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2019 年港灣環境資訊網
海氣象觀測資料年報
（臺東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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本港灣環境資訊網觀測海氣象資料年報，包括臺東海域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 Tai-Tung 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，蒐集之臺東海域風力資料，除本中心自行觀測之外，在蘭嶼氣象站(**測站 B** 及 **M**)、大武氣象站(**測站 C**) 、成功氣象站(**測站 O** 及 **Q**)、蘭嶼浮標站(**測站 Z**) 及臺東遠洋浮標站(**測站 R**)之風速儀屬中央氣象局**(CWB)**所有，等觀測風力資料，係交通部**中央氣象局(CWB)**提供。綠島氣象站(**測站 E**)、大武氣象站**(測站 I)** 、富岡氣象站**(測站 H)**、臺東海上浮標(**測站 Y**)等觀測風力資料，係經濟部**水利署(WRA)**提供，謹致謝忱。

2019 年港灣環境資訊網觀測波浪資料，蒐集之臺東海域波浪資料，除本中心自行觀測之外，在臺東海上浮標(**測站 Y**)觀測波浪資料，係經濟部 **水利署(WRA)**提供，**測站 Z**(蘭嶼浮標站)及**測站 R**(遠洋浮標站)之觀測波浪資料屬中央氣象局**(CWB)**所有，謹致謝忱。

2019 年港灣海氣象觀測潮汐資料，蒐集之臺東海域潮汐觀測資料，除本中心自行觀測之外，在成功(**測站 Q**)、蘭嶼(**測站 M**)等觀測潮汐資料，係交通部 **中央氣象局** 提供。富岡港(**測站 J**)、大武港(**測站 K**)、小港(**測站 P**)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，蒐集之臺東海域海流資料，除本中心自行觀測之外，在臺東海上浮標(**測站 Y**)觀測海流資料，係經濟部 **水利署(WRA)**提供，**測站 Z**(蘭嶼浮標站)及**測站 R**(遠洋浮標站)之觀測海流資料屬中央氣象局**(CWB)**所有，謹致謝忱。

第 O 章 臺東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。

臺東海域觀測風力資料測站統計表如表 WJ1，觀測波浪資料測站統計表如表 VJ1，觀測潮汐資料測站統計表如表 TJ1，觀測海流資料測站統計表如表 CJ1。

表 WJ1　臺東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
臺東海域	12	1	6	5		

表 VJ1　臺東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
臺東海域	4	1	2	1	0	

表 TJ1　臺東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
臺東海域	8	2	2	4	0	

表 CJ1　臺東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
臺東海域	4	1	2	1	0	

註:資料更新時間為 2019 年。

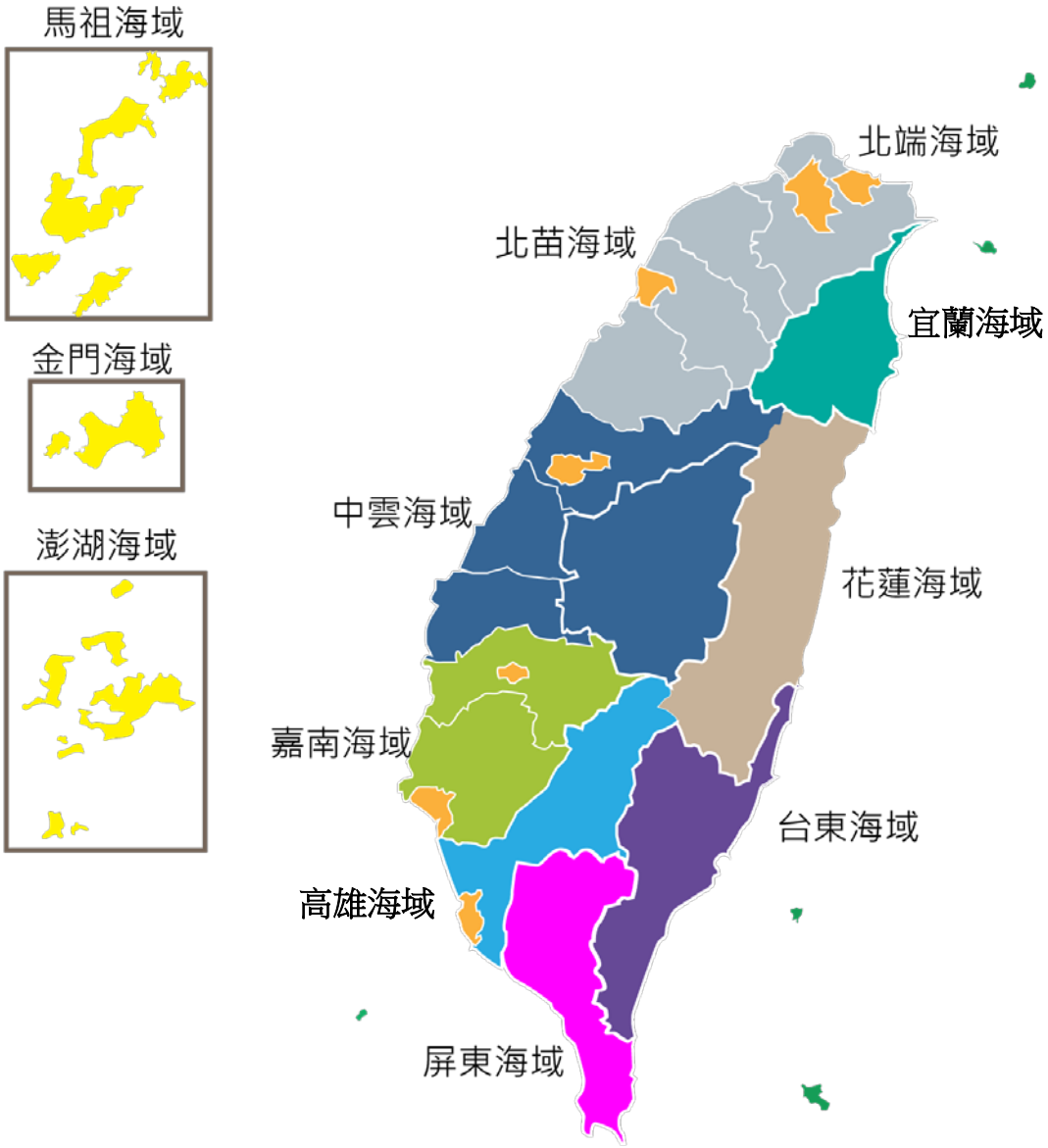

圖 A1 臺灣 12 海域區分示意圖

2019 年臺東海域觀測風力資料

臺東海域於綠島風之觀測係 2014 年 1 月本中心**(IHMT)**於南寮港南防波堤處(**測站 W**)安裝 Gill 二維超音波式風速計，其位置如附圖 WJ1。**測站 B**(**測站 M**) (蘭嶼氣象站)、**測站 C**(大武氣象站)、**測站 Z**(蘭嶼浮標站)及**測站 R**(臺東遠洋浮標站)之風速儀屬中央氣象局**(CWB)**所有，**測站 E** (綠島氣象站) 、**測站 O**(**測站 Q**) (成功氣象站) 、**測站 I**(大武氣象站)及**測站 H** (富岡氣象站)之風速儀屬水利署**(WRA)**所有，**測站 Y**(台東外海浮標站)之風速儀也皆屬水利署所有。各測站歷年觀測風資料蒐集概況如表 WJ1。

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。其他測站觀測風速、風向資料也是平均風速(m/s)及風向(度)。

表 WJ1 臺東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
W	22°36'54"N	120°17'19"E	2014/01-2019/11(觀測中)	港研中心	南寮港
E	22°39'39"N	121°28'24"E	2001/10-2019/11(觀測中)	水利署	綠島氣象站
Y	22°43'27"N	121°08'40"E	2010/09-2019/11(觀測中)	水利署	台東浮標站
H	22°47'27"N	121°11'32"E	2003/09-2019/11(觀測中)	水利署	富岡氣象站
O	23°05'57"N	121°21'55"E	2013/11-2019/11(觀測中)	水利署	成功氣象站
B	22°02'19"N	121°33'02"E	2014/08-2018/06	中央氣象局	蘭嶼氣象站
M	22°03'35"N	121°29'59"E	2015/01-2019/11(觀測中)	中央氣象局	蘭嶼氣象站
Q	23°05'20"N	121°22'36"E	2015/01-2019/11(觀測中)	中央氣象局	成功氣象站
C	22°21'27"N	120°53'44"E	2013/11-2019/11(觀測中)	中央氣象局	大武氣象站
I	22°20'14"N	120°53'46"E	2005/10-2019/11(觀測中)	水利署	大武氣象站
Z	22°04'18"N	121°34'33"E	2017/09-2019/11(觀測中)	中央氣象局	蘭嶼浮標站
R	21°40'36"N	124°03'48"E	2009/08-2017/11	中央氣象局	遠洋浮標站

臺東海域

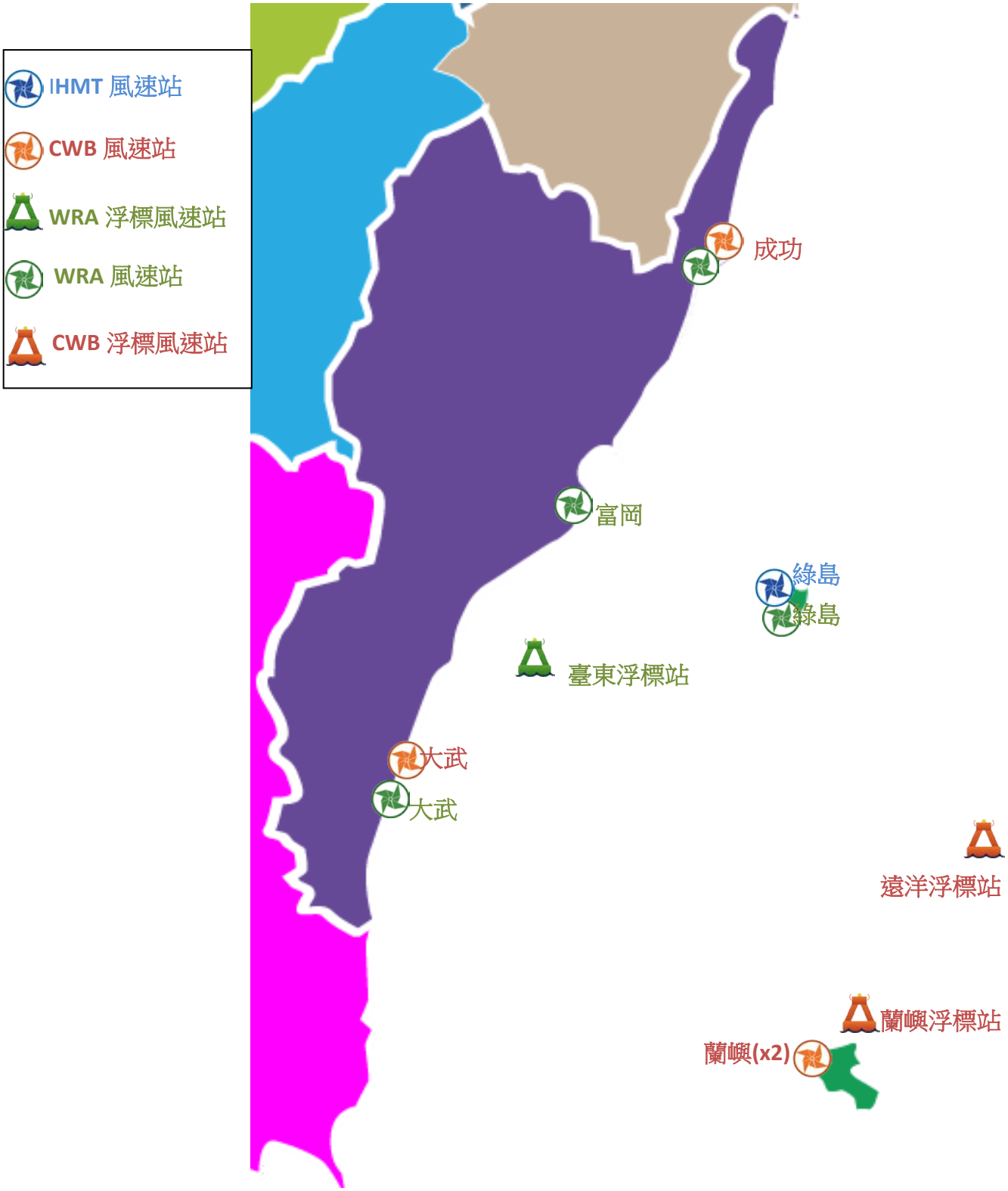

圖 WJ1 臺東海域風力觀測站位置示

2019 年臺東海域觀測波浪資料

臺東海域綠島南寮港波浪之觀測係 2014 年 10 月本中心**(IHMT)**於南寮港南防波堤外處(**測站 X**) 挪威 NORTEK 公司之剖面海流與表面波浪(波高、週期及波向)即時傳送監測系統(簡稱 AWAC)波浪觀測站，其位置如附圖 VJ1。

測站 Z(蘭嶼浮標站)及**測站 R**(遠洋浮標站)之波浪儀屬中央氣象局**(CWB)** 所有，**測站 Y**(台東外海浮標站)波浪儀也皆屬水利署**(WRA)**所有。臺東海域各測站歷年觀測波浪資料蒐集概況如表 VJ1。

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 VJ1 臺東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
X	22°39'30"N	121°28'14"E	2014/10-2019/09	港研中心	綠島南寮港區外海
Y	22°43'27"N	121°08'40"E	2010/09-2019/11(觀測中)	水利署	台東外海浮標站
Z	22°04'18"N	121°34'33"E	2017/09-2019/11(觀測中)	中央氣象局	蘭嶼浮標站
R	21°40'36"N	124°03'48"E	2009/08-2019/11	中央氣象局	遠洋浮標站

臺東海域

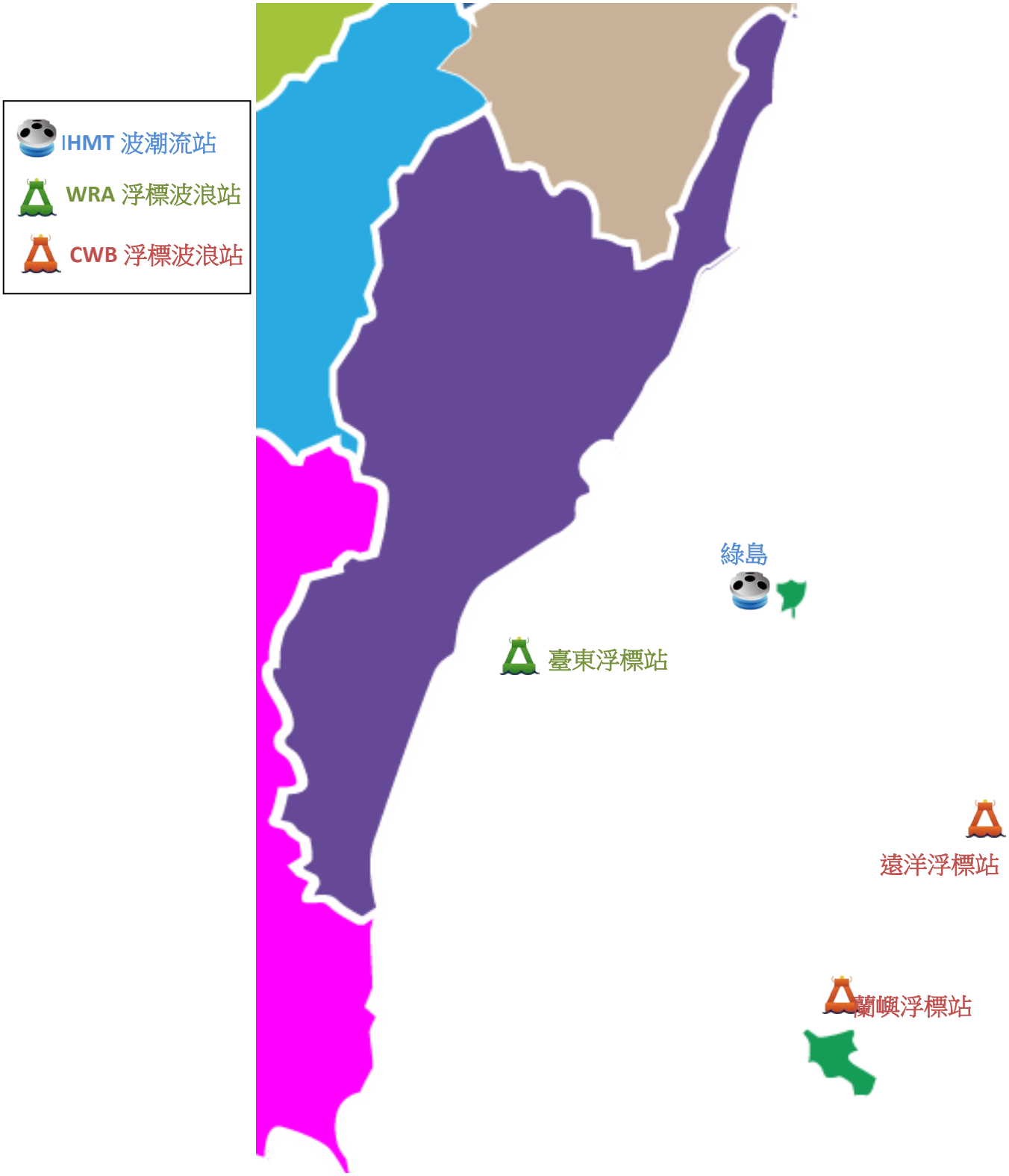

圖 VJ1　臺東海域波浪觀測站位置示

2019 年臺東海域觀測潮汐資料

臺東海域之潮汐觀測，係 2014 年 5 月本中心於綠島南寮港南防波堤旁(**測站 T**) 設置潮位觀測站，其位置如附圖 TJ1。2014 年 10 月本中心於南寮港南防波堤外處(**測站 X**) 設置 AWAC 即時傳送監測系統，也具量測水位功能。綠島南寮漁港潮位站(**測站 F**)、富岡漁港潮位站(**測站 J**)、大武漁港潮位站(**測站 K**)及小港漁港潮位站(**測站 P**)皆屬水利署所有，成功漁港潮位站(**測站 Q**)及蘭嶼潮位站(**測站 M**)則屬中央氣象局所有。臺東海域各測站歷年觀測潮汐資料蒐集概況如表 TJ1。

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。**測站 T** 潮位資料取樣方式為每 6 分鐘量測一次水位變化。其他潮位資料分別由中央氣象局及水利署提供。

表 TJ1 臺東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	22°39'34"N	121°28'22E	2014/04-2019/11(觀測中)	港研中心	南寮港潮位站
X	22°39'30"N	121°28'14"E	2014/10-2019/09	港研中心	綠島南寮港外海
F	22°39'39"N	121°28'24"E	2000/10-2019/11(觀測中)	水利署	南寮港潮位站
J	22°47'27"N	121°11'32"E	2000/10-2019/11(觀測中)	水利署	富岡港潮位站
K	22°20'15"N	120°53'47"E	2000/10-2019/11(觀測中)	水利署	大武港潮位站
P	23°09'32"N	121°24'12"E	2000/10-2019/11(觀測中)	水利署	小港潮位站
Q	23°05'20"N	121°22'36"E	2000/10-2019/11(觀測中)	中央氣象局	成功港潮位站
M	22°03'35"N	121°29'59"E	2013/12-2019/11(觀測中)	中央氣象局	蘭嶼潮位站

臺東海域

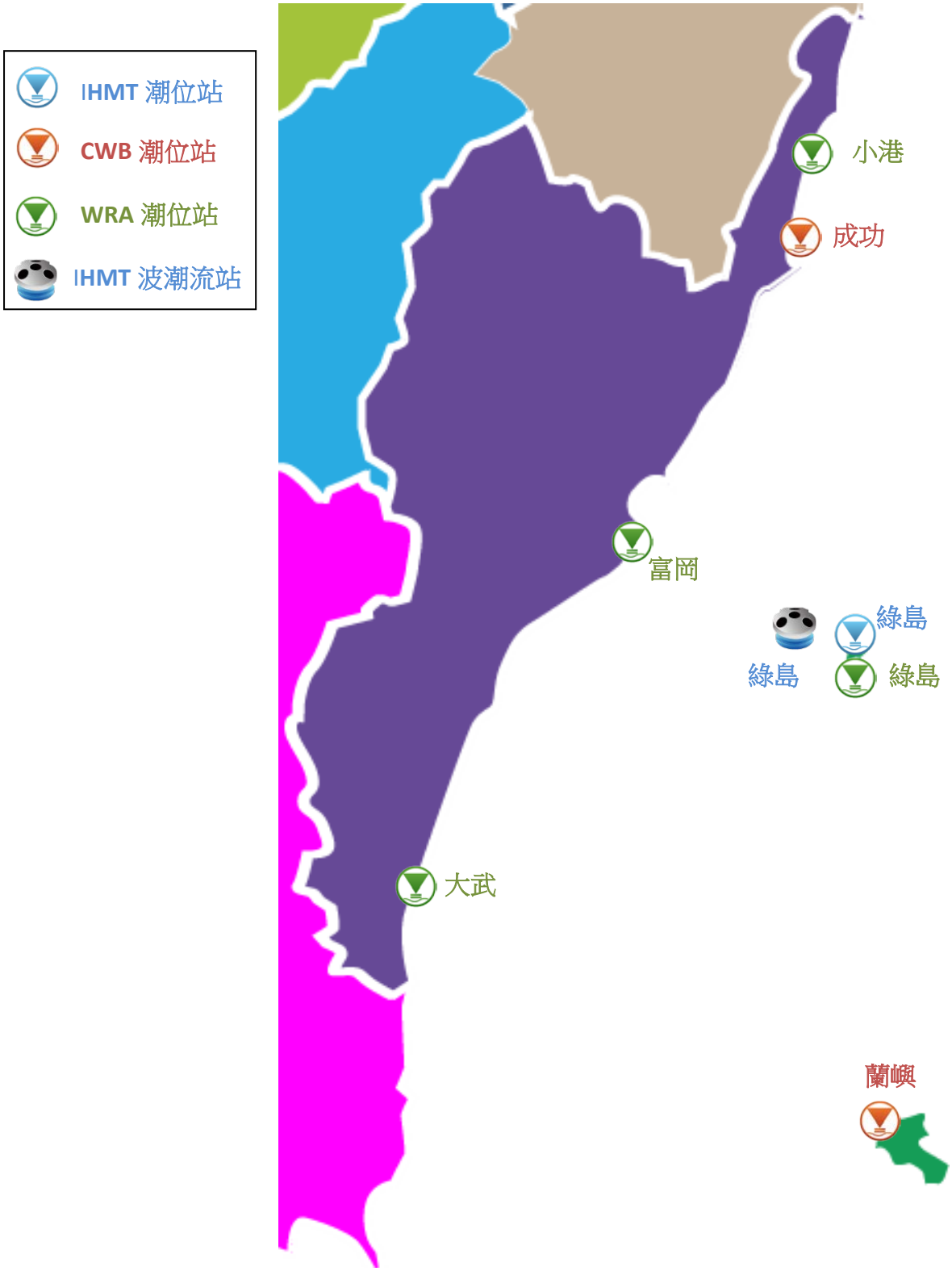

圖 TJ1 臺東海域潮汐觀測站位置示意

2019 年臺東海域觀測海流資料

臺東海域綠島南寮港海流之觀測係 2014 年 10 月本中心於南寮港南防波堤外處(**測站 X**) 挪威 NORTEK 公司之剖面海流與表面波浪(波高、週期及波向)即時傳送監測系統(簡稱 AWCP)海流觀測站，其位置如附圖 CJ1。

測站 R(遠洋浮標站)之海流儀屬中央氣象局**(CWB)** 所有，**測站 Y**(台東外海浮標站)之海流儀也皆屬水利署所有。臺東海域各測站歷年觀測海流資料蒐集概況如表 CJ1。

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，蘇澳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 CJ1 臺東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
X	22°39'30"N	121°28'14"E	2014/10-2019/09	港研中心	綠島南寮港區外海
Y	22°43'27"N	121°08'40"E	2010/09-2019/11(觀測中)	水利署	台東外海浮標站
R	21°40'36"N	124°03'48"E	2012/07-2017/10	中央氣象局	遠洋浮標站

臺東海域

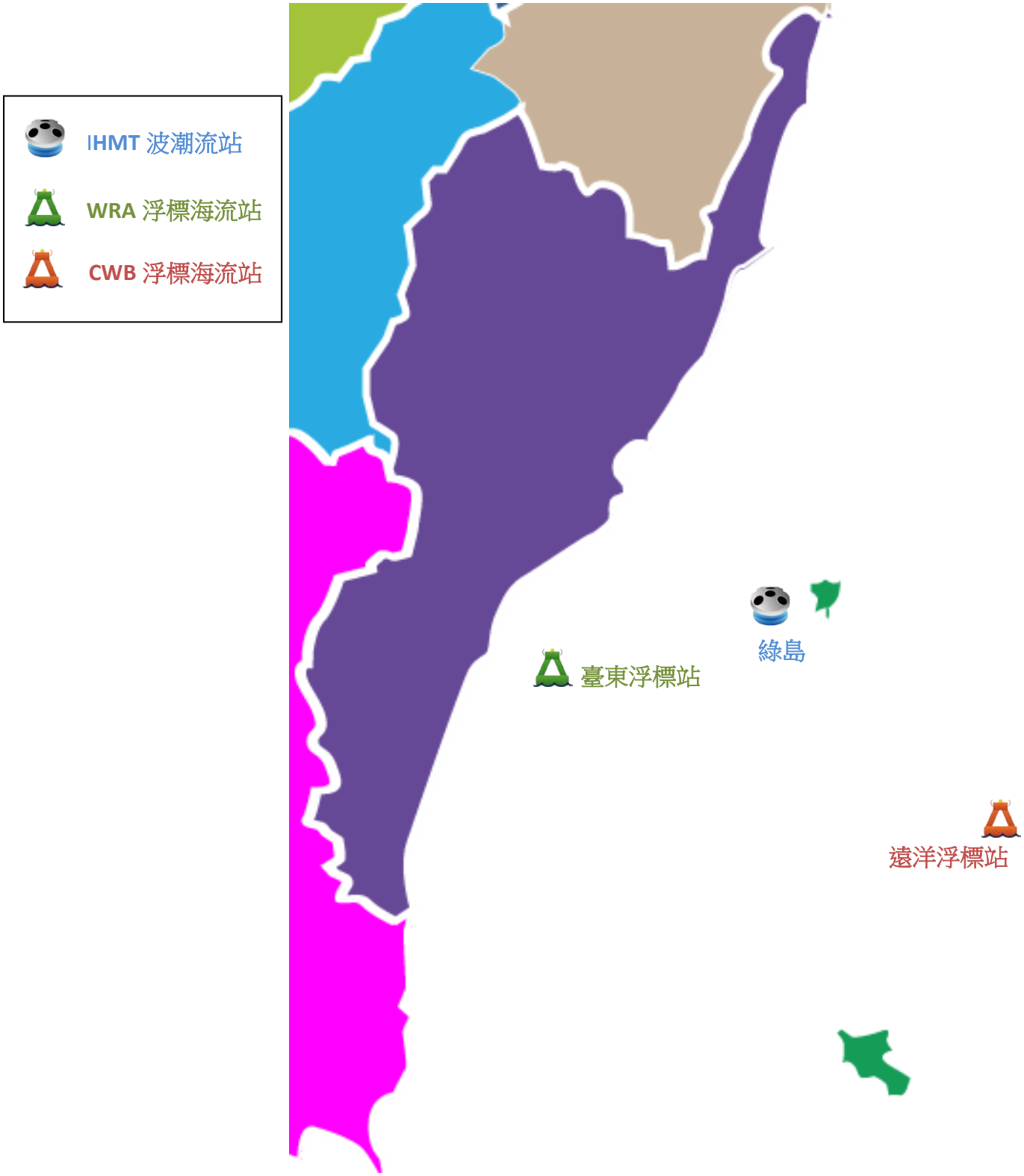

圖 CJ1 臺東海域海流觀測站位置示意

第一章　2019 年臺東海域觀測風力資料

2019 年臺東海域風之觀測包括**測站 W、測站 Y、測站 E、測站 H、測站 O、測站 M、測站 Q、測站 C、測站 I 及測站 Z 等** 10 個測站(測站位置如第 O 章圖 WJ1，各測站歷年觀測風資料蒐集概況如表 WJ1)。本年報取經檢核及補遺之 **Y 站**資料作為主要測站 1，**W 站**資料作為主要測站 2。

1.1　2019 年臺東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 年臺東海域**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 年臺東海域**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 年臺東海域**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 年臺東海域**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 年臺東海域**各測站修補前**每月風力向量行進圖。

表1.1.1a 2019年每月臺東海域修補前各測站觀測風力資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	Y	W		E	H	C	I	O	M	Q	Z	
2018/12 月	581(78.1%)	636(85.5%)	*	628(84.4%)	625(84.0%)	744(100%)	625(84.0%)	744(100%)	650(87.4%)	657(88.3%)	647(87.0%)	*
2019/ 1 月	727(97.7%)	528(71.0%)	*	717(96.4%)	728(97.8%)	744(100%)	671(90.2%)	744(100%)	720(96.8%)	744(100%)	715(96.1%)	*
2019/ 2 月	663(98.7%)	638(94.9%)	*	626(93.2%)	629(93.6%)	672(100%)	569(84.7%)	672(100%)	672(100%)	672(100%)	660(98.2%)	*
2019/ 3 月	740(99.5%)	715(96.1%)	*	723(97.2%)	729(98.0%)	744(100%)	680(91.4%)	744(100%)	705(94.8%)	705(94.8%)	743(99.9%)	*
2019/ 4 月	713(99.0%)	720(100%)	*	710(98.6%)	699(97.1%)	720(100%)	690(95.8%)	720(100%)	631(87.6%)	720(100%)	706(98.1%)	*
2019/ 5 月	734(98.7%)	733(98.5%)	*	723(97.2%)	726(97.6%)	744(100%)	724(97.3%)	744(100%)	720(96.8%)	744(100%)	736(98.9%)	*
2019/ 6 月	656(91.1%)	719(99.9%)	*	646(89.7%)	651(90.4%)	720(100%)	644(89.4%)	720(100%)	604(83.9%)	604(83.9%)	658(91.4%)	*
2019/ 7 月	636(85.5%)	744(100%)	*	623(83.7%)	619(83.2%)	744(100%)	625(84.0%)	744(100%)	153(20.6%)	153(20.6%)	451(60.6%)	*
2019/ 8 月	690(92.7%)	744(100%)	*	677(91.0%)	678(91.1%)	744(100%)	688(92.5%)	744(100%)	652(87.6%)	652(87.6%)	702(94.4%)	*
2019/ 9 月	563(78.2%)	720(100%)	*	559(77.6%)	565(78.5%)	720(100%)	560(77.8%)	720(100%)	720(100%)	720(100%)	559(77.6%)	*
2019/10 月	699(94.0%)	721(96.9%)	*	692(93.0%)	683(91.8%)	744(100%)	688(92.5%)	744(100%)	716(96.2%)	716(96.2%)	702(94.4%)	*
2019/11 月	714(99.2%)	720(100%)	*	700(97.2%)	707(98.2%)	720(100%)	702(97.5%)	720(100%)	682(94.7%)	682(94.7%)	720(100%)	*
2019/冬季	1971(91.3%)	1802(83.4%)	*	1971(91.3%)	1982(91.8%)	2160(100%)	1865(86.3%)	2160(100%)	2042(94.5%)	2073(96.0%)	2022(93.6%)	*
2019/春季	2187(99.0%)	2168(98.2%)	*	2156(97.6%)	2154(97.6%)	2208(100%)	2094(94.8%)	2208(100%)	2056(93.1%)	2169(98.2%)	2185(99.0%)	*
2019/夏季	1982(89.8%)	2207(99.9%)	*	1946(88.1%)	1948(88.2%)	2208(100%)	1957(88.6%)	2208(100%)	1409(63.8%)	1409(63.8%)	1811(82.0%)	*
2019/秋季	1976(90.5%)	2161(98.9%)	*	1951(89.3%)	1955(89.5%)	2184(100%)	1950(89.3%)	2184(100%)	2118(97.0%)	2118(97.0%)	1981(90.7%)	*
2019/整年	8116(92.6%)	8338(95.2%)	*	8024(91.6%)	8039(91.8%)	8760(100%)	7866(89.8%)	8760(100%)	7625(87.0%)	7769(88.7%)	7999(91.3%)	*
起始年月	2018/12	2018/12	*	2018/12	2018/12	2018/12	2018/12	2018/12	2018/12	2018/12	2018/12	*
結束年月	2019/11	2019/11	*	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年每月臺東海域修補後各測站風力資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	Y	W										
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年臺東海域 Y 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%)	5.8	1.3/NNE	13.9/SSE	14.0	66.9	18.8	.3	36.3	18.3	18.8	26.6	NNE/11.4%
2	2019/01	744(100%)	5.1	.7/ENE	12.1/ESE	16.1	74.6	9.3	.0	31.6	25.1	20.4	22.8	NE / 9.0%
3	2019/02	672(100%)	4.7	.9/NE	11.5/NNW	26.9	61.3	11.8	.0	28.6	27.5	19.2	24.7	NE / 8.6%
4	2019/03	744(100%)	4.8	.7/E	13.0/N	25.7	62.5	11.8	.0	28.1	31.0	21.9	19.0	ESE/ 9.4%
5	2019/04	720(100%)	3.9	.8/NE	11.9/WNW	48.1	43.2	8.8	.0	33.1	23.2	22.1	21.7	N / 9.4%
6	2019/05	744(100%)	3.5	.3/ENE	11.8/SW	50.1	46.9	3.0	.0	28.8	28.5	20.3	22.4	ENE/ 8.7%
7	2019/06	720(100%)	2.7	.2/NNE	8.9/N	71.9	27.8	.3	.0	27.8	24.0	20.0	28.2	NW / 8.9%
8	2019/07	744(100%)	3.5	.5/ENE	14.4/SE	64.1	25.9	9.5	.4	32.1	25.9	16.5	25.4	NE / 8.7%
9	2019/08	744(100%)	3.7	.7/NNW	19.2/NNW	57.1	33.5	8.5	.9	23.8	21.6	23.4	31.2	NNW/ 9.7%
10	2019/09	720(100%)	4.3	1.5/N	12.7/SE	37.9	53.3	8.8	.0	39.4	13.9	15.7	31.0	N /15.3%
11	2019/10	744(100%)	5.1	1.4/N	14.3/N	22.3	64.7	12.5	.5	28.5	18.0	21.6	31.9	N /12.2%
12	2019/11	720(100%)	6.4	1.4/NNE	15.6/NNE	7.6	68.9	22.1	1.4	30.0	20.4	21.4	28.2	N /11.1%
13	2019/冬	2160(100%)	5.2	1.0/NE	13.9/SSE	18.8	67.8	13.3	.1	32.3	23.5	19.5	24.7	NNE/ 9.3%
14	2019/春	2208(100%)	4.1	.6/ENE	13.0/N	41.2	51.0	7.8	.0	29.9	27.6	21.4	21.0	ENE/ 8.9%
15	2019/夏	2208(100%)	3.3	.4/NNE	19.2/NNW	64.3	29.1	6.2	.5	27.9	23.9	20.0	28.3	NW / 8.2%
16	2019/秋	2184(100%)	5.3	1.4/N	15.6/NNE	22.6	62.3	14.4	.6	32.6	17.4	19.6	30.4	N /12.9%
17	2019/年	8760(100%)	4.5	.8/NNE	19.2/NNW	36.9	52.4	10.4	.3	30.7	23.1	20.1	26.1	N / 9.0%

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表1.1.3　2019年臺東海域 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%)	4.4	3.9/NNW	10.8/NNW	35.3	55.9	8.7	.0	15.3	5.8	.3	78.6	NW /41.7%
2	2019/01	744(100%)	3.3	2.0/NNW	8.4/NNW	56.0	43.4	.5	.0	19.4	20.7	.7	59.3	NNW/32.4%
3	2019/02	672(100%)	3.5	1.4/NNW	9.4/SE	51.0	48.2	.7	.0	15.0	28.7	1.5	54.8	NW /28.1%
4	2019/03	744(100%)	3.5	1.2/N	8.5/N	55.0	43.7	1.3	.0	17.7	28.5	1.5	52.3	NNW/26.3%
5	2019/04	720(100%)	3.1	.7/NE	9.0/SE	62.5	36.7	.8	.0	21.1	37.2	2.6	39.0	SE /24.2%
6	2019/05	744(100%)	2.6	1.5/N	8.2/NW	73.0	26.9	.1	.0	31.5	19.2	1.1	48.3	NNW/23.0%
7	2019/06	720(100%)	2.7	1.3/SE	9.5/SE	70.3	27.9	1.8	.0	23.5	49.2	7.6	19.7	SE /26.7%
8	2019/07	744(100%)	3.1	1.6/SSE	7.9/N	56.2	43.7	.1	.0	14.5	54.6	13.7	17.2	SE /22.0%
9	2019/08	744(100%)	2.8	.2/NW	11.3/NW	66.9	32.0	1.1	.0	17.5	31.7	13.8	37.0	NW /18.4%
10	2019/09	720(100%)	3.5	2.4/NNW	16.9/N	54.9	40.7	3.6	.8	16.9	15.1	2.1	65.8	NW /42.8%
11	2019/10	744(100%)	3.5	2.7/NNW	9.5/NW	50.3	48.8	.9	.0	11.6	11.3	1.7	75.4	NW /48.7%
12	2019/11	720(100%)	4.5	4.0/NW	11.1/NNW	36.0	55.1	8.9	.0	6.5	7.9	1.0	84.6	NW /61.7%
13	2019/冬	2160(100%)	3.8	2.5/NNW	10.8/NNW	47.4	49.2	3.4	.0	16.6	18.1	.8	64.5	NW /30.2%
14	2019/春	2208(100%)	3.0	1.1/N	9.0/SE	63.5	35.7	.8	.0	23.5	28.2	1.7	46.6	NNW/22.3%
15	2019/夏	2208(100%)	2.9	.9/SE	11.3/NW	64.4	34.6	1.0	.0	18.4	45.1	11.8	24.7	SE /20.9%
16	2019/秋	2184(100%)	3.8	3.0/NNW	16.9/N	47.1	48.2	4.4	.3	11.7	11.4	1.6	75.3	NW /51.0%
17	2019/年	8760(100%)	3.4	1.4/NNW	16.9/N	55.7	41.9	2.4	.1	17.6	25.8	4.0	52.6	NW /27.3%

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

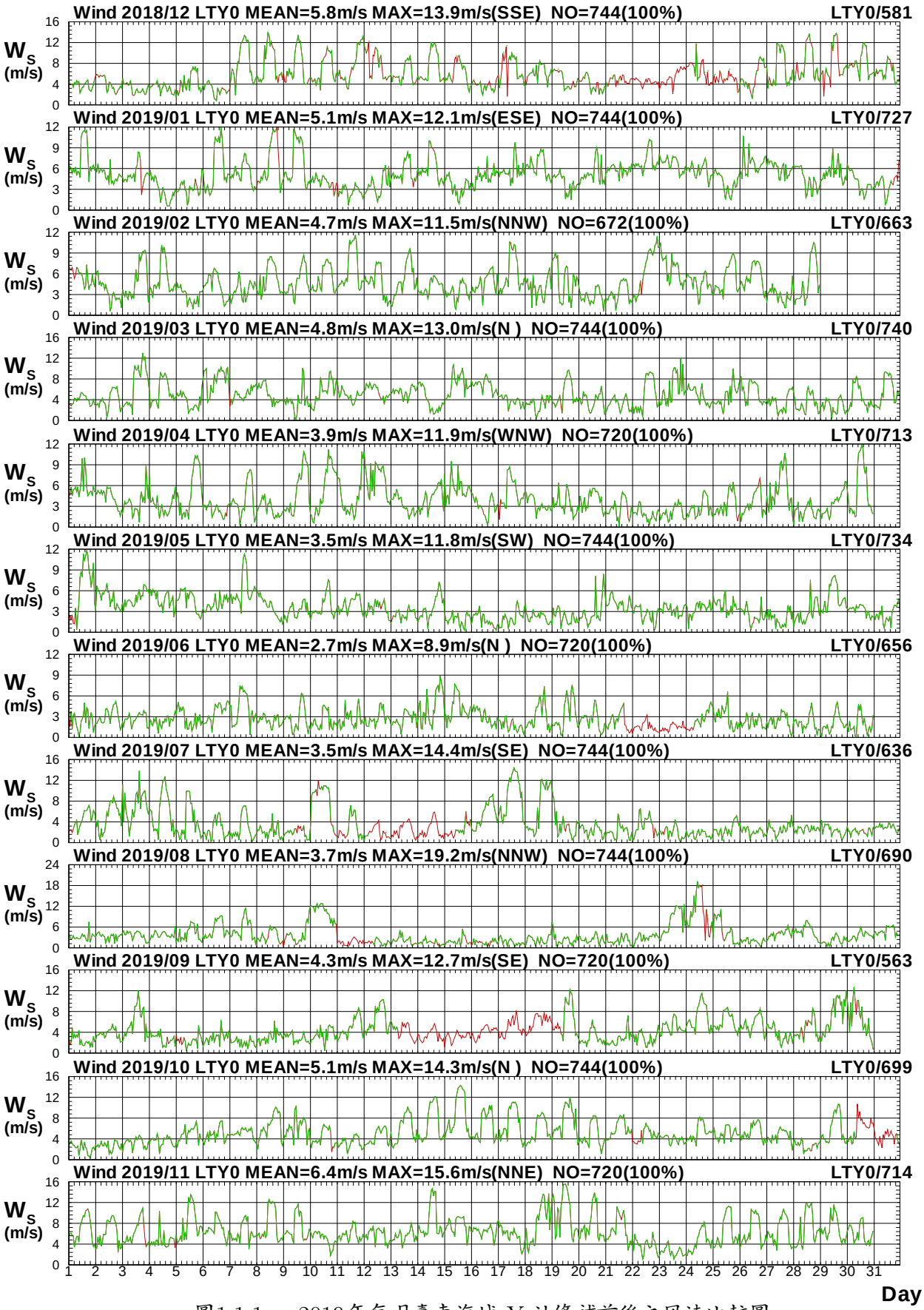

圖1.1.1a　2019年每月臺東海域 Y 站修補前後之風速比較圖

W18CLTY0.1HA W18CLTY0.1H0 W191LTY0.1HA W191LTY0.1H0 W192LTY0.1HA W192LTY0.1H0
W193LTY0.1HA W193LTY0.1H0 W194LTY0.1HA W194LTY0.1H0 W195LTY0.1HA W195LTY0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

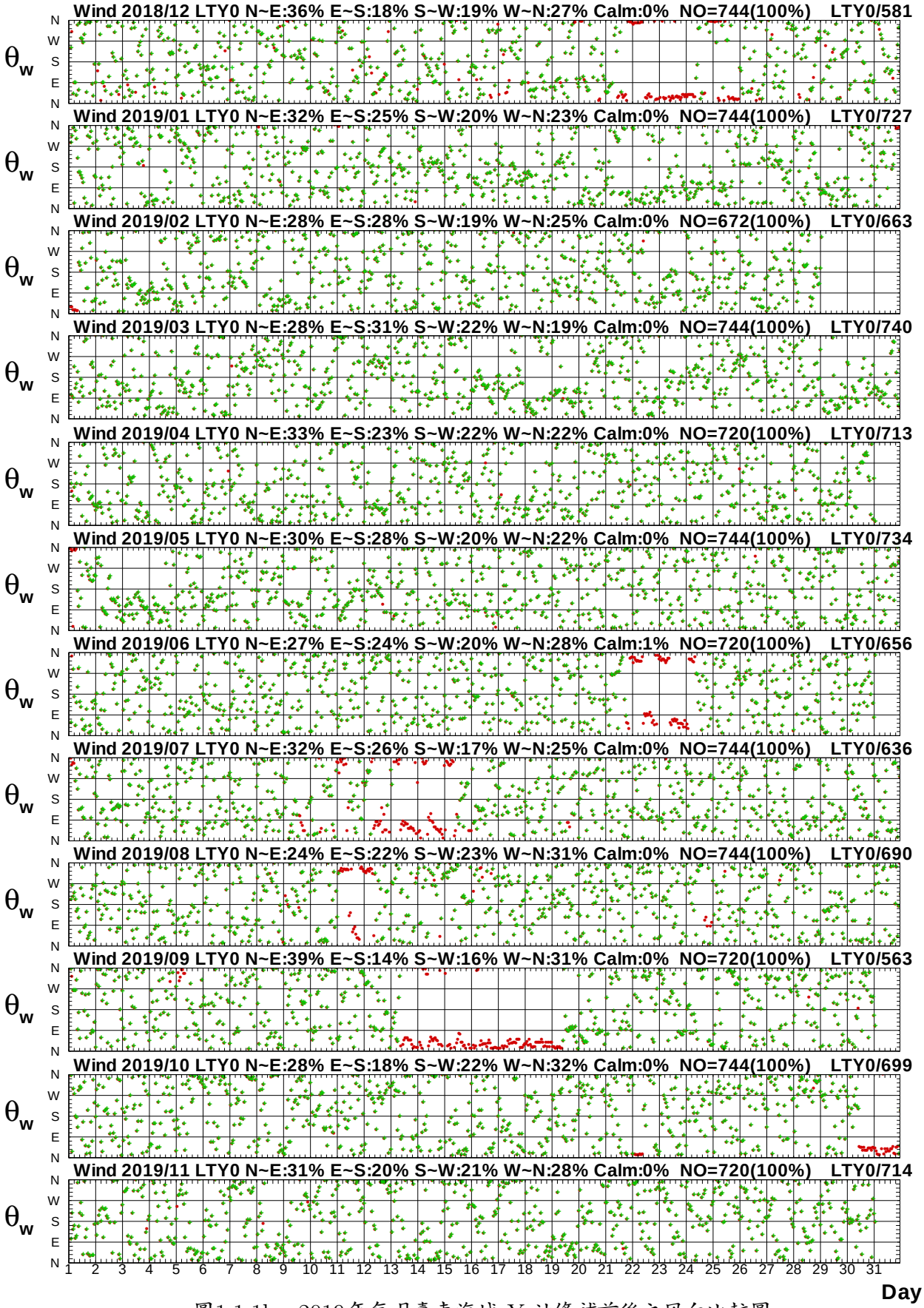

圖1.1.1b　2019年每月臺東海域 Y 站修補前後之風向比較圖

W18CLTY0.1HA W18CLTY0.1H0 W191LTY0.1HA W191LTY0.1H0 W192LTY0.1HA W192LTY0.1H0
W193LTY0.1HA W193LTY0.1H0 W194LTY0.1HA W194LTY0.1H0 W195LTY0.1HA W195LTY0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

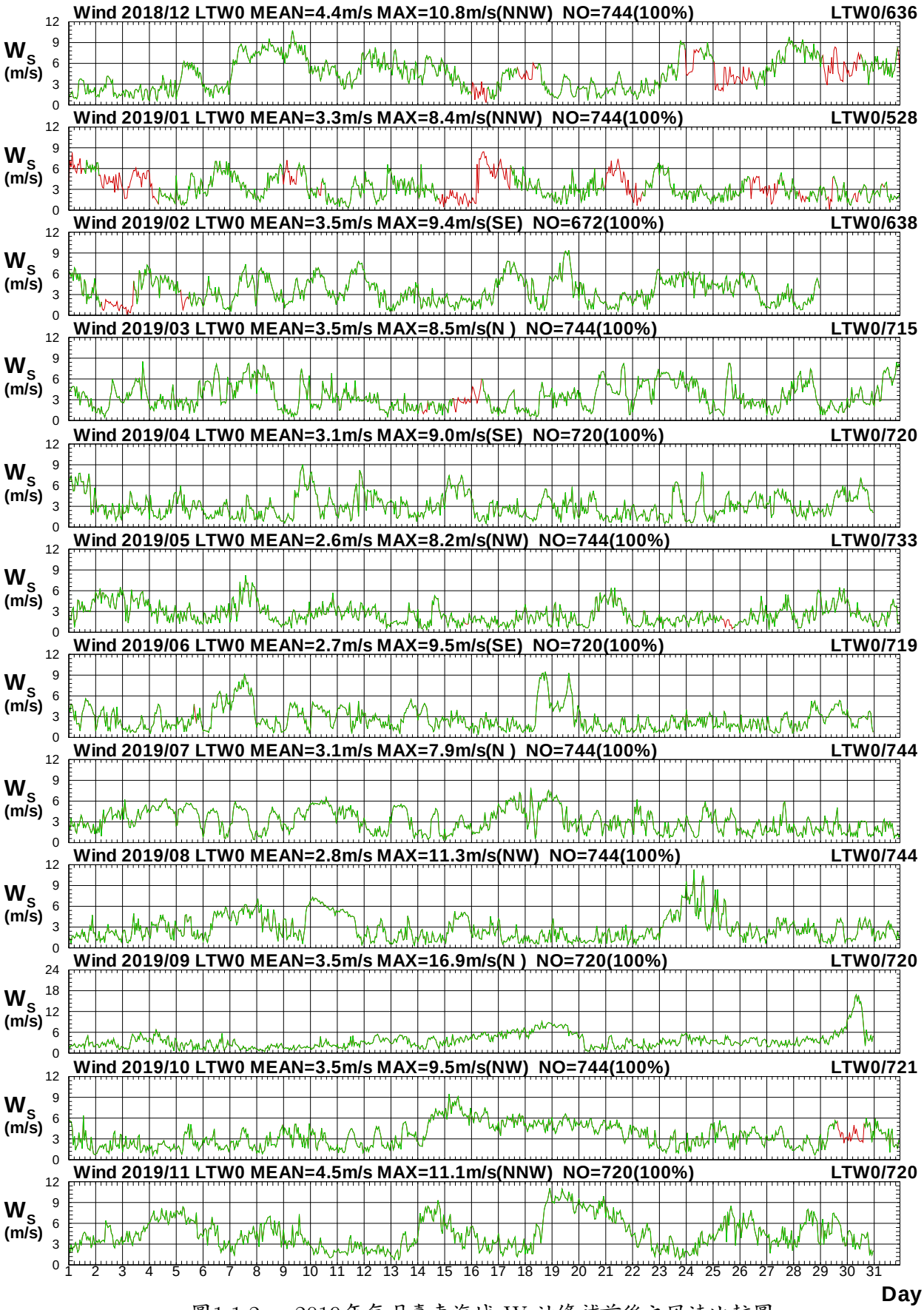

圖1.1.2a　2019年每月臺東海域 W 站修補前後之風速比較圖

W18CLTW0.1HA W18CLTW0.1H0 W191LTW0.1HA W191LTW0.1H0 W192LTW0.1HA W192LTW0.1H0
W193LTW0.1HA W193LTW0.1H0 W194LTW0.1HA W194LTW0.1H0 W195LTW0.1HA W195LTW0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

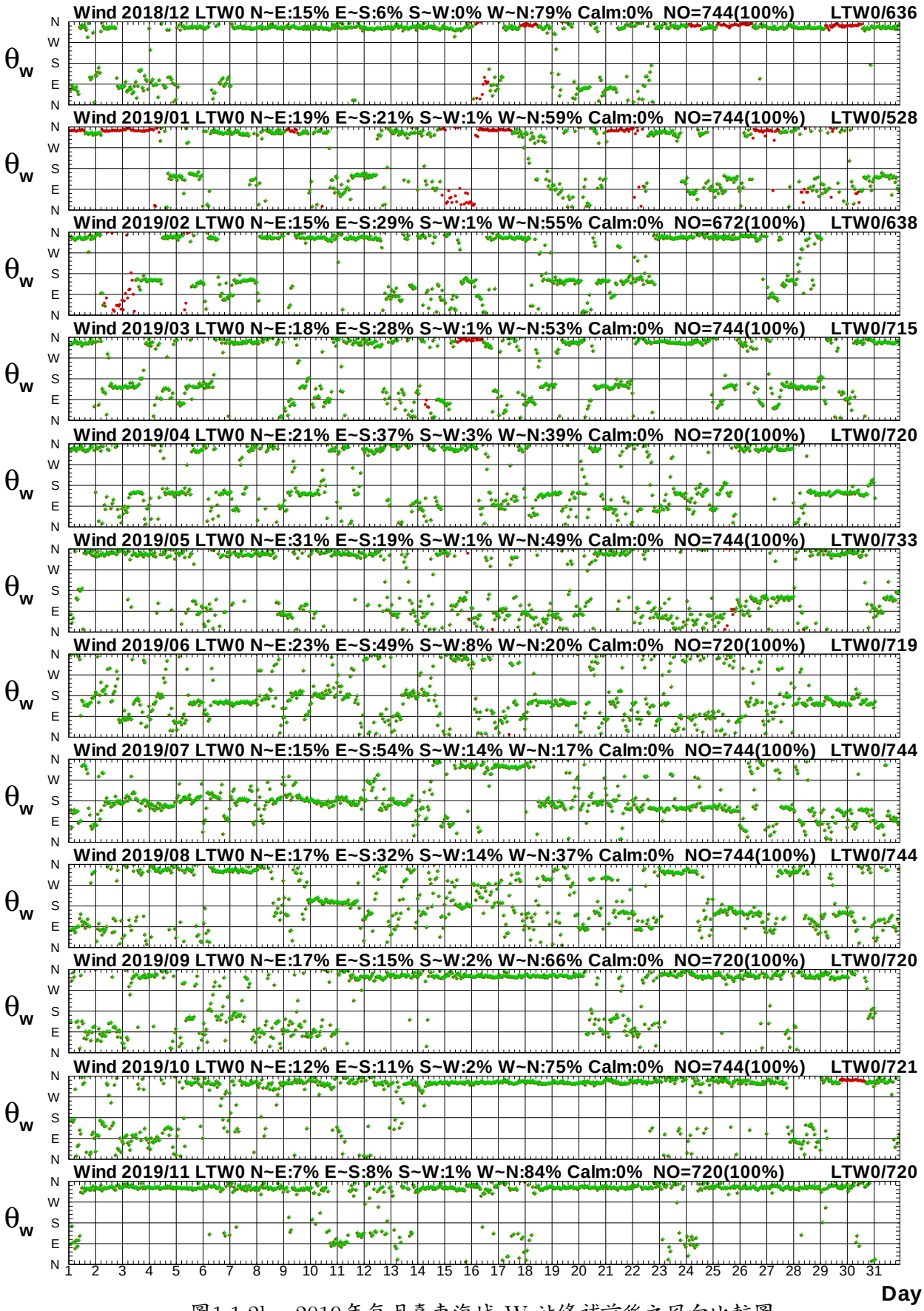

圖1.1.2b　2019年每月臺東海域 W 站修補前後之風向比較圖

W18CLTW0.1HA W18CLTW0.1H0 W191LTW0.1HA W191LTW0.1H0 W192LTW0.1HA W192LTW0.1H0
W193LTW0.1HA W193LTW0.1H0 W194LTW0.1HA W194LTW0.1H0 W195LTW0.1HA W195LTW0.1H0

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Distribution of Wind Vectores

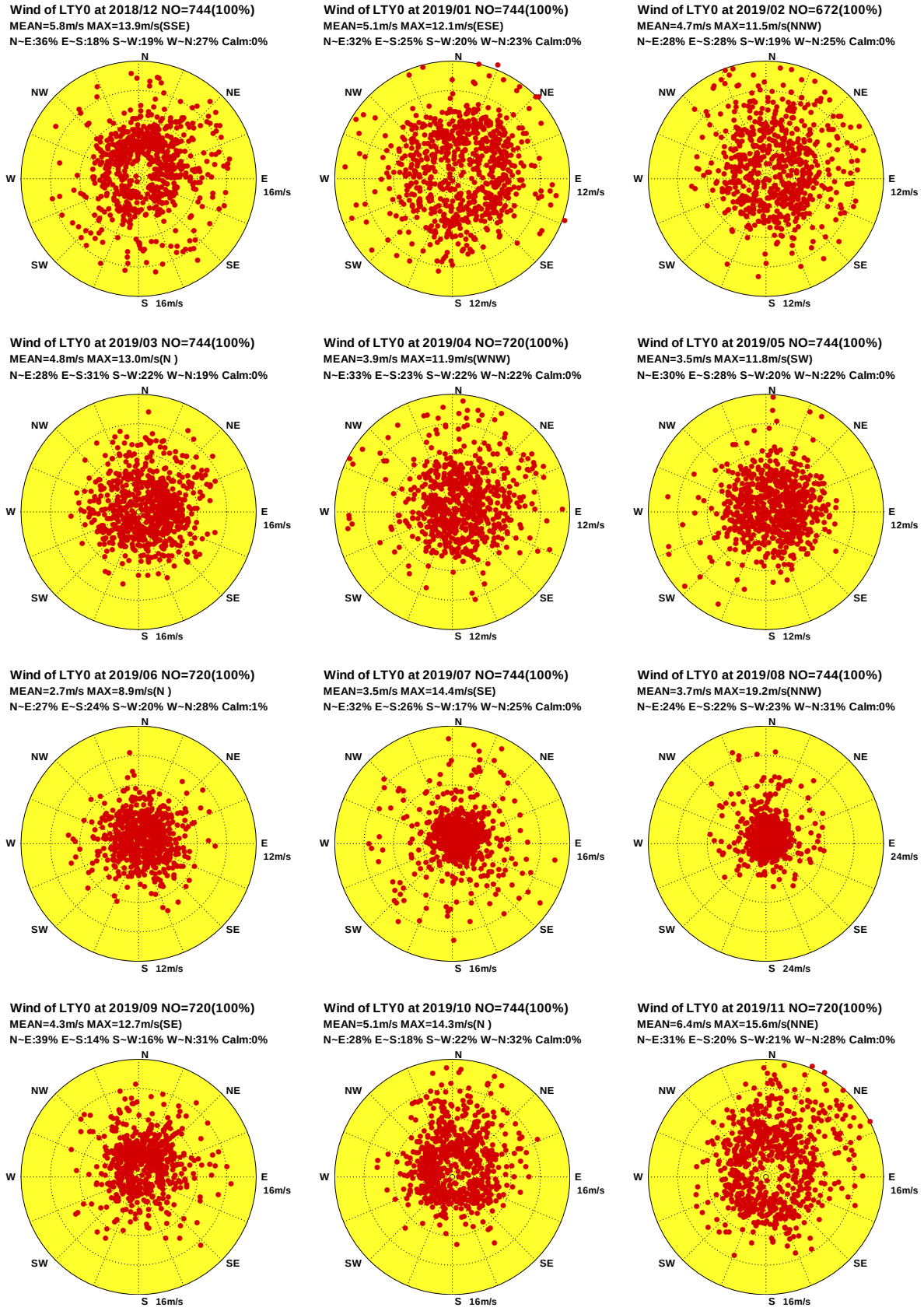

圖1.1.3 2019年臺東海域每月 Y 站修補後觀測風力向量分佈圖

W18CLTY0.1HA W191LTY0.1HA W192LTY0.1HA W193LTY0.1HA W194LTY0.1HA W195LTY0.1HA
W196LTY0.1HA W197LTY0.1HA W198LTY0.1HA W199LTY0.1HA W19ALTY0.1HA W19BLTY0.1HA

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Distribution of Wind Vectores

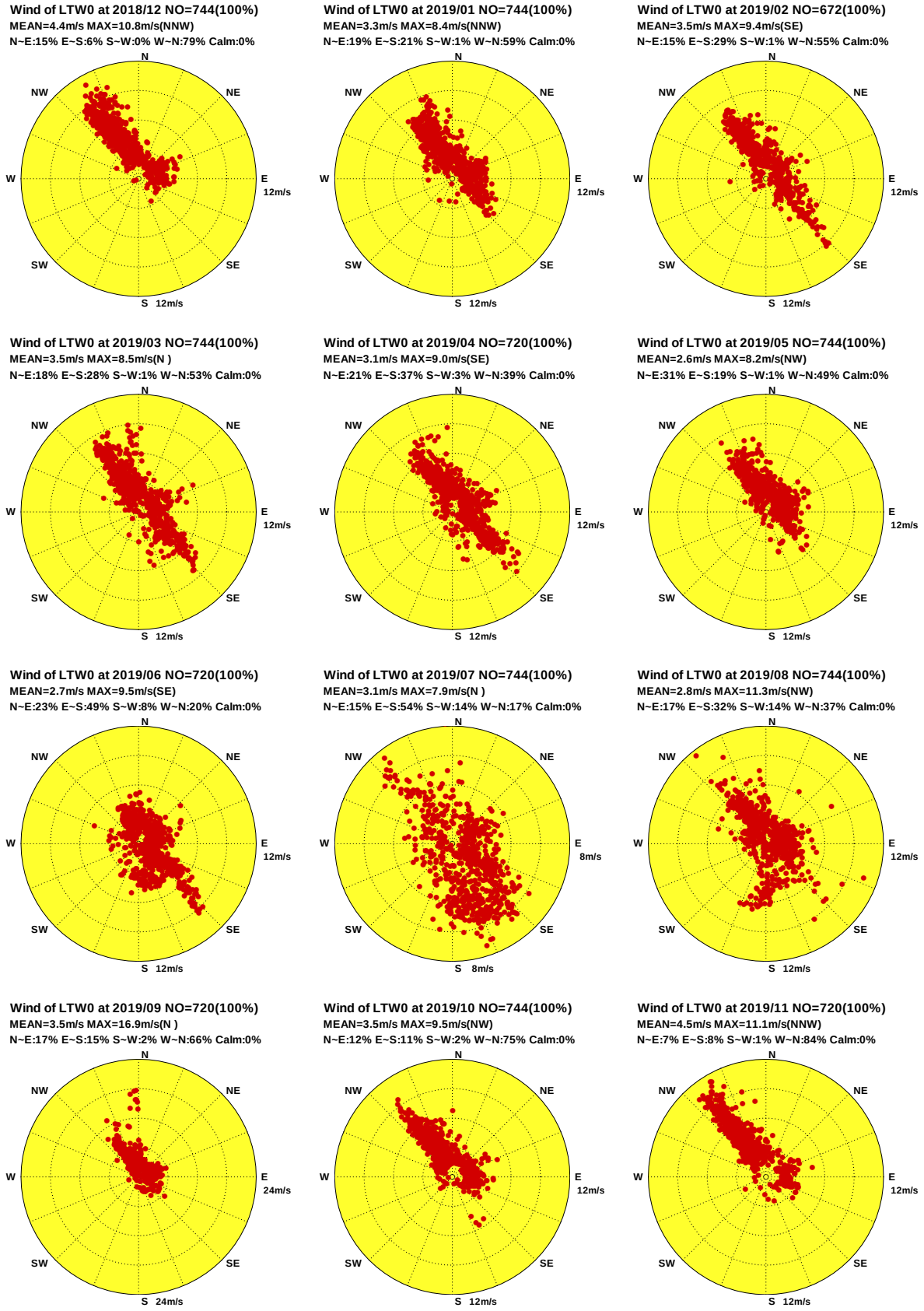

圖1.1.4 2019年臺東海域每月 W 站修補後觀測風力向量分佈圖

W18CLTW0.1HA W191LTW0.1HA W192LTW0.1HA W193LTW0.1HA W194LTW0.1HA W195LTW0.1HA
W196LTW0.1HA W197LTW0.1HA W198LTW0.1HA W199LTW0.1HA W19ALTW0.1HA W19BLTW0.1HA

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Progressive Vector Diagram of Wind

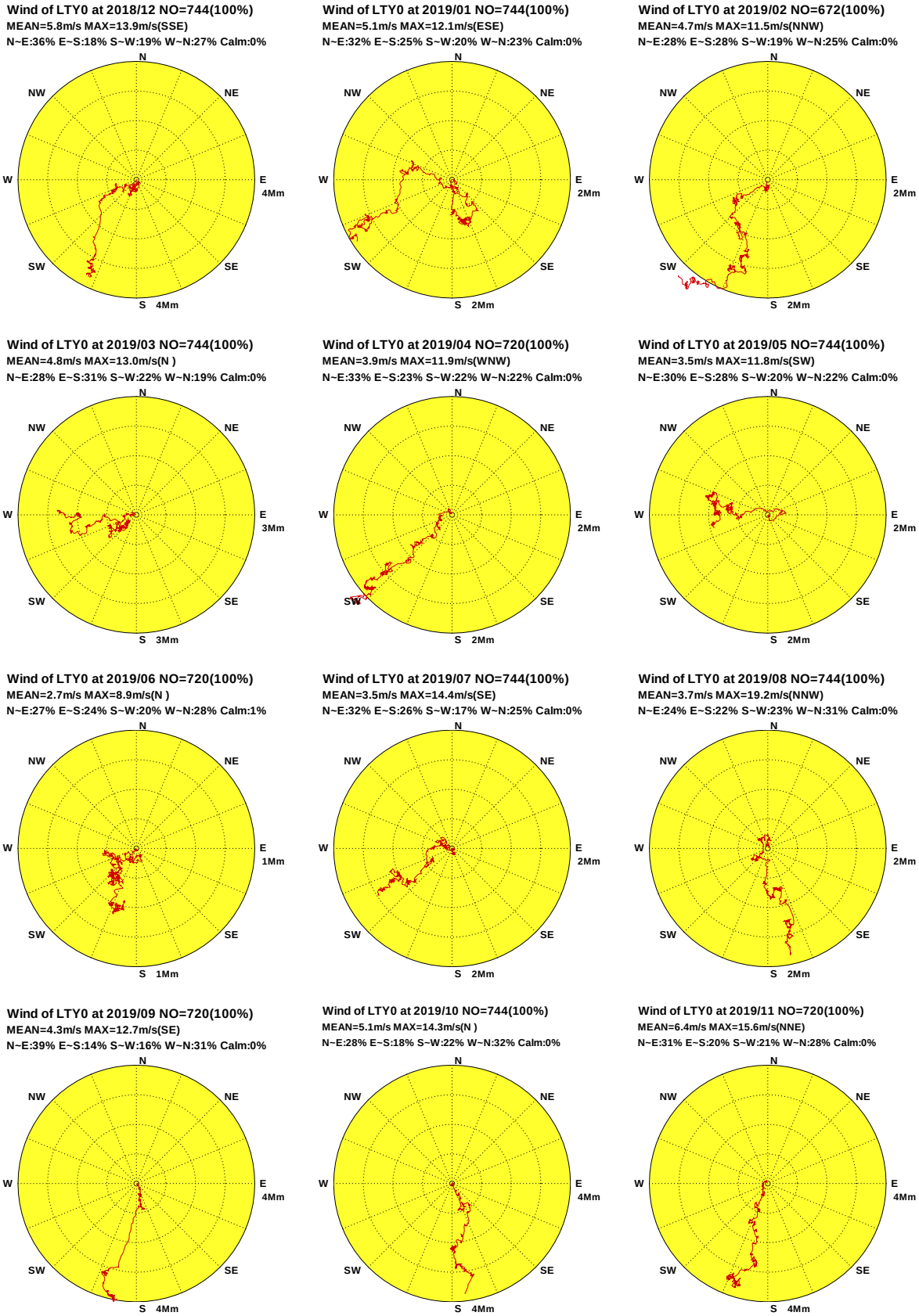

圖1.1.5 2019年臺東海域每月 Y 站修補後觀測風力向量行進圖

W18CLTY0.1HA W191LTY0.1HA W192LTY0.1HA W193LTY0.1HA W194LTY0.1HA W195LTY0.1HA
W196LTY0.1HA W197LTY0.1HA W198LTY0.1HA W199LTY0.1HA W19ALTY0.1HA W19BLTY0.1HA

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Progressive Vector Diagram of Wind

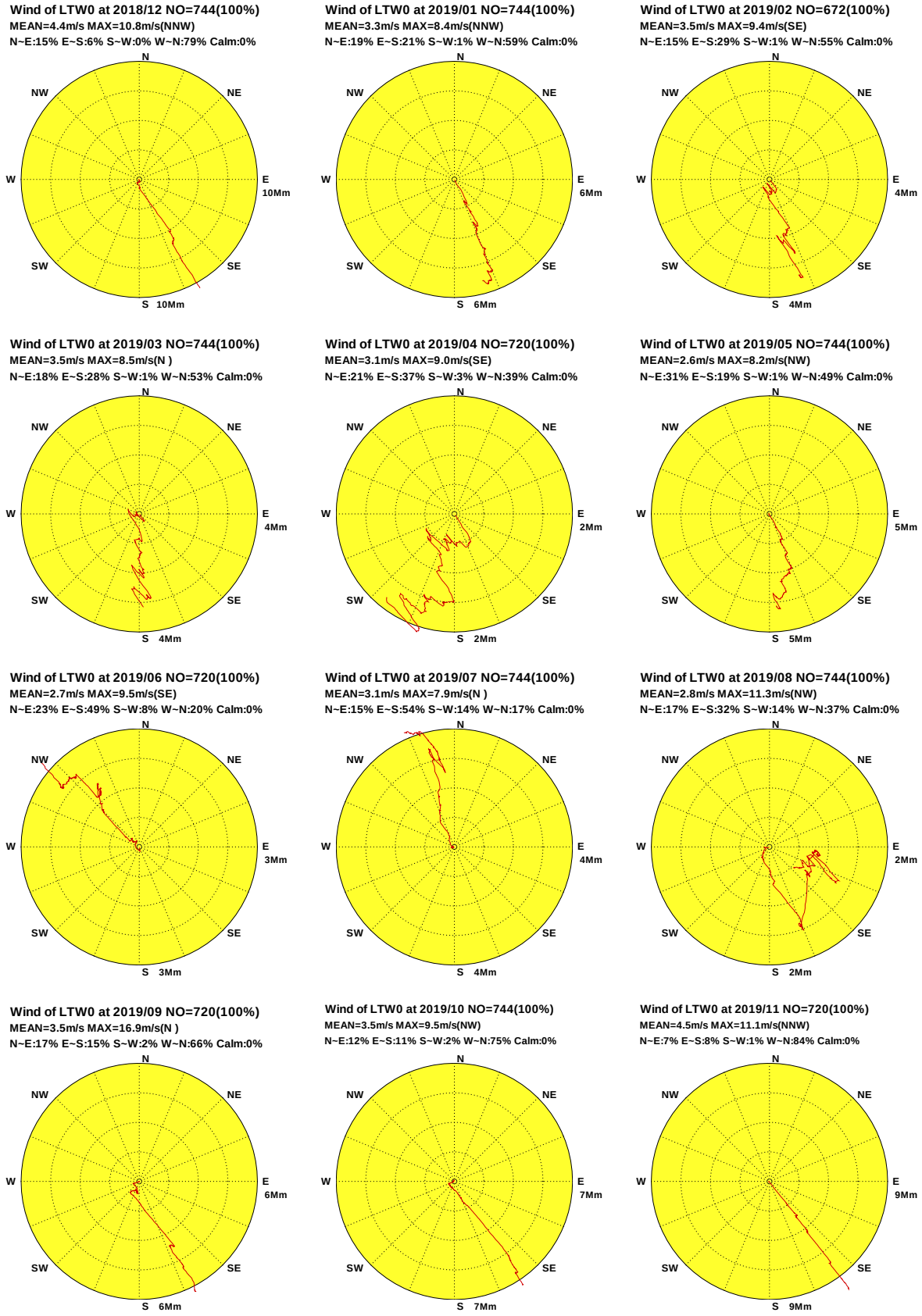

圖1.1.6 2019年臺東海域每月 W 站修補後觀測風力向量行進圖

W18CLTW0.1HA W191LTW0.1HA W192LTW0.1HA W193LTW0.1HA W194LTW0.1HA W195LTW0.1HA W196LTW0.1HA W197LTW0.1HA W198LTW0.1HA W199LTW0.1HA W19ALTW0.1HA W19BLTW0.1HA	Institute of Harbor & Marine Technology

1.2　2019 年臺東海域各測站修補前

風力統計量統計表

表1.2.1　2019年臺東海域 Y 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	581(78%)	5.9	.7/NE	13.9/SSE	16.0	62.8	20.8	.3	31.0	21.5	22.5	25.0	NE / 9.5%
2	2019/01	727(98%)	5.1	.7/ENE	12.1/ESE	16.2	74.6	9.2	.0	31.9	25.4	20.8	21.9	NE / 9.2%
3	2019/02	663(99%)	4.7	.9/NE	11.5/NNW	27.1	61.1	11.8	.0	27.9	27.9	19.5	24.7	NE / 8.7%
4	2019/03	740(100%)	4.9	.7/E	13.0/N	25.4	62.7	11.9	.0	28.0	31.2	21.8	19.1	ESE/ 9.5%
5	2019/04	713(99%)	3.9	.8/NE	11.9/WNW	47.8	43.3	8.8	.0	33.2	23.1	21.7	21.9	N / 9.5%
6	2019/05	734(99%)	3.5	.3/ENE	11.8/SW	49.6	47.4	3.0	.0	28.7	28.7	20.6	21.9	ENE/ 8.7%
7	2019/06	656(91%)	2.8	.1/N	8.9/N	69.2	30.5	.3	.0	25.8	26.1	22.0	26.2	SE / 7.8%
8	2019/07	636(86%)	3.7	.4/E	14.4/SE	62.6	26.3	10.7	.5	28.5	28.9	19.2	23.4	E / 9.6%
9	2019/08	690(93%)	3.8	.7/NNW	19.2/NNW	54.3	35.9	8.8	.9	23.9	22.2	24.9	29.0	NNW/ 9.9%
10	2019/09	563(78%)	4.3	.9/N	12.7/SE	39.4	49.6	11.0	.0	29.0	17.6	19.9	33.6	NW /10.1%
11	2019/10	699(94%)	5.1	1.2/NNW	14.3/N	22.6	64.1	12.7	.6	24.5	19.0	23.0	33.5	N /10.7%
12	2019/11	714(99%)	6.4	1.4/NNE	15.6/NNE	7.6	69.0	22.0	1.4	30.0	20.3	21.3	28.4	N /11.2%
13	2019/冬	1971(91%)	5.2	.7/NE	13.9/SSE	19.8	66.6	13.5	.1	30.3	25.1	20.9	23.7	NE / 9.1%
14	2019/春	2187(99%)	4.1	.6/ENE	13.0/N	40.8	51.3	7.9	.0	29.9	27.8	21.4	20.9	ENE/ 8.9%
15	2019/夏	1982(90%)	3.4	.3/NNE	19.2/NNW	61.9	31.0	6.6	.5	26.0	25.6	22.1	26.3	SE / 8.0%
16	2019/秋	1976(91%)	5.3	1.2/N	15.6/NNE	22.0	61.7	15.6	.7	27.7	19.1	21.5	31.7	N /10.3%
17	2019/年	8116(93%)	4.5	.6/NNE	19.2/NNW	36.3	52.6	10.8	.3	28.5	24.5	21.5	25.5	N / 8.0%

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表1.2.2　2019年臺東海域 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	636(86%)	4.5	3.9/NNW	10.8/NNW	37.1	53.3	9.6	.0	17.0	6.4	.3	76.3	NW /48.1%
2	2019/01	528(71%)	3.2	1.4/N	7.2/NW	61.4	38.6	.0	.0	20.1	28.6	.9	50.4	NW /27.8%
3	2019/02	638(95%)	3.6	1.5/NNW	9.4/SE	48.4	50.8	.8	.0	12.9	29.6	1.6	56.0	NW /29.6%
4	2019/03	715(96%)	3.5	1.1/N	8.5/N	54.1	44.5	1.4	.0	17.9	29.7	1.5	50.9	NNW/24.1%
5	2019/04	720(100%)	3.1	.7/NE	9.0/SE	62.5	36.7	.8	.0	21.1	37.2	2.6	39.0	SE /24.2%
6	2019/05	733(99%)	2.6	1.5/N	8.2/NW	72.6	27.3	.1	.0	31.1	19.2	1.1	48.6	NNW/23.2%
7	2019/06	719(100%)	2.7	1.3/SE	9.5/SE	70.4	27.8	1.8	.0	23.4	49.1	7.6	19.9	SE /26.4%
8	2019/07	744(100%)	3.1	1.6/SSE	7.9/N	56.2	43.7	.1	.0	14.5	54.7	13.6	17.2	SE /22.2%
9	2019/08	744(100%)	2.8	.2/NW	11.3/NW	66.9	32.0	1.1	.0	17.6	31.7	13.7	37.0	NW /18.5%
10	2019/09	720(100%)	3.5	2.4/NNW	16.9/N	54.9	40.7	3.6	.8	16.9	15.1	2.1	65.8	NW /42.9%
11	2019/10	721(97%)	3.5	2.7/NNW	9.5/NW	50.1	49.0	1.0	.0	12.1	11.5	1.8	74.6	NW /50.1%
12	2019/11	720(100%)	4.5	4.0/NW	11.1/NNW	36.0	55.1	8.9	.0	6.5	7.9	1.0	84.6	NW /61.4%
13	2019/冬	1802(83%)	3.8	2.3/NNW	10.8/NNW	48.2	48.1	3.7	.0	16.4	21.1	.9	61.5	NW /35.6%
14	2019/春	2168(98%)	3.1	1.1/N	9.0/SE	63.1	36.1	.8	.0	23.4	28.6	1.8	46.2	NNW/21.5%
15	2019/夏	2207(100%)	2.9	.9/SE	11.3/NW	64.4	34.6	1.0	.0	18.4	45.1	11.7	24.7	SE /21.0%
16	2019/秋	2161(99%)	3.8	3.0/NNW	16.9/N	47.0	48.3	4.5	.3	11.8	11.5	1.6	75.0	NW /51.5%
17	2019/年	8338(95%)	3.4	1.3/NNW	16.9/N	56.1	41.4	2.4	.1	17.6	26.9	4.2	51.3	NW /28.6%

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表1.2.3　2019年臺東海域 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	628(84%)	3.7	3.3/NW	8.6/NNW	44.1	54.9	1.0	.0	11.9	6.7	.6	80.7	NW /68.3%
2	2019/01	717(96%)	2.8	1.6/NW	7.8/NW	66.4	33.6	.0	.0	10.5	20.2	5.9	63.5	NW /49.4%
3	2019/02	626(93%)	3.0	1.3/WNW	8.3/S	57.3	42.3	.3	.0	13.1	13.1	15.3	58.5	NW /42.8%
4	2019/03	723(97%)	3.0	1.1/WNW	9.3/SSW	60.7	38.0	1.2	.0	12.0	14.4	18.9	54.6	NW /34.4%
5	2019/04	710(99%)	2.7	.6/W	9.3/S	70.4	28.6	1.0	.0	18.2	17.6	21.1	43.1	NW /26.8%
6	2019/05	723(97%)	2.1	1.0/NNW	7.9/SW	81.1	18.8	.1	.0	26.4	13.8	7.3	52.4	NW /36.4%
7	2019/06	646(90%)	2.9	1.7/SW	9.0/SW	65.5	32.4	2.2	.0	18.6	13.8	43.2	24.5	SW /13.8%
8	2019/07	623(84%)	4.1	2.8/SW	11.9/SSW	49.8	37.2	13.0	.0	13.0	14.9	50.7	21.3	SW /22.6%
9	2019/08	677(91%)	2.7	1.0/W	12.1/ESE	71.8	22.9	5.3	.0	15.4	19.8	21.3	43.6	NW /29.7%
10	2019/09	559(78%)	2.6	1.3/NW	12.9/NNW	76.6	20.8	2.7	.0	13.8	17.7	7.9	60.6	NW /46.3%
11	2019/10	692(93%)	2.9	2.3/NW	8.7/SW	61.0	38.4	.6	.0	9.7	10.1	4.3	75.9	NW /63.6%
12	2019/11	700(97%)	3.7	3.4/NW	9.9/NW	47.4	49.0	3.6	.0	3.0	7.9	4.0	85.1	NW /71.7%
13	2019/冬	1971(91%)	3.1	2.0/NW	8.6/NNW	56.4	43.2	.4	.0	11.8	13.6	7.2	67.4	NW /53.3%
14	2019/春	2156(98%)	2.6	.8/WNW	9.3/SSW	70.7	28.5	.8	.0	18.9	15.3	15.8	50.1	NW /32.6%
15	2019/夏	1946(88%)	3.2	1.7/SW	12.1/ESE	62.6	30.6	6.7	.0	15.7	16.2	38.0	30.1	NW /17.9%
16	2019/秋	1951(89%)	3.1	2.4/NW	12.9/NNW	60.6	37.2	2.3	.0	8.5	11.5	5.2	74.8	NW /61.6%
17	2019/年	8024(92%)	3.0	1.4/WNW	12.9/NNW	62.8	34.7	2.5	.0	13.8	14.2	16.5	55.5	NW /41.2%

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表1.2.4　2019年臺東海域 H 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	625(84%)	4.0	3.5/NE	11.4/ENE	50.9	35.8	13.3	.0	70.1	1.0	.5	28.5	NE /42.2%
2	2019/01	728(98%)	3.2	2.4/NE	9.5/NE	64.1	31.7	4.1	.0	52.7	2.3	3.2	41.8	NE /29.5%
3	2019/02	629(94%)	3.0	1.7/NE	9.5/ENE	63.3	34.3	2.4	.0	51.5	2.7	11.4	34.3	NE /22.4%
4	2019/03	729(98%)	3.1	1.6/NE	11.2/SW	61.7	35.0	3.3	.0	49.5	2.3	13.3	34.8	NE /27.7%
5	2019/04	699(97%)	2.7	1.3/NE	11.2/SW	66.7	30.6	2.7	.0	50.8	5.3	15.6	28.3	NE /23.7%
6	2019/05	726(98%)	2.0	1.4/NE	9.1/NE	80.6	19.0	.4	.0	50.6	4.3	4.1	41.0	NE /19.6%
7	2019/06	651(90%)	2.0	.3/NNE	6.9/WNW	79.1	20.9	.0	.0	41.0	5.1	24.9	29.0	NE /16.6%
8	2019/07	619(83%)	3.0	.2/SW	12.9/SW	70.6	20.4	9.0	.0	42.0	5.3	29.6	23.1	SW /18.4%
9	2019/08	678(91%)	2.7	.8/NE	18.3/ENE	72.1	21.5	5.8	.6	44.5	5.2	23.2	27.1	ENE/17.8%
10	2019/09	565(79%)	2.8	2.0/NE	10.9/ENE	68.3	27.4	4.2	.0	57.3	2.7	5.3	34.7	ENE/21.6%
11	2019/10	683(92%)	3.4	2.8/NE	11.7/ENE	58.1	33.4	8.5	.0	64.0	.7	.9	34.4	NE /26.4%
12	2019/11	707(98%)	4.4	3.8/NE	12.1/ENE	47.5	37.2	15.3	.0	69.9	.3	.1	29.7	NE /40.6%
13	2019/冬	1982(92%)	3.4	2.5/NE	11.4/ENE	59.7	33.9	6.5	.0	57.8	2.0	4.9	35.2	NE /31.3%
14	2019/春	2154(98%)	2.6	1.4/NE	11.2/SW	69.7	28.2	2.1	.0	50.3	3.9	11.0	34.8	NE /23.7%
15	2019/夏	1948(88%)	2.5	.3/NE	18.3/ENE	74.0	20.9	4.9	.2	42.6	5.2	25.8	26.5	ENE/15.1%
16	2019/秋	1955(90%)	3.6	3.0/NE	12.1/ENE	57.2	33.0	9.7	.0	64.2	1.1	1.9	32.8	NE /29.5%
17	2019/年	8039(92%)	3.0	1.8/NE	18.3/ENE	65.2	29.0	5.7	.0	53.7	3.1	10.9	32.4	NE /24.4%

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表1.2.5　2019年臺東海域 O 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%)	4.3	4.0/NNE	10.1/NNE	33.2	63.8	3.0	.0	75.0	4.0	.3	20.7	NNE/46.5%
2	2019/01	744(100%)	3.6	3.2/NNE	9.3/NNE	46.2	53.1	.7	.0	71.1	2.6	4.7	21.6	NNE/45.7%
3	2019/02	672(100%)	3.0	2.3/NNE	7.4/NNE	59.2	40.8	.0	.0	61.6	5.1	11.9	21.4	NNE/35.9%
4	2019/03	744(100%)	3.0	2.1/N	8.4/NNE	60.1	39.8	.1	.0	56.0	4.3	13.2	26.5	NNE/30.8%
5	2019/04	720(100%)	2.5	1.6/NNE	8.4/NNE	75.0	24.9	.1	.0	48.5	10.3	14.0	27.2	NNE/25.0%
6	2019/05	744(100%)	2.4	1.9/N	7.3/NNE	76.9	23.1	.0	.0	57.7	7.3	3.6	31.5	N /29.3%
7	2019/06	720(100%)	1.8	.9/N	5.5/NNE	91.4	8.6	.0	.0	38.6	7.9	19.6	33.9	N /18.8%
8	2019/07	744(100%)	2.1	.8/N	9.2/NNE	83.9	15.7	.4	.0	32.5	13.0	20.7	33.7	NNE/13.8%
9	2019/08	744(100%)	2.3	1.4/N	11.4/SSE	79.7	18.3	2.0	.0	42.5	10.3	11.7	35.5	N /19.0%
10	2019/09	720(100%)	3.4	2.9/NNE	11.0/N	55.1	42.5	2.4	.0	66.0	4.6	3.8	25.7	NNE/31.8%
11	2019/10	744(100%)	3.8	3.5/NNE	10.8/NNE	41.9	56.5	1.6	.0	74.5	2.6	.4	22.6	N /42.3%
12	2019/11	720(100%)	4.6	4.4/NNE	9.7/NNE	23.8	72.5	3.8	.0	84.3	.4	.1	15.1	NNE/45.6%
13	2019/冬	2160(100%)	3.7	3.2/NNE	10.1/NNE	45.8	53.0	1.3	.0	69.5	3.8	5.4	21.3	NNE/42.9%
14	2019/春	2208(100%)	2.6	1.9/N	8.4/NNE	70.6	29.3	.1	.0	54.1	7.2	10.2	28.4	NNE/28.1%
15	2019/夏	2208(100%)	2.1	1.0/N	11.4/SSE	84.9	14.3	.8	.0	37.9	10.5	17.3	34.4	N /16.9%
16	2019/秋	2184(100%)	3.9	3.6/NNE	11.0/N	40.3	57.1	2.6	.0	74.9	2.5	1.4	21.2	N /37.0%
17	2019/年	8760(100%)	3.1	2.4/NNE	11.4/SSE	60.5	38.3	1.2	.0	59.0	6.0	8.6	26.3	NNE/30.8%

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表1.2.6　2019年臺東海域 Z 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	647(87%)	7.9	7.6/NNE	14.2/NNE	8.3	37.2	53.9	.5	95.2	1.4	.3	3.1	NNE/54.3%
2	2019/01	715(96%)	6.9	5.4/NE	13.1/NE	12.3	49.4	38.3	.0	75.2	14.5	7.0	3.2	NNE/30.1%
3	2019/02	660(98%)	5.3	2.1/NE	11.2/N	22.9	58.5	18.6	.0	49.8	19.1	21.7	9.4	NNE/22.3%
4	2019/03	743(100%)	6.5	2.5/NE	12.6/SW	10.4	60.0	29.6	.0	58.1	13.9	22.9	5.1	NNE/25.4%
5	2019/04	706(98%)	5.4	.4/N	15.0/SW	23.9	57.5	18.4	.1	38.4	17.4	34.6	9.6	NNE/17.0%
6	2019/05	736(99%)	5.2	1.6/NNE	11.8/SW	24.0	60.5	15.5	.0	53.4	10.2	29.3	7.1	NNE/19.0%
7	2019/06	658(91%)	5.4	3.6/SW	11.7/SW	24.3	55.2	20.5	.0	12.5	10.5	68.1	9.0	SW /32.1%
8	2019/07	451(61%)	5.2	3.4/SSW	11.8/SW	27.1	52.1	20.8	.0	12.2	16.4	70.1	1.3	SW /32.6%
9	2019/08	702(94%)	6.3	1.6/WNW	22.6/S	25.9	39.9	31.2	3.0	34.5	10.7	37.0	17.8	WSW/18.2%
10	2019/09	559(78%)	6.2	3.5/NNE	16.5/SW	15.2	61.0	22.2	1.6	64.8	5.7	19.5	10.0	NNE/30.1%
11	2019/10	702(94%)	7.0	5.8/NNE	15.3/SW	5.6	60.7	33.3	.4	91.5	.9	4.7	3.0	NNE/40.6%
12	2019/11	720(100%)	8.8	8.5/NNE	15.0/NNE	1.9	32.8	62.8	2.5	97.2	.4	.1	2.2	NE /45.0%
13	2019/冬	2022(94%)	6.7	5.0/NNE	14.2/NNE	14.5	48.5	36.9	.1	73.3	11.8	9.6	5.2	NNE/35.3%
14	2019/春	2185(99%)	5.7	1.5/NNE	15.0/SW	19.4	59.4	21.2	.0	50.2	13.8	28.8	7.2	NNE/20.5%
15	2019/夏	1811(82%)	5.7	2.5/SW	22.6/S	25.6	48.5	24.7	1.2	20.9	12.0	56.5	10.5	SW /21.4%
16	2019/秋	1981(91%)	7.4	6.1/NNE	16.5/SW	7.0	50.6	40.9	1.5	86.0	2.1	7.2	4.7	NNE/38.3%
17	2019/年	7999(91%)	6.4	2.7/NNE	22.6/S	16.5	52.0	30.9	.7	58.3	10.0	24.9	6.8	NNE/25.5%

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表1.2.7　2019年臺東海域 M 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	650(87%)	10.7	9.2/N	30.5/N	9.7	25.4	35.4	29.5	64.5	2.6	2.8	30.2	NNE/30.6%
2	2019/01	720(97%)	7.9	6.0/NNE	34.2/NNE	28.8	29.2	24.3	17.8	55.0	15.8	7.1	22.1	NNE/20.4%
3	2019/02	672(100%)	4.9	3.5/NNE	22.9/N	47.8	29.9	17.9	4.5	53.7	18.3	6.1	21.9	N /15.9%
4	2019/03	705(95%)	5.7	4.2/NNE	22.7/NE	41.4	28.9	23.0	6.7	55.3	15.0	5.2	24.4	N /17.4%
5	2019/04	631(88%)	4.6	3.3/NNE	30.5/NNE	56.4	21.7	17.4	4.4	54.4	18.4	6.3	20.9	NNE/16.2%
6	2019/05	720(97%)	4.1	2.8/NNE	26.9/NNE	55.4	26.5	15.3	2.8	48.3	14.7	11.0	26.0	NNE/14.9%
7	2019/06	604(84%)	2.2	1.0/NE	13.4/ENE	82.3	13.4	4.3	.0	42.2	27.5	12.3	18.0	ENE/12.3%
8	2019/07	153(21%)	5.2	3.7/N	20.5/NE	51.6	22.9	19.6	5.9	49.0	13.1	5.2	32.7	NNW/17.6%
9	2019/08	652(88%)	1.1	.5/NNE	14.7/NNE	90.0	8.3	1.5	.2	37.0	22.2	11.2	29.6	N /13.0%
10	2019/09	720(100%)	3.4	2.7/NNE	16.2/N	55.0	39.0	5.1	.8	56.0	12.4	4.6	27.1	NNE/26.8%
11	2019/10	716(96%)	3.9	3.2/NNE	14.8/NNW	49.4	41.9	7.8	.8	57.3	8.5	4.7	29.5	NNE/28.5%
12	2019/11	682(95%)	4.2	3.6/NNE	16.1/NW	43.3	46.0	9.8	.9	62.2	4.5	2.5	30.8	NNE/31.1%
13	2019/冬	2042(95%)	7.8	6.2/NNE	34.2/NNE	28.9	28.2	25.7	17.1	57.6	12.4	5.4	24.6	NNE/21.9%
14	2019/春	2056(93%)	4.8	3.4/NNE	30.5/NNE	50.9	25.9	18.6	4.6	52.6	16.0	7.6	23.9	NNE/15.3%
15	2019/夏	1409(64%)	2.0	1.0/NNE	20.5/NE	82.5	12.1	4.7	.7	40.5	23.5	11.0	25.0	NNE/11.3%
16	2019/秋	2118(97%)	3.9	3.2/NNE	16.2/N	49.3	42.3	7.6	.8	58.4	8.5	4.0	29.1	NNE/28.8%
17	2019/年	7625(87%)	4.8	3.6/NNE	34.2/NNE	50.4	28.5	14.9	6.2	53.3	14.3	6.6	25.7	NNE/20.1%

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表1.2.8　2019年臺東海域 Q 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	657(88%)	3.2	3.0/N	8.2/N	51.3	48.2	.5	.0	48.9	.3	.2	50.7	N /39.6%
2	2019/01	744(100%)	2.6	2.1/N	7.3/NNW	67.1	32.9	.0	.0	44.4	2.0	3.6	50.0	N /33.2%
3	2019/02	672(100%)	2.6	1.1/N	12.6/S	70.2	28.1	1.6	.0	40.0	5.2	10.3	44.5	N /26.2%
4	2019/03	705(95%)	2.7	.8/N	10.0/S	69.1	28.1	2.8	.0	34.0	7.9	10.6	47.4	N /25.8%
5	2019/04	720(100%)	2.2	.6/NNE	10.7/S	78.6	19.9	1.5	.0	32.6	11.9	10.8	44.6	N /19.3%
6	2019/05	744(100%)	1.7	1.3/N	6.0/NNE	88.6	11.4	.0	.0	32.4	6.5	5.4	55.8	NNW/22.2%
7	2019/06	604(84%)	1.7	.2/NNE	9.5/S	88.1	10.9	1.0	.0	29.5	8.3	15.4	46.9	NNW/16.6%
8	2019/07	153(21%)	4.7	1.3/S	12.3/S	49.0	25.5	25.5	.0	43.1	8.5	28.8	19.6	S /19.6%
9	2019/08	652(88%)	2.1	.6/NNE	14.0/S	80.5	16.9	2.5	.2	34.4	11.5	13.7	40.5	NNW/13.5%
10	2019/09	720(100%)	2.4	1.9/N	12.1/NNW	72.5	26.5	1.0	.0	42.1	2.9	4.0	51.0	N /25.0%
11	2019/10	716(96%)	2.7	2.4/N	8.5/NNW	65.6	33.9	.4	.0	40.8	1.4	1.4	56.4	N /34.6%
12	2019/11	682(95%)	3.3	3.1/N	9.9/NNW	50.6	48.8	.6	.0	47.4	.0	.4	52.2	N /43.0%
13	2019/冬	2073(96%)	2.8	2.1/N	12.6/S	63.1	36.2	.7	.0	44.4	2.5	4.7	48.4	N /32.9%
14	2019/春	2169(98%)	2.2	.9/N	10.7/S	78.9	19.6	1.4	.0	33.0	8.8	8.9	49.3	N /22.1%
15	2019/夏	1409(64%)	2.2	.2/NE	14.0/S	80.3	15.3	4.3	.1	33.2	9.8	16.0	41.0	NNW/14.3%
16	2019/秋	2118(97%)	2.8	2.5/N	12.1/NNW	63.1	36.2	.7	.0	43.3	1.5	2.0	53.2	N /34.0%
17	2019/年	7769(89%)	2.5	1.5/N	14.0/S	70.7	27.8	1.5	.0	38.9	5.3	7.2	48.6	N /26.7%

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表1.2.9　2019年臺東海域 C 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%)	3.5	3.0/NNE	7.8/NNE	45.4	54.6	.0	.0	74.2	2.4	2.2	21.2	NNE/46.1%
2	2019/01	744(100%)	3.1	2.5/NNE	7.0/NNE	55.6	44.4	.0	.0	67.5	4.3	1.9	26.3	NNE/39.0%
3	2019/02	672(100%)	2.5	1.4/NNE	6.3/NNE	73.4	26.6	.0	.0	48.2	11.3	7.4	33.0	NNE/21.3%
4	2019/03	744(100%)	2.6	1.4/NNE	8.3/SSE	67.9	32.0	.1	.0	56.3	7.0	10.9	25.8	NNE/32.5%
5	2019/04	720(100%)	2.2	.9/NNE	6.3/NNE	79.0	21.0	.0	.0	43.1	14.7	11.5	30.7	NNE/21.7%
6	2019/05	744(100%)	1.9	1.1/N	5.6/NNE	89.5	10.5	.0	.0	48.4	8.7	6.2	36.7	NNE/20.3%
7	2019/06	720(100%)	1.8	.4/WSW	6.1/S	90.4	9.6	.0	.0	24.2	12.5	28.1	35.3	WNW/17.4%
8	2019/07	744(100%)	2.1	.3/WSW	7.2/NNE	85.6	14.4	.0	.0	27.3	9.0	38.0	25.7	SSW/14.9%
9	2019/08	744(100%)	2.3	.3/NNW	11.8/SSE	78.8	20.6	.7	.0	32.7	10.5	24.7	32.1	WNW/18.1%
10	2019/09	720(100%)	2.3	1.4/N	5.9/NNE	77.9	22.1	.0	.0	51.0	6.4	6.8	35.8	NNE/21.5%
11	2019/10	744(100%)	2.7	2.0/NNE	6.7/NE	66.0	34.0	.0	.0	64.8	3.1	3.8	28.4	NNE/27.4%
12	2019/11	720(100%)	3.7	3.3/NNE	8.1/NNE	33.8	66.1	.1	.0	80.3	2.4	1.3	16.1	NNE/49.3%
13	2019/冬	2160(100%)	3.0	2.3/NNE	7.8/NNE	57.6	42.4	.0	.0	63.8	5.8	3.7	26.7	NNE/35.9%
14	2019/春	2208(100%)	2.3	1.1/NNE	8.3/SSE	78.8	21.2	.0	.0	49.3	10.1	9.5	31.1	NNE/24.9%
15	2019/夏	2208(100%)	2.1	.2/W	11.8/SSE	84.9	14.9	.2	.0	28.1	10.6	30.3	31.0	WNW/15.8%
16	2019/秋	2184(100%)	2.9	2.2/NNE	8.1/NNE	59.3	40.7	.0	.0	65.3	3.9	3.9	26.8	NNE/32.7%
17	2019/年	8760(100%)	2.6	1.4/NNE	11.8/SSE	70.3	29.7	.1	.0	51.5	7.6	11.9	28.9	NNE/25.8%

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表1.2.10　2019年臺東海域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	625(84%)	3.6	3.3/NNE	7.7/NNE	46.4	53.6	.0	.0	69.9	3.4	.3	26.4	NNE/33.8%
2	2019/01	671(90%)	3.3	2.8/NNE	10.4/S	54.4	45.5	.1	.0	62.4	4.0	1.8	31.7	NNE/27.6%
3	2019/02	569(85%)	2.6	1.5/NNE	7.9/S	75.2	24.6	.2	.0	44.6	8.1	7.0	40.2	NNW/30.6%
4	2019/03	680(91%)	2.8	1.5/N	9.9/S	69.3	30.4	.3	.0	46.5	5.4	10.6	37.5	NNW/25.7%
5	2019/04	690(96%)	2.3	1.2/N	9.1/SSW	79.9	19.9	.3	.0	38.4	13.3	6.4	41.9	NNW/30.7%
6	2019/05	724(97%)	2.0	1.4/N	5.9/NW	88.1	11.9	.0	.0	37.7	6.8	3.7	51.8	NNW/36.5%
7	2019/06	644(89%)	2.2	.8/W	9.2/S	80.7	19.1	.2	.0	16.5	10.9	26.4	46.3	NW /20.8%
8	2019/07	625(84%)	2.4	.6/WSW	8.2/S	77.3	22.6	.2	.0	21.0	9.3	39.4	30.4	SW /16.6%
9	2019/08	688(93%)	2.5	.9/NW	17.8/S	76.2	21.7	2.0	.1	24.4	8.9	20.6	46.1	NW /19.8%
10	2019/09	560(78%)	2.3	1.6/N	6.2/S	82.1	17.9	.0	.0	36.1	3.9	7.0	53.0	NW /22.0%
11	2019/10	688(93%)	2.7	2.2/N	8.4/W	74.4	25.1	.4	.0	46.2	3.3	.4	50.0	NNW/23.5%
12	2019/11	702(98%)	3.5	3.2/N	7.1/NNE	43.7	56.3	.0	.0	66.0	2.4	.4	31.2	N /34.8%
13	2019/冬	1865(86%)	3.2	2.6/NNE	10.4/S	58.1	41.8	.1	.0	59.5	5.0	2.9	32.5	NNW/25.6%
14	2019/春	2094(95%)	2.4	1.4/N	9.9/S	79.3	20.5	.2	.0	40.8	8.5	6.8	43.9	NNW/31.1%
15	2019/夏	1957(89%)	2.4	.7/WNW	17.8/S	78.0	21.1	.8	.1	20.7	9.7	28.5	41.1	NW /17.9%
16	2019/秋	1950(89%)	2.9	2.4/N	8.4/W	65.6	34.3	.2	.0	50.4	3.2	2.3	44.1	N /23.8%
17	2019/年	7866(90%)	2.7	1.6/N	17.8/S	70.5	29.1	.3	.0	42.6	6.6	10.2	40.6	NNW/22.0%

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1.3　2019 年臺東海域主要測站 1(修補後)與其他測站(修補前)風力歷線比較圖

Wind Speed in Ta-Tung Seas of LTY0 at 2019

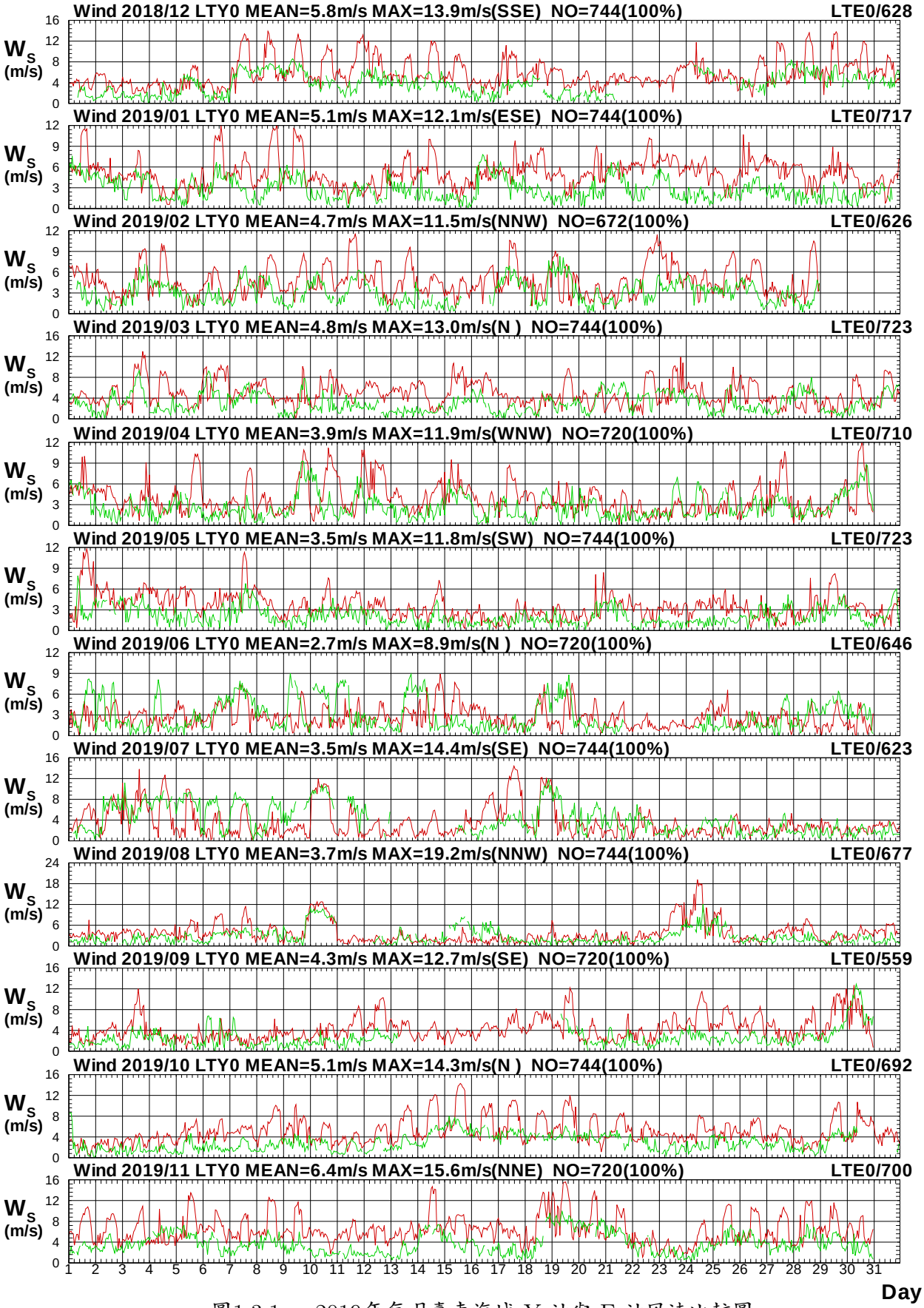

圖1.3.1a　2019年每月臺東海域 Y 站與 E 站風速比較圖

W18CLTY0.1HA W18CLTE0.1H0 W191LTY0.1HA W191LTE0.1H0 W192LTY0.1HA W192LTE0.1H0
W193LTY0.1HA W193LTE0.1H0 W194LTY0.1HA W194LTE0.1H0 W195LTY0.1HA W195LTE0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

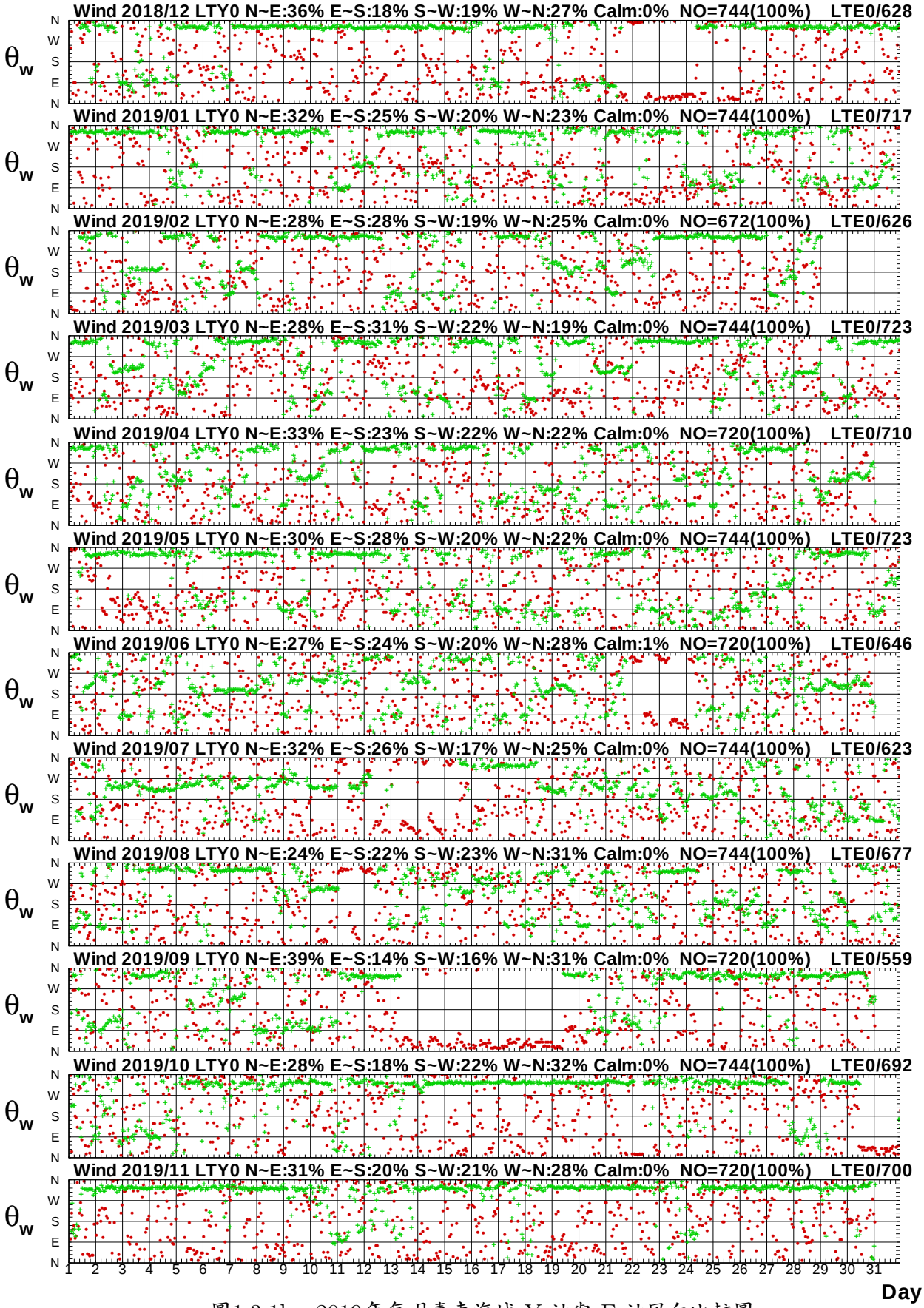

圖1.3.1b　2019年每月臺東海域 Y 站與 E 站風向比較圖

W18CLTY0.1HA W18CLTE0.1H0 W191LTY0.1HA W191LTE0.1H0 W192LTY0.1HA W192LTE0.1H0
W193LTY0.1HA W193LTE0.1H0 W194LTY0.1HA W194LTE0.1H0 W195LTY0.1HA W195LTE0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

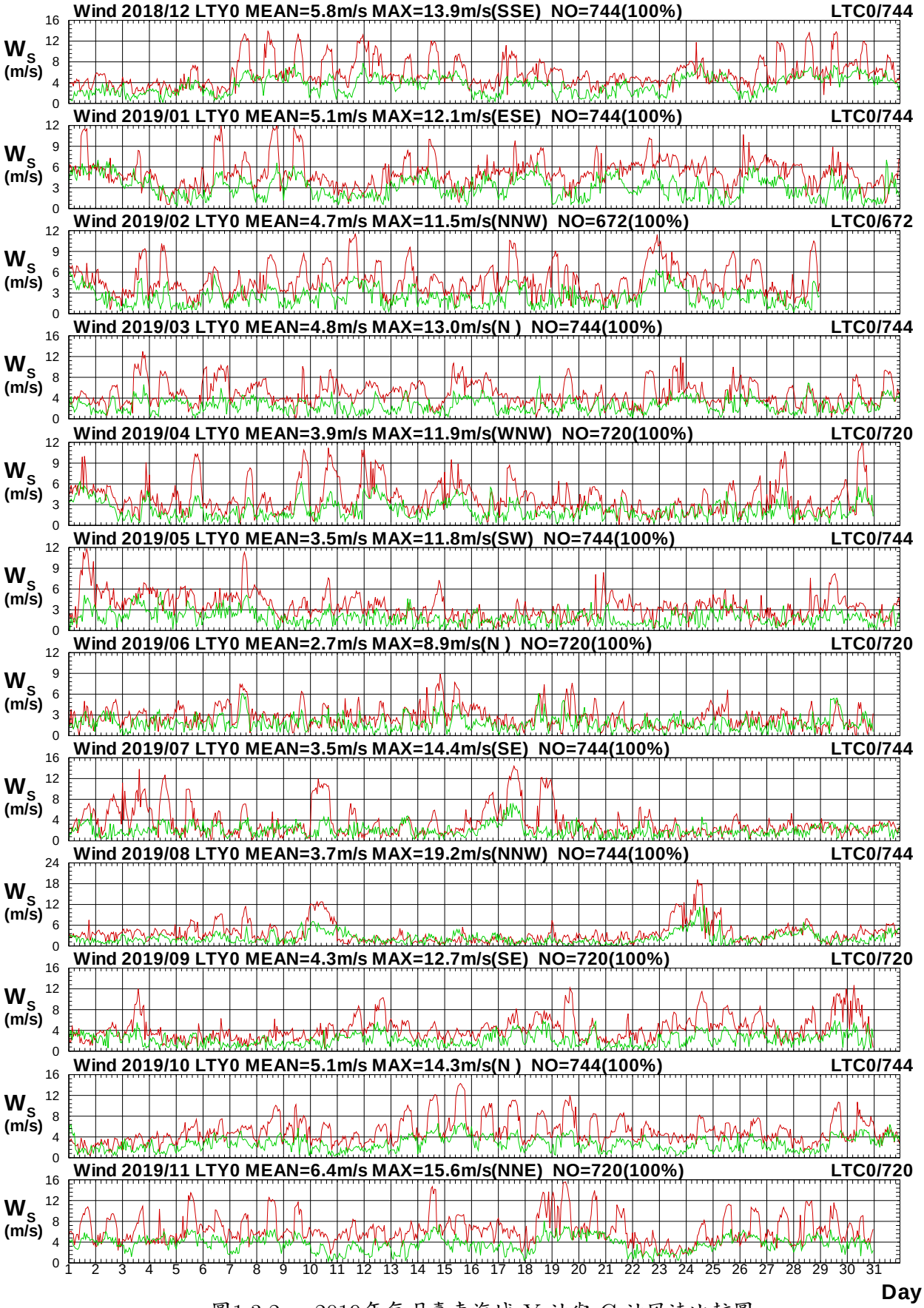

圖1.3.2a　2019年每月臺東海域 Y 站與 C 站風速比較圖

W18CLTY0.1HA W18CLTC0.1H0 W191LTY0.1HA W191LTC0.1H0 W192LTY0.1HA W192LTC0.1H0
W193LTY0.1HA W193LTC0.1H0 W194LTY0.1HA W194LTC0.1H0 W195LTY0.1HA W195LTC0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

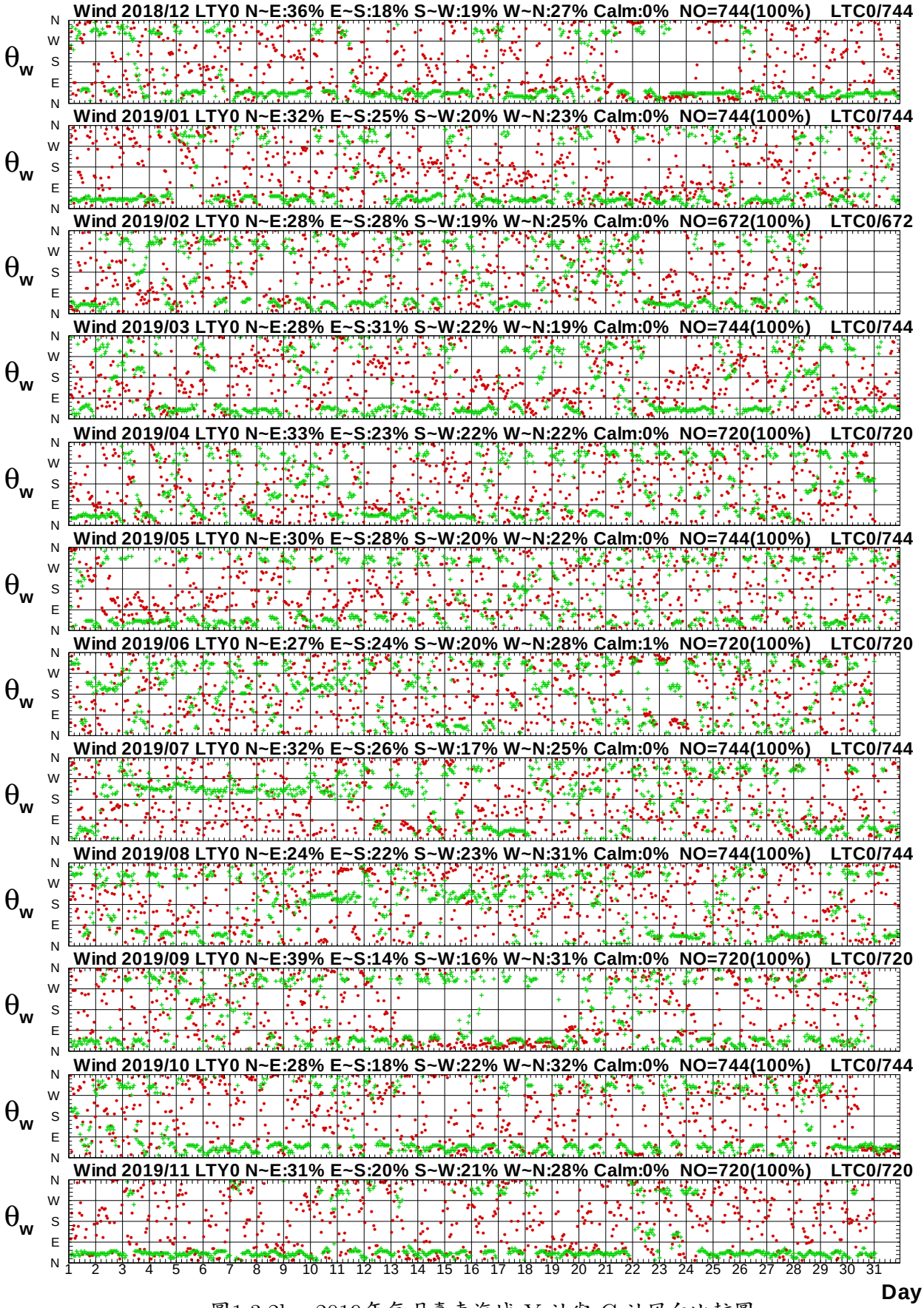

圖1.3.2b　2019年每月臺東海域 Y 站與 C 站風向比較圖

W18CLTY0.1HA W18CLTC0.1H0 W191LTY0.1HA W191LTC0.1H0 W192LTY0.1HA W192LTC0.1H0
W193LTY0.1HA W193LTC0.1H0 W194LTY0.1HA W194LTC0.1H0 W195LTY0.1HA W195LTC0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

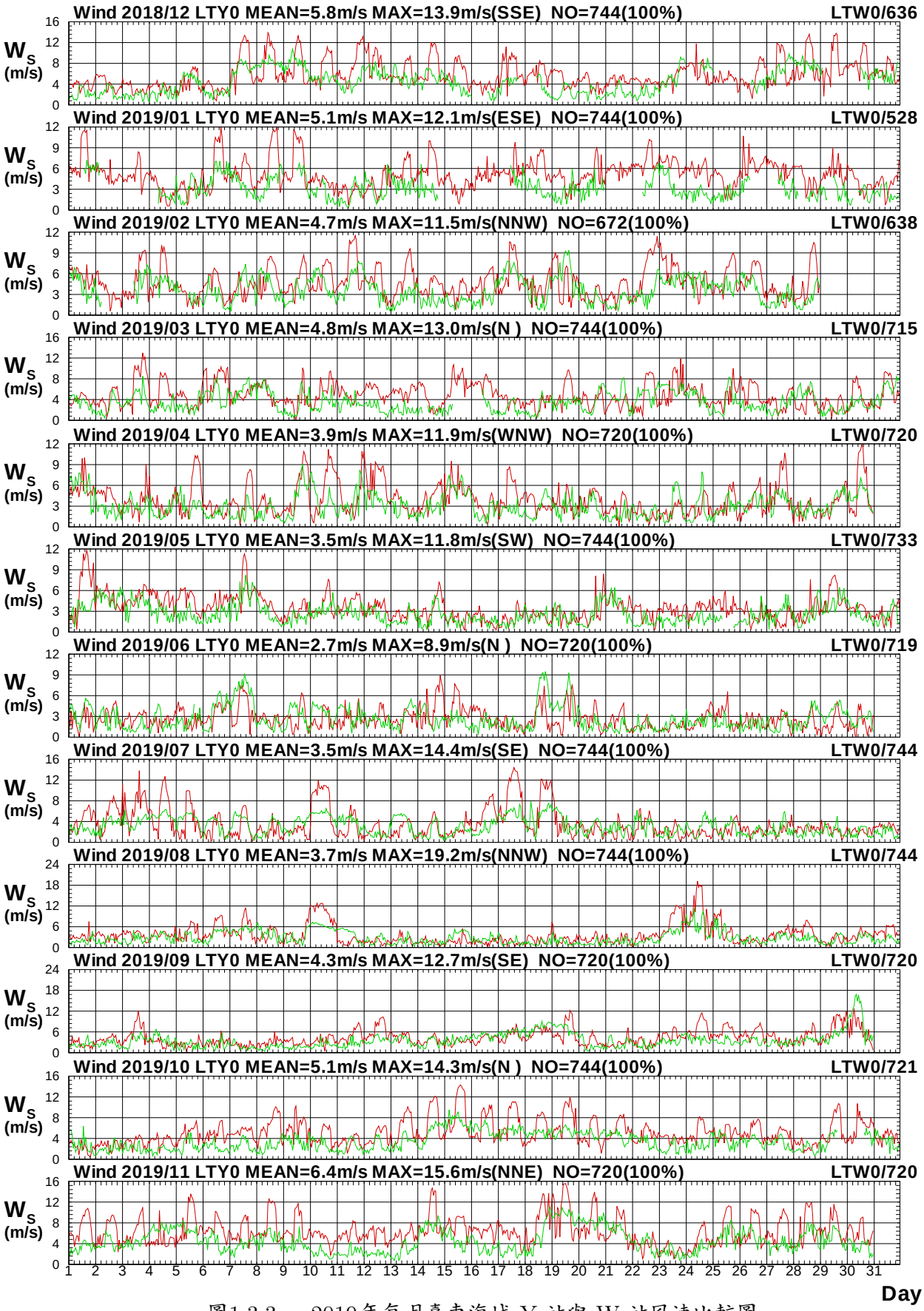

圖1.3.3a　2019年每月臺東海域 Y 站與 W 站風速比較圖

W18CLTY0.1HA W18CLTW0.1H0 W191LTY0.1HA W191LTW0.1H0 W192LTY0.1HA W192LTW0.1H0
W193LTY0.1HA W193LTW0.1H0 W194LTY0.1HA W194LTW0.1H0 W195LTY0.1HA W195LTW0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

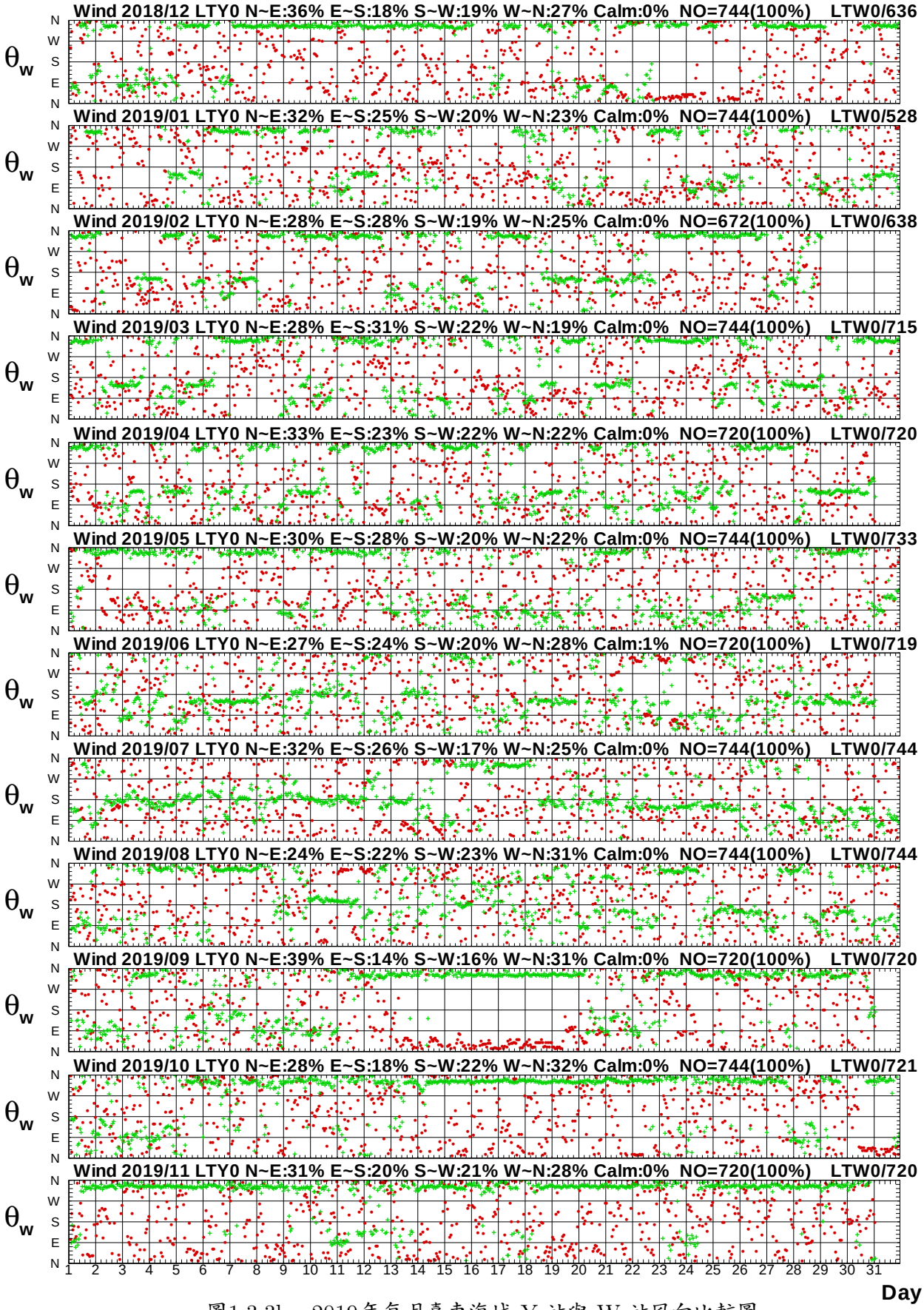

圖1.3.3b　2019年每月臺東海域 Y 站與 W 站風向比較圖

W18CLTY0.1HA W18CLTW0.1H0 W191LTY0.1HA W191LTW0.1H0 W192LTY0.1HA W192LTW0.1H0
W193LTY0.1HA W193LTW0.1H0 W194LTY0.1HA W194LTW0.1H0 W195LTY0.1HA W195LTW0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

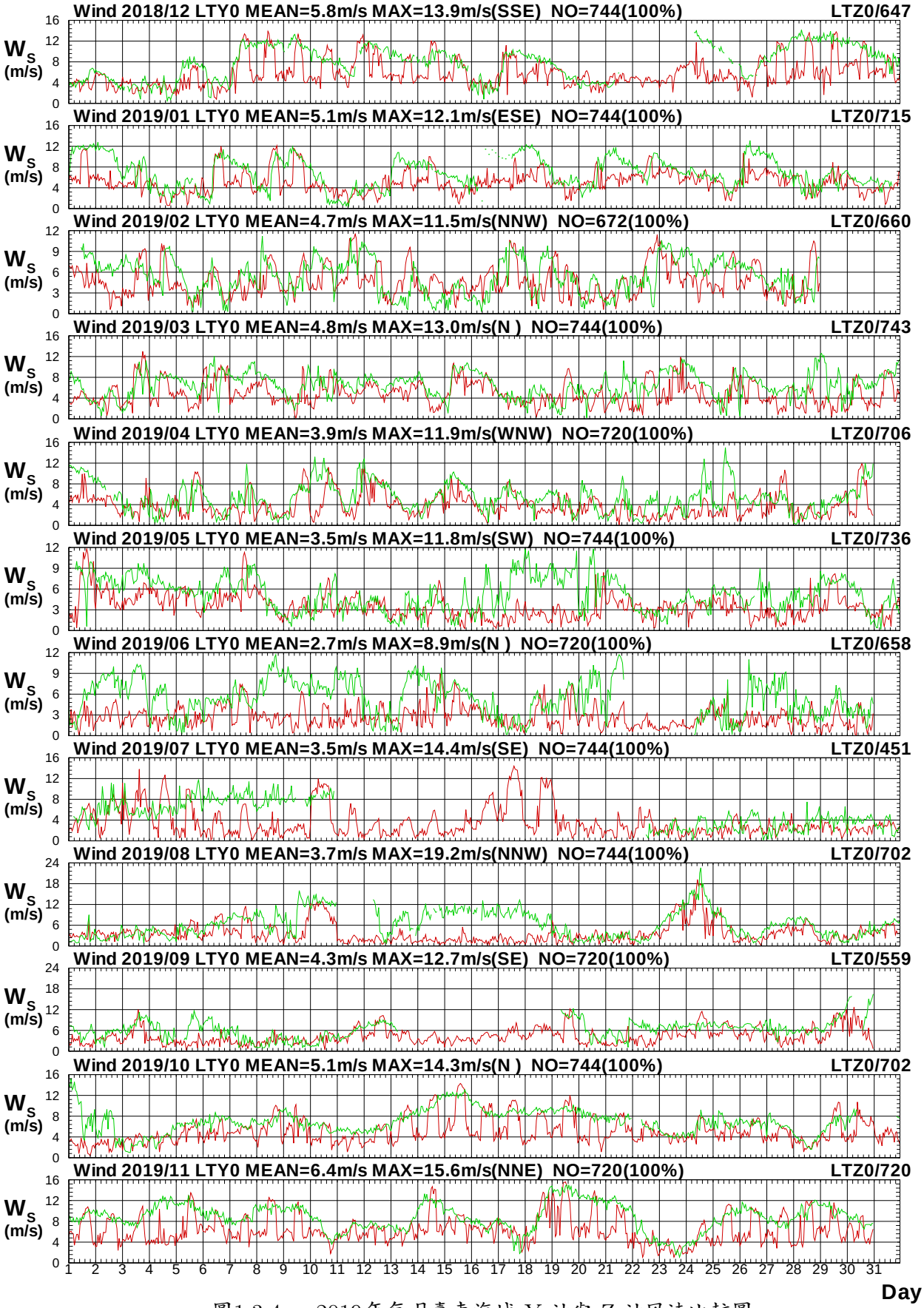

圖1.3.4a　2019年每月臺東海域 Y 站與 Z 站風速比較圖

W18CLTY0.1HA W18CLTZ0.1H0 W191LTY0.1HA W191LTZ0.1H0 W192LTY0.1HA W192LTZ0.1H0
W193LTY0.1HA W193LTZ0.1H0 W194LTY0.1HA W194LTZ0.1H0 W195LTY0.1HA W195LTZ0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

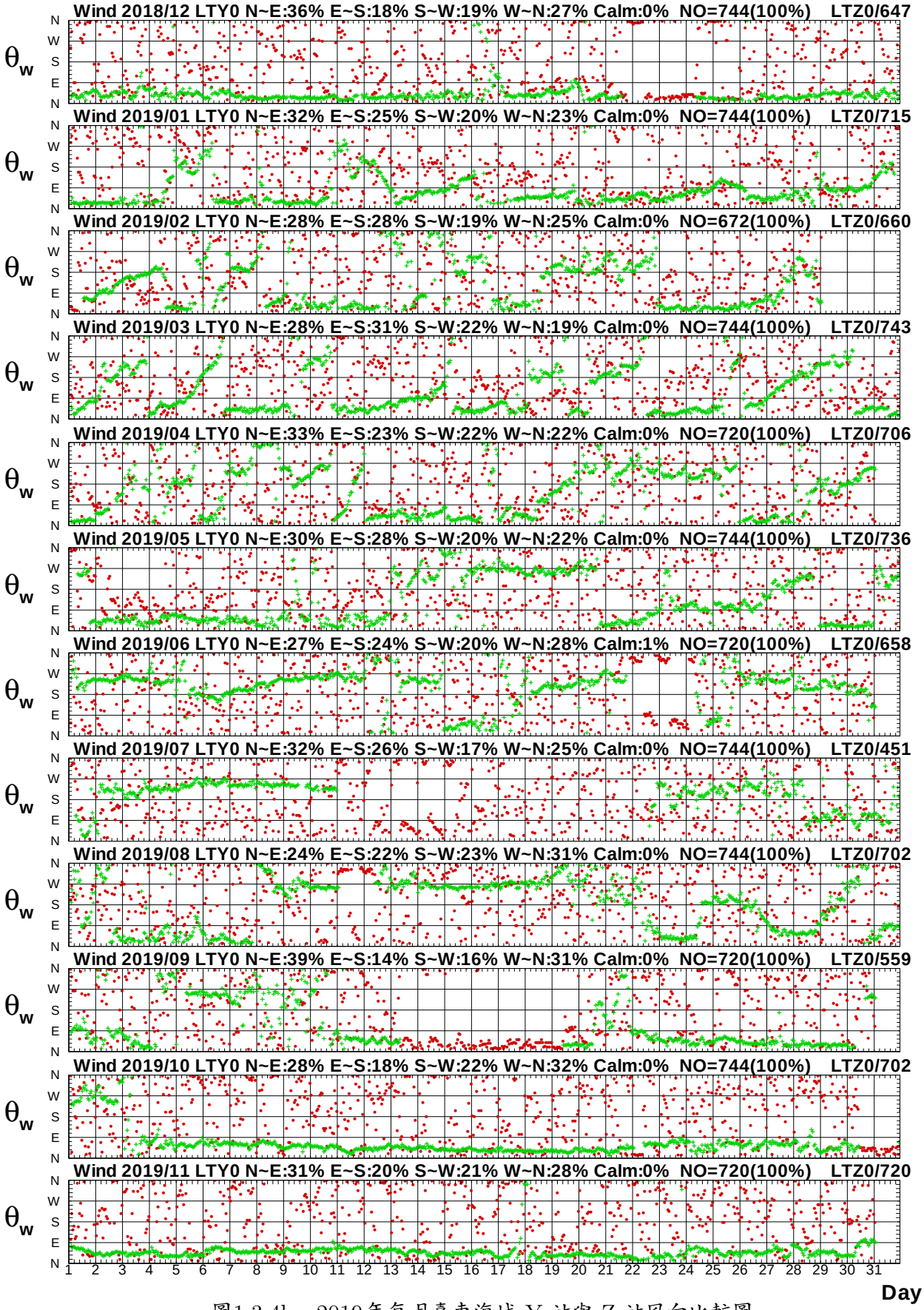

圖1.3.4b　2019年每月臺東海域 Y 站與 Z 站風向比較圖

W18CLTY0.1HA W18CLTZ0.1H0 W191LTY0.1HA W191LTZ0.1H0 W192LTY0.1HA W192LTZ0.1H0
W193LTY0.1HA W193LTZ0.1H0 W194LTY0.1HA W194LTZ0.1H0 W195LTY0.1HA W195LTZ0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

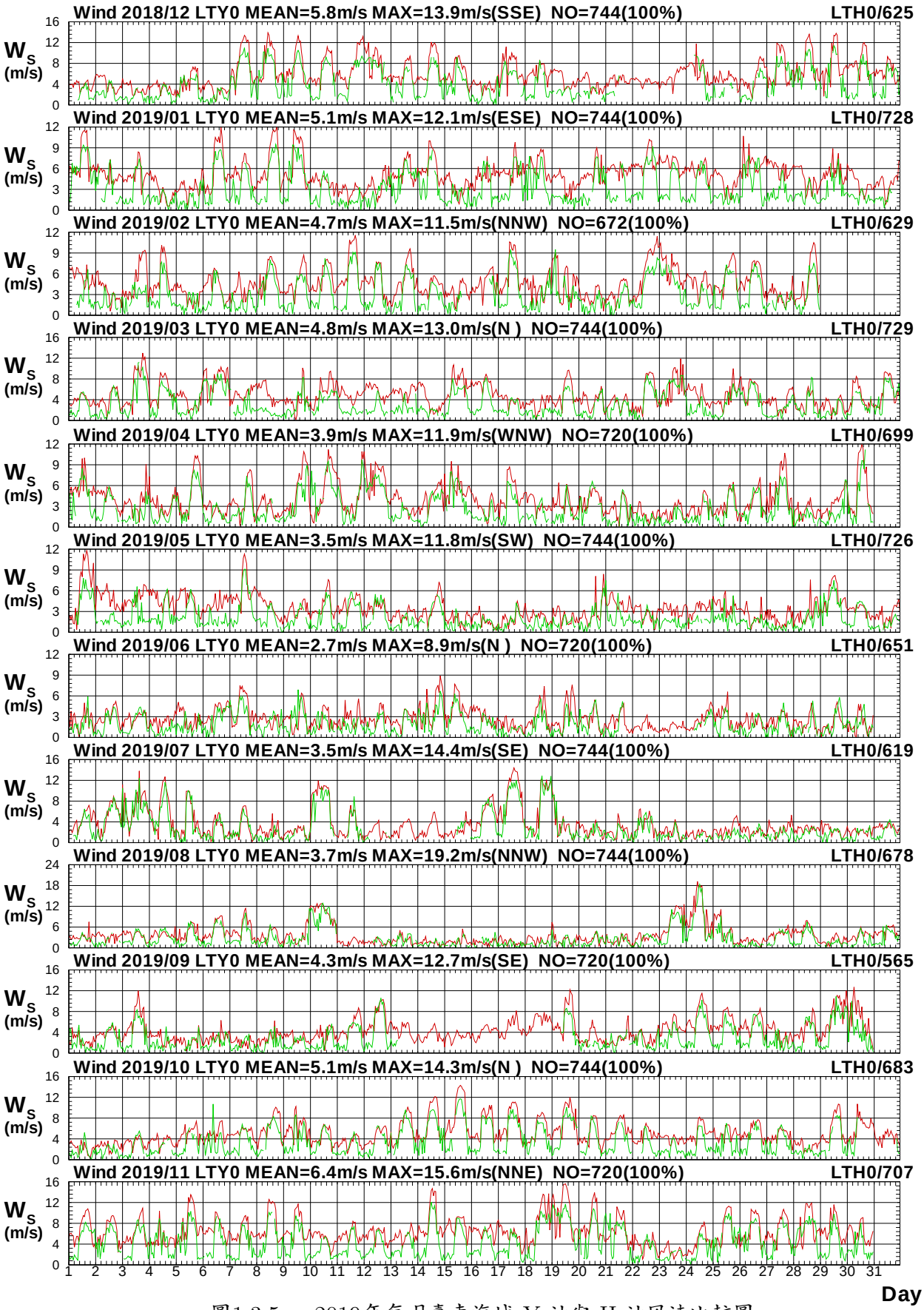

圖1.3.5a　2019年每月臺東海域 Y 站與 H 站風速比較圖

W18CLTY0.1HA W18CLTH0.1H0 W191LTY0.1HA W191LTH0.1H0 W192LTY0.1HA W192LTH0.1H0
W193LTY0.1HA W193LTH0.1H0 W194LTY0.1HA W194LTH0.1H0 W195LTY0.1HA W195LTH0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

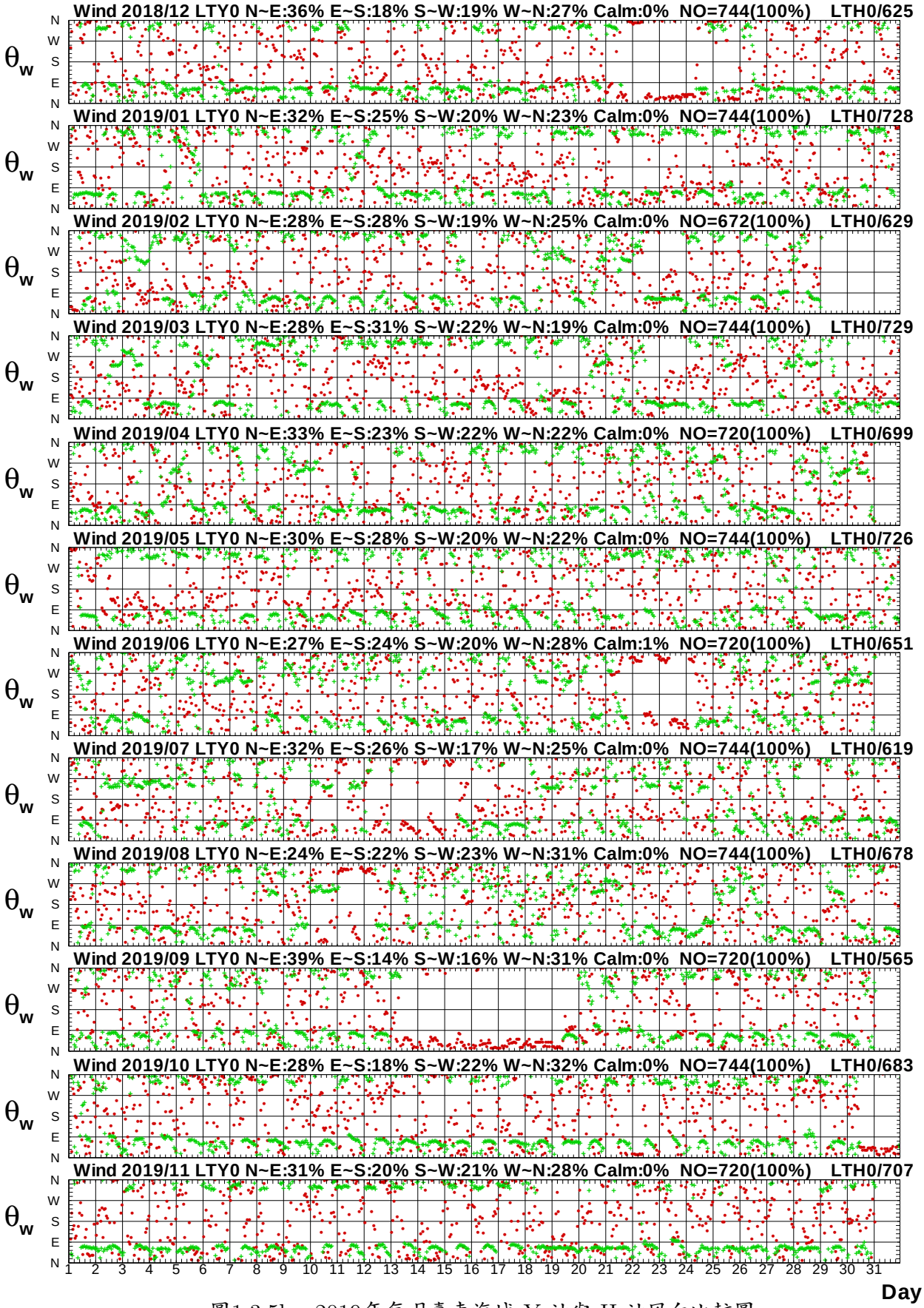

圖1.3.5b　2019年每月臺東海域 Y 站與 H 站風向比較圖

W18CLTY0.1HA W18CLTH0.1H0 W191LTY0.1HA W191LTH0.1H0 W192LTY0.1HA W192LTH0.1H0
W193LTY0.1HA W193LTH0.1H0 W194LTY0.1HA W194LTH0.1H0 W195LTY0.1HA W195LTH0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

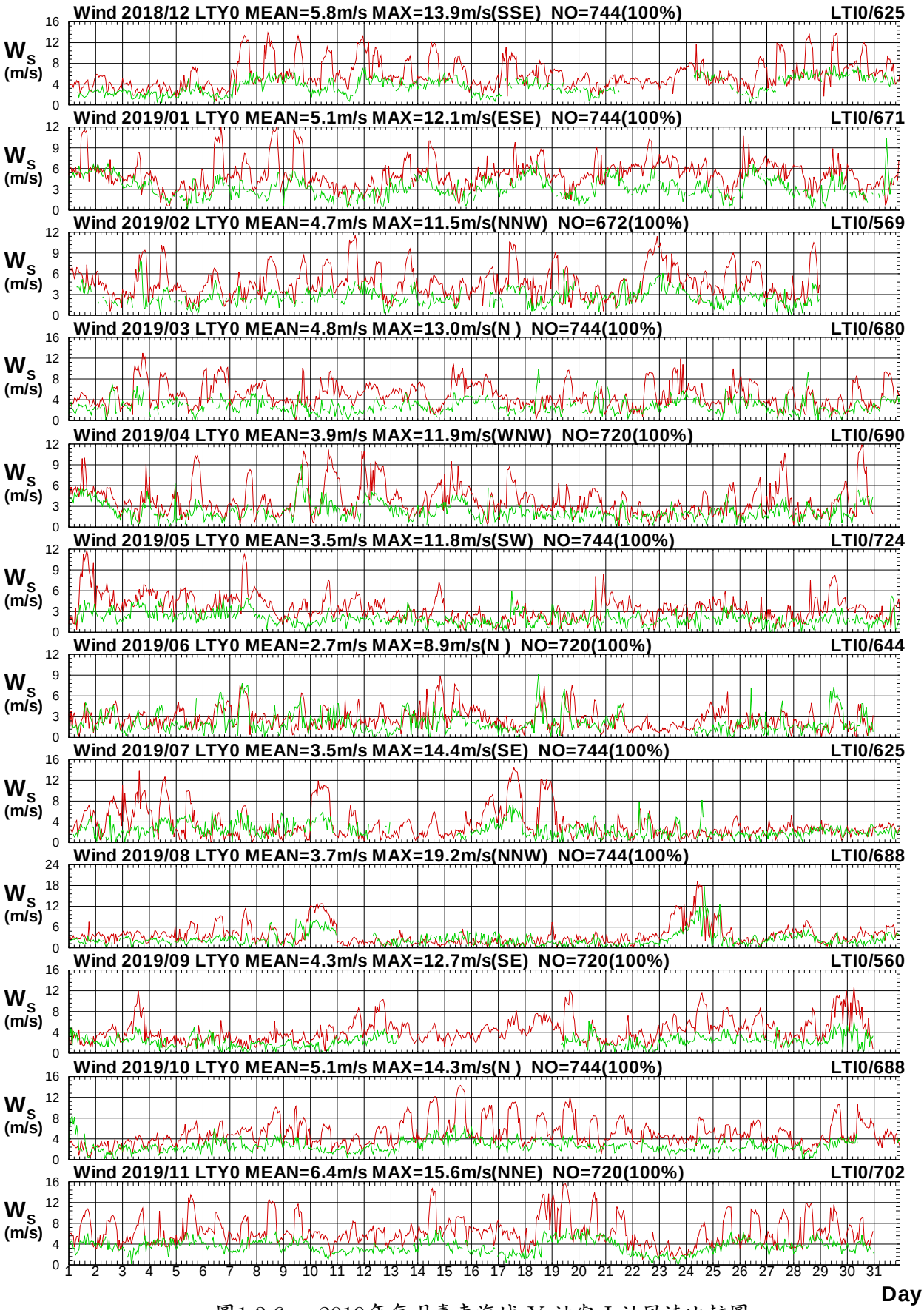

圖1.3.6a　2019年每月臺東海域 Y 站與 I 站風速比較圖

W18CLTY0.1HA W18CLTI0.1H0 W191LTY0.1HA W191LTI0.1H0 W192LTY0.1HA W192LTI0.1H0
W193LTY0.1HA W193LTI0.1H0 W194LTY0.1HA W194LTI0.1H0 W195LTY0.1HA W195LTI0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

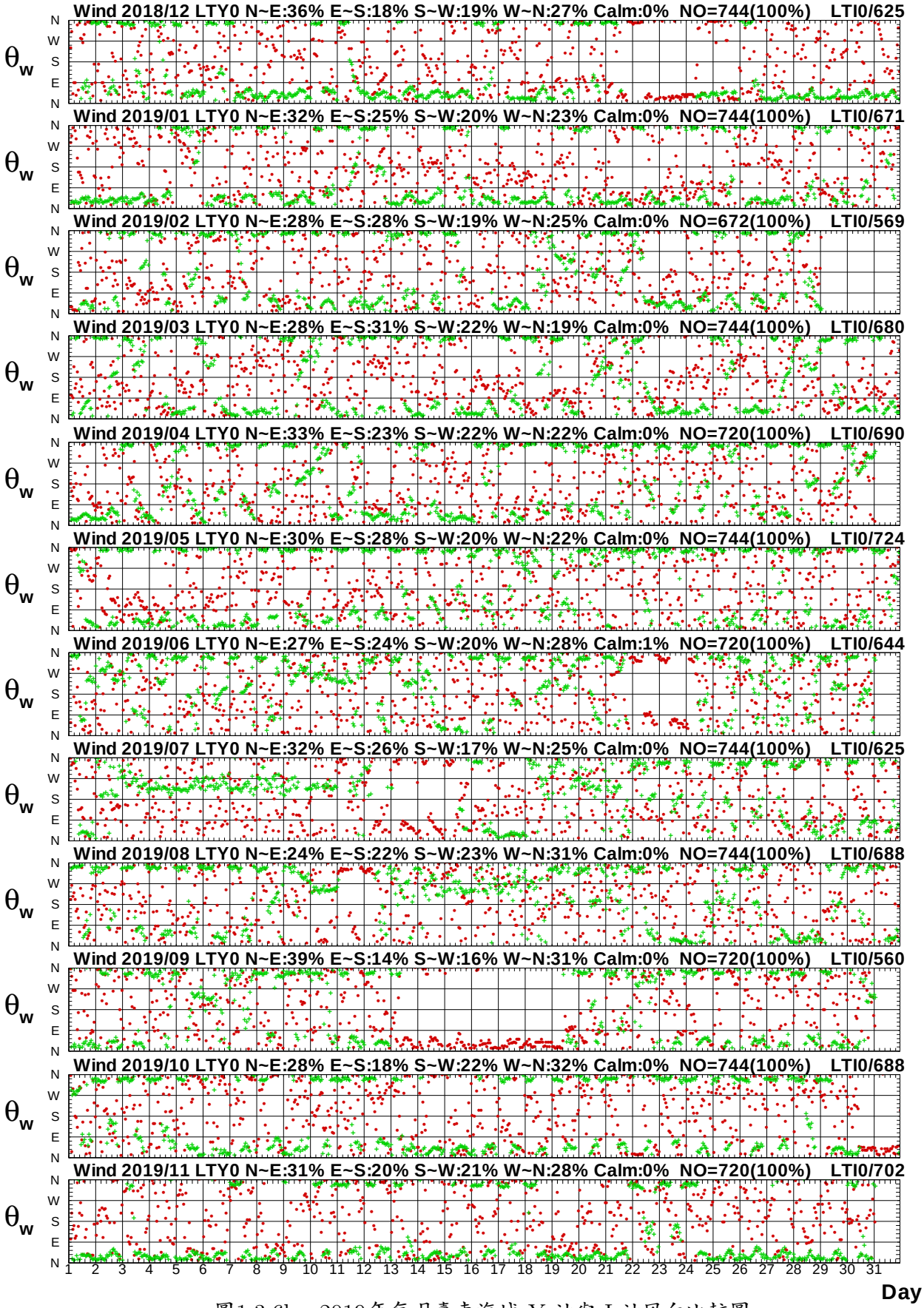

圖1.3.6b　2019年每月臺東海域 Y 站與 I 站風向比較圖

W18CLTY0.1HA W18CLTI0.1H0 W191LTY0.1HA W191LTI0.1H0 W192LTY0.1HA W192LTI0.1H0
W193LTY0.1HA W193LTI0.1H0 W194LTY0.1HA W194LTI0.1H0 W195LTY0.1HA W195LTI0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

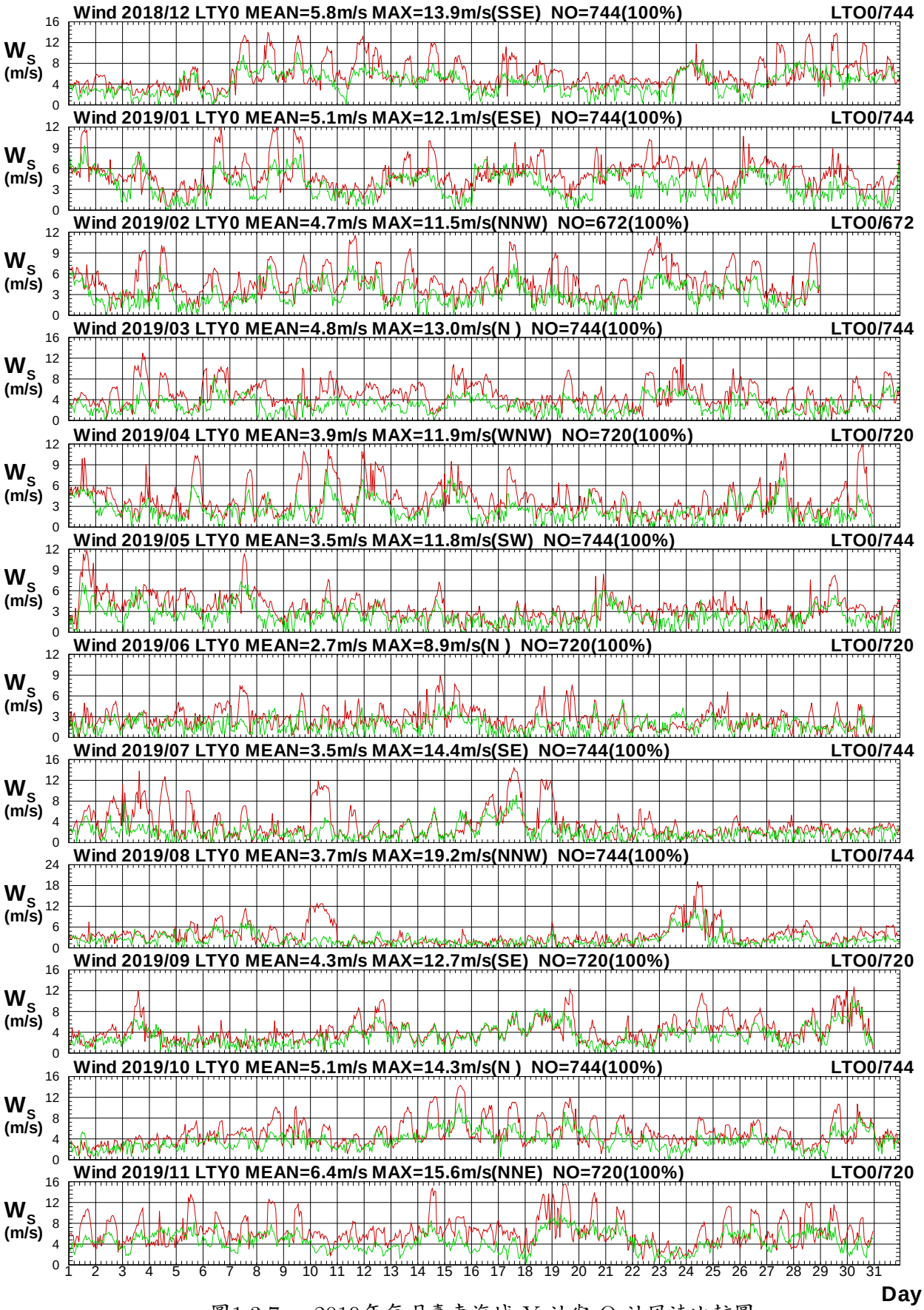

圖1.3.7a　2019年每月臺東海域 Y 站與 O 站風速比較圖

W18CLTY0.1HA W18CLTO0.1H0 W191LTY0.1HA W191LTO0.1H0 W192LTY0.1HA W192LTO0.1H0
W193LTY0.1HA W193LTO0.1H0 W194LTY0.1HA W194LTO0.1H0 W195LTY0.1HA W195LTO0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

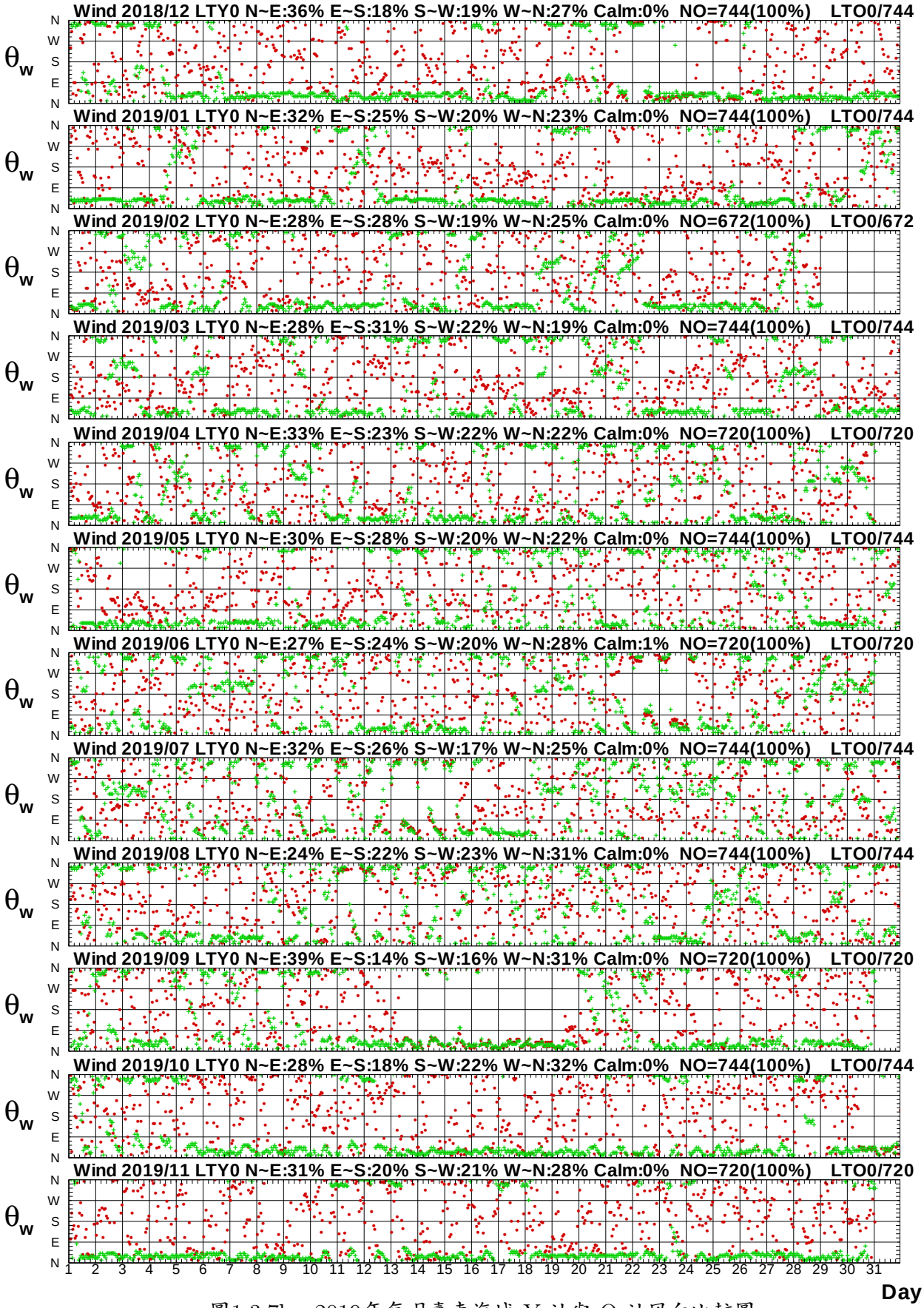

圖1.3.7b　2019年每月臺東海域 Y 站與 O 站風向比較圖

W18CLTY0.1HA W18CLTO0.1H0 W191LTY0.1HA W191LTO0.1H0 W192LTY0.1HA W192LTO0.1H0
W193LTY0.1HA W193LTO0.1H0 W194LTY0.1HA W194LTO0.1H0 W195LTY0.1HA W195LTO0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

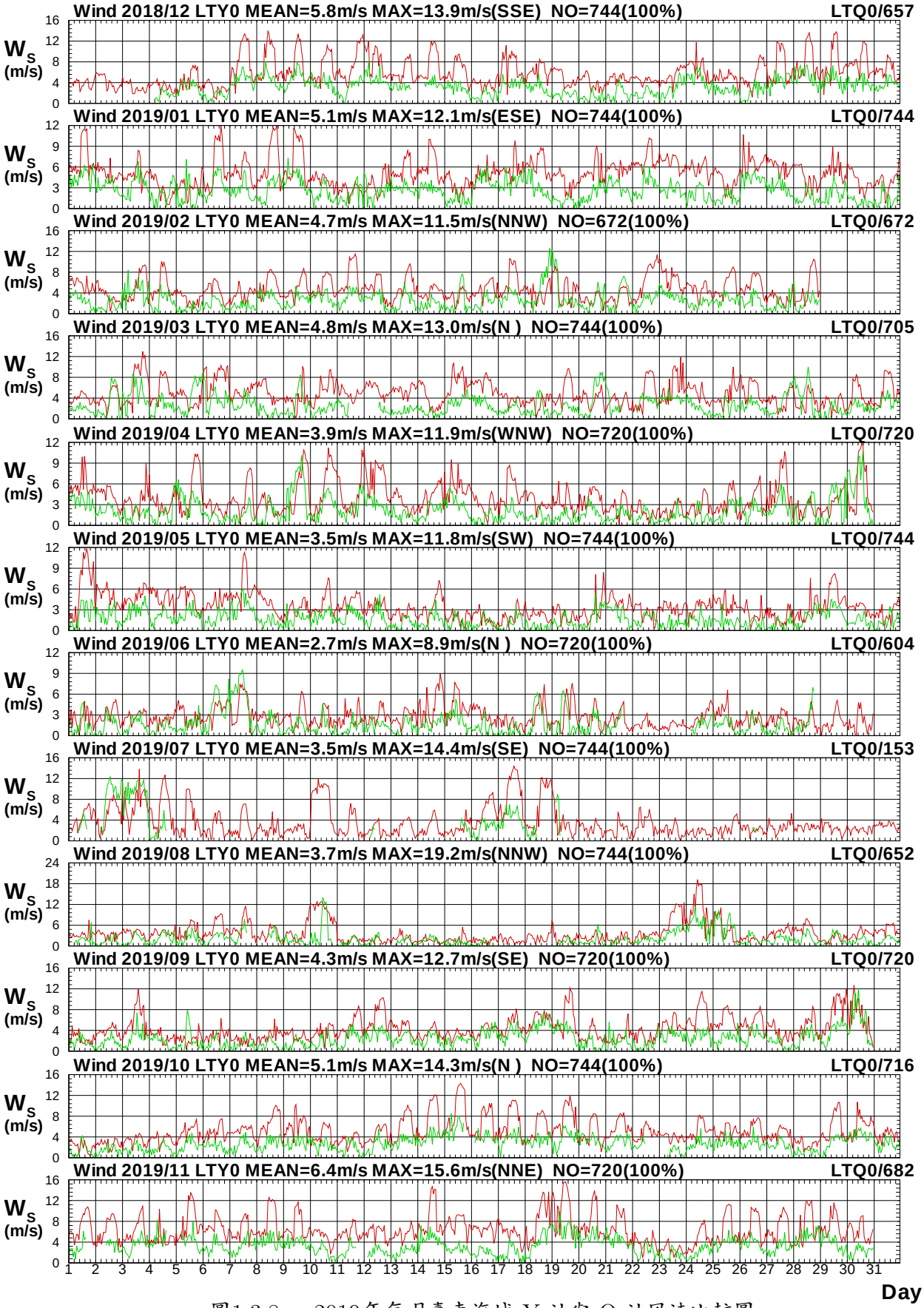

圖1.3.8a　2019年每月臺東海域 Y 站與 Q 站風速比較圖

W18CLTY0.1HA W18CLTQ0.1H0 W191LTY0.1HA W191LTQ0.1H0 W192LTY0.1HA W192LTQ0.1H0
W193LTY0.1HA W193LTQ0.1H0 W194LTY0.1HA W194LTQ0.1H0 W195LTY0.1HA W195LTQ0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

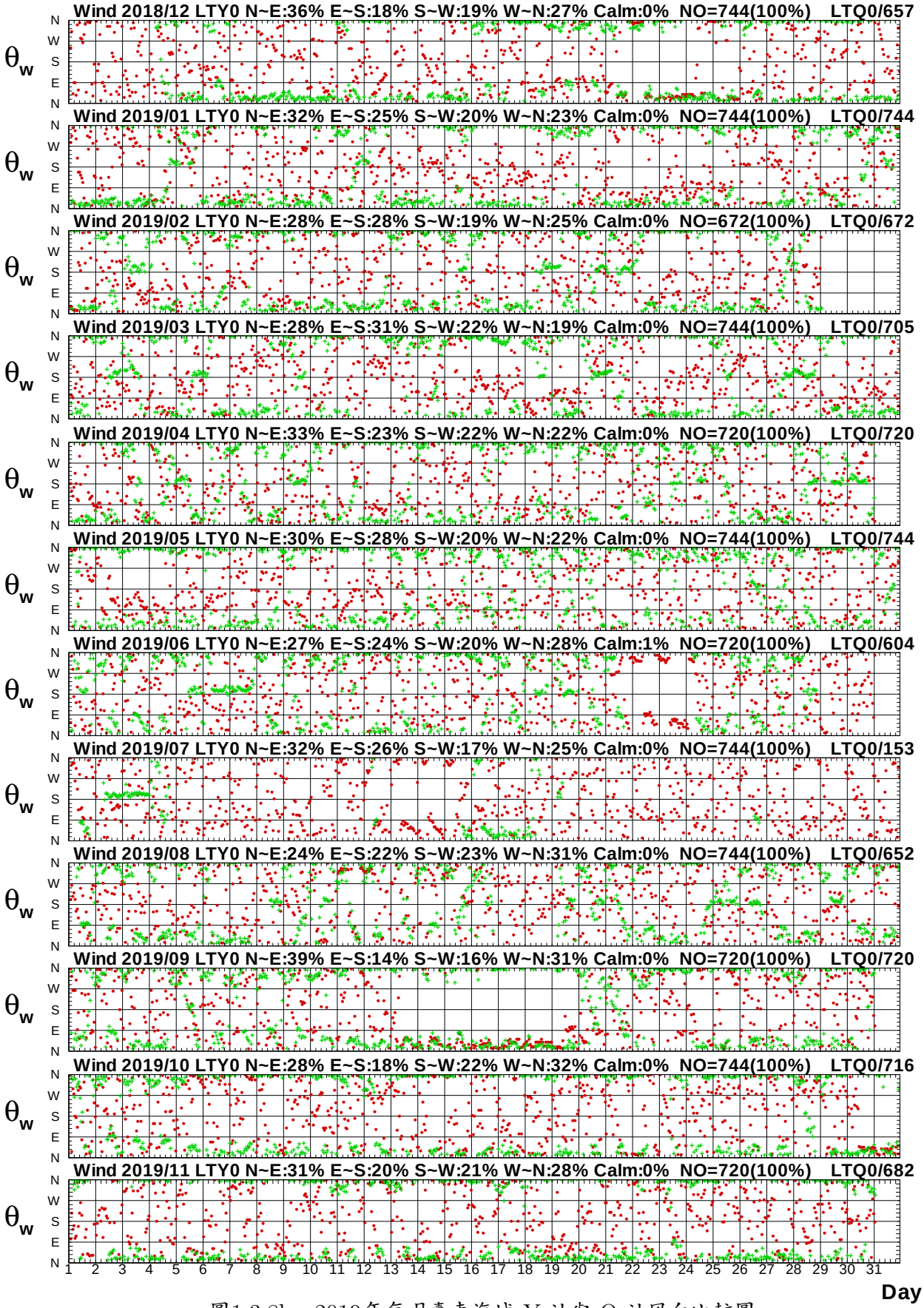

圖1.3.8b　2019年每月臺東海域 Y 站與 Q 站風向比較圖

W18CLTY0.1HA W18CLTQ0.1H0 W191LTY0.1HA W191LTQ0.1H0 W192LTY0.1HA W192LTQ0.1H0
W193LTY0.1HA W193LTQ0.1H0 W194LTY0.1HA W194LTQ0.1H0 W195LTY0.1HA W195LTQ0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

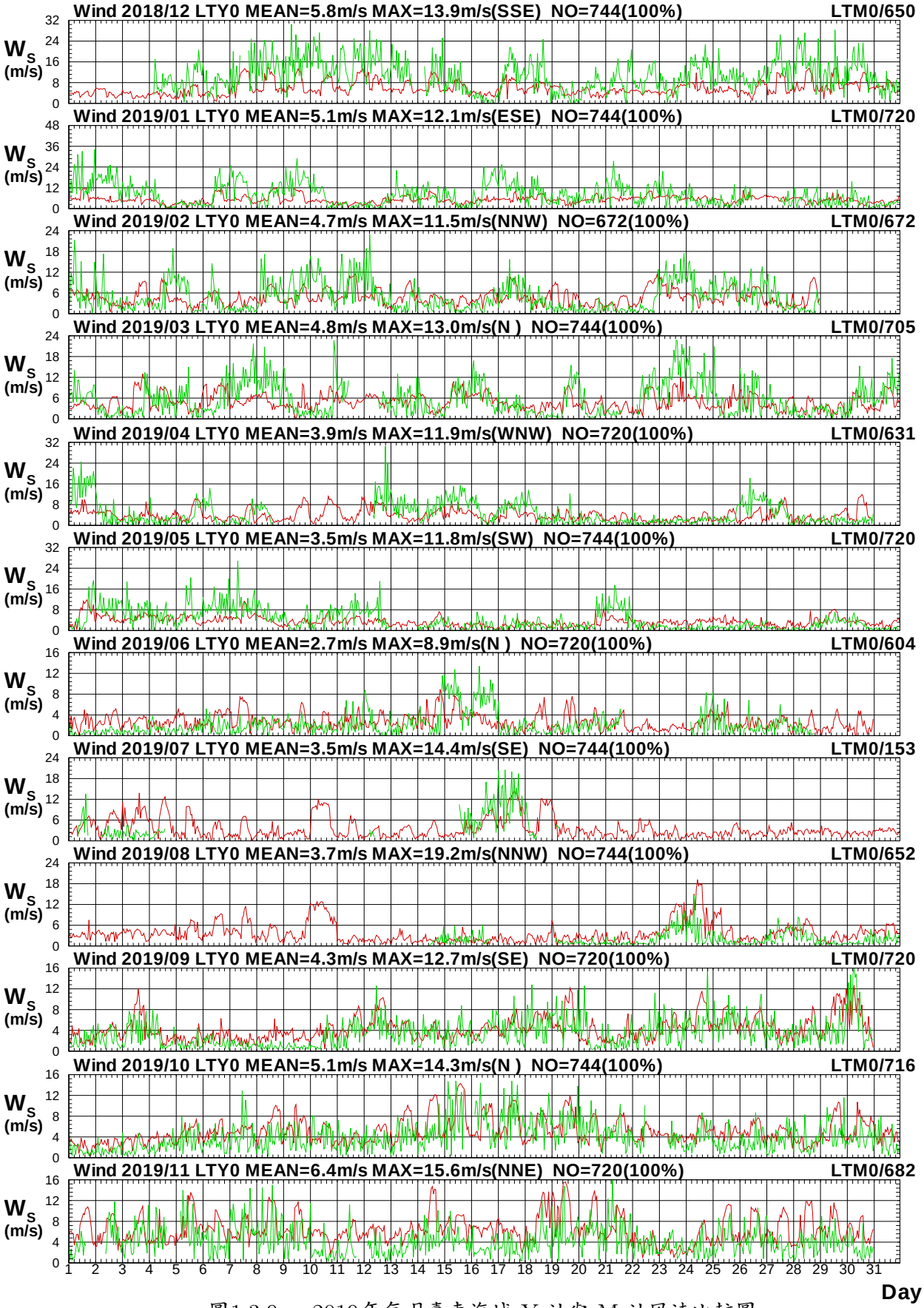

圖1.3.9a　2019年每月臺東海域 Y 站與 M 站風速比較圖

W18CLTY0.1HA W18CLTM0.1H0 W191LTY0.1HA W191LTM0.1H0 W192LTY0.1HA W192LTM0.1H0
W193LTY0.1HA W193LTM0.1H0 W194LTY0.1HA W194LTM0.1H0 W195LTY0.1HA W195LTM0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

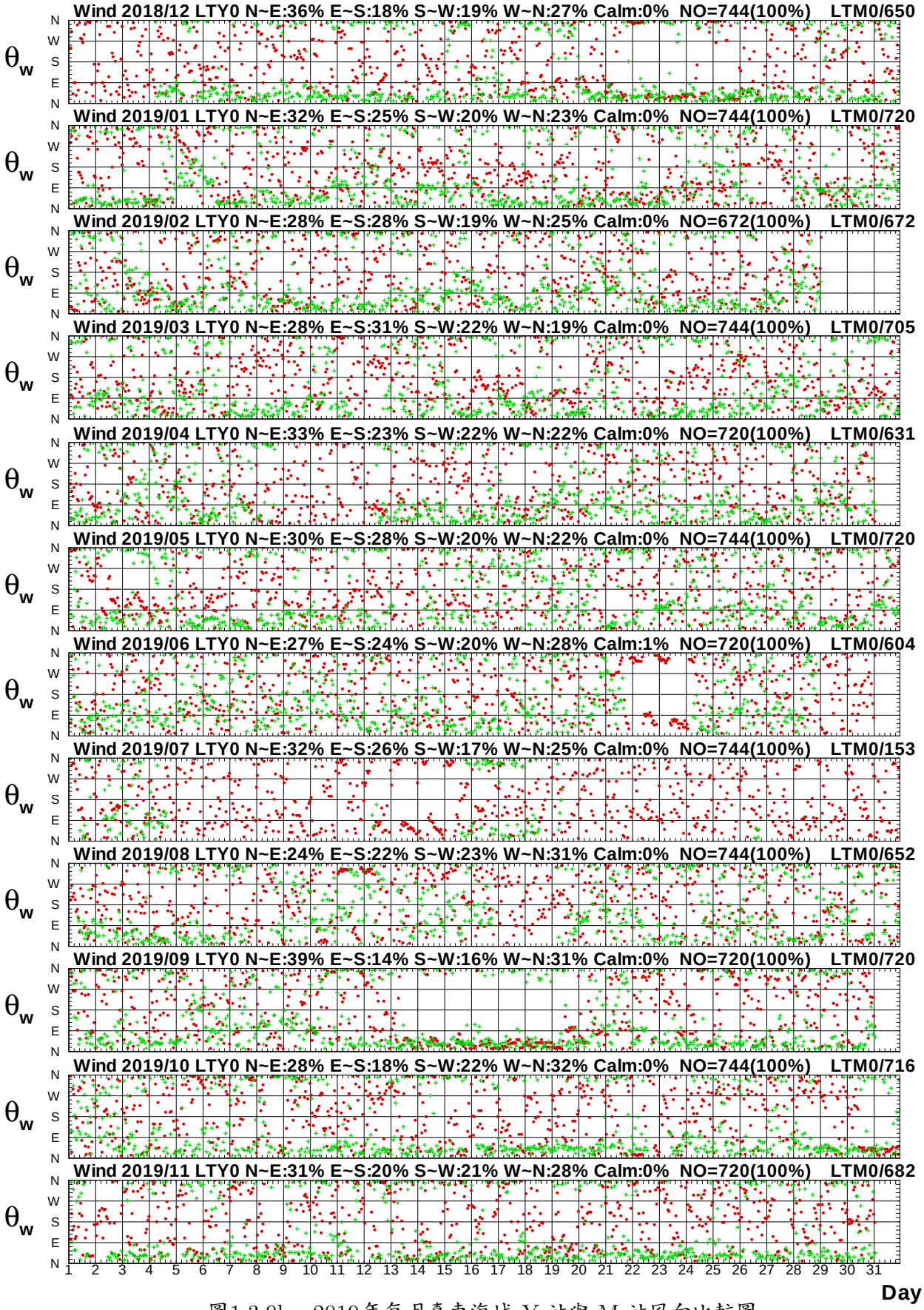

圖1.3.9b　2019年每月臺東海域 Y 站與 M 站風向比較圖

W18CLTY0.1HA W18CLTM0.1H0 W191LTY0.1HA W191LTM0.1H0 W192LTY0.1HA W192LTM0.1H0
W193LTY0.1HA W193LTM0.1H0 W194LTY0.1HA W194LTM0.1H0 W195LTY0.1HA W195LTM0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

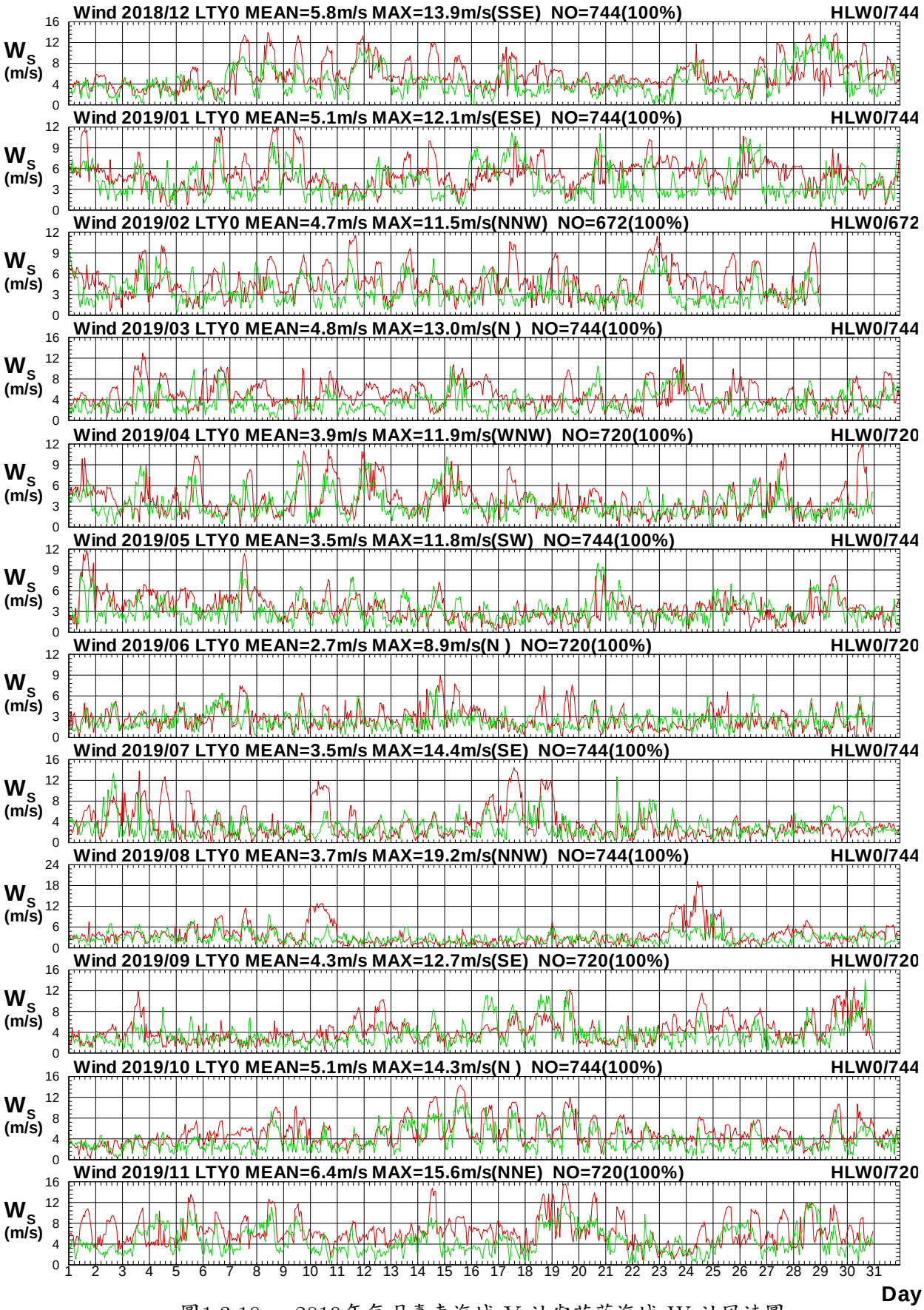

圖1.3.10a　2019年每月臺東海域 Y 站與花蓮海域 W 站風速圖

W18CLTY0.1HA W18CHLW0.1H0 W191LTY0.1HA W191HLW0.1H0 W192LTY0.1HA W192HLW0.1H0
W193LTY0.1HA W193HLW0.1H0 W194LTY0.1HA W194HLW0.1H0 W195LTY0.1HA W195HLW0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

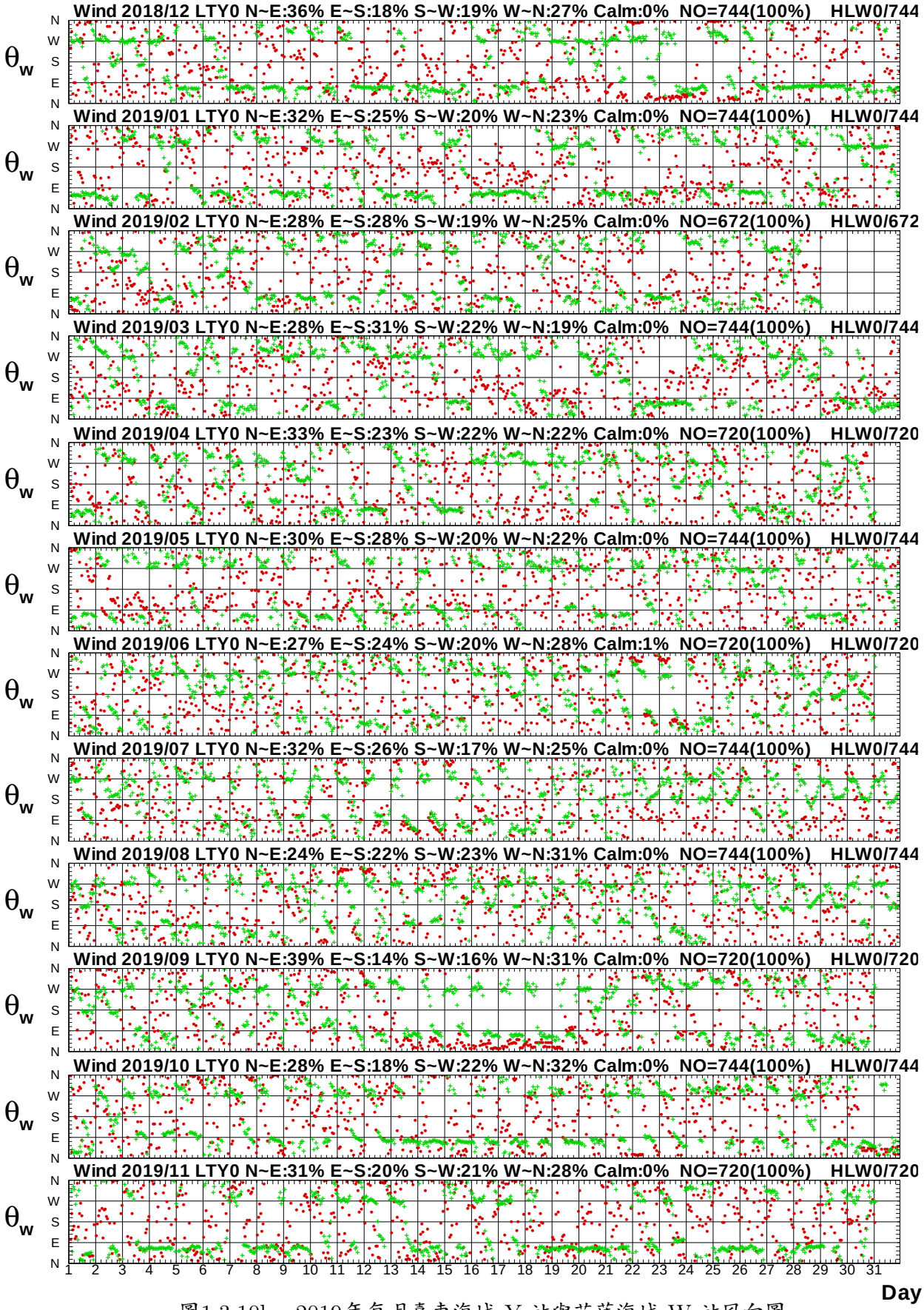

圖1.3.10b　2019年每月臺東海域 Y 站與花蓮海域 W 站風向圖

W18CLTY0.1HA W18CHLW0.1H0 W191LTY0.1HA W191HLW0.1H0 W192LTY0.1HA W192HLW0.1H0
W193LTY0.1HA W193HLW0.1H0 W194LTY0.1HA W194HLW0.1H0 W195LTY0.1HA W195HLW0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

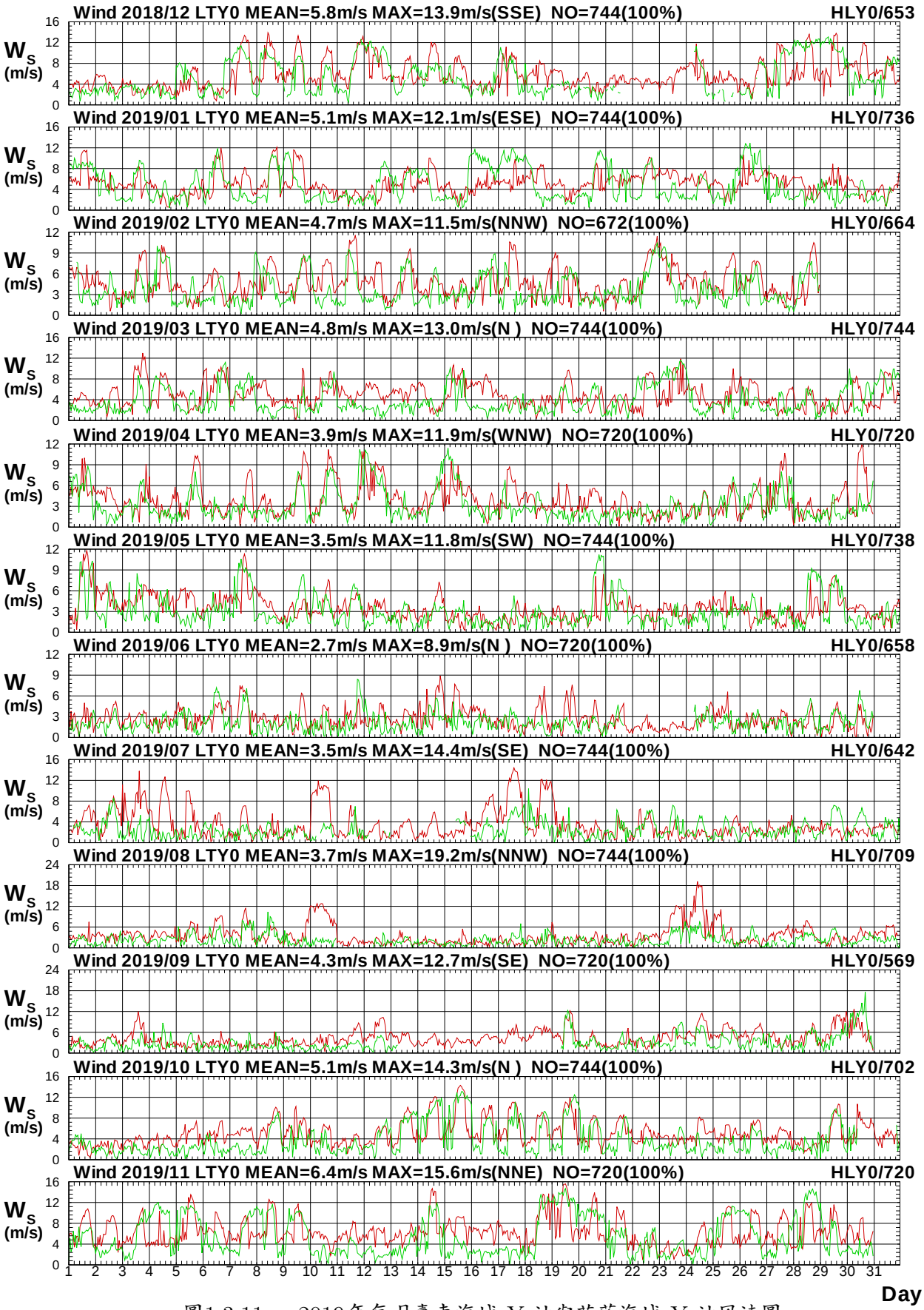

圖1.3.11a　2019年每月臺東海域 Y 站與花蓮海域 Y 站風速圖

W18CLTY0.1HA W18CHLY0.1H0 W191LTY0.1HA W191HLY0.1H0 W192LTY0.1HA W192HLY0.1H0
W193LTY0.1HA W193HLY0.1H0 W194LTY0.1HA W194HLY0.1H0 W195LTY0.1HA W195HLY0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

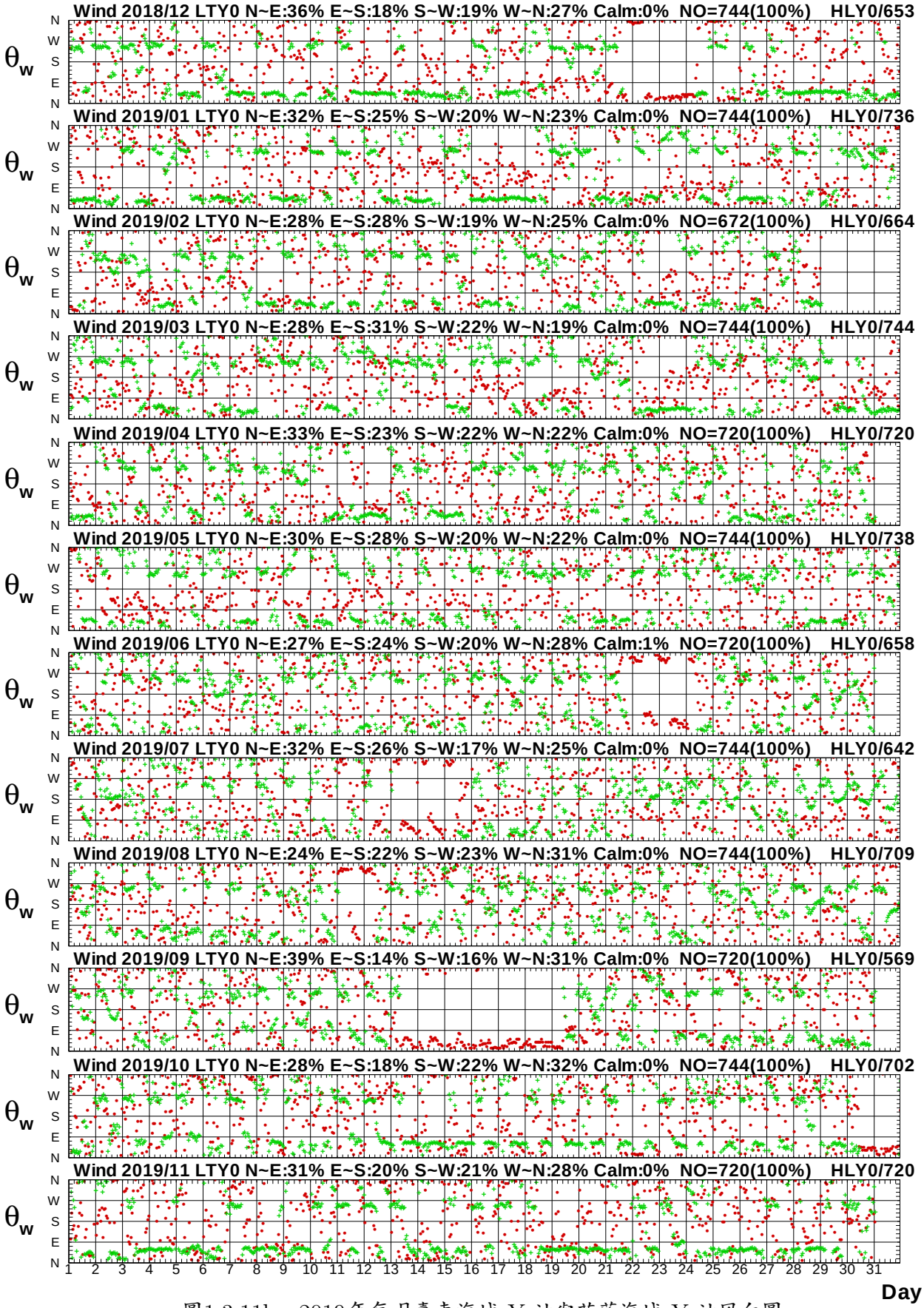

圖1.3.11b　2019年每月臺東海域 Y 站與花蓮海域 Y 站風向圖

W18CLTY0.1HA W18CHLY0.1H0 W191LTY0.1HA W191HLY0.1H0 W192LTY0.1HA W192HLY0.1H0
W193LTY0.1HA W193HLY0.1H0 W194LTY0.1HA W194HLY0.1H0 W195LTY0.1HA W195HLY0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

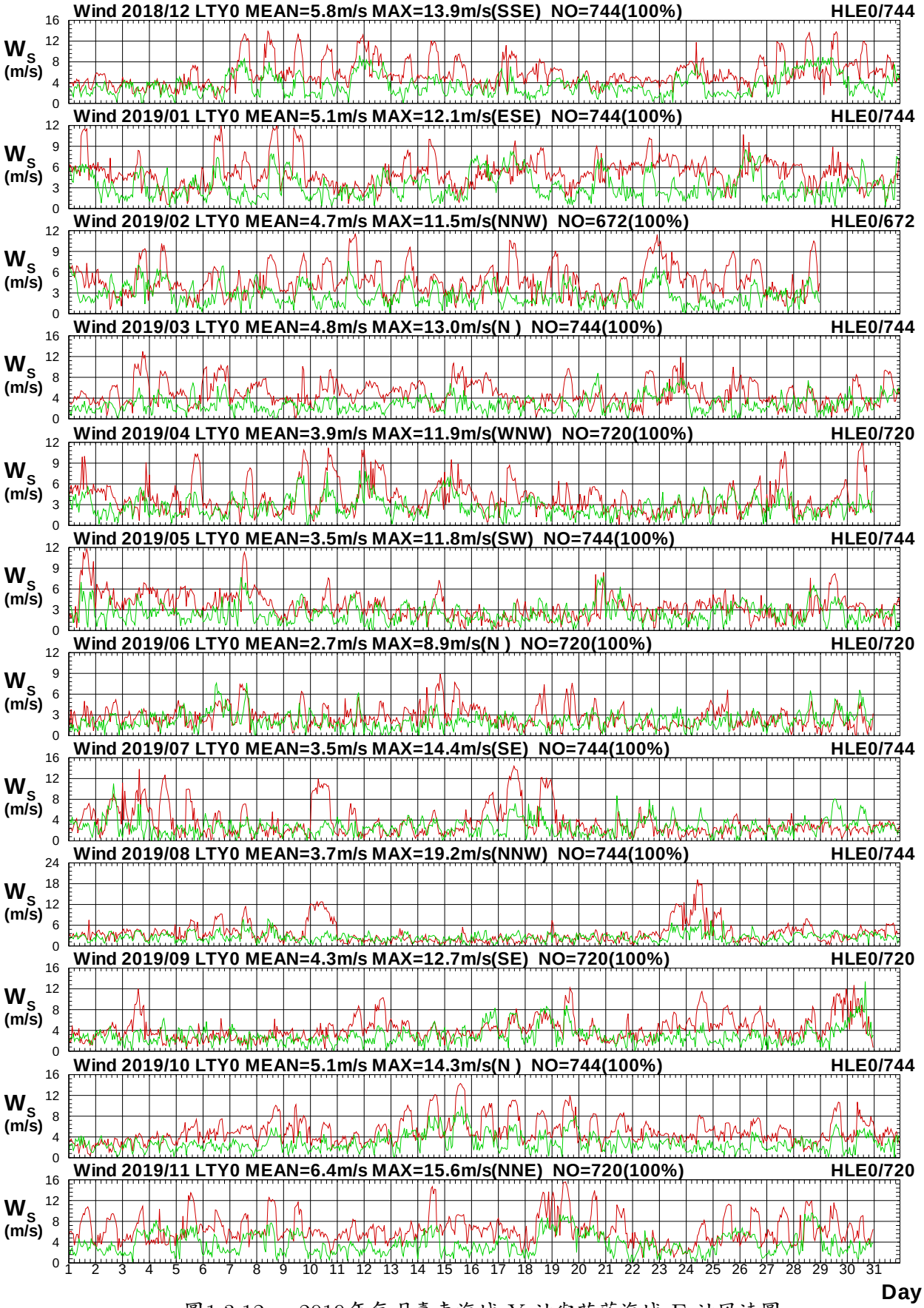

圖1.3.12a　2019年每月臺東海域 Y 站與花蓮海域 E 站風速圖

W18CLTY0.1HA W18CHLE0.1H0 W191LTY0.1HA W191HLE0.1H0 W192LTY0.1HA W192HLE0.1H0
W193LTY0.1HA W193HLE0.1H0 W194LTY0.1HA W194HLE0.1H0 W195LTY0.1HA W195HLE0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

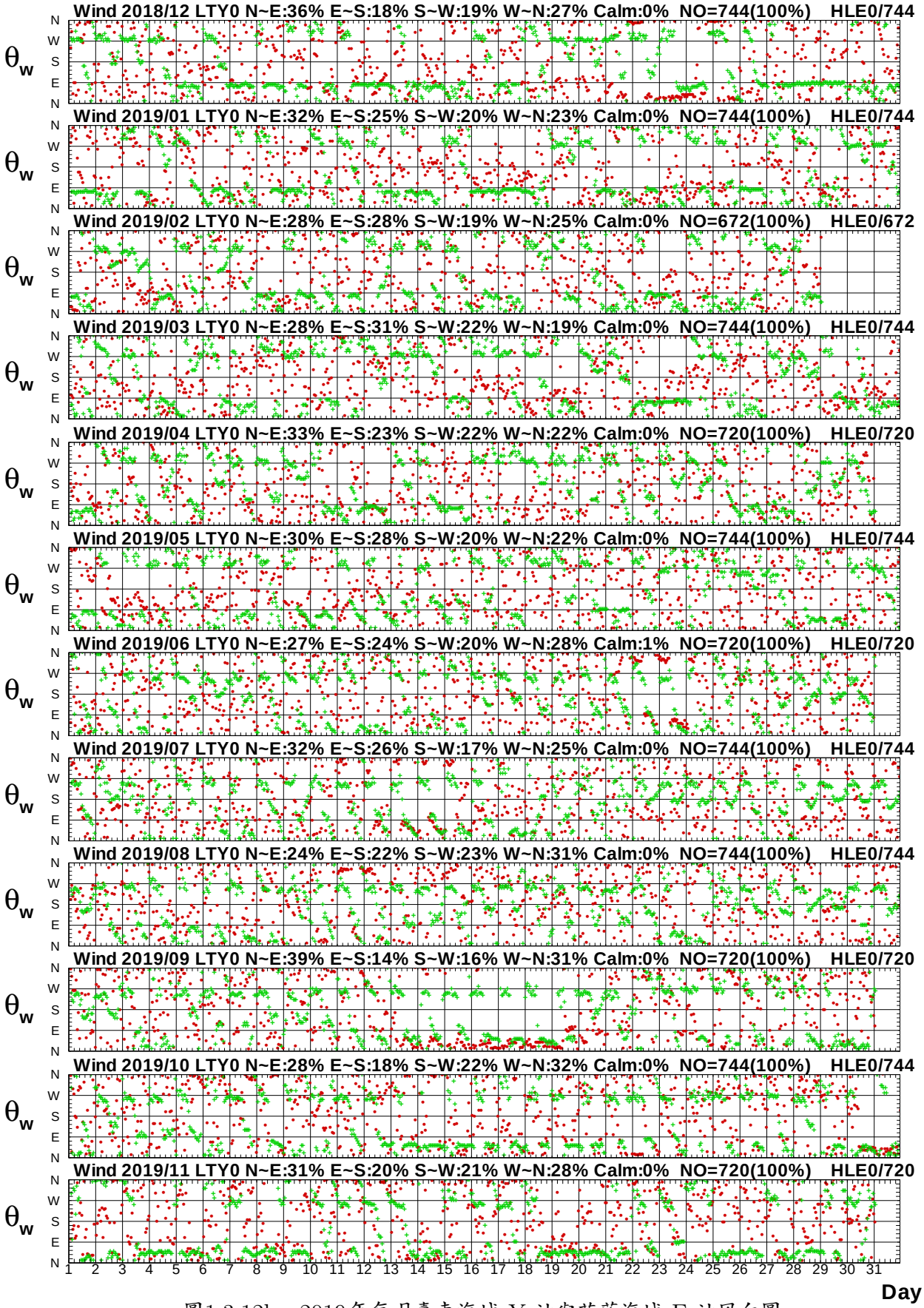

圖1.3.12b　2019年每月臺東海域 Y 站與花蓮海域 E 站風向圖

W18CLTY0.1HA W18CHLE0.1H0 W191LTY0.1HA W191HLE0.1H0 W192LTY0.1HA W192HLE0.1H0
W193LTY0.1HA W193HLE0.1H0 W194LTY0.1HA W194HLE0.1H0 W195LTY0.1HA W195HLE0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

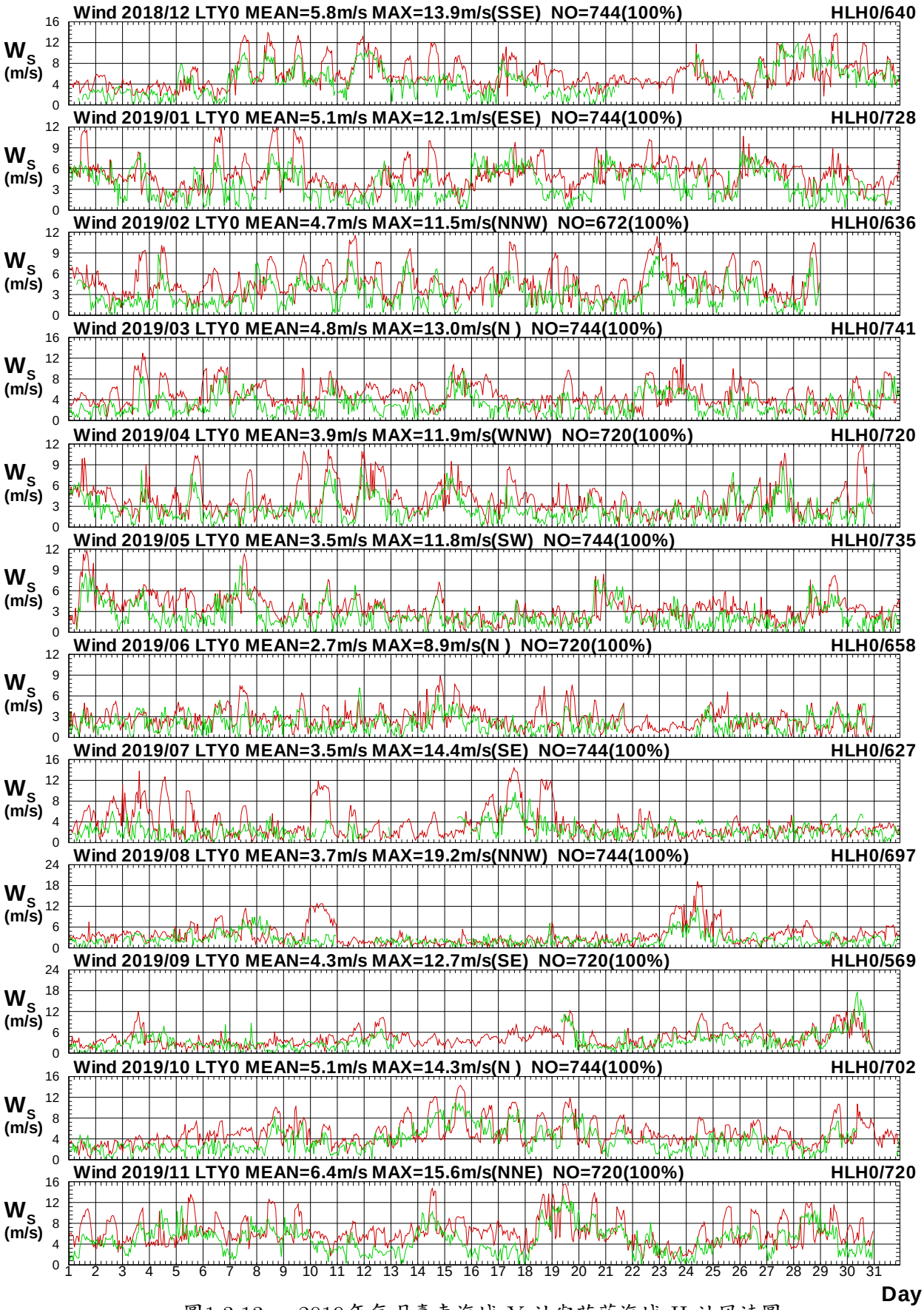

圖1.3.13a　2019年每月臺東海域 Y 站與花蓮海域 H 站風速圖

W18CLTY0.1HA W18CHLH0.1H0 W191LTY0.1HA W191HLH0.1H0 W192LTY0.1HA W192HLH0.1H0
W193LTY0.1HA W193HLH0.1H0 W194LTY0.1HA W194HLH0.1H0 W195LTY0.1HA W195HLH0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

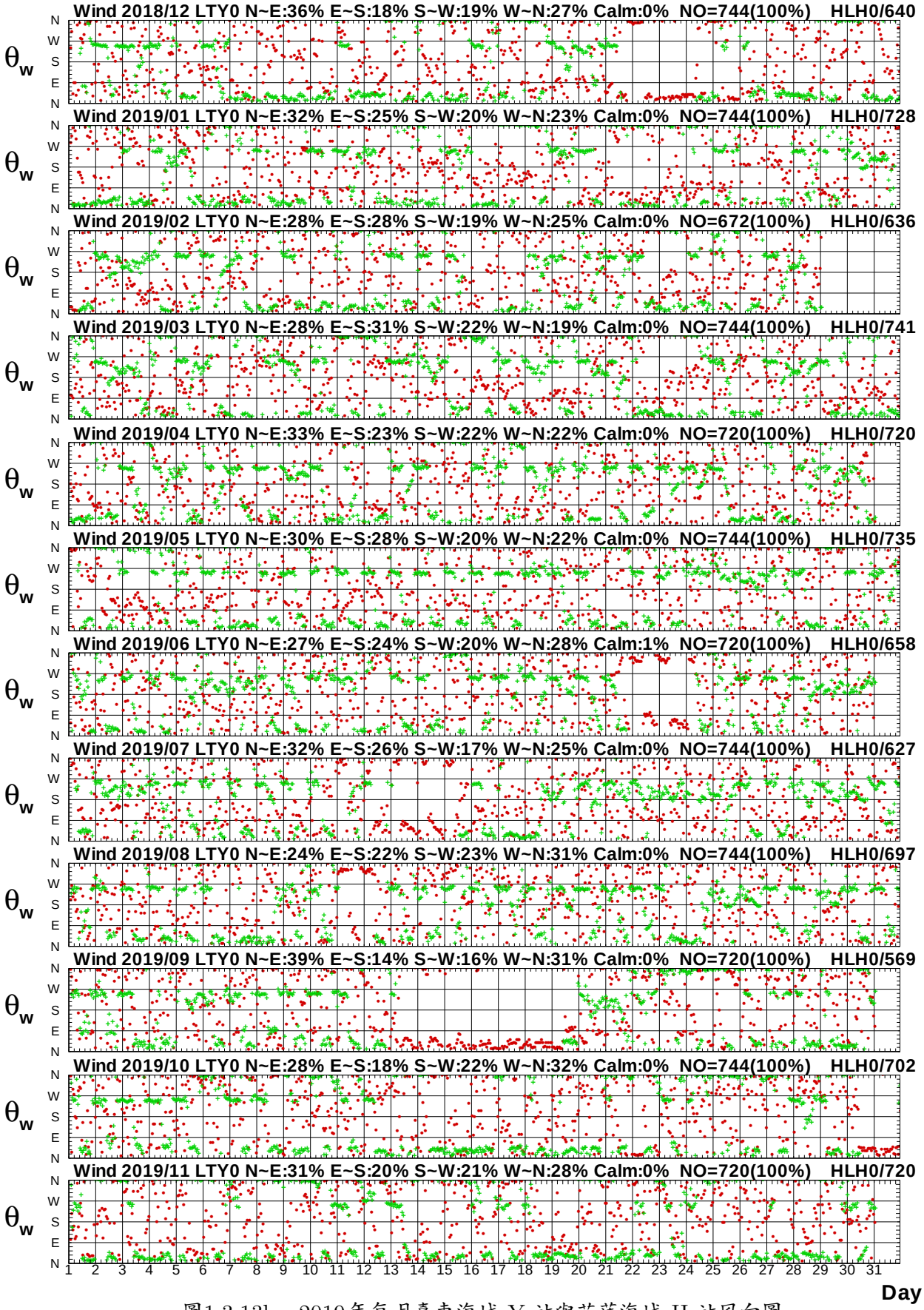

圖1.3.13b　2019年每月臺東海域 Y 站與花蓮海域 H 站風向圖

W18CLTY0.1HA W18CHLH0.1H0 W191LTY0.1HA W191HLH0.1H0 W192LTY0.1HA W192HLH0.1H0
W193LTY0.1HA W193HLH0.1H0 W194LTY0.1HA W194HLH0.1H0 W195LTY0.1HA W195HLH0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

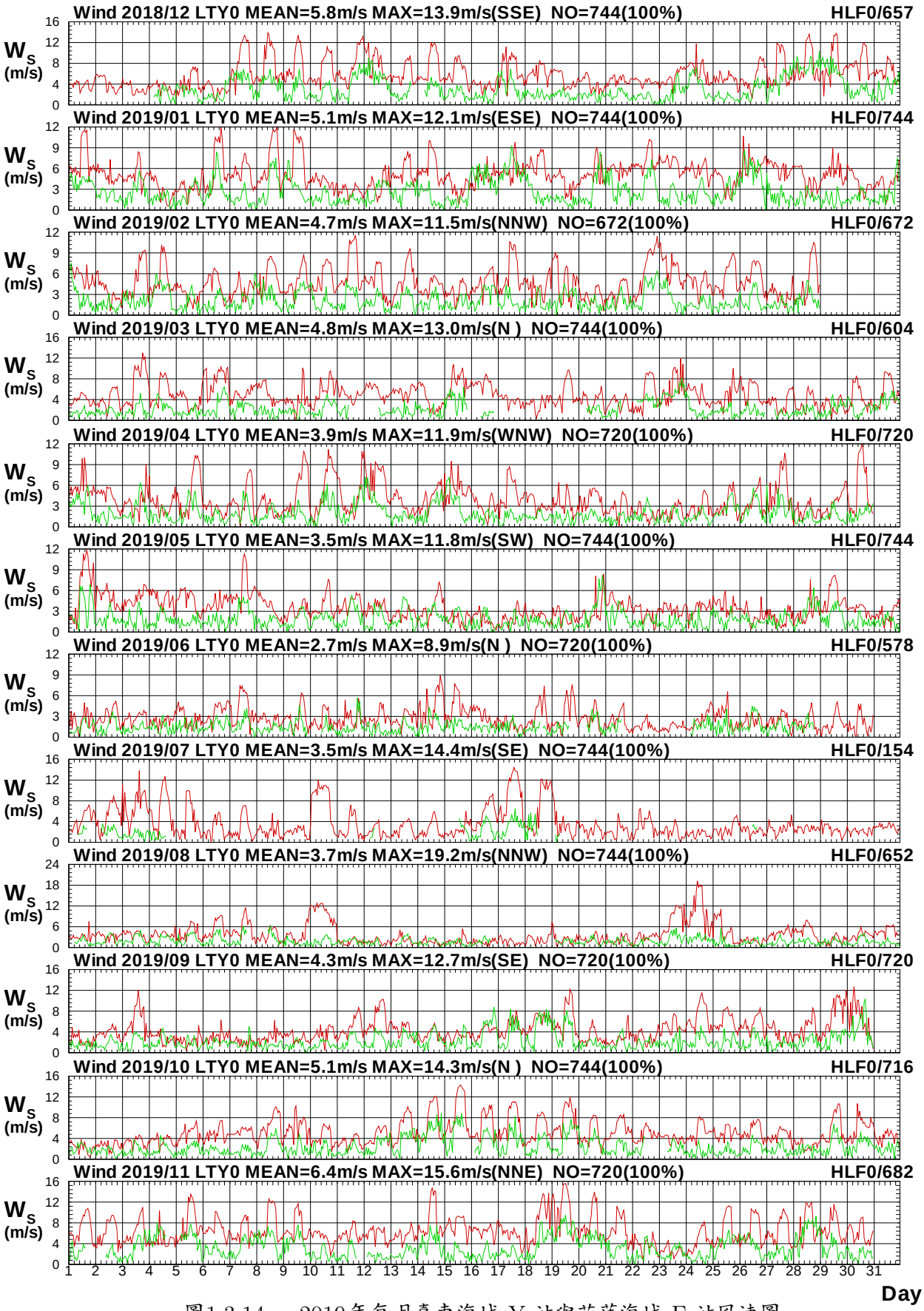

圖1.3.14a　2019年每月臺東海域 Y 站與花蓮海域 F 站風速圖

W18CLTY0.1HA W18CHLF0.1H0 W191LTY0.1HA W191HLF0.1H0 W192LTY0.1HA W192HLF0.1H0
W193LTY0.1HA W193HLF0.1H0 W194LTY0.1HA W194HLF0.1H0 W195LTY0.1HA W195HLF0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

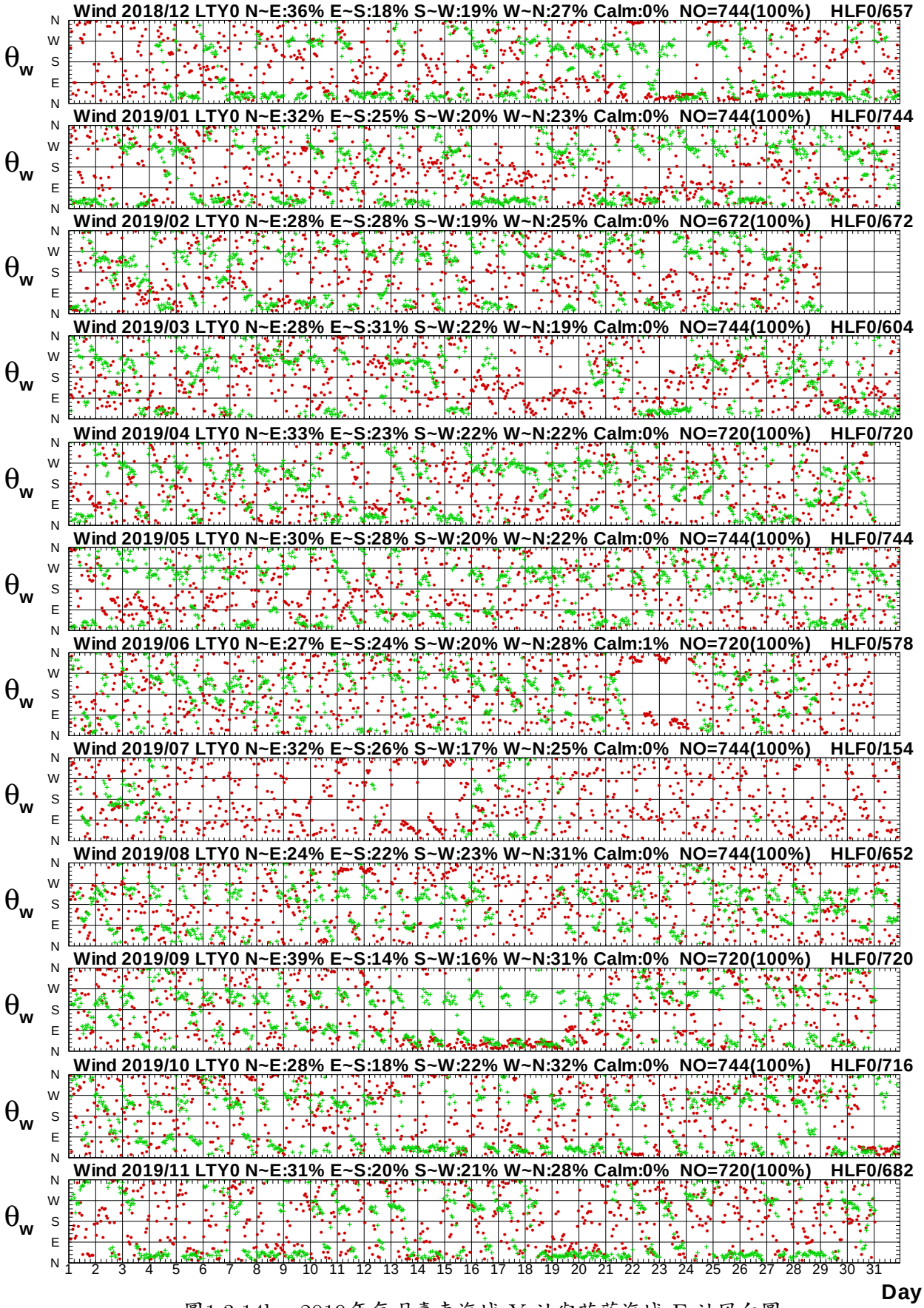

圖1.3.14b　2019年每月臺東海域 Y 站與花蓮海域 F 站風向圖

W18CLTY0.1HA W18CHLF0.1H0 W191LTY0.1HA W191HLF0.1H0 W192LTY0.1HA W192HLF0.1H0
W193LTY0.1HA W193HLF0.1H0 W194LTY0.1HA W194HLF0.1H0 W195LTY0.1HA W195HLF0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

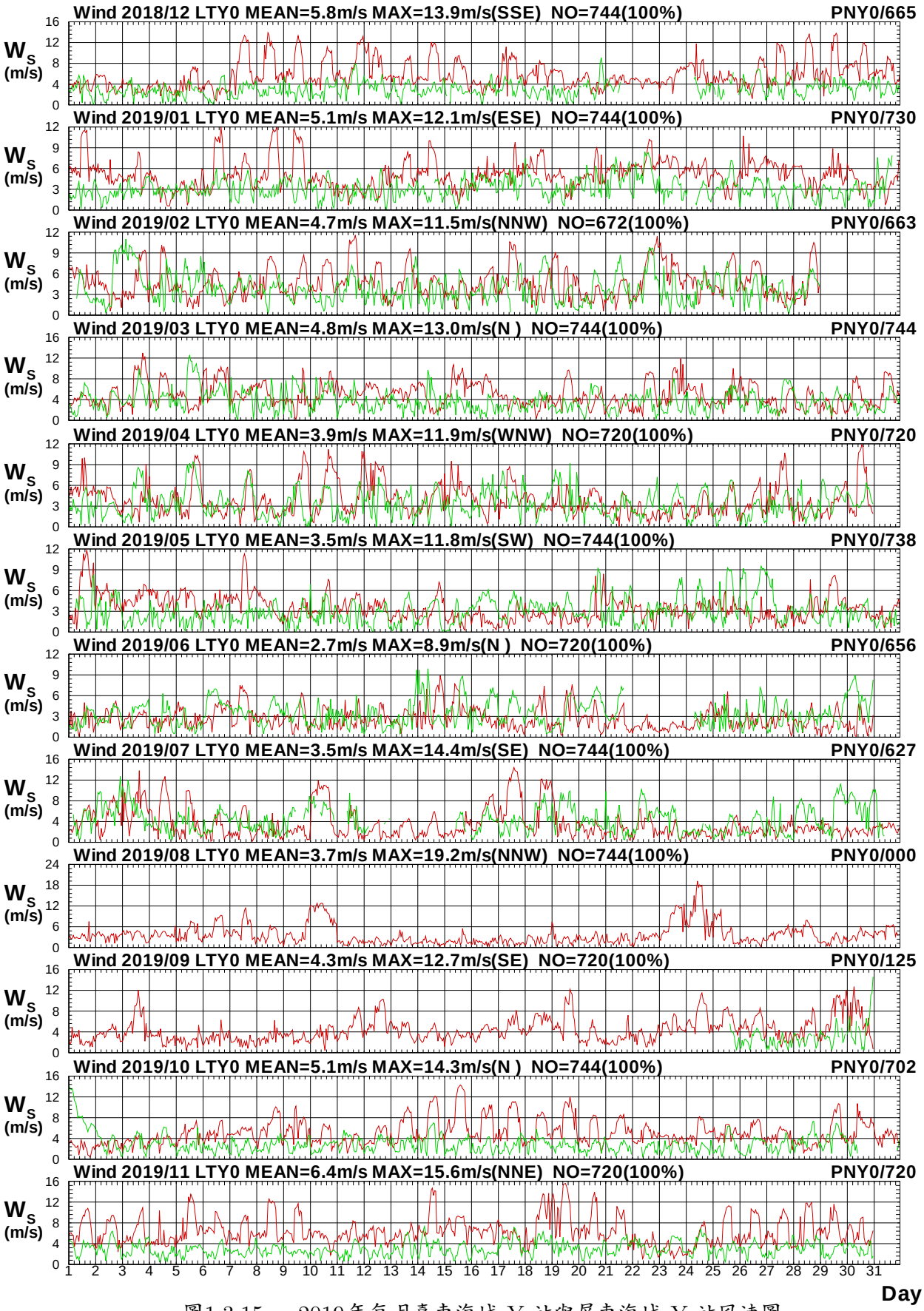

圖1.3.15a　2019年每月臺東海域 Y 站與屏東海域 Y 站風速圖

W18CLTY0.1HA W18CPNY0.1H0 W191LTY0.1HA W191PNY0.1H0 W192LTY0.1HA W192PNY0.1H0
W193LTY0.1HA W193PNY0.1H0 W194LTY0.1HA W194PNY0.1H0 W195LTY0.1HA W195PNY0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

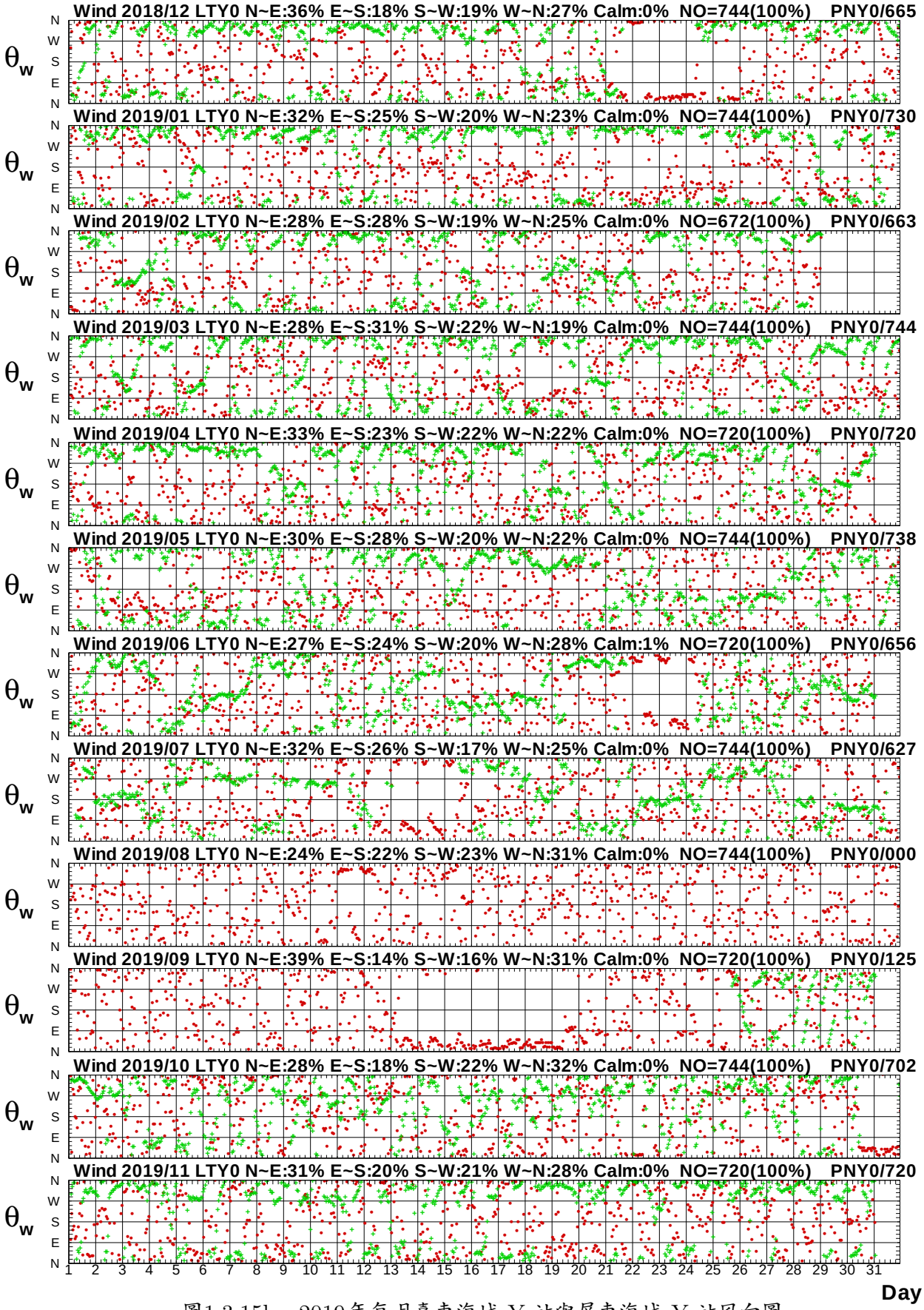

圖1.3.15b　2019年每月臺東海域 Y 站與屏東海域 Y 站風向圖

W18CLTY0.1HA W18CPNY0.1H0 W191LTY0.1HA W191PNY0.1H0 W192LTY0.1HA W192PNY0.1H0
W193LTY0.1HA W193PNY0.1H0 W194LTY0.1HA W194PNY0.1H0 W195LTY0.1HA W195PNY0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

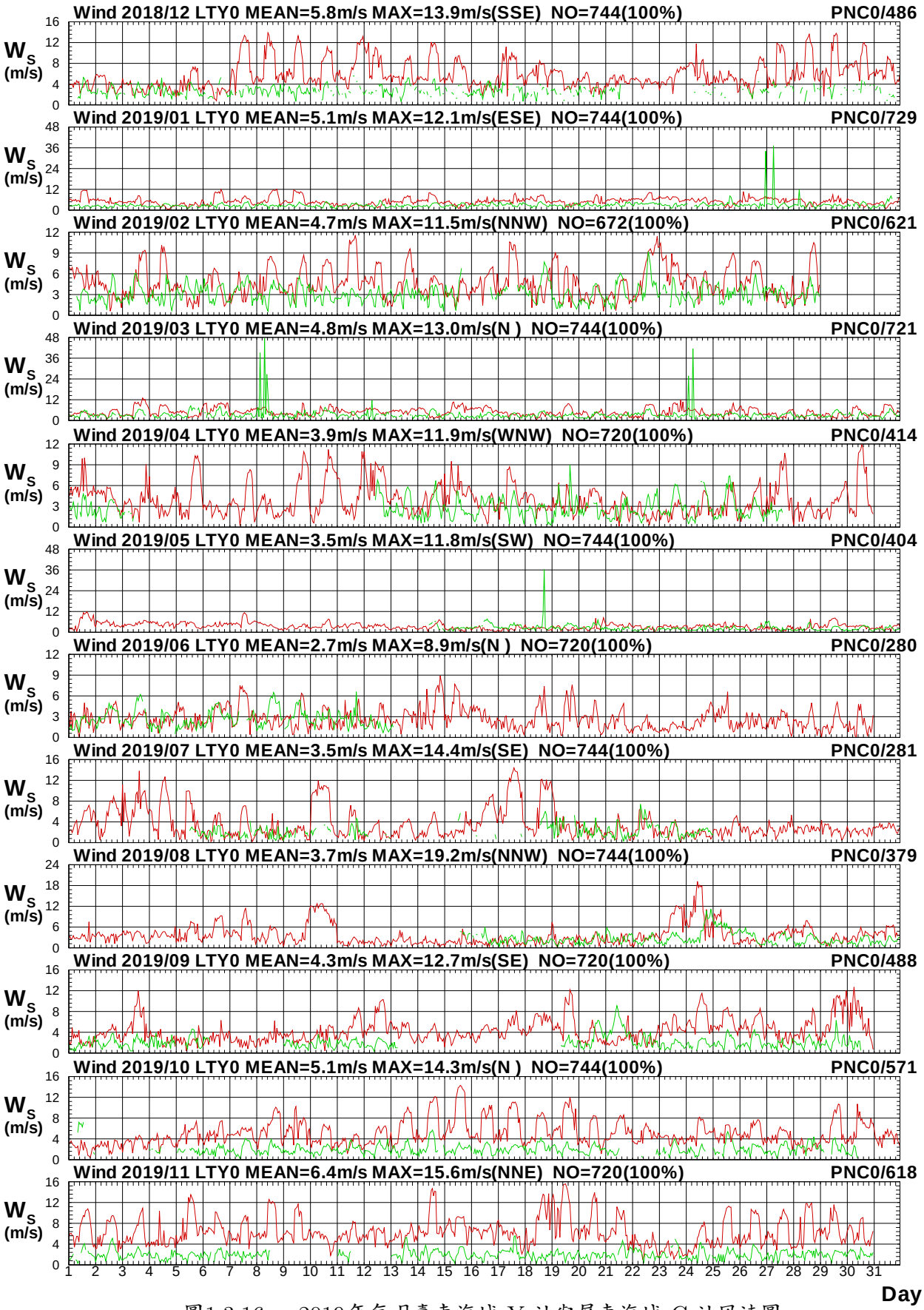

圖1.3.16a　2019年每月臺東海域 Y 站與屏東海域 C 站風速圖

W18CLTY0.1HA W18CPNC0.1H0 W191LTY0.1HA W191PNC0.1H0 W192LTY0.1HA W192PNC0.1H0
W193LTY0.1HA W193PNC0.1H0 W194LTY0.1HA W194PNC0.1H0 W195LTY0.1HA W195PNC0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

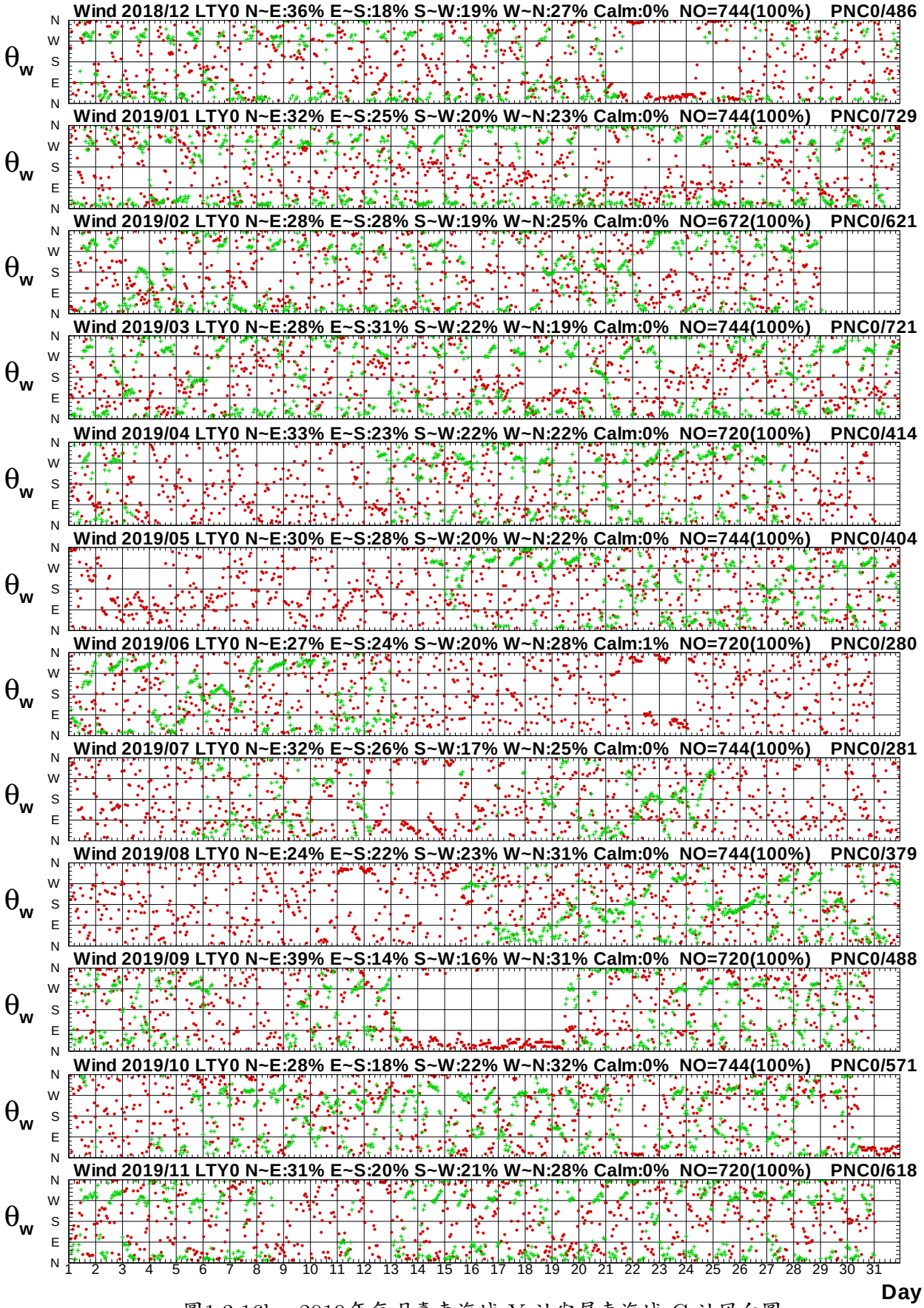

圖1.3.16b　2019年每月臺東海域 Y 站與屏東海域 C 站風向圖

W18CLTY0.1HA W18CPNC0.1H0 W191LTY0.1HA W191PNC0.1H0 W192LTY0.1HA W192PNC0.1H0
W193LTY0.1HA W193PNC0.1H0 W194LTY0.1HA W194PNC0.1H0 W195LTY0.1HA W195PNC0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

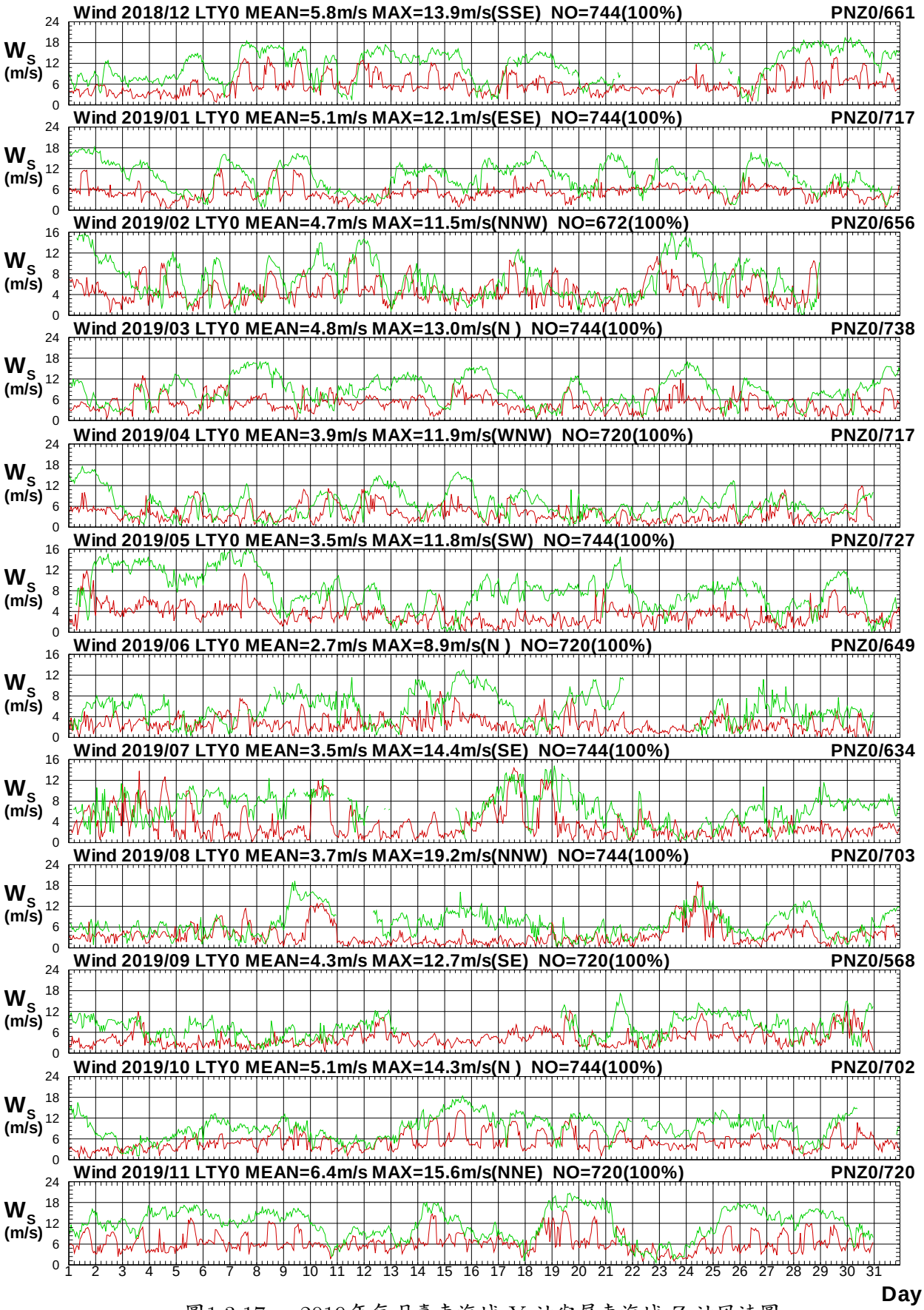

圖1.3.17a　2019年每月臺東海域 Y 站與屏東海域 Z 站風速圖

W18CLTY0.1HA W18CPNZ0.1H0 W191LTY0.1HA W191PNZ0.1H0 W192LTY0.1HA W192PNZ0.1H0
W193LTY0.1HA W193PNZ0.1H0 W194LTY0.1HA W194PNZ0.1H0 W195LTY0.1HA W195PNZ0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

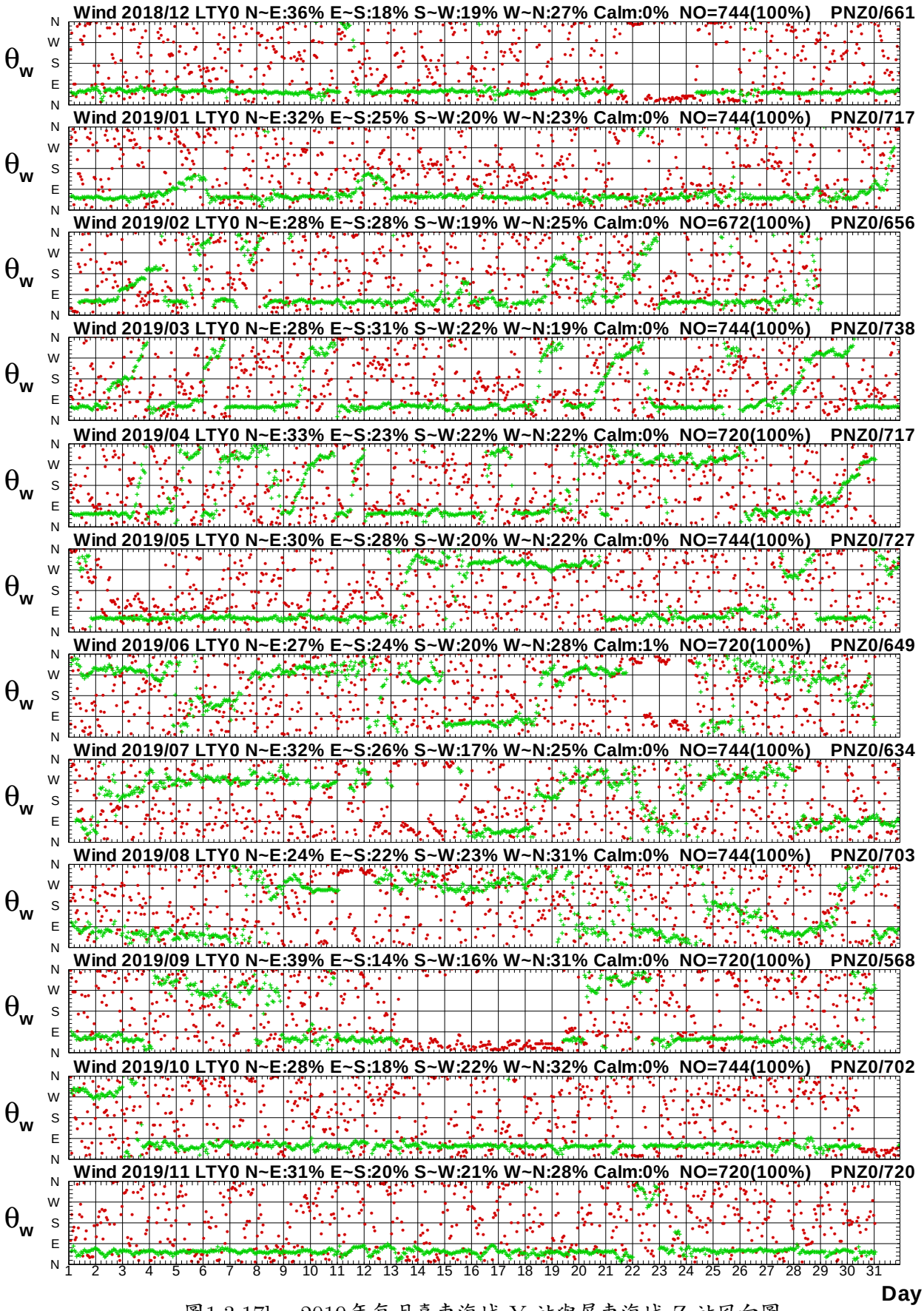

圖1.3.17b　2019年每月臺東海域 Y 站與屏東海域 Z 站風向圖

W18CLTY0.1HA W18CPNZ0.1H0 W191LTY0.1HA W191PNZ0.1H0 W192LTY0.1HA W192PNZ0.1H0
W193LTY0.1HA W193PNZ0.1H0 W194LTY0.1HA W194PNZ0.1H0 W195LTY0.1HA W195PNZ0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

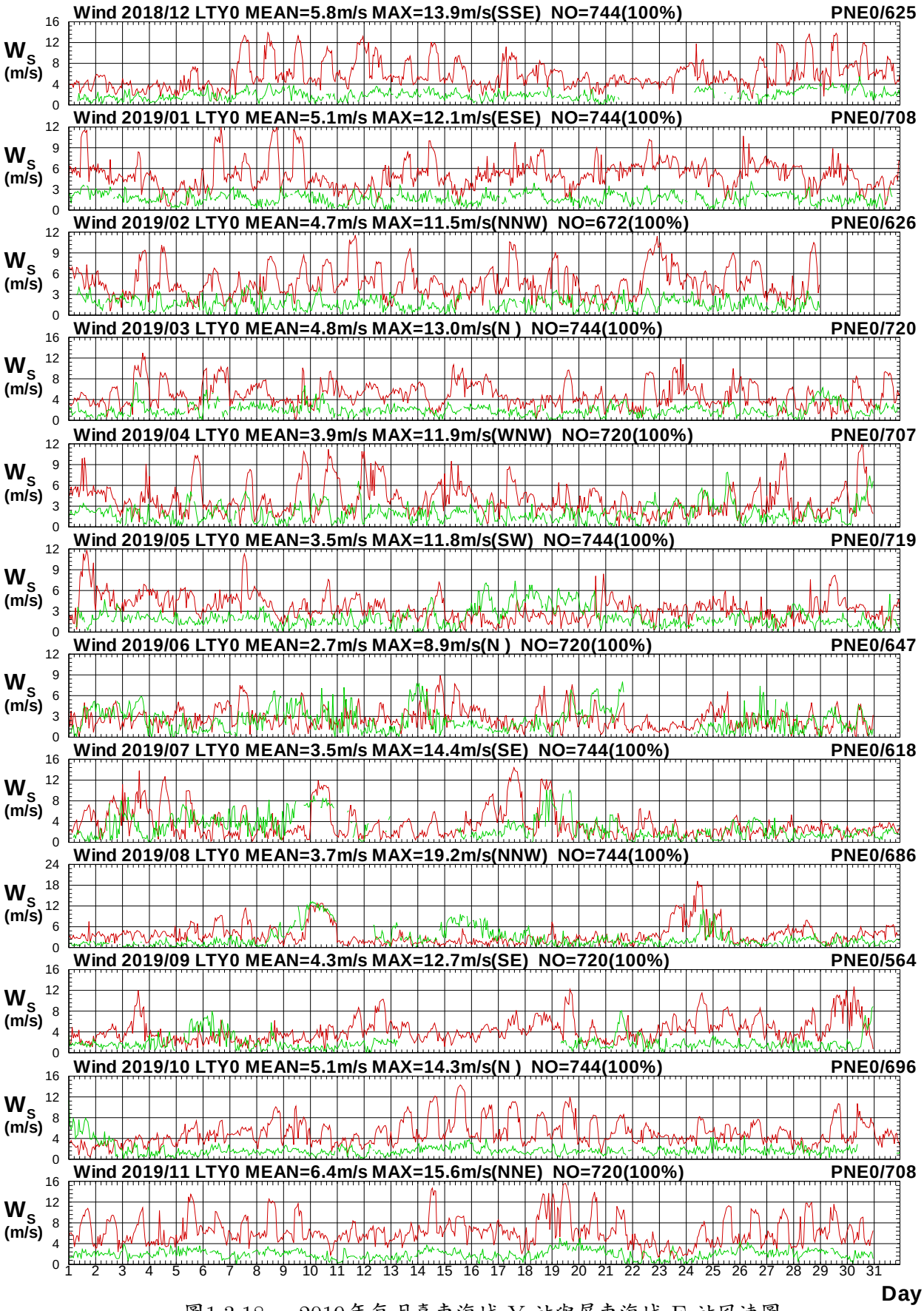

圖1.3.18a　2019年每月臺東海域 Y 站與屏東海域 E 站風速圖

W18CLTY0.1HA W18CPNE0.1H0 W191LTY0.1HA W191PNE0.1H0 W192LTY0.1HA W192PNE0.1H0
W193LTY0.1HA W193PNE0.1H0 W194LTY0.1HA W194PNE0.1H0 W195LTY0.1HA W195PNE0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

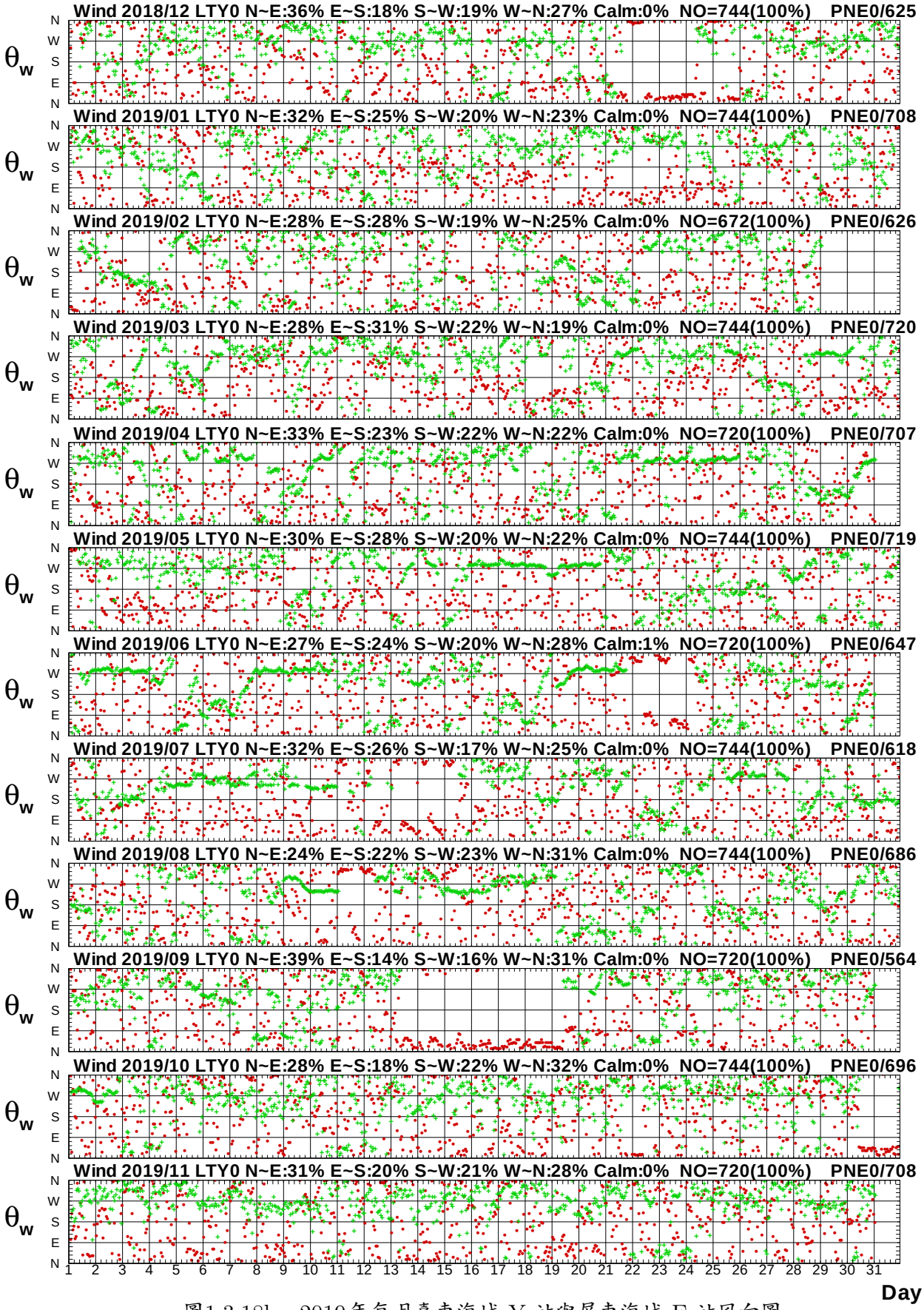

圖1.3.18b　2019年每月臺東海域 Y 站與屏東海域 E 站風向圖

W18CLTY0.1HA W18CPNE0.1H0 W191LTY0.1HA W191PNE0.1H0 W192LTY0.1HA W192PNE0.1H0
W193LTY0.1HA W193PNE0.1H0 W194LTY0.1HA W194PNE0.1H0 W195LTY0.1HA W195PNE0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

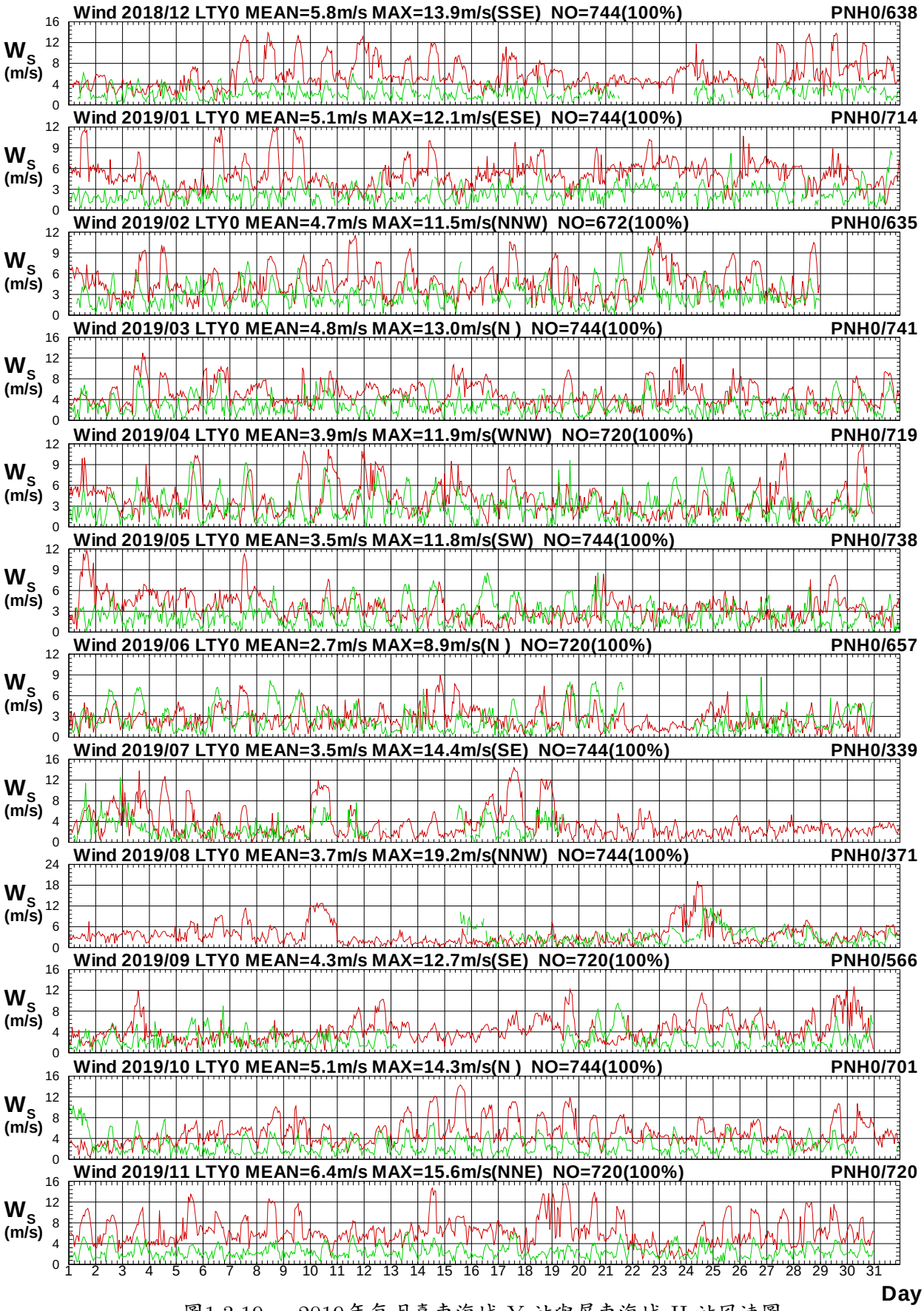

圖1.3.19a　2019年每月臺東海域 Y 站與屏東海域 H 站風速圖

W18CLTY0.1HA W18CPNH0.1H0 W191LTY0.1HA W191PNH0.1H0 W192LTY0.1HA W192PNH0.1H0
W193LTY0.1HA W193PNH0.1H0 W194LTY0.1HA W194PNH0.1H0 W195LTY0.1HA W195PNH0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

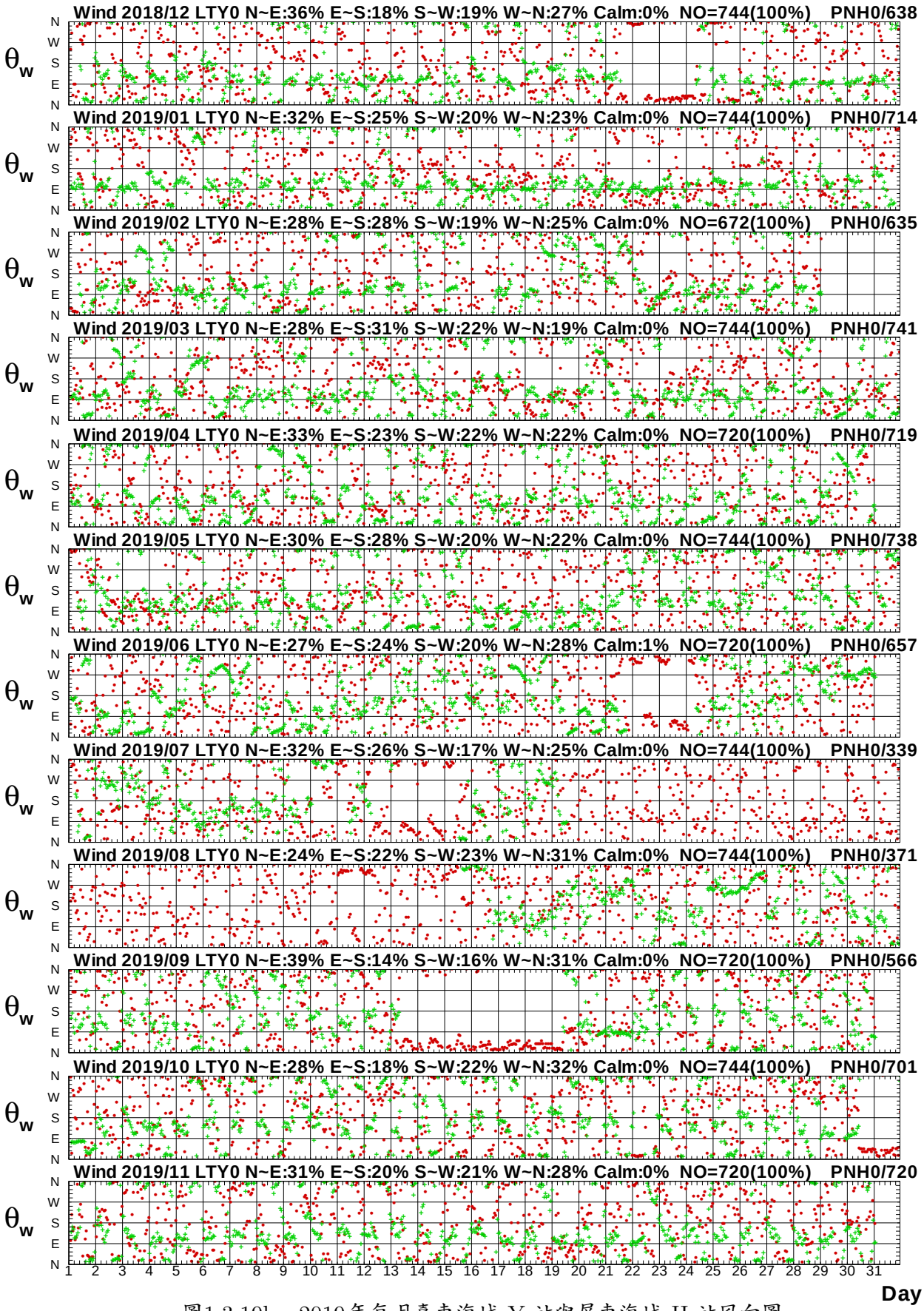

圖1.3.19b　2019年每月臺東海域 Y 站與屏東海域 H 站風向圖

W18CLTY0.1HA W18CPNH0.1H0 W191LTY0.1HA W191PNH0.1H0 W192LTY0.1HA W192PNH0.1H0
W193LTY0.1HA W193PNH0.1H0 W194LTY0.1HA W194PNH0.1H0 W195LTY0.1HA W195PNH0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

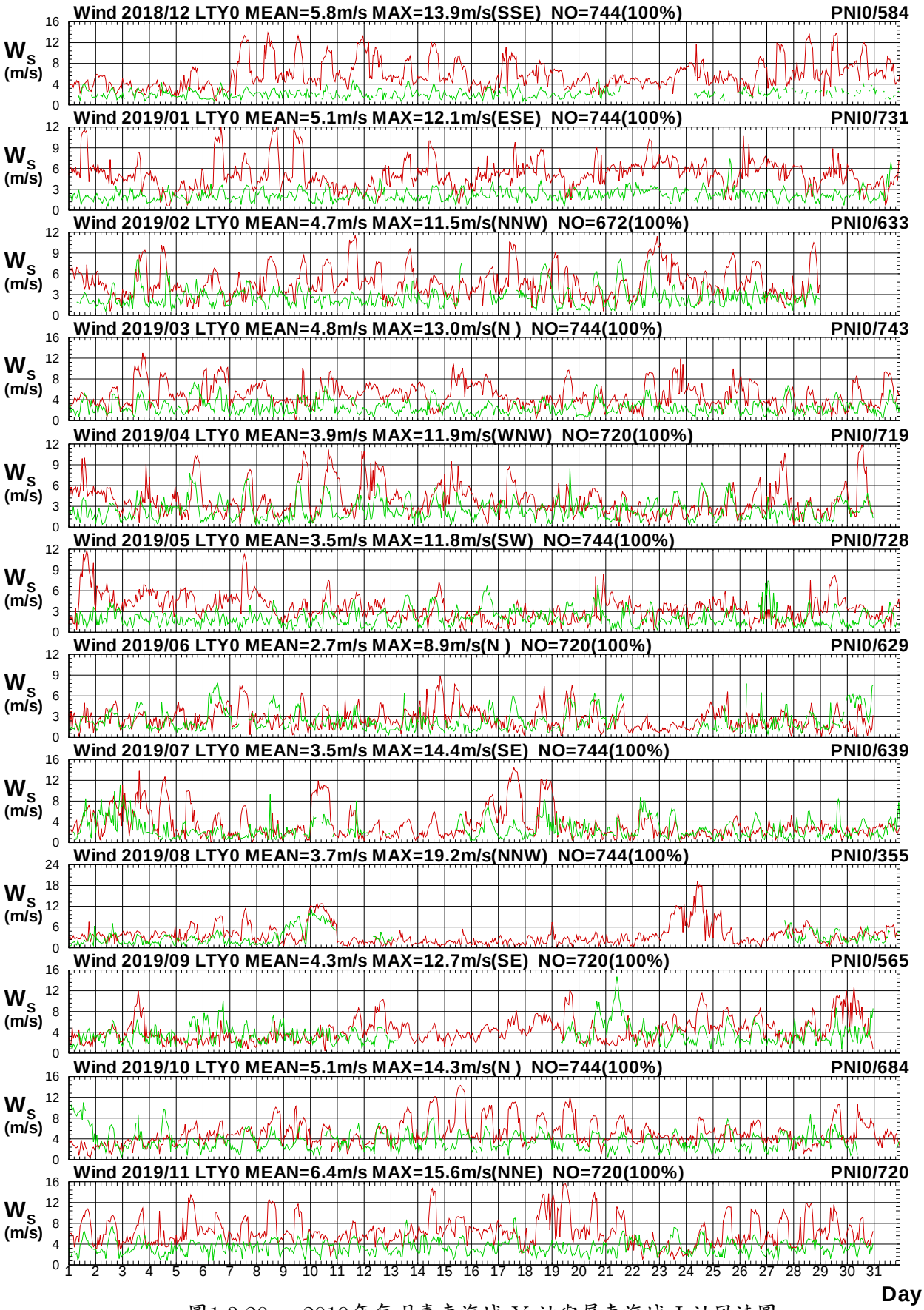

圖1.3.20a　2019年每月臺東海域 Y 站與屏東海域 I 站風速圖

W18CLTY0.1HA W18CPNI0.1H0 W191LTY0.1HA W191PNI0.1H0 W192LTY0.1HA W192PNI0.1H0
W193LTY0.1HA W193PNI0.1H0 W194LTY0.1HA W194PNI0.1H0 W195LTY0.1HA W195PNI0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

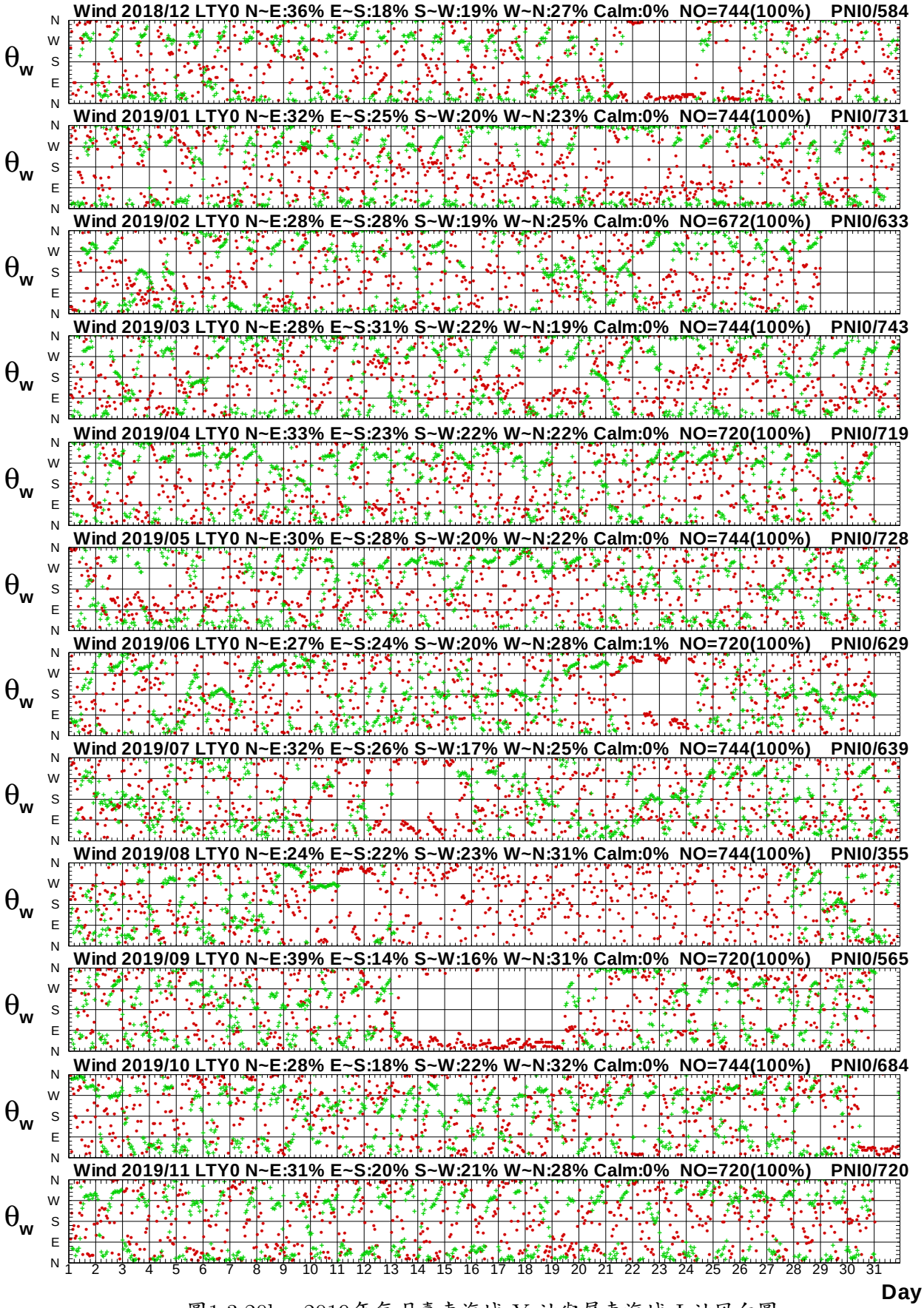

圖1.3.20b　2019年每月臺東海域 Y 站與屏東海域 I 站風向圖

W18CLTY0.1HA W18CPNI0.1H0 W191LTY0.1HA W191PNI0.1H0 W192LTY0.1HA W192PNI0.1H0
W193LTY0.1HA W193PNI0.1H0 W194LTY0.1HA W194PNI0.1H0 W195LTY0.1HA W195PNI0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

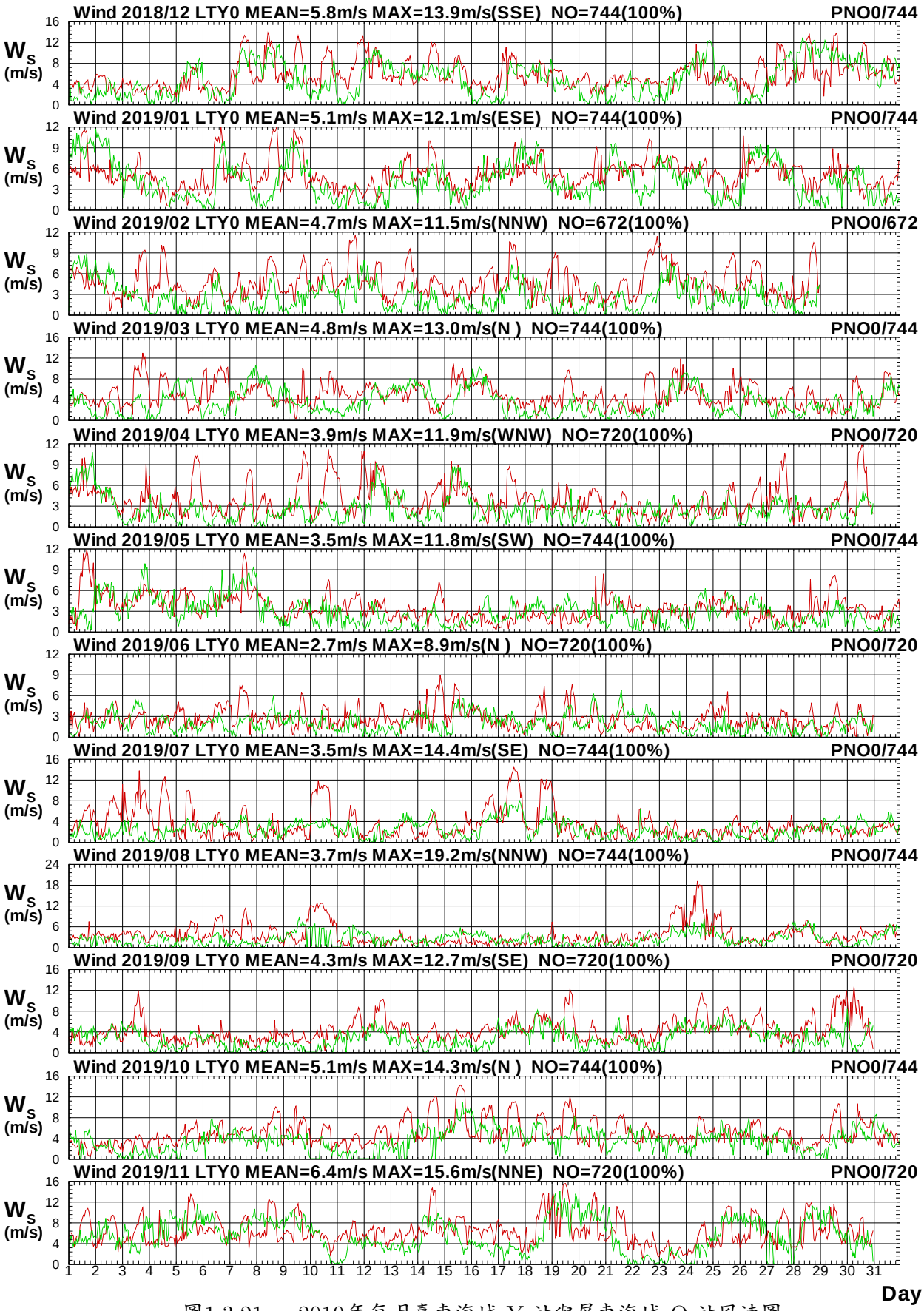

圖1.3.21a　2019年每月臺東海域 Y 站與屏東海域 O 站風速圖

W18CLTY0.1HA W18CPNO0.1H0 W191LTY0.1HA W191PNO0.1H0 W192LTY0.1HA W192PNO0.1H0
W193LTY0.1HA W193PNO0.1H0 W194LTY0.1HA W194PNO0.1H0 W195LTY0.1HA W195PNO0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

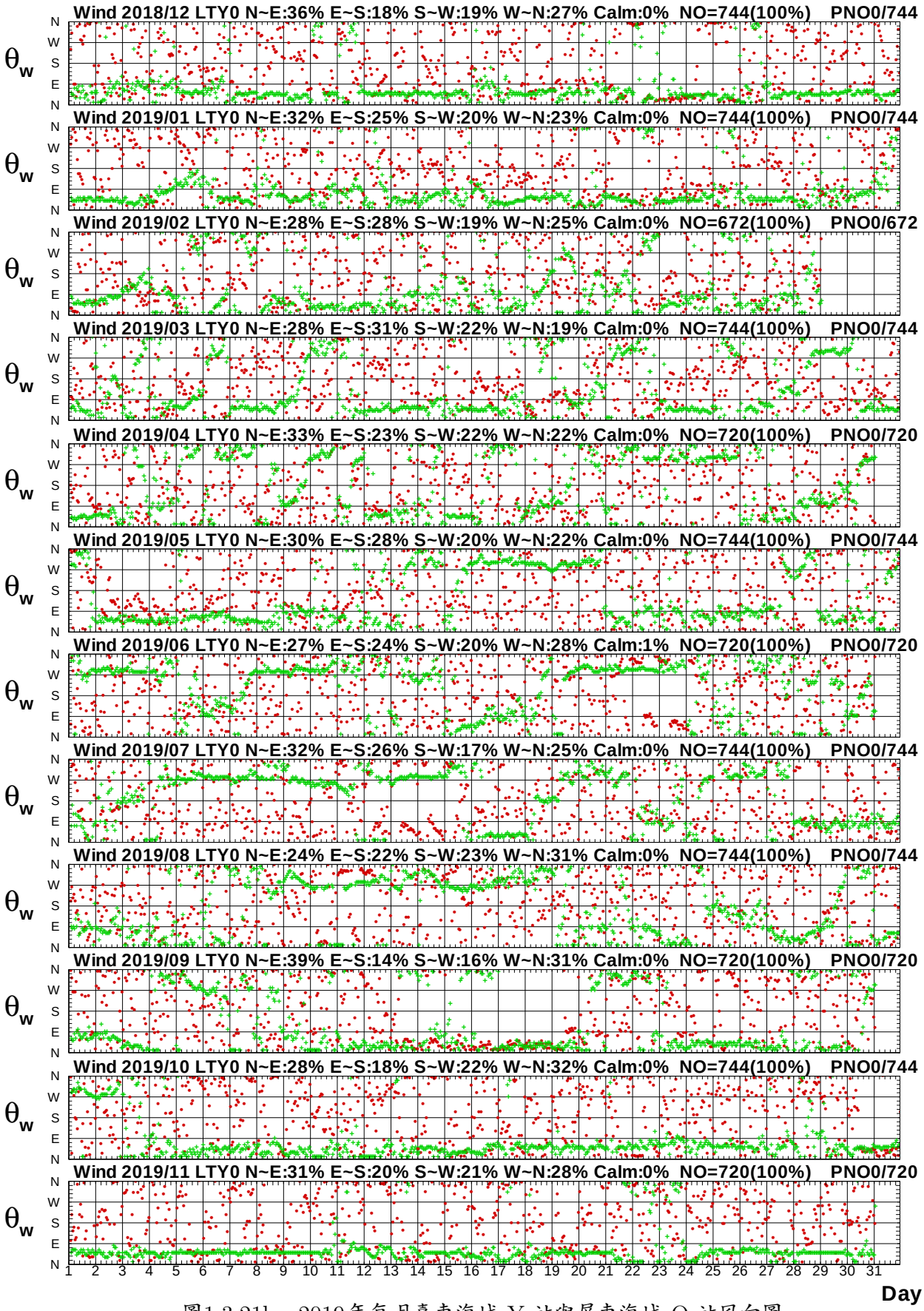

圖1.3.21b　2019年每月臺東海域 Y 站與屏東海域 O 站風向圖

W18CLTY0.1HA W18CPNO0.1H0 W191LTY0.1HA W191PNO0.1H0 W192LTY0.1HA W192PNO0.1H0
W193LTY0.1HA W193PNO0.1H0 W194LTY0.1HA W194PNO0.1H0 W195LTY0.1HA W195PNO0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

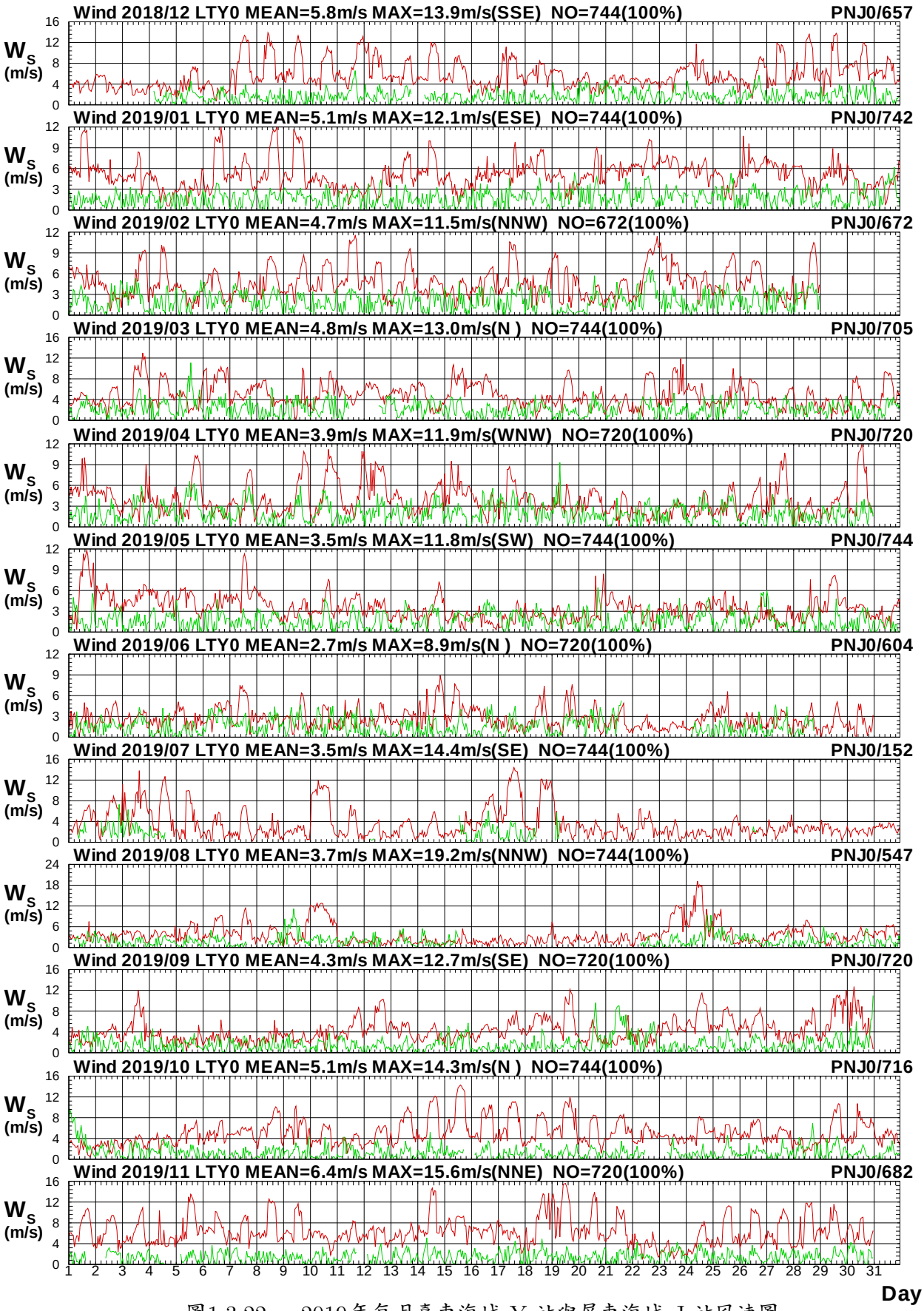

圖1.3.22a　2019年每月臺東海域 Y 站與屏東海域 J 站風速圖

W18CLTY0.1HA W18CPNJ0.1H0 W191LTY0.1HA W191PNJ0.1H0 W192LTY0.1HA W192PNJ0.1H0
W193LTY0.1HA W193PNJ0.1H0 W194LTY0.1HA W194PNJ0.1H0 W195LTY0.1HA W195PNJ0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

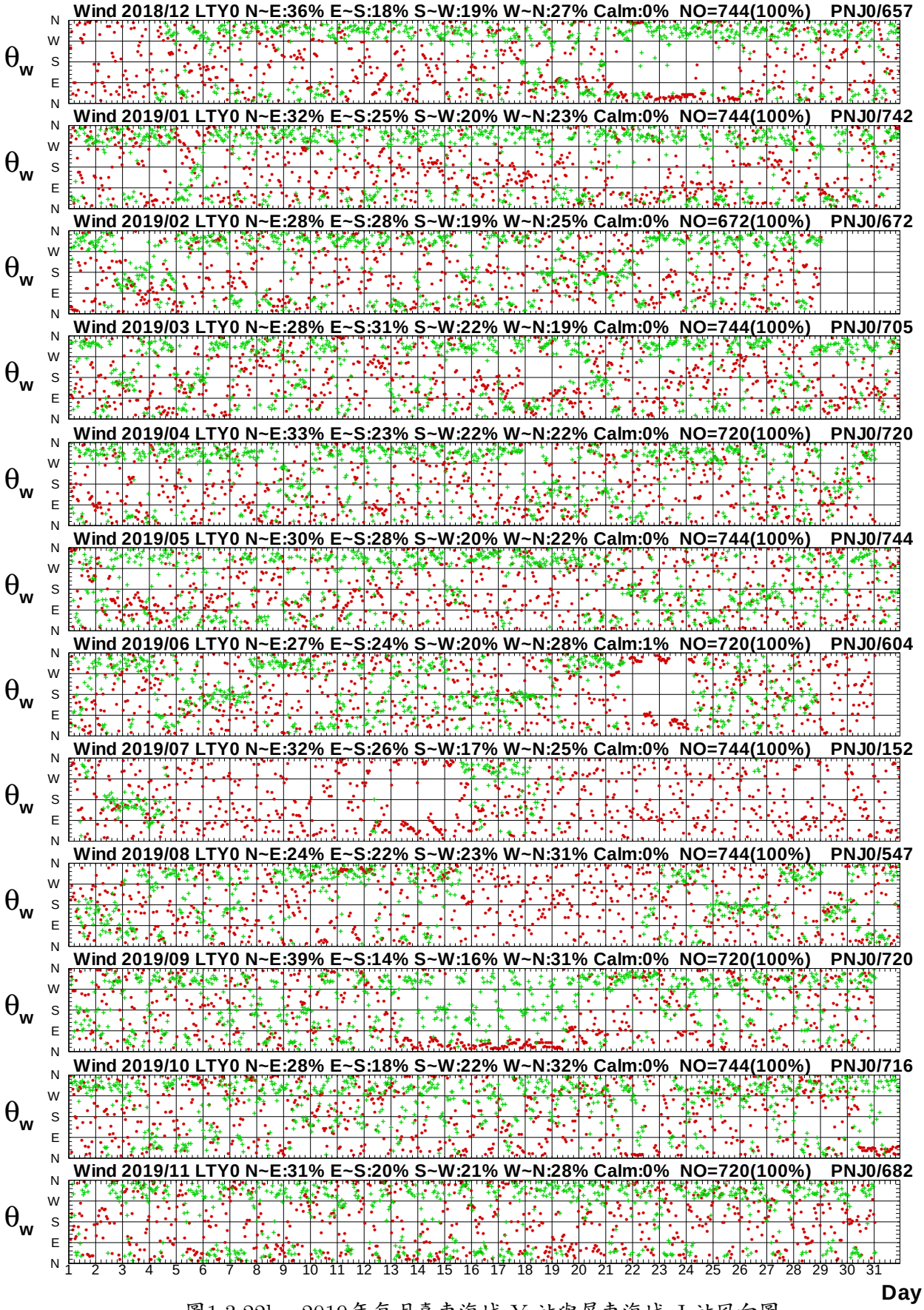

圖1.3.22b　2019年每月臺東海域 Y 站與屏東海域 J 站風向圖

W18CLTY0.1HA W18CPNJ0.1H0 W191LTY0.1HA W191PNJ0.1H0 W192LTY0.1HA W192PNJ0.1H0
W193LTY0.1HA W193PNJ0.1H0 W194LTY0.1HA W194PNJ0.1H0 W195LTY0.1HA W195PNJ0.1H0

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Wind Speed in Ta-Tung Seas of LTY0 at 2019

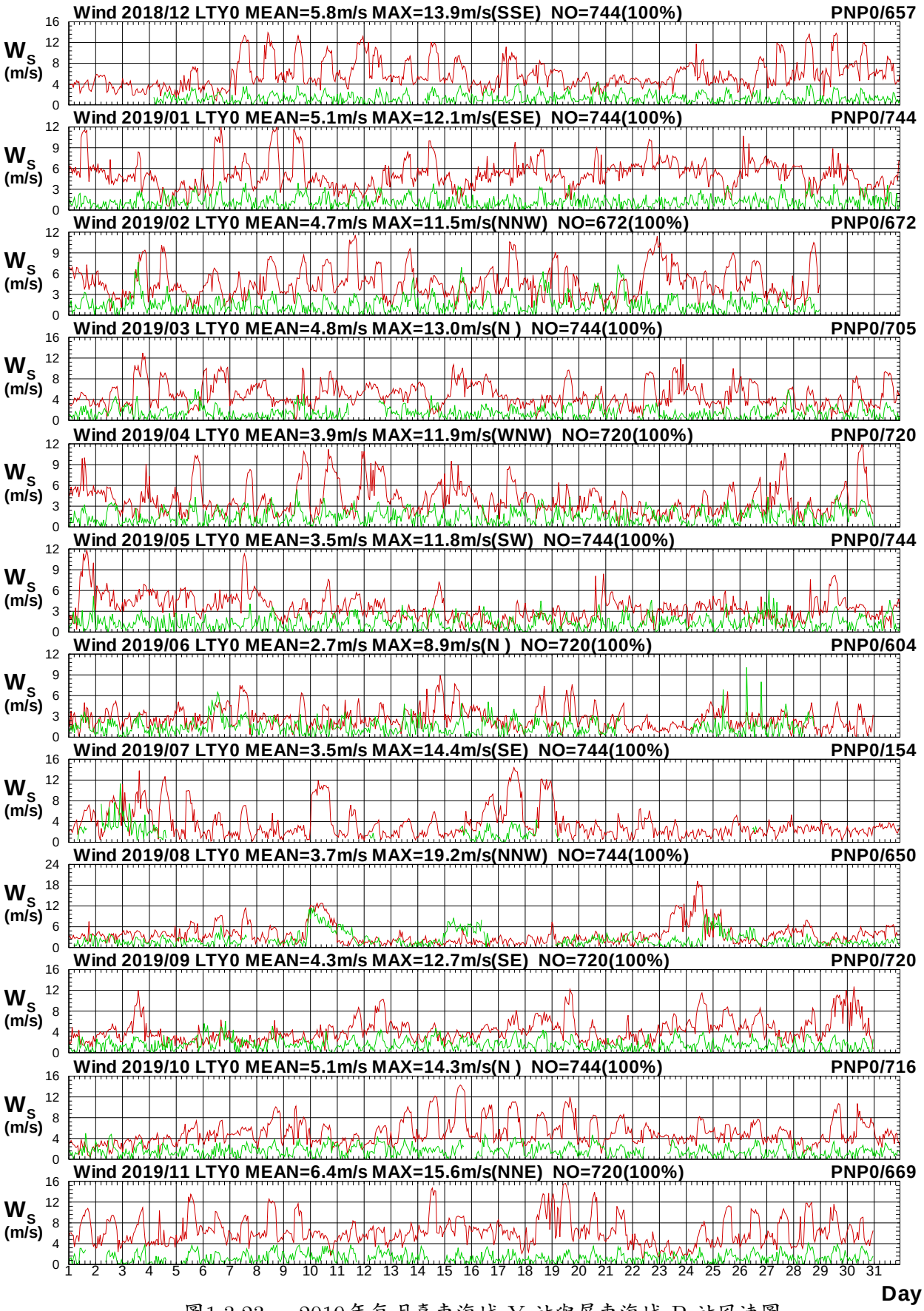

圖1.3.23a　2019年每月臺東海域 Y 站與屏東海域 P 站風速圖

W18CLTY0.1HA W18CPNP0.1H0 W191LTY0.1HA W191PNP0.1H0 W192LTY0.1HA W192PNP0.1H0
W193LTY0.1HA W193PNP0.1H0 W194LTY0.1HA W194PNP0.1H0 W195LTY0.1HA W195PNP0.1H0

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Wind Direction in Ta-Tung Seas of LTY0 at 2019

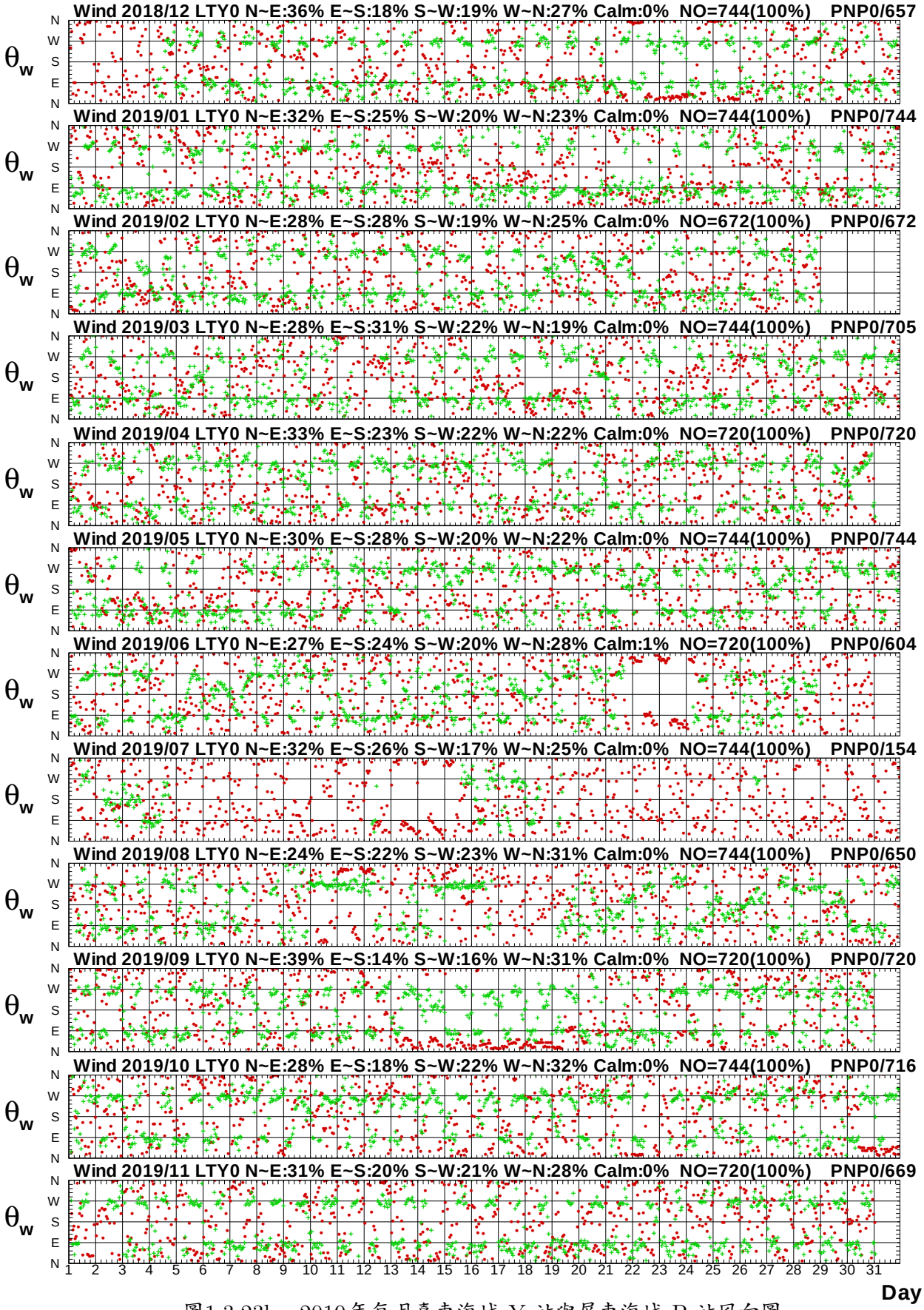

圖1.3.23b　2019年每月臺東海域 Y 站與屏東海域 P 站風向圖

W18CLTY0.1HA W18CPNP0.1H0 W191LTY0.1HA W191PNP0.1H0 W192LTY0.1HA W192PNP0.1H0
W193LTY0.1HA W193PNP0.1H0 W194LTY0.1HA W194PNP0.1H0 W195LTY0.1HA W195PNP0.1H0

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

Wind Speed in Ta-Tung Seas of LTW0 at 2019

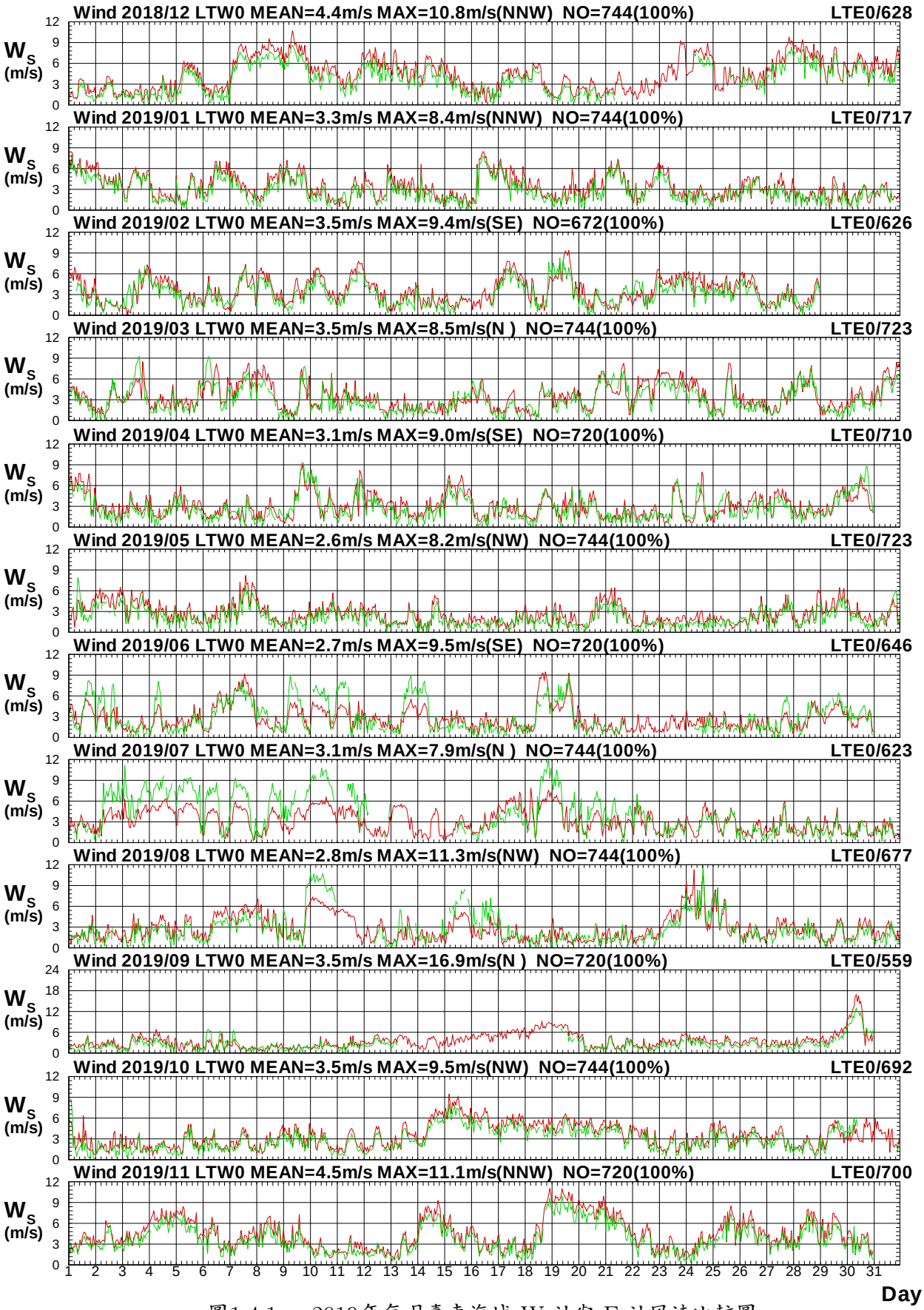

圖1.4.1a　2019年每月臺東海域 W 站與 E 站風速比較圖

W18CLTW0.1HA W18CLTE0.1H0 W191LTW0.1HA W191LTE0.1H0 W192LTW0.1HA W192LTE0.1H0
W193LTW0.1HA W193LTE0.1H0 W194LTW0.1HA W194LTE0.1H0 W195LTW0.1HA W195LTE0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

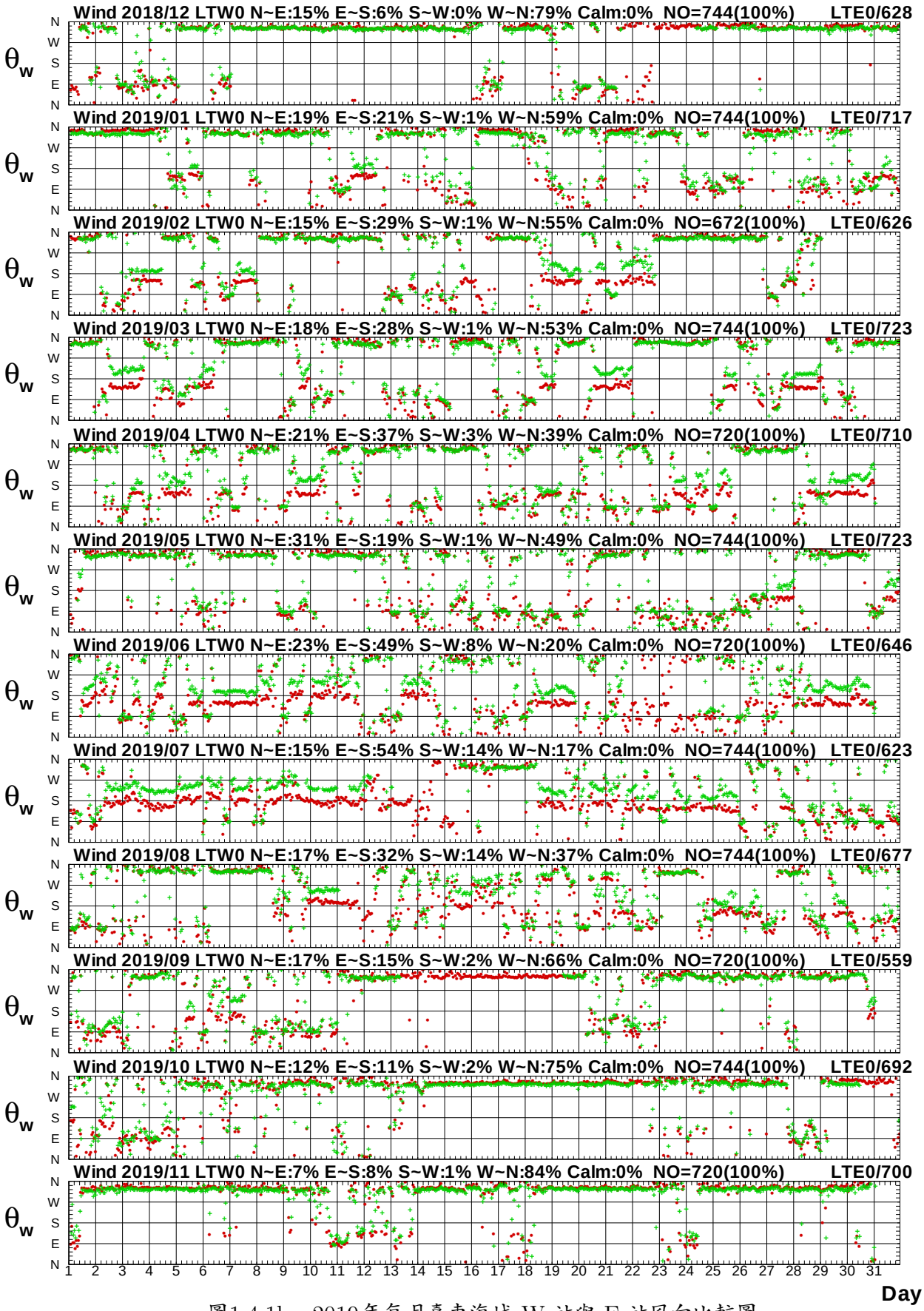

圖1.4.1b　2019年每月臺東海域 W 站與 E 站風向比較圖

W18CLTW0.1HA W18CLTE0.1H0 W191LTW0.1HA W191LTE0.1H0 W192LTW0.1HA W192LTE0.1H0
W193LTW0.1HA W193LTE0.1H0 W194LTW0.1HA W194LTE0.1H0 W195LTW0.1HA W195LTE0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

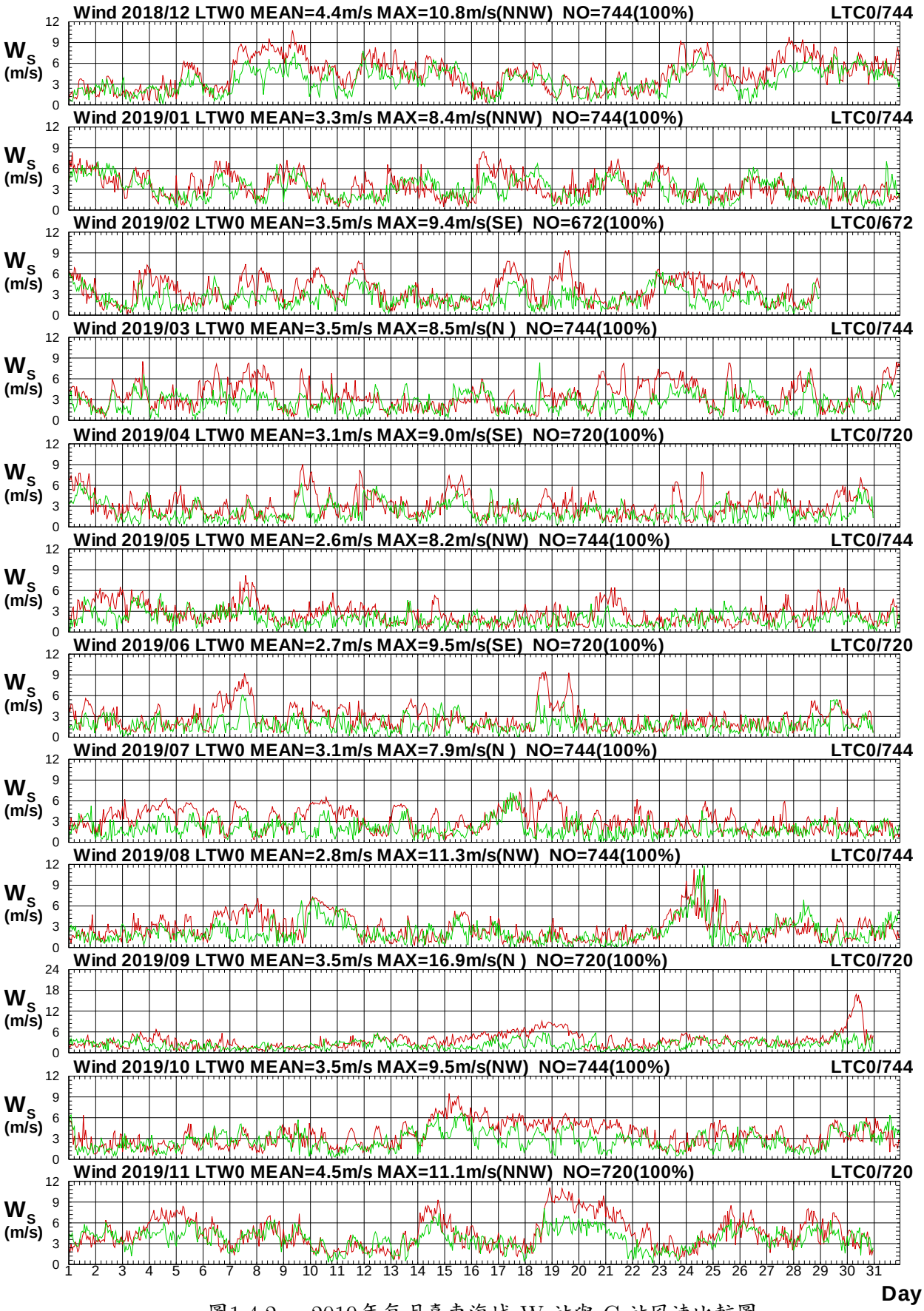

圖1.4.2a　2019年每月臺東海域 W 站與 C 站風速比較圖

W18CLTW0.1HA W18CLTC0.1H0 W191LTW0.1HA W191LTC0.1H0 W192LTW0.1HA W192LTC0.1H0
W193LTW0.1HA W193LTC0.1H0 W194LTW0.1HA W194LTC0.1H0 W195LTW0.1HA W195LTC0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

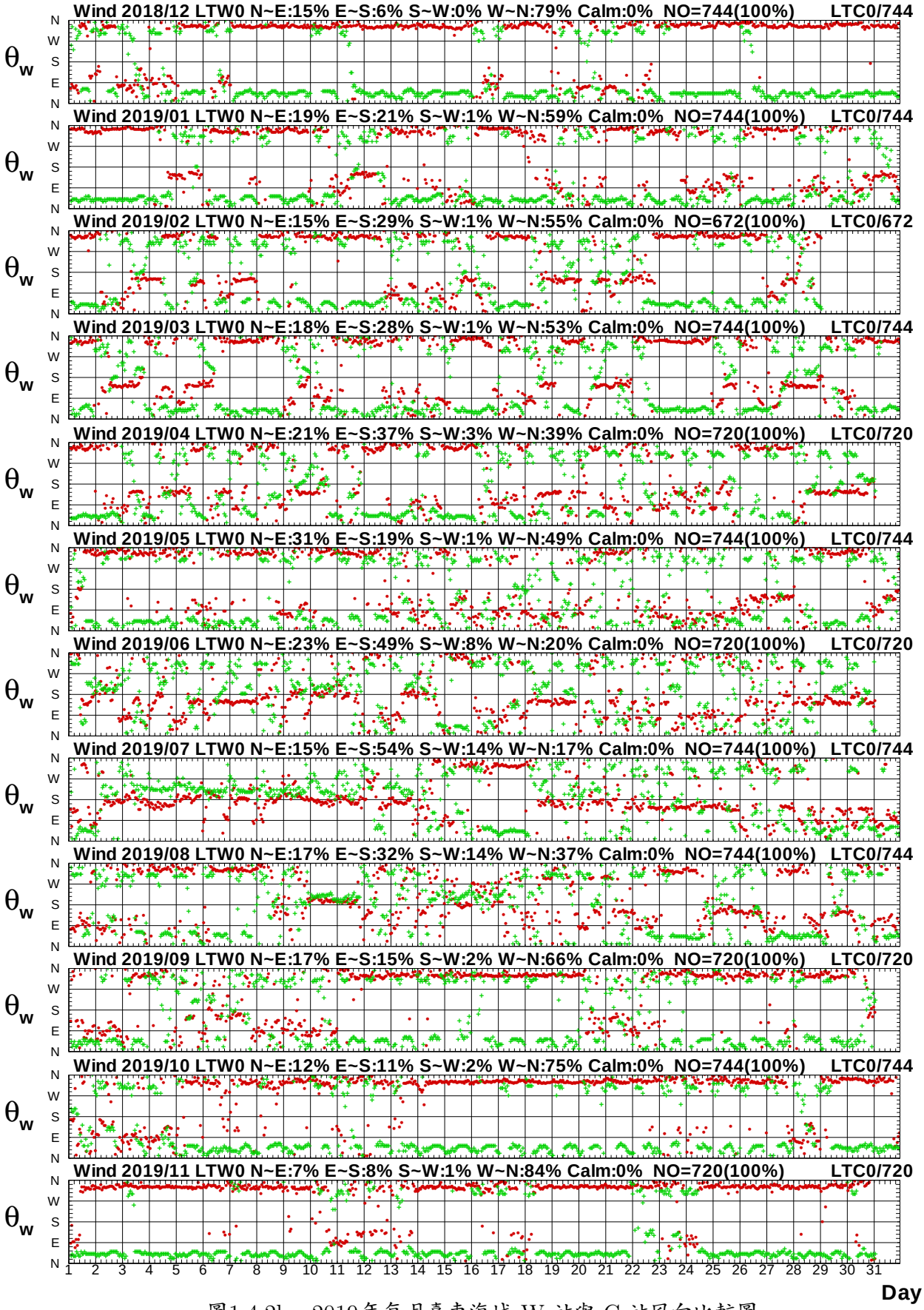

圖1.4.2b　2019年每月臺東海域 W 站與 C 站風向比較圖

W18CLTW0.1HA W18CLTC0.1H0 W191LTW0.1HA W191LTC0.1H0 W192LTW0.1HA W192LTC0.1H0
W193LTW0.1HA W193LTC0.1H0 W194LTW0.1HA W194LTC0.1H0 W195LTW0.1HA W195LTC0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

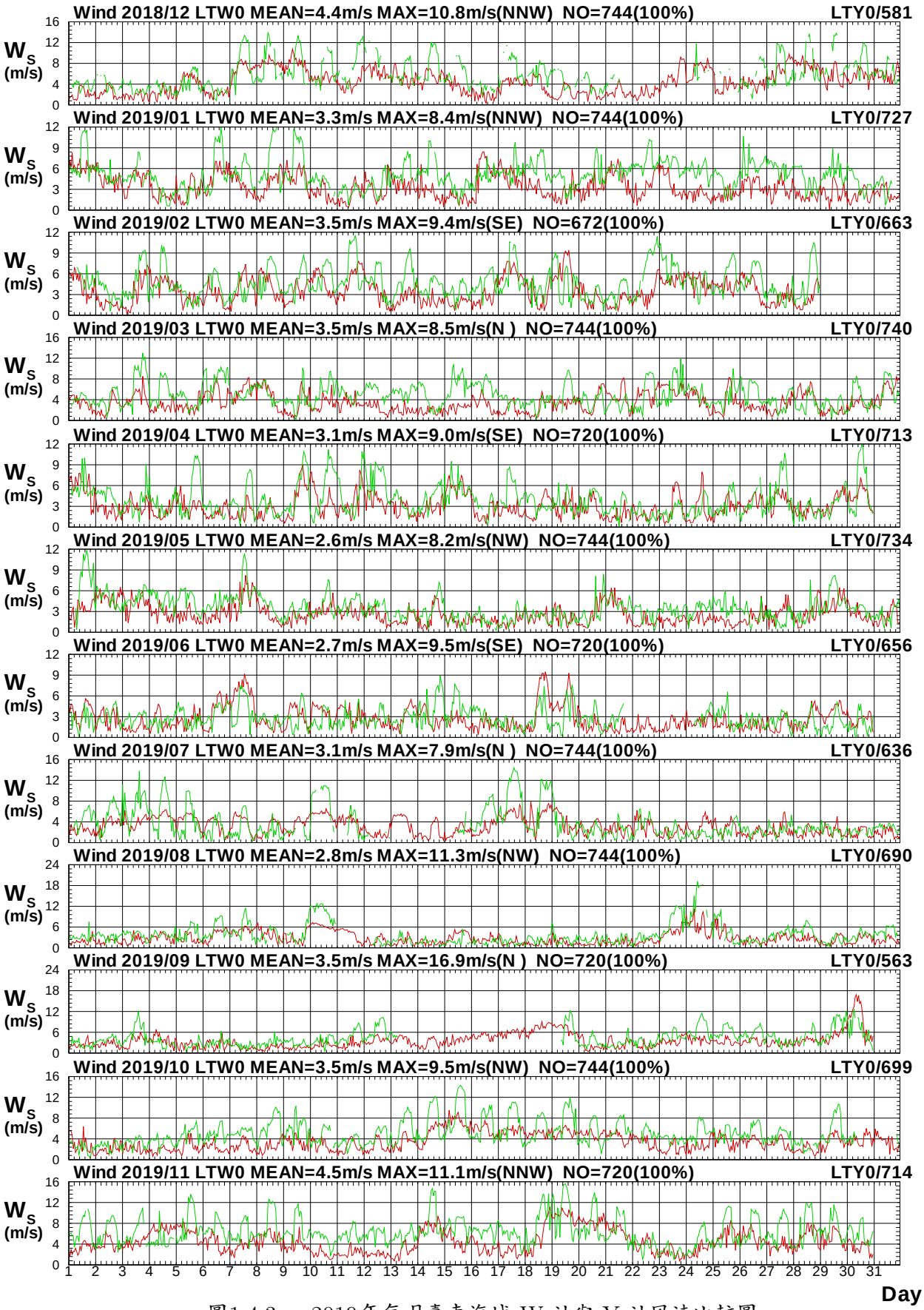

圖1.4.3a　2019年每月臺東海域 W 站與 Y 站風速比較圖

W18CLTW0.1HA W18CLTY0.1H0 W191LTW0.1HA W191LTY0.1H0 W192LTW0.1HA W192LTY0.1H0
W193LTW0.1HA W193LTY0.1H0 W194LTW0.1HA W194LTY0.1H0 W195LTW0.1HA W195LTY0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

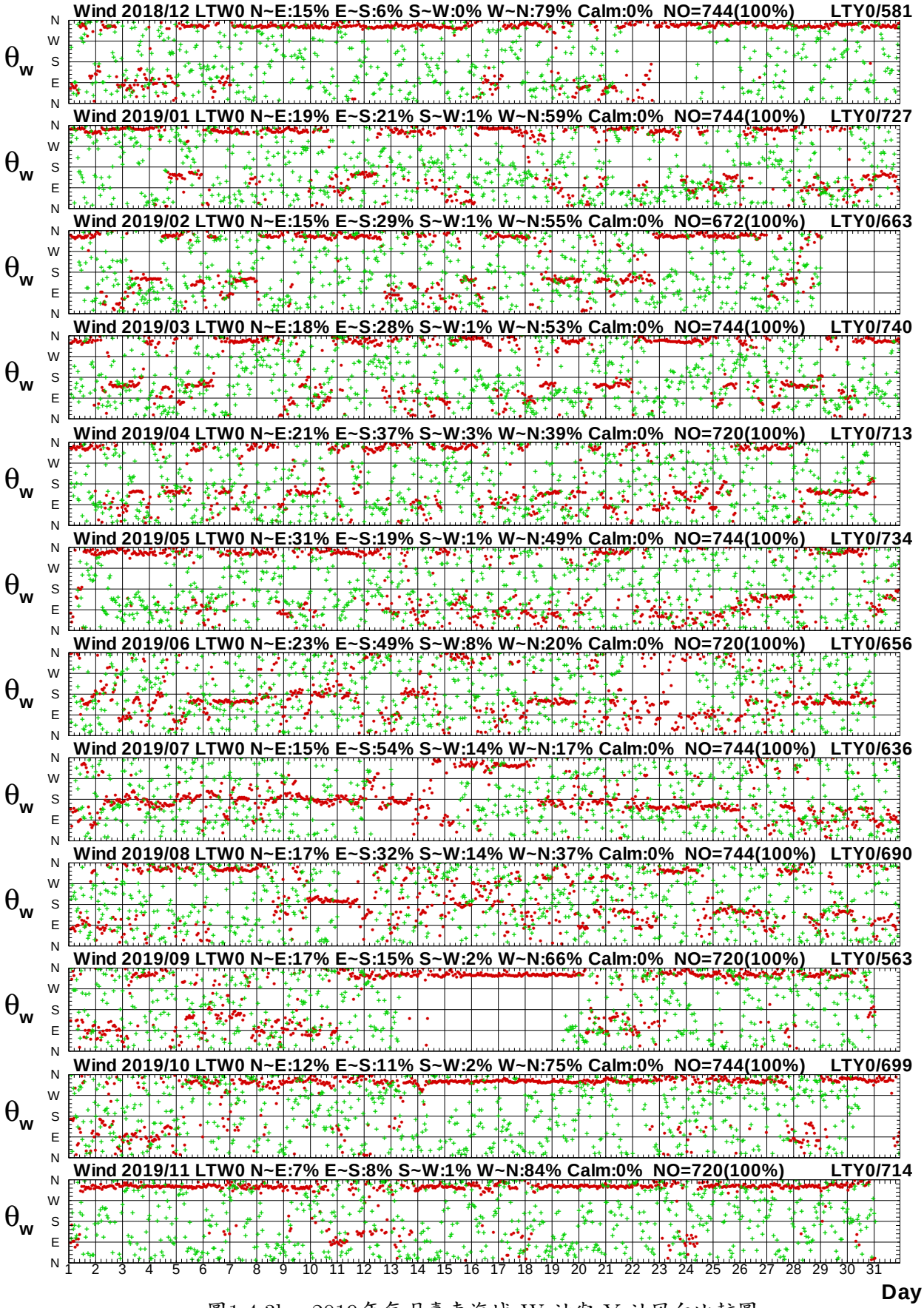

圖1.4.3b　2019年每月臺東海域 W 站與 Y 站風向比較圖

W18CLTW0.1HA W18CLTY0.1H0 W191LTW0.1HA W191LTY0.1H0 W192LTW0.1HA W192LTY0.1H0
W193LTW0.1HA W193LTY0.1H0 W194LTW0.1HA W194LTY0.1H0 W195LTW0.1HA W195LTY0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

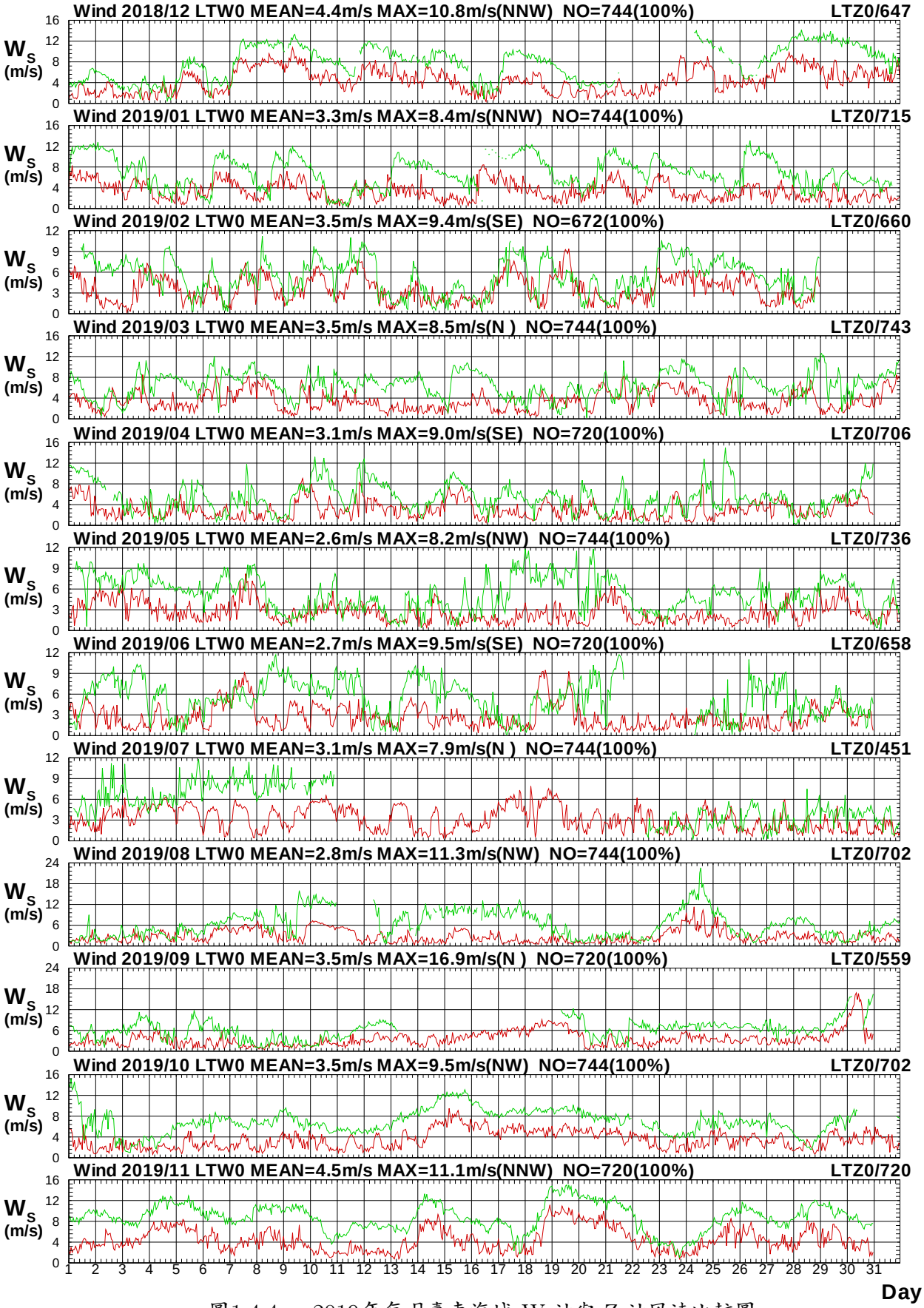

圖1.4.4a　2019年每月臺東海域 W 站與 Z 站風速比較圖

W18CLTW0.1HA W18CLTZ0.1H0 W191LTW0.1HA W191LTZ0.1H0 W192LTW0.1HA W192LTZ0.1H0
W193LTW0.1HA W193LTZ0.1H0 W194LTW0.1HA W194LTZ0.1H0 W195LTW0.1HA W195LTZ0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

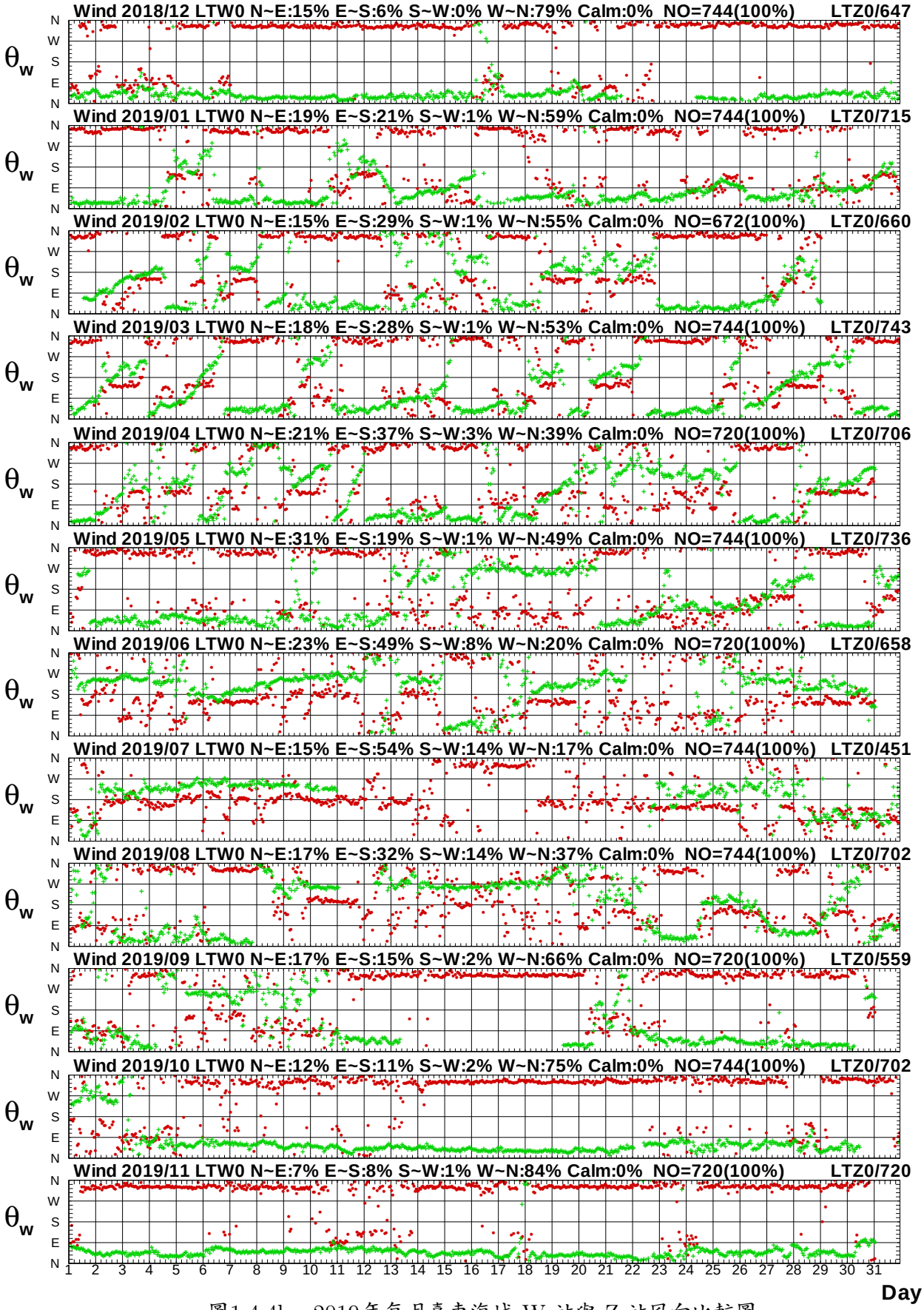

圖1.4.4b　2019年每月臺東海域 W 站與 Z 站風向比較圖

W18CLTW0.1HA W18CLTZ0.1H0 W191LTW0.1HA W191LTZ0.1H0 W192LTW0.1HA W192LTZ0.1H0
W193LTW0.1HA W193LTZ0.1H0 W194LTW0.1HA W194LTZ0.1H0 W195LTW0.1HA W195LTZ0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

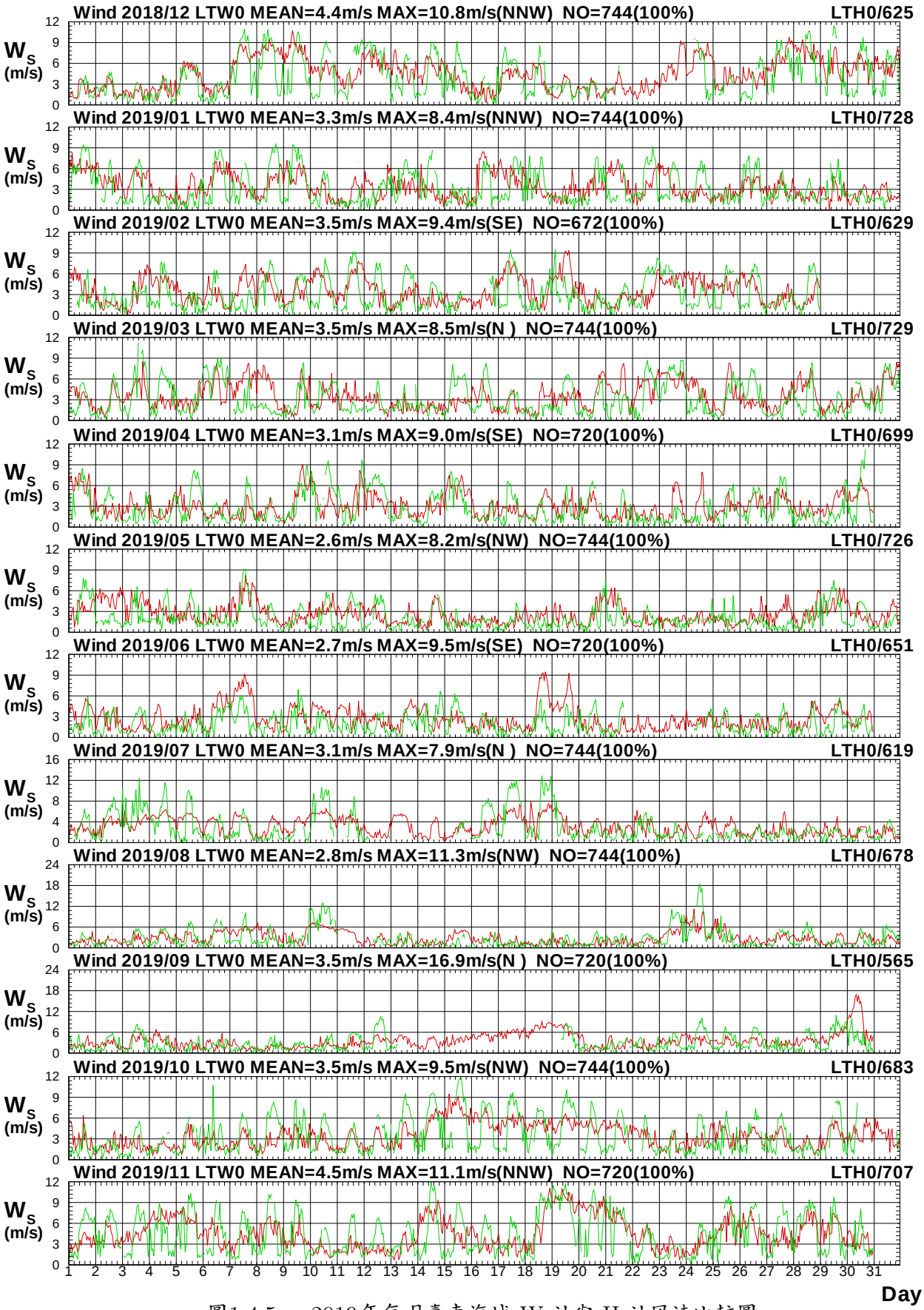

圖1.4.5a　2019年每月臺東海域 W 站與 H 站風速比較圖

W18CLTW0.1HA W18CLTH0.1H0 W191LTW0.1HA W191LTH0.1H0 W192LTW0.1HA W192LTH0.1H0
W193LTW0.1HA W193LTH0.1H0 W194LTW0.1HA W194LTH0.1H0 W195LTW0.1HA W195LTH0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

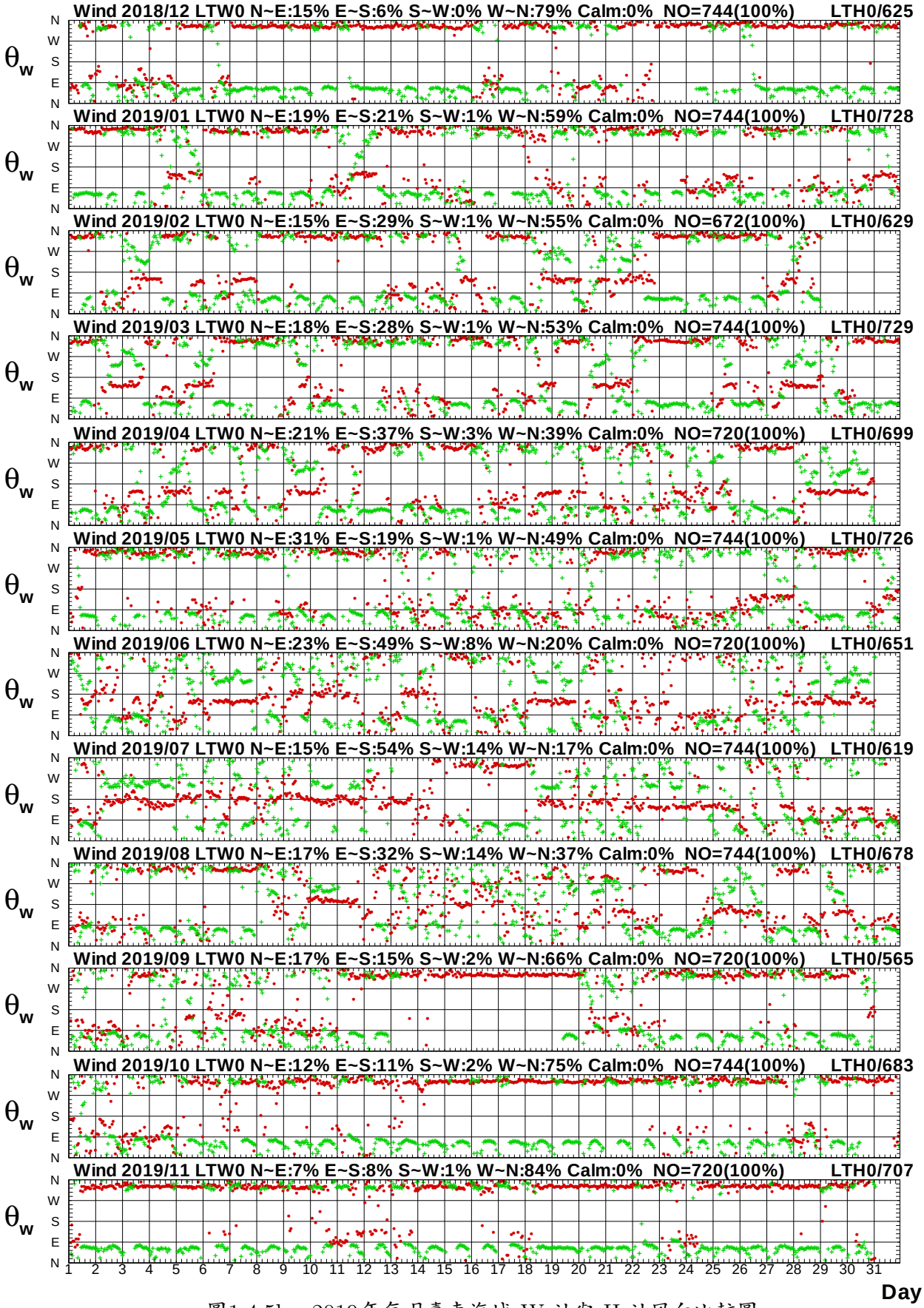

圖1.4.5b　2019年每月臺東海域 W 站與 H 站風向比較圖

W18CLTW0.1HA W18CLTH0.1H0 W191LTW0.1HA W191LTH0.1H0 W192LTW0.1HA W192LTH0.1H0
W193LTW0.1HA W193LTH0.1H0 W194LTW0.1HA W194LTH0.1H0 W195LTW0.1HA W195LTH0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

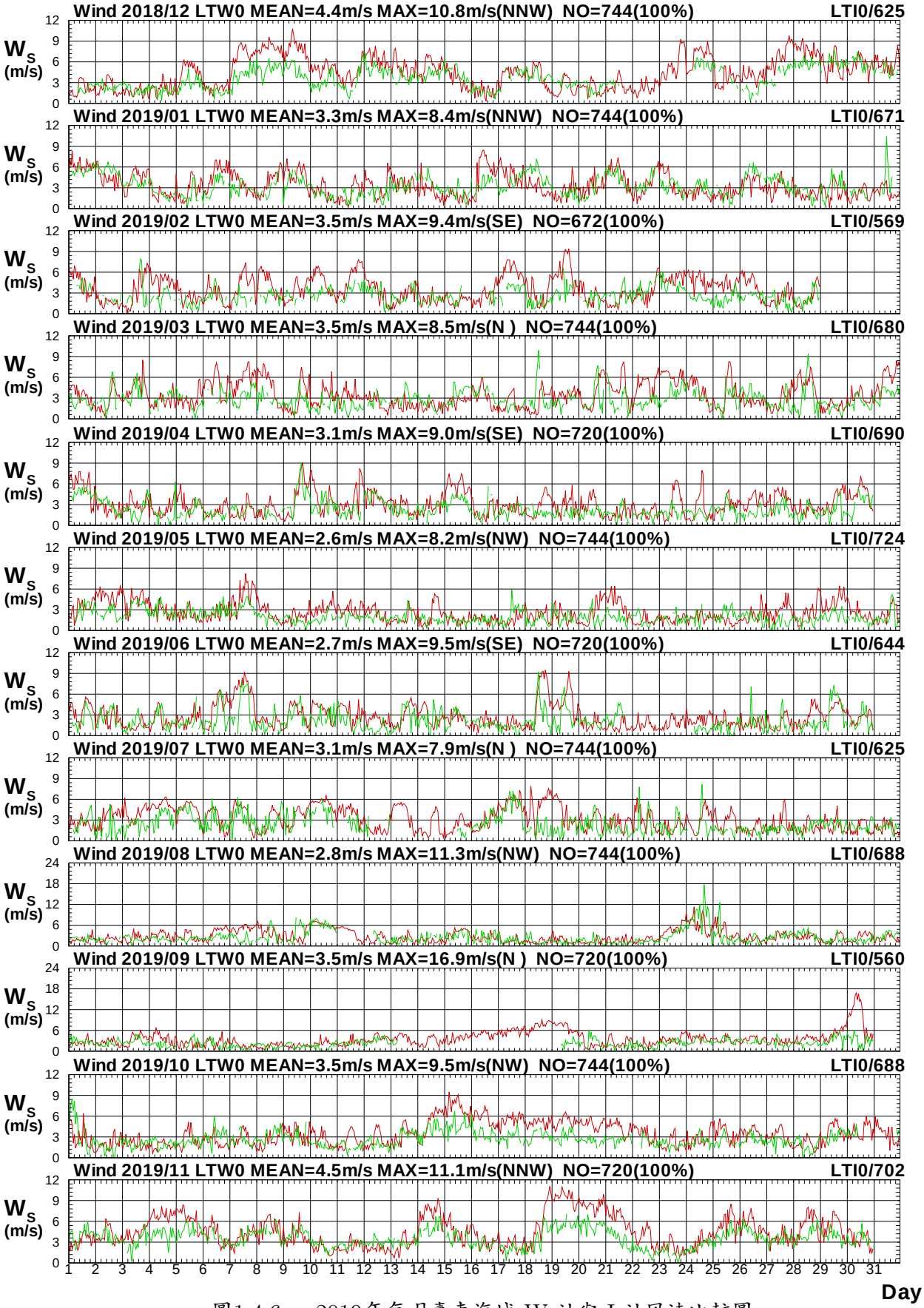

圖1.4.6a　2019年每月臺東海域 W 站與 I 站風速比較圖

W18CLTW0.1HA W18CLTI0.1H0 W191LTW0.1HA W191LTI0.1H0 W192LTW0.1HA W192LTI0.1H0
W193LTW0.1HA W193LTI0.1H0 W194LTW0.1HA W194LTI0.1H0 W195LTW0.1HA W195LTI0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

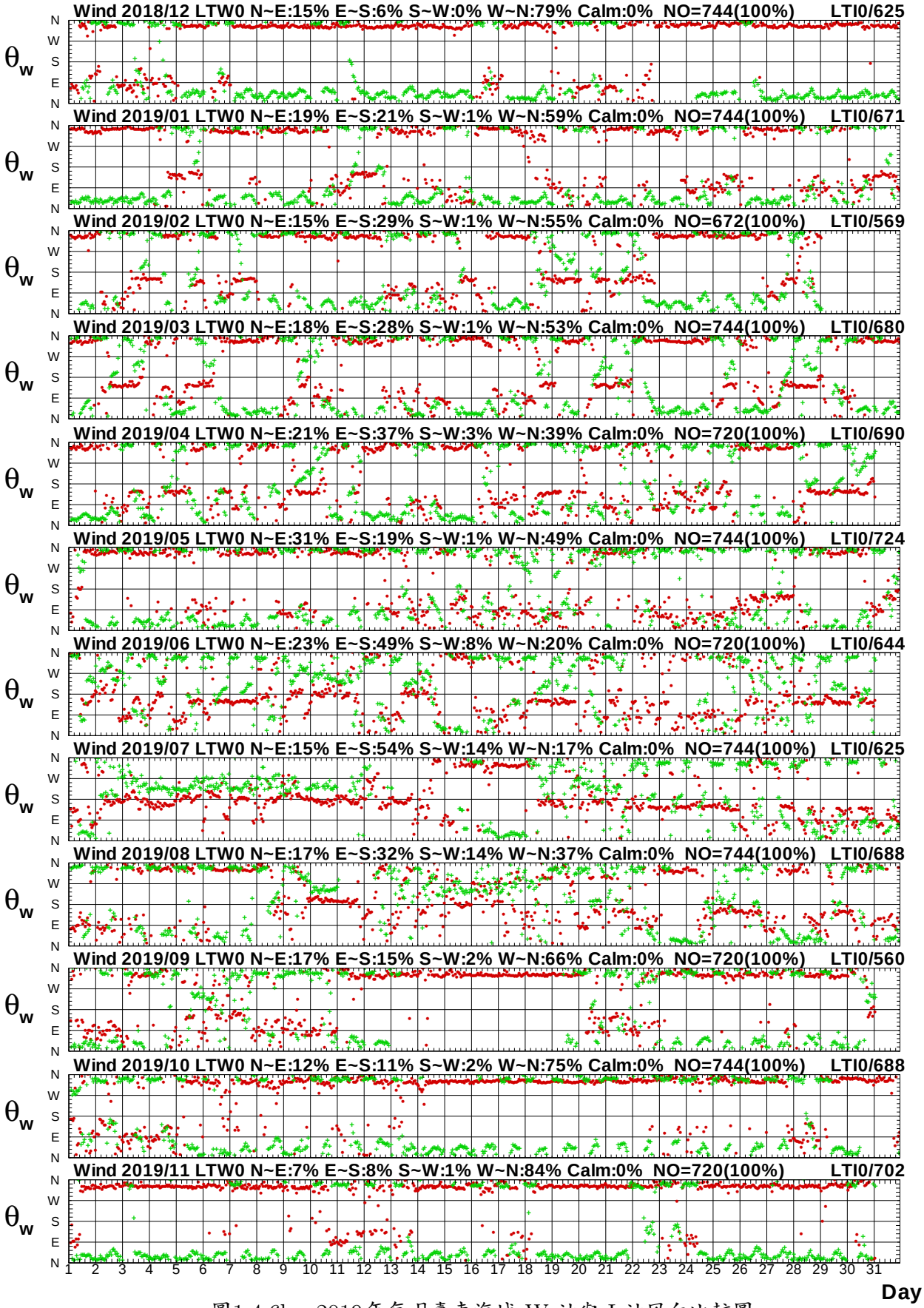

圖1.4.6b　2019年每月臺東海域 W 站與 I 站風向比較圖

W18CLTW0.1HA W18CLTI0.1H0 W191LTW0.1HA W191LTI0.1H0 W192LTW0.1HA W192LTI0.1H0
W193LTW0.1HA W193LTI0.1H0 W194LTW0.1HA W194LTI0.1H0 W195LTW0.1HA W195LTI0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

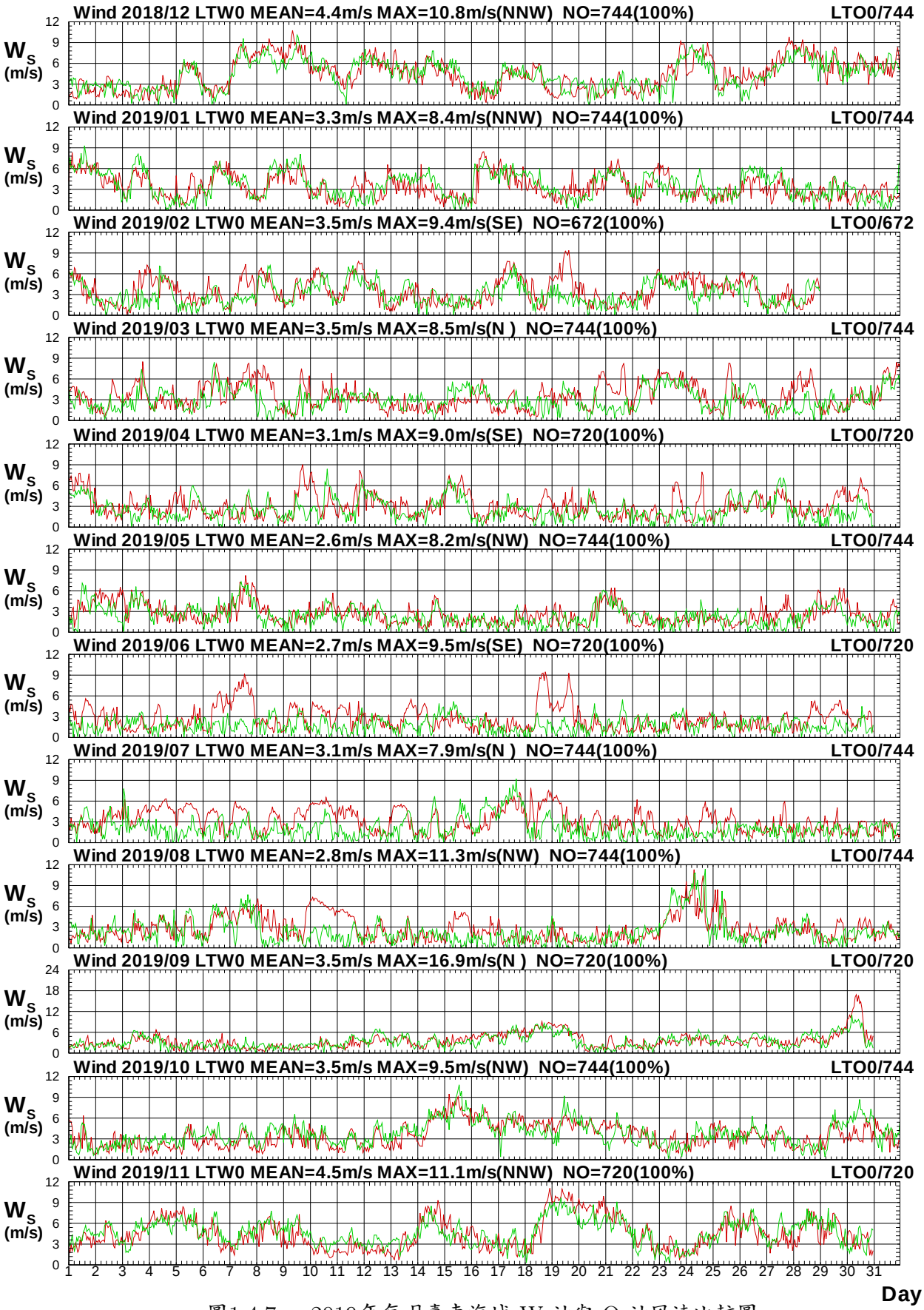

圖1.4.7a　2019年每月臺東海域 W 站與 O 站風速比較圖

W18CLTW0.1HA W18CLTO0.1H0 W191LTW0.1HA W191LTO0.1H0 W192LTW0.1HA W192LTO0.1H0
W193LTW0.1HA W193LTO0.1H0 W194LTW0.1HA W194LTO0.1H0 W195LTW0.1HA W195LTO0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

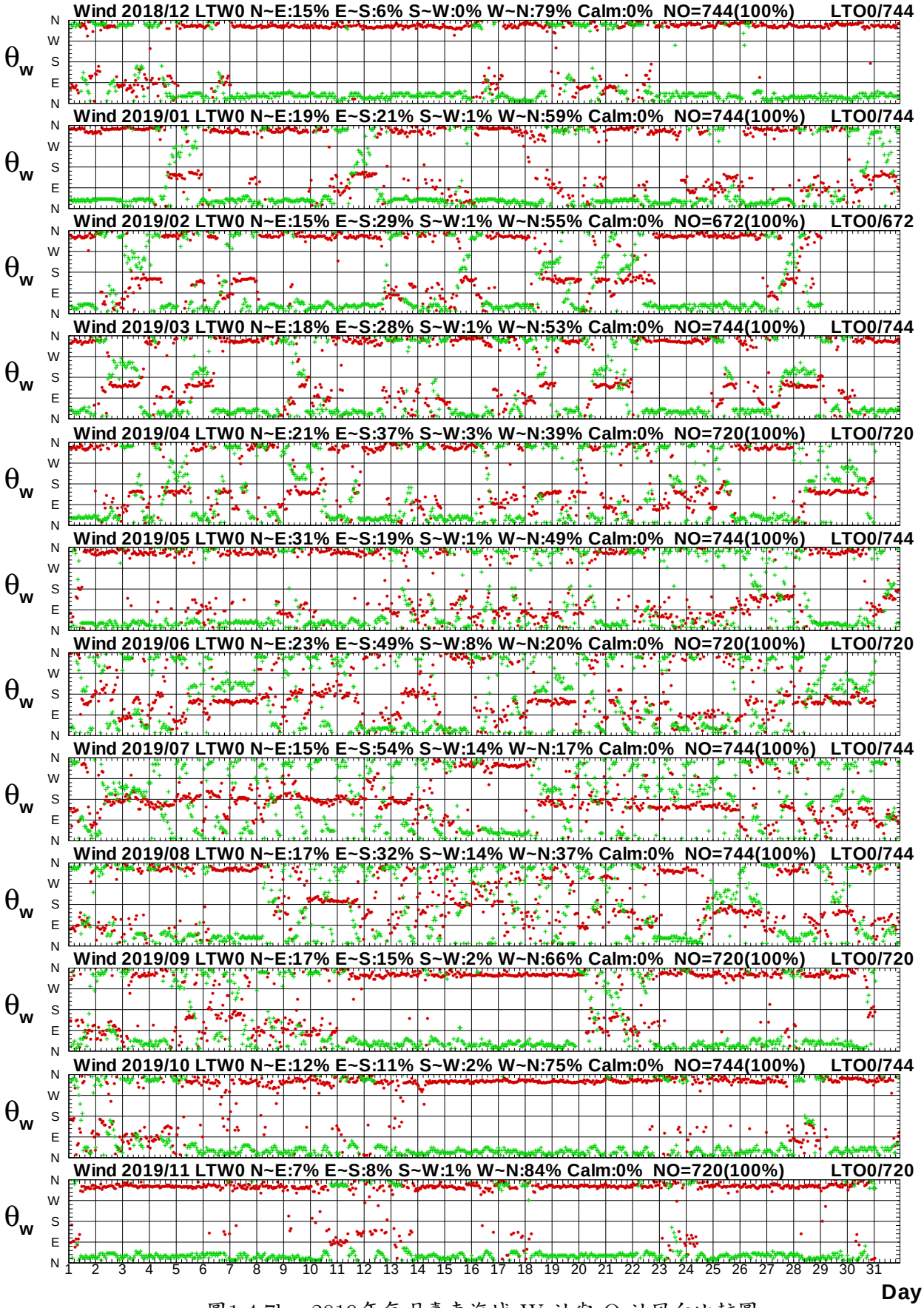

圖1.4.7b　2019年每月臺東海域 W 站與 O 站風向比較圖

W18CLTW0.1HA W18CLTO0.1H0 W191LTW0.1HA W191LTO0.1H0 W192LTW0.1HA W192LTO0.1H0
W193LTW0.1HA W193LTO0.1H0 W194LTW0.1HA W194LTO0.1H0 W195LTW0.1HA W195LTO0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

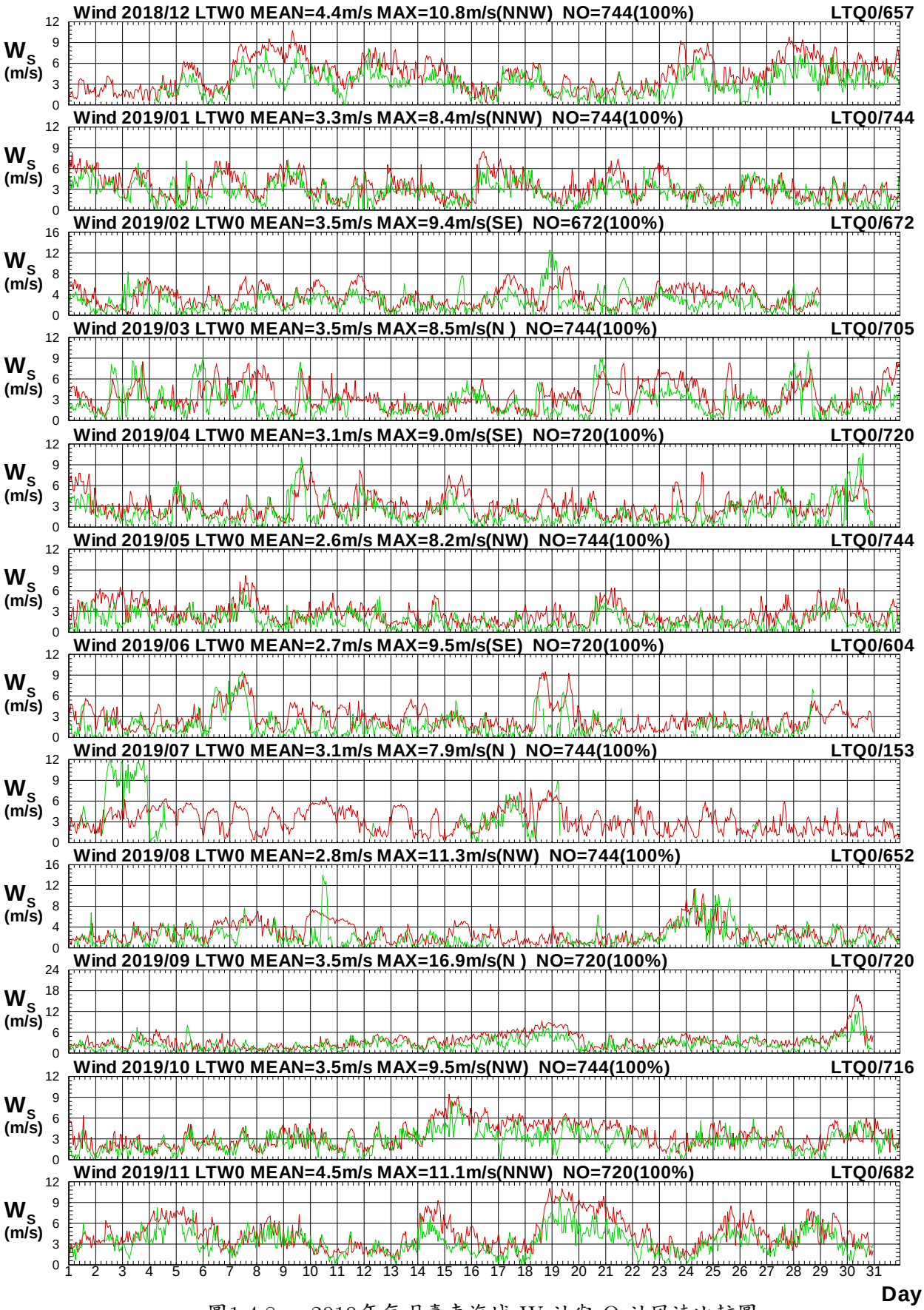

圖1.4.8a　2019年每月臺東海域 W 站與 Q 站風速比較圖

W18CLTW0.1HA W18CLTQ0.1H0 W191LTW0.1HA W191LTQ0.1H0 W192LTW0.1HA W192LTQ0.1H0
W193LTW0.1HA W193LTQ0.1H0 W194LTW0.1HA W194LTQ0.1H0 W195LTW0.1HA W195LTQ0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

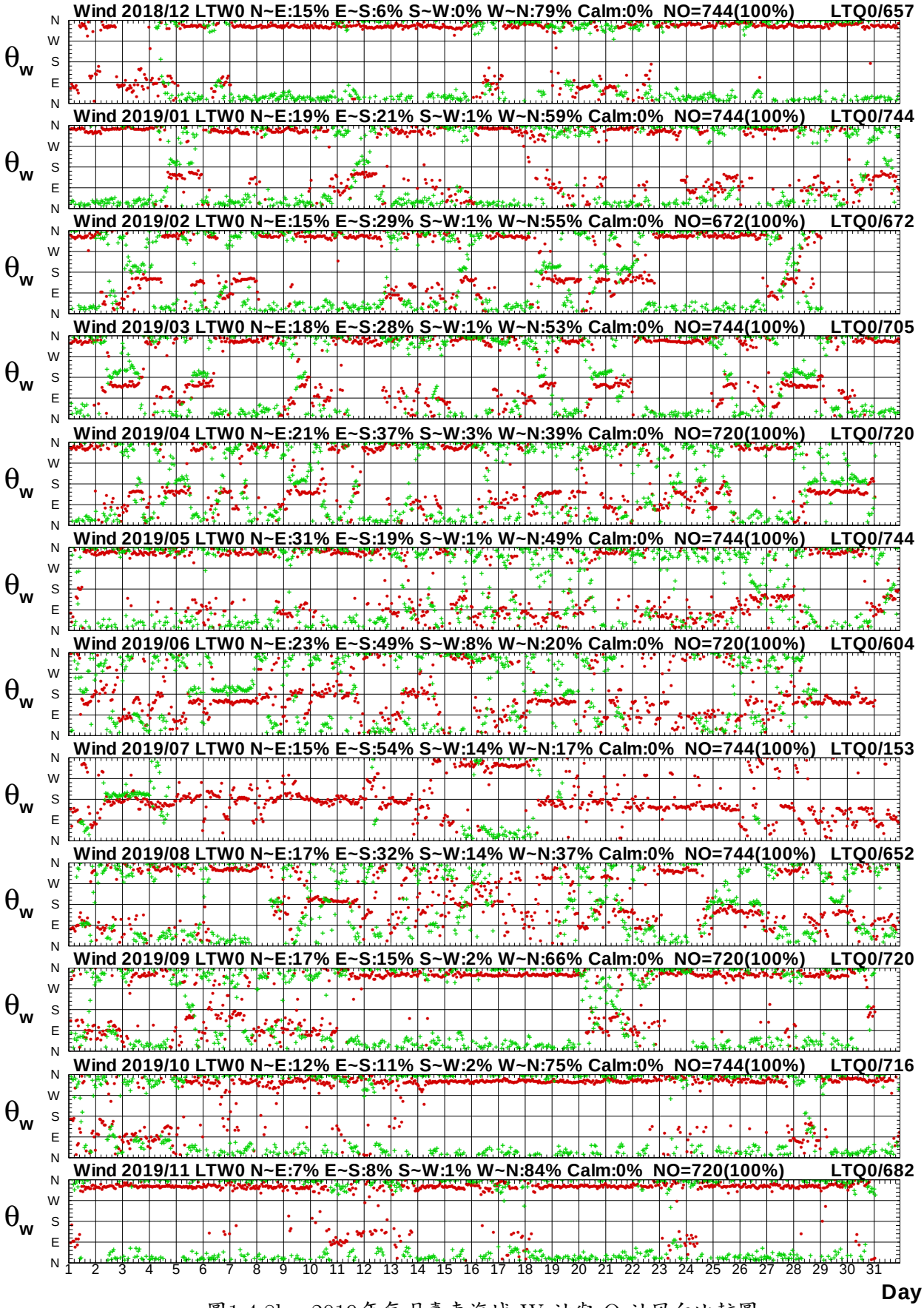

圖1.4.8b　2019年每月臺東海域 W 站與 Q 站風向比較圖

W18CLTW0.1HA W18CLTQ0.1H0 W191LTW0.1HA W191LTQ0.1H0 W192LTW0.1HA W192LTQ0.1H0
W193LTW0.1HA W193LTQ0.1H0 W194LTW0.1HA W194LTQ0.1H0 W195LTW0.1HA W195LTQ0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

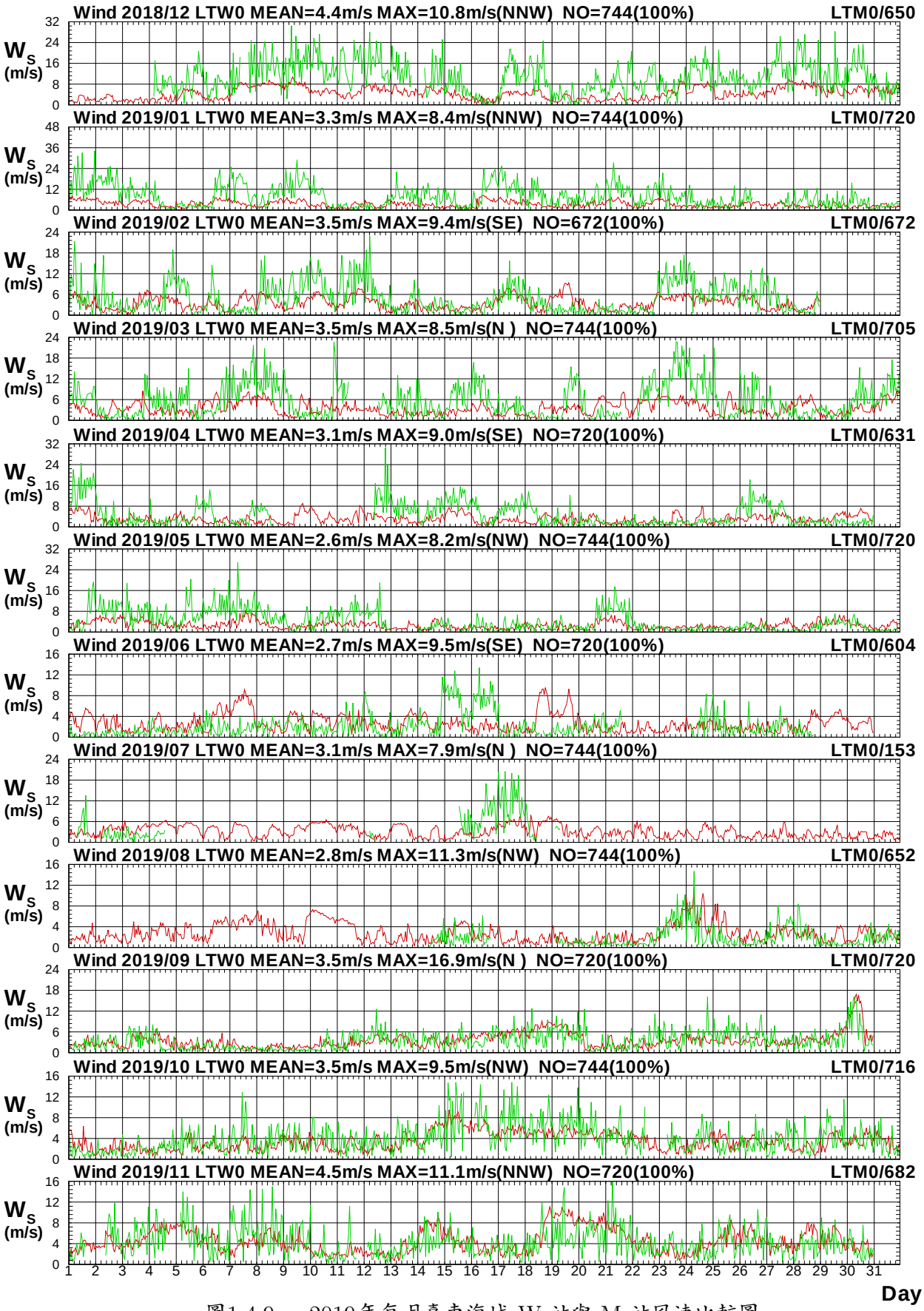

圖1.4.9a　2019年每月臺東海域 W 站與 M 站風速比較圖

W18CLTW0.1HA W18CLTM0.1H0 W191LTW0.1HA W191LTM0.1H0 W192LTW0.1HA W192LTM0.1H0
W193LTW0.1HA W193LTM0.1H0 W194LTW0.1HA W194LTM0.1H0 W195LTW0.1HA W195LTM0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

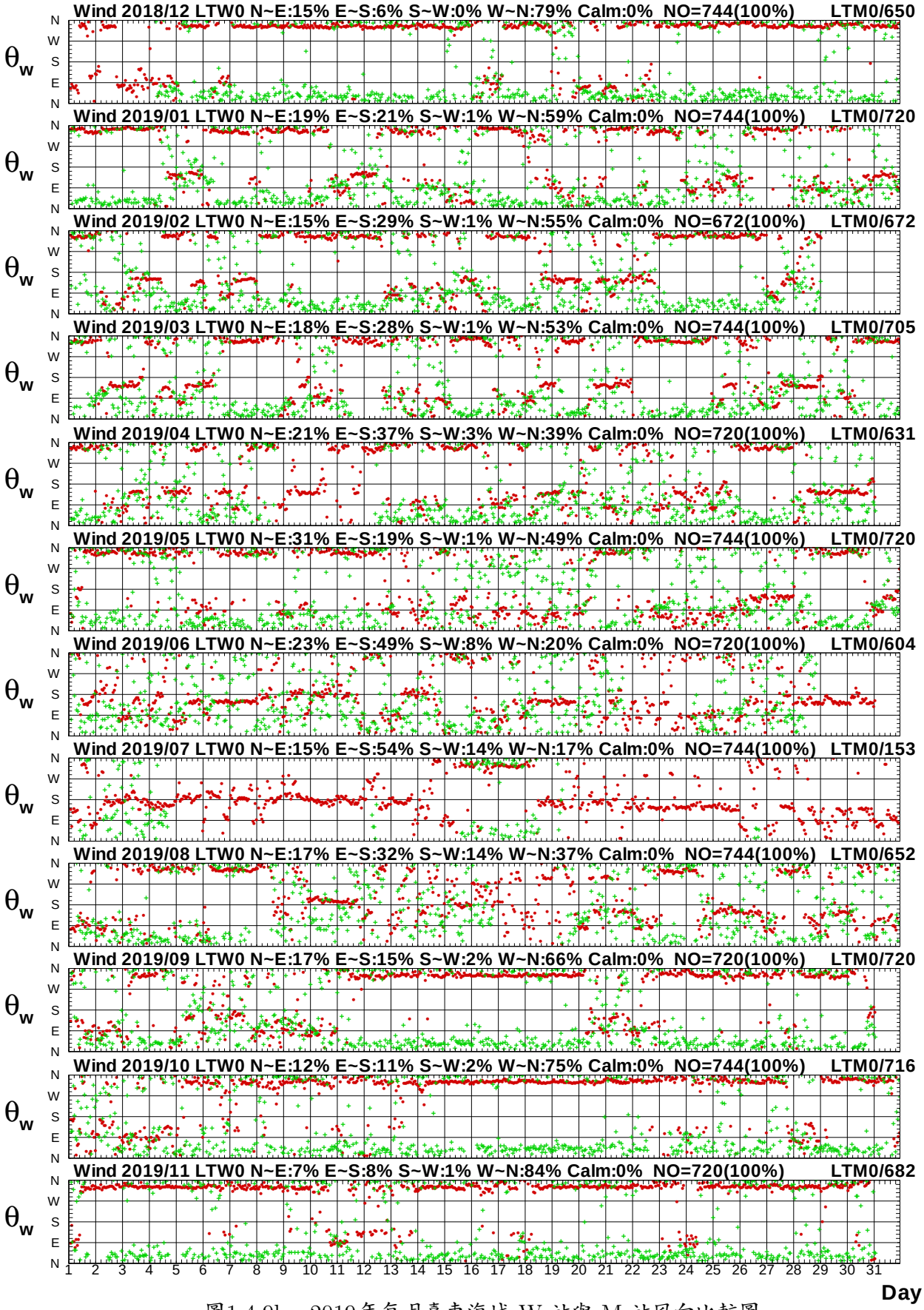

圖1.4.9b　2019年每月臺東海域 W 站與 M 站風向比較圖

W18CLTW0.1HA W18CLTM0.1H0 W191LTW0.1HA W191LTM0.1H0 W192LTW0.1HA W192LTM0.1H0
W193LTW0.1HA W193LTM0.1H0 W194LTW0.1HA W194LTM0.1H0 W195LTW0.1HA W195LTM0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

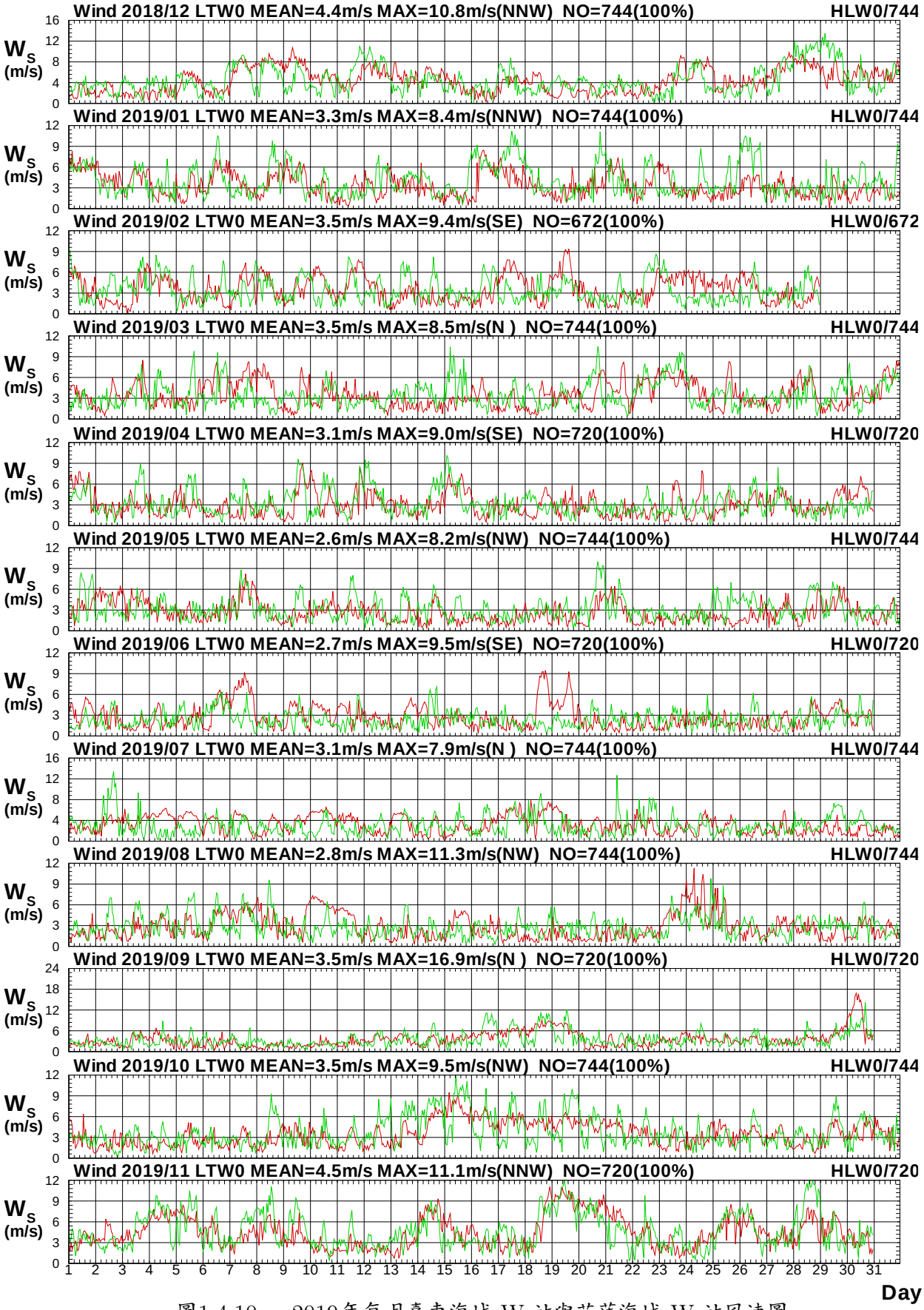

圖1.4.10a　2019年每月臺東海域 W 站與花蓮海域 W 站風速圖

W18CLTW0.1HA W18CHLW0.1H0 W191LTW0.1HA W191HLW0.1H0 W192LTW0.1HA W192HLW0.1H0
W193LTW0.1HA W193HLW0.1H0 W194LTW0.1HA W194HLW0.1H0 W195LTW0.1HA W195HLW0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

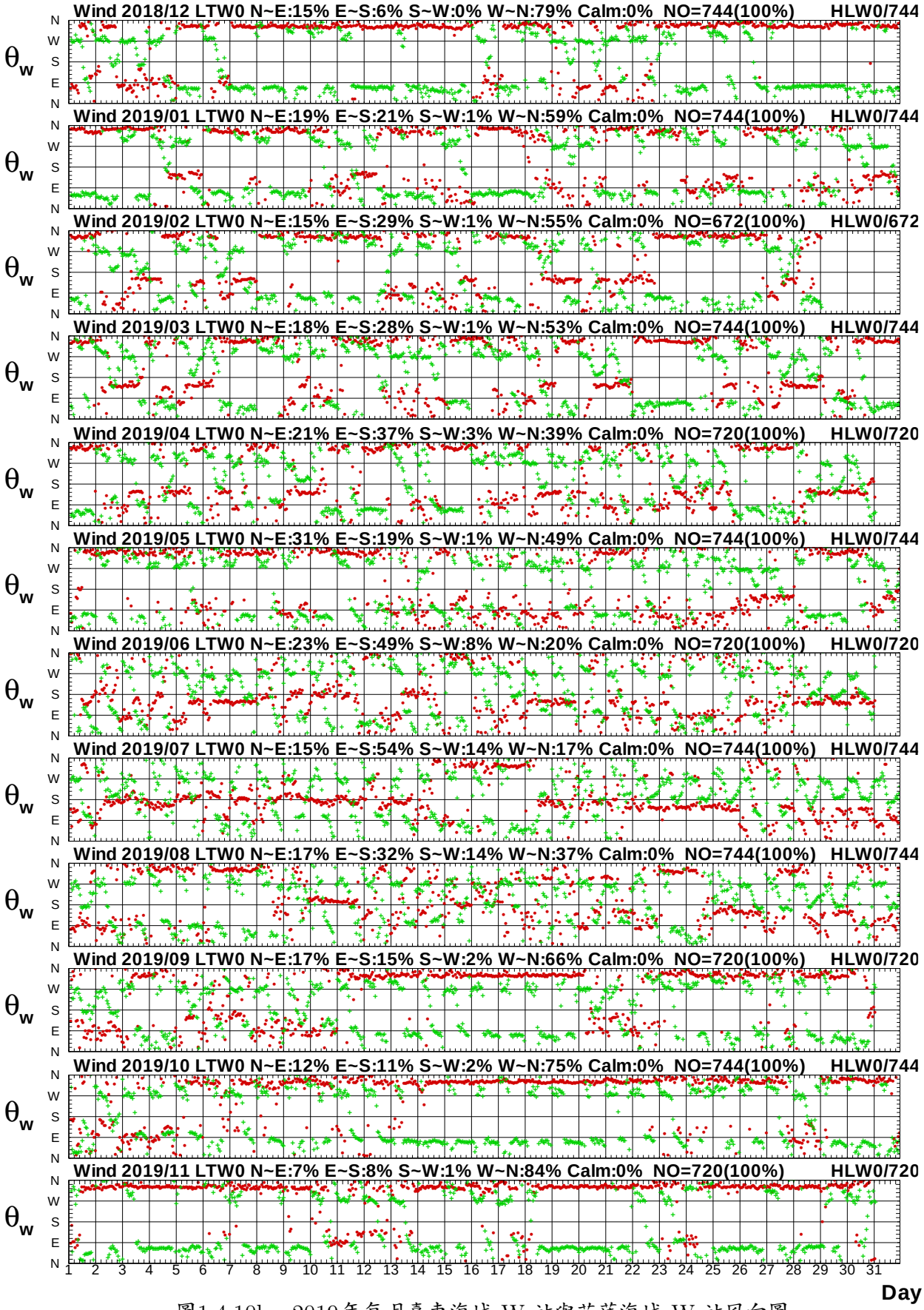

圖1.4.10b　2019年每月臺東海域 W 站與花蓮海域 W 站風向圖

W18CLTW0.1HA W18CHLW0.1H0 W191LTW0.1HA W191HLW0.1H0 W192LTW0.1HA W192HLW0.1H0
W193LTW0.1HA W193HLW0.1H0 W194LTW0.1HA W194HLW0.1H0 W195LTW0.1HA W195HLW0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

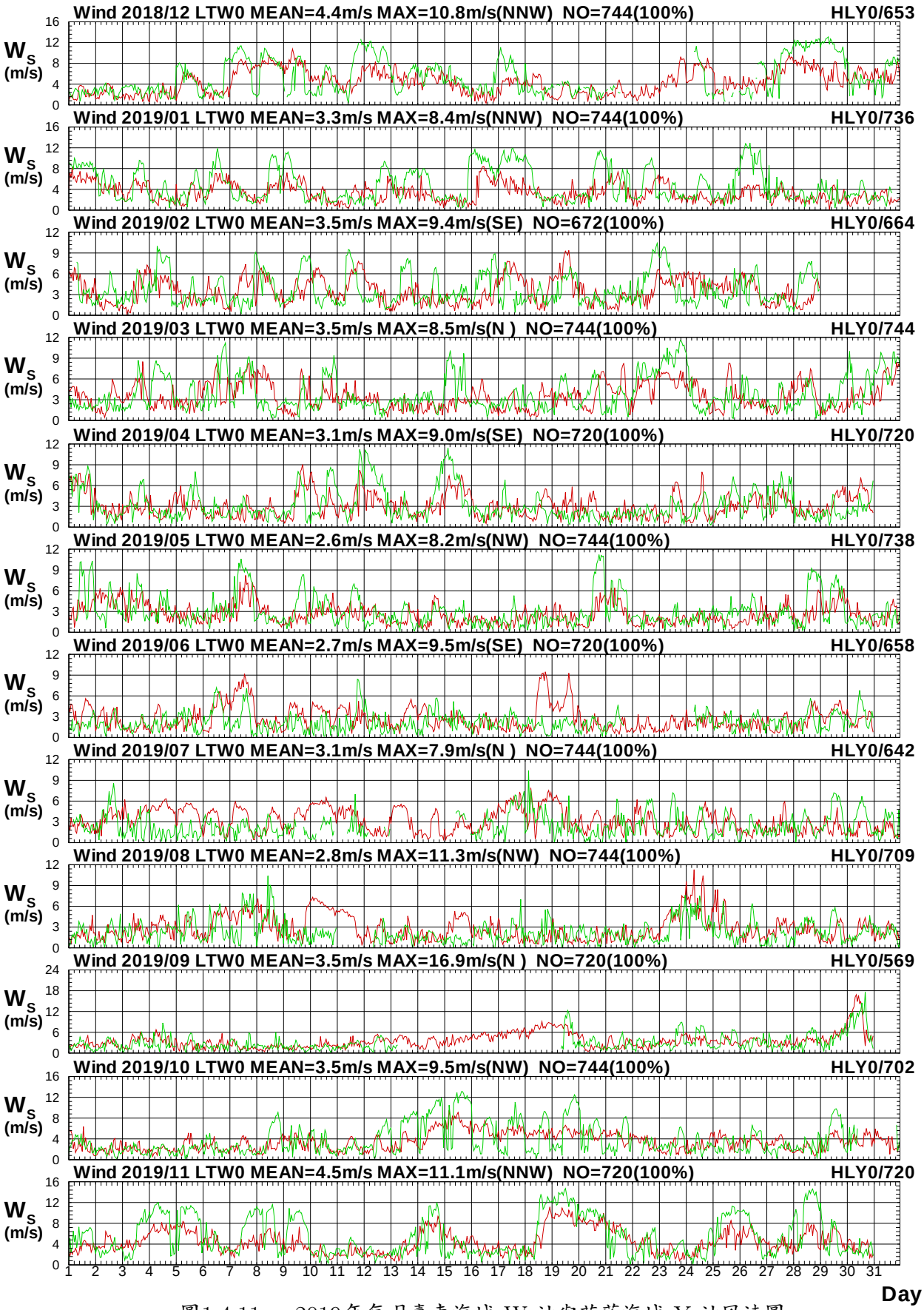

圖1.4.11a　2019年每月臺東海域 W 站與花蓮海域 Y 站風速圖

W18CLTW0.1HA W18CHLY0.1H0 W191LTW0.1HA W191HLY0.1H0 W192LTW0.1HA W192HLY0.1H0
W193LTW0.1HA W193HLY0.1H0 W194LTW0.1HA W194HLY0.1H0 W195LTW0.1HA W195HLY0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

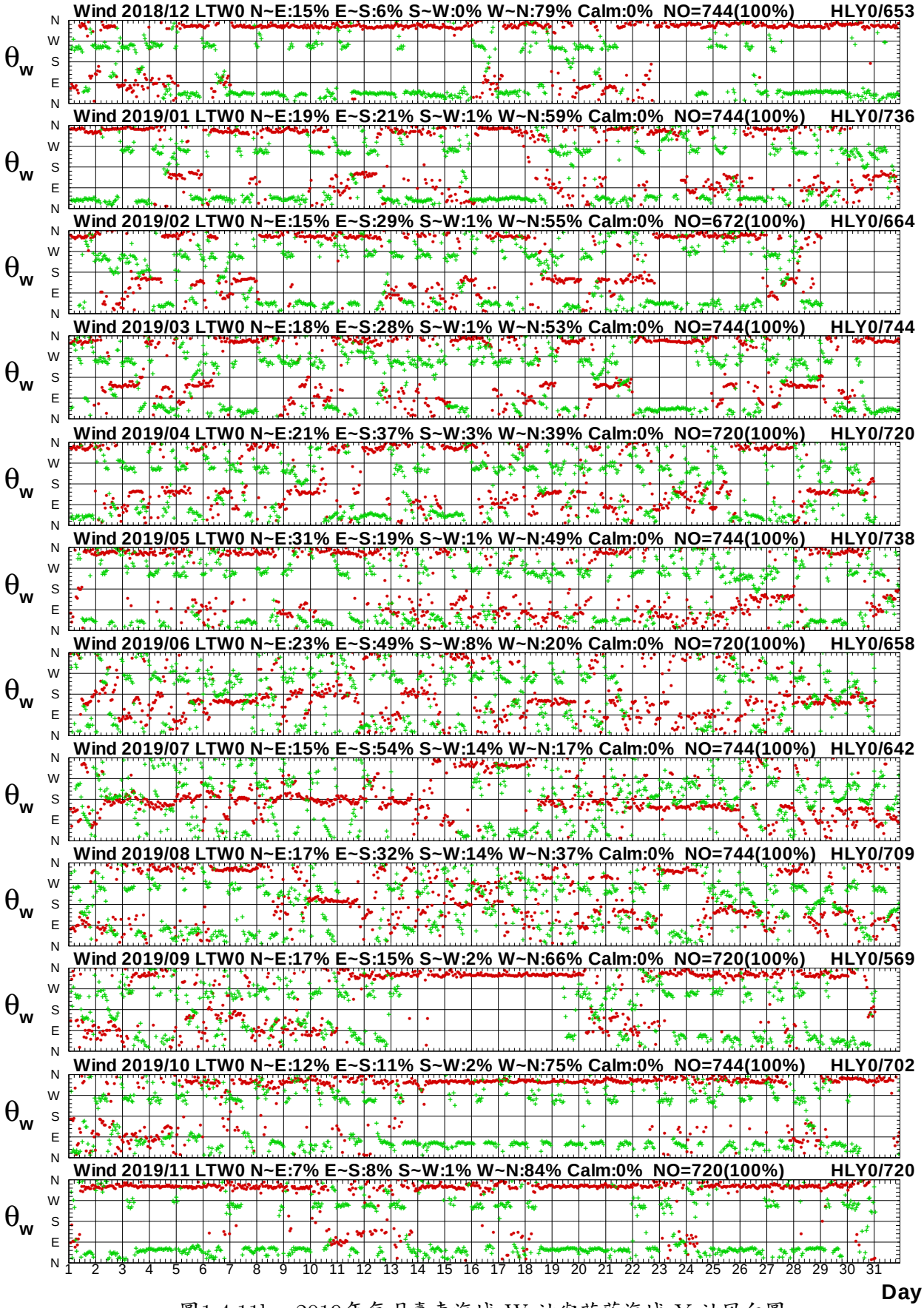

圖1.4.11b　2019年每月臺東海域 W 站與花蓮海域 Y 站風向圖

W18CLTW0.1HA W18CHLY0.1H0 W191LTW0.1HA W191HLY0.1H0 W192LTW0.1HA W192HLY0.1H0
W193LTW0.1HA W193HLY0.1H0 W194LTW0.1HA W194HLY0.1H0 W195LTW0.1HA W195HLY0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

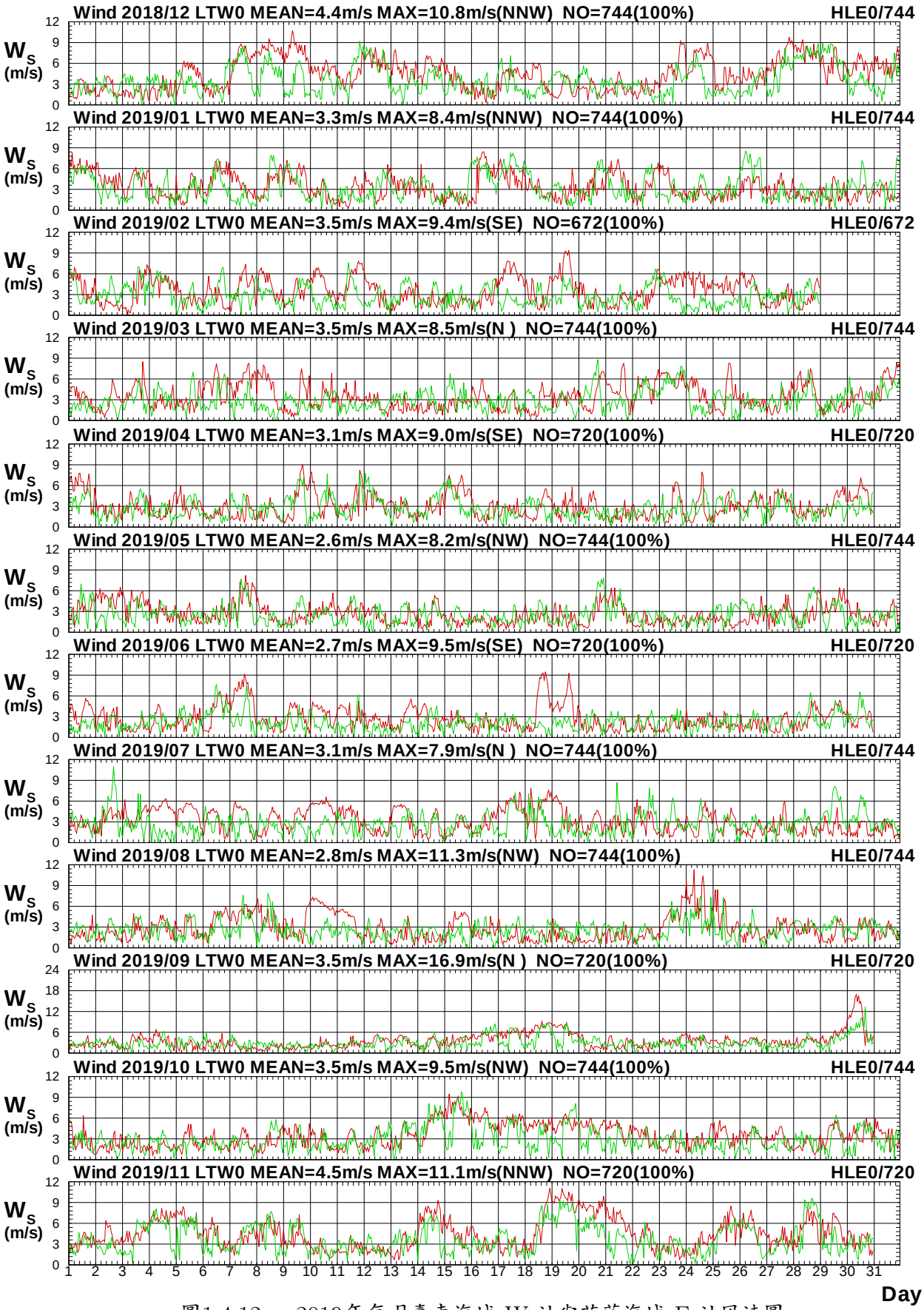

圖1.4.12a　2019年每月臺東海域 W 站與花蓮海域 E 站風速圖

W18CLTW0.1HA W18CHLE0.1H0 W191LTW0.1HA W191HLE0.1H0 W192LTW0.1HA W192HLE0.1H0
W193LTW0.1HA W193HLE0.1H0 W194LTW0.1HA W194HLE0.1H0 W195LTW0.1HA W195HLE0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

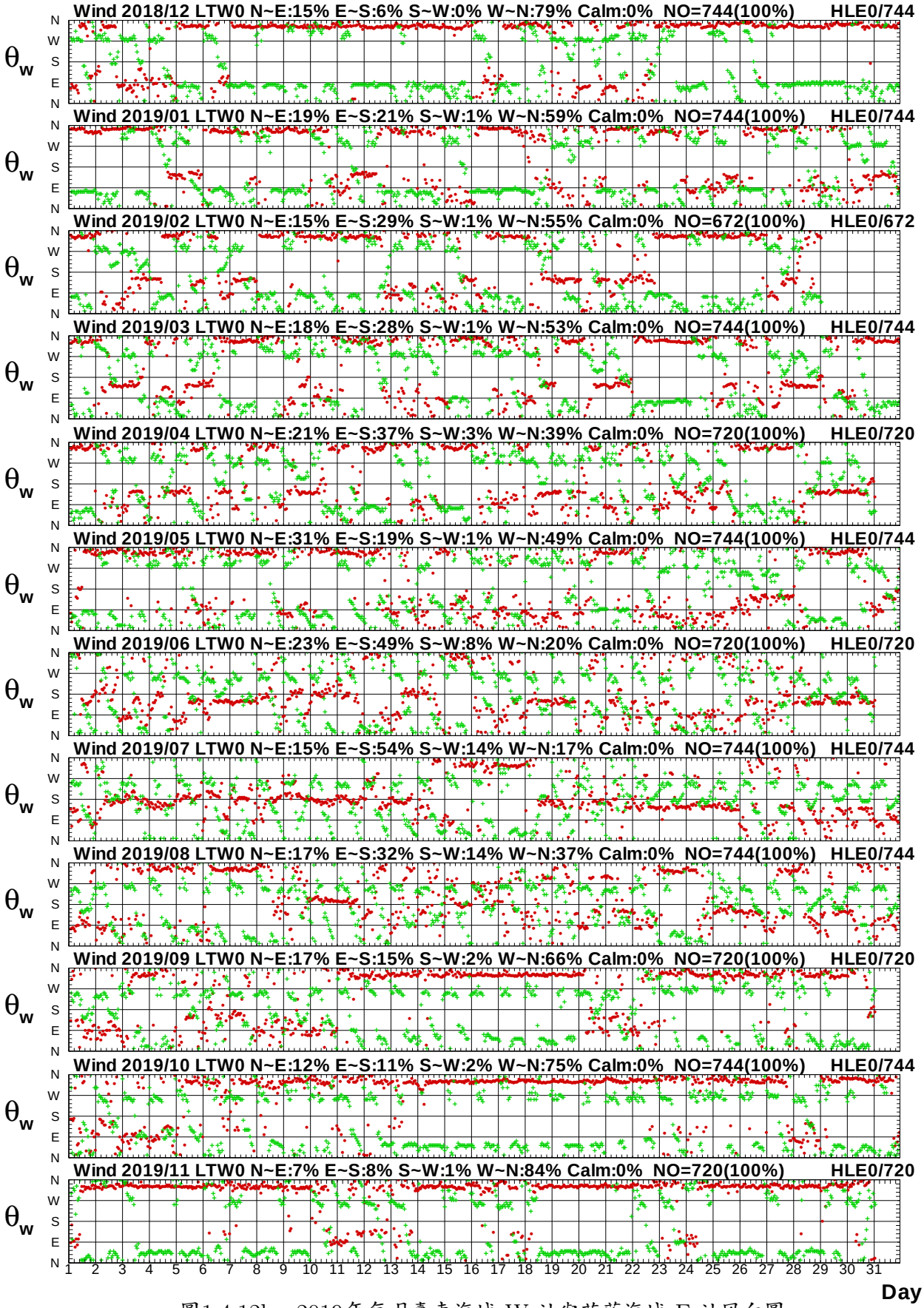

圖1.4.12b　2019年每月臺東海域 W 站與花蓮海域 E 站風向圖

W18CLTW0.1HA W18CHLE0.1H0 W191LTW0.1HA W191HLE0.1H0 W192LTW0.1HA W192HLE0.1H0
W193LTW0.1HA W193HLE0.1H0 W194LTW0.1HA W194HLE0.1H0 W195LTW0.1HA W195HLE0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

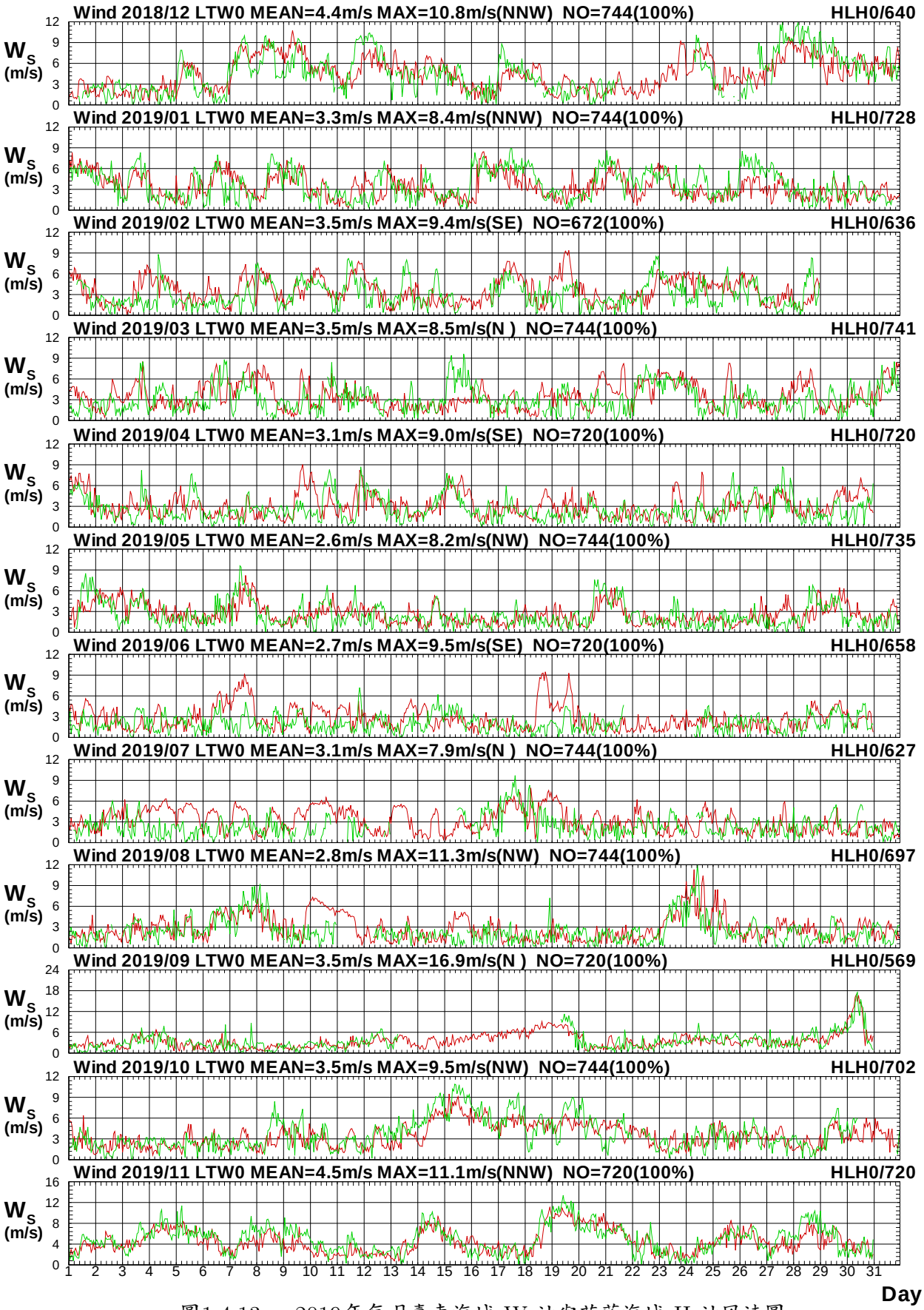

圖1.4.13a　2019年每月臺東海域 W 站與花蓮海域 H 站風速圖

W18CLTW0.1HA W18CHLH0.1H0 W191LTW0.1HA W191HLH0.1H0 W192LTW0.1HA W192HLH0.1H0
W193LTW0.1HA W193HLH0.1H0 W194LTW0.1HA W194HLH0.1H0 W195LTW0.1HA W195HLH0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

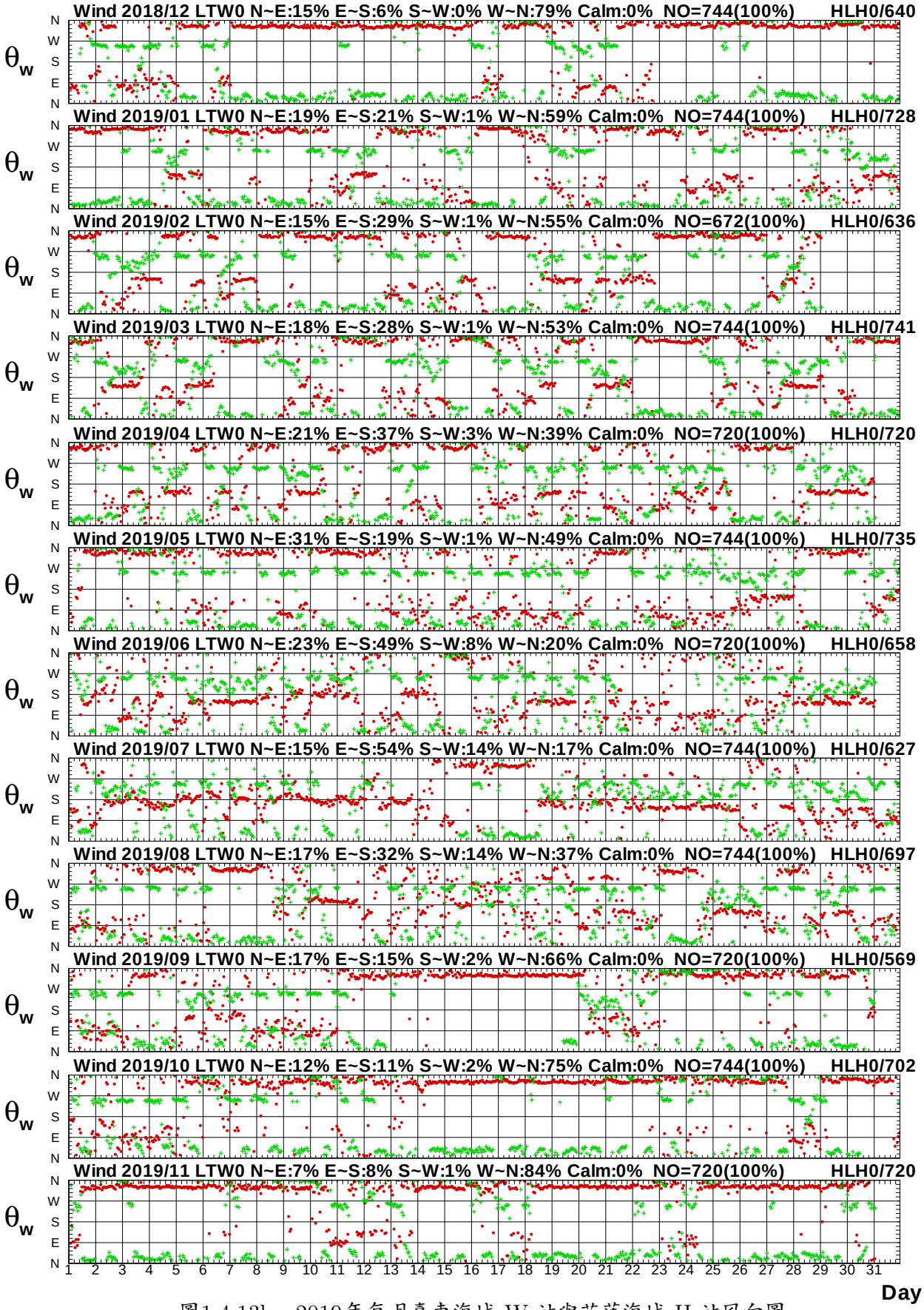

圖1.4.13b　2019年每月臺東海域 W 站與花蓮海域 H 站風向圖

W18CLTW0.1HA W18CHLH0.1H0 W191LTW0.1HA W191HLH0.1H0 W192LTW0.1HA W192HLH0.1H0
W193LTW0.1HA W193HLH0.1H0 W194LTW0.1HA W194HLH0.1H0 W195LTW0.1HA W195HLH0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

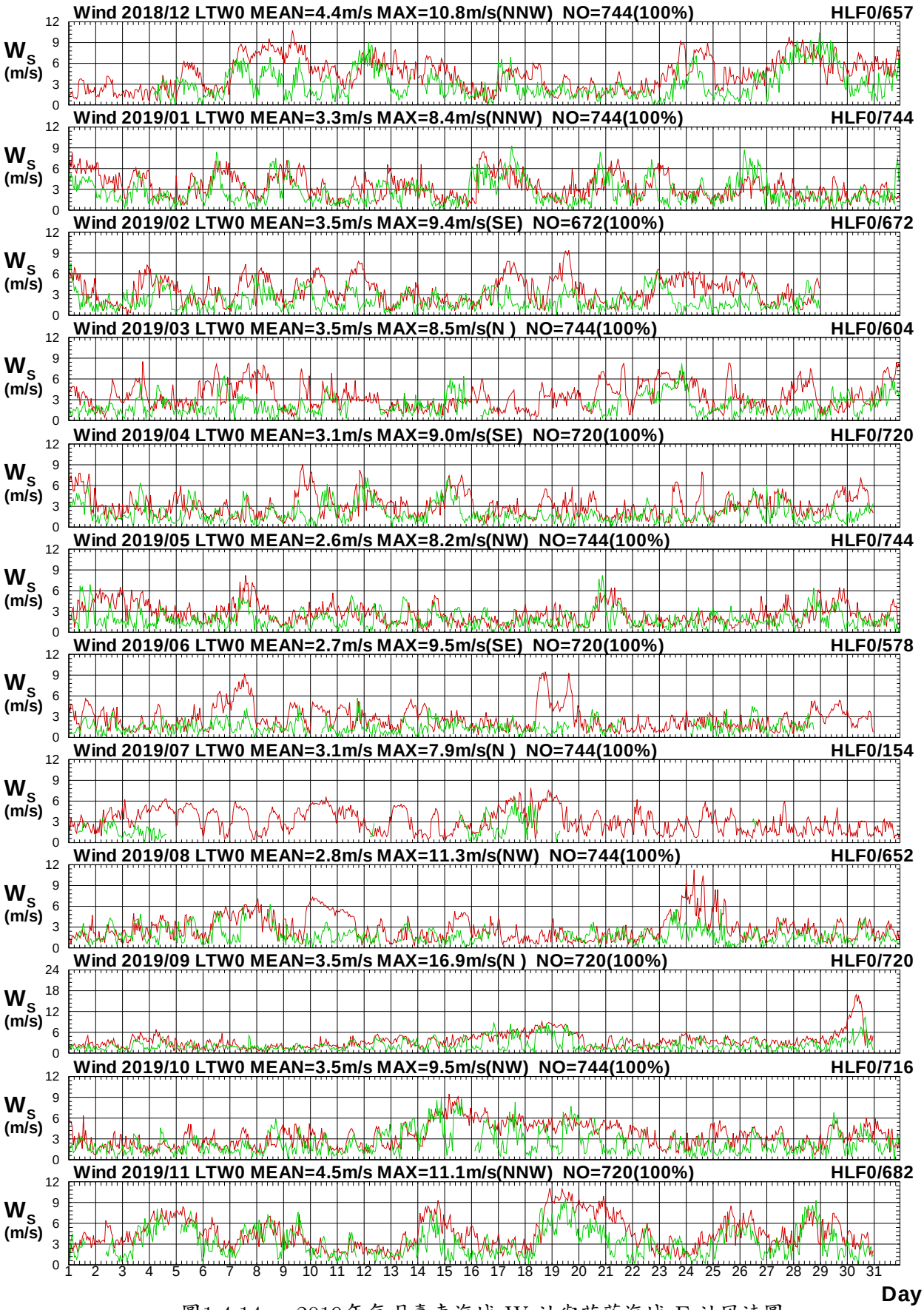

圖1.4.14a　2019年每月臺東海域 W 站與花蓮海域 F 站風速圖

W18CLTW0.1HA W18CHLF0.1H0 W191LTW0.1HA W191HLF0.1H0 W192LTW0.1HA W192HLF0.1H0
W193LTW0.1HA W193HLF0.1H0 W194LTW0.1HA W194HLF0.1H0 W195LTW0.1HA W195HLF0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

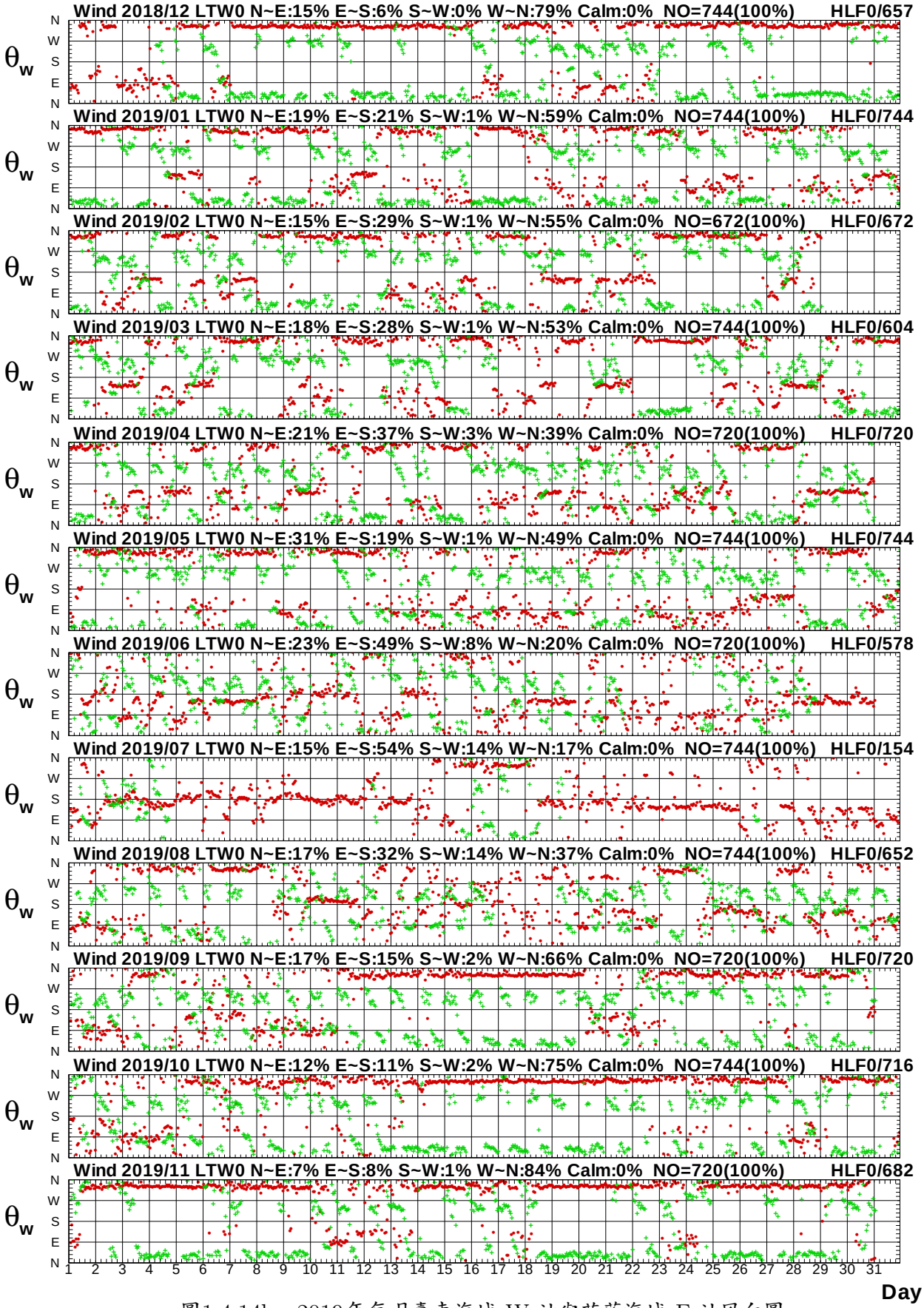

圖1.4.14b　2019年每月臺東海域 W 站與花蓮海域 F 站風向圖

W18CLTW0.1HA W18CHLF0.1H0 W191LTW0.1HA W191HLF0.1H0 W192LTW0.1HA W192HLF0.1H0
W193LTW0.1HA W193HLF0.1H0 W194LTW0.1HA W194HLF0.1H0 W195LTW0.1HA W195HLF0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

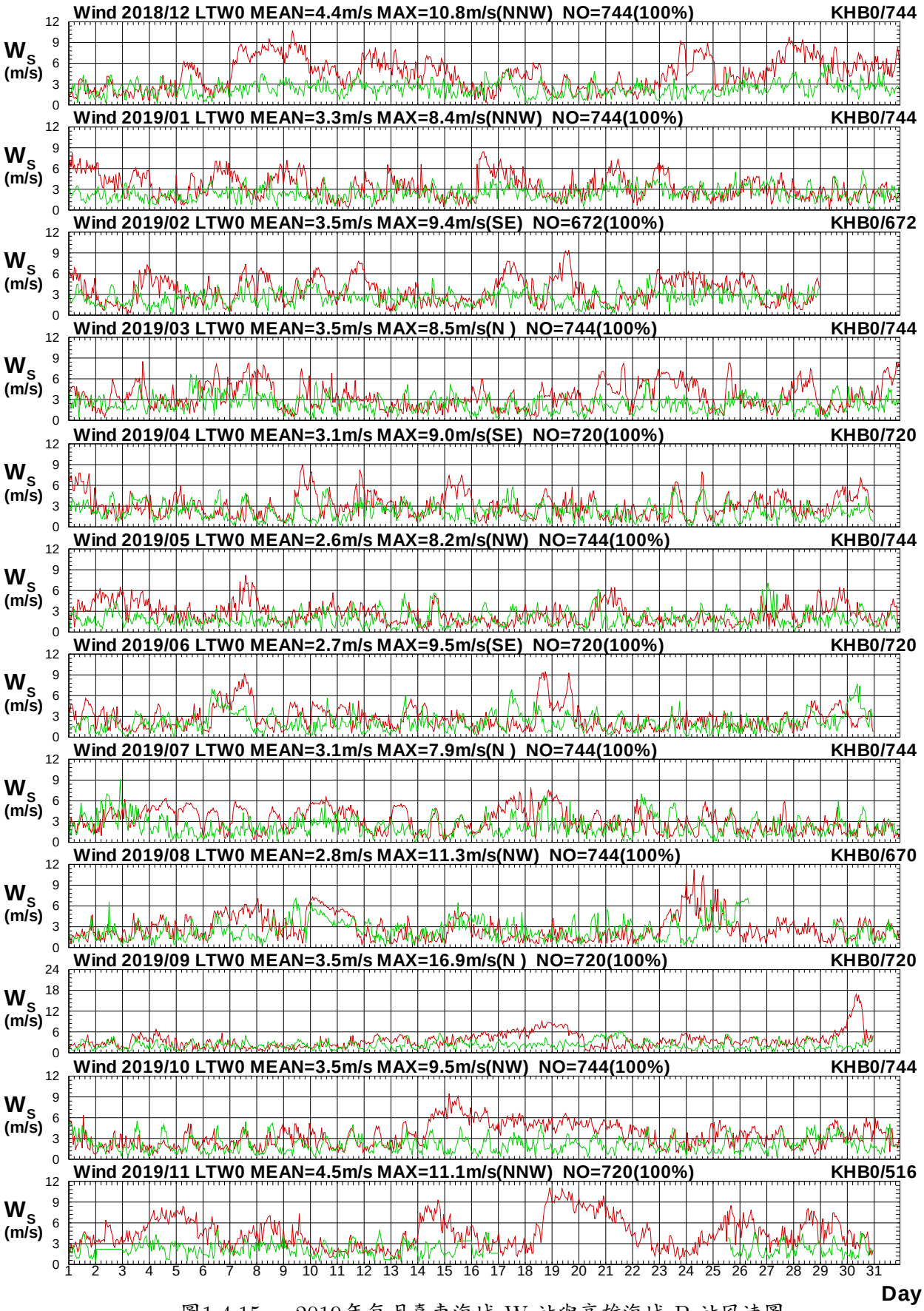

圖1.4.15a　2019年每月臺東海域 W 站與高雄海域 B 站風速圖

W18CLTW0.1HA W18CKHB0.1H0 W191LTW0.1HA W191KHB0.1H0 W192LTW0.1HA W192KHB0.1H0
W193LTW0.1HA W193KHB0.1H0 W194LTW0.1HA W194KHB0.1H0 W195LTW0.1HA W195KHB0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

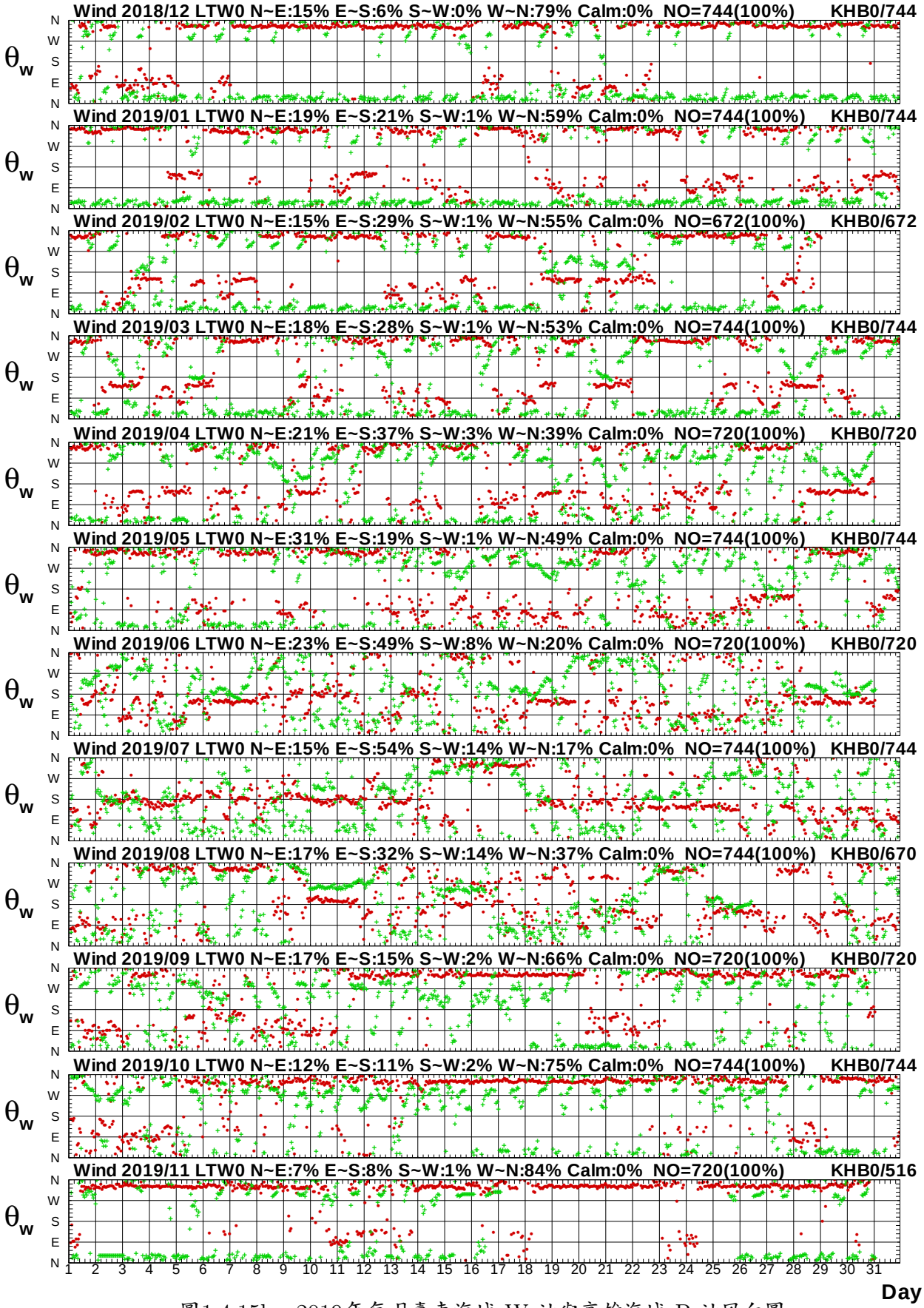

圖1.4.15b　2019年每月臺東海域 W 站與高雄海域 B 站風向圖

W18CLTW0.1HA W18CKHB0.1H0 W191LTW0.1HA W191KHB0.1H0 W192LTW0.1HA W192KHB0.1H0
W193LTW0.1HA W193KHB0.1H0 W194LTW0.1HA W194KHB0.1H0 W195LTW0.1HA W195KHB0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

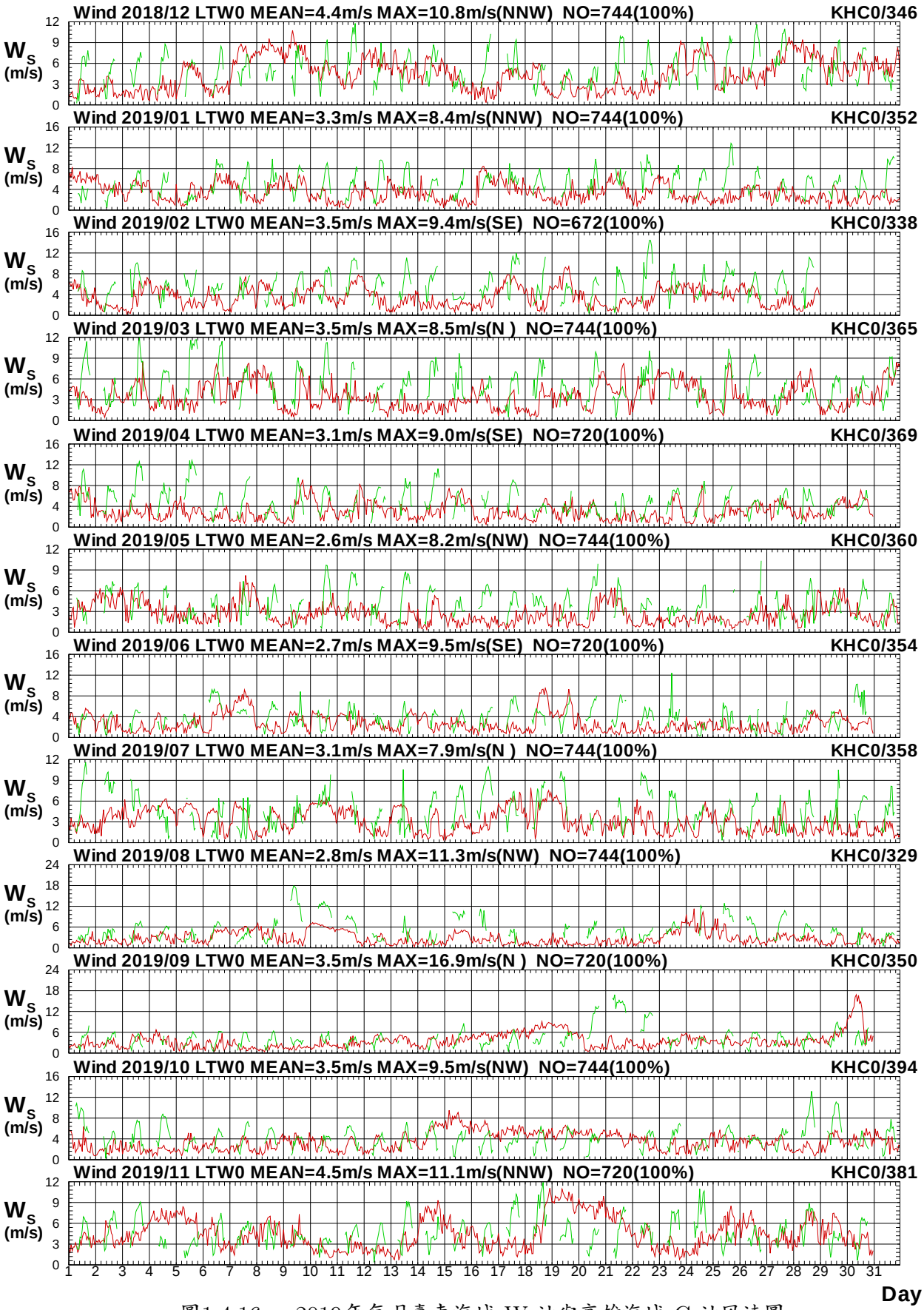

圖1.4.16a　2019年每月臺東海域 W 站與高雄海域 C 站風速圖

W18CLTW0.1HA W18CKHC0.1H0 W191LTW0.1HA W191KHC0.1H0 W192LTW0.1HA W192KHC0.1H0
W193LTW0.1HA W193KHC0.1H0 W194LTW0.1HA W194KHC0.1H0 W195LTW0.1HA W195KHC0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

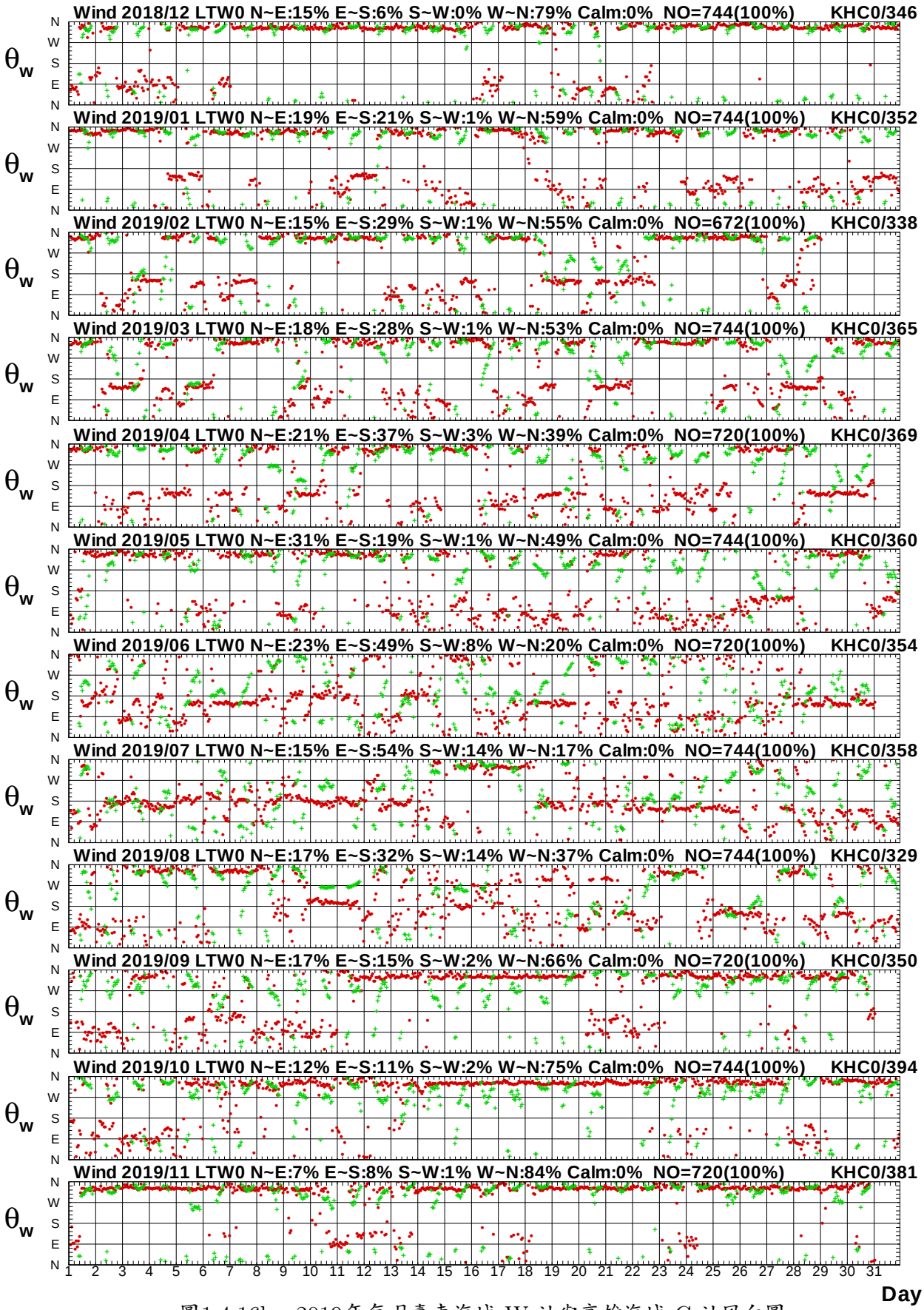

圖1.4.16b　2019年每月臺東海域 W 站與高雄海域 C 站風向圖

W18CLTW0.1HA W18CKHC0.1H0 W191LTW0.1HA W191KHC0.1H0 W192LTW0.1HA W192KHC0.1H0
W193LTW0.1HA W193KHC0.1H0 W194LTW0.1HA W194KHC0.1H0 W195LTW0.1HA W195KHC0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

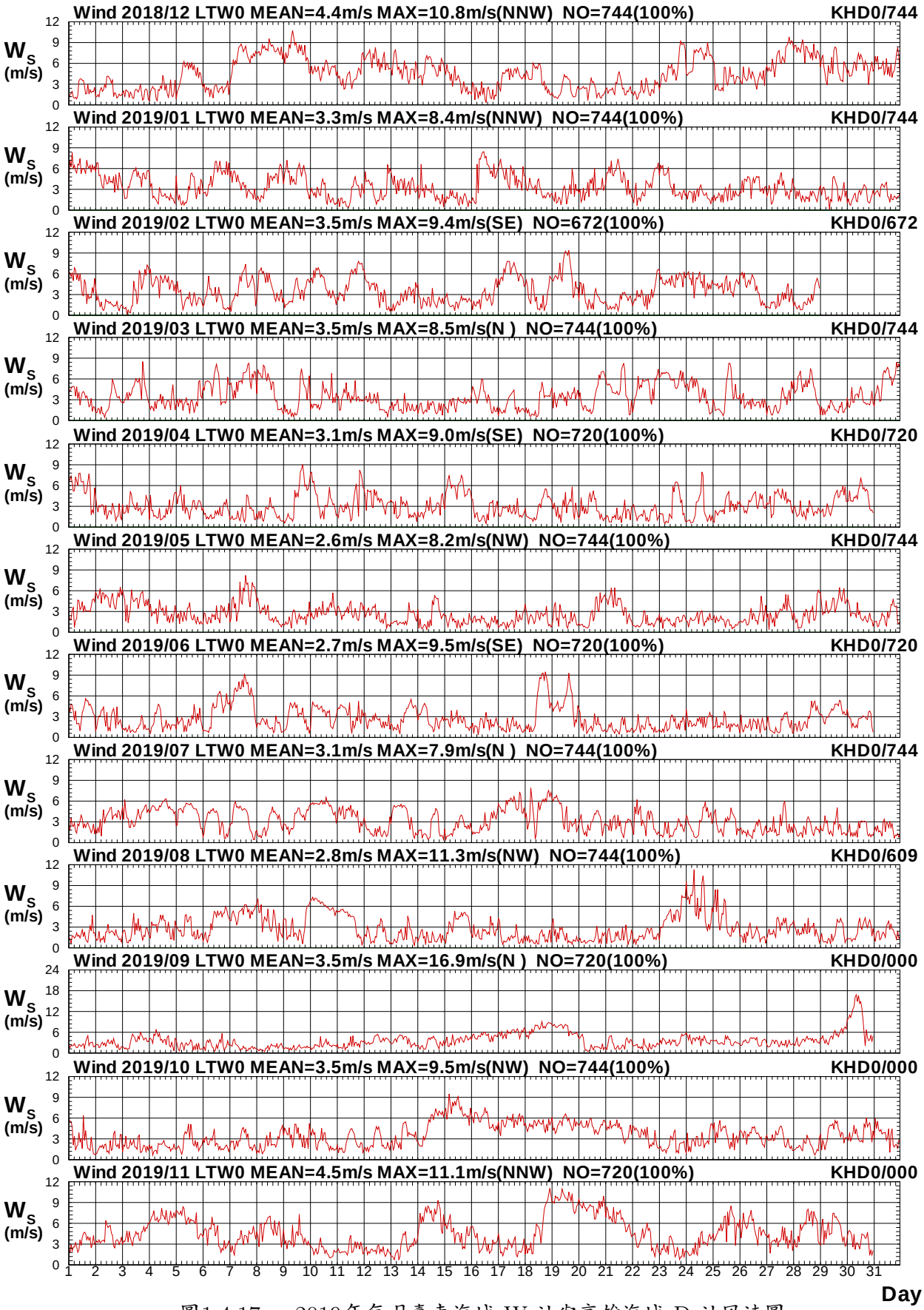

圖1.4.17a　2019年每月臺東海域 W 站與高雄海域 D 站風速圖

W18CLTW0.1HA W18CKHD0.1H0 W191LTW0.1HA W191KHD0.1H0 W192LTW0.1HA W192KHD0.1H0
W193LTW0.1HA W193KHD0.1H0 W194LTW0.1HA W194KHD0.1H0 W195LTW0.1HA W195KHD0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

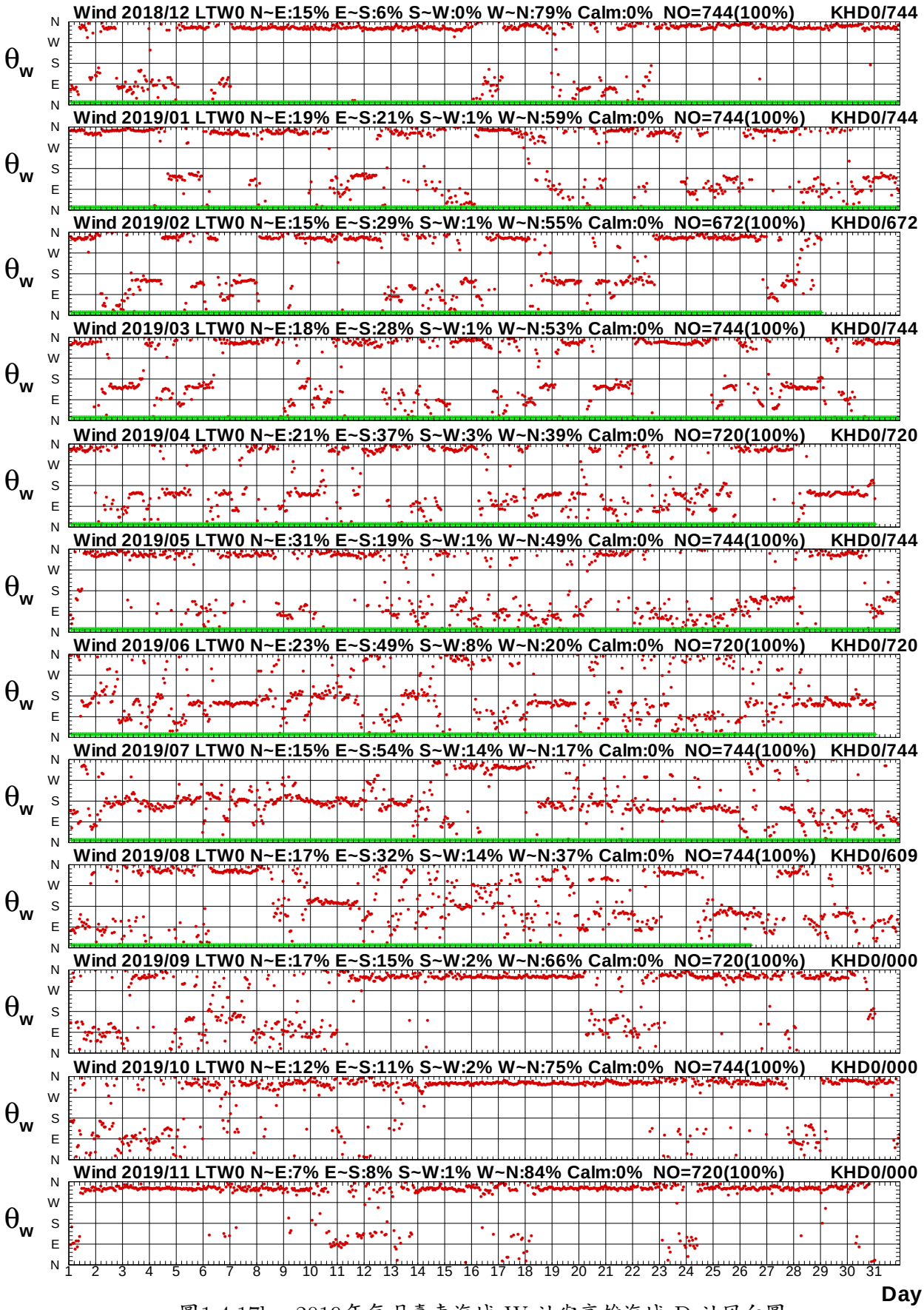

圖1.4.17b　2019年每月臺東海域 W 站與高雄海域 D 站風向圖

W18CLTW0.1HA W18CKHD0.1H0 W191LTW0.1HA W191KHD0.1H0 W192LTW0.1HA W192KHD0.1H0
W193LTW0.1HA W193KHD0.1H0 W194LTW0.1HA W194KHD0.1H0 W195LTW0.1HA W195KHD0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

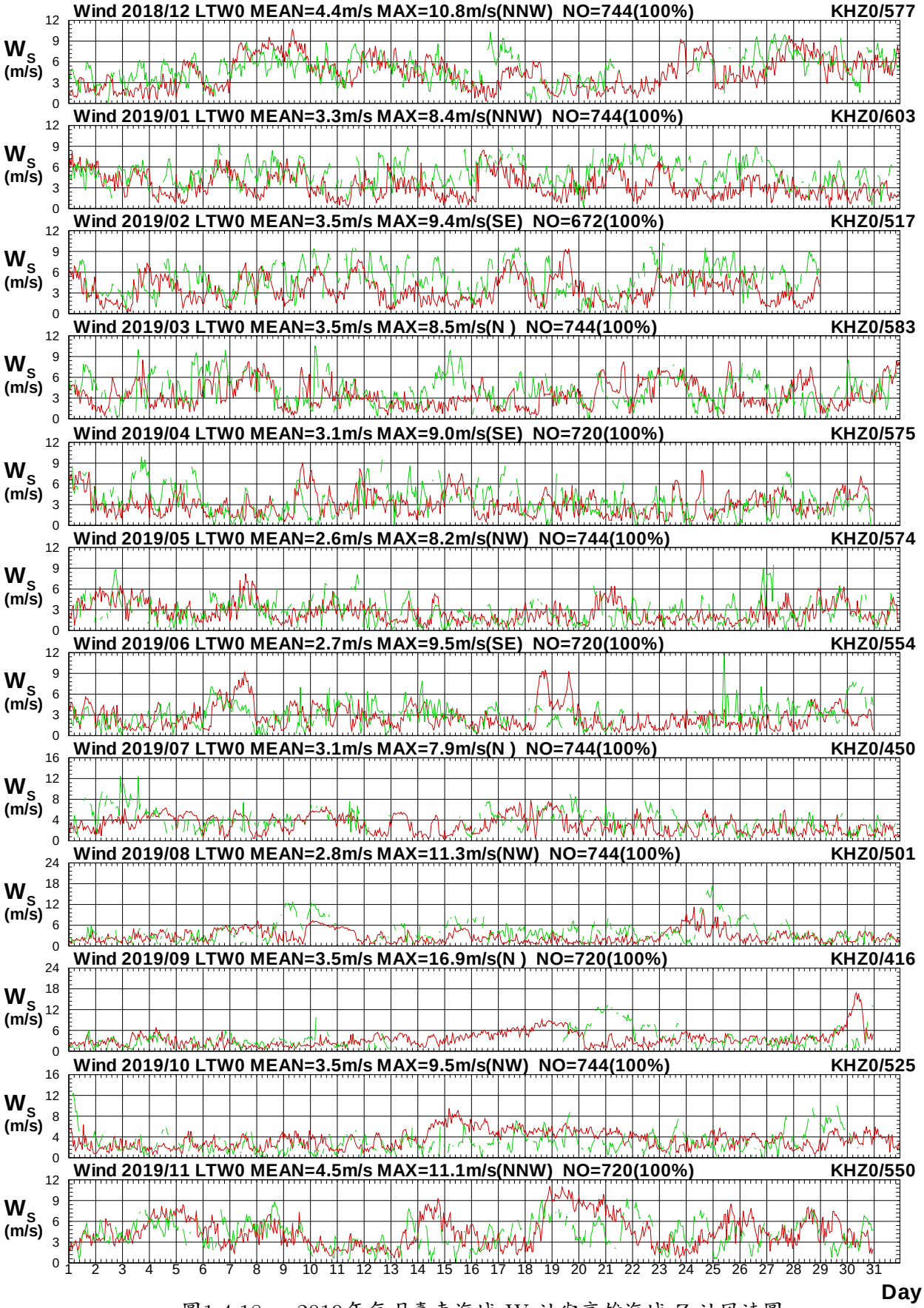

圖1.4.18a　2019年每月臺東海域 W 站與高雄海域 Z 站風速圖

W18CLTW0.1HA W18CKHZ0.1H0 W191LTW0.1HA W191KHZ0.1H0 W192LTW0.1HA W192KHZ0.1H0
W193LTW0.1HA W193KHZ0.1H0 W194LTW0.1HA W194KHZ0.1H0 W195LTW0.1HA W195KHZ0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

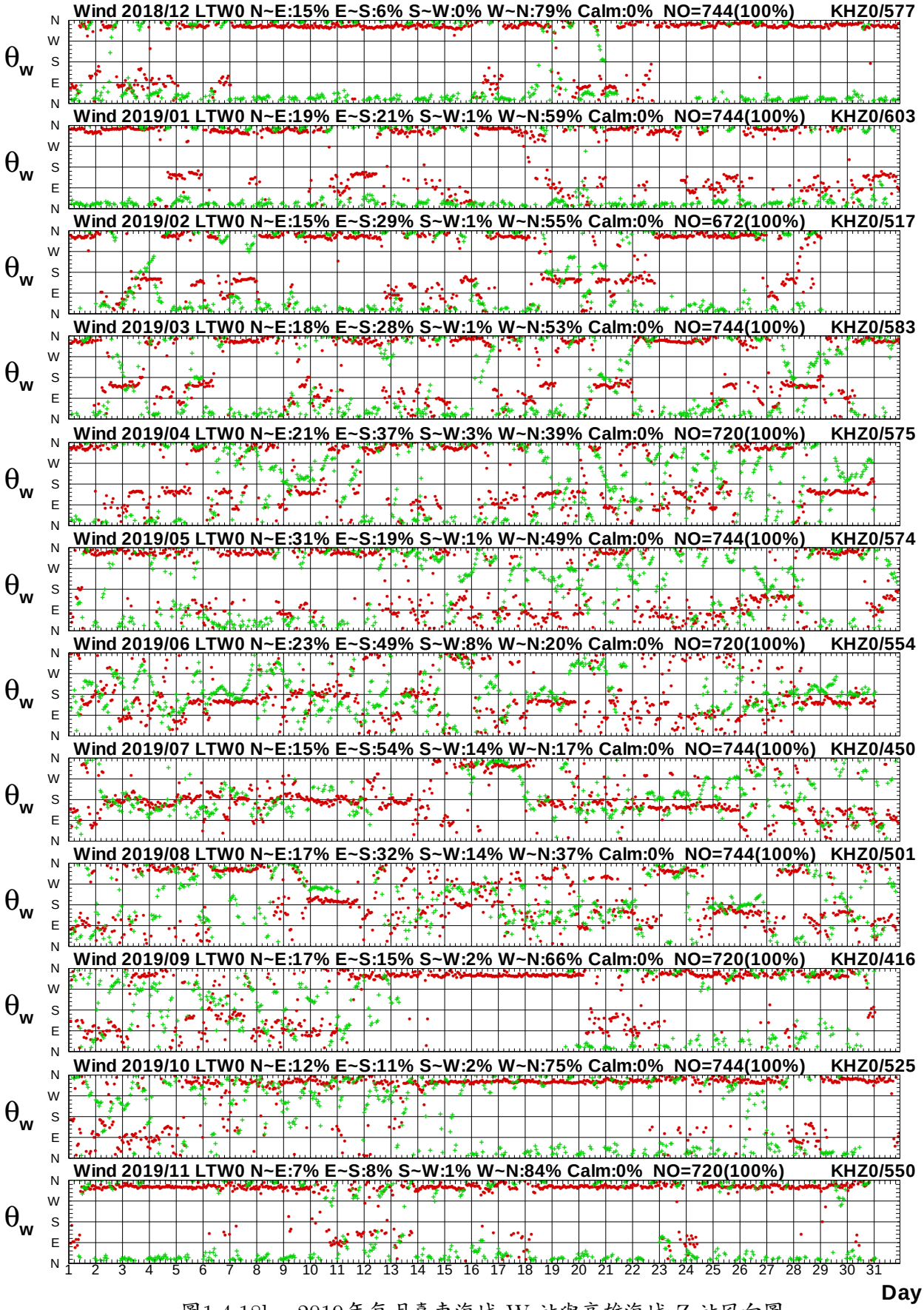

圖1.4.18b　2019年每月臺東海域 W 站與高雄海域 Z 站風向圖

W18CLTW0.1HA W18CKHZ0.1H0 W191LTW0.1HA W191KHZ0.1H0 W192LTW0.1HA W192KHZ0.1H0
W193LTW0.1HA W193KHZ0.1H0 W194LTW0.1HA W194KHZ0.1H0 W195LTW0.1HA W195KHZ0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

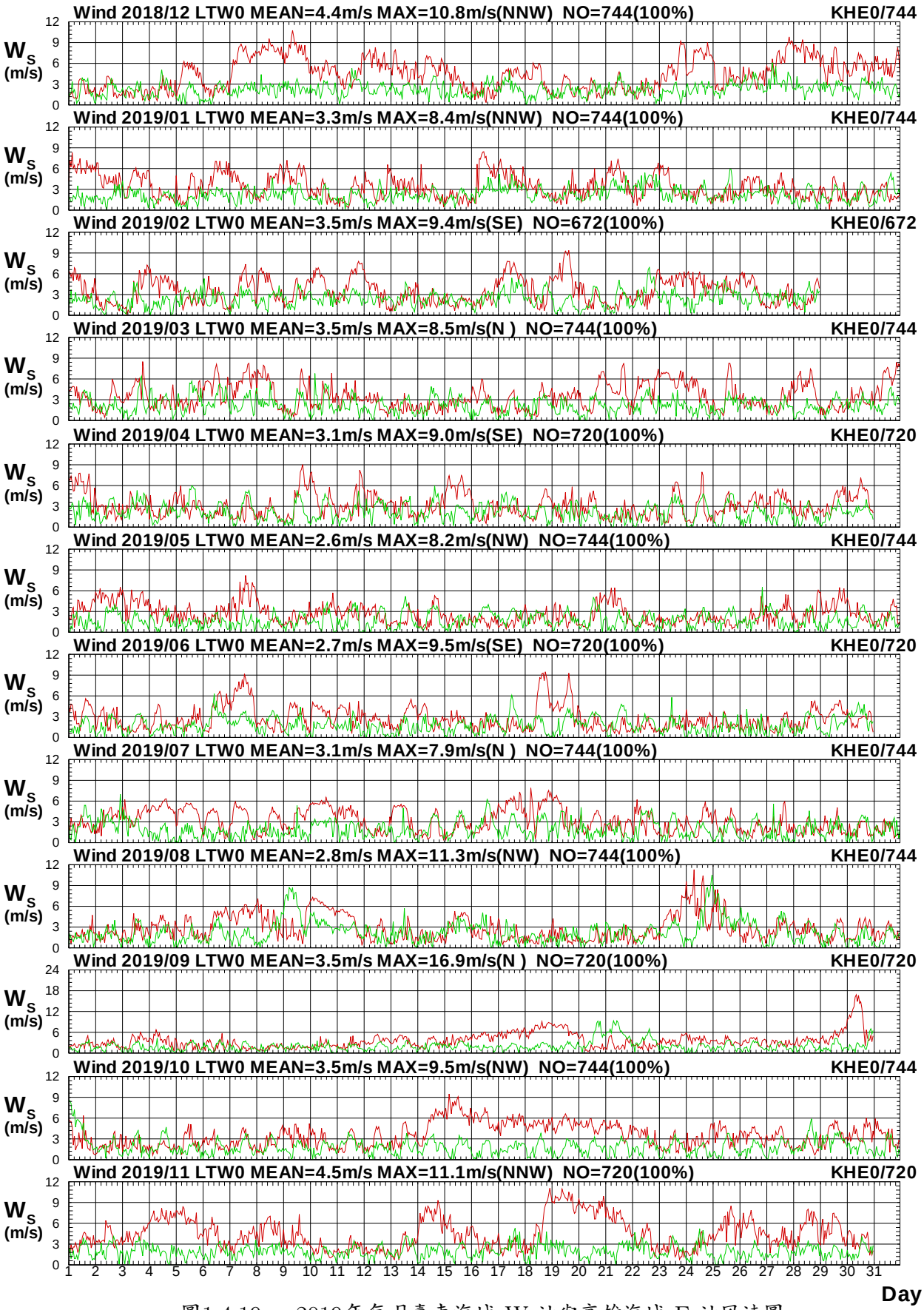

圖1.4.19a　2019年每月臺東海域 W 站與高雄海域 E 站風速圖

W18CLTW0.1HA W18CKHE0.1H0 W191LTW0.1HA W191KHE0.1H0 W192LTW0.1HA W192KHE0.1H0
W193LTW0.1HA W193KHE0.1H0 W194LTW0.1HA W194KHE0.1H0 W195LTW0.1HA W195KHE0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

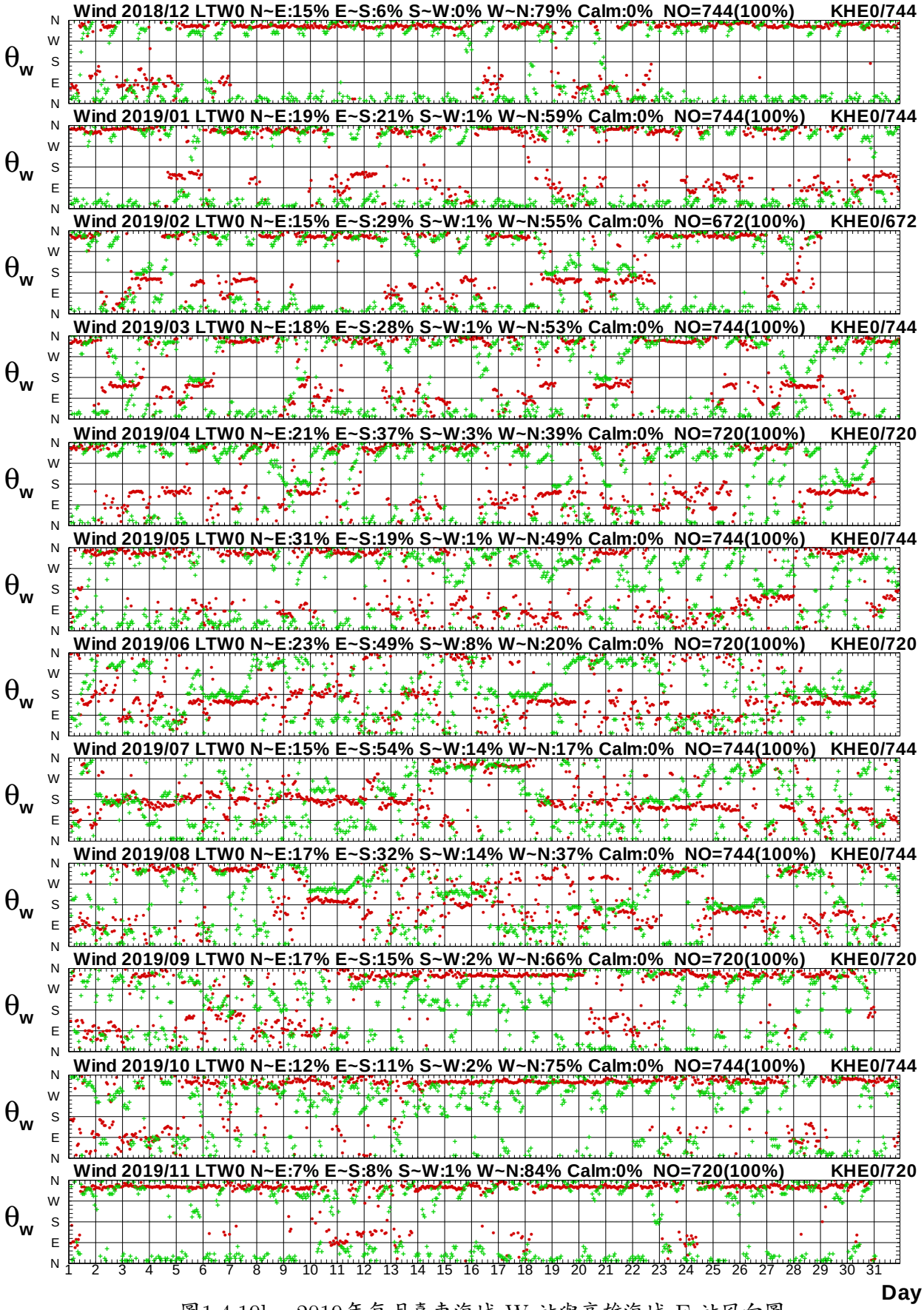

圖1.4.19b　2019年每月臺東海域 W 站與高雄海域 E 站風向圖

W18CLTW0.1HA W18CKHE0.1H0 W191LTW0.1HA W191KHE0.1H0 W192LTW0.1HA W192KHE0.1H0
W193LTW0.1HA W193KHE0.1H0 W194LTW0.1HA W194KHE0.1H0 W195LTW0.1HA W195KHE0.1H0

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Wind Speed in Ta-Tung Seas of LTW0 at 2019

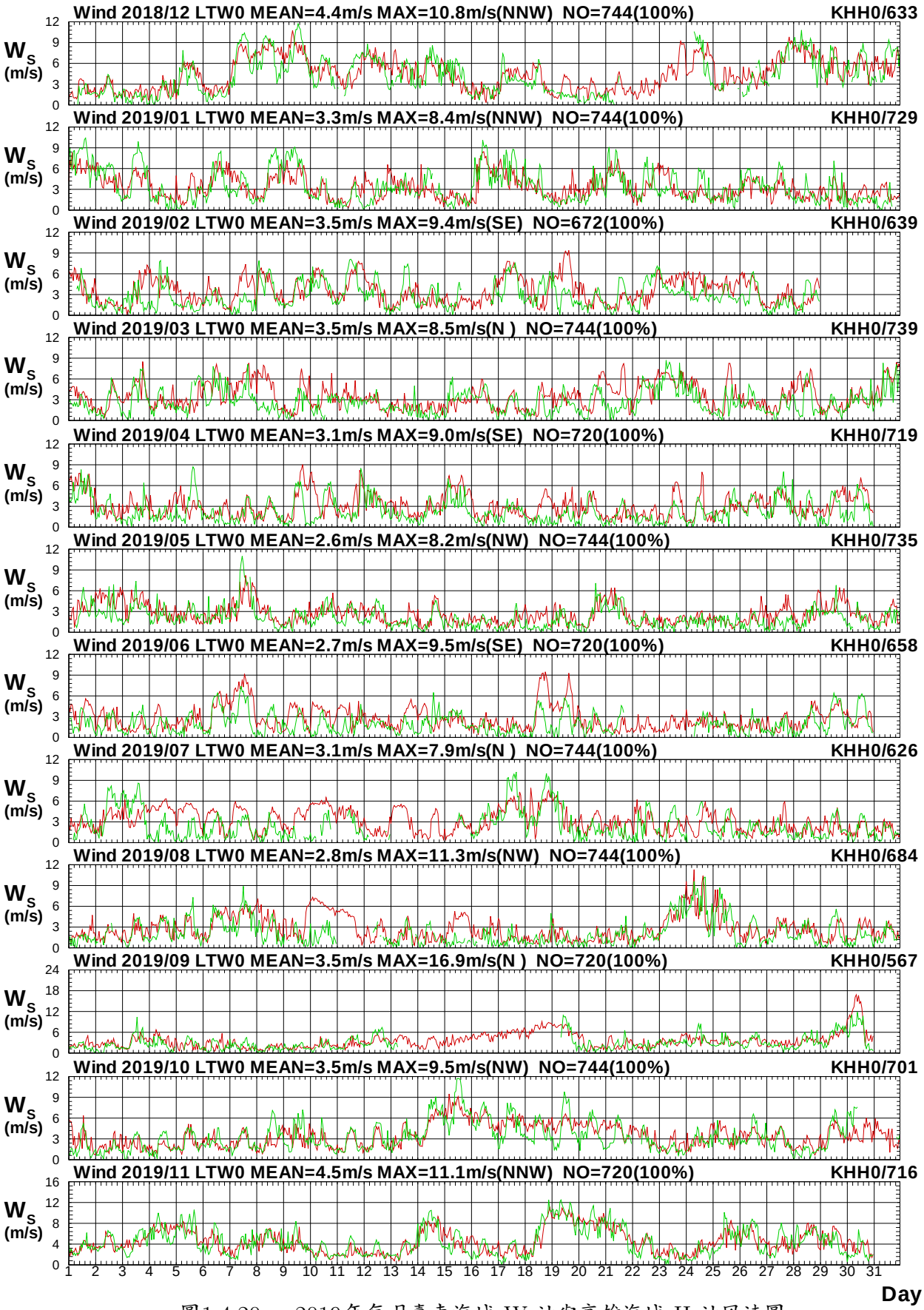

圖1.4.20a　2019年每月臺東海域 W 站與高雄海域 H 站風速圖

W18CLTW0.1HA W18CKHH0.1H0 W191LTW0.1HA W191KHH0.1H0 W192LTW0.1HA W192KHH0.1H0
W193LTW0.1HA W193KHH0.1H0 W194LTW0.1HA W194KHH0.1H0 W195LTW0.1HA W195KHH0.1H0

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Wind Direction in Ta-Tung Seas of LTW0 at 2019

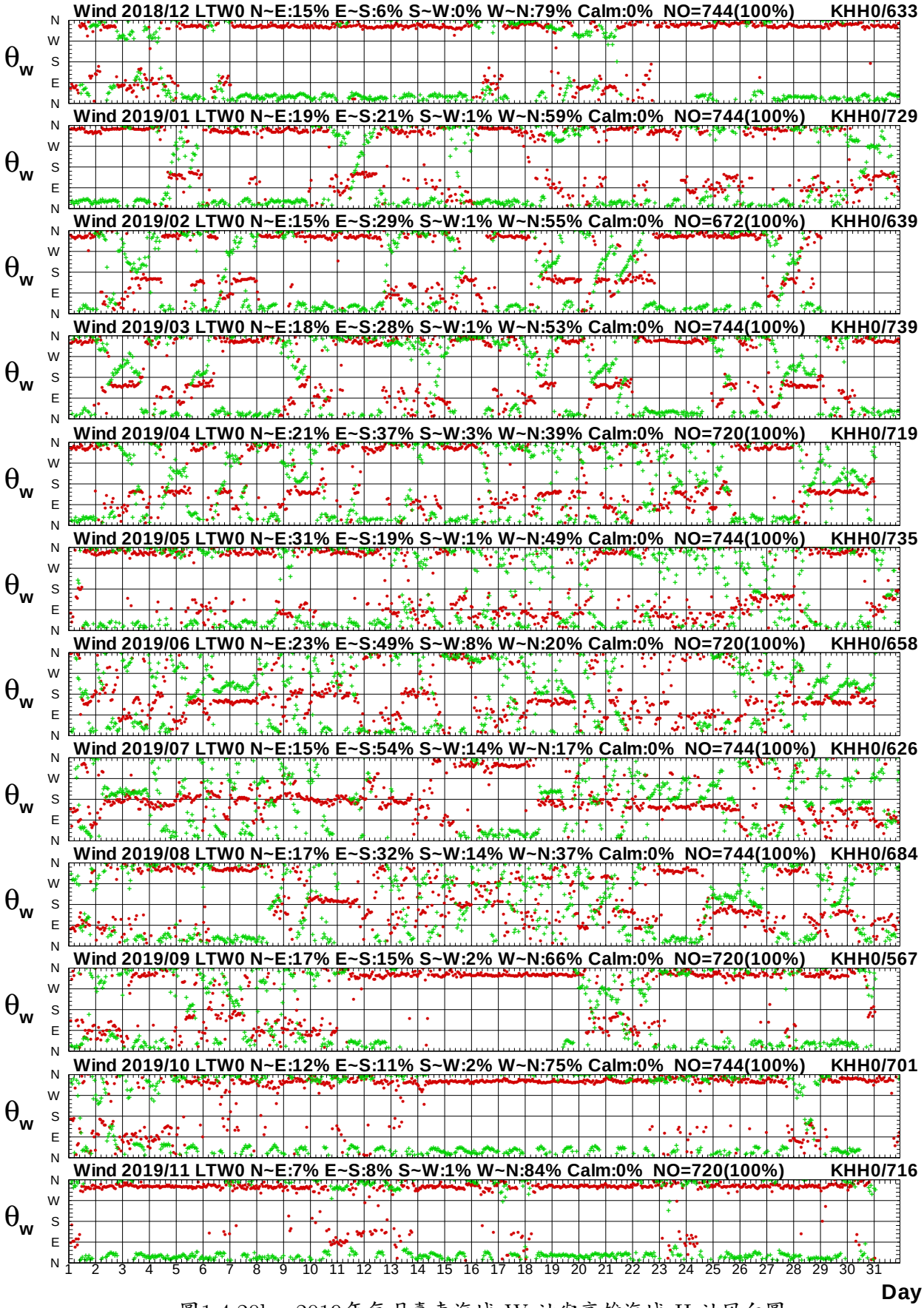

圖1.4.20b　2019年每月臺東海域 W 站與高雄海域 H 站風向圖

W18CLTW0.1HA W18CKHH0.1H0 W191LTW0.1HA W191KHH0.1H0 W192LTW0.1HA W192KHH0.1H0
W193LTW0.1HA W193KHH0.1H0 W194LTW0.1HA W194KHH0.1H0 W195LTW0.1HA W195KHH0.1H0

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1.5　2019 年臺東海域風力各測站修補前

風力向量分佈圖

Distribution of Wind Vectores

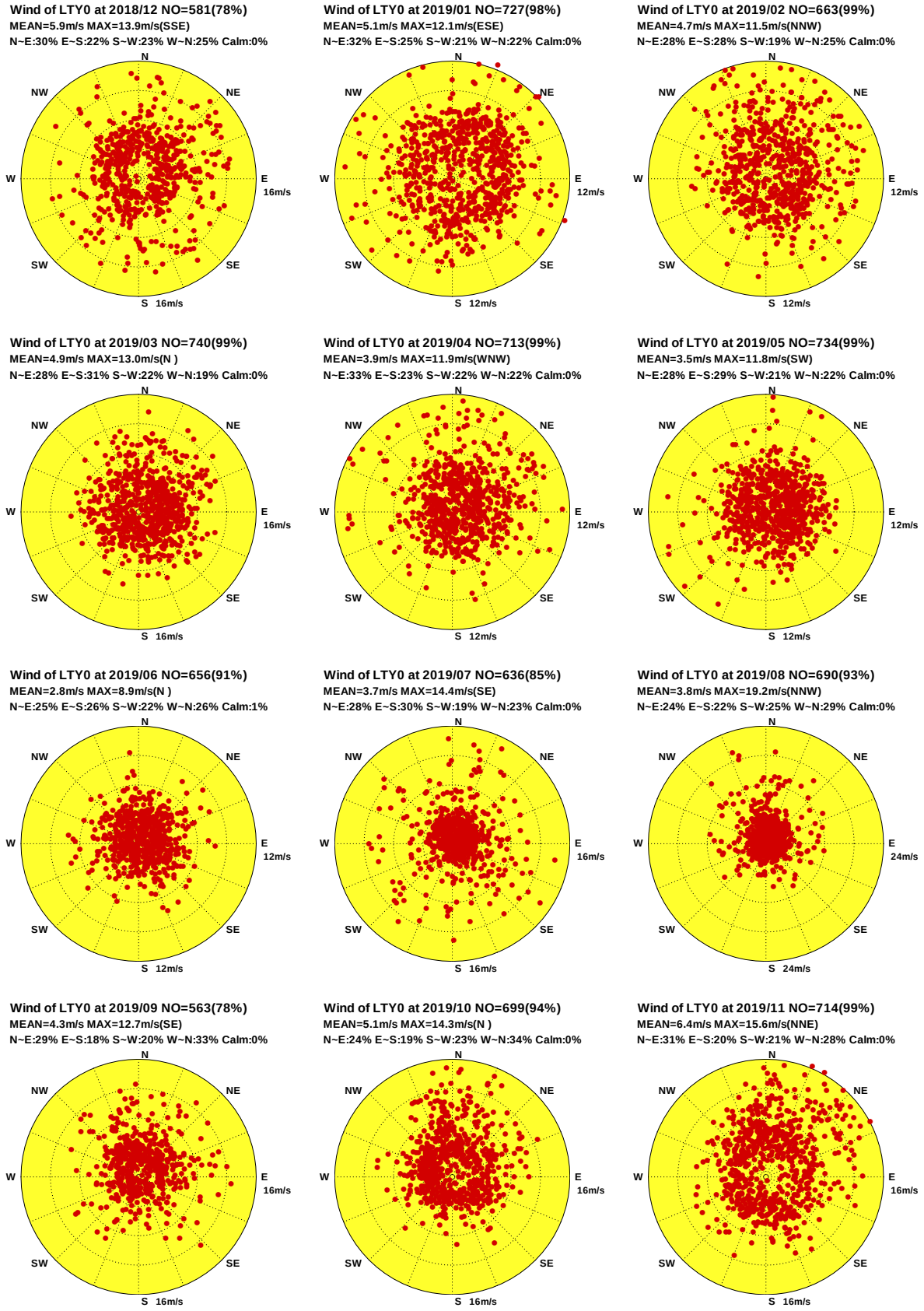

圖1.5.1 2019年臺東海域每月 Y 站修補前觀測風力向量分佈圖

W18CLTY0.1H0 W191LTY0.1H0 W192LTY0.1H0 W193LTY0.1H0 W194LTY0.1H0 W195LTY0.1H0
W196LTY0.1H0 W197LTY0.1H0 W198LTY0.1H0 W199LTY0.1H0 W19ALTY0.1H0 W19BLTY0.1H0

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Distribution of Wind Vectores

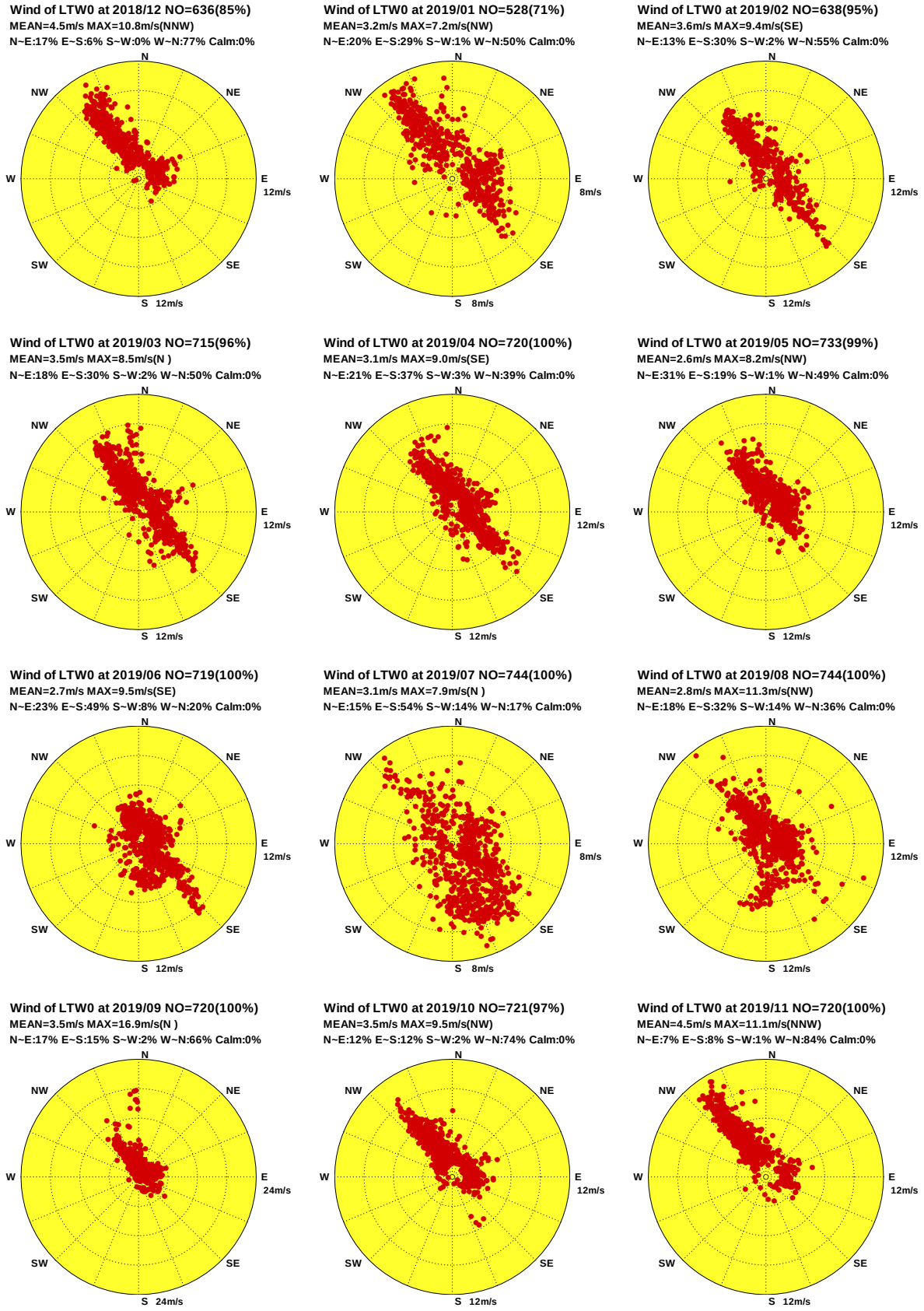

圖1.5.2 2019年臺東海域每月 W 站修補前觀測風力向量分佈圖

W18CLTW0.1H0 W191LTW0.1H0 W192LTW0.1H0 W193LTW0.1H0 W194LTW0.1H0 W195LTW0.1H0
W196LTW0.1H0 W197LTW0.1H0 W198LTW0.1H0 W199LTW0.1H0 W19ALTW0.1H0 W19BLTW0.1H0

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Distribution of Wind Vectores

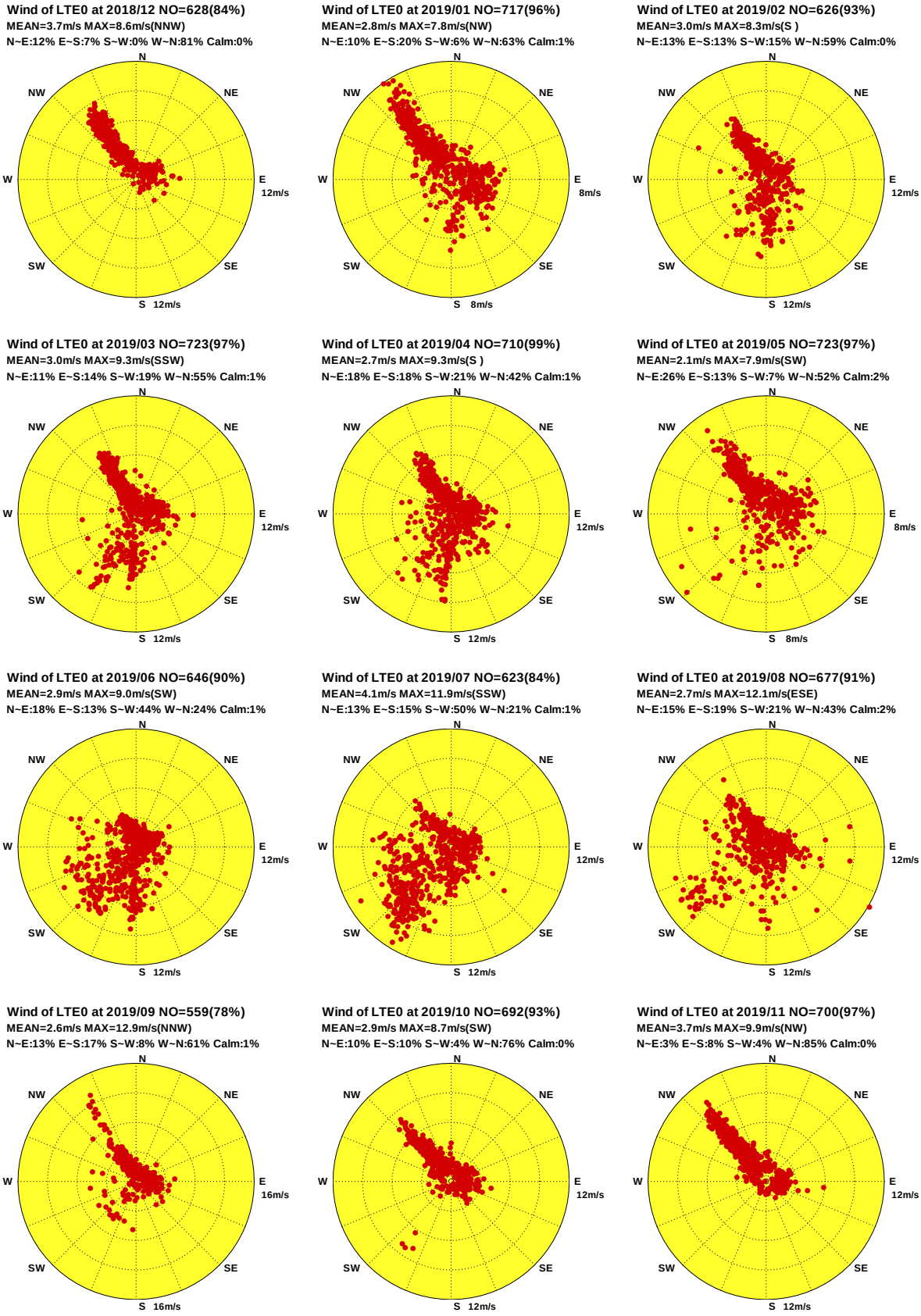

圖1.5.3 2019年臺東海域每月 E 站修補前觀測風力向量分佈圖

W18CLTE0.1H0 W191LTE0.1H0 W192LTE0.1H0 W193LTE0.1H0 W194LTE0.1H0 W195LTE0.1H0
W196LTE0.1H0 W197LTE0.1H0 W198LTE0.1H0 W199LTE0.1H0 W19ALTE0.1H0 W19BLTE0.1H0

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Distribution of Wind Vectores

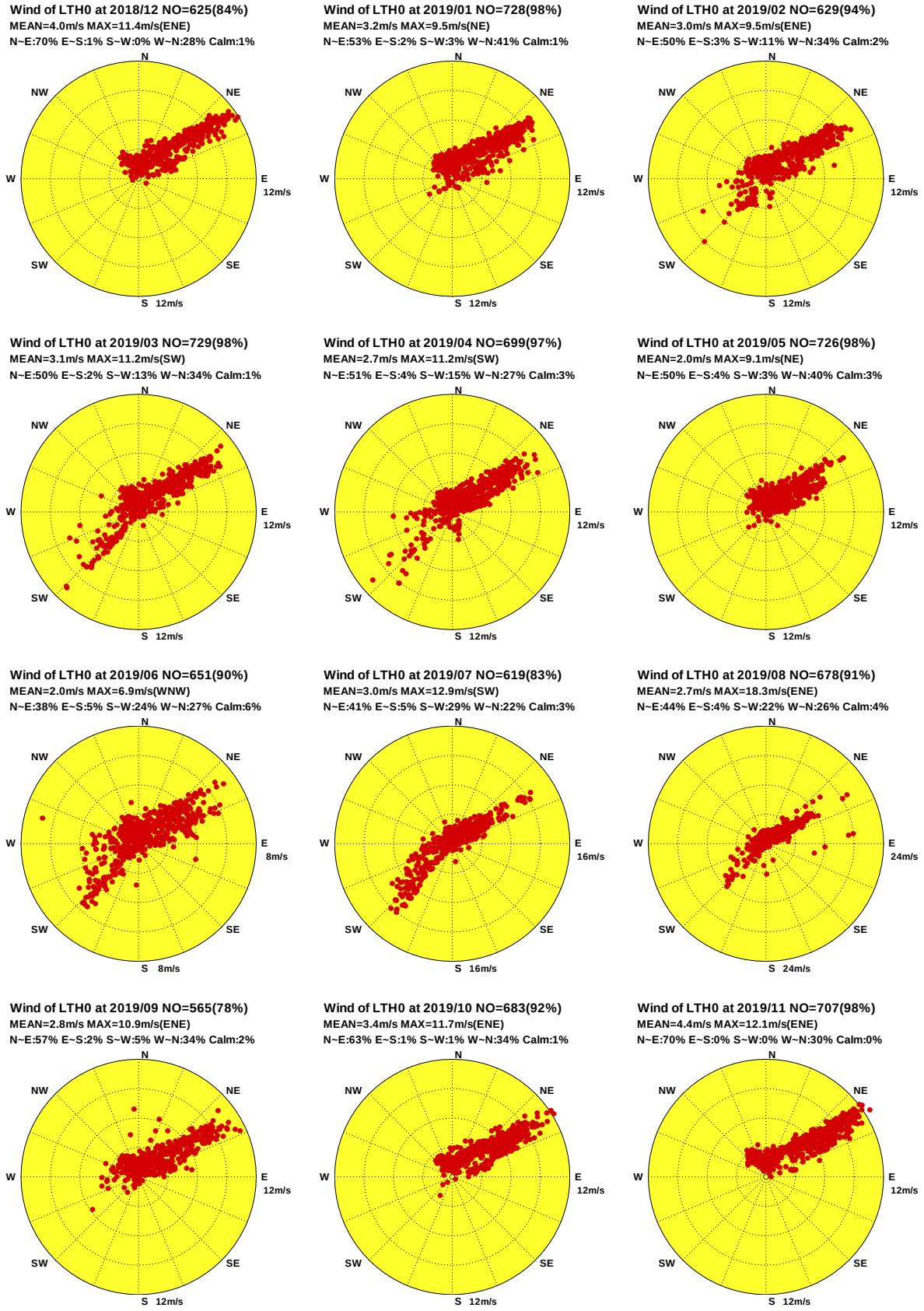

圖1.5.4 2019年臺東海域每月 H 站修補前觀測風力向量分佈圖

W18CLTH0.1H0 W191LTH0.1H0 W192LTH0.1H0 W193LTH0.1H0 W194LTH0.1H0 W195LTH0.1H0
W196LTH0.1H0 W197LTH0.1H0 W198LTH0.1H0 W199LTH0.1H0 W19ALTH0.1H0 W19BLTH0.1H0

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Distribution of Wind Vectores

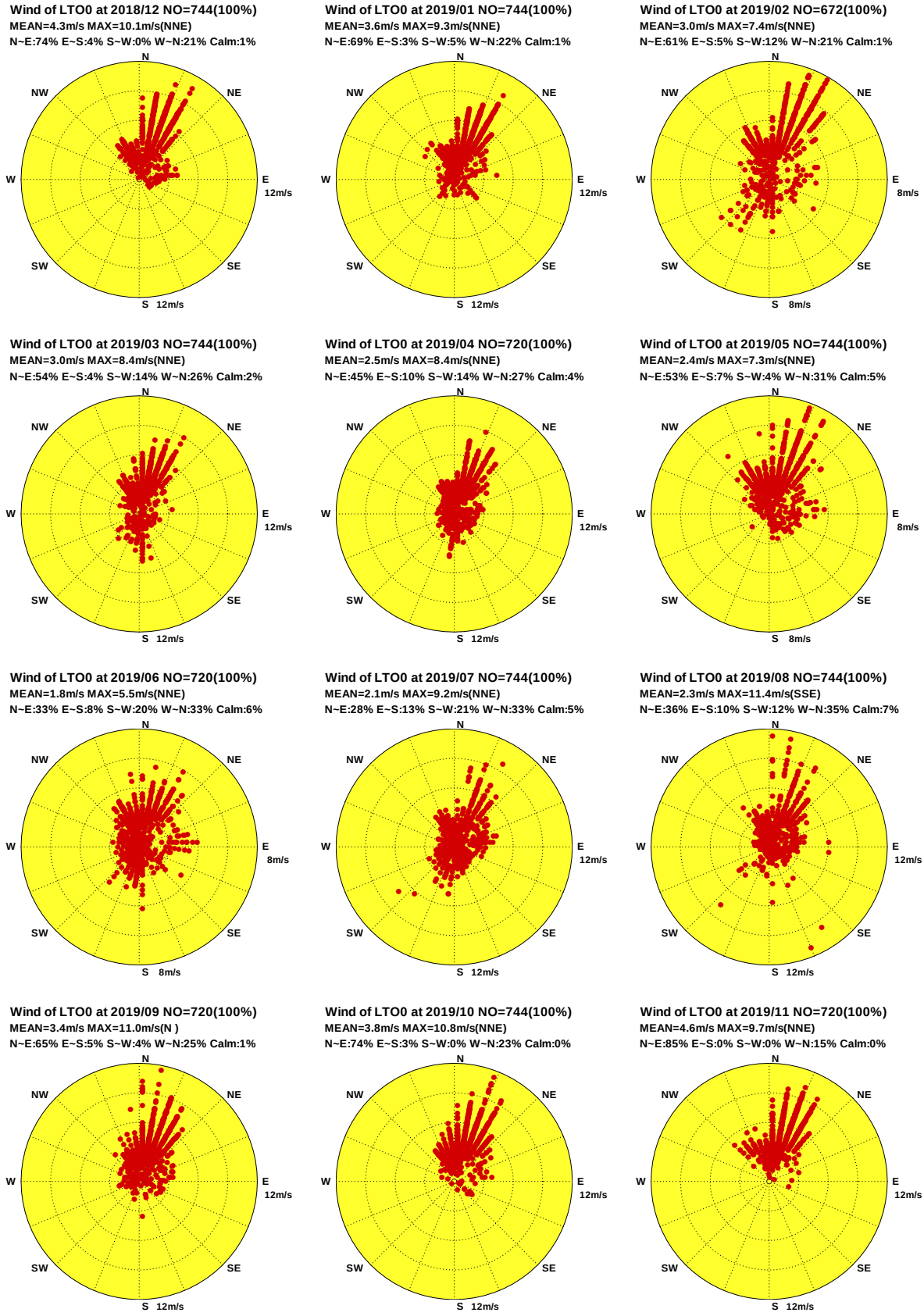

圖1.5.5 2019年臺東海域每月 O 站修補前觀測風力向量分佈圖

W18CLTO0.1H0 W191LTO0.1H0 W192LTO0.1H0 W193LTO0.1H0 W194LTO0.1H0 W195LTO0.1H0
W196LTO0.1H0 W197LTO0.1H0 W198LTO0.1H0 W199LTO0.1H0 W19ALTO0.1H0 W19BLTO0.1H0

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Distribution of Wind Vectores

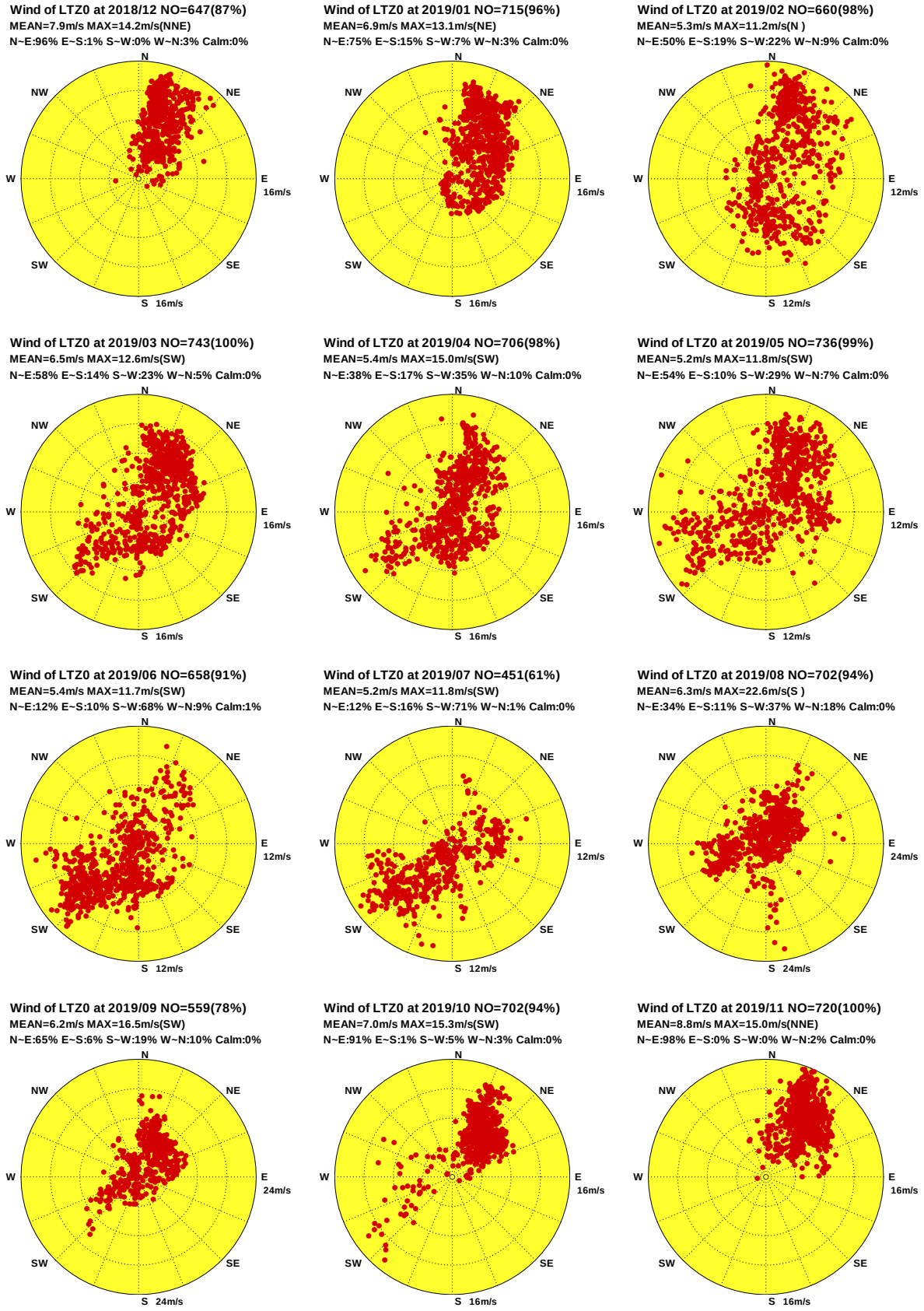

圖1.5.6 2019年臺東海域每月 Z 站修補前觀測風力向量分佈圖

W18CLTZ0.1H0 W191LTZ0.1H0 W192LTZ0.1H0 W193LTZ0.1H0 W194LTZ0.1H0 W195LTZ0.1H0
W196LTZ0.1H0 W197LTZ0.1H0 W198LTZ0.1H0 W199LTZ0.1H0 W19ALTZ0.1H0 W19BLTZ0.1H0

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Distribution of Wind Vectores

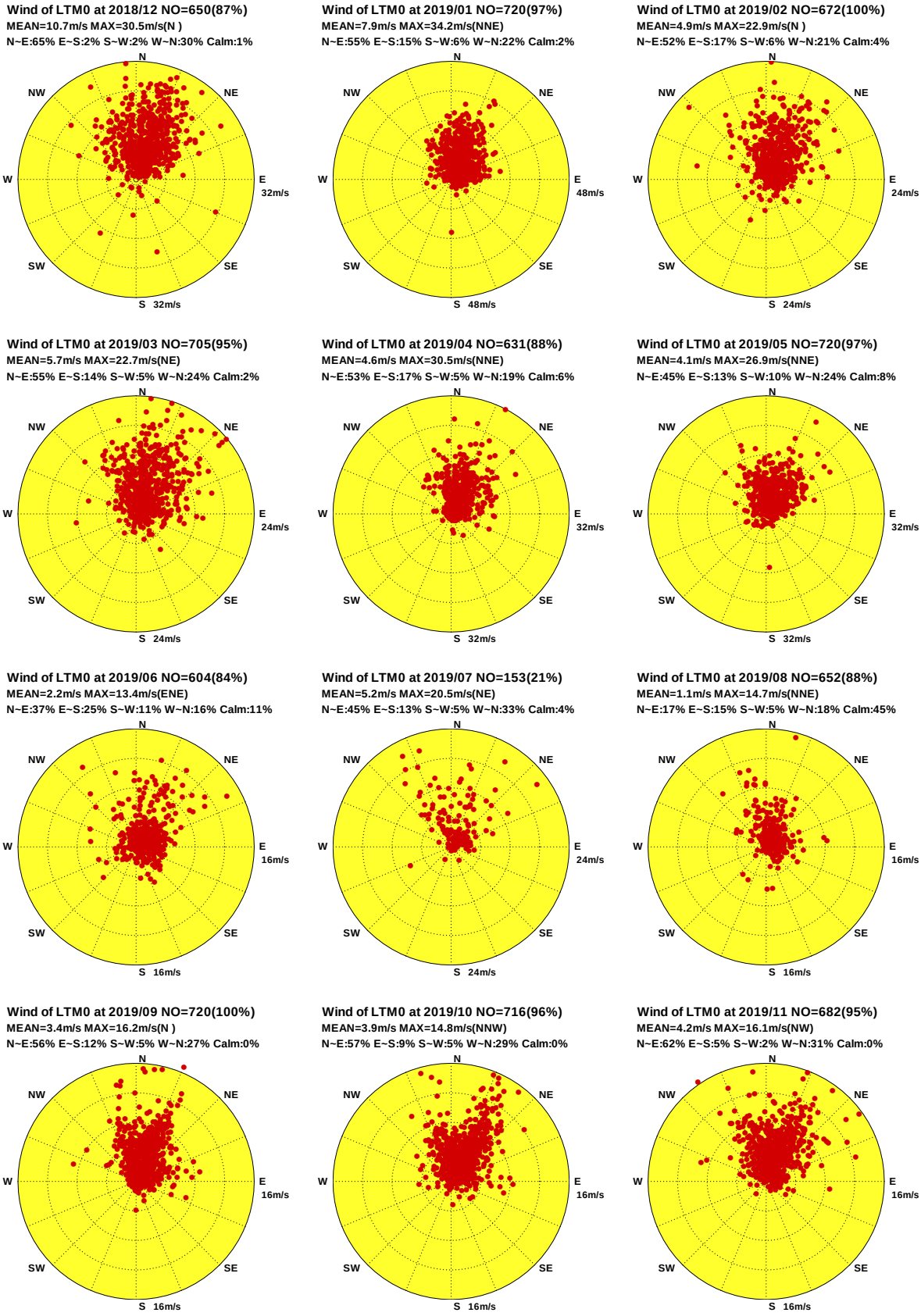

圖1.5.7 2019年臺東海域每月 M 站修補前觀測風力向量分佈圖

W18CLTM0.1H0 W191LTM0.1H0 W192LTM0.1H0 W193LTM0.1H0 W194LTM0.1H0 W195LTM0.1H0
W196LTM0.1H0 W197LTM0.1H0 W198LTM0.1H0 W199LTM0.1H0 W19ALTM0.1H0 W19BLTM0.1H0

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Distribution of Wind Vectores

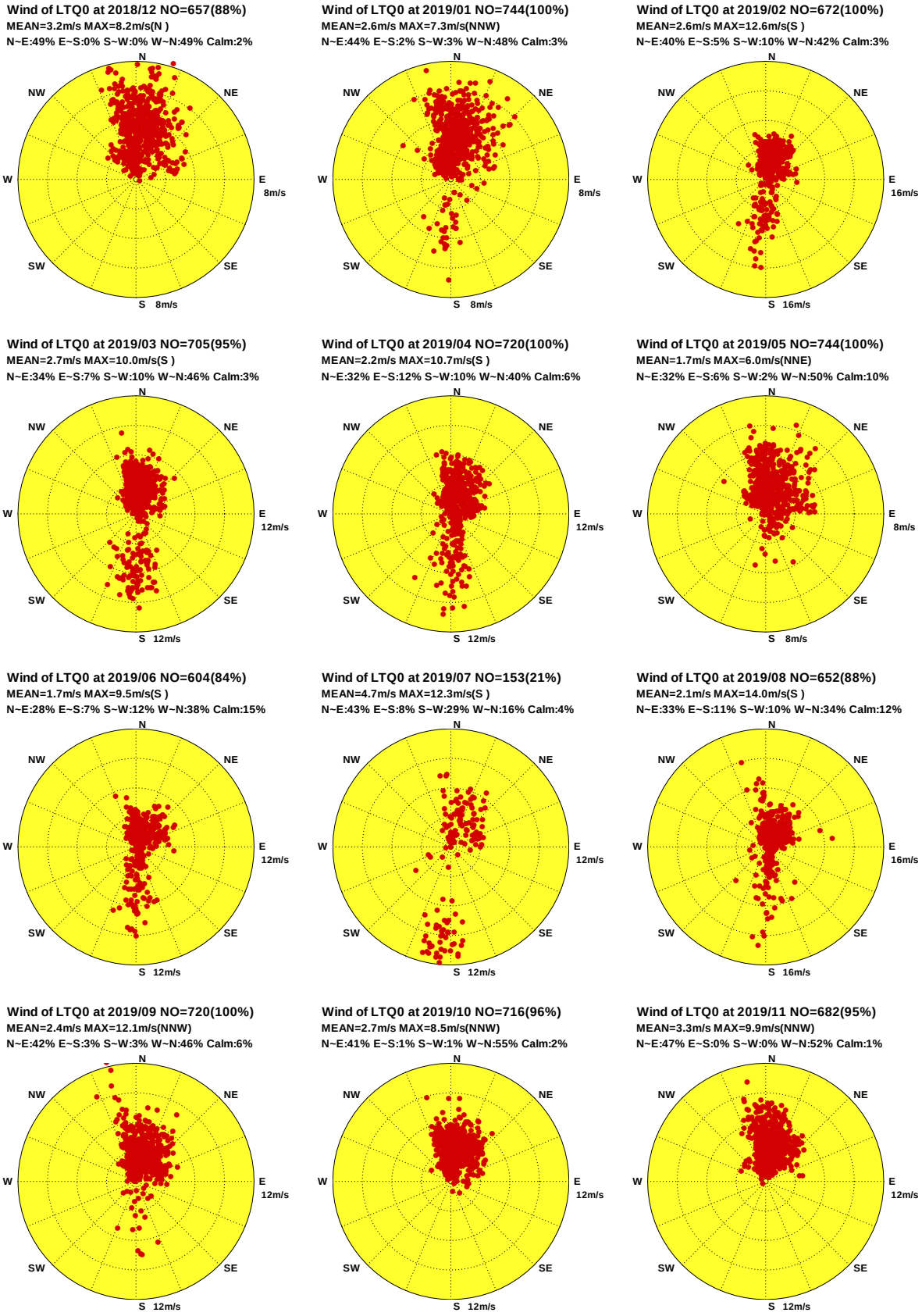

圖1.5.8 2019年臺東海域每月 Q 站修補前觀測風力向量分佈圖

W18CLTQ0.1H0 W191LTQ0.1H0 W192LTQ0.1H0 W193LTQ0.1H0 W194LTQ0.1H0 W195LTQ0.1H0
W196LTQ0.1H0 W197LTQ0.1H0 W198LTQ0.1H0 W199LTQ0.1H0 W19ALTQ0.1H0 W19BLTQ0.1H0

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Distribution of Wind Vectores

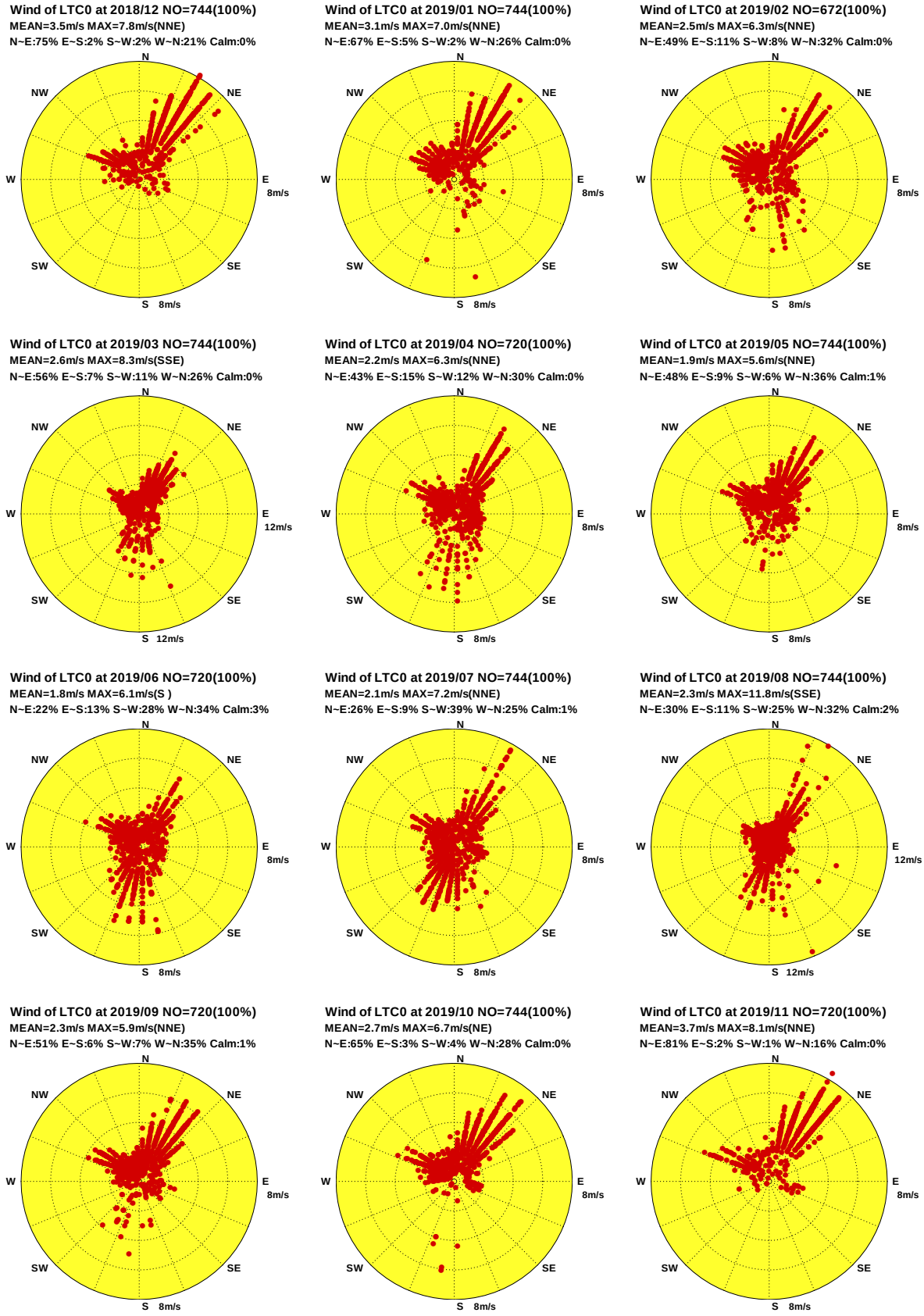

圖1.5.9 2019年臺東海域每月 C 站修補前觀測風力向量分佈圖

W18CLTC0.1H0 W191LTC0.1H0 W192LTC0.1H0 W193LTC0.1H0 W194LTC0.1H0 W195LTC0.1H0
W196LTC0.1H0 W197LTC0.1H0 W198LTC0.1H0 W199LTC0.1H0 W19ALTC0.1H0 W19BLTC0.1H0

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Distribution of Wind Vectores

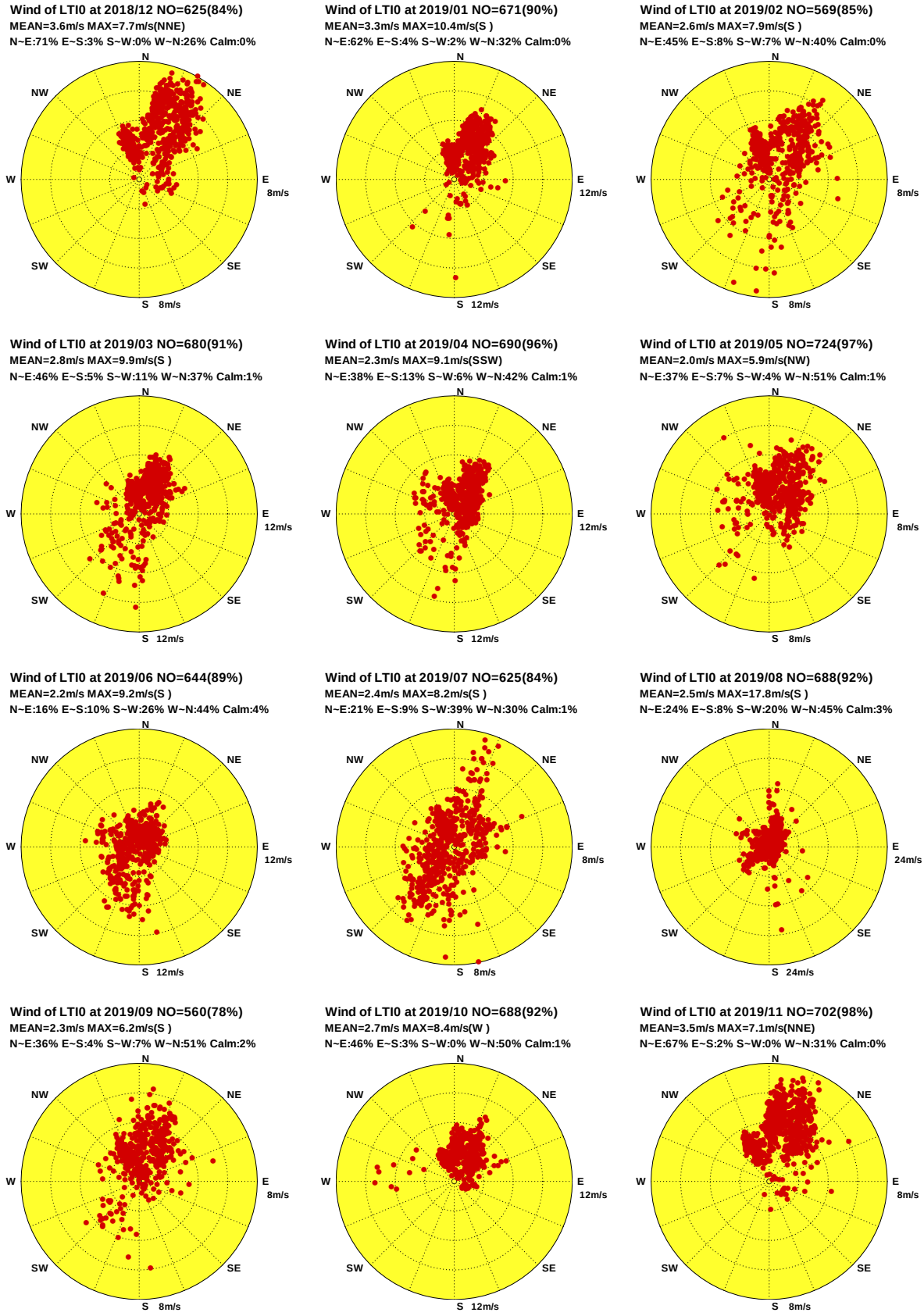

圖1.5.100 2019年臺東海域每月Ⅰ站修補前觀測風力向量分佈圖

W18CLTI0.1H0 W191LTI0.1H0 W192LTI0.1H0 W193LTI0.1H0 W194LTI0.1H0 W195LTI0.1H0
W196LTI0.1H0 W197LTI0.1H0 W198LTI0.1H0 W199LTI0.1H0 W19ALTI0.1H0 W19BLTI0.1H0

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1.6　2019 年臺東海域風力各測站修補前

風力向量行進圖

Progressive Vector Diagram of Wind

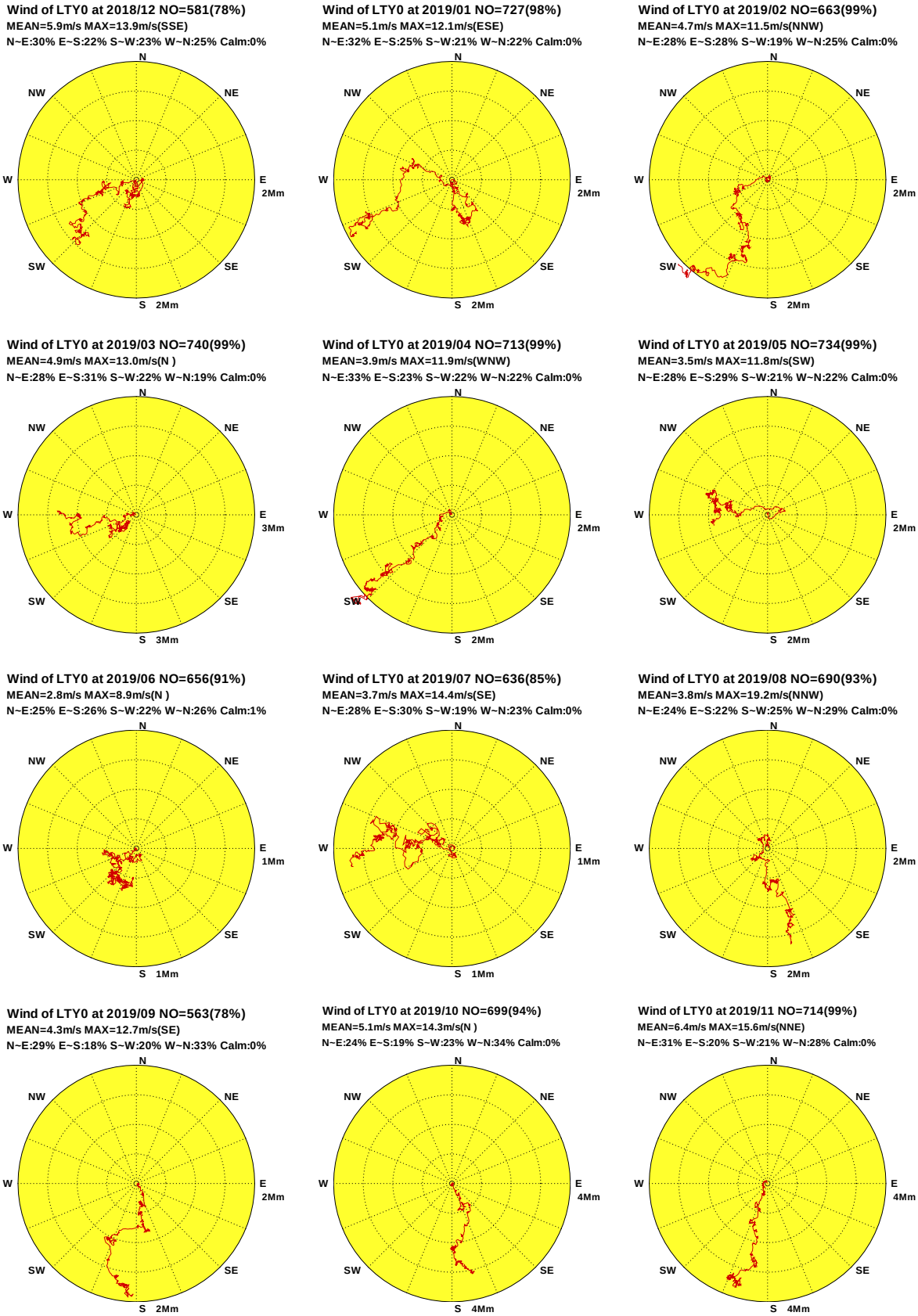

圖1.6.1 2019年臺東海域每月 Y 站修補前觀測風力向量行進圖

W18CLTY0.1H0 W191LTY0.1H0 W192LTY0.1H0 W193LTY0.1H0 W194LTY0.1H0 W195LTY0.1H0
W196LTY0.1H0 W197LTY0.1H0 W198LTY0.1H0 W199LTY0.1H0 W19ALTY0.1H0 W19BLTY0.1H0

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Progressive Vector Diagram of Wind

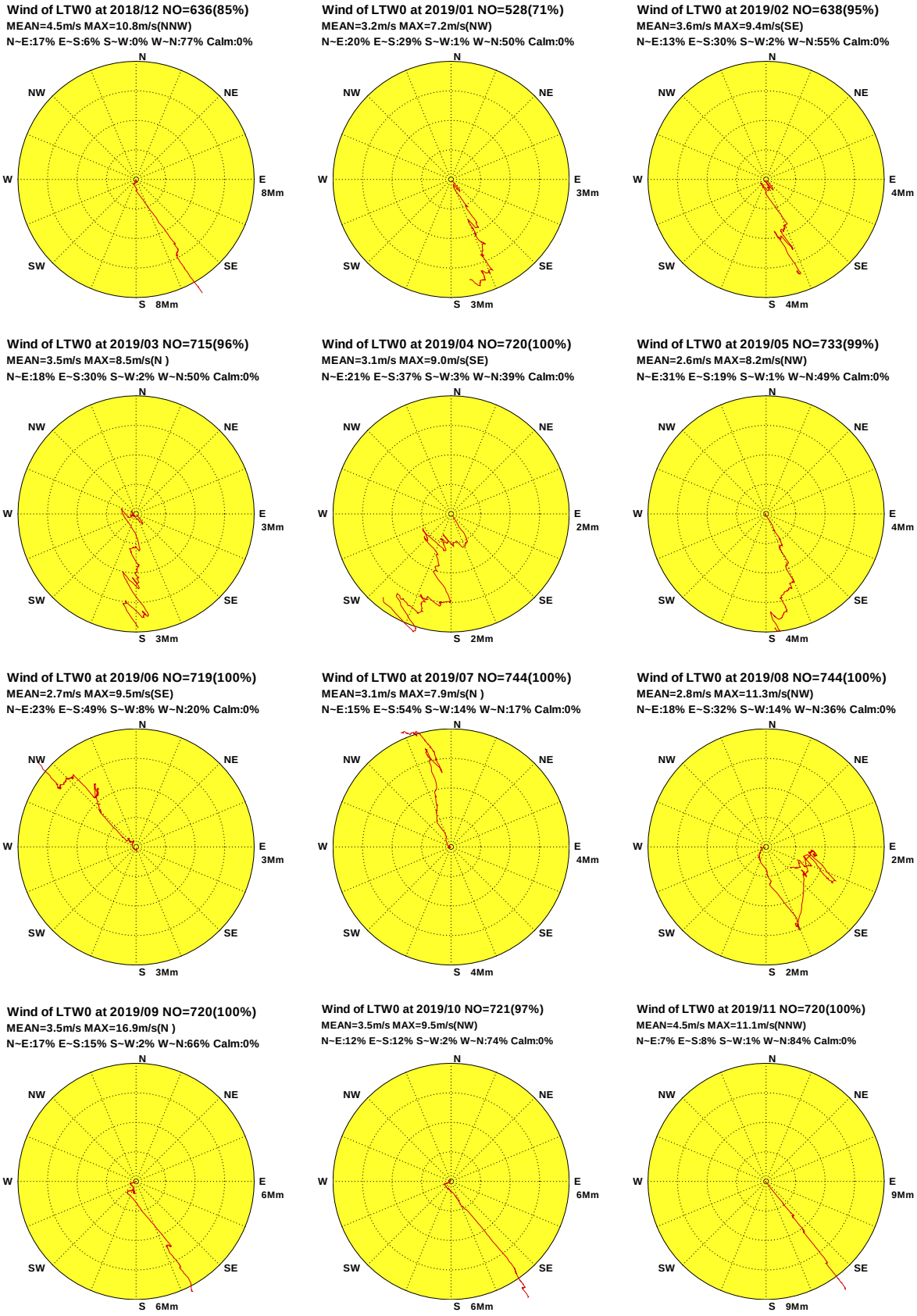

圖1.6.2 2019年臺東海域每月 W 站修補前觀測風力向量行進圖

W18CLTW0.1H0 W191LTW0.1H0 W192LTW0.1H0 W193LTW0.1H0 W194LTW0.1H0 W195LTW0.1H0
W196LTW0.1H0 W197LTW0.1H0 W198LTW0.1H0 W199LTW0.1H0 W19ALTW0.1H0 W19BLTW0.1H0

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Progressive Vector Diagram of Wind

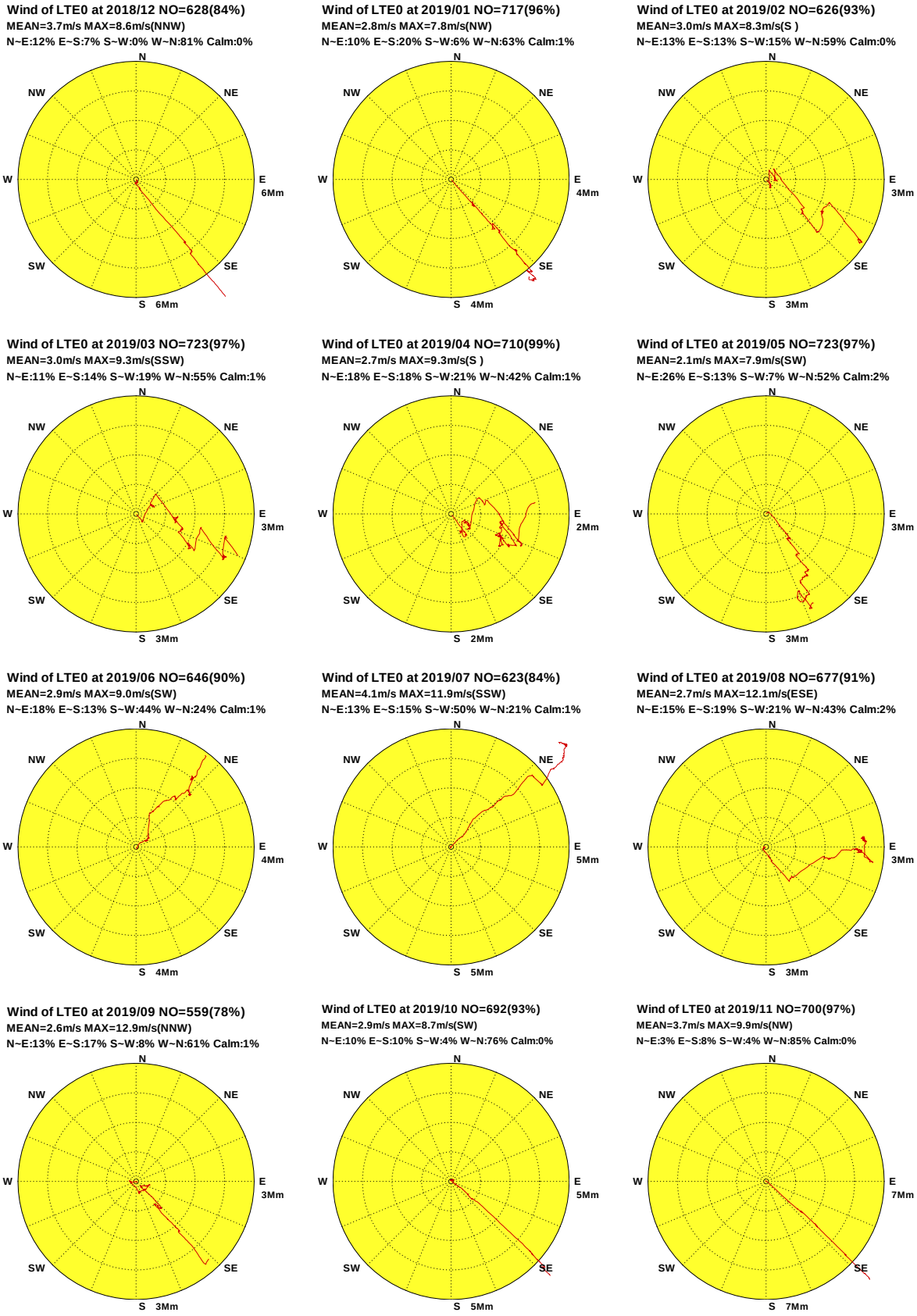

圖1.6.3 2019年臺東海域每月 E 站修補前觀測風力向量行進圖

W18CLTE0.1H0 W191LTE0.1H0 W192LTE0.1H0 W193LTE0.1H0 W194LTE0.1H0 W195LTE0.1H0
W196LTE0.1H0 W197LTE0.1H0 W198LTE0.1H0 W199LTE0.1H0 W19ALTE0.1H0 W19BLTE0.1H0

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Progressive Vector Diagram of Wind

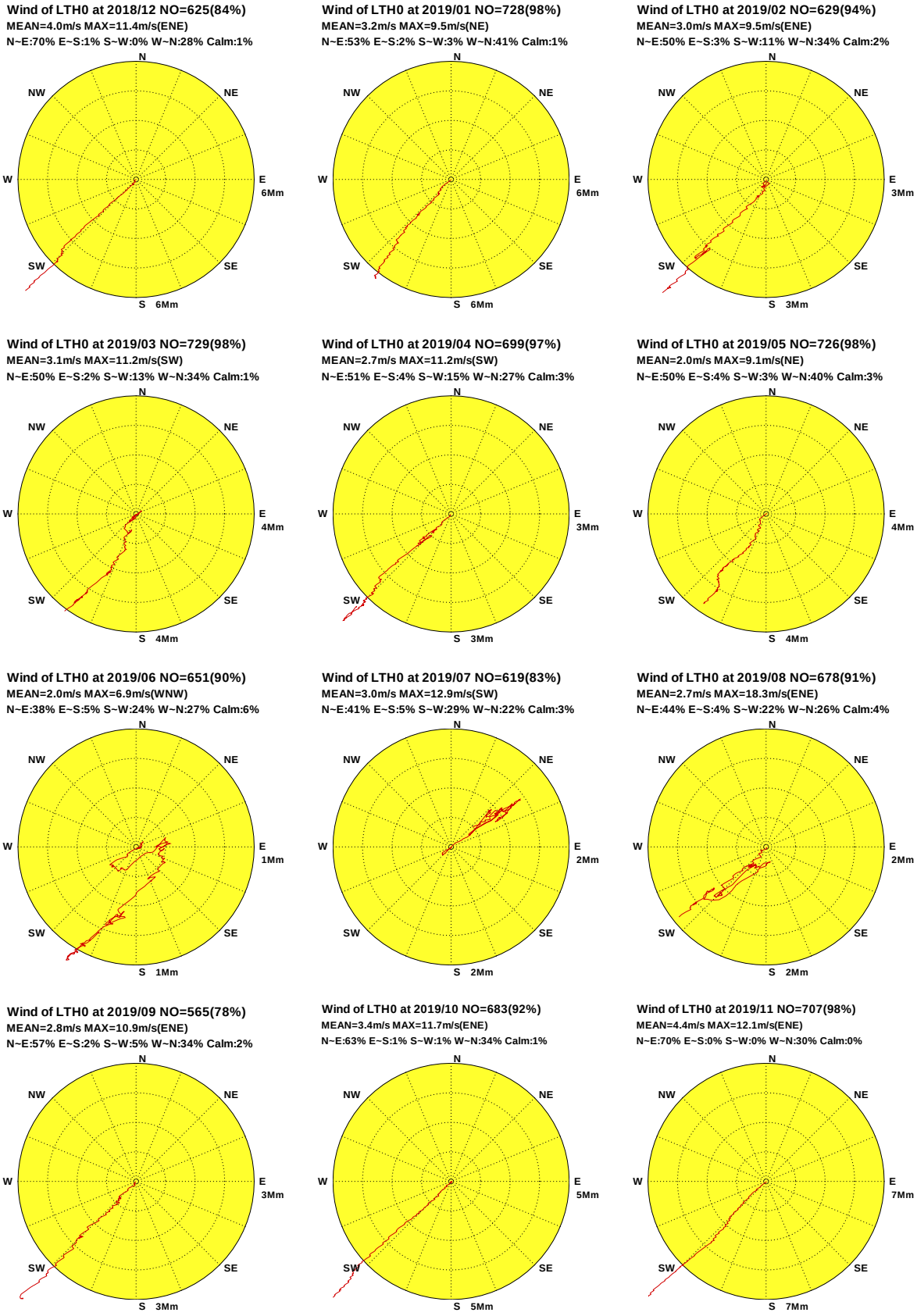

圖1.6.4 2019年臺東海域每月 H 站修補前觀測風力向量行進圖

W18CLTH0.1H0 W191LTH0.1H0 W192LTH0.1H0 W193LTH0.1H0 W194LTH0.1H0 W195LTH0.1H0
W196LTH0.1H0 W197LTH0.1H0 W198LTH0.1H0 W199LTH0.1H0 W19ALTH0.1H0 W19BLTH0.1H0

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Progressive Vector Diagram of Wind

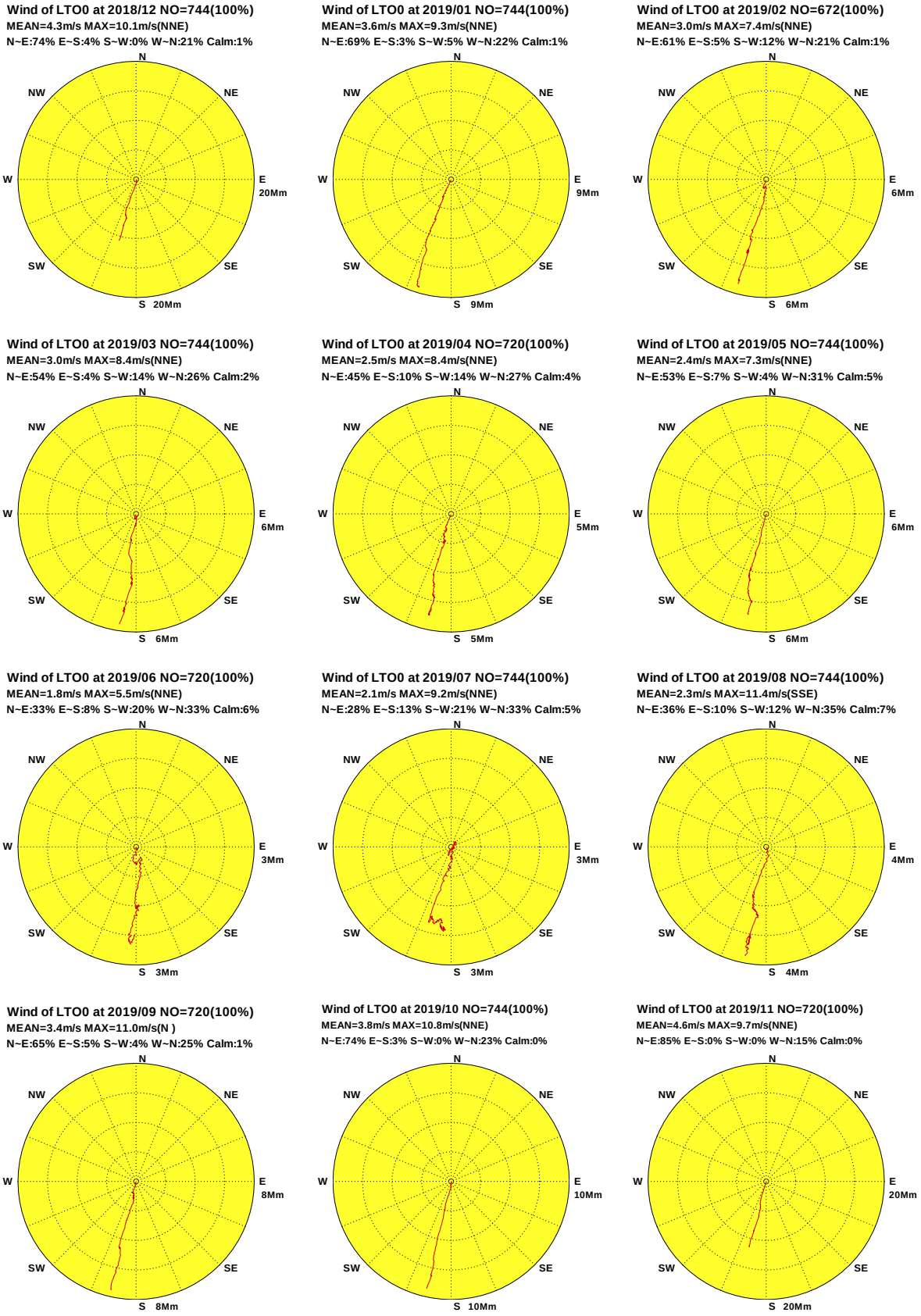

圖1.6.5 2019年臺東海域每月 O 站修補前觀測風力向量行進圖

W18CLTO0.1H0 W191LTO0.1H0 W192LTO0.1H0 W193LTO0.1H0 W194LTO0.1H0 W195LTO0.1H0
W196LTO0.1H0 W197LTO0.1H0 W198LTO0.1H0 W199LTO0.1H0 W19ALTO0.1H0 W19BLTO0.1H0

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Progressive Vector Diagram of Wind

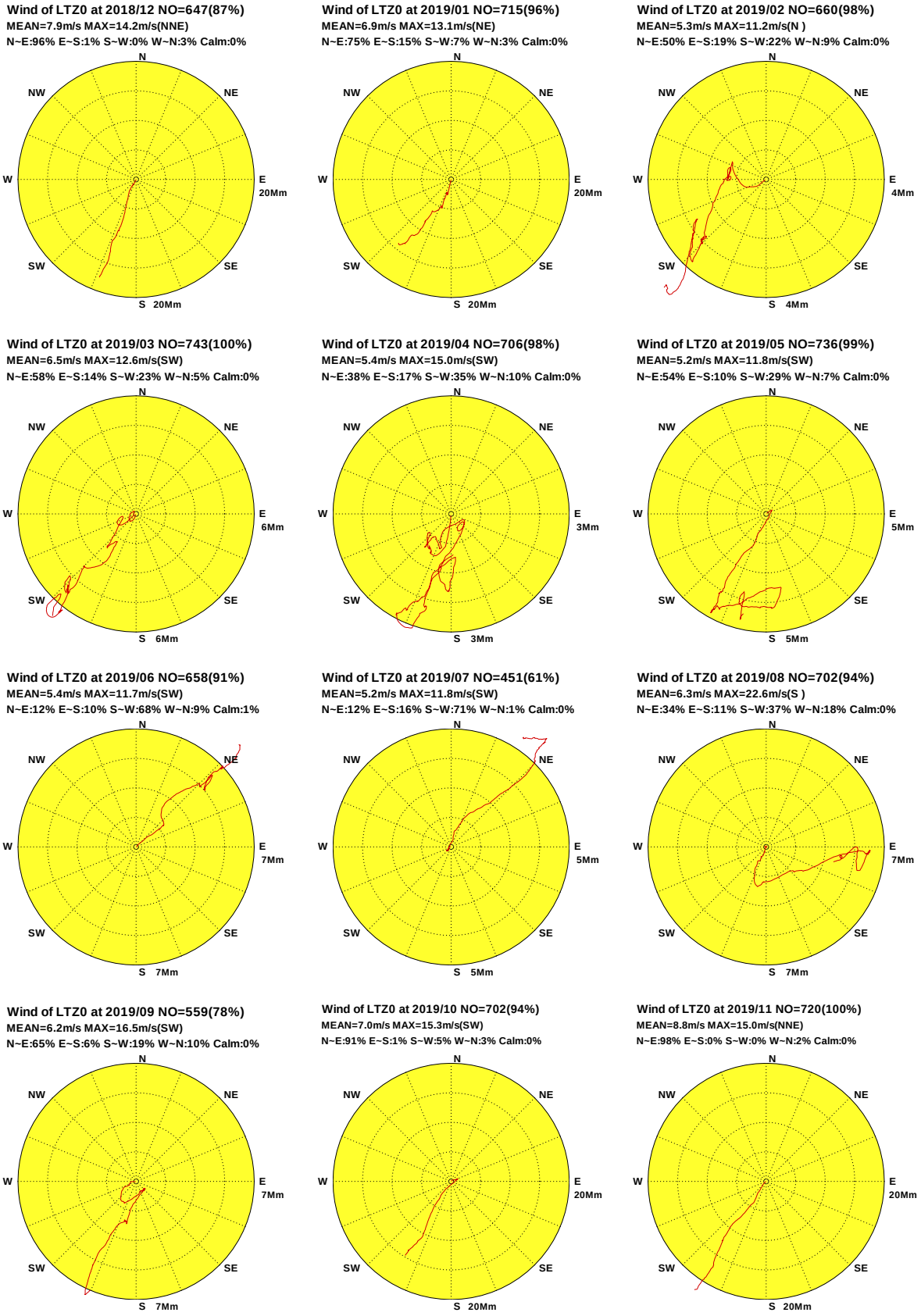

圖1.6.6 2019年臺東海域每月 Z 站修補前觀測風力向量行進圖

W18CLTZ0.1H0 W191LTZ0.1H0 W192LTZ0.1H0 W193LTZ0.1H0 W194LTZ0.1H0 W195LTZ0.1H0
W196LTZ0.1H0 W197LTZ0.1H0 W198LTZ0.1H0 W199LTZ0.1H0 W19ALTZ0.1H0 W19BLTZ0.1H0

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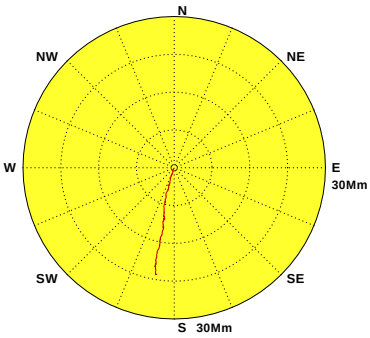
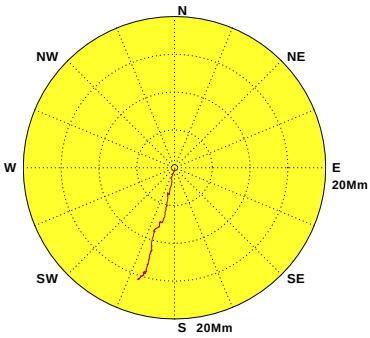
Progressive Vector Diagram of Wind

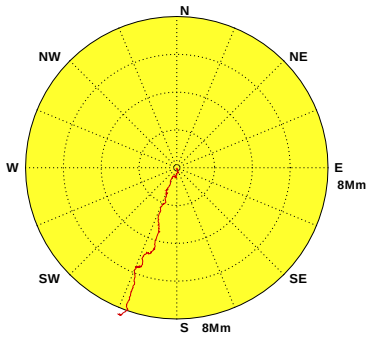
Wind of LTM0 at 2018/12 NO=650(87%)
MEAN=10.7m/s MAX=30.5m/s(N)
N~E:65% E~S:2% S~W:2% W~N:30% Calm:1%



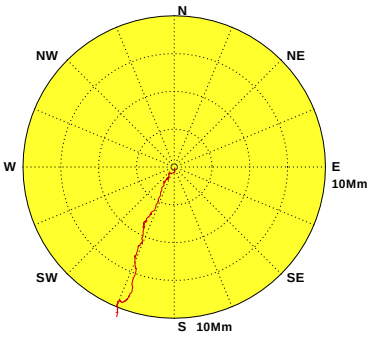
Wind of LTM0 at 2019/01 NO=720(97%)
MEAN=7.9m/s MAX=34.2m/s(NNE)
N~E:55% E~S:15% S~W:6% W~N:22% Calm:2%



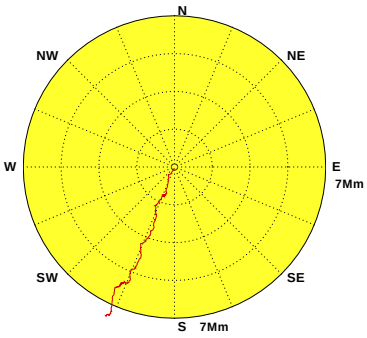
Wind of LTM0 at 2019/02 NO=672(100%)
MEAN=4.9m/s MAX=22.9m/s(N)
N~E:52% E~S:17% S~W:6% W~N:21% Calm:4%



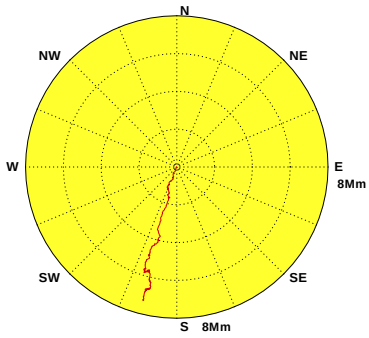
Wind of LTM0 at 2019/03 NO=705(95%)
MEAN=5.7m/s MAX=22.7m/s(NE)
N~E:55% E~S:14% S~W:5% W~N:24% Calm:2%



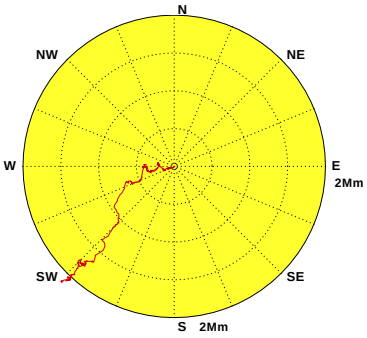
Wind of LTM0 at 2019/04 NO=631(88%)
MEAN=4.6m/s MAX=30.5m/s(NNE)
N~E:53% E~S:17% S~W:5% W~N:19% Calm:6%



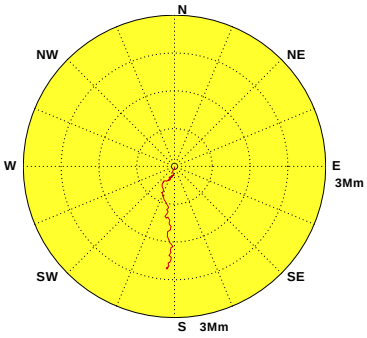
Wind of LTM0 at 2019/05 NO=720(97%)
MEAN=4.1m/s MAX=26.9m/s(NNE)
N~E:45% E~S:13% S~W:10% W~N:24% Calm:8%



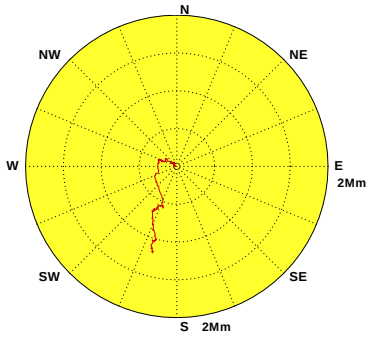
Wind of LTM0 at 2019/06 NO=604(84%)
MEAN=2.2m/s MAX=13.4m/s(ENE)
N~E:37% E~S:25% S~W:11% W~N:16% Calm:11%



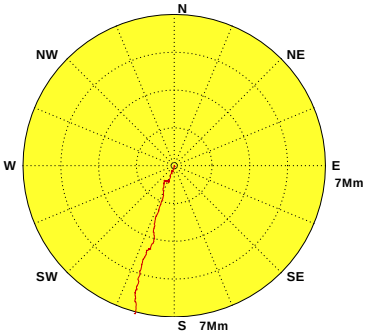
Wind of LTM0 at 2019/07 NO=153(21%)
MEAN=5.2m/s MAX=20.5m/s(NE)
N~E:45% E~S:13% S~W:5% W~N:33% Calm:4%



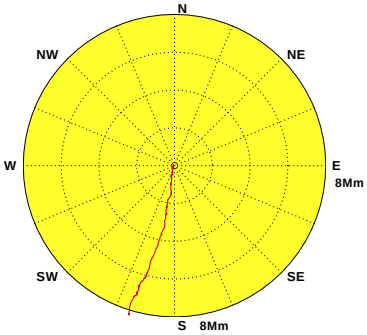
Wind of LTM0 at 2019/08 NO=652(88%)
MEAN=1.1m/s MAX=14.7m/s(NNE)
N~E:17% E~S:15% S~W:5% W~N:18% Calm:45%



Wind of LTM0 at 2019/09 NO=720(100%)
MEAN=3.4m/s MAX=16.2m/s(N)
N~E:56% E~S:12% S~W:5% W~N:27% Calm:0%



Wind of LTM0 at 2019/10 NO=716(96%)
MEAN=3.9m/s MAX=14.8m/s(NNW)
N~E:57% E~S:9% S~W:5% W~N:29% Calm:0%



Wind of LTM0 at 2019/11 NO=682(95%)
MEAN=4.2m/s MAX=16.1m/s(NW)
N~E:62% E~S:5% S~W:2% W~N:31% Calm:0%

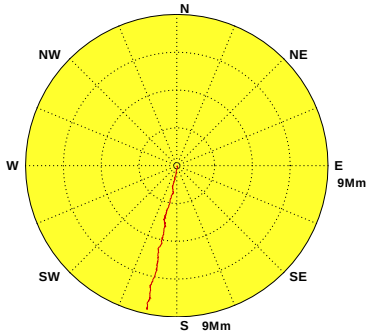


圖1.6.7 2019年臺東海域每月 M 站修補前觀測風力向量行進圖

W18CLTM0.1H0 W191LTM0.1H0 W192LTM0.1H0 W193LTM0.1H0 W194LTM0.1H0 W195LTM0.1H0
W196LTM0.1H0 W197LTM0.1H0 W198LTM0.1H0 W199LTM0.1H0 W19ALTM0.1H0 W19BLTM0.1H0

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Progressive Vector Diagram of Wind

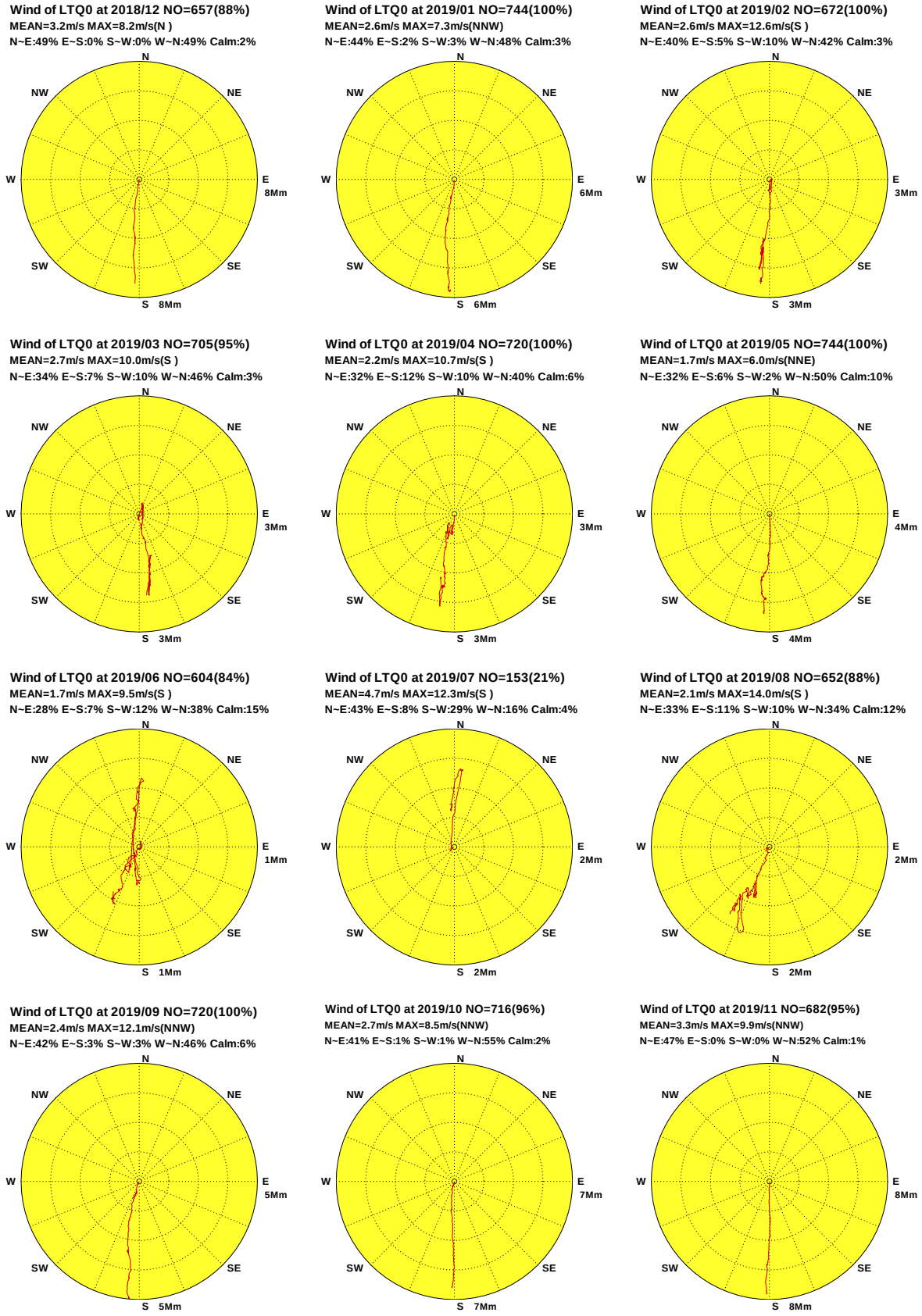

圖1.6.8 2019年臺東海域每月 Q 站修補前觀測風力向量行進圖

W18CLTQ0.1H0 W191LTQ0.1H0 W192LTQ0.1H0 W193LTQ0.1H0 W194LTQ0.1H0 W195LTQ0.1H0
W196LTQ0.1H0 W197LTQ0.1H0 W198LTQ0.1H0 W199LTQ0.1H0 W19ALTQ0.1H0 W19BLTQ0.1H0

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Progressive Vector Diagram of Wind

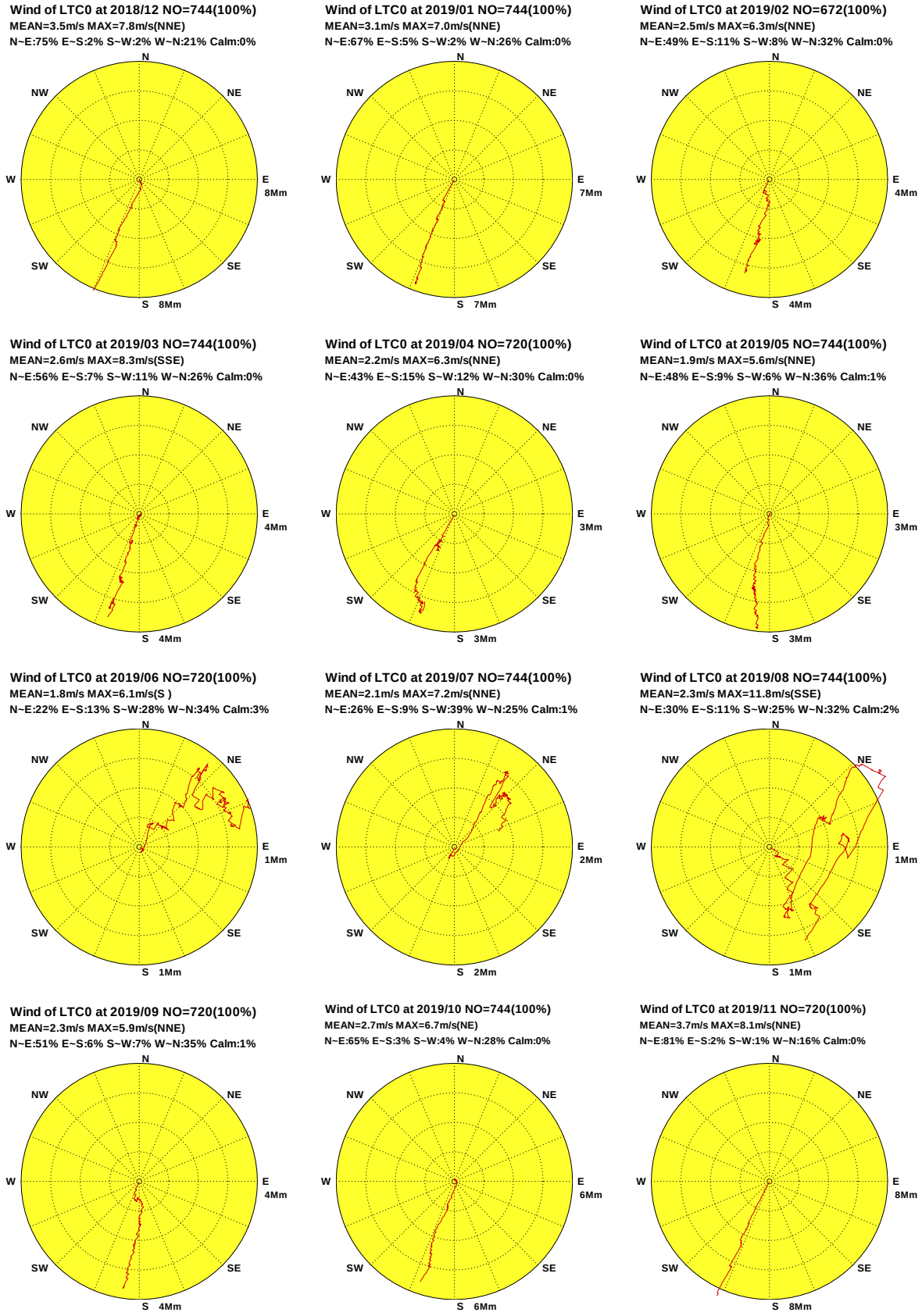

圖1.6.9 2019年臺東海域每月 C 站修補前觀測風力向量行進圖

W18CLTC0.1H0 W191LTC0.1H0 W192LTC0.1H0 W193LTC0.1H0 W194LTC0.1H0 W195LTC0.1H0
W196LTC0.1H0 W197LTC0.1H0 W198LTC0.1H0 W199LTC0.1H0 W19ALTC0.1H0 W19BLTC0.1H0

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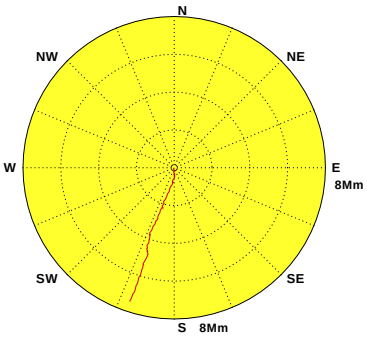
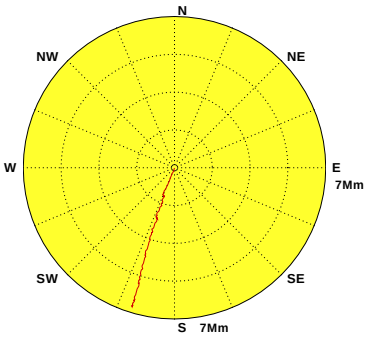
Progressive Vector Diagram of Wind

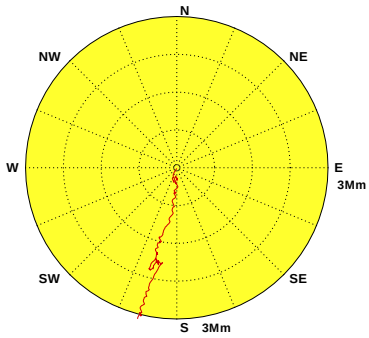
Wind of LTI0 at 2018/12 NO=625(84%)
MEAN=3.6m/s MAX=7.7m/s(NNE)
N~E:71% E~S:3% S~W:0% W~N:26% Calm:0%



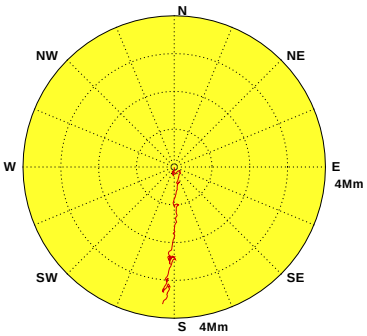
Wind of LTI0 at 2019/01 NO=671(90%)
MEAN=3.3m/s MAX=10.4m/s(S)
N~E:62% E~S:4% S~W:2% W~N:32% Calm:0%



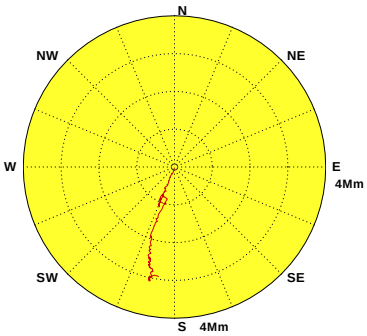
Wind of LTI0 at 2019/02 NO=569(85%)
MEAN=2.6m/s MAX=7.9m/s(S)
N~E:45% E~S:8% S~W:7% W~N:40% Calm:0%



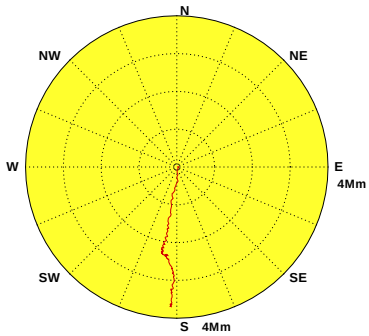
Wind of LTI0 at 2019/03 NO=680(91%)
MEAN=2.8m/s MAX=9.9m/s(S)
N~E:46% E~S:5% S~W:11% W~N:37% Calm:1%



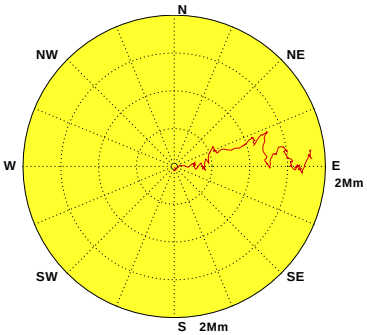
Wind of LTI0 at 2019/04 NO=690(96%)
MEAN=2.3m/s MAX=9.1m/s(SSW)
N~E:38% E~S:13% S~W:6% W~N:42% Calm:1%



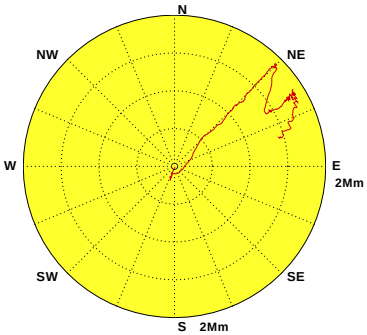
Wind of LTI0 at 2019/05 NO=724(97%)
MEAN=2.0m/s MAX=5.9m/s(NW)
N~E:37% E~S:7% S~W:4% W~N:51% Calm:1%



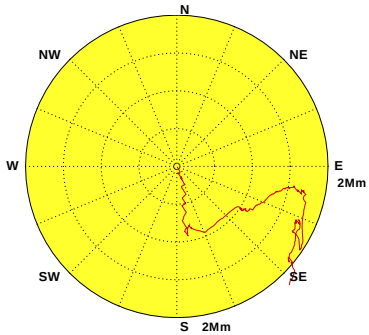
Wind of LTI0 at 2019/06 NO=644(89%)
MEAN=2.2m/s MAX=9.2m/s(S)
N~E:16% E~S:10% S~W:26% W~N:44% Calm:4%



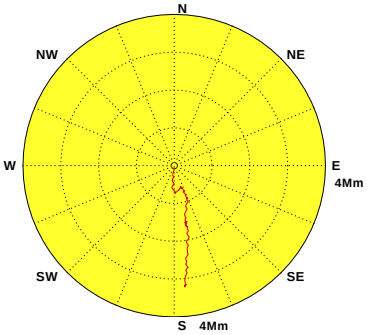
Wind of LTI0 at 2019/07 NO=625(84%)
MEAN=2.4m/s MAX=8.2m/s(S)
N~E:21% E~S:9% S~W:39% W~N:30% Calm:1%



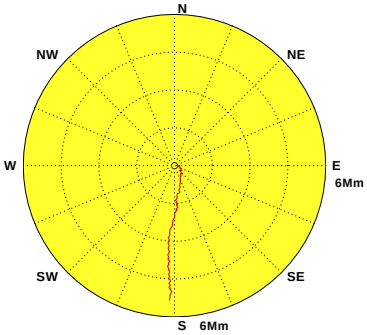
Wind of LTI0 at 2019/08 NO=688(92%)
MEAN=2.5m/s MAX=17.8m/s(S)
N~E:24% E~S:8% S~W:20% W~N:45% Calm:3%



Wind of LTI0 at 2019/09 NO=560(78%)
MEAN=2.3m/s MAX=6.2m/s(S)
N~E:36% E~S:4% S~W:7% W~N:51% Calm:2%



Wind of LTI0 at 2019/10 NO=688(92%)
MEAN=2.7m/s MAX=8.4m/s(W)
N~E:46% E~S:3% S~W:0% W~N:50% Calm:1%



Wind of LTI0 at 2019/11 NO=702(98%)
MEAN=3.5m/s MAX=7.1m/s(NNE)
N~E:67% E~S:2% S~W:0% W~N:31% Calm:0%

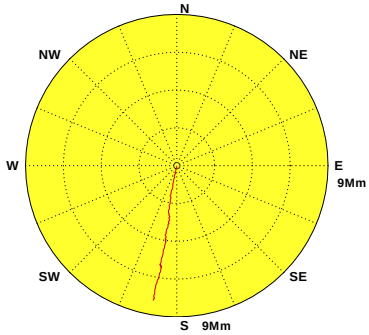


圖1.6.100 2019年臺東海域每月Ⅰ站修補前觀測風力向量行進圖

W18CLTI0.1H0 W191LTI0.1H0 W192LTI0.1H0 W193LTI0.1H0 W194LTI0.1H0 W195LTI0.1H0
W196LTI0.1H0 W197LTI0.1H0 W198LTI0.1H0 W199LTI0.1H0 W19ALTI0.1H0 W19BLTI0.1H0

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第二章　2019 年臺東海域觀測波浪資料年報

2019 年臺東海域波浪觀測包括**測站 X、測站 Y 及測站 Z 等** 3 個測站(測站位置如第 O 章圖 VJ1，各測站歷年觀測波浪資料蒐集概況如表 VJ1)。本年報取經檢核及補遺之 **Y 站**資料作為主要測站 1，**X 站**資料作為主要測站 2。

2.1　2019 年臺東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 年臺東海域**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 年臺東海域**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 年臺東海域**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 年臺東海域**各測站修補前**每月波高向量分佈圖。

表2.1.1a 2019年每月臺東海域修補前各測站觀測波浪資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	Y	X	Z									
2018/12 月	578(77.7%)	738(99.2%)	647(87.0%)	*	*	*	*	*	*	*	*	*
2019/ 1 月	724(97.3%)	738(99.2%)	714(96.0%)	*	*	*	*	*	*	*	*	*
2019/ 2 月	660(98.2%)	671(99.9%)	660(98.2%)	*	*	*	*	*	*	*	*	*
2019/ 3 月	730(98.1%)	738(99.2%)	743(99.9%)	*	*	*	*	*	*	*	*	*
2019/ 4 月	697(96.8%)	719(99.9%)	706(98.1%)	*	*	*	*	*	*	*	*	*
2019/ 5 月	719(96.6%)	743(99.9%)	736(98.9%)	*	*	*	*	*	*	*	*	*
2019/ 6 月	636(88.3%)	704(97.8%)	656(91.1%)	*	*	*	*	*	*	*	*	*
2019/ 7 月	617(82.9%)	742(99.7%)	448(60.2%)	*	*	*	*	*	*	*	*	*
2019/ 8 月	680(91.4%)	743(99.9%)	698(93.8%)	*	*	*	*	*	*	*	*	*
2019/ 9 月	553(76.8%)	220(30.6%)	559(77.6%)	*	*	*	*	*	*	*	*	*
2019/10 月	691(92.9%)	*	701(94.2%)	*	*	*	*	*	*	*	*	*
2019/11 月	705(97.9%)	*	717(99.6%)	*	*	*	*	*	*	*	*	*
2019/冬季	1962(90.8%)	2147(99.4%)	2021(93.6%)	*	*	*	*	*	*	*	*	*
2019/春季	2146(97.2%)	2200(99.6%)	2185(99.0%)	*	*	*	*	*	*	*	*	*
2019/夏季	1933(87.5%)	2189(99.1%)	1802(81.6%)	*	*	*	*	*	*	*	*	*
2019/秋季	1949(89.2%)	220(10.1%)	1977(90.5%)	*	*	*	*	*	*	*	*	*
2019/整年	7990(91.2%)	6756(77.1%)	7985(91.2%)	*	*	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	2018/12	*	*	*	*	*	*	*	*	*
結束年月	2019/11	2019/09	2019/11	*	*	*	*	*	*	*	*	*

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表2.1.1b 2019年每月臺東海域修補後各測站波浪資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	Y	X										
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年臺東海域主要測站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%	1.82	3.5/ 6.9/ENE	6.8	9.1	.0	30.9	67.3	1.7	6.0	92.1	1.9	.0	100%	57.1	42.9	.0	.0	ENE/42%
2019/01	100%	1.67	3.2/ 7.0/ENE	6.5	8.0	.0	43.7	55.1	1.2	16.7	82.9	.4	.0	100%	56.3	43.7	.0	.0	ENE/41%
2019/02	100%	1.30	2.5/ 6.8/NE	6.3	9.7	.0	70.5	29.5	.0	33.2	60.4	6.4	.0	100%	51.0	48.4	.6	.0	ENE/33%
2019/03	100%	1.17	2.7/ 7.0/E	6.0	8.1	.0	86.0	14.0	.0	47.0	52.4	.5	.0	100%	48.1	48.7	3.2	.0	ENE/35%
2019/04	100%	.91	2.4/ 6.8/NE	5.9	7.8	6.8	85.0	8.2	.0	51.0	49.0	.0	.0	100%	41.9	56.9	1.1	.0	ENE/32%
2019/05	100%	.97	2.3/ 6.1/NE	6.3	9.6	13.6	76.2	10.2	.0	36.0	57.9	6.0	.0	100%	60.1	39.9	.0	.0	ENE/46%
2019/06	100%	.60	1.8/ 6.1/S	5.2	6.7	36.3	63.2	.6	.0	84.3	15.7	.0	.0	100%	23.1	69.6	7.4	.0	ESE/26%
2019/07	100%	.90	4.6/ 8.2/SE	5.4	8.9	32.3	51.9	14.1	1.7	75.4	23.1	1.5	.0	100%	9.5	76.1	14.4	.0	SSE/22%
2019/08	100%	1.36	11.0/11.3/ENE	6.5	11.3	12.4	57.3	26.2	4.2	37.1	50.3	11.6	1.1	100%	20.6	72.8	6.6	.0	ESE/21%
2019/09	100%	1.46	7.5/12.0/ESE	6.4	12.0	.0	61.7	35.1	3.2	48.1	44.9	5.6	1.5	100%	62.4	35.1	2.5	.0	ENE/34%
2019/10	100%	1.43	3.4/10.6/ESE	6.3	10.7	1.7	53.8	44.2	.3	38.0	54.4	6.6	.9	100%	75.9	24.1	.0	.0	ENE/51%
2019/11	100%	1.89	3.9/ 9.4/E	6.6	9.4	.0	26.7	69.4	3.9	15.8	79.0	5.1	.0	100%	66.7	33.1	.3	.0	ENE/56%
2019/冬	100%	1.61	3.5/ 6.9/ENE	6.6	9.7	.0	47.6	51.3	1.0	18.1	79.1	2.8	.0	100%	55.0	44.9	.2	.0	ENE/39%
2019/春	100%	1.02	2.7/ 7.0/E	6.1	9.6	6.8	82.4	10.8	.0	44.6	53.2	2.2	.0	100%	50.1	48.4	1.4	.0	ENE/38%
2019/夏	100%	.96	11.0/11.3/ENE	5.7	11.3	26.9	57.4	13.8	2.0	65.4	29.8	4.4	.4	100%	17.7	72.9	9.5	.0	ESE/23%
2019/秋	100%	1.59	7.5/12.0/ESE	6.4	12.0	.6	47.4	49.5	2.4	34.0	59.4	5.8	.8	100%	68.4	30.7	.9	.0	ENE/47%
2019/年	100%	1.29	11.0/11.3/ENE	6.2	12.0	8.6	58.8	31.2	1.4	40.7	55.2	3.8	.3	100%	47.7	49.3	3.0	.0	ENE/34%

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表2.1.3　2019年臺東海域主要測站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%	.44	1.2/ 7.3/NW	6.7	11.1	71.4	28.6	.0	.0	33.7	39.4	22.3	4.6	100%	.0	1.7	46.5	51.7	NW /26%
2019/01	100%	.49	1.0/ 6.4/NW	7.1	12.0	59.8	40.2	.0	.0	27.8	32.5	39.0	.7	100%	.0	4.0	63.8	32.1	SSW/28%
2019/02	100%	.50	1.5/ 6.0/SSW	6.8	14.4	66.4	33.5	.1	.0	35.0	37.9	19.0	8.0	100%	.0	5.4	75.7	18.9	SSW/32%
2019/03	100%	.54	1.8/ 5.2/SSW	5.8	10.9	61.7	37.9	.4	.0	53.8	38.8	6.6	.8	100%	1.1	6.9	68.3	23.8	SSW/28%
2019/04	100%	.48	1.9/ 5.0/SSW	5.7	8.6	72.6	26.0	1.4	.0	50.8	46.9	2.2	.0	100%	.0	5.8	73.3	20.8	SSW/26%
2019/05	100%	.38	1.5/ 4.7/SW	5.6	12.4	88.7	11.0	.3	.0	62.6	32.4	1.1	3.9	100%	.5	1.6	67.3	30.5	SW /28%
2019/06	100%	.67	1.8/ 5.2/SW	5.1	8.6	38.6	57.2	4.2	.0	68.9	27.9	3.2	.0	100%	.1	.8	92.5	6.5	SW /44%
2019/07	100%	.89	3.8/ 8.4/SW	5.9	12.3	37.1	45.2	16.9	.8	56.9	23.3	16.8	3.1	100%	.8	.8	89.4	9.0	SW /59%
2019/08	100%	.91	4.0/ 6.3/SW	7.9	13.4	19.6	65.9	12.5	2.0	13.0	38.4	35.3	13.2	100%	.1	.0	98.9	.9	SW /69%
2019/09	100%	.84	1.9/11.4/SSE	7.5	12.8	6.1	90.8	3.1	.0	12.2	50.1	31.0	6.7	100%	.0	11.3	87.9	.8	SSW/37%
2019/10	100%	.33	.5/14.5/WSW	7.0	14.7	99.7	.3	.0	.0	38.0	47.3	7.5	7.1	100%	75.9	.0	21.6	2.4	ENE/51%
2019/11	100%	.39	.5/12.1/SSW	7.1	12.1	99.7	.3	.0	.0	7.1	74.4	15.6	2.9	100%	66.7	.0	33.1	.3	ENE/56%
2019/冬	100%	.47	1.5/ 6.0/SSW	6.9	14.4	65.8	34.1	.0	.0	32.1	36.6	27.0	4.3	100%	.0	3.7	61.6	34.8	SSW/25%
2019/春	100%	.46	1.9/ 5.0/SSW	5.7	12.4	74.4	25.0	.7	.0	55.8	39.3	3.3	1.6	100%	.5	4.8	69.6	25.1	SSW/24%
2019/夏	100%	.83	4.0/ 6.3/SW	6.3	13.4	31.7	56.1	11.3	1.0	46.0	29.9	18.6	5.5	100%	.4	.5	93.6	5.5	SW /58%
2019/秋	100%	.52	1.9/11.4/SSE	7.2	14.7	68.9	30.1	1.0	.0	19.3	57.2	17.9	5.6	100%	47.8	3.7	47.3	1.2	ENE/36%
2019/年	100%	.57	4.0/ 6.3/SW	6.5	14.7	60.1	36.3	3.3	.2	38.4	40.7	16.7	4.2	100%	12.2	3.2	68.1	16.6	SW /27%

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Wave H_s in Ta-Tung Seas of LTY0 at 2019

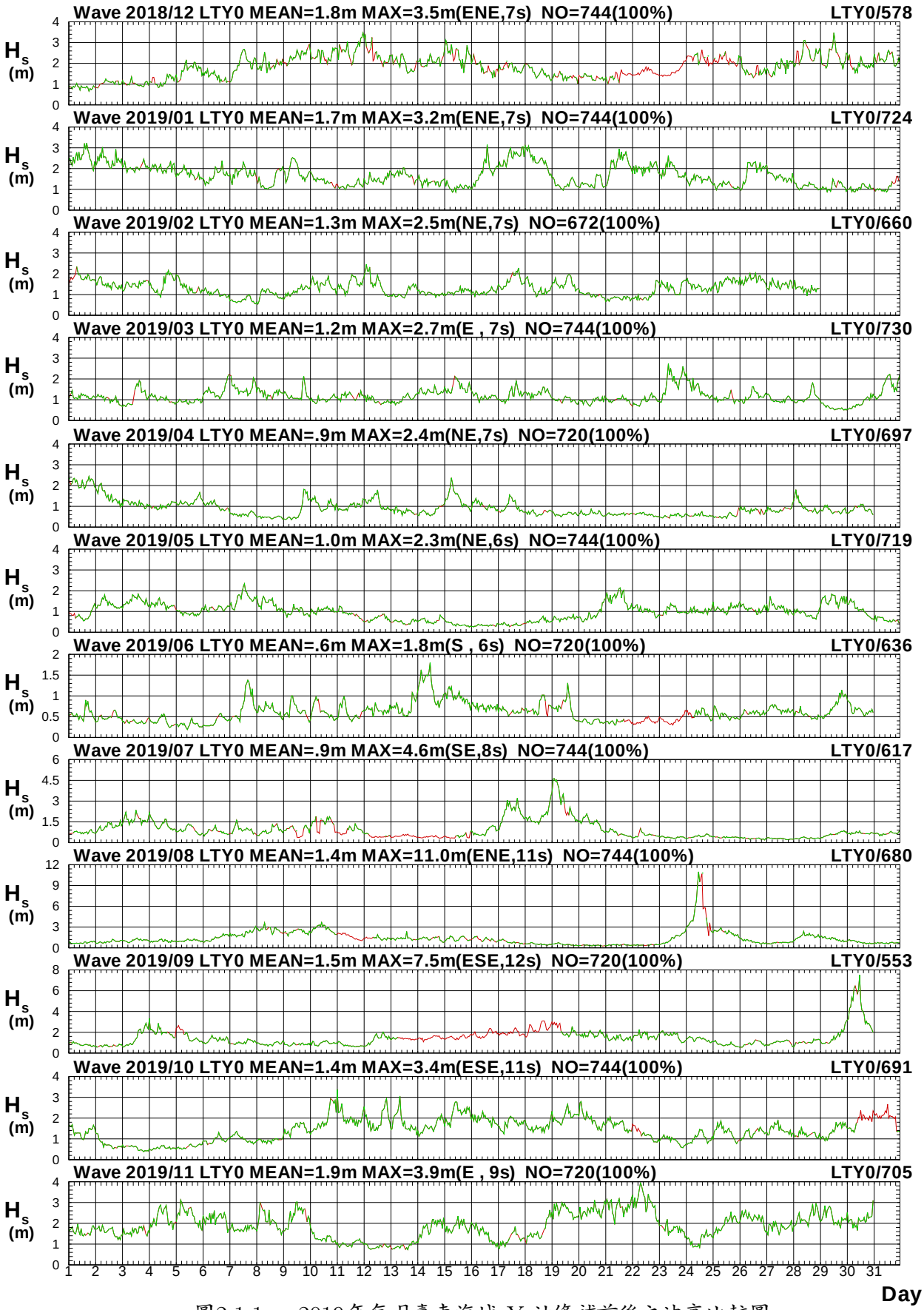

圖2.1.1a　2019年每月臺東海域 Y 站修補前後之波高比較圖

V18CLTY0.1HA V18CLTY0.1H0 V191LTY0.1HA V191LTY0.1H0 V192LTY0.1HA V192LTY0.1H0
V193LTY0.1HA V193LTY0.1H0 V194LTY0.1HA V194LTY0.1H0 V195LTY0.1HA V195LTY0.1H0

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Wave T_p in Ta-Tung Seas of LTY0 at 2019

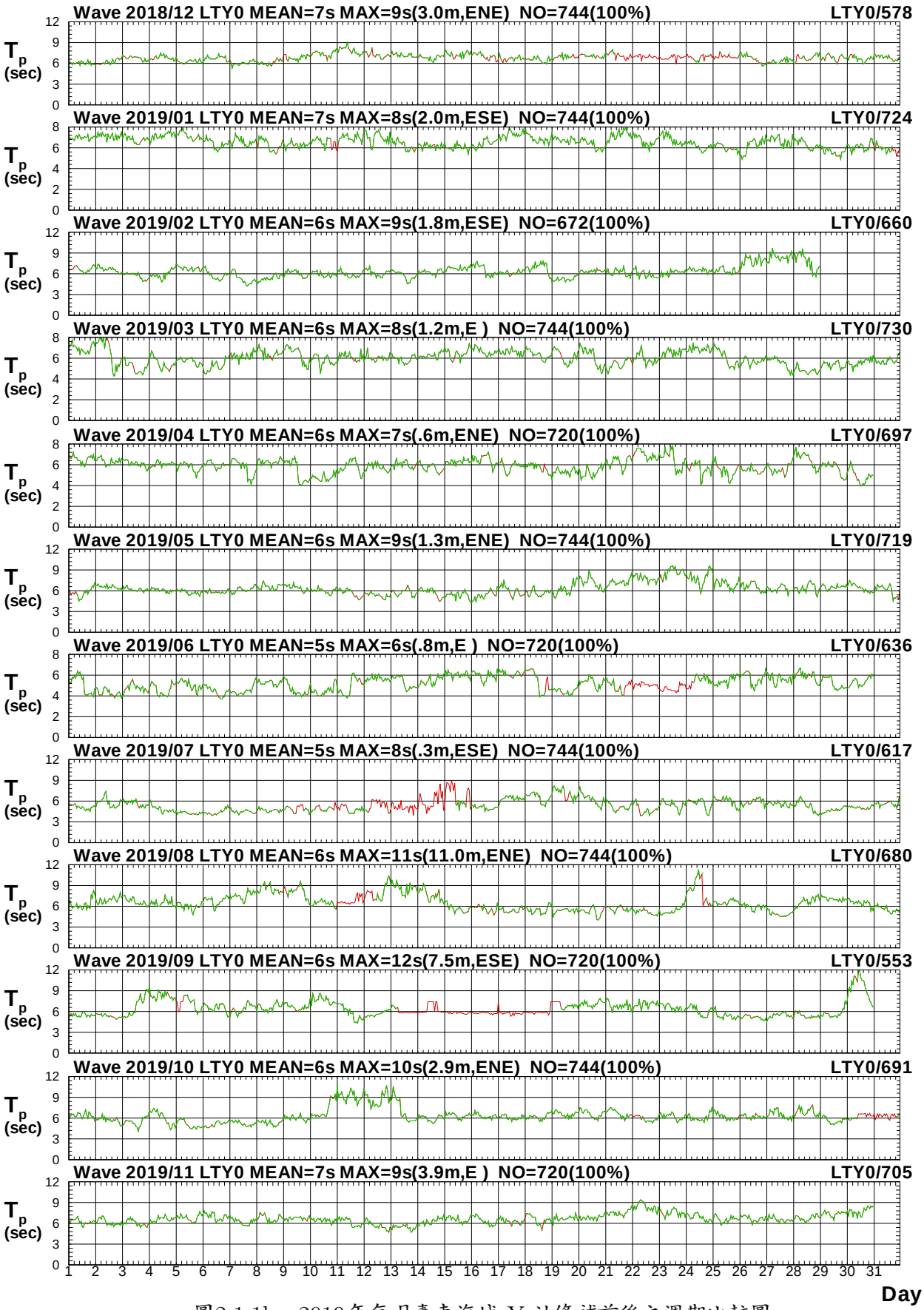

圖2.1.1b　2019年每月臺東海域 Y 站修補前後之週期比較圖

V18CLTY0.1HA V18CLTY0.1H0 V191LTY0.1HA V191LTY0.1H0 V192LTY0.1HA V192LTY0.1H0
V193LTY0.1HA V193LTY0.1H0 V194LTY0.1HA V194LTY0.1H0 V195LTY0.1HA V195LTY0.1H0

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Wave Direction in Ta-Tung Seas of LTY0 at 2019

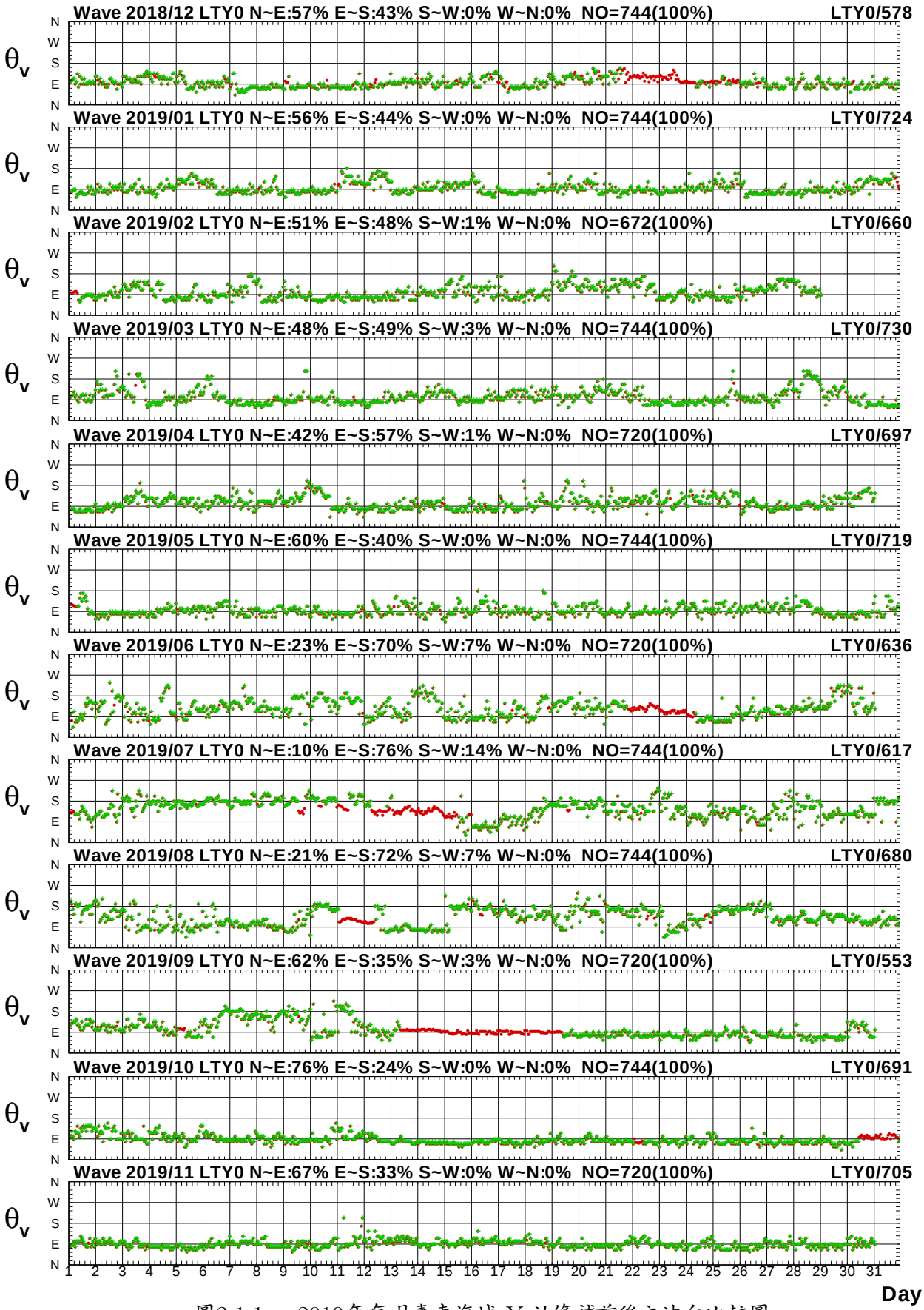

圖2.1.1c　2019年每月臺東海域 Y 站修補前後之波向比較圖

V18CLTY0.1HA V18CLTY0.1H0 V191LTY0.1HA V191LTY0.1H0 V192LTY0.1HA V192LTY0.1H0
V193LTY0.1HA V193LTY0.1H0 V194LTY0.1HA V194LTY0.1H0 V195LTY0.1HA V195LTY0.1H0

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Wave H_s in Ta-Tung Seas of LTX0 at 2019

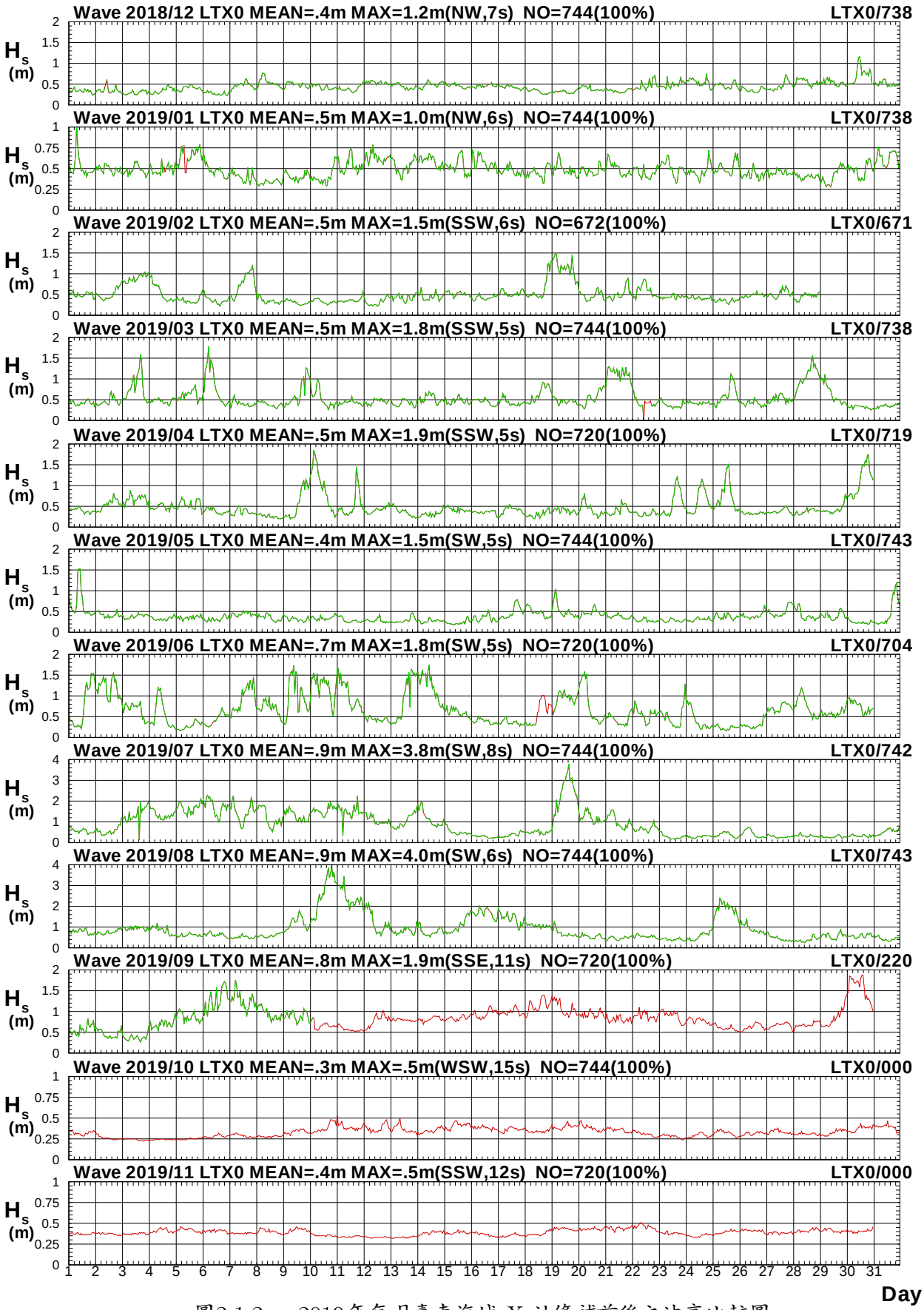

圖2.1.2a　2019年每月臺東海域 X 站修補前後之波高比較圖

V18CLTX0.1HA V18CLTX0.1H0 V191LTX0.1HA V191LTX0.1H0 V192LTX0.1HA V192LTX0.1H0
V193LTX0.1HA V193LTX0.1H0 V194LTX0.1HA V194LTX0.1H0 V195LTX0.1HA V195LTX0.1H0

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Wave T_p in Ta-Tung Seas of LTX0 at 2019

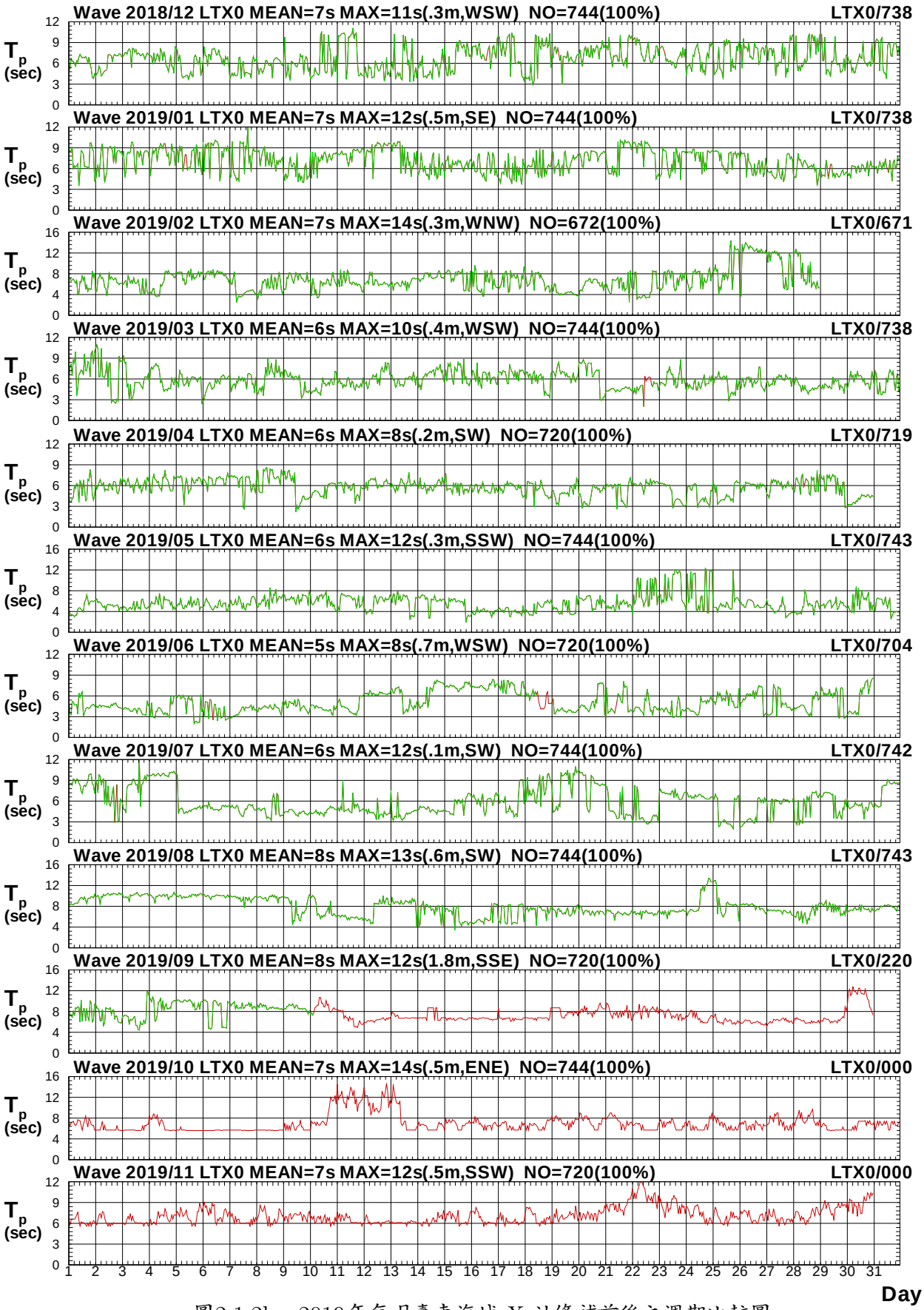

圖2.1.2b　2019年每月臺東海域 X 站修補前後之週期比較圖

V18CLTX0.1HA V18CLTX0.1H0 V191LTX0.1HA V191LTX0.1H0 V192LTX0.1HA V192LTX0.1H0
V193LTX0.1HA V193LTX0.1H0 V194LTX0.1HA V194LTX0.1H0 V195LTX0.1HA V195LTX0.1H0

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Wave Direction in Ta-Tung Seas of LTX0 at 2019

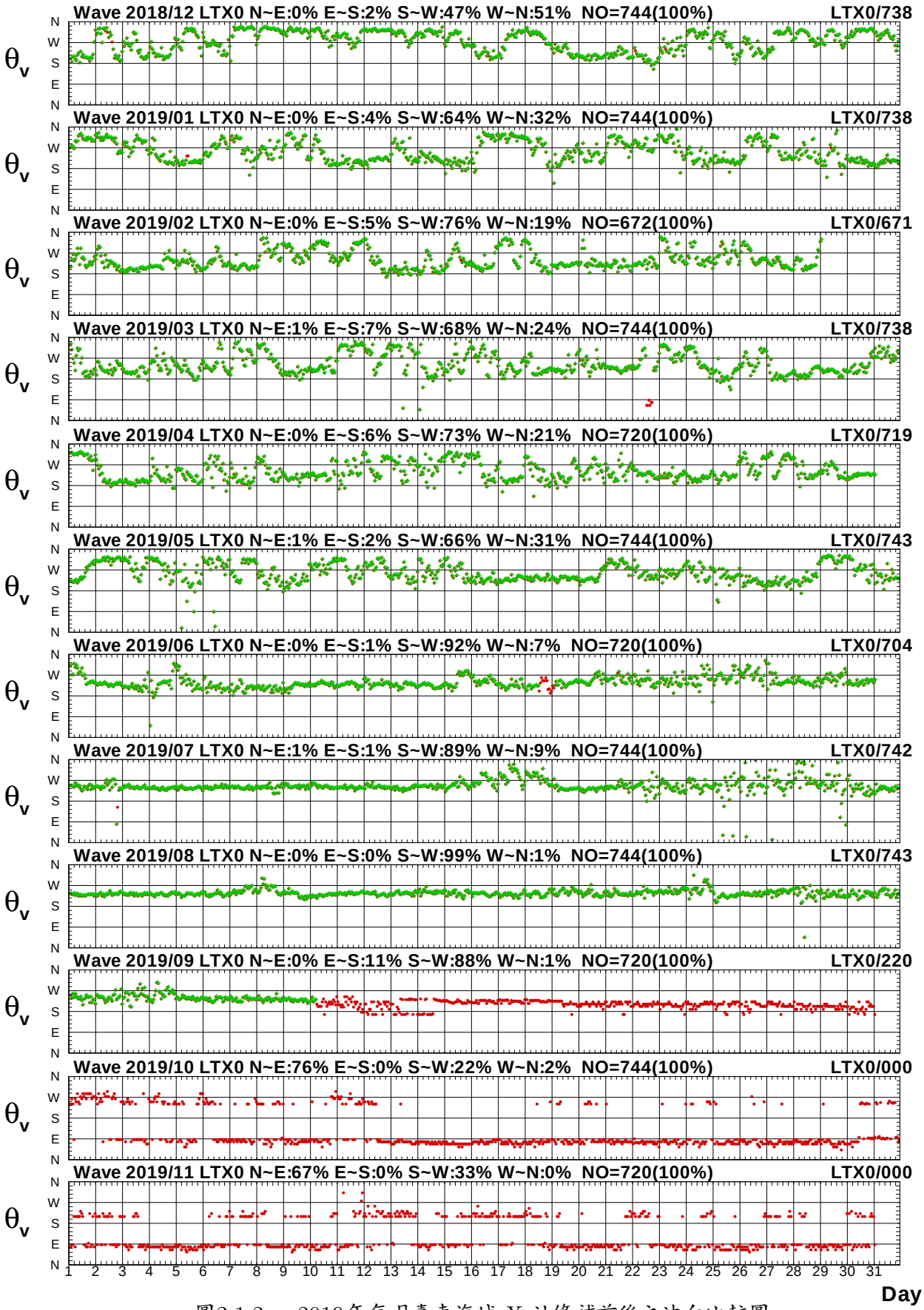

圖2.1.2c　2019年每月臺東海域 X 站修補前後之波向比較圖

V18CLTX0.1HA V18CLTX0.1H0 V191LTX0.1HA V191LTX0.1H0 V192LTX0.1HA V192LTX0.1H0
V193LTX0.1HA V193LTX0.1H0 V194LTX0.1HA V194LTX0.1H0 V195LTX0.1HA V195LTX0.1H0

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Distribution of H_s Vectores

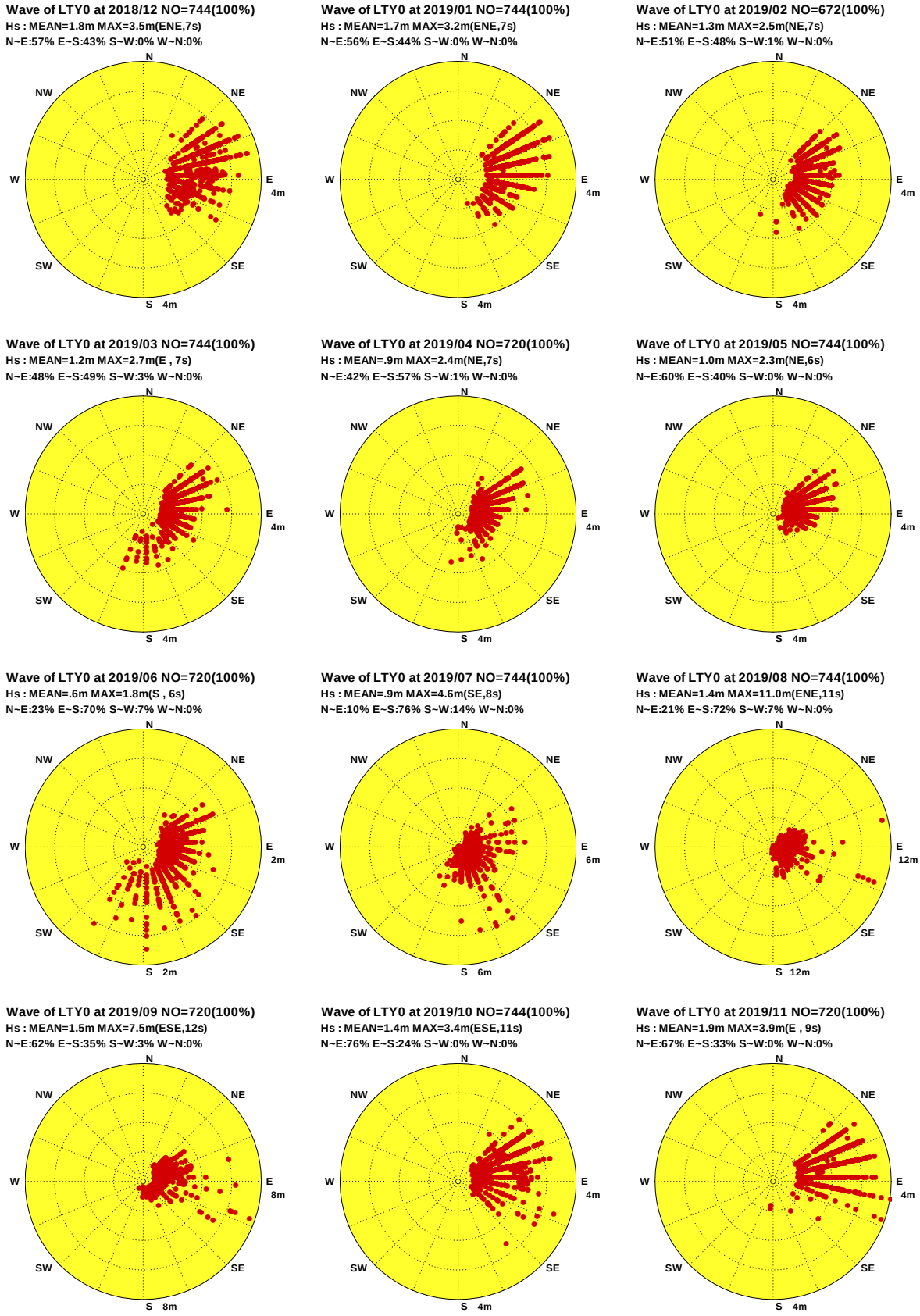

圖2.1.3 2019年臺東海域每月 Y 站修補後觀測波高向量分佈圖

V18CLTY0.1HA V191LTY0.1HA V192LTY0.1HA V193LTY0.1HA V194LTY0.1HA V195LTY0.1HA
V196LTY0.1HA V197LTY0.1HA V198LTY0.1HA V199LTY0.1HA V19ALTY0.1HA V19BLTY0.1HA

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Distribution of H_s Vectores

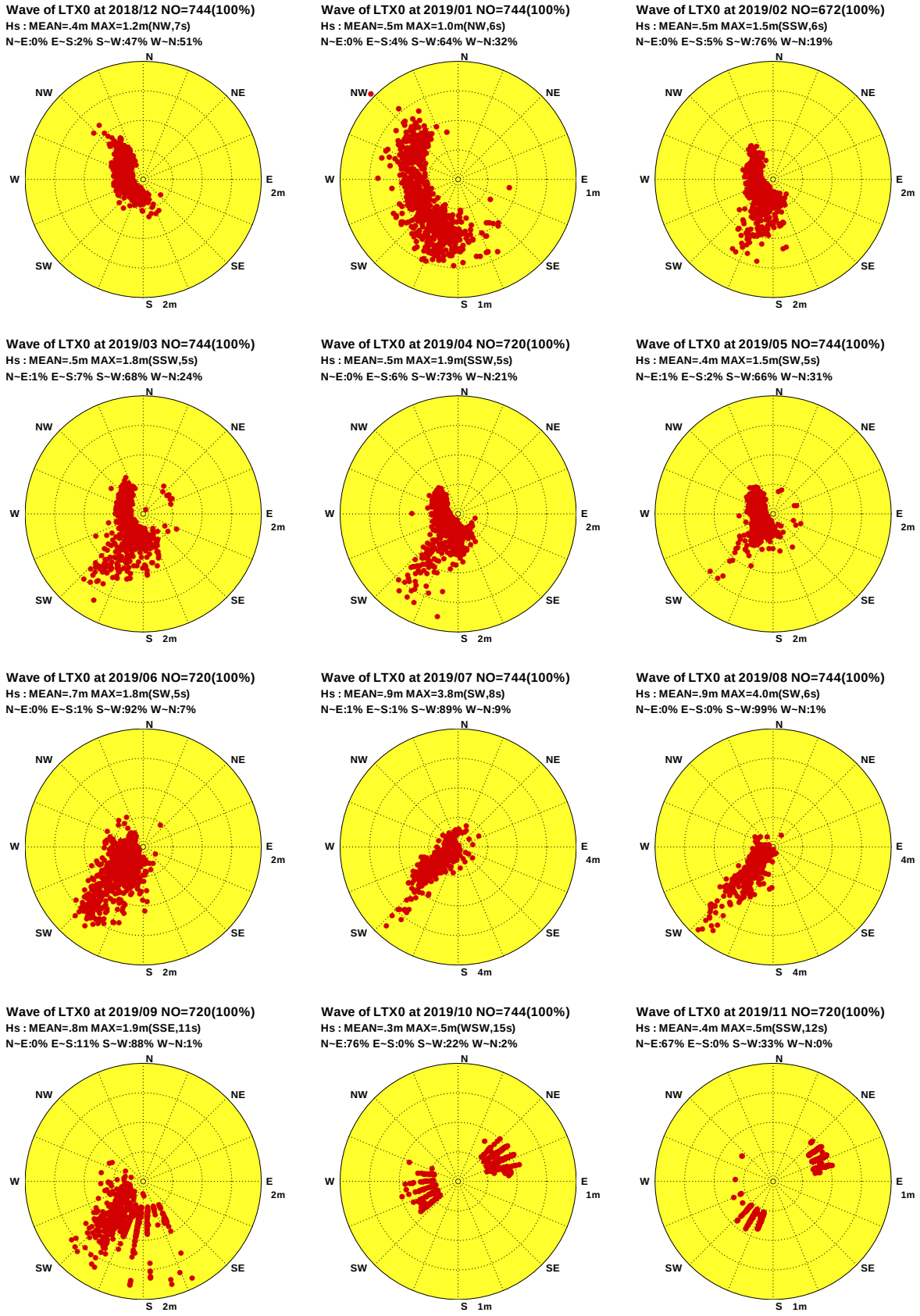

圖2.1.4 2019年臺東海域每月 X 站修補後觀測波高向量分佈圖

V18CLTX0.1HA V191LTX0.1HA V192LTX0.1HA V193LTX0.1HA V194LTX0.1HA V195LTX0.1HA

V196LTX0.1HA V197LTX0.1HA V198LTX0.1HA V199LTX0.1HA V19ALTX0.1HA V19BLTX0.1HA

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2.2　2019 年臺東海域各測站修補前

波浪統計量統計表

表2.2.1　2019年臺東海域 Y 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	78%	1.83	3.5/ 6.9/ENE	6.8	9.1	.0	31.1	66.6	2.2	7.1	90.7	2.2	.0	78%	61.2	38.8	.0	.0	ENE/49%
2019/01	97%	1.68	3.2/ 7.0/ENE	6.6	8.0	.0	43.0	55.8	1.2	15.1	84.5	.4	.0	97%	56.9	43.1	.0	.0	ENE/42%
2019/02	98%	1.30	2.5/ 6.8/NE	6.3	9.7	.0	71.2	28.8	.0	33.5	60.0	6.5	.0	98%	51.1	48.3	.6	.0	ENE/33%
2019/03	98%	1.17	2.7/ 7.0/E	6.0	8.1	.0	86.0	14.0	.0	46.8	52.6	.5	.0	98%	48.1	48.6	3.3	.0	ENE/35%
2019/04	97%	.91	2.4/ 6.8/NE	5.9	7.8	6.7	84.9	8.3	.0	50.9	49.1	.0	.0	97%	41.8	57.1	1.1	.0	ENE/33%
2019/05	97%	.98	2.3/ 6.1/NE	6.3	9.6	13.1	76.4	10.6	.0	34.6	59.1	6.3	.0	97%	60.4	39.6	.0	.0	ENE/46%
2019/06	88%	.62	1.8/ 6.1/S	5.2	6.7	31.8	67.6	.6	.0	83.0	17.0	.0	.0	88%	24.4	67.5	8.2	.0	ESE/23%
2019/07	83%	.96	4.6/ 8.2/SE	5.3	8.2	26.3	55.6	16.0	2.1	76.3	23.0	.6	.0	83%	11.2	72.1	16.7	.0	SSE/24%
2019/08	91%	1.32	11.0/11.3/ENE	6.5	11.3	12.6	58.4	25.1	3.8	38.5	49.3	11.2	1.0	91%	21.5	71.5	7.1	.0	ESE/19%
2019/09	77%	1.36	7.5/12.0/ESE	6.5	12.0	.0	69.1	27.7	3.3	39.2	51.9	7.1	1.8	77%	56.6	40.1	3.3	.0	ENE/35%
2019/10	93%	1.40	3.4/10.6/ESE	6.3	10.7	1.9	56.2	41.7	.3	39.8	52.2	6.9	1.0	93%	76.8	23.2	.0	.0	ENE/53%
2019/11	98%	1.89	3.9/ 9.4/E	6.7	9.4	.0	26.2	69.8	4.0	15.3	79.4	5.2	.0	98%	66.7	33.0	.3	.0	ENE/57%
2019/冬	91%	1.59	3.5/ 6.9/ENE	6.5	9.7	.0	49.0	49.9	1.1	18.9	78.1	3.0	.0	91%	56.2	43.6	.2	.0	ENE/41%
2019/春	97%	1.02	2.7/ 7.0/E	6.1	9.6	6.6	82.4	11.0	.0	44.1	53.6	2.3	.0	97%	50.1	48.4	1.5	.0	ENE/38%
2019/夏	88%	.98	11.0/11.3/ENE	5.7	11.3	23.3	60.5	14.2	2.0	65.2	30.3	4.1	.4	88%	19.1	70.4	10.5	.0	ESE/20%
2019/秋	89%	1.56	7.5/12.0/ESE	6.5	12.0	.7	49.0	47.9	2.5	30.8	62.0	6.4	.9	89%	67.4	31.6	1.0	.0	ENE/49%
2019/年	91%	1.28	11.0/11.3/ENE	6.2	12.0	7.6	60.8	30.3	1.4	39.8	56.0	3.9	.3	91%	48.3	48.4	3.2	.0	ENE/36%

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表2.2.2　2019年臺東海域 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	99%	.44	1.2/ 7.3/NW	6.7	11.1	71.3	28.7	.0	.0	33.9	39.2	22.4	4.6	99%	.0	1.8	46.2	52.0	NW /26%
2019/01	99%	.49	1.0/ 6.4/NW	7.1	12.0	59.8	40.2	.0	.0	27.8	32.8	38.8	.7	99%	.0	4.1	63.6	32.4	SSW/28%
2019/02	100%	.50	1.5/ 6.0/SSW	6.8	14.4	66.5	33.4	.1	.0	35.0	38.0	18.9	8.0	100%	.0	5.4	75.7	18.9	SSW/32%
2019/03	99%	.54	1.8/ 5.2/SSW	5.8	10.9	61.4	38.2	.4	.0	53.9	38.6	6.6	.8	99%	.3	6.9	68.8	24.0	SSW/28%
2019/04	100%	.48	1.9/ 5.0/SSW	5.7	8.6	72.6	26.0	1.4	.0	50.9	46.9	2.2	.0	100%	.0	5.8	73.3	20.9	SSW/26%
2019/05	100%	.38	1.5/ 4.7/SW	5.6	12.4	88.7	11.0	.3	.0	62.7	32.3	1.1	3.9	100%	.5	1.6	67.3	30.6	SW /28%
2019/06	98%	.67	1.8/ 5.2/SW	5.1	8.6	39.2	56.5	4.3	.0	68.6	28.1	3.3	.0	98%	.1	.7	92.5	6.7	SW /44%
2019/07	100%	.89	3.8/ 8.4/SW	5.9	12.3	37.2	45.0	17.0	.8	56.7	23.3	16.8	3.1	100%	.8	.7	89.5	9.0	SW /59%
2019/08	100%	.91	4.0/ 6.3/SW	7.9	13.4	19.7	65.9	12.4	2.0	12.9	38.5	35.4	13.2	100%	.1	.0	98.9	.9	SW /69%
2019/09	31%	.81	1.8/ 8.5/SSW	8.4	11.9	20.0	76.4	3.6	.0	10.0	18.2	60.0	11.8	31%	.0	.0	97.3	2.7	SW /66%
2019/10	0																		
2019/11	0																		
2019/冬	99%	.47	1.5/ 6.0/SSW	6.9	14.4	65.8	34.1	.0	.0	32.1	36.6	26.9	4.3	99%	.0	3.7	61.4	34.9	SSW/25%
2019/春	100%	.46	1.9/ 5.0/SSW	5.7	12.4	74.3	25.0	.7	.0	55.9	39.2	3.3	1.6	100%	.3	4.8	69.8	25.2	SSW/24%
2019/夏	99%	.83	4.0/ 6.3/SW	6.3	13.4	31.9	55.8	11.3	1.0	45.7	30.0	18.8	5.5	99%	.4	.5	93.7	5.5	SW /58%
2019/秋	10%	.81	1.8/ 8.5/SSW	8.4	11.9	20.0	76.4	3.6	.0	10.0	18.2	60.0	11.8	10%	.0	.0	97.3	2.7	SW /66%
2019/年	77%	.60	4.0/ 6.3/SW	6.4	14.4	56.1	39.6	4.0	.3	43.5	34.7	17.7	4.1	77%	.2	2.9	75.7	21.2	SW /33%

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表2.2.3　2019年臺東海域 Z 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	87%	1.95	3.5/ 7.3/ENE	6.2	7.5	.0	30.8	63.4	5.9	30.9	69.1	.0	.0	87%	58.4	41.6	.0	.0	ENE/47%
2019/01	96%	1.65	2.9/ 6.6/ENE	5.8	7.4	.0	41.7	58.3	.0	62.6	37.4	.0	.0	96%	44.4	55.6	.0	.0	E /39%
2019/02	98%	1.23	2.3/ 8.2/E	5.9	8.9	.0	80.2	19.8	.0	58.3	40.6	1.1	.0	98%	28.9	70.9	.0	.2	ESE/33%
2019/03	100%	1.24	2.4/ 5.7/E	5.5	8.2	.5	76.2	23.3	.0	72.9	26.8	.3	.0	100%	38.9	61.1	.0	.0	E /34%
2019/04	98%	.93	2.1/ 5.7/NE	5.4	7.3	2.4	87.4	10.2	.0	80.7	19.3	.0	.0	98%	27.9	71.8	.1	.1	E /37%
2019/05	99%	1.03	2.2/ 9.8/ENE	5.8	9.8	15.9	65.1	19.0	.0	63.3	34.0	2.7	.0	99%	34.4	65.4	.1	.1	E /43%
2019/06	91%	.54	1.3/ 4.8/E	5.3	7.3	42.2	57.8	.0	.0	89.2	10.8	.0	.0	91%	8.2	91.6	.0	.2	ESE/51%
2019/07	60%	.56	1.8/ 7.6/ESE	5.2	7.6	56.0	42.9	1.1	.0	82.6	17.4	.0	.0	60%	5.1	94.2	.0	.7	ESE/50%
2019/08	94%	1.19	9.0/10.4/E	6.2	10.4	21.5	52.9	21.8	3.9	48.0	36.5	15.2	.3	94%	10.3	88.7	1.0	.0	E /30%
2019/09	78%	1.24	5.1/ 9.3/ENE	5.7	9.3	2.1	72.5	24.0	1.4	63.7	32.9	3.4	.0	78%	41.0	58.1	.7	.2	E /34%
2019/10	94%	1.43	3.6/10.4/ESE	5.8	11.6	2.3	55.8	41.2	.7	64.9	29.0	5.7	.4	94%	48.2	51.2	.3	.3	ENE/39%
2019/11	100%	2.11	4.1/ 8.4/ESE	6.2	8.9	.0	20.1	69.9	10.0	37.9	60.4	1.7	.0	100%	49.1	50.9	.0	.0	ENE/44%
2019/冬	94%	1.61	3.5/ 7.3/ENE	5.9	8.9	.0	50.8	47.4	1.9	51.1	48.6	.3	.0	94%	43.8	56.1	.0	.0	E /36%
2019/春	99%	1.07	2.4/ 5.7/E	5.6	9.8	6.3	76.1	17.6	.0	72.2	26.8	1.0	.0	99%	33.8	66.0	.1	.1	E /38%
2019/夏	82%	.80	9.0/10.4/E	5.6	10.4	37.6	52.2	8.7	1.5	71.6	22.4	5.9	.1	82%	8.3	91.1	.4	.2	ESE/43%
2019/秋	91%	1.62	5.1/ 9.3/ENE	5.9	11.6	1.4	47.5	46.7	4.3	54.8	41.5	3.6	.2	91%	46.5	53.1	.3	.2	E /39%
2019/年	91%	1.28	9.0/10.4/E	5.8	11.6	10.6	57.2	30.3	1.9	62.4	35.0	2.6	.1	91%	33.7	66.0	.2	.1	E /35%

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2.3　2019 年臺東海域主要測站 1(修補後)與其他測站(修補前)波浪歷線比較圖

Wave H_s in Lu-Tao Harbor of LTY0 at 2019

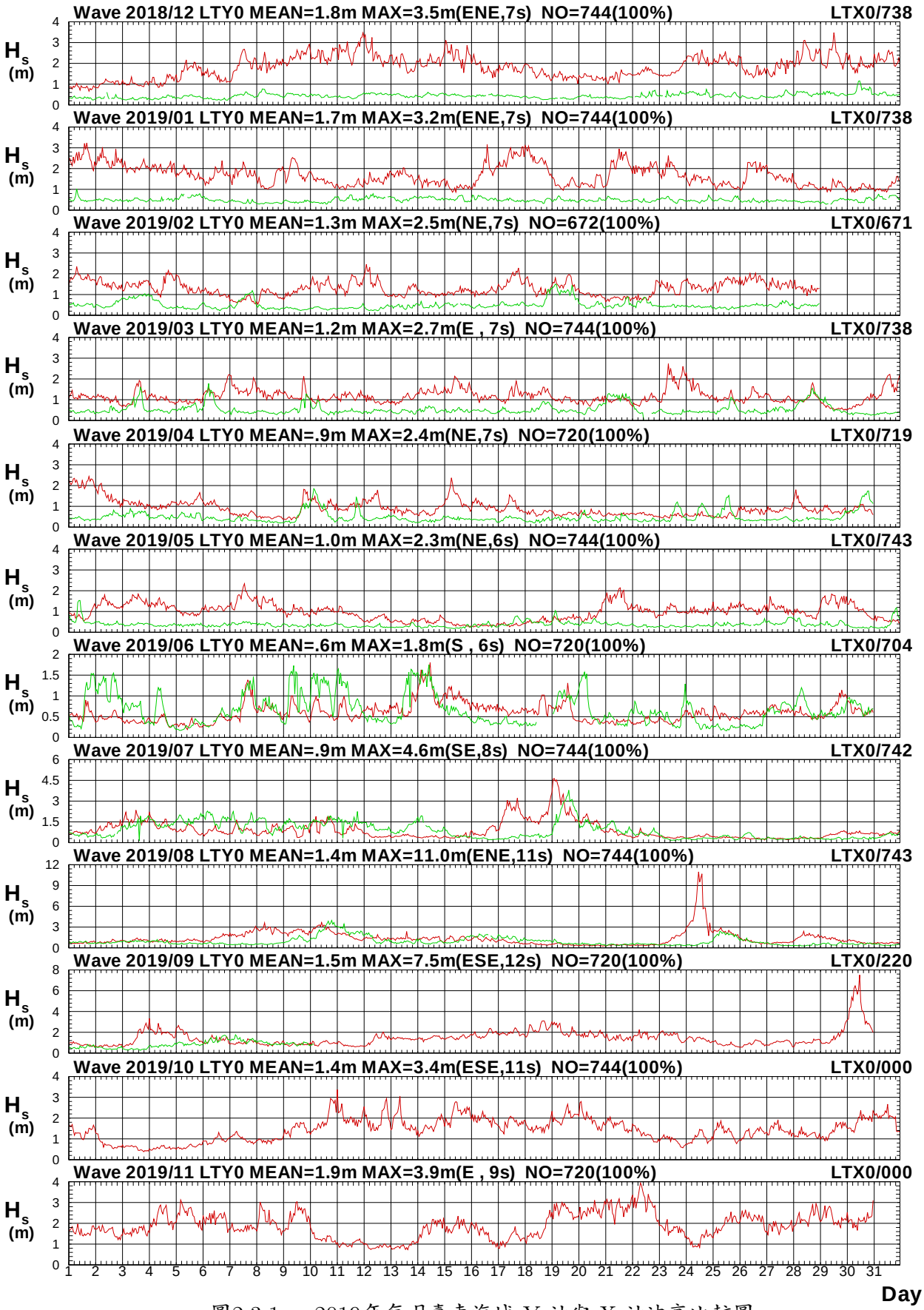

圖2.3.1a　2019年每月臺東海域 Y 站與 X 站波高比較圖

V18CLTY0.1HA V18CLTX0.1H0 V191LTY0.1HA V191LTX0.1H0 V192LTY0.1HA V192LTX0.1H0
V193LTY0.1HA V193LTX0.1H0 V194LTY0.1HA V194LTX0.1H0 V195LTY0.1HA V195LTX0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

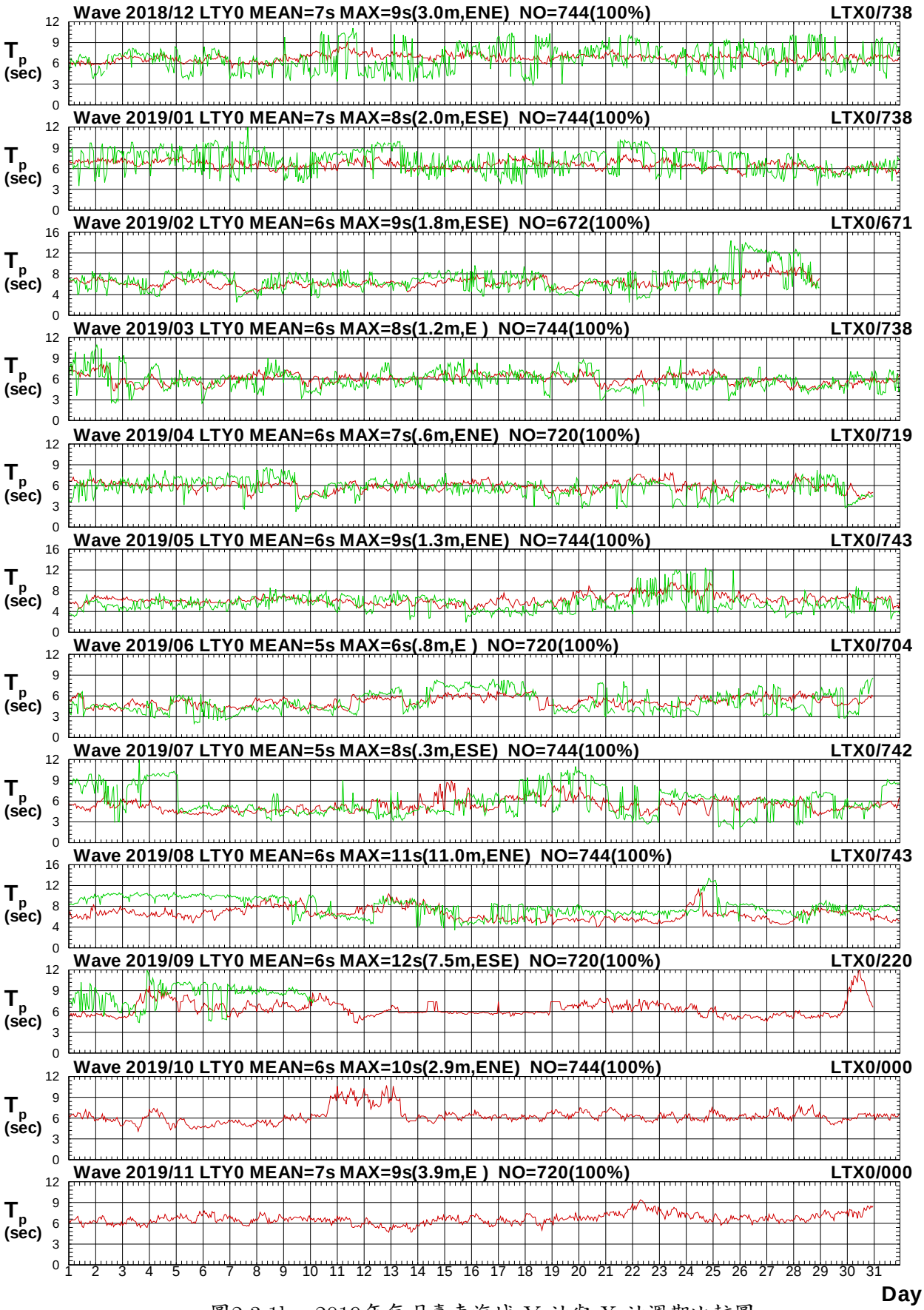

圖2.3.1b　2019年每月臺東海域 Y 站與 X 站週期比較圖

V18CLTY0.1HA V18CLTX0.1H0 V191LTY0.1HA V191LTX0.1H0 V192LTY0.1HA V192LTX0.1H0
V193LTY0.1HA V193LTX0.1H0 V194LTY0.1HA V194LTX0.1H0 V195LTY0.1HA V195LTX0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

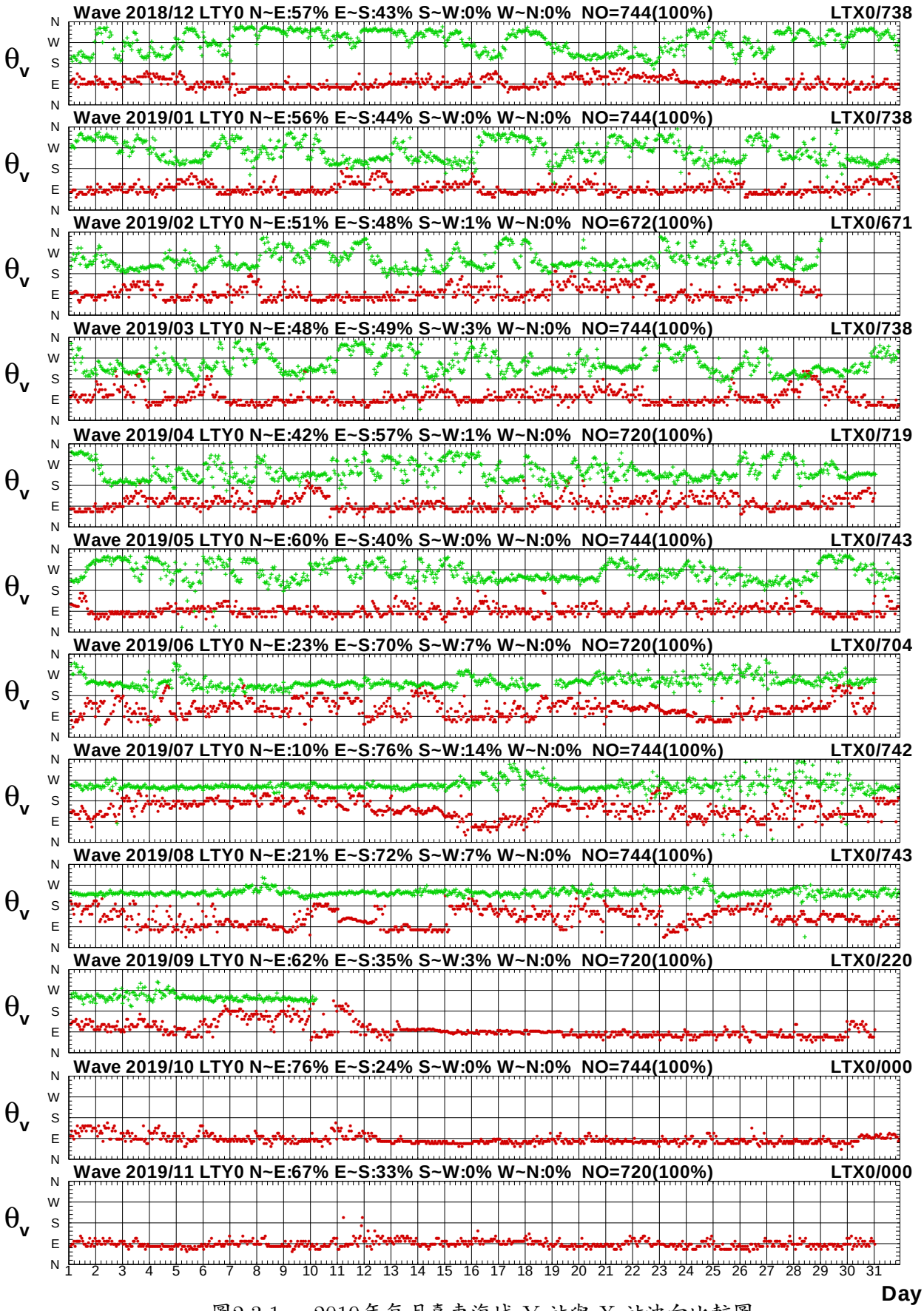

圖2.3.1c　2019年每月臺東海域 Y 站與 X 站波向比較圖

V18CLTY0.1HA V18CLTX0.1H0 V191LTY0.1HA V191LTX0.1H0 V192LTY0.1HA V192LTX0.1H0
V193LTY0.1HA V193LTX0.1H0 V194LTY0.1HA V194LTX0.1H0 V195LTY0.1HA V195LTX0.1H0

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Wave H_s in Lu-Tao Harbor of LTY0 at 2019

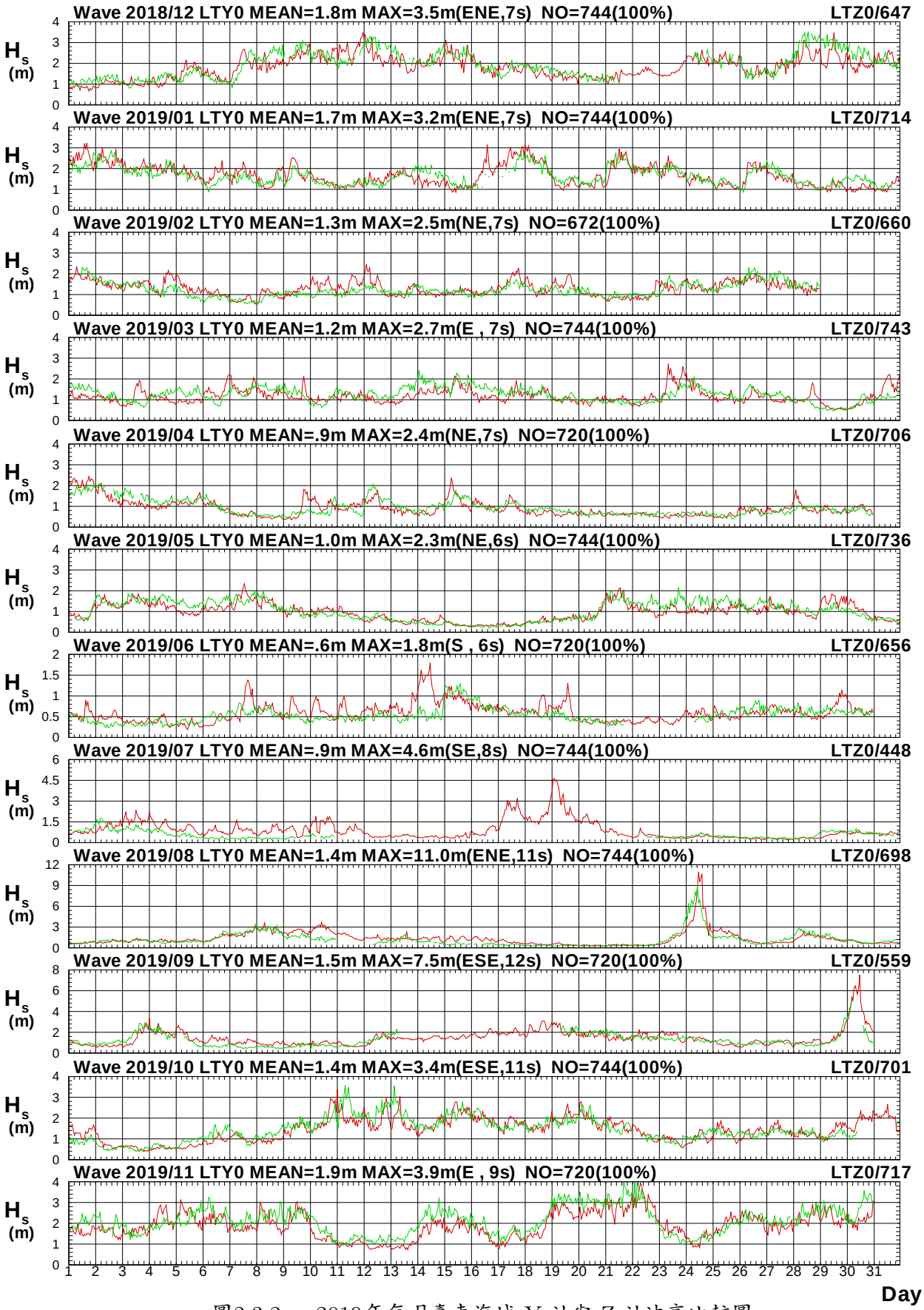

圖2.3.2a　2019年每月臺東海域 Y 站與 Z 站波高比較圖

V18CLTY0.1HA V18CLTZ0.1H0 V191LTY0.1HA V191LTZ0.1H0 V192LTY0.1HA V192LTZ0.1H0
V193LTY0.1HA V193LTZ0.1H0 V194LTY0.1HA V194LTZ0.1H0 V195LTY0.1HA V195LTZ0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

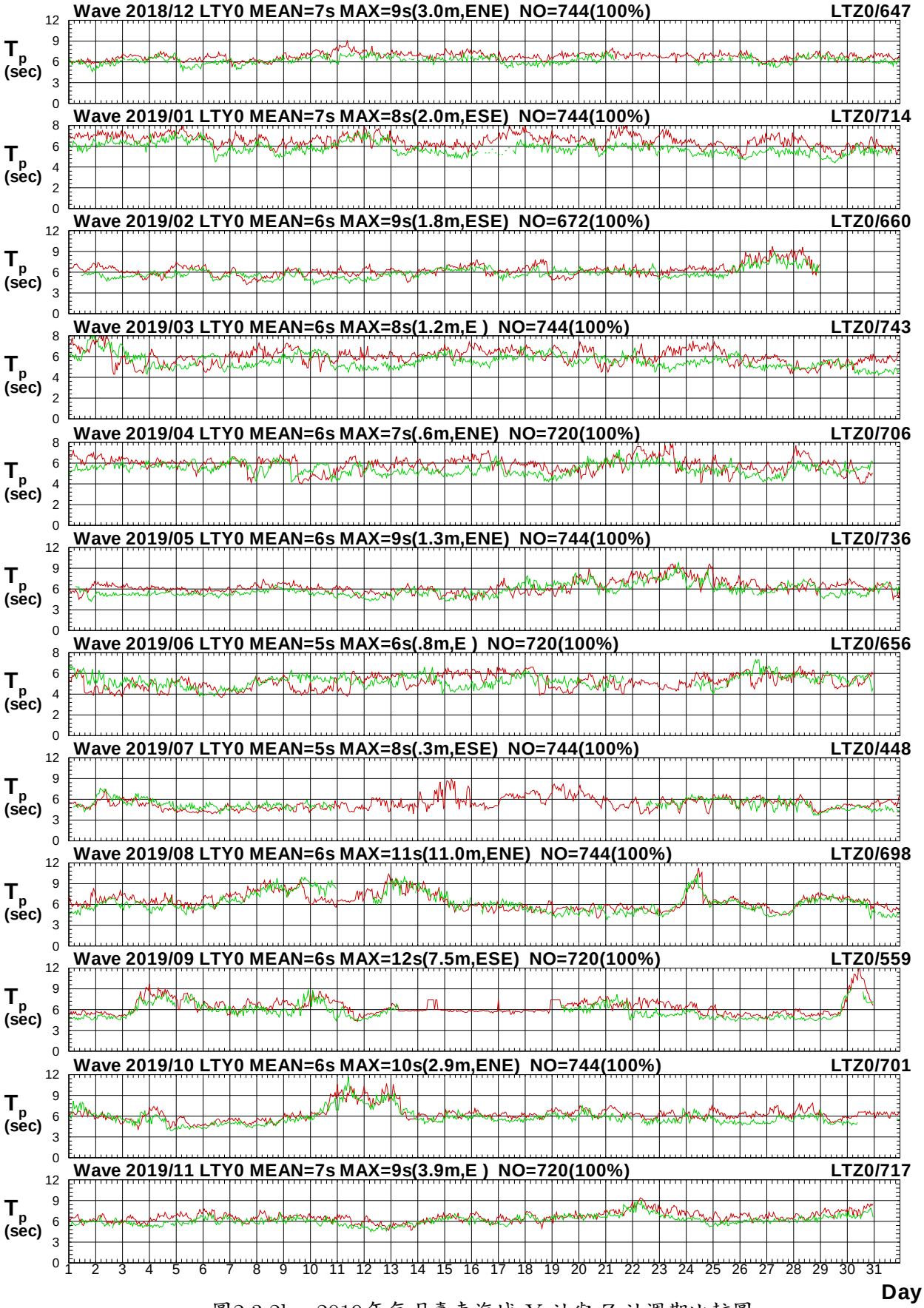

圖2.3.2b　2019年每月臺東海域 Y 站與 Z 站週期比較圖

V18CLTY0.1HA V18CLTZ0.1H0 V191LTY0.1HA V191LTZ0.1H0 V192LTY0.1HA V192LTZ0.1H0
V193LTY0.1HA V193LTZ0.1H0 V194LTY0.1HA V194LTZ0.1H0 V195LTY0.1HA V195LTZ0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

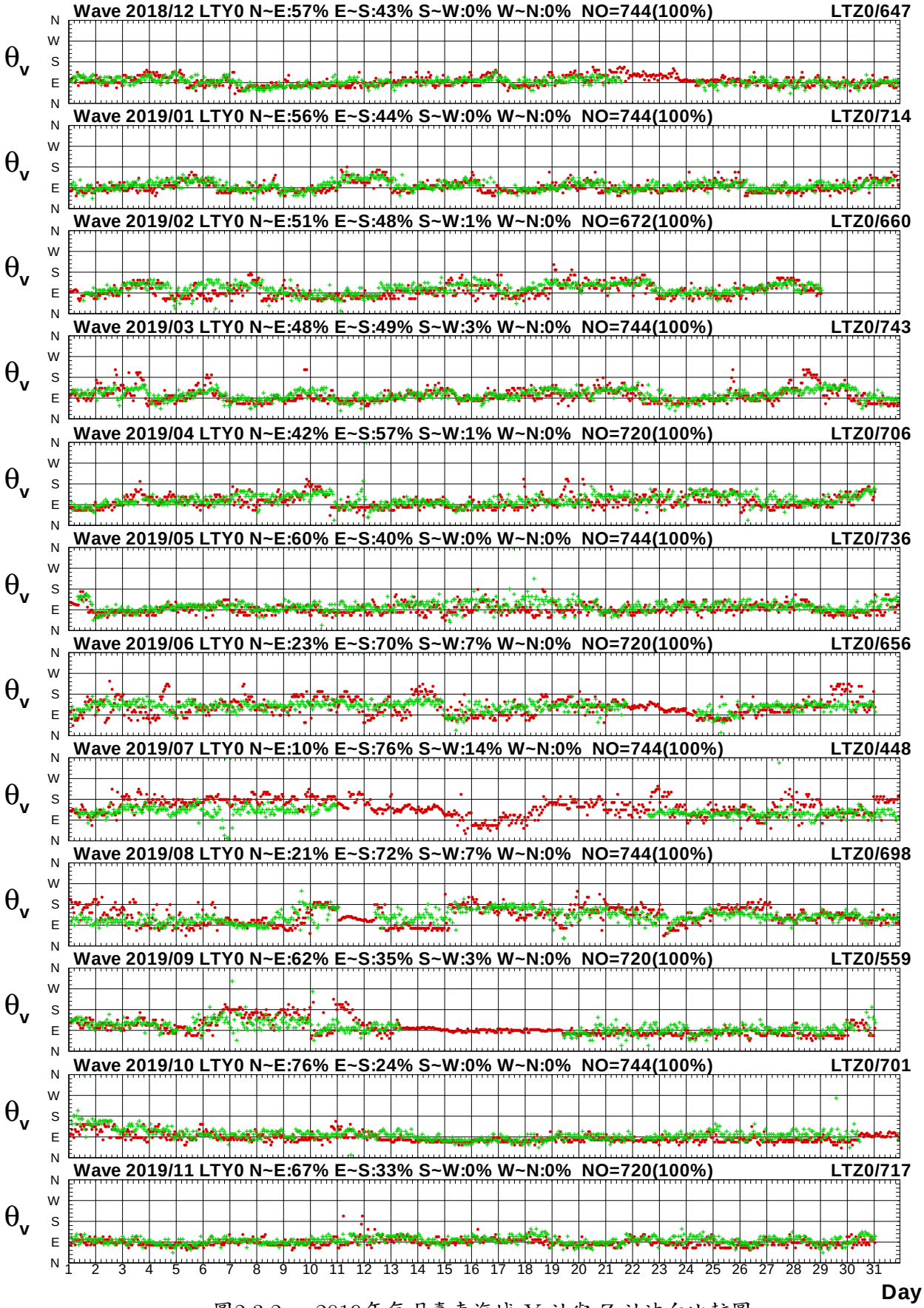

圖2.3.2c　2019年每月臺東海域 Y 站與 Z 站波向比較圖

V18CLTY0.1HA V18CLTZ0.1H0 V191LTY0.1HA V191LTZ0.1H0 V192LTY0.1HA V192LTZ0.1H0
V193LTY0.1HA V193LTZ0.1H0 V194LTY0.1HA V194LTZ0.1H0 V195LTY0.1HA V195LTZ0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Lu-Tao Harbor of LTY0 at 2019

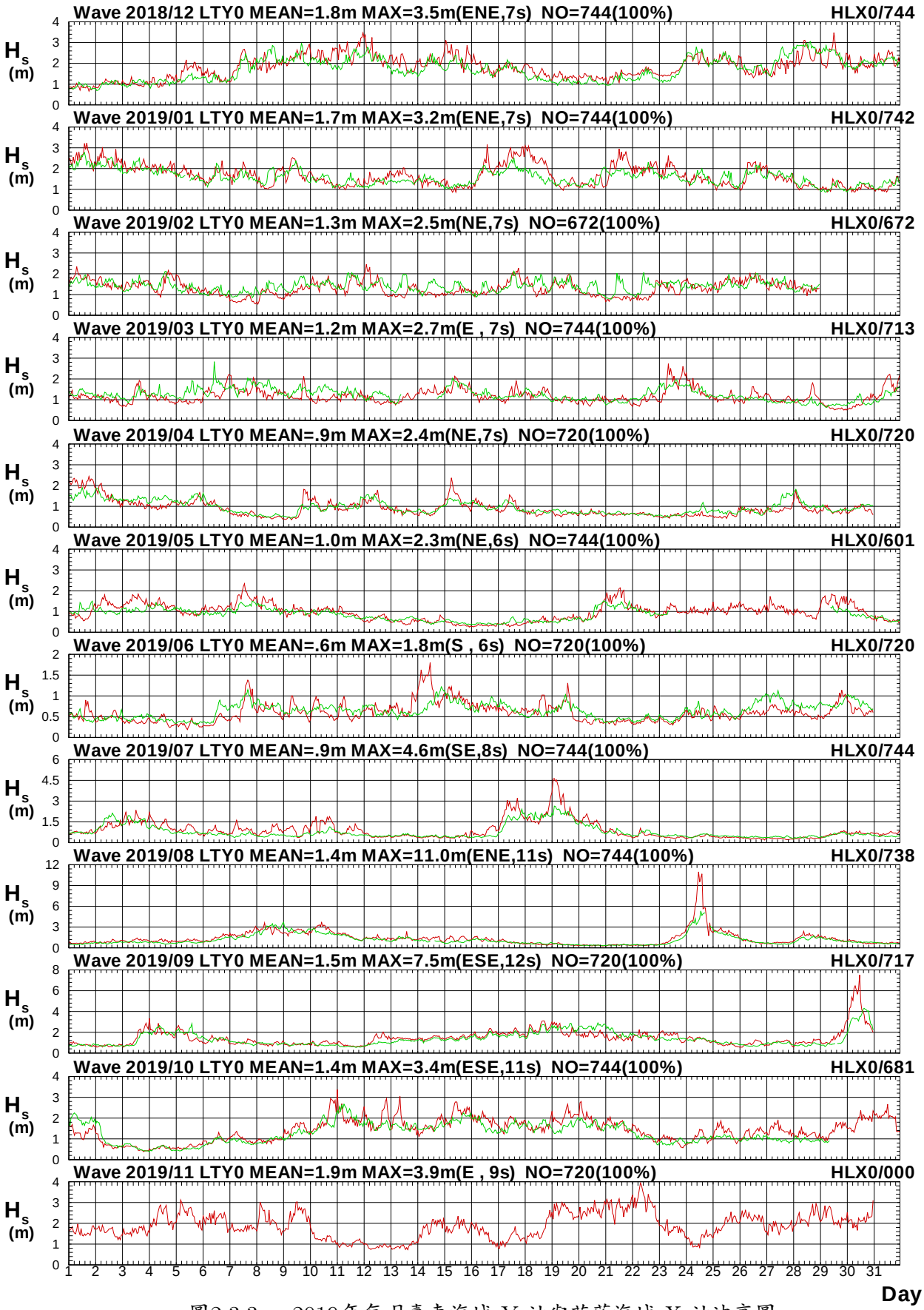

圖2.3.3a　2019年每月臺東海域 Y 站與花蓮海域 X 站波高圖

V18CLTY0.1HA V18CHLX0.1H0 V191LTY0.1HA V191HLX0.1H0 V192LTY0.1HA V192HLX0.1H0
V193LTY0.1HA V193HLX0.1H0 V194LTY0.1HA V194HLX0.1H0 V195LTY0.1HA V195HLX0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

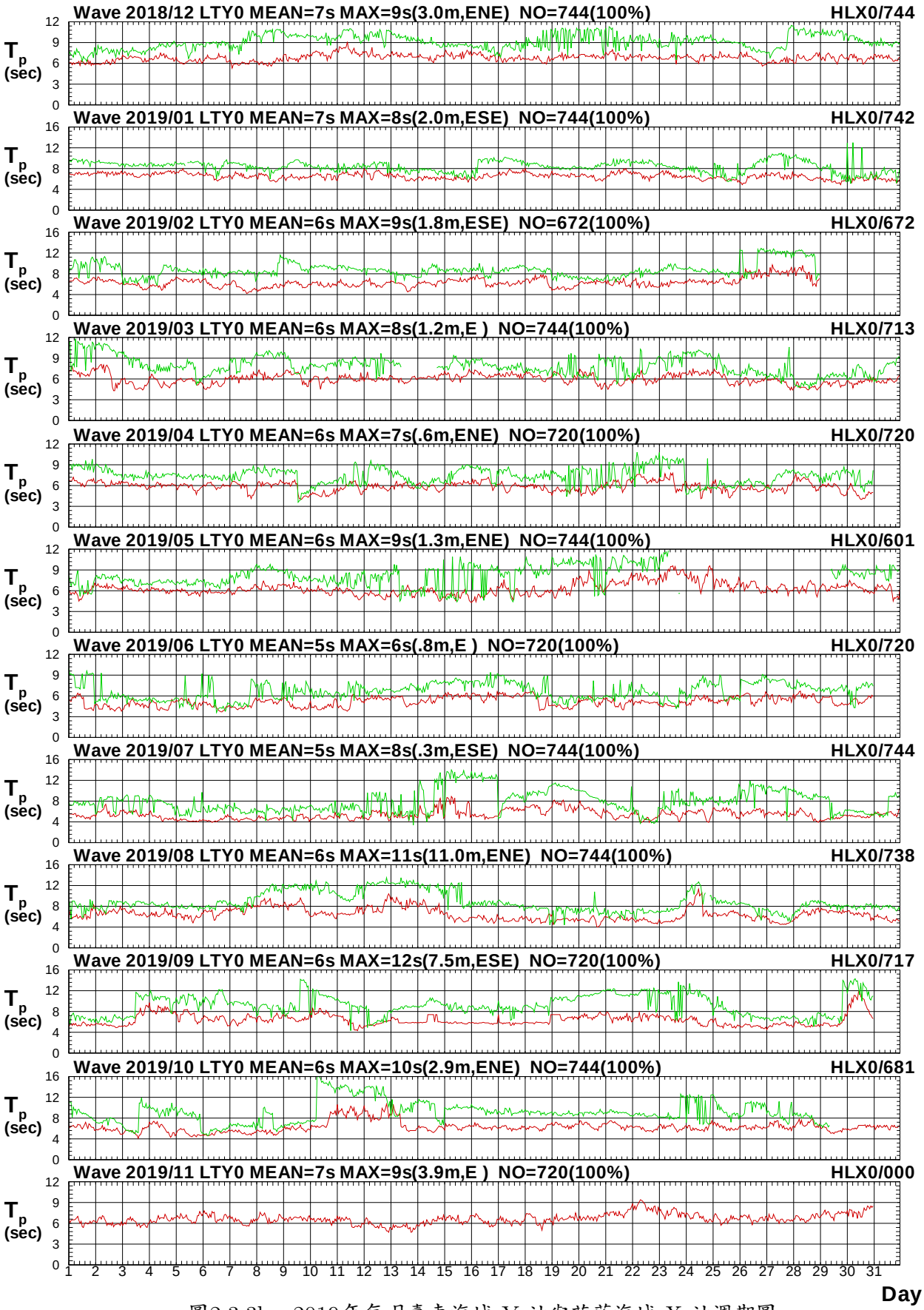

圖2.3.3b　2019年每月臺東海域 Y 站與花蓮海域 X 站週期圖

V18CLTY0.1HA V18CHLX0.1H0 V191LTY0.1HA V191HLX0.1H0 V192LTY0.1HA V192HLX0.1H0
V193LTY0.1HA V193HLX0.1H0 V194LTY0.1HA V194HLX0.1H0 V195LTY0.1HA V195HLX0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

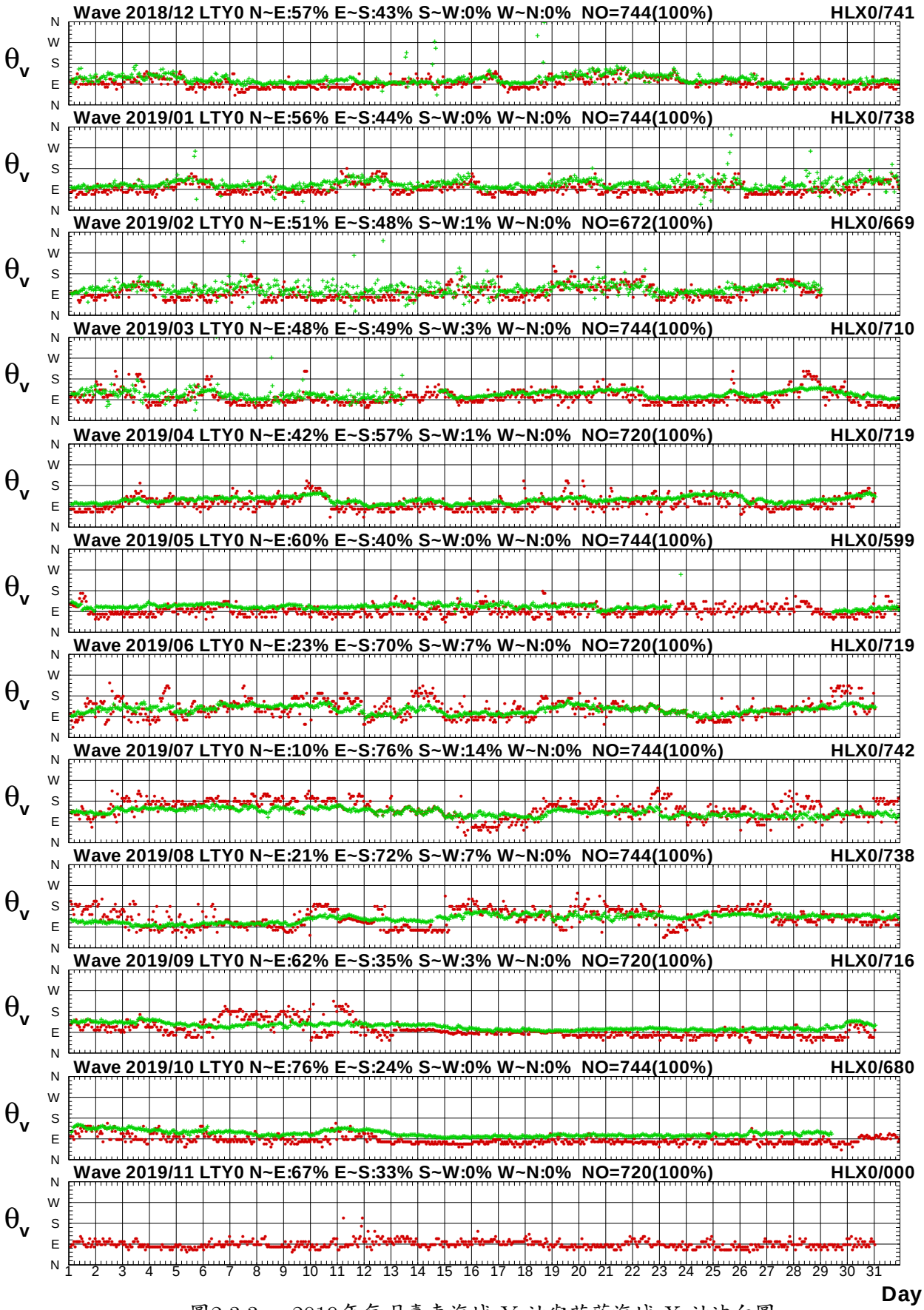

圖2.3.3c　2019年每月臺東海域 Y 站與花蓮海域 X 站波向圖

V18CLTY0.1HA V18CHLX0.1H0 V191LTY0.1HA V191HLX0.1H0 V192LTY0.1HA V192HLX0.1H0
V193LTY0.1HA V193HLX0.1H0 V194LTY0.1HA V194HLX0.1H0 V195LTY0.1HA V195HLX0.1H0

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Wave H_s in Lu-Tao Harbor of LTY0 at 2019

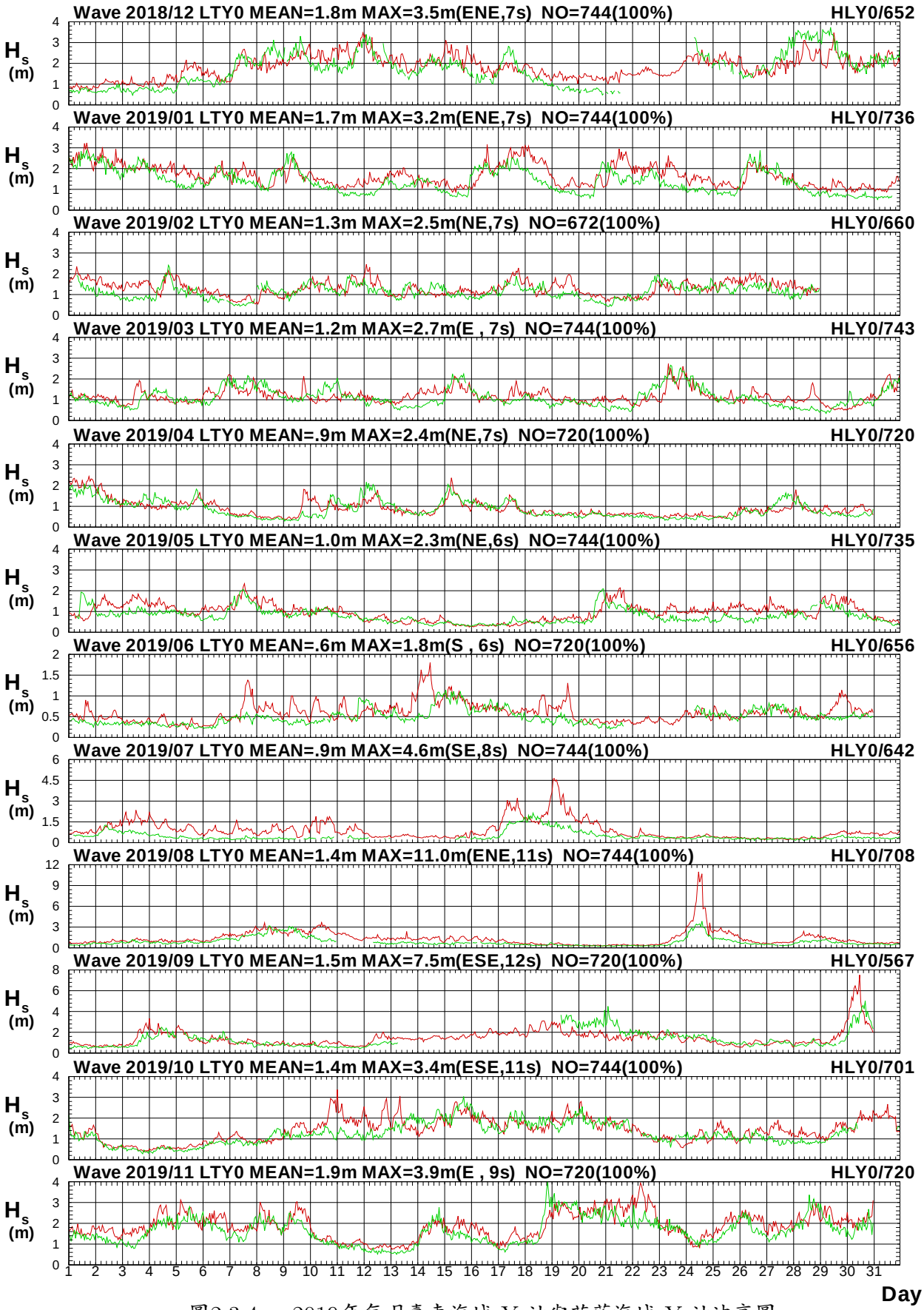

圖2.3.4a　2019年每月臺東海域 Y 站與花蓮海域 Y 站波高圖

V18CLTY0.1HA V18CHLY0.1H0 V191LTY0.1HA V191HLY0.1H0 V192LTY0.1HA V192HLY0.1H0
V193LTY0.1HA V193HLY0.1H0 V194LTY0.1HA V194HLY0.1H0 V195LTY0.1HA V195HLY0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

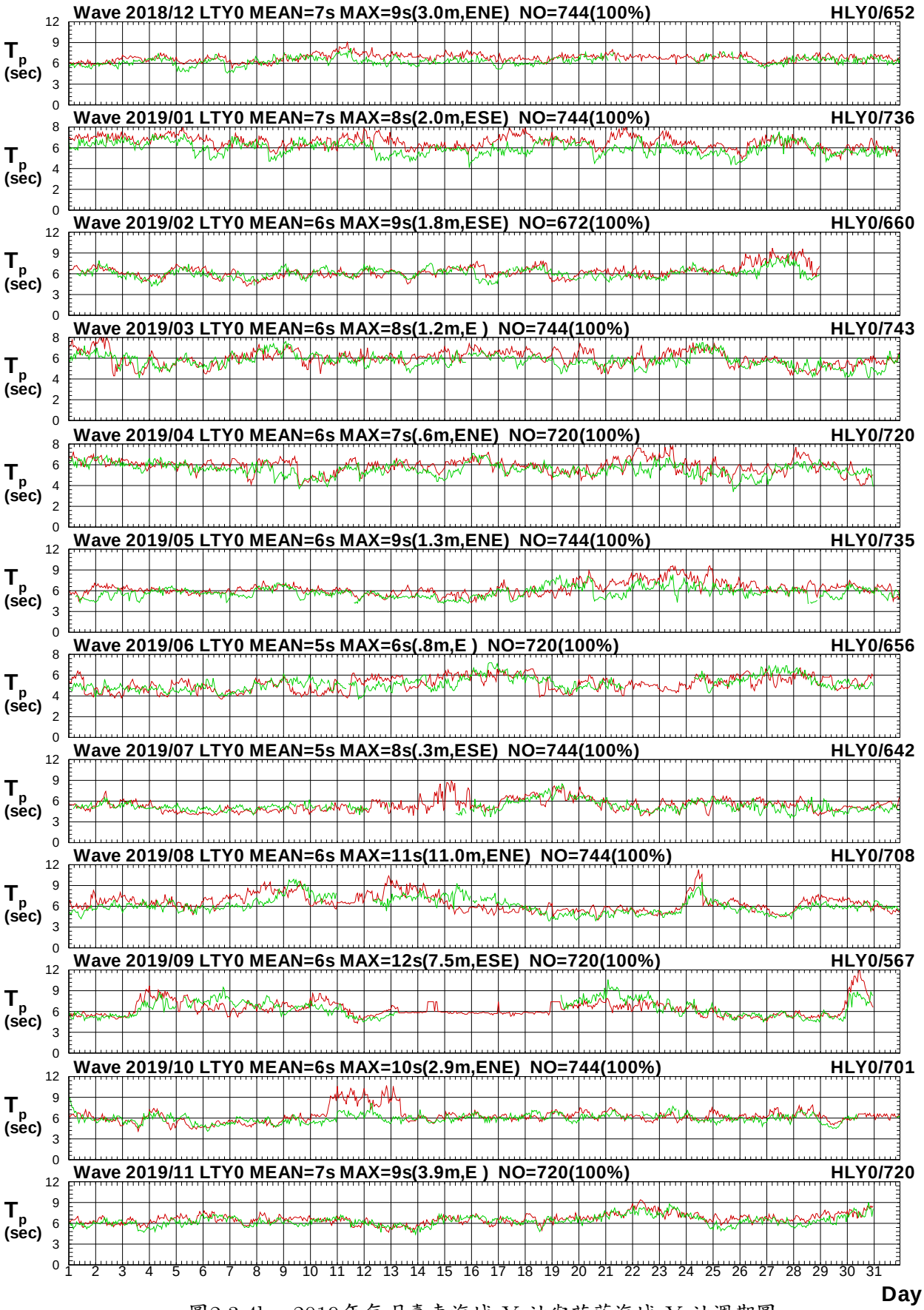

圖2.3.4b　2019年每月臺東海域 Y 站與花蓮海域 Y 站週期圖

V18CLTY0.1HA V18CHLY0.1H0 V191LTY0.1HA V191HLY0.1H0 V192LTY0.1HA V192HLY0.1H0
V193LTY0.1HA V193HLY0.1H0 V194LTY0.1HA V194HLY0.1H0 V195LTY0.1HA V195HLY0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

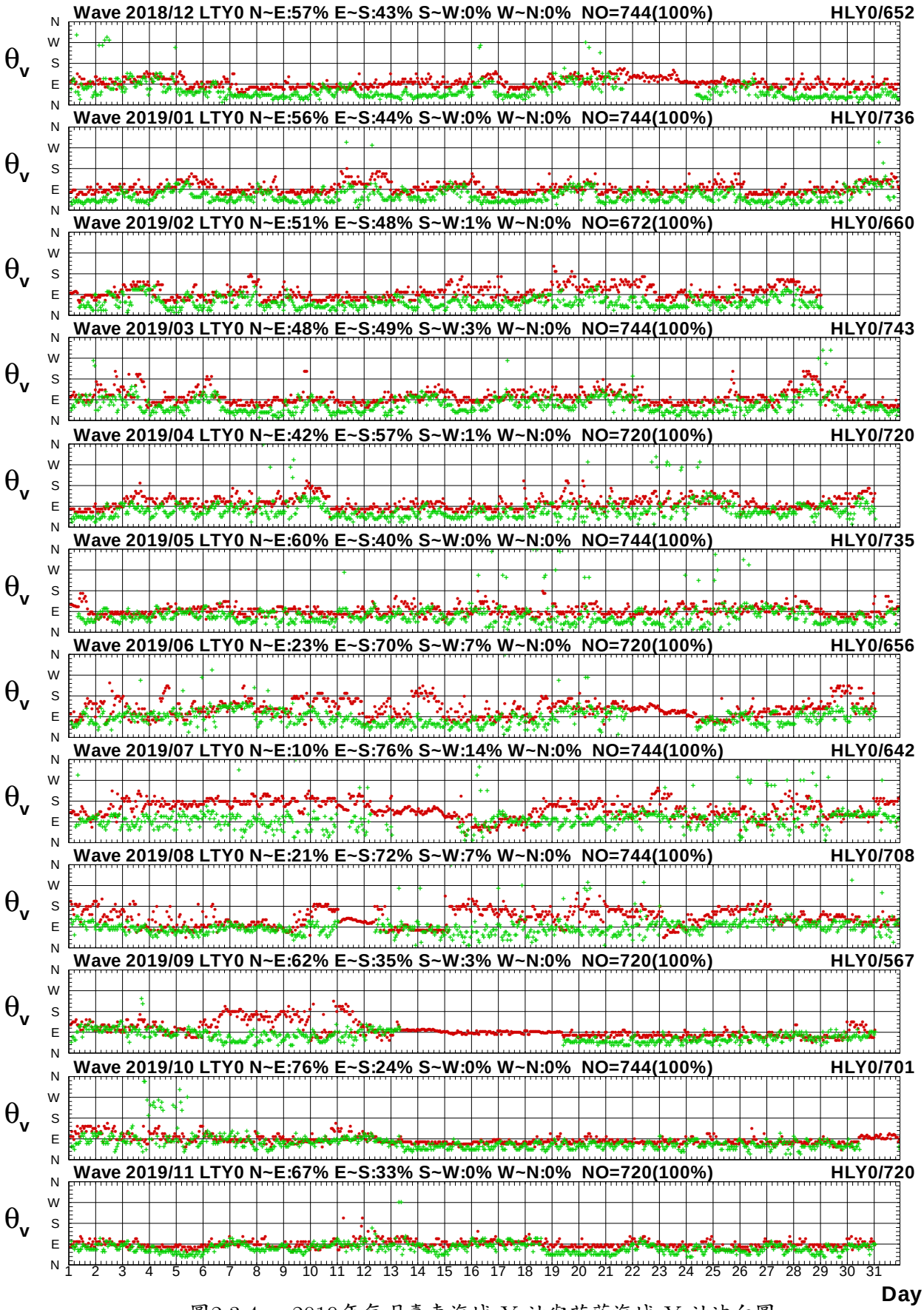

圖2.3.4c　2019年每月臺東海域 Y 站與花蓮海域 Y 站波向圖

V18CLTY0.1HA V18CHLY0.1H0 V191LTY0.1HA V191HLY0.1H0 V192LTY0.1HA V192HLY0.1H0
V193LTY0.1HA V193HLY0.1H0 V194LTY0.1HA V194HLY0.1H0 V195LTY0.1HA V195HLY0.1H0

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Wave H_s in Lu-Tao Harbor of LTY0 at 2019

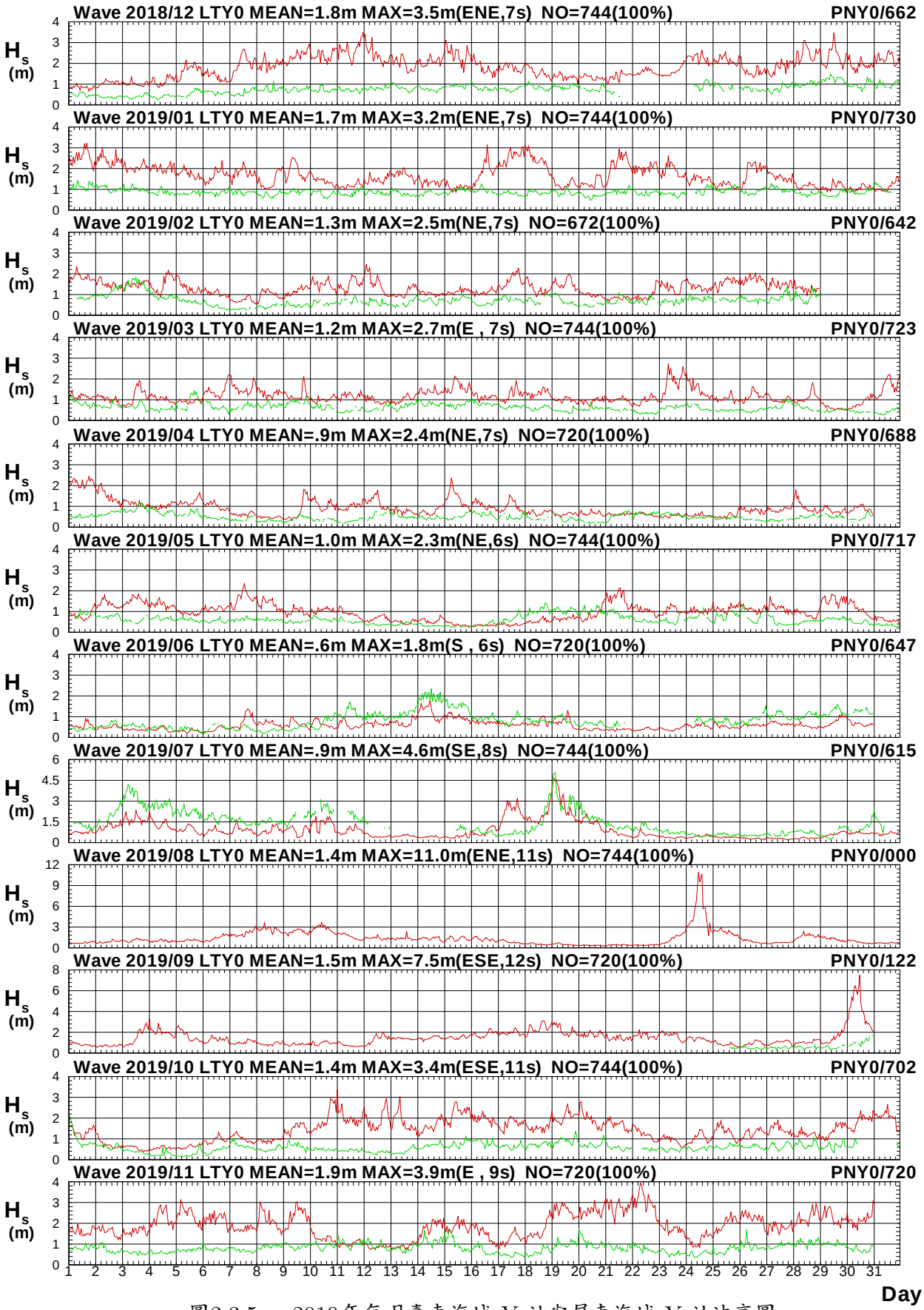

圖2.3.5a　2019年每月臺東海域 Y 站與屏東海域 Y 站波高圖

V18CLTY0.1HA V18CPNY0.1H0 V191LTY0.1HA V191PNY0.1H0 V192LTY0.1HA V192PNY0.1H0
V193LTY0.1HA V193PNY0.1H0 V194LTY0.1HA V194PNY0.1H0 V195LTY0.1HA V195PNY0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

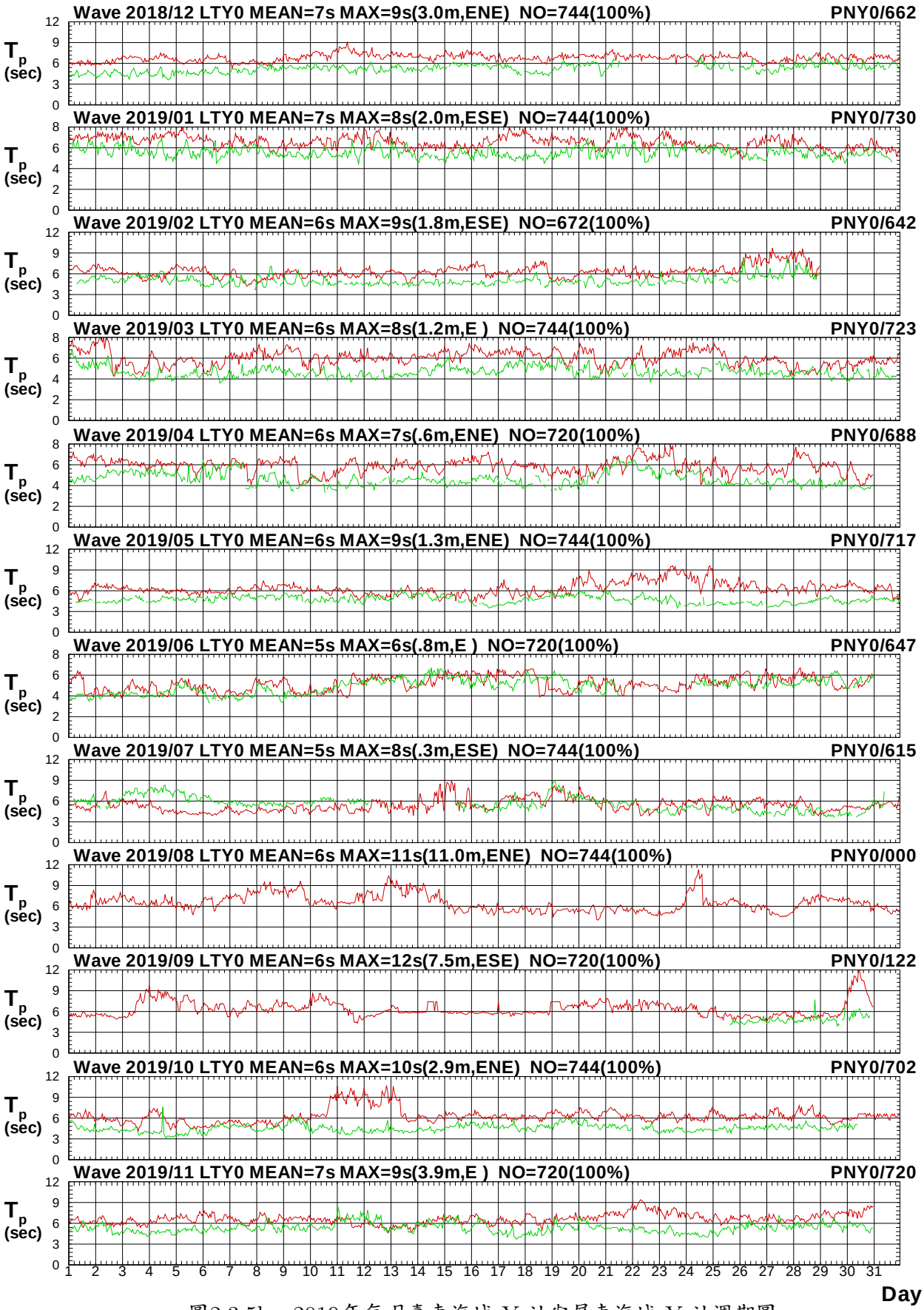

圖2.3.5b　2019年每月臺東海域 Y 站與屏東海域 Y 站週期圖

V18CLTY0.1HA V18CPNY0.1H0 V191LTY0.1HA V191PNY0.1H0 V192LTY0.1HA V192PNY0.1H0
V193LTY0.1HA V193PNY0.1H0 V194LTY0.1HA V194PNY0.1H0 V195LTY0.1HA V195PNY0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

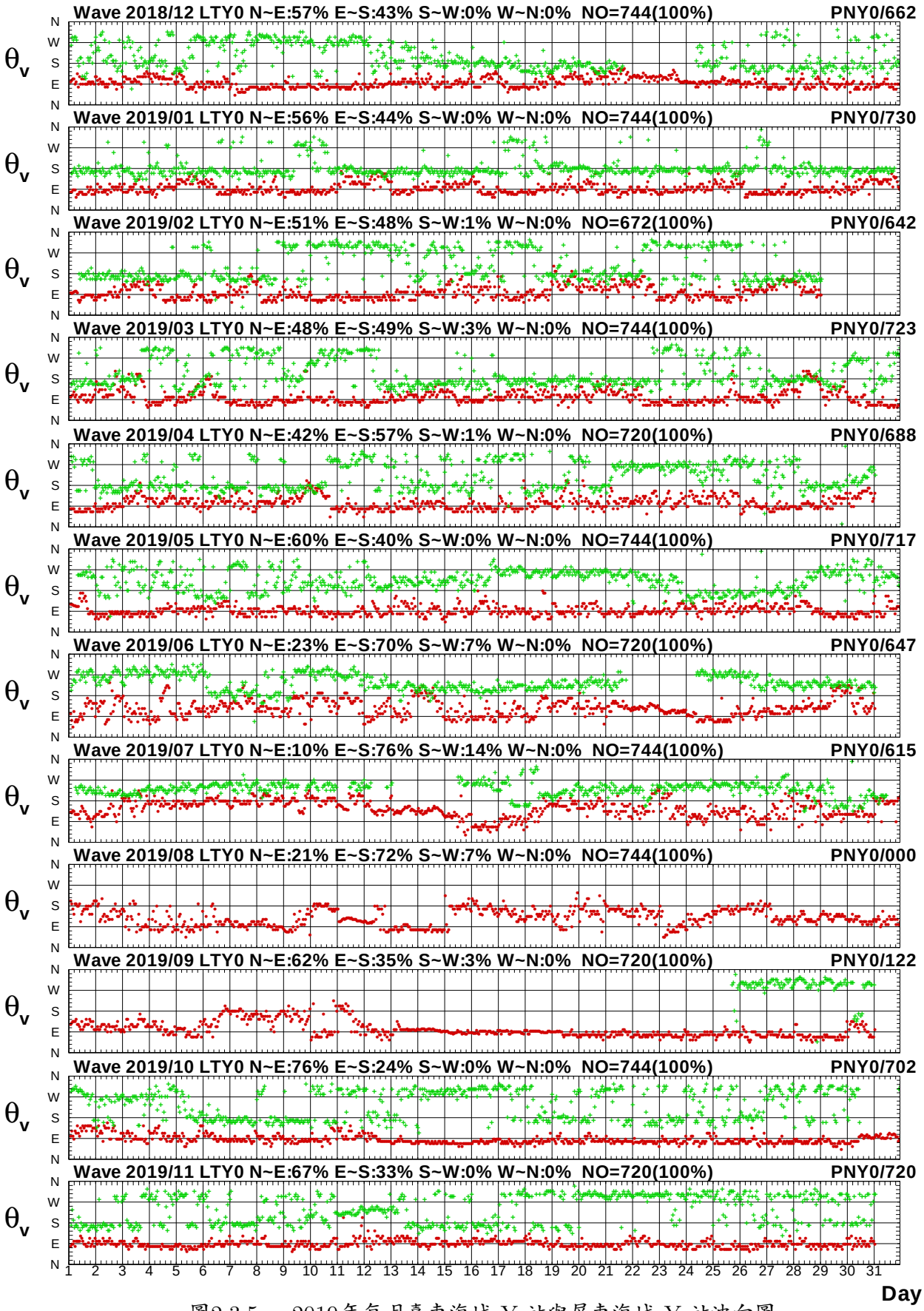

圖2.3.5c　2019年每月臺東海域 Y 站與屏東海域 Y 站波向圖

V18CLTY0.1HA V18CPNY0.1H0 V191LTY0.1HA V191PNY0.1H0 V192LTY0.1HA V192PNY0.1H0
V193LTY0.1HA V193PNY0.1H0 V194LTY0.1HA V194PNY0.1H0 V195LTY0.1HA V195PNY0.1H0

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Wave H_s in Lu-Tao Harbor of LTY0 at 2019

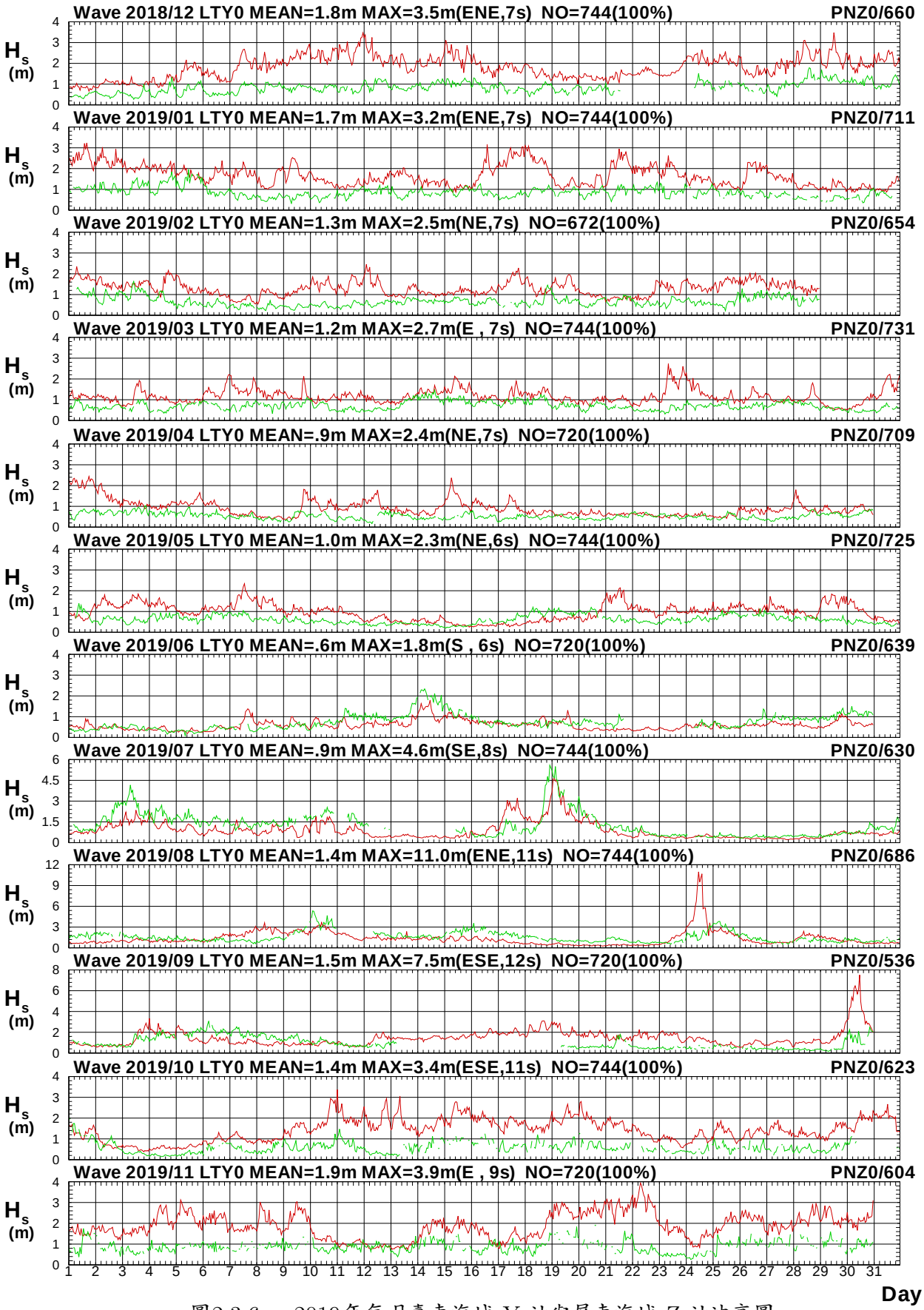

圖2.3.6a　2019年每月臺東海域 Y 站與屏東海域 Z 站波高圖

V18CLTY0.1HA V18CPNZ0.1H0 V191LTY0.1HA V191PNZ0.1H0 V192LTY0.1HA V192PNZ0.1H0
V193LTY0.1HA V193PNZ0.1H0 V194LTY0.1HA V194PNZ0.1H0 V195LTY0.1HA V195PNZ0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

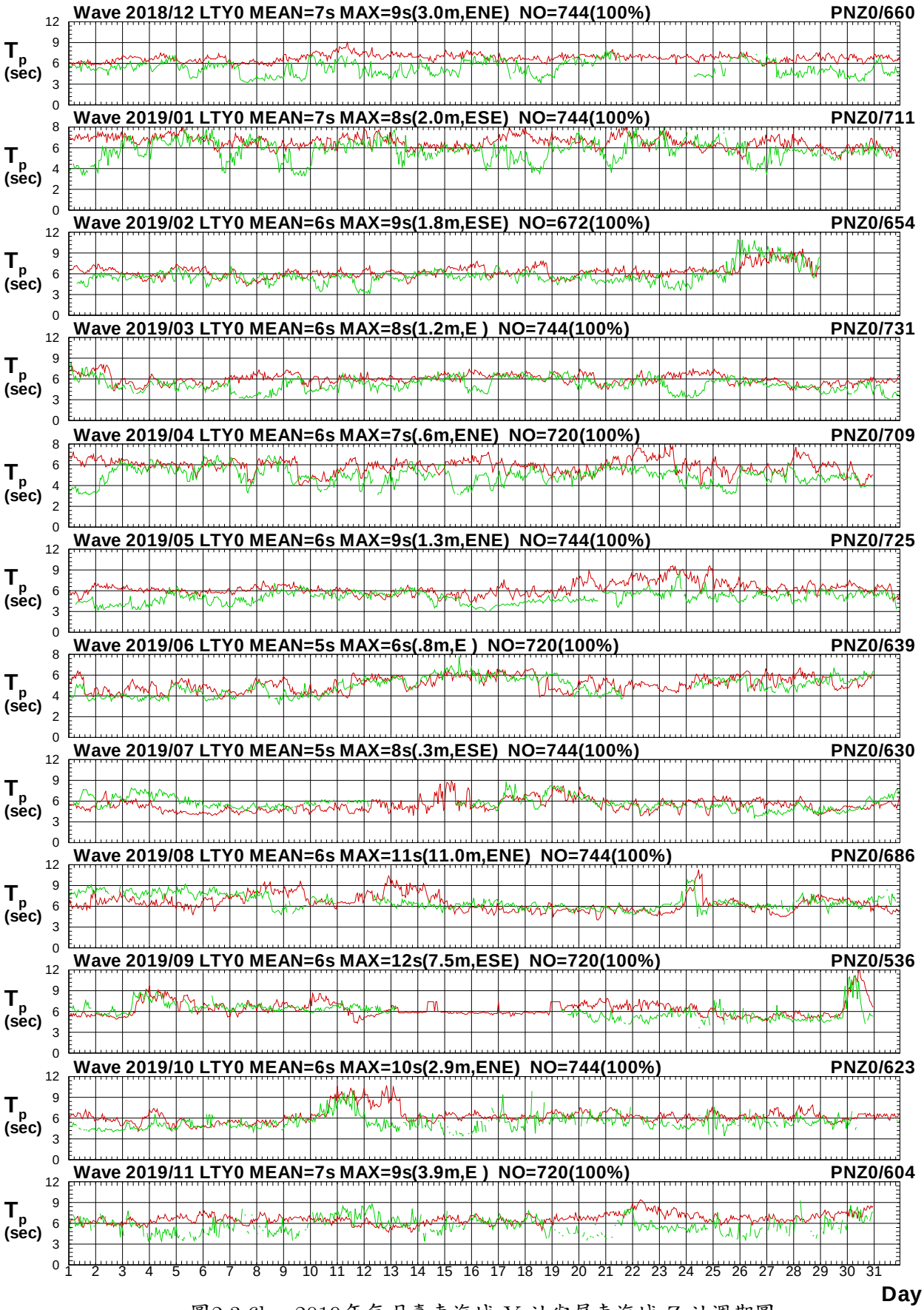

圖2.3.6b　2019年每月臺東海域 Y 站與屏東海域 Z 站週期圖

V18CLTY0.1HA V18CPNZ0.1H0 V191LTY0.1HA V191PNZ0.1H0 V192LTY0.1HA V192PNZ0.1H0
V193LTY0.1HA V193PNZ0.1H0 V194LTY0.1HA V194PNZ0.1H0 V195LTY0.1HA V195PNZ0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

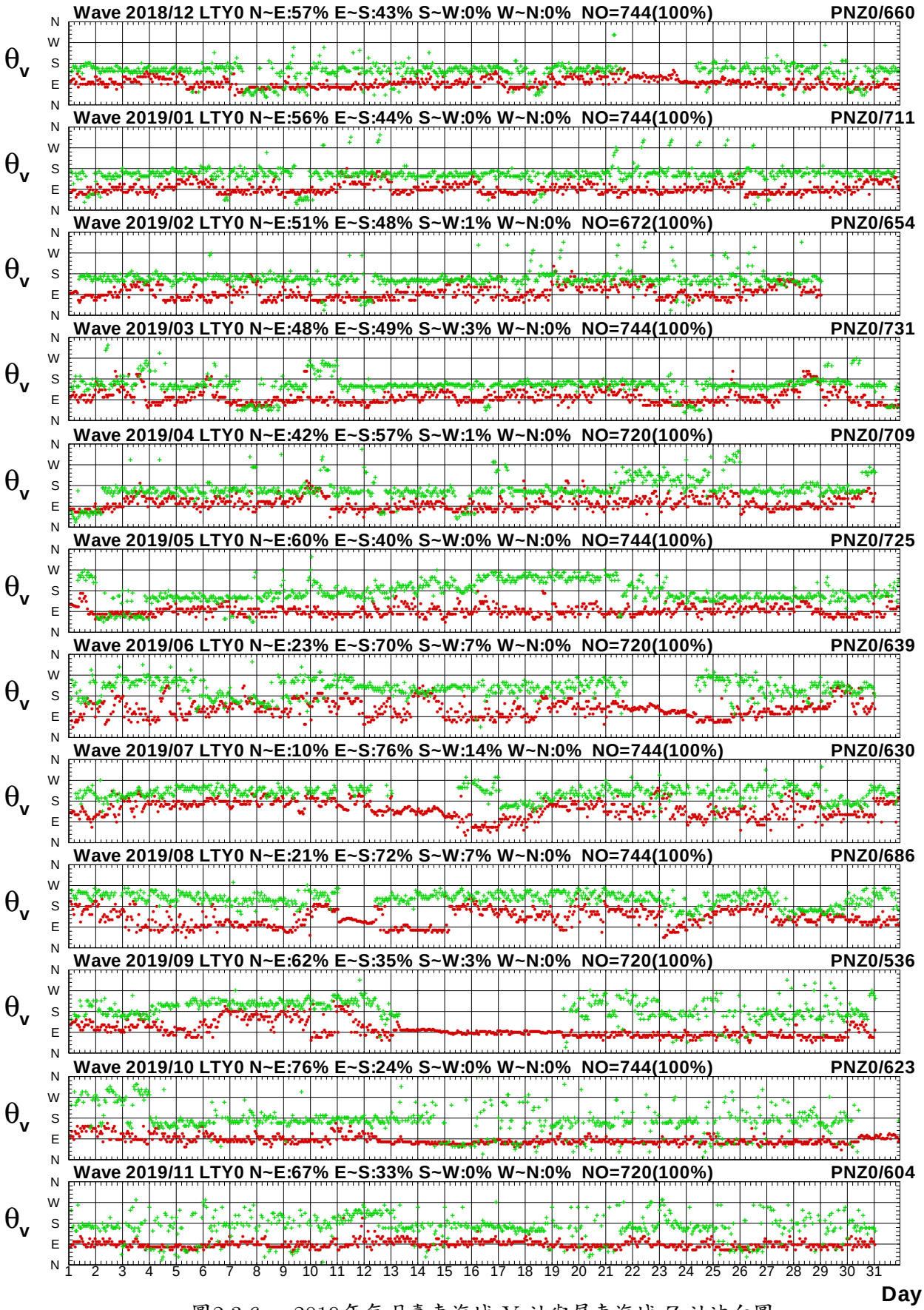

圖2.3.6c　2019年每月臺東海域 Y 站與屏東海域 Z 站波向圖

V18CLTY0.1HA V18CPNZ0.1H0 V191LTY0.1HA V191PNZ0.1H0 V192LTY0.1HA V192PNZ0.1H0
V193LTY0.1HA V193PNZ0.1H0 V194LTY0.1HA V194PNZ0.1H0 V195LTY0.1HA V195PNZ0.1H0

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Wave H_s in Lu-Tao Harbor of LTY0 at 2019

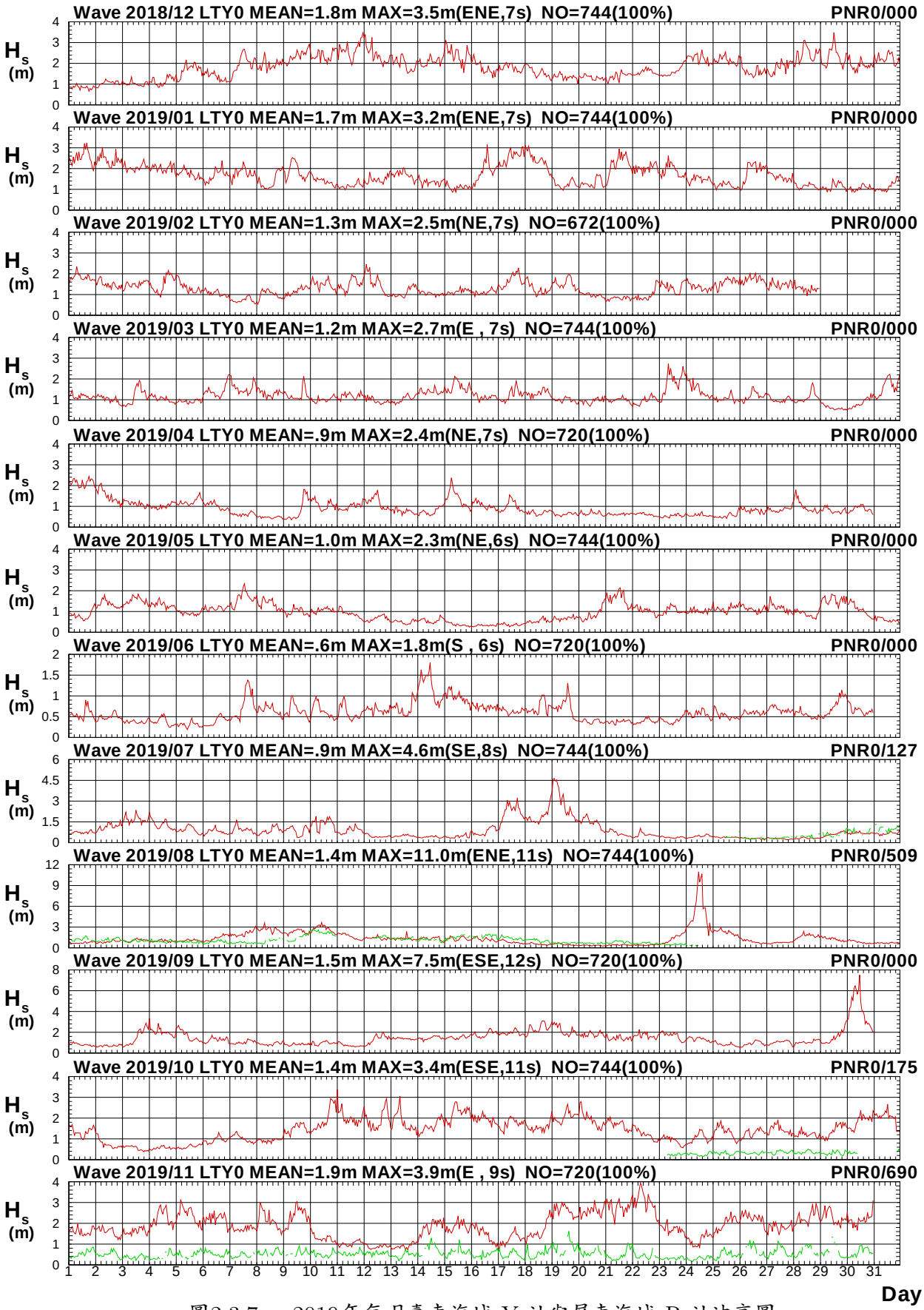

圖2.3.7a　2019年每月臺東海域 Y 站與屏東海域 R 站波高圖

V18CLTY0.1HA V18CPNR0.1H0 V191LTY0.1HA V191PNR0.1H0 V192LTY0.1HA V192PNR0.1H0
V193LTY0.1HA V193PNR0.1H0 V194LTY0.1HA V194PNR0.1H0 V195LTY0.1HA V195PNR0.1H0

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Wave T_p in Lu-Tao Harbor of LTY0 at 2019

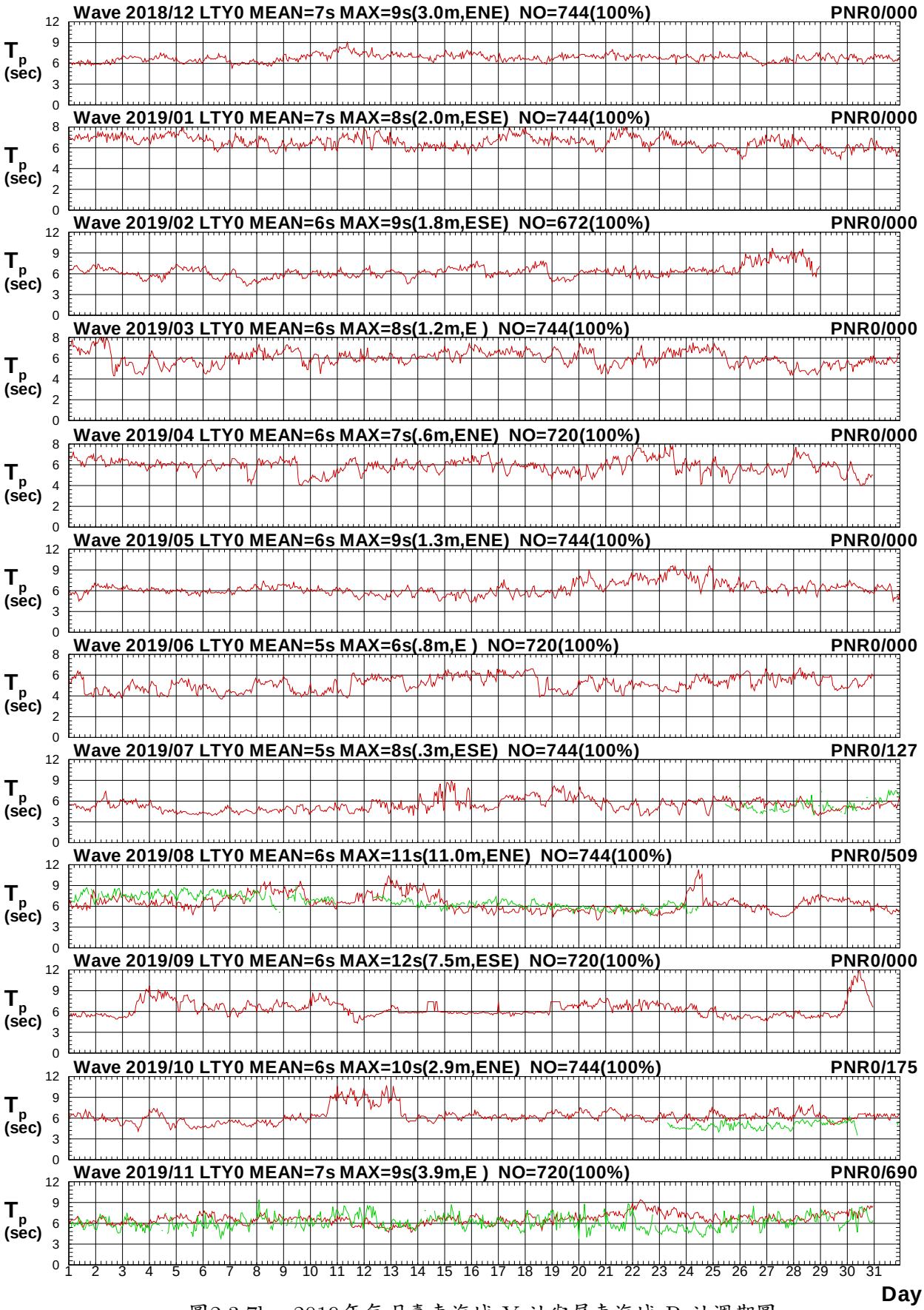

圖2.3.7b　2019年每月臺東海域 Y 站與屏東海域 R 站週期圖

V18CLTY0.1HA V18CPNR0.1H0 V191LTY0.1HA V191PNR0.1H0 V192LTY0.1HA V192PNR0.1H0
V193LTY0.1HA V193PNR0.1H0 V194LTY0.1HA V194PNR0.1H0 V195LTY0.1HA V195PNR0.1H0

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Wave Direction in Lu-Tao Harbor of LTY0 at 2019

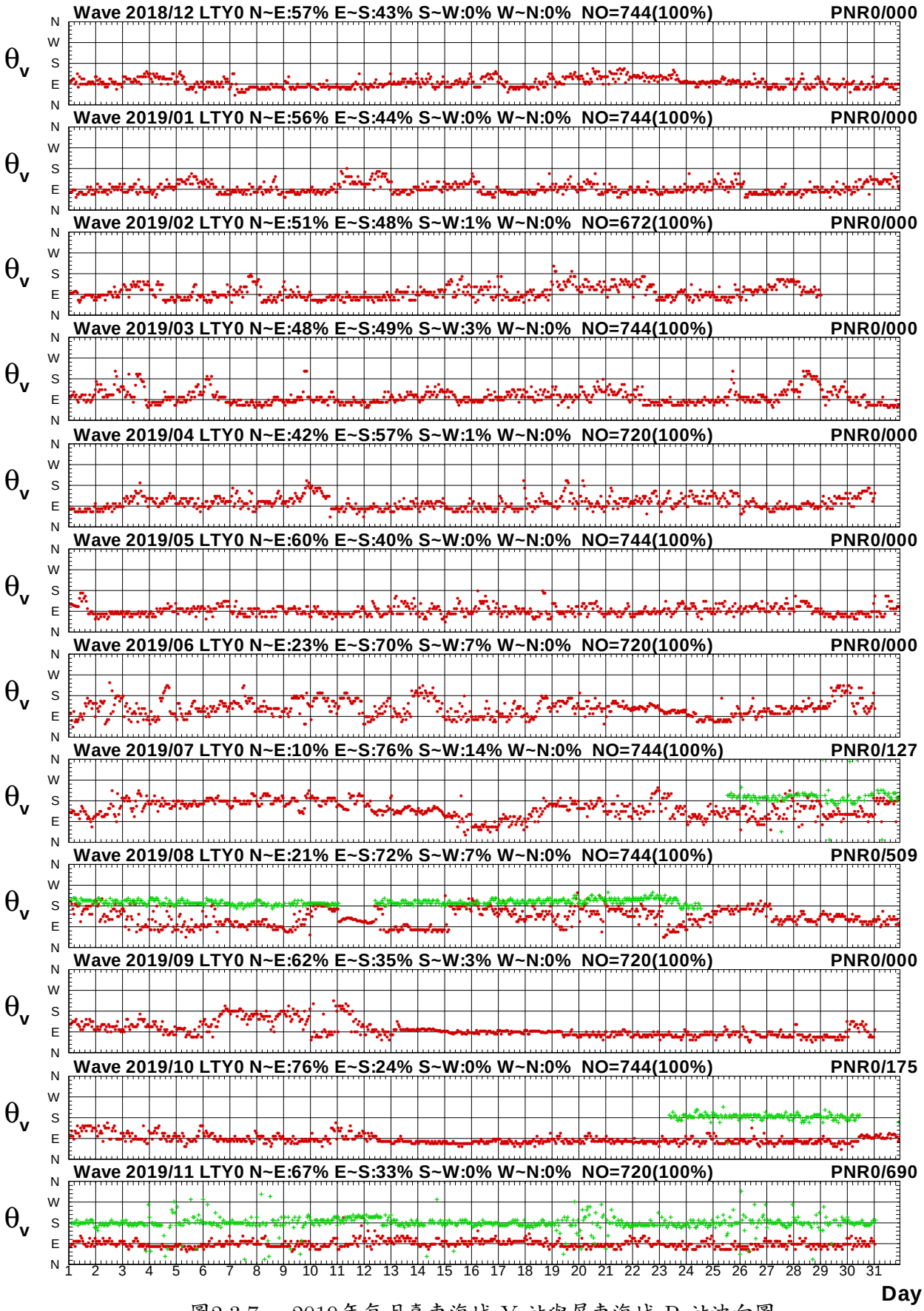

圖2.3.7c　2019年每月臺東海域 Y 站與屏東海域 R 站波向圖

V18CLTY0.1HA V18CPNR0.1H0 V191LTY0.1HA V191PNR0.1H0 V192LTY0.1HA V192PNR0.1H0
V193LTY0.1HA V193PNR0.1H0 V194LTY0.1HA V194PNR0.1H0 V195LTY0.1HA V195PNR0.1H0

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2.4　2019 年臺東海域波浪主要測站 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 Lu-Tao Harbor of LTX0 at 2019

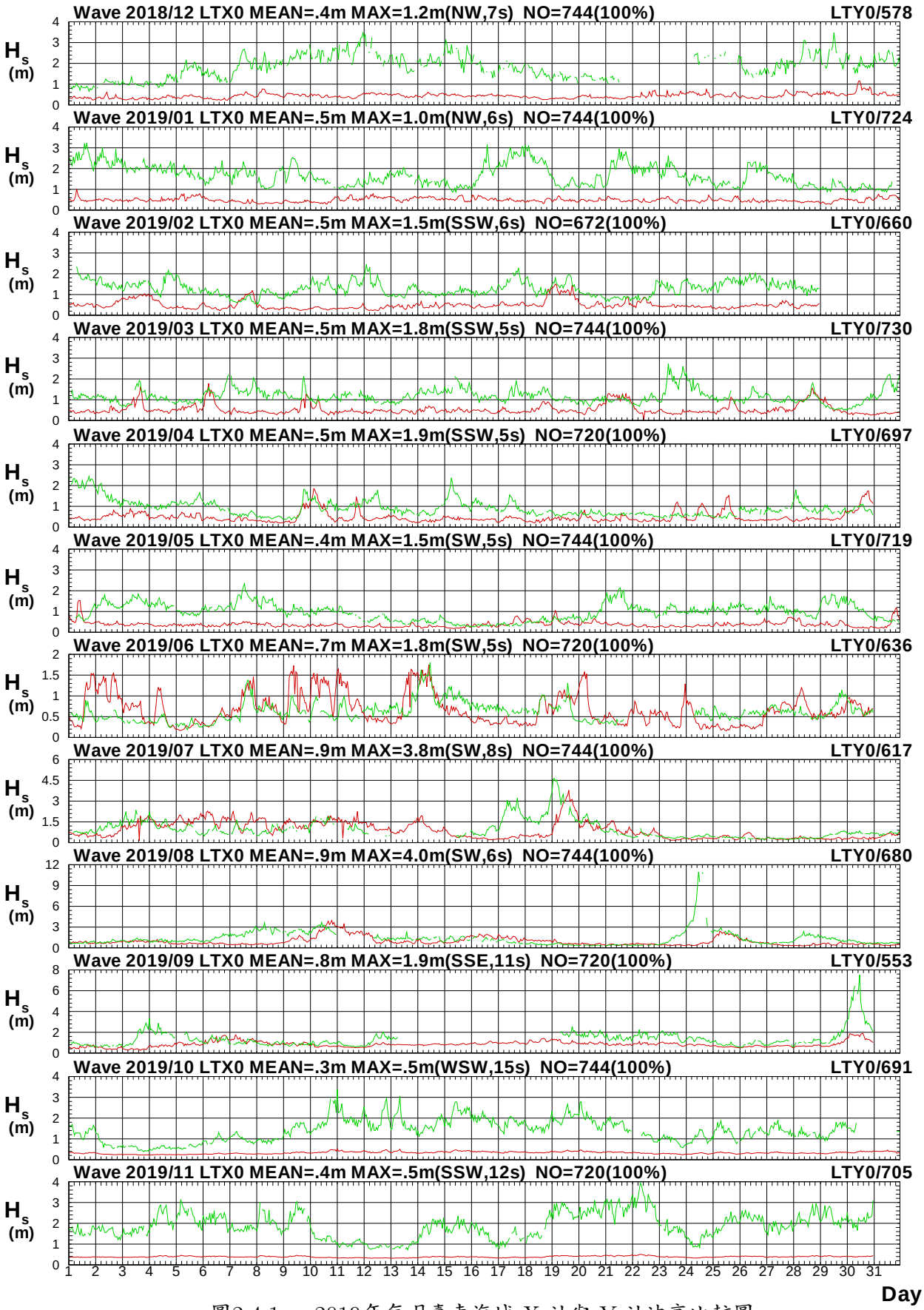

圖2.4.1a　2019年每月臺東海域 X 站與 Y 站波高比較圖

V18CLTX0.1HA V18CLTY0.1H0 V191LTX0.1HA V191LTY0.1H0 V192LTX0.1HA V192LTY0.1H0
V193LTX0.1HA V193LTY0.1H0 V194LTX0.1HA V194LTY0.1H0 V195LTX0.1HA V195LTY0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

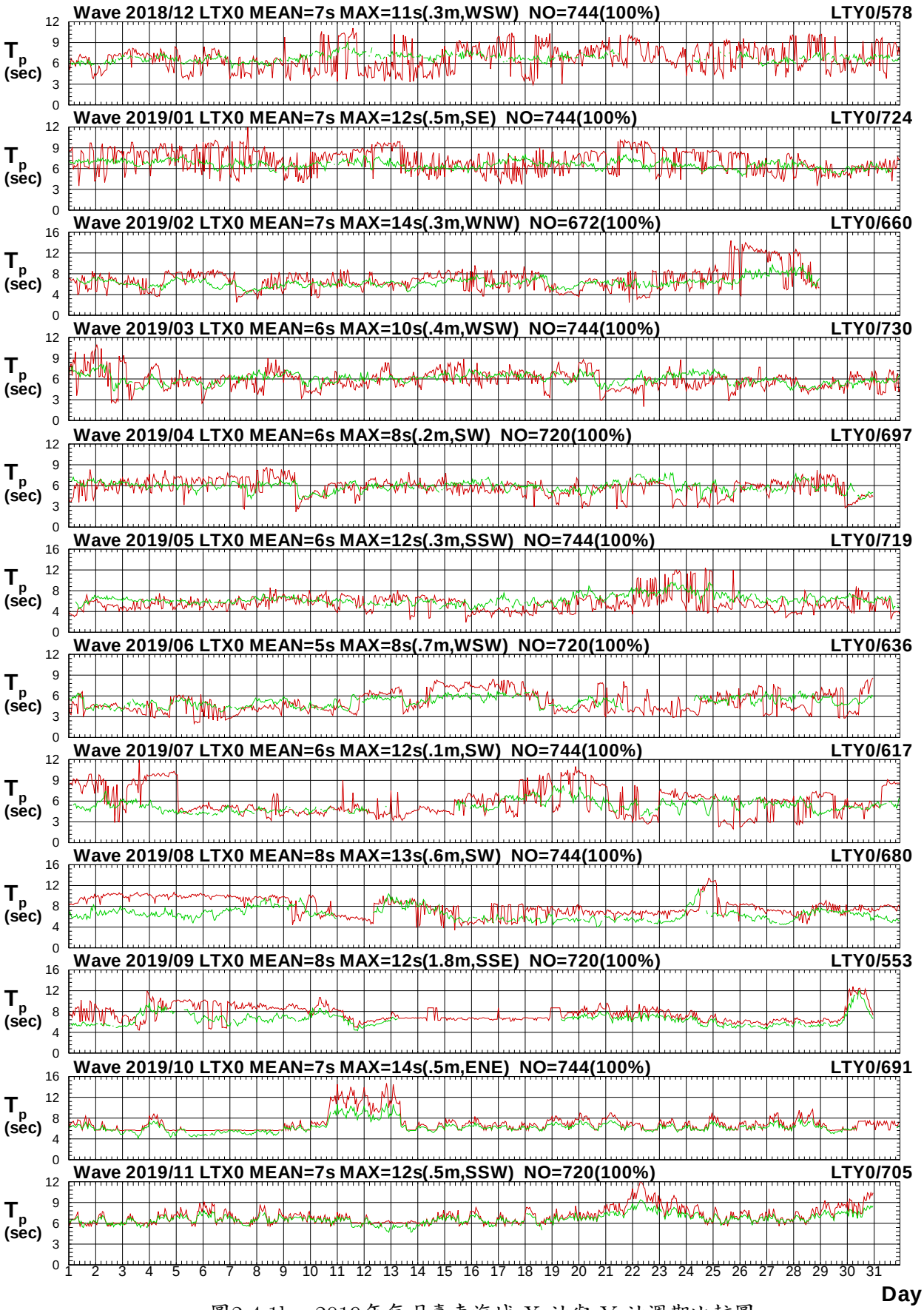

圖2.4.1b　2019年每月臺東海域 X 站與 Y 站週期比較圖

V18CLTX0.1HA V18CLTY0.1H0 V191LTX0.1HA V191LTY0.1H0 V192LTX0.1HA V192LTY0.1H0
V193LTX0.1HA V193LTY0.1H0 V194LTX0.1HA V194LTY0.1H0 V195LTX0.1HA V195LTY0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

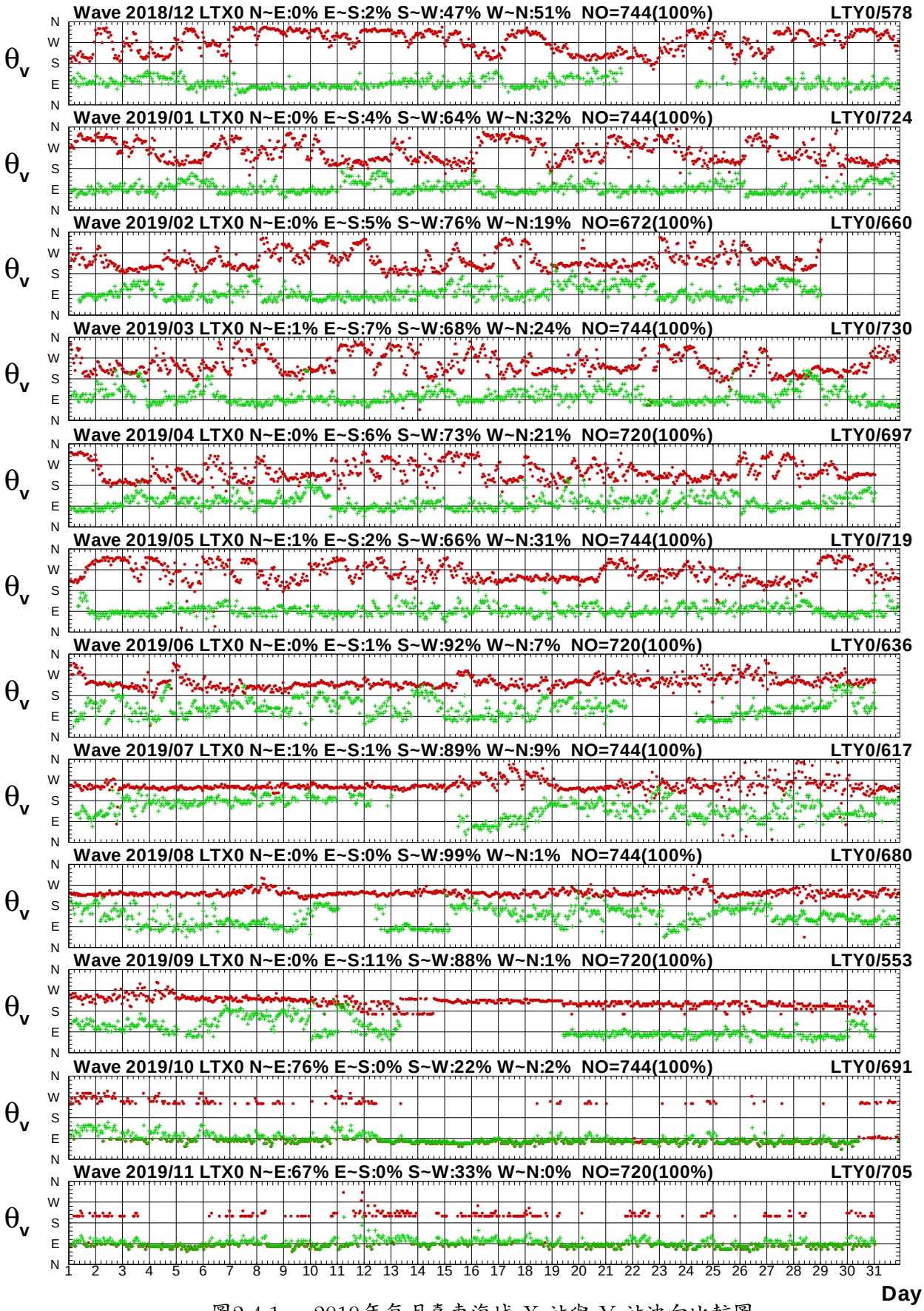

圖2.4.1c　2019年每月臺東海域 X 站與 Y 站波向比較圖

V18CLTX0.1HA V18CLTY0.1H0 V191LTX0.1HA V191LTY0.1H0 V192LTX0.1HA V192LTY0.1H0
V193LTX0.1HA V193LTY0.1H0 V194LTX0.1HA V194LTY0.1H0 V195LTX0.1HA V195LTY0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

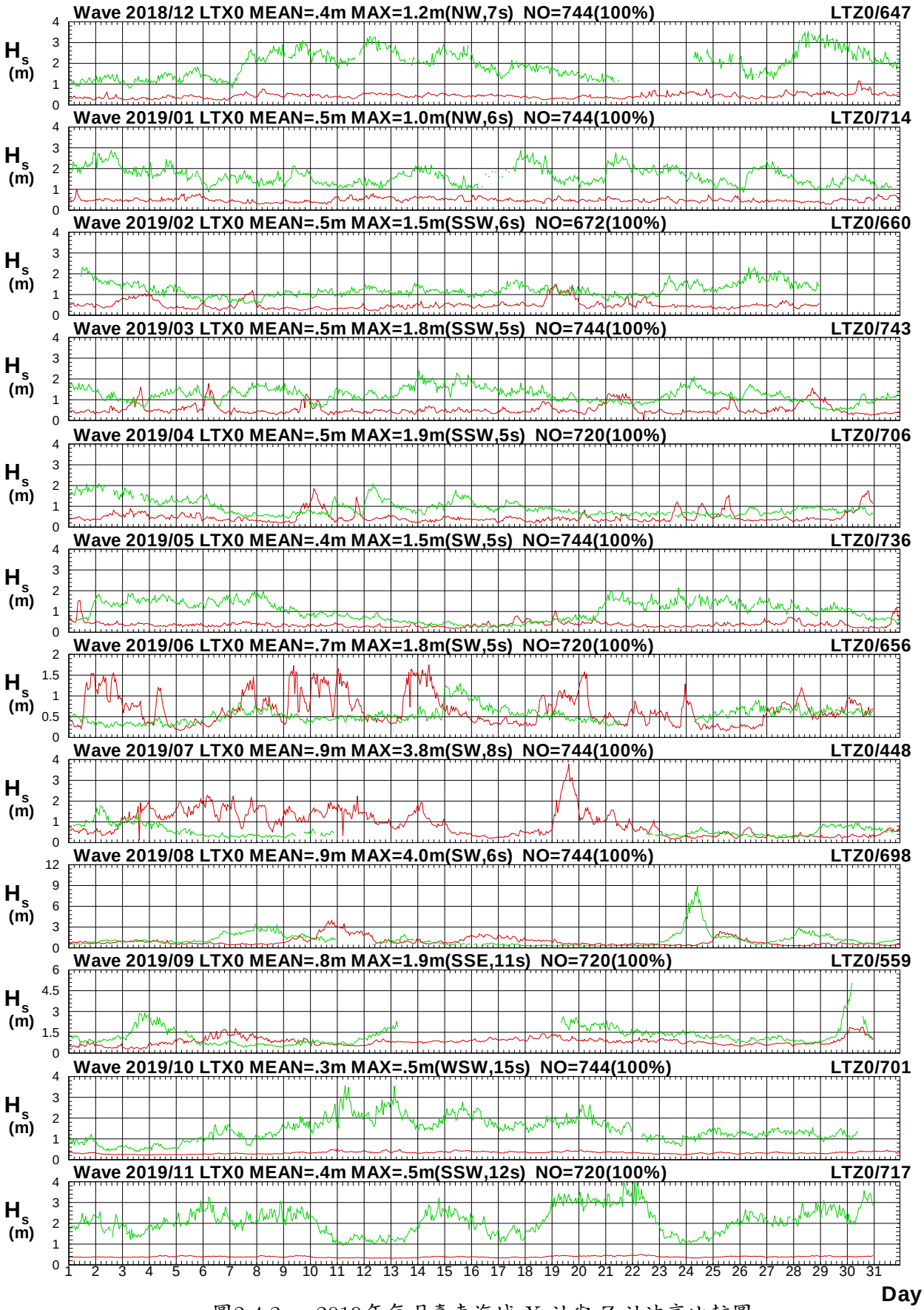

圖2.4.2a　2019年每月臺東海域 X 站與 Z 站波高比較圖

V18CLTX0.1HA V18CLTZ0.1H0 V191LTX0.1HA V191LTZ0.1H0 V192LTX0.1HA V192LTZ0.1H0
V193LTX0.1HA V193LTZ0.1H0 V194LTX0.1HA V194LTZ0.1H0 V195LTX0.1HA V195LTZ0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

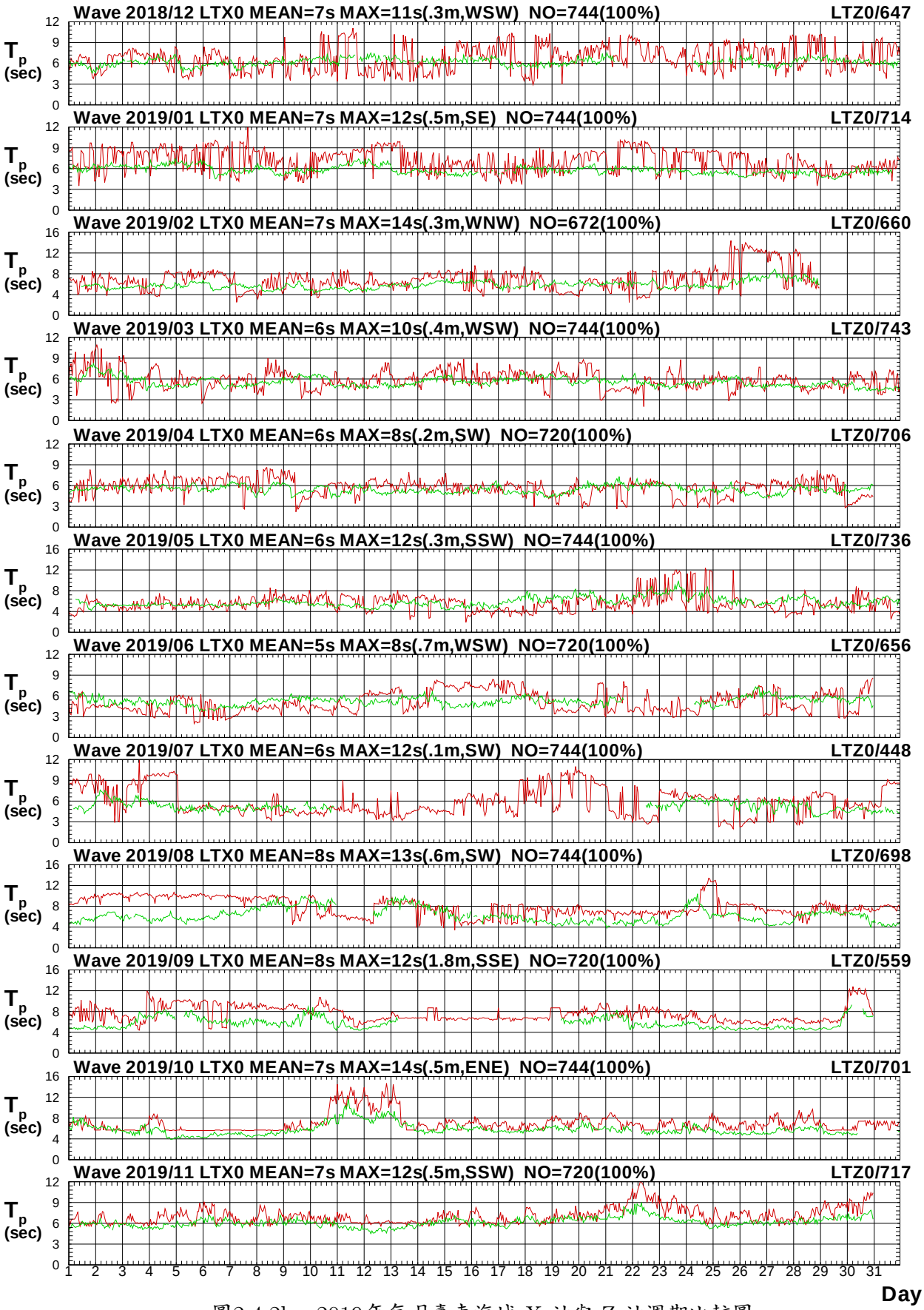

圖2.4.2b　2019年每月臺東海域 X 站與 Z 站週期比較圖

V18CLTX0.1HA V18CLTZ0.1H0 V191LTX0.1HA V191LTZ0.1H0 V192LTX0.1HA V192LTZ0.1H0
V193LTX0.1HA V193LTZ0.1H0 V194LTX0.1HA V194LTZ0.1H0 V195LTX0.1HA V195LTZ0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

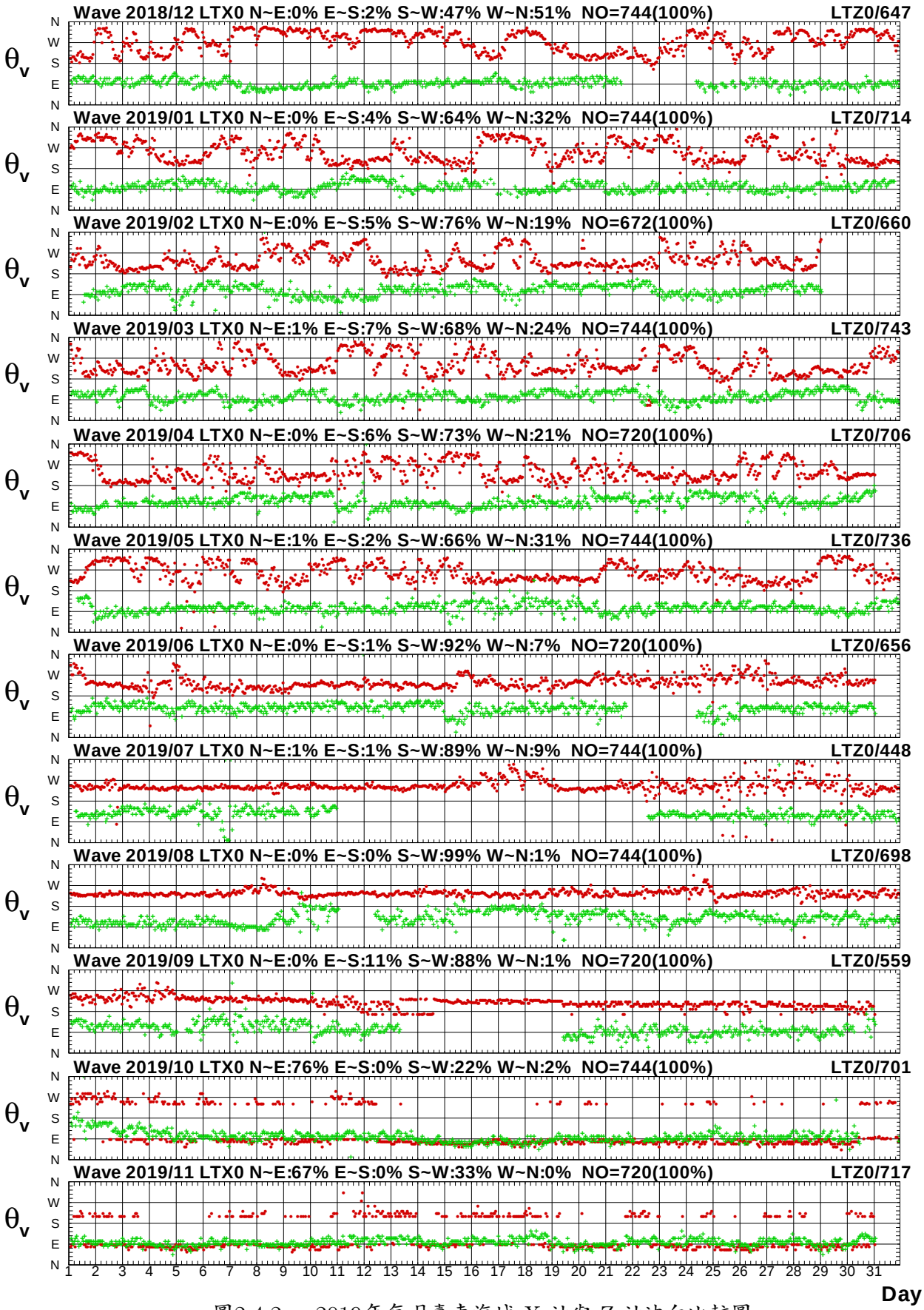

圖2.4.2c　2019年每月臺東海域 X 站與 Z 站波向比較圖

V18CLTX0.1HA V18CLTZ0.1H0 V191LTX0.1HA V191LTZ0.1H0 V192LTX0.1HA V192LTZ0.1H0
V193LTX0.1HA V193LTZ0.1H0 V194LTX0.1HA V194LTZ0.1H0 V195LTX0.1HA V195LTZ0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

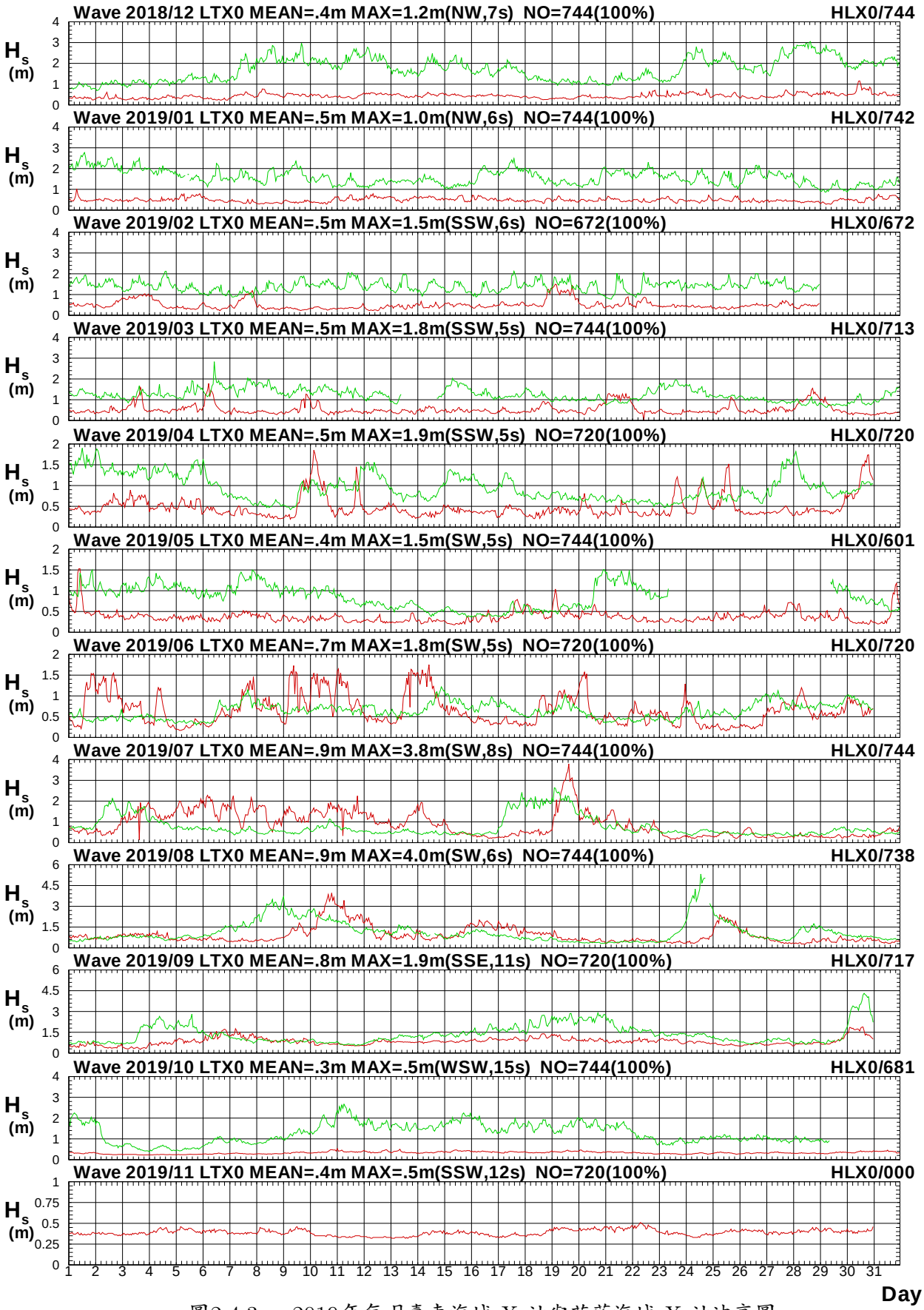

圖2.4.3a　2019年每月臺東海域 X 站與花蓮海域 X 站波高圖

V18CLTX0.1HA V18CHLX0.1H0 V191LTX0.1HA V191HLX0.1H0 V192LTX0.1HA V192HLX0.1H0
V193LTX0.1HA V193HLX0.1H0 V194LTX0.1HA V194HLX0.1H0 V195LTX0.1HA V195HLX0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

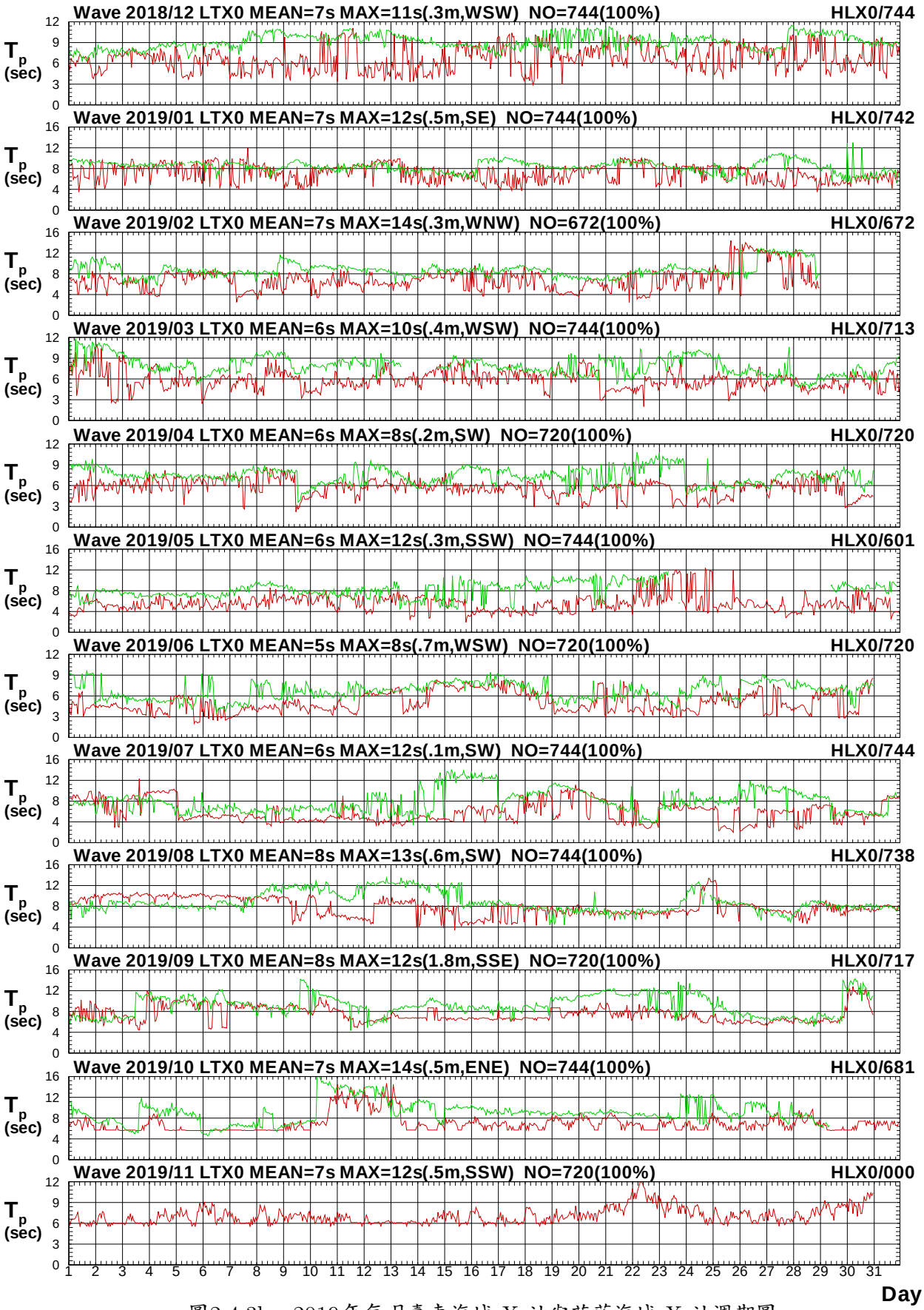

圖2.4.3b　2019年每月臺東海域 X 站與花蓮海域 X 站週期圖

V18CLTX0.1HA V18CHLX0.1H0 V191LTX0.1HA V191HLX0.1H0 V192LTX0.1HA V192HLX0.1H0
V193LTX0.1HA V193HLX0.1H0 V194LTX0.1HA V194HLX0.1H0 V195LTX0.1HA V195HLX0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

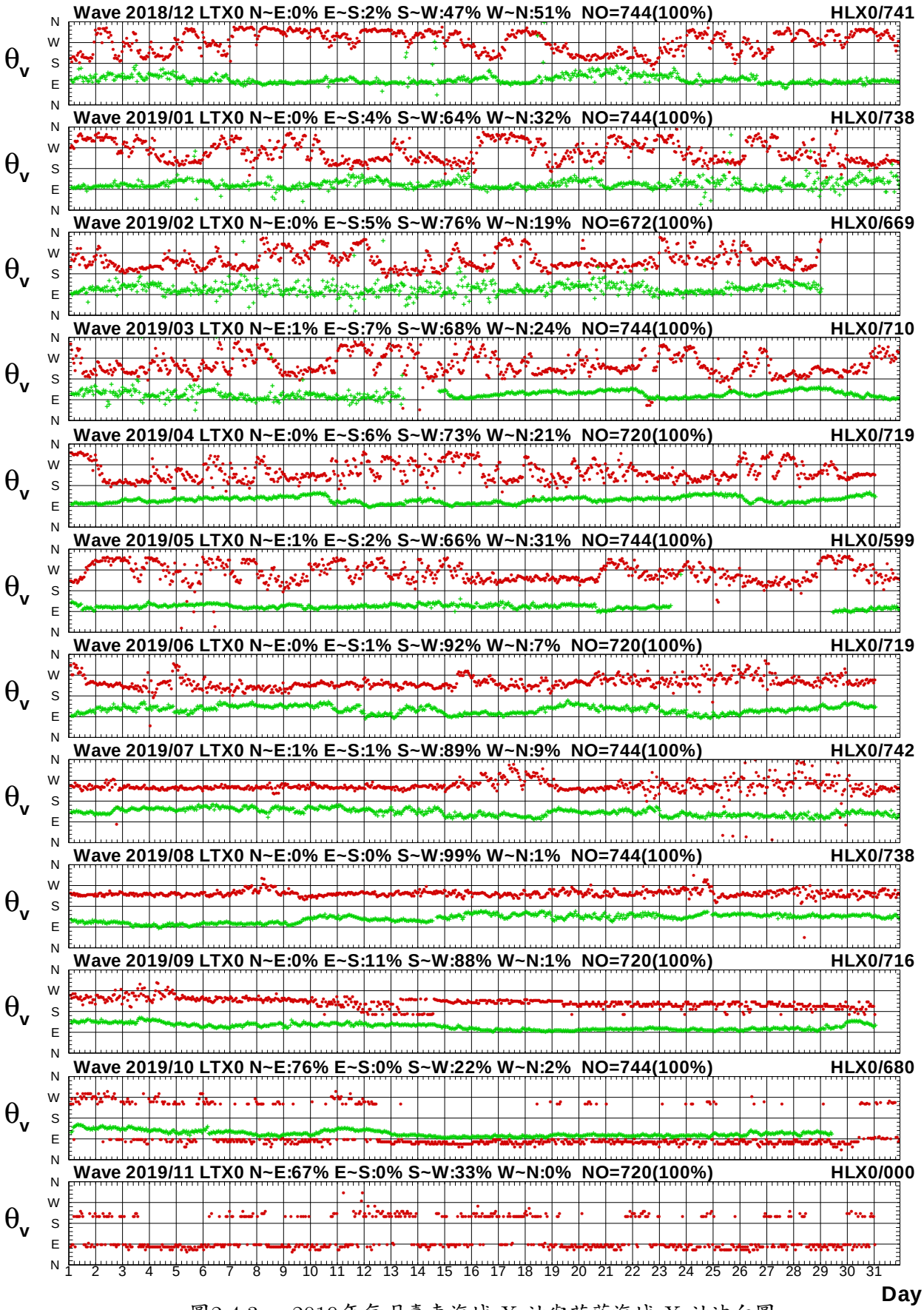

圖2.4.3c　2019年每月臺東海域 X 站與花蓮海域 X 站波向圖

V18CLTX0.1HA V18CHLX0.1H0 V191LTX0.1HA V191HLX0.1H0 V192LTX0.1HA V192HLX0.1H0
V193LTX0.1HA V193HLX0.1H0 V194LTX0.1HA V194HLX0.1H0 V195LTX0.1HA V195HLX0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

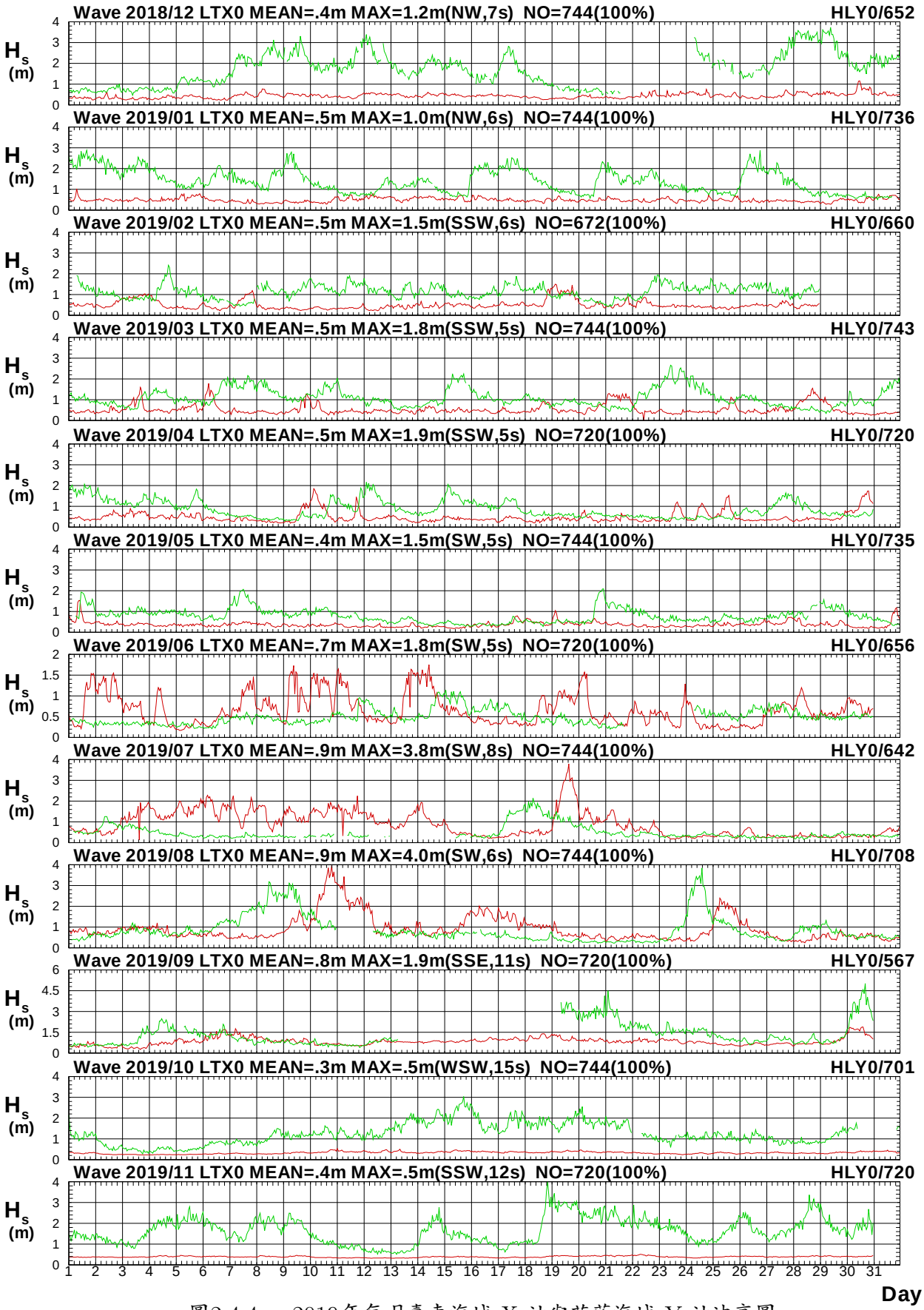

圖2.4.4a　2019年每月臺東海域 X 站與花蓮海域 Y 站波高圖

V18CLTX0.1HA V18CHLY0.1H0 V191LTX0.1HA V191HLY0.1H0 V192LTX0.1HA V192HLY0.1H0
V193LTX0.1HA V193HLY0.1H0 V194LTX0.1HA V194HLY0.1H0 V195LTX0.1HA V195HLY0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

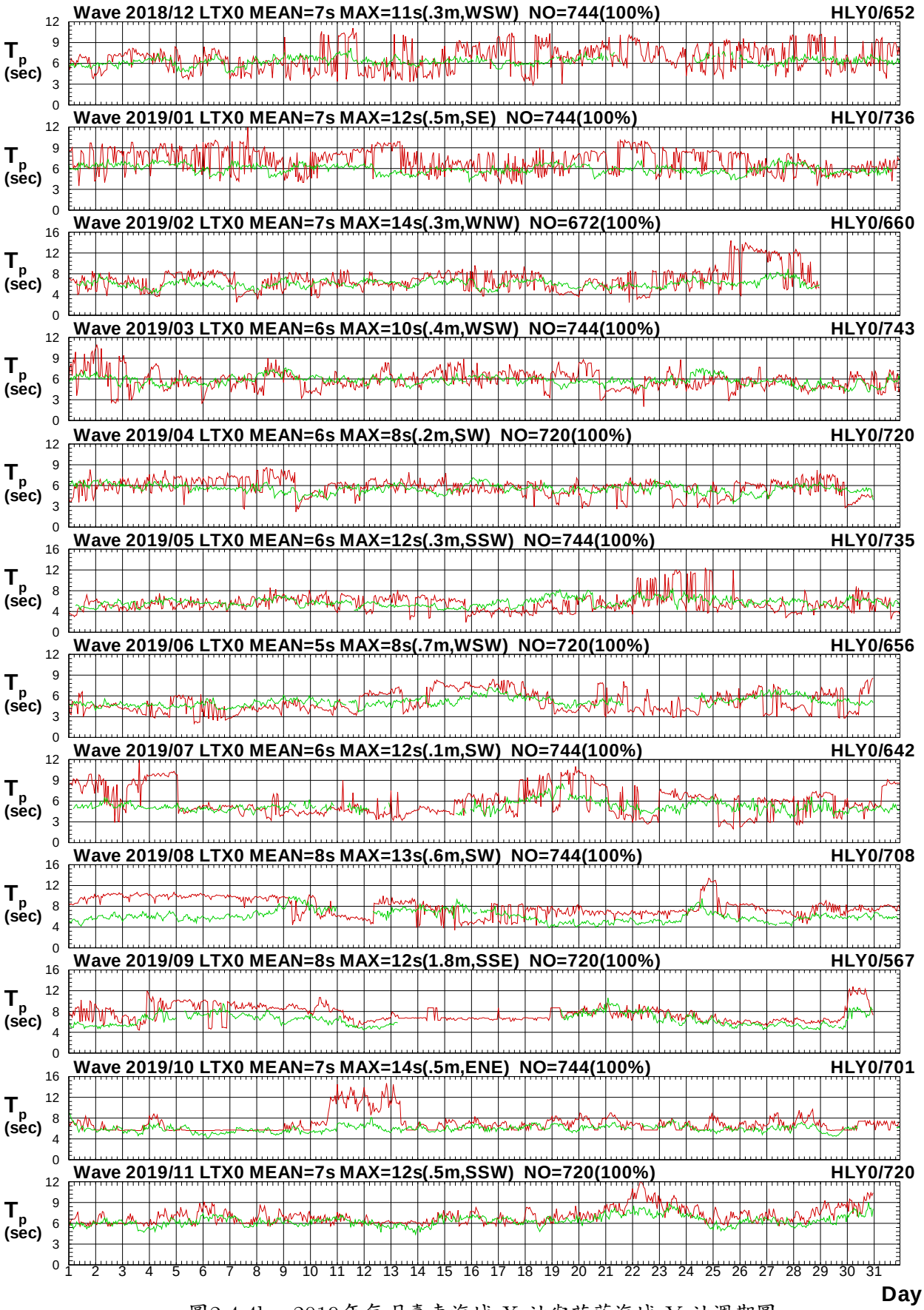

圖2.4.4b　2019年每月臺東海域 X 站與花蓮海域 Y 站週期圖

V18CLTX0.1HA V18CHLY0.1H0 V191LTX0.1HA V191HLY0.1H0 V192LTX0.1HA V192HLY0.1H0
V193LTX0.1HA V193HLY0.1H0 V194LTX0.1HA V194HLY0.1H0 V195LTX0.1HA V195HLY0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

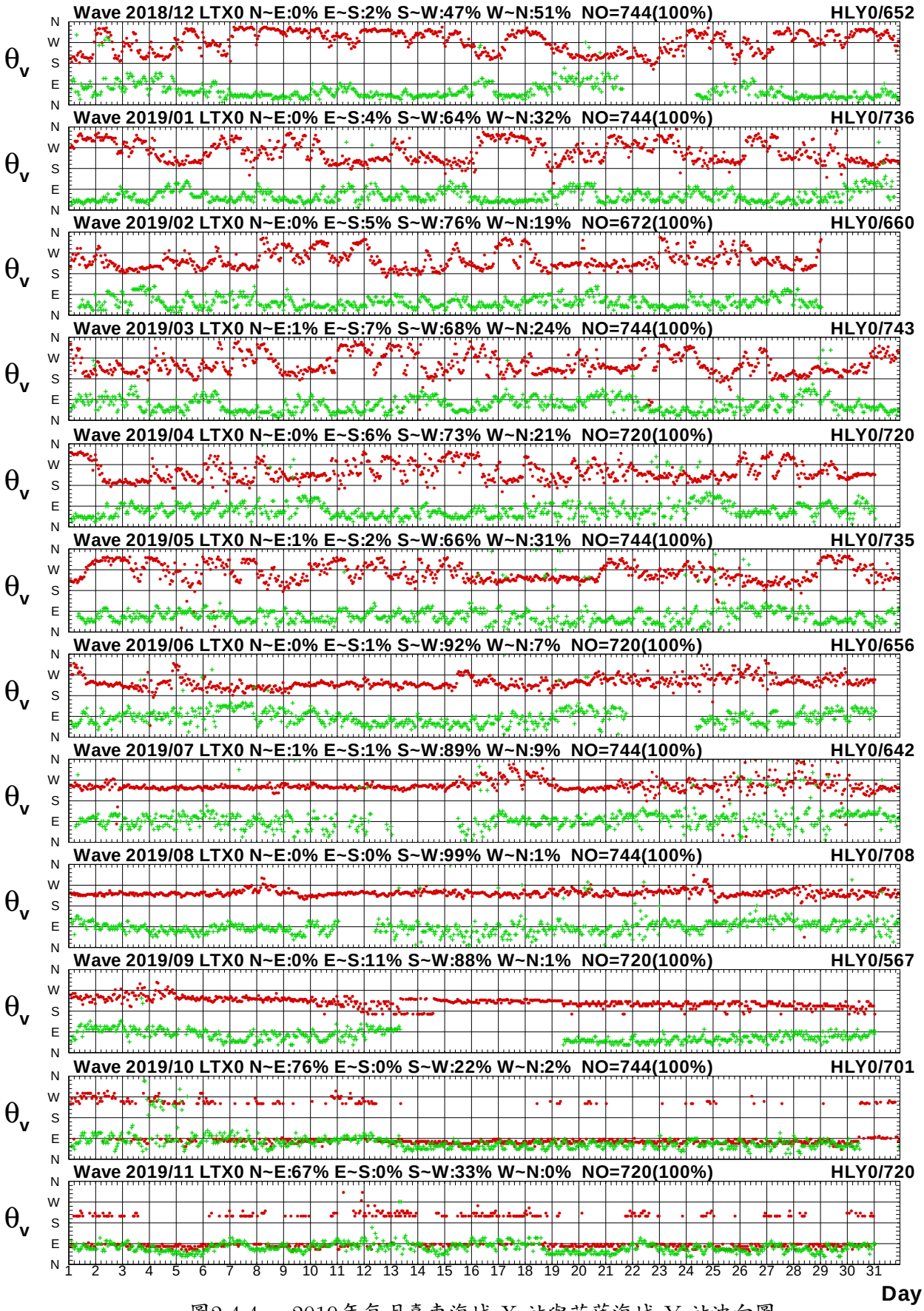

圖2.4.4c　2019年每月臺東海域 X 站與花蓮海域 Y 站波向圖

V18CLTX0.1HA V18CHLY0.1H0 V191LTX0.1HA V191HLY0.1H0 V192LTX0.1HA V192HLY0.1H0
V193LTX0.1HA V193HLY0.1H0 V194LTX0.1HA V194HLY0.1H0 V195LTX0.1HA V195HLY0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

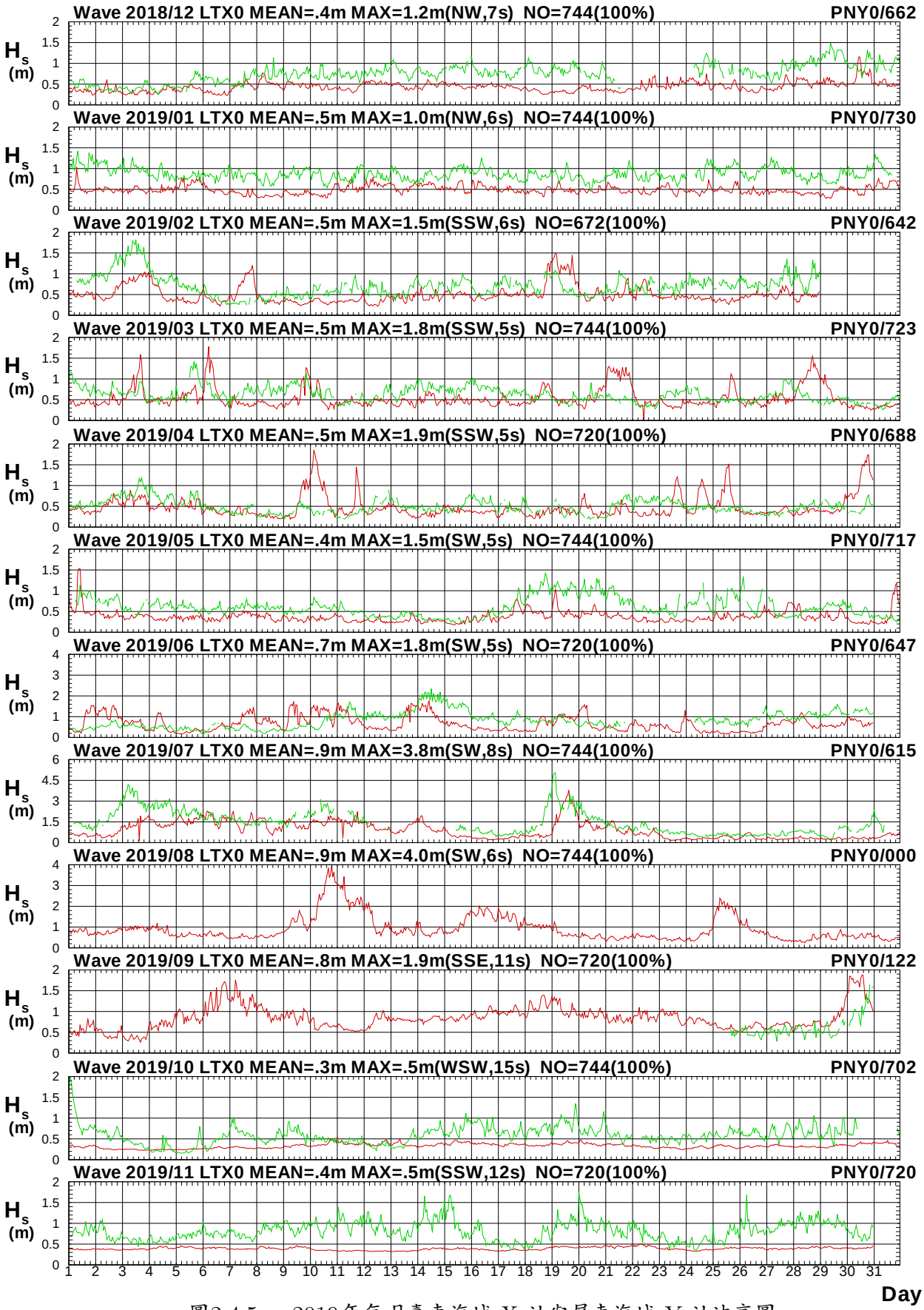

圖2.4.5a　2019年每月臺東海域 X 站與屏東海域 Y 站波高圖

V18CLTX0.1HA V18CPNY0.1H0 V191LTX0.1HA V191PNY0.1H0 V192LTX0.1HA V192PNY0.1H0
V193LTX0.1HA V193PNY0.1H0 V194LTX0.1HA V194PNY0.1H0 V195LTX0.1HA V195PNY0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

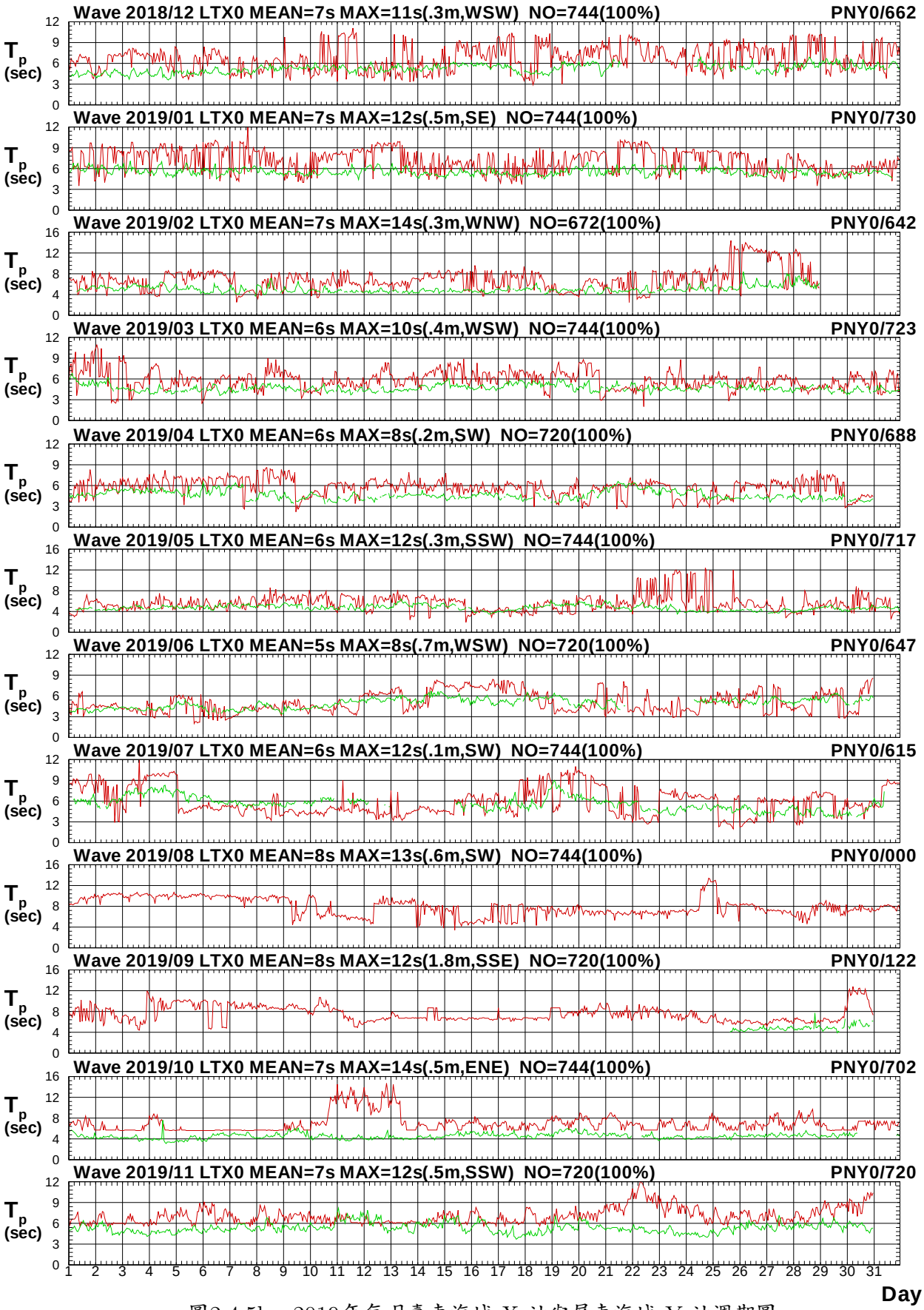

圖2.4.5b　2019年每月臺東海域 X 站與屏東海域 Y 站週期圖

V18CLTX0.1HA V18CPNY0.1H0 V191LTX0.1HA V191PNY0.1H0 V192LTX0.1HA V192PNY0.1H0
V193LTX0.1HA V193PNY0.1H0 V194LTX0.1HA V194PNY0.1H0 V195LTX0.1HA V195PNY0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

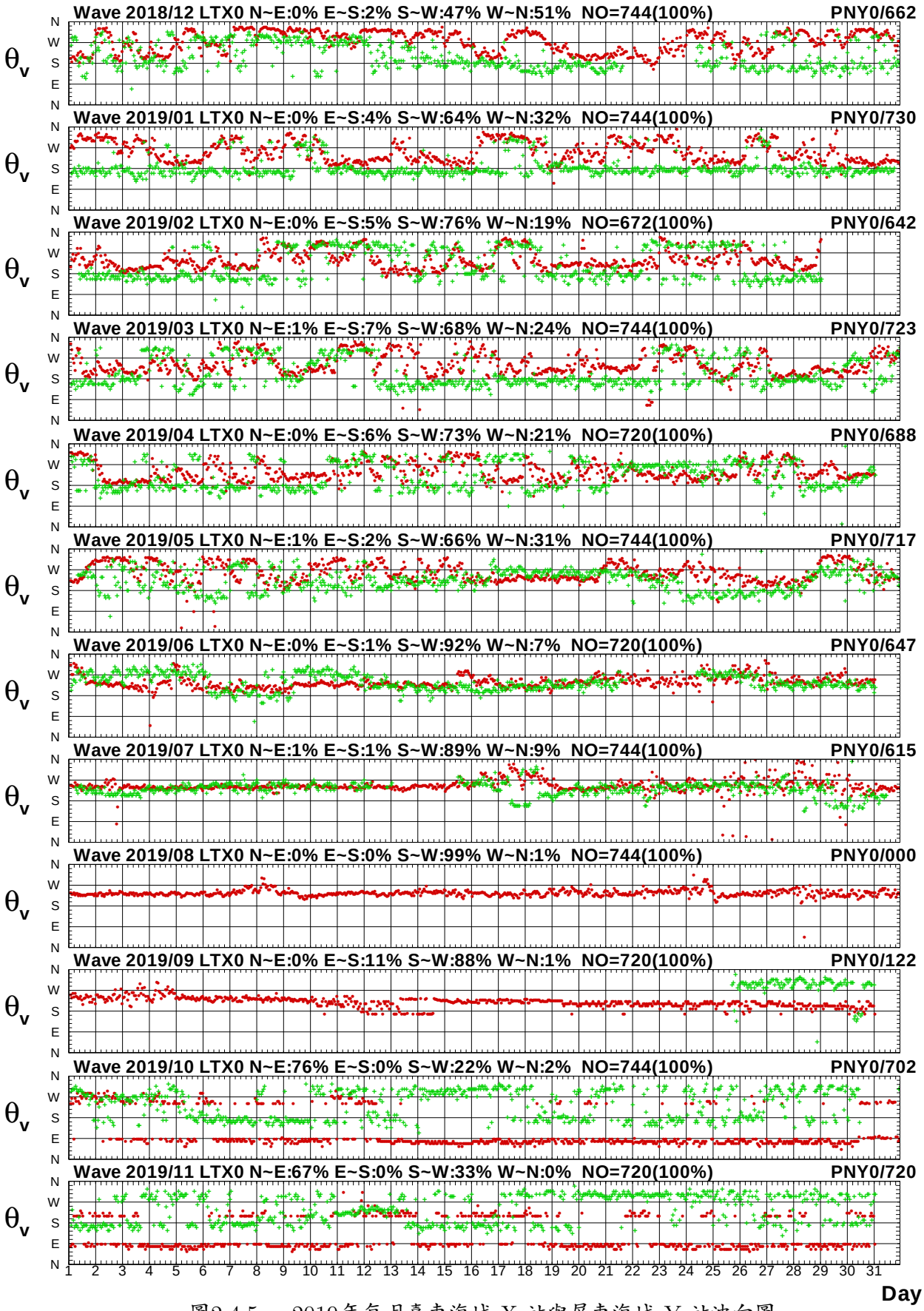

圖2.4.5c　2019年每月臺東海域 X 站與屏東海域 Y 站波向圖

V18CLTX0.1HA V18CPNY0.1H0 V191LTX0.1HA V191PNY0.1H0 V192LTX0.1HA V192PNY0.1H0
V193LTX0.1HA V193PNY0.1H0 V194LTX0.1HA V194PNY0.1H0 V195LTX0.1HA V195PNY0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

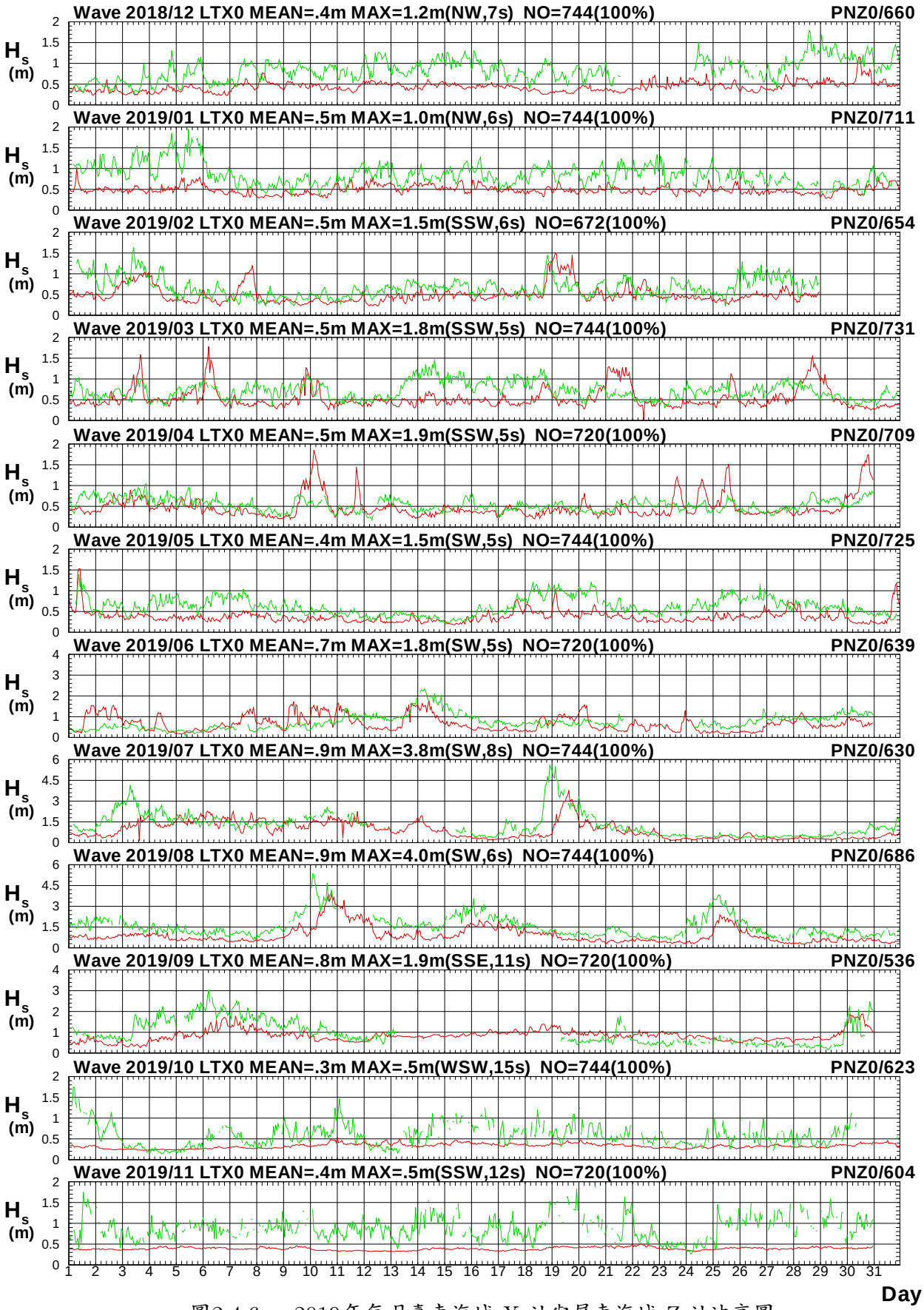

圖2.4.6a　2019年每月臺東海域 X 站與屏東海域 Z 站波高圖

V18CLTX0.1HA V18CPNZ0.1H0 V191LTX0.1HA V191PNZ0.1H0 V192LTX0.1HA V192PNZ0.1H0
V193LTX0.1HA V193PNZ0.1H0 V194LTX0.1HA V194PNZ0.1H0 V195LTX0.1HA V195PNZ0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

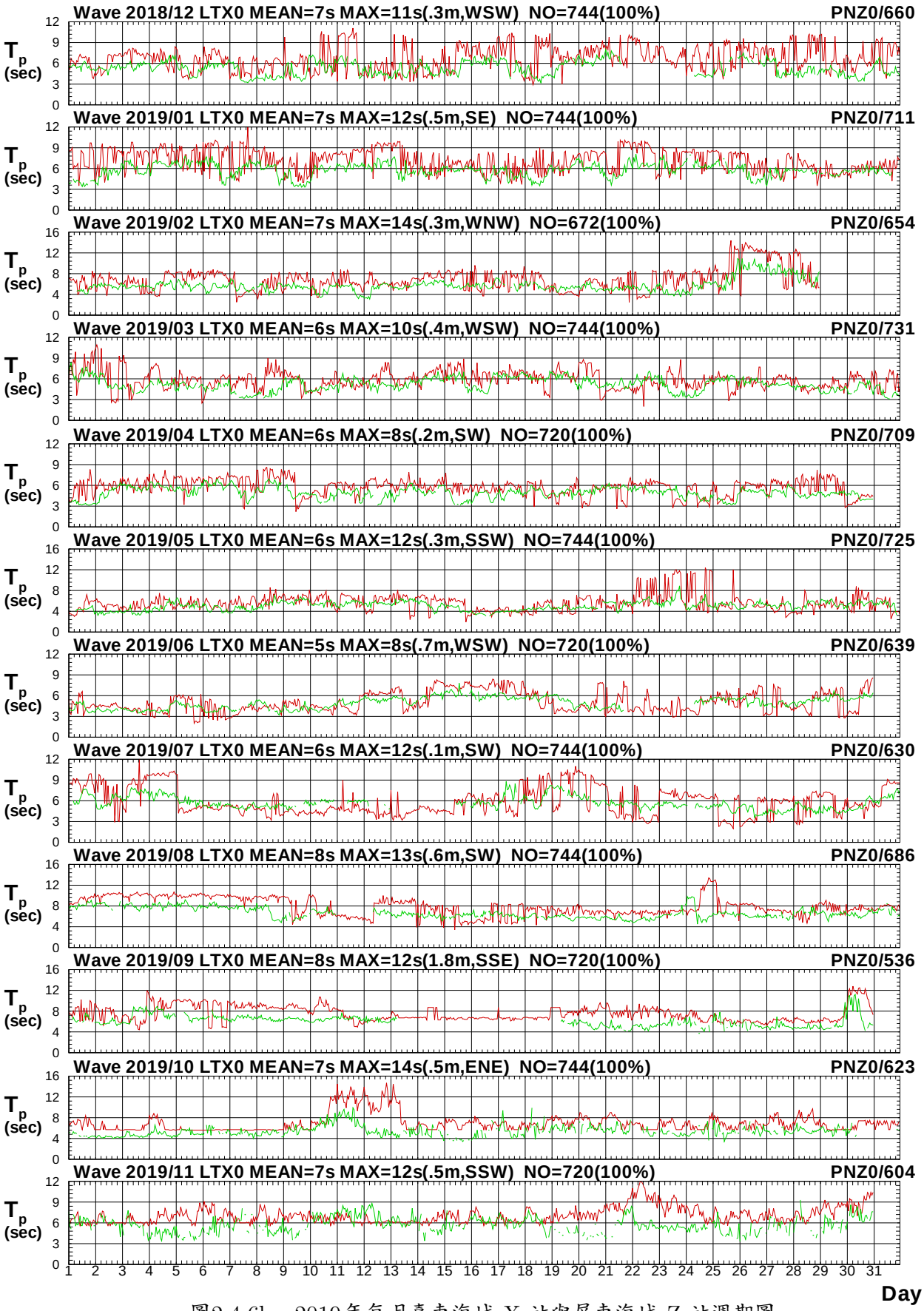

圖2.4.6b　2019年每月臺東海域 X 站與屏東海域 Z 站週期圖

V18CLTX0.1HA V18CPNZ0.1H0 V191LTX0.1HA V191PNZ0.1H0 V192LTX0.1HA V192PNZ0.1H0
V193LTX0.1HA V193PNZ0.1H0 V194LTX0.1HA V194PNZ0.1H0 V195LTX0.1HA V195PNZ0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

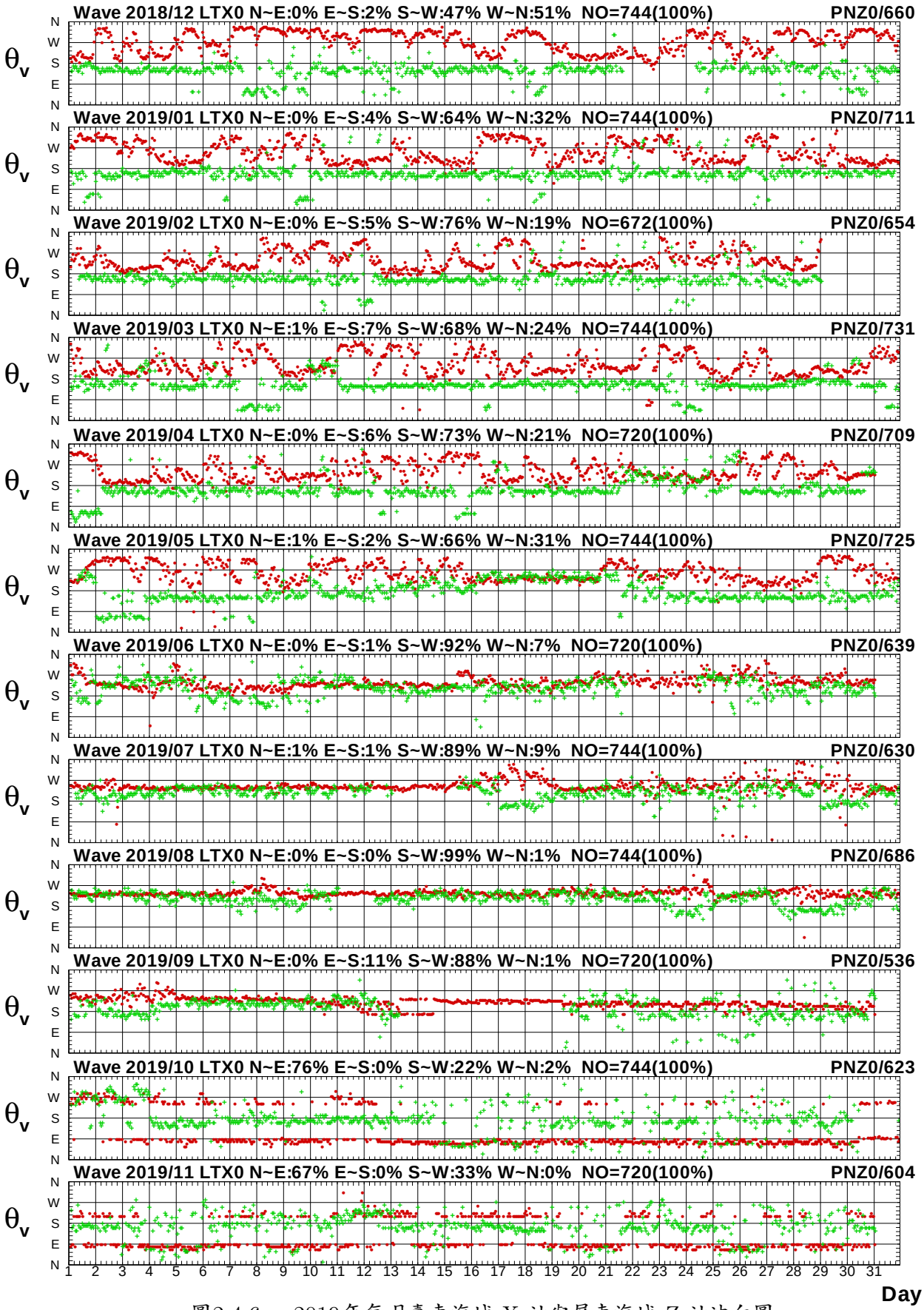

圖2.4.6c　2019年每月臺東海域 X 站與屏東海域 Z 站波向圖

V18CLTX0.1HA V18CPNZ0.1H0 V191LTX0.1HA V191PNZ0.1H0 V192LTX0.1HA V192PNZ0.1H0
V193LTX0.1HA V193PNZ0.1H0 V194LTX0.1HA V194PNZ0.1H0 V195LTX0.1HA V195PNZ0.1H0

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Wave H_s in Lu-Tao Harbor of LTX0 at 2019

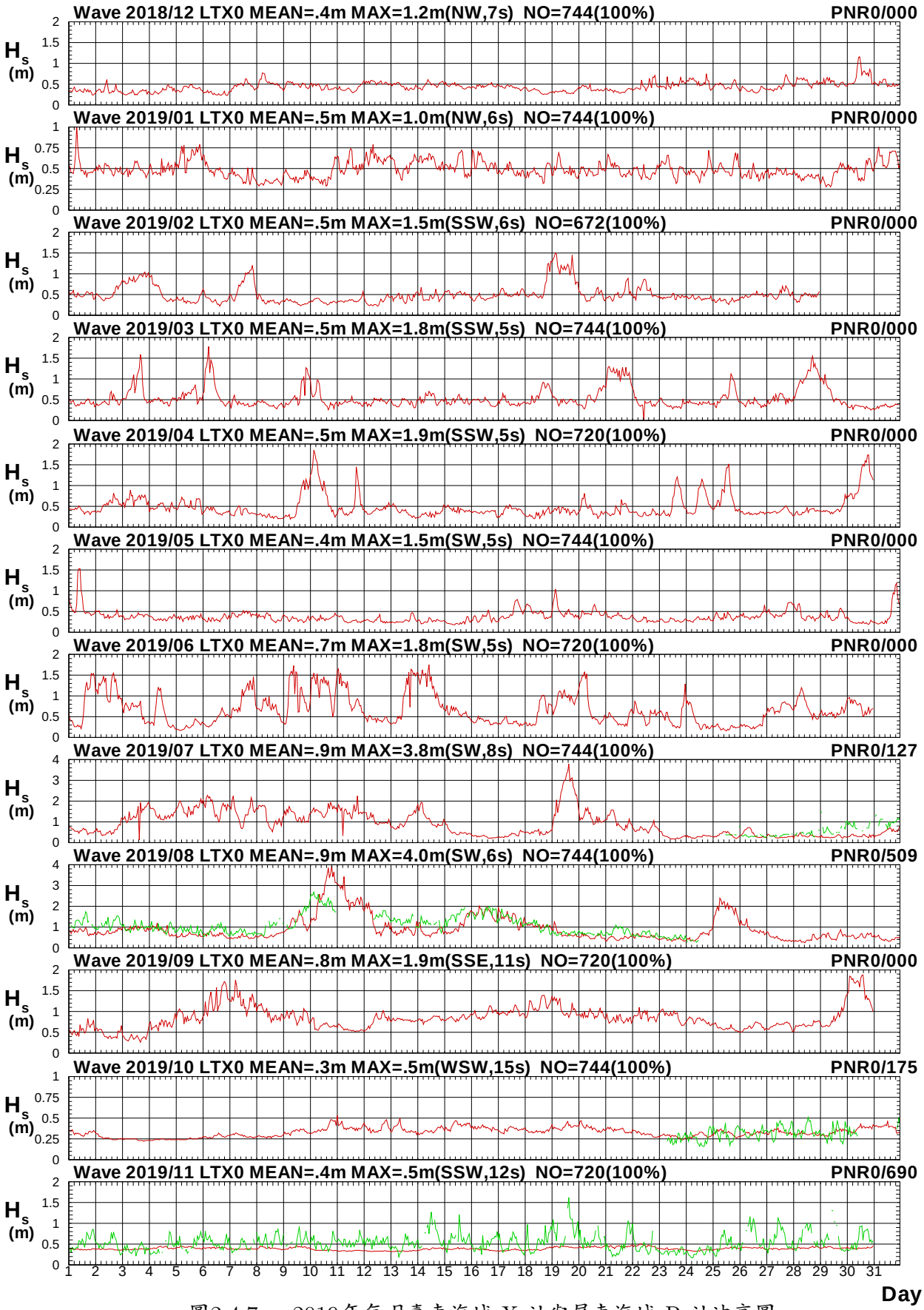

圖2.4.7a　2019年每月臺東海域 X 站與屏東海域 R 站波高圖

V18CLTX0.1HA V18CPNR0.1H0 V191LTX0.1HA V191PNR0.1H0 V192LTX0.1HA V192PNR0.1H0
V193LTX0.1HA V193PNR0.1H0 V194LTX0.1HA V194PNR0.1H0 V195LTX0.1HA V195PNR0.1H0

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Wave T_p in Lu-Tao Harbor of LTX0 at 2019

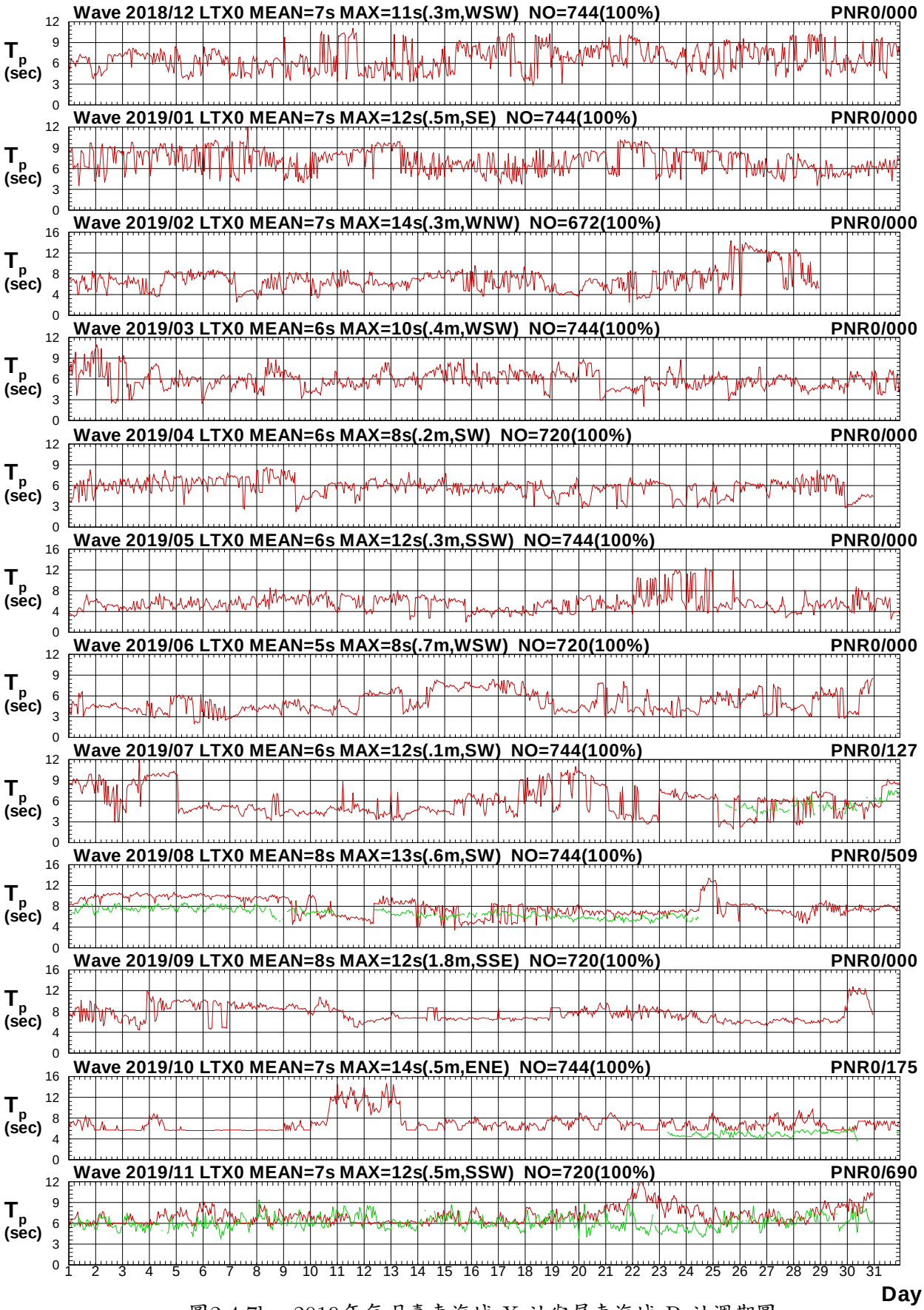

圖2.4.7b　2019年每月臺東海域 X 站與屏東海域 R 站週期圖

V18CLTX0.1HA V18CPNR0.1H0 V191LTX0.1HA V191PNR0.1H0 V192LTX0.1HA V192PNR0.1H0
V193LTX0.1HA V193PNR0.1H0 V194LTX0.1HA V194PNR0.1H0 V195LTX0.1HA V195PNR0.1H0

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Wave Direction in Lu-Tao Harbor of LTX0 at 2019

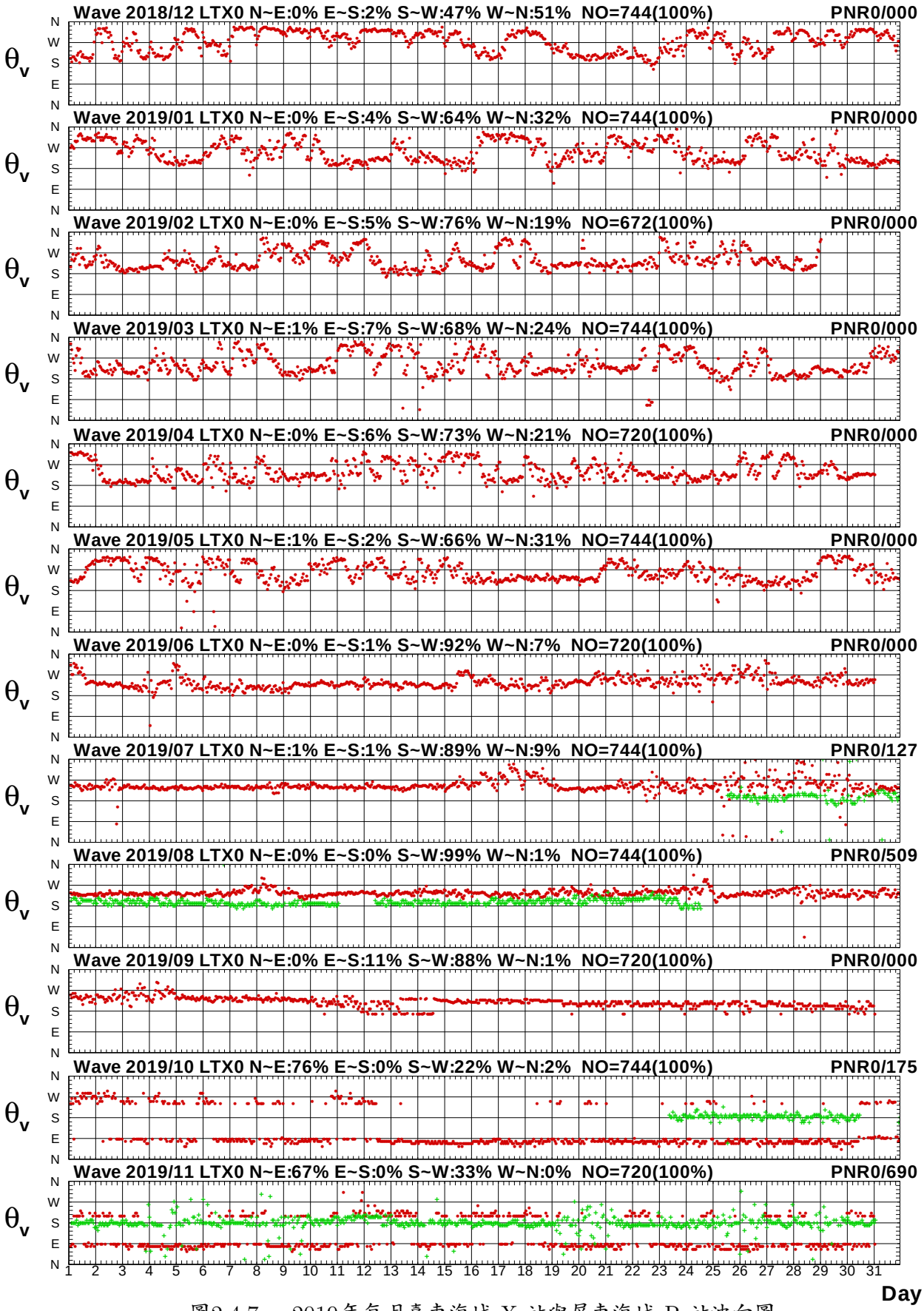

圖2.4.7c　2019年每月臺東海域 X 站與屏東海域 R 站波向圖

V18CLTX0.1HA V18CPNR0.1H0 V191LTX0.1HA V191PNR0.1H0 V192LTX0.1HA V192PNR0.1H0
V193LTX0.1HA V193PNR0.1H0 V194LTX0.1HA V194PNR0.1H0 V195LTX0.1HA V195PNR0.1H0

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2.5　2019 年臺東海域波浪各測站修補前波浪向量分佈圖

Distribution of H_s Vectores

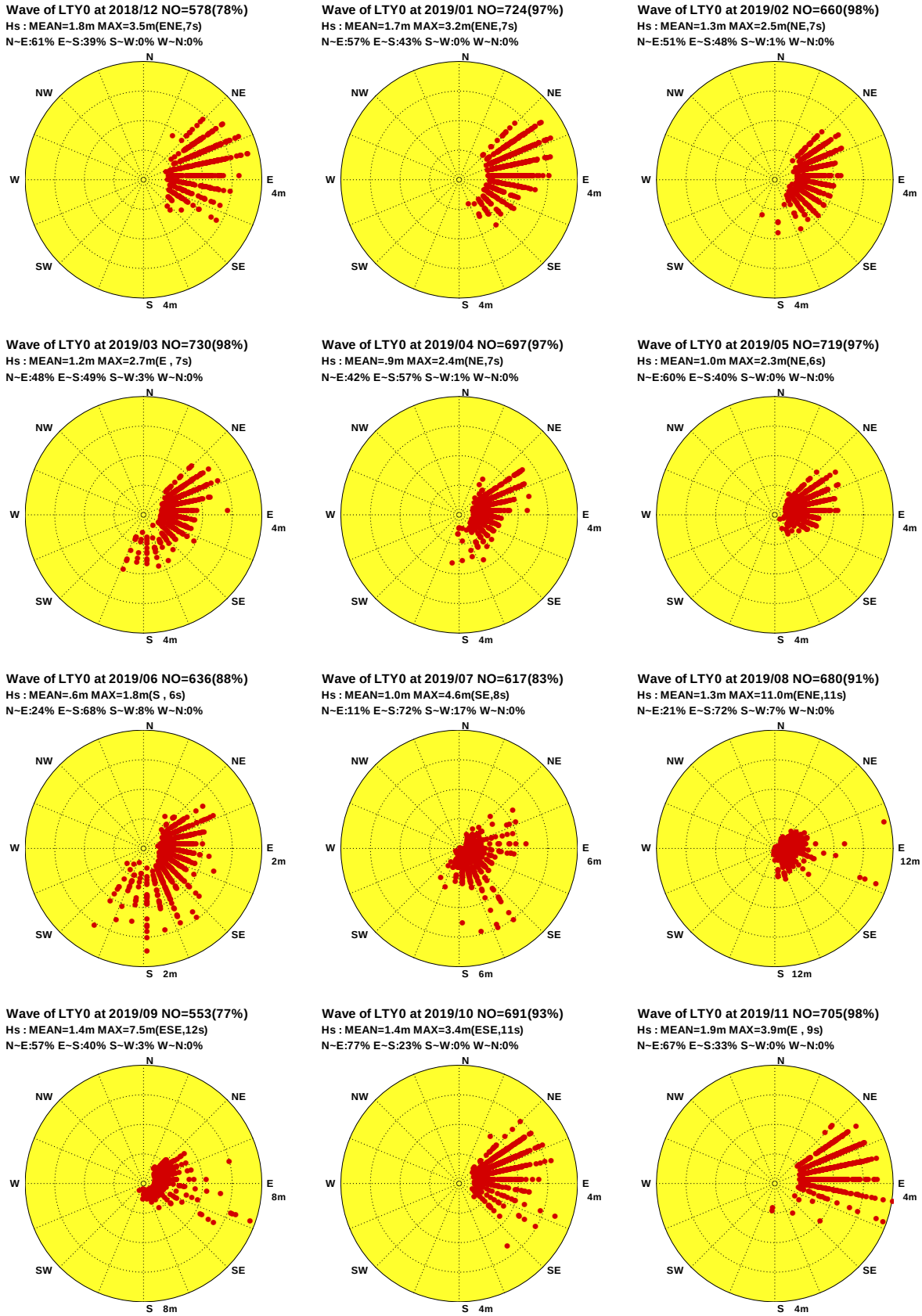

圖2.5.1 2019年臺東海域每月 Y 站修補前觀測波高向量分佈圖

V18CLTY0.1H0 V191LTY0.1H0 V192LTY0.1H0 V193LTY0.1H0 V194LTY0.1H0 V195LTY0.1H0
V196LTY0.1H0 V197LTY0.1H0 V198LTY0.1H0 V199LTY0.1H0 V19ALTY0.1H0 V19BLTY0.1H0

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Distribution of H_s Vectores

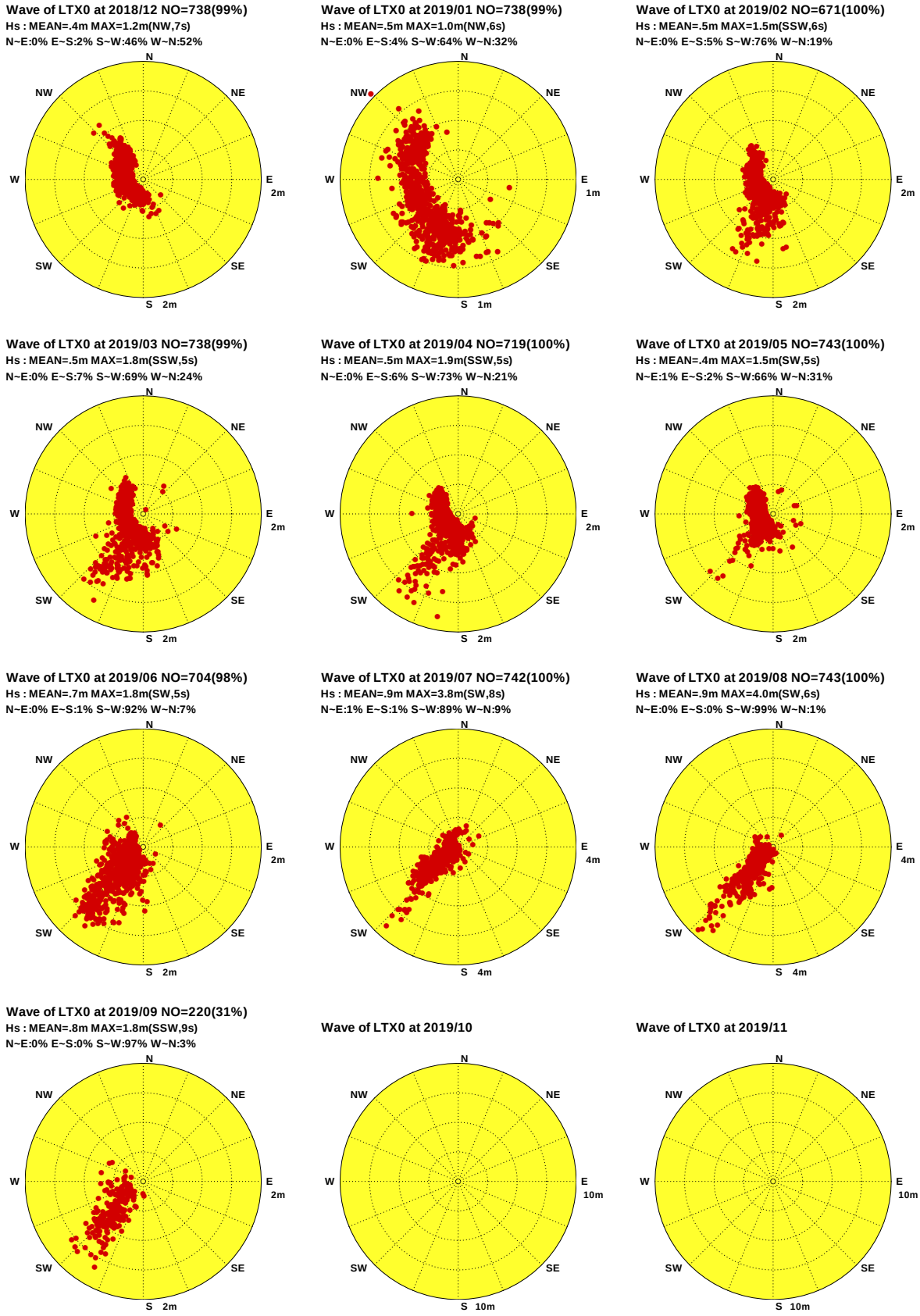

圖2.5.2 2019年臺東海域每月 X 站修補前觀測波高向量分佈圖

V18CLTX0.1H0 V191LTX0.1H0 V192LTX0.1H0 V193LTX0.1H0 V194LTX0.1H0 V195LTX0.1H0
V196LTX0.1H0 V197LTX0.1H0 V198LTX0.1H0 V199LTX0.1H0 V19ALTX0.1H0 V19BLTX0.1H0

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Distribution of H_s Vectores

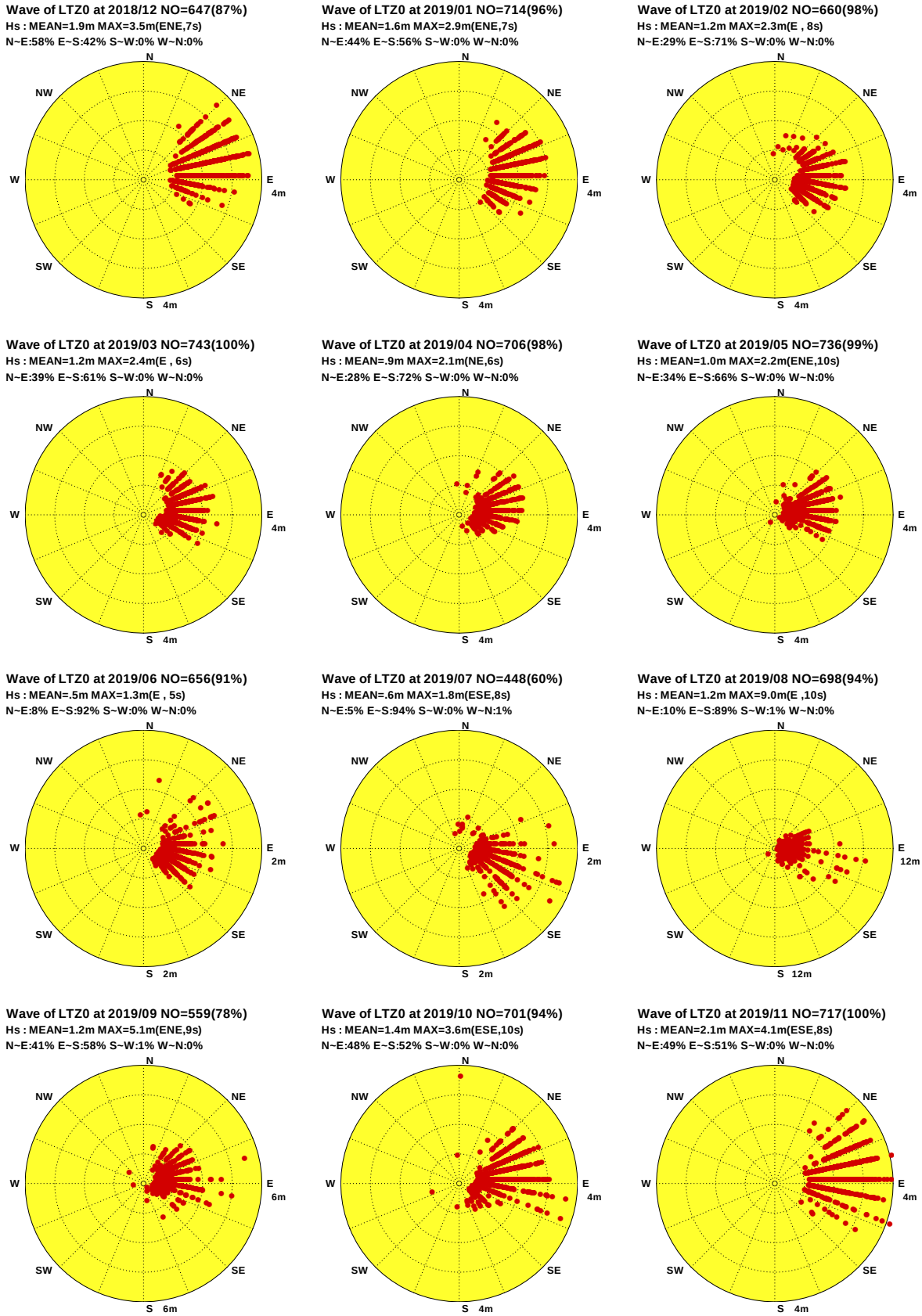

圖2.5.3 2019年臺東海域每月 Z 站修補前觀測波高向量分佈圖

V18CLTZ0.1H0 V191LTZ0.1H0 V192LTZ0.1H0 V193LTZ0.1H0 V194LTZ0.1H0 V195LTZ0.1H0
V196LTZ0.1H0 V197LTZ0.1H0 V198LTZ0.1H0 V199LTZ0.1H0 V19ALTZ0.1H0 V19BLTZ0.1H0

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第三章　2019 年臺東海域觀測潮汐資料年報

2019 年臺東海域潮汐之觀測包括**測站 T**、**測站 X**、**測站 F**、**測站 J**、**測站 K**、**測站 P**、**測站 Q 及測站 M** 等 8 個測站(測站位置如第 O 章圖 TJ1，各測站歷年觀測潮汐資料蒐集概況如表 TJ1)。**測站 J** 與其他 7 個測站特性皆相近。本年報取經檢核及補遺之**測站 J** 資料作為主要測站 1，**測站 F** 資料作為主要測站 2，**測站 M** 資料作為主要測站 3。

3.1　2019 年臺東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 年臺東海域**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 年臺東海域**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 年臺東海域**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 年臺東海域**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年每月臺東海域修補前各測站觀測潮汐資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	J	F	M	T	X	K	P	Q				
2018/12 月	623(83.7%)	615(82.7%)	650(87.4%)	*	744(100%)	*	619(83.2%)	657(88.3%)	*	*	*	*
2019/ 1 月	705(94.8%)	706(94.9%)	720(96.8%)	*	744(100%)	54(7.3%)	701(94.2%)	744(100%)	*	*	*	*
2019/ 2 月	643(95.7%)	643(95.7%)	672(100%)	*	672(100%)	416(61.9%)	642(95.5%)	672(100%)	*	*	*	*
2019/ 3 月	744(100%)	744(100%)	705(94.8%)	*	737(99.1%)	668(89.8%)	744(100%)	705(94.8%)	*	*	*	*
2019/ 4 月	720(100%)	720(100%)	720(100%)	720(100%)	720(100%)	717(99.6%)	720(100%)	720(100%)	*	*	*	*
2019/ 5 月	744(100%)	744(100%)	719(96.6%)	730(98.1%)	744(100%)	634(85.2%)	744(100%)	744(100%)	*	*	*	*
2019/ 6 月	659(91.5%)	659(91.5%)	604(83.9%)	720(100%)	*	267(37.1%)	659(91.5%)	604(83.9%)	*	*	*	*
2019/ 7 月	654(87.9%)	654(87.9%)	153(20.6%)	744(100%)	*	521(70.0%)	650(87.4%)	153(20.6%)	*	*	*	*
2019/ 8 月	710(95.4%)	712(95.7%)	652(87.6%)	744(100%)	*	713(95.8%)	705(94.8%)	652(87.6%)	*	*	*	*
2019/ 9 月	571(79.3%)	571(79.3%)	720(100%)	720(100%)	*	571(79.3%)	570(79.2%)	720(100%)	*	*	*	*
2019/10 月	702(94.4%)	702(94.4%)	716(96.2%)	721(96.9%)	*	501(67.3%)	702(94.4%)	716(96.2%)	*	*	*	*
2019/11 月	720(100%)	720(100%)	682(94.7%)	720(100%)	*	160(22.2%)	720(100%)	682(94.7%)	*	*	*	*
2019/冬季	1971(91.3%)	1964(90.9%)	2042(94.5%)	*	2160(100%)	470(21.8%)	1962(90.8%)	2073(96.0%)	*	*	*	*
2019/春季	2208(100%)	2208(100%)	2144(97.1%)	1450(65.7%)	2201(99.7%)	2019(91.4%)	2208(100%)	2169(98.2%)	*	*	*	*
2019/夏季	2023(91.6%)	2025(91.7%)	1409(63.8%)	2208(100%)	2190(99.2%)	1501(68.0%)	2014(91.2%)	1409(63.8%)	*	*	*	*
2019/秋季	1993(91.3%)	1993(91.3%)	2118(97.0%)	2161(98.9%)	220(10.1%)	1232(56.4%)	1992(91.2%)	2118(97.0%)	*	*	*	*
2019/整年	8195(93.6%)	8190(93.5%)	7713(88.0%)	5819(66.4%)	4361(49.8%)	5222(59.6%)	8176(93.3%)	7769(88.7%)	*	*	*	*
起始年月	2018/12	2018/12	2018/12	2019/04	2018/12	2019/01	2018/12	2018/12	*	*	*	*
結束年月	2019/11	2019/11	2019/11	2019/11	2019/05	2019/11	2019/11	2019/11	*	*	*	*

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表3.1.1b 2019年每月臺東海域修補後各測站潮汐資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	J	F	M									
2018/12月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 1月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 2月	672(100%)	672(100%)	672(100%)	*	*	*	*	*	*	*	*	*
2019/ 3月	744(100%)	744(100%)	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%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/ 7月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 8月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/ 9月	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/10月	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*
2019/11月	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	2160(100%)	2160(100%)	*	*	*	*	*	*	*	*	*
2019/春季	2208(100%)	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*
2019/夏季	2208(100%)	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*
2019/秋季	2184(100%)	2184(100%)	2184(100%)	*	*	*	*	*	*	*	*	*
2019/整年	8760(100%)	8760(100%)	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年臺東海域主要測站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	J	92	139	122	136	12.5	14.0	13.3	14.0	59	11	113	-73	744(100)	58	75	-34	-44
2	2019/01	J	90	200	149	187	12.4	14.0	13.3	14.0	59	14	116	-88	744(100)	60	77	-31	-42
3	2019/02	J	96	199	150	183	12.4	14.0	13.5	14.0	53	14	110	-93	672(100)	62	76	-34	-39
4	2019/03	J	95	176	141	165	12.6	25.0	14.2	16.6	58	16	112	-75	744(100)	63	77	-31	-50
5	2019/04	J	96	170	139	160	12.4	15.0	13.6	14.4	57	19	102	-71	720(100)	67	84	-29	-47
6	2019/05	J	97	170	143	164	12.4	14.0	13.5	14.0	59	24	109	-62	744(100)	72	87	-24	-39
7	2019/06	J	96	183	147	172	12.4	14.0	13.4	14.0	57	22	104	-78	720(100)	69	78	-26	-41
8	2019/07	J	96	184	152	177	12.4	14.0	13.5	14.0	59	28	117	-77	744(100)	76	85	-20	-33
9	2019/08	J	102	193	151	190	12.4	14.0	13.4	14.0	59	27	124	-74	744(100)	78	83	-24	-36
10	2019/09	J	99	165	139	157	12.4	14.0	13.3	14.0	57	26	120	-71	720(100)	76	82	-23	-41
11	2019/10	J	94	154	131	146	12.6	25.0	13.9	16.6	58	20	103	-75	744(100)	67	80	-27	-41
12	2019/11	J	93	183	143	171	12.6	25.0	13.9	16.2	56	16	95	-88	720(100)	62	71	-30	-41
13	2019/冬	J	93	156	126	143	12.4	15.0	13.3	13.9	173	13	116	-93	2160(100)	60	76	-33	-42
14	2019/春	J	95	176	141	163	12.5	25.0	13.7	14.9	176	20	112	-75	2208(100)	67	83	-28	-46
15	2019/夏	J	97	193	149	179	12.4	14.0	13.4	14.0	177	25	124	-78	2208(100)	74	83	-23	-37
16	2019/秋	J	95	183	138	158	12.6	25.0	13.7	15.4	173	21	120	-88	2184(100)	69	78	-27	-41
17	2019/年	J	95	183	130	149	12.5	25.0	13.4	14.4	701	20	124	-93	8760(100)	68	80	-28	-41

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表3.1.3　2019年臺東海域主要測站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	F	92	193	127	152	12.7	25.0	13.8	16.0	58	2	104	-89	744(100)	48	64	-43	-54
2	2019/01	F	92	205	146	186	12.4	14.0	13.2	13.6	59	11	114	-91	744(100)	57	75	-35	-46
3	2019/02	F	96	187	143	172	12.4	14.0	13.3	14.0	53	7	100	-88	672(100)	55	69	-40	-44
4	2019/03	F	94	180	140	165	12.4	16.0	13.7	14.8	59	13	123	-71	744(100)	60	76	-33	-50
5	2019/04	F	96	163	137	155	12.6	24.0	13.9	16.4	56	20	107	-61	720(100)	68	83	-27	-49
6	2019/05	F	90	161	134	154	12.4	15.0	13.6	14.4	59	26	111	-57	744(100)	71	88	-19	-34
7	2019/06	F	94	163	137	155	12.4	14.0	13.3	14.0	57	27	102	-61	720(100)	74	83	-19	-33
8	2019/07	F	96	188	146	175	12.4	14.0	13.2	13.8	59	29	126	-63	744(100)	77	90	-18	-29
9	2019/08	F	95	183	142	177	12.4	14.0	13.2	13.8	59	24	116	-71	744(100)	72	76	-24	-37
10	2019/09	F	99	168	139	158	12.4	14.0	13.3	14.0	57	16	112	-72	720(100)	67	75	-33	-51
11	2019/10	F	98	157	136	151	12.4	14.0	13.3	14.0	59	7	91	-86	744(100)	56	73	-42	-53
12	2019/11	F	95	149	128	140	12.4	14.0	13.2	13.6	57	4	82	-104	720(100)	53	63	-42	-56
13	2019/冬	F	93	201	138	169	12.5	25.0	13.4	14.4	172	7	114	-91	2160(100)	53	69	-40	-48
14	2019/春	F	93	180	137	157	12.5	24.0	13.8	15.1	176	20	123	-71	2208(100)	66	82	-26	-45
15	2019/夏	F	95	188	140	169	12.4	14.0	13.2	13.8	177	26	126	-71	2208(100)	74	84	-20	-33
16	2019/秋	F	98	168	135	152	12.4	14.0	13.2	13.8	175	9	112	-104	2184(100)	59	70	-39	-53
17	2019/年	F	95	201	140	166	12.5	26.0	13.3	14.1	702	16	126	-104	8760(100)	63	77	-31	-45

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表3.1.4　2019年臺東海域主要測站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	M	91	138	125	136	12.7	24.0	14.1	16.0	58	-292	-197	-380	744(100)	-247	-230	-338	-350
2	2019/01	M	95	151	138	148	12.6	26.0	13.8	16.0	58	-285	-187	-382	744(100)	-237	-221	-332	-344
3	2019/02	M	101	171	147	162	12.6	24.0	13.9	16.0	52	-288	-183	-376	672(100)	-237	-228	-337	-346
4	2019/03	M	98	180	144	167	12.6	25.0	14.1	16.8	58	-278	-175	-355	744(100)	-230	-211	-326	-342
5	2019/04	M	100	164	140	155	12.6	26.0	14.1	16.8	56	-272	-177	-354	720(100)	-222	-206	-322	-346
6	2019/05	M	92	157	133	154	12.6	24.0	14.0	16.0	58	-268	-182	-350	744(100)	-221	-204	-313	-330
7	2019/06	M	96	168	131	160	12.6	24.0	13.8	16.0	56	-263	-181	-350	720(100)	-214	-207	-310	-326
8	2019/07	M	96	182	146	174	12.4	14.0	13.2	13.8	59	-261	-164	-353	744(100)	-213	-201	-308	-320
9	2019/08	M	98	185	145	181	12.4	14.0	13.1	13.4	59	-270	-176	-363	744(100)	-220	-215	-319	-332
10	2019/09	M	101	179	144	168	12.4	15.0	13.6	14.4	57	-271	-177	-372	720(100)	-219	-212	-322	-345
11	2019/10	M	100	157	138	152	12.6	26.0	13.9	16.6	58	-287	-201	-378	744(100)	-236	-222	-337	-350
12	2019/11	M	93	133	125	132	12.4	15.0	13.4	14.2	57	-291	-210	-395	720(100)	-244	-235	-337	-352
13	2019/冬	M	96	194	134	155	12.7	25.0	14.0	15.9	170	-288	-183	-382	2160(100)	-240	-227	-336	-347
14	2019/春	M	96	180	136	155	12.6	26.0	14.0	16.2	174	-273	-175	-355	2208(100)	-224	-207	-320	-340
15	2019/夏	M	96	168	128	147	12.5	24.0	13.4	14.2	176	-265	-164	-363	2208(100)	-216	-207	-312	-326
16	2019/秋	M	99	179	137	156	12.5	26.0	13.6	14.9	174	-283	-177	-395	2184(100)	-233	-223	-332	-349
17	2019/年	M	97	194	134	154	12.6	26.0	13.7	15.4	696	-277	-164	-395	8760(100)	-228	-215	-325	-340

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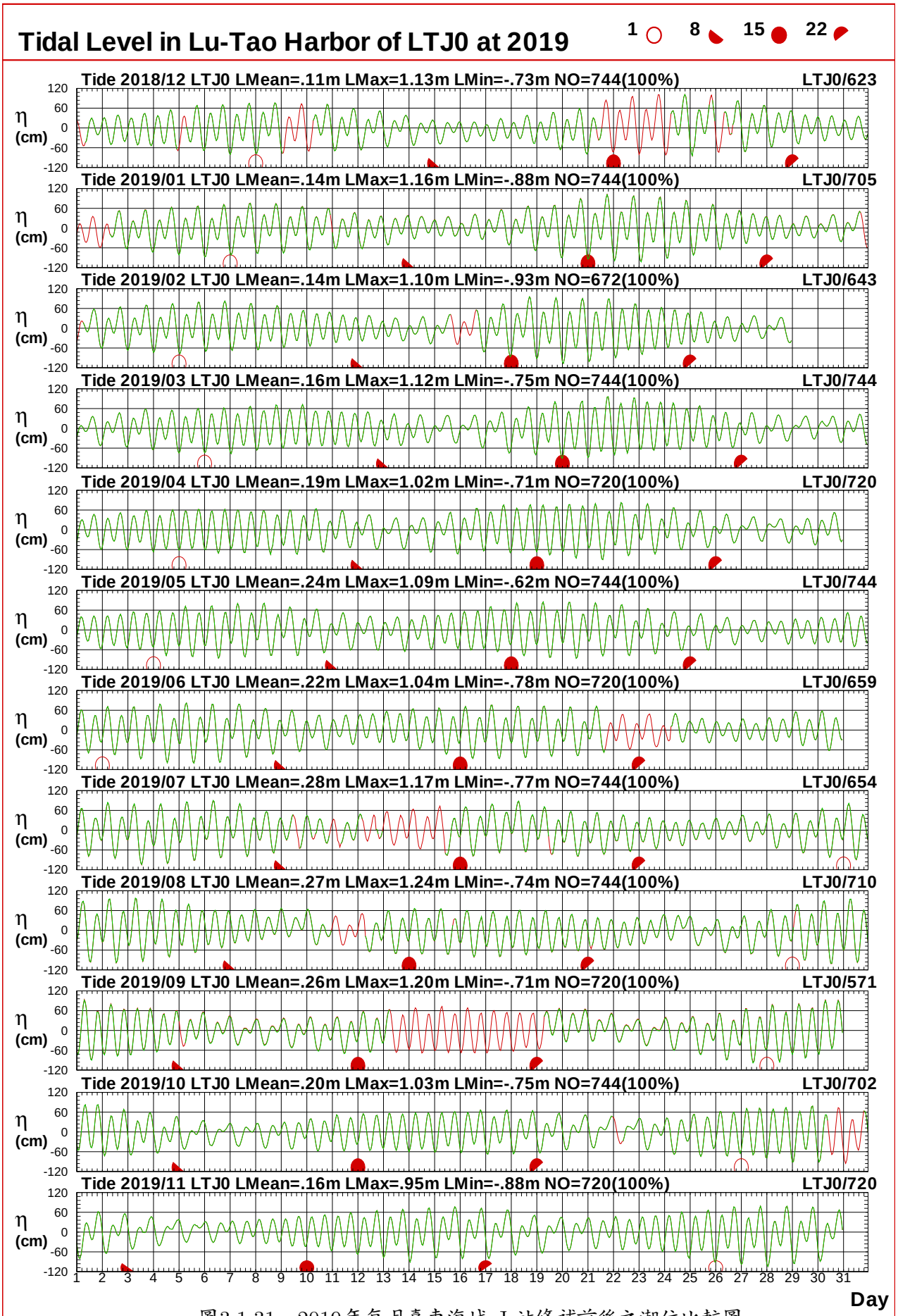

圖3.1.31　2019年每月臺東海域 J 站修補前後之潮位比較圖

T18CLTJ0.1HA T18CLTJ0.1H0 T191LTJ0.1HA T191LTJ0.1H0 T192LTJ0.1HA T192LTJ0.1H0
T193LTJ0.1HA T193LTJ0.1H0 T194LTJ0.1HA T194LTJ0.1H0 T195LTJ0.1HA T195LTJ0.1H0

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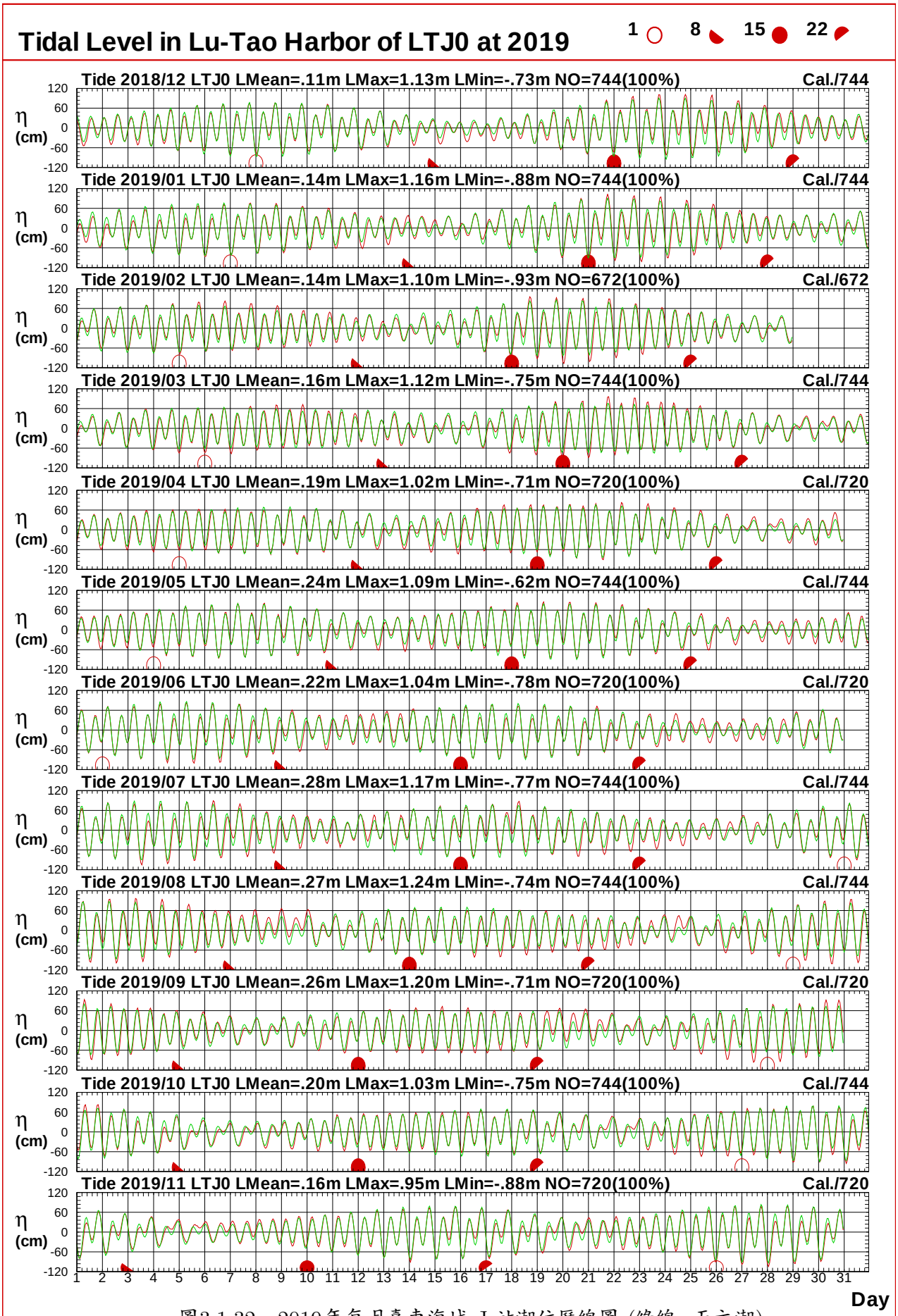

圖3.1.32　2019年每月臺東海域 J 站潮位歷線圖 (綠線: 天文潮)

T18CLTJ0.1HA T18CLTT0.1HC T191LTJ0.1HA T191LTT0.1HC T192LTJ0.1HA T192LTT0.1HC
T193LTJ0.1HA T193LTT0.1HC T194LTJ0.1HA T194LTT0.1HC T195LTJ0.1HA T195LTT0.1HC

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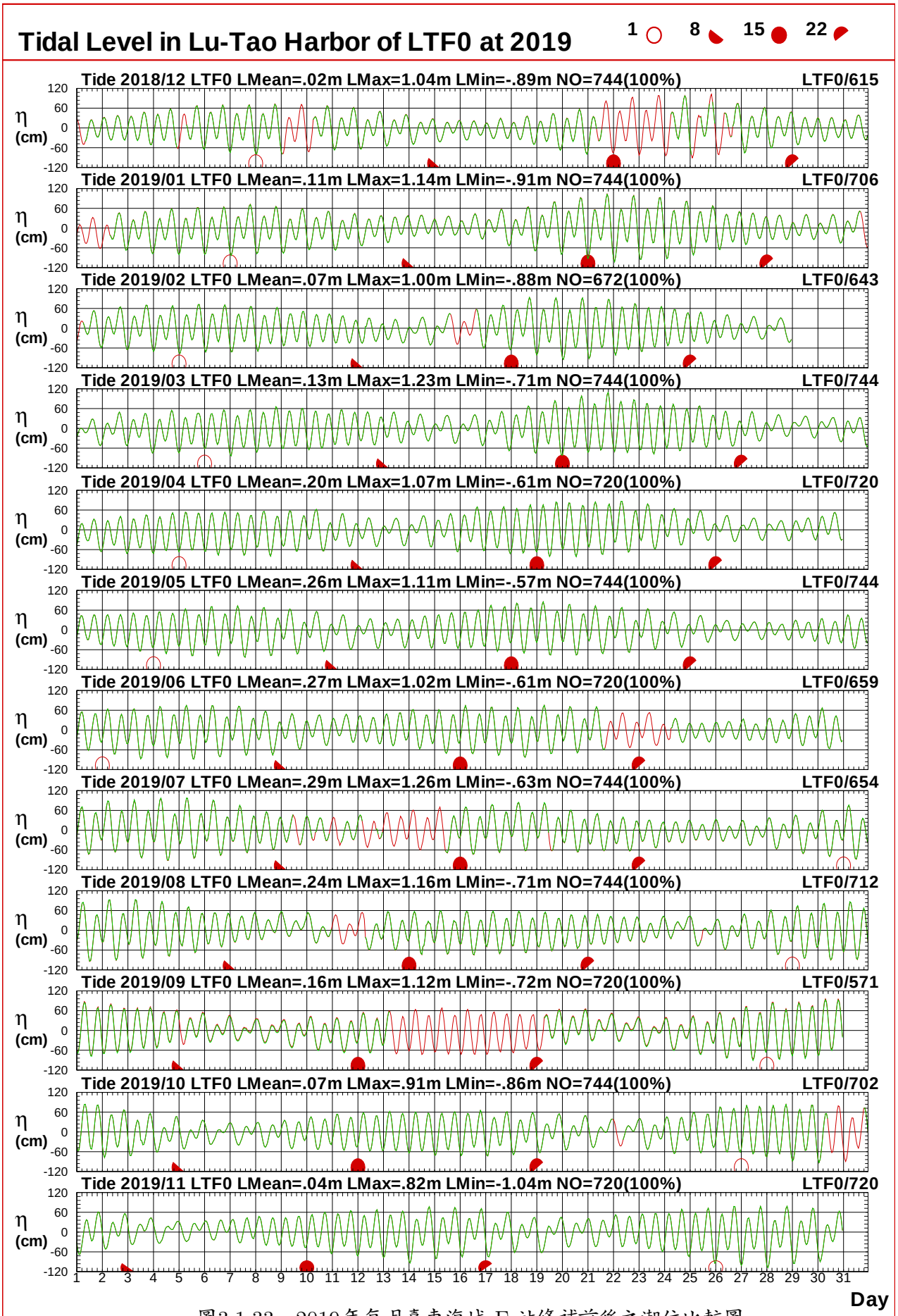

圖3.1.33　2019年每月臺東海域 F 站修補前後之潮位比較圖

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T193LTF0.1HA T193LTF0.1H0 T194LTF0.1HA T194LTF0.1H0 T195LTF0.1HA T195LTF0.1H0

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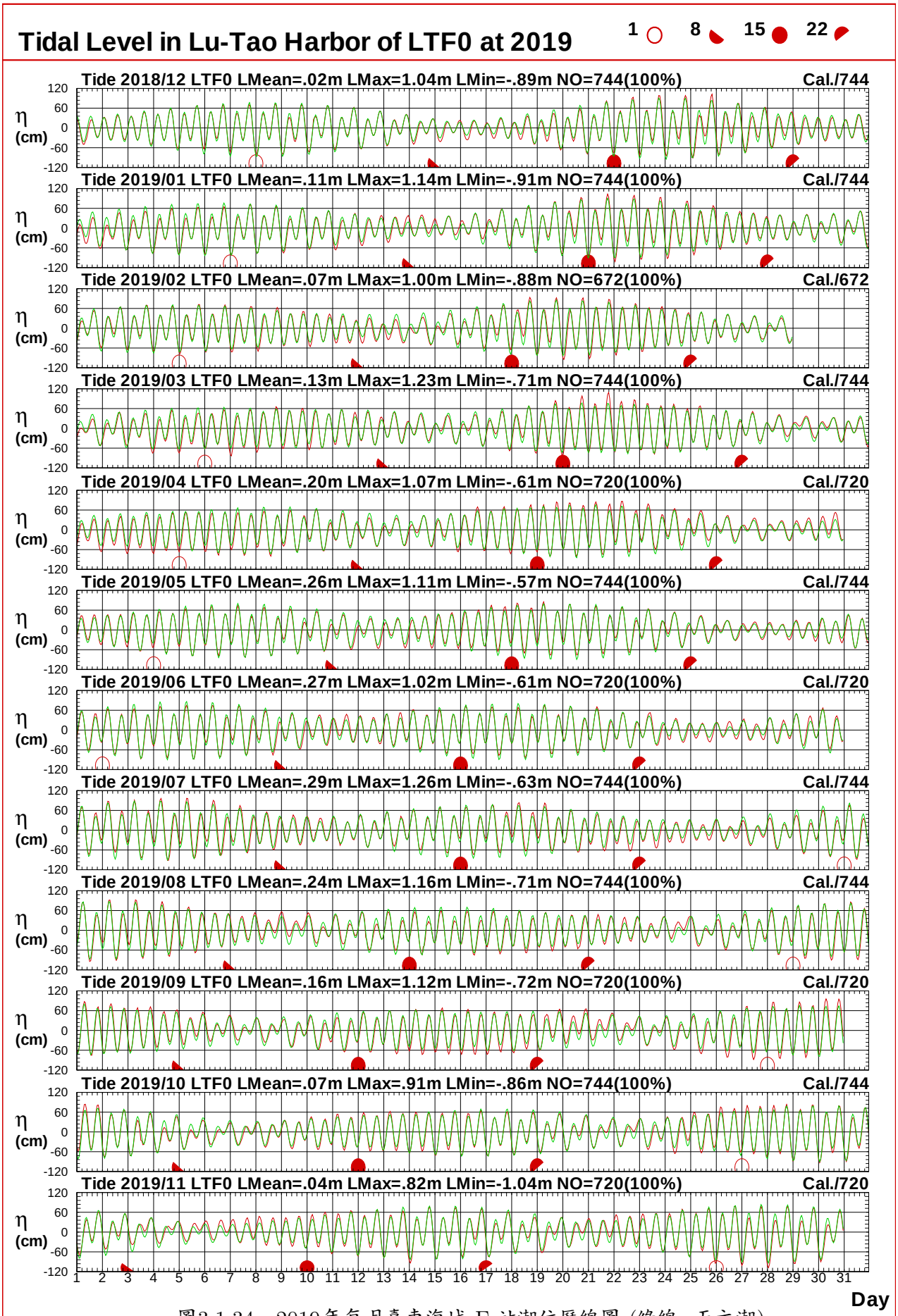

圖3.1.34　2019年每月臺東海域 F 站潮位歷線圖 (綠線: 天文潮)

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T193LTF0.1HA T193LTT0.1HC T194LTF0.1HA T194LTT0.1HC T195LTF0.1HA T195LTT0.1HC

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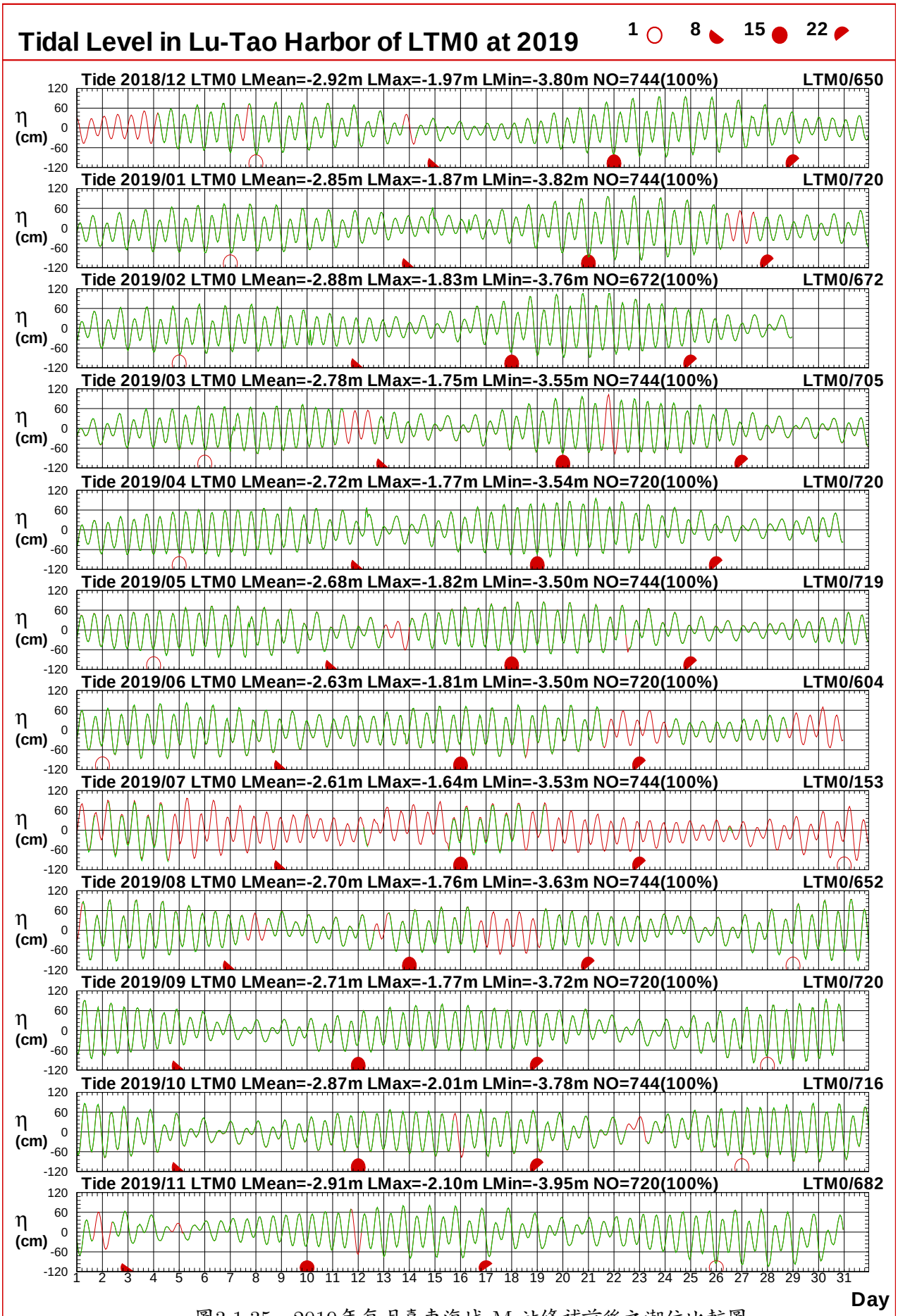

圖3.1.35　2019年每月臺東海域 M 站修補前後之潮位比較圖

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T193LTM0.1HA T193LTM0.1H0 T194LTM0.1HA T194LTM0.1H0 T195LTM0.1HA T195LTM0.1H0

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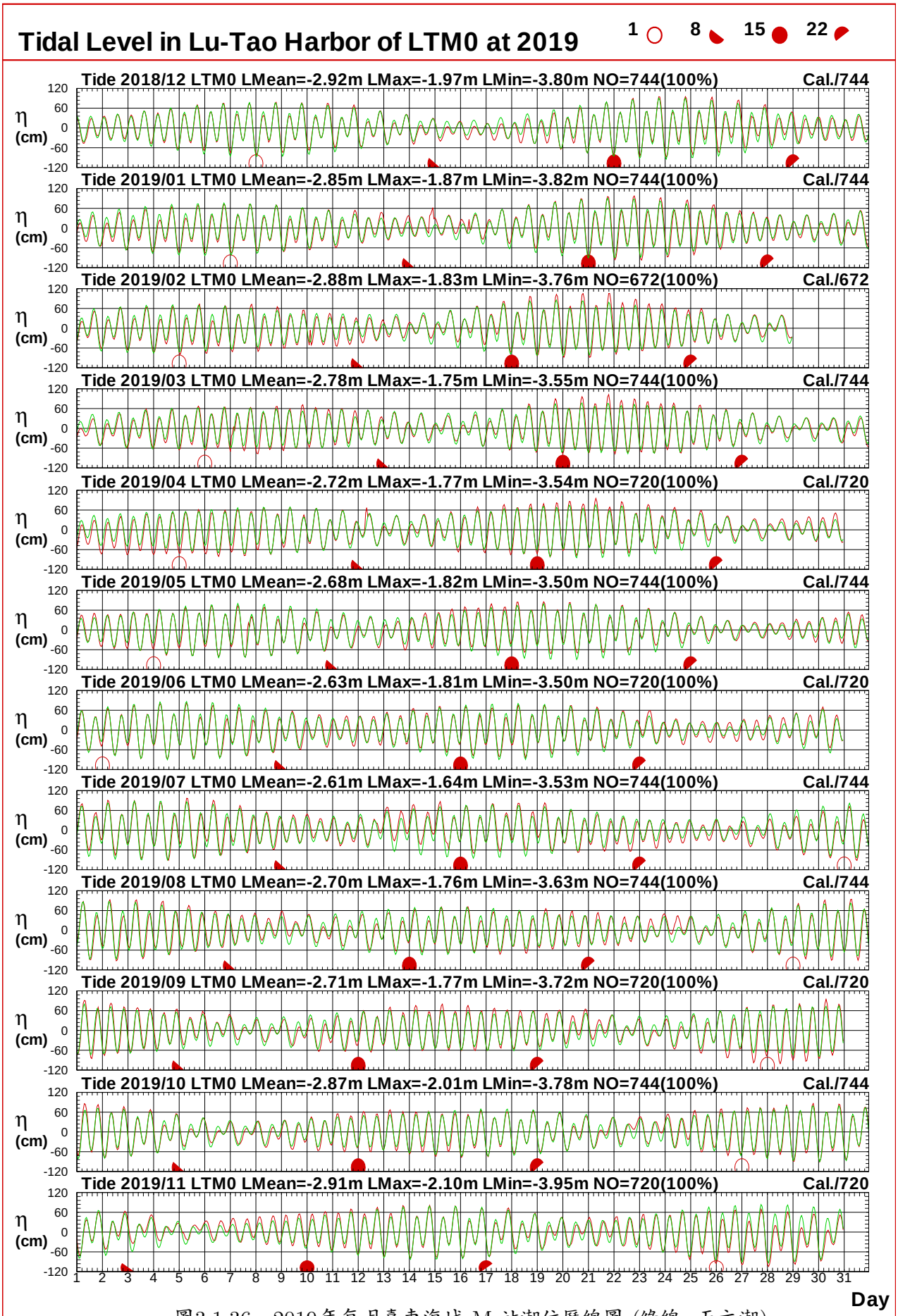

圖3.1.36　2019年每月臺東海域 M 站潮位歷線圖 (綠線: 天文潮)

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T193LTM0.1HA T193LTT0.1HC T194LTM0.1HA T194LTT0.1HC T195LTM0.1HA T195LTT0.1HC

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3.2　2019 年臺東海域各測站修補前

潮汐統計量統計表

表3.2.1　2019年臺東海域 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	85	173	116	153	13.3	25.0	16.0	22.3	44	11	113	-73	623(84)	53	65	-30	-44
2	2019/01	J	92	149	126	142	12.4	14.0	13.3	14.0	56	15	116	-88	705(95)	61	77	-30	-42
3	2019/02	J	99	197	140	188	12.4	15.0	13.2	13.8	49	14	110	-93	643(96)	63	76	-34	-39
4	2019/03	J	95	176	141	165	12.6	25.0	14.2	16.6	58	16	112	-75	744(100)	63	77	-31	-50
5	2019/04	J	96	170	139	160	12.4	15.0	13.6	14.4	57	19	102	-71	720(100)	67	84	-29	-47
6	2019/05	J	97	170	143	164	12.4	14.0	13.5	14.0	59	24	109	-62	744(100)	72	87	-24	-39
7	2019/06	J	97	183	150	172	12.4	14.0	13.5	14.0	51	22	104	-78	659(92)	71	78	-26	-41
8	2019/07	J	96	184	149	179	12.9	25.0	15.1	19.5	47	27	117	-77	654(88)	75	84	-21	-33
9	2019/08	J	103	193	143	179	12.9	24.0	14.7	18.0	53	26	124	-74	710(95)	79	85	-25	-36
10	2019/09	J	92	173	144	166	12.7	25.0	14.3	16.8	43	28	120	-71	571(79)	74	82	-19	-41
11	2019/10	J	91	165	127	146	12.9	27.0	14.7	19.0	54	20	103	-72	702(94)	67	80	-26	-41
12	2019/11	J	93	183	143	171	12.6	25.0	13.9	16.2	56	16	95	-88	720(100)	62	71	-30	-41
13	2019/冬	J	92	204	140	166	12.8	25.0	14.4	17.1	149	14	116	-93	1971(91)	59	74	-32	-41
14	2019/春	J	95	176	141	163	12.5	25.0	13.7	14.9	176	20	112	-75	2208(100)	67	83	-28	-46
15	2019/夏	J	98	189	146	176	12.7	25.0	14.4	16.8	153	25	124	-78	2023(92)	75	83	-24	-37
16	2019/秋	J	93	181	140	162	12.8	27.0	14.3	17.1	154	21	120	-88	1993(91)	67	77	-26	-41
17	2019/年	J	94	204	132	154	12.7	26.0	14.2	16.4	635	20	124	-93	8195(94)	67	80	-27	-41

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表3.2.2　2019年臺東海域 F 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	F	83	148	111	137	13.0	25.0	15.0	19.5	42	3	100	-78	615(83)	44	55	-38	-53
2	2019/01	F	94	159	128	149	12.4	14.0	13.1	13.4	56	12	114	-91	706(95)	59	75	-35	-46
3	2019/02	F	97	155	132	150	12.4	14.0	13.3	13.8	50	7	100	-88	643(96)	56	69	-41	-44
4	2019/03	F	94	180	140	165	12.4	16.0	13.7	14.8	59	13	123	-71	744(100)	60	76	-33	-50
5	2019/04	F	96	163	137	155	12.6	24.0	13.9	16.4	56	20	107	-61	720(100)	68	83	-27	-49
6	2019/05	F	90	161	134	154	12.4	15.0	13.6	14.4	59	26	111	-57	744(100)	71	88	-19	-34
7	2019/06	F	95	163	140	155	12.4	14.0	13.3	14.0	51	27	102	-61	659(92)	75	83	-20	-33
8	2019/07	F	97	188	144	178	12.9	25.0	14.9	19.5	47	28	126	-63	654(88)	77	89	-19	-29
9	2019/08	F	96	183	132	171	12.4	14.0	13.2	13.8	55	23	116	-71	712(96)	72	76	-24	-37
10	2019/09	F	92	159	138	155	12.8	25.0	14.2	16.8	43	19	112	-72	571(79)	66	76	-28	-51
11	2019/10	F	96	157	133	149	12.6	26.0	13.9	16.4	55	7	91	-86	702(94)	56	73	-42	-53
12	2019/11	F	95	149	128	140	12.4	14.0	13.2	13.6	57	4	82	-104	720(100)	53	63	-42	-56
13	2019/冬	F	93	197	137	169	12.7	25.0	13.9	16.3	148	7	114	-91	1964(91)	53	69	-38	-47
14	2019/春	F	93	180	137	157	12.5	24.0	13.8	15.1	176	20	123	-71	2208(100)	66	82	-26	-45
15	2019/夏	F	96	188	138	166	12.6	25.0	13.7	15.5	155	26	126	-71	2025(92)	75	83	-21	-33
16	2019/秋	F	96	186	140	164	12.6	26.0	13.7	15.5	156	10	112	-104	1993(91)	58	70	-38	-53
17	2019/年	F	94	197	135	161	12.6	26.0	13.9	15.6	638	16	126	-104	8190(93)	63	77	-31	-44

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表3.2.3　2019年臺東海域 M 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	M	93	183	145	172	13.2	25.0	15.6	20.2	50	-292	-197	-380	650(87)	-246	-230	-339	-352
2	2019/01	M	95	151	139	148	12.6	26.0	13.8	16.0	55	-285	-187	-382	720(97)	-237	-221	-332	-344
3	2019/02	M	101	171	147	162	12.6	24.0	13.9	16.0	52	-288	-183	-376	672(100)	-237	-228	-337	-346
4	2019/03	M	96	170	142	162	12.9	25.0	14.8	19.0	54	-279	-182	-355	705(95)	-231	-215	-326	-342
5	2019/04	M	100	164	140	155	12.6	26.0	14.1	16.8	56	-272	-177	-354	720(100)	-222	-206	-322	-346
6	2019/05	M	94	157	136	154	12.4	14.0	13.4	14.0	56	-267	-182	-350	719(97)	-220	-204	-313	-330
7	2019/06	M	100	168	140	163	13.0	25.0	14.9	19.3	44	-264	-181	-350	604(84)	-214	-207	-313	-326
8	2019/07	M	112	165	141	0	12.3	14.0	13.5	.0	6	-256	-170	-353	153(21)	-202	-203	-316	-320
9	2019/08	M	100	185	139	176	12.7	25.0	13.9	16.5	49	-269	-176	-363	652(88)	-219	-215	-319	-332
10	2019/09	M	101	179	144	168	12.4	15.0	13.6	14.4	57	-271	-177	-372	720(100)	-219	-212	-322	-345
11	2019/10	M	102	175	139	162	12.9	26.0	14.6	18.6	54	-288	-201	-378	716(96)	-236	-222	-338	-350
12	2019/11	M	94	133	125	132	13.1	26.0	15.4	21.0	54	-291	-210	-395	682(95)	-244	-236	-338	-352
13	2019/冬	M	96	194	141	171	12.8	25.0	14.4	17.6	159	-288	-183	-382	2042(95)	-240	-227	-336	-348
14	2019/春	M	96	170	136	153	12.6	26.0	14.0	16.4	168	-273	-177	-355	2144(97)	-224	-208	-320	-340
15	2019/夏	M	99	168	134	154	12.8	25.0	14.2	17.6	99	-266	-170	-363	1409(64)	-215	-209	-316	-328
16	2019/秋	M	100	179	142	165	12.8	26.0	14.5	17.8	167	-283	-177	-395	2118(97)	-233	-223	-332	-349
17	2019/年	M	98	194	139	162	12.8	26.0	14.3	17.1	594	-278	-170	-395	7713(88)	-229	-217	-327	-341

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表3.2.4　2019年臺東海域 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																	
2	2019/01	T																	
3	2019/02	T																	
4	2019/03	T																	
5	2019/04	T	94	163	135	154	12.4	15.0	13.5	14.6	57	110	196	28	720(100)	158	173	64	41
6	2019/05	T	92	159	134	152	12.4	15.0	13.6	14.4	56	116	200	33	730(98)	162	178	71	56
7	2019/06	T	93	158	135	152	12.4	14.0	13.5	14.0	57	119	194	31	720(100)	166	175	73	59
8	2019/07	T	95	186	144	173	12.4	14.0	13.3	14.0	59	122	219	29	744(100)	170	184	75	66
9	2019/08	T	97	182	141	174	13.4	26.0	16.1	23.0	55	116	210	24	744(100)	166	171	68	55
10	2019/09	T	101	158	135	152	13.1	27.0	15.5	23.0	49	112	220	21	720(100)	163	169	59	43
11	2019/10	T	96	148	132	145	13.4	27.0	16.2	25.0	49	101	190	10	721(97)	152	173	52	40
12	2019/11	T	99	168	132	159	13.5	25.0	16.5	24.8	44	98	181	1	720(100)	147	158	48	34
13	2019/冬	T																	
14	2019/春	T	93	163	134	153	12.4	15.0	13.5	14.4	114	113	200	28	1450(66)	160	176	67	48
15	2019/夏	T	95	186	139	166	12.7	26.0	14.3	16.6	173	119	219	24	2208(100)	168	178	72	60
16	2019/秋	T	100	179	136	156	13.3	27.0	15.9	22.9	144	104	220	1	2161(99)	154	166	53	39
17	2019/年	T	96	198	131	150	12.8	26.0	14.8	18.2	433	112	220	1	5819(66)	161	173	64	50

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表3.2.5　2019年臺東海域 K 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	K																	
2	2019/01	K	102	119	0	0	12.5	14.0	.0	.0	2	39	122	-18	54(7)	74	0	-5	0
3	2019/02	K	97	149	137	147	13.0	25.0	15.1	20.0	28	21	108	-72	416(62)	68	75	-26	-25
4	2019/03	K	90	152	125	140	14.0	25.0	18.1	24.8	46	20	102	-57	668(90)	62	73	-23	-37
5	2019/04	K	89	130	118	129	13.2	25.0	16.1	21.2	51	21	97	-54	717(100)	65	79	-22	-36
6	2019/05	K	81	151	128	148	12.5	15.0	13.9	15.0	48	37	118	-48	634(85)	76	81	-3	-26
7	2019/06	K	69	159	118	159	12.4	14.0	13.7	14.0	19	25	109	-57	267(37)	62	0	-10	0
8	2019/07	K	75	144	114	141	13.1	25.0	15.7	21.3	35	30	120	-47	521(70)	69	83	-9	-17
9	2019/08	K	89	178	121	170	13.2	26.0	15.7	22.3	49	31	128	-62	713(96)	75	77	-15	-28
10	2019/09	K	83	157	129	153	13.1	26.0	15.6	20.3	42	34	145	-52	571(79)	77	85	-10	-31
11	2019/10	K	81	143	108	130	13.1	26.0	15.3	21.7	37	31	108	-46	501(67)	72	84	-8	-10
12	2019/11	K	93	114	109	114	12.4	14.0	13.7	14.0	11	28	101	-58	160(22)	73	0	-15	0
13	2019/冬	K	96	180	136	168	13.3	25.0	16.1	21.3	31	23	122	-72	470(22)	68	75	-23	-25
14	2019/春	K	87	152	120	135	13.2	25.0	16.0	21.4	147	25	118	-57	2019(91)	68	77	-16	-33
15	2019/夏	K	79	159	121	143	13.0	26.0	15.2	19.6	106	30	128	-62	1501(68)	70	81	-12	-22
16	2019/秋	K	86	157	129	151	13.0	26.0	15.2	19.4	91	32	145	-58	1232(56)	74	85	-10	-23
17	2019/年	K	85	191	122	146	13.1	27.0	15.5	20.5	372	28	145	-72	5222(60)	70	79	-14	-27

DIST3B.BAT　　測站編號:LTK　　港灣技術研究中心

表3.2.6　2019年臺東海域 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	100	171	142	165	13.4	26.0	16.1	22.5	41	6	114	-95	619(83)	55	68	-42	-60
2	2019/01	P	108	217	155	204	12.6	25.0	14.0	16.2	55	2	106	-113	701(94)	56	72	-51	-63
3	2019/02	P	112	181	152	170	12.4	14.0	13.3	13.8	50	3	101	-113	642(96)	59	70	-52	-60
4	2019/03	P	109	191	159	182	12.4	15.0	13.7	14.6	59	5	103	-95	744(100)	60	77	-49	-66
5	2019/04	P	110	184	155	176	12.4	15.0	13.5	14.4	57	4	93	-92	720(100)	60	80	-50	-68
6	2019/05	P	107	182	156	178	12.4	15.0	13.6	14.2	59	6	103	-93	744(100)	60	75	-46	-67
7	2019/06	P	109	190	162	182	12.4	14.0	13.5	14.0	51	10	93	-97	659(92)	65	71	-45	-60
8	2019/07	P	110	210	163	205	12.9	25.0	14.9	19.5	46	16	118	-104	650(87)	71	79	-39	-54
9	2019/08	P	114	200	153	187	13.2	25.0	15.4	20.6	51	21	117	-98	705(95)	80	84	-38	-55
10	2019/09	P	109	196	165	187	12.8	25.0	14.2	16.8	43	26	140	-86	570(79)	81	91	-29	-57
11	2019/10	P	112	180	153	171	12.6	27.0	13.9	16.4	55	15	113	-96	702(94)	72	89	-41	-58
12	2019/11	P	105	199	155	184	12.6	25.0	13.9	16.2	56	7	97	-102	720(100)	59	71	-45	-58
13	2019/冬	P	108	210	152	186	12.9	26.0	14.5	17.9	146	3	114	-113	1962(91)	56	70	-49	-61
14	2019/春	P	108	191	156	179	12.4	15.0	13.6	14.4	177	5	103	-95	2208(100)	60	78	-48	-67
15	2019/夏	P	110	210	158	189	12.8	25.0	14.6	17.7	150	16	118	-104	2014(91)	72	78	-40	-56
16	2019/秋	P	109	196	156	179	12.7	27.0	14.0	16.3	155	15	140	-102	1992(91)	70	83	-39	-58
17	2019/年	P	109	210	154	179	12.7	26.0	14.2	16.4	631	10	140	-113	8176(93)	64	78	-44	-60

DIST3B.BAT　　測站編號:LTP　　港灣技術研究中心

表3.2.7　2019年臺東海域 Q 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	Q	109	178	146	165	12.7	25.0	13.8	15.8	52	-251	-143	-363	657(88)	-196	-181	-304	-316
2	2019/01	Q	103	214	161	201	12.4	14.0	13.4	14.0	59	-253	-151	-365	744(100)	-201	-185	-305	-317
3	2019/02	Q	106	209	159	192	12.4	14.0	13.4	14.0	53	-251	-154	-363	672(100)	-199	-187	-304	-311
4	2019/03	Q	102	181	151	173	12.6	24.0	14.4	16.6	55	-250	-157	-347	705(95)	-198	-185	-301	-317
5	2019/04	Q	106	180	149	171	12.4	14.0	13.5	14.0	57	-252	-167	-347	720(100)	-200	-180	-305	-321
6	2019/05	Q	102	177	151	174	12.4	15.0	13.6	14.2	59	-252	-161	-347	744(100)	-200	-186	-302	-321
7	2019/06	Q	106	186	153	180	13.0	25.0	15.1	19.5	45	-250	-171	-357	604(84)	-198	-192	-302	-318
8	2019/07	Q	138	193	192	0	12.4	13.0	13.0	.0	7	-242	-154	-363	153(21)	-182	-183	-308	-310
9	2019/08	Q	109	199	157	191	12.7	24.0	14.1	16.8	46	-238	-139	-348	652(88)	-183	-179	-293	-308
10	2019/09	Q	112	198	156	181	12.4	15.0	13.3	14.2	57	-234	-126	-346	720(100)	-177	-173	-290	-316
11	2019/10	Q	110	184	149	172	12.6	24.0	13.9	16.0	55	-246	-147	-347	716(96)	-190	-177	-300	-314
12	2019/11	Q	100	167	137	156	13.1	26.0	15.1	20.6	54	-252	-165	-362	682(95)	-202	-190	-301	-314
13	2019/冬	Q	106	178	143	164	12.5	25.0	13.4	14.6	166	-252	-143	-365	2073(96)	-199	-184	-304	-315
14	2019/春	Q	103	181	150	172	12.5	24.0	13.8	14.8	173	-251	-157	-347	2169(98)	-199	-184	-303	-320
15	2019/夏	Q	106	186	149	173	12.8	25.0	14.5	17.7	98	-243	-139	-363	1409(64)	-189	-184	-298	-313
16	2019/秋	Q	107	198	153	179	12.7	26.0	14.1	16.8	168	-244	-126	-362	2118(97)	-189	-180	-297	-315
17	2019/年	Q	106	199	147	170	12.6	26.0	13.7	15.4	606	-248	-126	-365	7769(89)	-195	-183	-301	-316

DIST3B.BAT　測站編號:LTQ　港灣技術研究中心

表3.2.8　2019年臺東海域 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	90	143	120	137	12.4	14.0	13.1	13.2	59	2229	2325	2133	744(100)	2274	2287	2184	2173
2	2019/01	X	92	203	145	186	12.4	14.0	13.2	13.8	59	2239	2339	2136	744(100)	2285	2302	2193	2181
3	2019/02	X	96	184	143	171	12.4	15.0	13.4	14.2	53	2233	2325	2140	672(100)	2280	2292	2185	2181
4	2019/03	X	94	174	139	169	12.6	24.0	14.2	16.6	58	2229	2339	2133	737(99)	2275	2299	2183	2173
5	2019/04	X	95	161	136	155	12.4	15.0	13.5	14.4	57	2213	2298	2128	720(100)	2260	2274	2166	2143
6	2019/05	X	90	160	133	153	12.4	15.0	13.6	14.6	59	2217	2298	2133	744(100)	2262	2278	2172	2156
7	2019/06	X																	
8	2019/07	X																	
9	2019/08	X																	
10	2019/09	X																	
11	2019/10	X																	
12	2019/11	X																	
13	2019/冬	X	93	158	125	145	12.4	15.0	13.2	13.7	173	2233	2339	2133	2160(100)	2280	2294	2187	2178
14	2019/春	X	92	174	130	151	12.5	24.0	13.8	15.1	176	2219	2339	2128	2201(100)	2266	2283	2174	2158
15	2019/夏	X	94	193	128	155	12.7	27.0	14.2	16.6	173	2247	2357	2129	2190(99)	2294	2298	2200	2193
16	2019/秋	X	97	155	150	155	12.5	14.0	13.6	14.0	17	2250	2339	2168	220(10)	2300	0	2203	0
17	2019/年	X	92	172	130	150	12.4	24.0	13.3	14.1	350	2226	2339	2128	4361(50)	2273	2289	2180	2168

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3.3　2019 年臺東海域主要測站 1(修補後)與其他測站(修補前)潮位歷線比較圖

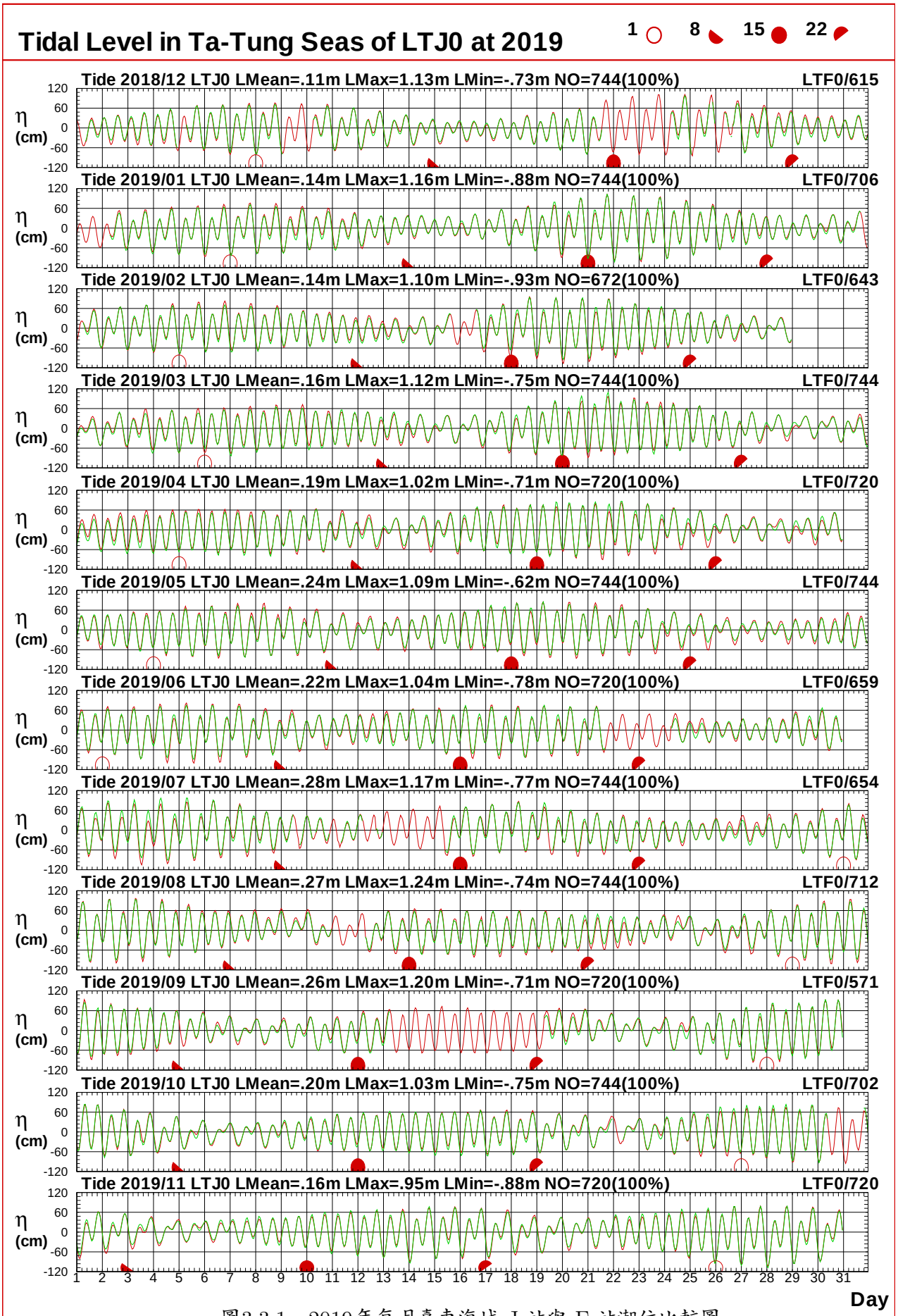

圖3.3.1　2019年每月臺東海域 J 站與 F 站潮位比較圖

T18CLTJ0.1HA T18CLTF0.1H0 T191LTJ0.1HA T191LTF0.1H0 T192LTJ0.1HA T192LTF0.1H0
T193LTJ0.1HA T193LTF0.1H0 T194LTJ0.1HA T194LTF0.1H0 T195LTJ0.1HA T195LTF0.1H0

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Tidal Level in Ta-Tung Seas of LTJ0 at 2019

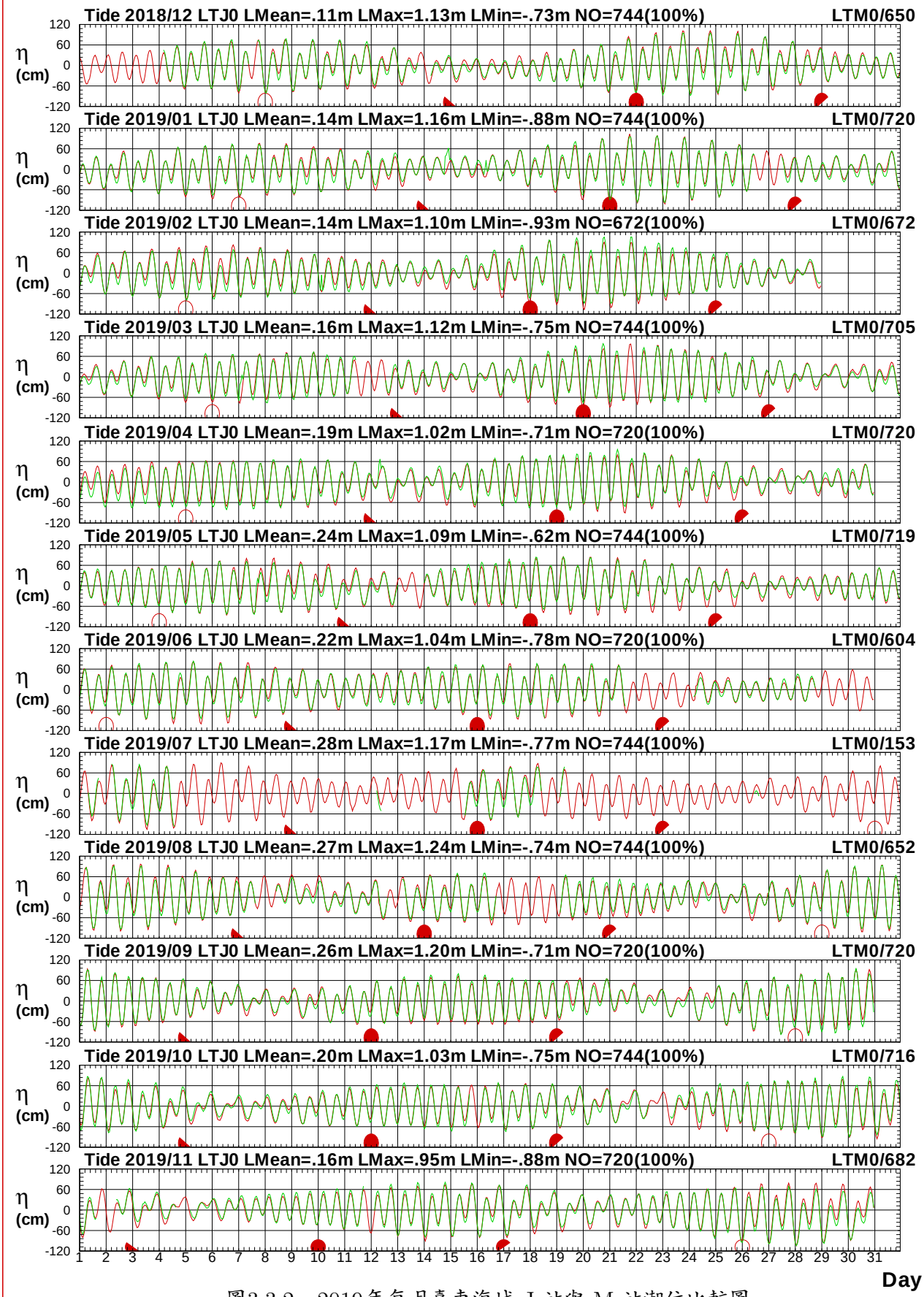

圖3.3.2　2019年每月臺東海域 J 站與 M 站潮位比較圖

T18CLTJ0.1HA T18CLTM0.1H0 T191LTJ0.1HA T191LTM0.1H0 T192LTJ0.1HA T192LTM0.1H0
T193LTJ0.1HA T193LTM0.1H0 T194LTJ0.1HA T194LTM0.1H0 T195LTJ0.1HA T195LTM0.1H0

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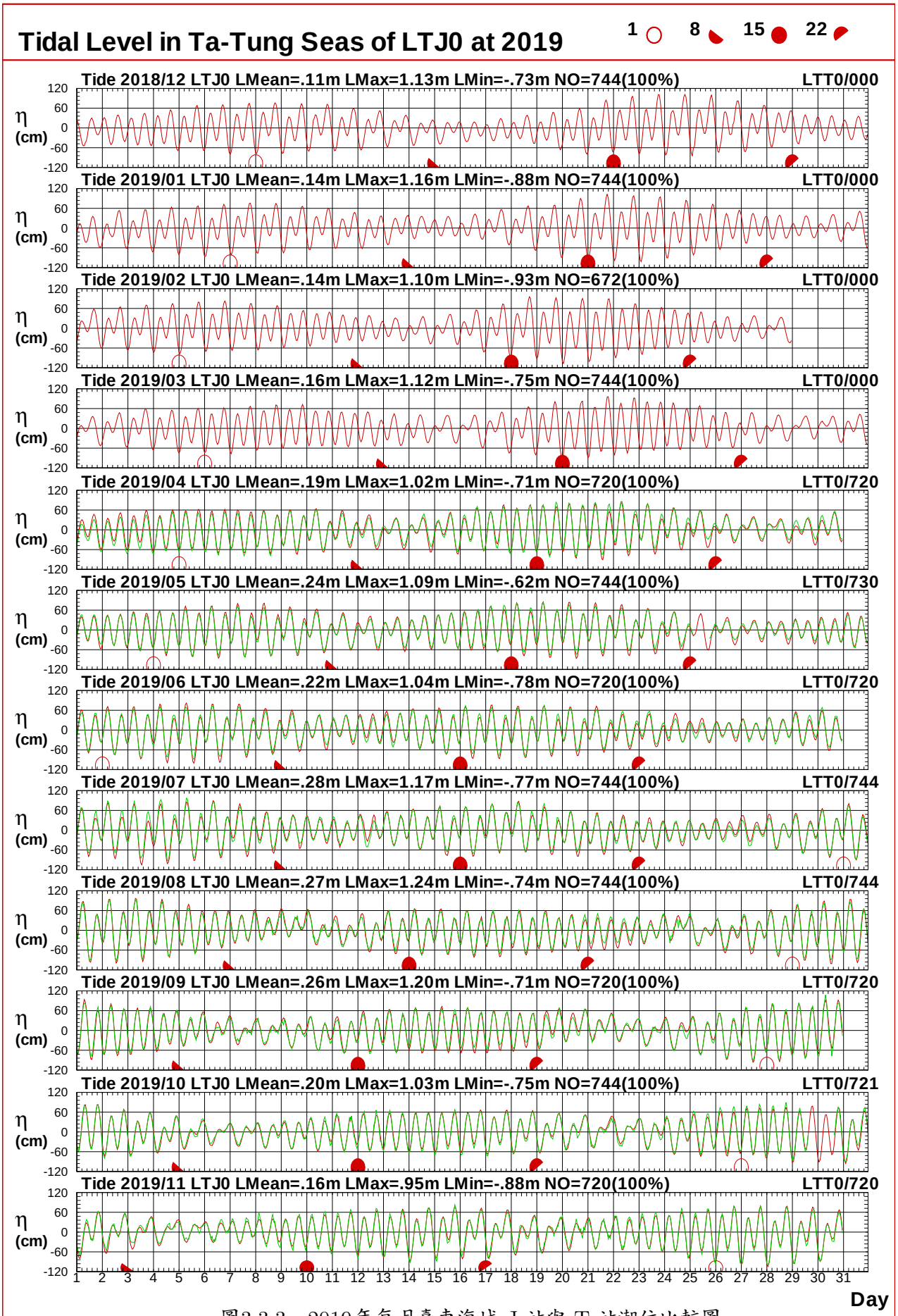

圖3.3.3　2019年每月臺東海域 J 站與 T 站潮位比較圖

T18CLTJ0.1HA T18CLTT0.1H0 T191LTJ0.1HA T191LTT0.1H0 T192LTJ0.1HA T192LTT0.1H0
T193LTJ0.1HA T193LTT0.1H0 T194LTJ0.1HA T194LTT0.1H0 T195LTJ0.1HA T195LTT0.1H0

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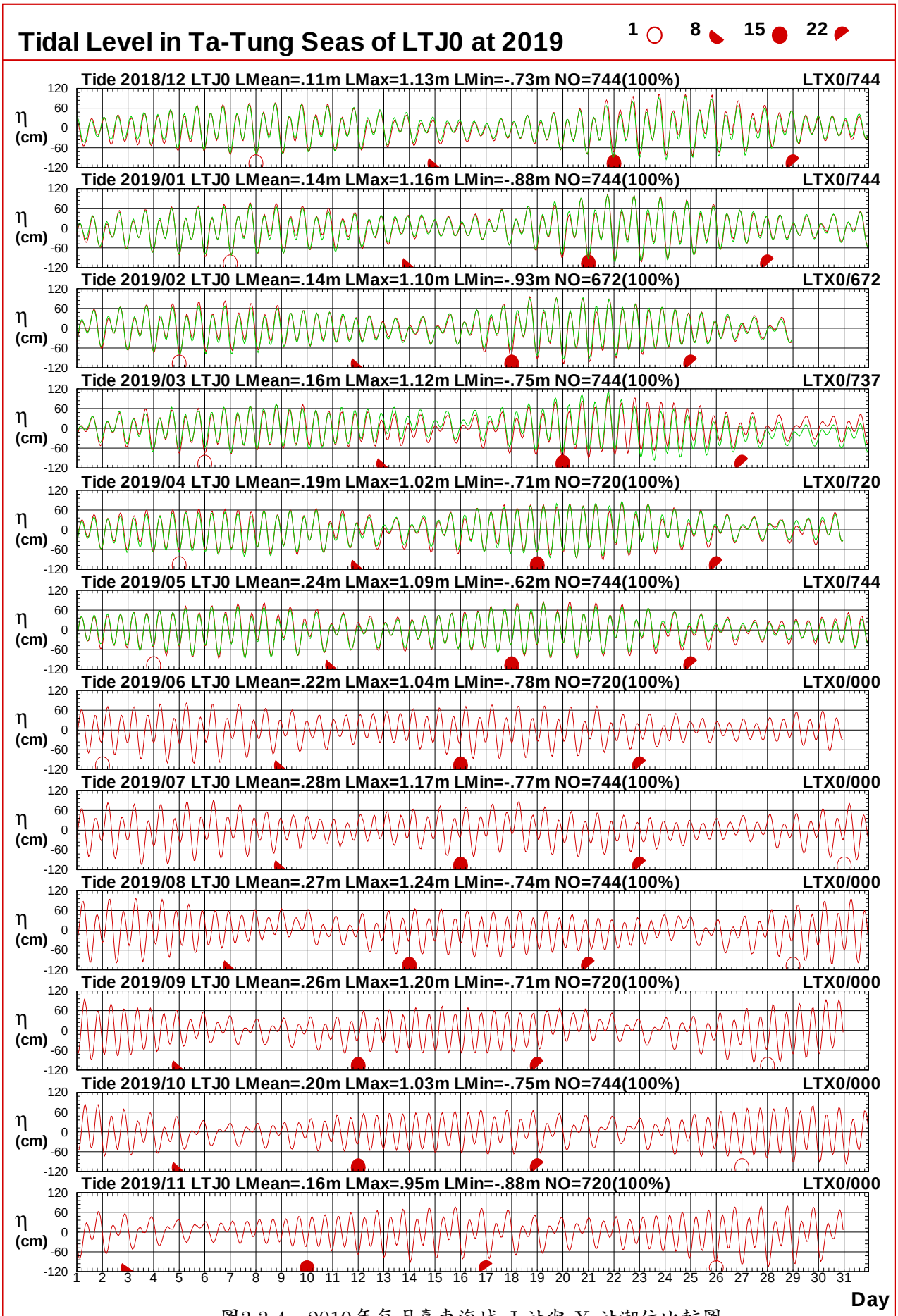

圖3.3.4　2019年每月臺東海域 J 站與 X 站潮位比較圖

T18CLTJ0.1HA T18CLTX0.1H0 T191LTJ0.1HA T191LTX0.1H0 T192LTJ0.1HA T192LTX0.1H0
T193LTJ0.1HA T193LTX0.1H0 T194LTJ0.1HA T194LTX0.1H0 T195LTJ0.1HA T195LTX0.1H0

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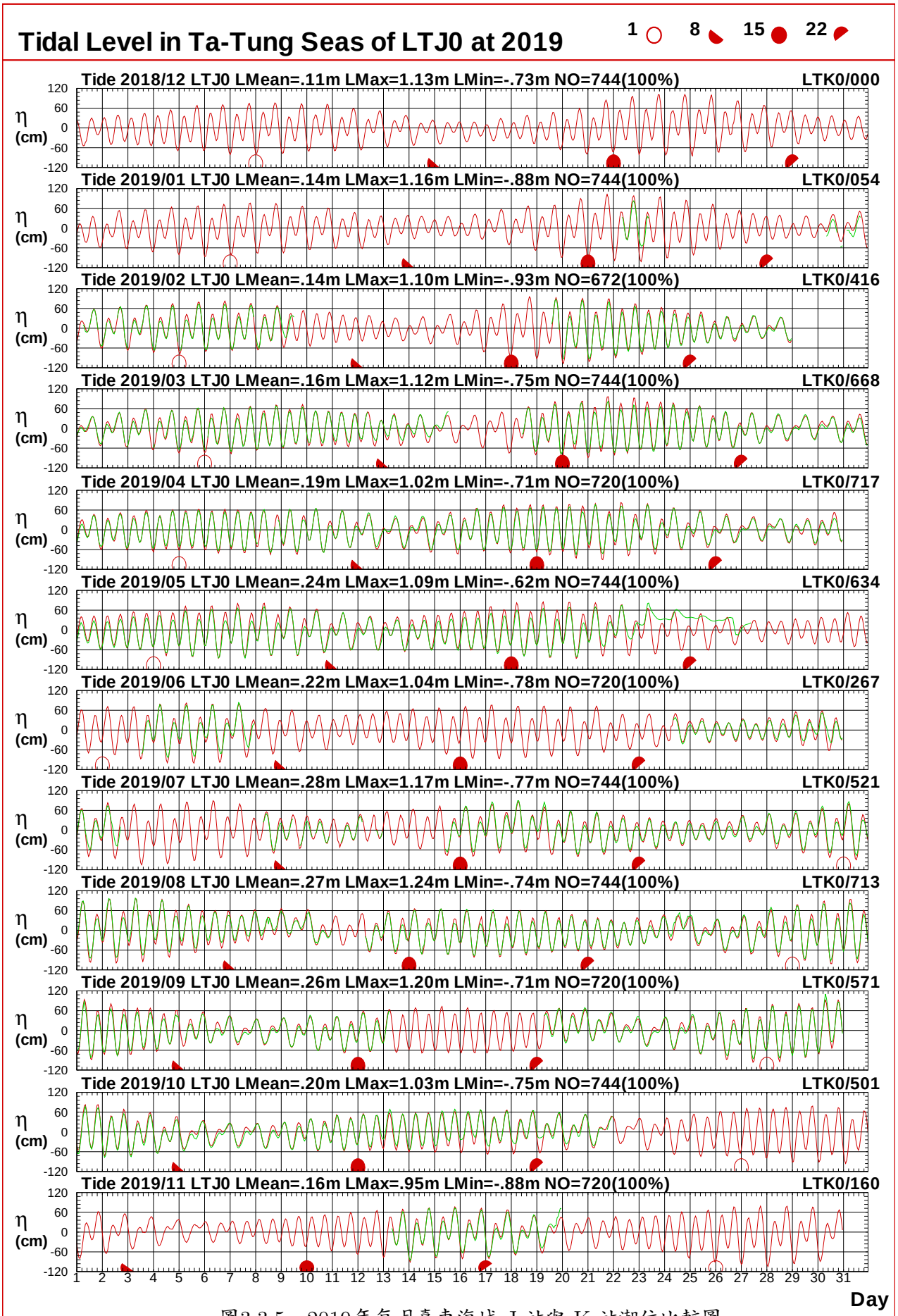

圖3.3.5　2019年每月臺東海域 J 站與 K 站潮位比較圖

T18CLTJ0.1HA T18CLTK0.1H0 T191LTJ0.1HA T191LTK0.1H0 T192LTJ0.1HA T192LTK0.1H0
T193LTJ0.1HA T193LTK0.1H0 T194LTJ0.1HA T194LTK0.1H0 T195LTJ0.1HA T195LTK0.1H0

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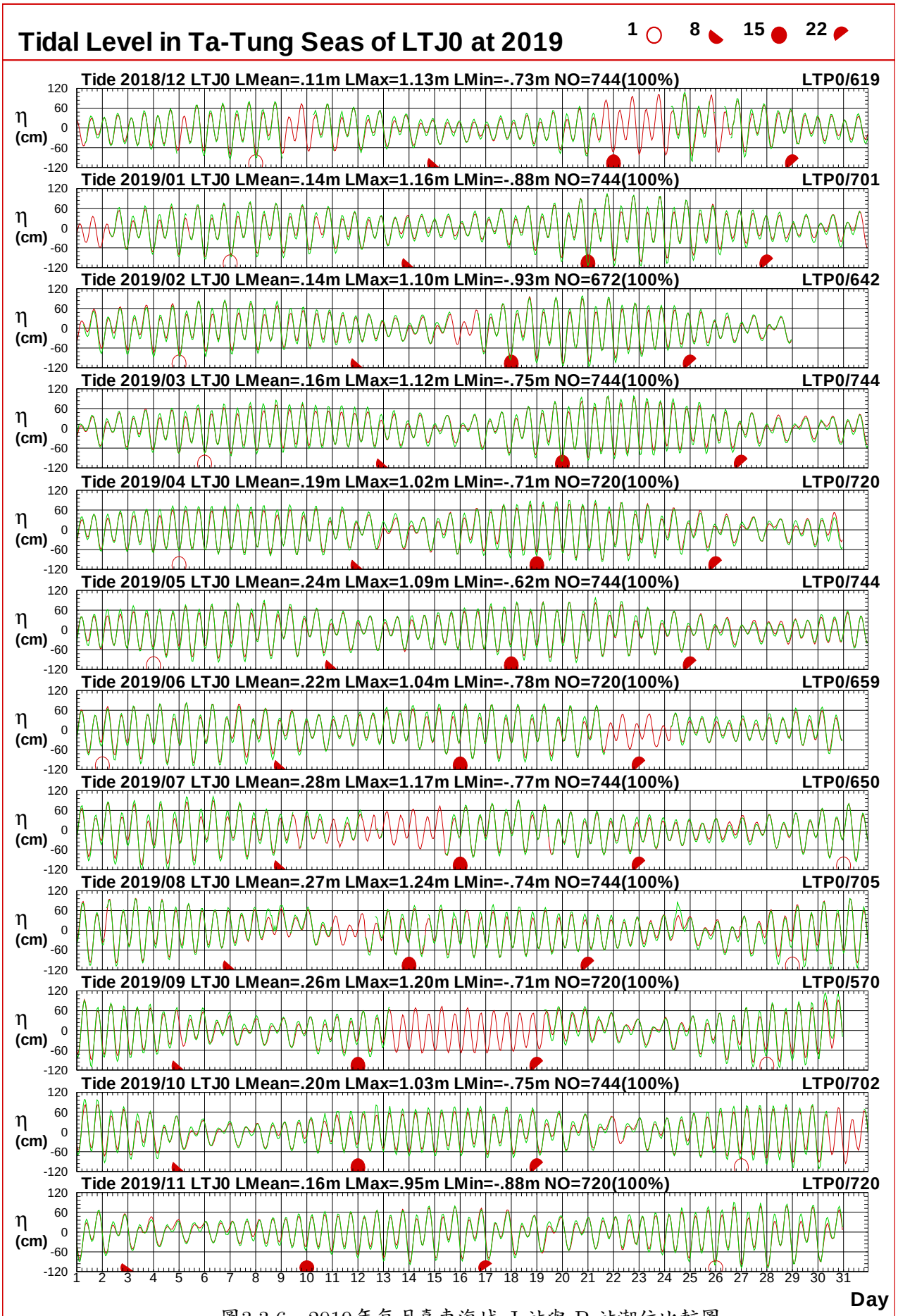

圖3.3.6　2019年每月臺東海域 J 站與 P 站潮位比較圖

T18CLTJ0.1HA T18CLTP0.1H0 T191LTJ0.1HA T191LTP0.1H0 T192LTJ0.1HA T192LTP0.1H0
T193LTJ0.1HA T193LTP0.1H0 T194LTJ0.1HA T194LTP0.1H0 T195LTJ0.1HA T195LTP0.1H0

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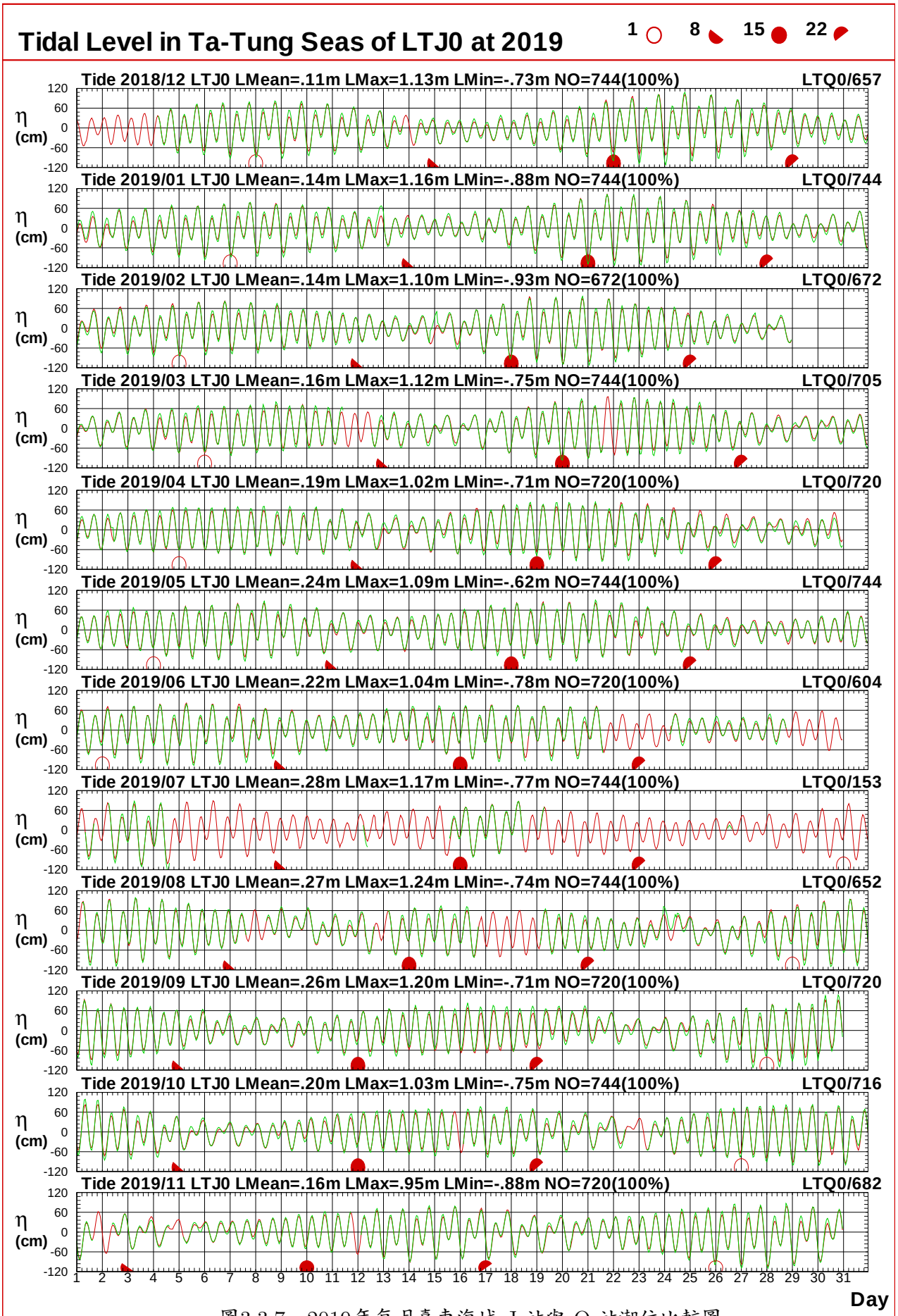

圖3.3.7　2019年每月臺東海域 J 站與 Q 站潮位比較圖

T18CLTJ0.1HA T18CLTQ0.1H0 T191LTJ0.1HA T191LTQ0.1H0 T192LTJ0.1HA T192LTQ0.1H0
T193LTJ0.1HA T193LTQ0.1H0 T194LTJ0.1HA T194LTQ0.1H0 T195LTJ0.1HA T195LTQ0.1H0

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3.4　2019 年臺東海域主要測站 2(修補後)與其他測站(修補前)潮位歷線比較圖

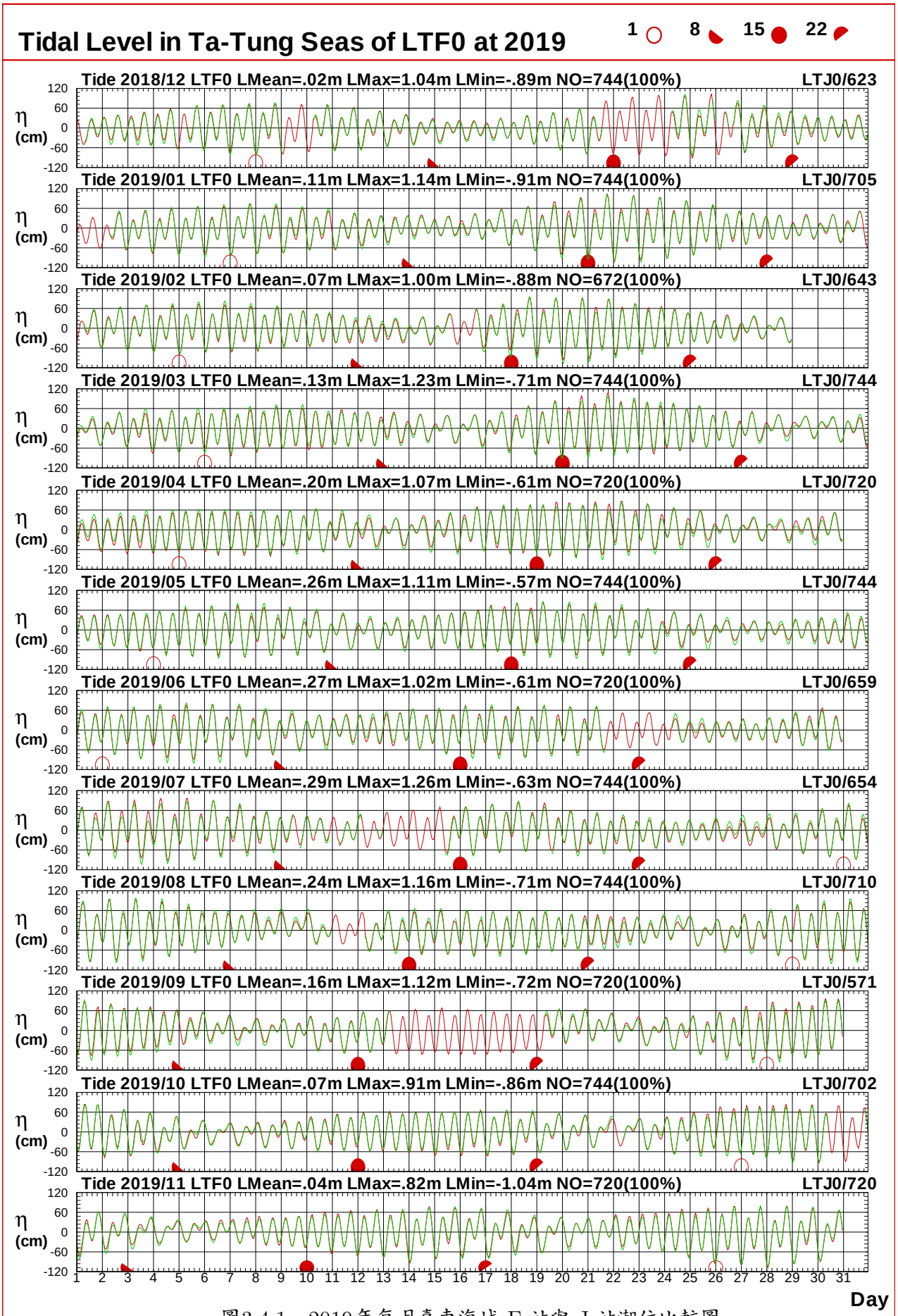

圖3.4.1　2019年每月臺東海域 F 站與 J 站潮位比較圖

T18CLTF0.1HA T18CLTJ0.1H0 T191LTF0.1HA T191LTJ0.1H0 T192LTF0.1HA T192LTJ0.1H0
T193LTF0.1HA T193LTJ0.1H0 T194LTF0.1HA T194LTJ0.1H0 T195LTF0.1HA T195LTJ0.1H0

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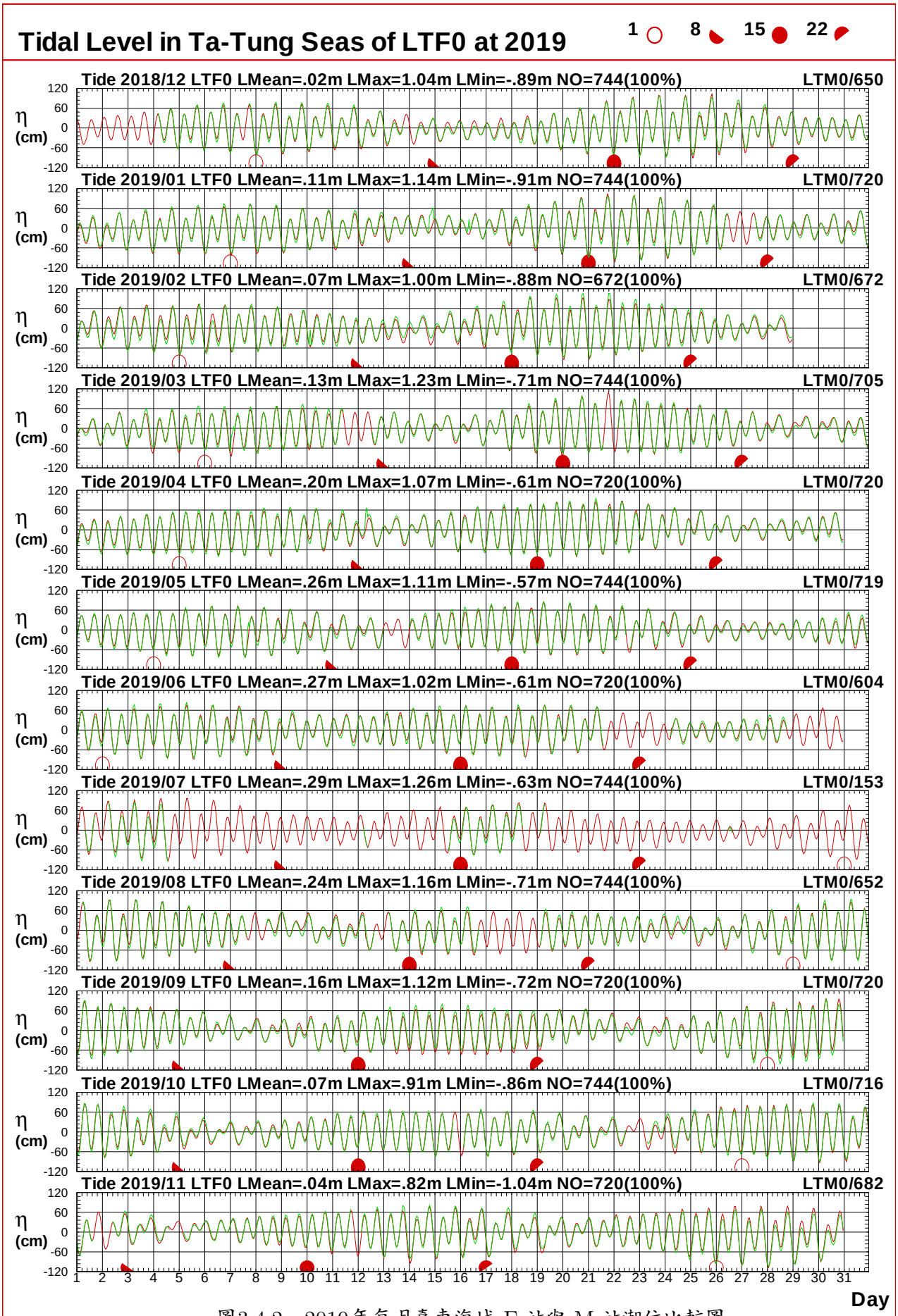

圖3.4.2　2019年每月臺東海域 F 站與 M 站潮位比較圖

T18CLTF0.1HA T18CLTM0.1H0 T191LTF0.1HA T191LTM0.1H0 T192LTF0.1HA T192LTM0.1H0
T193LTF0.1HA T193LTM0.1H0 T194LTF0.1HA T194LTM0.1H0 T195LTF0.1HA T195LTM0.1H0

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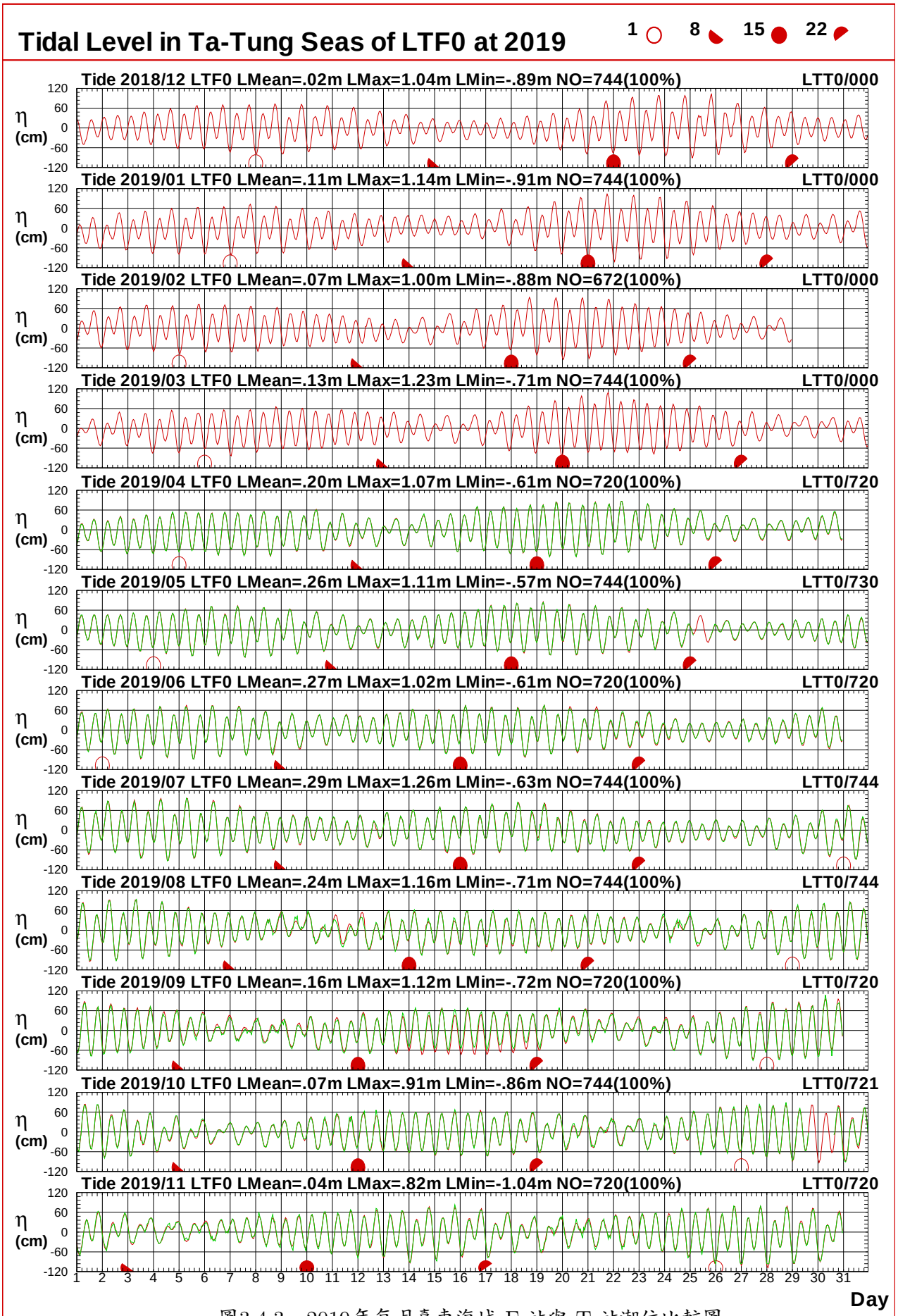

圖3.4.3　2019年每月臺東海域 F 站與 T 站潮位比較圖

T18CLTF0.1HA T18CLTT0.1H0 T191LTF0.1HA T191LTT0.1H0 T192LTF0.1HA T192LTT0.1H0
T193LTF0.1HA T193LTT0.1H0 T194LTF0.1HA T194LTT0.1H0 T195LTF0.1HA T195LTT0.1H0

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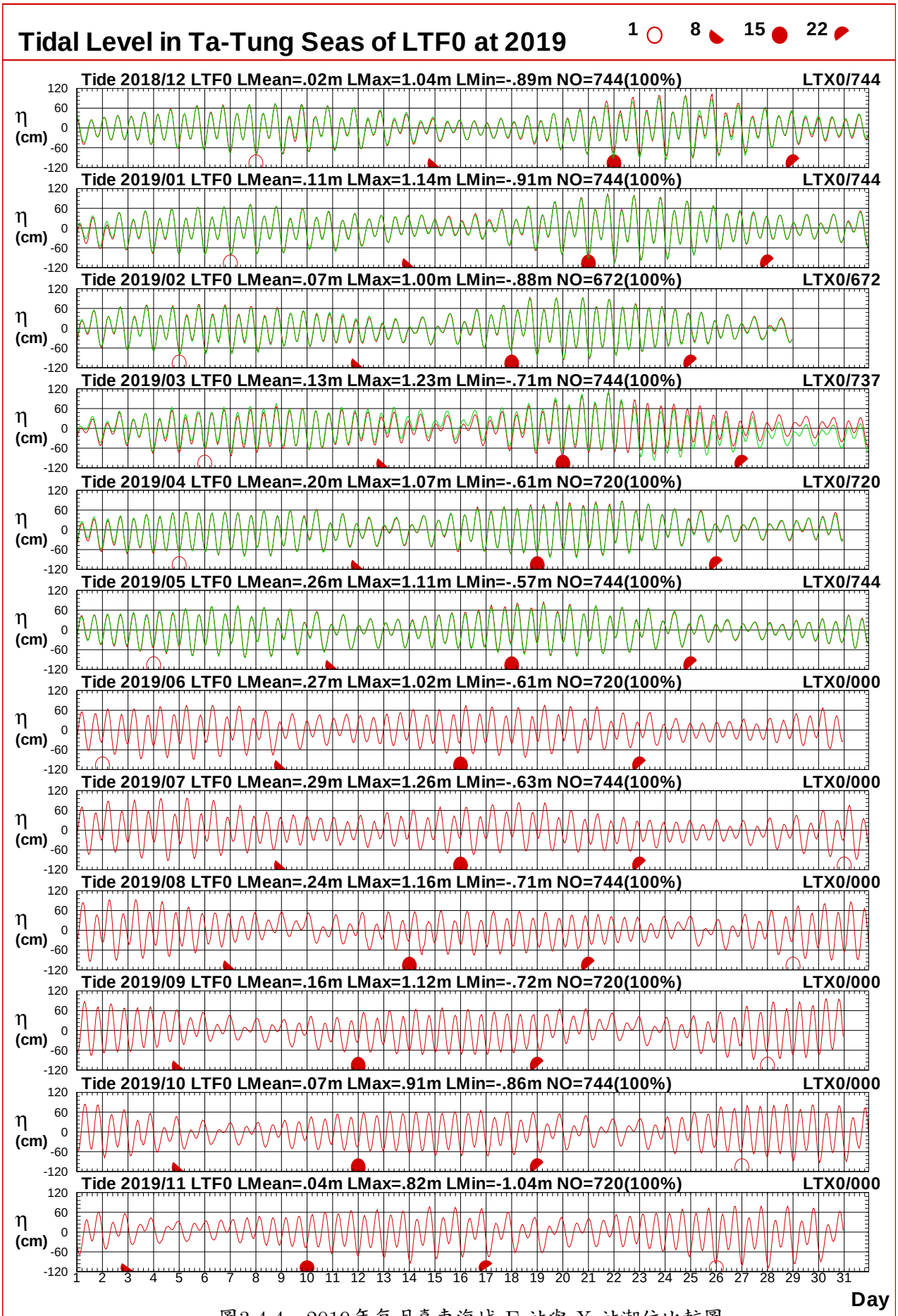

圖3.4.4　2019年每月臺東海域 F 站與 X 站潮位比較圖

T18CLTF0.1HA T18CLTX0.1H0 T191LTF0.1HA T191LTX0.1H0 T192LTF0.1HA T192LTX0.1H0
T193LTF0.1HA T193LTX0.1H0 T194LTF0.1HA T194LTX0.1H0 T195LTF0.1HA T195LTX0.1H0

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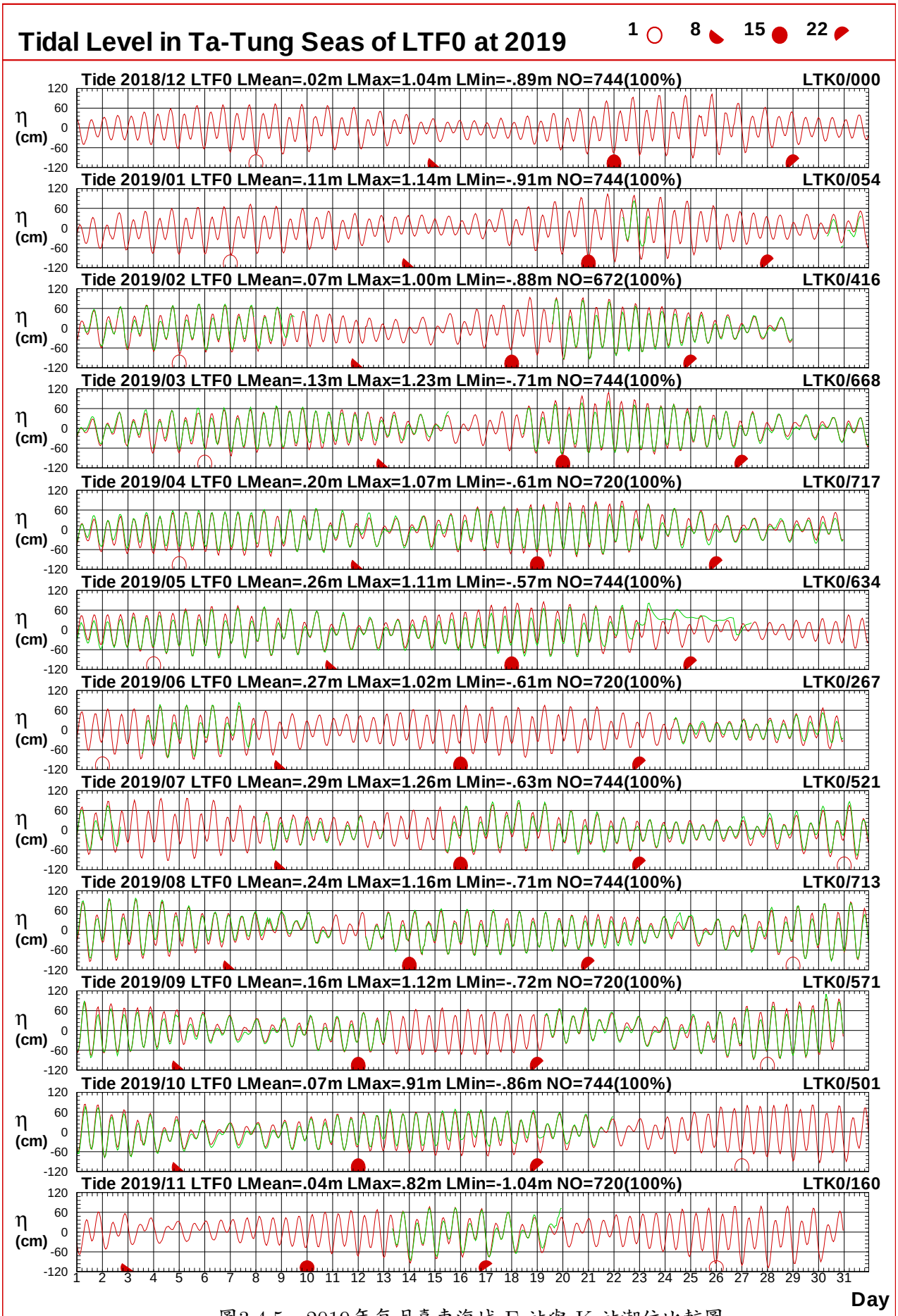

圖3.4.5　2019年每月臺東海域 F 站與 K 站潮位比較圖

T18CLTF0.1HA T18CLTK0.1H0 T191LTF0.1HA T191LTK0.1H0 T192LTF0.1HA T192LTK0.1H0
T193LTF0.1HA T193LTK0.1H0 T194LTF0.1HA T194LTK0.1H0 T195LTF0.1HA T195LTK0.1H0

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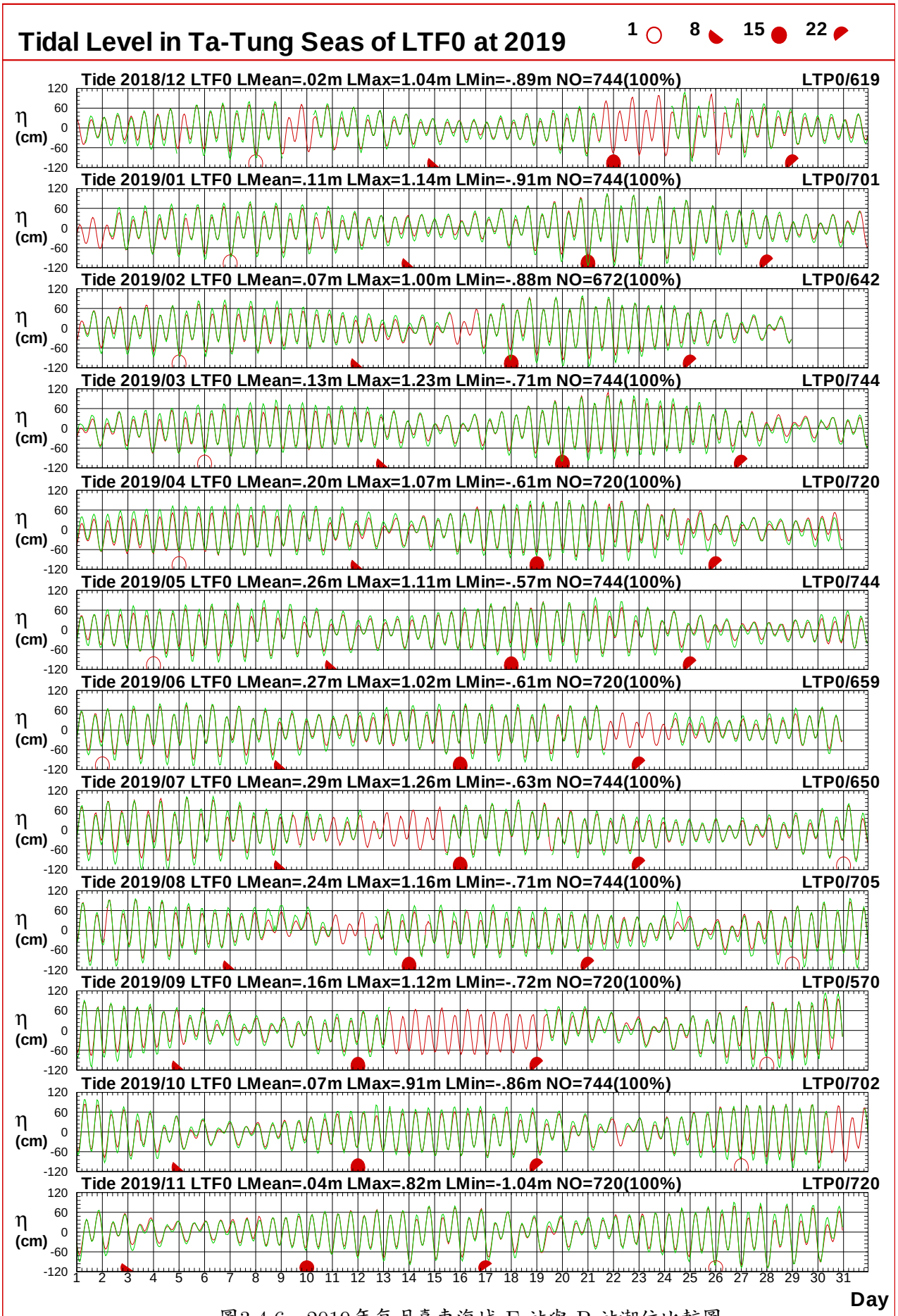

圖3.4.6　2019年每月臺東海域 F 站與 P 站潮位比較圖

T18CLTF0.1HA T18CLTP0.1H0 T191LTF0.1HA T191LTP0.1H0 T192LTF0.1HA T192LTP0.1H0
T193LTF0.1HA T193LTP0.1H0 T194LTF0.1HA T194LTP0.1H0 T195LTF0.1HA T195LTP0.1H0

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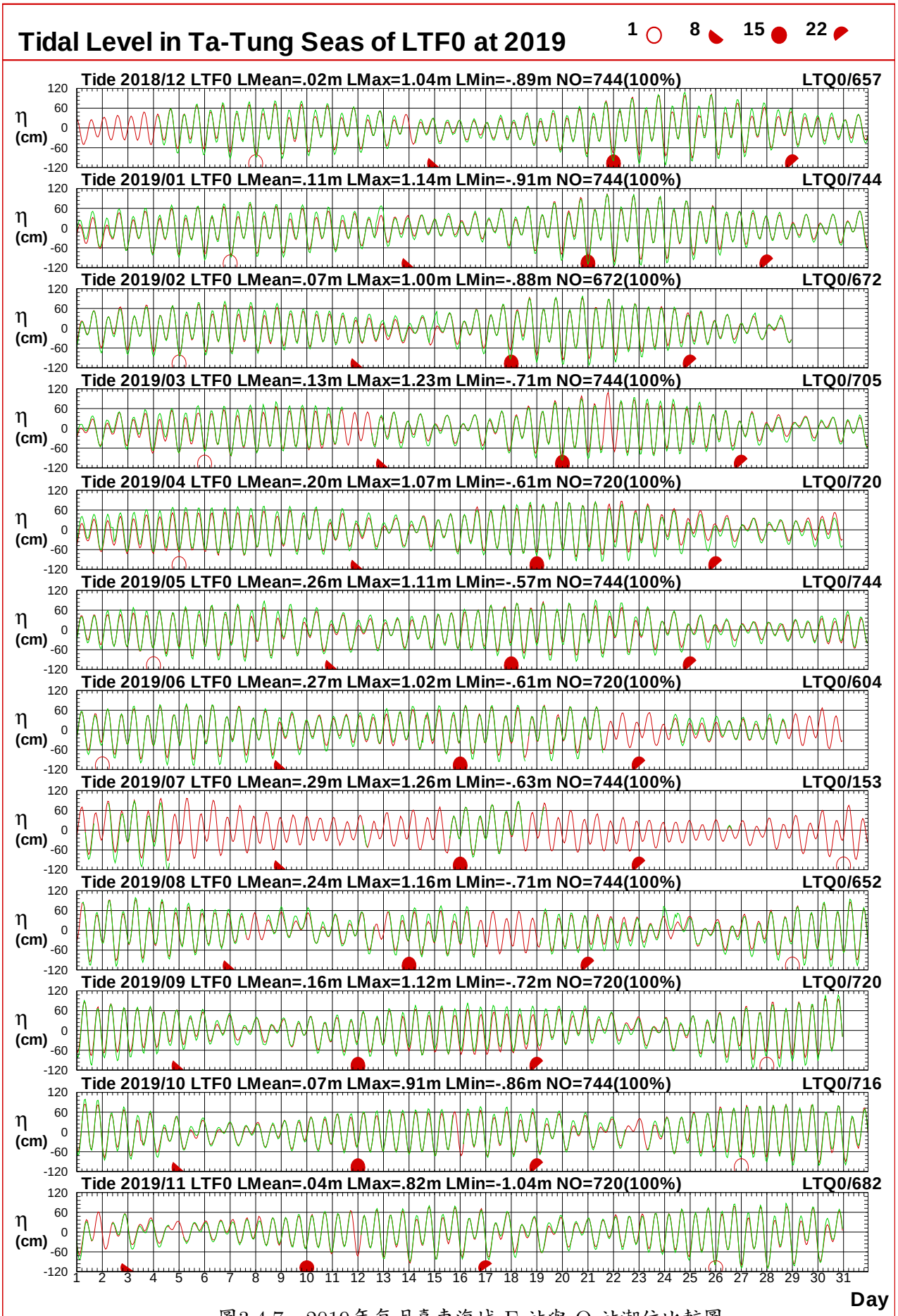

圖3.4.7　2019年每月臺東海域 F 站與 Q 站潮位比較圖

T18CLTF0.1HA T18CLTQ0.1H0 T191LTF0.1HA T191LTQ0.1H0 T192LTF0.1HA T192LTQ0.1H0
T193LTF0.1HA T193LTQ0.1H0 T194LTF0.1HA T194LTQ0.1H0 T195LTF0.1HA T195LTQ0.1H0

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3.5　2019 年臺東海域主要測站 3(修補後)與其他測站(修補前)潮位歷線比較圖

Tidal Level in Ta-Tung Seas of LTM0 at 2019

1 8 15 22

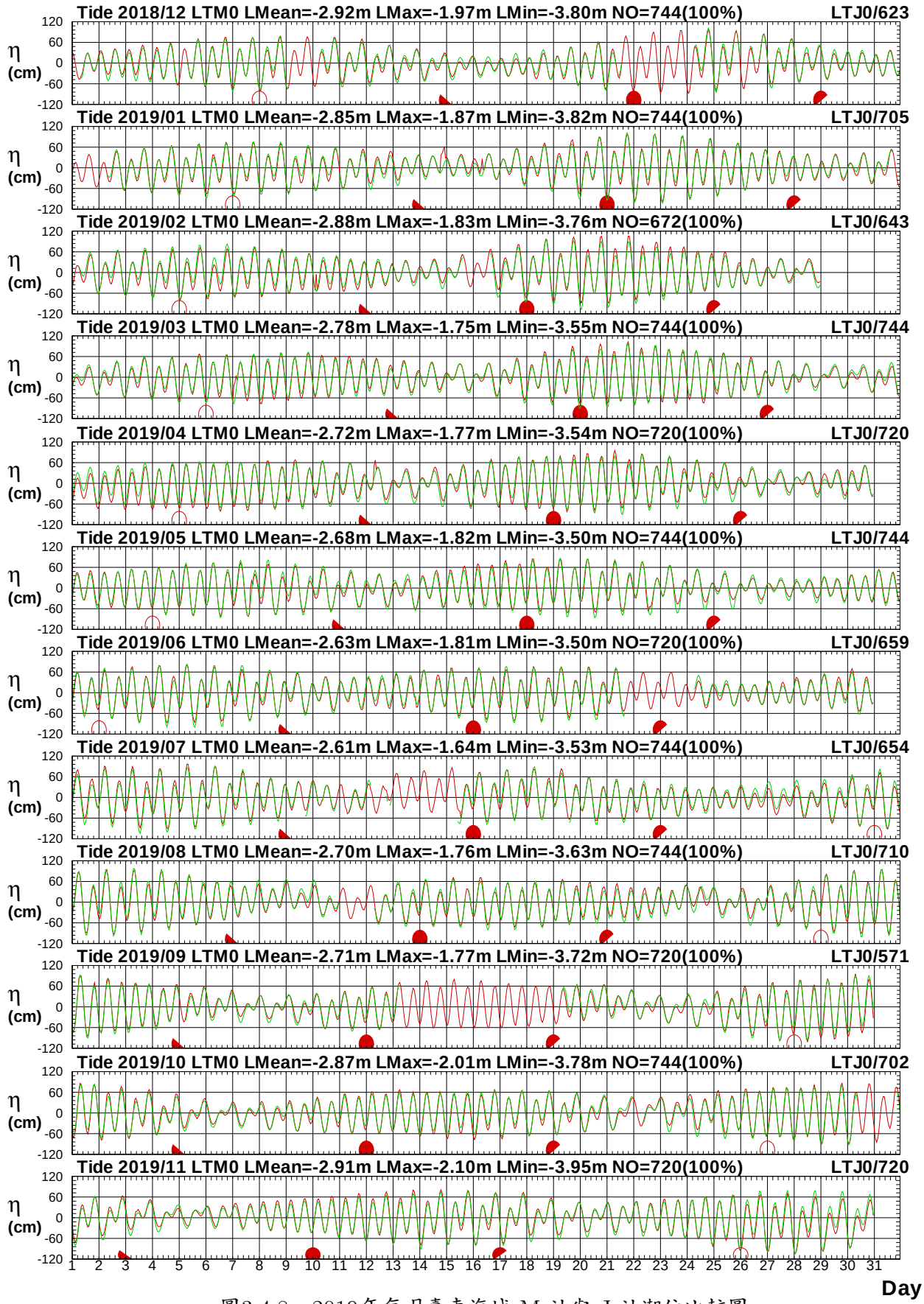

圖3.4.8　2019年每月臺東海域 M 站與 J 站潮位比較圖

T18CLTM0.1HA T18CLTJ0.1H0 T191LTM0.1HA T191LTJ0.1H0 T192LTM0.1HA T192LTJ0.1H0
T193LTM0.1HA T193LTJ0.1H0 T194LTM0.1HA T194LTJ0.1H0 T195LTM0.1HA T195LTJ0.1H0

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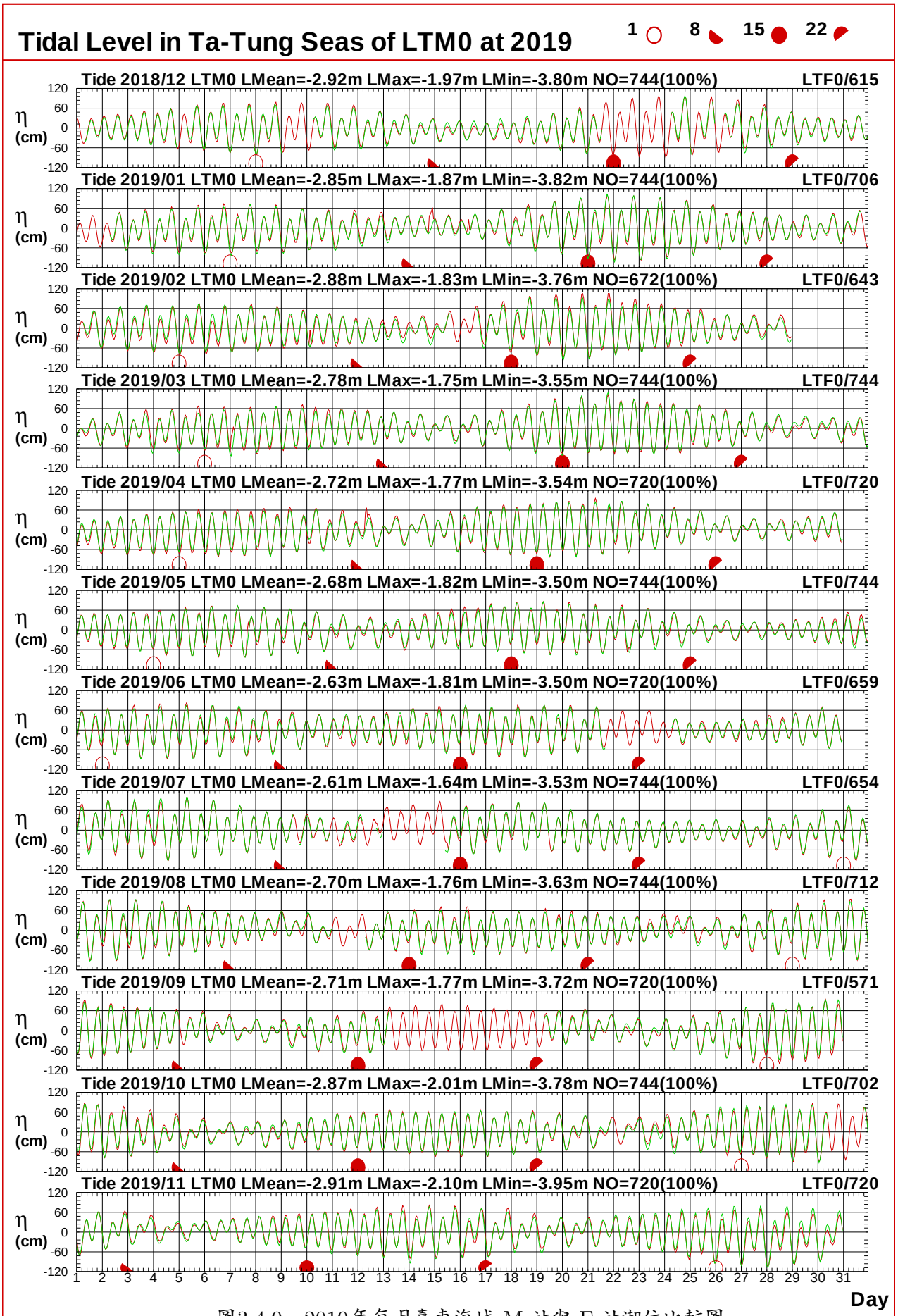

圖3.4.9　2019年每月臺東海域 M 站與 F 站潮位比較圖

T18CLTM0.1HA T18CLTF0.1H0 T191LTM0.1HA T191LTF0.1H0 T192LTM0.1HA T192LTF0.1H0
T193LTM0.1HA T193LTF0.1H0 T194LTM0.1HA T194LTF0.1H0 T195LTM0.1HA T195LTF0.1H0

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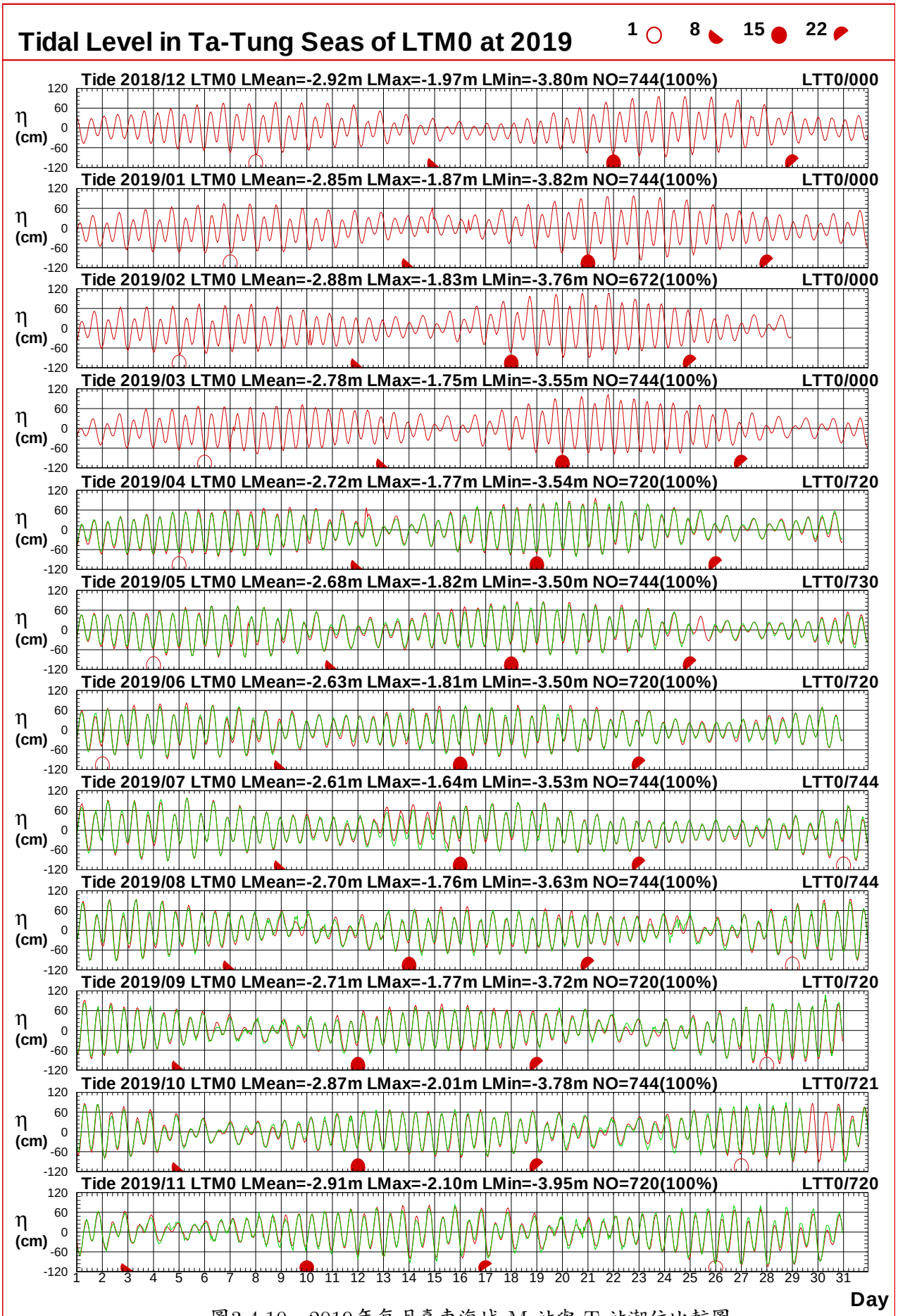

圖3.4.10　2019年每月臺東海域 M 站與 T 站潮位比較圖

T18CLTM0.1HA T18CLTT0.1H0 T191LTM0.1HA T191LTT0.1H0 T192LTM0.1HA T192LTT0.1H0
T193LTM0.1HA T193LTT0.1H0 T194LTM0.1HA T194LTT0.1H0 T195LTM0.1HA T195LTT0.1H0

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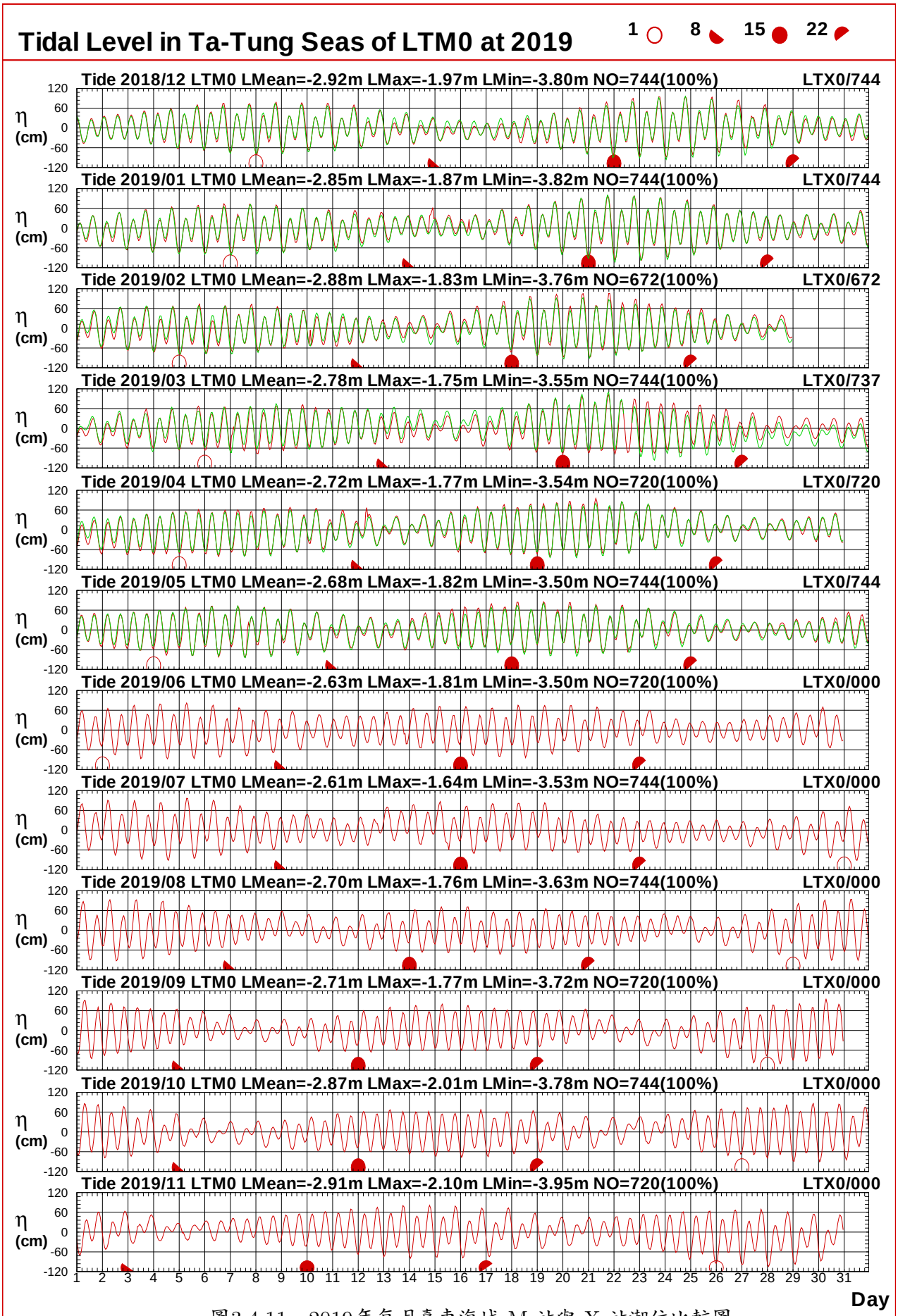

圖3.4.11　2019年每月臺東海域 M 站與 X 站潮位比較圖

T18CLTM0.1HA T18CLTX0.1H0 T191LTM0.1HA T191LTX0.1H0 T192LTM0.1HA T192LTX0.1H0
T193LTM0.1HA T193LTX0.1H0 T194LTM0.1HA T194LTX0.1H0 T195LTM0.1HA T195LTX0.1H0

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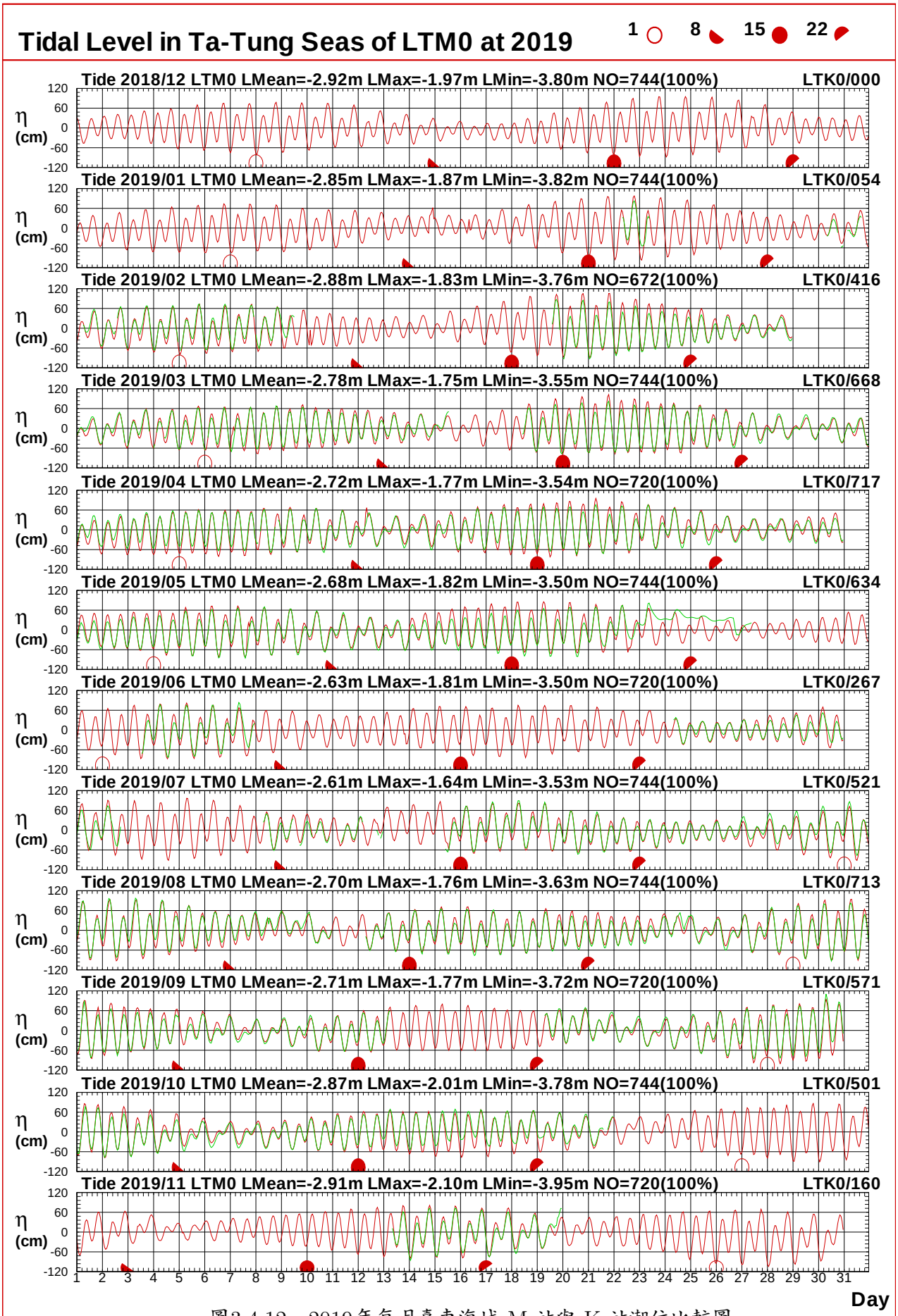

圖3.4.12　2019年每月臺東海域 M 站與 K 站潮位比較圖

T18CLTM0.1HA T18CLTK0.1H0 T191LTM0.1HA T191LTK0.1H0 T192LTM0.1HA T192LTK0.1H0
T193LTM0.1HA T193LTK0.1H0 T194LTM0.1HA T194LTK0.1H0 T195LTM0.1HA T195LTK0.1H0

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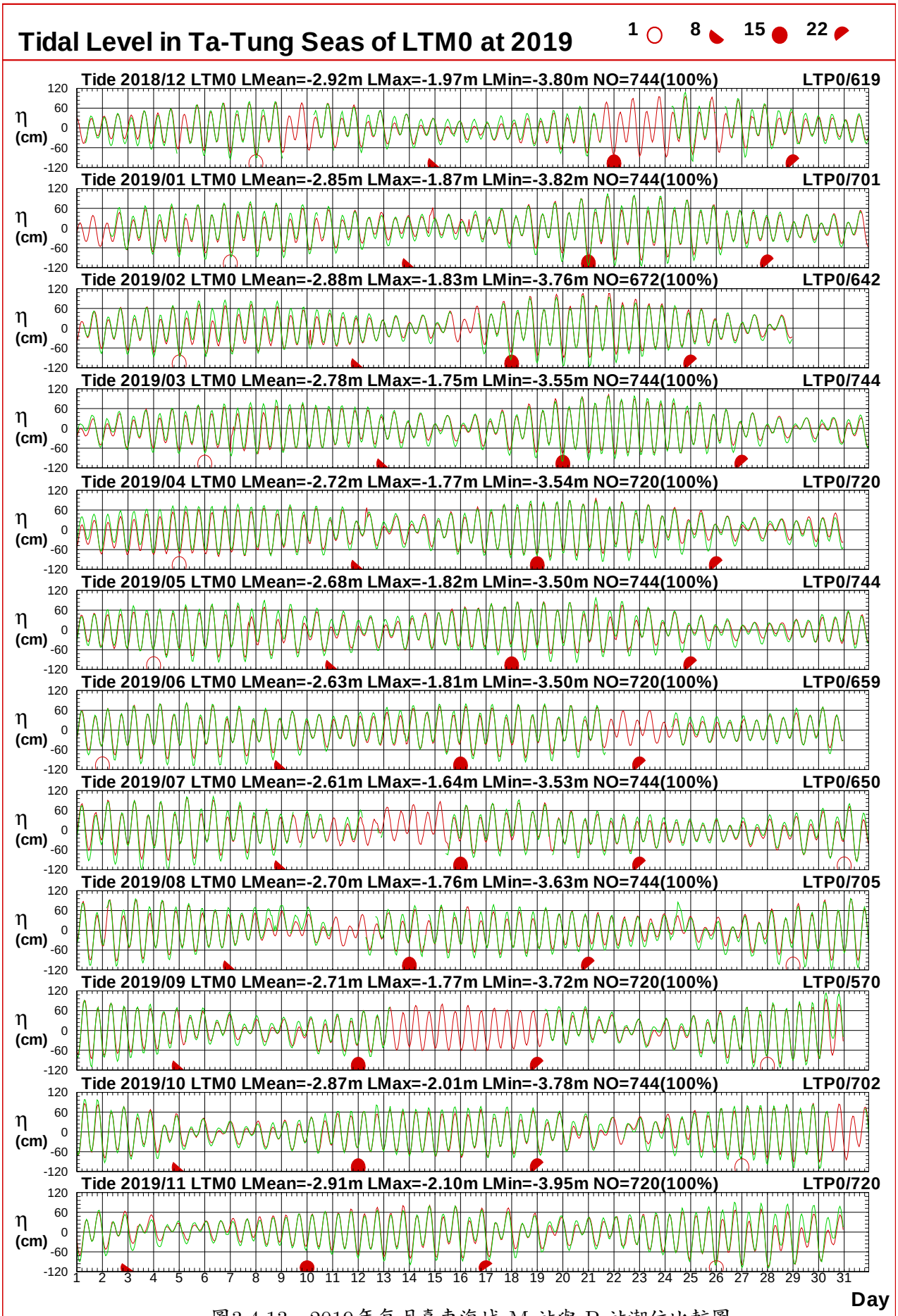

圖3.4.13　2019年每月臺東海域 M 站與 P 站潮位比較圖

T18CLTM0.1HA T18CLTP0.1H0 T191LTM0.1HA T191LTP0.1H0 T192LTM0.1HA T192LTP0.1H0
T193LTM0.1HA T193LTP0.1H0 T194LTM0.1HA T194LTP0.1H0 T195LTM0.1HA T195LTP0.1H0

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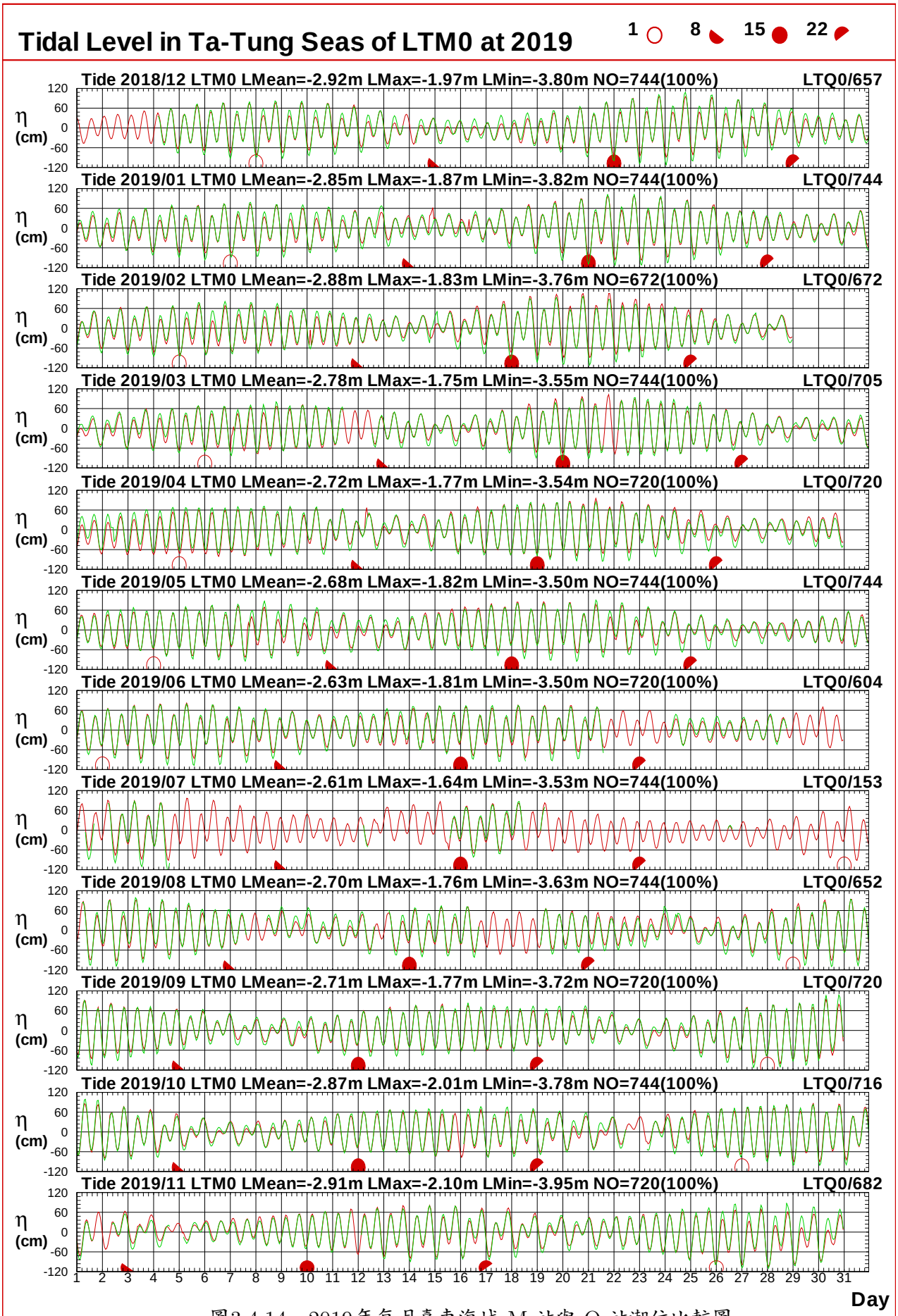

圖3.4.14　2019年每月臺東海域 M 站與 Q 站潮位比較圖

T18CLTM0.1HA T18CLTQ0.1H0 T191LTM0.1HA T191LTQ0.1H0 T192LTM0.1HA T192LTQ0.1H0
T193LTM0.1HA T193LTQ0.1H0 T194LTM0.1HA T194LTQ0.1H0 T195LTM0.1HA T195LTQ0.1H0

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第四章　2019 年臺東海域觀測海流資料年報

2019 年臺東海域海流之觀測包括**測站 X 及測站 Y 等** 2 個測站(測站位置如第 O 章圖 CJ1，各測站歷年觀測海流資料蒐集概況如表 CJ1)。

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 年臺東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年每月臺東海域各測站觀測海流資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
年月/測站	X	Y										
2018/12 月	744(100%)	649(87.2%)	*	*	*	*	*	*	*	*	*	*
2019/ 1 月	744(100%)	673(90.5%)	*	*	*	*	*	*	*	*	*	*
2019/ 2 月	672(100%)	664(98.8%)	*	*	*	*	*	*	*	*	*	*
2019/ 3 月	739(99.3%)	708(95.2%)	*	*	*	*	*	*	*	*	*	*
2019/ 4 月	720(100%)	657(91.3%)	*	*	*	*	*	*	*	*	*	*
2019/ 5 月	744(100%)	657(88.3%)	*	*	*	*	*	*	*	*	*	*
2019/ 6 月	705(97.9%)	593(82.4%)	*	*	*	*	*	*	*	*	*	*
2019/ 7 月	742(99.7%)	519(69.8%)	*	*	*	*	*	*	*	*	*	*
2019/ 8 月	743(99.9%)	641(86.2%)	*	*	*	*	*	*	*	*	*	*
2019/ 9 月	220(30.6%)	568(78.9%)	*	*	*	*	*	*	*	*	*	*
2019/10 月	*	660(88.7%)	*	*	*	*	*	*	*	*	*	*
2019/11 月	*	700(97.2%)	*	*	*	*	*	*	*	*	*	*
2019/冬季	2160(100%)	1986(91.9%)	*	*	*	*	*	*	*	*	*	*
2019/春季	2203(99.8%)	2022(91.6%)	*	*	*	*	*	*	*	*	*	*
2019/夏季	2190(99.2%)	1753(79.4%)	*	*	*	*	*	*	*	*	*	*
2019/秋季	220(10.1%)	1928(88.3%)	*	*	*	*	*	*	*	*	*	*
2019/整年	6773(77.3%)	7689(87.8%)	*	*	*	*	*	*	*	*	*	*
起始年月	2018/12	2018/12	*	*	*	*	*	*	*	*	*	*
結束年月	2019/09	2019/11	*	*	*	*	*	*	*	*	*	*

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表4.1.1b 2019年每月臺東海域計算潮流各測站資料紀錄表

海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域	臺東海域
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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4.2　2019 年臺東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年臺東海域 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	744(100%)	15.3	3.6/WNW	52.8/S	86.8	12.9	.3	.0	23.1	12.5	28.0	36.4	N /17.1%
2	2019/01	744(100%)	15.2	4.7/NW	45.1/S	86.8	13.2	.0	.0	25.1	13.2	27.8	33.9	N /18.1%
3	2019/02	672(100%)	18.2	2.1/SW	56.7/NNE	79.0	20.7	.3	.0	24.7	22.5	35.7	17.1	N /12.4%
4	2019/03	739(99%)	17.2	2.2/ENE	93.7/SW	81.5	18.3	.3	.0	34.2	31.0	17.1	17.7	N /11.5%
5	2019/04	720(100%)	18.4	13.5/NNE	62.6/NNE	76.5	22.5	1.0	.0	62.2	17.4	3.3	17.1	NNE/28.9%
6	2019/05	744(100%)	20.6	19.2/NNE	58.6/N	69.9	29.0	1.1	.0	78.5	4.7	.7	16.1	NNE/44.1%
7	2019/06	705(98%)	24.6	21.0/N	78.5/N	58.7	35.5	5.8	.0	51.3	3.1	7.8	37.7	N /38.7%
8	2019/07	742(100%)	20.7	11.9/NNE	75.2/N	71.4	26.1	2.4	.0	52.4	8.5	16.0	23.0	NNE/28.7%
9	2019/08	743(100%)	16.6	3.9/NNW	50.2/NNE	84.1	15.9	.0	.0	33.8	6.5	33.4	26.4	NNE/15.5%
10	2019/09	220(31%)	21.1	.8/S	70.7/SE	70.0	27.3	2.7	.0	20.9	20.5	28.6	30.0	NNW/ 8.6%
11	2019/10													
12	2019/11													
13	2019/冬	2160(100%)	16.2	3.0/WNW	56.7/NNE	84.4	15.4	.2	.0	24.3	15.8	30.3	29.5	N /16.0%
14	2019/春	2203(100%)	18.7	11.3/NNE	93.7/SW	75.9	23.3	.8	.0	58.3	17.7	7.0	17.0	NNE/27.7%
15	2019/夏	2190(99%)	20.6	11.8/N	78.5/N	71.6	25.7	2.7	.0	45.8	6.1	19.3	28.9	NNE/22.6%
16	2019/秋	220(10%)	21.1	.8/S	70.7/SE	70.0	27.3	2.7	.0	20.9	20.5	28.6	30.0	NNW/ 8.6%
17	2019/年	6773(77%)	18.6	7.7/N	93.7/SW	77.1	21.7	1.3	.0	42.2	13.4	19.1	25.3	N /19.5%

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表4.2.1b　2019年臺東海域 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%)	7.9	7.7/N	16.7/N	100.0	.0	.0	.0	59.3	.0	.0	40.7	N /66.5%
2	2019/01	744(100%)	7.9	7.7/N	17.0/N	100.0	.0	.0	.0	58.6	.0	.0	41.4	N /62.8%
3	2019/02	672(100%)	8.0	7.7/N	17.1/N	100.0	.0	.0	.0	61.0	.3	.0	38.7	N /58.9%
4	2019/03	744(100%)	7.9	7.7/N	17.0/N	100.0	.0	.0	.0	62.1	.1	.0	37.8	N /58.5%
5	2019/04	720(100%)	7.9	7.7/N	16.4/N	100.0	.0	.0	.0	63.2	.0	.0	36.8	N /61.7%
6	2019/05	744(100%)	7.9	7.7/N	15.9/N	100.0	.0	.0	.0	62.0	.0	.0	38.0	N /66.5%
7	2019/06	720(100%)	7.9	7.7/N	16.5/N	100.0	.0	.0	.0	59.4	.0	.0	40.6	N /66.1%
8	2019/07	744(100%)	7.9	7.7/N	16.7/N	100.0	.0	.0	.0	59.3	.0	.0	40.7	N /62.2%
9	2019/08	744(100%)	8.0	7.7/N	17.0/N	100.0	.0	.0	.0	59.8	.1	.0	40.1	N /57.7%
10	2019/09	720(100%)	7.9	7.7/N	16.8/N	100.0	.0	.0	.0	61.7	.0	.0	38.3	N /57.1%
11	2019/10	744(100%)	7.9	7.7/N	16.1/N	100.0	.0	.0	.0	62.0	.0	.0	38.0	N /59.4%
12	2019/11	720(100%)	7.9	7.7/N	15.9/N	100.0	.0	.0	.0	62.8	.0	.0	37.2	N /65.4%
13	2019/冬	2160(100%)	7.9	7.7/N	17.1/N	100.0	.0	.0	.0	59.6	.1	.0	40.3	N /62.9%
14	2019/春	2208(100%)	7.9	7.7/N	17.0/N	100.0	.0	.0	.0	62.4	.0	.0	37.5	N /62.2%
15	2019/夏	2208(100%)	7.9	7.7/N	17.0/N	100.0	.0	.0	.0	59.5	.0	.0	40.4	N /62.0%
16	2019/秋	2184(100%)	7.9	7.7/N	16.8/N	100.0	.0	.0	.0	62.1	.0	.0	37.9	N /60.6%
17	2019/年	8760(100%)	7.9	7.7/N	17.1/N	100.0	.0	.0	.0	60.9	.0	.0	39.0	N /61.9%

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表4.2.1c　2019年臺東海域 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	744(100%)	14.6	6.8/SSW	57.8/S	86.0	13.7	.3	.0	15.6	17.9	47.4	19.1	SSW/14.7%
2	2019/01	744(100%)	14.7	5.9/SW	47.4/S	90.5	9.5	.0	.0	16.3	19.2	46.5	18.0	SSW/15.9%
3	2019/02	672(100%)	19.6	9.5/SSW	55.7/S	73.2	25.4	1.3	.0	17.1	25.9	46.3	10.7	SSW/18.6%
4	2019/03	739(99%)	17.3	7.1/SSE	95.3/SW	80.9	18.7	.4	.0	20.8	42.2	25.4	11.5	SSE/14.1%
5	2019/04	720(100%)	14.8	6.4/NE	51.1/NNE	87.2	12.8	.0	.0	45.7	31.4	6.7	16.3	NNE/18.2%
6	2019/05	744(100%)	14.8	11.7/NNE	51.7/N	85.3	14.5	.1	.0	67.3	13.6	5.8	13.3	NNE/32.1%
7	2019/06	705(98%)	19.7	13.2/N	73.8/N	71.2	26.5	2.3	.0	44.5	8.4	14.6	32.5	N /27.1%
8	2019/07	742(100%)	18.6	4.4/NNE	70.7/N	77.5	20.9	1.6	.0	44.6	14.8	26.8	13.7	NNE/21.0%
9	2019/08	743(100%)	16.6	4.9/SSW	55.4/SSW	82.1	17.6	.3	.0	26.0	12.9	47.4	13.7	SSW/21.3%
10	2019/09	220(31%)	22.0	8.4/S	71.6/SE	65.0	31.4	3.6	.0	15.0	25.9	42.7	16.4	SSW/12.3%
11	2019/10													
12	2019/11													
13	2019/冬	2160(100%)	16.2	7.2/SSW	57.8/S	83.6	15.9	.5	.0	16.3	20.8	46.8	16.1	SSW/16.3%
14	2019/春	2203(100%)	15.6	4.4/NE	95.3/SW	84.5	15.3	.2	.0	44.7	29.0	12.7	13.7	NNE/18.8%
15	2019/夏	2190(99%)	18.3	4.1/N	73.8/N	77.0	21.6	1.4	.0	38.3	12.1	29.9	19.8	NNE/17.2%
16	2019/秋	220(10%)	22.0	8.4/S	71.6/SE	65.0	31.4	3.6	.0	15.0	25.9	42.7	16.4	SSW/12.3%
17	2019/年	6773(77%)	16.9	.0/WNW	95.3/SW	81.1	18.1	.8	.0	32.6	20.8	30.1	16.5	NNE/13.9%

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表4.2.2a　2019年臺東海域 Y 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	649(87%)	45.9	19.5/ENE	138.1/SW	27.9	28.8	42.1	1.2	64.6	3.7	29.6	2.2	ENE/30.2%
2	2019/01	673(91%)	59.5	35.1/NE	138.7/NE	17.1	21.5	54.8	6.5	72.2	2.1	24.4	1.3	NE /49.2%
3	2019/02	664(99%)	35.0	10.6/NE	104.9/ENE	44.3	31.2	24.2	.3	53.8	4.4	36.4	5.4	NE /31.6%
4	2019/03	708(95%)	51.0	12.2/SW	125.3/NE	26.8	25.0	42.8	5.4	35.6	3.5	57.6	3.2	SW /46.2%
5	2019/04	657(91%)	45.1	10.0/SW	143.3/SW	32.7	31.8	29.4	6.1	37.7	4.0	50.8	7.5	SW /33.5%
6	2019/05	657(88%)	48.8	28.9/NE	143.1/SW	29.5	29.2	34.2	7.0	68.3	3.8	24.7	3.2	NE /37.9%
7	2019/06	593(82%)	43.5	4.6/NE	152.5/NE	37.6	28.3	27.5	6.6	47.2	4.6	38.4	9.8	NE /26.3%
8	2019/07	519(70%)	46.2	9.9/SW	152.5/NE	39.5	22.5	28.7	9.2	32.8	5.6	51.3	10.4	SW /30.1%
9	2019/08	641(86%)	32.5	2.6/WSW	111.0/SW	46.6	33.4	19.7	.3	37.9	4.8	48.0	9.2	SW /24.5%
10	2019/09	568(79%)	48.5	8.3/SSW	159.9/SW	30.8	27.3	36.3	5.6	35.7	4.9	55.6	3.7	SW /34.7%
11	2019/10	660(89%)	35.4	14.4/ENE	136.4/SW	44.1	33.3	20.8	1.8	57.0	3.9	37.0	2.1	ENE/28.8%
12	2019/11	700(97%)	40.1	9.5/ENE	135.2/SW	36.7	31.9	29.6	1.9	50.9	4.1	41.3	3.7	SW /30.7%
13	2019/冬	1986(92%)	46.9	21.7/ENE	138.7/NE	29.7	27.1	40.4	2.7	63.5	3.4	30.1	3.0	NE /36.7%
14	2019/春	2022(92%)	48.4	2.4/E	143.3/SW	29.6	28.6	35.7	6.1	46.9	3.8	44.7	4.6	SW /31.3%
15	2019/夏	1753(79%)	40.3	2.3/WSW	152.5/NE	41.5	28.5	25.0	5.1	39.5	5.0	45.8	9.8	SW /25.3%
16	2019/秋	1928(88%)	41.0	6.7/E	159.9/SW	37.5	31.0	28.5	3.0	48.5	4.3	44.0	3.2	SW /29.9%
17	2019/年	7689(88%)	44.3	7.2/ENE	159.9/SW	34.3	28.8	32.7	4.2	49.9	4.1	41.0	5.0	SW /26.8%

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表4.2.2b　2019年臺東海域 Y 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%)	10.2	7.2/ENE	26.4/NE	99.3	.7	.0	.0	67.6	9.3	23.1	.0	ENE/48.9%
2	2019/01	744(100%)	9.5	7.2/ENE	25.1/NE	100.0	.0	.0	.0	67.6	10.3	21.9	.1	ENE/51.6%
3	2019/02	672(100%)	9.4	7.2/ENE	23.4/NE	100.0	.0	.0	.0	68.2	10.9	21.0	.0	ENE/51.6%
4	2019/03	744(100%)	9.6	7.2/ENE	24.9/ENE	100.0	.0	.0	.0	71.8	9.8	18.4	.0	ENE/58.1%
5	2019/04	720(100%)	10.3	7.2/ENE	27.3/ENE	99.0	1.0	.0	.0	70.7	7.8	21.5	.0	ENE/56.1%
6	2019/05	744(100%)	10.7	7.3/ENE	27.7/ENE	98.7	1.3	.0	.0	69.8	7.9	22.3	.0	ENE/51.9%
7	2019/06	720(100%)	10.4	7.3/ENE	26.5/NE	99.2	.8	.0	.0	67.9	8.8	23.3	.0	ENE/50.1%
8	2019/07	744(100%)	9.8	7.3/ENE	25.1/NE	100.0	.0	.0	.0	66.9	8.7	24.3	.0	ENE/48.7%
9	2019/08	744(100%)	9.6	7.2/ENE	24.1/NE	100.0	.0	.0	.0	68.4	9.7	21.8	.1	ENE/52.7%
10	2019/09	720(100%)	9.9	7.2/ENE	24.9/ENE	100.0	.0	.0	.0	69.3	10.4	20.3	.0	ENE/54.4%
11	2019/10	744(100%)	10.4	7.2/ENE	27.5/ENE	99.1	.9	.0	.0	72.2	7.3	20.6	.0	ENE/56.7%
12	2019/11	720(100%)	10.5	7.2/ENE	28.0/ENE	98.3	1.7	.0	.0	70.7	7.5	21.8	.0	ENE/55.1%
13	2019/冬	2160(100%)	9.7	7.2/ENE	26.4/NE	99.8	.2	.0	.0	67.8	10.1	22.0	.0	ENE/50.7%
14	2019/春	2208(100%)	10.2	7.2/ENE	27.7/ENE	99.2	.8	.0	.0	70.7	8.5	20.7	.0	ENE/55.3%
15	2019/夏	2208(100%)	9.9	7.3/ENE	26.5/NE	99.7	.3	.0	.0	67.8	9.1	23.1	.0	ENE/50.5%
16	2019/秋	2184(100%)	10.3	7.2/ENE	28.0/ENE	99.1	.9	.0	.0	70.7	8.4	20.9	.0	ENE/55.4%
17	2019/年	8760(100%)	10.0	7.2/ENE	28.0/ENE	99.5	.5	.0	.0	69.3	9.0	21.7	.0	ENE/53.0%

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表4.2.2c　2019年臺東海域 Y 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	649(87%)	41.5	12.3/ENE	128.8/SW	30.7	34.4	33.4	1.5	59.3	3.2	33.4	4.0	NE /30.8%
2	2019/01	673(91%)	55.5	28.0/NE	129.7/NE	18.4	25.9	50.8	4.9	69.8	1.5	26.3	2.4	NE /50.7%
3	2019/02	664(99%)	33.5	3.9/NNE	100.4/ENE	44.1	33.9	22.0	.0	48.3	2.7	42.9	6.0	NE /28.6%
4	2019/03	708(95%)	51.9	19.0/SW	130.0/SW	24.9	26.4	42.5	6.2	31.6	3.1	59.6	5.6	SW /43.9%
5	2019/04	657(91%)	46.1	17.0/SW	155.5/SW	31.4	32.4	29.8	6.4	34.4	3.2	56.0	6.4	SW /35.6%
6	2019/05	657(88%)	46.3	22.1/NE	151.8/SW	29.4	31.7	35.0	4.0	63.9	3.5	26.8	5.8	NE /38.8%
7	2019/06	593(82%)	43.5	3.2/W	133.4/SW	34.7	30.7	28.3	6.2	43.3	3.4	44.7	8.6	SW /24.3%
8	2019/07	519(70%)	47.0	16.8/WSW	156.5/NE	37.4	22.2	32.9	7.5	27.6	3.1	59.0	10.4	SW /33.1%
9	2019/08	641(86%)	33.3	9.7/WSW	113.2/SW	43.8	36.2	19.7	.3	32.1	2.8	54.9	10.1	SW /25.6%
10	2019/09	568(79%)	49.3	14.7/SW	156.0/SW	25.0	33.5	36.4	5.1	31.9	2.8	62.1	3.2	SW /36.1%
11	2019/10	660(89%)	32.9	7.2/ENE	140.7/SW	44.7	34.7	19.7	.9	51.4	3.5	41.8	3.3	SW /25.6%
12	2019/11	700(97%)	38.7	2.6/E	120.8/SW	38.9	31.1	28.9	1.1	47.1	2.6	45.9	4.4	SW /32.4%
13	2019/冬	1986(92%)	43.6	14.6/NE	129.7/NE	31.0	31.3	35.5	2.2	59.2	2.5	34.2	4.1	NE /36.8%
14	2019/春	2022(92%)	48.2	5.0/WSW	155.5/SW	28.4	30.1	36.0	5.5	43.0	3.3	47.8	5.9	SW /31.4%
15	2019/夏	1753(79%)	40.8	9.5/WSW	156.5/NE	38.8	30.2	26.5	4.4	34.6	3.1	52.7	9.7	SW /27.4%
16	2019/秋	1928(88%)	39.9	2.2/S	156.0/SW	36.8	33.0	28.0	2.2	44.1	3.0	49.3	3.7	SW /31.2%
17	2019/年	7689(88%)	43.2	.0/NE	156.5/NE	33.6	31.2	31.7	3.6	45.5	2.9	45.8	5.8	SW /27.8%

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4.3　2019 年臺東海域各測站觀測海流與計算潮流(殘流)歷線比較圖

Current Speed in Lu-Tao Harbor of LTX0 at 2019

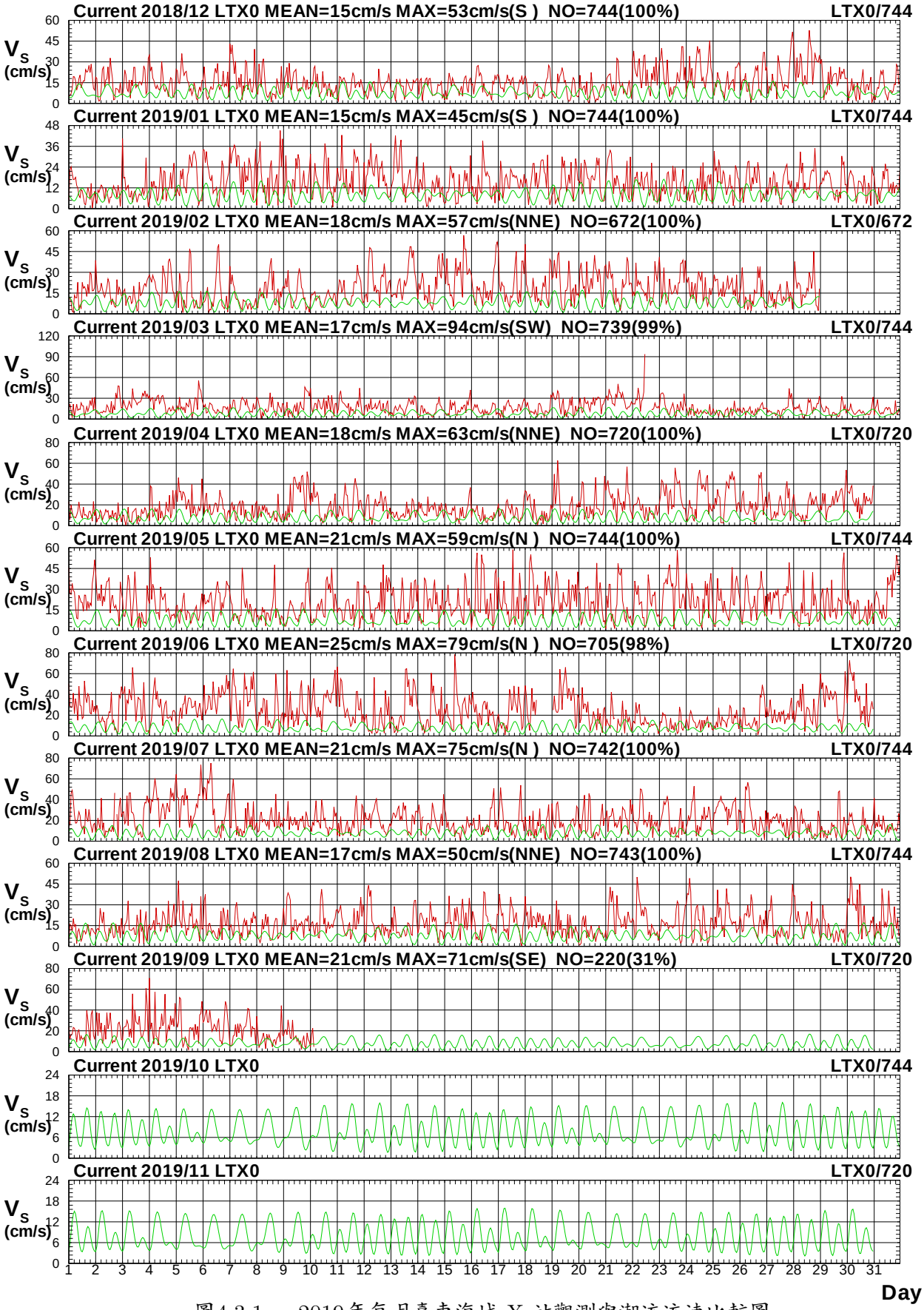

圖4.3.1a　2019年每月臺東海域 X 站觀測與潮流流速比較圖

C18CLTX0.1H0 C18CLTX0.1HD C191LTX0.1H0 C191LTX0.1HD C192LTX0.1H0 C192LTX0.1HD
C193LTX0.1H0 C193LTX0.1HD C194LTX0.1H0 C194LTX0.1HD C195LTX0.1H0 C195LTX0.1HD

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Current Direction in Lu-Tao Harbor of LTX0 at 2019

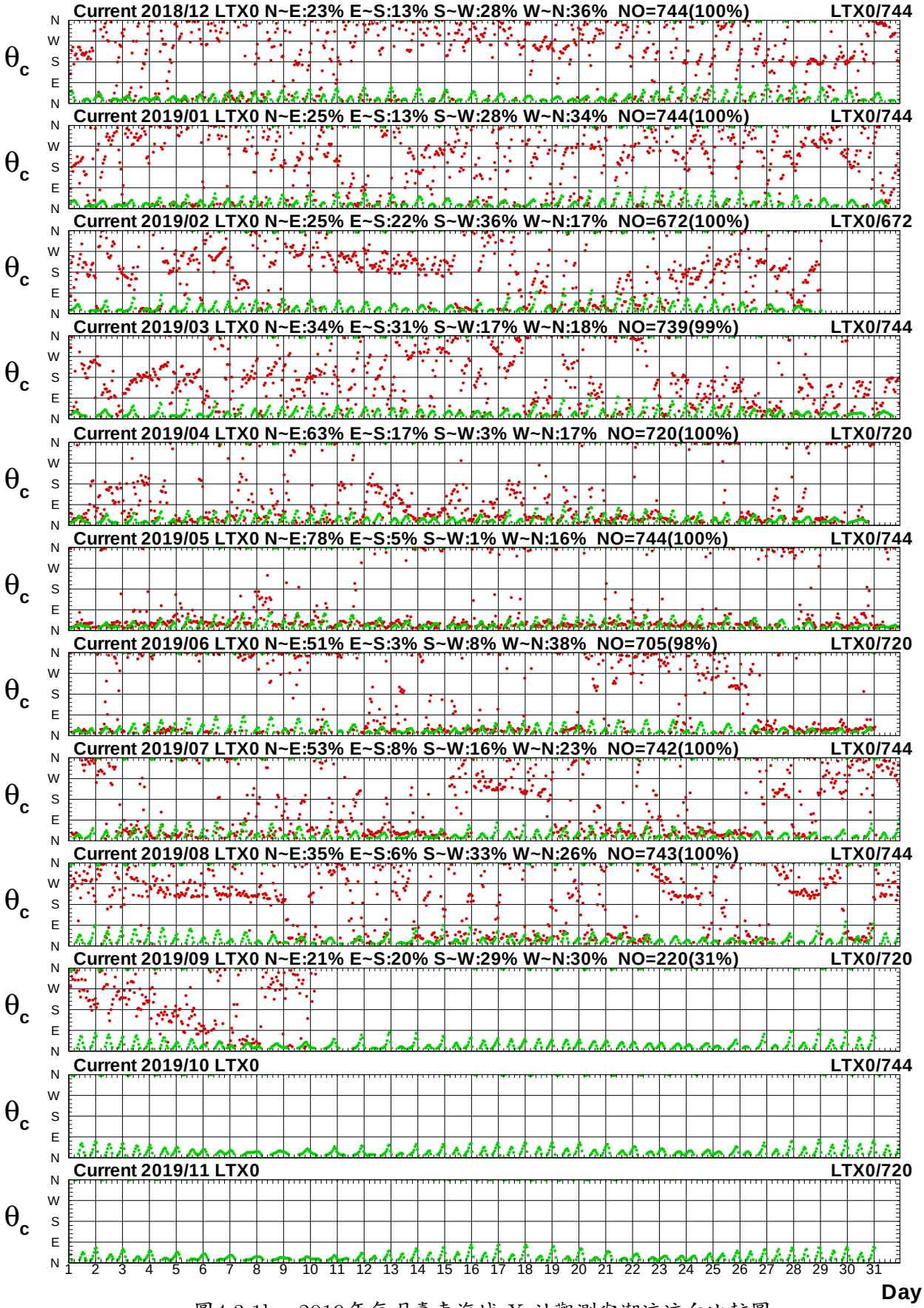

圖4.3.1b　2019年每月臺東海域 X 站觀測與潮流流向比較圖

C18CLTX0.1H0 C18CLTX0.1HD C191LTX0.1H0 C191LTX0.1HD C192LTX0.1H0 C192LTX0.1HD
C193LTX0.1H0 C193LTX0.1HD C194LTX0.1H0 C194LTX0.1HD C195LTX0.1H0 C195LTX0.1HD

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Current Speed in Lu-Tao Harbor of LTX0 at 2019

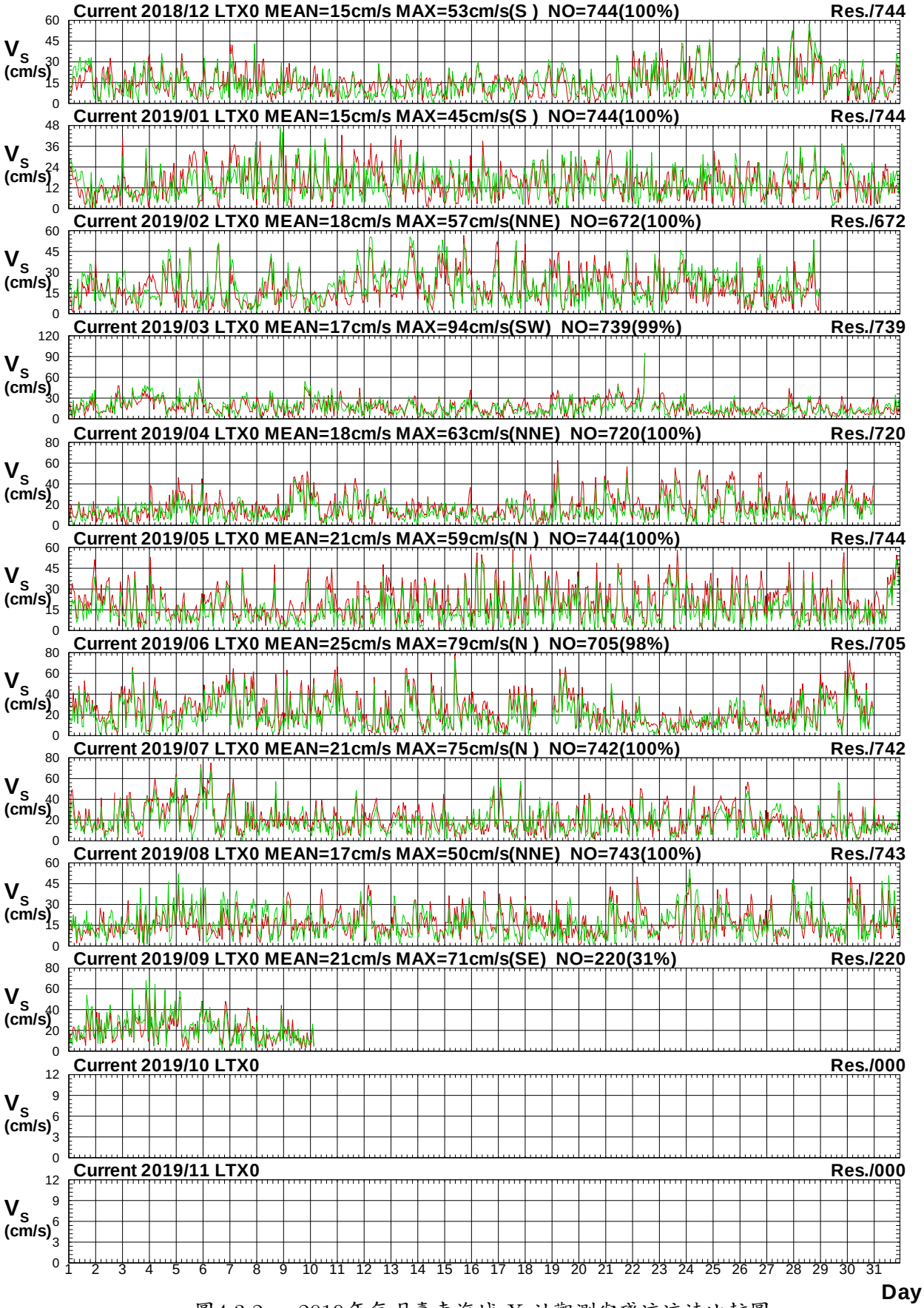

圖4.3.2a　2019年每月臺東海域 X 站觀測與殘流流速比較圖

C18CLTX0.1H0 C18CLTX0.1HR C191LTX0.1H0 C191LTX0.1HR C192LTX0.1H0 C192LTX0.1HR
C193LTX0.1H0 C193LTX0.1HR C194LTX0.1H0 C194LTX0.1HR C195LTX0.1H0 C195LTX0.1HR

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Current Direction in Lu-Tao Harbor of LTX0 at 2019

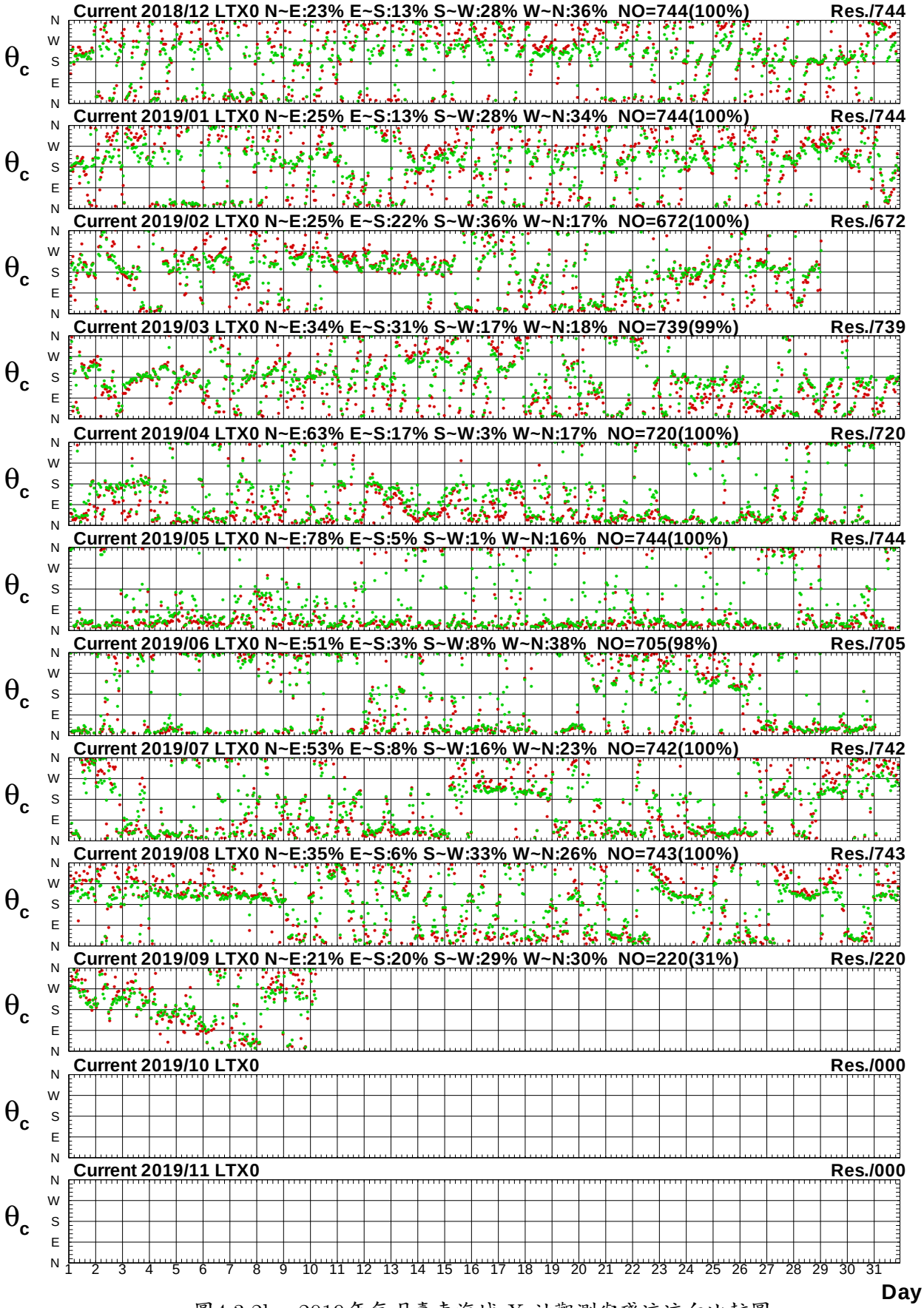

圖4.3.2b　2019年每月臺東海域 X 站觀測與殘流流向比較圖

C18CLTX0.1H0 C18CLTX0.1HR C191LTX0.1H0 C191LTX0.1HR C192LTX0.1H0 C192LTX0.1HR
C193LTX0.1H0 C193LTX0.1HR C194LTX0.1H0 C194LTX0.1HR C195LTX0.1H0 C195LTX0.1HR

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Current Speed in Lu-Tao Harbor of LTY0 at 2019

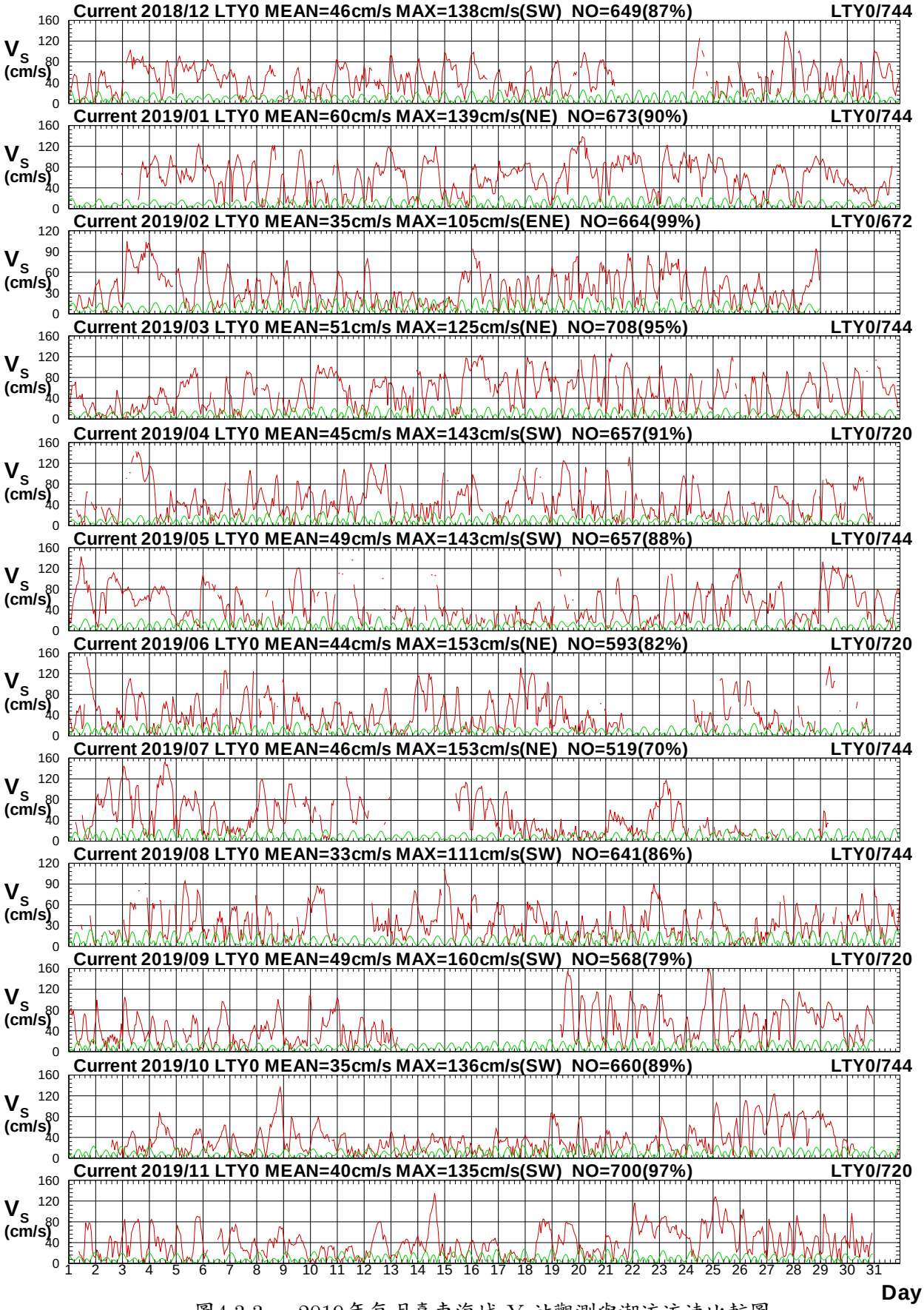

圖4.3.3a　2019年每月臺東海域 Y 站觀測與潮流流速比較圖

C18CLTY0.1H0 C18CLTY0.1HD C191LTY0.1H0 C191LTY0.1HD C192LTY0.1H0 C192LTY0.1HD
C193LTY0.1H0 C193LTY0.1HD C194LTY0.1H0 C194LTY0.1HD C195LTY0.1H0 C195LTY0.1HD

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Current Direction in Lu-Tao Harbor of LTY0 at 2019

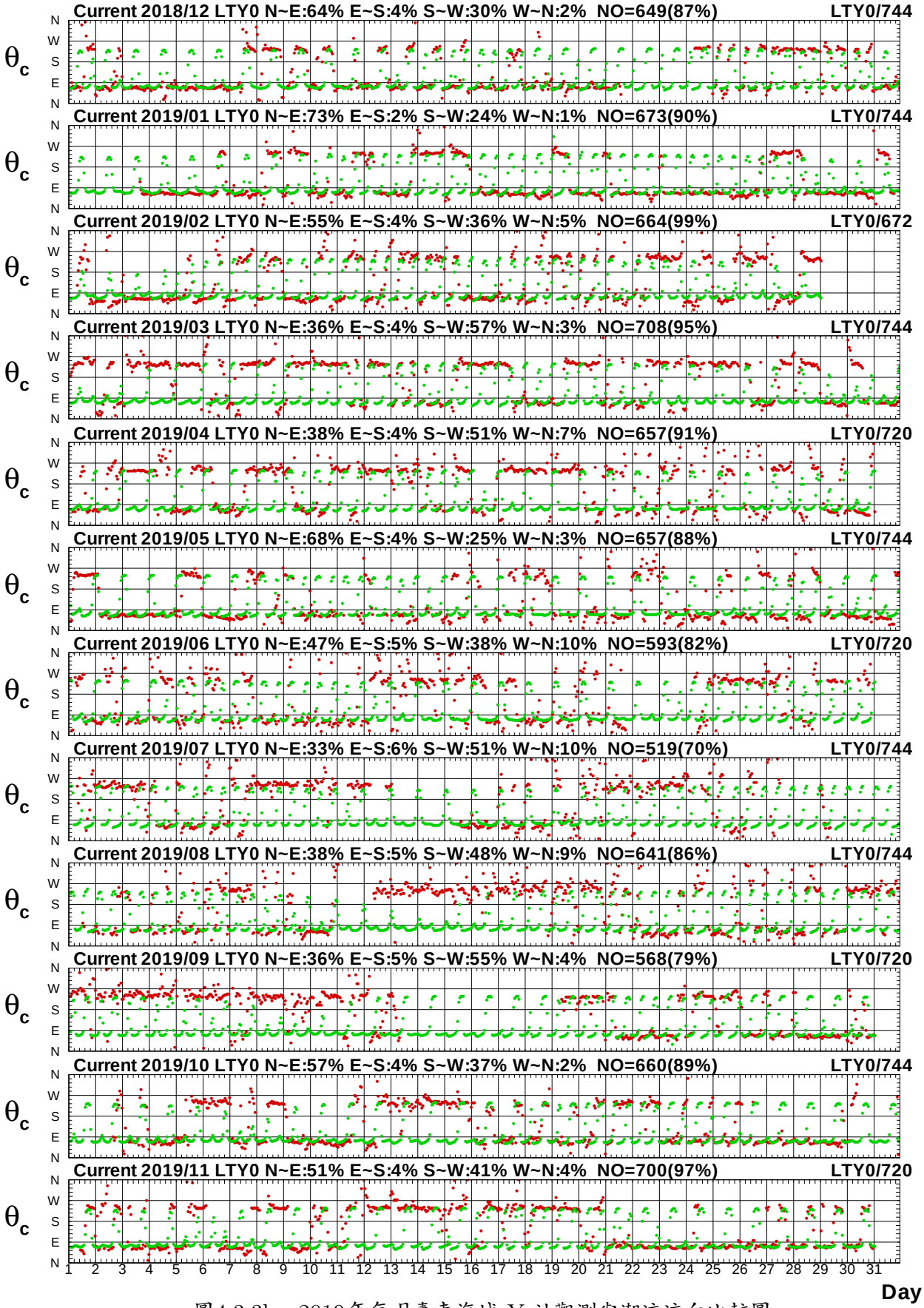

圖4.3.3b　2019年每月臺東海域 Y 站觀測與潮流流向比較圖

C18CLTY0.1H0 C18CLTY0.1HD C191LTY0.1H0 C191LTY0.1HD C192LTY0.1H0 C192LTY0.1HD
C193LTY0.1H0 C193LTY0.1HD C194LTY0.1H0 C194LTY0.1HD C195LTY0.1H0 C195LTY0.1HD

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Current Speed in Lu-Tao Harbor of LTY0 at 2019

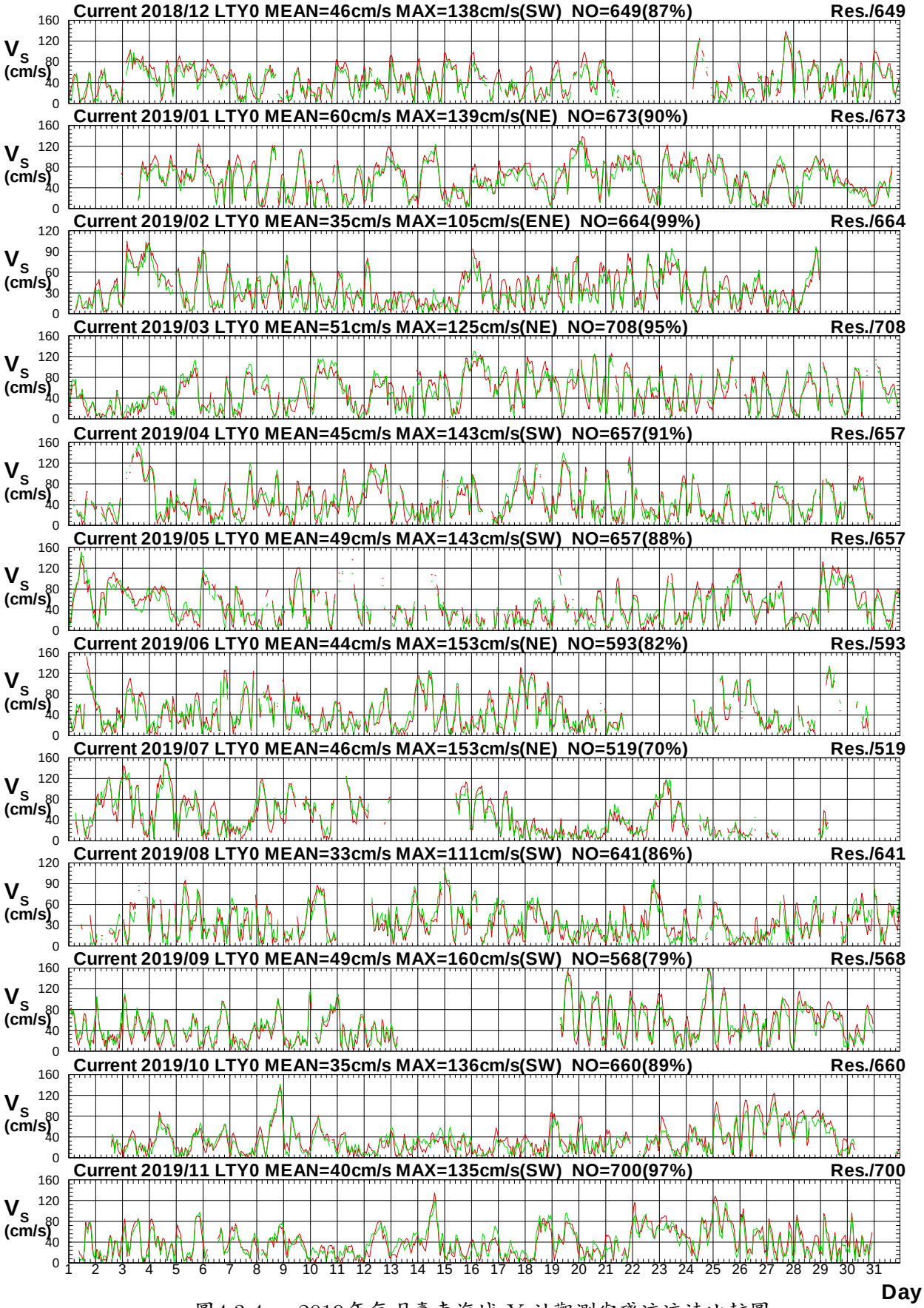

圖4.3.4a　2019年每月臺東海域 Y 站觀測與殘流流速比較圖

C18CLTY0.1H0 C18CLTY0.1HR C191LTY0.1H0 C191LTY0.1HR C192LTY0.1H0 C192LTY0.1HR
C193LTY0.1H0 C193LTY0.1HR C194LTY0.1H0 C194LTY0.1HR C195LTY0.1H0 C195LTY0.1HR

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Current Direction in Lu-Tao Harbor of LTY0 at 2019

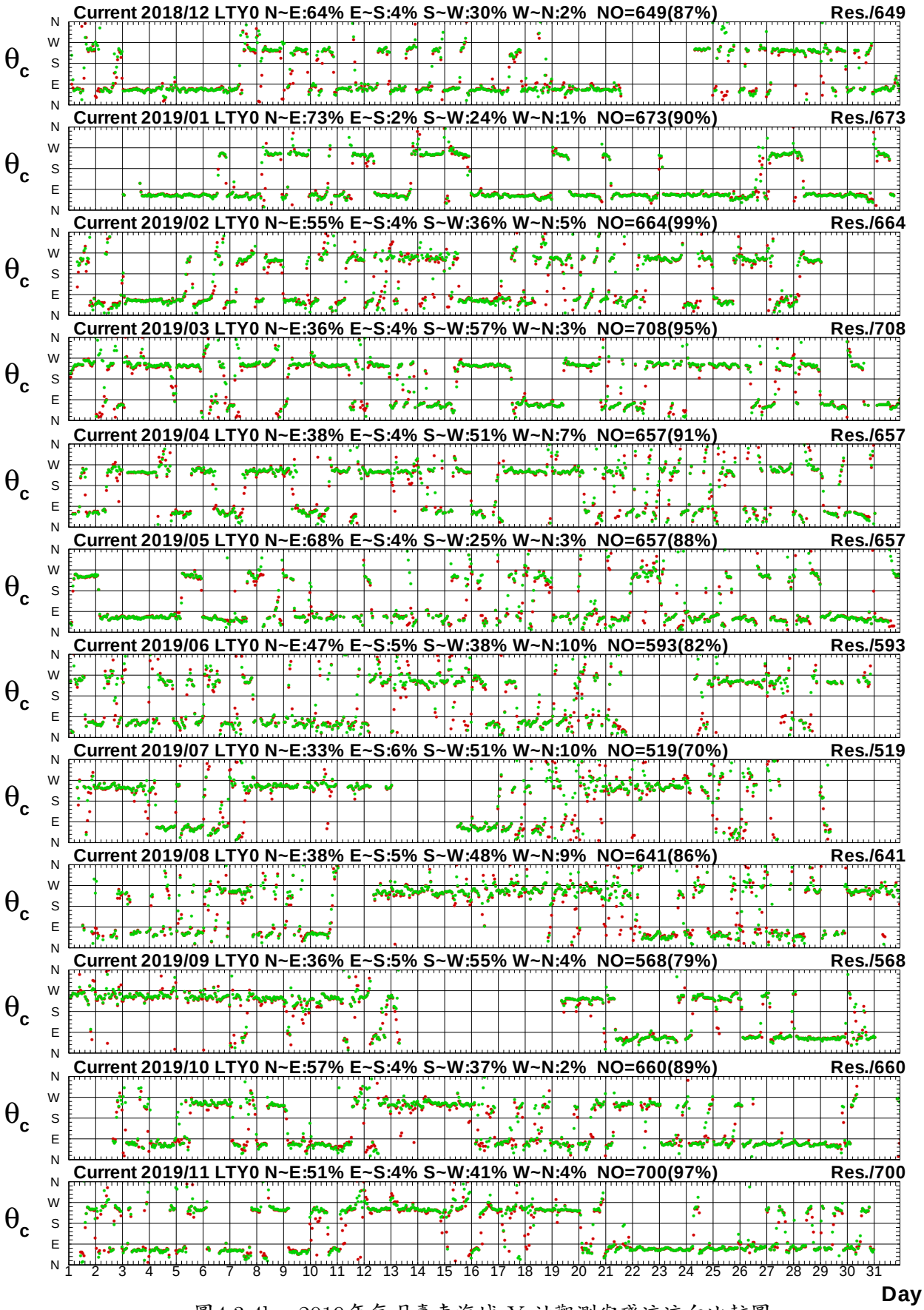

圖4.3.4b　2019年每月臺東海域 Y 站觀測與殘流流向比較圖

C18CLTY0.1H0 C18CLTY0.1HR C191LTY0.1H0 C191LTY0.1HR C192LTY0.1H0 C192LTY0.1HR
C193LTY0.1H0 C193LTY0.1HR C194LTY0.1H0 C194LTY0.1HR C195LTY0.1H0 C195LTY0.1HR

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4.4　2019 年臺東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

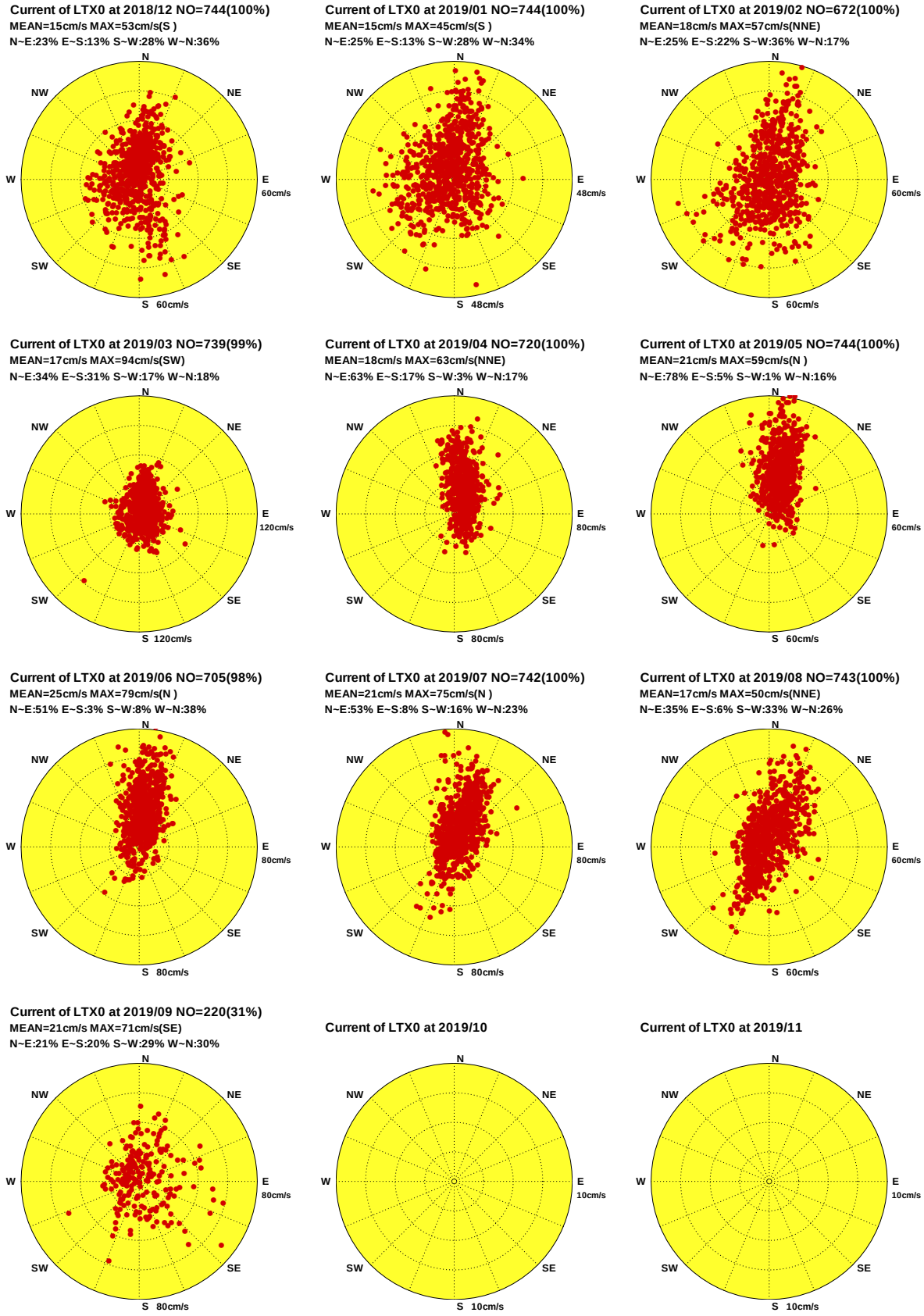

圖4.4.1a 2019年臺東海域每月測站 X 觀測海流向量分佈圖

C18CLTX0.1H0 C191LTX0.1H0 C192LTX0.1H0 C193LTX0.1H0 C194LTX0.1H0 C195LTX0.1H0
C196LTX0.1H0 C197LTX0.1H0 C198LTX0.1H0 C199LTX0.1H0 C19ALTX0.1H0 C19BLTX0.1H0

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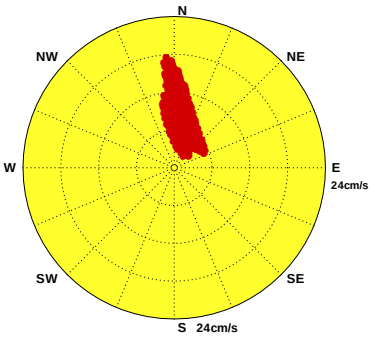
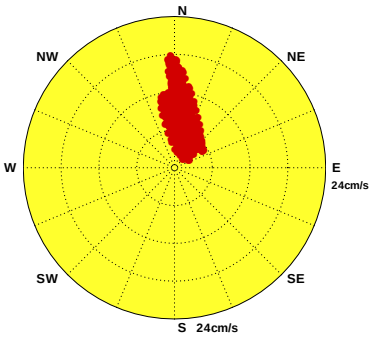
Distribution of Current Vectores

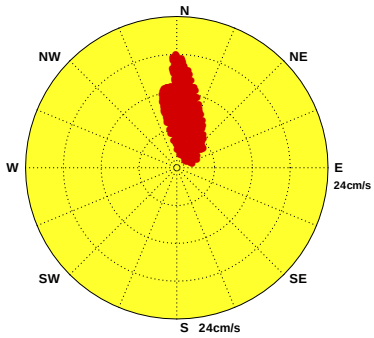
Current of LTX0 at 2018/12 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



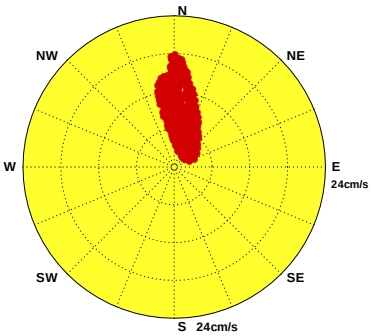
Current of LTX0 at 2019/01 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



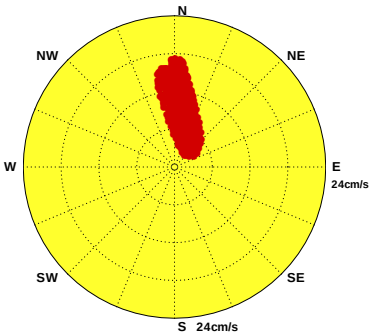
Current of LTX0 at 2019/02 NO=672(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:61% E~S:0% S~W:0% W~N:39%



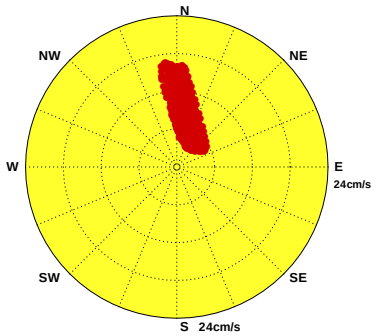
Current of LTX0 at 2019/03 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



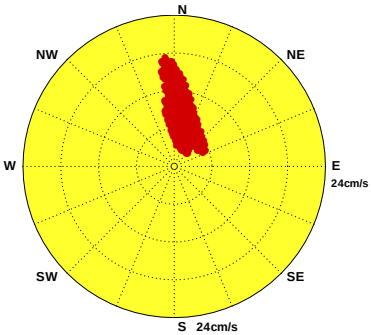
Current of LTX0 at 2019/04 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:63% E~S:0% S~W:0% W~N:37%



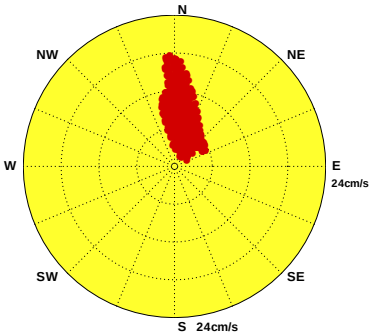
Current of LTX0 at 2019/05 NO=744(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



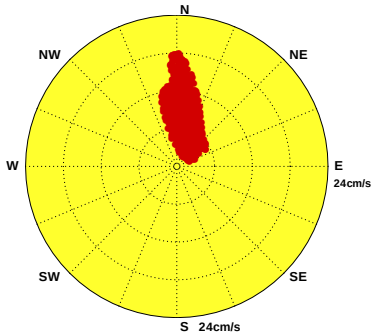
Current of LTX0 at 2019/06 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



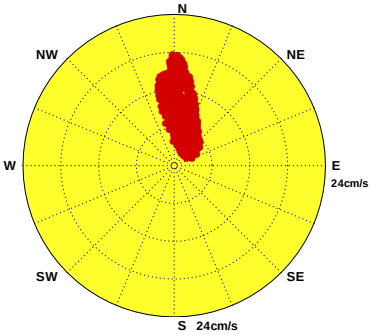
Current of LTX0 at 2019/07 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



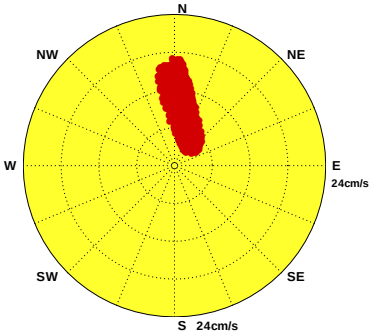
Current of LTX0 at 2019/08 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:60% E~S:0% S~W:0% W~N:40%



Current of LTX0 at 2019/09 NO=720(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



Current of LTX0 at 2019/10 NO=744(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



Current of LTX0 at 2019/11 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:63% E~S:0% S~W:0% W~N:37%

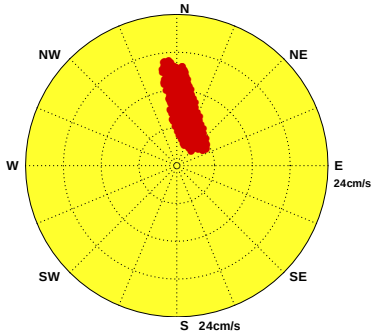


圖4.4.1b 2019年臺東海域每月測站 X 計算潮流向量分佈圖

C18CLTX0.1HD C191LTX0.1HD C192LTX0.1HD C193LTX0.1HD C194LTX0.1HD C195LTX0.1HD
C196LTX0.1HD C197LTX0.1HD C198LTX0.1HD C199LTX0.1HD C19ALTX0.1HD C19BLTX0.1HD

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Distribution of Current Vectores

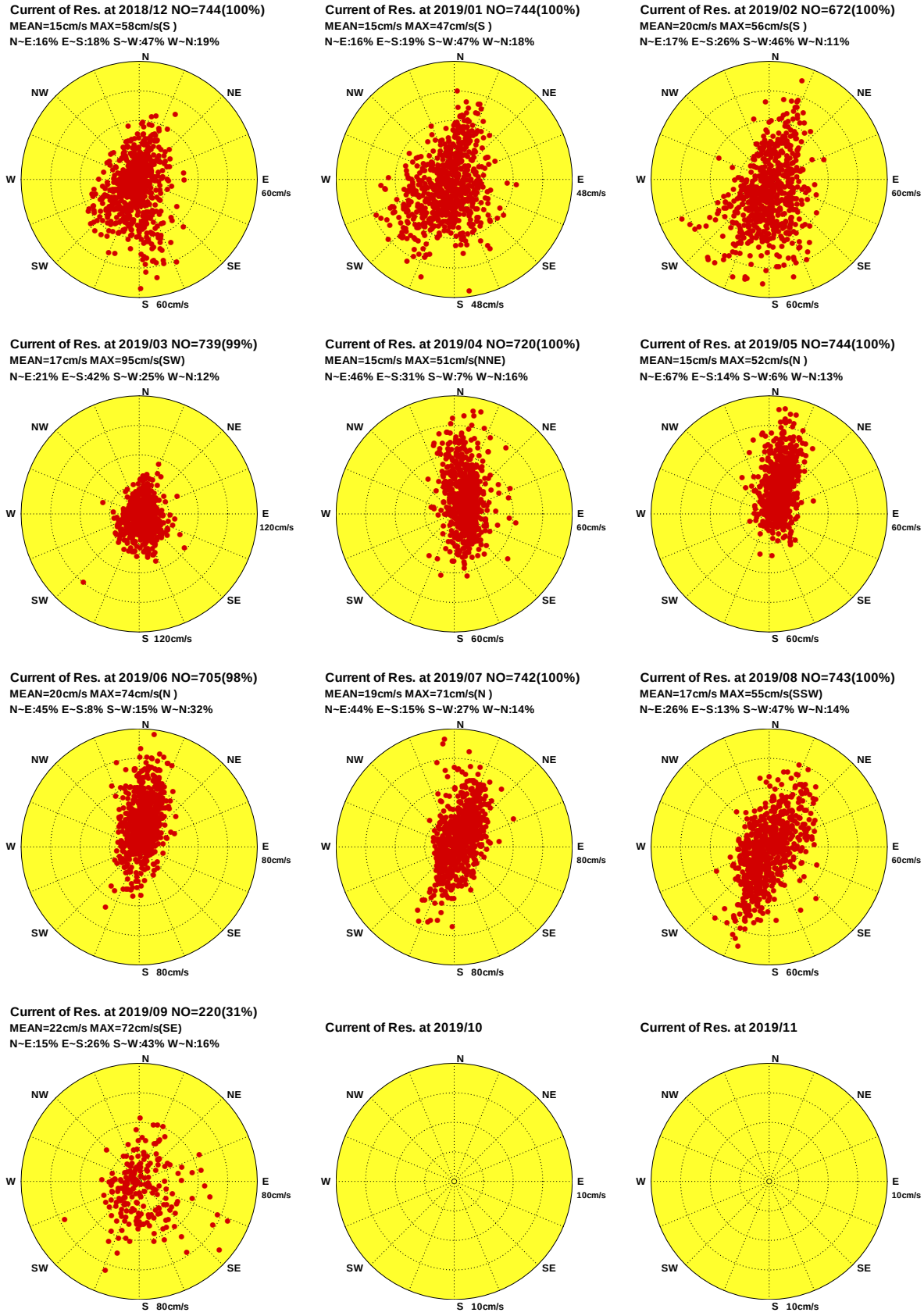

圖4.4.1c 2019年臺東海域每月測站 X 計算殘流向量分佈圖

C18CLTX0.1HR C191LTX0.1HR C192LTX0.1HR C193LTX0.1HR C194LTX0.1HR C195LTX0.1HR
C196LTX0.1HR C197LTX0.1HR C198LTX0.1HR C199LTX0.1HR C19ALTX0.1HR C19BLTX0.1HR

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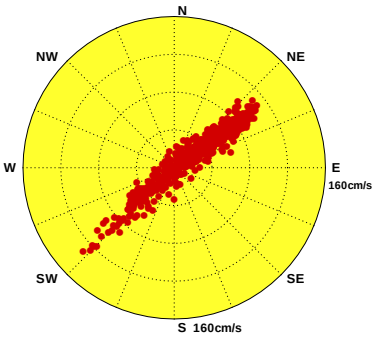
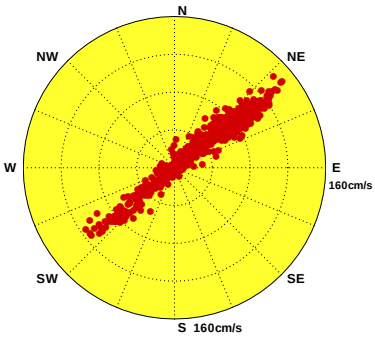
Distribution of Current Vectores

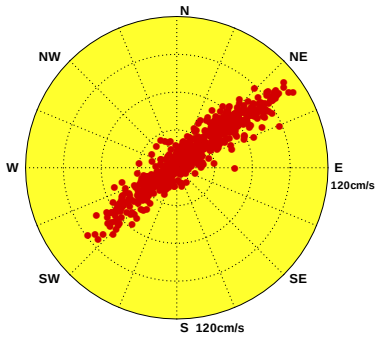
Current of LTY0 at 2018/12 NO=649(87%)
MEAN=46cm/s MAX=138cm/s(SW)
N~E:64% E~S:4% S~W:30% W~N:2%



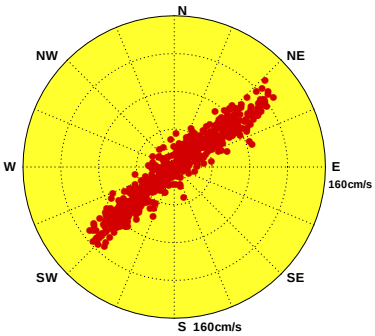
Current of LTY0 at 2019/01 NO=673(90%)
MEAN=60cm/s MAX=139cm/s(NE)
N~E:73% E~S:2% S~W:24% W~N:1%



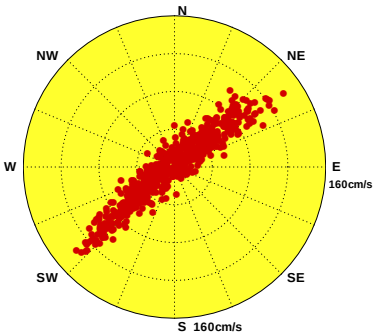
Current of LTY0 at 2019/02 NO=664(99%)
MEAN=35cm/s MAX=105cm/s(ENE)
N~E:55% E~S:4% S~W:36% W~N:5%



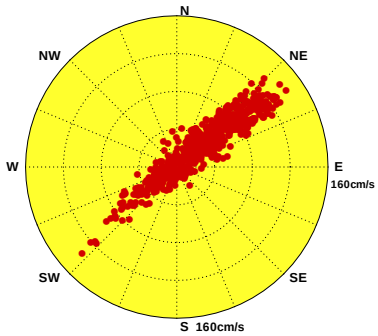
Current of LTY0 at 2019/03 NO=708(95%)
MEAN=51cm/s MAX=125cm/s(NE)
N~E:36% E~S:4% S~W:57% W~N:3%



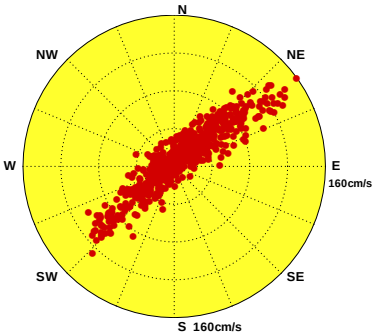
Current of LTY0 at 2019/04 NO=657(91%)
MEAN=45cm/s MAX=143cm/s(SW)
N~E:38% E~S:4% S~W:51% W~N:7%



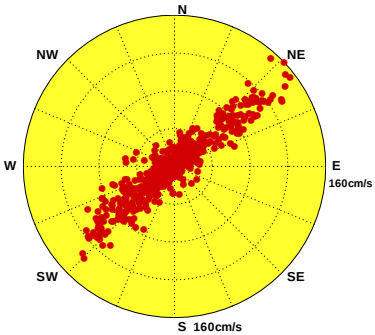
Current of LTY0 at 2019/05 NO=657(88%)
MEAN=49cm/s MAX=143cm/s(SW)
N~E:68% E~S:4% S~W:25% W~N:3%



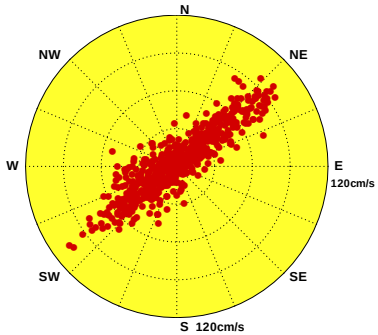
Current of LTY0 at 2019/06 NO=593(82%)
MEAN=44cm/s MAX=153cm/s(NE)
N~E:47% E~S:5% S~W:38% W~N:10%



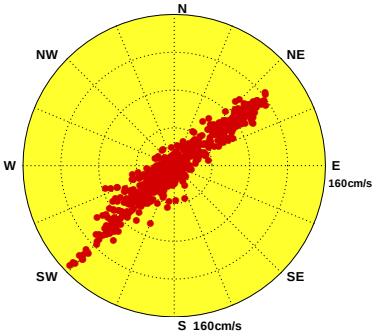
Current of LTY0 at 2019/07 NO=519(70%)
MEAN=46cm/s MAX=153cm/s(NE)
N~E:33% E~S:6% S~W:51% W~N:10%



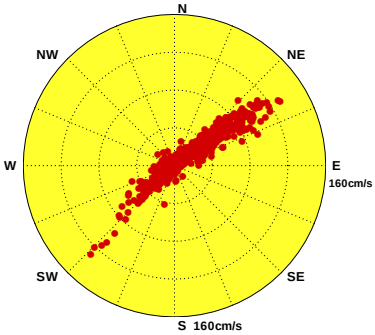
Current of LTY0 at 2019/08 NO=641(86%)
MEAN=33cm/s MAX=111cm/s(SW)
N~E:38% E~S:5% S~W:48% W~N:9%



Current of LTY0 at 2019/09 NO=568(79%)
MEAN=49cm/s MAX=160cm/s(SW)
N~E:36% E~S:5% S~W:55% W~N:4%



Current of LTY0 at 2019/10 NO=660(89%)
MEAN=35cm/s MAX=136cm/s(SW)
N~E:57% E~S:4% S~W:37% W~N:2%



Current of LTY0 at 2019/11 NO=700(97%)
MEAN=40cm/s MAX=135cm/s(SW)
N~E:51% E~S:4% S~W:41% W~N:4%

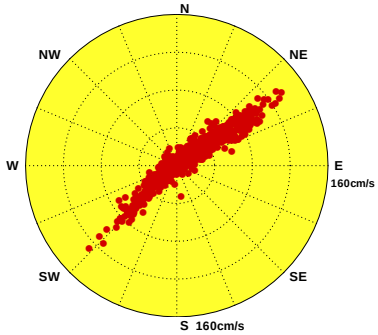


圖4.4.2a 2019年臺東海域每月測站 Y 觀測海流向量分佈圖

C18CLTY0.1H0 C191LTY0.1H0 C192LTY0.1H0 C193LTY0.1H0 C194LTY0.1H0 C195LTY0.1H0
C196LTY0.1H0 C197LTY0.1H0 C198LTY0.1H0 C199LTY0.1H0 C19ALTY0.1H0 C19BLTY0.1H0

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Distribution of Current Vectores

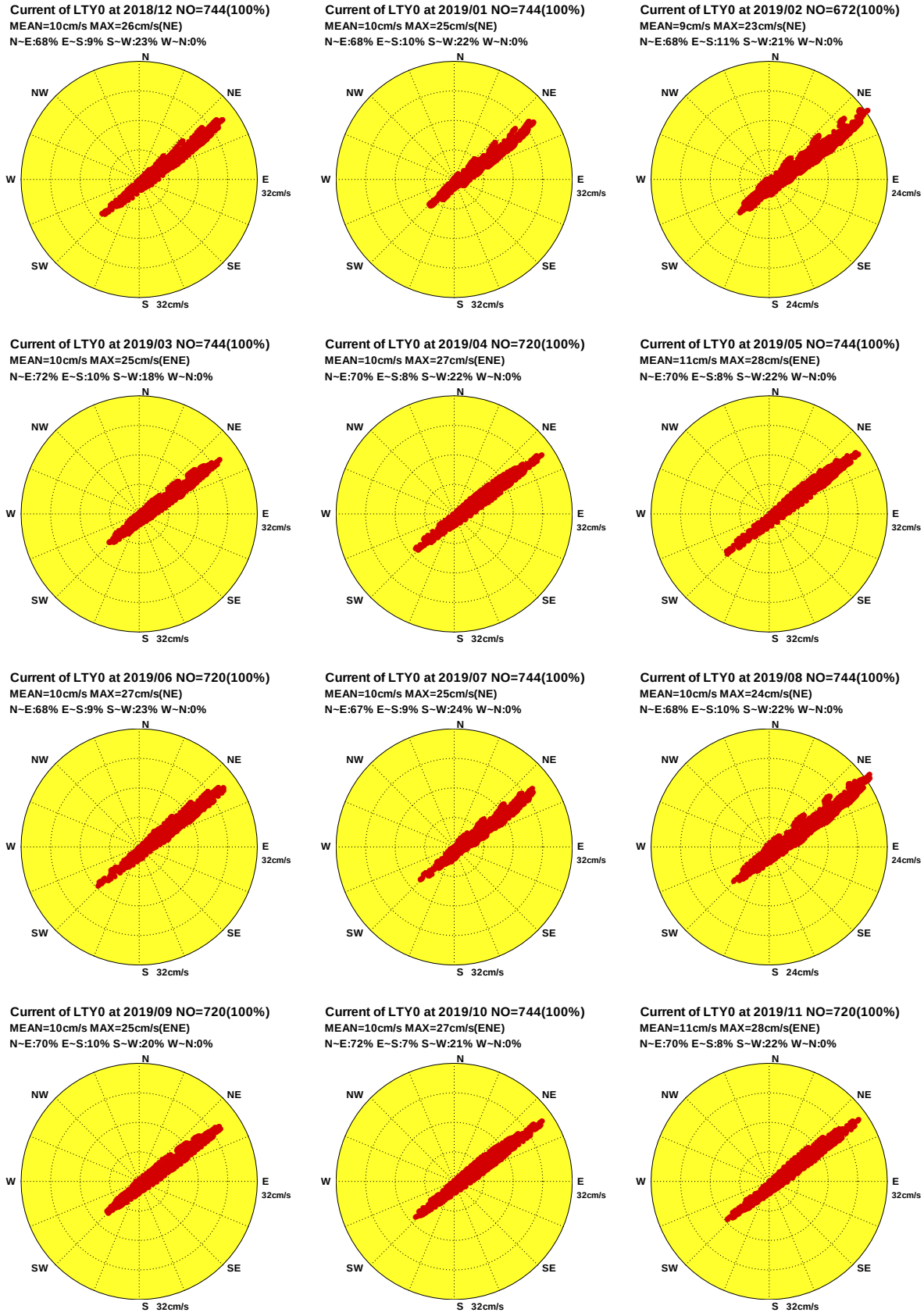

圖4.4.2b 2019年臺東海域每月測站 Y 計算潮流向量分佈圖

C18CLTY0.1HD C191LTY0.1HD C192LTY0.1HD C193LTY0.1HD C194LTY0.1HD C195LTY0.1HD
C196LTY0.1HD C197LTY0.1HD C198LTY0.1HD C199LTY0.1HD C19ALTY0.1HD C19BLTY0.1HD

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Distribution of Current Vectores

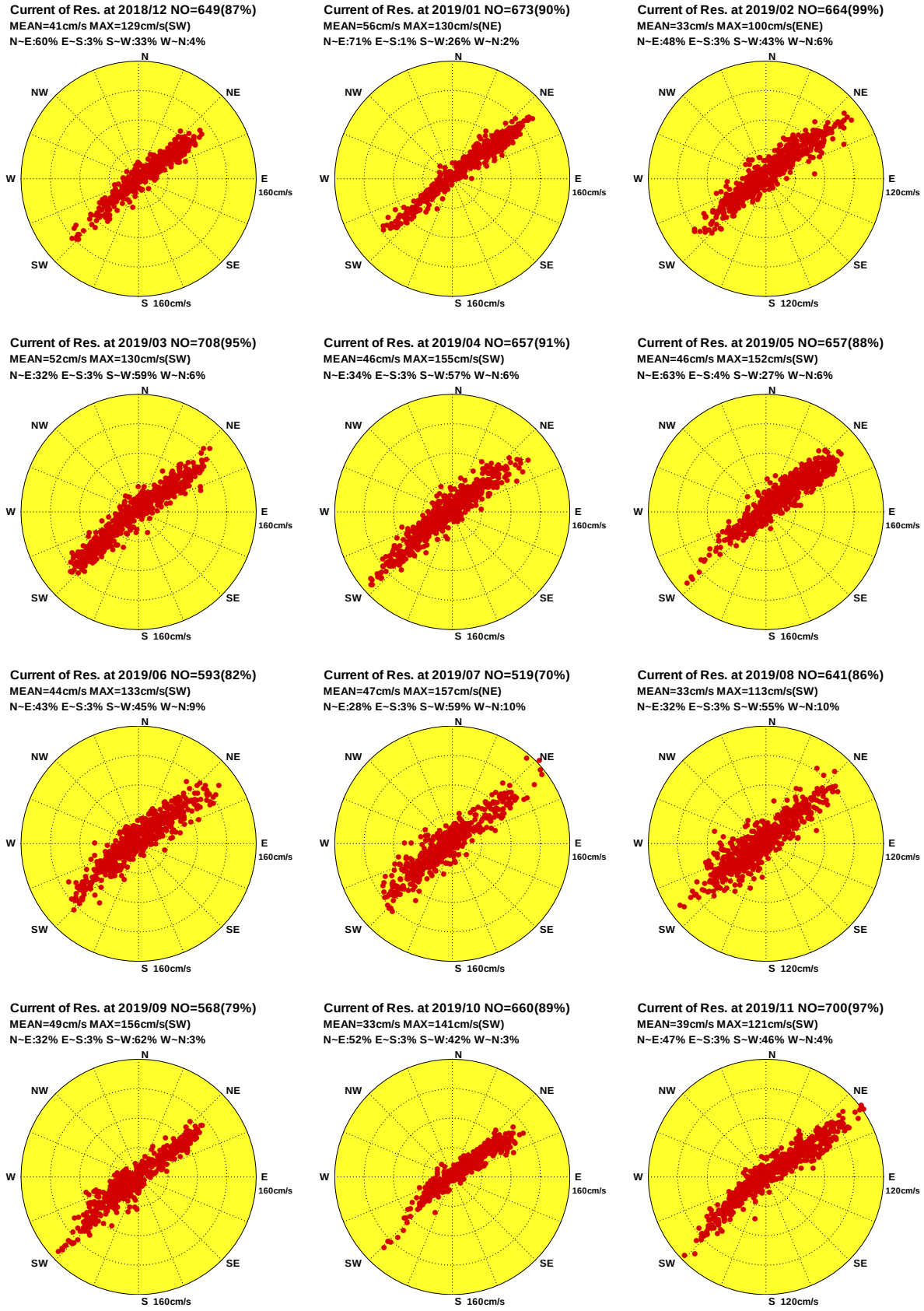

圖4.4.2c 2019年臺東海域每月測站 Y 計算殘流向量分佈圖

C18CLTY0.1HR C191LTY0.1HR C192LTY0.1HR C193LTY0.1HR C194LTY0.1HR C195LTY0.1HR
C196LTY0.1HR C197LTY0.1HR C198LTY0.1HR C199LTY0.1HR C19ALTY0.1HR C19BLTY0.1HR

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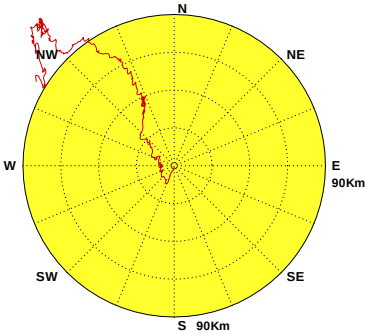
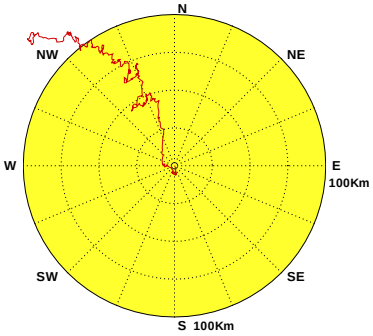
4.5　2019 年臺東海域各測站觀測海流與計算潮流(殘流)向量行進圖

Progressive Vector Diagram of Current

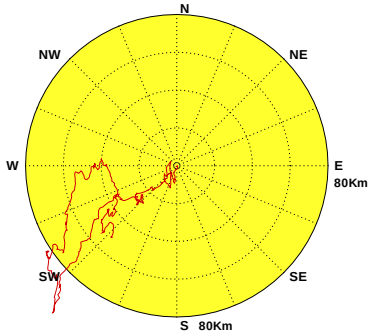
Current of LTX0 at 2018/12 NO=744(100%)
MEAN=15cm/s MAX=53cm/s(S)
N~E:23% E~S:13% S~W:28% W~N:36%



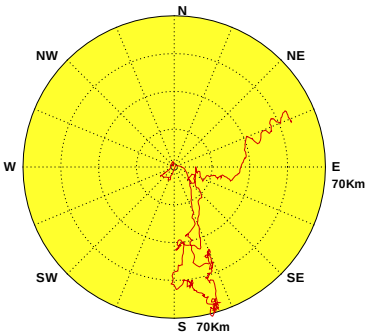
Current of LTX0 at 2019/01 NO=744(100%)
MEAN=15cm/s MAX=45cm/s(S)
N~E:25% E~S:13% S~W:28% W~N:34%



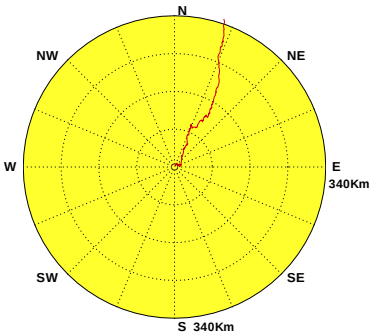
Current of LTX0 at 2019/02 NO=672(100%)
MEAN=18cm/s MAX=57cm/s(NNE)
N~E:25% E~S:22% S~W:36% W~N:17%



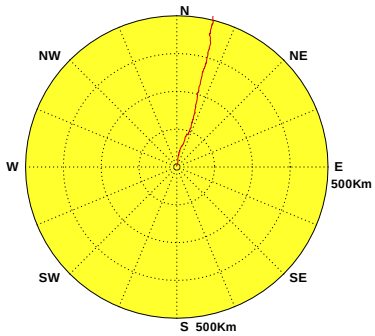
Current of LTX0 at 2019/03 NO=739(99%)
MEAN=17cm/s MAX=94cm/s(SW)
N~E:34% E~S:31% S~W:17% W~N:18%



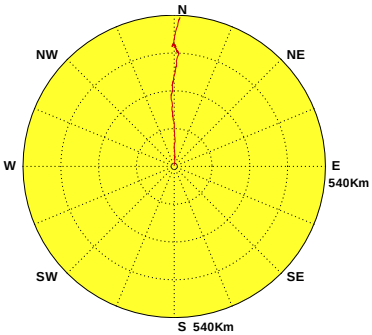
Current of LTX0 at 2019/04 NO=720(100%)
MEAN=18cm/s MAX=63cm/s(NNE)
N~E:63% E~S:17% S~W:3% W~N:17%



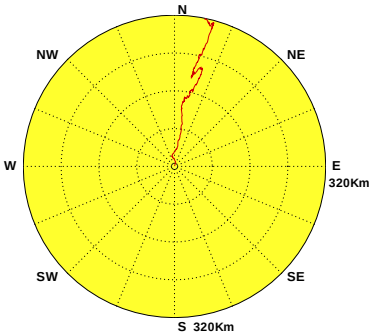
Current of LTX0 at 2019/05 NO=744(100%)
MEAN=21cm/s MAX=59cm/s(N)
N~E:78% E~S:5% S~W:1% W~N:16%



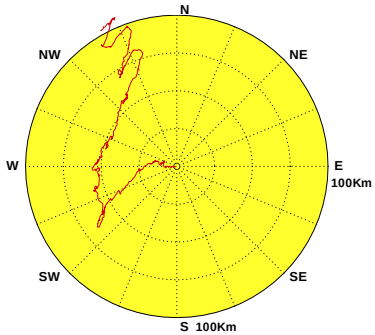
Current of LTX0 at 2019/06 NO=705(98%)
MEAN=25cm/s MAX=79cm/s(N)
N~E:51% E~S:3% S~W:8% W~N:38%



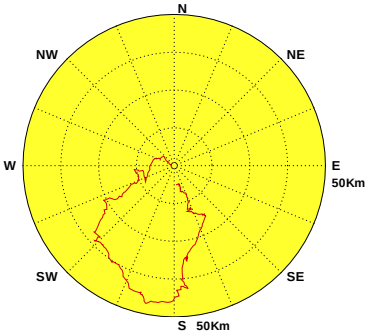
Current of LTX0 at 2019/07 NO=742(100%)
MEAN=21cm/s MAX=75cm/s(N)
N~E:53% E~S:8% S~W:16% W~N:23%



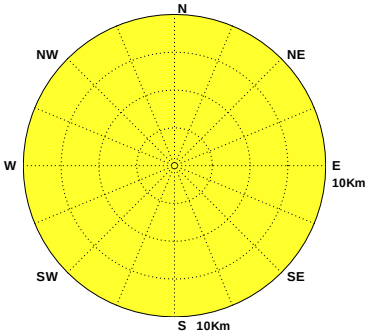
Current of LTX0 at 2019/08 NO=743(100%)
MEAN=17cm/s MAX=50cm/s(NNE)
N~E:35% E~S:6% S~W:33% W~N:26%



Current of LTX0 at 2019/09 NO=220(31%)
MEAN=21cm/s MAX=71cm/s(SE)
N~E:21% E~S:20% S~W:29% W~N:30%



Current of LTX0 at 2019/10



Current of LTX0 at 2019/11

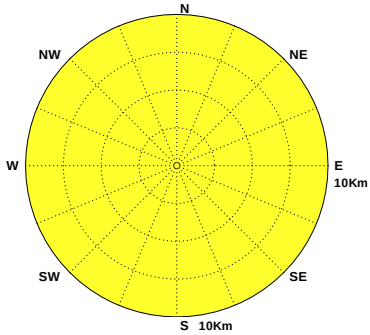


圖4.5.1a 2019年臺東海域每月測站 X 觀測海流向量行進圖

C18CLTX0.1H0 C191LTX0.1H0 C192LTX0.1H0 C193LTX0.1H0 C194LTX0.1H0 C195LTX0.1H0
C196LTX0.1H0 C197LTX0.1H0 C198LTX0.1H0 C199LTX0.1H0 C19ALTX0.1H0 C19BLTX0.1H0

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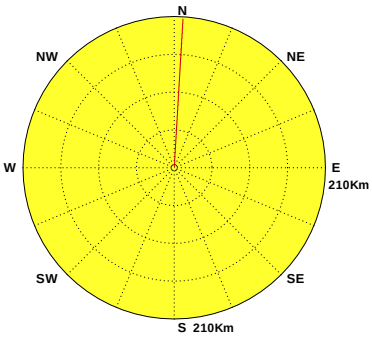
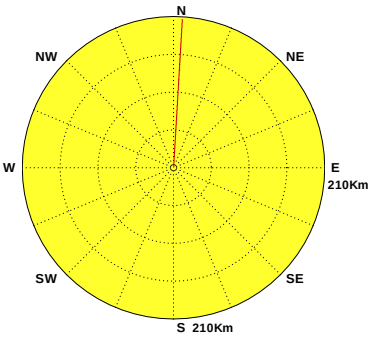
Progressive Vector Diagram of Current

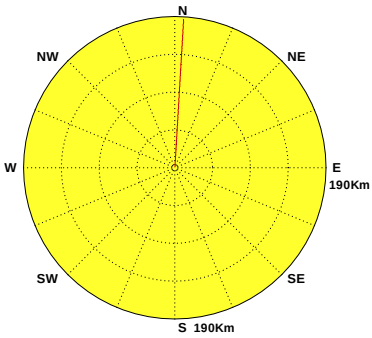
Current of LTX0 at 2018/12 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



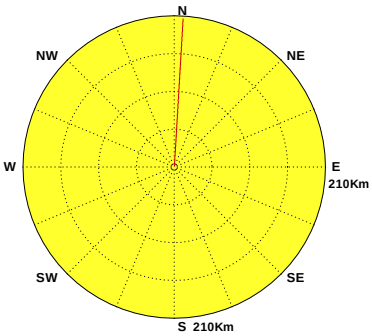
Current of LTX0 at 2019/01 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



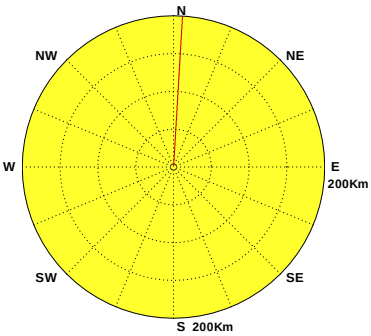
Current of LTX0 at 2019/02 NO=672(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:61% E~S:0% S~W:0% W~N:39%



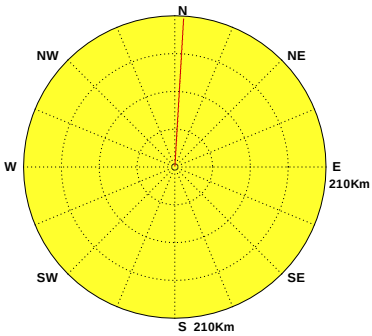
Current of LTX0 at 2019/03 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



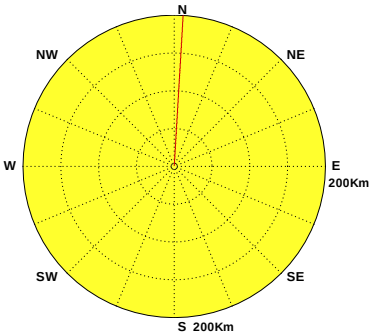
Current of LTX0 at 2019/04 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:63% E~S:0% S~W:0% W~N:37%



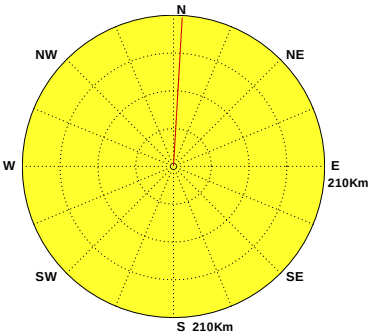
Current of LTX0 at 2019/05 NO=744(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



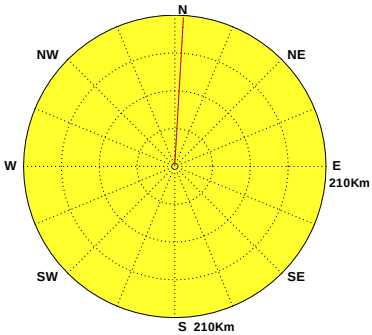
Current of LTX0 at 2019/06 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



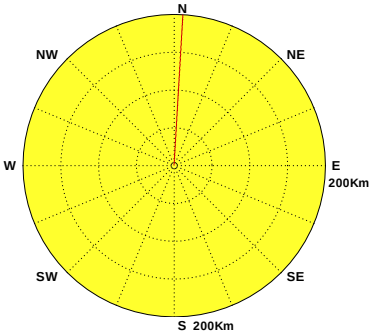
Current of LTX0 at 2019/07 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:59% E~S:0% S~W:0% W~N:41%



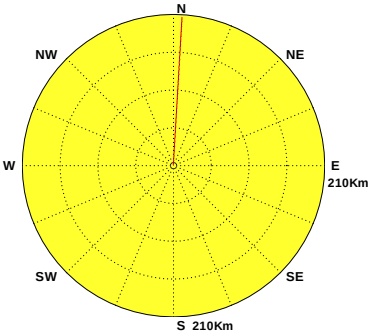
Current of LTX0 at 2019/08 NO=744(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:60% E~S:0% S~W:0% W~N:40%



Current of LTX0 at 2019/09 NO=720(100%)
MEAN=8cm/s MAX=17cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



Current of LTX0 at 2019/10 NO=744(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:62% E~S:0% S~W:0% W~N:38%



Current of LTX0 at 2019/11 NO=720(100%)
MEAN=8cm/s MAX=16cm/s(N)
N~E:63% E~S:0% S~W:0% W~N:37%

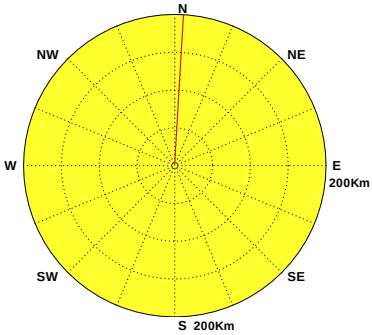


圖4.5.1b 2019年臺東海域每月測站 X 計算潮流向量行進圖

C18CLTX0.1HD C191LTX0.1HD C192LTX0.1HD C193LTX0.1HD C194LTX0.1HD C195LTX0.1HD
C196LTX0.1HD C197LTX0.1HD C198LTX0.1HD C199LTX0.1HD C19ALTX0.1HD C19BLTX0.1HD

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Progressive Vector Diagram of Current

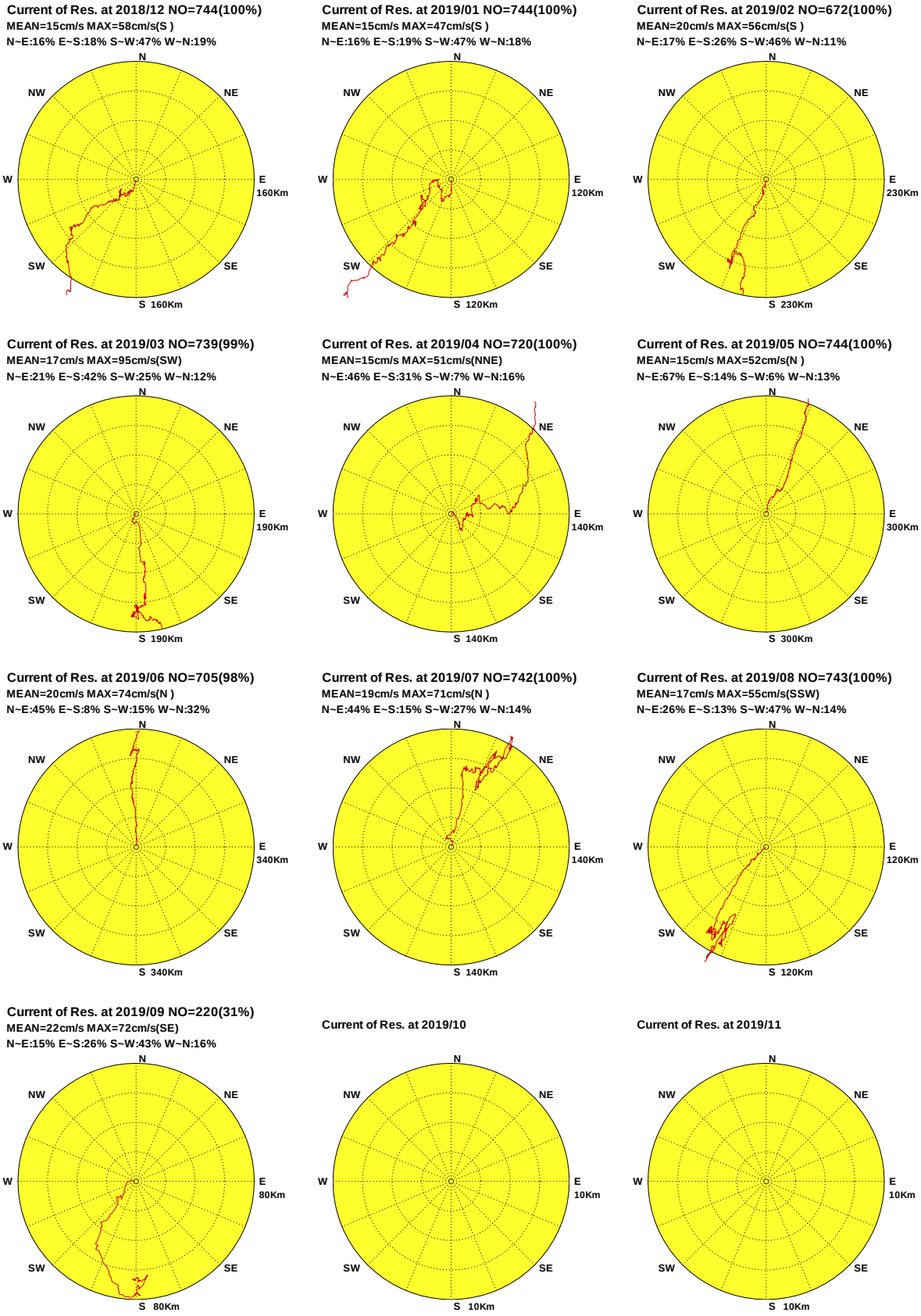

圖4.5.1c 2019年臺東海域每月測站 X 計算殘流向量行進圖

C18CLTX0.1HR C191LTX0.1HR C192LTX0.1HR C193LTX0.1HR C194LTX0.1HR C195LTX0.1HR
C196LTX0.1HR C197LTX0.1HR C198LTX0.1HR C199LTX0.1HR C19ALTX0.1HR C19BLTX0.1HR

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Progressive Vector Diagram of Current

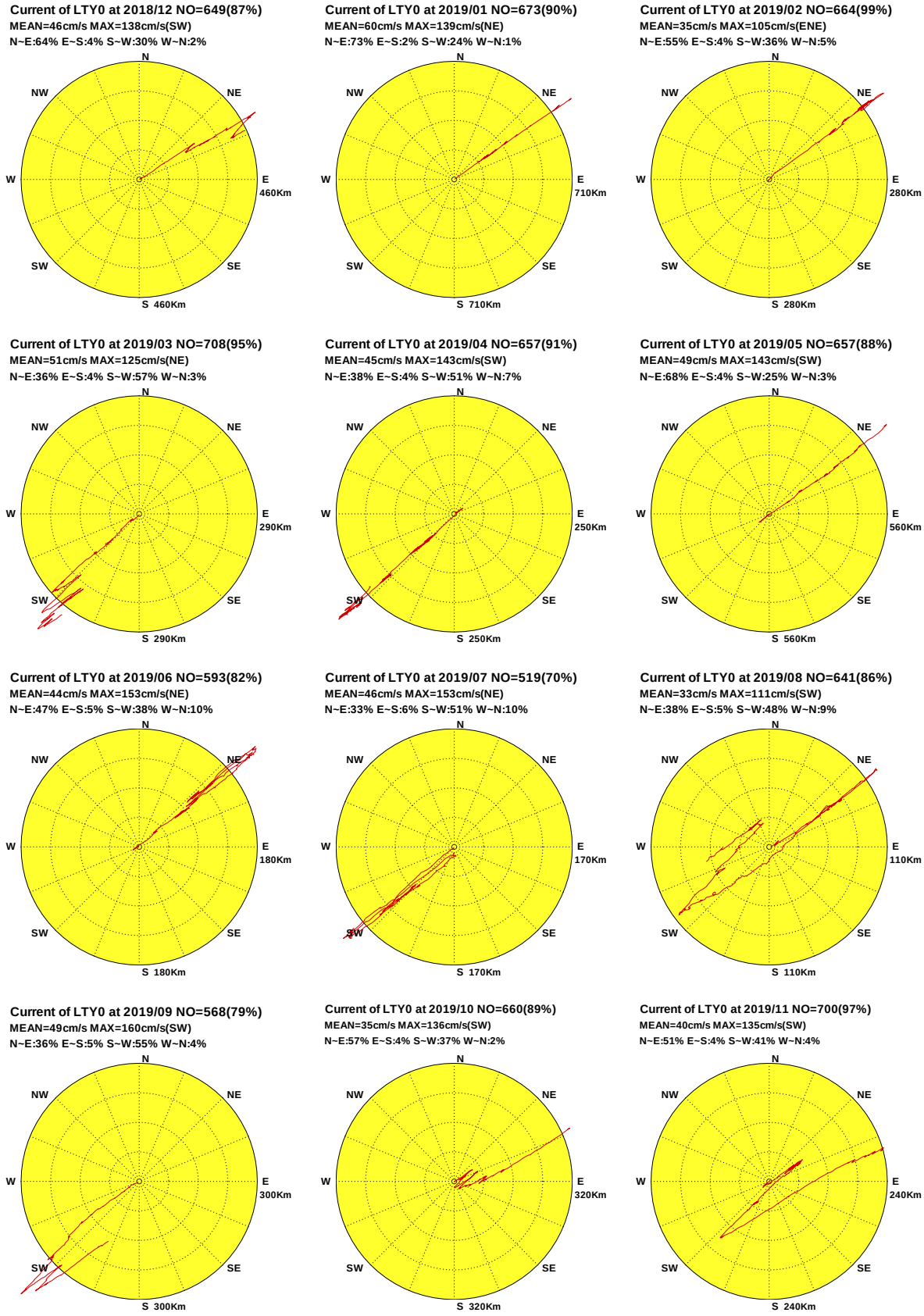

圖4.5.2a 2019年臺東海域每月測站 Y 觀測海流向量行進圖

C18CLTY0.1H0 C191LTY0.1H0 C192LTY0.1H0 C193LTY0.1H0 C194LTY0.1H0 C195LTY0.1H0
C196LTY0.1H0 C197LTY0.1H0 C198LTY0.1H0 C199LTY0.1H0 C19ALTY0.1H0 C19BLTY0.1H0

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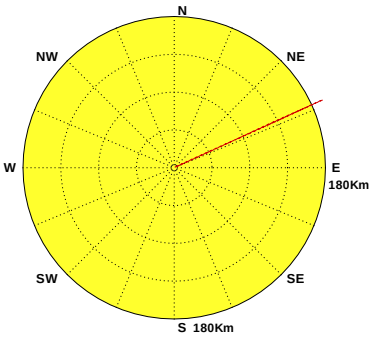
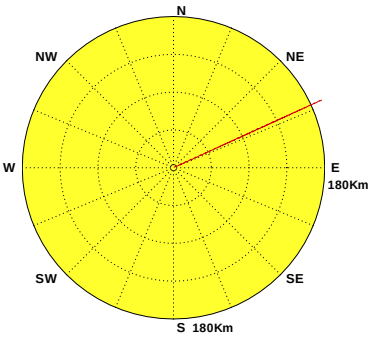
Progressive Vector Diagram of Current

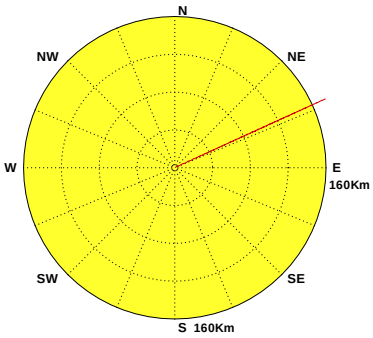
Current of LTY0 at 2018/12 NO=744(100%)
MEAN=10cm/s MAX=26cm/s(NE)
N~E:68% E~S:9% S~W:23% W~N:0%



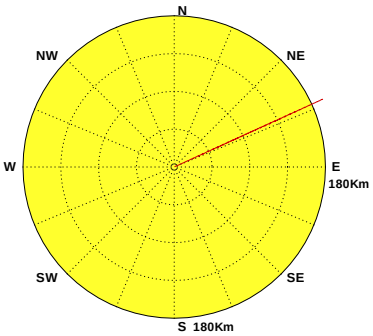
Current of LTY0 at 2019/01 NO=744(100%)
MEAN=10cm/s MAX=25cm/s(NE)
N~E:68% E~S:10% S~W:22% W~N:0%



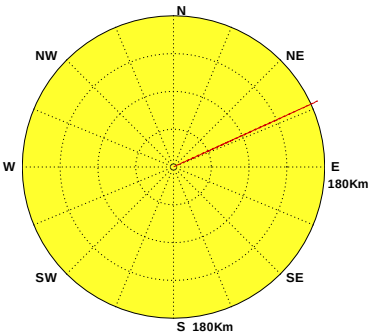
Current of LTY0 at 2019/02 NO=672(100%)
MEAN=9cm/s MAX=23cm/s(NE)
N~E:68% E~S:11% S~W:21% W~N:0%



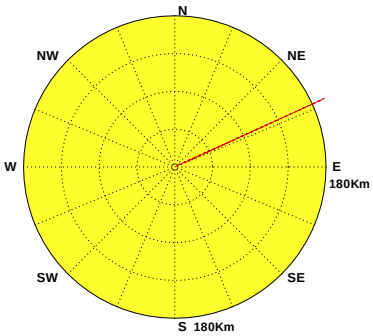
Current of LTY0 at 2019/03 NO=744(100%)
MEAN=10cm/s MAX=25cm/s(ENE)
N~E:72% E~S:10% S~W:18% W~N:0%



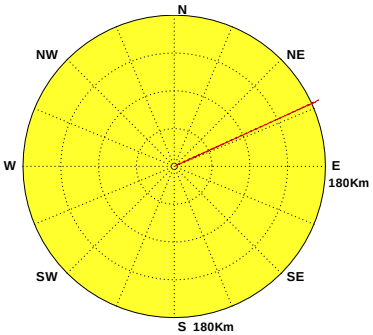
Current of LTY0 at 2019/04 NO=720(100%)
MEAN=10cm/s MAX=27cm/s(ENE)
N~E:70% E~S:8% S~W:22% W~N:0%



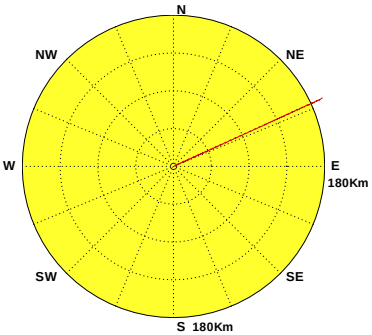
Current of LTY0 at 2019/05 NO=744(100%)
MEAN=11cm/s MAX=28cm/s(ENE)
N~E:70% E~S:8% S~W:22% W~N:0%



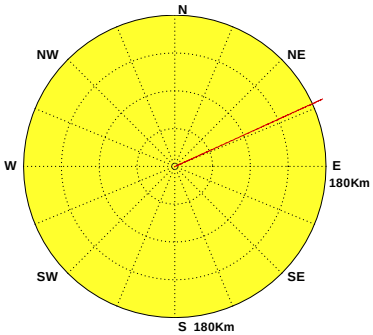
Current of LTY0 at 2019/06 NO=720(100%)
MEAN=10cm/s MAX=27cm/s(NE)
N~E:68% E~S:9% S~W:23% W~N:0%



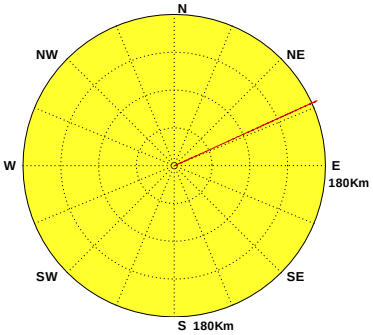
Current of LTY0 at 2019/07 NO=744(100%)
MEAN=10cm/s MAX=25cm/s(NE)
N~E:67% E~S:9% S~W:24% W~N:0%



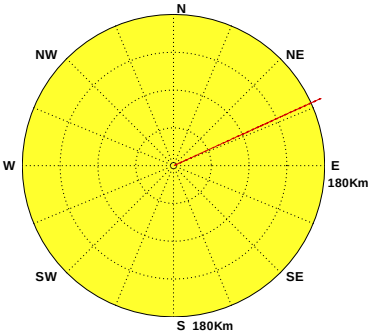
Current of LTY0 at 2019/08 NO=744(100%)
MEAN=10cm/s MAX=24cm/s(NE)
N~E:68% E~S:10% S~W:22% W~N:0%



Current of LTY0 at 2019/09 NO=720(100%)
MEAN=10cm/s MAX=25cm/s(ENE)
N~E:70% E~S:10% S~W:20% W~N:0%



Current of LTY0 at 2019/10 NO=744(100%)
MEAN=10cm/s MAX=27cm/s(ENE)
N~E:72% E~S:7% S~W:21% W~N:0%



Current of LTY0 at 2019/11 NO=720(100%)
MEAN=11cm/s MAX=28cm/s(ENE)
N~E:70% E~S:8% S~W:22% W~N:0%

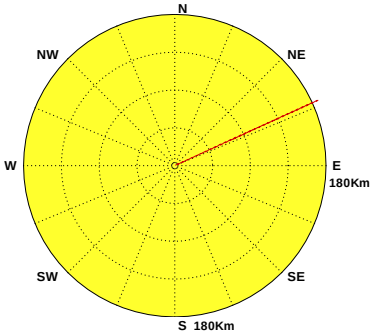


圖4.5.2b 2019年臺東海域每月測站 Y 計算潮流向量行進圖

C18CLTY0.1HD C191LTY0.1HD C192LTY0.1HD C193LTY0.1HD C194LTY0.1HD C195LTY0.1HD
C196LTY0.1HD C197LTY0.1HD C198LTY0.1HD C199LTY0.1HD C19ALTY0.1HD C19BLTY0.1HD

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Progressive Vector Diagram of Current

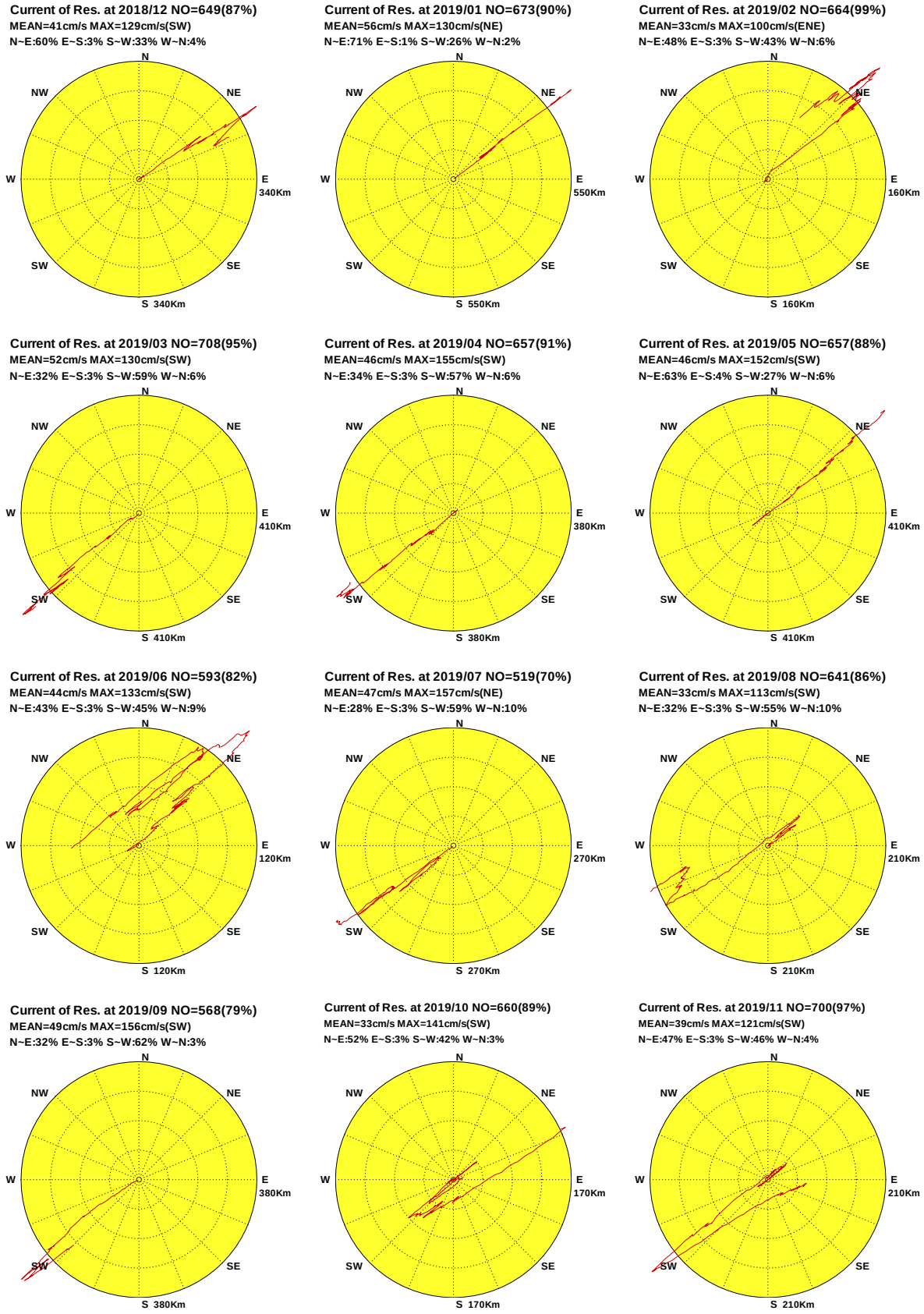

圖4.5.2c 2019年臺東海域每月測站 Y 計算殘流向量行進圖

C18CLTY0.1HR C191LTY0.1HR C192LTY0.1HR C193LTY0.1HR C194LTY0.1HR C195LTY0.1HR
C196LTY0.1HR C197LTY0.1HR C198LTY0.1HR C199LTY0.1HR C19ALTY0.1HR C19BLTY0.1HR

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