0.1HA W192CNB0.1H0
W193TCI0.1HA W193CNB0.1H0 W194TCI0.1HA W194CNB0.1H0 W195TCI0.1HA W195CNB0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

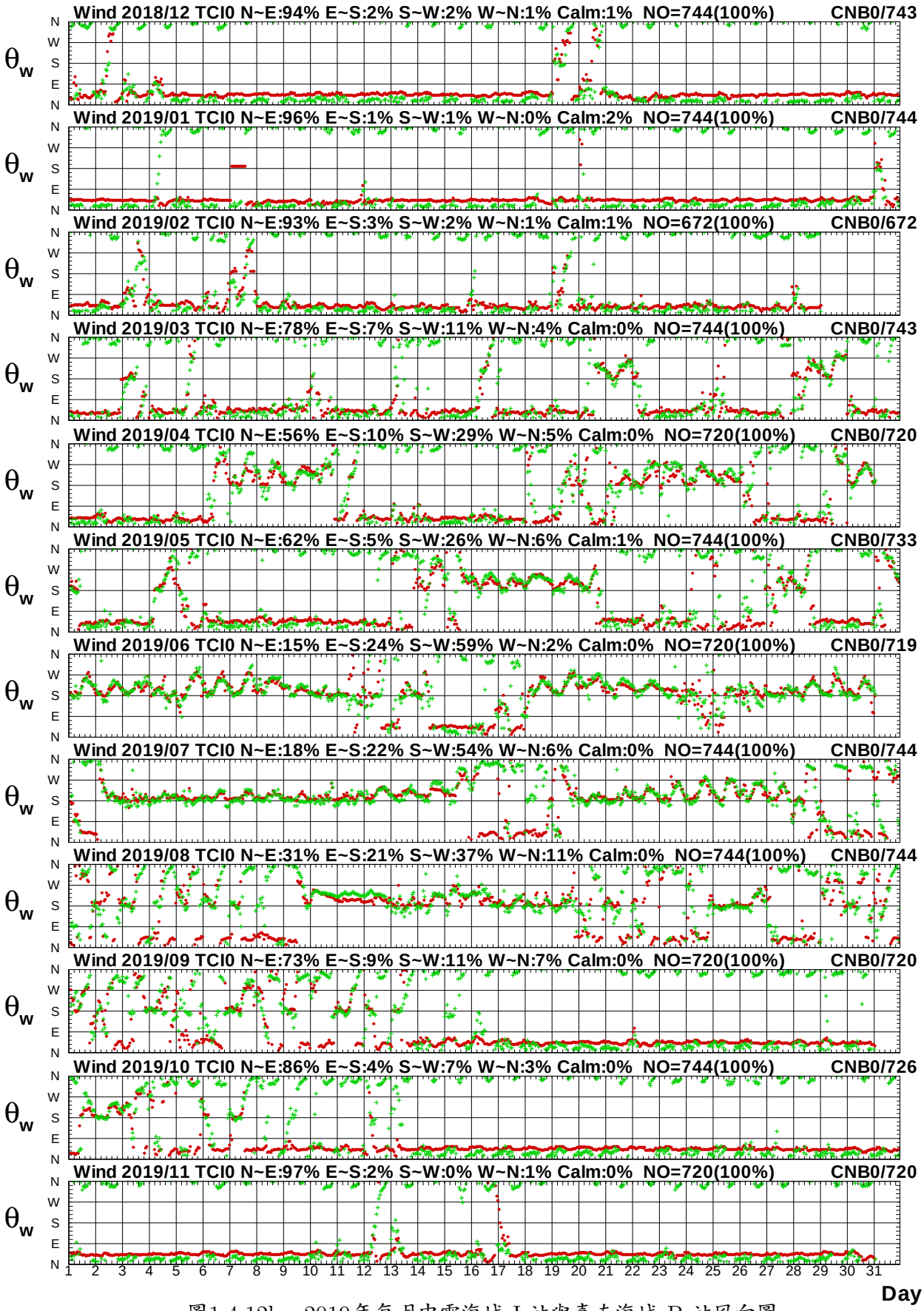

圖1.4.12b　2019年每月中雲海域 I 站與嘉南海域 B 站風向圖

W18CTCI0.1HA W18CCNB0.1H0 W191TCI0.1HA W191CNB0.1H0 W192TCI0.1HA W192CNB0.1H0
W193TCI0.1HA W193CNB0.1H0 W194TCI0.1HA W194CNB0.1H0 W195TCI0.1HA W195CNB0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

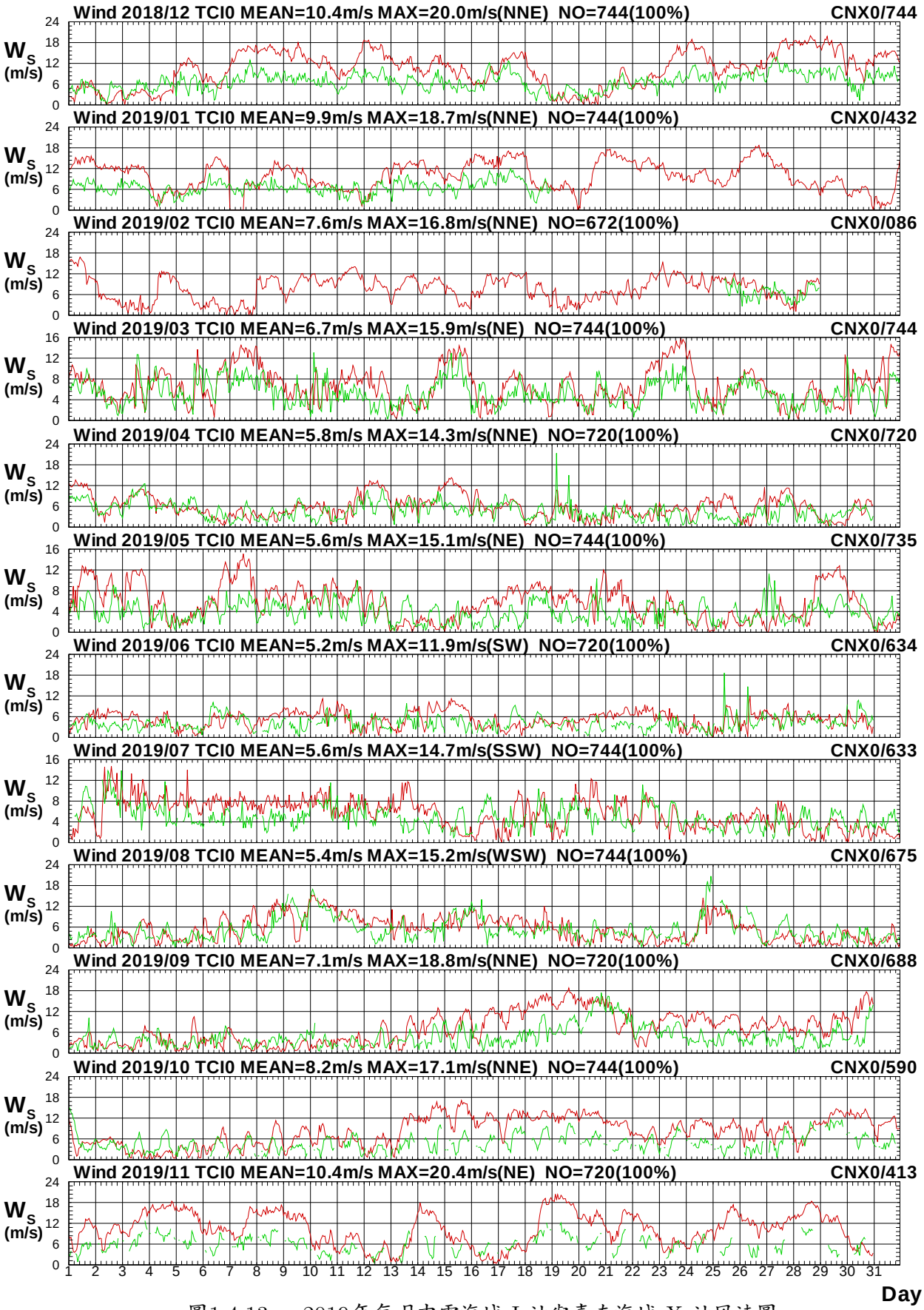

圖1.4.13a　2019年每月中雲海域 I 站與嘉南海域 X 站風速圖

W18CTCI0.1HA W18CCNX0.1H0 W191TCI0.1HA W191CNX0.1H0 W192TCI0.1HA W192CNX0.1H0
W193TCI0.1HA W193CNX0.1H0 W194TCI0.1HA W194CNX0.1H0 W195TCI0.1HA W195CNX0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

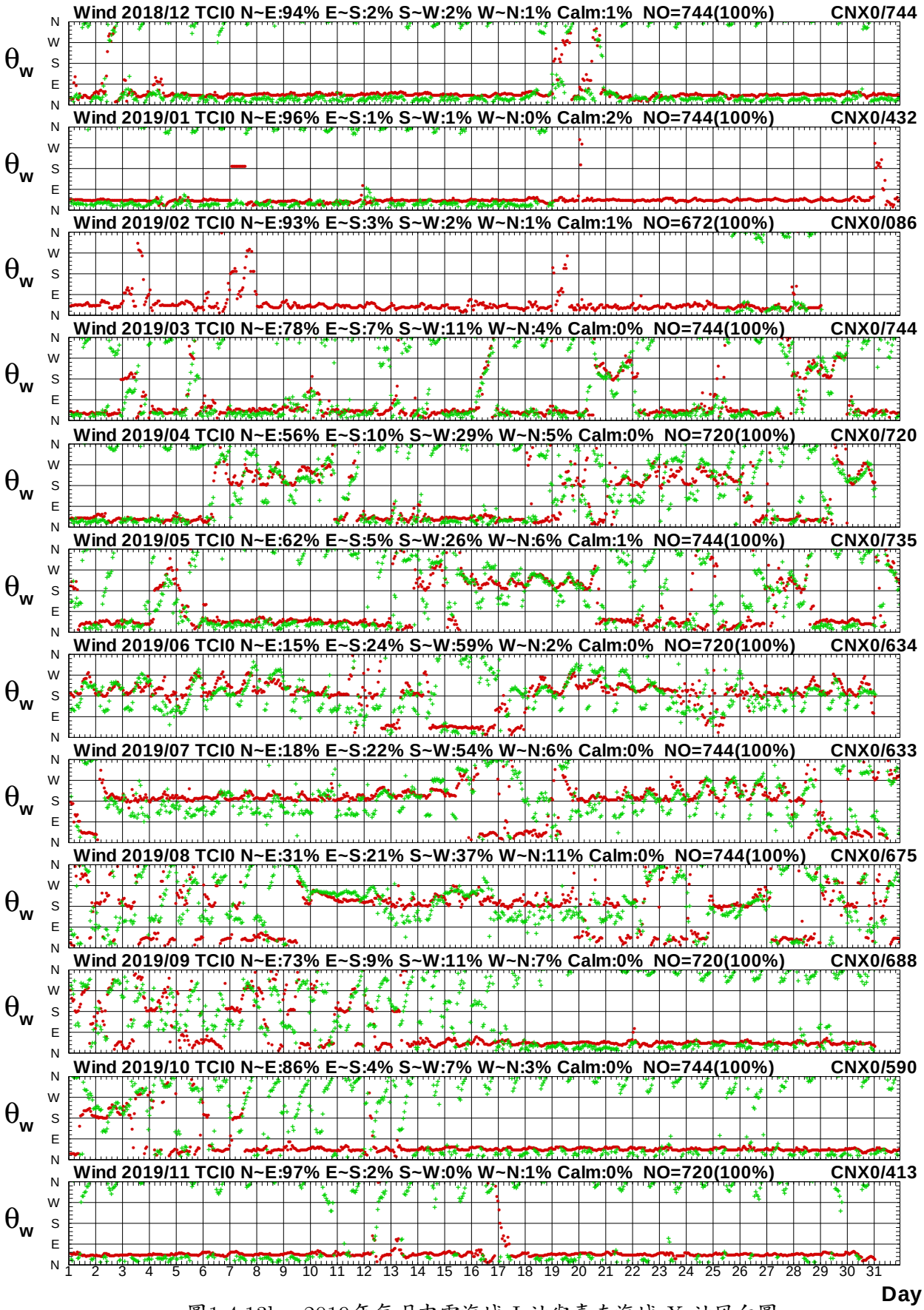

圖1.4.13b　2019年每月中雲海域 I 站與嘉南海域 X 站風向圖

W18CTCI0.1HA W18CCNX0.1H0 W191TCI0.1HA W191CNX0.1H0 W192TCI0.1HA W192CNX0.1H0
W193TCI0.1HA W193CNX0.1H0 W194TCI0.1HA W194CNX0.1H0 W195TCI0.1HA W195CNX0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

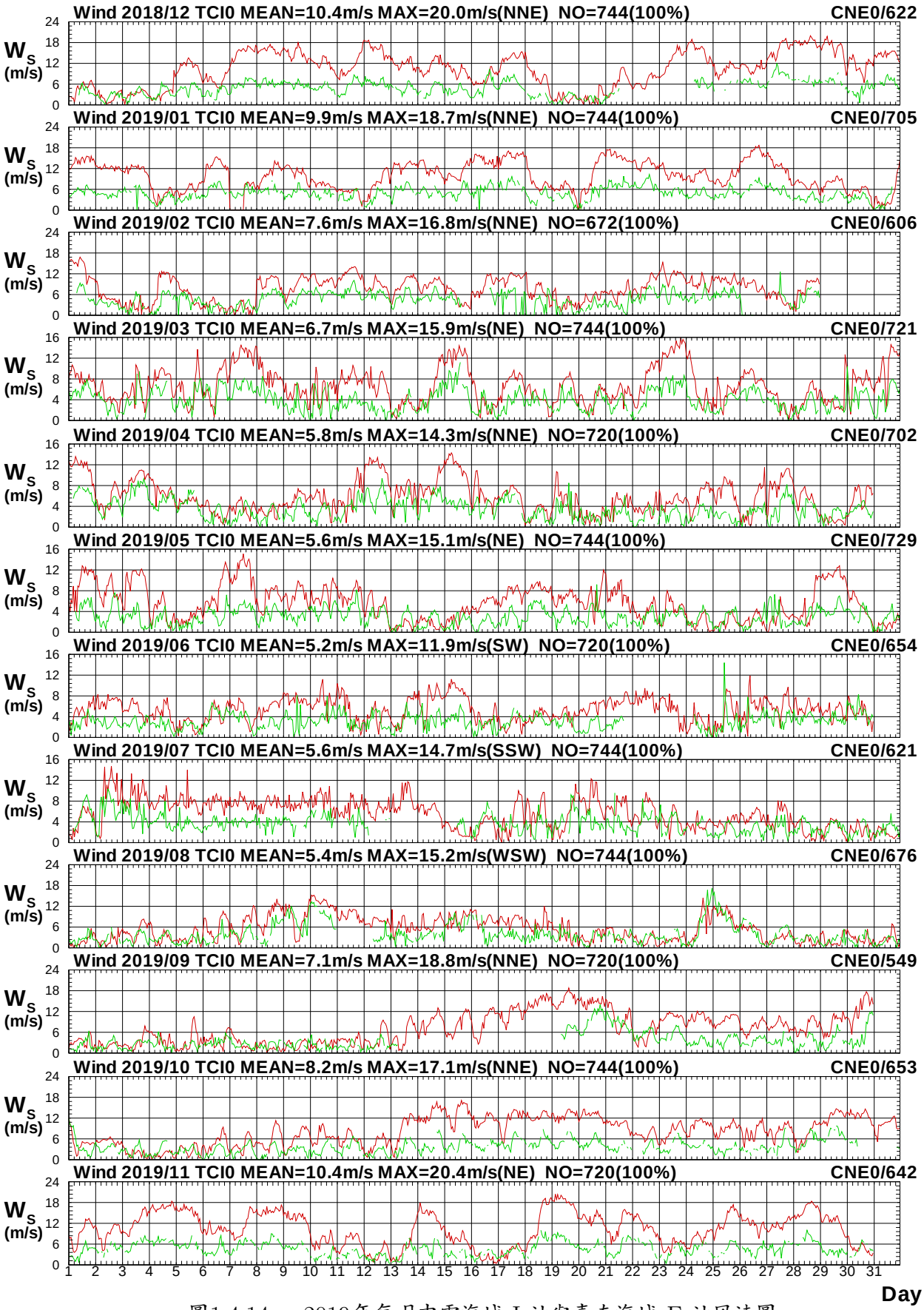

圖1.4.14a　2019年每月中雲海域 I 站與嘉南海域 E 站風速圖

W18CTCI0.1HA W18CCNE0.1H0 W191TCI0.1HA W191CNE0.1H0 W192TCI0.1HA W192CNE0.1H0
W193TCI0.1HA W193CNE0.1H0 W194TCI0.1HA W194CNE0.1H0 W195TCI0.1HA W195CNE0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

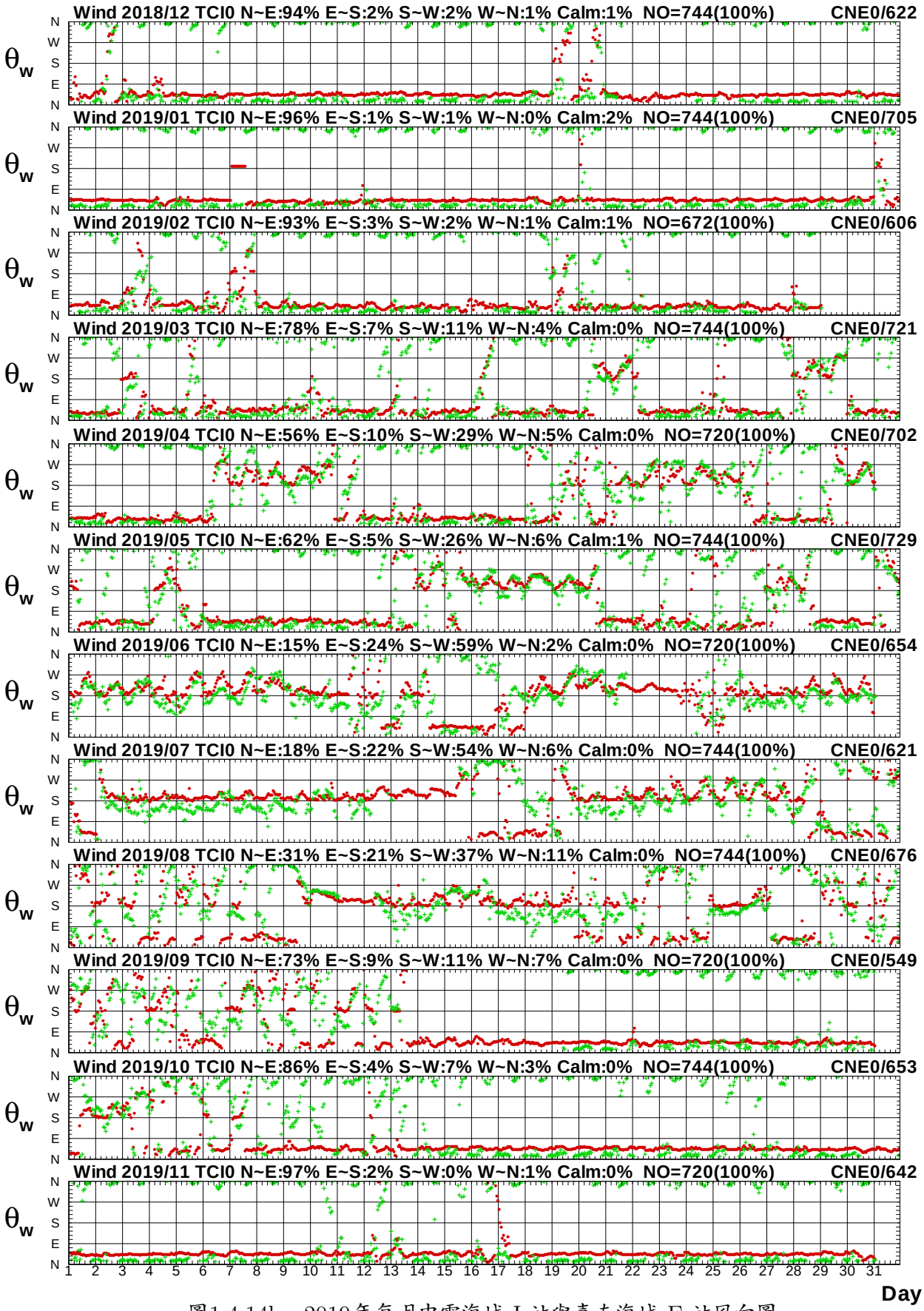

圖1.4.14b　2019年每月中雲海域 I 站與嘉南海域 E 站風向圖

W18CTCI0.1HA W18CCNE0.1H0 W191TCI0.1HA W191CNE0.1H0 W192TCI0.1HA W192CNE0.1H0
W193TCI0.1HA W193CNE0.1H0 W194TCI0.1HA W194CNE0.1H0 W195TCI0.1HA W195CNE0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

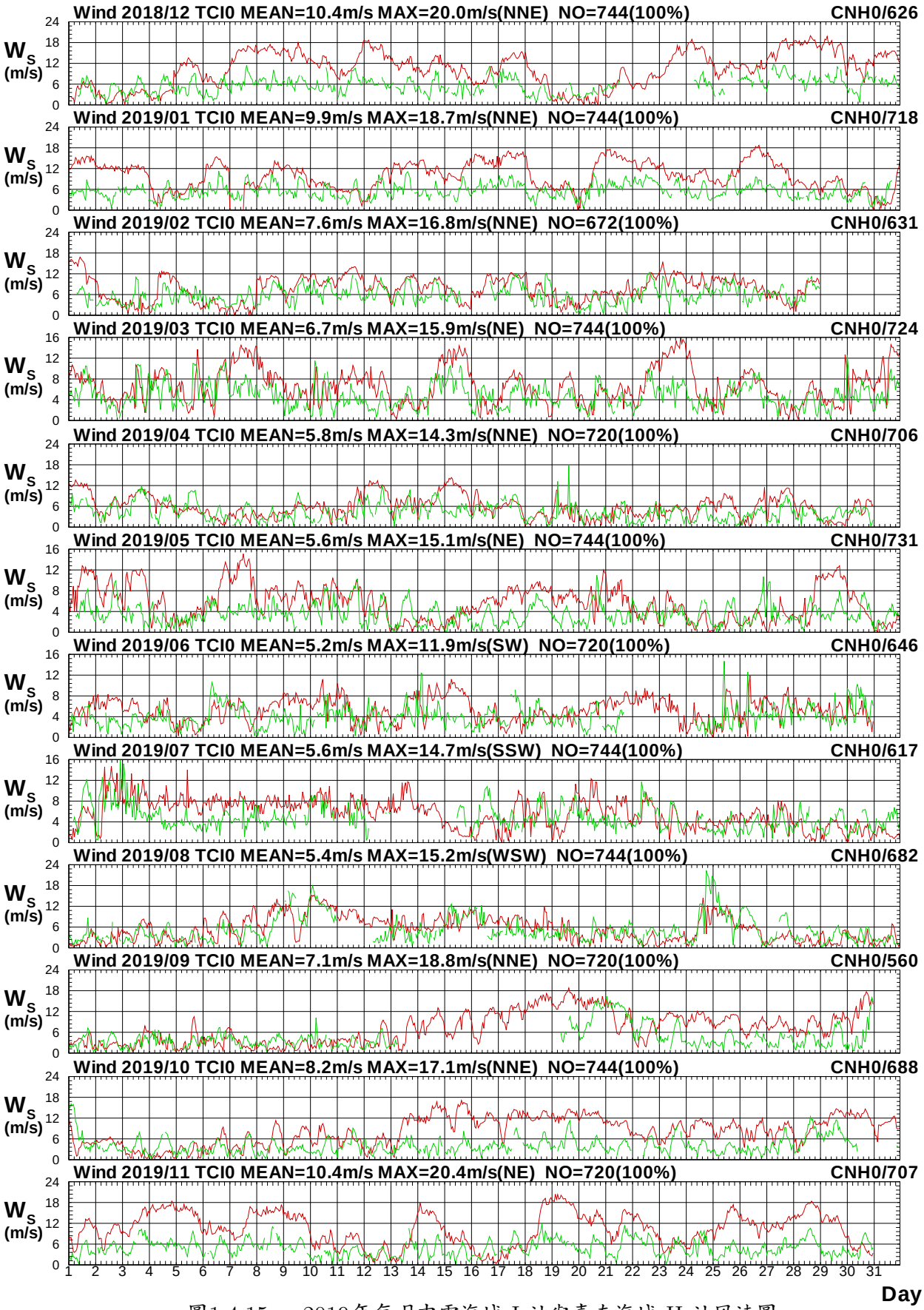

圖1.4.15a　2019年每月中雲海域 I 站與嘉南海域 H 站風速圖

W18CTCI0.1HA W18CCNH0.1H0 W191TCI0.1HA W191CNH0.1H0 W192TCI0.1HA W192CNH0.1H0
W193TCI0.1HA W193CNH0.1H0 W194TCI0.1HA W194CNH0.1H0 W195TCI0.1HA W195CNH0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

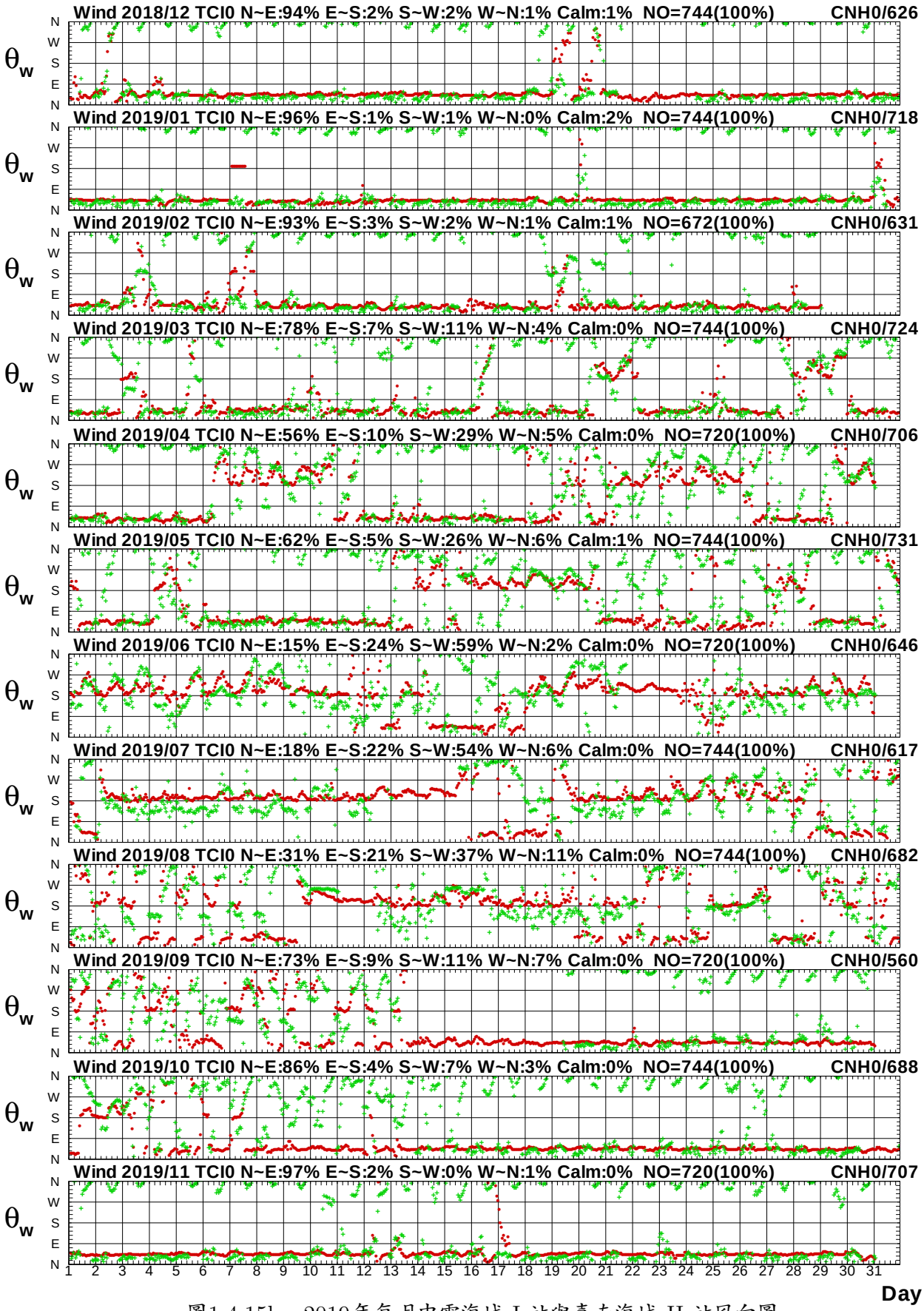

圖1.4.15b　2019年每月中雲海域 I 站與嘉南海域 H 站風向圖

W18CTCI0.1HA W18CCNH0.1H0 W191TCI0.1HA W191CNH0.1H0 W192TCI0.1HA W192CNH0.1H0
W193TCI0.1HA W193CNH0.1H0 W194TCI0.1HA W194CNH0.1H0 W195TCI0.1HA W195CNH0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

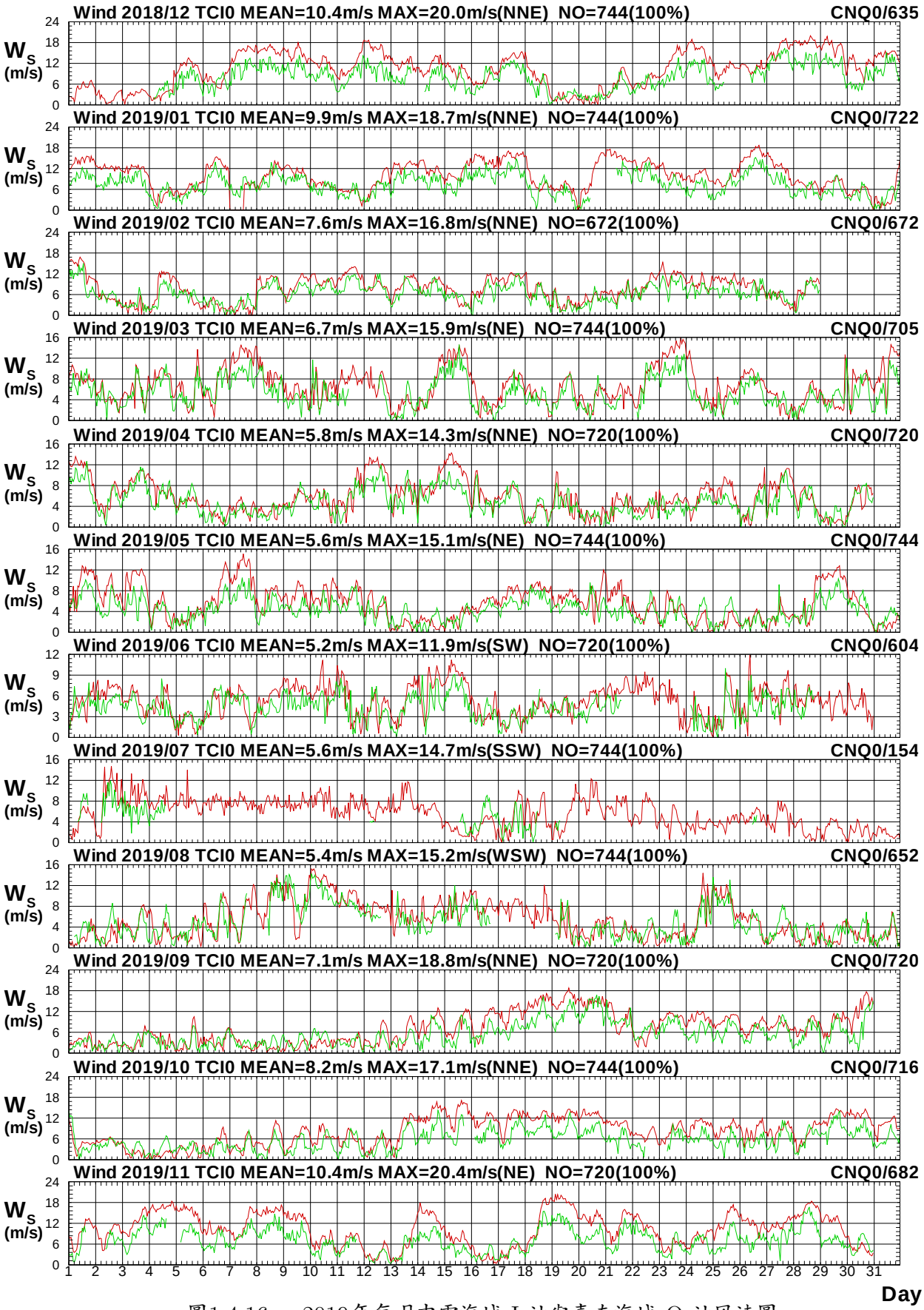

圖1.4.16a　2019年每月中雲海域 I 站與嘉南海域 Q 站風速圖

W18CTCI0.1HA W18CCNQ0.1H0 W191TCI0.1HA W191CNQ0.1H0 W192TCI0.1HA W192CNQ0.1H0
W193TCI0.1HA W193CNQ0.1H0 W194TCI0.1HA W194CNQ0.1H0 W195TCI0.1HA W195CNQ0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

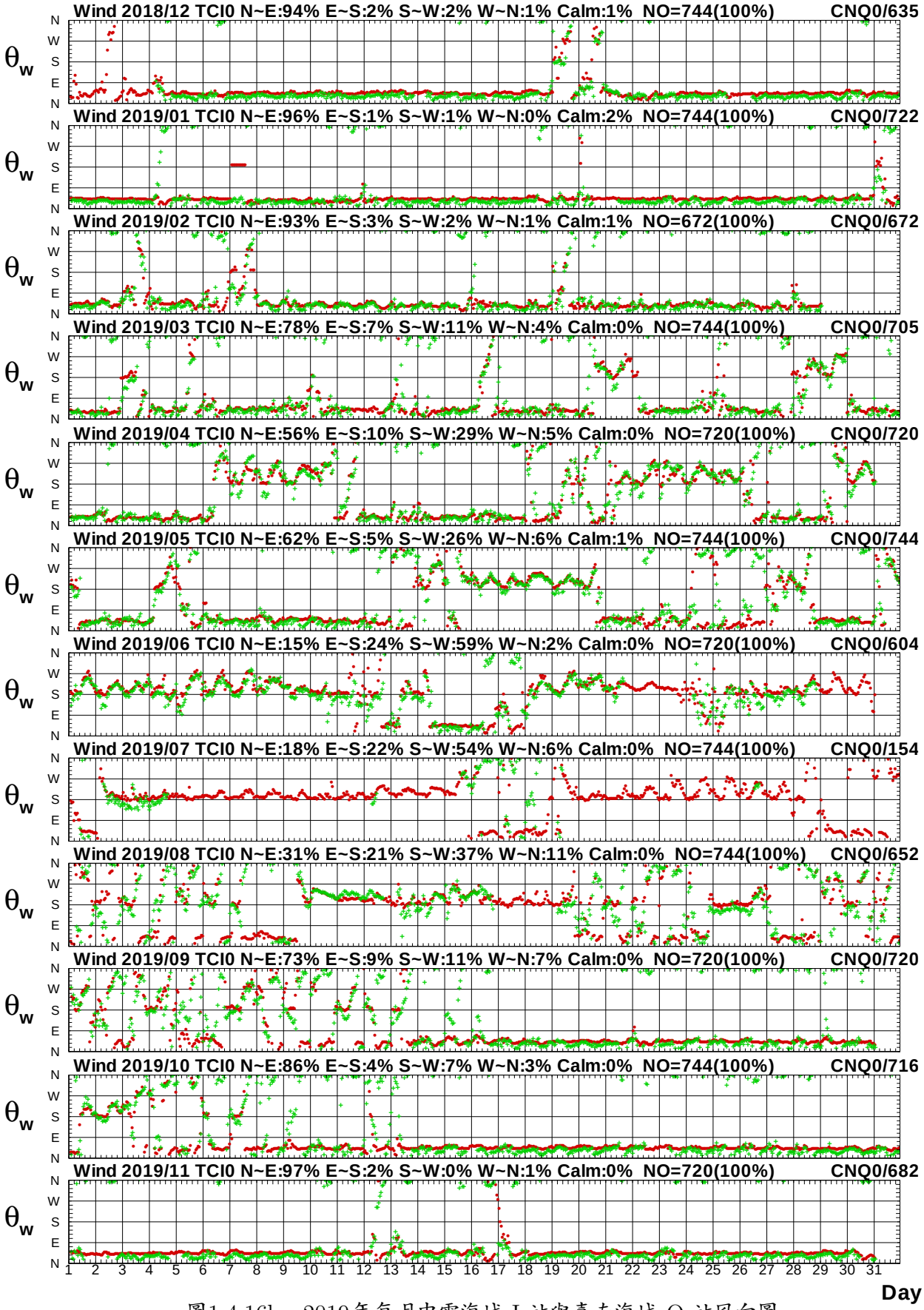

圖1.4.16b　2019年每月中雲海域 I 站與嘉南海域 Q 站風向圖

W18CTCI0.1HA W18CCNQ0.1H0 W191TCI0.1HA W191CNQ0.1H0 W192TCI0.1HA W192CNQ0.1H0
W193TCI0.1HA W193CNQ0.1H0 W194TCI0.1HA W194CNQ0.1H0 W195TCI0.1HA W195CNQ0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

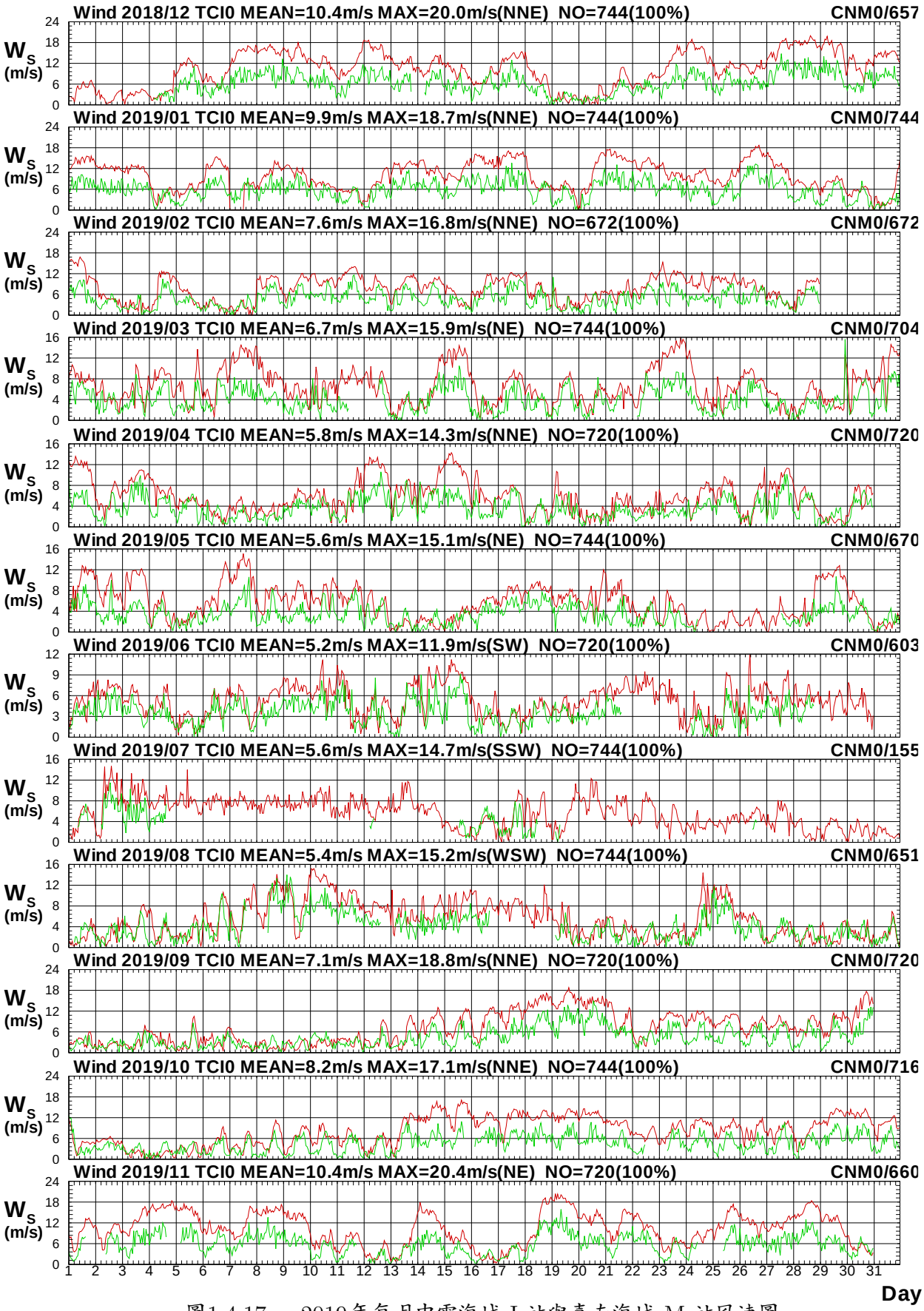

圖1.4.17a　2019年每月中雲海域 I 站與嘉南海域 M 站風速圖

W18CTCI0.1HA W18CCNM0.1H0 W191TCI0.1HA W191CNM0.1H0 W192TCI0.1HA W192CNM0.1H0
W193TCI0.1HA W193CNM0.1H0 W194TCI0.1HA W194CNM0.1H0 W195TCI0.1HA W195CNM0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

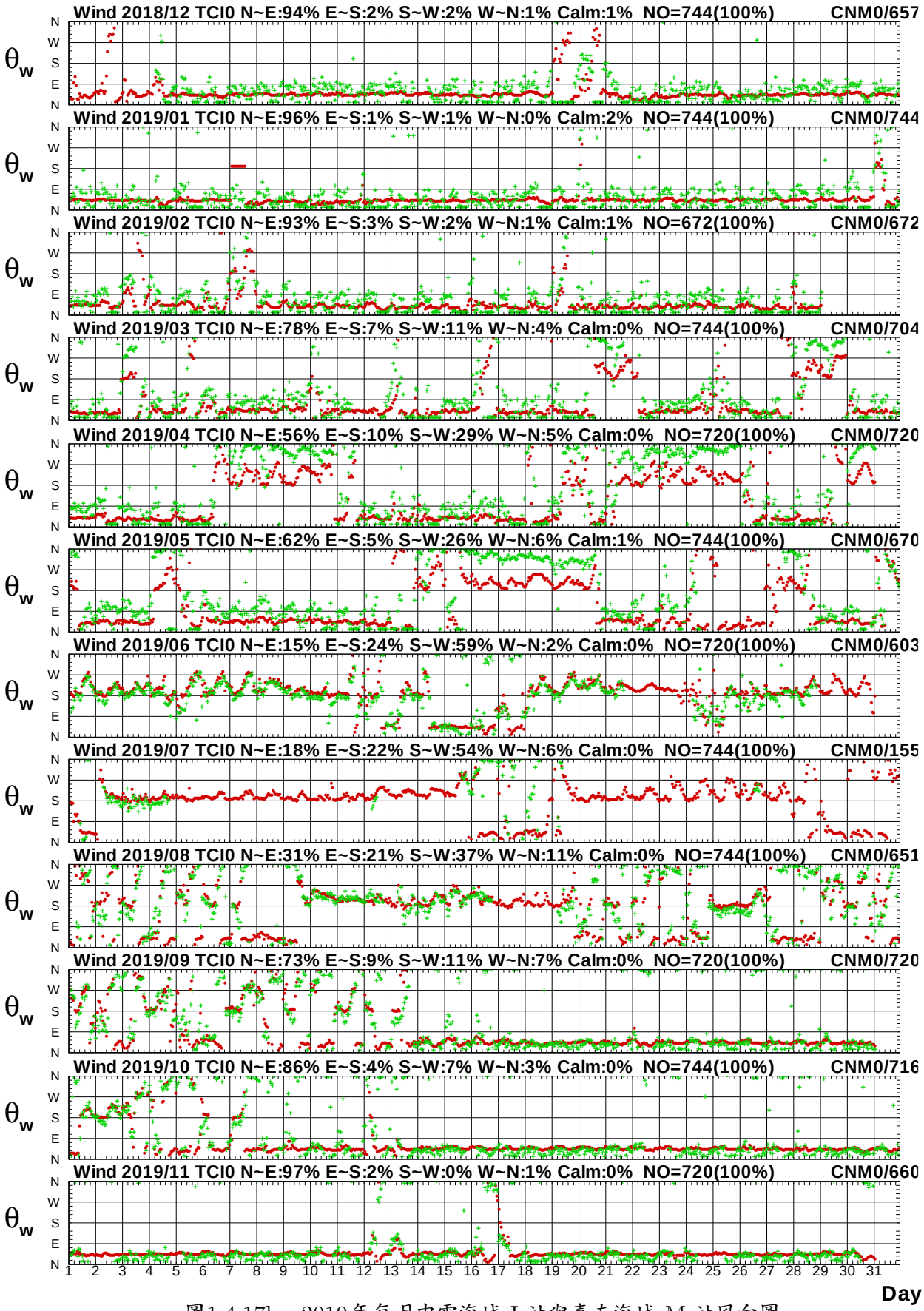

圖1.4.17b　2019年每月中雲海域 I 站與嘉南海域 M 站風向圖

W18CTCI0.1HA W18CCNM0.1H0 W191TCI0.1HA W191CNM0.1H0 W192TCI0.1HA W192CNM0.1H0
W193TCI0.1HA W193CNM0.1H0 W194TCI0.1HA W194CNM0.1H0 W195TCI0.1HA W195CNM0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

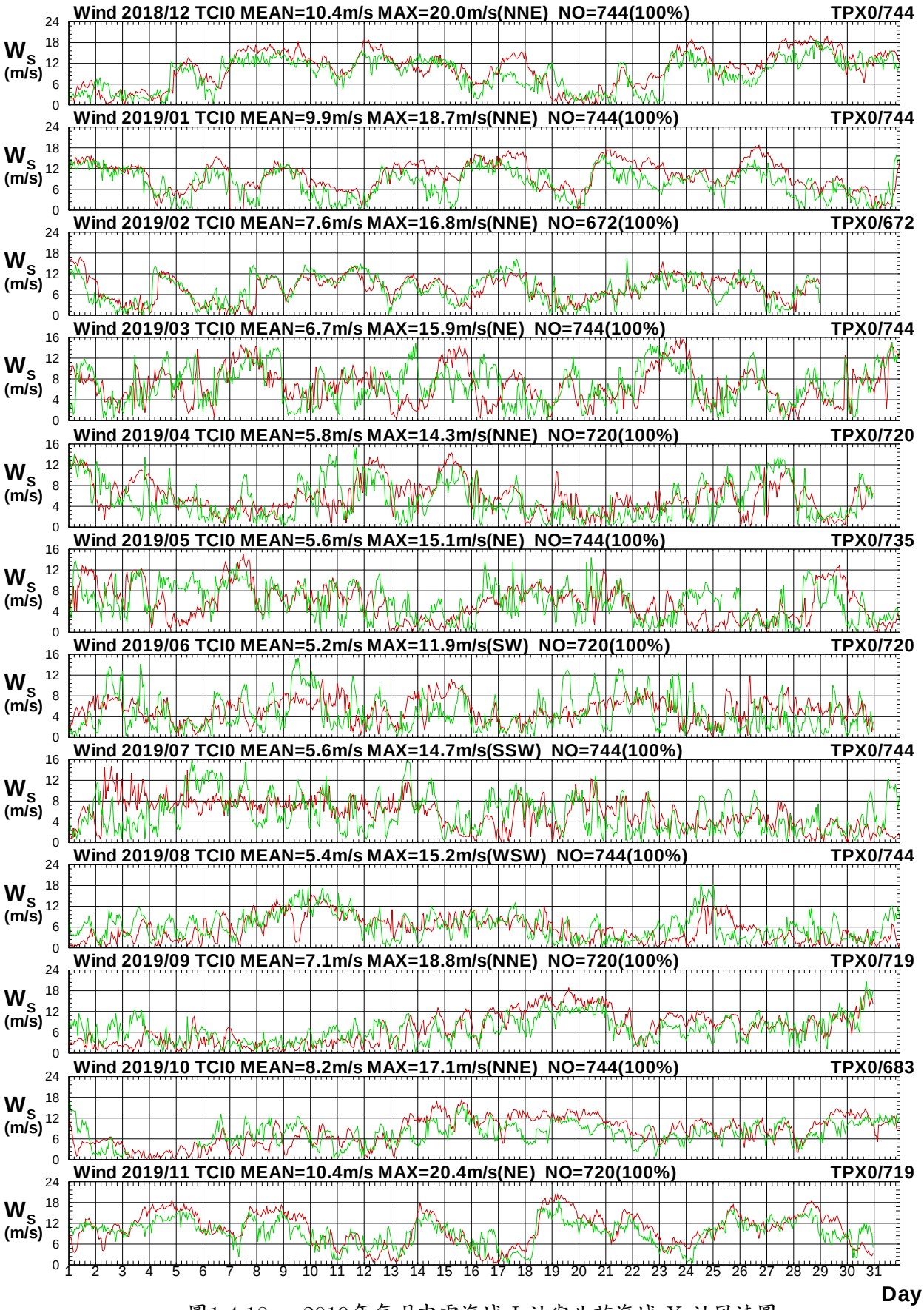

圖1.4.18a　2019年每月中雲海域 I 站與北苗海域 X 站風速圖

W18CTCI0.1HA W18CTPX0.1H0 W191TCI0.1HA W191TPX0.1H0 W192TCI0.1HA W192TPX0.1H0
W193TCI0.1HA W193TPX0.1H0 W194TCI0.1HA W194TPX0.1H0 W195TCI0.1HA W195TPX0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

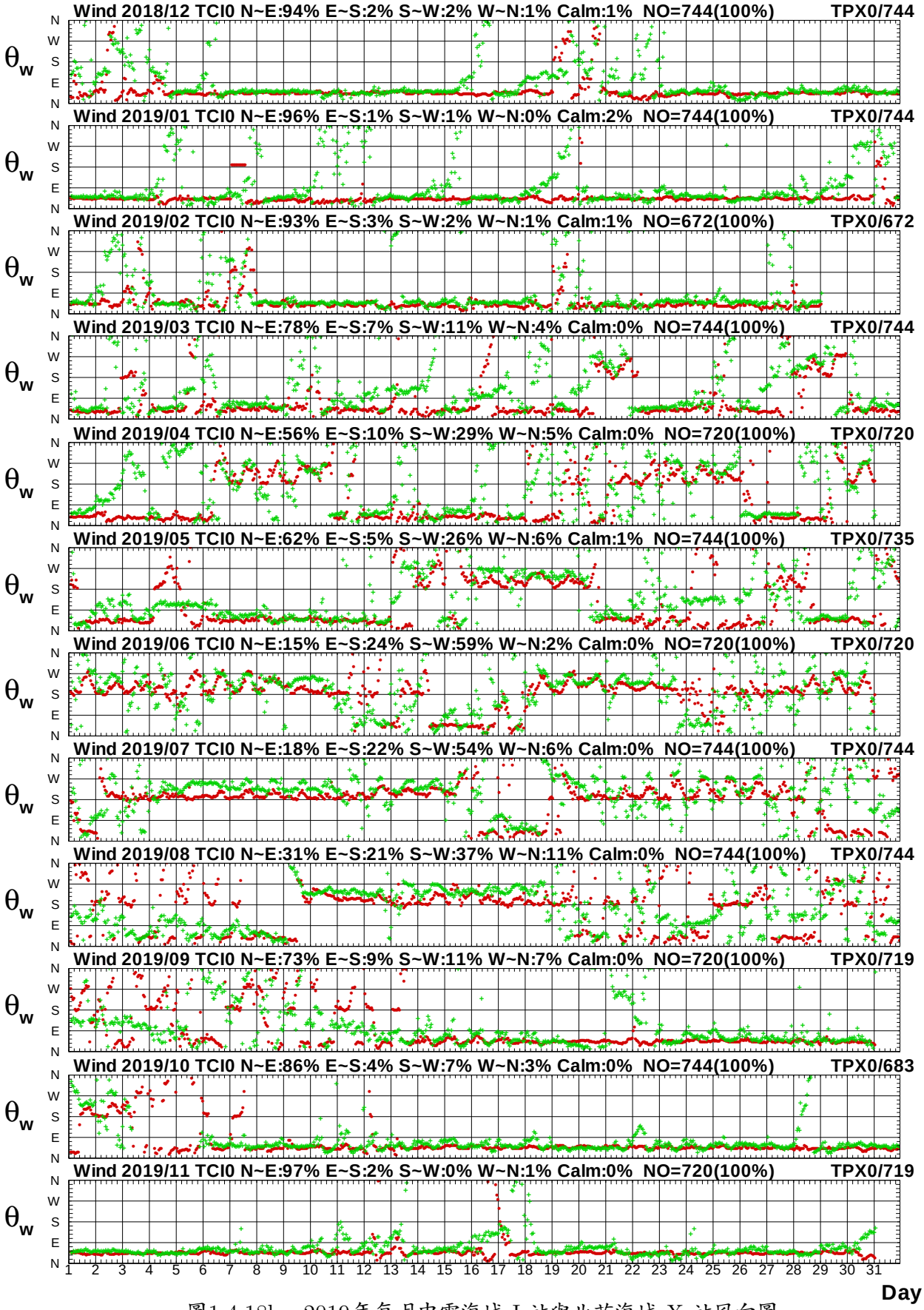

圖1.4.18b　2019年每月中雲海域 I 站與北苗海域 X 站風向圖

W18CTCI0.1HA W18CTPX0.1H0 W191TCI0.1HA W191TPX0.1H0 W192TCI0.1HA W192TPX0.1H0
W193TCI0.1HA W193TPX0.1H0 W194TCI0.1HA W194TPX0.1H0 W195TCI0.1HA W195TPX0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

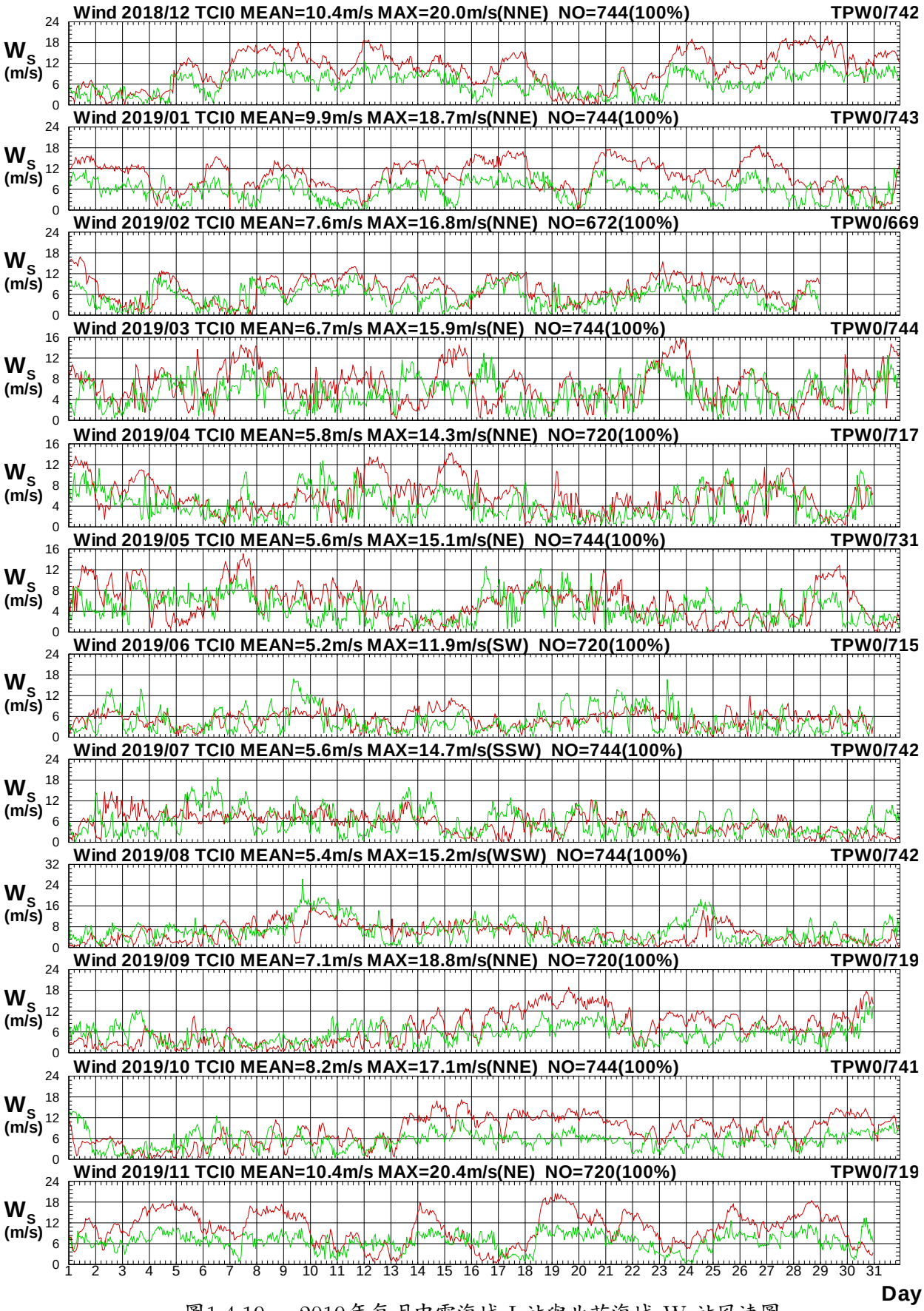

圖1.4.19a　2019年每月中雲海域 I 站與北苗海域 W 站風速圖

W18CTCI0.1HA W18CTPW0.1H0 W191TCI0.1HA W191TPW0.1H0 W192TCI0.1HA W192TPW0.1H0
W193TCI0.1HA W193TPW0.1H0 W194TCI0.1HA W194TPW0.1H0 W195TCI0.1HA W195TPW0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

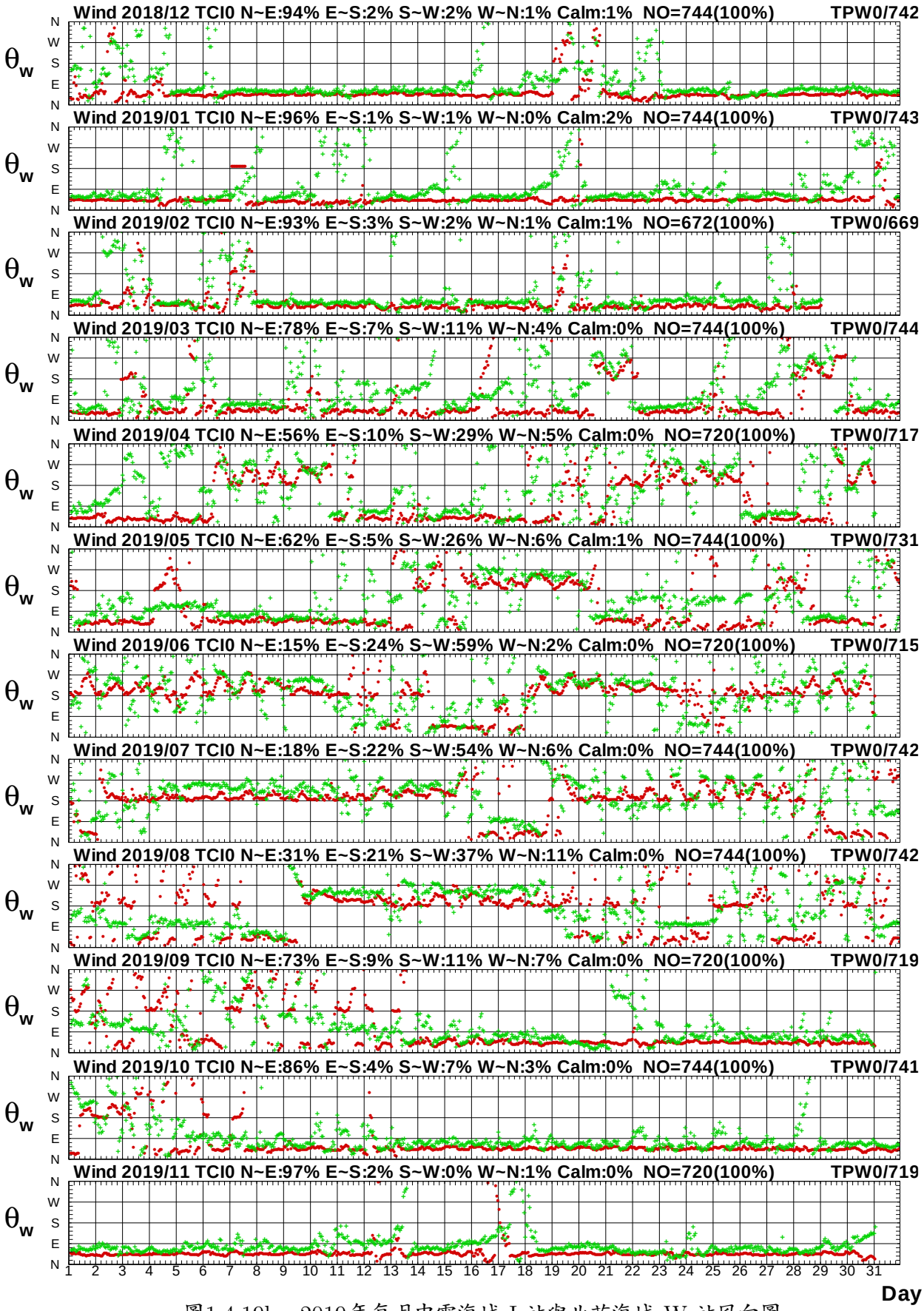

圖1.4.19b　2019年每月中雲海域 I 站與北苗海域 W 站風向圖

W18CTCI0.1HA W18CTPW0.1H0 W191TCI0.1HA W191TPW0.1H0 W192TCI0.1HA W192TPW0.1H0
W193TCI0.1HA W193TPW0.1H0 W194TCI0.1HA W194TPW0.1H0 W195TCI0.1HA W195TPW0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

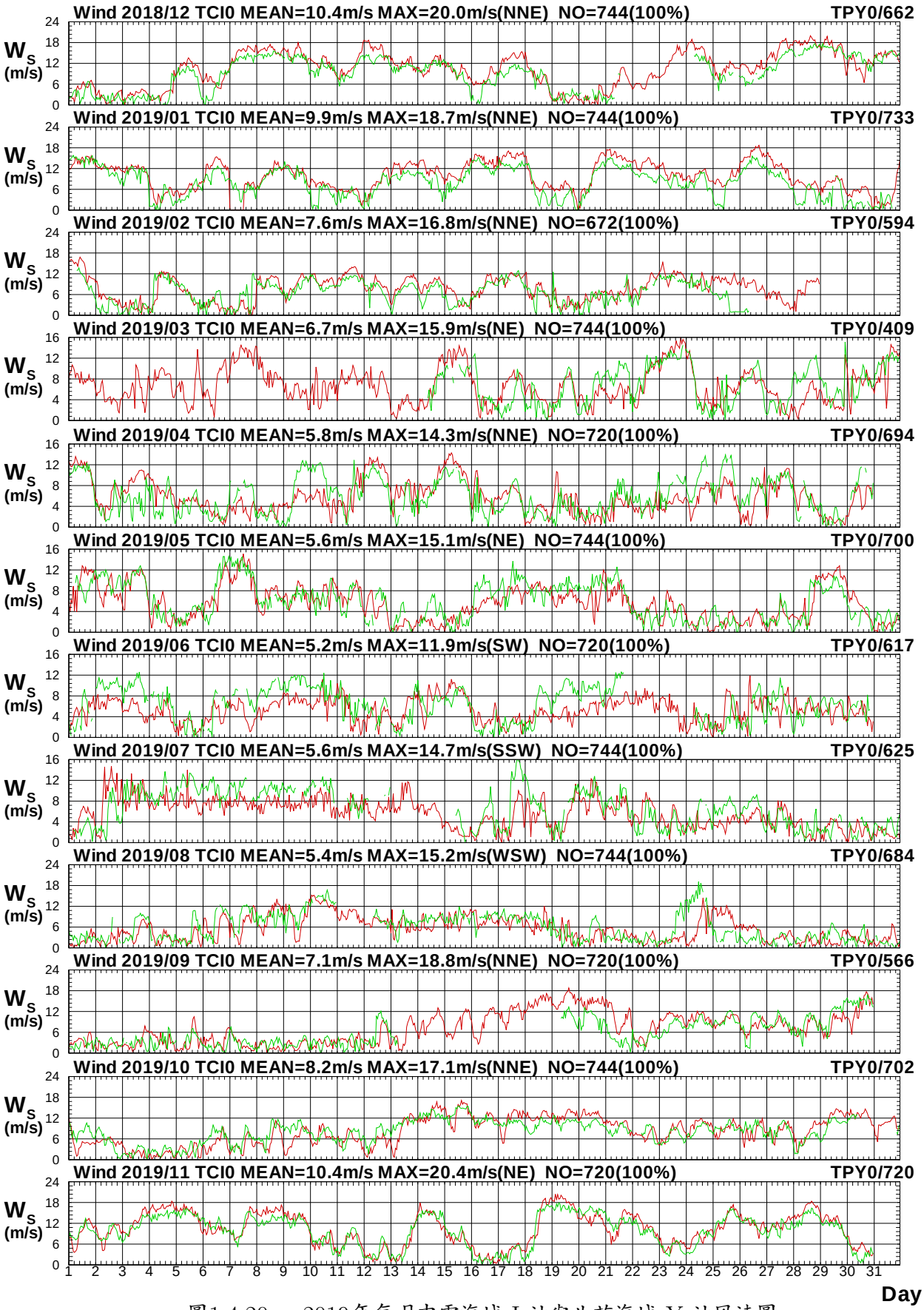

圖1.4.20a　2019年每月中雲海域 I 站與北苗海域 Y 站風速圖

W18CTCI0.1HA W18CTPY0.1H0 W191TCI0.1HA W191TPY0.1H0 W192TCI0.1HA W192TPY0.1H0
W193TCI0.1HA W193TPY0.1H0 W194TCI0.1HA W194TPY0.1H0 W195TCI0.1HA W195TPY0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

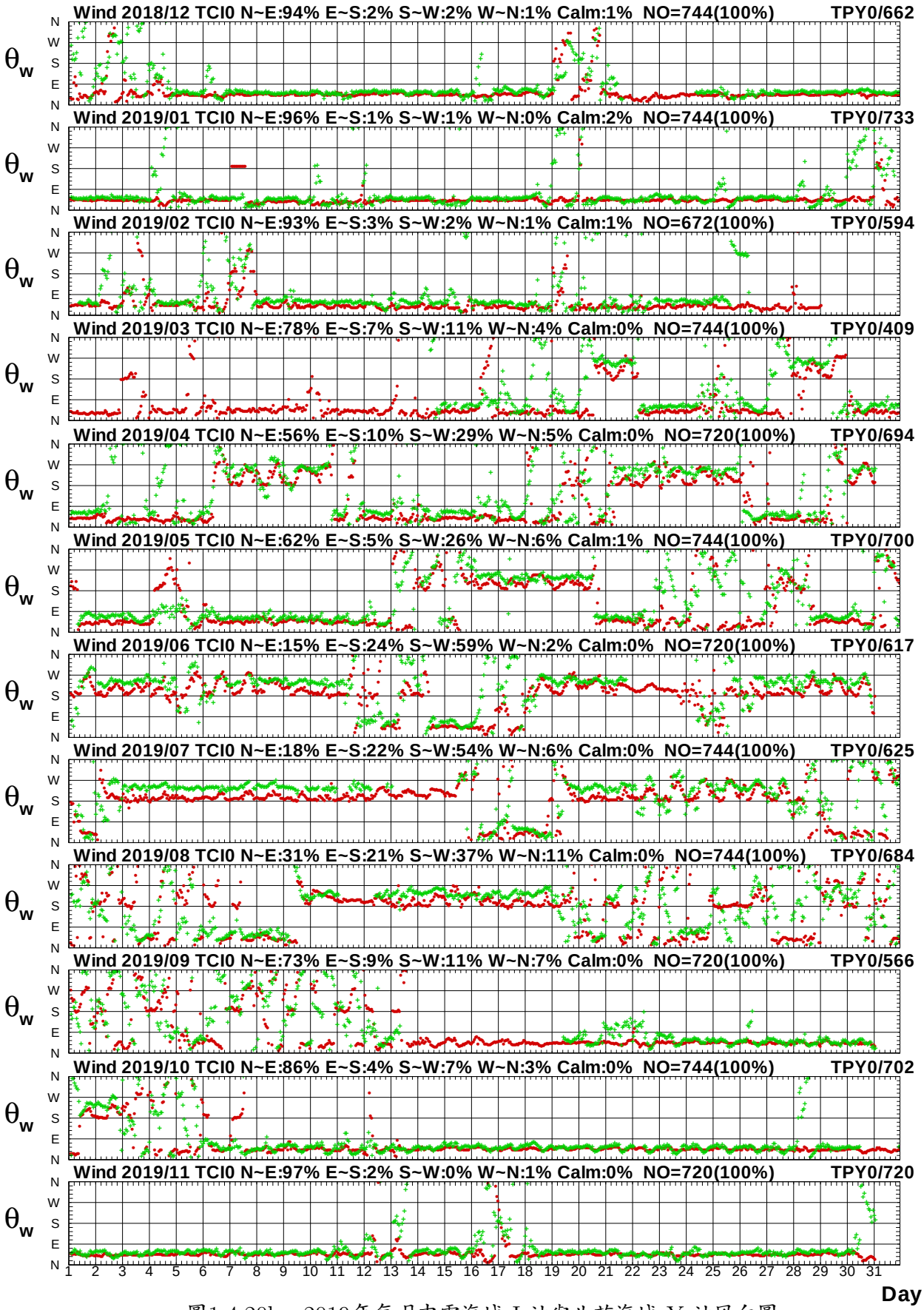

圖1.4.20b　2019年每月中雲海域 I 站與北苗海域 Y 站風向圖

W18CTCI0.1HA W18CTPY0.1H0 W191TCI0.1HA W191TPY0.1H0 W192TCI0.1HA W192TPY0.1H0
W193TCI0.1HA W193TPY0.1H0 W194TCI0.1HA W194TPY0.1H0 W195TCI0.1HA W195TPY0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

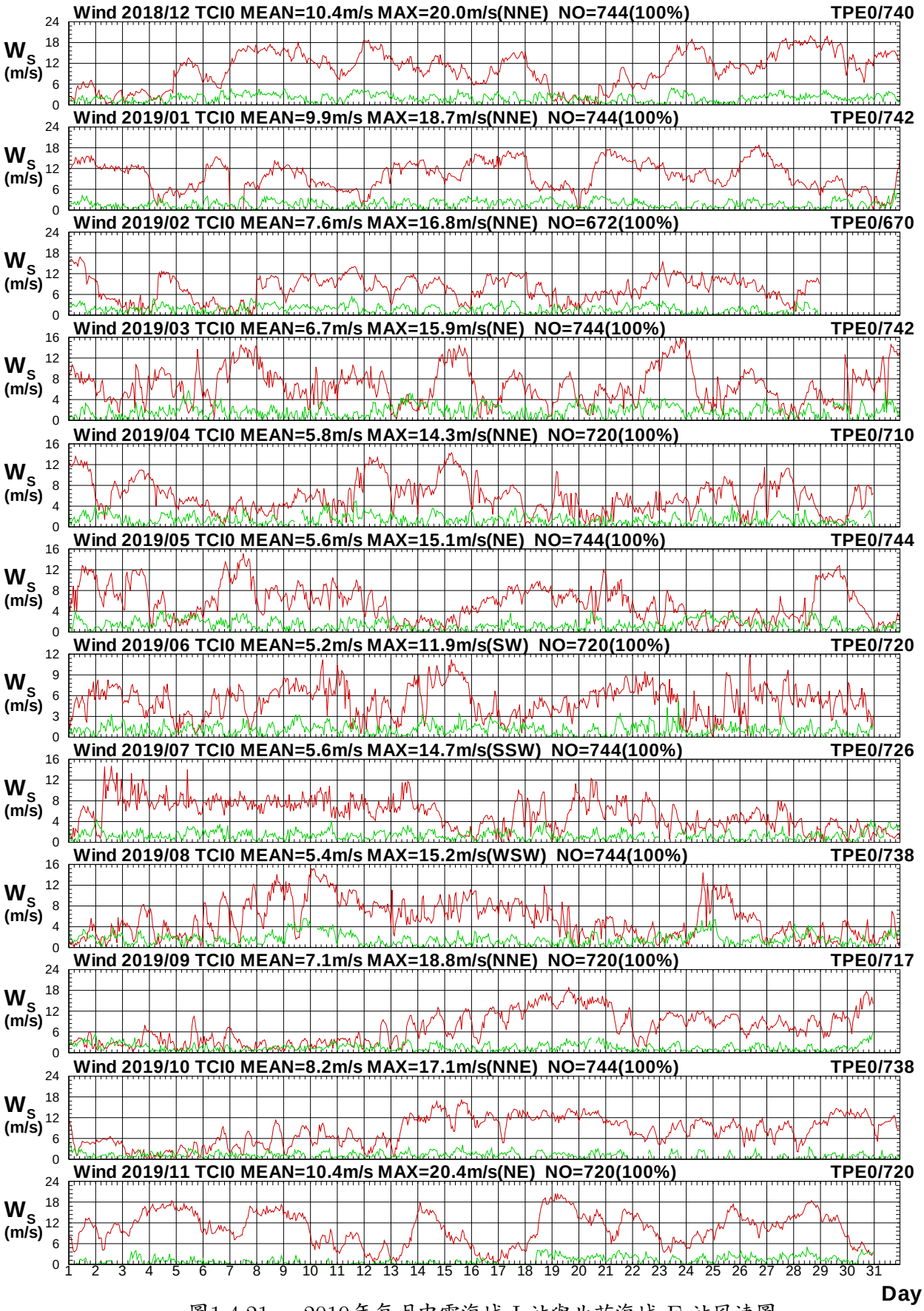

圖1.4.21a　2019年每月中雲海域 I 站與北苗海域 E 站風速圖

W18CTCI0.1HA W18CTPE0.1H0 W191TCI0.1HA W191TPE0.1H0 W192TCI0.1HA W192TPE0.1H0
W193TCI0.1HA W193TPE0.1H0 W194TCI0.1HA W194TPE0.1H0 W195TCI0.1HA W195TPE0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

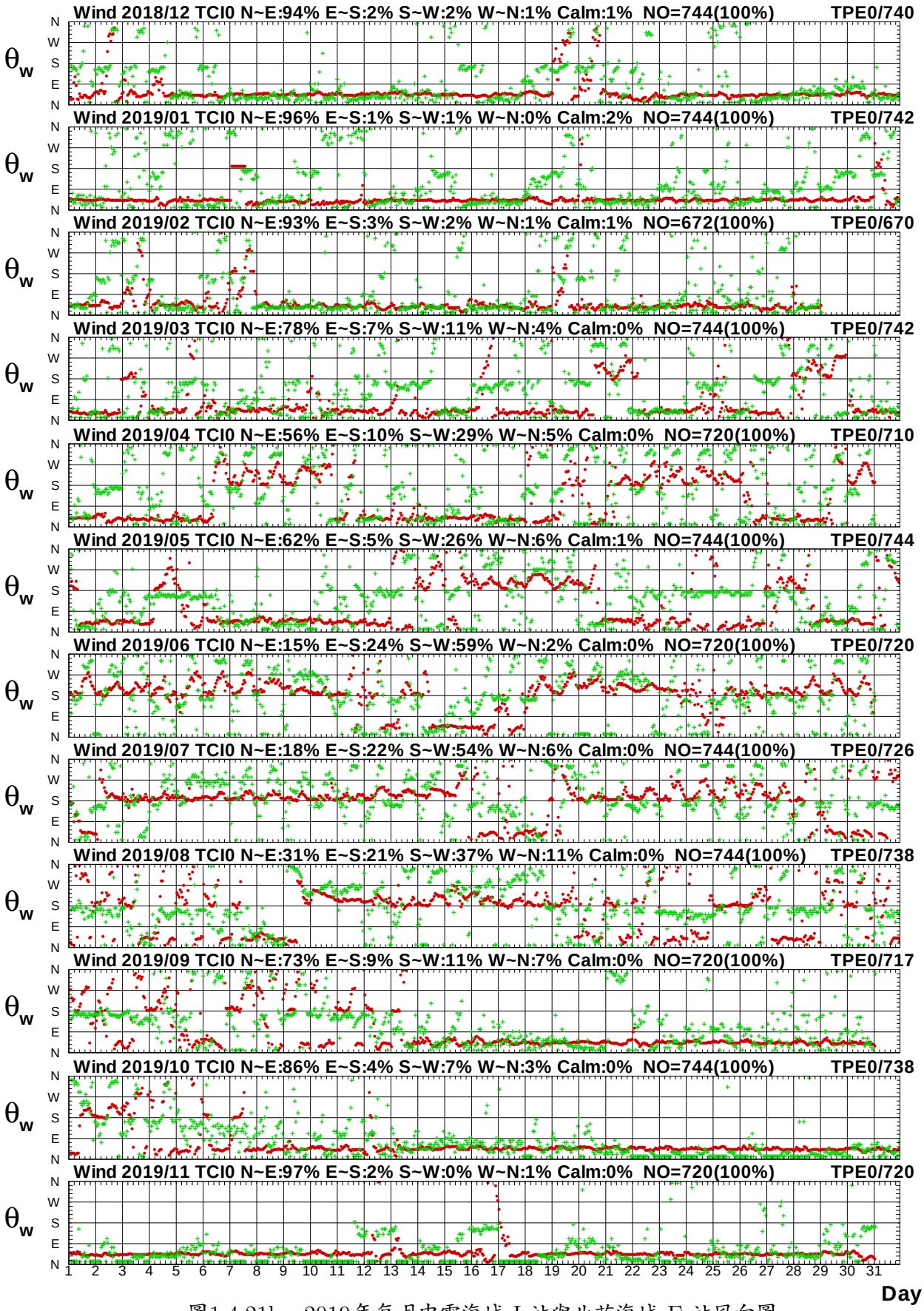

圖1.4.21b　2019年每月中雲海域 I 站與北苗海域 E 站風向圖

W18CTCI0.1HA W18CTPE0.1H0 W191TCI0.1HA W191TPE0.1H0 W192TCI0.1HA W192TPE0.1H0
W193TCI0.1HA W193TPE0.1H0 W194TCI0.1HA W194TPE0.1H0 W195TCI0.1HA W195TPE0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

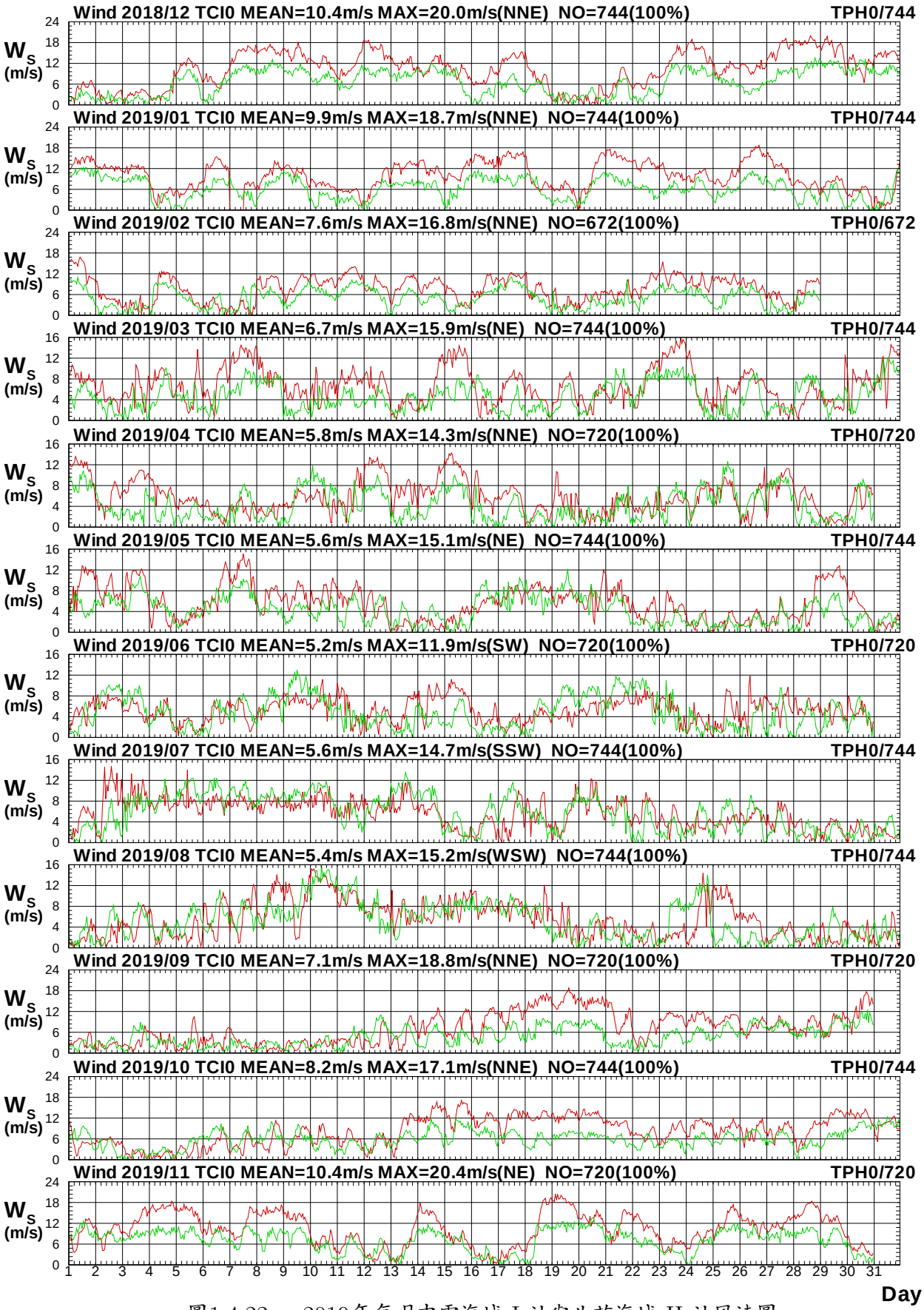

圖1.4.22a　2019年每月中雲海域 I 站與北苗海域 H 站風速圖

W18CTCI0.1HA W18CTPH0.1H0 W191TCI0.1HA W191TPH0.1H0 W192TCI0.1HA W192TPH0.1H0
W193TCI0.1HA W193TPH0.1H0 W194TCI0.1HA W194TPH0.1H0 W195TCI0.1HA W195TPH0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

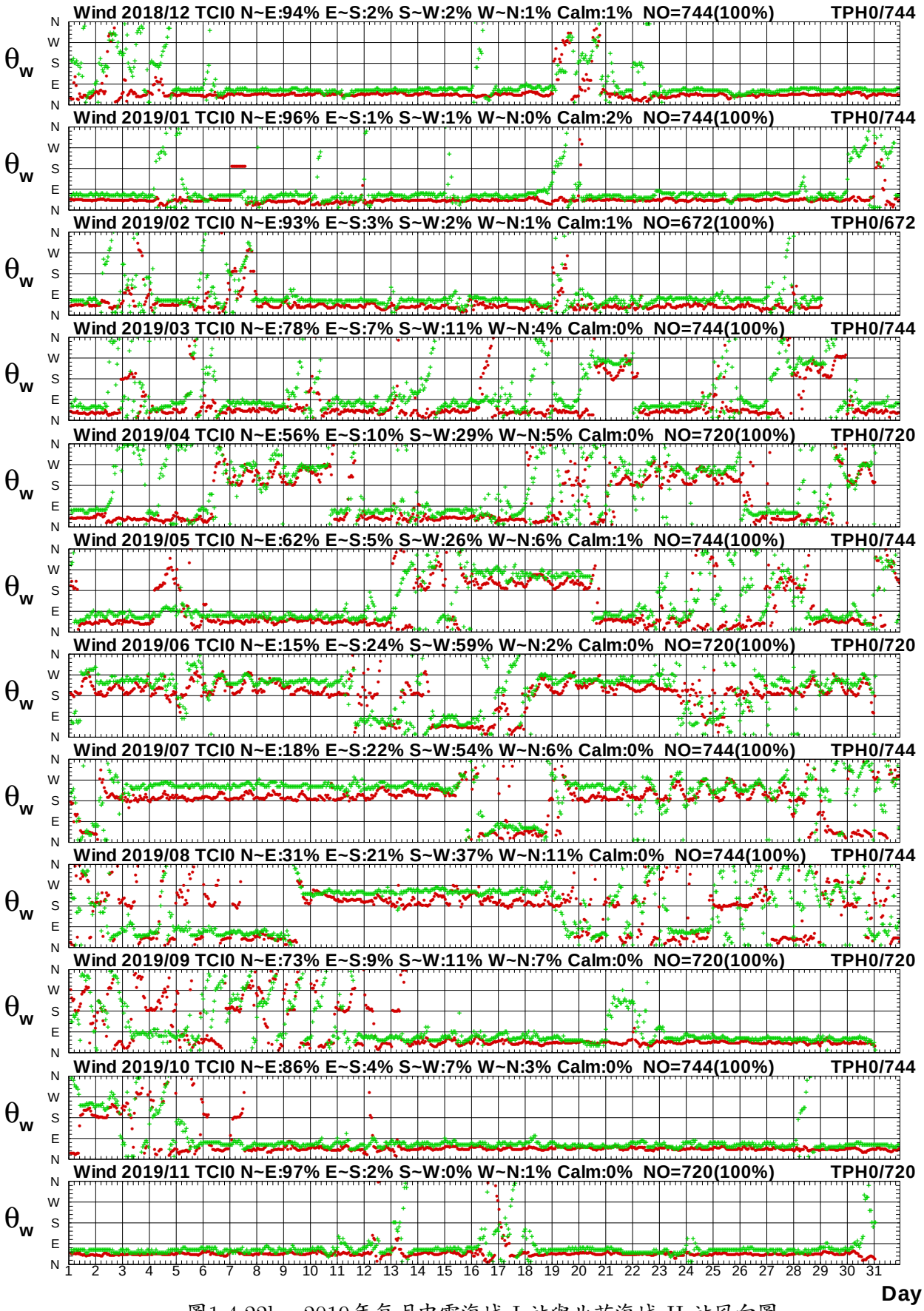

圖1.4.22b　2019年每月中雲海域 I 站與北苗海域 H 站風向圖

W18CTCI0.1HA W18CTPH0.1H0 W191TCI0.1HA W191TPH0.1H0 W192TCI0.1HA W192TPH0.1H0
W193TCI0.1HA W193TPH0.1H0 W194TCI0.1HA W194TPH0.1H0 W195TCI0.1HA W195TPH0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

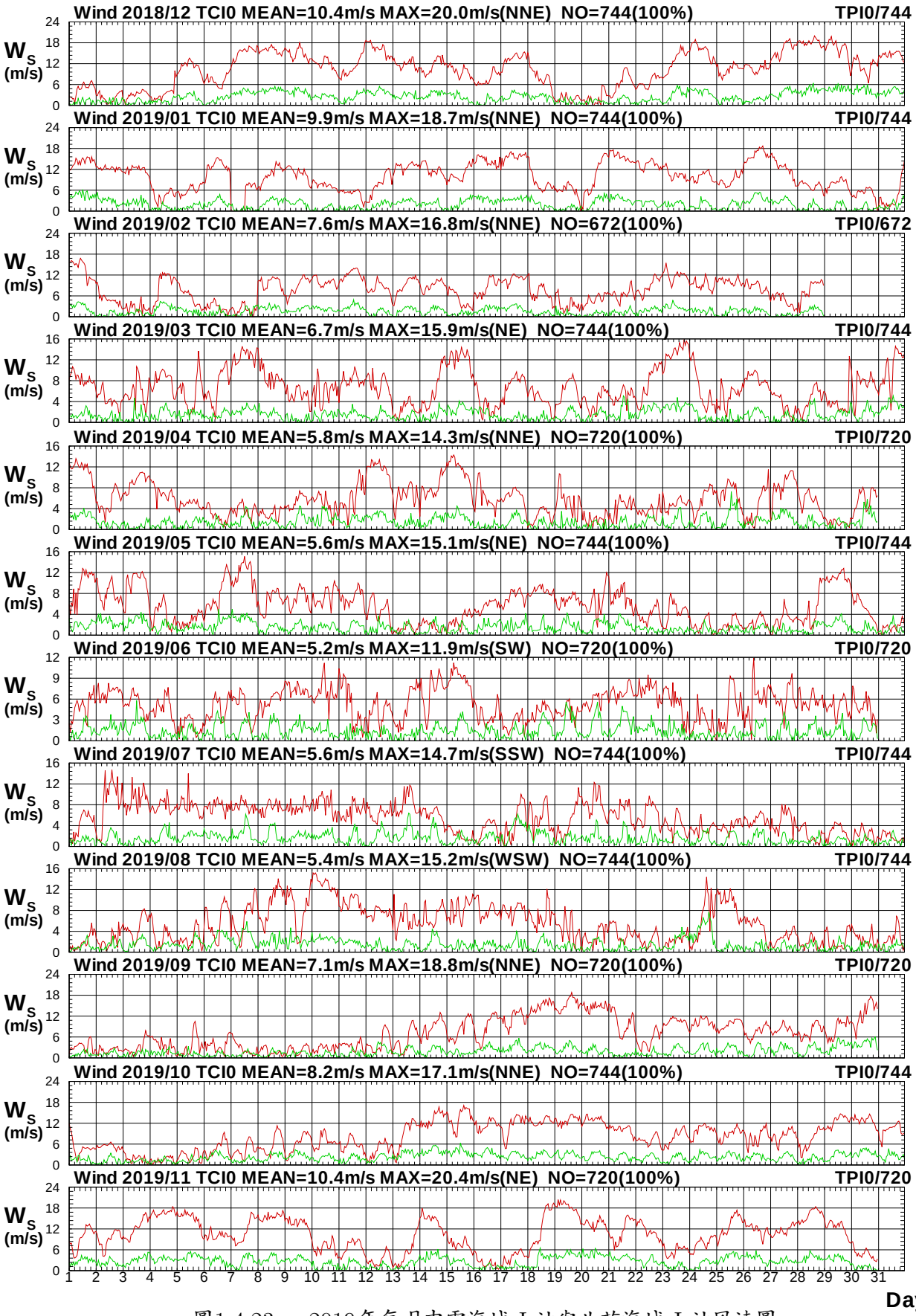

圖1.4.23a　2019年每月中雲海域Ⅰ站與北苗海域Ⅰ站風速圖

W18CTCI0.1HA W18CTPI0.1H0 W191TCI0.1HA W191TPI0.1H0 W192TCI0.1HA W192TPI0.1H0
W193TCI0.1HA W193TPI0.1H0 W194TCI0.1HA W194TPI0.1H0 W195TCI0.1HA W195TPI0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

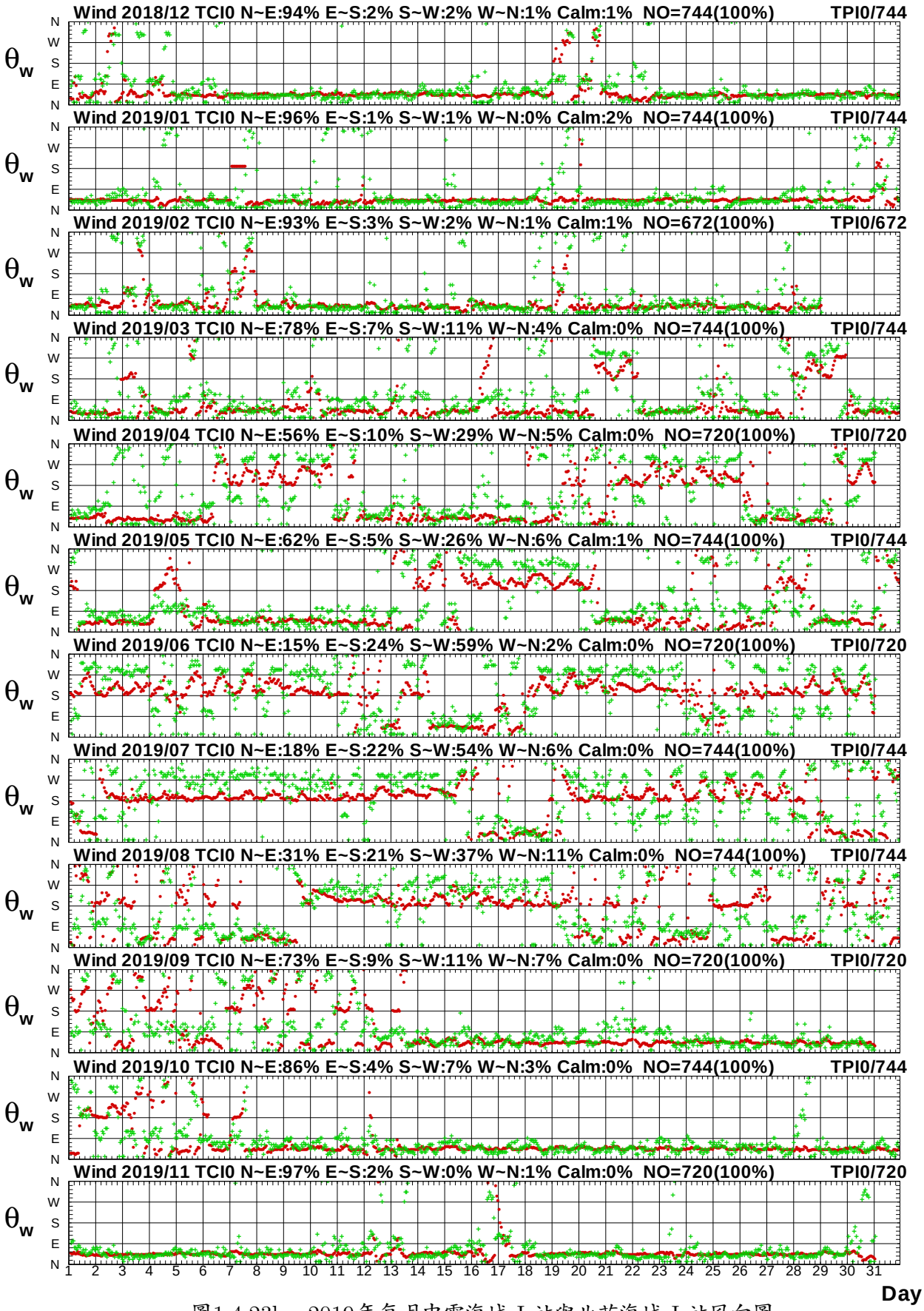

圖1.4.23b　2019年每月中雲海域 I 站與北苗海域 I 站風向圖

W18CTCI0.1HA W18CTPI0.1H0 W191TCI0.1HA W191TPI0.1H0 W192TCI0.1HA W192TPI0.1H0
W193TCI0.1HA W193TPI0.1H0 W194TCI0.1HA W194TPI0.1H0 W195TCI0.1HA W195TPI0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

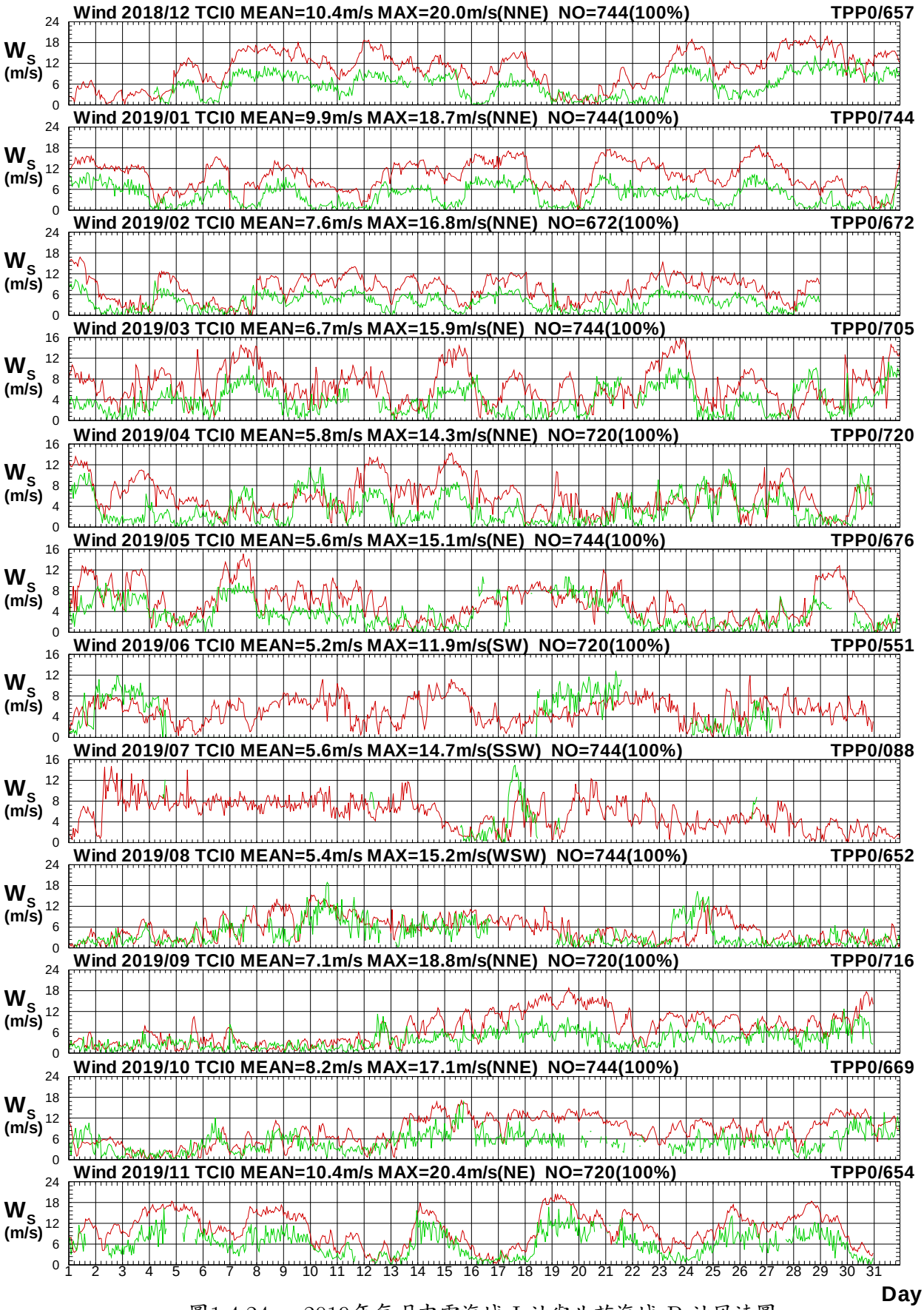

圖1.4.24a　2019年每月中雲海域 I 站與北苗海域 P 站風速圖

W18CTCI0.1HA W18CTPP0.1H0 W191TCI0.1HA W191TPP0.1H0 W192TCI0.1HA W192TPP0.1H0
W193TCI0.1HA W193TPP0.1H0 W194TCI0.1HA W194TPP0.1H0 W195TCI0.1HA W195TPP0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

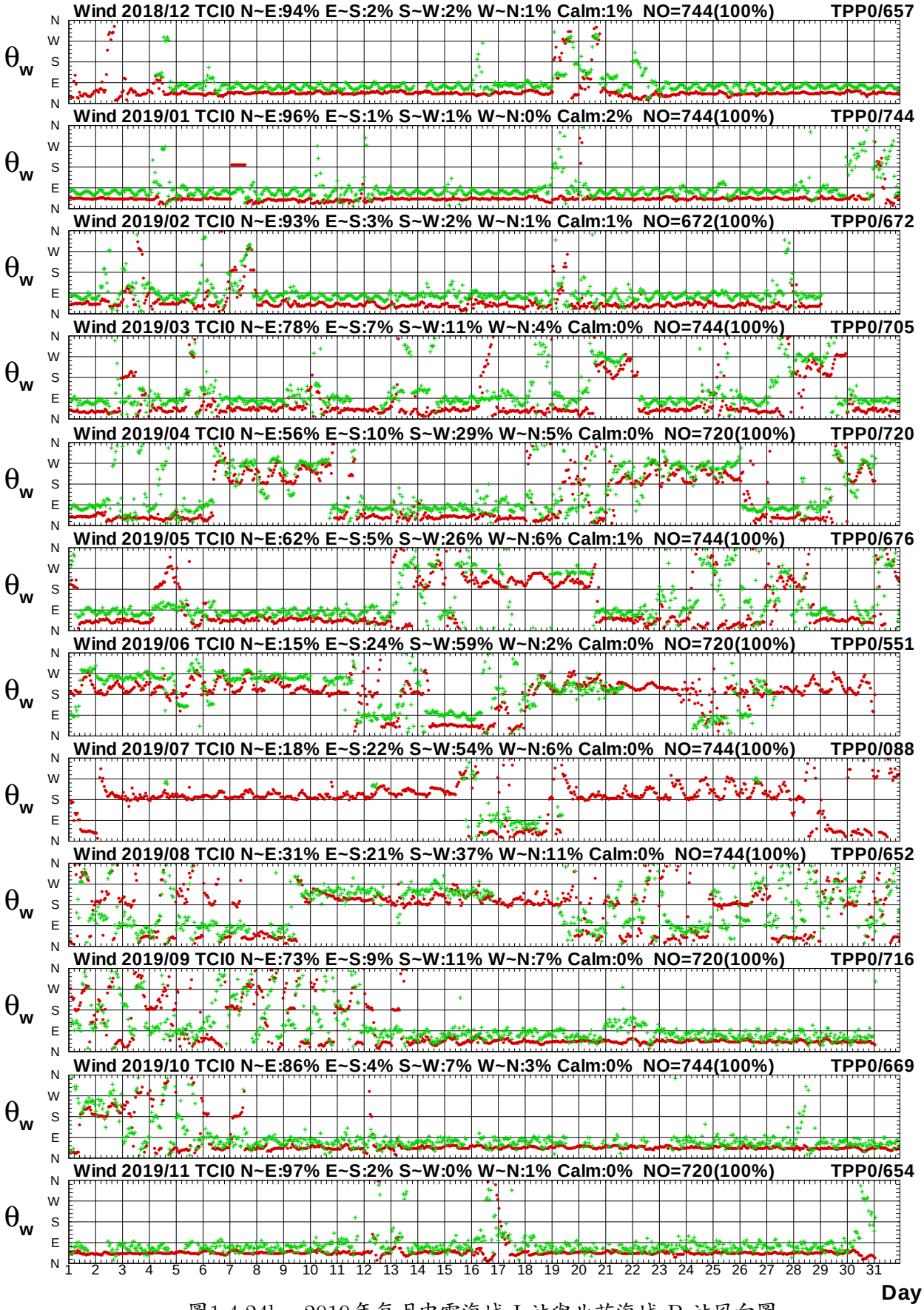

圖1.4.24b　2019年每月中雲海域 I 站與北苗海域 P 站風向圖

W18CTCI0.1HA W18CTPP0.1H0 W191TCI0.1HA W191TPP0.1H0 W192TCI0.1HA W192TPP0.1H0
W193TCI0.1HA W193TPP0.1H0 W194TCI0.1HA W194TPP0.1H0 W195TCI0.1HA W195TPP0.1H0

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Wind Speed in Chung-Yun Seas of TCI0 at 2019

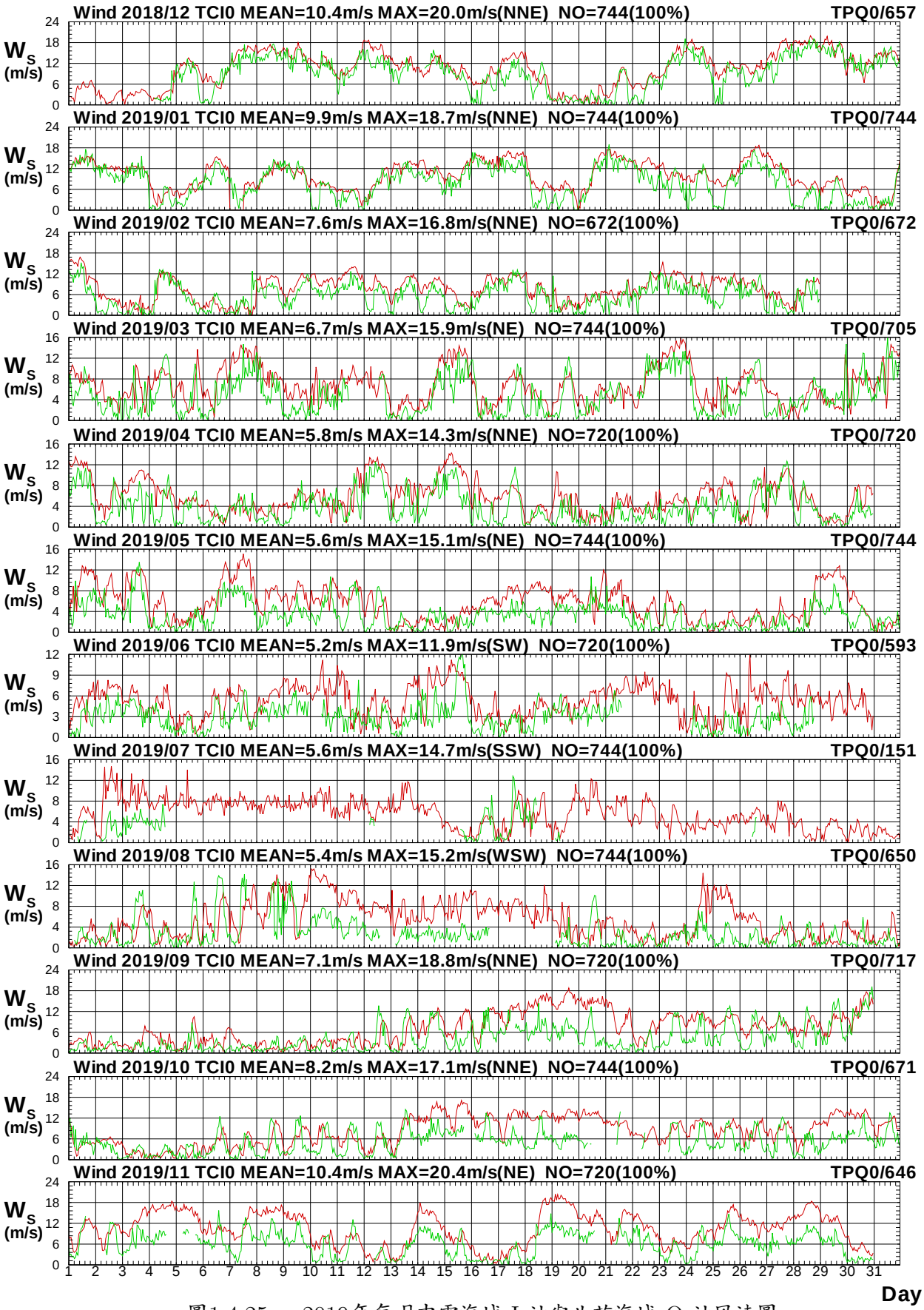

圖1.4.25a　2019年每月中雲海域 I 站與北苗海域 Q 站風速圖

W18CTCI0.1HA W18CTPQ0.1H0 W191TCI0.1HA W191TPQ0.1H0 W192TCI0.1HA W192TPQ0.1H0
W193TCI0.1HA W193TPQ0.1H0 W194TCI0.1HA W194TPQ0.1H0 W195TCI0.1HA W195TPQ0.1H0

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Wind Direction in Chung-Yun Seas of TCI0 at 2019

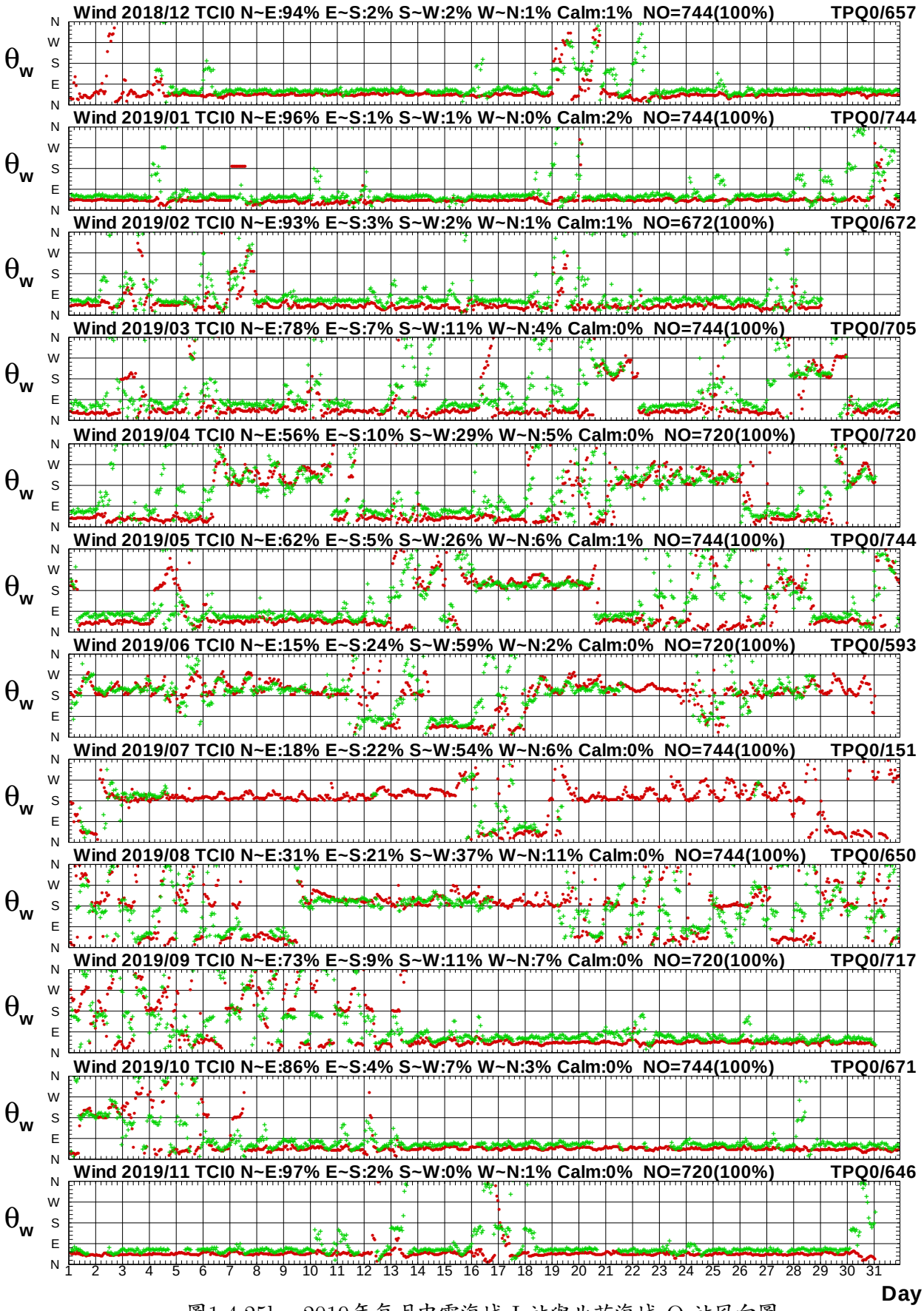

圖1.4.25b　2019年每月中雲海域 I 站與北苗海域 Q 站風向圖

W18CTCI0.1HA W18CTPQ0.1H0 W191TCI0.1HA W191TPQ0.1H0 W192TCI0.1HA W192TPQ0.1H0
W193TCI0.1HA W193TPQ0.1H0 W194TCI0.1HA W194TPQ0.1H0 W195TCI0.1HA W195TPQ0.1H0

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1.5　2019 年中雲海域風力各測站修補前

風力向量分佈圖

Distribution of Wind Vectores

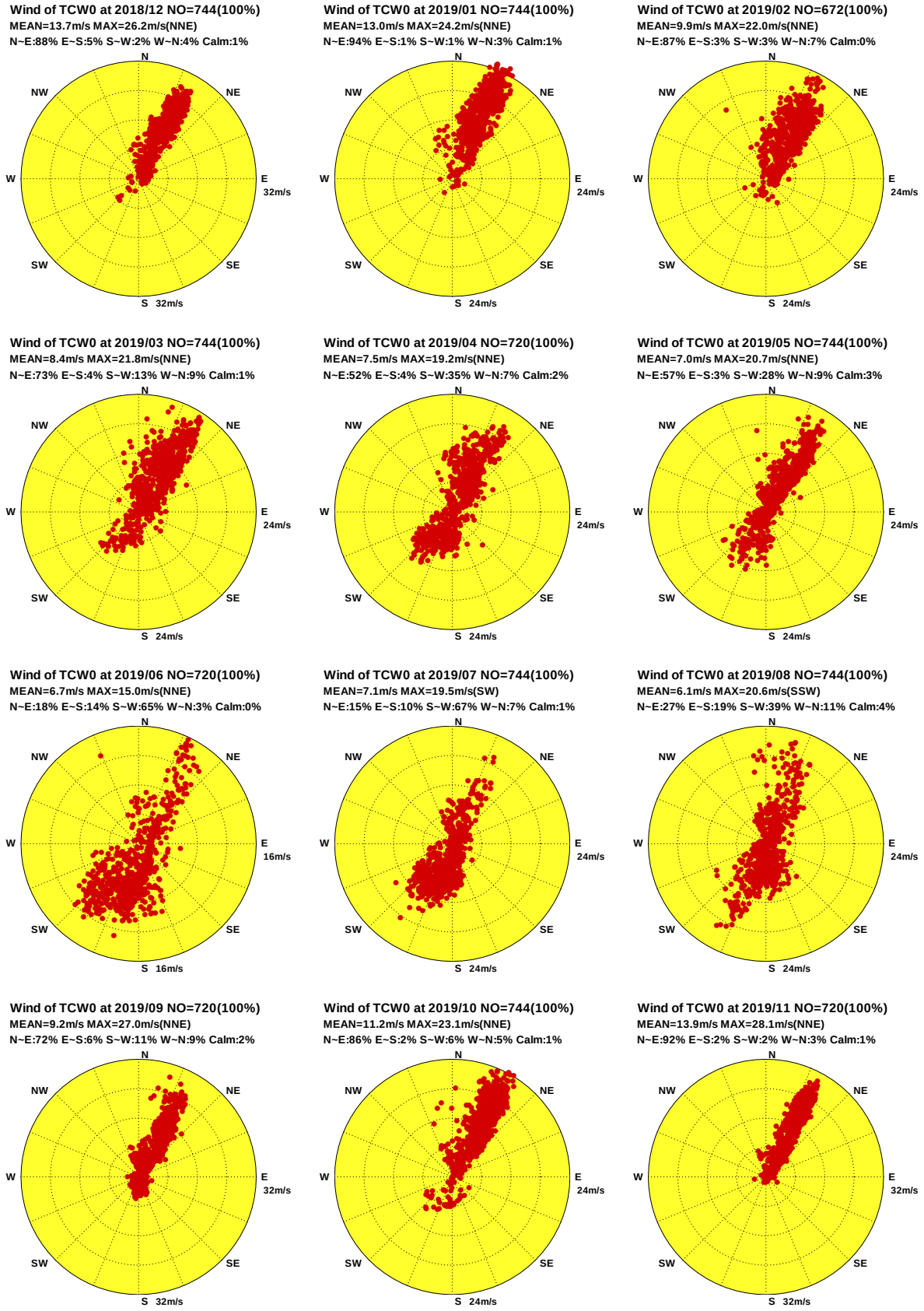

圖1.5.1 2019年中雲海域每月 W 站修補前觀測風力向量分佈圖

W18CTCW0.1H0 W191TCW0.1H0 W192TCW0.1H0 W193TCW0.1H0 W194TCW0.1H0 W195TCW0.1H0
W196TCW0.1H0 W197TCW0.1H0 W198TCW0.1H0 W199TCW0.1H0 W19ATCW0.1H0 W19BTCW0.1H0

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Distribution of Wind Vectores

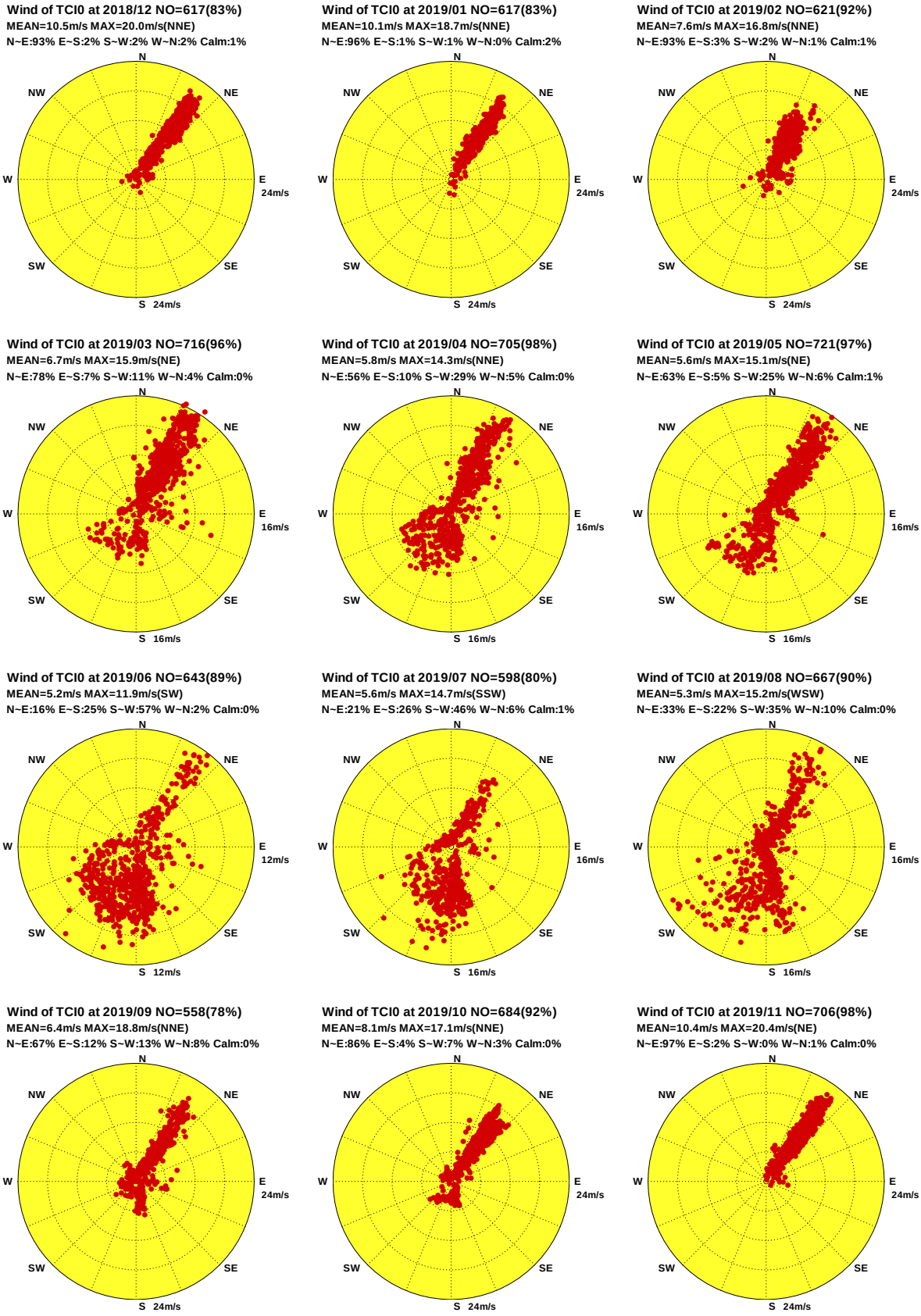

圖1.5.2 2019年中雲海域每月Ⅰ站修補前觀測風力向量分佈圖

W18CTCI0.1H0 W191TCI0.1H0 W192TCI0.1H0 W193TCI0.1H0 W194TCI0.1H0 W195TCI0.1H0
W196TCI0.1H0 W197TCI0.1H0 W198TCI0.1H0 W199TCI0.1H0 W19ATCI0.1H0 W19BTCI0.1H0

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Distribution of Wind Vectores

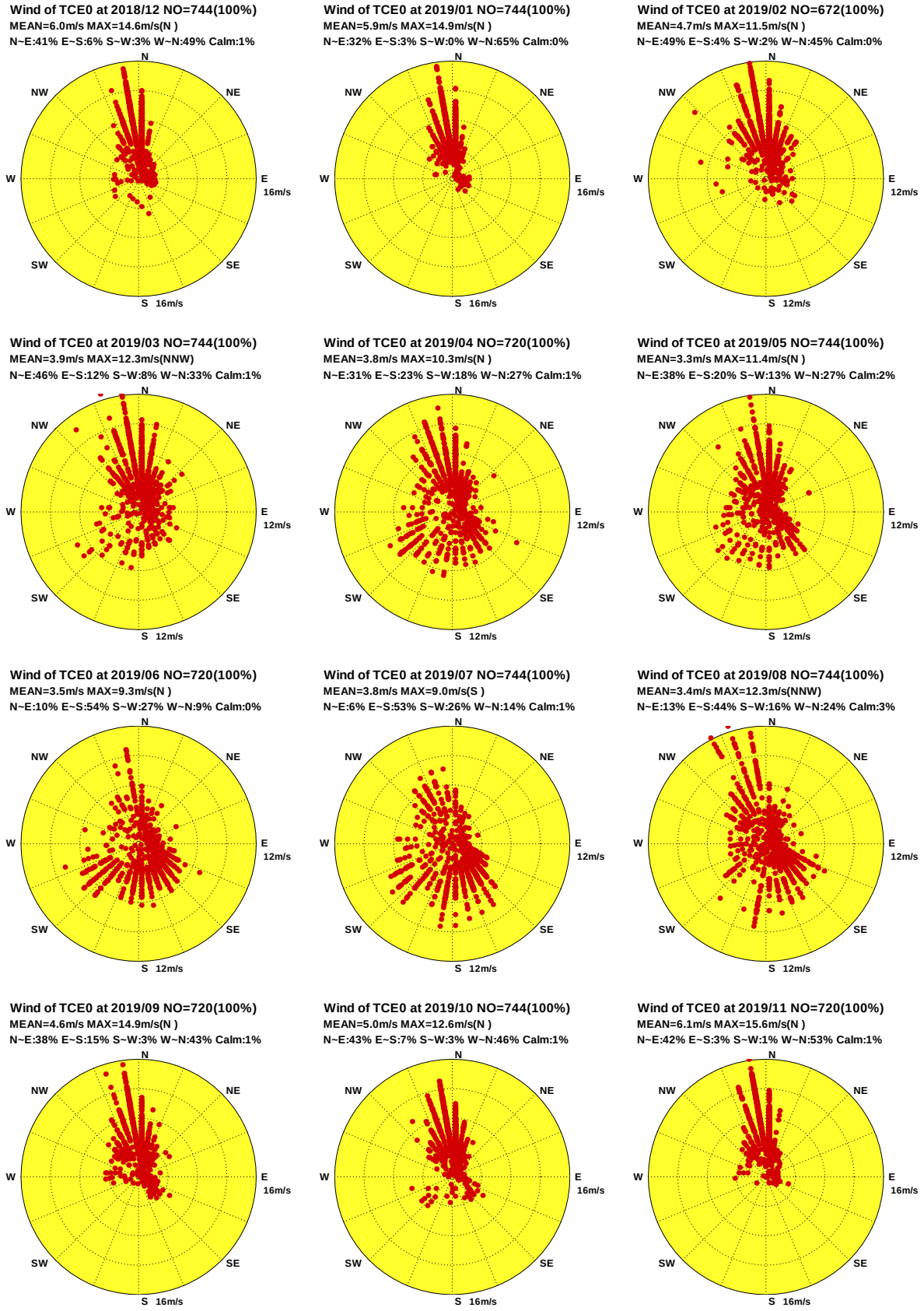

圖1.5.3 2019年中雲海域每月 E 站修補前觀測風力向量分佈圖

W18CTCE0.1H0 W191TCE0.1H0 W192TCE0.1H0 W193TCE0.1H0 W194TCE0.1H0 W195TCE0.1H0
W196TCE0.1H0 W197TCE0.1H0 W198TCE0.1H0 W199TCE0.1H0 W19ATCE0.1H0 W19BTCE0.1H0

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Distribution of Wind Vectores

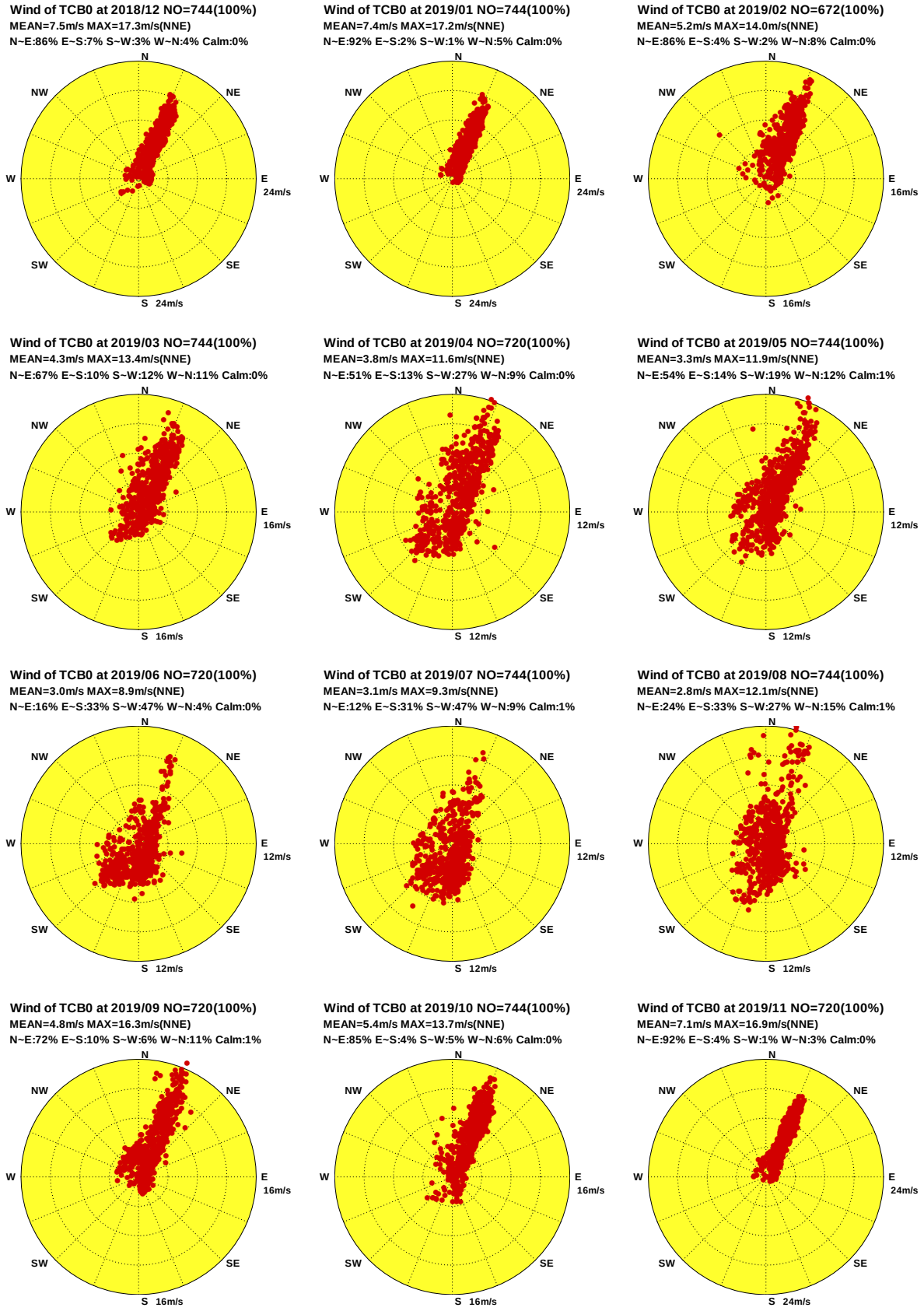

圖1.5.4 2019年中雲海域每月 B 站修補前觀測風力向量分佈圖

W18CTCB0.1H0 W191TCB0.1H0 W192TCB0.1H0 W193TCB0.1H0 W194TCB0.1H0 W195TCB0.1H0
W196TCB0.1H0 W197TCB0.1H0 W198TCB0.1H0 W199TCB0.1H0 W19ATCB0.1H0 W19BTCB0.1H0

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Distribution of Wind Vectores

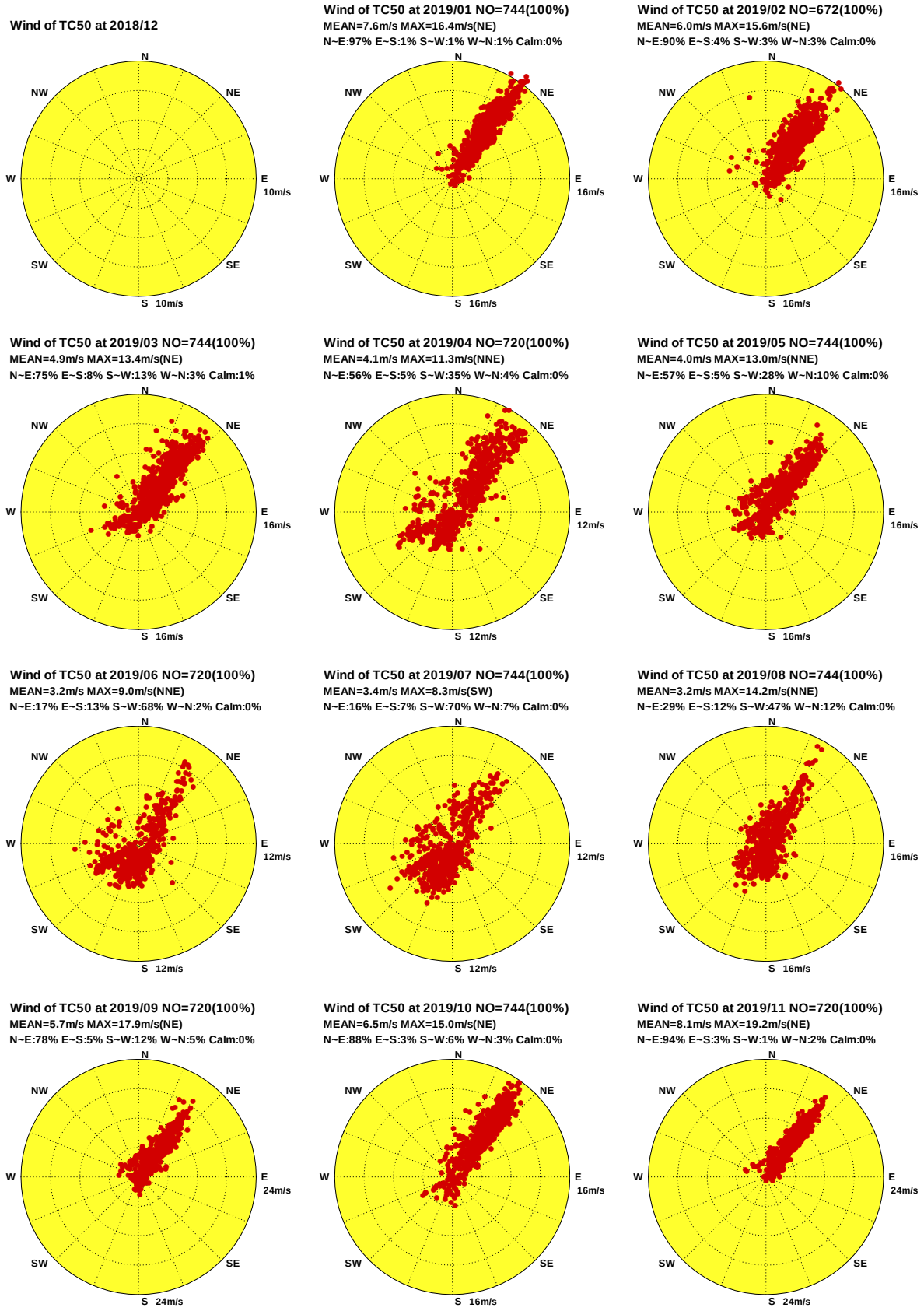

圖1.5.5 2019年中雲海域每月5站修補前觀測風力向量分佈圖

W18CTC50.1H0 W191TC50.1H0 W192TC50.1H0 W193TC50.1H0 W194TC50.1H0 W195TC50.1H0
W196TC50.1H0 W197TC50.1H0 W198TC50.1H0 W199TC50.1H0 W19ATC50.1H0 W19BTC50.1H0

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Distribution of Wind Vectores

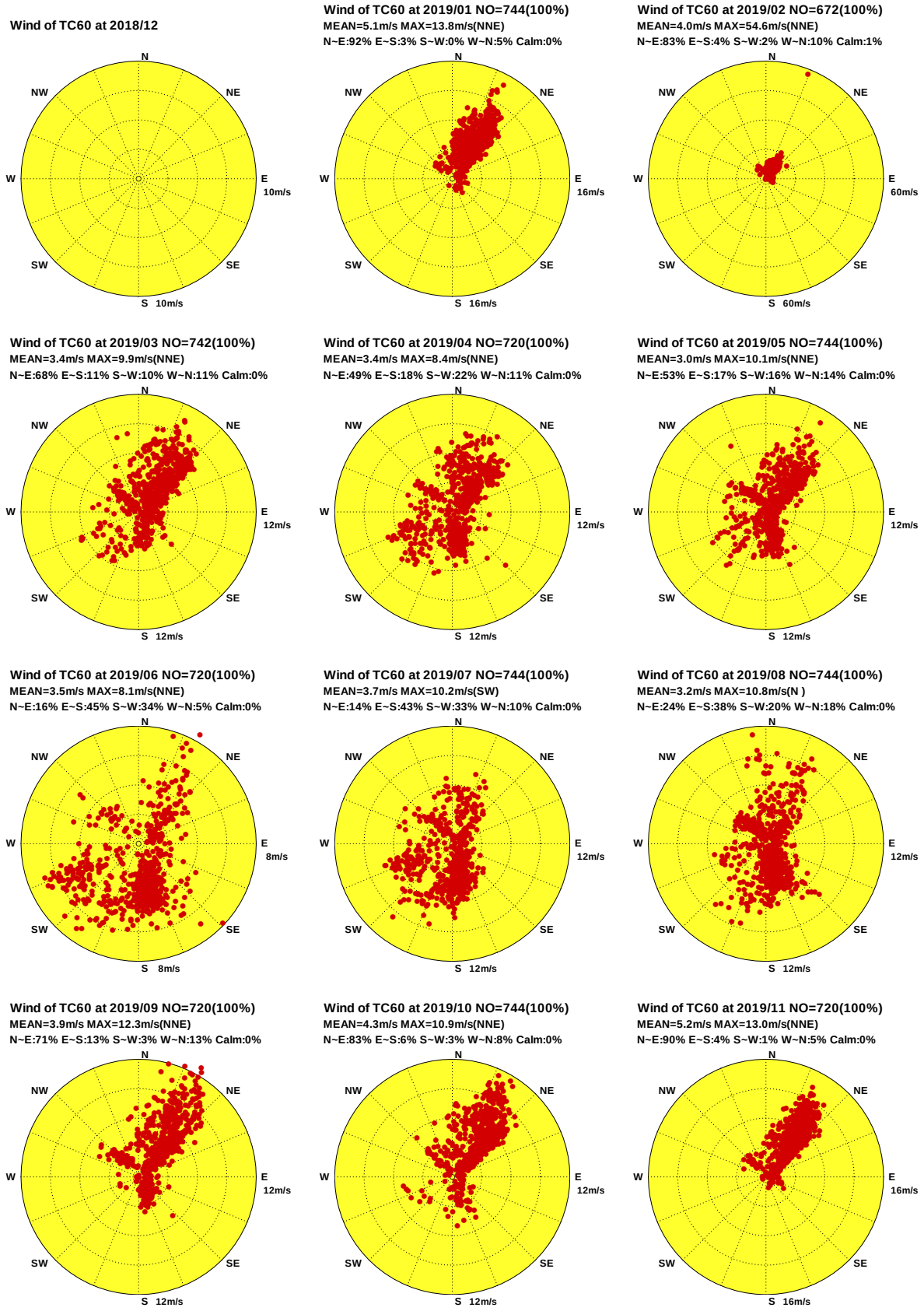

圖1.5.6 2019年中雲海域每月6站修補前觀測風力向量分佈圖

W18CTC60.1H0 W191TC60.1H0 W192TC60.1H0 W193TC60.1H0 W194TC60.1H0 W195TC60.1H0
W196TC60.1H0 W197TC60.1H0 W198TC60.1H0 W199TC60.1H0 W19ATC60.1H0 W19BTC60.1H0

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Distribution of Wind Vectores

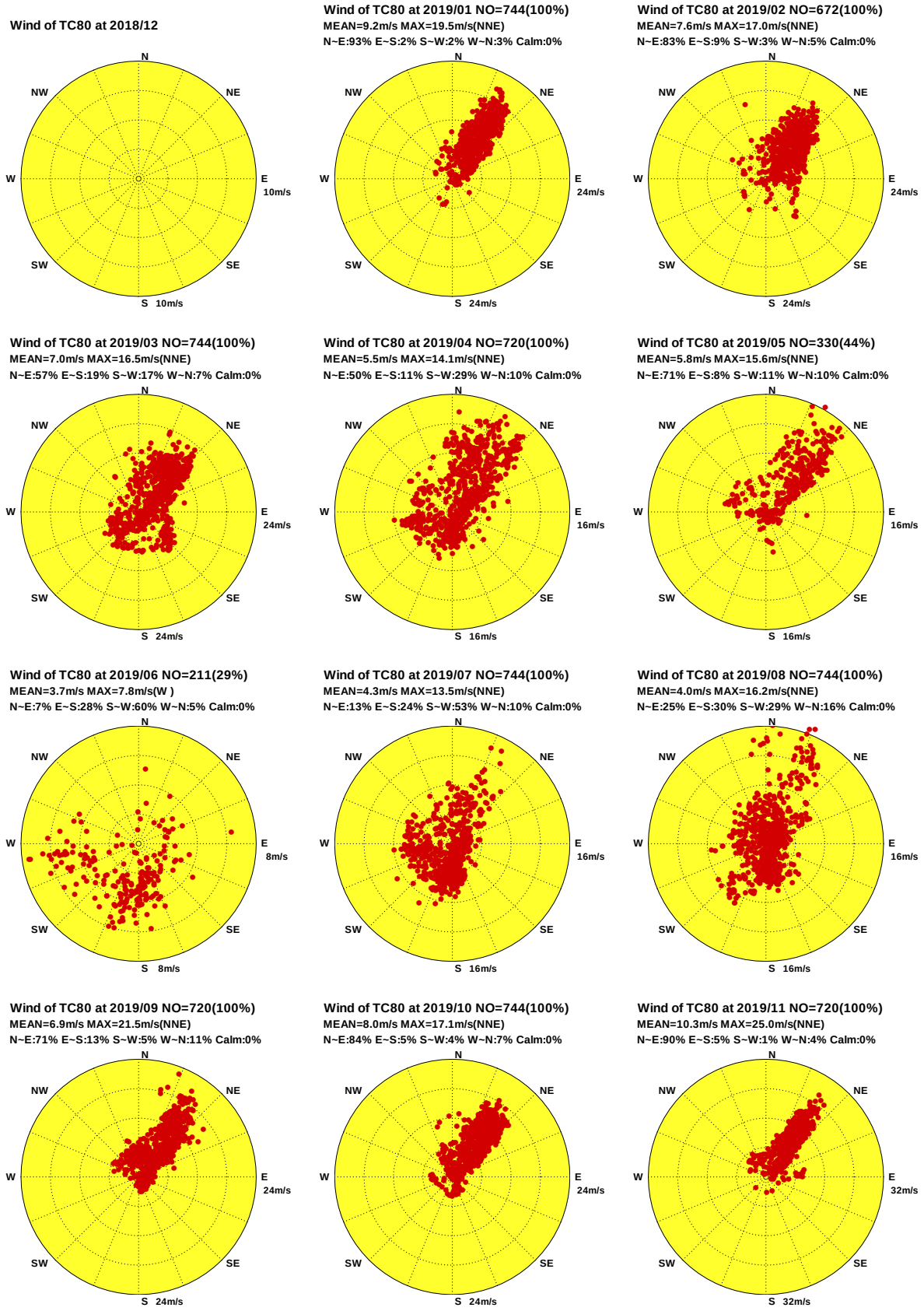

圖1.5.7 2019年中雲海域每月8站修補前觀測風力向量分佈圖

W18CTC80.1H0 W191TC80.1H0 W192TC80.1H0 W193TC80.1H0 W194TC80.1H0 W195TC80.1H0
W196TC80.1H0 W197TC80.1H0 W198TC80.1H0 W199TC80.1H0 W19ATC80.1H0 W19BTC80.1H0

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Distribution of Wind Vectores

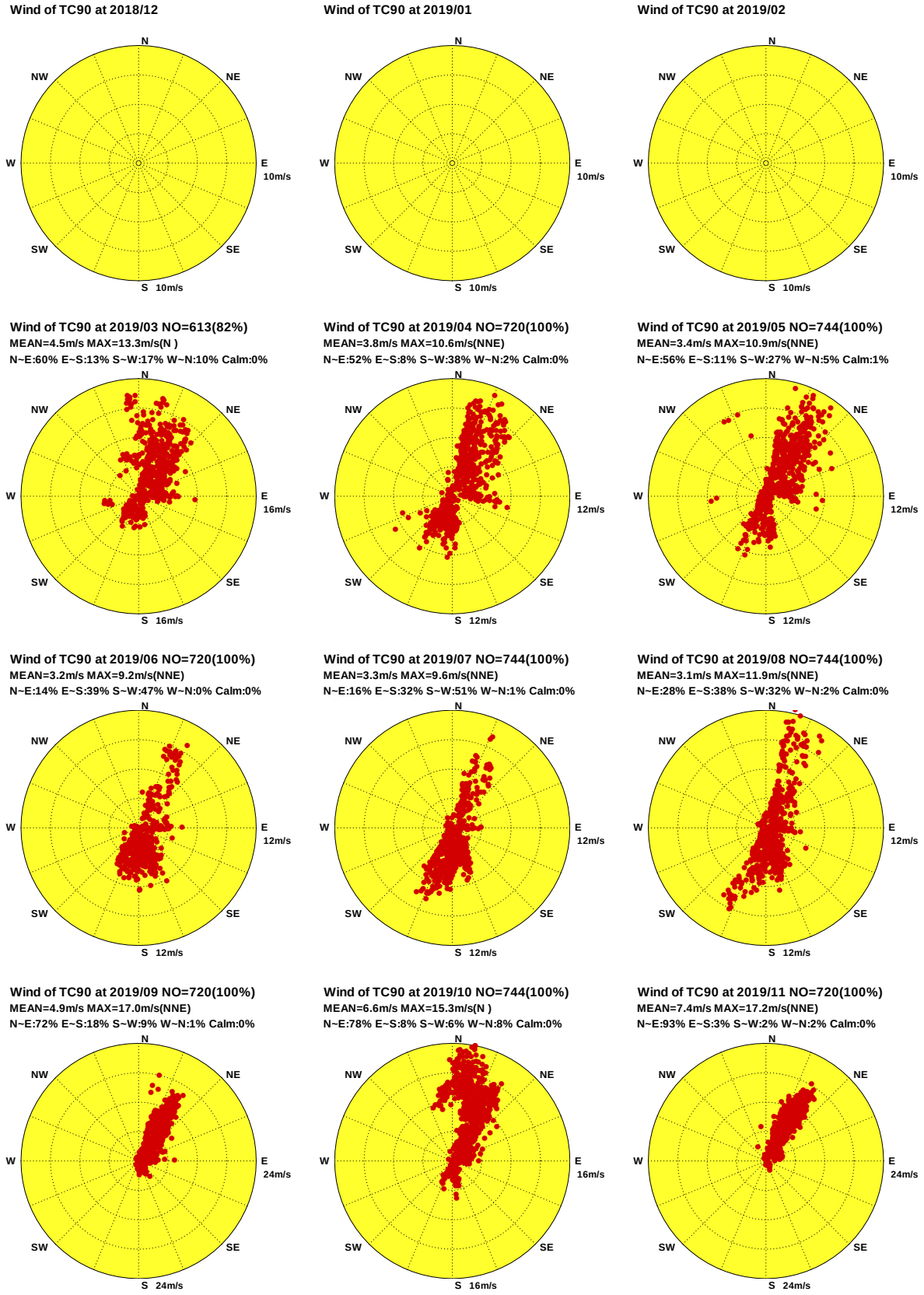

圖1.5.8 2019年中雲海域每月9站修補前觀測風力向量分佈圖

W18CTC90.1H0 W191TC90.1H0 W192TC90.1H0 W193TC90.1H0 W194TC90.1H0 W195TC90.1H0
W196TC90.1H0 W197TC90.1H0 W198TC90.1H0 W199TC90.1H0 W19ATC90.1H0 W19BTC90.1H0

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Distribution of Wind Vectores

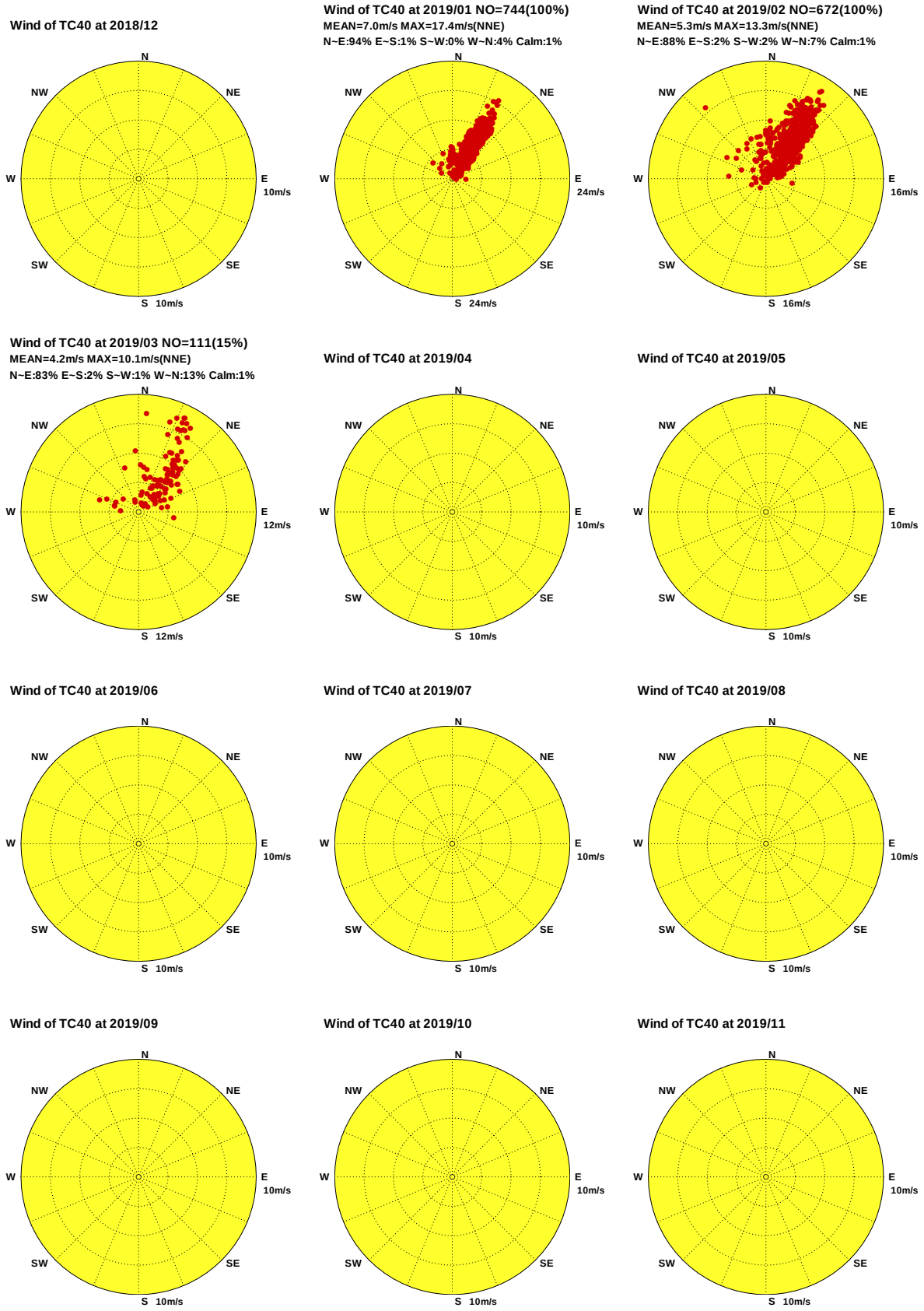

圖1.5.9 2019年中雲海域每月4站修補前觀測風力向量分佈圖

W18CTC40.1H0 W191TC40.1H0 W192TC40.1H0 W193TC40.1H0 W194TC40.1H0 W195TC40.1H0
W196TC40.1H0 W197TC40.1H0 W198TC40.1H0 W199TC40.1H0 W19ATC40.1H0 W19BTC40.1H0

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1.6　2019 年中雲海域風力各測站修補前

風力向量行進圖

Progressive Vector Diagram of Wind

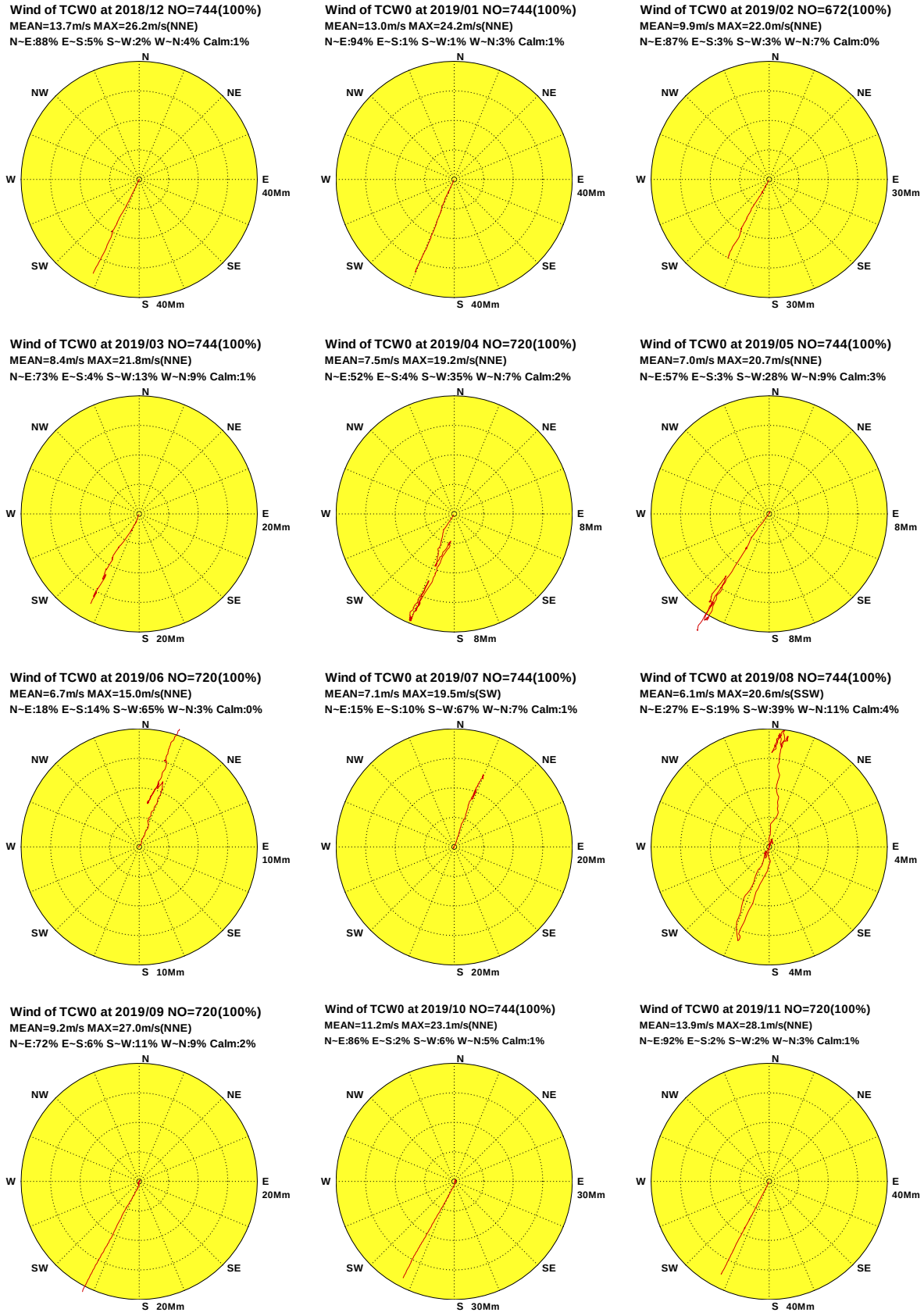

圖1.6.1 2019年中雲海域每月 W 站修補前觀測風力向量行進圖

W18CTCW0.1H0 W191TCW0.1H0 W192TCW0.1H0 W193TCW0.1H0 W194TCW0.1H0 W195TCW0.1H0
W196TCW0.1H0 W197TCW0.1H0 W198TCW0.1H0 W199TCW0.1H0 W19ATCW0.1H0 W19BTCW0.1H0

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Progressive Vector Diagram of Wind

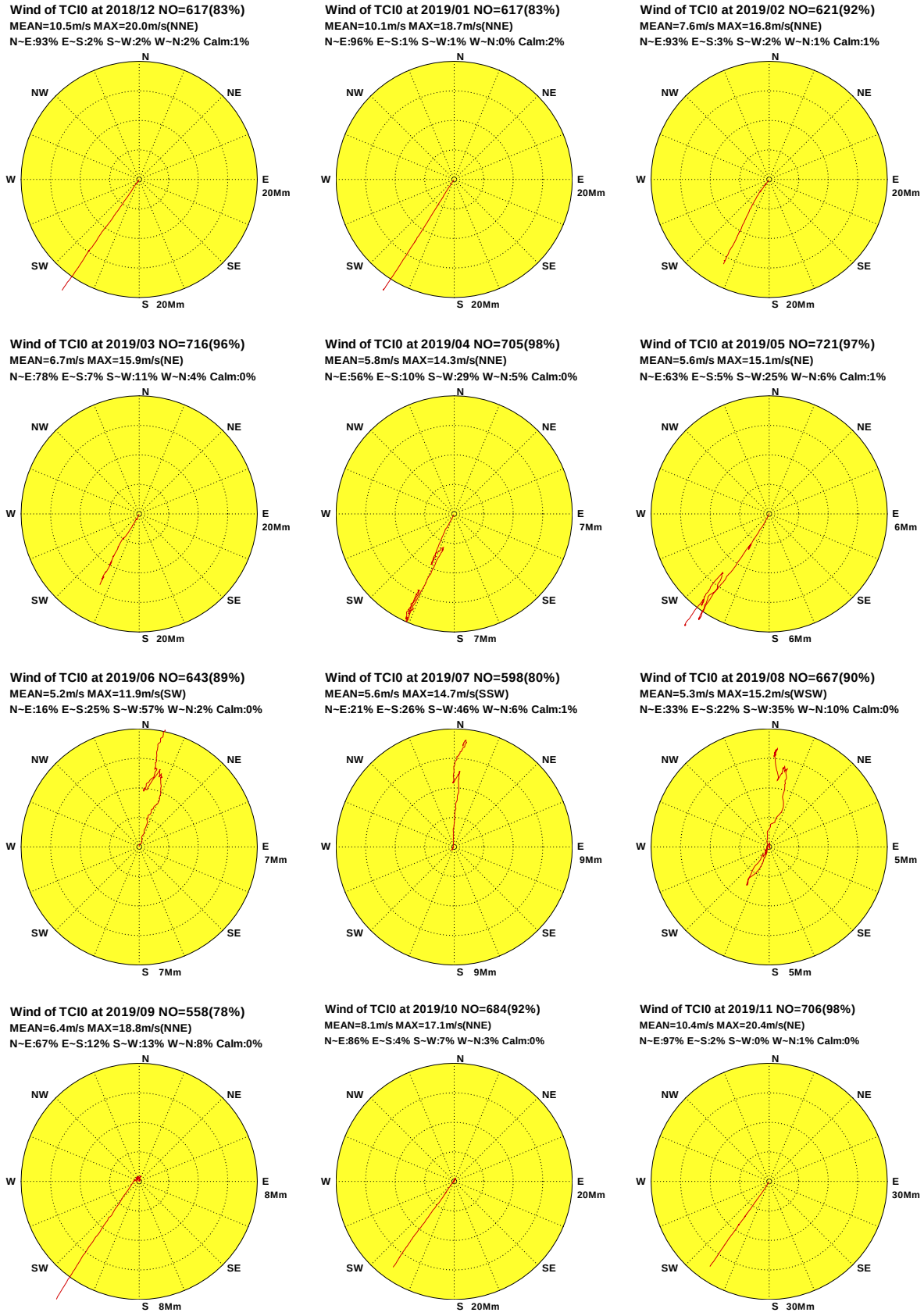

圖1.6.2 2019年中雲海域每月Ⅰ站修補前觀測風力向量行進圖

W18CTCI0.1H0 W191TCI0.1H0 W192TCI0.1H0 W193TCI0.1H0 W194TCI0.1H0 W195TCI0.1H0
W196TCI0.1H0 W197TCI0.1H0 W198TCI0.1H0 W199TCI0.1H0 W19ATCI0.1H0 W19BTCI0.1H0

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Progressive Vector Diagram of Wind

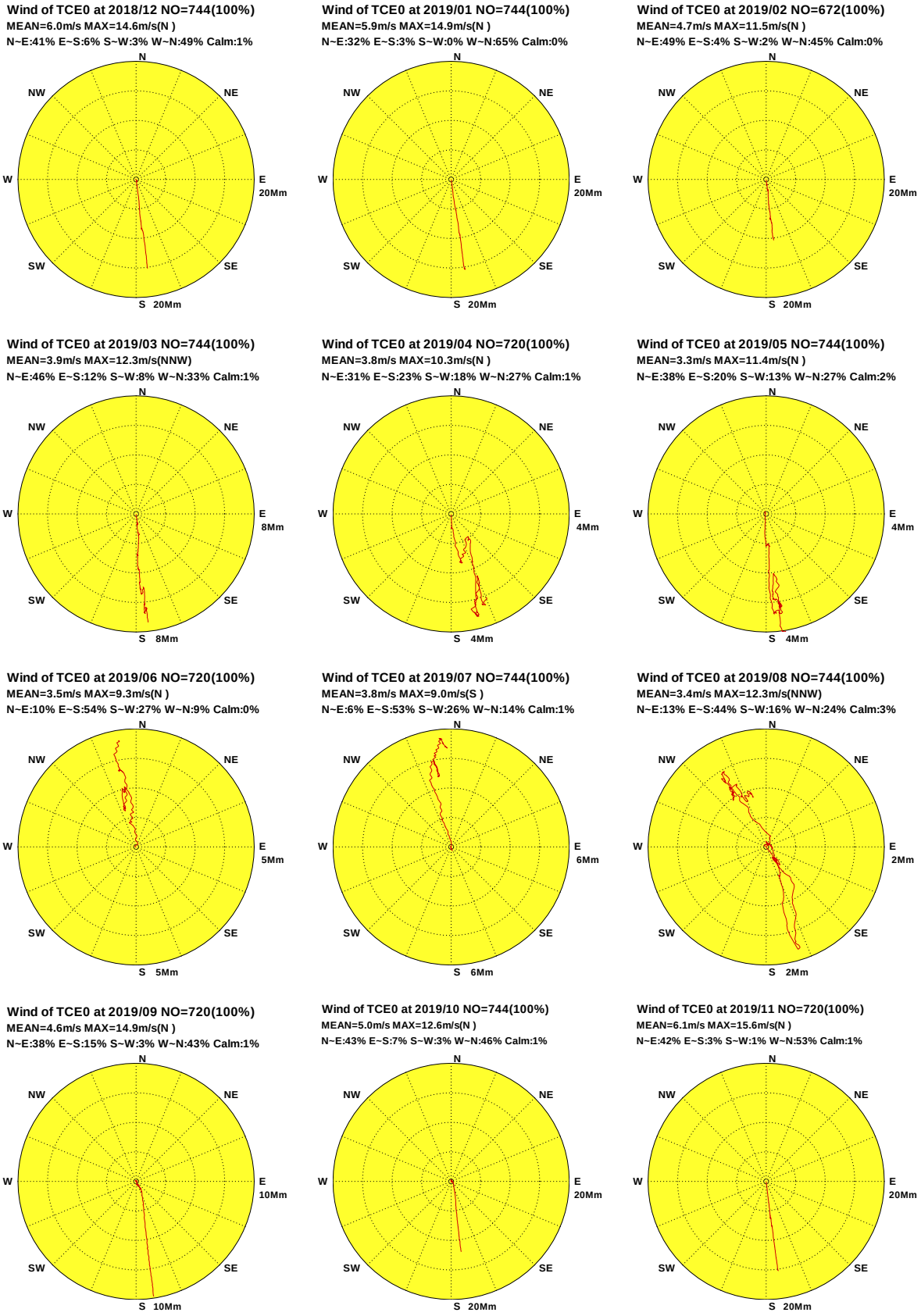

圖1.6.3 2019年中雲海域每月 E 站修補前觀測風力向量行進圖

W18CTCE0.1H0 W191TCE0.1H0 W192TCE0.1H0 W193TCE0.1H0 W194TCE0.1H0 W195TCE0.1H0
W196TCE0.1H0 W197TCE0.1H0 W198TCE0.1H0 W199TCE0.1H0 W19ATCE0.1H0 W19BTCE0.1H0

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Progressive Vector Diagram of Wind

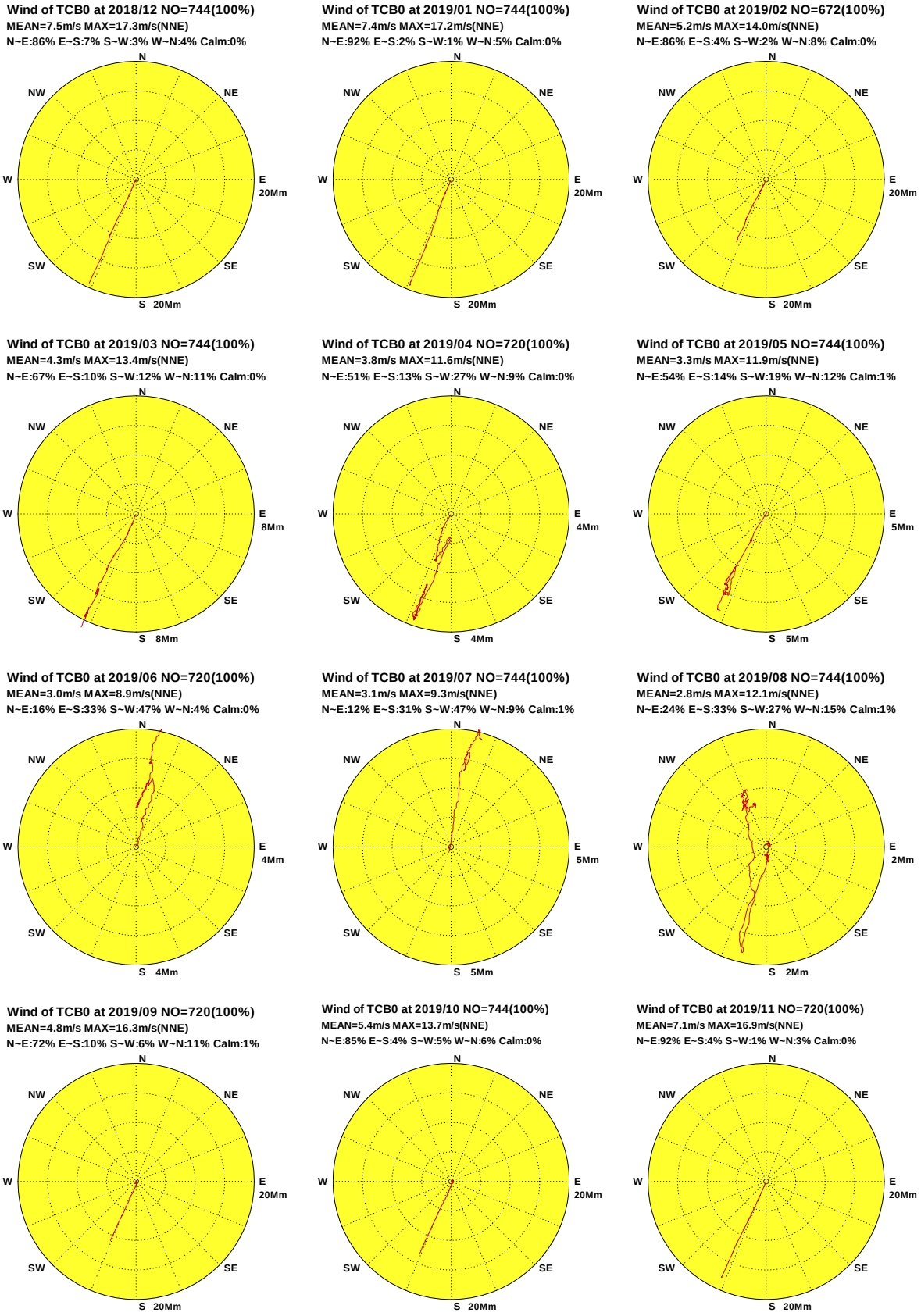

圖1.6.4 2019年中雲海域每月 B 站修補前觀測風力向量行進圖

W18CTCB0.1H0 W191TCB0.1H0 W192TCB0.1H0 W193TCB0.1H0 W194TCB0.1H0 W195TCB0.1H0
W196TCB0.1H0 W197TCB0.1H0 W198TCB0.1H0 W199TCB0.1H0 W19ATCB0.1H0 W19BTCB0.1H0

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Progressive Vector Diagram of Wind

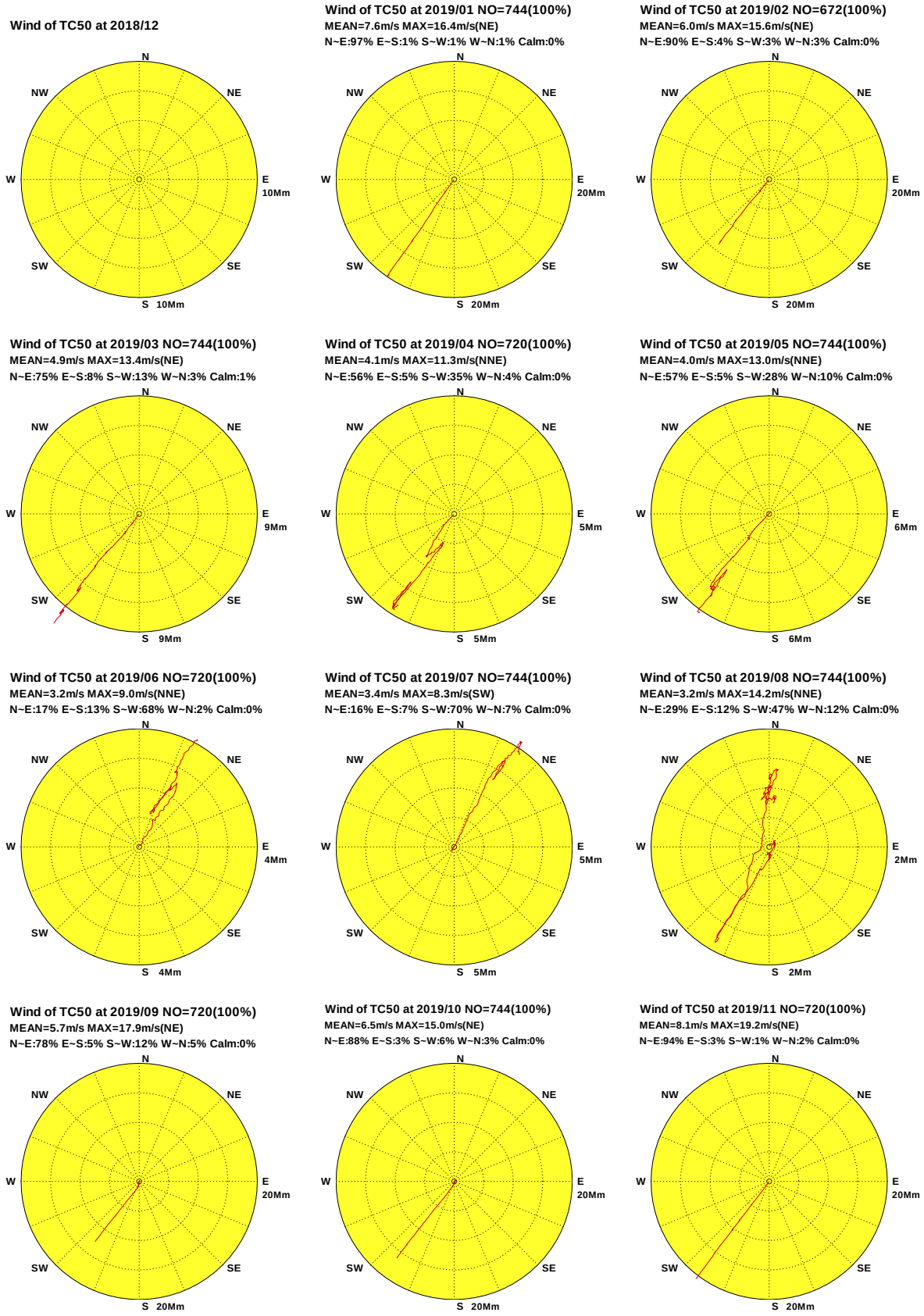

圖1.6.5 2019年中雲海域每月5站修補前觀測風力向量行進圖

W18CTC50.1H0 W191TC50.1H0 W192TC50.1H0 W193TC50.1H0 W194TC50.1H0 W195TC50.1H0
W196TC50.1H0 W197TC50.1H0 W198TC50.1H0 W199TC50.1H0 W19ATC50.1H0 W19BTC50.1H0

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Progressive Vector Diagram of Wind

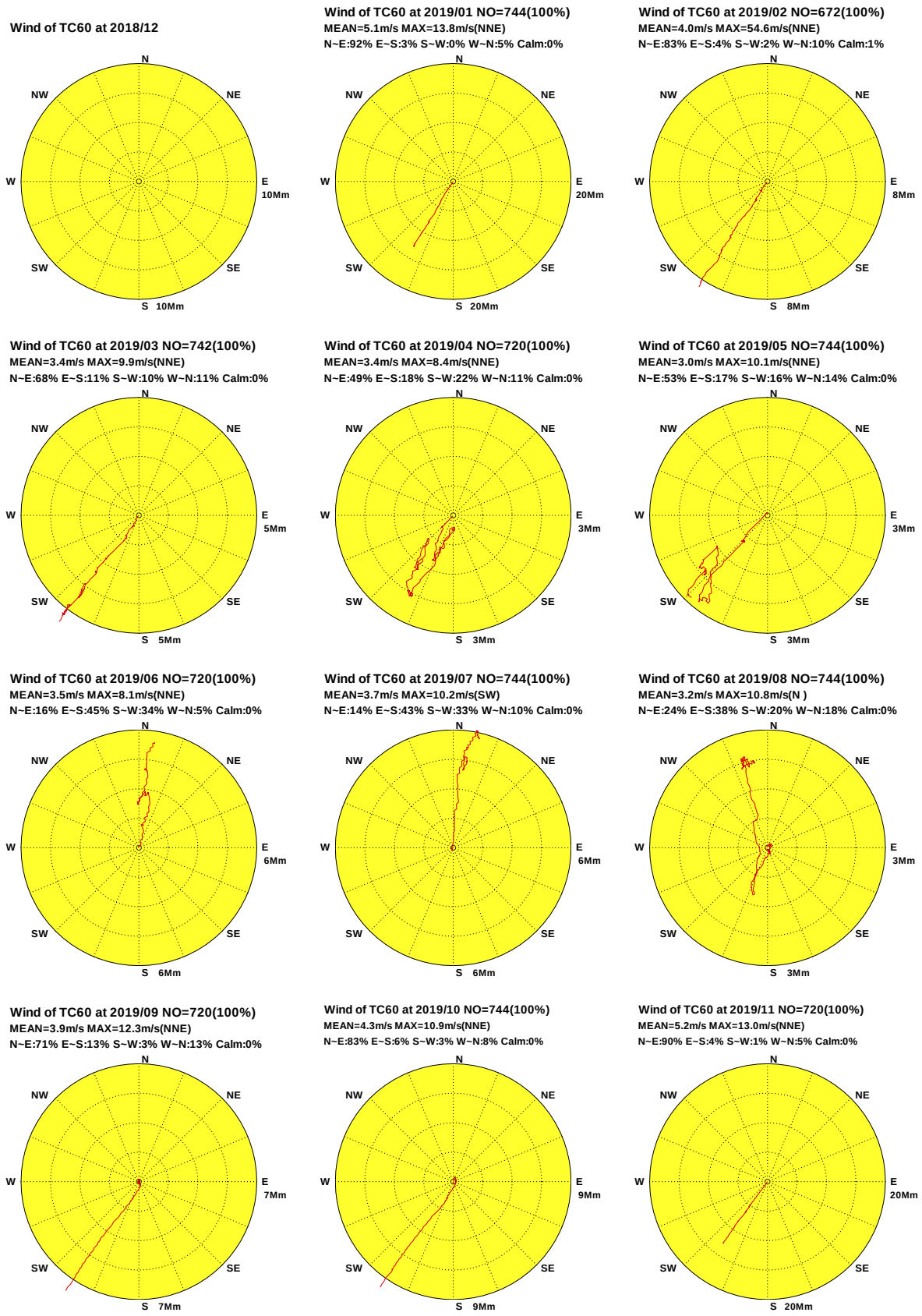

圖1.6.6 2019年中雲海域每月6站修補前觀測風力向量行進圖

W18CTC60.1H0 W191TC60.1H0 W192TC60.1H0 W193TC60.1H0 W194TC60.1H0 W195TC60.1H0
W196TC60.1H0 W197TC60.1H0 W198TC60.1H0 W199TC60.1H0 W19ATC60.1H0 W19BTC60.1H0

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Progressive Vector Diagram of Wind

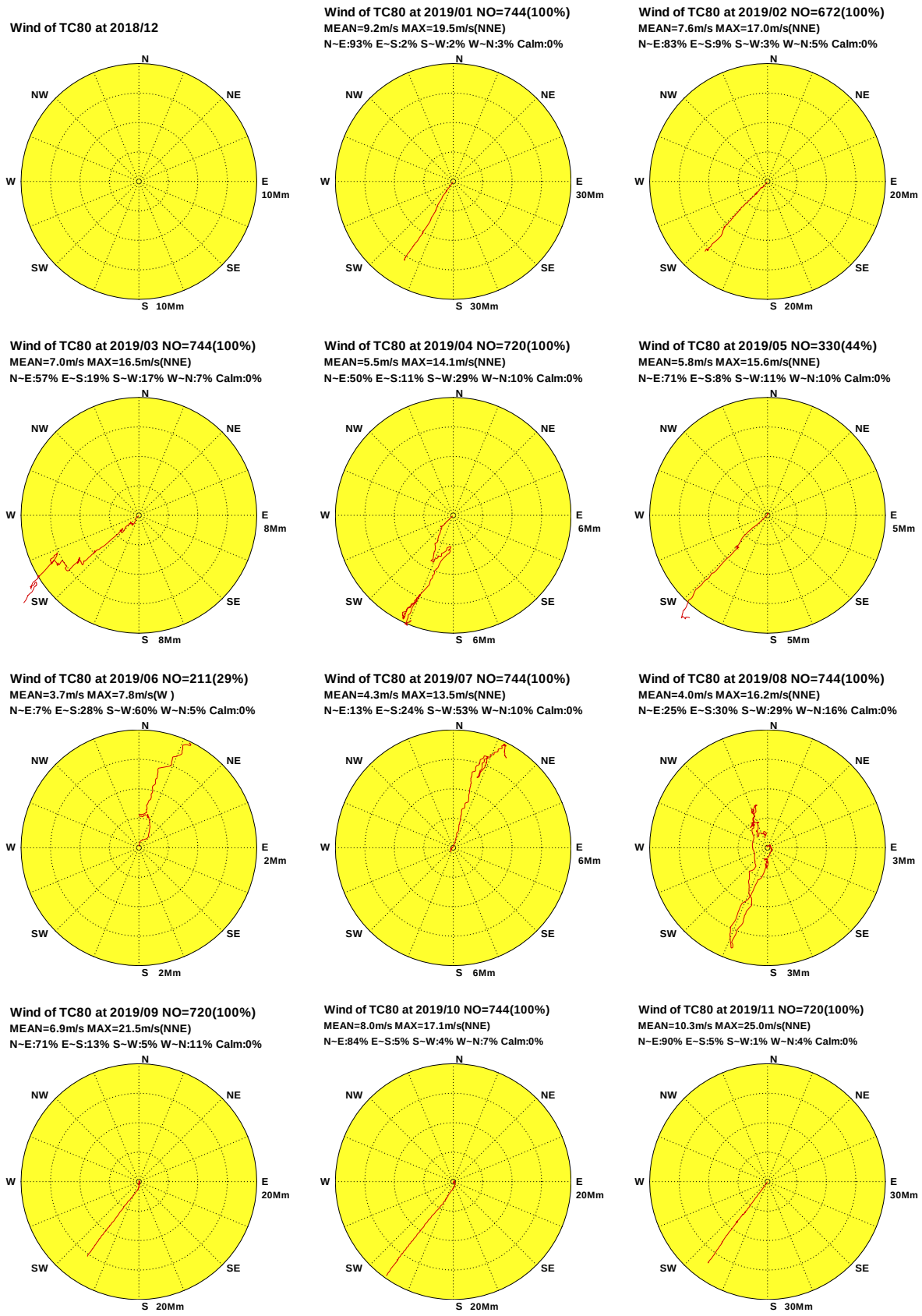

圖1.6.7 2019年中雲海域每月8站修補前觀測風力向量行進圖

W18CTC80.1H0 W191TC80.1H0 W192TC80.1H0 W193TC80.1H0 W194TC80.1H0 W195TC80.1H0
W196TC80.1H0 W197TC80.1H0 W198TC80.1H0 W199TC80.1H0 W19ATC80.1H0 W19BTC80.1H0

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Progressive Vector Diagram of Wind

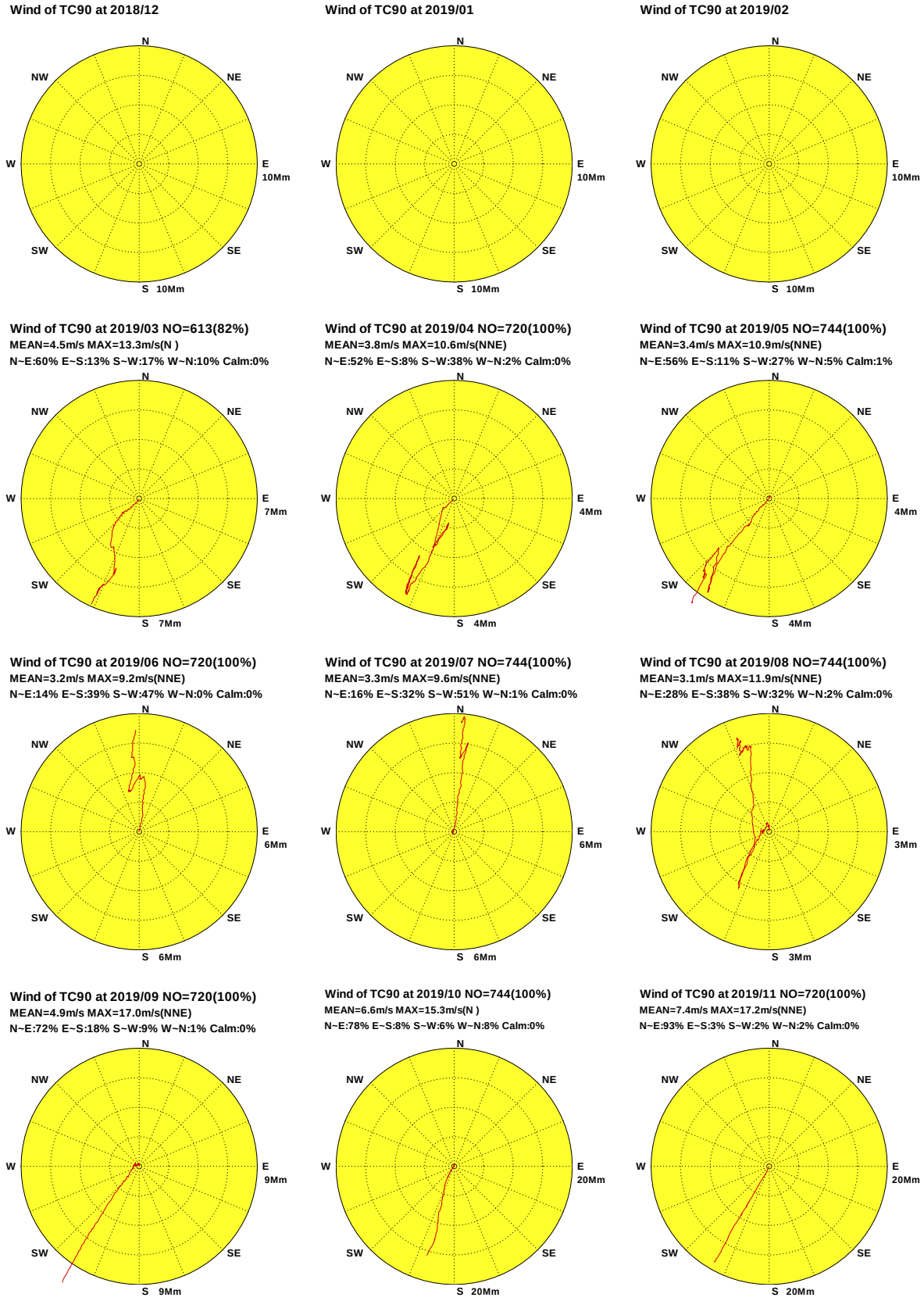

圖1.6.8 2019年中雲海域每月9站修補前觀測風力向量行進圖

W18CTC90.1H0 W191TC90.1H0 W192TC90.1H0 W193TC90.1H0 W194TC90.1H0 W195TC90.1H0
W196TC90.1H0 W197TC90.1H0 W198TC90.1H0 W199TC90.1H0 W19ATC90.1H0 W19BTC90.1H0

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Progressive Vector Diagram of Wind

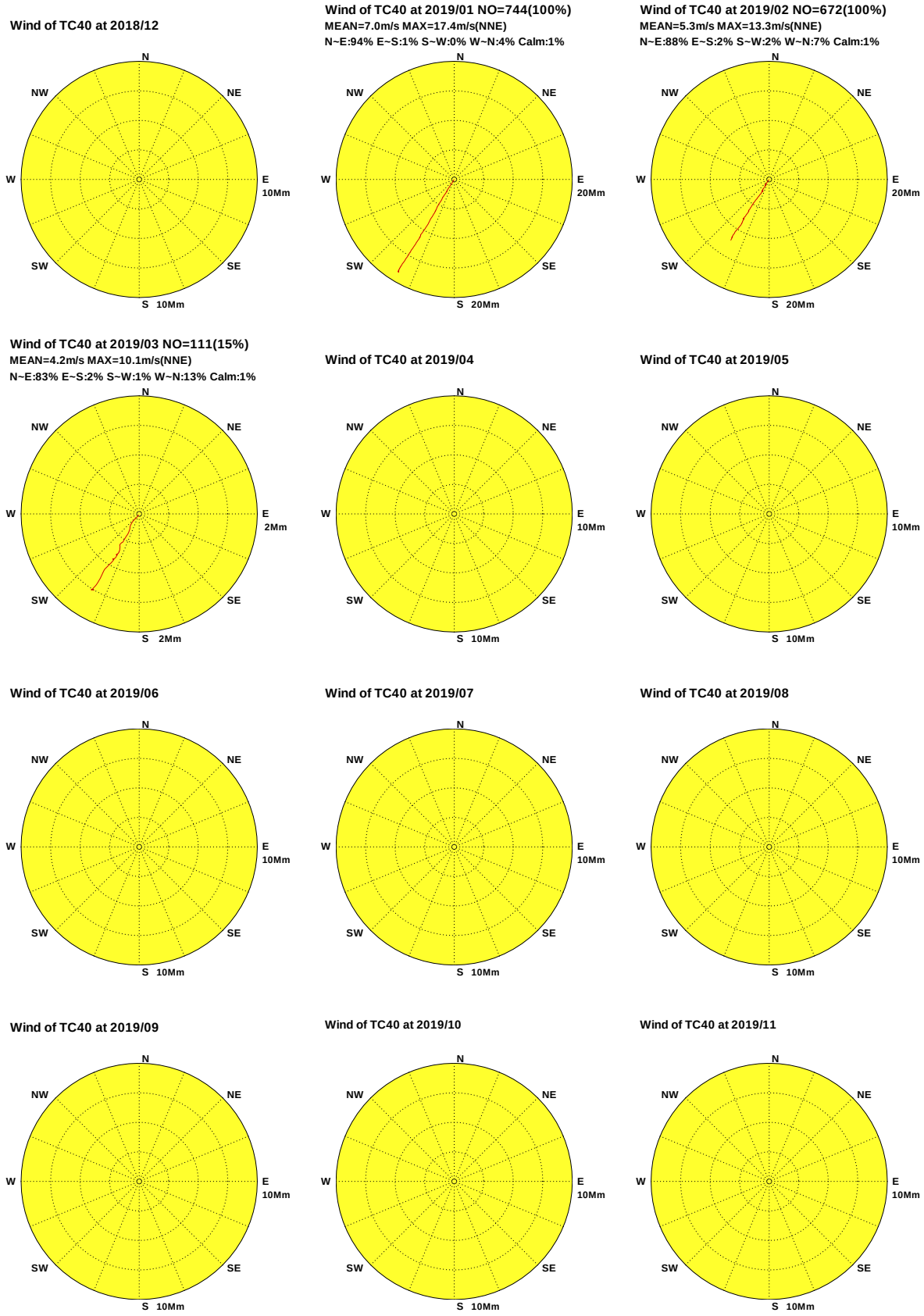

圖1.6.9 2019年中雲海域每月4站修補前觀測風力向量行進圖

W18CTC40.1H0 W191TC40.1H0 W192TC40.1H0 W193TC40.1H0 W194TC40.1H0 W195TC40.1H0
W196TC40.1H0 W197TC40.1H0 W198TC40.1H0 W199TC40.1H0 W19ATC40.1H0 W19BTC40.1H0

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第二章　2019 年中雲海域觀測波浪資料年報

2019 年中雲海域波浪觀測包括**測站 X、及測站 V 等** 2 個測站(測站位置如第 O 章圖 VG1，各測站歷年觀測波浪資料蒐集概況如表 VG1)。本年報取經檢核及補遺之 **X 站**資料作為主要測站 1，**Y 站**資料作為主要測站 2。

2.1　2019 年中雲海域觀測波浪資料年報圖表

本章第 1 節**波浪**年報**資料處理之圖表包括:**

1. 表 2.1.1a　2019 年**各觀測站**每月**觀測波浪**資料**修補前**記錄表。
2. 表 2.1.1b 2019 年**主要測站**每月**觀測波浪**資料**修補後**記錄表。
3. 表 2.1.2　2019 年**主要測站 1 修補後**每月(季)及整年示性波高、示性週期及波向重要統計量統計表。
4. 表 2.1.3　2019 年**主要測站 2 修補後**每月(季)及整年示性波高、示性週期及波向重要統計量統計表。
5. 圖 2.1.1a　2019 年**主要測站 1 修補前後**每月示性波高歷線比較圖。
6. 圖 2.1.1b　2019 年**主要測站 1 修補前後**每月示性週期歷線比較圖。
7. 圖 2.1.1c　2019 年**主要測站 1 修補前後**每月波向歷線比較圖。
8. 圖 2.1.2a　2019 年**主要測站 2 修補前後**每月示性波高歷線比較圖。
9. 圖 2.1.2b　2019 年**主要測站 2 修補前後**每月示性週期歷線比較圖。
10. 圖 2.1.2c　2019 年**主要測站 2 修補前後**每月波向歷線比較圖。

11. 圖 2.1.3　2019 年**主要測站 1 修補後**每月波高向量分佈圖。

12. 圖 2.1.4　2019 年**主要測站 2 修補後**每月波高向量分佈圖。

第 2 節波浪年報資料處理之統計表包括: 2019 年中雲海域**各測站修補前**每月(季)及整年示性波高、示性週期及波向重要統計量統計表。

第 3 節波浪年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 1 修補後**與**其他測站(修補前)**每月示性波高、示性週期及波向歷線比較圖。

第 4 節波浪年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 2 修補後**與**其他測站(修補前)**每月示性波高、示性週期及波向歷線比較圖。

第 5 節波浪年報資料處理之統計圖包括: 2019 年中雲海域**各測站修補前**每月波高向量分佈圖。

表2.1.1a 2019年每月中雲海域修補前各測站觀測波浪資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	X					V						
2018/12 月	730(98.1%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 1 月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 2 月	672(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 3 月	739(99.3%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 4 月	718(99.7%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 5 月	736(98.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 6 月	715(99.3%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 7 月	743(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 8 月	741(99.6%)	*	*	*	*	107(14.4%)	*	*	*	*	*	*
2019/ 9 月	717(99.6%)	*	*	*	*	565(78.5%)	*	*	*	*	*	*
2019/10 月	729(98.0%)	*	*	*	*	660(88.7%)	*	*	*	*	*	*
2019/11 月	698(96.9%)	*	*	*	*	672(93.3%)	*	*	*	*	*	*
2019/冬季	2146(99.4%)	*	*	*	*	*	*	*	*	*	*	*
2019/春季	2193(99.3%)	*	*	*	*	*	*	*	*	*	*	*
2019/夏季	2199(99.6%)	*	*	*	*	107(4.8%)	*	*	*	*	*	*
2019/秋季	2144(98.2%)	*	*	*	*	1897(86.9%)	*	*	*	*	*	*
2019/整年	8682(99.1%)	*	*	*	*	2004(22.9%)	*	*	*	*	*	*
起始年月	2018/12	*	*	*	*	2019/08	*	*	*	*	*	*
結束年月	2019/11	*	*	*	*	2019/11	*	*	*	*	*	*

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表2.1.1b 2019年每月中雲海域修補後各測站波浪資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	X	Y										
2018/12月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	672(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 3月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 4月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 5月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 6月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2019/11月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	2160(100%)	*	*	*	*	*	*	*	*	*	*
2019/春季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2019/夏季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2019/秋季	2184(100%)	2184(100%)	*	*	*	*	*	*	*	*	*	*
2019/整年	8760(100%)	8760(100%)	*	*	*	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	*	*	*	*	*	*	*	*	*	*
結束年月	2019/11	2019/11	*	*	*	*	*	*	*	*	*	*

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表2.1.2　2019年中雲海域主要測站1修補後示性波高週期及波向重要統計量統計表

觀測日期 年、月	波高蒐集率	H_s 平均 (m)	H_s最大 (波高/週期/波向) (m/s/來向)	T_p 平均 (s)	T_p 最大 (s)	小波 <0.5m (%)	小浪 ~1.5m (%)	中浪 ~3m (%)	大浪 >3m (%)	T_p <6s (%)	T_p 6~8s (%)	T_p 8~10s (%)	T_p >10s (%)	波向蒐集率	波向 N~E (%)	波向 E~S (%)	波向 S~W (%)	波向 W~N (%)	主波向 (百分比) 來向/%
2018/12	100%	2.13	4.0/10.1/NNE	7.2	10.4	8.9	21.2	42.6	27.3	25.5	38.6	33.9	2.0	100%	95.3	.0	.0	4.7	NNE/78%
2019/01	100%	2.04	3.9/ 8.9/NNE	7.3	10.1	.7	22.8	64.7	11.8	9.1	65.3	25.3	.3	100%	98.3	.0	.0	1.7	NNE/77%
2019/02	100%	1.71	3.4/ 8.7/NNE	7.3	10.1	2.2	33.3	62.6	1.8	9.8	56.8	33.0	.3	100%	98.4	.0	.0	1.6	NNE/79%
2019/03	100%	1.47	3.1/ 8.4/NNE	6.4	9.1	4.7	50.8	44.0	.5	28.4	62.0	9.7	.0	100%	81.6	.1	4.2	14.1	NNE/49%
2019/04	100%	1.09	2.8/ 8.4/N	6.0	34.0	22.4	47.9	29.7	.0	42.2	49.6	8.1	.1	100%	62.6	.1	9.3	27.9	N /42%
2019/05	100%	1.15	3.5/ 8.9/N	6.3	9.8	12.1	62.9	22.8	2.2	38.6	52.0	9.4	.0	100%	68.8	.1	5.4	25.7	N /44%
2019/06	100%	.70	1.7/ 6.9/N	5.2	8.4	26.8	71.0	2.2	.0	64.3	34.6	1.1	.0	100%	29.7	.1	34.3	35.8	W /27%
2019/07	100%	.73	3.1/ 8.3/NNE	5.3	9.9	29.0	68.0	2.7	.3	62.6	30.2	7.1	.0	100%	12.0	.3	53.9	33.9	W /34%
2019/08	100%	1.00	3.5/ 8.4/NNE	6.4	11.0	9.4	72.6	17.5	.5	40.1	51.6	7.0	1.3	100%	34.9	.0	25.7	39.4	W /29%
2019/09	100%	1.54	4.3/ 8.7/NNE	7.2	14.9	.0	54.3	41.1	4.6	13.2	65.6	13.5	7.8	100%	86.5	.0	.0	13.5	NNE/52%
2019/10	100%	1.63	3.6/ 8.4/NNE	6.7	11.3	9.4	33.3	55.2	2.0	27.0	64.1	7.5	1.3	100%	88.7	.0	.0	11.3	NNE/74%
2019/11	100%	2.24	4.2/ 9.8/NNE	7.4	10.0	.0	23.3	56.0	20.7	14.9	50.7	34.3	.1	100%	95.8	.0	.0	4.2	NNE/57%
2019/冬	100%	1.97	4.0/10.1/NNE	7.3	10.4	4.0	25.6	56.4	14.0	15.0	53.5	30.6	.9	100%	97.3	.0	.0	2.7	NNE/78%
2019/春	100%	1.24	3.5/ 8.9/N	6.2	34.0	13.0	53.9	32.2	.9	36.3	54.6	9.1	.0	100%	71.1	.1	6.3	22.5	N /40%
2019/夏	100%	.81	3.5/ 8.4/NNE	5.6	11.0	21.7	70.5	7.5	.3	55.6	38.9	5.1	.5	100%	25.5	.1	38.0	36.4	W /30%
2019/秋	100%	1.80	4.3/ 8.7/NNE	7.1	14.9	3.2	37.0	50.8	9.0	18.5	60.2	18.3	3.1	100%	90.3	.0	.0	9.7	NNE/61%
2019/年	100%	1.45	4.3/ 8.7/NNE	6.5	34.0	10.5	46.9	36.6	6.0	31.5	51.7	15.7	1.1	100%	70.9	.1	11.2	17.9	NNE/48%

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表2.1.3　2019年中雲海域主要測站2修補後示性波高週期及波向重要統計量統計表

觀測日期 年、月	波高蒐集率	H_s 平均 (m)	H_s最大 (波高/週期/波向) (m/s/來向)	T_p 平均 (s)	T_p 最大 (s)	小波 <0.5m (%)	小浪 ~1.5m (%)	中浪 ~3m (%)	大浪 >3m (%)	T_p <6s (%)	T_p 6~8s (%)	T_p 8~10s (%)	T_p >10s (%)	波向蒐集率	波向 N~E (%)	波向 E~S (%)	波向 S~W (%)	波向 W~N (%)	主波向 (百分比) 來向/%
2018/12	100%	3.05	6.9/ 7.0/NE	5.8	8.5	12.4	10.8	25.8	51.1	56.5	40.2	3.4	.0	100%	99.5	.0	.0	.5	NNE/62%
2019/01	100%	2.50	5.1/ 6.7/SW	5.7	7.4	2.6	14.2	50.5	32.7	66.1	33.9	.0	.0	100%	1.7	.0	98.3	.0	SW /79%
2019/02	100%	2.27	5.3/ 7.0/NE	5.8	8.2	10.0	18.5	42.9	28.7	55.8	43.8	.4	.0	100%	99.4	.0	.0	.6	NE /58%
2019/03	100%	1.29	2.8/ 6.2/NNE	5.0	25.5	6.7	59.4	33.9	.0	90.7	9.1	.0	.1	100%	81.6	4.2	4.2	10.1	NNE/59%
2019/04	100%	1.05	3.1/ 5.4/NNE	4.6	12.3	40.1	30.4	29.3	.1	99.9	.0	.0	.1	100%	62.6	.1	21.4	15.8	NNE/49%
2019/05	100%	1.21	4.2/ 4.5/N	4.3	4.5	19.5	51.7	24.3	4.4	100.0	.0	.0	.0	100%	61.7	.0	6.5	31.9	N /58%
2019/06	100%	.64	1.8/ 4.6/NNE	4.1	5.4	38.8	57.6	3.6	.0	100.0	.0	.0	.0	100%	29.7	.7	57.9	11.7	WSW/28%
2019/07	100%	.61	2.7/ 5.1/NNE	4.1	5.8	37.8	60.1	2.2	.0	100.0	.0	.0	.0	100%	12.0	.5	78.6	8.9	SW /50%
2019/08	100%	.86	3.1/ 5.1/NNE	4.4	6.6	25.1	60.6	14.1	.1	99.3	.7	.0	.0	100%	34.9	.0	55.1	9.9	SW /34%
2019/09	100%	1.54	4.6/ 5.7/NNE	5.1	8.0	1.5	52.8	40.0	5.7	90.4	9.4	.1	.0	100%	86.5	.0	9.3	4.2	NNE/52%
2019/10	100%	2.27	5.5/ 7.0/N	5.6	8.2	11.3	16.0	40.7	32.0	62.5	36.4	1.1	.0	100%	95.7	.0	.0	4.3	NNE/85%
2019/11	100%	3.21	6.6/ 7.2/NNE	5.8	7.3	.1	15.4	26.8	57.6	51.7	48.3	.0	.0	100%	99.7	.0	.0	.3	NNE/83%
2019/冬	100%	2.62	6.9/ 7.0/NE	5.8	8.5	8.2	14.4	39.6	37.8	59.6	39.1	1.3	.0	100%	65.8	.0	33.8	.4	NNE/34%
2019/春	100%	1.19	4.2/ 4.5/N	4.6	25.5	21.9	47.4	29.2	1.5	96.8	3.1	.0	.1	100%	68.7	1.4	10.6	19.3	NNE/43%
2019/夏	100%	.70	3.1/ 5.1/NNE	4.2	6.6	33.8	59.5	6.7	.0	99.8	.2	.0	.0	100%	25.5	.4	63.9	10.1	SW /37%
2019/秋	100%	2.34	6.6/ 7.2/NNE	5.5	8.2	4.4	27.9	35.9	31.8	68.1	31.5	.4	.0	100%	94.0	.0	3.1	2.9	NNE/73%
2019/年	100%	1.71	6.9/ 7.0/NE	5.0	25.5	17.2	37.4	27.8	17.6	81.2	18.3	.4	.0	100%	63.4	.5	27.9	8.2	NNE/42%

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Wave H_s in Chung-Yun Seas of TCX0 at 2019

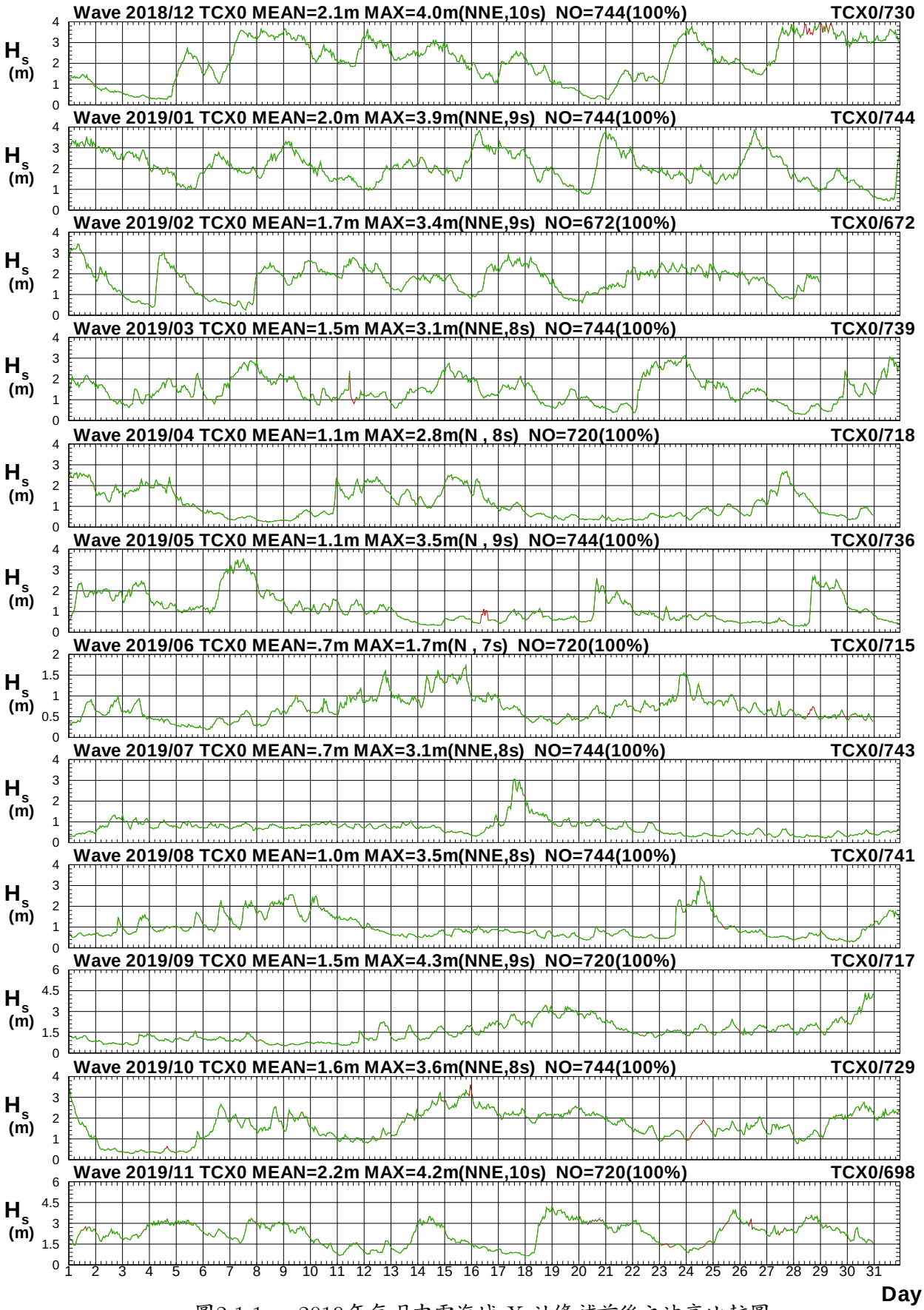

圖2.1.1a　2019年每月中雲海域 X 站修補前後之波高比較圖

V18CTCX0.1HA V18CTCX0.1H0 V191TCX0.1HA V191TCX0.1H0 V192TCX0.1HA V192TCX0.1H0
V193TCX0.1HA V193TCX0.1H0 V194TCX0.1HA V194TCX0.1H0 V195TCX0.1HA V195TCX0.1H0

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Wave T_p in Chung-Yun Seas of TCX0 at 2019

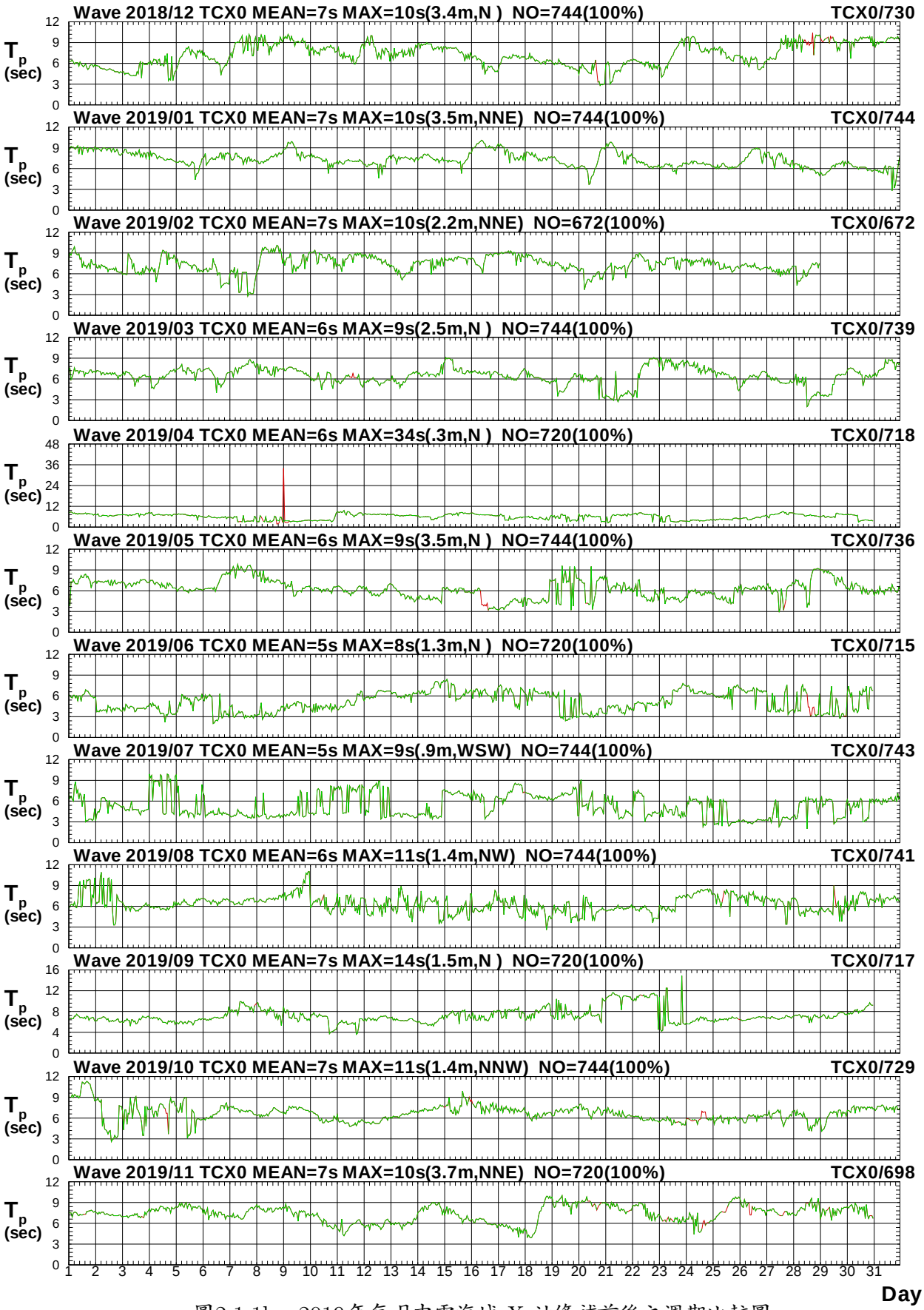

圖2.1.1b　2019年每月中雲海域 X 站修補前後之週期比較圖

V18CTCX0.1HA V18CTCX0.1H0 V191TCX0.1HA V191TCX0.1H0 V192TCX0.1HA V192TCX0.1H0
V193TCX0.1HA V193TCX0.1H0 V194TCX0.1HA V194TCX0.1H0 V195TCX0.1HA V195TCX0.1H0

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Wave Direction in Chung-Yun Seas of TCX0 at 2019

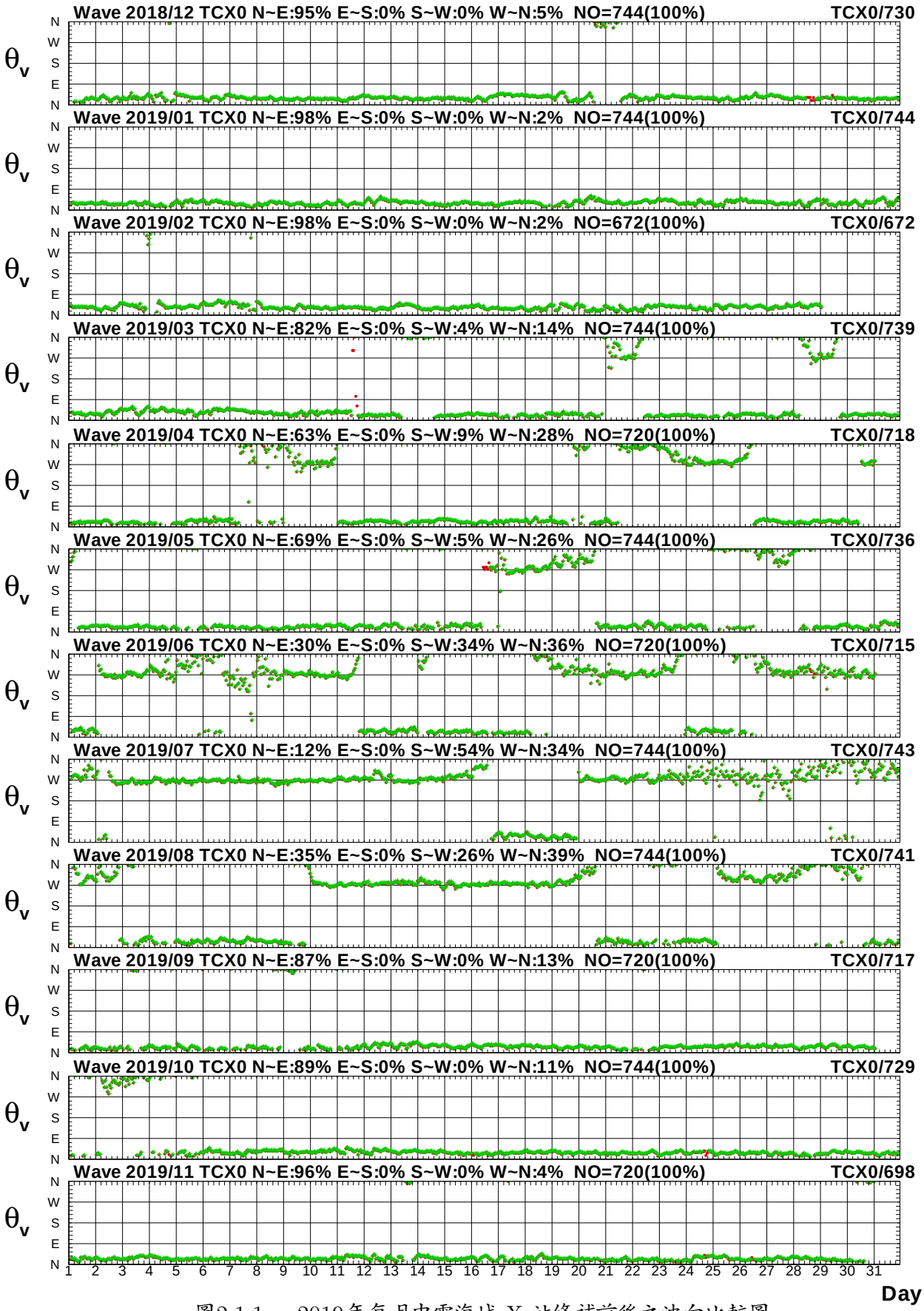

圖2.1.1c　2019年每月中雲海域 X 站修補前後之波向比較圖

V18CTCX0.1HA V18CTCX0.1H0 V191TCX0.1HA V191TCX0.1H0 V192TCX0.1HA V192TCX0.1H0
V193TCX0.1HA V193TCX0.1H0 V194TCX0.1HA V194TCX0.1H0 V195TCX0.1HA V195TCX0.1H0

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Wave H_s in Chung-Yun Seas of TCY0 at 2019

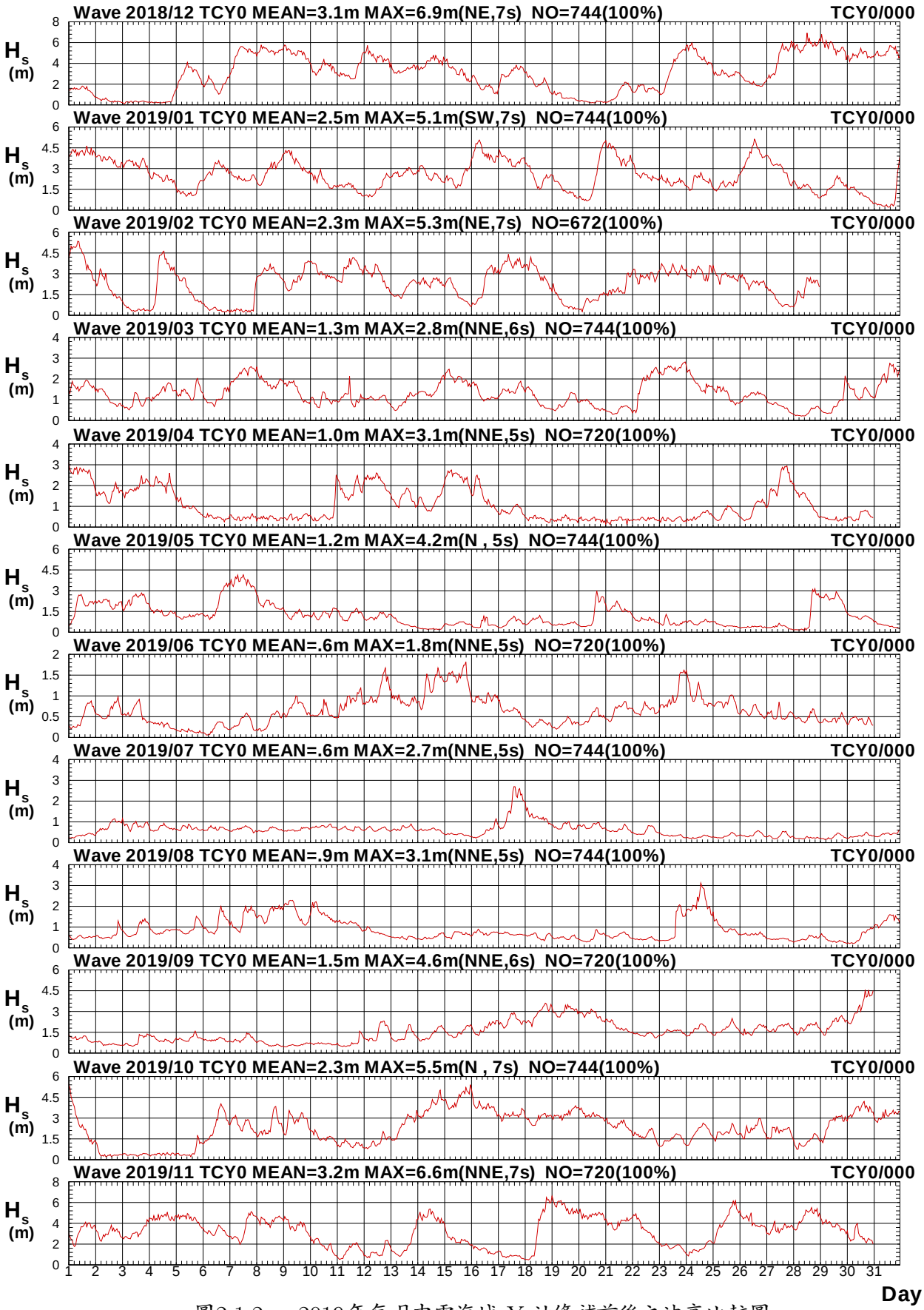

圖2.1.2a　2019年每月中雲海域 Y 站修補前後之波高比較圖

V18CTCY0.1HA V18CTCY0.1H0 V191TCY0.1HA V191TCY0.1H0 V192TCY0.1HA V192TCY0.1H0
V193TCY0.1HA V193TCY0.1H0 V194TCY0.1HA V194TCY0.1H0 V195TCY0.1HA V195TCY0.1H0

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Wave T_p in Chung-Yun Seas of TCY0 at 2019

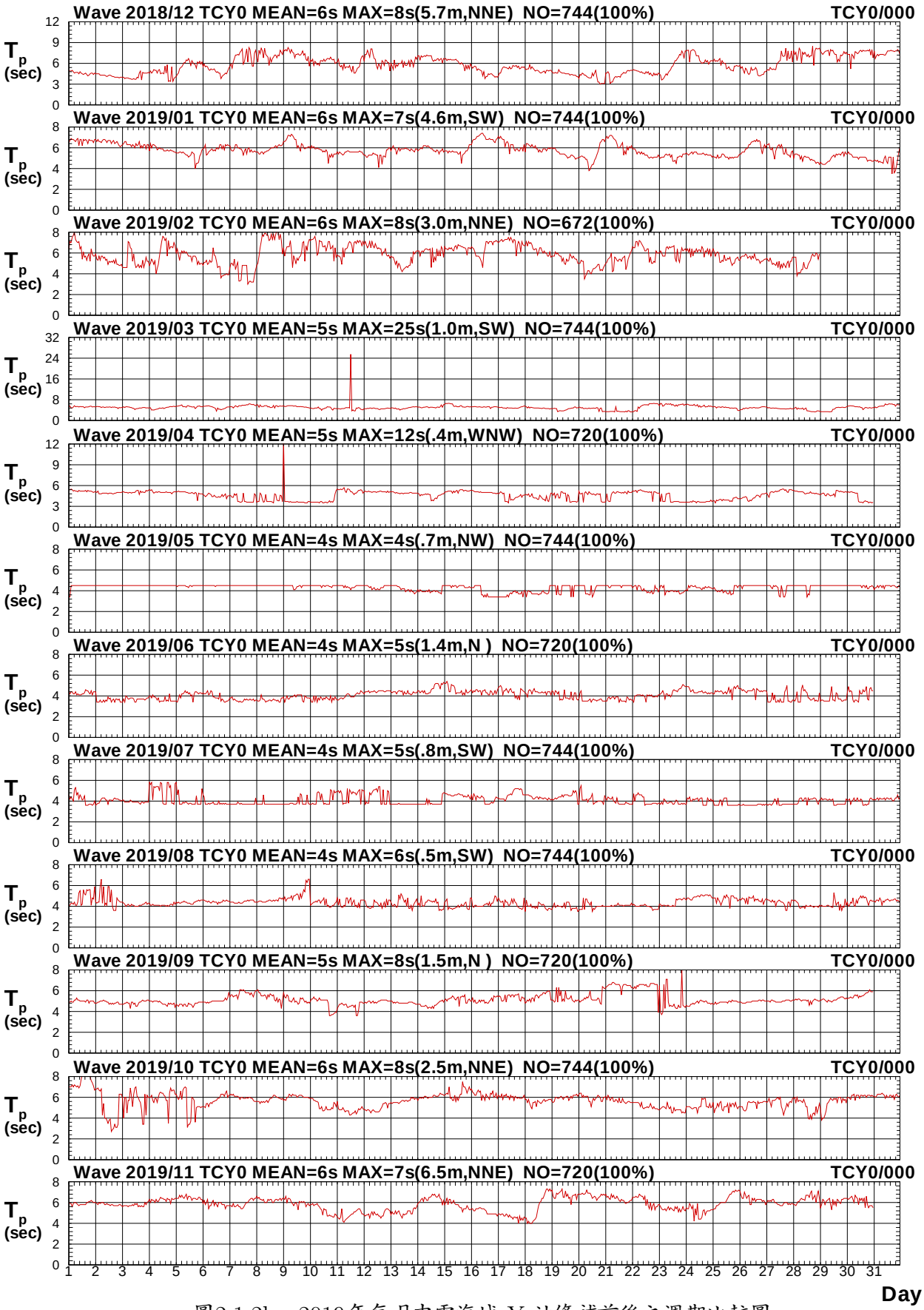

圖2.1.2b　2019年每月中雲海域 Y 站修補前後之週期比較圖

V18CTCY0.1HA V18CTCY0.1H0 V191TCY0.1HA V191TCY0.1H0 V192TCY0.1HA V192TCY0.1H0
V193TCY0.1HA V193TCY0.1H0 V194TCY0.1HA V194TCY0.1H0 V195TCY0.1HA V195TCY0.1H0

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Wave Direction in Chung-Yun Seas of TCY0 at 2019

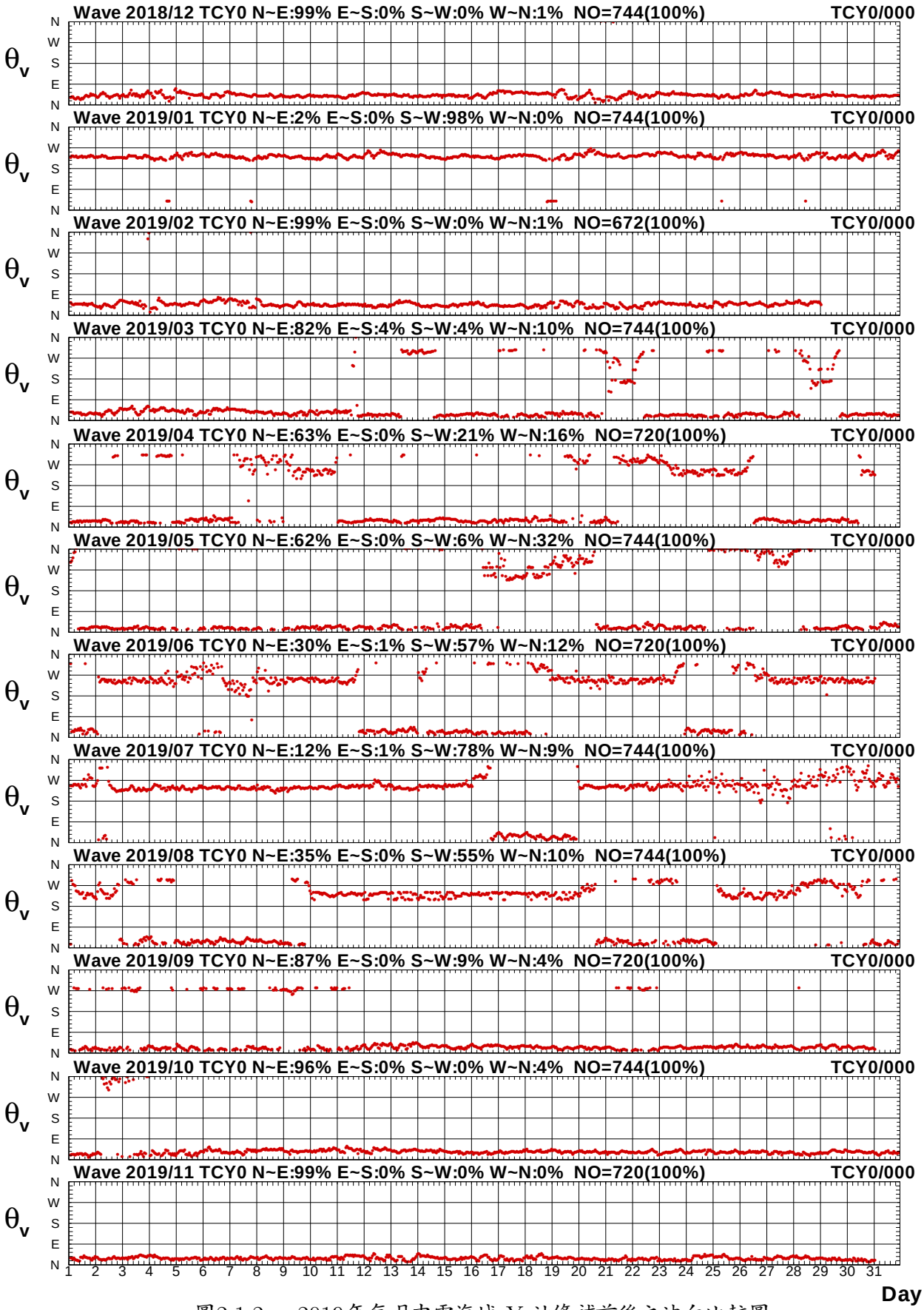

圖2.1.2c　2019年每月中雲海域 Y 站修補前後之波向比較圖

V18CTCY0.1HA V18CTCY0.1H0 V191TCY0.1HA V191TCY0.1H0 V192TCY0.1HA V192TCY0.1H0
V193TCY0.1HA V193TCY0.1H0 V194TCY0.1HA V194TCY0.1H0 V195TCY0.1HA V195TCY0.1H0

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Distribution of H_s Vectores

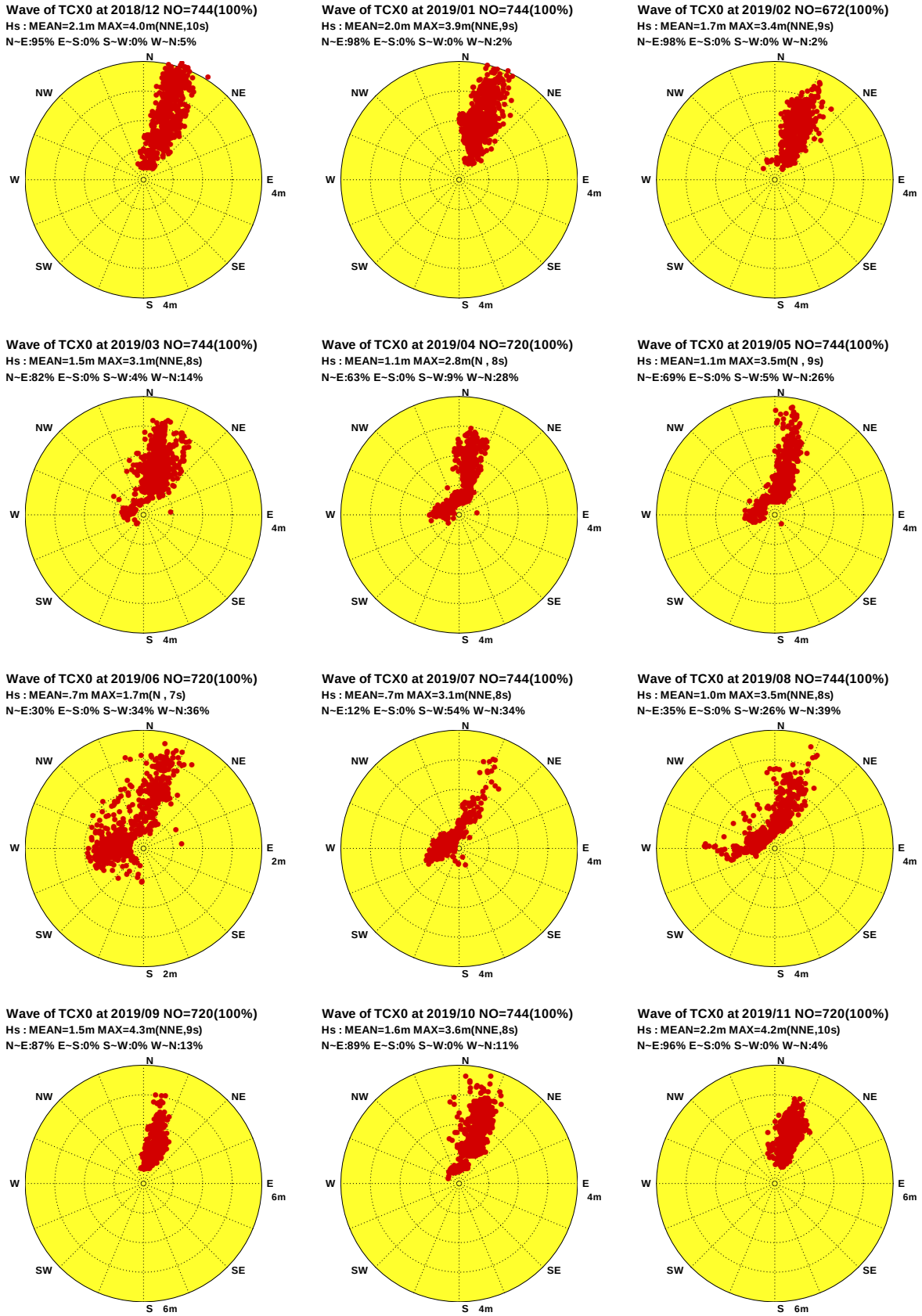

圖2.1.3 2019年中雲海域每月 X 站修補後觀測波高向量分佈圖

V18CTCX0.1HA V191TCX0.1HA V192TCX0.1HA V193TCX0.1HA V194TCX0.1HA V195TCX0.1HA
V196TCX0.1HA V197TCX0.1HA V198TCX0.1HA V199TCX0.1HA V19ATCX0.1HA V19BTCX0.1HA

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Distribution of H_s Vectores

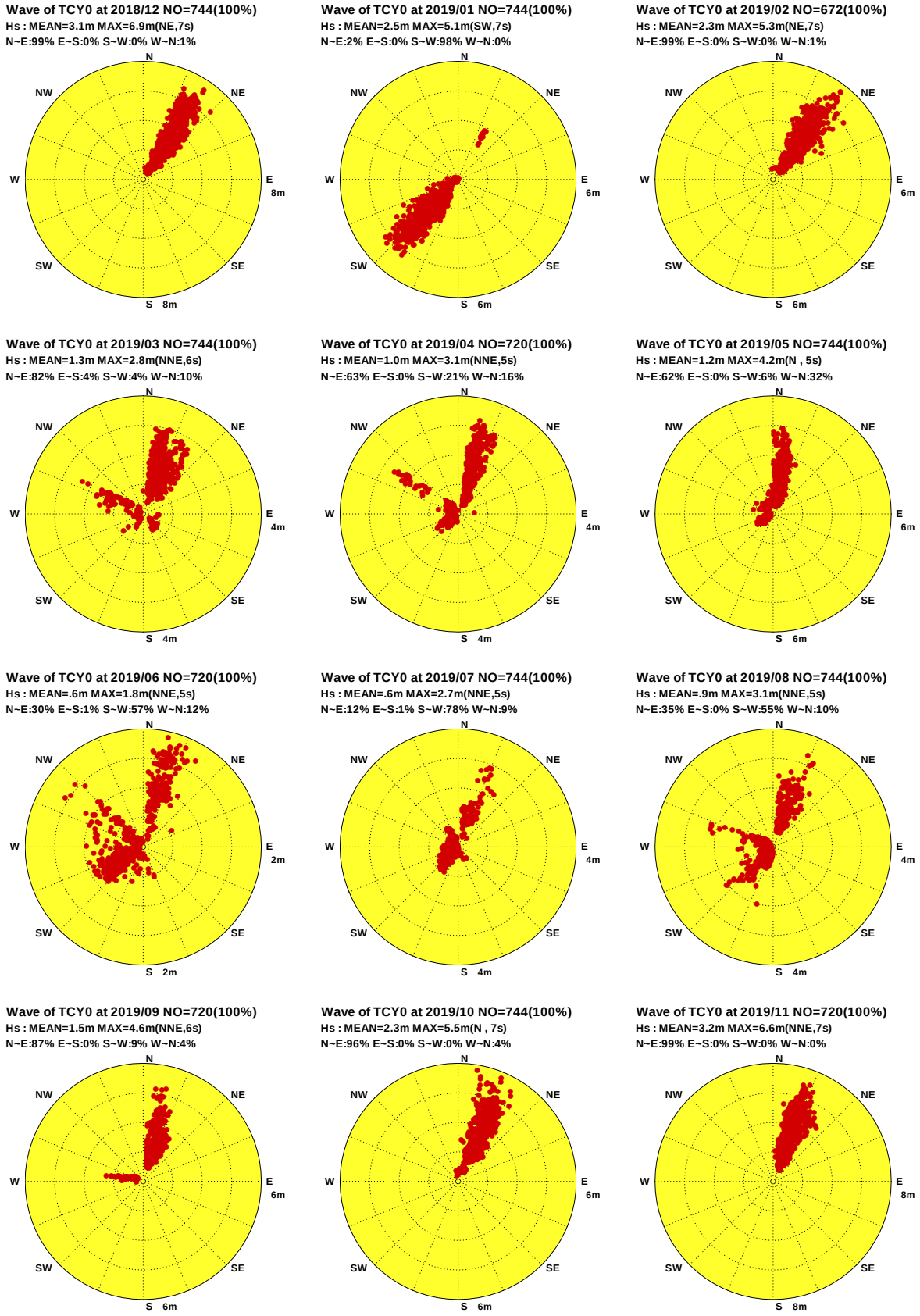

圖2.1.4 2019年中雲海域每月 Y 站修補後觀測波高向量分佈圖

V18CTCY0.1HA V191TCY0.1HA V192TCY0.1HA V193TCY0.1HA V194TCY0.1HA V195TCY0.1HA
V196TCY0.1HA V197TCY0.1HA V198TCY0.1HA V199TCY0.1HA V19ATCY0.1HA V19BTCY0.1HA

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2.2　2019 年中雲海域各測站修補前

波浪統計量統計表

表2.2.1　2019年中雲海域 X 站修補前示性波高週期及波向重要統計量統計表

觀測日期 年、月	波高蒐集率	H_s 平均 (m)	H_s最大 (波高/週期/波向) (m/s/來向)	T_p 平均 (s)	T_p 最大 (s)	小波 <0.5m (%)	小浪 ~1.5m (%)	中浪 ~3m (%)	大浪 >3m (%)	T_p <6s (%)	T_p 6~8s (%)	T_p 8~10s (%)	T_p >10s (%)	波向蒐集率	波向 N~E (%)	波向 E~S (%)	波向 S~W (%)	波向 W~N (%)	主波向 (百分比) 來向/%
2018/12	98%	2.10	4.0/10.1/NNE	7.2	10.2	8.9	21.6	43.4	26.0	25.9	39.3	32.9	1.9	98%	95.3	.0	.0	4.7	NNE/78%
2019/01	100%	2.04	3.9/ 8.9/NNE	7.3	10.1	.7	22.8	64.7	11.8	9.1	65.3	25.3	.3	100%	98.3	.0	.0	1.7	NNE/77%
2019/02	100%	1.71	3.4/ 8.7/NNE	7.3	10.1	2.2	33.3	62.6	1.8	9.8	56.8	33.0	.3	100%	98.4	.0	.0	1.6	NNE/79%
2019/03	99%	1.47	3.1/ 8.4/NNE	6.5	9.1	4.7	50.5	44.2	.5	28.6	61.7	9.7	.0	99%	82.0	.0	4.2	13.8	NNE/49%
2019/04	100%	1.09	2.8/ 8.4/N	6.0	9.6	22.1	48.1	29.8	.0	42.2	49.7	8.1	.0	100%	62.8	.1	9.3	27.7	N /42%
2019/05	99%	1.15	3.5/ 8.9/N	6.3	9.8	12.2	62.5	23.1	2.2	37.9	52.6	9.5	.0	99%	69.6	.1	5.2	25.1	N /45%
2019/06	99%	.70	1.7/ 6.9/N	5.2	8.4	27.0	70.8	2.2	.0	64.1	34.8	1.1	.0	99%	29.9	.1	34.1	35.8	W /27%
2019/07	100%	.72	3.1/ 8.3/NNE	5.3	9.9	29.1	68.1	2.6	.3	62.7	30.1	7.1	.0	100%	11.8	.3	54.0	33.9	W /34%
2019/08	100%	1.00	3.5/ 8.4/NNE	6.4	11.0	9.3	72.7	17.4	.5	40.2	51.4	7.0	1.3	100%	35.1	.0	25.6	39.3	W /29%
2019/09	100%	1.54	4.3/ 8.7/NNE	7.2	14.9	.0	54.3	41.1	4.6	13.2	65.7	13.4	7.7	100%	86.6	.0	.0	13.4	NNE/52%
2019/10	98%	1.63	3.5/ 9.1/N	6.7	11.3	9.6	33.1	55.6	1.8	26.7	64.5	7.4	1.4	98%	88.5	.0	.0	11.5	NNE/74%
2019/11	97%	2.23	4.2/ 9.8/NNE	7.4	10.0	.0	23.4	56.3	20.3	15.3	50.1	34.4	.1	97%	95.8	.0	.0	4.2	NNE/57%
2019/冬	99%	1.96	4.0/10.1/NNE	7.3	10.2	4.0	25.7	56.8	13.5	15.1	53.8	30.3	.8	99%	97.3	.0	.0	2.7	NNE/78%
2019/春	99%	1.24	3.5/ 8.9/N	6.2	9.8	13.0	53.7	32.4	.9	36.2	54.7	9.1	.0	99%	71.5	.1	6.2	22.2	N /41%
2019/夏	100%	.81	3.5/ 8.4/NNE	5.6	11.0	21.7	70.5	7.5	.3	55.6	38.8	5.1	.5	100%	25.6	.1	38.0	36.3	W /30%
2019/秋	98%	1.80	4.3/ 8.7/NNE	7.1	14.9	3.3	37.0	51.0	8.8	18.5	60.2	18.2	3.1	98%	90.3	.0	.0	9.7	NNE/61%
2019/年	99%	1.45	4.3/ 8.7/NNE	6.5	14.9	10.6	46.9	36.7	5.8	31.5	51.8	15.6	1.1	99%	70.9	.1	11.2	17.9	NNE/48%

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表2.2.2　2019年中雲海域 V 站修補前示性波高週期及波向重要統計量統計表

觀測日期 年、月	波高蒐集率	H_s 平均 (m)	H_s最大 (波高/週期/波向) (m/s/來向)	T_p 平均 (s)	T_p 最大 (s)	小波 <0.5m (%)	小浪 ~1.5m (%)	中浪 ~3m (%)	大浪 >3m (%)	T_p <6s (%)	T_p 6~8s (%)	T_p 8~10s (%)	T_p >10s (%)	波向蒐集率	波向 N~E (%)	波向 E~S (%)	波向 S~W (%)	波向 W~N (%)	主波向 (百分比) 來向/%
2018/12	0																		
2019/01	0																		
2019/02	0																		
2019/03	0																		
2019/04	0																		
2019/05	0																		
2019/06	0																		
2019/07	0																		
2019/08	14%	.59	1.5/ 5.7/N	4.6	5.9	56.1	43.9	.0	.0	100.0	.0	.0	.0	14%	57.0	.0	5.6	37.4	N /43%
2019/09	79%	1.37	4.9/ 7.3/N	5.3	7.4	7.3	53.6	33.5	5.7	85.1	14.9	.0	.0	79%	91.0	.0	.0	9.0	N /62%
2019/10	89%	1.62	4.1/ 6.9/N	5.1	7.5	12.1	33.9	49.5	4.4	89.7	10.3	.0	.0	89%	92.6	.0	1.8	5.6	N /50%
2019/11	93%	2.36	5.3/ 7.5/N	5.6	7.5	.0	25.6	43.5	31.0	61.5	38.5	.0	.0	93%	91.2	.0	.1	8.6	N /75%
2019/冬	0																		
2019/春	0																		
2019/夏	5%	.59	1.5/ 5.7/N	4.6	5.9	56.1	43.9	.0	.0	100.0	.0	.0	.0	5%	57.0	.0	5.6	37.4	N /43%
2019/秋	87%	1.81	5.3/ 7.5/N	5.4	7.5	6.4	36.8	42.6	14.2	78.3	21.7	.0	.0	87%	91.6	.0	.7	7.7	N /62%
2019/年	23%	1.74	5.3/ 7.5/N	5.3	7.5	9.0	37.2	40.3	13.4	79.5	20.5	.0	.0	23%	89.8	.0	.9	9.3	N /61%

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2.3　2019 年中雲海域主要測站 1(修補後)與其他測站(修補前)波浪歷線比較圖

Wave H_s in Tai-Chung Harbor of TCX0 at 2019

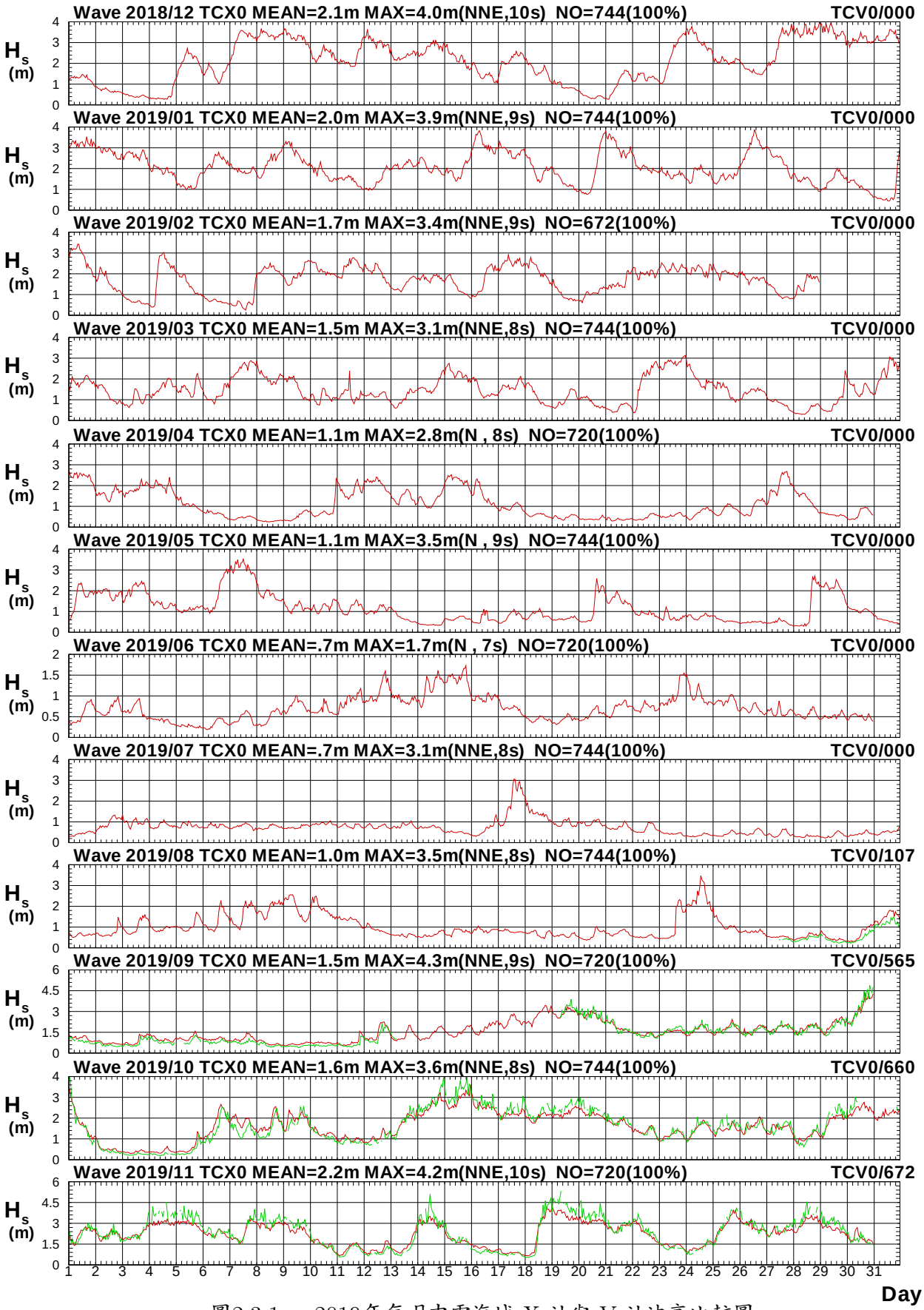

圖2.3.1a　2019年每月中雲海域 X 站與 V 站波高比較圖

V18CTCX0.1HA V18CTCV0.1H0 V191TCX0.1HA V191TCV0.1H0 V192TCX0.1HA V192TCV0.1H0
V193TCX0.1HA V193TCV0.1H0 V194TCX0.1HA V194TCV0.1H0 V195TCX0.1HA V195TCV0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

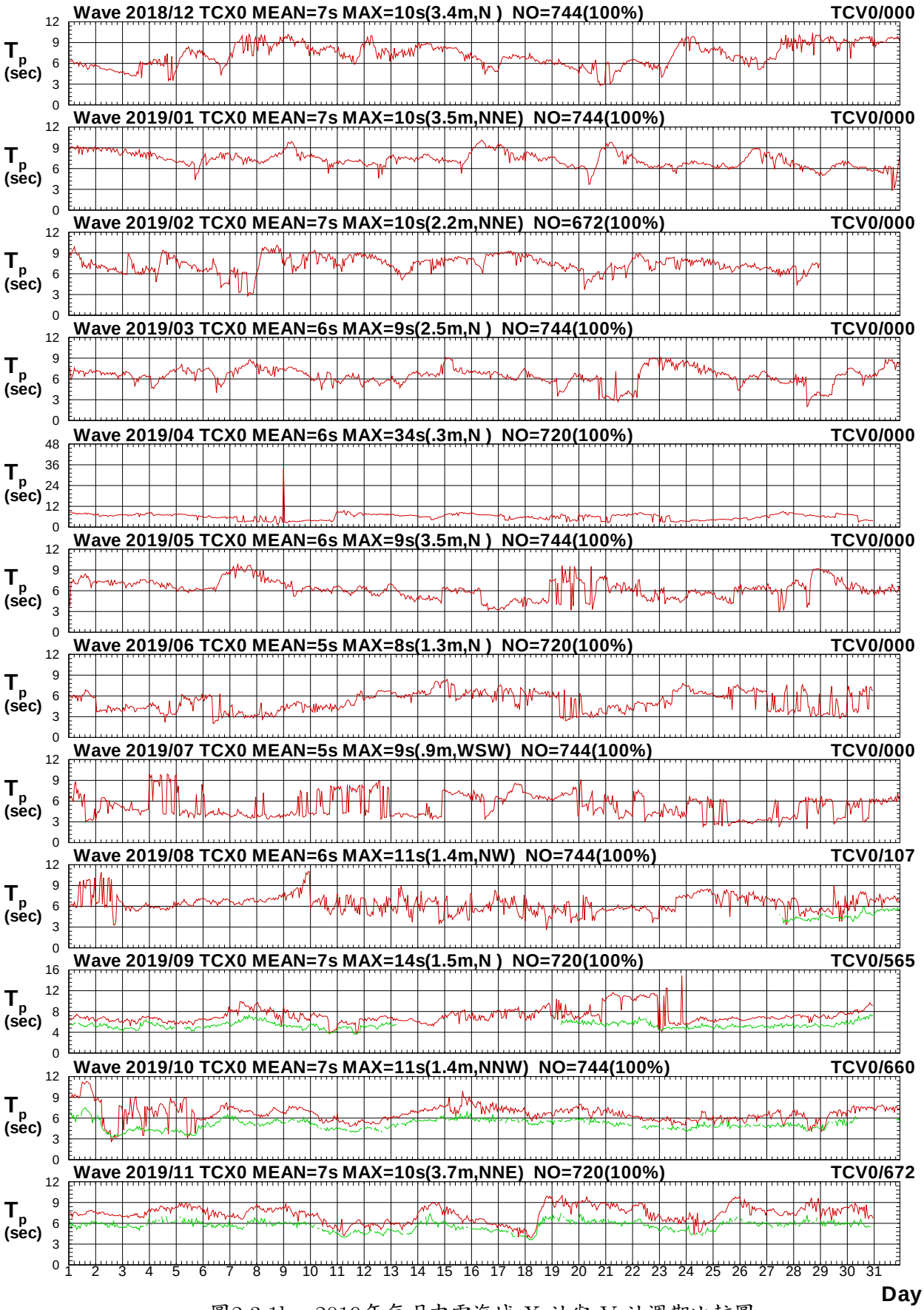

圖2.3.1b　2019年每月中雲海域 X 站與 V 站週期比較圖

V18CTCX0.1HA V18CTCV0.1H0 V191TCX0.1HA V191TCV0.1H0 V192TCX0.1HA V192TCV0.1H0
V193TCX0.1HA V193TCV0.1H0 V194TCX0.1HA V194TCV0.1H0 V195TCX0.1HA V195TCV0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

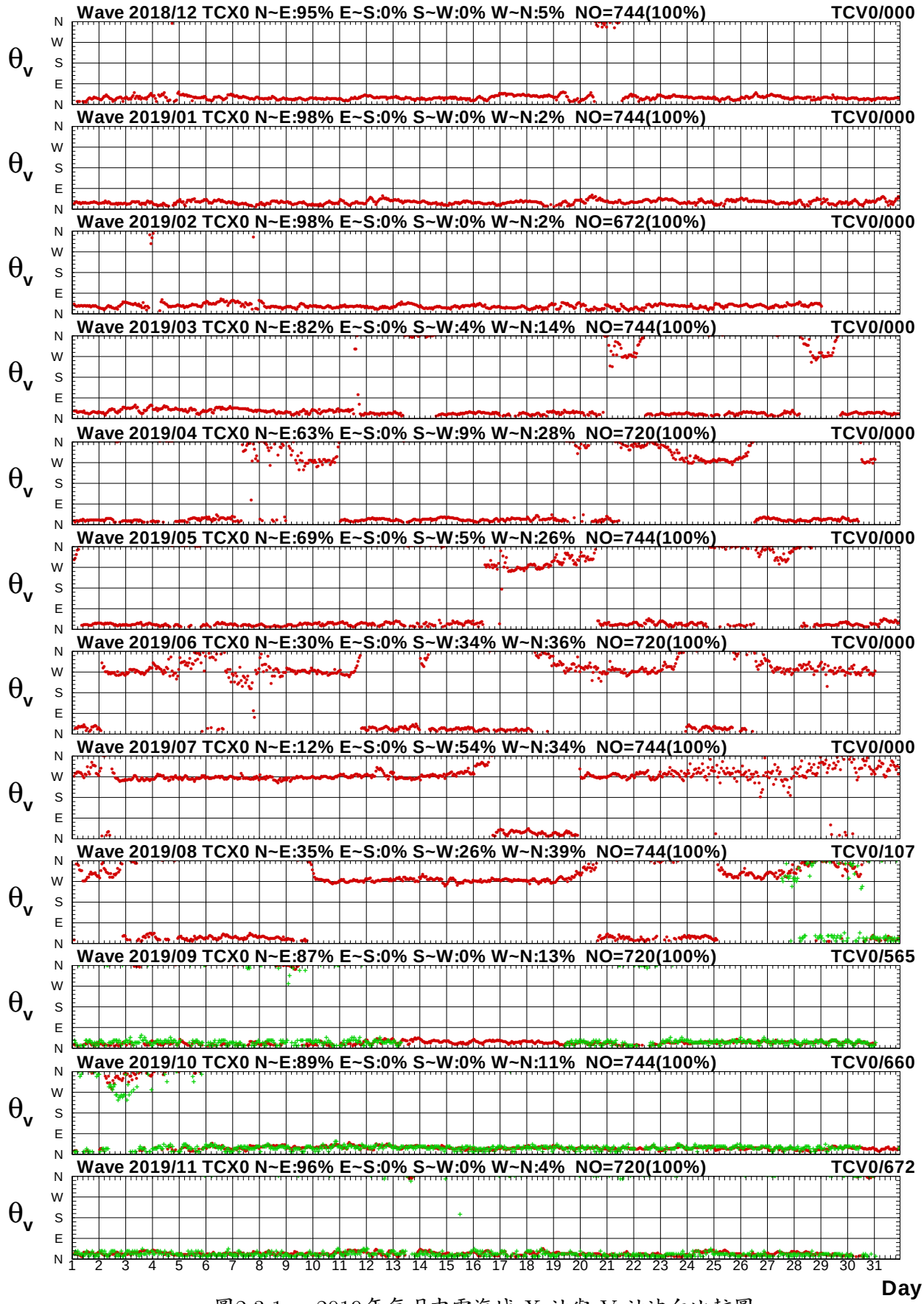

圖2.3.1c　2019年每月中雲海域 X 站與 V 站波向比較圖

V18CTCX0.1HA V18CTCV0.1H0 V191TCX0.1HA V191TCV0.1H0 V192TCX0.1HA V192TCV0.1H0
V193TCX0.1HA V193TCV0.1H0 V194TCX0.1HA V194TCV0.1H0 V195TCX0.1HA V195TCV0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

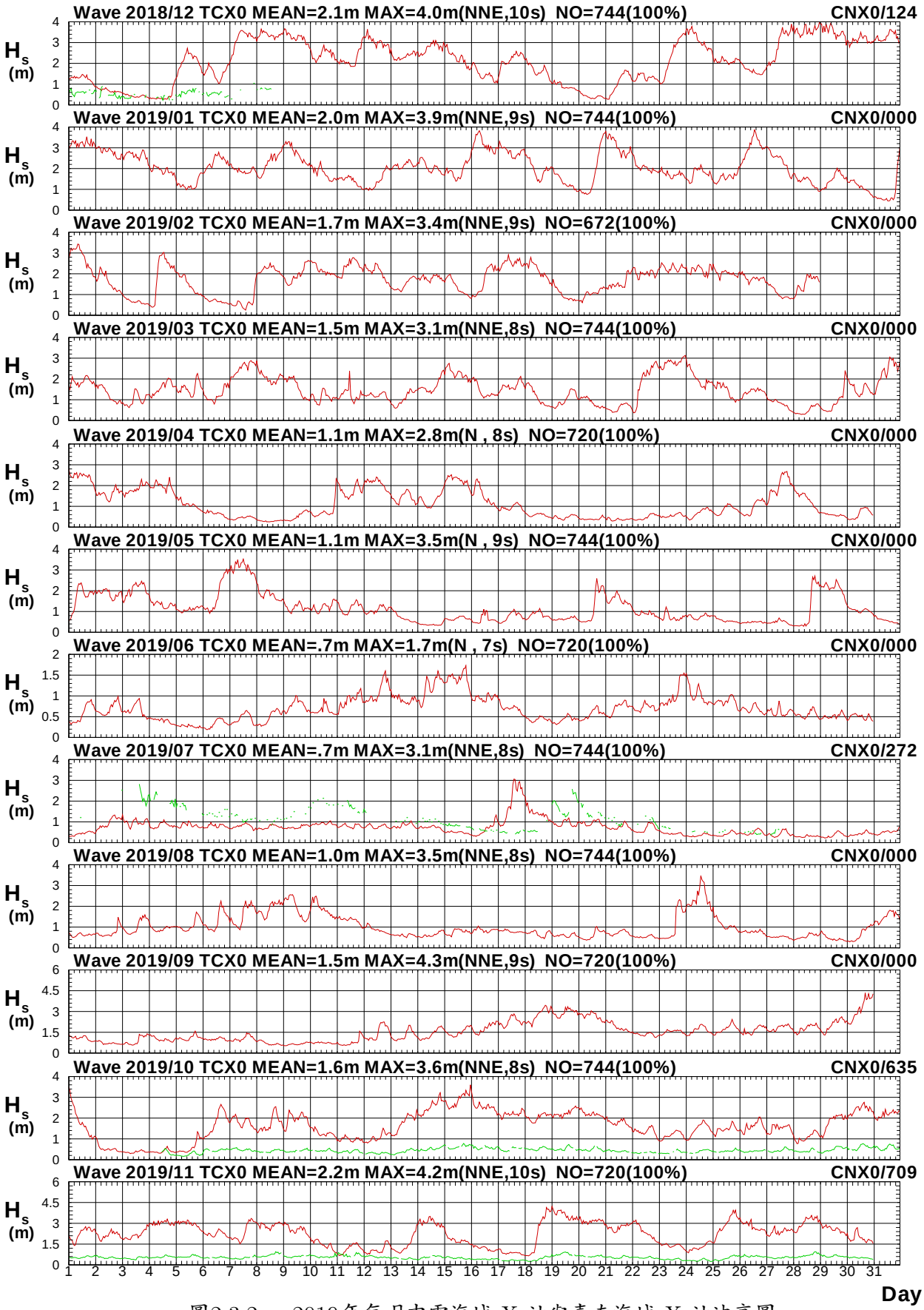

圖2.3.2a　2019年每月中雲海域 X 站與嘉南海域 X 站波高圖

V18CTCX0.1HA V18CCNX0.1H0 V191TCX0.1HA V191CNX0.1H0 V192TCX0.1HA V192CNX0.1H0
V193TCX0.1HA V193CNX0.1H0 V194TCX0.1HA V194CNX0.1H0 V195TCX0.1HA V195CNX0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

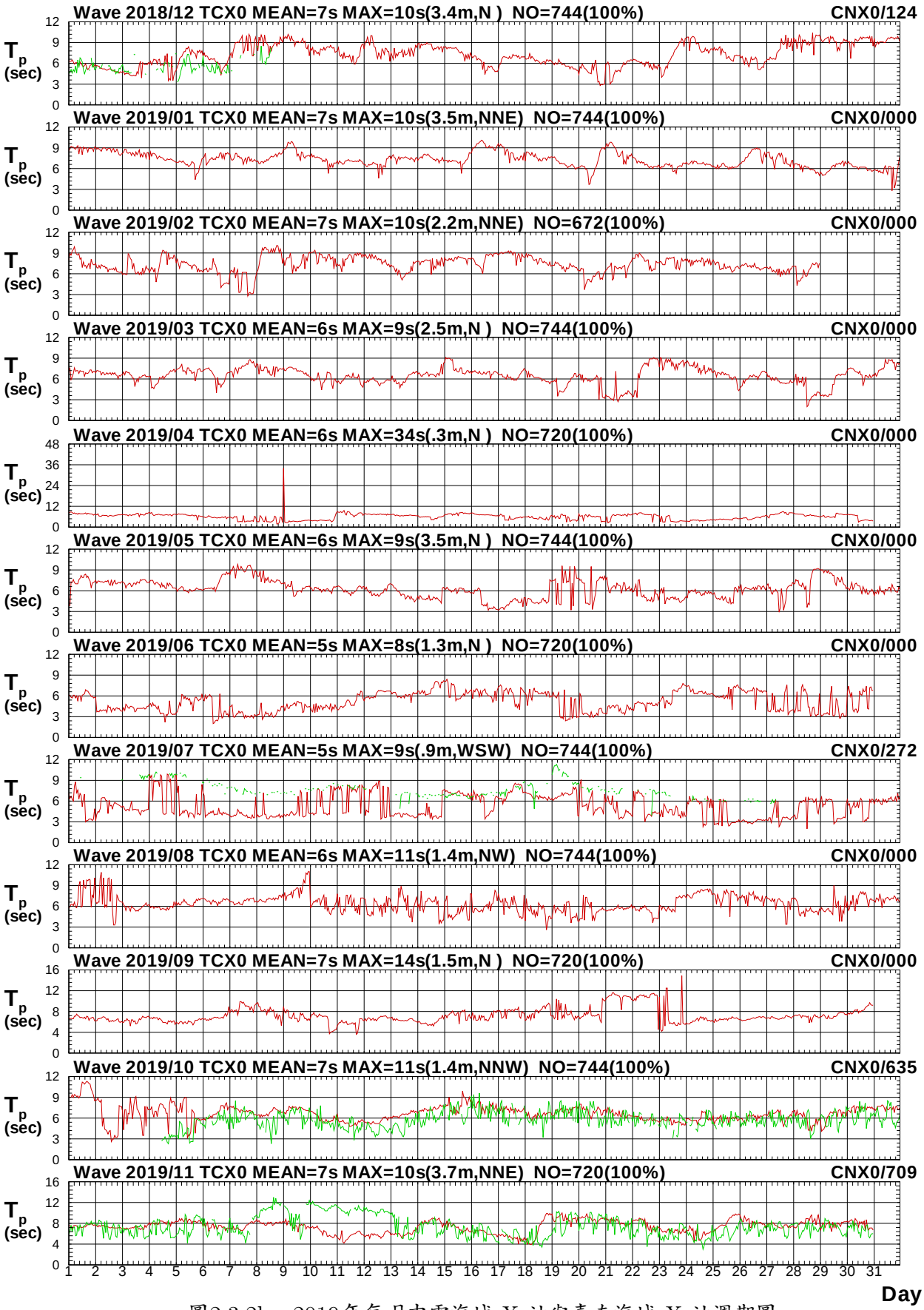

圖2.3.2b　2019年每月中雲海域 X 站與嘉南海域 X 站週期圖

V18CTCX0.1HA V18CCNX0.1H0 V191TCX0.1HA V191CNX0.1H0 V192TCX0.1HA V192CNX0.1H0
V193TCX0.1HA V193CNX0.1H0 V194TCX0.1HA V194CNX0.1H0 V195TCX0.1HA V195CNX0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

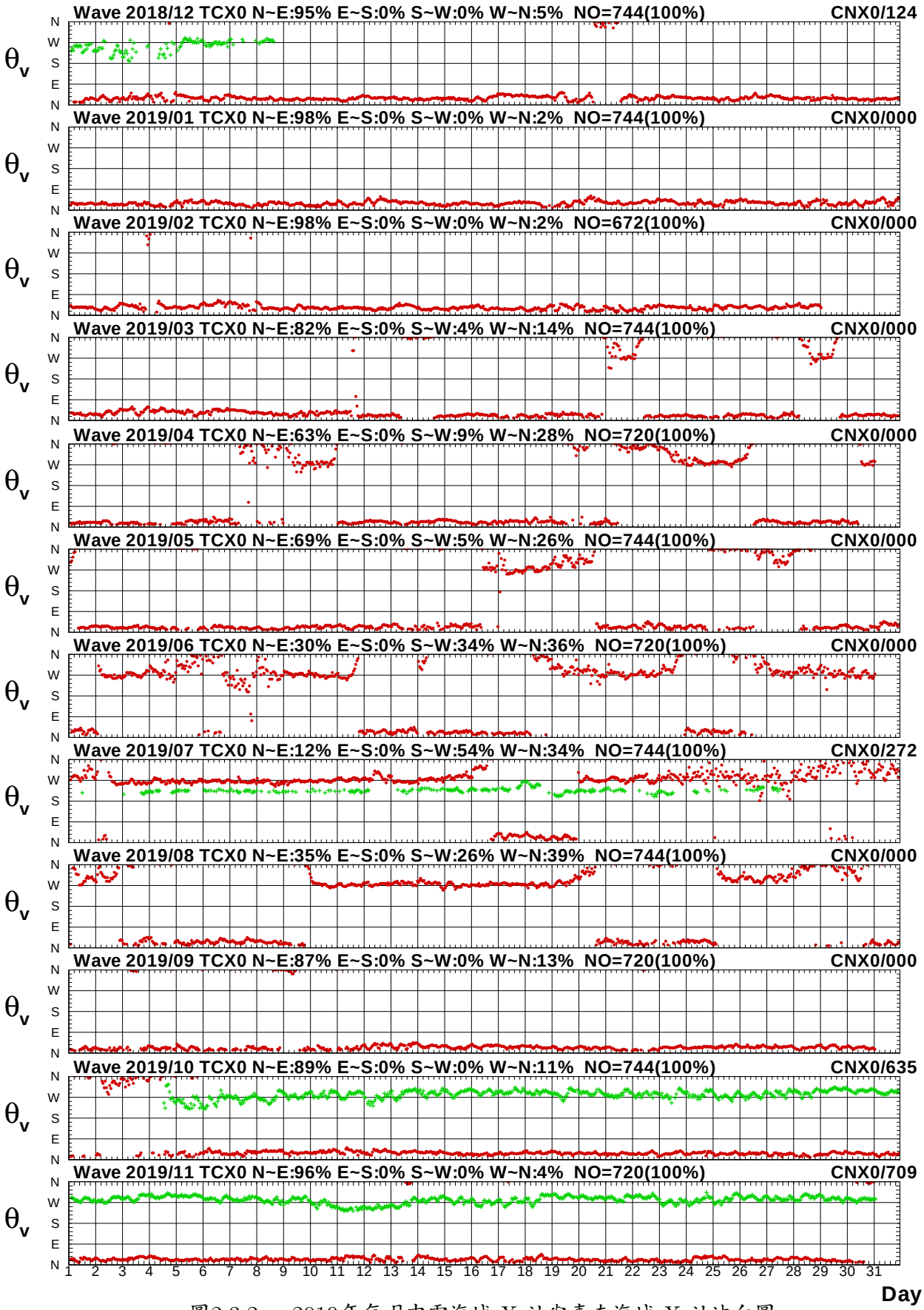

圖2.3.2c　2019年每月中雲海域 X 站與嘉南海域 X 站波向圖

V18CTCX0.1HA V18CCNX0.1H0 V191TCX0.1HA V191CNX0.1H0 V192TCX0.1HA V192CNX0.1H0
V193TCX0.1HA V193CNX0.1H0 V194TCX0.1HA V194CNX0.1H0 V195TCX0.1HA V195CNX0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

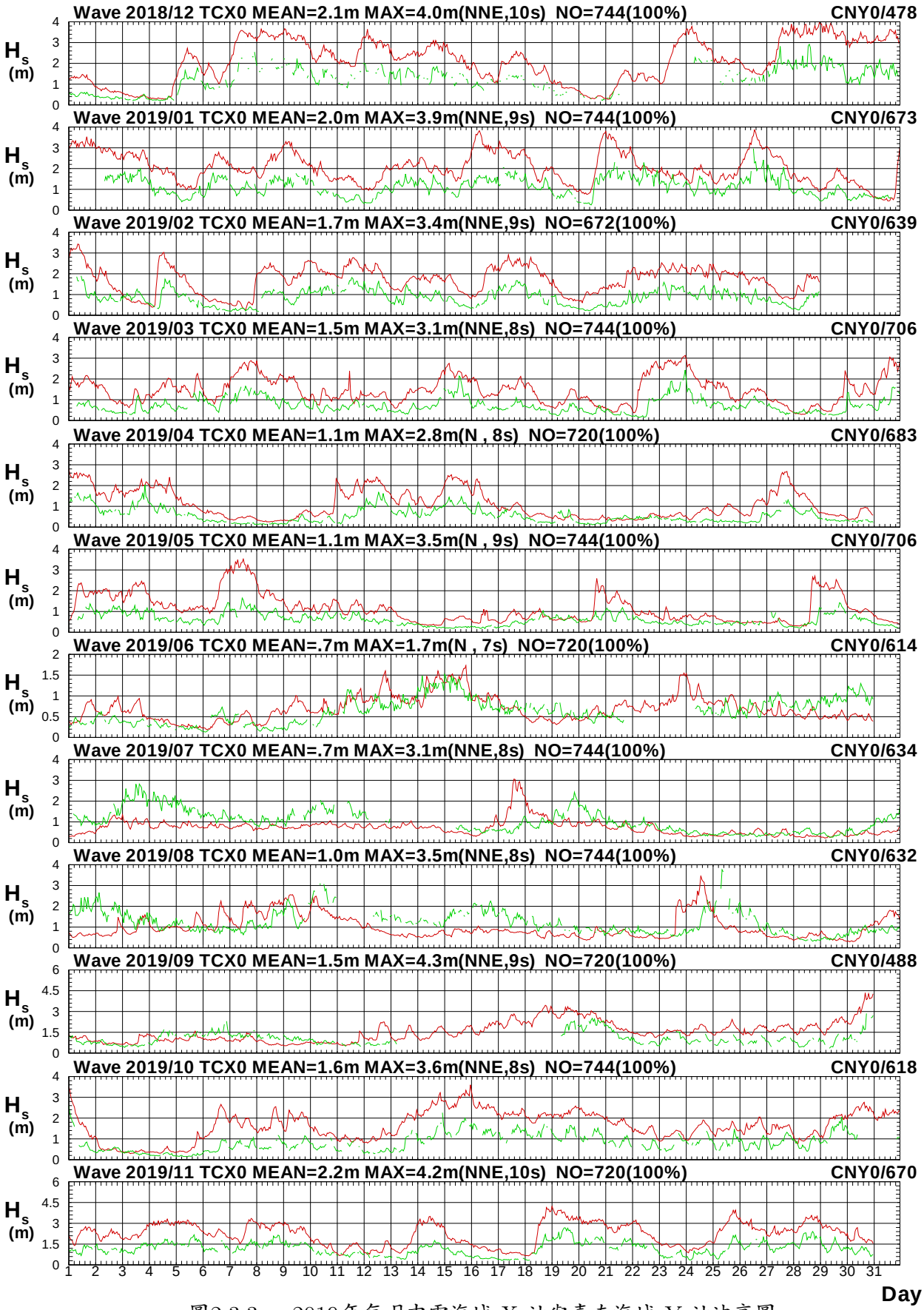

圖2.3.3a　2019年每月中雲海域 X 站與嘉南海域 Y 站波高圖

V18CTCX0.1HA V18CCNY0.1H0 V191TCX0.1HA V191CNY0.1H0 V192TCX0.1HA V192CNY0.1H0
V193TCX0.1HA V193CNY0.1H0 V194TCX0.1HA V194CNY0.1H0 V195TCX0.1HA V195CNY0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

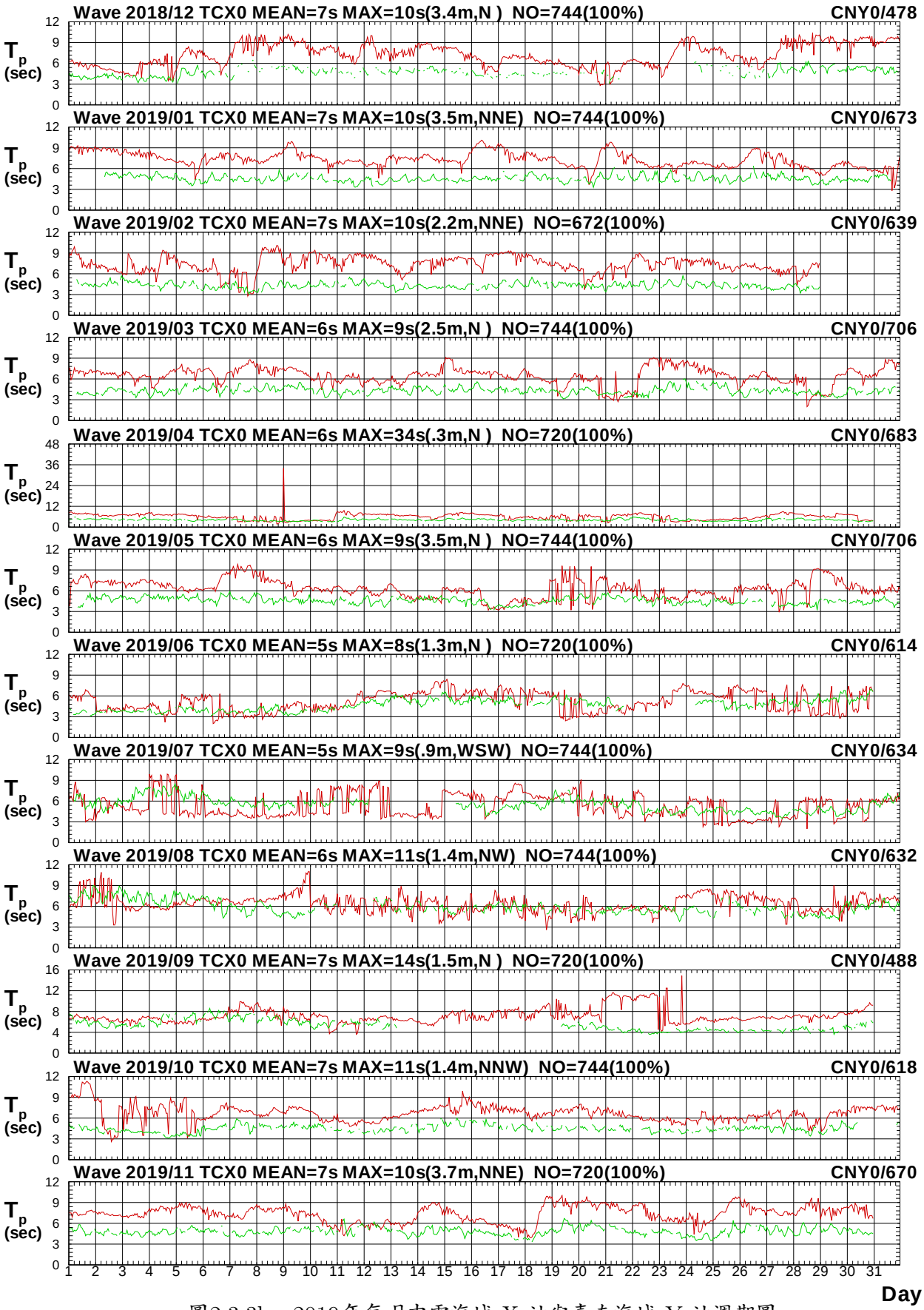

圖2.3.3b　2019年每月中雲海域 X 站與嘉南海域 Y 站週期圖

V18CTCX0.1HA V18CCNY0.1H0 V191TCX0.1HA V191CNY0.1H0 V192TCX0.1HA V192CNY0.1H0
V193TCX0.1HA V193CNY0.1H0 V194TCX0.1HA V194CNY0.1H0 V195TCX0.1HA V195CNY0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

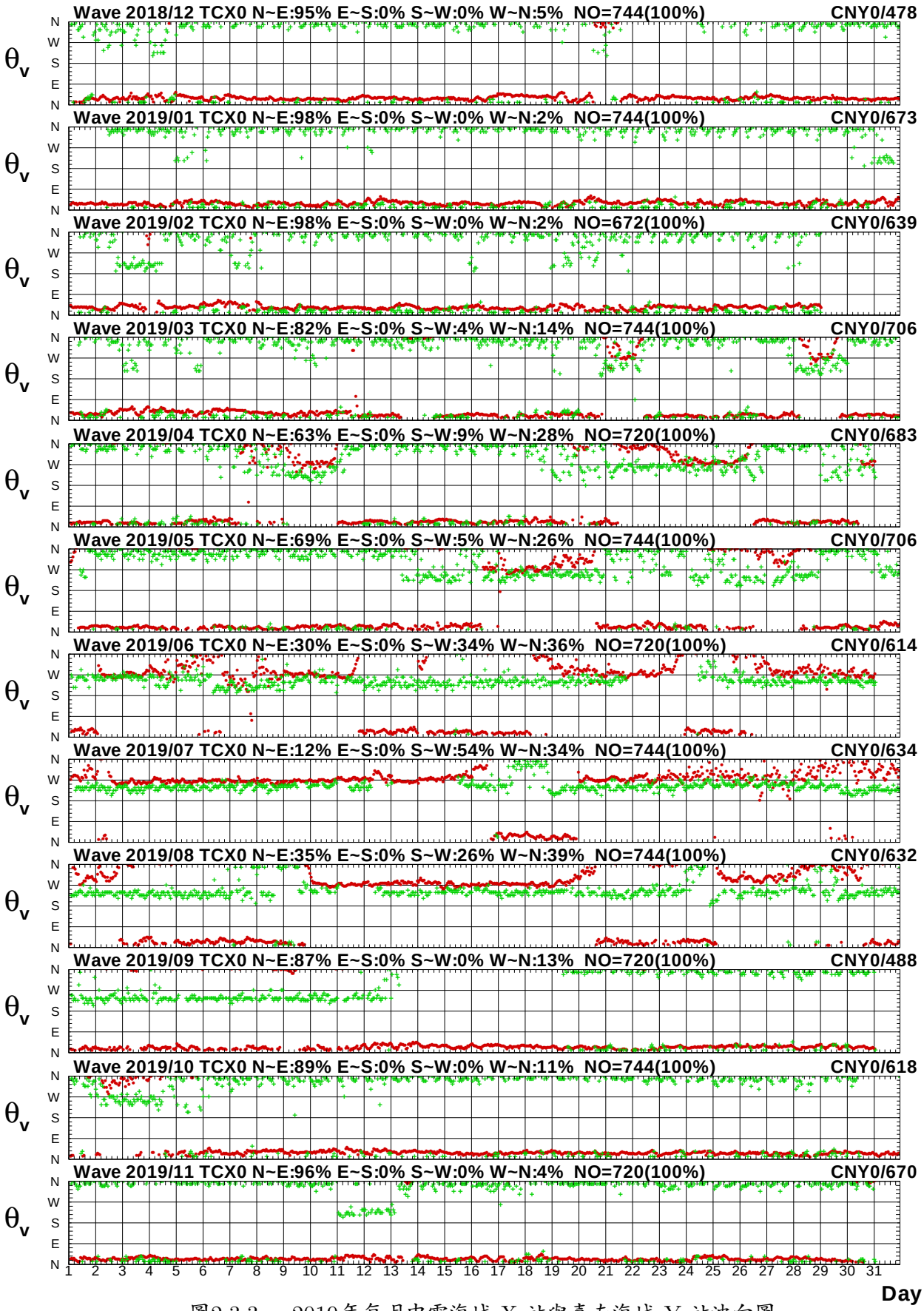

圖2.3.3c　2019年每月中雲海域 X 站與嘉南海域 Y 站波向圖

V18CTCX0.1HA V18CCNY0.1H0 V191TCX0.1HA V191CNY0.1H0 V192TCX0.1HA V192CNY0.1H0
V193TCX0.1HA V193CNY0.1H0 V194TCX0.1HA V194CNY0.1H0 V195TCX0.1HA V195CNY0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

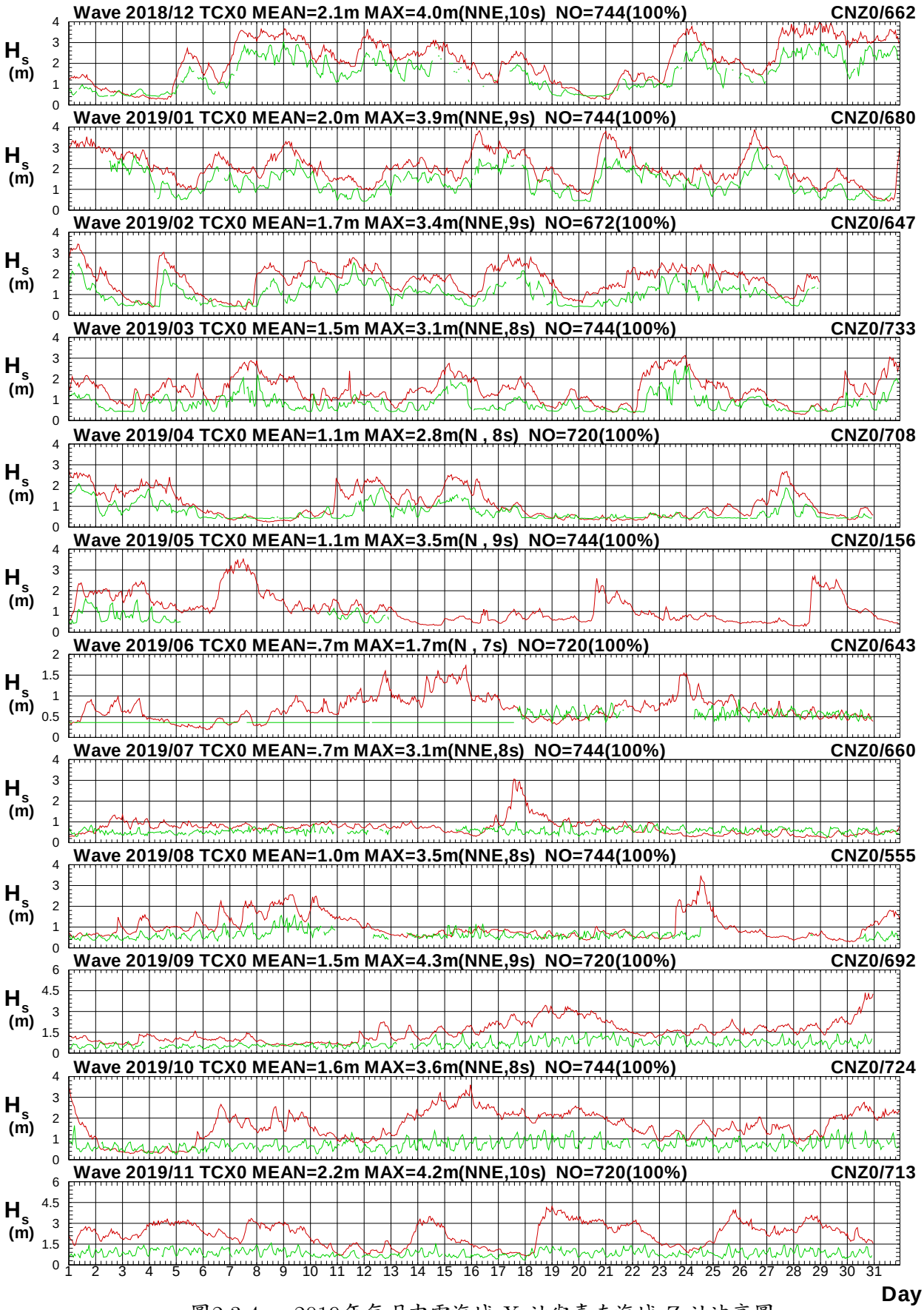

圖2.3.4a　2019年每月中雲海域 X 站與嘉南海域 Z 站波高圖

V18CTCX0.1HA V18CCNZ0.1H0 V191TCX0.1HA V191CNZ0.1H0 V192TCX0.1HA V192CNZ0.1H0
V193TCX0.1HA V193CNZ0.1H0 V194TCX0.1HA V194CNZ0.1H0 V195TCX0.1HA V195CNZ0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

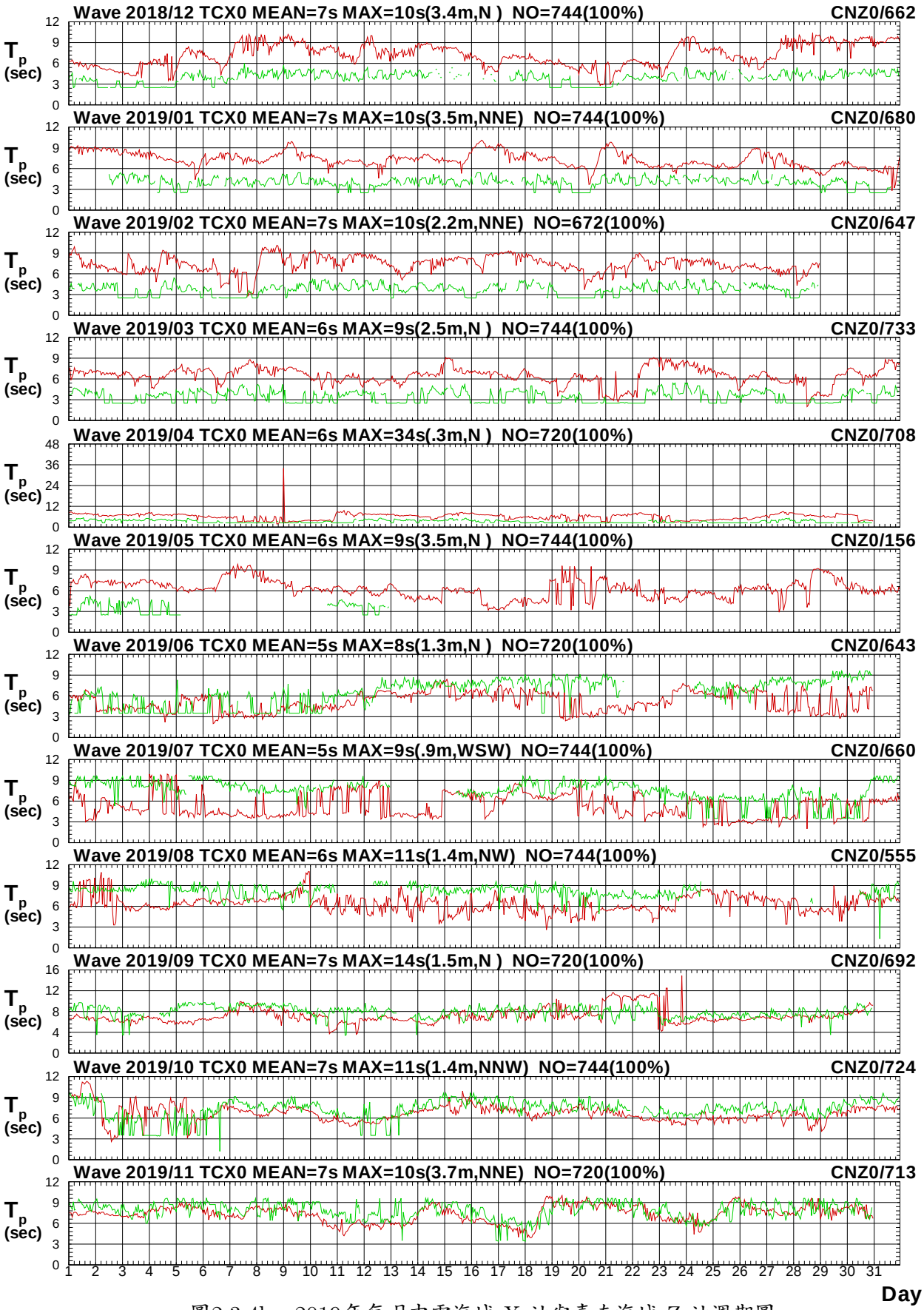

圖2.3.4b　2019年每月中雲海域 X 站與嘉南海域 Z 站週期圖

V18CTCX0.1HA V18CCNZ0.1H0 V191TCX0.1HA V191CNZ0.1H0 V192TCX0.1HA V192CNZ0.1H0
V193TCX0.1HA V193CNZ0.1H0 V194TCX0.1HA V194CNZ0.1H0 V195TCX0.1HA V195CNZ0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

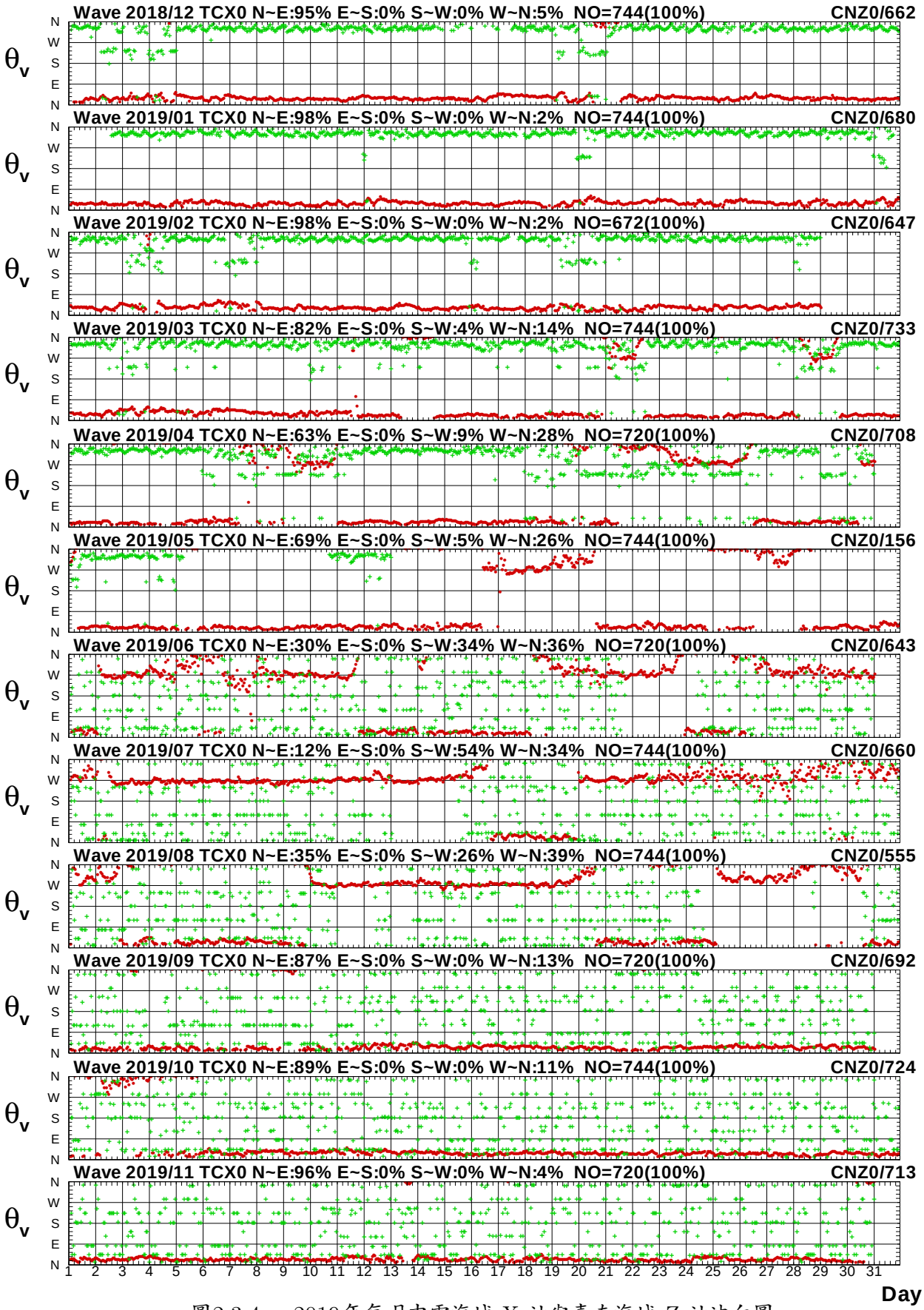

圖2.3.4c　2019年每月中雲海域 X 站與嘉南海域 Z 站波向圖

V18CTCX0.1HA V18CCNZ0.1H0 V191TCX0.1HA V191CNZ0.1H0 V192TCX0.1HA V192CNZ0.1H0
V193TCX0.1HA V193CNZ0.1H0 V194TCX0.1HA V194CNZ0.1H0 V195TCX0.1HA V195CNZ0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

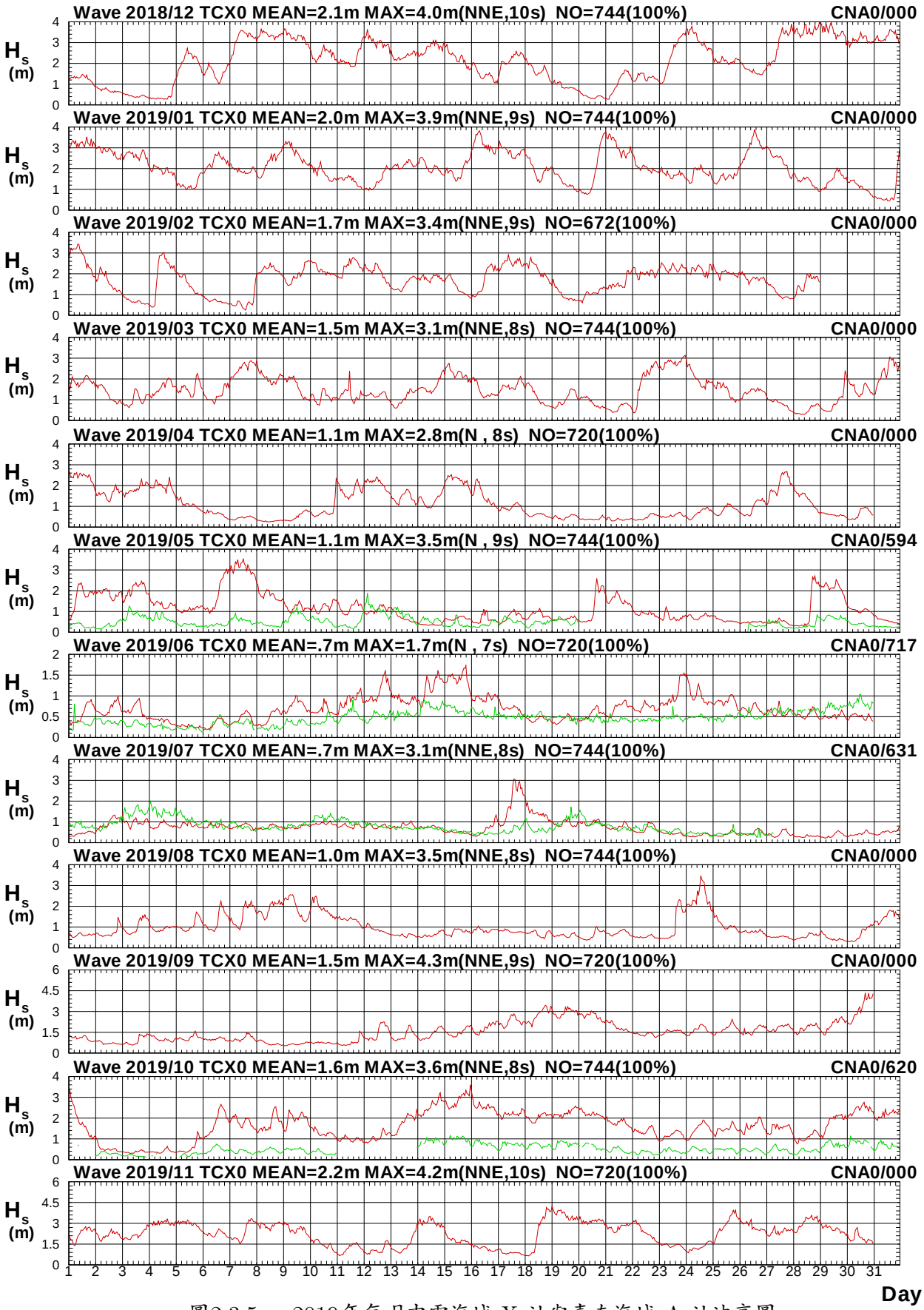

圖2.3.5a　2019年每月中雲海域 X 站與嘉南海域 A 站波高圖

V18CTCX0.1HA V18CCNA0.1H0 V191TCX0.1HA V191CNA0.1H0 V192TCX0.1HA V192CNA0.1H0
V193TCX0.1HA V193CNA0.1H0 V194TCX0.1HA V194CNA0.1H0 V195TCX0.1HA V195CNA0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

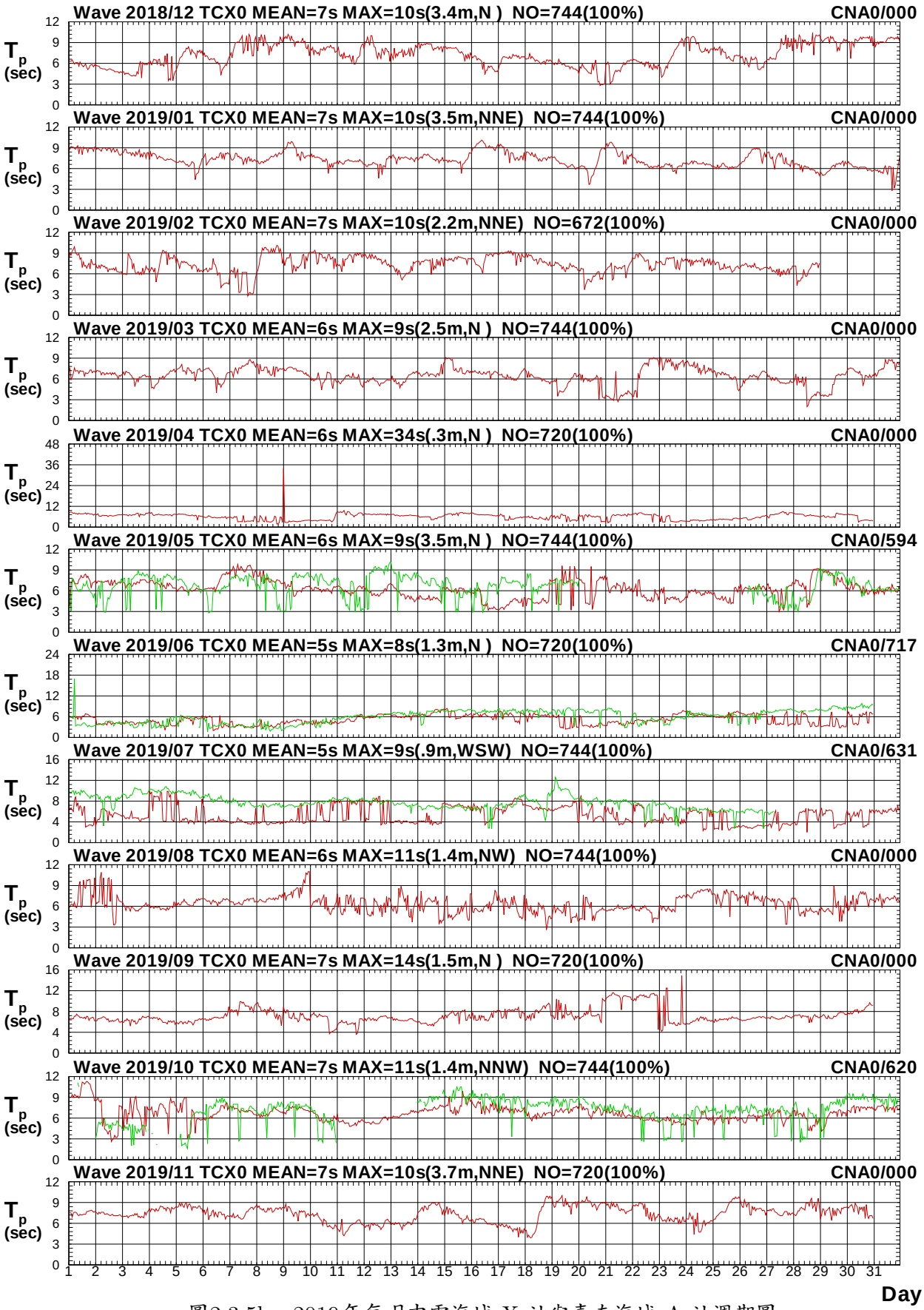

圖2.3.5b　2019年每月中雲海域 X 站與嘉南海域 A 站週期圖

V18CTCX0.1HA V18CCNA0.1H0 V191TCX0.1HA V191CNA0.1H0 V192TCX0.1HA V192CNA0.1H0
V193TCX0.1HA V193CNA0.1H0 V194TCX0.1HA V194CNA0.1H0 V195TCX0.1HA V195CNA0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

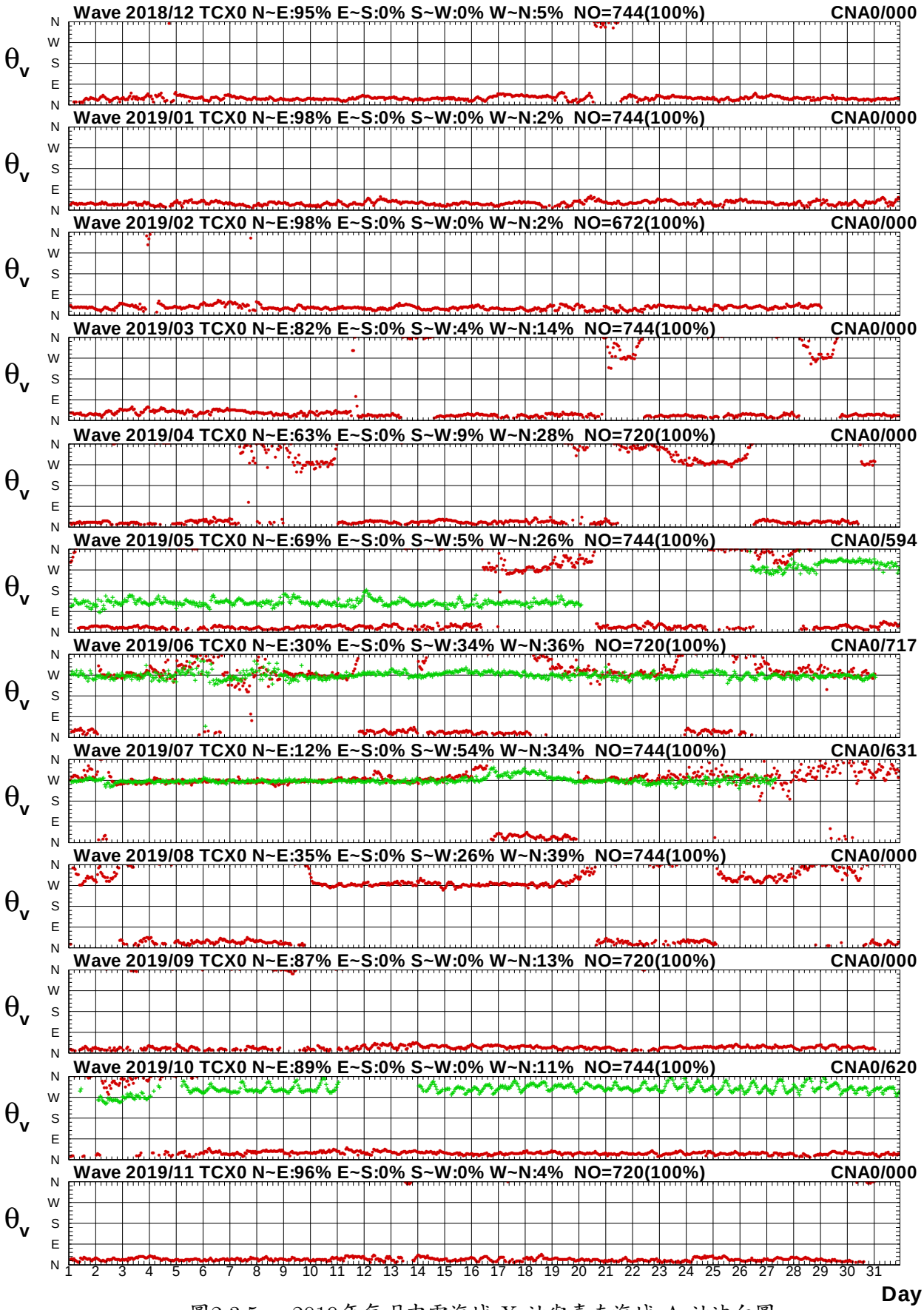

圖2.3.5c　2019年每月中雲海域 X 站與嘉南海域 A 站波向圖

V18CTCX0.1HA V18CCNA0.1H0 V191TCX0.1HA V191CNA0.1H0 V192TCX0.1HA V192CNA0.1H0
V193TCX0.1HA V193CNA0.1H0 V194TCX0.1HA V194CNA0.1H0 V195TCX0.1HA V195CNA0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

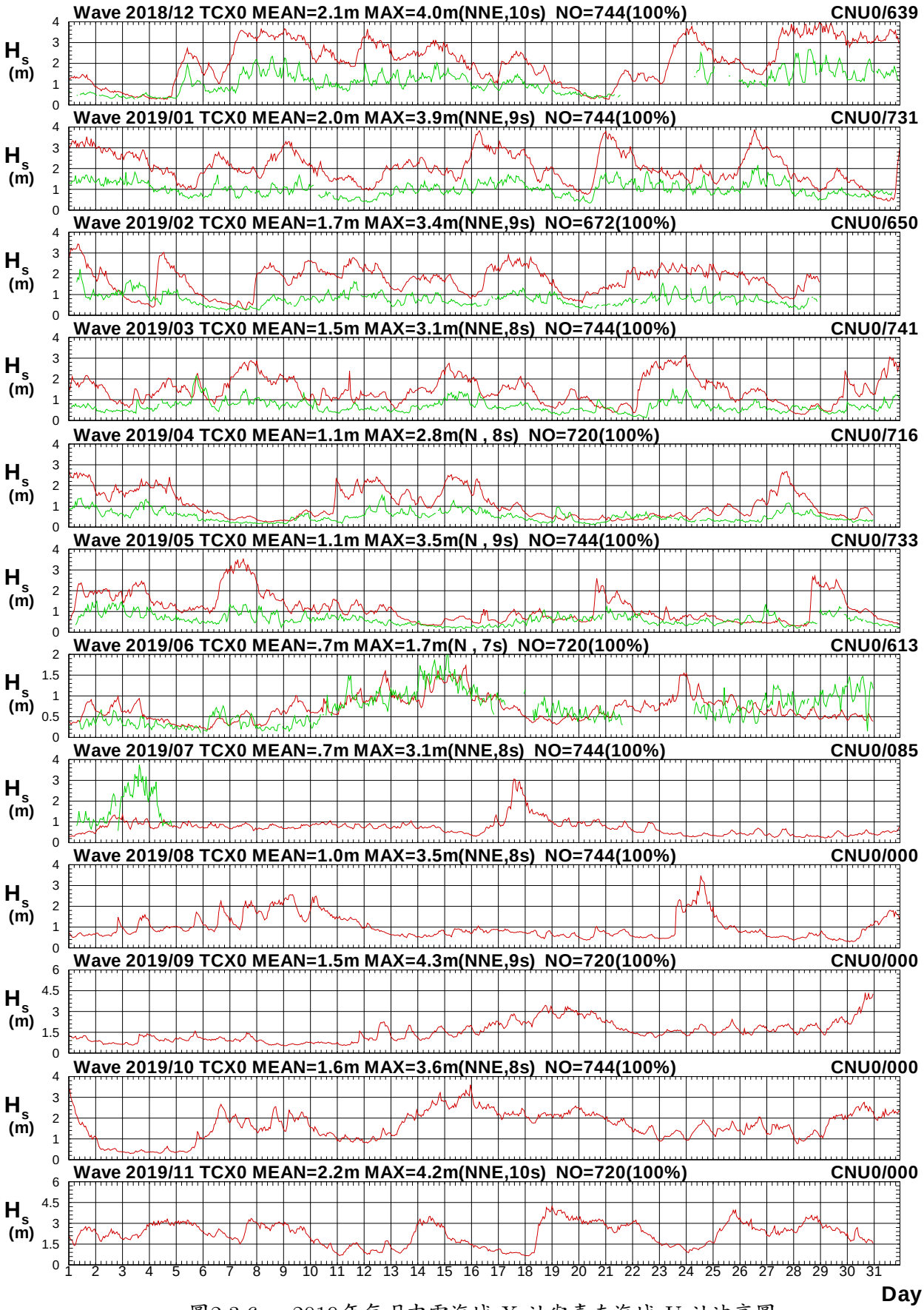

圖2.3.6a　2019年每月中雲海域 X 站與嘉南海域 U 站波高圖

V18CTCX0.1HA V18CCNU0.1H0 V191TCX0.1HA V191CNU0.1H0 V192TCX0.1HA V192CNU0.1H0
V193TCX0.1HA V193CNU0.1H0 V194TCX0.1HA V194CNU0.1H0 V195TCX0.1HA V195CNU0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

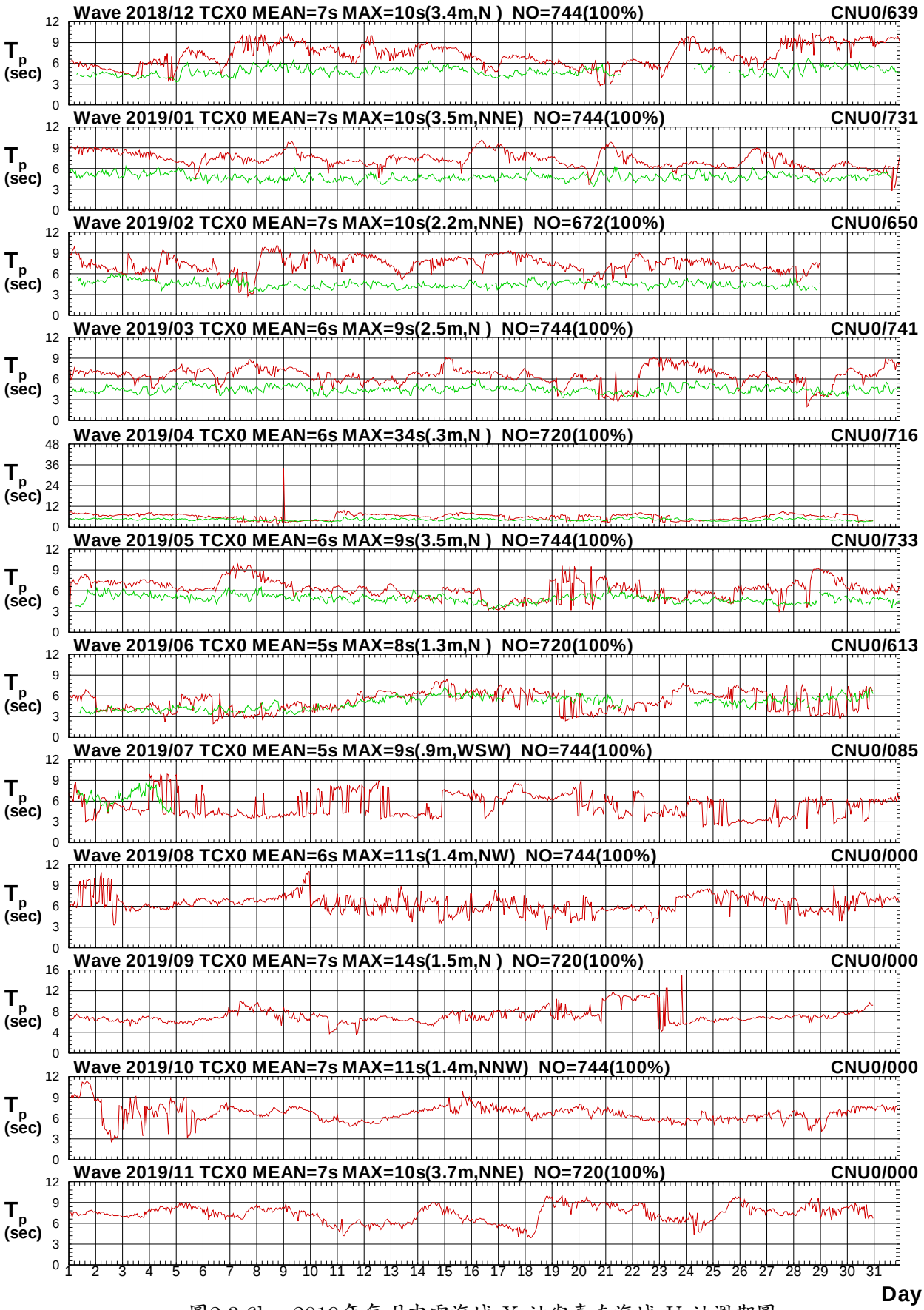

圖2.3.6b　2019年每月中雲海域 X 站與嘉南海域 U 站週期圖

V18CTCX0.1HA V18CCNU0.1H0 V191TCX0.1HA V191CNU0.1H0 V192TCX0.1HA V192CNU0.1H0
V193TCX0.1HA V193CNU0.1H0 V194TCX0.1HA V194CNU0.1H0 V195TCX0.1HA V195CNU0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

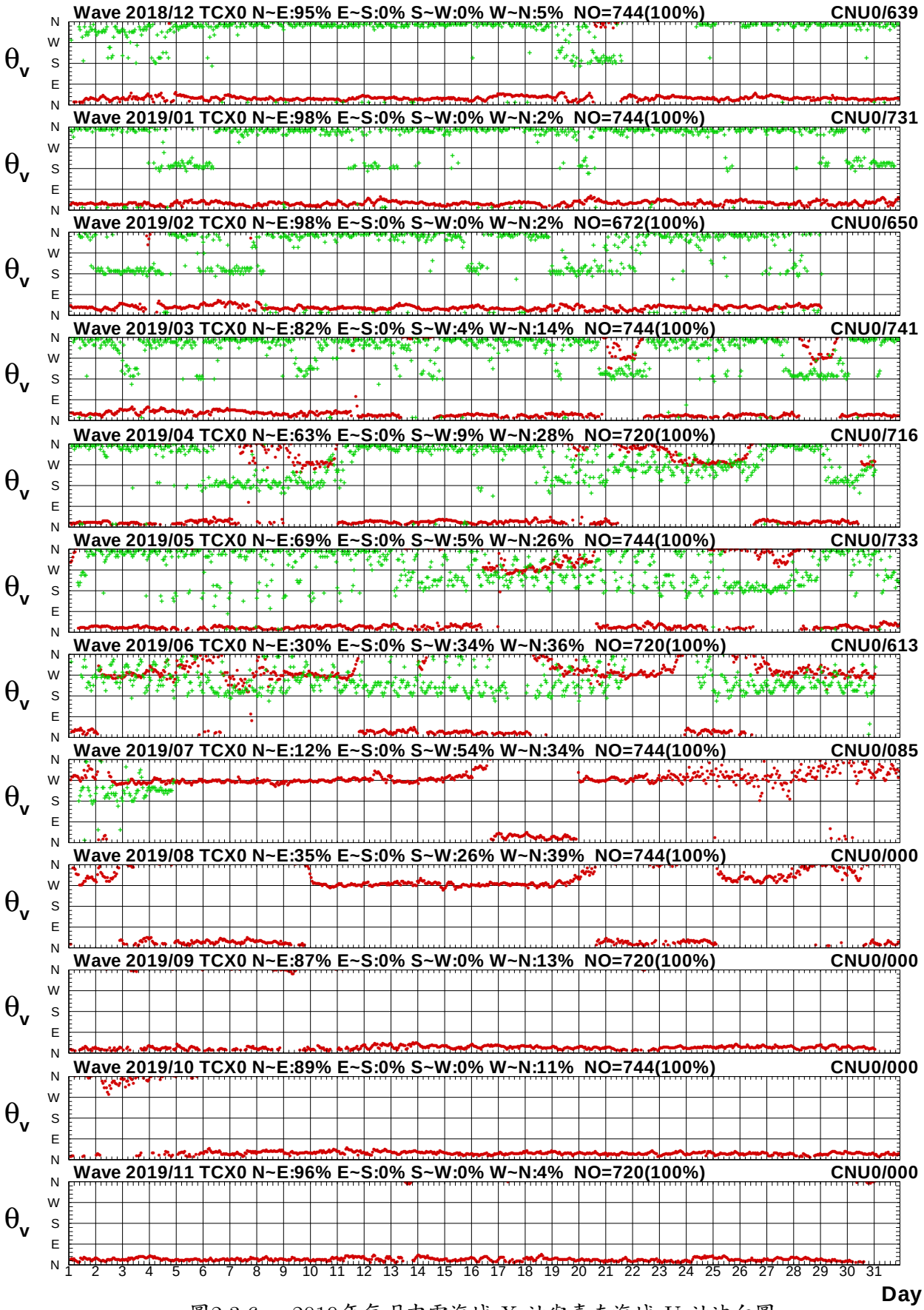

圖2.3.6c　2019年每月中雲海域 X 站與嘉南海域 U 站波向圖

V18CTCX0.1HA V18CCNU0.1H0 V191TCX0.1HA V191CNU0.1H0 V192TCX0.1HA V192CNU0.1H0
V193TCX0.1HA V193CNU0.1H0 V194TCX0.1HA V194CNU0.1H0 V195TCX0.1HA V195CNU0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

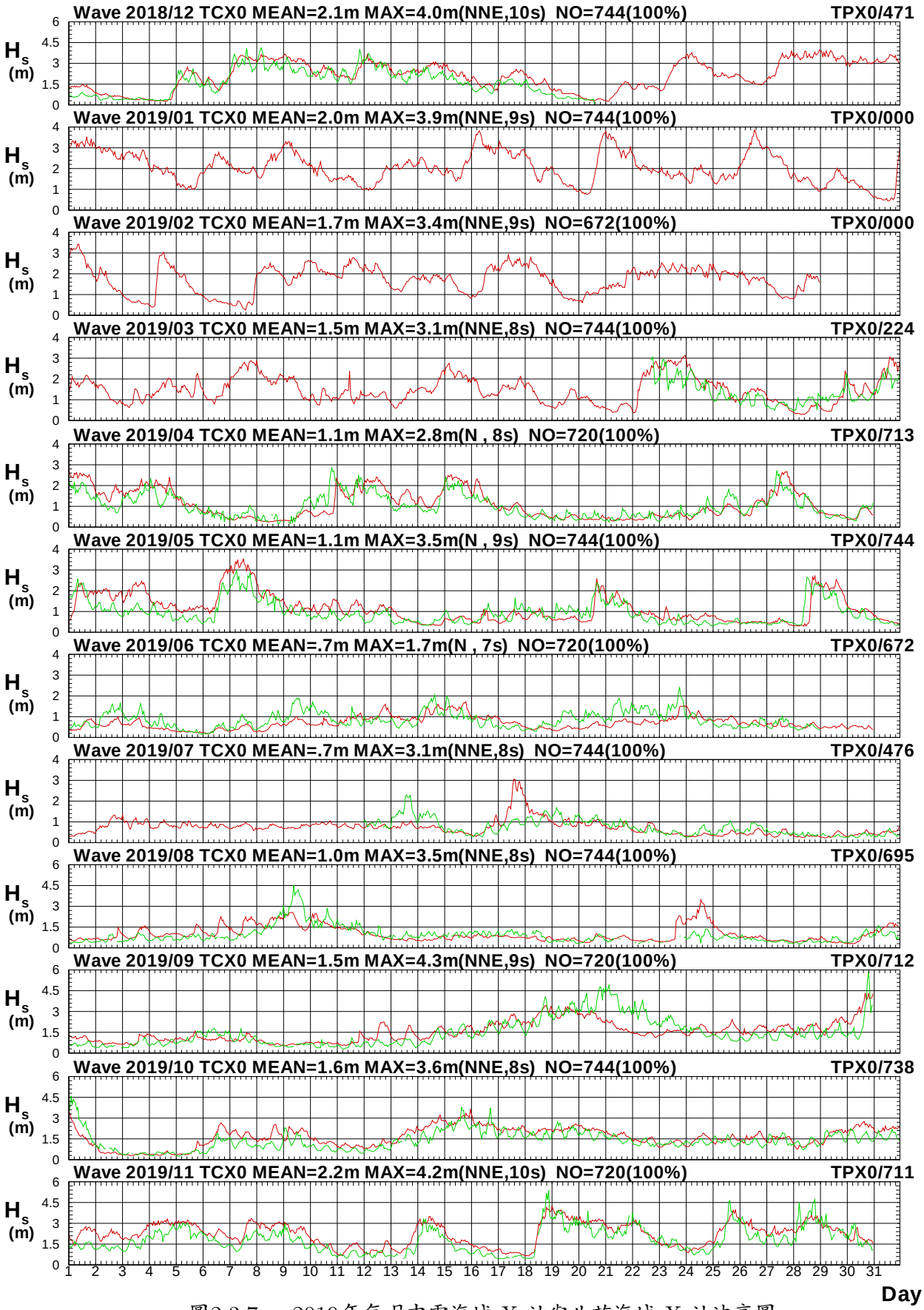

圖2.3.7a　2019年每月中雲海域 X 站與北苗海域 X 站波高圖

V18CTCX0.1HA V18CTPX0.1H0 V191TCX0.1HA V191TPX0.1H0 V192TCX0.1HA V192TPX0.1H0
V193TCX0.1HA V193TPX0.1H0 V194TCX0.1HA V194TPX0.1H0 V195TCX0.1HA V195TPX0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

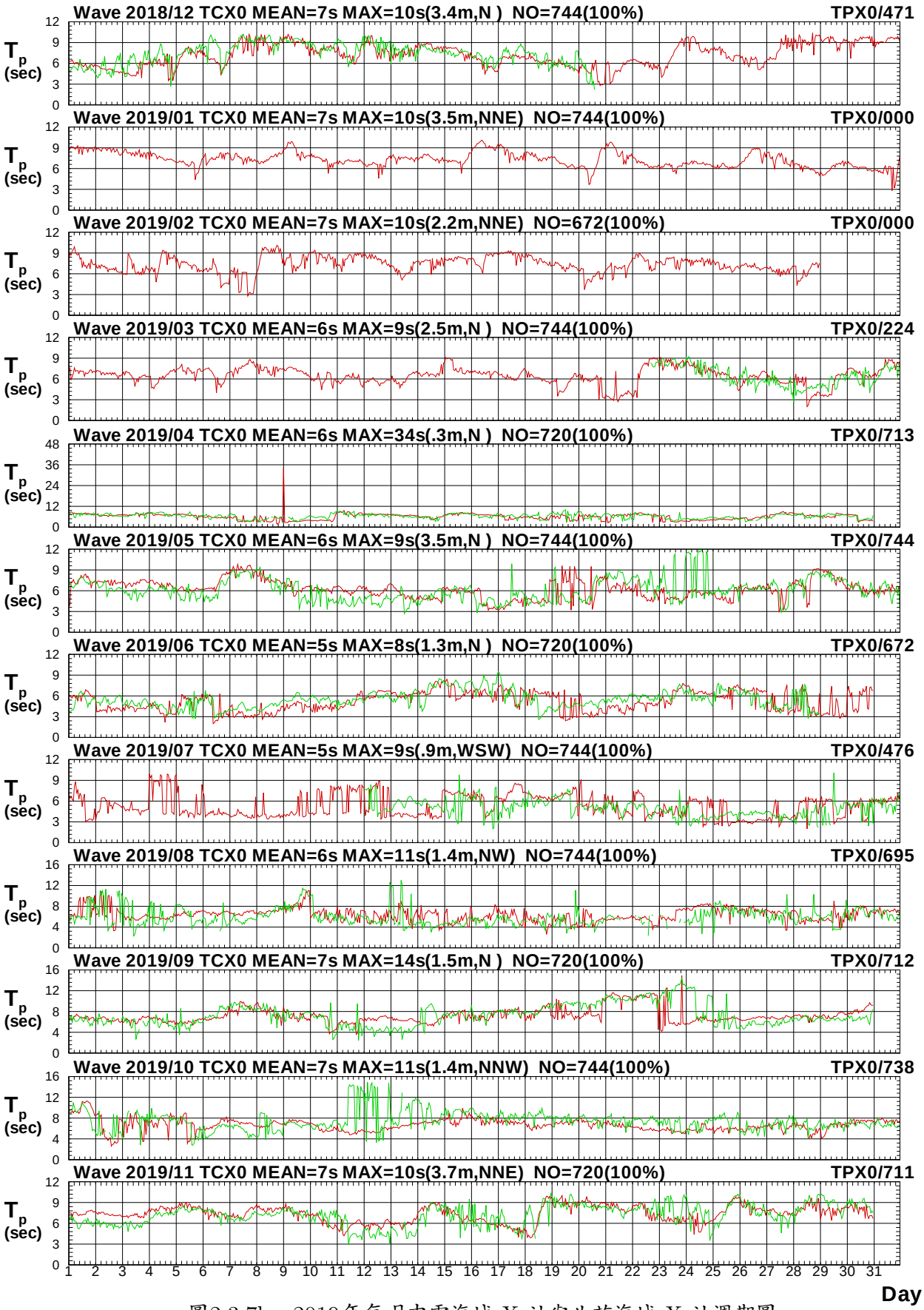

圖2.3.7b　2019年每月中雲海域 X 站與北苗海域 X 站週期圖

V18CTCX0.1HA V18CTPX0.1H0 V191TCX0.1HA V191TPX0.1H0 V192TCX0.1HA V192TPX0.1H0
V193TCX0.1HA V193TPX0.1H0 V194TCX0.1HA V194TPX0.1H0 V195TCX0.1HA V195TPX0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

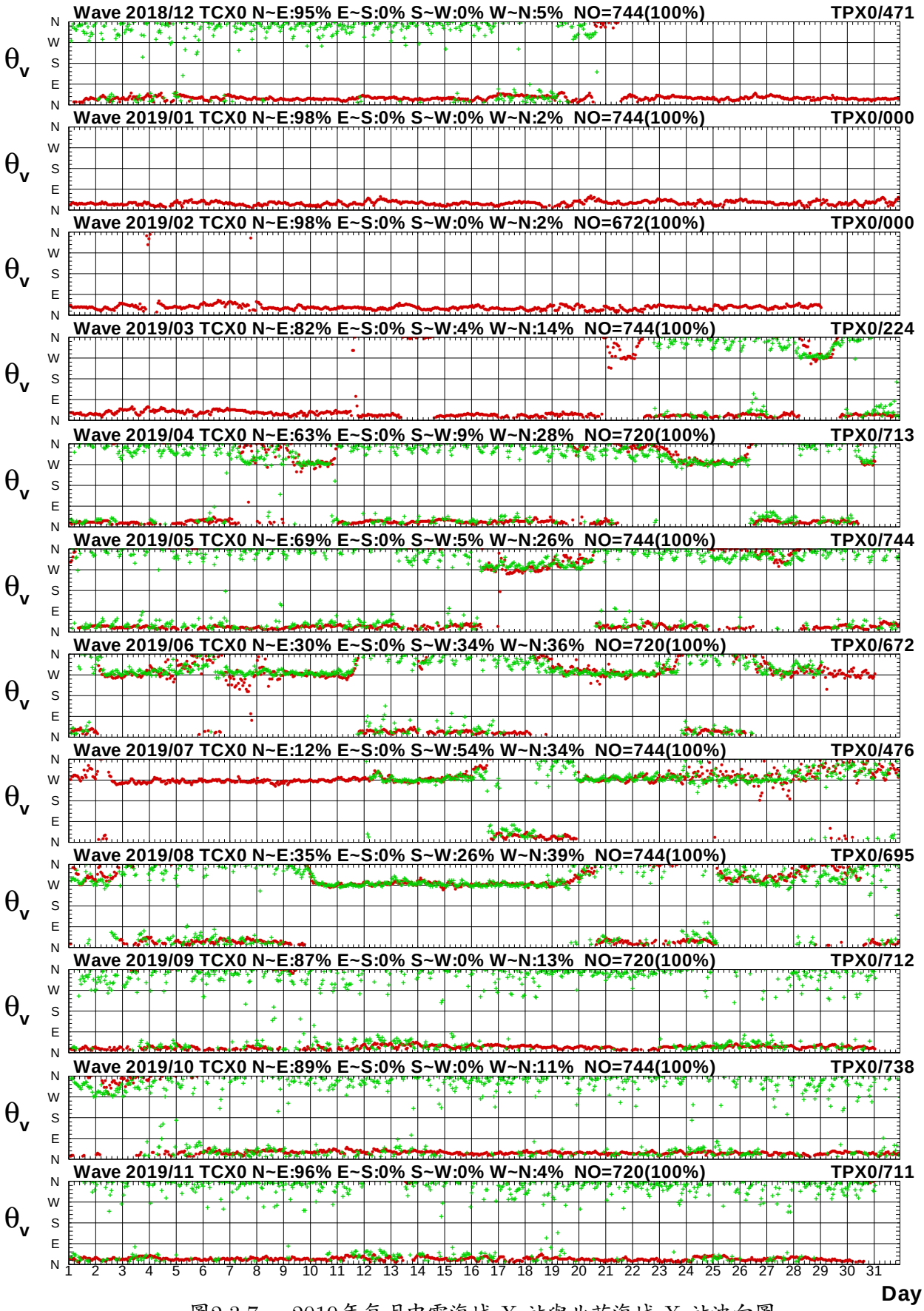

圖2.3.7c　2019年每月中雲海域 X 站與北苗海域 X 站波向圖

V18CTCX0.1HA V18CTPX0.1H0 V191TCX0.1HA V191TPX0.1H0 V192TCX0.1HA V192TPX0.1H0
V193TCX0.1HA V193TPX0.1H0 V194TCX0.1HA V194TPX0.1H0 V195TCX0.1HA V195TPX0.1H0

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Wave H_s in Tai-Chung Harbor of TCX0 at 2019

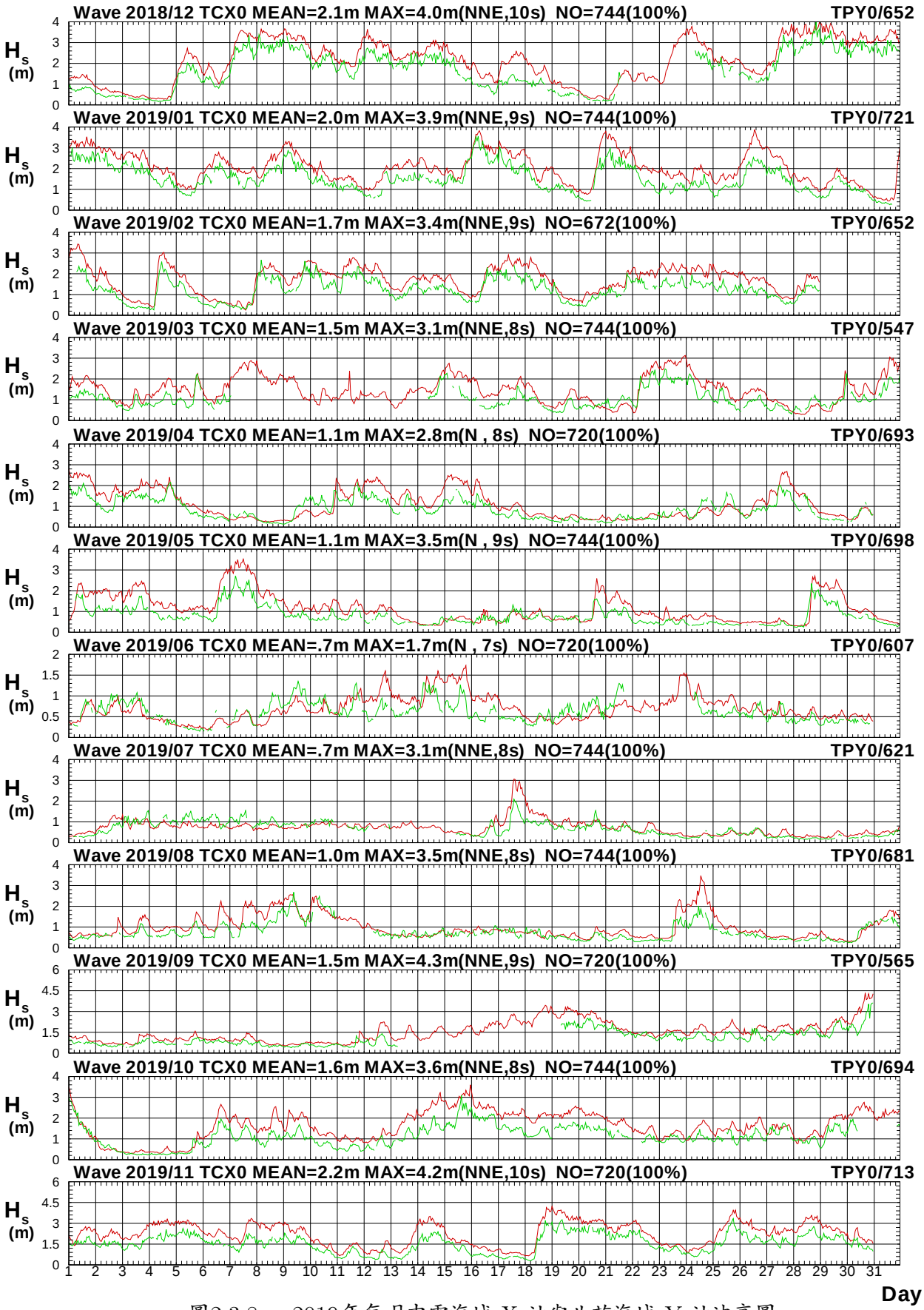

圖2.3.8a　2019年每月中雲海域 X 站與北苗海域 Y 站波高圖

V18CTCX0.1HA V18CTPY0.1H0 V191TCX0.1HA V191TPY0.1H0 V192TCX0.1HA V192TPY0.1H0
V193TCX0.1HA V193TPY0.1H0 V194TCX0.1HA V194TPY0.1H0 V195TCX0.1HA V195TPY0.1H0

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Wave T_p in Tai-Chung Harbor of TCX0 at 2019

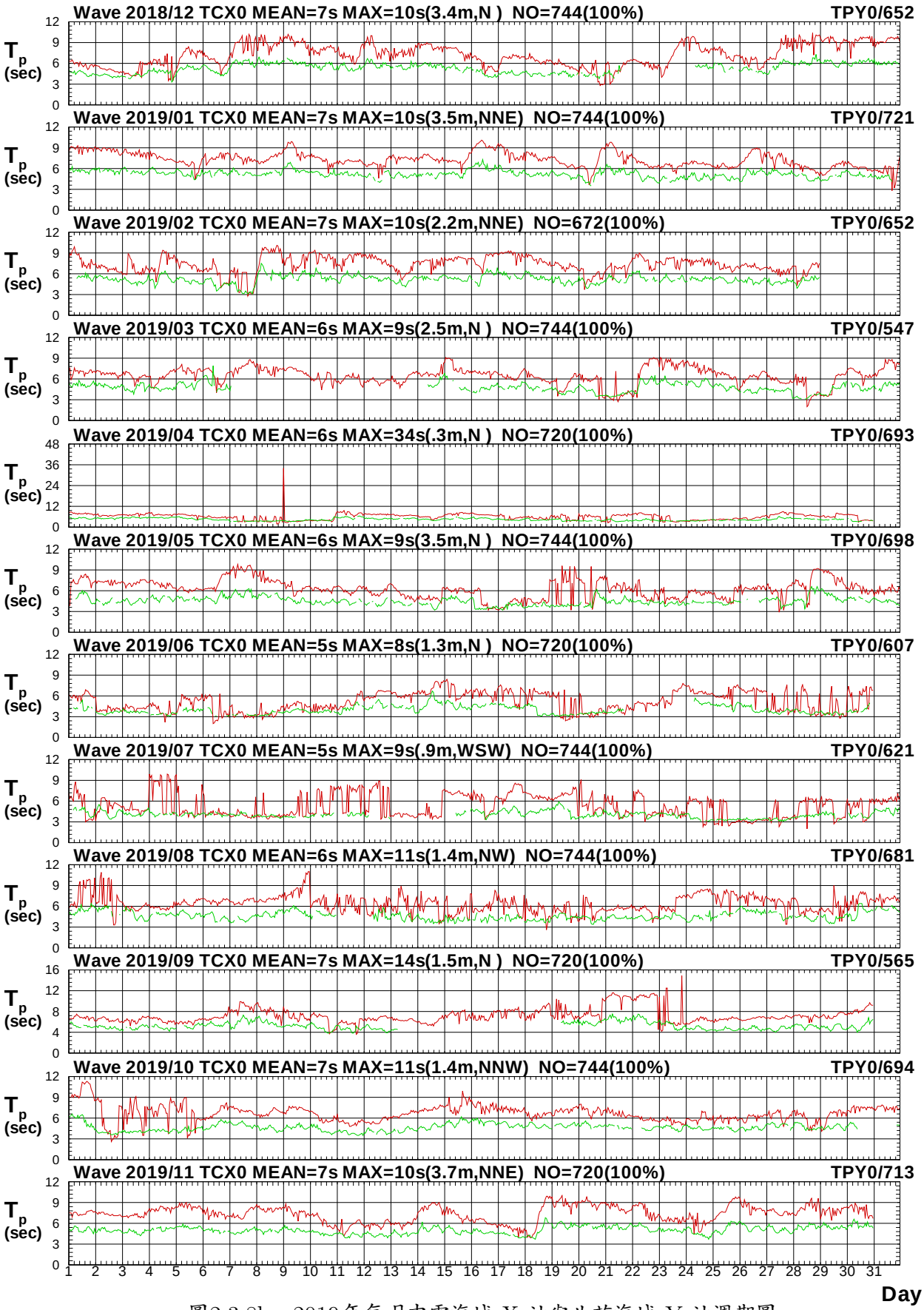

圖2.3.8b　2019年每月中雲海域 X 站與北苗海域 Y 站週期圖

V18CTCX0.1HA V18CTPY0.1H0 V191TCX0.1HA V191TPY0.1H0 V192TCX0.1HA V192TPY0.1H0
V193TCX0.1HA V193TPY0.1H0 V194TCX0.1HA V194TPY0.1H0 V195TCX0.1HA V195TPY0.1H0

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Wave Direction in Tai-Chung Harbor of TCX0 at 2019

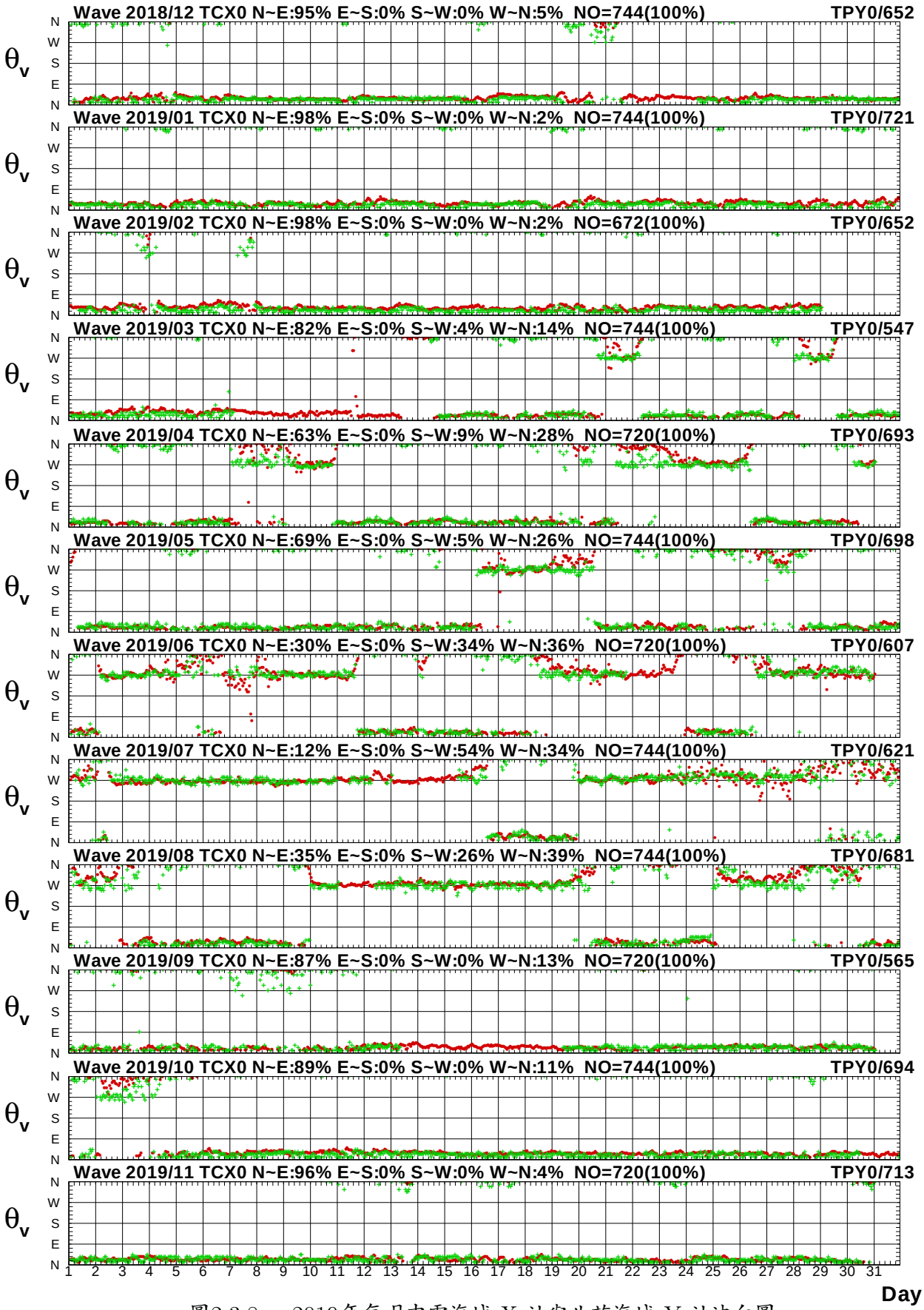

圖2.3.8c　2019年每月中雲海域 X 站與北苗海域 Y 站波向圖

V18CTCX0.1HA V18CTPY0.1H0 V191TCX0.1HA V191TPY0.1H0 V192TCX0.1HA V192TPY0.1H0
V193TCX0.1HA V193TPY0.1H0 V194TCX0.1HA V194TPY0.1H0 V195TCX0.1HA V195TPY0.1H0

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2.4　2019 年中雲海域波浪主要測站 2(修補後)與其他測站(修補前)每月波浪歷線比較圖

Wave H_s in Tai-Chung Harbor of TCY0 at 2019

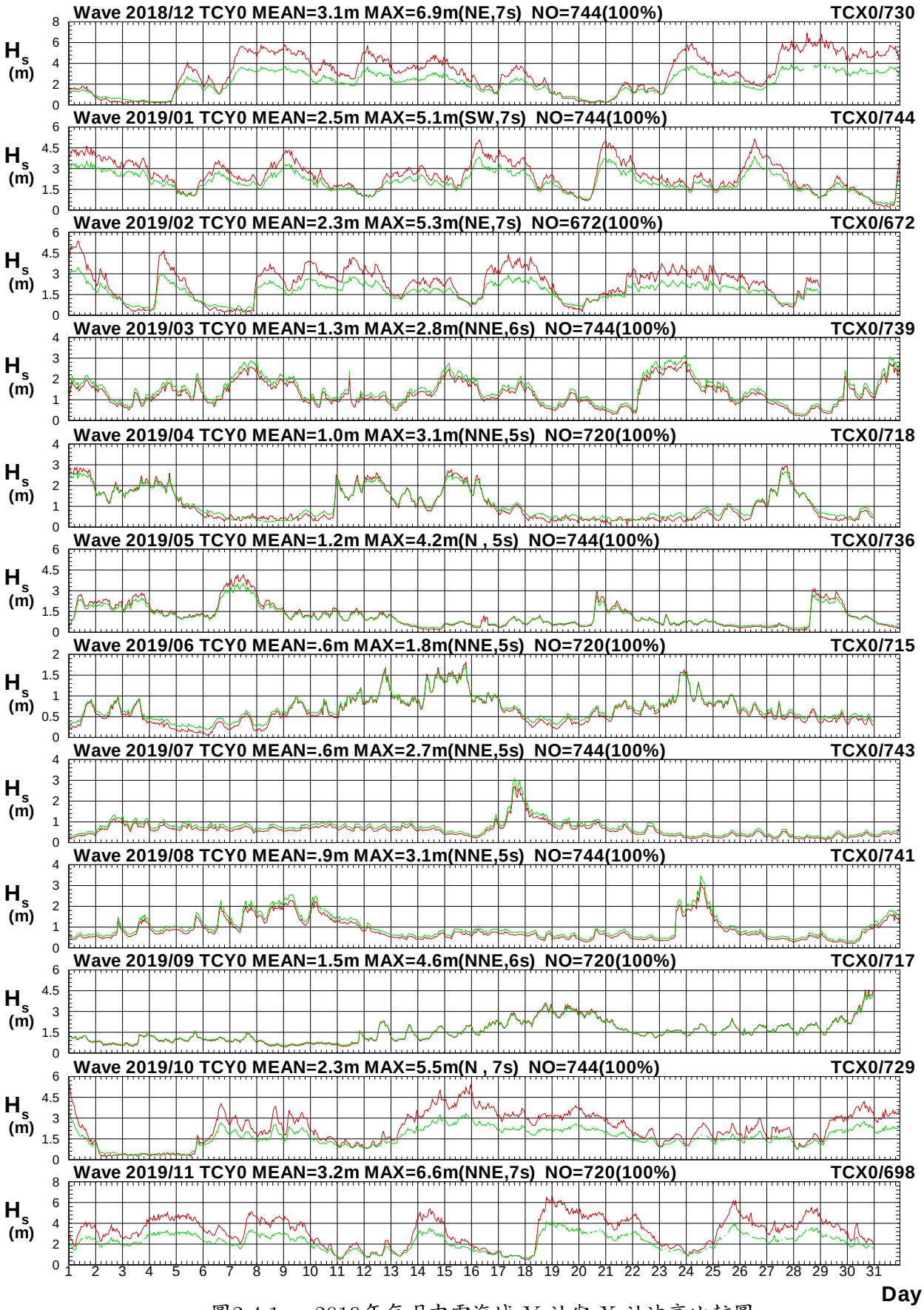

圖2.4.1a　2019年每月中雲海域 Y 站與 X 站波高比較圖

V18CTCY0.1HA V18CTCX0.1H0 V191TCY0.1HA V191TCX0.1H0 V192TCY0.1HA V192TCX0.1H0
V193TCY0.1HA V193TCX0.1H0 V194TCY0.1HA V194TCX0.1H0 V195TCY0.1HA V195TCX0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

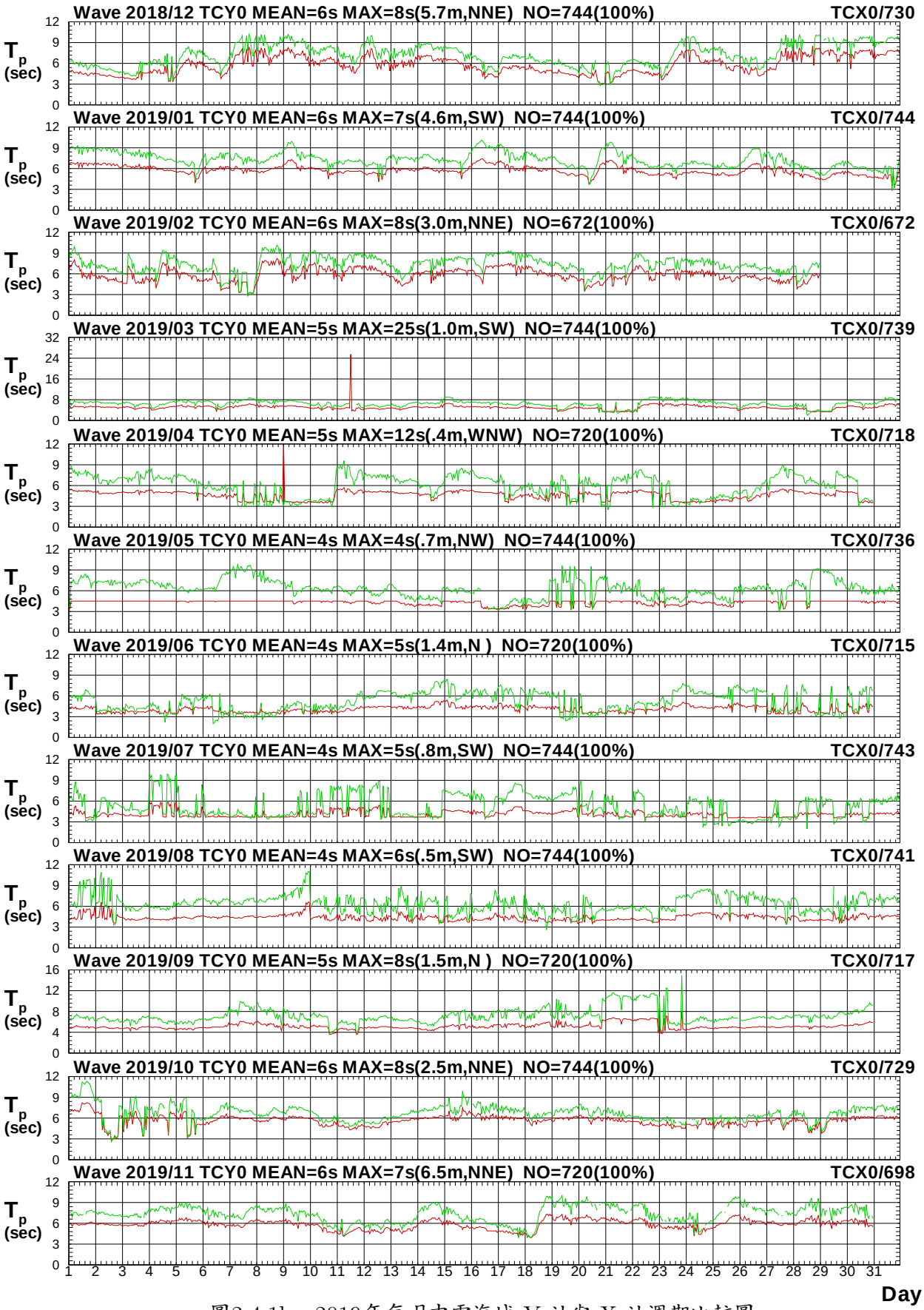

圖2.4.1b　2019年每月中雲海域 Y 站與 X 站週期比較圖

V18CTCY0.1HA V18CTCX0.1H0 V191TCY0.1HA V191TCX0.1H0 V192TCY0.1HA V192TCX0.1H0
V193TCY0.1HA V193TCX0.1H0 V194TCY0.1HA V194TCX0.1H0 V195TCY0.1HA V195TCX0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

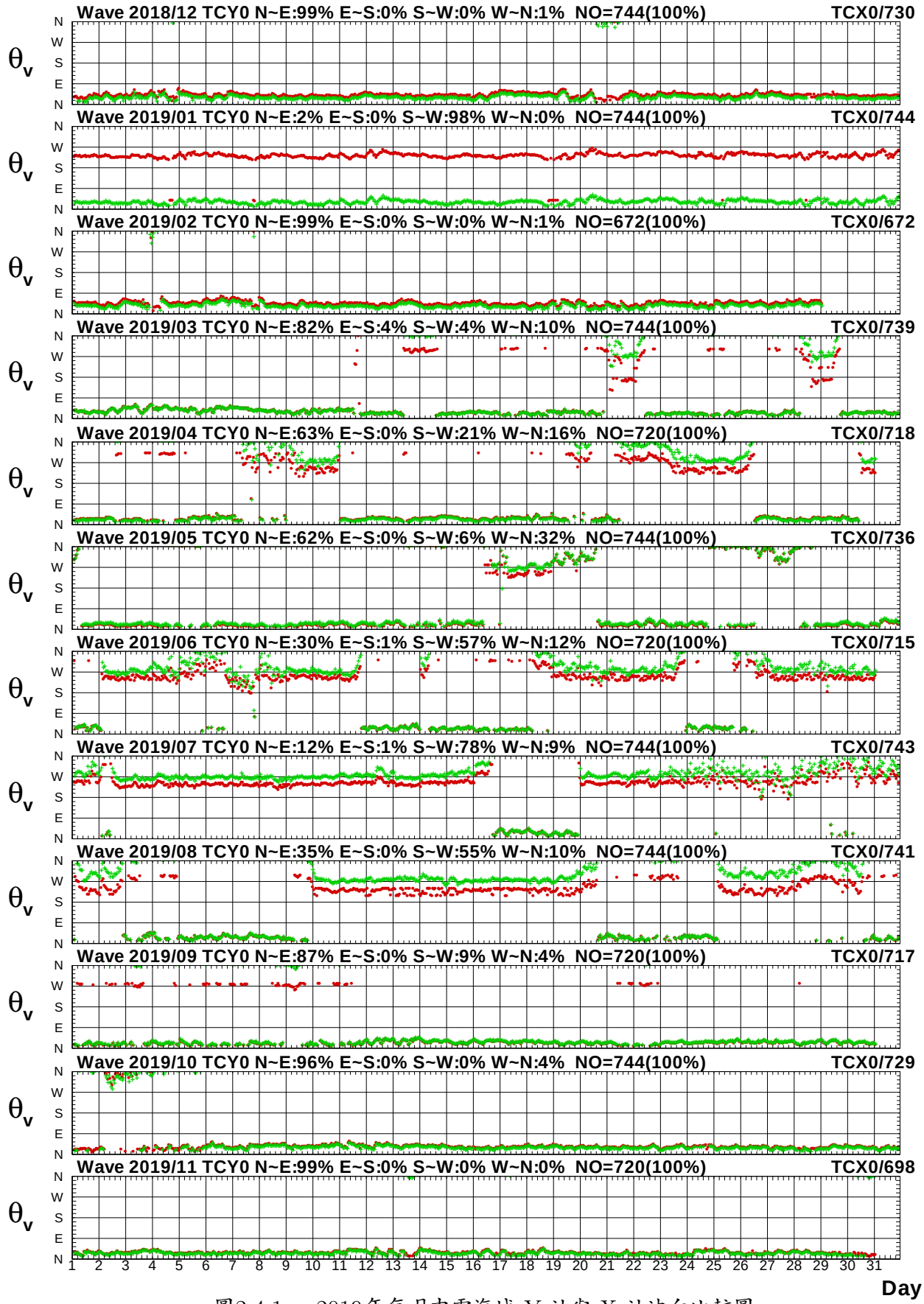

圖2.4.1c　2019年每月中雲海域 Y 站與 X 站波向比較圖

V18CTCY0.1HA V18CTCX0.1H0 V191TCY0.1HA V191TCX0.1H0 V192TCY0.1HA V192TCX0.1H0
V193TCY0.1HA V193TCX0.1H0 V194TCY0.1HA V194TCX0.1H0 V195TCY0.1HA V195TCX0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

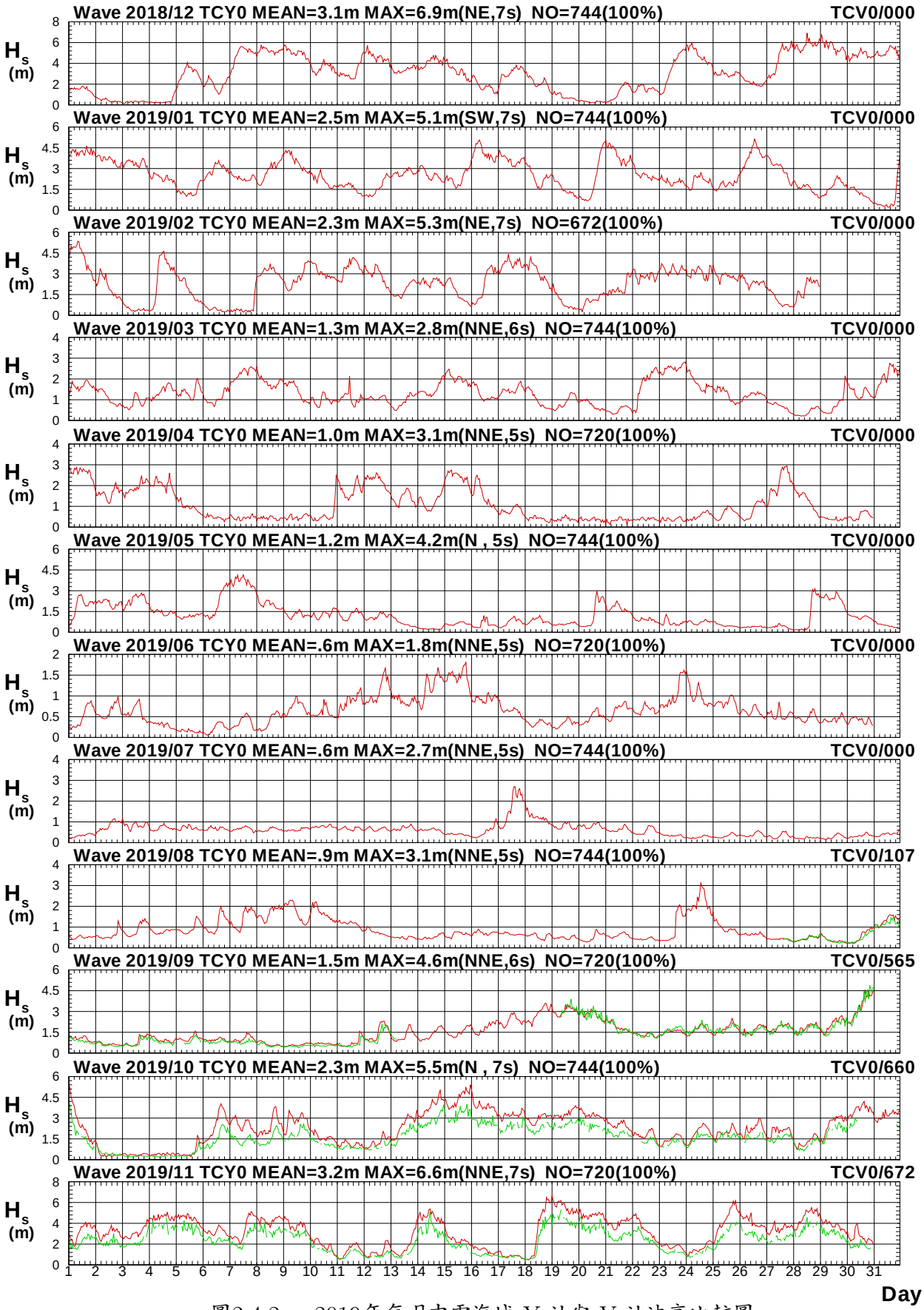

圖2.4.2a　2019年每月中雲海域 Y 站與 V 站波高比較圖

V18CTCY0.1HA V18CTCV0.1H0 V191TCY0.1HA V191TCV0.1H0 V192TCY0.1HA V192TCV0.1H0
V193TCY0.1HA V193TCV0.1H0 V194TCY0.1HA V194TCV0.1H0 V195TCY0.1HA V195TCV0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

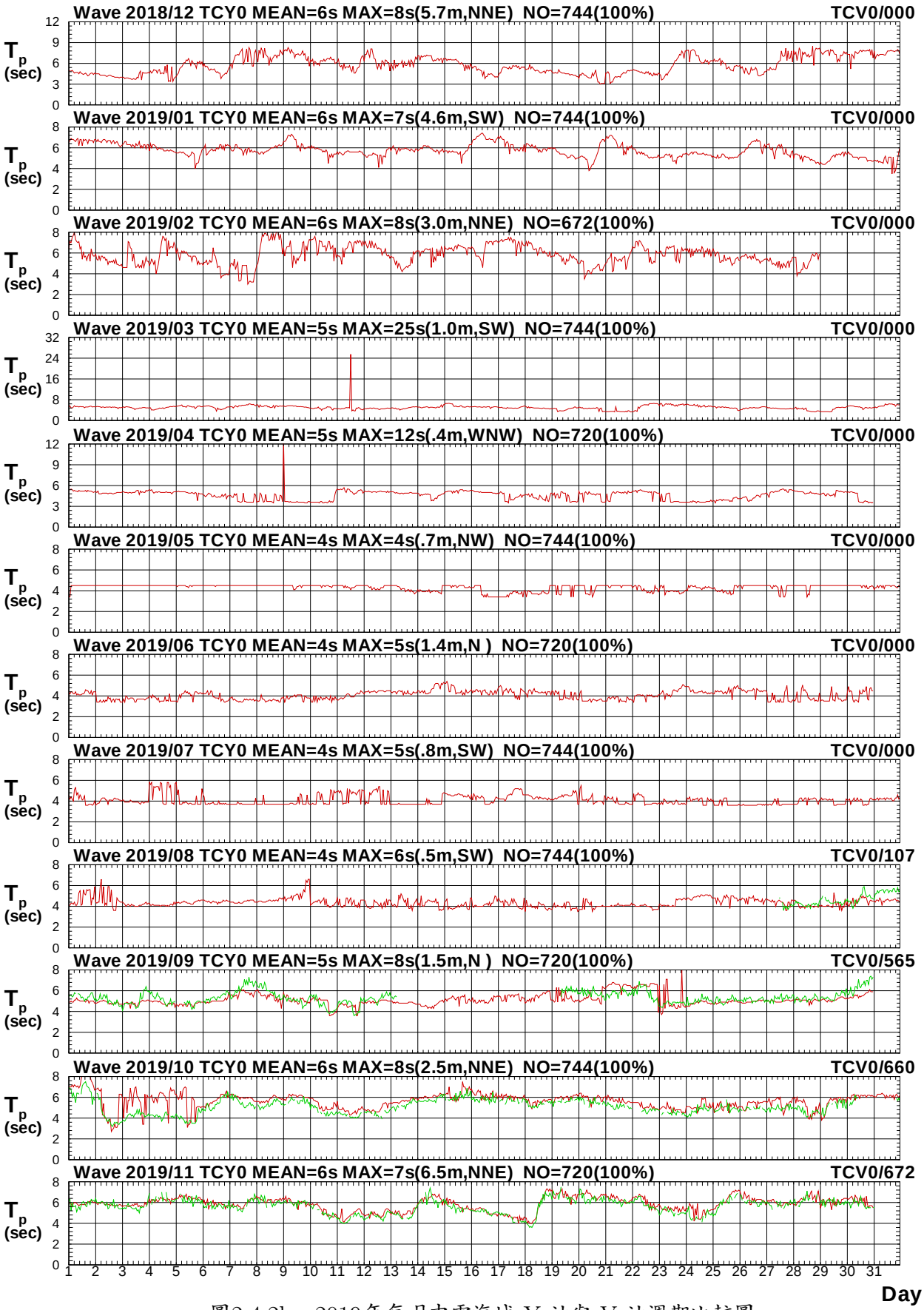

圖2.4.2b　2019年每月中雲海域 Y 站與 V 站週期比較圖

V18CTCY0.1HA V18CTCV0.1H0 V191TCY0.1HA V191TCV0.1H0 V192TCY0.1HA V192TCV0.1H0
V193TCY0.1HA V193TCV0.1H0 V194TCY0.1HA V194TCV0.1H0 V195TCY0.1HA V195TCV0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

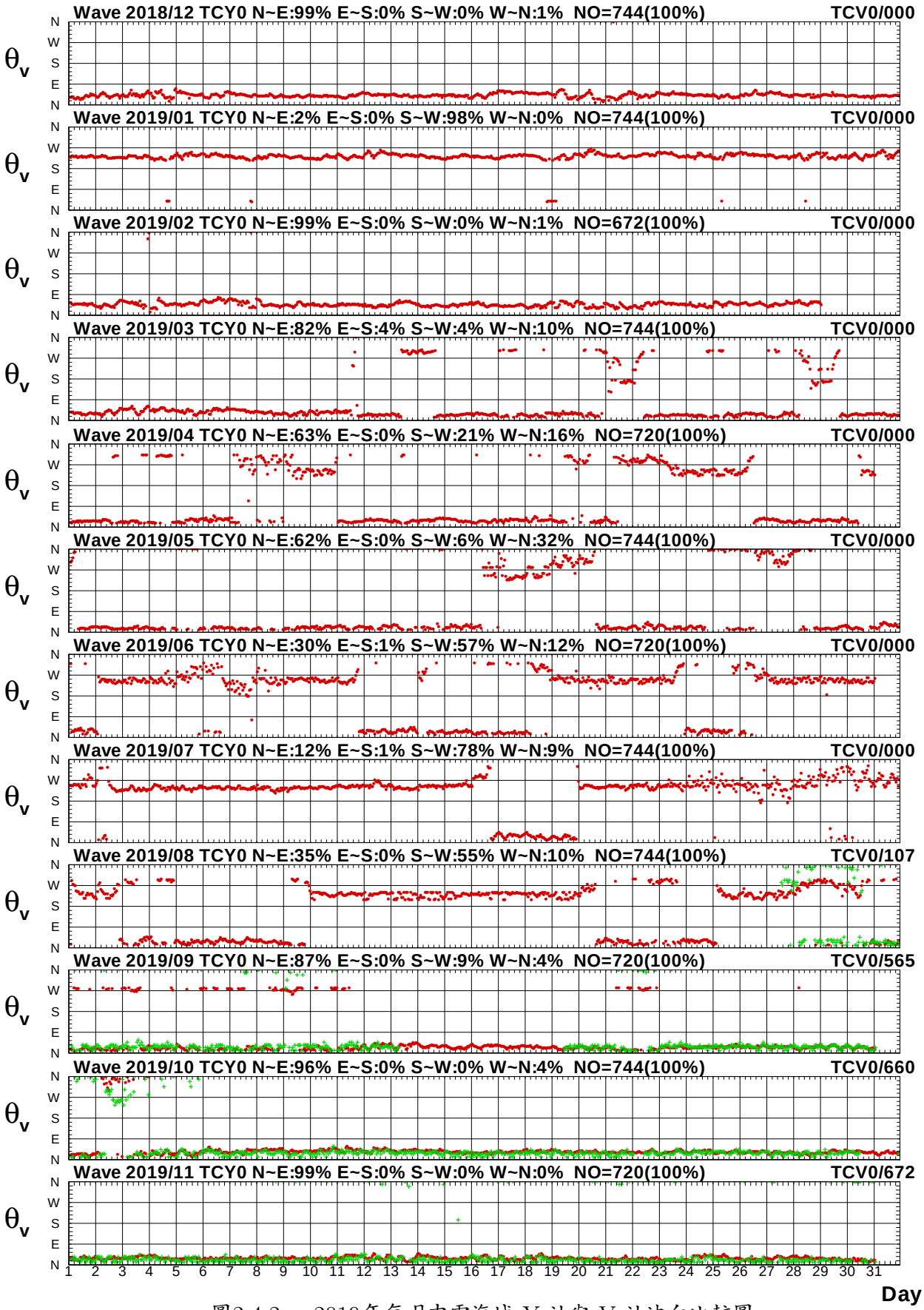

圖2.4.2c　2019年每月中雲海域 Y 站與 V 站波向比較圖

V18CTCY0.1HA V18CTCV0.1H0 V191TCY0.1HA V191TCV0.1H0 V192TCY0.1HA V192TCV0.1H0
V193TCY0.1HA V193TCV0.1H0 V194TCY0.1HA V194TCV0.1H0 V195TCY0.1HA V195TCV0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

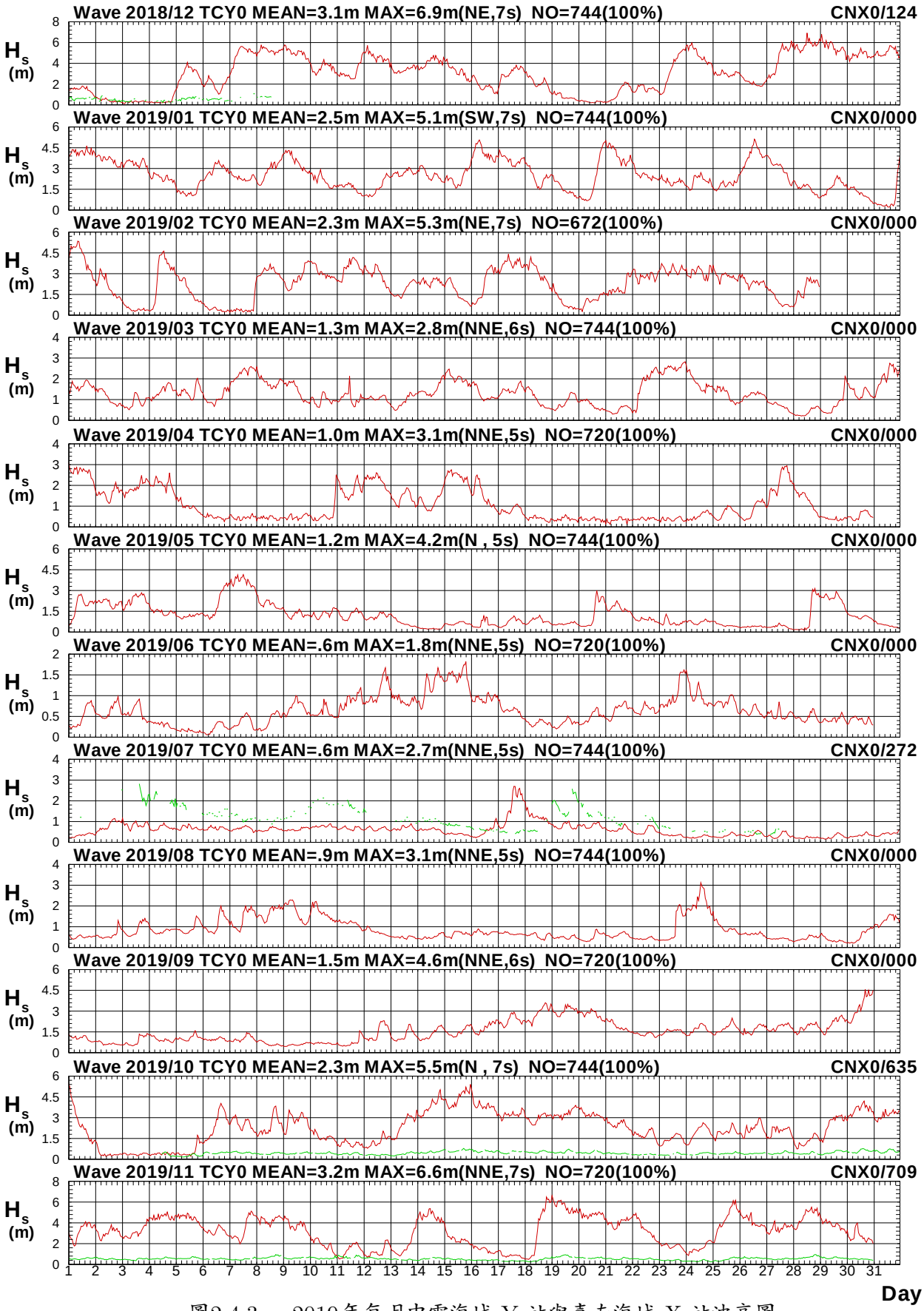

圖2.4.3a　2019年每月中雲海域 Y 站與嘉南海域 X 站波高圖

V18CTCY0.1HA V18CCNX0.1H0 V191TCY0.1HA V191CNX0.1H0 V192TCY0.1HA V192CNX0.1H0
V193TCY0.1HA V193CNX0.1H0 V194TCY0.1HA V194CNX0.1H0 V195TCY0.1HA V195CNX0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

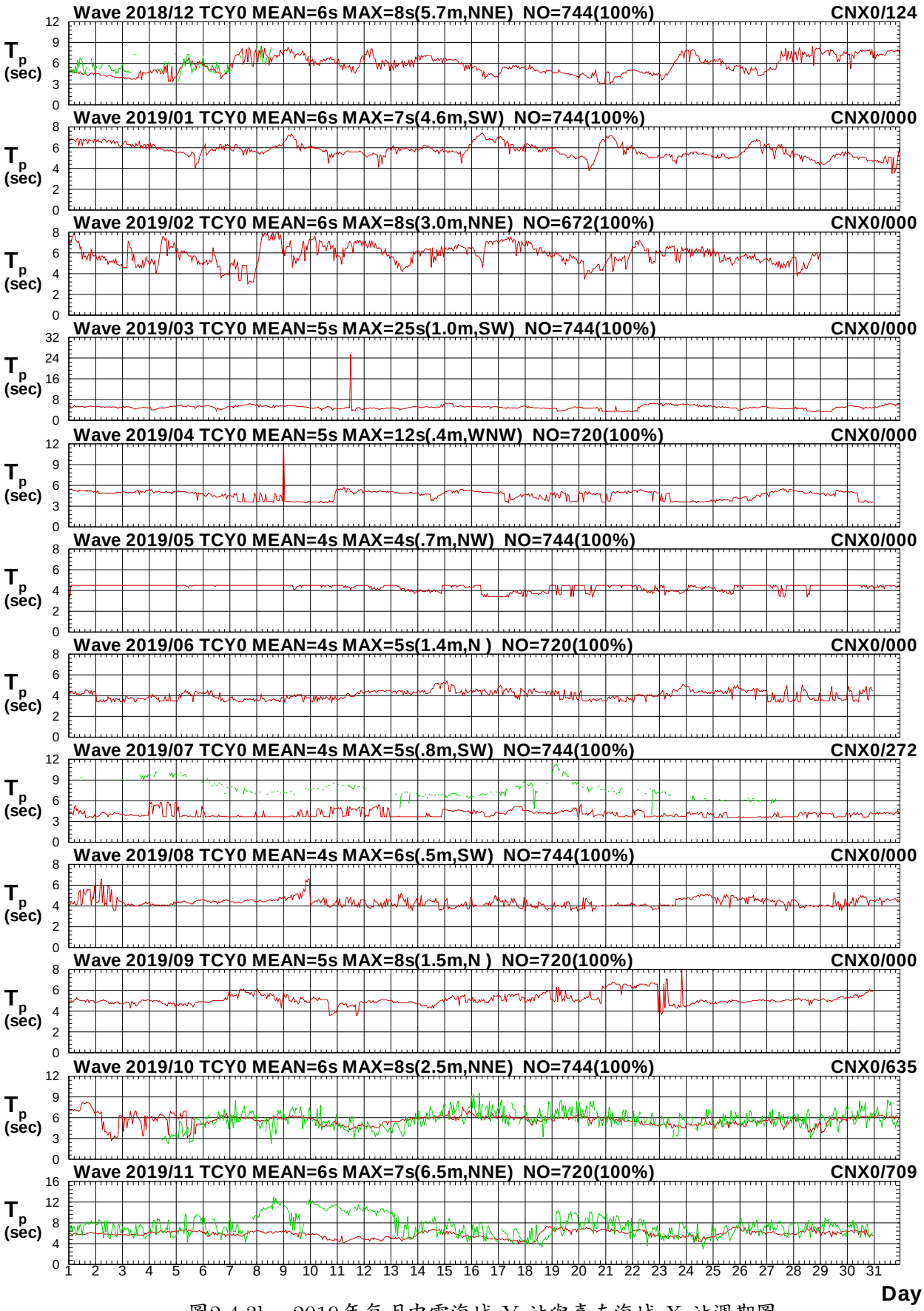

圖2.4.3b　2019年每月中雲海域 Y 站與嘉南海域 X 站週期圖

V18CTCY0.1HA V18CCNX0.1H0 V191TCY0.1HA V191CNX0.1H0 V192TCY0.1HA V192CNX0.1H0
V193TCY0.1HA V193CNX0.1H0 V194TCY0.1HA V194CNX0.1H0 V195TCY0.1HA V195CNX0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

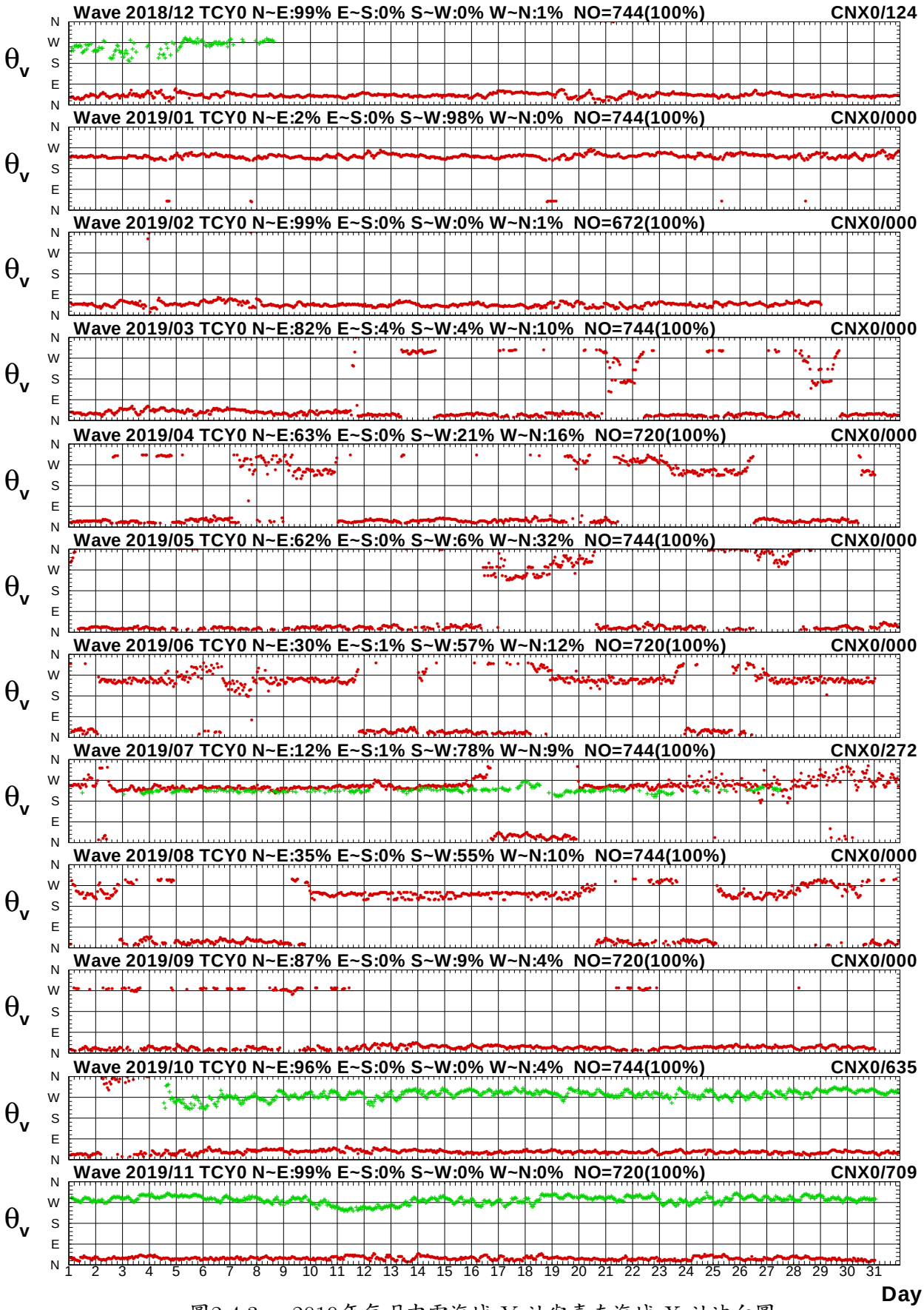

圖2.4.3c　2019年每月中雲海域 Y 站與嘉南海域 X 站波向圖

V18CTCY0.1HA V18CCNX0.1H0 V191TCY0.1HA V191CNX0.1H0 V192TCY0.1HA V192CNX0.1H0
V193TCY0.1HA V193CNX0.1H0 V194TCY0.1HA V194CNX0.1H0 V195TCY0.1HA V195CNX0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

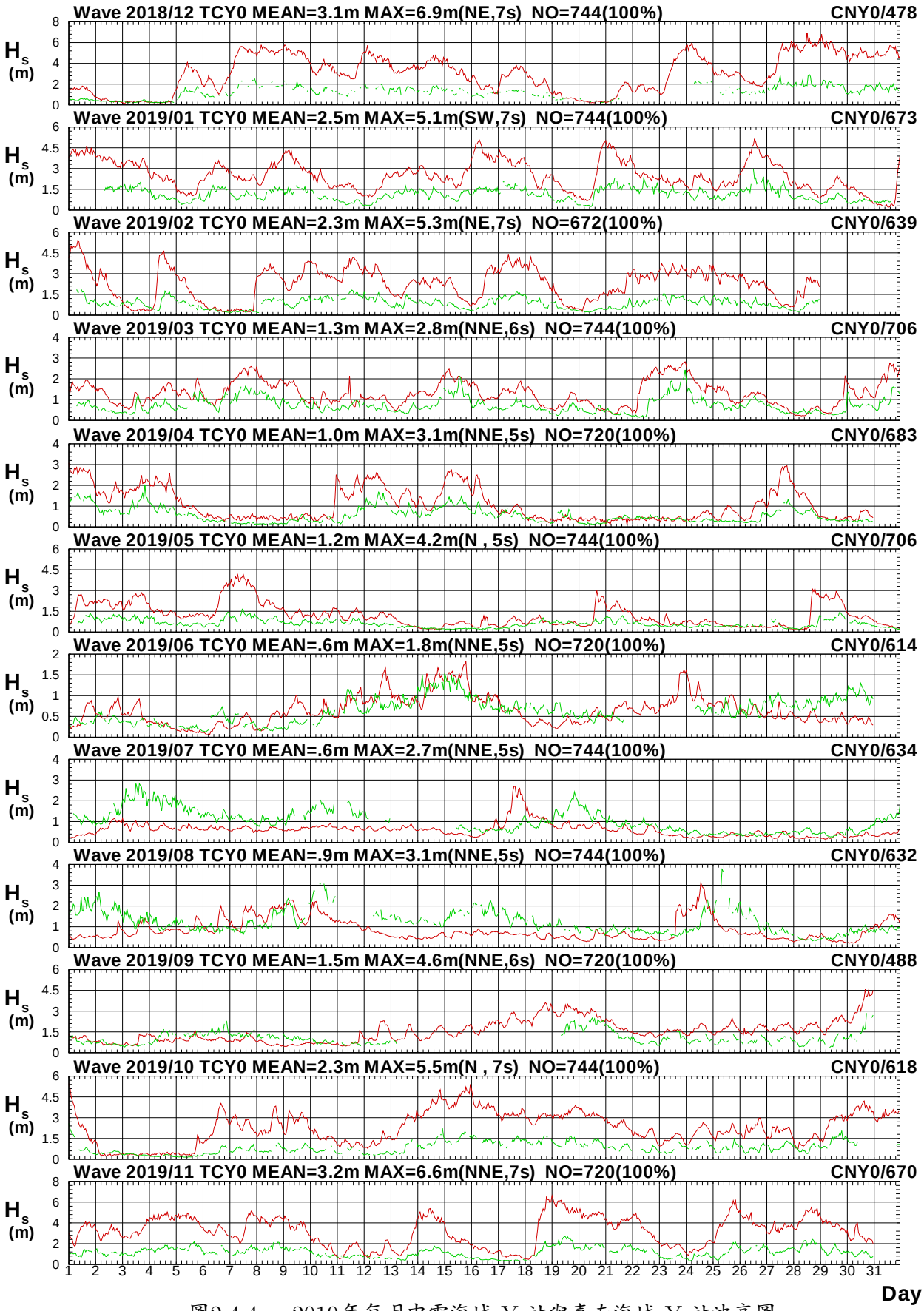

圖2.4.4a　2019年每月中雲海域 Y 站與嘉南海域 Y 站波高圖

V18CTCY0.1HA V18CCNY0.1H0 V191TCY0.1HA V191CNY0.1H0 V192TCY0.1HA V192CNY0.1H0
V193TCY0.1HA V193CNY0.1H0 V194TCY0.1HA V194CNY0.1H0 V195TCY0.1HA V195CNY0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

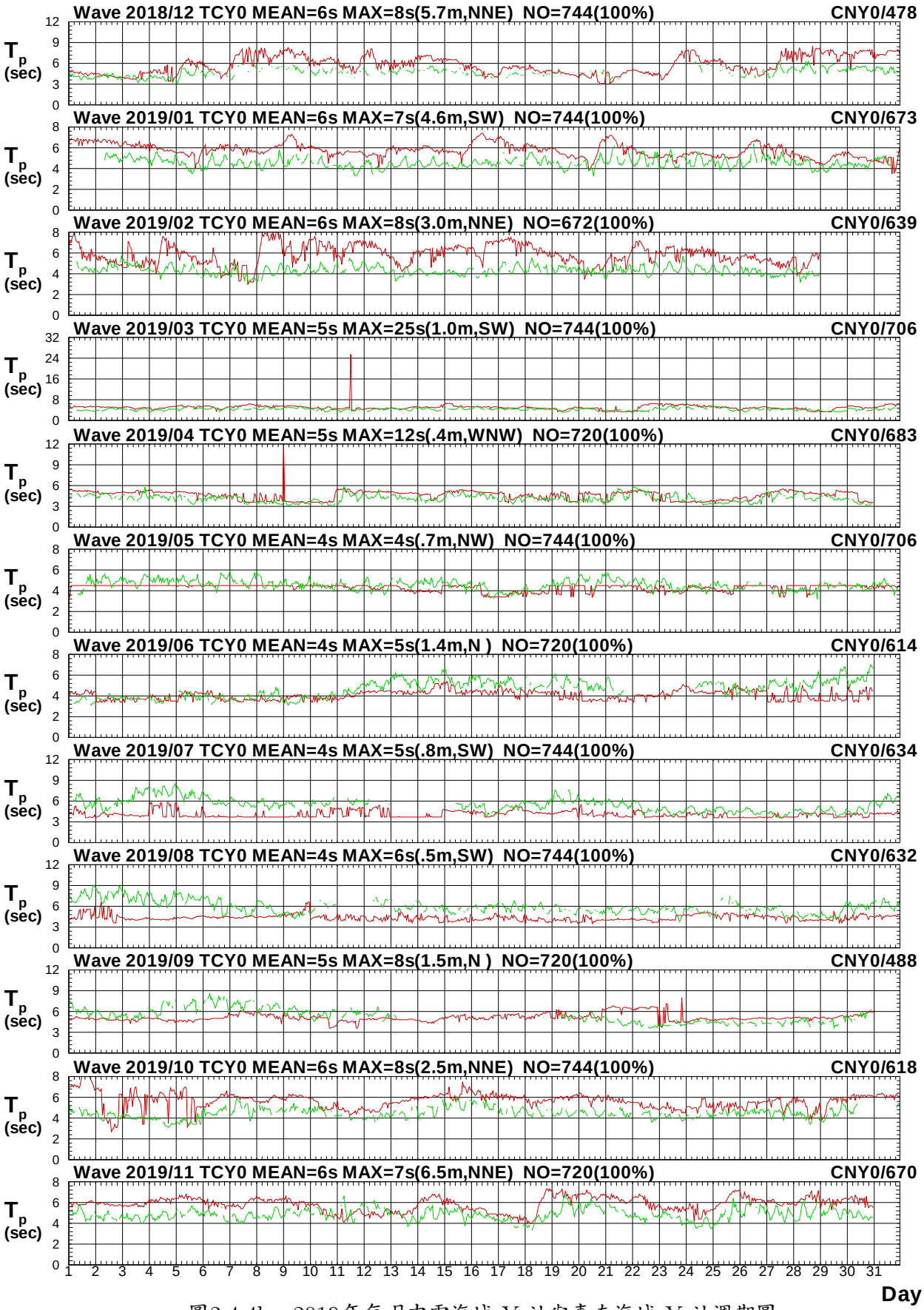

圖2.4.4b　2019年每月中雲海域 Y 站與嘉南海域 Y 站週期圖

V18CTCY0.1HA V18CCNY0.1H0 V191TCY0.1HA V191CNY0.1H0 V192TCY0.1HA V192CNY0.1H0
V193TCY0.1HA V193CNY0.1H0 V194TCY0.1HA V194CNY0.1H0 V195TCY0.1HA V195CNY0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

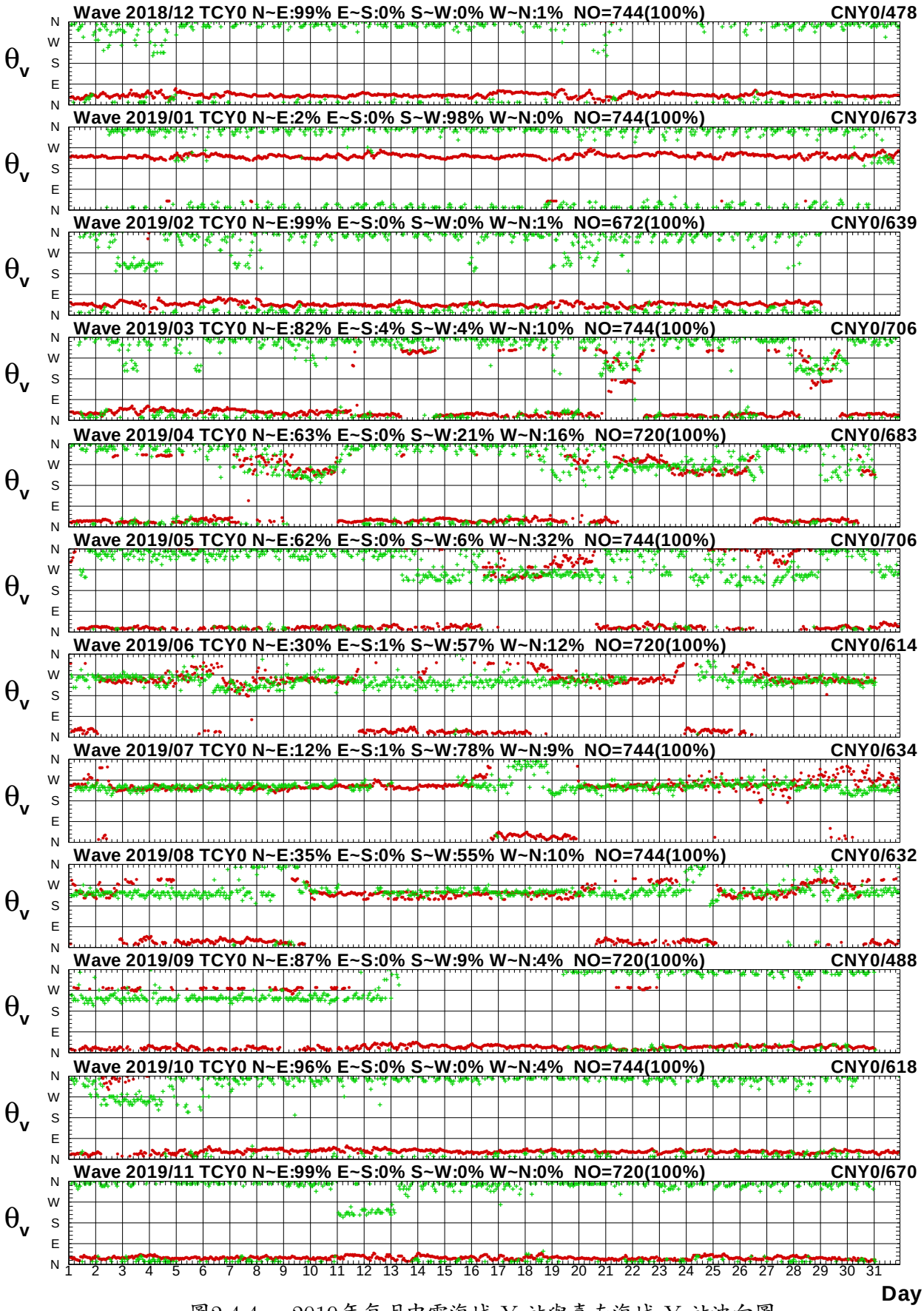

圖2.4.4c　2019年每月中雲海域 Y 站與嘉南海域 Y 站波向圖

V18CTCY0.1HA V18CCNY0.1H0 V191TCY0.1HA V191CNY0.1H0 V192TCY0.1HA V192CNY0.1H0
V193TCY0.1HA V193CNY0.1H0 V194TCY0.1HA V194CNY0.1H0 V195TCY0.1HA V195CNY0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

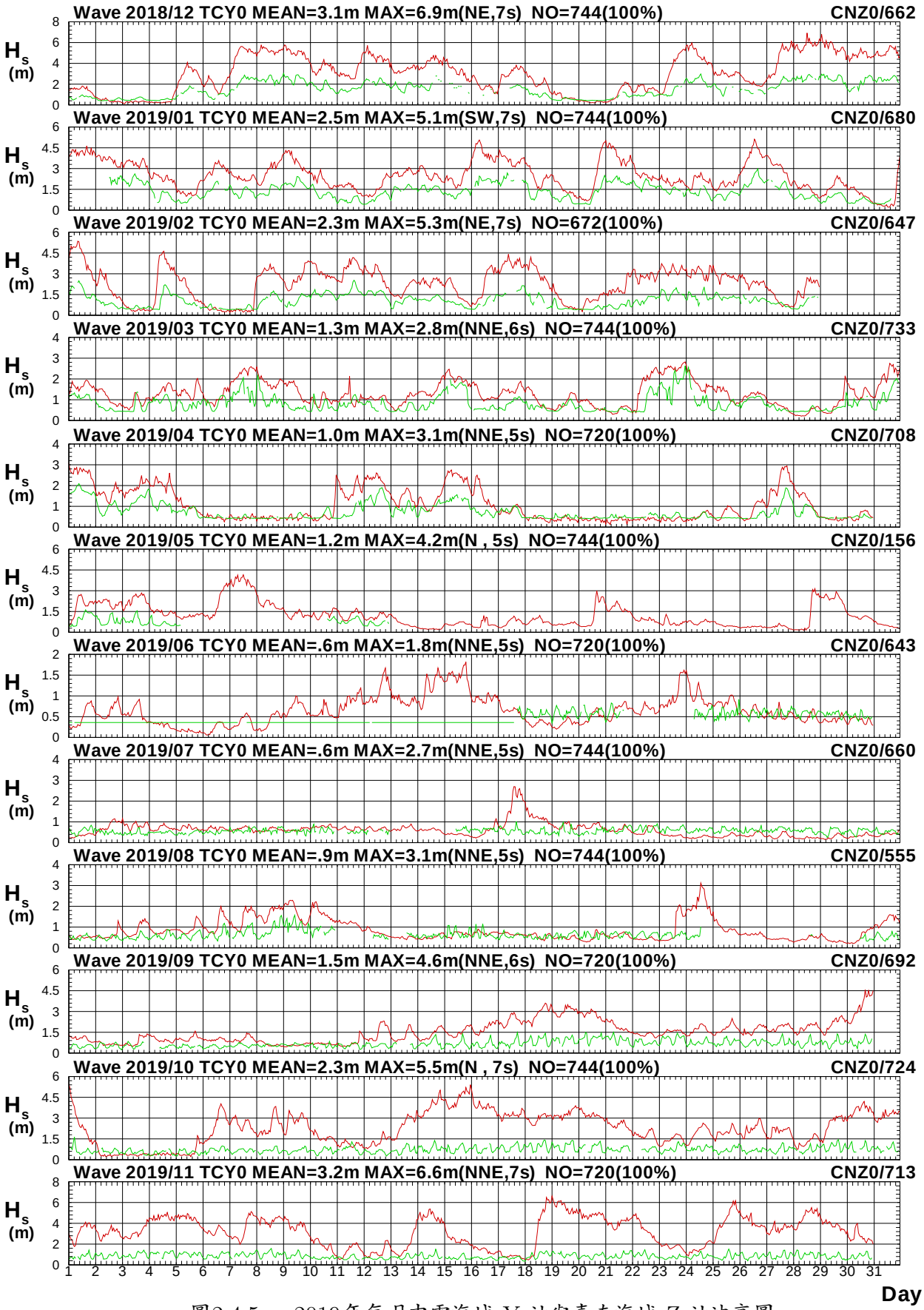

圖2.4.5a　2019年每月中雲海域 Y 站與嘉南海域 Z 站波高圖

V18CTCY0.1HA V18CCNZ0.1H0 V191TCY0.1HA V191CNZ0.1H0 V192TCY0.1HA V192CNZ0.1H0
V193TCY0.1HA V193CNZ0.1H0 V194TCY0.1HA V194CNZ0.1H0 V195TCY0.1HA V195CNZ0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

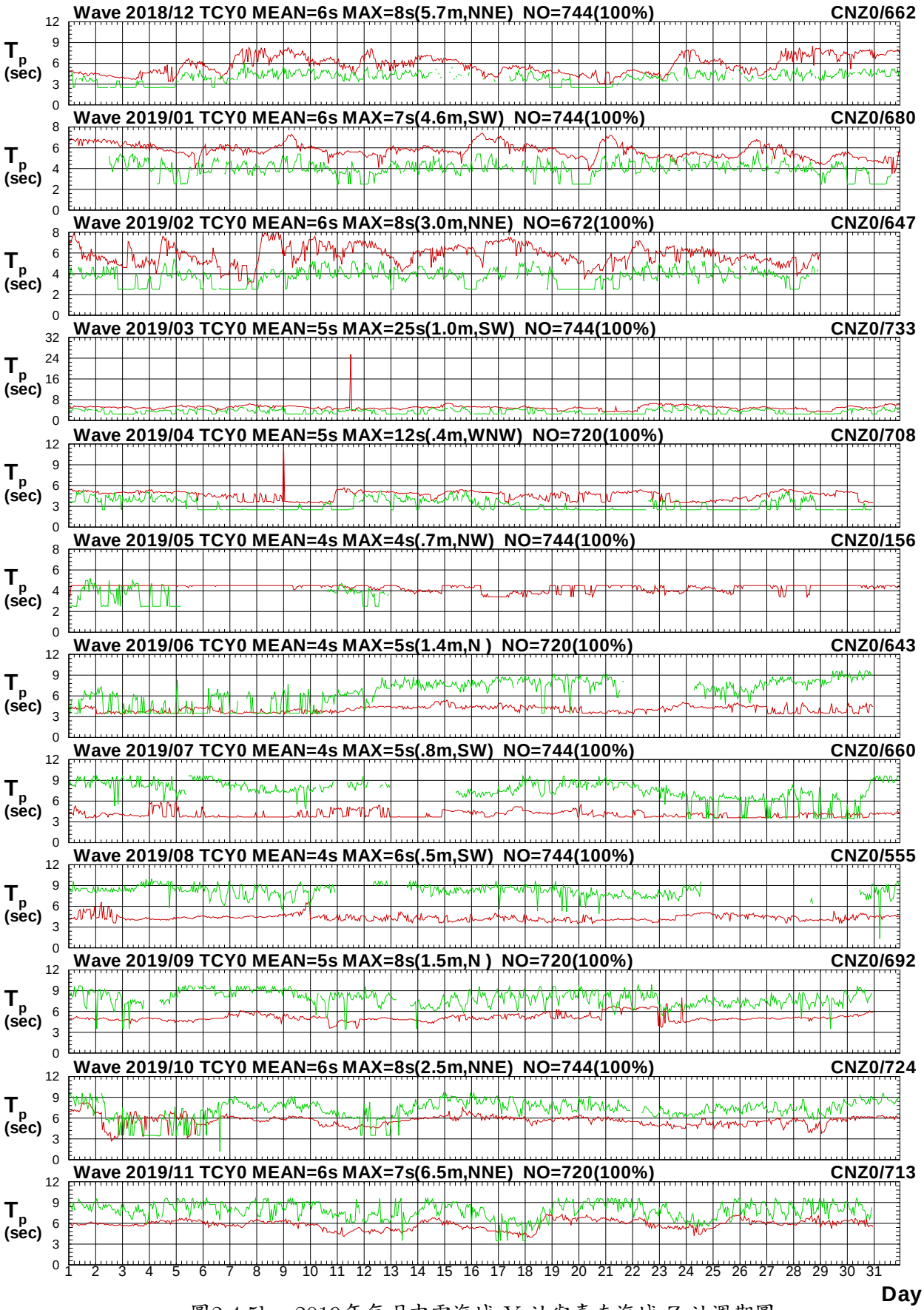

圖2.4.5b　2019年每月中雲海域 Y 站與嘉南海域 Z 站週期圖

V18CTCY0.1HA V18CCNZ0.1H0 V191TCY0.1HA V191CNZ0.1H0 V192TCY0.1HA V192CNZ0.1H0
V193TCY0.1HA V193CNZ0.1H0 V194TCY0.1HA V194CNZ0.1H0 V195TCY0.1HA V195CNZ0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

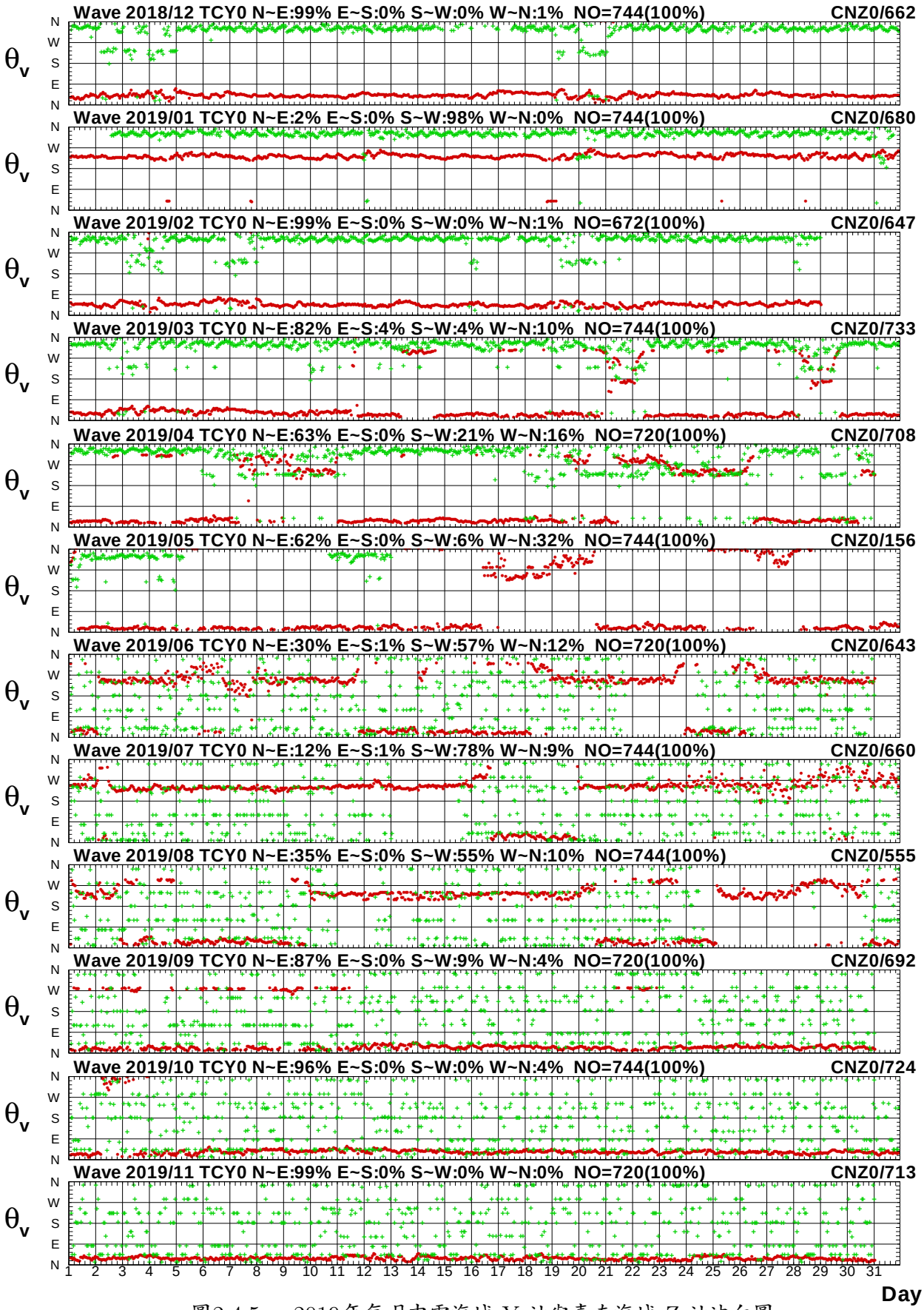

圖2.4.5c　2019年每月中雲海域 Y 站與嘉南海域 Z 站波向圖

V18CTCY0.1HA V18CCNZ0.1H0 V191TCY0.1HA V191CNZ0.1H0 V192TCY0.1HA V192CNZ0.1H0
V193TCY0.1HA V193CNZ0.1H0 V194TCY0.1HA V194CNZ0.1H0 V195TCY0.1HA V195CNZ0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

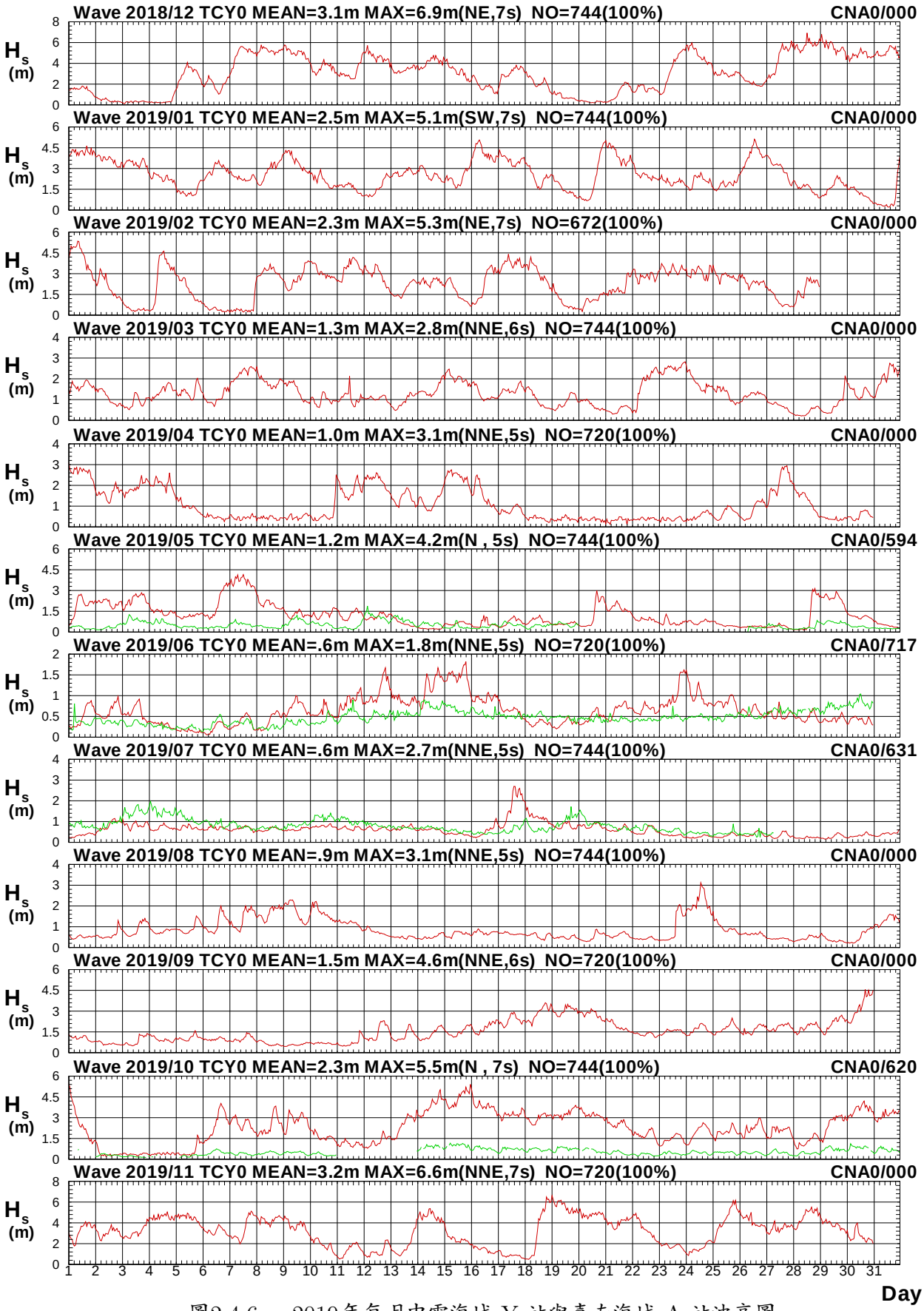

圖2.4.6a　2019年每月中雲海域 Y 站與嘉南海域 A 站波高圖

V18CTCY0.1HA V18CCNA0.1H0 V191TCY0.1HA V191CNA0.1H0 V192TCY0.1HA V192CNA0.1H0
V193TCY0.1HA V193CNA0.1H0 V194TCY0.1HA V194CNA0.1H0 V195TCY0.1HA V195CNA0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

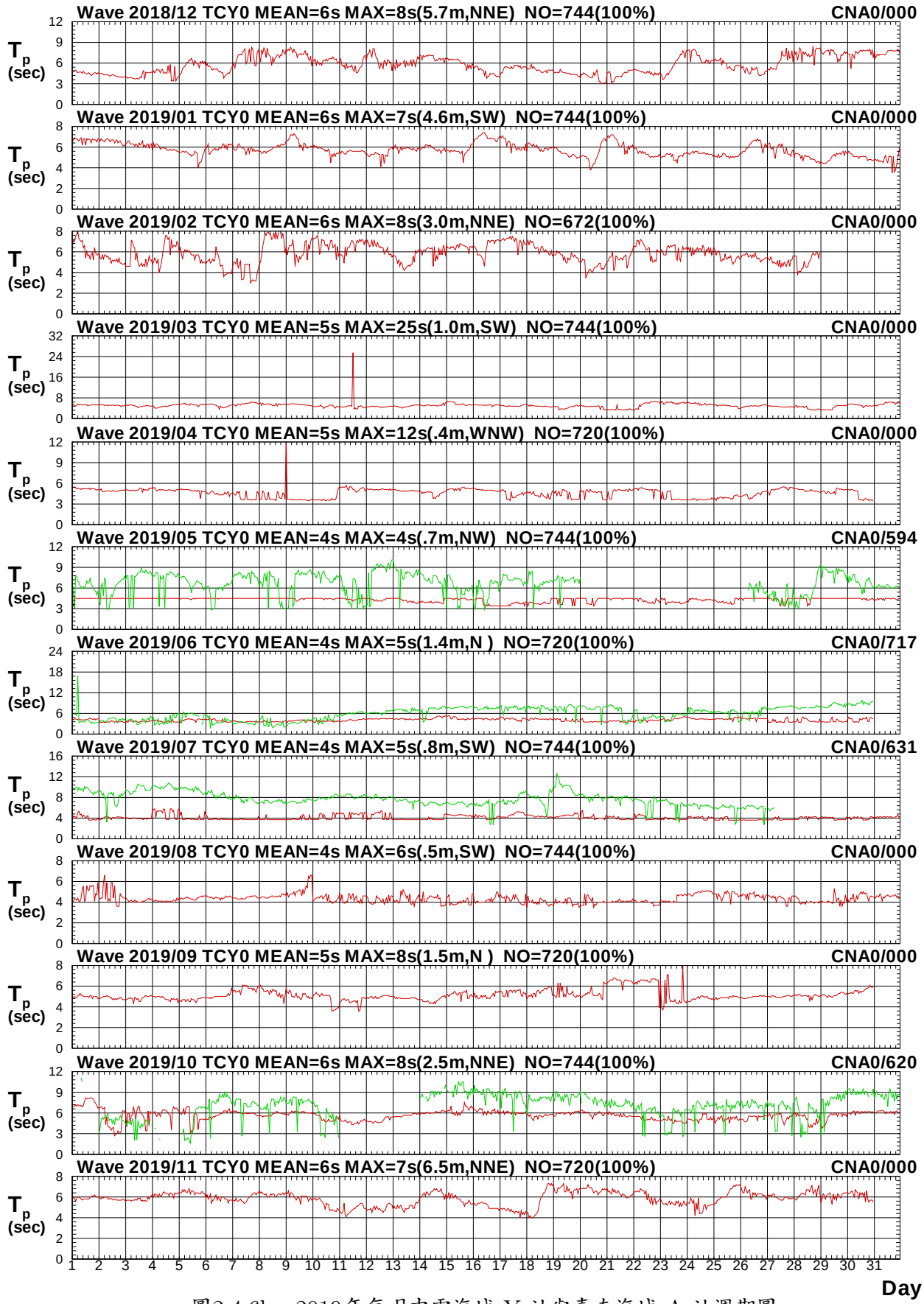

圖2.4.6b　2019年每月中雲海域 Y 站與嘉南海域 A 站週期圖

V18CTCY0.1HA V18CCNA0.1H0 V191TCY0.1HA V191CNA0.1H0 V192TCY0.1HA V192CNA0.1H0
V193TCY0.1HA V193CNA0.1H0 V194TCY0.1HA V194CNA0.1H0 V195TCY0.1HA V195CNA0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

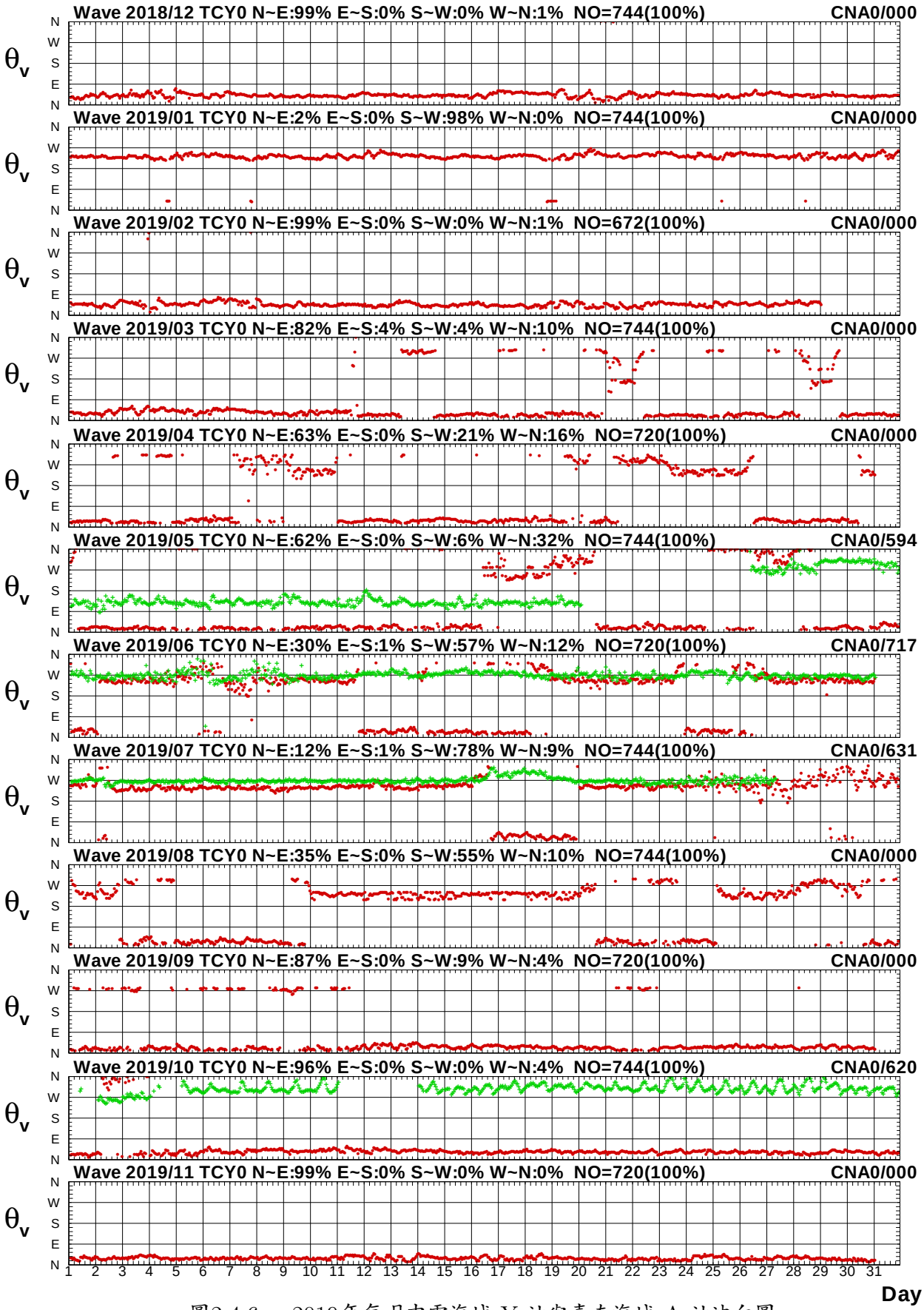

圖2.4.6c　2019年每月中雲海域 Y 站與嘉南海域 A 站波向圖

V18CTCY0.1HA V18CCNA0.1H0 V191TCY0.1HA V191CNA0.1H0 V192TCY0.1HA V192CNA0.1H0
V193TCY0.1HA V193CNA0.1H0 V194TCY0.1HA V194CNA0.1H0 V195TCY0.1HA V195CNA0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

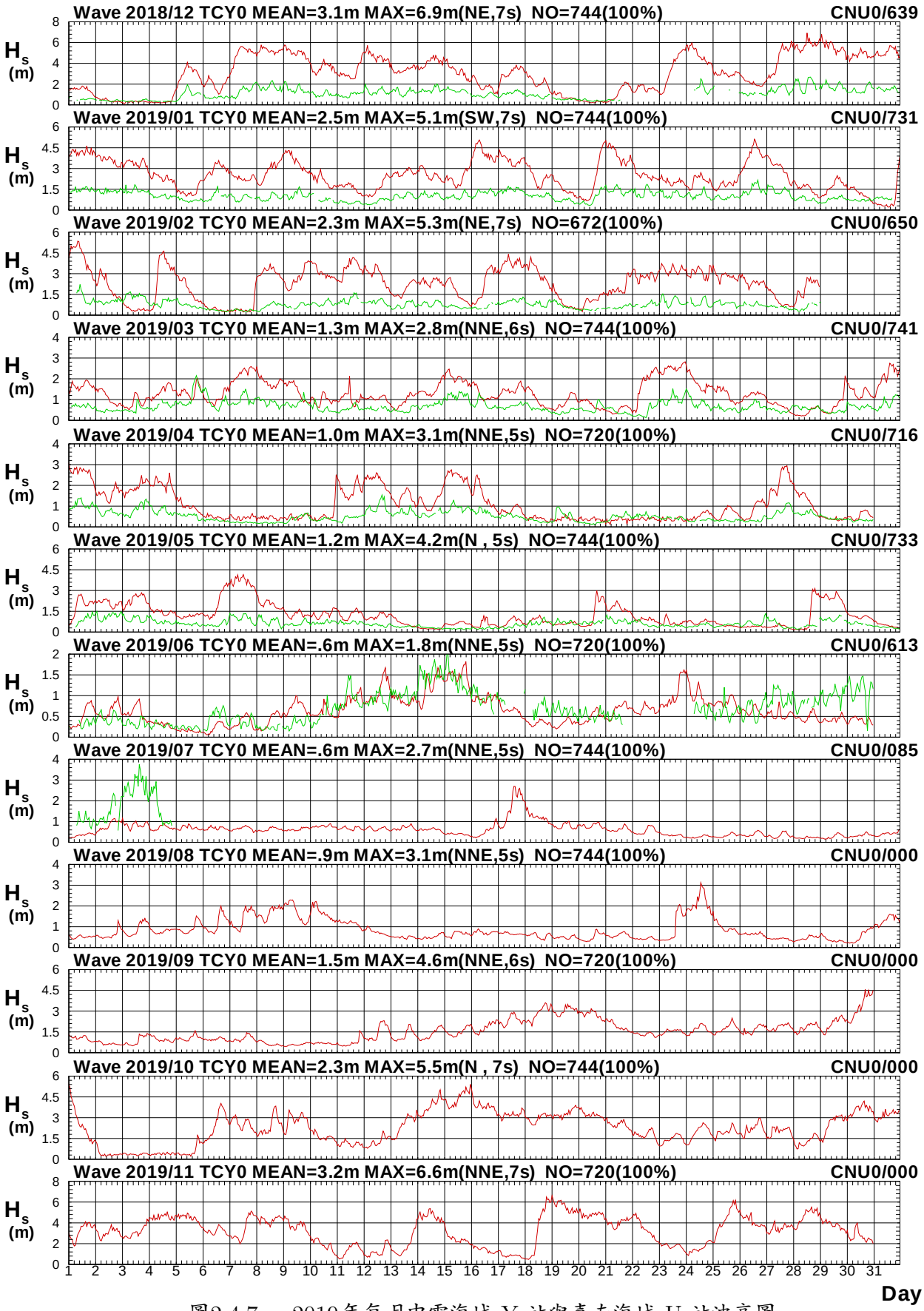

圖2.4.7a　2019年每月中雲海域 Y 站與嘉南海域 U 站波高圖

V18CTCY0.1HA V18CCNU0.1H0 V191TCY0.1HA V191CNU0.1H0 V192TCY0.1HA V192CNU0.1H0
V193TCY0.1HA V193CNU0.1H0 V194TCY0.1HA V194CNU0.1H0 V195TCY0.1HA V195CNU0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

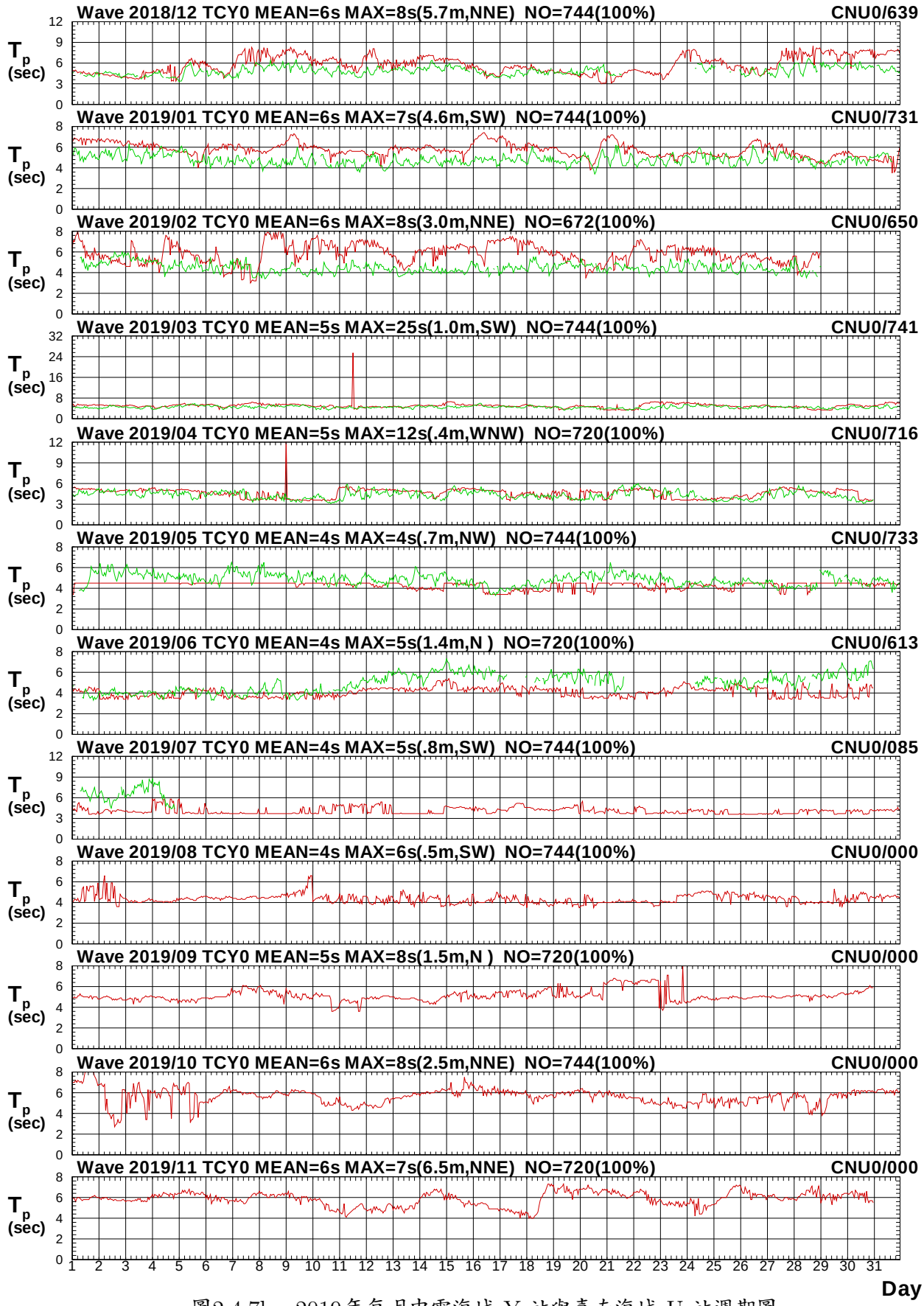

圖2.4.7b　2019年每月中雲海域 Y 站與嘉南海域 U 站週期圖

V18CTCY0.1HA V18CCNU0.1H0 V191TCY0.1HA V191CNU0.1H0 V192TCY0.1HA V192CNU0.1H0
V193TCY0.1HA V193CNU0.1H0 V194TCY0.1HA V194CNU0.1H0 V195TCY0.1HA V195CNU0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

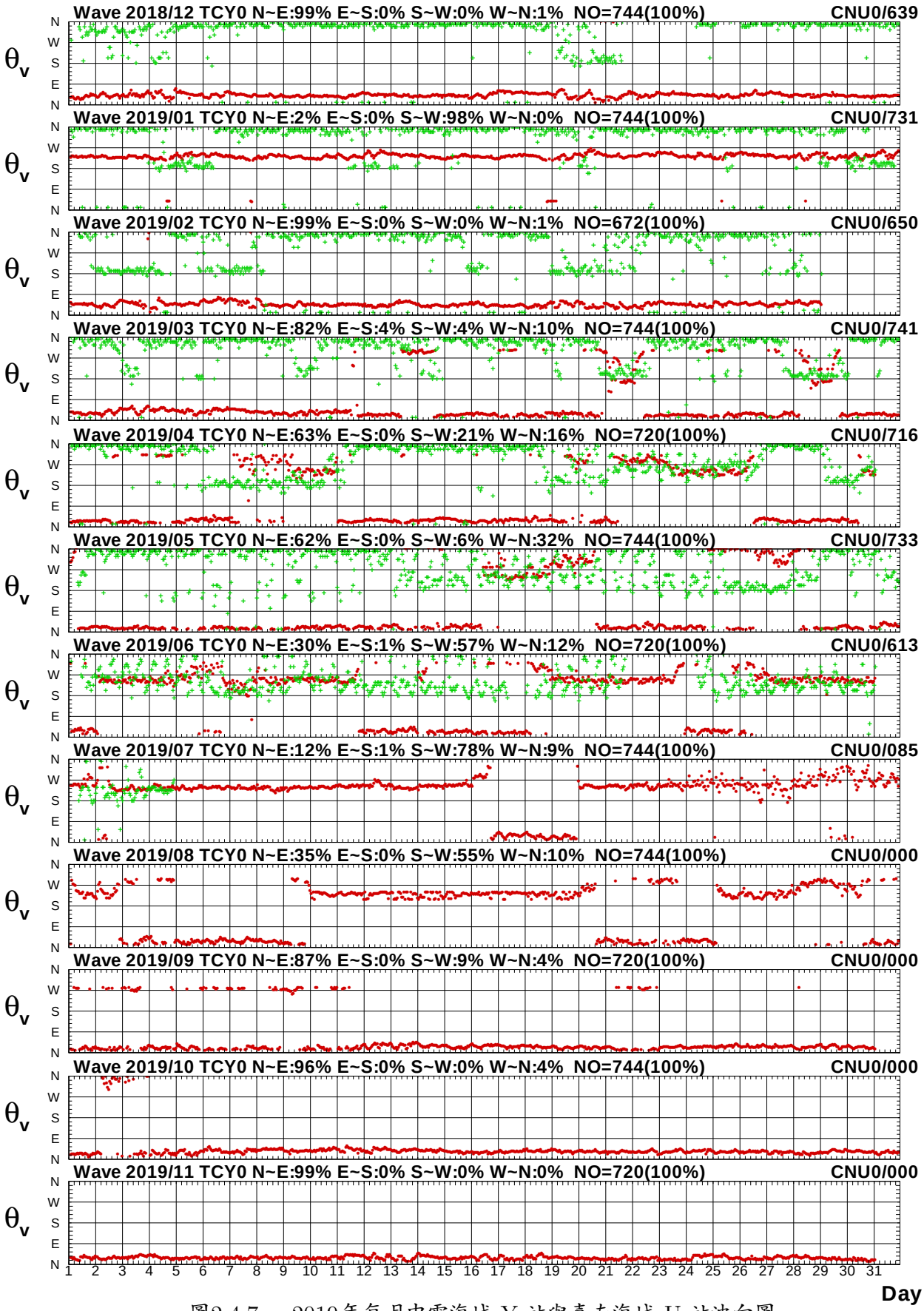

圖2.4.7c　2019年每月中雲海域 Y 站與嘉南海域 U 站波向圖

V18CTCY0.1HA V18CCNU0.1H0 V191TCY0.1HA V191CNU0.1H0 V192TCY0.1HA V192CNU0.1H0
V193TCY0.1HA V193CNU0.1H0 V194TCY0.1HA V194CNU0.1H0 V195TCY0.1HA V195CNU0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

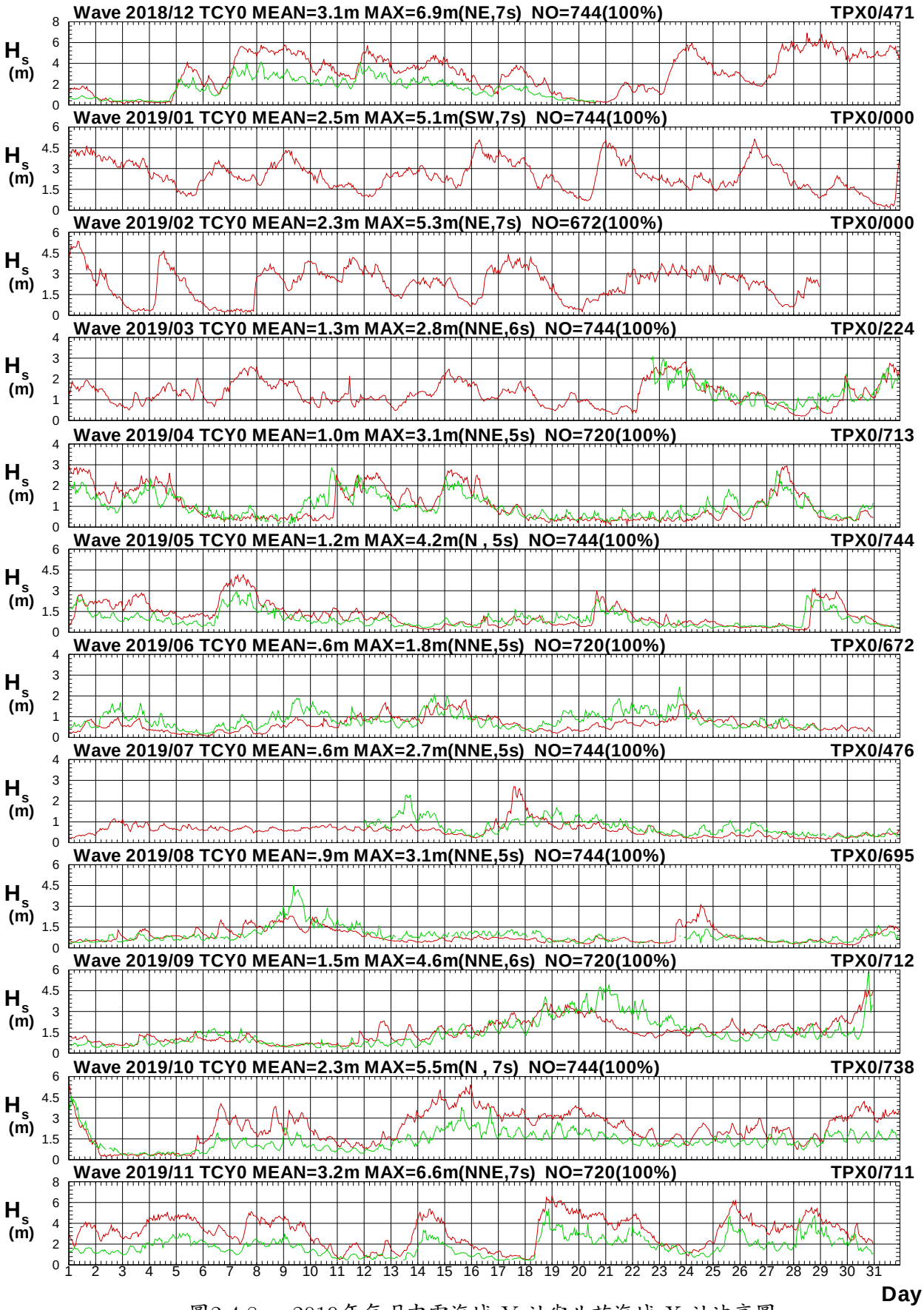

圖2.4.8a　2019年每月中雲海域 Y 站與北苗海域 X 站波高圖

V18CTCY0.1HA V18CTPX0.1H0 V191TCY0.1HA V191TPX0.1H0 V192TCY0.1HA V192TPX0.1H0
V193TCY0.1HA V193TPX0.1H0 V194TCY0.1HA V194TPX0.1H0 V195TCY0.1HA V195TPX0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

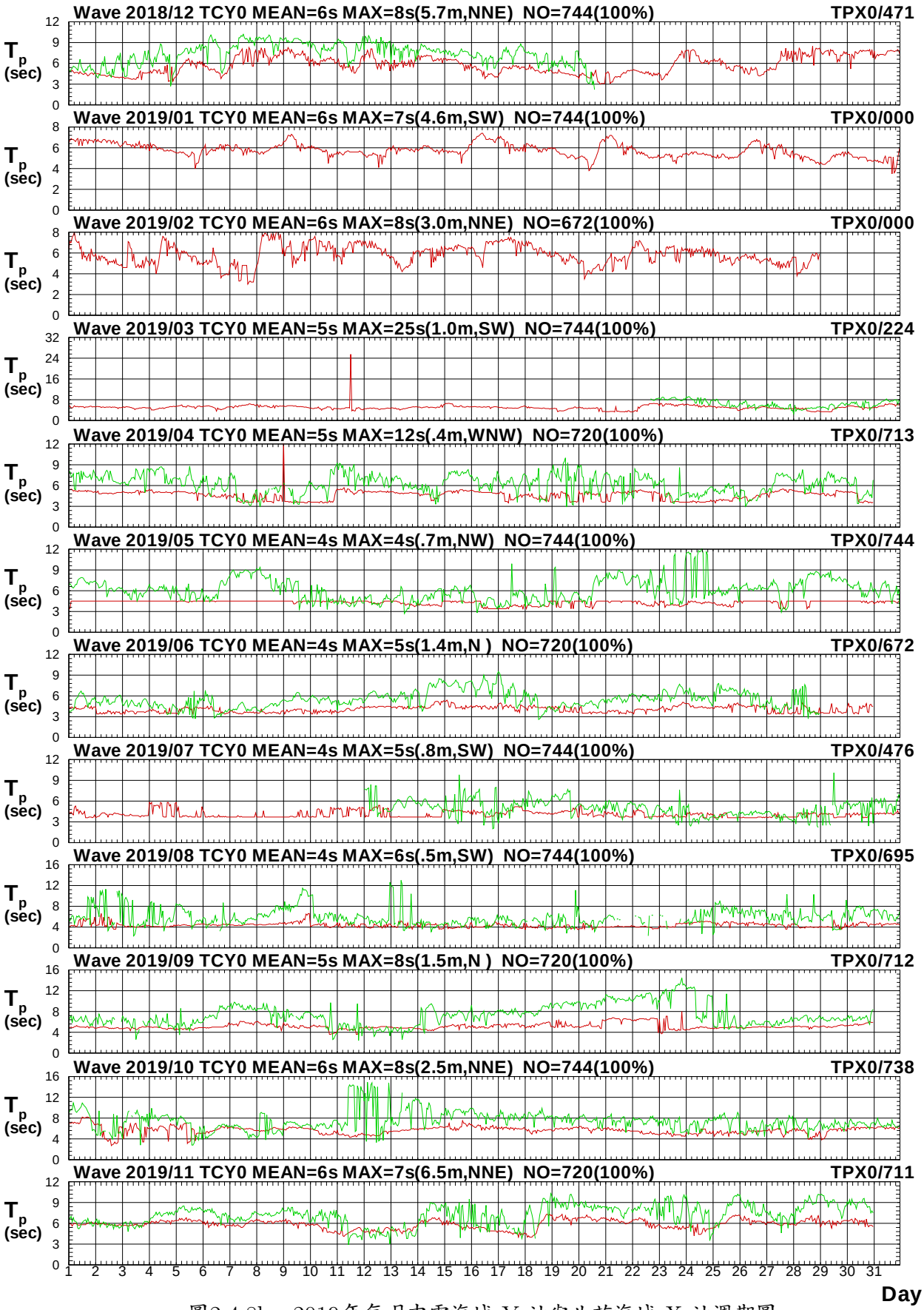

圖2.4.8b　2019年每月中雲海域 Y 站與北苗海域 X 站週期圖

V18CTCY0.1HA V18CTPX0.1H0 V191TCY0.1HA V191TPX0.1H0 V192TCY0.1HA V192TPX0.1H0
V193TCY0.1HA V193TPX0.1H0 V194TCY0.1HA V194TPX0.1H0 V195TCY0.1HA V195TPX0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

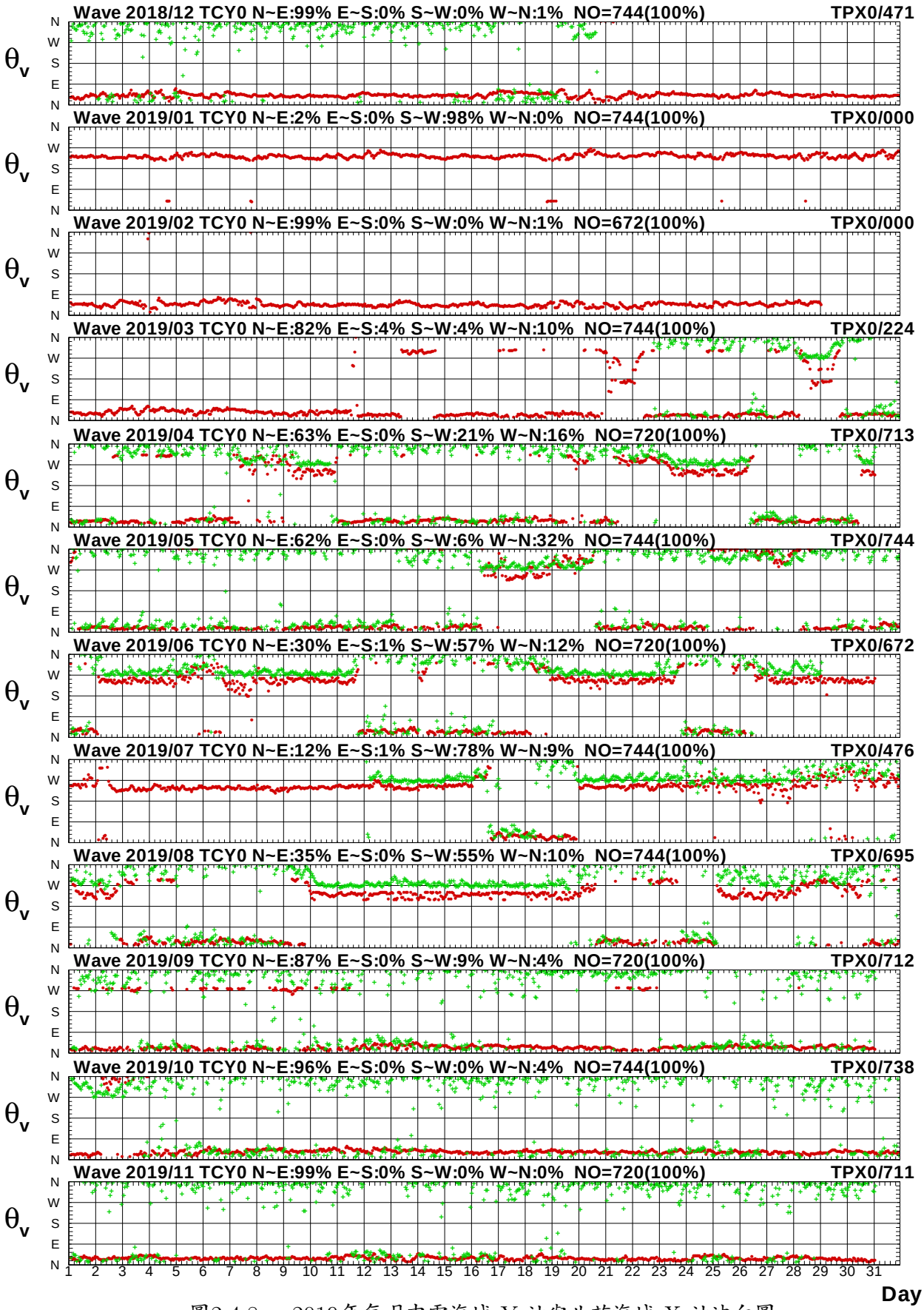

圖2.4.8c　2019年每月中雲海域 Y 站與北苗海域 X 站波向圖

V18CTCY0.1HA V18CTPX0.1H0 V191TCY0.1HA V191TPX0.1H0 V192TCY0.1HA V192TPX0.1H0
V193TCY0.1HA V193TPX0.1H0 V194TCY0.1HA V194TPX0.1H0 V195TCY0.1HA V195TPX0.1H0

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Wave H_s in Tai-Chung Harbor of TCY0 at 2019

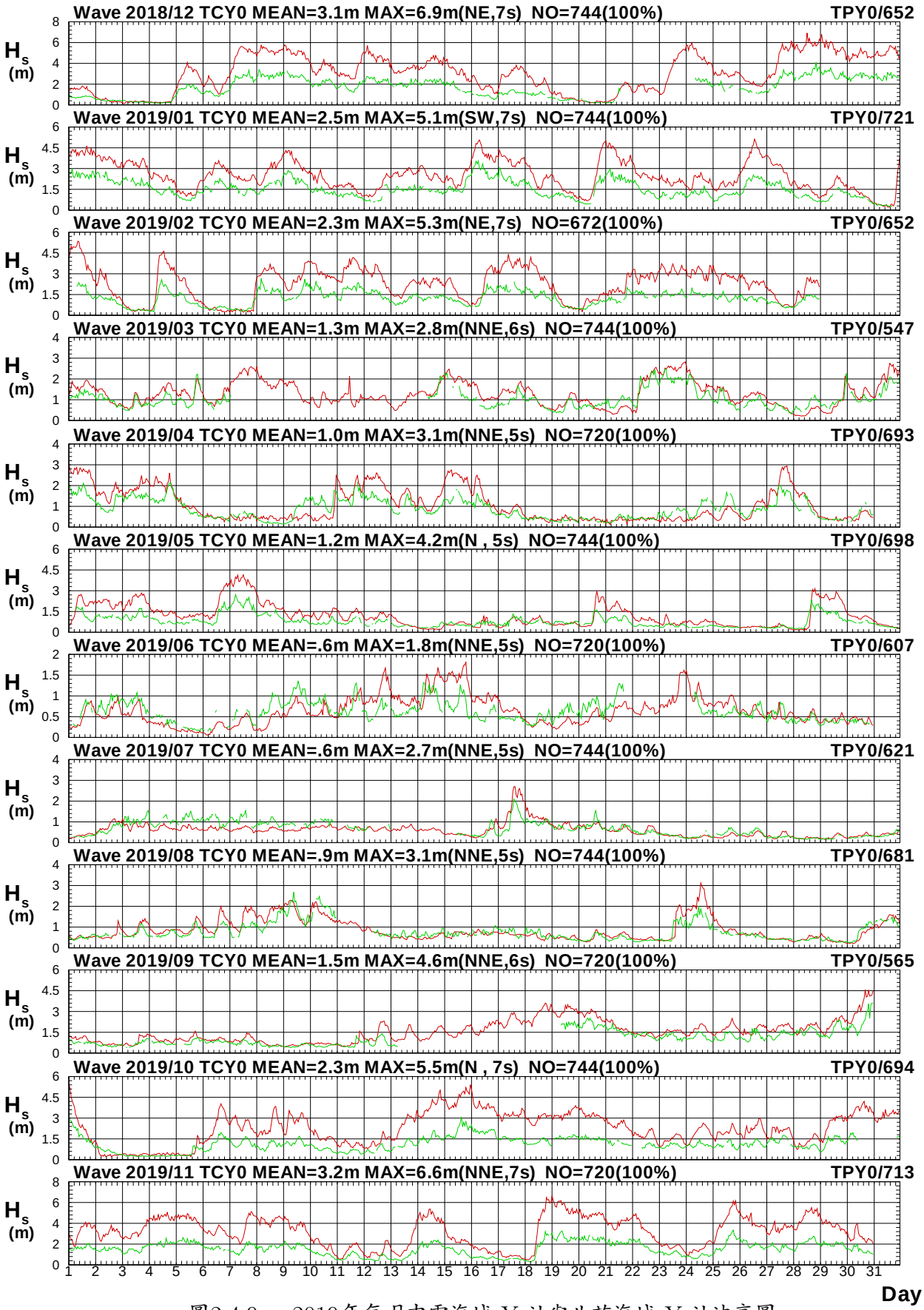

圖2.4.9a　2019年每月中雲海域 Y 站與北苗海域 Y 站波高圖

V18CTCY0.1HA V18CTPY0.1H0 V191TCY0.1HA V191TPY0.1H0 V192TCY0.1HA V192TPY0.1H0
V193TCY0.1HA V193TPY0.1H0 V194TCY0.1HA V194TPY0.1H0 V195TCY0.1HA V195TPY0.1H0

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Wave T_p in Tai-Chung Harbor of TCY0 at 2019

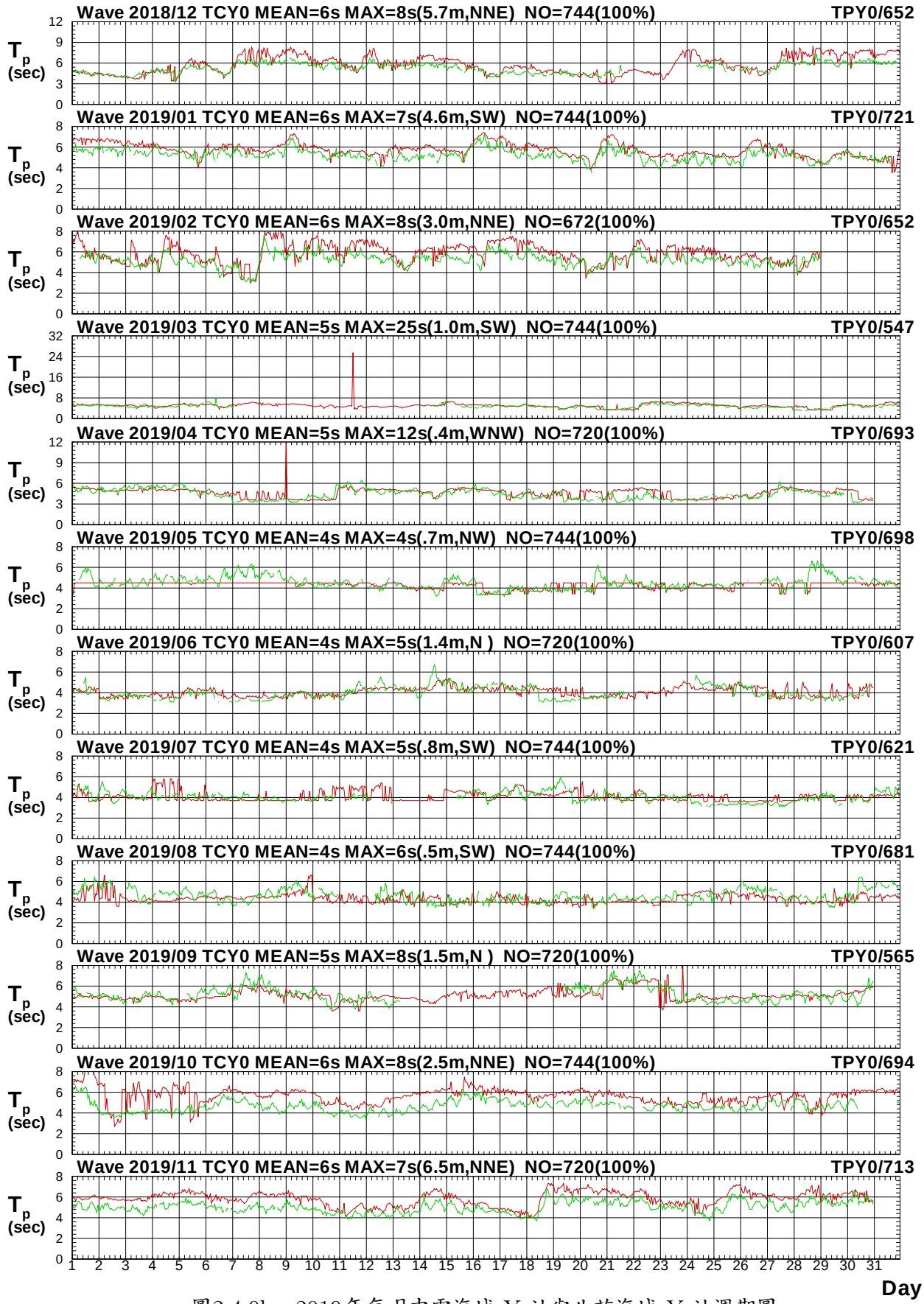

圖2.4.9b　2019年每月中雲海域 Y 站與北苗海域 Y 站週期圖

V18CTCY0.1HA V18CTPY0.1H0 V191TCY0.1HA V191TPY0.1H0 V192TCY0.1HA V192TPY0.1H0
V193TCY0.1HA V193TPY0.1H0 V194TCY0.1HA V194TPY0.1H0 V195TCY0.1HA V195TPY0.1H0

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Wave Direction in Tai-Chung Harbor of TCY0 at 2019

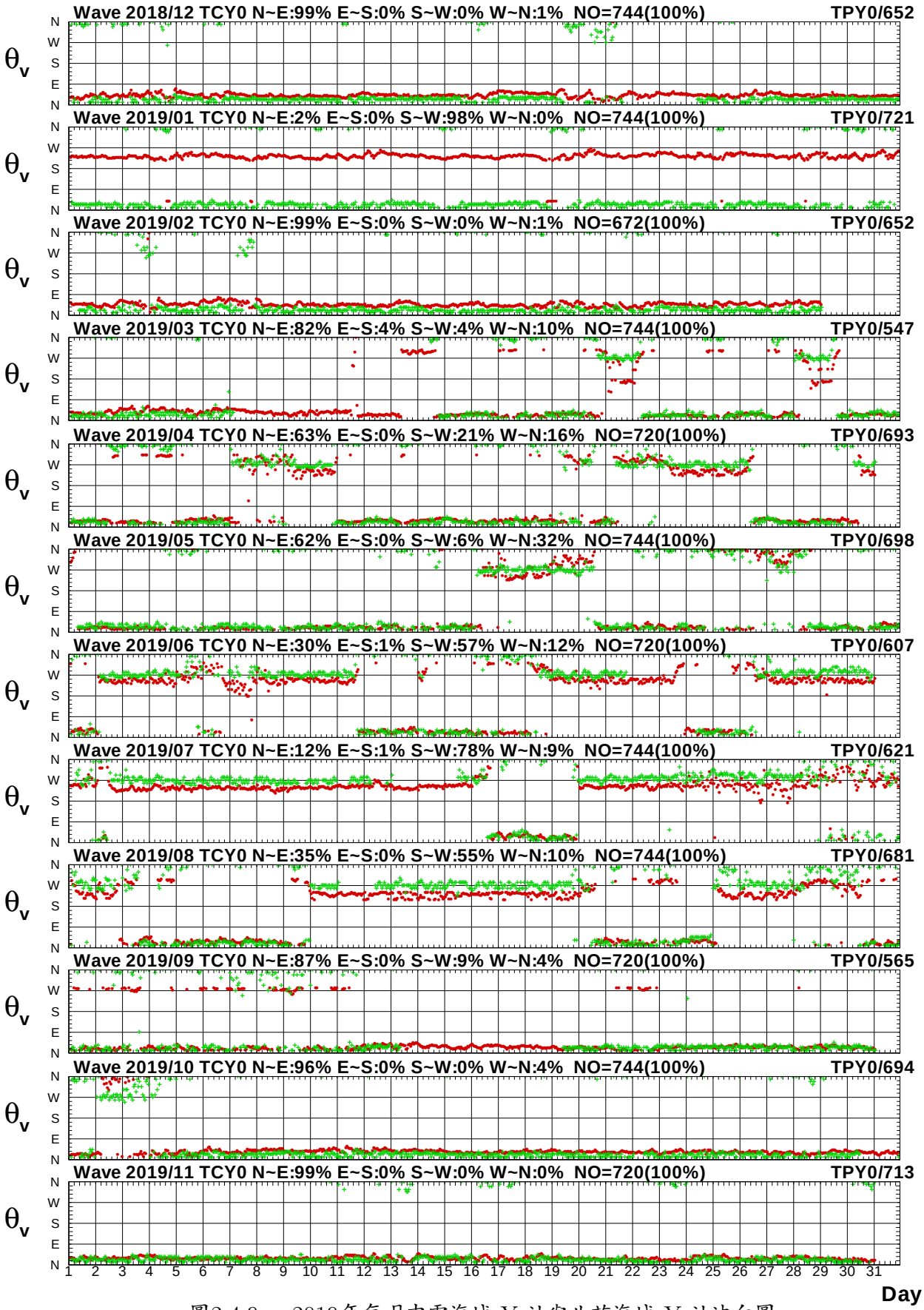

圖2.4.9c　2019年每月中雲海域 Y 站與北苗海域 Y 站波向圖

V18CTCY0.1HA V18CTPY0.1H0 V191TCY0.1HA V191TPY0.1H0 V192TCY0.1HA V192TPY0.1H0
V193TCY0.1HA V193TPY0.1H0 V194TCY0.1HA V194TPY0.1H0 V195TCY0.1HA V195TPY0.1H0

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2.5　2019 年中雲海域波浪各測站修補前

波浪向量分佈圖

Distribution of H_s Vectores

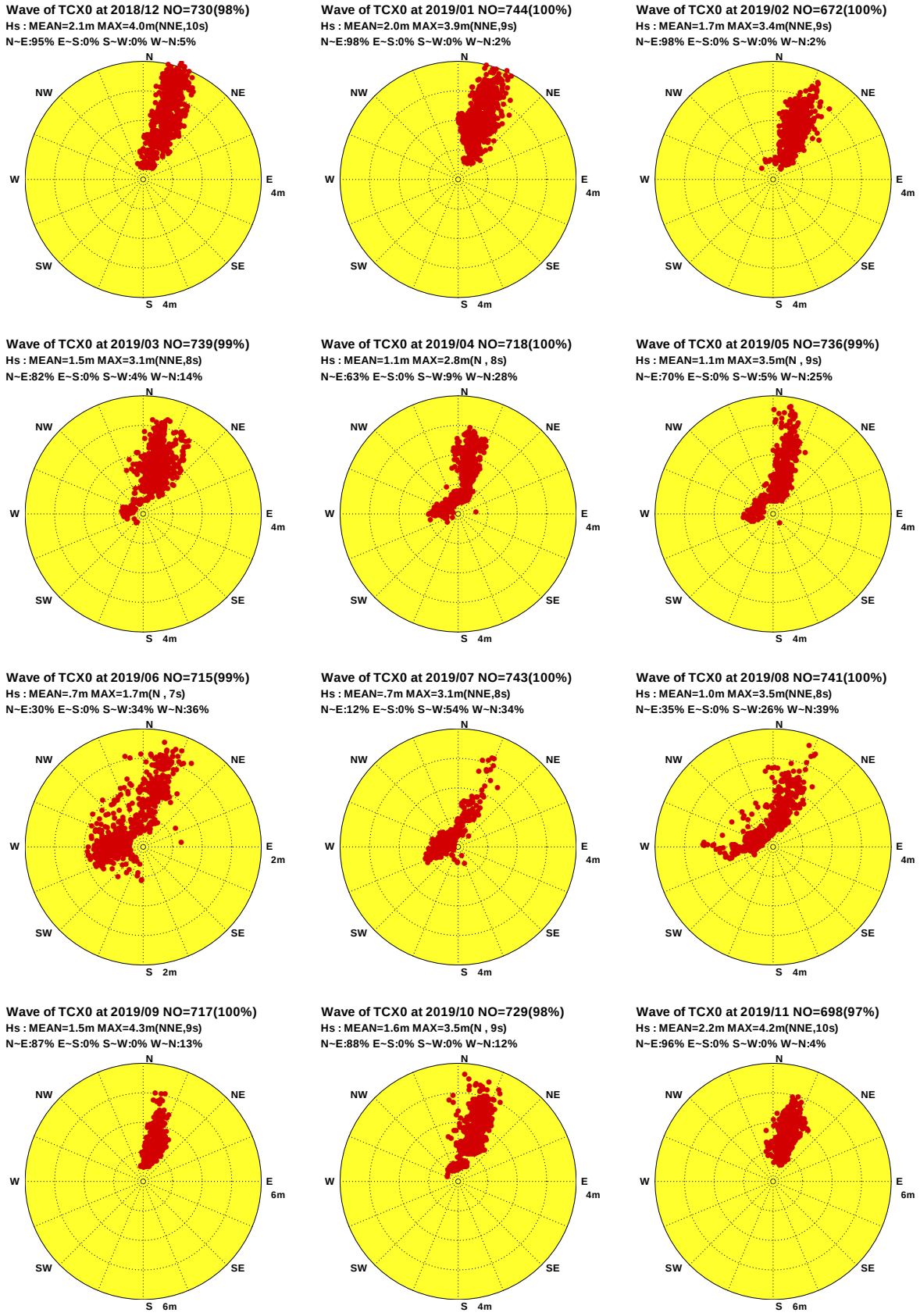

圖2.5.1 2019年中雲海域每月 X 站修補前觀測波高向量分佈圖

V18CTCX0.1H0 V191TCX0.1H0 V192TCX0.1H0 V193TCX0.1H0 V194TCX0.1H0 V195TCX0.1H0
V196TCX0.1H0 V197TCX0.1H0 V198TCX0.1H0 V199TCX0.1H0 V19ATCX0.1H0 V19BTCX0.1H0

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第三章　2019 年中雲海域觀測潮汐資料年報

2019 年中雲海域潮汐之觀測包括**測站 T**、**測站 J**、**測站 X**、**測站 S 及測站 P 等 5** 個測站(測站位置如第 O 章圖 TN1，各測站歷年觀測潮汐資料蒐集概況如表 TN1)。**測站 T** 與其他 4 個測站特性皆相近。本年報取經檢核及補遺之**測站 T** 資料作為主要測站 1，**測站 J** 資料作為主要測站 2，**測站 X** 資料作為主要測站 3。

3.1　2019 年中雲海域觀測潮汐資料年報圖表

本章第 1 節**潮汐**年報**資料處理之圖表包括:**

1. 表 3.1.1a　2019 年**各觀測站**每月**觀測潮汐**資料**修補前**記錄表。
2. 表 3.1.1b 2019 年**主要測站**每月**觀測潮汐**資料**修補後**記錄表。
3. 表 3.1.2　2019 年**主要測站 1 修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
4. 表 3.1.3　2019 年**主要測站 2 修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
5. 表 3.1.4　2019 年**主要測站 3 修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
6. 圖 3.1.1 2019 年**主要測站 1 修補前後**每月觀測潮位歷線比較圖。
7. 圖 3.1.2 2019 年**主要測站 1 修補後**每月觀測潮位及計算天文潮位歷線比較圖。
8. 圖 3.1.3 2019 年**主要測站 2 修補前後**每月觀測潮位歷線比較圖。

9. 圖 3.1.4 2019 年**主要測站 2 修補後**每月觀測潮位及計算天文潮位歷線比較圖。

10. 圖 3.1.5 2019 年**主要測站 3 修補前後**每月觀測潮位歷線比較圖。

11. 圖 3.1.6 2019 年**主要測站 3 修補後**每月觀測潮位及計算天文潮位歷線比較圖。

第 2 節潮汐年報資料處理之圖表包括: 2019 年中雲海域**各測站修補前**每月(季)及整年潮位、潮差及週期重要統計量統計表。

第 3 節潮汐年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 1 修補後**與**其他測站(修補前)**每月觀測潮位歷線比較圖。

第 4 節潮汐年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 2 修補後**與**其他測站(修補前)**每月觀測潮位歷線比較圖。

第 5 節潮汐年報資料處理之統計圖包括: 2019 年中雲海域**主要測站 3 修補後**與**其他測站(修補前)**每月觀測潮位歷線比較圖。

表3.1.1a 2019年每月中雲海域修補前各測站觀測潮汐資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	T	J	X	S	P							
2018/12月	706(94.9%)	614(82.5%)	731(98.3%)	*	657(88.3%)	*	*	*	*	*	*	*
2019/ 1月	654(87.9%)	604(81.2%)	744(100%)	*	744(100%)	*	*	*	*	*	*	*
2019/ 2月	646(96.1%)	643(95.7%)	672(100%)	*	672(100%)	*	*	*	*	*	*	*
2019/ 3月	617(82.9%)	739(99.3%)	743(99.9%)	*	705(94.8%)	*	*	*	*	*	*	*
2019/ 4月	720(100%)	720(100%)	720(100%)	*	699(97.1%)	*	*	*	*	*	*	*
2019/ 5月	744(100%)	744(100%)	736(98.9%)	*	744(100%)	*	*	*	*	*	*	*
2019/ 6月	720(100%)	659(91.5%)	716(99.4%)	*	593(82.4%)	*	*	*	*	*	*	*
2019/ 7月	744(100%)	646(86.8%)	743(99.9%)	*	131(17.6%)	*	*	*	*	*	*	*
2019/ 8月	744(100%)	706(94.9%)	741(99.6%)	*	651(87.5%)	*	*	*	*	*	*	*
2019/ 9月	720(100%)	571(79.3%)	717(99.6%)	298(41.4%)	720(100%)	*	*	*	*	*	*	*
2019/10月	744(100%)	675(90.7%)	729(98.0%)	744(100%)	716(96.2%)	*	*	*	*	*	*	*
2019/11月	720(100%)	720(100%)	698(96.9%)	720(100%)	682(94.7%)	*	*	*	*	*	*	*
2019/冬季	2006(92.9%)	1861(86.2%)	2147(99.4%)	*	2073(96.0%)	*	*	*	*	*	*	*
2019/春季	2081(94.2%)	2203(99.8%)	2199(99.6%)	*	2148(97.3%)	*	*	*	*	*	*	*
2019/夏季	2208(100%)	2011(91.1%)	2200(99.6%)	*	1375(62.3%)	*	*	*	*	*	*	*
2019/秋季	2184(100%)	1966(90.0%)	2144(98.2%)	*	2118(97.0%)	*	*	*	*	*	*	*
2019/整年	8479(96.8%)	8041(91.8%)	8690(99.2%)	*	7714(88.1%)	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	2018/12	*	2018/12	*	*	*	*	*	*	*
結束年月	2019/11	2019/11	2019/11	*	2019/11	*	*	*	*	*	*	*

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表3.1.1b 2019年每月中雲海域修補後各測站潮汐資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	T	J	X									
2018/12月	744(100%)	614(82.5%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	604(81.2%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	643(95.7%)	672(100%)	*	*	*	*	*	*	*	*	*
2019/ 3月	744(100%)	739(99.3%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 4月	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/ 5月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 6月	720(100%)	659(91.5%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	646(86.8%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	706(94.9%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	571(79.3%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	675(90.7%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/11月	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	1861(86.2%)	2160(100%)	*	*	*	*	*	*	*	*	*
2019/春季	2208(100%)	2203(99.8%)	2208(100%)	*	*	*	*	*	*	*	*	*
2019/夏季	2208(100%)	2011(91.1%)	2208(100%)	*	*	*	*	*	*	*	*	*
2019/秋季	2184(100%)	1966(90.0%)	2184(100%)	*	*	*	*	*	*	*	*	*
2019/整年	8760(100%)	8041(91.8%)	8760(100%)	*	*	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	2018/12	*	*	*	*	*	*	*	*	*
結束年月	2019/11	2019/11	2019/11	*	*	*	*	*	*	*	*	*

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表3.1.2　2019年中雲海域主要測站1修補後潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	T	390	548	470	515	12.4	13.0	13.0	13.0	59	264	536	-11	744(100)	460	491	71	55
2	2019/01	T	395	569	478	529	12.4	13.0	13.0	13.0	59	253	519	-53	744(100)	451	484	58	33
3	2019/02	T	397	516	480	512	12.4	13.0	13.0	13.0	53	272	546	0	672(100)	470	490	76	61
4	2019/03	T	377	529	466	500	12.4	13.0	13.0	13.0	59	281	562	23	744(100)	469	504	94	64
5	2019/04	T	378	505	456	494	12.4	13.0	13.0	13.0	57	297	549	40	720(100)	483	515	107	62
6	2019/05	T	378	493	455	488	12.4	13.0	13.0	13.0	59	312	558	38	744(100)	500	530	122	91
7	2019/06	T	374	489	440	475	12.4	13.0	13.0	13.0	57	327	543	51	720(100)	513	526	139	113
8	2019/07	T	387	511	458	503	12.4	13.0	13.0	13.0	59	336	577	48	744(100)	529	548	141	131
9	2019/08	T	400	544	481	528	12.4	13.0	13.0	13.0	59	333	609	52	744(100)	533	545	132	116
10	2019/09	T	401	538	486	527	12.4	13.0	13.0	13.0	57	319	607	41	720(100)	520	539	119	101
11	2019/10	T	400	524	487	514	12.4	13.0	13.0	13.0	59	298	577	16	744(100)	499	525	99	80
12	2019/11	T	388	520	475	504	12.4	14.0	13.1	13.4	57	276	528	-6	720(100)	472	495	83	62
13	2019/冬	T	392	558	475	518	12.4	13.0	13.0	13.0	173	263	546	-53	2160(100)	460	488	68	49
14	2019/春	T	376	529	458	493	12.4	13.0	13.0	13.0	177	297	562	23	2208(100)	484	516	108	72
15	2019/夏	T	388	544	463	505	12.4	13.0	13.0	13.0	177	332	609	48	2208(100)	525	542	137	120
16	2019/秋	T	397	538	484	518	12.4	13.0	13.0	13.0	175	298	607	-6	2184(100)	497	520	100	81
17	2019/年	T	388	560	470	512	12.4	14.0	13.0	13.1	704	297	609	-53	8760(100)	492	518	103	82

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表3.1.3　2019年中雲海域主要測站2修補後潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	J	267	392	315	358	12.8	24.0	13.8	15.8	42	22	219	-175	614(83)	161	170	-105	-129
2	2019/01	J	286	403	355	396	12.5	13.0	13.0	13.0	46	24	217	-206	604(81)	172	197	-112	-140
3	2019/02	J	286	406	351	394	12.4	13.0	13.0	13.0	50	25	225	-192	643(96)	172	184	-111	-119
4	2019/03	J	270	380	336	367	12.4	13.0	13.0	13.0	56	30	231	-163	739(99)	167	188	-100	-125
5	2019/04	J	267	354	322	350	12.4	14.0	13.1	13.2	57	31	213	-149	720(100)	168	192	-98	-123
6	2019/05	J	266	354	321	347	12.4	13.0	13.0	13.0	59	39	214	-149	744(100)	176	197	-90	-111
7	2019/06	J	266	357	319	338	12.4	13.0	13.0	13.0	51	41	201	-167	659(92)	177	185	-89	-104
8	2019/07	J	277	381	335	368	12.7	25.0	13.8	16.0	45	41	219	-179	646(87)	185	202	-91	-101
9	2019/08	J	284	393	339	378	12.6	25.0	13.7	15.4	54	46	248	-170	706(95)	192	197	-93	-101
10	2019/09	J	278	395	352	387	12.8	25.0	13.9	16.0	43	38	247	-160	571(79)	185	203	-95	-108
11	2019/10	J	275	377	333	363	12.7	25.0	13.7	15.4	51	34	236	-156	675(91)	181	193	-98	-109
12	2019/11	J	281	401	348	379	12.4	14.0	13.1	13.4	57	49	239	-161	720(100)	196	213	-85	-99
13	2019/冬	J	281	419	340	384	12.6	25.0	13.5	14.8	138	24	225	-206	1861(86)	168	186	-110	-128
14	2019/春	J	266	380	326	355	12.4	14.0	13.0	13.1	174	33	231	-163	2203(100)	170	192	-96	-120
15	2019/夏	J	275	411	333	370	12.6	25.0	13.5	14.6	152	43	248	-179	2011(91)	185	196	-91	-102
16	2019/秋	J	279	395	345	374	12.6	25.0	13.5	14.6	152	41	247	-161	1966(90)	188	204	-92	-105
17	2019/年	J	274	419	333	366	12.6	25.0	13.4	14.2	619	35	248	-206	8041(92)	178	195	-97	-112

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表3.1.4　2019年中雲海域主要測站3修補後潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	X	388	548	471	532	12.6	26.0	13.7	15.6	58	221	476	-78	744(100)	415	445	28	6
2	2019/01	X	394	569	485	548	12.4	13.0	13.0	13.0	59	227	482	-90	744(100)	424	457	31	-2
3	2019/02	X	394	557	480	529	12.4	13.0	13.0	13.0	53	225	487	-75	672(100)	421	440	30	12
4	2019/03	X	375	529	472	519	12.4	13.0	13.0	13.0	59	230	538	-2475	744(100)	433	465	61	21
5	2019/04	X	377	508	458	496	12.4	13.0	13.0	13.0	57	261	510	0	720(100)	448	485	73	31
6	2019/05	X	377	495	456	487	12.4	13.0	13.0	13.0	59	261	499	-10	744(100)	449	480	72	39
7	2019/06	X	372	490	443	477	12.4	13.0	13.0	13.0	57	255	475	-19	720(100)	440	460	67	45
8	2019/07	X	383	526	458	509	12.4	13.0	13.0	13.0	59	241	475	-60	744(100)	433	450	48	35
9	2019/08	X	396	551	482	539	12.4	13.0	13.0	13.0	59	241	513	-56	744(100)	439	456	42	29
10	2019/09	X	396	539	482	526	12.4	13.0	13.0	13.0	57	246	516	-43	720(100)	445	466	48	29
11	2019/10	X	397	532	485	518	12.4	13.0	13.0	13.0	59	253	519	-31	744(100)	452	478	55	38
12	2019/11	X	385	527	473	510	12.4	14.0	13.1	13.2	57	276	536	-11	720(100)	470	500	85	64
13	2019/冬	X	391	564	476	531	12.5	26.0	13.2	13.8	172	224	487	-90	2160(100)	420	447	30	5
14	2019/春	X	375	529	461	501	12.4	13.0	13.0	13.0	177	251	538	-2475	2208(100)	443	476	69	30
15	2019/夏	X	385	551	463	510	12.4	13.0	13.0	13.0	177	246	513	-60	2208(100)	438	457	52	35
16	2019/秋	X	394	540	482	521	12.4	13.0	13.0	13.0	175	258	536	-43	2184(100)	456	481	63	44
17	2019/年	X	386	564	471	518	12.4	26.0	13.1	13.3	703	245	538	-2475	8760(100)	439	465	53	29

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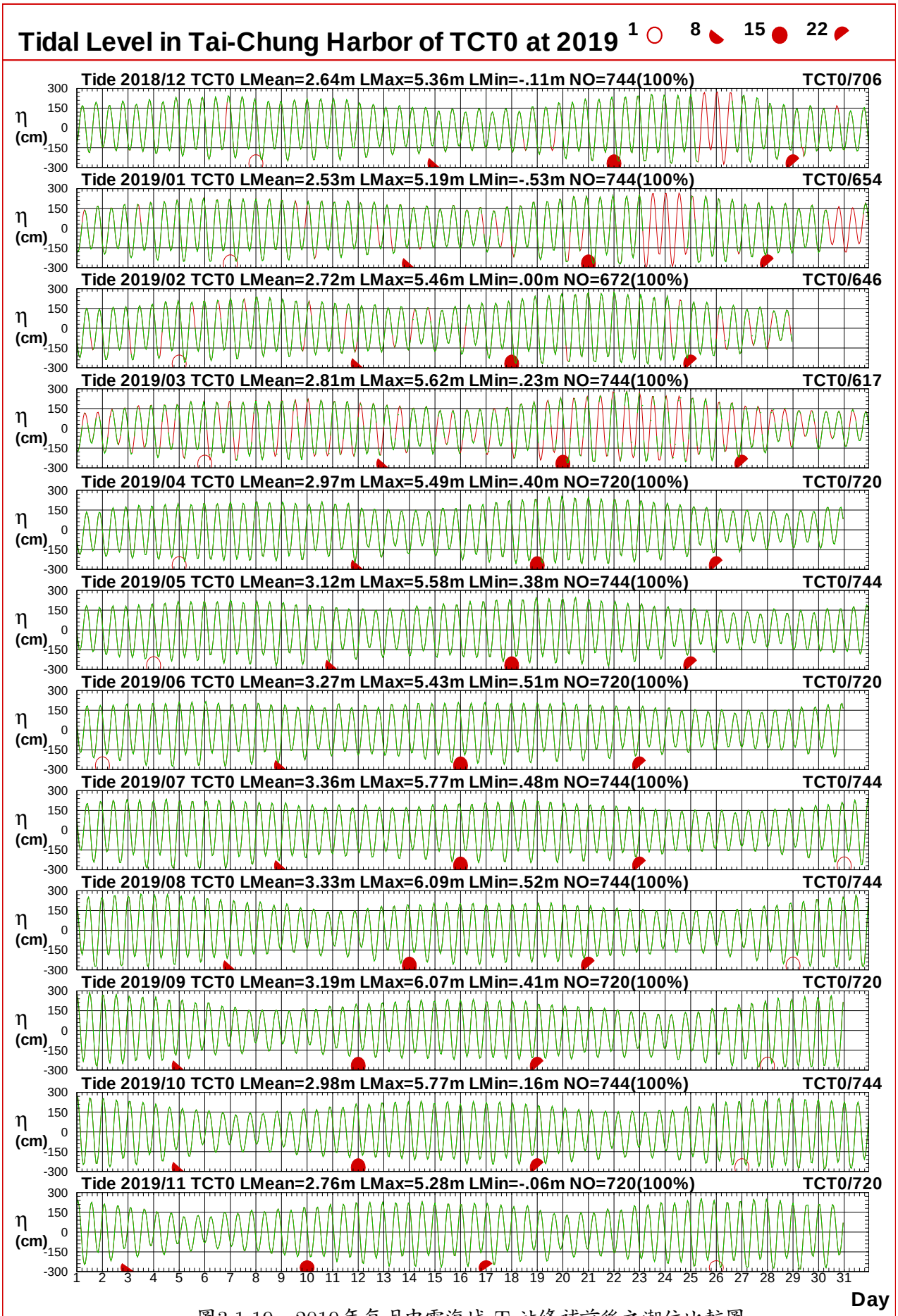

圖3.1.19　2019年每月中雲海域 T 站修補前後之潮位比較圖

T18CTCT0.1HA T18CTCT0.1H0 T191TCT0.1HA T191TCT0.1H0 T192TCT0.1HA T192TCT0.1H0
T193TCT0.1HA T193TCT0.1H0 T194TCT0.1HA T194TCT0.1H0 T195TCT0.1HA T195TCT0.1H0

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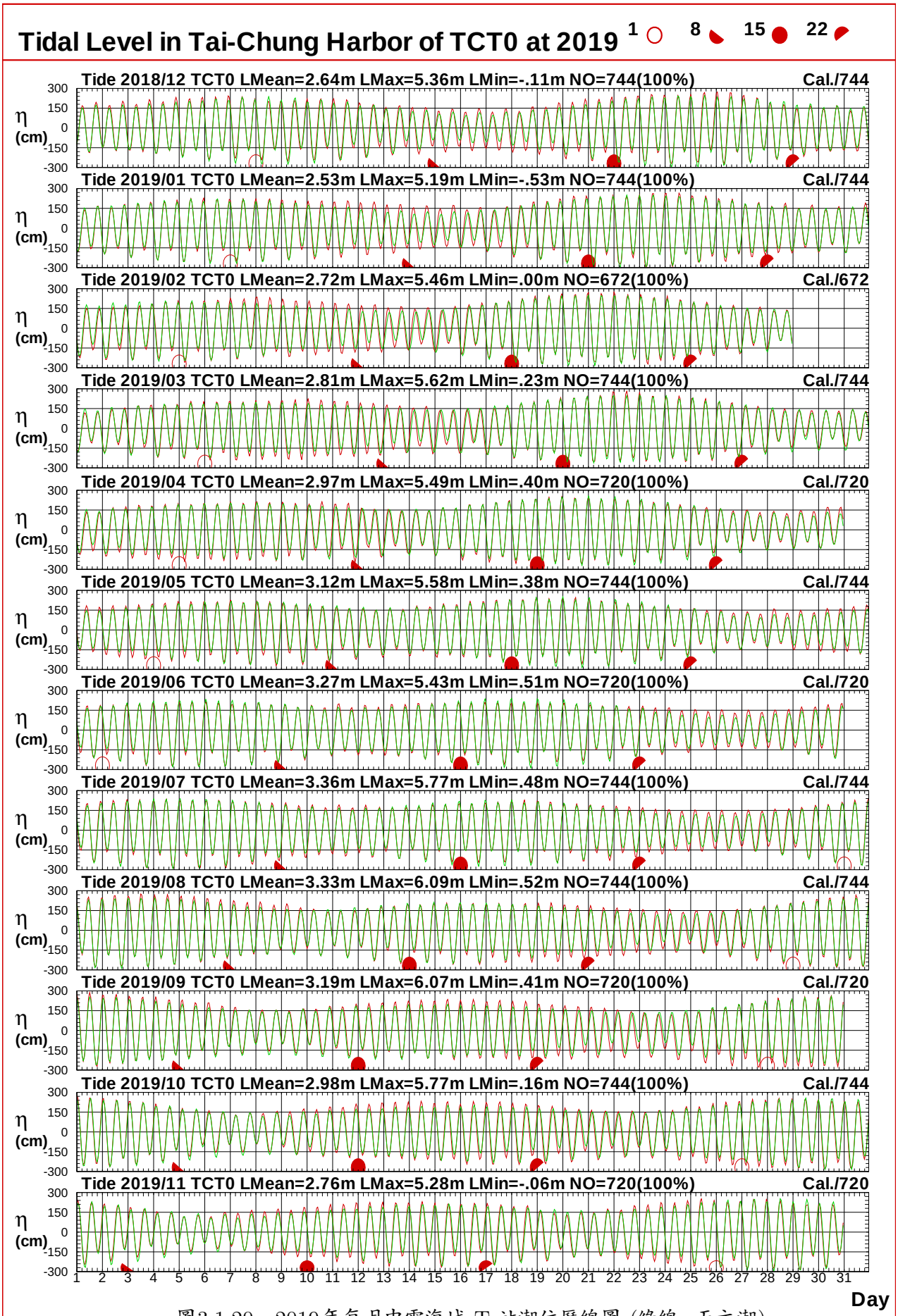

圖3.1.20　2019年每月中雲海域 T 站潮位歷線圖 (綠線: 天文潮)

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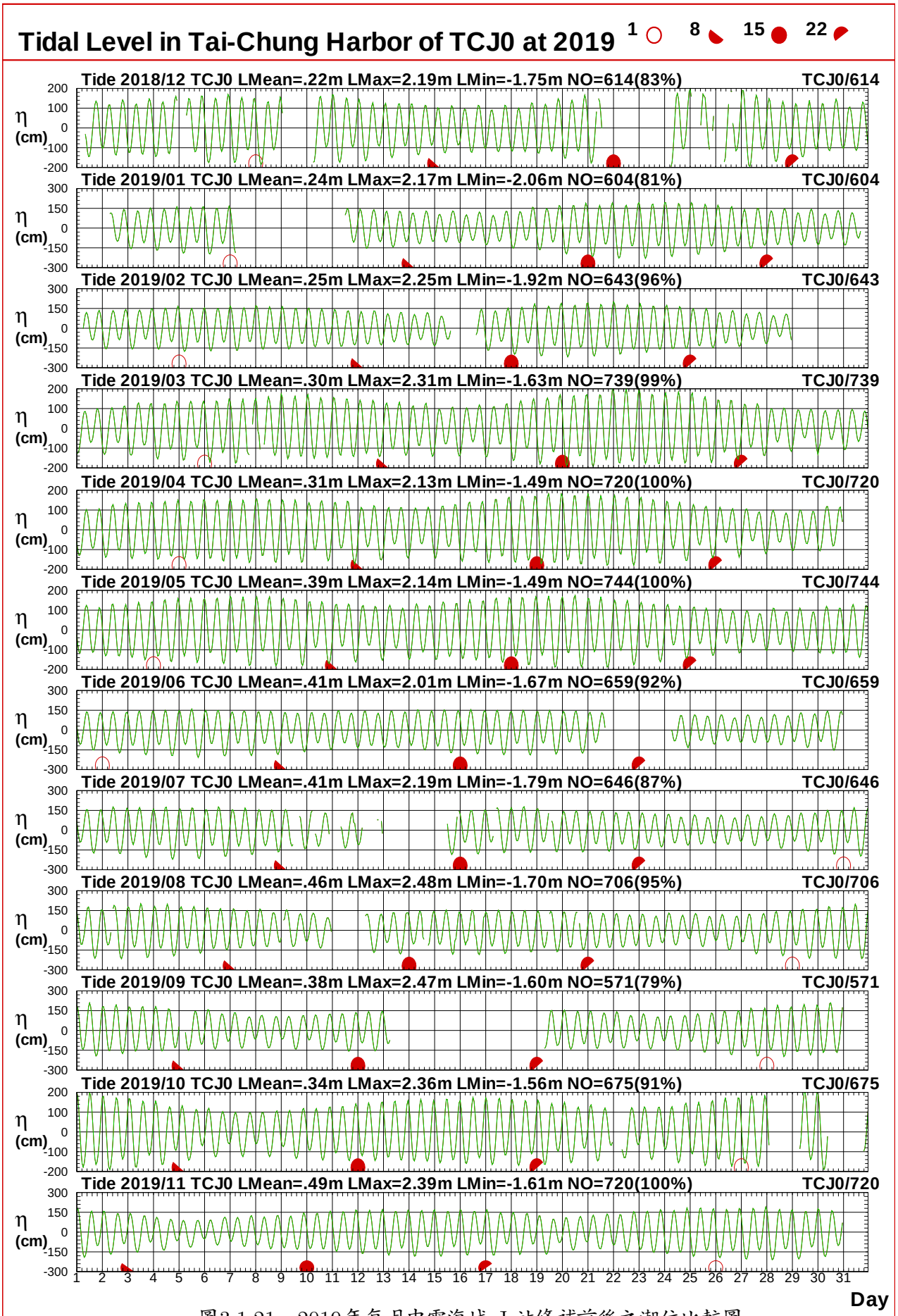

圖3.1.21　2019年每月中雲海域 J 站修補前後之潮位比較圖

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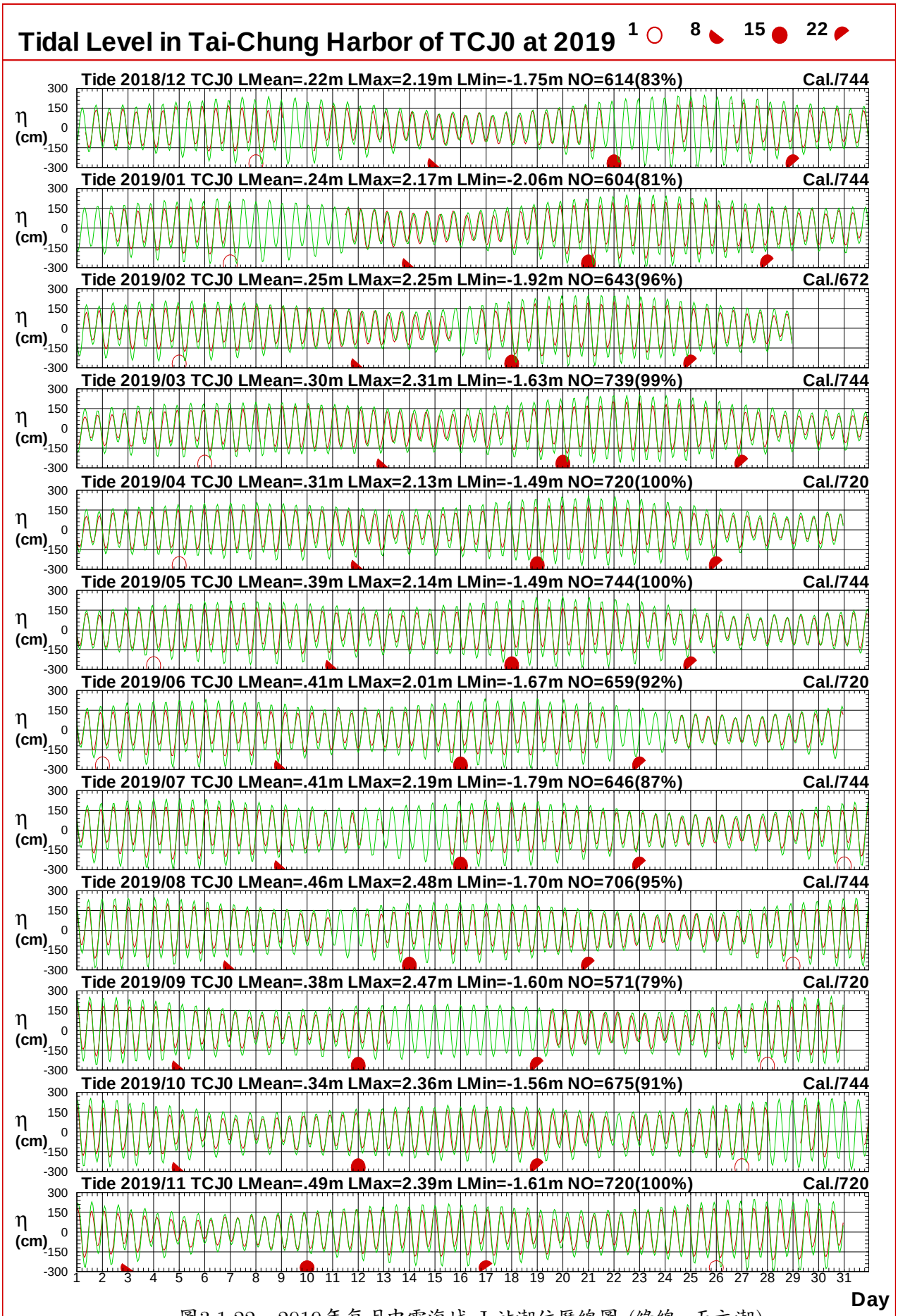

圖3.1.22　2019年每月中雲海域 J 站潮位歷線圖 (綠線: 天文潮)

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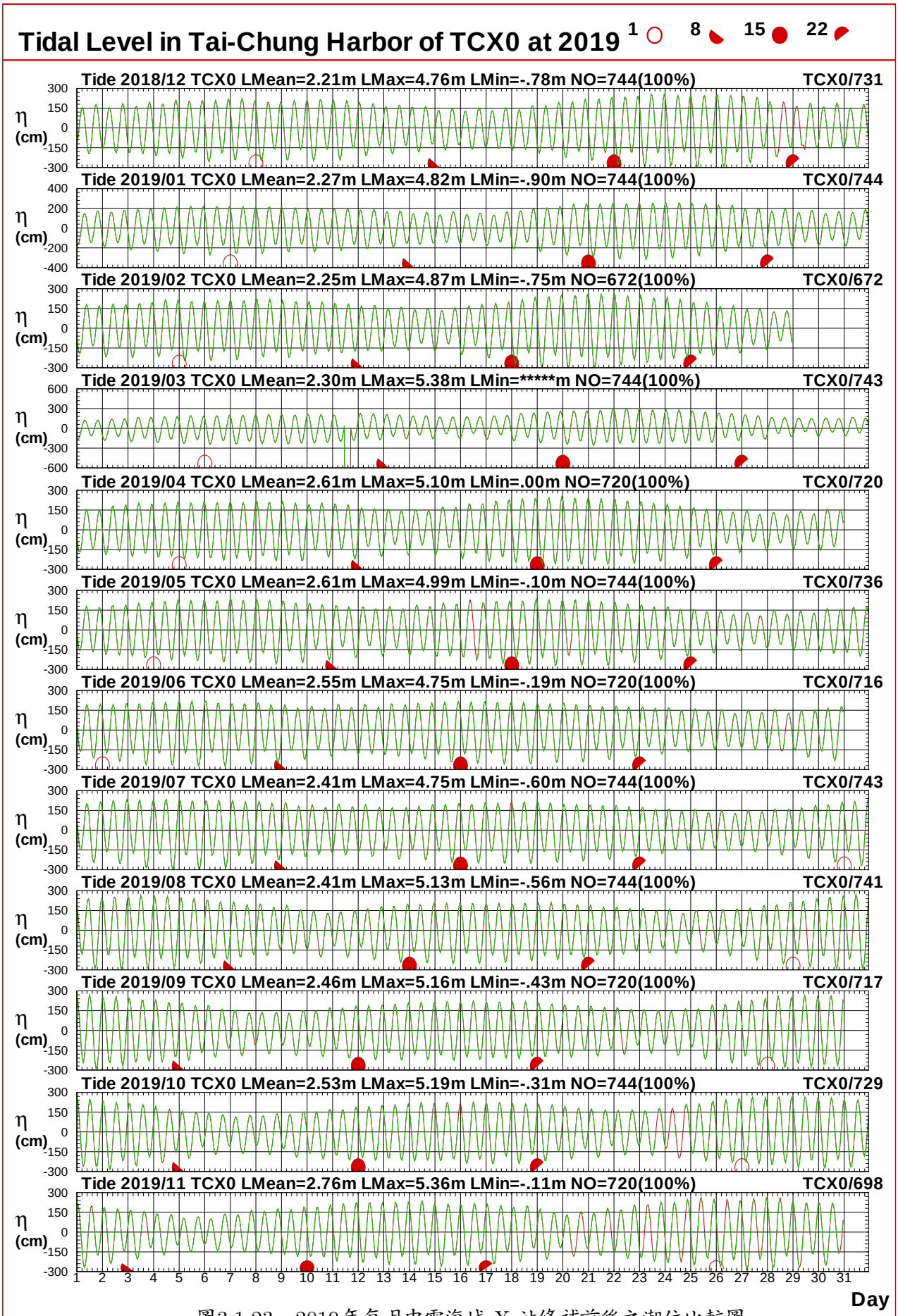

圖3.1.23　2019年每月中雲海域 X 站修補前後之潮位比較圖

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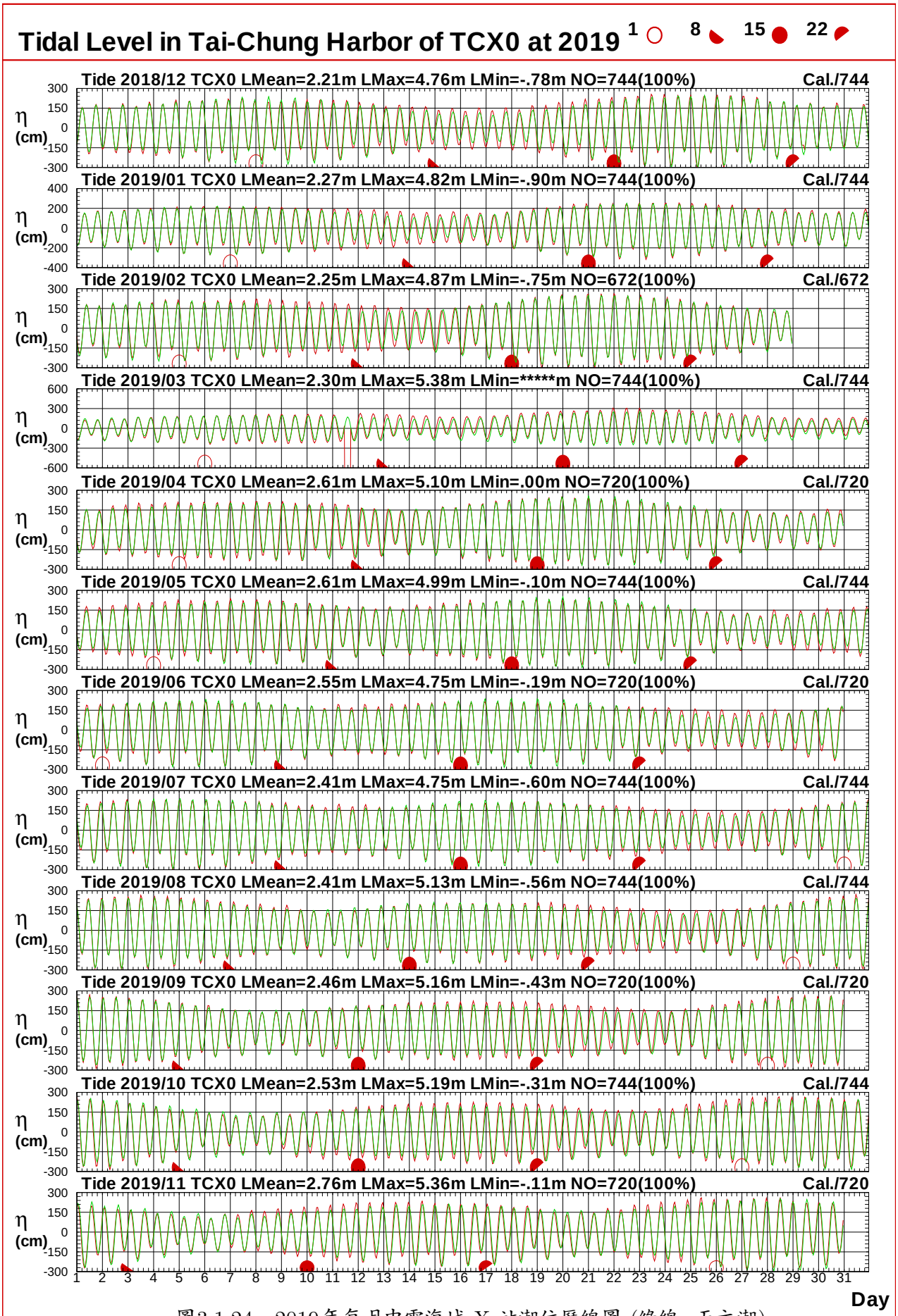

圖3.1.24　2019年每月中雲海域 X 站潮位歷線圖 (綠線: 天文潮)

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T193TCX0.1HA T193TCT0.1HC T194TCX0.1HA T194TCT0.1HC T195TCX0.1HA T195TCT0.1HC

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3.2　2019 年中雲海域各測站修補前

潮汐統計量統計表

表3.2.1　2019年中雲海域 T 站修補前潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3 潮差 (公分)	1/10 潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3 週期 (時)	1/10 週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	T	386	511	459	491	13.4	25.0	15.8	22.6	51	263	518	-5	706(95)	457	491	73	55
2	2019/01	T	396	510	476	504	13.9	26.0	17.4	25.3	43	255	505	-18	654(88)	449	484	59	29
3	2019/02	T	411	516	488	514	14.7	25.0	19.6	25.0	42	272	546	0	646(96)	471	490	71	61
4	2019/03	T	376	448	435	448	21.5	26.0	25.2	26.0	18	284	562	23	617(83)	467	495	98	64
5	2019/04	T	378	505	456	494	12.4	13.0	13.0	13.0	57	297	549	40	720(100)	483	515	107	62
6	2019/05	T	378	493	455	488	12.4	13.0	13.0	13.0	59	312	558	38	744(100)	500	530	122	91
7	2019/06	T	374	489	440	475	12.4	13.0	13.0	13.0	57	327	543	51	720(100)	513	526	139	113
8	2019/07	T	387	511	458	503	12.4	13.0	13.0	13.0	59	336	577	48	744(100)	529	548	141	131
9	2019/08	T	400	544	481	528	12.4	13.0	13.0	13.0	59	333	609	52	744(100)	533	545	132	116
10	2019/09	T	401	538	486	527	12.4	13.0	13.0	13.0	57	319	607	41	720(100)	520	539	119	101
11	2019/10	T	400	524	487	514	12.4	13.0	13.0	13.0	59	298	577	16	744(100)	499	525	99	80
12	2019/11	T	388	520	475	504	12.4	14.0	13.1	13.4	57	276	528	-6	720(100)	472	495	83	62
13	2019/冬	T	388	519	457	493	14.0	25.0	17.7	25.0	138	263	546	-18	2006(93)	459	488	68	49
14	2019/春	T	382	520	453	485	13.6	26.0	16.5	25.0	136	298	562	23	2081(94)	486	516	111	74
15	2019/夏	T	388	544	463	505	12.4	13.0	13.0	13.0	177	332	609	48	2208(100)	525	542	137	120
16	2019/秋	T	397	538	484	518	12.4	13.0	13.0	13.0	175	298	607	-6	2184(100)	497	520	100	81
17	2019/年	T	386	519	441	471	12.9	26.0	14.5	18.0	624	299	609	-18	8479(97)	493	518	105	83

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表3.2.2　2019年中雲海域 J 站修補前潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	J	267	392	315	358	12.8	24.0	13.8	15.8	42	22	219	-175	614(83)	161	170	-105	-129
2	2019/01	J	286	403	355	396	12.5	13.0	13.0	13.0	46	24	217	-206	604(81)	172	197	-112	-140
3	2019/02	J	286	406	351	394	12.4	13.0	13.0	13.0	50	25	225	-192	643(96)	172	184	-111	-119
4	2019/03	J	270	380	336	367	12.4	13.0	13.0	13.0	56	30	231	-163	739(99)	167	188	-100	-125
5	2019/04	J	267	354	322	350	12.4	14.0	13.1	13.2	57	31	213	-149	720(100)	168	192	-98	-123
6	2019/05	J	266	354	321	347	12.4	13.0	13.0	13.0	59	39	214	-149	744(100)	176	197	-90	-111
7	2019/06	J	266	357	319	338	12.4	13.0	13.0	13.0	51	41	201	-167	659(92)	177	185	-89	-104
8	2019/07	J	277	381	335	368	12.7	25.0	13.8	16.0	45	41	219	-179	646(87)	185	202	-91	-101
9	2019/08	J	284	393	339	378	12.6	25.0	13.7	15.4	54	46	248	-170	706(95)	192	197	-93	-101
10	2019/09	J	278	395	352	387	12.8	25.0	13.9	16.0	43	38	247	-160	571(79)	185	203	-95	-108
11	2019/10	J	275	377	333	363	12.7	25.0	13.7	15.4	51	34	236	-156	675(91)	181	193	-98	-109
12	2019/11	J	281	401	348	379	12.4	14.0	13.1	13.4	57	49	239	-161	720(100)	196	213	-85	-99
13	2019/冬	J	281	419	340	384	12.6	25.0	13.5	14.8	138	24	225	-206	1861(86)	168	186	-110	-128
14	2019/春	J	266	380	326	355	12.4	14.0	13.0	13.1	174	33	231	-163	2203(100)	170	192	-96	-120
15	2019/夏	J	275	411	333	370	12.6	25.0	13.5	14.6	152	43	248	-179	2011(91)	185	196	-91	-102
16	2019/秋	J	279	395	345	374	12.6	25.0	13.5	14.6	152	41	247	-161	1966(90)	188	204	-92	-105
17	2019/年	J	274	419	333	366	12.6	25.0	13.4	14.2	619	35	248	-206	8041(92)	178	195	-97	-112

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表3.2.3　2019年中雲海域 X 站修補前潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3 潮差 (公分)	1/10 潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3 週期 (時)	1/10 週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	X	388	548	474	532	12.4	13.0	13.0	13.0	56	221	476	-78	731(98)	416	445	29	6
2	2019/01	X	394	569	485	548	12.4	13.0	13.0	13.0	59	227	482	-90	744(100)	424	457	31	-2
3	2019/02	X	394	557	480	529	12.4	13.0	13.0	13.0	53	225	487	-75	672(100)	421	440	30	12
4	2019/03	X	375	529	472	519	12.4	13.0	13.0	13.0	59	234	538	-2400	743(100)	433	465	61	21
5	2019/04	X	377	508	458	496	12.4	13.0	13.0	13.0	57	261	510	0	720(100)	448	485	73	31
6	2019/05	X	378	495	456	488	13.1	25.0	15.0	20.2	56	261	499	-10	736(99)	450	480	73	39
7	2019/06	X	373	490	446	477	12.6	25.0	13.7	15.4	56	255	475	-19	716(99)	440	460	67	45
8	2019/07	X	383	526	457	509	12.6	25.0	13.6	15.4	58	241	475	-60	743(100)	432	450	48	35
9	2019/08	X	396	551	482	539	12.4	13.0	13.0	13.0	59	242	513	-56	741(100)	439	456	42	29
10	2019/09	X	396	542	482	529	12.6	25.0	13.7	15.4	56	247	516	-43	717(100)	445	466	46	29
11	2019/10	X	397	525	480	511	13.1	25.0	15.1	20.0	53	252	519	-31	729(98)	452	478	54	38
12	2019/11	X	372	517	459	493	14.3	25.0	18.5	25.0	47	275	536	-11	698(97)	466	490	87	64
13	2019/冬	X	391	571	478	535	12.4	13.0	13.0	13.0	170	224	487	-90	2147(99)	420	447	30	5
14	2019/春	X	375	529	461	501	12.6	25.0	13.6	15.1	174	252	538	-2400	2199(100)	444	476	69	30
15	2019/夏	X	384	551	462	509	12.6	25.0	13.4	14.4	175	246	513	-60	2200(100)	437	457	52	35
16	2019/秋	X	391	542	477	519	13.3	25.0	15.5	21.6	158	257	536	-43	2144(98)	454	477	62	44
17	2019/年	X	385	571	469	518	12.7	25.0	13.9	15.9	679	245	538	-2400	8690(99)	439	464	53	29

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表3.2.4　2019年中雲海域 S 站修補前潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	S																	
2	2019/01	S																	
3	2019/02	S																	
4	2019/03	S																	
5	2019/04	S																	
6	2019/05	S																	
7	2019/06	S																	
8	2019/07	S																	
9	2019/08	S																	
10	2019/09	S	395	529	504	525	12.5	13.0	13.0	13.0	23	489	762	215	298(41)	689	736	291	243
11	2019/10	S	393	524	480	513	12.4	14.0	13.1	13.2	59	485	756	200	744(100)	683	707	290	271
12	2019/11	S	382	522	468	504	12.4	14.0	13.1	13.2	57	478	731	186	720(100)	671	695	288	266
13	2019/冬	S																	
14	2019/春	S																	
15	2019/夏	S																	
16	2019/秋	S																	
17	2019/年	S																	

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表3.2.5　2019年中雲海域 P 站修補前潮差週期及潮位重要統計量統計表

序號	日期 (年/月)	測站	平均潮差 (公分)	最大潮差 (公分)	1/3潮差 (公分)	1/10潮差 (公分)	平均週期 (時)	最大週期 (時)	1/3週期 (時)	1/10週期 (時)	潮差個數 (個)	平均潮位 (公分)	最高潮位 (公分)	最低潮位 (公分)	水位點數 (個)(%)	平均高潮位 (公分)	大潮平均高潮位 (公分)	平均低潮位 (公分)	大潮平均低潮位 (公分)
1	2018/12	P	255	314	291	307	16.5	25.0	24.7	25.0	36	-323	-99	-424	657(88)	-161	-135	-422	-422
2	2019/01	P	256	314	288	309	14.7	27.0	20.5	25.7	38	-321	-101	-423	744(100)	-160	-129	-422	-422
3	2019/02	P	267	329	305	325	14.8	28.0	20.6	26.8	42	-321	-93	-423	672(100)	-158	-139	-422	-422
4	2019/03	P	254	301	287	297	15.5	26.0	22.2	25.5	28	-323	-80	-699	705(95)	-171	-139	-429	-422
5	2019/04	P	266	319	301	315	15.5	25.0	22.1	25.0	41	-318	-102	-423	699(97)	-168	-159	-421	-421
6	2019/05	P	281	323	306	315	15.4	26.0	22.5	25.5	41	-314	-99	-422	744(100)	-155	-126	-421	-421
7	2019/06	P	274	296	287	293	15.3	26.0	22.3	25.5	29	-311	-126	-422	593(82)	-156	-143	-414	-421
8	2019/07	P	286	309	309	0	15.0	24.0	24.0	.0	5	-301	-103	-422	131(18)	-127	-129	-421	-421
9	2019/08	P	281	347	322	344	14.9	26.0	20.7	25.3	35	-280	-41	-422	651(88)	-127	-148	-393	-387
10	2019/09	P	277	345	313	334	15.1	27.0	21.8	26.5	42	-277	-40	-390	720(100)	-109	-90	-388	-388
11	2019/10	P	271	340	317	335	14.1	28.0	19.3	26.3	44	-297	-41	-423	716(96)	-127	-107	-404	-408
12	2019/11	P	256	305	288	298	15.2	26.0	21.1	25.3	36	-320	-105	-424	682(95)	-162	-136	-422	-422
13	2019/冬	P	261	322	299	316	15.3	25.0	21.3	25.0	116	-322	-93	-424	2073(96)	-160	-135	-422	-422
14	2019/春	P	258	341	299	318	15.6	26.0	22.0	25.2	111	-318	-80	-699	2148(97)	-164	-141	-424	-421
15	2019/夏	P	267	312	295	308	15.1	26.0	20.8	25.3	69	-295	-41	-422	1375(62)	-140	-140	-404	-407
16	2019/秋	P	280	348	324	339	14.6	28.0	20.4	26.4	124	-298	-40	-424	2118(97)	-132	-110	-405	-404
17	2019/年	P	257	381	304	328	15.2	26.0	21.1	25.1	420	-309	-40	-699	7714(88)	-150	-131	-414	-413

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3.3　2019 年中雲海域主要測站 1(修補後)與其他測站(修補前)潮位歷線比較圖

Tidal Level in Chung-Yun Seas of TCT0 at 2019

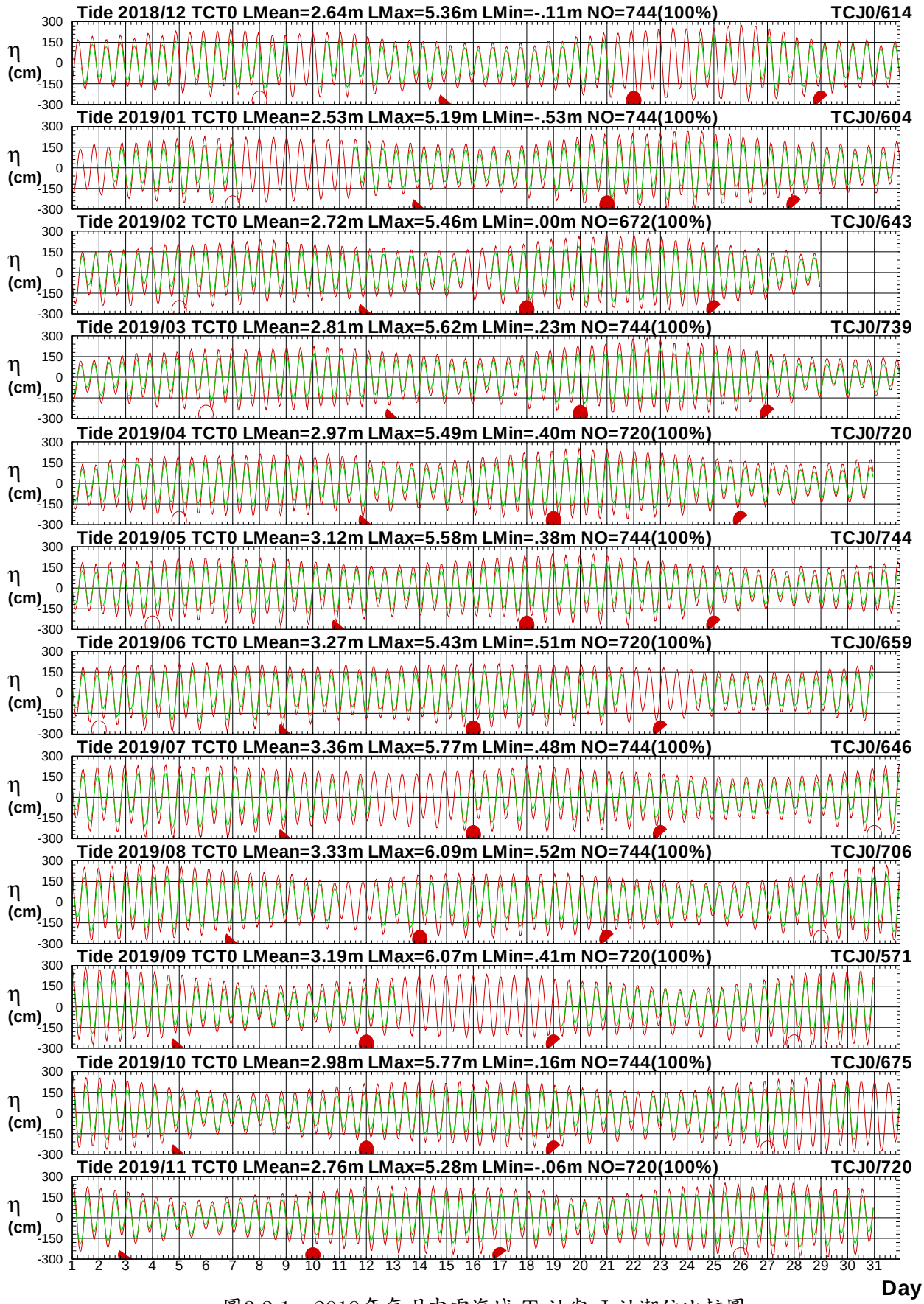

圖3.3.1　2019年每月中雲海域 T 站與 J 站潮位比較圖

T18CTCT0.1HA T18CTCJ0.1H0 T191TCT0.1HA T191TCJ0.1H0 T192TCT0.1HA T192TCJ0.1H0
T193TCT0.1HA T193TCJ0.1H0 T194TCT0.1HA T194TCJ0.1H0 T195TCT0.1HA T195TCJ0.1H0

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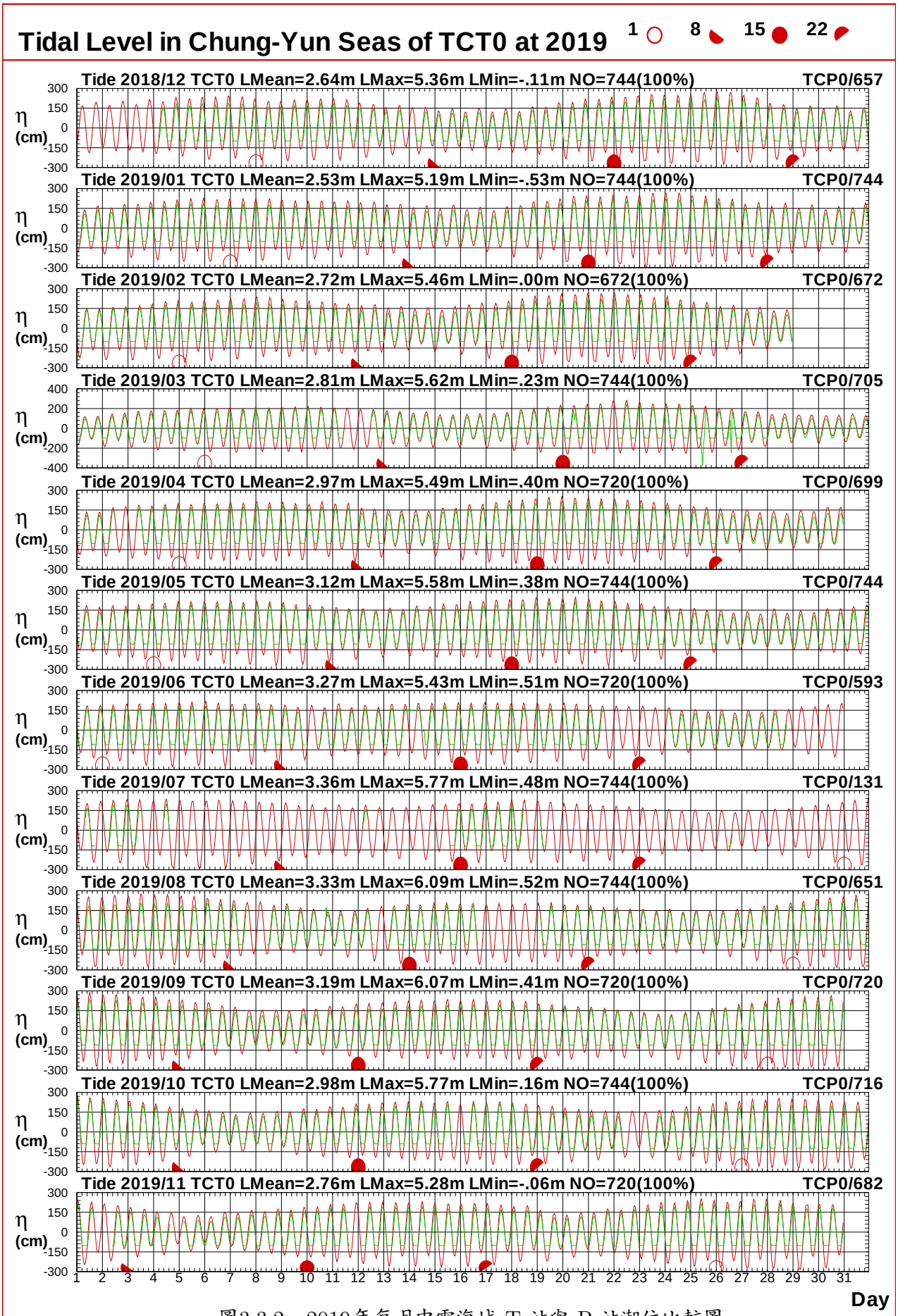

圖3.3.2　2019年每月中雲海域 T 站與 P 站潮位比較圖

T18CTCT0.1HA T18CTCP0.1H0 T191TCT0.1HA T191TCP0.1H0 T192TCT0.1HA T192TCP0.1H0
T193TCT0.1HA T193TCP0.1H0 T194TCT0.1HA T194TCP0.1H0 T195TCT0.1HA T195TCP0.1H0

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Tidal Level in Chung-Yun Seas of TCT0 at 2019

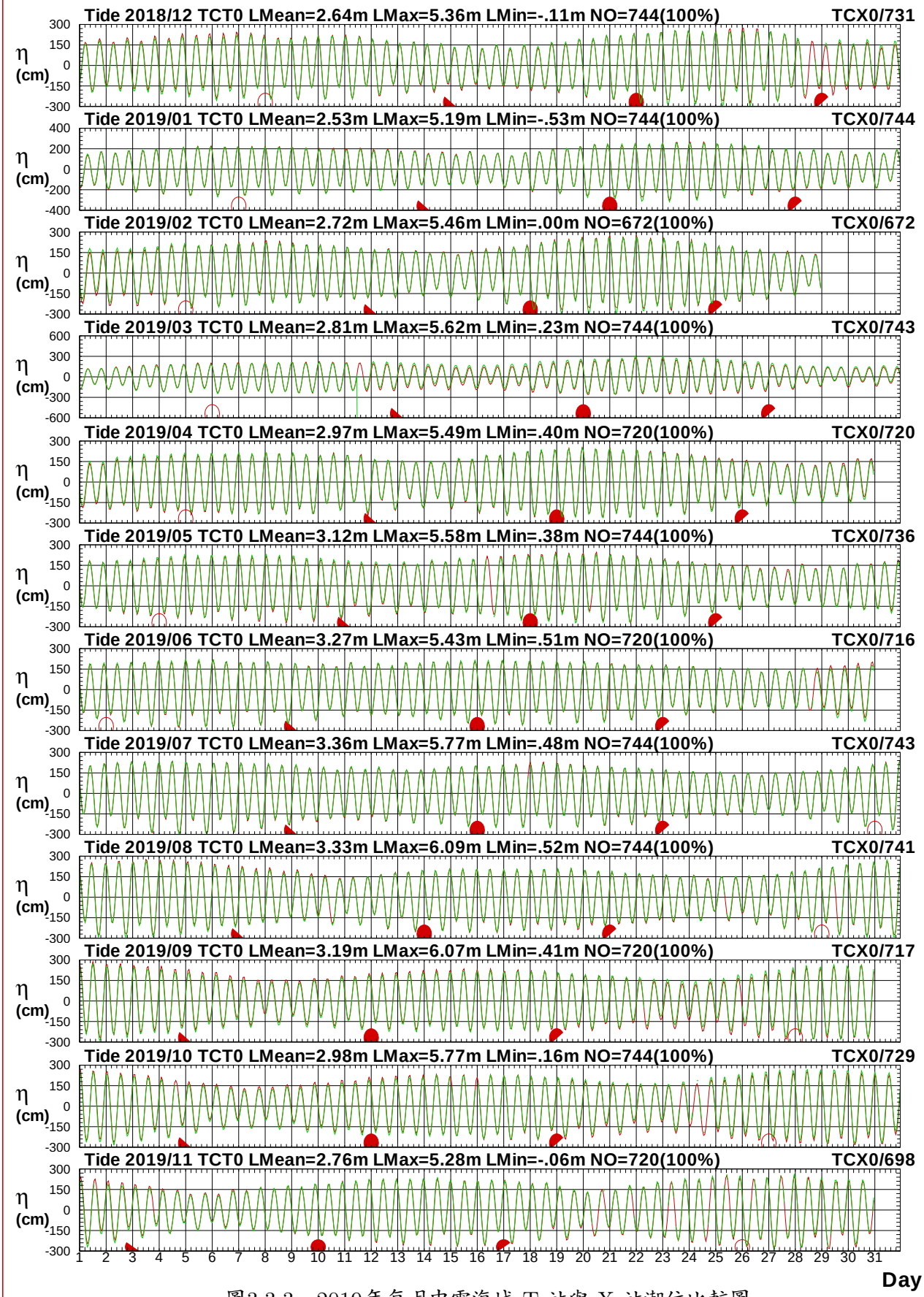

圖3.3.3　2019年每月中雲海域 T 站與 X 站潮位比較圖

T18CTCT0.1HA T18CTCX0.1H0 T191TCT0.1HA T191TCX0.1H0 T192TCT0.1HA T192TCX0.1H0
T193TCT0.1HA T193TCX0.1H0 T194TCT0.1HA T194TCX0.1H0 T195TCT0.1HA T195TCX0.1H0

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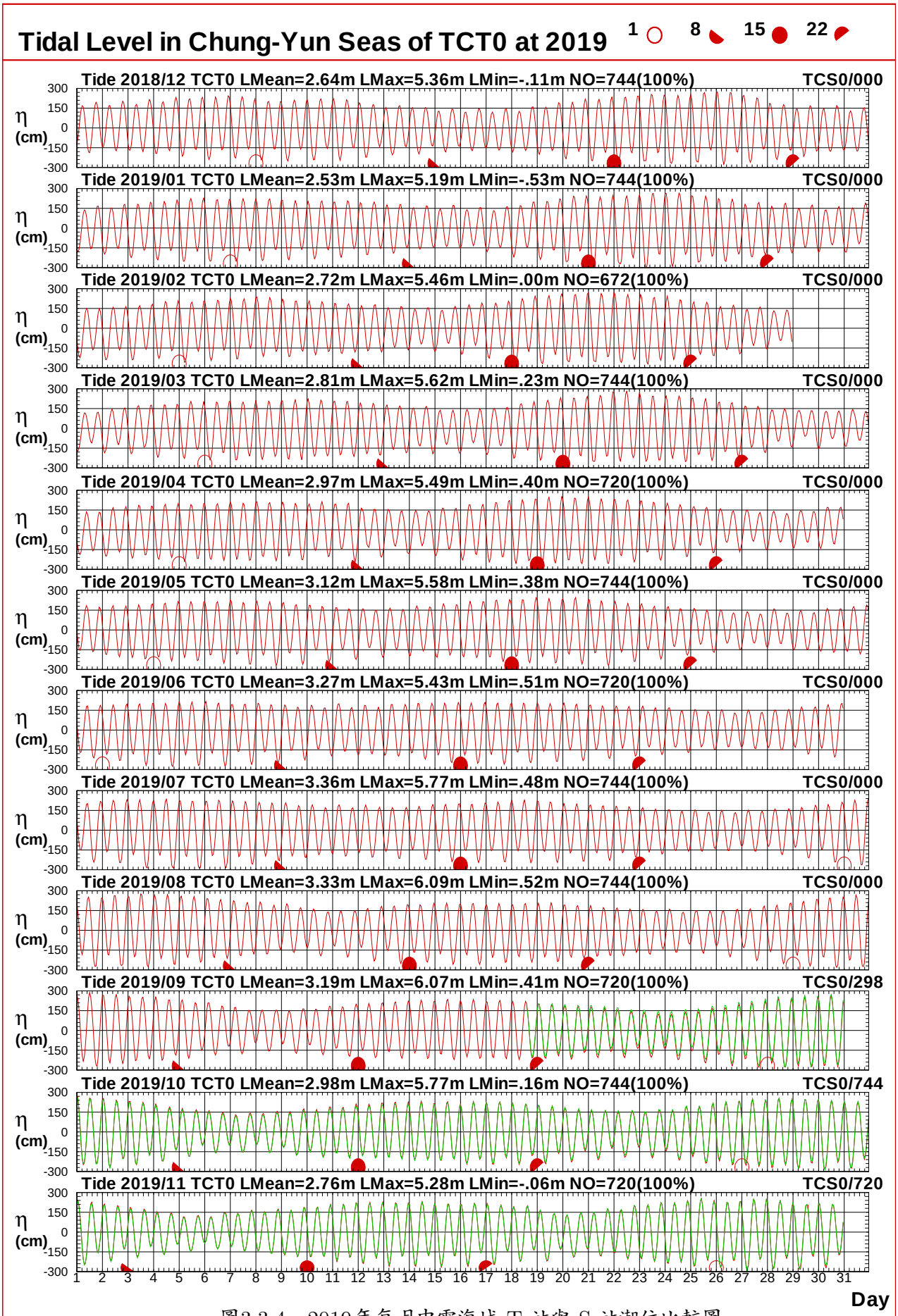

圖3.3.4　2019年每月中雲海域 T 站與 S 站潮位比較圖

T18CTCT0.1HA T18CTCS0.1H0 T191TCT0.1HA T191TCS0.1H0 T192TCT0.1HA T192TCS0.1H0
T193TCT0.1HA T193TCS0.1H0 T194TCT0.1HA T194TCS0.1H0 T195TCT0.1HA T195TCS0.1H0

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3.4　2019 年中雲海域主要測站 2(修補後)與其他測站(修補前)潮位歷線比較圖

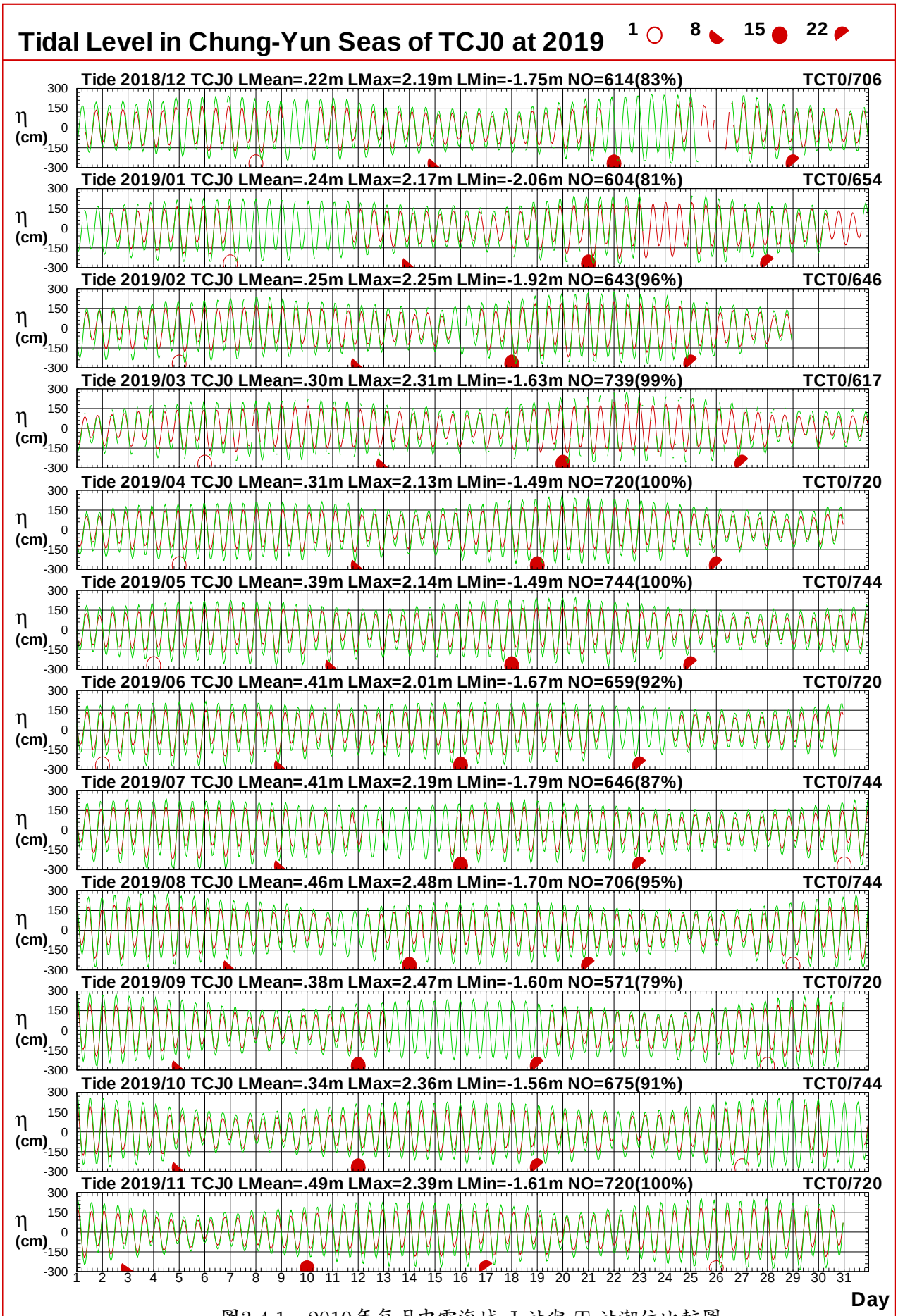

圖3.4.1　2019年每月中雲海域 J 站與 T 站潮位比較圖

T18CTCJ0.1HA T18CTCT0.1H0 T191TCJ0.1HA T191TCT0.1H0 T192TCJ0.1HA T192TCT0.1H0
T193TCJ0.1HA T193TCT0.1H0 T194TCJ0.1HA T194TCT0.1H0 T195TCJ0.1HA T195TCT0.1H0

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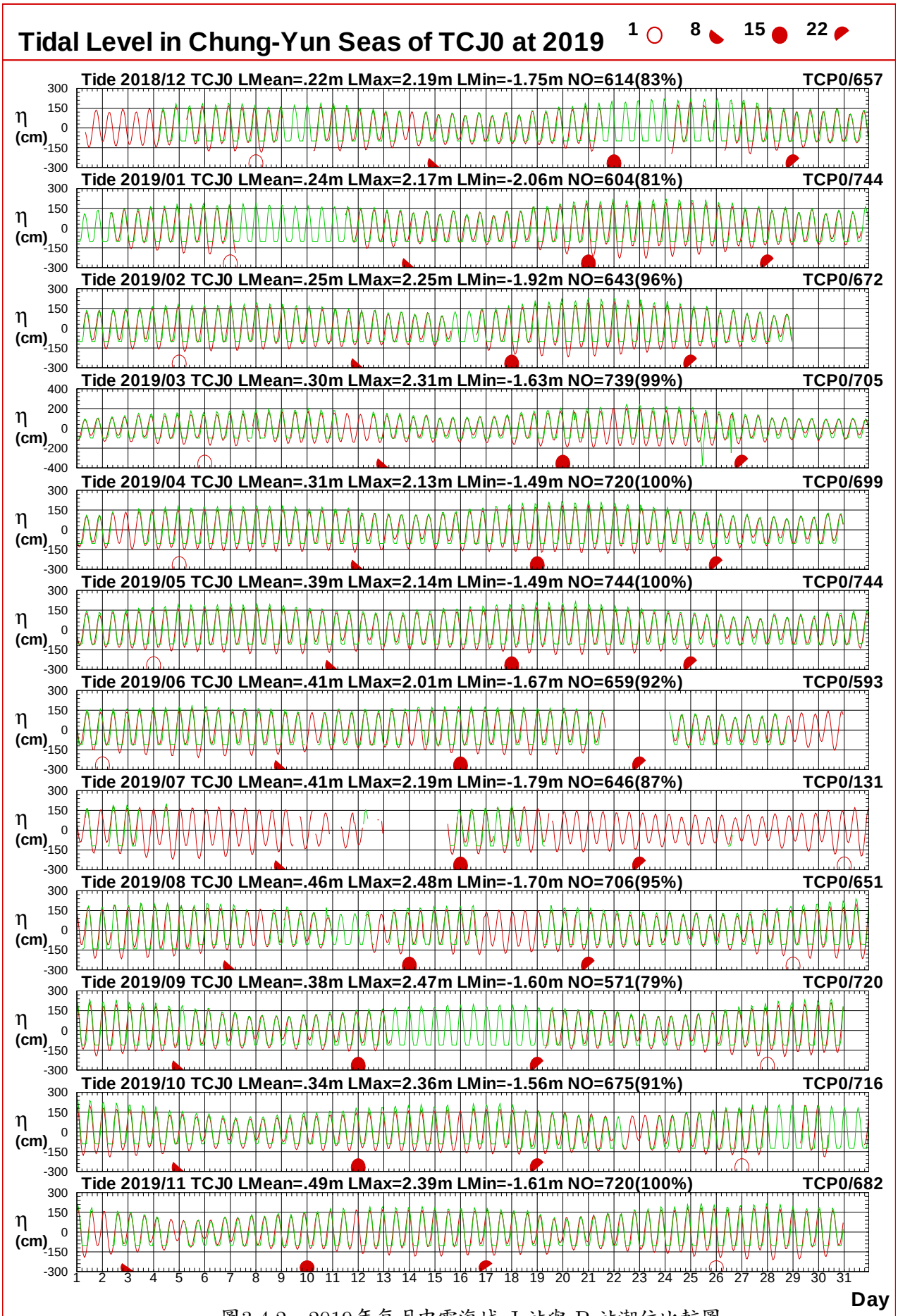

圖3.4.2　2019年每月中雲海域 J 站與 P 站潮位比較圖

T18CTCJ0.1HA T18CTCP0.1H0 T191TCJ0.1HA T191TCP0.1H0 T192TCJ0.1HA T192TCP0.1H0
T193TCJ0.1HA T193TCP0.1H0 T194TCJ0.1HA T194TCP0.1H0 T195TCJ0.1HA T195TCP0.1H0

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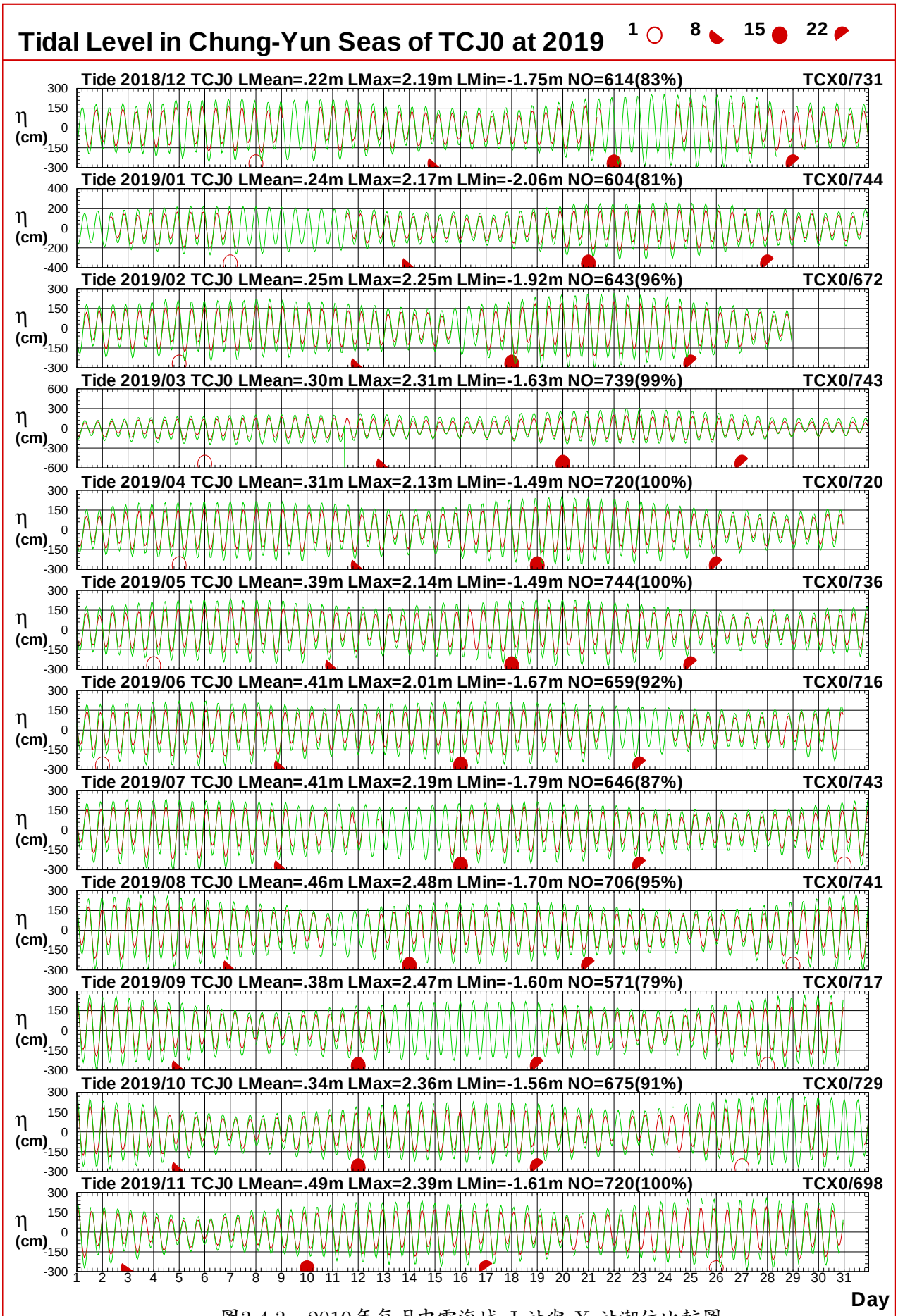

圖3.4.3　2019年每月中雲海域 J 站與 X 站潮位比較圖

T18CTCJ0.1HA T18CTCX0.1H0 T191TCJ0.1HA T191TCX0.1H0 T192TCJ0.1HA T192TCX0.1H0
T193TCJ0.1HA T193TCX0.1H0 T194TCJ0.1HA T194TCX0.1H0 T195TCJ0.1HA T195TCX0.1H0

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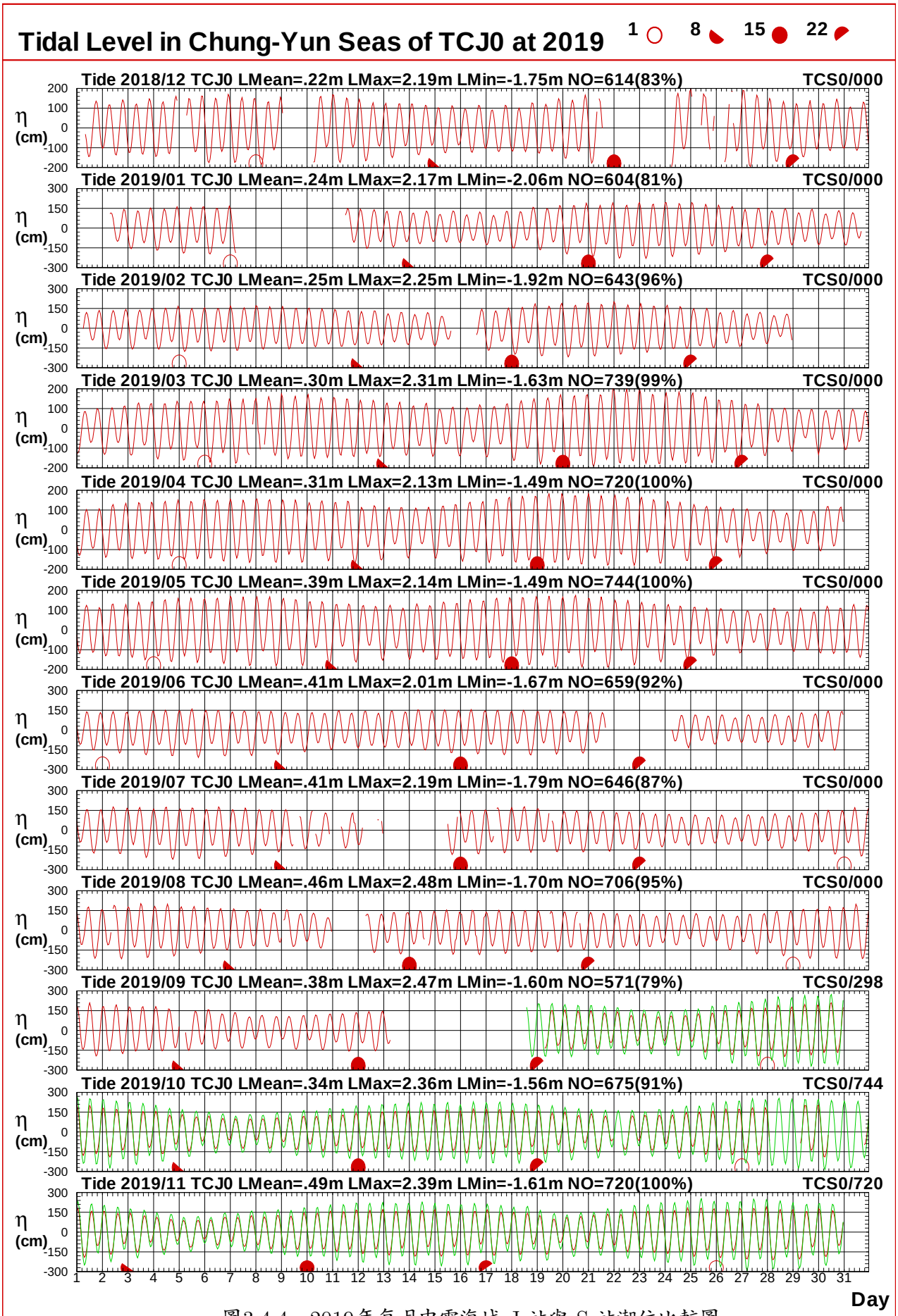

圖3.4.4　2019年每月中雲海域 J 站與 S 站潮位比較圖

T18CTCJ0.1HA T18CTCS0.1H0 T191TCJ0.1HA T191TCS0.1H0 T192TCJ0.1HA T192TCS0.1H0
T193TCJ0.1HA T193TCS0.1H0 T194TCJ0.1HA T194TCS0.1H0 T195TCJ0.1HA T195TCS0.1H0

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3.5　2019 年中雲海域主要測站 3(修補後)與其他測站(修補前)潮位歷線比較圖

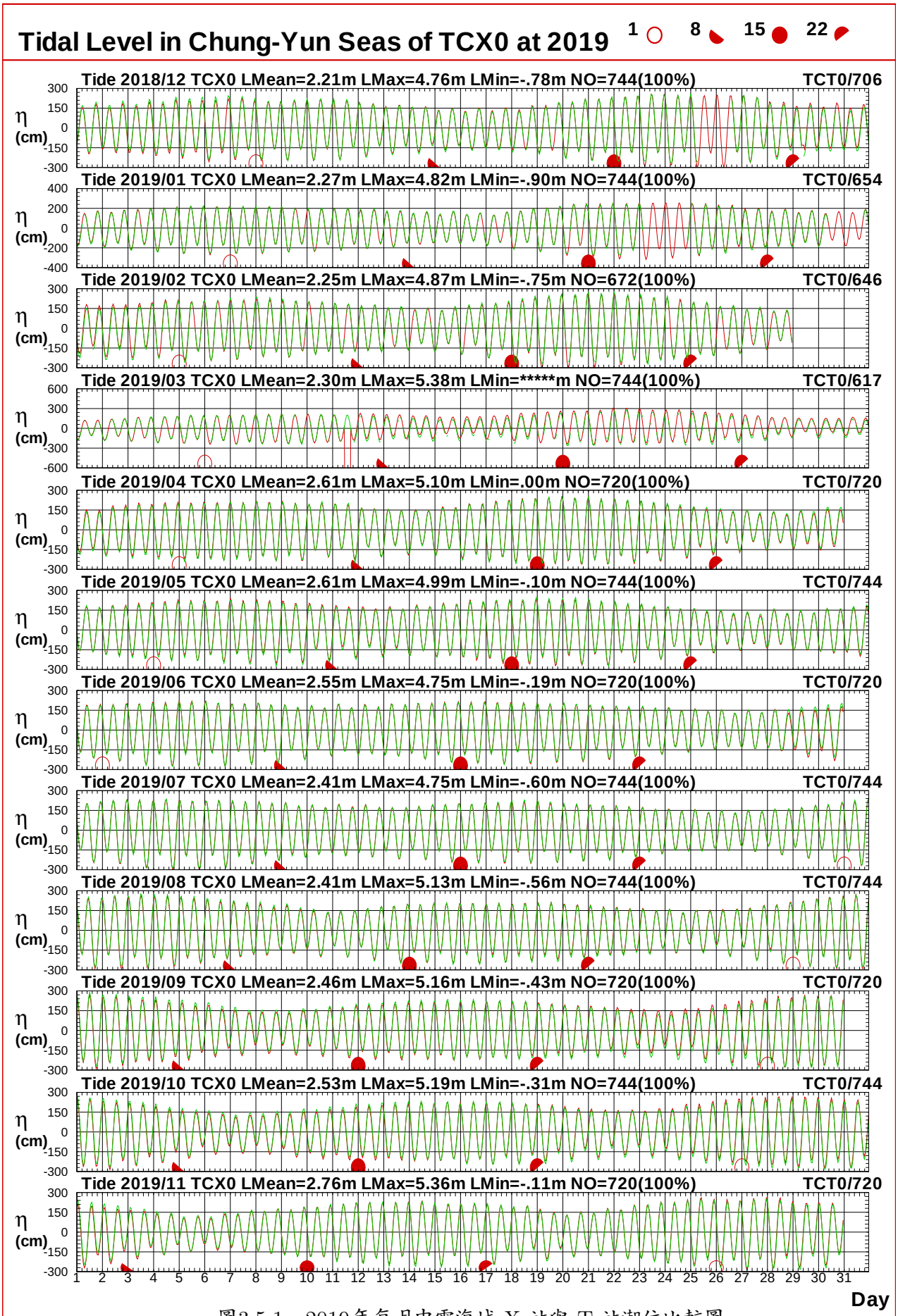

圖3.5.1　2019年每月中雲海域 X 站與 T 站潮位比較圖

T18CTCX0.1HA T18CTCT0.1H0 T191TCX0.1HA T191TCT0.1H0 T192TCX0.1HA T192TCT0.1H0
T193TCX0.1HA T193TCT0.1H0 T194TCX0.1HA T194TCT0.1H0 T195TCX0.1HA T195TCT0.1H0

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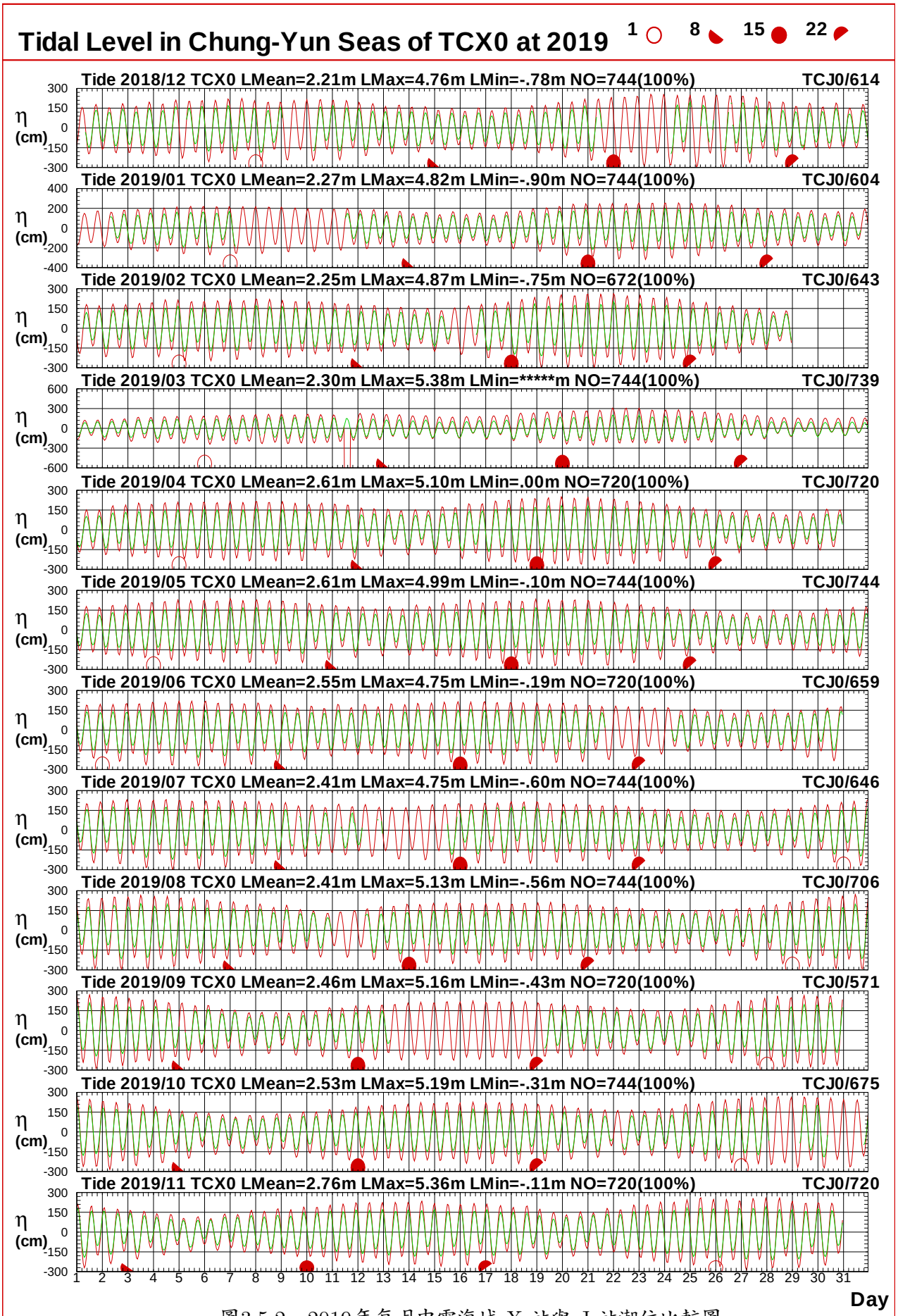

圖3.5.2　2019年每月中雲海域 X 站與 J 站潮位比較圖

T18CTCX0.1HA T18CTCJ0.1H0 T191TCX0.1HA T191TCJ0.1H0 T192TCX0.1HA T192TCJ0.1H0
T193TCX0.1HA T193TCJ0.1H0 T194TCX0.1HA T194TCJ0.1H0 T195TCX0.1HA T195TCJ0.1H0

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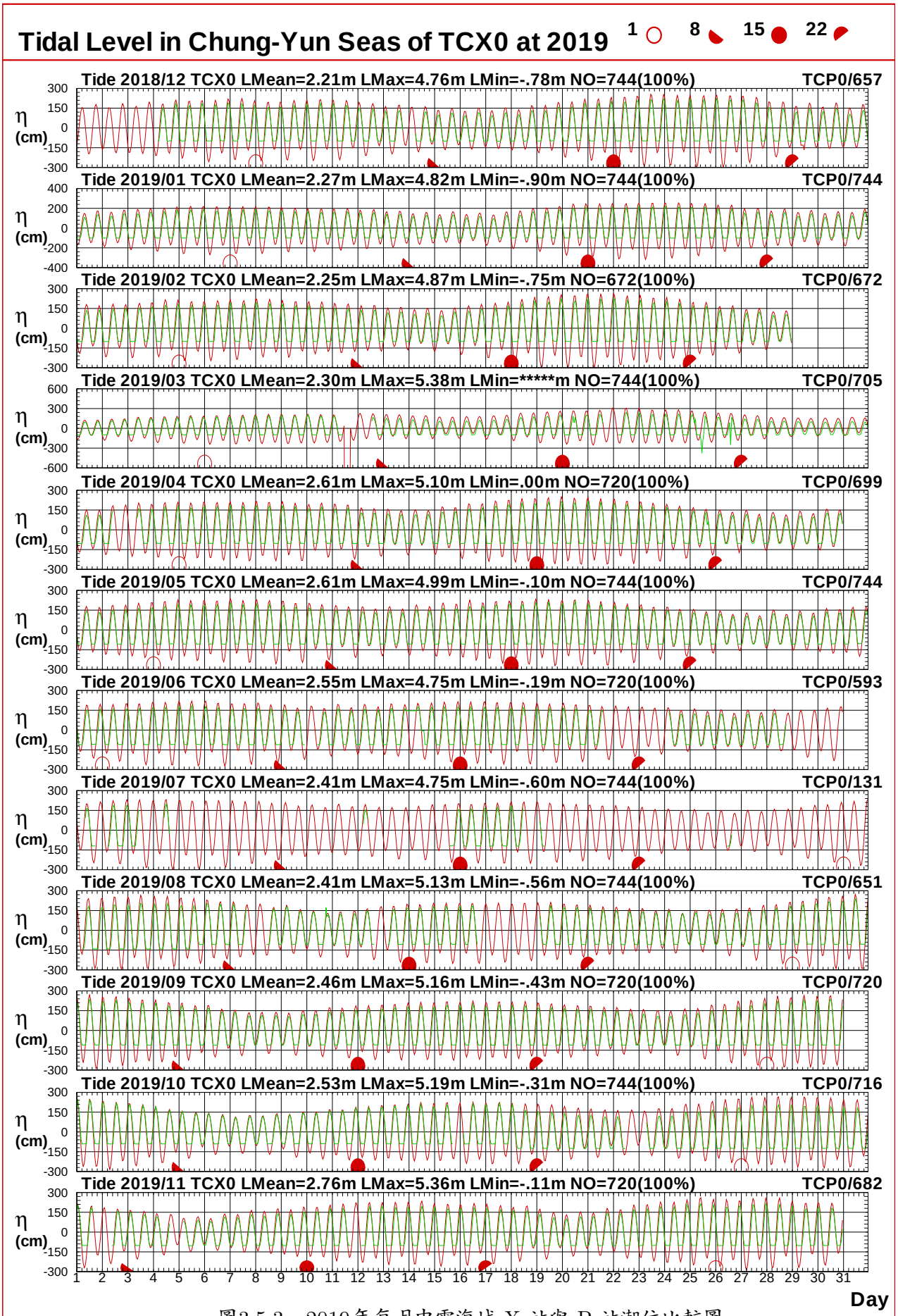

圖3.5.3　2019年每月中雲海域 X 站與 P 站潮位比較圖

T18CTCX0.1HA T18CTCP0.1H0 T191TCX0.1HA T191TCP0.1H0 T192TCX0.1HA T192TCP0.1H0
T193TCX0.1HA T193TCP0.1H0 T194TCX0.1HA T194TCP0.1H0 T195TCX0.1HA T195TCP0.1H0

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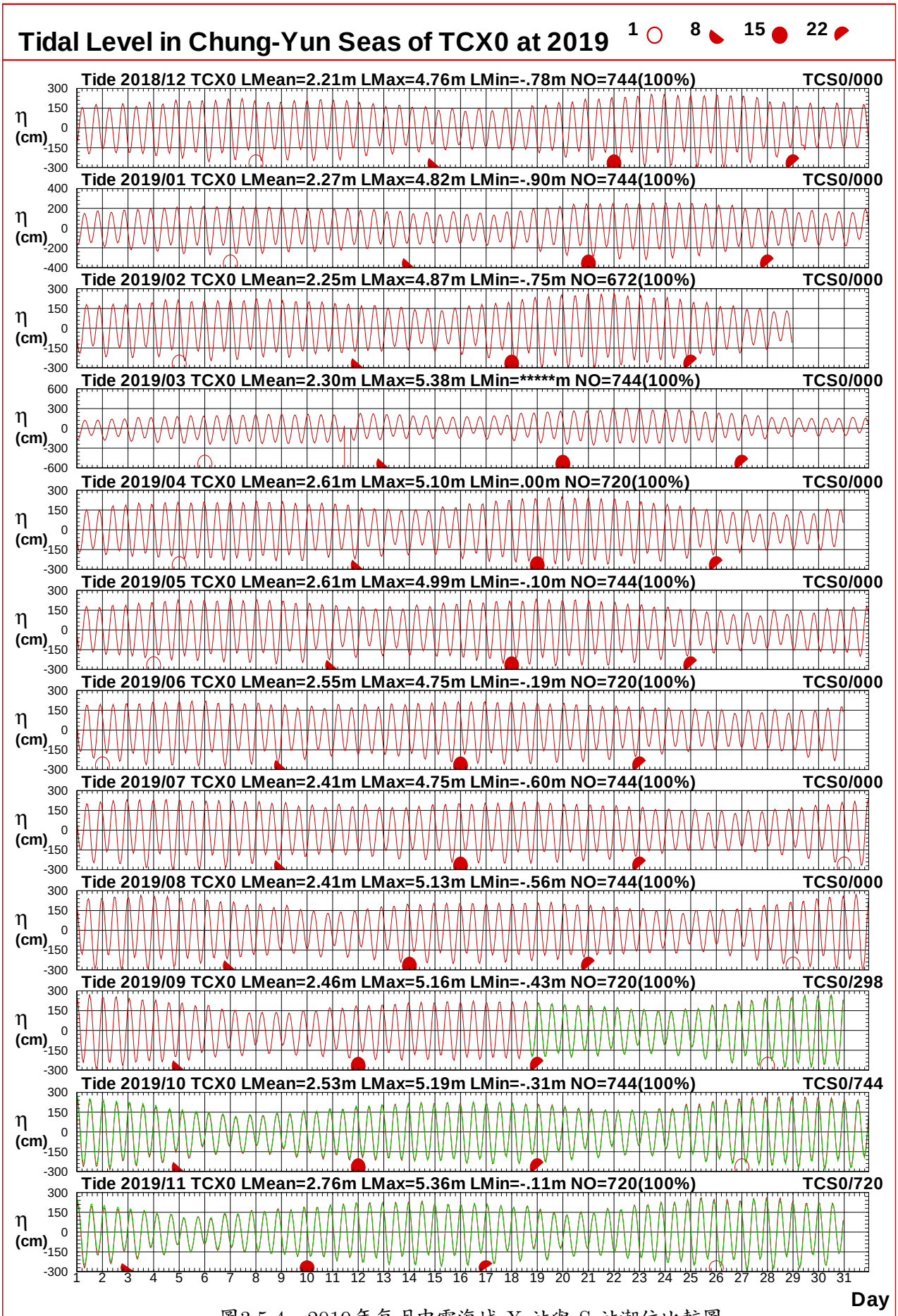

圖3.5.4　2019年每月中雲海域 X 站與 S 站潮位比較圖

T18CTCX0.1HA T18CTCS0.1H0 T191TCX0.1HA T191TCS0.1H0 T192TCX0.1HA T192TCS0.1H0
T193TCX0.1HA T193TCS0.1H0 T194TCX0.1HA T194TCS0.1H0 T195TCX0.1HA T195TCS0.1H0

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第四章　2019 年中雲海域觀測海流資料年報

2019 年中雲海域海流之觀測僅 **X** 測站(測站位置如第 O 章圖 CG1，測站歷年觀測海流資料蒐集概況如表 CG1)。

本年報利用調和分析方法**觀測海流可分解為:**

(1)計算潮流(包括平均流)。

(2)計算殘(餘)流(或稱非潮流)。

4.1　2019 年中雲海域觀測海流資料年報圖表

本章第 1 節**海流**年報資料處理之統計表包括:

1. 表 1.1.1a　2019 年**各觀測站**每月**觀測海流**資料記錄表。
2. 表 1.1.1b　2019 年**各觀測站**每月**計算潮流**資料記錄表。

本章第 2 節海流年報資料處理之統計表包括:

1. 2019 年**各觀測站**每月**觀測**流速及流向重要統計量統計表。
2. 2019 年**各觀測站**每月**計算潮流**流速及流向重要統計量統計表。
3. 2019 年**各觀測站**每月**計算殘(餘)流**流速及流向重要統計量統計表。

本章第 3 節海流年報資料處理之統計圖包括:

1. 2019 年**各觀測站**之**觀測海流**與**計算潮流**歷線比較圖。
2. 2019 年**各觀測站**之**觀測海流**與**計算殘(餘)流**歷線比較圖。

本章第 4 節海流年報資料處理之統計圖包括:2019 年**各觀測站**之**觀測海流、計算潮流**及**計算殘流**等 3 個向量分佈圖。

本章第 5 節海流年報資料處理之統計圖包括:2019 年**各觀測站**之**觀測海流、計算潮流**及**計算殘流**等 3 個向量行進圖。

表4.1.1a 2019年每月臺中海域各測站觀測海流資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	X											
2018/12月	743(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 3月	738(99.2%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 4月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 5月	738(99.2%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 6月	718(99.7%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/11月	719(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/冬季	2159(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/春季	2196(99.5%)	*	*	*	*	*	*	*	*	*	*	*
2019/夏季	2206(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/秋季	2183(99.9%)	*	*	*	*	*	*	*	*	*	*	*
2019/整年	8744(99.8%)	*	*	*	*	*	*	*	*	*	*	*
起始年月	2018/12	*	*	*	*	*	*	*	*	*	*	*
結束年月	2019/11	*	*	*	*	*	*	*	*	*	*	*

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表4.1.1b 2019年每月臺中海域計算潮流各測站資料紀錄表

海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域	中雲海域
年月/測站	X											
2018/12月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 3月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 4月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 5月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 6月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/11月	720(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/春季	2208(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/夏季	2208(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/秋季	2184(100%)	*	*	*	*	*	*	*	*	*	*	*
2019/整年	8760(100%)	*	*	*	*	*	*	*	*	*	*	*
起始年月	2018/12	*	*	*	*	*	*	*	*	*	*	*
結束年月	2019/11	*	*	*	*	*	*	*	*	*	*	*

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4.2　2019 年中雲海域各測站觀測海流與計算潮流(殘流)統計量統計表

表4.2.1a　2019年中雲海域 X 站觀測流速及流向重要統計量統計表

序號	日期 (年/月)	觀測點數	流速平均值 (cm/s)	平均流 流速/流向 (cm/s)/(來向)	最大流 流速/流向 (cm/s)/(來向)	1/2節流 <25.7 (%)	1節流 ~51.4 (%)	2節流 ~103 (%)	大流 >103 (%)	流向 N~E (%)	流向 E~S (%)	流向 S~W (%)	流向 W~N (%)	主要流向 方向/百分比
1	2018/12	743(100%)	49.0	35.4/W	121.0/WSW	23.6	38.5	32.0	5.9	23.8	.5	61.4	14.3	WSW/53.0%
2	2019/01	744(100%)	39.1	24.4/W	105.0/WSW	27.8	47.6	24.2	.4	25.8	.1	50.8	23.3	WSW/40.9%
3	2019/02	672(100%)	28.8	12.2/NW	86.0/WSW	48.4	41.7	10.0	.0	31.1	1.2	46.1	21.6	WSW/32.0%
4	2019/03	738(99%)	31.0	17.4/NNW	79.0/WSW	43.4	43.6	13.0	.0	40.9	.4	24.1	34.6	NNE/23.4%
5	2019/04	720(100%)	32.8	24.8/N	81.0/NNW	40.6	41.7	17.8	.0	38.9	.0	17.5	43.6	N /30.4%
6	2019/05	738(99%)	34.9	27.5/N	80.0/NE	32.2	49.7	18.0	.0	51.1	2.3	11.2	35.4	N /35.4%
7	2019/06	718(100%)	44.1	42.2/N	93.0/NNW	17.3	48.2	34.5	.0	68.5	1.0	1.4	29.1	N /50.0%
8	2019/07	744(100%)	48.0	45.8/N	102.0/NNE	13.3	42.3	44.4	.0	61.3	.0	1.9	36.8	N /48.8%
9	2019/08	744(100%)	42.0	37.0/N	126.0/NNE	19.8	53.5	26.1	.7	65.6	.3	6.2	28.0	N /45.7%
10	2019/09	720(100%)	39.5	20.8/WNW	95.0/WSW	27.2	49.3	23.5	.0	31.5	.1	41.9	26.4	WSW/31.4%
11	2019/10	744(100%)	36.6	23.0/W	99.0/WSW	32.3	47.0	20.7	.0	17.7	.0	53.2	29.0	WSW/39.5%
12	2019/11	719(100%)	49.0	35.0/W	131.0/WSW	25.3	32.8	36.9	5.0	16.1	.3	57.4	26.1	WSW/49.9%
13	2019/冬	2159(100%)	39.3	23.7/W	121.0/WSW	32.7	42.6	22.5	2.2	26.8	.6	53.0	19.6	WSW/42.3%
14	2019/春	2196(100%)	32.9	23.0/N	81.0/NNW	38.7	45.0	16.3	.0	43.7	.9	17.6	37.8	N /28.1%
15	2019/夏	2206(100%)	44.7	41.7/N	126.0/NNE	16.8	48.0	35.0	.2	65.1	.4	3.2	31.3	N /48.1%
16	2019/秋	2183(100%)	41.6	25.4/W	131.0/WSW	28.3	43.1	26.9	1.6	21.8	.1	50.9	27.2	WSW/40.3%
17	2019/年	8744(100%)	39.6	21.1/NW	131.0/WSW	29.1	44.7	25.2	1.0	39.4	.5	31.0	29.0	N /25.9%

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表4.2.1b　2019年中雲海域 X 站潮流流速及流向重要統計量統計表

序號	日期 (年/月)	觀測點數	流速平均值 (cm/s)	平均流 流速/流向 (cm/s)/(來向)	最大流 流速/流向 (cm/s)/(來向)	1/2節流 <25.7 (%)	1節流 ~51.4 (%)	2節流 ~103 (%)	大流 >103 (%)	流向 N~E (%)	流向 E~S (%)	流向 S~W (%)	流向 W~N (%)	主要流向 方向/百分比
1	2018/12	744(100%)	24.2	21.1/NW	43.7/N	68.7	31.3	.0	.0	1.1	.0	8.3	90.6	NNW/35.6%
2	2019/01	744(100%)	24.1	21.1/NW	43.2/N	70.2	29.8	.0	.0	.5	.0	8.9	90.6	NNW/36.8%
3	2019/02	672(100%)	23.8	21.1/NW	40.5/N	66.8	33.2	.0	.0	.9	.0	7.7	91.4	NNW/39.6%
4	2019/03	744(100%)	23.5	21.1/NW	36.3/N	66.3	33.7	.0	.0	1.2	.0	4.6	94.2	NNW/40.1%
5	2019/04	720(100%)	23.6	21.1/NW	35.3/NNW	66.7	33.3	.0	.0	1.5	.0	3.1	95.4	NNW/40.0%
6	2019/05	744(100%)	23.9	21.1/NW	39.5/N	68.8	31.2	.0	.0	1.2	.0	6.0	92.7	NNW/36.7%
7	2019/06	720(100%)	24.3	21.1/NW	42.7/N	68.2	31.8	.0	.0	.7	.0	9.2	90.1	NNW/36.4%
8	2019/07	744(100%)	24.4	21.1/NW	43.5/N	68.5	31.5	.0	.0	.1	.0	9.9	89.9	NNW/38.0%
9	2019/08	744(100%)	23.9	21.1/NW	42.3/N	68.0	32.0	.0	.0	1.2	.0	8.6	90.2	NNW/36.4%
10	2019/09	720(100%)	23.4	21.1/NW	37.9/NNW	66.3	33.8	.0	.0	1.5	.0	4.4	94.0	NNW/39.4%
11	2019/10	744(100%)	23.6	21.1/NW	36.7/NNW	65.2	34.8	.0	.0	1.2	.0	2.4	96.4	NNW/39.1%
12	2019/11	720(100%)	24.1	21.1/NW	40.5/N	68.6	31.4	.0	.0	1.1	.0	7.9	91.0	NNW/36.5%
13	2019/冬	2160(100%)	24.1	21.1/NW	43.7/N	68.6	31.4	.0	.0	.8	.0	8.3	90.8	NNW/37.3%
14	2019/春	2208(100%)	23.7	21.1/NW	39.5/N	67.3	32.7	.0	.0	1.3	.0	4.6	94.1	NNW/38.9%
15	2019/夏	2208(100%)	24.2	21.1/NW	43.5/N	68.3	31.7	.0	.0	.7	.0	9.2	90.1	NNW/37.0%
16	2019/秋	2184(100%)	23.7	21.1/NW	40.5/N	66.7	33.3	.0	.0	1.3	.0	4.9	93.8	NNW/38.4%
17	2019/年	8760(100%)	23.9	21.1/NW	43.7/N	67.7	32.3	.0	.0	1.0	.0	6.8	92.2	NNW/37.9%

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表4.2.1c　2019年中雲海域 X 站殘流流速及流向重要統計量統計表

序號	日期 (年/月)	觀測點數	流速平均值 (cm/s)	平均流 流速/流向 (cm/s)/(來向)	最大流 流速/流向 (cm/s)/(來向)	1/2節流 <25.7 (%)	1節流 ~51.4 (%)	2節流 ~103 (%)	大流 >103 (%)	流向 N~E (%)	流向 E~S (%)	流向 S~W (%)	流向 W~N (%)	主要流向 方向/百分比
1	2018/12	743(100%)	45.2	30.7/SW	116.6/WSW	29.2	37.3	29.7	3.8	21.8	9.8	66.6	1.7	SW /28.9%
2	2019/01	744(100%)	33.9	18.0/SW	96.1/WSW	40.1	41.0	19.0	.0	26.2	11.4	59.7	2.7	SW /33.1%
3	2019/02	672(100%)	27.0	10.4/SSE	68.3/SW	50.3	46.6	3.1	.0	24.9	25.7	45.1	4.3	SSW/20.8%
4	2019/03	738(99%)	25.9	5.8/ESE	80.7/SW	54.1	41.2	4.7	.0	48.6	18.7	29.7	3.0	NE /18.0%
5	2019/04	720(100%)	23.7	10.9/NE	58.7/NE	58.6	40.8	.6	.0	60.1	15.1	18.8	6.0	NE /21.8%
6	2019/05	738(99%)	26.5	14.9/NE	67.6/NE	49.1	48.6	2.3	.0	67.8	15.0	13.1	4.1	NE /26.8%
7	2019/06	718(100%)	32.8	30.1/NE	61.6/NNE	23.4	73.1	3.5	.0	90.3	4.5	.0	5.3	NE /37.5%
8	2019/07	744(100%)	34.6	32.7/NNE	81.8/NE	21.2	71.5	7.3	.0	91.9	.8	.9	6.3	NNE/39.4%
9	2019/08	744(100%)	31.8	24.6/NE	106.7/NE	35.5	56.9	7.5	.1	85.5	4.0	7.8	2.7	NE /30.1%
10	2019/09	720(100%)	33.6	10.1/SW	94.7/SW	37.8	45.0	17.2	.0	39.9	7.5	49.4	3.2	SW /29.9%
11	2019/10	744(100%)	31.9	19.6/SW	103.3/SW	44.6	39.9	15.3	.1	23.7	11.2	62.5	2.7	SW /31.0%
12	2019/11	719(100%)	44.1	31.5/SW	130.3/WSW	34.9	29.9	31.7	3.5	20.2	9.2	66.8	3.9	SW /44.9%
13	2019/冬	2147(99%)	35.0	24.9/SSW	112.2/WSW	38.9	42.2	18.4	.5	7.2	28.9	62.4	1.5	SW /25.1%
14	2019/春	2199(100%)	36.6	7.4/ENE	145.9/NE	40.9	36.8	20.2	2.1	35.3	22.6	38.1	4.0	SW /13.5%
15	2019/夏	2200(100%)	53.6	41.9/NNE	156.9/NE	18.0	30.8	46.5	4.6	72.8	10.3	9.6	7.3	NNE/34.0%
16	2019/秋	2144(98%)	37.2	24.6/SW	134.1/SW	36.3	40.4	22.1	1.2	11.8	14.0	70.0	4.2	SW /38.6%
17	2019/年	8744(100%)	38.6	21.1/NW	133.1/WSW	26.6	52.6	20.0	.8	39.9	.5	29.4	30.1	N /27.1%

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4.3　2019 年中雲海域各測站觀測海流與計算潮流(殘流)歷線比較圖

Current Speed in Tai-Chung Harbor of TCX0 at 2019

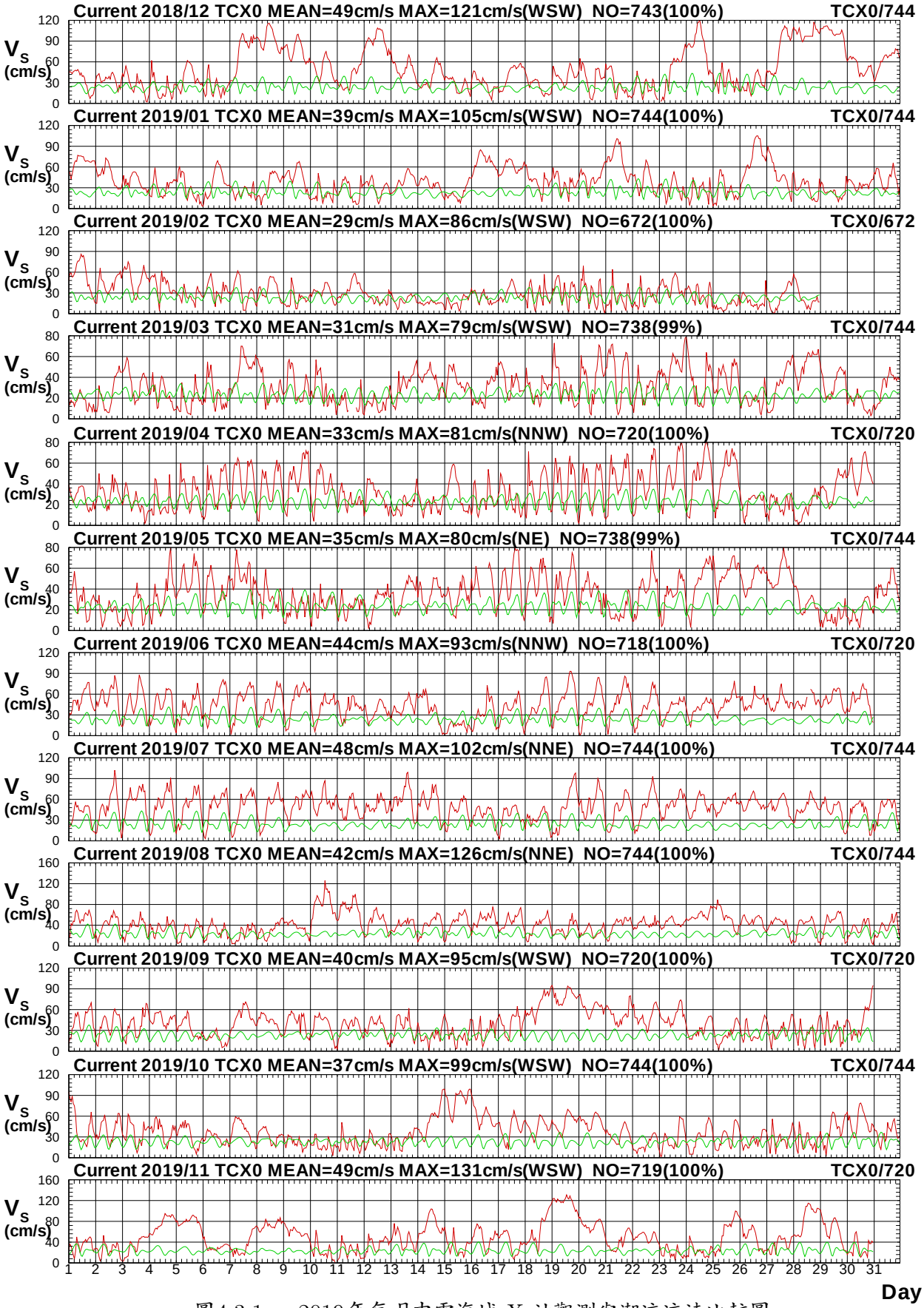

圖4.3.1a　2019年每月中雲海域 X 站觀測與潮流流速比較圖

C18CTCX0.1H0 C18CTCX0.1HD C191TCX0.1H0 C191TCX0.1HD C192TCX0.1H0 C192TCX0.1HD
C193TCX0.1H0 C193TCX0.1HD C194TCX0.1H0 C194TCX0.1HD C195TCX0.1H0 C195TCX0.1HD

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Current Direction in Tai-Chung Harbor of TCX0 at 2019

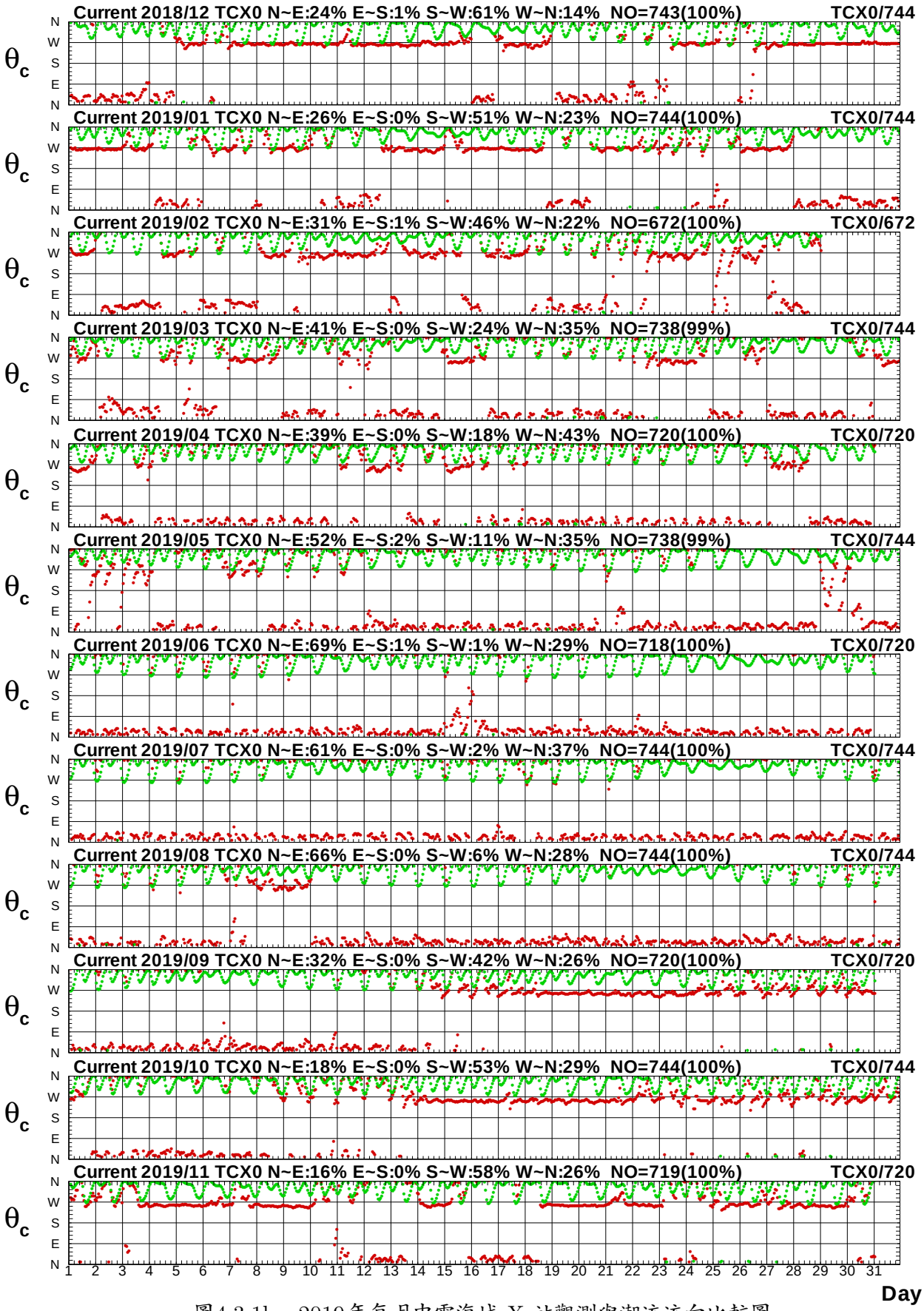

圖4.3.1b　2019年每月中雲海域 X 站觀測與潮流流向比較圖

C18CTCX0.1H0 C18CTCX0.1HD C191TCX0.1H0 C191TCX0.1HD C192TCX0.1H0 C192TCX0.1HD
C193TCX0.1H0 C193TCX0.1HD C194TCX0.1H0 C194TCX0.1HD C195TCX0.1H0 C195TCX0.1HD

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Current Speed in Tai-Chung Harbor of TCX0 at 2019

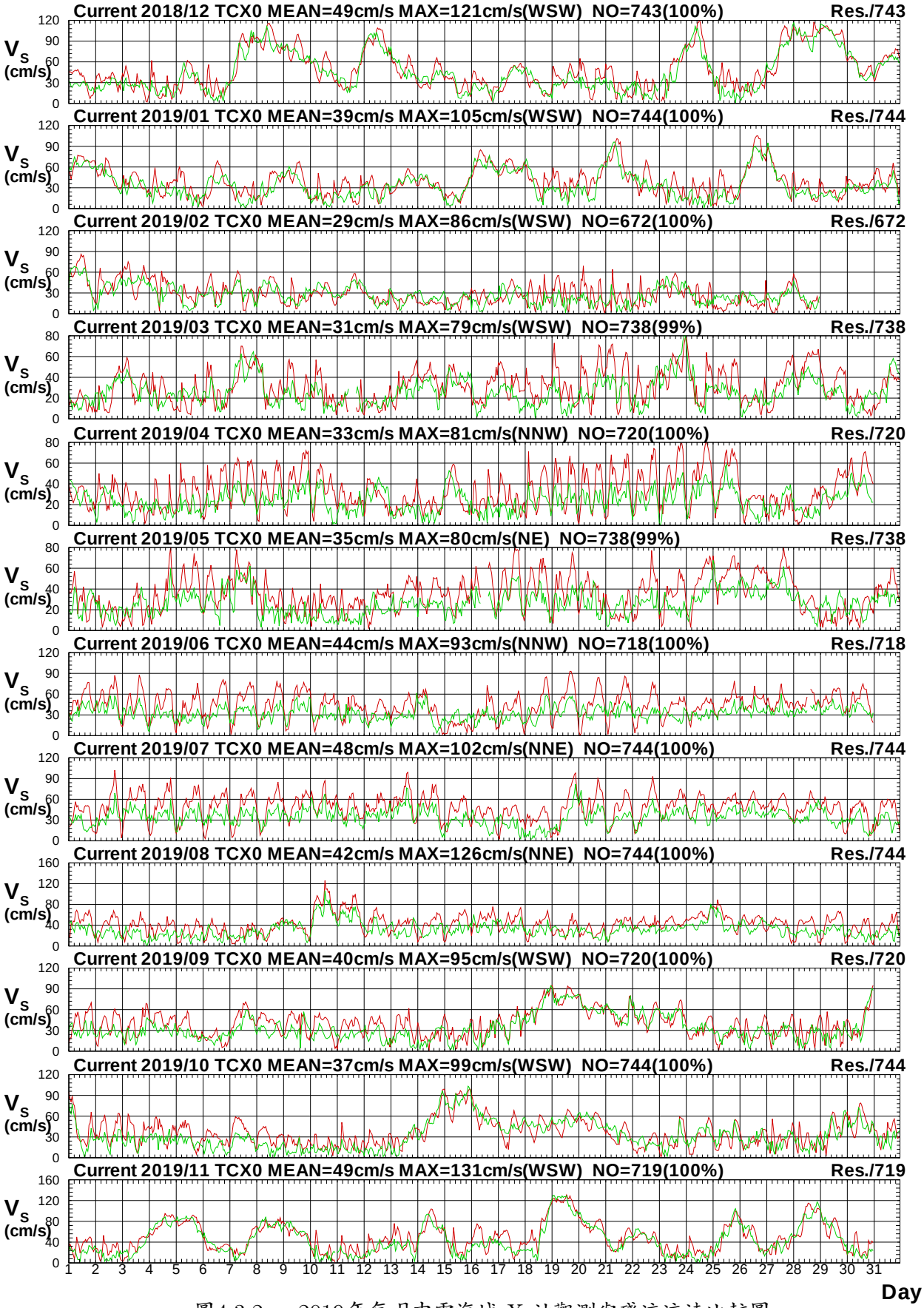

圖4.3.2a　2019年每月中雲海域 X 站觀測與殘流流速比較圖

C18CTCX0.1H0 C18CTCX0.1HR C191TCX0.1H0 C191TCX0.1HR C192TCX0.1H0 C192TCX0.1HR
C193TCX0.1H0 C193TCX0.1HR C194TCX0.1H0 C194TCX0.1HR C195TCX0.1H0 C195TCX0.1HR

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Current Direction in Tai-Chung Harbor of TCX0 at 2019

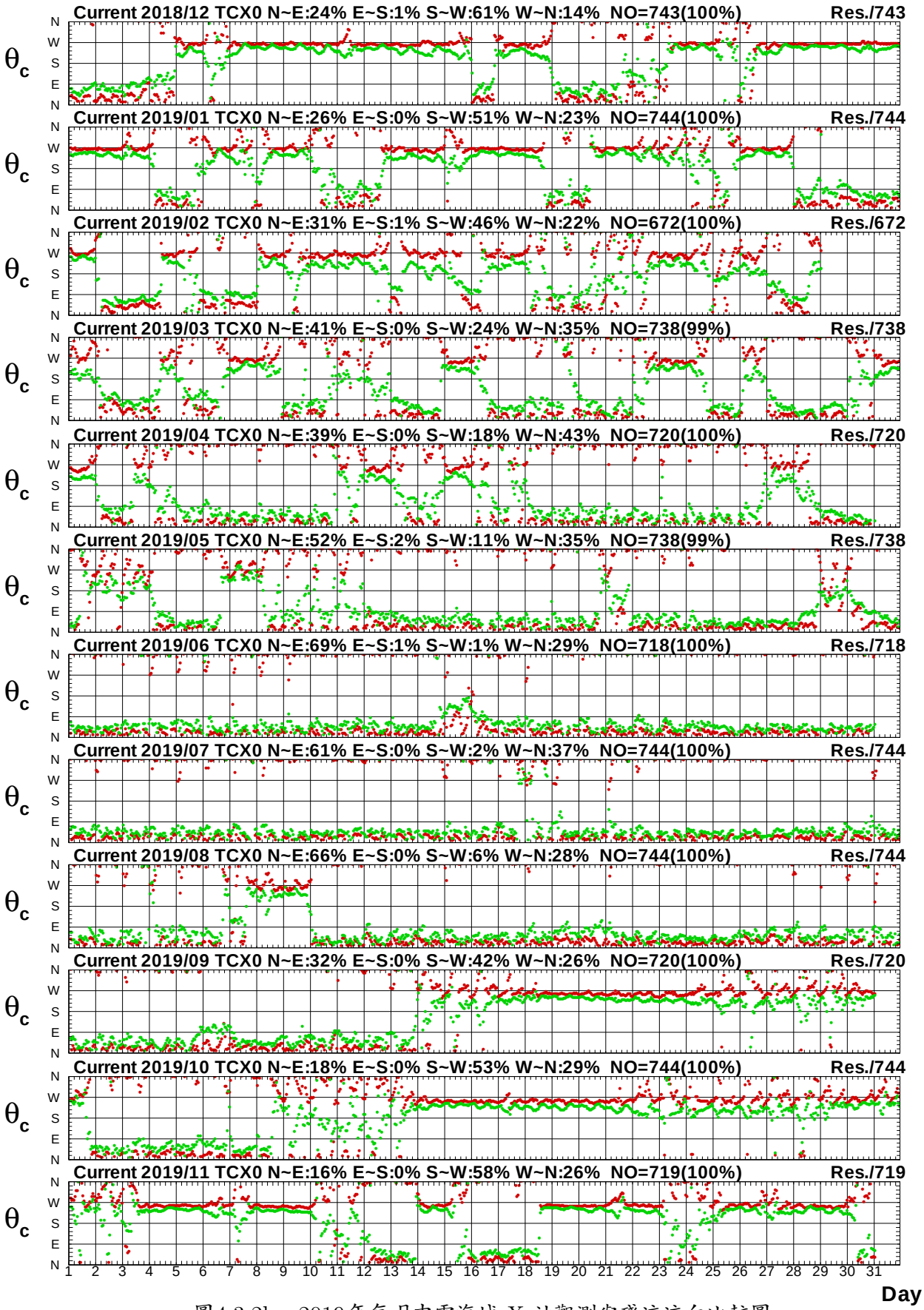

圖4.3.2b　2019年每月中雲海域 X 站觀測與殘流流向比較圖

C18CTCX0.1H0 C18CTCX0.1HR C191TCX0.1H0 C191TCX0.1HR C192TCX0.1H0 C192TCX0.1HR
C193TCX0.1H0 C193TCX0.1HR C194TCX0.1H0 C194TCX0.1HR C195TCX0.1H0 C195TCX0.1HR

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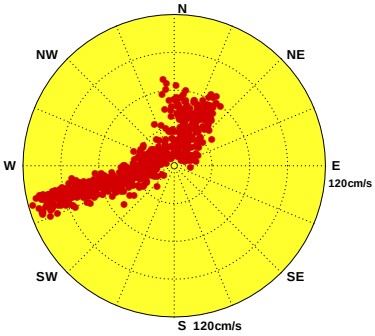
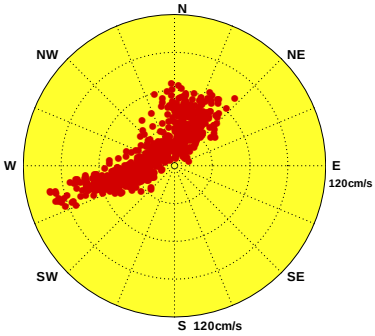
4.4　2019 年中雲海域各測站觀測海流與計算潮流(殘流)向量分佈圖

Distribution of Current Vectores

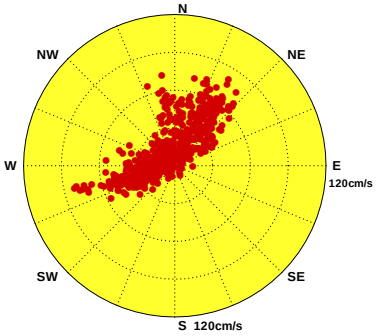
Current of TCX0 at 2018/12 NO=743(100%)
MEAN=49cm/s MAX=121cm/s(WSW)
N~E:24% E~S:1% S~W:61% W~N:14%



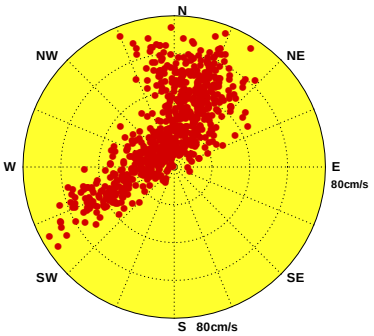
Current of TCX0 at 2019/01 NO=744(100%)
MEAN=39cm/s MAX=105cm/s(WSW)
N~E:26% E~S:0% S~W:51% W~N:23%



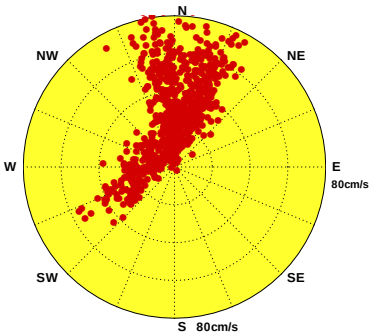
Current of TCX0 at 2019/02 NO=672(100%)
MEAN=29cm/s MAX=86cm/s(WSW)
N~E:31% E~S:1% S~W:46% W~N:22%



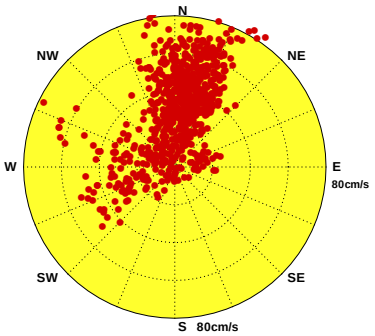
Current of TCX0 at 2019/03 NO=738(99%)
MEAN=31cm/s MAX=79cm/s(WSW)
N~E:41% E~S:0% S~W:24% W~N:35%



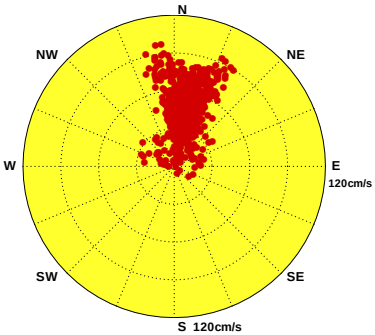
Current of TCX0 at 2019/04 NO=720(100%)
MEAN=33cm/s MAX=81cm/s(NNW)
N~E:39% E~S:0% S~W:18% W~N:43%



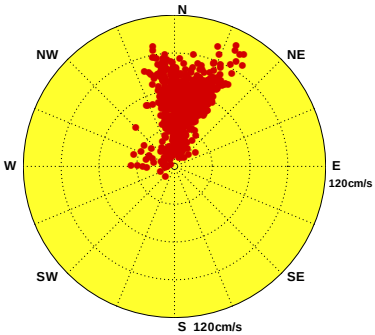
Current of TCX0 at 2019/05 NO=738(99%)
MEAN=35cm/s MAX=80cm/s(NE)
N~E:52% E~S:2% S~W:11% W~N:35%



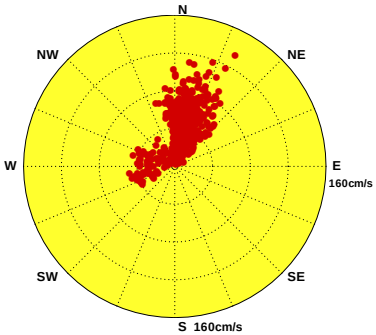
Current of TCX0 at 2019/06 NO=718(100%)
MEAN=44cm/s MAX=93cm/s(NNW)
N~E:69% E~S:1% S~W:1% W~N:29%



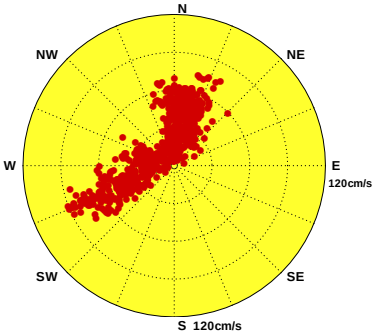
Current of TCX0 at 2019/07 NO=744(100%)
MEAN=48cm/s MAX=102cm/s(NNE)
N~E:61% E~S:0% S~W:2% W~N:37%



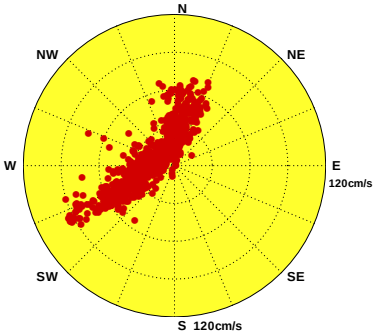
Current of TCX0 at 2019/08 NO=744(100%)
MEAN=42cm/s MAX=126cm/s(NNE)
N~E:66% E~S:0% S~W:6% W~N:28%



Current of TCX0 at 2019/09 NO=720(100%)
MEAN=40cm/s MAX=95cm/s(WSW)
N~E:32% E~S:0% S~W:42% W~N:26%



Current of TCX0 at 2019/10 NO=744(100%)
MEAN=37cm/s MAX=99cm/s(WSW)
N~E:18% E~S:0% S~W:53% W~N:29%



Current of TCX0 at 2019/11 NO=719(100%)
MEAN=49cm/s MAX=131cm/s(WSW)
N~E:16% E~S:0% S~W:58% W~N:26%

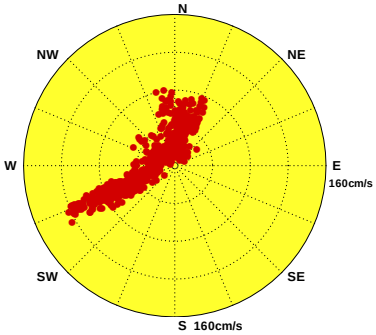


圖4.4.1a 2019年中雲海域每月測站 X 觀測海流向量分佈圖

C18CTCX0.1H0 C191TCX0.1H0 C192TCX0.1H0 C193TCX0.1H0 C194TCX0.1H0 C195TCX0.1H0
C196TCX0.1H0 C197TCX0.1H0 C198TCX0.1H0 C199TCX0.1H0 C19ATCX0.1H0 C19BTCX0.1H0

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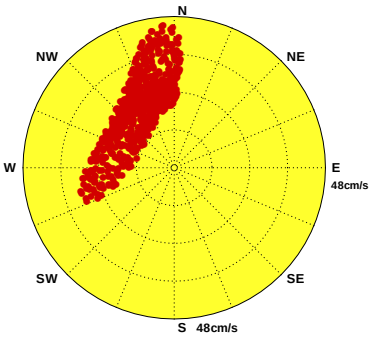
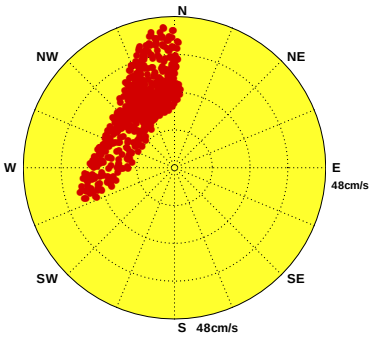
Distribution of Current Vectores

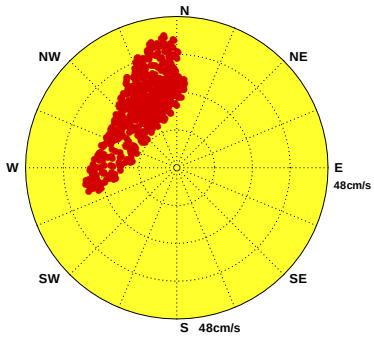
Current of TCX0 at 2018/12 NO=744(100%)
MEAN=24cm/s MAX=44cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%



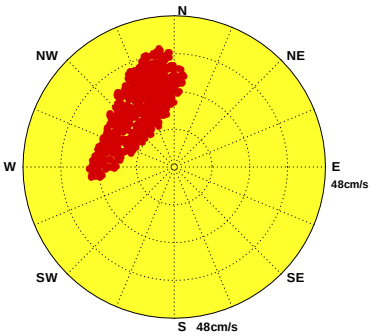
Current of TCX0 at 2019/01 NO=744(100%)
MEAN=24cm/s MAX=43cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



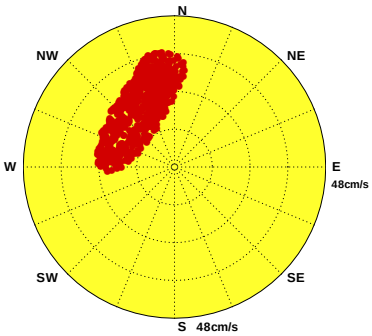
Current of TCX0 at 2019/02 NO=672(100%)
MEAN=24cm/s MAX=41cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%



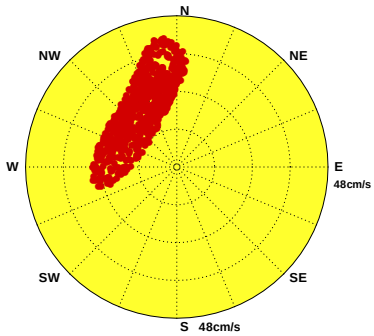
Current of TCX0 at 2019/03 NO=744(100%)
MEAN=24cm/s MAX=36cm/s(N)
N~E:1% E~S:0% S~W:5% W~N:94%



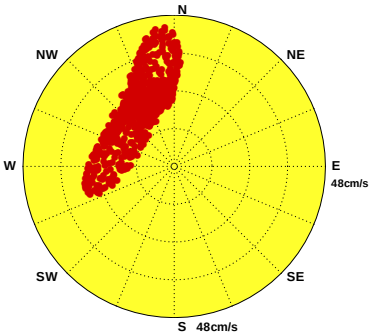
Current of TCX0 at 2019/04 NO=720(100%)
MEAN=24cm/s MAX=35cm/s(NNW)
N~E:2% E~S:0% S~W:3% W~N:95%



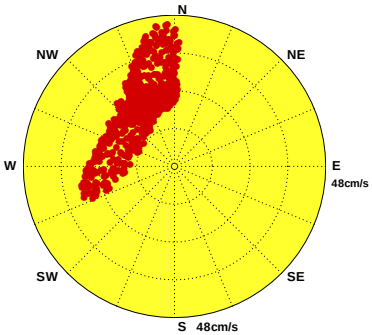
Current of TCX0 at 2019/05 NO=744(100%)
MEAN=24cm/s MAX=40cm/s(N)
N~E:1% E~S:0% S~W:6% W~N:93%



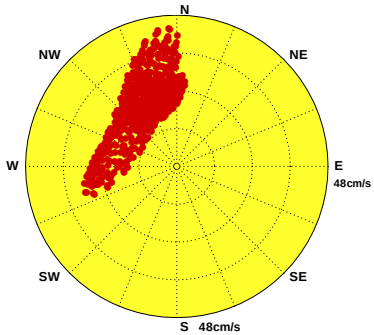
Current of TCX0 at 2019/06 NO=720(100%)
MEAN=24cm/s MAX=43cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



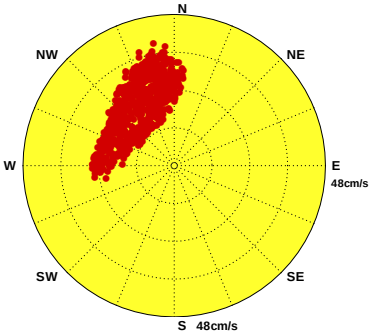
Current of TCX0 at 2019/07 NO=744(100%)
MEAN=24cm/s MAX=44cm/s(N)
N~E:0% E~S:0% S~W:10% W~N:90%



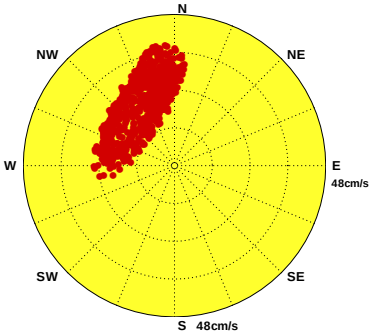
Current of TCX0 at 2019/08 NO=744(100%)
MEAN=24cm/s MAX=42cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



Current of TCX0 at 2019/09 NO=720(100%)
MEAN=23cm/s MAX=38cm/s(NNW)
N~E:2% E~S:0% S~W:4% W~N:94%



Current of TCX0 at 2019/10 NO=744(100%)
MEAN=24cm/s MAX=37cm/s(NNW)
N~E:1% E~S:0% S~W:2% W~N:97%



Current of TCX0 at 2019/11 NO=720(100%)
MEAN=24cm/s MAX=40cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%

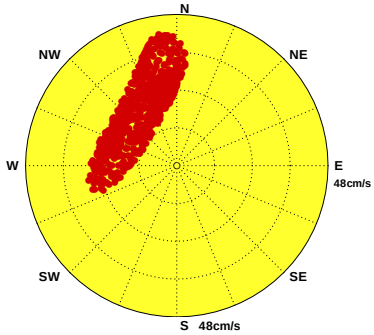


圖4.4.1b 2019年中雲海域每月測站 X 計算潮流向量分佈圖

C18CTCX0.1HD C191TCX0.1HD C192TCX0.1HD C193TCX0.1HD C194TCX0.1HD C195TCX0.1HD
C196TCX0.1HD C197TCX0.1HD C198TCX0.1HD C199TCX0.1HD C19ATCX0.1HD C19BTCX0.1HD

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Distribution of Current Vectores

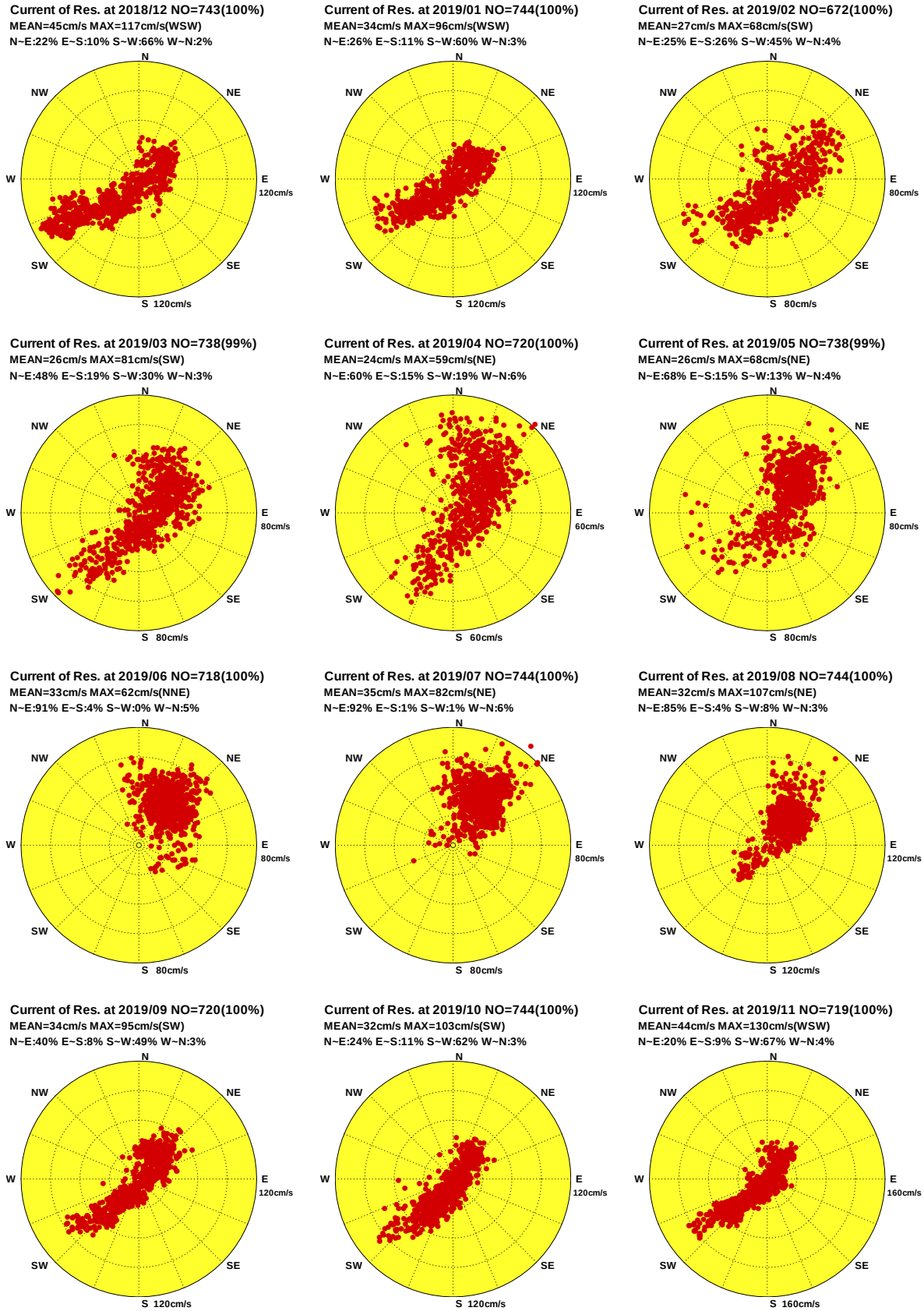

圖4.4.1c 2019年中雲海域每月測站 X 計算殘流向量分佈圖

C18CTCX0.1HR C191TCX0.1HR C192TCX0.1HR C193TCX0.1HR C194TCX0.1HR C195TCX0.1HR
C196TCX0.1HR C197TCX0.1HR C198TCX0.1HR C199TCX0.1HR C19ATCX0.1HR C19BTCX0.1HR

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4.5　2019 年中雲海域各測站觀測海流與計算潮流(殘流)向量行進圖

Progressive Vector Diagram of Current

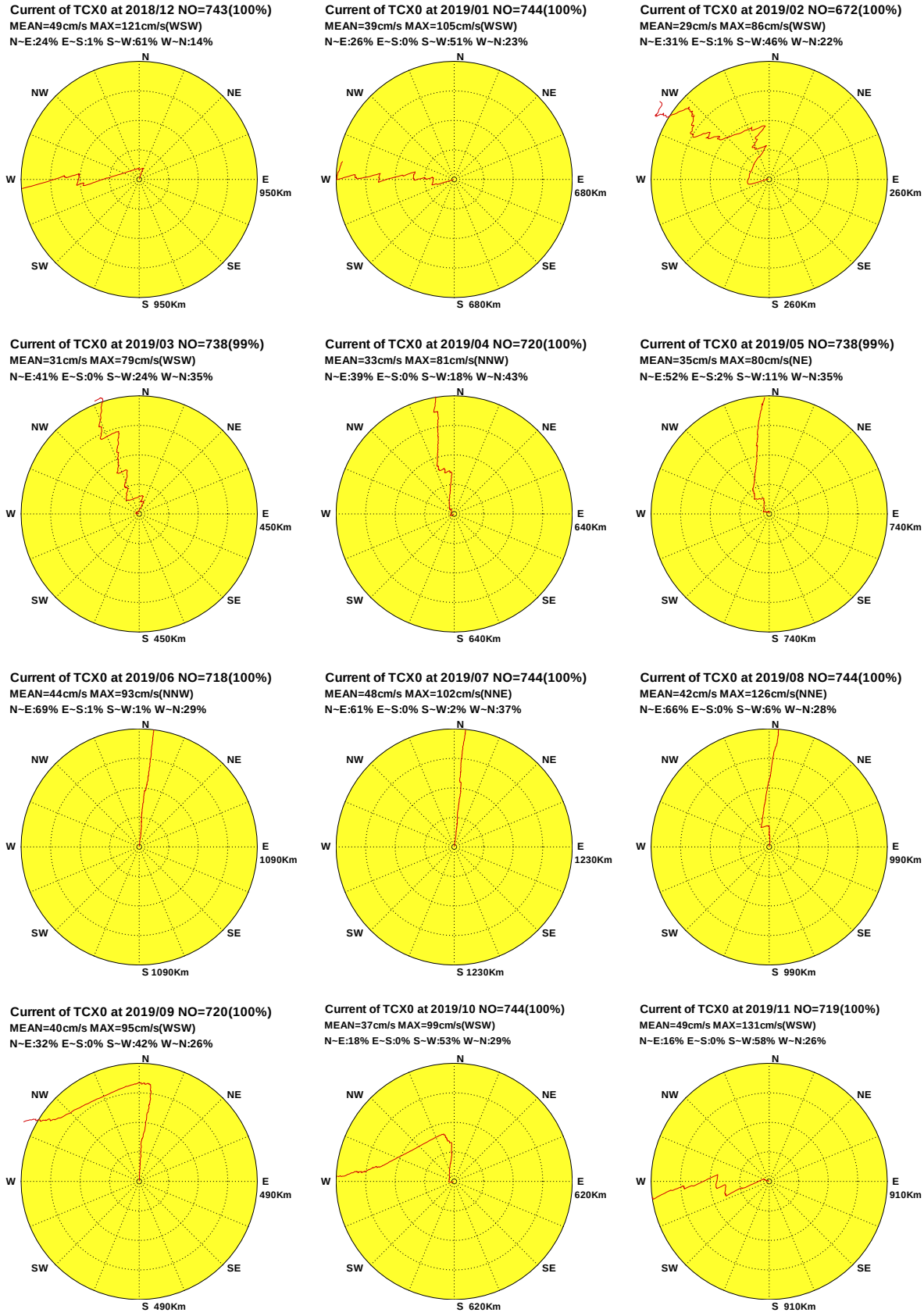

圖4.5.1a 2019年中雲海域每月測站 X 觀測海流向量行進圖

C18CTCX0.1H0 C191TCX0.1H0 C192TCX0.1H0 C193TCX0.1H0 C194TCX0.1H0 C195TCX0.1H0
C196TCX0.1H0 C197TCX0.1H0 C198TCX0.1H0 C199TCX0.1H0 C19ATCX0.1H0 C19BTCX0.1H0

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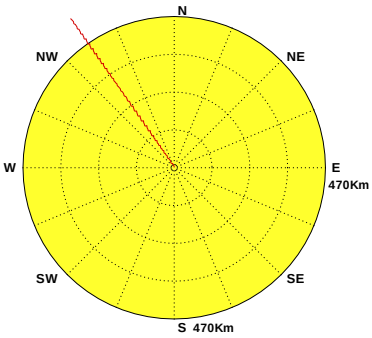
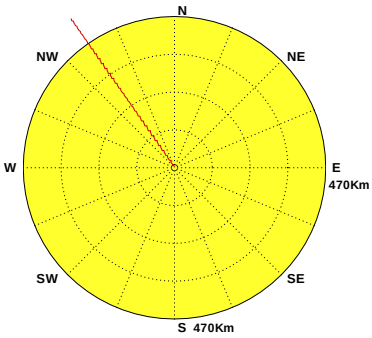
Progressive Vector Diagram of Current

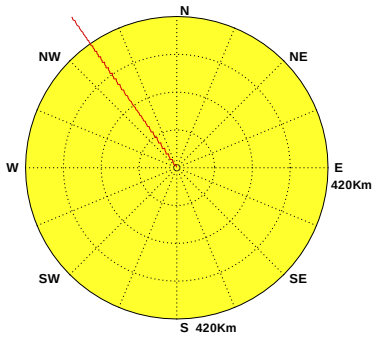
Current of TCX0 at 2018/12 NO=744(100%)
MEAN=24cm/s MAX=44cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%



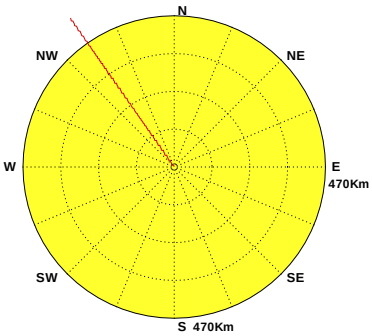
Current of TCX0 at 2019/01 NO=744(100%)
MEAN=24cm/s MAX=43cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



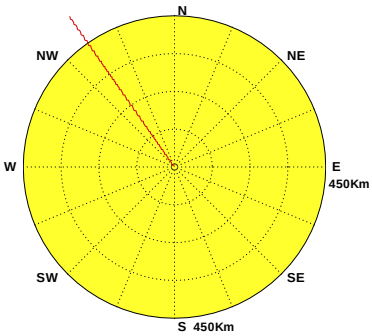
Current of TCX0 at 2019/02 NO=672(100%)
MEAN=24cm/s MAX=41cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%



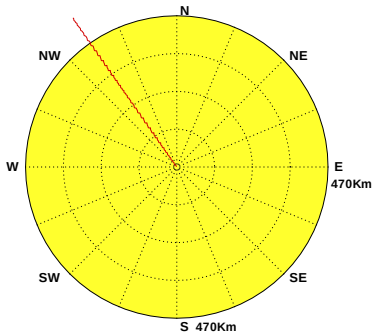
Current of TCX0 at 2019/03 NO=744(100%)
MEAN=24cm/s MAX=36cm/s(N)
N~E:1% E~S:0% S~W:5% W~N:94%



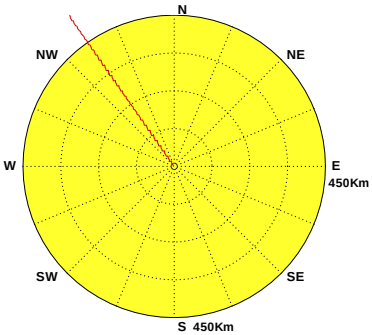
Current of TCX0 at 2019/04 NO=720(100%)
MEAN=24cm/s MAX=35cm/s(NNW)
N~E:2% E~S:0% S~W:3% W~N:95%



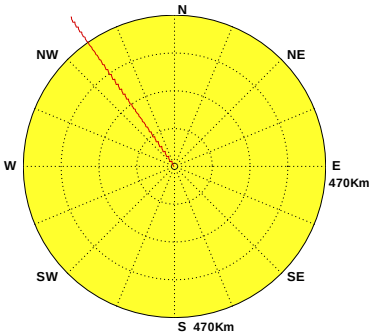
Current of TCX0 at 2019/05 NO=744(100%)
MEAN=24cm/s MAX=40cm/s(N)
N~E:1% E~S:0% S~W:6% W~N:93%



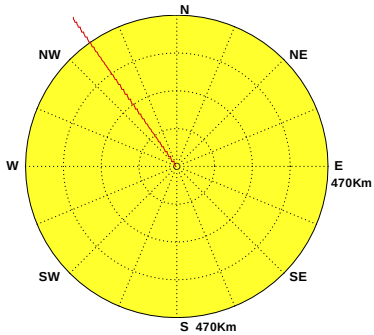
Current of TCX0 at 2019/06 NO=720(100%)
MEAN=24cm/s MAX=43cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



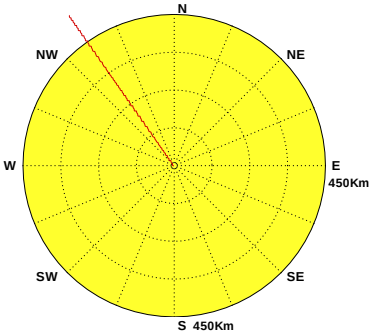
Current of TCX0 at 2019/07 NO=744(100%)
MEAN=24cm/s MAX=44cm/s(N)
N~E:0% E~S:0% S~W:10% W~N:90%



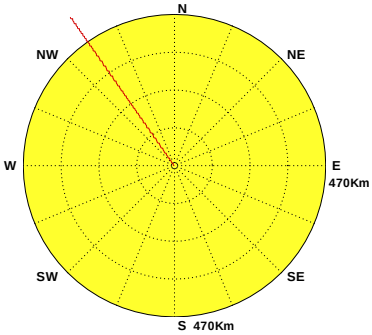
Current of TCX0 at 2019/08 NO=744(100%)
MEAN=24cm/s MAX=42cm/s(N)
N~E:1% E~S:0% S~W:9% W~N:90%



Current of TCX0 at 2019/09 NO=720(100%)
MEAN=23cm/s MAX=38cm/s(NNW)
N~E:2% E~S:0% S~W:4% W~N:94%



Current of TCX0 at 2019/10 NO=744(100%)
MEAN=24cm/s MAX=37cm/s(NNW)
N~E:1% E~S:0% S~W:2% W~N:97%



Current of TCX0 at 2019/11 NO=720(100%)
MEAN=24cm/s MAX=40cm/s(N)
N~E:1% E~S:0% S~W:8% W~N:91%

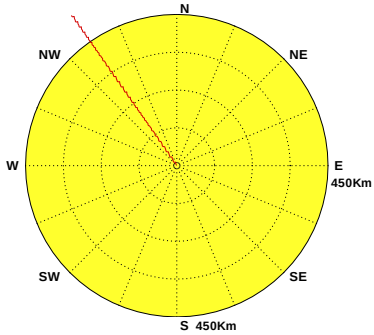


圖4.5.1b 2019年中雲海域每月測站 X 計算潮流向量行進圖

C18CTCX0.1HD C191TCX0.1HD C192TCX0.1HD C193TCX0.1HD C194TCX0.1HD C195TCX0.1HD
C196TCX0.1HD C197TCX0.1HD C198TCX0.1HD C199TCX0.1HD C19ATCX0.1HD C19BTCX0.1HD

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Progressive Vector Diagram of Current

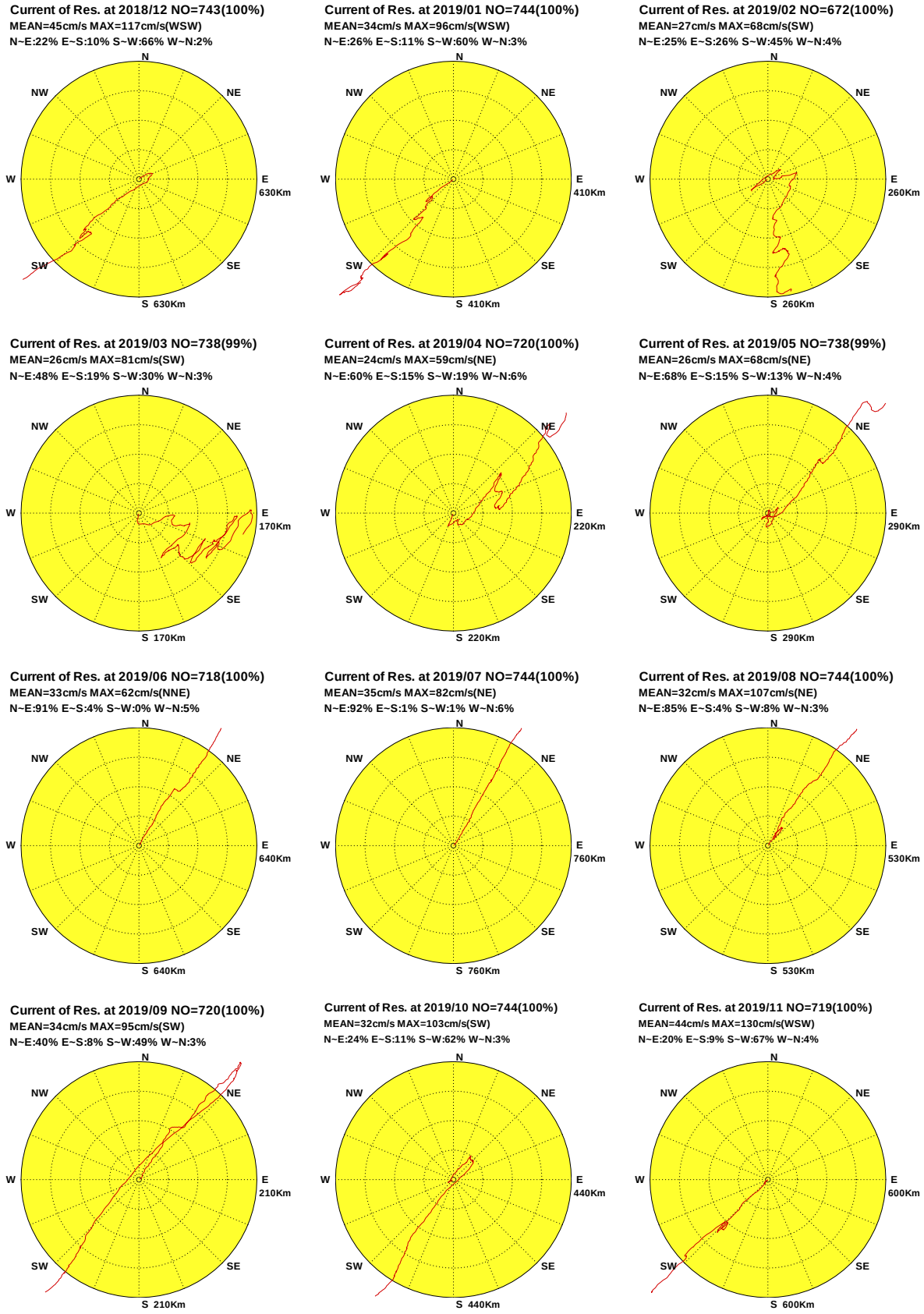

圖4.5.1c 2019年中雲海域每月測站 X 計算殘流向量行進圖

C18CTCX0.1HR C191TCX0.1HR C192TCX0.1HR C193TCX0.1HR C194TCX0.1HR C195TCX0.1HR
C196TCX0.1HR C197TCX0.1HR C198TCX0.1HR C199TCX0.1HR C19ATCX0.1HR C19BTCX0.1HR

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