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2017 年港灣環境資訊網

海氣象觀測資料年報

(高雄海域風浪潮流觀測資料)



交通部運輸研究所

中華民國 108 年 2 月

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著者：蘇青和、李俊穎、傅怡釗、陳鈞彥
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摘要： 本港灣環境資訊網觀測海氣象資料年報，包括高雄海域2017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。			
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2017 年港灣環境資訊網海氣象觀測資料年報 (高雄海域風浪潮流觀測資料)

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2017 年港灣環境資訊網觀測風力資料，蒐集之高雄海域風力資料，除本中心自行觀測之外，在高雄氣象站(測站 E) 觀測風力資料，係交通部中央氣象局(CWB)提供。彌陀海上浮標站(測站 Z)、小港氣象站(測站 H)等觀測風力資料，係經濟部水利署(WRA)提供，謹致謝忱。

2017 年港灣環境資訊網觀測波浪資料，蒐集之高雄海域波浪資料，除本中心自行觀測之外，在彌陀海上浮標站(測站 Z)觀測波浪資料，係經濟部水利署(WRA)提供，謹致謝忱。

2017 年港灣海氣象觀測潮汐資料，蒐集之高雄海域潮汐觀測資料，除本中心自行觀測之外，在高雄 1 港(測站 F)、高雄 2 港(測站 L)等觀測潮汐資料，係交通部中央氣象局提供，謹致謝忱。

2017 年港灣環境資訊網觀測海流資料，蒐集之高雄海域海流資料，除本中心自行觀測之外，在彌陀海上浮標(測站 Z)觀測海流資料，係經濟部水利署(WRA)提供，謹致謝忱。

第 0 章 高雄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)、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。

高雄海域觀測風力資料測站統計表如表 WH1，觀測波浪資料測站統計表如表 VH1，觀測潮汐資料測站統計表如表 TH1，觀測海流資料測站統計表如表 CH1。

表 WH1 高雄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
高雄海域	6	3	2	1		

表 VH1 高雄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
高雄海域	7	4	2	1		

表 TH1 高雄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
高雄海域	7	6	1	0	0	

表 CH1 高雄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
高雄海域	5	4	0	1	0	

註:資料更新時間為 2017 年。

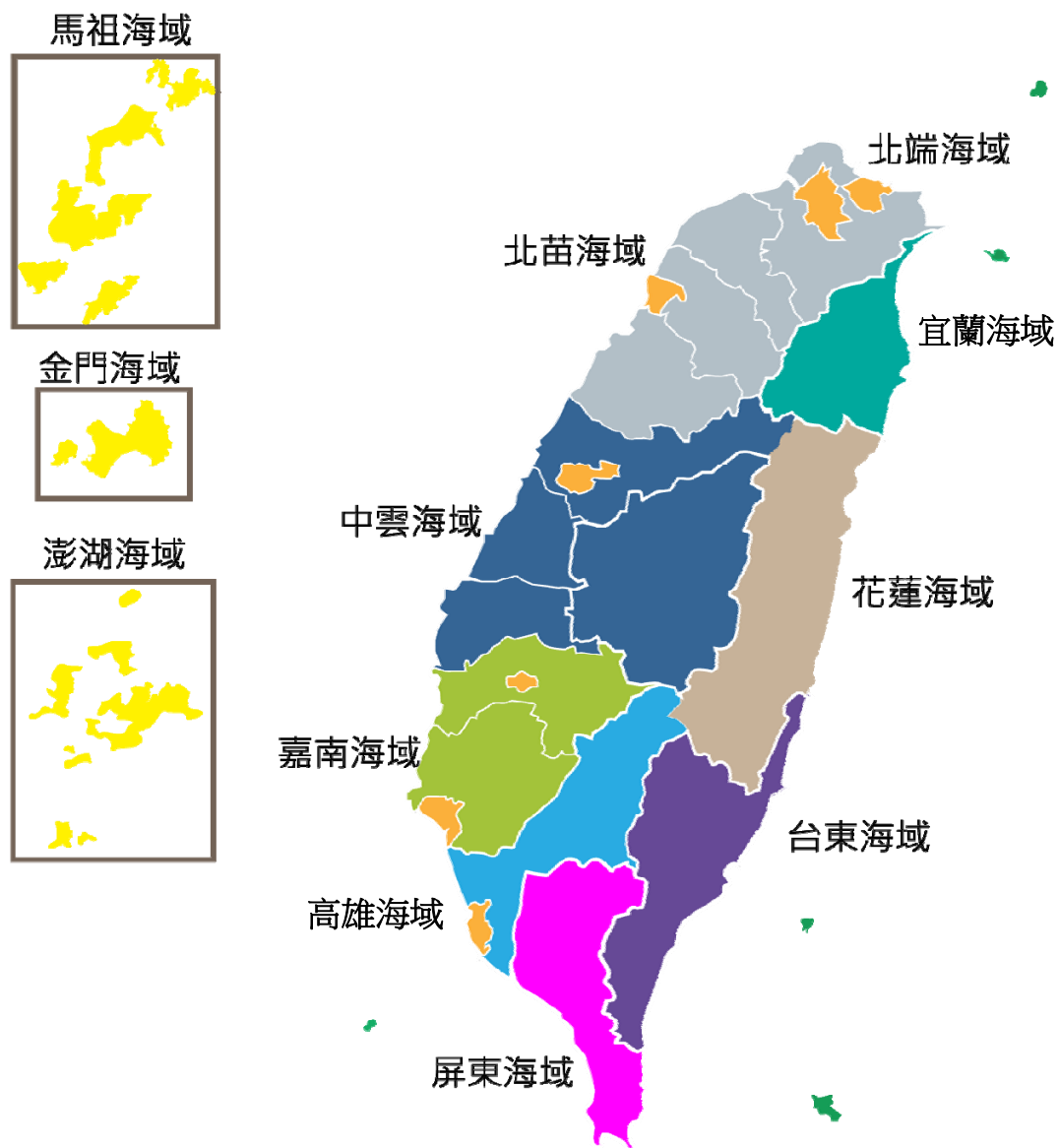


圖 A1 臺灣 12 海域區分示意圖

2017 年高雄海域觀測風力資料

高雄海域風之觀測係 2003 年 6 月本中心(IHMT)在高雄港十號碼頭安裝一具風速風向即時傳送監測系統(稱測站 B0)，本測站於 2010 年 9 月停止觀測。2010 年 10 月在第二港口南防坡堤堤頭，增設 Gill 二維超音波式風速計(測站 B1)，測站之位置如圖 WH1。另於 2007 年 4 月在高雄港二港口北防坡堤頭增設超音波風速風向儀(稱測站 W 及測站 C)。

高雄港附近風力觀測站 E 風速儀屬中央氣象局(CWB)所有，測站 Z(彌陀外海浮標站) 及小港氣象站測站 H 之風速儀則屬水利署(WRA)所有。各測站歷年觀測風資料蒐集概況如表 WH1。

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 WH1 高雄海域觀測風力資料蒐集概況表(統計時間至 2017 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
B	22°36'54"N	120°17'19"E	2002/06-2017/11(觀測中)	港研中心	高雄 1 港口
W	22°32'51"N	120°17'55"E	2010/09-2017/11(觀測中)	港研中心	高雄 2 港口
C	22°32'51"N	120°17'55"E	2007/04-2017/11(觀測中)	港研中心	高雄 2 港口
E	22°33'58"N	120°18'57"E	1999/01-2017/11(觀測中)	中央氣象局	高雄
Z	22°45'50"N	120°09'49"E	2012/09-2017/11(觀測中)	水利署	彌陀浮標站
H	23°09'32"N	121°24'12"E	2013/09-2017/11(觀測中)	中央氣象局	小港氣象站

高雄海域



圖 WH1 高雄海域風力觀測站位置示意圖

2017 年高雄海域觀測波浪資料

高雄海域波浪觀測係本中心(IHMT)2000 年 12 月於中區污水處理廠附近海域安置 NORTEK 公司之剖面海流與波浪即時監測系統(測站 X0)，如圖 VH1，以進行長期觀測。本站於 2005 年 8 月移至第二港口附近海(稱測站 X1)，水深約 18m;另於 2014 年 4 月及 12 月分別於第一港口及第二港口附近海(測站 A 及測站 1、測站 2)，增設潮波儀站。

測站 Z(彌陀外海浮標站)之波浪儀則屬水利署(WRA)所有。高雄海域各測站歷年觀測波浪資料蒐集概況如表 VH1。

波浪觀測 AWCP 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。AWCP 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 VH1 高雄海域觀測波浪資料蒐集概況表(統計時間至 2017 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
X0	22°34'23"N	120°16'09"E	2000/12-2005/08	港研中心	高雄中洲外海
X1	22°32'34"N	120°17'38"E	2005/08-2017/11(觀測中)	港研中心	高雄 2 港口外海
A	22°38'36"N	120°14'13"E	2014/04-2017/03	港研中心	高雄 1 港口外海
1			2014/12-2015/12	港研中心	高雄 2 港口外海
2			2015/12-2017/11(觀測中)	港研中心	高雄 2 港口外海
Z	22°45'50"N	120°09'49"E	2012/09-2017/11(觀測中)	水利署	彌陀外海浮標站

高雄海域



IHMT 波潮流站



WRA 浮標波浪站

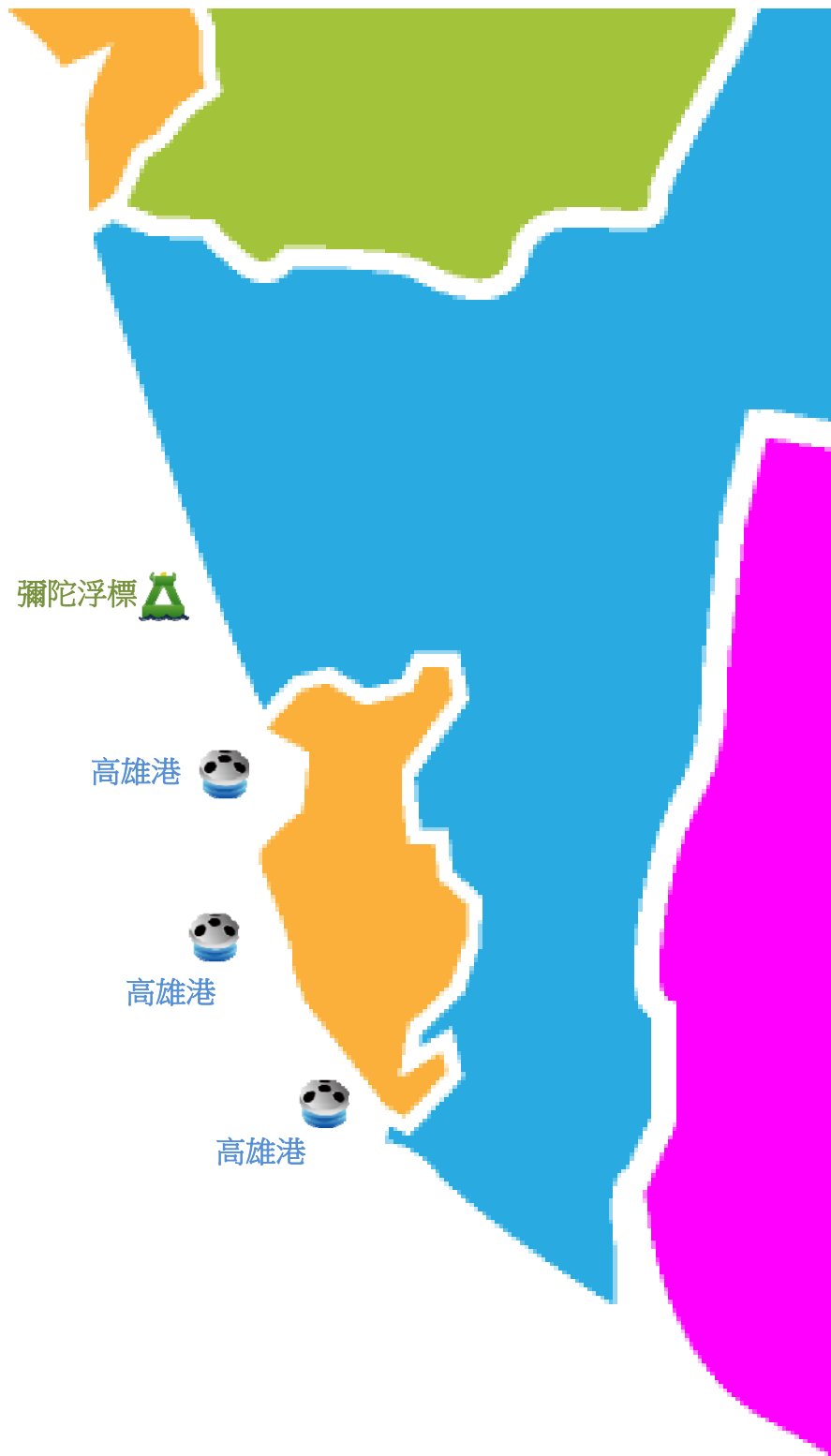


圖 VH1 高雄海域波浪觀測站位置示意圖

2017 年高雄海域觀測潮汐資料

高雄海域潮汐之觀測本中心於 2000 年 12 月在高雄一港口與二港口間海域(稱**測站 X0**)，其位置如附圖 TH1，安置 AWCP 具量測水位功能，本站於 2005 年 8 月移至第二港口附近海域(稱**測站 X1**)，另於 2013 年 12 月於第一港口及第二港口附近海域(**測站 A**、**測站 2** 及 **測站 1**)，增設潮波儀。早期 1992 年 1 月本中心於港區安置潮位站(稱**測站 L**)，2003 年 6 月本中心在 10 號碼頭(稱**測站 T**)，增加安裝壓力式潮位儀監測系統。高雄港附近潮汐**測站 F** 之潮汐儀屬中央氣象局所有。高雄海域各測站歷年觀測潮汐資料蒐集概況如表 TH1。

潮位**測站 X** 等潮波流儀，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，然後加以平均得出該小時之平均水位值。**測站 T** 潮位資料取樣方式為每 6 分鐘量測一次水位變化。**測站 F** 資料由中央氣象局提供。

表 TH1 高雄海域觀測潮汐資料蒐集概況表(統計時間至 2017 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
T	22°32'52"N	120°17'18"E	2003/06-2017/11(觀測中)	港研中心	高港 10 號碼頭
X0	22°34'23"N	120°16'09"E	2000/12-2005/08	港研中心	高雄中洲外海
X1	22°32'34"N	120°17'38"E	2005/08-2017/11(觀測中)	港研中心	高雄 2 港口外海
A	22°38'36"N	120°14'13"E	2014/04-2015/03	港研中心	高雄 1 港口外海
1			2014/12-2015/12	港研中心	高雄 2 港口外海
2			2015/12-2017/11(觀測中)	港研中心	高雄 2 港口外海
L			1992/06-2003/12	港研中心	高雄 2 港區
F	22°36'52"N	120°17'18"E	1988/01-2017/11(觀測中)	中央氣象局	高雄 1 港區

高雄海域

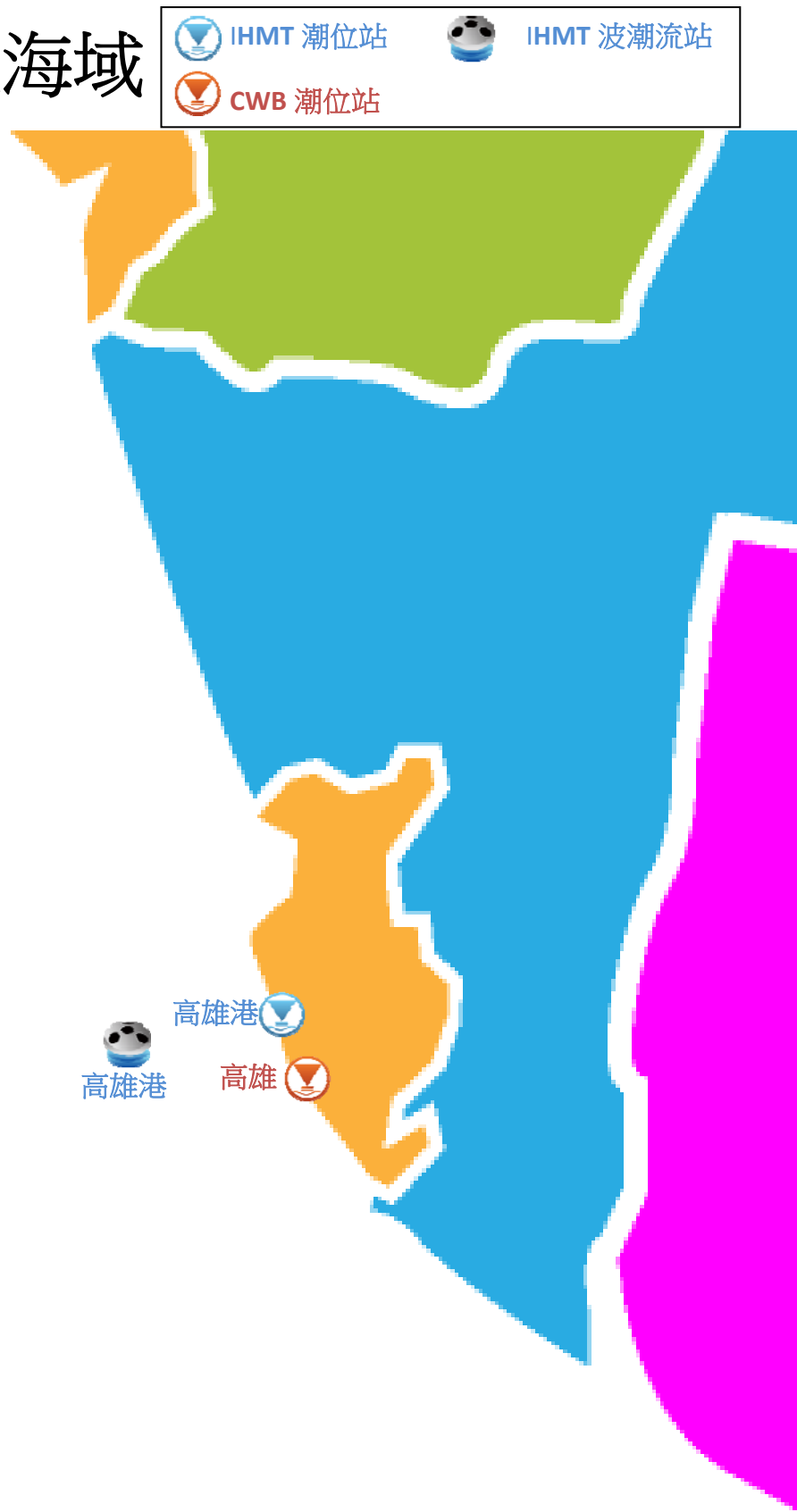


圖 TH1 高雄海域潮汐觀測站位置示意圖

2017 年高雄海域觀測海流資料

高雄海域海流觀測係本中心(IHMT)2000 年 12 月於中區污水處理廠附近海域安置 NORTEK 公司之剖面海流與海流即時監測系統(測站 X0)，如圖 CH1，以進行長期觀測。本站於 2005 年 8 月移至第二港口附近海(稱測站 X1)，水深約 18m;另於 2014 年 4 月及 12 月分別於第一港口及第二港口附近海(稱測站 A 及測站 1)，增設潮波流儀。

測站 Z(彌陀外海浮標站)之海流儀則屬水利署(WRA)所有。高雄海域各測站歷年觀測海流資料蒐集概況如表 CH1。

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，高雄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 CH1 高雄海域觀測海流資料蒐集概況表(統計時間至 2017 年 11 月)

測站	緯度	經度	觀測期間	觀測單位	備註
X0	22°34'23"N	120°16'09"E	2000/12-2005/08	港研中心	高雄中洲外海
X1	22°32'34"N	120°17'38"E	2005/08-2017/11(觀測中)	港研中心	高雄 2 港口外海
A	22°38'36"N	120°14'13"E	2014/04-2015/03	港研中心	高雄 1 港口外海
1			2014/12-2015/12	港研中心	高雄 2 港口外海
2			2015/12-2017/11(觀測中)	港研中心	高雄 2 港口外海
Z	22°45'50"N	120°09'49"E	2012/09-2017/11(觀測中)	水利署	彌陀外海浮標站

高雄海域



IHMT 波潮流站



WRA 浮標海流站

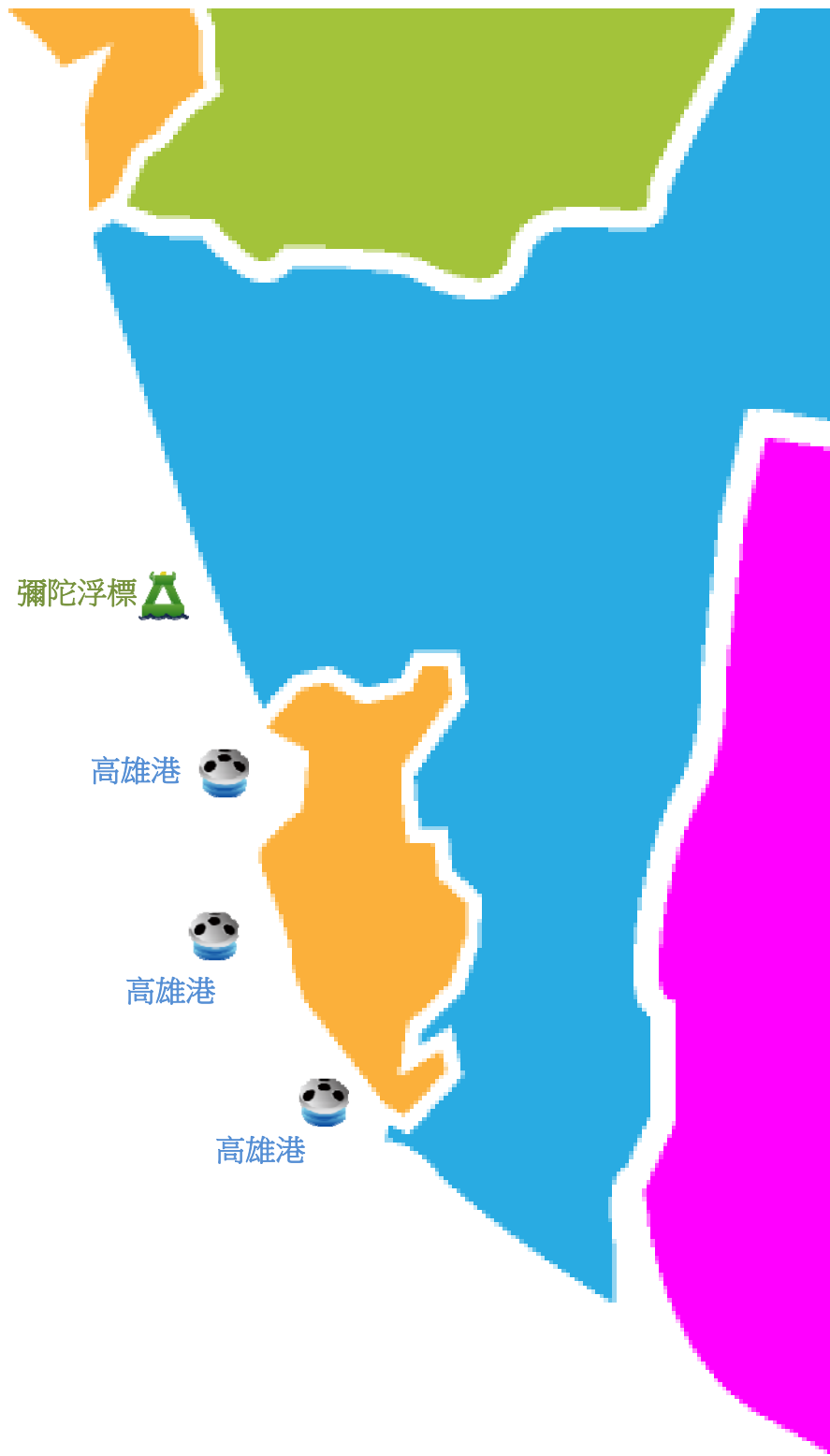


圖 CH1 高雄海域海流觀測站位置示意圖

第一章 2017 年高雄海域觀測風力資料

高雄海域風之觀測包括測站 **W**、測站 **Z**、測站 **B**、測站 **C**、測站 **E** 及測站 **H** 等 6 個測站(測站位置如第 O 章圖 WH1)。本年報取經檢核及補遺之 **W 站** 及 **Z 站** 資料作為主要測站。

本**風力**年報資料處理之圖表包括：

1. 2017 年**各觀測站**每月**觀測風力**資料**修補前**記錄表。
2. 2017 年**主要測站**每月**觀測風力**資料**修補後**記錄表。
3. 2017 年**主要測站修補前後**每月(季)及整年風速及風向重要統計量統計表。
4. 2017 年**主要測站修補前後**每月風力歷線比較圖。
5. 2017 年**主要測站之觀測風力與次要觀測站(或其他觀測站)**每月風力歷線比較圖。

表 1.1a 2017 年每月高雄海域修補前各測站觀測風力資料紀錄表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	W	Z	B	C	E	H						
2016/12 月	743(99.9%)	744(100%)	744(100%)	*	744(100%)	744(100%)	*	*	*	*	*	*
2017/ 1 月	744(100%)	743(99.9%)	744(100%)	*	744(100%)	743(99.9%)	*	*	*	*	*	*
2017/ 2 月	672(100%)	671(99.9%)	672(100%)	*	672(100%)	669(99.6%)	*	*	*	*	*	*
2017/ 3 月	743(99.9%)	744(100%)	346(46.5%)	*	744(100%)	742(99.7%)	*	*	*	*	*	*
2017/ 4 月	718(99.7%)	716(99.4%)	*	*	720(100%)	720(100%)	*	*	*	*	*	*
2017/ 5 月	743(99.9%)	737(99.1%)	*	*	744(100%)	743(99.9%)	*	*	*	*	*	*
2017/ 6 月	719(99.9%)	717(99.6%)	*	*	720(100%)	717(99.6%)	*	*	*	*	*	*
2017/ 7 月	743(99.9%)	743(99.9%)	*	*	744(100%)	743(99.9%)	*	*	*	*	*	*
2017/ 8 月	743(99.9%)	372(50.0%)	*	*	744(100%)	744(100%)	*	*	*	*	*	*
2017/ 9 月	720(100%)	718(99.7%)	*	*	720(100%)	720(100%)	*	*	*	*	*	*
2017/10 月	743(99.9%)	728(97.8%)	*	*	*	743(99.9%)	*	*	*	*	*	*
2017/11 月	720(100%)	587(81.5%)	*	*	*	59(8.2%)	*	*	*	*	*	*
2017/冬季	2159(99.9%)	2158(99.9%)	2160(100%)	*	2160(100%)	2156(99.8%)	*	*	*	*	*	*
2017/春季	2204(99.8%)	2197(99.5%)	346(15.7%)	*	2208(100%)	2205(99.9%)	*	*	*	*	*	*
2017/夏季	2205(99.9%)	1832(83.0%)	*	*	2208(100%)	2204(99.8%)	*	*	*	*	*	*
2017/秋季	2183(99.9%)	2033(93.1%)	*	*	720(33.0%)	1522(69.7%)	*	*	*	*	*	*
2017/整年	8751(99.9%)	8220(93.8%)	2506(28.6%)	*	7296(83.3%)	8087(92.3%)	*	*	*	*	*	*
起始年月	2016/12	2016/12	2016/12	*	2016/12	2016/12	*	*	*	*	*	*
結束年月	2017/11	2017/11	2017/03	*	2017/09	2017/11	*	*	*	*	*	*

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表 1.1b 2017年每月高雄海域修補後各測站風力資料紀錄表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	W	Z										
2016/12 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 1 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 2 月	672(100%)	672(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 3 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 4 月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 5 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 6 月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 7 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 8 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 9 月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2017/10 月	744(100%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/11 月	720(100%)	720(100%)	*	*	*	*	*	*	*	*	*	*
2017/冬季	2160(100%)	2160(100%)	*	*	*	*	*	*	*	*	*	*
2017/春季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2017/夏季	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*	*	*
2017/秋季	2184(100%)	2184(100%)	*	*	*	*	*	*	*	*	*	*
2017/整年	8760(100%)	8760(100%)	*	*	*	*	*	*	*	*	*	*
起始年月	2016/12	2016/12	*	*	*	*	*	*	*	*	*	*
結束年月	2017/11	2017/11	*	*	*	*	*	*	*	*	*	*

表1.2a 2017年高雄海域主要測站1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	2016/12	743(100%)	4.2	3.6/NNW	10.0/NNW	35.0	60.0	5.0	.0	30.7	.5	3.1	65.7	N /28.8%
2	2017/01	744(100%)	4.5	4.0/NNW	11.0/NW	28.8	64.2	7.0	.0	26.6	.0	2.0	71.4	N /28.2%
3	2017/02	672(100%)	4.7	3.8/NNW	13.0/NNW	28.9	61.5	9.7	.0	28.0	3.9	1.5	66.7	N /27.7%
4	2017/03	743(100%)	4.5	2.8/NNW	13.3/NNW	35.3	56.9	7.8	.0	27.1	6.6	11.8	54.5	N /18.6%
5	2017/04	718(100%)	3.8	1.1/WNW	14.6/SSE	48.2	46.2	5.4	.1	23.0	12.3	23.8	40.9	NW /12.8%
6	2017/05	743(100%)	3.8	1.8/WNW	12.0/SSE	45.6	50.3	4.0	.0	14.4	13.1	19.0	53.6	NW /20.3%
7	2017/06	719(100%)	4.3	1.5/SW	11.9/S	40.3	51.0	8.6	.0	17.8	25.3	34.1	22.8	WSW/12.0%
8	2017/07	743(100%)	5.4	2.5/S	22.5/NNW	35.8	40.0	22.7	1.5	24.6	33.1	28.9	13.3	S /16.7%
9	2017/08	743(100%)	4.1	1.3/WNW	22.2/SSE	42.0	49.5	8.1	.4	18.0	14.5	21.8	45.6	WNW/15.6%
10	2017/09	720(100%)	4.1	1.4/WNW	14.4/SSE	44.2	46.1	9.4	.3	13.6	16.7	24.4	45.3	NW /18.5%
11	2017/10	743(100%)	3.8	2.6/NNW	11.6/NNW	46.0	49.3	4.7	.0	30.8	2.6	10.4	56.3	N /15.5%
12	2017/11	720(100%)	4.0	3.5/NNW	11.9/NW	39.3	55.7	5.0	.0	26.3	1.3	2.9	69.6	NNW/25.7%
13	2017/冬	2159(100%)	4.4	3.8/NNW	13.0/NNW	30.9	61.9	7.1	.0	28.4	1.4	2.2	67.9	N /28.3%
14	2017/春	2204(100%)	4.0	1.9/NW	14.6/SSE	43.0	51.2	5.8	.0	21.5	10.6	18.1	49.8	NW /16.5%
15	2017/夏	2205(100%)	4.6	1.3/SW	22.5/NNW	39.4	46.8	13.2	.6	20.2	24.3	28.2	27.3	S /10.6%
16	2017/秋	2183(100%)	4.0	2.4/NW	14.4/SSE	43.2	50.3	6.4	.1	23.6	6.8	12.6	57.0	NW /17.6%
17	2017/年	8751(100%)	4.3	1.9/NW	22.5/NNW	39.1	52.5	8.1	.2	23.4	10.8	15.4	50.4	NW /15.7%

表1.2b 2017年高雄海域主要測站1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	2016/12	744(100%)	4.2	3.6/NNW	10.0/NNW	35.1	59.9	5.0	.0	30.8	.5	3.1	65.6	N /28.8%
2	2017/01	744(100%)	4.5	4.0/NNW	11.0/NW	28.9	64.2	6.9	.0	26.6	.0	1.9	71.5	N /28.2%
3	2017/02	672(100%)	4.7	3.8/NNW	13.0/NNW	28.9	61.5	9.7	.0	28.1	3.9	1.5	66.5	N /27.7%
4	2017/03	744(100%)	4.5	2.8/NNW	13.3/NNW	35.6	56.6	7.8	.0	27.2	6.6	11.8	54.4	N /18.5%
5	2017/04	720(100%)	3.8	1.1/WNW	14.6/SSE	48.3	46.1	5.4	.1	22.9	12.2	23.8	41.1	NW /12.9%
6	2017/05	744(100%)	3.8	1.8/WNW	12.0/SSE	45.7	50.3	4.0	.0	14.4	13.0	19.0	53.6	NW /20.3%
7	2017/06	720(100%)	4.3	1.5/SW	11.9/S	40.4	51.0	8.6	.0	17.8	25.3	34.2	22.8	WSW/11.9%
8	2017/07	744(100%)	5.4	2.5/S	22.5/NNW	35.9	39.9	22.7	1.5	24.6	33.1	28.9	13.4	S /16.7%
9	2017/08	744(100%)	4.1	1.3/WNW	22.2/SSE	41.9	49.6	8.1	.4	17.6	14.5	22.3	45.6	WNW/15.7%
10	2017/09	720(100%)	4.1	1.4/WNW	14.4/SSE	44.2	46.1	9.4	.3	11.5	16.7	26.5	45.3	NW /18.5%
11	2017/10	744(100%)	3.8	2.6/NNW	11.6/NNW	46.1	49.2	4.7	.0	28.9	2.6	12.1	56.5	NW /14.5%
12	2017/11	720(100%)	4.0	3.5/NNW	11.9/NW	39.3	55.7	5.0	.0	24.4	1.3	4.7	69.6	NNW/25.7%
13	2017/冬	2160(100%)	4.4	3.8/NNW	13.0/NNW	31.0	61.9	7.1	.0	28.5	1.4	2.2	67.9	N /28.2%
14	2017/春	2208(100%)	4.0	1.8/NW	14.6/SSE	43.2	51.0	5.8	.0	21.5	10.6	18.1	49.8	NW /16.5%
15	2017/夏	2208(100%)	4.6	1.3/SW	22.5/NNW	39.4	46.8	13.2	.6	20.0	24.3	28.4	27.3	S /10.9%
16	2017/秋	2184(100%)	4.0	2.4/NW	14.4/SSE	43.2	50.3	6.4	.1	21.7	6.8	14.4	57.1	NW /17.7%
17	2017/年	8760(100%)	4.3	1.9/NW	22.5/NNW	39.2	52.5	8.1	.2	22.9	10.8	15.9	50.4	NW /15.8%

表1.3a 2017年高雄海域主要測站2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	2016/12	744(100%)	4.9	4.6/N	11.6/N	23.4	69.2	7.4	.0	64.1	.4	.1	35.3	N /40.7%
2	2017/01	743(100%)	5.1	4.8/N	10.8/NNW	20.3	72.8	6.9	.0	58.3	.3	.3	41.2	N /43.6%
3	2017/02	671(100%)	5.3	4.8/N	13.2/N	18.3	67.4	14.3	.0	59.2	2.4	.9	37.6	N /43.4%
4	2017/03	744(100%)	4.6	3.5/N	11.5/N	32.4	57.5	10.1	.0	50.3	5.0	6.7	38.0	N /27.3%
5	2017/04	716(99%)	3.6	1.2/N	16.6/N	50.3	43.3	6.1	.3	34.9	13.3	23.2	28.6	N /12.3%
6	2017/05	737(99%)	3.3	1.6/NNW	8.9/N	51.8	47.2	.9	.0	28.4	12.1	11.8	47.8	NNW/16.4%
7	2017/06	717(100%)	3.8	2.0/SSW	10.9/S	45.0	51.2	3.8	.0	6.3	34.0	42.5	17.2	S /15.6%
8	2017/07	743(100%)	4.2	1.5/S	16.1/NNW	44.1	45.9	9.6	.4	23.8	30.4	29.7	16.0	S /15.6%
9	2017/08	372(50%)	3.1	1.1/WSW	10.5/S	55.4	42.7	1.9	.0	8.6	19.1	39.8	32.5	W /17.2%
10	2017/09	718(100%)	3.4	1.0/NW	11.1/SE	54.5	42.2	3.3	.0	17.7	18.7	19.1	44.6	NW /16.2%
11	2017/10	728(98%)	4.1	3.2/N	11.7/NNW	43.0	47.9	9.1	.0	40.8	5.1	8.1	46.0	N /28.8%
12	2017/11	587(82%)	5.0	4.7/N	11.1/N	18.4	73.6	8.0	.0	39.7	.3	.7	59.3	N /48.0%
13	2017/冬	2158(100%)	5.1	4.8/N	13.2/N	20.8	69.9	9.4	.0	60.6	1.0	.4	38.0	N /42.5%
14	2017/春	2197(100%)	3.8	2.1/N	16.6/N	44.7	49.4	5.7	.1	37.9	10.1	13.8	38.2	N /18.6%
15	2017/夏	1832(83%)	3.8	1.5/SSW	16.1/NNW	46.8	47.3	5.7	.2	13.9	29.5	36.8	19.8	S /13.6%
16	2017/秋	2033(93%)	4.1	2.8/NNW	11.7/NNW	39.9	53.3	6.7	.0	32.3	8.5	9.8	49.3	N /26.7%
17	2017/年	8220(94%)	4.2	2.2/N	16.6/N	37.7	55.3	6.9	.1	37.1	11.6	14.4	36.8	N /23.3%

表1.3b 2017年高雄海域主要測站2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	2016/12	744(100%)	4.9	4.6/N	11.6/N	23.4	69.2	7.4	.0	64.1	.4	.1	35.3	N /40.7%
2	2017/01	744(100%)	5.1	4.8/N	10.8/NNW	20.4	72.7	6.9	.0	58.3	.3	.3	41.1	N /43.5%
3	2017/02	672(100%)	5.3	4.8/N	13.2/N	18.5	67.3	14.3	.0	59.1	2.5	.9	37.5	N /43.2%
4	2017/03	744(100%)	4.6	3.5/N	11.5/N	32.5	57.4	10.1	.0	50.3	5.0	6.7	38.0	N /27.3%
5	2017/04	720(100%)	3.6	1.2/N	16.6/N	50.6	43.1	6.1	.3	35.0	13.3	23.2	28.5	N /12.5%
6	2017/05	744(100%)	3.3	1.6/NNW	8.9/N	52.3	46.8	.9	.0	28.1	12.6	11.8	47.4	NNW/16.4%
7	2017/06	720(100%)	3.8	2.0/SSW	10.9/S	45.3	51.0	3.8	.0	6.3	33.9	42.6	17.2	S /15.6%
8	2017/07	744(100%)	4.2	1.5/S	16.1/NNW	44.2	45.8	9.5	.4	23.8	30.4	29.8	16.0	S /15.6%
9	2017/08	744(100%)	3.2	.8/SW	17.3/SSE	59.0	36.8	4.0	.1	9.5	27.0	30.9	32.5	W /11.6%
10	2017/09	720(100%)	3.4	1.0/NW	11.1/SE	54.4	42.2	3.3	.0	17.8	18.6	19.0	44.6	NW /16.0%
11	2017/10	744(100%)	4.1	3.2/N	11.7/NNW	43.8	47.3	8.9	.0	40.5	5.0	7.9	46.6	N /28.8%
12	2017/11	720(100%)	4.8	4.5/N	11.1/N	23.2	69.9	6.9	.0	42.8	.3	.6	56.4	N /45.1%
13	2017/冬	2160(100%)	5.1	4.7/N	13.2/N	20.8	69.8	9.4	.0	60.6	1.0	.4	38.0	N /42.5%
14	2017/春	2208(100%)	3.8	2.1/N	16.6/N	45.1	49.1	5.7	.1	37.8	10.3	13.8	38.1	N /18.6%
15	2017/夏	2208(100%)	3.7	1.4/SSW	17.3/SSE	49.5	44.5	5.8	.2	13.3	30.4	34.4	22.0	S /12.9%
16	2017/秋	2184(100%)	4.1	2.8/N	11.7/NNW	40.5	53.1	6.4	.0	33.7	7.9	9.2	49.2	N /27.0%
17	2017/年	8760(100%)	4.2	2.1/N	17.3/SSE	39.1	54.0	6.8	.1	36.2	12.5	14.5	36.8	N /22.5%

Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

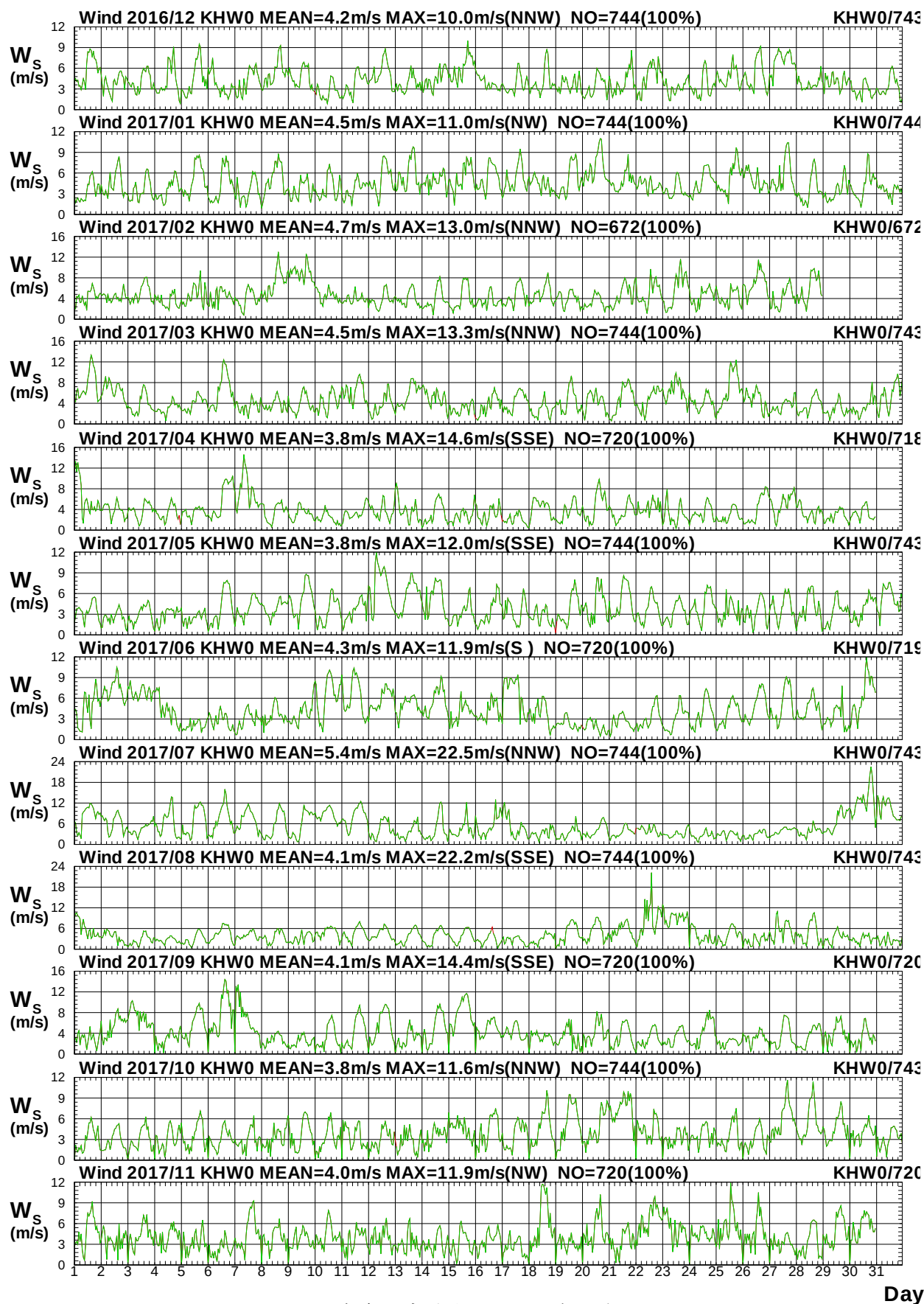


圖1.1a 2017年每月高雄海域 W 站修補前後之風速比較圖

W16CKHW0.1HA W16CKHW0.1H0 W171KHW0.1HA W171KHW0.1H0 W172KHW0.1HA W172KHW0.1H0

W173KHW0.1HA W173KHW0.1H0 W174KHW0.1HA W174KHW0.1H0 W175KHW0.1HA W175KHW0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

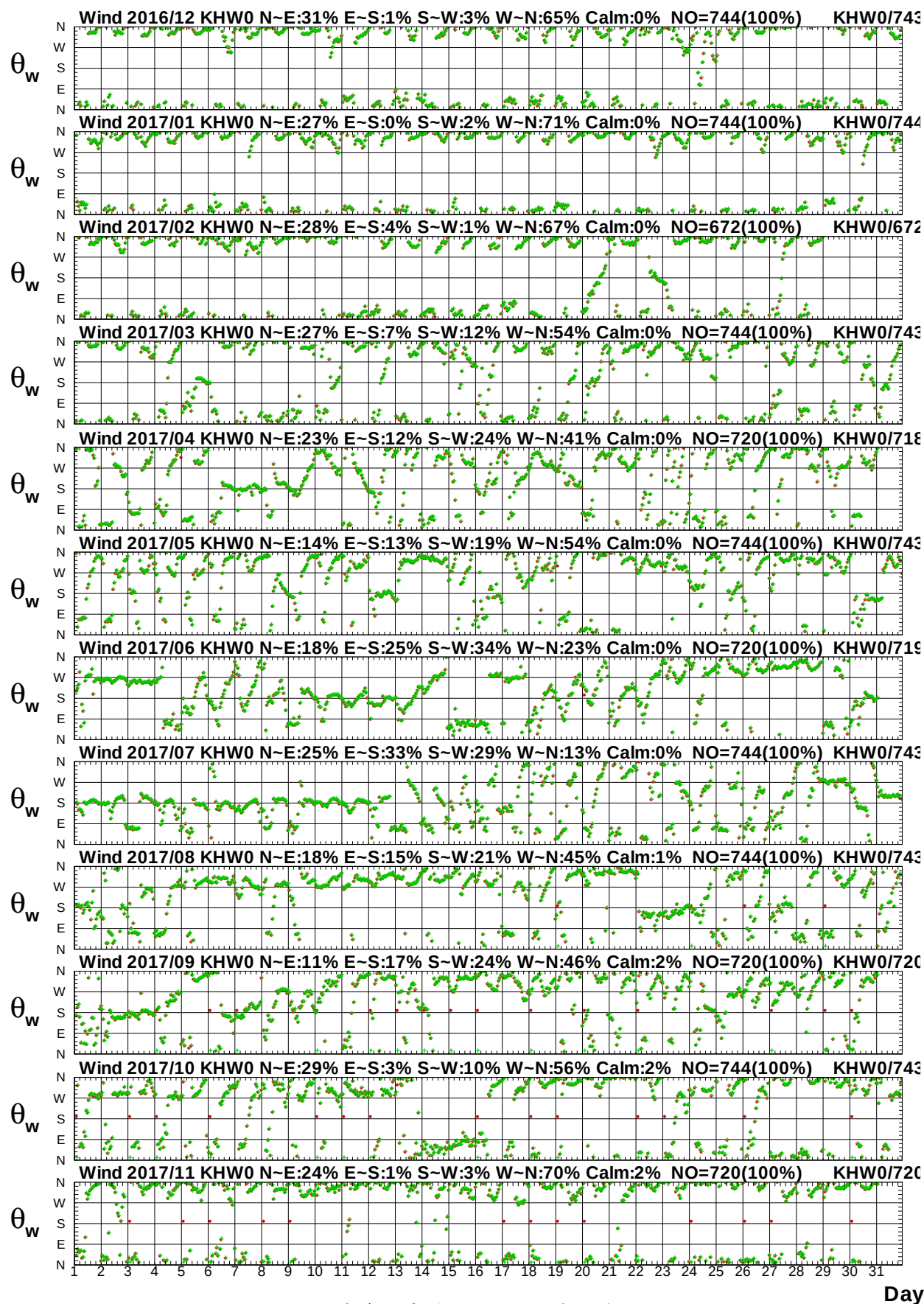


圖1.1b 2017年每月高雄海域 W 站修補前後之風向比較圖

W16CKHW0.1HA W16CKHW0.1H0 W171KHW0.1HA W171KHW0.1H0 W172KHW0.1HA W172KHW0.1H0

W173KHW0.1HA W173KHW0.1H0 W174KHW0.1HA W174KHW0.1H0 W175KHW0.1HA W175KHW0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

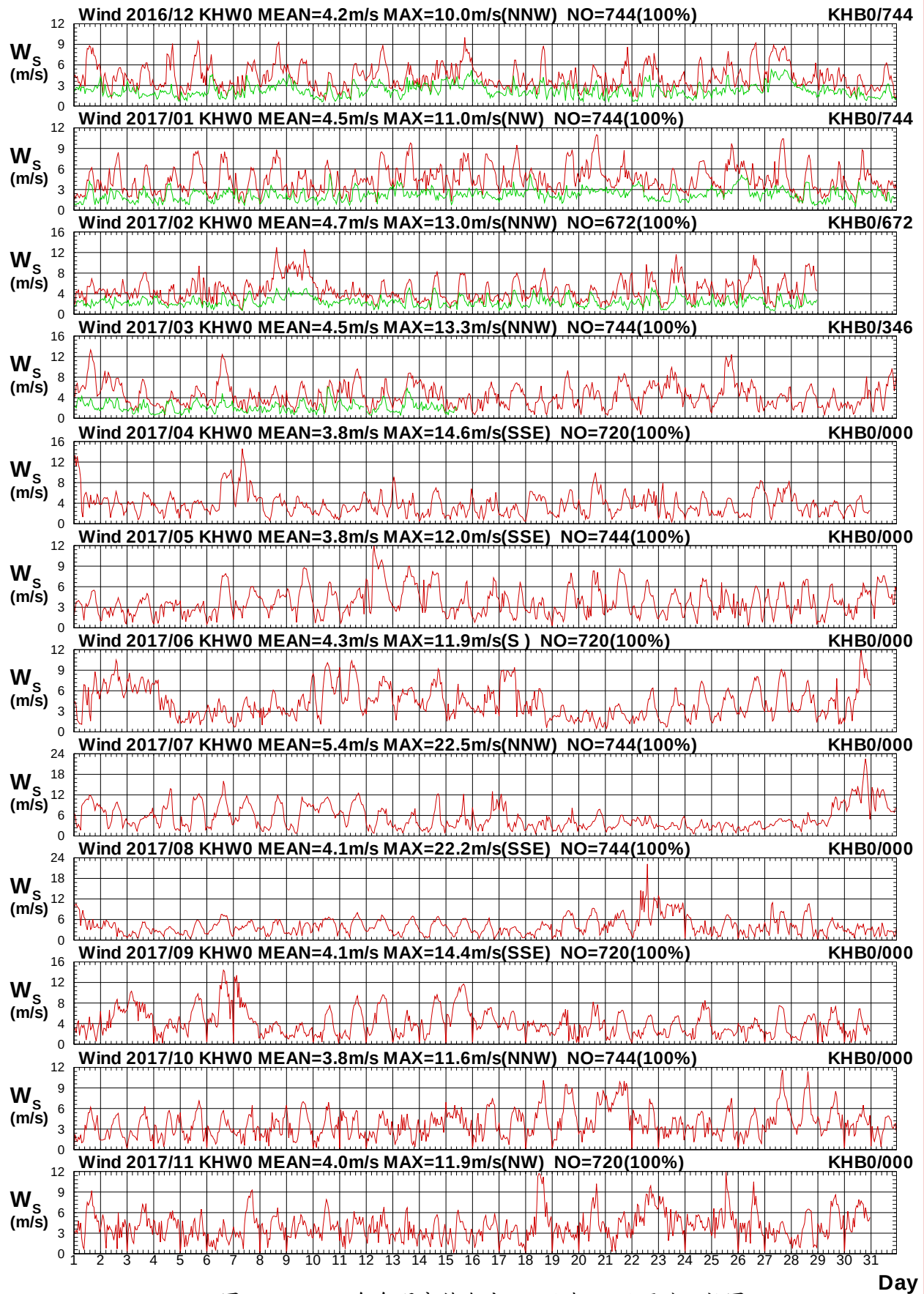


圖1.2a 2017年每月高雄海域 W 站與 B 站風速比較圖

W16CKHW0.1HA W16CKHB0.1H0 W171KHW0.1HA W171KHB0.1H0 W172KHW0.1HA W172KHB0.1H0
W173KHW0.1HA W173KHB0.1H0 W174KHW0.1HA W174KHB0.1H0 W175KHW0.1HA W175KHB0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

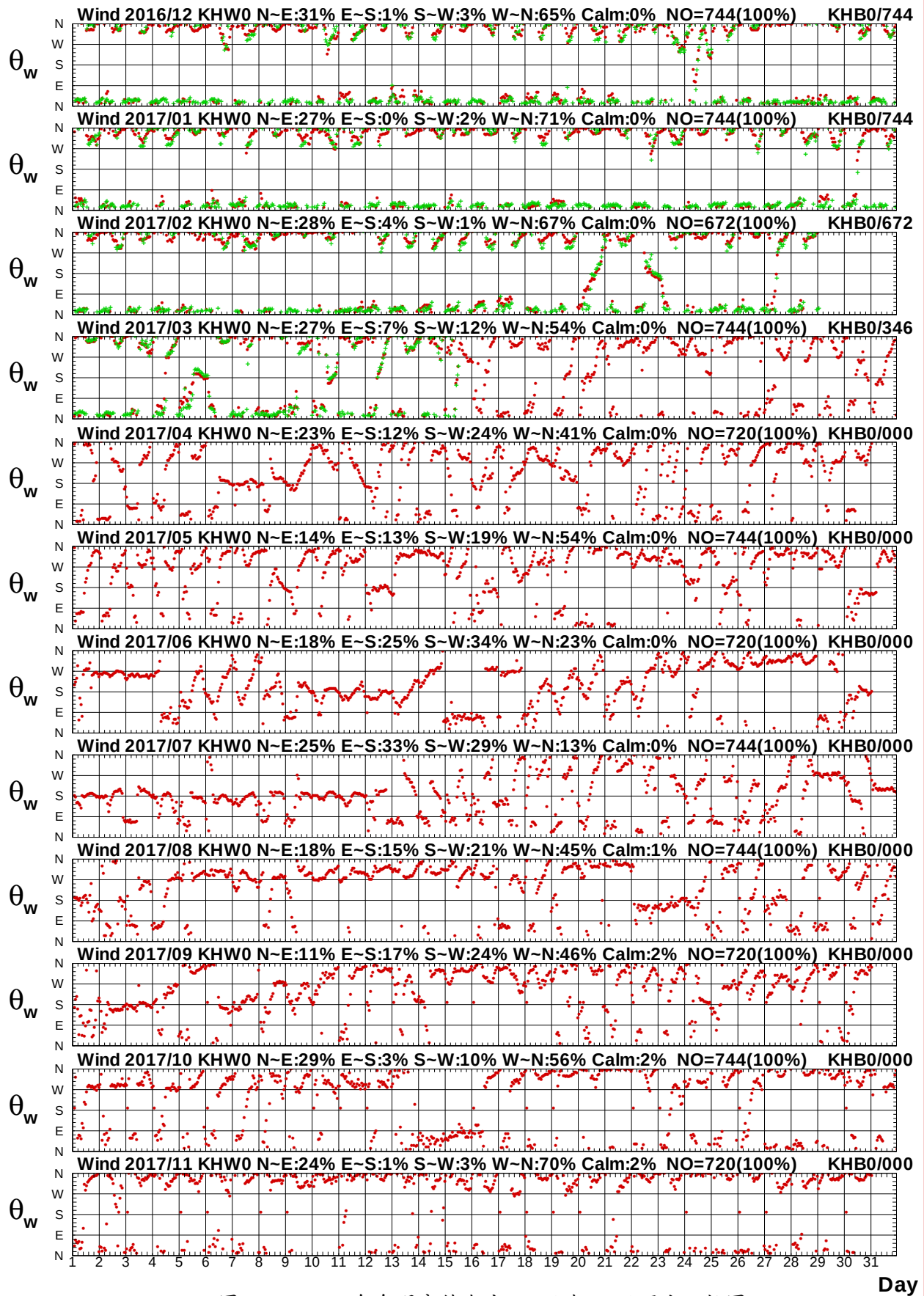


圖1.2b 2017年每月高雄海域 W 站與 B 站風向比較圖

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W173KHW0.1HA W173KHB0.1H0 W174KHW0.1HA W174KHB0.1H0 W175KHW0.1HA W175KHB0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

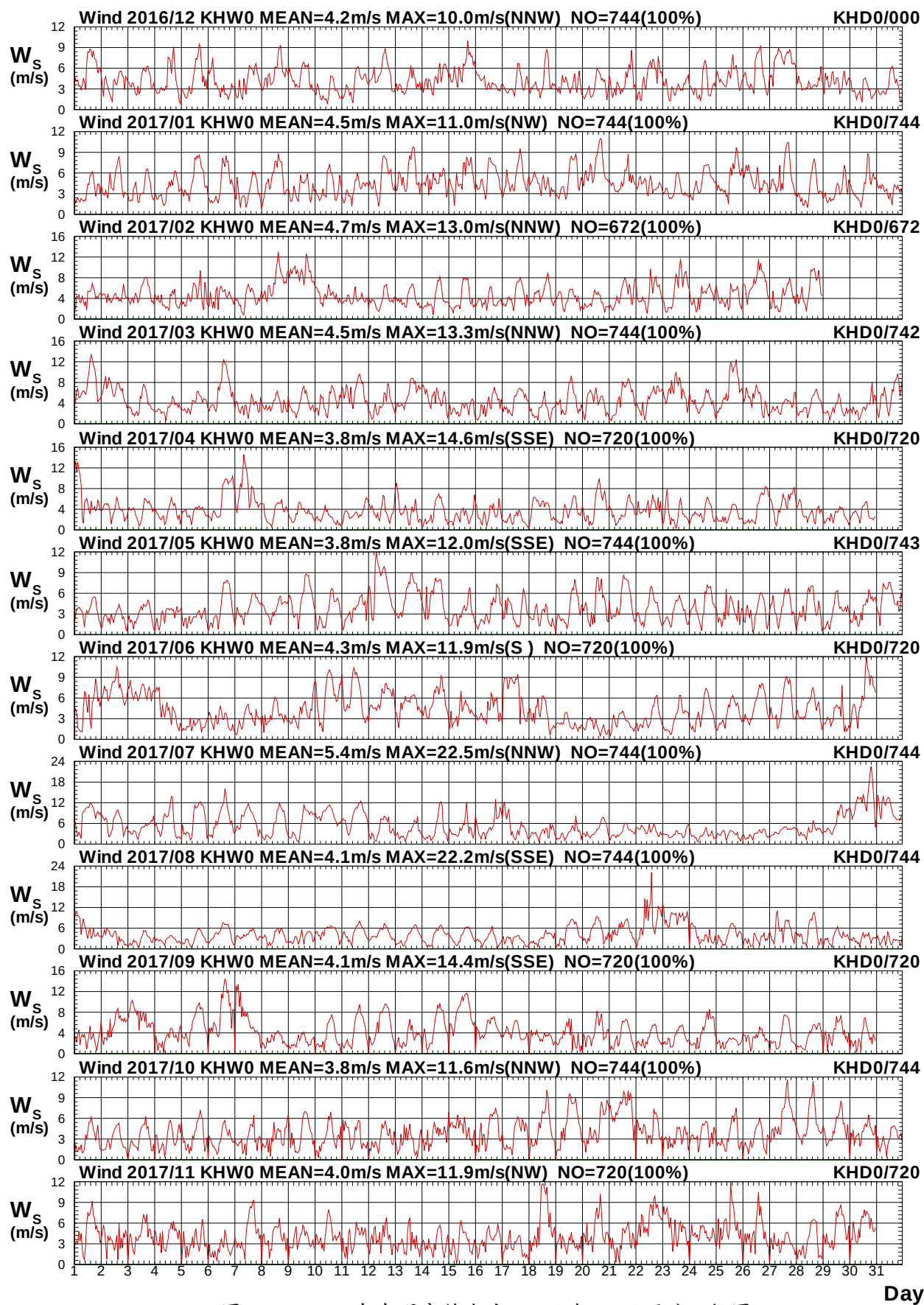


圖1.3a 2017年每月高雄海域 W 站與 D 站風速比較圖

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W173KHW0.1HA W173KHD0.1H0 W174KHW0.1HA W174KHD0.1H0 W175KHW0.1HA W175KHD0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

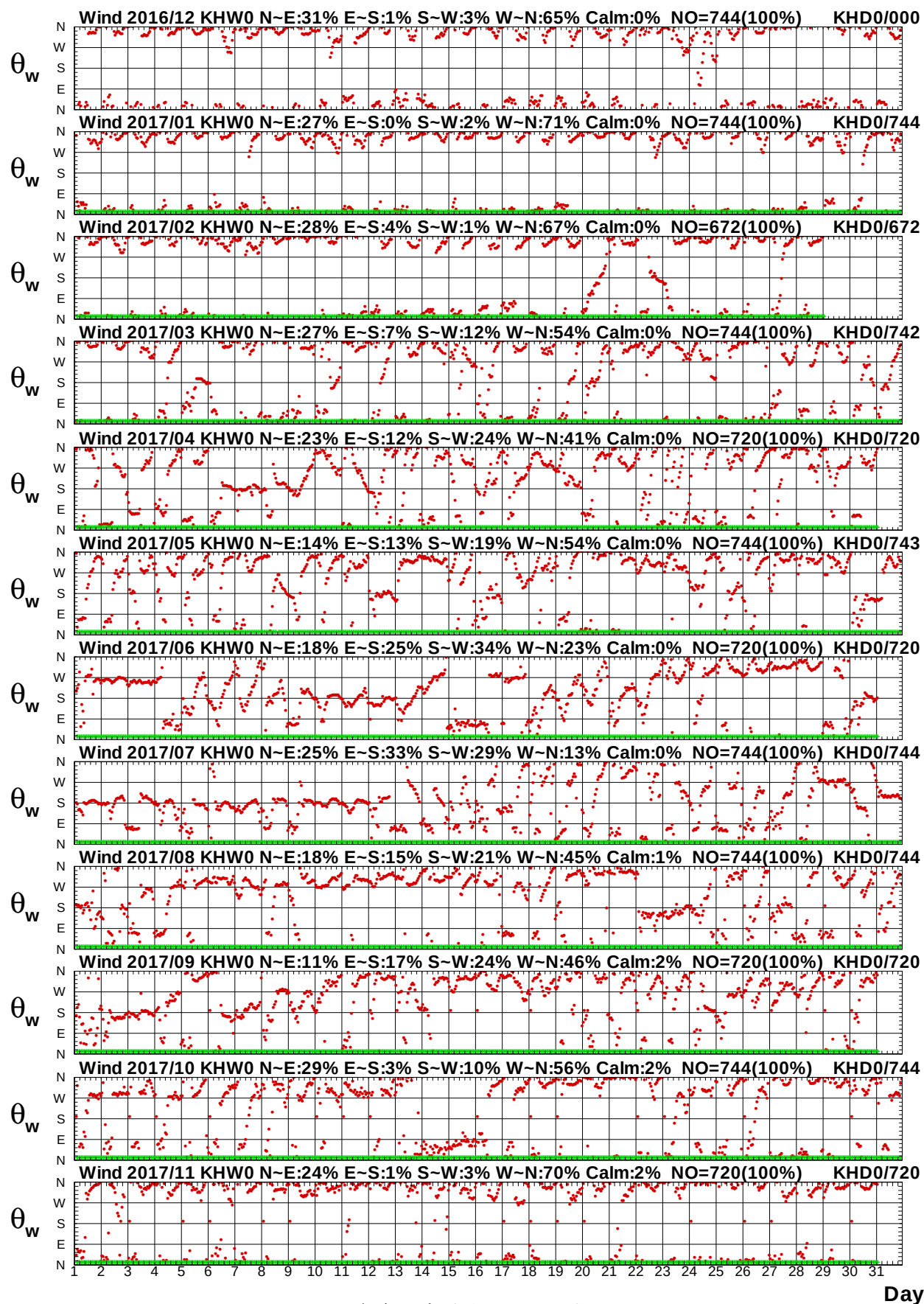


圖1.3b 2017年每月高雄海域 W 站與 D 站風向比較圖

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W173KHW0.1HA W173KHD0.1H0 W174KHW0.1HA W174KHD0.1H0 W175KHW0.1HA W175KHD0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

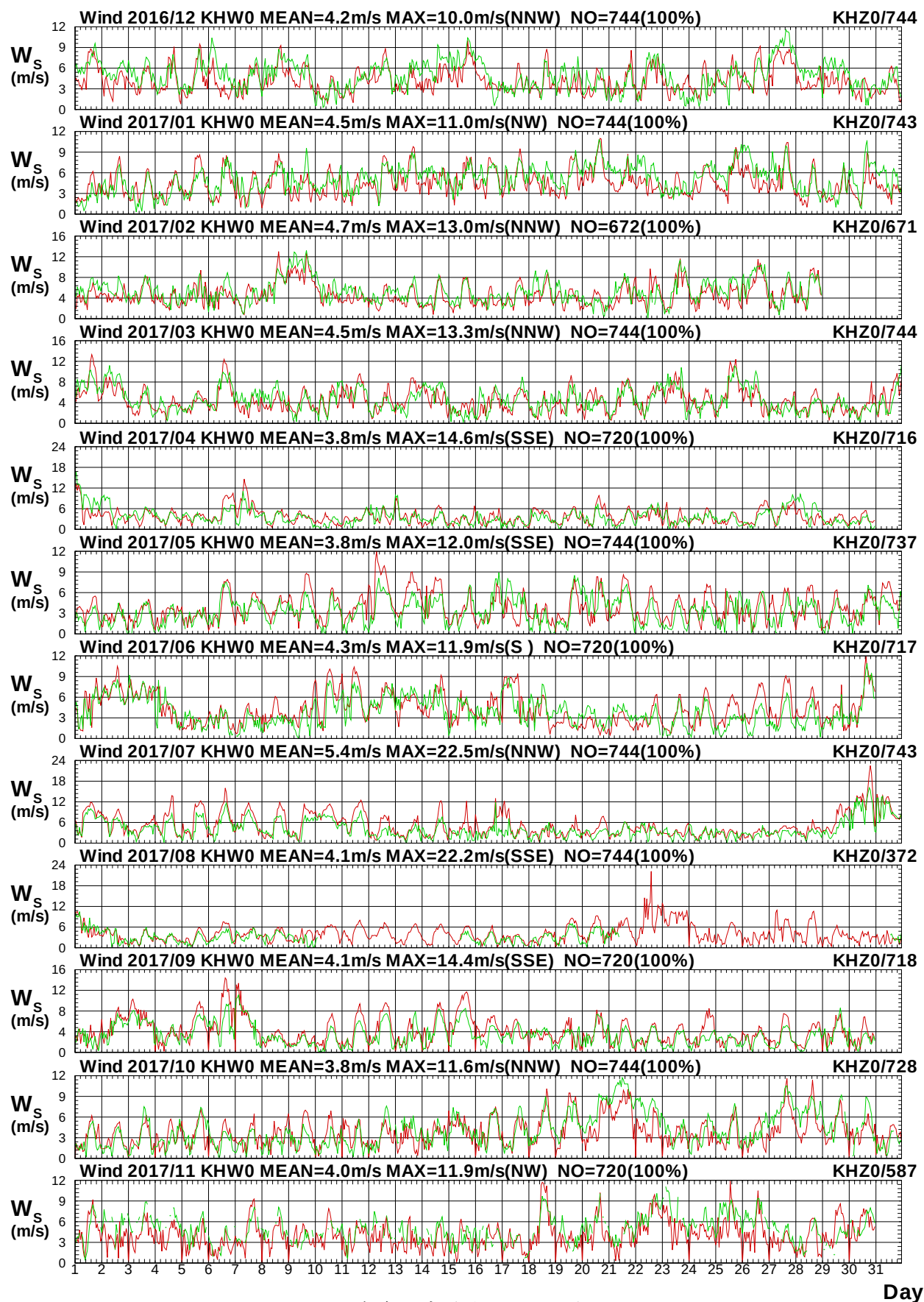


圖1.4a 2017年每月高雄海域 W 站與 Z 站風速比較圖

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W173KHW0.1HA W173KHZ0.1H0 W174KHW0.1HA W174KHZ0.1H0 W175KHW0.1HA W175KHZ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

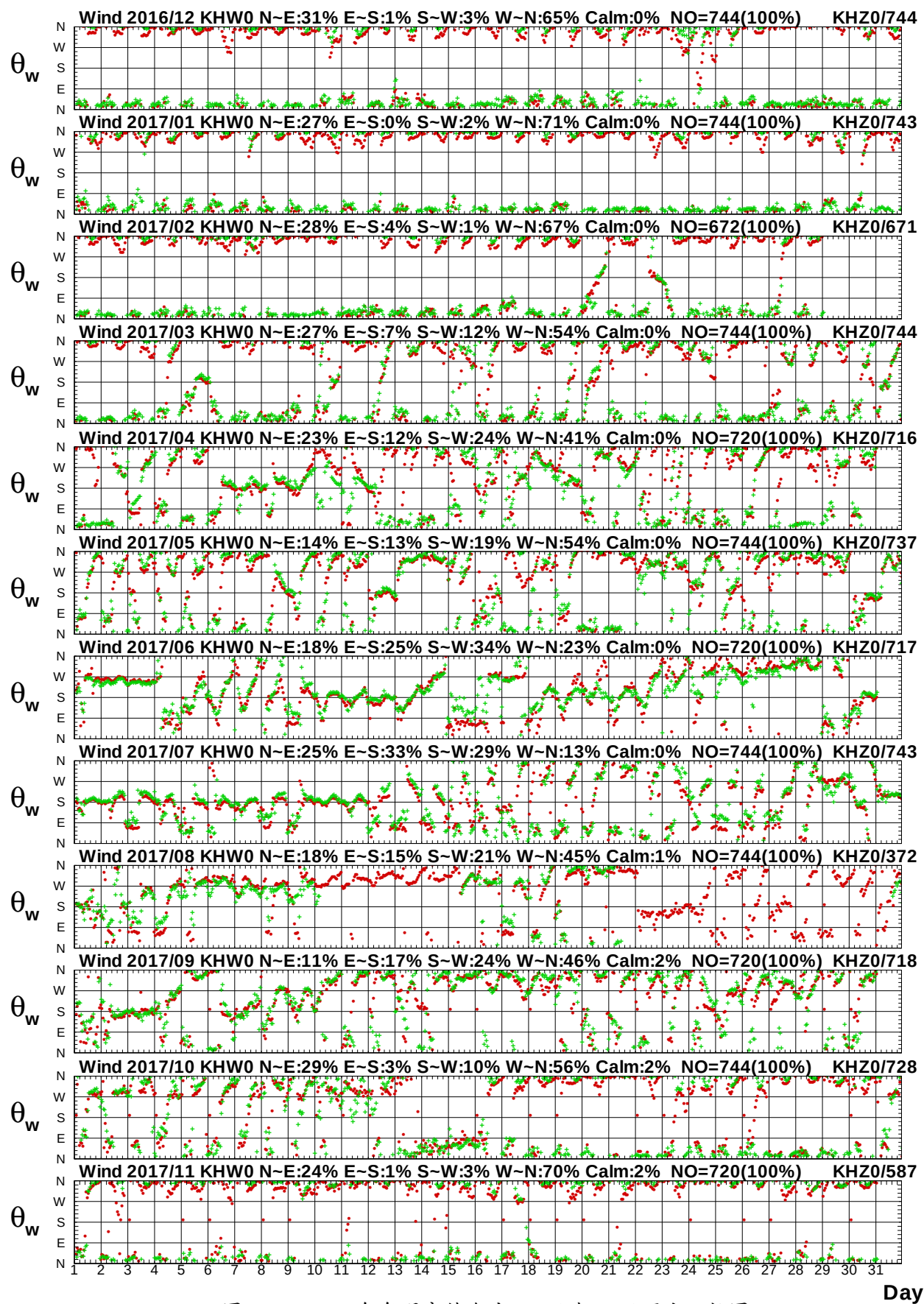


圖1.4b 2017年每月高雄海域 W 站與 Z 站風向比較圖

W16CKHW0.1HA W16CKHZ0.1H0 W171KHW0.1HA W171KHZ0.1H0 W172KHW0.1HA W172KHZ0.1H0
W173KHW0.1HA W173KHZ0.1H0 W174KHW0.1HA W174KHZ0.1H0 W175KHW0.1HA W175KHZ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

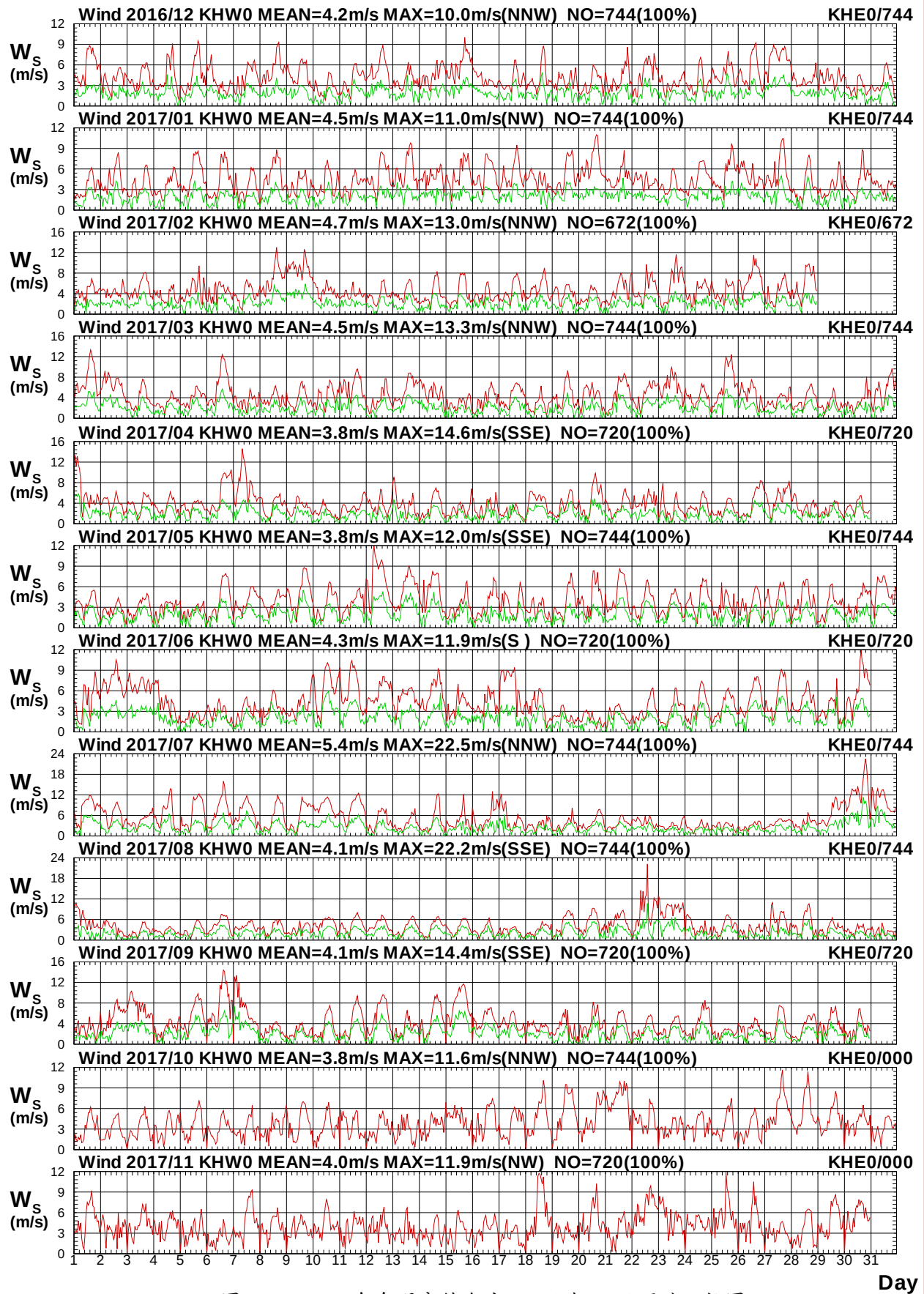


圖1.5a 2017年每月高雄海域 W 站與 E 站風速比較圖

W16CKHW0.1HA W16CKHE0.1H0 W171KHW0.1HA W171KHE0.1H0 W172KHW0.1HA W172KHE0.1H0
W173KHW0.1HA W173KHE0.1H0 W174KHW0.1HA W174KHE0.1H0 W175KHW0.1HA W175KHE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

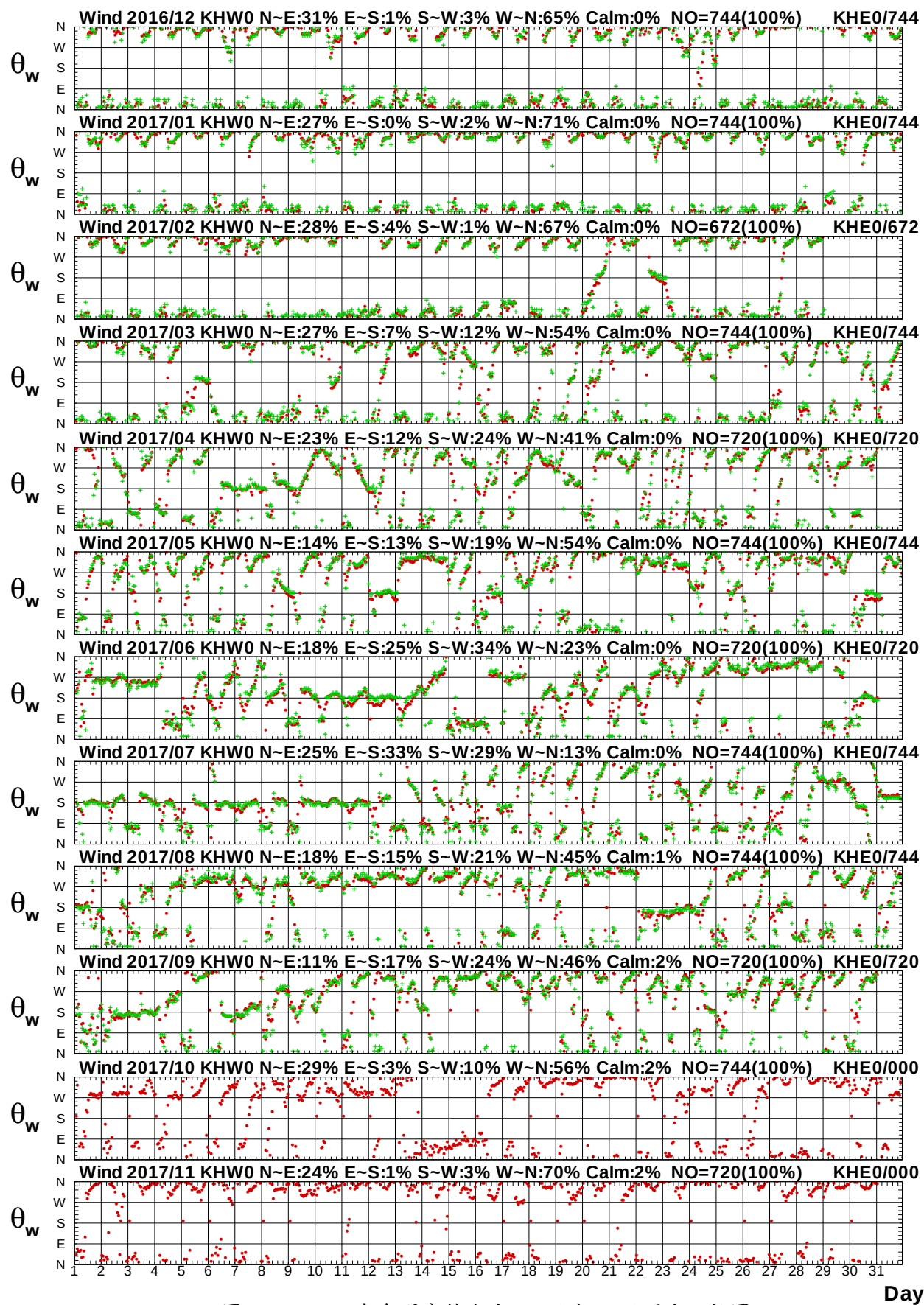


圖1.5b 2017年每月高雄海域 W 站與 E 站風向比較圖

W16CKHW0.1HA W16CKHE0.1H0 W171KHW0.1HA W171KHE0.1H0 W172KHW0.1HA W172KHE0.1H0
W173KHW0.1HA W173KHE0.1H0 W174KHW0.1HA W174KHE0.1H0 W175KHW0.1HA W175KHE0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

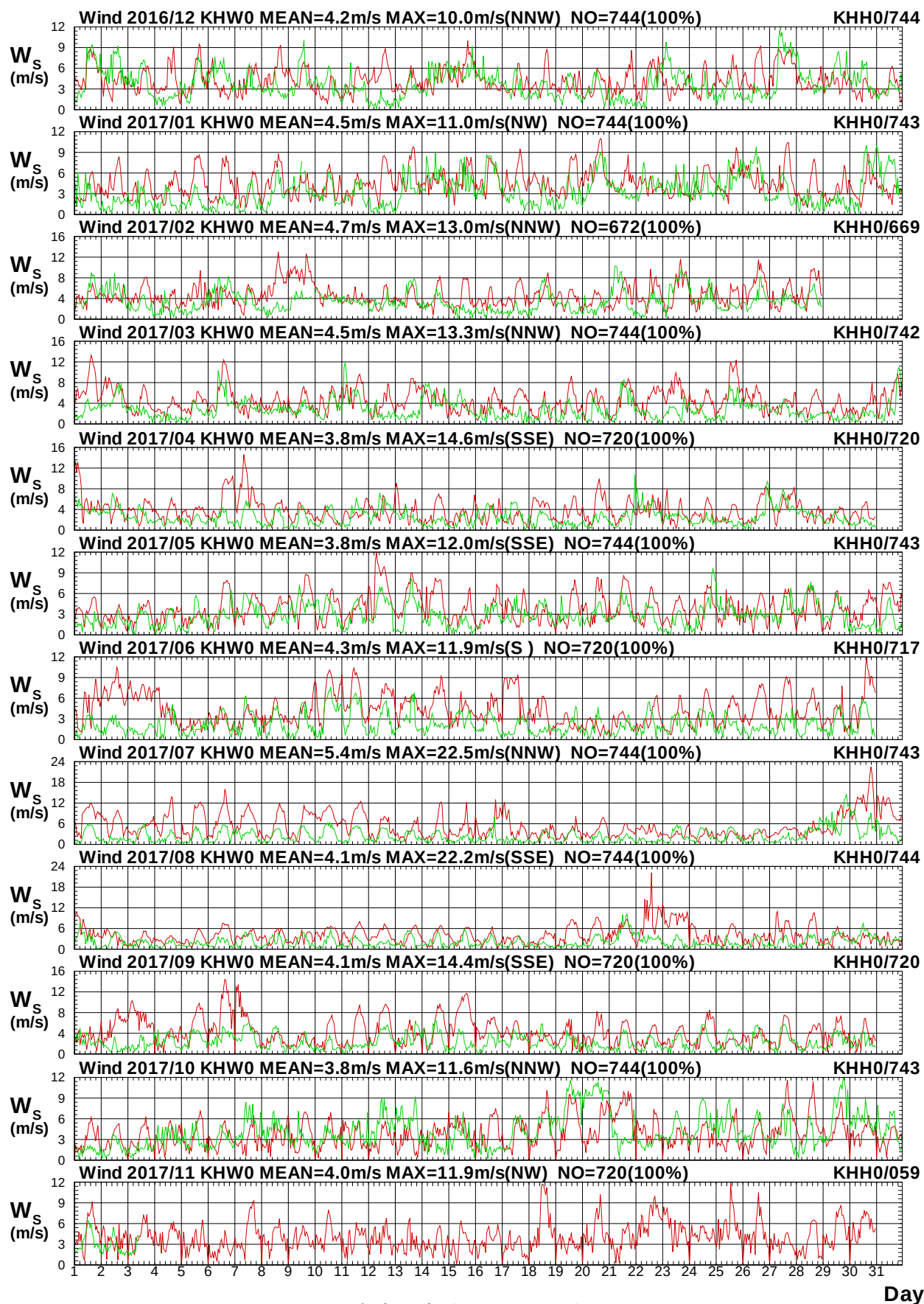


圖1.6a 2017年每月高雄海域 W 站與 H 站風速比較圖

W16CKHW0.1HA W16CKHH0.1H0 W171KHW0.1HA W171KHH0.1H0 W172KHW0.1HA W172KHH0.1H0
W173KHW0.1HA W173KHH0.1H0 W174KHW0.1HA W174KHH0.1H0 W175KHW0.1HA W175KHH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

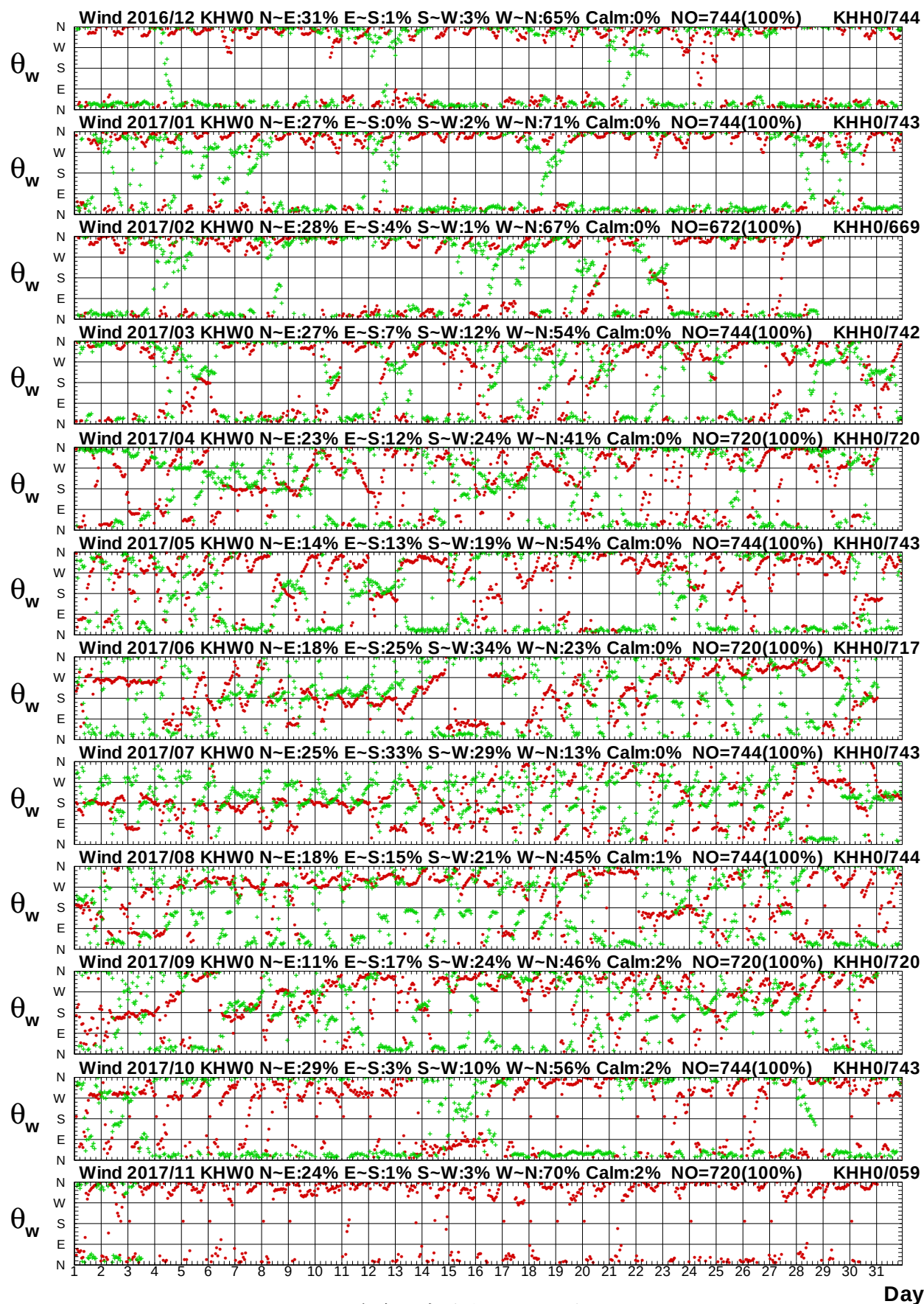


圖1.6b 2017年每月高雄海域 W 站與 H 站風向比較圖

W16CKHW0.1HA W16CKHH0.1H0 W171KHW0.1HA W171KHH0.1H0 W172KHW0.1HA W172KHH0.1H0
W173KHW0.1HA W173KHH0.1H0 W174KHW0.1HA W174KHH0.1H0 W175KHW0.1HA W175KHH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

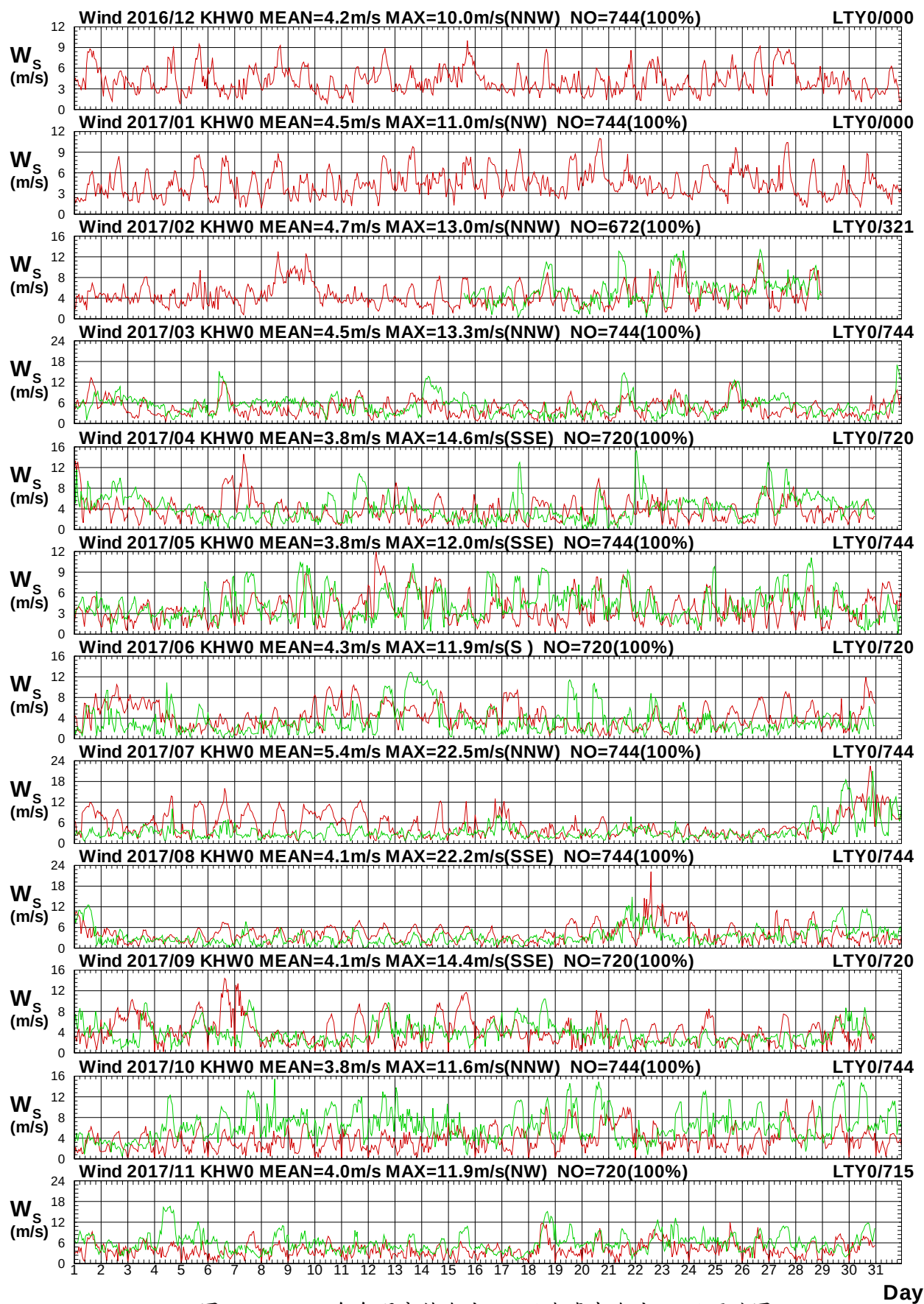


圖1.7a 2017年每月高雄海域 W 站與臺東海域 Y 站風速圖

W16CKHW0.1HA W16CLTY0.1H0 W171KHW0.1HA W171LTYY0.1H0 W172KHW0.1HA W172LTYY0.1H0
W173KHW0.1HA W173LTYY0.1H0 W174KHW0.1HA W174LTYY0.1H0 W175KHW0.1HA W175LTYY0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

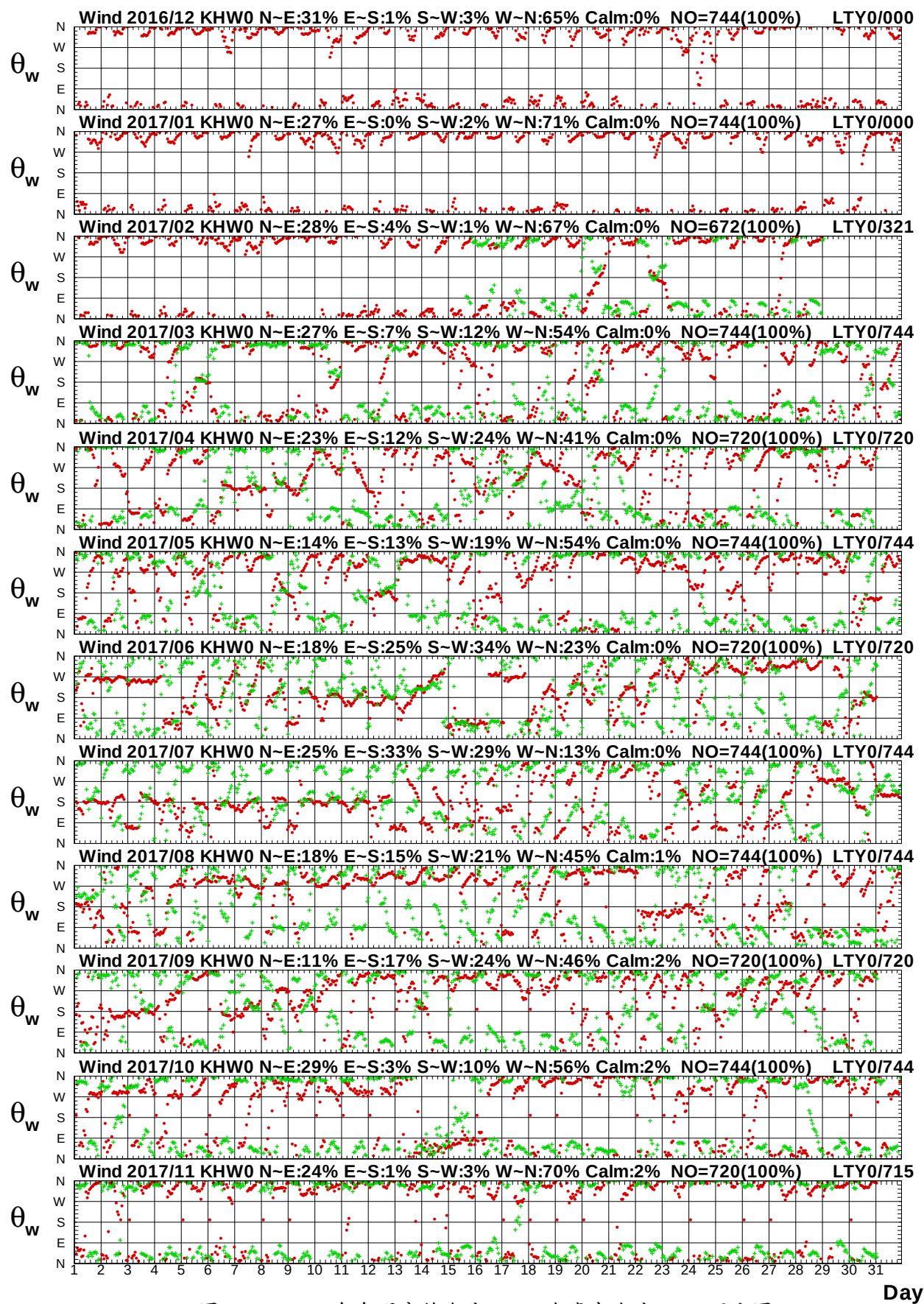


圖1.7b 2017年每月高雄海域 W 站與臺東海域 Y 站風向圖

W16CKHW0.1HA W16CLTY0.1H0 W171KHW0.1HA W171LTY0.1H0 W172KHW0.1HA W172LTY0.1H0
W173KHW0.1HA W173LTY0.1H0 W174KHW0.1HA W174LTY0.1H0 W175KHW0.1HA W175LTY0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

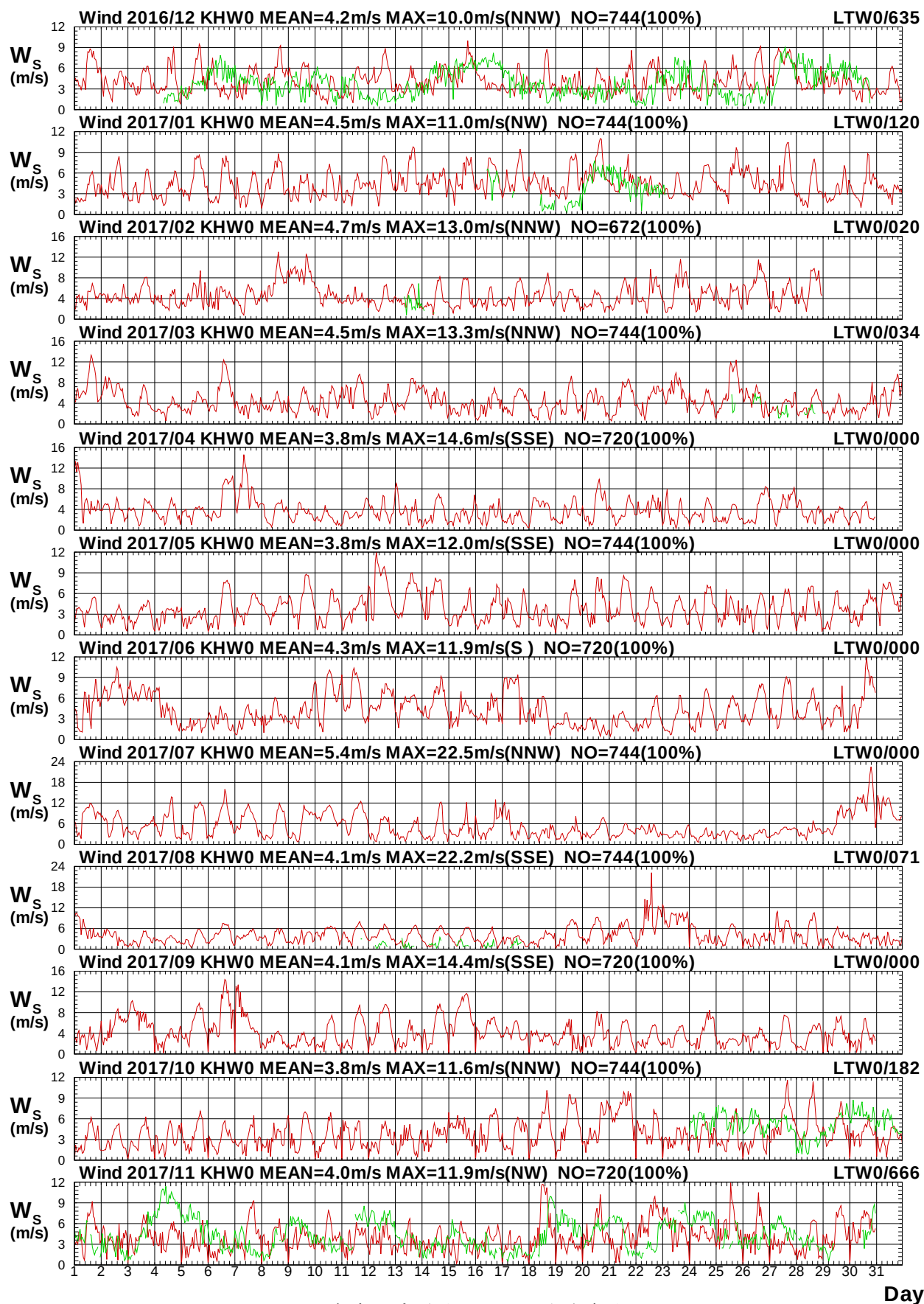


圖1.8a 2017年每月高雄海域 W 站與臺東海域 W 站風速圖

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W173KHW0.1HA W173LTW0.1H0 W174KHW0.1HA W174LTW0.1H0 W175KHW0.1HA W175LTW0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

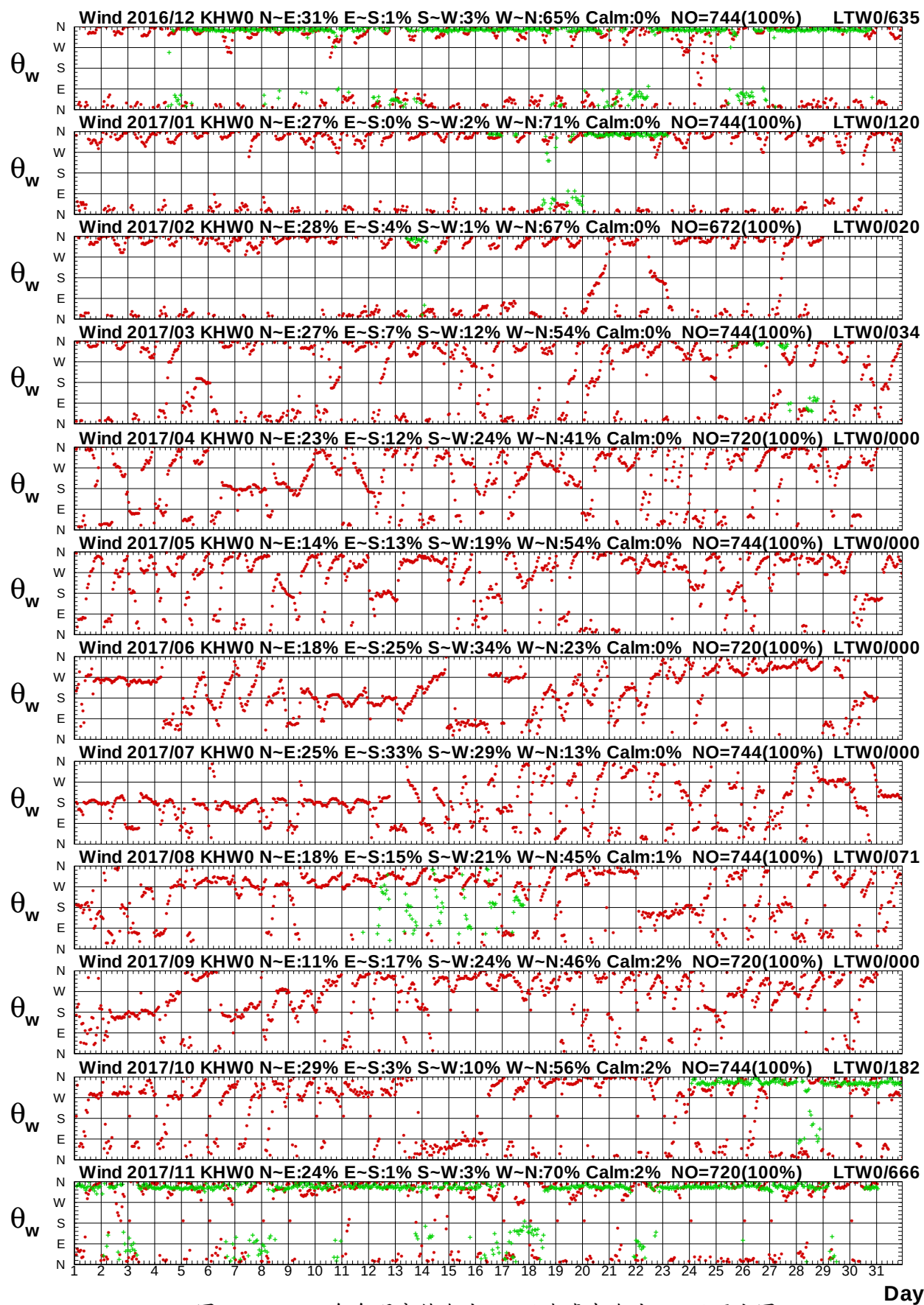


圖1.8b 2017年每月高雄海域 W 站與臺東海域 W 站風向圖

W16CKHW0.1HA W16CLTW0.1H0 W171KHW0.1HA W171LTW0.1H0 W172KHW0.1HA W172LTW0.1H0
W173KHW0.1HA W173LTW0.1H0 W174KHW0.1HA W174LTW0.1H0 W175KHW0.1HA W175LTW0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

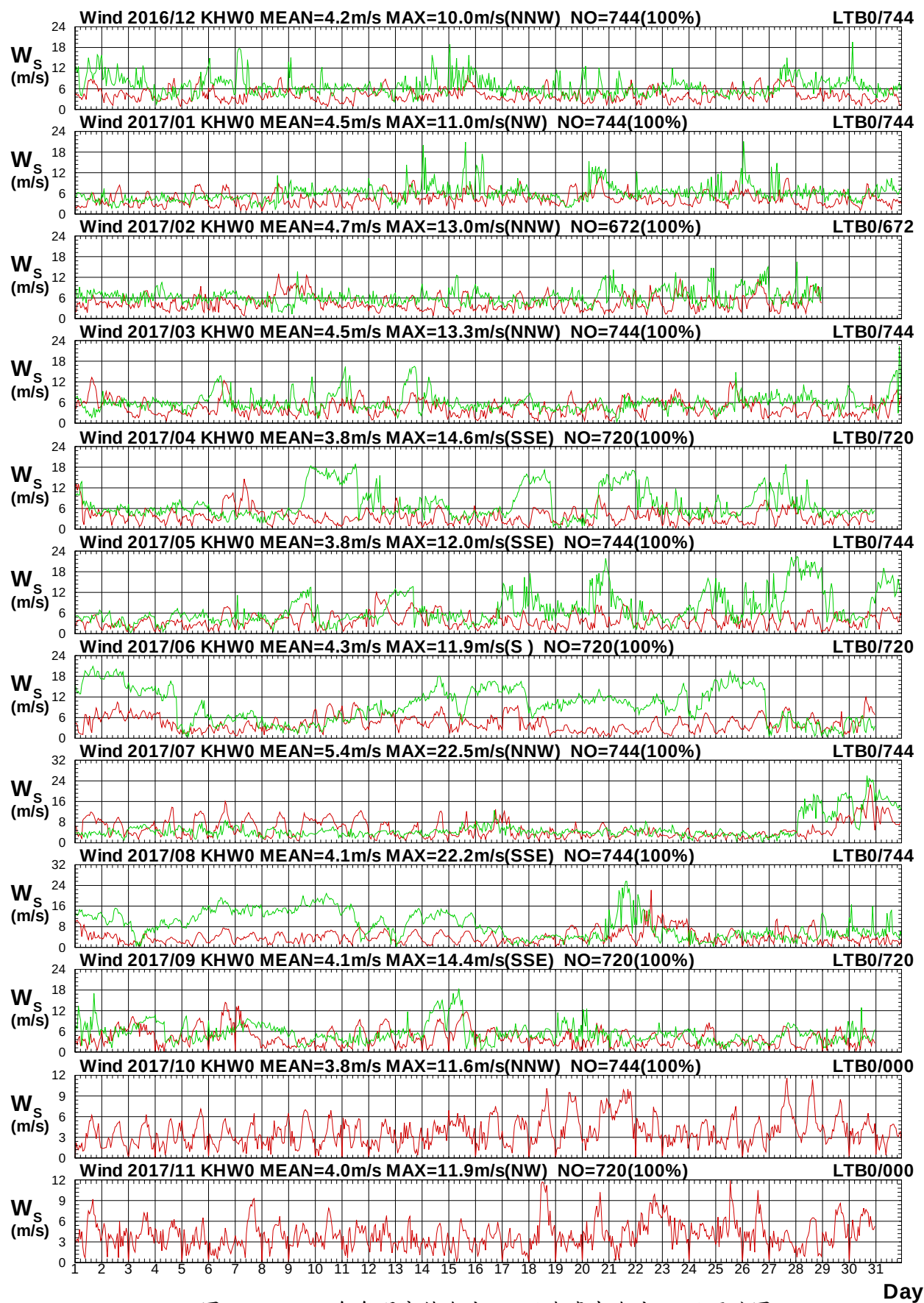


圖1.9a 2017年每月高雄海域 W 站與臺東海域 B 站風速圖

W16CKHW0.1HA W16CLTB0.1H0 W171KHW0.1HA W171LTB0.1H0 W172KHW0.1HA W172LTB0.1H0
W173KHW0.1HA W173LTB0.1H0 W174KHW0.1HA W174LTB0.1H0 W175KHW0.1HA W175LTB0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

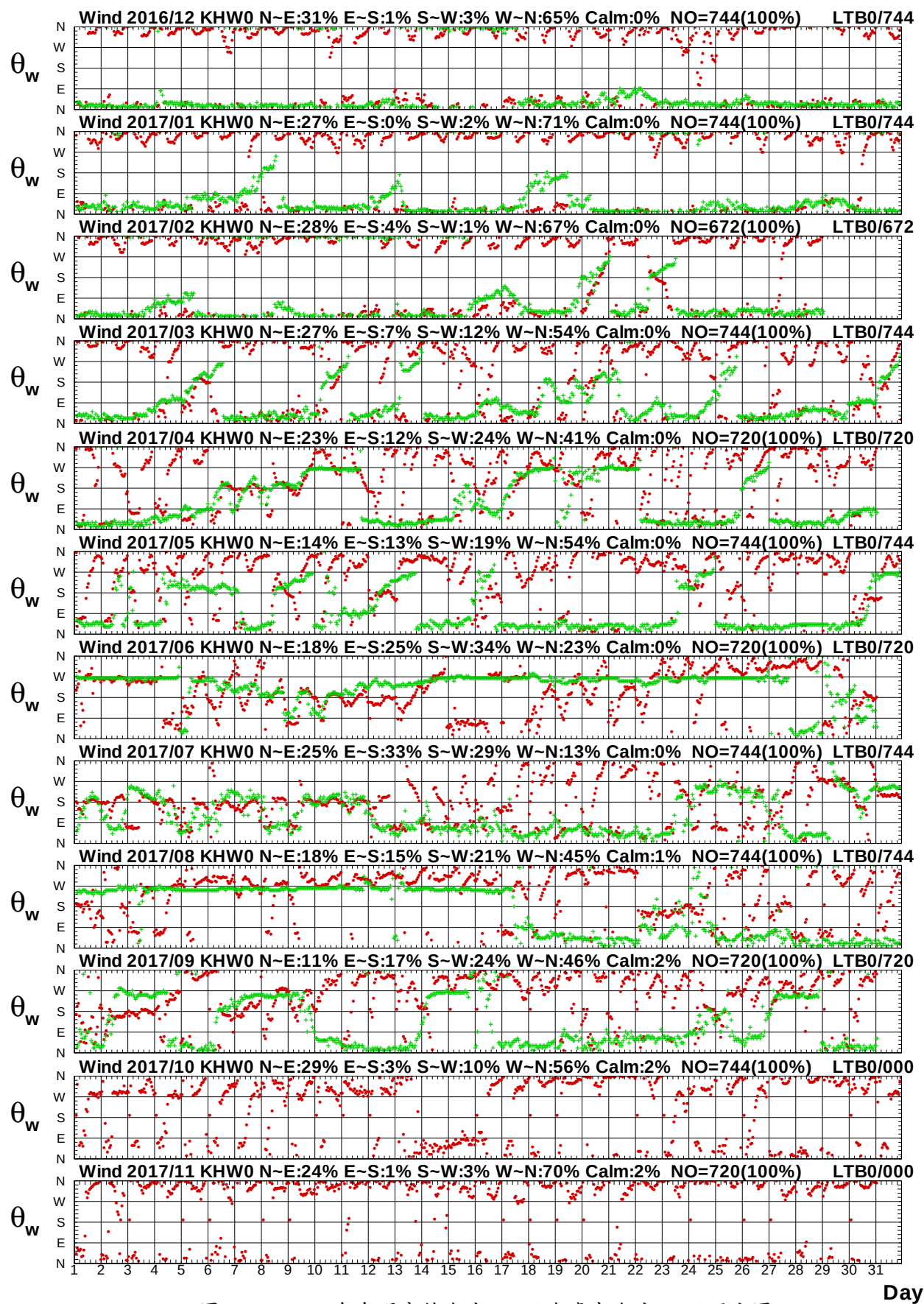


圖1.9b 2017年每月高雄海域 W 站與臺東海域 B 站風向圖

W16CKHW0.1HA W16CLTB0.1H0 W171KHW0.1HA W171LTB0.1H0 W172KHW0.1HA W172LTB0.1H0
W173KHW0.1HA W173LTB0.1H0 W174KHW0.1HA W174LTB0.1H0 W175KHW0.1HA W175LTB0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

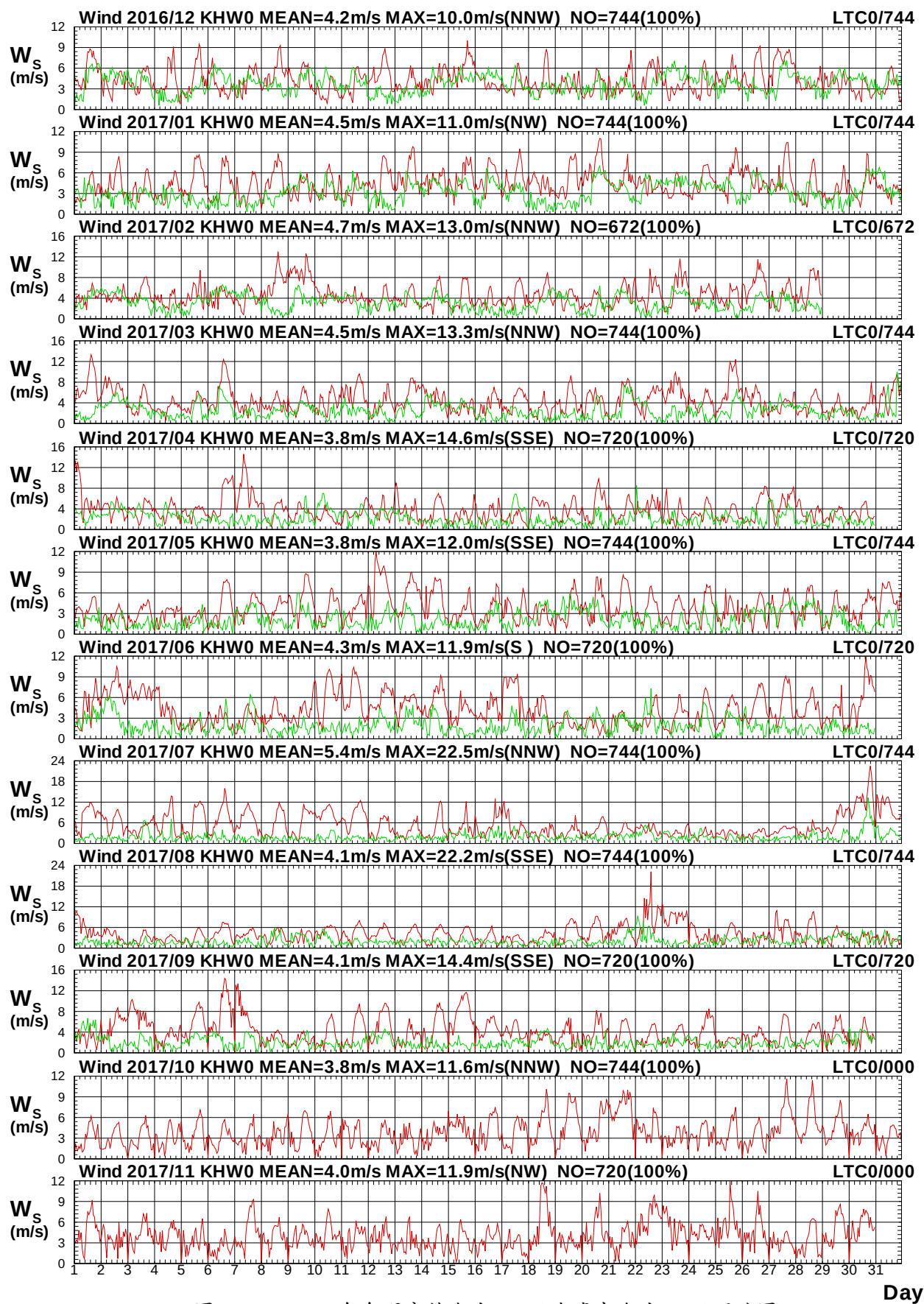


圖1.10a 2017年每月高雄海域 W 站與臺東海域 C 站風速圖

W16CKHW0.1HA W16CLTC0.1H0 W171KHW0.1HA W171LTC0.1H0 W172KHW0.1HA W172LTC0.1H0
W173KHW0.1HA W173LTC0.1H0 W174KHW0.1HA W174LTC0.1H0 W175KHW0.1HA W175LTC0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

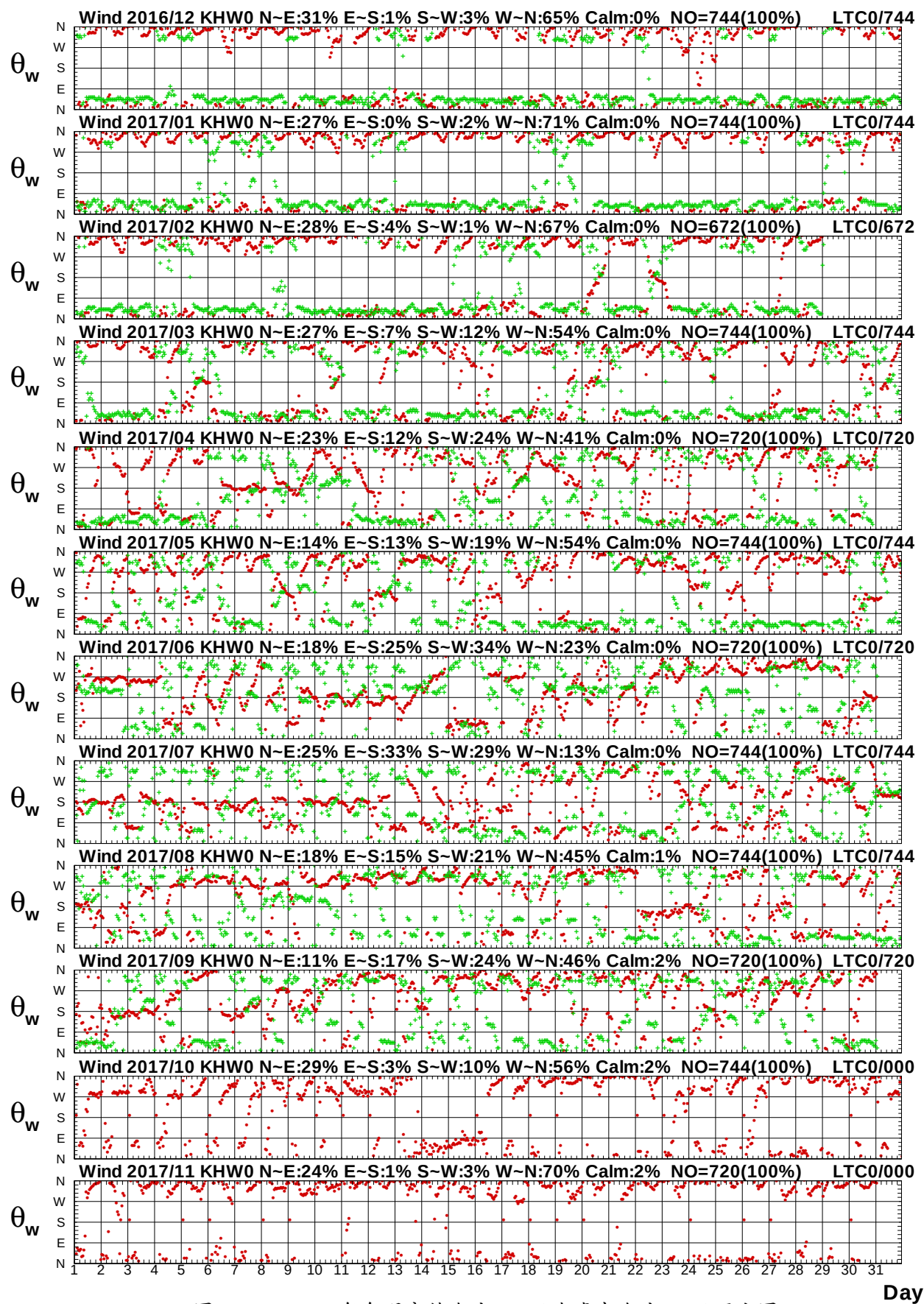


圖1.10b 2017年每月高雄海域 W 站與臺東海域 C 站風向圖

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

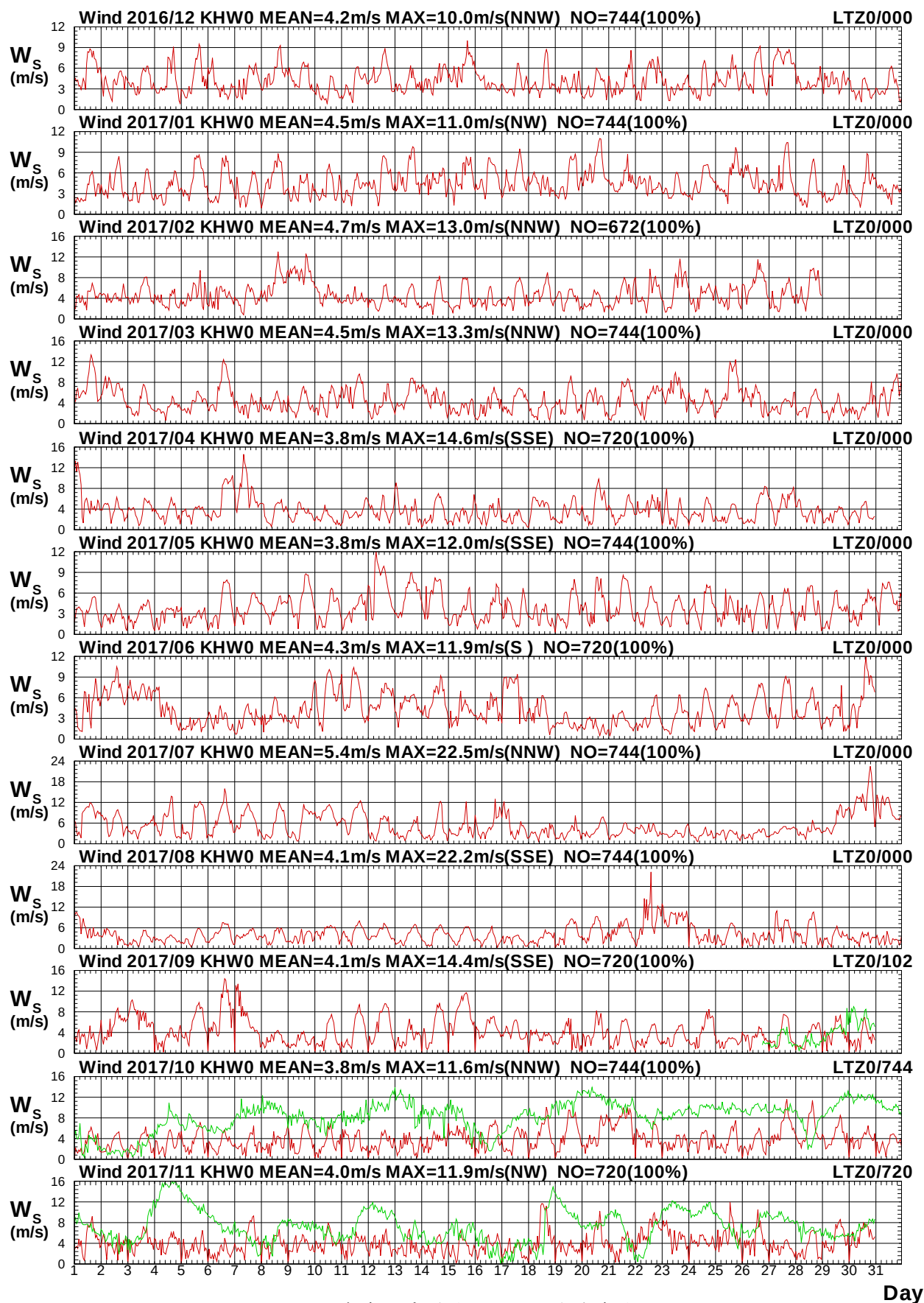


圖1.11a 2017年每月高雄海域 W 站與臺東海域 Z 站風速圖

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W173KHW0.1HA W173LTZ0.1H0 W174KHW0.1HA W174LTZ0.1H0 W175KHW0.1HA W175LTZ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

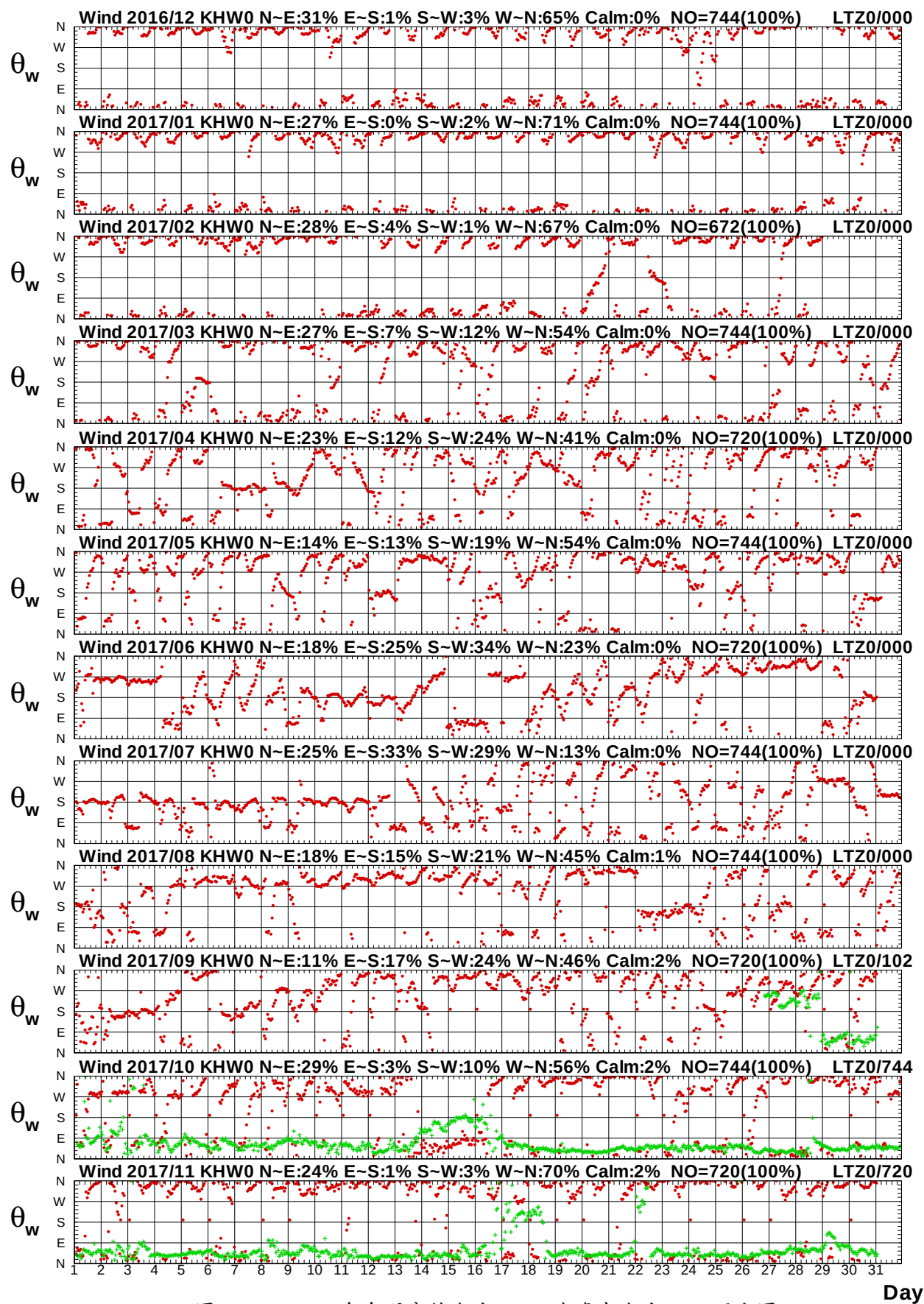


圖1.11b 2017年每月高雄海域 W 站與臺東海域 Z 站風向圖

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

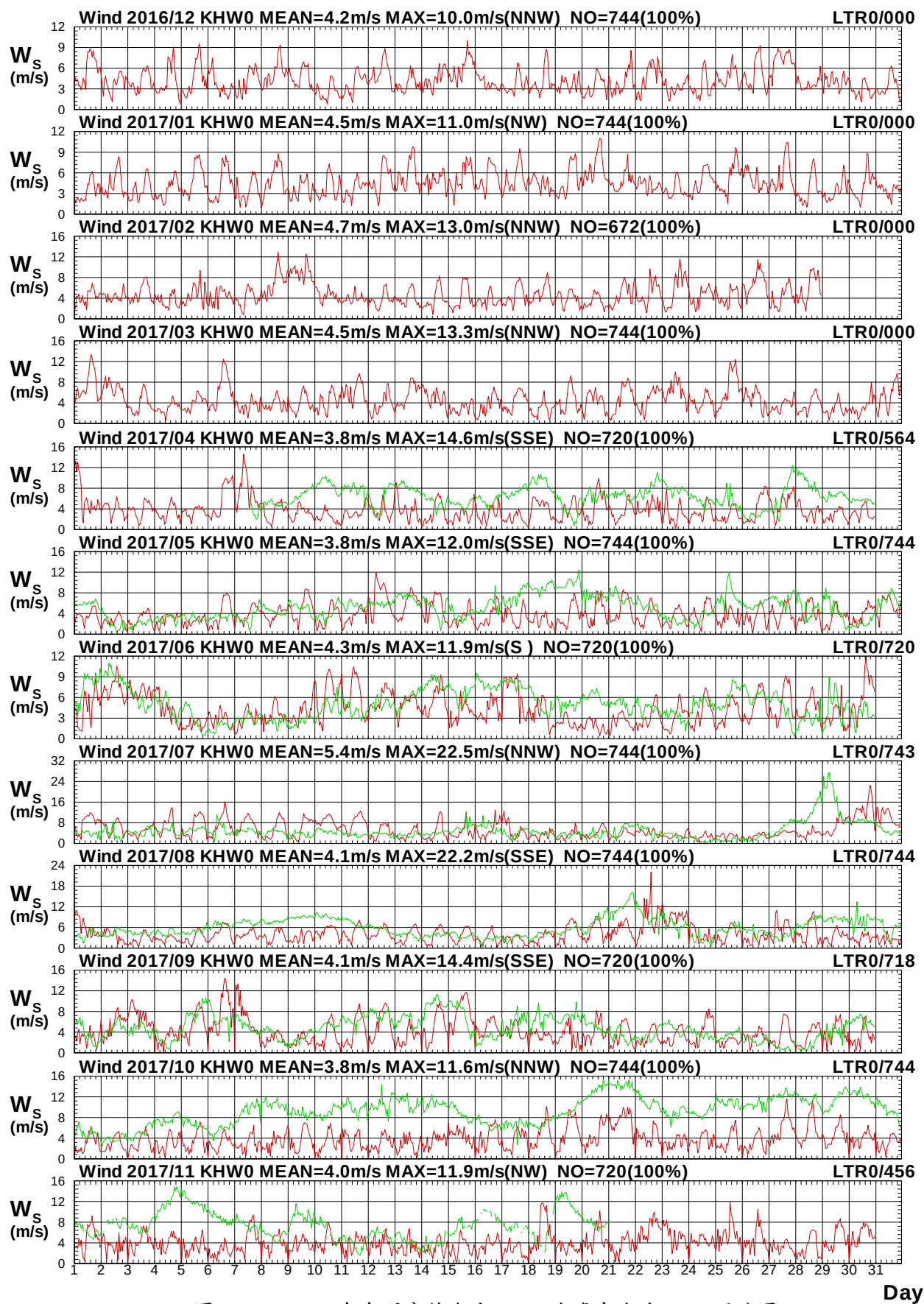


圖1.12a 2017年每月高雄海域 W 站與臺東海域 R 站風速圖

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

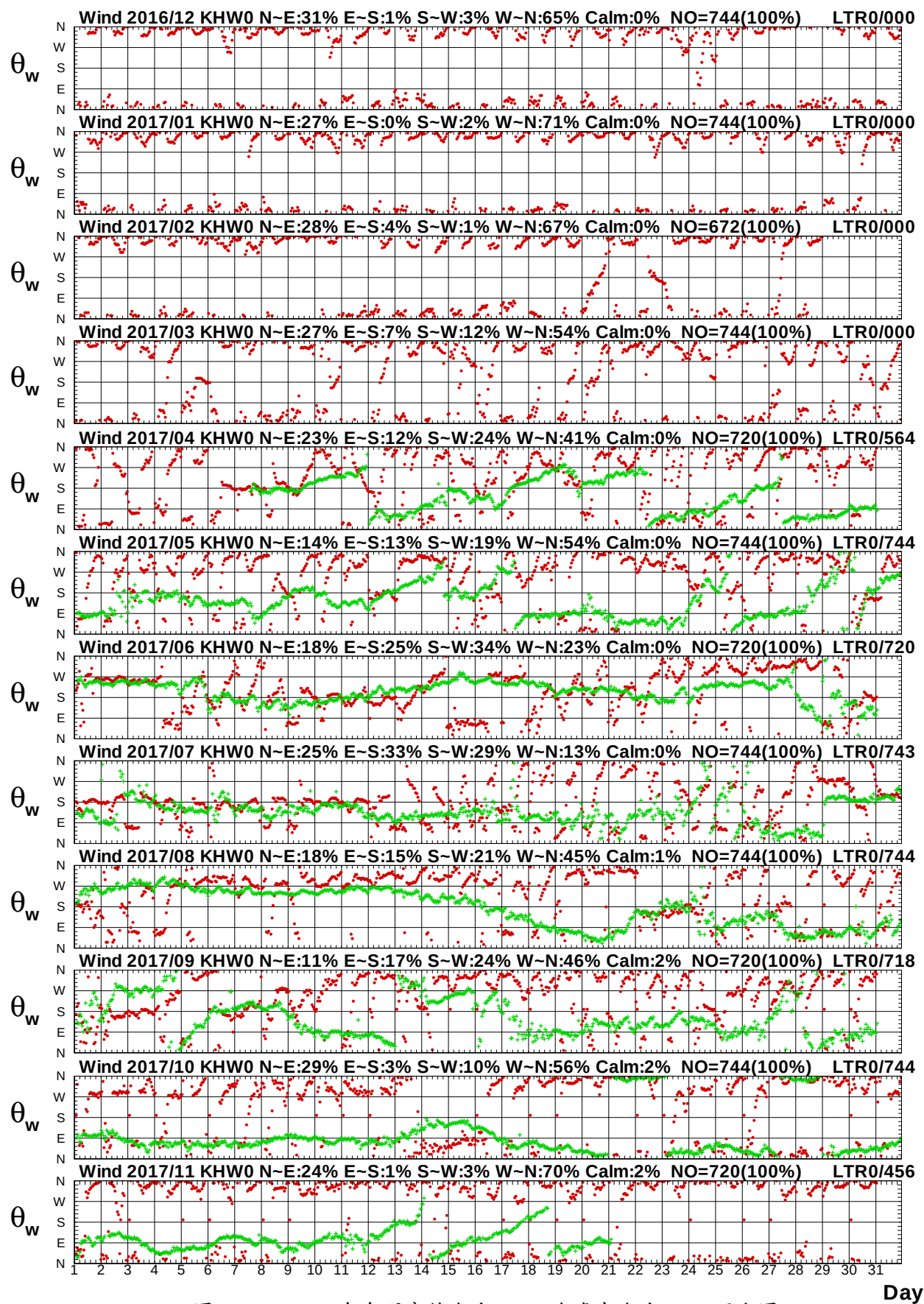


圖1.12b 2017年每月高雄海域 W 站與臺東海域 R 站風向圖

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

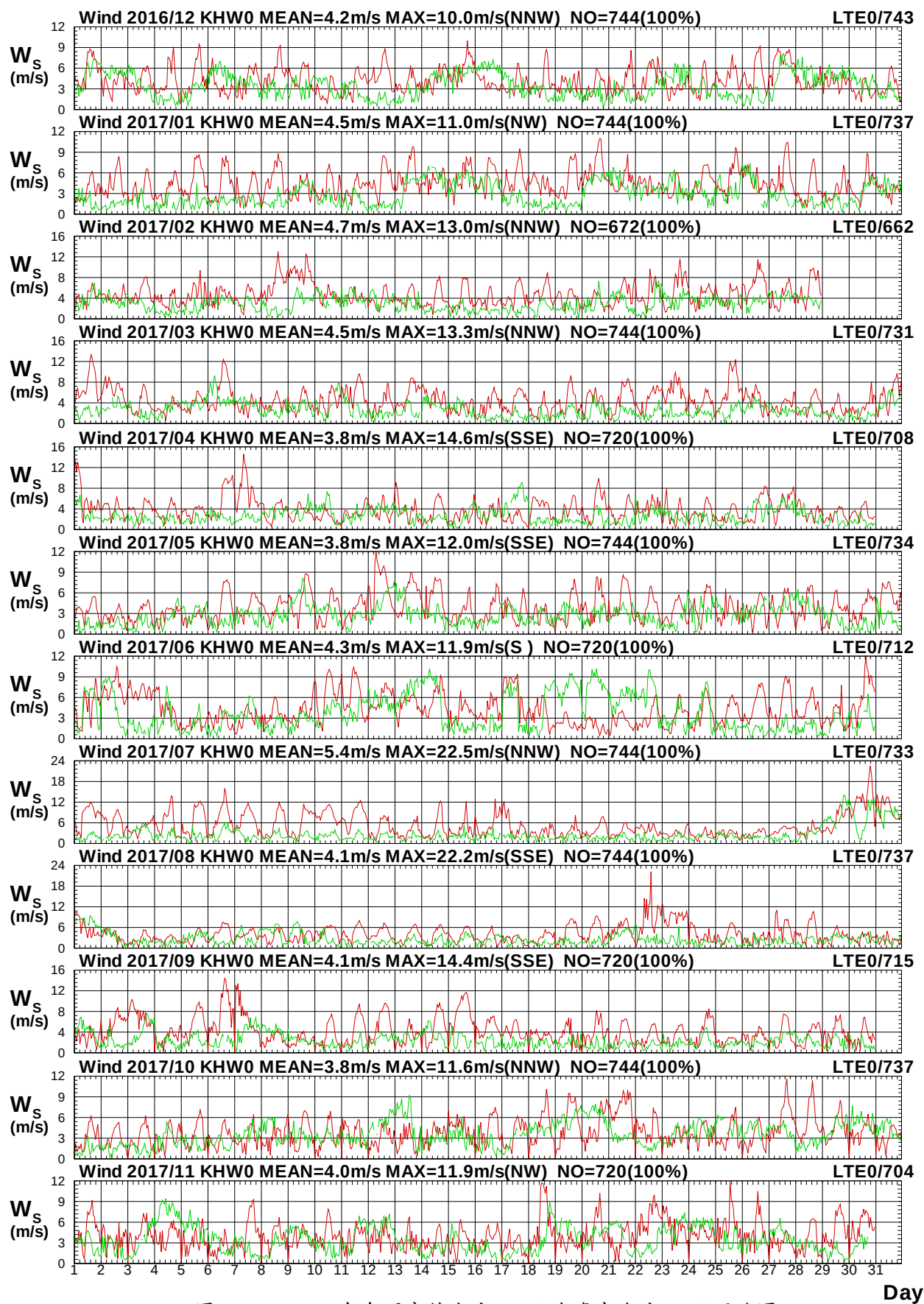


圖1.13a 2017年每月高雄海域 W 站與臺東海域 E 站風速圖

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W173KHW0.1HA W173LTE0.1H0 W174KHW0.1HA W174LTE0.1H0 W175KHW0.1HA W175LTE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

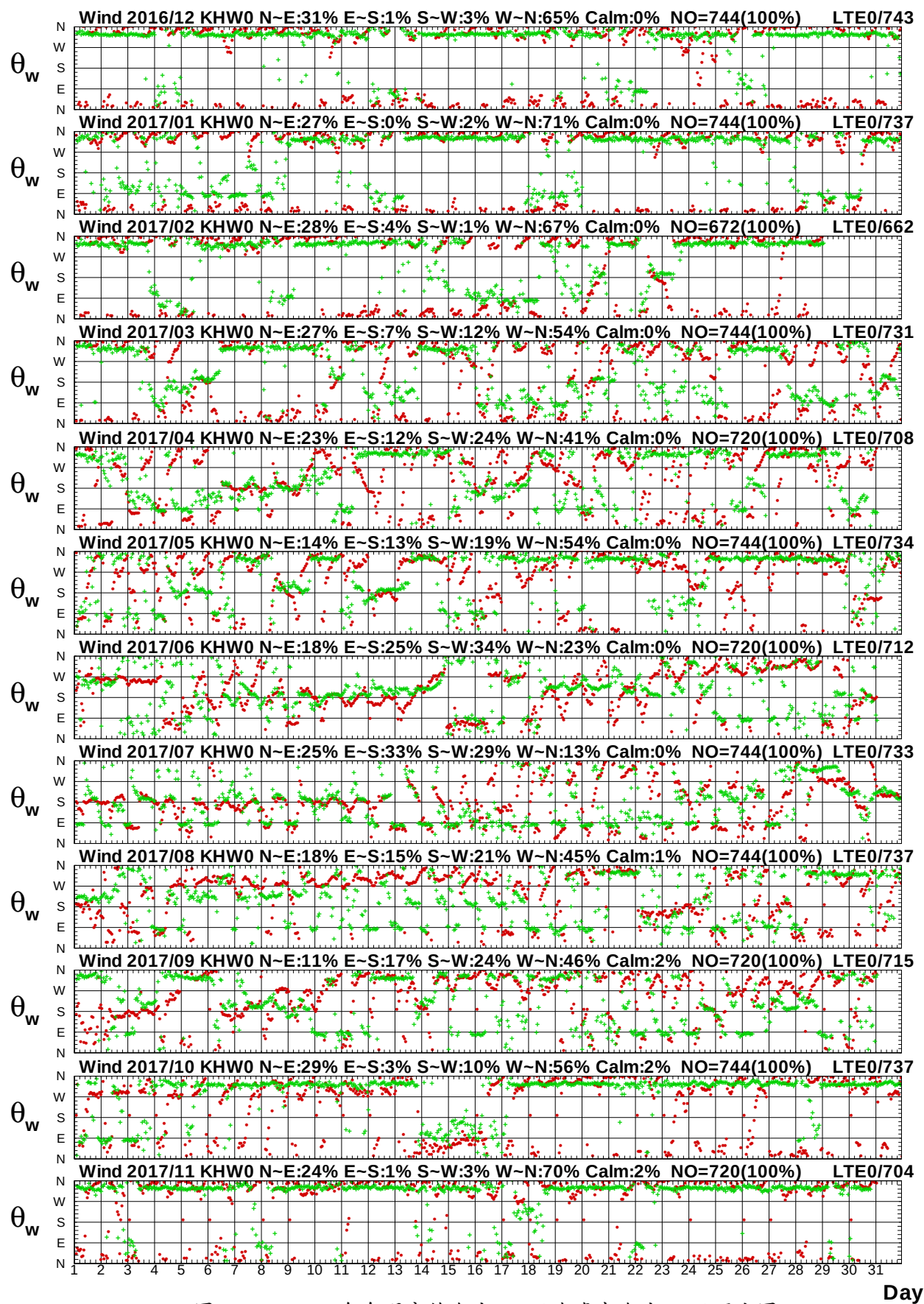


圖1.13b 2017年每月高雄海域 W 站與臺東海域 E 站風向圖

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

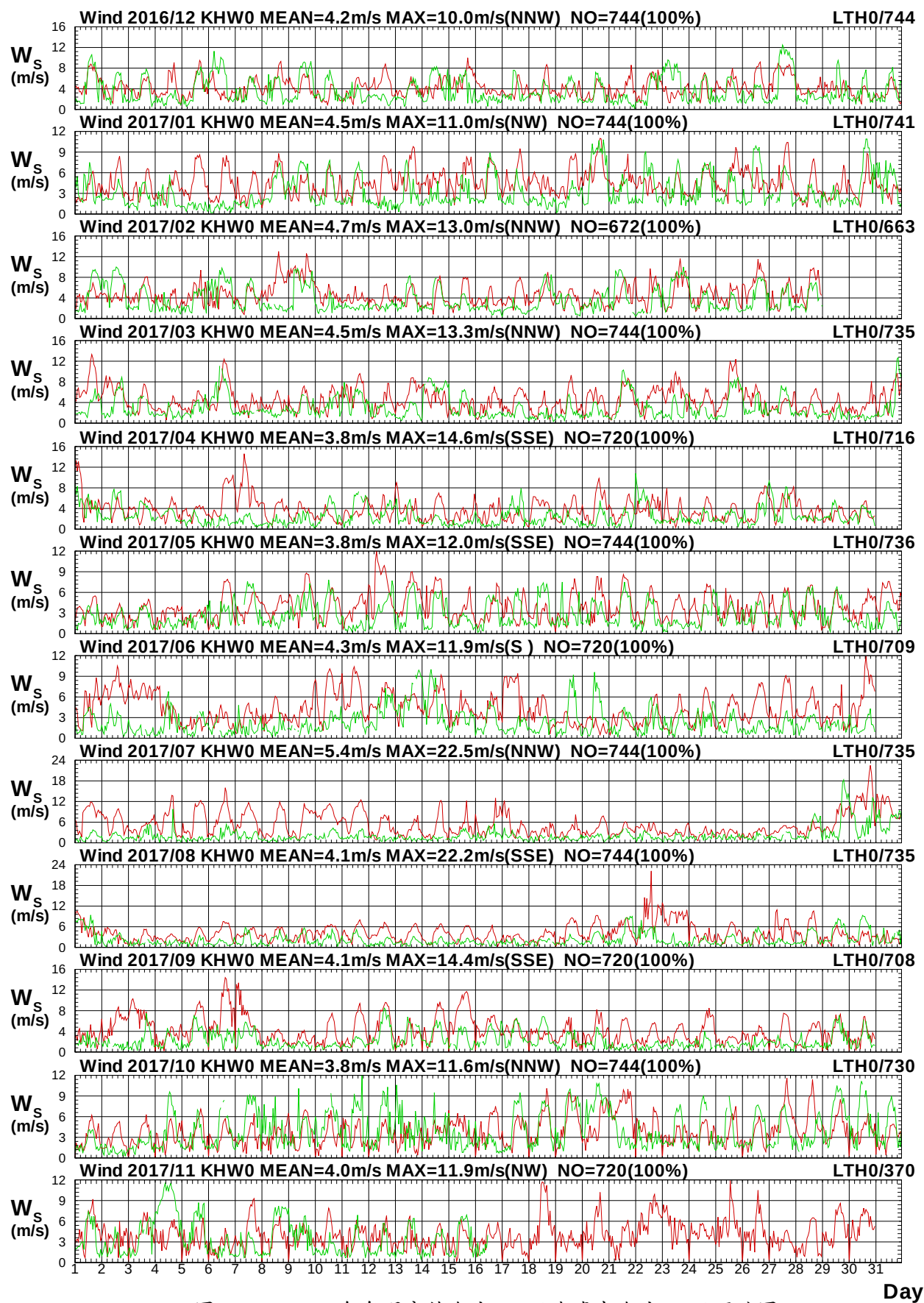


圖1.14a 2017年每月高雄海域 W 站與臺東海域 H 站風速圖

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W173KHW0.1HA W173LTH0.1H0 W174KHW0.1HA W174LTH0.1H0 W175KHW0.1HA W175LTH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

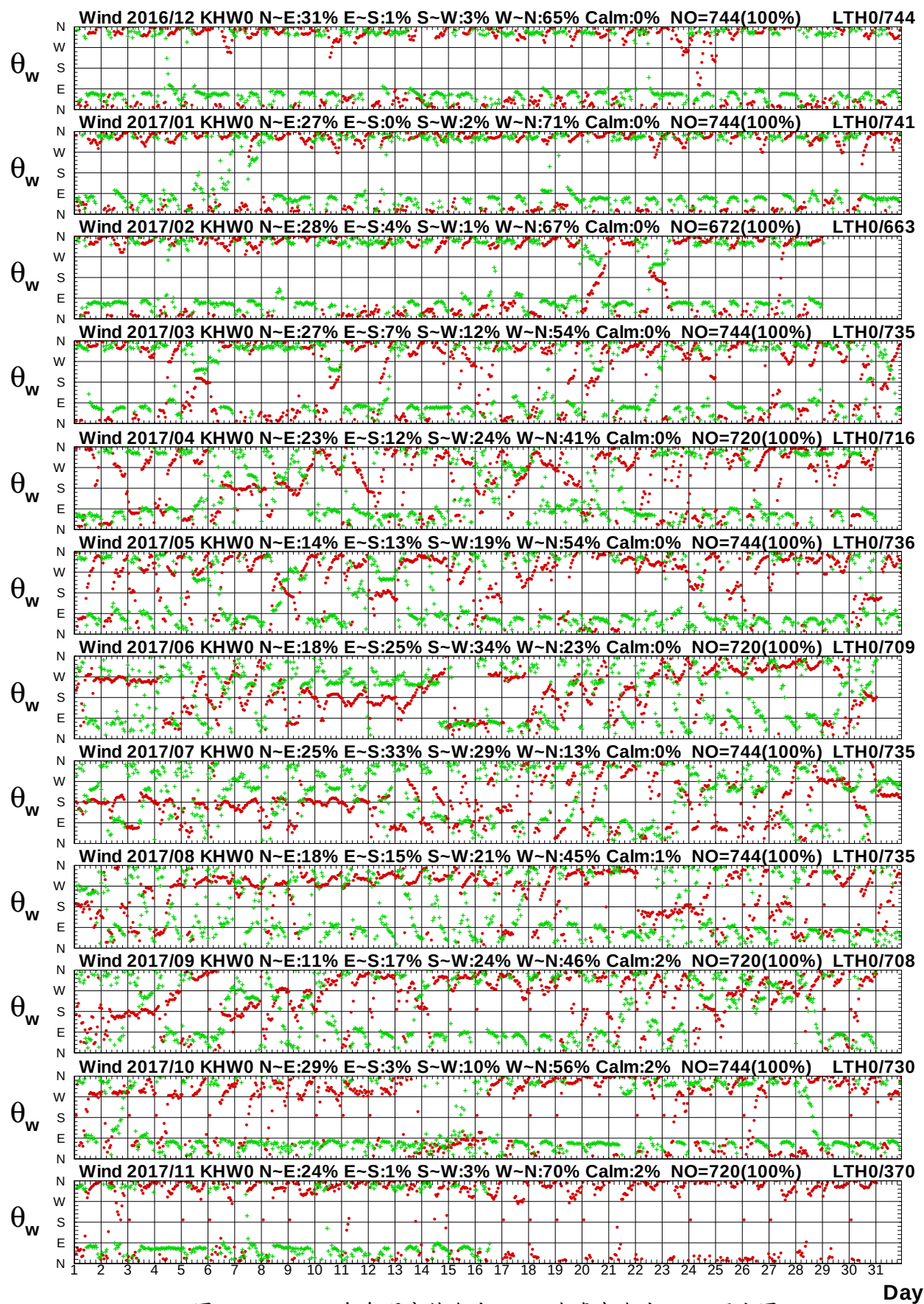


圖1.14b 2017年每月高雄海域 W 站與臺東海域 H 站風向圖

W16CKHW0.1HA W16CLTH0.1H0 W171KHW0.1HA W171LTH0.1H0 W172KHW0.1HA W172LTH0.1H0
W173KHW0.1HA W173LTH0.1H0 W174KHW0.1HA W174LTH0.1H0 W175KHW0.1HA W175LTH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

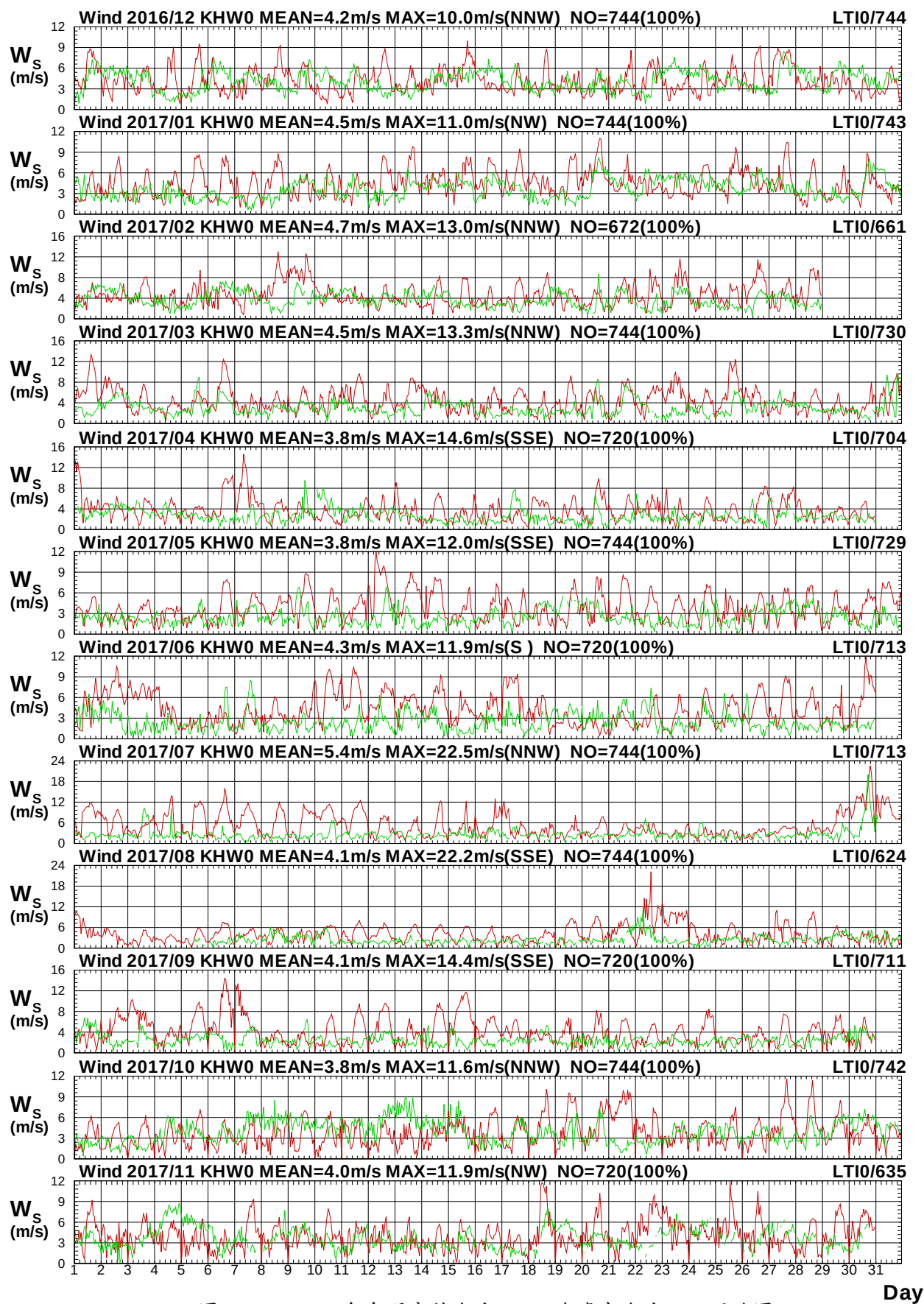


圖1.15a 2017年每月高雄海域 W 站與臺東海域 I 站風速圖

W16CKHW0.1HA W16CLTI0.1H0 W171KHW0.1HA W171LTIO.1H0 W172KHW0.1HA W172LTIO.1H0
W173KHW0.1HA W173LTIO.1H0 W174KHW0.1HA W174LTIO.1H0 W175KHW0.1HA W175LTIO.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

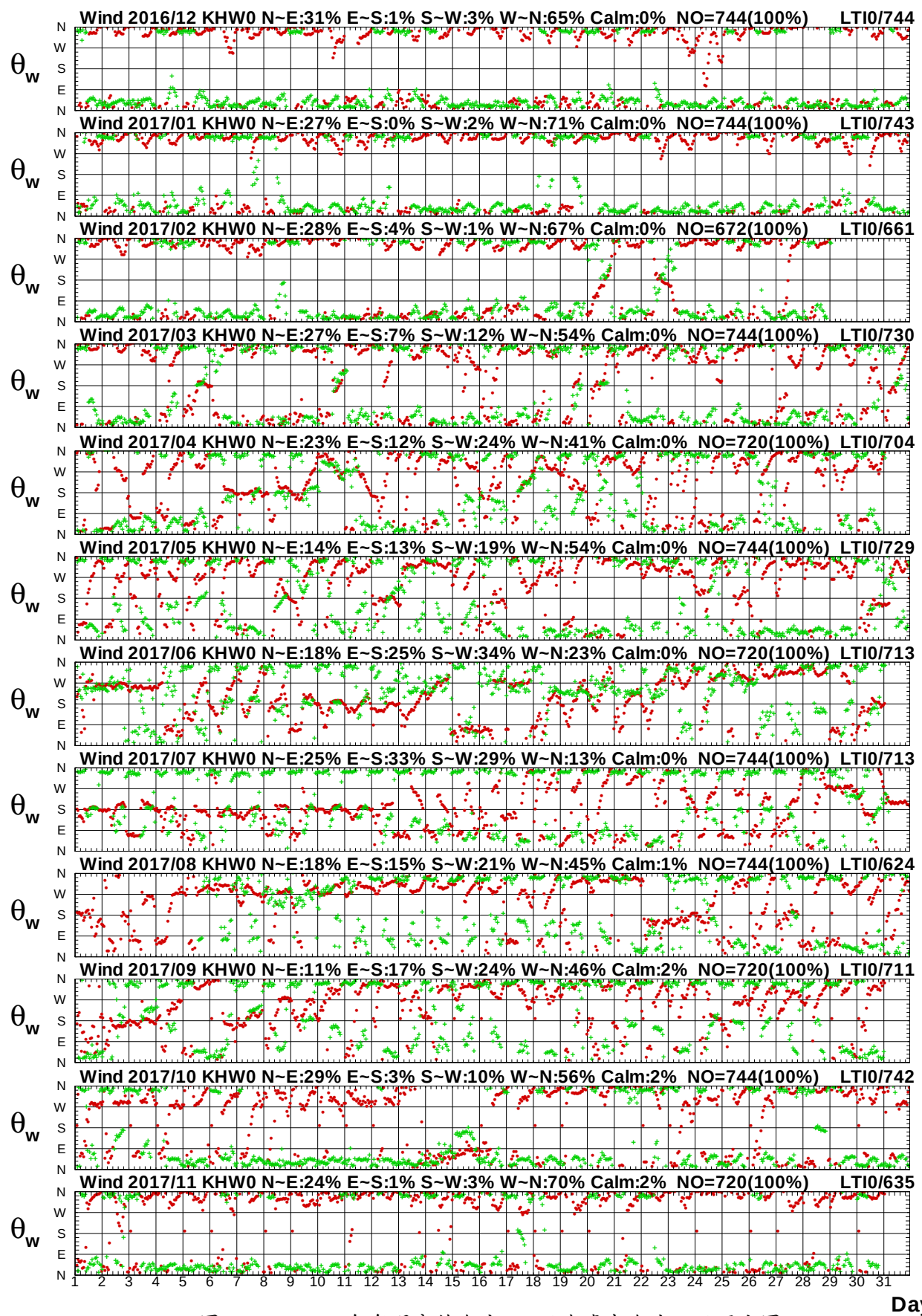


圖1.15b 2017年每月高雄海域 W 站與臺東海域 I 站風向圖

W16CKHW0.1HA W16CLTI0.1H0 W171KHW0.1HA W171LT10.1H0 W172KHW0.1HA W172LT10.1H0
W173KHW0.1HA W173LT10.1H0 W174KHW0.1HA W174LT10.1H0 W175KHW0.1HA W175LT10.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

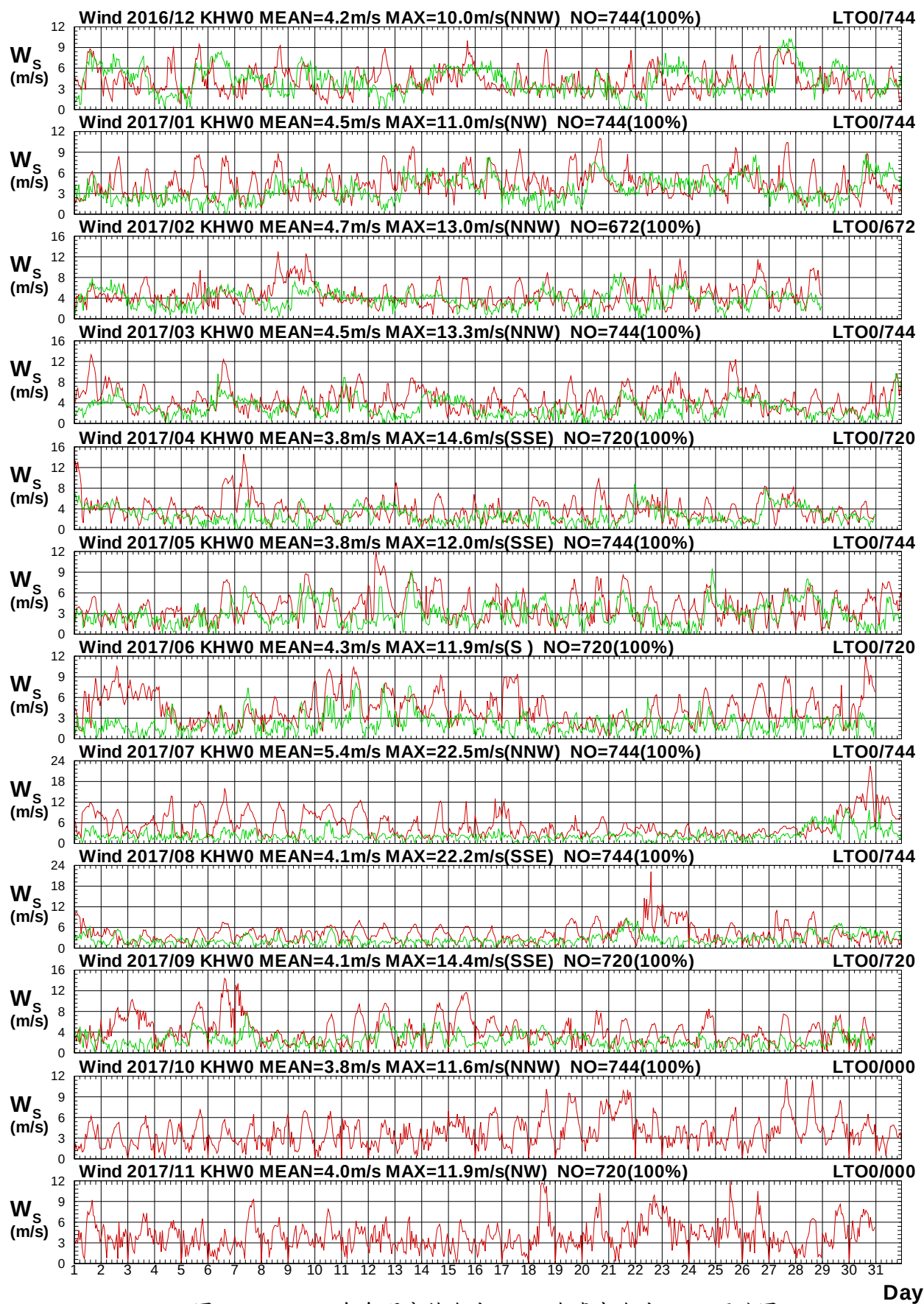


圖1.16a 2017年每月高雄海域 W 站與臺東海域 O 站風速圖

W16CKHW0.1HA W16CLTO0.1H0 W171KHW0.1HA W171LTO0.1H0 W172KHW0.1HA W172LTO0.1H0
W173KHW0.1HA W173LTO0.1H0 W174KHW0.1HA W174LTO0.1H0 W175KHW0.1HA W175LTO0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

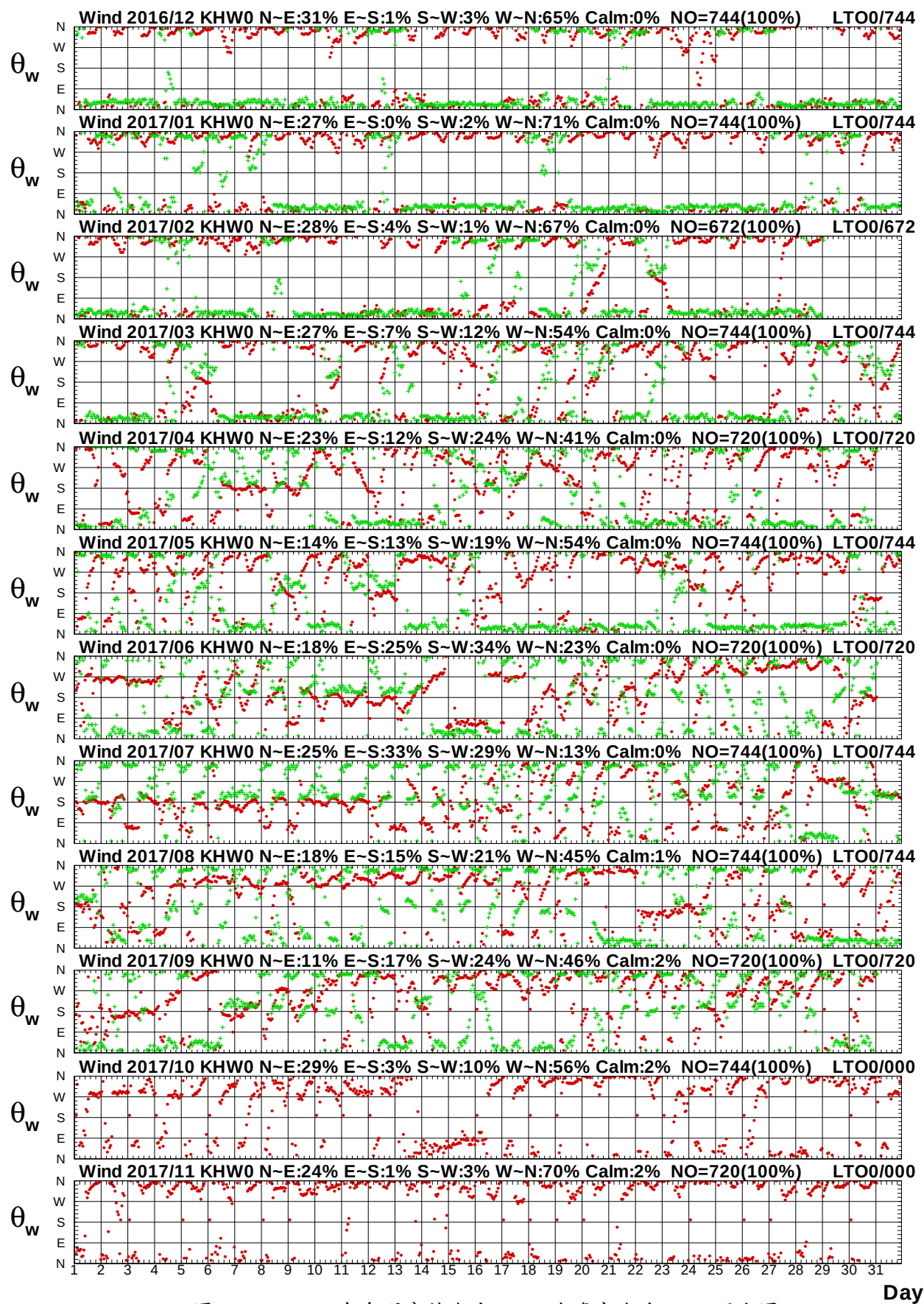


圖1.16b 2017年每月高雄海域 W 站與臺東海域 O 站風向圖

W16CKHW0.1HA W16CLTO0.1H0 W171KHW0.1HA W171LTO0.1H0 W172KHW0.1HA W172LTO0.1H0
W173KHW0.1HA W173LTO0.1H0 W174KHW0.1HA W174LTO0.1H0 W175KHW0.1HA W175LTO0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

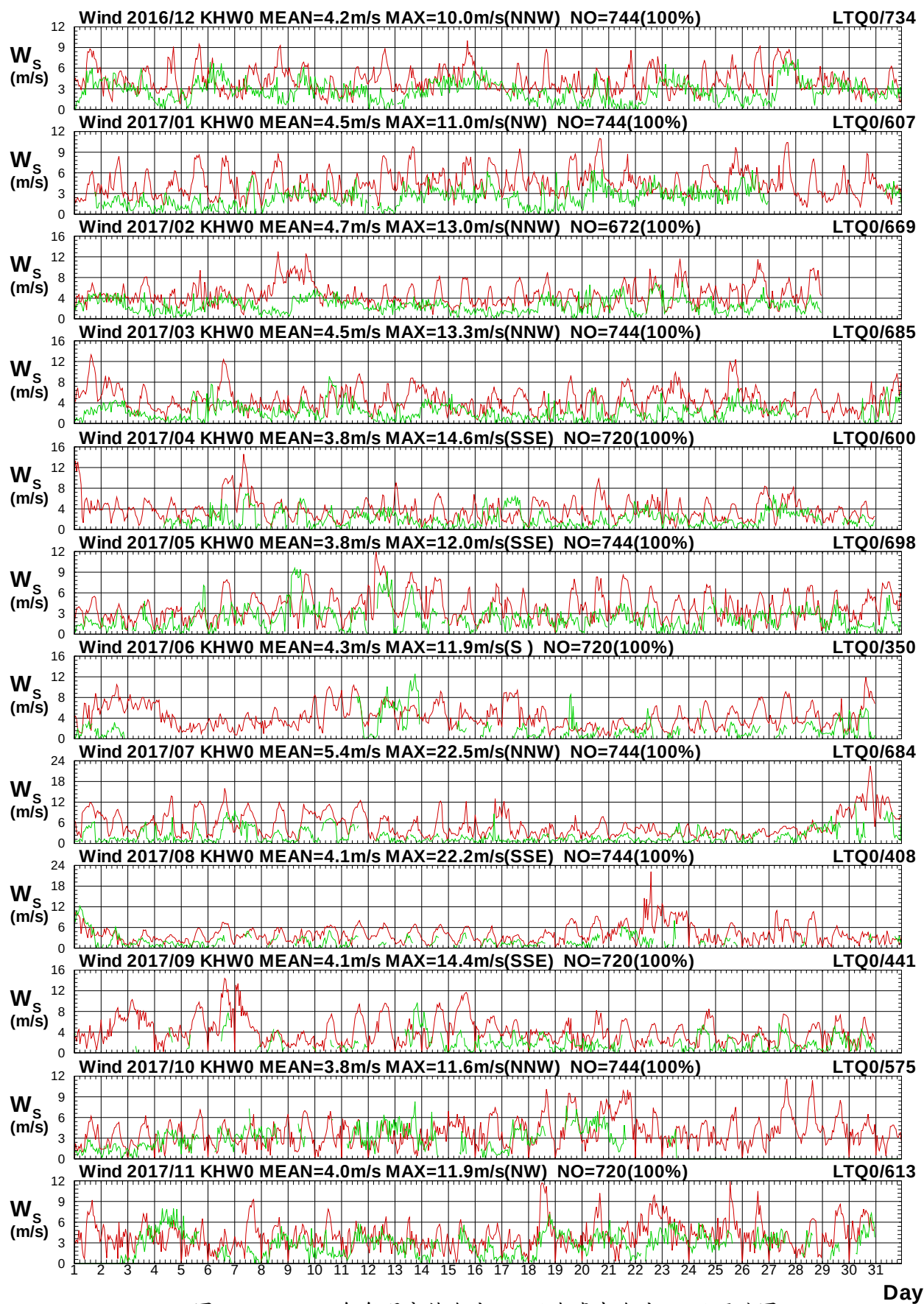


圖1.17a 2017年每月高雄海域 W 站與臺東海域 Q 站風速圖

W16CKHW0.1HA W16CLTQ0.1H0 W171KHW0.1HA W171LTQ0.1H0 W172KHW0.1HA W172LTQ0.1H0
W173KHW0.1HA W173LTQ0.1H0 W174KHW0.1HA W174LTQ0.1H0 W175KHW0.1HA W175LTQ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

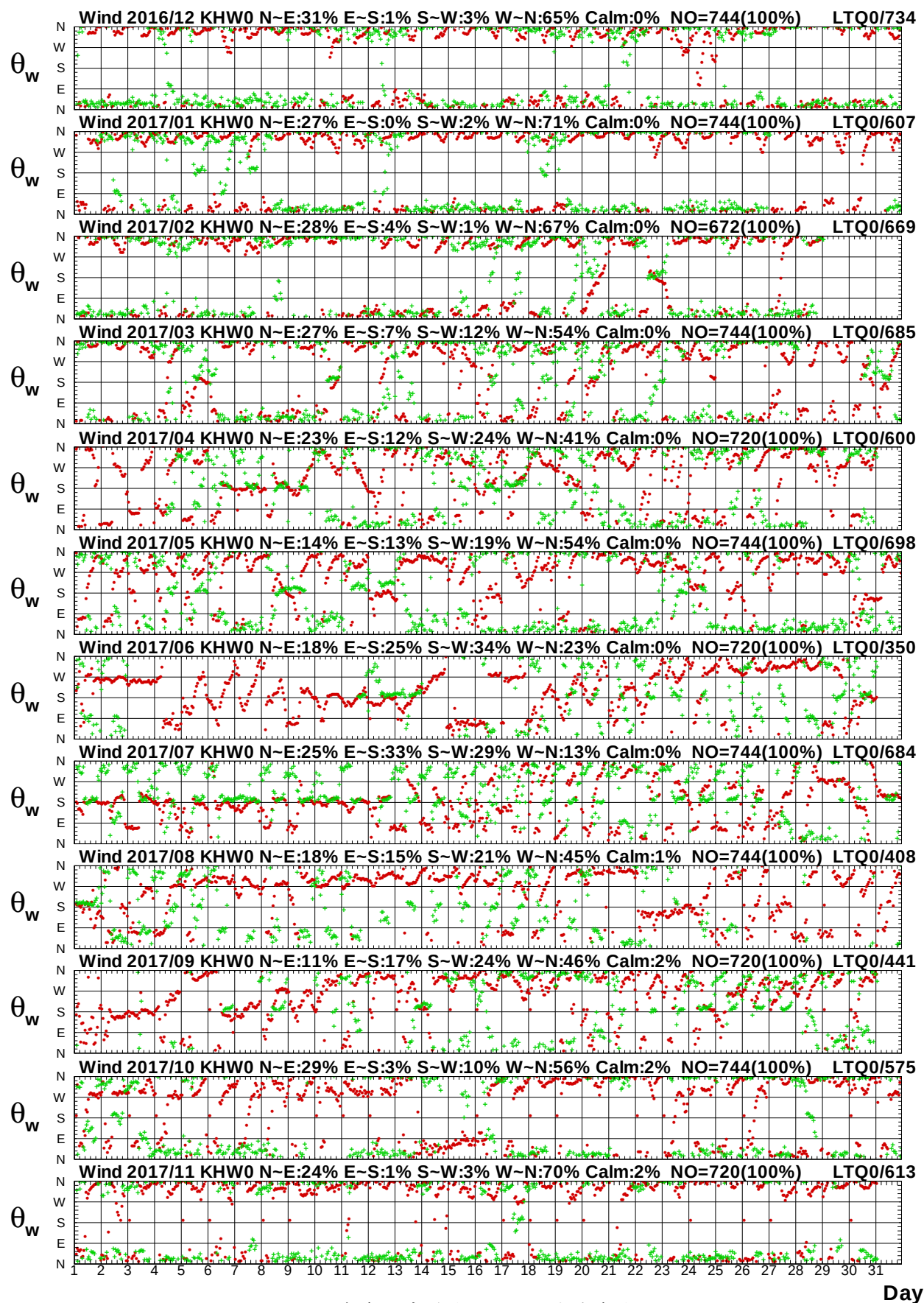


圖1.17b 2017年每月高雄海域 W 站與臺東海域 Q 站風向圖

W16CKHW0.1HA W16CLTQ0.1H0 W171KHW0.1HA W171LTQ0.1H0 W172KHW0.1HA W172LTQ0.1H0
W173KHW0.1HA W173LTQ0.1H0 W174KHW0.1HA W174LTQ0.1H0 W175KHW0.1HA W175LTQ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

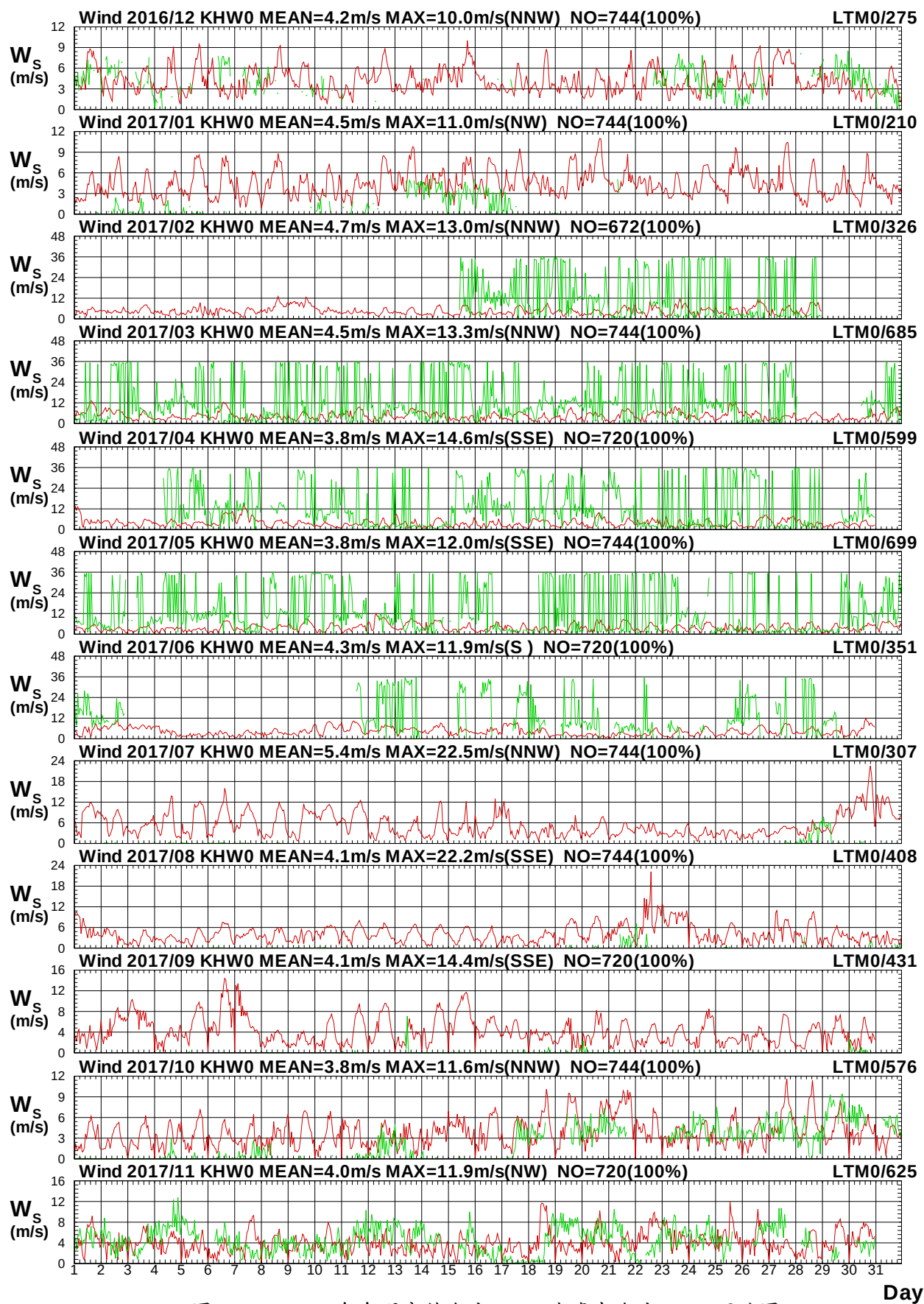


圖1.18a 2017年每月高雄海域 W 站與臺東海域 M 站風速圖

W16CKHW0.1HA W16CLTM0.1H0 W171KHW0.1HA W171LTM0.1H0 W172KHW0.1HA W172LTM0.1H0
W173KHW0.1HA W173LTM0.1H0 W174KHW0.1HA W174LTM0.1H0 W175KHW0.1HA W175LTM0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

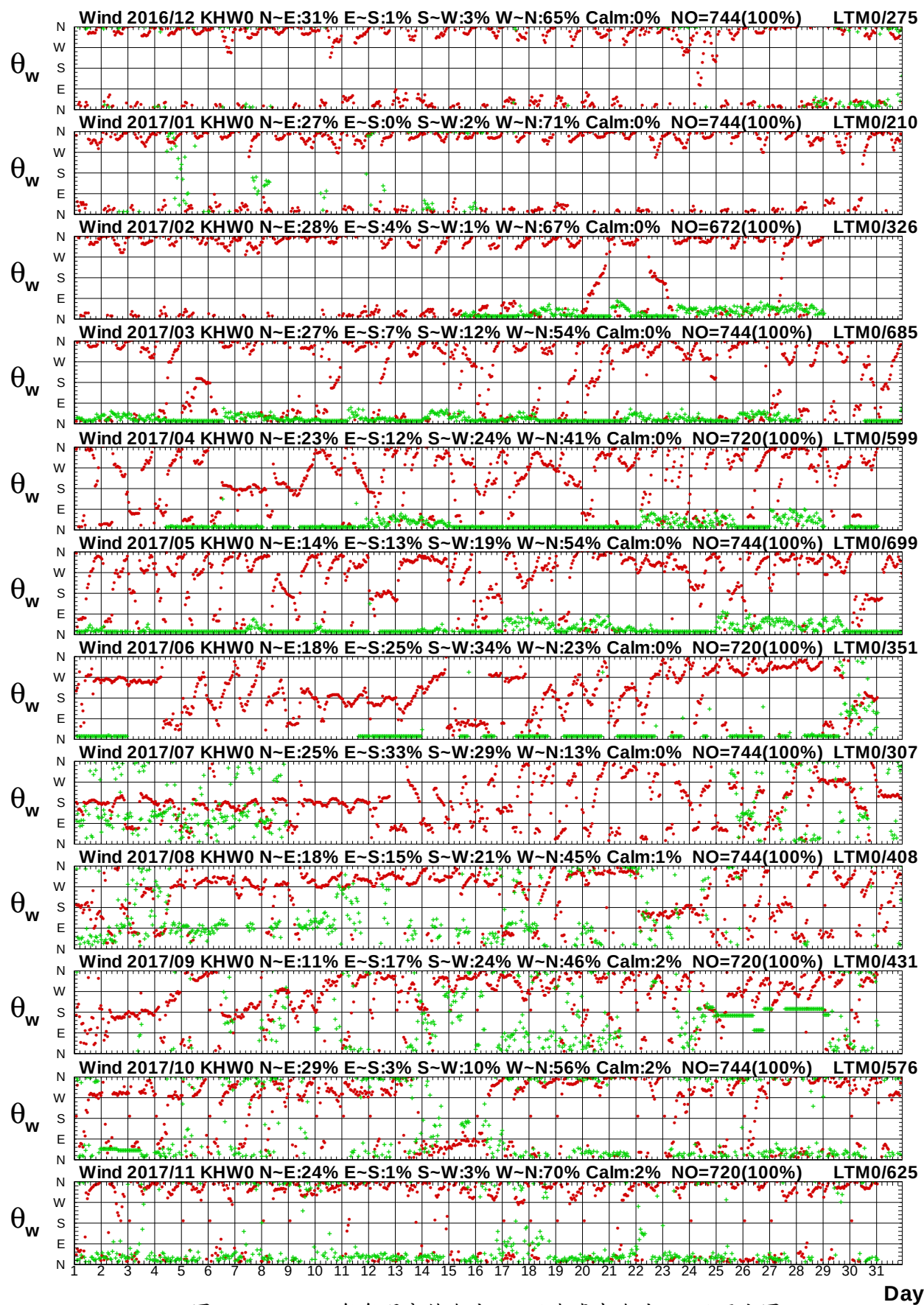


圖1.18b 2017年每月高雄海域 W 站與臺東海域 M 站風向圖

W16CKHW0.1HA W16CLTM0.1H0 W171KHW0.1HA W171LTM0.1H0 W172KHW0.1HA W172LTM0.1H0
W173KHW0.1HA W173LTM0.1H0 W174KHW0.1HA W174LTM0.1H0 W175KHW0.1HA W175LTM0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

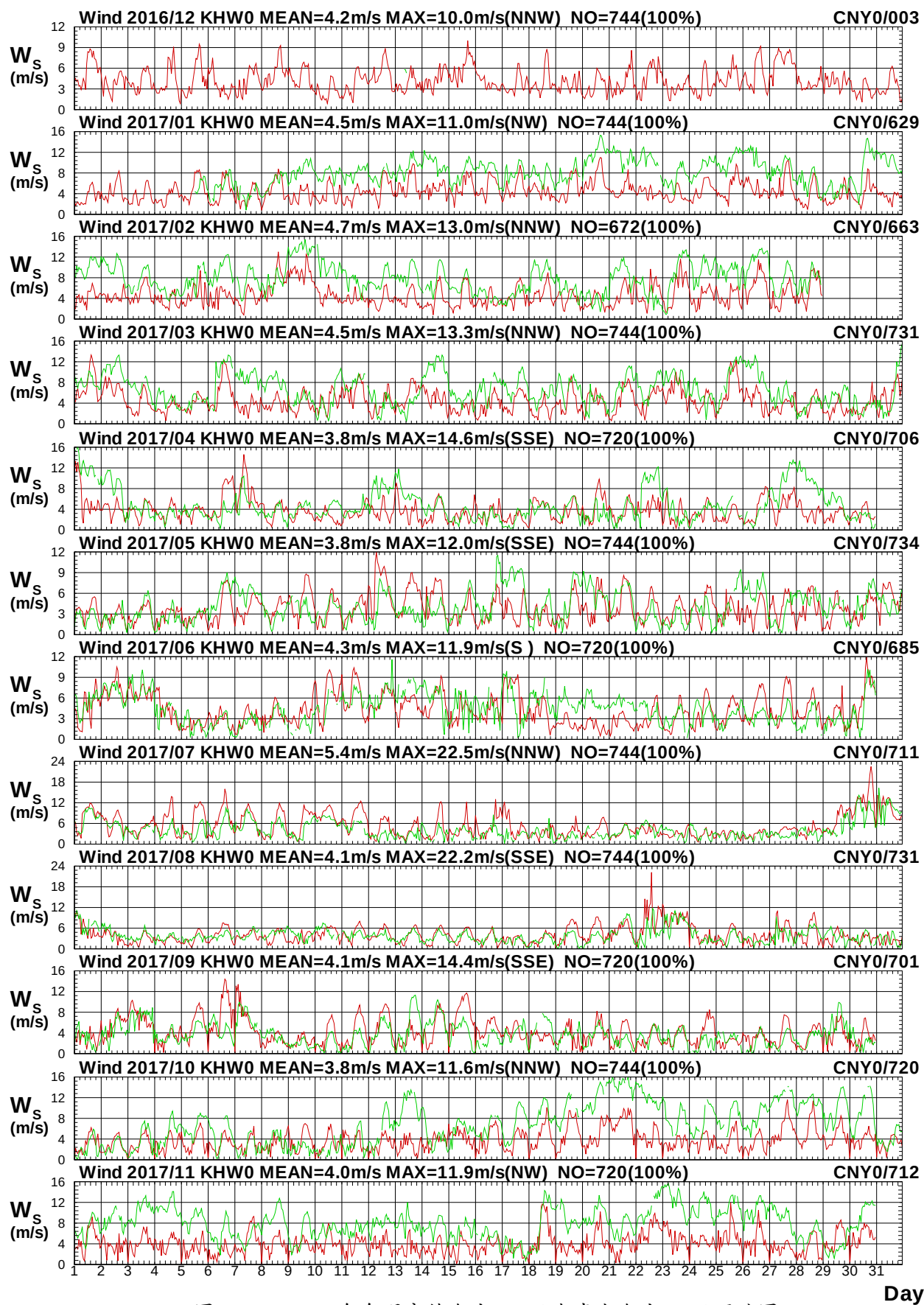


圖1.19a 2017年每月高雄海域 W 站與嘉南海域 Y 站風速圖

W16CKHW0.1HA W16CCNY0.1H0 W171KHW0.1HA W171CNY0.1H0 W172KHW0.1HA W172CNY0.1H0
W173KHW0.1HA W173CNY0.1H0 W174KHW0.1HA W174CNY0.1H0 W175KHW0.1HA W175CNY0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

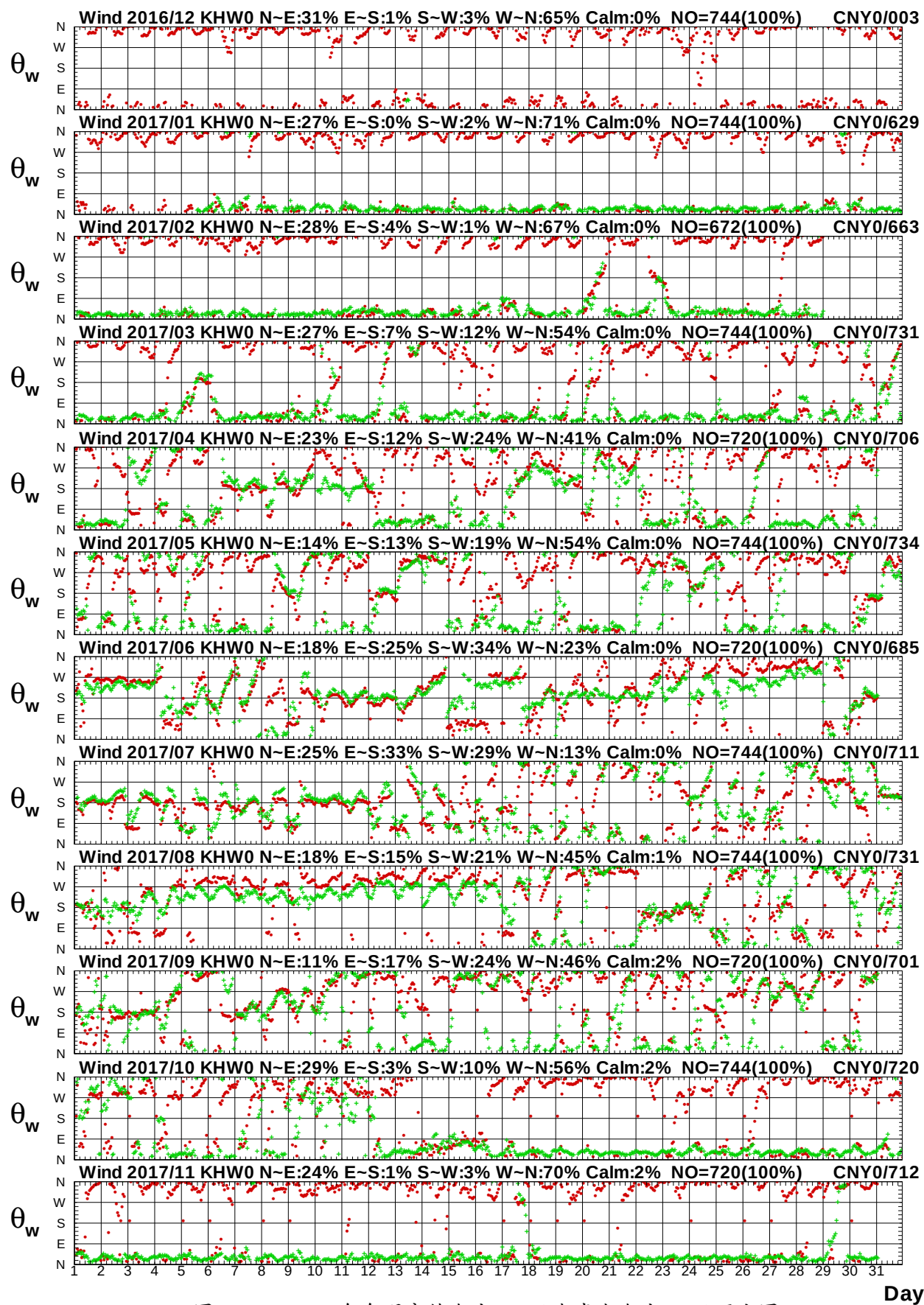


圖1.19b 2017年每月高雄海域 W 站與嘉南海域 Y 站風向圖

W16CKHW0.1HA W16CCNY0.1H0 W171KHW0.1HA W171CNY0.1H0 W172KHW0.1HA W172CNY0.1H0
W173KHW0.1HA W173CNY0.1H0 W174KHW0.1HA W174CNY0.1H0 W175KHW0.1HA W175CNY0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

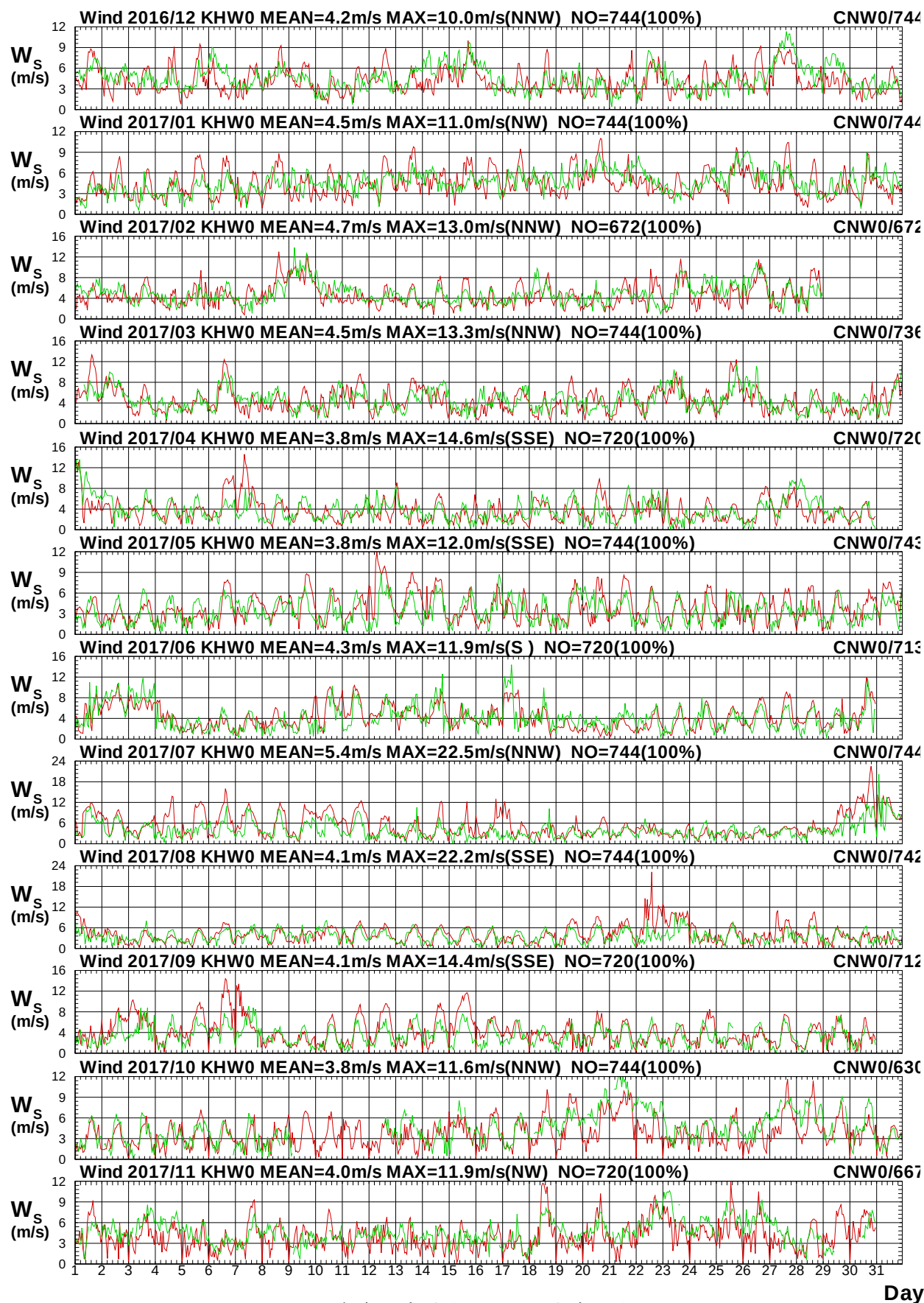


圖1.20a 2017年每月高雄海域 W 站與嘉南海域 W 站風速圖

W16CKHW0.1HA W16CCNW0.1H0 W171KHW0.1HA W171CNW0.1H0 W172KHW0.1HA W172CNW0.1H0

W173KHW0.1HA W173CNW0.1H0 W174KHW0.1HA W174CNW0.1H0 W175KHW0.1HA W175CNW0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

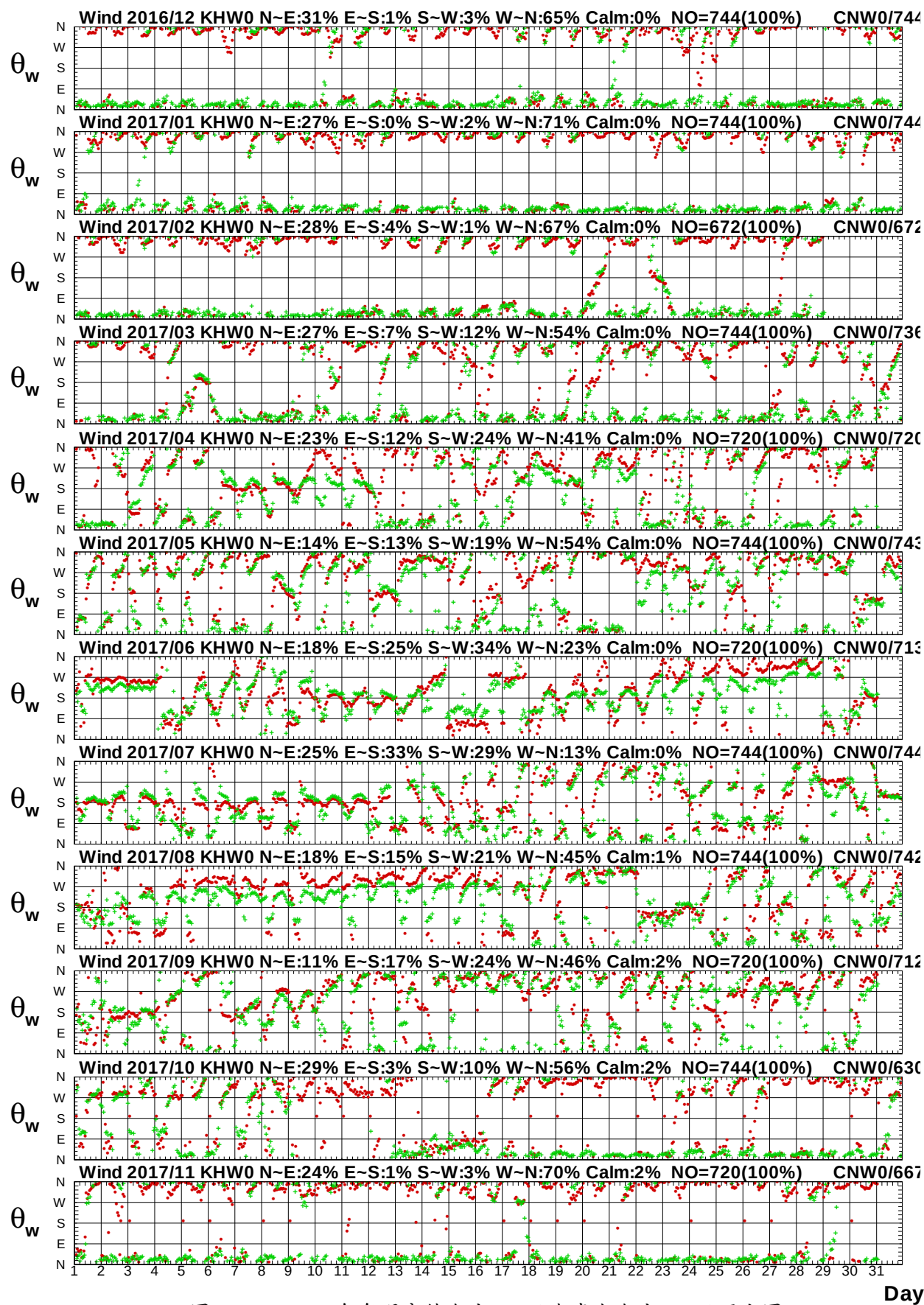


圖1.20b 2017年每月高雄海域 W 站與嘉南海域 W 站風向圖

W16CKHW0.1HA W16CCNW0.1H0 W171KHW0.1HA W171CNW0.1H0 W172KHW0.1HA W172CNW0.1H0

W173KHW0.1HA W173CNW0.1H0 W174KHW0.1HA W174CNW0.1H0 W175KHW0.1HA W175CNW0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

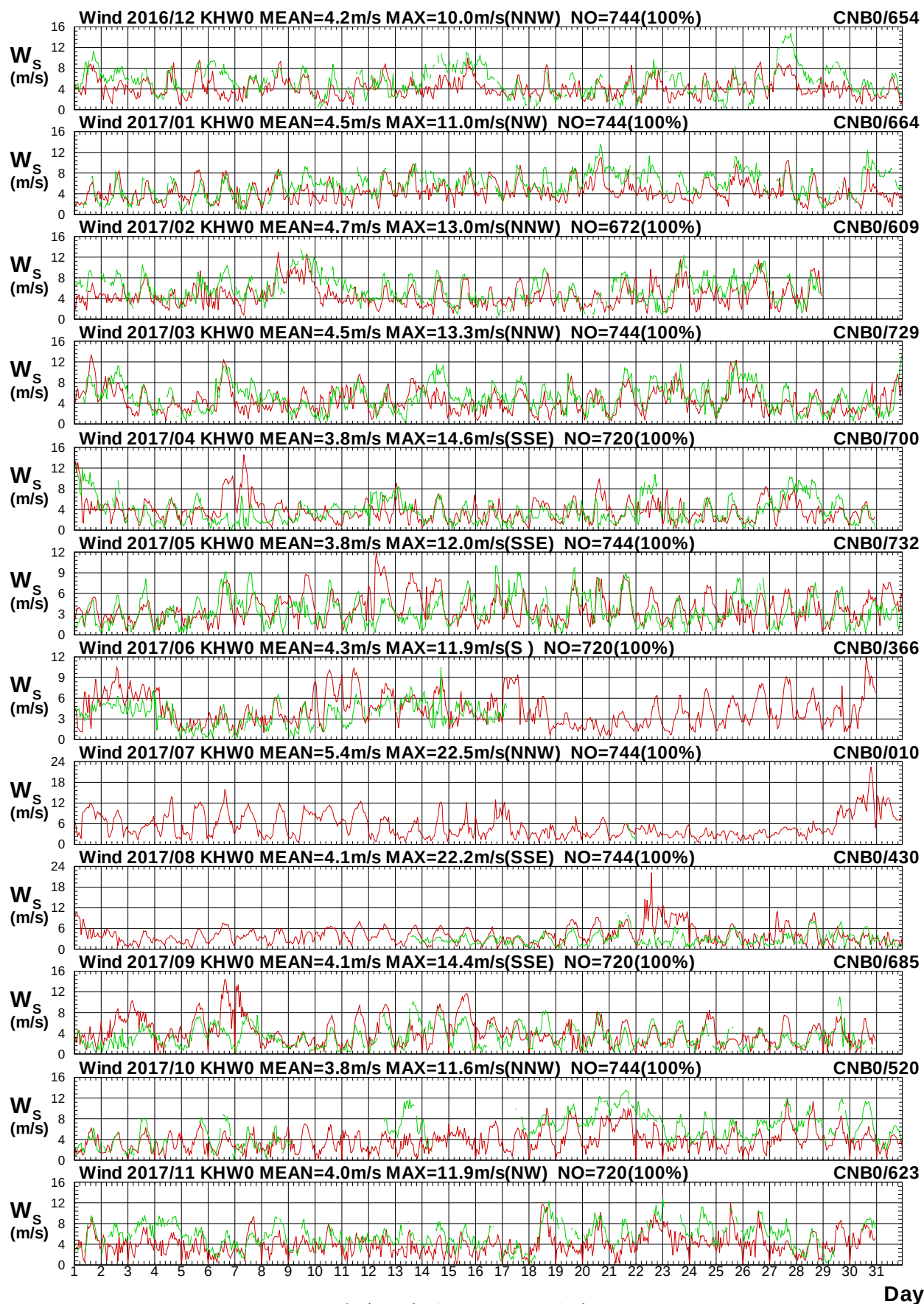


圖1.21a 2017年每月高雄海域 W 站與嘉南海域 B 站風速圖

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W173KHW0.1HA W173CNB0.1H0 W174KHW0.1HA W174CNB0.1H0 W175KHW0.1HA W175CNB0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

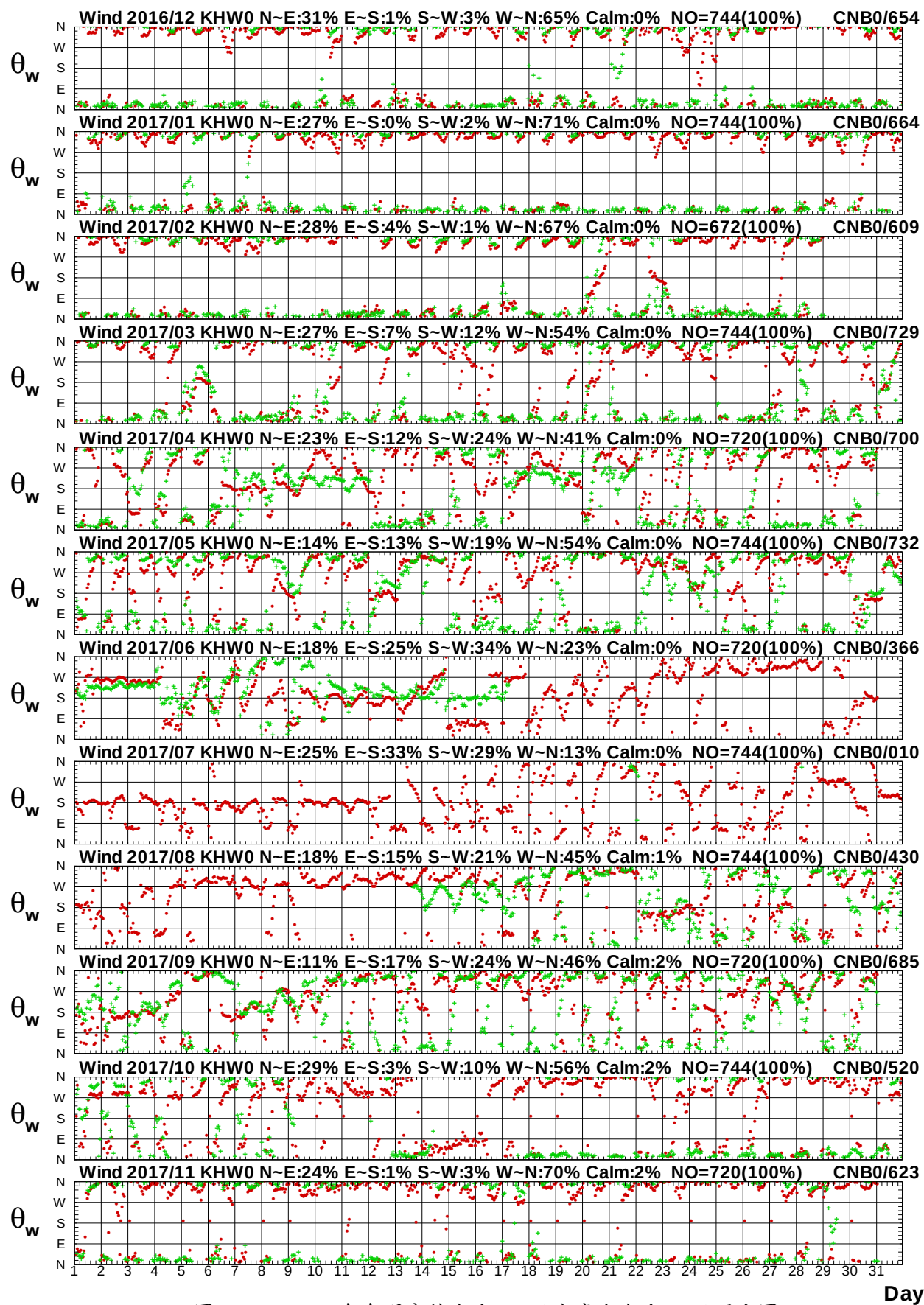


圖1.21b 2017年每月高雄海域 W 站與嘉南海域 B 站風向圖

W16CKHW0.1HA W16CCNB0.1H0 W171KHW0.1HA W171CNB0.1H0 W172KHW0.1HA W172CNB0.1H0
W173KHW0.1HA W173CNB0.1H0 W174KHW0.1HA W174CNB0.1H0 W175KHW0.1HA W175CNB0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

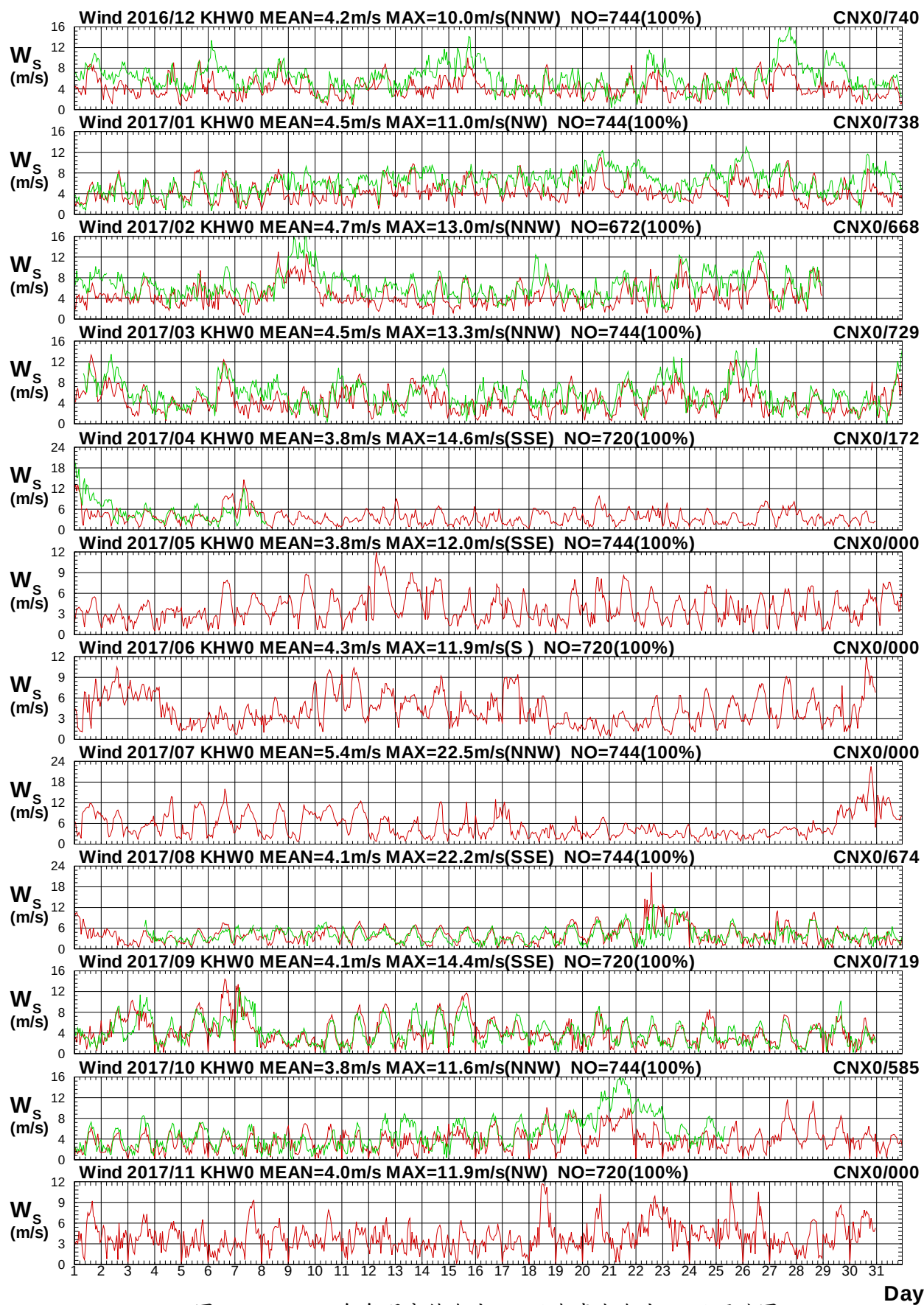


圖1.22a 2017年每月高雄海域 W 站與嘉南海域 X 站風速圖

W16CKHW0.1HA W16CCNX0.1H0 W171KHW0.1HA W171CNX0.1H0 W172KHW0.1HA W172CNX0.1H0
W173KHW0.1HA W173CNX0.1H0 W174KHW0.1HA W174CNX0.1H0 W175KHW0.1HA W175CNX0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

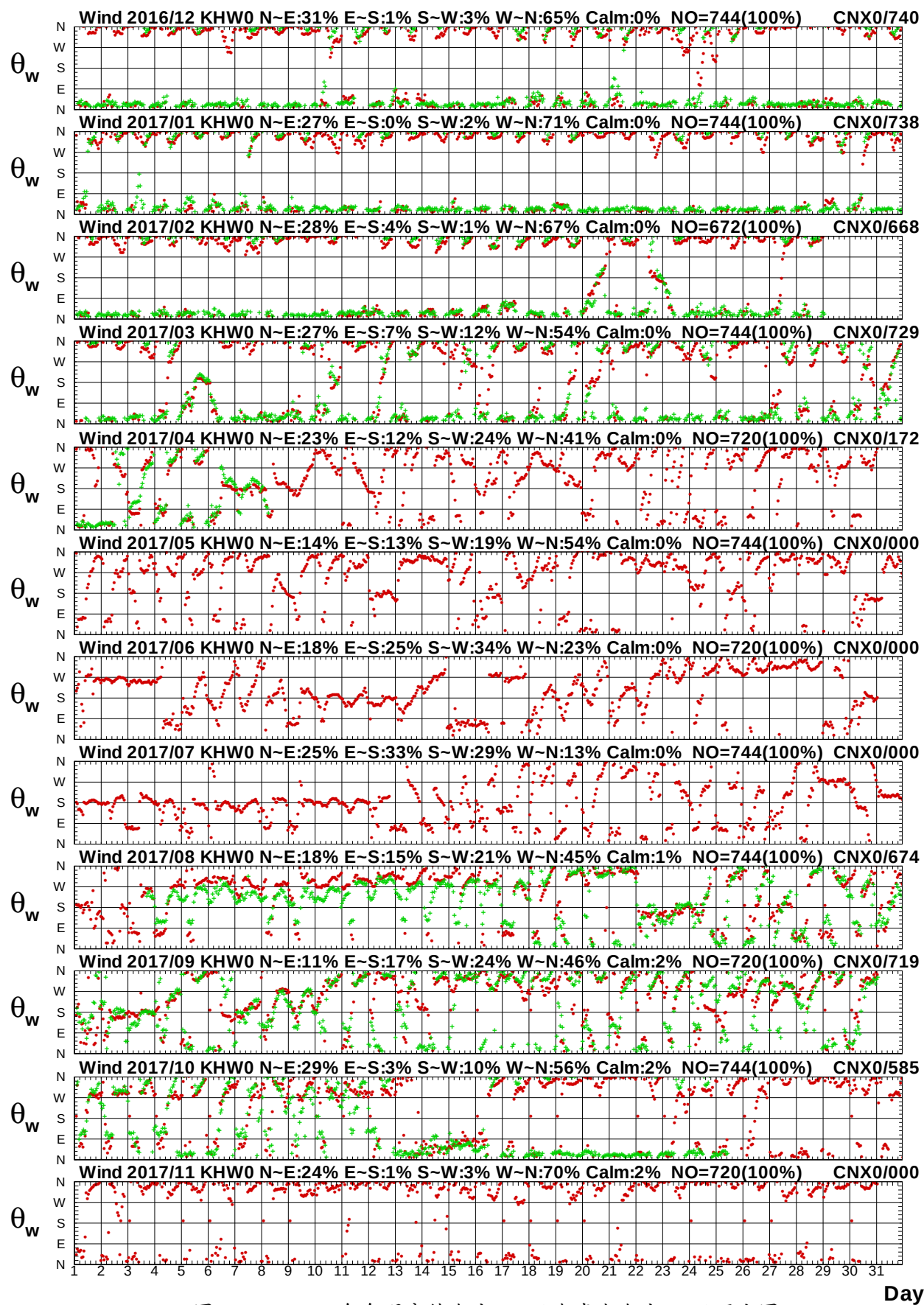


圖1.22b 2017年每月高雄海域 W 站與嘉南海域 X 站風向圖

W16CKHW0.1HA W16CCNX0.1H0 W171KHW0.1HA W171CNX0.1H0 W172KHW0.1HA W172CNX0.1H0
W173KHW0.1HA W173CNX0.1H0 W174KHW0.1HA W174CNX0.1H0 W175KHW0.1HA W175CNX0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

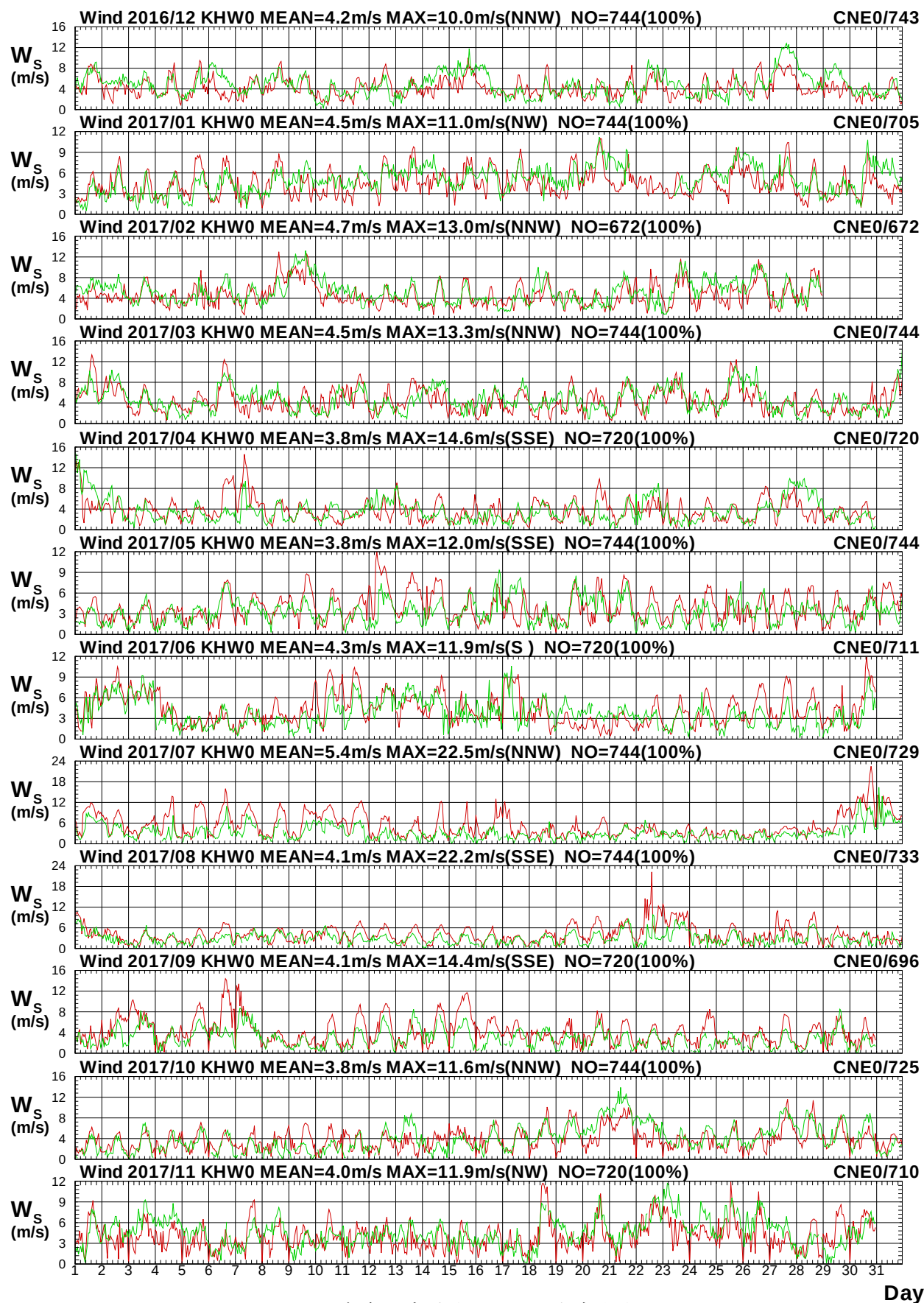


圖1.23a 2017年每月高雄海域 W 站與嘉南海域 E 站風速圖

W16CKHW0.1HA W16CCNE0.1H0 W171KHW0.1HA W171CNE0.1H0 W172KHW0.1HA W172CNE0.1H0
W173KHW0.1HA W173CNE0.1H0 W174KHW0.1HA W174CNE0.1H0 W175KHW0.1HA W175CNE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

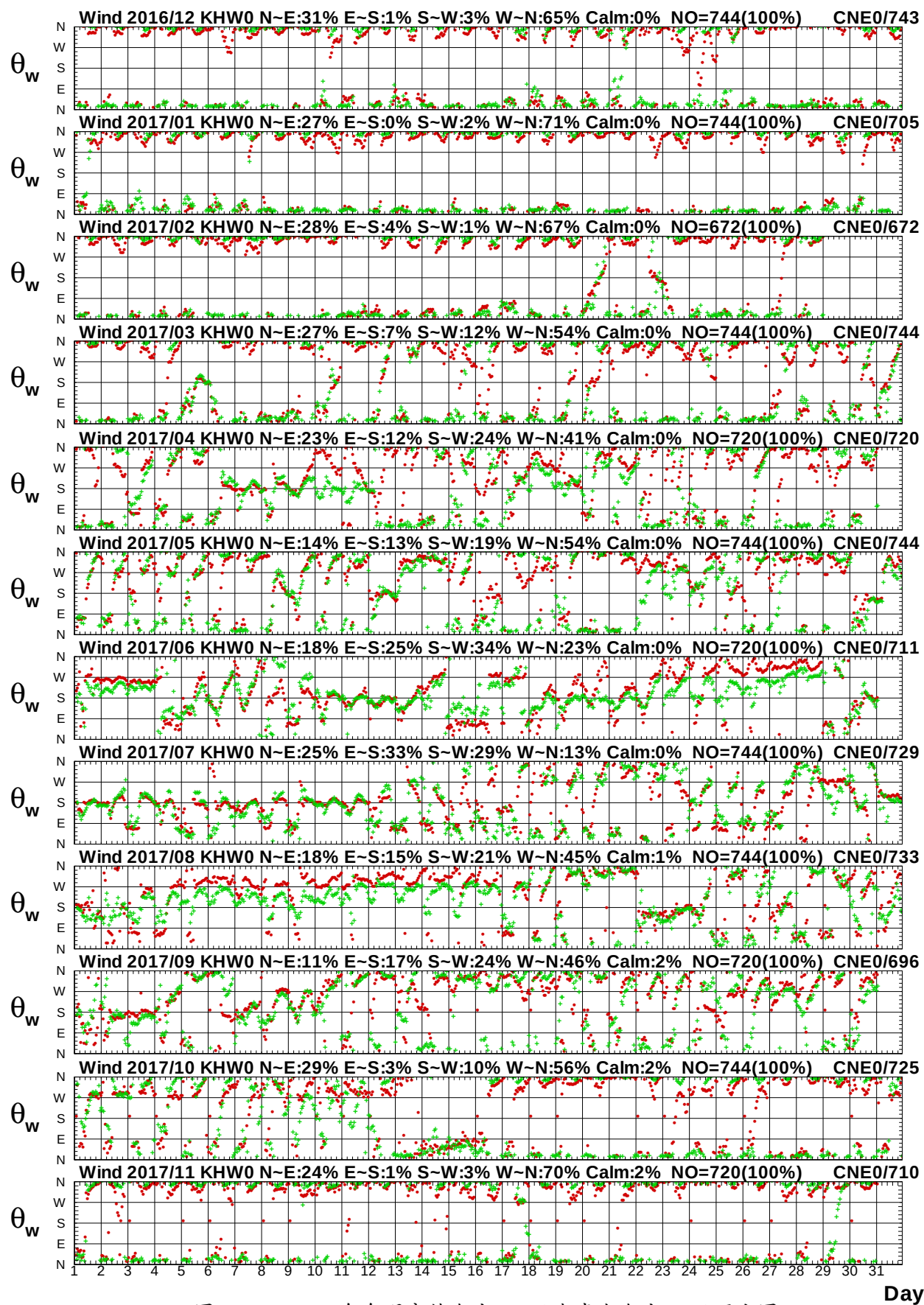


圖1.23b 2017年每月高雄海域 W 站與嘉南海域 E 站風向圖

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W173KHW0.1HA W173CNE0.1H0 W174KHW0.1HA W174CNE0.1H0 W175KHW0.1HA W175CNE0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

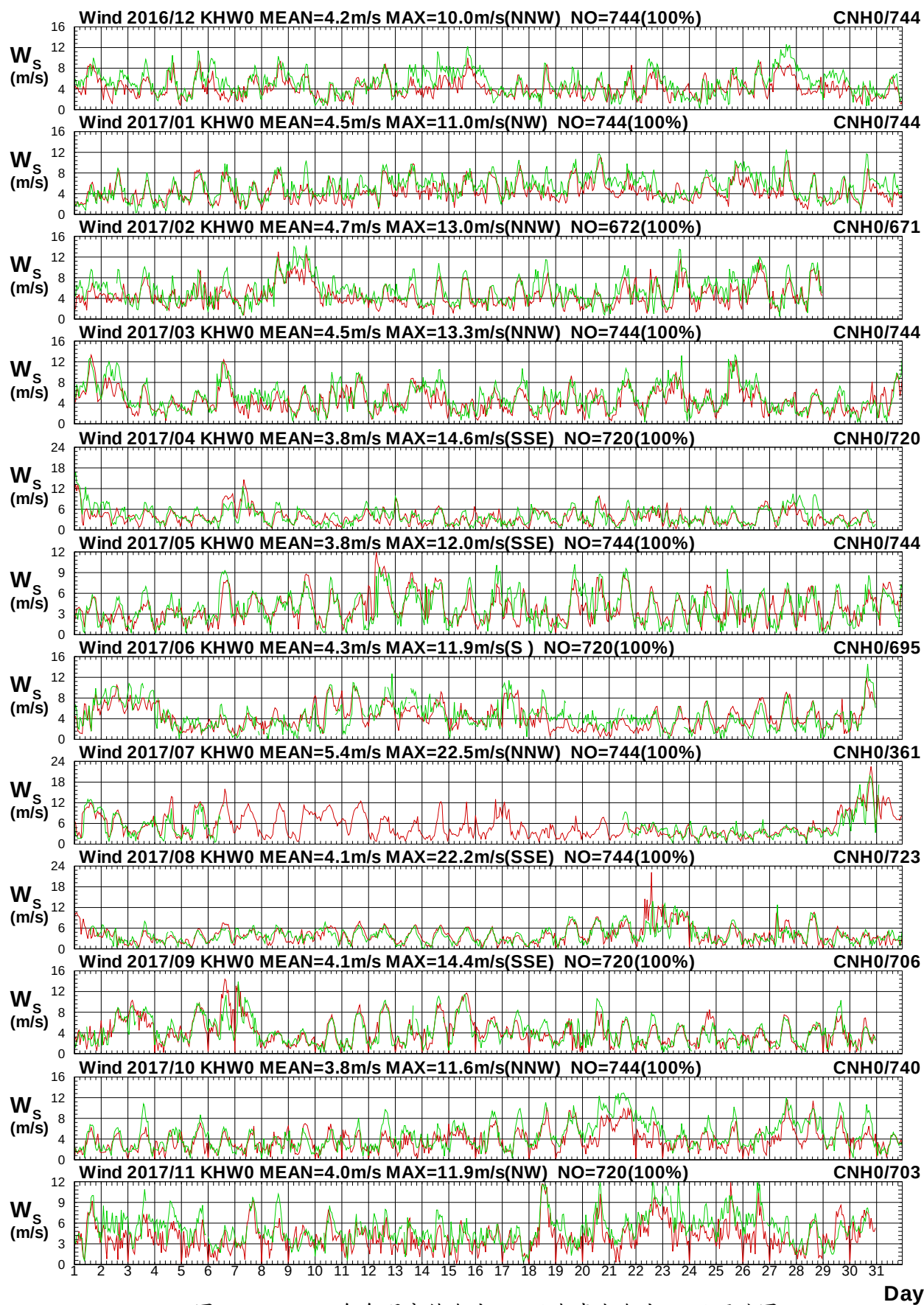


圖1.24a 2017年每月高雄海域 W 站與嘉南海域 H 站風速圖

W16CKHW0.1HA W16CCNH0.1H0 W171KHW0.1HA W171CNH0.1H0 W172KHW0.1HA W172CNH0.1H0
W173KHW0.1HA W173CNH0.1H0 W174KHW0.1HA W174CNH0.1H0 W175KHW0.1HA W175CNH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

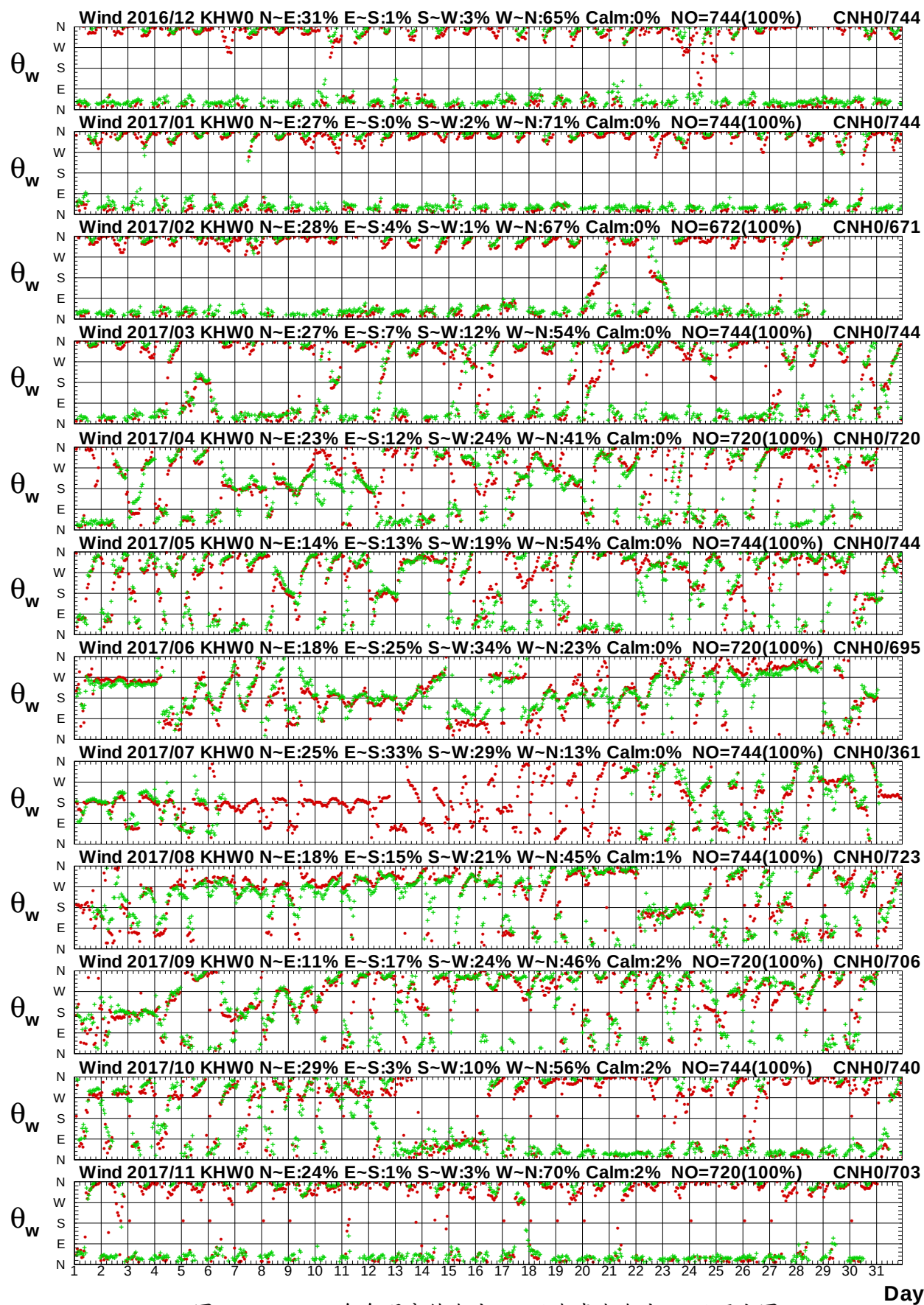


圖1.24b 2017年每月高雄海域 W 站與嘉南海域 H 站風向圖

W16CKHW0.1HA W16CCNH0.1H0 W171KHW0.1HA W171CNH0.1H0 W172KHW0.1HA W172CNH0.1H0
W173KHW0.1HA W173CNH0.1H0 W174KHW0.1HA W174CNH0.1H0 W175KHW0.1HA W175CNH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

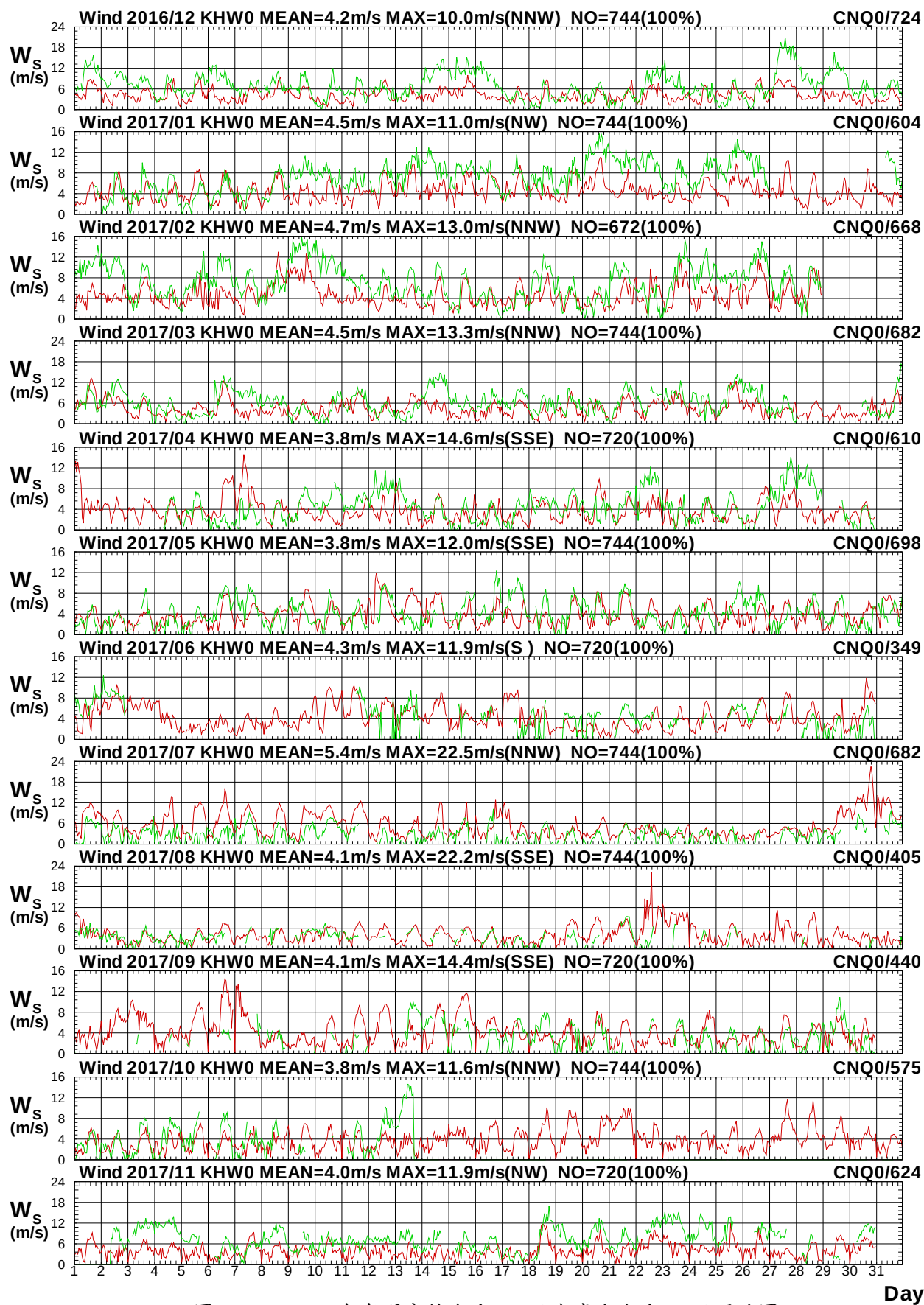


圖1.25a 2017年每月高雄海域 W 站與嘉南海域 Q 站風速圖

W16CKHW0.1HA W16CCNQ0.1H0 W171KHW0.1HA W171CNQ0.1H0 W172KHW0.1HA W172CNQ0.1H0
W173KHW0.1HA W173CNQ0.1H0 W174KHW0.1HA W174CNQ0.1H0 W175KHW0.1HA W175CNQ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

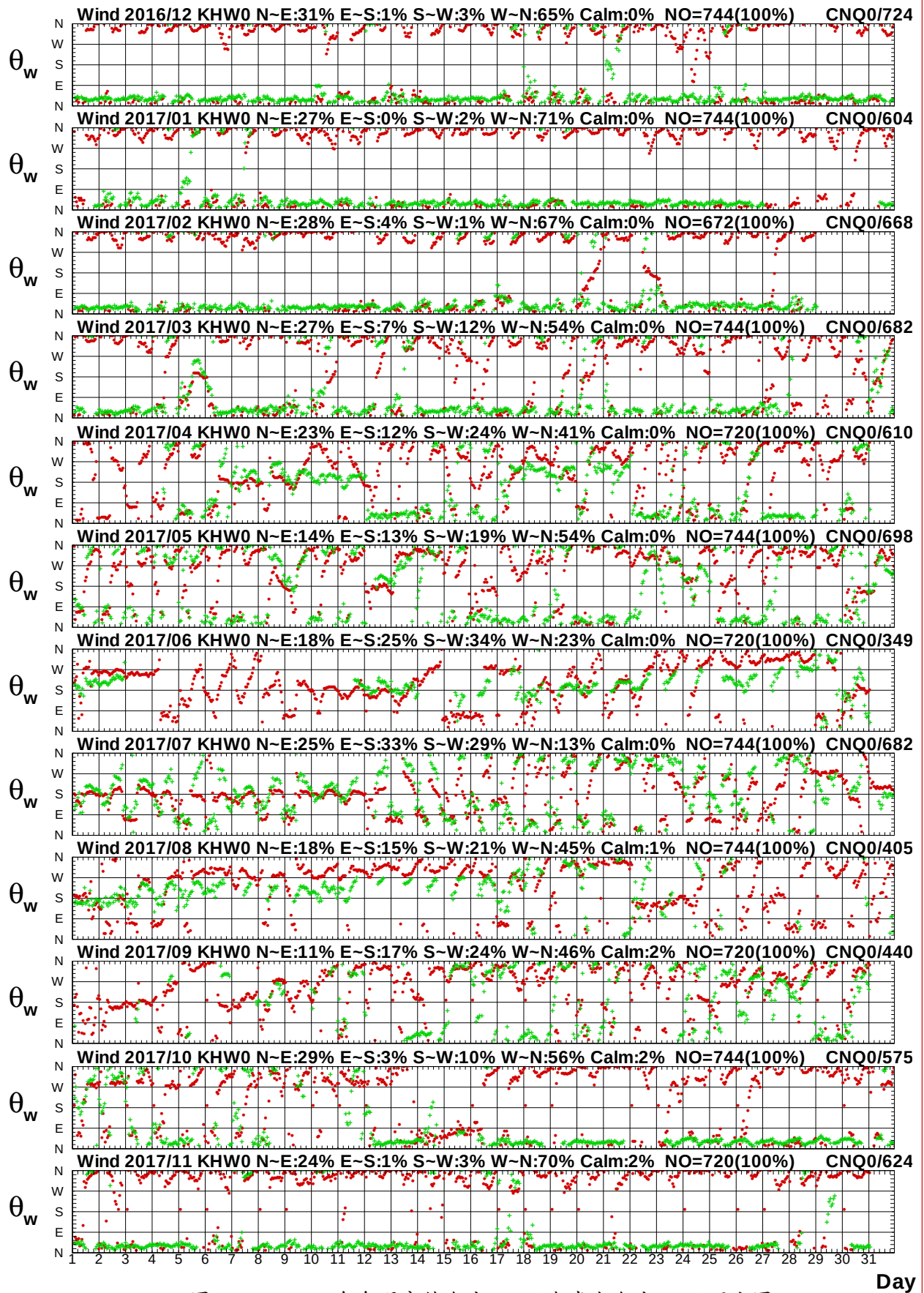


圖1.25b 2017年每月高雄海域 W 站與嘉南海域 Q 站風向圖

W16CKHW0.1HA W16CCNQ0.1H0 W171KHW0.1HA W171CNQ0.1H0 W172KHW0.1HA W172CNQ0.1H0
W173KHW0.1HA W173CNQ0.1H0 W174KHW0.1HA W174CNQ0.1H0 W175KHW0.1HA W175CNQ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHW0 at 2017

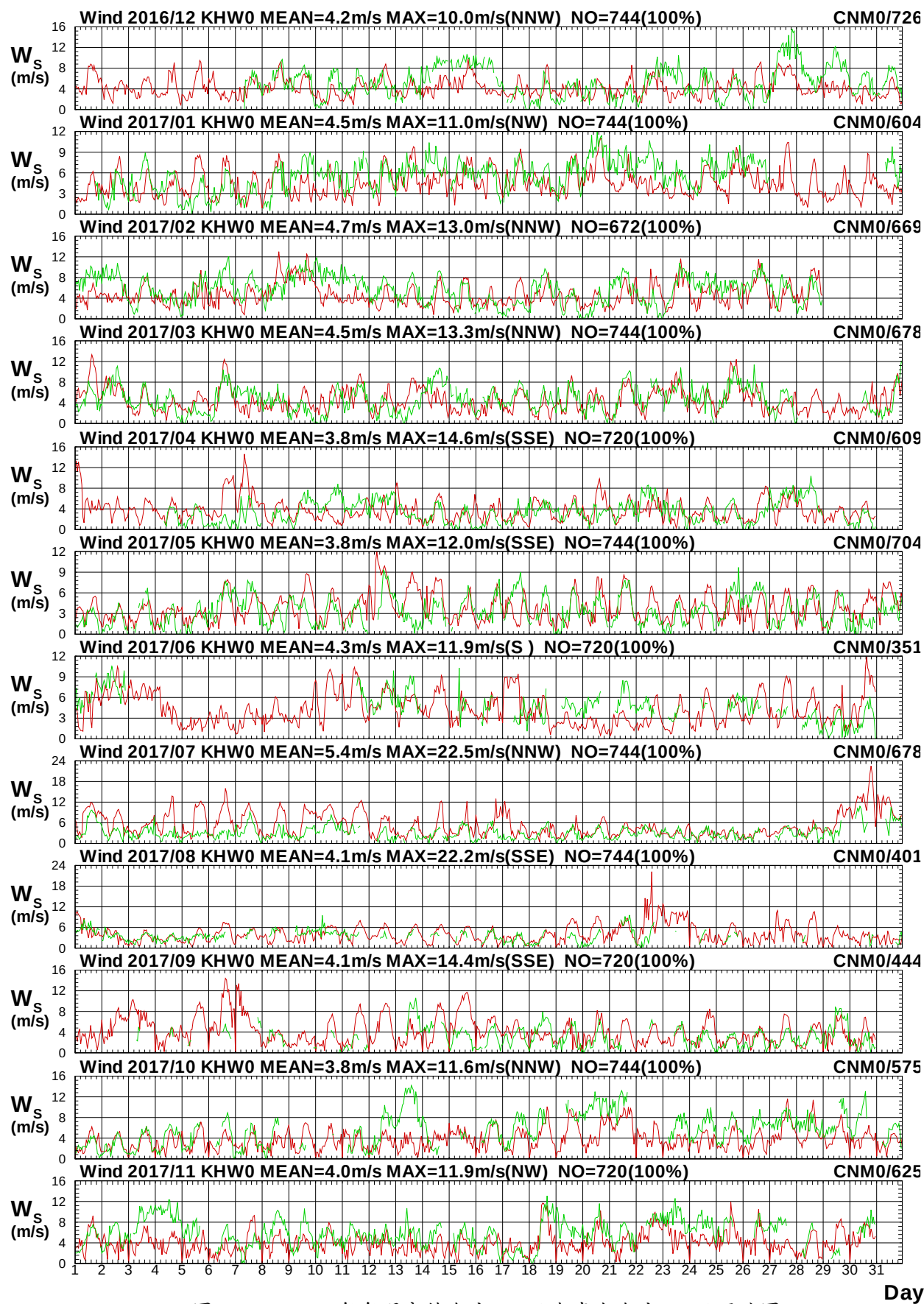


圖1.26a 2017年每月高雄海域 W 站與嘉南海域 M 站風速圖

W16CKHW0.1HA W16CCNM0.1H0 W171KHW0.1HA W171CNM0.1H0 W172KHW0.1HA W172CNM0.1H0

W173KHW0.1HA W173CNM0.1H0 W174KHW0.1HA W174CNM0.1H0 W175KHW0.1HA W175CNM0.1H0

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Wind Direction in Kao-Hsiung Seas of KHW0 at 2017

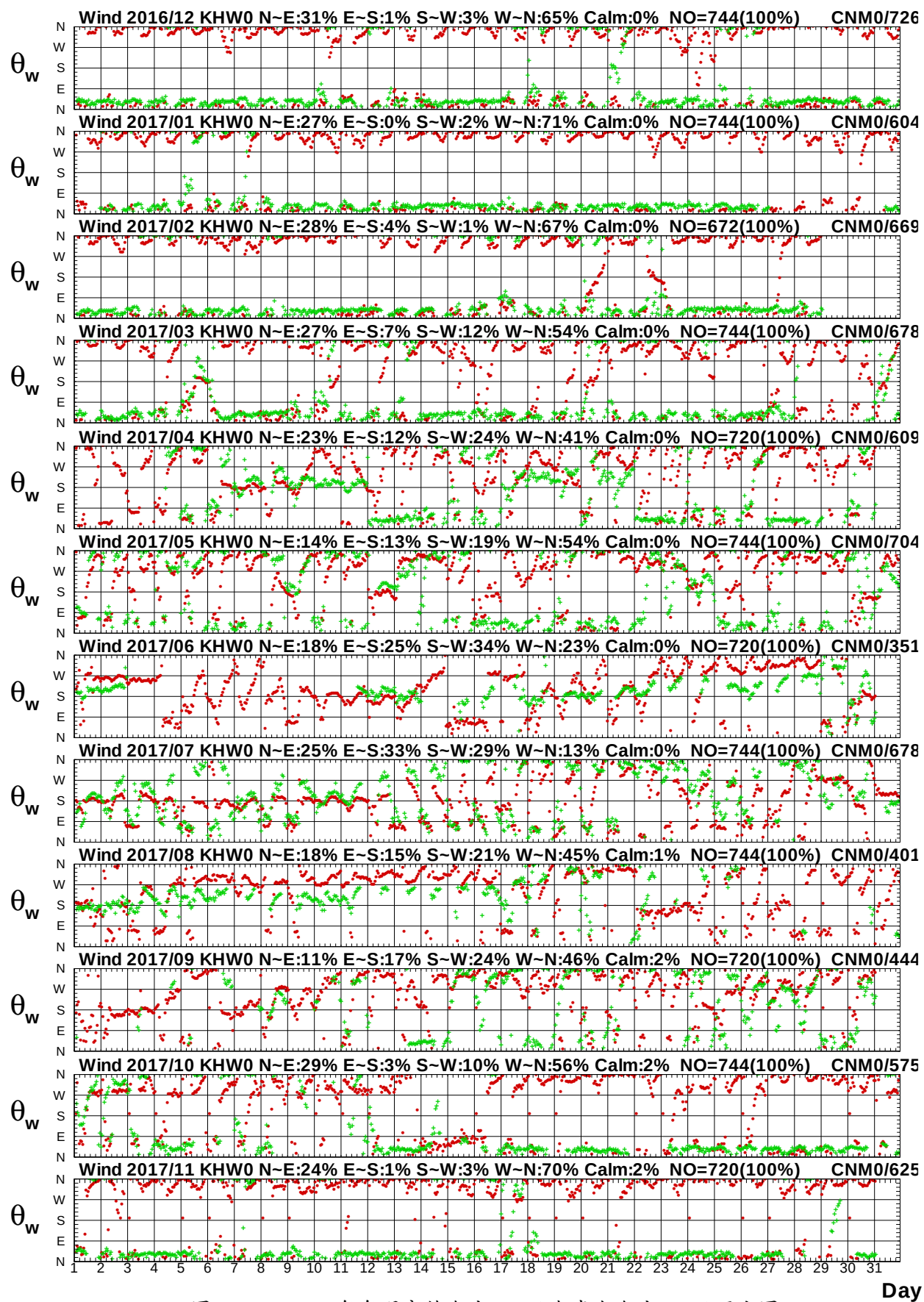


圖1.26b 2017年每月高雄海域 W 站與嘉南海域 M 站風向圖

W16CKHW0.1HA W16CCNM0.1H0 W171KHW0.1HA W171CNM0.1H0 W172KHW0.1HA W172CNM0.1H0

W173KHW0.1HA W173CNM0.1H0 W174KHW0.1HA W174CNM0.1H0 W175KHW0.1HA W175CNM0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

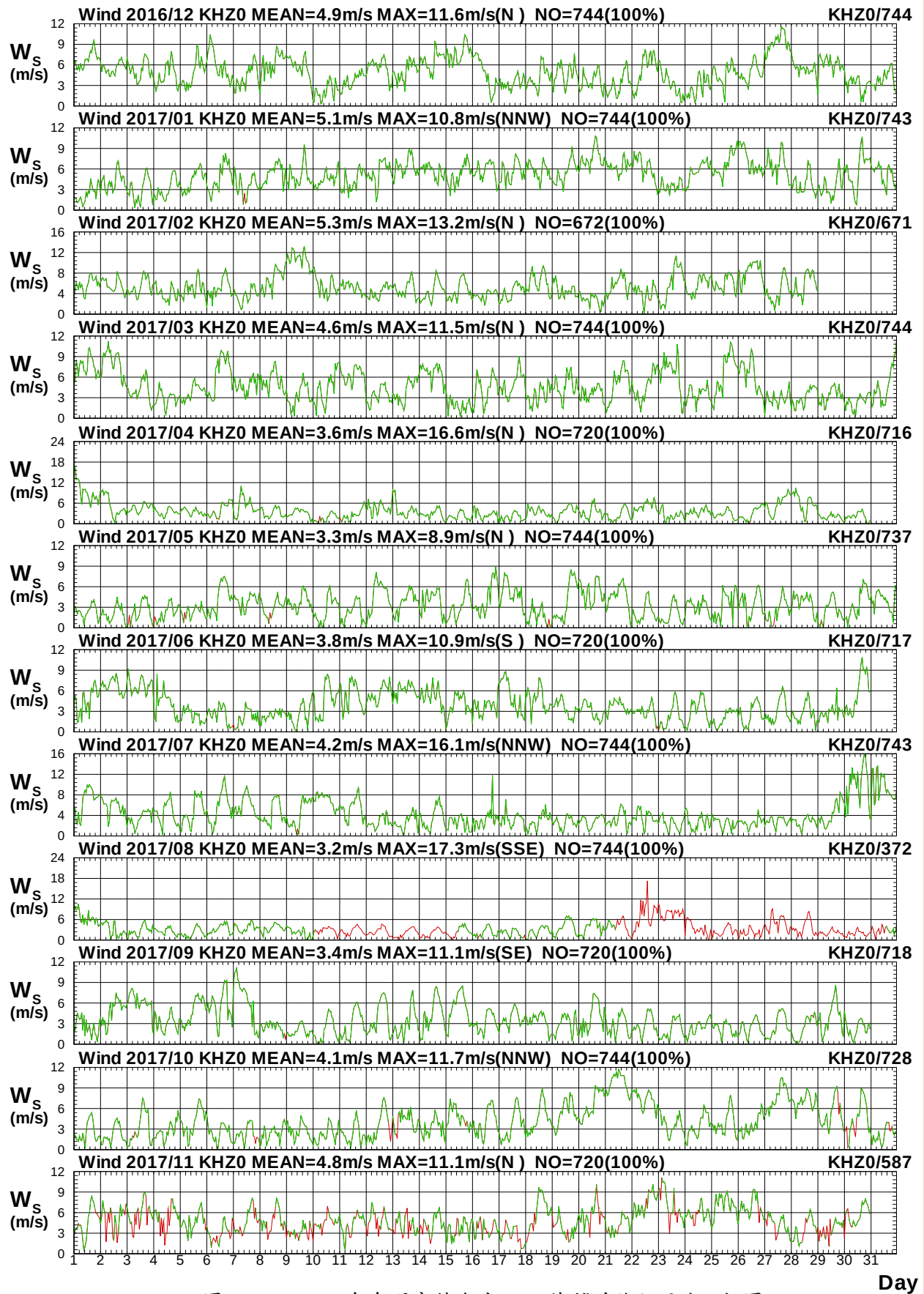


圖1.24a 2017年每月高雄海域 Z 站修補前後之風速比較圖

W16CKHZ0.1HA W16CKHZ0.1H0 W171KHZ0.1HA W171KHZ0.1H0 W172KHZ0.1HA W172KHZ0.1H0
W173KHZ0.1HA W173KHZ0.1H0 W174KHZ0.1HA W174KHZ0.1H0 W175KHZ0.1HA W175KHZ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

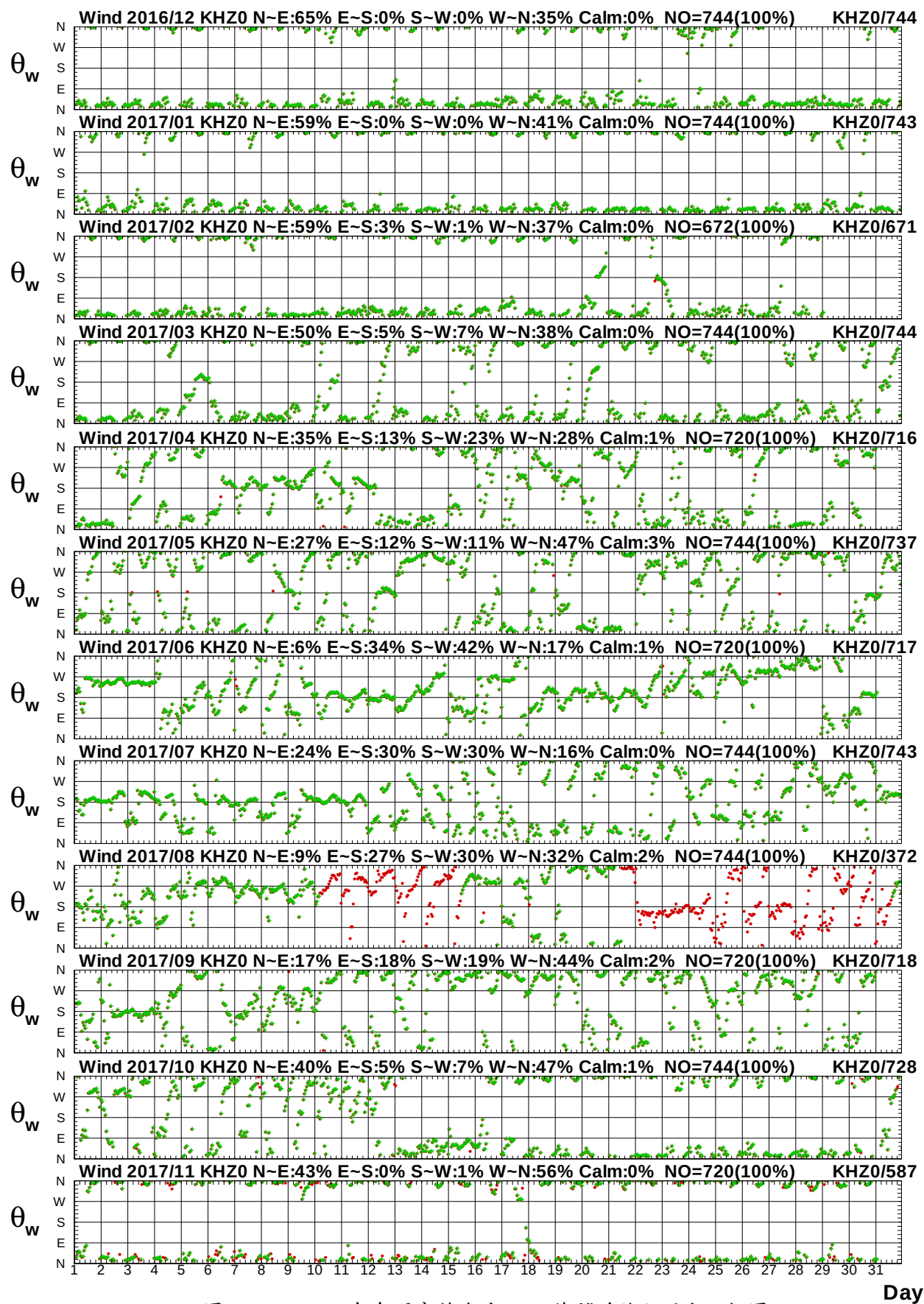


圖1.24b 2017年每月高雄海域 Z 站修補前後之風向比較圖

W16CKHZ0.1HA W16CKHZ0.1H0 W171KHZ0.1HA W171KHZ0.1H0 W172KHZ0.1HA W172KHZ0.1H0
W173KHZ0.1HA W173KHZ0.1H0 W174KHZ0.1HA W174KHZ0.1H0 W175KHZ0.1HA W175KHZ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

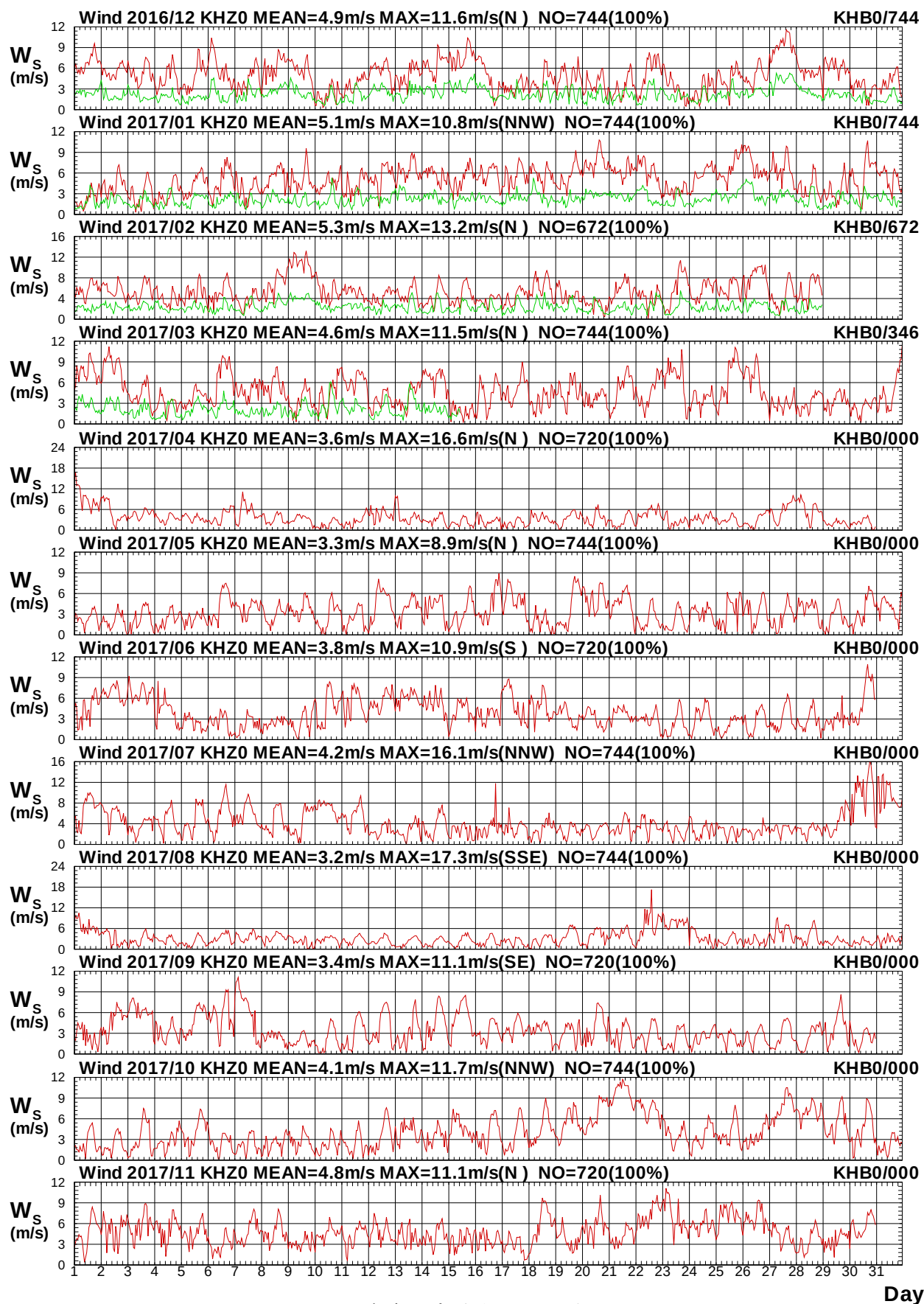


圖1.25a 2017年每月高雄海域 Z 站與 B 站風速比較圖

W16CKHZ0.1HA W16CKHB0.1H0 W171KHZ0.1HA W171KHB0.1H0 W172KHZ0.1HA W172KHB0.1H0
W173KHZ0.1HA W173KHB0.1H0 W174KHZ0.1HA W174KHB0.1H0 W175KHZ0.1HA W175KHB0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

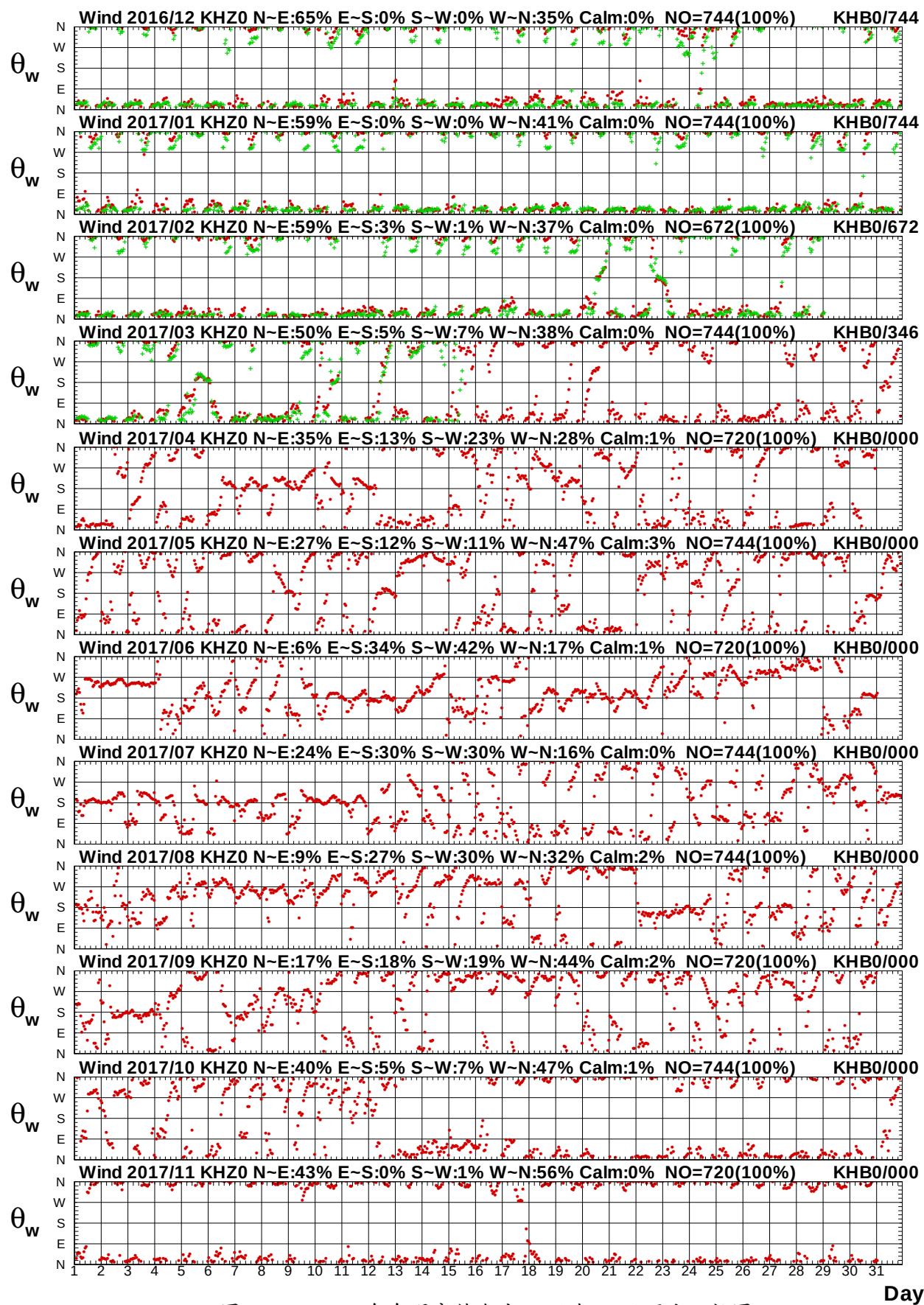


圖1.25b 2017年每月高雄海域 Z 站與 B 站風向比較圖

W16CKHZ0.1HA W16CKHB0.1H0 W171KHZ0.1HA W171KHB0.1H0 W172KHZ0.1HA W172KHB0.1H0
W173KHZ0.1HA W173KHB0.1H0 W174KHZ0.1HA W174KHB0.1H0 W175KHZ0.1HA W175KHB0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

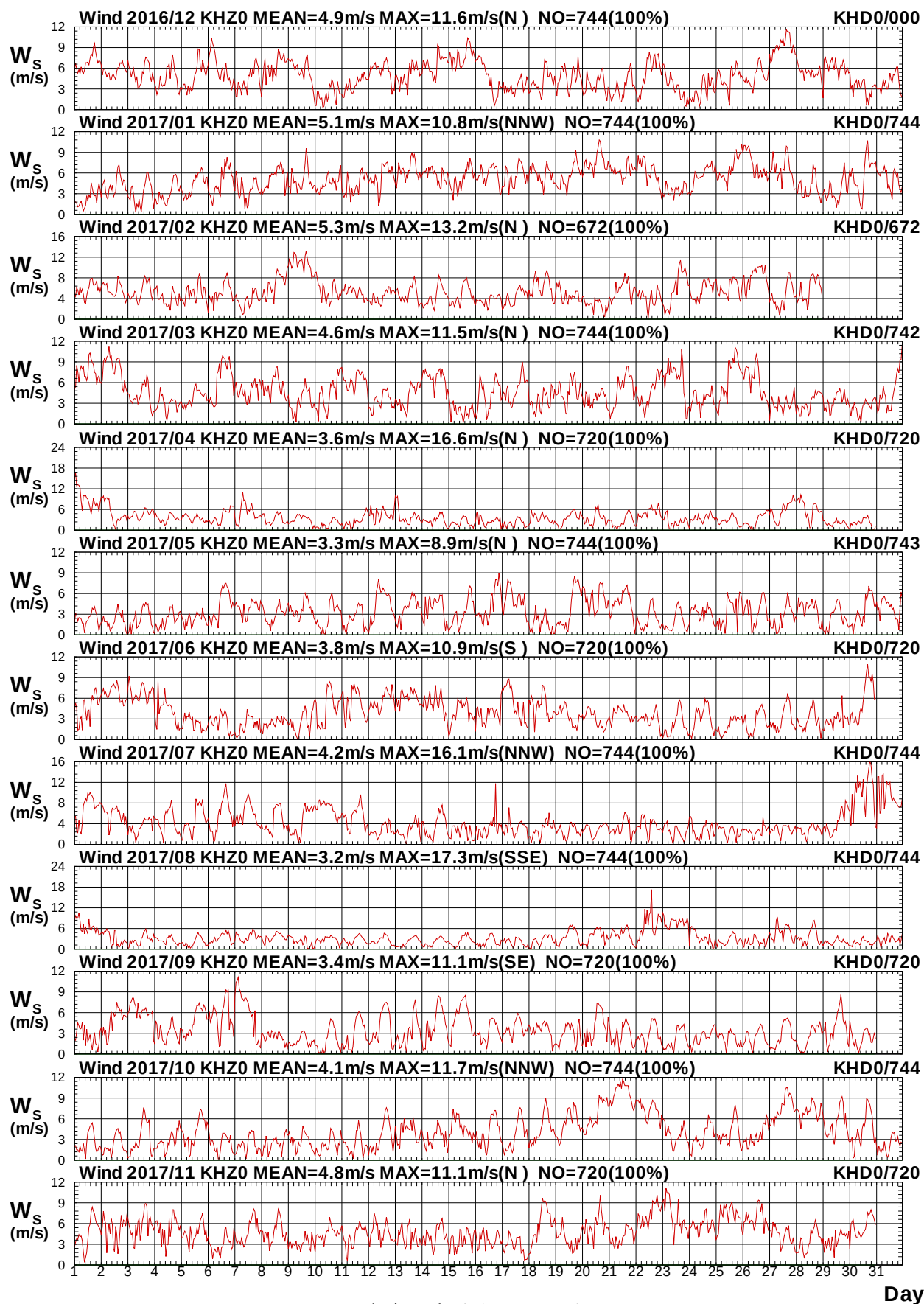


圖1.26a 2017年每月高雄海域 Z 站與 D 站風速比較圖

W16CKHZ0.1HA W16CKHD0.1H0 W171KHZ0.1HA W171KHD0.1H0 W172KHZ0.1HA W172KHD0.1H0
W173KHZ0.1HA W173KHD0.1H0 W174KHZ0.1HA W174KHD0.1H0 W175KHZ0.1HA W175KHD0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

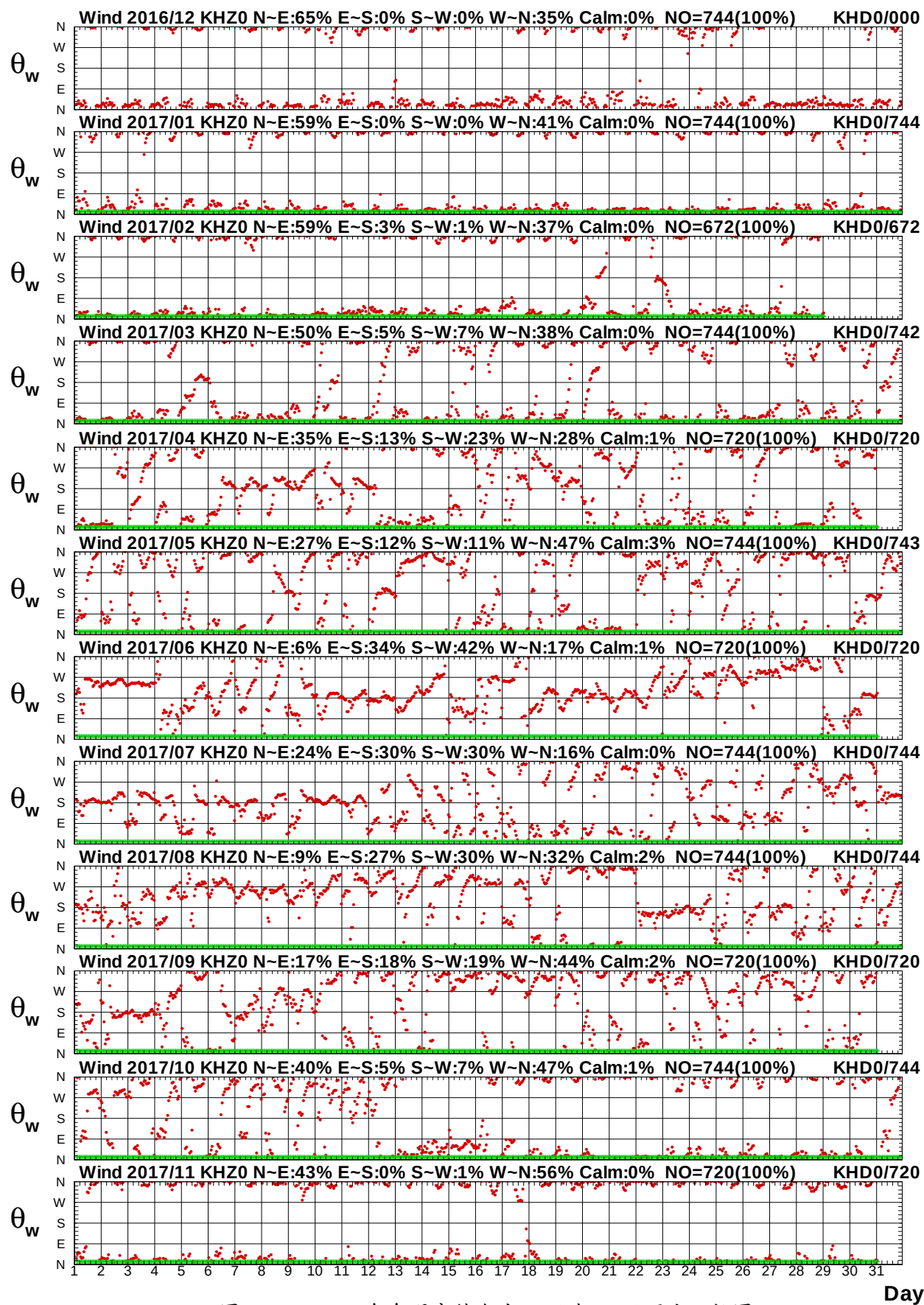


圖1.26b 2017年每月高雄海域 Z 站與 D 站風向比較圖

W16CKHZ0.1HA W16CKHD0.1H0 W171KHZ0.1HA W171KHD0.1H0 W172KHZ0.1HA W172KHD0.1H0
W173KHZ0.1HA W173KHD0.1H0 W174KHZ0.1HA W174KHD0.1H0 W175KHZ0.1HA W175KHD0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

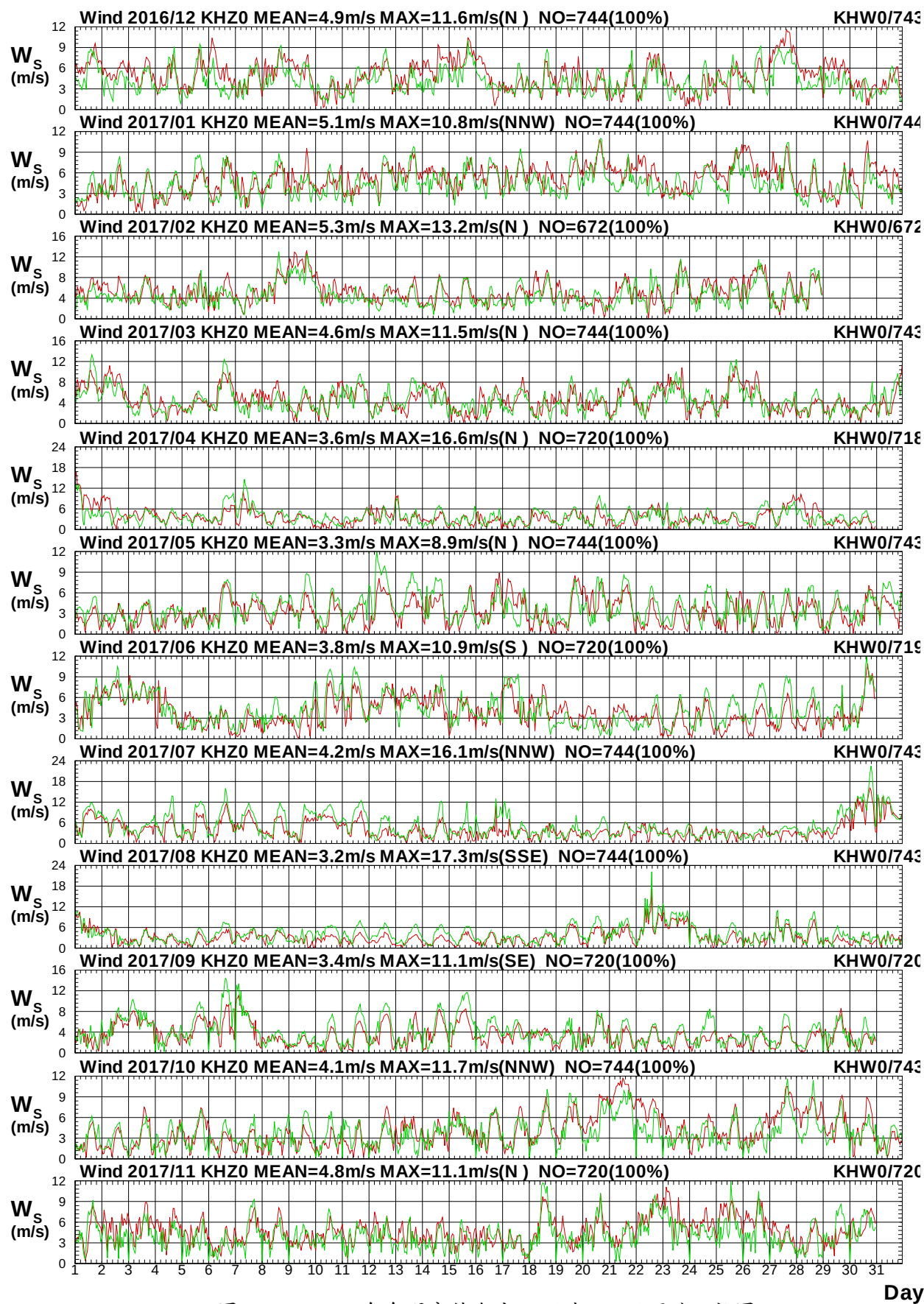


圖1.27a 2017年每月高雄海域 Z 站與 W 站風速比較圖

W16CKHZ0.1HA W16CKHW0.1H0 W171KHZ0.1HA W171KHW0.1H0 W172KHZ0.1HA W172KHW0.1H0
W173KHZ0.1HA W173KHW0.1H0 W174KHZ0.1HA W174KHW0.1H0 W175KHZ0.1HA W175KHW0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

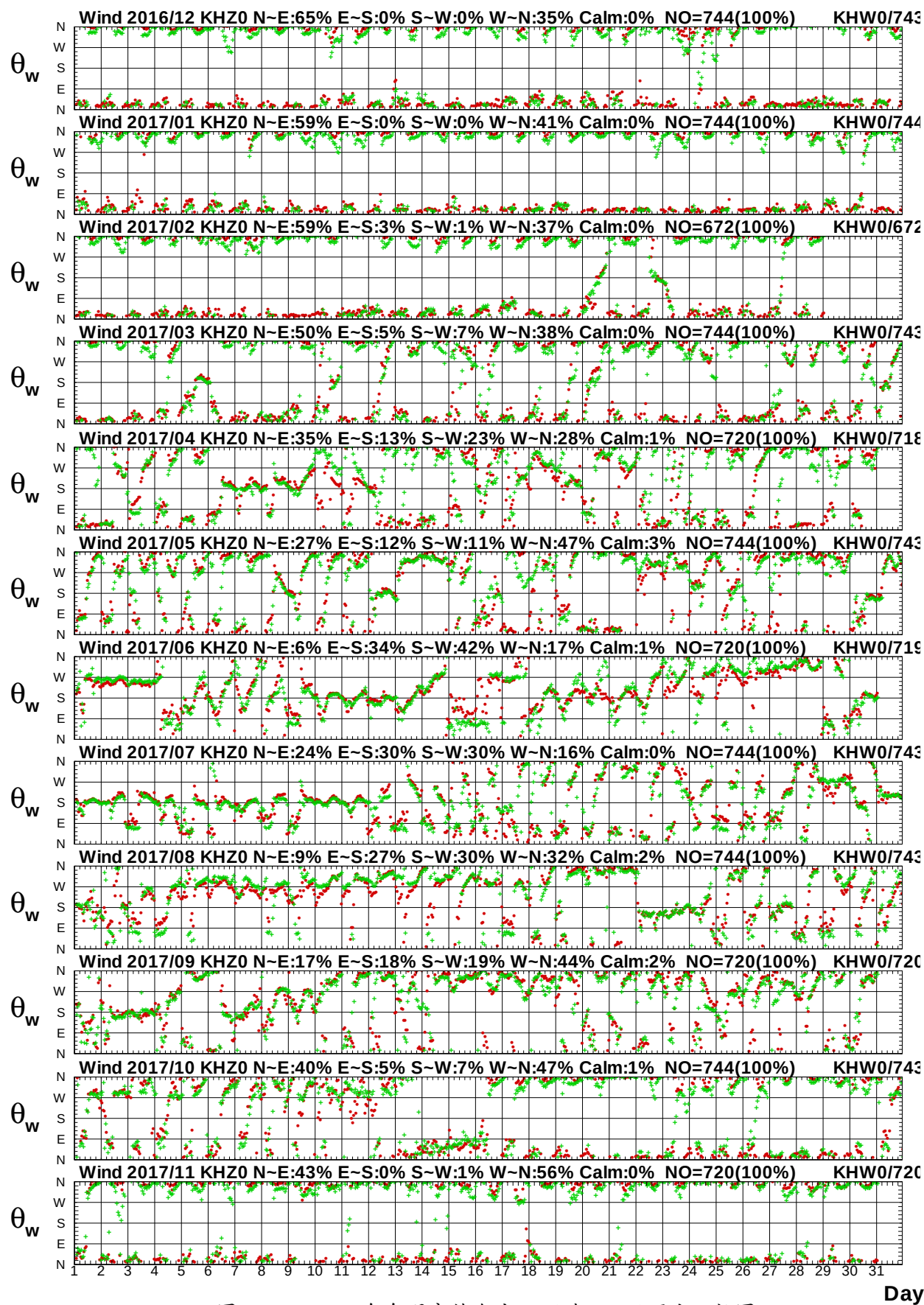


圖1.27b 2017年每月高雄海域 Z 站與 W 站風向比較圖

W16CKHZ0.1HA W16CKHW0.1H0 W171KHZ0.1HA W171KHW0.1H0 W172KHZ0.1HA W172KHW0.1H0
W173KHZ0.1HA W173KHW0.1H0 W174KHZ0.1HA W174KHW0.1H0 W175KHZ0.1HA W175KHW0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

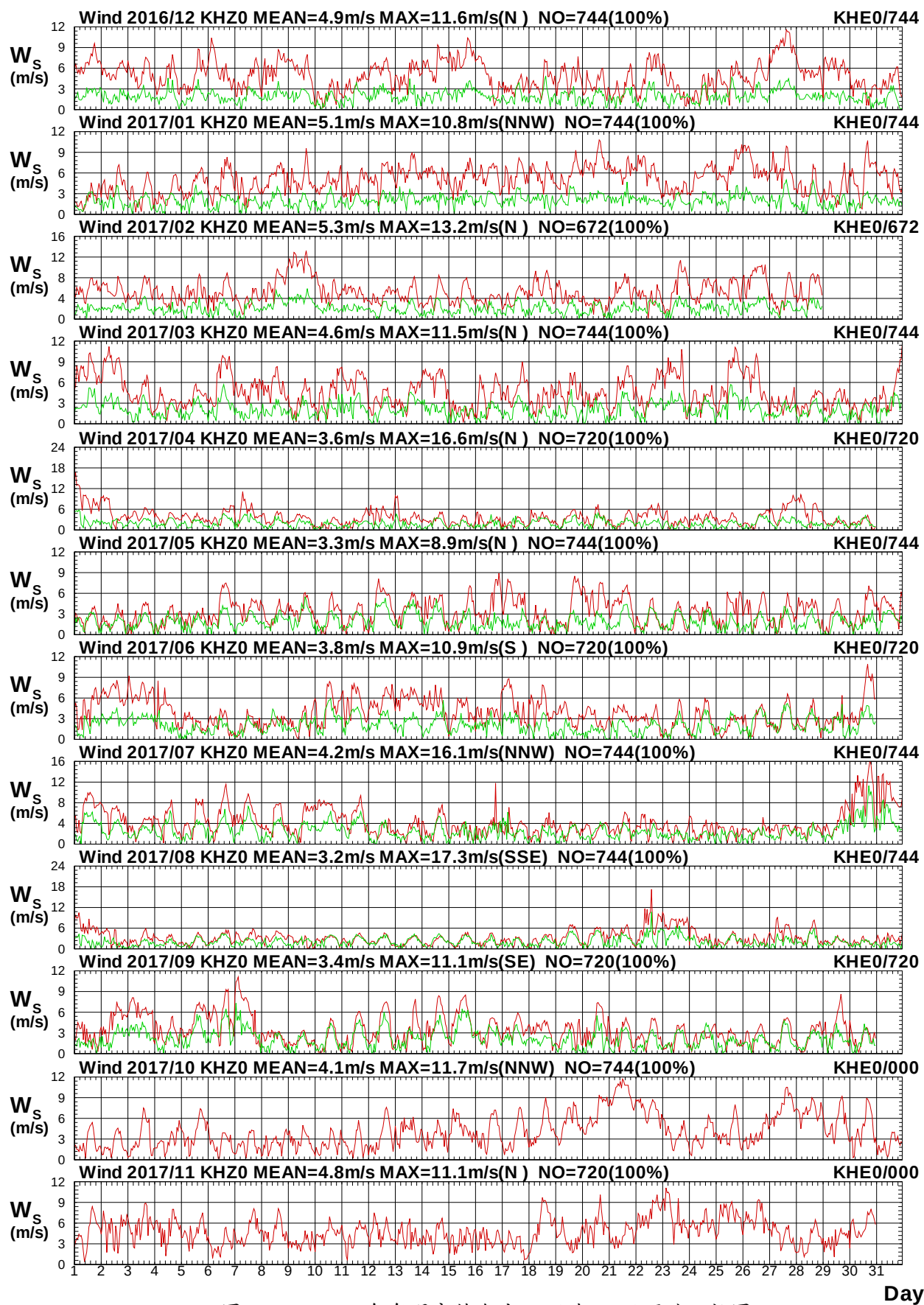


圖1.28a 2017年每月高雄海域 Z 站與 E 站風速比較圖

W16CKHZ0.1HA W16CKHE0.1H0 W171KHZ0.1HA W171KHE0.1H0 W172KHZ0.1HA W172KHE0.1H0
W173KHZ0.1HA W173KHE0.1H0 W174KHZ0.1HA W174KHE0.1H0 W175KHZ0.1HA W175KHE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

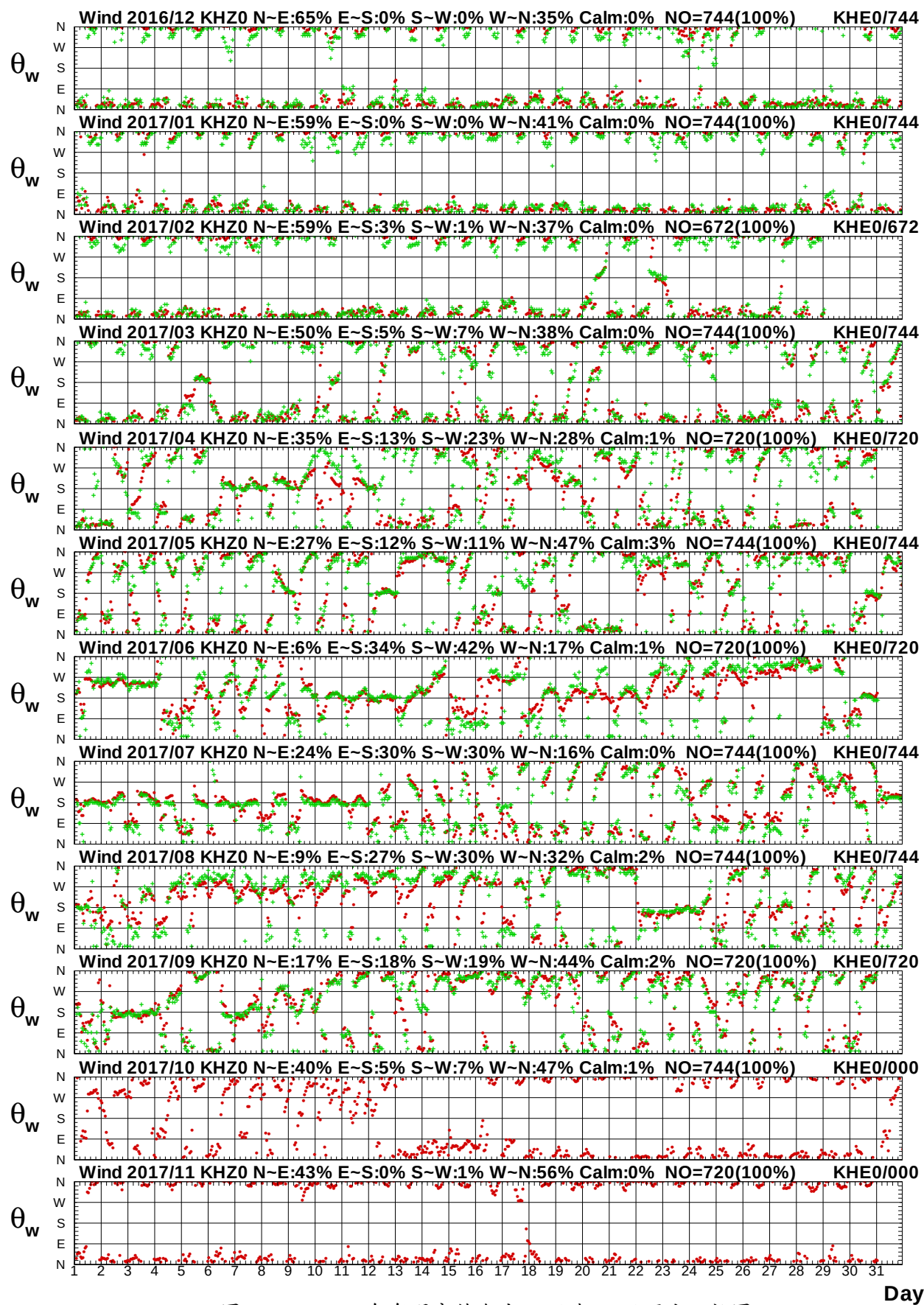


圖1.28b 2017年每月高雄海域 Z 站與 E 站風向比較圖

W16CKHZ0.1HA W16CKHE0.1H0 W171KHZ0.1HA W171KHE0.1H0 W172KHZ0.1HA W172KHE0.1H0
W173KHZ0.1HA W173KHE0.1H0 W174KHZ0.1HA W174KHE0.1H0 W175KHZ0.1HA W175KHE0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

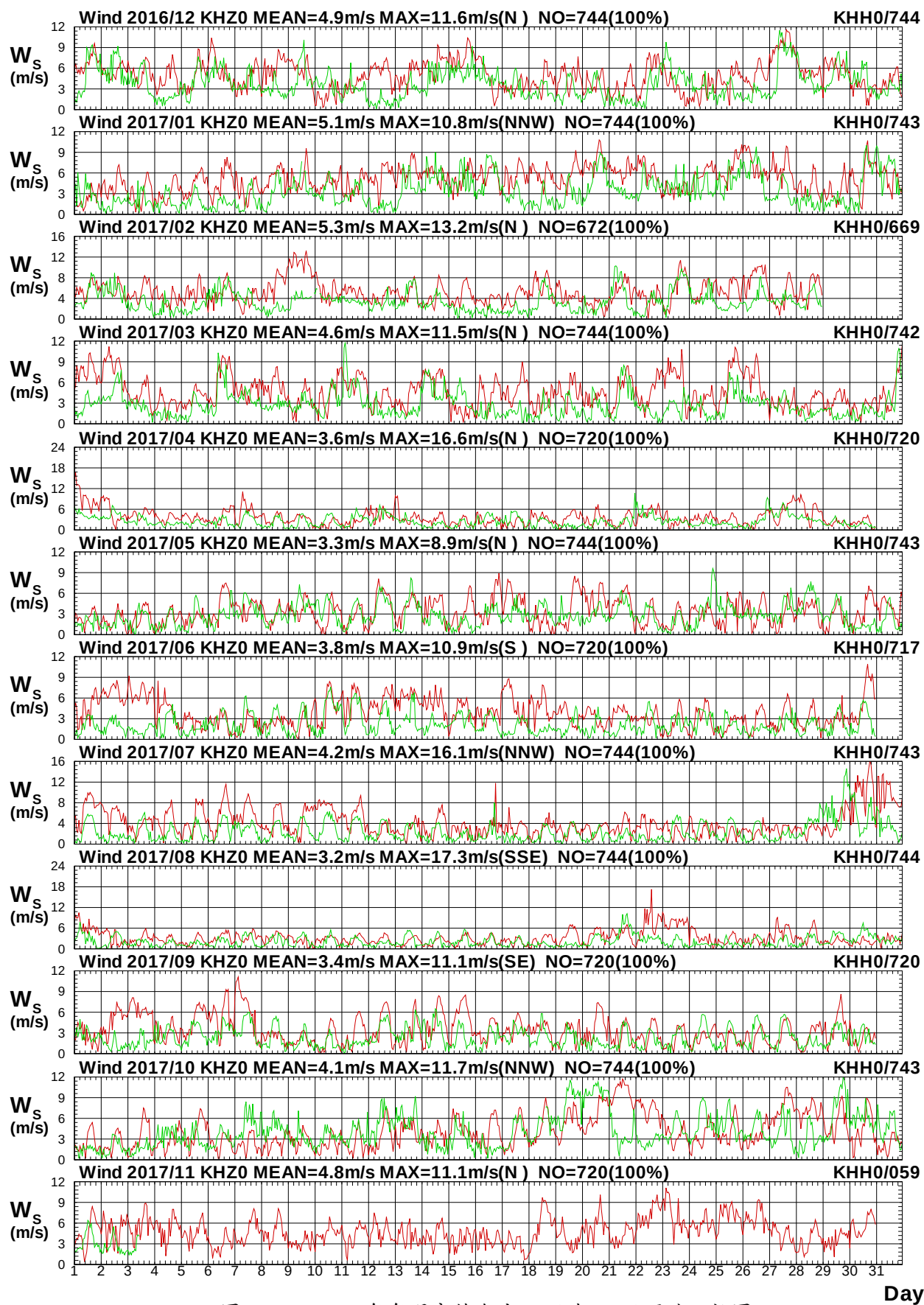


圖1.29a 2017年每月高雄海域 Z 站與 H 站風速比較圖

W16CKHZ0.1HA W16CKHH0.1H0 W171KHZ0.1HA W171KHH0.1H0 W172KHZ0.1HA W172KHH0.1H0
W173KHZ0.1HA W173KHH0.1H0 W174KHZ0.1HA W174KHH0.1H0 W175KHZ0.1HA W175KHH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

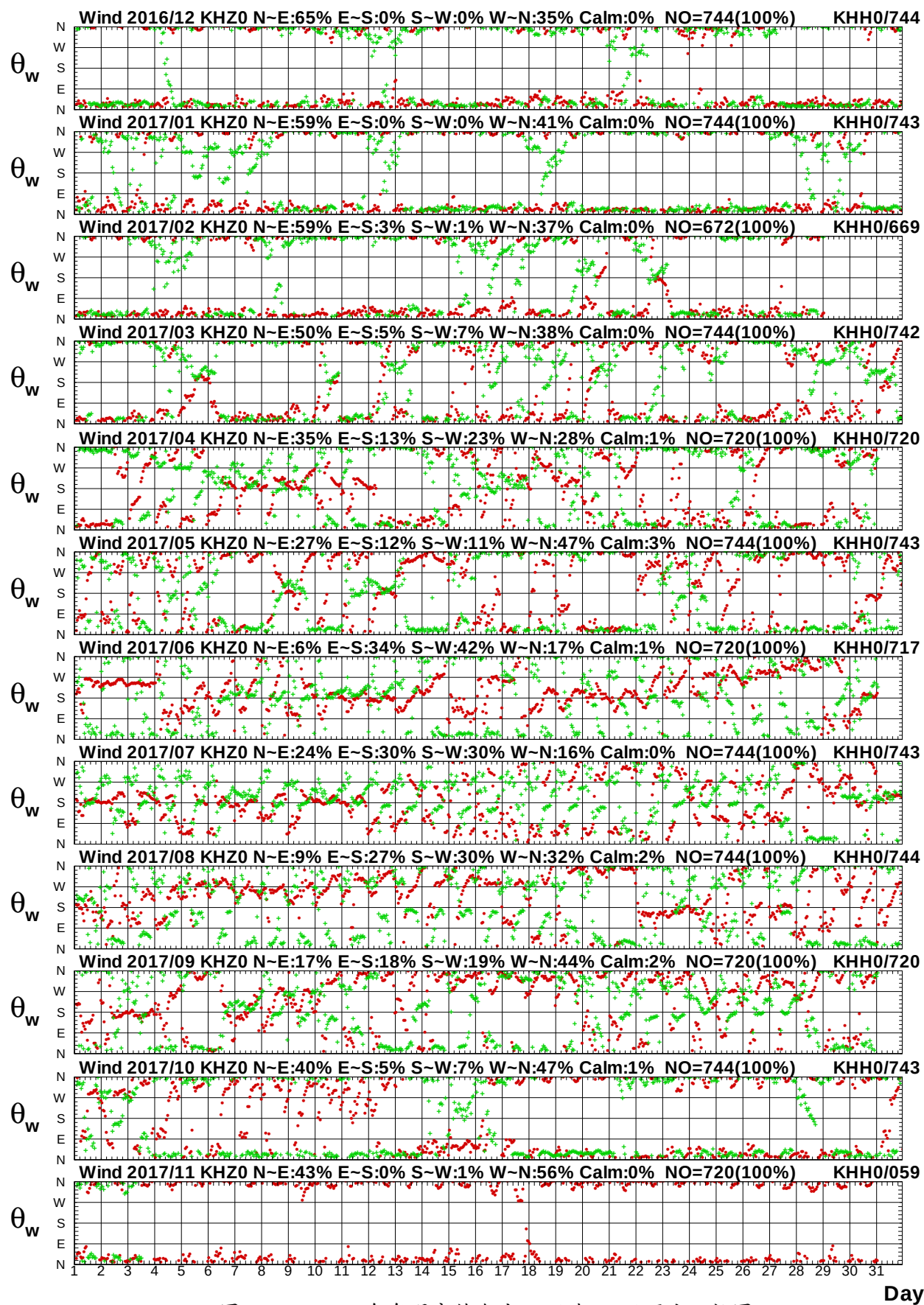


圖1.29b 2017年每月高雄海域 Z 站與 H 站風向比較圖

W16CKHZ0.1HA W16CKHH0.1H0 W171KHZ0.1HA W171KHH0.1H0 W172KHZ0.1HA W172KHH0.1H0
W173KHZ0.1HA W173KHH0.1H0 W174KHZ0.1HA W174KHH0.1H0 W175KHZ0.1HA W175KHH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

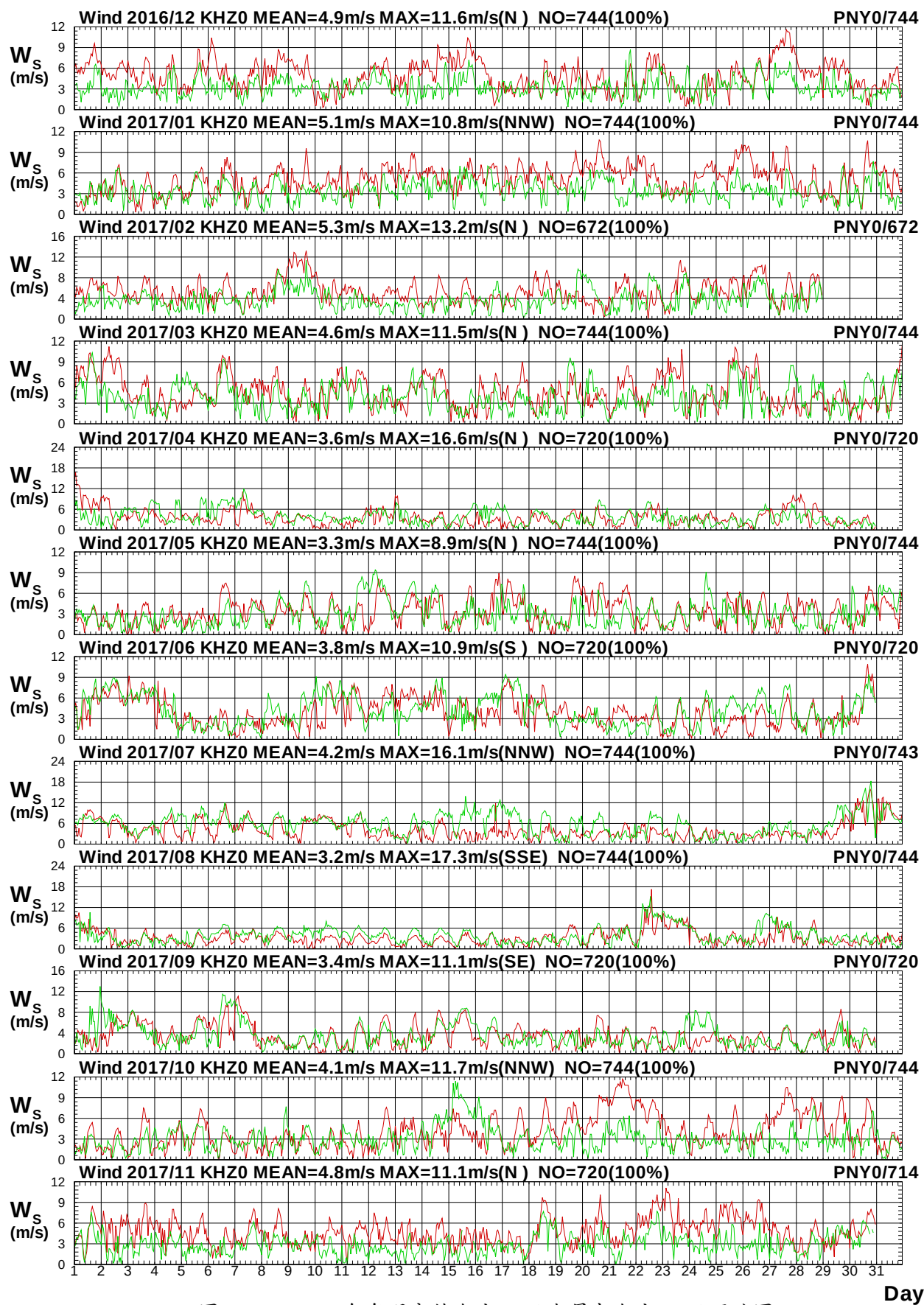


圖1.30a 2017年每月高雄海域 Z 站與屏東海域 Y 站風速圖

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W173KHZ0.1HA W173PNY0.1H0 W174KHZ0.1HA W174PNY0.1H0 W175KHZ0.1HA W175PNY0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

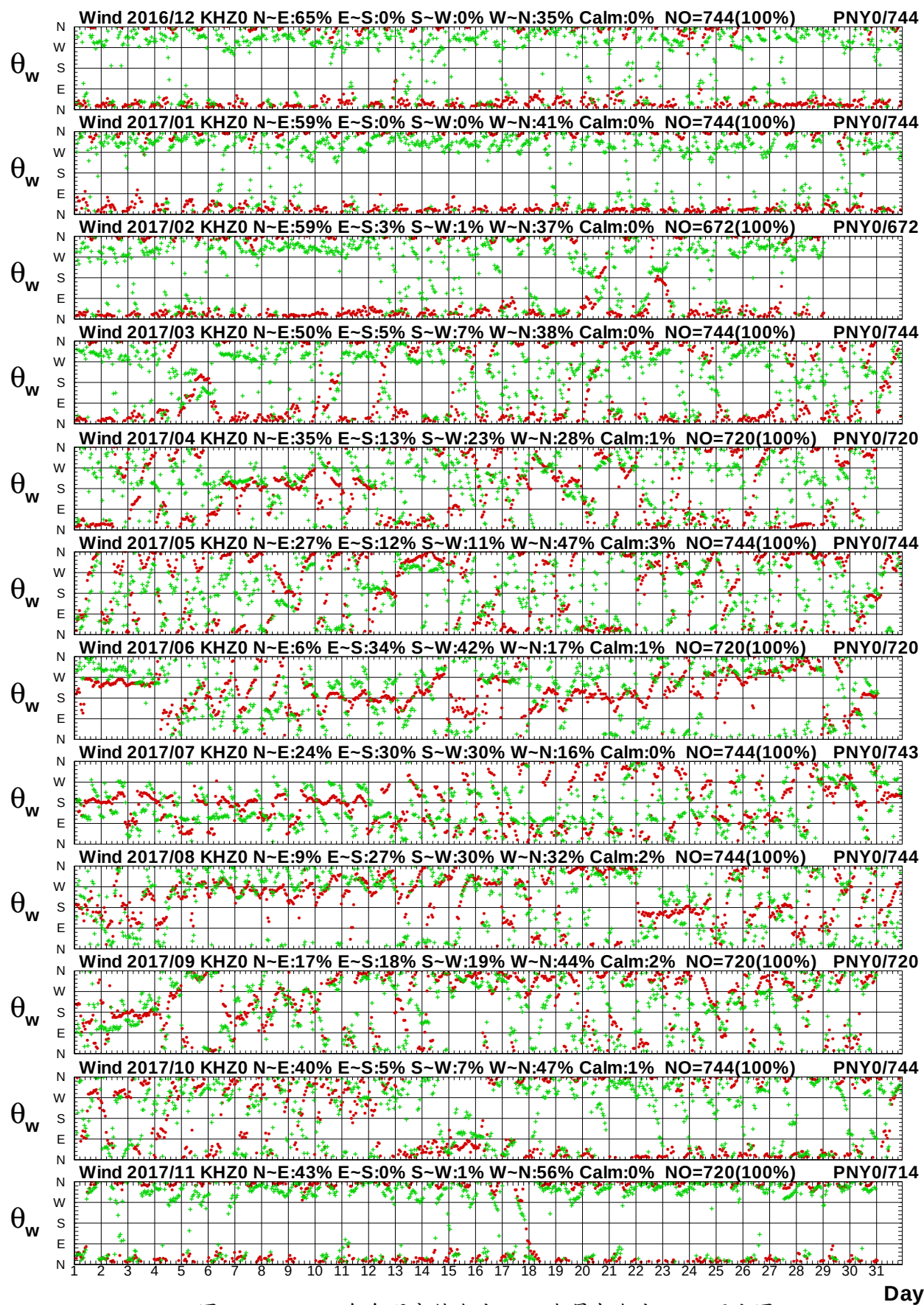


圖1.30b 2017年每月高雄海域 Z 站與屏東海域 Y 站風向圖

W16CKHZ0.1HA W16CPNY0.1H0 W171KHZ0.1HA W171PNY0.1H0 W172KHZ0.1HA W172PNY0.1H0
W173KHZ0.1HA W173PNY0.1H0 W174KHZ0.1HA W174PNY0.1H0 W175KHZ0.1HA W175PNY0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

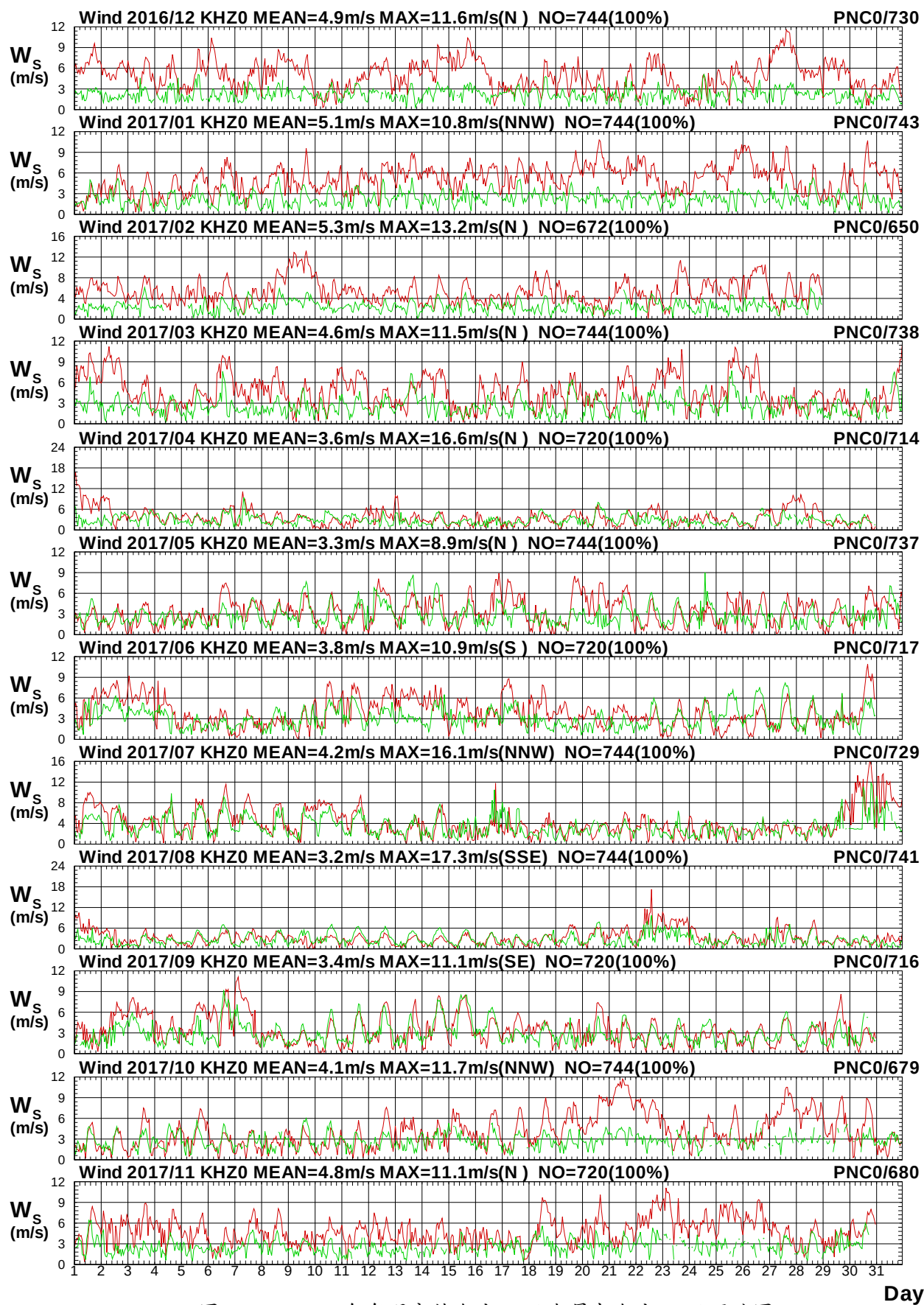


圖1.31a 2017年每月高雄海域 Z 站與屏東海域 C 站風速圖

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W173KHZ0.1HA W173PNC0.1H0 W174KHZ0.1HA W174PNC0.1H0 W175KHZ0.1HA W175PNC0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

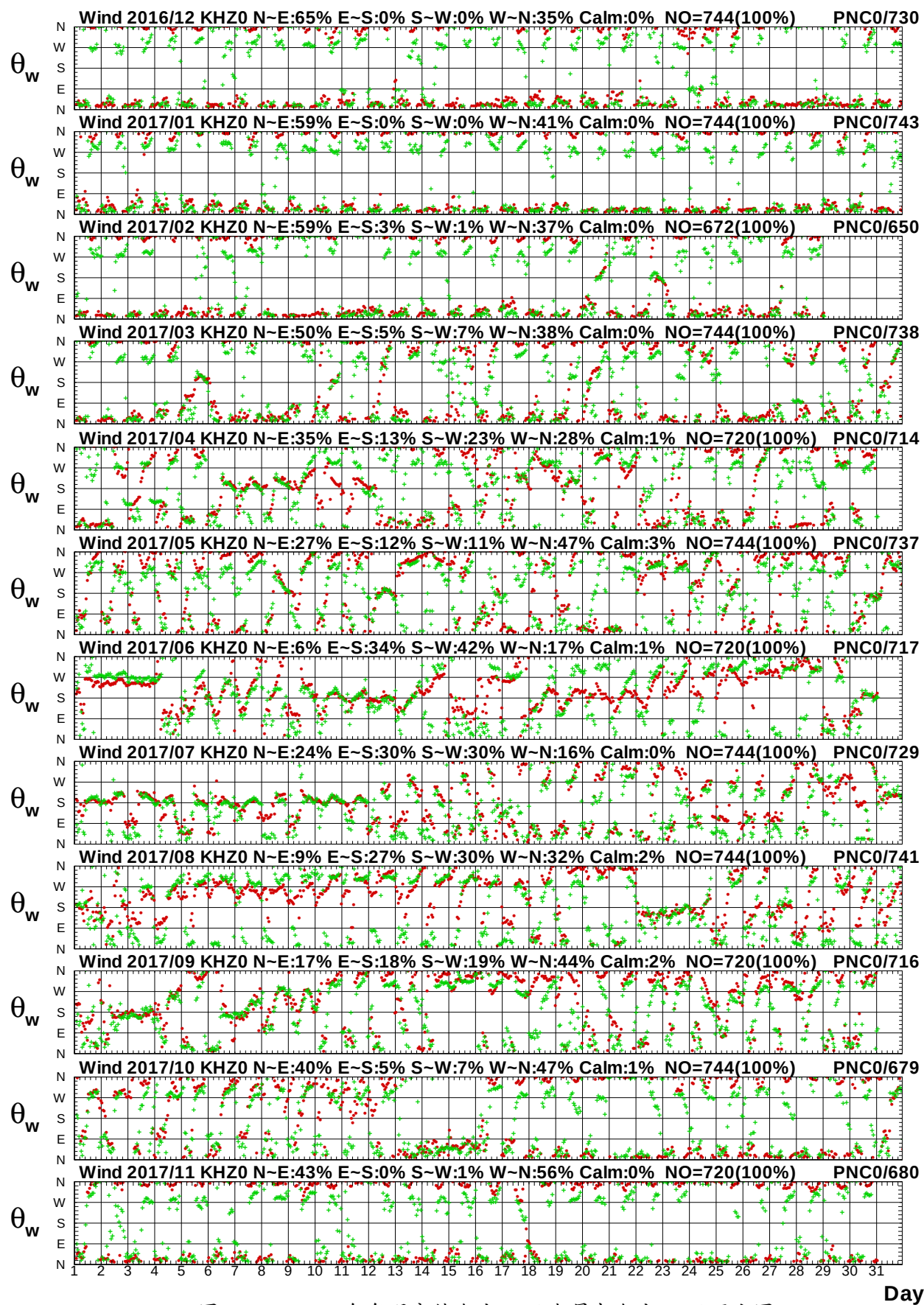


圖1.31b 2017年每月高雄海域 Z 站與屏東海域 C 站風向圖

W16CKHZ0.1HA W16CPNC0.1H0 W171KHZ0.1HA W171PNC0.1H0 W172KHZ0.1HA W172PNC0.1H0
W173KHZ0.1HA W173PNC0.1H0 W174KHZ0.1HA W174PNC0.1H0 W175KHZ0.1HA W175PNC0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

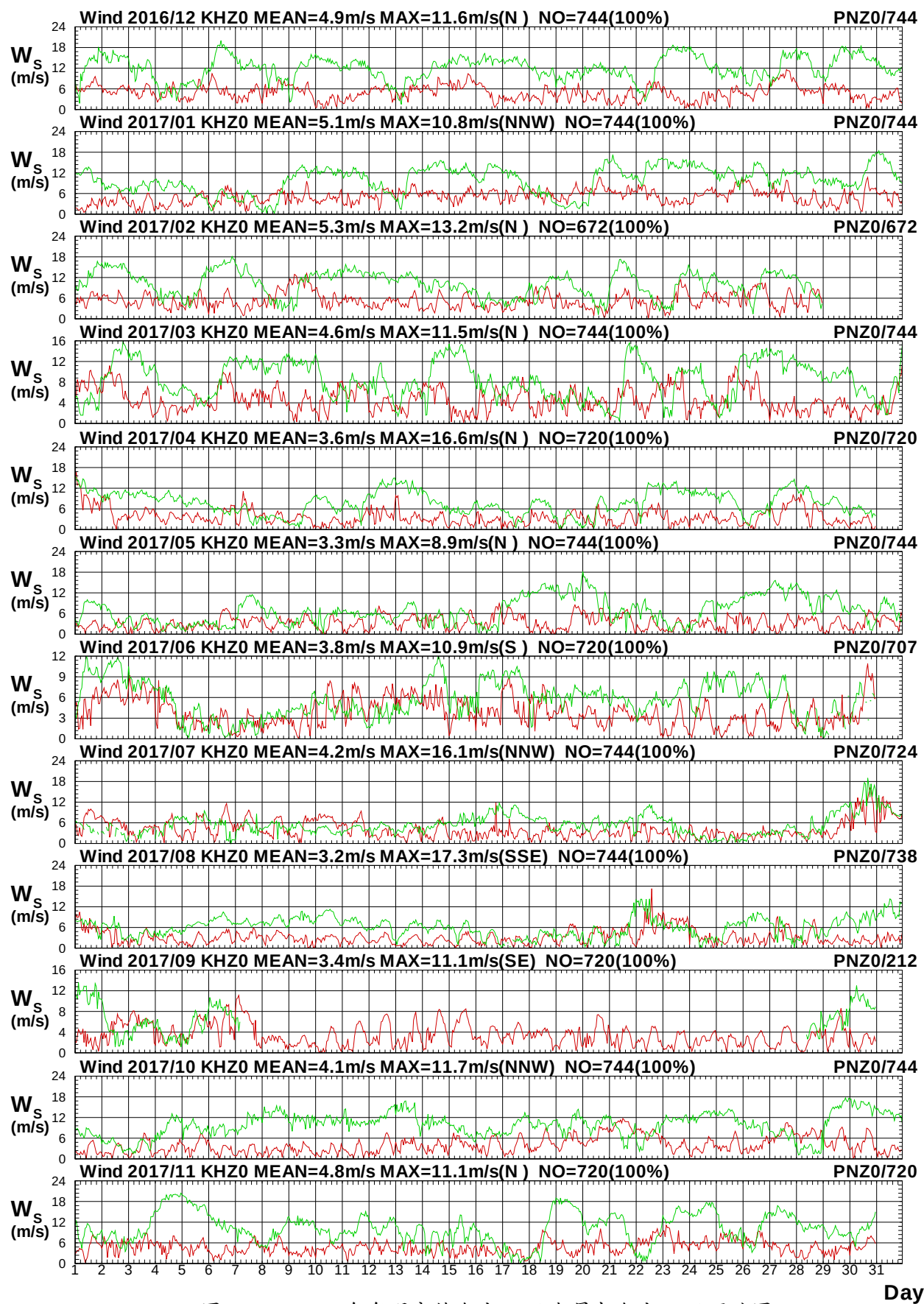


圖1.32a 2017年每月高雄海域 Z 站與屏東海域 Z 站風速圖

W16CKHZ0.1HA W16CPNZ0.1H0 W171KHZ0.1HA W171PNZ0.1H0 W172KHZ0.1HA W172PNZ0.1H0
W173KHZ0.1HA W173PNZ0.1H0 W174KHZ0.1HA W174PNZ0.1H0 W175KHZ0.1HA W175PNZ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

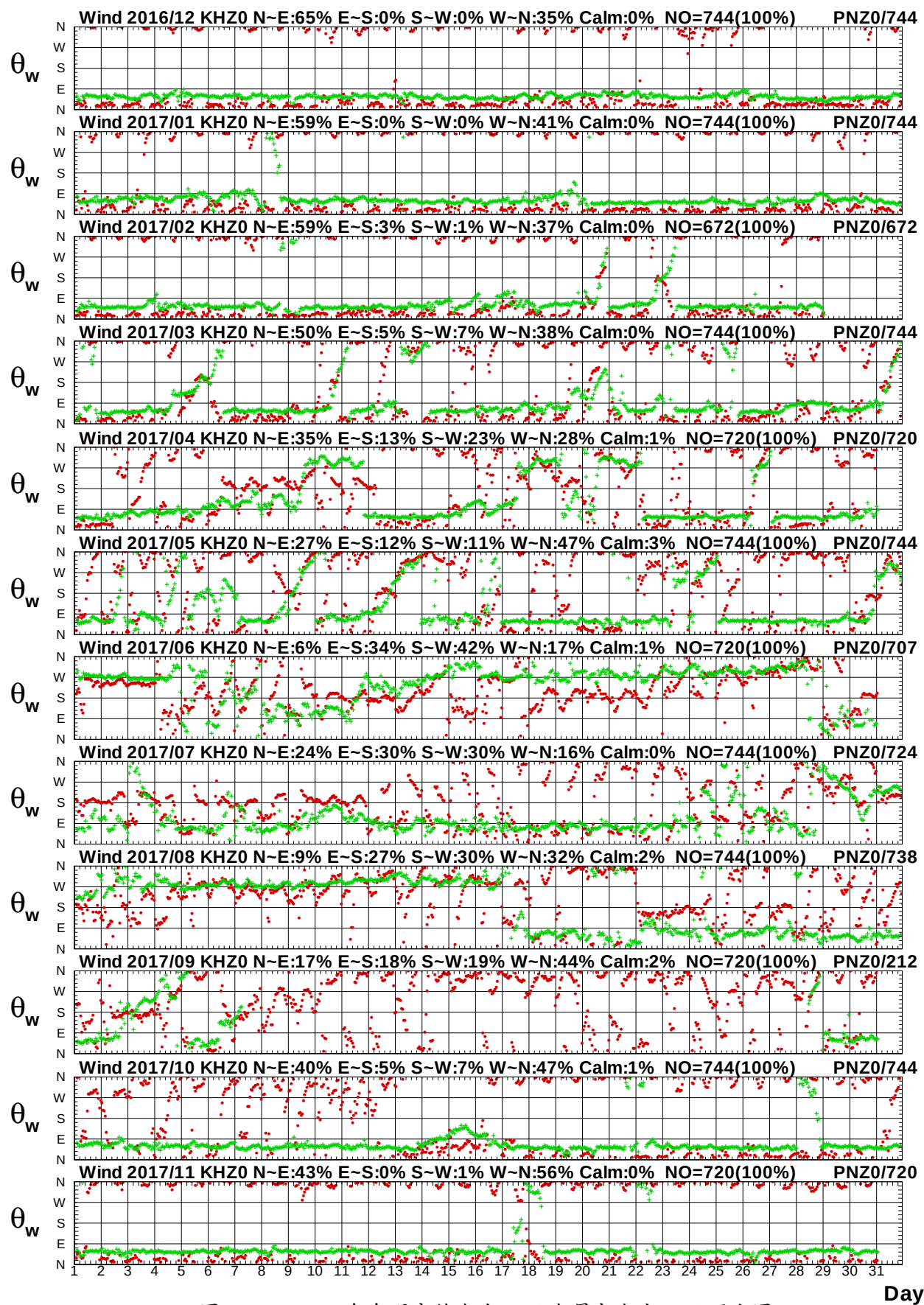


圖1.32b 2017年每月高雄海域 Z 站與屏東海域 Z 站風向圖

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W173KHZ0.1HA W173PNZ0.1H0 W174KHZ0.1HA W174PNZ0.1H0 W175KHZ0.1HA W175PNZ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

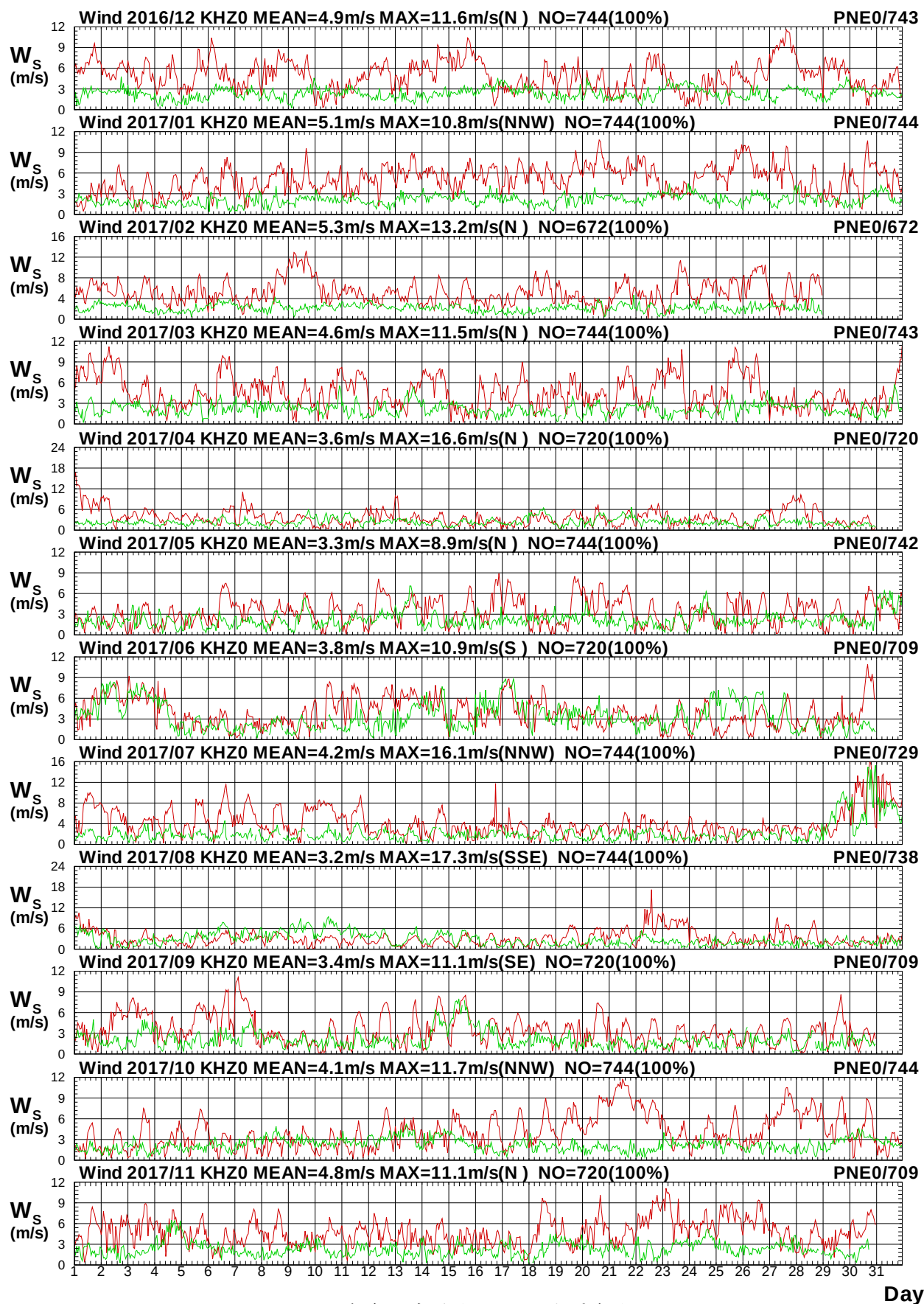


圖1.33a 2017年每月高雄海域 Z 站與屏東海域 E 站風速圖

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W173KHZ0.1HA W173PNE0.1H0 W174KHZ0.1HA W174PNE0.1H0 W175KHZ0.1HA W175PNE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

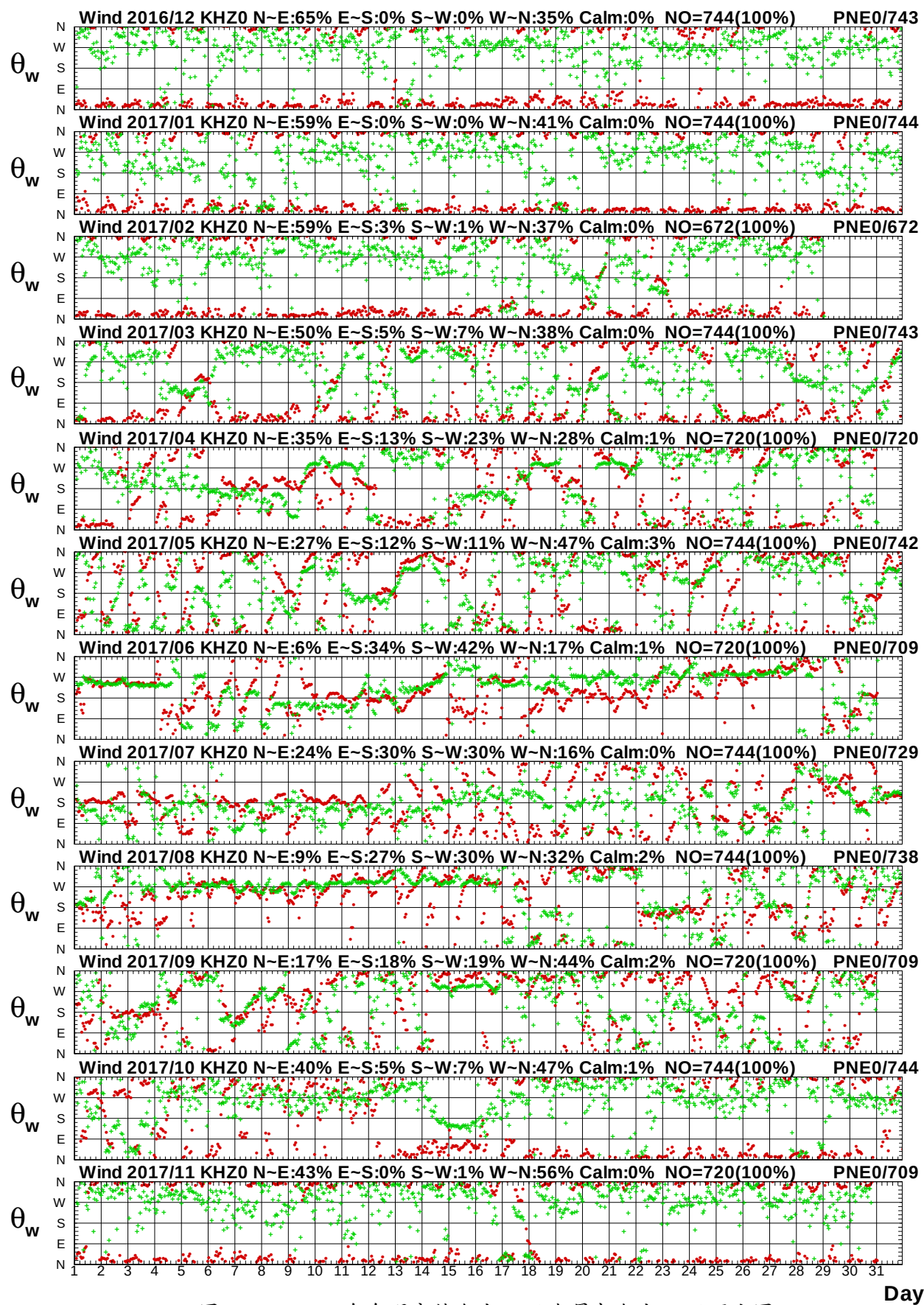


圖1.33b 2017年每月高雄海域 Z 站與屏東海域 E 站風向圖

W16CKHZ0.1HA W16CPNE0.1H0 W171KHZ0.1HA W171PNE0.1H0 W172KHZ0.1HA W172PNE0.1H0
W173KHZ0.1HA W173PNE0.1H0 W174KHZ0.1HA W174PNE0.1H0 W175KHZ0.1HA W175PNE0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

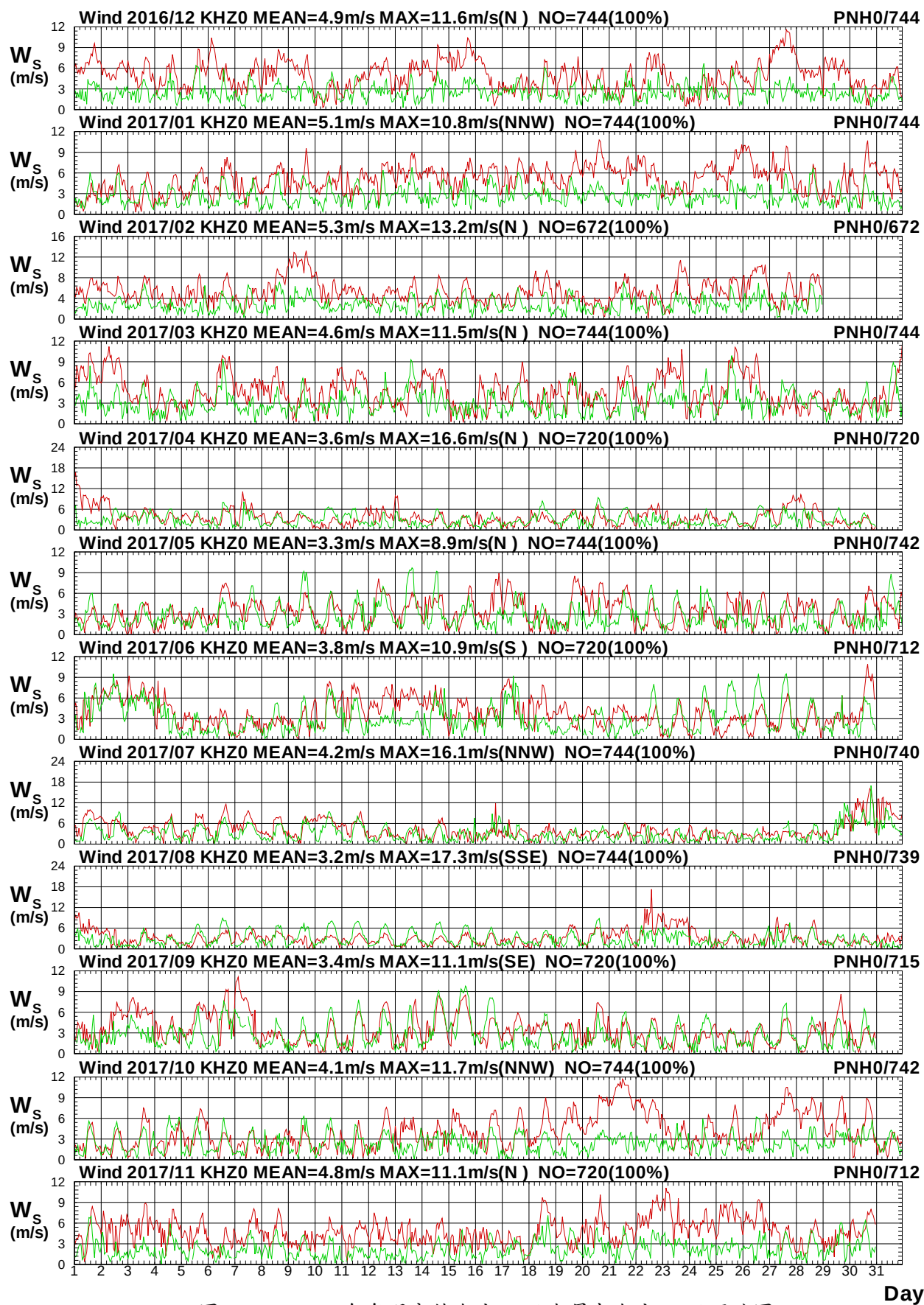


圖1.34a 2017年每月高雄海域 Z 站與屏東海域 H 站風速圖

W16CKHZ0.1HA W16CPNH0.1H0 W171KHZ0.1HA W171PNH0.1H0 W172KHZ0.1HA W172PNH0.1H0
W173KHZ0.1HA W173PNH0.1H0 W174KHZ0.1HA W174PNH0.1H0 W175KHZ0.1HA W175PNH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

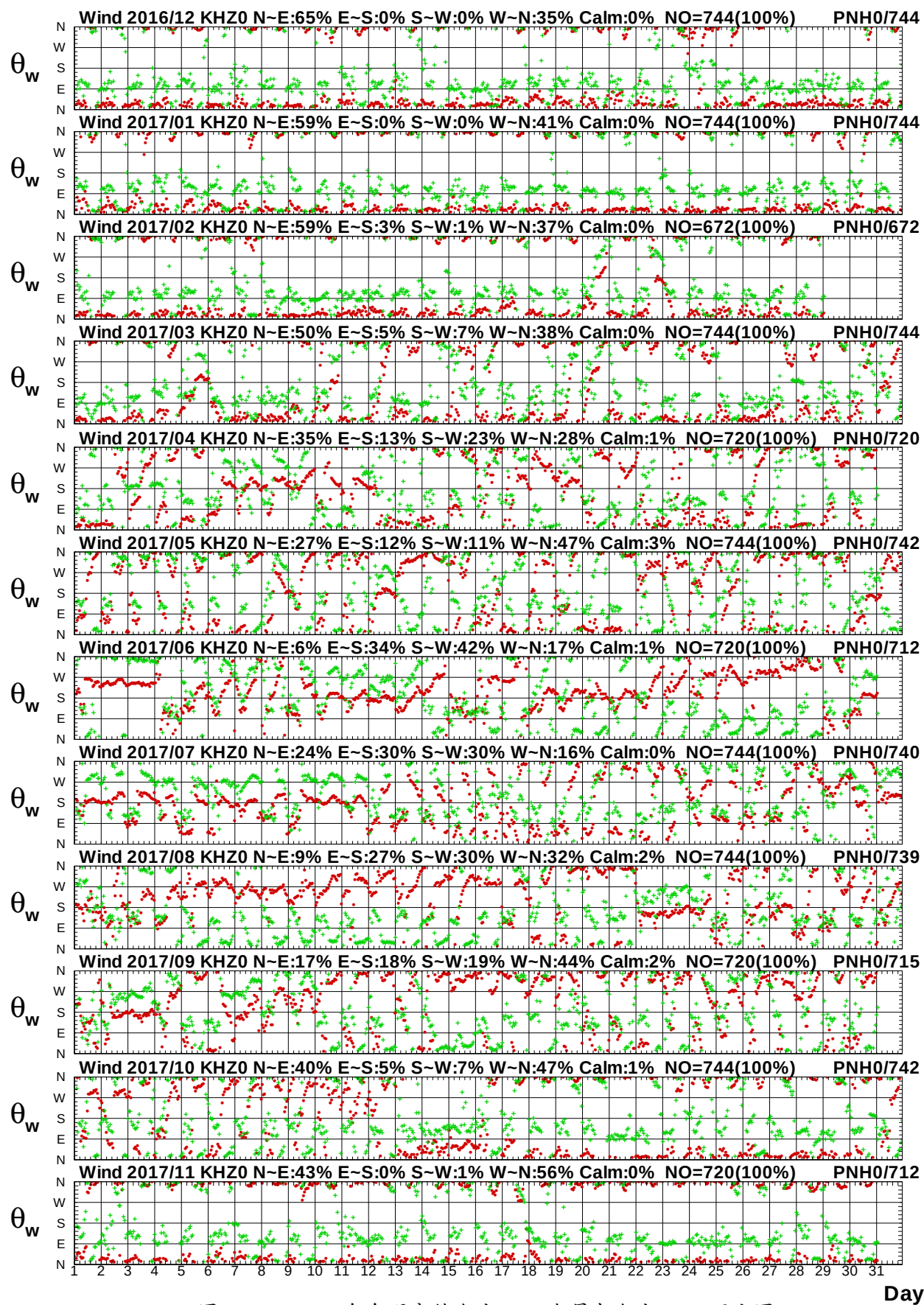


圖1.34b 2017年每月高雄海域 Z 站與屏東海域 H 站風向圖

W16CKHZ0.1HA W16CPNH0.1H0 W171KHZ0.1HA W171PNH0.1H0 W172KHZ0.1HA W172PNH0.1H0
W173KHZ0.1HA W173PNH0.1H0 W174KHZ0.1HA W174PNH0.1H0 W175KHZ0.1HA W175PNH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

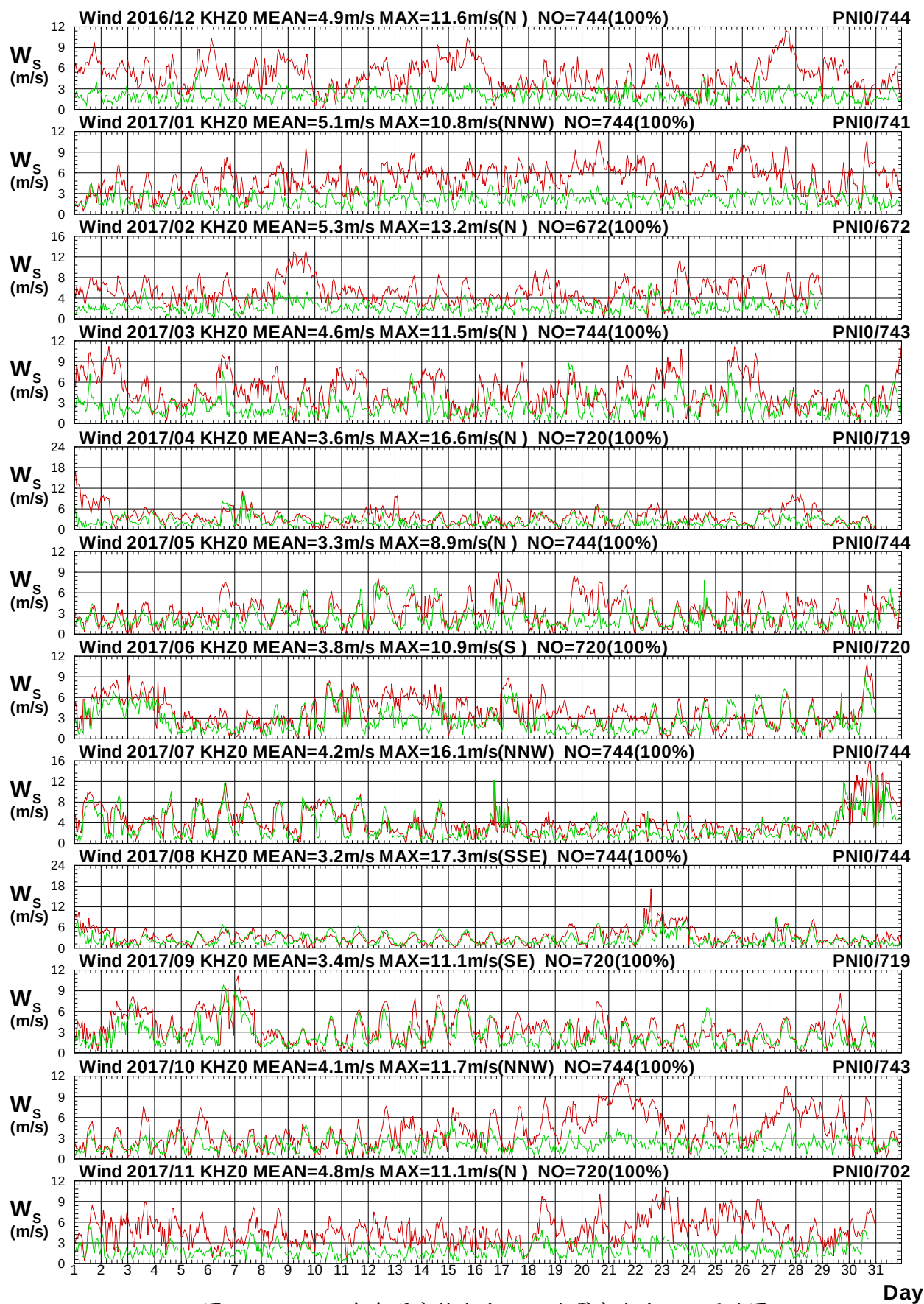


圖1.35a 2017年每月高雄海域 Z 站與屏東海域 I 站風速圖

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W173KHZ0.1HA W173PNI0.1H0 W174KHZ0.1HA W174PNI0.1H0 W175KHZ0.1HA W175PNI0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

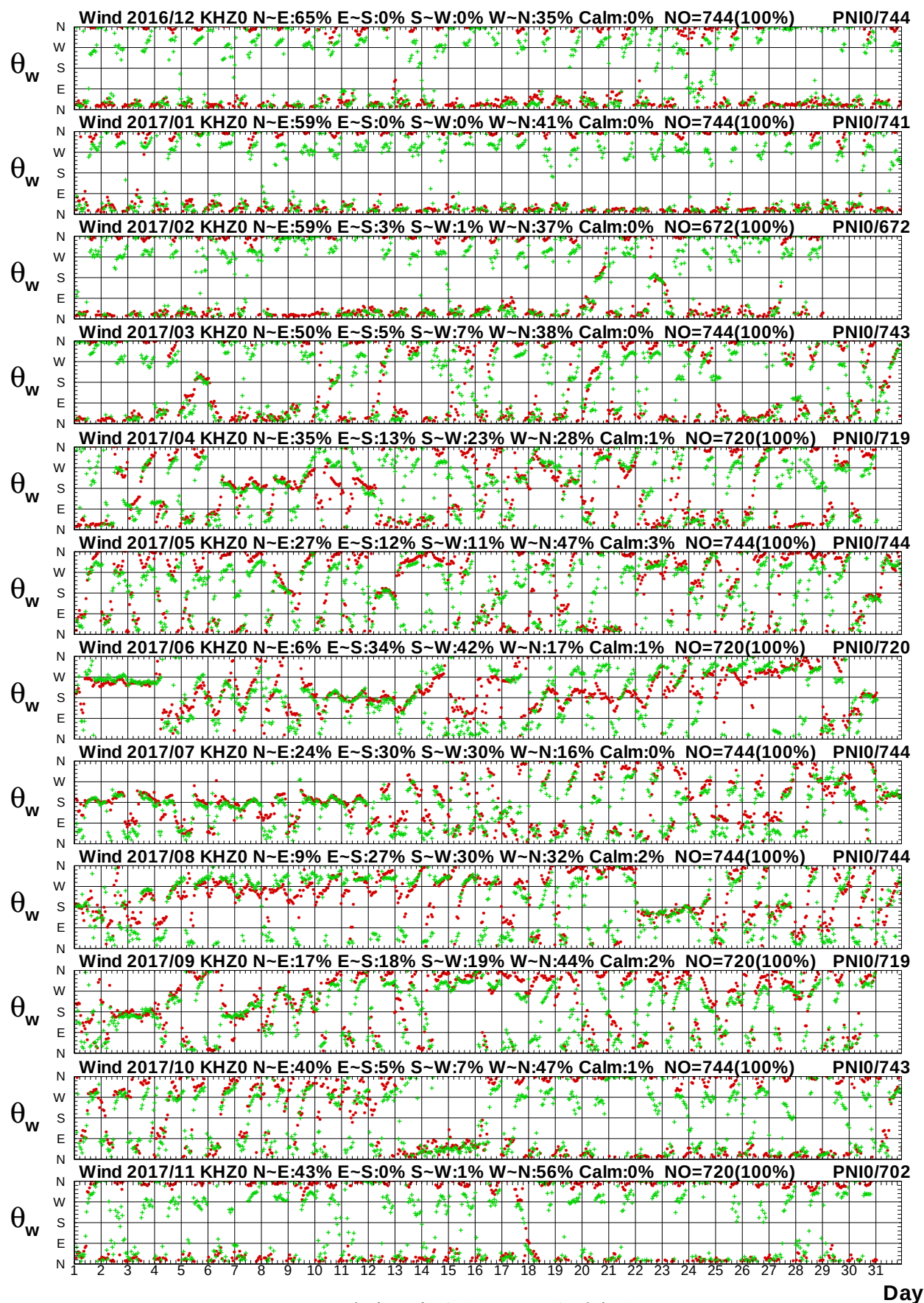


圖1.35b 2017年每月高雄海域 Z 站與屏東海域 I 站風向圖

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W173KHZ0.1HA W173PNI0.1H0 W174KHZ0.1HA W174PNI0.1H0 W175KHZ0.1HA W175PNI0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

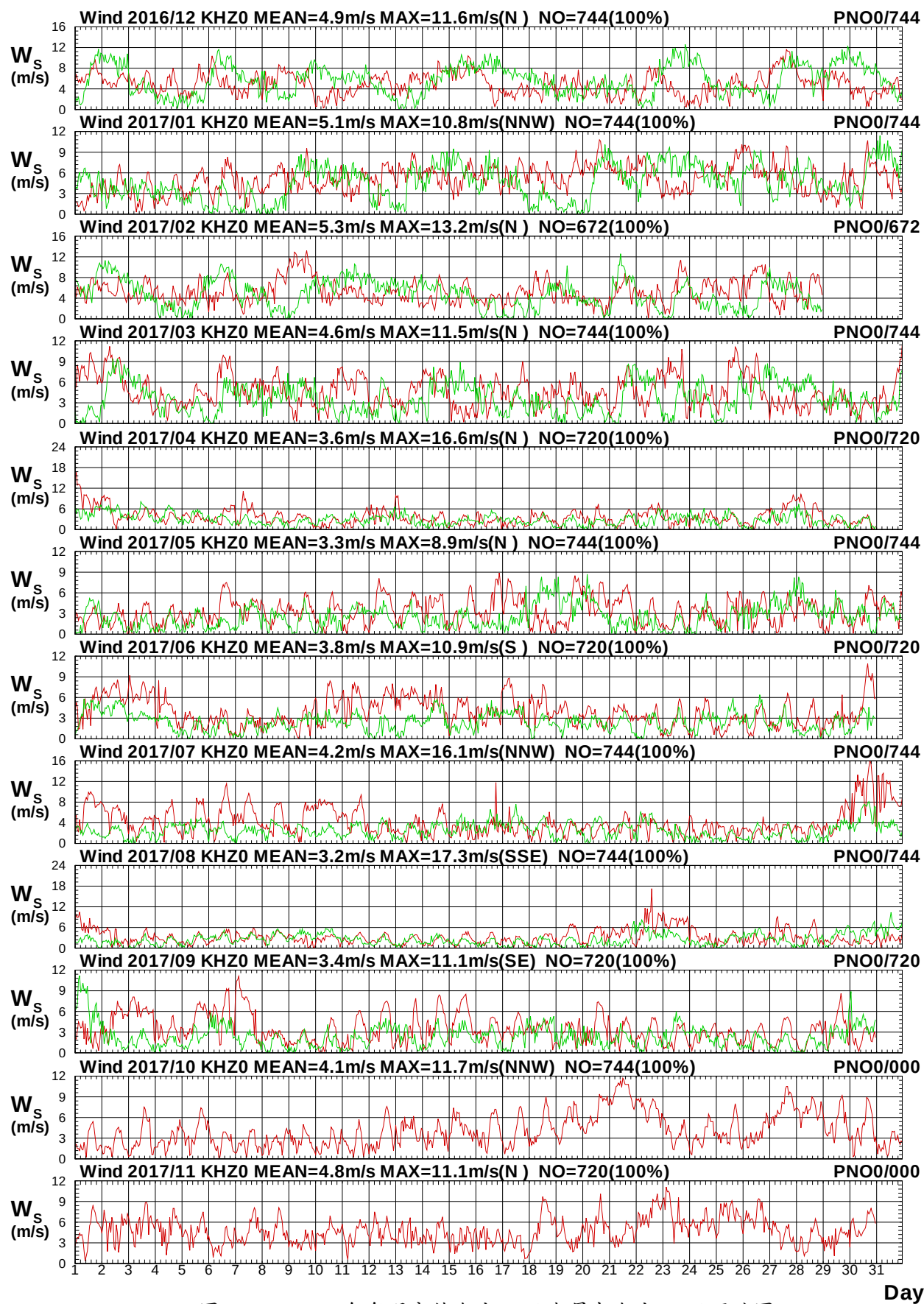


圖1.36a 2017年每月高雄海域 Z 站與屏東海域 O 站風速圖

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W173KHZ0.1HA W173PNO0.1H0 W174KHZ0.1HA W174PNO0.1H0 W175KHZ0.1HA W175PNO0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

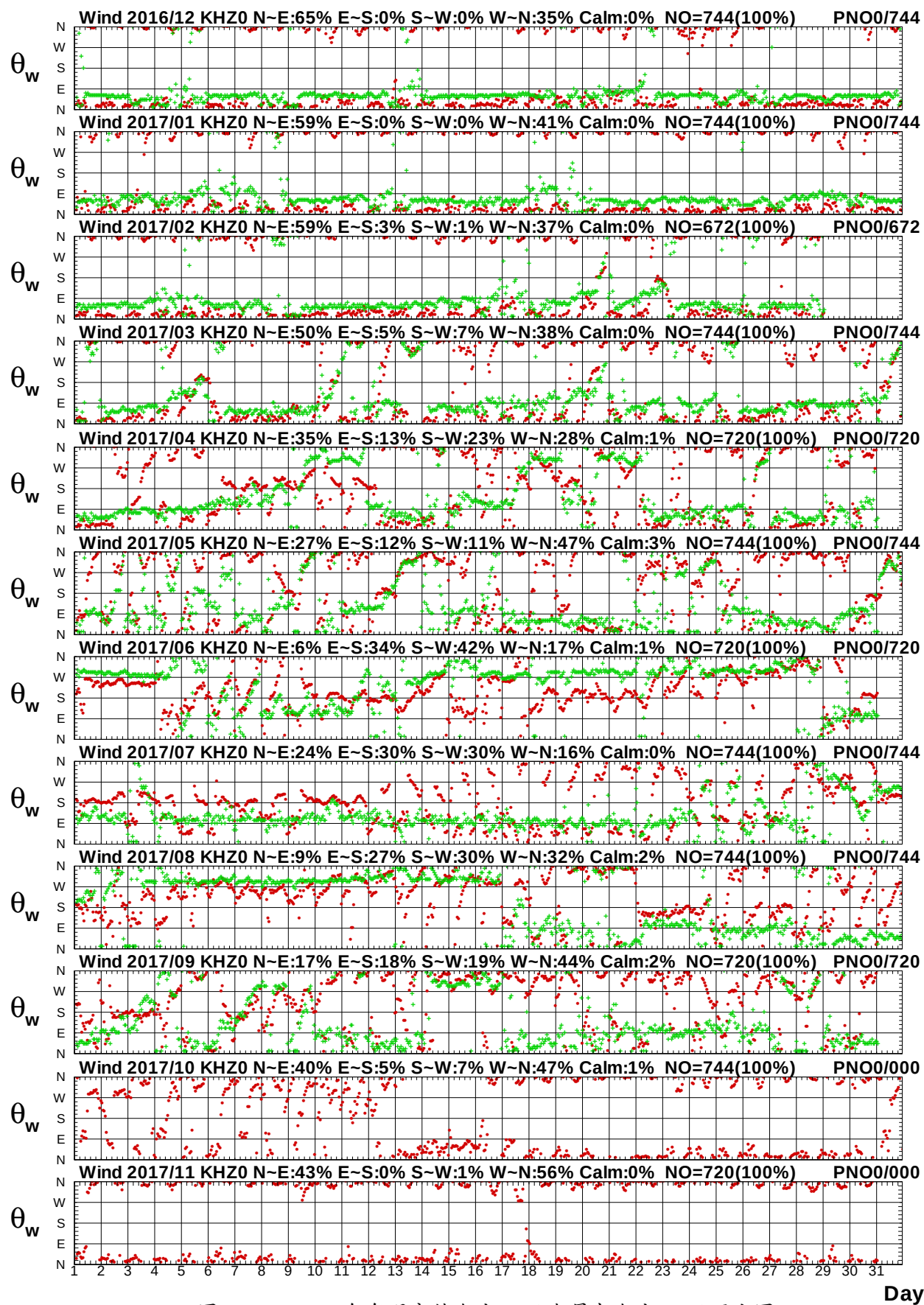


圖1.36b 2017年每月高雄海域 Z 站與屏東海域 O 站風向圖

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W173KHZ0.1HA W173PNO0.1H0 W174KHZ0.1HA W174PNO0.1H0 W175KHZ0.1HA W175PNO0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

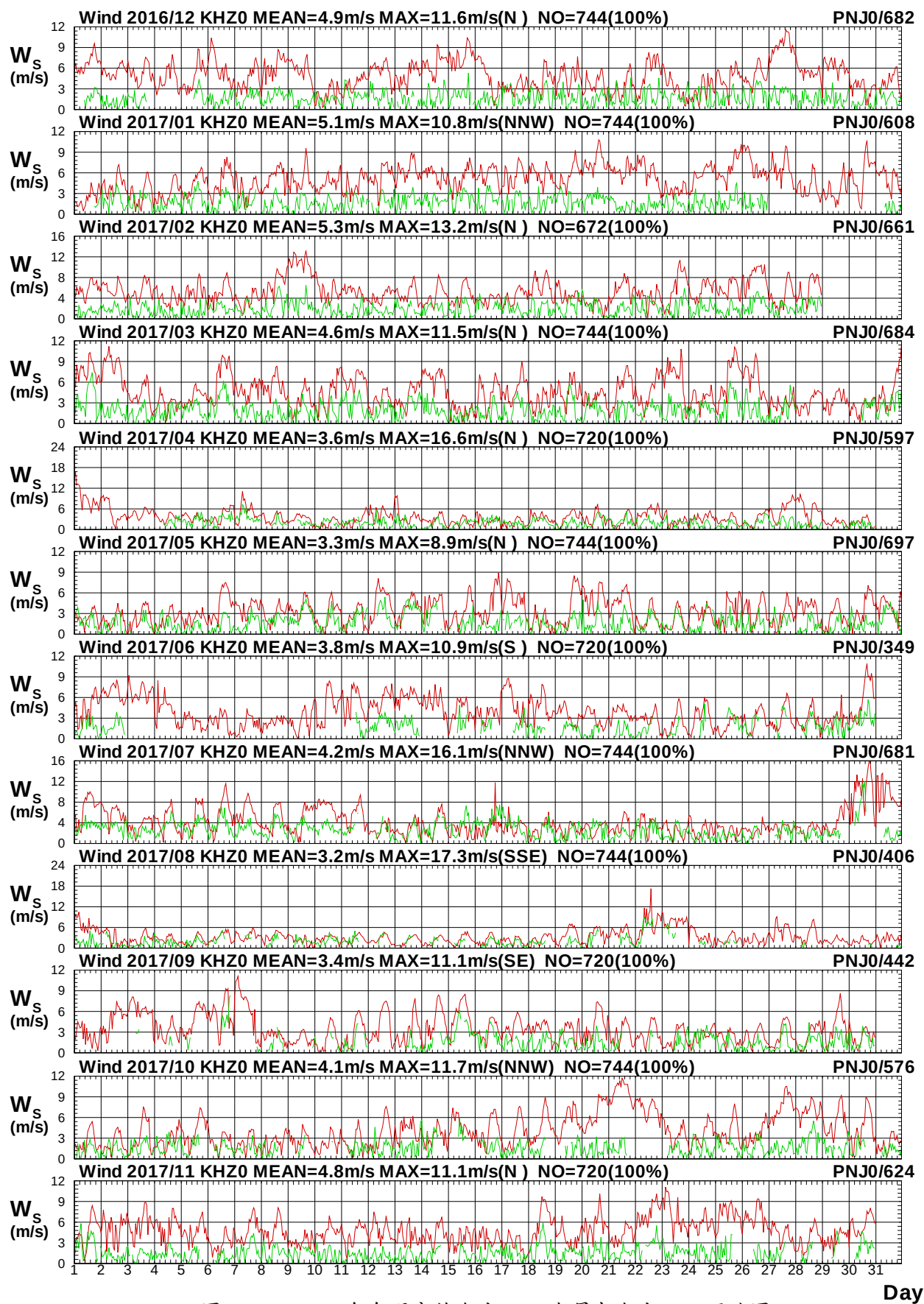


圖1.37a 2017年每月高雄海域 Z 站與屏東海域 J 站風速圖

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W173KHZ0.1HA W173PNJ0.1H0 W174KHZ0.1HA W174PNJ0.1H0 W175KHZ0.1HA W175PNJ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

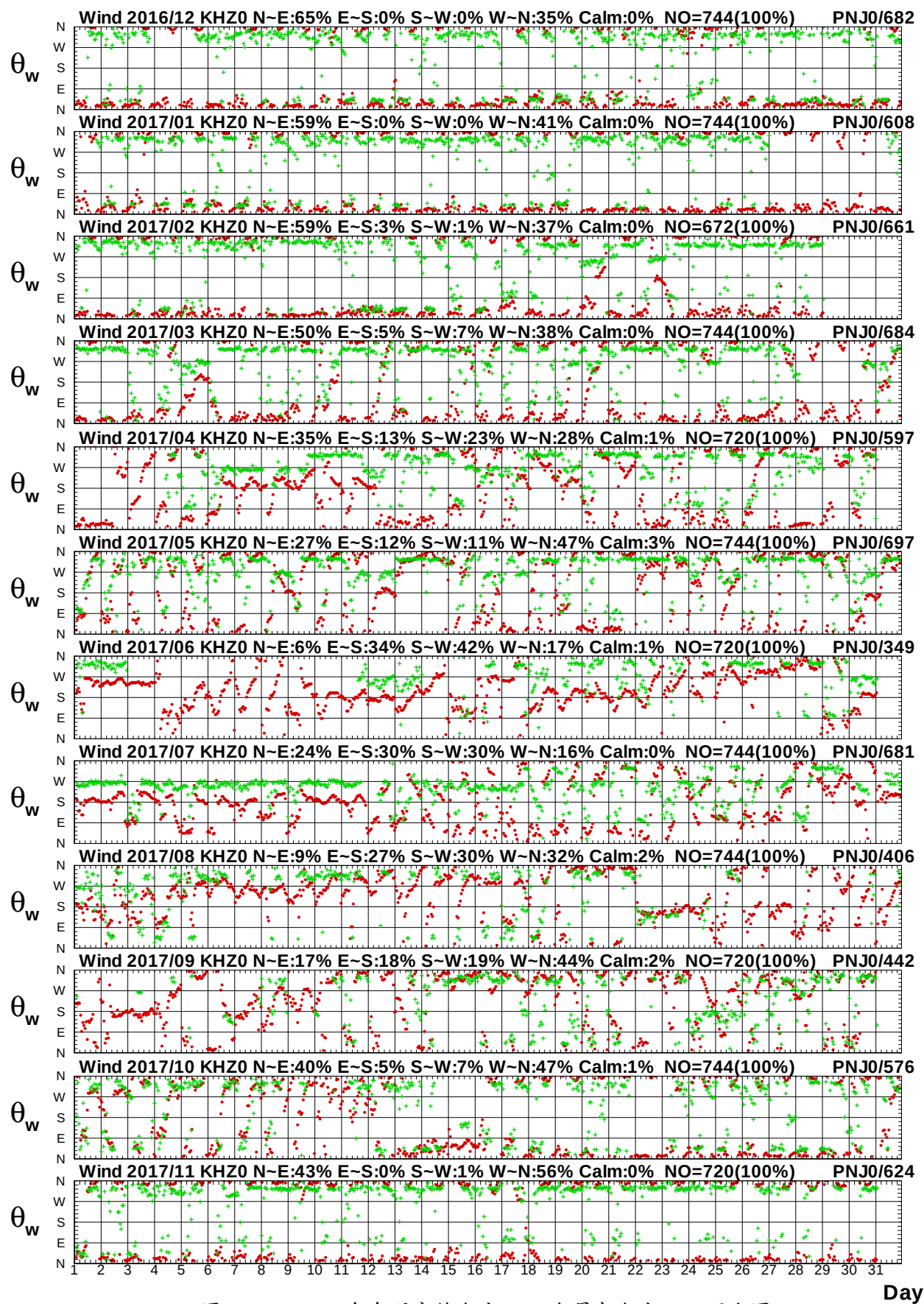


圖1.37b 2017年每月高雄海域 Z 站與屏東海域 J 站風向圖

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W173KHZ0.1HA W173PNJ0.1H0 W174KHZ0.1HA W174PNJ0.1H0 W175KHZ0.1HA W175PNJ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

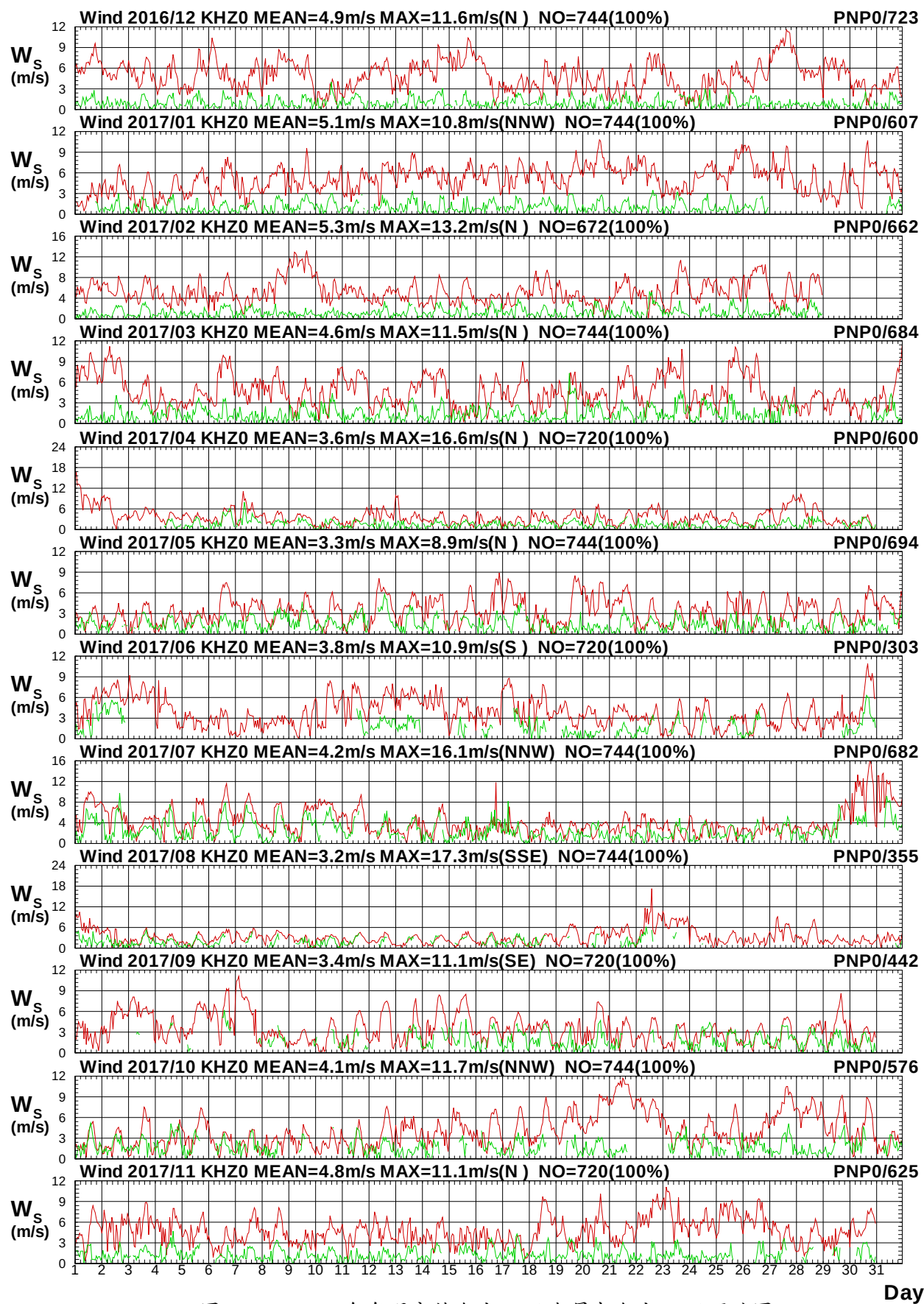


圖1.38a 2017年每月高雄海域 Z 站與屏東海域 P 站風速圖

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W173KHZ0.1HA W173PNP0.1H0 W174KHZ0.1HA W174PNP0.1H0 W175KHZ0.1HA W175PNP0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

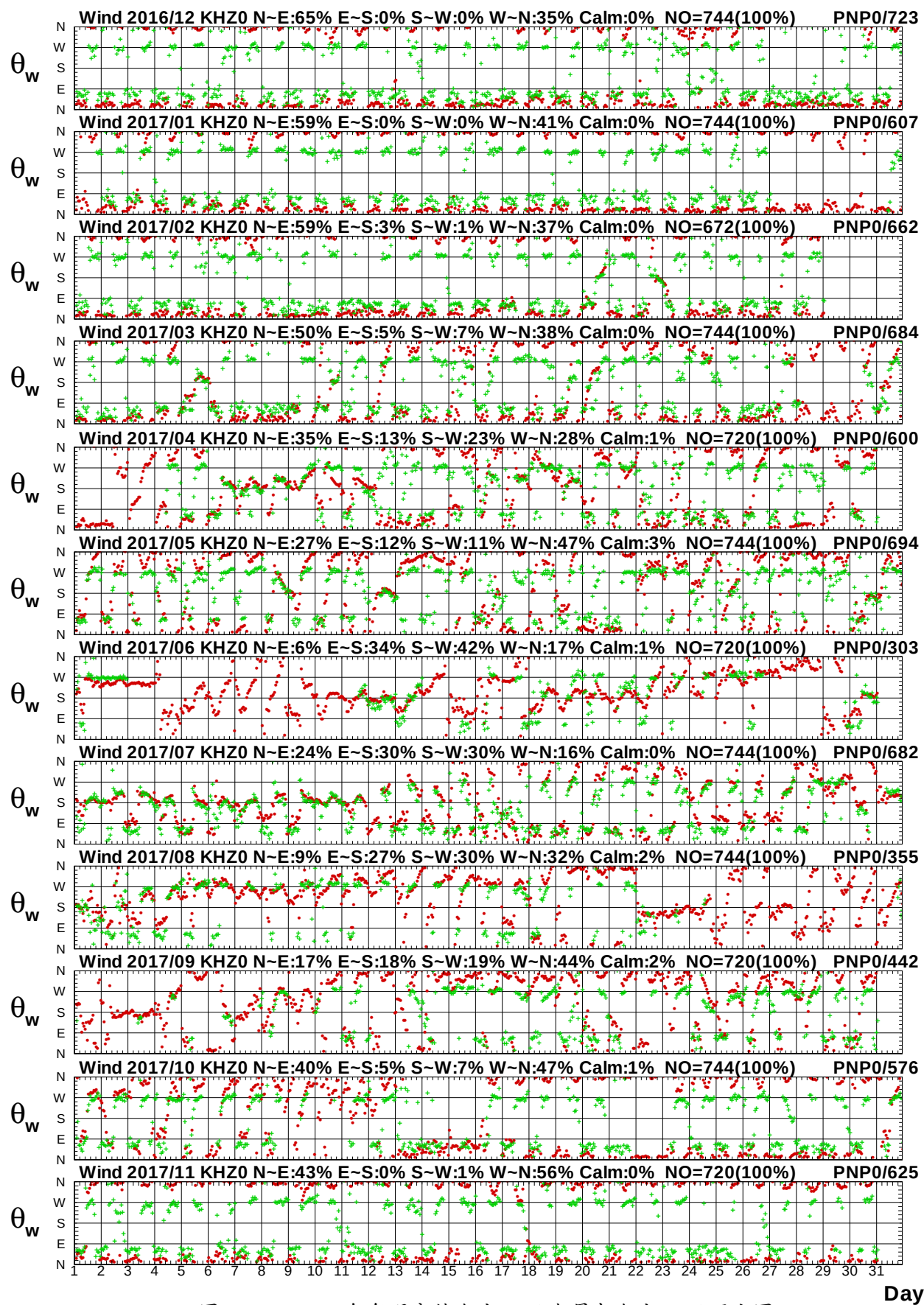


圖1.38b 2017年每月高雄海域 Z 站與屏東海域 P 站風向圖

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W173KHZ0.1HA W173PNP0.1H0 W174KHZ0.1HA W174PNP0.1H0 W175KHZ0.1HA W175PNP0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

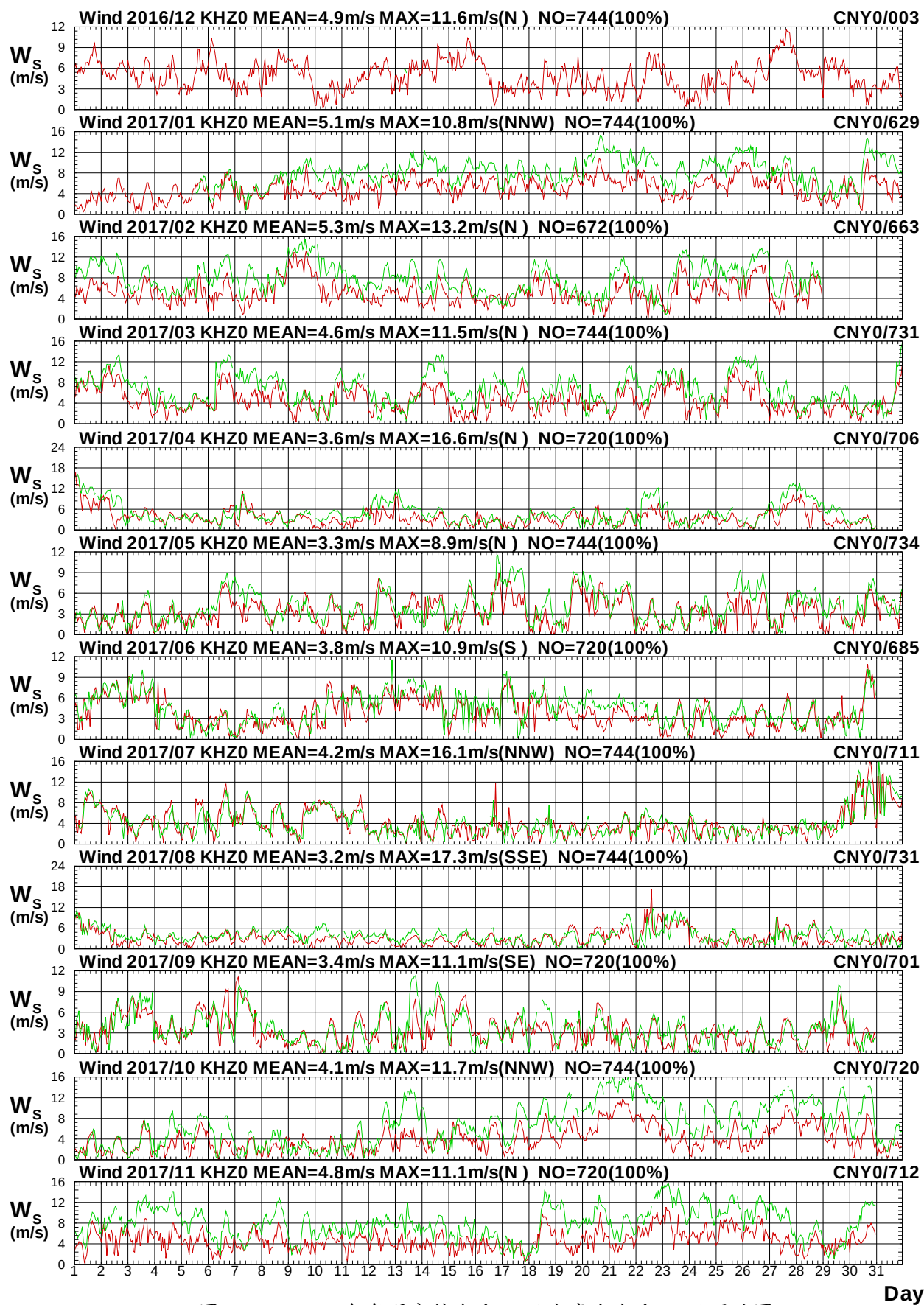


圖1.39a 2017年每月高雄海域 Z 站與嘉南海域 Y 站風速圖

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W173KHZ0.1HA W173CNY0.1H0 W174KHZ0.1HA W174CNY0.1H0 W175KHZ0.1HA W175CNY0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

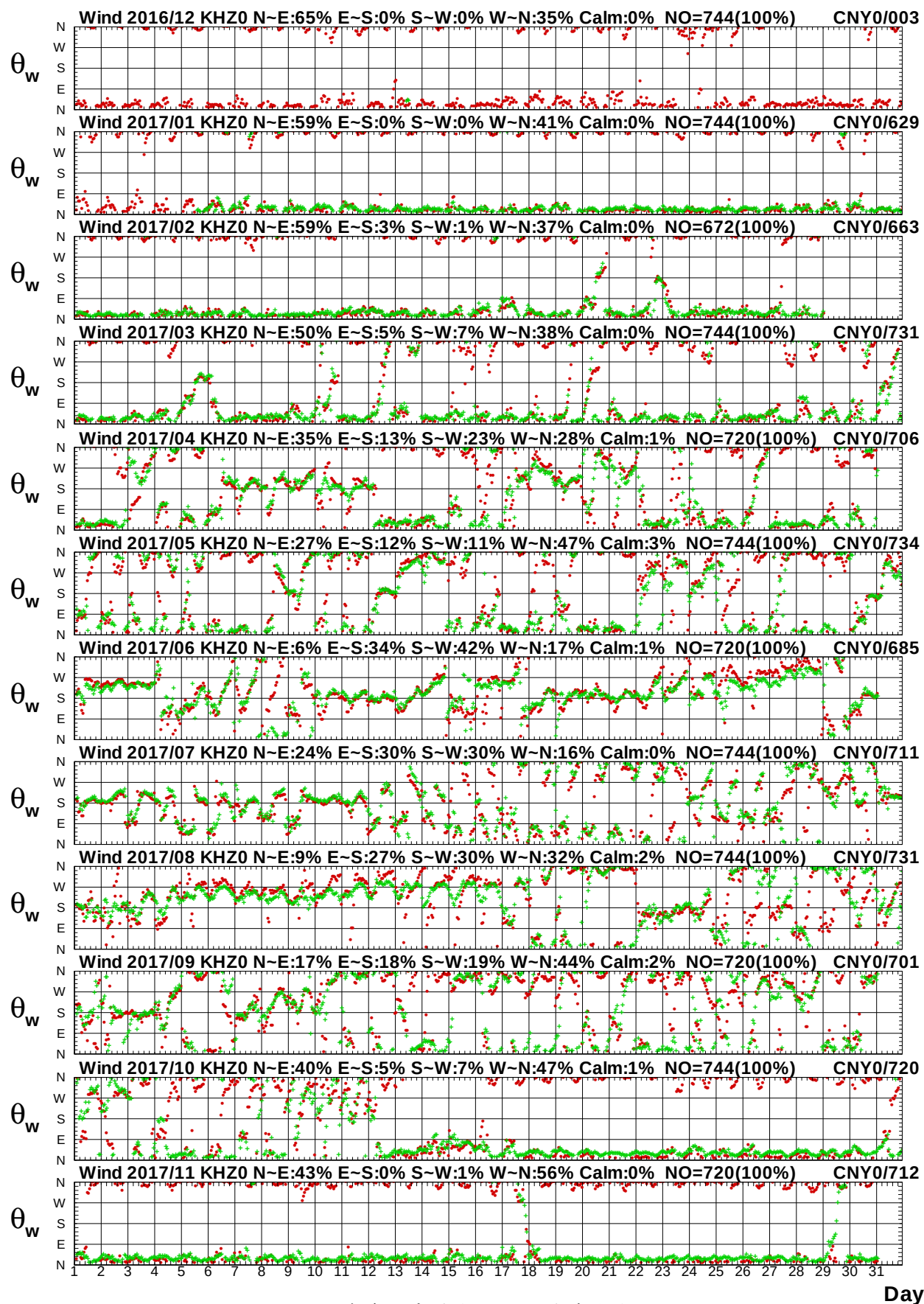


圖1.39b 2017年每月高雄海域 Z 站與嘉南海域 Y 站風向圖

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W173KHZ0.1HA W173CNY0.1H0 W174KHZ0.1HA W174CNY0.1H0 W175KHZ0.1HA W175CNY0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

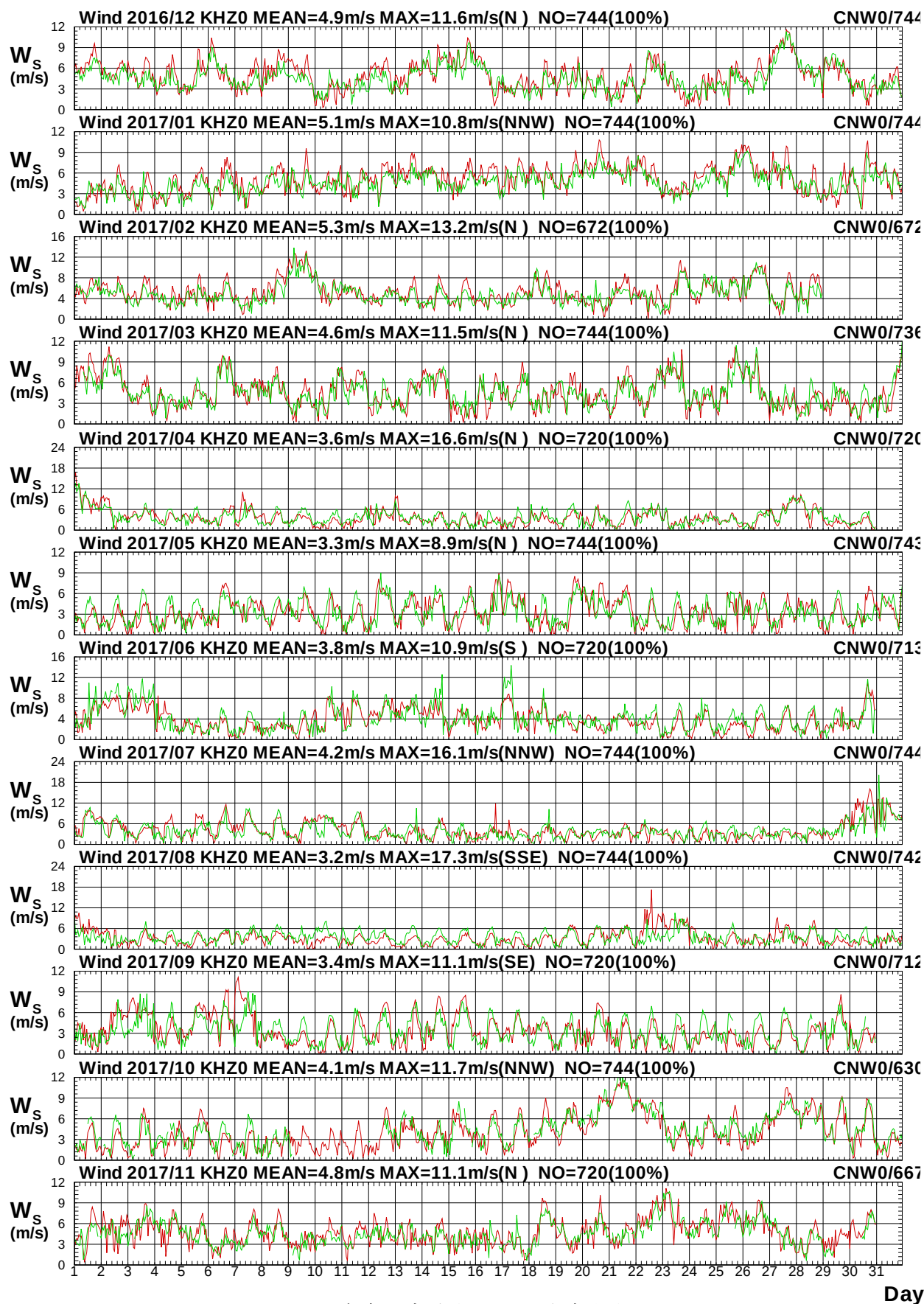


圖1.40a 2017年每月高雄海域 Z 站與嘉南海域 W 站風速圖

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W173KHZ0.1HA W173CNW0.1H0 W174KHZ0.1HA W174CNW0.1H0 W175KHZ0.1HA W175CNW0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

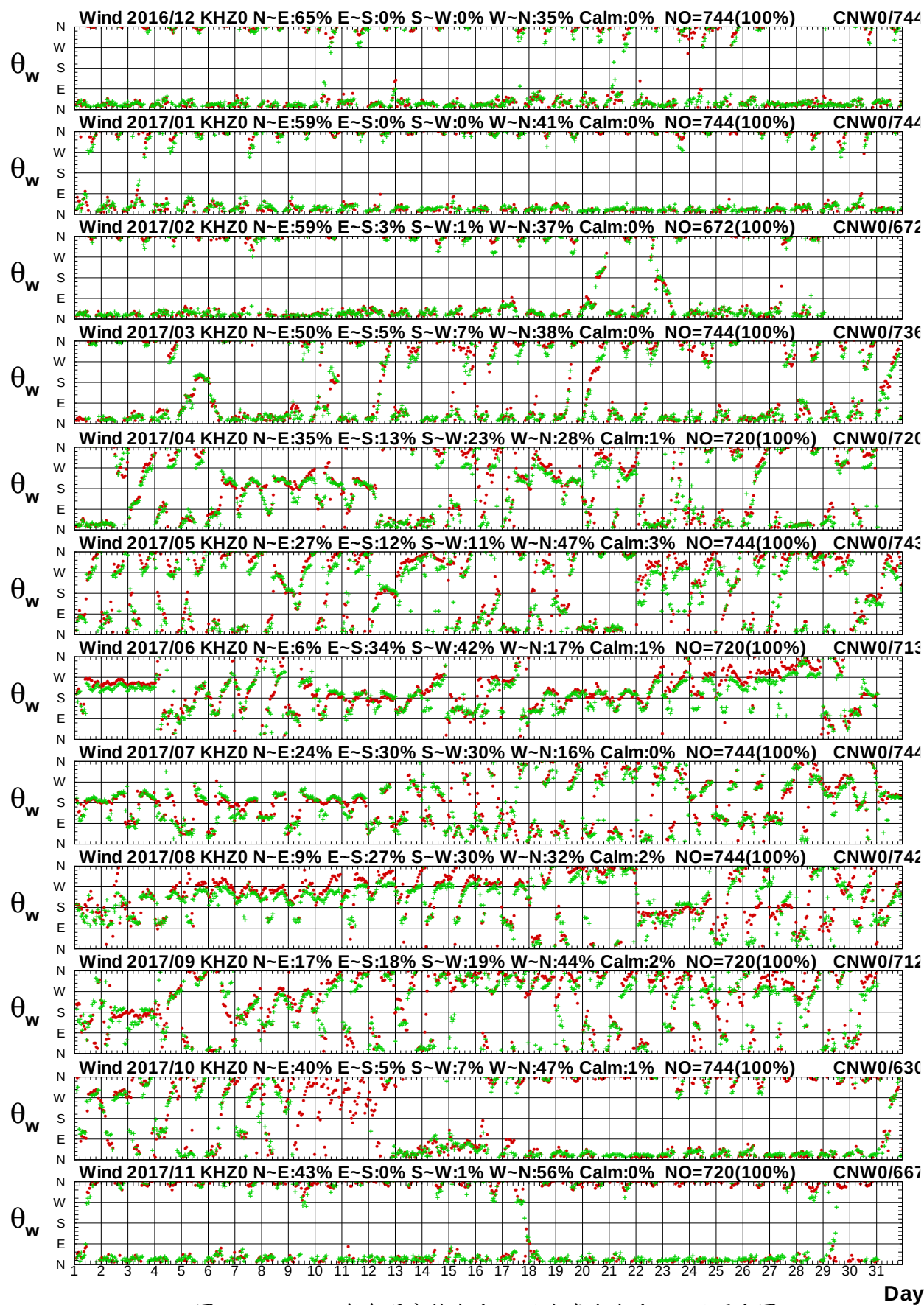


圖1.40b 2017年每月高雄海域 Z 站與嘉南海域 W 站風向圖

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W173KHZ0.1HA W173CNW0.1H0 W174KHZ0.1HA W174CNW0.1H0 W175KHZ0.1HA W175CNW0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

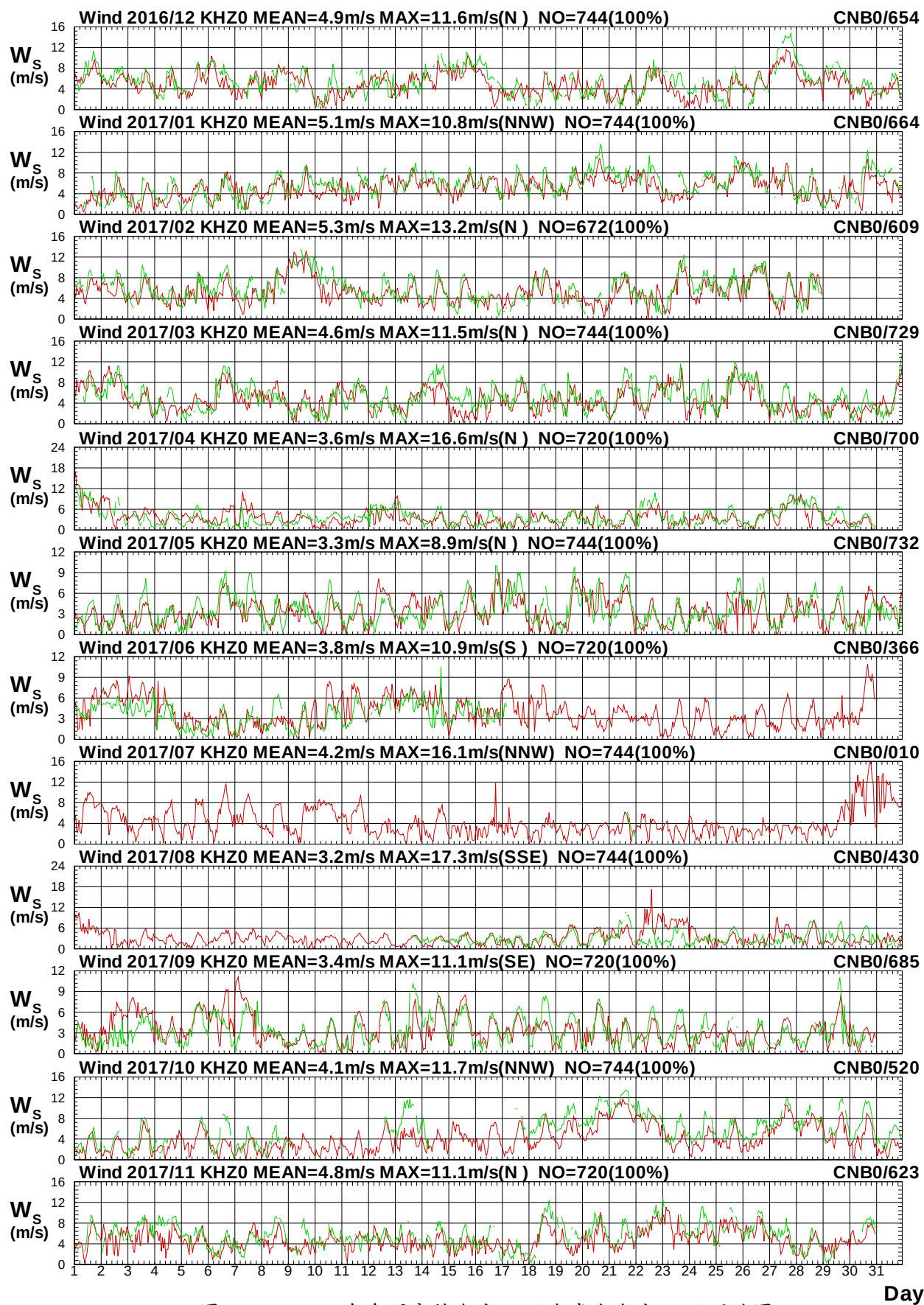


圖1.41a 2017年每月高雄海域 Z 站與嘉南海域 B 站風速圖

W16CKHZ0.1HA W16CCNB0.1H0 W171KHZ0.1HA W171CNB0.1H0 W172KHZ0.1HA W172CNB0.1H0
W173KHZ0.1HA W173CNB0.1H0 W174KHZ0.1HA W174CNB0.1H0 W175KHZ0.1HA W175CNB0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

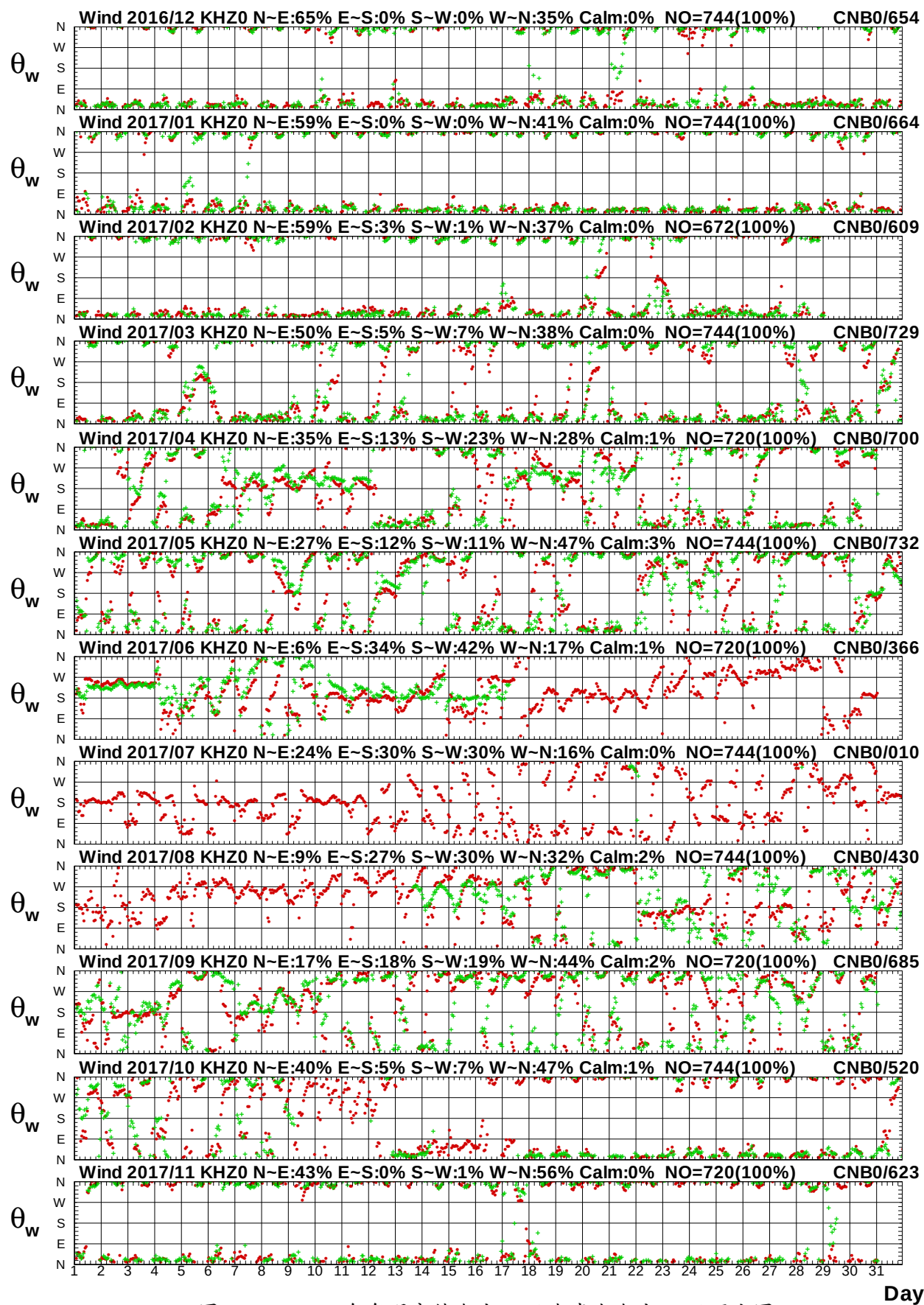


圖1.41b 2017年每月高雄海域 Z 站與嘉南海域 B 站風向圖

W16CKHZ0.1HA W16CCNB0.1H0 W171KHZ0.1HA W171CNB0.1H0 W172KHZ0.1HA W172CNB0.1H0
W173KHZ0.1HA W173CNB0.1H0 W174KHZ0.1HA W174CNB0.1H0 W175KHZ0.1HA W175CNB0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

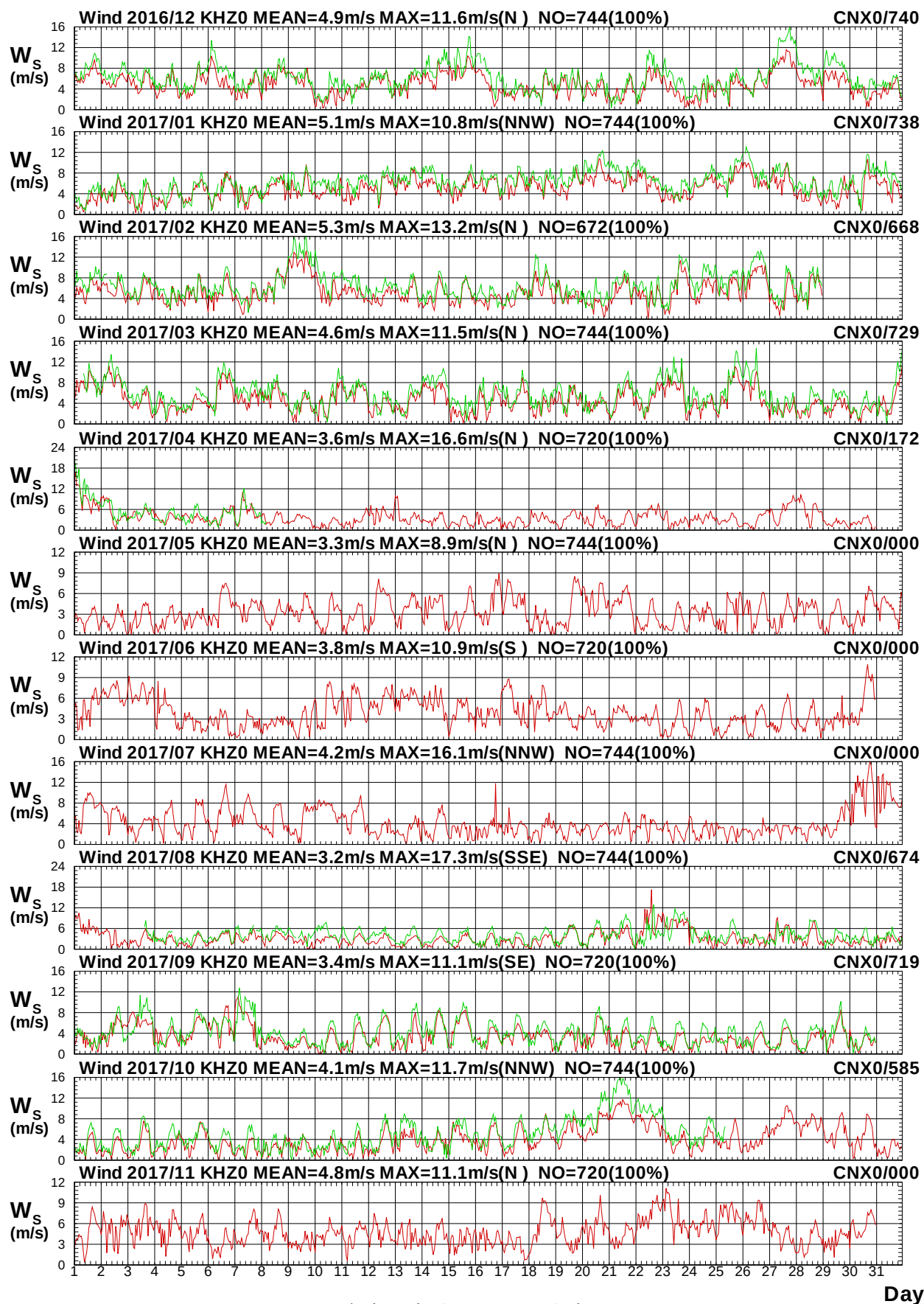


圖1.42a 2017年每月高雄海域 Z 站與嘉南海域 X 站風速圖

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W173KHZ0.1HA W173CNX0.1H0 W174KHZ0.1HA W174CNX0.1H0 W175KHZ0.1HA W175CNX0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

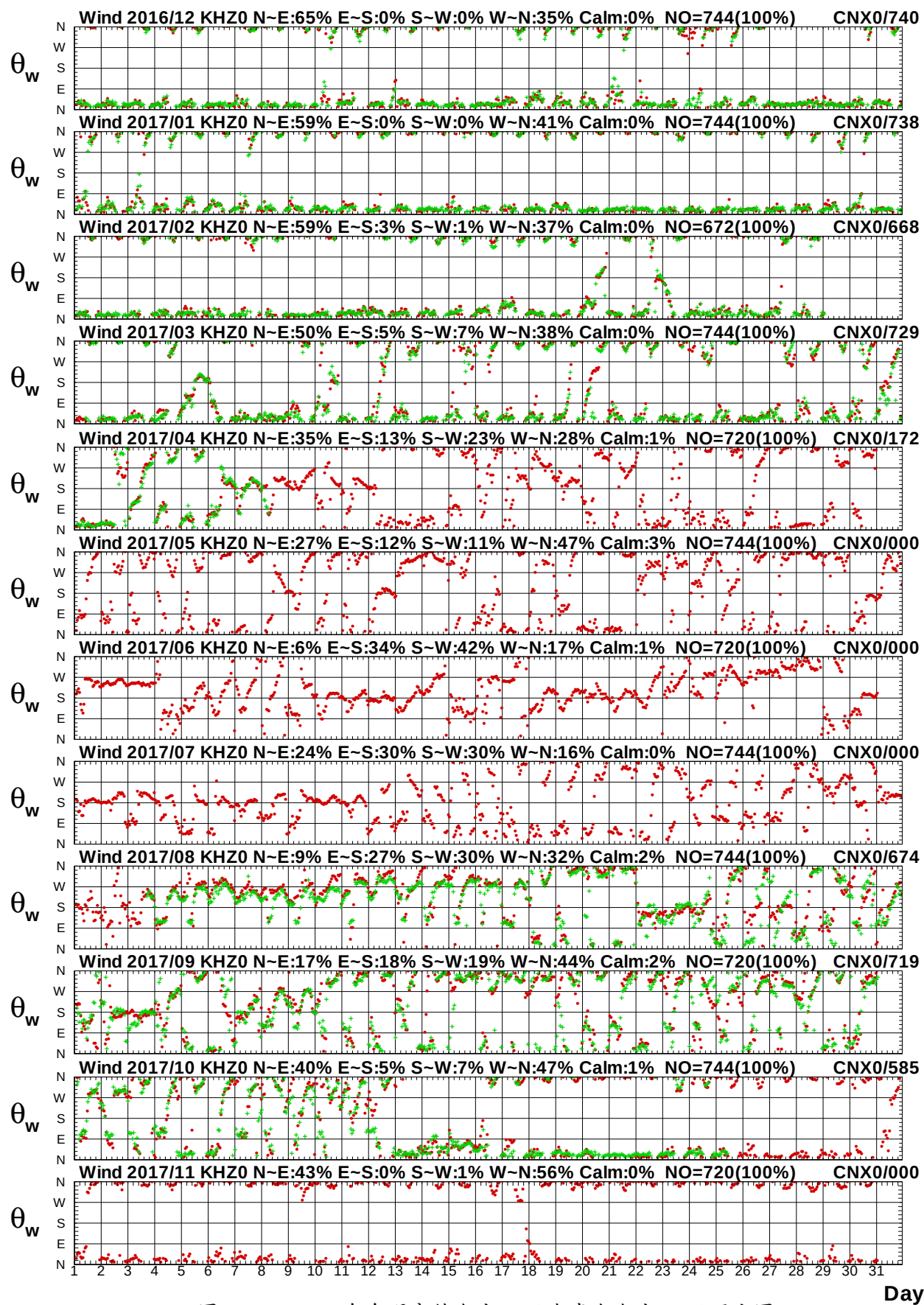


圖1.42b 2017年每月高雄海域 Z 站與嘉南海域 X 站風向圖

W16CKHZ0.1HA W16CCNX0.1H0 W171KHZ0.1HA W171CNX0.1H0 W172KHZ0.1HA W172CNX0.1H0
W173KHZ0.1HA W173CNX0.1H0 W174KHZ0.1HA W174CNX0.1H0 W175KHZ0.1HA W175CNX0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

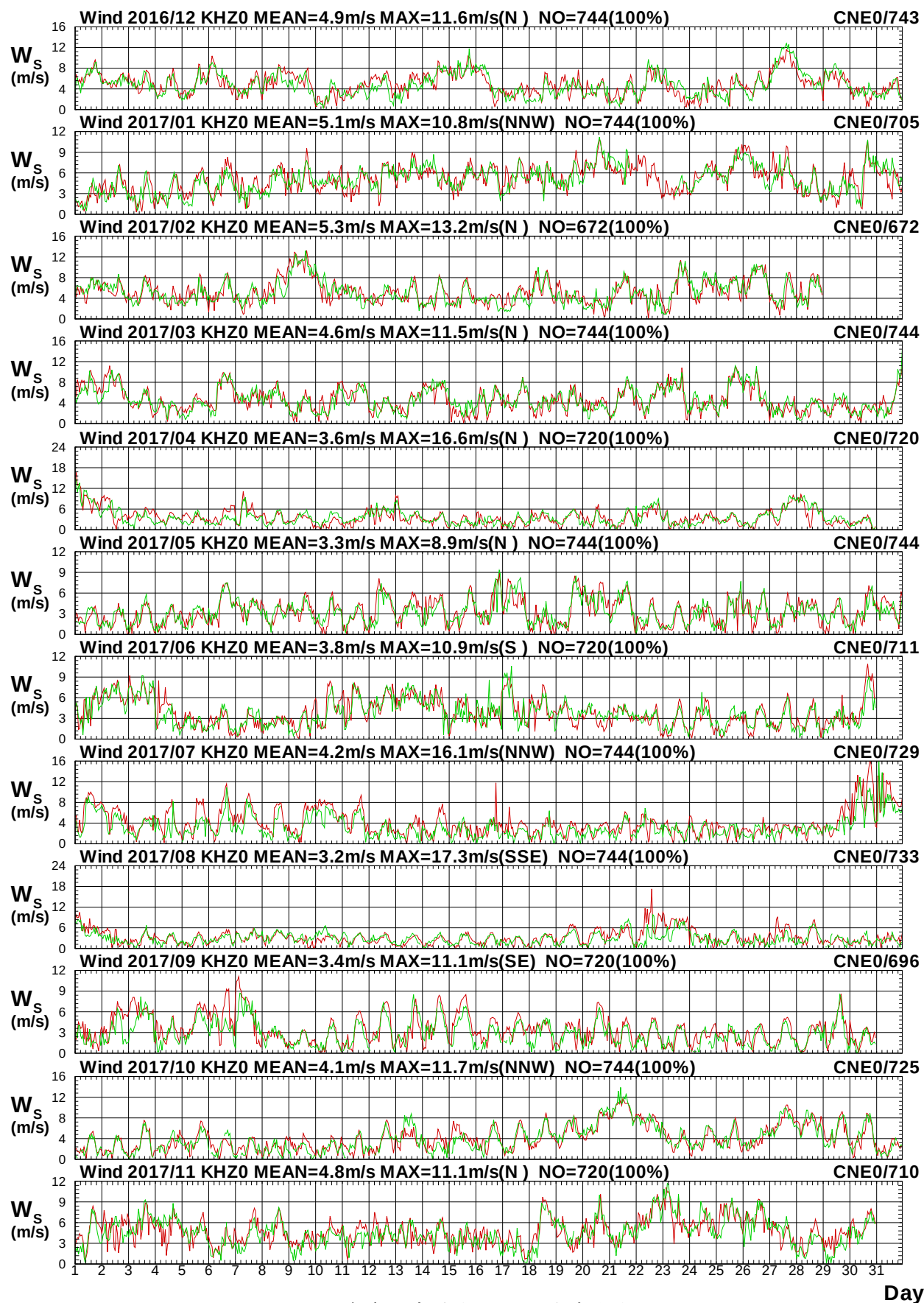


圖1.43a 2017年每月高雄海域 Z 站與嘉南海域 E 站風速圖

W16CKHZ0.1HA W16CCNE0.1H0 W171KHZ0.1HA W171CNE0.1H0 W172KHZ0.1HA W172CNE0.1H0
W173KHZ0.1HA W173CNE0.1H0 W174KHZ0.1HA W174CNE0.1H0 W175KHZ0.1HA W175CNE0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

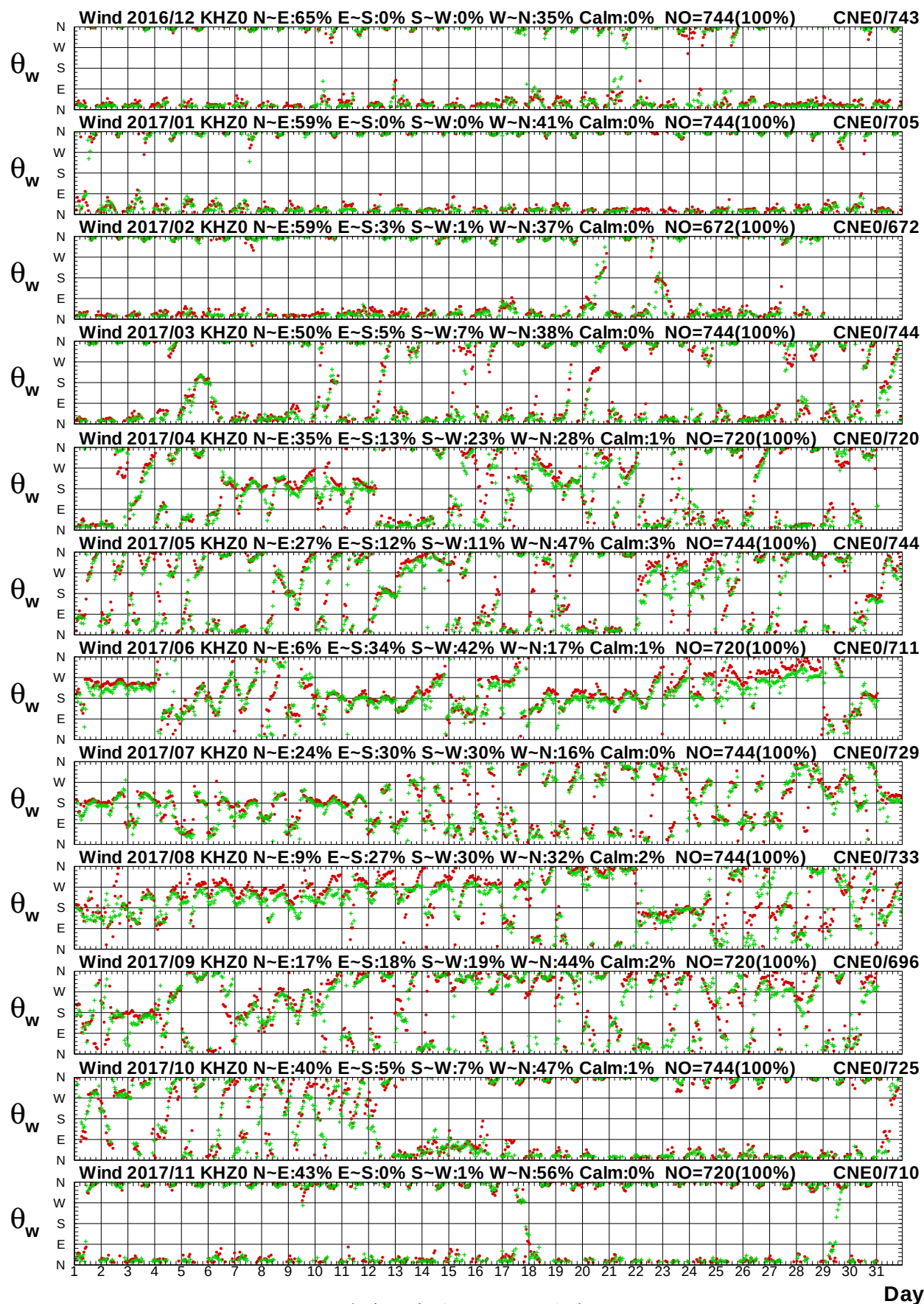


圖1.43b 2017年每月高雄海域 Z 站與嘉南海域 E 站風向圖

W16CKHZ0.1HA W16CCNE0.1H0 W171KHZ0.1HA W171CNE0.1H0 W172KHZ0.1HA W172CNE0.1H0
W173KHZ0.1HA W173CNE0.1H0 W174KHZ0.1HA W174CNE0.1H0 W175KHZ0.1HA W175CNE0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

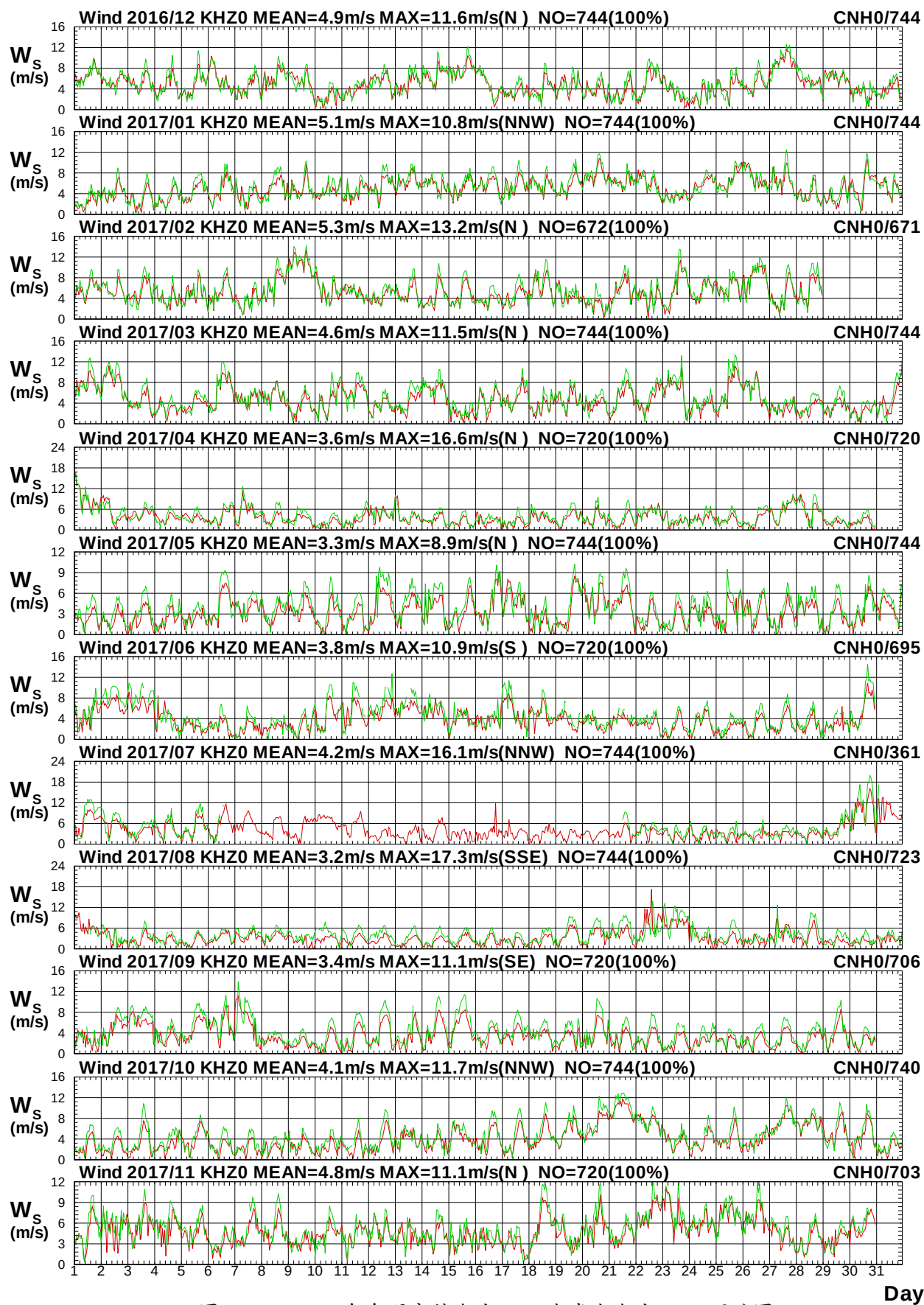


圖1.44a 2017年每月高雄海域 Z 站與嘉南海域 H 站風速圖

W16CKHZ0.1HA W16CCNH0.1H0 W171KHZ0.1HA W171CNH0.1H0 W172KHZ0.1HA W172CNH0.1H0
W173KHZ0.1HA W173CNH0.1H0 W174KHZ0.1HA W174CNH0.1H0 W175KHZ0.1HA W175CNH0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

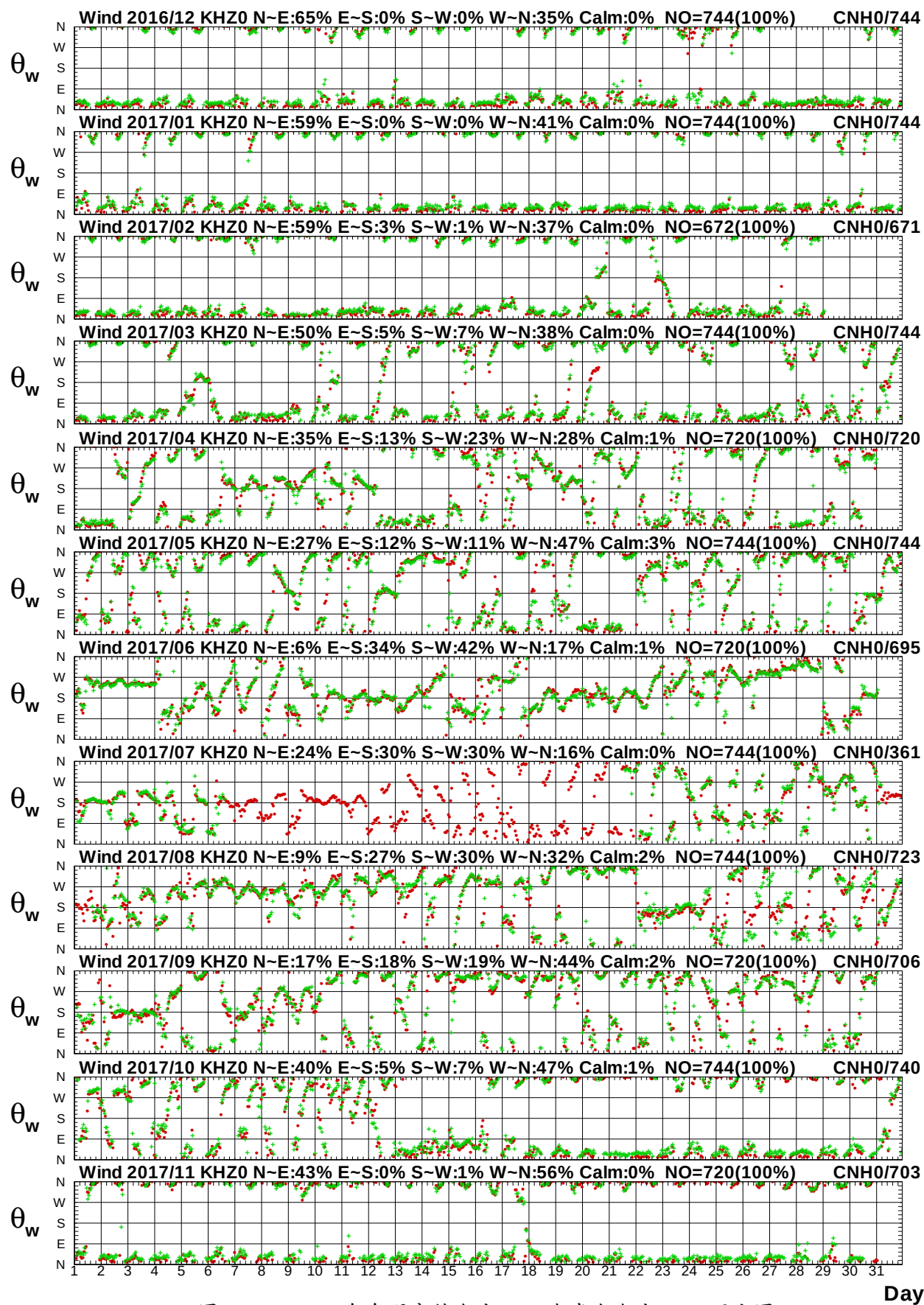


圖1.44b 2017年每月高雄海域 Z 站與嘉南海域 H 站風向圖

W16CKHZ0.1HA W16CCNH0.1H0 W171KHZ0.1HA W171CNH0.1H0 W172KHZ0.1HA W172CNH0.1H0
W173KHZ0.1HA W173CNH0.1H0 W174KHZ0.1HA W174CNH0.1H0 W175KHZ0.1HA W175CNH0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

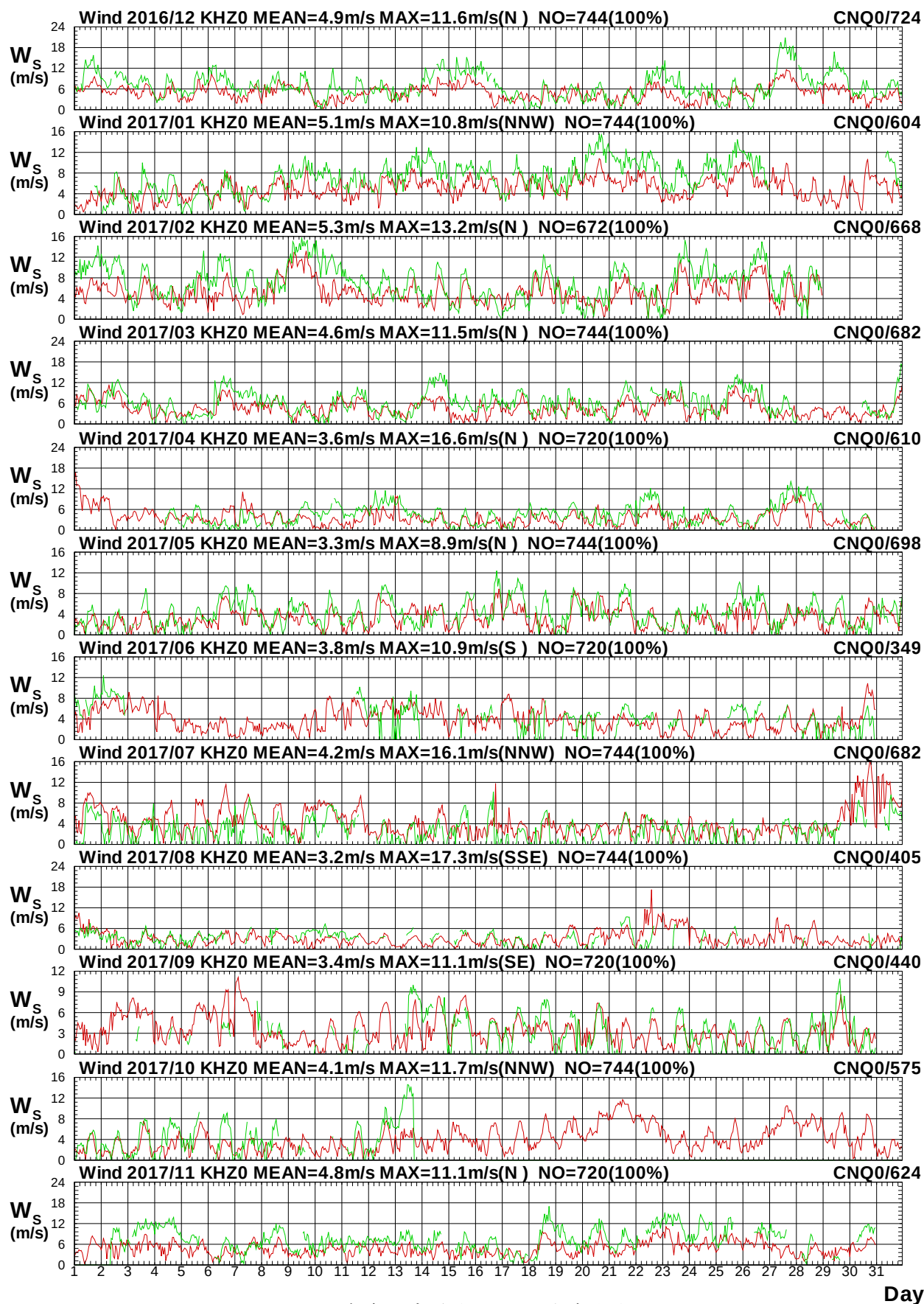


圖1.45a 2017年每月高雄海域 Z 站與嘉南海域 Q 站風速圖

W16CKHZ0.1HA W16CCNQ0.1H0 W171KHZ0.1HA W171CNQ0.1H0 W172KHZ0.1HA W172CNQ0.1H0

W173KHZ0.1HA W173CNQ0.1H0 W174KHZ0.1HA W174CNQ0.1H0 W175KHZ0.1HA W175CNQ0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

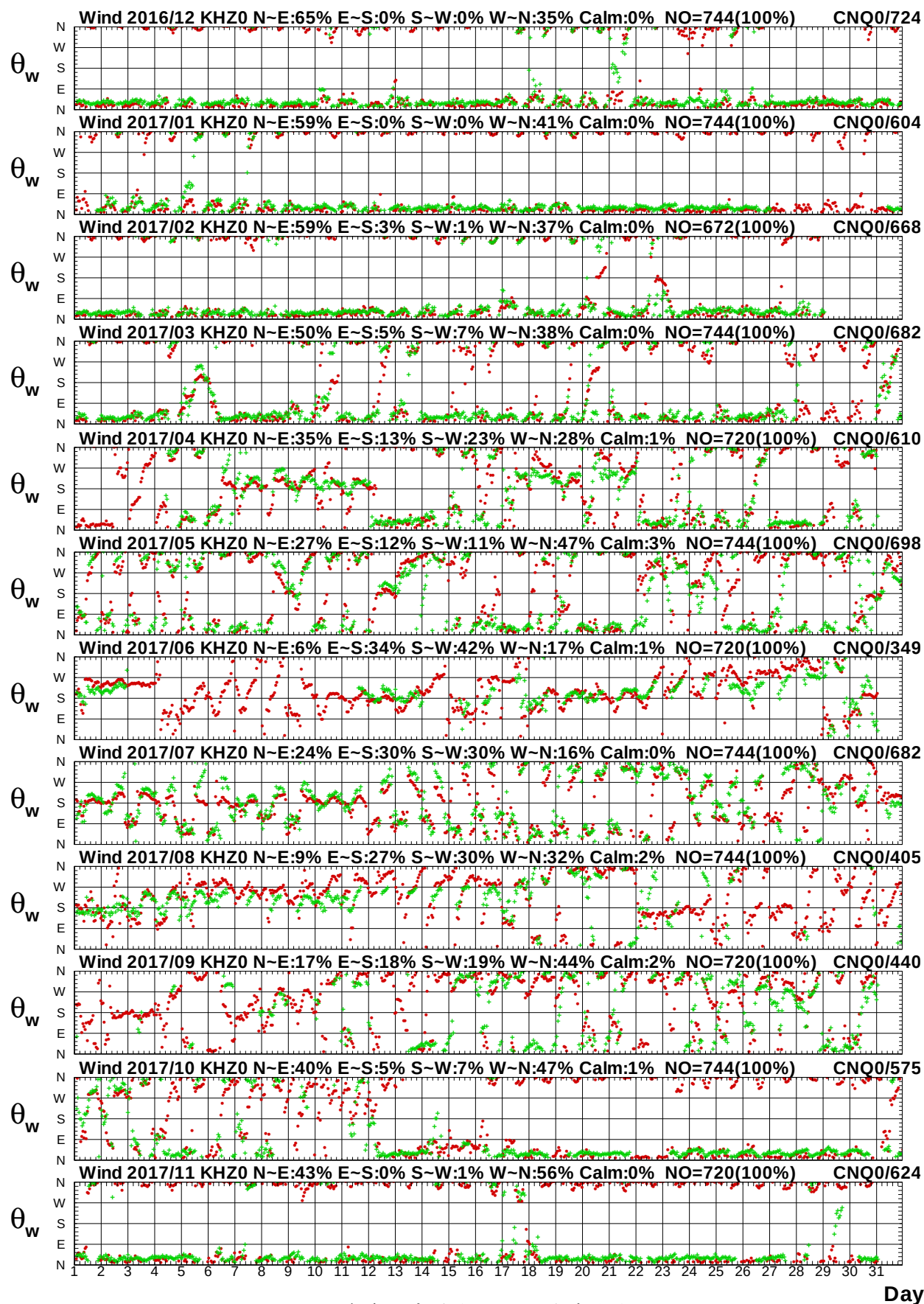


圖1.45b 2017年每月高雄海域 Z 站與嘉南海域 Q 站風向圖

W16CKHZ0.1HA W16CCNQ0.1H0 W171KHZ0.1HA W171CNQ0.1H0 W172KHZ0.1HA W172CNQ0.1H0
W173KHZ0.1HA W173CNQ0.1H0 W174KHZ0.1HA W174CNQ0.1H0 W175KHZ0.1HA W175CNQ0.1H0

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Wind Speed in Kao-Hsiung Seas of KHZ0 at 2017

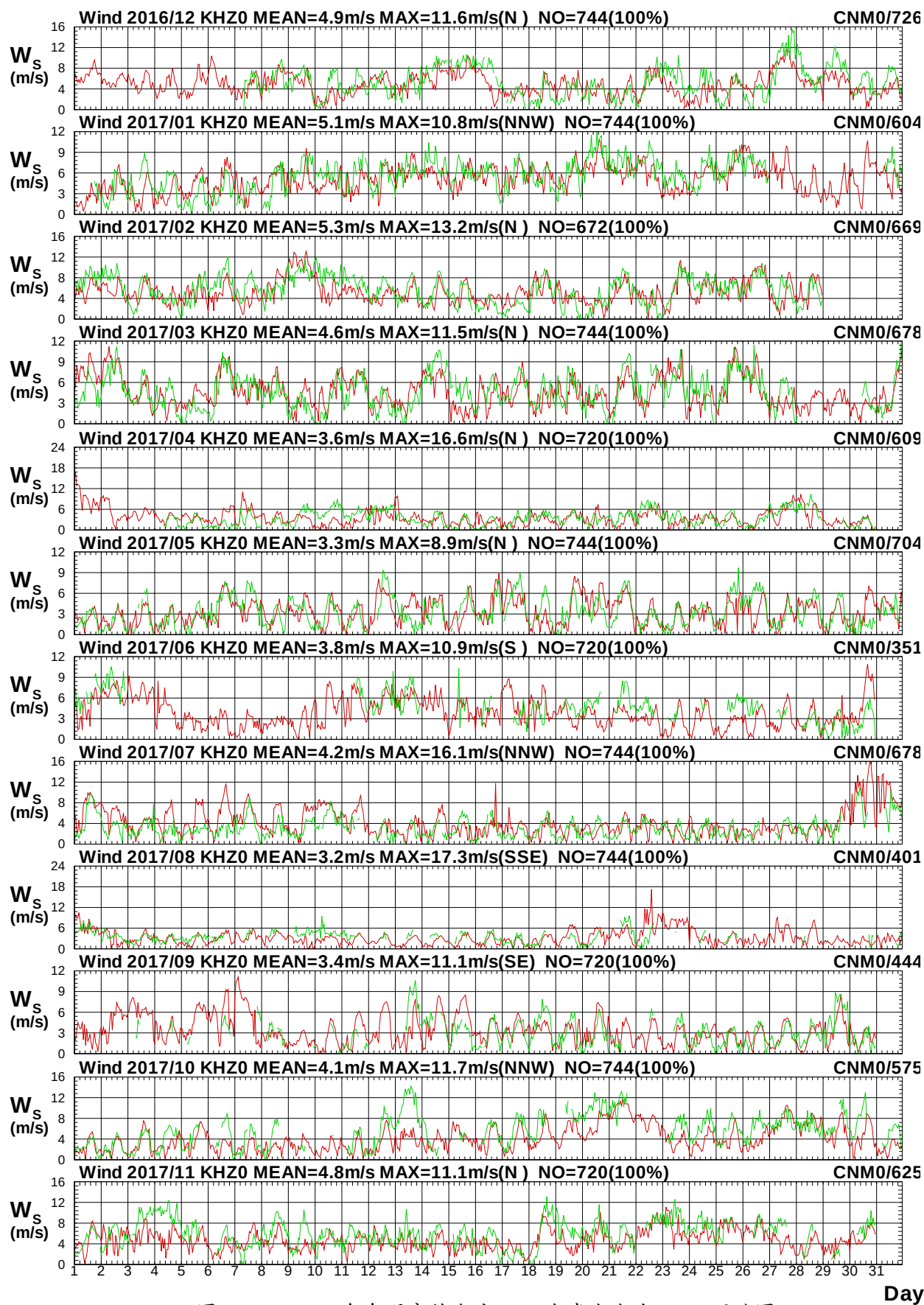


圖1.46a 2017年每月高雄海域 Z 站與嘉南海域 M 站風速圖

W16CKHZ0.1HA W16CCNM0.1H0 W171KHZ0.1HA W171CNM0.1H0 W172KHZ0.1HA W172CNM0.1H0
W173KHZ0.1HA W173CNM0.1H0 W174KHZ0.1HA W174CNM0.1H0 W175KHZ0.1HA W175CNM0.1H0

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Wind Direction in Kao-Hsiung Seas of KHZ0 at 2017

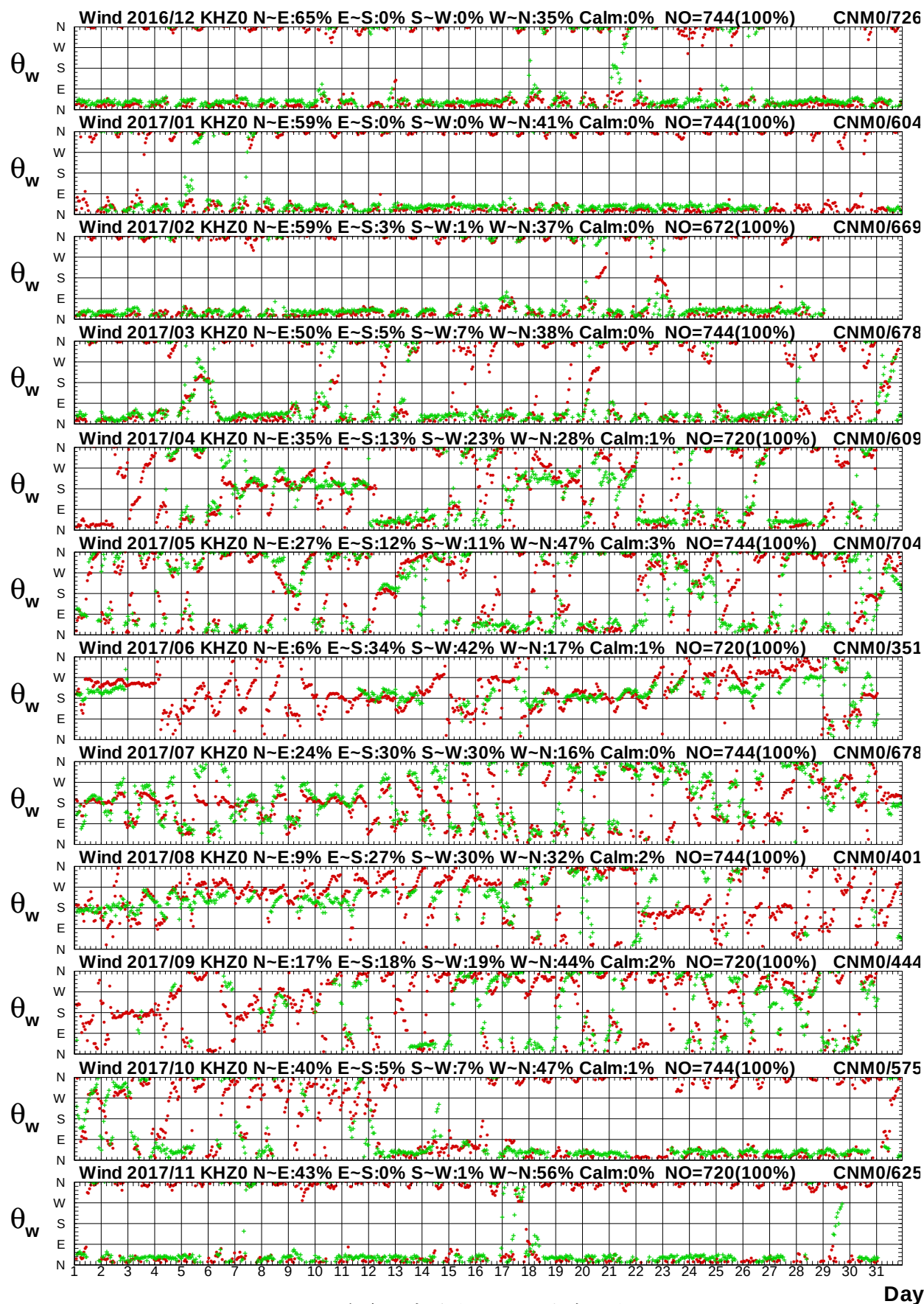


圖1.46b 2017年每月高雄海域 Z 站與嘉南海域 M 站風向圖

W16CKHZ0.1HA W16CCNM0.1H0 W171KHZ0.1HA W171CNM0.1H0 W172KHZ0.1HA W172CNM0.1H0
W173KHZ0.1HA W173CNM0.1H0 W174KHZ0.1HA W174CNM0.1H0 W175KHZ0.1HA W175CNM0.1H0

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第二章 2017 年高雄海域觀測波浪資料

高雄海域波浪觀測包括測站 **X**、測站 **Z**、測站 **A**、測站 **1** 及測站 **2** 等 5 個測站(測站位置如第 O 章圖 VH1)。本年報取經檢核及補遺之 **X 站** 及 **Z 站** 資料作為主要測站。

本**波浪**年報資料處理之圖表包括：

1. 2017 年**各觀測站**每月**觀測波浪**資料**修補前**記錄表。
2. 2017 年**主要測站**每月**觀測波浪**資料**修補後**記錄表。
3. 2017 年**主要測站修補前後**每月(季)及整年示性波高週期及波向重要統計量統計表。
4. 2017 年**主要測站修補前後**每月**波浪**歷線比較圖。
5. 2017 年**主要測站之觀測波浪與次要觀測站(或其他觀測站)**每月**波浪**歷線比較圖。

表 2.1a 2017 年每月高雄海域修補前各測站觀測波浪資料紀錄統計表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	Z	X	A	1	2			
2016/12 月	742(99.7%)	731(98.3%)	*	*	744(100%)	*	*	*
2017/ 1 月	736(98.9%)	735(98.8%)	*	*	*	*	*	*
2017/ 2 月	663(98.7%)	672(100%)	*	*	*	*	*	*
2017/ 3 月	740(99.5%)	737(99.1%)	*	*	14(1.9%)	*	*	*
2017/ 4 月	719(99.9%)	704(97.8%)	*	*	716(99.4%)	*	*	*
2017/ 5 月	741(99.6%)	738(99.2%)	*	*	738(99.2%)	*	*	*
2017/ 6 月	720(100%)	670(93.1%)	*	*	719(99.9%)	*	*	*
2017/ 7 月	744(100%)	425(57.1%)	*	*	741(99.6%)	*	*	*
2017/ 8 月	507(68.1%)	730(98.1%)	*	*	719(96.6%)	*	*	*
2017/ 9 月	706(98.1%)	712(98.9%)	*	*	718(99.7%)	*	*	*
2017/10 月	717(96.4%)	722(97.0%)	*	*	566(76.1%)	*	*	*
2017/11 月	579(80.4%)	303(42.1%)	*	*	*	*	*	*
2017/冬季	2141(99.1%)	2138(99.0%)	*	*	744(34.4%)	*	*	*
2017/春季	2200(99.6%)	2179(98.7%)	*	*	1468(66.5%)	*	*	*
2017/夏季	1971(89.3%)	1825(82.7%)	*	*	2179(98.7%)	*	*	*
2017/秋季	2002(91.7%)	1737(79.5%)	*	*	1284(58.8%)	*	*	*
2017/整年	8314(94.9%)	7879(89.9%)	*	*	5675(64.8%)	*	*	*
起始年月	2016/12	2016/12	*	*	2016/12	*	*	*
結束年月	2017/11	2017/11	*	*	2017/10	*	*	*
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表 2.1b 2017年每月高雄海域修補後各測站波浪資料統計表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	Z							
2016/12 月	744(100%)	*	*	*	*	*	*	*
2017/ 1 月	744(100%)	*	*	*	*	*	*	*
2017/ 2 月	672(100%)	*	*	*	*	*	*	*
2017/ 3 月	744(100%)	*	*	*	*	*	*	*
2017/ 4 月	720(100%)	*	*	*	*	*	*	*
2017/ 5 月	744(100%)	*	*	*	*	*	*	*
2017/ 6 月	720(100%)	*	*	*	*	*	*	*
2017/ 7 月	744(100%)	*	*	*	*	*	*	*
2017/ 8 月	744(100%)	*	*	*	*	*	*	*
2017/ 9 月	720(100%)	*	*	*	*	*	*	*
2017/10 月	744(100%)	*	*	*	*	*	*	*
2017/11 月	720(100%)	*	*	*	*	*	*	*
2017/冬季	2160(100%)	*	*	*	*	*	*	*
2017/春季	2208(100%)	*	*	*	*	*	*	*
2017/夏季	2208(100%)	*	*	*	*	*	*	*
2017/秋季	2184(100%)	*	*	*	*	*	*	*
2017/整年	8760(100%)	*	*	*	*	*	*	*
起始年月	2016/12	*	*	*	*	*	*	*
結束年月	2017/11	*	*	*	*	*	*	*

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表2.2a 2017年高雄海域主要測站1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/%
2016/12	98%	.69	1.2/ 7.9/w	7.0	12.3	9.6	90.4	.0	.0	31.9	37.6	26.8	3.7	98%	.0	.0	73.5	26.5	w /69%
2017/01	99%	.59	1.3/ 7.1/WNW	6.2	10.9	27.6	72.4	.0	.0	53.6	29.7	14.3	2.4	99%	.0	.0	62.4	37.6	w /60%
2017/02	100%	.61	1.2/ 5.0/w	6.4	12.2	27.4	72.6	.0	.0	48.4	30.5	17.4	3.7	100%	.0	.0	53.6	46.4	w /64%
2017/03	99%	.54	1.6/ 4.5/WSW	5.3	35.5	44.6	55.2	.1	.0	77.7	18.5	3.5	.3	100%	.1	.1	67.4	32.3	w /55%
2017/04	98%	.50	1.8/ 6.6/WSW	5.4	18.8	59.5	40.1	.4	.0	67.3	28.0	4.1	.6	98%	.3	.0	88.2	11.5	WSW/50%
2017/05	99%	.37	1.2/16.0/WSW	5.1	38.1	78.9	21.1	.0	.0	76.4	22.0	1.2	.4	99%	1.1	2.2	81.2	15.6	WSW/46%
2017/06	93%	.77	1.6/ 6.0/WSW	6.9	16.0	23.6	76.1	.3	.0	18.7	66.3	12.8	2.2	93%	.0	.0	100.0	.0	WSW/69%
2017/07	57%	.75	3.5/ 6.2/WSW	7.9	13.8	39.8	47.3	12.7	.2	20.5	27.1	40.0	12.5	57%	.0	.0	100.0	.0	SW /88%
2017/08	98%	.69	2.0/10.0/sw	7.4	25.8	33.3	62.9	3.8	.0	21.5	32.7	42.5	3.3	98%	.0	.0	98.4	1.6	SW /83%
2017/09	99%	.53	1.7/ 8.9/sw	6.4	12.7	59.3	39.3	1.4	.0	45.8	25.7	23.5	5.1	99%	.0	.1	96.8	3.1	SW /62%
2017/10	97%	.66	1.5/11.5/sw	7.0	12.3	20.2	79.6	.1	.0	34.6	32.4	27.0	6.0	97%	.0	.0	99.4	.6	WSW/72%
2017/11	42%	.61	1.0/ 4.7/WSW	6.4	11.0	20.8	79.2	.0	.0	43.2	38.6	17.5	.7	42%	.0	.0	100.0	.0	WSW/76%
2017/冬	99%	.63	1.3/ 7.1/WNW	6.5	12.3	21.4	78.6	.0	.0	44.5	32.6	19.6	3.3	99%	.0	.0	63.4	36.6	w /64%
2017/春	99%	.47	1.8/ 6.6/WSW	5.3	38.1	61.0	38.8	.2	.0	73.9	22.7	2.9	.4	99%	.5	.8	78.8	19.9	WSW/43%
2017/夏	83%	.73	3.5/ 6.2/WSW	7.3	25.8	31.2	64.1	4.6	.1	20.2	43.7	31.0	5.0	83%	.0	.0	99.3	.7	SW /64%
2017/秋	80%	.59	1.7/ 8.9/sw	6.6	12.7	36.3	63.0	.6	.0	40.7	30.7	23.9	4.7	80%	.0	.1	98.4	1.5	WSW/54%
2017/年	90%	.60	3.5/ 6.2/WSW	6.4	38.1	37.9	60.8	1.3	.0	46.2	32.0	18.6	3.2	90%	.1	.2	83.7	15.9	WSW/38%

表2.2b 2017年高雄海域主要測站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/%
2016/12	100%	.70	1.2/ 7.9/W	7.0	12.3	9.4	90.6	.0	.0	31.5	38.2	26.7	3.6	100%	.0	.0	73.0	27.0	w /69%
2017/01	100%	.59	1.3/ 7.1/WNW	6.2	10.9	27.3	72.7	.0	.0	53.0	30.1	14.5	2.4	100%	.0	.0	62.9	37.1	w /59%
2017/02	100%	.61	1.2/ 5.0/W	6.4	12.2	27.4	72.6	.0	.0	48.4	30.5	17.4	3.7	100%	.0	.0	53.6	46.4	w /64%
2017/03	100%	.54	1.6/ 4.5/WSW	5.3	35.5	44.0	55.9	.1	.0	77.2	19.1	3.5	.3	100%	.1	.1	67.5	32.3	w /55%
2017/04	100%	.49	1.8/ 6.6/WSW	5.4	18.8	59.7	39.9	.4	.0	67.4	28.1	4.0	.6	100%	.3	.0	88.2	11.5	WSW/49%
2017/05	100%	.37	1.2/16.0/WSW	5.1	38.1	79.0	21.0	.0	.0	76.6	21.8	1.2	.4	100%	1.1	2.2	81.2	15.6	WSW/45%
2017/06	100%	.77	1.6/ 6.0/WSW	6.9	16.0	24.3	75.4	.3	.0	21.5	63.9	12.5	2.1	100%	.0	.3	99.7	.0	WSW/67%
2017/07	100%	.80	3.5/ 6.2/WSW	7.4	13.8	23.9	68.1	7.8	.1	17.1	52.2	23.7	7.1	100%	.0	.1	98.0	1.9	SW /64%
2017/08	100%	.69	2.0/10.0/SW	7.4	25.8	33.5	62.8	3.8	.0	22.0	32.8	41.8	3.4	100%	.1	.1	98.1	1.6	SW /81%
2017/09	100%	.53	1.7/ 8.9/SW	6.4	12.7	58.9	39.7	1.4	.0	45.4	25.4	24.2	5.0	100%	.0	.8	96.1	3.1	SW /62%
2017/10	100%	.66	1.6/11.1/ESE	6.9	12.3	20.2	79.6	.3	.0	34.4	33.5	26.2	5.9	100%	1.5	1.5	96.5	.5	WSW/70%
2017/11	100%	.59	1.0/ 4.7/WSW	6.2	11.0	22.8	77.2	.0	.0	44.6	47.5	7.6	.3	100%	.0	.0	80.6	19.4	WSW/49%
2017/冬	100%	.63	1.3/ 7.1/WNW	6.5	12.3	21.2	78.8	.0	.0	44.1	33.0	19.6	3.2	100%	.0	.0	63.5	36.5	w /64%
2017/春	100%	.47	1.8/ 6.6/WSW	5.3	38.1	61.0	38.8	.2	.0	73.8	22.9	2.9	.4	100%	.5	.8	78.8	19.9	WSW/43%
2017/夏	100%	.76	3.5/ 6.2/WSW	7.2	25.8	27.0	68.9	4.0	.1	20.1	49.5	26.2	4.2	100%	.0	.2	98.6	1.2	SW /58%
2017/秋	100%	.59	1.7/ 8.9/SW	6.5	12.7	33.7	65.7	.5	.0	41.4	35.4	19.4	3.8	100%	.5	.8	91.1	7.6	WSW/49%
2017/年	100%	.61	3.5/ 6.2/WSW	6.4	38.1	35.8	63.0	1.2	.0	44.9	35.2	17.0	2.9	100%	.3	.4	83.1	16.2	WSW/37%

表2.3a 2017年高雄海域主要測站2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/%
2016/12	100%	.84	1.5/ 4.4/NNW	4.7	6.3	1.5	98.5	.0	.0	99.3	.7	.0	.0	100%	.1	.8	14.3	84.8	NW /39%
2017/01	99%	.78	1.6/ 4.8/NNW	4.5	5.9	9.1	90.5	.4	.0	100.0	.0	.0	.0	99%	.1	.7	18.3	80.8	NW /48%
2017/02	99%	.86	1.9/ 4.5/NNW	4.6	6.0	2.0	97.1	.9	.0	99.7	.3	.0	.0	99%	.3	3.8	21.3	74.7	NW /44%
2017/03	100%	.69	1.6/ 4.9/NNW	4.3	5.4	10.0	89.9	.1	.0	100.0	.0	.0	.0	100%	.3	2.2	26.2	71.4	NW /42%
2017/04	100%	.59	2.3/ 5.3/NNW	4.3	5.9	44.5	54.4	1.1	.0	100.0	.0	.0	.0	100%	.0	2.2	51.2	46.6	S /23%
2017/05	100%	.46	1.4/ 4.6/S	4.2	5.6	59.1	40.9	.0	.0	100.0	.0	.0	.0	100%	.3	3.0	40.6	56.1	NW /26%
2017/06	100%	.97	2.5/ 6.6/SSW	5.0	7.5	8.1	77.6	14.3	.0	92.2	7.8	.0	.0	100%	.0	1.1	96.8	2.1	SW /45%
2017/07	100%	1.07	6.2/ 8.7/SW	5.2	9.0	8.9	79.3	6.2	5.6	76.6	22.7	.7	.0	100%	.0	2.7	96.2	1.1	SSW/34%
2017/08	68%	.83	3.0/ 7.0/SW	4.9	7.0	32.1	60.7	6.9	.2	82.8	17.2	.0	.0	68%	1.0	8.5	76.1	14.4	SW /32%
2017/09	98%	.72	2.7/ 6.9/SSW	4.9	7.8	41.6	50.7	7.6	.0	85.8	14.2	.0	.0	98%	1.0	4.0	68.8	26.2	SW /25%
2017/10	96%	.85	2.6/ 7.5/S	4.9	8.1	12.1	80.5	7.4	.0	92.2	7.5	.3	.0	96%	.1	1.0	18.1	80.8	NW /37%
2017/11	80%	.77	1.6/ 5.9/WNW	4.6	5.9	5.9	94.0	.2	.0	100.0	.0	.0	.0	80%	.0	1.2	5.7	93.1	NW /52%
2017/冬	99%	.82	1.9/ 4.5/NNW	4.6	6.3	4.3	95.3	.4	.0	99.7	.3	.0	.0	99%	.2	1.7	17.8	80.3	NW /44%
2017/春	100%	.58	2.3/ 5.3/NNW	4.3	5.9	37.8	61.8	.4	.0	100.0	.0	.0	.0	100%	.2	2.5	39.2	58.1	NW /30%
2017/夏	89%	.97	6.2/ 8.7/SW	5.1	9.0	14.6	73.9	9.3	2.2	83.9	15.8	.3	.0	89%	.3	3.6	91.3	4.9	SW /34%
2017/秋	92%	.78	2.7/ 6.9/SSW	4.8	8.1	20.7	73.9	5.4	.0	92.2	7.7	.1	.0	92%	.4	2.1	32.4	65.1	NW /31%
2017/年	95%	.79	6.2/ 8.7/SW	4.7	9.0	19.5	76.2	3.7	.5	94.2	5.7	.1	.0	95%	.3	2.4	44.4	52.9	NW /27%

表2.3b 2017年高雄海域主要測站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/%
2016/12	100%	.84	1.5/ 4.4/NNW	4.7	6.3	1.5	98.5	.0	.0	99.3	.7	.0	.0	100%	.1	.8	14.2	84.8	NW /39%
2017/01	100%	.78	1.6/ 4.8/NNW	4.5	5.9	9.0	90.6	.4	.0	100.0	.0	.0	.0	100%	.1	.7	18.1	81.0	NW /48%
2017/02	100%	.87	1.9/ 4.5/NNW	4.6	6.0	1.9	97.0	1.0	.0	99.7	.3	.0	.0	100%	.3	3.7	21.0	75.0	NW /44%
2017/03	100%	.69	1.6/ 4.9/NNW	4.3	5.4	9.9	89.9	.1	.0	100.0	.0	.0	.0	100%	.3	2.2	26.1	71.5	NW /42%
2017/04	100%	.59	2.3/ 5.3/NNW	4.3	5.9	44.4	54.4	1.1	.0	100.0	.0	.0	.0	100%	.0	2.2	51.3	46.5	S /23%
2017/05	100%	.46	1.4/ 4.6/S	4.2	5.6	59.1	40.9	.0	.0	100.0	.0	.0	.0	100%	.3	3.0	40.7	56.0	NW /26%
2017/06	100%	.97	2.5/ 6.6/SSW	5.0	7.5	8.1	77.6	14.3	.0	92.2	7.8	.0	.0	100%	.0	1.1	96.8	2.1	SW /45%
2017/07	100%	1.07	6.2/ 8.7/SW	5.2	9.0	8.9	79.3	6.2	5.6	76.6	22.7	.7	.0	100%	.0	2.7	96.2	1.1	SSW/34%
2017/08	100%	.81	3.0/ 7.0/SW	5.2	8.1	31.9	61.2	6.9	.1	73.4	25.5	1.1	.0	100%	.7	5.8	83.6	9.9	SW /48%
2017/09	100%	.72	2.7/ 6.9/SSW	4.9	7.8	42.5	50.0	7.5	.0	86.1	13.9	.0	.0	100%	1.0	3.9	69.0	26.1	SW /24%
2017/10	100%	.85	2.6/ 7.5/S	4.9	8.1	12.2	80.5	7.3	.0	92.2	7.5	.3	.0	100%	.4	4.2	17.5	77.9	NW /36%
2017/11	100%	.77	1.6/ 5.9/WNW	4.6	5.9	6.0	93.9	.1	.0	100.0	.0	.0	.0	100%	.0	1.0	4.6	94.4	NW /49%
2017/冬	100%	.82	1.9/ 4.5/NNW	4.6	6.3	4.3	95.3	.4	.0	99.7	.3	.0	.0	100%	.2	1.7	17.7	80.5	NW /44%
2017/春	100%	.58	2.3/ 5.3/NNW	4.3	5.9	37.7	61.9	.4	.0	100.0	.0	.0	.0	100%	.2	2.4	39.2	58.2	NW /30%
2017/夏	100%	.95	6.2/ 8.7/SW	5.2	9.0	16.3	72.6	9.1	2.0	80.6	18.8	.6	.0	100%	.2	3.2	92.2	4.4	SW /39%
2017/秋	100%	.78	2.7/ 6.9/SSW	4.8	8.1	20.0	75.0	4.9	.0	92.8	7.1	.1	.0	100%	.5	3.0	30.2	66.3	NW /31%
2017/年	100%	.78	6.2/ 8.7/SW	4.7	9.0	19.7	76.1	3.7	.5	93.2	6.6	.2	.0	100%	.3	2.6	45.0	52.1	NW /26%

Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

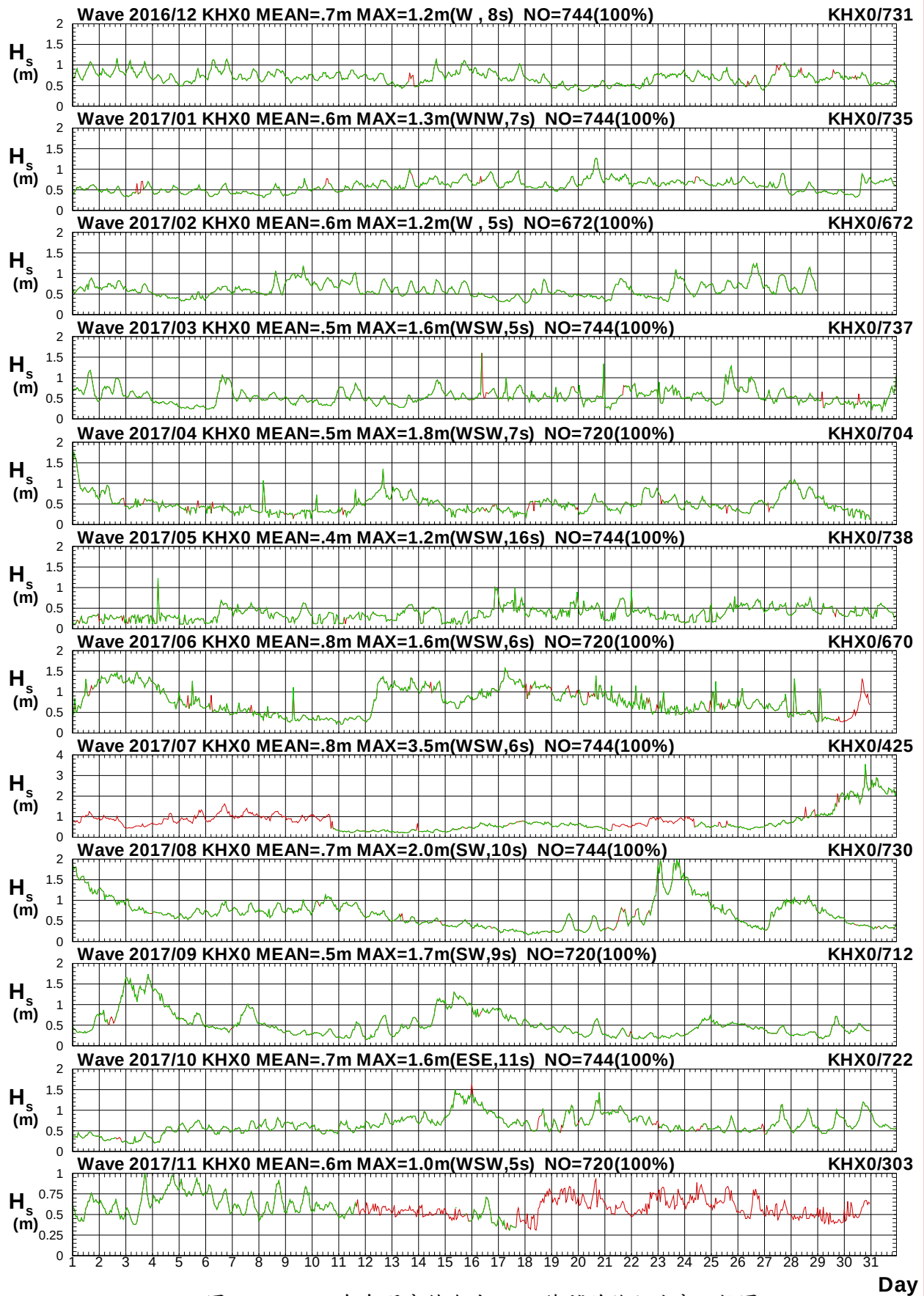


圖2.1a 2017年每月高雄海域 X 站修補前後之波高比較圖

V16CKHX0.1HA V16CKHX0.1H0 V171KHX0.1HA V171KHX0.1H0 V172KHX0.1HA V172KHX0.1H0
V173KHX0.1HA V173KHX0.1H0 V174KHX0.1HA V174KHX0.1H0 V175KHX0.1HA V175KHX0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

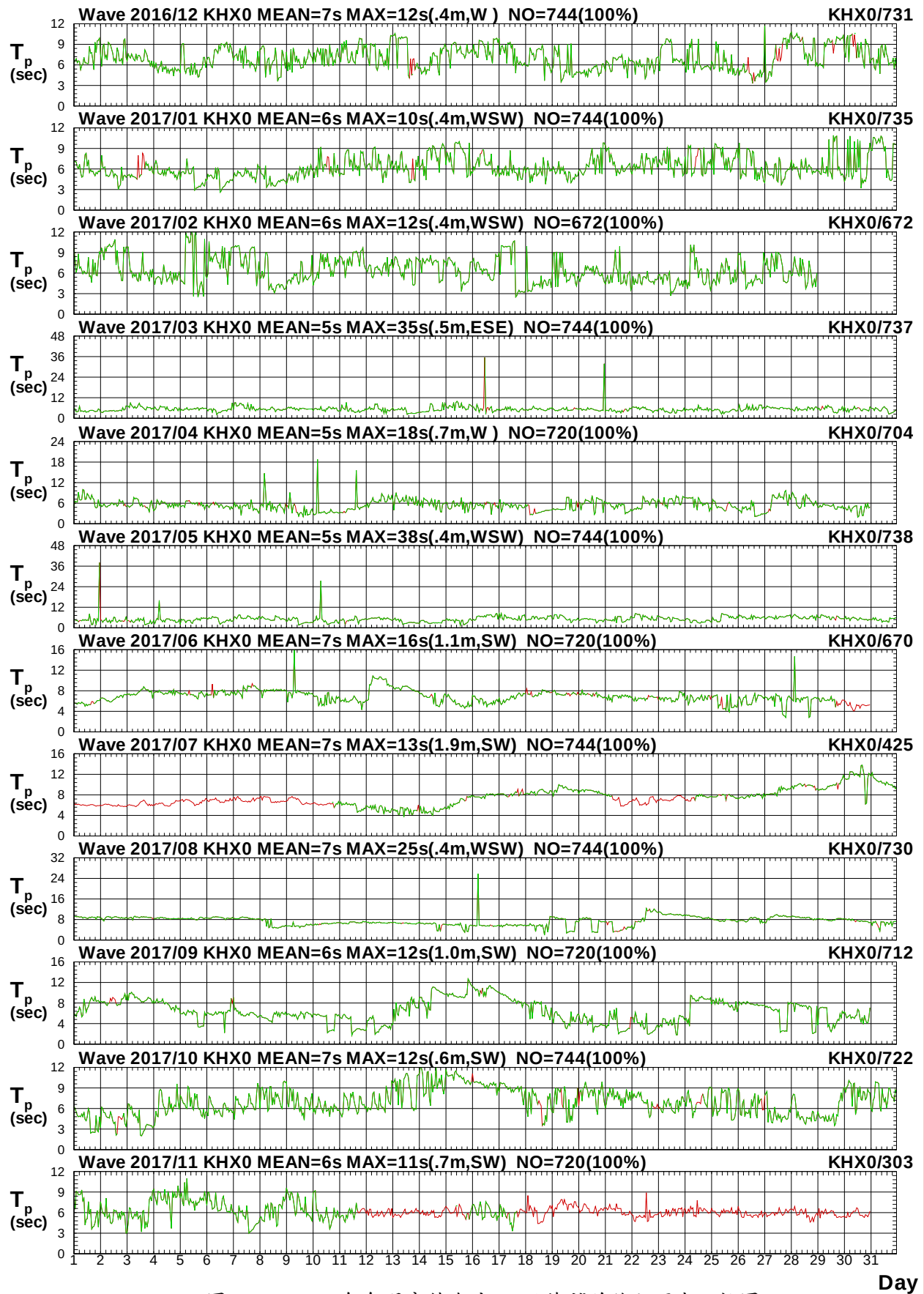


圖2.1b 2017年每月高雄海域 X 站修補前後之週期比較圖

V16CKHX0.1HA V16CKHX0.1H0 V171KHX0.1HA V171KHX0.1H0 V172KHX0.1HA V172KHX0.1H0
V173KHX0.1HA V173KHX0.1H0 V174KHX0.1HA V174KHX0.1H0 V175KHX0.1HA V175KHX0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

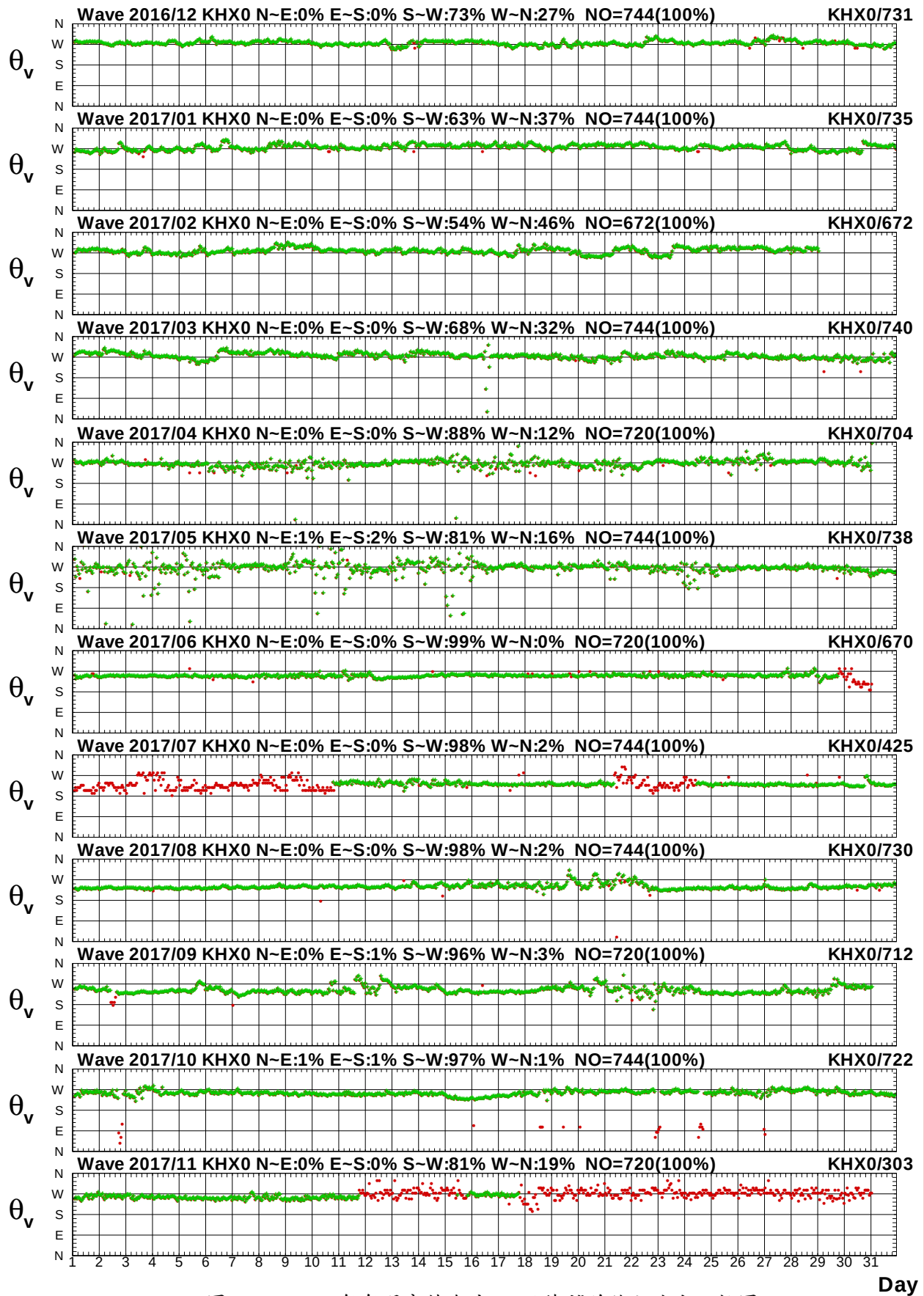


圖2.1c 2017年每月高雄海域 X 站修補前後之波向比較圖

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V173KHX0.1HA V173KHX0.1H0 V174KHX0.1HA V174KHX0.1H0 V175KHX0.1HA V175KHX0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

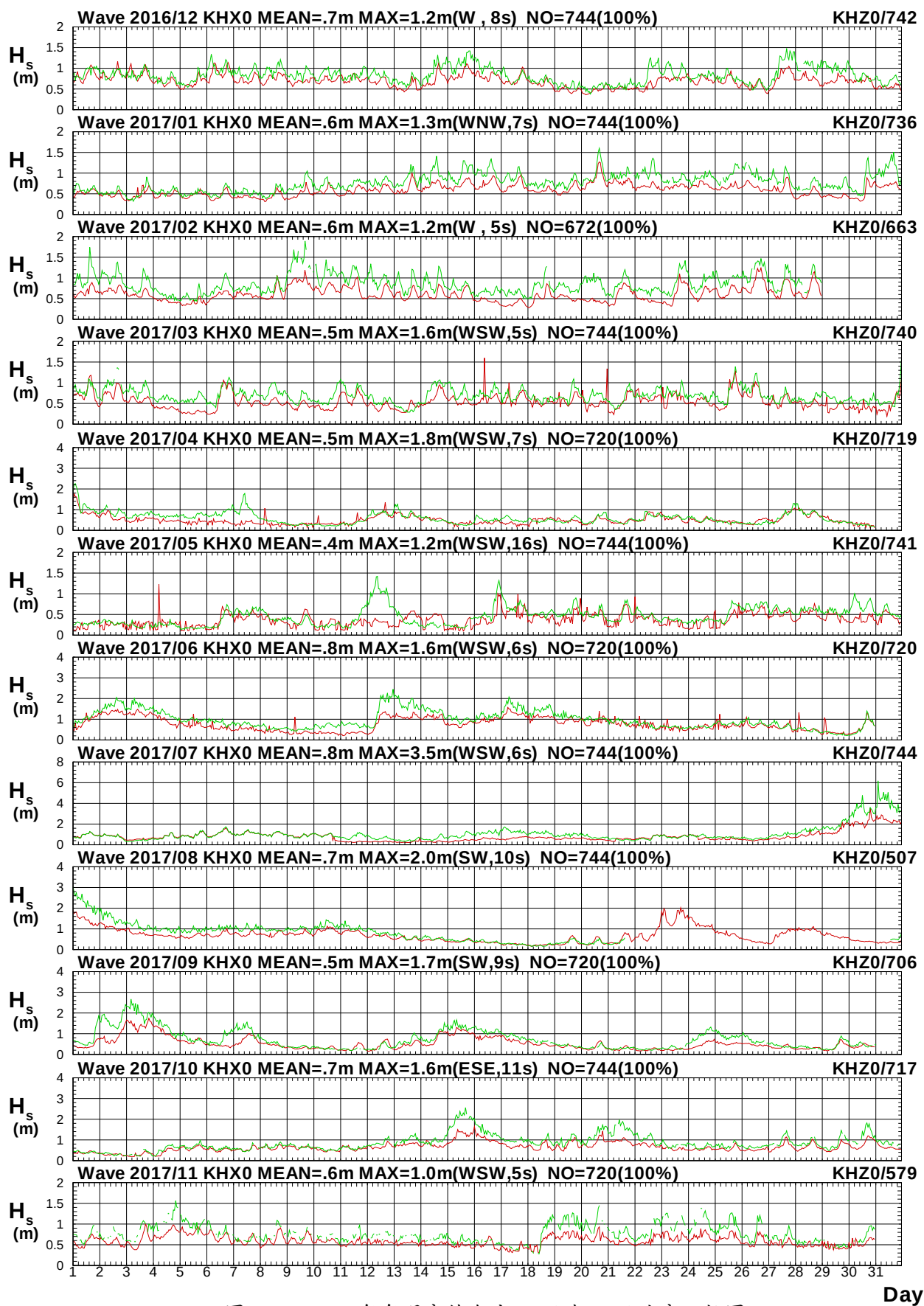


圖2.2a 2017年每月高雄海域 X 站與 Z 站波高比較圖

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V173KHX0.1HA V173KHZ0.1H0 V174KHX0.1HA V174KHZ0.1H0 V175KHX0.1HA V175KHZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

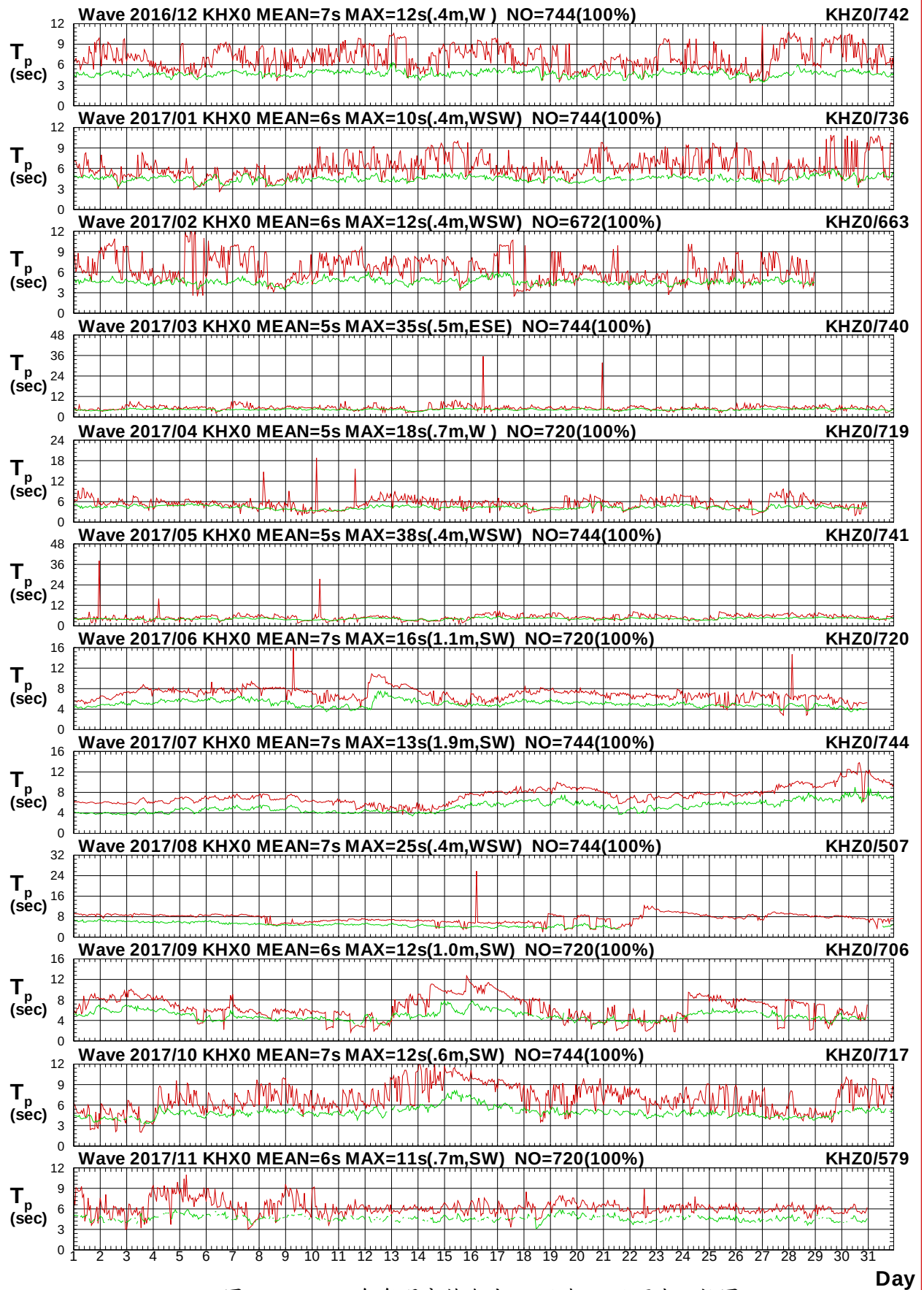


圖2.2b 2017年每月高雄海域 X 站與 Z 站週期比較圖

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V173KHX0.1HA V173KHZ0.1H0 V174KHX0.1HA V174KHZ0.1H0 V175KHX0.1HA V175KHZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

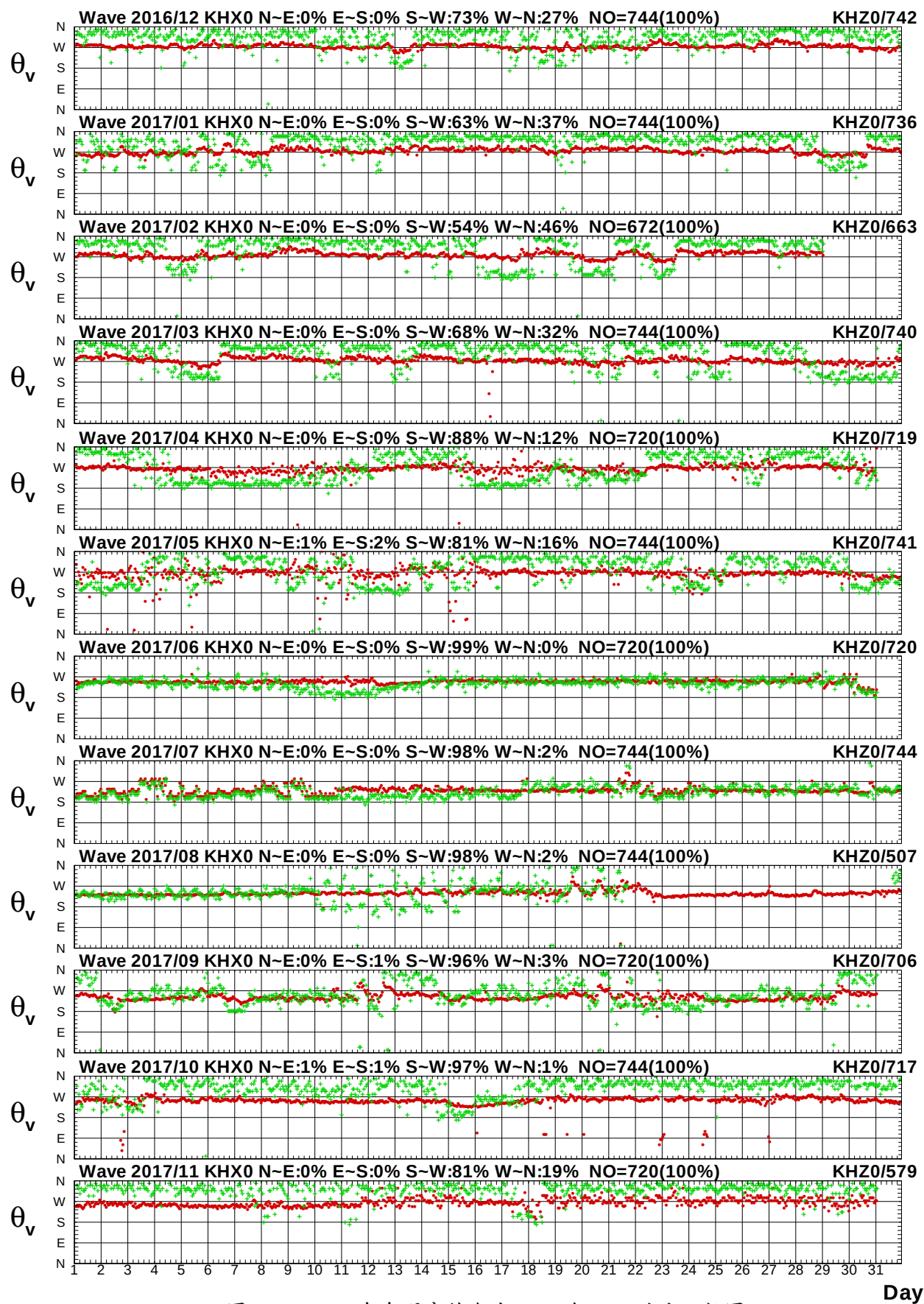


圖2.2c 2017年每月高雄海域 X 站與 Z 站波向比較圖

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V173KHX0.1HA V173KHZ0.1H0 V174KHX0.1HA V174KHZ0.1H0 V175KHX0.1HA V175KHZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

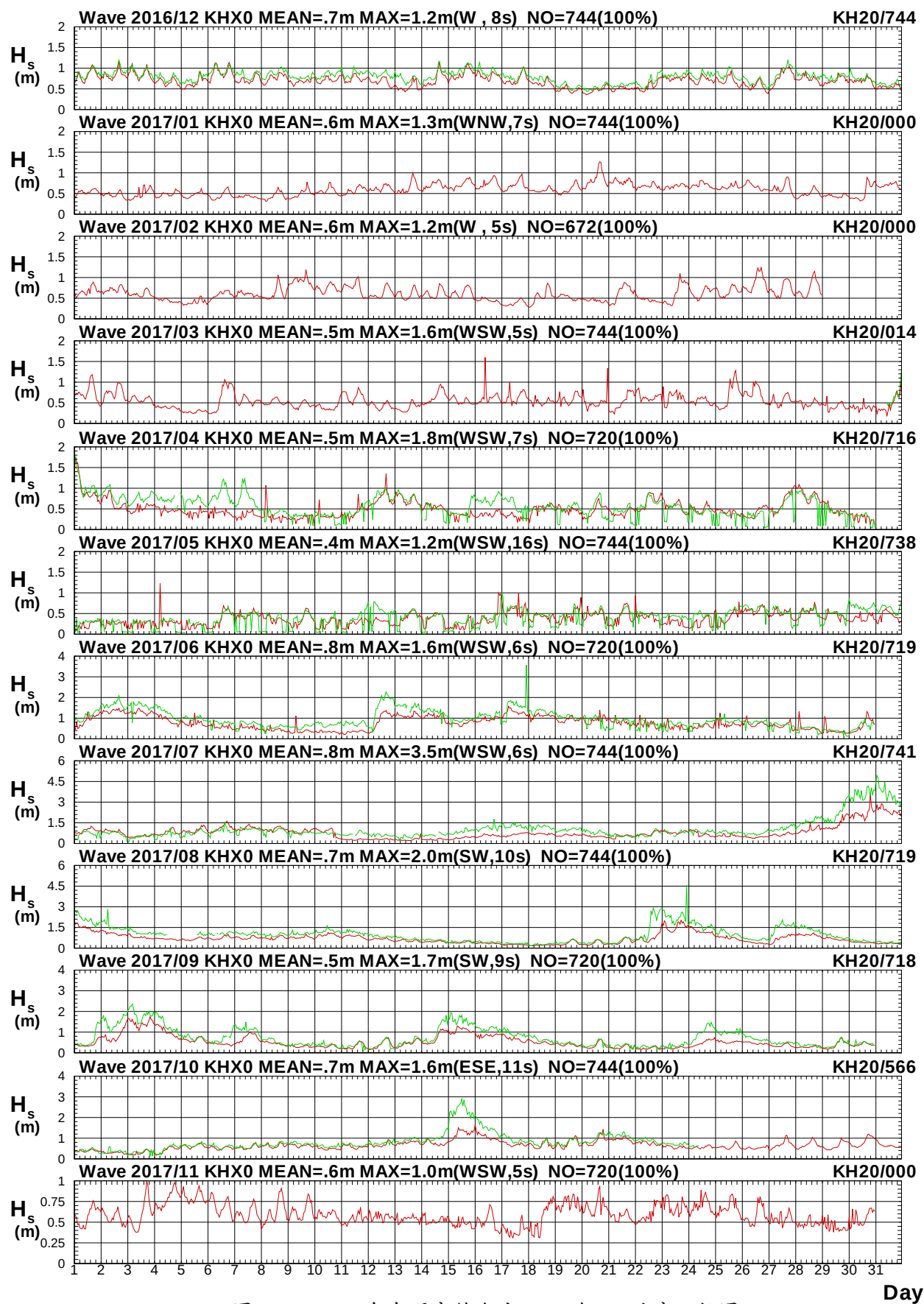


圖2.3a 2017年每月高雄海域 X 站與2站波高比較圖

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V173KHX0.1HA V173KH20.1H0 V174KHX0.1HA V174KH20.1H0 V175KHX0.1HA V175KH20.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

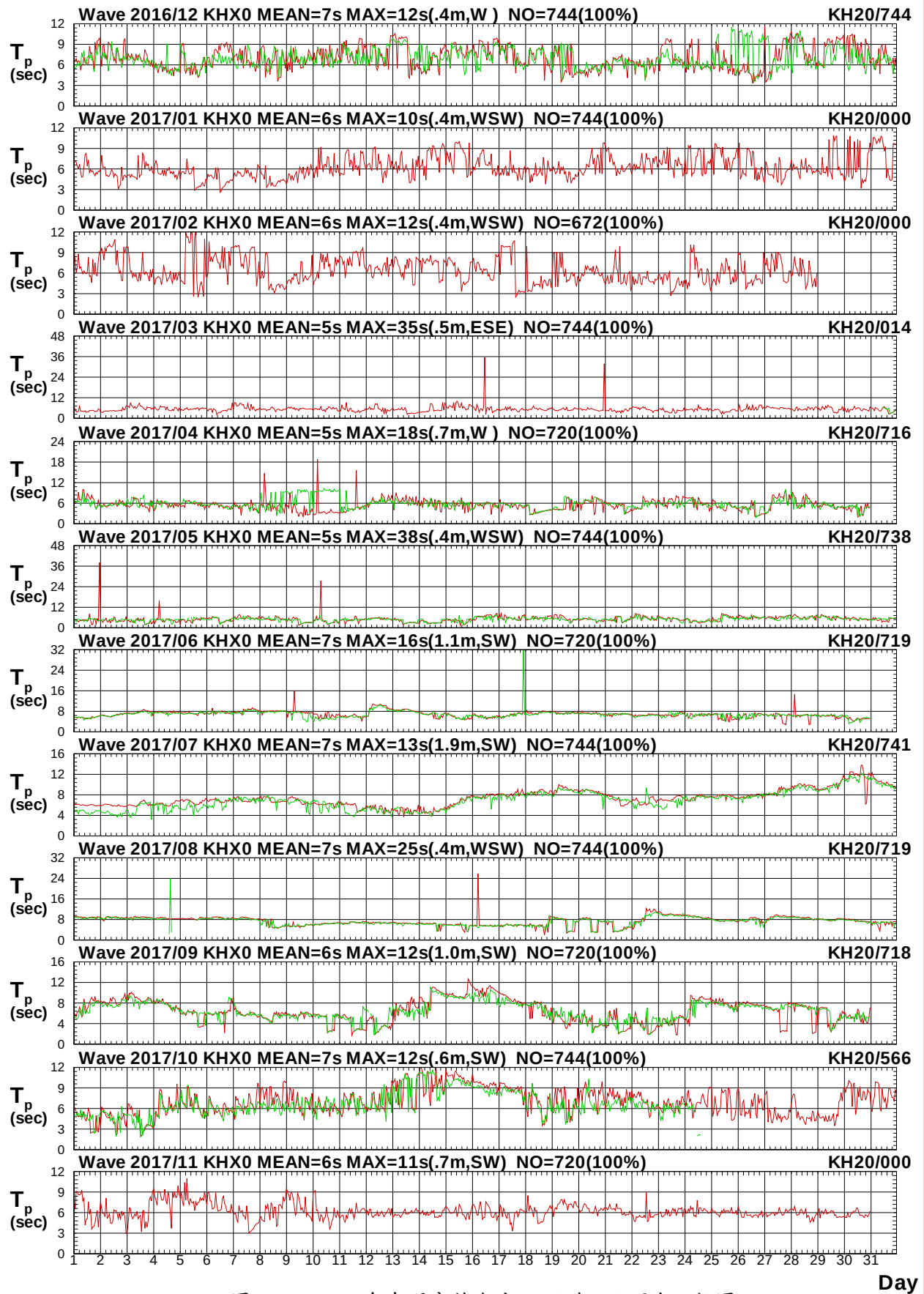


圖2.3b 2017年每月高雄海域 X 站與2站週期比較圖

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V173KHX0.1HA V173KH20.1H0 V174KHX0.1HA V174KH20.1H0 V175KHX0.1HA V175KH20.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

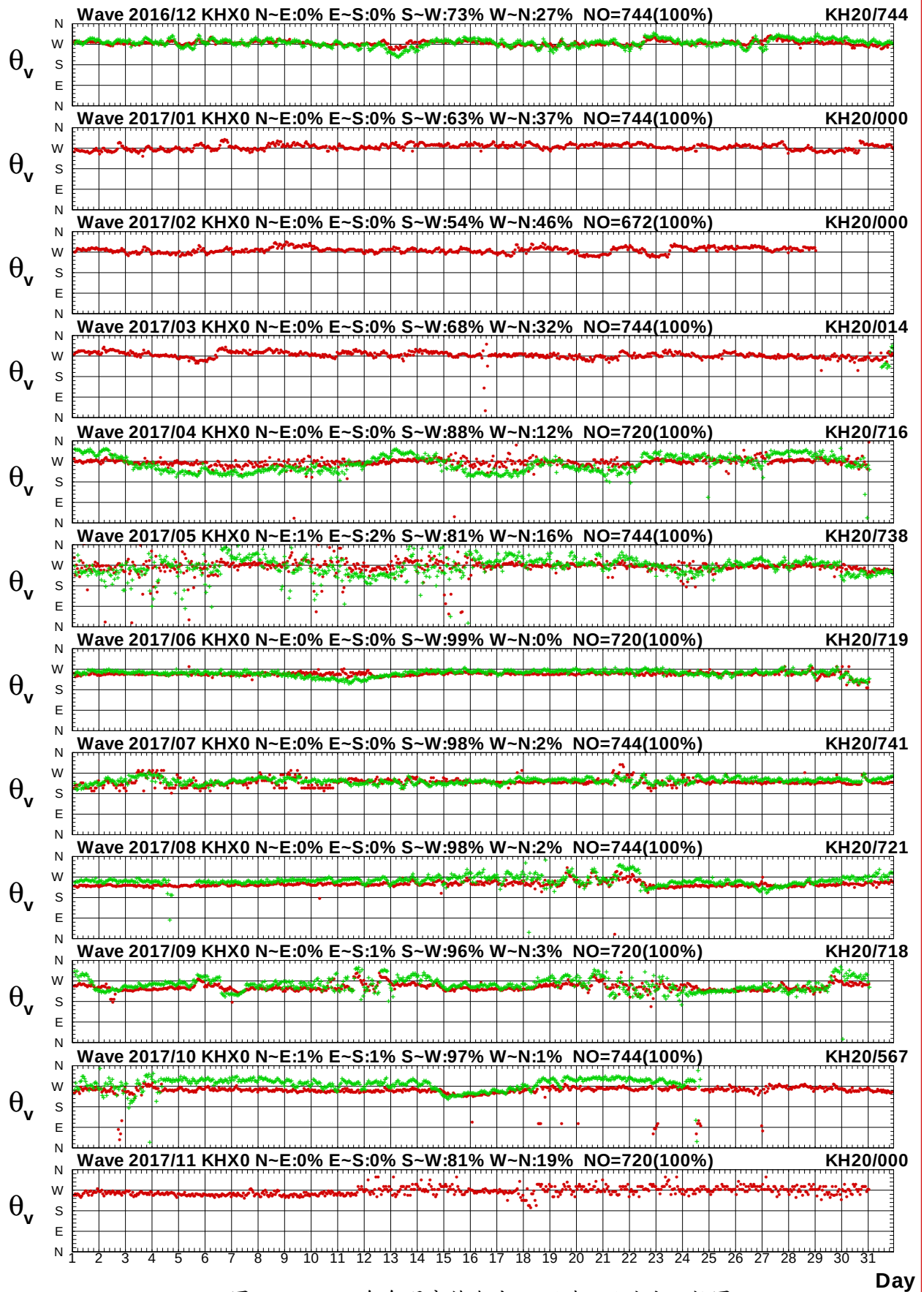


圖2.3c 2017年每月高雄海域 X 站與 2 站波向比較圖

V16CKHX0.1HA V16CKH20.1H0 V171KHX0.1HA V171KH20.1H0 V172KHX0.1HA V172KH20.1H0
V173KHX0.1HA V173KH20.1H0 V174KHX0.1HA V174KH20.1H0 V175KHX0.1HA V175KH20.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

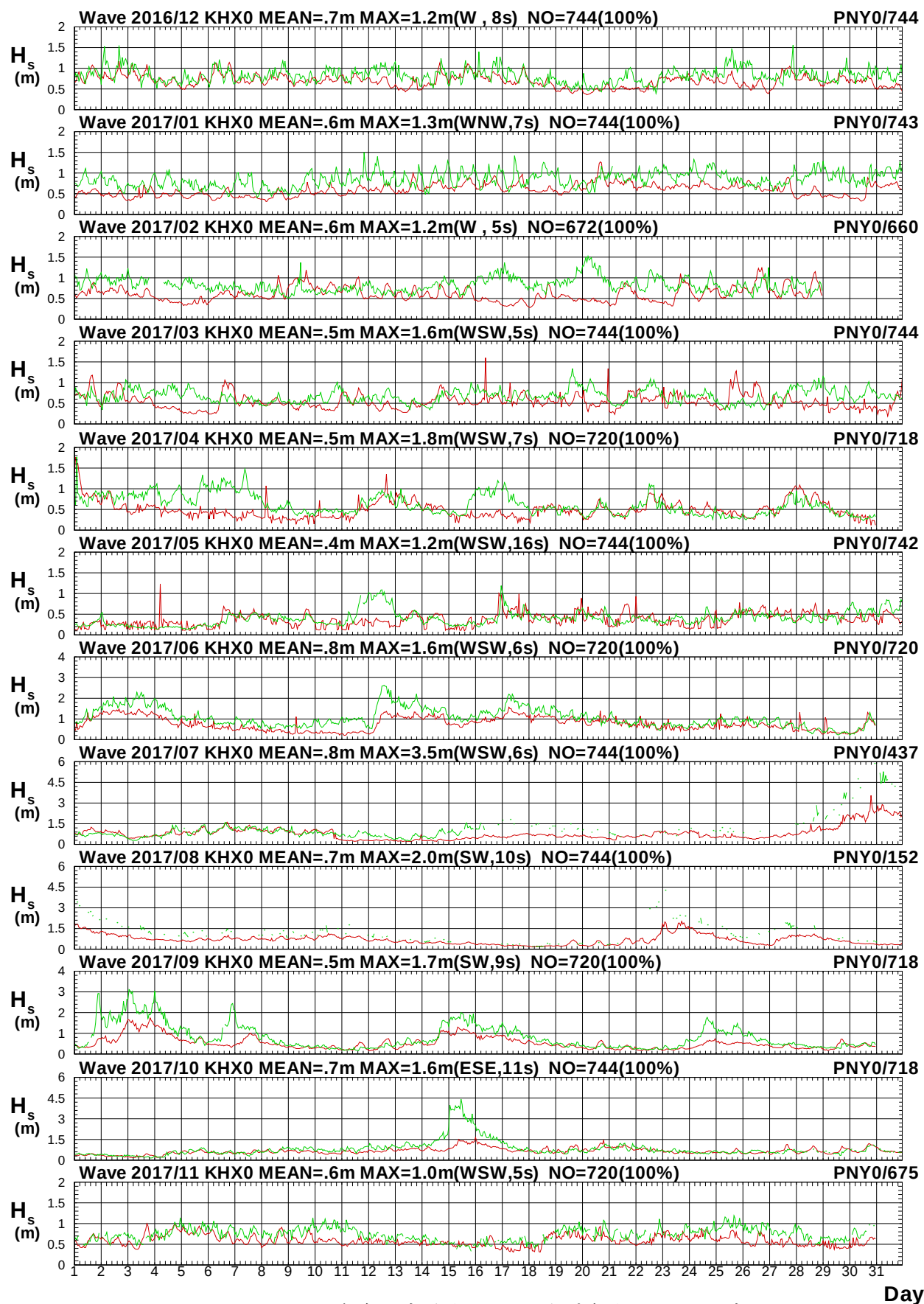


圖2.4a 2017年每月高雄海域 X 站與屏東海域 Y 站波高圖

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V173KHX0.1HA V173PNY0.1H0 V174KHX0.1HA V174PNY0.1H0 V175KHX0.1HA V175PNY0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

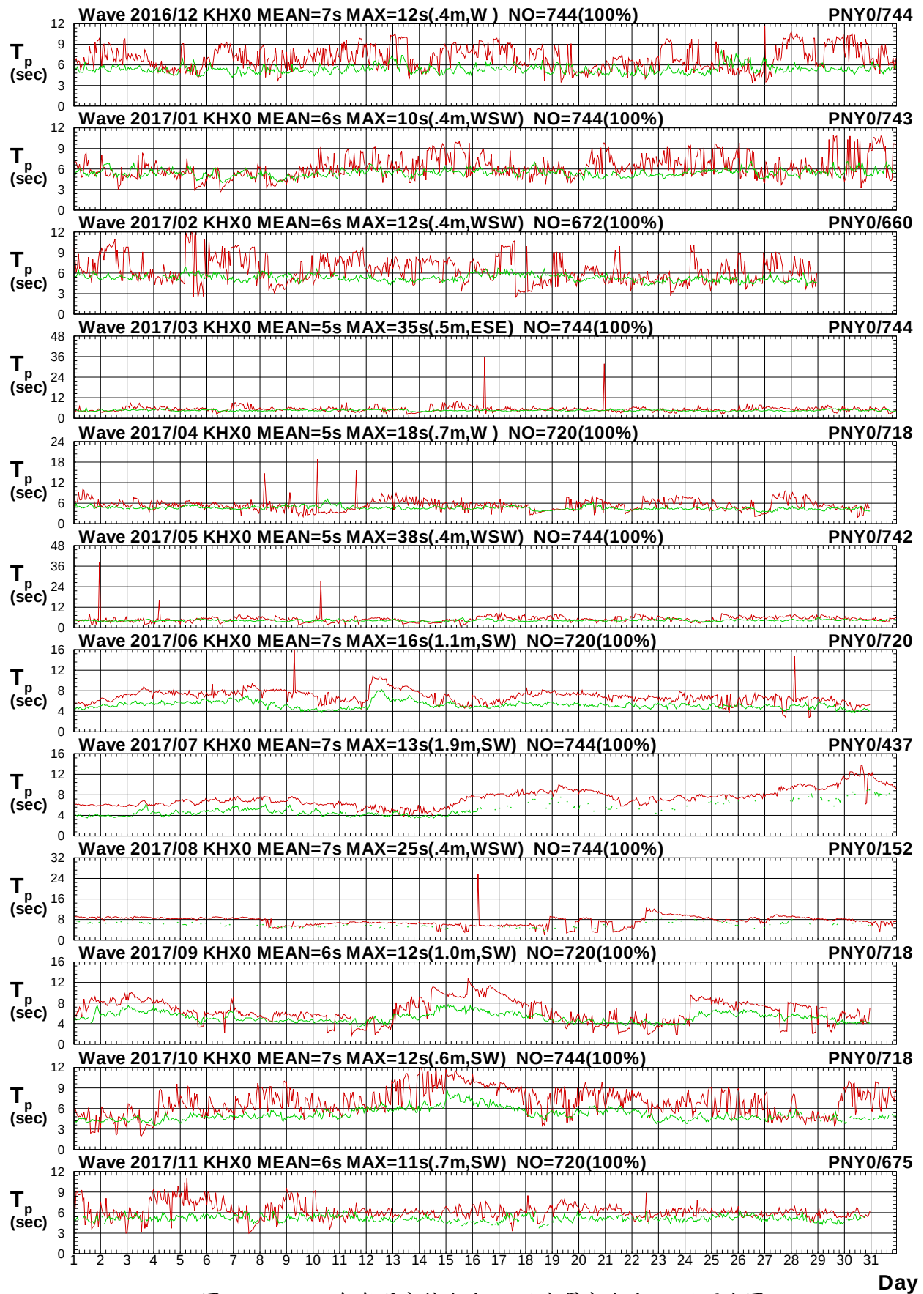


圖2.4b 2017年每月高雄海域 X 站與屏東海域 Y 站週期圖

V16CKHX0.1HA V16CPNY0.1H0 V171KHX0.1HA V171PNY0.1H0 V172KHX0.1HA V172PNY0.1H0
V173KHX0.1HA V173PNY0.1H0 V174KHX0.1HA V174PNY0.1H0 V175KHX0.1HA V175PNY0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

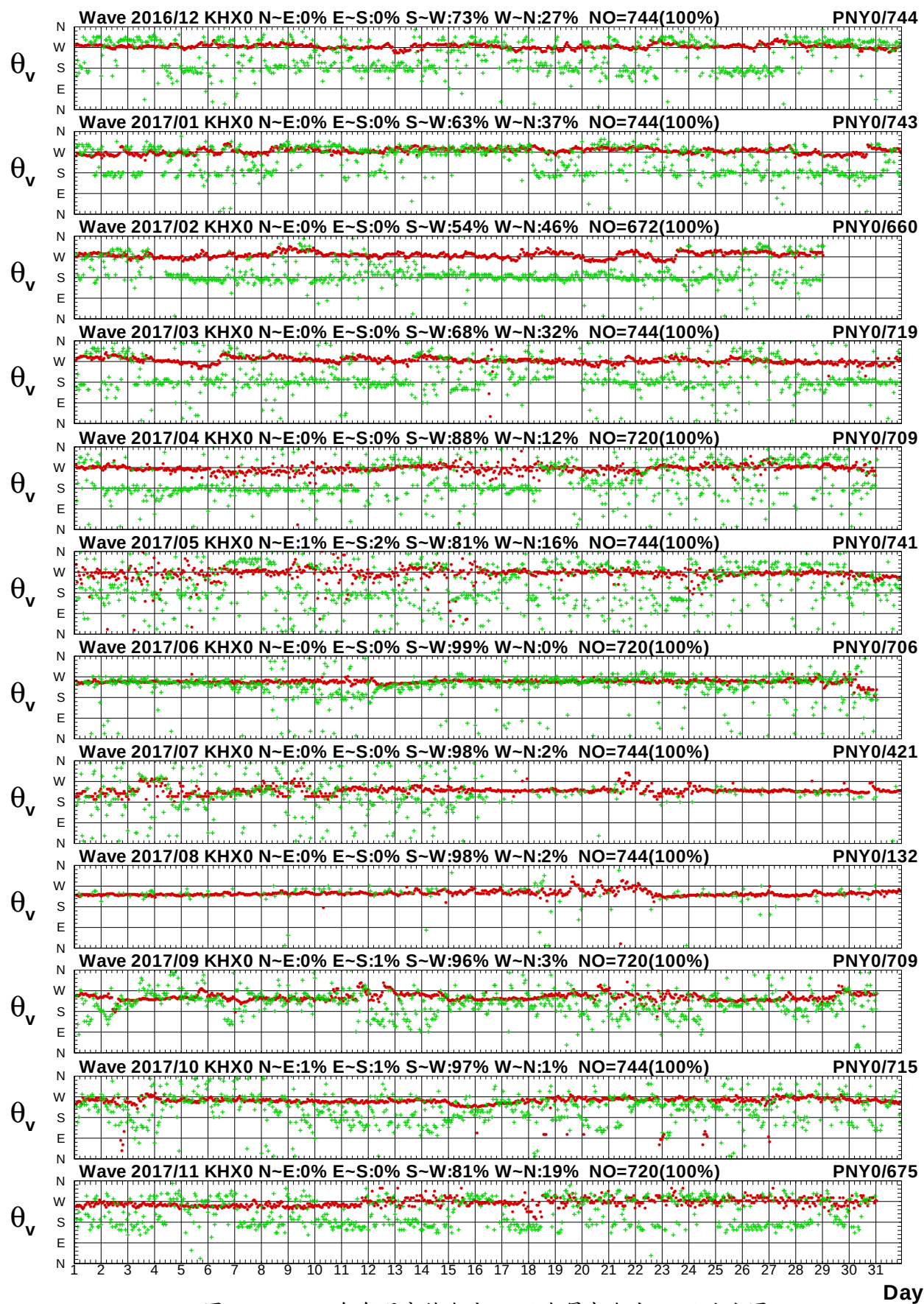


圖2.4c 2017年每月高雄海域 X 站與屏東海域 Y 站波向圖

V16CKHX0.1HA V16CPNY0.1H0 V171KHX0.1HA V171PNY0.1H0 V172KHX0.1HA V172PNY0.1H0
V173KHX0.1HA V173PNY0.1H0 V174KHX0.1HA V174PNY0.1H0 V175KHX0.1HA V175PNY0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

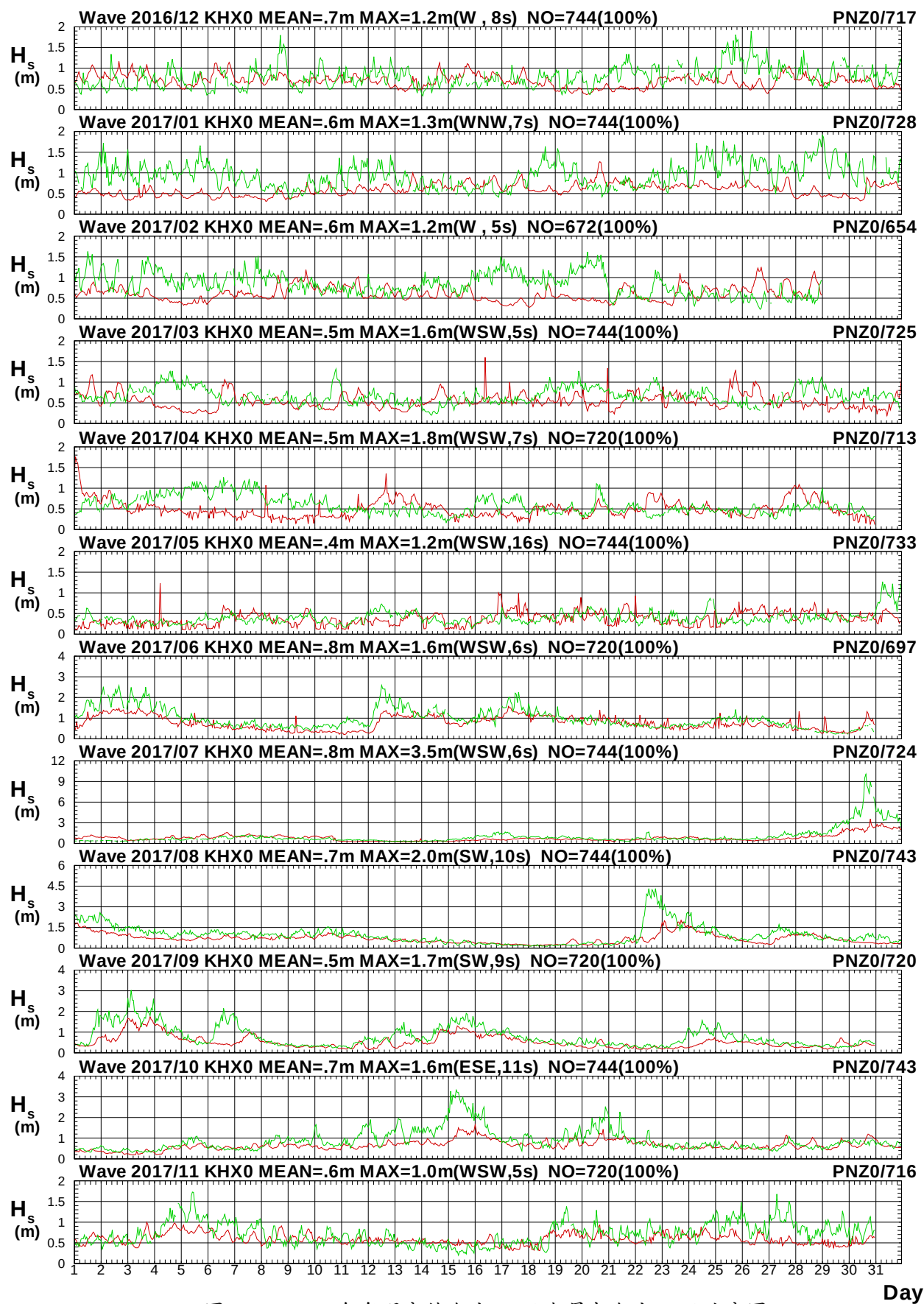


圖2.5a 2017年每月高雄海域 X 站與屏東海域 Z 站波高圖

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V173KHX0.1HA V173PNZ0.1H0 V174KHX0.1HA V174PNZ0.1H0 V175KHX0.1HA V175PNZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

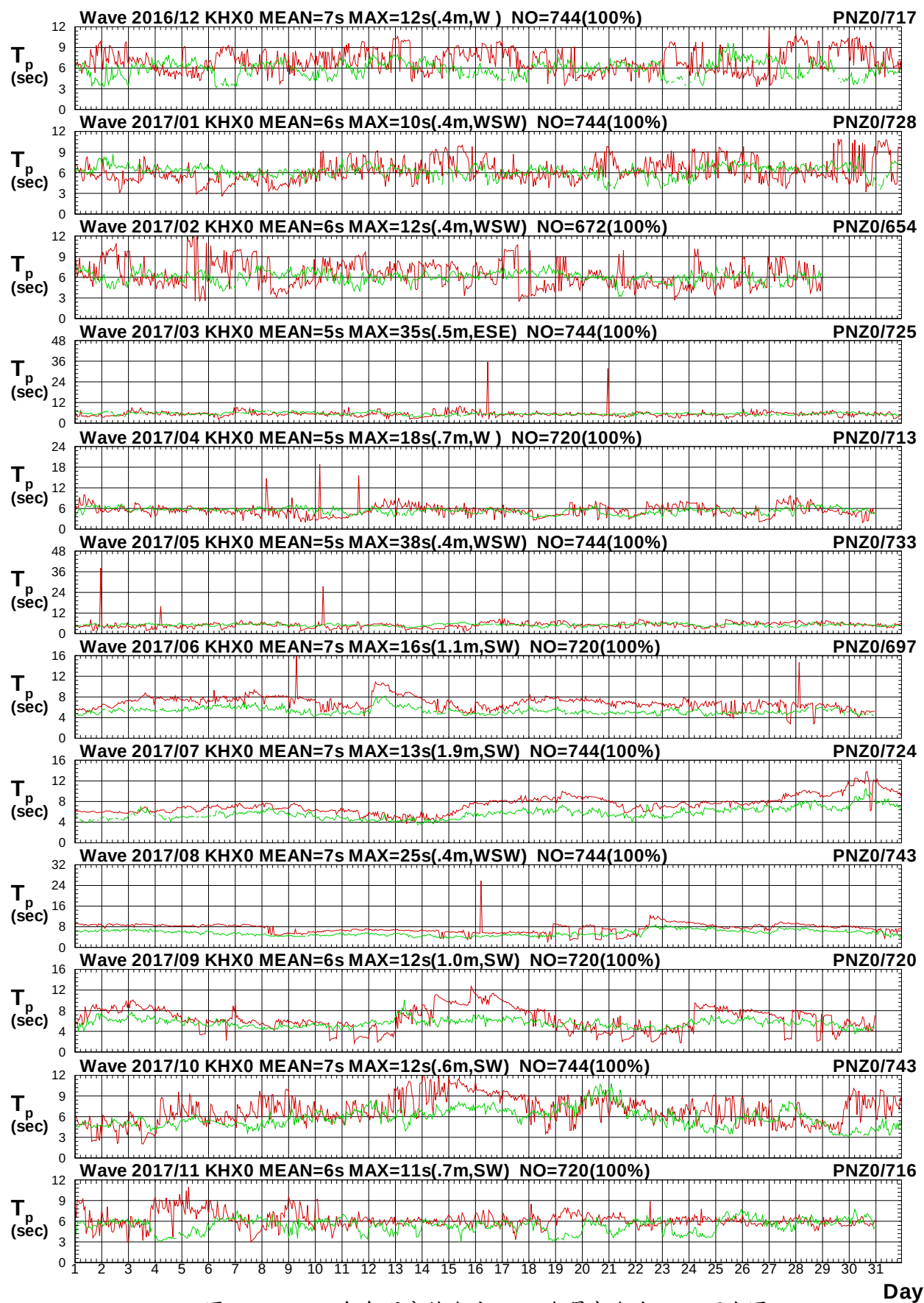


圖2.5b 2017年每月高雄海域 X 站與屏東海域 Z 站週期圖

V16CKHX0.1HA V16CPNZ0.1H0 V171KHX0.1HA V171PNZ0.1H0 V172KHX0.1HA V172PNZ0.1H0
V173KHX0.1HA V173PNZ0.1H0 V174KHX0.1HA V174PNZ0.1H0 V175KHX0.1HA V175PNZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

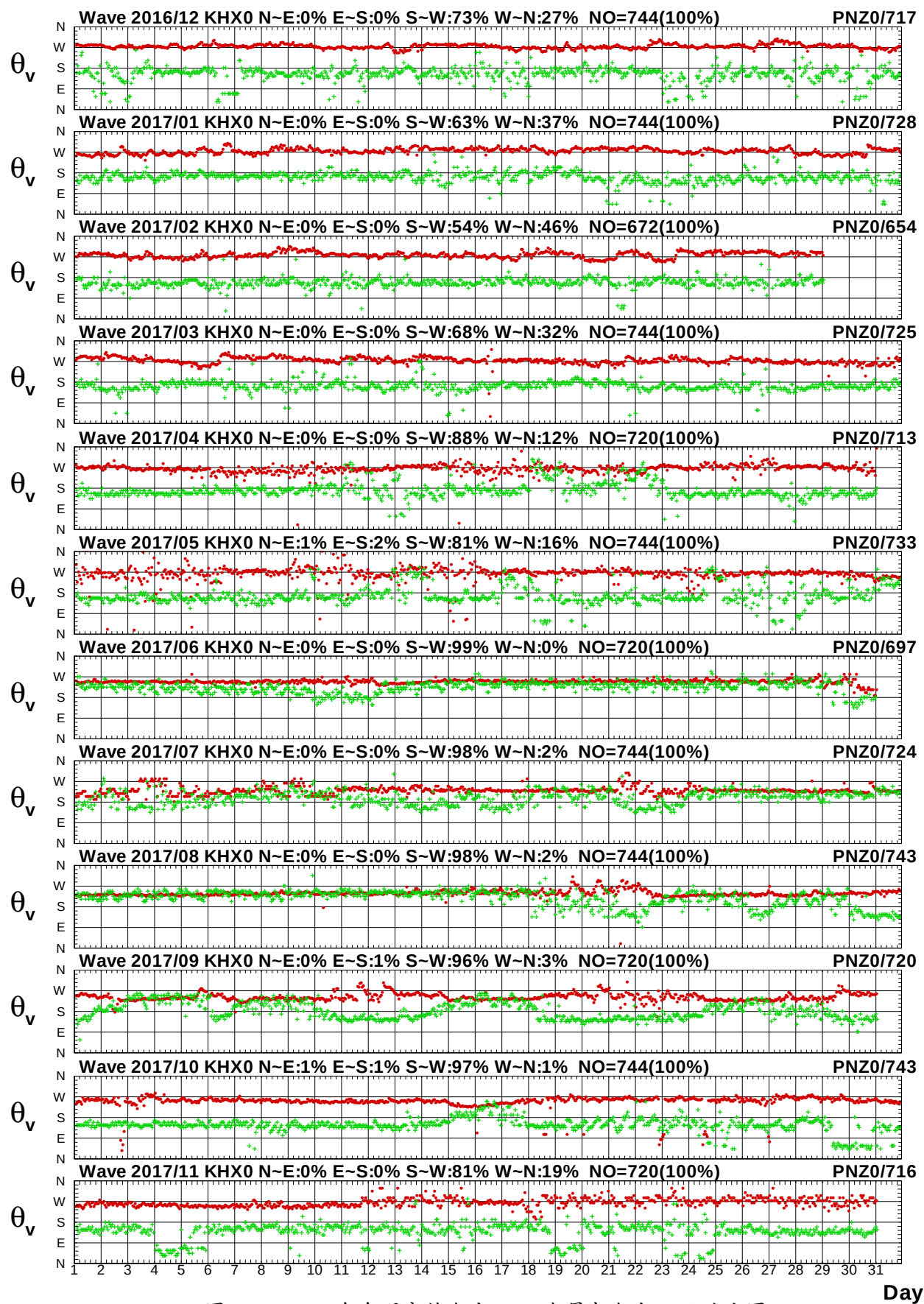


圖2.5c 2017年每月高雄海域 X 站與屏東海域 Z 站波向圖

V16CKHX0.1HA V16CPNZ0.1H0 V171KHX0.1HA V171PNZ0.1H0 V172KHX0.1HA V172PNZ0.1H0
V173KHX0.1HA V173PNZ0.1H0 V174KHX0.1HA V174PNZ0.1H0 V175KHX0.1HA V175PNZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

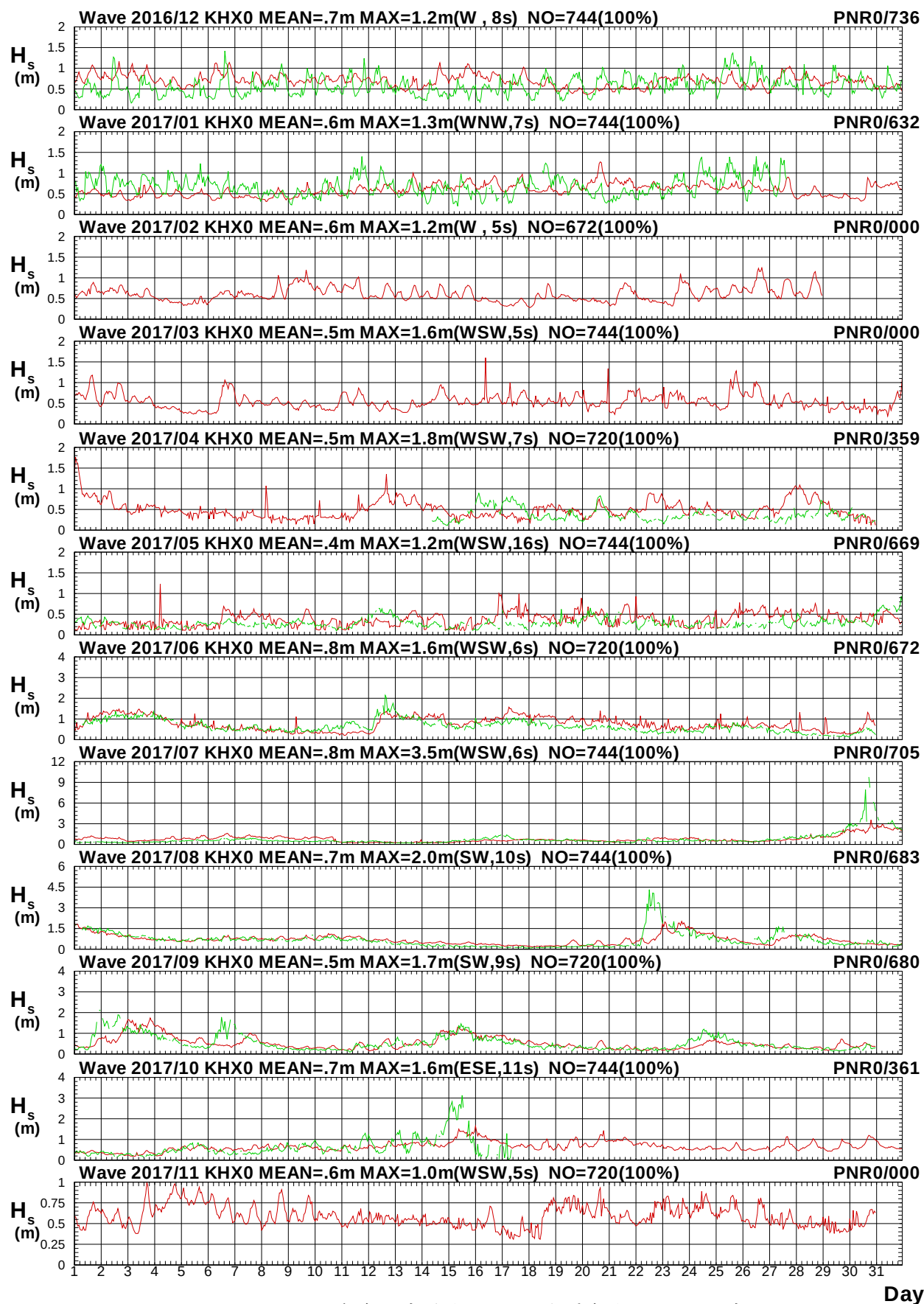


圖2.6a 2017年每月高雄海域 X 站與屏東海域 R 站波高圖

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V173KHX0.1HA V173PNR0.1H0 V174KHX0.1HA V174PNR0.1H0 V175KHX0.1HA V175PNR0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

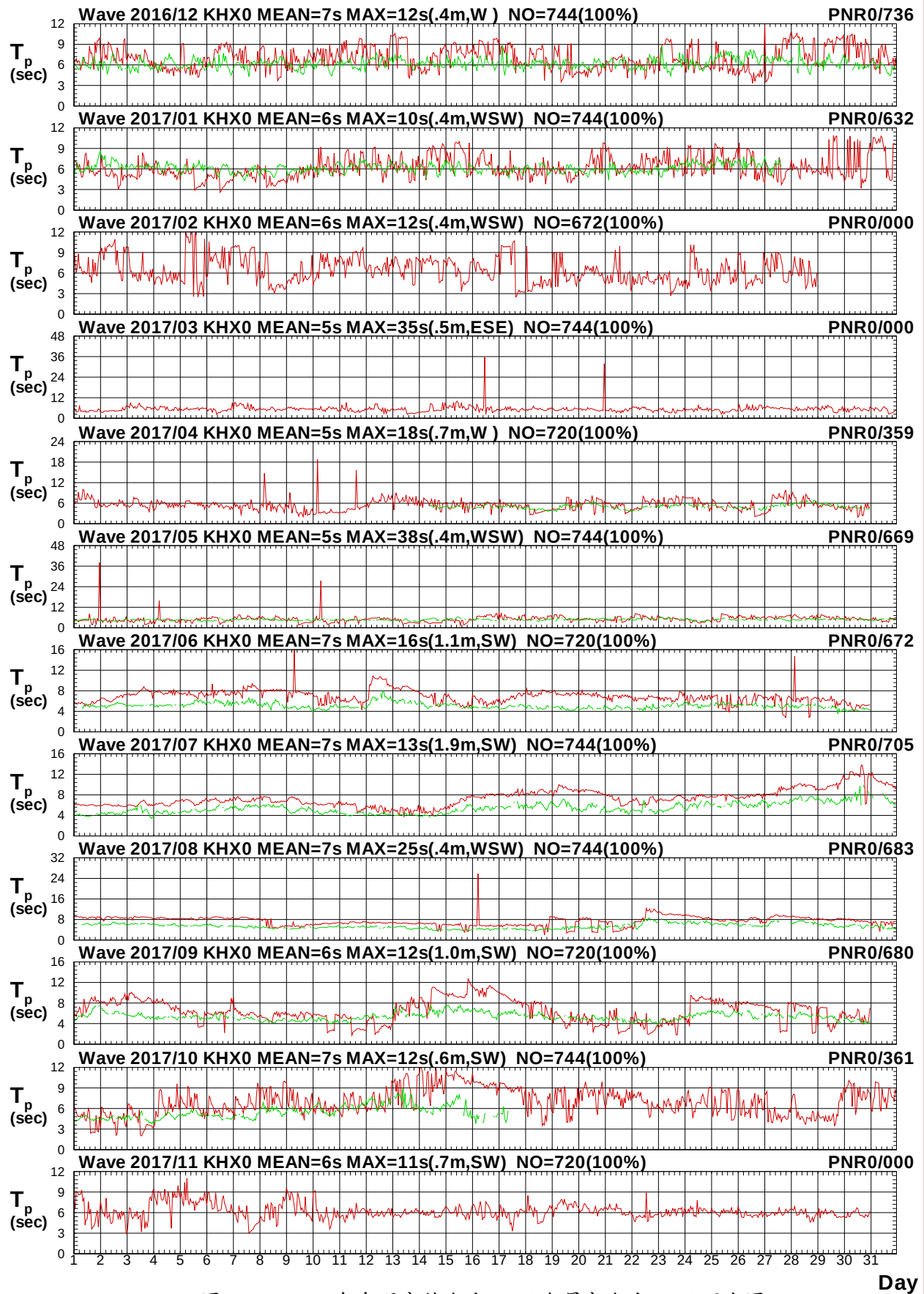


圖2.6b 2017年每月高雄海域 X 站與屏東海域 R 站週期圖

V16CKHX0.1HA V16CPNR0.1H0 V171KHX0.1HA V171PNR0.1H0 V172KHX0.1HA V172PNR0.1H0
V173KHX0.1HA V173PNR0.1H0 V174KHX0.1HA V174PNR0.1H0 V175KHX0.1HA V175PNR0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

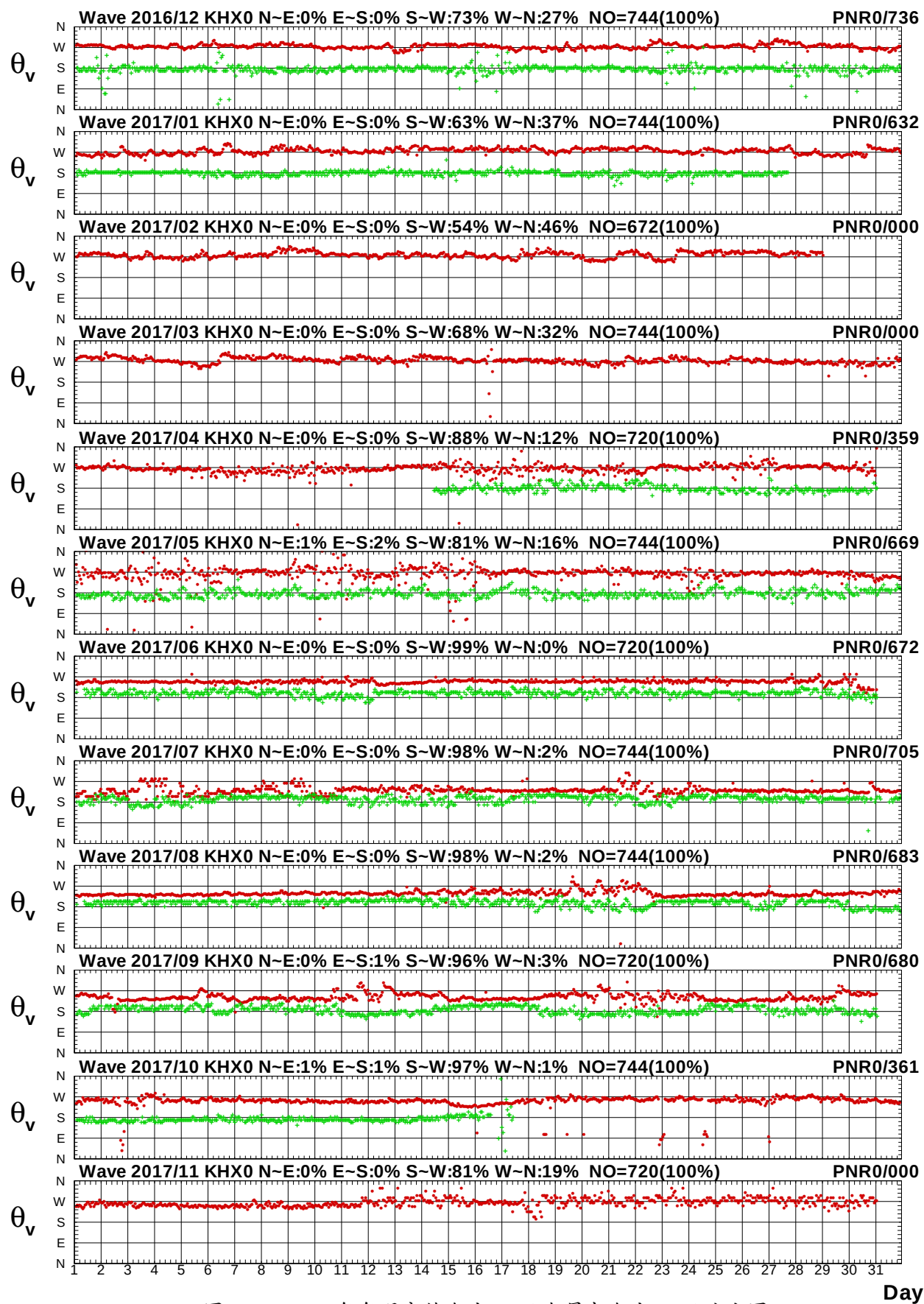


圖2.6c 2017年每月高雄海域 X 站與屏東海域 R 站波向圖

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V173KHX0.1HA V173PNR0.1H0 V174KHX0.1HA V174PNR0.1H0 V175KHX0.1HA V175PNR0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

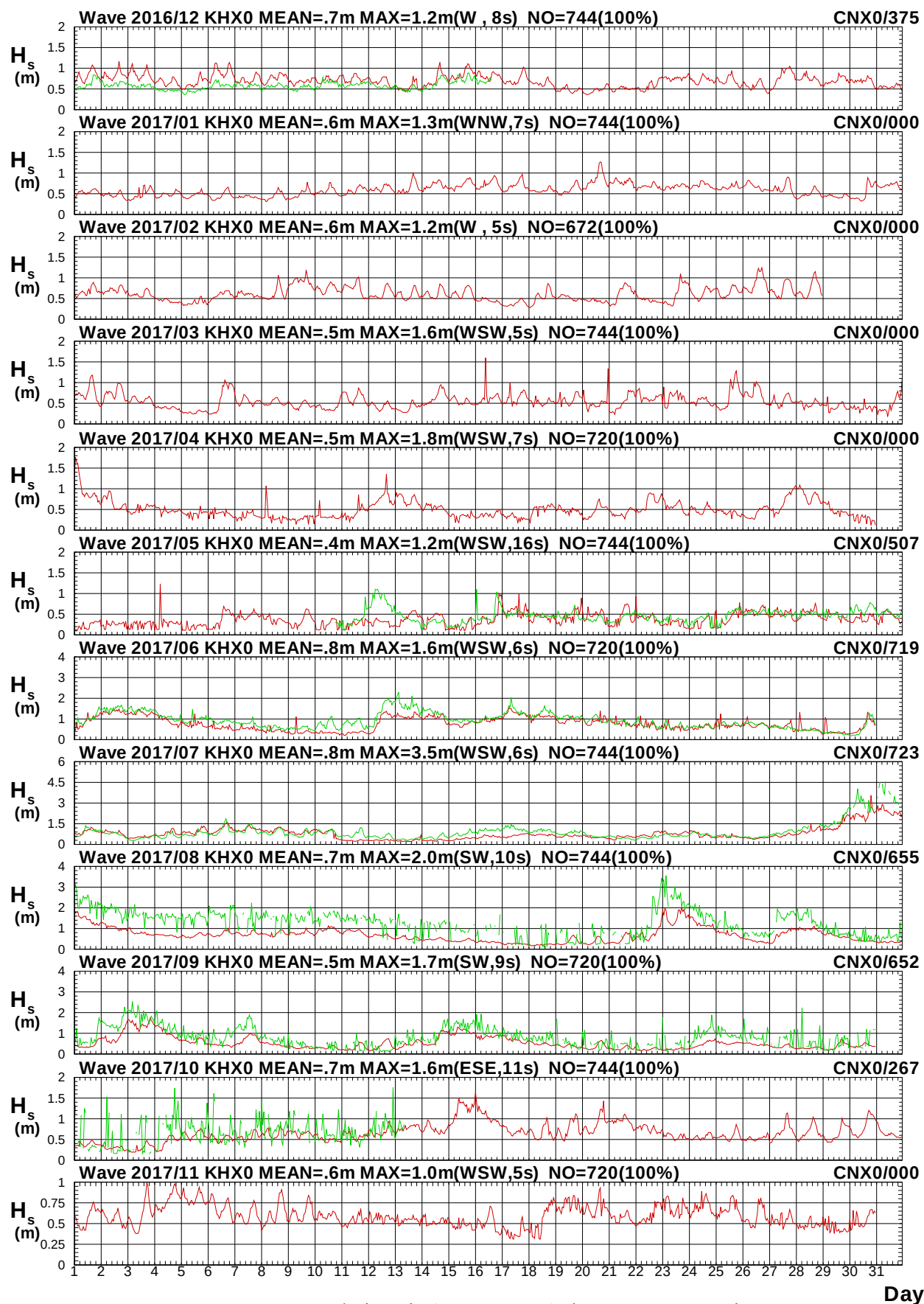


圖2.7a 2017年每月高雄海域 X 站與嘉南海域 X 站波高圖

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V173KHX0.1HA V173CNX0.1H0 V174KHX0.1HA V174CNX0.1H0 V175KHX0.1HA V175CNX0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

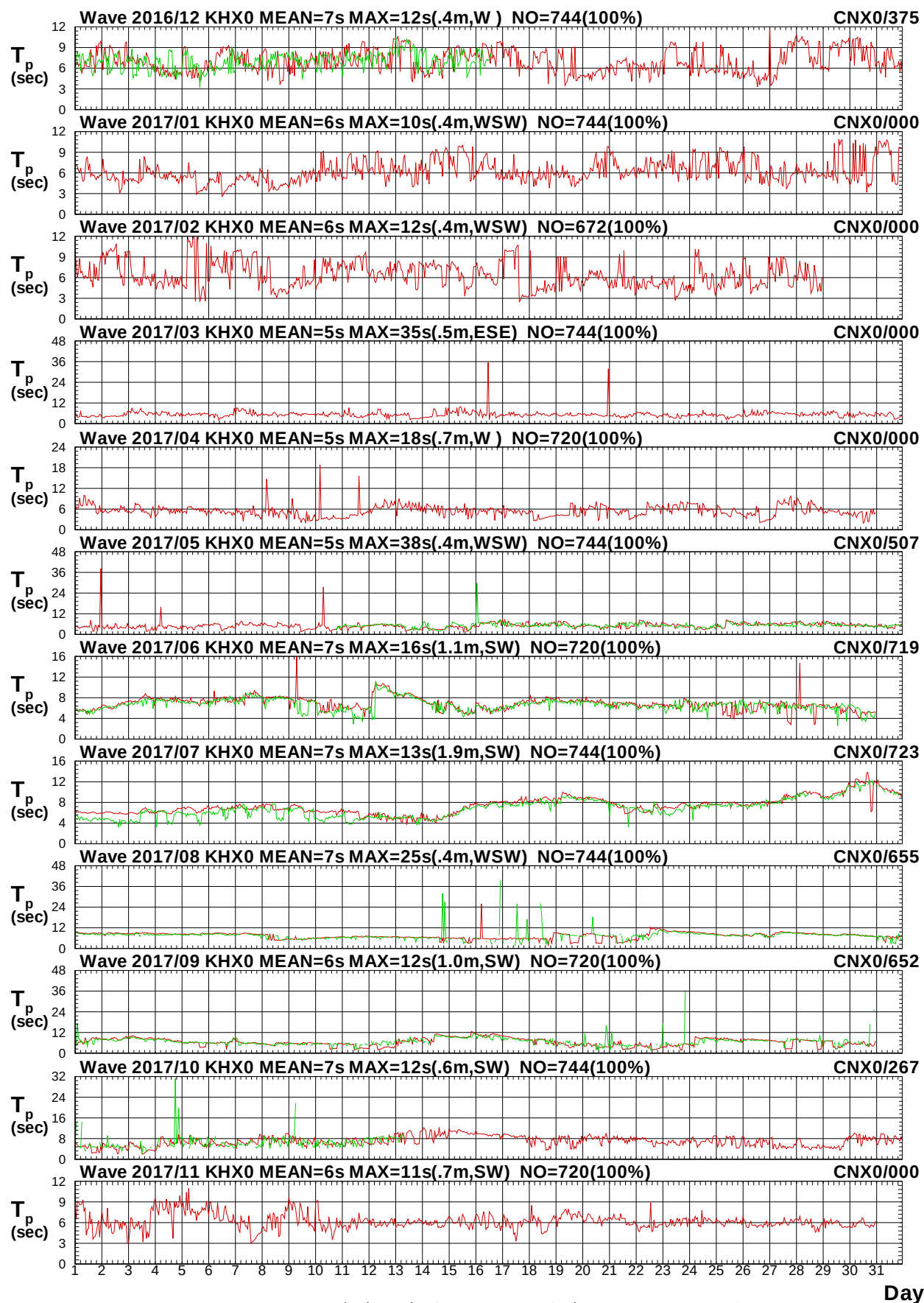


圖2.7b 2017年每月高雄海域 X 站與嘉南海域 X 站週期圖

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V173KHX0.1HA V173CNX0.1H0 V174KHX0.1HA V174CNX0.1H0 V175KHX0.1HA V175CNX0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

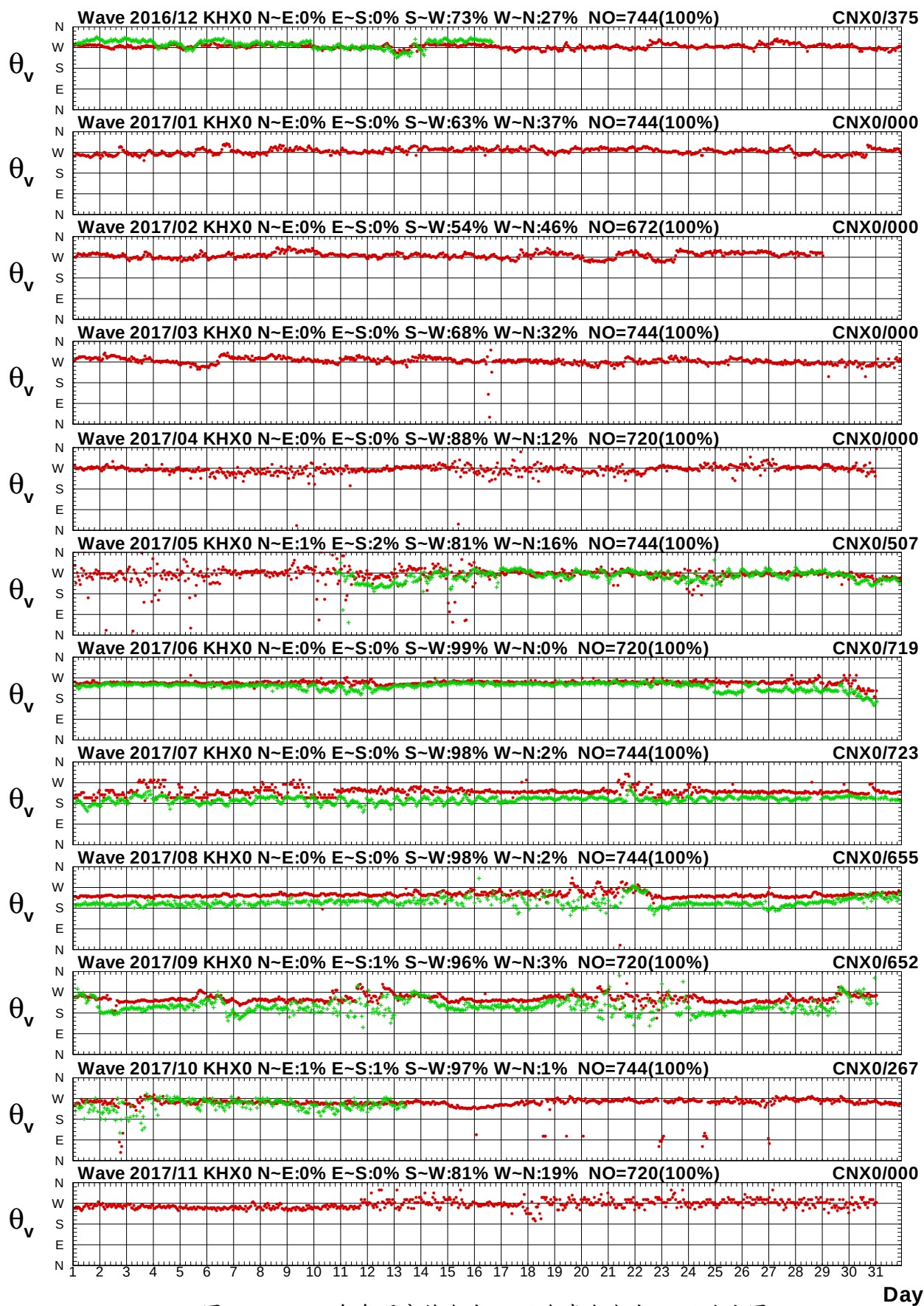


圖2.7c 2017年每月高雄海域 X 站與嘉南海域 X 站波向圖

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V173KHX0.1HA V173CNX0.1H0 V174KHX0.1HA V174CNX0.1H0 V175KHX0.1HA V175CNX0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

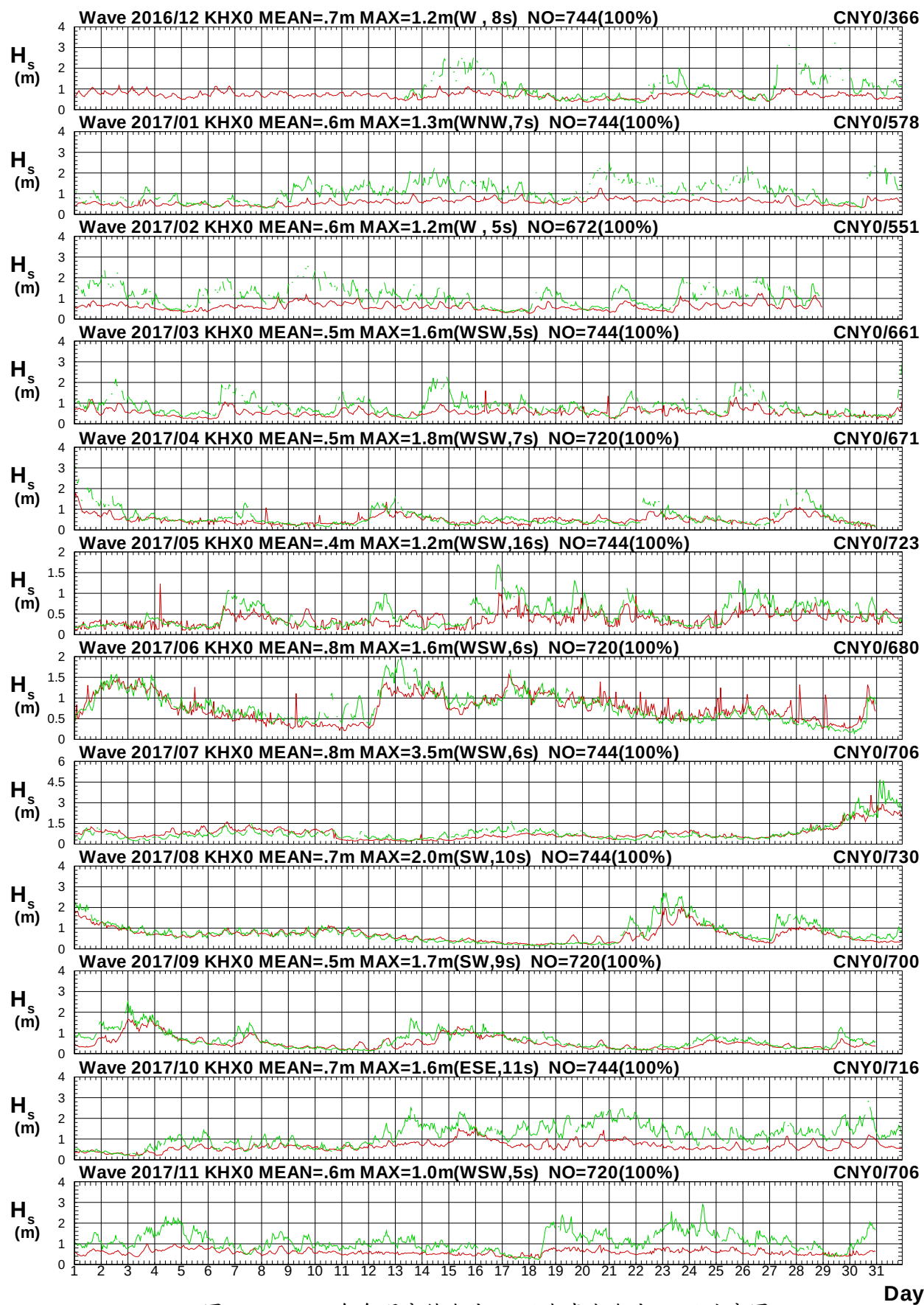


圖2.8a 2017年每月高雄海域 X 站與嘉南海域 Y 站波高圖

V16CKHX0.1HA V16CCNY0.1H0 V171KHX0.1HA V171CNY0.1H0 V172KHX0.1HA V172CNY0.1H0
V173KHX0.1HA V173CNY0.1H0 V174KHX0.1HA V174CNY0.1H0 V175KHX0.1HA V175CNY0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

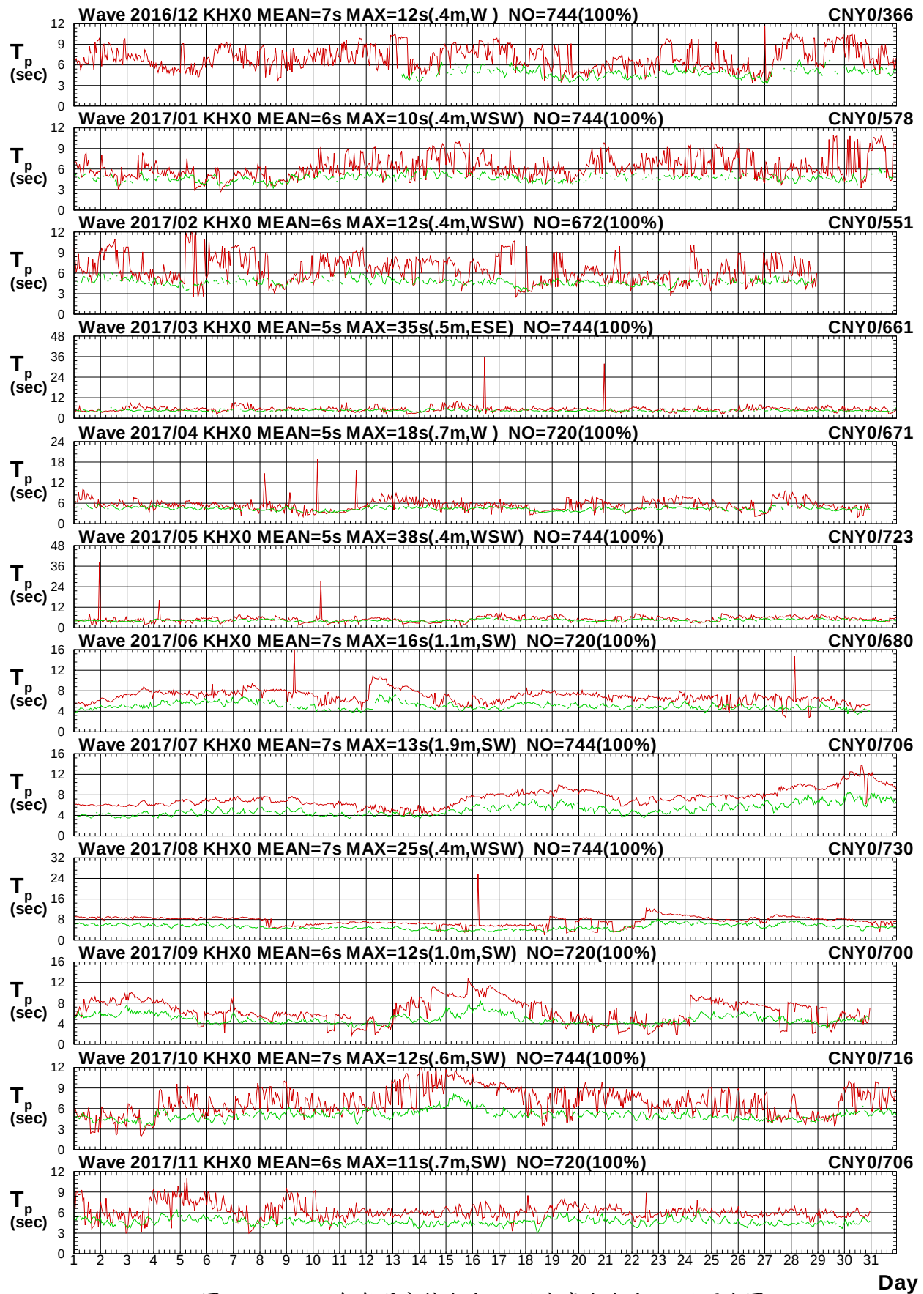


圖2.8b 2017年每月高雄海域 X 站與嘉南海域 Y 站週期圖

V16CKHX0.1HA V16CCNY0.1H0 V171KHX0.1HA V171CNY0.1H0 V172KHX0.1HA V172CNY0.1H0
V173KHX0.1HA V173CNY0.1H0 V174KHX0.1HA V174CNY0.1H0 V175KHX0.1HA V175CNY0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

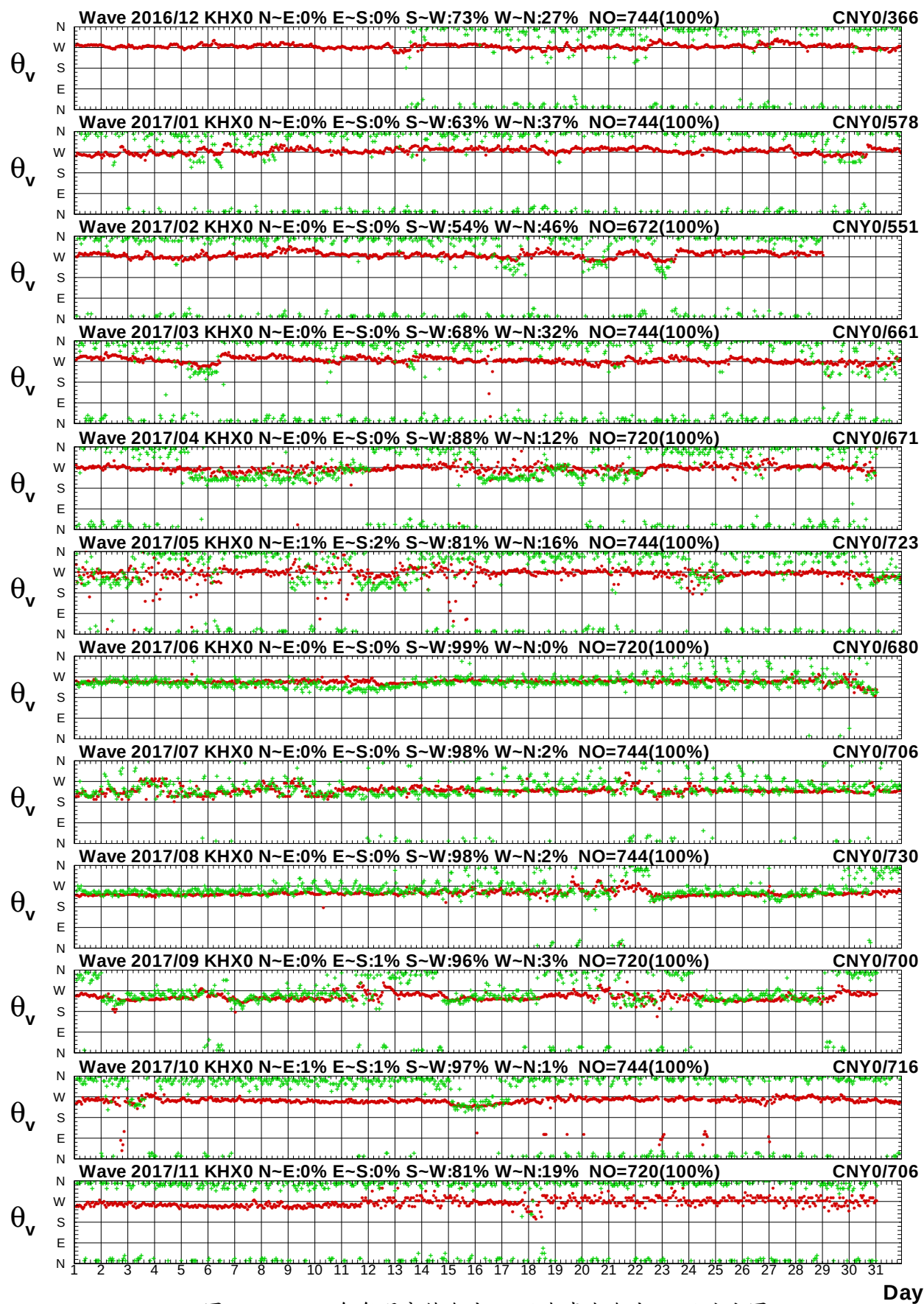


圖2.8c 2017年每月高雄海域 X 站與嘉南海域 Y 站波向圖

V16CKHX0.1HA V16CCNY0.1H0 V171KHX0.1HA V171CNY0.1H0 V172KHX0.1HA V172CNY0.1H0
V173KHX0.1HA V173CNY0.1H0 V174KHX0.1HA V174CNY0.1H0 V175KHX0.1HA V175CNY0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

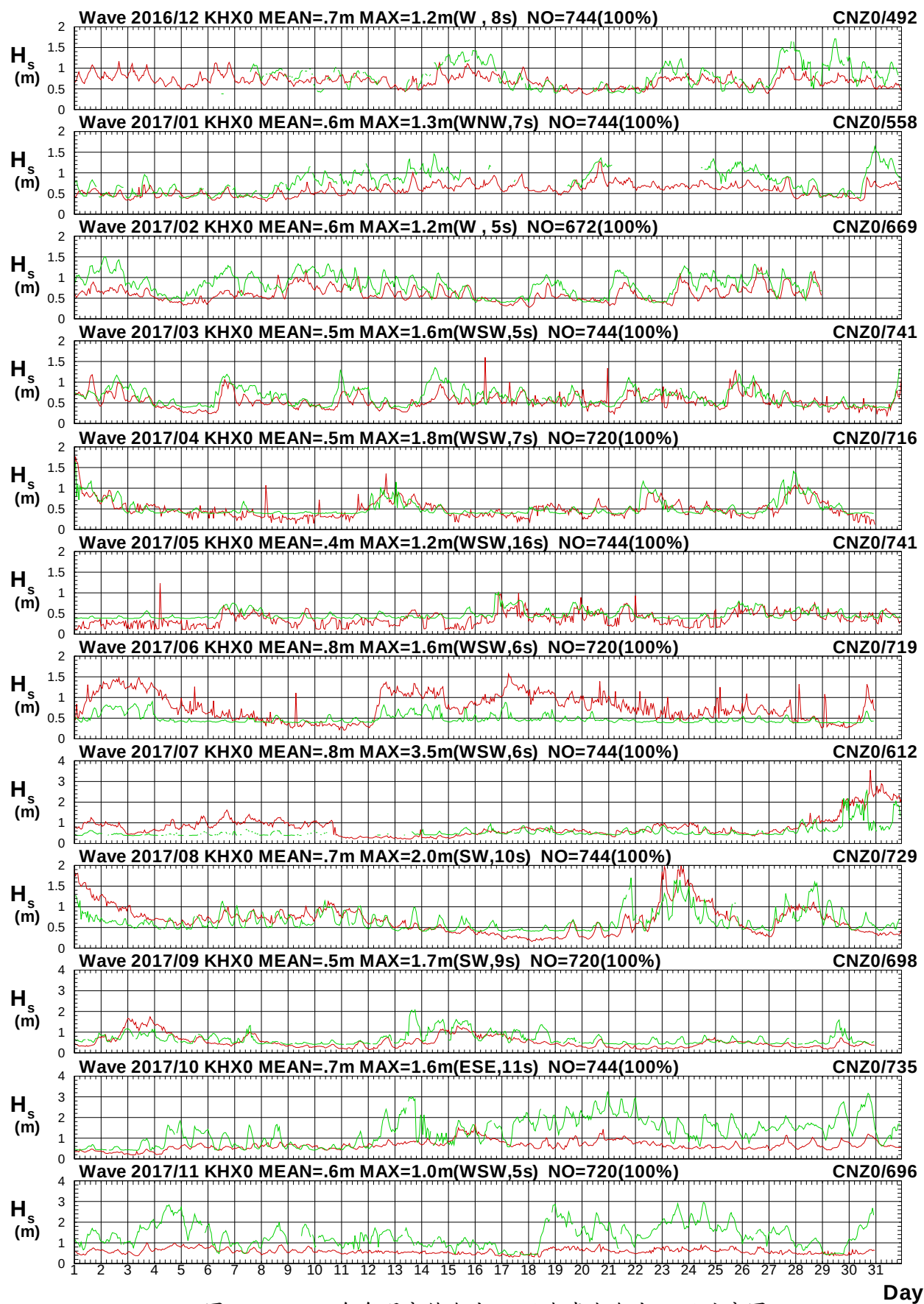


圖2.9a 2017年每月高雄海域 X 站與嘉南海域 Z 站波高圖

V16CKHX0.1HA V16CCNZ0.1H0 V171KHX0.1HA V171CNZ0.1H0 V172KHX0.1HA V172CNZ0.1H0
V173KHX0.1HA V173CNZ0.1H0 V174KHX0.1HA V174CNZ0.1H0 V175KHX0.1HA V175CNZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

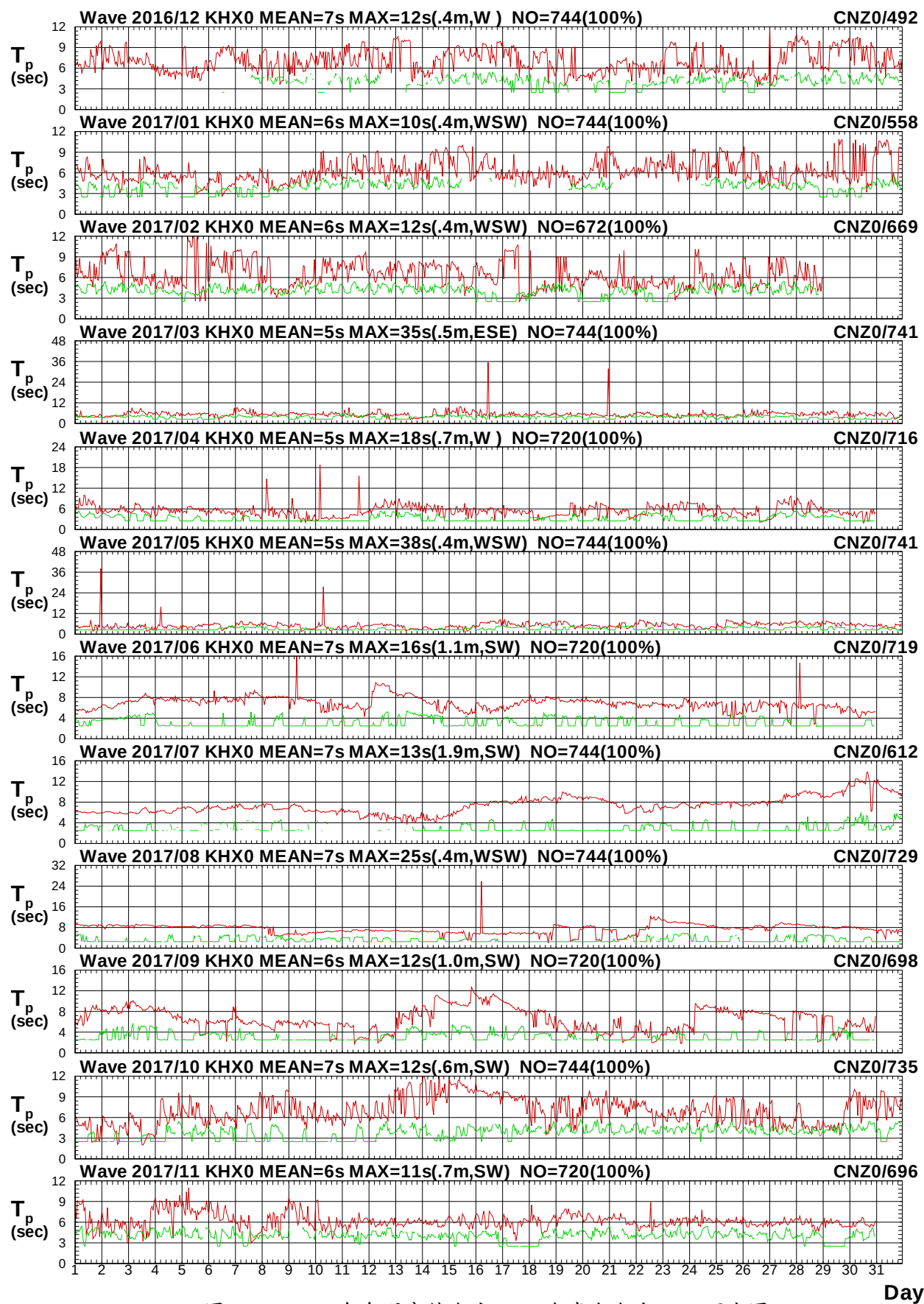


圖2.9b 2017年每月高雄海域 X 站與嘉南海域 Z 站週期圖

V16CKHX0.1HA V16CCNZ0.1H0 V171KHX0.1HA V171CNZ0.1H0 V172KHX0.1HA V172CNZ0.1H0
V173KHX0.1HA V173CNZ0.1H0 V174KHX0.1HA V174CNZ0.1H0 V175KHX0.1HA V175CNZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

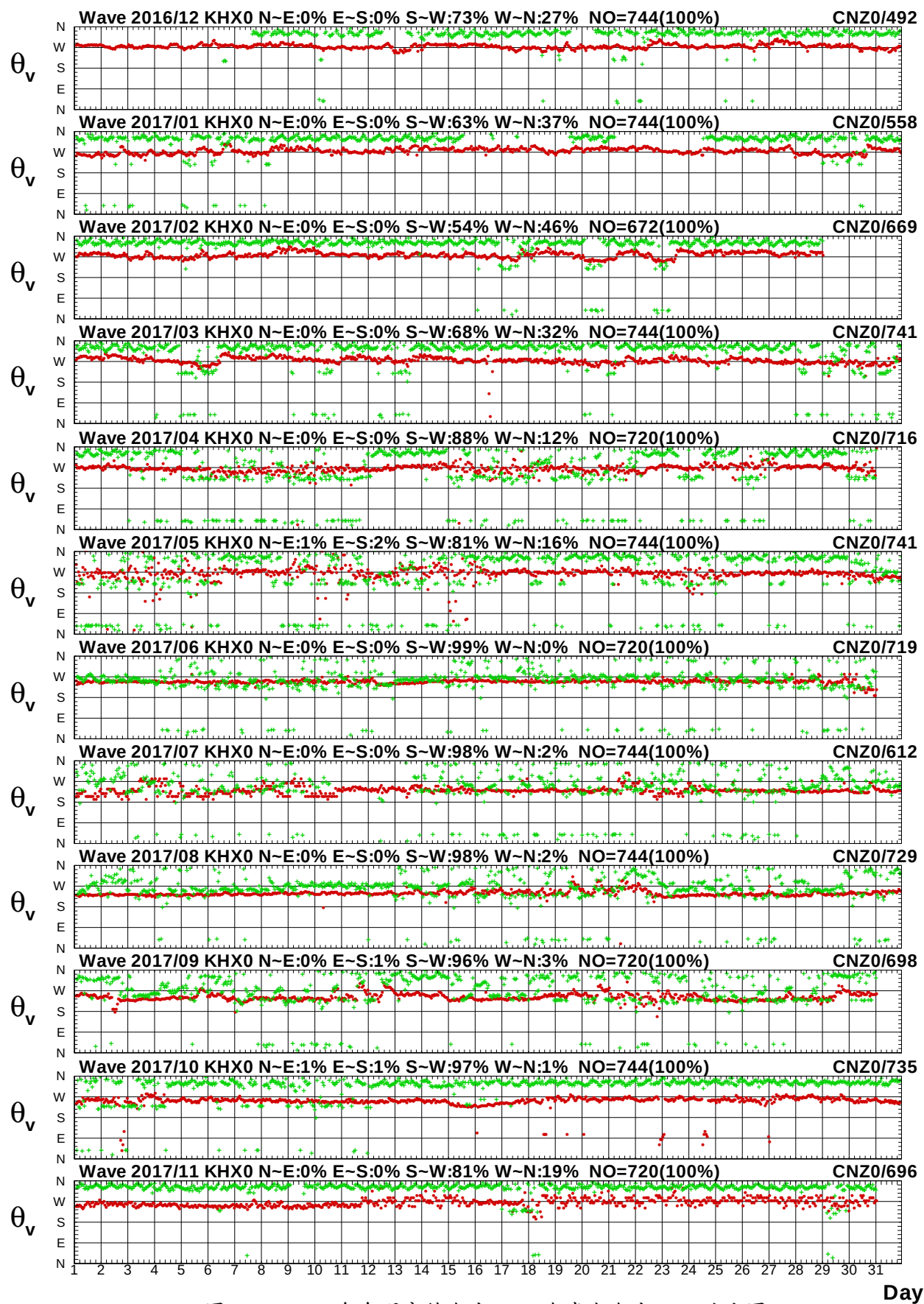


圖2.9c 2017年每月高雄海域 X 站與嘉南海域 Z 站波向圖

V16CKHX0.1HA V16CCNZ0.1H0 V171KHX0.1HA V171CNZ0.1H0 V172KHX0.1HA V172CNZ0.1H0
V173KHX0.1HA V173CNZ0.1H0 V174KHX0.1HA V174CNZ0.1H0 V175KHX0.1HA V175CNZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

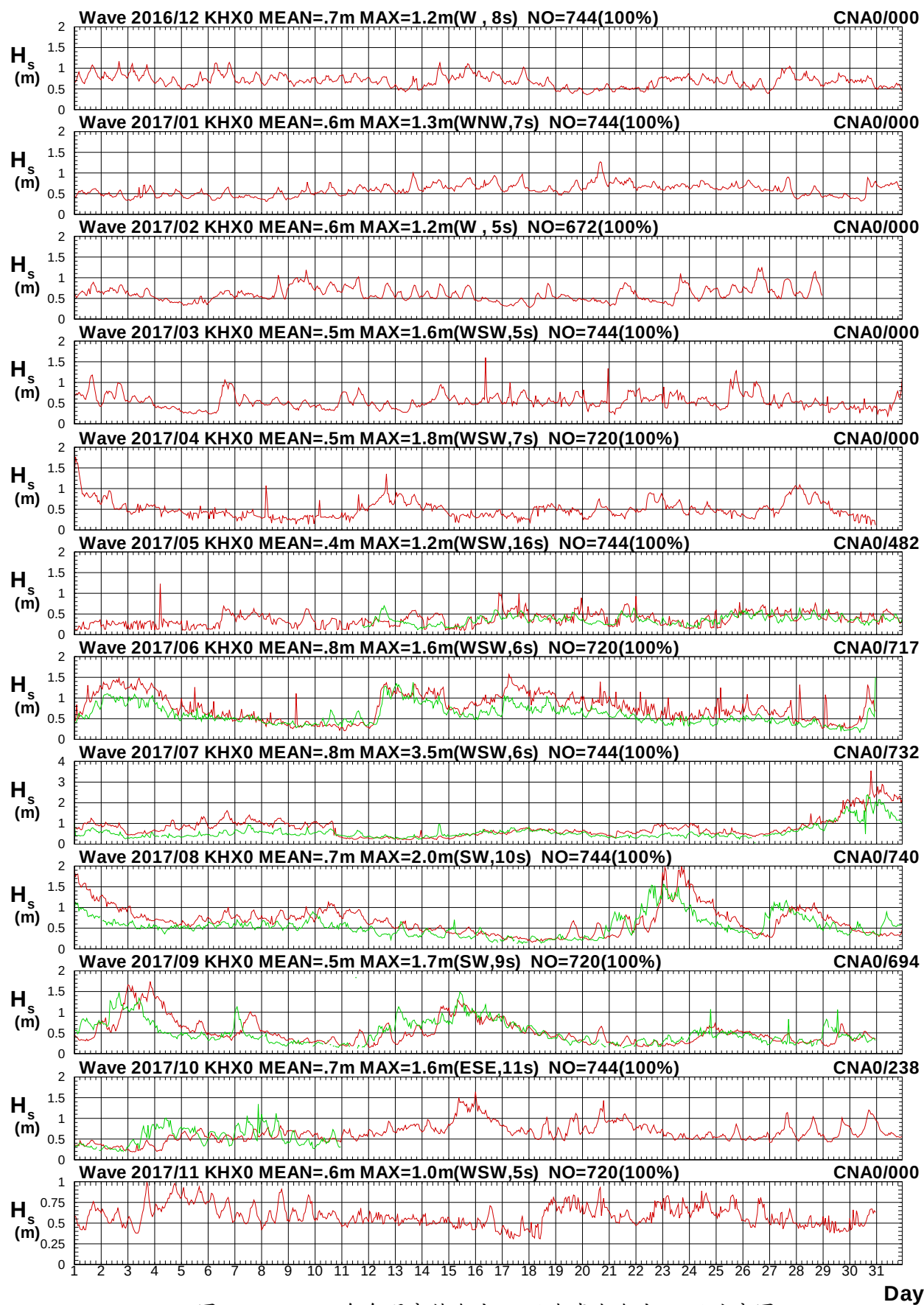


圖2.10a 2017年每月高雄海域 X 站與嘉南海域 A 站波高圖

V16CKHX0.1HA V16CCNA0.1H0 V171KHX0.1HA V171CNA0.1H0 V172KHX0.1HA V172CNA0.1H0
V173KHX0.1HA V173CNA0.1H0 V174KHX0.1HA V174CNA0.1H0 V175KHX0.1HA V175CNA0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

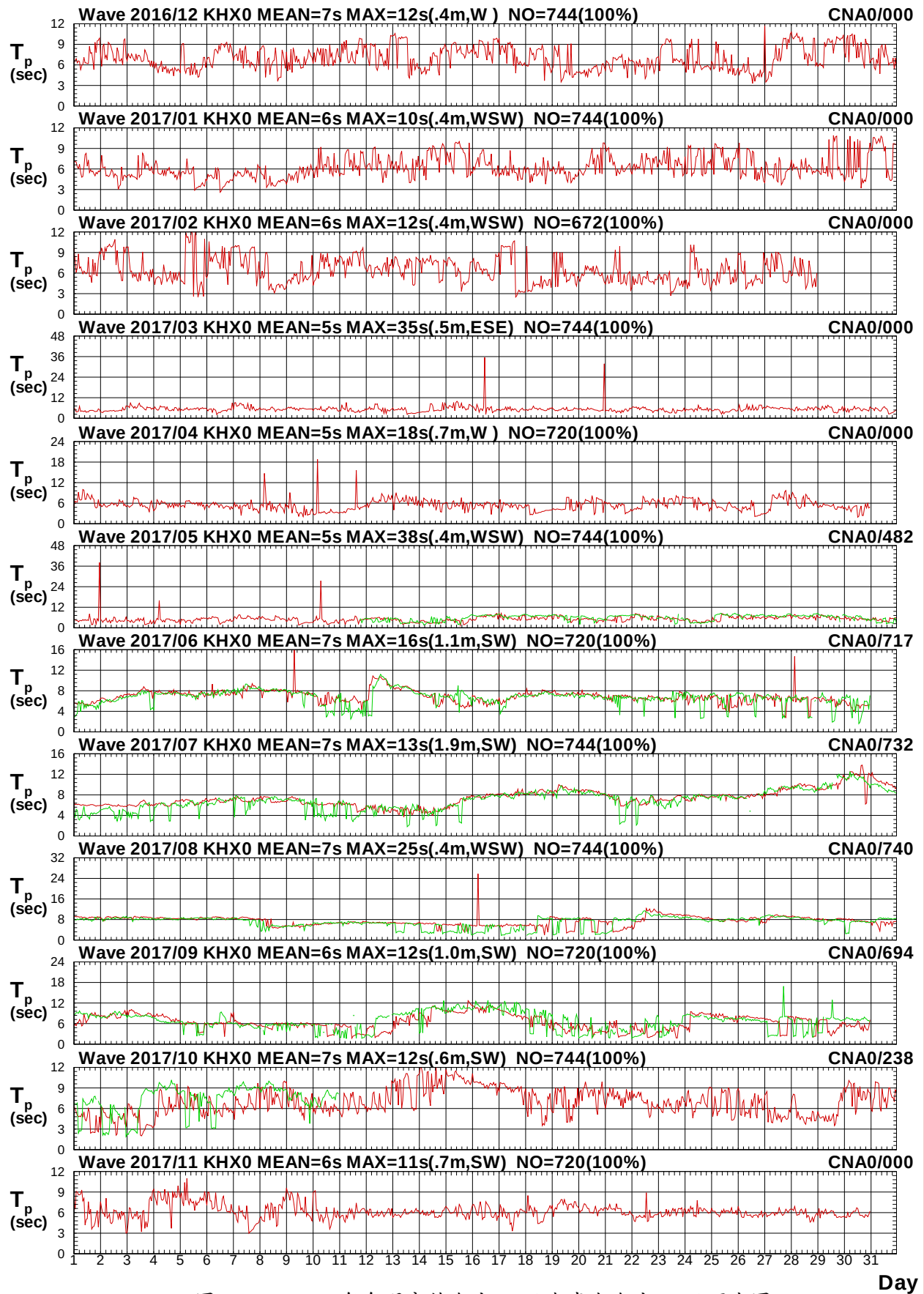


圖2.10b 2017年每月高雄海域 X 站與嘉南海域 A 站週期圖

V16CKHX0.1HA V16CCNA0.1H0 V171KHX0.1HA V171CNA0.1H0 V172KHX0.1HA V172CNA0.1H0
V173KHX0.1HA V173CNA0.1H0 V174KHX0.1HA V174CNA0.1H0 V175KHX0.1HA V175CNA0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

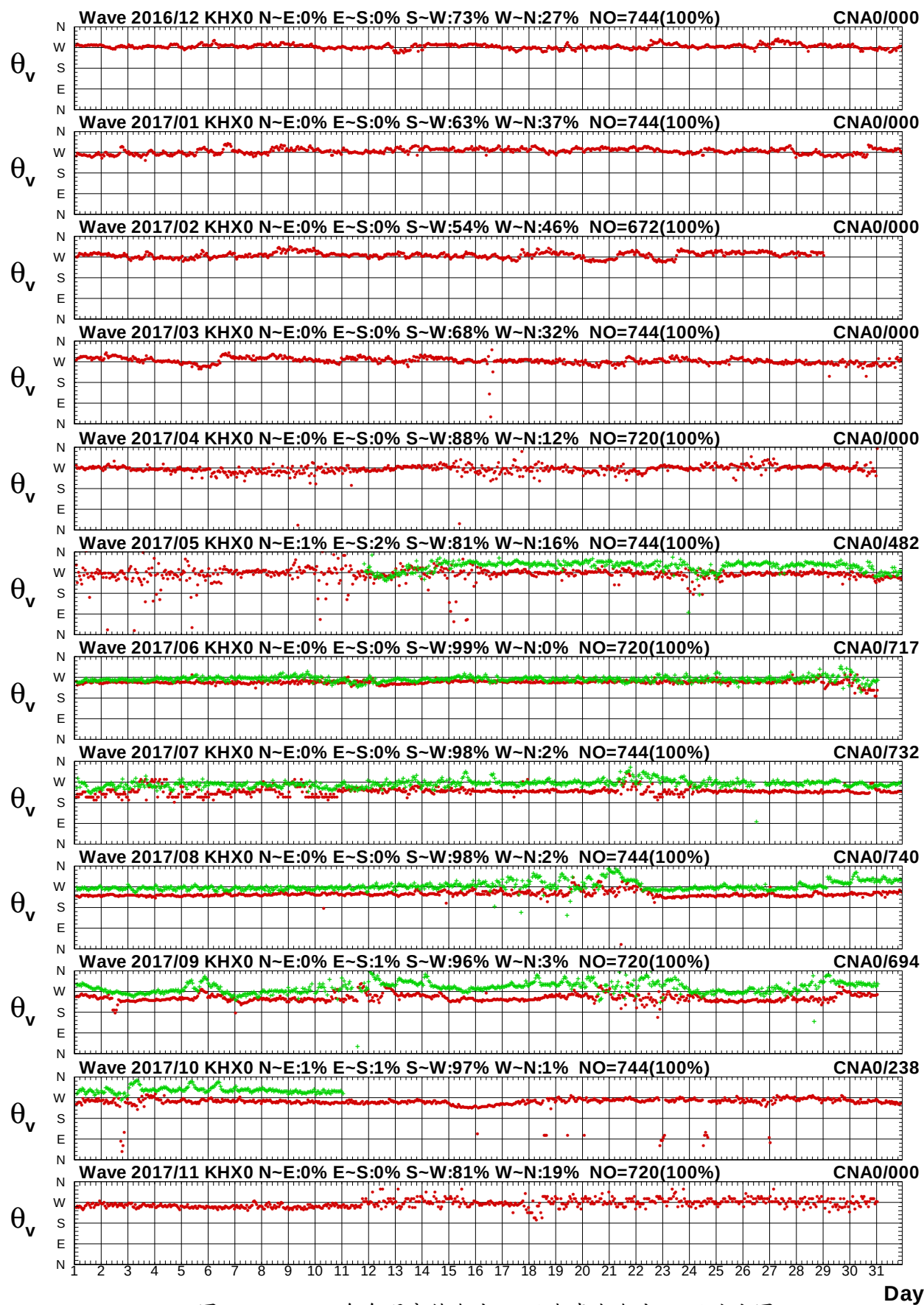


圖2.10c 2017年每月高雄海域 X 站與嘉南海域 A 站波向圖

V16CKHX0.1HA V16CCNA0.1H0 V171KHX0.1HA V171CNA0.1H0 V172KHX0.1HA V172CNA0.1H0
V173KHX0.1HA V173CNA0.1H0 V174KHX0.1HA V174CNA0.1H0 V175KHX0.1HA V175CNA0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

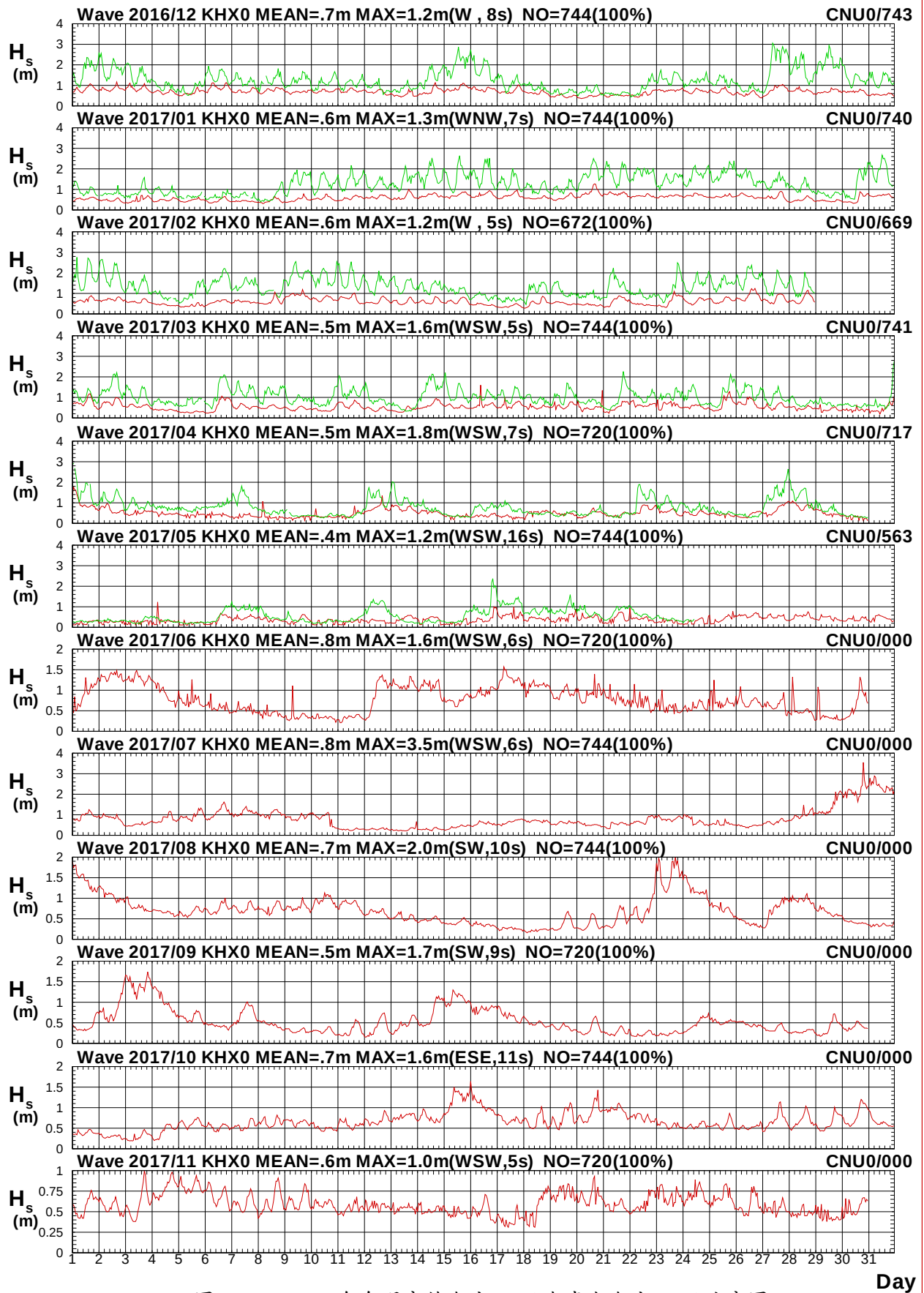


圖2.11a 2017年每月高雄海域 X 站與嘉南海域 U 站波高圖

V16CKHX0.1HA V16CCNU0.1H0 V171KHX0.1HA V171CNU0.1H0 V172KHX0.1HA V172CNU0.1H0
V173KHX0.1HA V173CNU0.1H0 V174KHX0.1HA V174CNU0.1H0 V175KHX0.1HA V175CNU0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

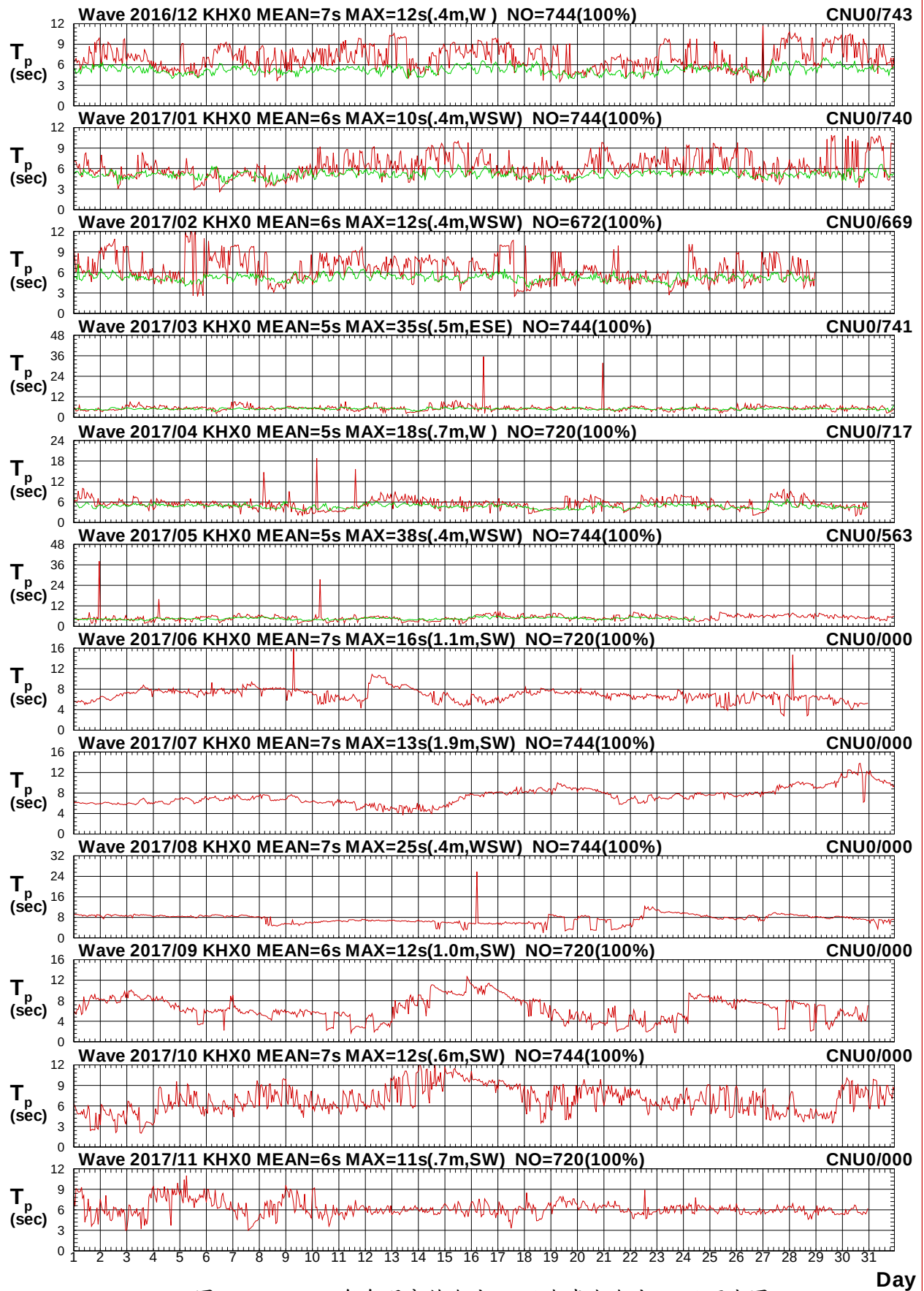


圖2.11b 2017年每月高雄海域 X 站與嘉南海域 U 站週期圖

V16CKHX0.1HA V16CCNU0.1H0 V171KHX0.1HA V171CNU0.1H0 V172KHX0.1HA V172CNU0.1H0
V173KHX0.1HA V173CNU0.1H0 V174KHX0.1HA V174CNU0.1H0 V175KHX0.1HA V175CNU0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

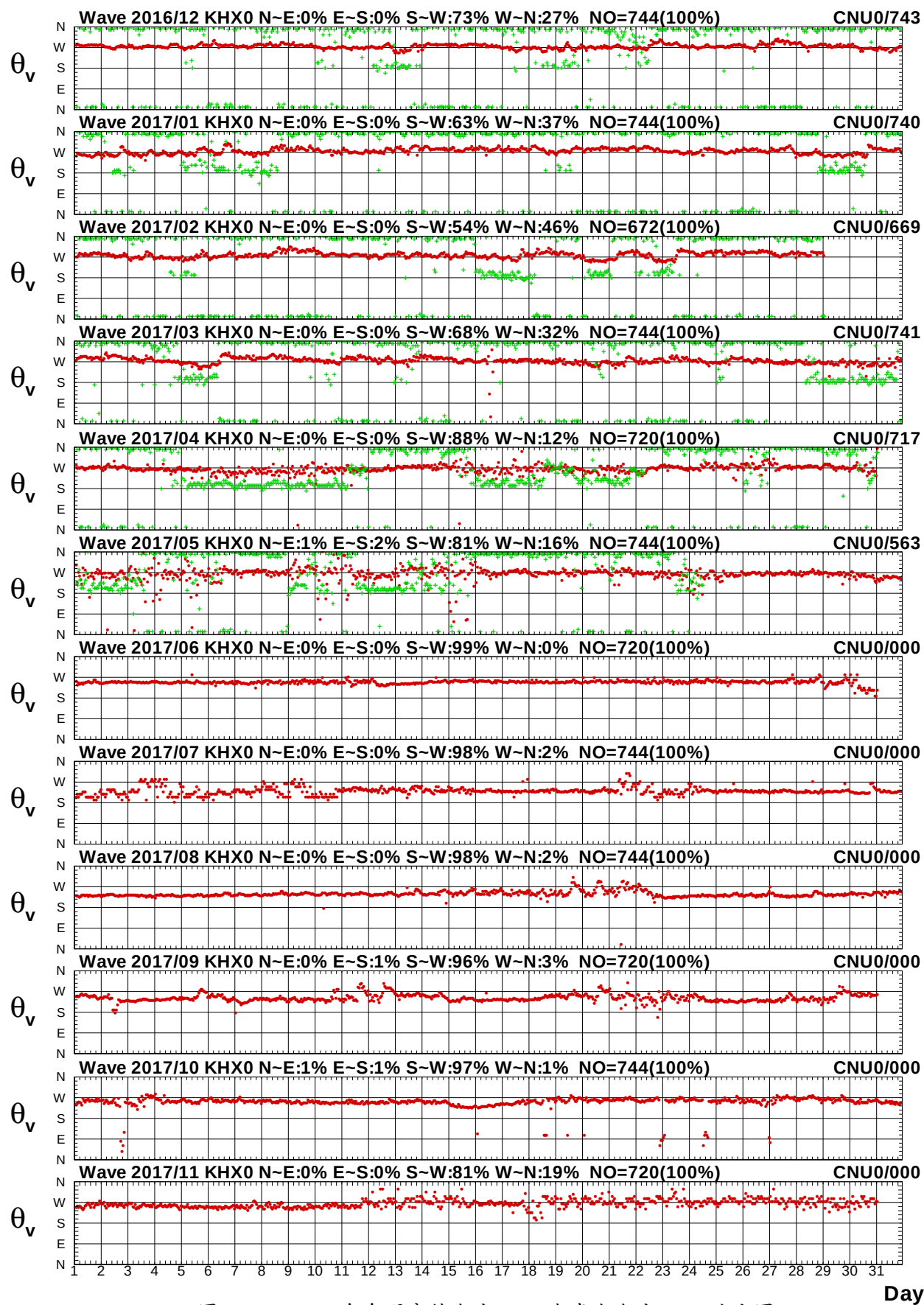


圖2.11c 2017年每月高雄海域 X 站與嘉南海域 U 站波向圖

V16CKHX0.1HA V16CCNU0.1H0 V171KHX0.1HA V171CNU0.1H0 V172KHX0.1HA V172CNU0.1H0
V173KHX0.1HA V173CNU0.1H0 V174KHX0.1HA V174CNU0.1H0 V175KHX0.1HA V175CNU0.1H0

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Wave H_s in Kao-Hsiung Seas of KHX0 at 2017

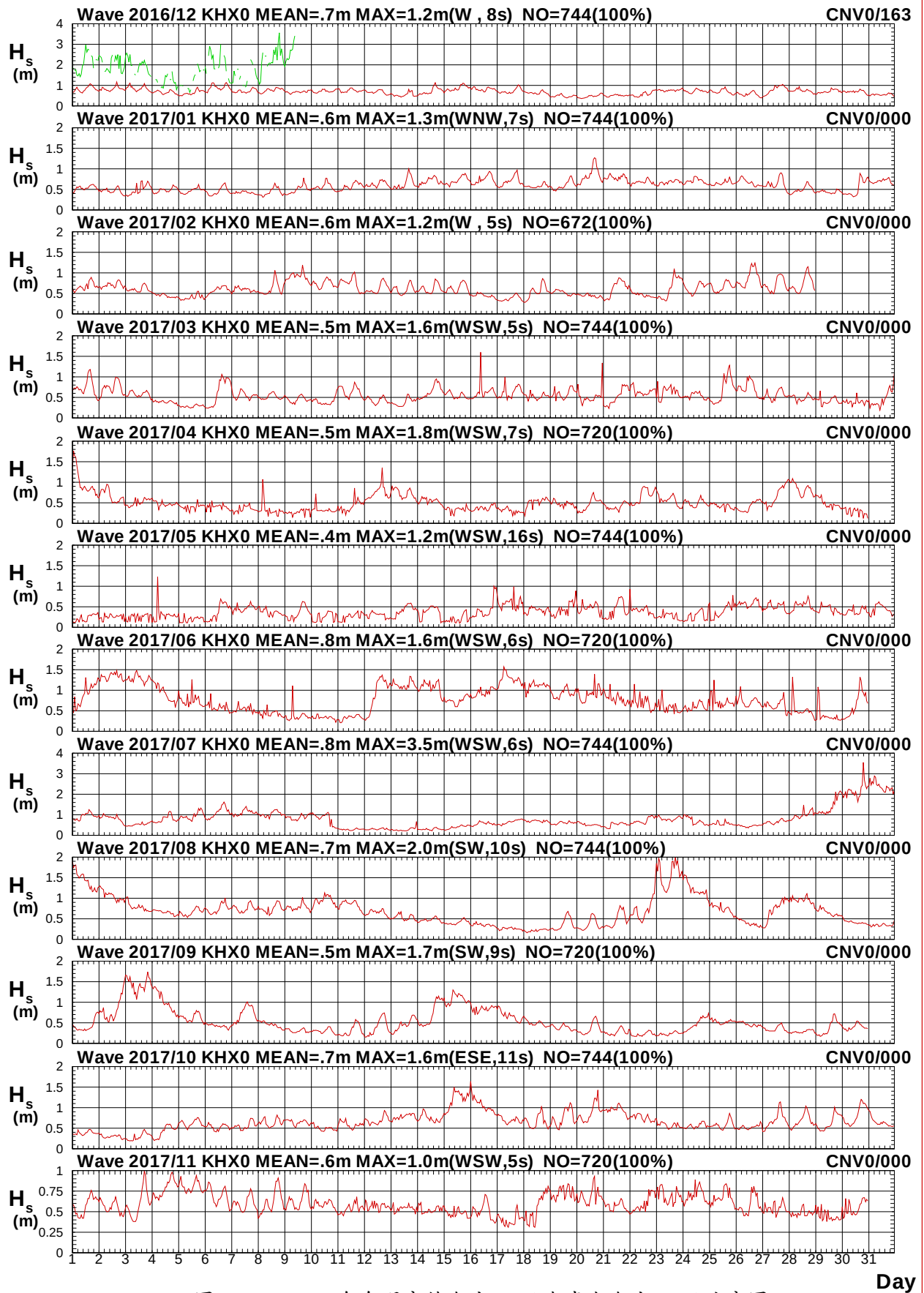


圖2.12a 2017年每月高雄海域 X 站與嘉南海域 V 站波高圖

V16CKHX0.1HA V16CCNV0.1H0 V171KHX0.1HA V171CNV0.1H0 V172KHX0.1HA V172CNV0.1H0
V173KHX0.1HA V173CNV0.1H0 V174KHX0.1HA V174CNV0.1H0 V175KHX0.1HA V175CNV0.1H0

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Wave T_p in Kao-Hsiung Seas of KHX0 at 2017

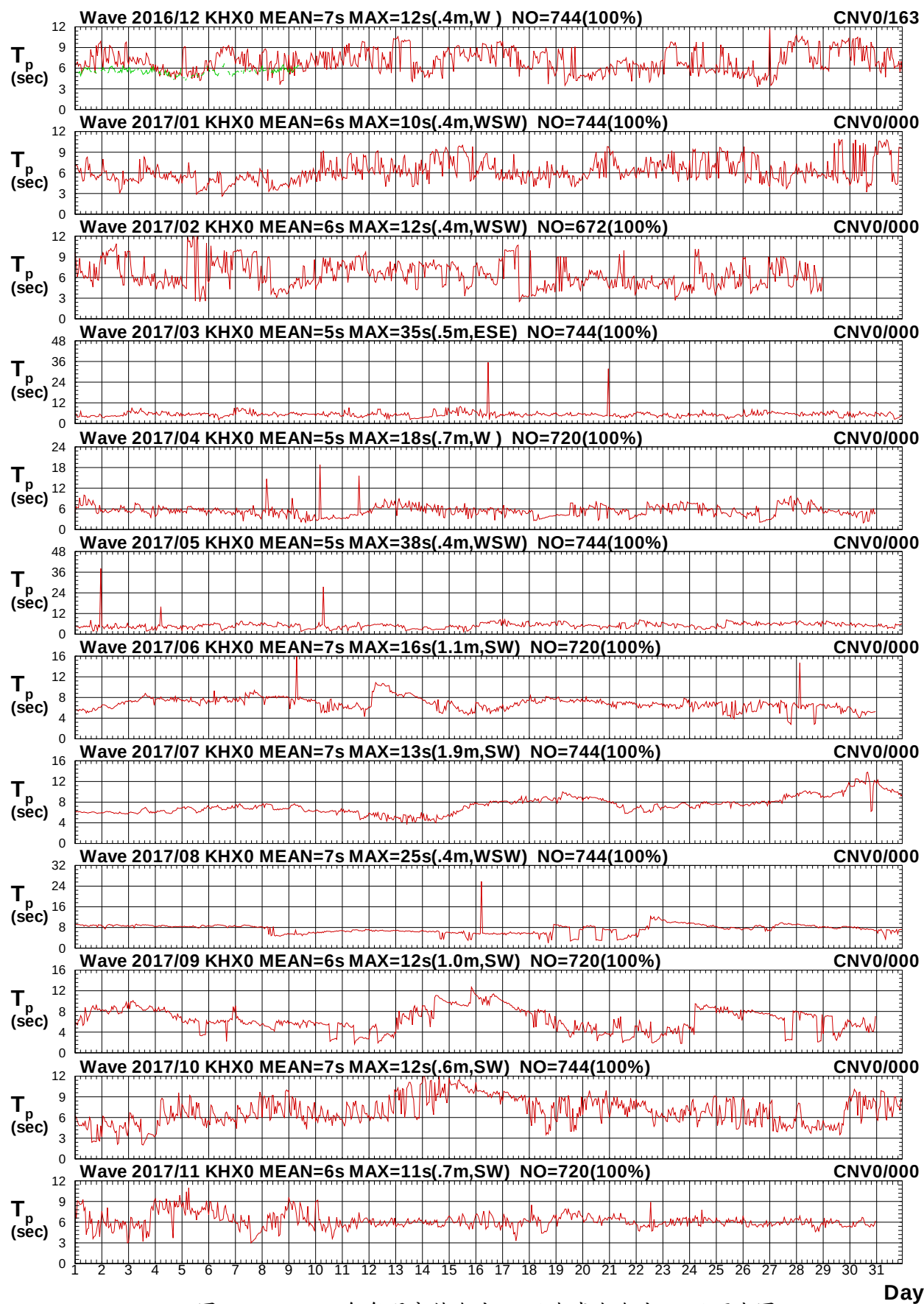


圖2.12b 2017年每月高雄海域 X 站與嘉南海域 V 站週期圖

V16CKHX0.1HA V16CCNV0.1H0 V171KHX0.1HA V171CNV0.1H0 V172KHX0.1HA V172CNV0.1H0
V173KHX0.1HA V173CNV0.1H0 V174KHX0.1HA V174CNV0.1H0 V175KHX0.1HA V175CNV0.1H0

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Wave Direction in Kao-Hsiung Seas of KHX0 at 2017

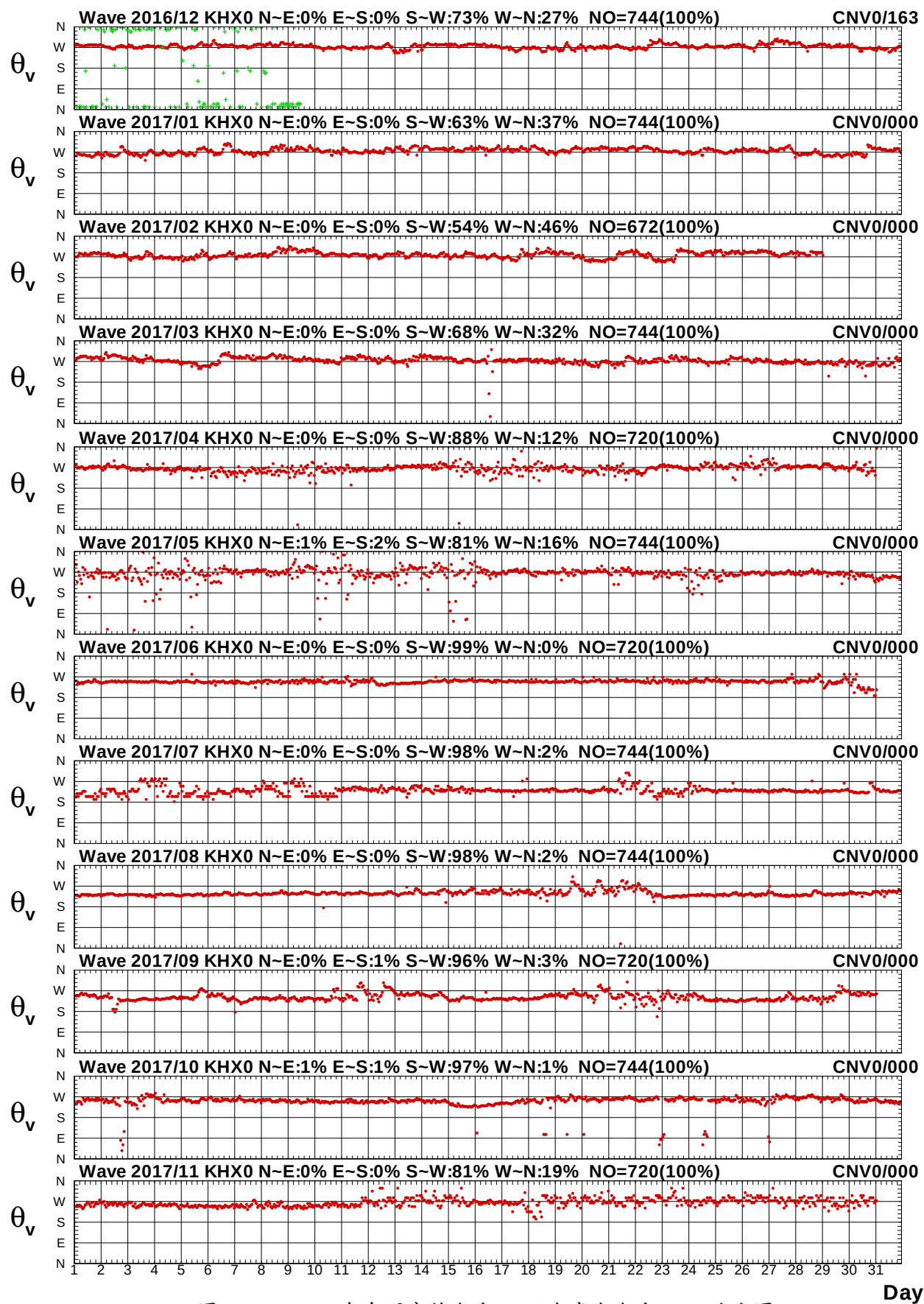


圖2.12c 2017年每月高雄海域 X 站與嘉南海域 V 站波向圖

V16CKHX0.1HA V16CCNV0.1H0 V171KHX0.1HA V171CNV0.1H0 V172KHX0.1HA V172CNV0.1H0
V173KHX0.1HA V173CNV0.1H0 V174KHX0.1HA V174CNV0.1H0 V175KHX0.1HA V175CNV0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

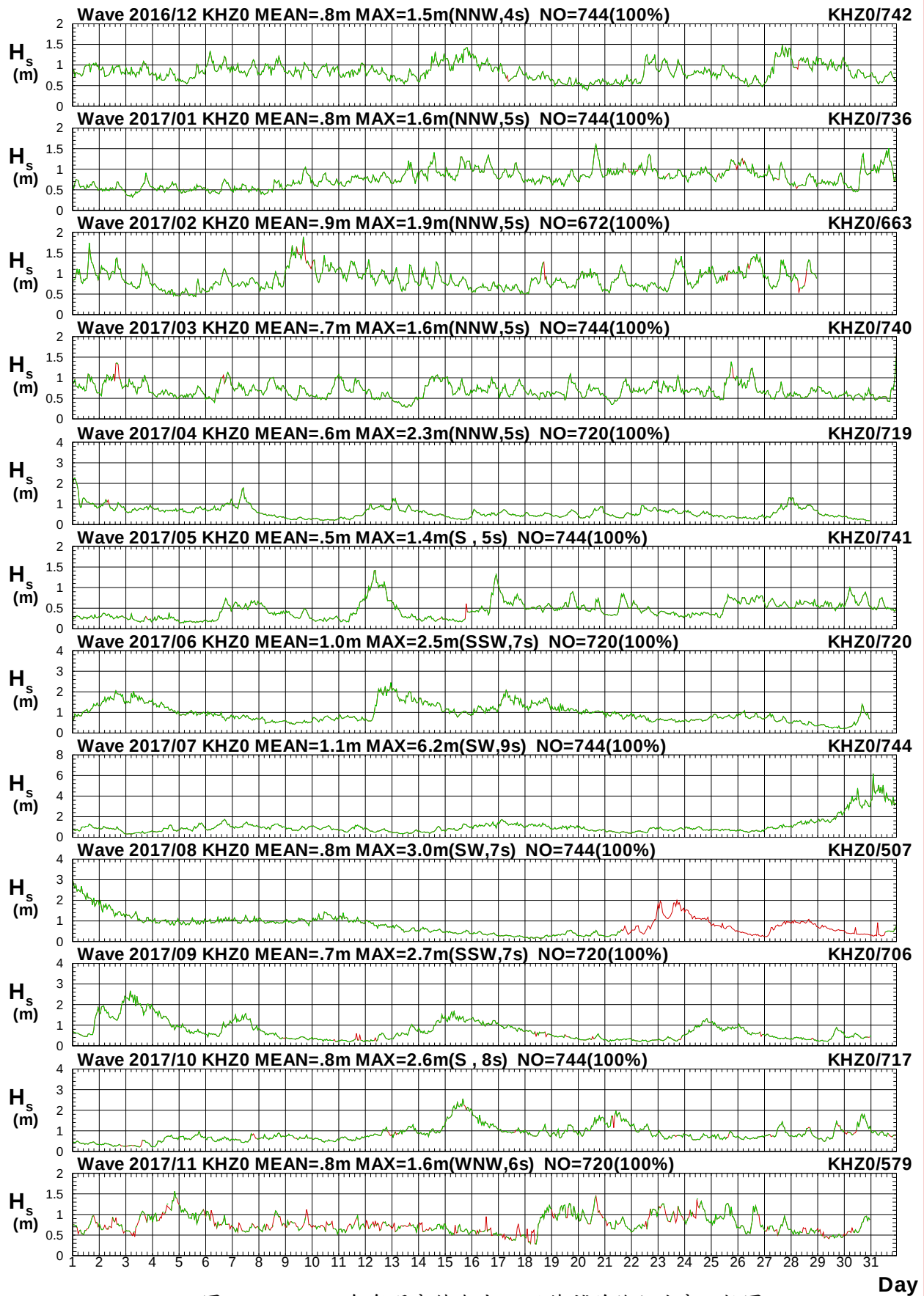


圖2.13a 2017年每月高雄海域 Z 站修補前後之波高比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

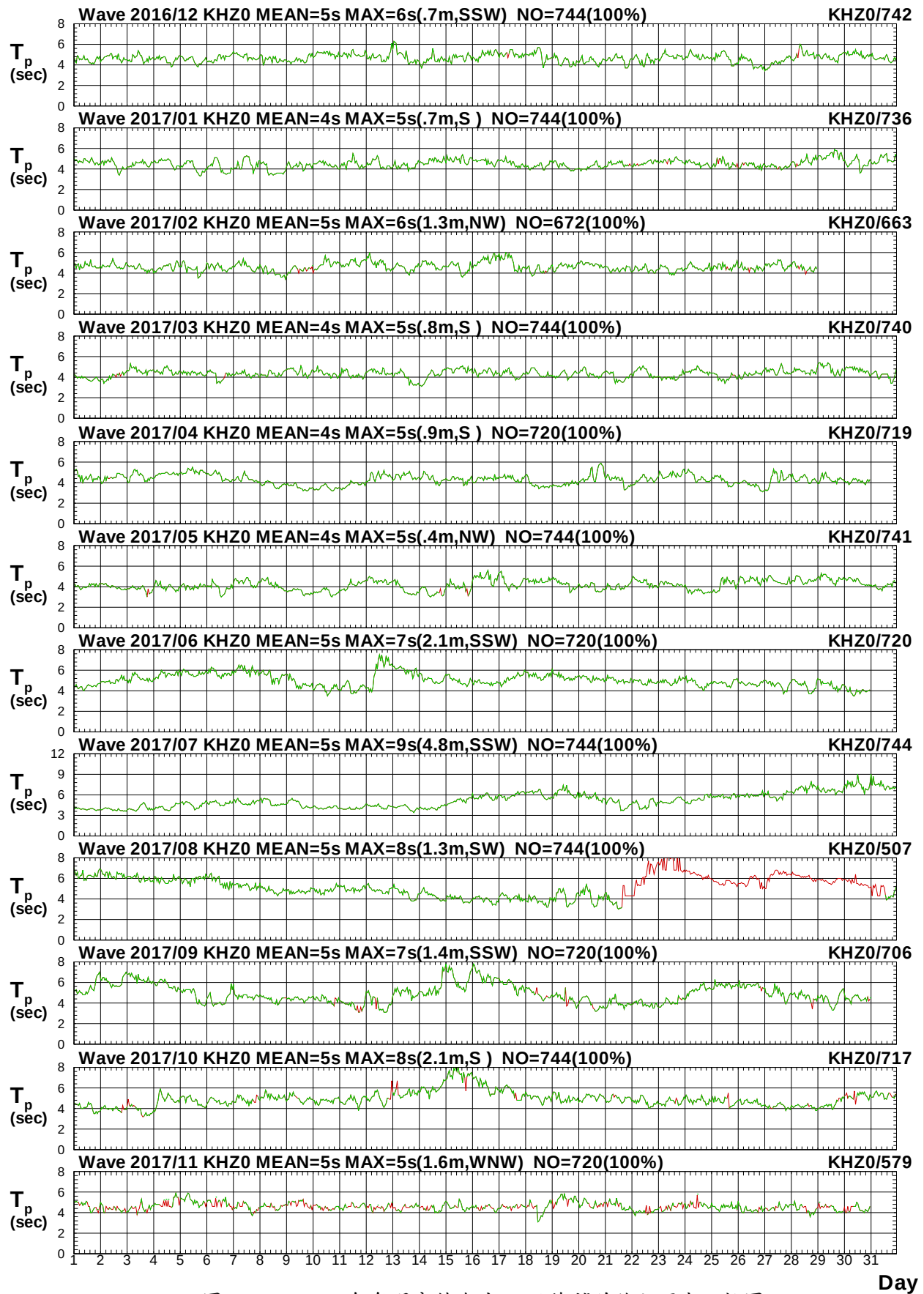


圖2.13b 2017年每月高雄海域 Z 站修補前後之週期比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

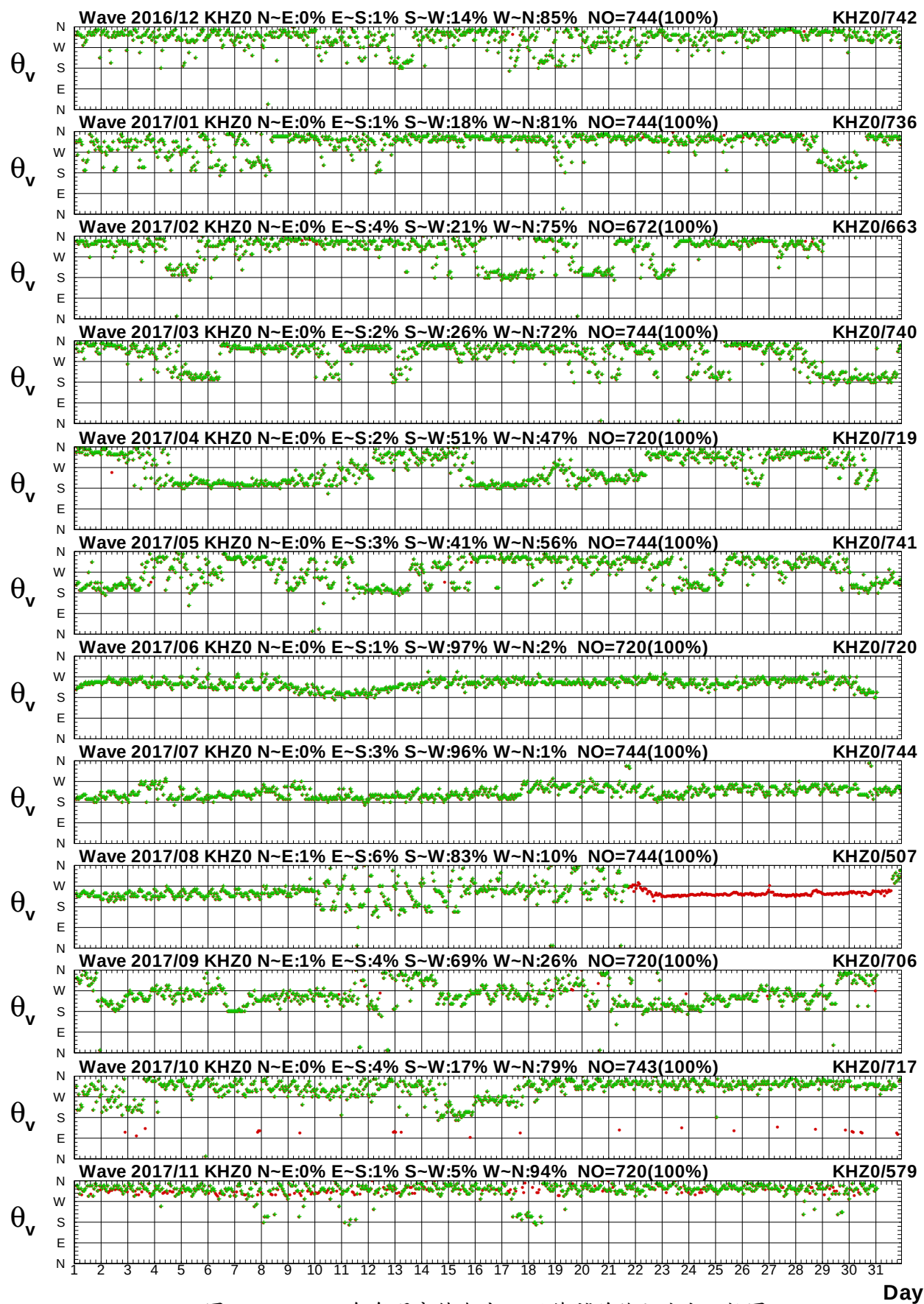


圖2.13c 2017年每月高雄海域 Z 站修補前後之波向比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

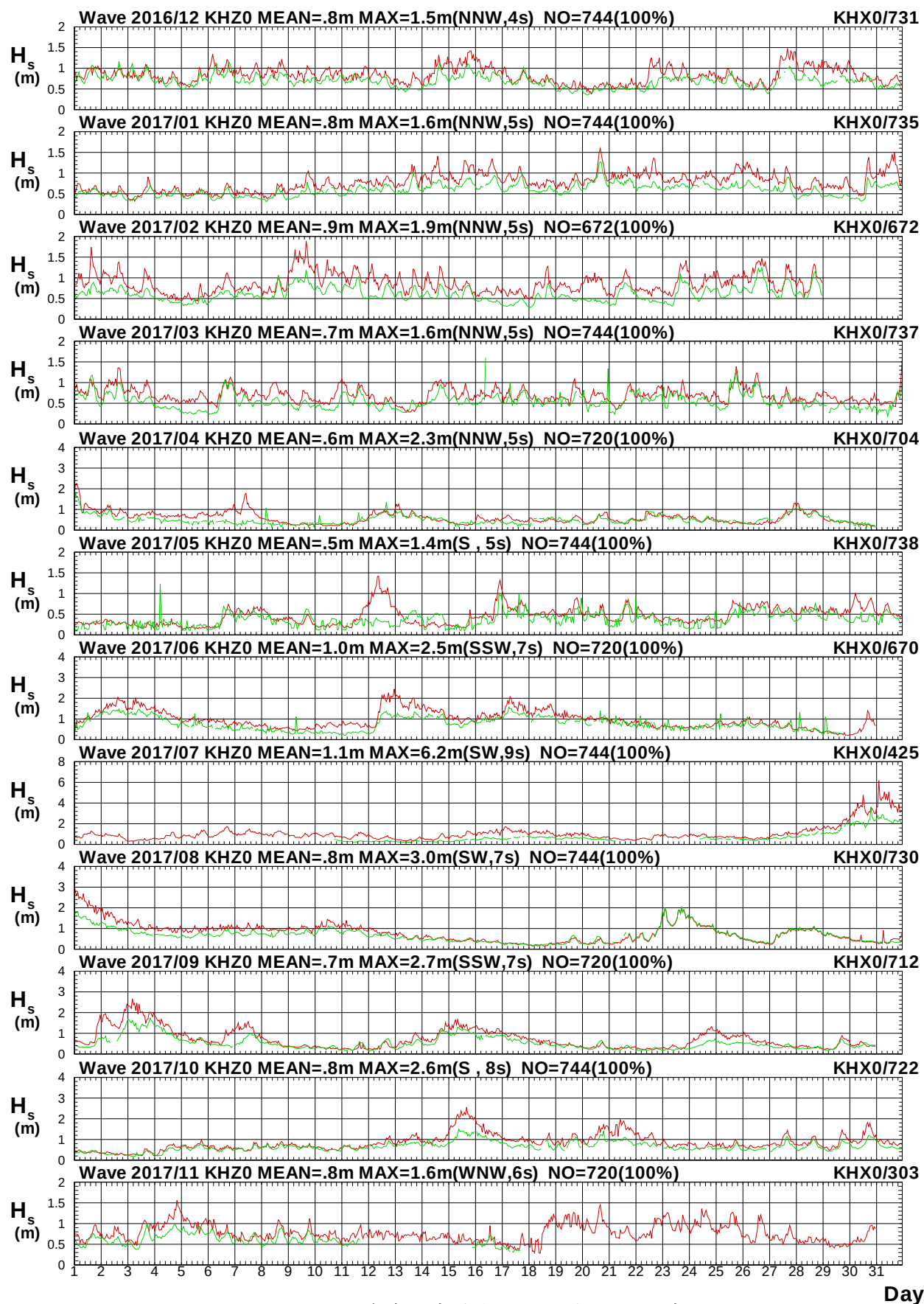


圖2.14a 2017年每月高雄海域 Z 站與 X 站波高比較圖

V16CKHZ0.1HA V16CKHX0.1H0 V171KHZ0.1HA V171KHX0.1H0 V172KHZ0.1HA V172KHX0.1H0
V173KHZ0.1HA V173KHX0.1H0 V174KHZ0.1HA V174KHX0.1H0 V175KHZ0.1HA V175KHX0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

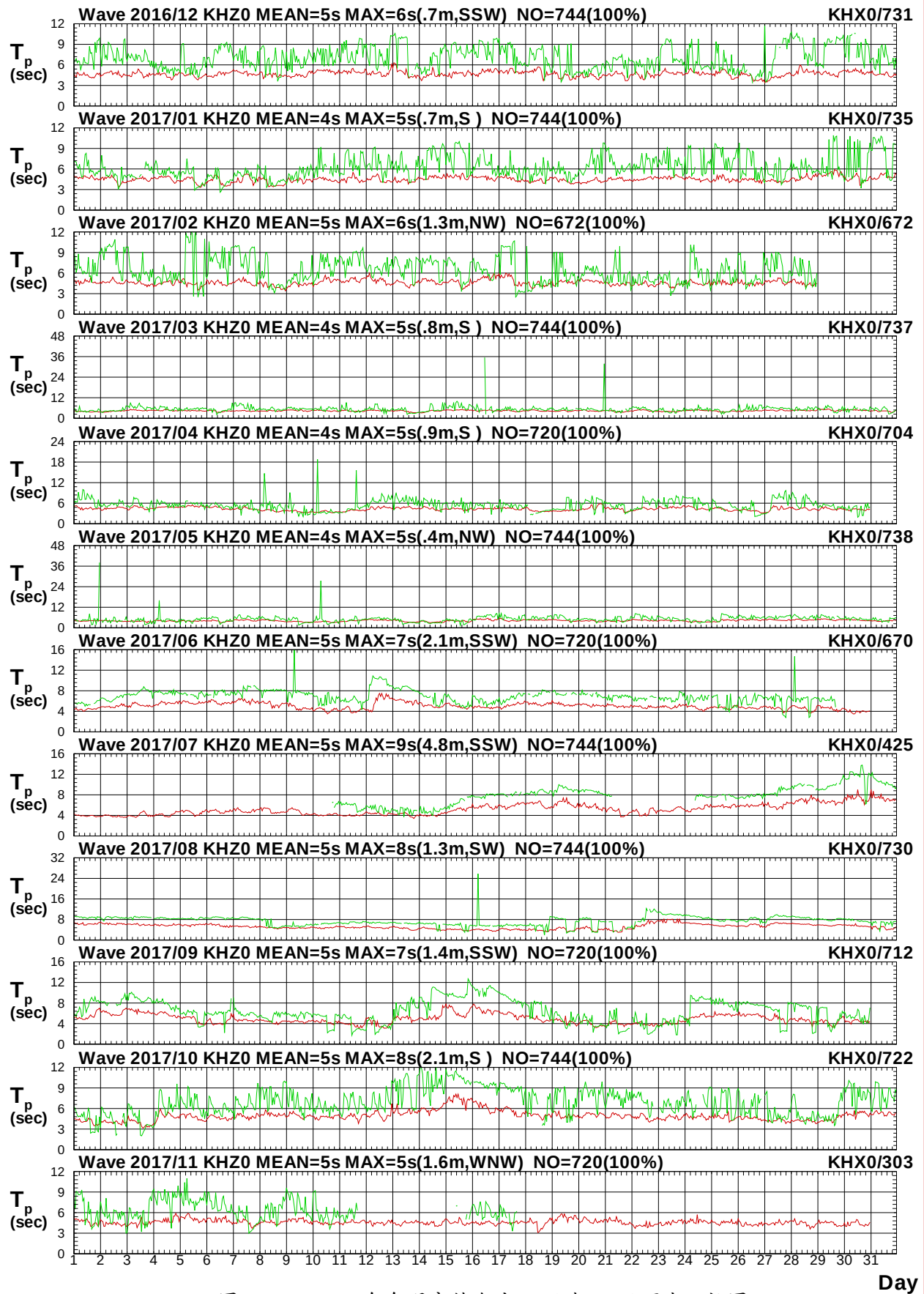


圖2.14b 2017年每月高雄海域 Z 站與 X 站週期比較圖

V16CKHZ0.1HA V16CKHX0.1H0 V171KHZ0.1HA V171KHX0.1H0 V172KHZ0.1HA V172KHX0.1H0
V173KHZ0.1HA V173KHX0.1H0 V174KHZ0.1HA V174KHX0.1H0 V175KHZ0.1HA V175KHX0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

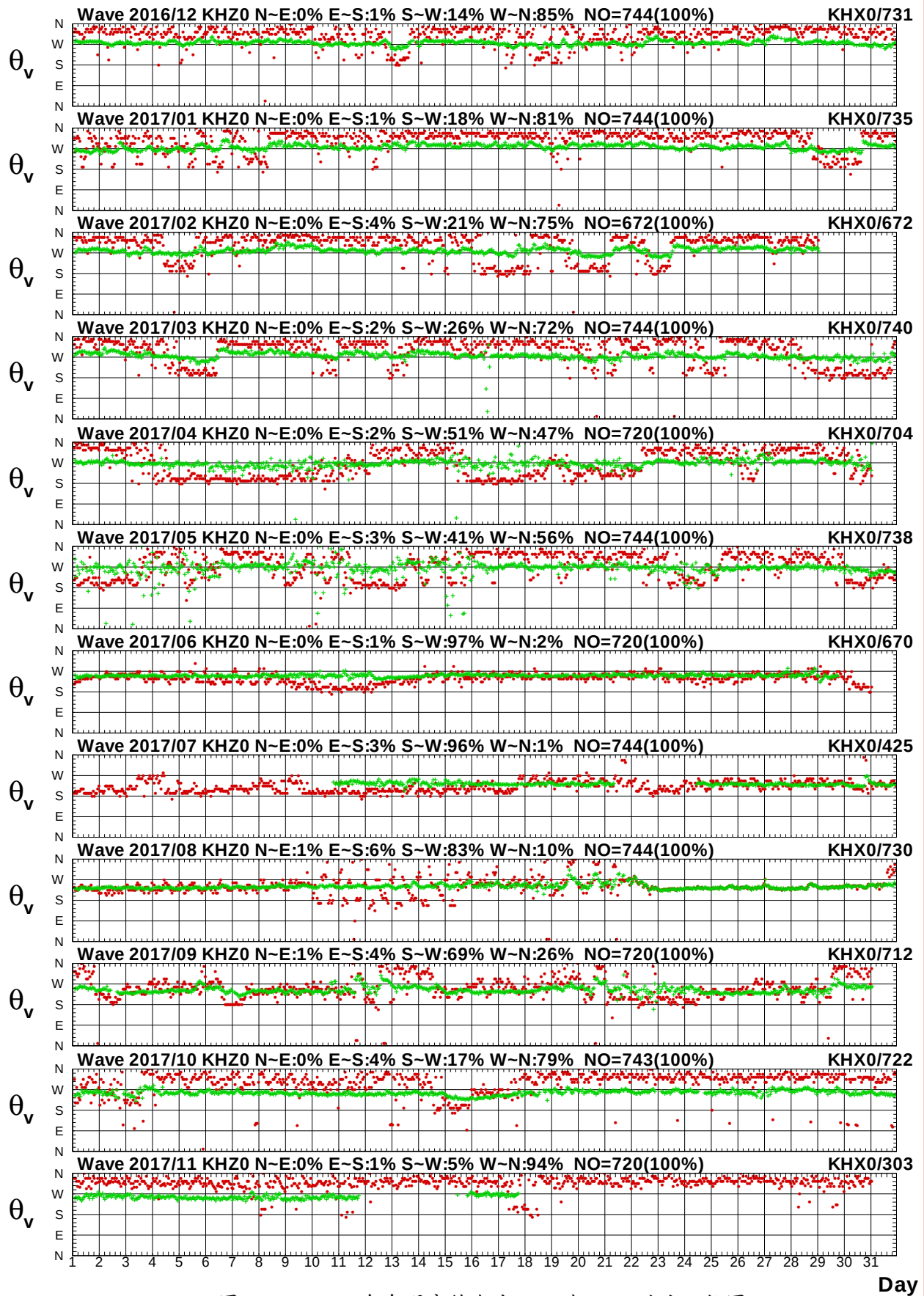


圖2.14c 2017年每月高雄海域 Z 站與 X 站波向比較圖

V16CKHZ0.1HA V16CKHX0.1H0 V171KHZ0.1HA V171KHX0.1H0 V172KHZ0.1HA V172KHX0.1H0
V173KHZ0.1HA V173KHX0.1H0 V174KHZ0.1HA V174KHX0.1H0 V175KHZ0.1HA V175KHX0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

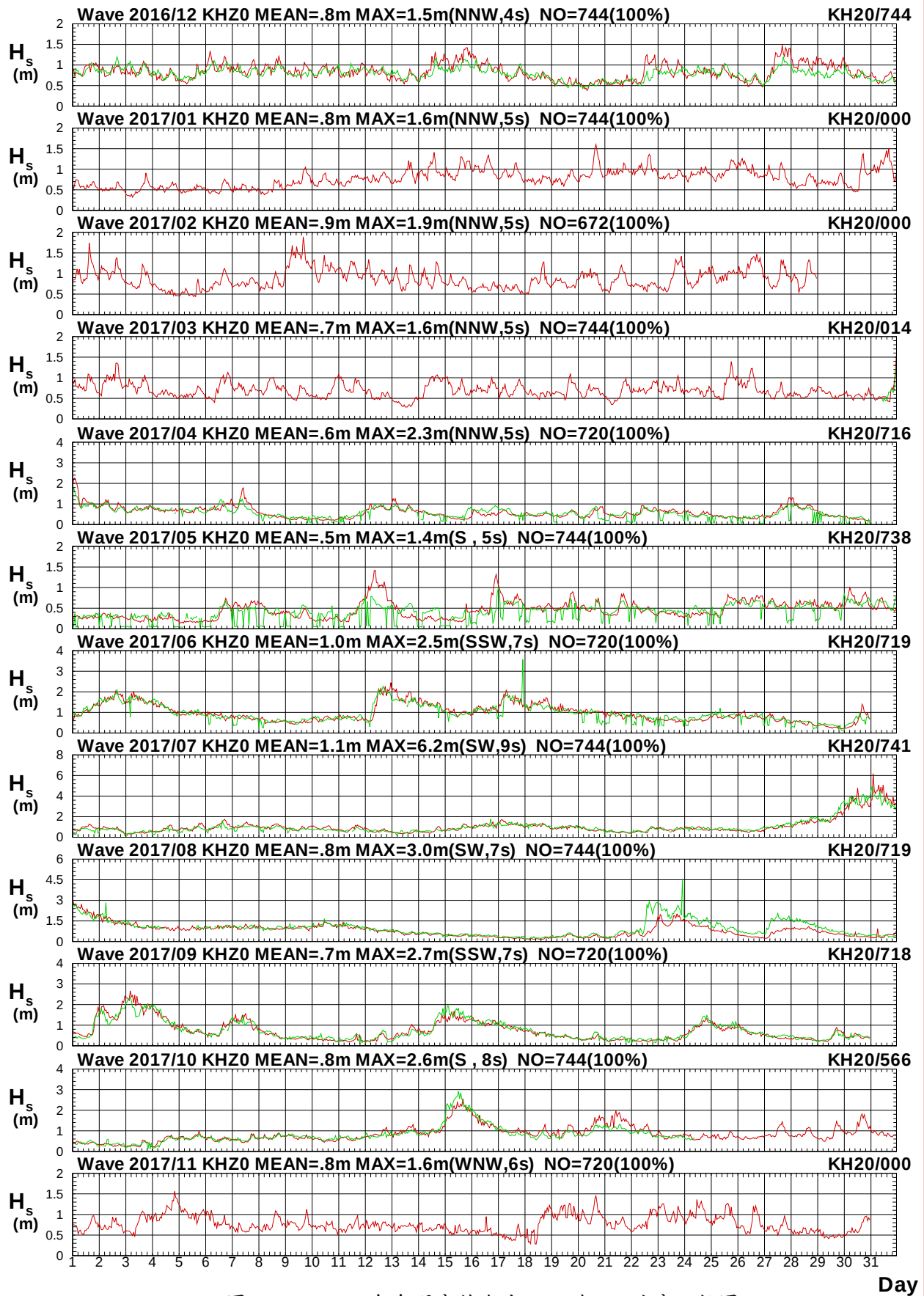


圖2.15a 2017年每月高雄海域 Z 站與2站波高比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

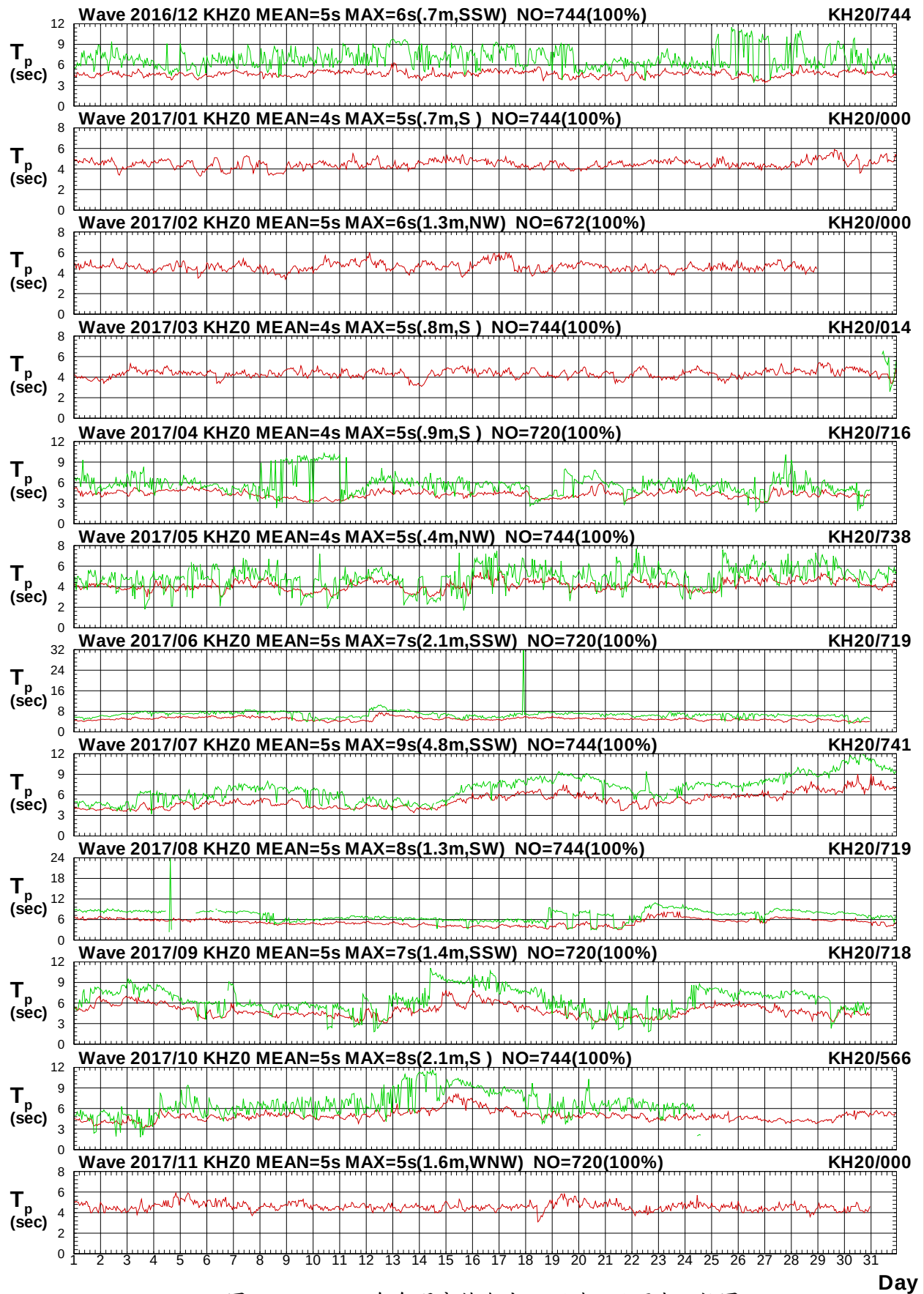


圖2.15b 2017年每月高雄海域 Z 站與2站週期比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

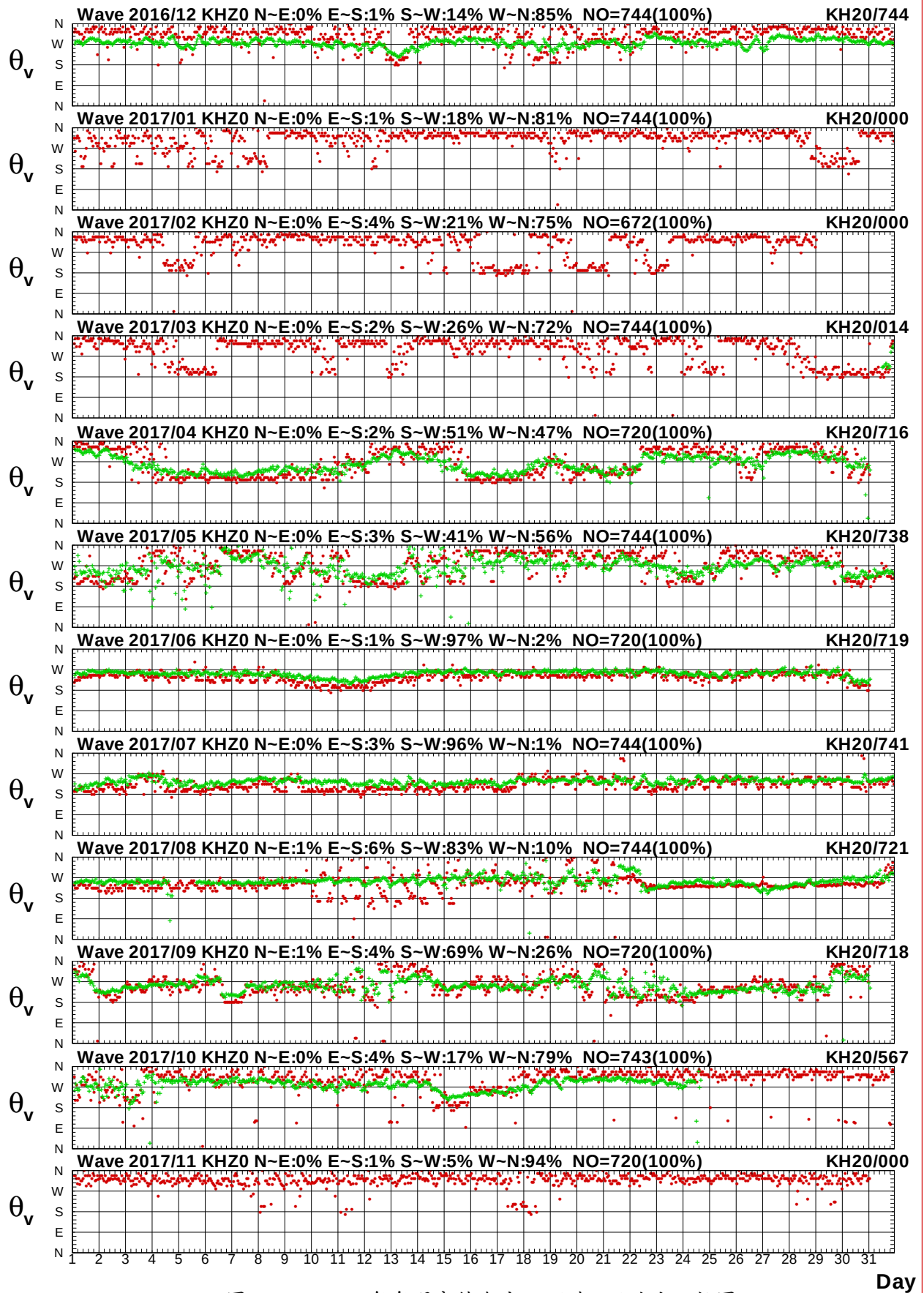


圖2.15c 2017年每月高雄海域 Z 站與2站波向比較圖

V16CKHZ0.1HA V16CKHZ0.1H0 V171KHZ0.1HA V171KHZ0.1H0 V172KHZ0.1HA V172KHZ0.1H0
V173KHZ0.1HA V173KHZ0.1H0 V174KHZ0.1HA V174KHZ0.1H0 V175KHZ0.1HA V175KHZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

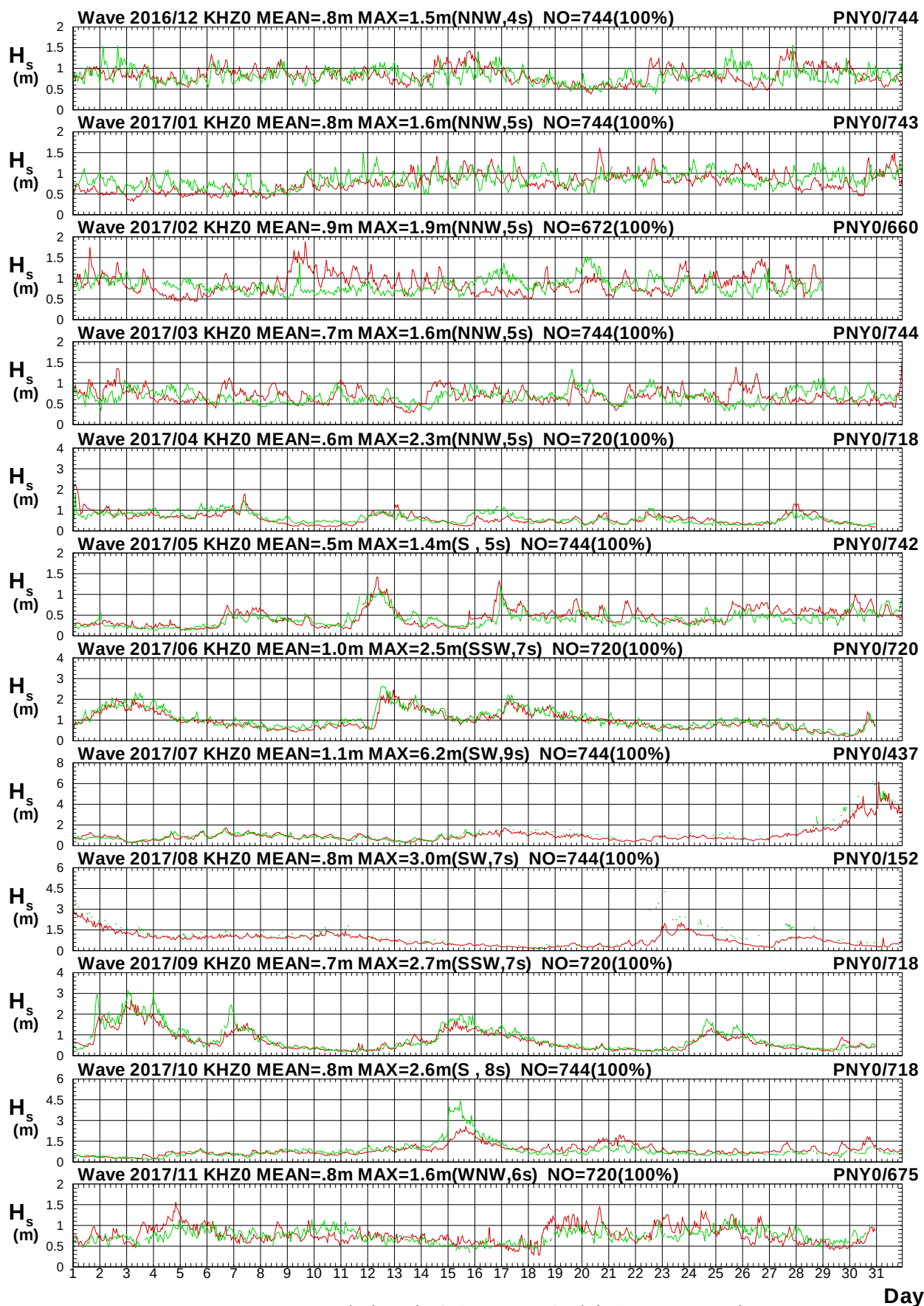


圖2.16a 2017年每月高雄海域 Z 站與屏東海域 Y 站波高圖

V16CKHZ0.1HA V16CPNY0.1H0 V171KHZ0.1HA V171PNY0.1H0 V172KHZ0.1HA V172PNY0.1H0
V173KHZ0.1HA V173PNY0.1H0 V174KHZ0.1HA V174PNY0.1H0 V175KHZ0.1HA V175PNY0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

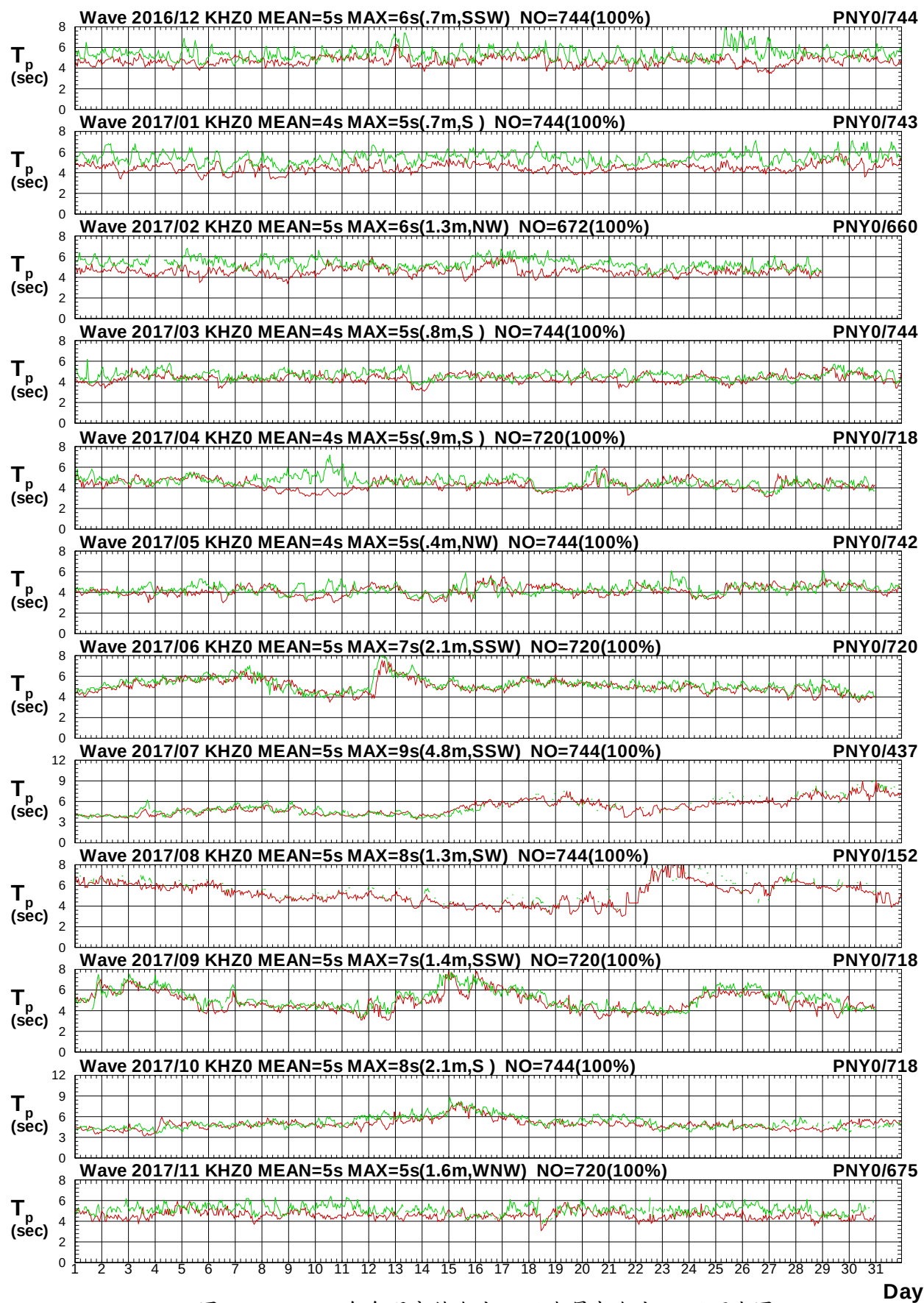


圖2.16b 2017年每月高雄海域 Z 站與屏東海域 Y 站週期圖

V16CKHZ0.1HA V16CPNY0.1H0 V171KHZ0.1HA V171PNY0.1H0 V172KHZ0.1HA V172PNY0.1H0
V173KHZ0.1HA V173PNY0.1H0 V174KHZ0.1HA V174PNY0.1H0 V175KHZ0.1HA V175PNY0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

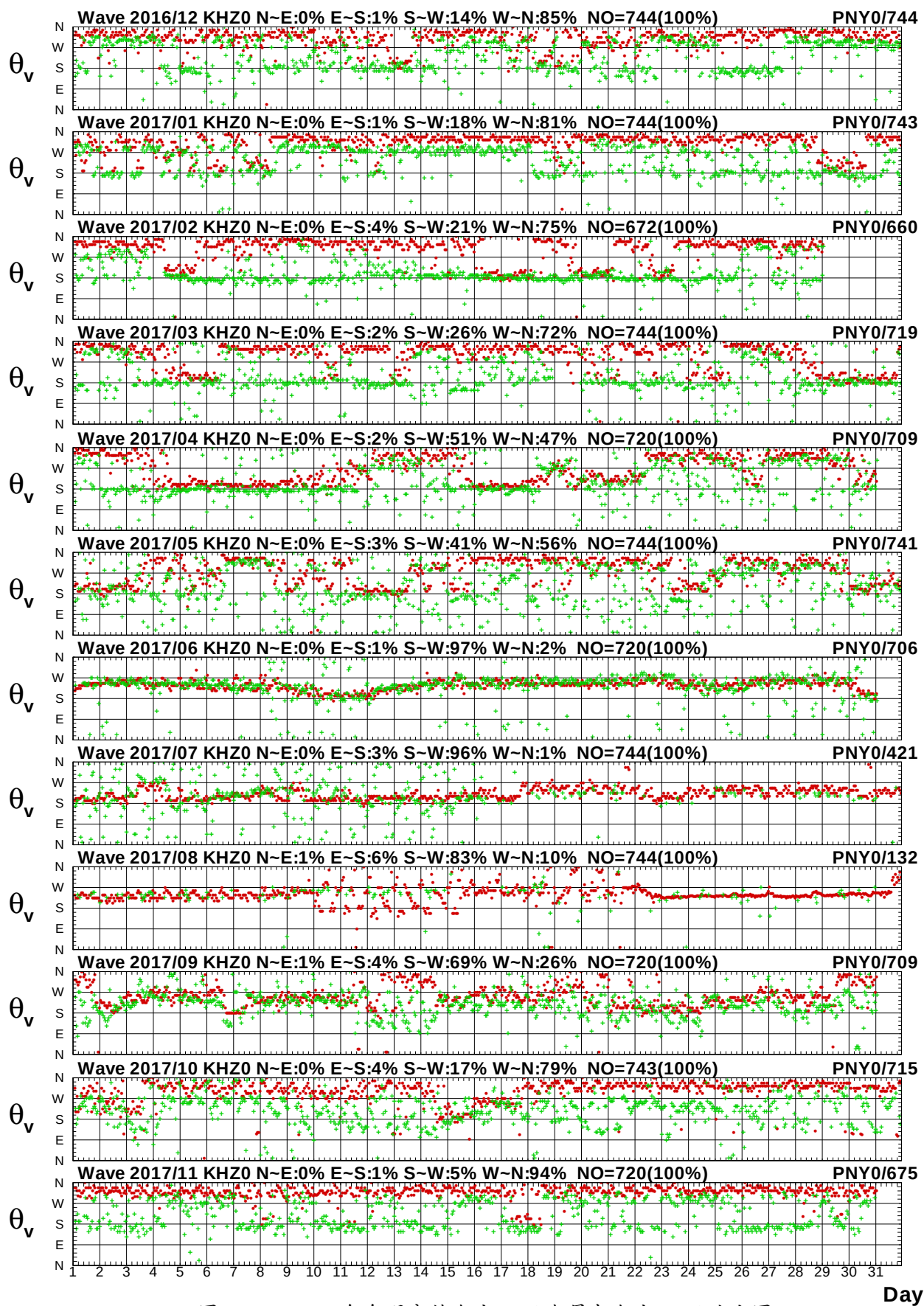


圖2.16c 2017年每月高雄海域 Z 站與屏東海域 Y 站波向圖

V16CKHZ0.1HA V16CPNY0.1H0 V171KHZ0.1HA V171PNY0.1H0 V172KHZ0.1HA V172PNY0.1H0
V173KHZ0.1HA V173PNY0.1H0 V174KHZ0.1HA V174PNY0.1H0 V175KHZ0.1HA V175PNY0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

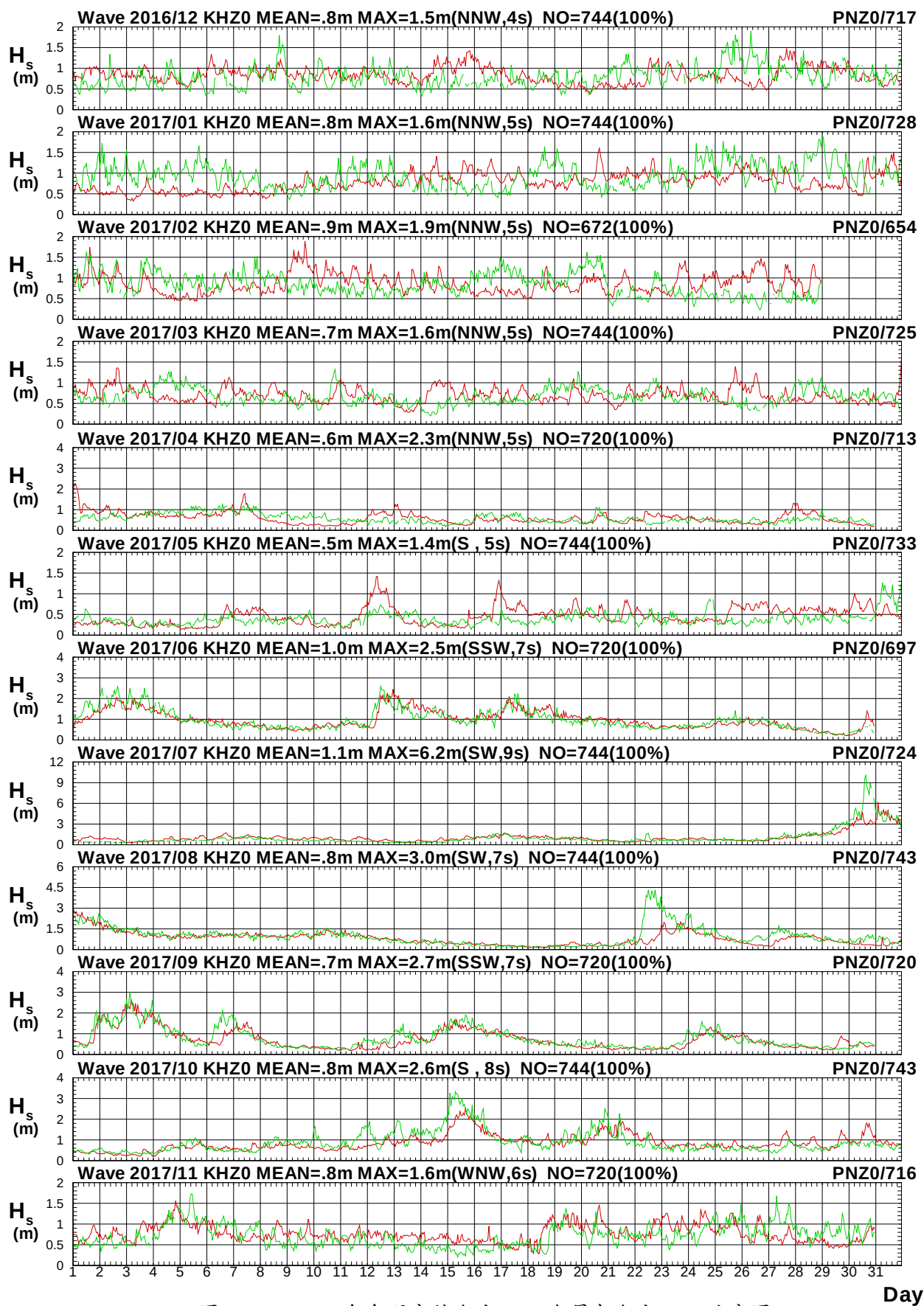


圖2.17a 2017年每月高雄海域 Z 站與屏東海域 Z 站波高圖

V16CKHZ0.1HA V16CPNZ0.1H0 V171KHZ0.1HA V171PNZ0.1H0 V172KHZ0.1HA V172PNZ0.1H0
V173KHZ0.1HA V173PNZ0.1H0 V174KHZ0.1HA V174PNZ0.1H0 V175KHZ0.1HA V175PNZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

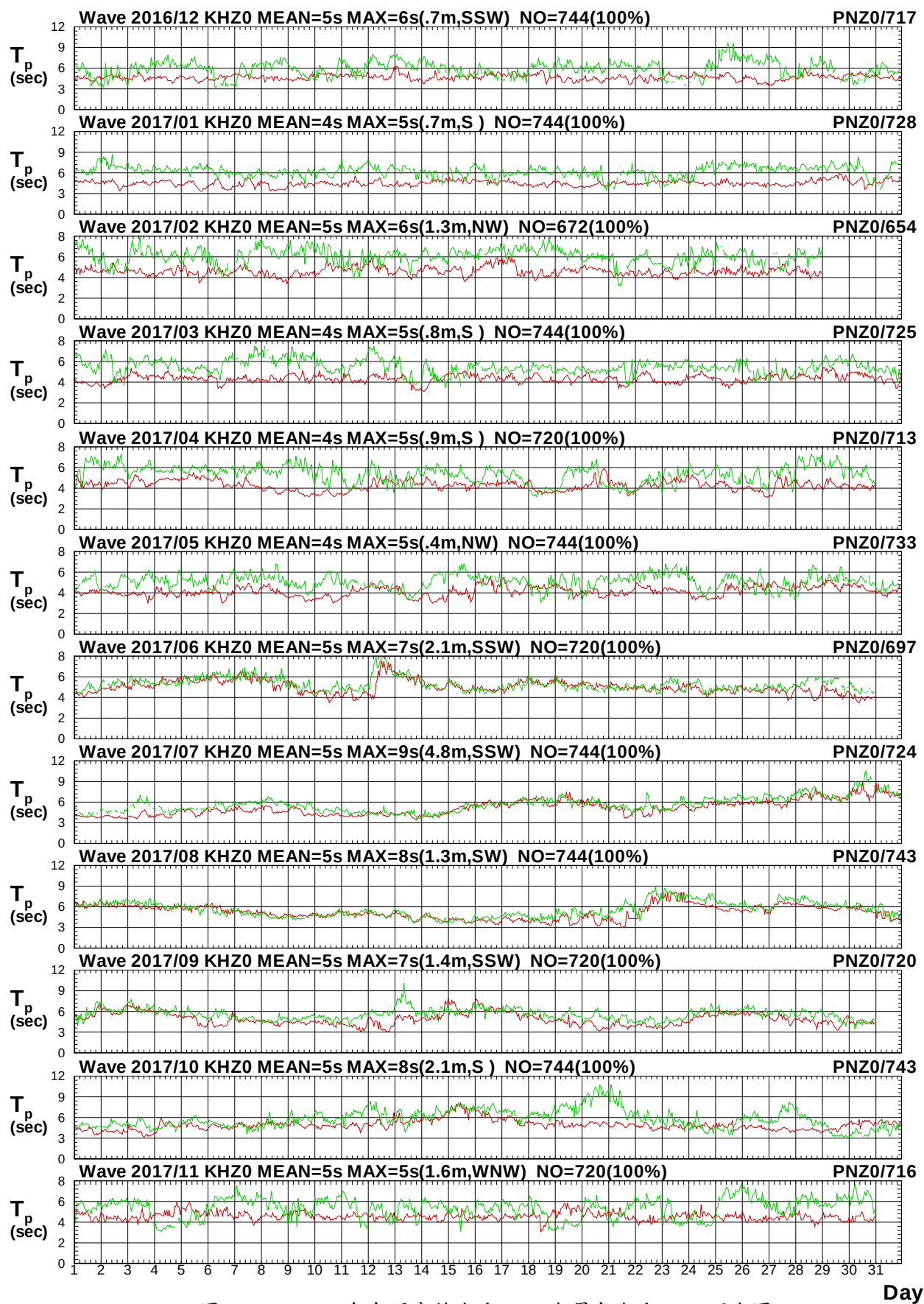


圖2.17b 2017年每月高雄海域 Z 站與屏東海域 Z 站週期圖

V16CKHZ0.1HA V16CPNZ0.1H0 V171KHZ0.1HA V171PNZ0.1H0 V172KHZ0.1HA V172PNZ0.1H0
V173KHZ0.1HA V173PNZ0.1H0 V174KHZ0.1HA V174PNZ0.1H0 V175KHZ0.1HA V175PNZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

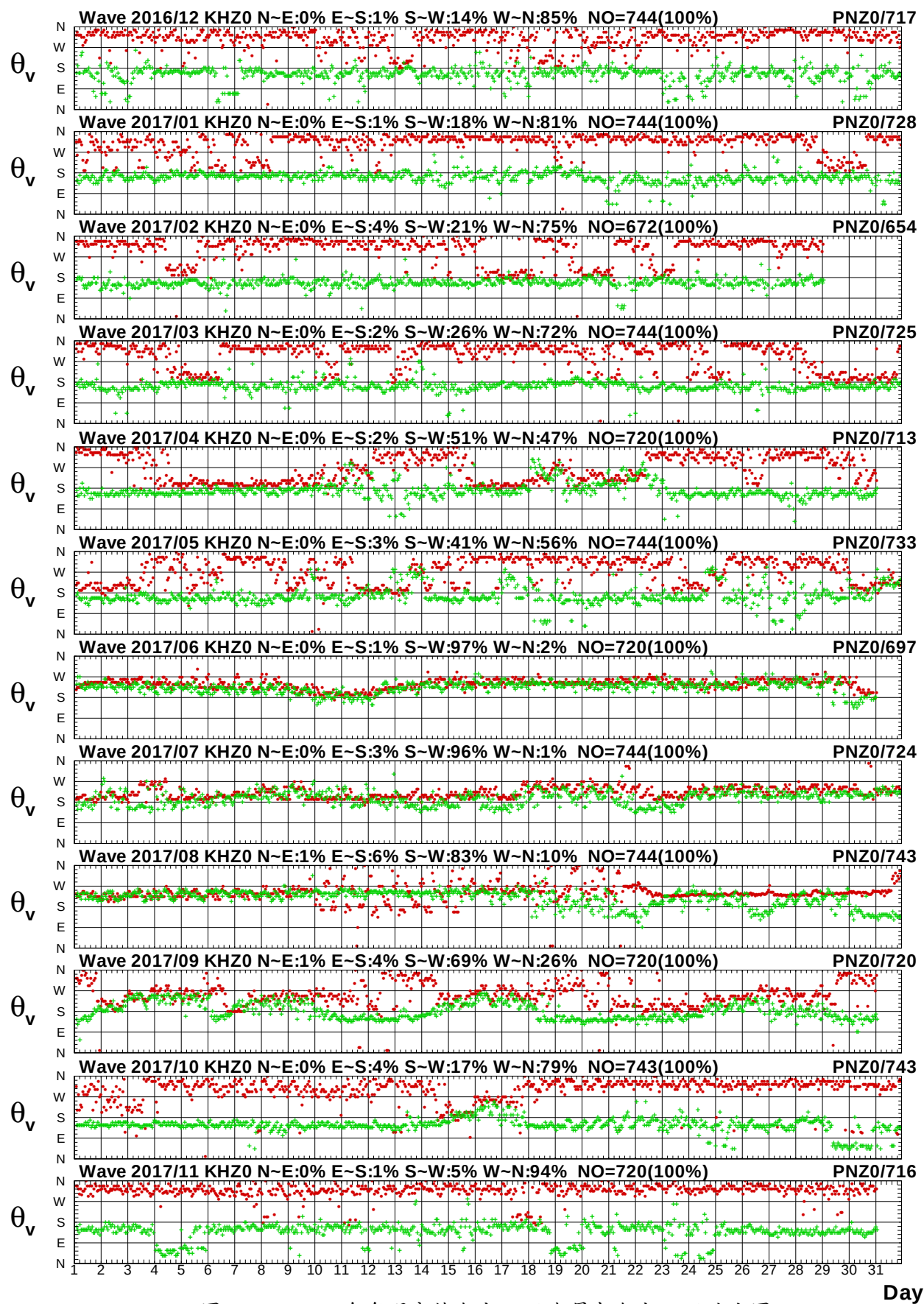


圖2.17c 2017年每月高雄海域 Z 站與屏東海域 Z 站波向圖

V16CKHZ0.1HA V16CPNZ0.1H0 V171KHZ0.1HA V171PNZ0.1H0 V172KHZ0.1HA V172PNZ0.1H0
V173KHZ0.1HA V173PNZ0.1H0 V174KHZ0.1HA V174PNZ0.1H0 V175KHZ0.1HA V175PNZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

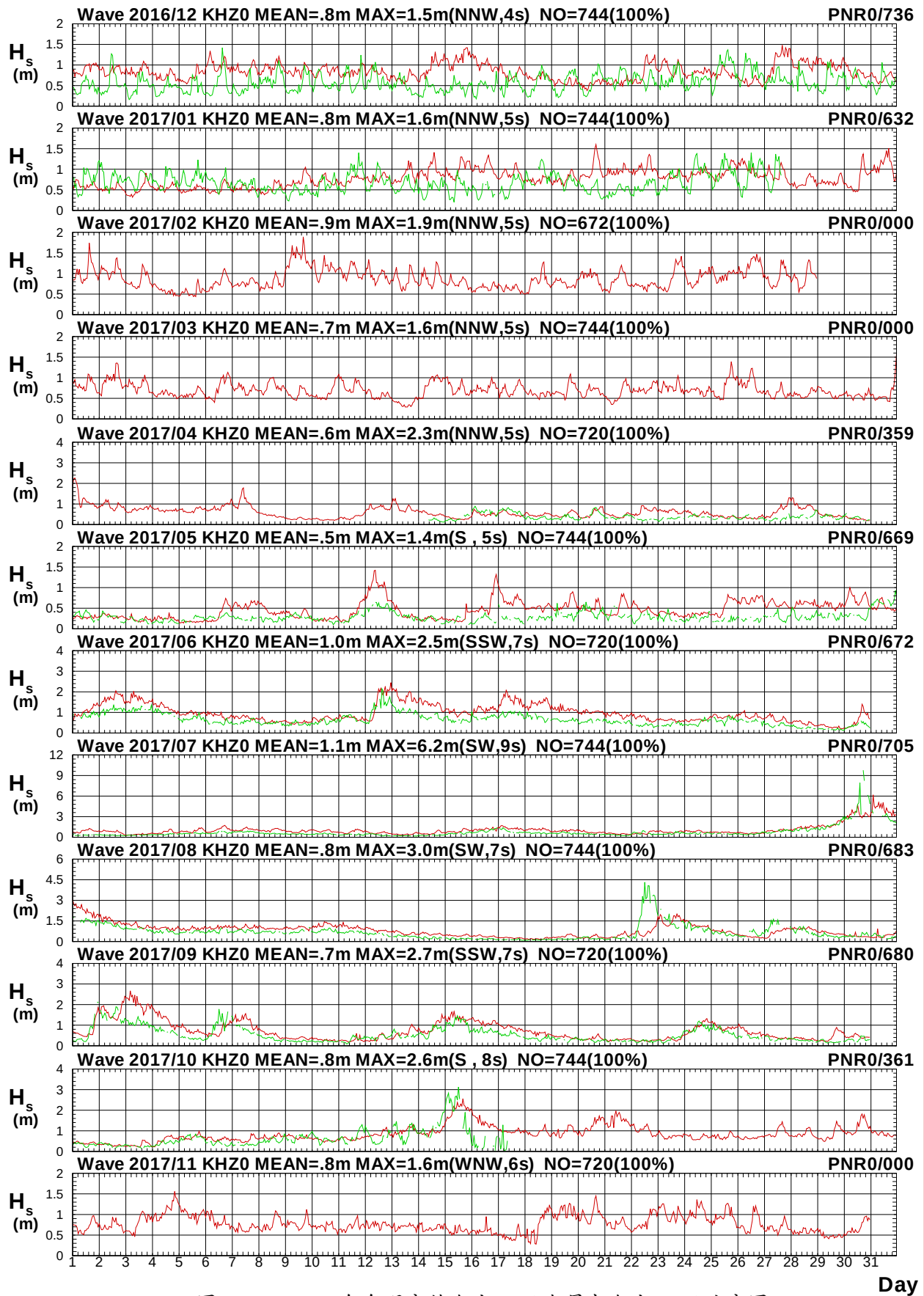


圖2.18a 2017年每月高雄海域 Z 站與屏東海域 R 站波高圖

V16CKHZ0.1HA V16CPNR0.1H0 V171KHZ0.1HA V171PNR0.1H0 V172KHZ0.1HA V172PNR0.1H0
V173KHZ0.1HA V173PNR0.1H0 V174KHZ0.1HA V174PNR0.1H0 V175KHZ0.1HA V175PNR0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

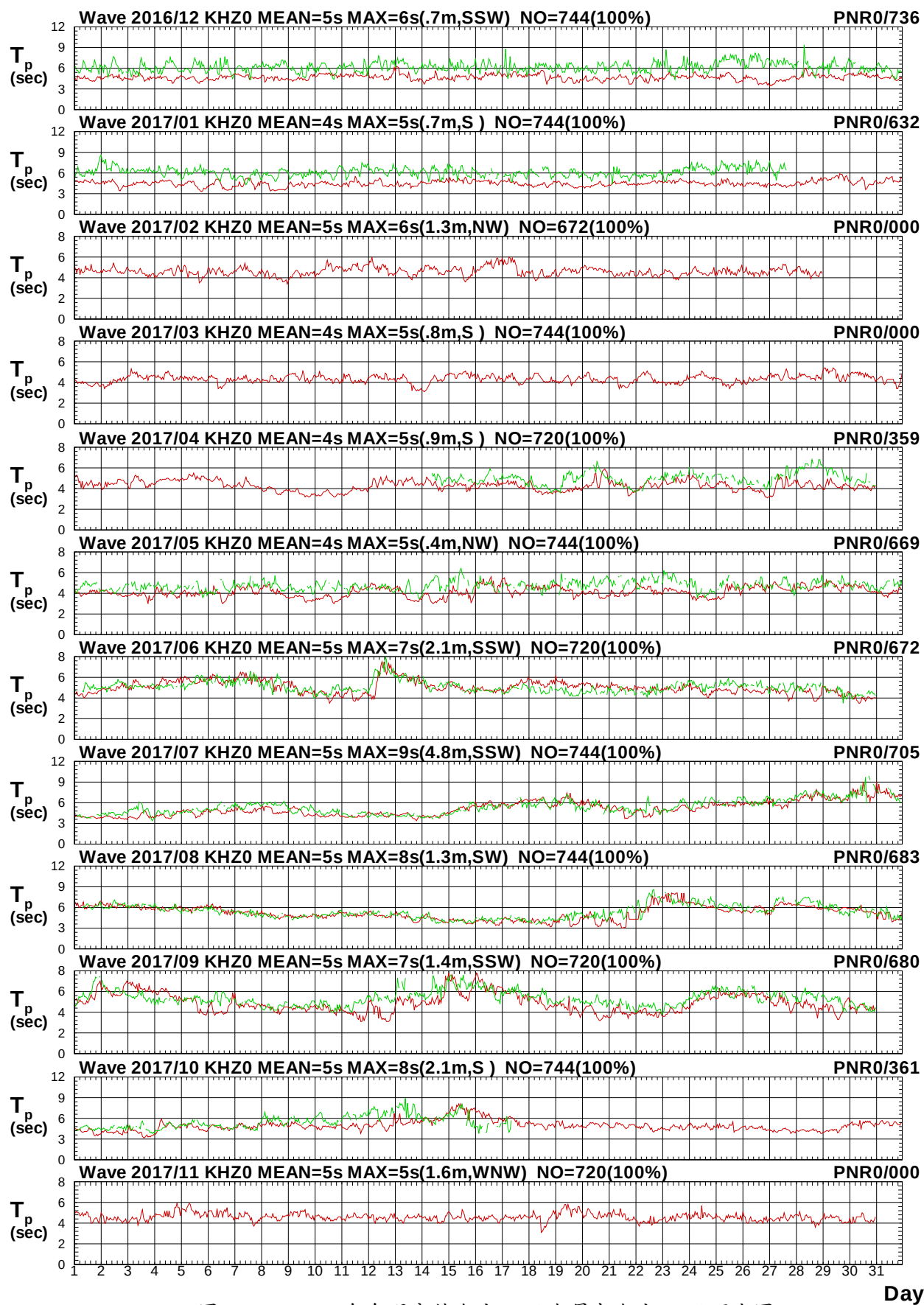


圖2.18b 2017年每月高雄海域 Z 站與屏東海域 R 站週期圖

V16CKHZ0.1HA V16CPNR0.1H0 V171KHZ0.1HA V171PNR0.1H0 V172KHZ0.1HA V172PNR0.1H0
V173KHZ0.1HA V173PNR0.1H0 V174KHZ0.1HA V174PNR0.1H0 V175KHZ0.1HA V175PNR0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

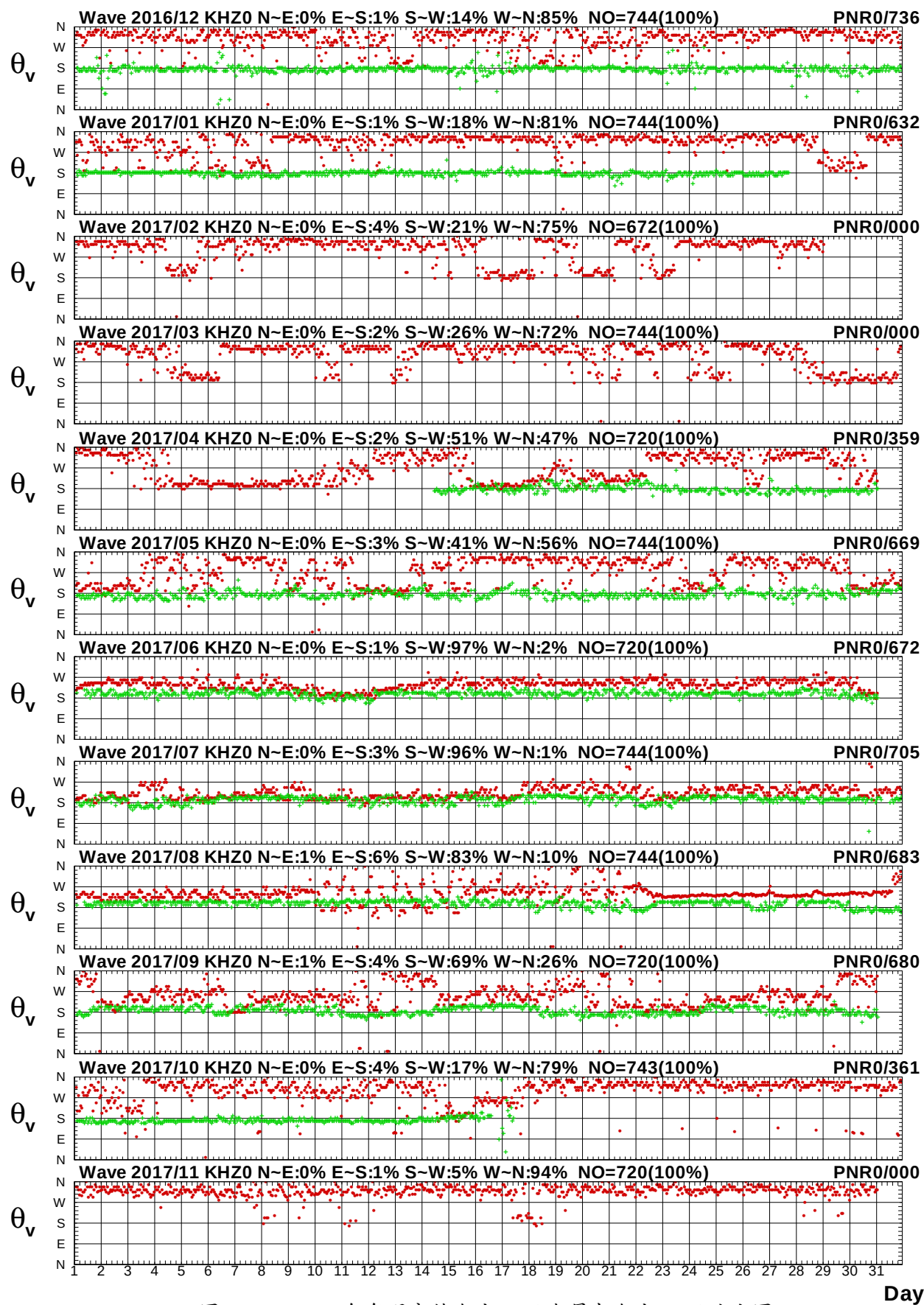


圖2.18c 2017年每月高雄海域 Z 站與屏東海域 R 站波向圖

V16CKHZ0.1HA V16CPNR0.1H0 V171KHZ0.1HA V171PNR0.1H0 V172KHZ0.1HA V172PNR0.1H0
V173KHZ0.1HA V173PNR0.1H0 V174KHZ0.1HA V174PNR0.1H0 V175KHZ0.1HA V175PNR0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

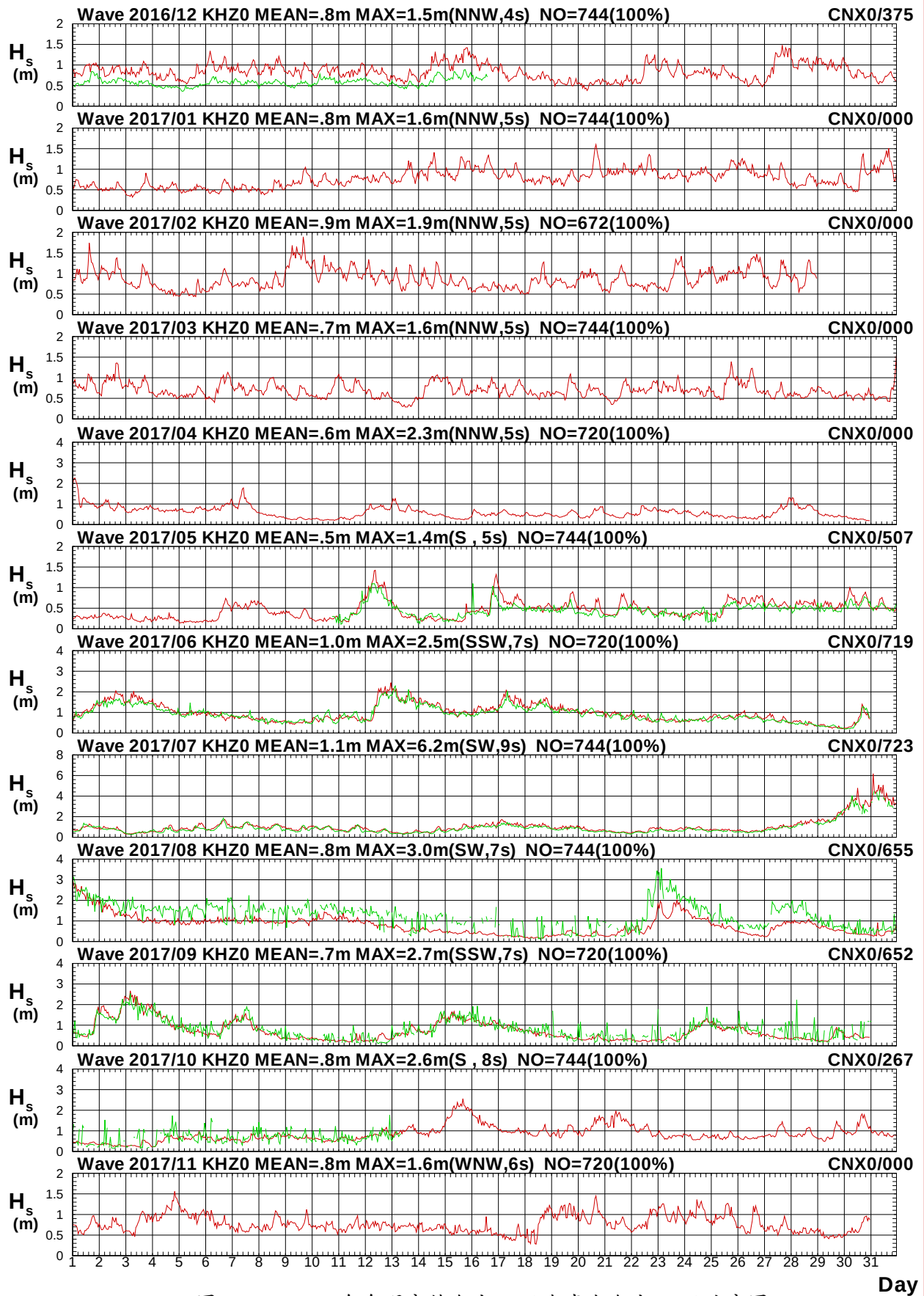


圖2.19a 2017年每月高雄海域 Z 站與嘉南海域 X 站波高圖

V16CKHZ0.1HA V16CCNX0.1H0 V171KHZ0.1HA V171CNX0.1H0 V172KHZ0.1HA V172CNX0.1H0
V173KHZ0.1HA V173CNX0.1H0 V174KHZ0.1HA V174CNX0.1H0 V175KHZ0.1HA V175CNX0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

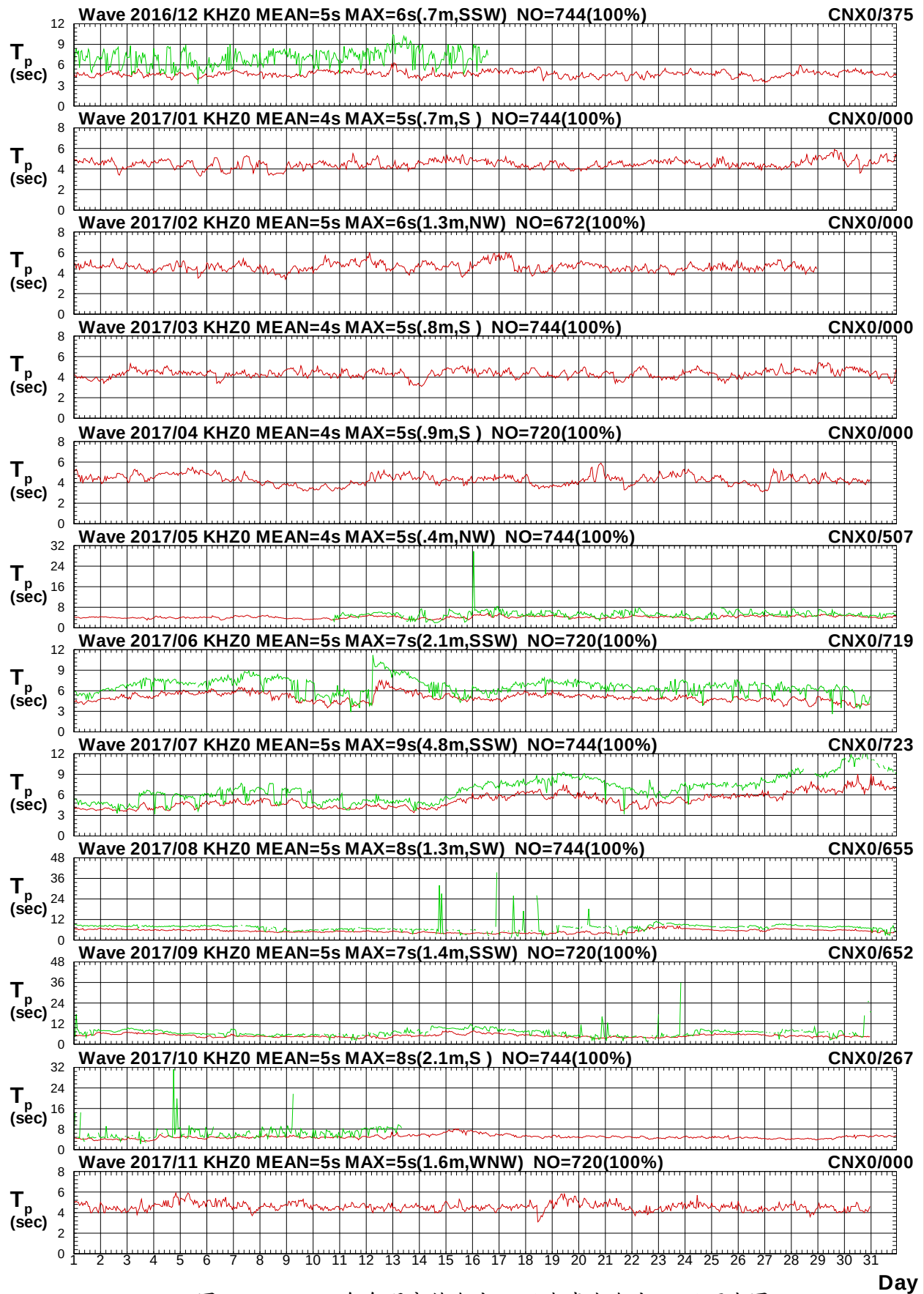


圖2.19b 2017年每月高雄海域 Z 站與嘉南海域 X 站週期圖

V16CKHZ0.1HA V16CCNX0.1H0 V171KHZ0.1HA V171CNX0.1H0 V172KHZ0.1HA V172CNX0.1H0
V173KHZ0.1HA V173CNX0.1H0 V174KHZ0.1HA V174CNX0.1H0 V175KHZ0.1HA V175CNX0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

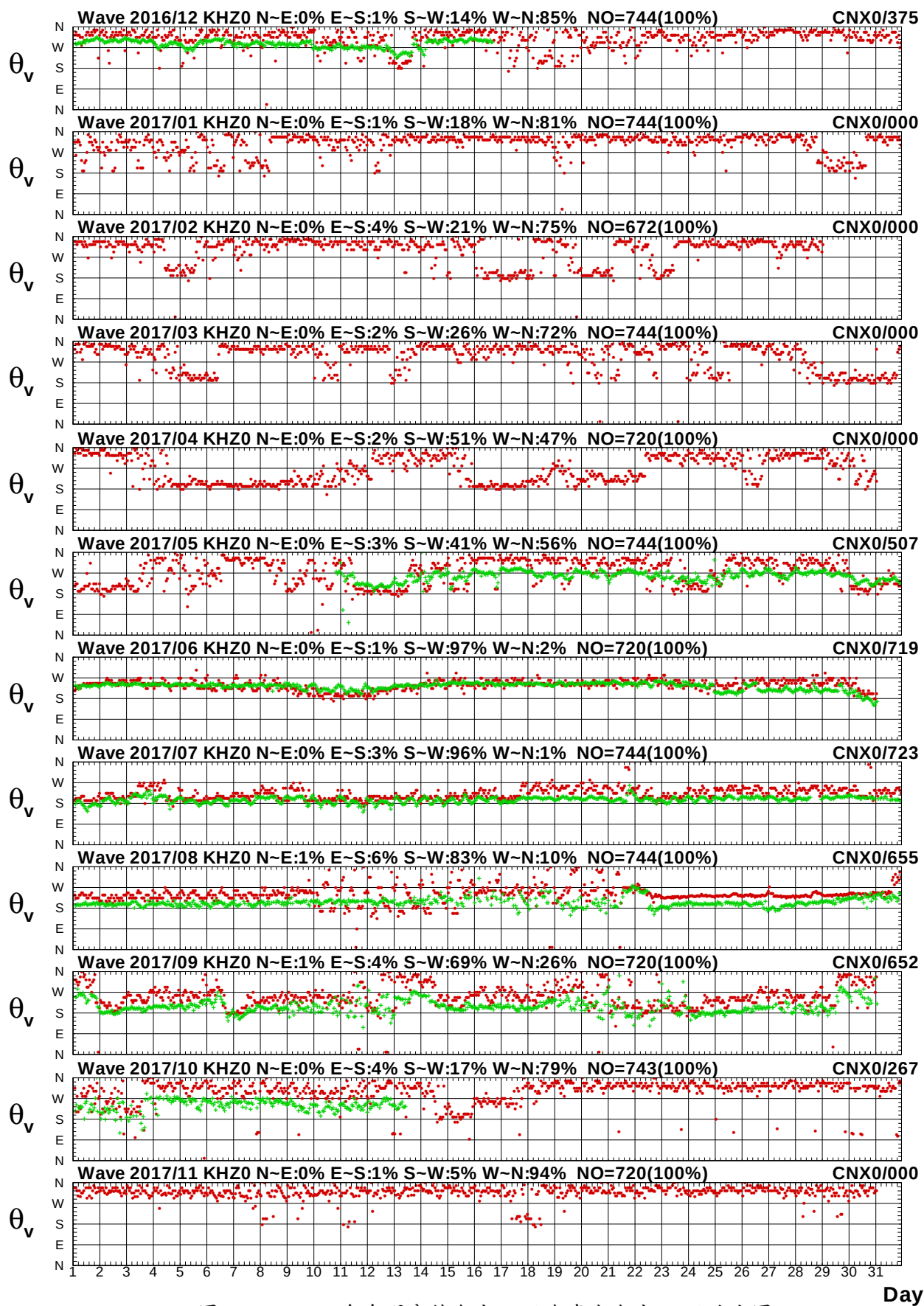


圖2.19c 2017年每月高雄海域 Z 站與嘉南海域 X 站波向圖

V16CKHZ0.1HA V16CCNX0.1H0 V171KHZ0.1HA V171CNX0.1H0 V172KHZ0.1HA V172CNX0.1H0
V173KHZ0.1HA V173CNX0.1H0 V174KHZ0.1HA V174CNX0.1H0 V175KHZ0.1HA V175CNX0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

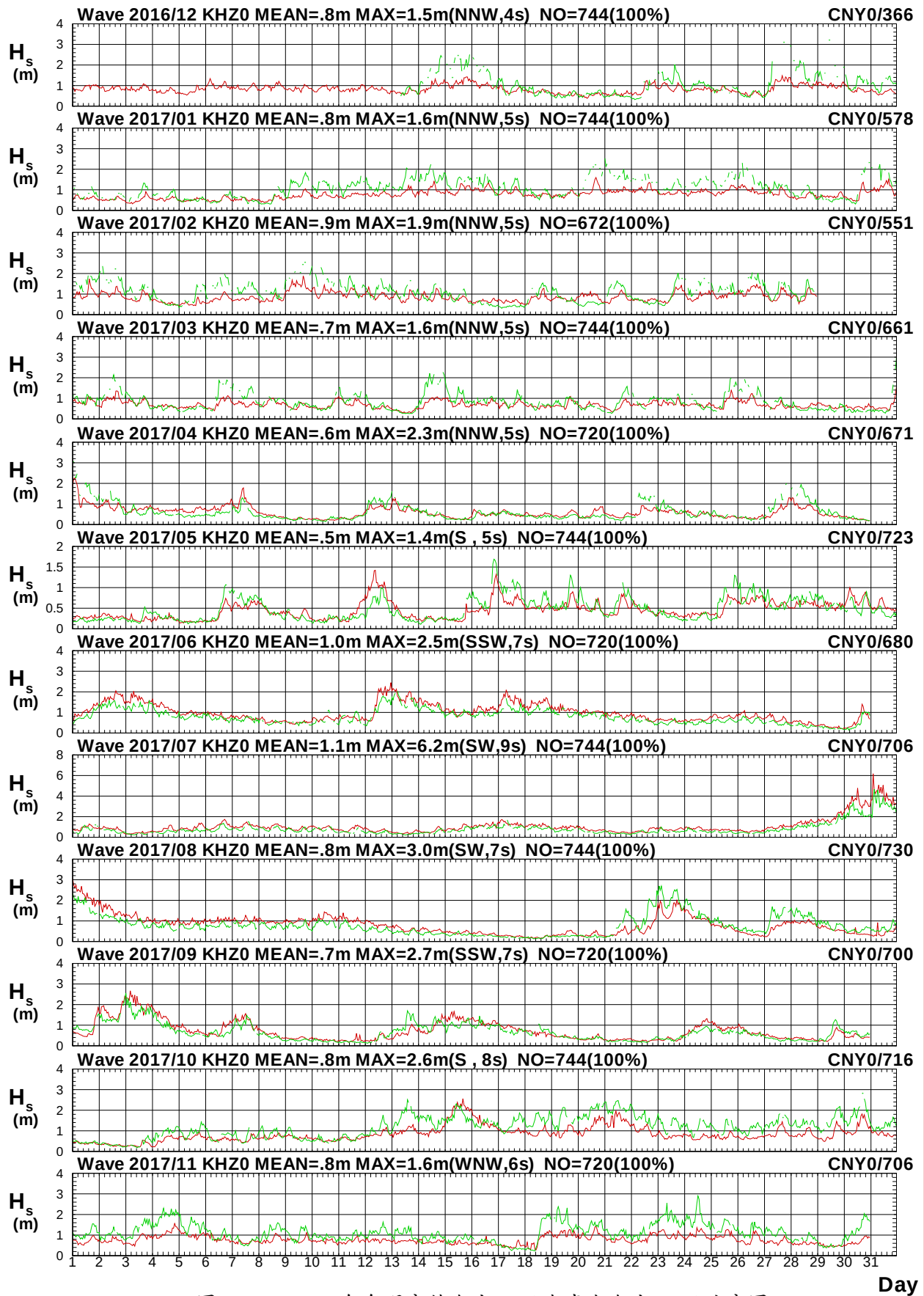


圖2.20a 2017年每月高雄海域 Z 站與嘉南海域 Y 站波高圖

V16CKHZ0.1HA V16CCNY0.1H0 V171KHZ0.1HA V171CNY0.1H0 V172KHZ0.1HA V172CNY0.1H0
V173KHZ0.1HA V173CNY0.1H0 V174KHZ0.1HA V174CNY0.1H0 V175KHZ0.1HA V175CNY0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

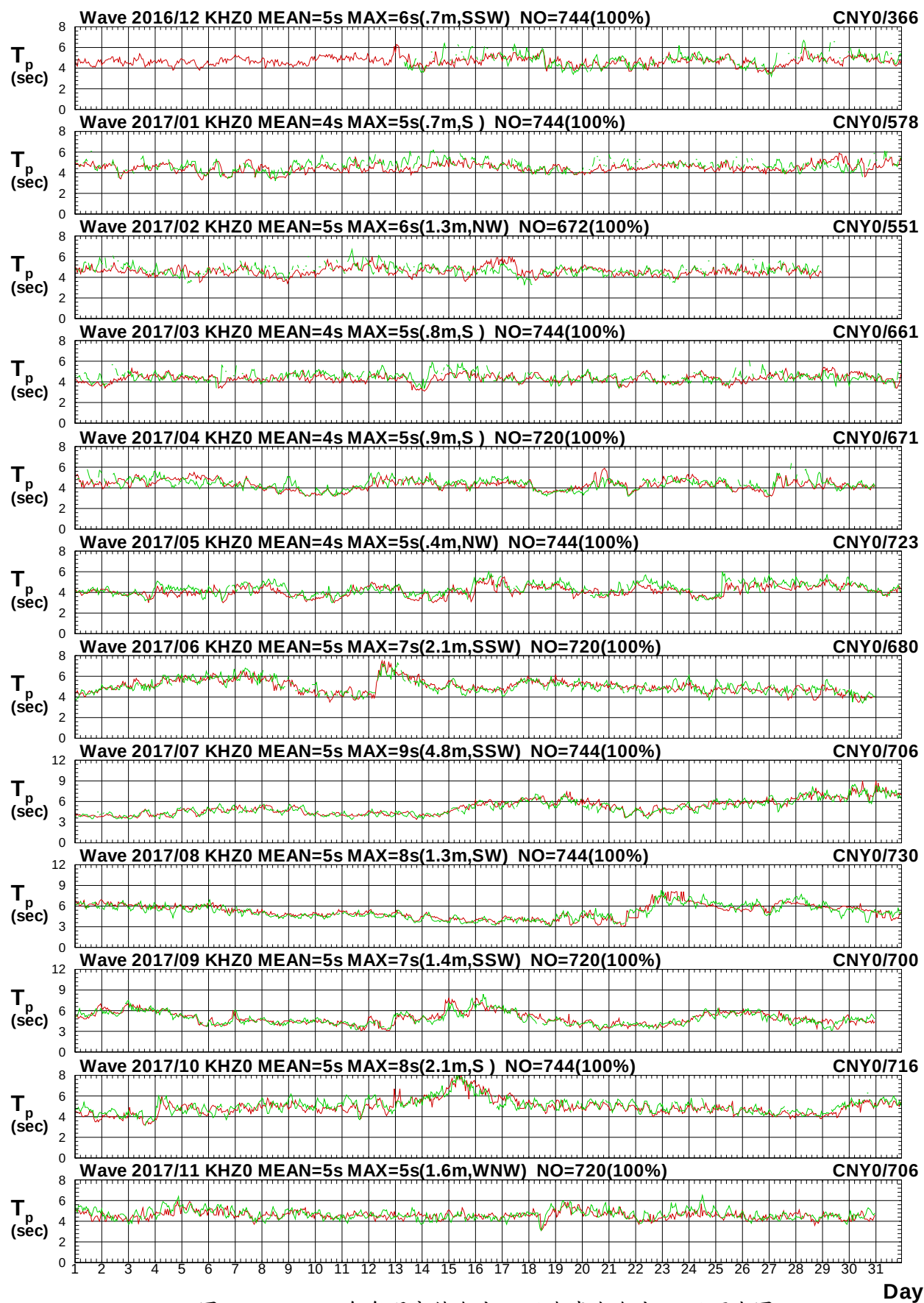


圖2.20b 2017年每月高雄海域 Z 站與嘉南海域 Y 站週期圖

V16CKHZ0.1HA V16CCNY0.1H0 V171KHZ0.1HA V171CNY0.1H0 V172KHZ0.1HA V172CNY0.1H0
V173KHZ0.1HA V173CNY0.1H0 V174KHZ0.1HA V174CNY0.1H0 V175KHZ0.1HA V175CNY0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

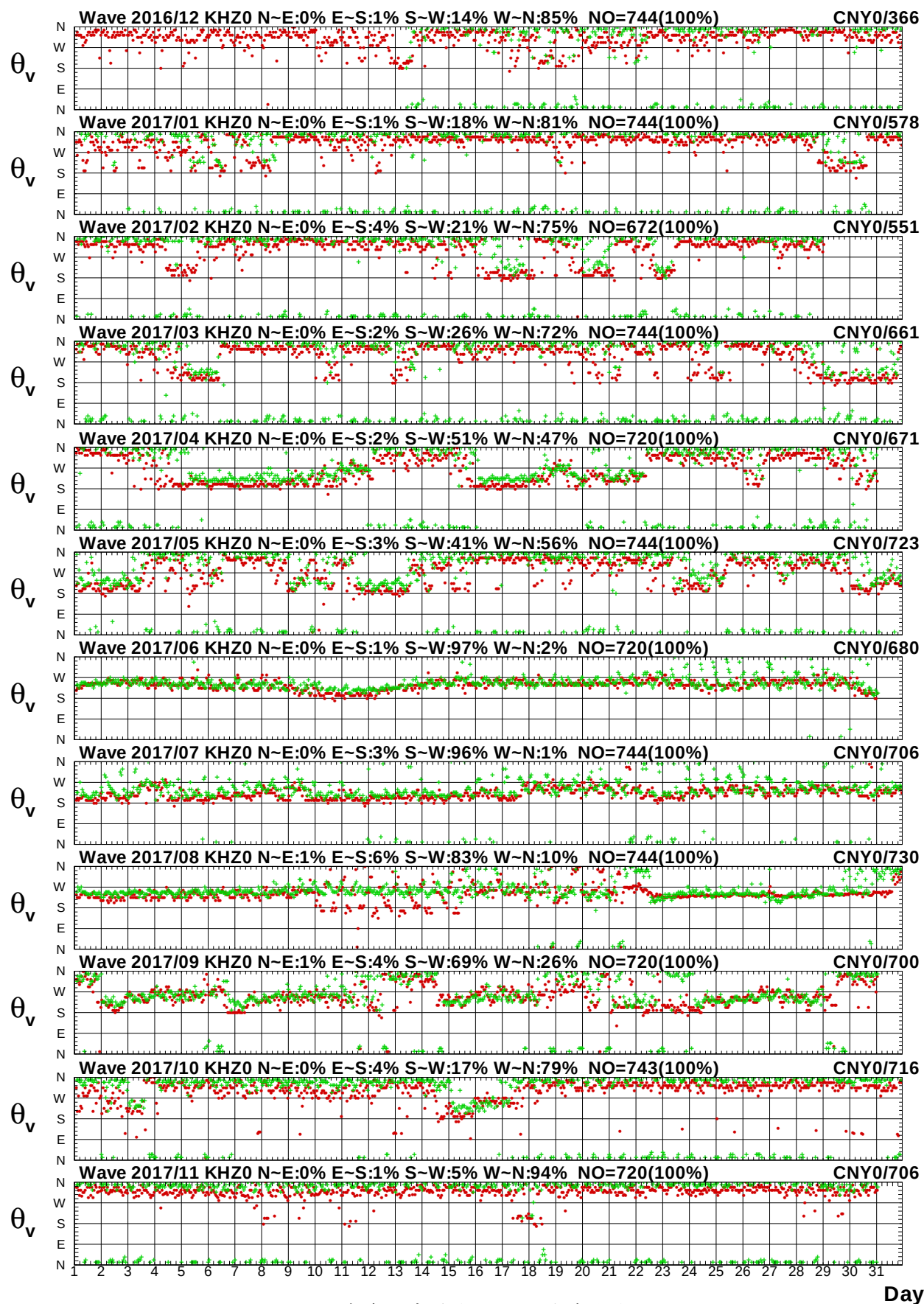


圖2.20c 2017年每月高雄海域 Z 站與嘉南海域 Y 站波向圖

V16CKHZ0.1HA V16CCNY0.1H0 V171KHZ0.1HA V171CNY0.1H0 V172KHZ0.1HA V172CNY0.1H0
V173KHZ0.1HA V173CNY0.1H0 V174KHZ0.1HA V174CNY0.1H0 V175KHZ0.1HA V175CNY0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

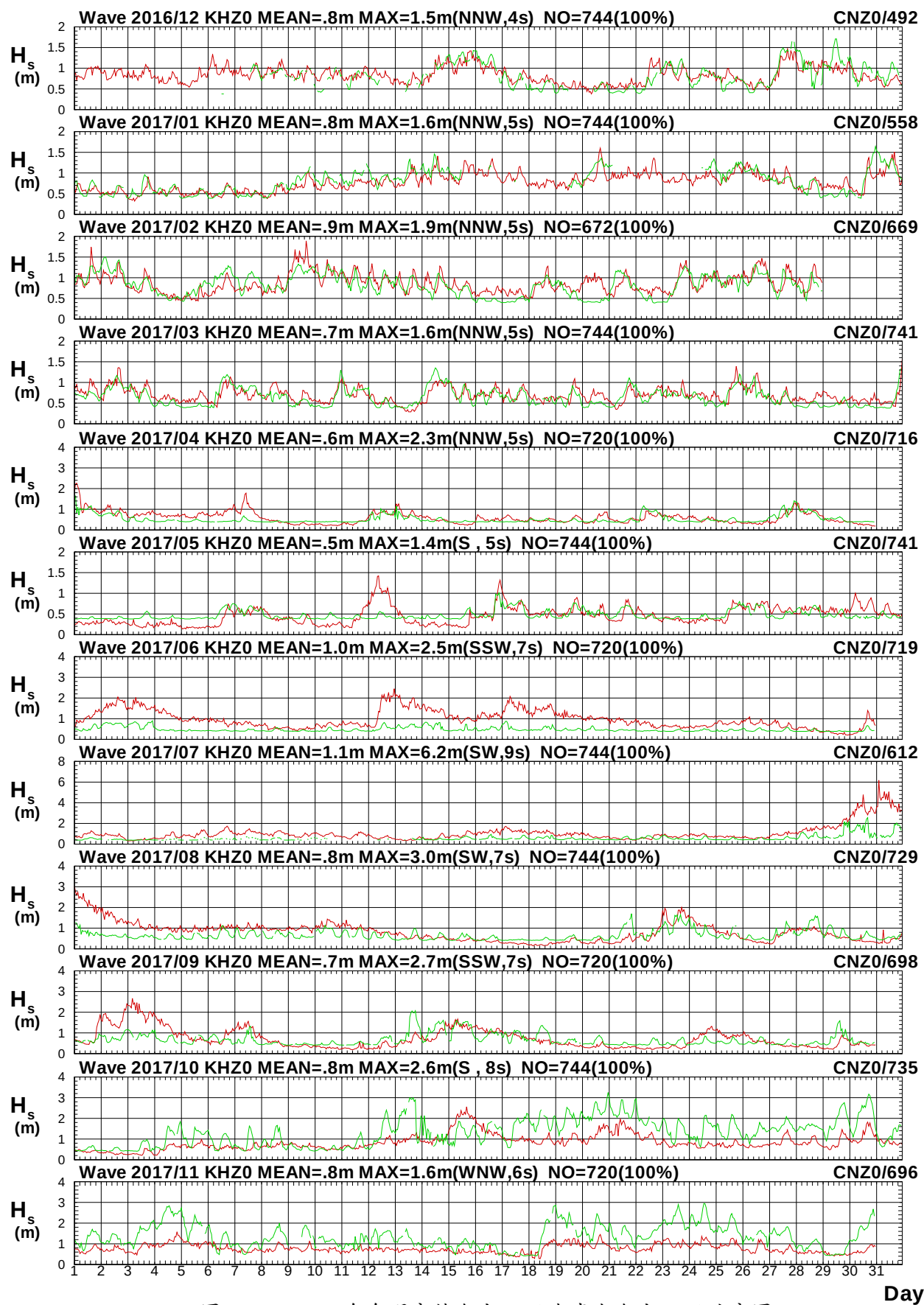


圖2.21a 2017年每月高雄海域 Z 站與嘉南海域 Z 站波高圖

V16CKHZ0.1HA V16CCNZ0.1H0 V171KHZ0.1HA V171CNZ0.1H0 V172KHZ0.1HA V172CNZ0.1H0
V173KHZ0.1HA V173CNZ0.1H0 V174KHZ0.1HA V174CNZ0.1H0 V175KHZ0.1HA V175CNZ0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

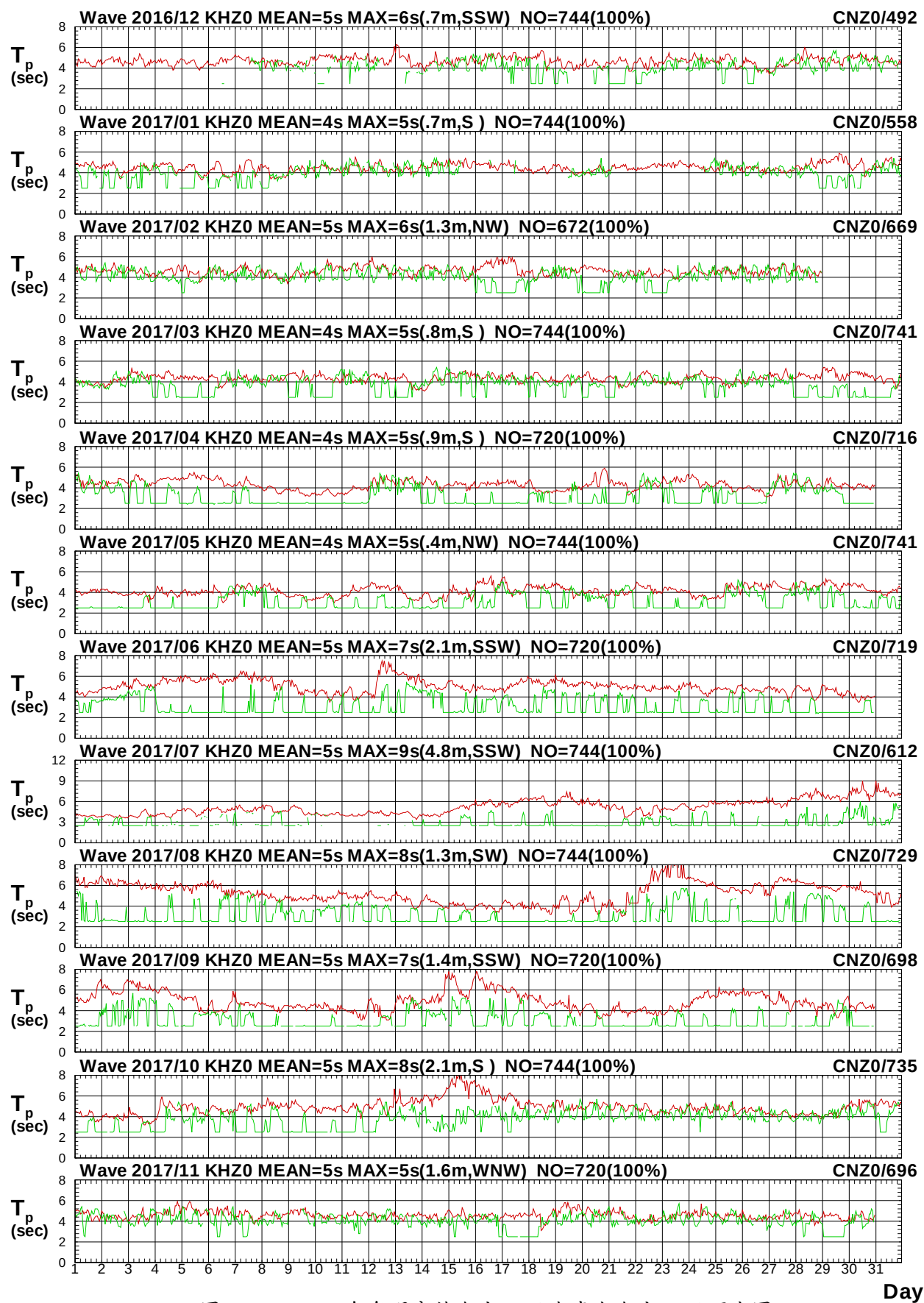


圖2.21b 2017年每月高雄海域 Z 站與嘉南海域 Z 站週期圖

V16CKHZ0.1HA V16CCNZ0.1H0 V171KHZ0.1HA V171CNZ0.1H0 V172KHZ0.1HA V172CNZ0.1H0
V173KHZ0.1HA V173CNZ0.1H0 V174KHZ0.1HA V174CNZ0.1H0 V175KHZ0.1HA V175CNZ0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

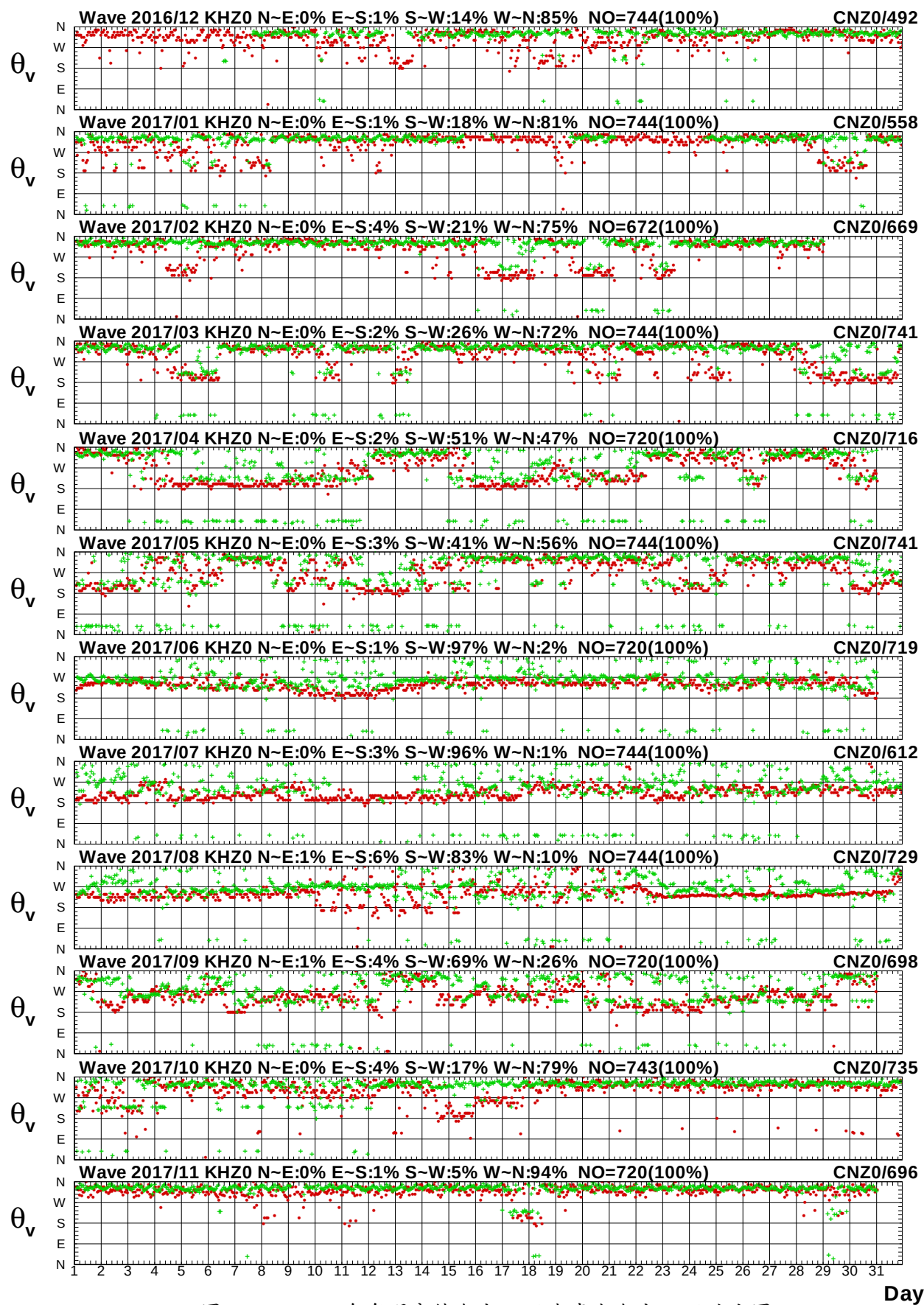


圖2.21c 2017年每月高雄海域 Z 站與嘉南海域 Z 站波向圖

V16CKHZ0.1HA V16CCNZ0.1H0 V171KHZ0.1HA V171CNZ0.1H0 V172KHZ0.1HA V172CNZ0.1H0
V173KHZ0.1HA V173CNZ0.1H0 V174KHZ0.1HA V174CNZ0.1H0 V175KHZ0.1HA V175CNZ0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

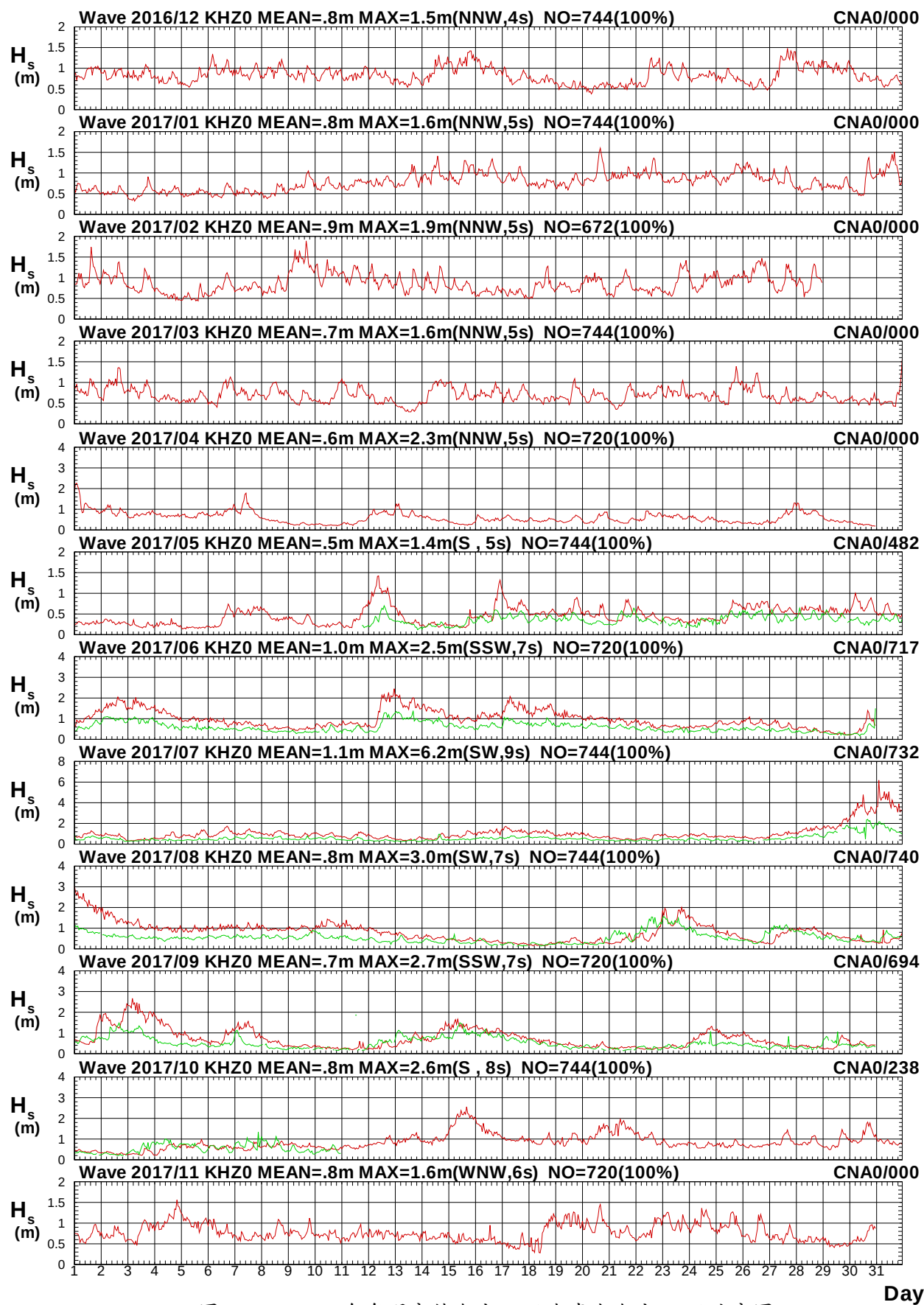


圖2.22a 2017年每月高雄海域 Z 站與嘉南海域 A 站波高圖

V16CKHZ0.1HA V16CCNA0.1H0 V171KHZ0.1HA V171CNA0.1H0 V172KHZ0.1HA V172CNA0.1H0
V173KHZ0.1HA V173CNA0.1H0 V174KHZ0.1HA V174CNA0.1H0 V175KHZ0.1HA V175CNA0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

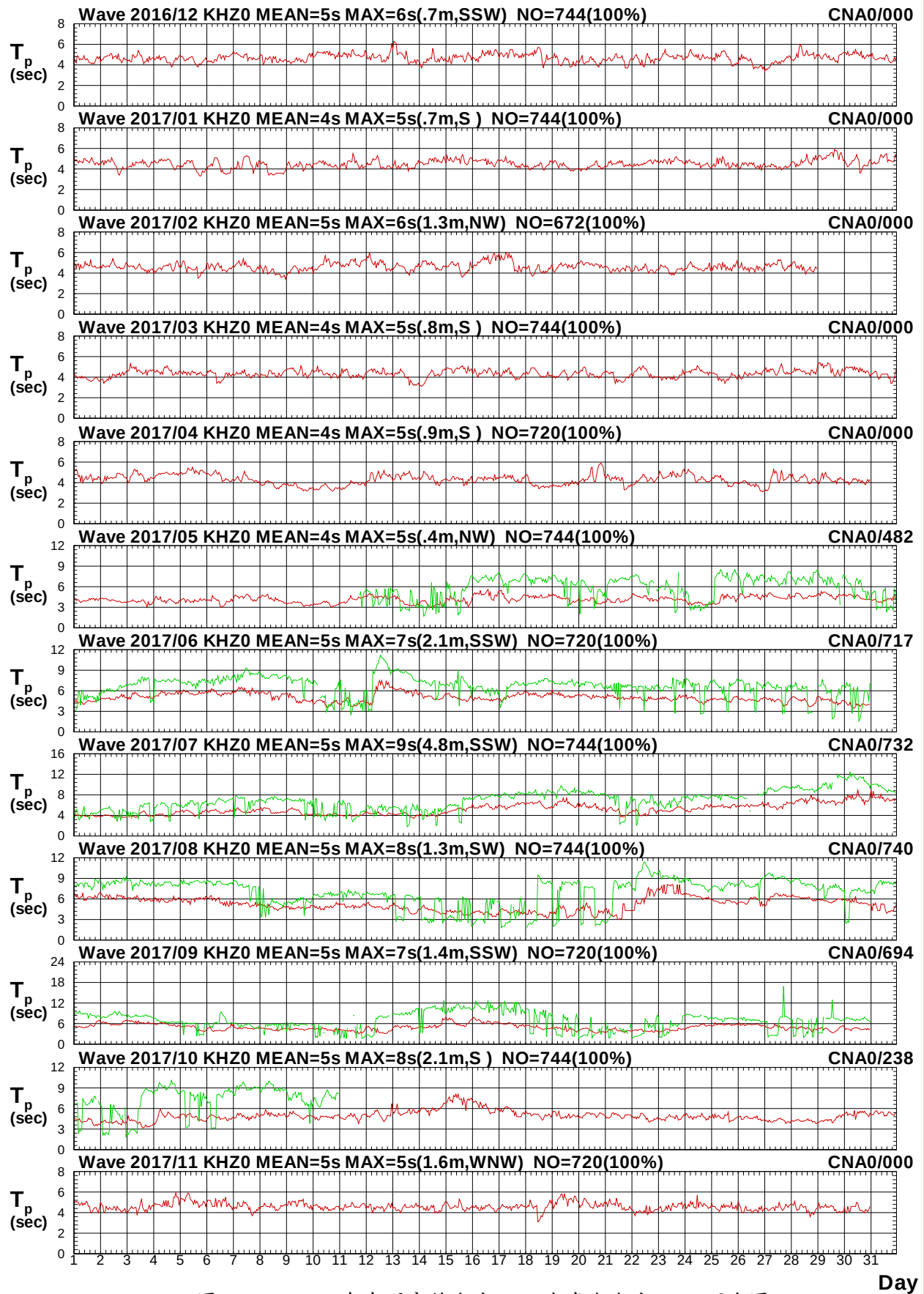


圖2.22b 2017年每月高雄海域 Z 站與嘉南海域 A 站週期圖

V16CKHZ0.1HA V16CCNA0.1H0 V171KHZ0.1HA V171CNA0.1H0 V172KHZ0.1HA V172CNA0.1H0
V173KHZ0.1HA V173CNA0.1H0 V174KHZ0.1HA V174CNA0.1H0 V175KHZ0.1HA V175CNA0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

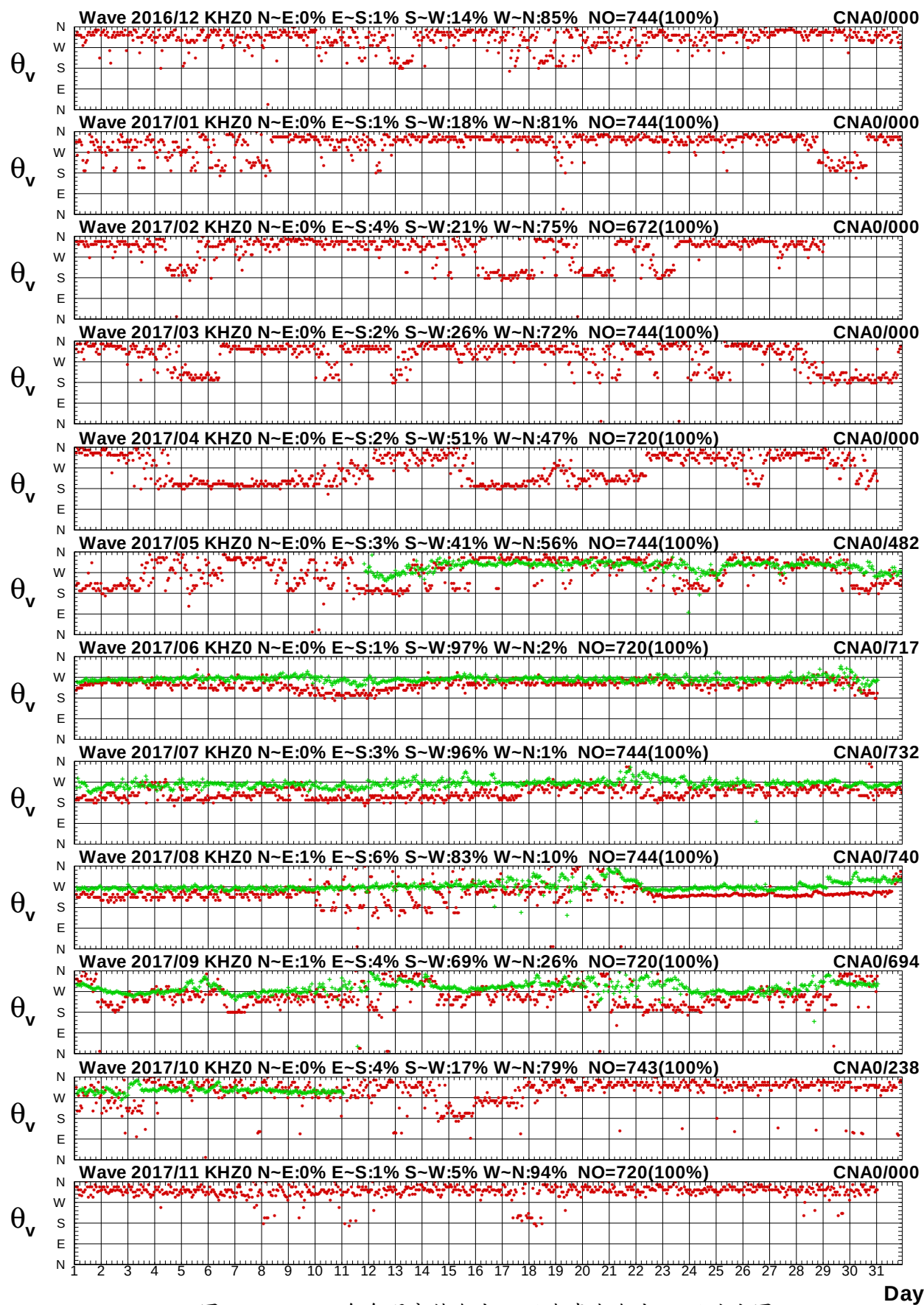


圖2.22c 2017年每月高雄海域 Z 站與嘉南海域 A 站波向圖

V16CKHZ0.1HA V16CCNA0.1H0 V171KHZ0.1HA V171CNA0.1H0 V172KHZ0.1HA V172CNA0.1H0
V173KHZ0.1HA V173CNA0.1H0 V174KHZ0.1HA V174CNA0.1H0 V175KHZ0.1HA V175CNA0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

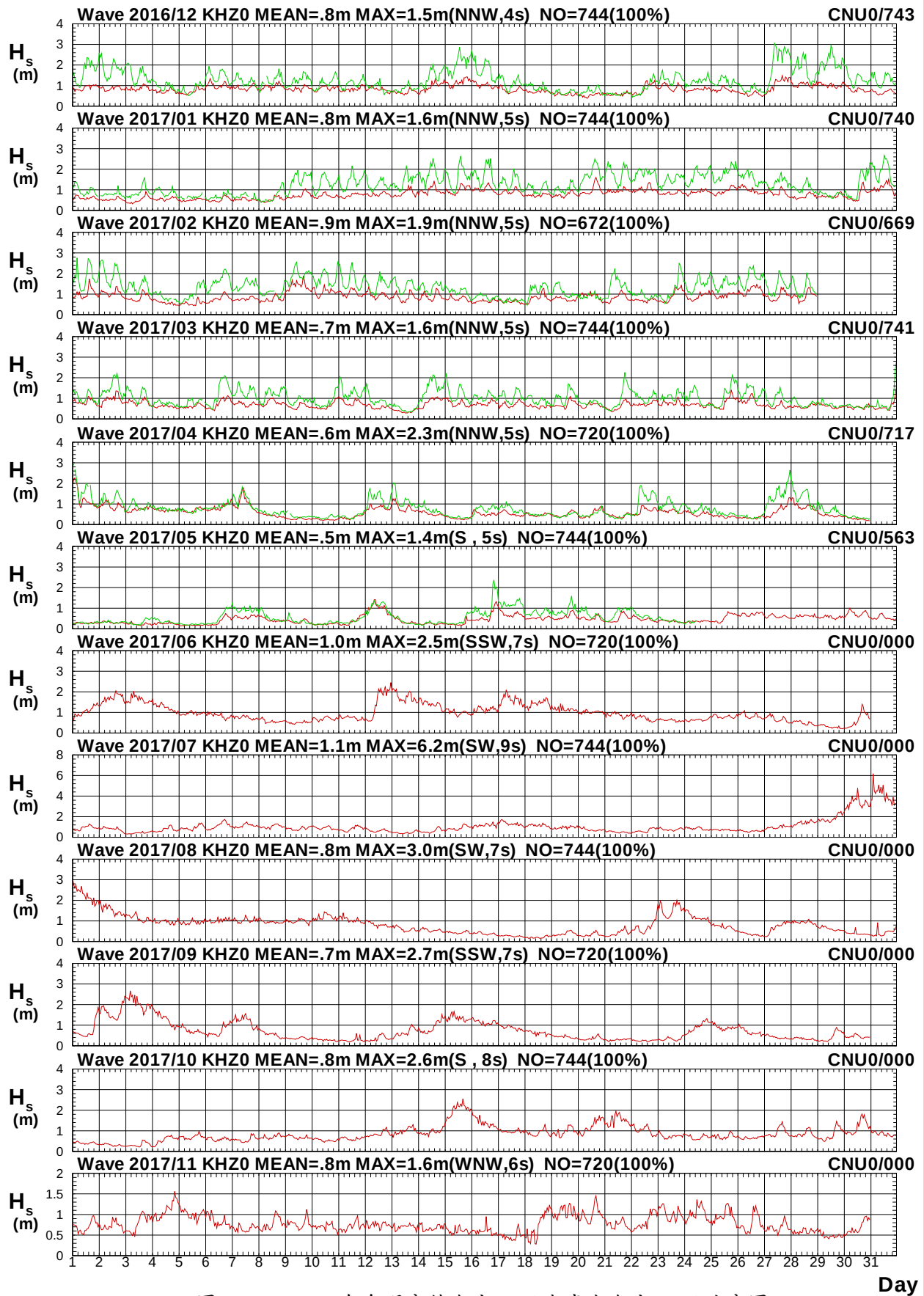


圖2.23a 2017年每月高雄海域 Z 站與嘉南海域 U 站波高圖

V16CKHZ0.1HA V16CCNU0.1H0 V171KHZ0.1HA V171CNU0.1H0 V172KHZ0.1HA V172CNU0.1H0
V173KHZ0.1HA V173CNU0.1H0 V174KHZ0.1HA V174CNU0.1H0 V175KHZ0.1HA V175CNU0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

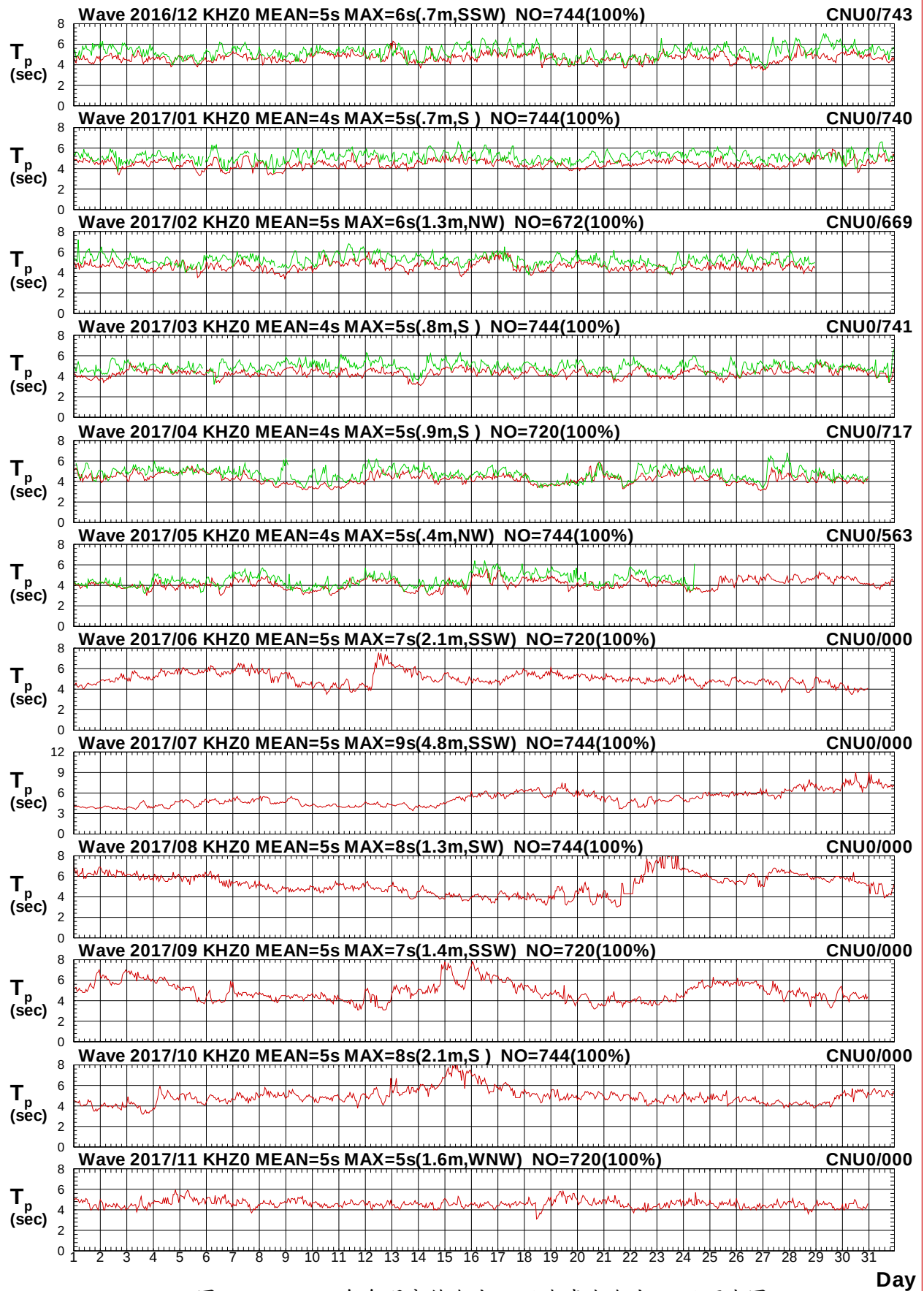


圖2.23b 2017年每月高雄海域 Z 站與嘉南海域 U 站週期圖

V16CKHZ0.1HA V16CCNU0.1H0 V171KHZ0.1HA V171CNU0.1H0 V172KHZ0.1HA V172CNU0.1H0
V173KHZ0.1HA V173CNU0.1H0 V174KHZ0.1HA V174CNU0.1H0 V175KHZ0.1HA V175CNU0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

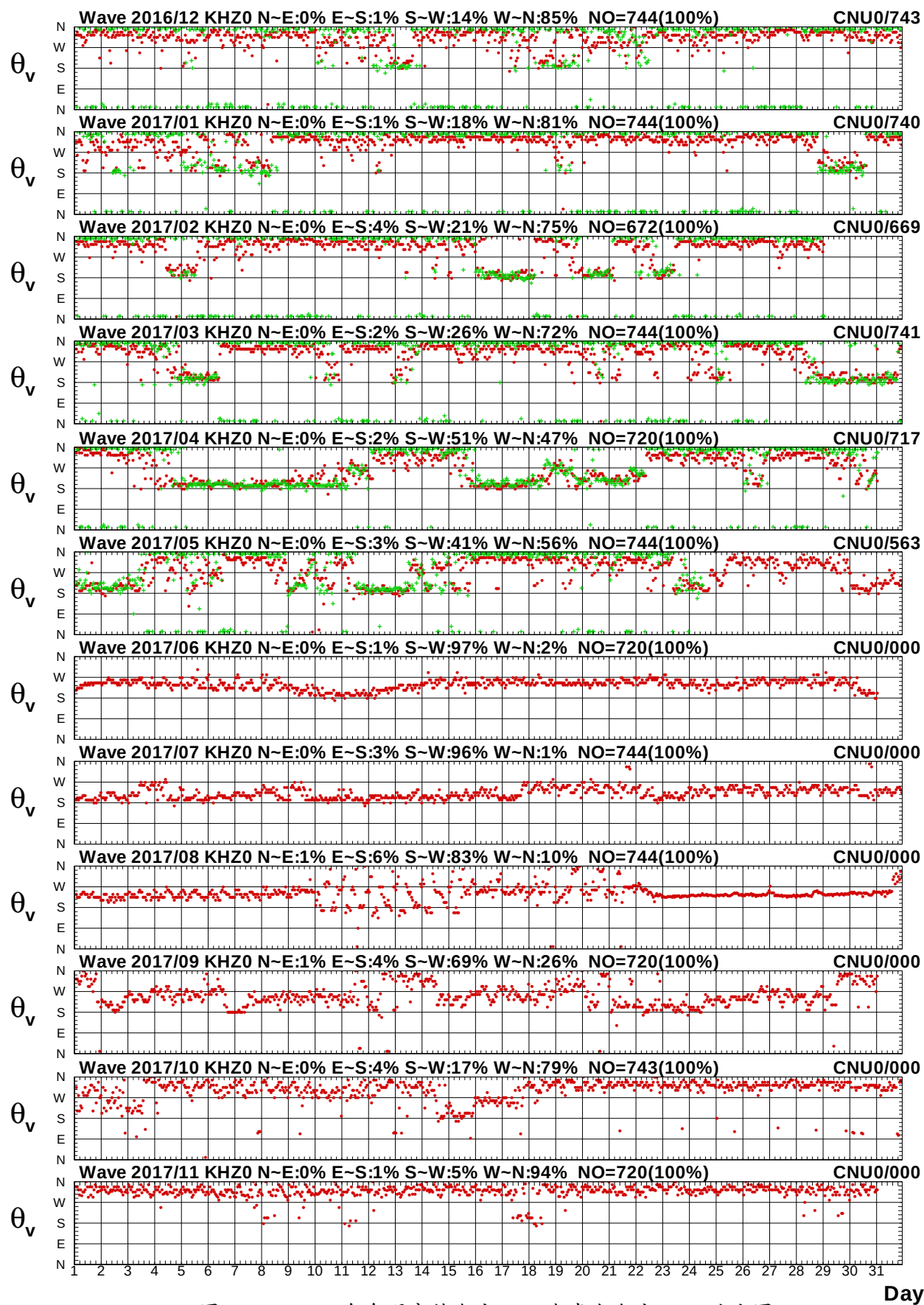


圖2.23c 2017年每月高雄海域 Z 站與嘉南海域 U 站波向圖

V16CKHZ0.1HA V16CCNU0.1H0 V171KHZ0.1HA V171CNU0.1H0 V172KHZ0.1HA V172CNU0.1H0
V173KHZ0.1HA V173CNU0.1H0 V174KHZ0.1HA V174CNU0.1H0 V175KHZ0.1HA V175CNU0.1H0

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Wave H_s in Kao-Hsiung Seas of KHZ0 at 2017

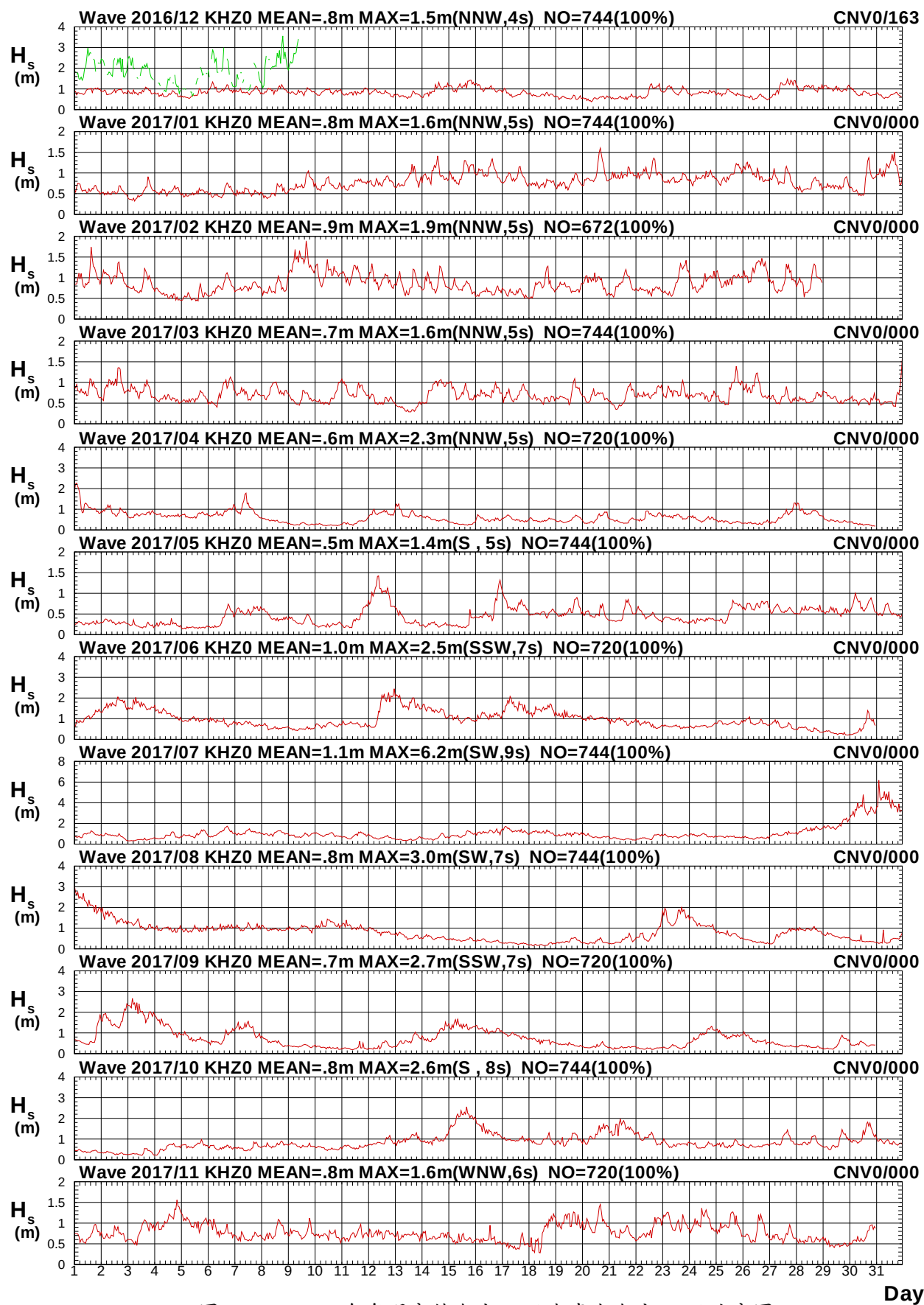


圖2.24a 2017年每月高雄海域 Z 站與嘉南海域 V 站波高圖

V16CKHZ0.1HA V16CCNV0.1H0 V171KHZ0.1HA V171CNV0.1H0 V172KHZ0.1HA V172CNV0.1H0
V173KHZ0.1HA V173CNV0.1H0 V174KHZ0.1HA V174CNV0.1H0 V175KHZ0.1HA V175CNV0.1H0

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Wave T_p in Kao-Hsiung Seas of KHZ0 at 2017

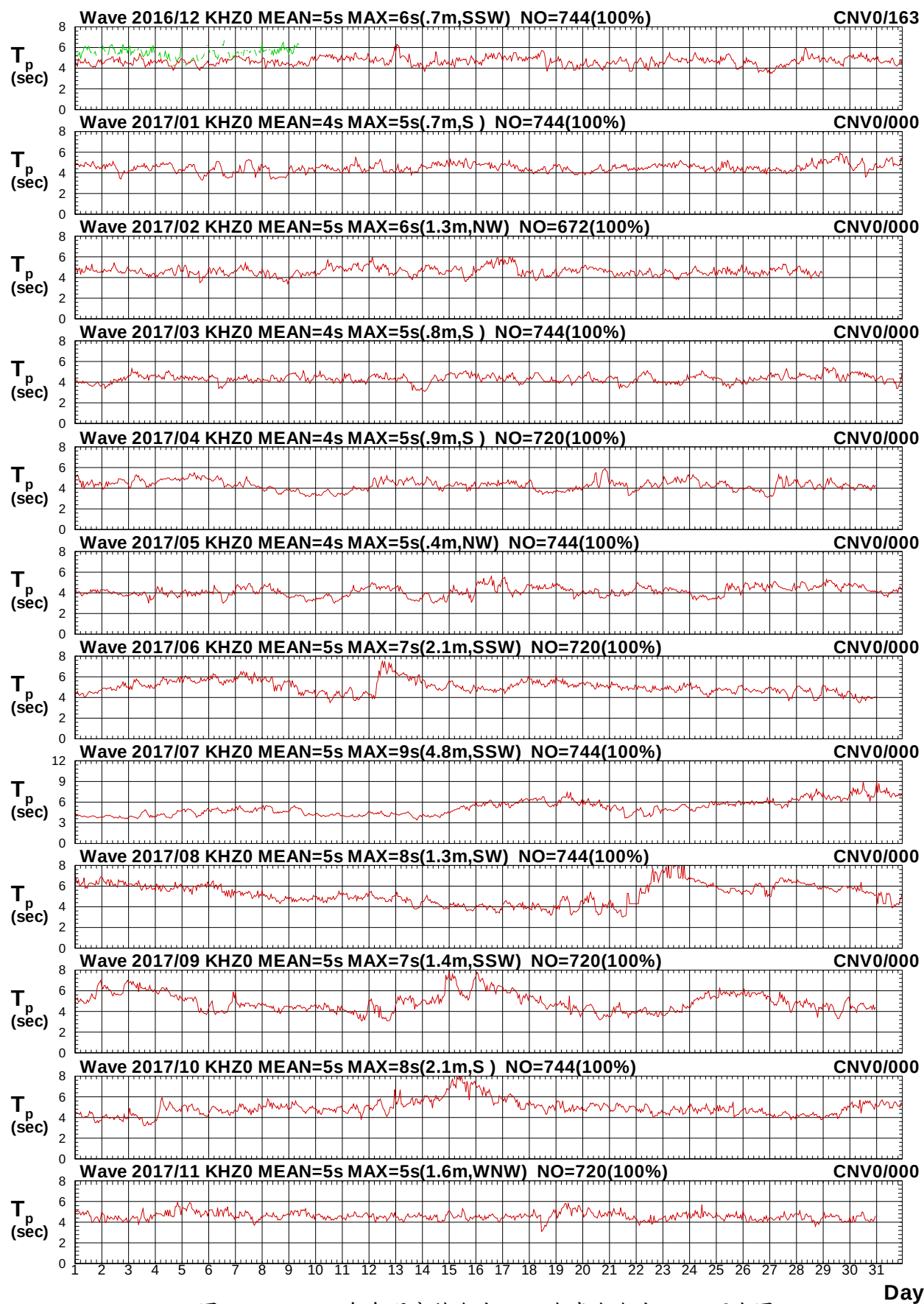


圖2.24b 2017年每月高雄海域 Z 站與嘉南海域 V 站週期圖

V16CKHZ0.1HA V16CCNV0.1H0 V171KHZ0.1HA V171CNV0.1H0 V172KHZ0.1HA V172CNV0.1H0
V173KHZ0.1HA V173CNV0.1H0 V174KHZ0.1HA V174CNV0.1H0 V175KHZ0.1HA V175CNV0.1H0

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Wave Direction in Kao-Hsiung Seas of KHZ0 at 2017

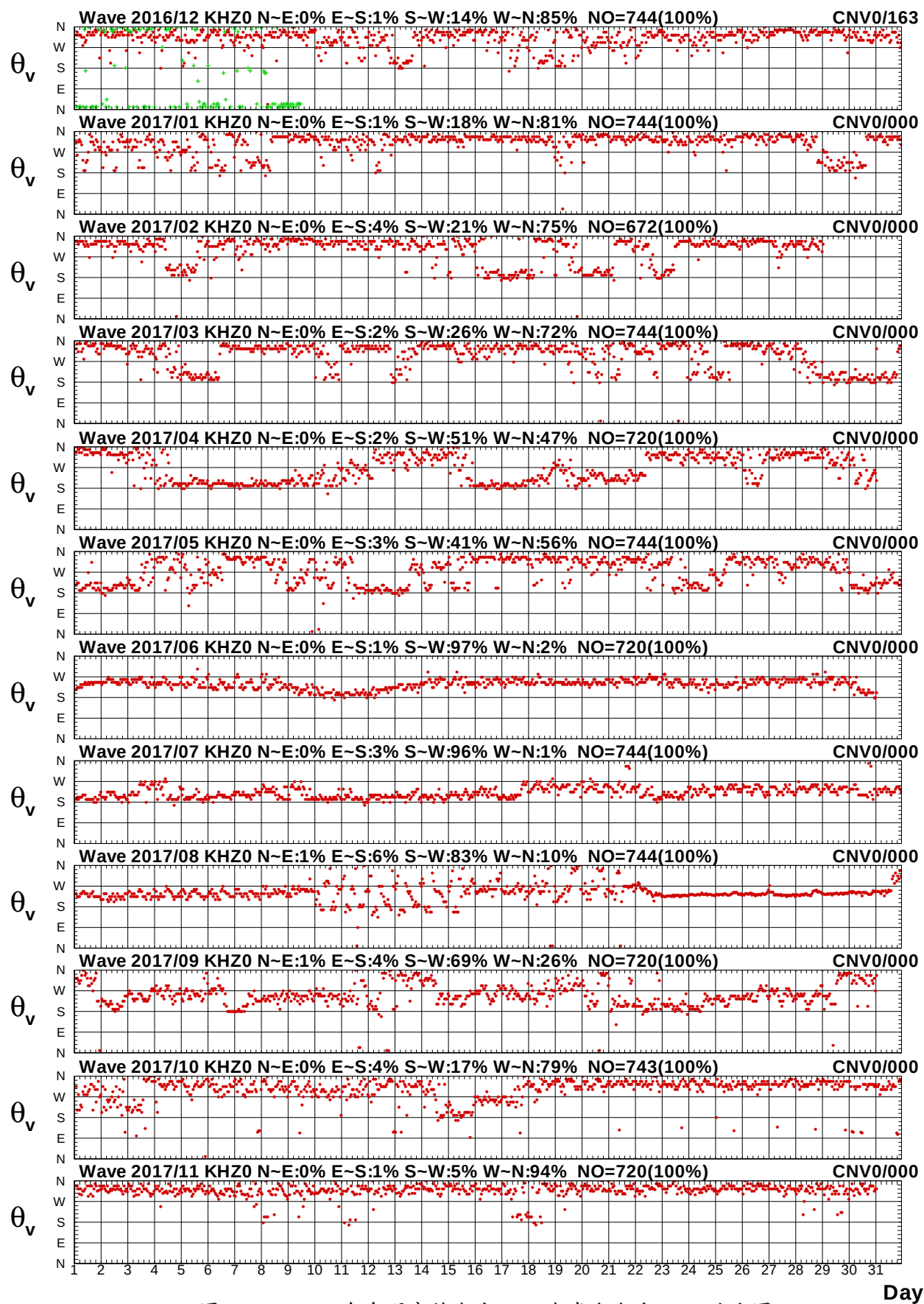


圖2.24c 2017年每月高雄海域 Z 站與嘉南海域 V 站波向圖

V16CKHZ0.1HA V16CCNV0.1H0 V171KHZ0.1HA V171CNV0.1H0 V172KHZ0.1HA V172CNV0.1H0
V173KHZ0.1HA V173CNV0.1H0 V174KHZ0.1HA V174CNV0.1H0 V175KHZ0.1HA V175CNV0.1H0

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第三章 2017 年高雄海域觀測潮汐資料

高雄海域潮汐之觀測包括測站 **T**、測站 **F**、測站 **X**、測站 **A**、測站 **1**、測站 **2** 及測站 **L** 等 7 個測站(測站位置如第 O 章圖 TH1)。本年報取經檢核及補遺之測站 **T** 資料作為主要測站。測站 **T** 與其他 6 個測站特性皆相近。

本**潮汐**年報資料處理之圖表包括：

1. 2017 年**各觀測站**每月**觀測潮汐**資料**修補前**記錄統計表。
2. 2017 年**各觀測站**每月**觀測潮汐**資料**修補後**記錄統計表。
3. 2017 年**各觀測站****修補前後**每月**潮位**歷線比較圖。
4. 2017 年**各觀測站**之**觀測潮位**與**計算天文潮位**每月**潮汐**歷線比較圖。
5. 2017 年**主要測站**之**觀測潮位**與**次要觀測站**每月**潮汐**歷線比較圖。

表 3.1a 2017 年每月高雄海域修補前各測站觀測潮汐資料紀錄表

海域 年月/測站	高雄海域 T	高雄海域 F	高雄海域 X	高雄海域 2	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
2016/12 月	743(99.9%)	743(99.9%)	731(98.3%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 1 月	744(100%)	744(100%)	735(98.8%)	*	*	*	*	*	*	*	*	*
2017/ 2 月	671(99.9%)	671(99.9%)	672(100%)	*	*	*	*	*	*	*	*	*
2017/ 3 月	250(33.6%)	744(100%)	737(99.1%)	14(1.9%)	*	*	*	*	*	*	*	*
2017/ 4 月	720(100%)	720(100%)	712(98.9%)	720(100%)	*	*	*	*	*	*	*	*
2017/ 5 月	93(12.5%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 6 月	720(100%)	720(100%)	672(93.3%)	720(100%)	*	*	*	*	*	*	*	*
2017/ 7 月	744(100%)	744(100%)	425(57.1%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 8 月	304(40.9%)	734(98.7%)	730(98.1%)	723(97.2%)	*	*	*	*	*	*	*	*
2017/ 9 月	720(100%)	720(100%)	713(99.0%)	720(100%)	*	*	*	*	*	*	*	*
2017/10 月	744(100%)	744(100%)	722(97.0%)	562(75.5%)	*	*	*	*	*	*	*	*
2017/11 月	720(100%)	720(100%)	303(42.1%)	*	*	*	*	*	*	*	*	*
2017/冬季	2158(99.9%)	2158(99.9%)	2138(99.0%)	744(34.4%)	*	*	*	*	*	*	*	*
2017/春季	1063(48.1%)	2208(100%)	2193(99.3%)	1478(66.9%)	*	*	*	*	*	*	*	*
2017/夏季	1768(80.1%)	2198(99.5%)	1827(82.7%)	2187(99.0%)	*	*	*	*	*	*	*	*
2017/秋季	2184(100%)	2184(100%)	1738(79.6%)	1282(58.7%)	*	*	*	*	*	*	*	*
2017/整年	7173(81.9%)	8748(99.9%)	7896(90.1%)	5691(65.0%)	*	*	*	*	*	*	*	*
起始年月	2016/12	2016/12	2016/12	2016/12	*	*	*	*	*	*	*	*
結束年月	2017/11	2017/11	2017/11	2017/10	*	*	*	*	*	*	*	*

表 3.1b 2017年每月高雄海域修補後各測站潮汐資料紀錄表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	T	F	X	2								
2016/12 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 1 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 2 月	672(100%)	672(100%)	672(100%)	672(100%)	*	*	*	*	*	*	*	*
2017/ 3 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 4 月	720(100%)	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*
2017/ 5 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 6 月	720(100%)	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*
2017/ 7 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 8 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/ 9 月	720(100%)	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*
2017/10 月	744(100%)	744(100%)	744(100%)	744(100%)	*	*	*	*	*	*	*	*
2017/11 月	720(100%)	720(100%)	720(100%)	720(100%)	*	*	*	*	*	*	*	*
2017/冬季	2160(100%)	2160(100%)	2160(100%)	2160(100%)	*	*	*	*	*	*	*	*
2017/春季	2208(100%)	2208(100%)	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*
2017/夏季	2208(100%)	2208(100%)	2208(100%)	2208(100%)	*	*	*	*	*	*	*	*
2017/秋季	2184(100%)	2184(100%)	2184(100%)	2184(100%)	*	*	*	*	*	*	*	*
2017/整年	8760(100%)	8760(100%)	8760(100%)	8760(100%)	*	*	*	*	*	*	*	*
起始年月	2016/12	2016/12	2016/12	2016/12	*	*	*	*	*	*	*	*
結束年月	2017/11	2017/11	2017/11	2017/11	*	*	*	*	*	*	*	*

表3.2a 2017年高雄海域 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)
1	2016/12	T	51	115	77	91	15.6	26.0	22.9	25.3	43	84	148	28	743(100%)
2	2017/01	T	51	101	79	95	13.1	25.0	16.4	20.8	56	74	146	21	744(100%)
3	2017/02	T	48	88	73	86	14.7	25.0	20.7	25.0	38	83	144	29	671(100%)
4	2017/03	T	44	56	52	56	12.6	15.0	14.0	15.0	10	88	140	47	250(34%)
5	2017/04	T	51	75	65	72	14.7	26.0	20.4	26.0	45	89	138	41	720(100%)
6	2017/05	T	71	81	0	0	21.0	25.0	.0	100.0	2	84	128	42	93(13%)
7	2017/06	T	42	86	69	84	14.5	26.0	19.4	25.3	39	93	157	42	720(100%)
8	2017/07	T	43	77	61	70	15.8	26.0	22.9	25.3	40	95	161	46	744(100%)
9	2017/08	T	49	91	87	91	15.4	25.0	22.4	25.0	16	97	150	55	304(41%)
10	2017/09	T	50	81	70	77	13.8	25.0	17.7	24.8	44	99	150	57	720(100%)
11	2017/10	T	51	83	78	82	14.2	26.0	18.6	25.3	49	105	164	58	744(100%)
12	2017/11	T	54	104	75	98	15.2	26.0	21.1	25.3	42	88	152	44	720(100%)
13	2017/冬	T	50	115	76	92	14.3	26.0	19.6	25.1	137	80	148	21	2158(100%)
14	2017/春	T	50	81	65	74	14.5	26.0	19.8	25.8	57	88	140	41	1063(48%)
15	2017/夏	T	43	91	69	85	15.2	26.0	21.4	25.2	95	94	161	42	1768(80%)
16	2017/秋	T	52	104	75	87	14.4	26.0	19.0	25.1	135	97	164	44	2184(100%)
17	2017/年	T	49	115	73	87	14.6	26.0	19.8	25.2	424	90	164	21	7173(82%)

表3.2b 2017年高雄海域 T 站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)
1	2016/12	T	51	115	77	95	16.0	26.0	23.7	25.3	45	84	148	28	744(100%)
2	2017/01	T	51	101	79	95	13.1	25.0	16.4	20.8	56	74	146	21	744(100%)
3	2017/02	T	51	88	74	86	14.1	25.0	19.0	25.0	38	83	144	29	672(100%)
4	2017/03	T	47	87	68	79	14.1	25.0	18.5	24.8	40	87	143	47	744(100%)
5	2017/04	T	51	75	65	72	14.7	26.0	20.4	26.0	45	89	138	41	720(100%)
6	2017/05	T	49	81	67	75	16.0	26.0	23.8	25.3	46	85	146	37	744(100%)
7	2017/06	T	42	86	69	84	14.5	26.0	19.4	25.3	39	93	157	42	720(100%)
8	2017/07	T	43	77	61	70	15.8	26.0	22.9	25.3	40	95	161	46	744(100%)
9	2017/08	T	48	103	89	100	15.8	26.0	23.1	25.3	41	99	168	52	744(100%)
10	2017/09	T	50	81	70	77	13.8	25.0	17.7	24.8	44	99	150	57	720(100%)
11	2017/10	T	51	83	78	82	14.2	26.0	18.6	25.3	49	105	164	58	744(100%)
12	2017/11	T	54	104	75	98	15.2	26.0	21.1	25.3	42	88	152	44	720(100%)
13	2017/冬	T	51	115	76	93	14.3	26.0	19.5	25.1	139	80	148	21	2160(100%)
14	2017/春	T	49	87	67	75	15.0	26.0	21.1	25.4	131	87	146	37	2208(100%)
15	2017/夏	T	44	103	73	92	15.4	26.0	21.6	25.3	120	96	168	42	2208(100%)
16	2017/秋	T	52	104	75	87	14.4	26.0	19.0	25.1	135	97	164	44	2184(100%)
17	2017/年	T	49	115	73	88	14.7	26.0	20.3	25.2	525	90	168	21	8760(100%)

表3.3a 2017年高雄海域 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)
1	2016/12	F	50	107	76	92	16.3	26.0	24.1	25.3	39	89	152	34	743(100%)
2	2017/01	F	51	93	75	88	13.3	25.0	17.0	22.8	55	81	152	27	744(100%)
3	2017/02	F	49	89	71	82	13.9	26.0	18.4	24.8	40	91	153	39	671(100%)
4	2017/03	F	46	93	67	86	15.1	27.0	21.6	25.5	44	94	150	53	744(100%)
5	2017/04	F	51	89	68	77	15.4	26.0	22.1	25.8	43	92	141	43	720(100%)
6	2017/05	F	49	81	67	75	16.0	26.0	23.8	25.3	46	87	148	39	744(100%)
7	2017/06	F	41	84	68	83	14.5	26.0	19.5	25.7	39	94	156	41	720(100%)
8	2017/07	F	43	106	81	98	16.1	26.0	23.9	25.5	43	93	158	43	744(100%)
9	2017/08	F	49	82	70	77	16.0	26.0	23.9	25.3	38	98	167	51	734(99%)
10	2017/09	F	48	90	72	88	13.3	25.0	16.1	22.0	43	97	147	56	720(100%)
11	2017/10	F	51	83	77	82	14.2	26.0	18.6	25.5	49	103	161	55	744(100%)
12	2017/11	F	54	104	77	96	14.9	26.0	20.7	25.3	40	90	154	46	720(100%)
13	2017/冬	F	50	107	74	87	14.3	26.0	19.6	25.1	134	87	153	27	2158(100%)
14	2017/春	F	49	93	67	79	15.5	27.0	22.4	25.5	133	91	150	39	2208(100%)
15	2017/夏	F	44	106	73	88	15.6	26.0	22.3	25.4	120	95	167	41	2198(100%)
16	2017/秋	F	51	104	76	89	14.1	26.0	18.3	25.0	132	97	161	46	2184(100%)
17	2017/年	F	49	107	73	87	14.9	27.0	20.6	25.3	519	92	167	27	8748(100%)

表3.3b 2017年高雄海域 F 站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)
1	2016/12	F	52	107	79	96	16.7	26.0	24.9	25.3	41	89	152	34	744(100%)
2	2017/01	F	51	93	75	88	13.3	25.0	17.0	22.8	55	81	152	27	744(100%)
3	2017/02	F	49	90	74	85	13.6	26.0	17.6	24.8	41	91	153	39	672(100%)
4	2017/03	F	46	93	67	86	15.1	27.0	21.6	25.5	44	94	150	53	744(100%)
5	2017/04	F	51	89	68	77	15.4	26.0	22.1	25.8	43	92	141	43	720(100%)
6	2017/05	F	49	81	67	75	16.0	26.0	23.8	25.3	46	87	148	39	744(100%)
7	2017/06	F	41	84	68	83	14.5	26.0	19.5	25.7	39	94	156	41	720(100%)
8	2017/07	F	43	106	81	98	16.1	26.0	23.9	25.5	43	93	158	43	744(100%)
9	2017/08	F	48	82	69	77	16.6	26.0	24.8	25.3	39	98	167	51	744(100%)
10	2017/09	F	48	90	72	88	13.3	25.0	16.1	22.0	43	97	147	56	720(100%)
11	2017/10	F	51	83	77	82	14.2	26.0	18.6	25.5	49	103	161	55	744(100%)
12	2017/11	F	54	104	77	96	14.9	26.0	20.7	25.3	40	90	154	46	720(100%)
13	2017/冬	F	51	107	75	90	14.4	26.0	19.7	25.1	137	87	153	27	2160(100%)
14	2017/春	F	49	93	67	79	15.5	27.0	22.4	25.5	133	91	150	39	2208(100%)
15	2017/夏	F	44	106	73	88	15.8	26.0	22.8	25.4	121	95	167	41	2208(100%)
16	2017/秋	F	51	104	76	89	14.1	26.0	18.3	25.0	132	97	161	46	2184(100%)
17	2017/年	F	49	107	73	87	14.9	27.0	20.8	25.3	523	92	167	27	8760(100%)

表3.4a 2017年高雄海域 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)
1	2016/12	X	47	119	82	112	17.8	25.0	25.0	25.0	41	1418	1484	1365	731(98%)
2	2017/01	X	52	102	82	97	12.8	25.0	15.5	19.0	57	1408	1480	1355	735(99%)
3	2017/02	X	45	87	64	81	13.4	26.0	17.2	25.0	49	1423	1487	1368	672(100%)
4	2017/03	X	49	89	73	83	14.6	25.0	20.6	25.0	50	1417	1479	1366	737(99%)
5	2017/04	X	48	89	61	74	15.1	26.0	21.8	25.8	47	1403	1458	1355	712(99%)
6	2017/05	X	47	77	65	73	15.7	26.0	23.2	25.3	47	1396	1454	1345	744(100%)
7	2017/06	X	40	90	70	88	16.5	26.0	24.8	25.3	40	1405	1470	1352	672(93%)
8	2017/07	X	43	96	77	95	14.5	26.0	19.8	26.0	24	1435	1494	1384	425(57%)
9	2017/08	X	45	97	68	83	14.4	26.0	19.0	25.2	51	1438	1502	1392	730(98%)
10	2017/09	X	51	79	66	75	13.5	25.0	16.5	24.8	46	1440	1493	1397	713(99%)
11	2017/10	X	55	79	70	75	15.5	26.0	22.1	25.5	45	1441	1497	1387	722(97%)
12	2017/11	X	64	106	97	106	12.5	15.0	13.6	15.0	17	1419	1478	1367	303(42%)
13	2017/冬	X	48	119	76	99	14.4	26.0	19.6	25.1	147	1416	1487	1355	2138(99%)
14	2017/春	X	48	89	66	79	15.1	26.0	21.5	25.3	144	1405	1479	1345	2193(99%)
15	2017/夏	X	43	97	70	89	15.1	26.0	21.2	25.4	115	1425	1502	1352	1827(83%)
16	2017/秋	X	55	106	73	88	14.2	26.0	18.3	25.2	108	1437	1497	1367	1738(80%)
17	2017/年	X	48	119	72	89	14.7	26.0	20.3	25.2	514	1420	1502	1345	7896(90%)

表3.4b 2017年高雄海域 X 站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)
1	2016/12	X	46	87	68	83	16.2	25.0	24.1	25.0	45	1418	1484	1365	744(100%)
2	2017/01	X	50	96	74	90	12.4	15.0	14.4	15.0	59	1408	1480	1355	744(100%)
3	2017/02	X	45	87	64	81	13.4	26.0	17.2	25.0	49	1423	1487	1368	672(100%)
4	2017/03	X	49	89	71	83	14.4	25.0	19.5	25.0	51	1417	1479	1366	744(100%)
5	2017/04	X	49	71	60	68	14.8	26.0	20.7	25.8	48	1403	1458	1355	720(100%)
6	2017/05	X	47	77	65	73	15.7	26.0	23.2	25.3	47	1396	1454	1345	744(100%)
7	2017/06	X	42	104	79	92	15.0	26.0	21.1	25.3	44	1405	1470	1352	720(100%)
8	2017/07	X	43	93	62	81	14.9	26.0	20.5	25.5	45	1435	1508	1384	744(100%)
9	2017/08	X	46	107	87	102	13.9	26.0	17.6	24.8	53	1438	1502	1392	744(100%)
10	2017/09	X	51	95	81	91	13.5	25.0	16.5	24.8	46	1440	1493	1397	720(100%)
11	2017/10	X	53	86	79	85	14.2	26.0	18.6	25.5	49	1442	1497	1387	744(100%)
12	2017/11	X	53	106	86	100	14.8	25.0	20.2	25.0	43	1421	1478	1367	720(100%)
13	2017/冬	X	48	96	69	85	13.9	26.0	18.2	25.0	153	1416	1487	1355	2160(100%)
14	2017/春	X	48	89	66	77	14.9	26.0	21.1	25.3	146	1405	1479	1345	2208(100%)
15	2017/夏	X	44	107	76	96	14.5	26.0	19.5	25.3	142	1426	1508	1352	2208(100%)
16	2017/秋	X	52	106	82	92	14.2	26.0	18.3	25.1	138	1434	1497	1367	2184(100%)
17	2017/年	X	48	107	74	89	14.4	26.0	19.3	25.2	579	1420	1508	1345	8760(100%)

表3.5a 2017年高雄海域2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)
1	2016/12	2	44	85	66	81	15.2	25.0	21.8	25.0	48	1822	1887	1770	744(100%)
2	2017/01	2													
3	2017/02	2													
4	2017/03	2	*	*	*	*	*	*	*	*	0	1848	1890	1812	14(2%)
5	2017/04	2	36	62	48	59	15.1	26.0	21.8	25.5	47	1833	1899	1765	720(100%)
6	2017/05	2	29	108	63	96	17.8	28.0	25.3	26.7	39	1796	1879	1714	744(100%)
7	2017/06	2	37	100	73	88	15.6	26.0	22.7	25.5	44	1845	1909	1794	720(100%)
8	2017/07	2	42	117	85	106	13.5	25.0	16.6	24.2	54	1850	1918	1799	744(100%)
9	2017/08	2	82	1866	198	543	13.4	26.0	16.6	24.5	49	1829	1903	16	723(97%)
10	2017/09	2	50	93	78	89	13.3	26.0	15.6	22.8	48	1841	1893	1798	720(100%)
11	2017/10	2	53	83	78	82	13.3	26.0	16.0	22.5	41	1867	1965	1805	562(76%)
12	2017/11	2													
13	2017/冬	2	44	85	66	81	15.2	25.0	21.8	25.0	48	1822	1887	1770	744(34%)
14	2017/春	2	33	108	55	76	16.3	28.0	24.3	25.9	86	1815	1899	1714	1478(67%)
15	2017/夏	2	54	1866	118	228	14.1	26.0	18.3	25.0	147	1841	1918	16	2187(99%)
16	2017/秋	2	51	93	79	86	13.3	26.0	15.8	22.6	89	1853	1965	1798	1282(59%)
17	2017/年	2	47	1866	89	141	14.6	28.0	19.7	25.3	370	1834	1965	16	5691(65%)

表3.5b 2017年高雄海域2站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)
1	2016/12	2	44	85	66	81	15.2	25.0	21.8	25.0	48	1822	1887	1770	744(100%)
2	2017/01	2	51	101	79	95	13.1	25.0	16.4	20.8	56	74	146	21	744(100%)
3	2017/02	2	51	88	74	86	14.1	25.0	19.0	25.0	38	83	144	29	672(100%)
4	2017/03	2	47	87	68	79	14.1	25.0	18.5	24.8	40	1841	1897	1801	744(100%)
5	2017/04	2	36	62	48	59	15.1	26.0	21.8	25.5	47	1833	1899	1765	720(100%)
6	2017/05	2	29	108	63	96	17.8	28.0	25.3	26.7	39	1796	1879	1714	744(100%)
7	2017/06	2	37	100	73	88	15.6	26.0	22.7	25.5	44	1845	1909	1794	720(100%)
8	2017/07	2	42	117	85	106	13.5	25.0	16.6	24.2	54	1850	1918	1799	744(100%)
9	2017/08	2	80	1866	191	454	13.7	26.0	17.1	24.4	51	1779	1903	6	744(100%)
10	2017/09	2	50	93	78	89	13.3	26.0	15.6	22.8	48	1841	1893	1798	720(100%)
11	2017/10	2	52	83	77	82	13.9	26.0	17.8	24.8	50	1880	1968	1805	744(100%)
12	2017/11	2	54	104	75	98	15.2	26.0	21.1	25.3	42	88	152	44	720(100%)
13	2017/冬	2	48	101	73	89	14.1	25.0	18.8	25.0	142	679	1887	21	2160(100%)
14	2017/春	2	37	108	61	79	15.6	28.0	22.5	25.6	126	1823	1899	1714	2208(100%)
15	2017/夏	2	54	1866	118	228	14.2	26.0	18.6	25.0	149	1824	1918	6	2208(100%)
16	2017/秋	2	52	104	78	89	14.1	26.0	18.0	25.1	140	1277	1968	44	2184(100%)
17	2017/年	2	48	1866	84	124	14.4	28.0	19.5	25.2	557	1405	1968	6	8760(100%)

Tidal Level in Kao-Hsiung Harbor of KHT0 at 2017 ¹ 8 15 22

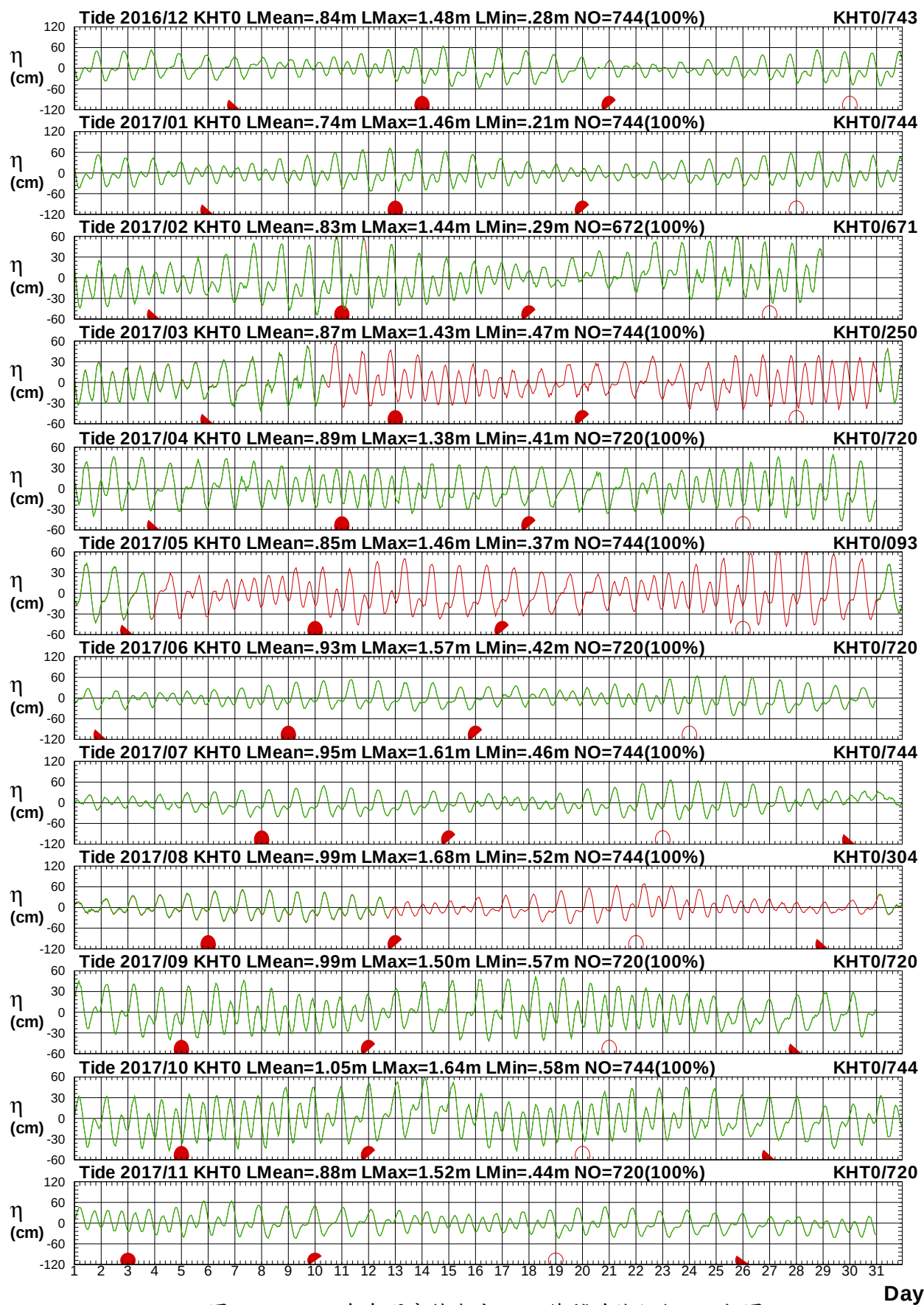


圖3.49 2017年每月高雄海域 T 站修補前後之潮位比較圖

T16CKHT0.1HA T16CKHT0.1H0 T171KHT0.1HA T171KHT0.1H0 T172KHT0.1HA T172KHT0.1H0
T173KHT0.1HA T173KHT0.1H0 T174KHT0.1HA T174KHT0.1H0 T175KHT0.1HA T175KHT0.1H0

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Tidal Level in Kao-Hsiung Harbor of KHT0 at 2017 ○ 8 ● 15 ● 22 ●

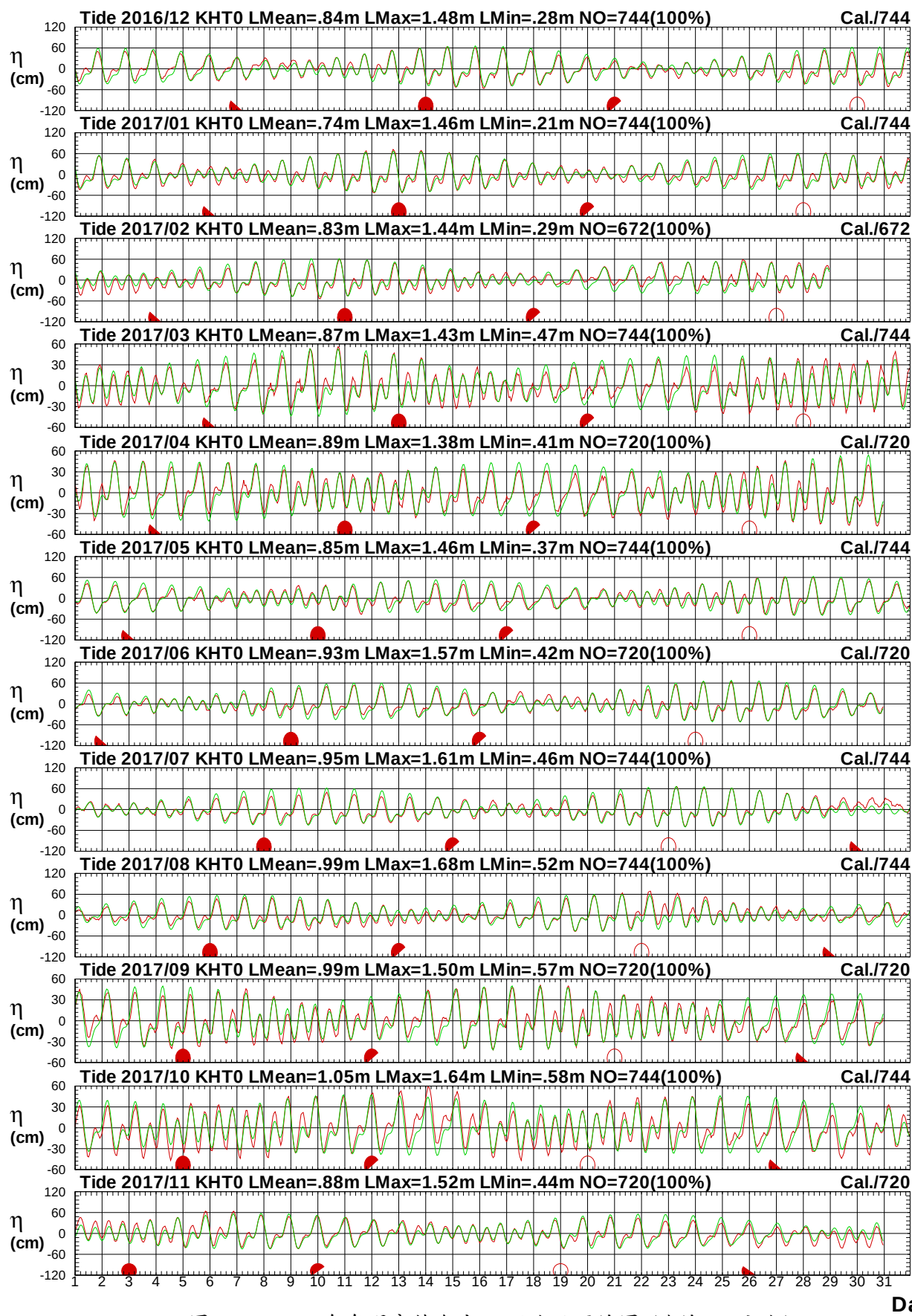


圖3.50 2017年每月高雄海域 T 站潮位歷線圖 (綠線: 天文潮)

T16CKHT0.1HA T16CKHT0.1HC T171KHT0.1HA T171KHT0.1HC T172KHT0.1HA T172KHT0.1HC
T173KHT0.1HA T173KHT0.1HC T174KHT0.1HA T174KHT0.1HC T175KHT0.1HA T175KHT0.1HC

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Tidal Level in Kao-Hsiung Harbor of KHF0 at 2017 ¹ 8 15 22

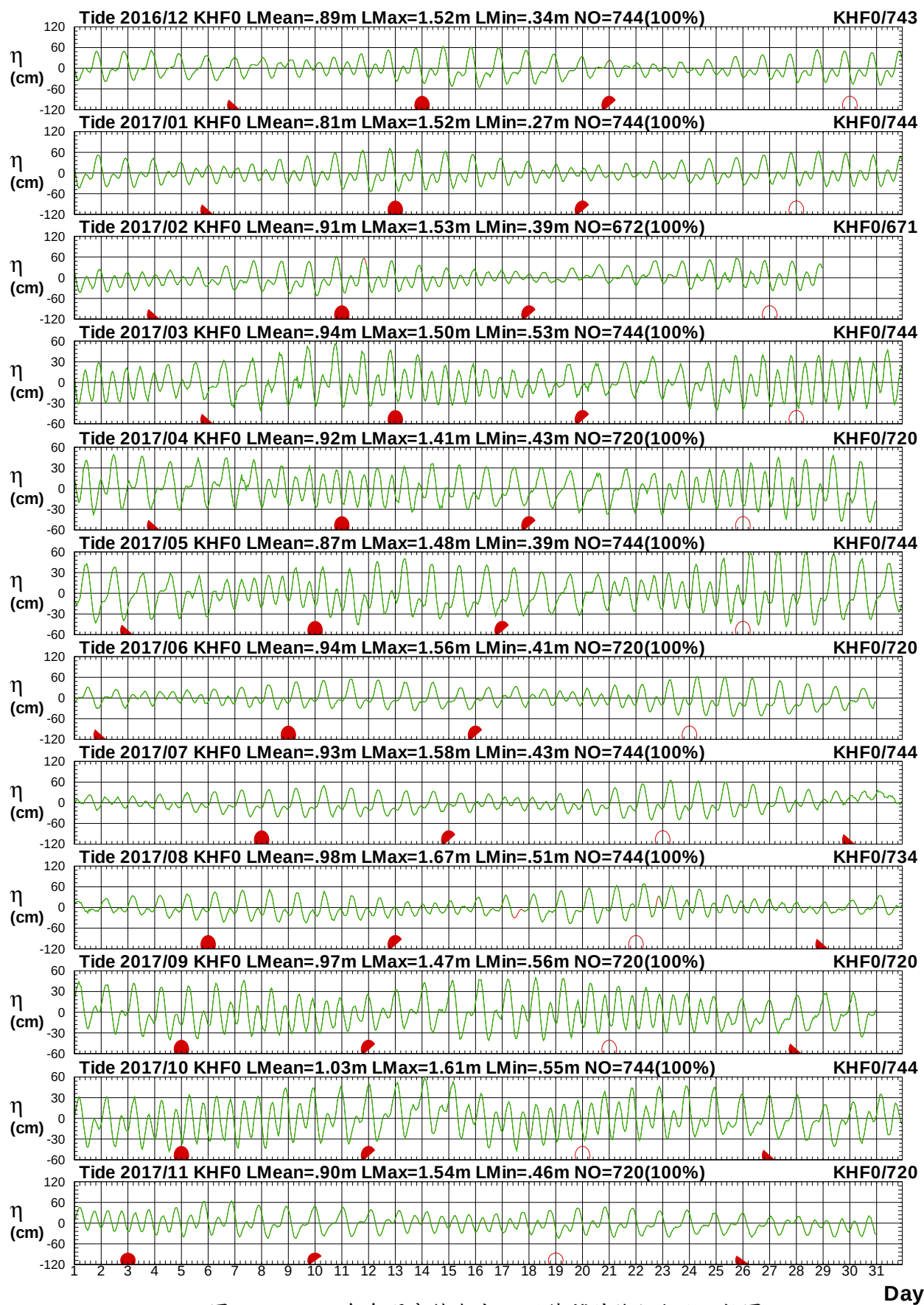


圖3.51 2017年每月高雄海域 F 站修補前後之潮位比較圖

T16CKHF0.1HA T16CKHF0.1H0 T171KHF0.1HA T171KHF0.1H0 T172KHF0.1HA T172KHF0.1H0
T173KHF0.1HA T173KHF0.1H0 T174KHF0.1HA T174KHF0.1H0 T175KHF0.1HA T175KHF0.1H0

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Tidal Level in Kao-Hsiung Harbor of KHF0 at 2017 ○ 8 ● 15 ● 22 ●

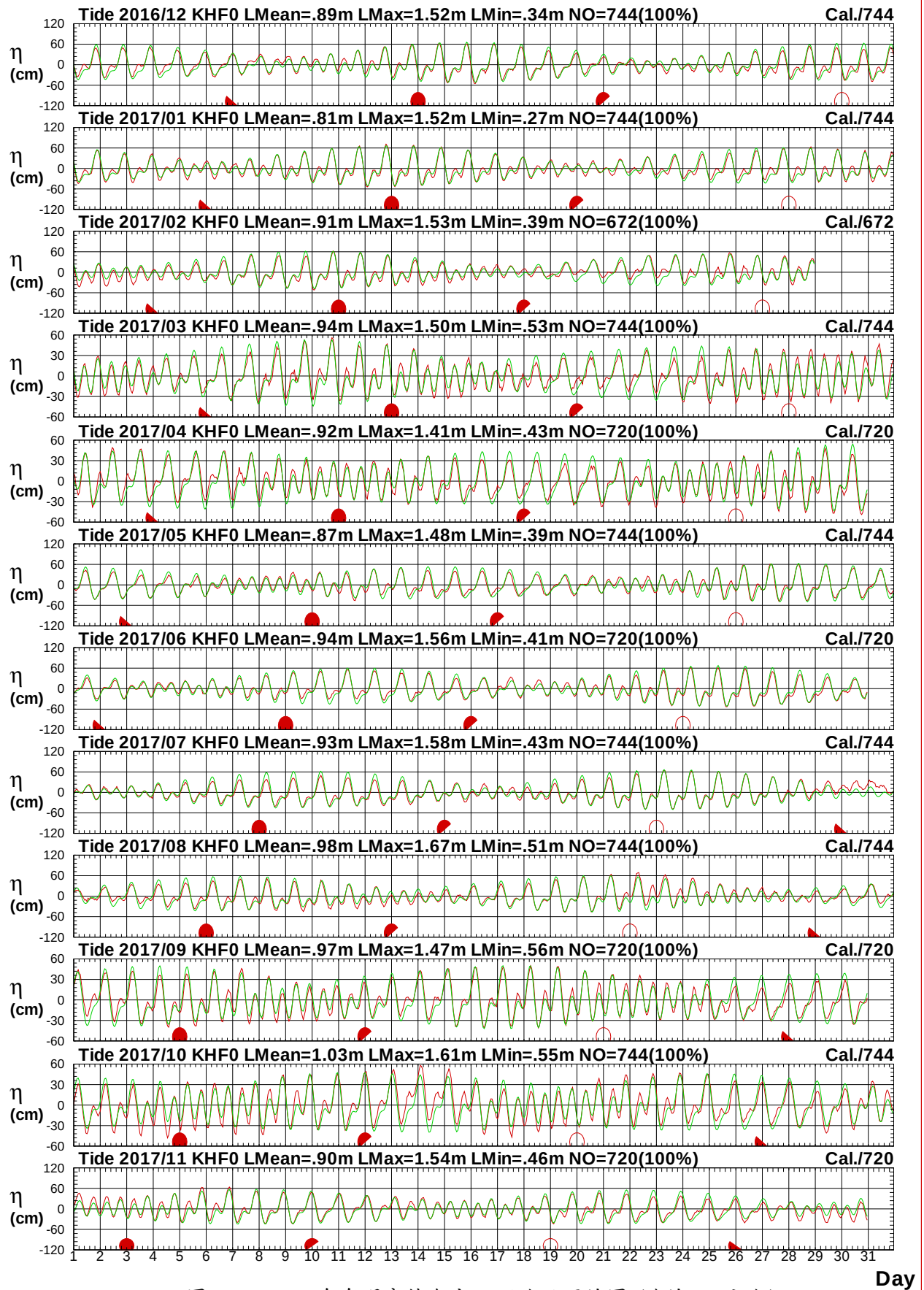


圖3.52 2017年每月高雄海域 F 站潮位歷線圖 (綠線: 天文潮)

T16CKHF0.1HA T16CKHT0.1HC T171KHF0.1HA T171KHT0.1HC T172KHF0.1HA T172KHT0.1HC
T173KHF0.1HA T173KHT0.1HC T174KHF0.1HA T174KHT0.1HC T175KHF0.1HA T175KHT0.1HC

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Tidal Level in Kao-Hsiung Harbor of KHX0 at 2017 ¹ 8 15 22

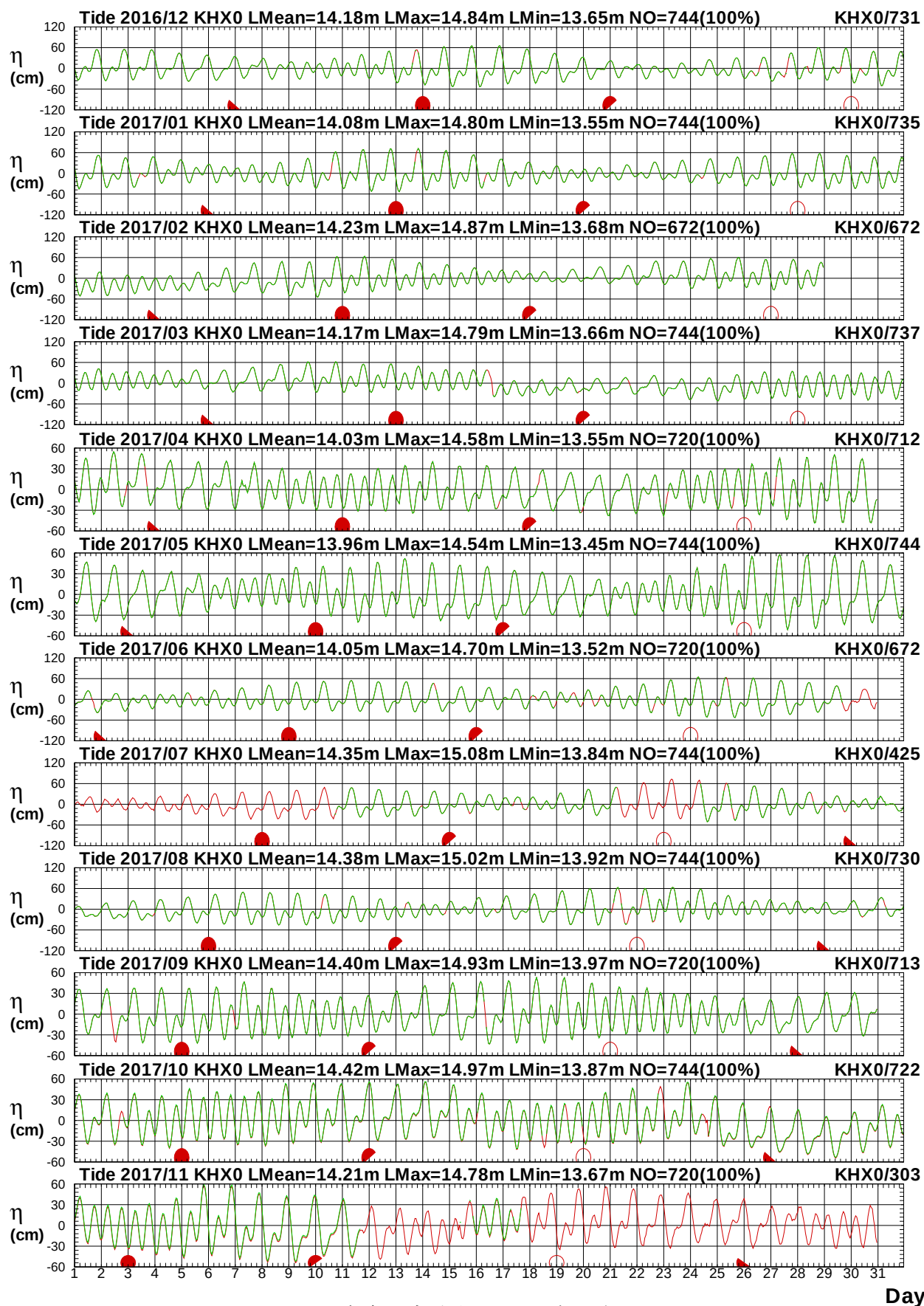


圖3.53 2017年每月高雄海域 X 站修補前後之潮位比較圖

T16CKHX0.1HA T16CKHX0.1H0 T171KHX0.1HA T171KHX0.1H0 T172KHX0.1HA T172KHX0.1H0
T173KHX0.1HA T173KHX0.1H0 T174KHX0.1HA T174KHX0.1H0 T175KHX0.1HA T175KHX0.1H0

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Tidal Level in Kao-Hsiung Harbor of KHX0 at 2017 ¹ ○ 8 ● 15 ● 22 ●

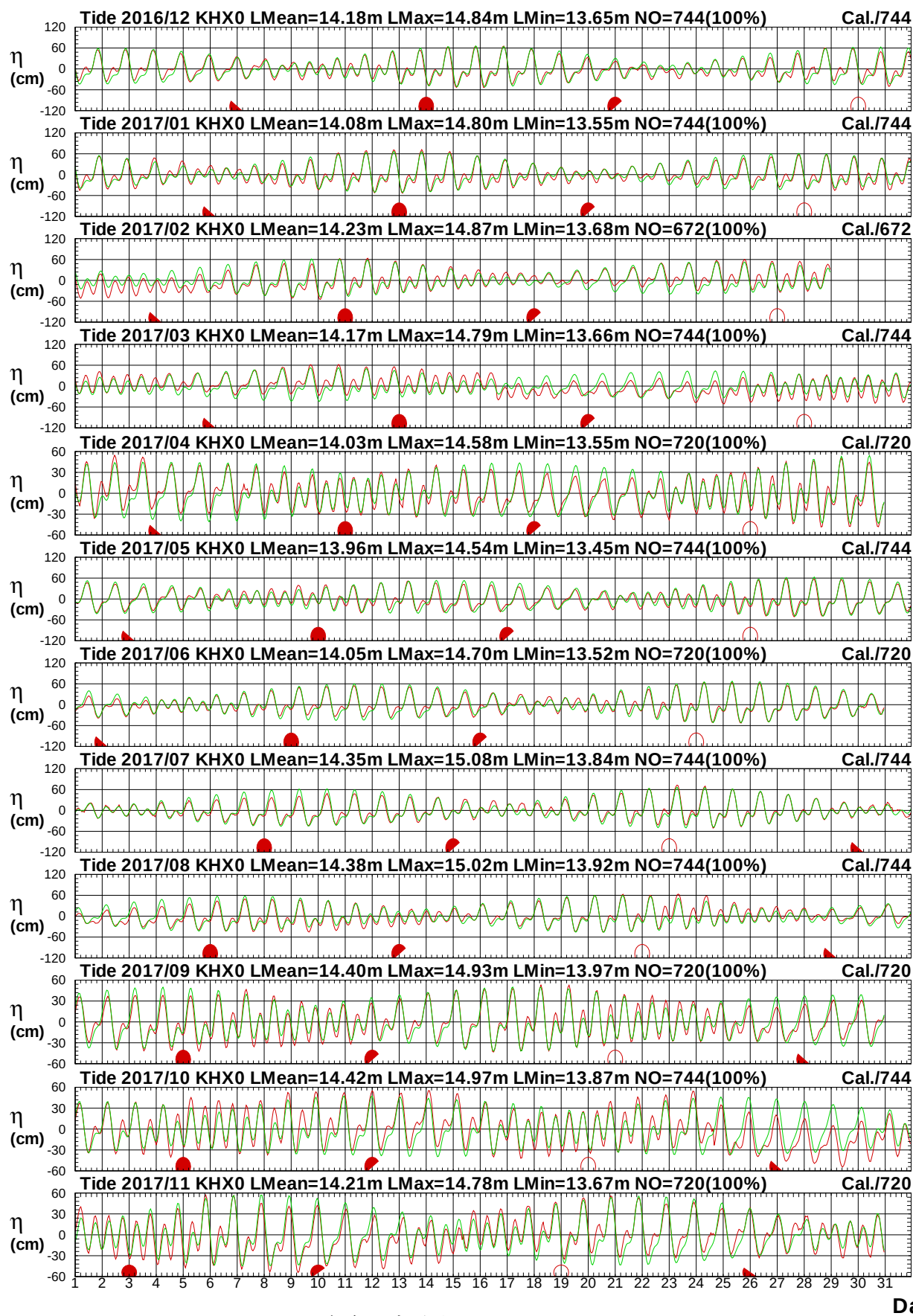


圖3.54 2017年每月高雄海域 X 站潮位歷線圖 (綠線: 天文潮)

T16CKHX0.1HA T16CKHT0.1HC T171KHX0.1HA T171KHT0.1HC T172KHX0.1HA T172KHT0.1HC
T173KHX0.1HA T173KHT0.1HC T174KHX0.1HA T174KHT0.1HC T175KHX0.1HA T175KHT0.1HC

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Tidal Level in Kao-Hsiung Harbor of KH20 at 2017 ○ 8 ● 15 ● 22 ●

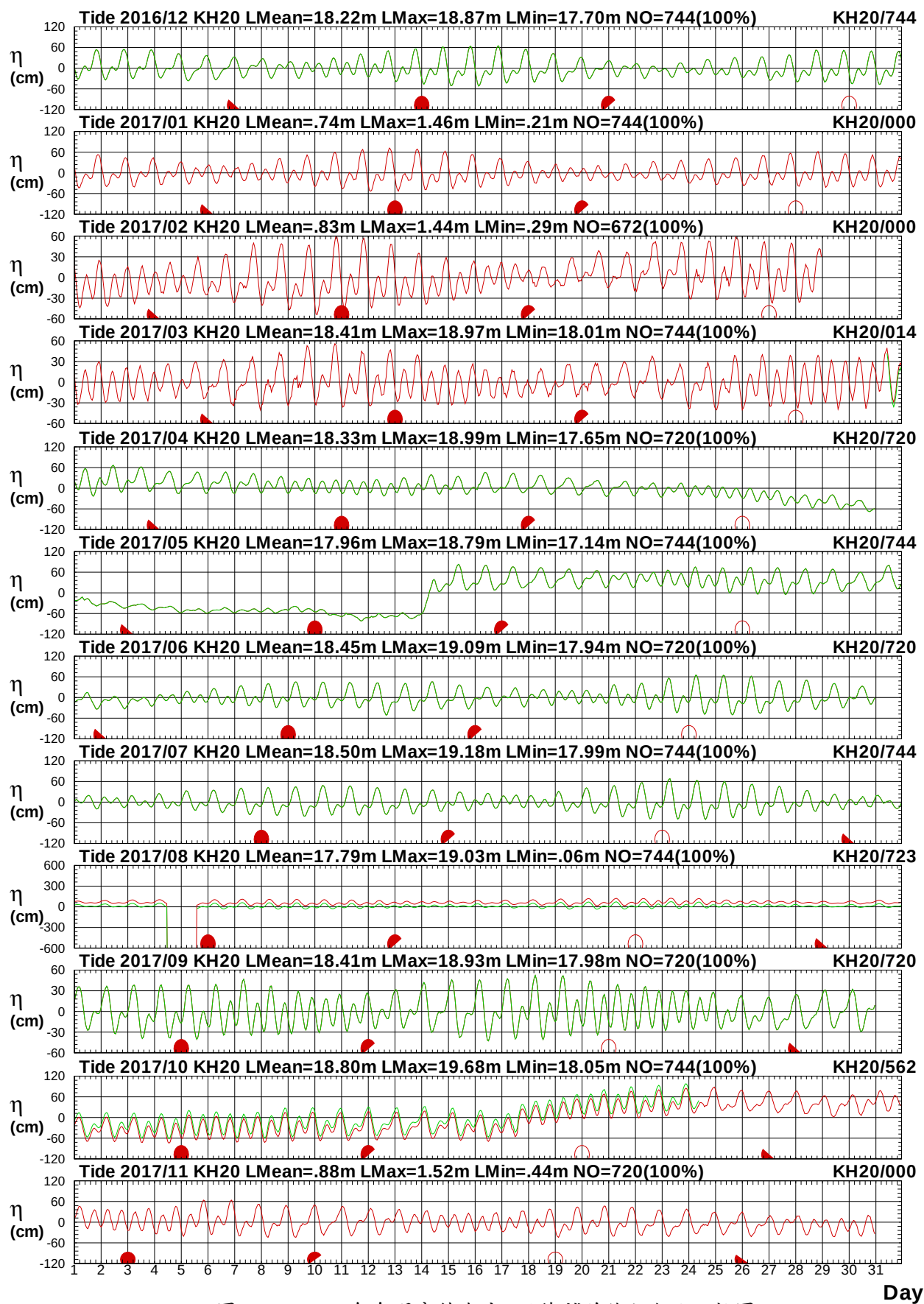


圖3.55 2017年每月高雄海域2站修補前後之潮位比較圖

T16CKKH20.1HA T16CKKH20.1H0 T171KH20.1HA T171KH20.1H0 T172KH20.1HA T172KH20.1H0
T173KH20.1HA T173KH20.1H0 T174KH20.1HA T174KH20.1H0 T175KH20.1HA T175KH20.1H0

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Tidal Level in Kao-Hsiung Harbor of KH20 at 2017 ○ 8 ● 15 ● 22 ●

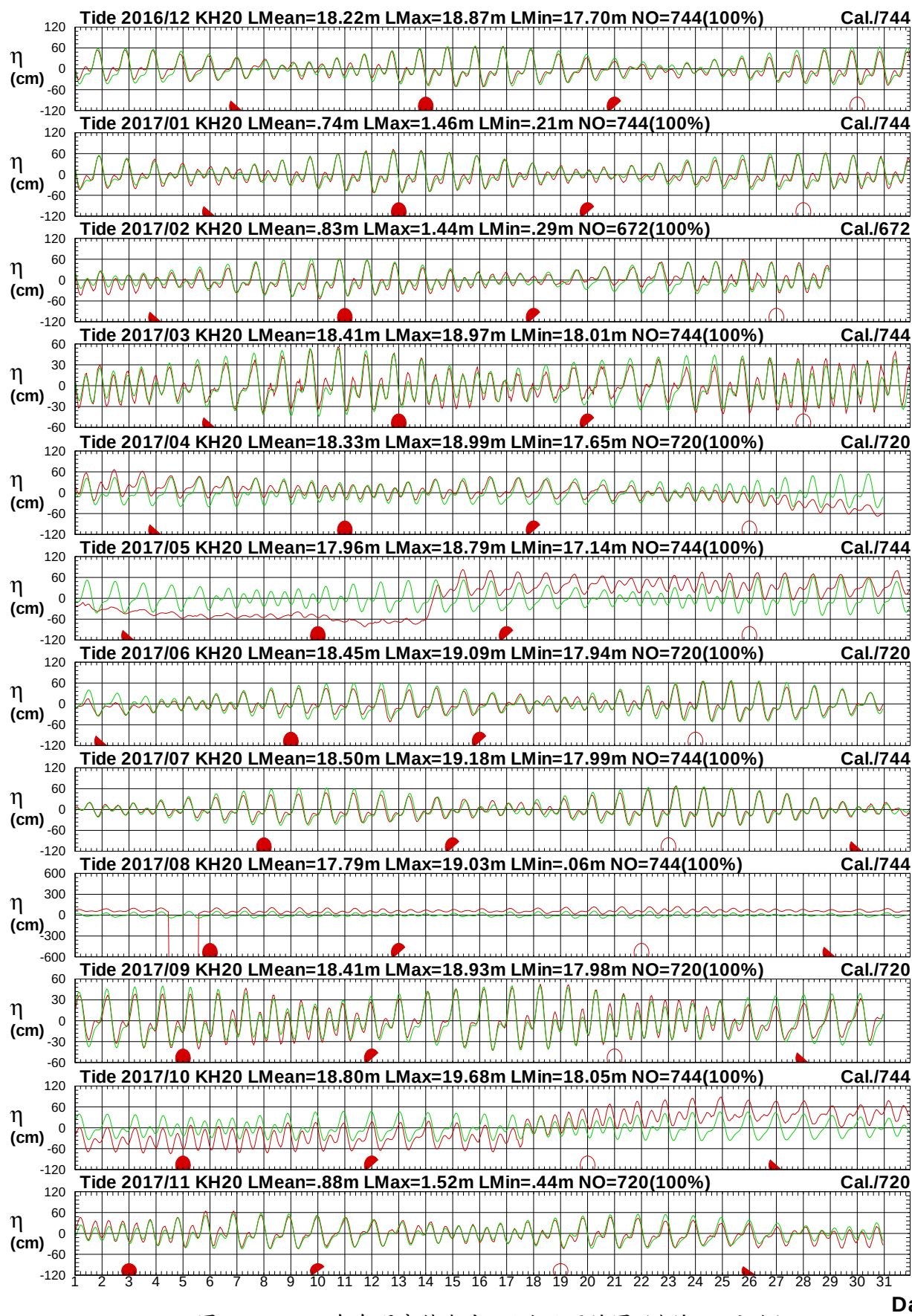


圖3.56 2017年每月高雄海域2站潮位歷線圖 (綠線: 天文潮)

T16CKKH20.1HA T16CKHT0.1HC T171KH20.1HA T171KHT0.1HC T172KH20.1HA T172KHT0.1HC
T173KH20.1HA T173KHT0.1HC T174KH20.1HA T174KHT0.1HC T175KH20.1HA T175KHT0.1HC

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Tidal Level in Kao-Hsiung Harbor of KHT0 at 2017 ¹ 8 15 22

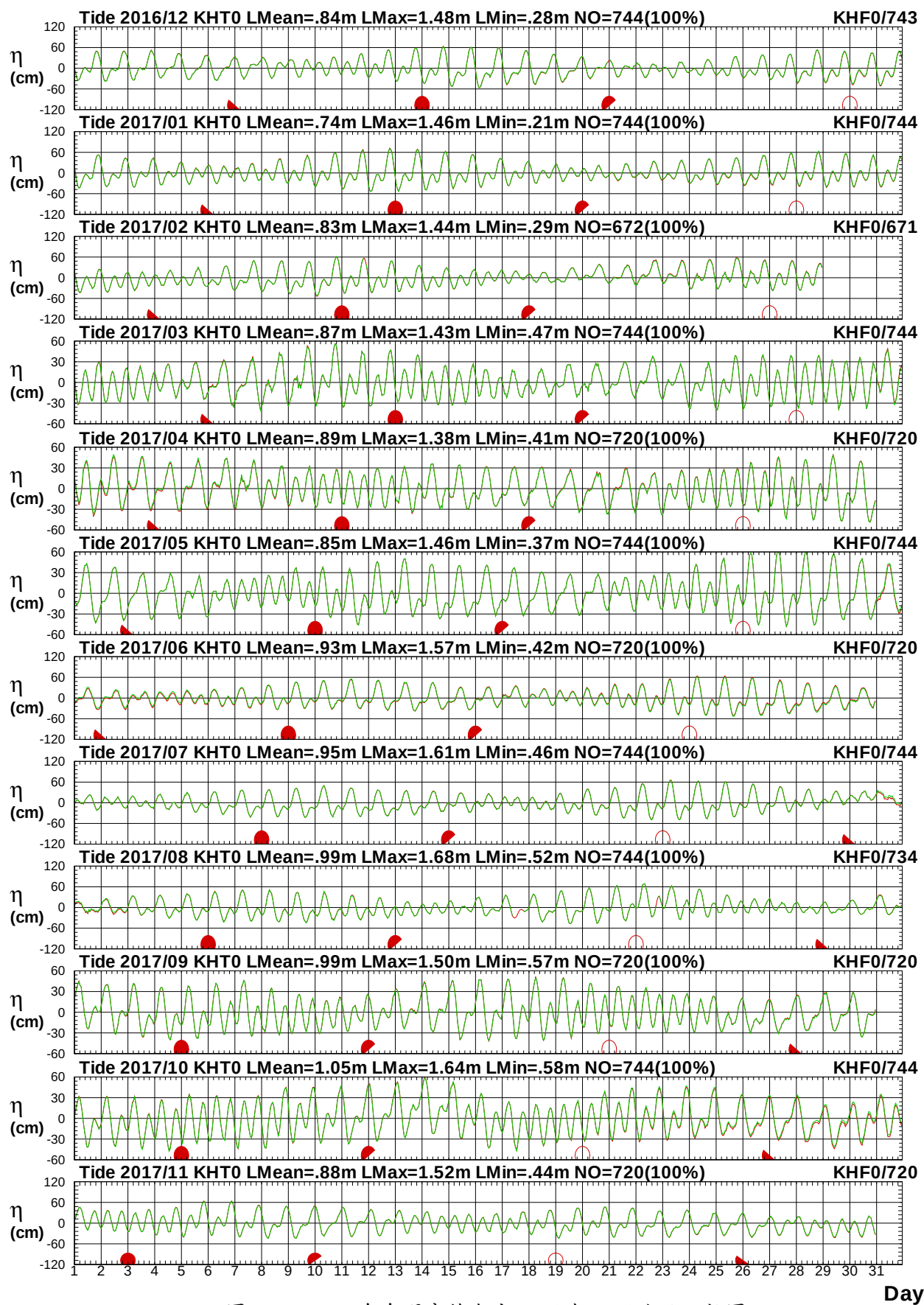


圖3.57 2017年每月高雄海域 T 站與 F 站潮位比較圖

T16CKHT0.1HA T16CKHF0.1H0 T171KHT0.1HA T171KHF0.1H0 T172KHT0.1HA T172KHF0.1H0
T173KHT0.1HA T173KHF0.1H0 T174KHT0.1HA T174KHF0.1H0 T175KHT0.1HA T175KHF0.1H0

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Tidal Level in Kao-Hsiung Harbor of KHT0 at 2017 ¹ ○ 8 ● 15 ● 22 ●

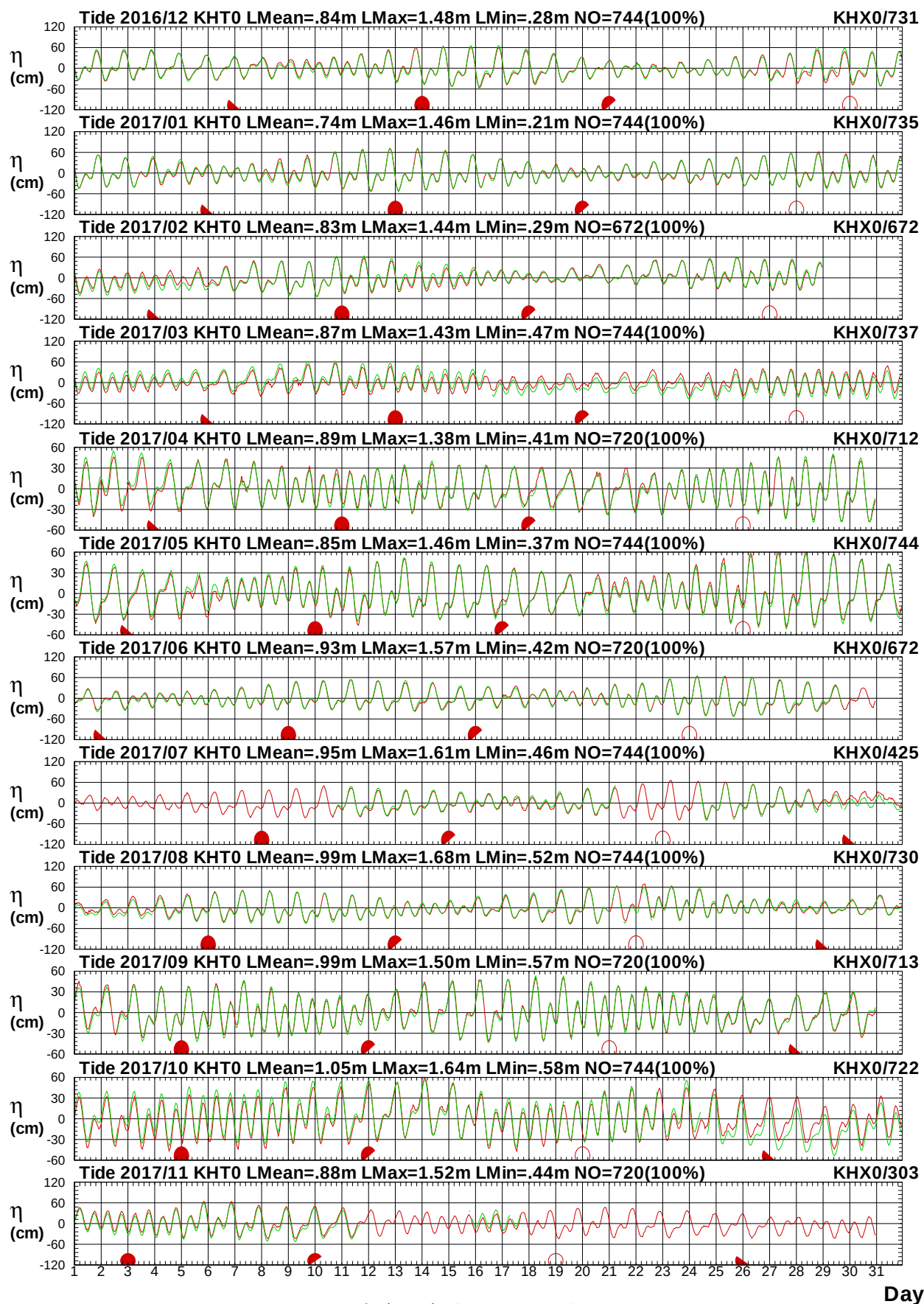


圖3.58 2017年每月高雄海域 T 站與 X 站潮位比較圖

T16CKHT0.1HA T16CKHX0.1H0 T171KHT0.1HA T171KHX0.1H0 T172KHT0.1HA T172KHX0.1H0
T173KHT0.1HA T173KHX0.1H0 T174KHT0.1HA T174KHX0.1H0 T175KHT0.1HA T175KHX0.1H0

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Tidal Level in Kao-Hsiung Harbor of KHT0 at 2017 ¹ ○ 8 ● 15 ● 22 ●

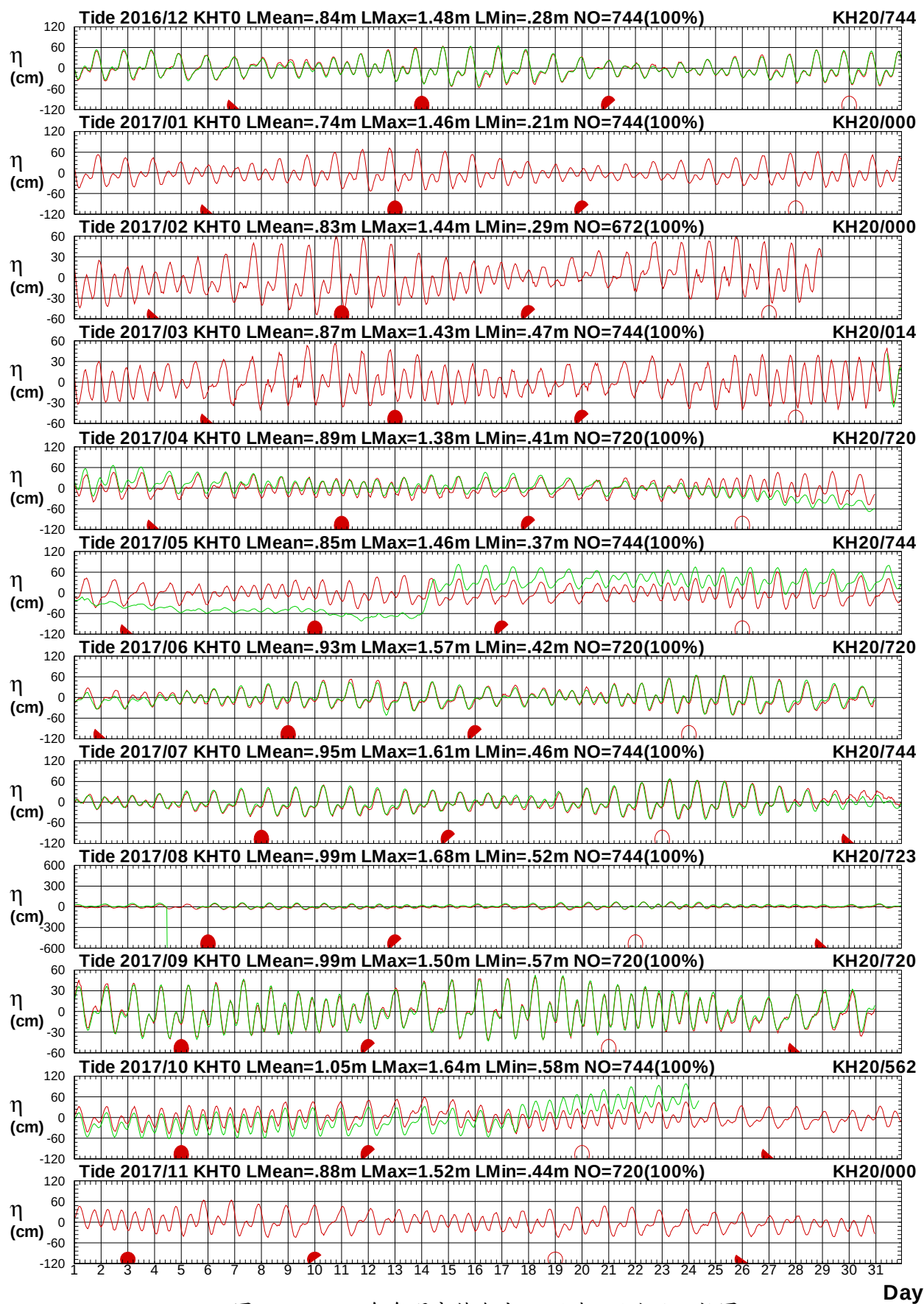


圖3.59 2017年每月高雄海域 T 站與2站潮位比較圖

T16CKHT0.1HA T16CKH20.1H0 T171KHT0.1HA T171KH20.1H0 T172KHT0.1HA T172KH20.1H0
T173KHT0.1HA T173KH20.1H0 T174KHT0.1HA T174KH20.1H0 T175KHT0.1HA T175KH20.1H0

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第四章 2017 年高雄海域觀測海流資料

高雄海域海流之觀測包括測站 **X**、測站 **Z**、測站 **A**、測站 **1** 及測站 **2** 等 5 個測站(測站位置如第 O 章圖 CH1)。本年報利用調和分析方法觀測海流可分解為計算潮流(包括平均流)及計算殘(餘)流(或稱非潮流)。

本海流年報資料處理之圖表包括：

1. 2017 年各觀測站每月觀測海流資料記錄表。
2. 2017 年各觀測站每月計算潮流資料記錄表。
3. 2017 年各觀測站每月觀測流速及流向重要統計量統計表。
4. 2017 年各觀測站每月計算潮流流速及流向重要統計量統計表。
5. 2017 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。
6. 2017 年各觀測站之觀測海流與計算潮流歷線比較圖。
7. 2017 年各觀測站之觀測海流與計算殘(餘)流歷線比較圖。
8. 2017 年各觀測站之觀測海流、計算潮流及計算殘流等 3 個向量分布圖。
9. 2017 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 4.1a 2017 年每月高雄海域各測站觀測海流資料紀錄表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	X	Z	A	1	2							
2016/12 月	731(98.3%)	732(98.4%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 1 月	735(98.8%)	744(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 2 月	672(100%)	672(100%)	*	*	*	*	*	*	*	*	*	*
2017/ 3 月	742(99.7%)	525(70.6%)	*	*	14(1.9%)	*	*	*	*	*	*	*
2017/ 4 月	712(98.9%)	*	*	*	720(100%)	*	*	*	*	*	*	*
2017/ 5 月	744(100%)	*	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 6 月	672(93.3%)	186(25.8%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/ 7 月	425(57.1%)	742(99.7%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 8 月	730(98.1%)	506(68.0%)	*	*	723(97.2%)	*	*	*	*	*	*	*
2017/ 9 月	713(99.0%)	716(99.4%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/10 月	722(97.0%)	730(98.1%)	*	*	567(76.2%)	*	*	*	*	*	*	*
2017/11 月	303(42.1%)	582(80.8%)	*	*	*	*	*	*	*	*	*	*
2017/冬季	2138(99.0%)	2148(99.4%)	*	*	744(34.4%)	*	*	*	*	*	*	*
2017/春季	2198(99.5%)	525(23.8%)	*	*	1478(66.9%)	*	*	*	*	*	*	*
2017/夏季	1827(82.7%)	1434(64.9%)	*	*	2187(99.0%)	*	*	*	*	*	*	*
2017/秋季	1738(79.6%)	2028(92.9%)	*	*	1287(58.9%)	*	*	*	*	*	*	*
2017/整年	7901(90.2%)	6135(70.0%)	*	*	5696(65.0%)	*	*	*	*	*	*	*
起始年月	2016/12	2016/12	*	*	2016/12	*	*	*	*	*	*	*
結束年月	2017/11	2017/11	*	*	2017/10	*	*	*	*	*	*	*

表 4.1b 2017 年每月高雄海域計算潮流各測站資料紀錄表

海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域	高雄海域
年月/測站	X	Z	A	1	2							
2016/12 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 1 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 2 月	672(100%)	672(100%)	*	*	672(100%)	*	*	*	*	*	*	*
2017/ 3 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 4 月	720(100%)	720(100%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/ 5 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 6 月	720(100%)	720(100%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/ 7 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 8 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/ 9 月	720(100%)	720(100%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/10 月	744(100%)	744(100%)	*	*	744(100%)	*	*	*	*	*	*	*
2017/11 月	720(100%)	720(100%)	*	*	720(100%)	*	*	*	*	*	*	*
2017/冬季	2160(100%)	2160(100%)	*	*	2160(100%)	*	*	*	*	*	*	*
2017/春季	2208(100%)	2208(100%)	*	*	2208(100%)	*	*	*	*	*	*	*
2017/夏季	2208(100%)	2208(100%)	*	*	2208(100%)	*	*	*	*	*	*	*
2017/秋季	2184(100%)	2184(100%)	*	*	2184(100%)	*	*	*	*	*	*	*
2017/整年	8760(100%)	8760(100%)	*	*	8760(100%)	*	*	*	*	*	*	*
起始年月	2016/12	2016/12	*	*	2016/12	*	*	*	*	*	*	*
結束年月	2017/11	2017/11	*	*	2017/11	*	*	*	*	*	*	*

表 4.2a 2017 年高雄海域 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	2016/12	731(98%)	36.7	32.8/S	81.8/S	25.4	58.7	15.9	.0	2.3	53.2	43.9	.5	S /34.1%
2	2017/01	735(99%)	39.4	36.5/S	76.7/S	19.7	56.2	24.1	.0	1.2	58.8	39.7	.3	S /37.1%
3	2017/02	672(100%)	36.2	31.9/S	69.2/SSW	24.1	61.5	14.4	.0	2.5	57.4	37.5	2.5	S /37.5%
4	2017/03	742(100%)	26.4	18.5/SSE	88.2/E	50.9	44.9	4.2	.0	7.4	59.3	26.5	6.7	SE /21.7%
5	2017/04	712(99%)	20.3	6.6/ESE	69.1/NNE	66.4	33.1	.4	.0	8.7	53.8	14.0	23.5	ESE/22.5%
6	2017/05	744(100%)	18.2	8.0/SE	52.3/NW	74.9	25.0	.1	.0	7.0	58.2	11.4	23.4	SE /30.0%
7	2017/06	672(93%)	17.1	5.6/WSW	56.4/NW	78.9	20.7	.4	.0	5.2	29.5	25.1	40.2	WNW/17.4%
8	2017/07	425(57%)	20.4	4.2/SW	68.0/S	68.5	30.1	1.4	.0	14.6	19.5	34.1	31.8	S /21.2%
9	2017/08	730(98%)	19.1	8.9/S	63.6/SSE	74.1	24.5	1.4	.0	13.6	38.2	33.3	14.9	S /18.6%
10	2017/09	713(99%)	18.9	7.7/S	65.6/S	75.0	24.3	.7	.0	11.4	43.5	23.1	22.0	S /20.1%
11	2017/10	722(97%)	20.8	15.5/SSE	60.0/S	67.9	30.9	1.2	.0	10.4	57.5	25.3	6.8	S /25.8%
12	2017/11	303(42%)	23.7	20.9/SSE	60.1/S	60.4	37.3	2.3	.0	4.6	78.9	14.9	1.7	SSE/31.7%
13	2017/冬	2138(99%)	37.5	33.8/S	81.8/S	23.1	58.7	18.2	.0	2.0	56.5	40.5	1.1	S /36.2%
14	2017/春	2198(100%)	21.6	10.6/SSE	88.2/E	64.1	34.3	1.6	.0	7.7	57.1	17.4	17.8	SE /23.3%
15	2017/夏	1827(83%)	18.6	5.5/SSW	68.0/S	74.5	24.4	1.0	.0	10.7	30.7	30.5	28.1	S /15.7%
16	2017/秋	1738(80%)	20.5	13.2/SSE	65.6/S	69.5	29.3	1.2	.0	9.8	55.5	22.6	12.1	S /23.4%
17	2017/年	7901(90%)	25.0	15.8/S	88.2/E	56.6	37.5	5.9	.0	7.3	50.5	27.8	14.4	S /21.2%

表 4.2b 2017 年高雄海域 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	2016/12	744(100%)	16.2	15.8/S	23.7/S	100.0	.0	.0	.0	.0	75.4	24.6	.0	S /53.0%
2	2017/01	744(100%)	16.3	15.8/S	24.1/S	100.0	.0	.0	.0	.0	68.5	31.5	.0	S /53.1%
3	2017/02	672(100%)	16.2	15.8/S	23.2/S	100.0	.0	.0	.0	.0	69.9	30.1	.0	S /53.7%
4	2017/03	744(100%)	16.0	15.8/S	21.5/S	100.0	.0	.0	.0	.0	80.8	19.2	.0	S /55.2%
5	2017/04	720(100%)	15.9	15.8/S	22.8/S	100.0	.0	.0	.0	.0	95.6	4.4	.0	S /63.6%
6	2017/05	744(100%)	16.0	15.8/S	23.8/S	100.0	.0	.0	.0	.0	87.0	13.0	.0	S /55.9%
7	2017/06	720(100%)	16.1	15.8/S	23.9/S	100.0	.0	.0	.0	.0	75.0	25.0	.0	S /53.6%
8	2017/07	744(100%)	16.3	15.8/S	24.0/S	100.0	.0	.0	.0	.0	69.4	30.6	.0	S /51.9%
9	2017/08	744(100%)	16.2	15.8/S	22.8/S	100.0	.0	.0	.0	.0	70.4	29.6	.0	S /53.5%
10	2017/09	720(100%)	16.0	15.8/S	21.5/S	100.0	.0	.0	.0	.0	81.5	18.5	.0	S /57.1%
11	2017/10	744(100%)	15.9	15.8/S	21.9/S	100.0	.0	.0	.0	.0	93.8	6.2	.0	S /60.9%
12	2017/11	720(100%)	15.9	15.8/S	23.3/S	100.0	.0	.0	.0	.0	86.8	13.2	.0	S /56.4%
13	2017/冬	2160(100%)	16.2	15.8/S	24.1/S	100.0	.0	.0	.0	.0	71.3	28.7	.0	S /53.2%
14	2017/春	2208(100%)	16.0	15.8/S	23.8/S	100.0	.0	.0	.0	.0	87.7	12.3	.0	S /58.2%
15	2017/夏	2208(100%)	16.2	15.8/S	24.0/S	100.0	.0	.0	.0	.0	71.6	28.4	.0	S /53.0%
16	2017/秋	2184(100%)	15.9	15.8/S	23.3/S	100.0	.0	.0	.0	.0	87.5	12.5	.0	S /58.2%
17	2017/年	8760(100%)	16.1	15.8/S	24.1/S	100.0	.0	.0	.0	.0	79.5	20.5	.0	S /55.7%

表 4.2c 2017 年高雄海域 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	2016/12	731(98%)	15.4	.1/E	68.9/N	87.4	11.6	1.0	.0	24.6	27.2	29.8	18.3	S /10.9%
2	2017/01	735(99%)	14.9	.1/E	55.7/N	89.4	10.5	.1	.0	25.7	27.2	28.8	18.2	SSW/12.4%
3	2017/02	672(100%)	15.2	.0/S	73.2/N	89.0	9.1	1.9	.0	15.6	35.0	27.4	22.0	SSE/12.9%
4	2017/03	742(100%)	18.4	.0/SE	84.0/SW	78.2	20.6	1.2	.0	25.2	29.8	22.4	22.6	S /12.1%
5	2017/04	712(99%)	18.0	.0/SSE	68.9/NNE	75.8	23.2	1.0	.0	8.0	44.9	13.2	33.8	ESE/16.3%
6	2017/05	744(100%)	14.9	.0/NW	53.2/NW	85.6	14.0	.4	.0	8.3	47.3	9.4	34.9	SE /20.8%
7	2017/06	672(93%)	14.4	.0/ESE	58.2/NW	88.1	11.6	.3	.0	12.2	41.2	10.9	35.7	NW /14.9%
8	2017/07	425(57%)	16.6	.1/NNW	51.5/S	80.7	19.1	.2	.0	18.4	28.7	21.4	31.5	S /19.5%
9	2017/08	730(98%)	15.8	.0/NW	58.6/SSE	85.9	13.6	.5	.0	21.4	30.7	18.8	29.2	S /13.4%
10	2017/09	713(99%)	16.1	.0/SSW	62.6/NNW	83.3	16.3	.4	.0	14.0	38.4	13.7	33.8	SSE/19.8%
11	2017/10	722(97%)	13.3	.1/NE	56.3/NNW	92.0	7.9	.1	.0	20.2	30.3	22.0	27.4	NNW/13.2%
12	2017/11	303(42%)	12.4	.0/NNW	44.4/NNW	96.4	3.6	.0	.0	19.5	28.7	20.5	31.4	NNW/11.9%
13	2017/冬	2138(99%)	15.5	.1/E	74.0/N	87.7	11.1	1.2	.0	22.2	30.0	29.0	18.8	S /11.7%
14	2017/春	2198(100%)	18.5	.0/NW	88.6/SW	76.9	21.7	1.4	.0	16.9	36.0	14.3	32.8	NW /15.4%
15	2017/夏	1827(83%)	16.8	.0/SW	66.9/SSE	80.7	18.0	1.3	.0	19.8	33.7	16.4	30.1	S /11.1%
16	2017/秋	1738(80%)	15.3	.0/NE	59.6/NNW	86.1	13.4	.5	.0	17.4	34.3	18.0	30.3	NNW/15.1%
17	2017/年	7901(90%)	20.8	.0/NNE	87.9/ENE	70.5	27.8	1.7	.0	21.0	29.6	18.6	30.8	NNW/12.1%

表 4.3a 2017 年高雄海域 Z 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	2016/12	732(98%)	24.9	5.9/N	68.0/NNW	57.7	37.6	4.8	.0	17.5	28.4	13.9	40.2	N /22.7%
2	2017/01	744(100%)	22.5	.8/SSE	66.3/N	61.4	35.3	3.2	.0	14.8	36.3	17.2	31.7	SSE/17.1%
3	2017/02	672(100%)	22.6	1.1/NE	63.3/N	61.5	34.7	3.9	.0	18.6	36.9	12.9	31.5	N /20.4%
4	2017/03	525(71%)	26.1	1.9/S	96.1/SSE	55.8	35.4	8.8	.0	13.5	37.1	14.5	34.9	S /21.3%
5	2017/04													
6	2017/05													
7	2017/06	186(26%)	34.9	3.2/SW	109.7/S	39.8	36.0	23.7	.5	22.0	17.2	31.7	29.0	S /17.2%
8	2017/07	742(100%)	26.9	2.5/NW	82.5/N	54.3	35.7	10.0	.0	18.9	20.4	28.7	32.1	S /18.9%
9	2017/08	506(68%)	25.0	4.0/WNW	97.1/N	61.7	29.2	9.1	.0	20.9	13.8	33.4	31.8	N /18.6%
10	2017/09	716(99%)	25.2	11.7/S	107.2/N	59.6	30.9	9.4	.1	16.1	41.5	25.8	16.6	S /28.5%
11	2017/10	730(98%)	20.6	2.3/WSW	77.1/S	71.0	25.3	3.7	.0	18.2	22.5	27.0	32.3	S /16.2%
12	2017/11	582(81%)	21.5	4.3/SSE	80.0/S	68.2	25.9	5.8	.0	23.9	39.0	16.7	20.4	S /23.2%
13	2017/冬	2148(99%)	23.4	2.0/N	68.0/NNW	60.1	35.9	4.0	.0	16.9	33.8	14.8	34.5	N /19.7%
14	2017/春	525(24%)	26.1	1.9/S	96.1/SSE	55.8	35.4	8.8	.0	13.5	37.1	14.5	34.9	S /21.3%
15	2017/夏	1434(65%)	27.2	2.9/WNW	109.7/S	55.0	33.5	11.4	.1	20.0	17.6	30.8	31.6	N /17.5%
16	2017/秋	2028(93%)	22.5	5.5/S	107.2/N	66.2	27.5	6.3	.0	19.1	33.9	23.6	23.4	S /22.5%
17	2017/年	6135(70%)	24.2	1.1/SSW	109.7/S	60.6	32.5	6.9	.0	18.1	30.4	21.4	30.2	S /19.3%

表 4.3b 2017 年高雄海域 Z 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	2016/12	744(100%)	8.7	1.1/SSW	23.9/S	100.0	.0	.0	.0	19.6	24.3	30.8	25.3	S /23.1%
2	2017/01	744(100%)	9.6	1.1/SSW	28.5/NNW	98.1	1.9	.0	.0	16.3	30.6	25.9	27.2	S /22.3%
3	2017/02	672(100%)	10.8	1.1/SSW	33.1/N	94.3	5.7	.0	.0	10.6	37.9	22.0	29.5	S /25.6%
4	2017/03	744(100%)	10.7	1.1/SSW	34.1/N	95.8	4.2	.0	.0	11.2	36.4	24.7	27.7	S /29.7%
5	2017/04	720(100%)	9.7	1.1/SSW	31.9/N	97.8	2.2	.0	.0	13.9	30.8	28.2	27.1	S /32.8%
6	2017/05	744(100%)	8.8	1.1/SSW	26.7/N	99.5	.5	.0	.0	17.1	25.7	31.0	26.2	S /27.7%
7	2017/06	720(100%)	8.8	1.1/SSW	23.8/NNW	100.0	.0	.0	.0	19.3	24.2	31.8	24.7	S /22.6%
8	2017/07	744(100%)	9.6	1.1/SSW	29.5/N	98.8	1.2	.0	.0	13.2	32.4	26.1	28.4	S /21.5%
9	2017/08	744(100%)	10.8	1.0/SSW	33.2/N	95.4	4.6	.0	.0	11.3	36.3	23.4	29.0	S /25.4%
10	2017/09	720(100%)	11.1	1.1/SSW	33.3/N	94.7	5.3	.0	.0	12.5	36.3	23.9	27.4	S /30.8%
11	2017/10	744(100%)	10.1	1.1/SSW	30.0/N	97.6	2.4	.0	.0	15.2	30.9	28.8	25.1	S /34.1%
12	2017/11	720(100%)	8.7	1.2/SSW	24.3/N	100.0	.0	.0	.0	16.0	25.0	32.5	26.5	S /26.8%
13	2017/冬	2160(100%)	9.7	1.1/SSW	33.1/N	97.6	2.4	.0	.0	15.6	30.7	26.4	27.2	S /23.6%
14	2017/春	2208(100%)	9.8	1.1/SSW	34.1/N	97.7	2.3	.0	.0	14.0	31.0	28.0	27.0	S /30.0%
15	2017/夏	2208(100%)	9.7	1.1/SSW	33.2/N	98.1	1.9	.0	.0	14.5	31.0	27.0	27.4	S /23.2%
16	2017/秋	2184(100%)	10.0	1.1/SSW	33.3/N	97.4	2.6	.0	.0	14.6	30.7	28.4	26.3	S /30.6%
17	2017/年	8760(100%)	9.8	1.1/SSW	34.1/N	97.7	2.3	.0	.0	14.7	30.9	27.5	27.0	S /26.9%

表4.3c 2017年高雄海域 Z 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	2016/12	732(98%)	10.9	.4/N	39.2/S	97.3	2.7	.0	.0	16.1	34.6	16.5	32.8	NNW/16.3%
2	2017/01	744(100%)	11.2	.0/NNE	36.6/N	96.8	3.2	.0	.0	19.1	29.4	20.4	31.0	SSE/12.0%
3	2017/02	672(100%)	11.5	.0/SE	40.2/S	94.2	5.8	.0	.0	16.4	34.2	17.4	32.0	SSE/13.8%
4	2017/03	525(71%)	13.4	.0/SSE	60.4/SSE	88.0	11.4	.6	.0	19.4	30.1	14.5	36.0	NNW/16.6%
5	2017/04													
6	2017/05													
7	2017/06	186(26%)	13.9	.1/NNE	39.8/S	88.7	11.3	.0	.0	23.7	25.8	28.5	22.0	SSW/11.3%
8	2017/07	742(100%)	13.6	.0/NNW	47.2/SSE	92.3	7.7	.0	.0	18.9	28.6	21.0	31.5	NNW/12.9%
9	2017/08	506(68%)	17.3	.2/N	73.0/N	81.2	17.8	1.0	.0	25.3	27.7	22.5	24.5	N /13.2%
10	2017/09	716(99%)	14.1	.1/SSE	77.9/N	89.1	9.9	1.0	.0	19.0	31.8	20.5	28.6	SSE/12.6%
11	2017/10	730(98%)	14.3	.1/ESE	52.8/SSE	91.2	8.6	.1	.0	18.9	32.1	18.5	30.5	NNW/13.0%
12	2017/11	582(81%)	12.4	1.4/N	49.7/S	93.1	6.9	.0	.0	20.1	30.2	13.1	36.6	NNW/17.5%
13	2017/冬	2148(99%)	12.7	.2/N	46.9/NNW	92.9	7.1	.0	.0	17.5	32.2	17.9	32.4	NNW/14.4%
14	2017/春	525(24%)	13.4	.0/SSE	60.4/SSE	88.0	11.4	.6	.0	19.4	30.1	14.5	36.0	NNW/16.6%
15	2017/夏	1434(65%)	17.7	.0/N	76.3/S	81.0	17.3	1.7	.0	23.1	27.8	22.2	26.9	S /13.1%
16	2017/秋	2028(93%)	14.9	.5/N	78.3/N	87.4	12.3	.3	.0	18.6	32.2	16.7	32.4	SSE/13.9%
17	2017/年	6135(70%)	22.1	.1/N	98.4/S	65.6	30.5	3.9	.0	20.1	30.7	18.4	30.8	N /17.9%

表 4.4a 2017 年高雄海域 2 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	2016/12	744(100%)	15.8	7.4/SE	45.9/SSE	84.4	15.6	.0	.0	17.9	60.1	5.8	16.3	SSE/24.1%
2	2017/01													
3	2017/02													
4	2017/03	14(2%)	24.4	13.7/NNE	54.6/NNE	64.3	28.6	7.1	.0	42.9	28.6	7.1	21.4	NNE/28.6%
5	2017/04	720(100%)	18.2	4.5/ESE	65.1/N	75.4	22.5	2.1	.0	29.0	35.8	18.2	16.9	SSE/16.4%
6	2017/05	744(100%)	20.6	10.3/SSE	70.8/SSE	70.4	26.9	2.7	.0	20.7	53.6	15.7	9.9	SSE/26.7%
7	2017/06	720(100%)	20.8	6.3/NE	88.4/N	74.3	20.3	5.4	.0	36.3	29.7	17.6	16.4	N /13.6%
8	2017/07	744(100%)	23.3	6.2/NNE	85.3/N	61.3	32.4	6.3	.0	36.4	24.2	21.0	18.4	N /18.5%
9	2017/08	723(97%)	21.1	5.5/E	194.5/S	74.1	21.6	3.7	.6	27.5	48.1	6.5	17.8	SSE/20.9%
10	2017/09	720(100%)	22.9	6.9/ESE	80.7/N	65.8	28.2	6.0	.0	24.9	54.0	4.7	16.4	SSE/27.4%
11	2017/10	567(76%)	23.2	9.8/SE	204.1/SE	66.8	27.3	5.3	.5	21.3	57.3	6.3	15.0	SSE/30.0%
12	2017/11													
13	2017/冬	744(34%)	15.8	7.4/SE	45.9/SSE	84.4	15.6	.0	.0	17.9	60.1	5.8	16.3	SSE/24.1%
14	2017/春	1478(67%)	19.5	7.1/SE	70.8/SSE	72.8	24.8	2.4	.0	25.0	44.7	16.8	13.5	SSE/21.5%
15	2017/夏	2187(99%)	21.8	5.4/NE	194.5/S	69.8	24.8	5.2	.2	33.4	33.9	15.1	17.6	N /15.6%
16	2017/秋	1287(59%)	23.0	8.0/ESE	204.1/SE	66.3	27.8	5.7	.2	23.3	55.5	5.4	15.8	SSE/28.5%
17	2017/年	5696(65%)	20.7	5.3/ESE	204.1/SE	71.7	24.3	3.9	.1	26.9	45.0	12.1	15.9	SSE/20.4%

表4.4b 2017年高雄海域2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	2016/12	744(100%)	11.2	5.3/ESE	24.6/SSE	100.0	.0	.0	.0	29.4	58.3	.7	11.6	SSE/27.4%
2	2017/01	744(100%)	12.2	5.3/ESE	30.1/SSE	97.0	3.0	.0	.0	33.6	59.9	.7	5.8	SSE/29.7%
3	2017/02	672(100%)	13.3	5.3/ESE	33.6/SSE	91.8	8.2	.0	.0	36.2	55.2	4.6	4.0	SSE/24.9%
4	2017/03	744(100%)	14.1	5.3/ESE	34.3/S	88.0	12.0	.0	.0	36.4	48.0	11.4	4.2	S /19.9%
5	2017/04	720(100%)	13.1	5.3/ESE	32.1/S	92.1	7.9	.0	.0	34.2	47.4	9.9	8.6	SSE/18.2%
6	2017/05	744(100%)	11.7	5.3/ESE	27.0/SSE	99.1	.9	.0	.0	30.4	52.6	3.2	13.8	SSE/21.8%
7	2017/06	720(100%)	11.4	5.3/ESE	21.8/SSE	100.0	.0	.0	.0	29.3	59.2	.4	11.1	SSE/27.8%
8	2017/07	744(100%)	12.0	5.3/ESE	27.0/N	98.9	1.1	.0	.0	35.5	60.2	.4	3.9	SSE/30.1%
9	2017/08	744(100%)	12.9	5.3/ESE	31.6/SSE	91.9	8.1	.0	.0	35.5	57.0	4.2	3.4	SSE/23.4%
10	2017/09	720(100%)	13.7	5.3/ESE	34.5/S	88.8	11.3	.0	.0	36.9	46.8	11.7	4.6	S /18.6%
11	2017/10	744(100%)	13.2	5.3/ESE	34.1/S	91.7	8.3	.0	.0	34.0	47.2	9.8	9.0	SSE/17.5%
12	2017/11	720(100%)	12.0	5.3/ESE	31.0/S	97.4	2.6	.0	.0	28.8	54.0	2.9	14.3	SSE/23.2%
13	2017/冬	2160(100%)	12.2	5.3/ESE	33.6/SSE	96.4	3.6	.0	.0	33.0	57.9	1.9	7.2	SSE/27.4%
14	2017/春	2208(100%)	13.0	5.3/ESE	34.3/S	93.1	6.9	.0	.0	33.7	49.3	8.2	8.9	SSE/19.0%
15	2017/夏	2208(100%)	12.1	5.3/ESE	31.6/SSE	96.9	3.1	.0	.0	33.5	58.8	1.7	6.1	SSE/27.1%
16	2017/秋	2184(100%)	13.0	5.3/ESE	34.5/S	92.6	7.4	.0	.0	33.2	49.3	8.2	9.3	SSE/19.2%
17	2017/年	8760(100%)	12.5	5.3/ESE	34.5/S	94.7	5.3	.0	.0	33.3	53.8	5.0	7.9	SSE/23.2%

表 4.4c 2017 年高雄海域 2 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	2016/12	744(100%)	14.0	3.2/S	52.6/SSE	88.6	11.2	.3	.0	12.8	41.3	16.3	29.7	SSE/20.0%
2	2017/01													
3	2017/02													
4	2017/03	14(2%)	30.2	23.6/N	59.5/NNE	35.7	57.1	7.1	.0	64.3	.0	.0	35.7	NNW/21.4%
5	2017/04	720(100%)	23.8	1.2/WSW	73.6/SSW	60.8	34.6	4.6	.0	25.1	18.9	28.6	27.4	S /16.0%
6	2017/05	744(100%)	21.5	7.2/S	63.2/NNE	66.4	31.9	1.7	.0	19.2	33.5	31.6	15.7	S /19.9%
7	2017/06	720(100%)	22.9	6.6/N	86.1/N	66.0	28.5	5.6	.0	26.9	20.1	24.0	28.9	N /18.5%
8	2017/07	744(100%)	23.9	7.6/NNW	84.1/N	59.8	34.3	5.9	.0	25.3	15.5	24.1	35.2	N /20.7%
9	2017/08	723(97%)	22.9	1.5/NNE	201.4/SSW	67.4	26.7	5.4	.6	22.7	31.0	15.1	31.3	N /16.6%
10	2017/09	720(100%)	24.2	1.6/ESE	96.3/N	63.8	26.3	10.0	.0	20.6	35.0	13.9	30.6	N /16.8%
11	2017/10	567(76%)	26.1	5.4/SSE	201.8/SE	60.0	30.7	8.6	.7	16.6	42.2	14.5	26.8	SSE/19.4%
12	2017/11													
13	2017/冬	744(34%)	14.0	3.2/S	52.6/SSE	88.6	11.2	.3	.0	12.8	41.3	16.3	29.7	SSE/20.0%
14	2017/春	1478(67%)	22.7	3.6/S	73.6/SSW	63.4	33.4	3.2	.0	22.5	26.0	29.8	21.6	S /17.8%
15	2017/夏	2187(99%)	23.2	5.2/NNW	201.4/SSW	64.3	29.9	5.6	.2	25.0	22.1	21.1	31.8	N /18.6%
16	2017/秋	1287(59%)	25.1	3.1/SE	201.8/SE	62.1	28.2	9.4	.3	18.8	38.2	14.1	28.9	SSE/15.8%
17	2017/年	5696(65%)	22.3	.0/N	201.8/SE	66.7	28.0	5.1	.1	21.3	29.3	21.2	28.2	N /14.6%

Current Speed in Kao-Hsiung Harbor of KHX0 at 2017

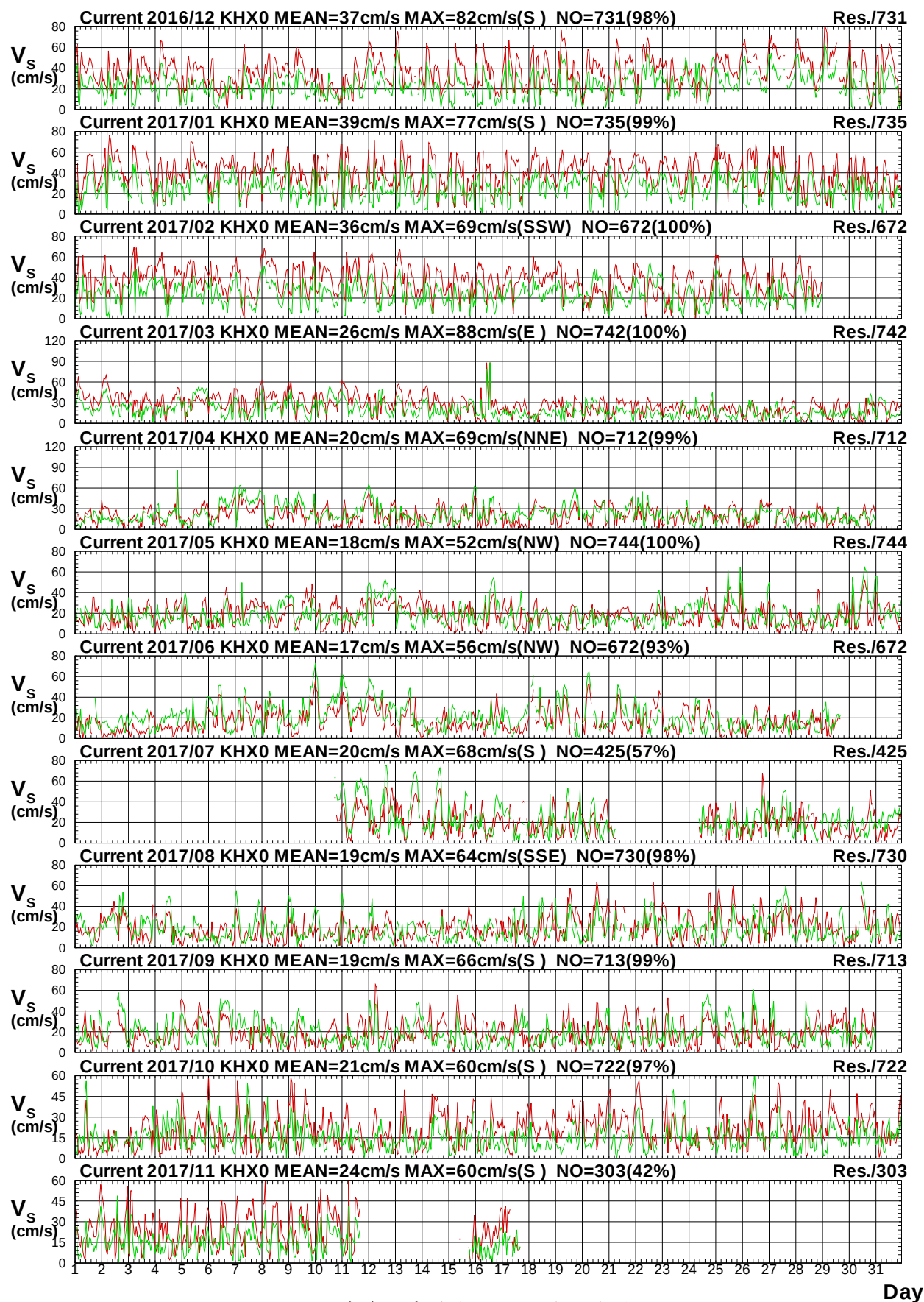


圖4.2a 2017年每月高雄海域 X 站觀測與殘流流速比較圖

C16CKHX0.1H0 C16CKHX0.1HR C171KHX0.1H0 C171KHX0.1HR C172KHX0.1H0 C172KHX0.1HR
C173KHX0.1H0 C173KHX0.1HR C174KHX0.1H0 C174KHX0.1HR C175KHX0.1H0 C175KHX0.1HR

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Current Direction in Kao-Hsiung Harbor of KHX0 at 2017

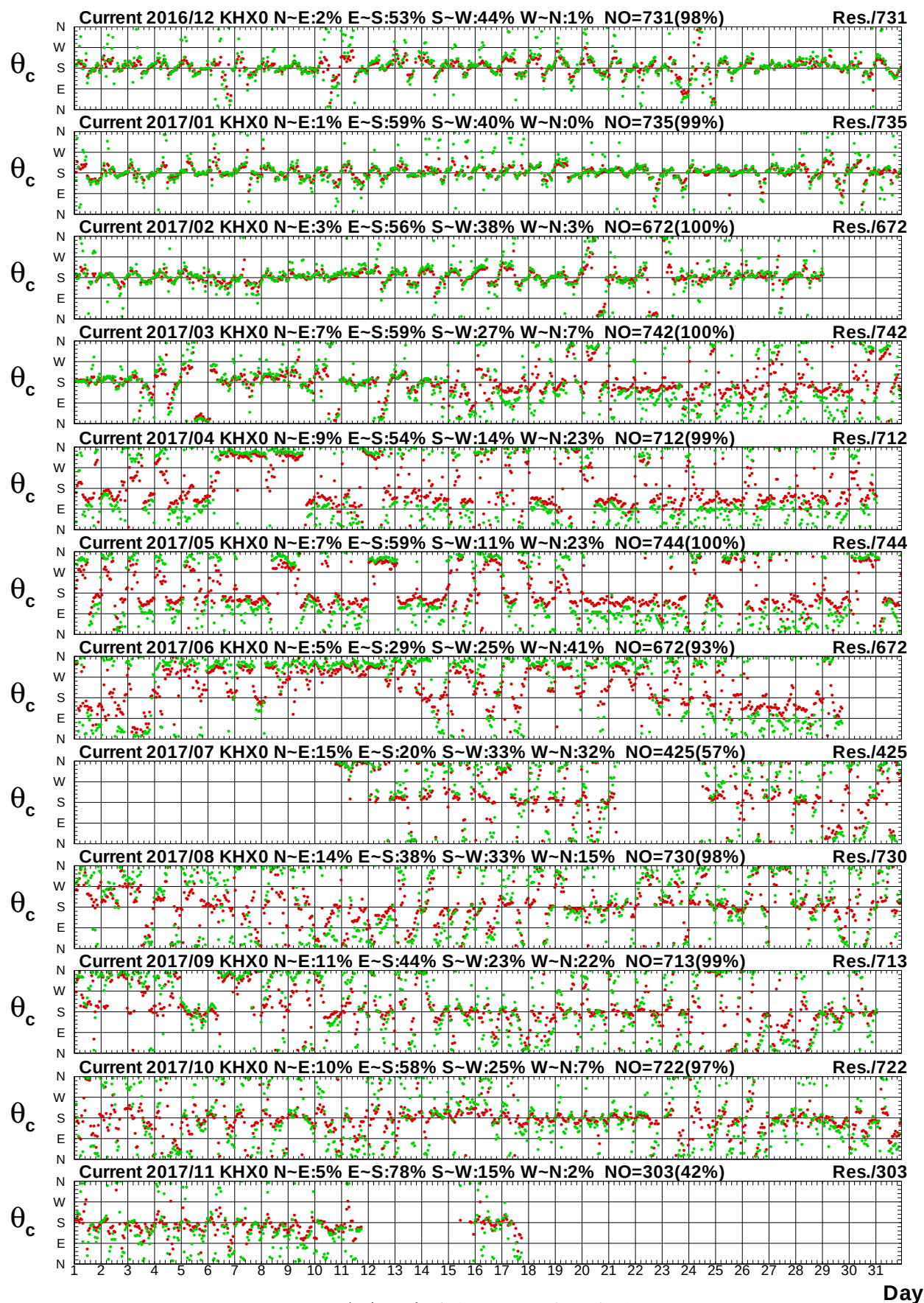


圖4.2b 2017年每月高雄海域 X 站觀測與殘流流向比較圖

C16CKHX0.1H0 C16CKHX0.1HR C171KHX0.1H0 C171KHX0.1HR C172KHX0.1H0 C172KHX0.1HR
C173KHX0.1H0 C173KHX0.1HR C174KHX0.1H0 C174KHX0.1HR C175KHX0.1H0 C175KHX0.1HR

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Current Speed in Kao-Hsiung Harbor of KHZ0 at 2017

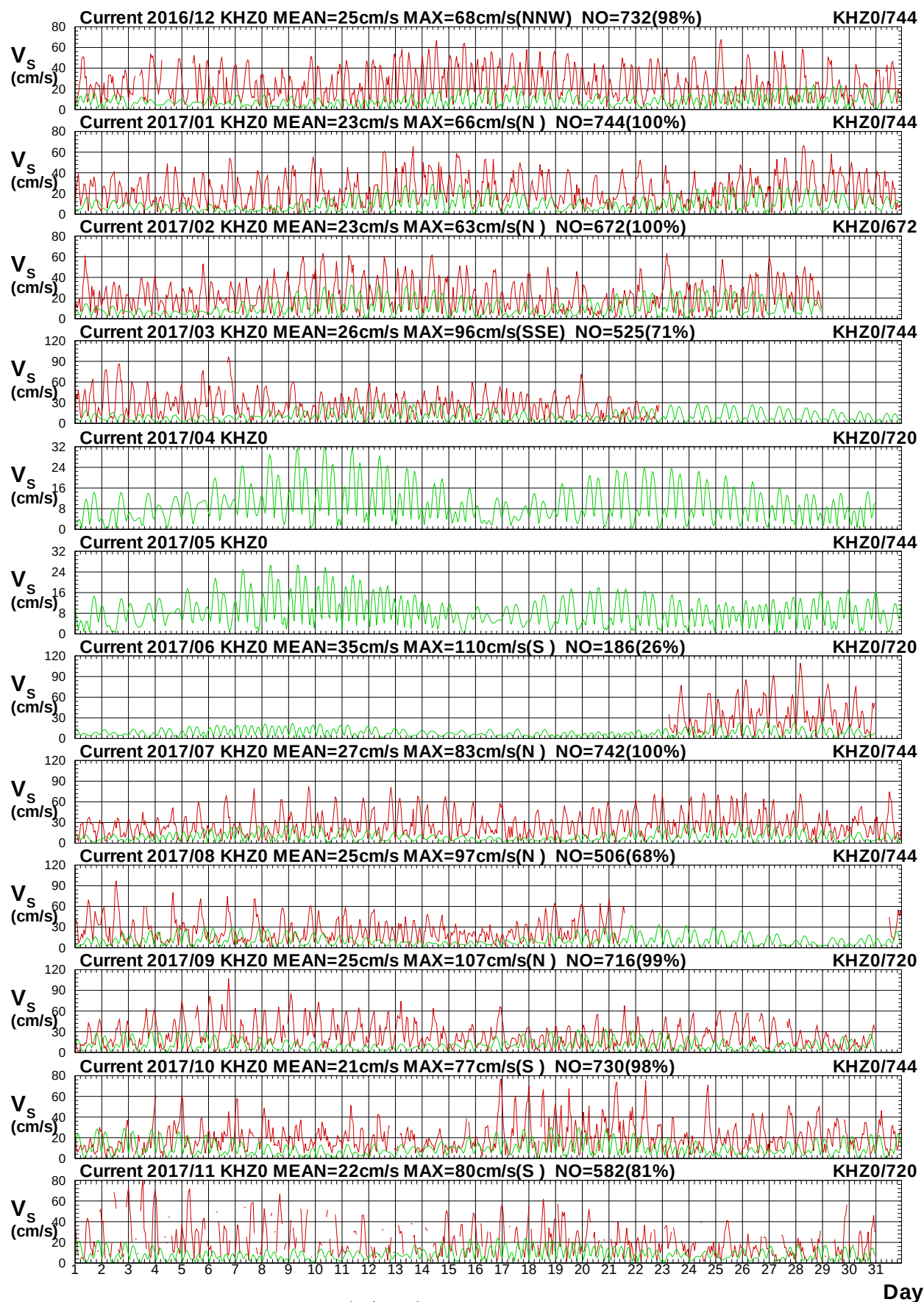


圖4.3a 2017年每月高雄海域 Z 站觀測與潮流流速比較圖

C16CKHZ0.1H0 C16CKHZ0.1HD C171KHZ0.1H0 C171KHZ0.1HD C172KHZ0.1H0 C172KHZ0.1HD
C173KHZ0.1H0 C173KHZ0.1HD C174KHZ0.1H0 C174KHZ0.1HD C175KHZ0.1H0 C175KHZ0.1HD

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Current Direction in Kao-Hsiung Harbor of KHZ0 at 2017

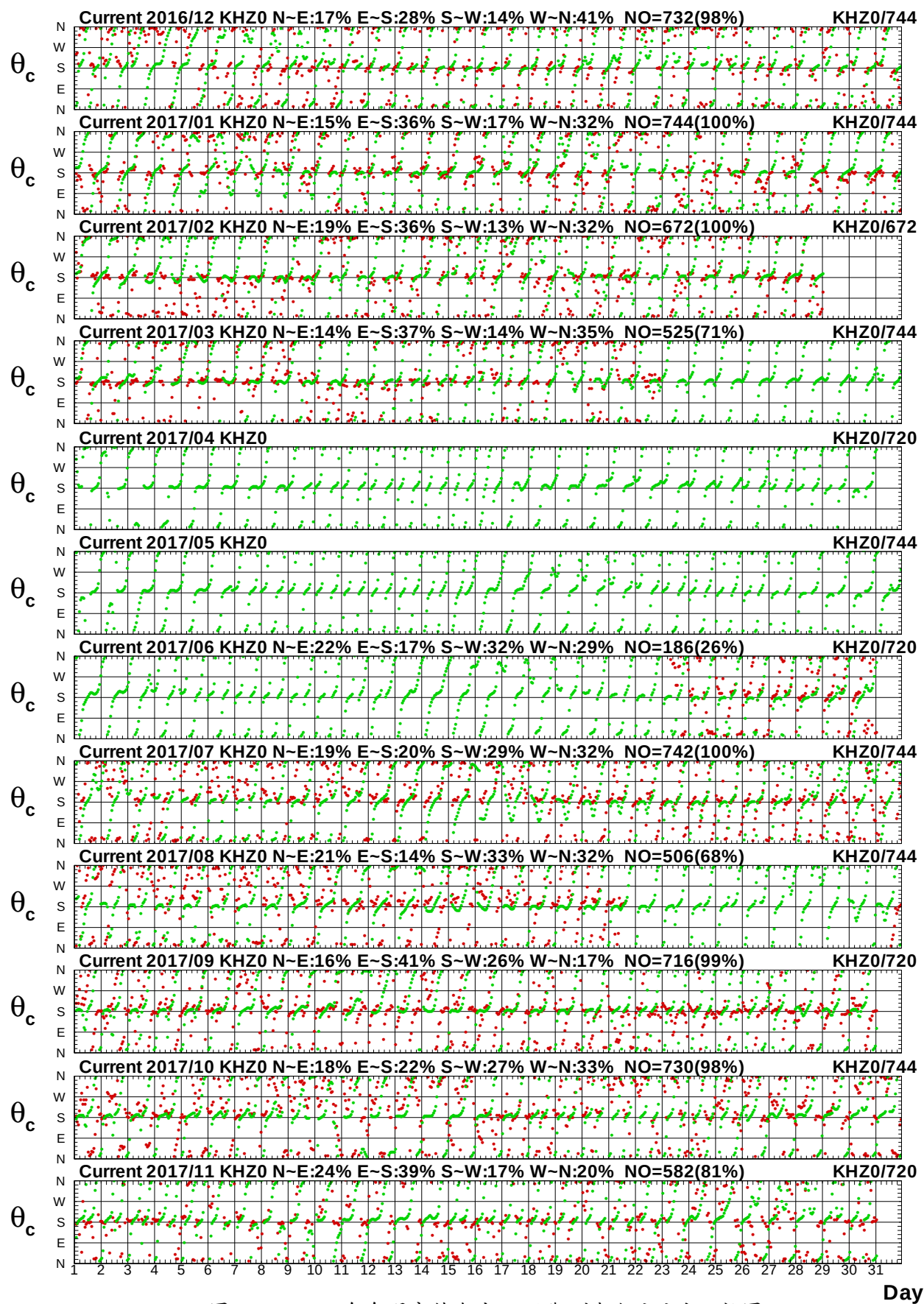


圖4.3b 2017年每月高雄海域 Z 站觀測與潮流流向比較圖

C16CKHZ0.1H0 C16CKHZ0.1HD C171KHZ0.1H0 C171KHZ0.1HD C172KHZ0.1H0 C172KHZ0.1HD
C173KHZ0.1H0 C173KHZ0.1HD C174KHZ0.1H0 C174KHZ0.1HD C175KHZ0.1H0 C175KHZ0.1HD

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Current Speed in Kao-Hsiung Harbor of KHZ0 at 2017

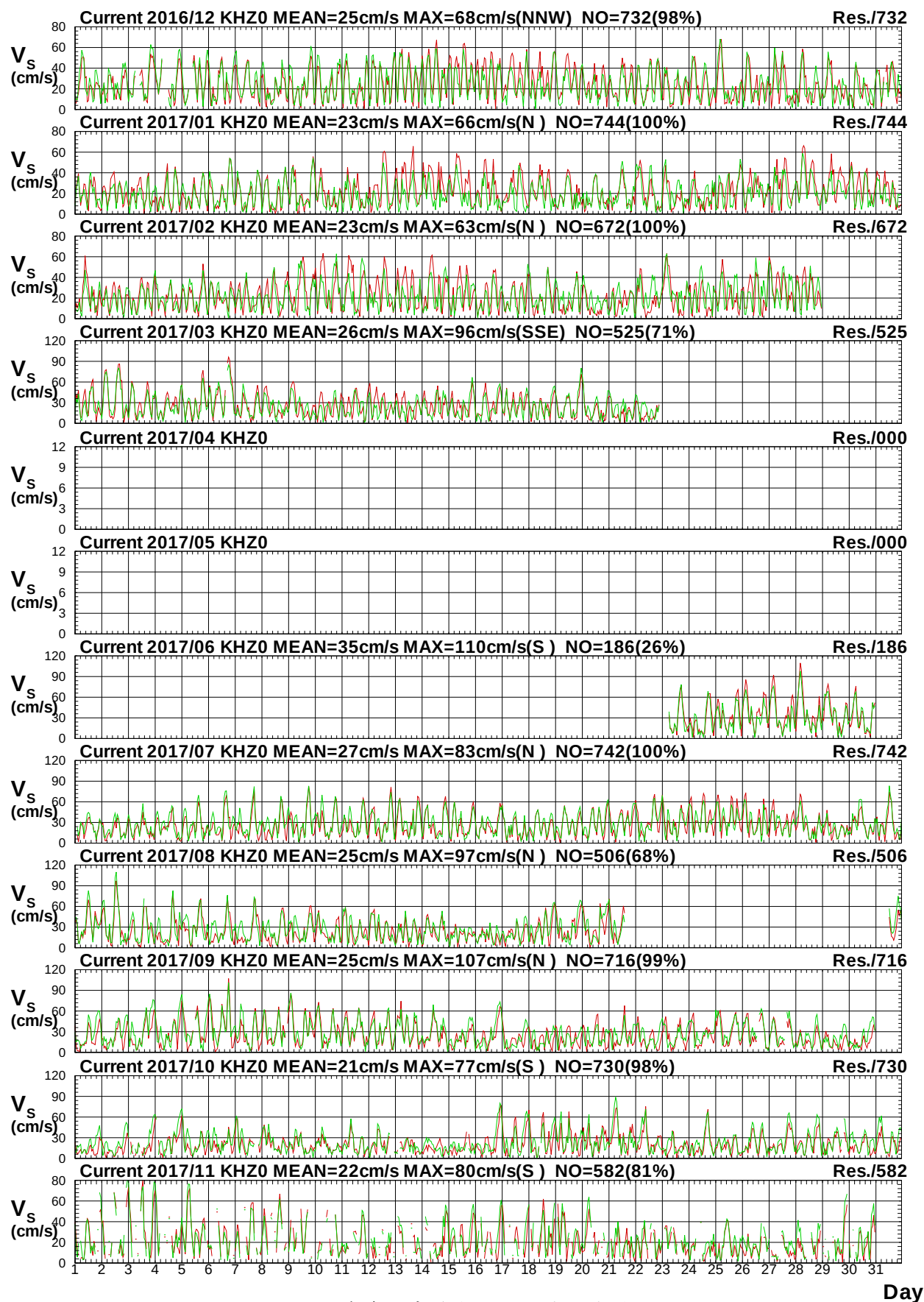


圖4.4a 2017年每月高雄海域 Z 站觀測與殘流流速比較圖

C16CKHZ0.1H0 C16CKHZ0.1HR C171KHZ0.1H0 C171KHZ0.1HR C172KHZ0.1H0 C172KHZ0.1HR
C173KHZ0.1H0 C173KHZ0.1HR C174KHZ0.1H0 C174KHZ0.1HR C175KHZ0.1H0 C175KHZ0.1HR

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Current Direction in Kao-Hsiung Harbor of KHZ0 at 2017

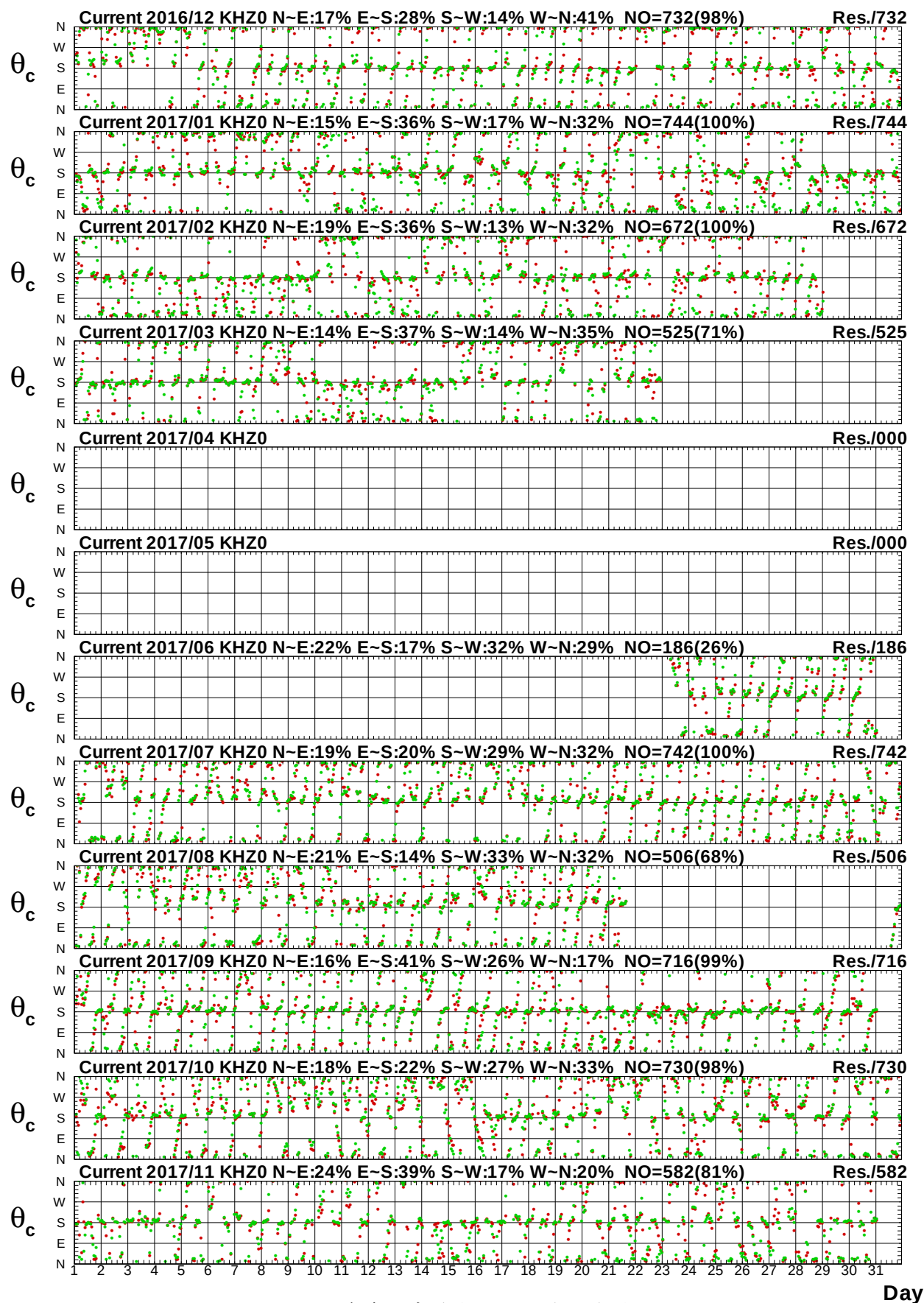


圖4.4b 2017年每月高雄海域 Z 站觀測與殘流流向比較圖

C16CKHZ0.1H0 C16CKHZ0.1HR C171KHZ0.1H0 C171KHZ0.1HR C172KHZ0.1H0 C172KHZ0.1HR
C173KHZ0.1H0 C173KHZ0.1HR C174KHZ0.1H0 C174KHZ0.1HR C175KHZ0.1H0 C175KHZ0.1HR

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Current Speed in Kao-Hsiung Harbor of KH20 at 2017

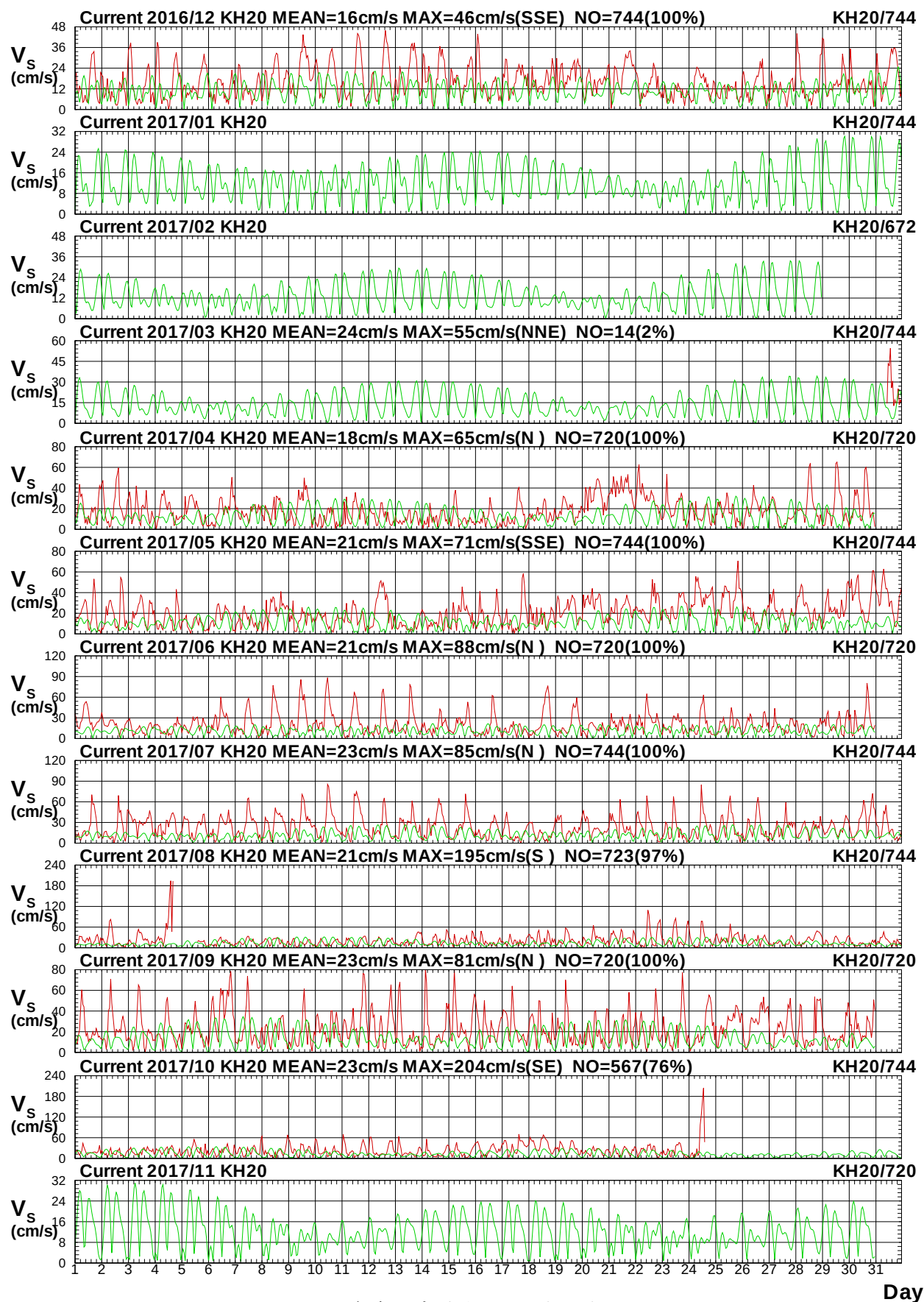


圖4.5a 2017年每月高雄海域2站觀測與潮流流速比較圖

C16CKKH20.1H0 C16CKKH20.1HD C171KH20.1H0 C171KH20.1HD C172KH20.1H0 C172KH20.1HD
C173KH20.1H0 C173KH20.1HD C174KH20.1H0 C174KH20.1HD C175KH20.1H0 C175KH20.1HD

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Current Direction in Kao-Hsiung Harbor of KH20 at 2017

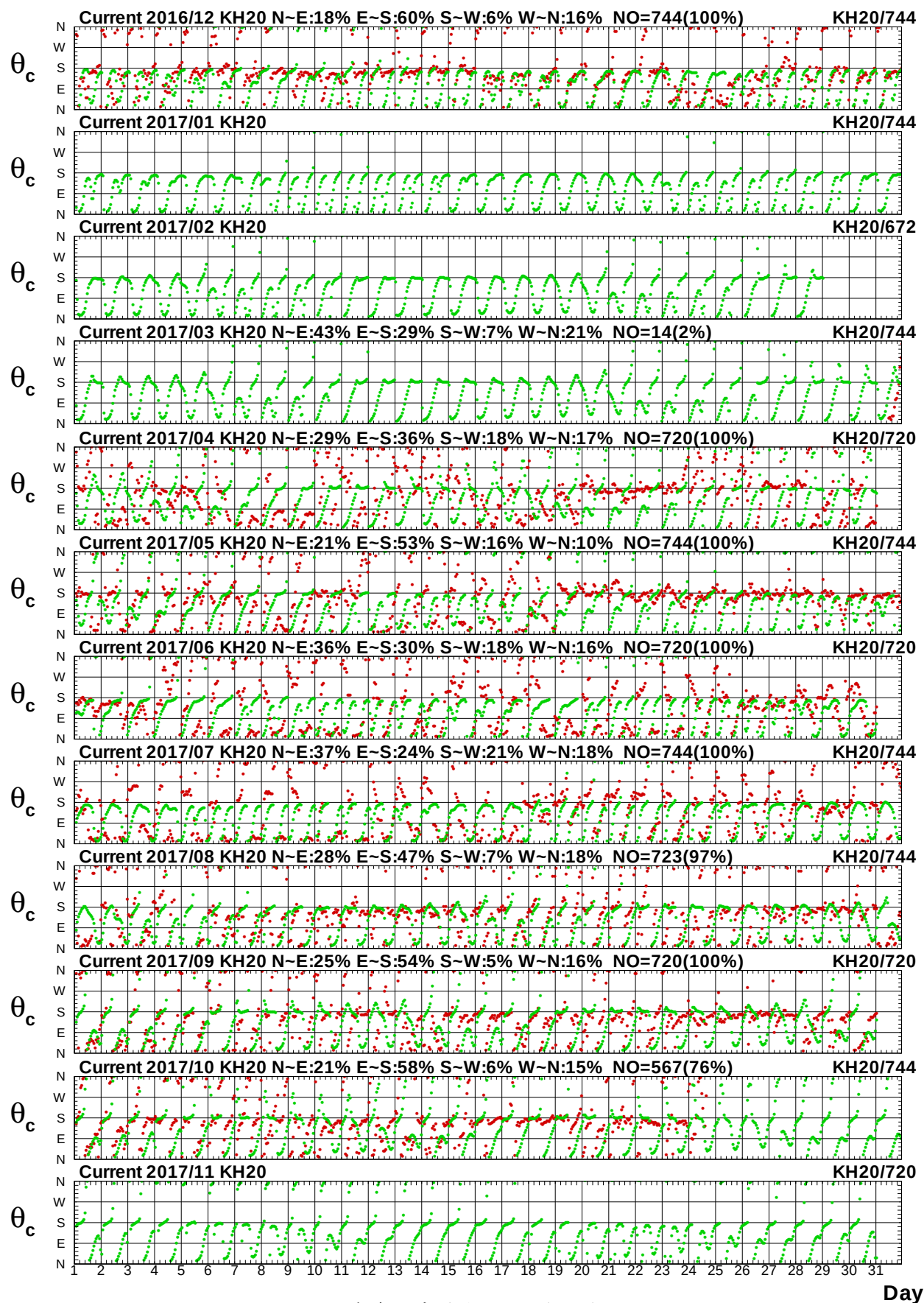


圖4.5b 2017年每月高雄海域2站觀測與潮流流向比較圖

C16CKKH20.1H0 C16CKKH20.1HD C171KH20.1H0 C171KH20.1HD C172KH20.1H0 C172KH20.1HD
C173KH20.1H0 C173KH20.1HD C174KH20.1H0 C174KH20.1HD C175KH20.1H0 C175KH20.1HD

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Current Speed in Kao-Hsiung Harbor of KH20 at 2017

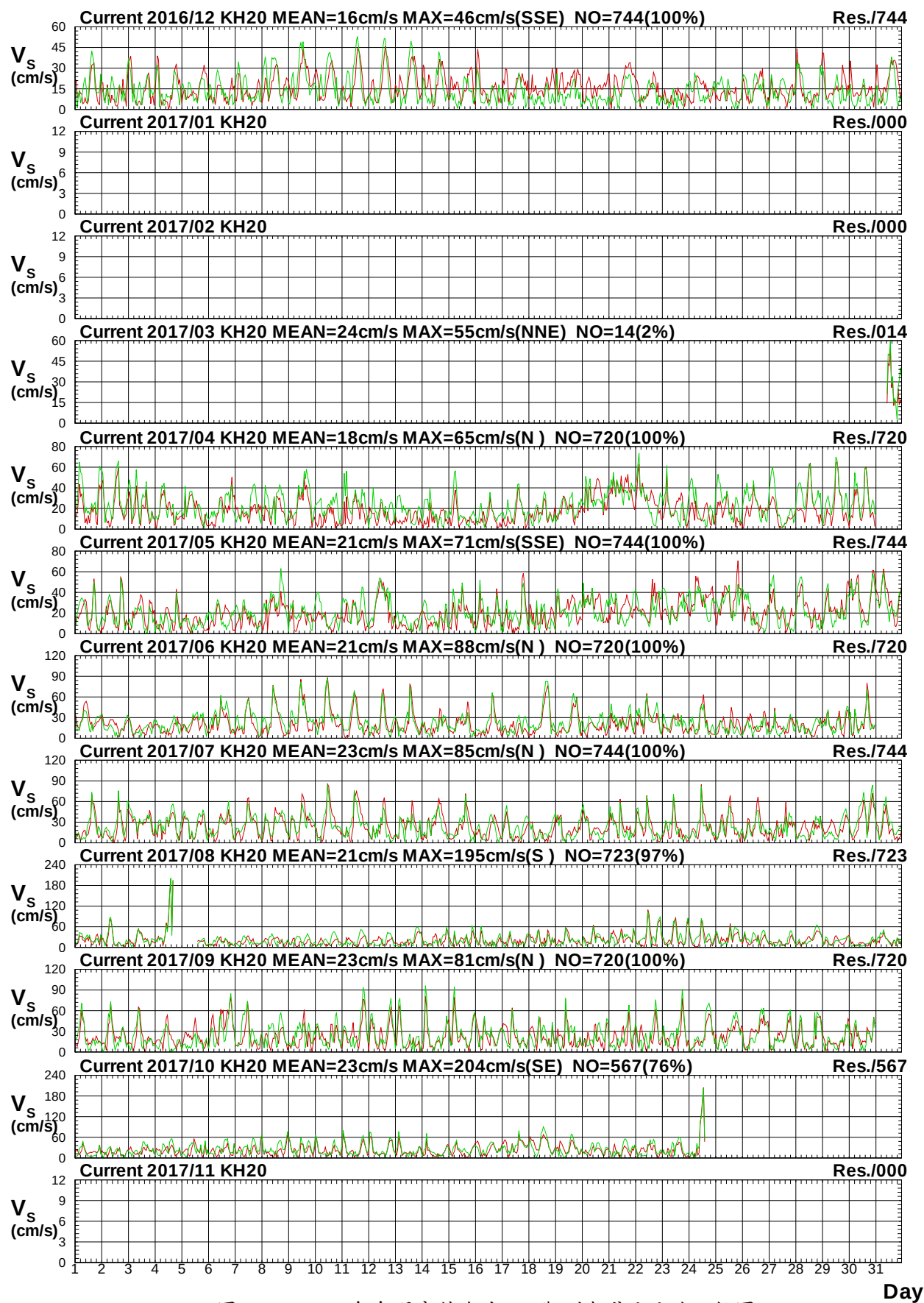


圖4.6a 2017年每月高雄海域2站觀測與殘流流速比較圖

C16CKKH20.1H0 C16CKKH20.1HR C171KH20.1H0 C171KH20.1HR C172KH20.1H0 C172KH20.1HR
C173KH20.1H0 C173KH20.1HR C174KH20.1H0 C174KH20.1HR C175KH20.1H0 C175KH20.1HR

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Current Direction in Kao-Hsiung Harbor of KH20 at 2017

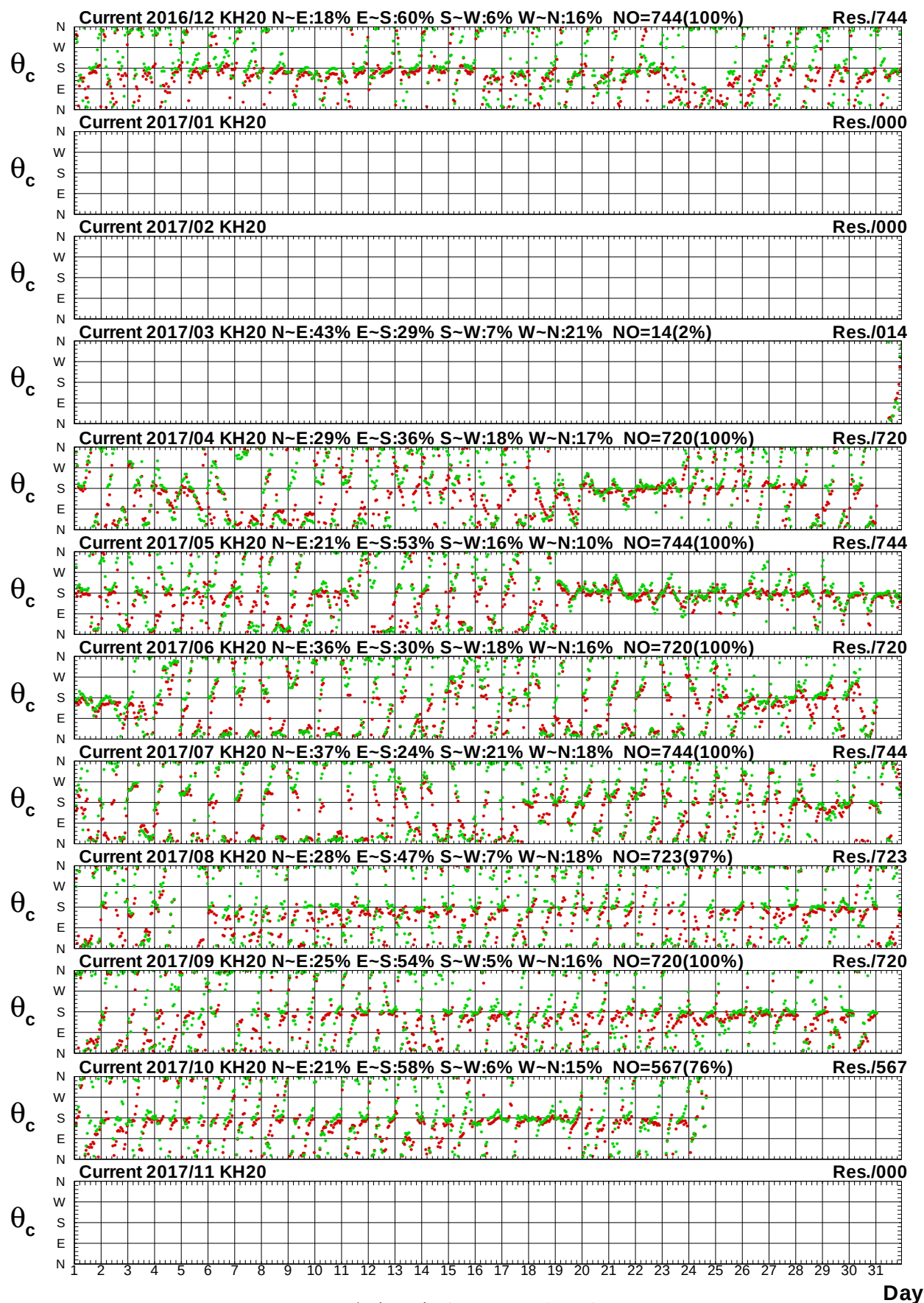


圖4.6b 2017年每月高雄海域2站觀測與殘流流向比較圖

C16CKKH20.1H0 C16CKKH20.1HR C171KH20.1H0 C171KH20.1HR C172KH20.1H0 C172KH20.1HR
C173KH20.1H0 C173KH20.1HR C174KH20.1H0 C174KH20.1HR C175KH20.1H0 C175KH20.1HR

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Distribution of Current Vectors

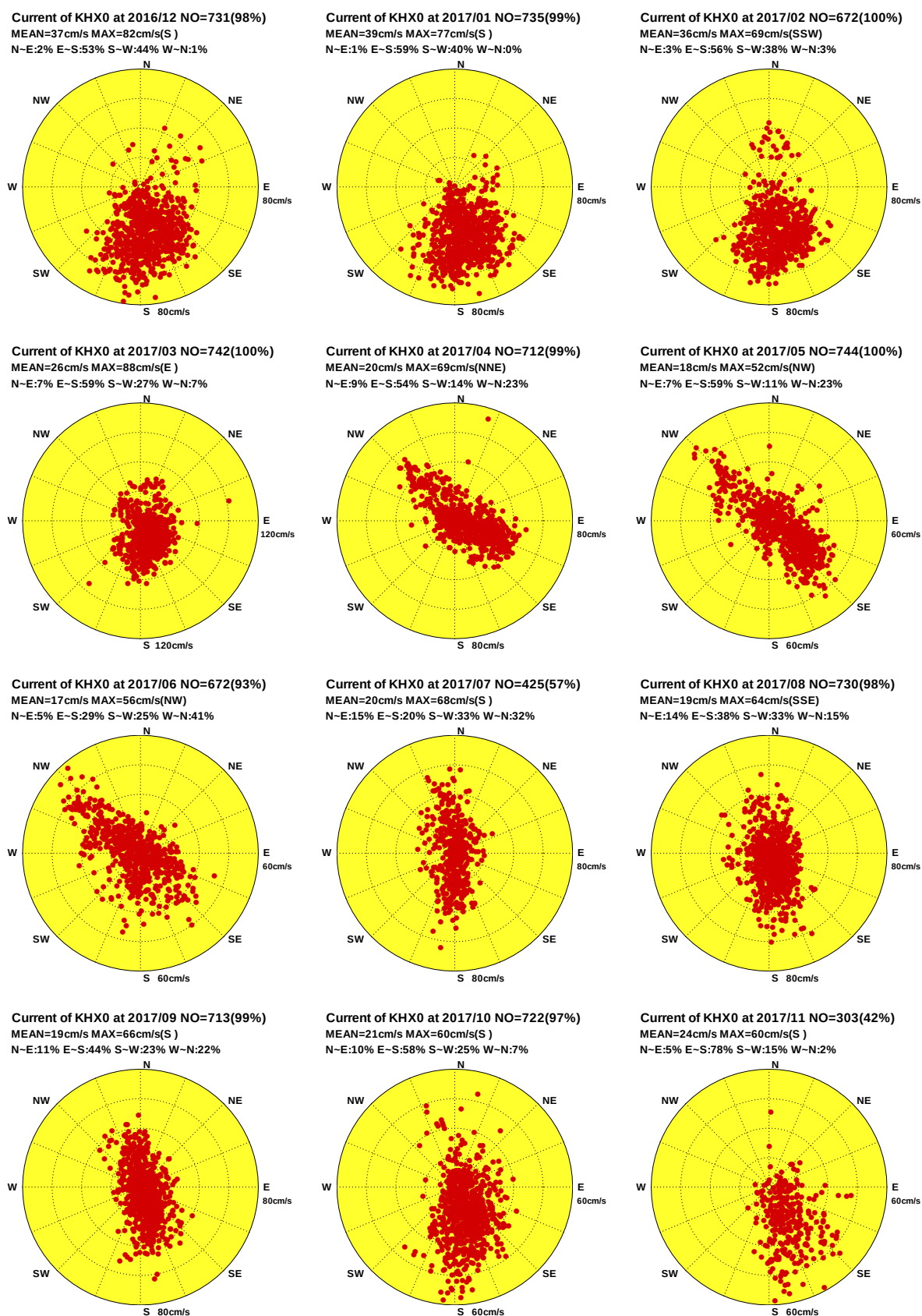


圖4.7a 2017年高雄海域每月測站 X 觀測海流向量分佈圖

C16CKHX0.1H0 C171KHX0.1H0 C172KHX0.1H0 C173KHX0.1H0 C174KHX0.1H0 C175KHX0.1H0
 C176KHX0.1H0 C177KHX0.1H0 C178KHX0.1H0 C179KHX0.1H0 C17AKHX0.1H0 C17BKHX0.1H0

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Progressive Vector Diagram of Current

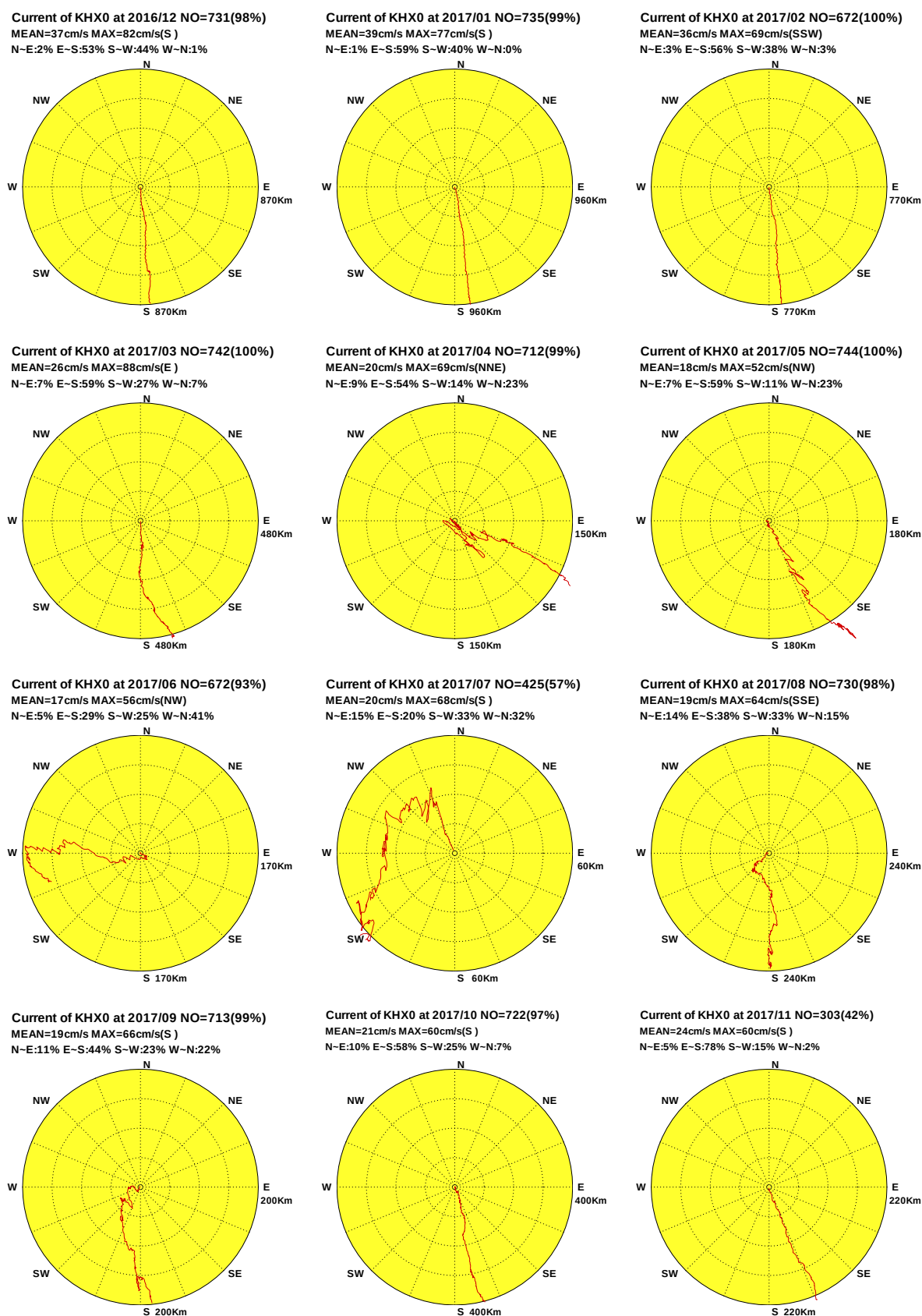


圖4.7b 2017年高雄海域每月測站 X 觀測海流向量行進圖

C16CKHX0.1H0 C171KHX0.1H0 C172KHX0.1H0 C173KHX0.1H0 C174KHX0.1H0 C175KHX0.1H0
C176KHX0.1H0 C177KHX0.1H0 C178KHX0.1H0 C179KHX0.1H0 C17AKHX0.1H0 C17BKHX0.1H0

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Distribution of Current Vectors

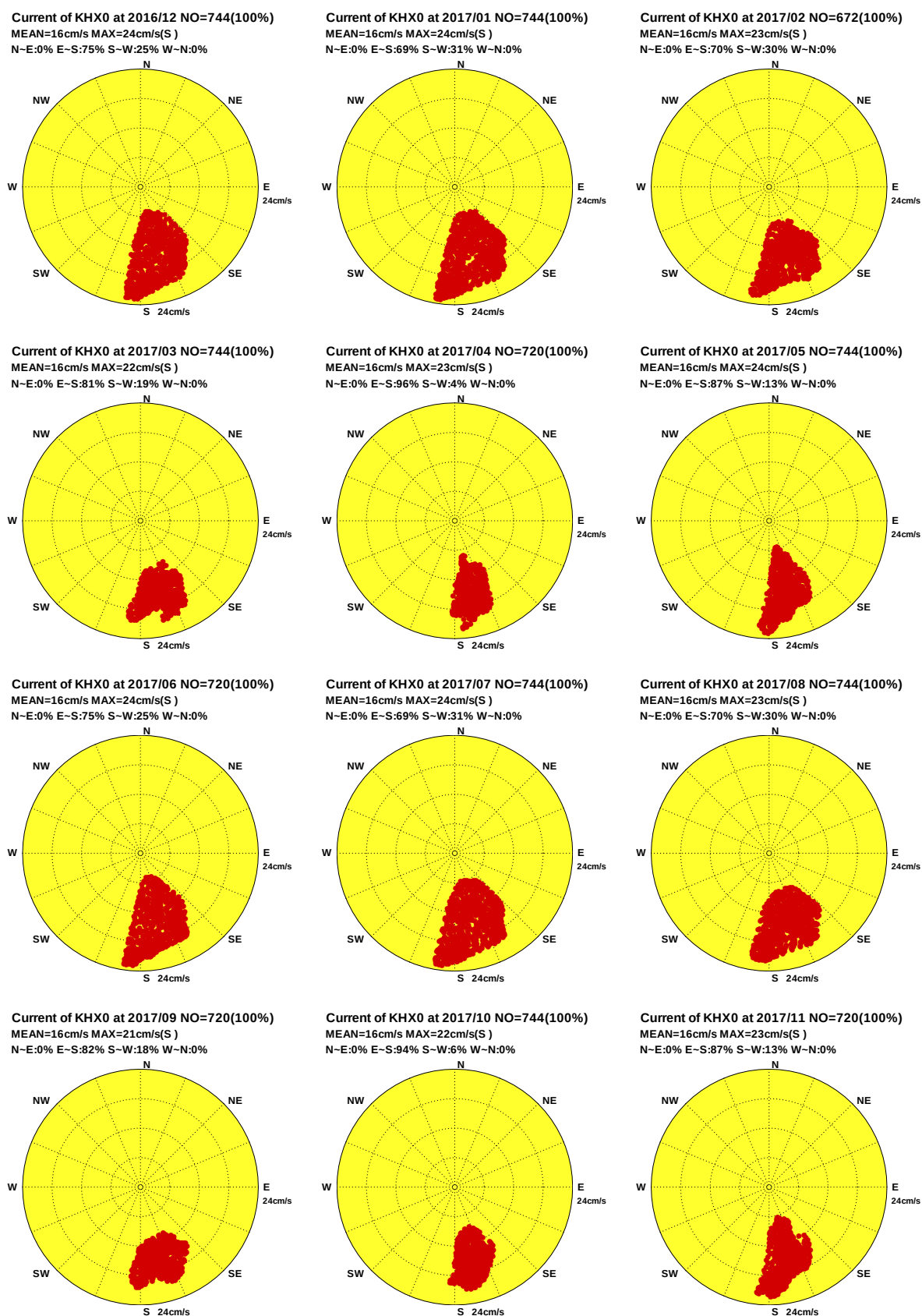


圖4.7c 2017年高雄海域每月測站 X 計算潮流向量分佈圖

C16CKHX0.1HD C171KHX0.1HD C172KHX0.1HD C173KHX0.1HD C174KHX0.1HD C175KHX0.1HD
C176KHX0.1HD C177KHX0.1HD C178KHX0.1HD C179KHX0.1HD C17AKHX0.1HD C17BKHX0.1HD

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Progressive Vector Diagram of Current

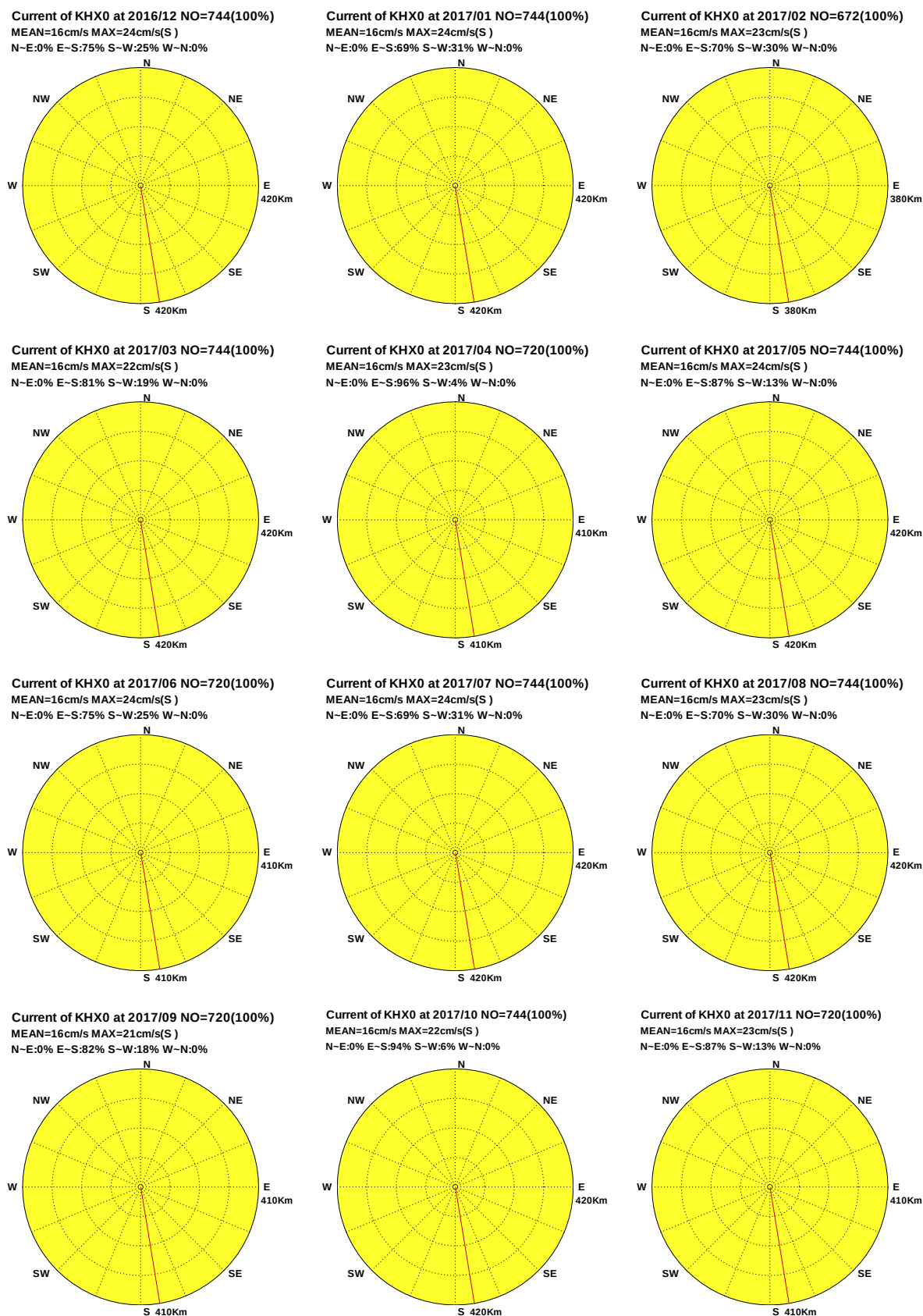


圖4.7d 2017年高雄海域每月測站 X 計算潮流向量行進圖

C16CKHX0.1HD C171KHX0.1HD C172KHX0.1HD C173KHX0.1HD C174KHX0.1HD C175KHX0.1HD
C176KHX0.1HD C177KHX0.1HD C178KHX0.1HD C179KHX0.1HD C17AKHX0.1HD C17BKHX0.1HD

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Distribution of Current Vectors

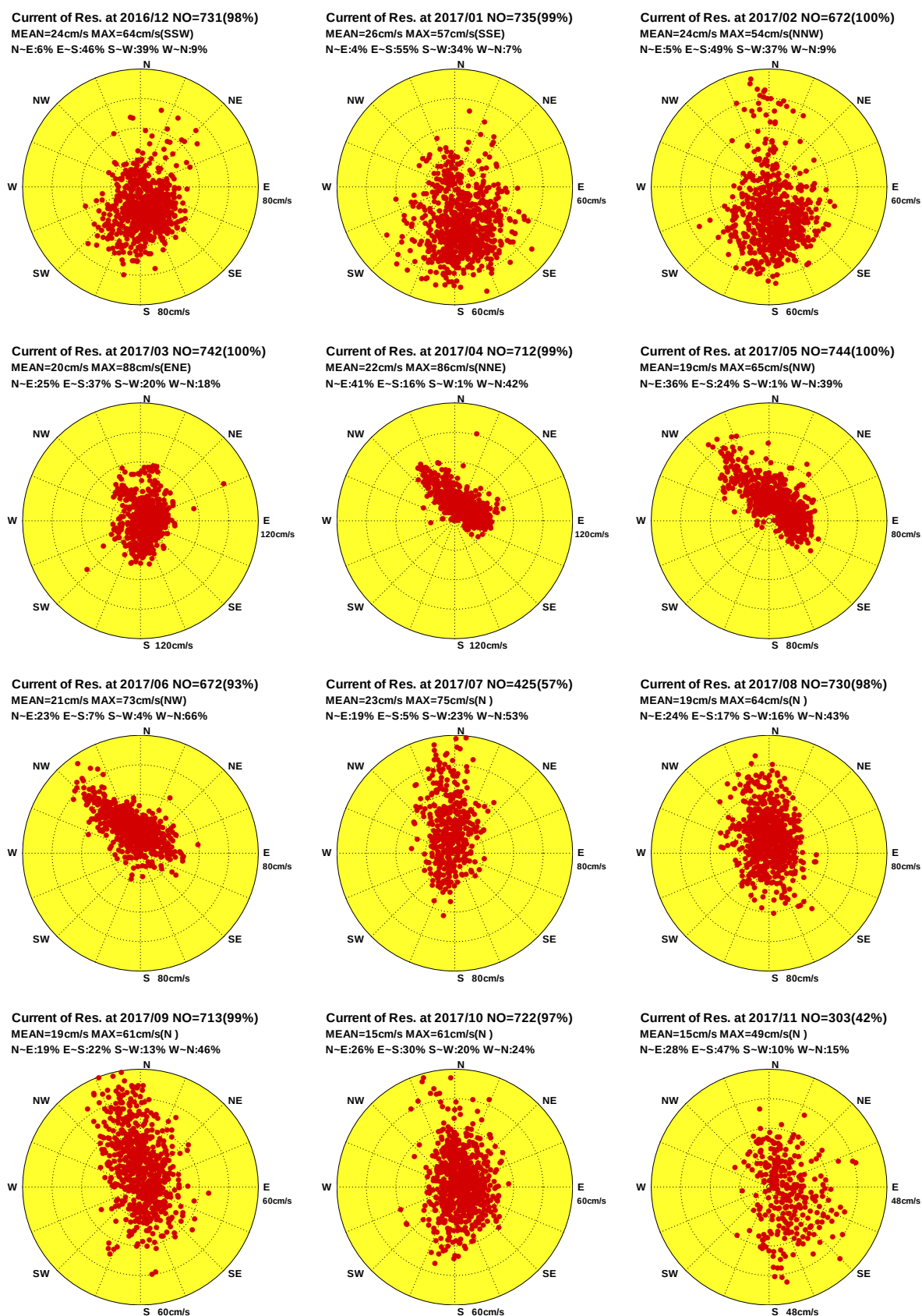


圖4.7e 2017年高雄海域每月測站 X 計算殘流向量分佈圖

C16CKHX0.1HR C171KHX0.1HR C172KHX0.1HR C173KHX0.1HR C174KHX0.1HR C175KHX0.1HR
 C176KHX0.1HR C177KHX0.1HR C178KHX0.1HR C179KHX0.1HR C17AKHX0.1HR C17BKHX0.1HR

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Progressive Vector Diagram of Current

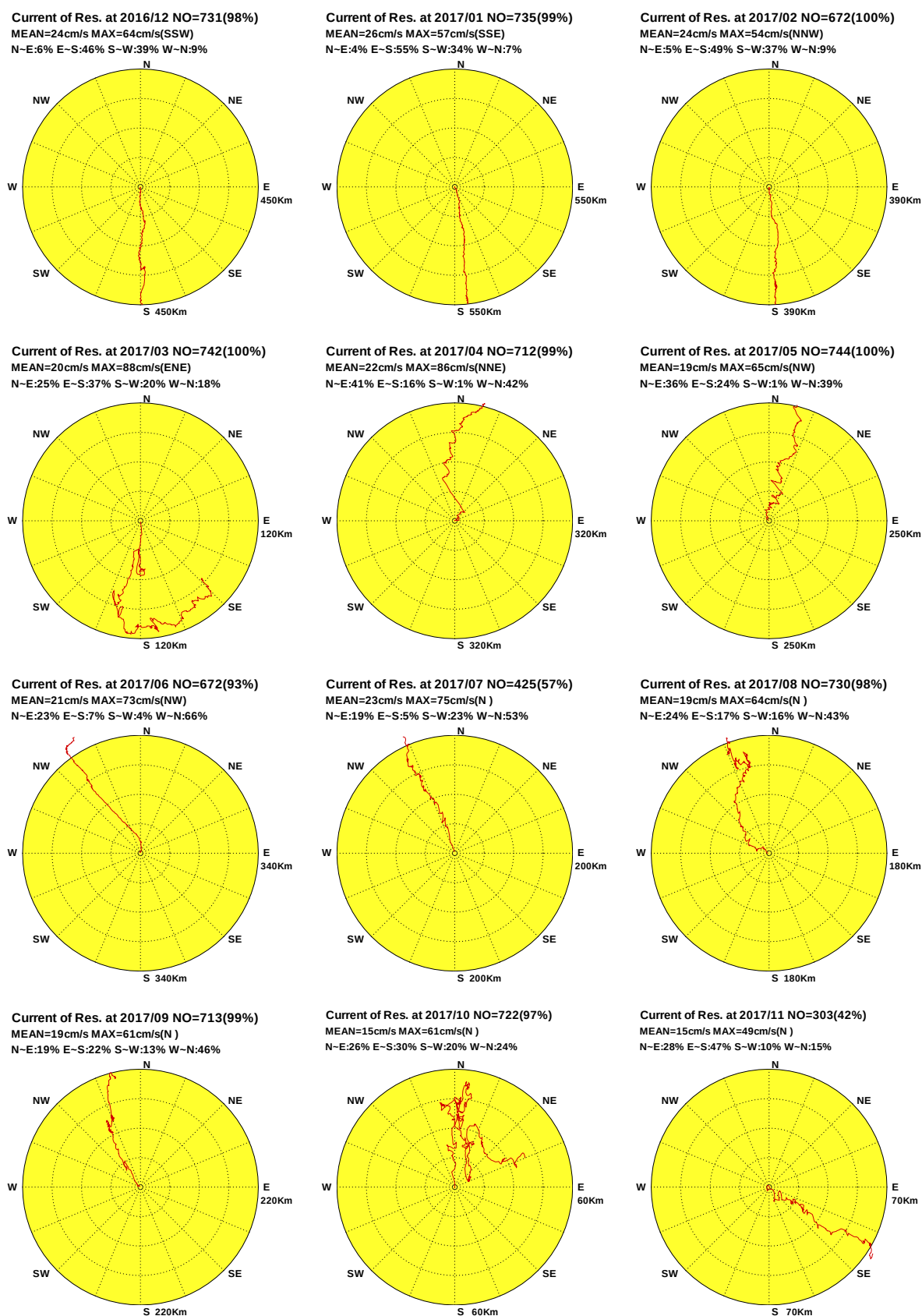


圖4.7f 2017年高雄海域每月測站 X 計算殘流向量行進圖

C16CKHX0.1HR C171KHX0.1HR C172KHX0.1HR C173KHX0.1HR C174KHX0.1HR C175KHX0.1HR
 C176KHX0.1HR C177KHX0.1HR C178KHX0.1HR C179KHX0.1HR C17AKHX0.1HR C17BKHX0.1HR

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Distribution of Current Vectors

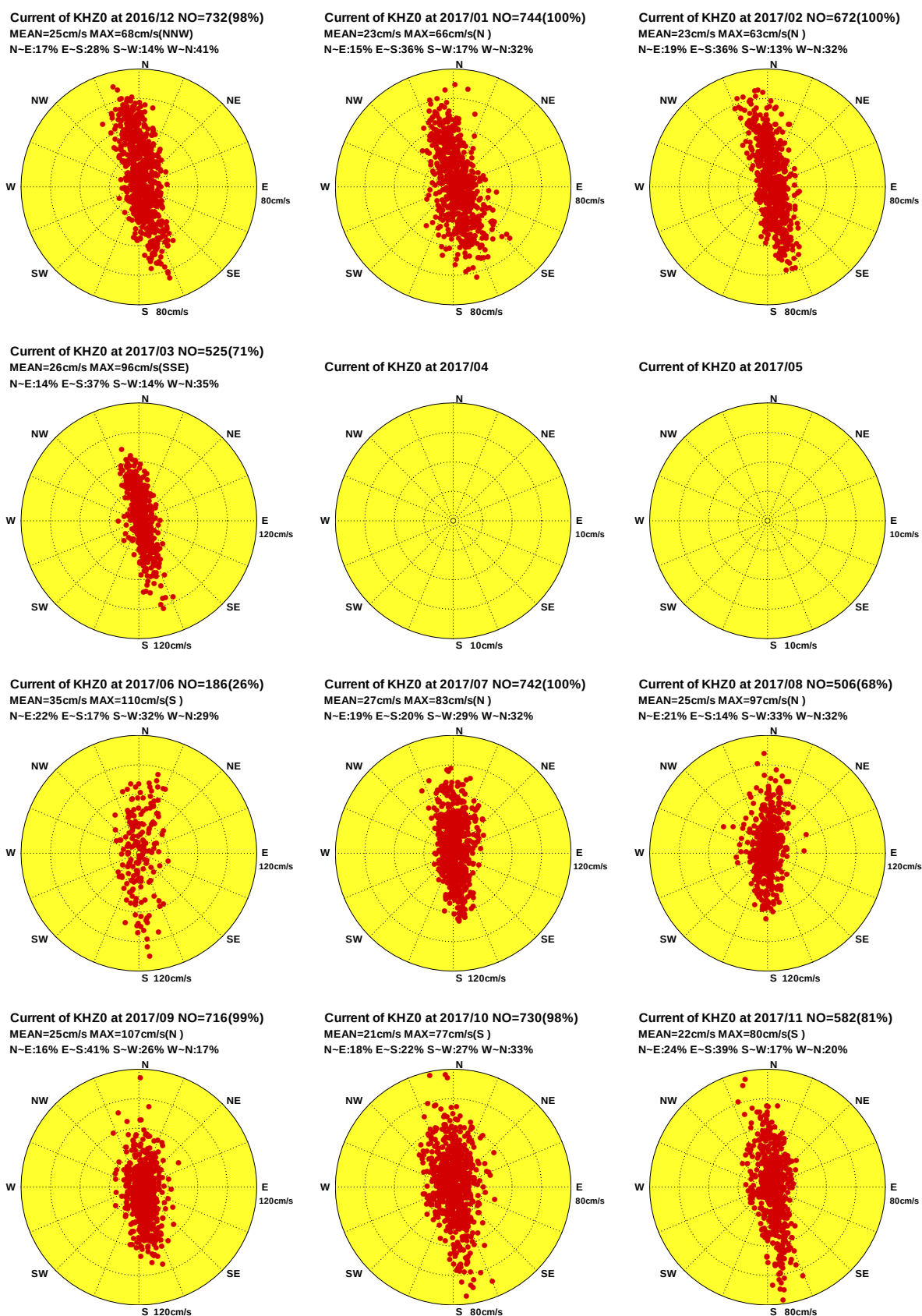


圖4.8a 2017年高雄海域每月測站 Z 觀測海流向量分佈圖

C16CKHZ0.1H0 C171KHZ0.1H0 C172KHZ0.1H0 C173KHZ0.1H0 C174KHZ0.1H0 C175KHZ0.1H0
 C176KHZ0.1H0 C177KHZ0.1H0 C178KHZ0.1H0 C179KHZ0.1H0 C17AKHZ0.1H0 C17BKHZ0.1H0

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Progressive Vector Diagram of Current

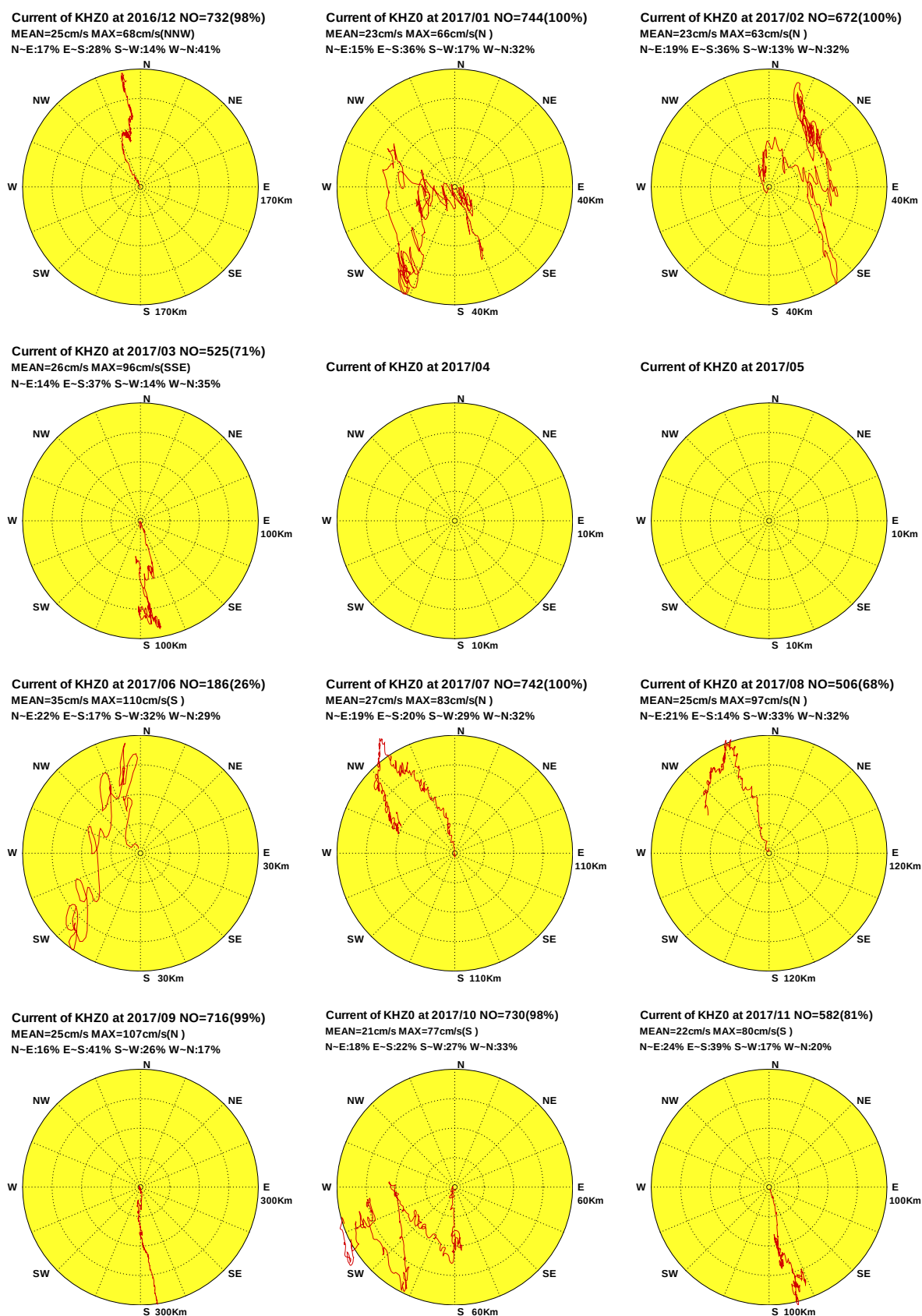


圖4.8b 2017年高雄海域每月測站 Z 觀測海流向量行進圖

C16CKHZ0.1H0 C171KHZ0.1H0 C172KHZ0.1H0 C173KHZ0.1H0 C174KHZ0.1H0 C175KHZ0.1H0
 C176KHZ0.1H0 C177KHZ0.1H0 C178KHZ0.1H0 C179KHZ0.1H0 C17AKHZ0.1H0 C17BKHZ0.1H0

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Distribution of Current Vectors

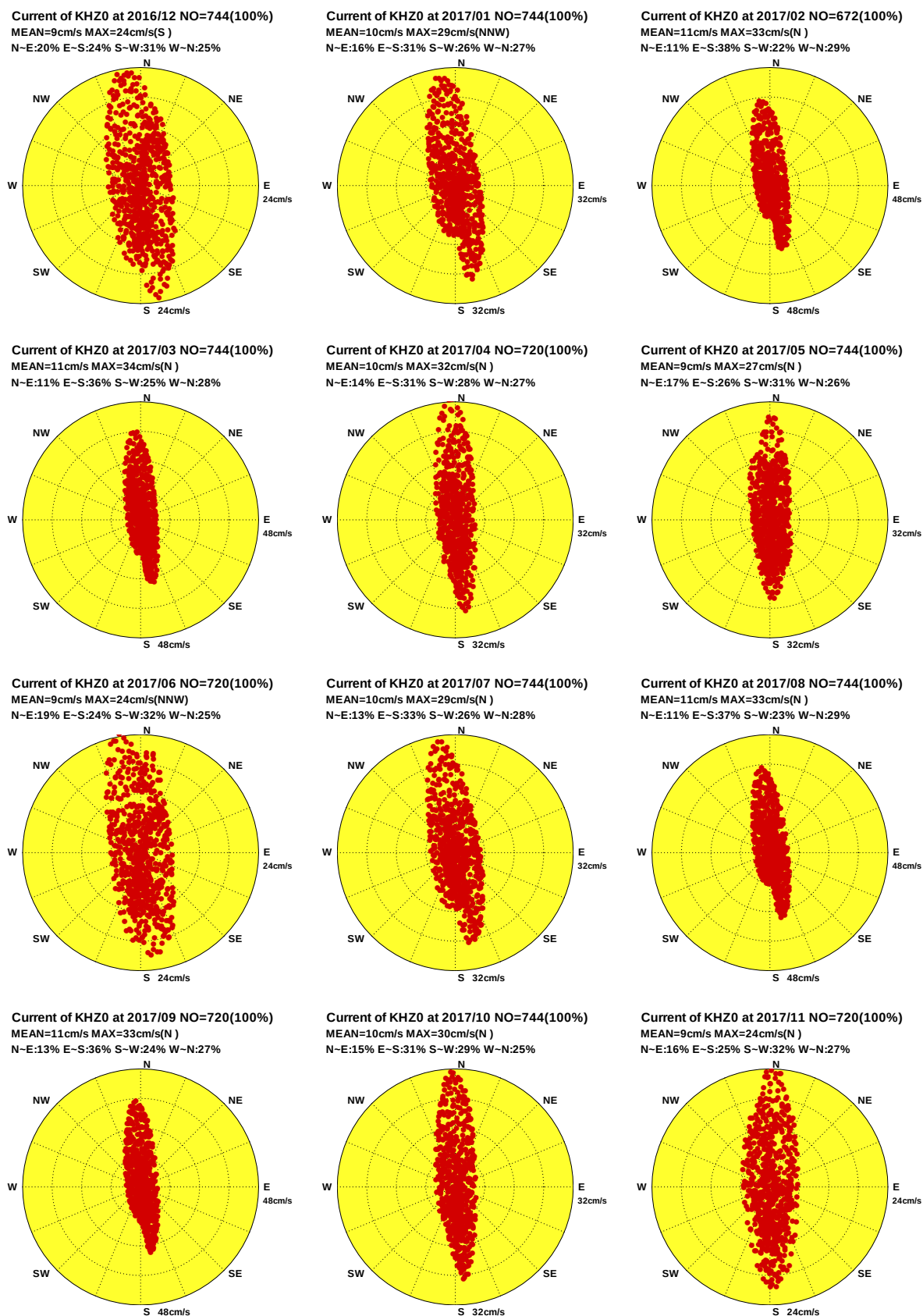


圖4.8c 2017年高雄海域每月測站 Z 計算潮流向量分佈圖

C16CKHZ0.1HD C171KHZ0.1HD C172KHZ0.1HD C173KHZ0.1HD C174KHZ0.1HD C175KHZ0.1HD
C176KHZ0.1HD C177KHZ0.1HD C178KHZ0.1HD C179KHZ0.1HD C17AKHZ0.1HD C17BKHZ0.1HD

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Progressive Vector Diagram of Current

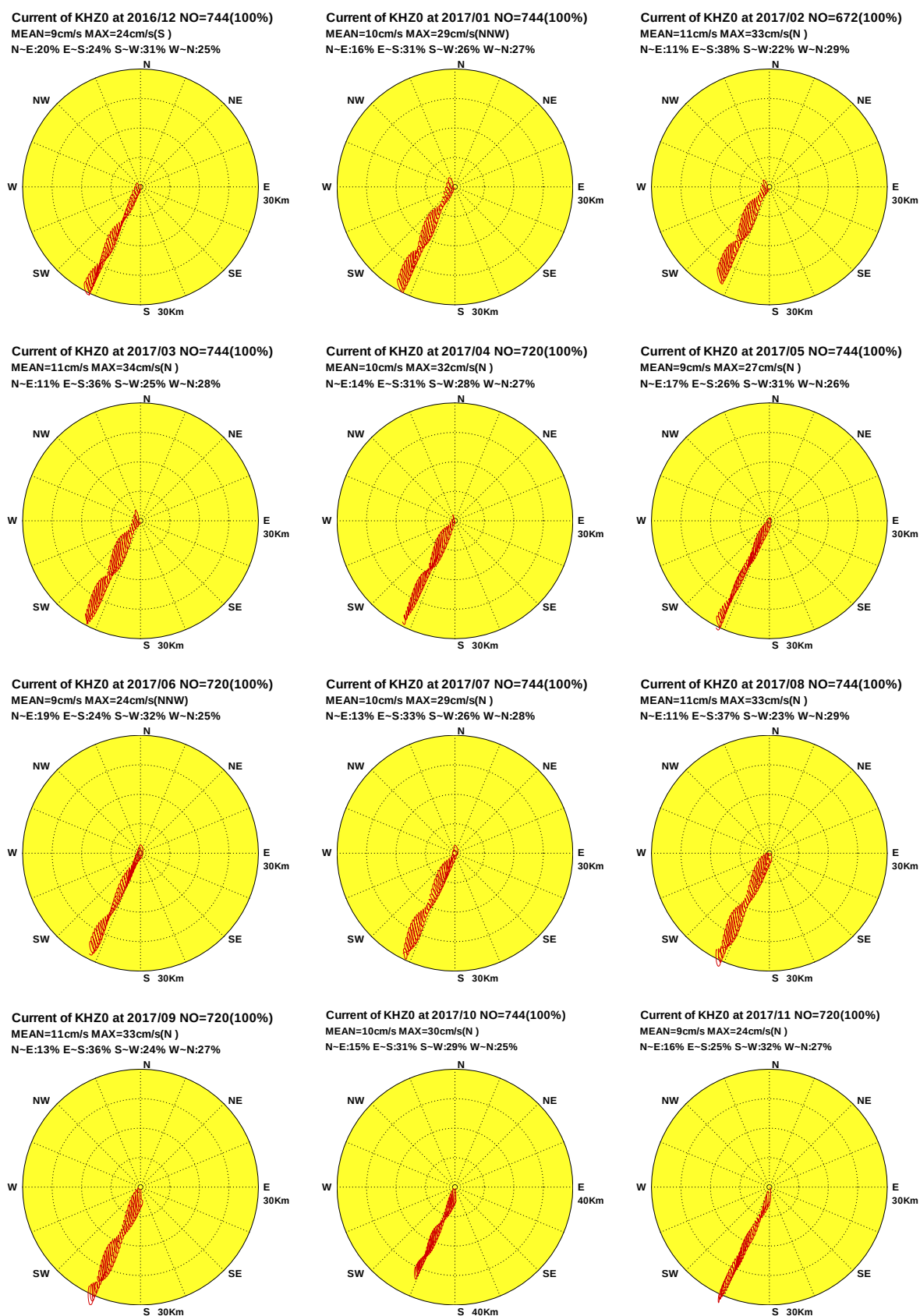


圖4.8d 2017年高雄海域每月測站 Z 計算潮流向量行進圖

C16CKHZ0.1HD C171KHZ0.1HD C172KHZ0.1HD C173KHZ0.1HD C174KHZ0.1HD C175KHZ0.1HD
C176KHZ0.1HD C177KHZ0.1HD C178KHZ0.1HD C179KHZ0.1HD C17AKHZ0.1HD C17BKHZ0.1HD

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Distribution of Current Vectors

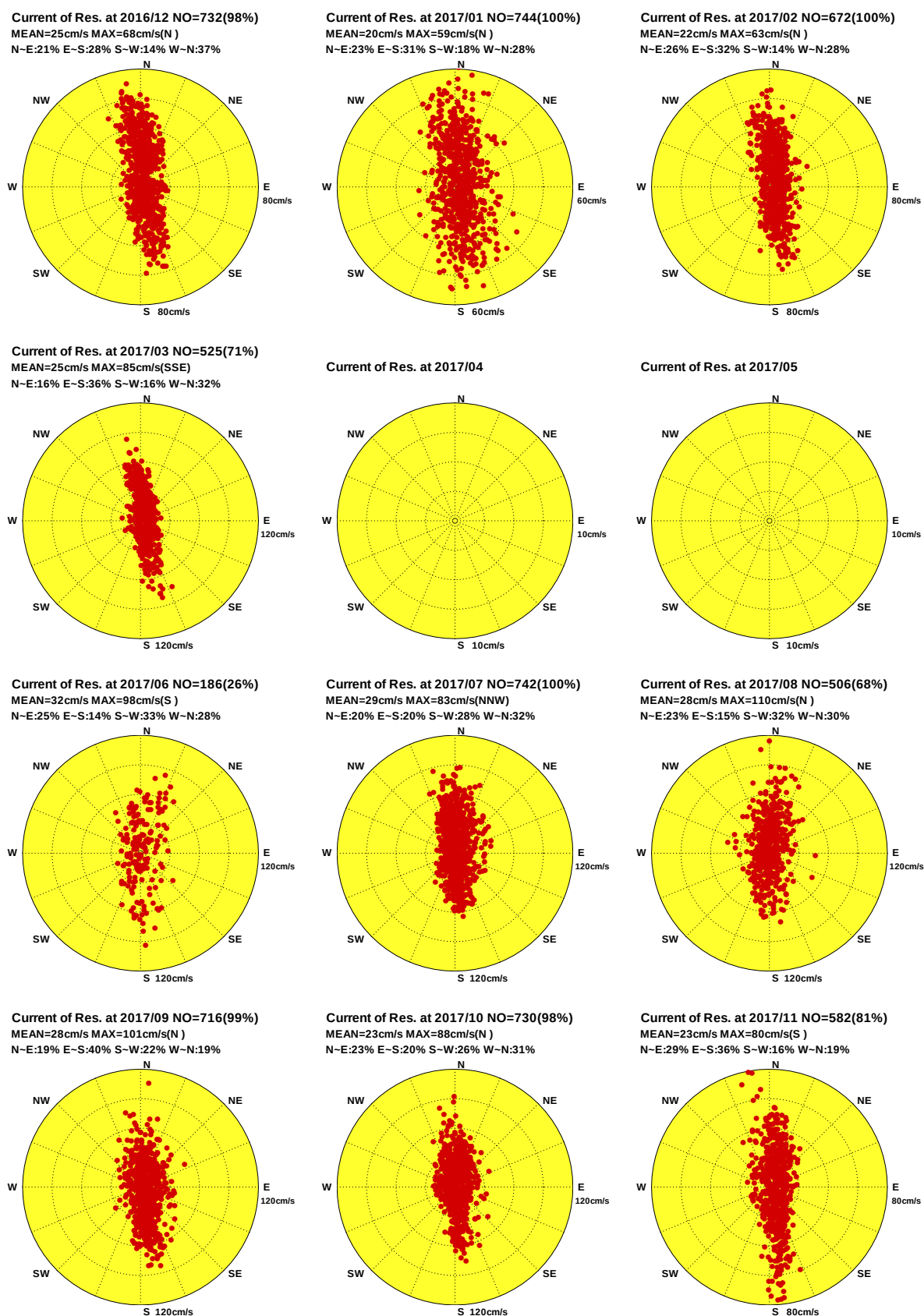


圖4.8e 2017年高雄海域每月測站 Z 計算殘流向量分佈圖

C16CKHZ0.1HR C171KHZ0.1HR C172KHZ0.1HR C173KHZ0.1HR C174KHZ0.1HR C175KHZ0.1HR
 C176KHZ0.1HR C177KHZ0.1HR C178KHZ0.1HR C179KHZ0.1HR C17AKHZ0.1HR C17BKHZ0.1HR

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Progressive Vector Diagram of Current

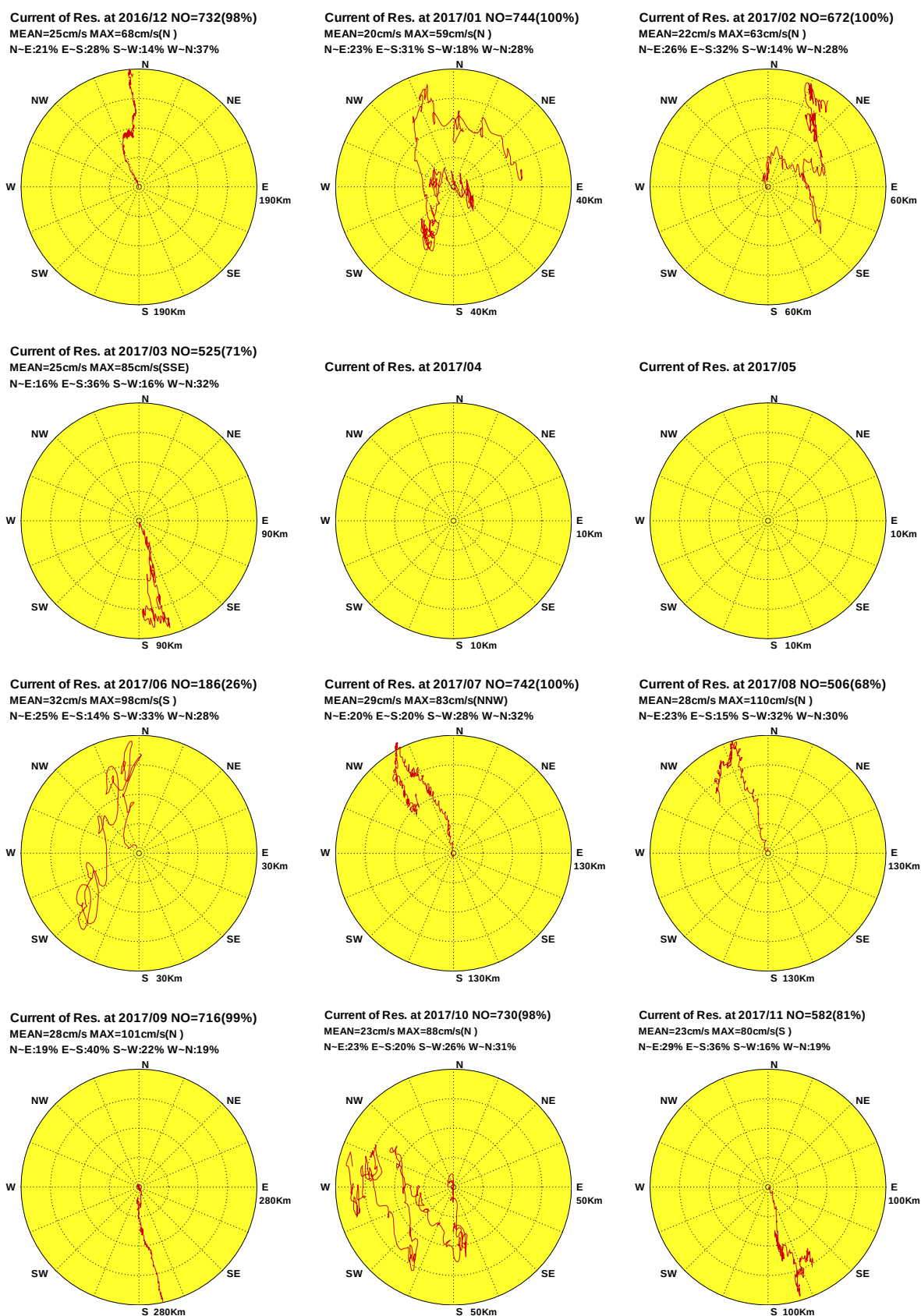


圖4.8f 2017年高雄海域每月測站 Z 計算殘流向量行進圖

C16CKHZ0.1HR C171KHZ0.1HR C172KHZ0.1HR C173KHZ0.1HR C174KHZ0.1HR C175KHZ0.1HR
C176KHZ0.1HR C177KHZ0.1HR C178KHZ0.1HR C179KHZ0.1HR C17AKHZ0.1HR C17BKHZ0.1HR

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Distribution of Current Vectors

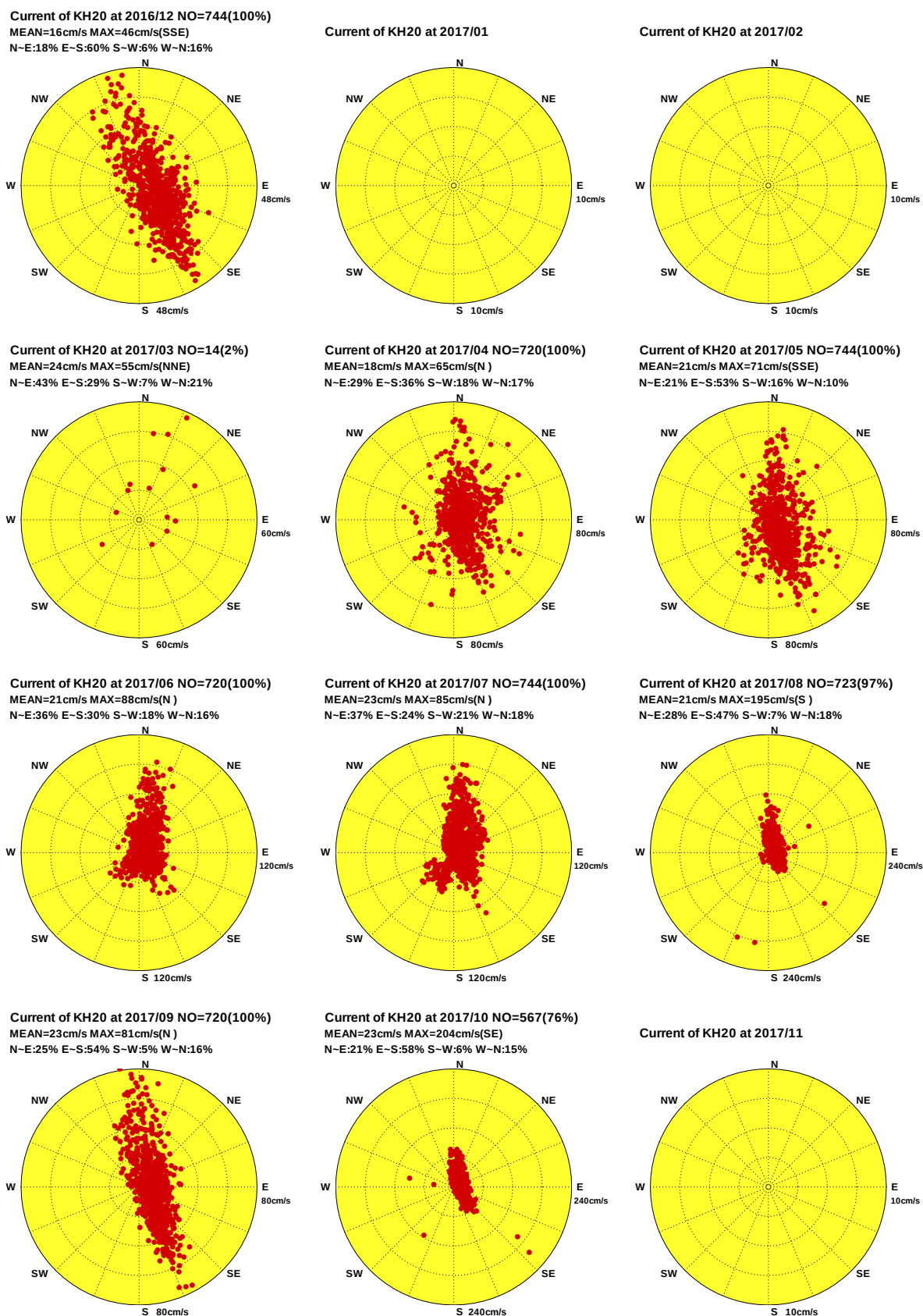


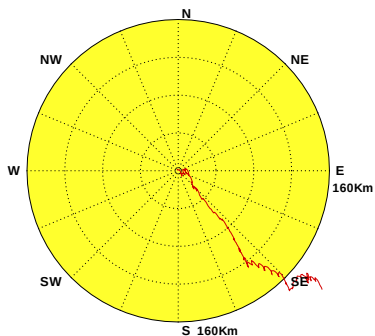
圖4.9a 2017年高雄海域每月測站2觀測海流向量分佈圖

C16CKH20.1H0 C171KH20.1H0 C172KH20.1H0 C173KH20.1H0 C174KH20.1H0 C175KH20.1H0
C176KH20.1H0 C177KH20.1H0 C178KH20.1H0 C179KH20.1H0 C17AKH20.1H0 C17BKH20.1H0

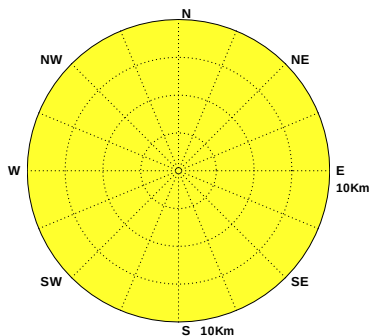
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Progressive Vector Diagram of Current

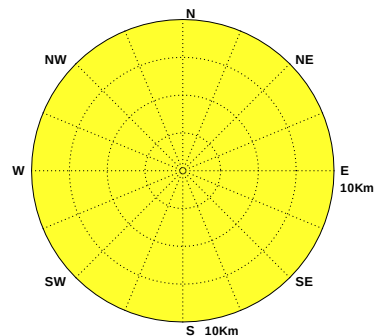
Current of KH20 at 2016/12 NO=744(100%)
MEAN=16cm/s MAX=46cm/s(SSE)
N~E:18% E~S:60% S~W:6% W~N:16%



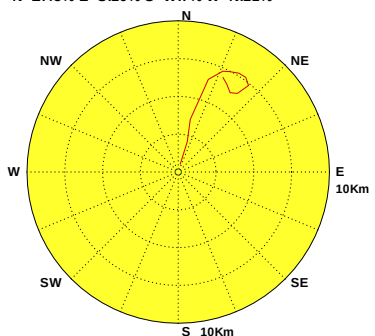
Current of KH20 at 2017/01



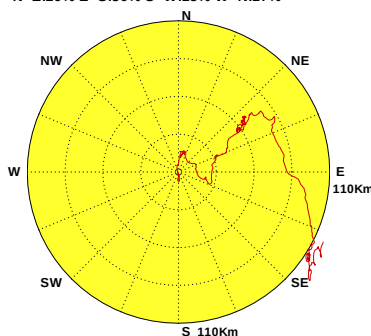
Current of KH20 at 2017/02



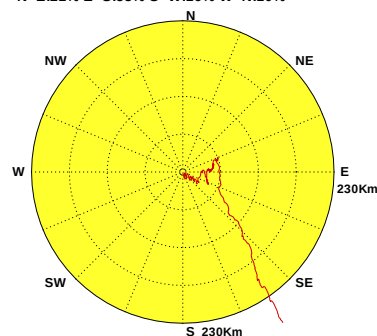
Current of KH20 at 2017/03 NO=14(2%)
MEAN=24cm/s MAX=55cm/s(NNE)
N~E:43% E~S:29% S~W:7% W~N:21%



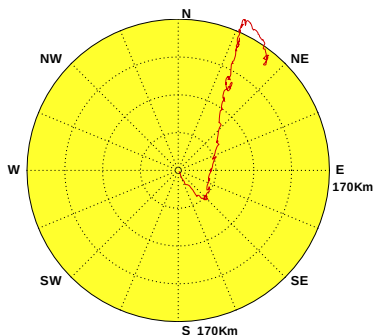
Current of KH20 at 2017/04 NO=720(100%)
MEAN=18cm/s MAX=65cm/s(N)
N~E:29% E~S:36% S~W:18% W~N:17%



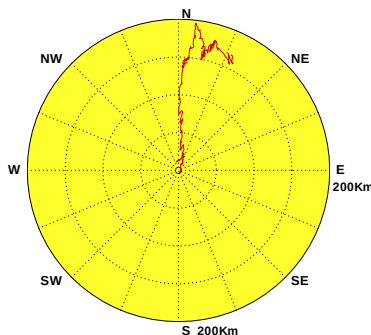
Current of KH20 at 2017/05 NO=744(100%)
MEAN=21cm/s MAX=71cm/s(SSE)
N~E:21% E~S:53% S~W:16% W~N:10%



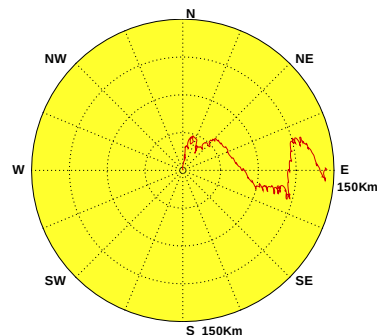
Current of KH20 at 2017/06 NO=720(100%)
MEAN=21cm/s MAX=88cm/s(N)
N~E:36% E~S:30% S~W:18% W~N:16%



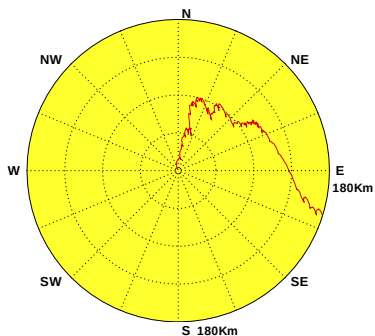
Current of KH20 at 2017/07 NO=744(100%)
MEAN=23cm/s MAX=85cm/s(N)
N~E:37% E~S:24% S~W:21% W~N:18%



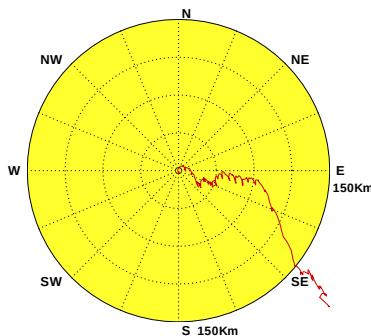
Current of KH20 at 2017/08 NO=723(97%)
MEAN=21cm/s MAX=195cm/s(S)
N~E:28% E~S:47% S~W:7% W~N:18%



Current of KH20 at 2017/09 NO=720(100%)
MEAN=23cm/s MAX=81cm/s(N)
N~E:25% E~S:54% S~W:5% W~N:16%



Current of KH20 at 2017/10 NO=567(76%)
MEAN=23cm/s MAX=204cm/s(SE)
N~E:21% E~S:58% S~W:6% W~N:15%



Current of KH20 at 2017/11

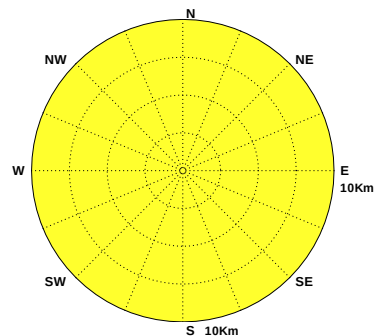


圖4.9b 2017年高雄海域每月測站2觀測海流向量行進圖

C16CKH20.1H0 C171KH20.1H0 C172KH20.1H0 C173KH20.1H0 C174KH20.1H0 C175KH20.1H0
C176KH20.1H0 C177KH20.1H0 C178KH20.1H0 C179KH20.1H0 C17AKH20.1H0 C17BKH20.1H0

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Distribution of Current Vectors

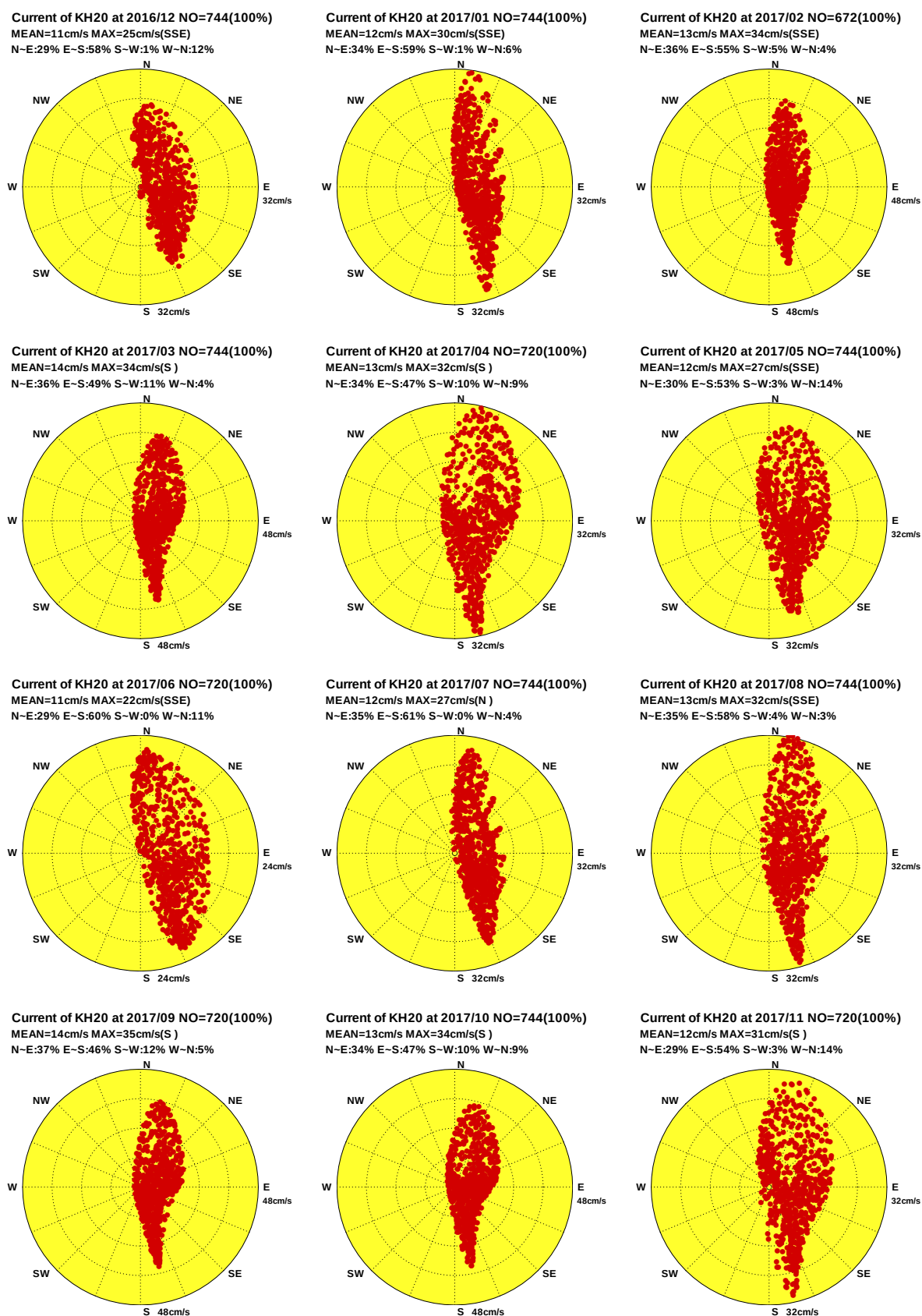


圖4.9c 2017年高雄海域每月測站2計算潮流向量分佈圖

C16CKH20.1HD C171KH20.1HD C172KH20.1HD C173KH20.1HD C174KH20.1HD C175KH20.1HD
C176KH20.1HD C177KH20.1HD C178KH20.1HD C179KH20.1HD C17AKH20.1HD C17BKH20.1HD

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Progressive Vector Diagram of Current

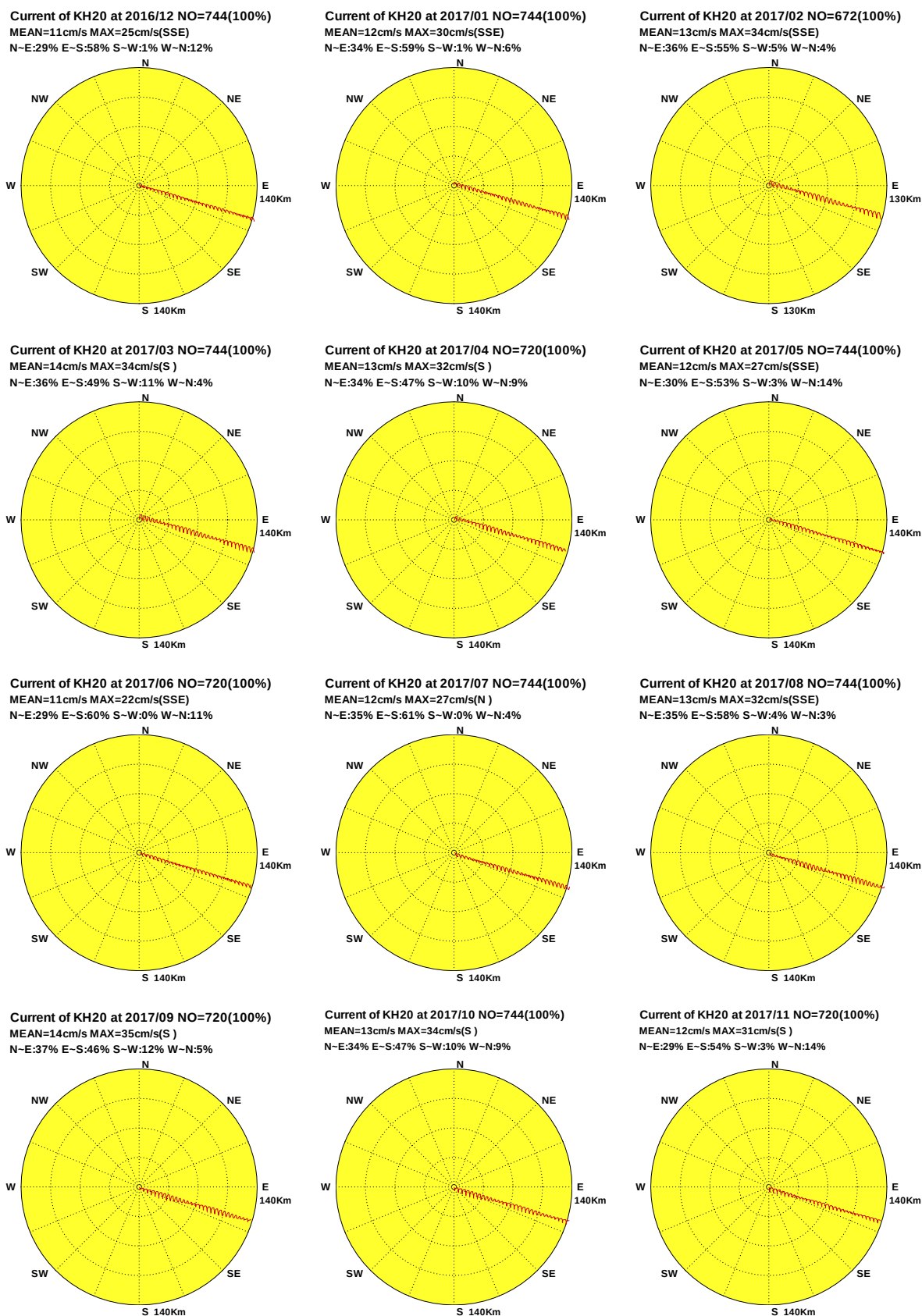


圖4.9d 2017年高雄海域每月測站2計算潮流向量行進圖

C16CKH20.1HD C171KH20.1HD C172KH20.1HD C173KH20.1HD C174KH20.1HD C175KH20.1HD
C176KH20.1HD C177KH20.1HD C178KH20.1HD C179KH20.1HD C17AKH20.1HD C17BKH20.1HD

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Distribution of Current Vectors

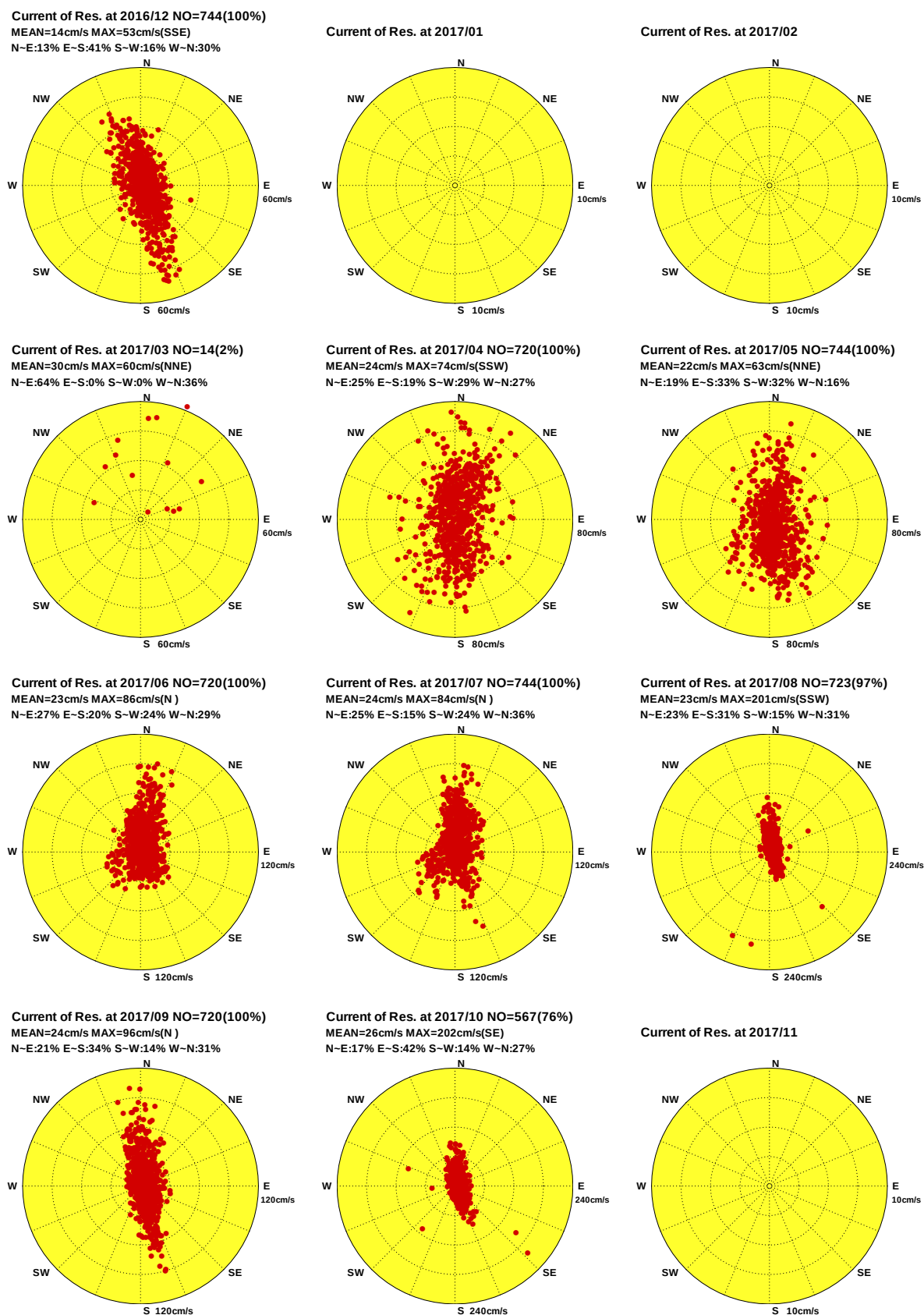


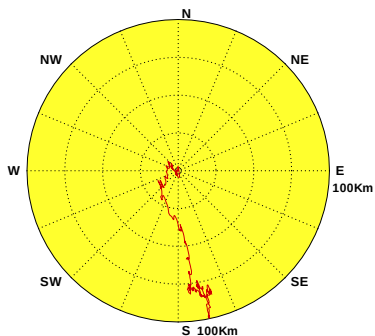
圖4.9e 2017年高雄海域每月測站2計算殘流向量分佈圖

C16CKH20.1HR C171KH20.1HR C172KH20.1HR C173KH20.1HR C174KH20.1HR C175KH20.1HR
 C176KH20.1HR C177KH20.1HR C178KH20.1HR C179KH20.1HR C17AKH20.1HR C17BKH20.1HR

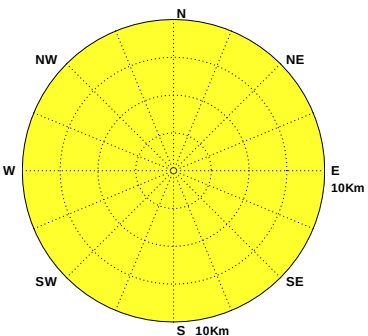
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Progressive Vector Diagram of Current

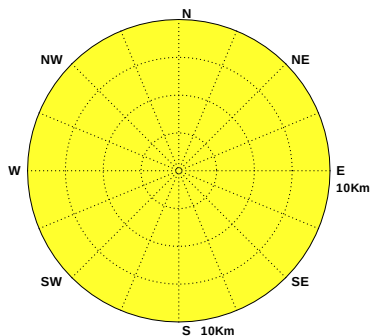
Current of Res. at 2016/12 NO=744(100%)
MEAN=14cm/s MAX=53cm/s(SSE)
N~E:13% E~S:41% S~W:16% W~N:30%



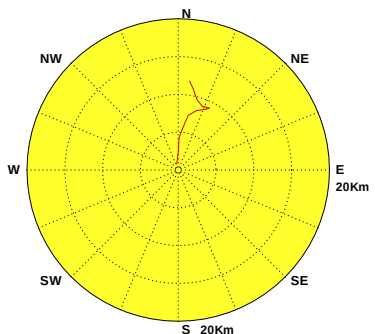
Current of Res. at 2017/01



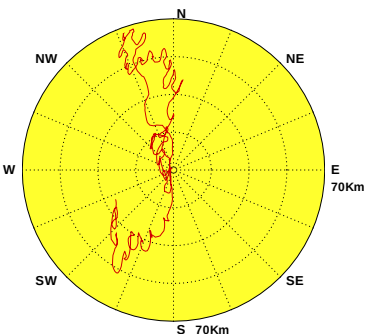
Current of Res. at 2017/02



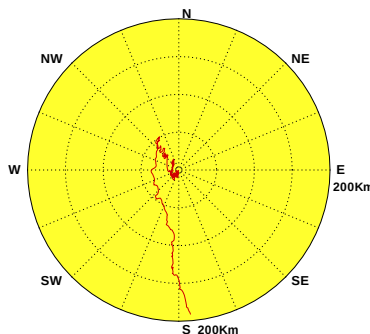
Current of Res. at 2017/03 NO=14(2%)
MEAN=30cm/s MAX=60cm/s(NNE)
N~E:64% E~S:0% S~W:0% W~N:36%



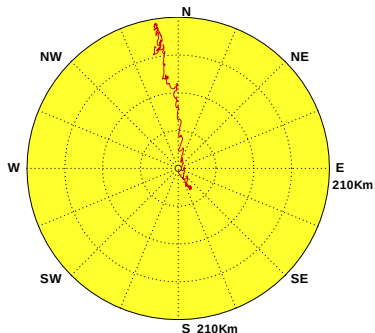
Current of Res. at 2017/04 NO=720(100%)
MEAN=24cm/s MAX=74cm/s(SSW)
N~E:25% E~S:19% S~W:29% W~N:27%



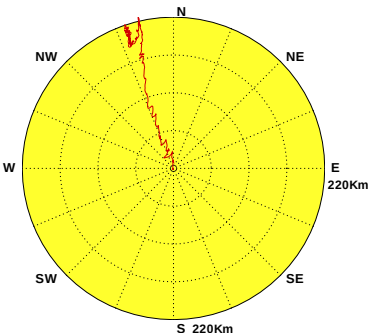
Current of Res. at 2017/05 NO=744(100%)
MEAN=22cm/s MAX=63cm/s(NNE)
N~E:19% E~S:33% S~W:32% W~N:16%



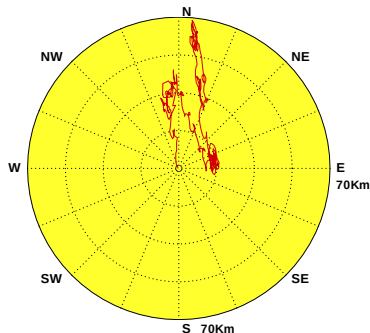
Current of Res. at 2017/06 NO=720(100%)
MEAN=23cm/s MAX=86cm/s(N)
N~E:27% E~S:20% S~W:24% W~N:29%



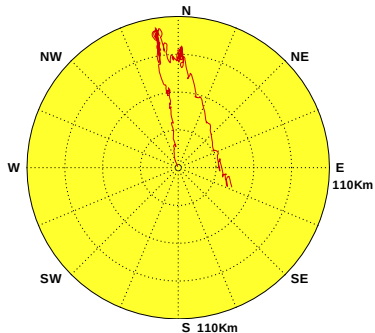
Current of Res. at 2017/07 NO=744(100%)
MEAN=24cm/s MAX=84cm/s(N)
N~E:25% E~S:15% S~W:24% W~N:36%



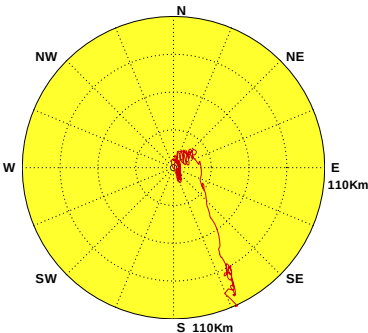
Current of Res. at 2017/08 NO=723(97%)
MEAN=23cm/s MAX=201cm/s(SSW)
N~E:23% E~S:31% S~W:15% W~N:31%



Current of Res. at 2017/09 NO=720(100%)
MEAN=24cm/s MAX=96cm/s(N)
N~E:21% E~S:34% S~W:14% W~N:31%



Current of Res. at 2017/10 NO=567(76%)
MEAN=26cm/s MAX=202cm/s(SE)
N~E:17% E~S:42% S~W:14% W~N:27%



Current of Res. at 2017/11

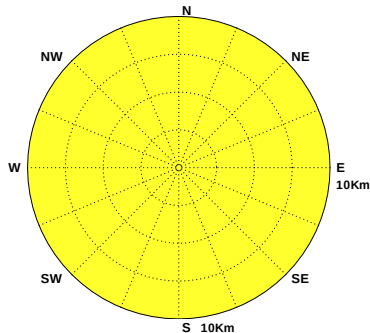


圖4.9f 2017年高雄海域每月測站2計算殘流向量行進圖

C16CKH20.1HR C171KH20.1HR C172KH20.1HR C173KH20.1HR C174KH20.1HR C175KH20.1HR
C176KH20.1HR C177KH20.1HR C178KH20.1HR C179KH20.1HR C17AKH20.1HR C17BKH20.1HR

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