

109-043-7B86

MOTC-IOT-108-H3DA001b-Y16

2018 年港灣環境資訊網
海氣象觀測資料年報
(馬祖海域風浪潮流觀測資料)



交通部運輸研究所

中華民國 109 年 2 月

GPN : 1010900100

定價:100 元

109-043-7B86

MOTC-IOT-108-H3DA001b-Y16

2018 年港灣環境資訊網 海氣象觀測資料年報 (馬祖海域風浪潮流觀測資料)

著者：蘇青和、李俊穎、傅怡釗
蔣敏玲、劉清松、陳鈞彥

交通部運輸研究所

中華民國 109 年 2 月

國家圖書館出版品預行編目(CIP)資料

港灣環境資訊網海氣象觀測資料年報(馬祖海域風
浪潮流觀測資料). 2018年 / 蘇青和等著. -- 初
版. -- 臺北市 : 交通部運研所, 民 109.02
面 ; 公分
ISBN 978-986-531-072-1(平裝)

1. 海洋氣象

444.94

108022737

2018年港灣環境資訊網海氣象觀測資料年報(馬祖海域風浪潮流觀測資料)

編輯：蘇青和、李俊穎、傅怡釧、蔣敏玲、劉清松、陳鈞彥

出版機關：交通部運輸研究所

地址：10548 臺北市敦化北路 240 號

網址：www.ihmt.gov.tw (中文版 > 中心出版品)

電話：(04)26587134

出版年月：中華民國 109 年 2 月

印刷者：

版(刷)次冊數：初版一刷 20 冊

本書同時登載於交通部運輸研究所港灣技術研究中心網站

定價：100 元

展售處：

交通部運輸研究所運輸資訊組•電話：(02)23496880

國家書店松江門市：10485 臺北市中山區松江路 209 號 F1•電話：(02)25180207

五南文化廣場：40042 臺中市中山路 6 號•電話：(04)22260330

GPN：1010900100 ISBN：978-986-531-072-1 (平裝)

著作財產權人：中華民國(代表機關：交通部運輸研究所)

本著作保留所有權利，欲利用本著作全部或部份內容者，須徵求交通部運輸研究所書面授權。

交通部運輸研究所自行研究計畫出版品摘要表

| | | | |
|--|-------------------------|----------------------------|--|
| 出版品名稱：2018 年港灣環境資訊網海氣象觀測資料年報(馬祖海域風浪潮流觀測資料) | | | |
| 國際標準書號(或叢刊號) ISBN 978-986-531-072-1 (平裝) | 政府出版品統一編號 1010900100 | 運輸研究所出版品編號 109-043-7B86 | 計畫編號 108-H3DA001b-Y16 |
| 主辦單位：港灣技術研究中心 主管：蔡立宏 主持人：蘇青和 研究人員：李俊穎、傅怡釗、蔣敏玲、劉清松、陳鈞彥 研究助理：林珂如、謝佳紘 聯絡電話：04-26587175, 04-26587133, 04-26587132 傳真號碼：04-26571329 | | | 研究期間 自 108 年 01 月 至 108 年 12 月 |
| 關鍵詞:港灣環境資訊網、2018 年、馬祖海域、觀測海氣象資料、年報 | | | |
| 摘要： <p style="text-align: center;">本港灣環境資訊網觀測海氣象資料年報，包括馬祖海域2018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。</p> | | | |
| 出版日期 | 頁數 | 定價 | 本出版品取得方式 |
| 109 年 2 月 | 380 | 100 元 | 凡屬機密性出版品均不對外公開。普通性出版品，公營、公益機關團體及學校可函洽本所免費贈閱；私人及私營機關團體可按定價價購。 |
| 機密等級： <input type="checkbox"/> 密 <input type="checkbox"/> 機密 <input type="checkbox"/> 極機密 <input type="checkbox"/> 絕對機密 (解密條件： <input type="checkbox"/> 年 <input type="checkbox"/> 月 <input type="checkbox"/> 日解密， <input type="checkbox"/> 公布後解密， <input type="checkbox"/> 附件抽存後解密， <input type="checkbox"/> 工作完成或會議終了時解密， <input type="checkbox"/> 另行檢討後辦理解密) <input checked="" type="checkbox"/> 普通 | | | |
| 備註：本研究之結論與建議不代表交通部之意見。 | | | |

2018年港灣環境資訊網海氣象觀測資料年報 (馬祖海域風浪潮流觀測資料)

目 錄

| | |
|---------------------------------------|-----|
| 中文摘要 | I |
| 英文摘要 | II |
| 目錄 | III |
| 誌謝 | V |
| 第 0 章 馬祖海域觀測風浪潮流資料蒐集 | 0-1 |
| 第一章 2018 年馬祖海域觀測風力資料年報 | 1-1 |
| 1.1 2018 年馬祖海域觀測風力資料年報圖表 | 1-1 |
| 1.2 2018 年馬祖海域各測站修補前風力統計量統計表 | 1-2 |
| 1.3 2018 年馬祖海域主要測站 1 與其他測站風力歷線比較圖 ... | 1-3 |
| 1.4 2018 年馬祖海域主要測站 2 與其他測站風力歷線比較圖 ... | 1-4 |
| 1.5 2018 年馬祖海域各測站修補前風力向量分佈圖 | 1-5 |
| 1.6 2018 年馬祖海域各測站修補前風力向量行進圖 | 1-6 |
| 第二章 2018 年馬祖海域觀測波浪資料年報 | 2-1 |
| 2.1 2018 年馬祖海域觀測波浪資料年報圖表 | 2-1 |
| 2.2 2018 年馬祖海域各測站修補前波浪統計量統計表 | 2-2 |
| 2.3 2018 年馬祖海域主要測站 1 與其他測站波浪歷線比較圖 ... | 2-3 |
| 2.4 2018 年馬祖海域主要測站 2 與其他測站波浪歷線比較圖 ... | 2-4 |
| 2.5 2018 年馬祖海域各測站修補前波浪向量分佈圖 | 2-5 |
| 第三章 2018 年馬祖海域觀測潮汐資料年報 | 3-1 |
| 3.1 2018 年馬祖海域觀測潮汐資料年報圖表 | 3-1 |
| 3.2 2018 年馬祖海域各測站修補前潮汐統計量統計表 | 3-2 |
| 3.3 2018 年馬祖海域主要測站 1 與其他測站潮汐歷線比較圖 ... | 3-3 |
| 3.4 2018 年馬祖海域主要測站 2 與其他測站潮汐歷線比較圖 ... | 3-4 |

| | | |
|------------|-----------------------------------|------------|
| 3.5 | 2018 年馬祖海域主要測站 3 與其他測站潮汐歷線比較圖 ... | 3-5 |
| 第四章 | 2018 年馬祖海域觀測海流資料年報 | 4-1 |
| 4.1 | 2018 年馬祖海域觀測海流資料年報圖表 | 4-1 |
| 4.2 | 2018 年馬祖海域各測站海流統計量統計表 | 4-2 |
| 4.3 | 2018 年馬祖海域各測站海流歷線比較圖 | 4-3 |
| 4.4 | 2018 年馬祖海域各測站海流向量分佈圖 | 4-4 |
| 4.5 | 2018 年馬祖海域各測站海流向量行進圖 | 4-5 |

誌 謝

2018 年港灣環境資訊網觀測風力資料，蒐集之馬祖海域風力資料，除本中心自行觀測之外，在馬祖氣象站(測站 E)、馬祖海上浮標(測站 Y)等觀測風力資料，係交通部 中央氣象局(CWB)提供，謹致謝忱。

2018 年港灣環境資訊網觀測波浪資料，蒐集之馬祖海域波浪資料，除本中心自行觀測之外，在馬祖海上浮標(測站 Y)觀測波浪資料，係交通部 中央氣象局(CWB)提供，謹致謝忱。

2018 年港灣海氣象觀測潮汐資料，蒐集之馬祖海域潮汐觀測資料，除本中心自行觀測之外，在馬祖(測站 F)觀測潮汐資料，係交通部 中央氣象局 提供，謹致謝忱。

2018 年港灣環境資訊網觀測海流資料，蒐集之馬祖海域海流資料，除本中心自行觀測之外，在馬祖海上浮標(測站 Y)觀測海流資料，係交通部 中央氣象局(CWB)提供，謹致謝忱。

第 0 章 馬祖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。

馬祖海域觀測風力資料測站統計表如表 WU1，觀測波浪資料測站統計表如表 VU1，觀測潮汐資料測站統計表如表 TU1，觀測海流資料測站統計表如表 CU1。

表 WU1 馬祖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 |
|------|------|------------|-----------|-----------|----------|----|
| 馬祖海域 | 7 | 5 | 2 | | | |

表 VU1 馬祖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 |
|------|------|------------|-----------|-----------|----------|----|
| 馬祖海域 | 6 | 5 | 1 | 0 | 0 | |

表 TU1 馬祖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 |
|------|------|------------|-----------|-----------|----------|----|
| 馬祖海域 | 11 | 10 | 1 | 0 | 0 | |

表 CU1 馬祖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 |
|------|------|------------|-----------|-----------|----------|----|
| 馬祖海域 | 5 | 5 | 0 | 0 | 0 | |

註:資料更新時間為 2018 年。

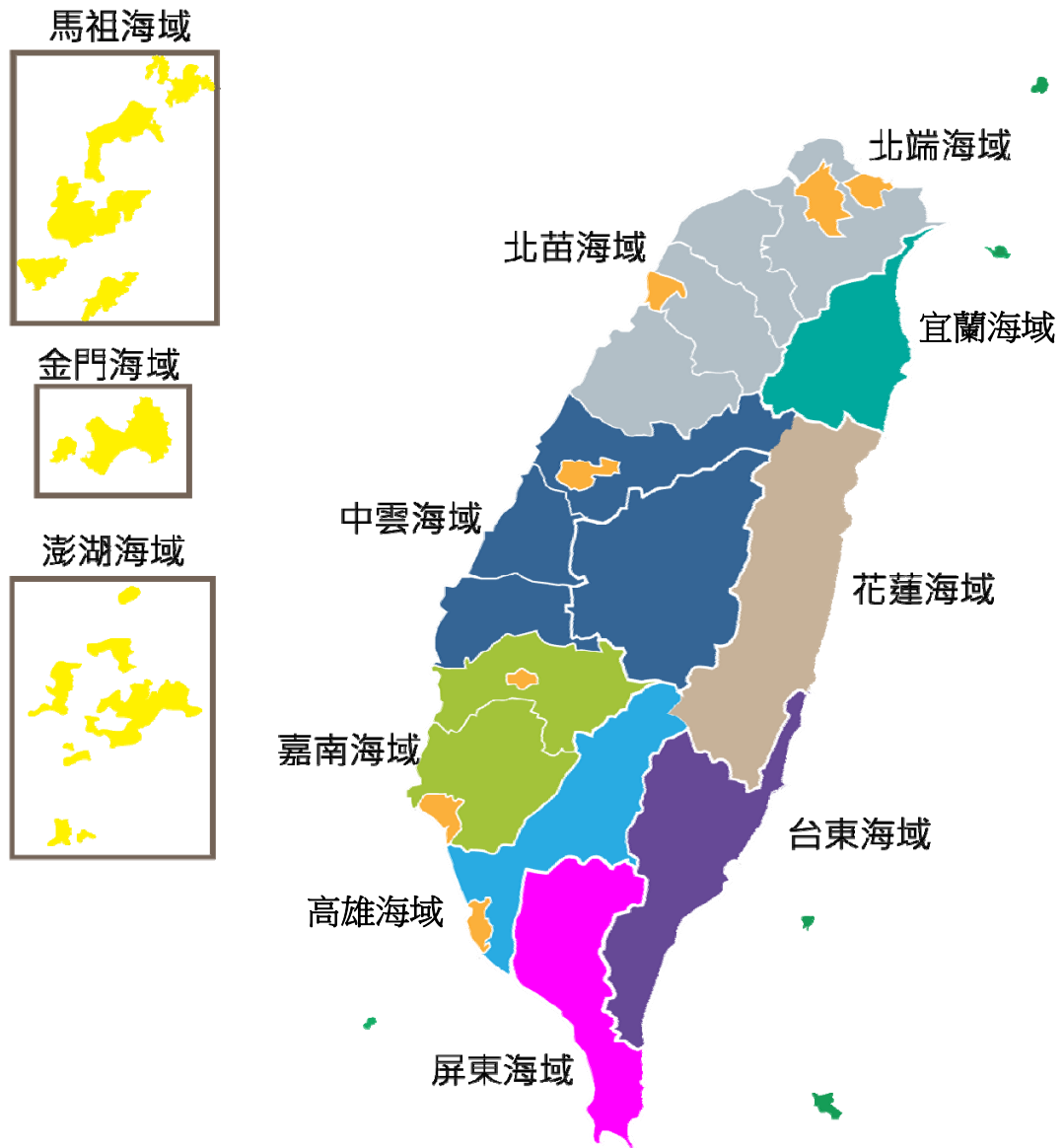


圖 A1 臺灣 12 海域區分示意圖

2018 年馬祖海域觀測風力資料

馬祖海域風之觀測係 2012 年 10 月本中心(IHMT)安裝 Young Brand 風速計於馬祖福澳港辦事處頂樓(稱測站 W)，其位置如附圖 WU1。2015 年 9 月本中心於北竿、西莒、東引及東莒等 4 處增設風速站(稱測站 B、測站 C、測站 D 及測站 I)。

測站 E 之風速儀屬中央氣象局(CWB)所有，測站 Y(海域資料浮標)之風速儀也屬屬中央氣象局所有。馬祖海域各測站歷年觀測風資料蒐集概況如表 WU1。

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 WU1 馬祖海域觀測風力資料蒐集概況表(統計時間至 2018 年 11 月)

| 測站 | 緯度 | 經度 | 觀測期間 | 觀測單位 | 備註 |
|----|------------|--------------|----------------------|-------|--------|
| W | 26°9'36"N | 119°56'37"E | 2012/10-2018/11(觀測中) | 港研中心 | 福澳港 |
| E | 26°10'10"N | 119°55'23"E | 2004/01-2018/11(觀測中) | 中央氣象局 | 福澳港區 |
| Y | 26°22'36"N | 120°31'53"E | 2010/07-2018/11(觀測中) | 中央氣象局 | 馬祖資料浮標 |
| B | 26°12'25"N | 119°58'3.5"E | 2015/09-2018/11(觀測中) | 港研中心 | 北竿港 |
| C | 25°58'11"N | 119°55'55"E | 2015/09-2018/11(觀測中) | 港研中心 | 西莒港 |
| D | 26°9'36"N | 119°56'37"E | 2015/09-2018/11(觀測中) | 港研中心 | 東引港 |
| I | 26°21'49"N | 120°29'2.5"E | 2015/09-2018/11(觀測中) | 港研中心 | 東莒港 |

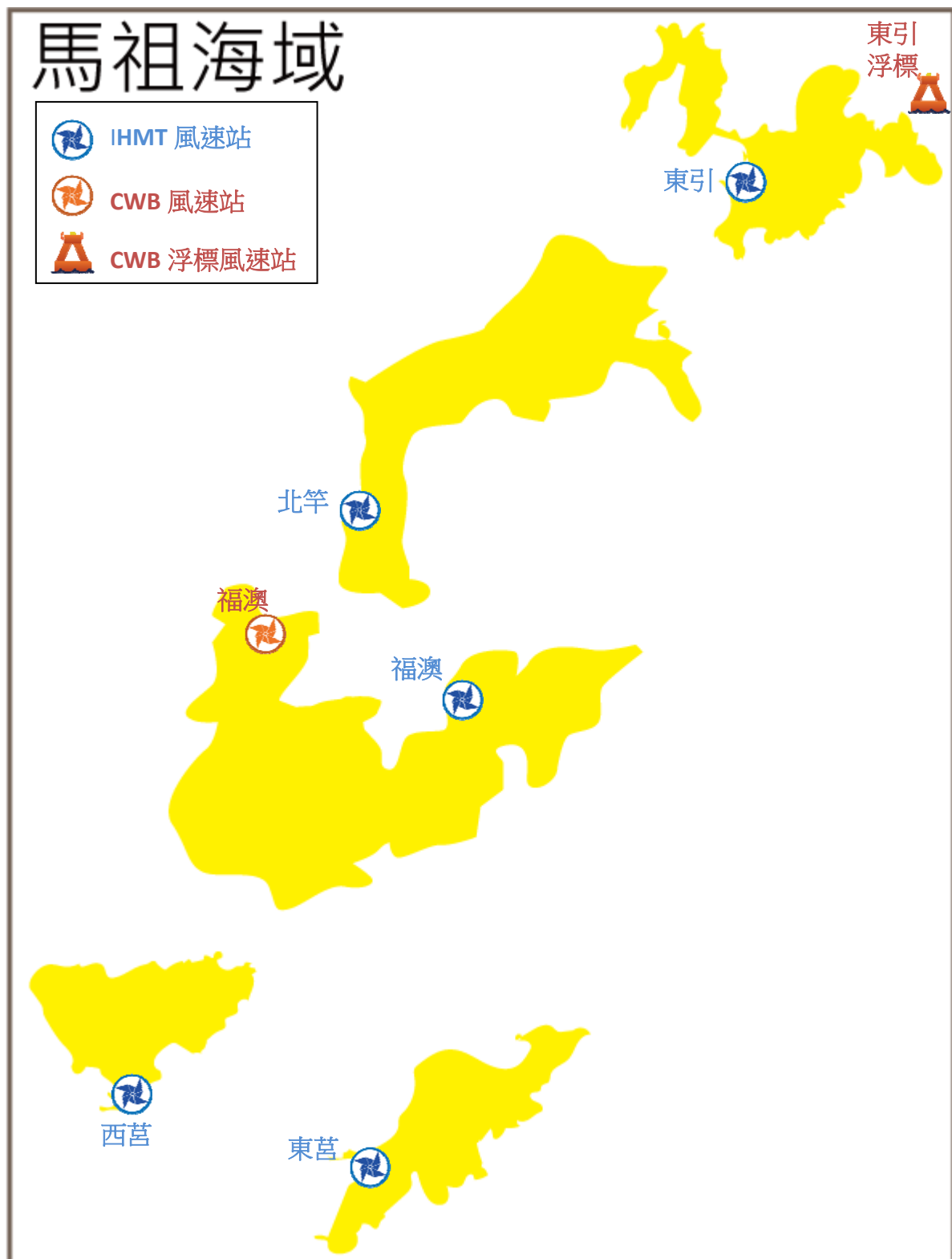


圖 WU1 馬祖海域風力觀測站位置示意圖

2018 年馬祖海域觀測波浪資料

馬祖海域風之觀測係 2014 年 10 月本中心(IHMT)安裝挪威 NORTEK 公司潮波流儀(AWAC)於馬祖福澳港區(稱**測站 X**)，其位置如附圖 VU1。2015 年 9 月本中心於北竿、西莒、東引及東莒等 4 處增設潮波流儀 AWAC(稱**測站 A**、**測站 1**、**測站 2**及**測站 3**)。

測站 Y 之波浪儀也屬屬中央氣象局(CWB)所有。馬祖海域各測站歷年觀測波浪資料蒐集概況如表 VU1。

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 VU1 馬祖海域觀測波浪資料蒐集概況表(統計時間至 2018 年 11 月)

| 測站 | 緯度 | 經度 | 觀測期間 | 觀測單位 | 備註 |
|----|-------------|--------------|----------------------|-------|------------|
| X | 26°09'87"N | 119°56'11"E | 2014/10-2018/11(觀測中) | 港研中心 | 馬祖福澳港 AWCP |
| A | 26°12'18"N | 119°58'1 "E | 2015/09-2018/11(觀測中) | 港研中心 | 北竿港區 AWCP |
| 1 | 25°58'8 "N | 119°55'54 "E | 2015/09-2016/10 | 港研中心 | 西莒 AWCP |
| 2 | 26°21'55 "N | 120°29'2 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東引 AWCP |
| 3 | 25°57'31 "N | 119°57'47 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東莒 AWCP |
| Y | 26°22'36"N | 120°31'53"E | 2010/08-2018/11(觀測中) | 中央氣象局 | 馬祖資料浮標 |

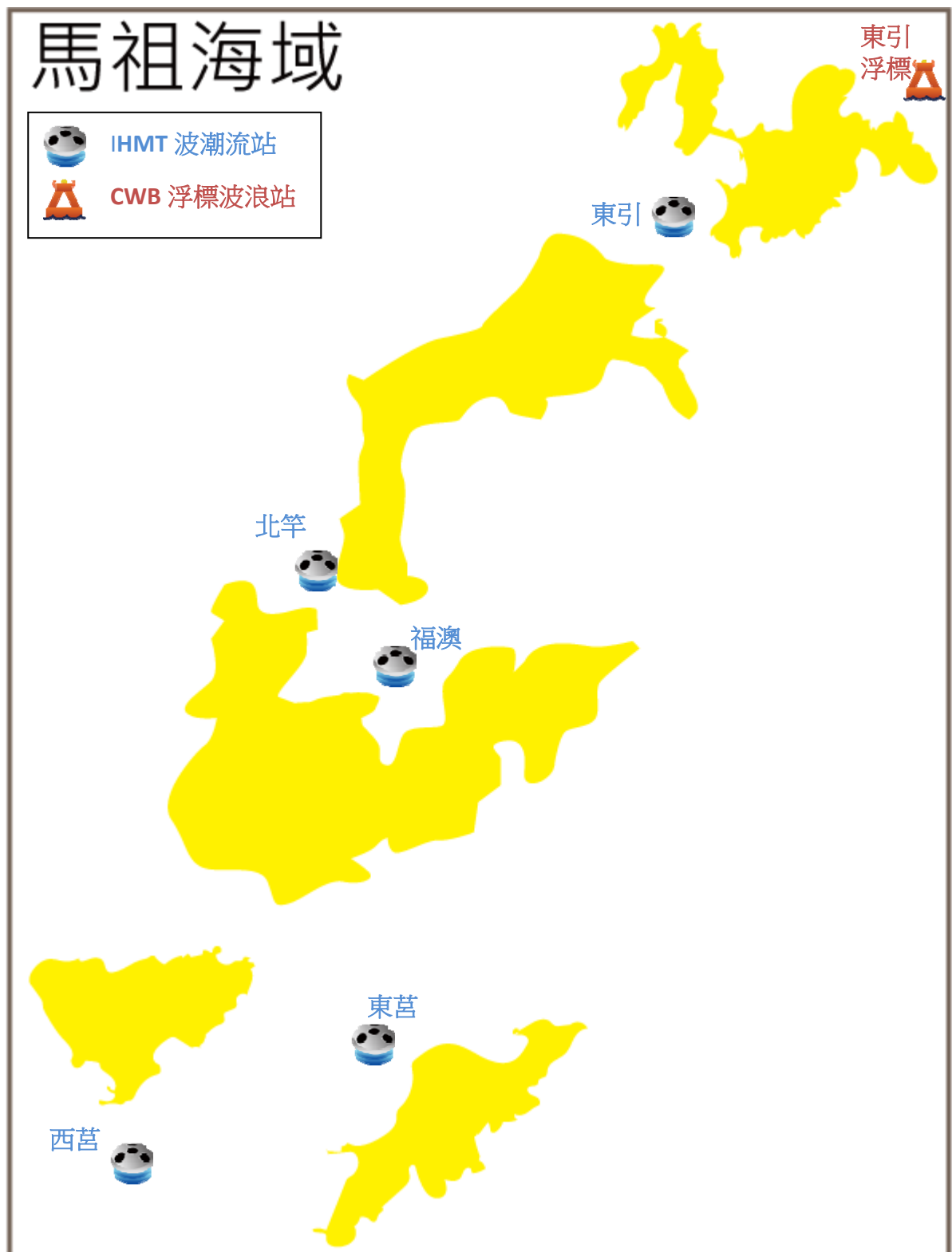


圖 VU1 馬祖海域波浪觀測站位置示意圖

2018 年馬祖海域觀測潮汐資料

馬祖海域潮位之觀測 2013 年 10 月本中心安裝潮位計於馬祖福澳港區(稱**測站 T**)，其位置如附圖 TU1。2014 年 10 月本中心安裝 AWAC 系統於福澳港附近海域(稱**測站 X**)。2015 年 9 月於北竿、西莒、東引及東莒等港區安裝潮位計(稱**測站 S**、**測站 G**、**測站 L**及**測站 M**)，同時於北竿、西莒、東引及東莒等港區附近海域安裝 AWAC 系統(稱**測站 A**、**測站 1**、**測站 2**及**測站 3**)。測站 F 之潮位儀屬中央氣象局所有。馬祖海域各測站歷年觀測潮汐資料蒐集概況如表 TU1。

潮位**測站 X**等潮波流儀，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**等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 TU1 馬祖海域觀測潮汐資料蒐集概況表(統計時間至 2018 年 11 月)

| 測站 | 緯度 | 經度 | 觀測期間 | 觀測單位 | 備註 |
|----|-------------|--------------|----------------------|-------|---------|
| T | 26°09'36"N | 119°56'37"E | 2013/10-2018/11(觀測中) | 港研中心 | 福澳港區潮位站 |
| S | 26°12'15"N | 119°58'1"E | 2015/09-2018/11(觀測中) | 港研中心 | 北竿港區潮位站 |
| G | 25°58'9"N | 119°55'57"E | 2015/09-2018/11(觀測中) | 港研中心 | 西莒港區潮位站 |
| L | 26°21'50"N | 120°29'2"E | 2015/09-2018/11(觀測中) | 港研中心 | 東引港區潮位站 |
| M | 25°57'31"N | 119°57'49"E | 2015/09-2018/11(觀測中) | 港研中心 | 東莒港區潮位站 |
| F | 26° 9'42"N | 119°56'36E | 2004/01-2013/12 | 中央氣象局 | 馬祖潮位站 |
| X | 26°09'87"N | 119°56'11"E | 2014/10-2018/11(觀測中) | 港研中心 | 福澳港區外海 |
| A | 26°12'18"N | 119°58'1 "E | 2015/09-2018/11(觀測中) | 港研中心 | 北竿港區外海 |
| 1 | 25°58'8 "N | 119°55'54 "E | 2015/09-2018/11(觀測中) | 港研中心 | 西莒港區外海 |
| 2 | 26°21'55 "N | 120°29'2 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東引港區外海 |
| 3 | 25°57'31 "N | 119°57'47 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東莒港區外海 |

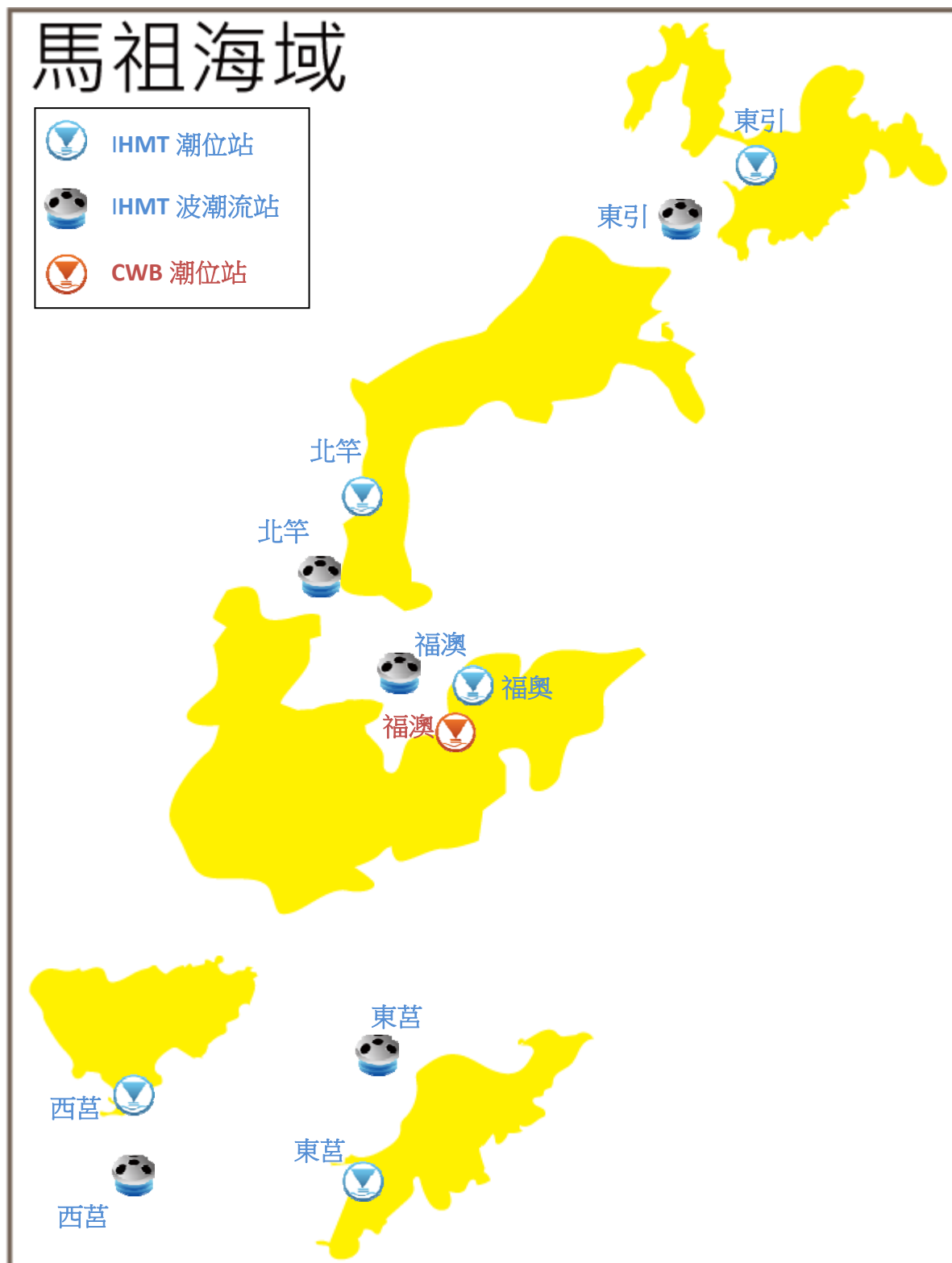


圖 TU1 馬祖海域潮汐觀測站位置示意圖

2018 年馬祖海域觀測海流資料

馬祖海域海流之觀測係 2014 年 10 月本中心(IHMT)安裝挪威 NORTEK 公司表面波浪監測系統於馬祖港福澳港區(稱**測站 X**)，其位置如附圖 CU1。2015 年 9 月本中心於北竿、西莒、東引及東莒等 4 處增設潮波流儀 AWAC(稱**測站 A**、**測站 1**、**測站 2**及**測站 3**)。

測站 Y 之海流儀也屬屬中央氣象局(CWB)所有，馬祖海域各測站歷年觀測海流資料蒐集概況如表 CU1。

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，馬祖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 CU1 馬祖海域觀測海流資料蒐集概況表(統計時間至 2018 年 11 月)

| 測站 | 緯度 | 經度 | 觀測期間 | 觀測單位 | 備註 |
|----|-------------|--------------|----------------------|-------|------------|
| X | 26°09'87"N | 119°56'11"E | 2014/10-2018/11(觀測中) | 港研中心 | 馬祖福澳港 AWCP |
| A | 26°12'18"N | 119°58'1 "E | 2015/09-2018/11(觀測中) | 港研中心 | 北竿港區 AWCP |
| 1 | 25°58'8 "N | 119°55'54 "E | 2015/09-2016/10 | 港研中心 | 西莒 AWCP |
| 2 | 26°21'55 "N | 120°29'2 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東引 AWCP |
| 3 | 25°57'31 "N | 119°57'47 "E | 2015/09-2018/11(觀測中) | 港研中心 | 東莒 AWCP |
| Y | 26°22'36"N | 120°31'53"E | 2018/09-2018/11(觀測中) | 中央氣象局 | 馬祖資料浮標 |

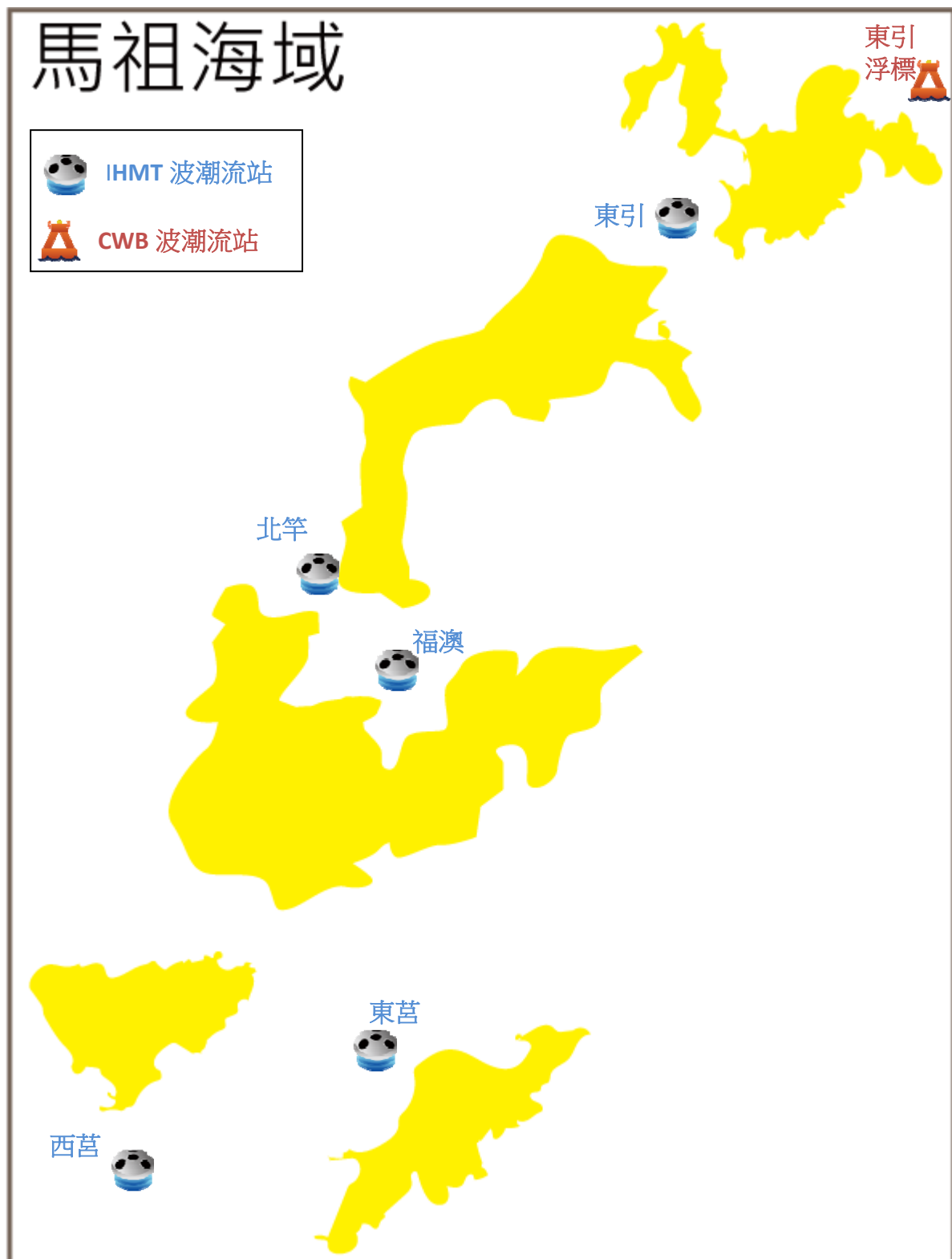


圖 CU1 馬祖海域海流觀測站位置示意圖

第一章 2018 年馬祖海域觀測風力資料

馬祖海域風之觀測包括測站 **W**、測站 **Y**、測站 **B**、測站 **E**、測站 **C**、測站 **D** 及測站 **I** 等 7 個測站(測站位置如第 0 章圖 WU1)。本年報取經檢核及補遺之 **Y** 站資料作為主要測站 1，**W** 站資料作為主要測站 2。

1.1 2018 年馬祖海域觀測風力資料年報圖表

本章第 1 節**風力**年報資料處理之圖表包括：

1. 表 1.1.1a 2018 年**各觀測站**每月**觀測風力**資料**修補前**記錄表。
2. 表 1.1.1b 2018 年**主要測站**每月**觀測風力**資料**修補後**記錄表。
3. 表 1.1.2 2018 年**主要測站 1** **修補後**每月(季)及整年風速及風向重要統計量統計表。
4. 表 1.1.3 2018 年**主要測站 2** **修補後**每月(季)及整年風速及風向重要統計量統計表。
5. 圖 1.1.1a 2018 年**主要測站 1** **修補前後**每月風速歷線比較圖。
6. 圖 1.1.1b 2018 年**主要測站 1** **修補前後**每月風向歷線比較圖。
7. 圖 1.1.2a 2018 年**主要測站 2** **修補前後**每月風速歷線比較圖。
8. 圖 1.1.2b 2018 年**主要測站 2** **修補前後**每月風向歷線比較圖。
9. 圖 1.1.3 2018 年**主要測站 1** **修補後**每月風力向量分佈圖。
10. 圖 1.1.4 2018 年**主要測站 2** **修補後**每月風力向量分佈圖。
11. 圖 1.1.5 2018 年**主要測站 1** **修補後**每月風力向量行進圖。
12. 圖 1.1.6 2018 年**主要測站 2** **修補後**每月風力向量行進圖。

第 2 節風力年報資料處理之統計表包括：2018 年馬祖海域**各測站****修補前**每月(季)及整年風速及風向重要統計量統計表。

第 3 節風力年報資料處理之統計圖包括：2018 年馬祖海域**主要測站 1****修補後**與**其他測站(修補前)**每月風速及風向歷線比較圖。

第 4 節風力年報資料處理之統計圖包括：2018 年馬祖海域**主要測站 2****修補後**與**其他測站(修補前)**每月風速及風向歷線比較圖。

第 5 節風力年報資料處理之統計圖包括：2018 年馬祖海域**各測站****修補前**每月風力向量分佈圖。

第 6 節風力年報資料處理之統計圖包括：2018 年馬祖海域**各測站****修補前**每月風力向量行進圖。

表1.1.1a 2018年每月馬祖海域修補前各測站觀測風力資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|----------|-------------|-------------|------------|-------------|-------------|-------------|-------------|------|------|------|------|------|
| 年月/測站 | Y | W | E | B | C | D | I | | | | | |
| 2017/12月 | 126(16.9%) | * | 744(100%) | 744(100%) | 584(78.5%) | 508(68.3%) | 727(97.7%) | * | * | * | * | * |
| 2018/ 1月 | * | * | 744(100%) | 740(99.5%) | 738(99.2%) | 389(52.3%) | 741(99.6%) | * | * | * | * | * |
| 2018/ 2月 | * | * | 672(100%) | 672(100%) | 672(100%) | 29(4.3%) | 400(59.5%) | * | * | * | * | * |
| 2018/ 3月 | * | 578(77.7%) | 744(100%) | 279(37.5%) | 726(97.6%) | 711(95.6%) | 701(94.2%) | * | * | * | * | * |
| 2018/ 4月 | 280(38.9%) | 671(93.2%) | 720(100%) | 113(15.7%) | 686(95.3%) | 671(93.2%) | 682(94.7%) | * | * | * | * | * |
| 2018/ 5月 | 462(62.1%) | 691(92.9%) | 744(100%) | 258(34.7%) | 726(97.6%) | 725(97.4%) | 311(41.8%) | * | * | * | * | * |
| 2018/ 6月 | 672(93.3%) | 482(66.9%) | 720(100%) | 634(88.1%) | 701(97.4%) | 699(97.1%) | 708(98.3%) | * | * | * | * | * |
| 2018/ 7月 | 688(92.5%) | 675(90.7%) | 744(100%) | 712(95.7%) | 725(97.4%) | 726(97.6%) | 275(37.0%) | * | * | * | * | * |
| 2018/ 8月 | 683(91.8%) | 702(94.4%) | 744(100%) | 654(87.9%) | 331(44.5%) | 721(96.9%) | 453(60.9%) | * | * | * | * | * |
| 2018/ 9月 | 642(89.2%) | 637(88.5%) | 720(100%) | 614(85.3%) | 9(1.3%) | 695(96.5%) | 681(94.6%) | * | * | * | * | * |
| 2018/10月 | 734(98.7%) | 12(1.6%) | 744(100%) | 445(59.8%) | * | 737(99.1%) | 484(65.1%) | * | * | * | * | * |
| 2018/11月 | 672(93.3%) | 237(32.9%) | 720(100%) | 196(27.2%) | 421(58.5%) | 703(97.6%) | 424(58.9%) | * | * | * | * | * |
| 2018/冬季 | 126(5.8%) | * | 2160(100%) | 2156(99.8%) | 1994(92.3%) | 926(42.9%) | 1868(86.5%) | * | * | * | * | * |
| 2018/春季 | 742(33.6%) | 1940(87.9%) | 2208(100%) | 650(29.4%) | 2138(96.8%) | 2107(95.4%) | 1694(76.7%) | * | * | * | * | * |
| 2018/夏季 | 2043(92.5%) | 1859(84.2%) | 2208(100%) | 2000(90.6%) | 1757(79.6%) | 2146(97.2%) | 1436(65.0%) | * | * | * | * | * |
| 2018/秋季 | 2048(93.8%) | 886(40.6%) | 2184(100%) | 1255(57.5%) | 430(19.7%) | 2135(97.8%) | 1589(72.8%) | * | * | * | * | * |
| 2018/整年 | 4959(56.6%) | 4685(53.5%) | 8760(100%) | 6061(69.2%) | 6319(72.1%) | 7314(83.5%) | 6587(75.2%) | * | * | * | * | * |
| 起始年月 | 2017/12 | 2018/03 | 2017/12 | 2017/12 | 2017/12 | 2017/12 | 2017/12 | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | * | * | * | * | * |

1-1-3

表 1.1.1b 2018 年每月馬祖海域修補後各測站風力資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|-----------|------------|------------|------|------|------|------|------|------|------|------|------|------|
| 年月/測站 | Y | W | | | | | | | | | | |
| 2017/12 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 1 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 2 月 | 672(100%) | 672(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 3 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 4 月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 5 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 6 月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 7 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 8 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 9 月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/10 月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/11 月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/冬季 | 2160(100%) | 2160(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/春季 | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/夏季 | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/秋季 | 2184(100%) | 2184(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/整年 | 8760(100%) | 8760(100%) | * | * | * | * | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | * | * | * | * | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | * | * | * | * | * | * | * | * | * | * |

F-1-1

表1.1.2 2018年馬祖海域 Y 站修補後風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 744(100%) | 10.1 | 9.8/NE | 21.3/E | .1 | 8.7 | 90.7 | .4 | 98.1 | .4 | .1 | 1.3 | NE /48.3% |
| 2 | 2018/01 | 744(100%) | 8.0 | 7.8/NE | 13.4/NE | 3.2 | 42.2 | 54.6 | .0 | 97.0 | .7 | .3 | 2.0 | NE /59.5% |
| 3 | 2018/02 | 672(100%) | 7.5 | 6.9/NNE | 13.0/N | 10.4 | 35.9 | 53.7 | .0 | 87.5 | 4.3 | 4.9 | 3.3 | NNE/55.4% |
| 4 | 2018/03 | 744(100%) | 6.2 | 5.0/NE | 14.5/NE | 12.1 | 66.5 | 21.2 | .1 | 76.3 | 8.6 | 9.5 | 5.5 | NNE/31.3% |
| 5 | 2018/04 | 720(100%) | 4.8 | 3.0/NNE | 14.9/NE | 25.7 | 66.5 | 7.6 | .1 | 60.7 | 16.0 | 14.0 | 9.3 | NNE/26.4% |
| 6 | 2018/05 | 744(100%) | 5.5 | .9/SSW | 13.9/NE | 26.6 | 52.8 | 20.4 | .1 | 42.2 | 7.0 | 46.1 | 4.7 | SSW/19.5% |
| 7 | 2018/06 | 720(100%) | 6.9 | 1.1/ENE | 14.4/SSW | 10.3 | 56.7 | 32.6 | .4 | 57.6 | 8.1 | 32.2 | 2.1 | NNE/25.1% |
| 8 | 2018/07 | 744(100%) | 5.9 | 1.5/S | 24.6/S | 18.5 | 61.3 | 18.4 | 1.7 | 33.2 | 14.8 | 47.7 | 4.3 | SSW/19.2% |
| 9 | 2018/08 | 744(100%) | 4.9 | 1.7/SSE | 16.3/NNE | 36.4 | 45.6 | 17.5 | .5 | 27.0 | 27.4 | 37.6 | 7.9 | SSW/16.9% |
| 10 | 2018/09 | 720(100%) | 7.7 | 5.0/NNE | 15.0/NE | 17.6 | 33.6 | 47.1 | 1.7 | 72.5 | 7.9 | 16.3 | 3.3 | NNE/31.1% |
| 11 | 2018/10 | 744(100%) | 8.3 | 7.7/NE | 14.5/NNE | 6.7 | 34.1 | 58.5 | .7 | 90.9 | 2.3 | .7 | 6.2 | NE /37.8% |
| 12 | 2018/11 | 720(100%) | 8.6 | 8.3/NNE | 14.6/NE | 2.9 | 31.5 | 65.3 | .3 | 94.3 | .8 | 1.0 | 3.9 | NNE/54.0% |
| 13 | 2018/冬 | 2160(100%) | 8.6 | 8.2/NE | 21.3/E | 4.4 | 28.7 | 66.8 | .1 | 94.4 | 1.7 | 1.7 | 2.2 | NE /42.1% |
| 14 | 2018/春 | 2208(100%) | 5.5 | 2.4/NE | 14.9/NE | 21.4 | 61.9 | 16.5 | .1 | 59.7 | 10.5 | 23.3 | 6.5 | NNE/24.5% |
| 15 | 2018/夏 | 2208(100%) | 5.9 | 1.0/SSE | 24.6/S | 21.9 | 54.5 | 22.7 | .9 | 39.1 | 16.8 | 39.3 | 4.8 | SSW/18.7% |
| 16 | 2018/秋 | 2184(100%) | 8.2 | 7.0/NNE | 15.0/NE | 9.1 | 33.1 | 57.0 | .9 | 85.9 | 3.7 | 5.9 | 4.5 | NNE/40.2% |
| 17 | 2018/年 | 8760(100%) | 7.0 | 4.3/NE | 24.6/S | 14.3 | 44.7 | 40.6 | .5 | 69.6 | 8.2 | 17.7 | 4.5 | NNE/29.0% |

1-1-1

表1.1.3 2018年馬祖海域 W 站修補後風速及風向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|--------|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 744(100%) | 5.4 | 5.3/NNE | 7.1/N | 1.2 | 98.8 | .0 | .0 | 96.1 | .1 | .0 | 3.8 | NNE/49.7% |
| 2 | 2018/01 | 744(100%) | 3.5 | 3.4/NNE | 5.9/NNE | 41.0 | 59.0 | .0 | .0 | 98.1 | .4 | .3 | 1.2 | NNE/69.0% |
| 3 | 2018/02 | 672(100%) | 3.8 | 3.7/N | 5.8/N | 28.0 | 72.0 | .0 | .0 | 77.5 | 11.5 | .6 | 10.4 | N /57.0% |
| 4 | 2018/03 | 744(100%) | 3.1 | 2.3/N | 9.4/NNW | 58.6 | 40.1 | 1.3 | .0 | 22.6 | 14.7 | 5.1 | 57.7 | NNW/36.0% |
| 5 | 2018/04 | 720(100%) | 2.5 | 1.0/N | 9.0/NNW | 70.8 | 28.3 | .8 | .0 | 15.3 | 24.4 | 9.6 | 50.7 | NNW/25.7% |
| 6 | 2018/05 | 744(100%) | 3.5 | .9/ESE | 8.6/NNW | 47.6 | 51.7 | .7 | .0 | 9.4 | 46.4 | 7.4 | 36.8 | SE /29.2% |
| 7 | 2018/06 | 720(100%) | 3.6 | .7/NNE | 8.7/NNW | 43.6 | 55.8 | .6 | .0 | 25.8 | 27.6 | 12.8 | 33.8 | NNW/22.9% |
| 8 | 2018/07 | 744(100%) | 3.4 | .2/NE | 22.1/S | 53.0 | 44.6 | 1.9 | .5 | 6.7 | 44.8 | 11.0 | 37.5 | NNW/24.2% |
| 9 | 2018/08 | 744(100%) | 2.6 | .6/SE | 8.1/NNW | 69.9 | 30.0 | .1 | .0 | 12.0 | 44.0 | 11.8 | 32.3 | SE /22.7% |
| 10 | 2018/09 | 720(100%) | 4.2 | 2.8/NNW | 11.2/NNW | 40.1 | 48.6 | 11.3 | .0 | 16.0 | 16.4 | 5.1 | 62.5 | NNW/41.1% |
| 11 | 2018/10 | 744(100%) | 4.4 | 4.2/NNE | 6.8/NNE | 20.6 | 79.4 | .0 | .0 | 92.1 | 2.7 | .7 | 4.6 | NNE/62.0% |
| 12 | 2018/11 | 720(100%) | 4.0 | 3.7/N | 7.8/NNW | 29.2 | 70.8 | .0 | .0 | 66.4 | 1.5 | .8 | 31.3 | NNE/41.1% |
| 13 | 2018/冬 | 2160(100%) | 4.2 | 4.1/NNE | 7.1/N | 23.2 | 76.8 | .0 | .0 | 91.0 | 3.8 | .3 | 5.0 | NNE/50.4% |
| 14 | 2018/春 | 2208(100%) | 3.1 | 1.0/N | 9.4/NNW | 58.9 | 40.2 | 1.0 | .0 | 15.8 | 28.5 | 7.3 | 48.4 | NNW/27.7% |
| 15 | 2018/夏 | 2208(100%) | 3.2 | .3/ESE | 22.1/S | 55.6 | 43.3 | .9 | .2 | 14.7 | 38.9 | 11.9 | 34.5 | SE /20.2% |
| 16 | 2018/秋 | 2184(100%) | 4.2 | 3.5/N | 11.2/NNW | 29.9 | 66.4 | 3.7 | .0 | 58.5 | 6.8 | 2.2 | 32.5 | NNE/35.9% |
| 17 | 2018/年 | 8760(100%) | 3.7 | 2.2/NNE | 22.1/S | 42.0 | 56.5 | 1.4 | .0 | 44.7 | 19.6 | 5.5 | 30.2 | NNE/24.9% |

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

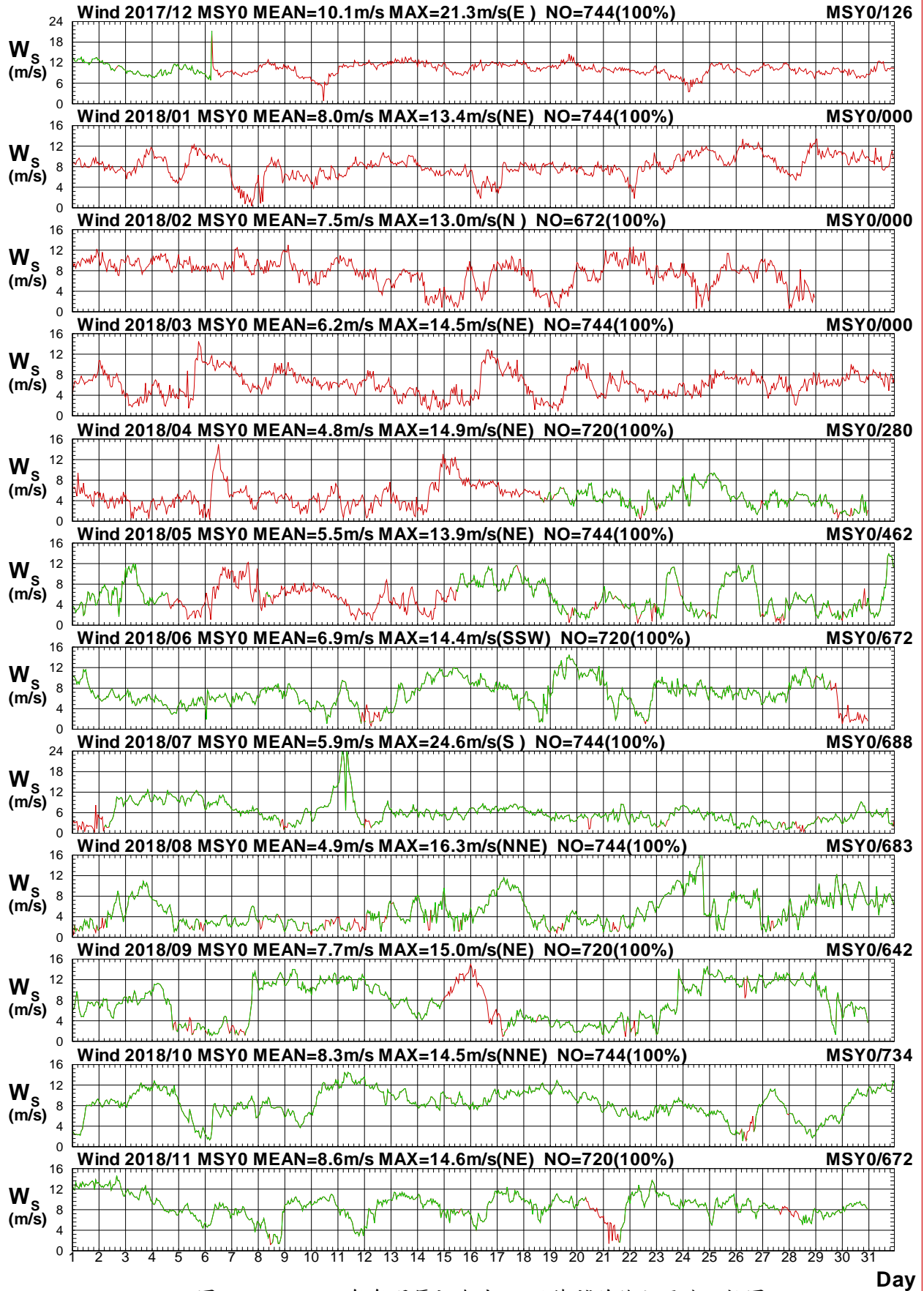


圖1.1.1a 2018年每月馬祖海域 Y 站修補前後之風速比較圖

W17CMSY0.1HA W17CMSY0.1H0 W181MSY0.1HA W181MSY0.1H0 W182MSY0.1HA W182MSY0.1H0
 W183MSY0.1HA W183MSY0.1H0 W184MSY0.1HA W184MSY0.1H0 W185MSY0.1HA W185MSY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

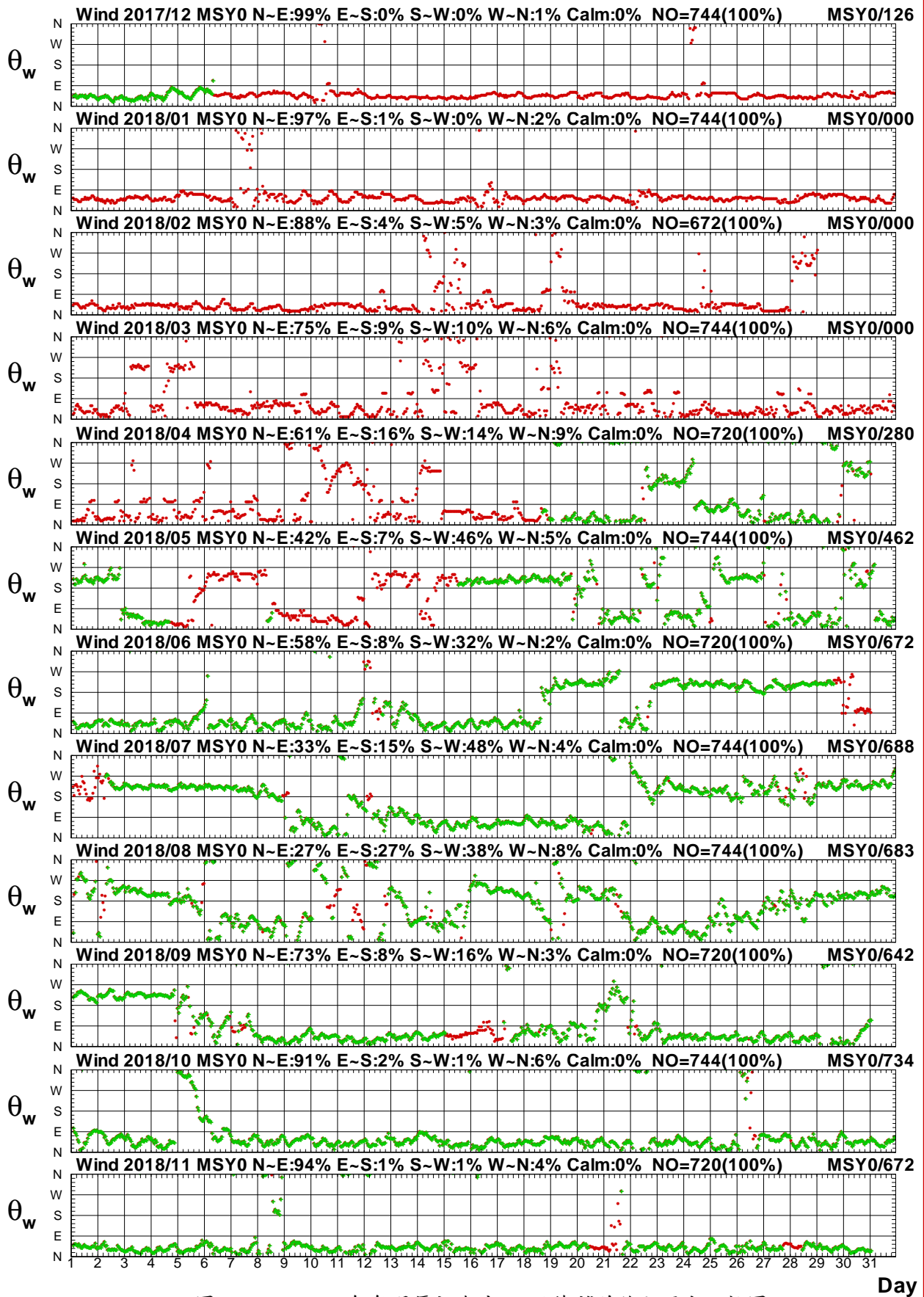


圖1.1.1b 2018年每月馬祖海域 Y 站修補前後之風向比較圖

W17CMSY0.1HA W17CMSY0.1H0 W181MSY0.1HA W181MSY0.1H0 W182MSY0.1HA W182MSY0.1H0
 W183MSY0.1HA W183MSY0.1H0 W184MSY0.1HA W184MSY0.1H0 W185MSY0.1HA W185MSY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

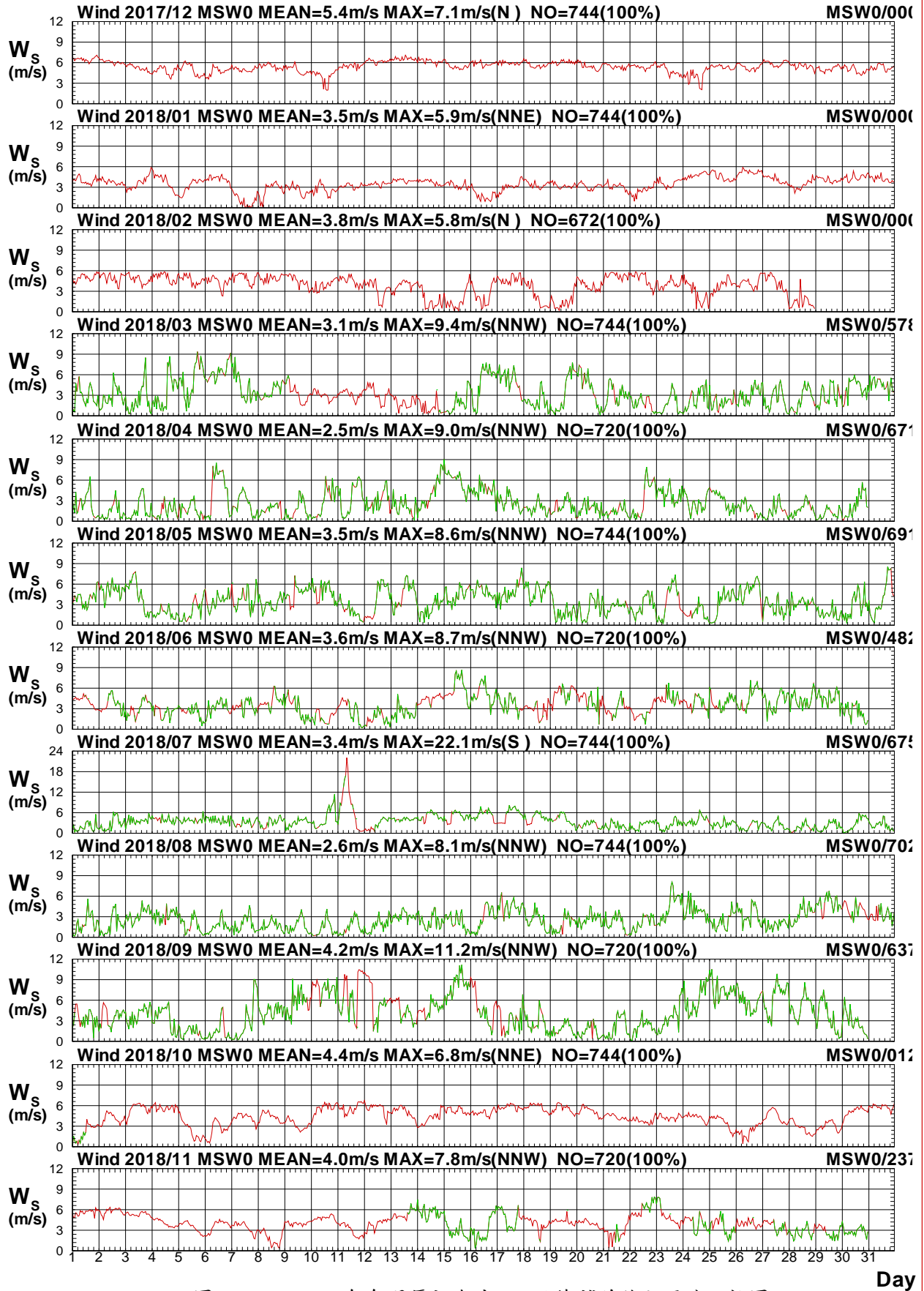


圖1.1.2a 2018年每月馬祖海域 W 站修補前後之風速比較圖

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

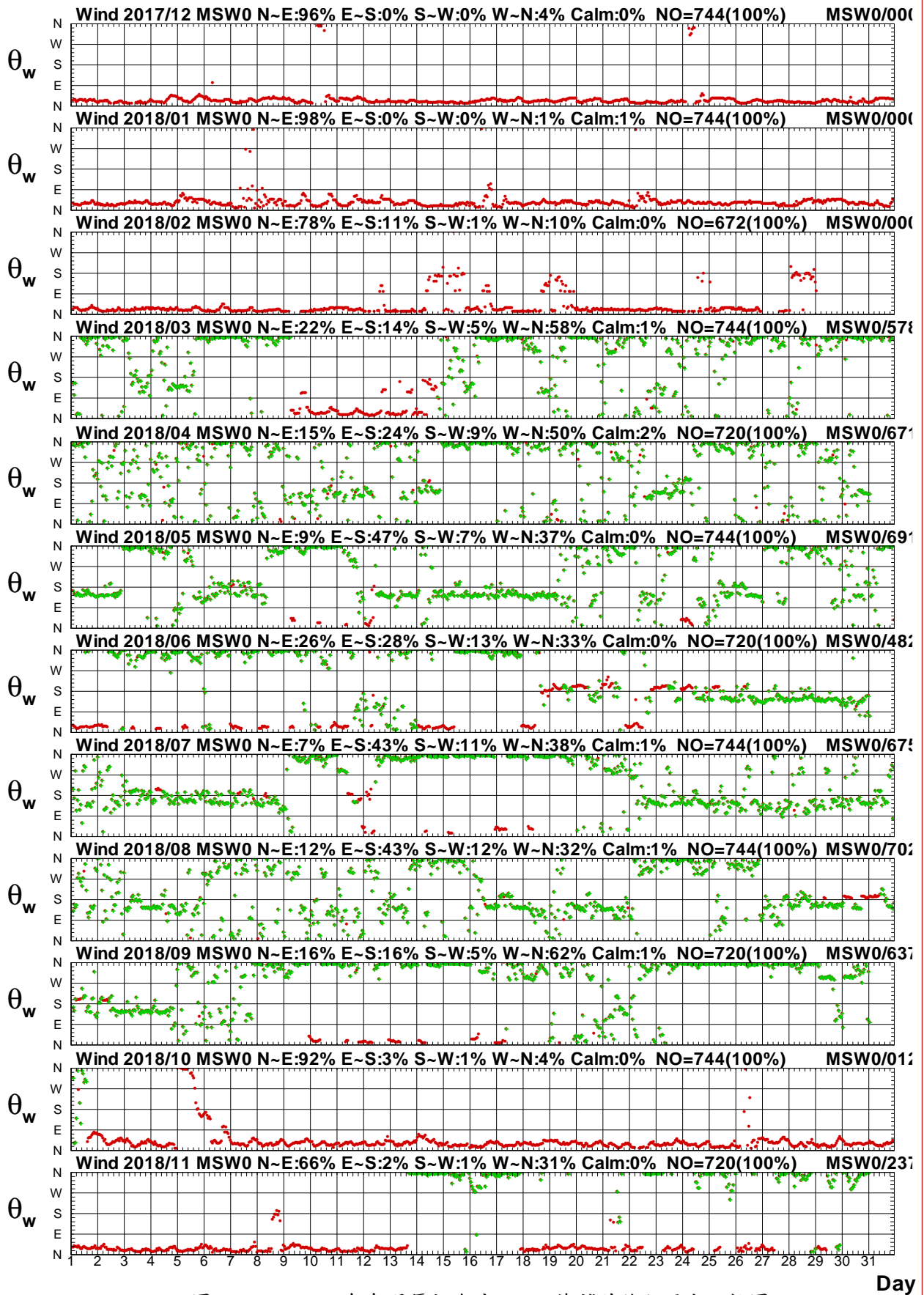


圖1.1.2b 2018年每月馬祖海域 W 站修補前後之風向比較圖

W17CMSW0.1HA W17CMSW0.1H0 W181MSW0.1HA W181MSW0.1H0 W182MSW0.1HA W182MSW0.1H0
 W183MSW0.1HA W183MSW0.1H0 W184MSW0.1HA W184MSW0.1H0 W185MSW0.1HA W185MSW0.1H0
 Institute of Harbor & Marine Technology

Distribution of Wind Vectors

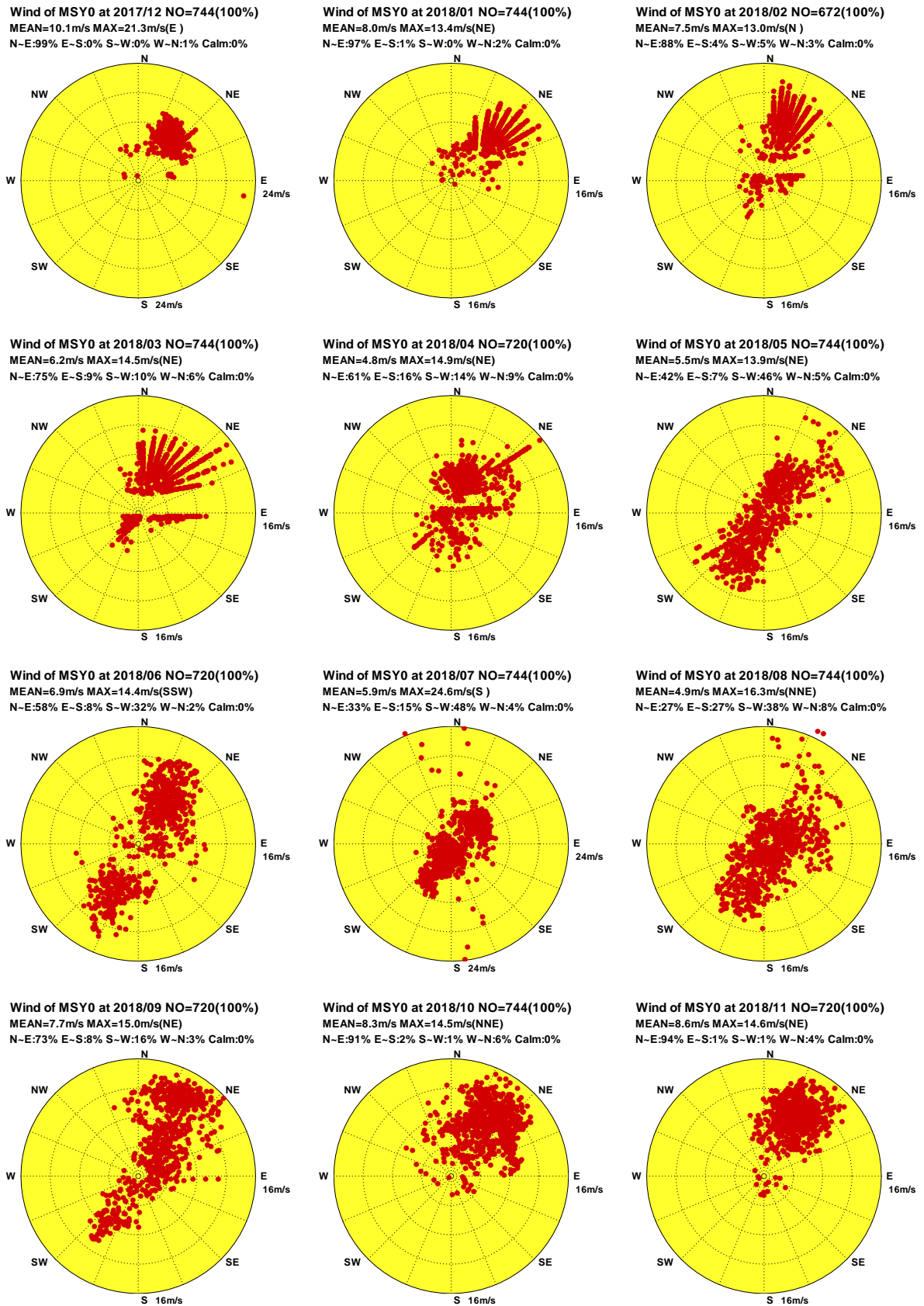


圖1.1.3 2018年馬祖海域每月 Y 站修補後觀測風力向量分佈圖

W17CMSY0.1HA W181MSY0.1HA W182MSY0.1HA W183MSY0.1HA W184MSY0.1HA W185MSY0.1HA
W186MSY0.1HA W187MSY0.1HA W188MSY0.1HA W189MSY0.1HA W18AMS0.1HA W18BMSY0.1HA

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

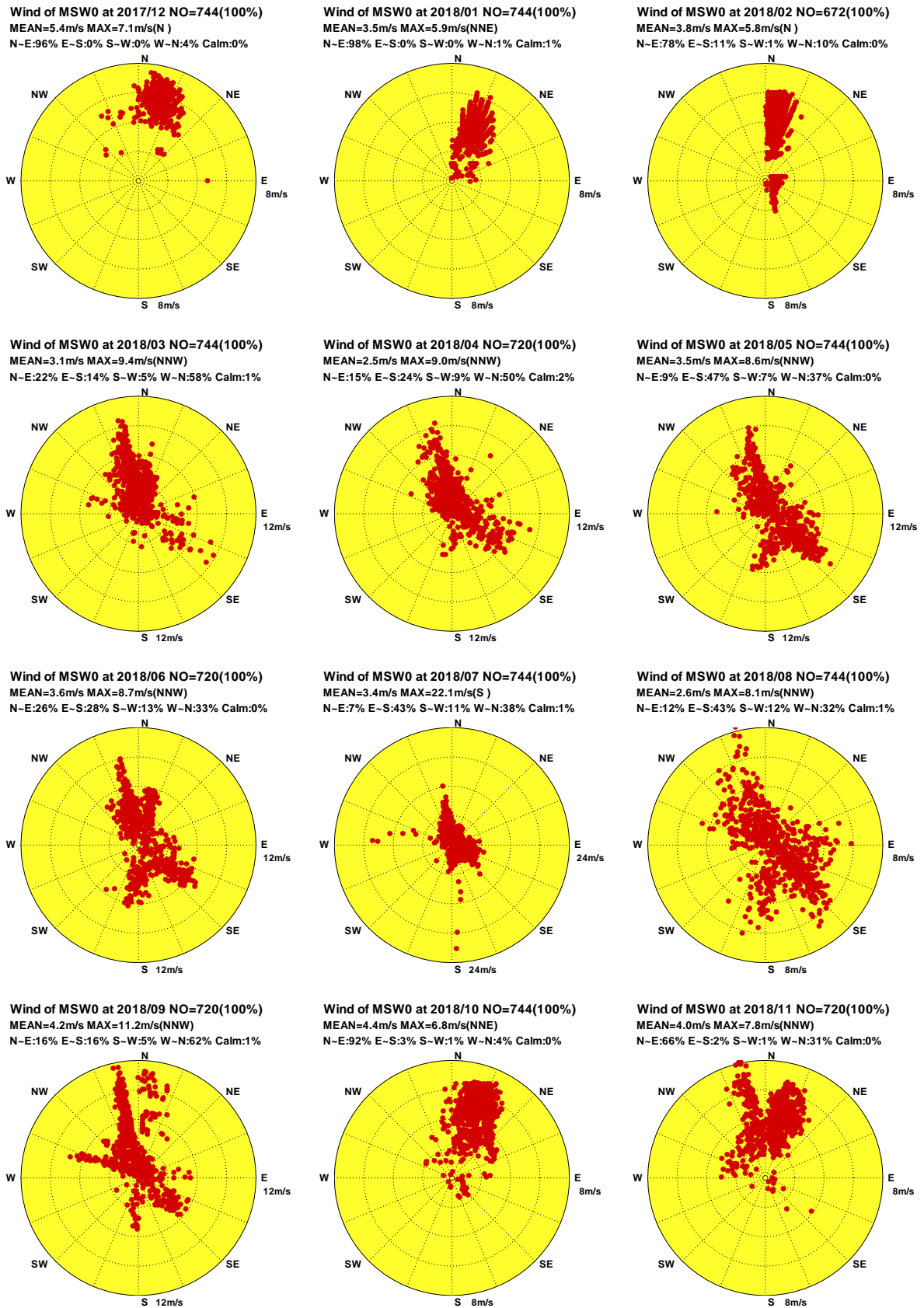


圖1.1.4 2018年馬祖海域每月 W 站修補後觀測風力向量分佈圖

Progressive Vector Diagram of Wind

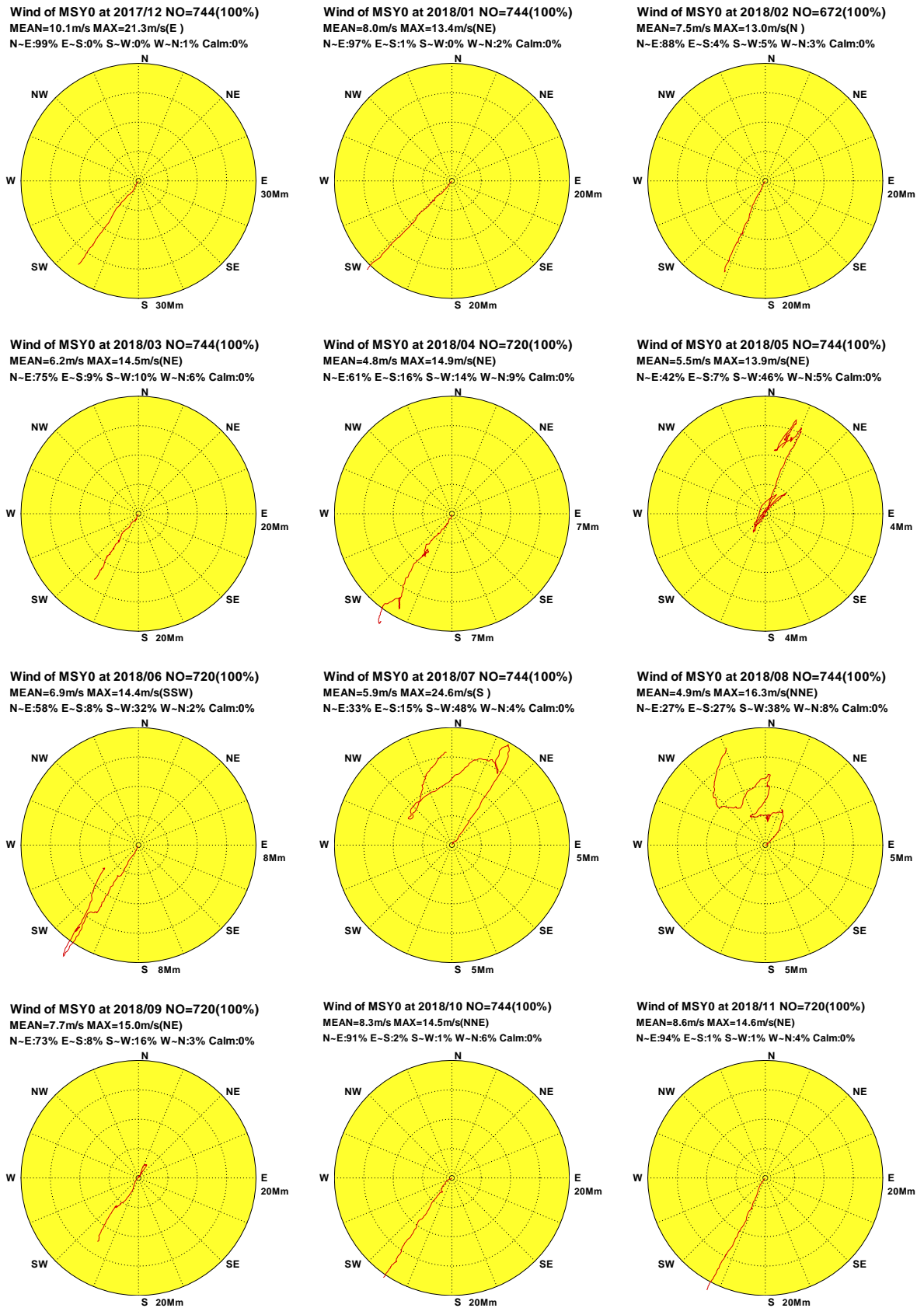


圖1.1.5 2018年馬祖海域每月 Y 站修補後觀測風力向量行進圖

W17CMSY0.1HA W181MSY0.1HA W182MSY0.1HA W183MSY0.1HA W184MSY0.1HA W185MSY0.1HA
W186MSY0.1HA W187MSY0.1HA W188MSY0.1HA W189MSY0.1HA W18AMS0.1HA W18BMSY0.1HA

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

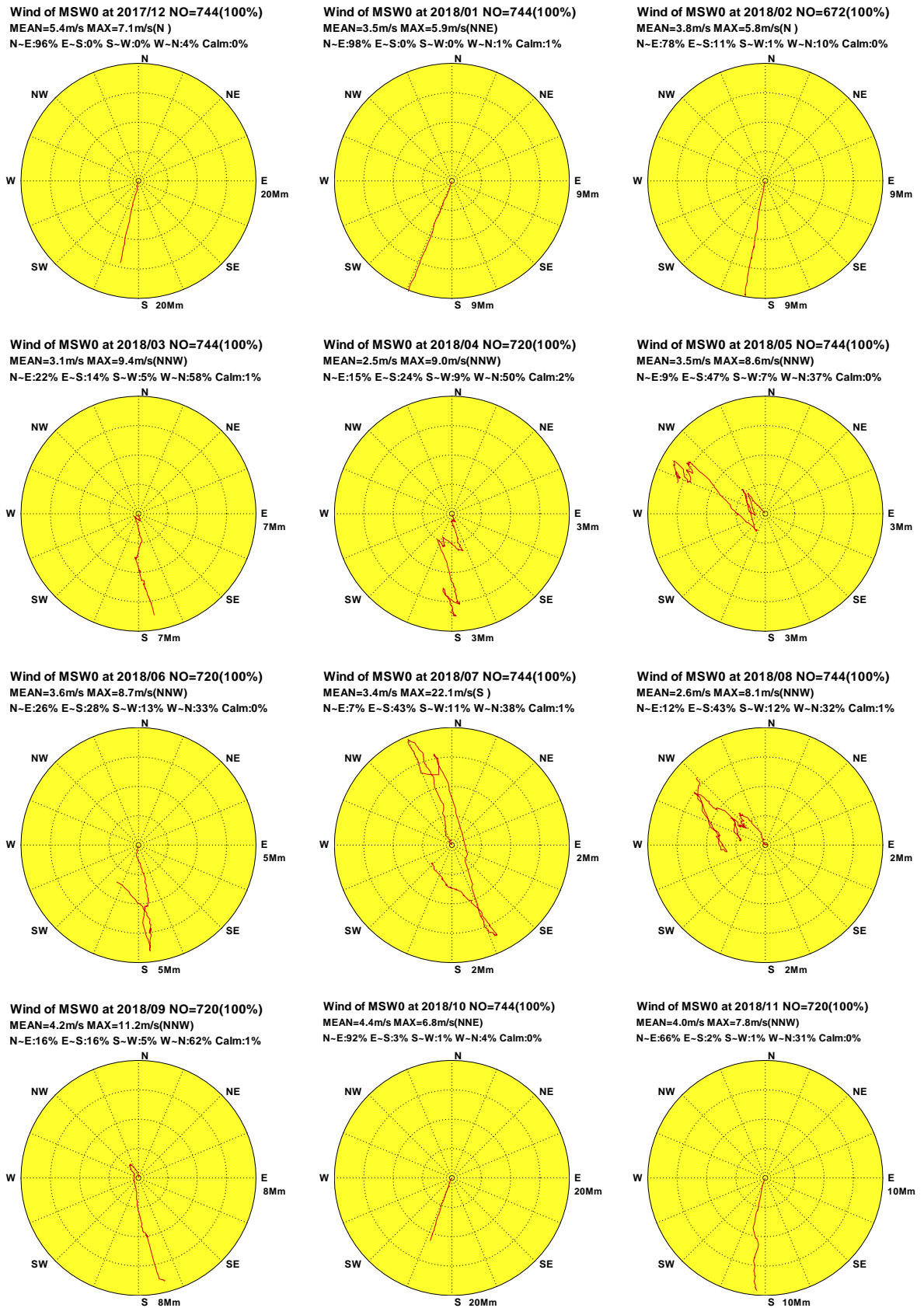


圖1.1.6 2018年馬祖海域每月 W 站修補後觀測風力向量行進圖

1.2 2018 年馬祖海域各測站修補前 風力統計量統計表

表1.2.1 2018年馬祖海域 Y 站修補前風速及風向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|--------|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 126(17%) | 10.3 | 9.9/NE | 21.3/E | .0 | 4.8 | 94.4 | .8 | 99.2 | .8 | .0 | .0 | NNE/49.2% |
| 2 | 2018/01 | | | | | | | | | | | | | |
| 3 | 2018/02 | | | | | | | | | | | | | |
| 4 | 2018/03 | | | | | | | | | | | | | |
| 5 | 2018/04 | 280(39%) | 4.6 | 2.5/NNE | 9.4/ENE | 23.9 | 69.6 | 6.4 | .0 | 57.9 | 9.6 | 16.1 | 16.4 | N /27.5% |
| 6 | 2018/05 | 462(62%) | 5.7 | 1.1/S | 13.9/NE | 25.5 | 48.3 | 26.0 | .2 | 41.6 | 4.8 | 47.8 | 5.8 | SSW/26.6% |
| 7 | 2018/06 | 672(93%) | 7.1 | 1.3/NE | 14.4/SSW | 6.1 | 59.1 | 34.4 | .4 | 59.2 | 6.8 | 32.6 | 1.3 | NNE/26.8% |
| 8 | 2018/07 | 688(93%) | 6.1 | 1.5/S | 24.6/S | 14.5 | 63.8 | 19.8 | 1.9 | 35.6 | 13.5 | 46.9 | 3.9 | SSW/20.2% |
| 9 | 2018/08 | 683(92%) | 5.1 | 1.7/SSE | 16.3/NNE | 32.2 | 48.2 | 19.0 | .6 | 27.8 | 25.8 | 38.9 | 7.5 | SSW/17.6% |
| 10 | 2018/09 | 642(89%) | 7.7 | 4.7/NNE | 14.5/NE | 16.8 | 34.9 | 47.0 | 1.2 | 70.4 | 7.9 | 18.1 | 3.6 | NNE/32.2% |
| 11 | 2018/10 | 734(99%) | 8.3 | 7.7/NE | 14.5/NNE | 6.1 | 34.1 | 59.1 | .7 | 91.4 | 2.2 | .5 | 5.9 | NE /38.0% |
| 12 | 2018/11 | 672(93%) | 8.8 | 8.4/NNE | 14.6/NE | 2.2 | 29.6 | 67.9 | .3 | 94.8 | .3 | .9 | 4.0 | NNE/53.9% |
| 13 | 2018/冬 | 126(6%) | 10.3 | 9.9/NE | 21.3/E | .0 | 4.8 | 94.4 | .8 | 99.2 | .8 | .0 | .0 | NNE/49.2% |
| 14 | 2018/春 | 742(34%) | 5.3 | .5/ENE | 13.9/NE | 24.9 | 56.3 | 18.6 | .1 | 47.7 | 6.6 | 35.8 | 9.8 | SSW/18.3% |
| 15 | 2018/夏 | 2043(93%) | 6.1 | 1.0/SE | 24.6/S | 17.7 | 57.0 | 24.3 | 1.0 | 40.8 | 15.4 | 39.5 | 4.3 | SSW/19.5% |
| 16 | 2018/秋 | 2048(94%) | 8.3 | 7.0/NNE | 14.6/NE | 8.2 | 32.9 | 58.2 | .7 | 85.9 | 3.4 | 6.2 | 4.5 | NNE/40.6% |
| 17 | 2018/年 | 4959(57%) | 7.0 | 3.1/NE | 24.6/S | 14.4 | 45.6 | 39.2 | .7 | 61.9 | 8.8 | 24.2 | 5.1 | NNE/25.5% |

1-2-1

表1.2.2 2018年馬祖海域 W 站修補前風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | | | | | | | | | | | | | |
| 2 | 2018/01 | | | | | | | | | | | | | |
| 3 | 2018/02 | | | | | | | | | | | | | |
| 4 | 2018/03 | 578(78%) | 3.3 | 2.3/NNW | 9.4/NNW | 54.8 | 43.8 | 1.4 | .0 | 9.5 | 13.8 | 6.6 | 70.1 | NNW/42.7% |
| 5 | 2018/04 | 671(93%) | 2.5 | 1.0/N | 9.0/NNW | 70.5 | 28.6 | .9 | .0 | 14.3 | 24.6 | 10.0 | 51.1 | NNW/25.6% |
| 6 | 2018/05 | 691(93%) | 3.5 | .9/ESE | 8.6/NNW | 46.2 | 53.1 | .7 | .0 | 5.8 | 47.6 | 7.8 | 38.8 | SE /30.1% |
| 7 | 2018/06 | 482(67%) | 3.5 | .6/NE | 8.7/NNW | 45.0 | 54.1 | .8 | .0 | 8.1 | 36.9 | 6.4 | 48.5 | NNW/33.2% |
| 8 | 2018/07 | 675(91%) | 3.4 | .2/NNE | 16.9/W | 50.8 | 47.4 | 1.5 | .3 | 3.1 | 45.9 | 10.8 | 40.1 | NNW/25.9% |
| 9 | 2018/08 | 702(94%) | 2.6 | .6/ESE | 8.1/NNW | 70.8 | 29.1 | .1 | .0 | 12.1 | 44.4 | 10.0 | 33.5 | SE /23.8% |
| 10 | 2018/09 | 637(89%) | 3.9 | 2.6/NNW | 11.2/NNW | 43.6 | 48.0 | 8.3 | .0 | 8.5 | 18.1 | 4.2 | 69.2 | NNW/45.8% |
| 11 | 2018/10 | 12(2%) | 1.2 | .7/NW | 2.1/WNW | 100.0 | .0 | .0 | .0 | 16.7 | 16.7 | 8.3 | 58.3 | WNW/25.0% |
| 12 | 2018/11 | 237(33%) | 3.8 | 3.5/NNW | 7.8/NNW | 49.4 | 50.6 | .0 | .0 | 4.2 | 1.3 | 1.7 | 92.8 | NNW/58.6% |
| 13 | 2018/冬 | | | | | | | | | | | | | |
| 14 | 2018/春 | 1940(88%) | 3.1 | .9/N | 9.4/NNW | 57.2 | 41.9 | 1.0 | .0 | 9.8 | 29.6 | 8.2 | 52.4 | NNW/29.6% |
| 15 | 2018/夏 | 1859(84%) | 3.1 | .3/ENE | 16.9/W | 56.9 | 42.2 | .8 | .1 | 7.8 | 43.0 | 9.4 | 39.8 | SE /23.6% |
| 16 | 2018/秋 | 886(41%) | 3.9 | 2.8/NNW | 11.2/NNW | 45.9 | 48.1 | 6.0 | .0 | 7.4 | 13.5 | 3.6 | 75.4 | NNW/48.9% |
| 17 | 2018/年 | 4685(54%) | 3.2 | .9/N | 16.9/W | 54.9 | 43.2 | 1.9 | .0 | 8.6 | 31.9 | 7.8 | 51.7 | NNW/30.4% |

1-2-2

表1.2.3 2018年馬祖海域E站修補前風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 744(100%) | 4.4 | 4.1/NNE | 8.9/ENE | 18.4 | 81.0 | .5 | .0 | 96.4 | .8 | .3 | 2.6 | NNE/33.5% |
| 2 | 2018/01 | 744(100%) | 3.8 | 3.4/NNE | 7.8/NE | 36.3 | 63.7 | .0 | .0 | 89.1 | 3.2 | 1.7 | 5.9 | NNE/31.9% |
| 3 | 2018/02 | 672(100%) | 3.5 | 2.8/NE | 7.5/ENE | 41.7 | 58.3 | .0 | .0 | 83.6 | 5.8 | 5.5 | 5.1 | NE /28.3% |
| 4 | 2018/03 | 744(100%) | 3.0 | 2.1/NE | 8.0/ENE | 62.5 | 37.4 | .1 | .0 | 75.9 | 8.6 | 8.3 | 7.1 | NNE/20.6% |
| 5 | 2018/04 | 720(100%) | 2.8 | .9/NE | 9.4/ENE | 73.5 | 24.6 | 1.9 | .0 | 60.8 | 13.1 | 18.3 | 7.8 | NNE/17.6% |
| 6 | 2018/05 | 744(100%) | 4.0 | 1.5/SSW | 10.9/SSW | 46.4 | 44.1 | 9.5 | .0 | 42.6 | 8.1 | 44.1 | 5.2 | SW /18.1% |
| 7 | 2018/06 | 720(100%) | 3.8 | .6/S | 10.0/SSW | 48.1 | 47.2 | 4.7 | .0 | 53.8 | 11.3 | 33.3 | 1.7 | NNE/16.7% |
| 8 | 2018/07 | 744(100%) | 3.8 | .8/S | 16.4/SW | 47.0 | 47.3 | 4.8 | .8 | 39.5 | 13.6 | 41.1 | 5.8 | SW /16.4% |
| 9 | 2018/08 | 744(100%) | 3.0 | .8/SSE | 8.7/SSW | 64.8 | 34.8 | .4 | .0 | 32.3 | 29.4 | 31.5 | 6.9 | E /15.3% |
| 10 | 2018/09 | 720(100%) | 3.7 | 2.2/NNE | 9.9/ENE | 46.5 | 51.4 | 2.1 | .0 | 72.4 | 7.9 | 13.9 | 5.8 | N /25.3% |
| 11 | 2018/10 | 744(100%) | 3.6 | 3.2/NE | 7.8/ENE | 41.0 | 59.0 | .0 | .0 | 91.5 | .7 | 1.6 | 6.2 | NNE/28.8% |
| 12 | 2018/11 | 720(100%) | 3.4 | 3.1/NNE | 7.5/ENE | 52.2 | 47.8 | .0 | .0 | 90.7 | .8 | 1.7 | 6.8 | N /33.8% |
| 13 | 2018/冬 | 2160(100%) | 3.9 | 3.4/NNE | 8.9/ENE | 31.8 | 68.0 | .2 | .0 | 89.9 | 3.2 | 2.4 | 4.5 | NNE/29.2% |
| 14 | 2018/春 | 2208(100%) | 3.3 | .6/ENE | 10.9/SSW | 60.6 | 35.5 | 3.9 | .0 | 59.8 | 9.9 | 23.6 | 6.7 | NNE/15.8% |
| 15 | 2018/夏 | 2208(100%) | 3.5 | .7/SSE | 16.4/SW | 53.4 | 43.1 | 3.3 | .3 | 41.7 | 18.2 | 35.3 | 4.8 | SSW/13.1% |
| 16 | 2018/秋 | 2184(100%) | 3.5 | 2.8/NNE | 9.9/ENE | 46.5 | 52.8 | .7 | .0 | 84.9 | 3.1 | 5.7 | 6.3 | N /27.4% |
| 17 | 2018/年 | 8760(100%) | 3.6 | 1.5/NE | 16.4/SW | 48.2 | 49.7 | 2.0 | .1 | 68.9 | 8.6 | 16.9 | 5.6 | NNE/20.4% |

1-2-3

表1.2.4 2018年馬祖海域B站修補前風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 744(100%) | 5.5 | 5.4/N | 9.5/N | 6.5 | 88.7 | 4.8 | .0 | 75.3 | .7 | .4 | 23.7 | N /87.9% |
| 2 | 2018/01 | 740(100%) | 4.9 | 4.7/N | 10.1/N | 19.5 | 74.6 | 5.9 | .0 | 73.6 | 5.1 | .9 | 20.3 | N /83.8% |
| 3 | 2018/02 | 672(100%) | 4.1 | 3.7/N | 9.0/N | 29.3 | 70.5 | .1 | .0 | 64.3 | 9.5 | 2.1 | 24.1 | N /74.1% |
| 4 | 2018/03 | 279(38%) | 3.3 | 2.7/N | 7.6/N | 51.6 | 48.4 | .0 | .0 | 43.7 | 9.0 | 7.5 | 39.8 | N /55.6% |
| 5 | 2018/04 | 113(16%) | 2.3 | .4/ESE | 6.9/S | 80.5 | 19.5 | .0 | .0 | 31.9 | 24.8 | 16.8 | 26.5 | NNE/20.4% |
| 6 | 2018/05 | 258(35%) | 2.2 | .5/SSE | 8.6/SSW | 77.9 | 21.3 | .8 | .0 | 38.0 | 22.5 | 21.3 | 18.2 | NNE/19.8% |
| 7 | 2018/06 | 634(88%) | 2.9 | .4/ESE | 8.9/SSW | 60.7 | 38.5 | .8 | .0 | 43.8 | 17.5 | 23.3 | 15.3 | NNE/26.3% |
| 8 | 2018/07 | 712(96%) | 2.7 | .8/SSW | 12.7/S | 69.5 | 29.2 | 1.3 | .0 | 21.8 | 21.9 | 35.8 | 20.5 | SSW/20.2% |
| 9 | 2018/08 | 654(88%) | 2.0 | .7/S | 7.9/S | 83.5 | 16.4 | .2 | .0 | 19.7 | 29.4 | 29.7 | 21.3 | S /13.5% |
| 10 | 2018/09 | 614(85%) | 2.8 | 1.4/NNE | 6.4/NNE | 62.1 | 37.9 | .0 | .0 | 51.3 | 8.8 | 15.5 | 24.4 | NNE/34.5% |
| 11 | 2018/10 | 445(60%) | 2.6 | 2.1/NNE | 6.9/NNE | 71.2 | 28.8 | .0 | .0 | 58.4 | 3.8 | 4.0 | 33.7 | NNE/33.7% |
| 12 | 2018/11 | 196(27%) | 2.6 | 2.2/NNE | 4.8/NNE | 76.0 | 24.0 | .0 | .0 | 73.5 | 4.6 | 5.6 | 16.3 | NNE/52.0% |
| 13 | 2018/冬 | 2156(100%) | 4.8 | 4.6/N | 10.1/N | 18.0 | 78.2 | 3.8 | .0 | 71.3 | 5.0 | 1.1 | 22.6 | N /82.2% |
| 14 | 2018/春 | 650(29%) | 2.7 | 1.0/N | 8.6/SSW | 67.1 | 32.6 | .3 | .0 | 39.4 | 17.1 | 14.6 | 28.9 | N /30.3% |
| 15 | 2018/夏 | 2000(91%) | 2.6 | .6/S | 12.7/S | 71.3 | 28.0 | .8 | .0 | 28.1 | 23.0 | 29.9 | 19.1 | SSW/15.9% |
| 16 | 2018/秋 | 1255(58%) | 2.7 | 1.8/NNE | 6.9/NNE | 67.5 | 32.5 | .0 | .0 | 57.3 | 6.4 | 9.9 | 26.5 | NNE/37.0% |
| 17 | 2018/年 | 6061(69%) | 3.4 | 1.9/N | 12.7/S | 51.1 | 47.3 | 1.6 | .0 | 50.7 | 12.5 | 13.9 | 22.9 | N /38.6% |

1-2-4

表1.2.5 2018年馬祖海域C站修補前風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 584(79%) | 4.3 | 4.2/NNW | 9.2/NNW | 33.2 | 65.2 | 1.5 | .0 | 1.5 | .3 | 3.6 | 94.5 | NNW/57.2% |
| 2 | 2018/01 | 738(99%) | 4.1 | 3.9/NNW | 9.3/NNW | 36.4 | 61.7 | 1.9 | .0 | 4.2 | 2.4 | 2.0 | 91.3 | NNW/55.0% |
| 3 | 2018/02 | 672(100%) | 3.4 | 3.0/NNW | 8.4/S | 53.7 | 46.1 | .1 | .0 | 6.4 | 4.6 | 3.6 | 85.4 | NNW/51.5% |
| 4 | 2018/03 | 726(98%) | 3.1 | 2.5/NNW | 10.0/NNW | 59.9 | 38.0 | 2.1 | .0 | 11.7 | 10.3 | 5.1 | 72.9 | NNW/42.7% |
| 5 | 2018/04 | 686(95%) | 2.6 | 1.4/NNW | 7.8/SE | 71.0 | 29.0 | .0 | .0 | 17.3 | 12.4 | 11.1 | 59.2 | NNW/32.5% |
| 6 | 2018/05 | 726(98%) | 3.0 | 1.0/SSW | 8.5/SSE | 60.1 | 39.1 | .8 | .0 | 11.6 | 22.2 | 30.4 | 35.8 | NNW/17.4% |
| 7 | 2018/06 | 701(97%) | 3.4 | .7/WSW | 10.7/SSE | 53.1 | 43.8 | 3.1 | .0 | 8.6 | 17.3 | 24.3 | 49.9 | NNW/27.4% |
| 8 | 2018/07 | 725(97%) | 3.4 | 1.1/SSW | 20.1/SSE | 58.8 | 38.8 | 1.7 | .8 | 3.0 | 29.9 | 28.3 | 38.8 | NW /17.9% |
| 9 | 2018/08 | 331(45%) | 2.6 | .8/SE | 8.1/SSE | 71.9 | 27.8 | .3 | .0 | 11.2 | 39.0 | 13.3 | 36.6 | E /16.6% |
| 10 | 2018/09 | 9(1%) | 4.1 | 4.1/NNW | 4.9/NNW | .0 | 100.0 | .0 | .0 | 22.2 | .0 | .0 | 77.8 | NNW/55.6% |
| 11 | 2018/10 | | | | | | | | | | | | | |
| 12 | 2018/11 | 421(59%) | 3.4 | 3.3/NNW | 7.8/NNW | 53.7 | 46.3 | .0 | .0 | 4.0 | .7 | 1.7 | 93.6 | NNW/71.0% |
| 13 | 2018/冬 | 1994(92%) | 3.9 | 3.7/NNW | 9.3/NNW | 41.3 | 57.5 | 1.2 | .0 | 4.2 | 2.6 | 3.0 | 90.3 | NNW/54.5% |
| 14 | 2018/春 | 2138(97%) | 2.9 | 1.1/NW | 10.0/NNW | 63.5 | 35.5 | 1.0 | .0 | 13.5 | 15.0 | 15.6 | 55.9 | NNW/30.8% |
| 15 | 2018/夏 | 1757(80%) | 3.3 | .7/SSW | 20.1/SSE | 59.0 | 38.7 | 2.0 | .3 | 6.8 | 26.6 | 23.8 | 42.8 | NNW/20.5% |
| 16 | 2018/秋 | 430(20%) | 3.4 | 3.3/NNW | 7.8/NNW | 52.6 | 47.4 | .0 | .0 | 4.4 | .7 | 1.6 | 93.3 | NNW/70.7% |
| 17 | 2018/年 | 6319(72%) | 3.4 | 1.6/NW | 20.1/SSE | 54.5 | 44.1 | 1.3 | .1 | 8.1 | 13.3 | 13.0 | 65.6 | NNW/38.1% |

1-2-5

表1.2.6 2018年馬祖海域D站修補前風速及風向重要統計量統計表

| 序號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|----|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 508(68%) | 9.1 | 9.0/NNE | 14.5/NNE | 3.7 | 23.6 | 71.7 | 1.0 | 98.0 | .0 | .0 | 2.0 | NNE/92.9% |
| 2 | 2018/01 | 389(52%) | 7.4 | 7.4/NNE | 14.6/NNE | 14.4 | 38.3 | 46.0 | 1.3 | 94.1 | 1.5 | .3 | 4.1 | NNE/87.9% |
| 3 | 2018/02 | 29(4%) | 3.1 | 1.6/SSE | 7.4/S | 55.2 | 44.8 | .0 | .0 | 20.7 | 75.9 | .0 | 3.4 | S /41.4% |
| 4 | 2018/03 | 711(96%) | 5.5 | 4.9/NNE | 11.6/NNE | 17.9 | 65.1 | 17.0 | .0 | 86.4 | 9.8 | .6 | 3.2 | NNE/73.8% |
| 5 | 2018/04 | 671(93%) | 3.9 | 2.9/NNE | 12.7/NNE | 43.2 | 52.8 | 4.0 | .0 | 73.5 | 19.5 | 2.7 | 4.3 | NNE/57.1% |
| 6 | 2018/05 | 725(97%) | 3.9 | 1.1/ENE | 12.9/NNE | 39.7 | 56.7 | 3.6 | .0 | 44.8 | 48.7 | 1.5 | 5.0 | NNE/34.9% |
| 7 | 2018/06 | 699(97%) | 4.8 | 2.3/NNE | 11.9/NNE | 27.8 | 60.9 | 11.3 | .0 | 60.2 | 35.9 | .7 | 3.1 | NNE/50.1% |
| 8 | 2018/07 | 726(98%) | 3.4 | 1.1/ENE | 23.6/N | 50.7 | 46.4 | 1.7 | 1.2 | 40.8 | 49.6 | 1.9 | 7.7 | NNE/31.5% |
| 9 | 2018/08 | 721(97%) | 2.7 | .9/ENE | 15.6/N | 68.5 | 29.3 | 1.7 | .6 | 46.9 | 41.3 | 2.1 | 9.7 | NNE/29.1% |
| 10 | 2018/09 | 695(97%) | 6.0 | 5.0/NNE | 13.6/N | 27.9 | 39.6 | 32.5 | .0 | 78.4 | 18.6 | .3 | 2.7 | NNE/59.6% |
| 11 | 2018/10 | 737(99%) | 6.7 | 6.6/NNE | 13.7/NNE | 11.5 | 53.3 | 35.1 | .0 | 94.0 | 2.3 | .3 | 3.4 | NNE/85.5% |
| 12 | 2018/11 | 703(98%) | 7.4 | 7.3/NNE | 14.3/NNE | 5.7 | 53.5 | 40.7 | .1 | 97.4 | 1.1 | .1 | 1.3 | NNE/88.6% |
| 13 | 2018/冬 | 926(43%) | 8.2 | 8.0/NNE | 14.6/NNE | 9.8 | 30.5 | 58.6 | 1.1 | 94.0 | 3.0 | .1 | 2.9 | NNE/88.6% |
| 14 | 2018/春 | 2107(95%) | 4.4 | 2.8/NNE | 12.9/NNE | 33.5 | 58.3 | 8.3 | .0 | 68.0 | 26.3 | 1.6 | 4.2 | NNE/55.1% |
| 15 | 2018/夏 | 2146(97%) | 3.6 | 1.4/NE | 23.6/N | 49.2 | 45.4 | 4.8 | .6 | 49.2 | 42.4 | 1.6 | 6.9 | NNE/36.8% |
| 16 | 2018/秋 | 2135(98%) | 6.7 | 6.3/NNE | 14.3/NNE | 14.9 | 48.9 | 36.1 | .0 | 90.1 | 7.2 | .2 | 2.5 | NNE/78.1% |
| 17 | 2018/年 | 7314(84%) | 5.3 | 4.0/NNE | 23.6/N | 29.7 | 48.2 | 21.8 | .3 | 72.2 | 22.5 | 1.0 | 4.3 | NNE/60.7% |

1-2-6

表1.2.7 2018年馬祖海域 I 站修補前風速及風向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 風速 平均值 (m/s) | 平均風 風速/風向 (m/s)/(來向) | 最大風 風速/風向 (m/s)/(來向) | 輕風 <3.3 (%) | 和風 ~7.9 (%) | 強風 ~13.8 (%) | 疾風 >13.8 (%) | 風向 N~E (%) | 風向 E~S (%) | 風向 S~W (%) | 風向 W~N (%) | 主要風向 方向/百分比 |
|--------|-------------|------------|--------------------|----------------------------|----------------------------|-------------------|-------------------|--------------------|--------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 727(98%) | 7.0 | 7.0/NNE | 11.9/NNE | 6.3 | 53.9 | 39.8 | .0 | 97.5 | .0 | 1.2 | 1.2 | NNE/81.3% |
| 2 | 2018/01 | 741(100%) | 6.0 | 5.9/NNE | 13.3/NNE | 17.8 | 53.7 | 28.5 | .0 | 94.6 | 1.5 | 2.6 | 1.3 | NNE/74.4% |
| 3 | 2018/02 | 400(60%) | 5.8 | 5.6/NNE | 10.2/NNE | 17.0 | 61.5 | 21.5 | .0 | 93.0 | 1.3 | 4.8 | 1.0 | NNE/75.3% |
| 4 | 2018/03 | 701(94%) | 3.7 | 3.3/NNE | 9.8/NNE | 45.6 | 51.6 | 2.7 | .0 | 84.7 | 2.4 | 11.4 | 1.4 | NNE/47.2% |
| 5 | 2018/04 | 682(95%) | 2.7 | 1.7/NE | 9.0/NNE | 68.2 | 31.5 | .3 | .0 | 73.0 | 2.9 | 22.1 | 1.9 | NE /34.5% |
| 6 | 2018/05 | 311(42%) | 2.2 | .3/NE | 7.8/NNE | 83.0 | 17.0 | .0 | .0 | 54.7 | 1.3 | 42.8 | 1.3 | NE /44.7% |
| 7 | 2018/06 | 708(98%) | 2.8 | 1.0/NE | 7.4/NNE | 72.5 | 27.5 | .0 | .0 | 61.6 | .8 | 37.3 | .3 | NE /57.1% |
| 8 | 2018/07 | 275(37%) | 2.7 | 1.0/SW | 13.1/WSW | 77.1 | 19.6 | 3.3 | .0 | 27.3 | 2.9 | 67.3 | 2.5 | SSW/27.6% |
| 9 | 2018/08 | 453(61%) | 2.5 | .3/NNW | 9.8/NNE | 74.8 | 23.6 | 1.5 | .0 | 43.0 | 5.5 | 49.2 | 2.2 | NE /25.6% |
| 10 | 2018/09 | 681(95%) | 4.5 | 3.7/NNE | 11.3/NNE | 45.2 | 38.6 | 16.2 | .0 | 76.5 | 3.1 | 18.5 | 1.9 | NNE/54.8% |
| 11 | 2018/10 | 484(65%) | 5.4 | 5.2/NNE | 10.2/NNE | 18.4 | 65.3 | 16.3 | .0 | 95.0 | .2 | 4.3 | .4 | NNE/73.6% |
| 12 | 2018/11 | 424(59%) | 5.4 | 5.3/NNE | 9.1/NNE | 13.2 | 83.3 | 3.5 | .0 | 97.9 | .0 | .9 | 1.2 | NNE/84.7% |
| 13 | 2018/冬 | 1868(87%) | 6.4 | 6.3/NNE | 13.3/NNE | 13.2 | 55.5 | 31.4 | .0 | 95.4 | .9 | 2.5 | 1.2 | NNE/77.2% |
| 14 | 2018/春 | 1694(77%) | 3.0 | 2.1/NE | 9.8/NNE | 61.6 | 37.2 | 1.2 | .0 | 74.5 | 2.4 | 21.5 | 1.6 | NE /35.8% |
| 15 | 2018/夏 | 1436(65%) | 2.7 | .4/NNE | 13.1/WSW | 74.1 | 24.8 | 1.1 | .0 | 49.2 | 2.7 | 46.8 | 1.3 | NE /39.0% |
| 16 | 2018/秋 | 1589(73%) | 5.0 | 4.6/NNE | 11.3/NNE | 28.5 | 58.7 | 12.8 | .0 | 87.9 | 1.4 | 9.5 | 1.3 | NNE/68.5% |
| 17 | 2018/年 | 6587(75%) | 4.4 | 3.5/NNE | 13.3/NNE | 42.6 | 44.8 | 12.6 | .0 | 78.1 | 1.8 | 18.7 | 1.4 | NNE/49.1% |

1-2-7

1.3 2018 年馬祖海域**主要測站 1**(修補後)與 **其他測站**(修補前)風力歷線比較圖

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

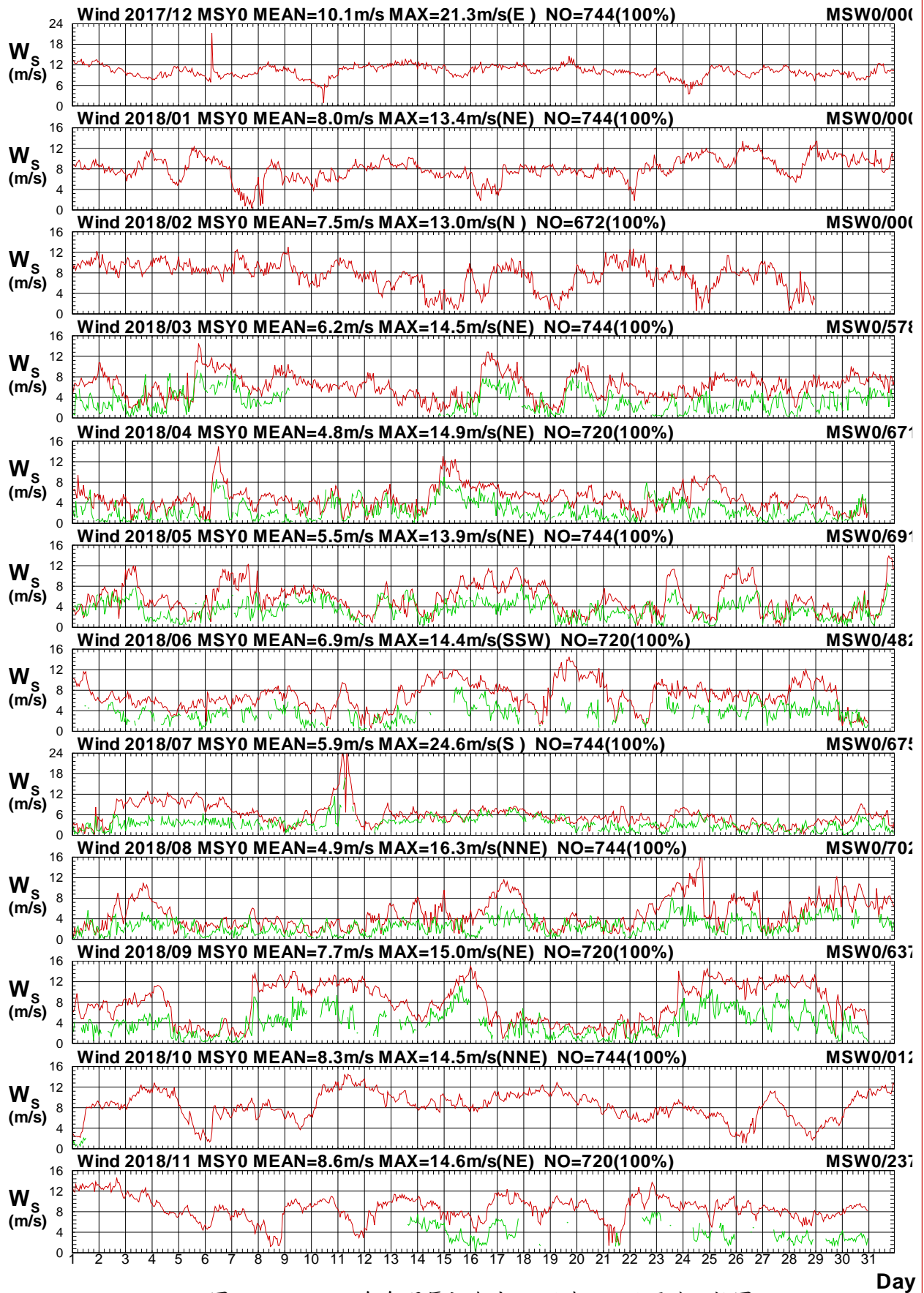


圖1.3.1a 2018年每月馬祖海域 Y 站與 W 站風速比較圖

W17CMSY0.1HA W17CMSW0.1H0 W181MSY0.1HA W181MSW0.1H0 W182MSY0.1HA W182MSW0.1H0

W183MSY0.1HA W183MSW0.1H0 W184MSY0.1HA W184MSW0.1H0 W185MSY0.1HA W185MSW0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

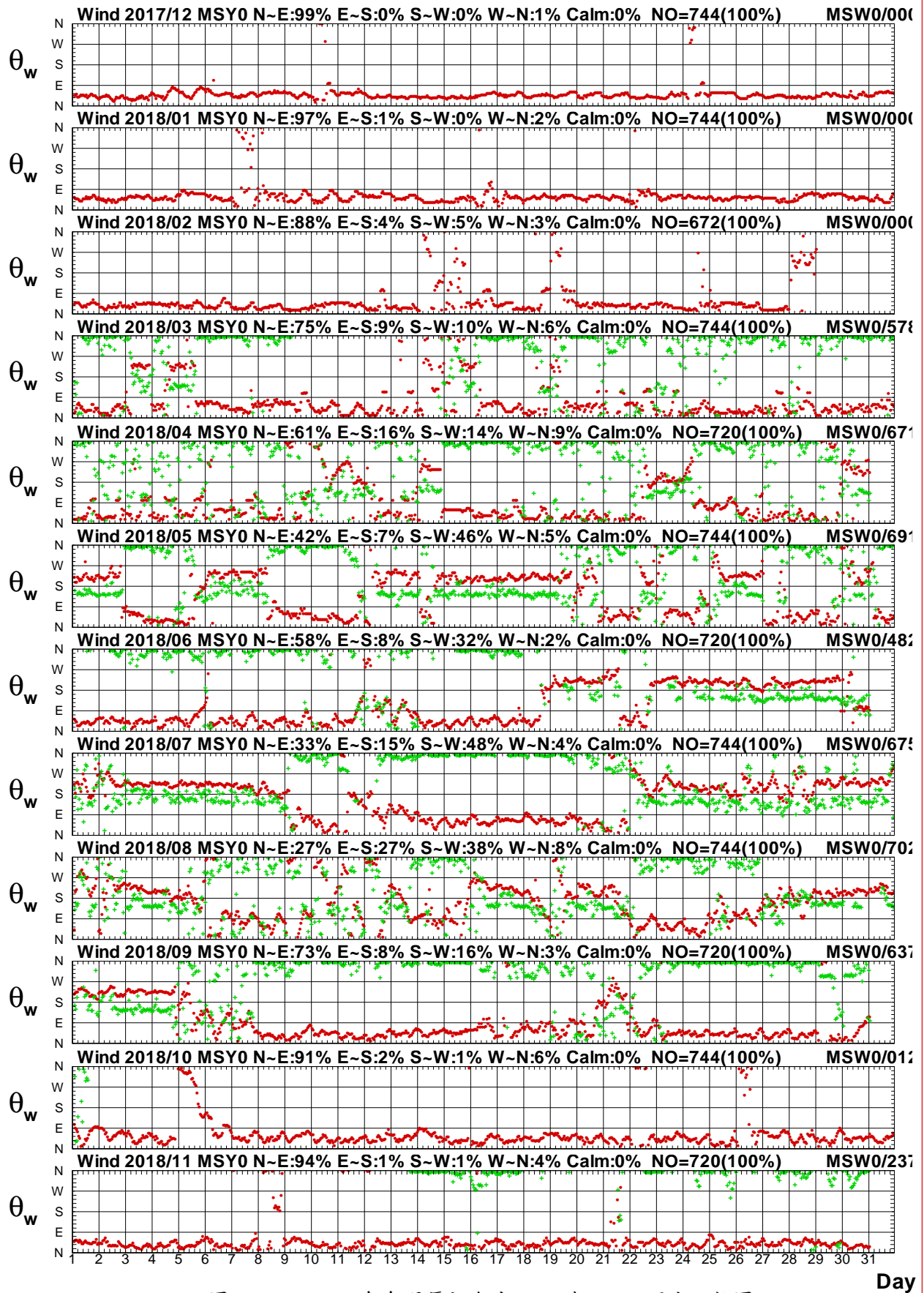


圖1.3.1b 2018年每月馬祖海域 Y 站與 W 站風向比較圖

W17CMSY0.1HA W17CMSW0.1H0 W181MSY0.1HA W181MSW0.1H0 W182MSY0.1HA W182MSW0.1H0
 W183MSY0.1HA W183MSW0.1H0 W184MSY0.1HA W184MSW0.1H0 W185MSY0.1HA W185MSW0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

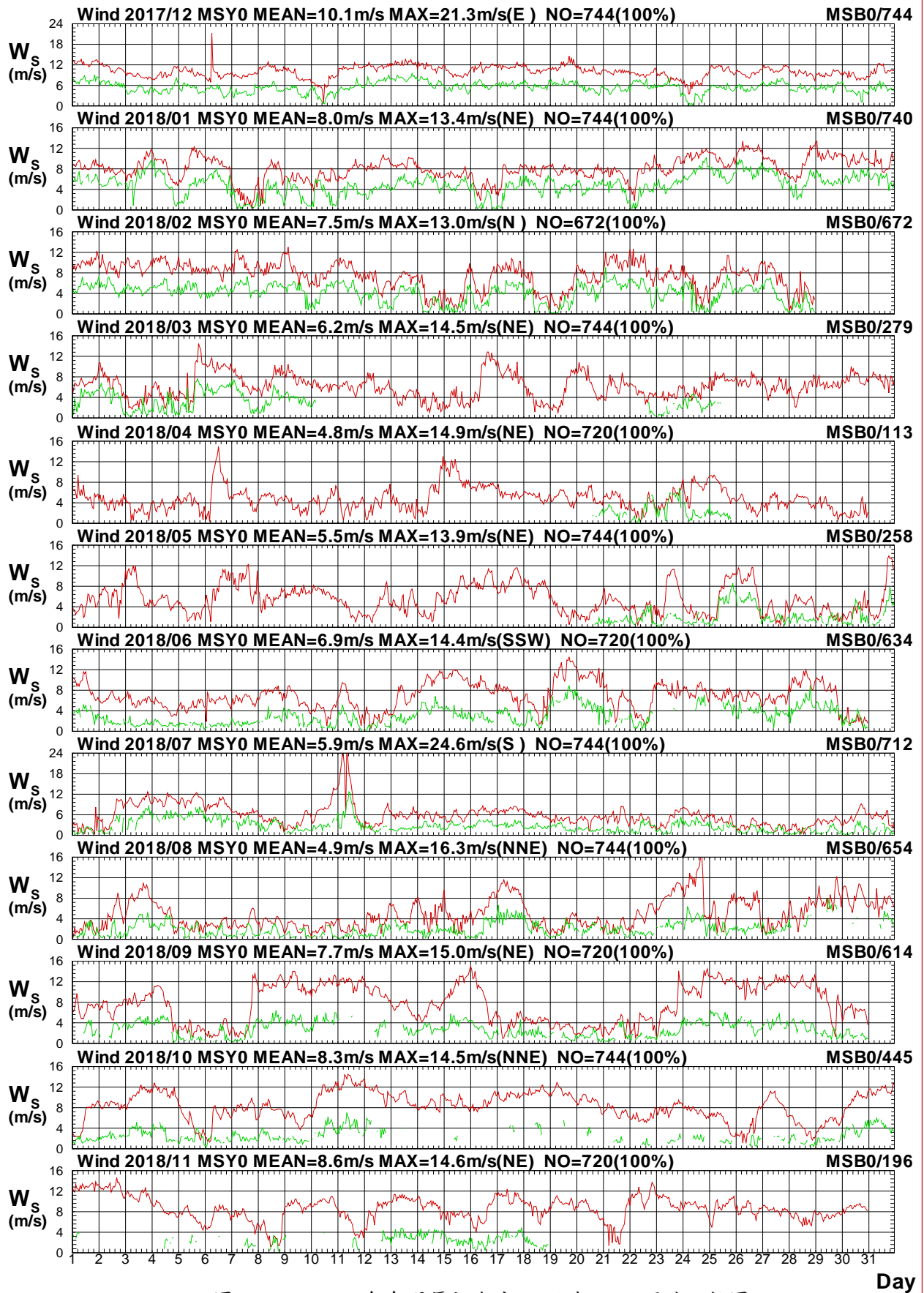


圖1.3.2a 2018年每月馬祖海域 Y 站與 B 站風速比較圖

W17CMSY0.1HA W17CMSB0.1H0 W181MSY0.1HA W181MSB0.1H0 W182MSY0.1HA W182MSB0.1H0
 W183MSY0.1HA W183MSB0.1H0 W184MSY0.1HA W184MSB0.1H0 W185MSY0.1HA W185MSB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

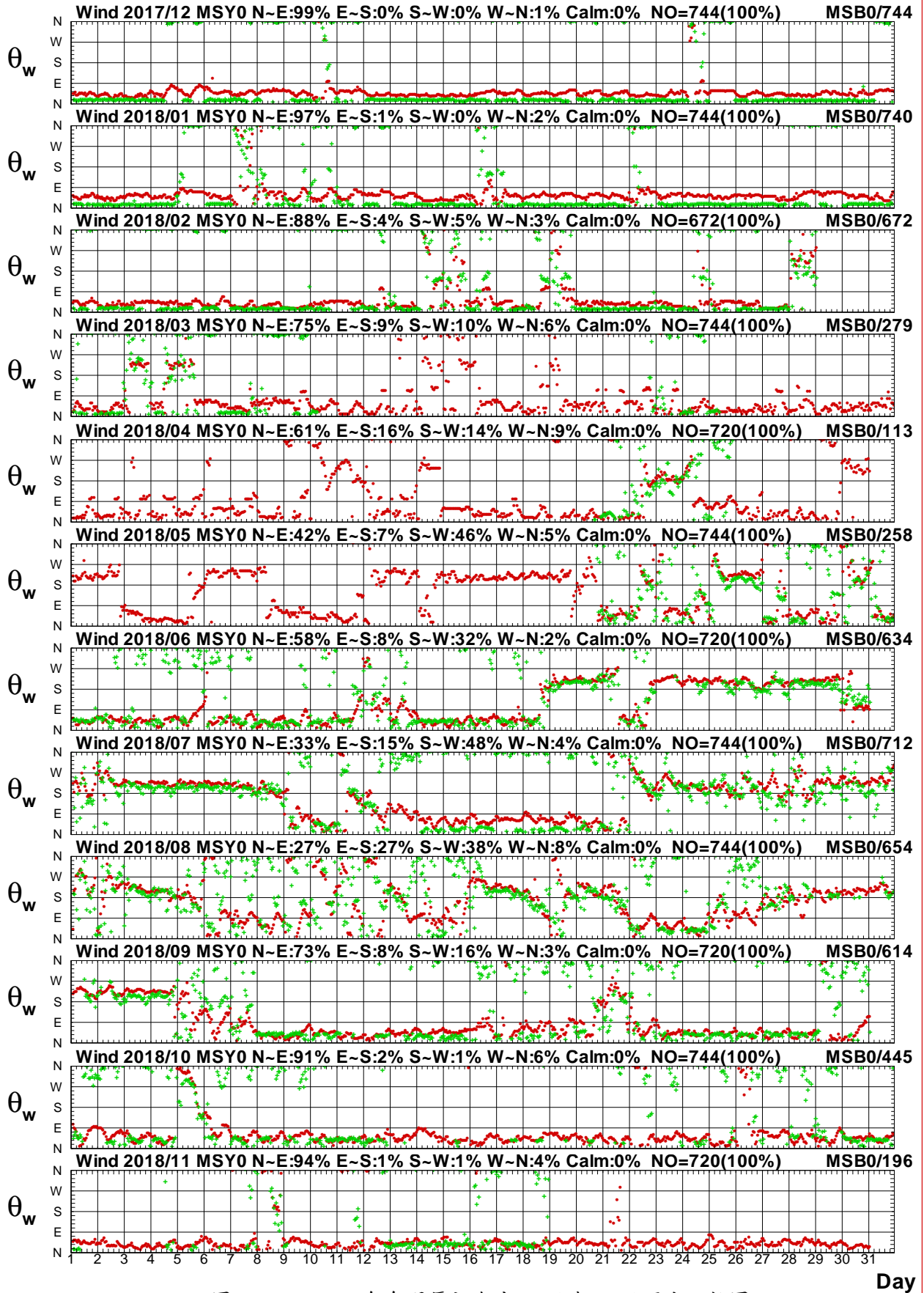


圖1.3.2b 2018年每月馬祖海域 Y 站與 B 站風向比較圖

W17CMSY0.1HA W17CMSB0.1H0 W181MSY0.1HA W181MSB0.1H0 W182MSY0.1HA W182MSB0.1H0
 W183MSY0.1HA W183MSB0.1H0 W184MSY0.1HA W184MSB0.1H0 W185MSY0.1HA W185MSB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

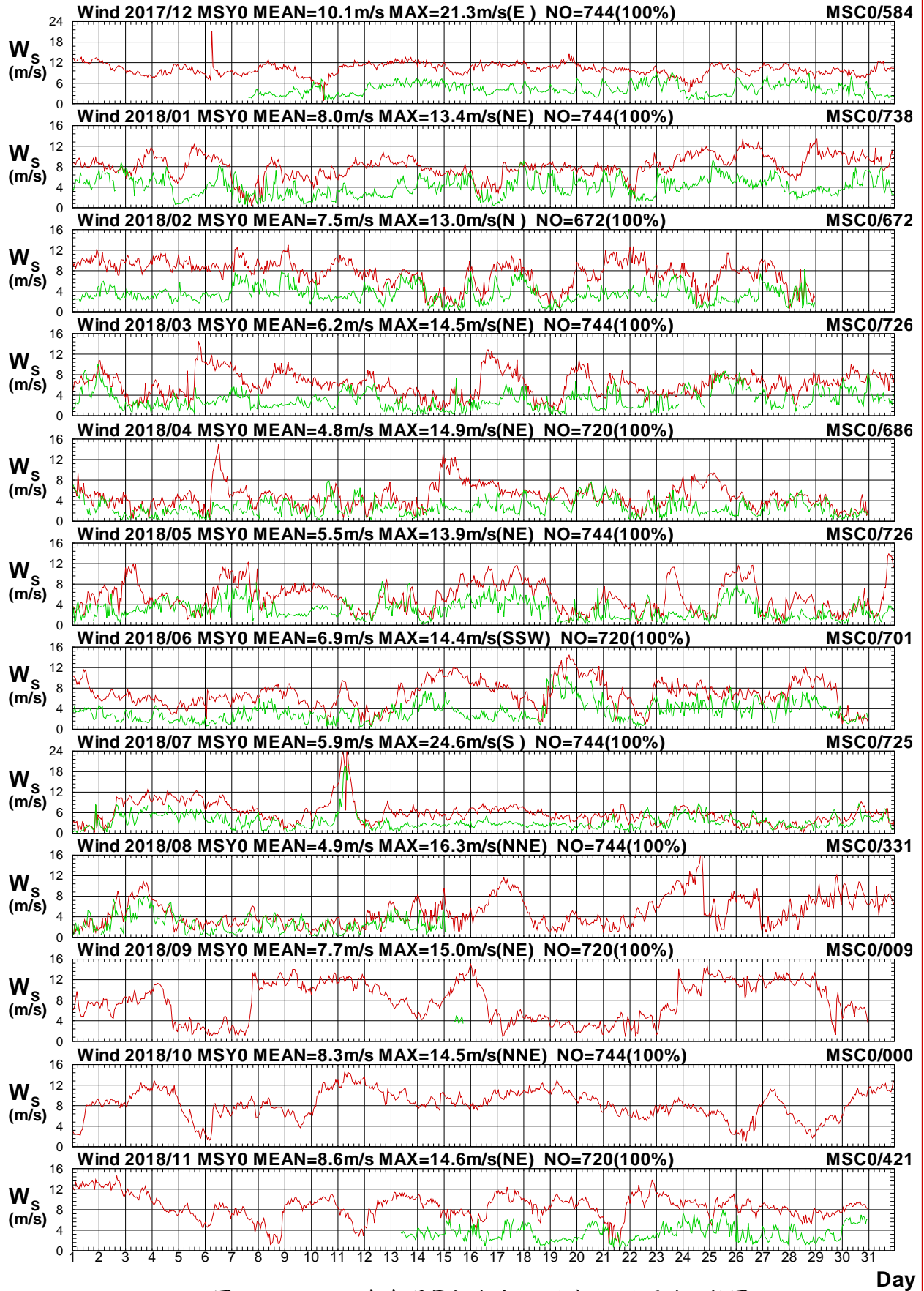


圖1.3.3a 2018年每月馬祖海域 Y 站與 C 站風速比較圖

W17CMSY0.1HA W17CMSC0.1H0 W181MSY0.1HA W181MSC0.1H0 W182MSY0.1HA W182MSC0.1H0
 W183MSY0.1HA W183MSC0.1H0 W184MSY0.1HA W184MSC0.1H0 W185MSY0.1HA W185MSC0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

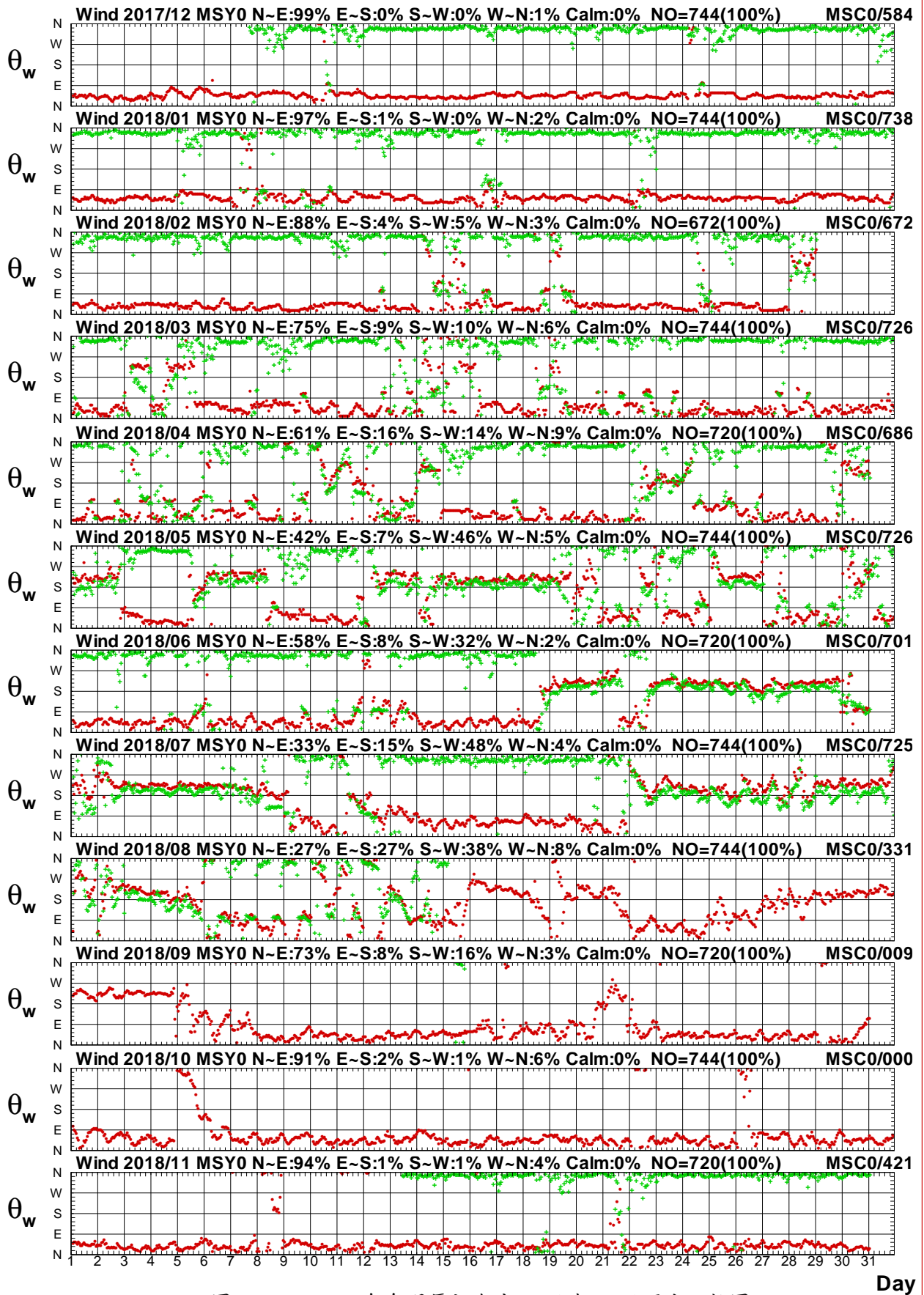


圖1.3.3b 2018年每月馬祖海域 Y 站與 C 站風向比較圖

W17CMSY0.1HA W17CMSC0.1H0 W181MSY0.1HA W181MSC0.1H0 W182MSY0.1HA W182MSC0.1H0
 W183MSY0.1HA W183MSC0.1H0 W184MSY0.1HA W184MSC0.1H0 W185MSY0.1HA W185MSC0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

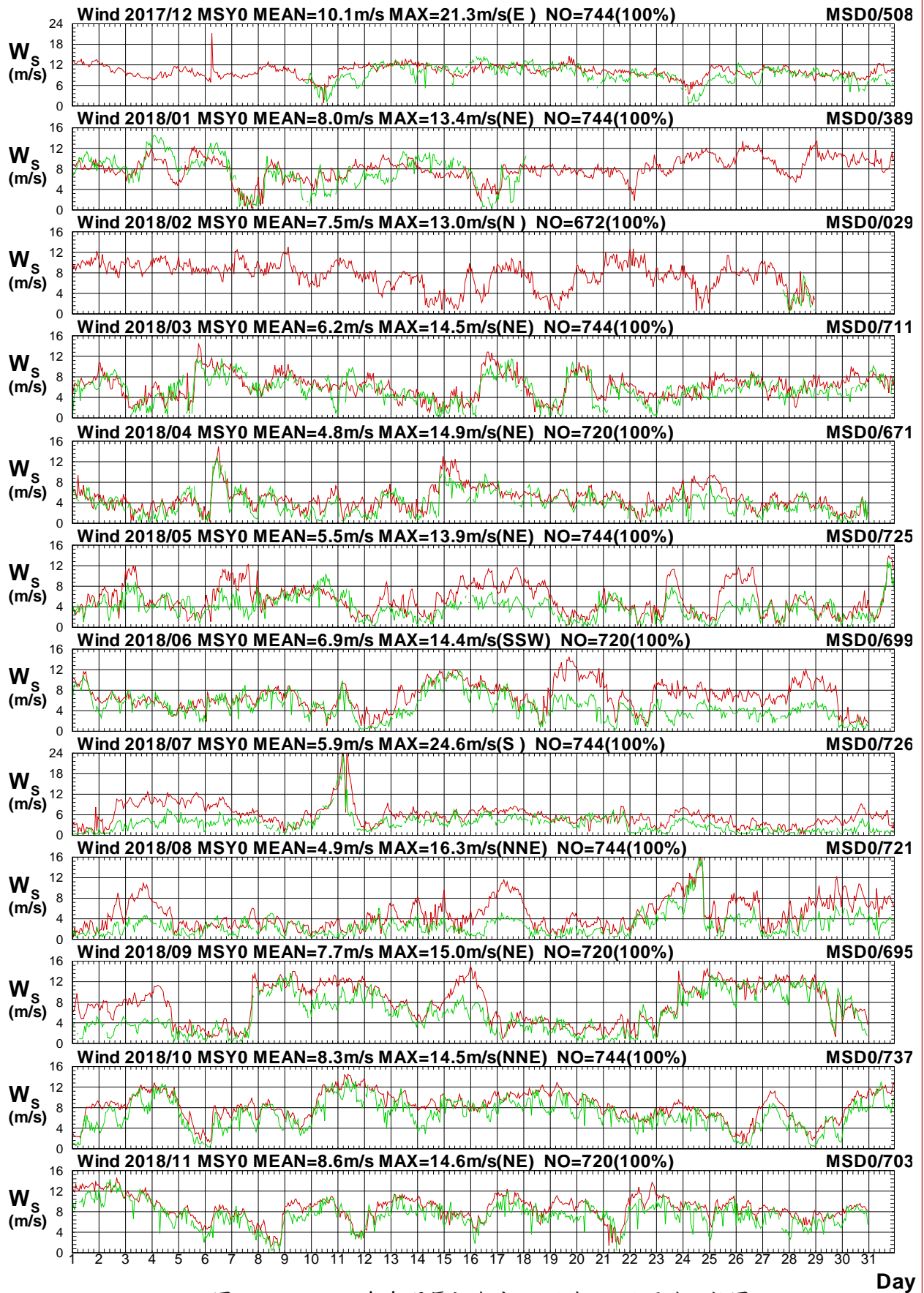


圖1.3.4a 2018年每月馬祖海域 Y 站與 D 站風速比較圖

W17CMSY0.1HA W17CMSD0.1HO W181MSY0.1HA W181MSD0.1HO W182MSY0.1HA W182MSD0.1HO
 W183MSY0.1HA W183MSD0.1HO W184MSY0.1HA W184MSD0.1HO W185MSY0.1HA W185MSD0.1HO

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

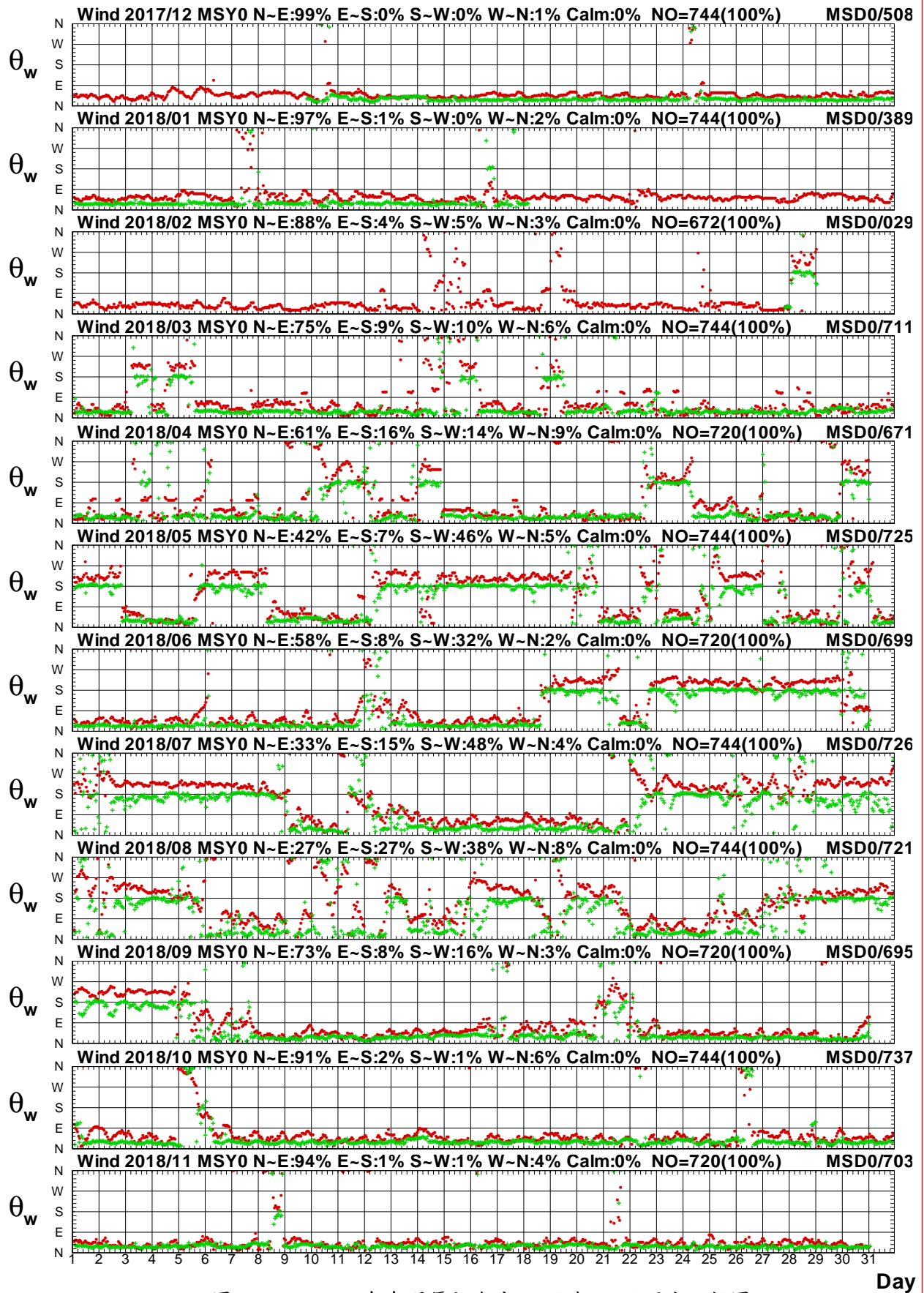


圖1.3.4b 2018年每月馬祖海域 Y 站與 D 站風向比較圖

W17CMSY0.1HA W17CMSD0.1HO W181MSY0.1HA W181MSD0.1HO W182MSY0.1HA W182MSD0.1HO
 W183MSY0.1HA W183MSD0.1HO W184MSY0.1HA W184MSD0.1HO W185MSY0.1HA W185MSD0.1HO

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

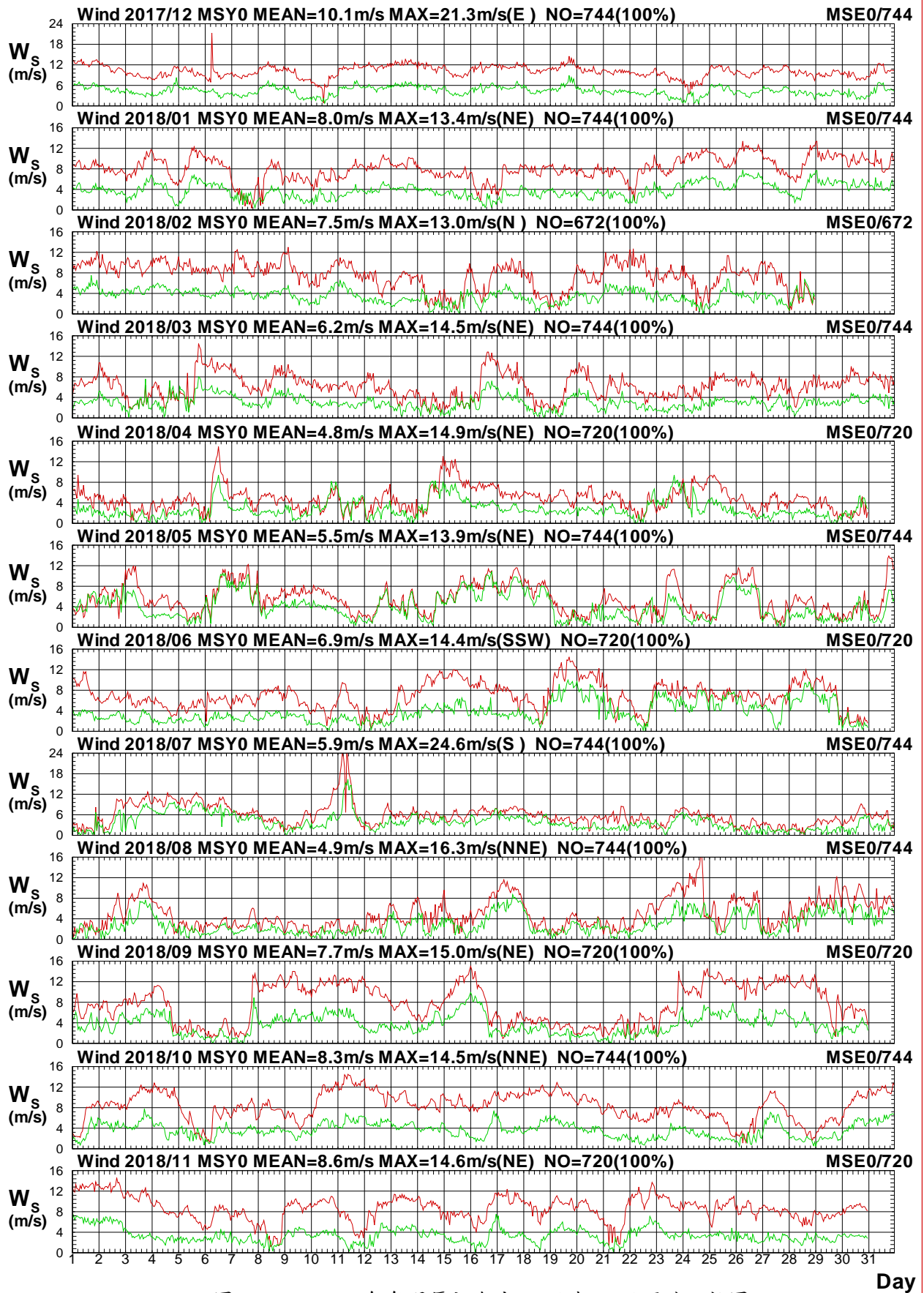


圖1.3.5a 2018年每月馬祖海域 Y 站與 E 站風速比較圖

W17CMSY0.1HA W17CMSE0.1H0 W181MSY0.1HA W181MSE0.1H0 W182MSY0.1HA W182MSE0.1H0
 W183MSY0.1HA W183MSE0.1H0 W184MSY0.1HA W184MSE0.1H0 W185MSY0.1HA W185MSE0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

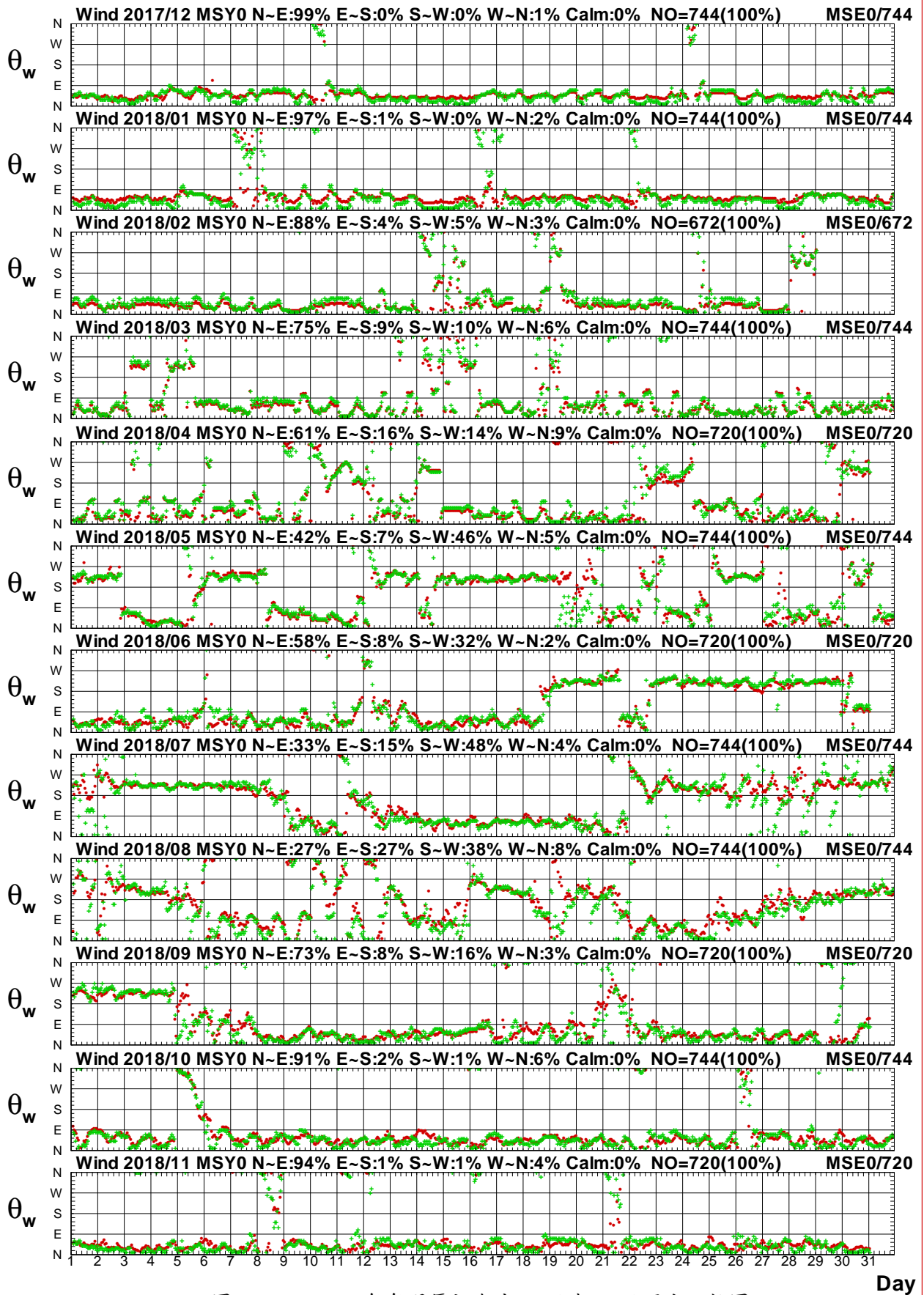


圖1.3.5b 2018年每月馬祖海域 Y 站與 E 站風向比較圖

W17CMSY0.1HA W17CMSE0.1H0 W181MSY0.1HA W181MSE0.1H0 W182MSY0.1HA W182MSE0.1H0
 W183MSY0.1HA W183MSE0.1H0 W184MSY0.1HA W184MSE0.1H0 W185MSY0.1HA W185MSE0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

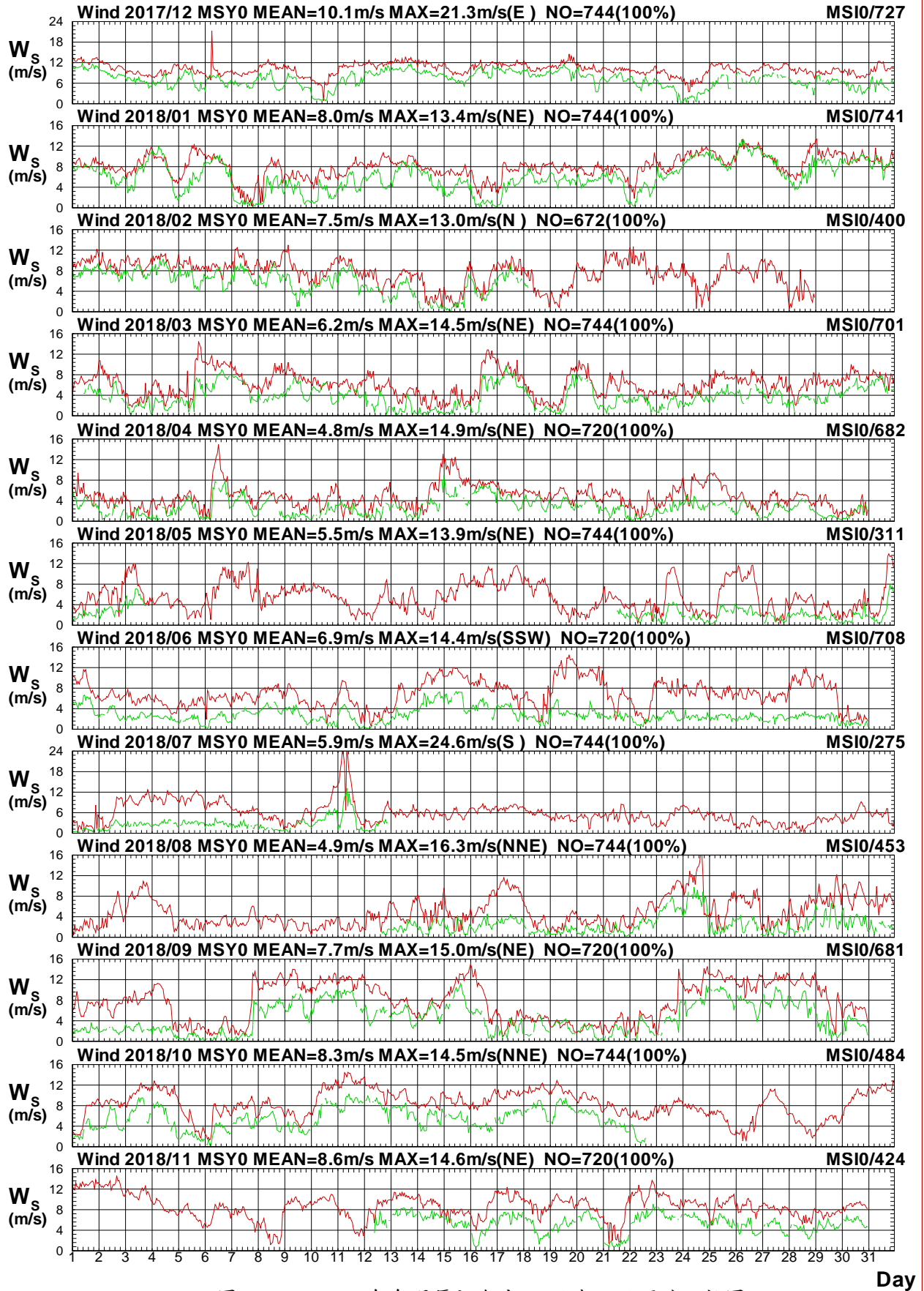


圖1.3.6a 2018年每月馬祖海域 Y 站與 I 站風速比較圖

W17CMSY0.1HA W17CMSI0.1H0 W181MSY0.1HA W181MSI0.1H0 W182MSY0.1HA W182MSI0.1H0
 W183MSY0.1HA W183MSI0.1H0 W184MSY0.1HA W184MSI0.1H0 W185MSY0.1HA W185MSI0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

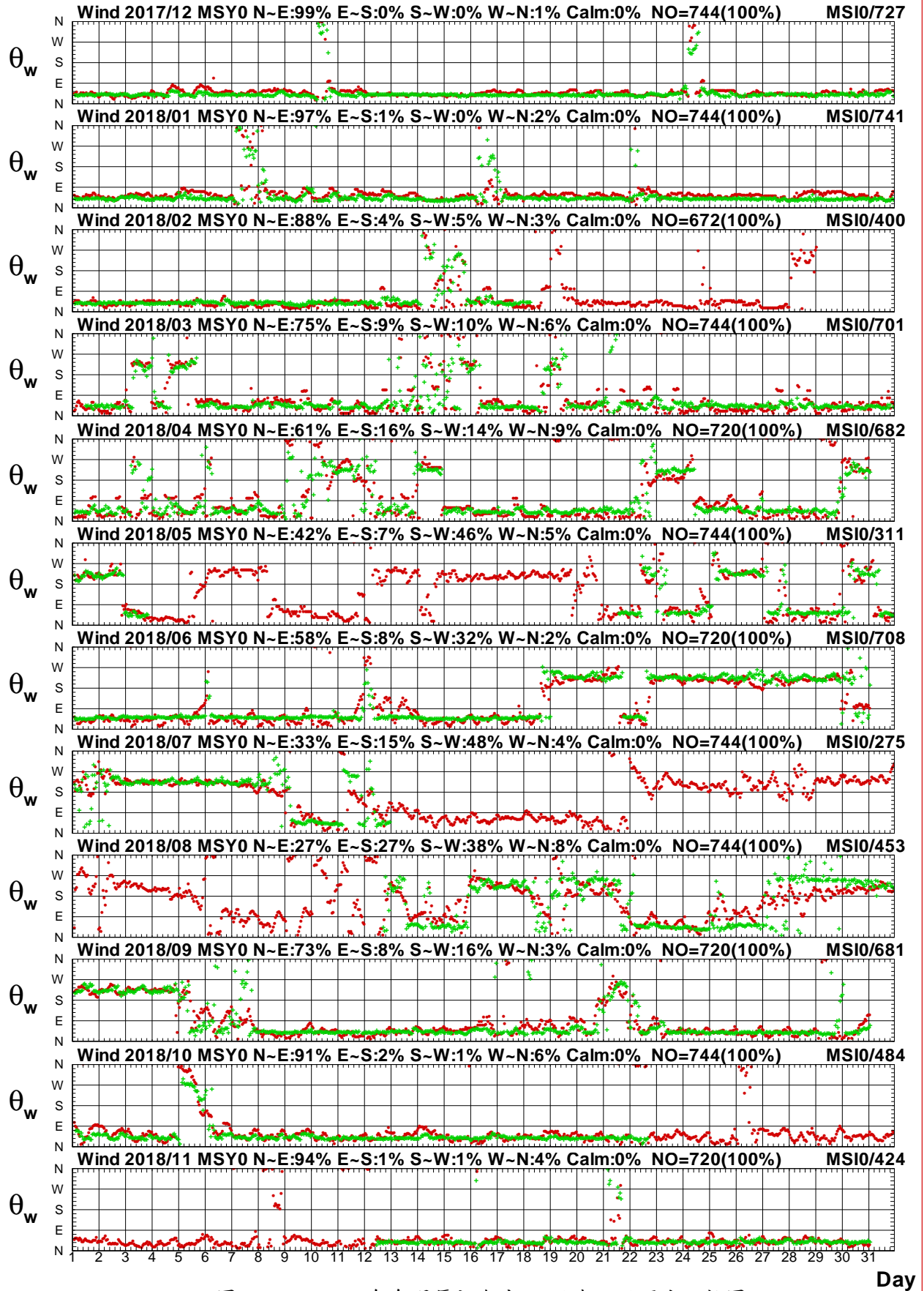


圖1.3.6b 2018年每月馬祖海域 Y 站與 I 站風向比較圖

W17CMSY0.1HA W17CMSI0.1HO W181MSY0.1HA W181MSI0.1HO W182MSY0.1HA W182MSI0.1HO
 W183MSY0.1HA W183MSI0.1HO W184MSY0.1HA W184MSI0.1HO W185MSY0.1HA W185MSI0.1HO

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

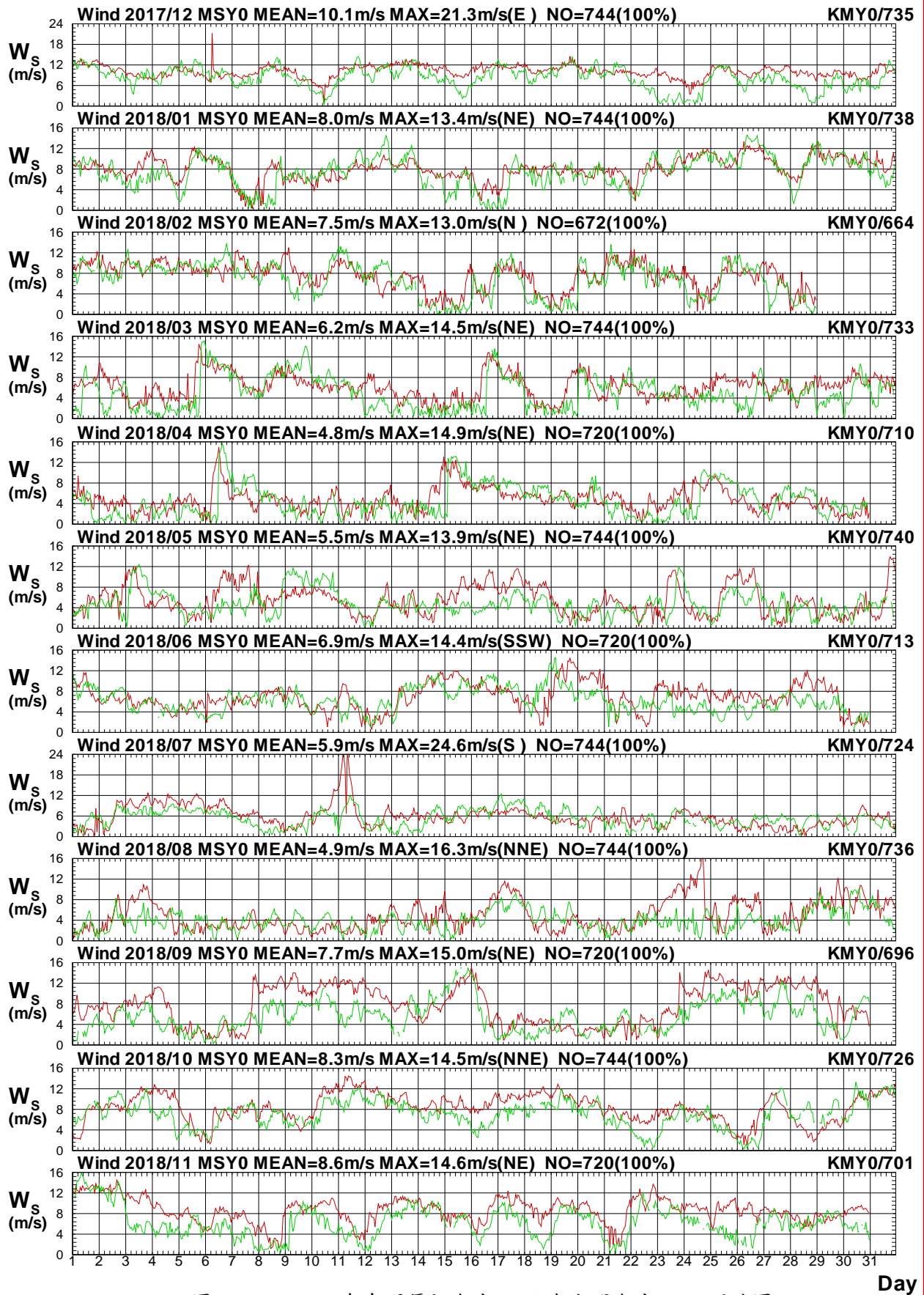


圖1.3.7a 2018年每月馬祖海域 Y 站與金門海域 Y 站風速圖

W17CMSY0.1HA W17CKMY0.1H0 W181MSY0.1HA W181KMY0.1H0 W182MSY0.1HA W182KMY0.1H0
 W183MSY0.1HA W183KMY0.1H0 W184MSY0.1HA W184KMY0.1H0 W185MSY0.1HA W185KMY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

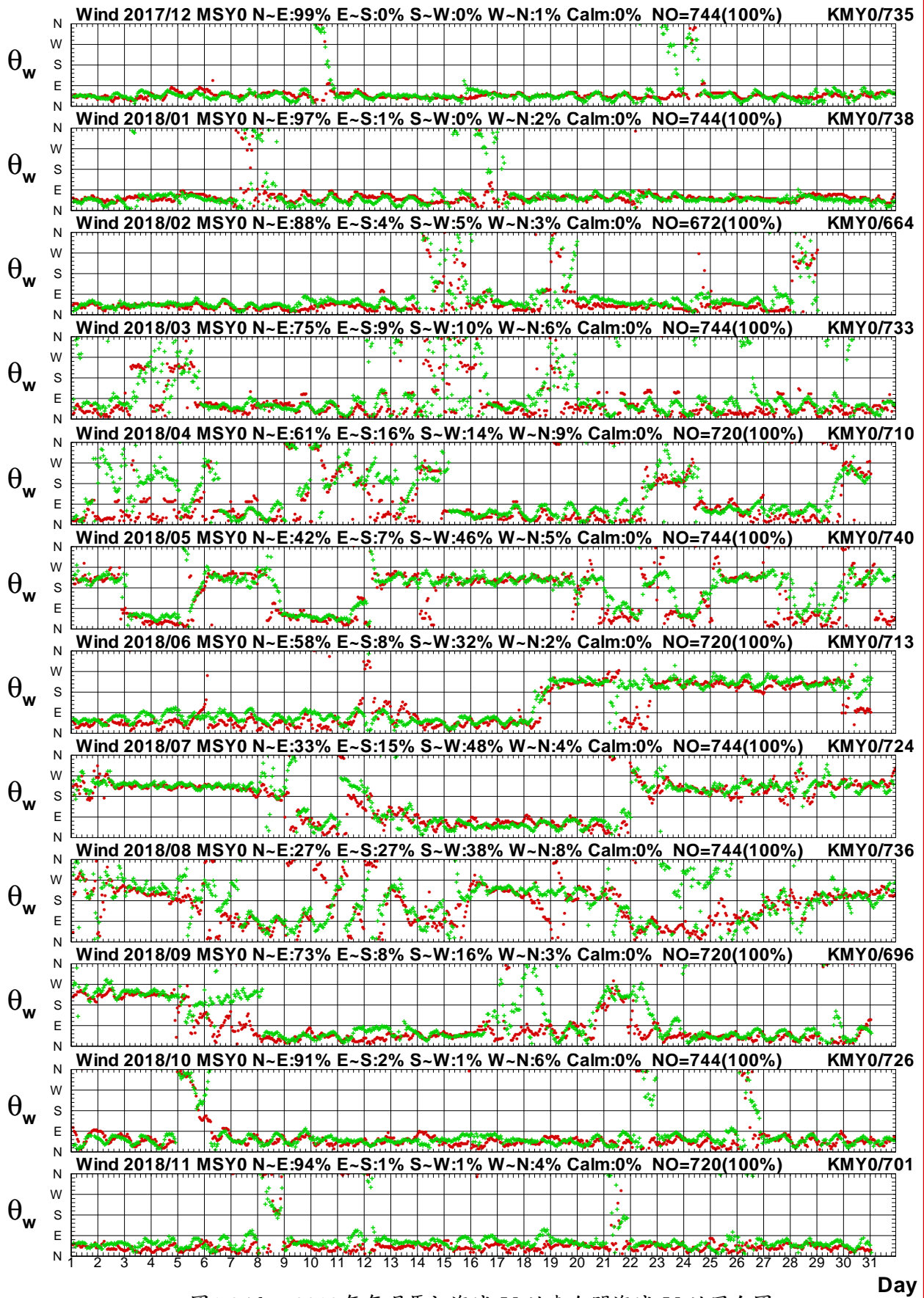


圖1.3.7b 2018年每月馬祖海域 Y 站與金門海域 Y 站風向圖

W17CMSY0.1HA W17CKMY0.1H0 W181MSY0.1HA W181KMY0.1H0 W182MSY0.1HA W182KMY0.1H0
 W183MSY0.1HA W183KMY0.1H0 W184MSY0.1HA W184KMY0.1H0 W185MSY0.1HA W185KMY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

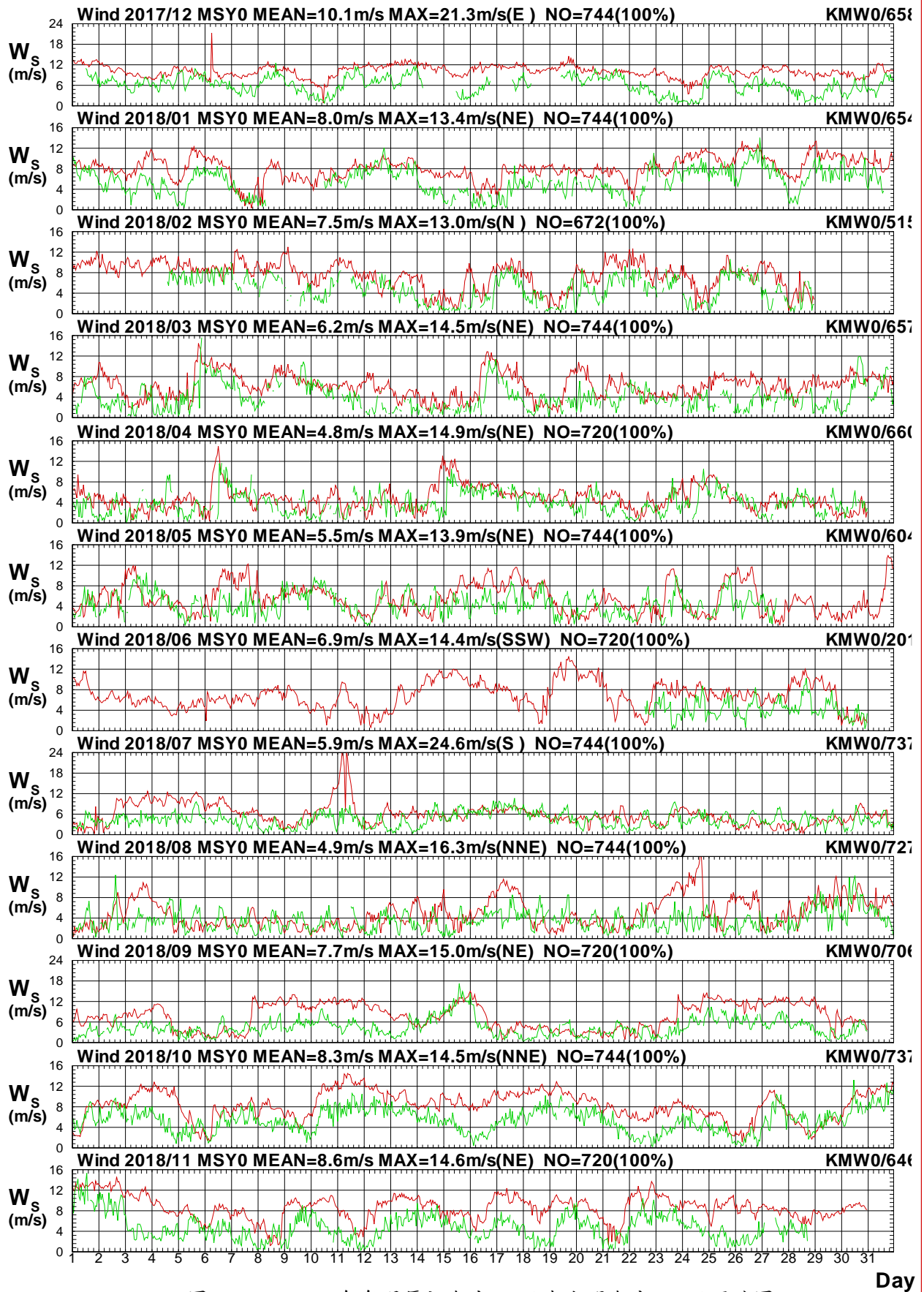


圖1.3.8a 2018年每月馬祖海域 Y 站與金門海域 W 站風速圖

W17CMSY0.1HA W17CKMW0.1H0 W181MSY0.1HA W181KMW0.1H0 W182MSY0.1HA W182KMW0.1H0
 W183MSY0.1HA W183KMW0.1H0 W184MSY0.1HA W184KMW0.1H0 W185MSY0.1HA W185KMW0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

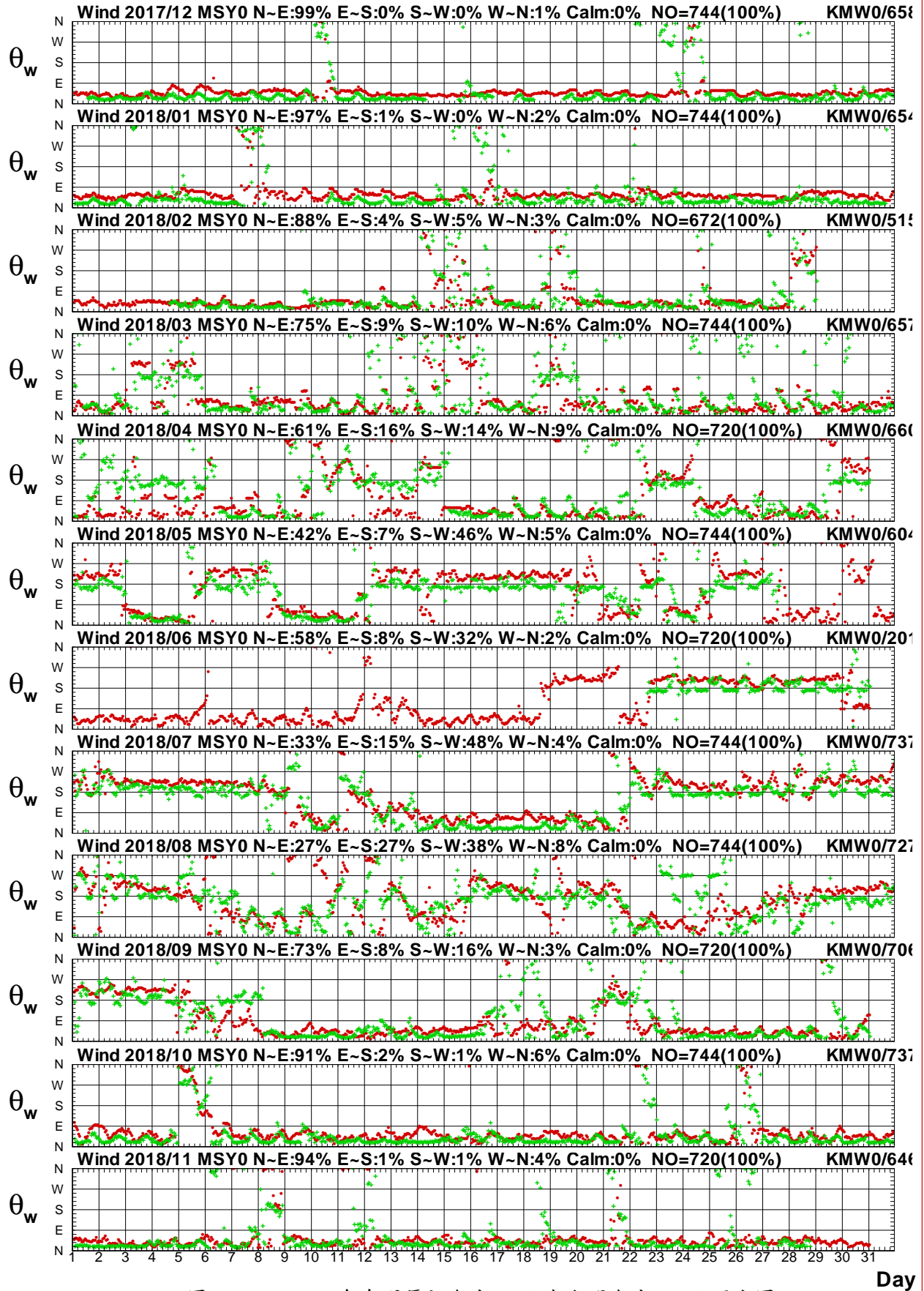


圖 1.3.8b 2018年每月馬祖海域 Y 站與金門海域 W 站風向圖

W17CMSY0.1HA W17CKMW0.1H0 W181MSY0.1HA W181KMW0.1H0 W182MSY0.1HA W182KMW0.1H0
 W183MSY0.1HA W183KMW0.1H0 W184MSY0.1HA W184KMW0.1H0 W185MSY0.1HA W185KMW0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

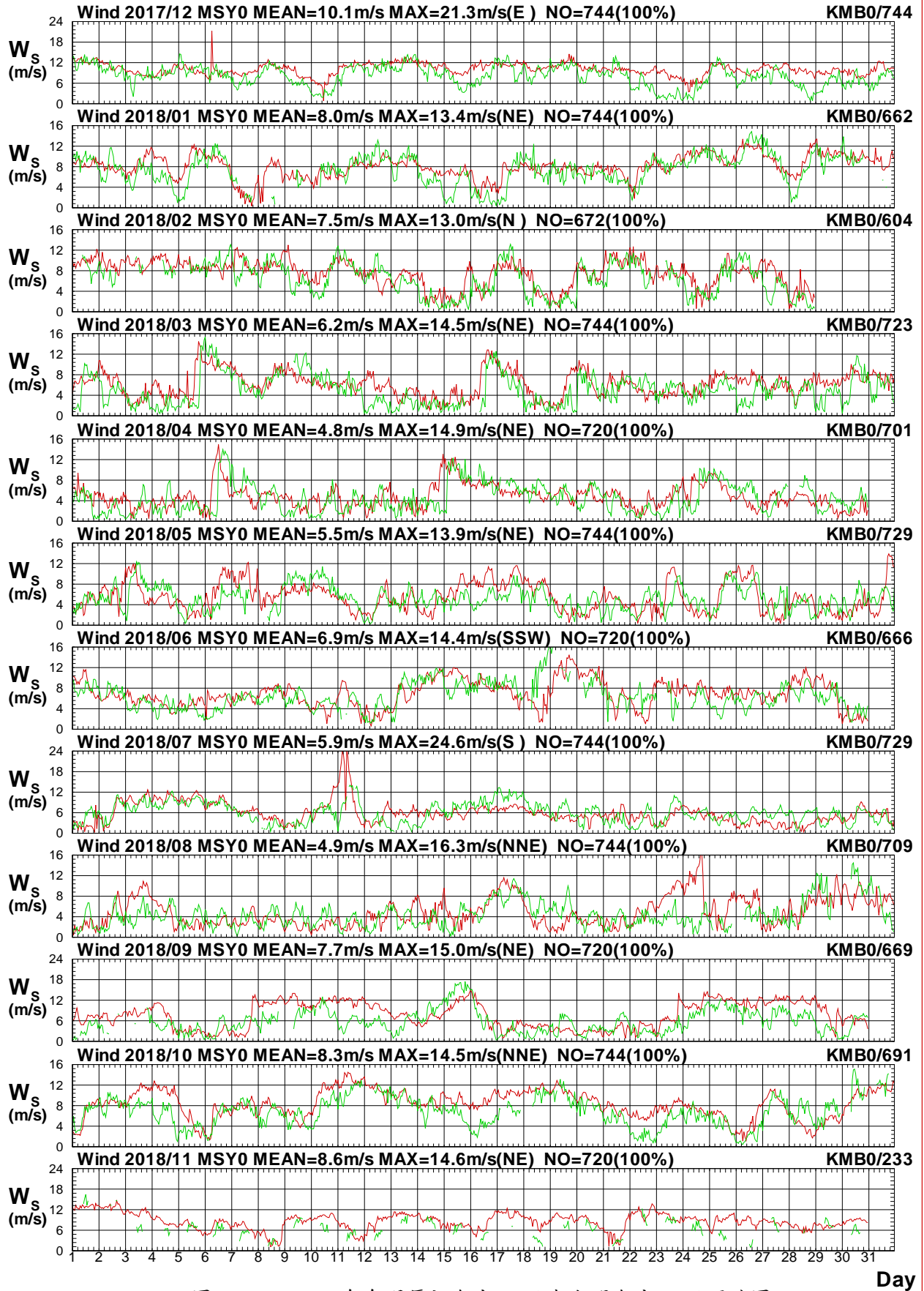


圖1.3.9a 2018年每月馬祖海域 Y 站與金門海域 B 站風速圖

W17CMSY0.1HA W17CKMB0.1H0 W181MSY0.1HA W181KMB0.1H0 W182MSY0.1HA W182KMB0.1H0
 W183MSY0.1HA W183KMB0.1H0 W184MSY0.1HA W184KMB0.1H0 W185MSY0.1HA W185KMB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

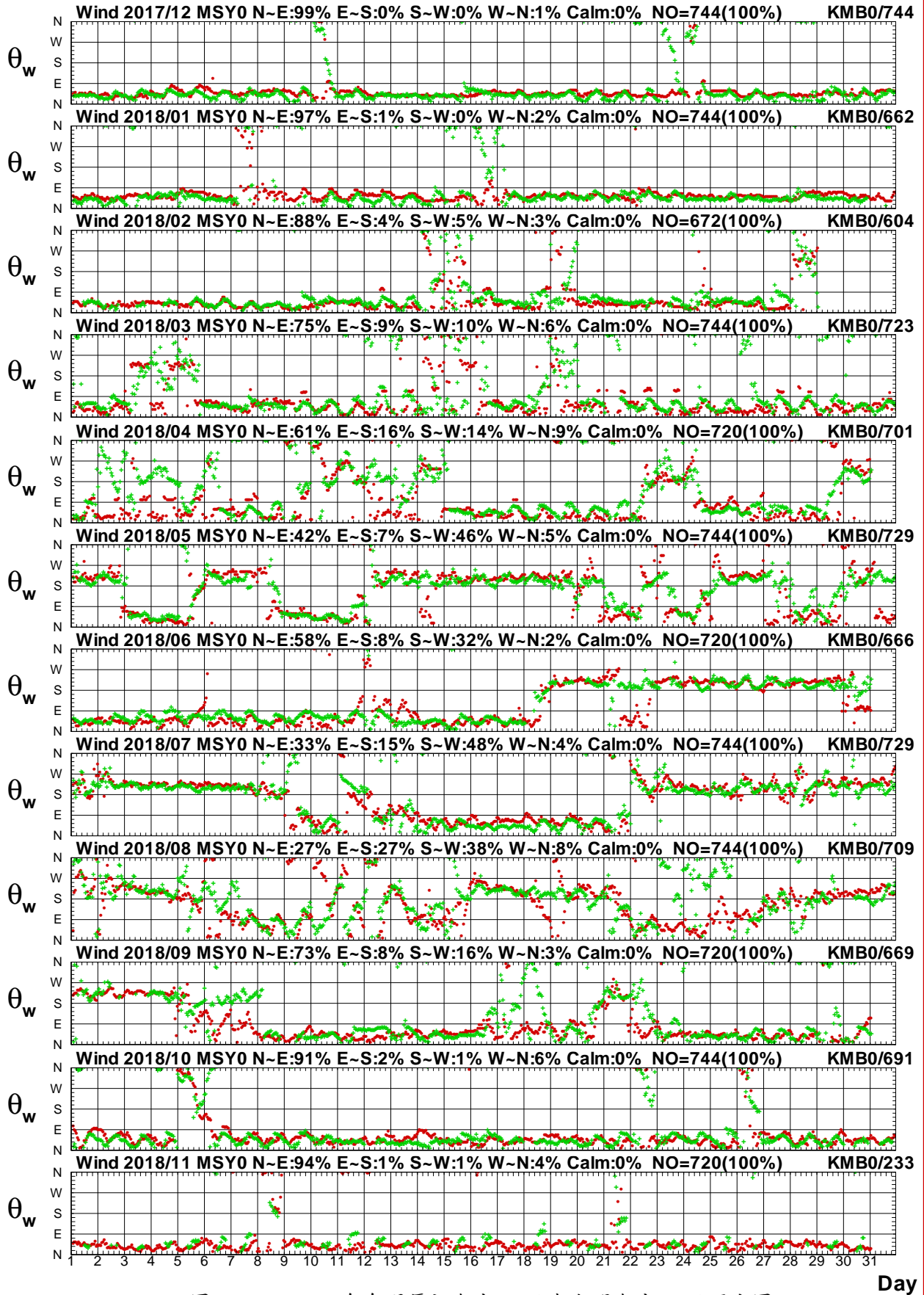


圖 1.3.9b 2018 年每月馬祖海域 Y 站與金門海域 B 站風向圖

W17CMSY0.1HA W17CKMB0.1H0 W181MSY0.1HA W181KMB0.1H0 W182MSY0.1HA W182KMB0.1H0
 W183MSY0.1HA W183KMB0.1H0 W184MSY0.1HA W184KMB0.1H0 W185MSY0.1HA W185KMB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

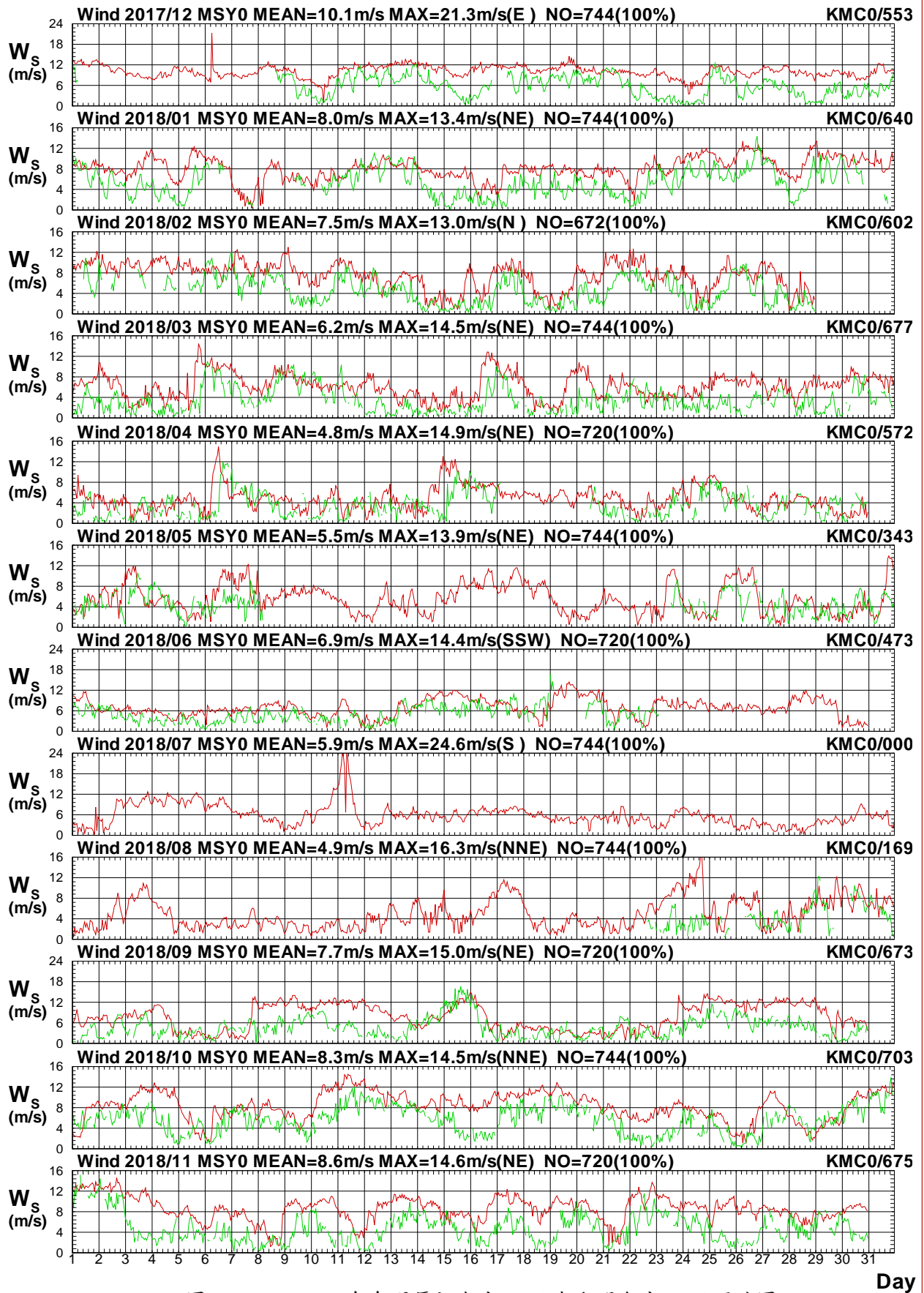


圖1.3.10a 2018年每月馬祖海域 Y 站與金門海域 C 站風速圖

W17CMSY0.1HA W17CKMC0.1H0 W181MSY0.1HA W181KMC0.1H0 W182MSY0.1HA W182KMC0.1H0
 W183MSY0.1HA W183KMC0.1H0 W184MSY0.1HA W184KMC0.1H0 W185MSY0.1HA W185KMC0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

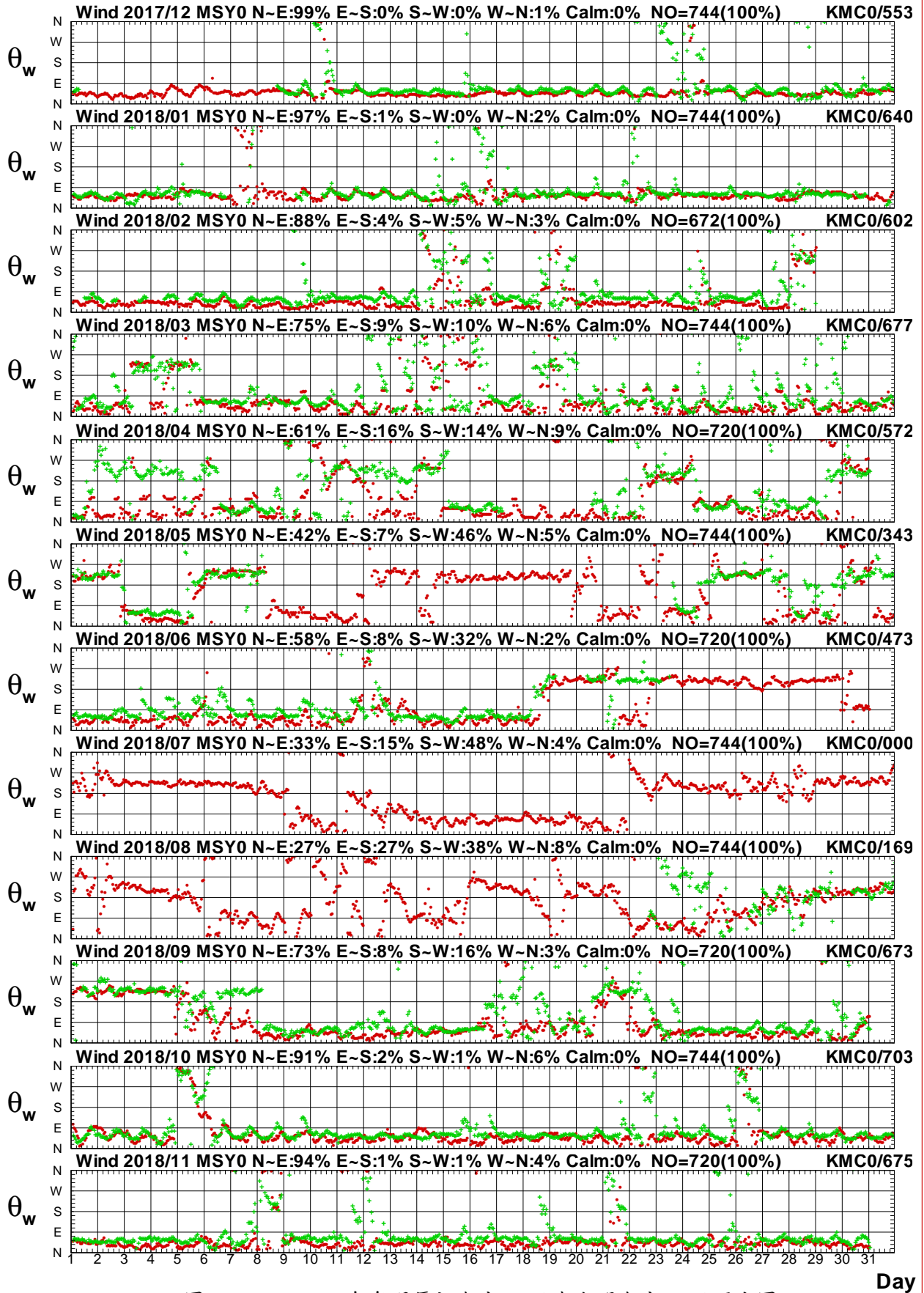


圖 1.3.10b 2018 年每月馬祖海域 Y 站與金門海域 C 站風向圖

W17CMSY0.1HA W17CKMCO.1H0 W181MSY0.1HA W181KMC0.1H0 W182MSY0.1HA W182KMC0.1H0
 W183MSY0.1HA W183KMC0.1H0 W184MSY0.1HA W184KMC0.1H0 W185MSY0.1HA W185KMC0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

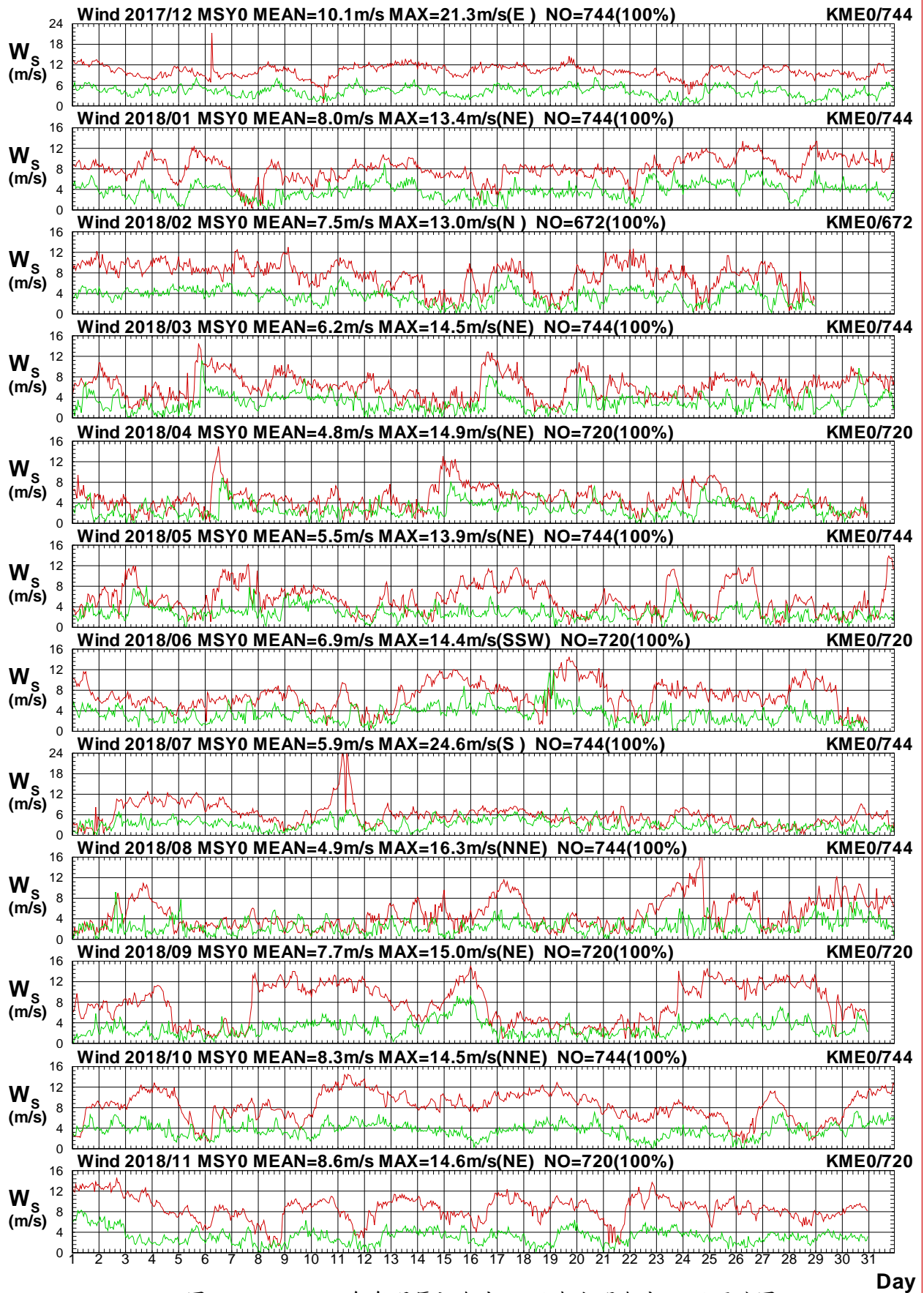


圖1.3.11a 2018年每月馬祖海域 Y 站與金門海域 E 站風速圖

W17CMSY0.1HA W17CKME0.1H0 W181MSY0.1HA W181KME0.1H0 W182MSY0.1HA W182KME0.1H0
 W183MSY0.1HA W183KME0.1H0 W184MSY0.1HA W184KME0.1H0 W185MSY0.1HA W185KME0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

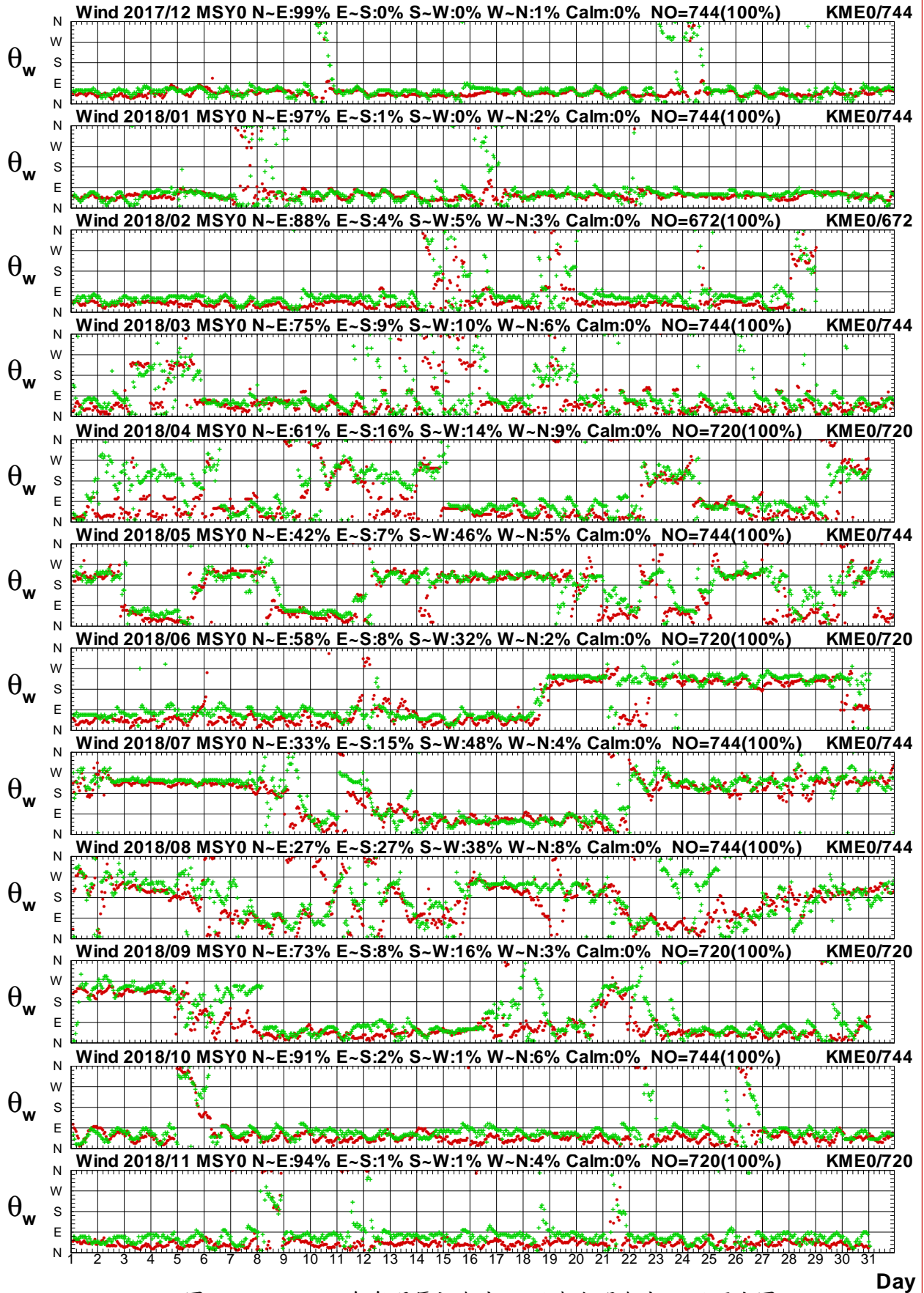


圖 1.3.11b 2018 年每月馬祖海域 Y 站與金門海域 E 站風向圖

W17CMSY0.1HA W17CKME0.1H0 W181MSY0.1HA W181KME0.1H0 W182MSY0.1HA W182KME0.1H0
 W183MSY0.1HA W183KME0.1H0 W184MSY0.1HA W184KME0.1H0 W185MSY0.1HA W185KME0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

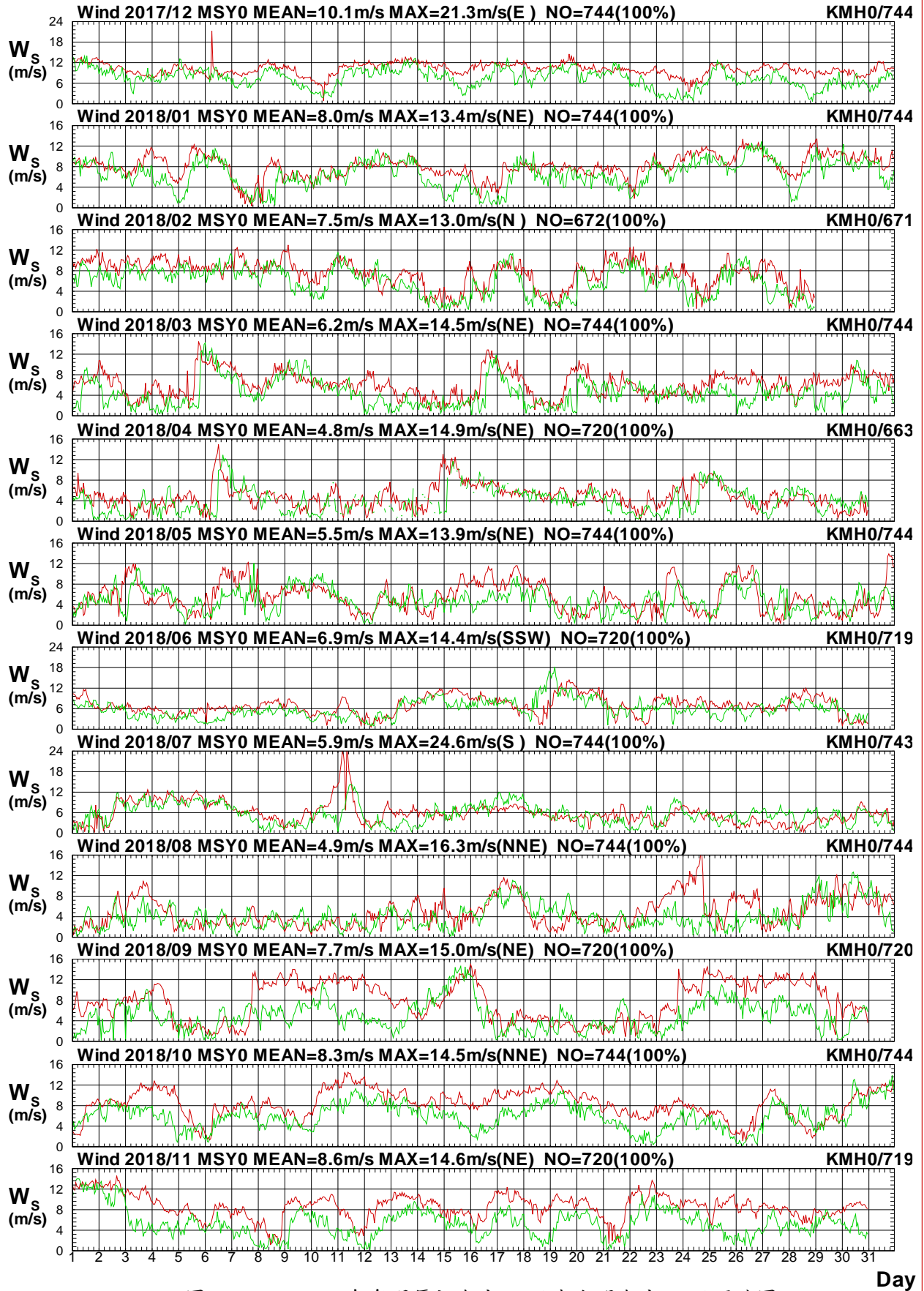


圖 1.3.12a 2018 年每月馬祖海域 Y 站與金門海域 H 站風速圖

W17CMSY0.1HA W17CKMH0.1H0 W181MSY0.1HA W181KMH0.1H0 W182MSY0.1HA W182KMH0.1H0
 W183MSY0.1HA W183KMH0.1H0 W184MSY0.1HA W184KMH0.1H0 W185MSY0.1HA W185KMH0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

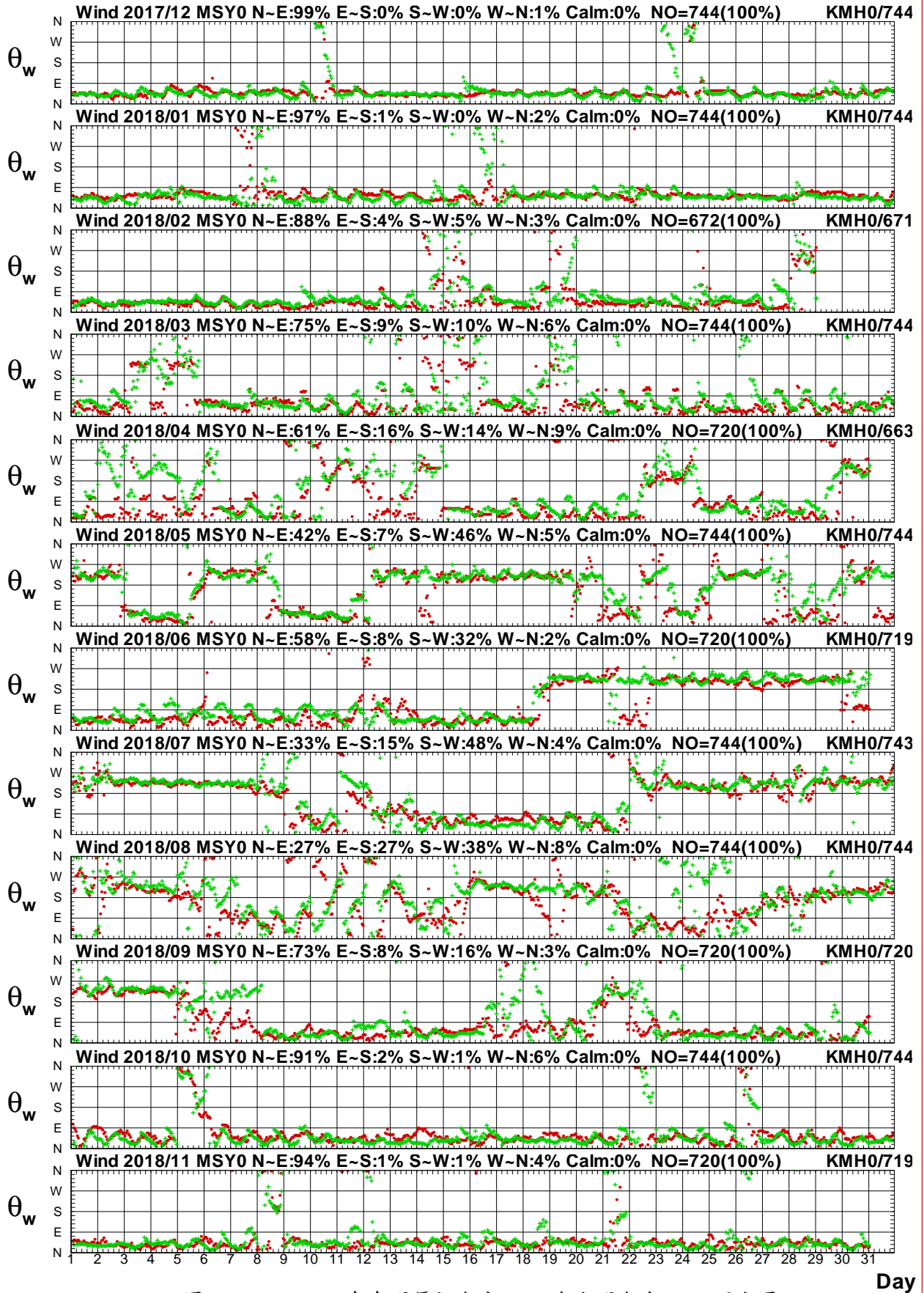


圖 1.3.12b 2018年每月馬祖海域 Y 站與金門海域 H 站風向圖

W17CMSY0.1HA W17CKMH0.1H0 W181MSY0.1HA W181KMH0.1H0 W182MSY0.1HA W182KMH0.1H0
 W183MSY0.1HA W183KMH0.1H0 W184MSY0.1HA W184KMH0.1H0 W185MSY0.1HA W185KMH0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

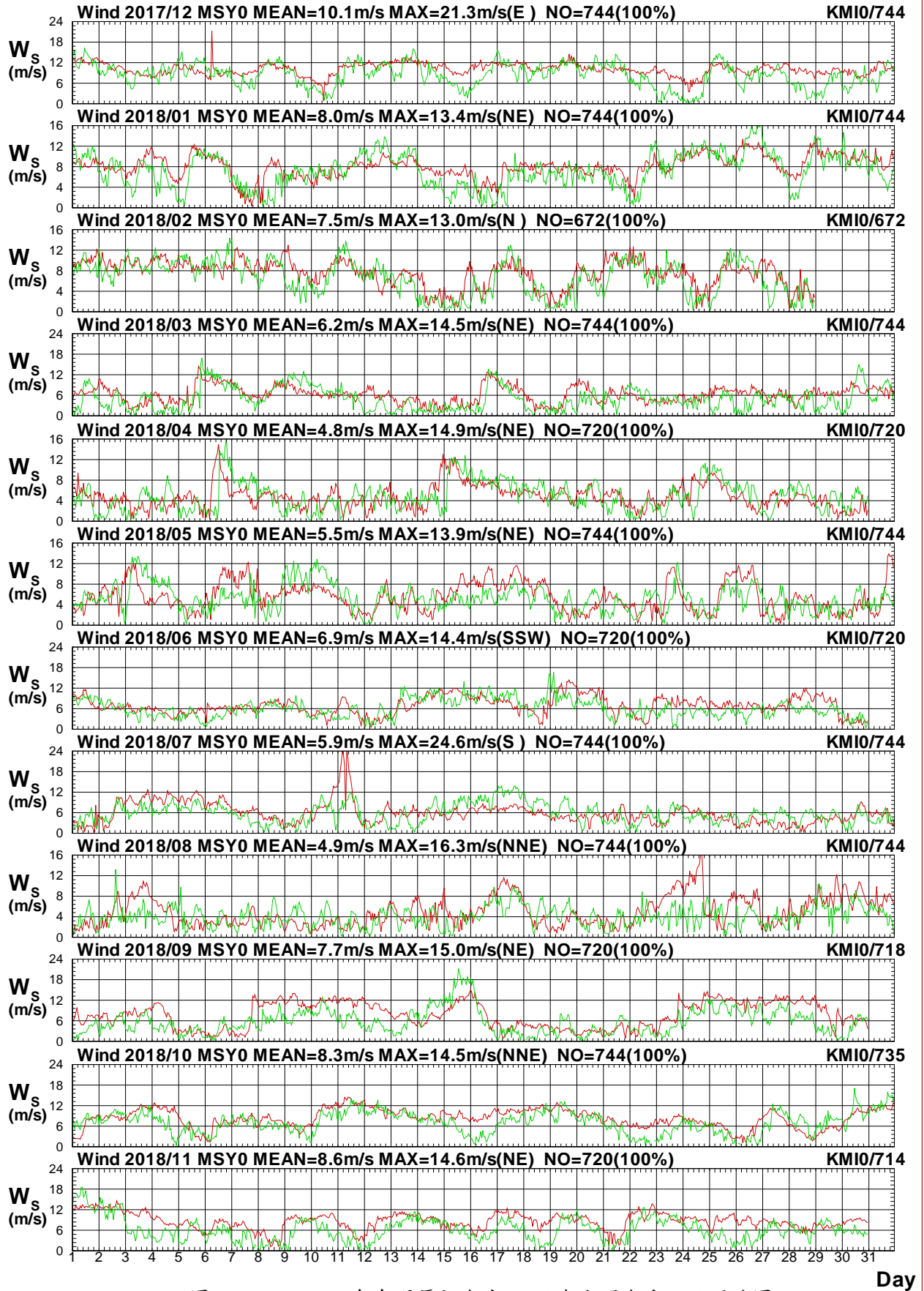


圖1.3.13a 2018年每月馬祖海域 Y 站與金門海域 I 站風速圖

W17CMSY0.1HA W17CKMI0.1HO W181MSY0.1HA W181KMI0.1HO W182MSY0.1HA W182KMI0.1HO
 W183MSY0.1HA W183KMI0.1HO W184MSY0.1HA W184KMI0.1HO W185MSY0.1HA W185KMI0.1HO

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

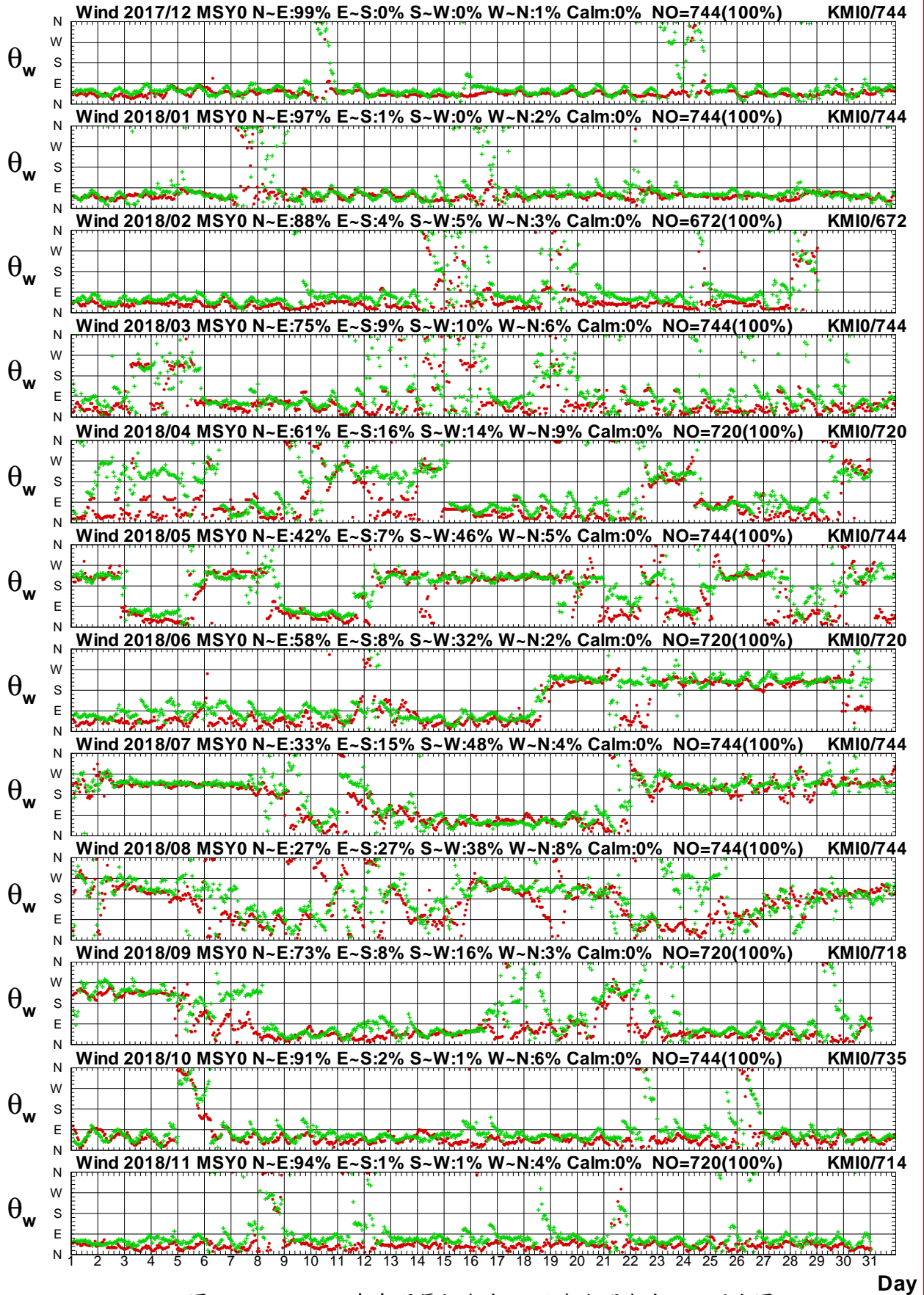


圖1.3.13b 2018年每月馬祖海域 Y 站與金門海域 I 站風向圖

W17CMSY0.1HA W17CKMI0.1HO W181MSY0.1HA W181KMI0.1HO W182MSY0.1HA W182KMI0.1HO
 W183MSY0.1HA W183KMI0.1HO W184MSY0.1HA W184KMI0.1HO W185MSY0.1HA W185KMI0.1HO

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

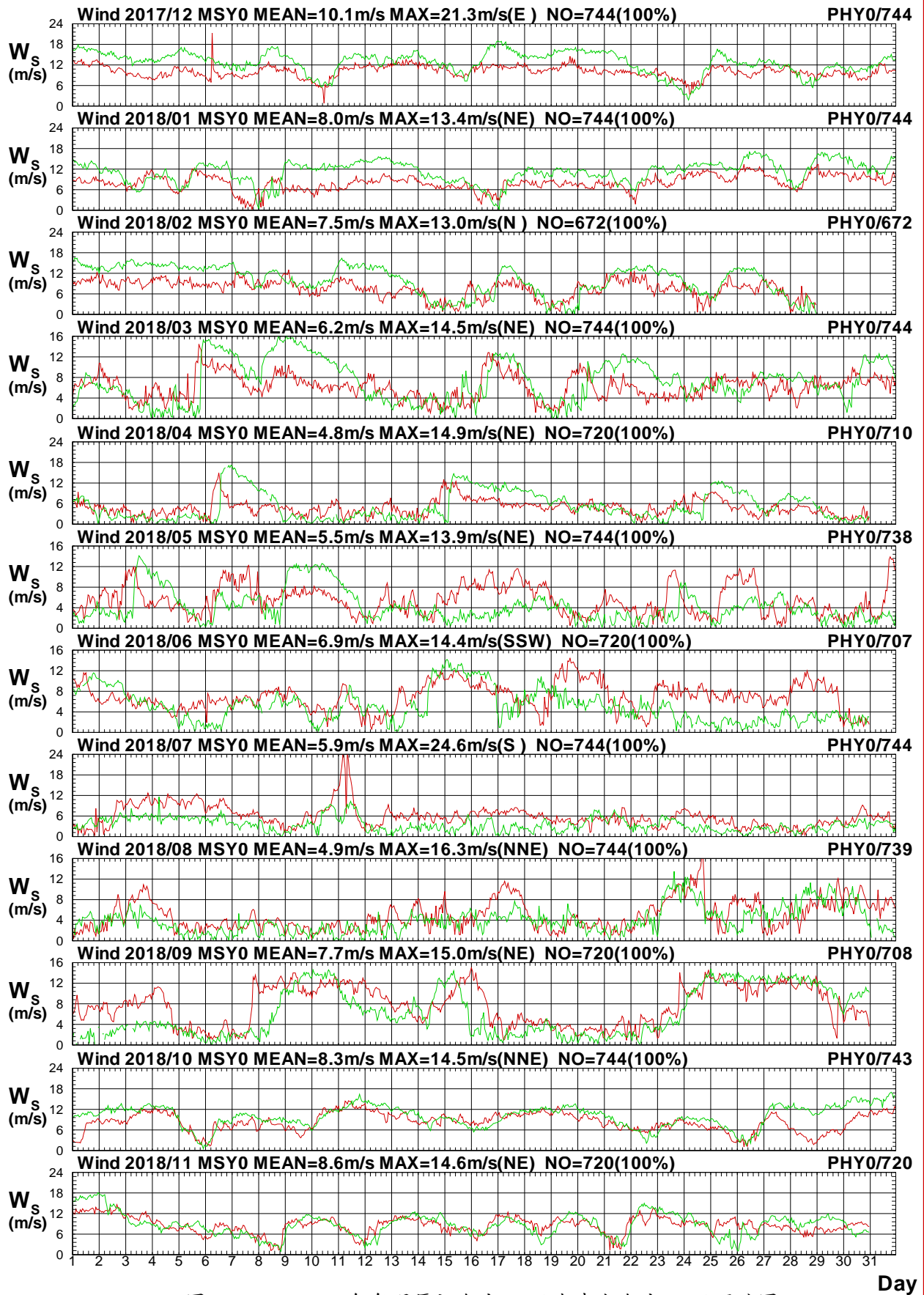


圖 1.3.14a 2018 年每月馬祖海域 Y 站與澎湖海域 Y 站風速圖

W17CMSY0.1HA W17CPHY0.1H0 W181MSY0.1HA W181PHY0.1H0 W182MSY0.1HA W182PHY0.1H0
 W183MSY0.1HA W183PHY0.1H0 W184MSY0.1HA W184PHY0.1H0 W185MSY0.1HA W185PHY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

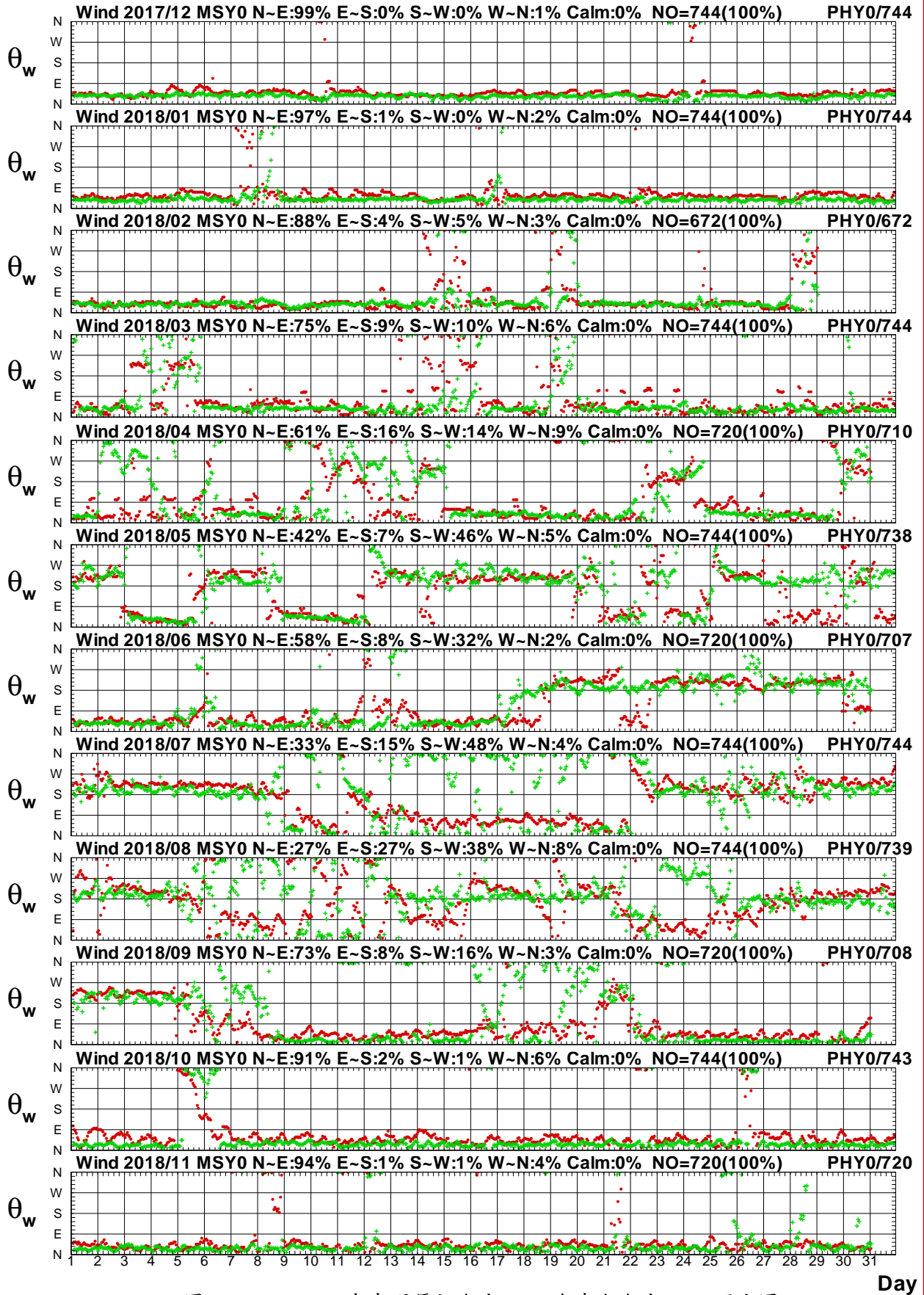


圖1.3.14b 2018年每月馬祖海域 Y 站與澎湖海域 Y 站風向圖

W17CMSY0.1HA W17CPHY0.1H0 W181MSY0.1HA W181PHY0.1H0 W182MSY0.1HA W182PHY0.1H0
 W183MSY0.1HA W183PHY0.1H0 W184MSY0.1HA W184PHY0.1H0 W185MSY0.1HA W185PHY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

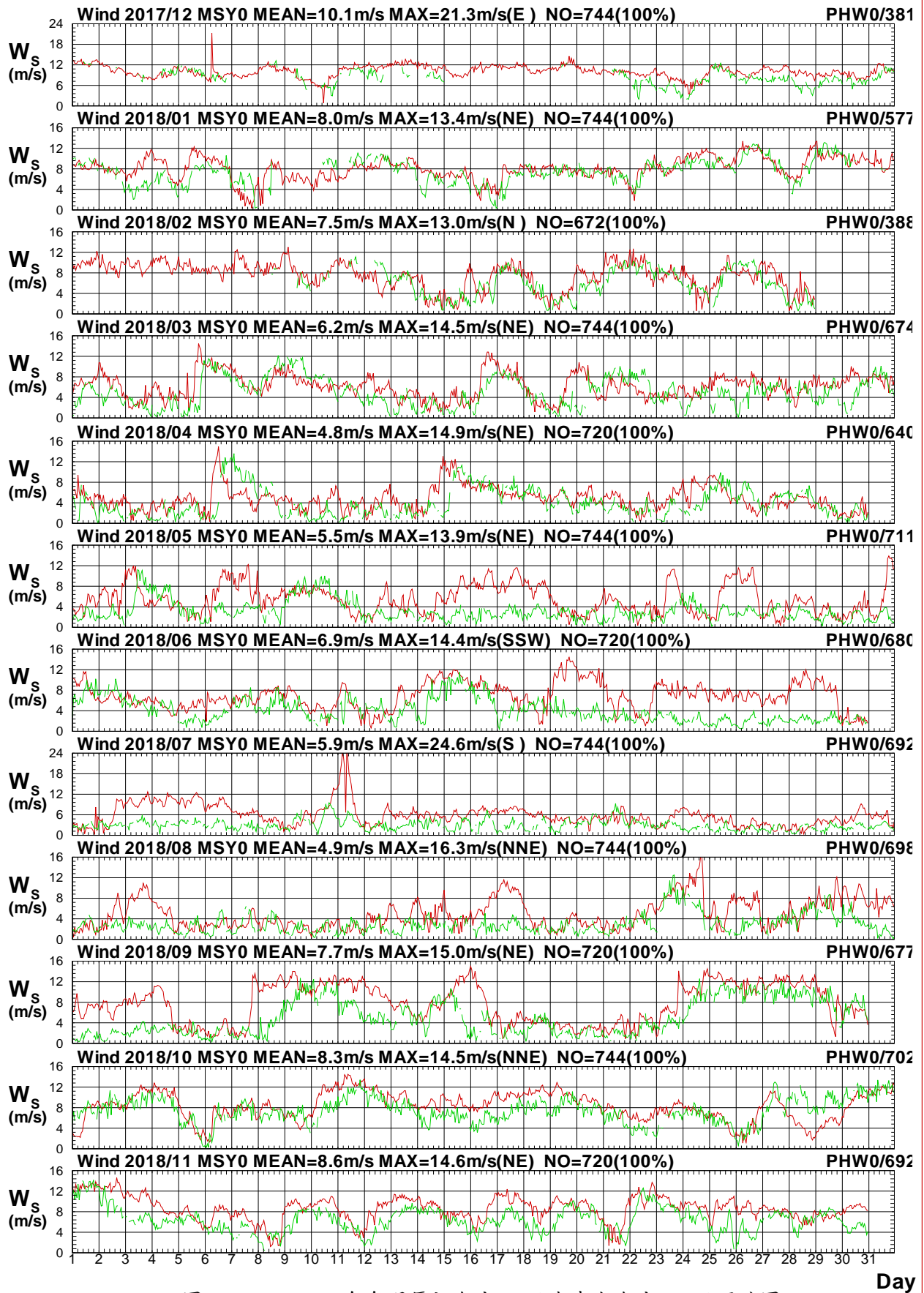


圖 1.3.15a 2018年每月馬祖海域 Y 站與澎湖海域 W 站風速圖

W17CMSY0.1HA W17CPHW0.1H0 W181MSY0.1HA W181PHW0.1H0 W182MSY0.1HA W182PHW0.1H0
 W183MSY0.1HA W183PHW0.1H0 W184MSY0.1HA W184PHW0.1H0 W185MSY0.1HA W185PHW0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

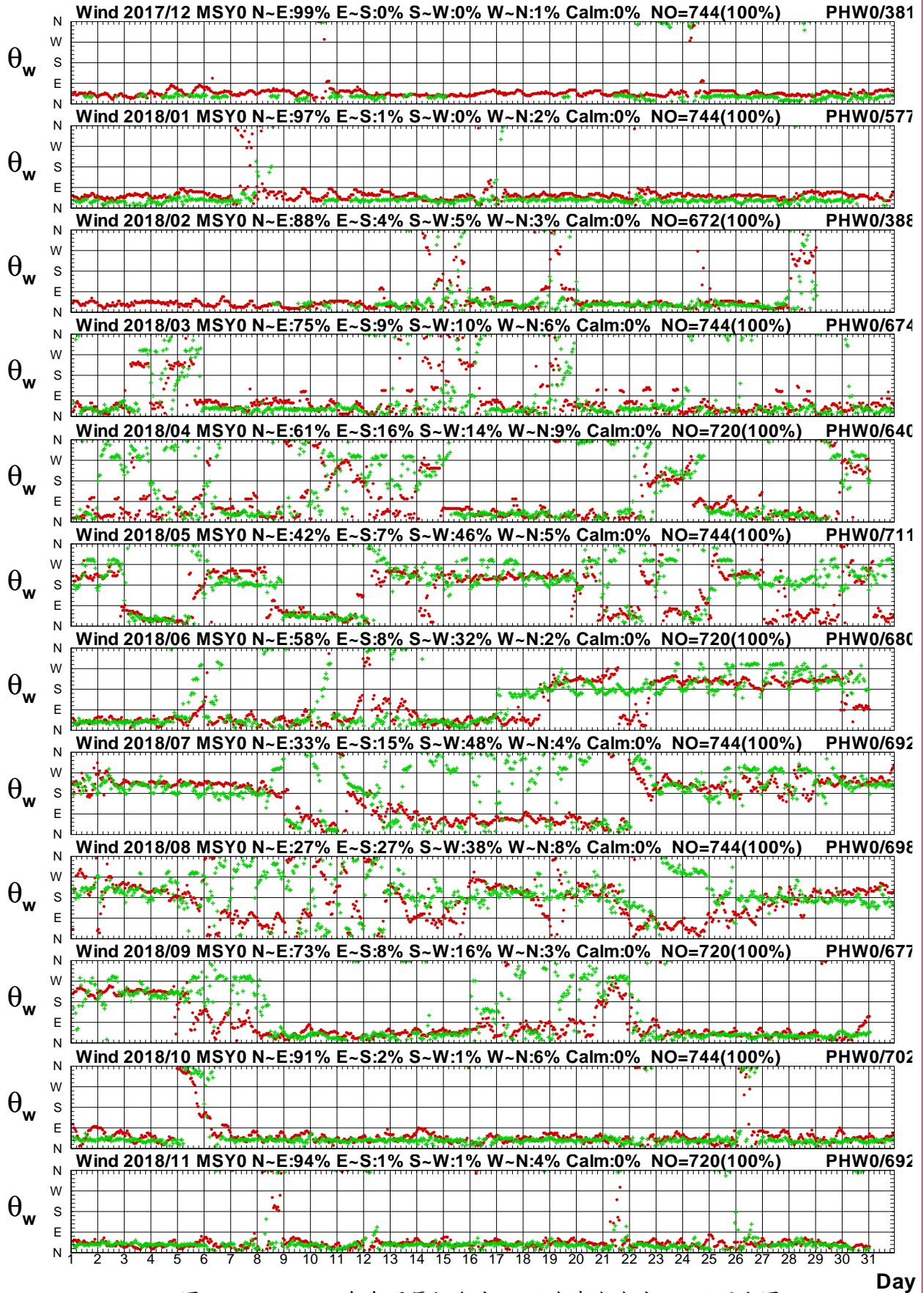


圖 1.3.15b 2018年每月馬祖海域 Y 站與澎湖海域 W 站風向圖

W17CMSY0.1HA W17CPHW0.1H0 W181MSY0.1HA W181PHW0.1H0 W182MSY0.1HA W182PHW0.1H0
 W183MSY0.1HA W183PHW0.1H0 W184MSY0.1HA W184PHW0.1H0 W185MSY0.1HA W185PHW0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

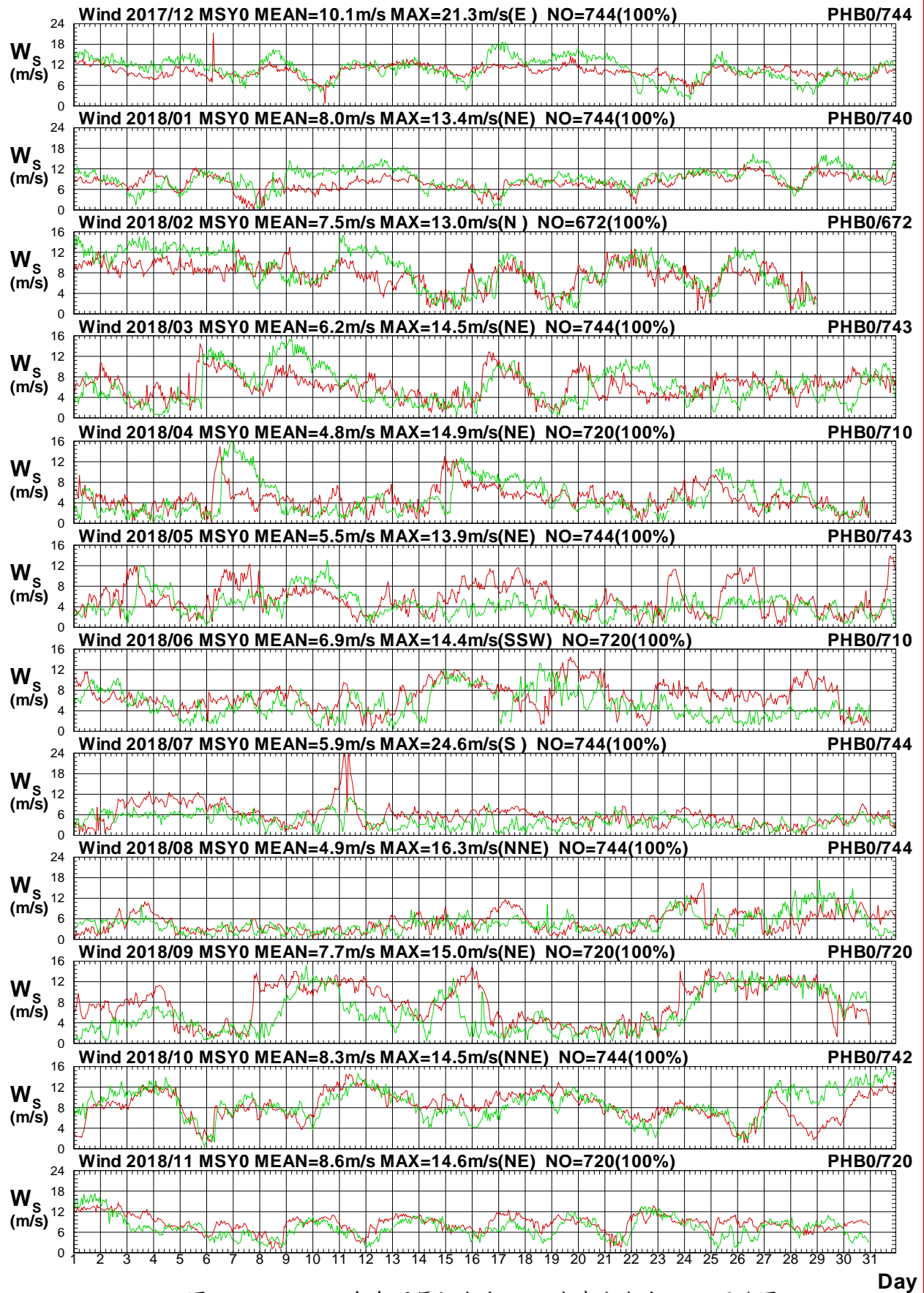


圖 1.3.16a 2018 年每月馬祖海域 Y 站與澎湖海域 B 站風速圖

W17CMSY0.1HA W17CPHB0.1H0 W181MSY0.1HA W181PHB0.1H0 W182MSY0.1HA W182PHB0.1H0
 W183MSY0.1HA W183PHB0.1H0 W184MSY0.1HA W184PHB0.1H0 W185MSY0.1HA W185PHB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

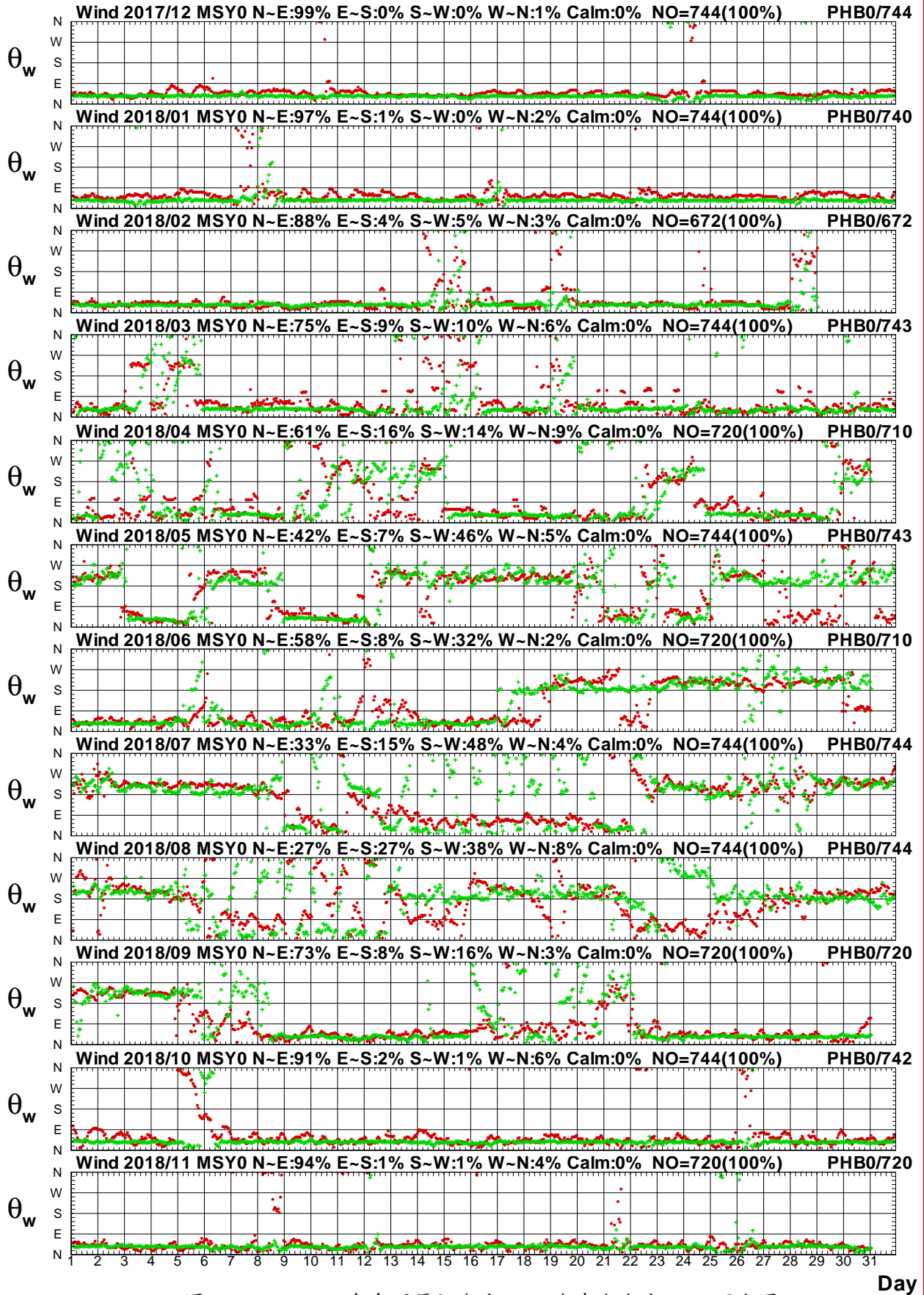


圖 1.3.16b 2018 年每月馬祖海域 Y 站與澎湖海域 B 站風向圖

W17CMSY0.1HA W17CPHB0.1H0 W181MSY0.1HA W181PHB0.1H0 W182MSY0.1HA W182PHB0.1H0
 W183MSY0.1HA W183PHB0.1H0 W184MSY0.1HA W184PHB0.1H0 W185MSY0.1HA W185PHB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

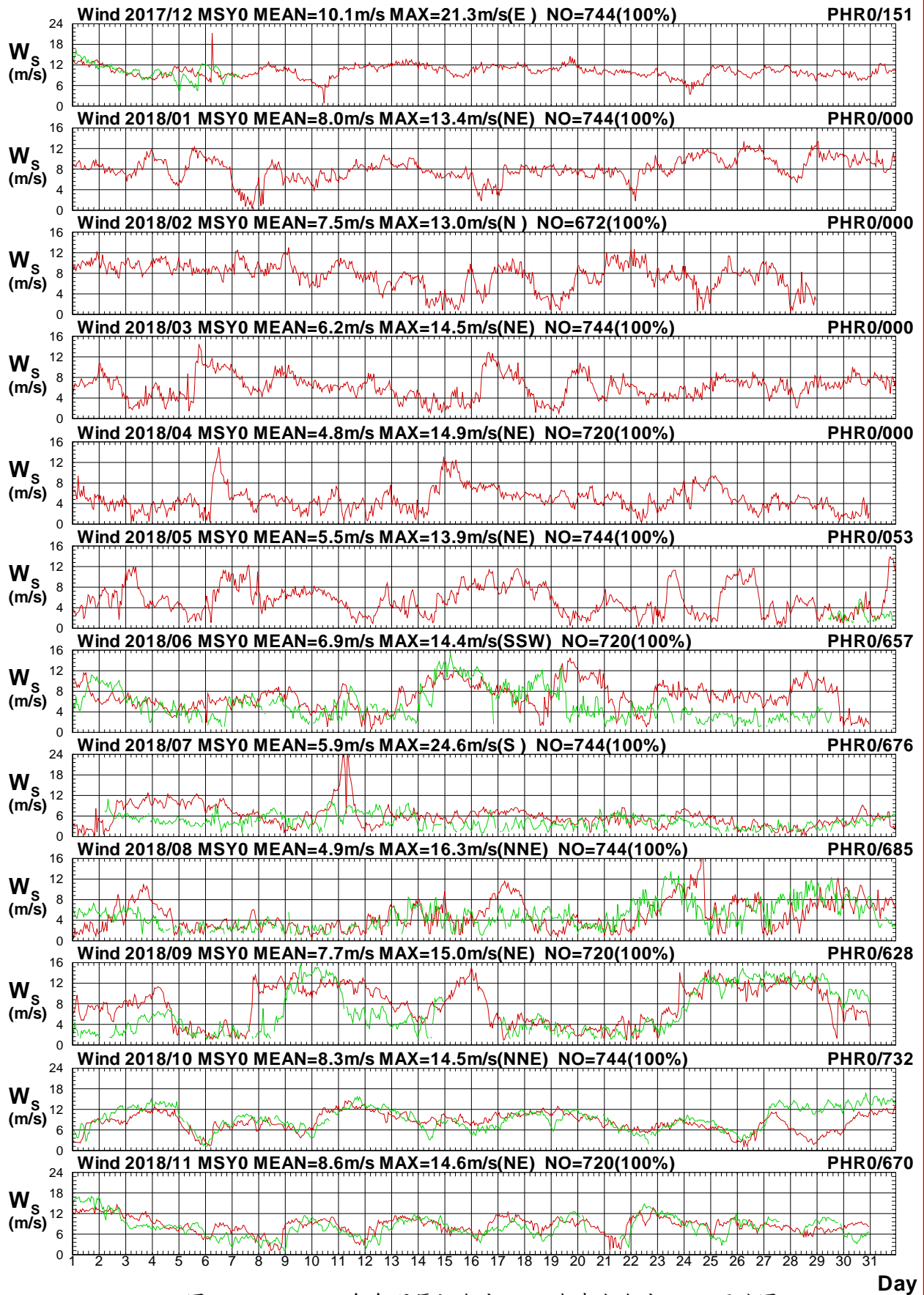


圖1.3.17a 2018年每月馬祖海域 Y 站與澎湖海域 R 站風速圖

W17CMSY0.1HA W17CPHR0.1HO W181MSY0.1HA W181PHR0.1HO W182MSY0.1HA W182PHR0.1HO
 W183MSY0.1HA W183PHR0.1HO W184MSY0.1HA W184PHR0.1HO W185MSY0.1HA W185PHR0.1HO

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

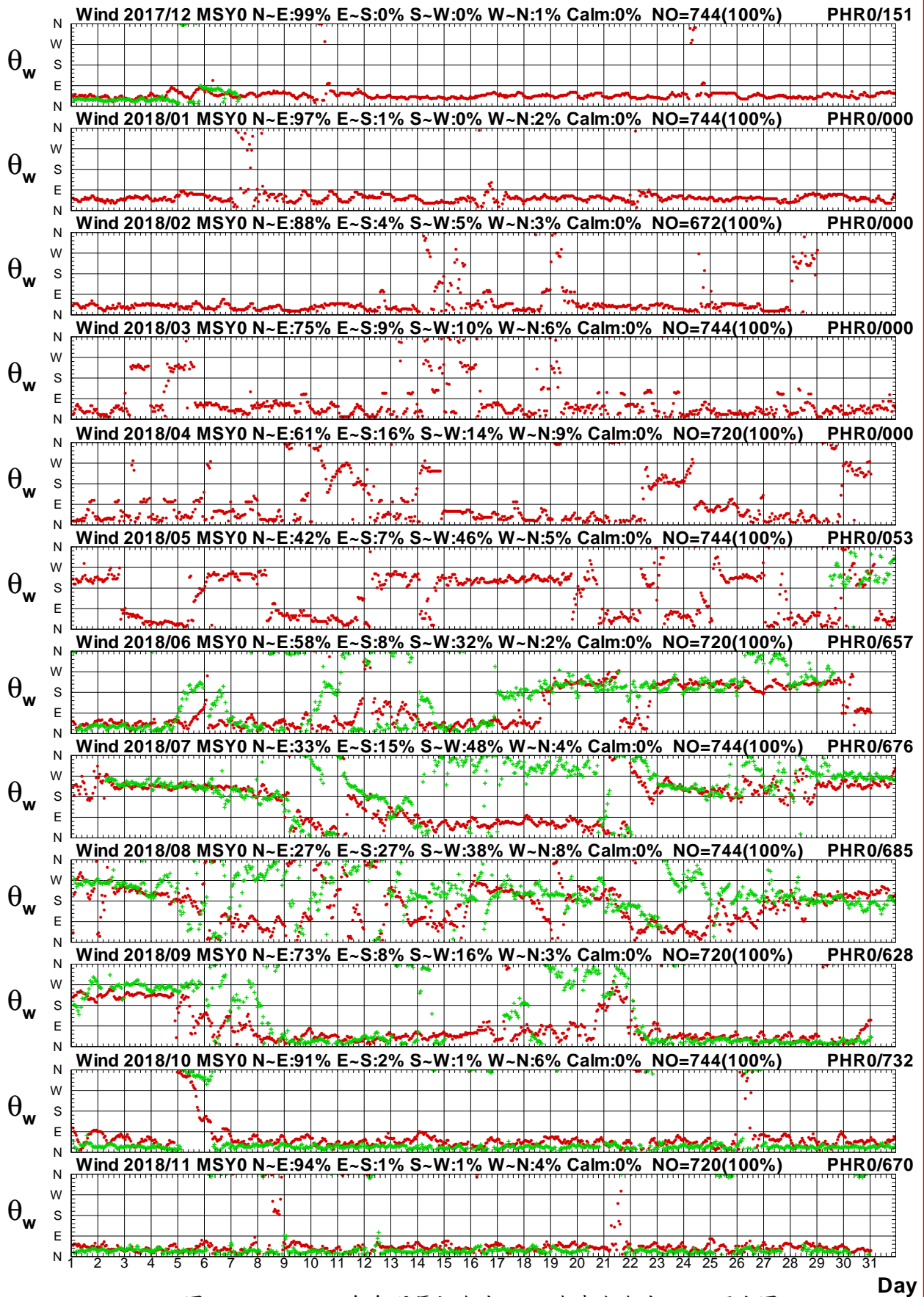


圖 1.3.17b 2018 年每月馬祖海域 Y 站與澎湖海域 R 站風向圖

W17CMSY0.1HA W17CPHR0.1H0 W181MSY0.1HA W181PHR0.1H0 W182MSY0.1HA W182PHR0.1H0
 W183MSY0.1HA W183PHR0.1H0 W184MSY0.1HA W184PHR0.1H0 W185MSY0.1HA W185PHR0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

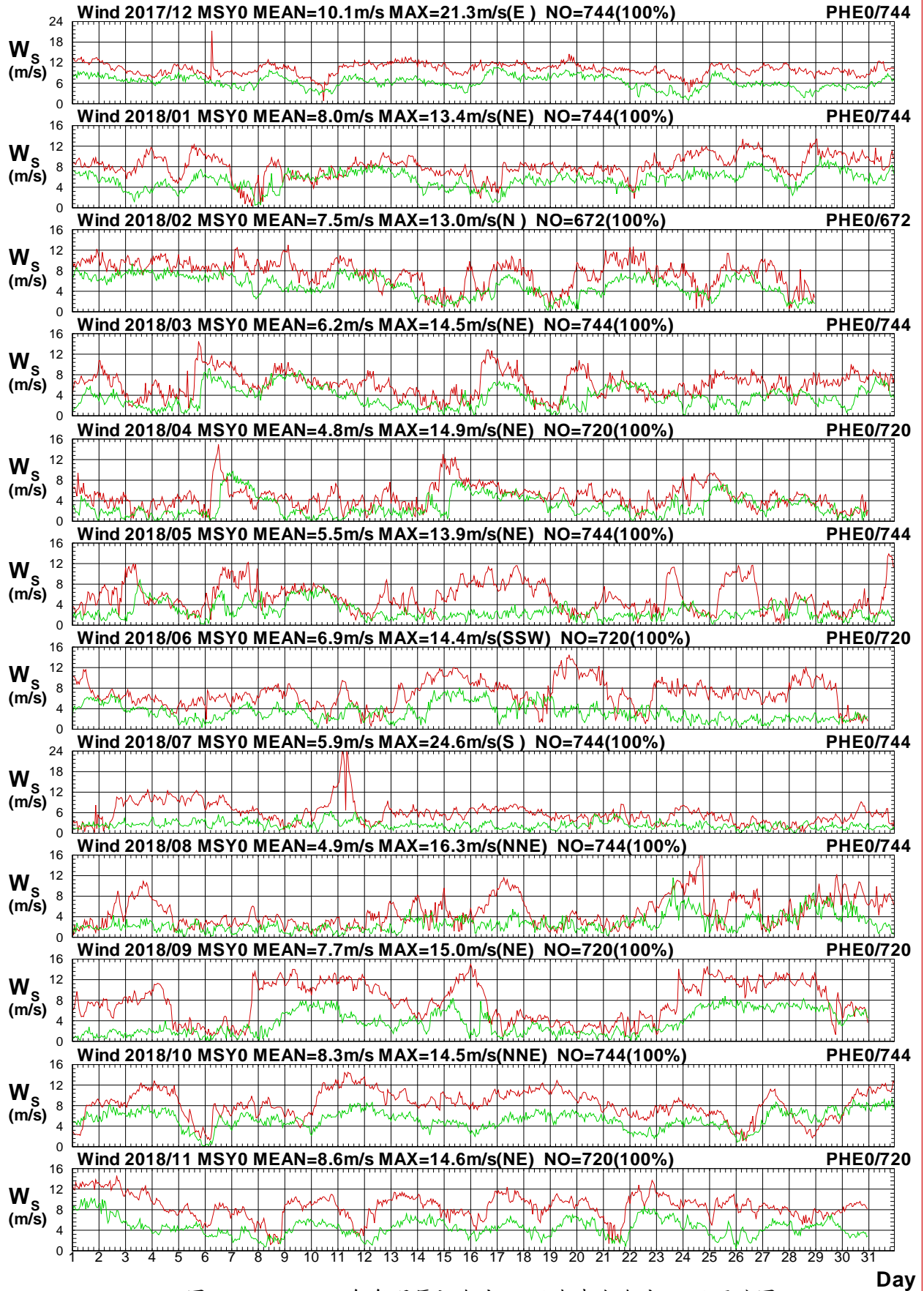


圖1.3.18a 2018年每月馬祖海域 Y 站與澎湖海域 E 站風速圖

W17CMSY0.1HA W17CPHE0.1H0 W181MSY0.1HA W181PHE0.1H0 W182MSY0.1HA W182PHE0.1H0
 W183MSY0.1HA W183PHE0.1H0 W184MSY0.1HA W184PHE0.1H0 W185MSY0.1HA W185PHE0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

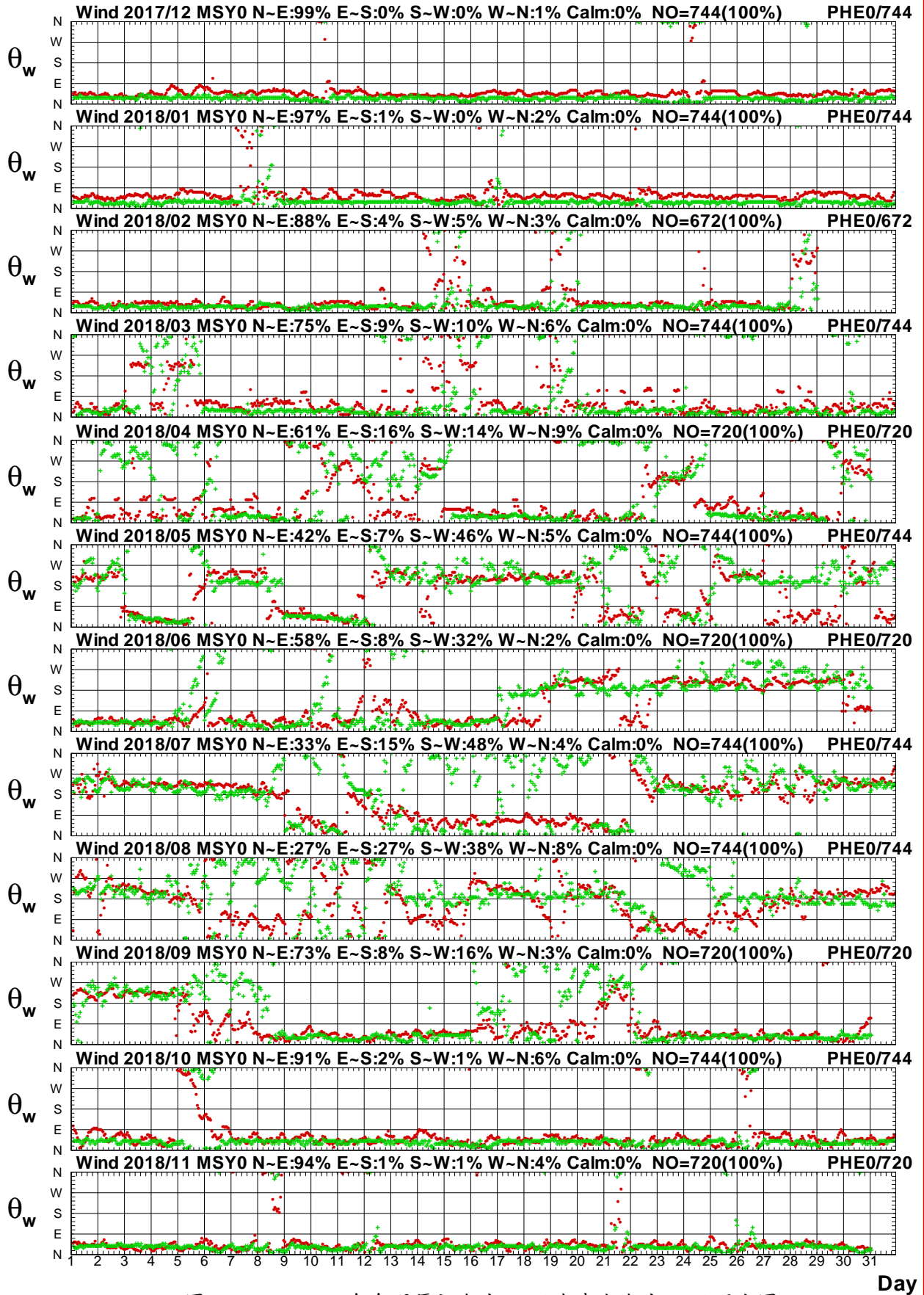


圖 1.3.18b 2018 年每月馬祖海域 Y 站與澎湖海域 E 站風向圖

W17CMSY0.1HA W17CPHE0.1H0 W181MSY0.1HA W181PHE0.1H0 W182MSY0.1HA W182PHE0.1H0
 W183MSY0.1HA W183PHE0.1H0 W184MSY0.1HA W184PHE0.1H0 W185MSY0.1HA W185PHE0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSY0 at 2018

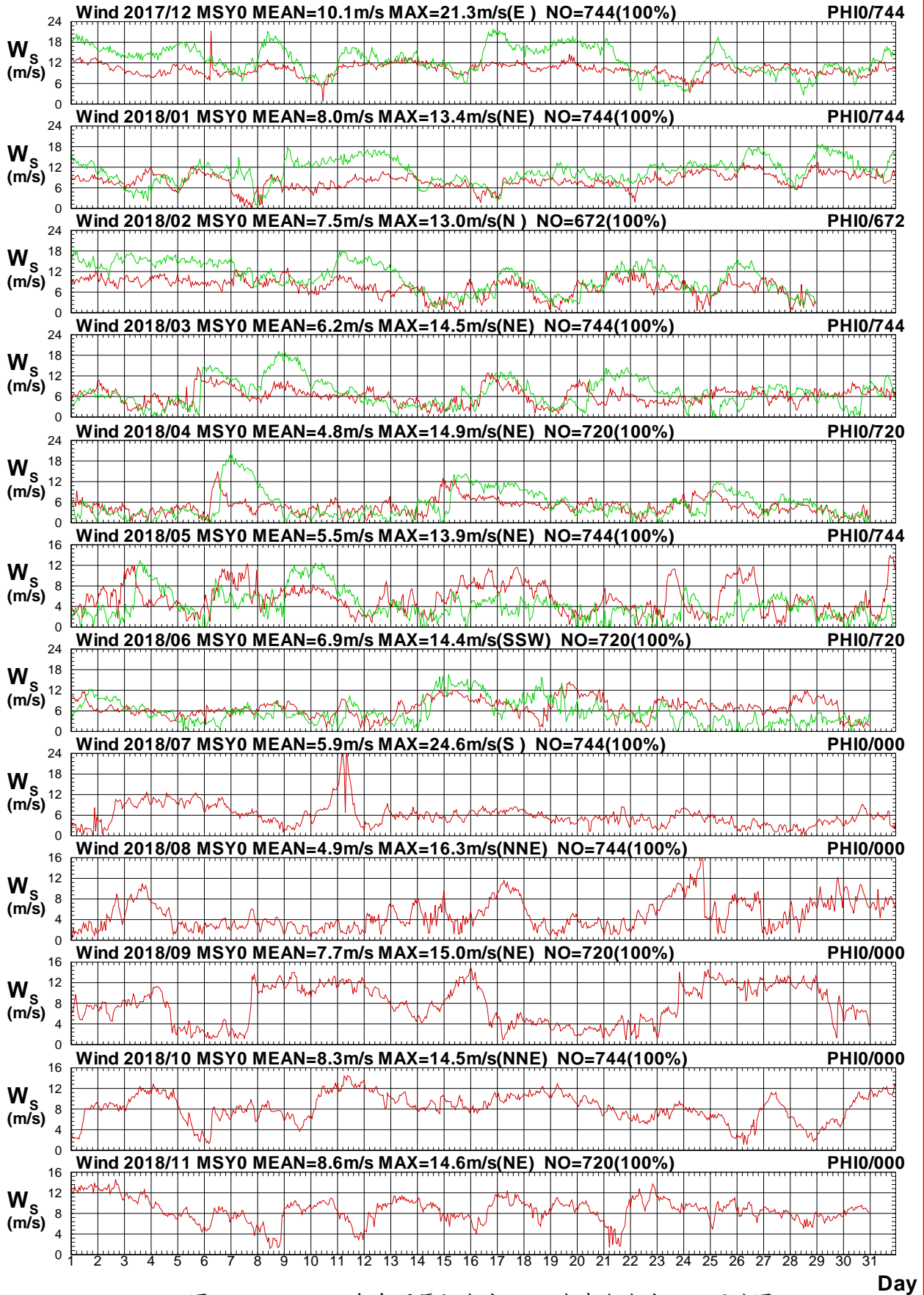


圖1.3.19a 2018年每月馬祖海域 Y 站與澎湖海域 I 站風速圖

W17CMSY0.1HA W17CPHIO.1H0 W181MSY0.1HA W181PHIO.1H0 W182MSY0.1HA W182PHIO.1H0
W183MSY0.1HA W183PHIO.1H0 W184MSY0.1HA W184PHIO.1H0 W185MSY0.1HA W185PHIO.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSY0 at 2018

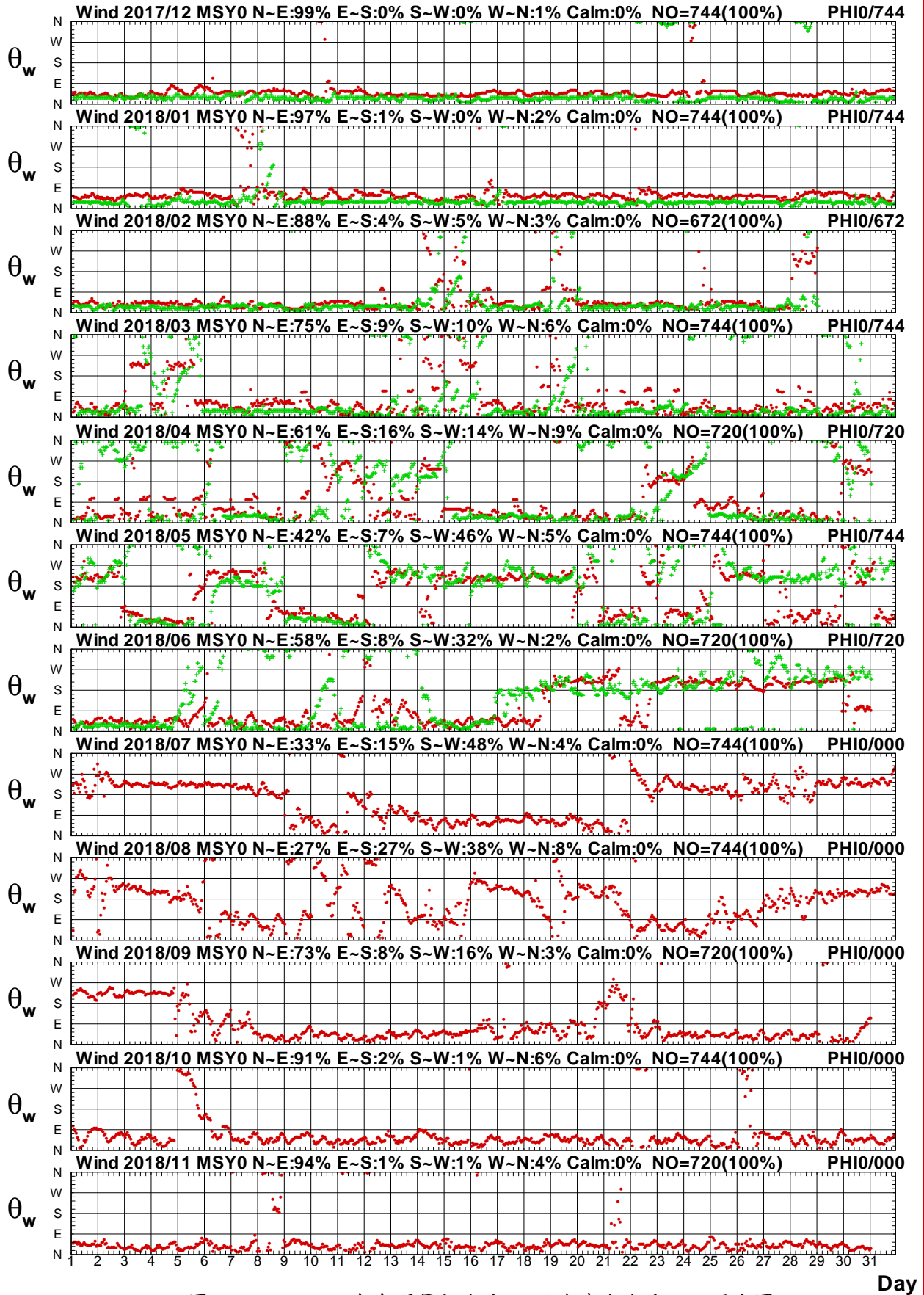


圖1.3.19b 2018年每月馬祖海域 Y 站與澎湖海域 I 站風向圖

W17CMSY0.1HA W17C PHI0.1H0 W181MSY0.1HA W181P PHI0.1H0 W182MSY0.1HA W182P PHI0.1H0
 W183MSY0.1HA W183P PHI0.1H0 W184MSY0.1HA W184P PHI0.1H0 W185MSY0.1HA W185P PHI0.1H0

Institute of Harbor & Marine Technology

1.4 2018年馬祖海域風力**主要測站2**(修補後)與 **其他測站**(修補前)每月風力歷線比較圖

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

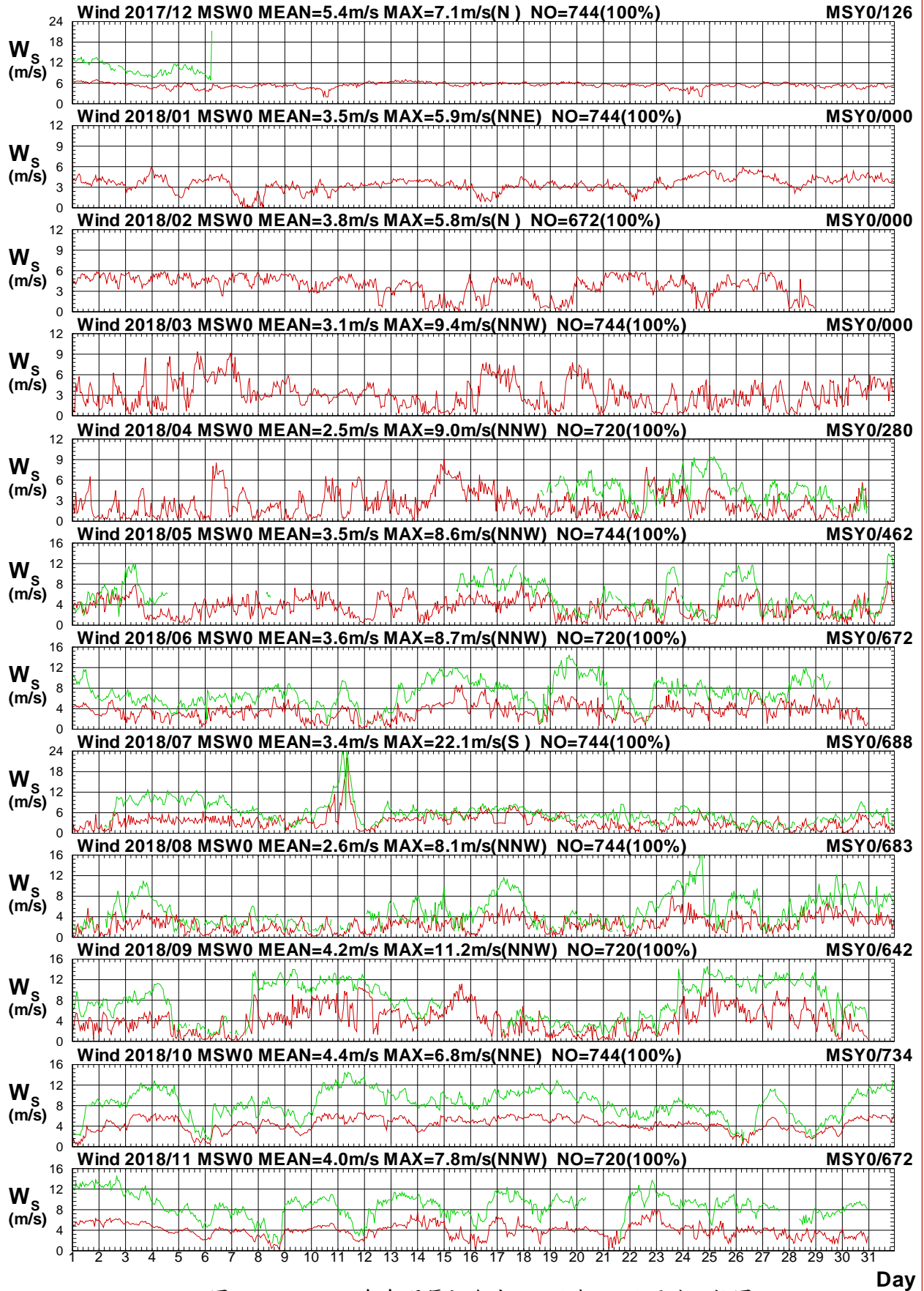


圖1.4.1a 2018年每月馬祖海域 W 站與 Y 站風速比較圖

W17CMSW0.1HA W17CMSY0.1H0 W181MSW0.1HA W181MSY0.1H0 W182MSW0.1HA W182MSY0.1H0
 W183MSW0.1HA W183MSY0.1H0 W184MSW0.1HA W184MSY0.1H0 W185MSW0.1HA W185MSY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

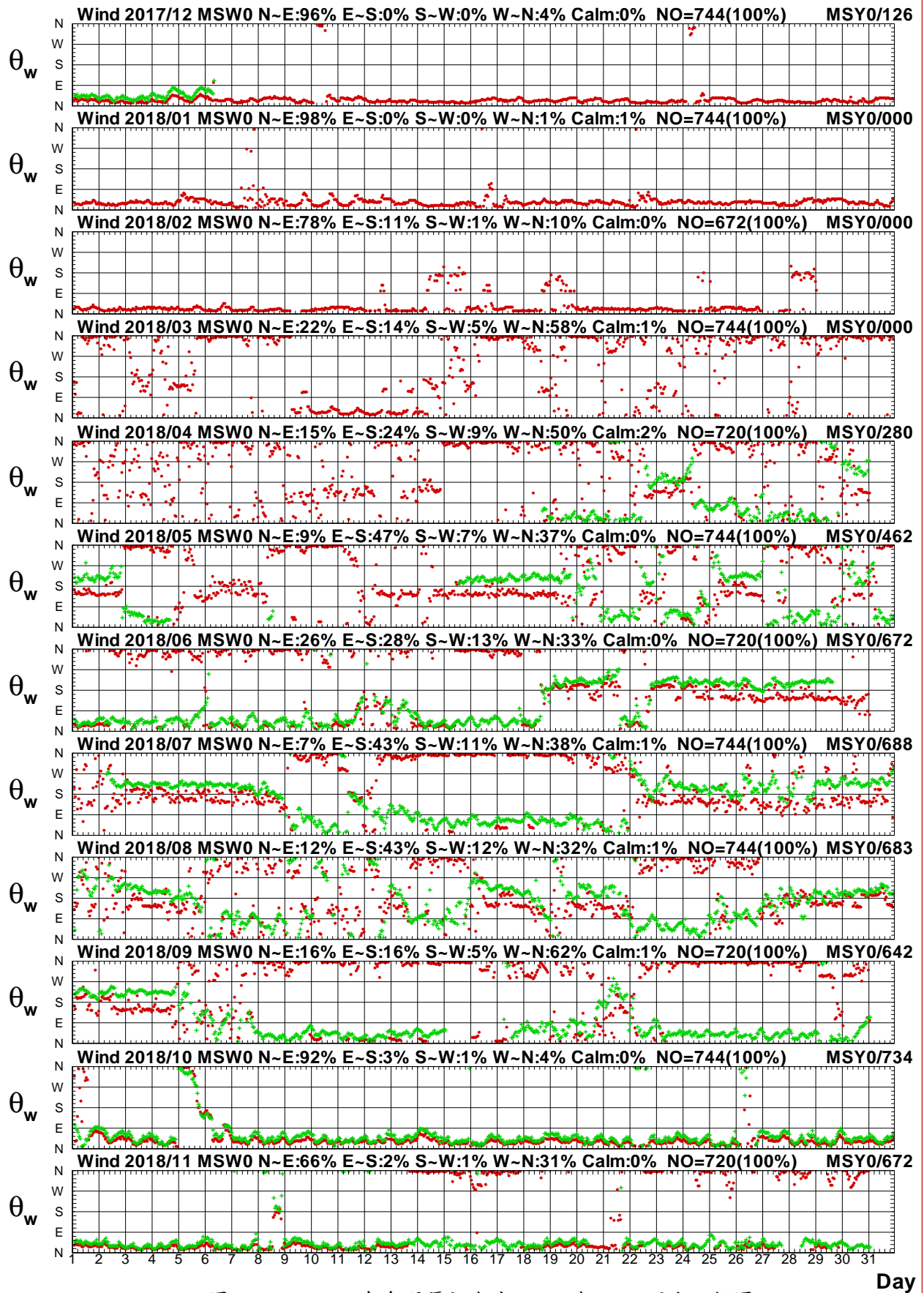


圖1.4.1b 2018年每月馬祖海域 W 站與 Y 站風向比較圖

W17CMSW0.1HA W17CMSY0.1H0 W181MSW0.1HA W181MSY0.1H0 W182MSW0.1HA W182MSY0.1H0
 W183MSW0.1HA W183MSY0.1H0 W184MSW0.1HA W184MSY0.1H0 W185MSW0.1HA W185MSY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

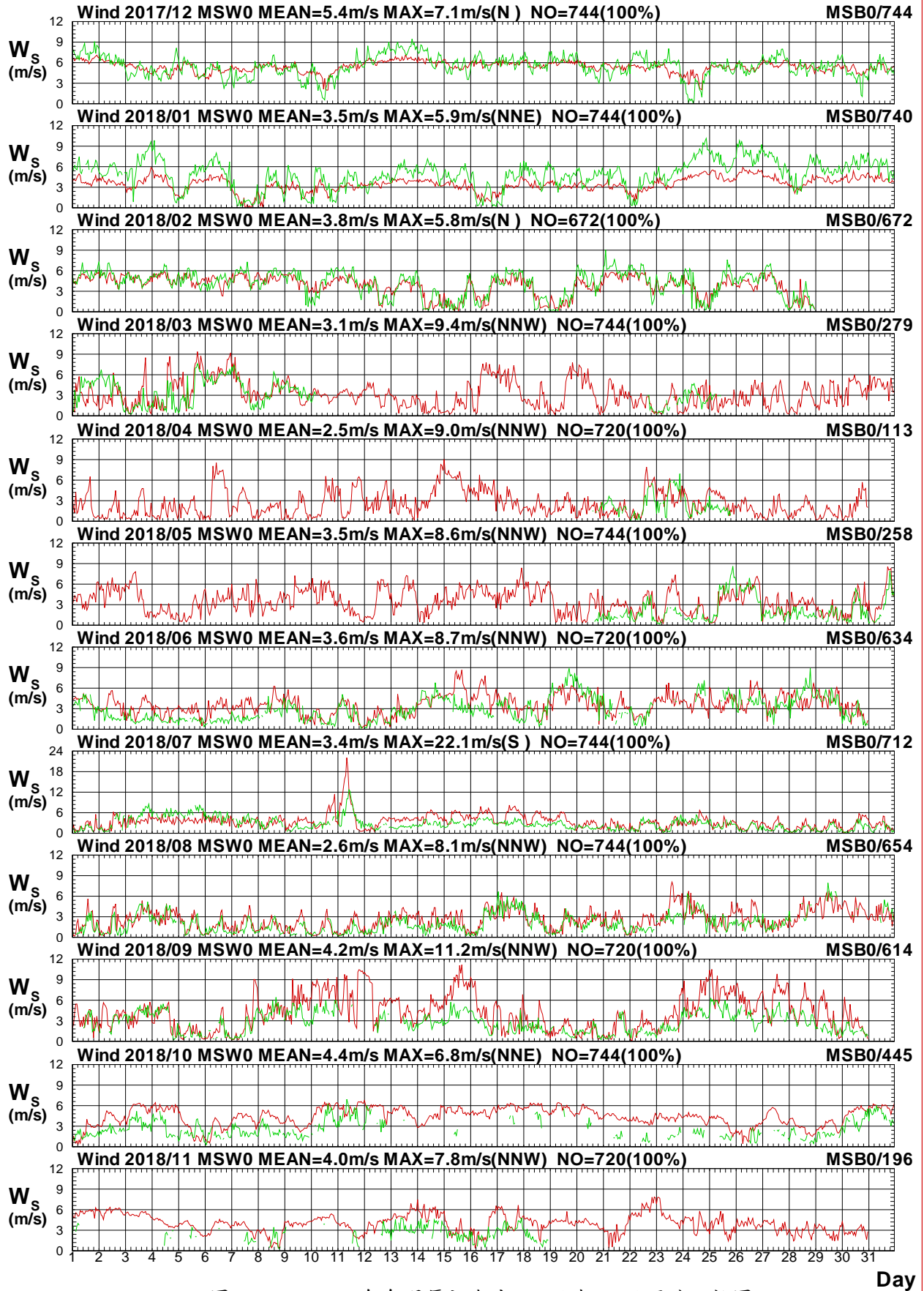


圖1.4.2a 2018年每月馬祖海域 W 站與 B 站風速比較圖

W17CMSW0.1HA W17CMSB0.1H0 W181MSW0.1HA W181MSB0.1H0 W182MSW0.1HA W182MSB0.1H0
 W183MSW0.1HA W183MSB0.1H0 W184MSW0.1HA W184MSB0.1H0 W185MSW0.1HA W185MSB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

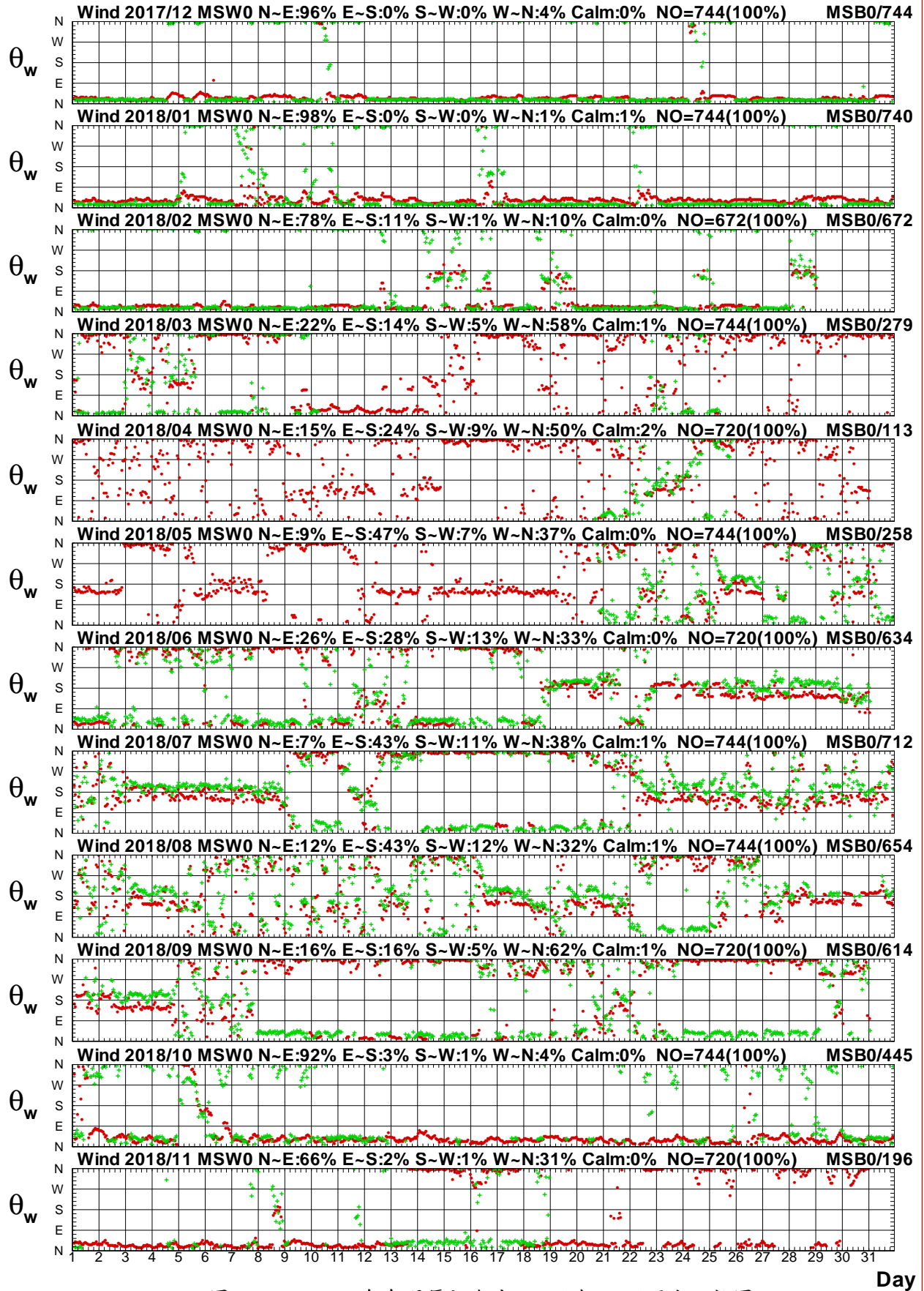


圖1.4.2b 2018年每月馬祖海域 W 站與 B 站風向比較圖

W17CMSW0.1HA W17CMSB0.1H0 W181MSW0.1HA W181MSB0.1H0 W182MSW0.1HA W182MSB0.1H0
 W183MSW0.1HA W183MSB0.1H0 W184MSW0.1HA W184MSB0.1H0 W185MSW0.1HA W185MSB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

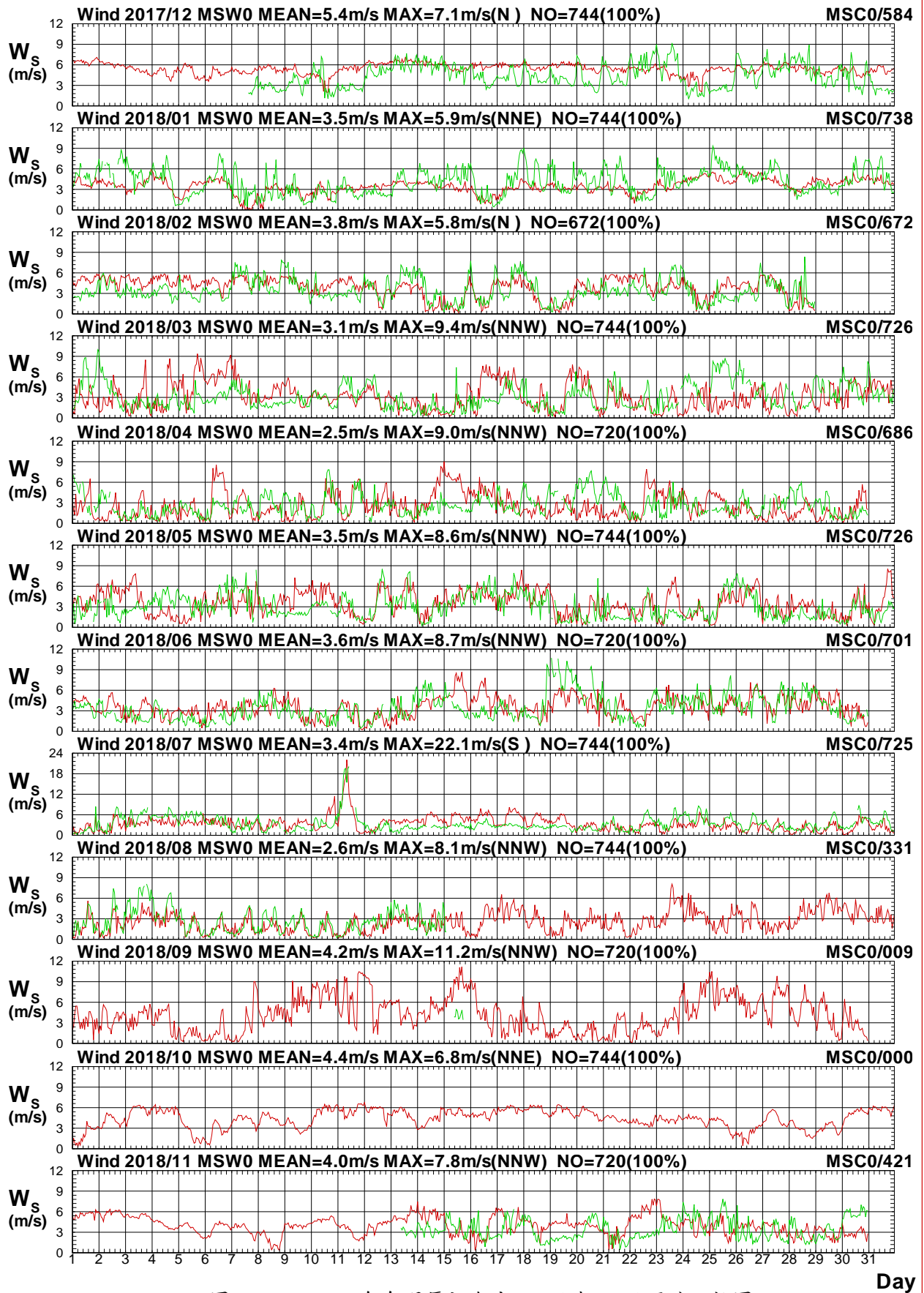


圖1.4.3a 2018年每月馬祖海域 W 站與 C 站風速比較圖

W17CMSW0.1HA W17CMSC0.1H0 W181MSW0.1HA W181MSC0.1H0 W182MSW0.1HA W182MSC0.1H0
 W183MSW0.1HA W183MSC0.1H0 W184MSW0.1HA W184MSC0.1H0 W185MSW0.1HA W185MSC0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

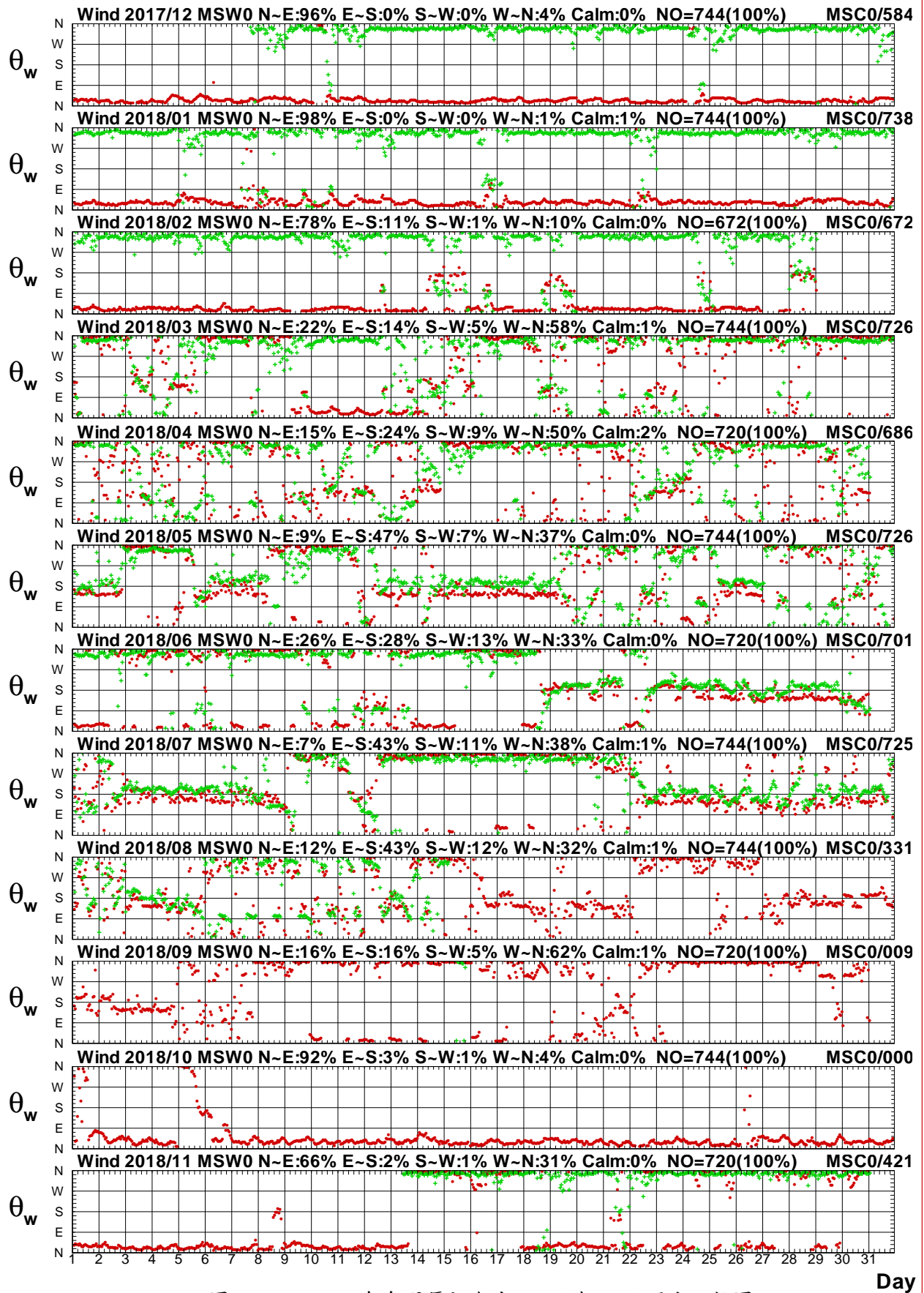


圖1.4.3b 2018年每月馬祖海域 W 站與 C 站風向比較圖

W17CMSW0.1HA W17CMSC0.1H0 W181MSW0.1HA W181MSC0.1H0 W182MSW0.1HA W182MSC0.1H0
 W183MSW0.1HA W183MSC0.1H0 W184MSW0.1HA W184MSC0.1H0 W185MSW0.1HA W185MSC0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

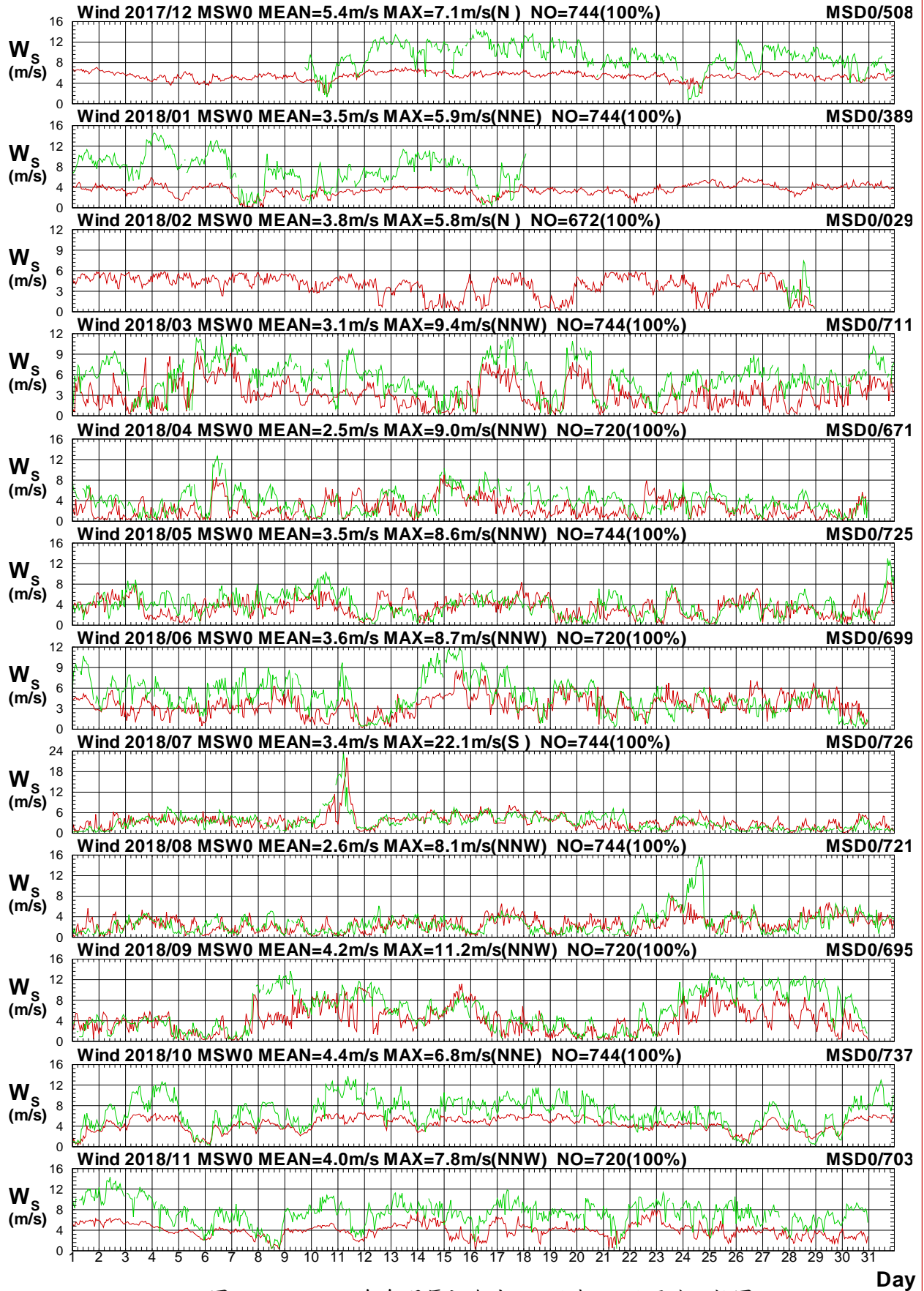


圖1.4.4a 2018年每月馬祖海域 W 站與 D 站風速比較圖

W17CMSW0.1HA W17CMSD0.1H0 W181MSW0.1HA W181MSD0.1H0 W182MSW0.1HA W182MSD0.1H0
 W183MSW0.1HA W183MSD0.1H0 W184MSW0.1HA W184MSD0.1H0 W185MSW0.1HA W185MSD0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

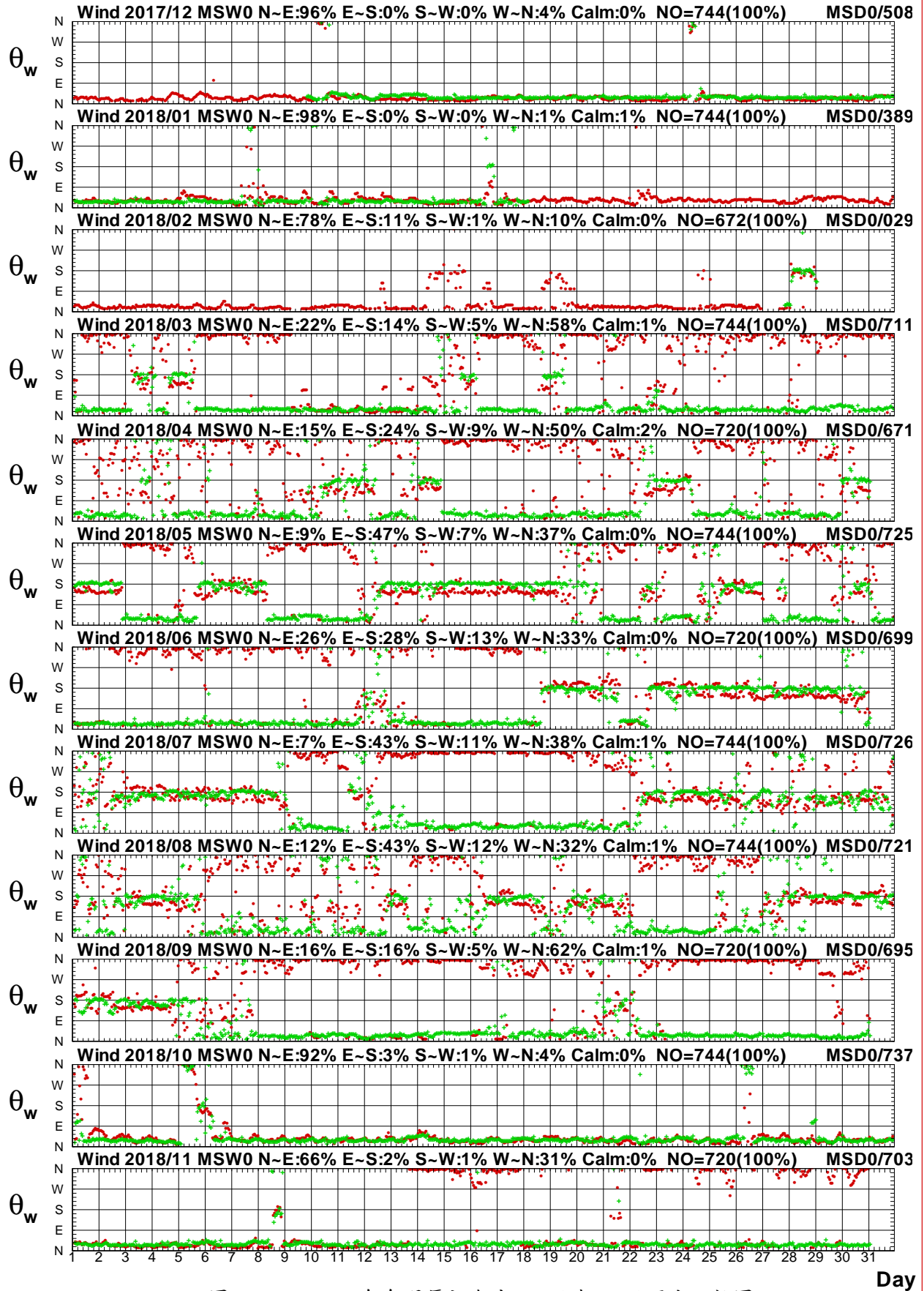


圖1.4.4b 2018年每月馬祖海域 W 站與 D 站風向比較圖

W17CMSW0.1HA W17CMSD0.1H0 W181MSW0.1HA W181MSD0.1H0 W182MSW0.1HA W182MSD0.1H0
 W183MSW0.1HA W183MSD0.1H0 W184MSW0.1HA W184MSD0.1H0 W185MSW0.1HA W185MSD0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

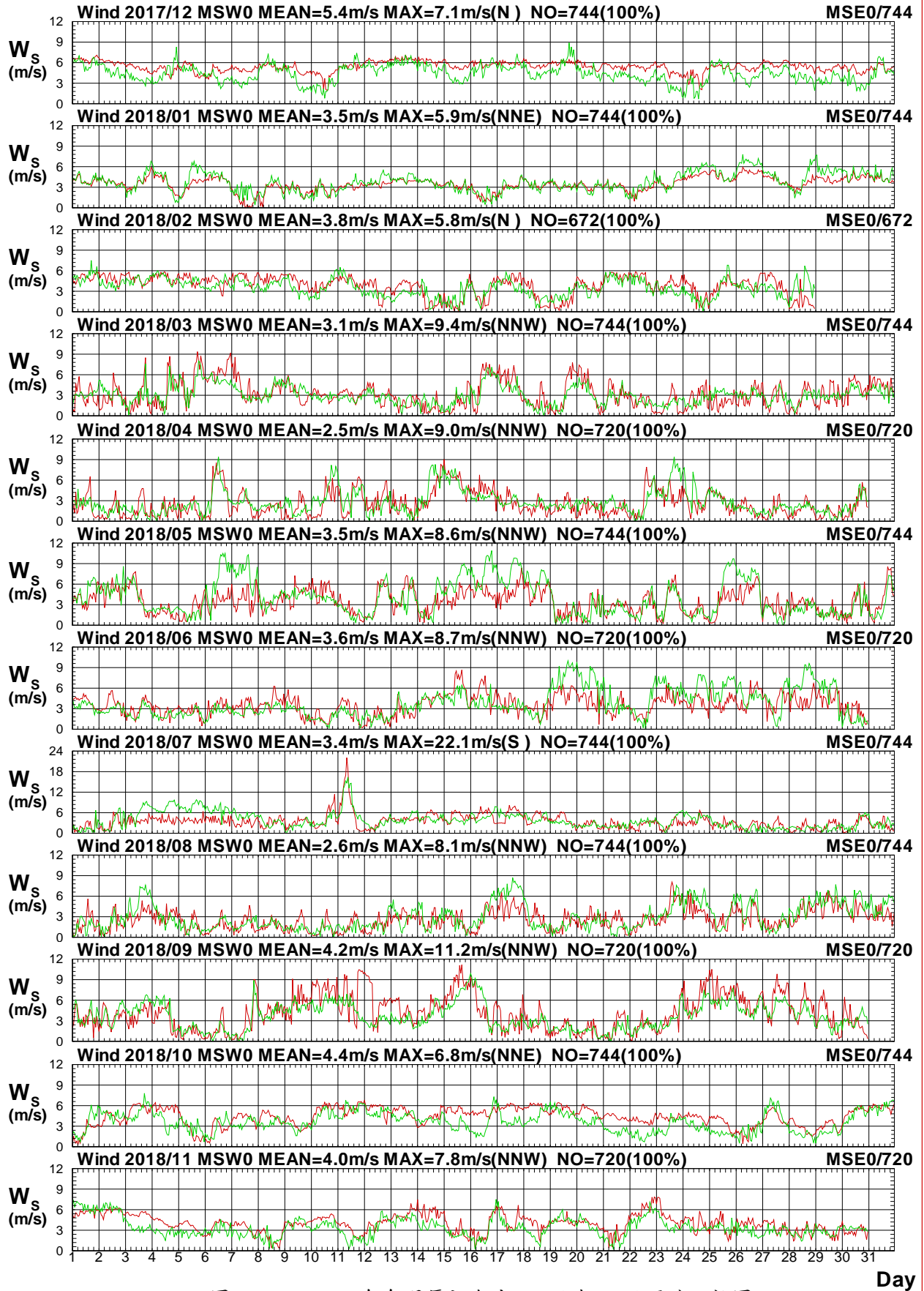


圖1.4.5a 2018年每月馬祖海域 W 站與 E 站風速比較圖

W17CMSW0.1HA W17CMSE0.1H0 W181MSW0.1HA W181MSE0.1H0 W182MSW0.1HA W182MSE0.1H0
 W183MSW0.1HA W183MSE0.1H0 W184MSW0.1HA W184MSE0.1H0 W185MSW0.1HA W185MSE0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

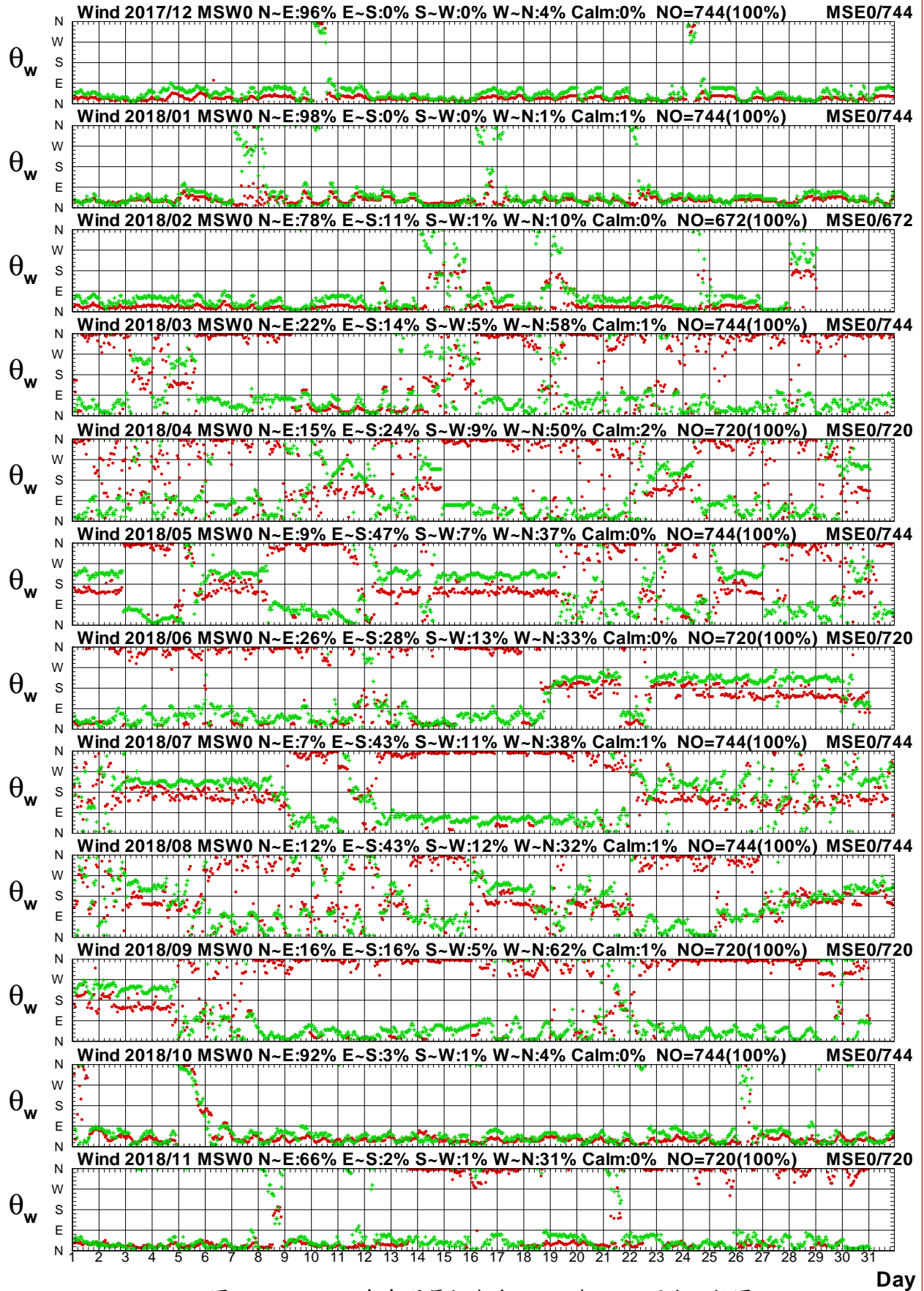


圖1.4.5b 2018年每月馬祖海域 W 站與 E 站風向比較圖

W17CMSW0.1HA W17CMSE0.1H0 W181MSW0.1HA W181MSE0.1H0 W182MSW0.1HA W182MSE0.1H0
 W183MSW0.1HA W183MSE0.1H0 W184MSW0.1HA W184MSE0.1H0 W185MSW0.1HA W185MSE0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

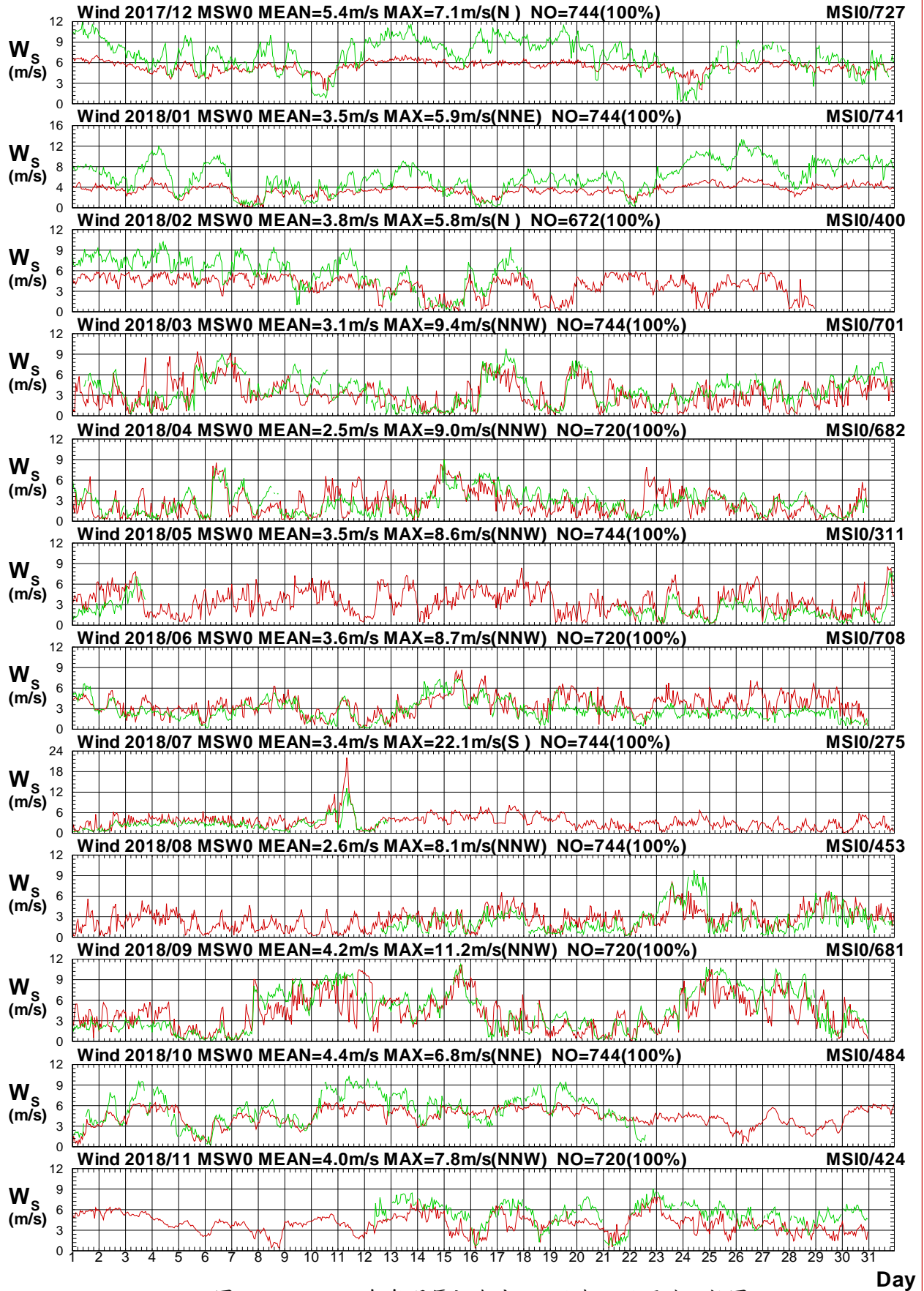


圖1.4.6a 2018年每月馬祖海域 W 站與 I 站風速比較圖

W17CMSW0.1HA W17CMSIO.1HO W181MSW0.1HA W181MSIO.1HO W182MSW0.1HA W182MSIO.1HO
 W183MSW0.1HA W183MSIO.1HO W184MSW0.1HA W184MSIO.1HO W185MSW0.1HA W185MSIO.1HO

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

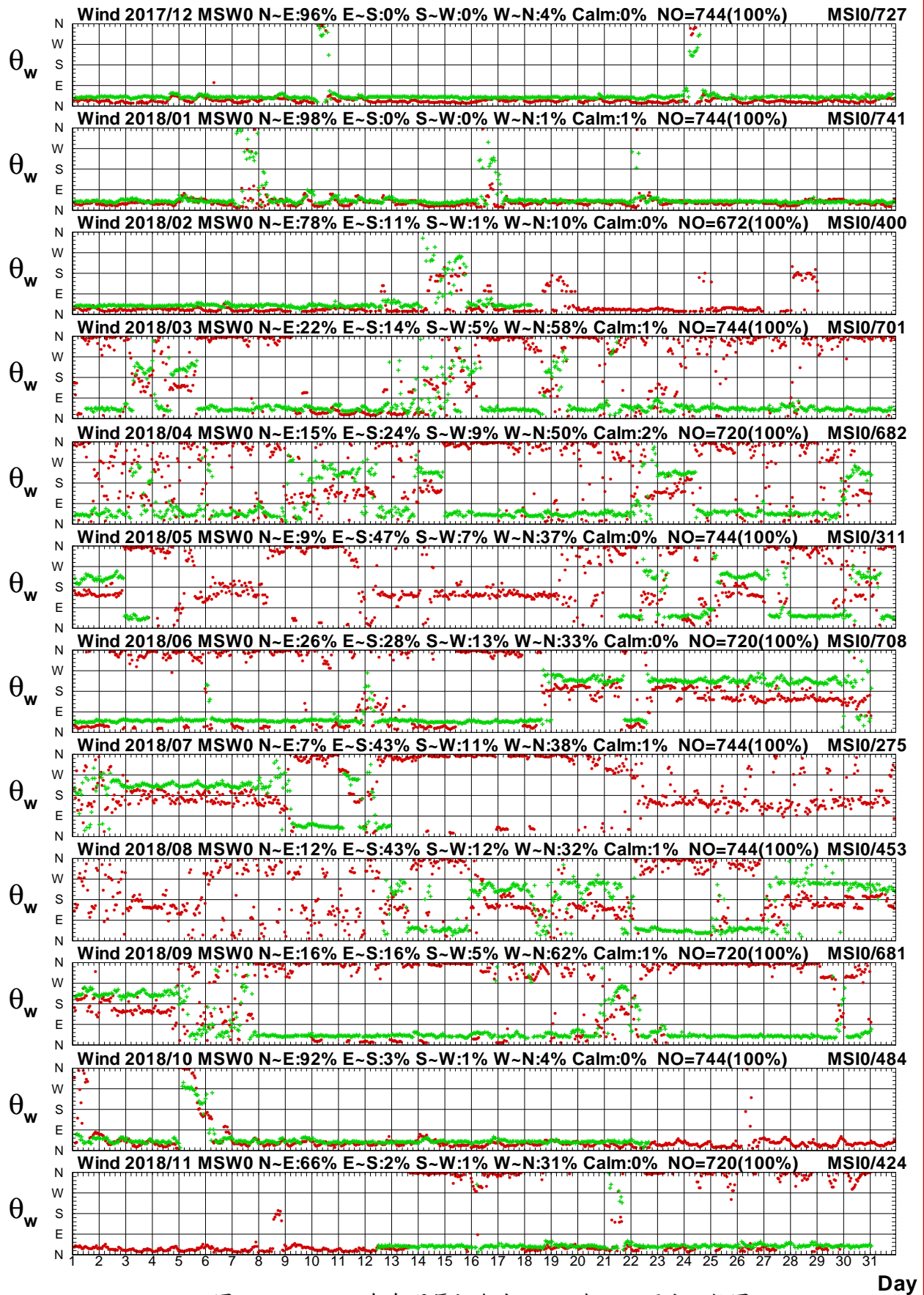


圖1.4.6b 2018年每月馬祖海域 W 站與 I 站風向比較圖

W17CMSW0.1HA W17CMSI0.1H0 W181MSW0.1HA W181MSI0.1H0 W182MSW0.1HA W182MSI0.1H0
 W183MSW0.1HA W183MSI0.1H0 W184MSW0.1HA W184MSI0.1H0 W185MSW0.1HA W185MSI0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

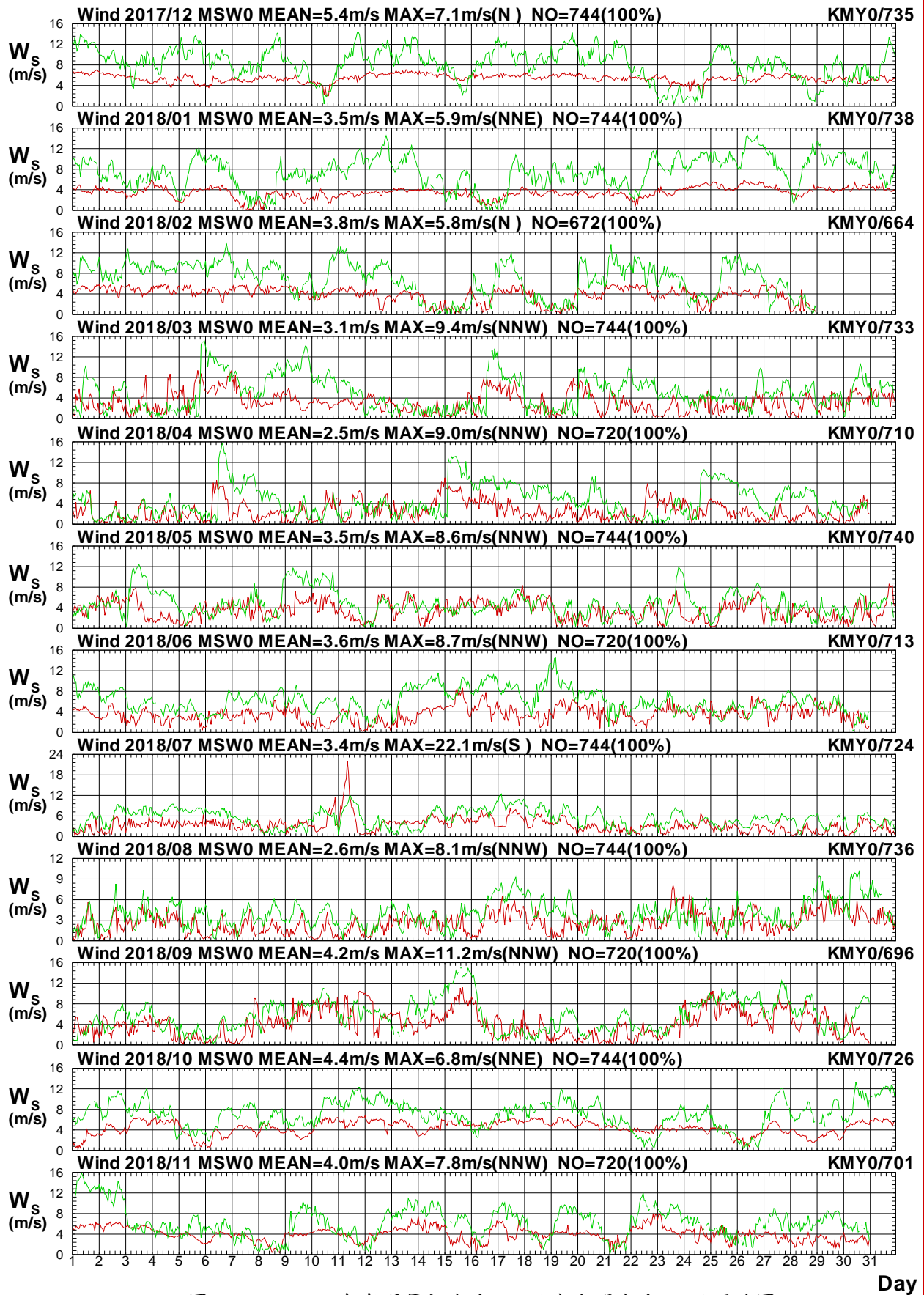


圖1.4.7a 2018年每月馬祖海域 W 站與金門海域 Y 站風速圖

W17CMSW0.1HA W17CKMY0.1H0 W181MSW0.1HA W181KMY0.1H0 W182MSW0.1HA W182KMY0.1H0
 W183MSW0.1HA W183KMY0.1H0 W184MSW0.1HA W184KMY0.1H0 W185MSW0.1HA W185KMY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

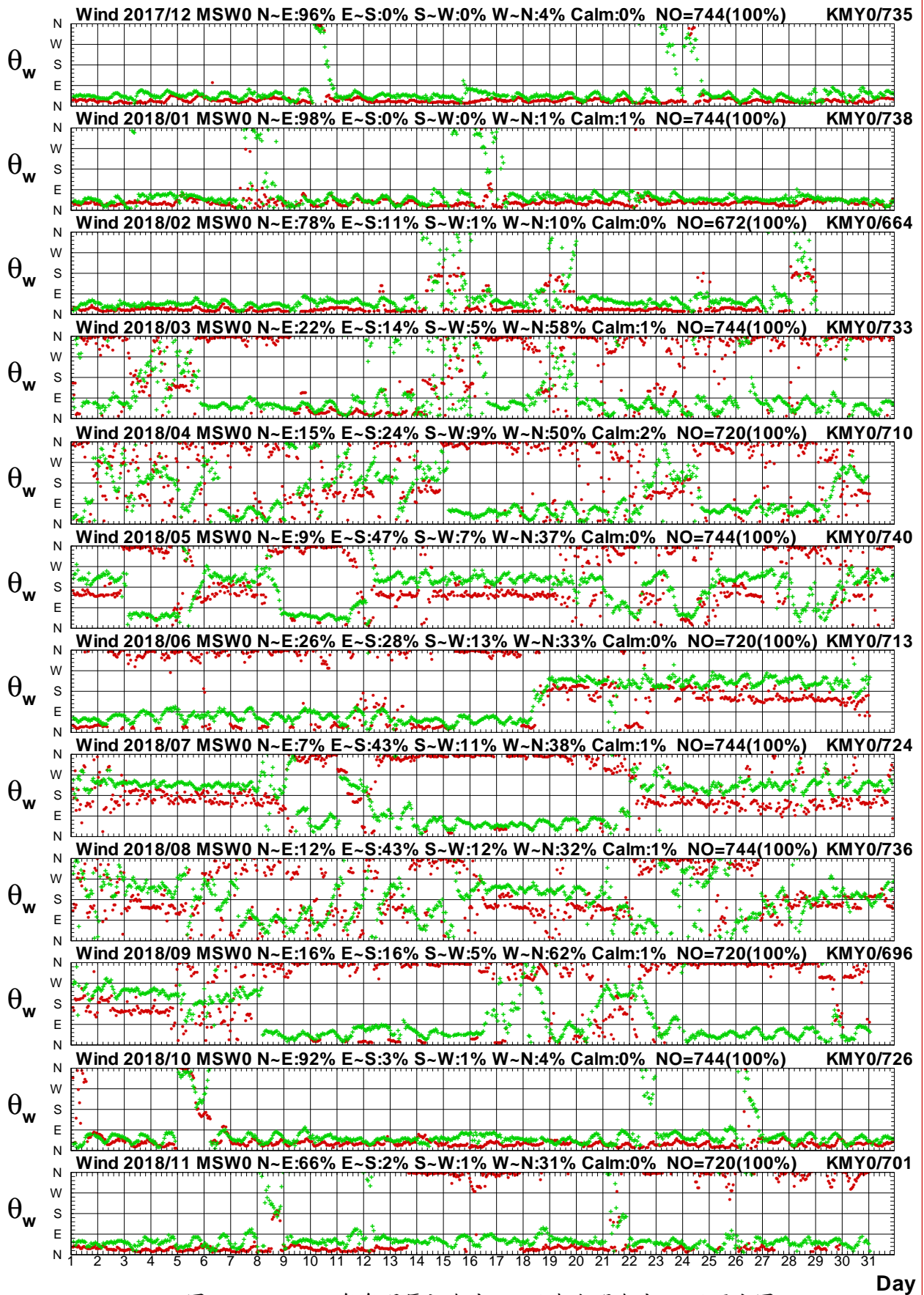


圖1.4.7b 2018年每月馬祖海域 W 站與金門海域 Y 站風向圖

W17CMSW0.1HA W17CKMY0.1H0 W181MSW0.1HA W181KMY0.1H0 W182MSW0.1HA W182KMY0.1H0
 W183MSW0.1HA W183KMY0.1H0 W184MSW0.1HA W184KMY0.1H0 W185MSW0.1HA W185KMY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

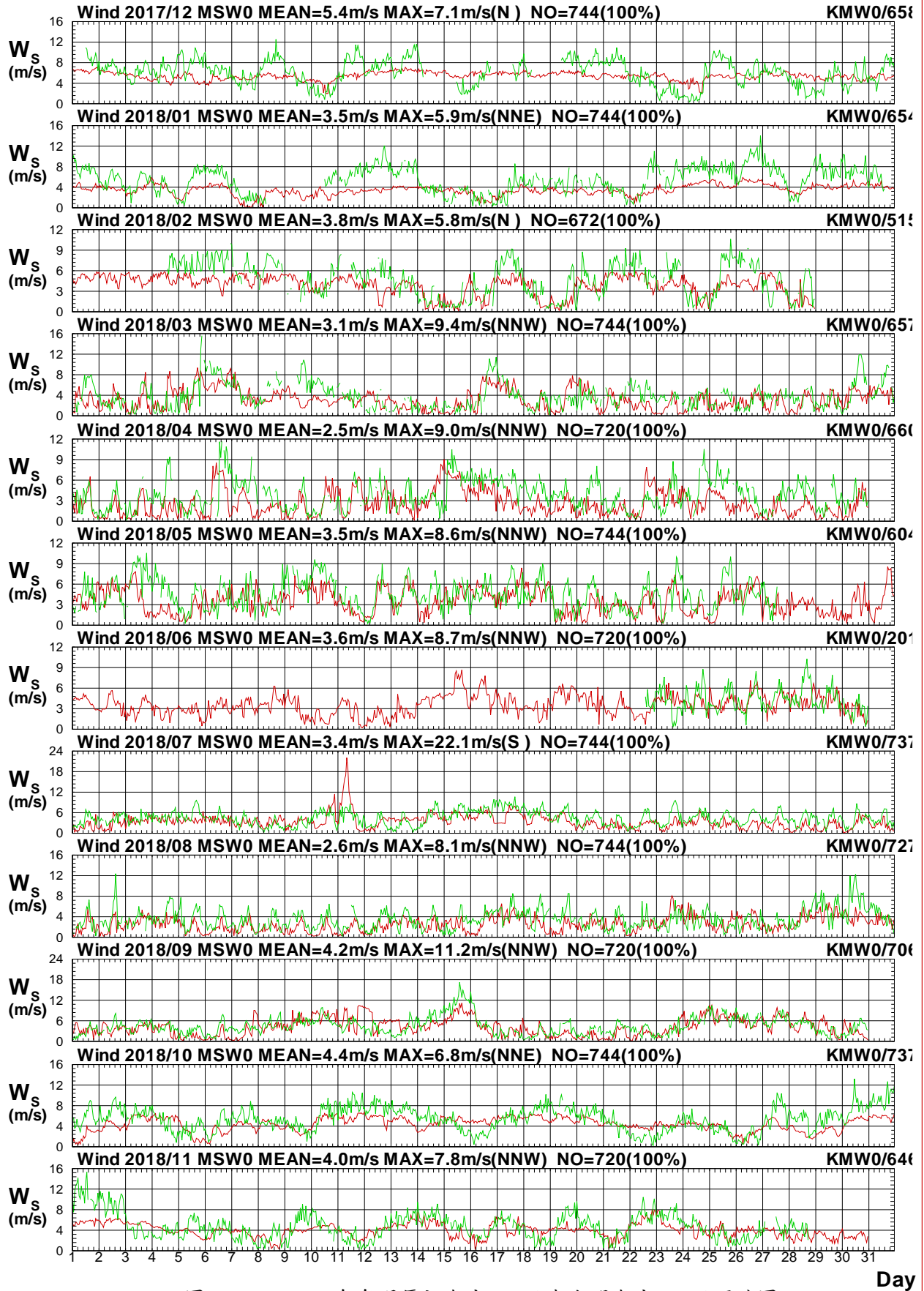


圖1.4.8a 2018年每月馬祖海域 W 站與金門海域 W 站風速圖

W17CMSW0.1HA W17CKMW0.1H0 W181MSW0.1HA W181KMW0.1H0 W182MSW0.1HA W182KMW0.1H0
 W183MSW0.1HA W183KMW0.1H0 W184MSW0.1HA W184KMW0.1H0 W185MSW0.1HA W185KMW0.1H0
 Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

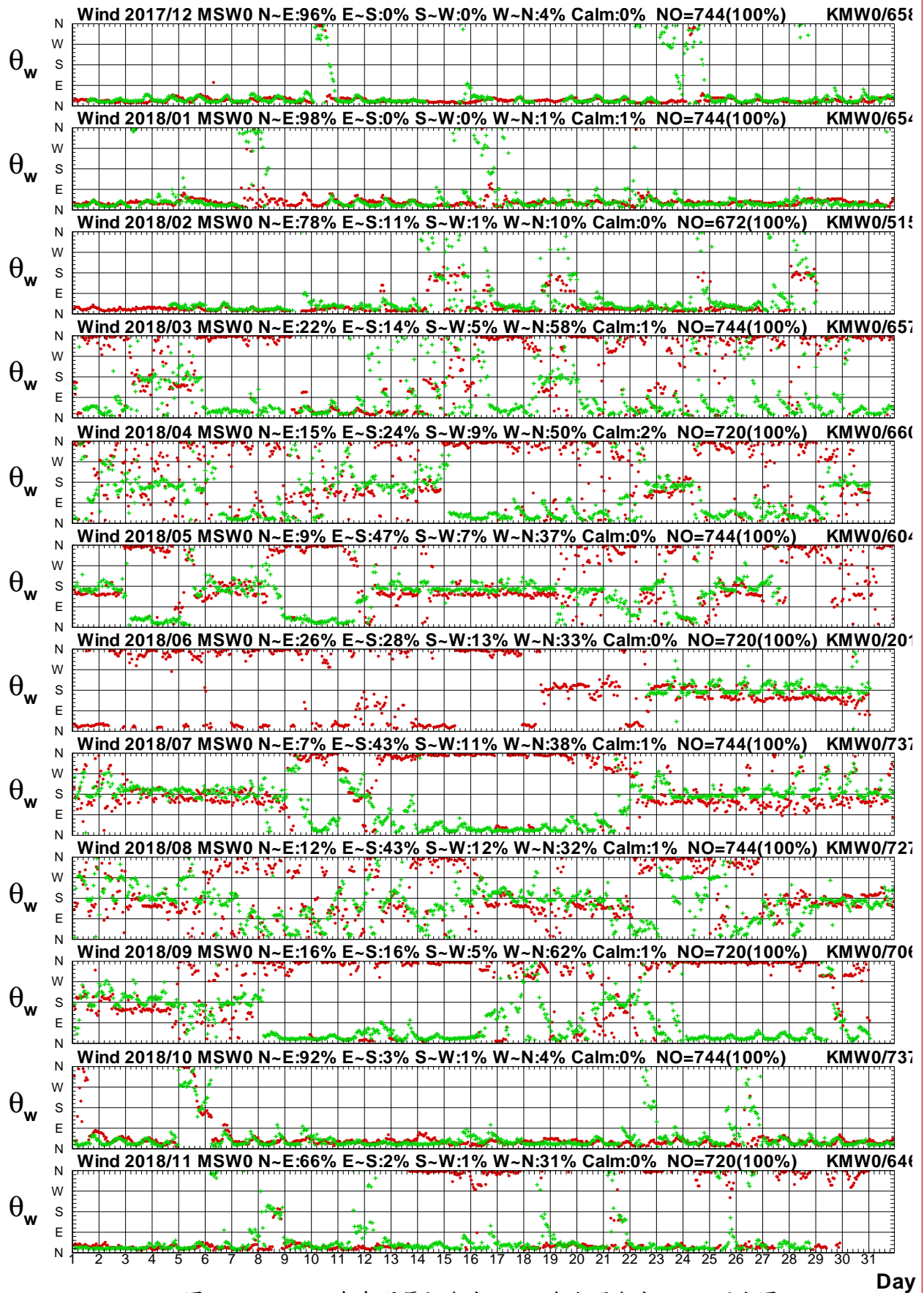


圖1.4.8b 2018年每月馬祖海域 W 站與金門海域 W 站風向圖

W17CMSW0.1HA W17CKMW0.1H0 W181MSW0.1HA W181KMW0.1H0 W182MSW0.1HA W182KMW0.1H0
 W183MSW0.1HA W183KMW0.1H0 W184MSW0.1HA W184KMW0.1H0 W185MSW0.1HA W185KMW0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

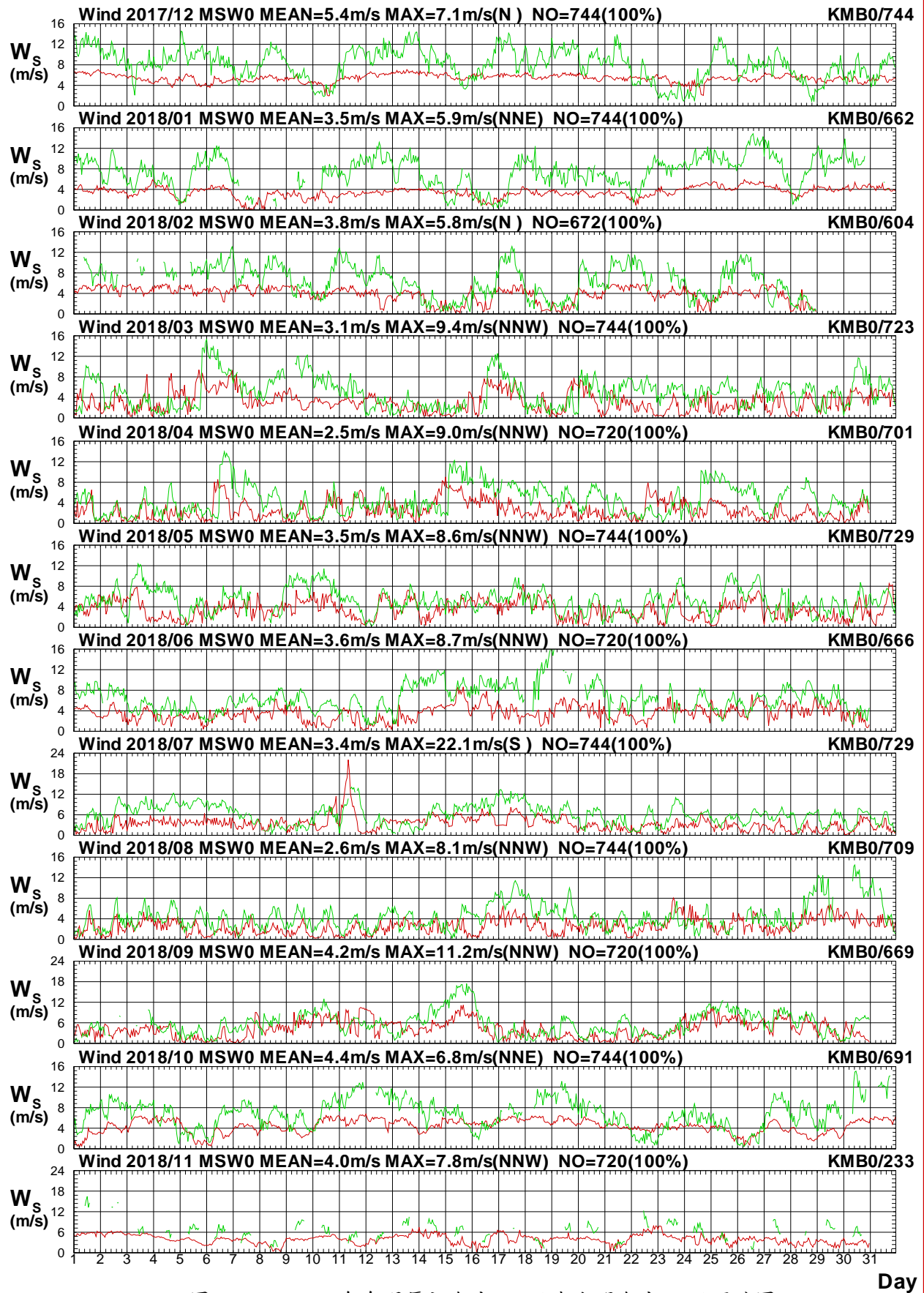


圖1.4.9a 2018年每月馬祖海域 W 站與金門海域 B 站風速圖

W17CMSW0.1HA W17CKMB0.1H0 W181MSW0.1HA W181KMB0.1H0 W182MSW0.1HA W182KMB0.1H0
 W183MSW0.1HA W183KMB0.1H0 W184MSW0.1HA W184KMB0.1H0 W185MSW0.1HA W185KMB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

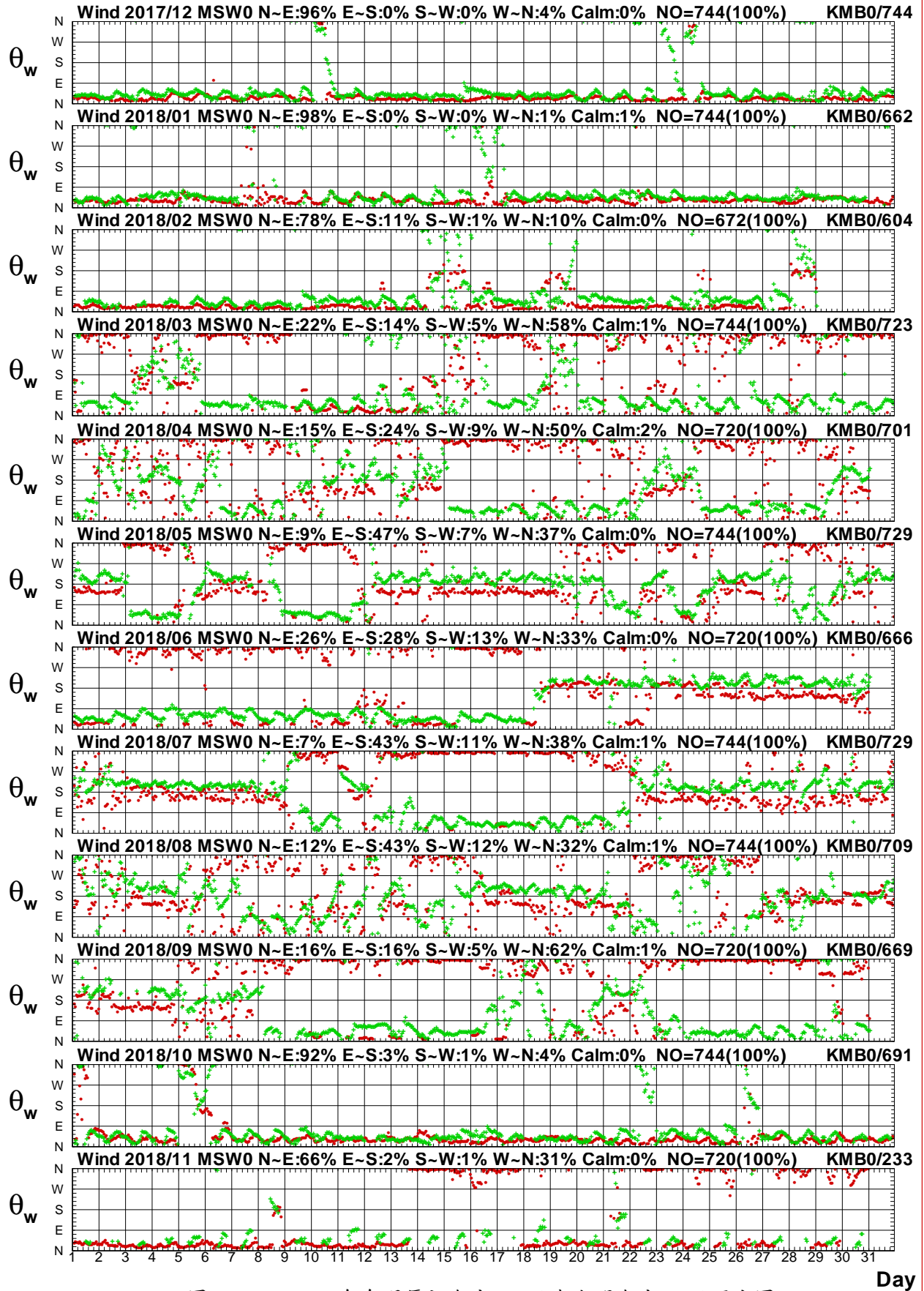


圖1.4.9b 2018年每月馬祖海域 W 站與金門海域 B 站風向圖

W17CMSW0.1HA W17CKMB0.1H0 W181MSW0.1HA W181KMB0.1H0 W182MSW0.1HA W182KMB0.1H0
 W183MSW0.1HA W183KMB0.1H0 W184MSW0.1HA W184KMB0.1H0 W185MSW0.1HA W185KMB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

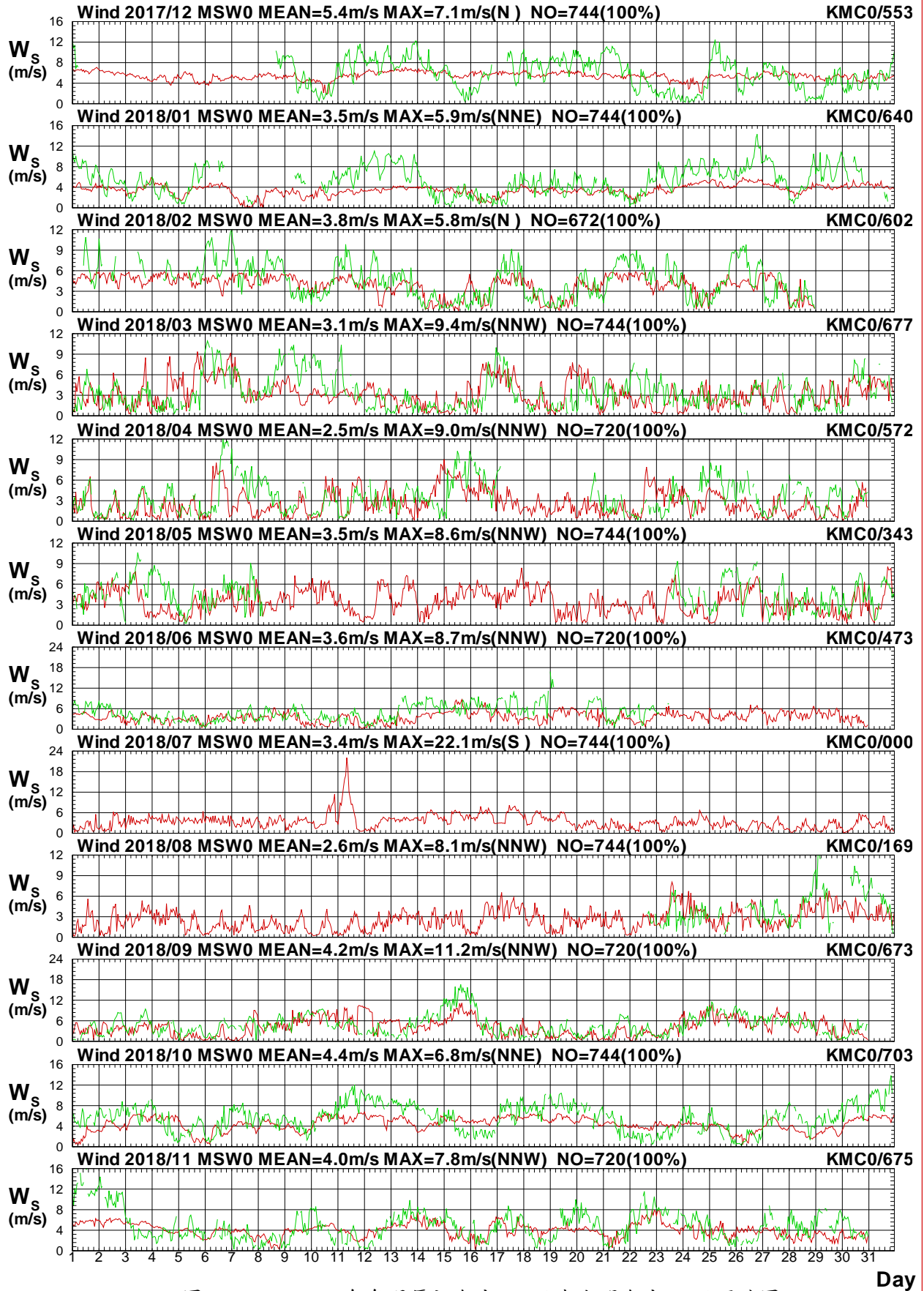


圖1.4.10a 2018年每月馬祖海域 W 站與金門海域 C 站風速圖

W17CMSW0.1HA W17CKMC0.1H0 W181MSW0.1HA W181KMC0.1H0 W182MSW0.1HA W182KMC0.1H0
 W183MSW0.1HA W183KMC0.1H0 W184MSW0.1HA W184KMC0.1H0 W185MSW0.1HA W185KMC0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

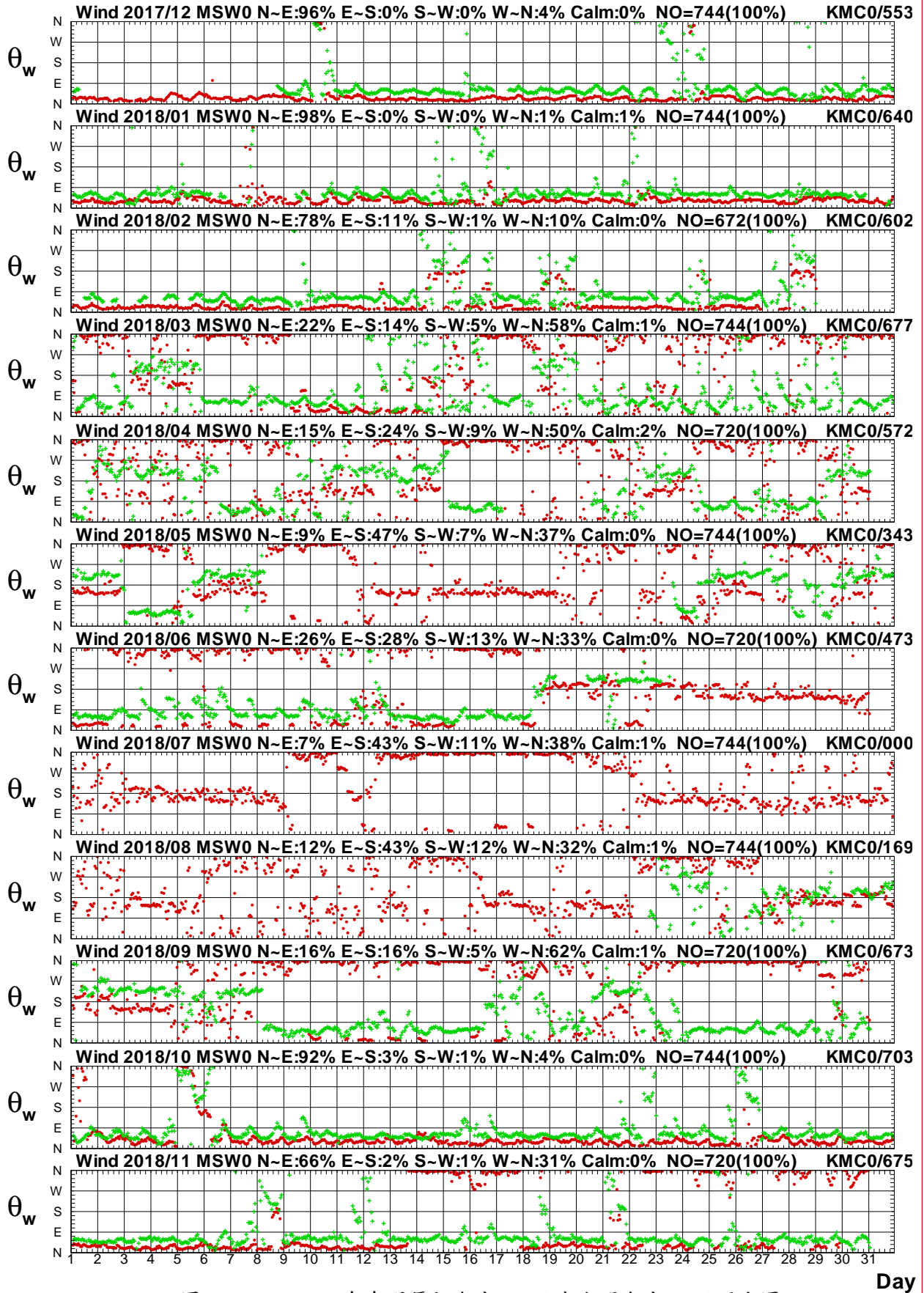


圖 1.4.10b 2018年每月馬祖海域 W 站與金門海域 C 站風向圖

W17CMSW0.1HA W17CKMCO.1H0 W181MSW0.1HA W181KMC0.1H0 W182MSW0.1HA W182KMC0.1H0
 W183MSW0.1HA W183KMC0.1H0 W184MSW0.1HA W184KMC0.1H0 W185MSW0.1HA W185KMC0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

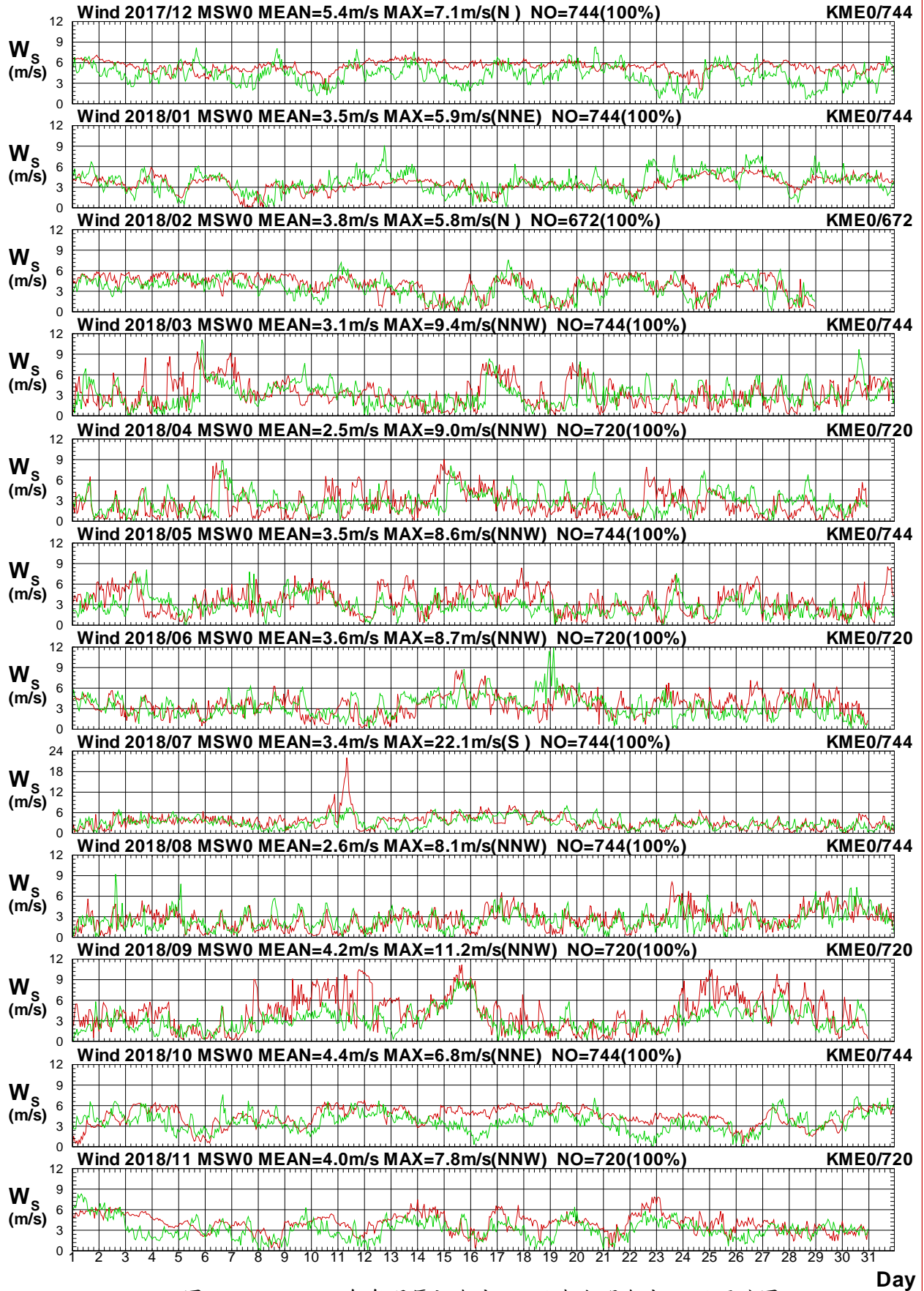


圖1.4.11a 2018年每月馬祖海域 W 站與金門海域 E 站風速圖

W17CMSW0.1HA W17CKME0.1H0 W181MSW0.1HA W181KME0.1H0 W182MSW0.1HA W182KME0.1H0
 W183MSW0.1HA W183KME0.1H0 W184MSW0.1HA W184KME0.1H0 W185MSW0.1HA W185KME0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

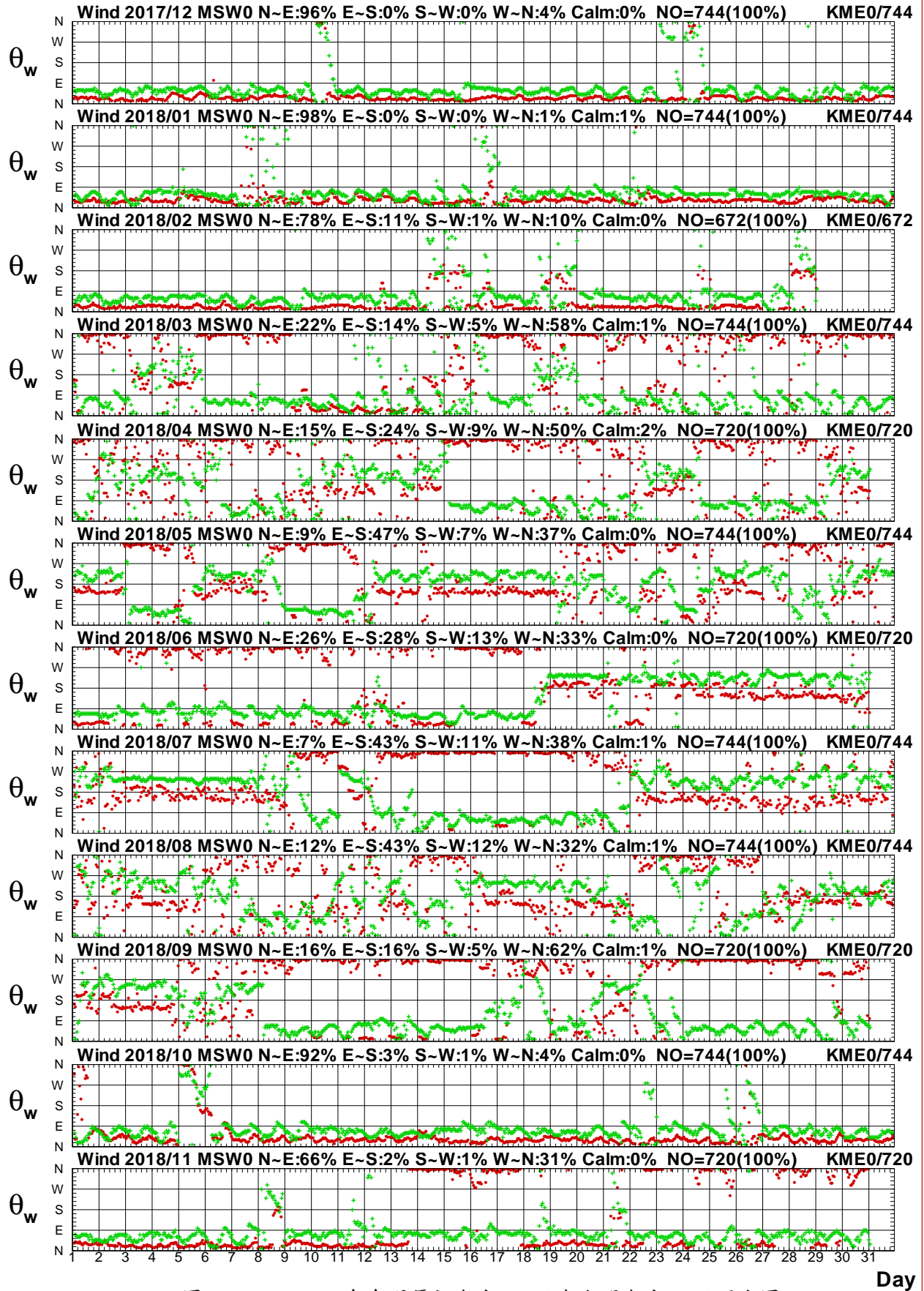


圖1.4.11b 2018年每月馬祖海域 W 站與金門海域 E 站風向圖

W17CMSW0.1HA W17CKME0.1H0 W181MSW0.1HA W181KME0.1H0 W182MSW0.1HA W182KME0.1H0
 W183MSW0.1HA W183KME0.1H0 W184MSW0.1HA W184KME0.1H0 W185MSW0.1HA W185KME0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

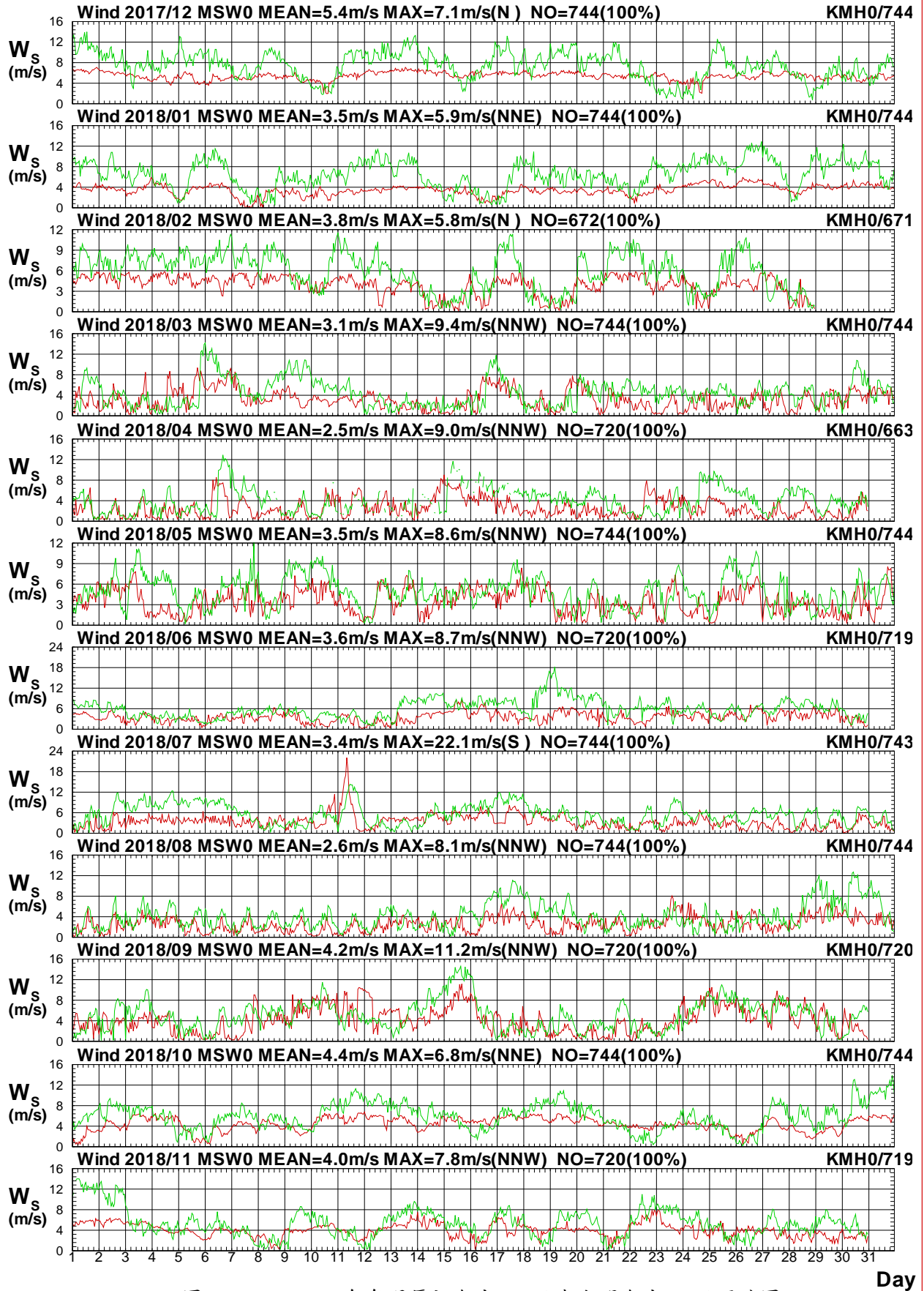


圖 1.4.12a 2018年每月馬祖海域 W 站與金門海域 H 站風速圖

W17CMSW0.1HA W17CKMH0.1H0 W181MSW0.1HA W181KMH0.1H0 W182MSW0.1HA W182KMH0.1H0
 W183MSW0.1HA W183KMH0.1H0 W184MSW0.1HA W184KMH0.1H0 W185MSW0.1HA W185KMH0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

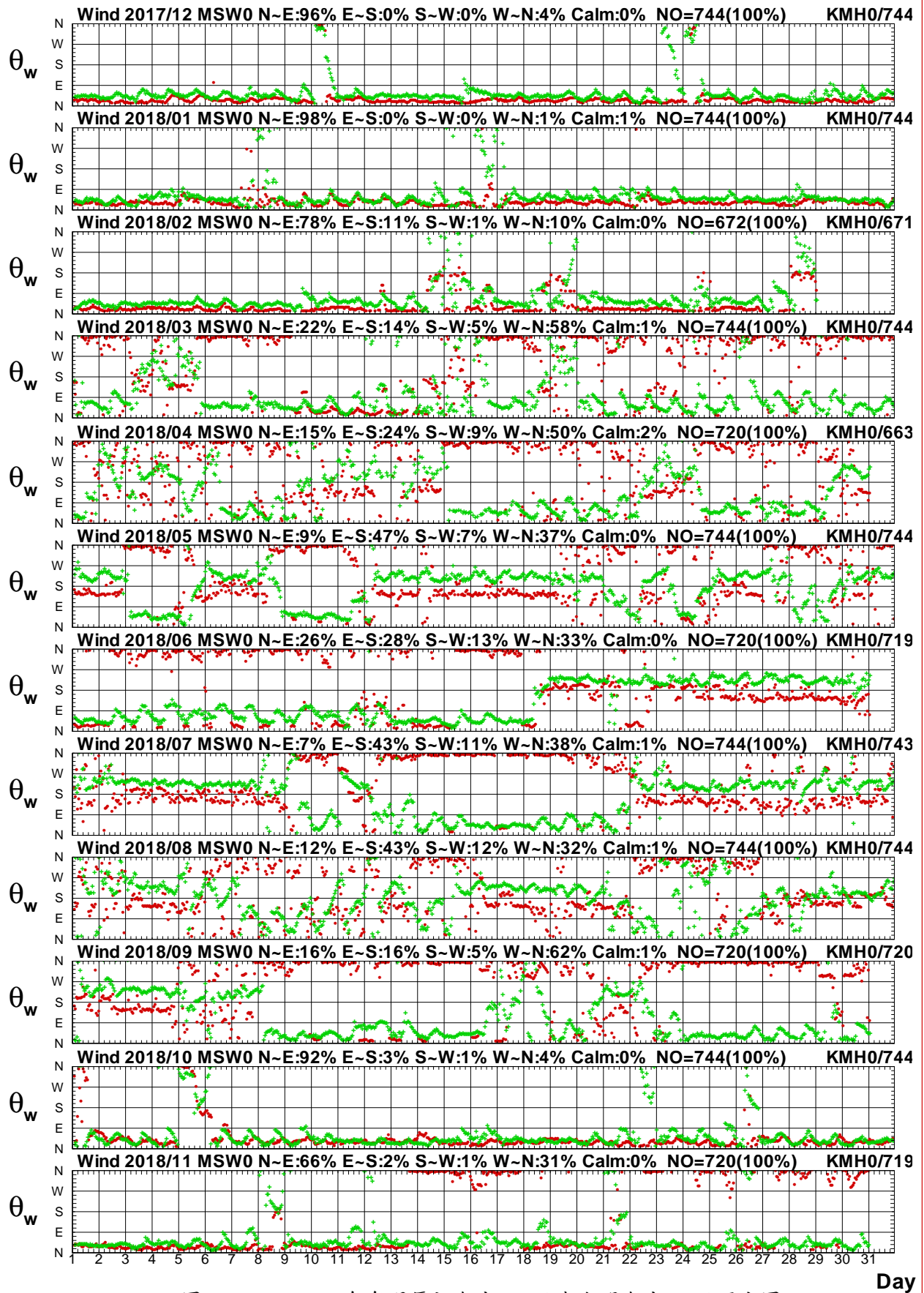


圖 1.4.12b 2018年每月馬祖海域 W 站與金門海域 H 站風向圖

W17CMSW0.1HA W17CKMH0.1H0 W181MSW0.1HA W181KMH0.1H0 W182MSW0.1HA W182KMH0.1H0
 W183MSW0.1HA W183KMH0.1H0 W184MSW0.1HA W184KMH0.1H0 W185MSW0.1HA W185KMH0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

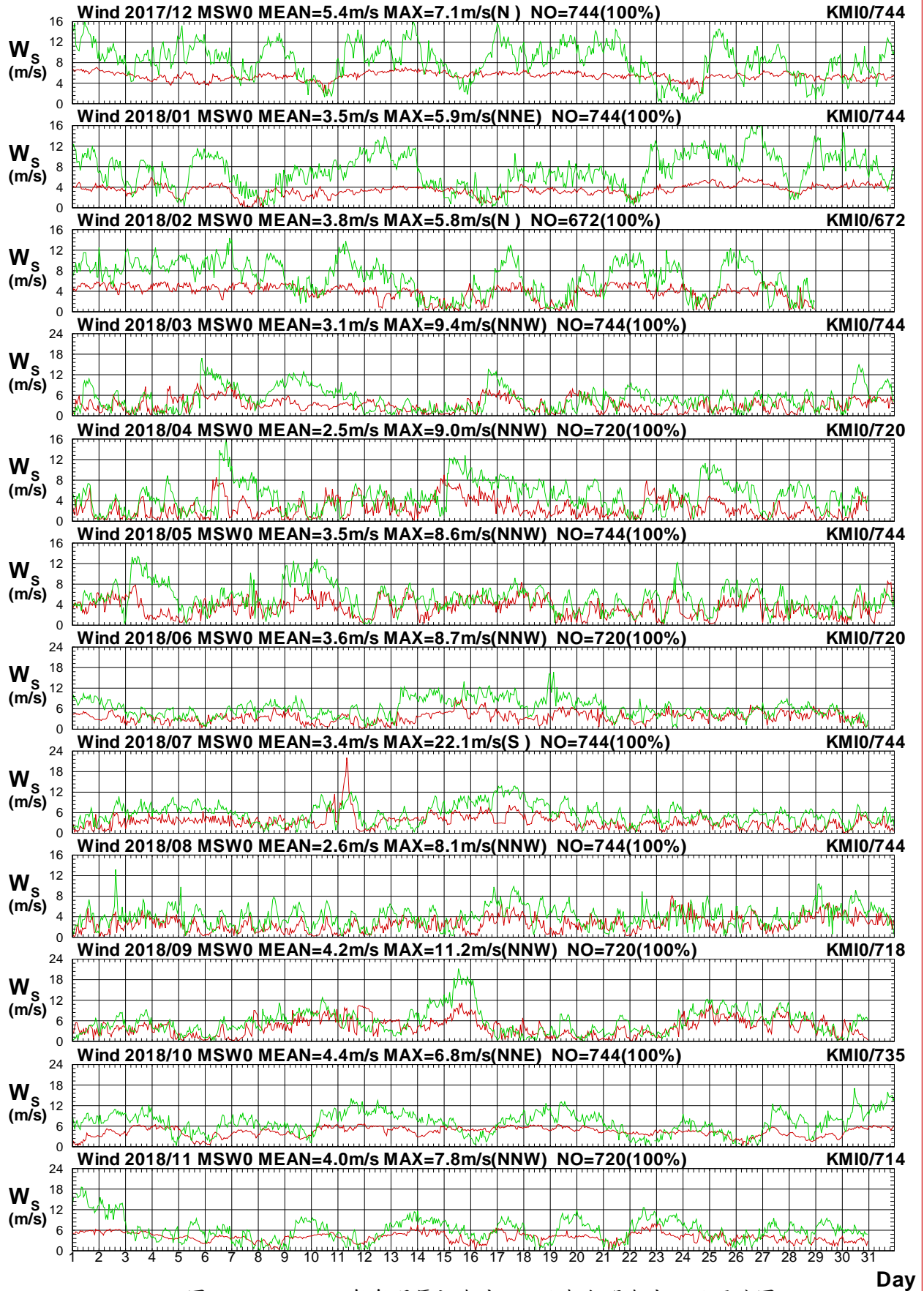


圖1.4.13a 2018年每月馬祖海域 W 站與金門海域 I 站風速圖

W17CMSW0.1HA W17CKMI0.1H0 W181MSW0.1HA W181KMI0.1H0 W182MSW0.1HA W182KMI0.1H0
 W183MSW0.1HA W183KMI0.1H0 W184MSW0.1HA W184KMI0.1H0 W185MSW0.1HA W185KMI0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

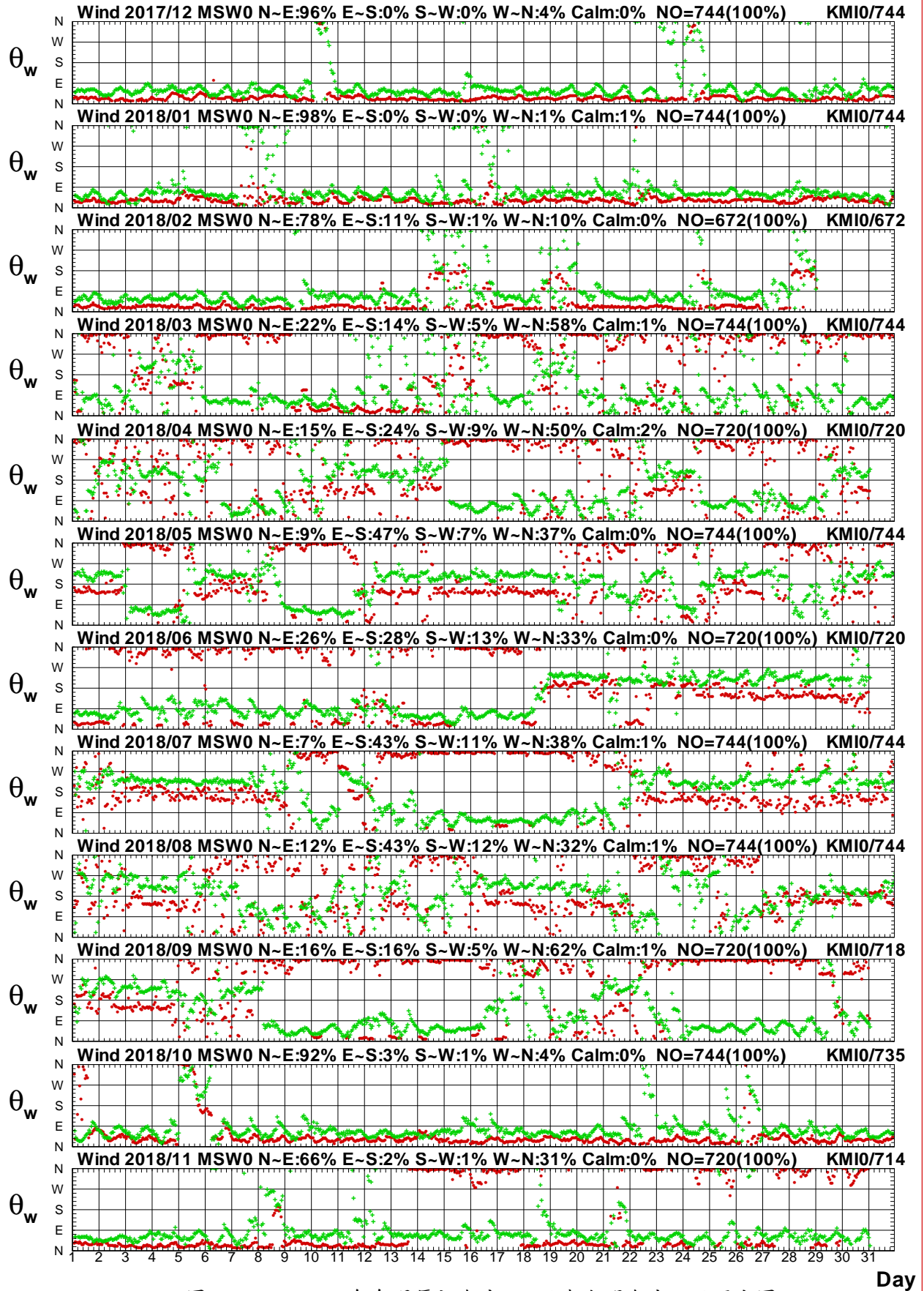


圖1.4.13b 2018年每月馬祖海域 W 站與金門海域 I 站風向圖

W17CMSW0.1HA W17CKMI0.1H0 W181MSW0.1HA W181KMI0.1H0 W182MSW0.1HA W182KMI0.1H0
 W183MSW0.1HA W183KMI0.1H0 W184MSW0.1HA W184KMI0.1H0 W185MSW0.1HA W185KMI0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

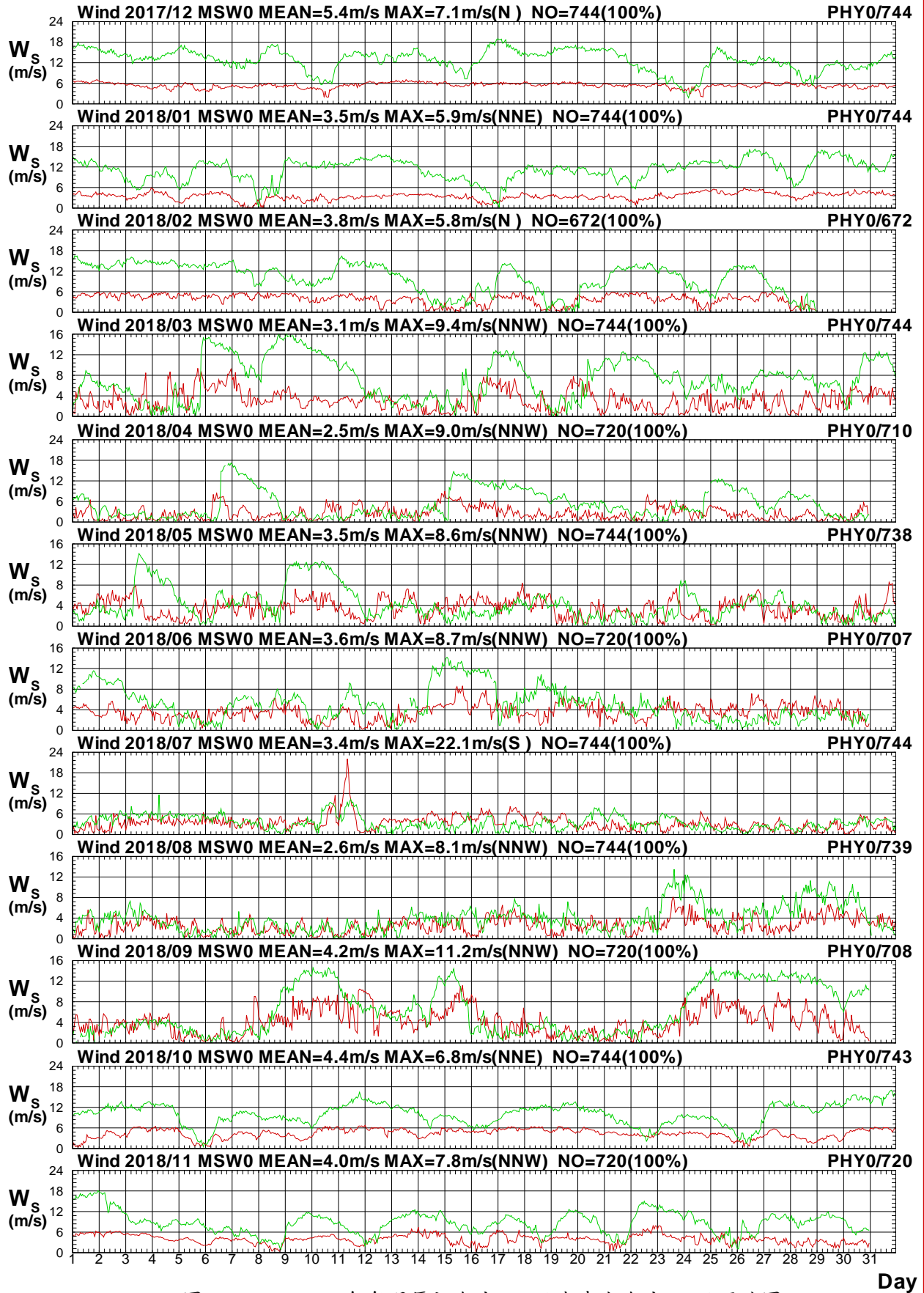


圖 1.4.14a 2018年每月馬祖海域 W 站與澎湖海域 Y 站風速圖

W17CMSW0.1HA W17CPHY0.1H0 W181MSW0.1HA W181PHY0.1H0 W182MSW0.1HA W182PHY0.1H0
 W183MSW0.1HA W183PHY0.1H0 W184MSW0.1HA W184PHY0.1H0 W185MSW0.1HA W185PHY0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

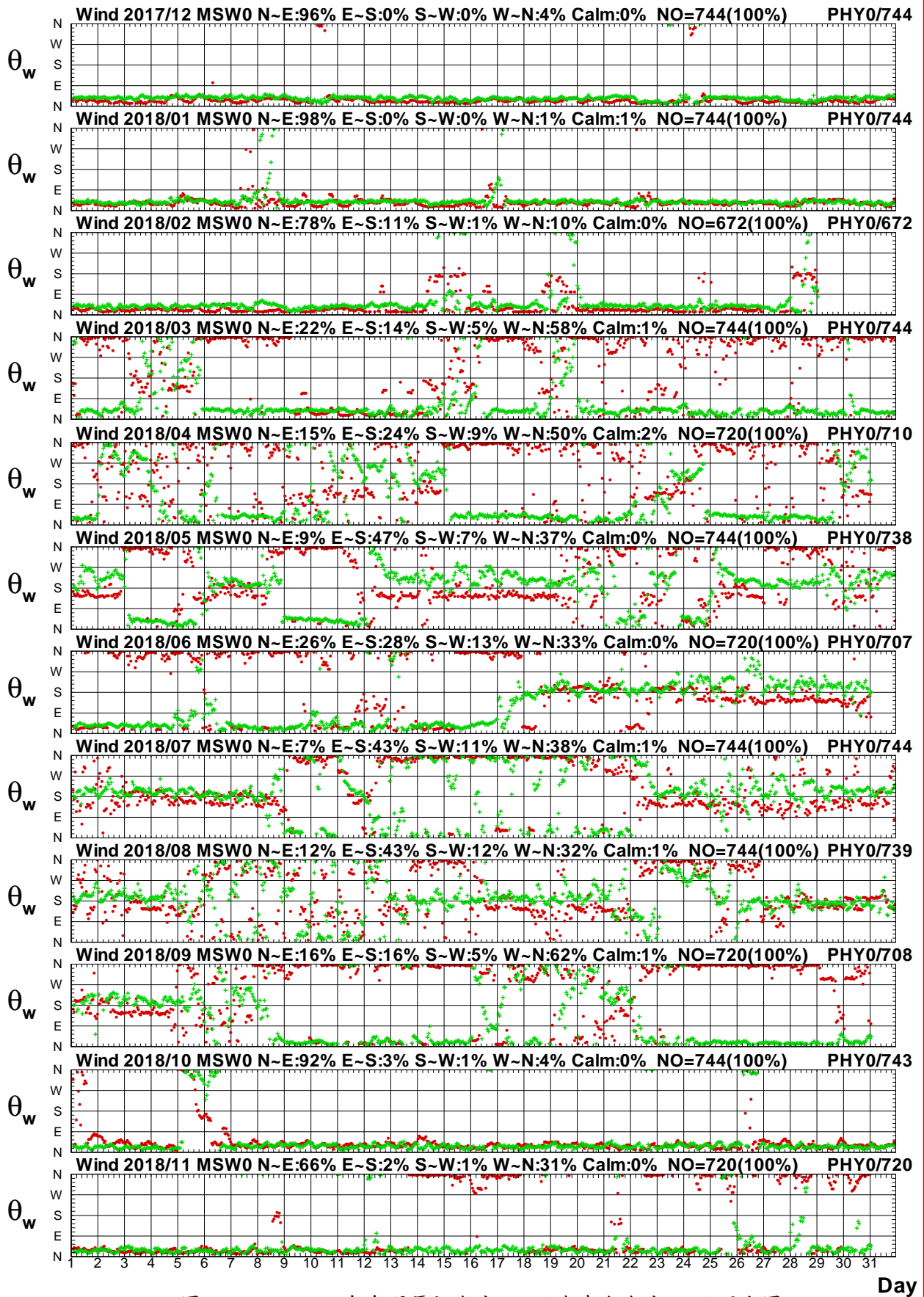


圖 1.4.14b 2018年每月馬祖海域 W 站與澎湖海域 Y 站風向圖

W17CMSW0.1HA W17CPHY0.1H0 W181MSW0.1HA W181PHY0.1H0 W182MSW0.1HA W182PHY0.1H0
 W183MSW0.1HA W183PHY0.1H0 W184MSW0.1HA W184PHY0.1H0 W185MSW0.1HA W185PHY0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

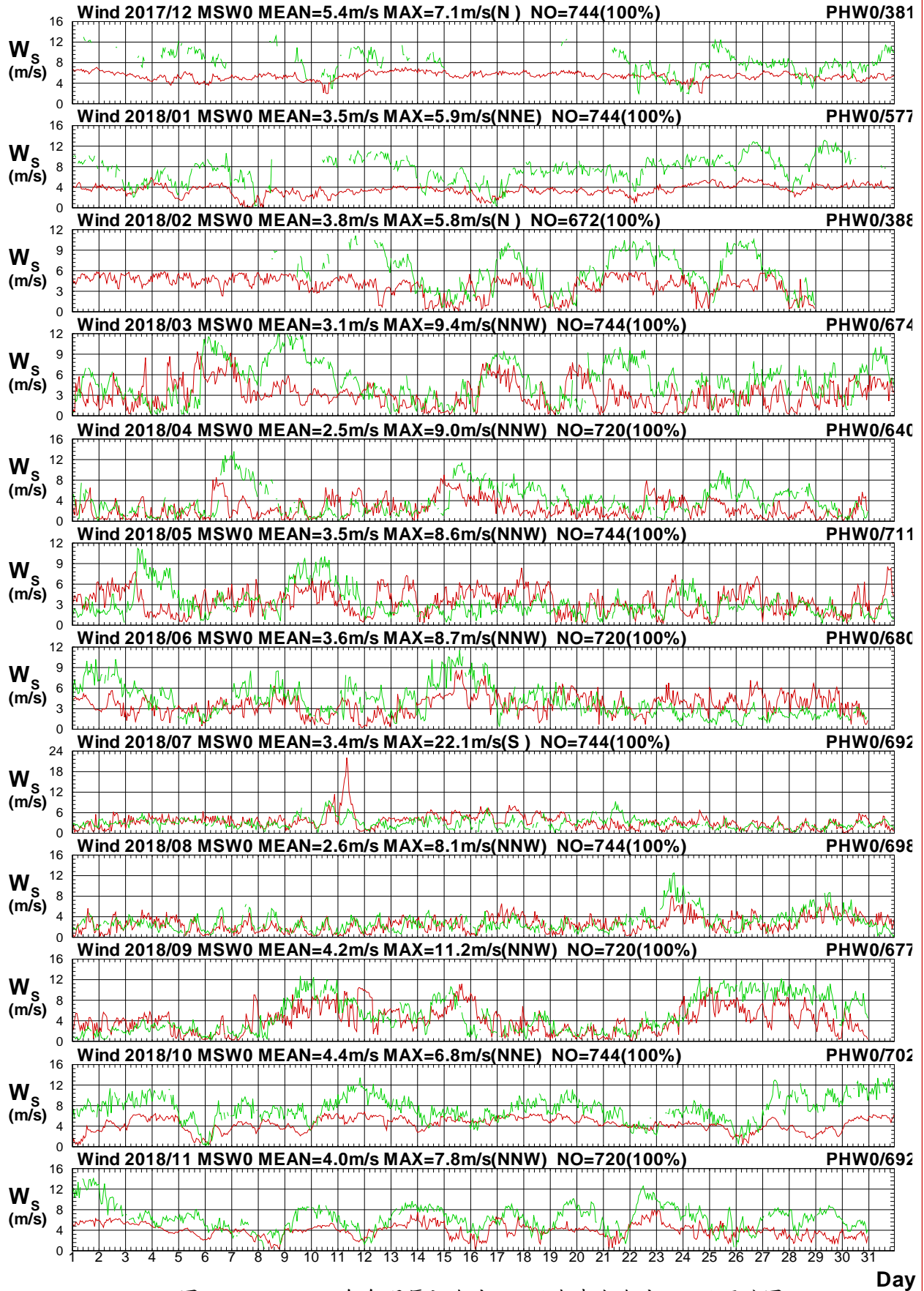


圖 1.4.15a 2018 年每月馬祖海域 W 站與澎湖海域 W 站風速圖

W17CMSW0.1HA W17CPHW0.1H0 W181MSW0.1HA W181PHW0.1H0 W182MSW0.1HA W182PHW0.1H0
 W183MSW0.1HA W183PHW0.1H0 W184MSW0.1HA W184PHW0.1H0 W185MSW0.1HA W185PHW0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

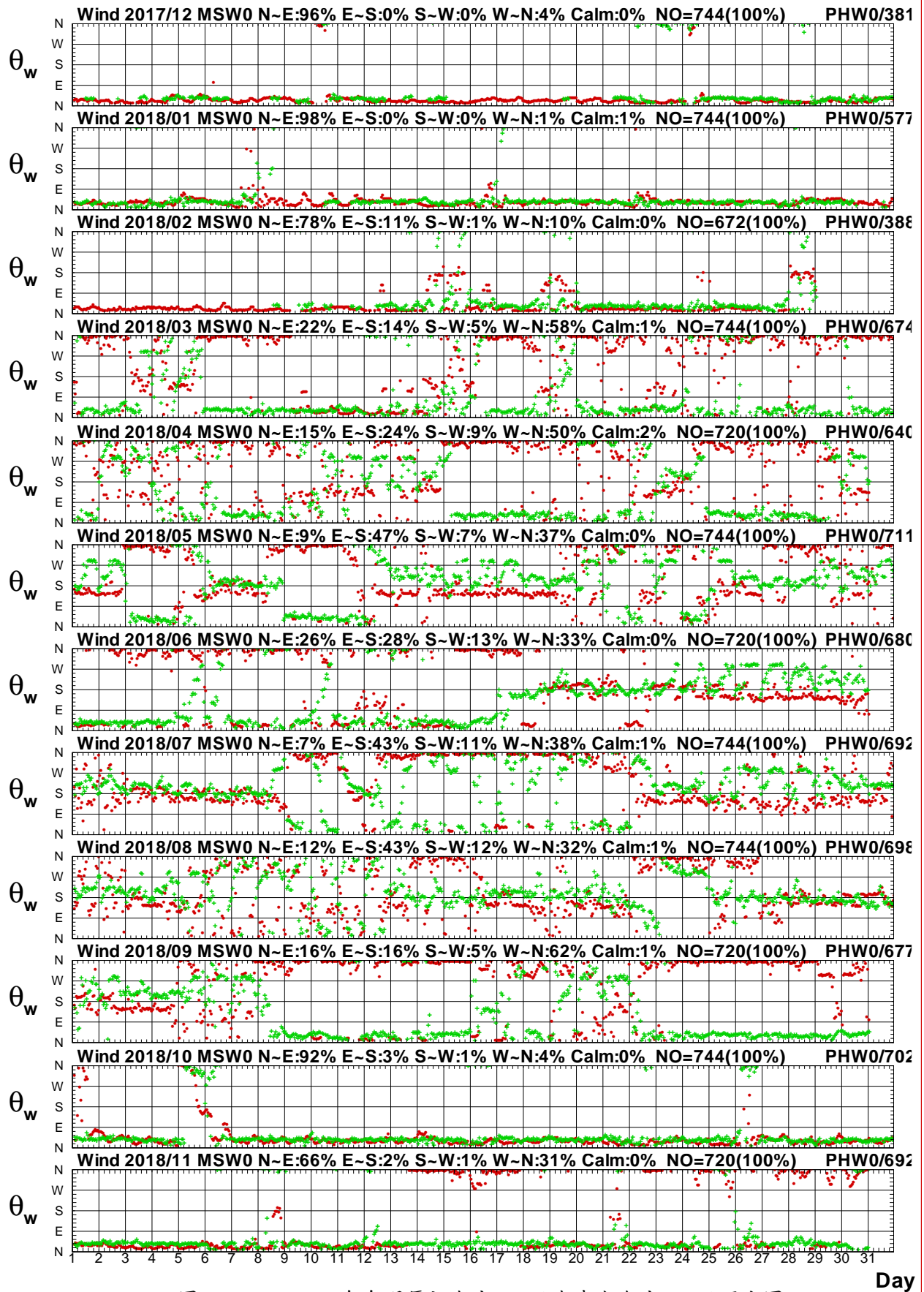


圖1.4.15b 2018年每月馬祖海域 W 站與澎湖海域 W 站風向圖

W17CMSW0.1HA W17CPHW0.1H0 W181MSW0.1HA W181PHW0.1H0 W182MSW0.1HA W182PHW0.1H0
 W183MSW0.1HA W183PHW0.1H0 W184MSW0.1HA W184PHW0.1H0 W185MSW0.1HA W185PHW0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

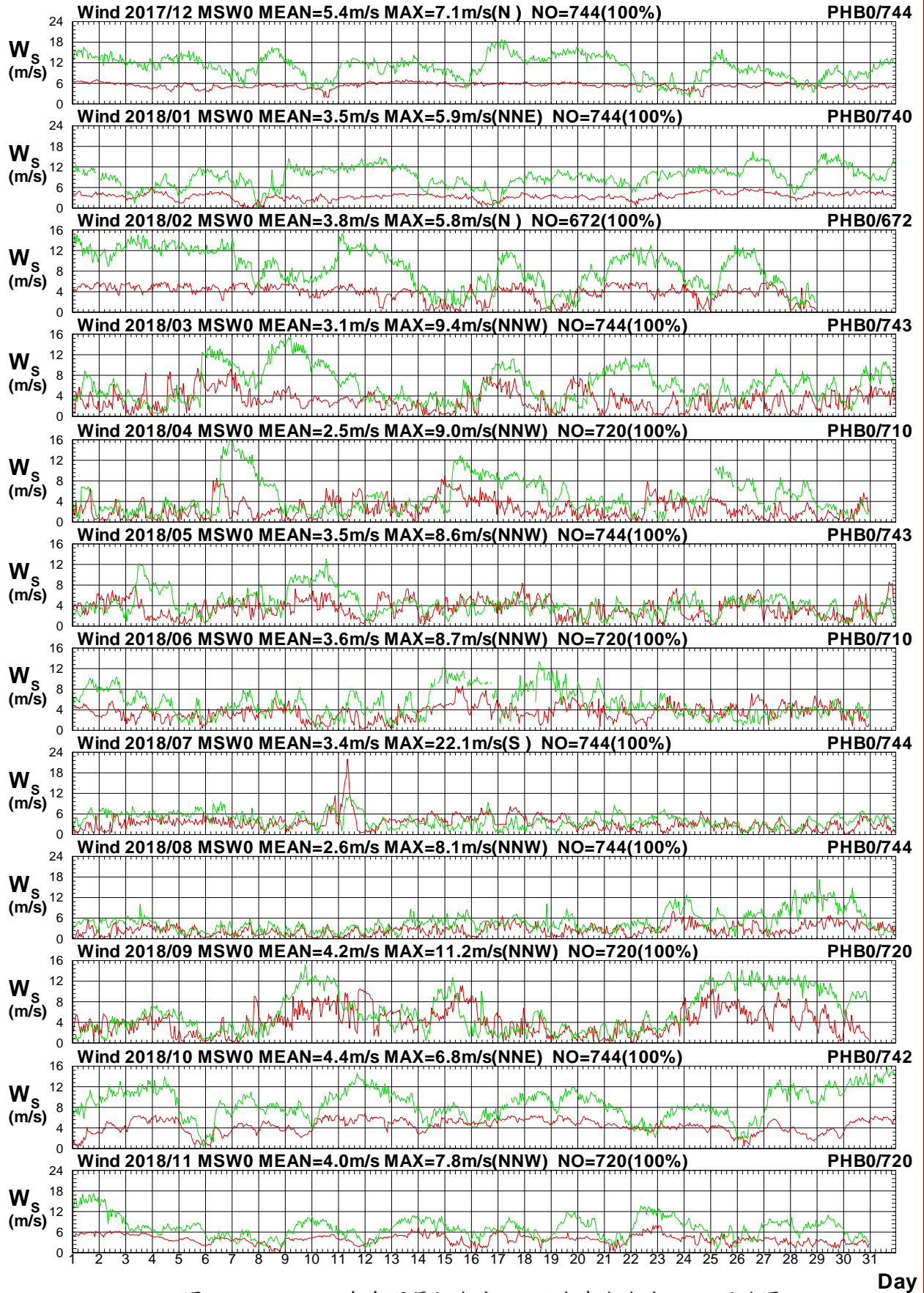


圖1.4.16a 2018年每月馬祖海域 W 站與澎湖海域 B 站風速圖

W17CMSW0.1HA W17CPHB0.1H0 W181MSW0.1HA W181PHB0.1H0 W182MSW0.1HA W182PHB0.1H0
 W183MSW0.1HA W183PHB0.1H0 W184MSW0.1HA W184PHB0.1H0 W185MSW0.1HA W185PHB0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

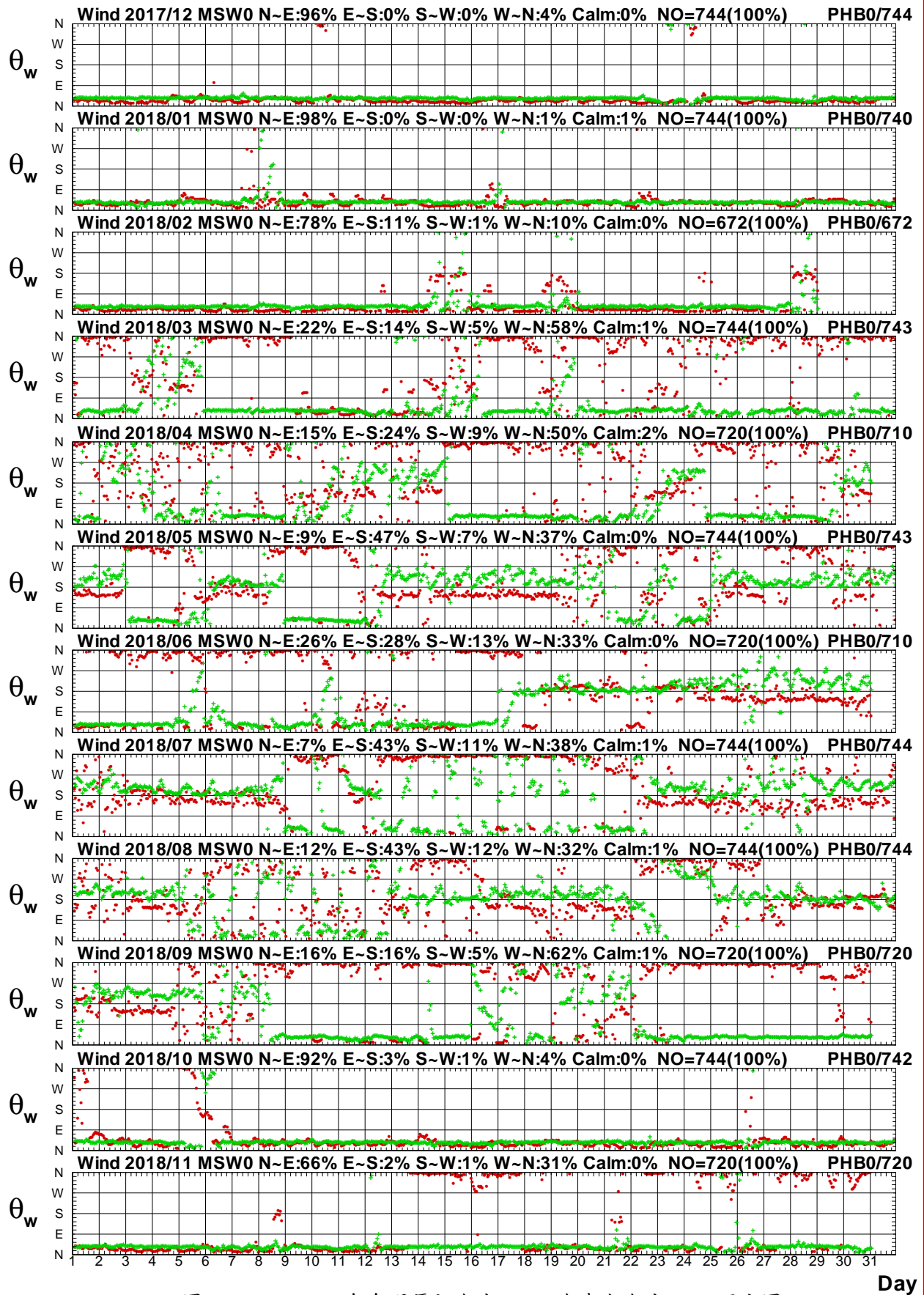


圖 1.4.16b 2018年每月馬祖海域 W 站與澎湖海域 B 站風向圖

W17CMSW0.1HA W17CPHB0.1H0 W181MSW0.1HA W181PHB0.1H0 W182MSW0.1HA W182PHB0.1H0
 W183MSW0.1HA W183PHB0.1H0 W184MSW0.1HA W184PHB0.1H0 W185MSW0.1HA W185PHB0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

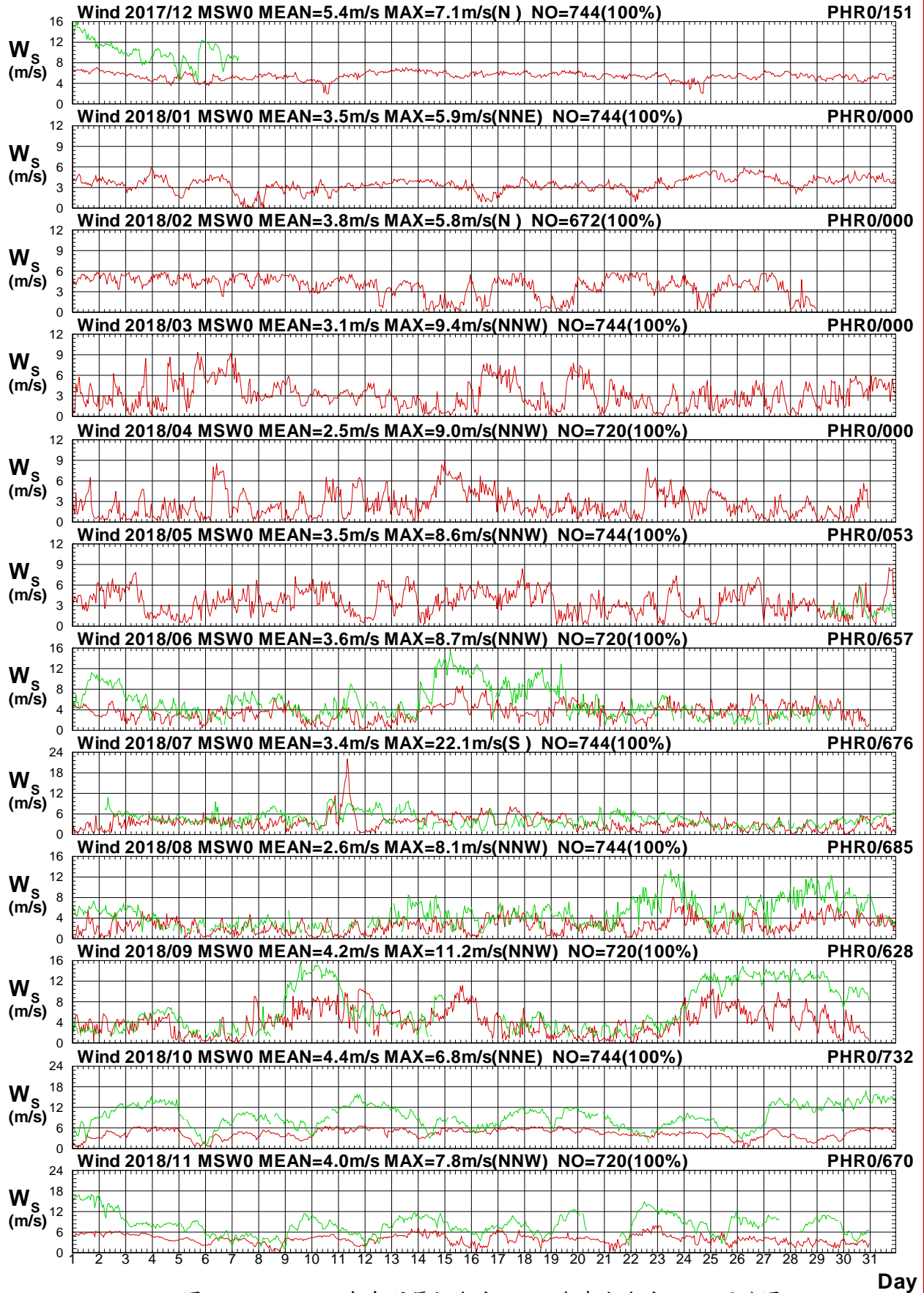


圖 1.4.17a 2018年每月馬祖海域 W 站與澎湖海域 R 站風速圖

W17CMSW0.1HA W17CPHR0.1H0 W181MSW0.1HA W181PHR0.1H0 W182MSW0.1HA W182PHR0.1H0
 W183MSW0.1HA W183PHR0.1H0 W184MSW0.1HA W184PHR0.1H0 W185MSW0.1HA W185PHR0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

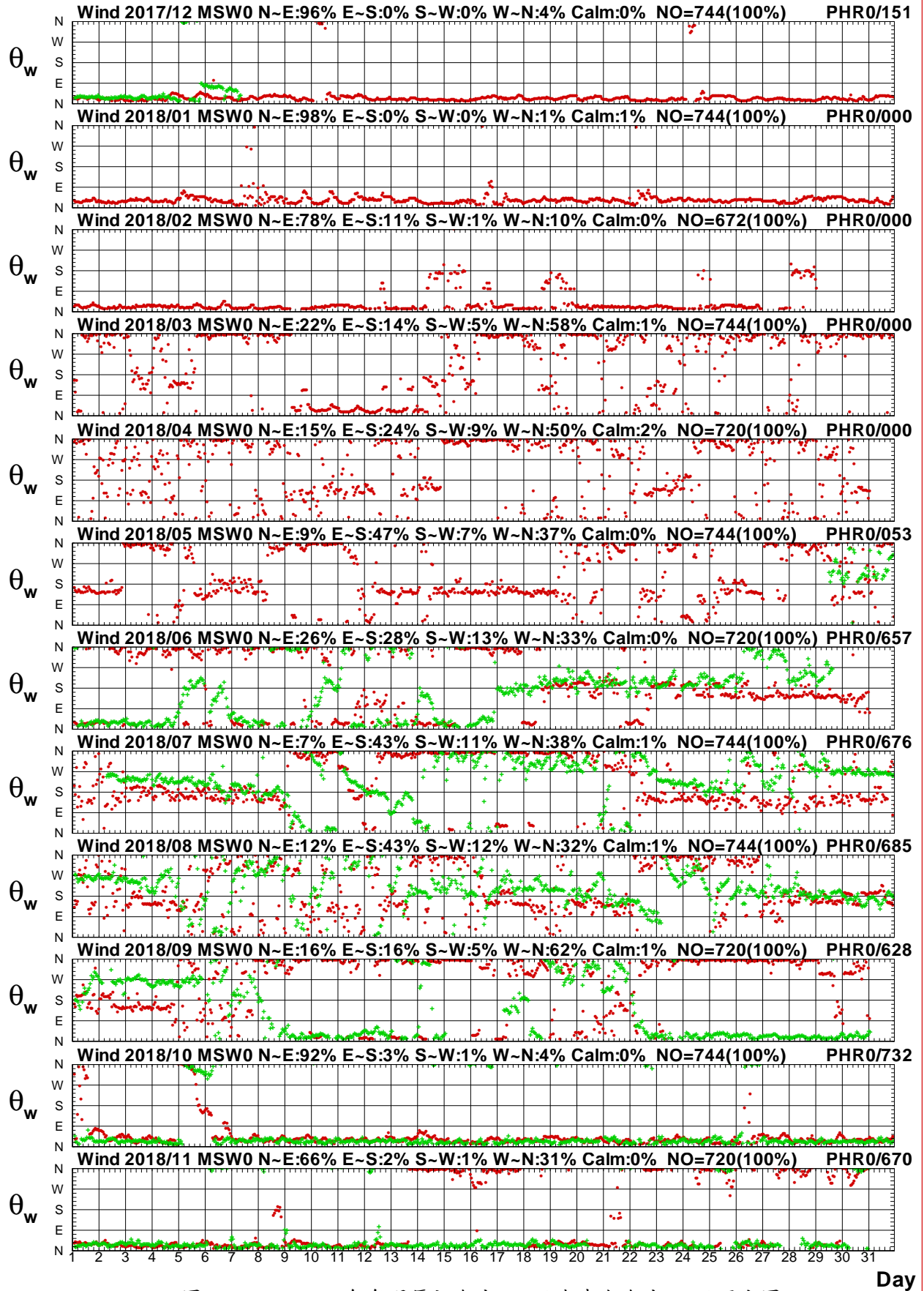


圖 1.4.17b 2018年每月馬祖海域 W 站與澎湖海域 R 站風向圖

W17CMSW0.1HA W17CPHR0.1H0 W181MSW0.1HA W181PHR0.1H0 W182MSW0.1HA W182PHR0.1H0
 W183MSW0.1HA W183PHR0.1H0 W184MSW0.1HA W184PHR0.1H0 W185MSW0.1HA W185PHR0.1H0
 Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

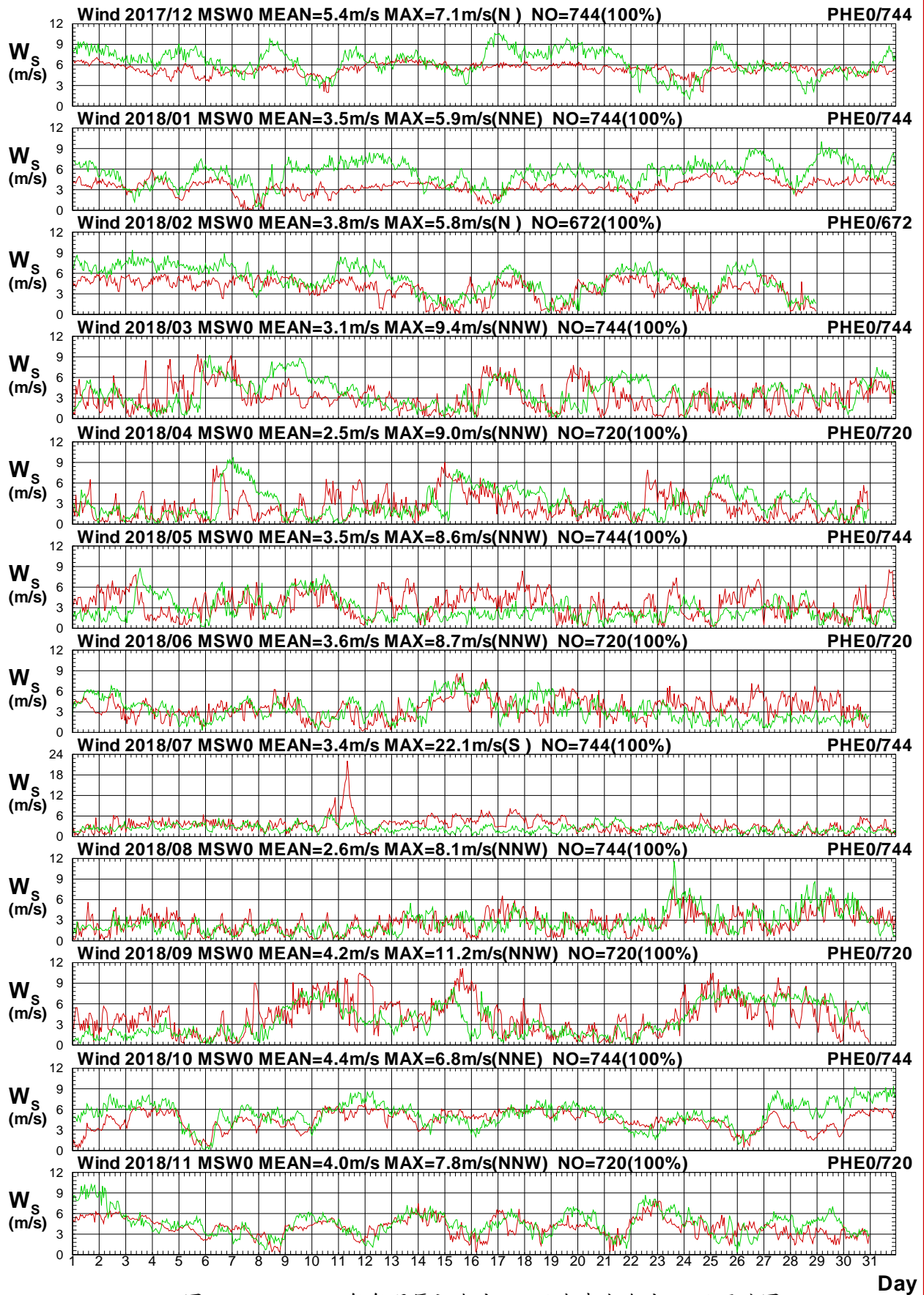


圖1.4.18a 2018年每月馬祖海域 W 站與澎湖海域 E 站風速圖

W17CMSW0.1HA W17CPHE0.1H0 W181MSW0.1HA W181PHE0.1H0 W182MSW0.1HA W182PHE0.1H0
 W183MSW0.1HA W183PHE0.1H0 W184MSW0.1HA W184PHE0.1H0 W185MSW0.1HA W185PHE0.1H0

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

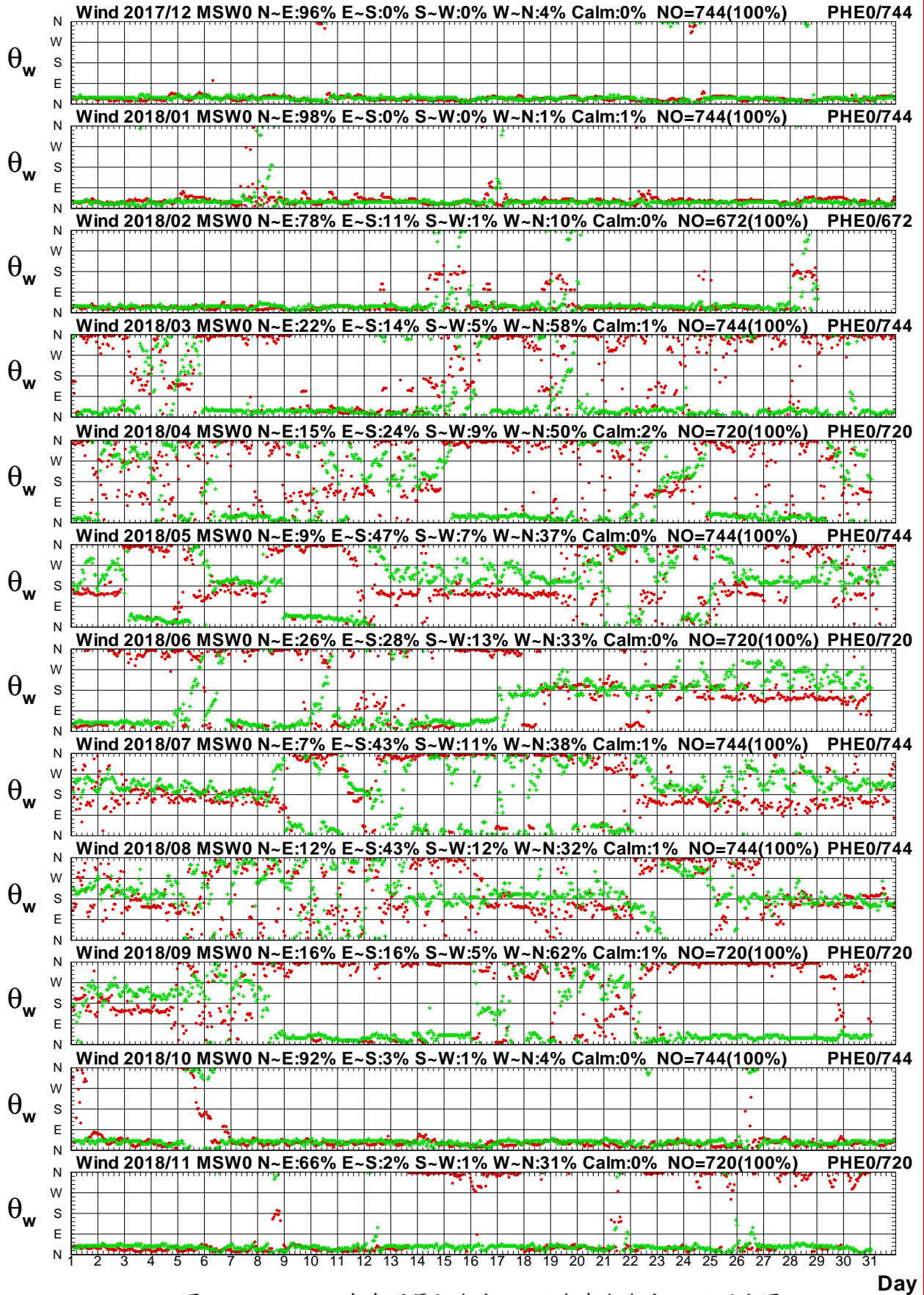


圖 1.4.18b 2018年每月馬祖海域 W 站與澎湖海域 E 站風向圖

W17CMSW0.1HA W17CPHE0.1H0 W181MSW0.1HA W181PHE0.1H0 W182MSW0.1HA W182PHE0.1H0
 W183MSW0.1HA W183PHE0.1H0 W184MSW0.1HA W184PHE0.1H0 W185MSW0.1HA W185PHE0.1H0

Institute of Harbor & Marine Technology

Wind Speed in Ma-Tsu Seas of MSW0 at 2018

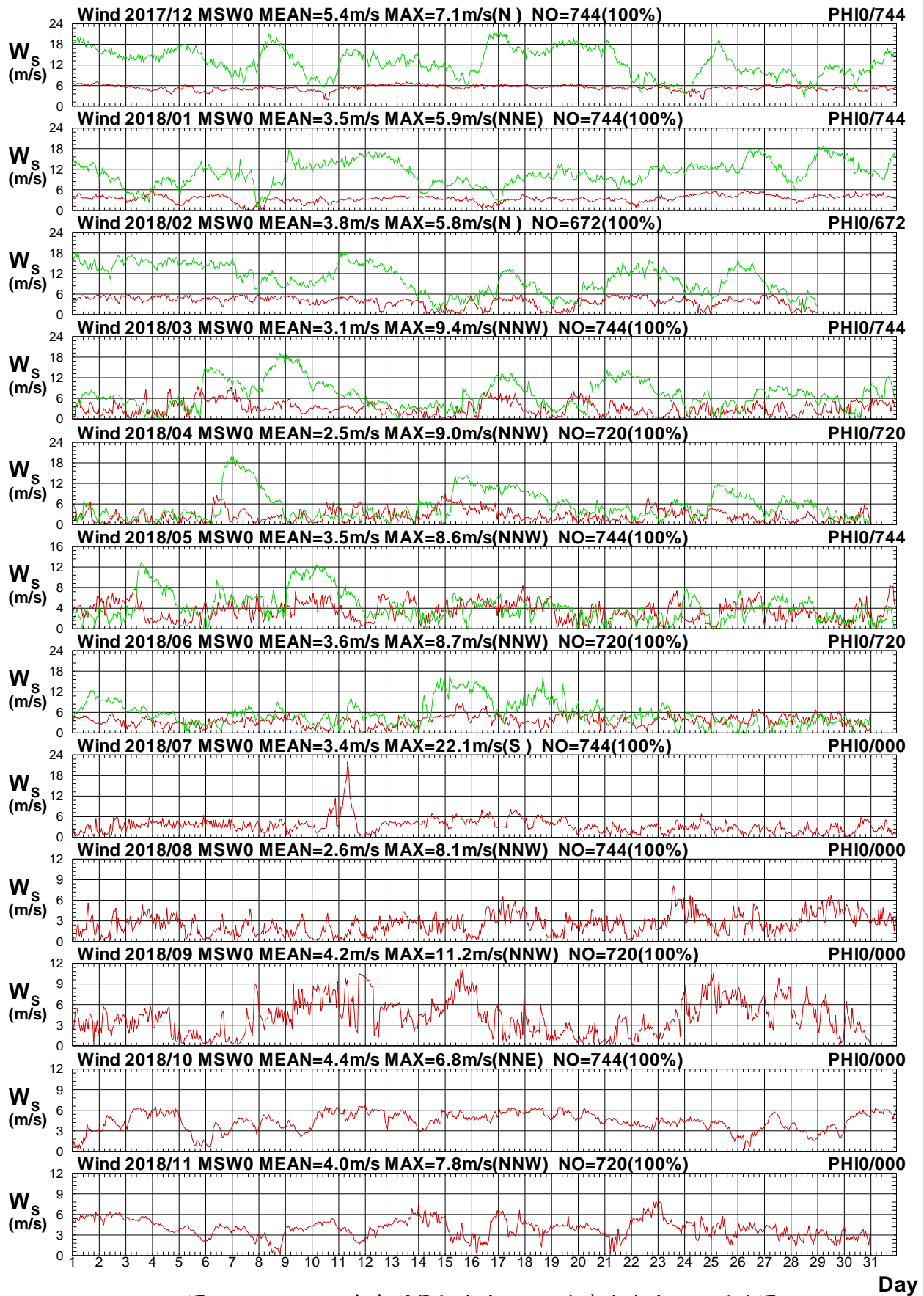


圖1.4.19a 2018年每月馬祖海域 W 站與澎湖海域 I 站風速圖

W17CMSW0.1HA W17CPHI0.1HO W181MSW0.1HA W181PHI0.1HO W182MSW0.1HA W182PHI0.1HO
W183MSW0.1HA W183PHI0.1HO W184MSW0.1HA W184PHI0.1HO W185MSW0.1HA W185PHI0.1HO

Institute of Harbor & Marine Technology

Wind Direction in Ma-Tsu Seas of MSW0 at 2018

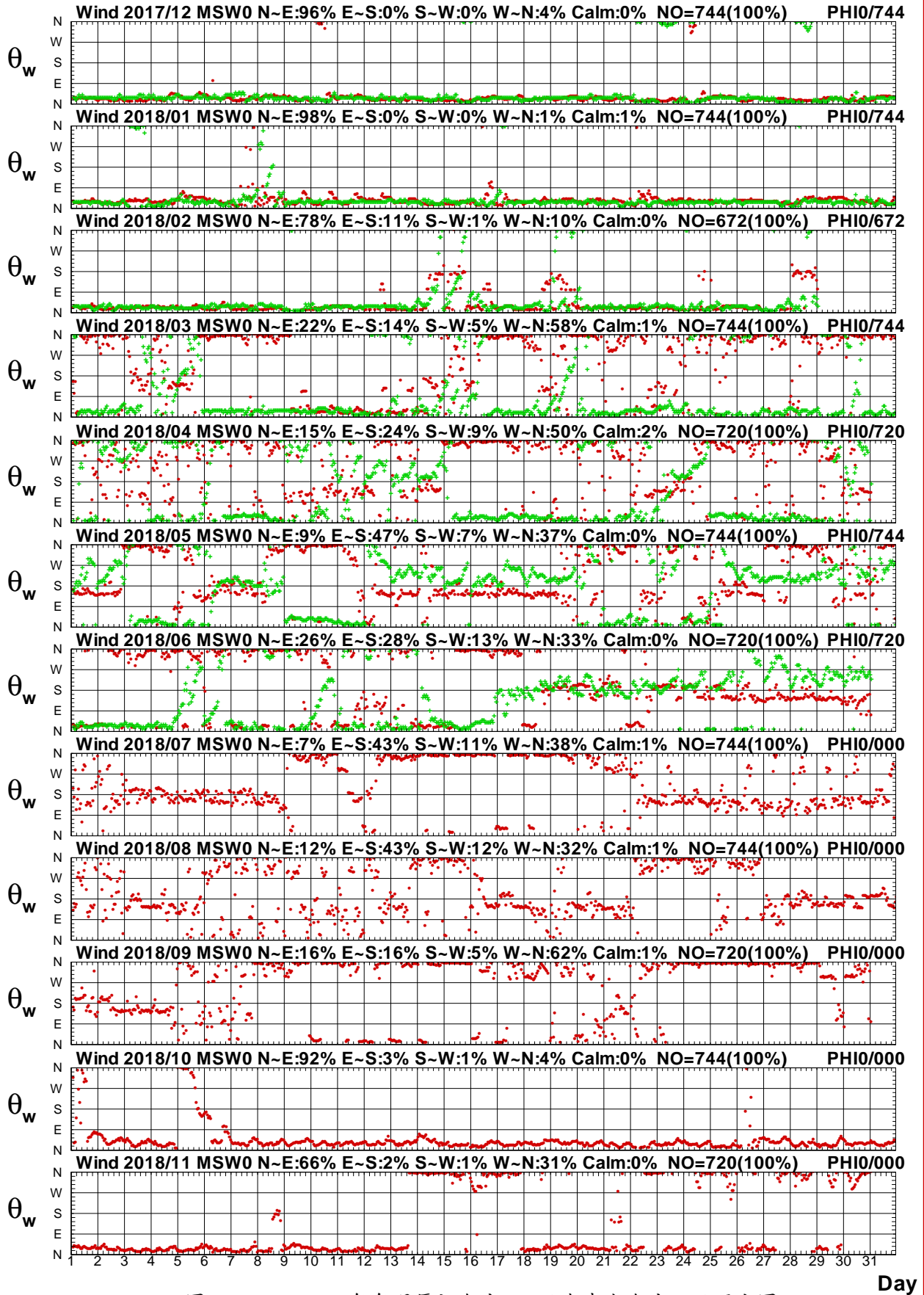


圖1.4.19b 2018年每月馬祖海域 W 站與澎湖海域 I 站風向圖

W17CMSW0.1HA W17CPHI0.1HO W181MSW0.1HA W181PHI0.1HO W182MSW0.1HA W182PHI0.1HO
 W183MSW0.1HA W183PHI0.1HO W184MSW0.1HA W184PHI0.1HO W185MSW0.1HA W185PHI0.1HO

Institute of Harbor & Marine Technology

1.5 2018 年馬祖海域風力各測站修補前 風力向量分佈圖

Distribution of Wind Vectors

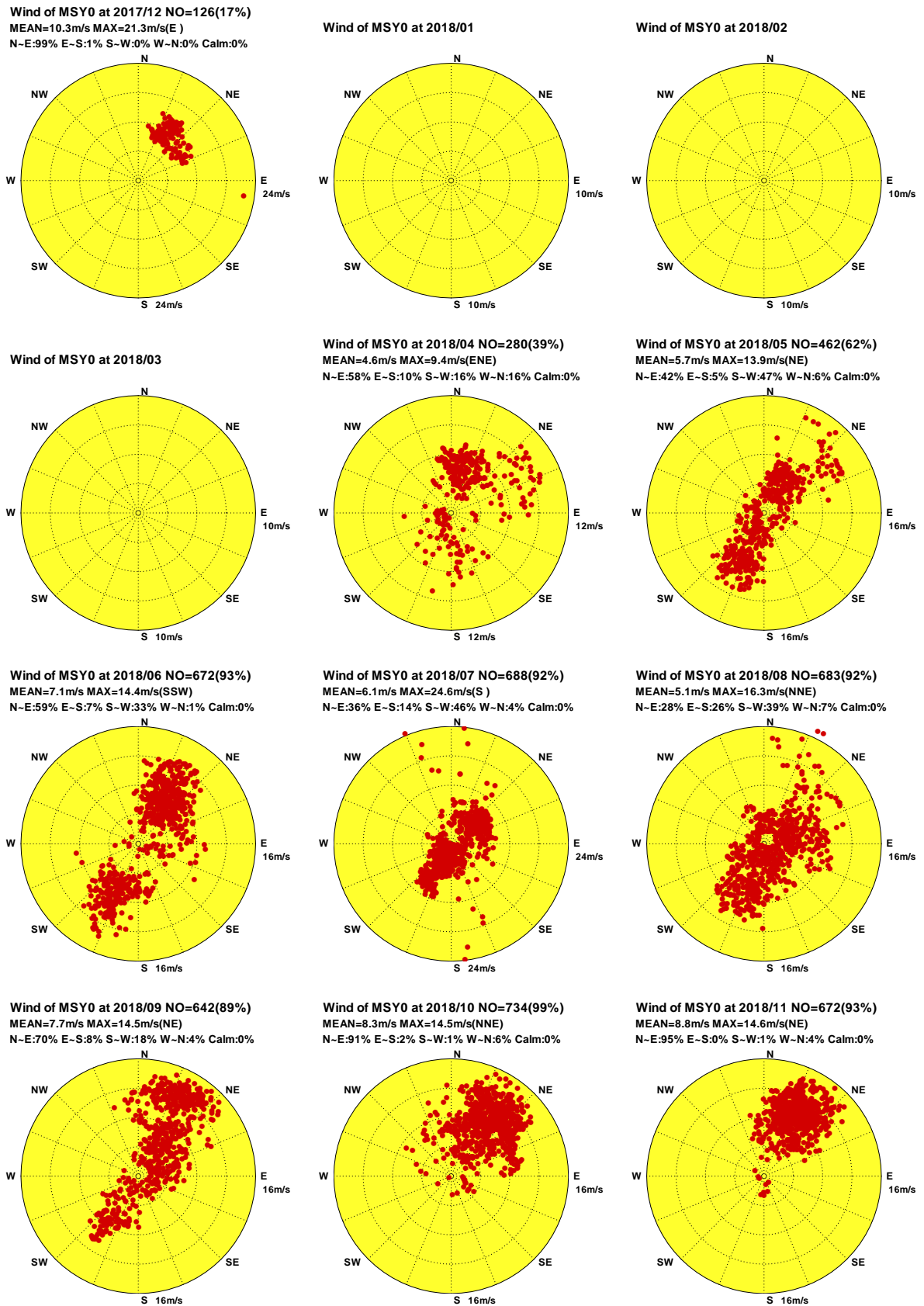


圖1.5.1 2018年馬祖海域每月 Y 站修補前觀測風力向量分佈圖

W17CMSY0.1H0 W181MSY0.1H0 W182MSY0.1H0 W183MSY0.1H0 W184MSY0.1H0 W185MSY0.1H0
 W186MSY0.1H0 W187MSY0.1H0 W188MSY0.1H0 W189MSY0.1H0 W18AMS0.1H0 W18BMSY0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

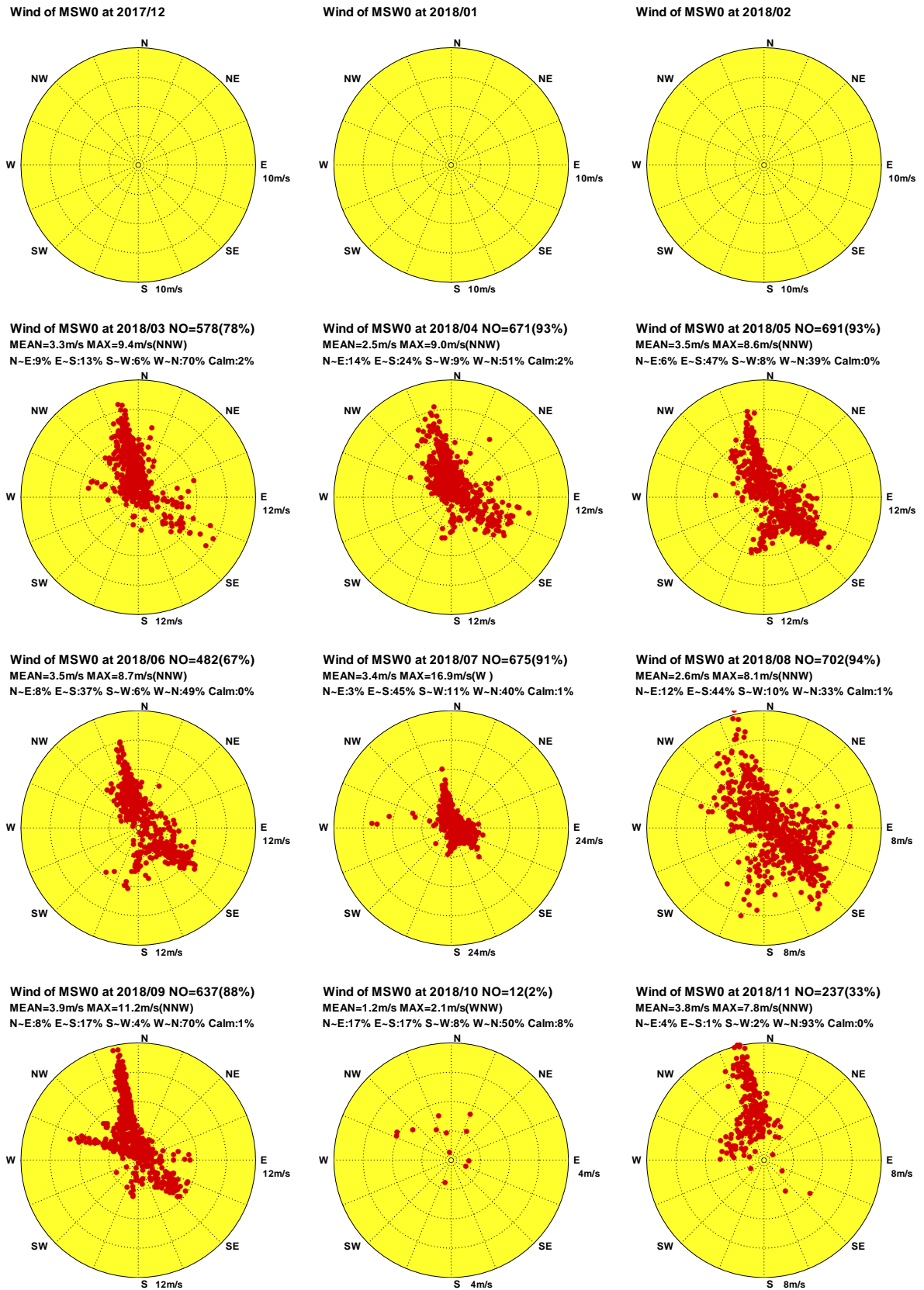


圖 1.5.2 2018 年馬祖海域每月 W 站修補前觀測風力向量分佈圖

W17CMSW0.1H0 W181MSW0.1H0 W182MSW0.1H0 W183MSW0.1H0 W184MSW0.1H0 W185MSW0.1H0
W186MSW0.1H0 W187MSW0.1H0 W188MSW0.1H0 W189MSW0.1H0 W18AMS0.1H0 W18BMSW0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

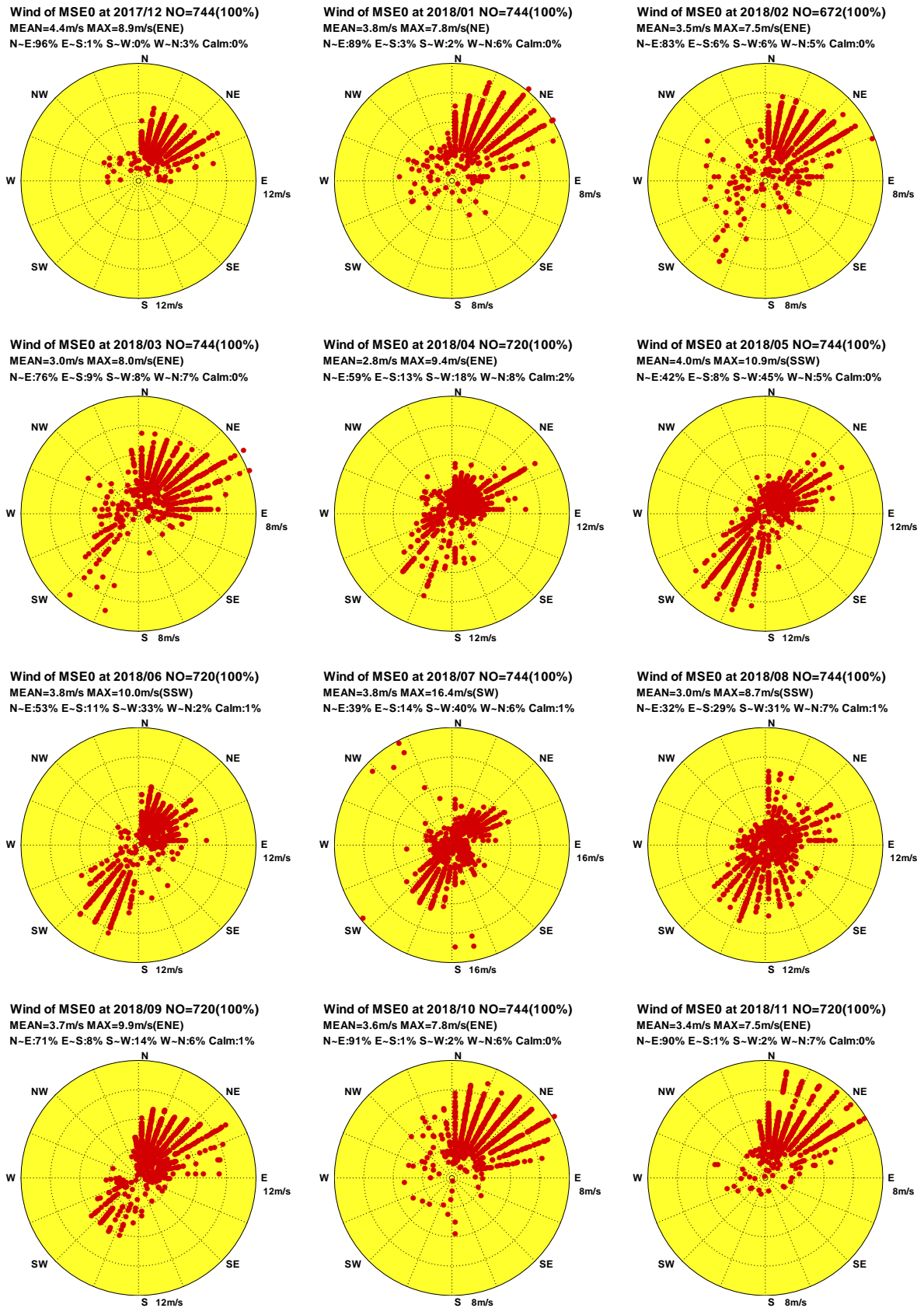


圖1.5.3 2018年馬祖海域每月 E 站修補前觀測風力向量分佈圖

W17CMSE0.1H0 W181MSE0.1H0 W182MSE0.1H0 W183MSE0.1H0 W184MSE0.1H0 W185MSE0.1H0
W186MSE0.1H0 W187MSE0.1H0 W188MSE0.1H0 W189MSE0.1H0 W18AMSE0.1H0 W18BMSE0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

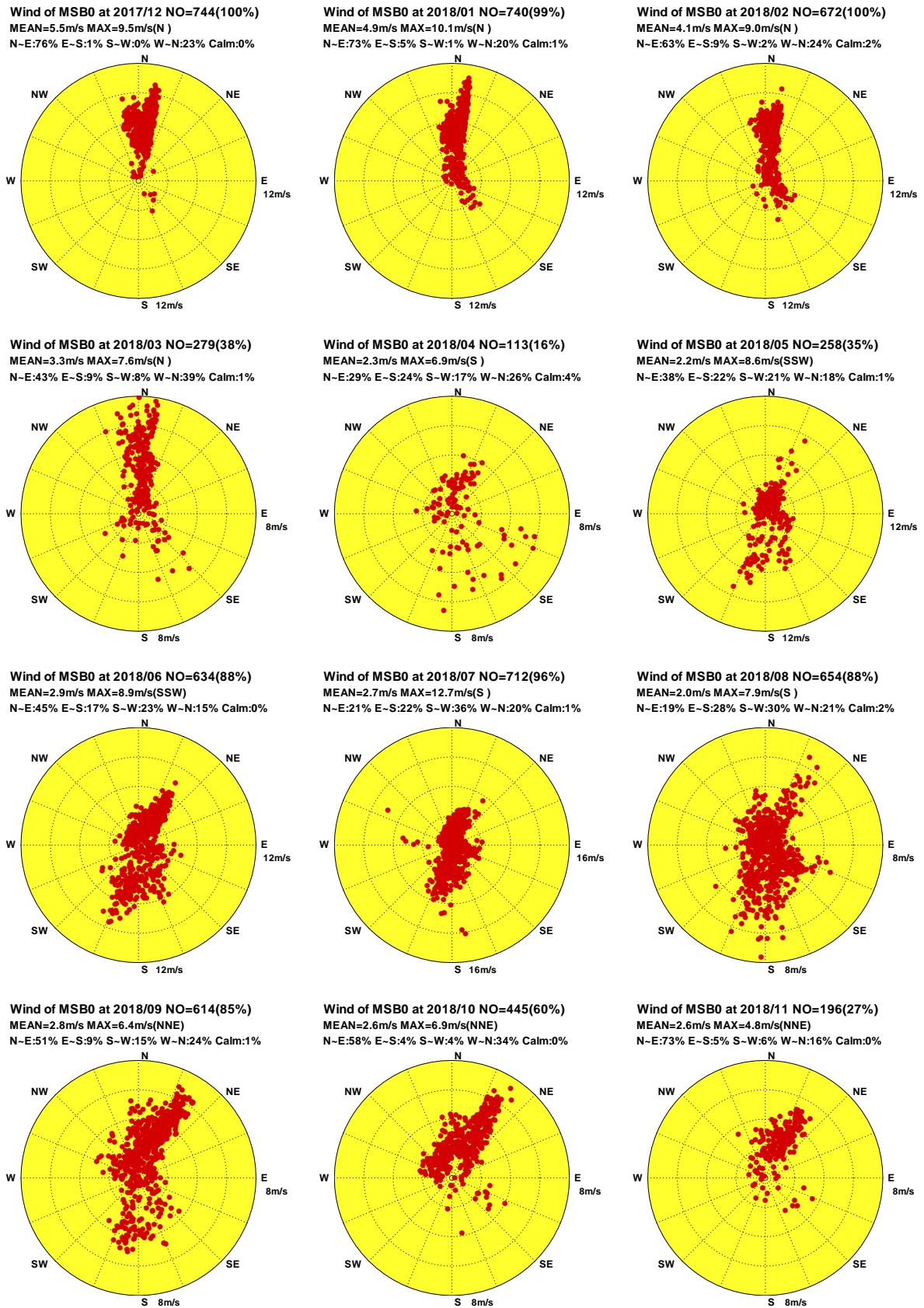


圖1.5.4 2018年馬祖海域每月 B 站修補前觀測風力向量分佈圖

W17CMSB0.1H0 W181MSB0.1H0 W182MSB0.1H0 W183MSB0.1H0 W184MSB0.1H0 W185MSB0.1H0
W186MSB0.1H0 W187MSB0.1H0 W188MSB0.1H0 W189MSB0.1H0 W18AMS0.1H0 W18BMS0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

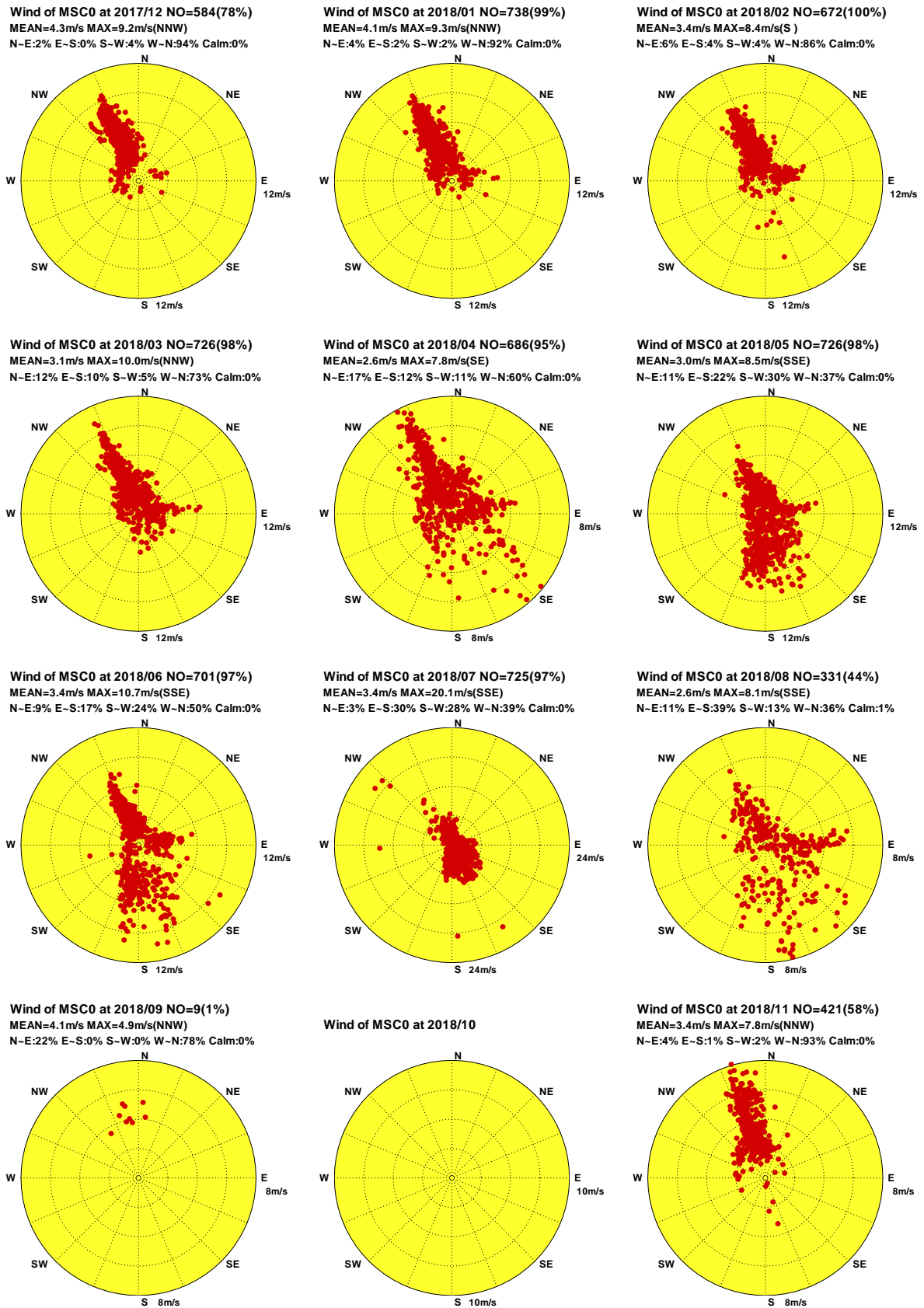


圖1.5.5 2018年馬祖海域每月C站修補前觀測風力向量分佈圖

W17CMSC0.1H0 W181MSC0.1H0 W182MSC0.1H0 W183MSC0.1H0 W184MSC0.1H0 W185MSC0.1H0
W186MSC0.1H0 W187MSC0.1H0 W188MSC0.1H0 W189MSC0.1H0 W18AMSC0.1H0 W18BMSC0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

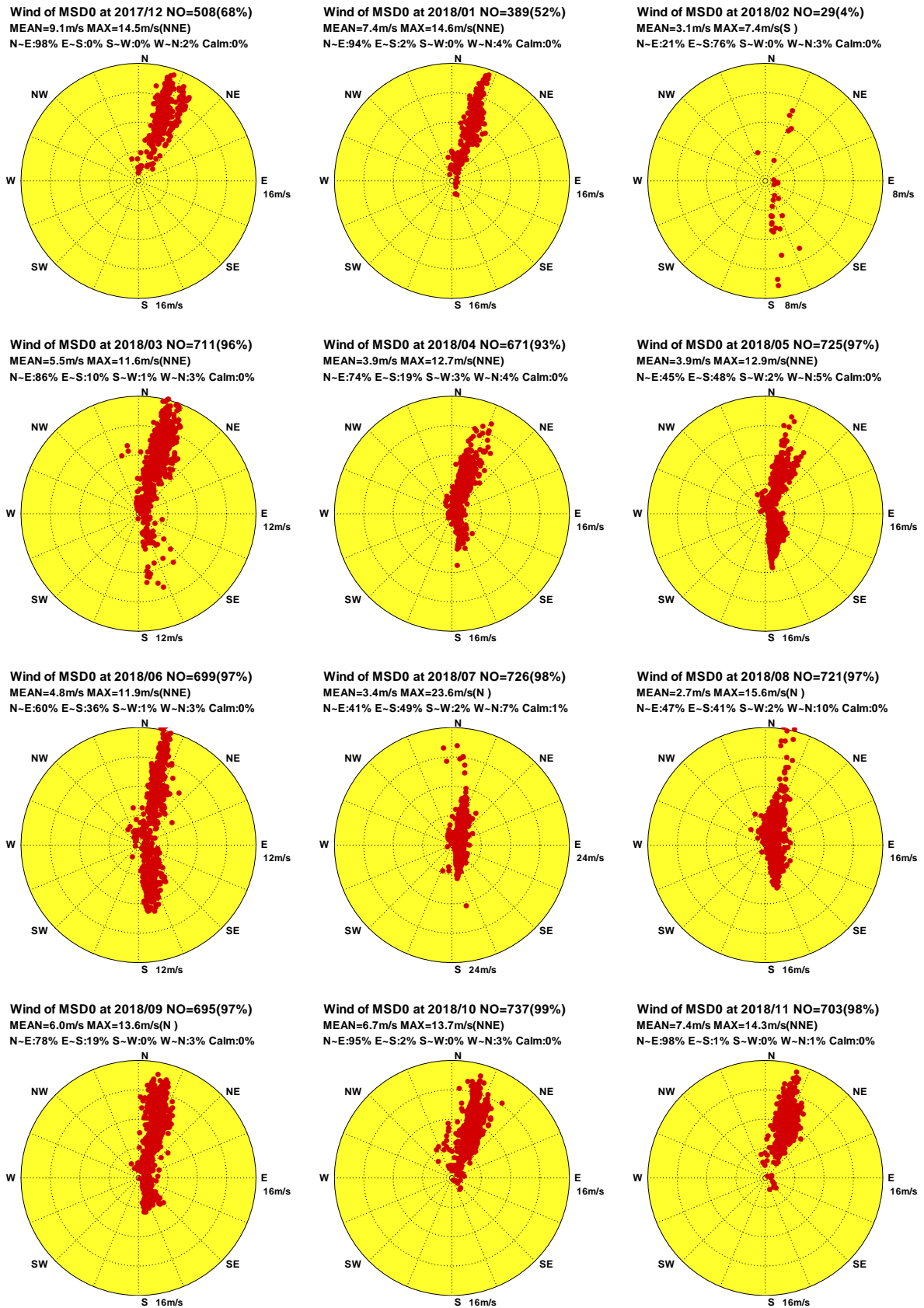


圖1.5.6 2018年馬祖海域每月 D 站修補前觀測風力向量分佈圖

W17CMSD0.1H0 W181MSD0.1H0 W182MSD0.1H0 W183MSD0.1H0 W184MSD0.1H0 W185MSD0.1H0
 W186MSD0.1H0 W187MSD0.1H0 W188MSD0.1H0 W189MSD0.1H0 W18AMS0.1H0 W18BMSD0.1H0

Institute of Harbor & Marine Technology

Distribution of Wind Vectors

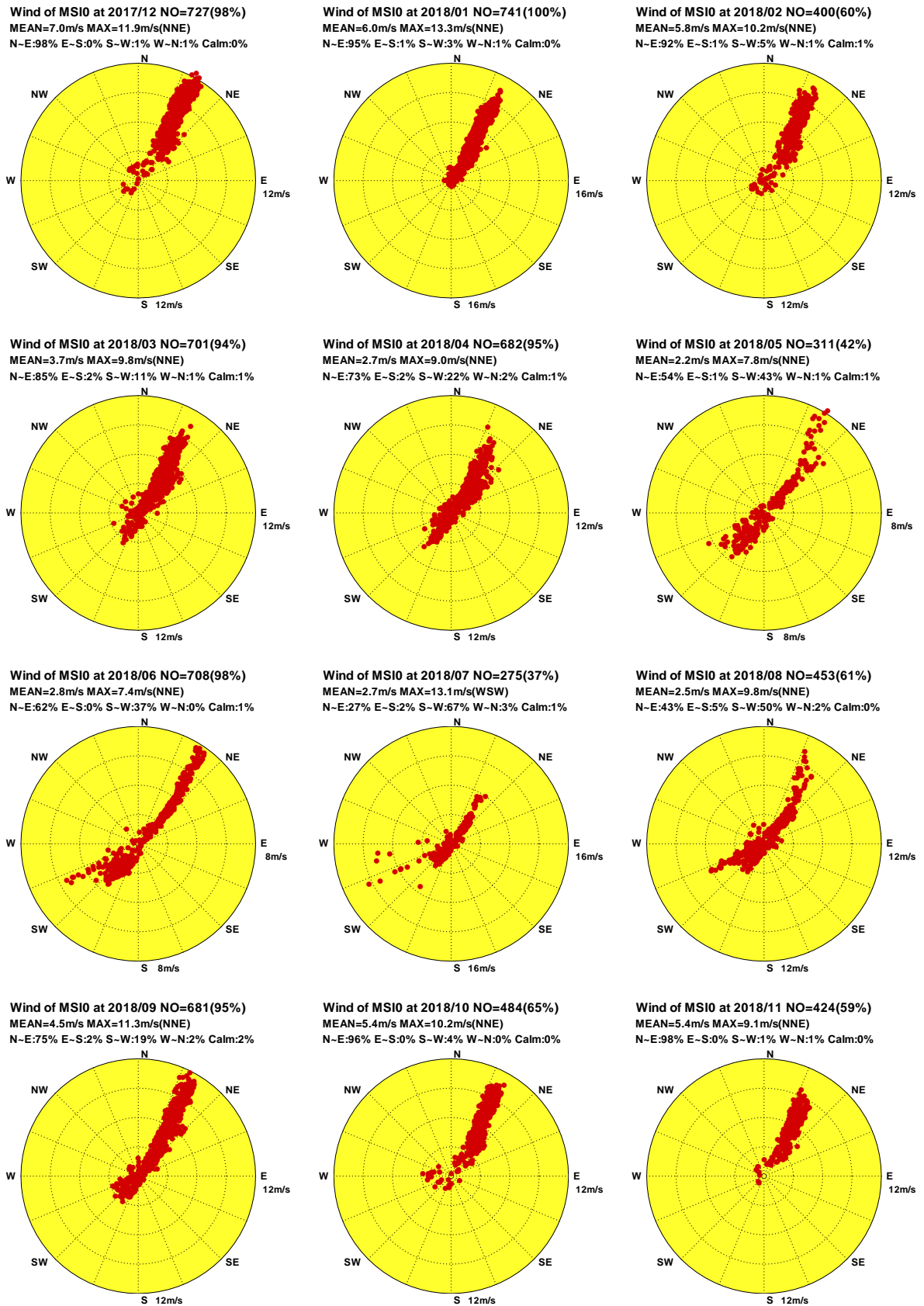


圖1.5.7 2018年馬祖海域每月I站修補前觀測風力向量分佈圖

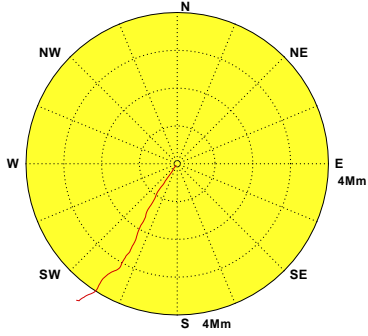
W17CMSI0.1H0 W181MSI0.1H0 W182MSI0.1H0 W183MSI0.1H0 W184MSI0.1H0 W185MSI0.1H0
W186MSI0.1H0 W187MSI0.1H0 W188MSI0.1H0 W189MSI0.1H0 W18AMS0.1H0 W18BMSI0.1H0

Institute of Harbor & Marine Technology

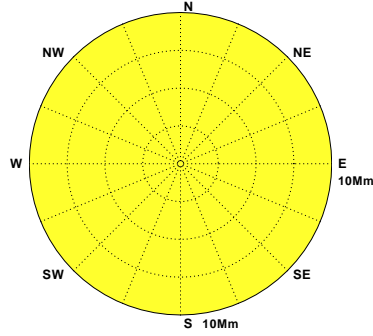
1.6 2018 年馬祖海域風力各測站修補前 風力向量行進圖

Progressive Vector Diagram of Wind

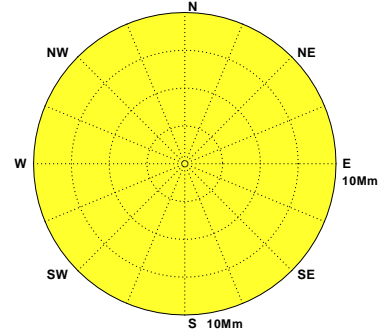
Wind of MSY0 at 2017/12 NO=126(17%)
 MEAN=10.3m/s MAX=21.3m/s(E)
 N-E:99% E-S:1% S-W:0% W-N:0% Calm:0%



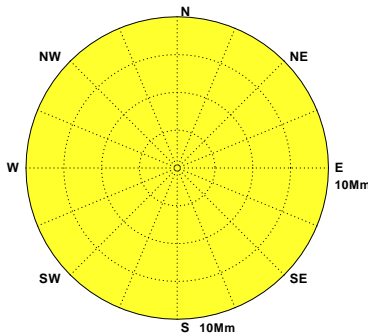
Wind of MSY0 at 2018/01



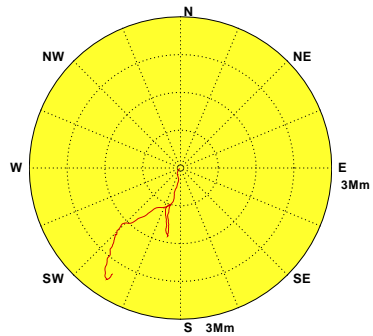
Wind of MSY0 at 2018/02



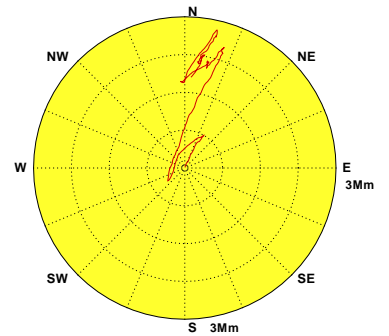
Wind of MSY0 at 2018/03



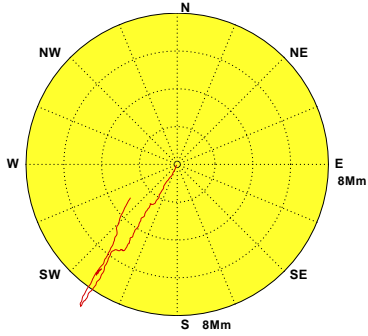
Wind of MSY0 at 2018/04 NO=280(39%)
 MEAN=4.6m/s MAX=9.4m/s(ENE)
 N-E:58% E-S:10% S-W:16% W-N:16% Calm:0%



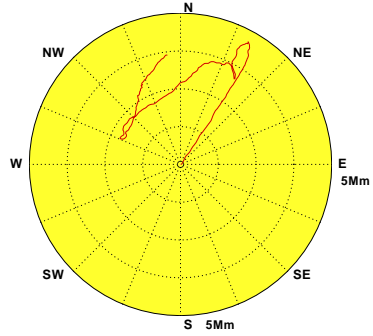
Wind of MSY0 at 2018/05 NO=462(62%)
 MEAN=5.7m/s MAX=13.9m/s(NE)
 N-E:42% E-S:5% S-W:47% W-N:6% Calm:0%



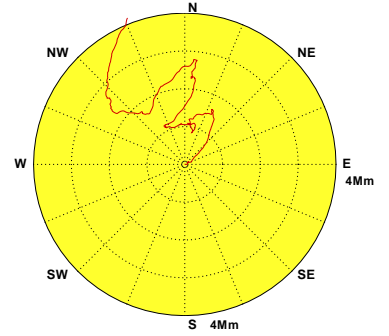
Wind of MSY0 at 2018/06 NO=672(93%)
 MEAN=7.1m/s MAX=14.4m/s(SSW)
 N-E:59% E-S:7% S-W:33% W-N:1% Calm:0%



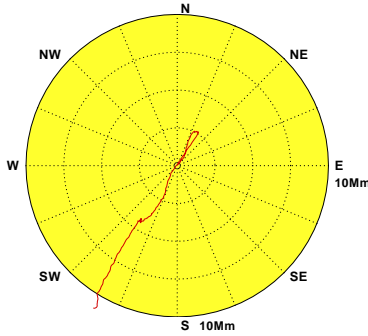
Wind of MSY0 at 2018/07 NO=688(92%)
 MEAN=6.1m/s MAX=24.6m/s(S)
 N-E:36% E-S:14% S-W:46% W-N:4% Calm:0%



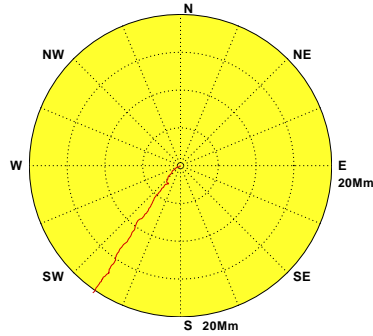
Wind of MSY0 at 2018/08 NO=683(92%)
 MEAN=5.1m/s MAX=16.3m/s(NNE)
 N-E:28% E-S:26% S-W:39% W-N:7% Calm:0%



Wind of MSY0 at 2018/09 NO=642(89%)
 MEAN=7.7m/s MAX=14.5m/s(NE)
 N-E:70% E-S:8% S-W:18% W-N:4% Calm:0%



Wind of MSY0 at 2018/10 NO=734(99%)
 MEAN=8.3m/s MAX=14.5m/s(NNE)
 N-E:91% E-S:2% S-W:1% W-N:6% Calm:0%



Wind of MSY0 at 2018/11 NO=672(93%)
 MEAN=8.8m/s MAX=14.6m/s(NE)
 N-E:95% E-S:0% S-W:1% W-N:4% Calm:0%

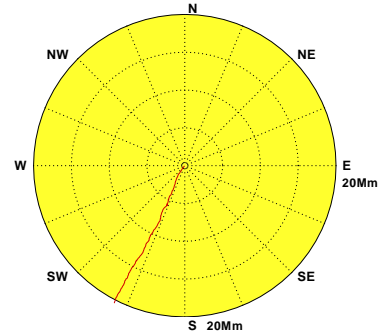


圖1.6.1 2018年馬祖海域每月 Y 站修補前觀測風力向量行進圖

W17CMSY0.1H0 W181MSY0.1H0 W182MSY0.1H0 W183MSY0.1H0 W184MSY0.1H0 W185MSY0.1H0
 W186MSY0.1H0 W187MSY0.1H0 W188MSY0.1H0 W189MSY0.1H0 W18AMS0.1H0 W18BMSY0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

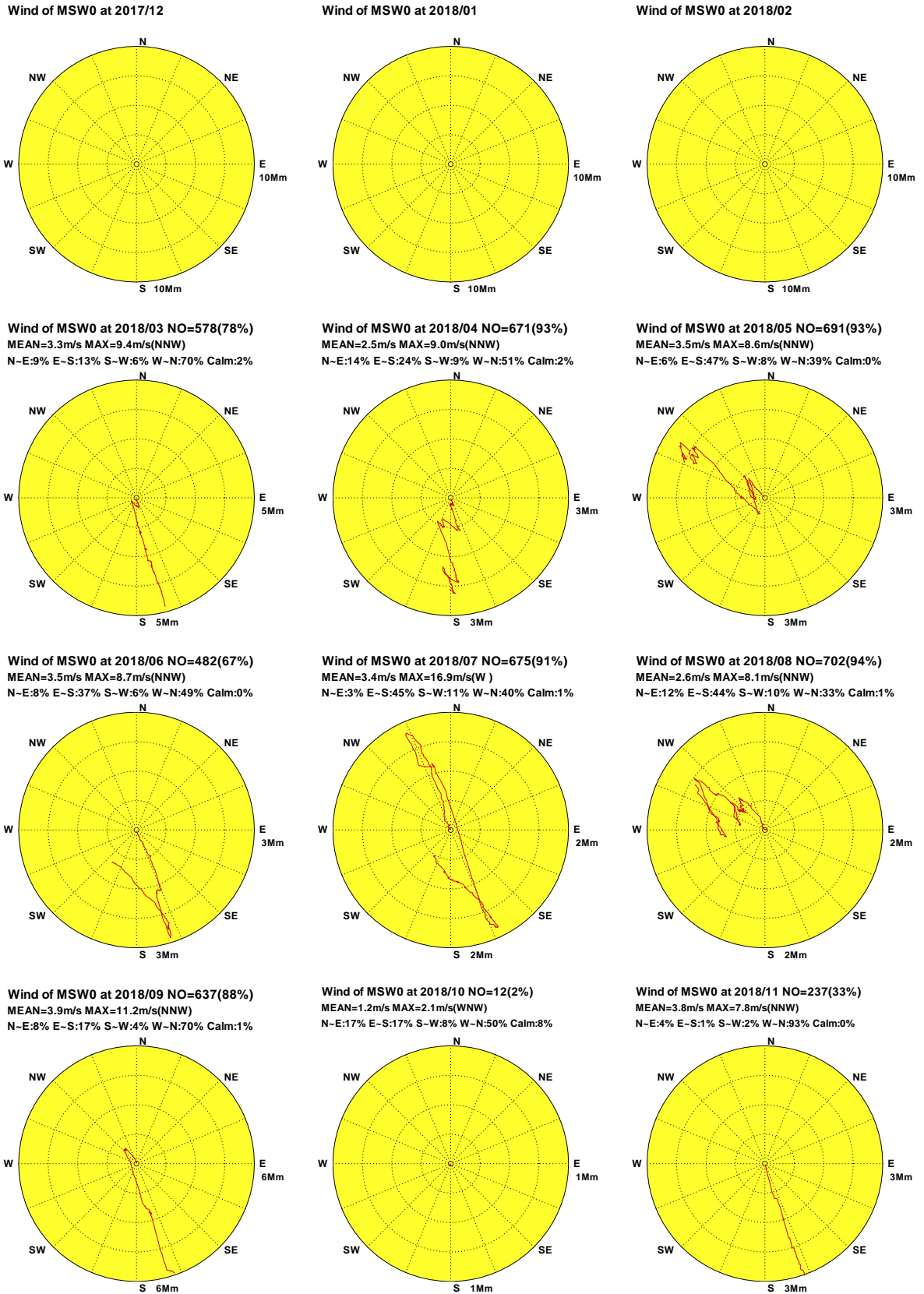


圖 1.6.2 2018 年馬祖海域每月 W 站修補前觀測風力向量行進圖

W17CMSW0.1H0 W181MSW0.1H0 W182MSW0.1H0 W183MSW0.1H0 W184MSW0.1H0 W185MSW0.1H0
 W186MSW0.1H0 W187MSW0.1H0 W188MSW0.1H0 W189MSW0.1H0 W18AMSW0.1H0 W18BMSW0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

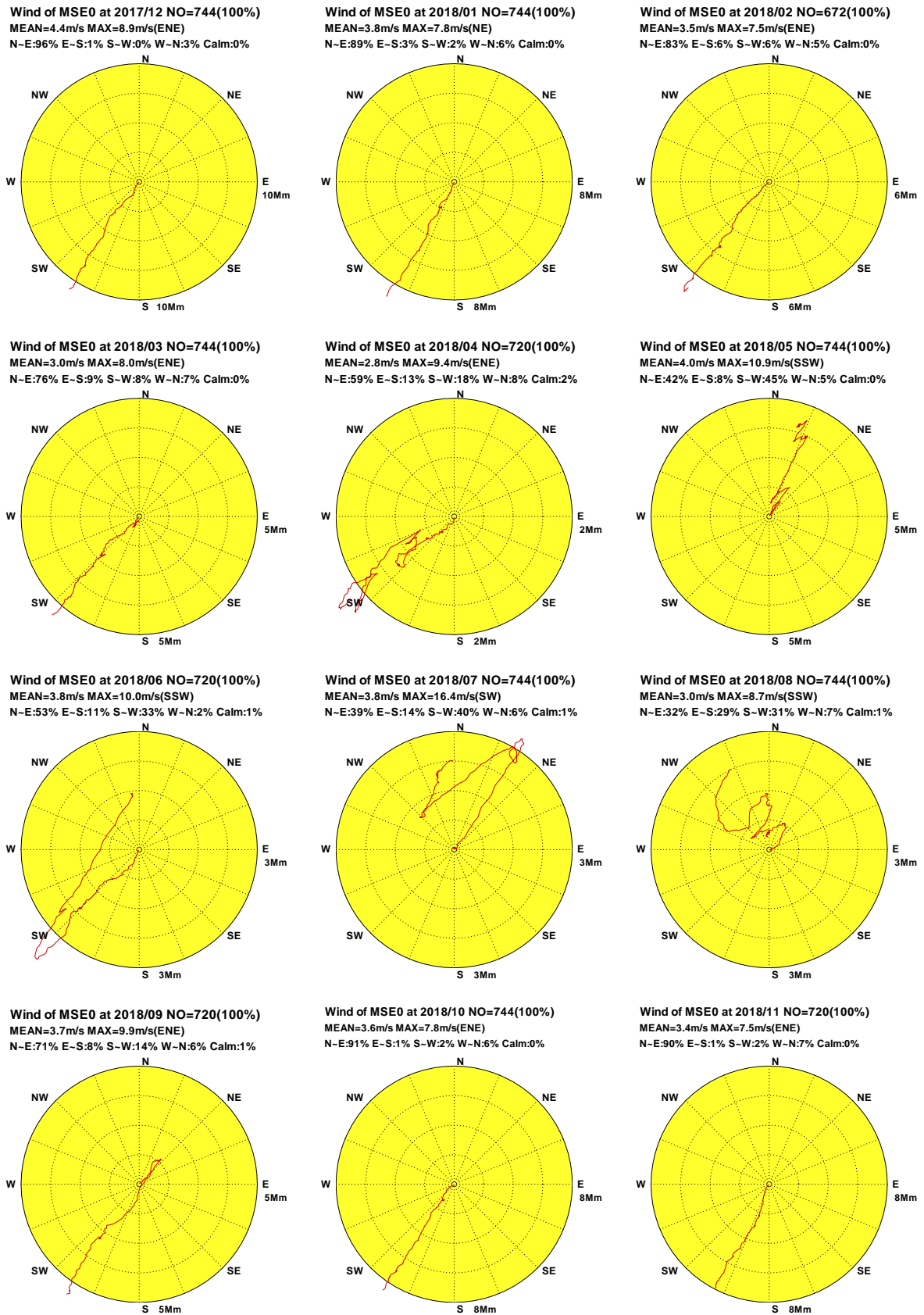


圖1.6.3 2018年馬祖海域每月 E 站修補前觀測風力向量行進圖

W17CMSE0.1H0 W181MSE0.1H0 W182MSE0.1H0 W183MSE0.1H0 W184MSE0.1H0 W185MSE0.1H0
 W186MSE0.1H0 W187MSE0.1H0 W188MSE0.1H0 W189MSE0.1H0 W18AMSE0.1H0 W18BMSE0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

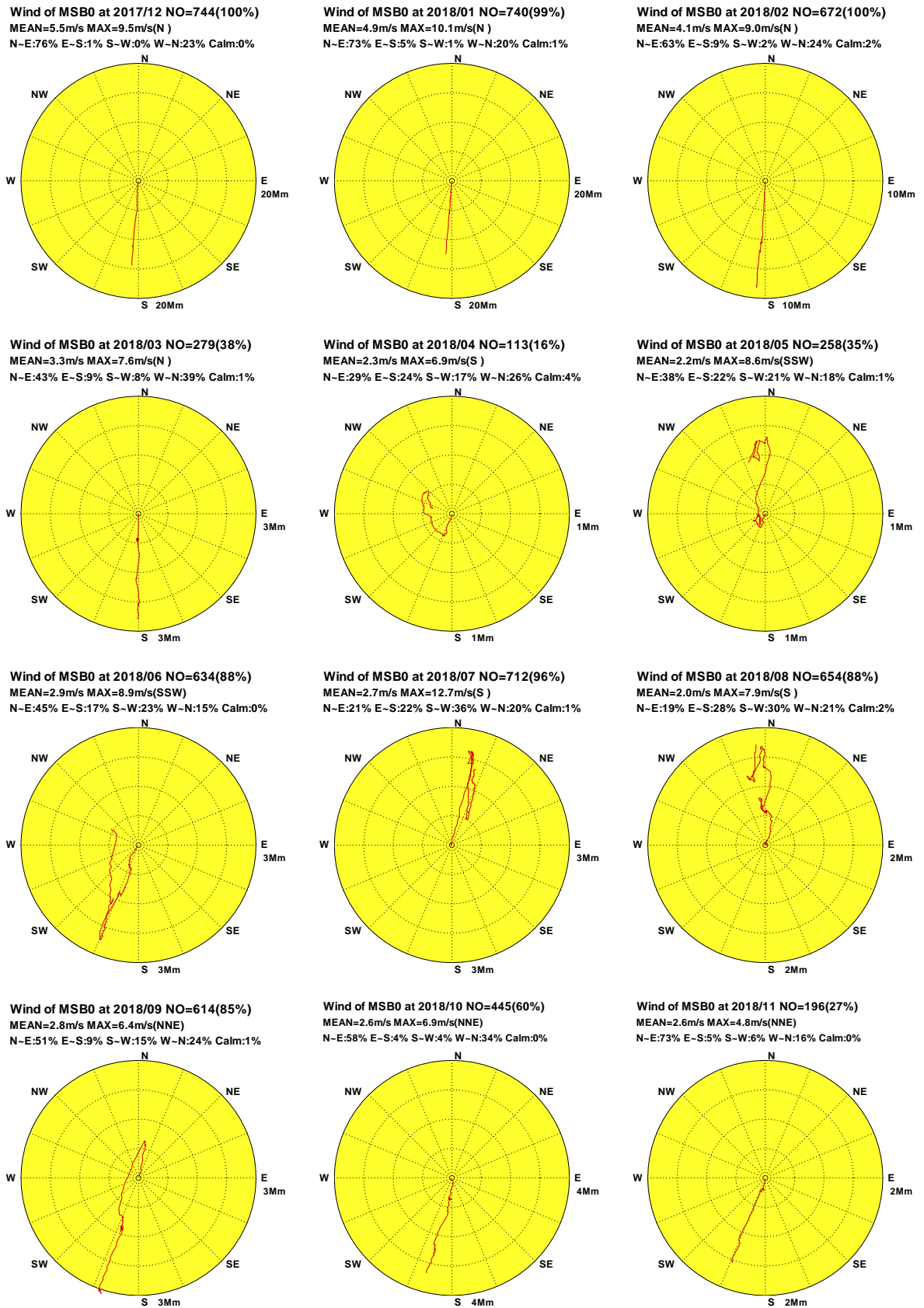


圖1.6.4 2018年馬祖海域每月 B 站修補前觀測風力向量行進圖

W17CMSB0.1H0 W181MSB0.1H0 W182MSB0.1H0 W183MSB0.1H0 W184MSB0.1H0 W185MSB0.1H0
W186MSB0.1H0 W187MSB0.1H0 W188MSB0.1H0 W189MSB0.1H0 W18AMS0.1H0 W18BMS0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

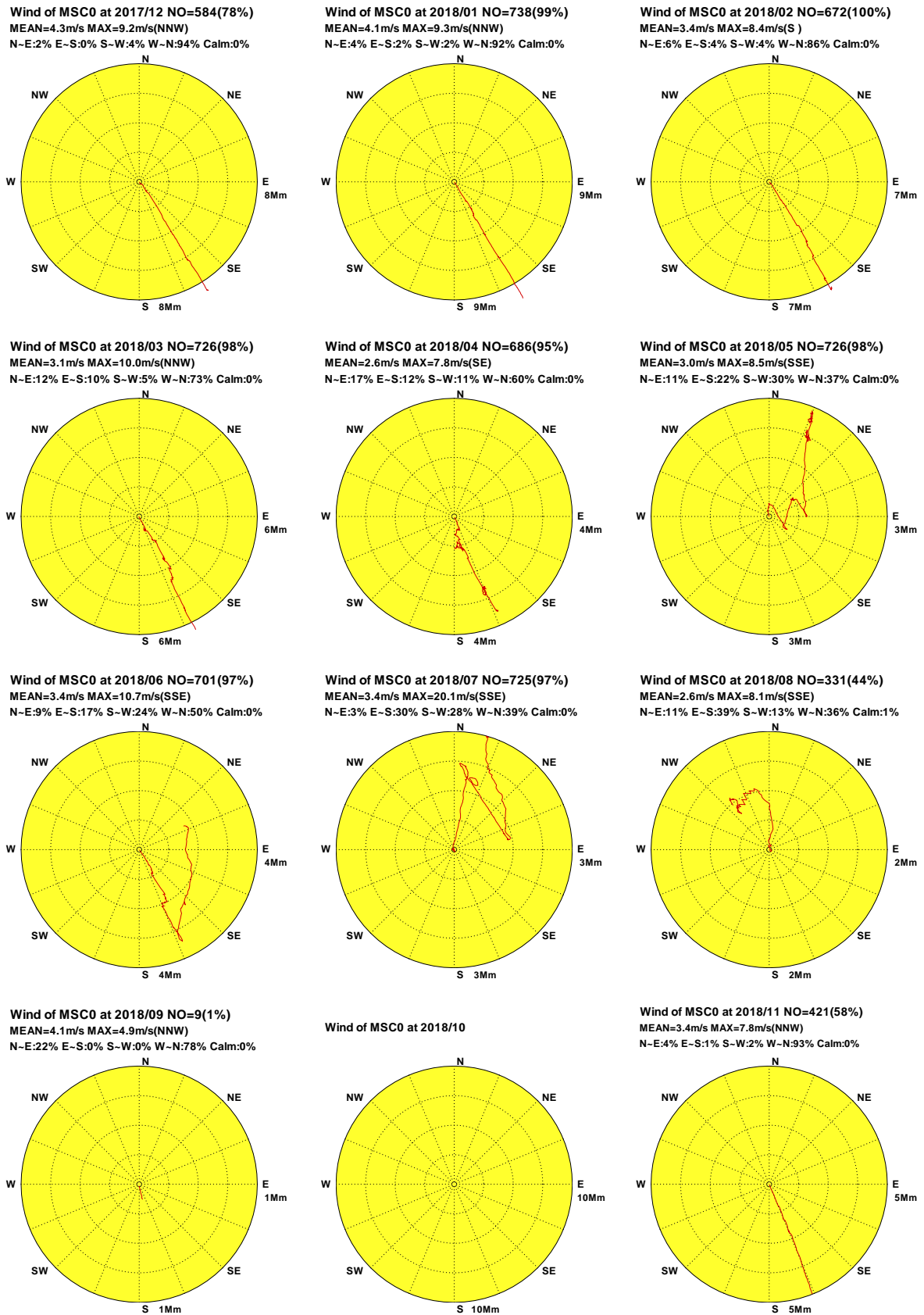


圖1.6.5 2018年馬祖海域每月C站修補前觀測風力向量行進圖

W17CMSC0.1H0 W181MSC0.1H0 W182MSC0.1H0 W183MSC0.1H0 W184MSC0.1H0 W185MSC0.1H0
W186MSC0.1H0 W187MSC0.1H0 W188MSC0.1H0 W189MSC0.1H0 W18AMSC0.1H0 W18BMSC0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

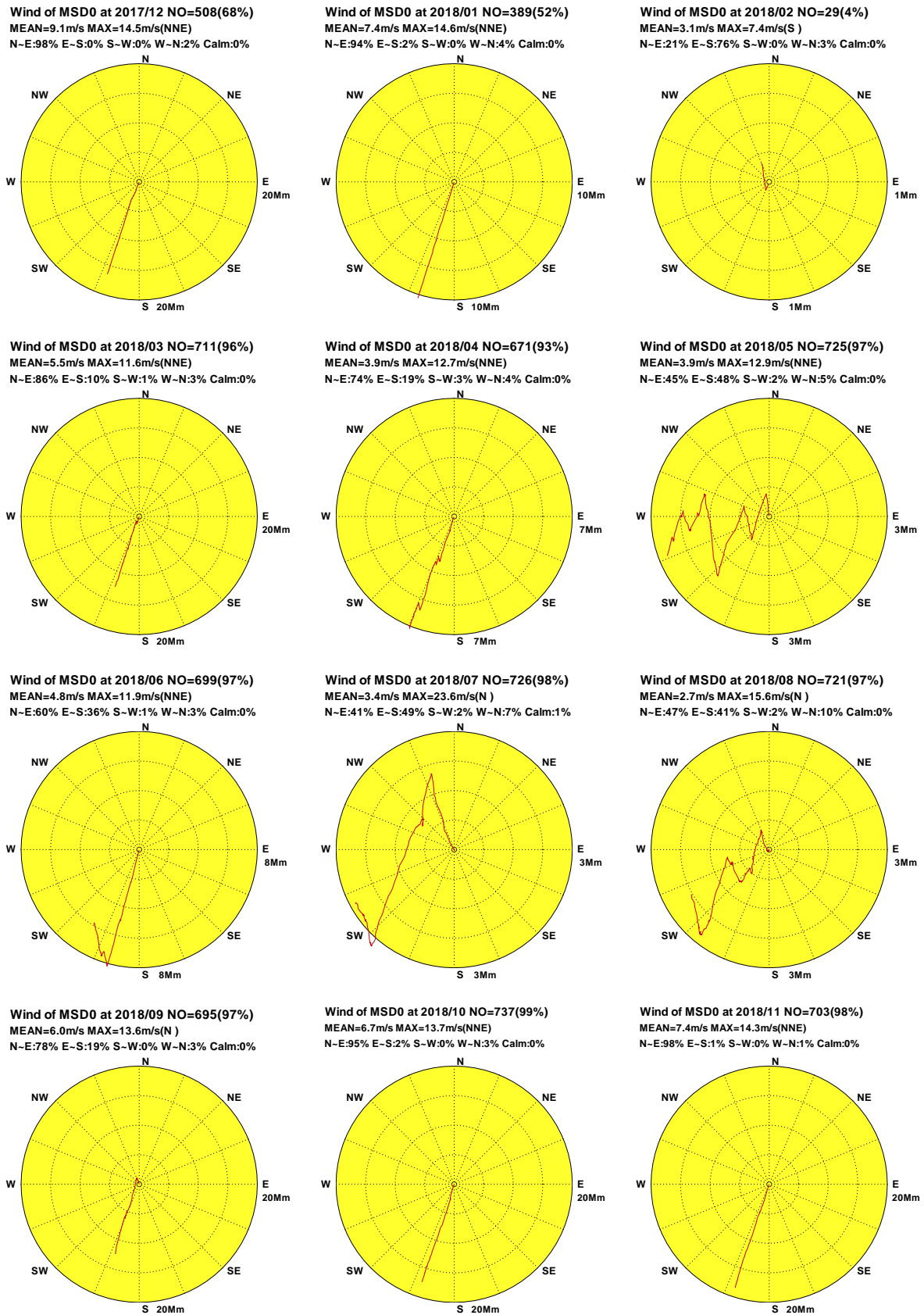


圖1.6.6 2018年馬祖海域每月 D 站修補前觀測風力向量行進圖

W17CMSD0.1H0 W181MSD0.1H0 W182MSD0.1H0 W183MSD0.1H0 W184MSD0.1H0 W185MSD0.1H0
 W186MSD0.1H0 W187MSD0.1H0 W188MSD0.1H0 W189MSD0.1H0 W18AMSD0.1H0 W18BMSD0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Wind

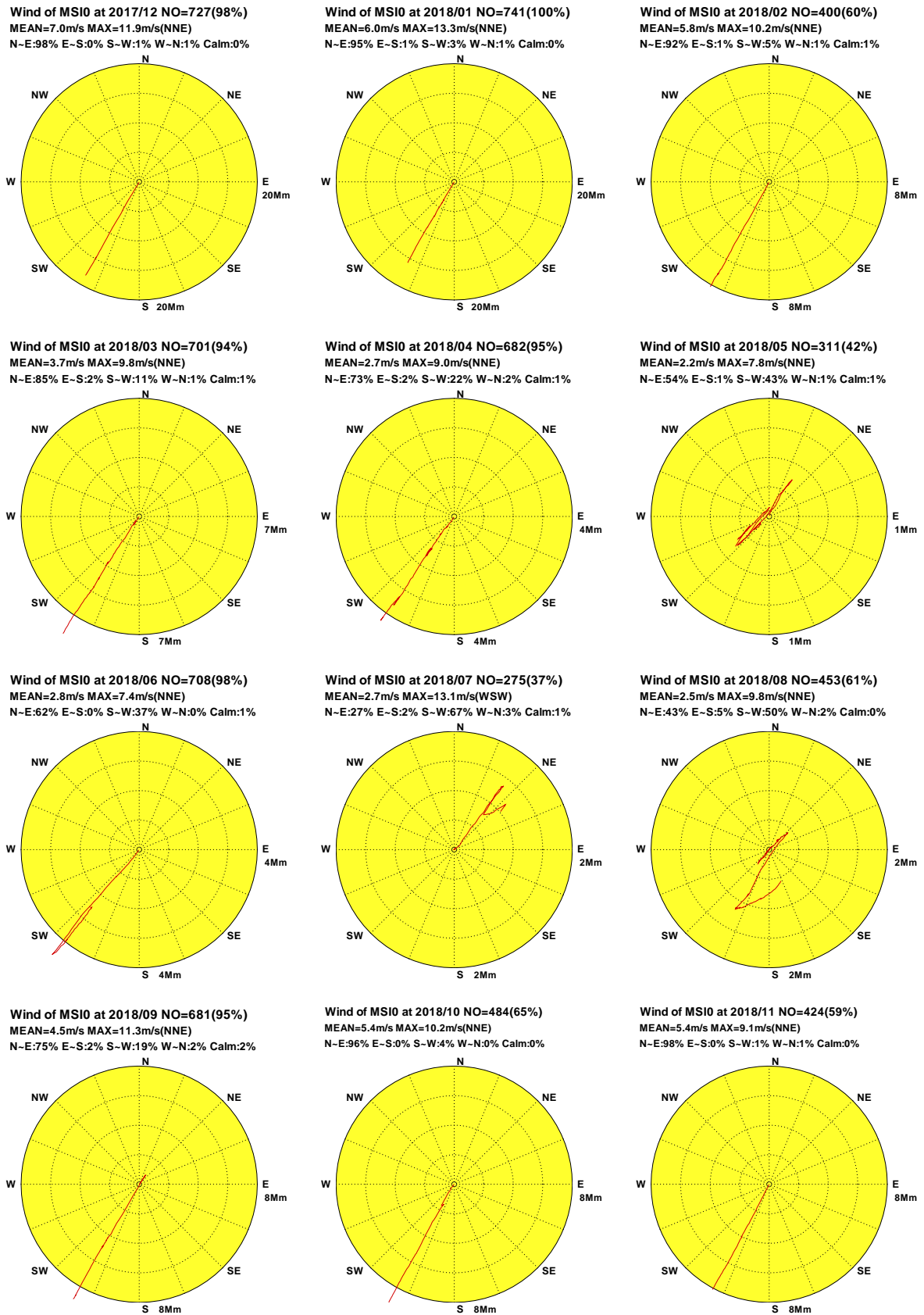


圖1.6.7 2018年馬祖海域每月I站修補前觀測風力向量行進圖

W17CMSIO.1HO W181MSIO.1HO W182MSIO.1HO W183MSIO.1HO W184MSIO.1HO W185MSIO.1HO
W186MSIO.1HO W187MSIO.1HO W188MSIO.1HO W189MSIO.1HO W18AMSIO.1HO W18BMSIO.1HO

Institute of Harbor & Marine Technology

第二章 2018 年馬祖海域觀測波浪資料年報

馬祖海域波浪觀測包括測站 X、測站 Y、測站 A、測站 2 及測站 3 等 5 個測站(測站位置如第 0 章圖 VU1)。本年報取經檢核及補遺之 Y 站資料作為主要測站 1，X 站資料作為主要測站 2。

2.1 2018 年馬祖海域觀測風力資料年報圖表

本章第 1 節波浪年報資料處理之圖表包括：

1. 表 2.1.1a 2018 年各觀測站每月觀測波浪資料修補前記錄表。
2. 表 2.1.1b 2018 年主要測站每月觀測波浪資料修補後記錄表。
3. 表 2.1.2 2018 年主要測站 1 修補後每月(季)及整年示性波高、示性週期及波向重要統計量統計表。
4. 表 2.1.3 2018 年主要測站 2 修補後每月(季)及整年示性波高、示性週期及波向重要統計量統計表。
5. 圖 2.1.1a 2018 年主要測站 1 修補前後每月示性波高歷線比較圖。
6. 圖 2.1.1b 2018 年主要測站 1 修補前後每月示性週期歷線比較圖。
7. 圖 2.1.1c 2018 年主要測站 1 修補前後每月波向歷線比較圖。
8. 圖 2.1.2a 2018 年主要測站 2 修補前後每月示性波高歷線比較圖。
9. 圖 2.1.2b 2018 年主要測站 2 修補前後每月示性週期歷線比較圖。
10. 圖 2.1.2c 2018 年主要測站 2 修補前後每月波向歷線比較圖。
11. 圖 2.1.3 2018 年主要測站 1 修補後每月波高向量分佈圖。

12. 圖 2.1.4 2018 年**主要測站 2 修補後**每月波高向量分佈圖。

第 2 節波浪年報資料處理之統計表包括: 2018 年馬祖海域**各測站修補前**每月(季)及整年示性波高、示性週期及波向重要統計量統計表。

第 3 節波浪年報資料處理之統計圖包括: 2018 年馬祖海域**主要測站 1 修補後**與**其他測站(修補前)**每月示性波高、示性週期及波向歷線比較圖。

第 4 節波浪年報資料處理之統計圖包括: 2018 年馬祖海域**主要測站 2 修補後**與**其他測站(修補前)**每月示性波高、示性週期及波向歷線比較圖。

第 5 節波浪年報資料處理之統計圖包括: 2018 年馬祖海域**各測站修補前**每月波高向量分佈圖。

表2.1.1a 2018年每月馬祖海域修補前各測站觀測波浪資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|----------|-------------|-------------|-------------|-------------|-------------|------|------|------|------|------|------|------|
| 年月/測站 | Y | X | A | 2 | 3 | 1 | | | | | | |
| 2017/12月 | 125(16.8%) | 744(100%) | 594(79.8%) | 743(99.9%) | 744(100%) | * | * | * | * | * | * | * |
| 2018/ 1月 | * | 738(99.2%) | 399(53.6%) | 724(97.3%) | 744(100%) | * | * | * | * | * | * | * |
| 2018/ 2月 | * | 672(100%) | 462(68.8%) | 671(99.9%) | 672(100%) | * | * | * | * | * | * | * |
| 2018/ 3月 | * | 732(98.4%) | 470(63.2%) | 734(98.7%) | 744(100%) | * | * | * | * | * | * | * |
| 2018/ 4月 | 296(41.1%) | 711(98.8%) | 267(37.1%) | 711(98.8%) | 489(67.9%) | * | * | * | * | * | * | * |
| 2018/ 5月 | 739(99.3%) | 727(97.7%) | 176(23.7%) | 740(99.5%) | * | * | * | * | * | * | * | * |
| 2018/ 6月 | 720(100%) | 719(99.9%) | 362(50.3%) | 696(96.7%) | * | * | * | * | * | * | * | * |
| 2018/ 7月 | 744(100%) | 702(94.4%) | 96(12.9%) | 743(99.9%) | * | * | * | * | * | * | * | * |
| 2018/ 8月 | 740(99.5%) | 743(99.9%) | * | 743(99.9%) | 177(23.8%) | * | * | * | * | * | * | * |
| 2018/ 9月 | 717(99.6%) | 701(97.4%) | 129(17.9%) | 706(98.1%) | 400(55.6%) | * | * | * | * | * | * | * |
| 2018/10月 | 744(100%) | 735(98.8%) | 368(49.5%) | 735(98.8%) | 718(96.5%) | * | * | * | * | * | * | * |
| 2018/11月 | 714(99.2%) | 715(99.3%) | 718(99.7%) | 712(98.9%) | 359(49.9%) | * | * | * | * | * | * | * |
| 2018/冬季 | 125(5.8%) | 2154(99.7%) | 1455(67.4%) | 2138(99.0%) | 2160(100%) | * | * | * | * | * | * | * |
| 2018/春季 | 1035(46.9%) | 2170(98.3%) | 913(41.3%) | 2185(99.0%) | 1233(55.8%) | * | * | * | * | * | * | * |
| 2018/夏季 | 2204(99.8%) | 2164(98.0%) | 458(20.7%) | 2182(98.8%) | 177(8.0%) | * | * | * | * | * | * | * |
| 2018/秋季 | 2175(99.6%) | 2151(98.5%) | 1215(55.6%) | 2153(98.6%) | 1477(67.6%) | * | * | * | * | * | * | * |
| 2018/整年 | 5539(63.2%) | 8639(98.6%) | 4041(46.1%) | 8658(98.8%) | 5047(57.6%) | * | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | 2017/12 | 2017/12 | 2017/12 | * | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | * | * | * | * | * | * | * |

2-1-3

表2.1.1b 2018年每月馬祖海域修補後各測站波浪資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|----------|------------|------------|------|------|------|------|------|------|------|------|------|------|
| 年月/測站 | Y | X | | | | | | | | | | |
| 2017/12月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 1月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 2月 | 672(100%) | 672(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 3月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 4月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 5月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 6月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 7月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 8月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/ 9月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/10月 | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/11月 | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/冬季 | 2160(100%) | 2160(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/春季 | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/夏季 | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/秋季 | 2184(100%) | 2184(100%) | * | * | * | * | * | * | * | * | * | * |
| 2018/整年 | 8760(100%) | 8760(100%) | * | * | * | * | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | * | * | * | * | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | * | * | * | * | * | * | * | * | * | * |

2-1-4

表2.1.2 2018年馬祖海域主要測站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 H_s | | H_s 最大 | | T_p | T_p | 小波 | 小浪 | 中浪 | 大浪 | T_p | T_p | T_p | T_p | 波向 | 波向 | 波向 | 波向 | 波向 | 主波向 |
|-----------------|----------|-----------|------------------------|----------|-----------|-----------|--------------|--------------|------------|------------|------------|-------------|--------------|-------------|---------|------------|------------|------------|------------|---------------|
| | 蒐集 率 | 平均 (m) | (波高/週期/波向) (m/s/來向) | | 平均 (s) | 最大 (s) | <0.5m (%) | ~1.5m (%) | ~3m (%) | >3m (%) | <6s (%) | 6~8s (%) | 8~10s (%) | >10s (%) | 蒐集 率 | N~E (%) | E~S (%) | S~W (%) | W~N (%) | (百分比) 來向/% |
| 2017/12 | 100% | 1.91 | 4.5/ | 7.3/NE | 5.5 | 7.6 | .0 | 31.6 | 60.1 | 8.3 | 86.0 | 14.0 | .0 | .0 | 100% | 25.8 | 4.8 | 67.2 | 2.2 | WSW/35% |
| 2018/01 | 100% | 1.72 | 5.1/ | 5.4/E | 5.3 | 7.4 | 1.6 | 47.7 | 40.6 | 10.1 | 99.2 | .8 | .0 | .0 | 100% | 76.5 | 4.2 | 14.1 | 5.2 | ENE/46% |
| 2018/02 | 100% | 1.50 | 4.0/ | 5.4/E | 5.3 | 5.7 | 14.7 | 34.4 | 44.9 | 4.5 | 100.0 | .0 | .0 | .0 | 100% | 93.9 | 6.1 | .0 | .0 | ENE/50% |
| 2018/03 | 100% | 1.49 | 4.7/ | 5.7/ENE | 5.5 | 6.2 | 1.2 | 60.3 | 34.7 | 3.8 | 74.9 | 25.1 | .0 | .0 | 100% | 99.7 | .3 | .0 | .0 | ENE/68% |
| 2018/04 | 100% | 1.08 | 3.3/ | 5.2/ENE | 5.0 | 6.4 | 1.0 | 84.4 | 14.3 | .3 | 97.8 | 2.2 | .0 | .0 | 100% | 77.2 | 22.4 | .3 | .1 | ENE/57% |
| 2018/05 | 100% | 1.16 | 3.3/ | 6.1/NNE | 4.9 | 8.3 | 8.6 | 67.1 | 23.8 | .5 | 87.4 | 12.0 | .7 | .0 | 100% | 41.1 | 21.6 | 36.8 | .4 | ENE/22% |
| 2018/06 | 100% | 1.36 | 3.6/ | 7.4/ENE | 5.0 | 7.5 | 1.8 | 71.1 | 25.1 | 1.9 | 85.7 | 14.3 | .0 | .0 | 100% | 46.0 | 24.6 | 29.3 | .1 | ENE/23% |
| 2018/07 | 100% | 1.46 | 10.9/ | 11.0/ENE | 5.4 | 11.0 | 11.3 | 48.0 | 36.6 | 4.2 | 78.2 | 17.6 | 3.5 | .7 | 100% | 16.1 | 54.4 | 29.0 | .4 | E /26% |
| 2018/08 | 100% | 1.32 | 3.7/ | 7.9/SE | 5.6 | 9.4 | 4.3 | 55.0 | 40.1 | .7 | 67.5 | 29.0 | 3.5 | .0 | 100% | 37.6 | 44.1 | 17.2 | 1.1 | E /22% |
| 2018/09 | 100% | 2.00 | 5.2/ | 8.7/ENE | 5.7 | 10.4 | 4.0 | 41.5 | 26.7 | 27.8 | 60.4 | 33.5 | 5.8 | .3 | 100% | 51.0 | 39.9 | 8.9 | .3 | NE /24% |
| 2018/10 | 100% | 1.88 | 4.4/ | 10.0/E | 5.6 | 10.1 | .0 | 37.0 | 51.1 | 12.0 | 76.3 | 19.5 | 3.9 | .3 | 100% | 74.1 | 25.7 | .1 | .1 | ENE/40% |
| 2018/11 | 100% | 1.85 | 4.7/ | 6.9/NE | 5.3 | 7.1 | .0 | 27.9 | 64.6 | 7.5 | 87.2 | 12.8 | .0 | .0 | 100% | 77.5 | 22.5 | .0 | .0 | ENE/38% |
| 2018/冬 | 100% | 1.72 | 5.1/ | 5.4/E | 5.4 | 7.6 | 5.1 | 38.0 | 48.7 | 7.7 | 94.9 | 5.1 | .0 | .0 | 100% | 64.4 | 5.0 | 28.0 | 2.5 | ENE/37% |
| 2018/春 | 100% | 1.24 | 4.7/ | 5.7/ENE | 5.1 | 8.3 | 3.6 | 70.5 | 24.4 | 1.5 | 86.5 | 13.2 | .2 | .0 | 100% | 72.6 | 14.7 | 12.5 | .2 | ENE/49% |
| 2018/夏 | 100% | 1.38 | 10.9/ | 11.0/ENE | 5.3 | 11.0 | 5.8 | 57.9 | 34.0 | 2.3 | 77.0 | 20.4 | 2.4 | .2 | 100% | 33.1 | 41.2 | 25.1 | .5 | E /21% |
| 2018/秋 | 100% | 1.91 | 5.2/ | 8.7/ENE | 5.5 | 10.4 | 1.3 | 35.5 | 47.5 | 15.7 | 74.7 | 21.9 | 3.3 | .2 | 100% | 67.6 | 29.3 | 3.0 | .1 | ENE/33% |
| 2018/年 | 100% | 1.56 | 10.9/ | 11.0/ENE | 5.3 | 11.0 | 4.0 | 50.6 | 38.6 | 6.8 | 83.3 | 15.2 | 1.5 | .1 | 100% | 59.4 | 22.6 | 17.1 | .8 | ENE/35% |

表2.1.3 2018年馬祖海域主要測站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/% |
|-----------------|---------------|--------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|---------------------|----------------------|-----------------------|----------------------|---------------|------------------|------------------|------------------|------------------|----------------------|
| | | | | | | | | | | | | | | | | | | | |
| 2017/12 | 100% | .69 | 1.4/ 6.8/SW | 7.1 | 10.1 | 20.7 | 79.3 | .0 | .0 | 18.4 | 50.5 | 30.8 | .3 | 100% | 13.8 | .0 | 86.2 | .0 | SW /64% |
| 2018/01 | 100% | .68 | 1.8/ 7.8/NE | 7.0 | 9.7 | 26.2 | 73.1 | .7 | .0 | 14.7 | 63.2 | 22.2 | .0 | 100% | 80.6 | .0 | 19.4 | .0 | NNE/41% |
| 2018/02 | 100% | .62 | 1.3/ 8.0/NE | 7.4 | 10.2 | 35.0 | 65.0 | .0 | .0 | 13.5 | 40.9 | 45.4 | .1 | 100% | 100.0 | .0 | .0 | .0 | NE /59% |
| 2018/03 | 100% | .47 | 1.5/ 8.3/NE | 7.8 | 12.5 | 65.5 | 34.5 | .0 | .0 | 21.8 | 31.3 | 24.6 | 22.3 | 100% | 100.0 | .0 | .0 | .0 | NE /67% |
| 2018/04 | 100% | .39 | 1.5/ 7.8/NE | 7.9 | 12.9 | 80.8 | 19.0 | .1 | .0 | 21.4 | 32.8 | 26.5 | 19.3 | 100% | 99.6 | .1 | .3 | .0 | NE /69% |
| 2018/05 | 100% | .36 | 2.7/37.2/ENE | 8.1 | 37.2 | 79.6 | 20.3 | .1 | .0 | 19.4 | 18.0 | 44.2 | 18.4 | 100% | 99.2 | .1 | .0 | .7 | NE /54% |
| 2018/06 | 100% | .40 | 1.3/ 7.8/NE | 6.2 | 11.3 | 73.6 | 26.4 | .0 | .0 | 46.3 | 26.7 | 24.0 | 3.1 | 100% | 98.8 | .0 | .0 | 1.3 | NE /47% |
| 2018/07 | 100% | .42 | 3.6/14.4/NE | 8.6 | 16.1 | 67.7 | 30.2 | 1.6 | .4 | 17.7 | 20.3 | 30.1 | 31.9 | 100% | 94.2 | .4 | 5.1 | .3 | NE /60% |
| 2018/08 | 100% | .38 | 1.4/14.9/NE | 8.6 | 16.9 | 74.6 | 25.4 | .0 | .0 | 14.5 | 30.1 | 29.6 | 25.8 | 100% | 100.0 | .0 | .0 | .0 | NE /60% |
| 2018/09 | 100% | .66 | 1.7/12.1/NE | 8.6 | 15.8 | 42.5 | 56.7 | .8 | .0 | 22.1 | 21.0 | 22.8 | 34.2 | 100% | 98.9 | .4 | .6 | .1 | NE /73% |
| 2018/10 | 100% | .70 | 1.6/11.6/NE | 7.4 | 15.6 | 27.8 | 72.0 | .1 | .0 | 25.9 | 43.8 | 13.2 | 17.1 | 100% | 100.0 | .0 | .0 | .0 | NE /85% |
| 2018/11 | 100% | .65 | 1.5/ 8.2/NE | 6.8 | 12.0 | 27.1 | 72.8 | .1 | .0 | 28.1 | 49.4 | 20.3 | 2.2 | 100% | 100.0 | .0 | .0 | .0 | NE /85% |
| 2018/冬 | 100% | .67 | 1.8/ 7.8/NE | 7.2 | 10.2 | 27.0 | 72.7 | .2 | .0 | 15.6 | 51.9 | 32.4 | .1 | 100% | 63.7 | .0 | 36.3 | .0 | NE /34% |
| 2018/春 | 100% | .41 | 2.7/37.2/ENE | 7.9 | 37.2 | 75.2 | 24.7 | .1 | .0 | 20.8 | 27.3 | 31.8 | 20.0 | 100% | 99.6 | .1 | .1 | .2 | NE /63% |
| 2018/夏 | 100% | .40 | 3.6/14.4/NE | 7.8 | 16.9 | 72.0 | 27.4 | .5 | .1 | 26.0 | 25.7 | 27.9 | 20.4 | 100% | 97.6 | .1 | 1.7 | .5 | NE /56% |
| 2018/秋 | 100% | .67 | 1.7/12.1/NE | 7.6 | 15.8 | 32.4 | 67.2 | .4 | .0 | 25.4 | 38.1 | 18.7 | 17.8 | 100% | 99.6 | .1 | .2 | .0 | NE /81% |
| 2018/年 | 100% | .53 | 3.6/14.4/NE | 7.6 | 37.2 | 51.8 | 47.8 | .3 | .0 | 22.0 | 35.7 | 27.7 | 14.7 | 100% | 90.3 | .1 | 9.5 | .2 | NE /59% |

Wave H_s in Ma-Tsu Seas of MSY0 at 2018

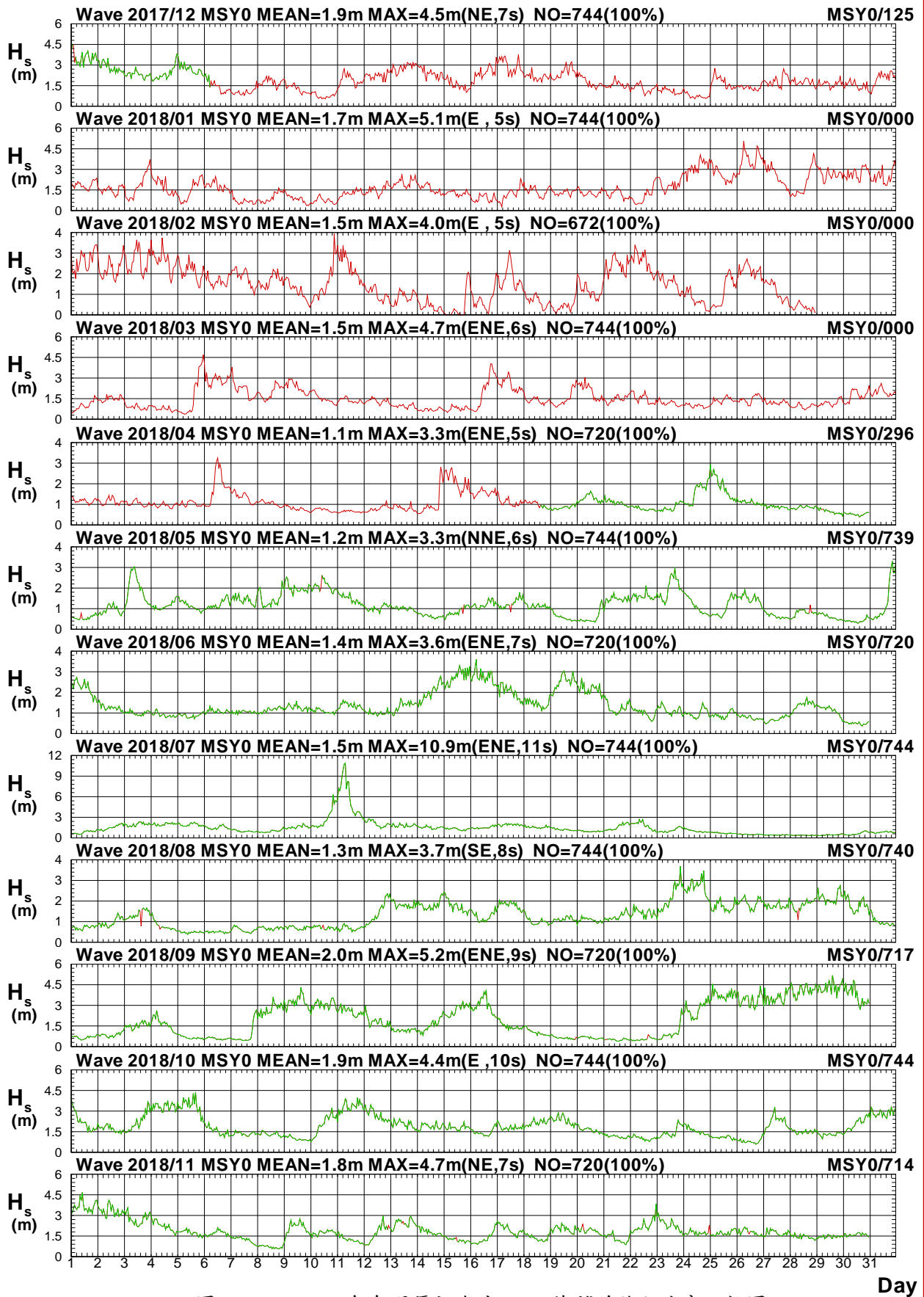


圖2.1.1a 2018年每月馬祖海域 Y 站修補前後之波高比較圖

V17CMSY0.1HA V17CMSY0.1H0 V181MSY0.1HA V181MSY0.1H0 V182MSY0.1HA V182MSY0.1H0
 V183MSY0.1HA V183MSY0.1H0 V184MSY0.1HA V184MSY0.1H0 V185MSY0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Seas of MSY0 at 2018

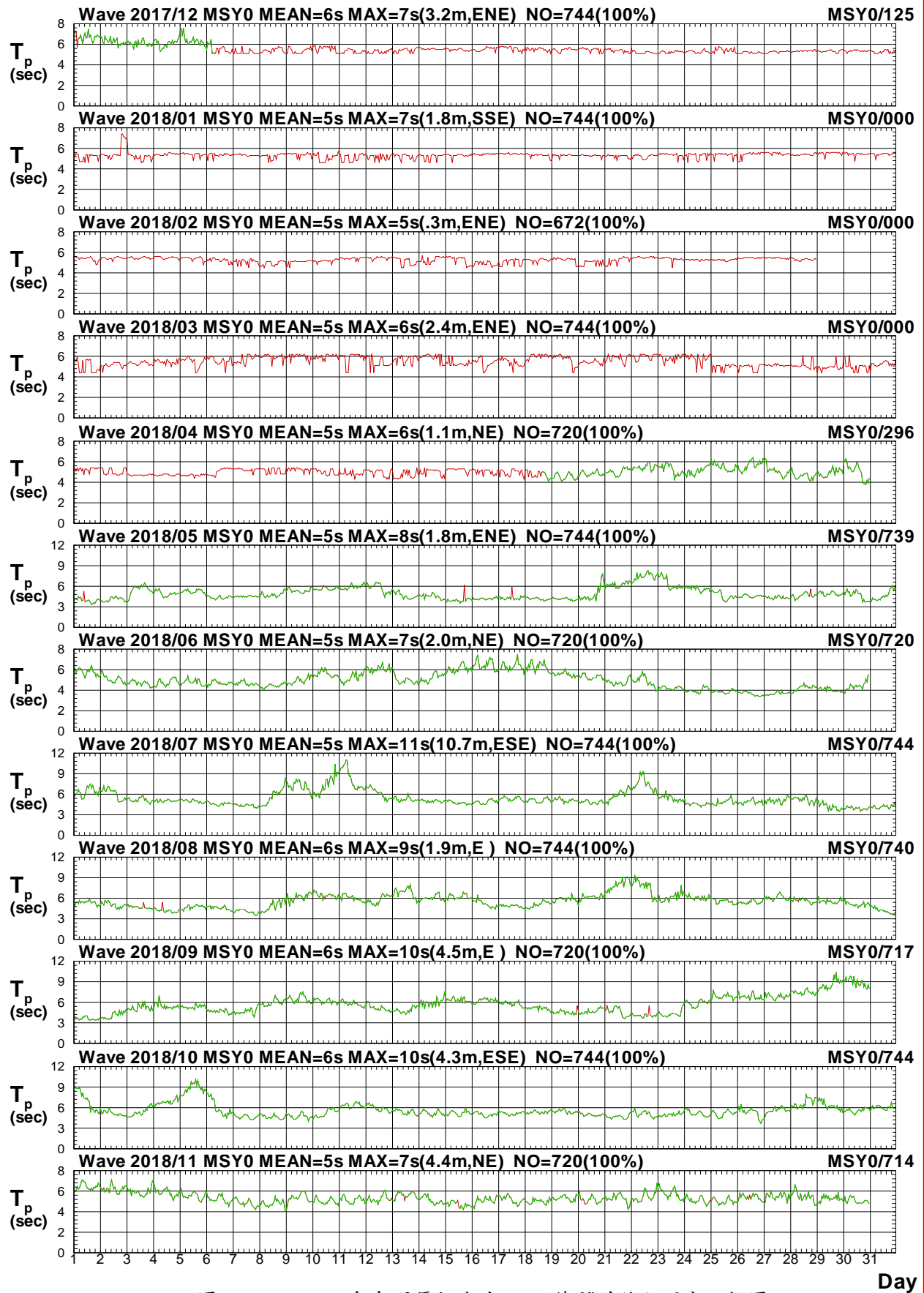


圖2.1.1b 2018年每月馬祖海域 Y 站修補前後之週期比較圖

V17CMSY0.1HA V17CMSY0.1H0 V181MSY0.1HA V181MSY0.1H0 V182MSY0.1HA V182MSY0.1H0
 V183MSY0.1HA V183MSY0.1H0 V184MSY0.1HA V184MSY0.1H0 V185MSY0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Seas of MSY0 at 2018

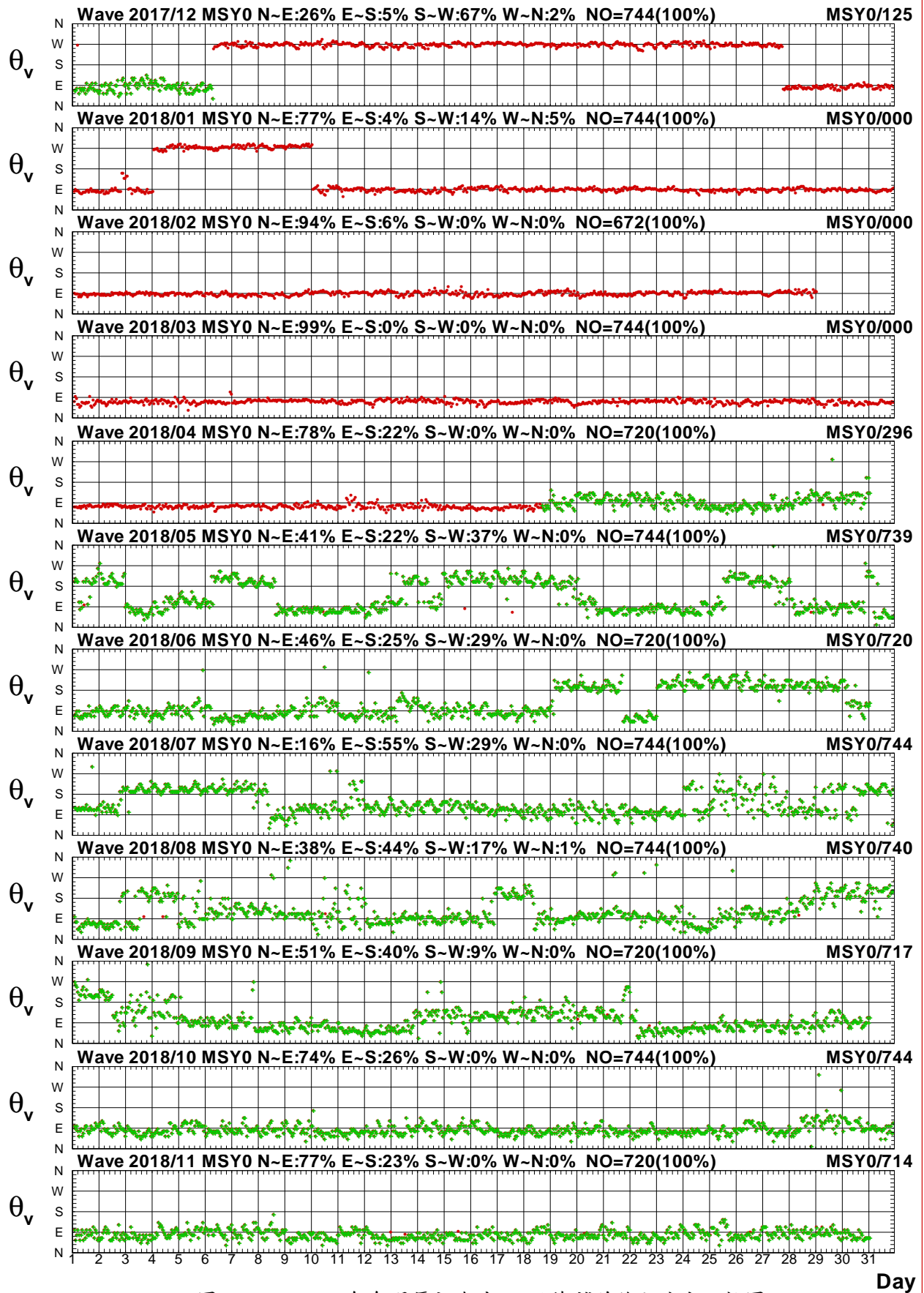


圖2.1.1c 2018年每月馬祖海域 Y 站修補前後之波向比較圖

V17CMSY0.1HA V17CMSY0.1H0 V181MSY0.1HA V181MSY0.1H0 V182MSY0.1HA V182MSY0.1H0
 V183MSY0.1HA V183MSY0.1H0 V184MSY0.1HA V184MSY0.1H0 V185MSY0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Seas of MSX0 at 2018

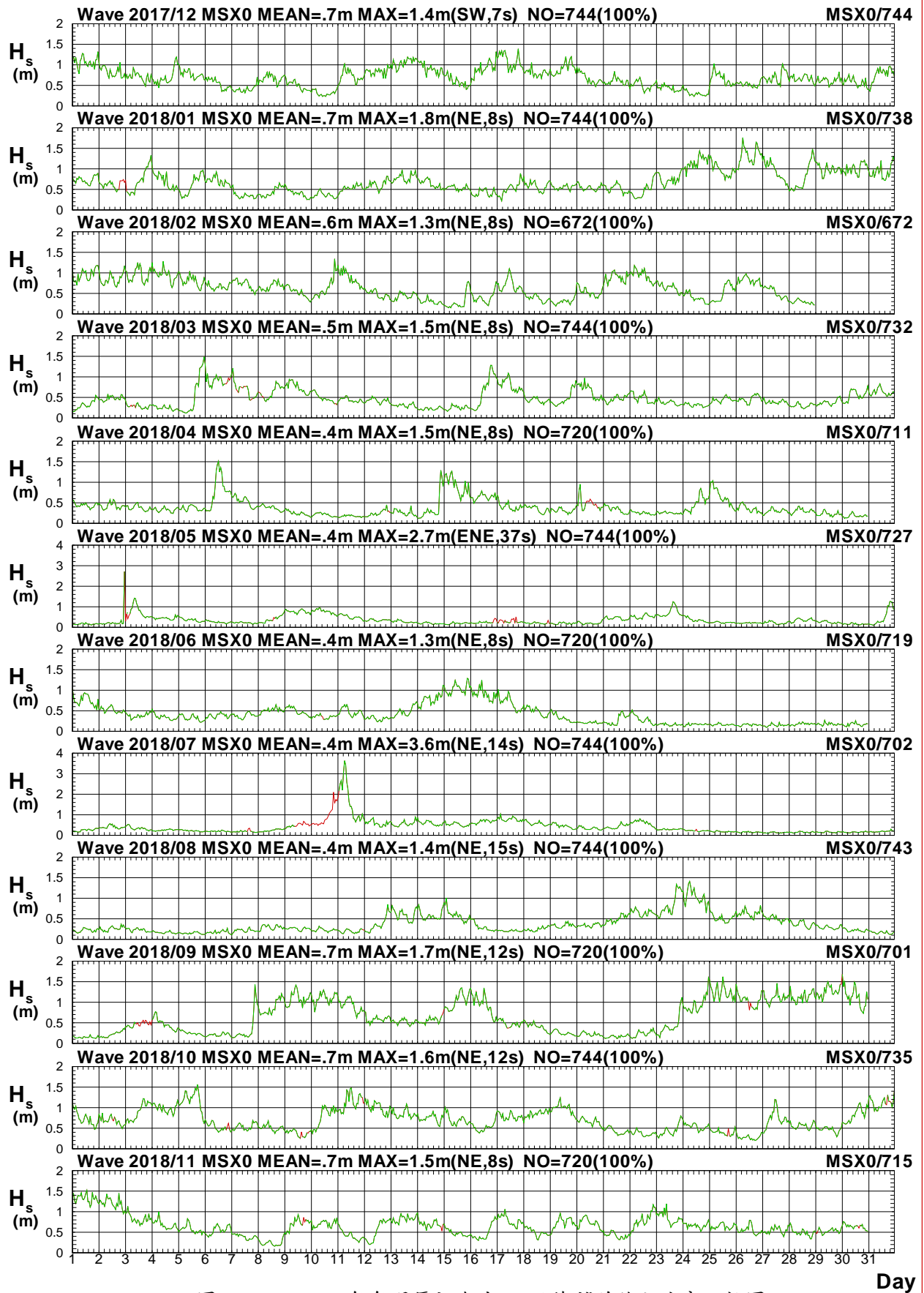


圖2.1.2a 2018年每月馬祖海域 X 站修補前後之波高比較圖

V17CMSX0.1HA V17CMSX0.1H0 V181MSX0.1HA V181MSX0.1H0 V182MSX0.1HA V182MSX0.1H0
 V183MSX0.1HA V183MSX0.1H0 V184MSX0.1HA V184MSX0.1H0 V185MSX0.1HA V185MSX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Seas of MSX0 at 2018

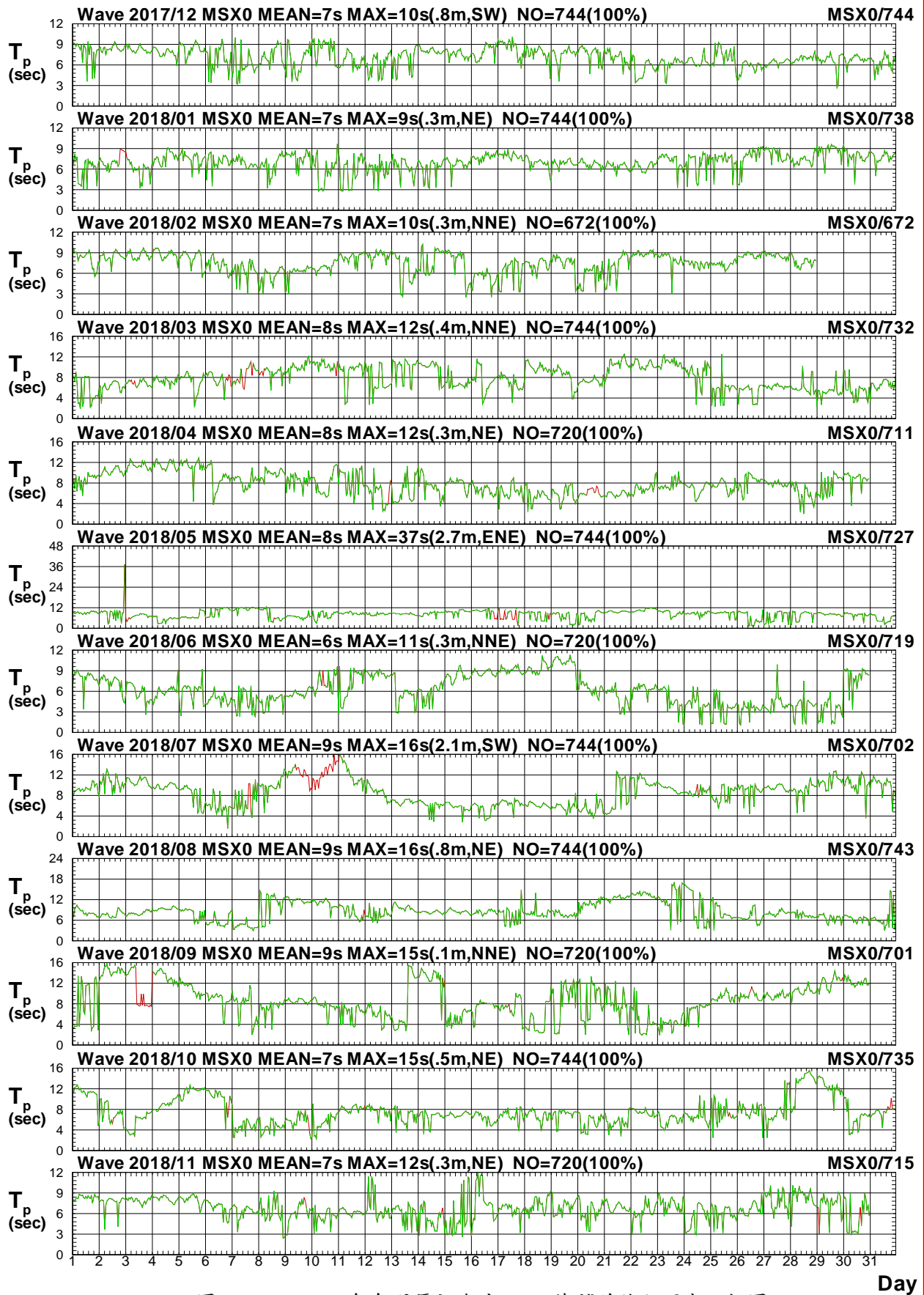


圖2.1.2b 2018年每月馬祖海域 X 站修補前後之週期比較圖

V17CMSX0.1HA V17CMSX0.1H0 V181MSX0.1HA V181MSX0.1H0 V182MSX0.1HA V182MSX0.1H0
 V183MSX0.1HA V183MSX0.1H0 V184MSX0.1HA V184MSX0.1H0 V185MSX0.1HA V185MSX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Seas of MSX0 at 2018

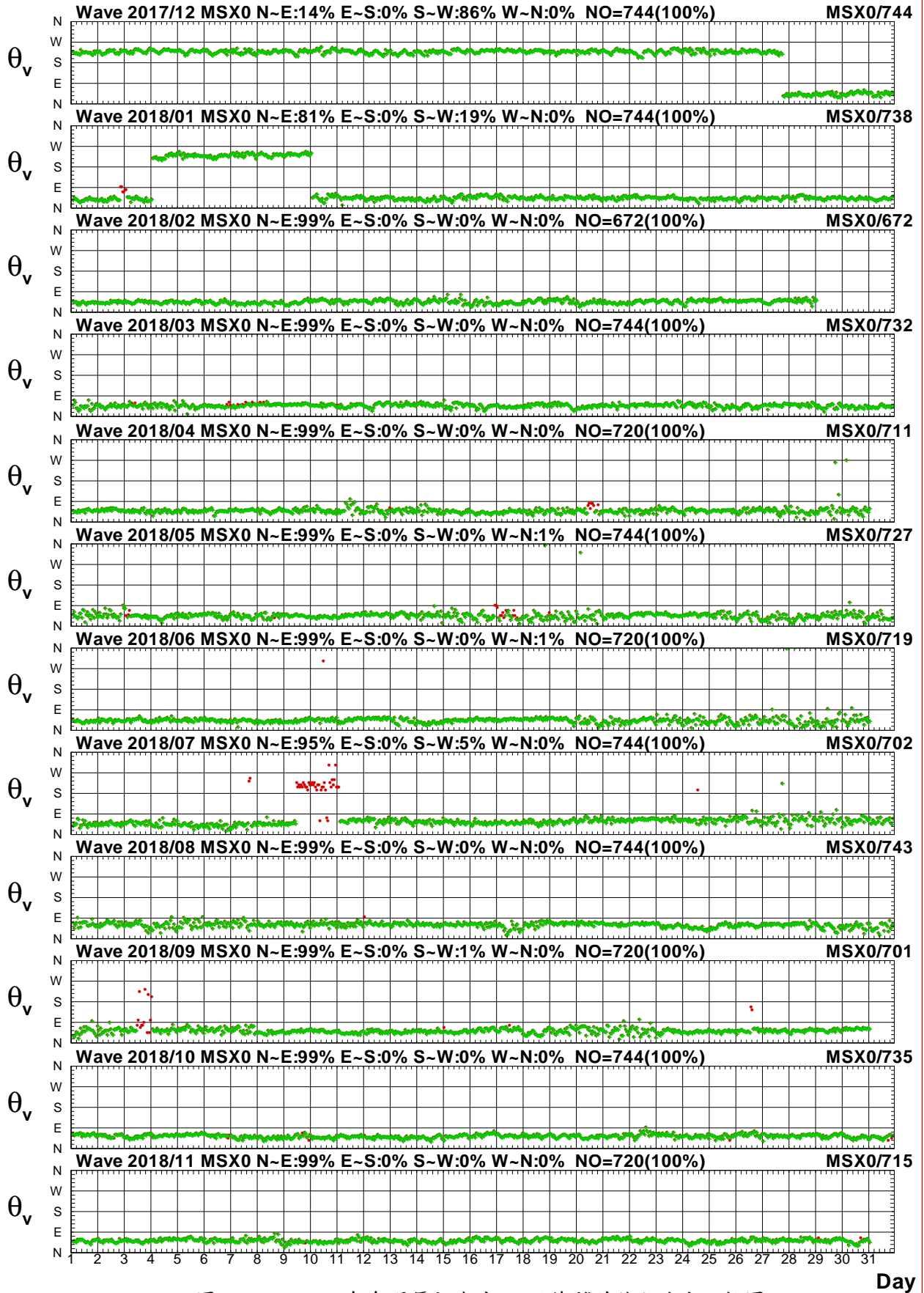


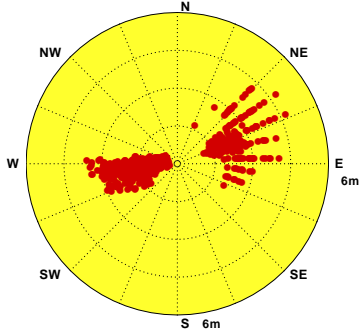
圖2.1.2c 2018年每月馬祖海域 X 站修補前後之波向比較圖

V17CMSX0.1HA V17CMSX0.1H0 V181MSX0.1HA V181MSX0.1H0 V182MSX0.1HA V182MSX0.1H0
 V183MSX0.1HA V183MSX0.1H0 V184MSX0.1HA V184MSX0.1H0 V185MSX0.1HA V185MSX0.1H0

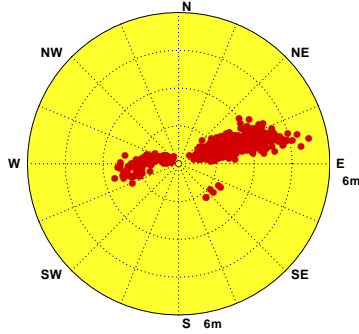
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

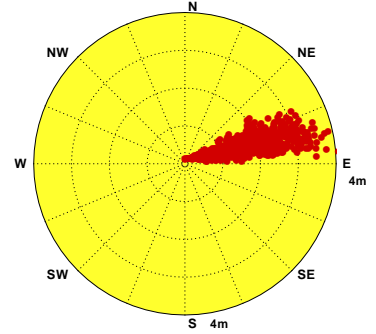
Wave of MSY0 at 2017/12 NO=744(100%)
 Hs : MEAN=1.9m MAX=4.5m(NE,7s)
 N-E:26% E-S:5% S-W:67% W-N:2%



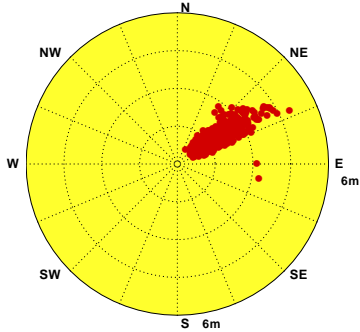
Wave of MSY0 at 2018/01 NO=744(100%)
 Hs : MEAN=1.7m MAX=5.1m(E, 5s)
 N-E:77% E-S:4% S-W:14% W-N:5%



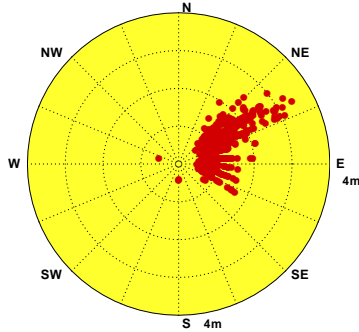
Wave of MSY0 at 2018/02 NO=672(100%)
 Hs : MEAN=1.5m MAX=4.0m(E, 5s)
 N-E:94% E-S:6% S-W:0% W-N:0%



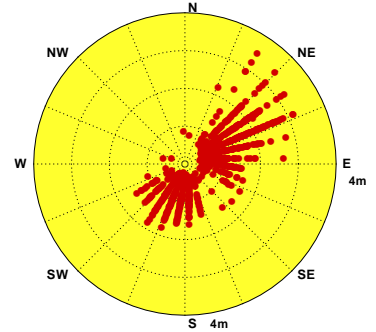
Wave of MSY0 at 2018/03 NO=744(100%)
 Hs : MEAN=1.5m MAX=4.7m(ENE,6s)
 N-E:99% E-S:0% S-W:0% W-N:0%



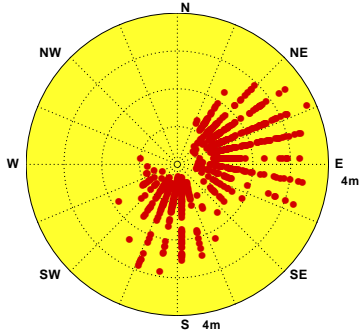
Wave of MSY0 at 2018/04 NO=720(100%)
 Hs : MEAN=1.1m MAX=3.3m(ENE,5s)
 N-E:78% E-S:22% S-W:0% W-N:0%



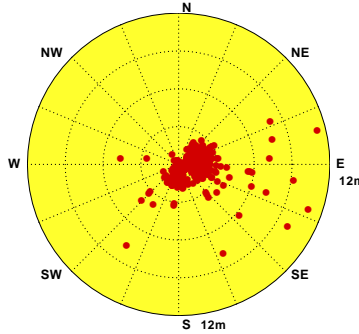
Wave of MSY0 at 2018/05 NO=744(100%)
 Hs : MEAN=1.2m MAX=3.3m(NNE,6s)
 N-E:41% E-S:22% S-W:37% W-N:0%



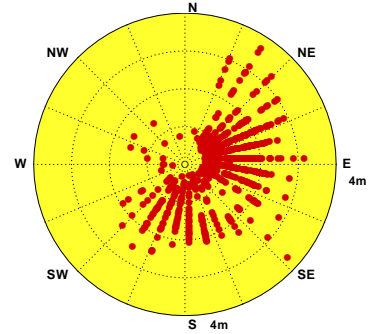
Wave of MSY0 at 2018/06 NO=720(100%)
 Hs : MEAN=1.4m MAX=3.6m(ENE,7s)
 N-E:46% E-S:25% S-W:29% W-N:0%



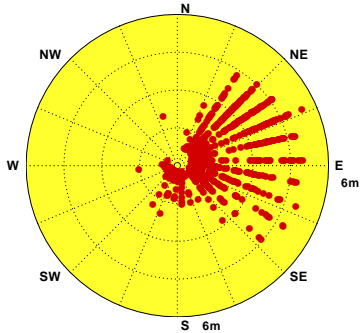
Wave of MSY0 at 2018/07 NO=744(100%)
 Hs : MEAN=1.5m MAX=10.9m(ENE,11s)
 N-E:16% E-S:55% S-W:29% W-N:0%



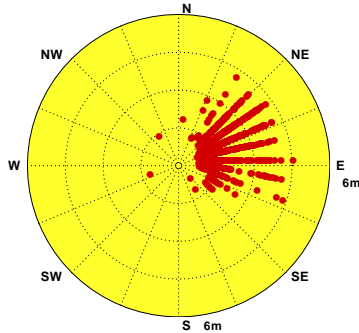
Wave of MSY0 at 2018/08 NO=744(100%)
 Hs : MEAN=1.3m MAX=3.7m(SE,8s)
 N-E:38% E-S:44% S-W:17% W-N:1%



Wave of MSY0 at 2018/09 NO=720(100%)
 Hs : MEAN=2.0m MAX=5.2m(ENE,9s)
 N-E:51% E-S:40% S-W:9% W-N:0%



Wave of MSY0 at 2018/10 NO=744(100%)
 Hs : MEAN=1.9m MAX=4.4m(E, 10s)
 N-E:74% E-S:26% S-W:0% W-N:0%



Wave of MSY0 at 2018/11 NO=720(100%)
 Hs : MEAN=1.8m MAX=4.7m(NE,7s)
 N-E:77% E-S:23% S-W:0% W-N:0%

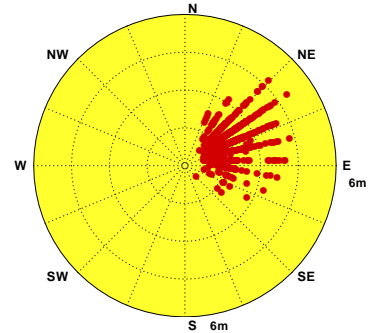


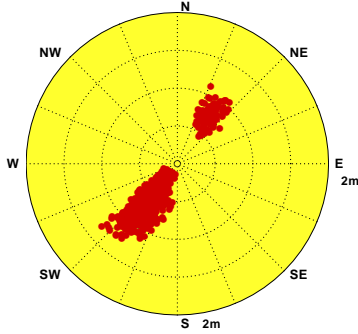
圖2.1.3 2018年馬祖海域每月 Y 站修補後觀測波高向量分佈圖

V17CMSY0.1HA V181MSY0.1HA V182MSY0.1HA V183MSY0.1HA V184MSY0.1HA V185MSY0.1HA
 V186MSY0.1HA V187MSY0.1HA V188MSY0.1HA V189MSY0.1HA V18AMSY0.1HA V18BMSY0.1HA

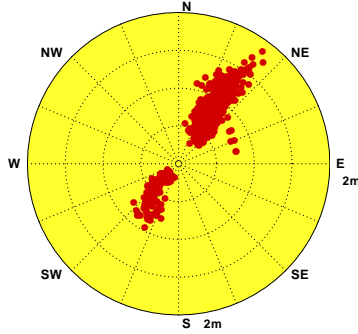
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

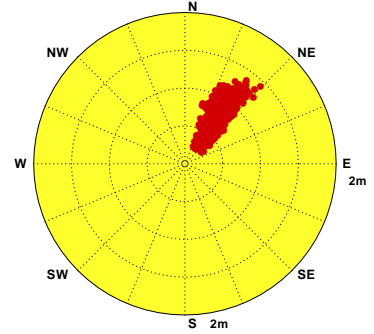
Wave of MSX0 at 2017/12 NO=744(100%)
 Hs : MEAN=.7m MAX=1.4m(SW,7s)
 N-E:14% E-S:0% S-W:86% W-N:0%



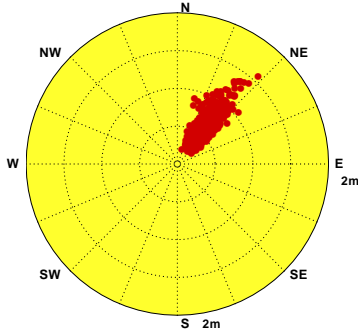
Wave of MSX0 at 2018/01 NO=744(100%)
 Hs : MEAN=.7m MAX=1.8m(NE,8s)
 N-E:81% E-S:0% S-W:19% W-N:0%



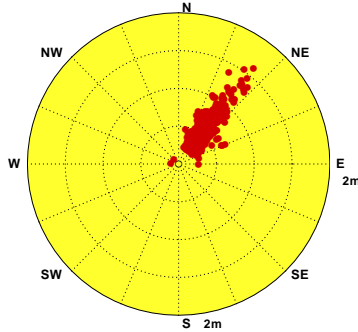
Wave of MSX0 at 2018/02 NO=672(100%)
 Hs : MEAN=.6m MAX=1.3m(NE,8s)
 N-E:99% E-S:0% S-W:0% W-N:0%



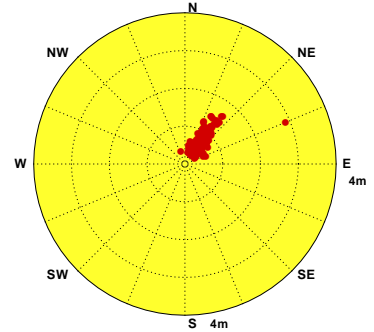
Wave of MSX0 at 2018/03 NO=744(100%)
 Hs : MEAN=.5m MAX=1.5m(NE,8s)
 N-E:99% E-S:0% S-W:0% W-N:0%



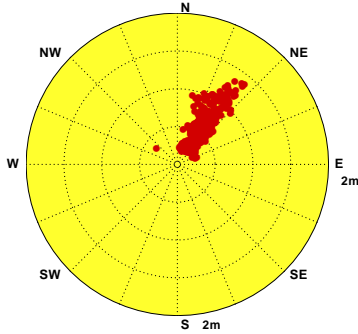
Wave of MSX0 at 2018/04 NO=720(100%)
 Hs : MEAN=.4m MAX=1.5m(NE,8s)
 N-E:99% E-S:0% S-W:0% W-N:0%



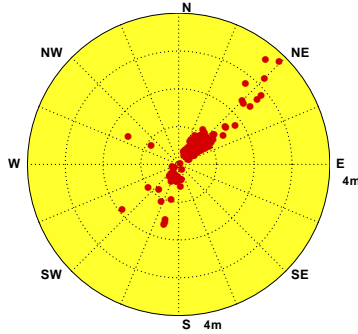
Wave of MSX0 at 2018/05 NO=744(100%)
 Hs : MEAN=.4m MAX=2.7m(ENE,37s)
 N-E:99% E-S:0% S-W:0% W-N:1%



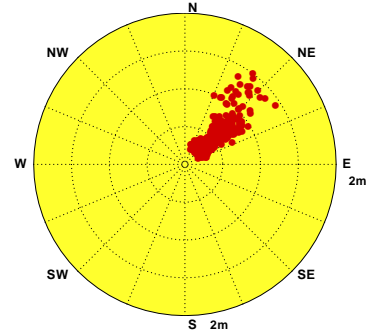
Wave of MSX0 at 2018/06 NO=720(100%)
 Hs : MEAN=.4m MAX=1.3m(NE,8s)
 N-E:99% E-S:0% S-W:0% W-N:1%



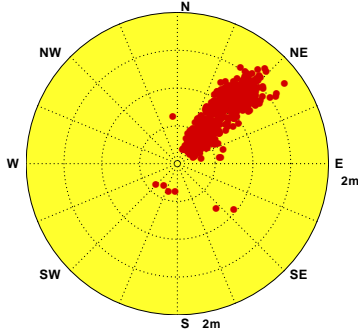
Wave of MSX0 at 2018/07 NO=744(100%)
 Hs : MEAN=.4m MAX=3.6m(NE,14s)
 N-E:95% E-S:0% S-W:5% W-N:0%



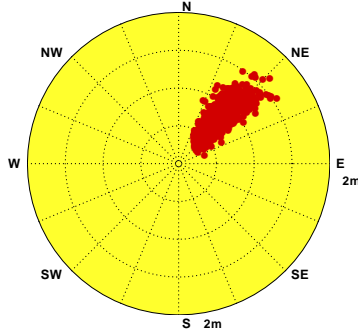
Wave of MSX0 at 2018/08 NO=744(100%)
 Hs : MEAN=.4m MAX=1.4m(NE,15s)
 N-E:99% E-S:0% S-W:0% W-N:0%



Wave of MSX0 at 2018/09 NO=720(100%)
 Hs : MEAN=.7m MAX=1.7m(NE,12s)
 N-E:99% E-S:0% S-W:1% W-N:0%



Wave of MSX0 at 2018/10 NO=744(100%)
 Hs : MEAN=.7m MAX=1.6m(NE,12s)
 N-E:99% E-S:0% S-W:0% W-N:0%



Wave of MSX0 at 2018/11 NO=720(100%)
 Hs : MEAN=.7m MAX=1.5m(NE,8s)
 N-E:99% E-S:0% S-W:0% W-N:0%

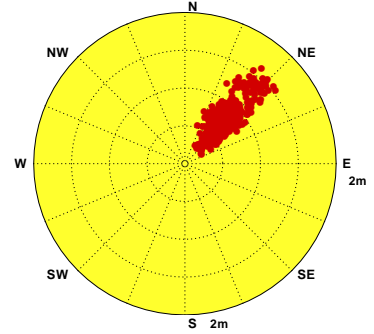


圖2.1.4 2018年馬祖海域每月 X 站修補後觀測波高向量分佈圖

V17CMSX0.1HA V181MSX0.1HA V182MSX0.1HA V183MSX0.1HA V184MSX0.1HA V185MSX0.1HA
 V186MSX0.1HA V187MSX0.1HA V188MSX0.1HA V189MSX0.1HA V18AMSX0.1HA V18BMSX0.1HA

Institute of Harbor & Marine Technology

2.2 2018 年馬祖海域各測站修補前 波浪統計量統計表

表2.2.1 2018年馬祖海域 Y 站修補前示性波高週期及波向重要統計量統計表

| 觀測日期 | 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/% |
|---------|-----------|-----------------|------------------------------------|-----------------|-----------------|--------------------|--------------------|------------------|------------------|---------------------|----------------------|-----------------------|----------------------|-----------|------------------|------------------|------------------|------------------|----------------------|
| 2017/12 | 17% | 2.72 | 4.5/ 7.3/NE | 6.3 | 7.6 | .0 | .8 | 72.0 | 27.2 | 16.8 | 83.2 | .0 | .0 | 17% | 72.0 | 28.0 | .0 | .0 | ENE/40% |
| 2018/01 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/02 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/03 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/04 | 41% | 1.02 | 2.9/ 6.2/ENE | 5.1 | 6.4 | 2.4 | 85.8 | 11.8 | .0 | 94.6 | 5.4 | .0 | .0 | 41% | 47.0 | 52.0 | .7 | .3 | E /29% |
| 2018/05 | 99% | 1.16 | 3.3/ 6.1/NNE | 4.9 | 8.3 | 8.7 | 67.0 | 23.8 | .5 | 87.4 | 11.9 | .7 | .0 | 99% | 40.7 | 21.8 | 37.1 | .4 | ENE/22% |
| 2018/06 | 100% | 1.36 | 3.6/ 7.4/ENE | 5.0 | 7.5 | 1.8 | 71.1 | 25.1 | 1.9 | 85.7 | 14.3 | .0 | .0 | 100% | 46.0 | 24.6 | 29.3 | .1 | ENE/23% |
| 2018/07 | 100% | 1.46 | 10.9/11.0/ENE | 5.4 | 11.0 | 11.3 | 48.0 | 36.6 | 4.2 | 78.2 | 17.6 | 3.5 | .7 | 100% | 16.1 | 54.4 | 29.0 | .4 | E /26% |
| 2018/08 | 100% | 1.32 | 3.7/ 7.9/SE | 5.6 | 9.4 | 4.3 | 54.7 | 40.3 | .7 | 67.3 | 29.2 | 3.5 | .0 | 100% | 37.8 | 43.8 | 17.3 | 1.1 | E /22% |
| 2018/09 | 100% | 2.00 | 5.2/ 8.7/ENE | 5.7 | 10.4 | 4.0 | 41.3 | 26.8 | 27.9 | 60.3 | 33.6 | 5.9 | .3 | 100% | 51.0 | 39.7 | 8.9 | .3 | NE /24% |
| 2018/10 | 100% | 1.88 | 4.4/10.0/E | 5.6 | 10.1 | .0 | 37.0 | 51.1 | 12.0 | 76.3 | 19.5 | 3.9 | .3 | 100% | 74.1 | 25.7 | .1 | .1 | ENE/40% |
| 2018/11 | 99% | 1.84 | 4.7/ 6.9/NE | 5.3 | 7.1 | .0 | 28.0 | 64.4 | 7.6 | 87.1 | 12.9 | .0 | .0 | 99% | 77.3 | 22.7 | .0 | .0 | ENE/38% |
| 2018/冬 | 6% | 2.72 | 4.5/ 7.3/NE | 6.3 | 7.6 | .0 | .8 | 72.0 | 27.2 | 16.8 | 83.2 | .0 | .0 | 6% | 72.0 | 28.0 | .0 | .0 | ENE/40% |
| 2018/春 | 47% | 1.12 | 3.3/ 6.1/NNE | 5.0 | 8.3 | 6.9 | 72.4 | 20.4 | .4 | 89.5 | 10.0 | .5 | .0 | 47% | 42.5 | 30.4 | 26.7 | .4 | ENE/23% |
| 2018/夏 | 100% | 1.38 | 10.9/11.0/ENE | 5.3 | 11.0 | 5.9 | 57.8 | 34.1 | 2.3 | 77.0 | 20.4 | 2.4 | .2 | 100% | 33.2 | 41.1 | 25.2 | .5 | E /21% |
| 2018/秋 | 100% | 1.91 | 5.2/ 8.7/ENE | 5.5 | 10.4 | 1.3 | 35.4 | 47.4 | 15.8 | 74.6 | 22.0 | 3.3 | .2 | 100% | 67.5 | 29.3 | 3.0 | .1 | ENE/33% |
| 2018/年 | 63% | 1.57 | 10.9/11.0/ENE | 5.4 | 11.0 | 4.1 | 50.5 | 37.6 | 7.8 | 77.0 | 20.5 | 2.3 | .2 | 63% | 49.3 | 34.2 | 16.2 | .3 | ENE/26% |

2-2-1

表2.2.2 2018年馬祖海域 X 站修補前示性波高週期及波向重要統計量統計表

| 觀測日期 | 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/% |
|---------|-----------|-----------------|------------------------------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|------------------|-------------------|--------------------|-------------------|---------------|---------------|---------------|---------------|---------------|----------------------|
| 2017/12 | 100% | .69 | 1.4/ 6.8/SW | 7.1 | 10.1 | 20.7 | 79.3 | .0 | .0 | 18.4 | 50.5 | 30.8 | .3 | 100% | 13.8 | .0 | 86.2 | .0 | SW /64% |
| 2018/01 | 99% | .68 | 1.8/ 7.8/NE | 7.0 | 9.7 | 26.4 | 72.9 | .7 | .0 | 14.8 | 63.7 | 21.5 | .0 | 99% | 80.5 | .0 | 19.5 | .0 | NNE/42% |
| 2018/02 | 100% | .62 | 1.3/ 8.0/NE | 7.4 | 10.2 | 35.0 | 65.0 | .0 | .0 | 13.5 | 40.9 | 45.4 | .1 | 100% | 100.0 | .0 | .0 | .0 | NE /59% |
| 2018/03 | 98% | .47 | 1.5/ 8.3/NE | 7.8 | 12.5 | 66.0 | 34.0 | .0 | .0 | 22.1 | 31.3 | 23.9 | 22.7 | 98% | 100.0 | .0 | .0 | .0 | NE /66% |
| 2018/04 | 99% | .38 | 1.5/ 7.8/NE | 7.9 | 12.9 | 81.4 | 18.4 | .1 | .0 | 21.7 | 31.9 | 26.9 | 19.5 | 99% | 99.6 | .1 | .3 | .0 | NE /69% |
| 2018/05 | 98% | .36 | 2.7/37.2/ENE | 8.1 | 37.2 | 79.4 | 20.5 | .1 | .0 | 17.9 | 18.0 | 45.3 | 18.8 | 98% | 99.2 | .1 | .0 | .7 | NE /54% |
| 2018/06 | 100% | .40 | 1.3/ 7.8/NE | 6.1 | 11.3 | 73.6 | 26.4 | .0 | .0 | 46.3 | 26.7 | 23.9 | 3.1 | 100% | 98.9 | .0 | .0 | 1.1 | NE /47% |
| 2018/07 | 94% | .40 | 3.6/14.4/NE | 8.4 | 16.1 | 70.8 | 27.8 | 1.0 | .4 | 18.8 | 21.5 | 31.2 | 28.5 | 94% | 99.4 | .4 | .1 | .0 | NE /64% |
| 2018/08 | 100% | .38 | 1.4/14.9/NE | 8.6 | 16.9 | 74.6 | 25.4 | .0 | .0 | 14.5 | 30.1 | 29.5 | 25.8 | 100% | 100.0 | .0 | .0 | .0 | NE /61% |
| 2018/09 | 97% | .66 | 1.7/12.1/NE | 8.6 | 15.8 | 42.5 | 56.6 | .9 | .0 | 22.7 | 19.7 | 23.1 | 34.5 | 97% | 99.9 | .1 | .0 | .0 | NE /74% |
| 2018/10 | 99% | .70 | 1.6/11.6/NE | 7.4 | 15.6 | 27.8 | 72.1 | .1 | .0 | 26.1 | 43.8 | 12.9 | 17.1 | 99% | 100.0 | .0 | .0 | .0 | NE /85% |
| 2018/11 | 99% | .65 | 1.5/ 8.2/NE | 6.7 | 12.0 | 27.1 | 72.7 | .1 | .0 | 28.3 | 49.2 | 20.3 | 2.2 | 99% | 100.0 | .0 | .0 | .0 | NE /85% |
| 2018/冬 | 100% | .67 | 1.8/ 7.8/NE | 7.2 | 10.2 | 27.1 | 72.7 | .2 | .0 | 15.6 | 52.0 | 32.2 | .1 | 100% | 63.6 | .0 | 36.4 | .0 | NE /34% |
| 2018/春 | 98% | .40 | 2.7/37.2/ENE | 7.9 | 37.2 | 75.5 | 24.4 | .1 | .0 | 20.6 | 27.1 | 32.0 | 20.4 | 98% | 99.6 | .1 | .1 | .2 | NE /63% |
| 2018/夏 | 98% | .39 | 3.6/14.4/NE | 7.7 | 16.9 | 73.0 | 26.5 | .3 | .1 | 26.5 | 26.2 | 28.2 | 19.1 | 98% | 99.4 | .1 | .0 | .4 | NE /57% |
| 2018/秋 | 99% | .67 | 1.7/12.1/NE | 7.6 | 15.8 | 32.4 | 67.3 | .4 | .0 | 25.7 | 37.7 | 18.7 | 17.9 | 99% | 100.0 | .0 | .0 | .0 | NE /82% |
| 2018/年 | 99% | .53 | 3.6/14.4/NE | 7.6 | 37.2 | 52.1 | 47.6 | .3 | .0 | 22.1 | 35.7 | 27.8 | 14.4 | 99% | 90.7 | .1 | 9.1 | .2 | NE /59% |

2-2-2

表2.2.3 2018年馬祖海域 A 站修補前示性波高週期及波向重要統計量統計表

| 觀測 日期 年、月 | 波高 蒐集 率 | H_s 平均 (m) | H_s 最大 (波高/週期/波向) (m/s/來向) | T_p 平均 (s) | T_p 最大 (s) | 小波 <0.5m (%) | 小浪 ~1.5m (%) | 中浪 ~3m (%) | 大浪 >3m (%) | T_p <6s (%) | T_p 6~8s (%) | T_p 8~10s (%) | T_p >10s (%) | 波向 蒐集 率 | 波向 N~E (%) | 波向 E~S (%) | 波向 S~W (%) | 波向 W~N (%) | 主波向 (百分比) 來向/% |
|-----------------|---------------|--------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|---------------------|----------------------|-----------------------|----------------------|---------------|------------------|------------------|------------------|------------------|----------------------|
| | | | | | | | | | | | | | | | | | | | |
| 2017/12 | 80% | .69 | 5.1/ 5.6/s | 5.6 | 40.0 | 14.8 | 85.0 | .0 | .2 | 64.3 | 16.5 | 18.0 | 1.2 | 80% | 42.1 | 16.3 | 17.5 | 24.1 | N /28% |
| 2018/01 | 54% | .80 | 1.1/ 3.3/NE | 5.6 | 30.0 | .3 | 99.7 | .0 | .0 | 57.6 | 30.1 | 10.0 | 2.3 | 54% | 22.8 | 18.3 | 36.3 | 22.6 | SSW/13% |
| 2018/02 | 69% | .77 | 1.1/ 5.4/SSE | 6.0 | 25.6 | .6 | 99.4 | .0 | .0 | 53.9 | 20.3 | 24.2 | 1.5 | 69% | 25.3 | 18.4 | 34.6 | 21.6 | S /12% |
| 2018/03 | 63% | .72 | 1.1/ 8.0/SSW | 6.3 | 12.6 | .4 | 99.6 | .0 | .0 | 52.1 | 18.1 | 9.6 | 20.2 | 63% | 16.2 | 19.6 | 45.1 | 19.1 | S /18% |
| 2018/04 | 37% | .70 | 2.2/16.2/SW | 6.4 | 26.0 | .0 | 99.6 | .4 | .0 | 58.4 | 9.7 | 14.2 | 17.6 | 37% | 16.9 | 25.1 | 41.2 | 16.9 | S /20% |
| 2018/05 | 24% | .79 | 4.7/19.4/s | 6.2 | 36.7 | .0 | 99.4 | .0 | .6 | 64.2 | 11.9 | 11.4 | 12.5 | 24% | 8.5 | 23.3 | 51.1 | 17.0 | SSW/22% |
| 2018/06 | 50% | .73 | 1.1/ 3.2/NNW | 5.9 | 39.7 | .3 | 99.7 | .0 | .0 | 66.3 | 10.5 | 16.3 | 6.9 | 50% | 13.0 | 22.1 | 46.1 | 18.8 | S /15% |
| 2018/07 | 13% | .72 | 1.5/15.8/SSE | 7.4 | 36.9 | .0 | 100.0 | .0 | .0 | 60.4 | 2.1 | 6.3 | 31.3 | 13% | 2.1 | 30.2 | 59.4 | 8.3 | S /28% |
| 2018/08 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/09 | 18% | .50 | 1.0/ 6.8/s | 6.0 | 10.4 | 38.8 | 61.2 | .0 | .0 | 51.9 | 21.7 | 22.5 | 3.9 | 18% | 4.7 | 16.3 | 32.6 | 46.5 | NNW/22% |
| 2018/10 | 50% | .45 | .9/ 7.0/s | 6.3 | 16.1 | 67.1 | 32.9 | .0 | .0 | 53.5 | 28.0 | 6.3 | 12.2 | 50% | 3.8 | 17.9 | 44.3 | 34.0 | S /27% |
| 2018/11 | 100% | .47 | 1.2/ 8.5/s | 5.8 | 11.7 | 61.6 | 38.4 | .0 | .0 | 57.0 | 25.5 | 15.2 | 2.4 | 100% | 5.3 | 16.0 | 44.3 | 34.4 | S /21% |
| 2018/冬 | 67% | .74 | 5.1/ 5.6/s | 5.7 | 40.0 | 6.3 | 93.6 | .0 | .1 | 59.2 | 21.4 | 17.8 | 1.6 | 67% | 31.5 | 17.5 | 28.1 | 22.9 | N /18% |
| 2018/春 | 41% | .73 | 4.7/19.4/s | 6.3 | 36.7 | .2 | 99.6 | .1 | .1 | 56.3 | 14.5 | 11.3 | 18.0 | 41% | 14.9 | 21.9 | 45.1 | 18.1 | S /17% |
| 2018/夏 | 21% | .72 | 1.5/15.8/SSE | 6.2 | 39.7 | .2 | 99.8 | .0 | .0 | 65.1 | 8.7 | 14.2 | 12.0 | 21% | 10.7 | 23.8 | 48.9 | 16.6 | S /18% |
| 2018/秋 | 56% | .47 | 1.2/ 8.5/s | 6.0 | 16.1 | 60.8 | 39.2 | .0 | .0 | 55.4 | 25.8 | 13.3 | 5.5 | 56% | 4.8 | 16.6 | 43.0 | 35.6 | S /23% |
| 2018/年 | 46% | .65 | 5.1/ 5.6/s | 6.0 | 40.0 | 20.6 | 79.3 | .0 | .0 | 58.1 | 19.7 | 14.6 | 7.6 | 46% | 17.3 | 19.0 | 38.8 | 24.9 | S /17% |

2-2-3

表2.2.4 2018年馬祖海域2站修補前示性波高週期及波向重要統計量統計表

| 觀測 日期 年、月 | 波高 蒐集 率 | H_s 平均 (m) | H_s 最大 (波高/週期/波向) (m/s/來向) | T_p 平均 (s) | T_p 最大 (s) | 小波 <0.5m (%) | 小浪 ~1.5m (%) | 中浪 ~3m (%) | 大浪 >3m (%) | T_p <6s (%) | T_p 6~8s (%) | T_p 8~10s (%) | T_p >10s (%) | 波向 蒐集 率 | 波向 N~E (%) | 波向 E~S (%) | 波向 S~W (%) | 波向 W~N (%) | 主波向 (百分比) 來向/% |
|-----------------|---------------|--------------------|------------------------------------|--------------------|--------------------|--------------------|--------------------|------------------|------------------|---------------------|----------------------|-----------------------|----------------------|---------------|------------------|------------------|------------------|------------------|----------------------|
| | | | | | | | | | | | | | | | | | | | |
| 2017/12 | 100% | .38 | .8/ 9.8/wsw | 7.6 | 10.8 | 83.7 | 16.3 | .0 | .0 | 17.1 | 38.2 | 42.4 | 2.3 | 100% | 85.2 | 2.2 | 12.5 | .1 | ENE/56% |
| 2018/01 | 97% | .41 | .8/ 6.7/sw | 7.4 | 15.1 | 78.9 | 21.1 | .0 | .0 | 15.2 | 51.1 | 32.5 | 1.2 | 97% | 26.4 | .6 | 71.1 | 1.9 | WSW/50% |
| 2018/02 | 100% | .38 | .9/10.0/wsw | 7.7 | 10.1 | 86.9 | 13.1 | .0 | .0 | 12.7 | 33.1 | 53.9 | .3 | 100% | .0 | .0 | 99.6 | .4 | WSW/59% |
| 2018/03 | 99% | .35 | .7/ 3.2/s | 8.1 | 12.8 | 94.4 | 5.6 | .0 | .0 | 22.3 | 24.7 | 20.3 | 32.7 | 99% | .0 | .0 | 100.0 | .0 | SW /52% |
| 2018/04 | 99% | .34 | .9/ 5.0/s | 7.0 | 12.8 | 91.1 | 8.9 | .0 | .0 | 43.3 | 16.7 | 22.5 | 17.4 | 99% | .0 | .1 | 99.9 | .0 | SW /48% |
| 2018/05 | 100% | .59 | 1.7/ 5.4/ssw | 5.8 | 12.1 | 59.5 | 38.4 | 2.2 | .0 | 67.4 | 9.2 | 16.6 | 6.8 | 100% | .0 | 1.5 | 98.5 | .0 | SSW/46% |
| 2018/06 | 97% | .65 | 2.8/ 6.7/s | 6.6 | 9.9 | 55.7 | 37.1 | 7.2 | .0 | 39.9 | 26.0 | 34.1 | .0 | 97% | .0 | .1 | 99.7 | .1 | SSW/46% |
| 2018/07 | 100% | .75 | 4.4/ 9.3/ssw | 7.1 | 17.3 | 43.1 | 44.4 | 11.8 | .7 | 35.8 | 33.4 | 17.8 | 13.1 | 100% | .0 | 1.9 | 98.1 | .0 | SSW/54% |
| 2018/08 | 100% | .69 | 2.6/ 7.1/s | 7.4 | 17.5 | 39.3 | 52.2 | 8.5 | .0 | 39.0 | 22.5 | 25.2 | 13.3 | 100% | .0 | 5.8 | 94.1 | .1 | SSW/51% |
| 2018/09 | 98% | .56 | 1.6/ 4.8/ssw | 7.9 | 23.4 | 47.3 | 52.3 | .4 | .0 | 33.1 | 22.4 | 18.6 | 25.9 | 98% | .0 | .7 | 98.7 | .6 | SSW/39% |
| 2018/10 | 99% | .41 | 1.1/12.5/sw | 8.1 | 16.2 | 80.7 | 19.3 | .0 | .0 | 20.7 | 41.5 | 14.4 | 23.4 | 99% | .0 | .0 | 99.5 | .5 | WSW/44% |
| 2018/11 | 99% | .39 | .7/ 8.3/wsw | 7.4 | 12.1 | 87.9 | 12.1 | .0 | .0 | 20.2 | 43.4 | 29.4 | 7.0 | 99% | .0 | .0 | 99.9 | .1 | WSW/46% |
| 2018/冬 | 99% | .39 | .9/10.0/wsw | 7.5 | 15.1 | 83.1 | 16.9 | .0 | .0 | 15.1 | 41.0 | 42.7 | 1.3 | 99% | 38.5 | .9 | 59.7 | .8 | WSW/39% |
| 2018/春 | 99% | .43 | 1.7/ 5.4/ssw | 7.0 | 12.8 | 81.5 | 17.8 | .7 | .0 | 44.4 | 16.8 | 19.8 | 18.9 | 99% | .0 | .5 | 99.5 | .0 | SW /41% |
| 2018/夏 | 99% | .70 | 4.4/ 9.3/ssw | 7.1 | 17.5 | 45.8 | 44.7 | 9.2 | .2 | 38.2 | 27.3 | 25.5 | 9.0 | 99% | .0 | 2.7 | 97.3 | .1 | SSW/51% |
| 2018/秋 | 99% | .45 | 1.6/ 4.8/ssw | 7.8 | 23.4 | 72.1 | 27.7 | .1 | .0 | 24.6 | 35.9 | 20.7 | 18.8 | 99% | .0 | .2 | 99.3 | .4 | SW /37% |
| 2018/年 | 99% | .49 | 4.4/ 9.3/ssw | 7.3 | 23.4 | 70.6 | 26.8 | 2.5 | .1 | 30.7 | 30.2 | 27.1 | 12.0 | 99% | 9.5 | 1.1 | 89.1 | .3 | SW /27% |

表2.2.5 2018年馬祖海域3站修補前示性波高週期及波向重要統計量統計表

| 觀測日期 | 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/% |
|---------|-----------|-----------------|------------------------------------|-----------------|-----------------|--------------------|--------------------|------------------|------------------|---------------------|----------------------|-----------------------|----------------------|-----------|------------------|------------------|------------------|------------------|----------------------|
| 2017/12 | 100% | .91 | 2.0/ 7.1/NNE | 5.9 | 9.8 | 9.1 | 85.1 | 5.8 | .0 | 50.9 | 38.8 | 10.2 | .0 | 100% | 91.8 | .0 | .0 | 8.2 | N /52% |
| 2018/01 | 100% | .81 | 2.2/ 7.3/NNE | 6.0 | 9.6 | 21.1 | 71.0 | 7.9 | .0 | 46.1 | 44.2 | 9.7 | .0 | 100% | 88.3 | .0 | .0 | 11.7 | N /50% |
| 2018/02 | 100% | .70 | 1.8/ 5.7/NNE | 6.6 | 9.8 | 29.2 | 69.2 | 1.6 | .0 | 34.2 | 36.9 | 28.9 | .0 | 100% | 85.6 | .0 | .1 | 14.3 | NNE/50% |
| 2018/03 | 100% | .51 | 1.6/ 7.5/N | 6.3 | 13.1 | 57.9 | 41.9 | .1 | .0 | 48.3 | 24.7 | 15.1 | 12.0 | 100% | 65.1 | .0 | .9 | 34.0 | N /53% |
| 2018/04 | 68% | .44 | 1.6/ 7.4/N | 6.1 | 12.6 | 74.6 | 24.9 | .4 | .0 | 54.6 | 17.6 | 15.3 | 12.5 | 68% | 47.2 | .0 | 5.7 | 47.0 | N /48% |
| 2018/05 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/06 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/07 | 0 | | | | | | | | | | | | | | | | | | |
| 2018/08 | 24% | .61 | 2.2/ 6.9/N | 5.6 | 9.1 | 37.9 | 59.9 | 2.3 | .0 | 53.7 | 37.9 | 8.5 | .0 | 24% | 9.6 | .0 | 54.2 | 36.2 | SW /27% |
| 2018/09 | 56% | .67 | 1.9/11.8/NNW | 6.7 | 13.4 | 43.0 | 56.3 | .8 | .0 | 43.3 | 25.3 | 16.3 | 15.3 | 56% | 29.5 | 1.8 | 6.3 | 62.5 | N /51% |
| 2018/10 | 97% | .64 | 1.6/ 6.9/N | 6.2 | 16.5 | 35.5 | 64.2 | .3 | .0 | 59.2 | 24.9 | 2.8 | 13.1 | 97% | 38.2 | .0 | .0 | 61.8 | N /72% |
| 2018/11 | 50% | .64 | 1.5/ 6.2/N | 5.7 | 10.7 | 31.5 | 68.5 | .0 | .0 | 58.8 | 33.7 | 6.4 | 1.1 | 50% | 30.4 | .0 | .0 | 69.6 | N /75% |
| 2018/冬 | 100% | .81 | 2.2/ 7.3/NNE | 6.1 | 9.8 | 19.5 | 75.3 | 5.2 | .0 | 44.1 | 40.1 | 15.8 | .0 | 100% | 88.7 | .0 | .0 | 11.3 | N /48% |
| 2018/春 | 56% | .48 | 1.6/ 7.5/N | 6.2 | 13.1 | 64.6 | 35.2 | .2 | .0 | 50.8 | 21.9 | 15.2 | 12.2 | 56% | 58.0 | .0 | 2.8 | 39.2 | N /51% |
| 2018/夏 | 8% | .61 | 2.2/ 6.9/N | 5.6 | 9.1 | 37.9 | 59.9 | 2.3 | .0 | 53.7 | 37.9 | 8.5 | .0 | 8% | 9.6 | .0 | 54.2 | 36.2 | SW /27% |
| 2018/秋 | 68% | .65 | 1.9/11.8/NNW | 6.2 | 16.5 | 36.6 | 63.1 | .3 | .0 | 54.8 | 27.1 | 7.3 | 10.8 | 68% | 33.9 | .5 | 1.7 | 63.9 | N /67% |
| 2018/年 | 58% | .68 | 2.2/ 7.3/NNE | 6.2 | 16.5 | 36.1 | 61.4 | 2.5 | .0 | 49.2 | 31.8 | 12.9 | 6.1 | 58% | 62.4 | .1 | 3.1 | 34.4 | N /53% |

2.3 2018 年馬祖海域**主要測站 1**(修補後)與 **其他測站**(修補前)波浪歷線比較圖

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

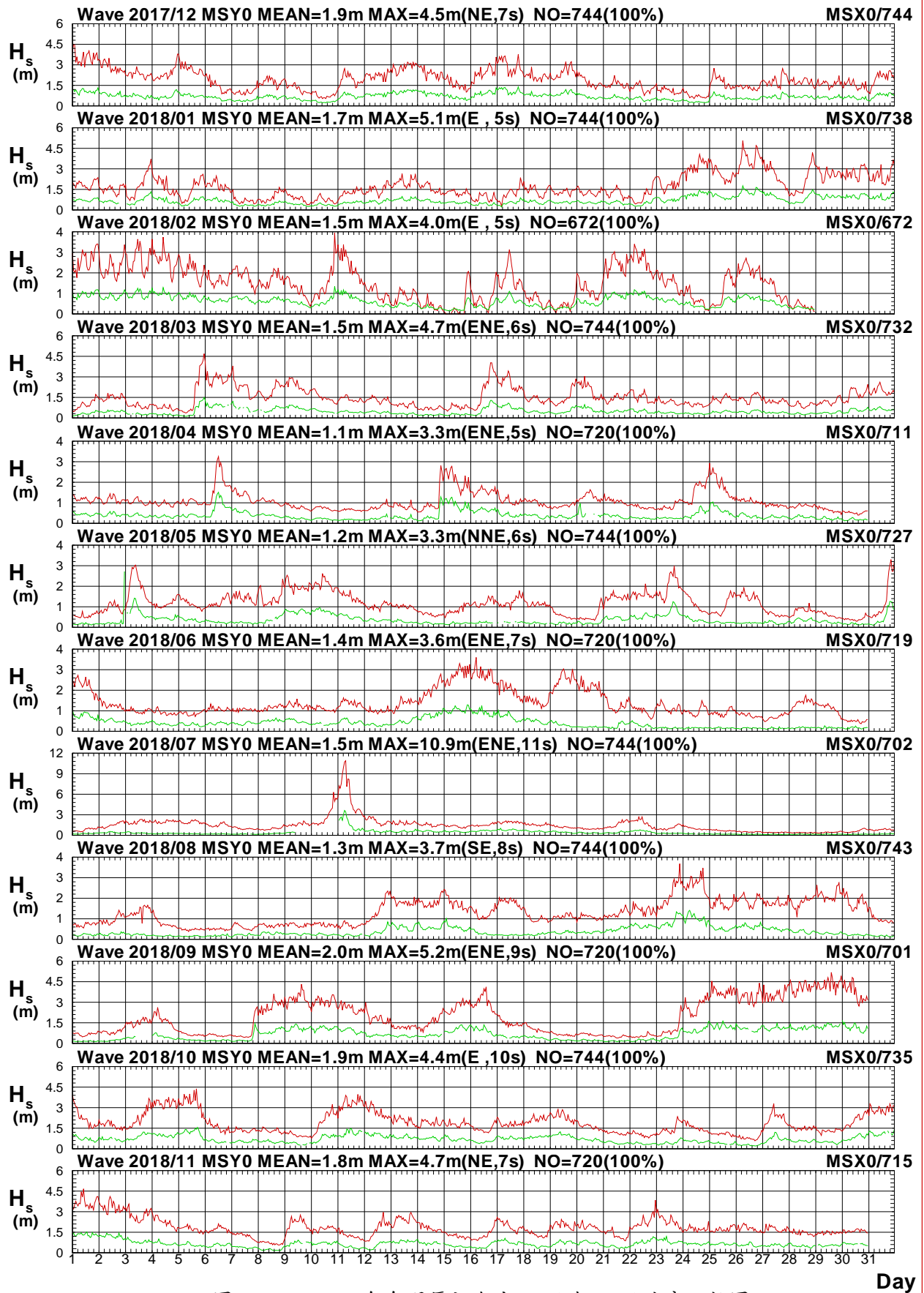


圖2.3.1a 2018年每月馬祖海域 Y 站與 X 站波高比較圖

V17CMSY0.1HA V17CMSX0.1H0 V181MSY0.1HA V181MSX0.1H0 V182MSY0.1HA V182MSX0.1H0
 V183MSY0.1HA V183MSX0.1H0 V184MSY0.1HA V184MSX0.1H0 V185MSY0.1HA V185MSX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

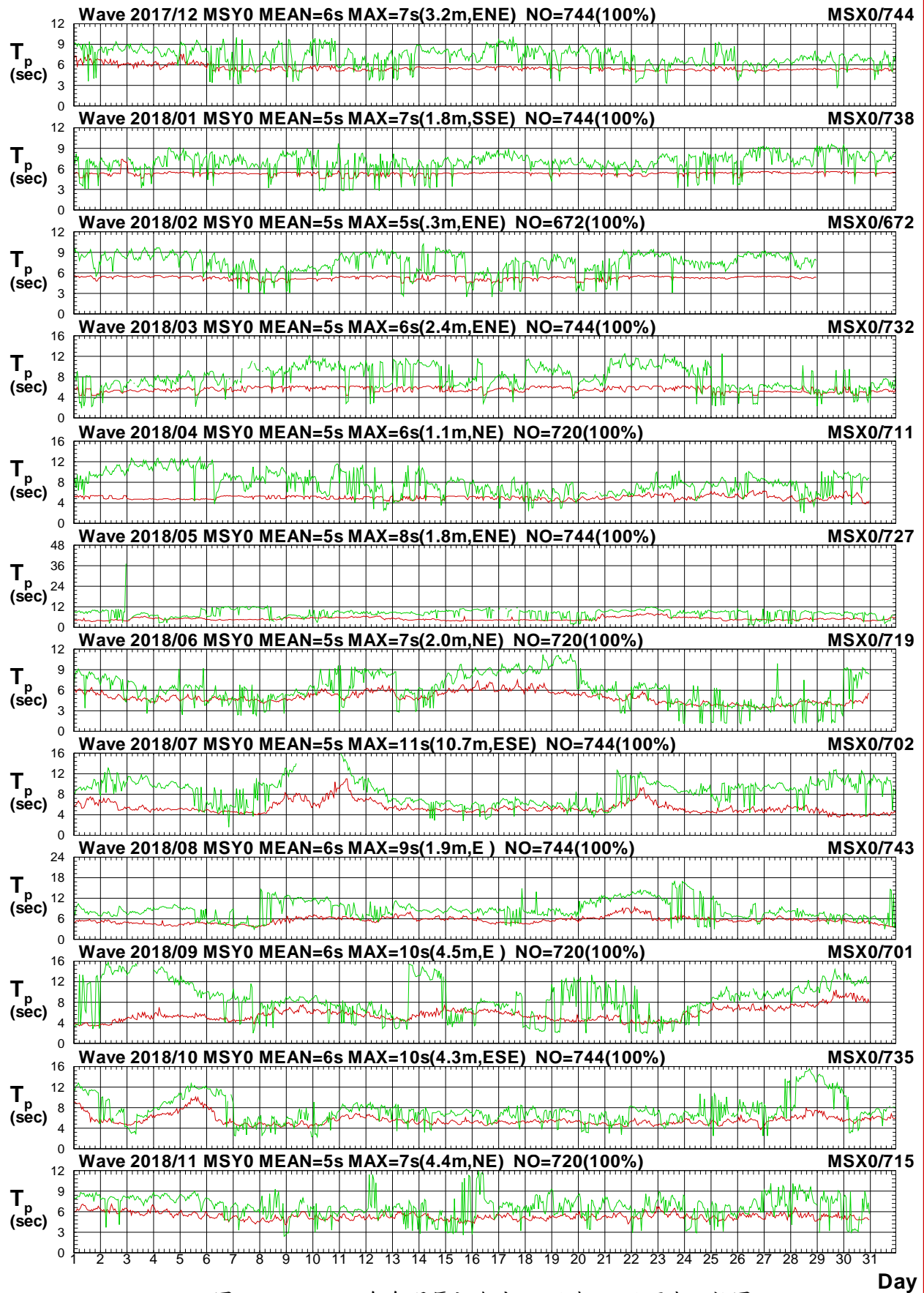


圖2.3.1b 2018年每月馬祖海域 Y 站與 X 站週期比較圖

V17CMSY0.1HA V17CMSX0.1H0 V181MSY0.1HA V181MSX0.1H0 V182MSY0.1HA V182MSX0.1H0
 V183MSY0.1HA V183MSX0.1H0 V184MSY0.1HA V184MSX0.1H0 V185MSY0.1HA V185MSX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

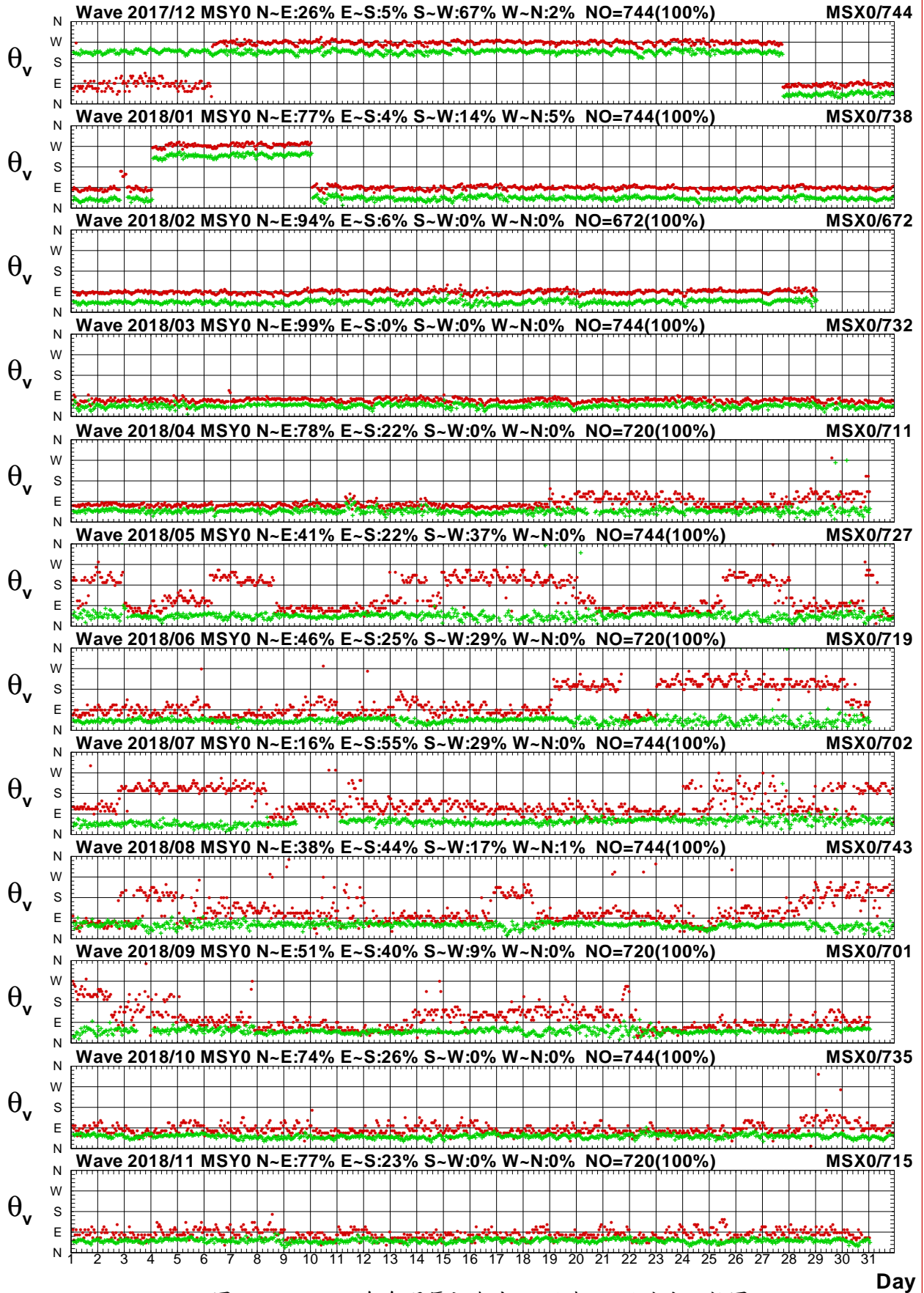


圖2.3.1c 2018年每月馬祖海域 Y 站與 X 站波向比較圖

V17CMSY0.1HA V17CMSX0.1H0 V181MSY0.1HA V181MSX0.1H0 V182MSY0.1HA V182MSX0.1H0
 V183MSY0.1HA V183MSX0.1H0 V184MSY0.1HA V184MSX0.1H0 V185MSY0.1HA V185MSX0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

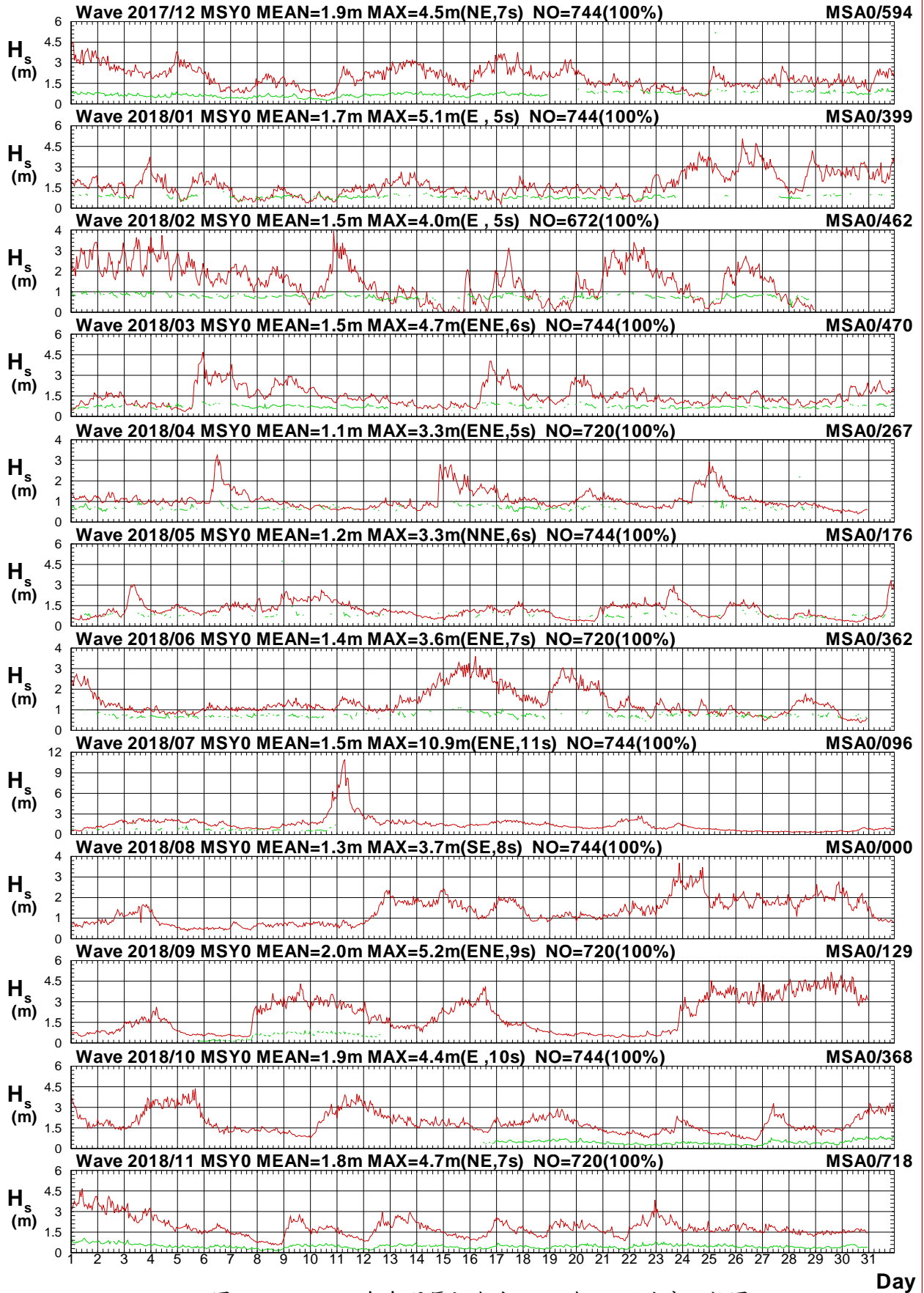


圖2.3.2a 2018年每月馬祖海域 Y 站與 A 站波高比較圖

V17CMSY0.1HA V17CMSA0.1H0 V181MSY0.1HA V181MSA0.1H0 V182MSY0.1HA V182MSA0.1H0
 V183MSY0.1HA V183MSA0.1H0 V184MSY0.1HA V184MSA0.1H0 V185MSY0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

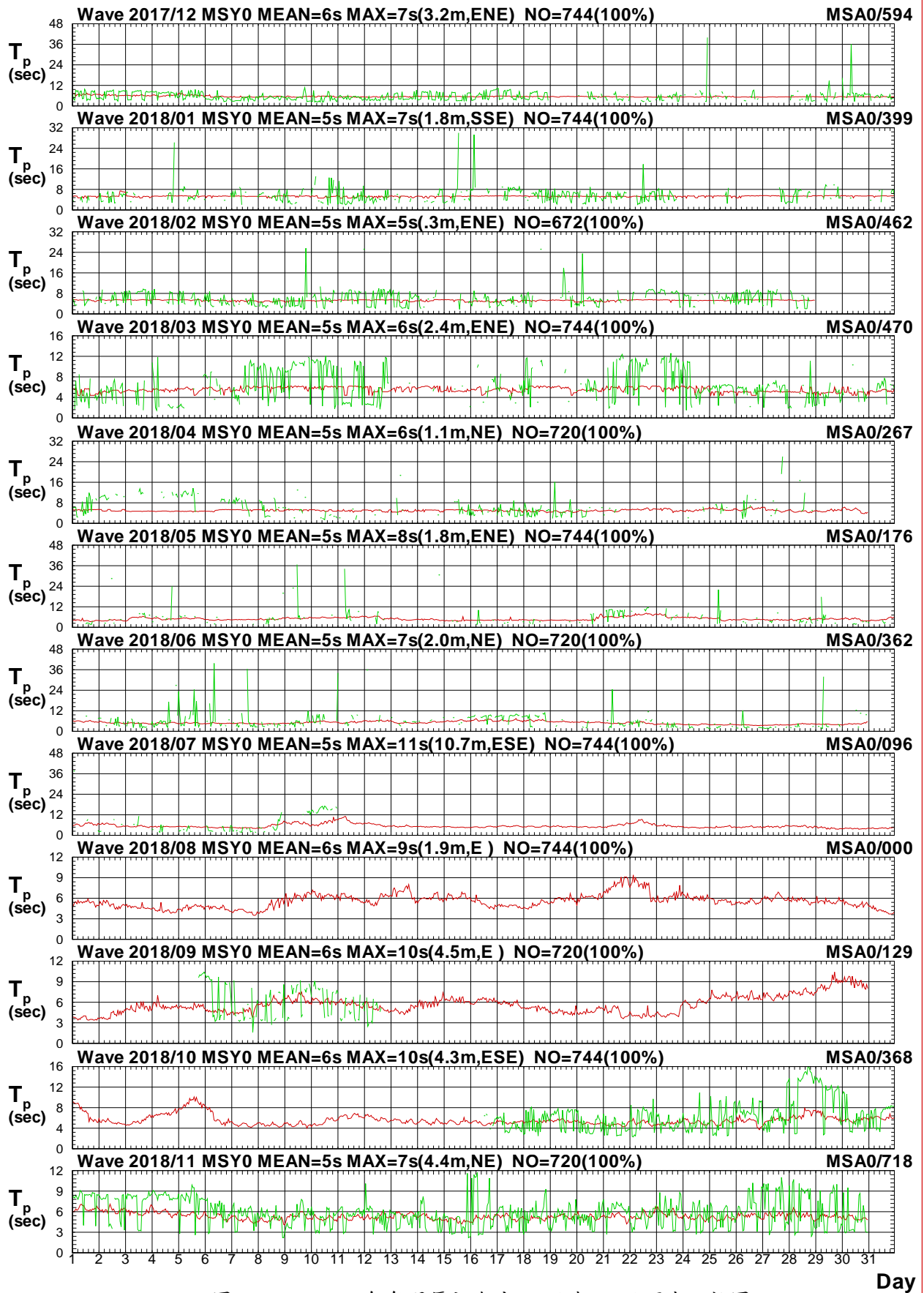


圖2.3.2b 2018年每月馬祖海域 Y 站與 A 站週期比較圖

V17CMSY0.1HA V17CMSA0.1H0 V181MSY0.1HA V181MSA0.1H0 V182MSY0.1HA V182MSA0.1H0
 V183MSY0.1HA V183MSA0.1H0 V184MSY0.1HA V184MSA0.1H0 V185MSY0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

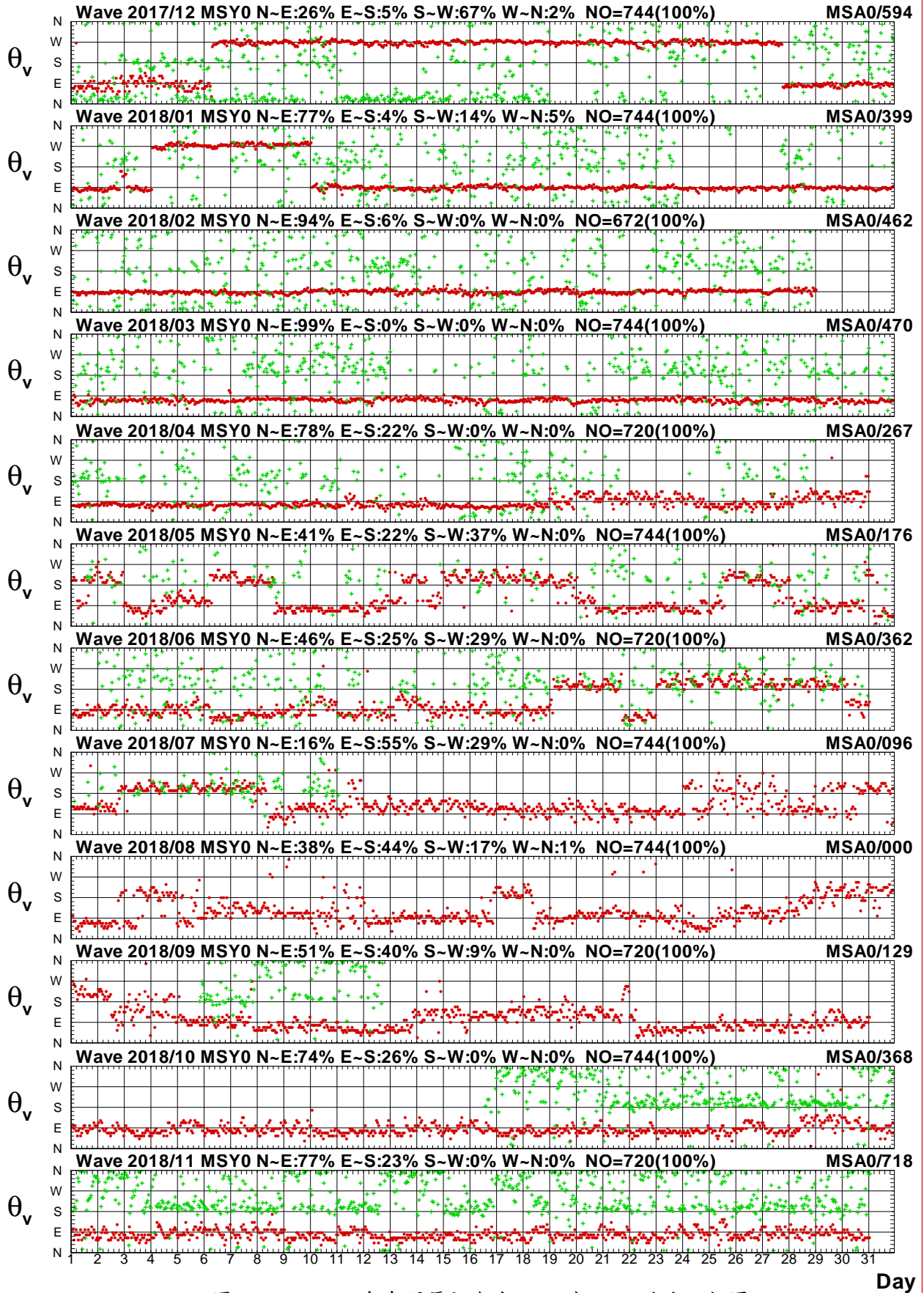


圖2.3.2c 2018年每月馬祖海域 Y 站與 A 站波向比較圖

V17CMSY0.1HA V17CMSA0.1H0 V181MSY0.1HA V181MSA0.1H0 V182MSY0.1HA V182MSA0.1H0
 V183MSY0.1HA V183MSA0.1H0 V184MSY0.1HA V184MSA0.1H0 V185MSY0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

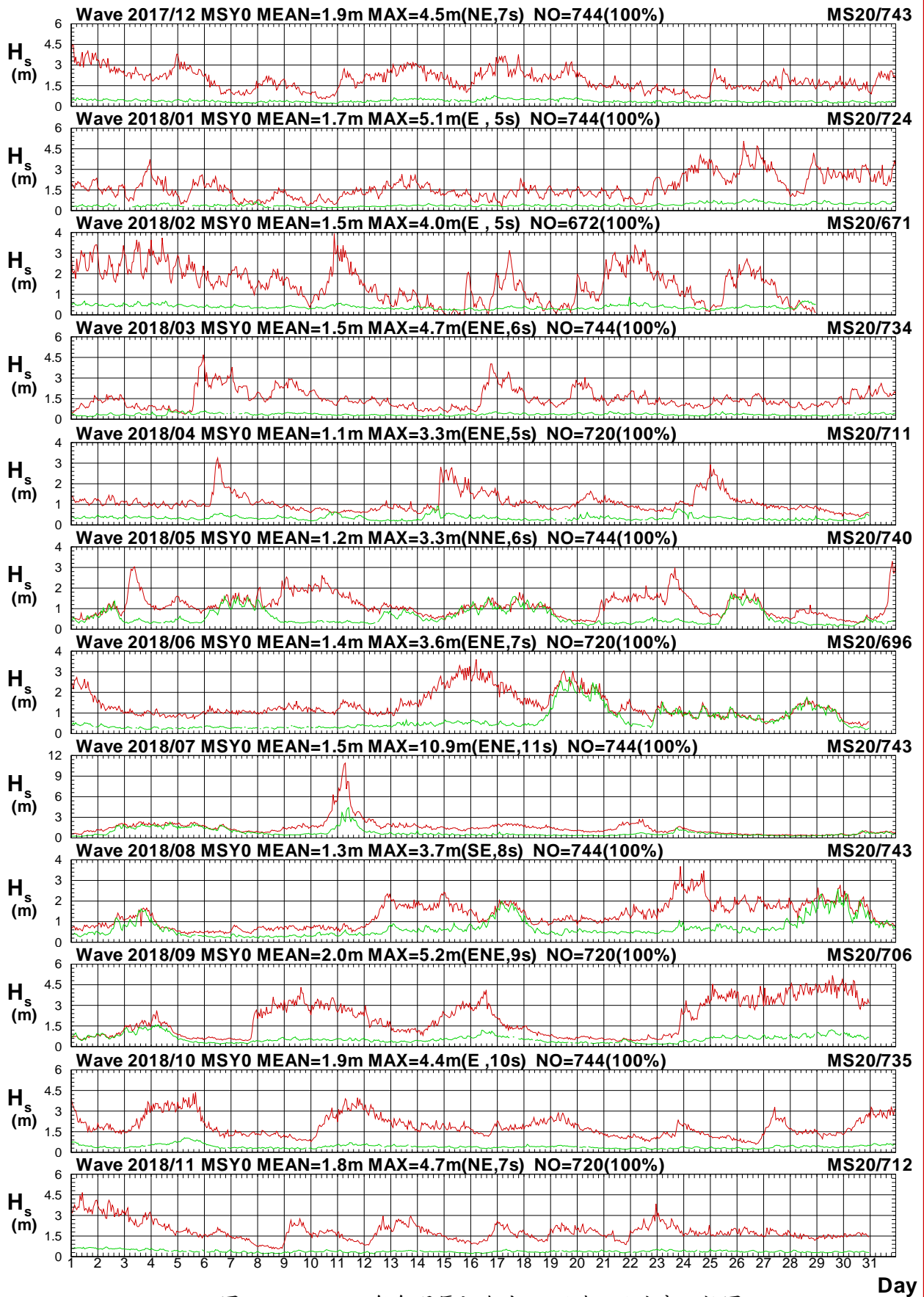


圖2.3.3a 2018年每月馬祖海域 Y 站與2站波高比較圖

V17CMSY0.1HA V17CMS20.1H0 V181MSY0.1HA V181MS20.1H0 V182MSY0.1HA V182MS20.1H0
 V183MSY0.1HA V183MS20.1H0 V184MSY0.1HA V184MS20.1H0 V185MSY0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

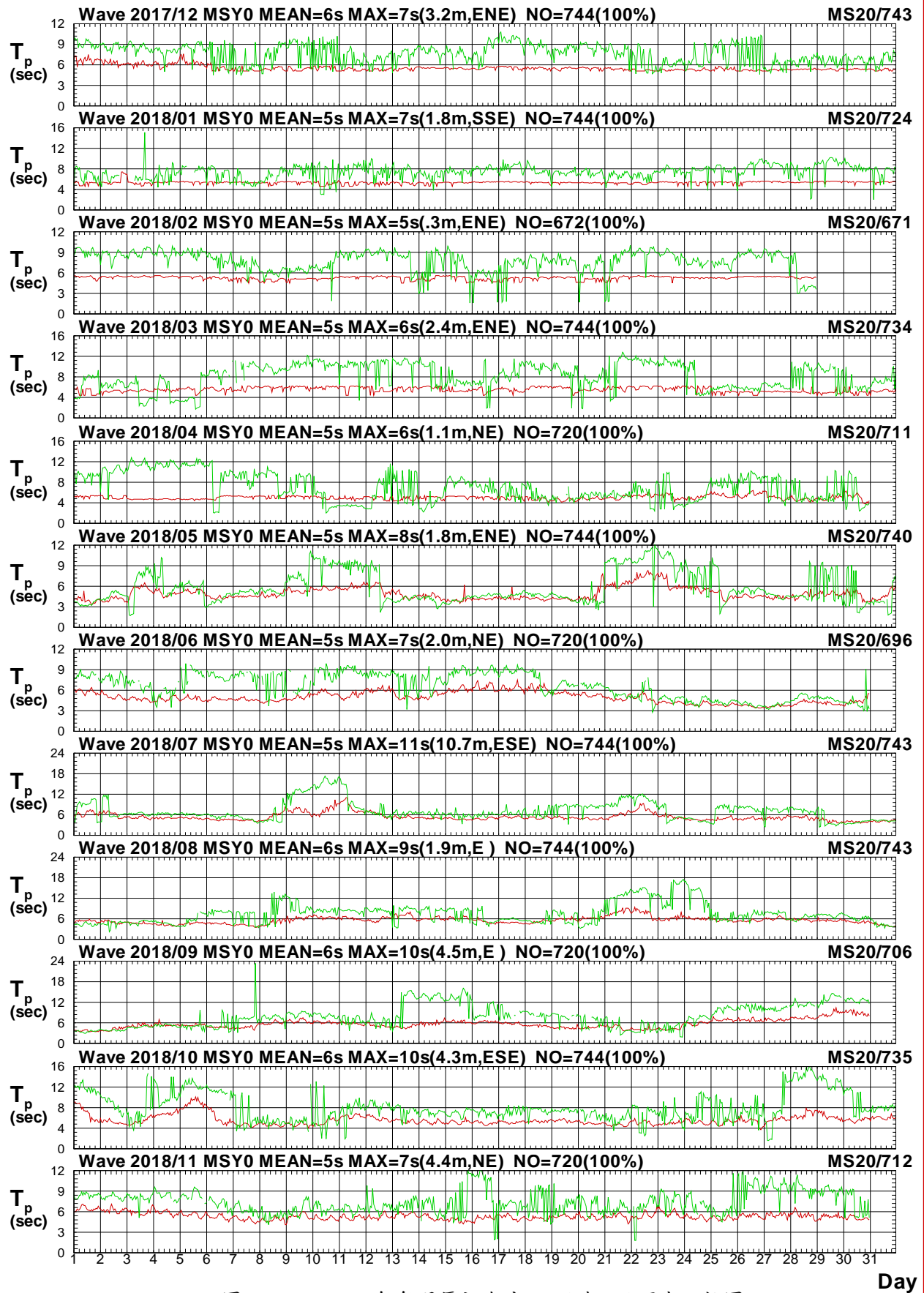


圖2.3.3b 2018年每月馬祖海域 Y 站與 2 站週期比較圖

V17CMSY0.1HA V17CMS20.1H0 V181MSY0.1HA V181MS20.1H0 V182MSY0.1HA V182MS20.1H0
 V183MSY0.1HA V183MS20.1H0 V184MSY0.1HA V184MS20.1H0 V185MSY0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

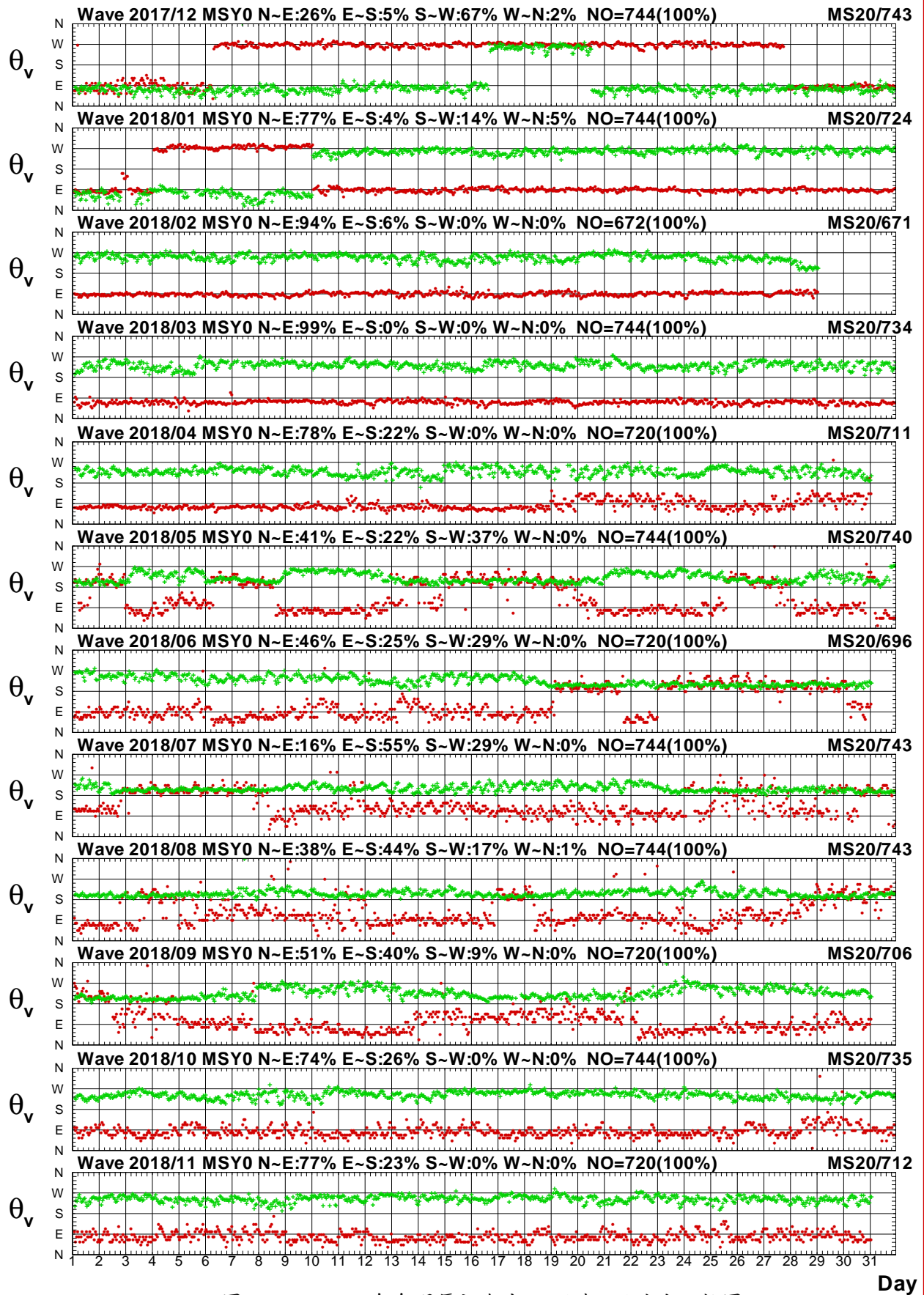


圖2.3.3c 2018年每月馬祖海域 Y 站與2站波向比較圖

V17CMSY0.1HA V17CMS20.1H0 V181MSY0.1HA V181MS20.1H0 V182MSY0.1HA V182MS20.1H0
 V183MSY0.1HA V183MS20.1H0 V184MSY0.1HA V184MS20.1H0 V185MSY0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

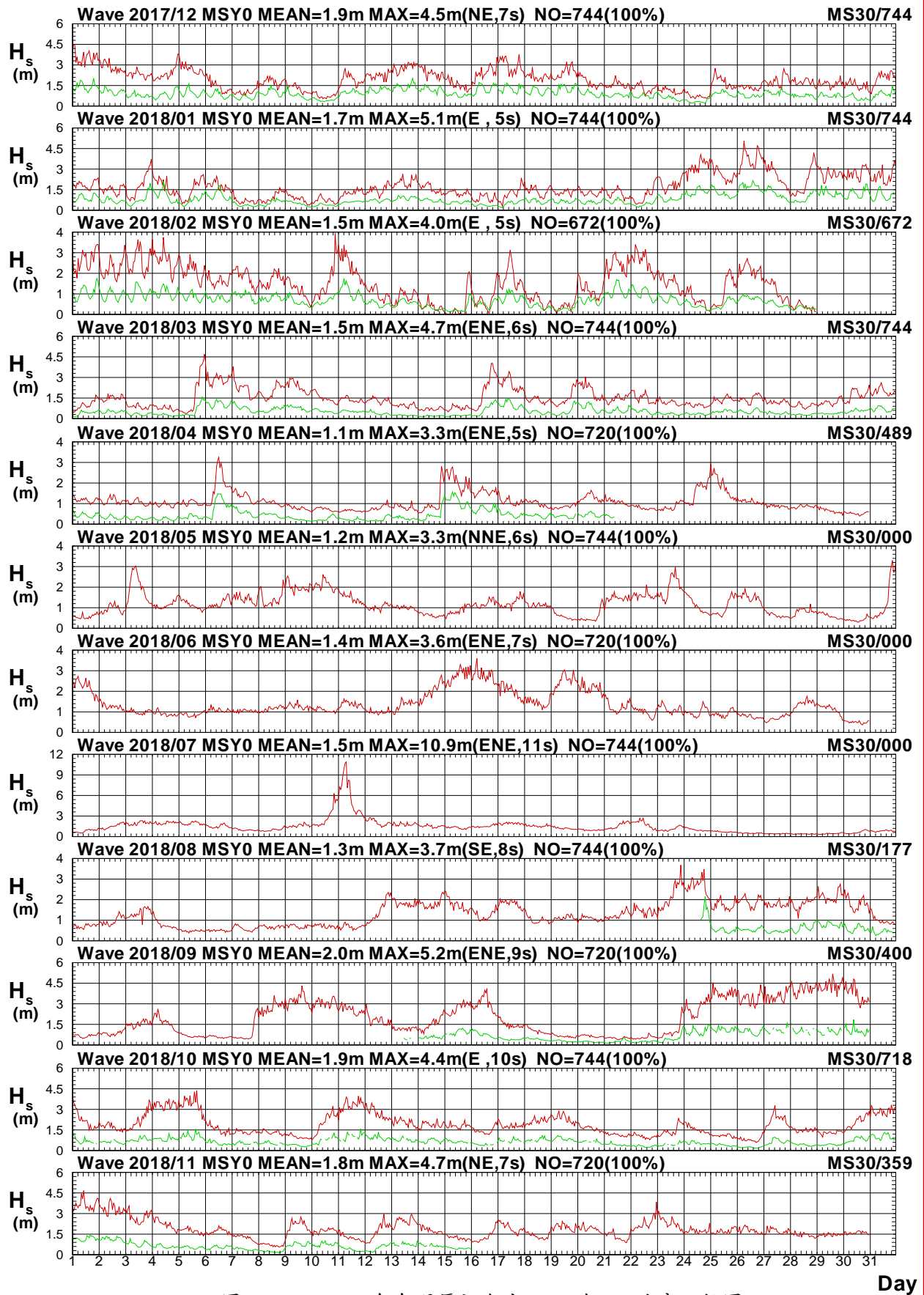


圖2.3.4a 2018年每月馬祖海域 Y 站與3站波高比較圖

V17CMSY0.1HA V17CMS30.1H0 V181MSY0.1HA V181MS30.1H0 V182MSY0.1HA V182MS30.1H0
 V183MSY0.1HA V183MS30.1H0 V184MSY0.1HA V184MS30.1H0 V185MSY0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

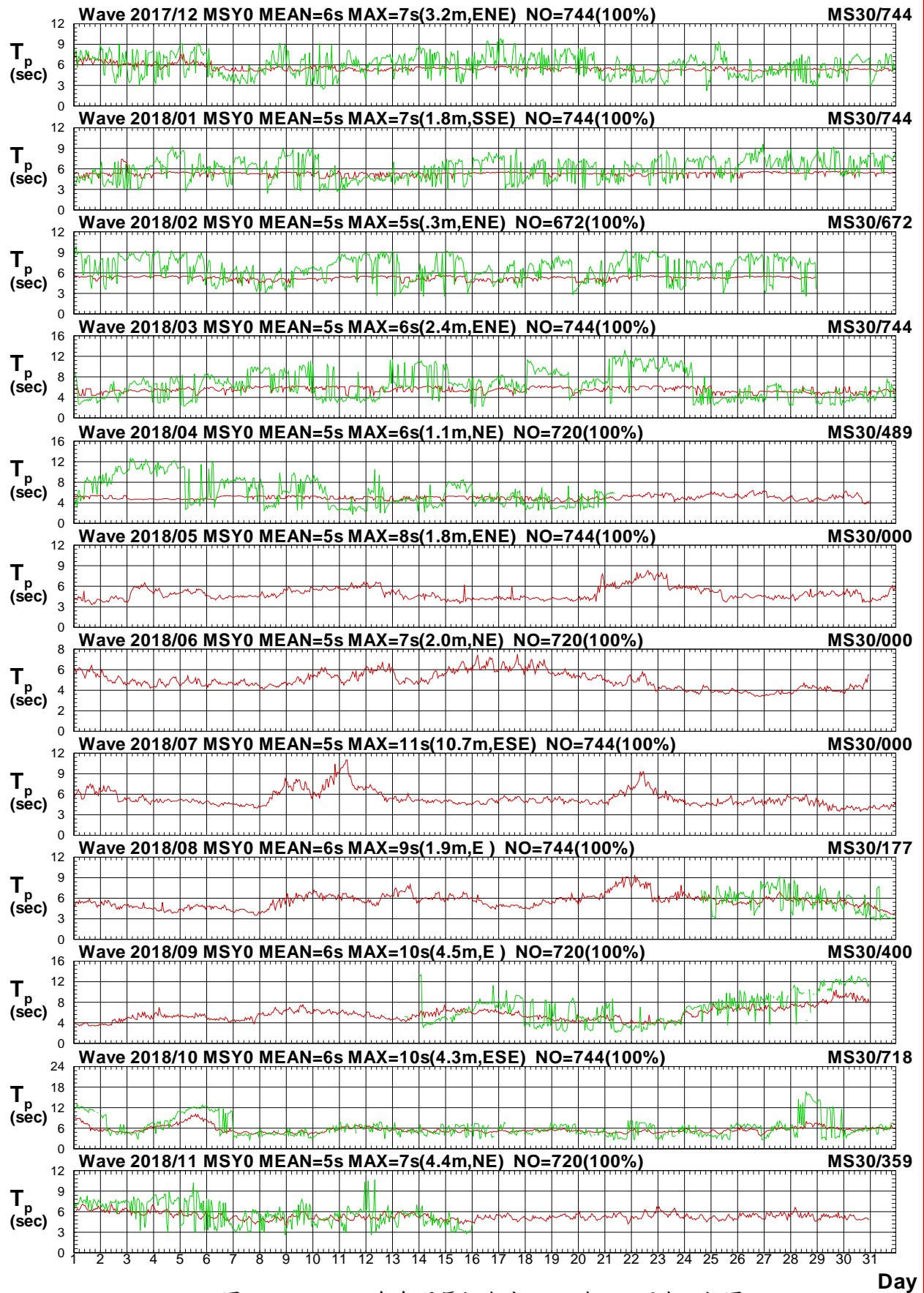


圖 2.3.4b 2018 年每月馬祖海域 Y 站與 3 站週期比較圖

V17CMSY0.1HA V17CMS30.1H0 V181MSY0.1HA V181MS30.1H0 V182MSY0.1HA V182MS30.1H0
 V183MSY0.1HA V183MS30.1H0 V184MSY0.1HA V184MS30.1H0 V185MSY0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

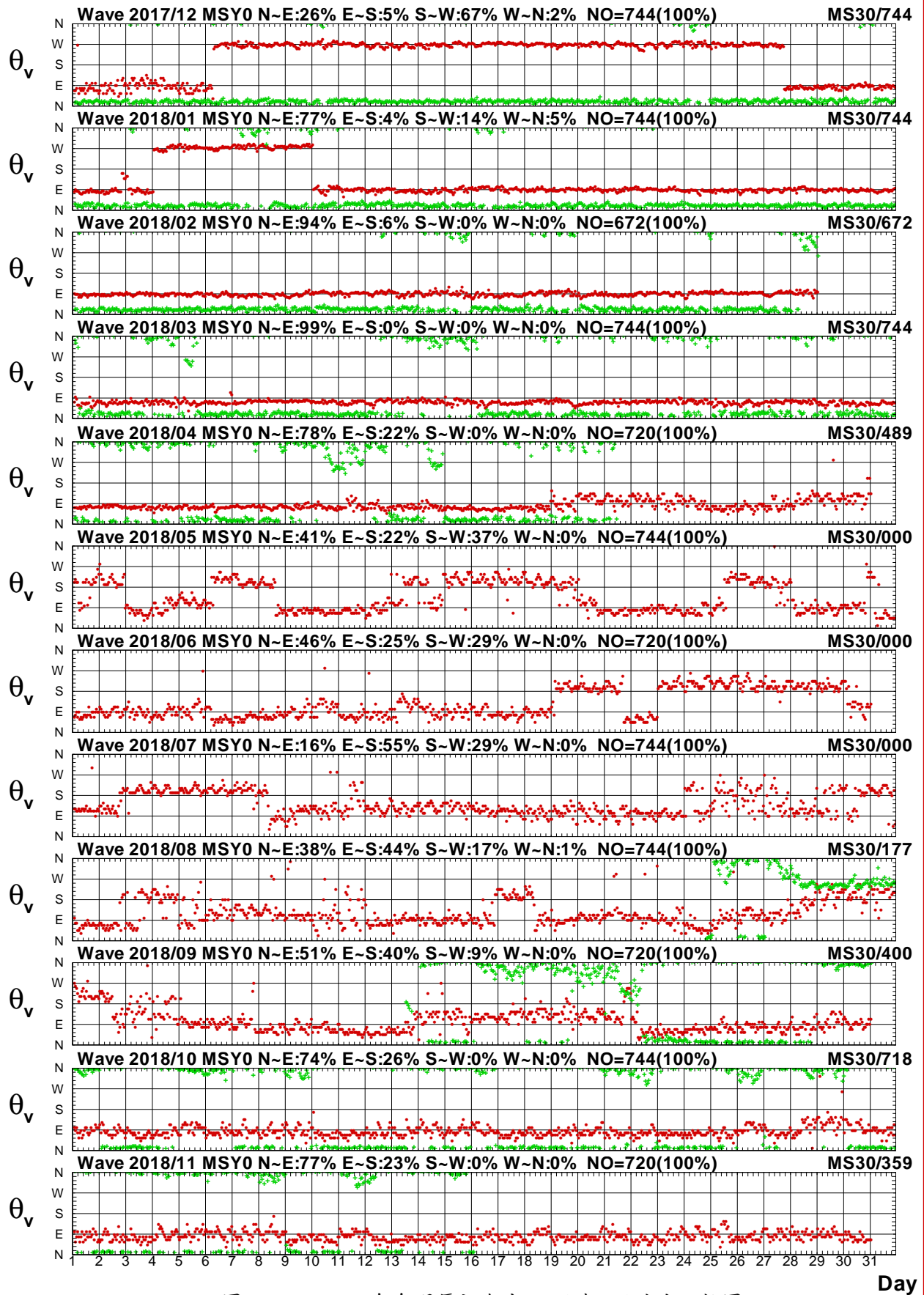


圖2.3.4c 2018年每月馬祖海域 Y 站與3站波向比較圖

V17CMSY0.1HA V17CMS30.1H0 V181MSY0.1HA V181MS30.1H0 V182MSY0.1HA V182MS30.1H0
 V183MSY0.1HA V183MS30.1H0 V184MSY0.1HA V184MS30.1H0 V185MSY0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

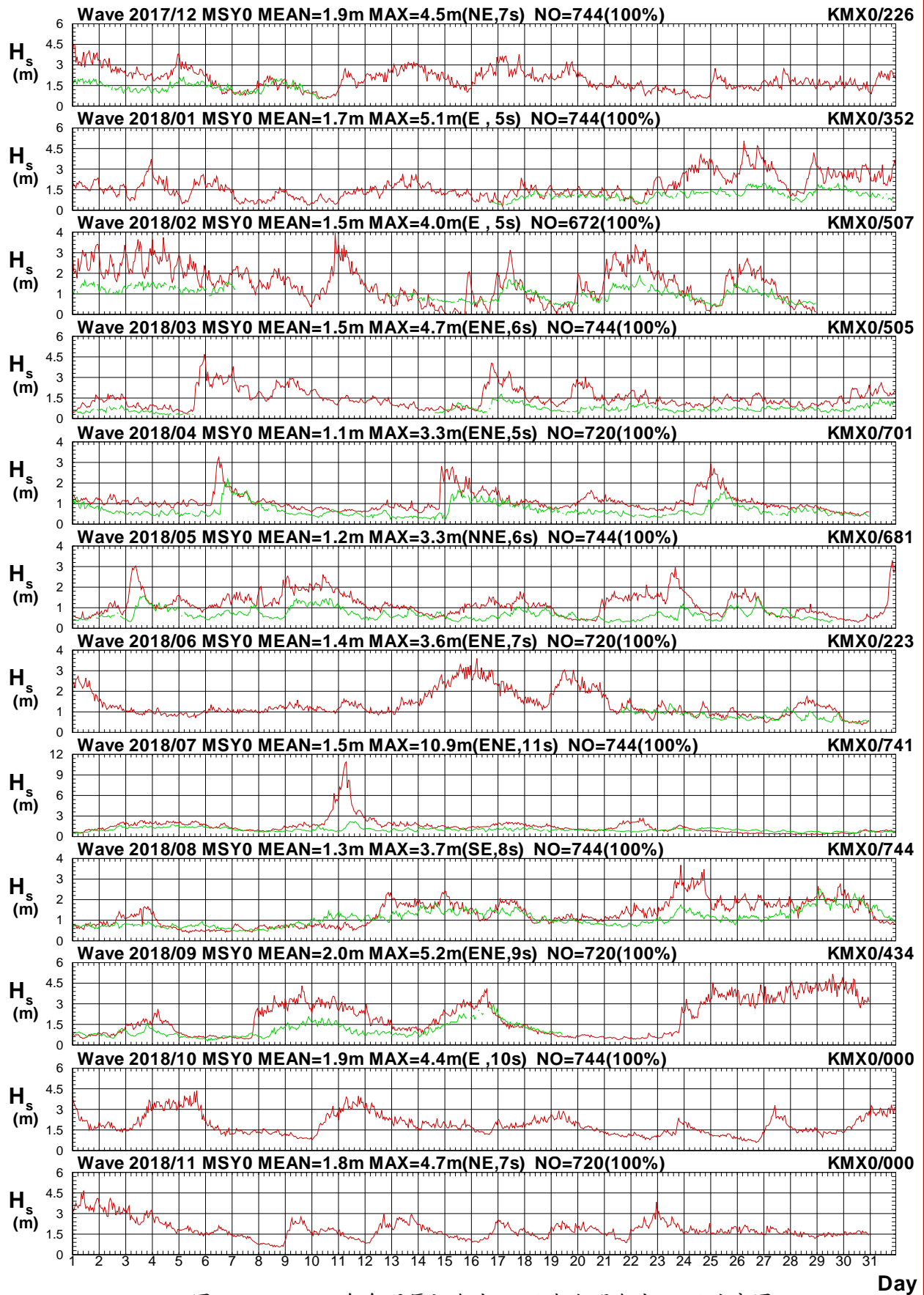


圖2.3.5a 2018年每月馬祖海域 Y 站與金門海域 X 站波高圖

V17CMSY0.1HA V17CKMX0.1H0 V181MSY0.1HA V181KMX0.1H0 V182MSY0.1HA V182KMX0.1H0
 V183MSY0.1HA V183KMX0.1H0 V184MSY0.1HA V184KMX0.1H0 V185MSY0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

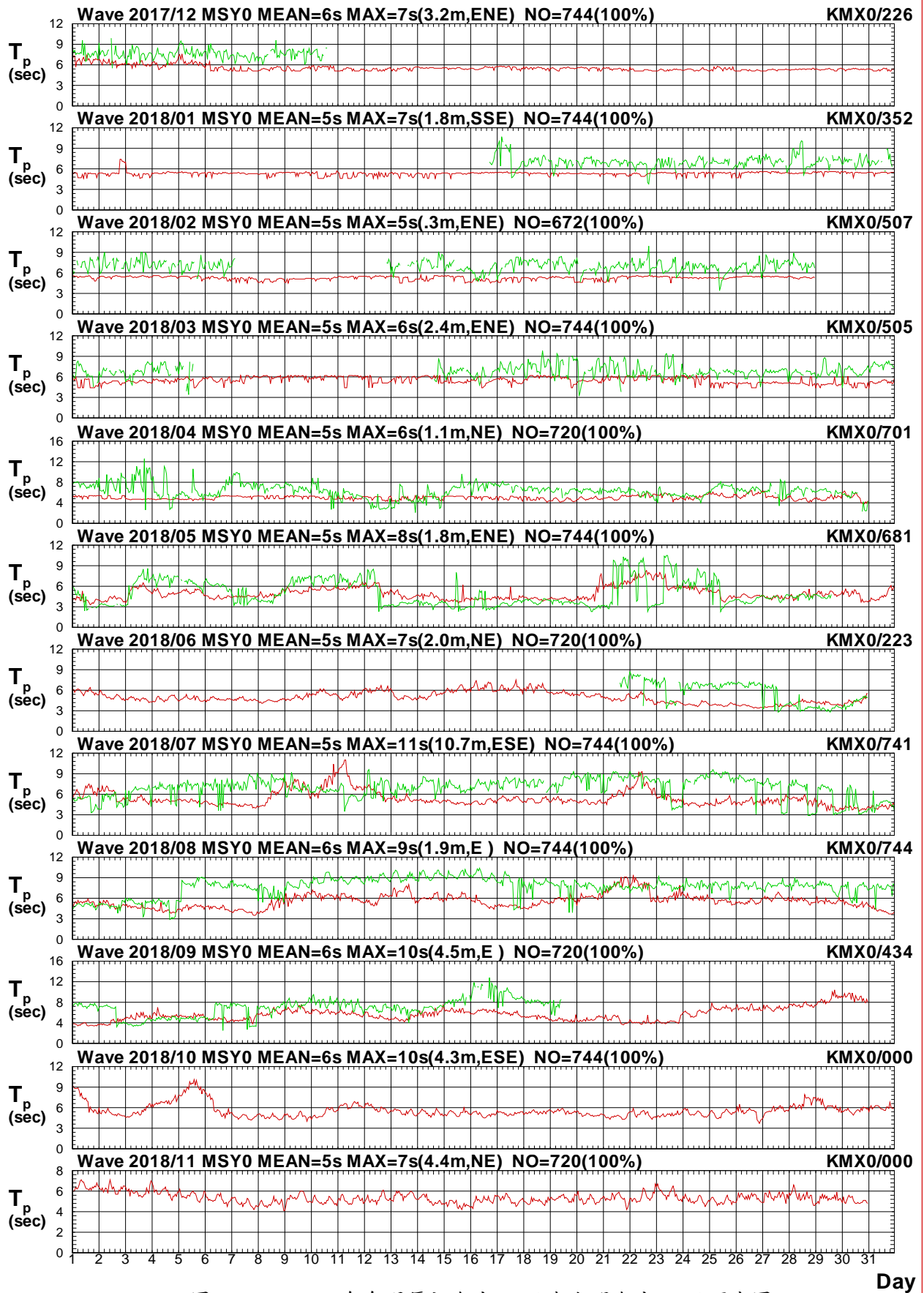


圖2.3.5b 2018年每月馬祖海域 Y 站與金門海域 X 站週期圖

V17CMSY0.1HA V17CKMX0.1H0 V181MSY0.1HA V181KMX0.1H0 V182MSY0.1HA V182KMX0.1H0
 V183MSY0.1HA V183KMX0.1H0 V184MSY0.1HA V184KMX0.1H0 V185MSY0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

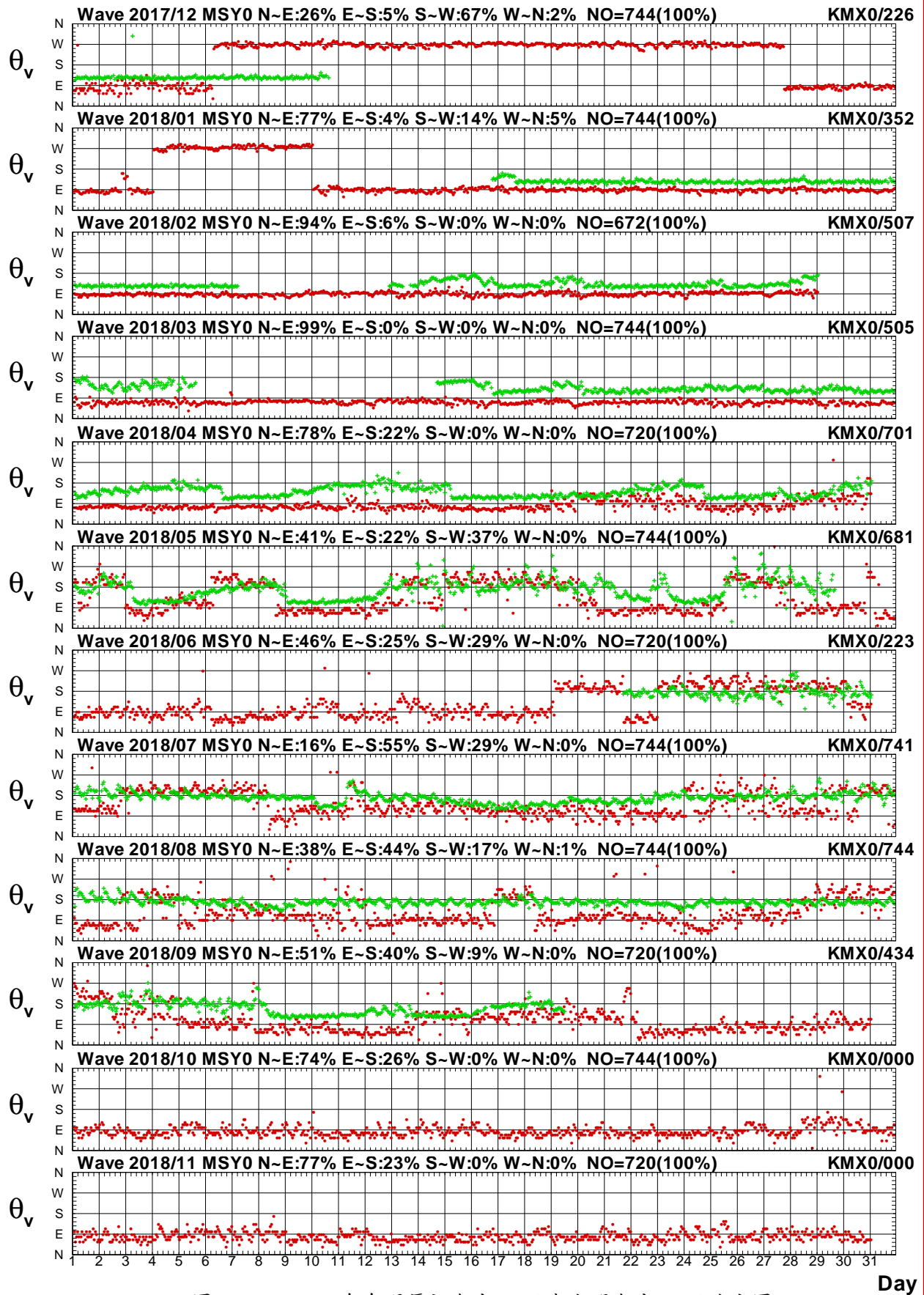


圖2.3.5c 2018年每月馬祖海域 Y 站與金門海域 X 站波向圖

V17CMSY0.1HA V17CKMX0.1H0 V181MSY0.1HA V181KMX0.1H0 V182MSY0.1HA V182KMX0.1H0
 V183MSY0.1HA V183KMX0.1H0 V184MSY0.1HA V184KMX0.1H0 V185MSY0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

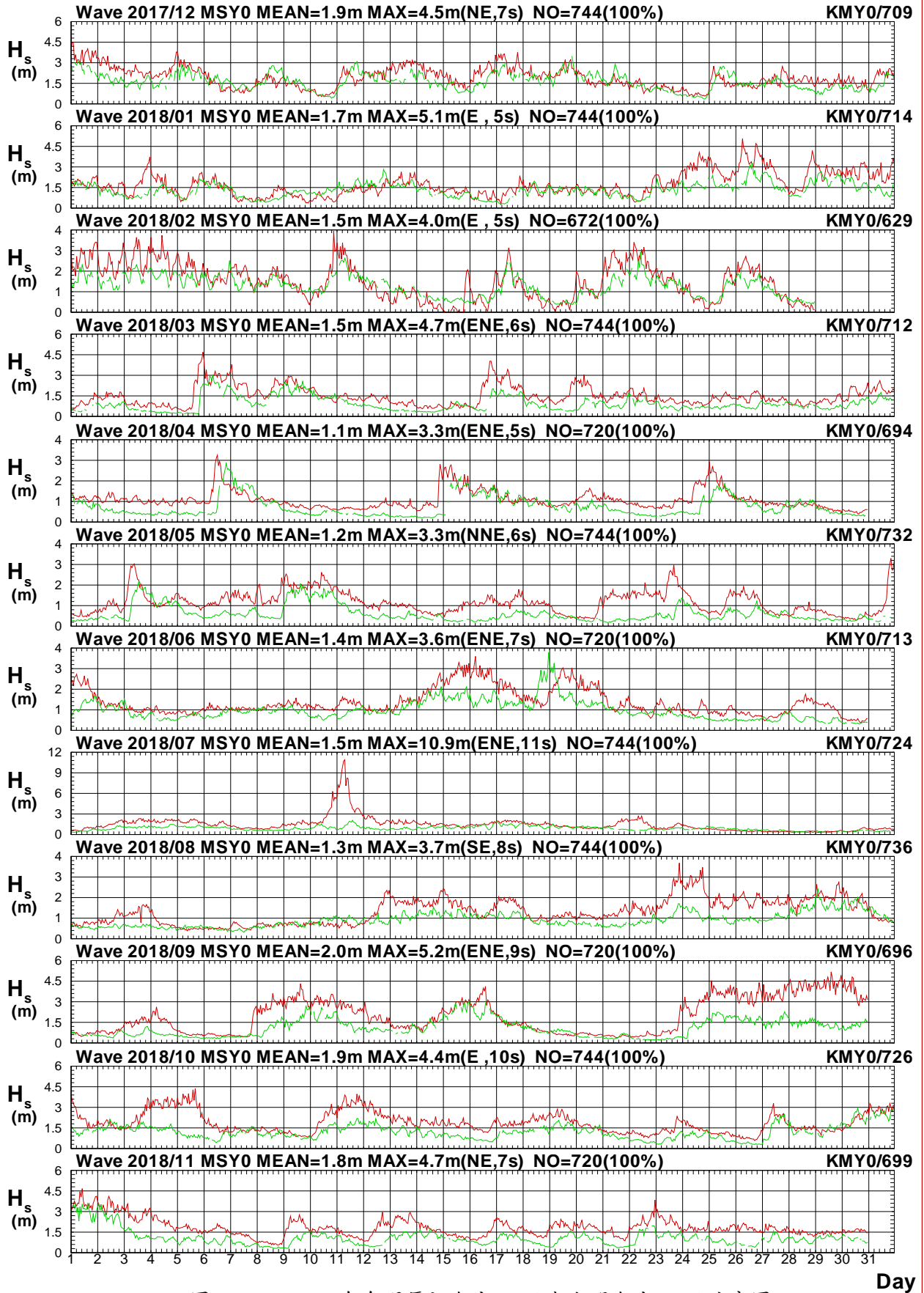


圖2.3.6a 2018年每月馬祖海域 Y 站與金門海域 Y 站波高圖

V17CMSY0.1HA V17CKMY0.1H0 V181MSY0.1HA V181KMY0.1H0 V182MSY0.1HA V182KMY0.1H0
 V183MSY0.1HA V183KMY0.1H0 V184MSY0.1HA V184KMY0.1H0 V185MSY0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

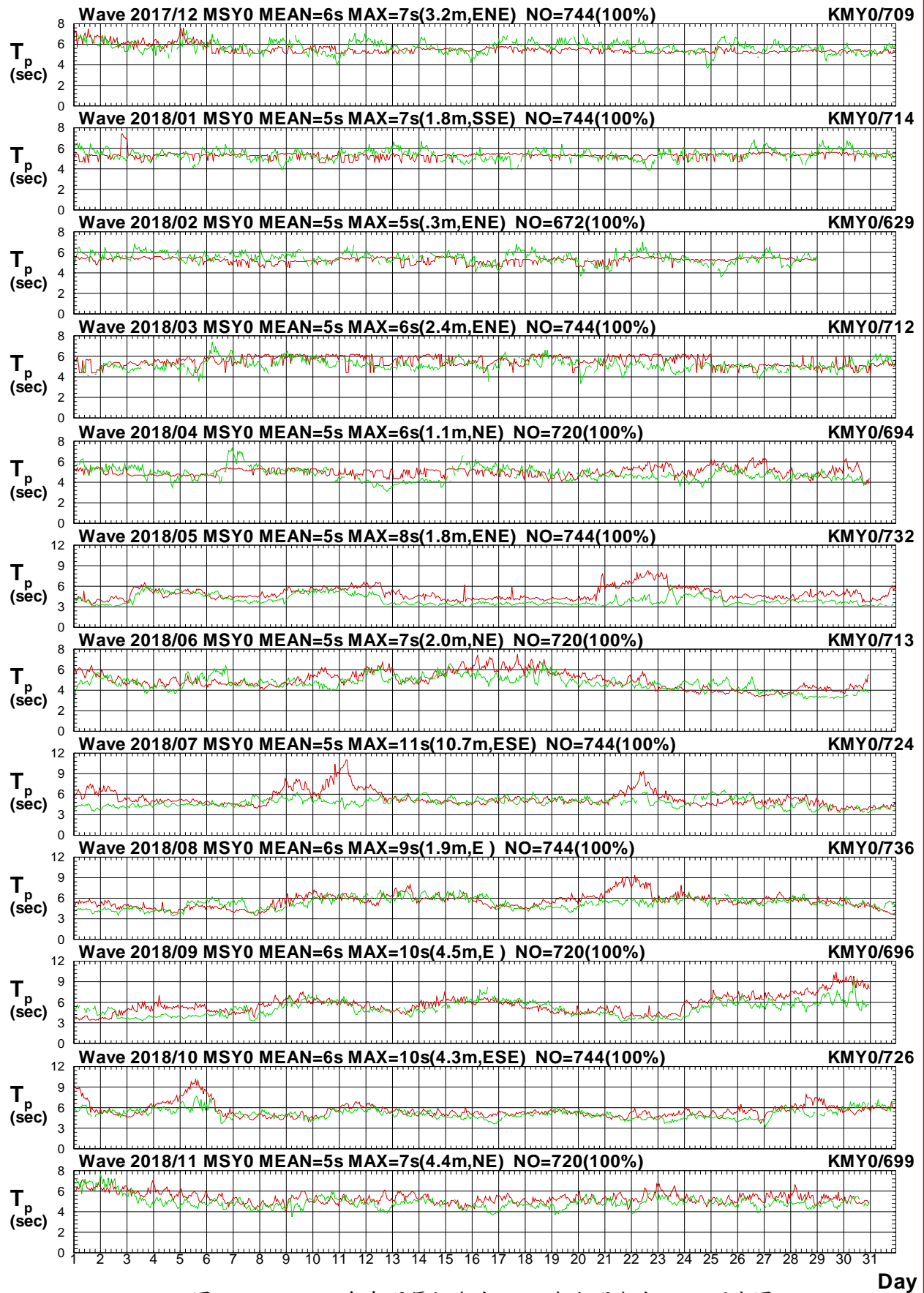


圖2.3.6b 2018年每月馬祖海域 Y 站與金門海域 Y 站週期圖

V17CMSY0.1HA V17CKMY0.1H0 V181MSY0.1HA V181KMY0.1H0 V182MSY0.1HA V182KMY0.1H0
 V183MSY0.1HA V183KMY0.1H0 V184MSY0.1HA V184KMY0.1H0 V185MSY0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

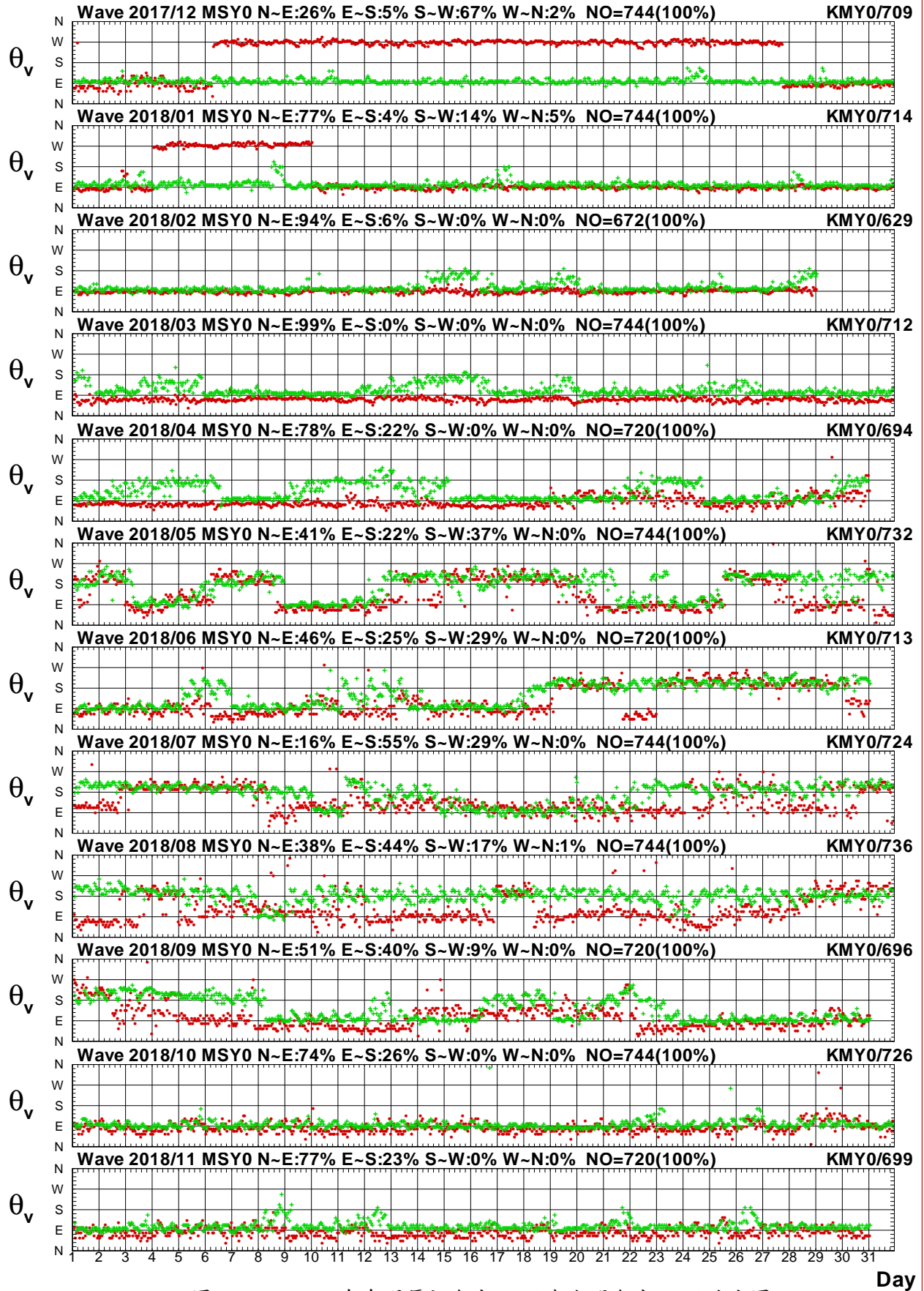


圖2.3.6c 2018年每月馬祖海域 Y 站與金門海域 Y 站波向圖

V17CMSY0.1HA V17CKMY0.1H0 V181MSY0.1HA V181KMY0.1H0 V182MSY0.1HA V182KMY0.1H0
 V183MSY0.1HA V183KMY0.1H0 V184MSY0.1HA V184KMY0.1H0 V185MSY0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

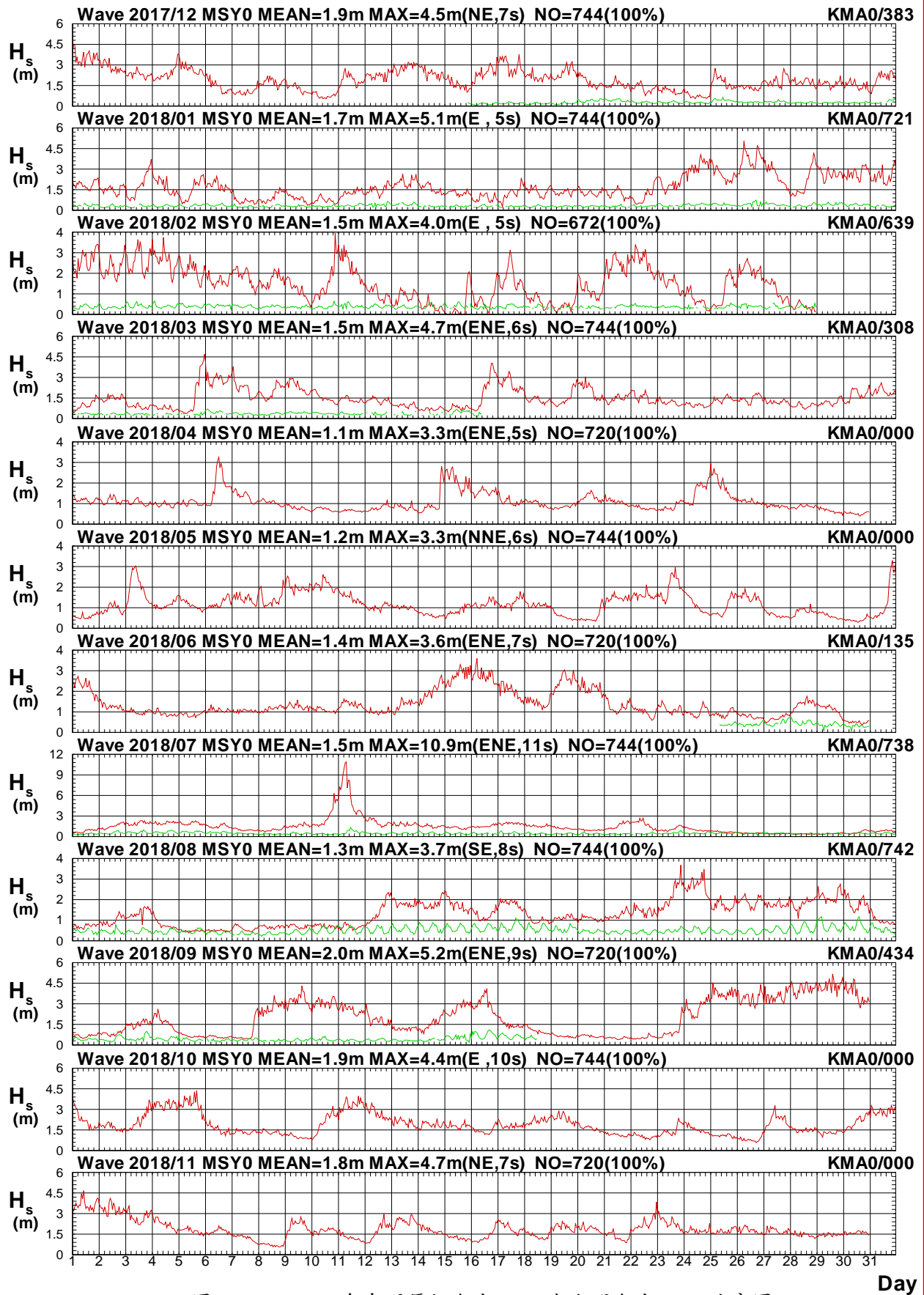


圖2.3.7a 2018年每月馬祖海域 Y 站與金門海域 A 站波高圖

V17CMSY0.1HA V17CKMA0.1H0 V181MSY0.1HA V181KMA0.1H0 V182MSY0.1HA V182KMA0.1H0
 V183MSY0.1HA V183KMA0.1H0 V184MSY0.1HA V184KMA0.1H0 V185MSY0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

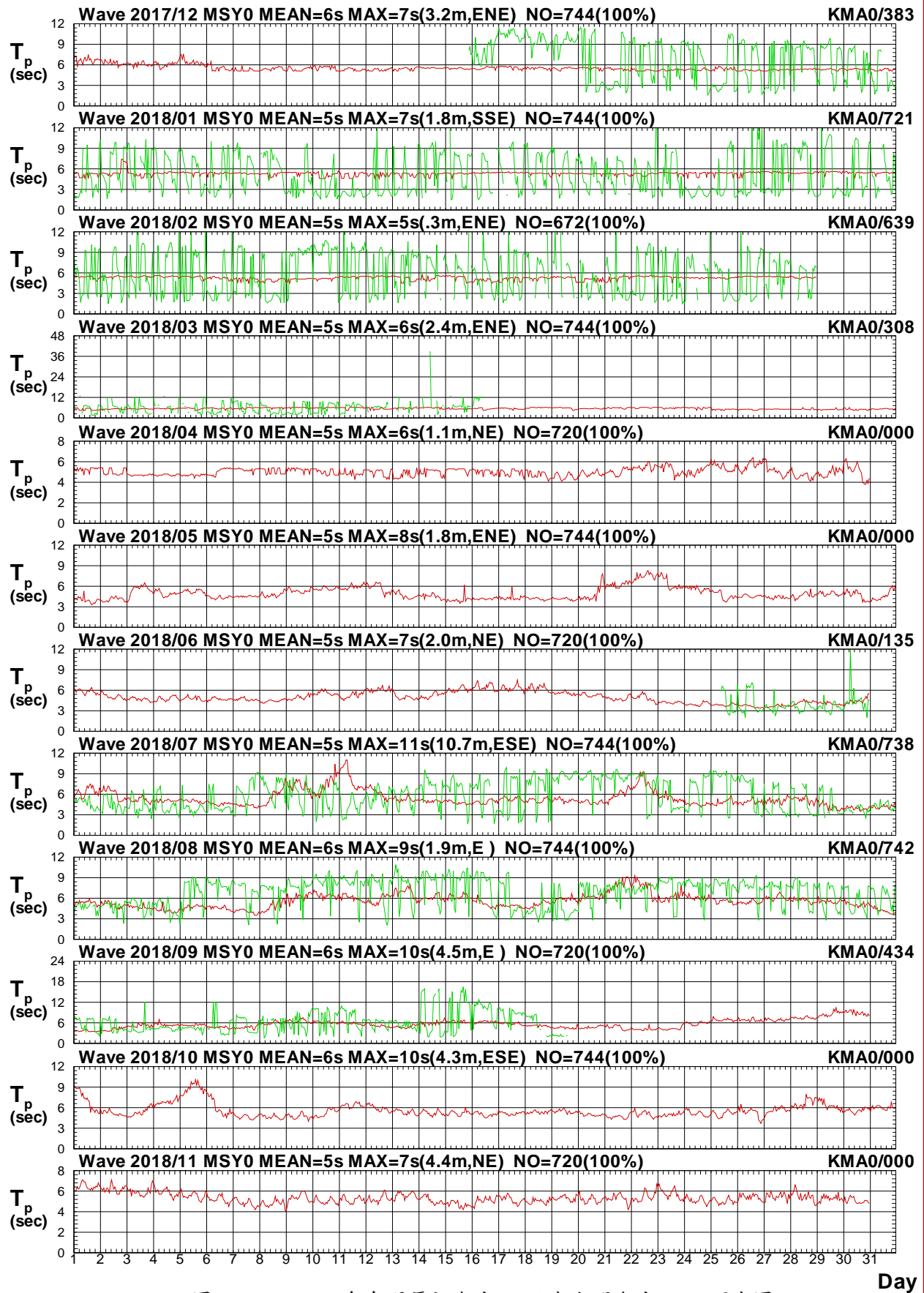


圖2.3.7b 2018年每月馬祖海域 Y 站與金門海域 A 站週期圖

V17CMSY0.1HA V17CKMA0.1H0 V181MSY0.1HA V181KMA0.1H0 V182MSY0.1HA V182KMA0.1H0
 V183MSY0.1HA V183KMA0.1H0 V184MSY0.1HA V184KMA0.1H0 V185MSY0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

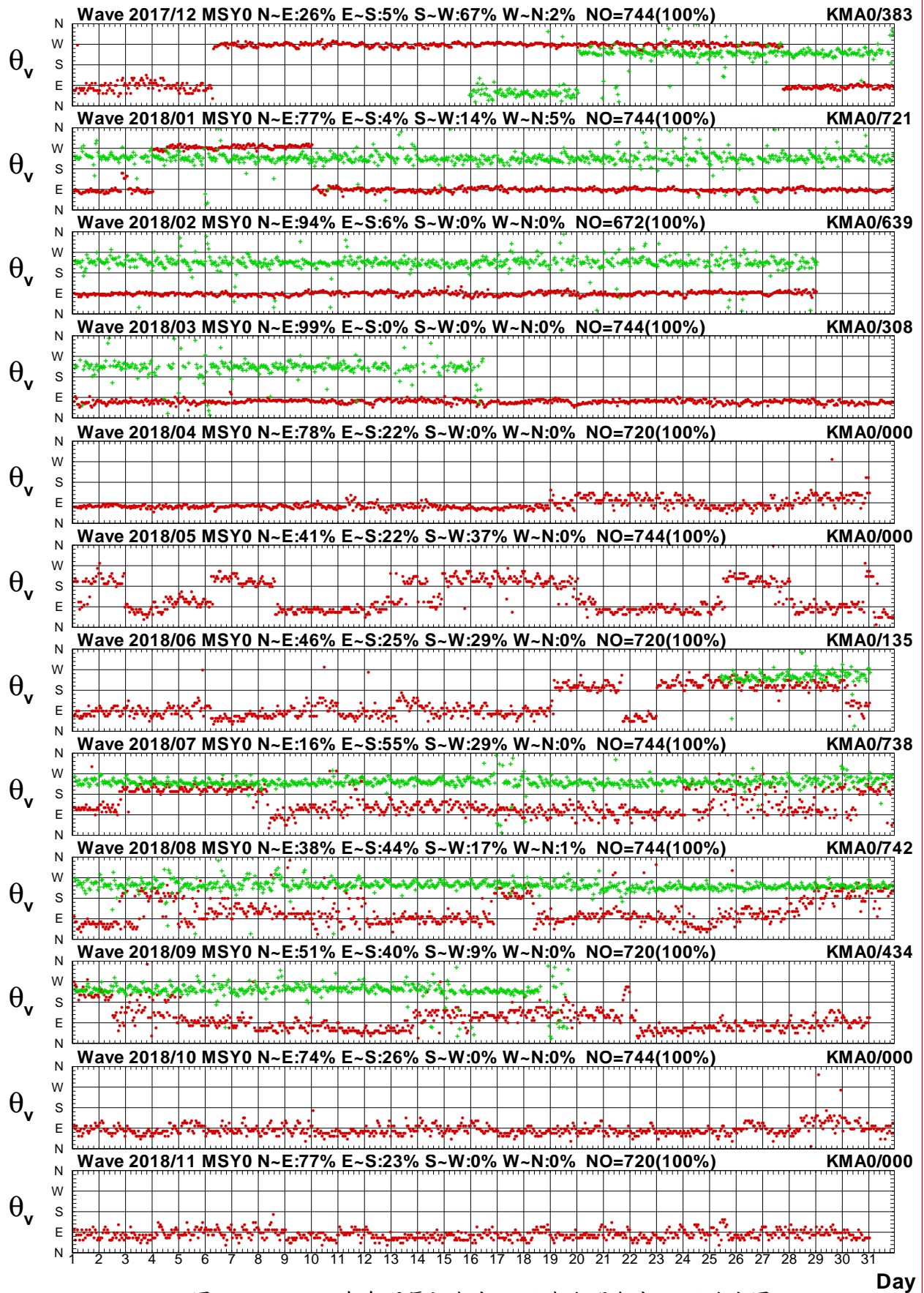


圖2.3.7c 2018年每月馬祖海域 Y 站與金門海域 A 站波向圖

V17CMSY0.1HA V17CKMA0.1H0 V181MSY0.1HA V181KMA0.1H0 V182MSY0.1HA V182KMA0.1H0
 V183MSY0.1HA V183KMA0.1H0 V184MSY0.1HA V184KMA0.1H0 V185MSY0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

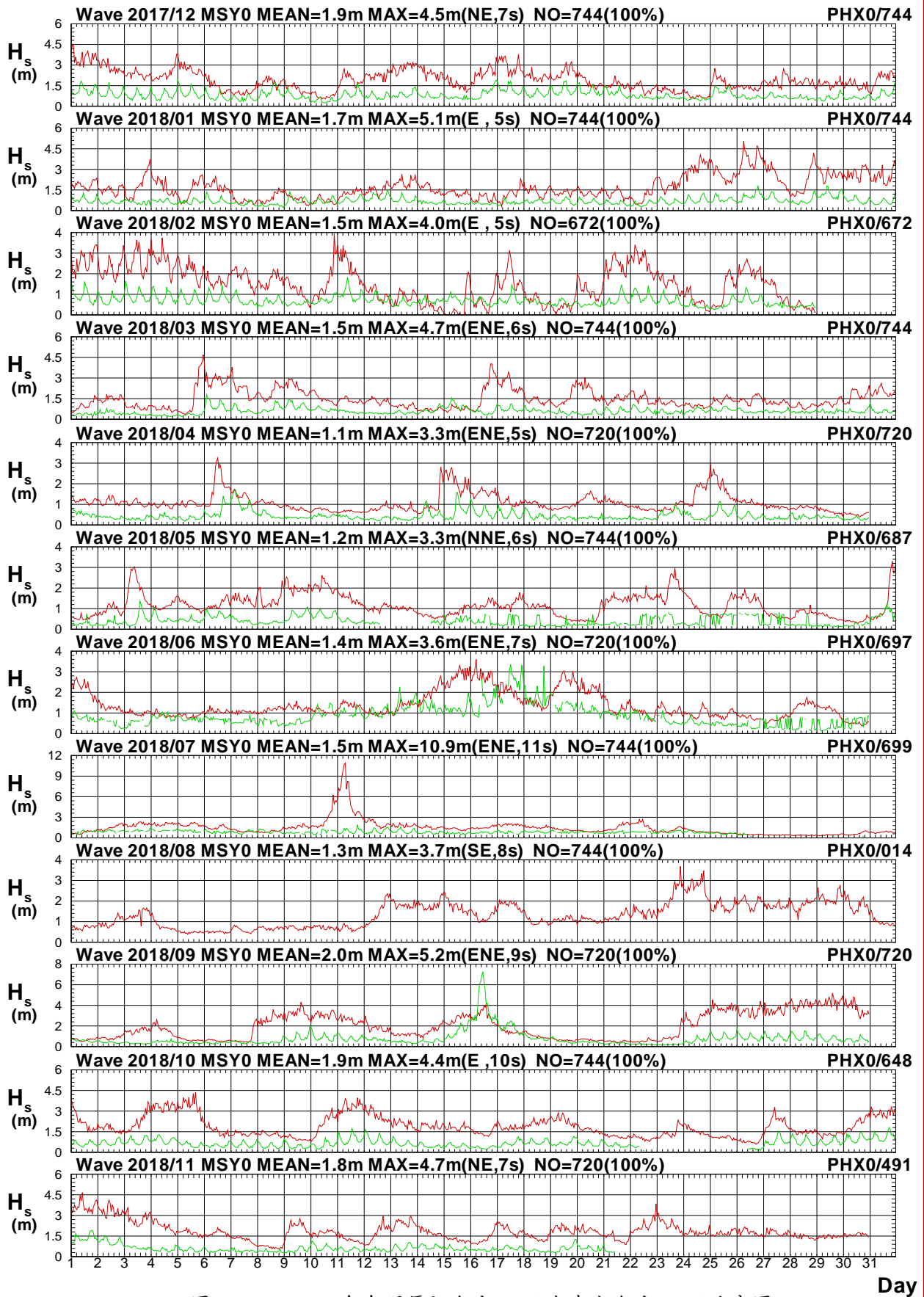


圖2.3.8a 2018年每月馬祖海域 Y 站與澎湖海域 X 站波高圖

V17CMSY0.1HA V17CPHX0.1H0 V181MSY0.1HA V181PHX0.1H0 V182MSY0.1HA V182PHX0.1H0
 V183MSY0.1HA V183PHX0.1H0 V184MSY0.1HA V184PHX0.1H0 V185MSY0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

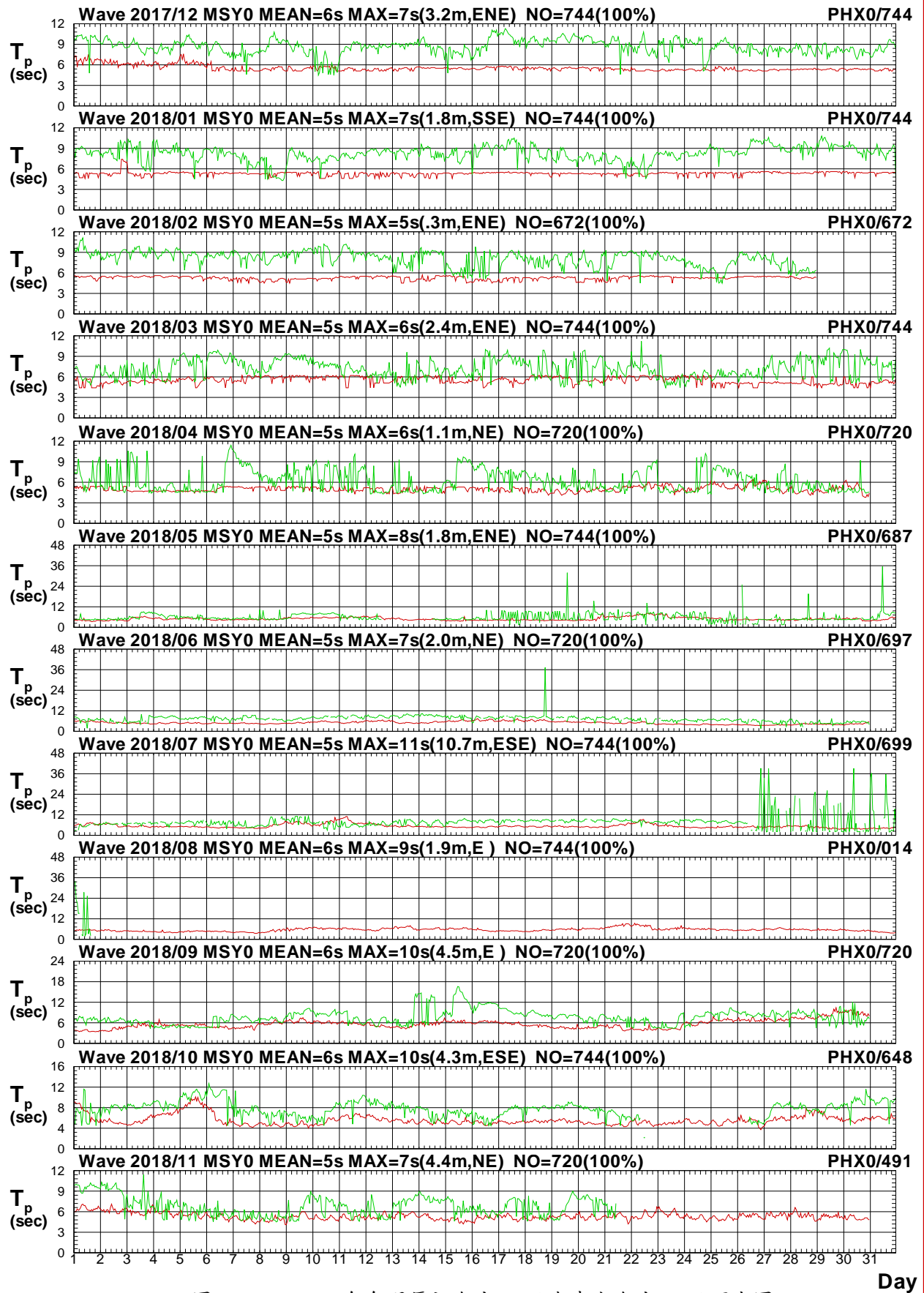


圖2.3.8b 2018年每月馬祖海域 Y 站與澎湖海域 X 站週期圖

V17CMSY0.1HA V17CPHX0.1H0 V181MSY0.1HA V181PHX0.1H0 V182MSY0.1HA V182PHX0.1H0
 V183MSY0.1HA V183PHX0.1H0 V184MSY0.1HA V184PHX0.1H0 V185MSY0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

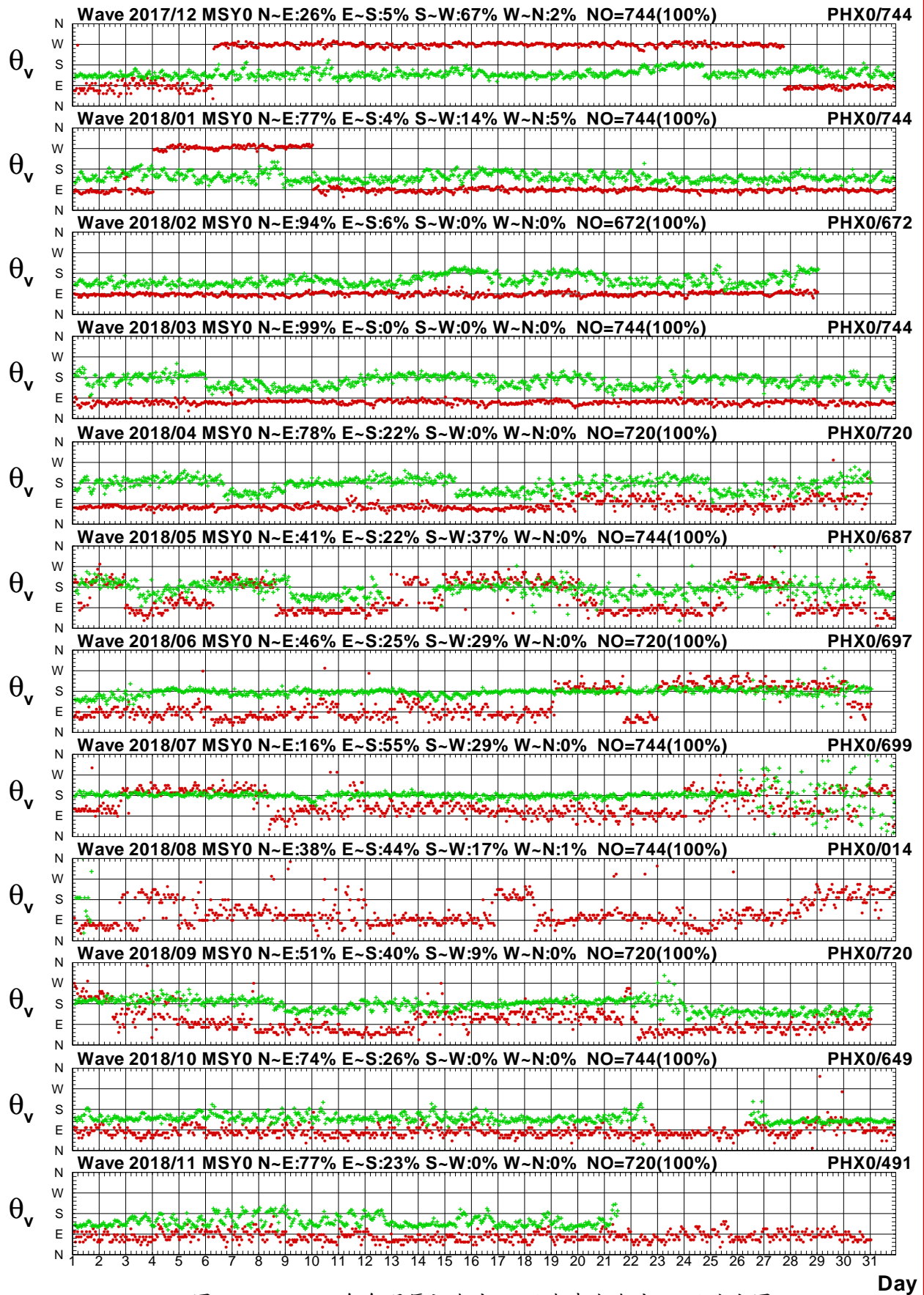


圖2.3.8c 2018年每月馬祖海域 Y 站與澎湖海域 X 站波向圖

V17CMSY0.1HA V17CPHX0.1H0 V181MSY0.1HA V181PHX0.1H0 V182MSY0.1HA V182PHX0.1H0
 V183MSY0.1HA V183PHX0.1H0 V184MSY0.1HA V184PHX0.1H0 V185MSY0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

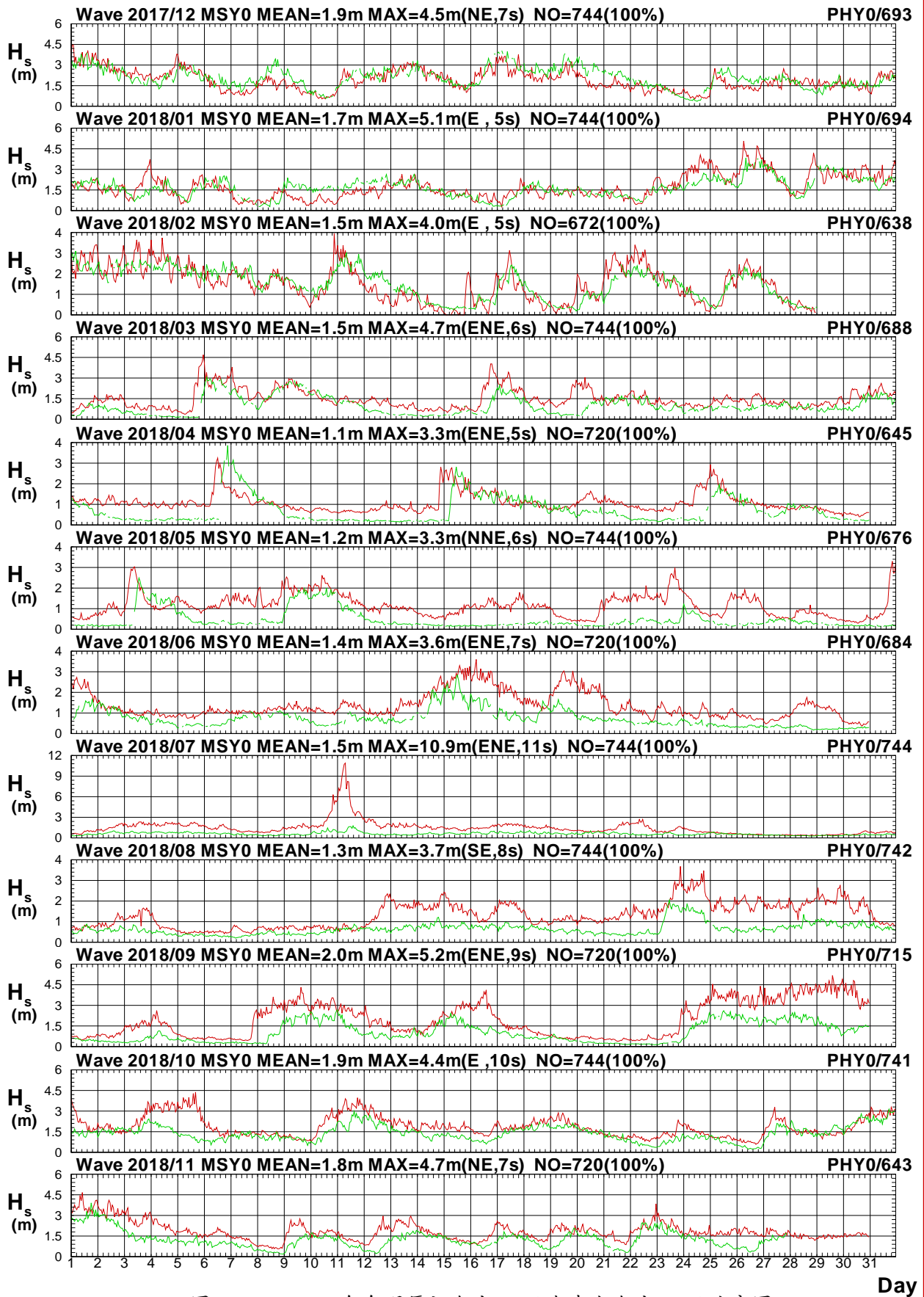


圖2.3.9a 2018年每月馬祖海域 Y 站與澎湖海域 Y 站波高圖

V17CMSY0.1HA V17CPHY0.1H0 V181MSY0.1HA V181PHY0.1H0 V182MSY0.1HA V182PHY0.1H0
 V183MSY0.1HA V183PHY0.1H0 V184MSY0.1HA V184PHY0.1H0 V185MSY0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

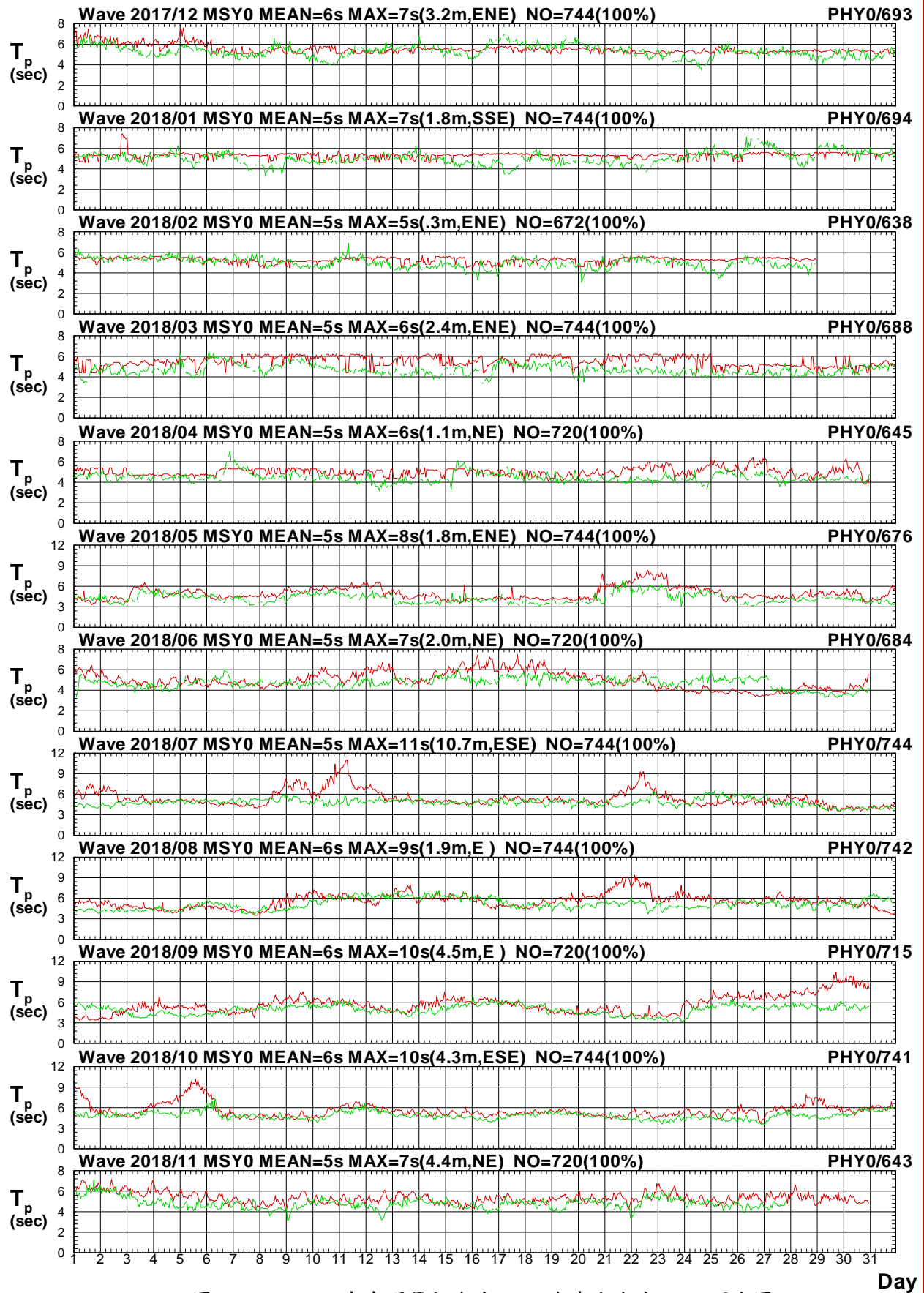


圖2.3.9b 2018年每月馬祖海域 Y 站與澎湖海域 Y 站週期圖

V17CMSY0.1HA V17CPHY0.1H0 V181MSY0.1HA V181PHY0.1H0 V182MSY0.1HA V182PHY0.1H0
 V183MSY0.1HA V183PHY0.1H0 V184MSY0.1HA V184PHY0.1H0 V185MSY0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

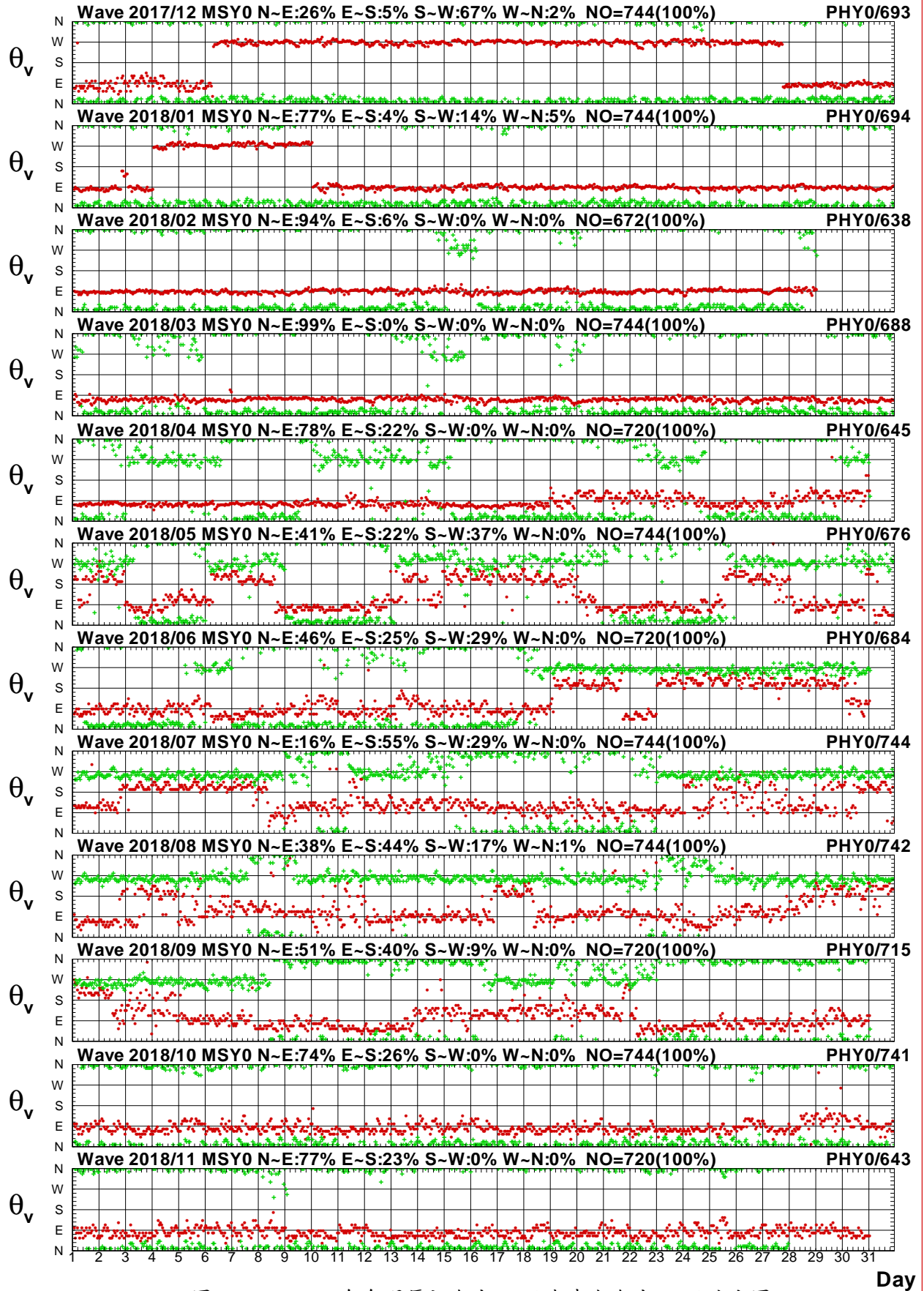


圖2.3.9c 2018年每月馬祖海域 Y 站與澎湖海域 Y 站波向圖

V17CMSY0.1HA V17CPHY0.1H0 V181MSY0.1HA V181PHY0.1H0 V182MSY0.1HA V182PHY0.1H0
 V183MSY0.1HA V183PHY0.1H0 V184MSY0.1HA V184PHY0.1H0 V185MSY0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

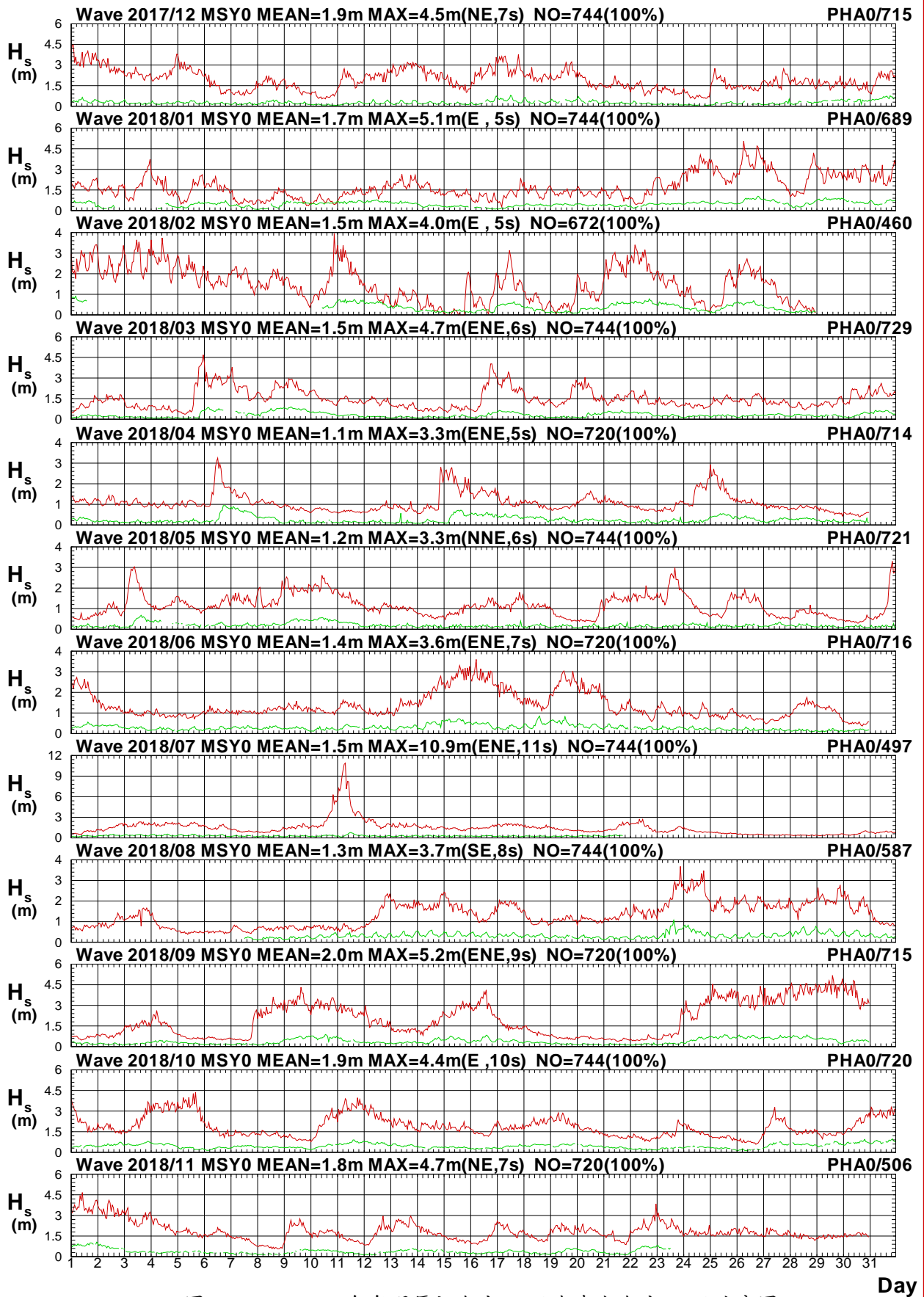


圖 2.3.10a 2018 年每月馬祖海域 Y 站與澎湖海域 A 站波高圖

V17CMSY0.1HA V17CPHA0.1H0 V181MSY0.1HA V181PHA0.1H0 V182MSY0.1HA V182PHA0.1H0
 V183MSY0.1HA V183PHA0.1H0 V184MSY0.1HA V184PHA0.1H0 V185MSY0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

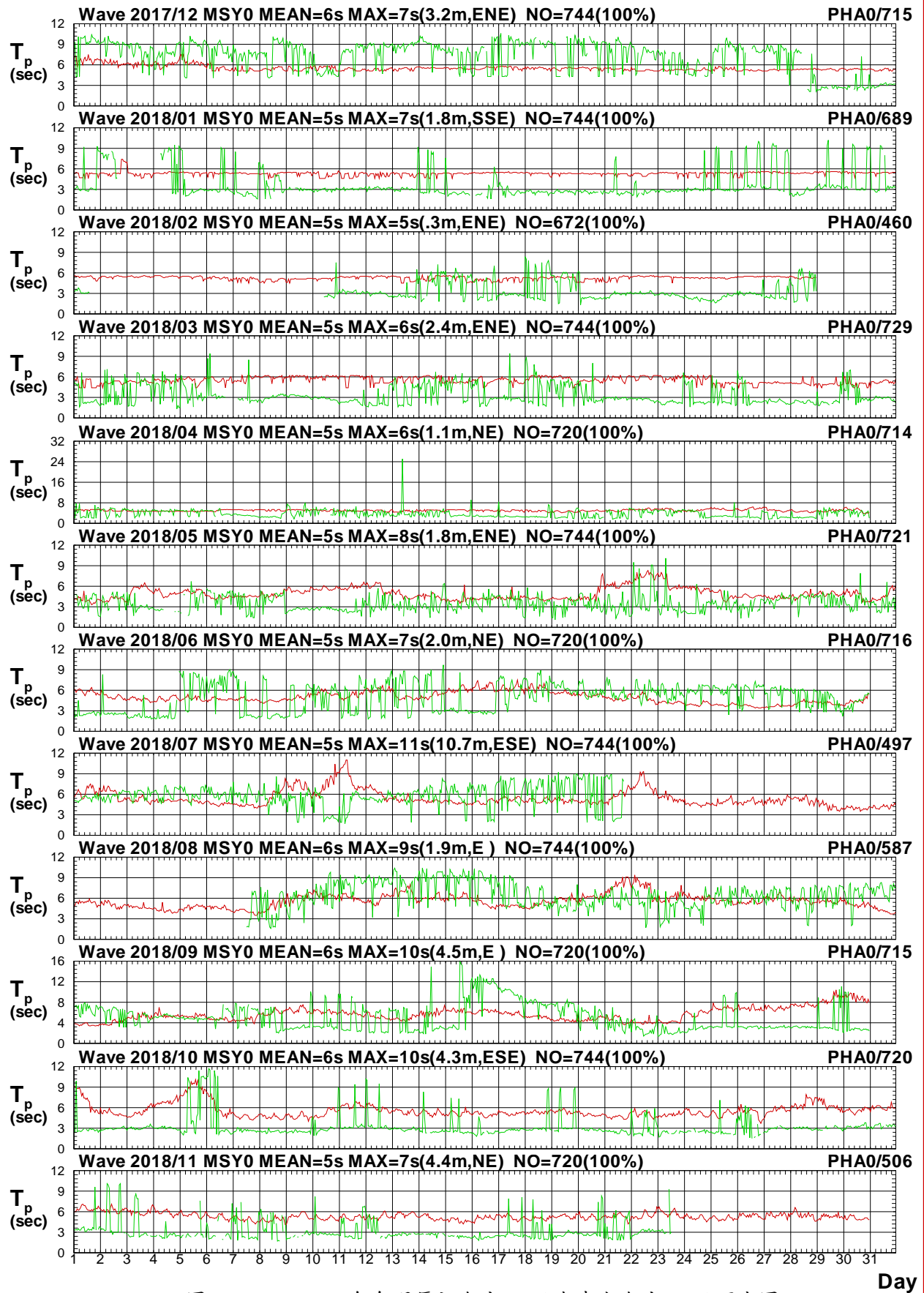


圖2.3.10b 2018年每月馬祖海域 Y 站與澎湖海域 A 站週期圖

V17CMSY0.1HA V17CPHA0.1H0 V181MSY0.1HA V181PHA0.1H0 V182MSY0.1HA V182PHA0.1H0
 V183MSY0.1HA V183PHA0.1H0 V184MSY0.1HA V184PHA0.1H0 V185MSY0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

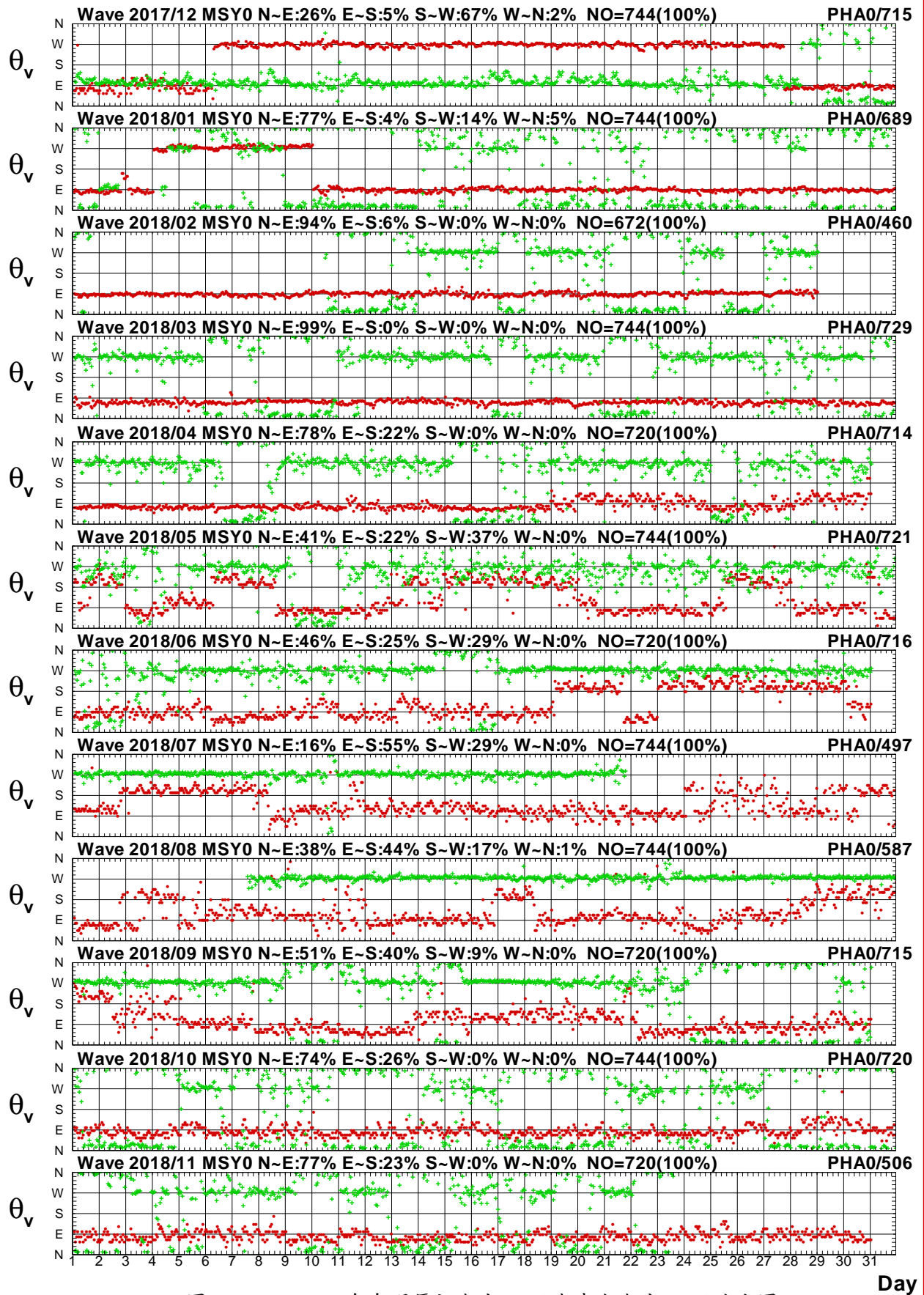


圖2.3.10c 2018年每月馬祖海域 Y 站與澎湖海域 A 站波向圖

V17CMSY0.1HA V17CPHA0.1H0 V181MSY0.1HA V181PHA0.1H0 V182MSY0.1HA V182PHA0.1H0
 V183MSY0.1HA V183PHA0.1H0 V184MSY0.1HA V184PHA0.1H0 V185MSY0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSY0 at 2018

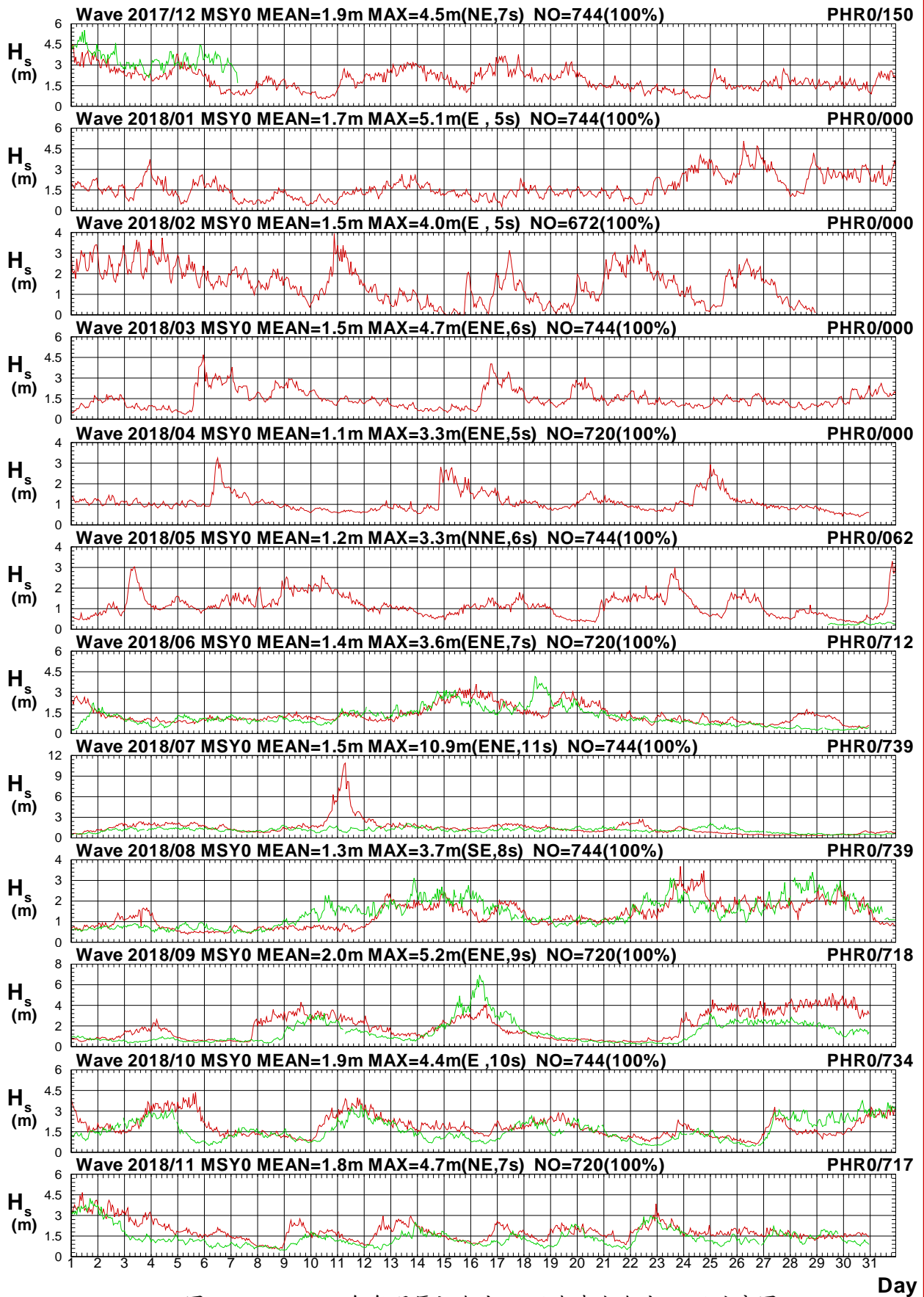


圖2.3.11a 2018年每月馬祖海域 Y 站與澎湖海域 R 站波高圖

V17CMSY0.1HA V17CPHR0.1H0 V181MSY0.1HA V181PHR0.1H0 V182MSY0.1HA V182PHR0.1H0
 V183MSY0.1HA V183PHR0.1H0 V184MSY0.1HA V184PHR0.1H0 V185MSY0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSY0 at 2018

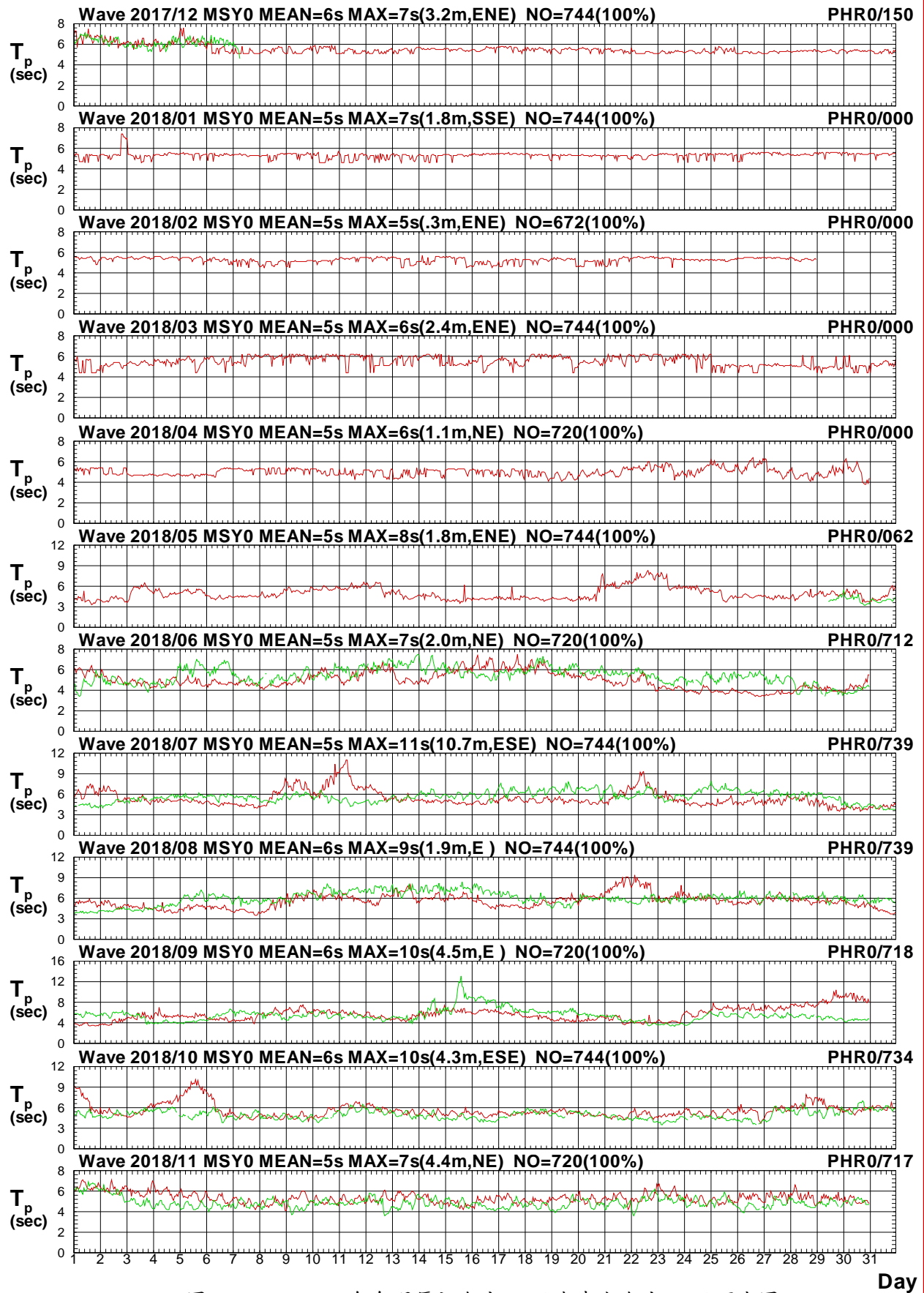


圖2.3.11b 2018年每月馬祖海域 Y 站與澎湖海域 R 站週期圖

V17CMSY0.1HA V17CPHR0.1H0 V181MSY0.1HA V181PHR0.1H0 V182MSY0.1HA V182PHR0.1H0
 V183MSY0.1HA V183PHR0.1H0 V184MSY0.1HA V184PHR0.1H0 V185MSY0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSY0 at 2018

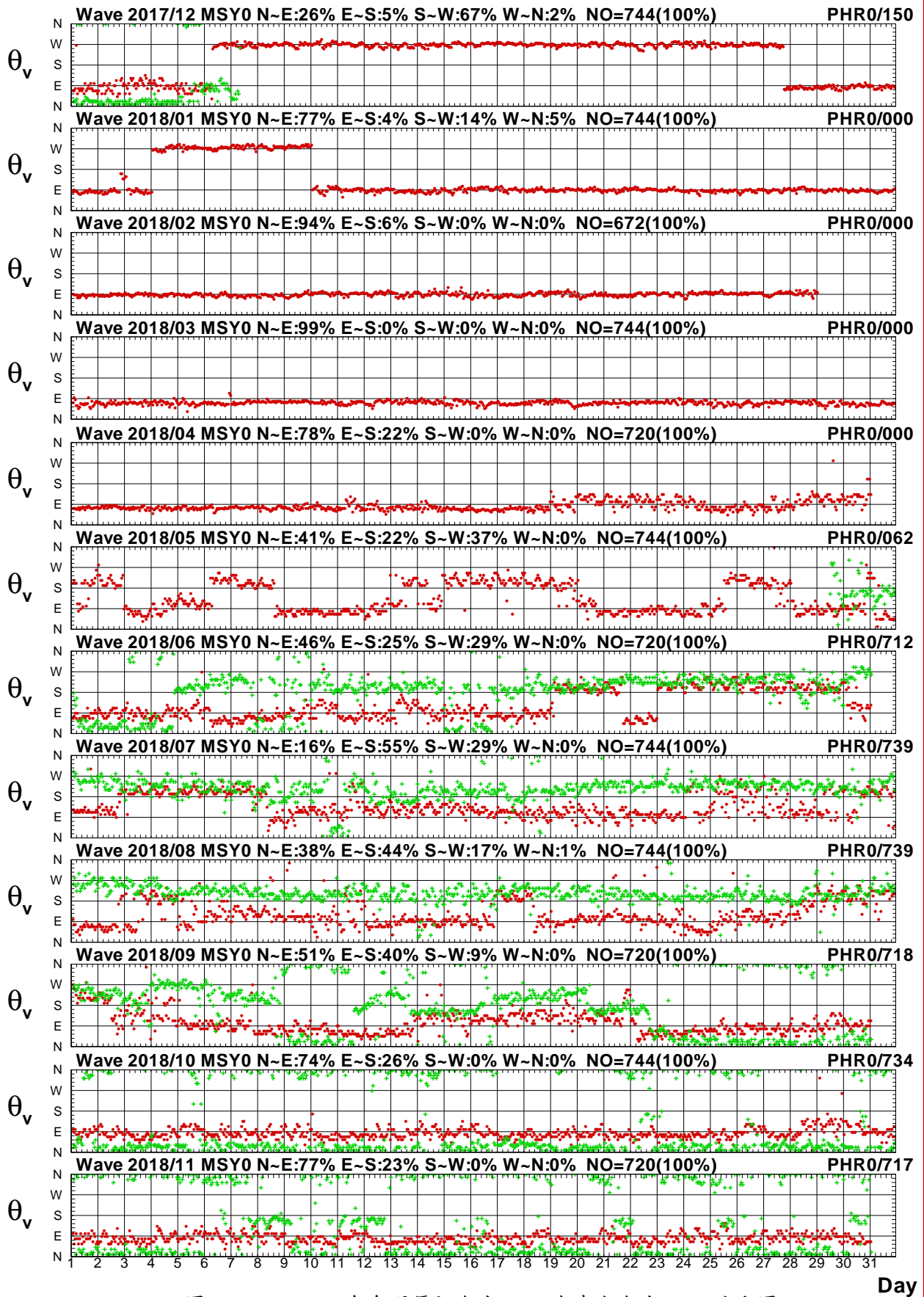


圖 2.3.11c 2018 年每月馬祖海域 Y 站與澎湖海域 R 站波向圖

V17CMSY0.1HA V17CPHR0.1H0 V181MSY0.1HA V181PHR0.1H0 V182MSY0.1HA V182PHR0.1H0
 V183MSY0.1HA V183PHR0.1H0 V184MSY0.1HA V184PHR0.1H0 V185MSY0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

2.4 2018年馬祖海域波浪**主要測站2**(修補後)與 **其他測站**(修補前)每月波浪歷線比較圖

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

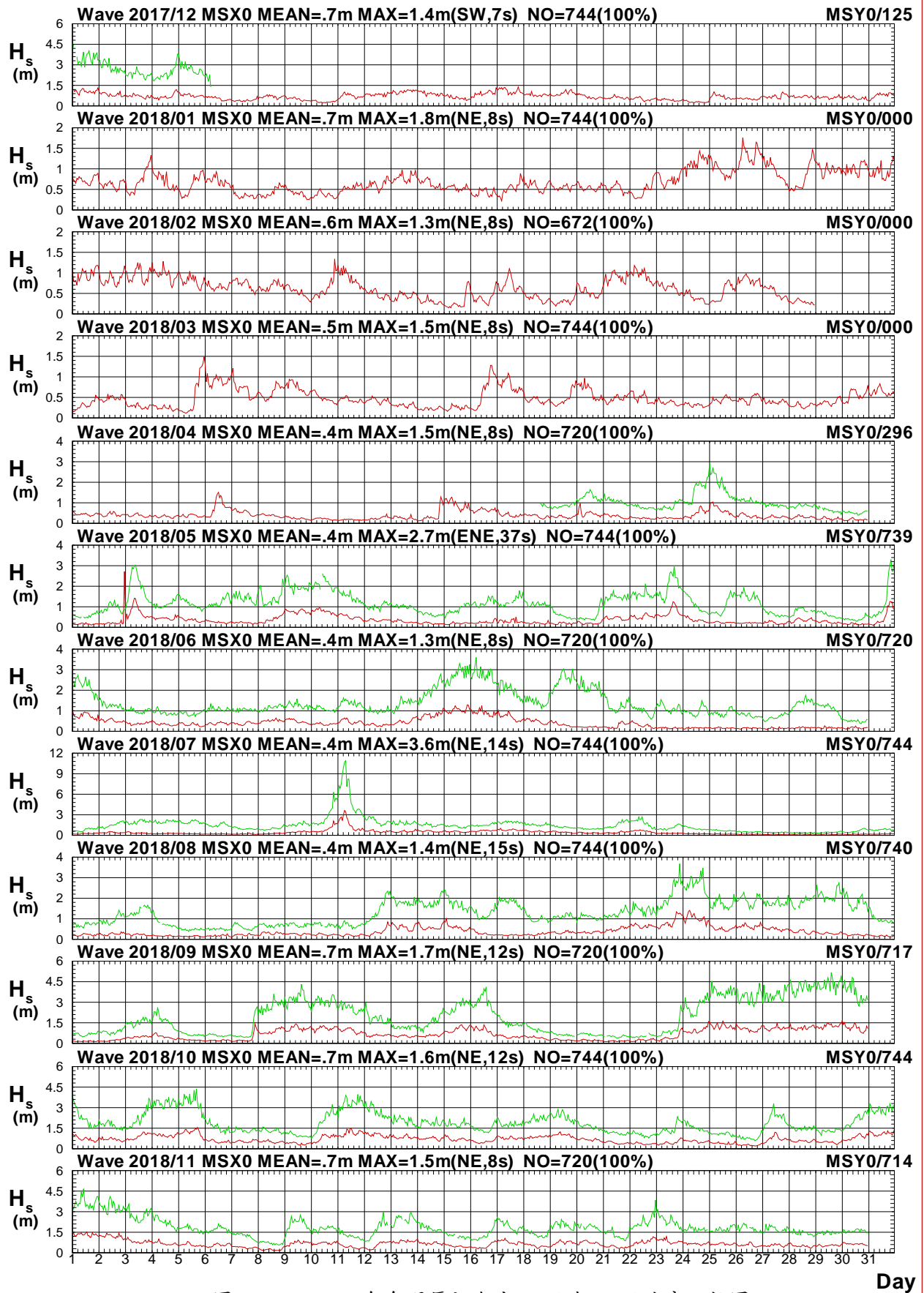


圖2.4.1a 2018年每月馬祖海域 X 站與 Y 站波高比較圖

V17CMSX0.1HA V17CMSY0.1H0 V181MSX0.1HA V181MSY0.1H0 V182MSX0.1HA V182MSY0.1H0
 V183MSX0.1HA V183MSY0.1H0 V184MSX0.1HA V184MSY0.1H0 V185MSX0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

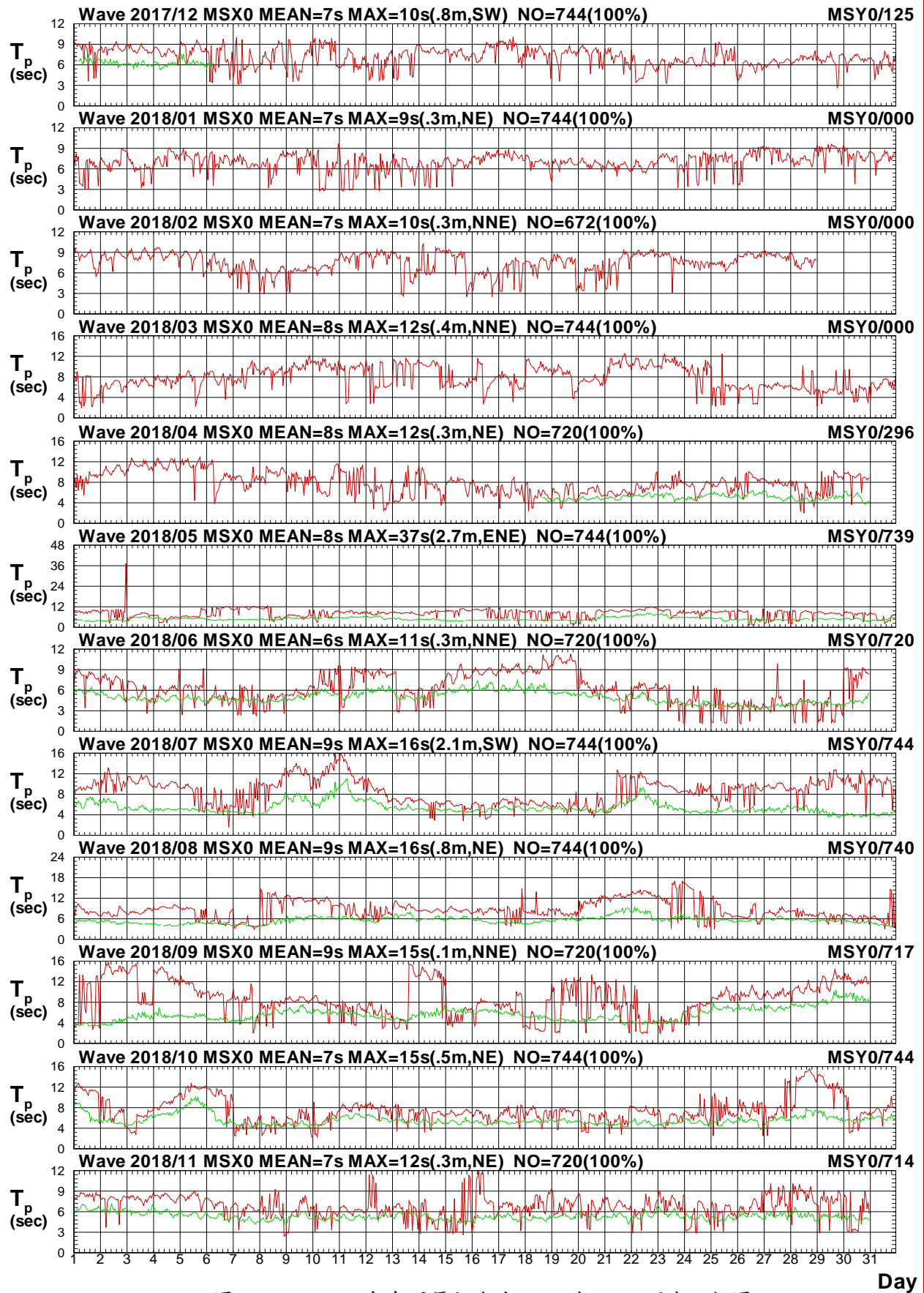


圖2.4.1b 2018年每月馬祖海域 X 站與 Y 站週期比較圖

V17CMSX0.1HA V17CMSY0.1H0 V181MSX0.1HA V181MSY0.1H0 V182MSX0.1HA V182MSY0.1H0
 V183MSX0.1HA V183MSY0.1H0 V184MSX0.1HA V184MSY0.1H0 V185MSX0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

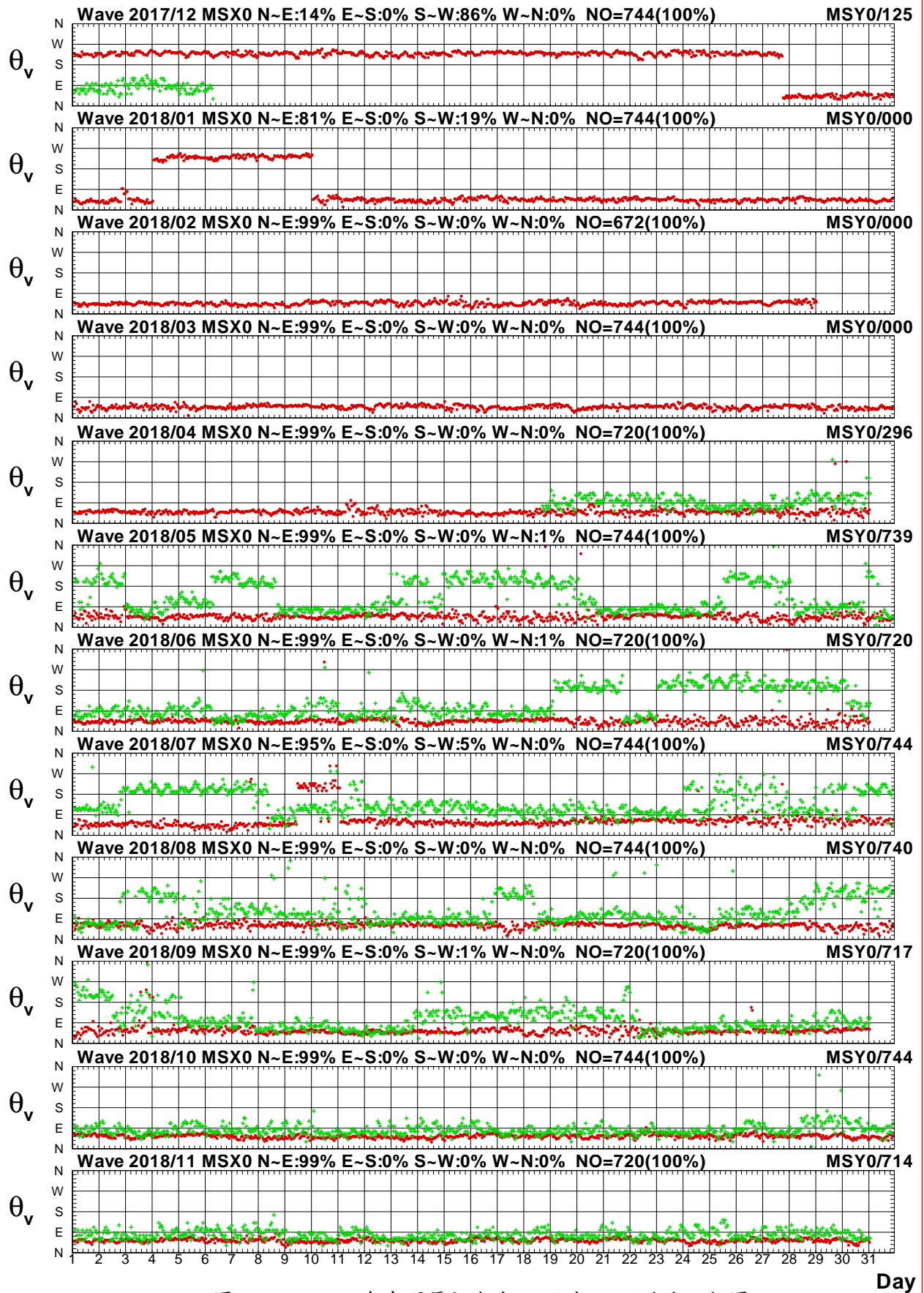


圖2.4.1c 2018年每月馬祖海域 X 站與 Y 站波向比較圖

V17CMSX0.1HA V17CMSY0.1H0 V181MSX0.1HA V181MSY0.1H0 V182MSX0.1HA V182MSY0.1H0
 V183MSX0.1HA V183MSY0.1H0 V184MSX0.1HA V184MSY0.1H0 V185MSX0.1HA V185MSY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

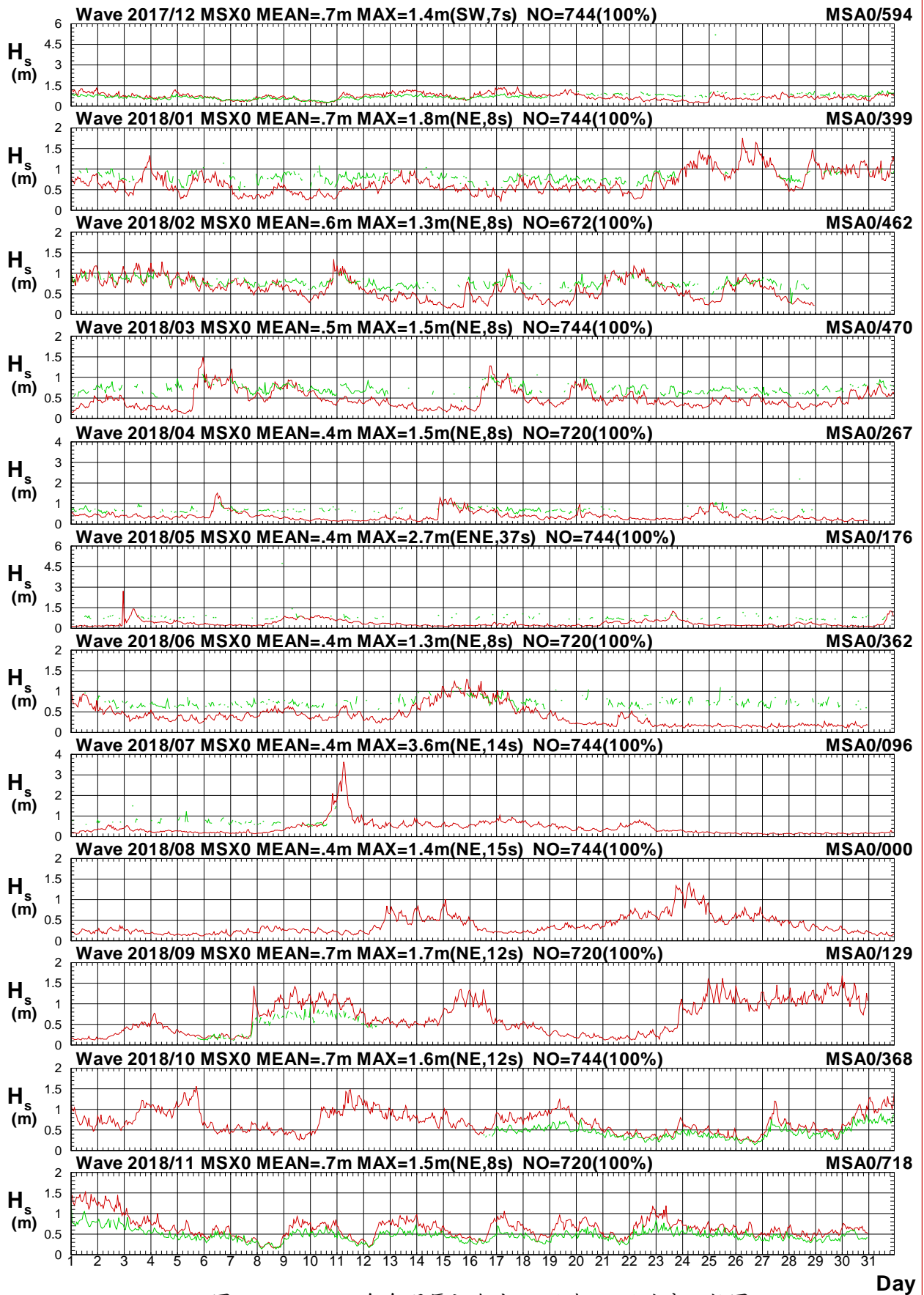


圖2.4.2a 2018年每月馬祖海域 X 站與 A 站波高比較圖

V17CMSX0.1HA V17CMSA0.1H0 V181MSX0.1HA V181MSA0.1H0 V182MSX0.1HA V182MSA0.1H0
 V183MSX0.1HA V183MSA0.1H0 V184MSX0.1HA V184MSA0.1H0 V185MSX0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

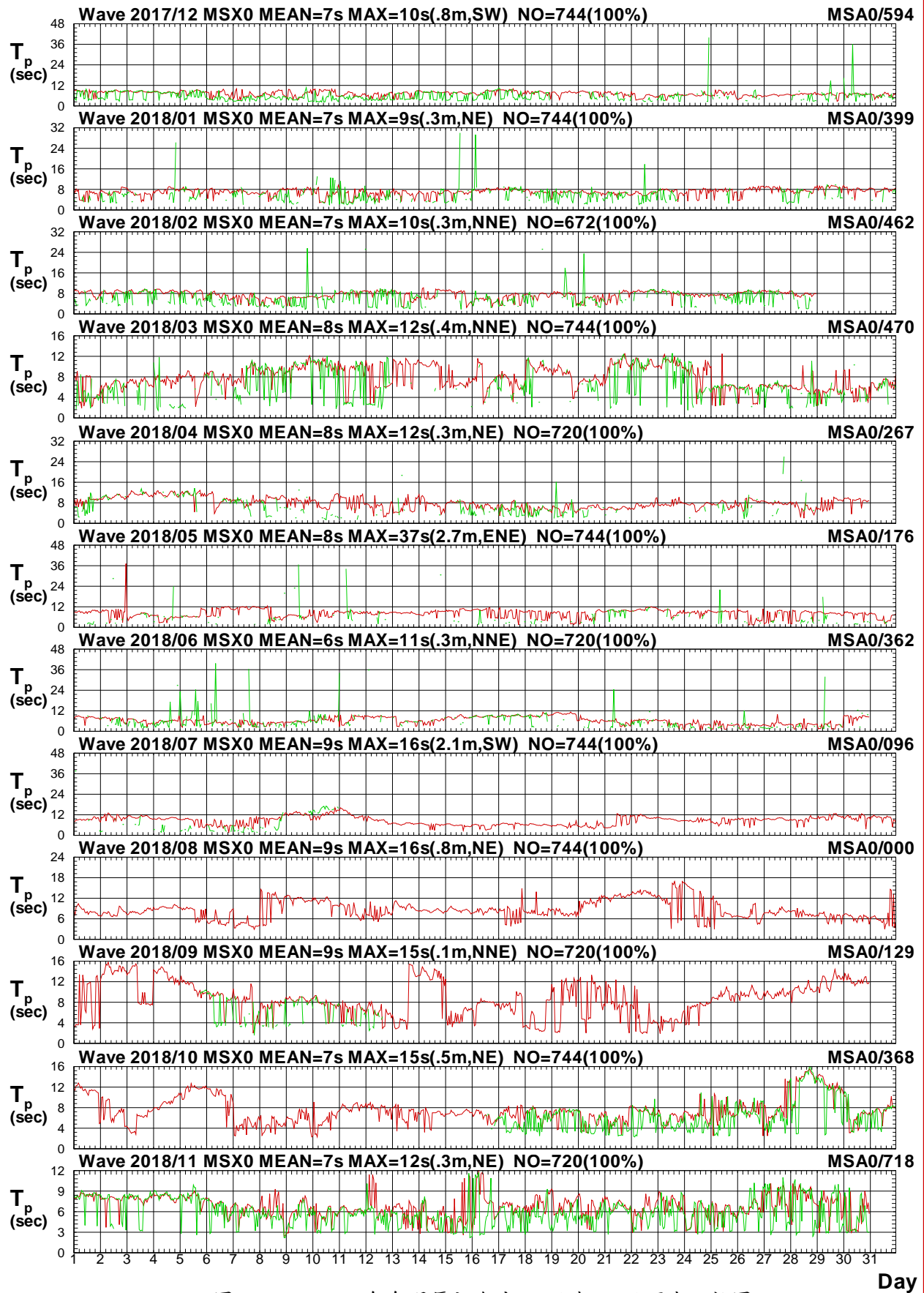


圖2.4.2b 2018年每月馬祖海域 X 站與 A 站週期比較圖

V17CMSX0.1HA V17CMSA0.1H0 V181MSX0.1HA V181MSA0.1H0 V182MSX0.1HA V182MSA0.1H0
 V183MSX0.1HA V183MSA0.1H0 V184MSX0.1HA V184MSA0.1H0 V185MSX0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

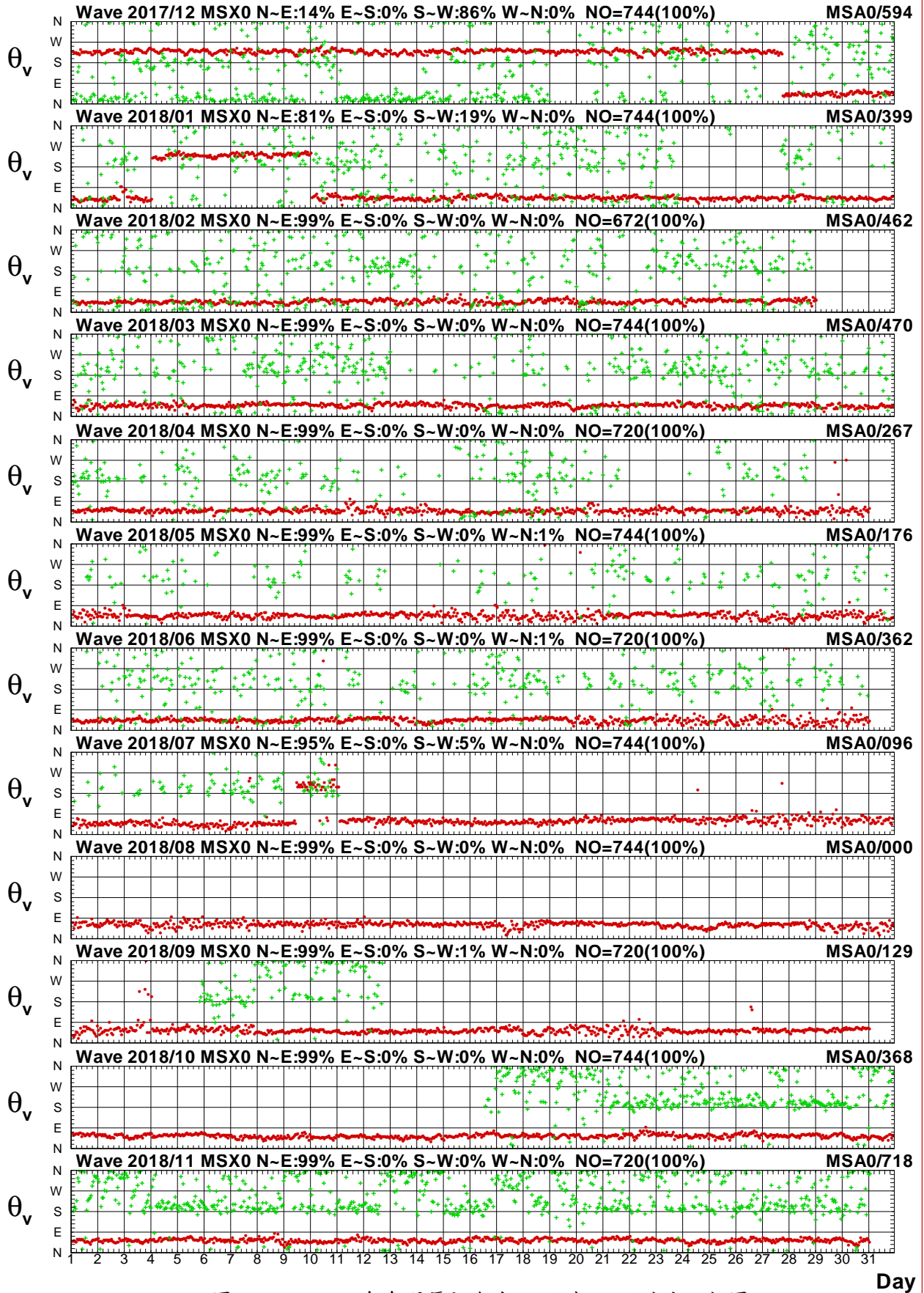


圖2.4.2c 2018年每月馬祖海域 X 站與 A 站波向比較圖

V17CMSX0.1HA V17CMSA0.1H0 V181MSX0.1HA V181MSA0.1H0 V182MSX0.1HA V182MSA0.1H0
 V183MSX0.1HA V183MSA0.1H0 V184MSX0.1HA V184MSA0.1H0 V185MSX0.1HA V185MSA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

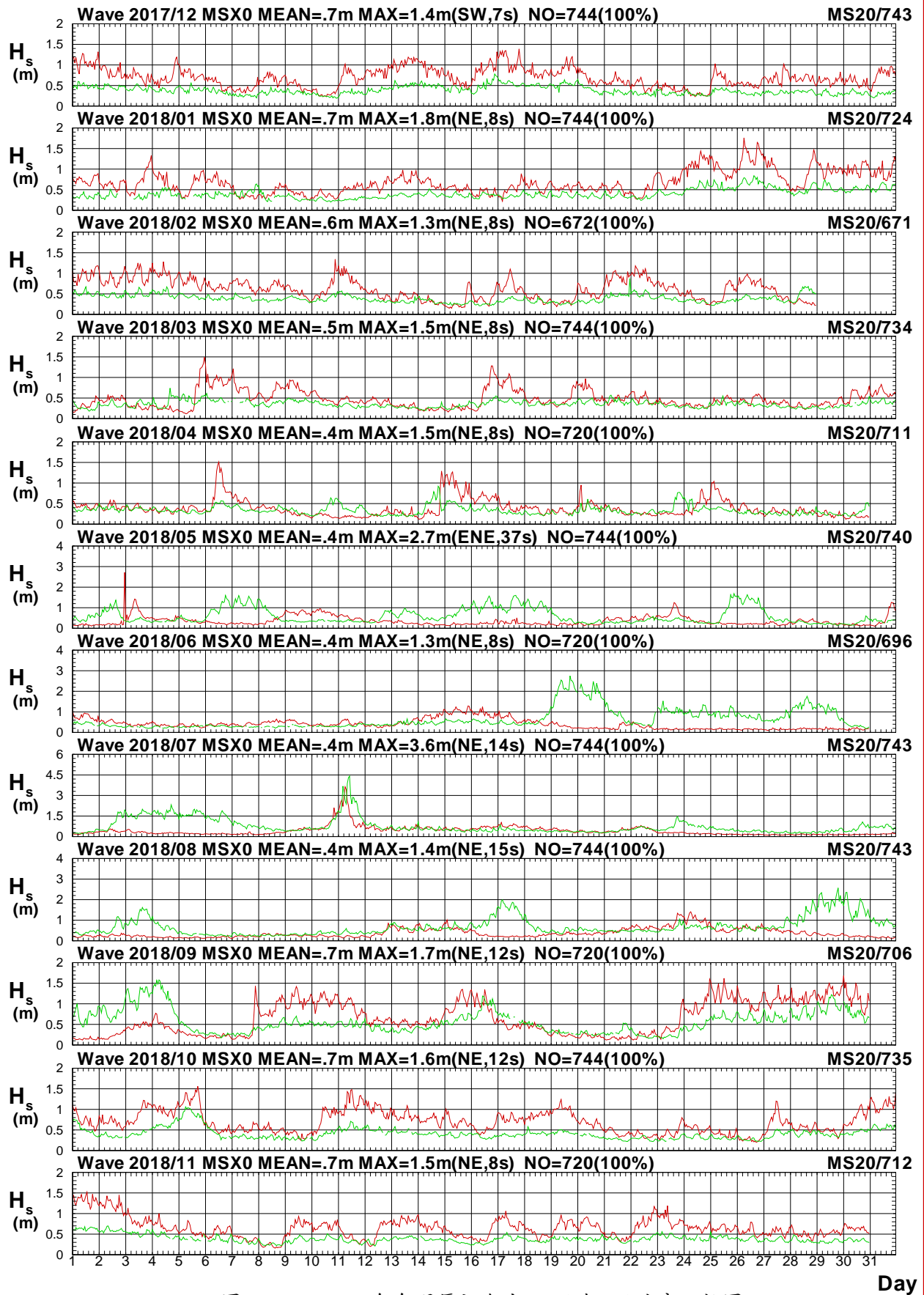


圖2.4.3a 2018年每月馬祖海域 X 站與2站波高比較圖

V17CMSX0.1HA V17CMS20.1H0 V181MSX0.1HA V181MS20.1H0 V182MSX0.1HA V182MS20.1H0
 V183MSX0.1HA V183MS20.1H0 V184MSX0.1HA V184MS20.1H0 V185MSX0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

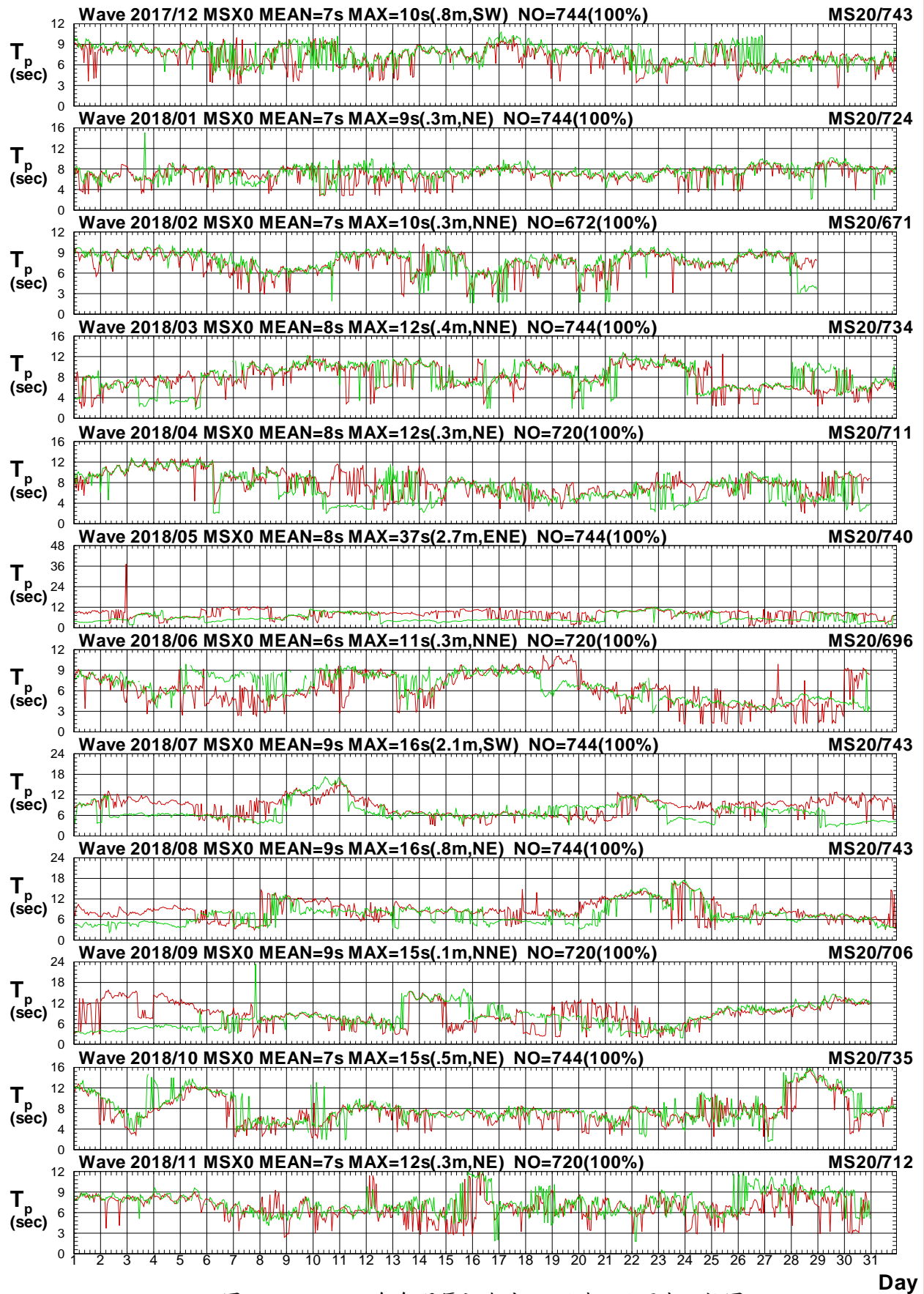


圖2.4.3b 2018年每月馬祖海域 X 站與2站週期比較圖

V17CMSX0.1HA V17CMS20.1H0 V181MSX0.1HA V181MS20.1H0 V182MSX0.1HA V182MS20.1H0
 V183MSX0.1HA V183MS20.1H0 V184MSX0.1HA V184MS20.1H0 V185MSX0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

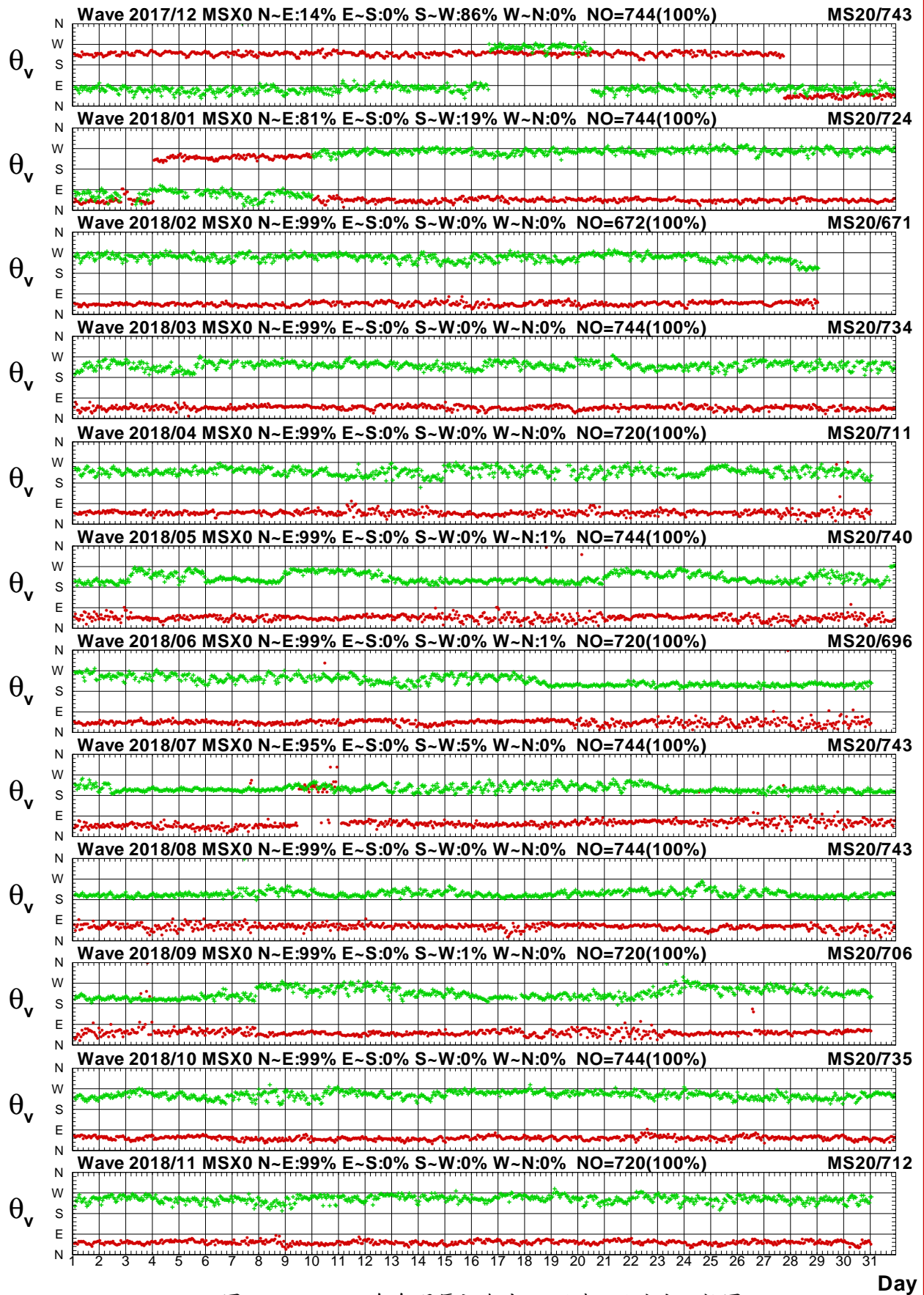


圖2.4.3c 2018年每月馬祖海域 X 站與2站波向比較圖

V17CMSX0.1HA V17CMS20.1H0 V181MSX0.1HA V181MS20.1H0 V182MSX0.1HA V182MS20.1H0
 V183MSX0.1HA V183MS20.1H0 V184MSX0.1HA V184MS20.1H0 V185MSX0.1HA V185MS20.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

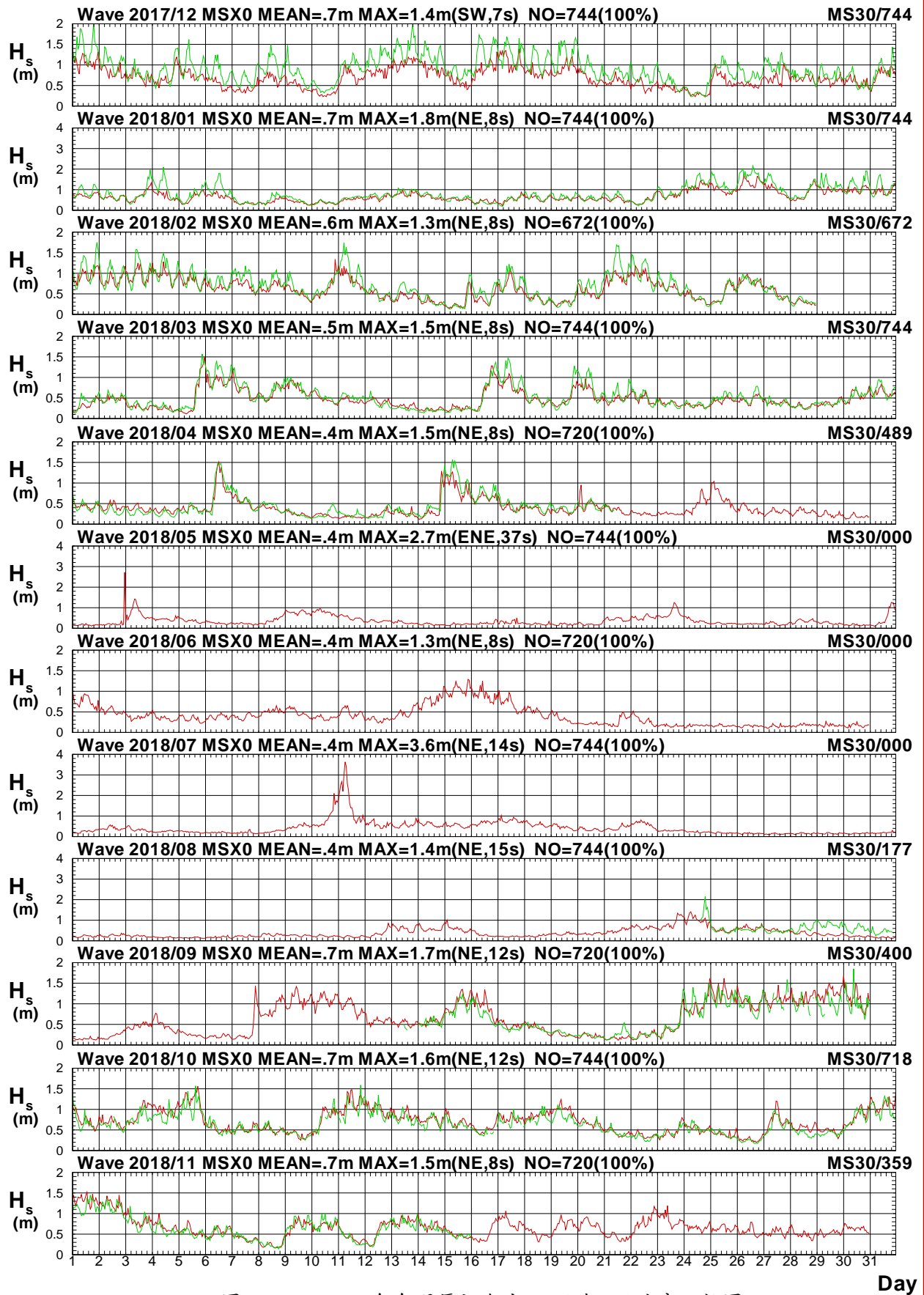


圖2.4.4a 2018年每月馬祖海域 X 站與3站波高比較圖

V17CMSX0.1HA V17CMS30.1H0 V181MSX0.1HA V181MS30.1H0 V182MSX0.1HA V182MS30.1H0
 V183MSX0.1HA V183MS30.1H0 V184MSX0.1HA V184MS30.1H0 V185MSX0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

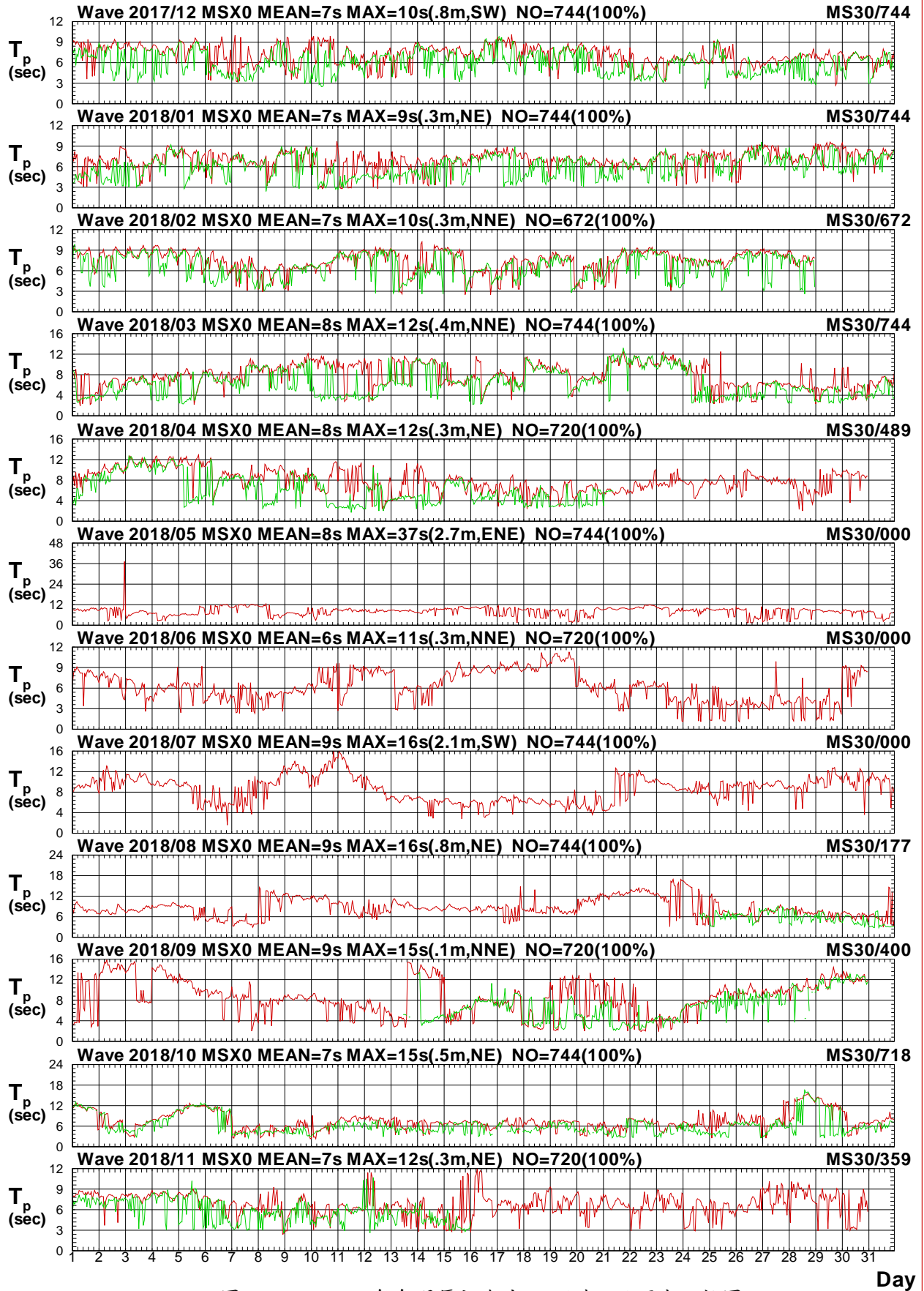


圖2.4.4b 2018年每月馬祖海域 X 站與3站週期比較圖

V17CMSX0.1HA V17CMS30.1H0 V181MSX0.1HA V181MS30.1H0 V182MSX0.1HA V182MS30.1H0
 V183MSX0.1HA V183MS30.1H0 V184MSX0.1HA V184MS30.1H0 V185MSX0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

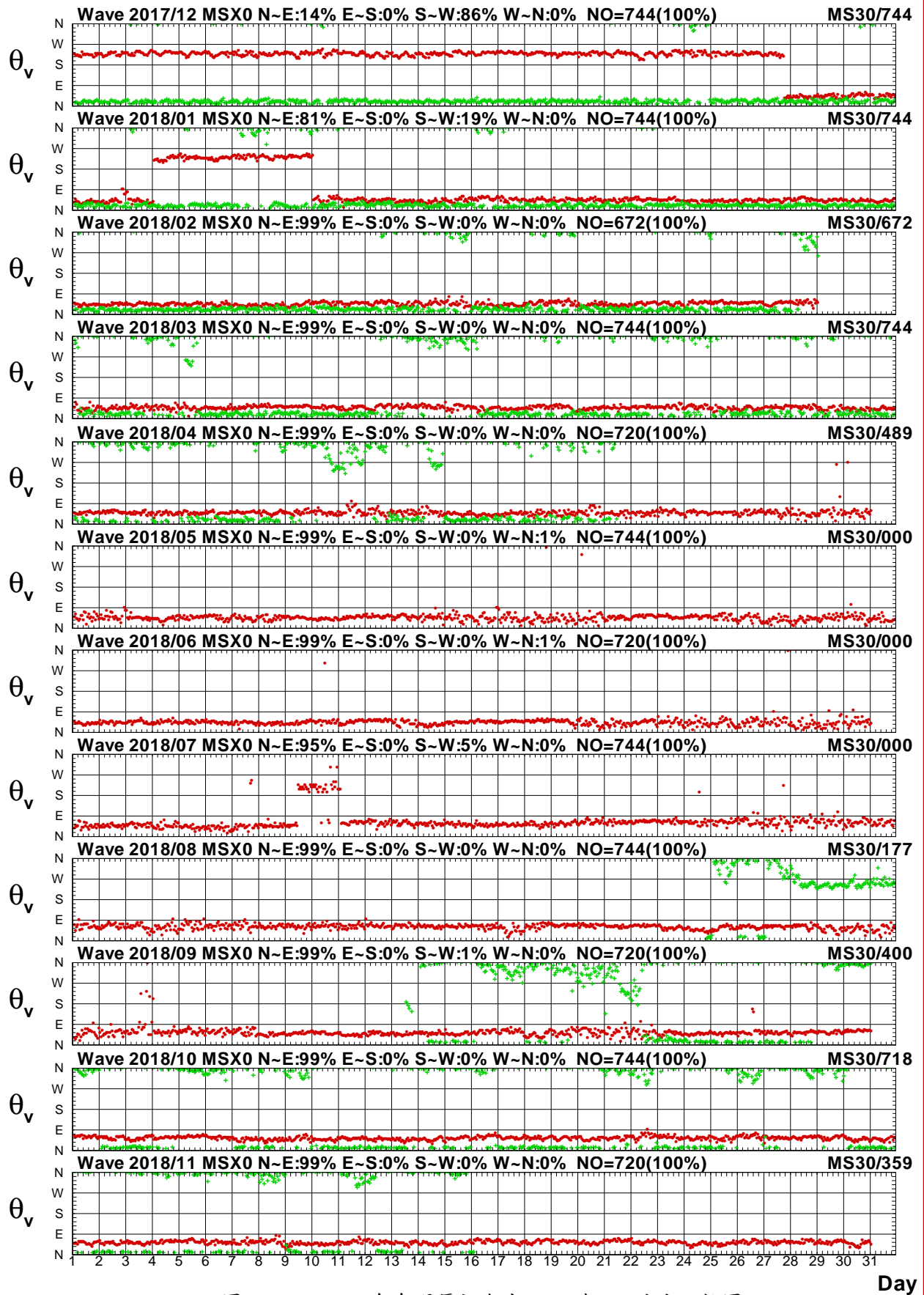


圖2.4.4c 2018年每月馬祖海域 X 站與3站波向比較圖

V17CMSX0.1HA V17CMS30.1H0 V181MSX0.1HA V181MS30.1H0 V182MSX0.1HA V182MS30.1H0
 V183MSX0.1HA V183MS30.1H0 V184MSX0.1HA V184MS30.1H0 V185MSX0.1HA V185MS30.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

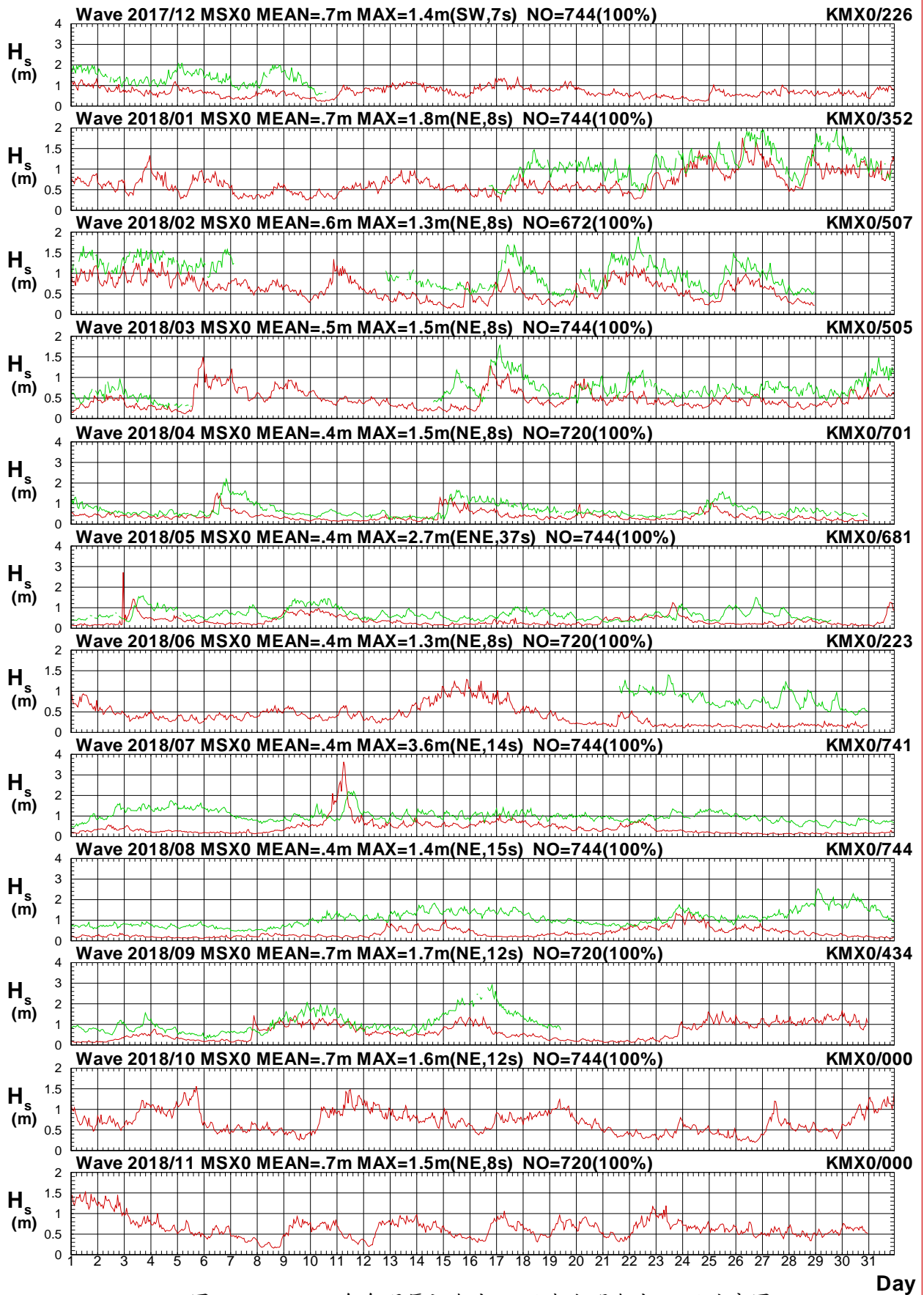


圖2.4.5a 2018年每月馬祖海域 X 站與金門海域 X 站波高圖

V17CMSX0.1HA V17CKMX0.1H0 V181MSX0.1HA V181KMX0.1H0 V182MSX0.1HA V182KMX0.1H0
 V183MSX0.1HA V183KMX0.1H0 V184MSX0.1HA V184KMX0.1H0 V185MSX0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

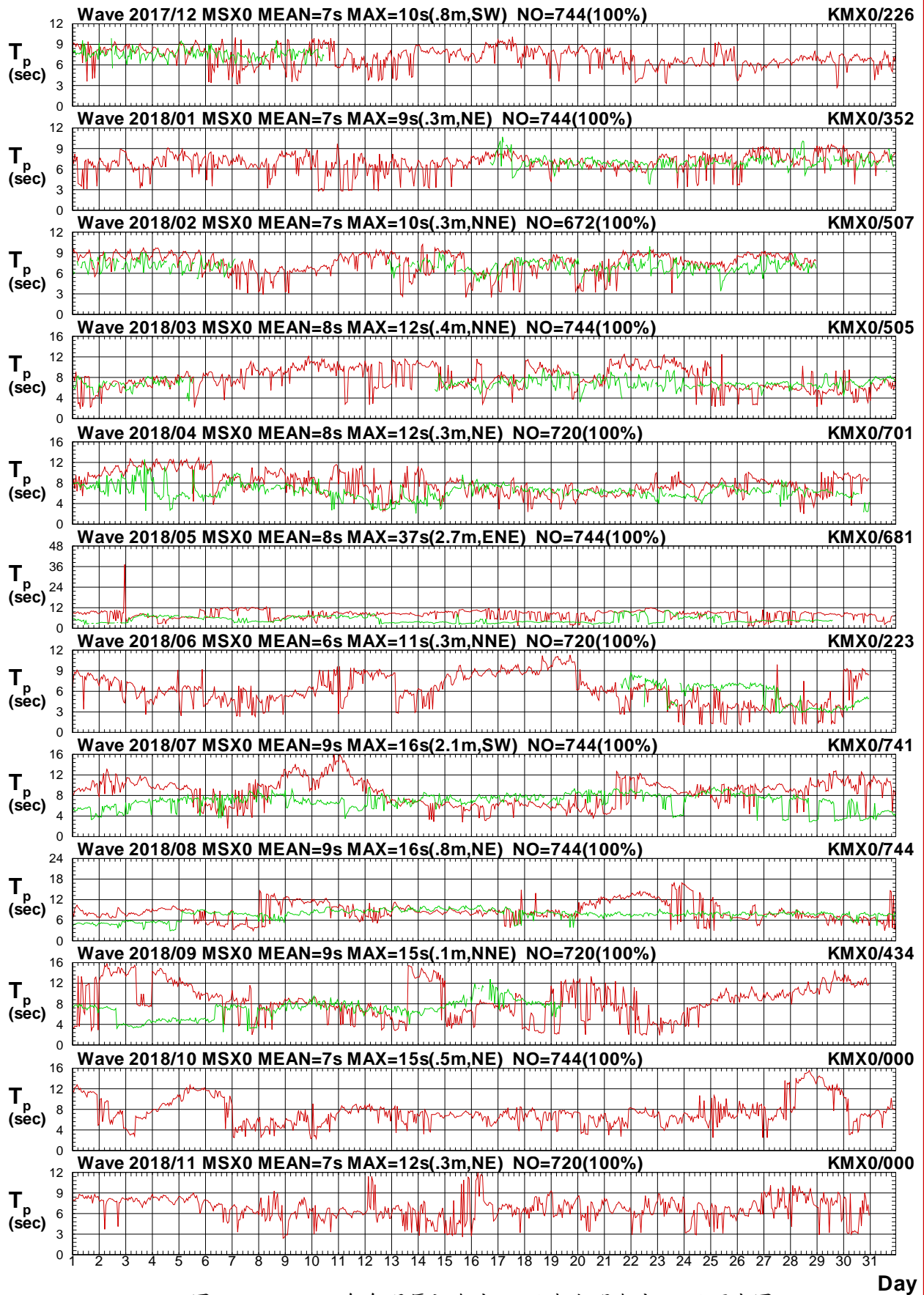


圖2.4.5b 2018年每月馬祖海域 X 站與金門海域 X 站週期圖

V17CMSX0.1HA V17CKMX0.1H0 V181MSX0.1HA V181KMX0.1H0 V182MSX0.1HA V182KMX0.1H0
 V183MSX0.1HA V183KMX0.1H0 V184MSX0.1HA V184KMX0.1H0 V185MSX0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

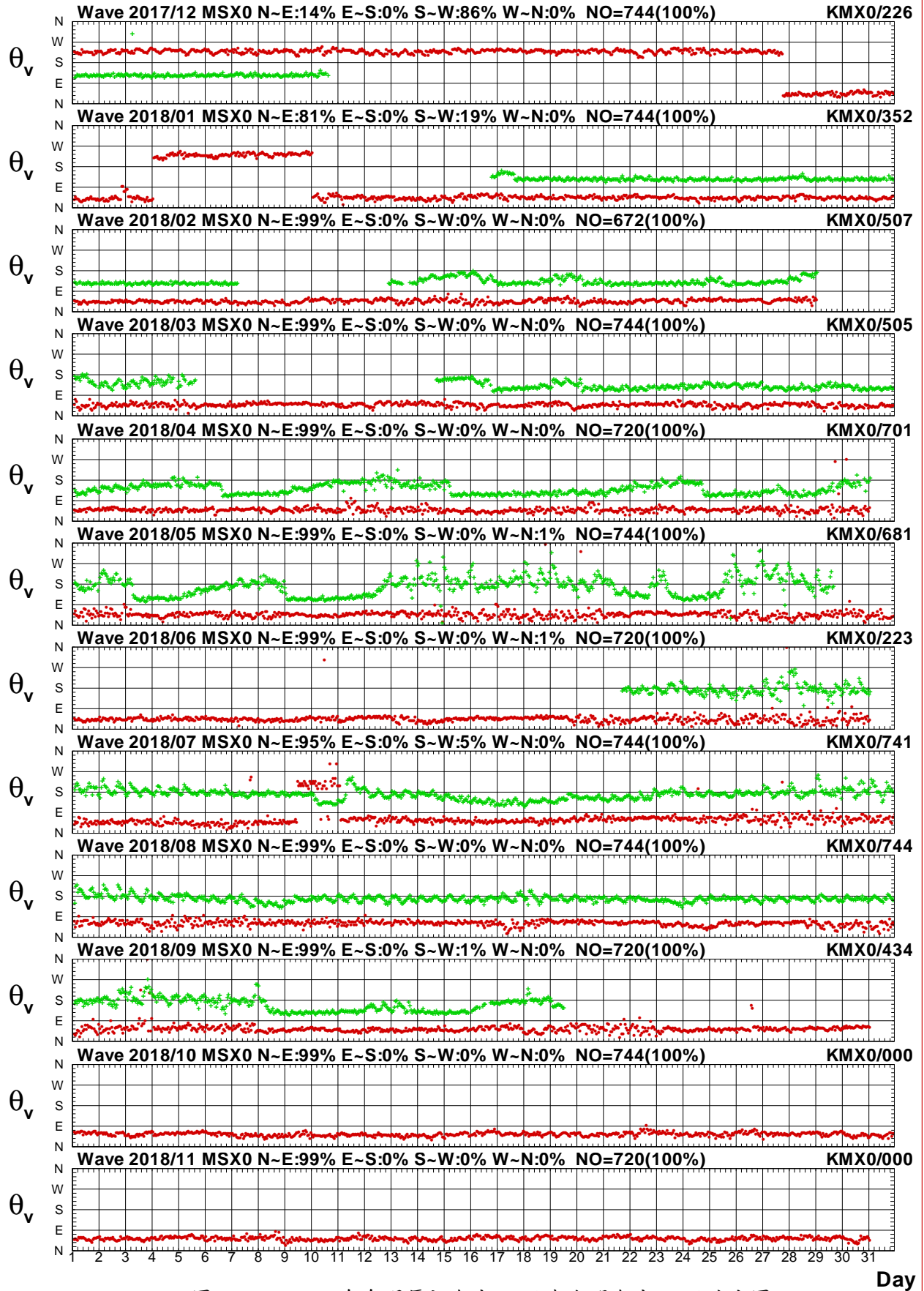


圖2.4.5c 2018年每月馬祖海域 X 站與金門海域 X 站波向圖

V17CMSX0.1HA V17CKMX0.1H0 V181MSX0.1HA V181KMX0.1H0 V182MSX0.1HA V182KMX0.1H0
 V183MSX0.1HA V183KMX0.1H0 V184MSX0.1HA V184KMX0.1H0 V185MSX0.1HA V185KMX0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

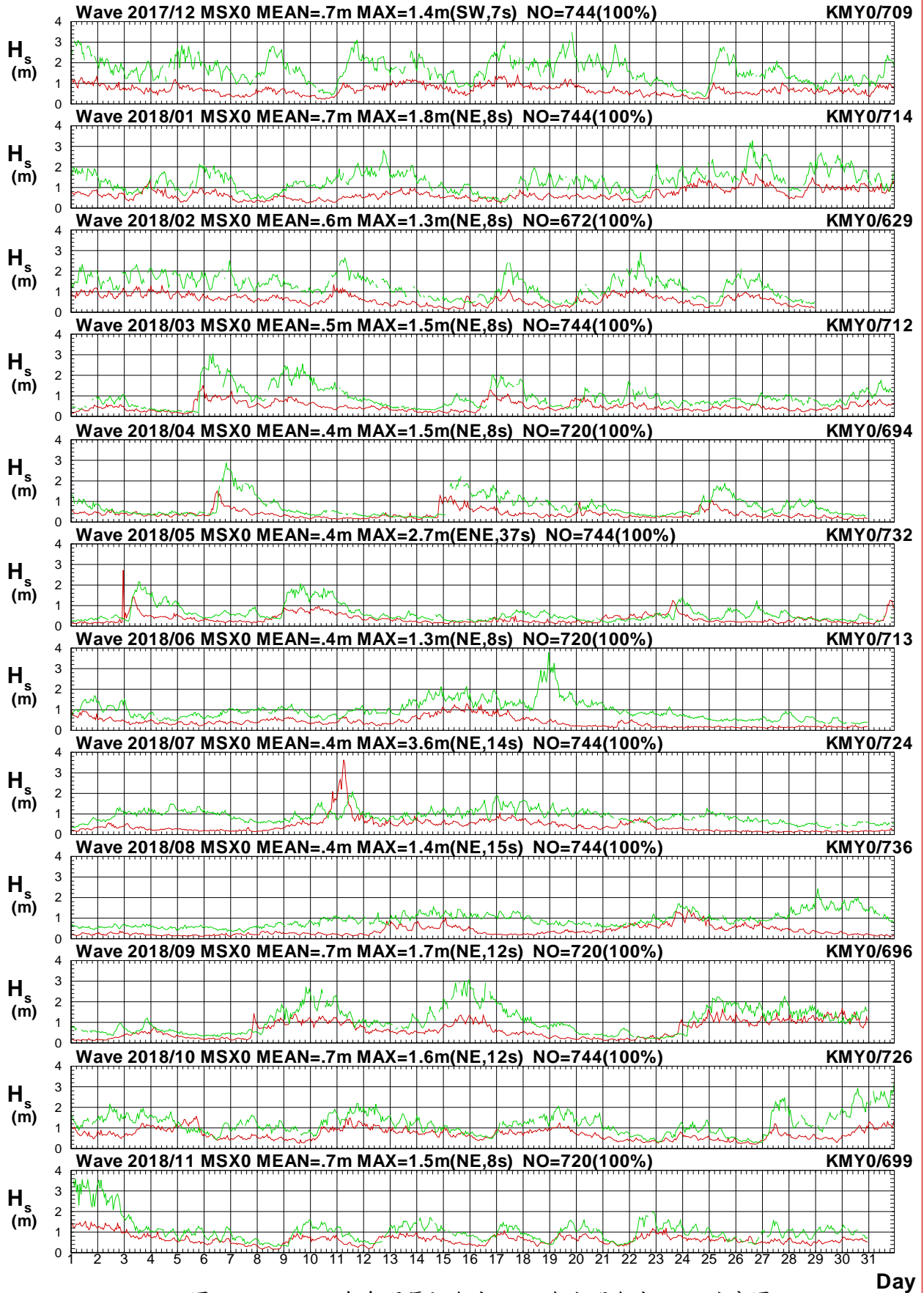


圖2.4.6a 2018年每月馬祖海域 X 站與金門海域 Y 站波高圖

V17CMSX0.1HA V17CKMY0.1H0 V181MSX0.1HA V181KMY0.1H0 V182MSX0.1HA V182KMY0.1H0
 V183MSX0.1HA V183KMY0.1H0 V184MSX0.1HA V184KMY0.1H0 V185MSX0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

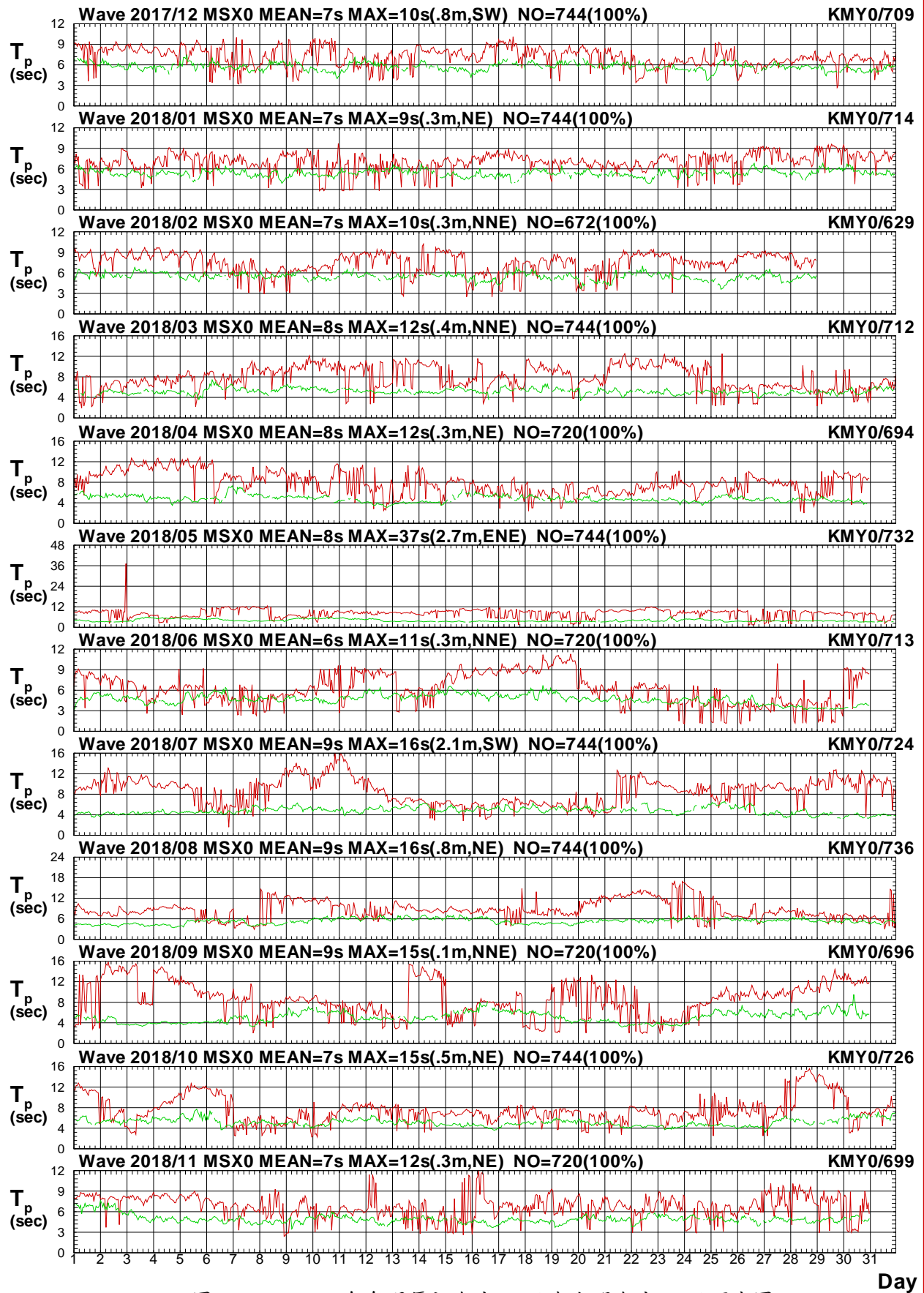


圖2.4.6b 2018年每月馬祖海域 X 站與金門海域 Y 站週期圖

V17CMSX0.1HA V17CKMY0.1H0 V181MSX0.1HA V181KMY0.1H0 V182MSX0.1HA V182KMY0.1H0
 V183MSX0.1HA V183KMY0.1H0 V184MSX0.1HA V184KMY0.1H0 V185MSX0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

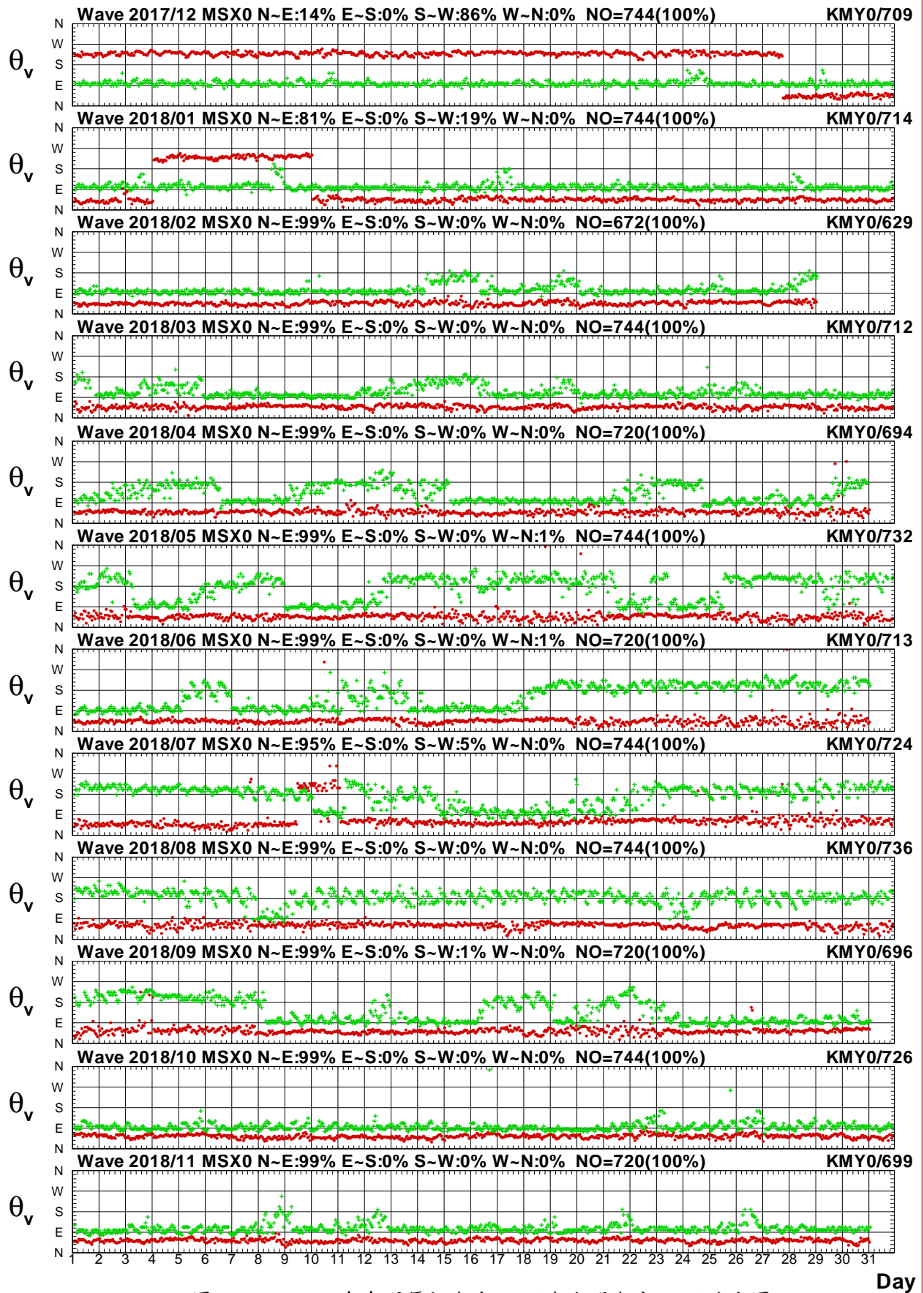


圖2.4.6c 2018年每月馬祖海域 X 站與金門海域 Y 站波向圖

V17CMSX0.1HA V17CKMY0.1H0 V181MSX0.1HA V181KMY0.1H0 V182MSX0.1HA V182KMY0.1H0
 V183MSX0.1HA V183KMY0.1H0 V184MSX0.1HA V184KMY0.1H0 V185MSX0.1HA V185KMY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

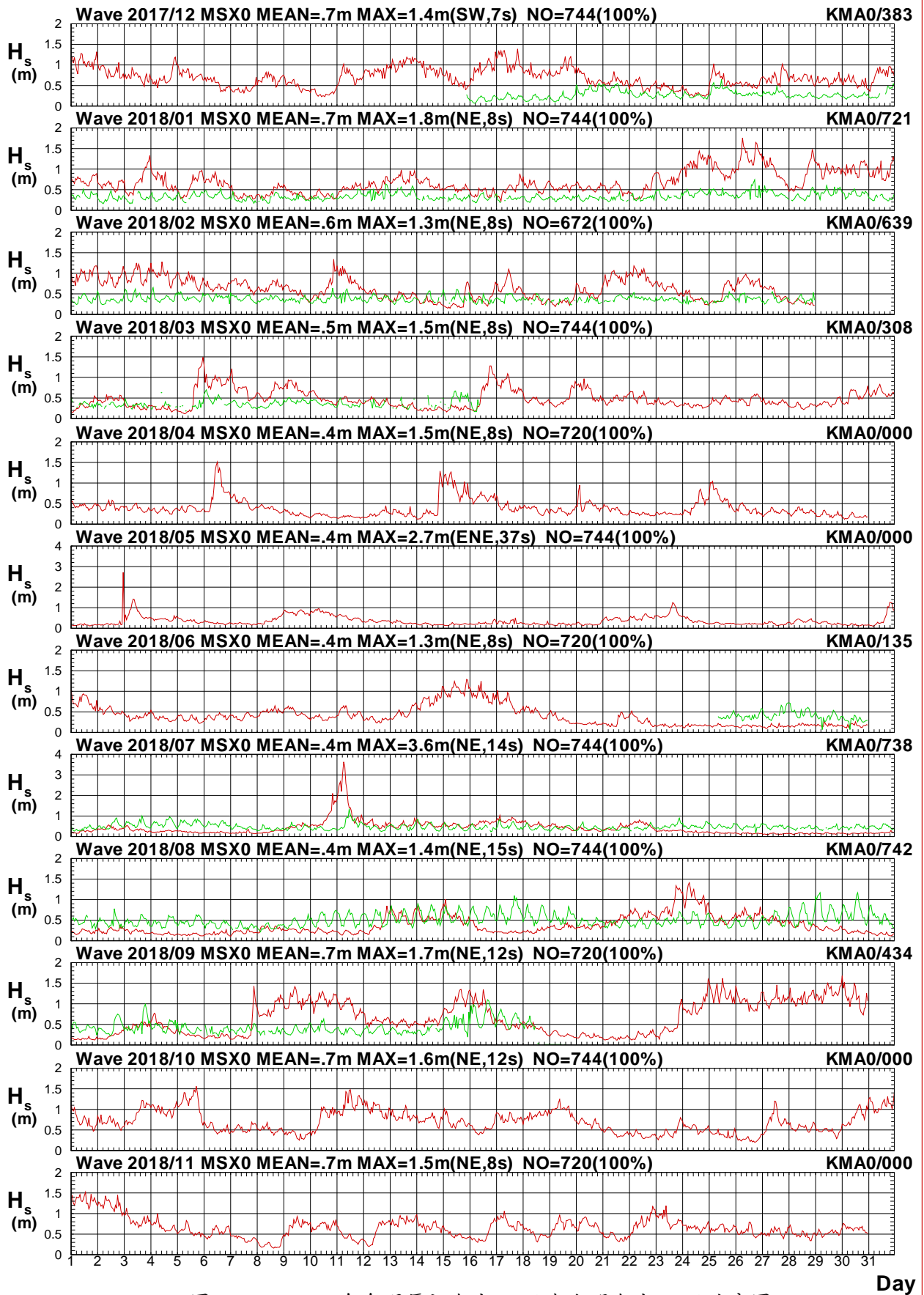


圖2.4.7a 2018年每月馬祖海域 X 站與金門海域 A 站波高圖

V17CMSX0.1HA V17CKMA0.1H0 V181MSX0.1HA V181KMA0.1H0 V182MSX0.1HA V182KMA0.1H0
 V183MSX0.1HA V183KMA0.1H0 V184MSX0.1HA V184KMA0.1H0 V185MSX0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

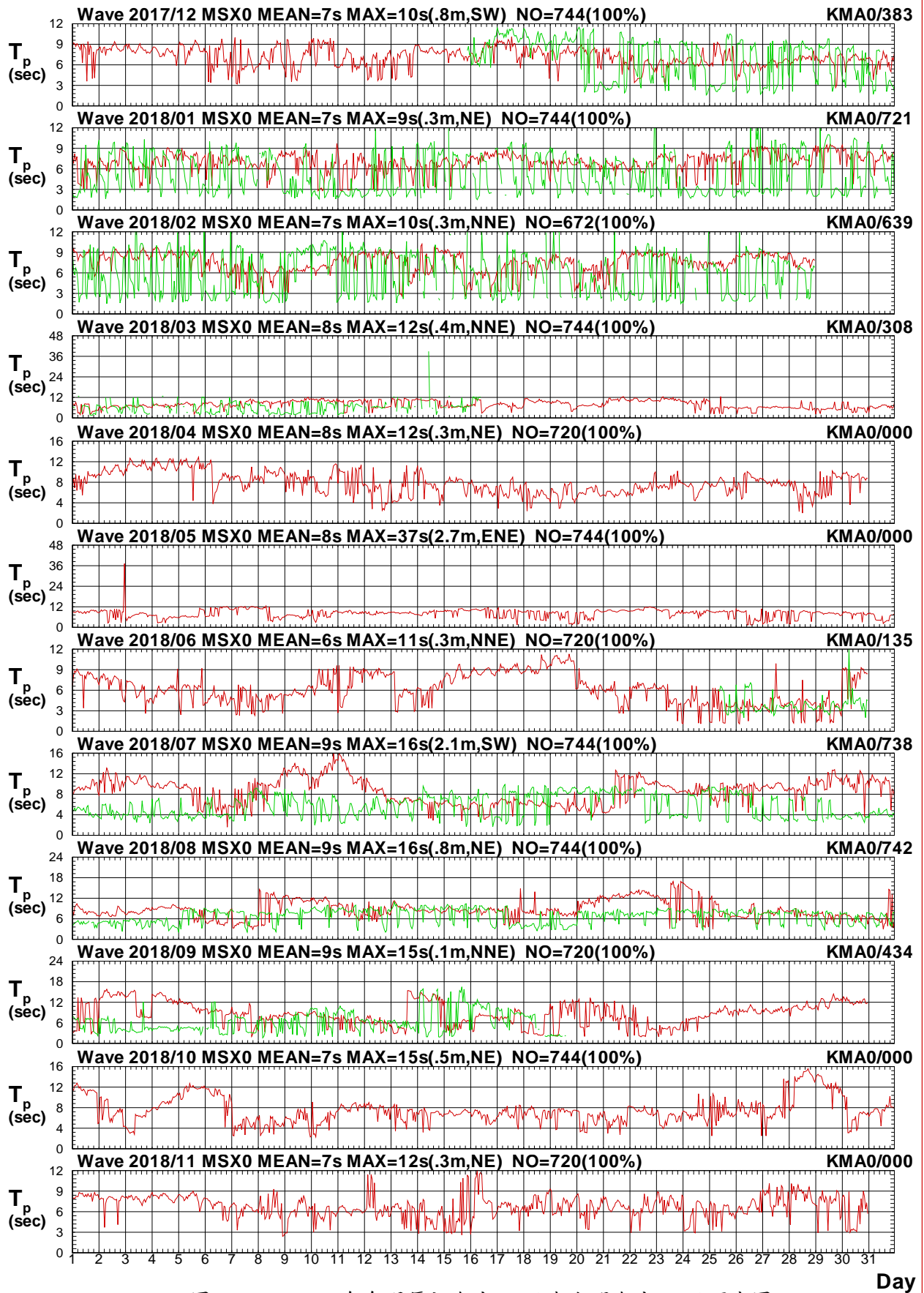


圖2.4.7b 2018年每月馬祖海域 X 站與金門海域 A 站週期圖

V17CMSX0.1HA V17CKMA0.1H0 V181MSX0.1HA V181KMA0.1H0 V182MSX0.1HA V182KMA0.1H0
 V183MSX0.1HA V183KMA0.1H0 V184MSX0.1HA V184KMA0.1H0 V185MSX0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

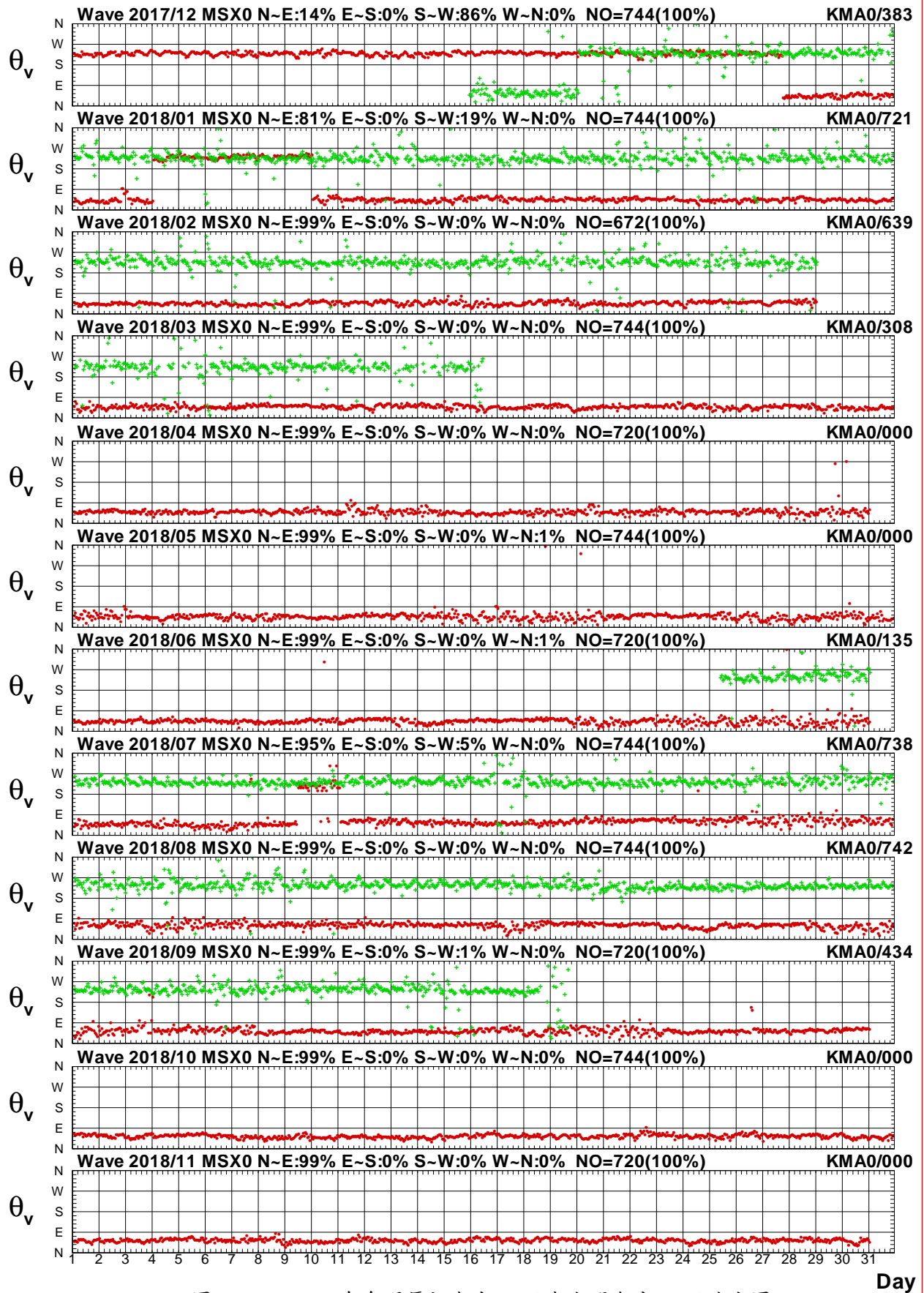


圖2.4.7c 2018年每月馬祖海域 X 站與金門海域 A 站波向圖

V17CMSX0.1HA V17CKMA0.1H0 V181MSX0.1HA V181KMA0.1H0 V182MSX0.1HA V182KMA0.1H0
 V183MSX0.1HA V183KMA0.1H0 V184MSX0.1HA V184KMA0.1H0 V185MSX0.1HA V185KMA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

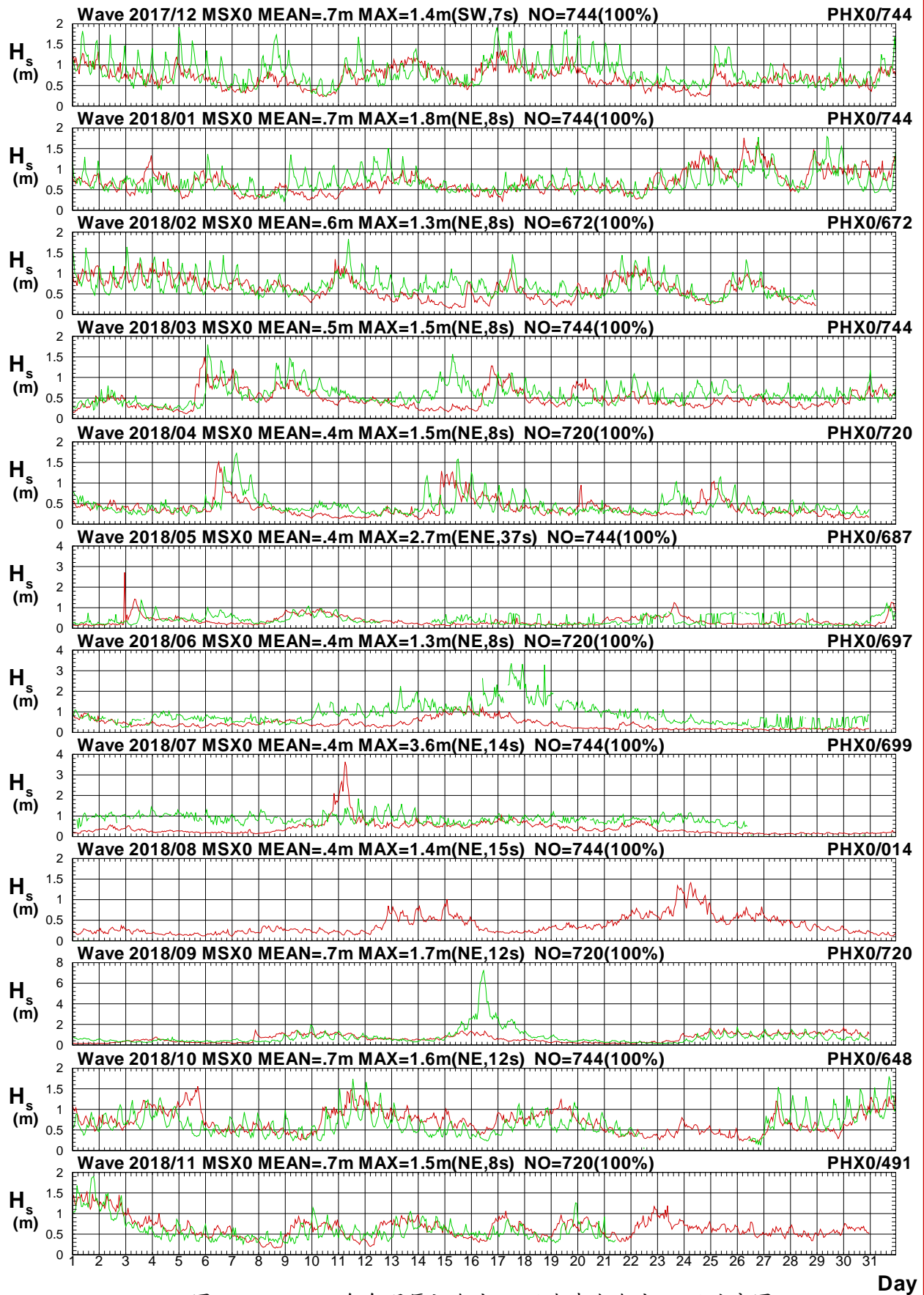


圖2.4.8a 2018年每月馬祖海域 X 站與澎湖海域 X 站波高圖

V17CMSX0.1HA V17CPHX0.1H0 V181MSX0.1HA V181PHX0.1H0 V182MSX0.1HA V182PHX0.1H0
 V183MSX0.1HA V183PHX0.1H0 V184MSX0.1HA V184PHX0.1H0 V185MSX0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

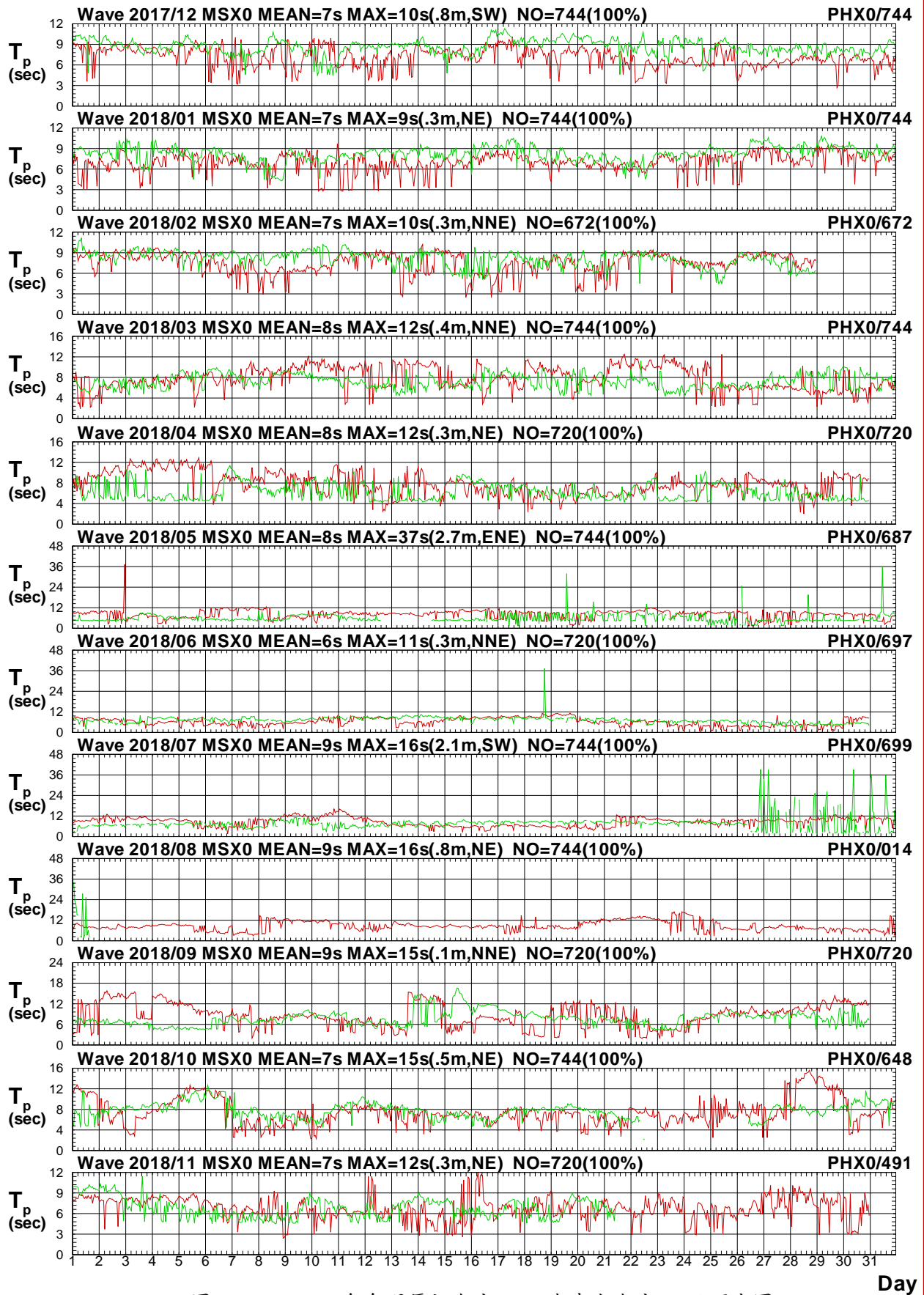


圖2.4.8b 2018年每月馬祖海域 X 站與澎湖海域 X 站週期圖

V17CMSX0.1HA V17CPHX0.1H0 V181MSX0.1HA V181PHX0.1H0 V182MSX0.1HA V182PHX0.1H0
 V183MSX0.1HA V183PHX0.1H0 V184MSX0.1HA V184PHX0.1H0 V185MSX0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

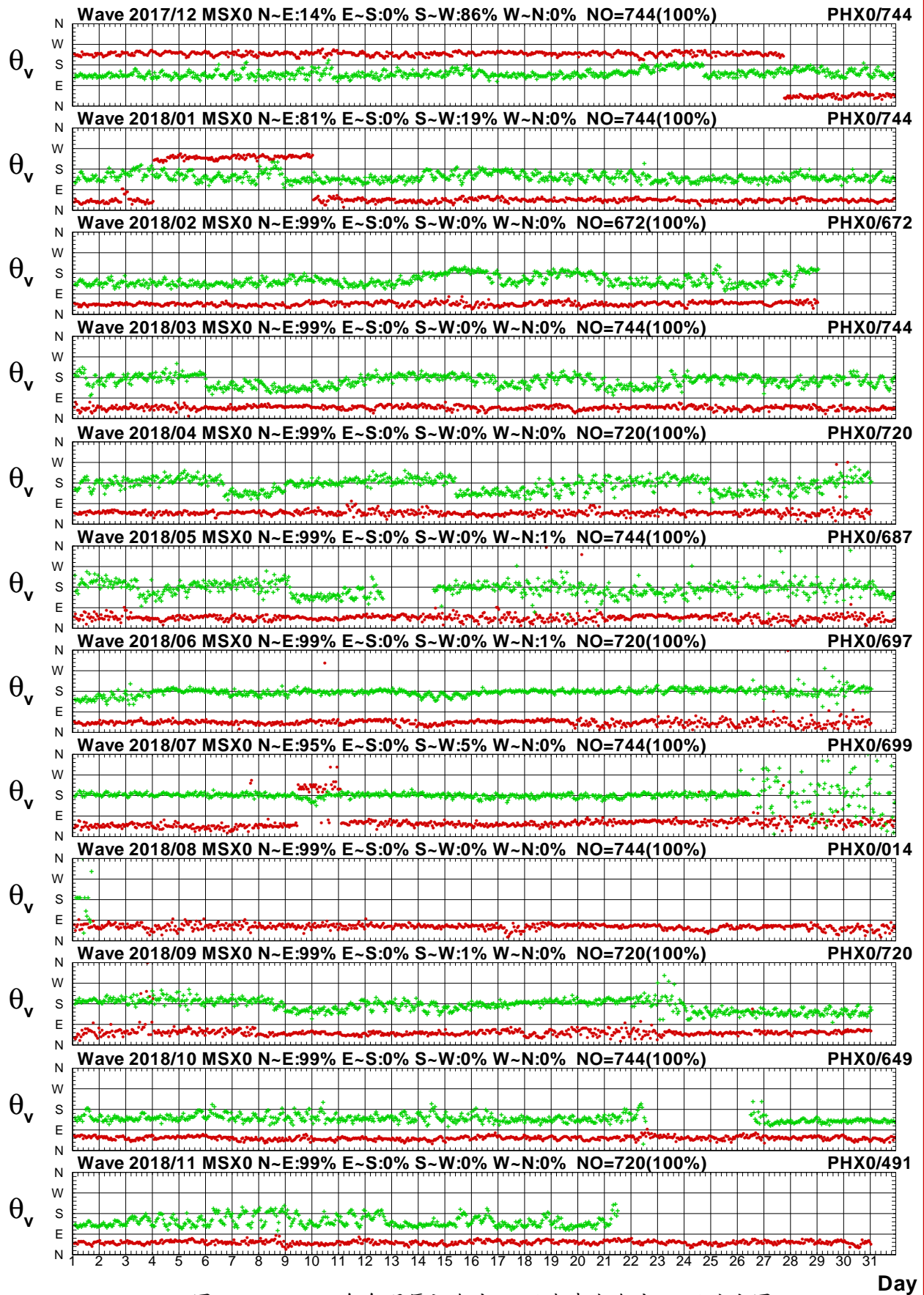


圖2.4.8c 2018年每月馬祖海域 X 站與澎湖海域 X 站波向圖

V17CMSX0.1HA V17CPHX0.1H0 V181MSX0.1HA V181PHX0.1H0 V182MSX0.1HA V182PHX0.1H0
 V183MSX0.1HA V183PHX0.1H0 V184MSX0.1HA V184PHX0.1H0 V185MSX0.1HA V185PHX0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

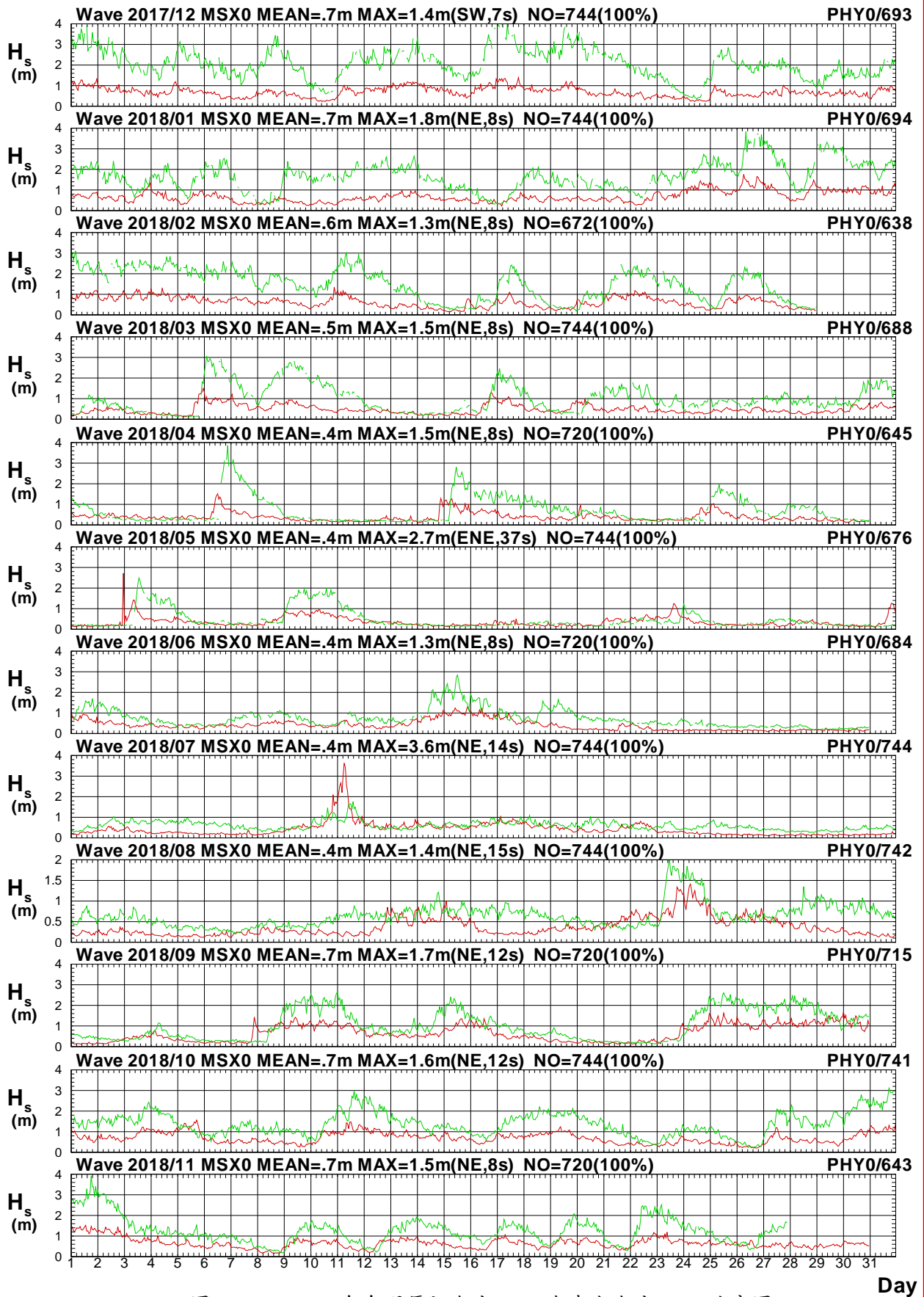


圖2.4.9a 2018年每月馬祖海域 X 站與澎湖海域 Y 站波高圖

V17CMSX0.1HA V17CPHY0.1H0 V181MSX0.1HA V181PHY0.1H0 V182MSX0.1HA V182PHY0.1H0
 V183MSX0.1HA V183PHY0.1H0 V184MSX0.1HA V184PHY0.1H0 V185MSX0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

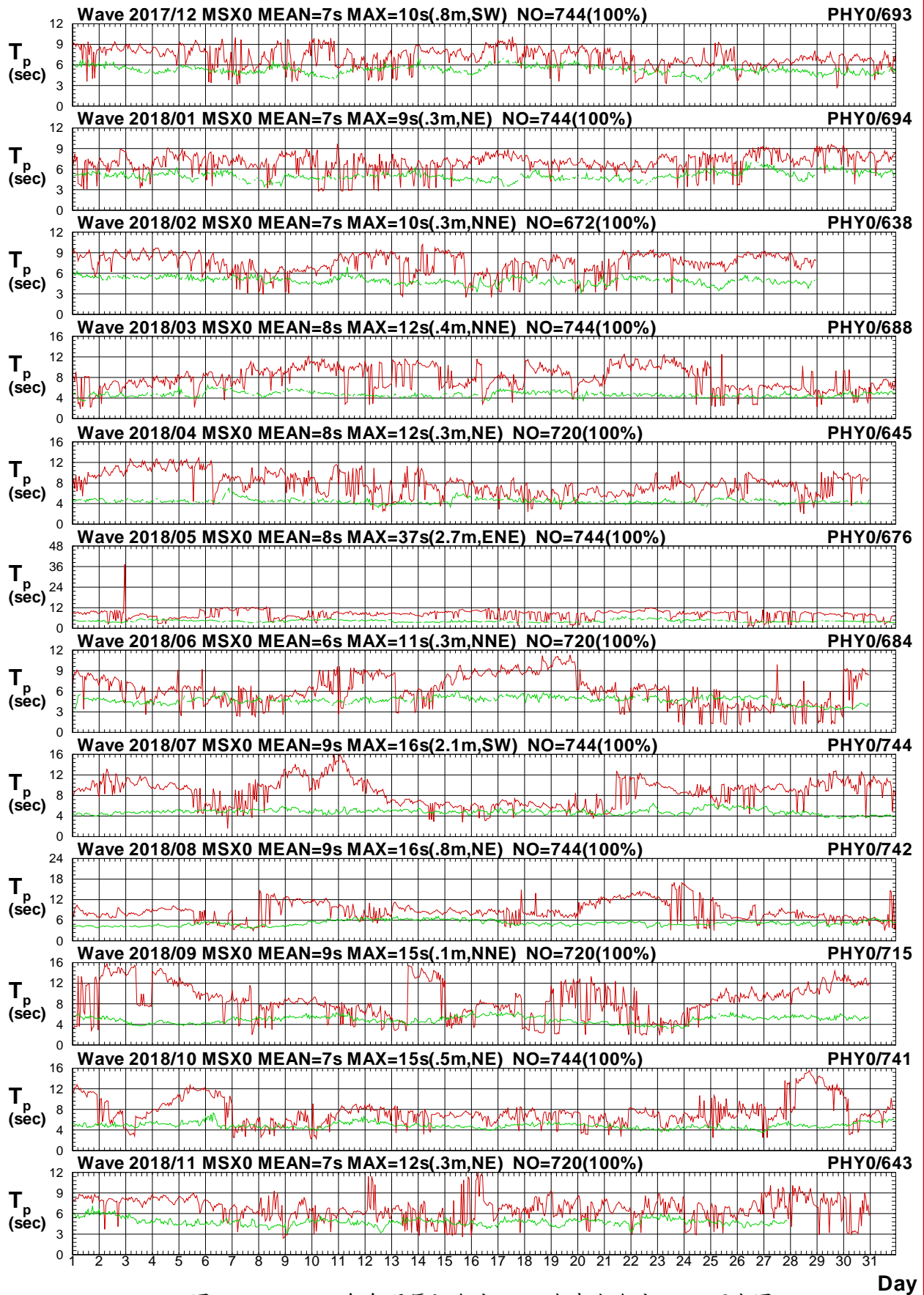


圖2.4.9b 2018年每月馬祖海域 X 站與澎湖海域 Y 站週期圖

V17CMSX0.1HA V17CPHY0.1H0 V181MSX0.1HA V181PHY0.1H0 V182MSX0.1HA V182PHY0.1H0
 V183MSX0.1HA V183PHY0.1H0 V184MSX0.1HA V184PHY0.1H0 V185MSX0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

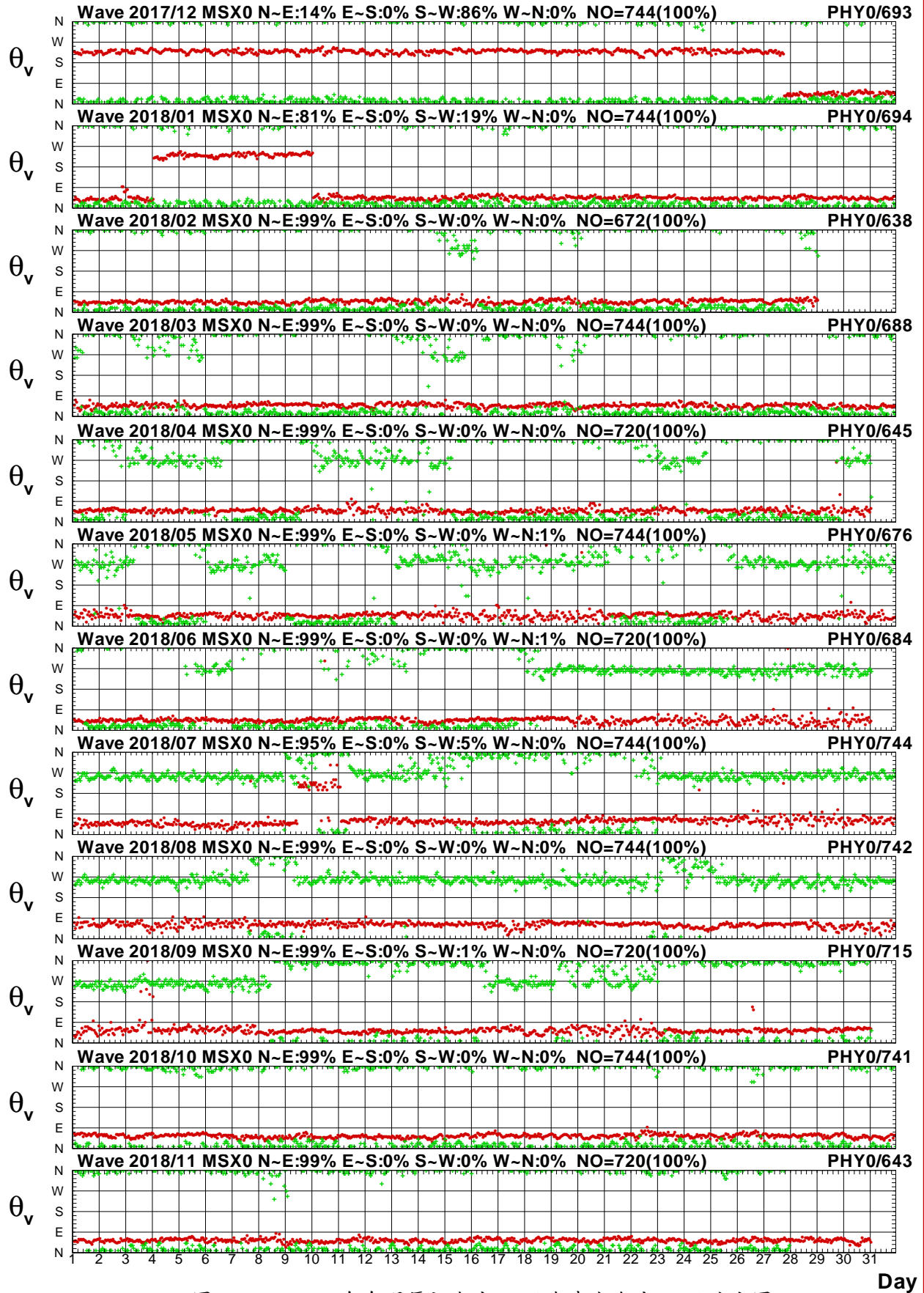


圖2.4.9c 2018年每月馬祖海域 X 站與澎湖海域 Y 站波向圖

V17CMSX0.1HA V17CPHY0.1H0 V181MSX0.1HA V181PHY0.1H0 V182MSX0.1HA V182PHY0.1H0
 V183MSX0.1HA V183PHY0.1H0 V184MSX0.1HA V184PHY0.1H0 V185MSX0.1HA V185PHY0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

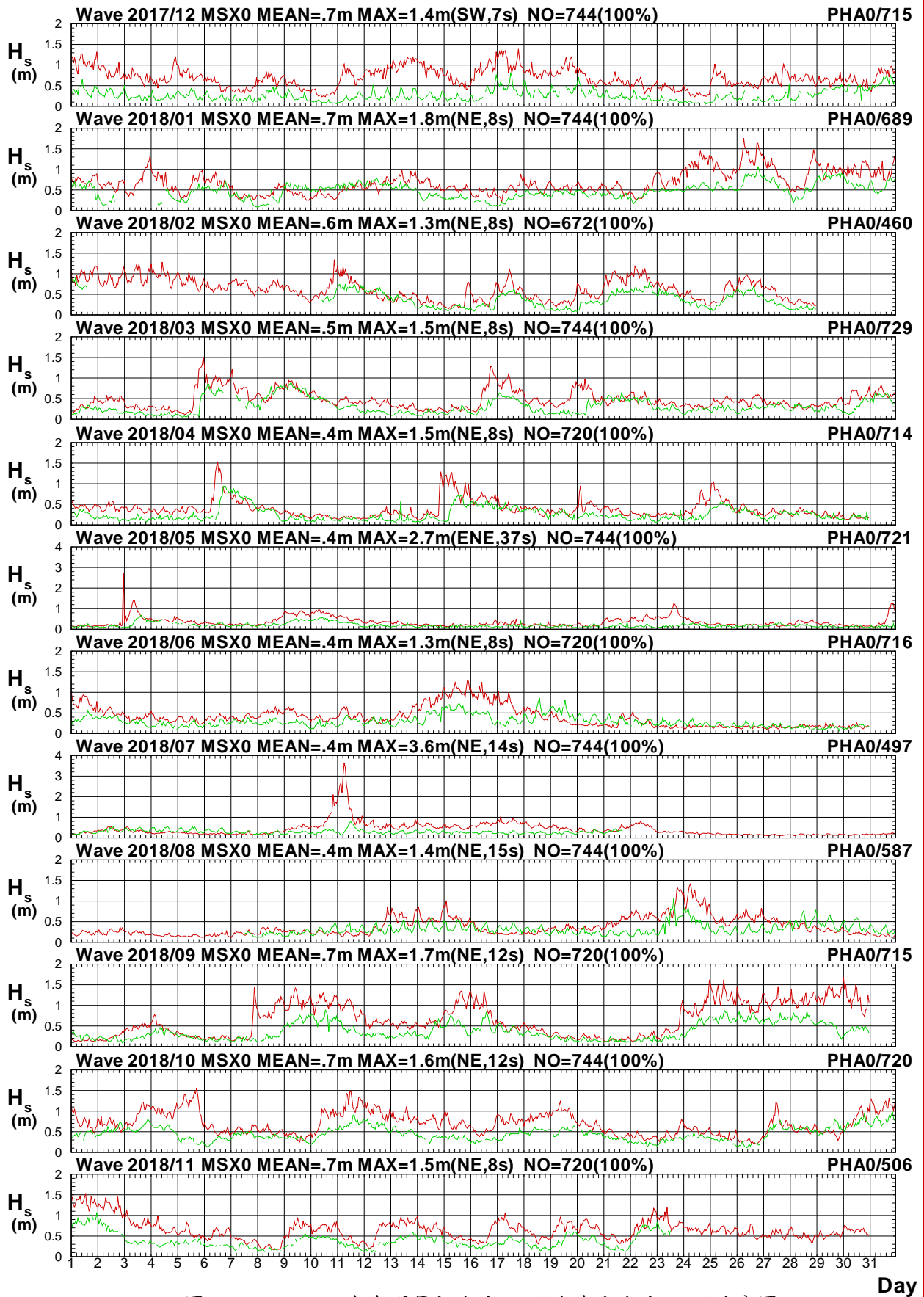


圖2.4.10a 2018年每月馬祖海域 X 站與澎湖海域 A 站波高圖

V17CMSX0.1HA V17CPHA0.1H0 V181MSX0.1HA V181PHA0.1H0 V182MSX0.1HA V182PHA0.1H0
 V183MSX0.1HA V183PHA0.1H0 V184MSX0.1HA V184PHA0.1H0 V185MSX0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

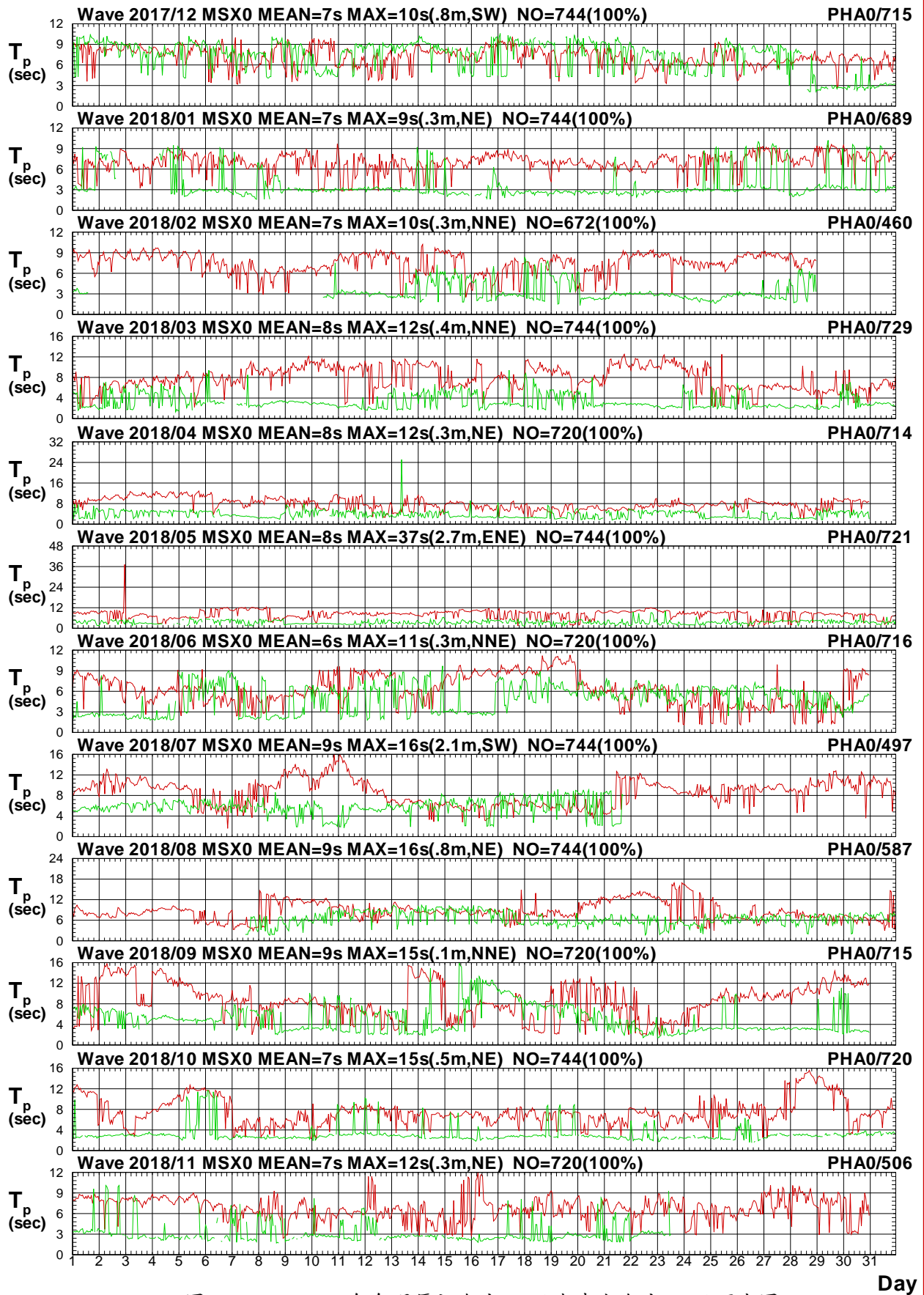


圖2.4.10b 2018年每月馬祖海域 X 站與澎湖海域 A 站週期圖

V17CMSX0.1HA V17CPHA0.1H0 V181MSX0.1HA V181PHA0.1H0 V182MSX0.1HA V182PHA0.1H0
 V183MSX0.1HA V183PHA0.1H0 V184MSX0.1HA V184PHA0.1H0 V185MSX0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

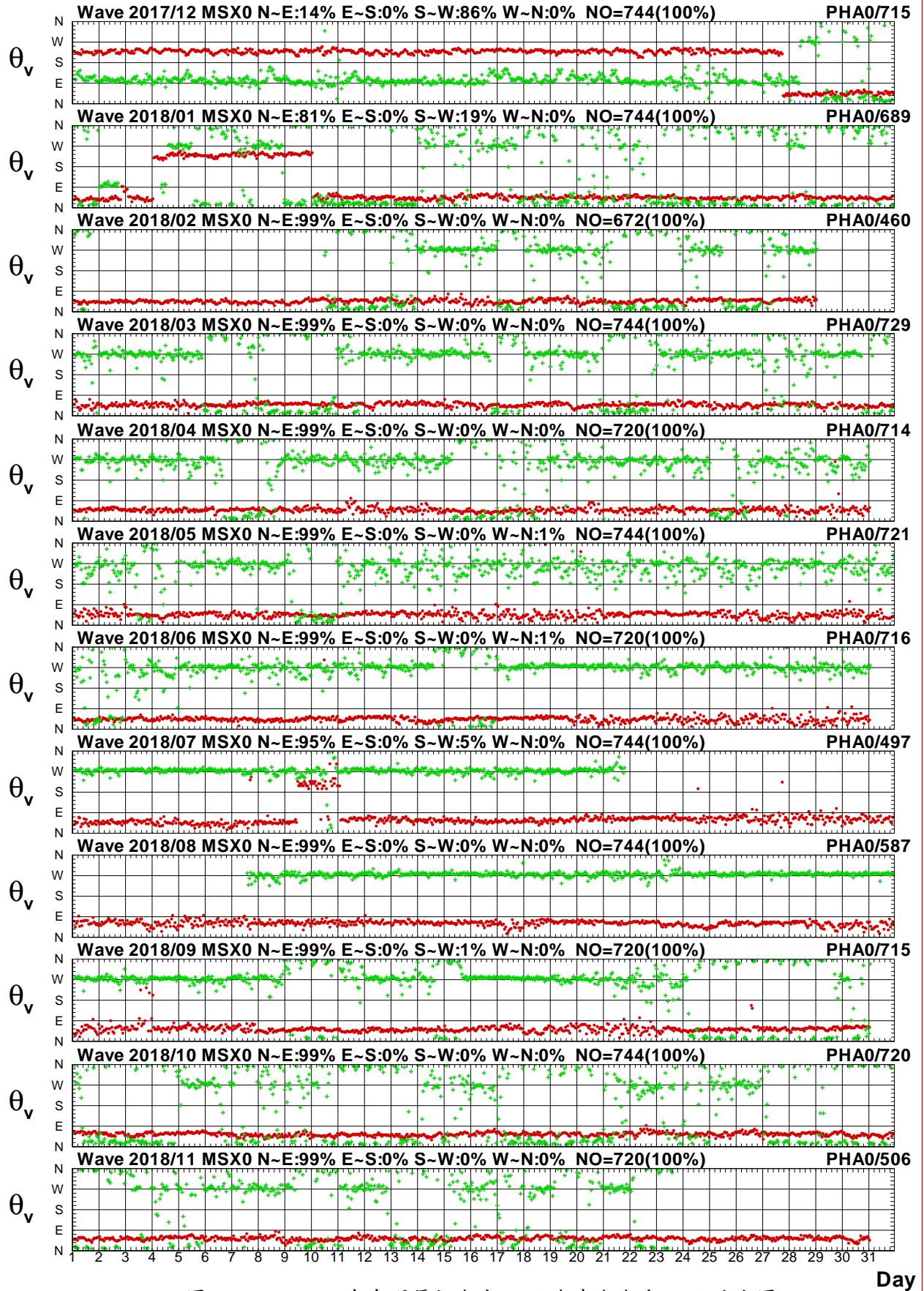


圖2.4.10c 2018年每月馬祖海域 X 站與澎湖海域 A 站波向圖

V17CMSX0.1HA V17CPHA0.1H0 V181MSX0.1HA V181PHA0.1H0 V182MSX0.1HA V182PHA0.1H0
 V183MSX0.1HA V183PHA0.1H0 V184MSX0.1HA V184PHA0.1H0 V185MSX0.1HA V185PHA0.1H0

Institute of Harbor & Marine Technology

Wave H_s in Ma-Tsu Harbor of MSX0 at 2018

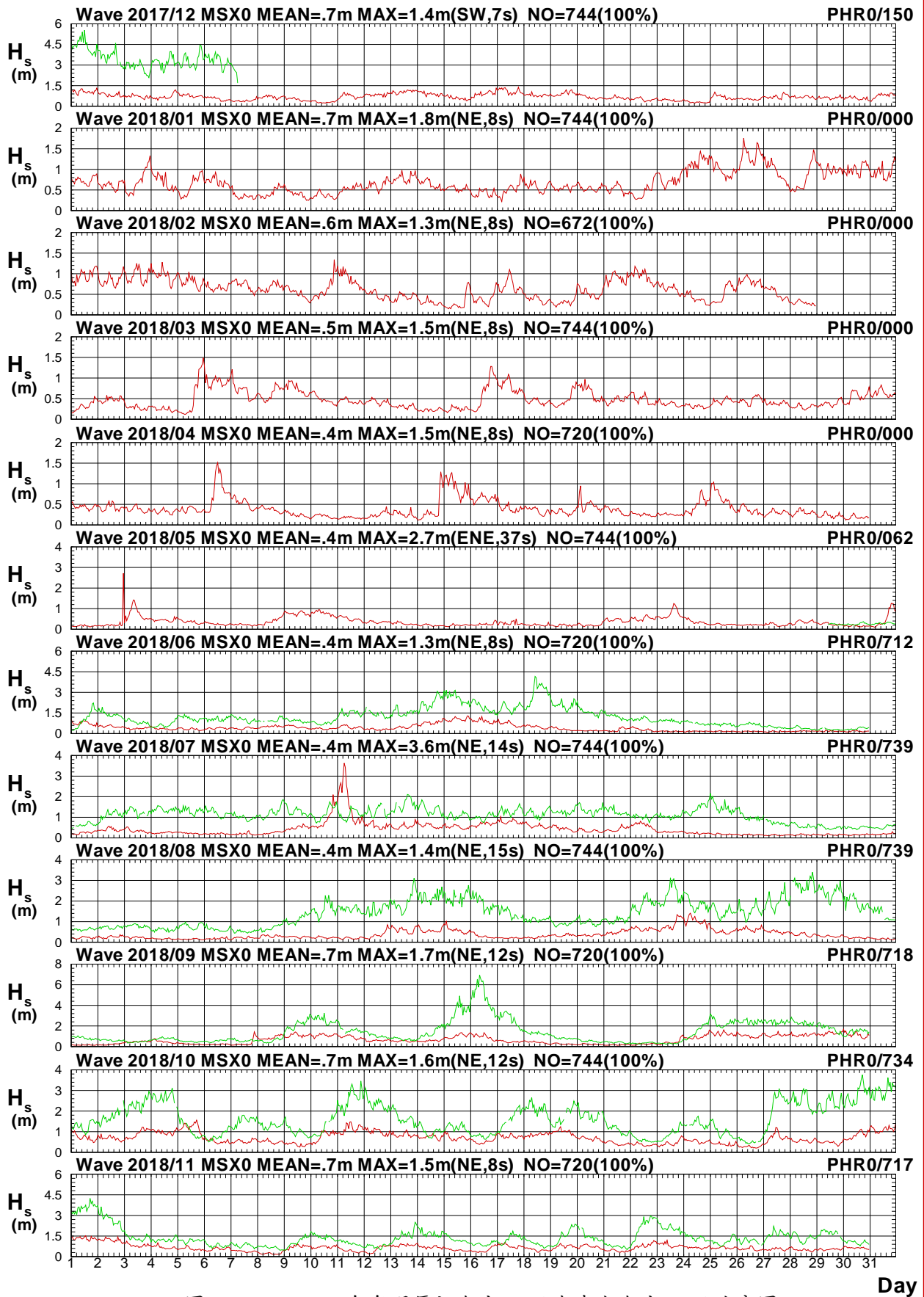


圖2.4.11a 2018年每月馬祖海域 X 站與澎湖海域 R 站波高圖

V17CMSX0.1HA V17CPHR0.1H0 V181MSX0.1HA V181PHR0.1H0 V182MSX0.1HA V182PHR0.1H0
 V183MSX0.1HA V183PHR0.1H0 V184MSX0.1HA V184PHR0.1H0 V185MSX0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

Wave T_p in Ma-Tsu Harbor of MSX0 at 2018

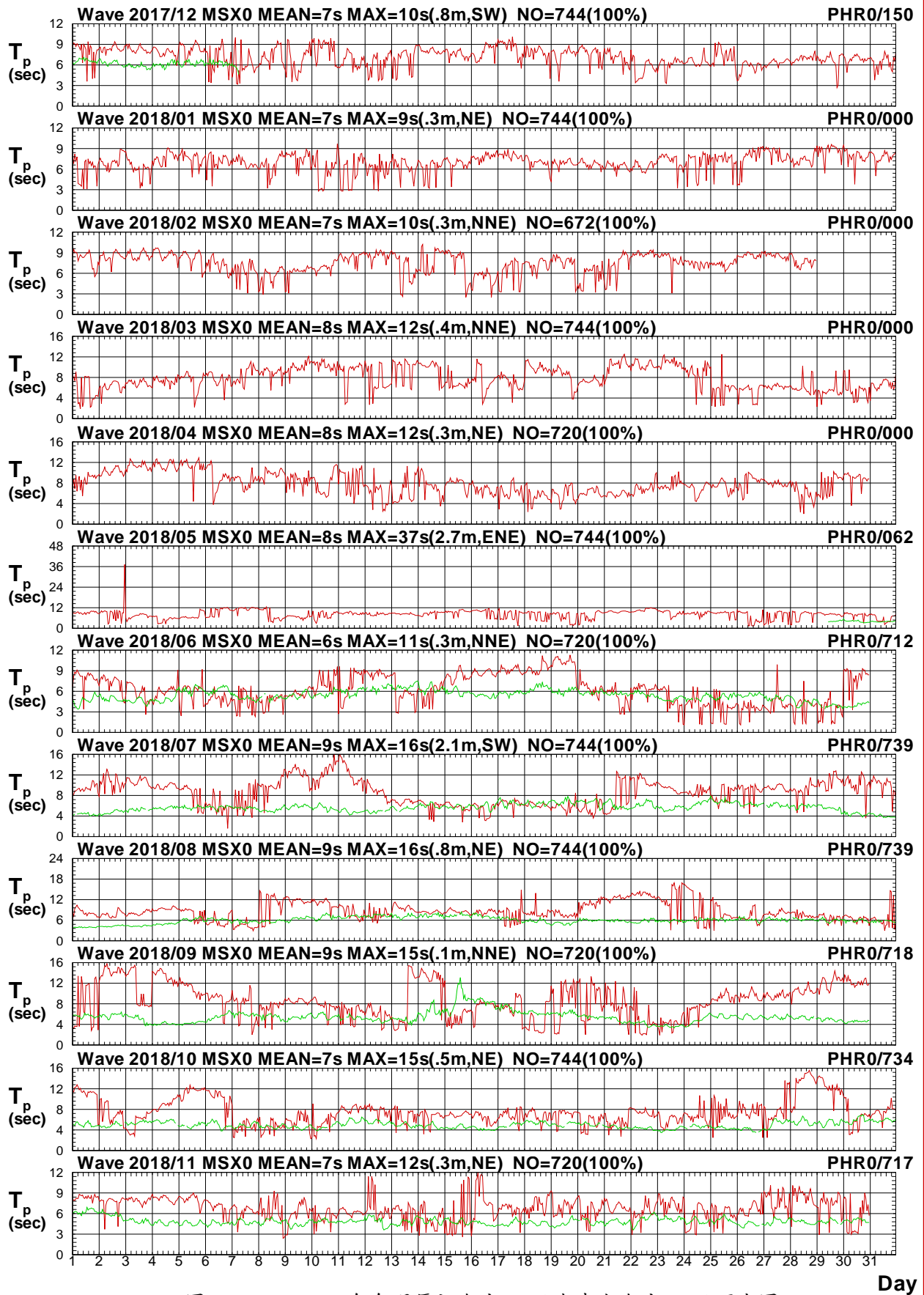


圖2.4.11b 2018年每月馬祖海域 X 站與澎湖海域 R 站週期圖

V17CMSX0.1HA V17CPHR0.1H0 V181MSX0.1HA V181PHR0.1H0 V182MSX0.1HA V182PHR0.1H0
 V183MSX0.1HA V183PHR0.1H0 V184MSX0.1HA V184PHR0.1H0 V185MSX0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

Wave Direction in Ma-Tsu Harbor of MSX0 at 2018

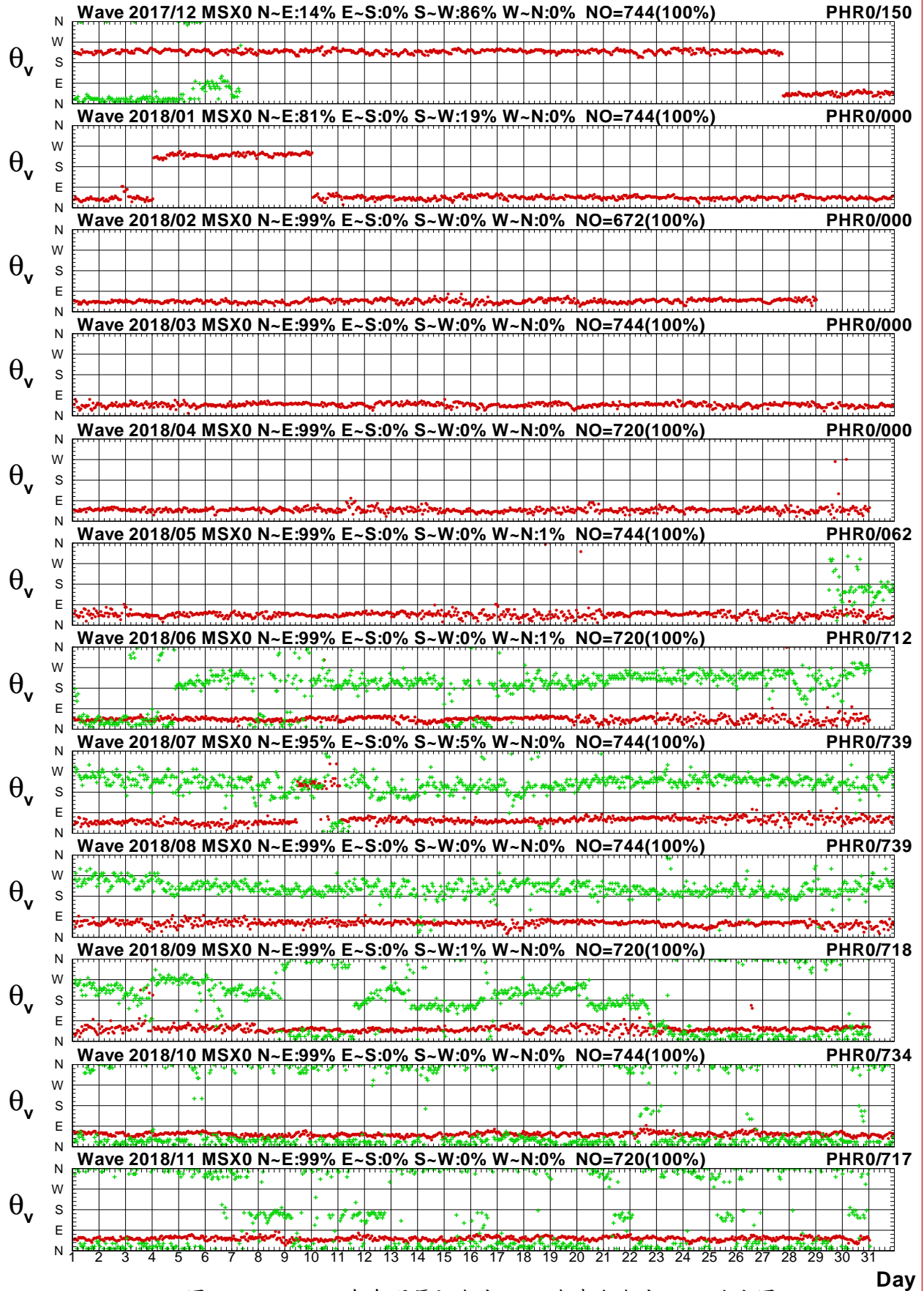


圖2.4.11c 2018年每月馬祖海域 X 站與澎湖海域 R 站波向圖

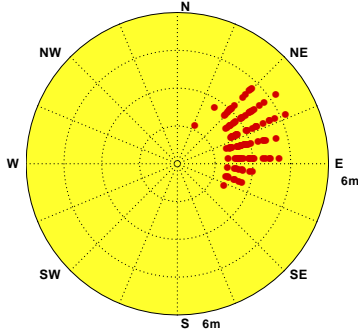
V17CMSX0.1HA V17CPHR0.1H0 V181MSX0.1HA V181PHR0.1H0 V182MSX0.1HA V182PHR0.1H0
 V183MSX0.1HA V183PHR0.1H0 V184MSX0.1HA V184PHR0.1H0 V185MSX0.1HA V185PHR0.1H0

Institute of Harbor & Marine Technology

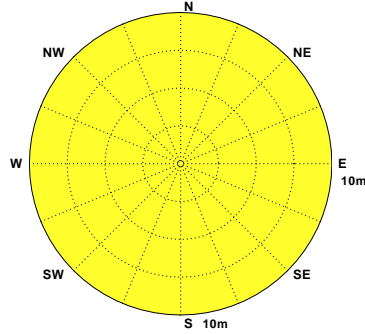
2.5 2018 年馬祖海域波浪各測站修補前 波浪向量分佈圖

Distribution of H_s Vectors

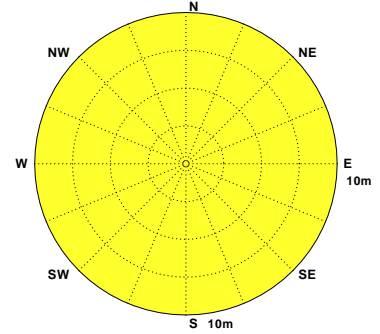
Wave of MSY0 at 2017/12 NO=125(17%)
 Hs : MEAN=2.7m MAX=4.5m(NE,7s)
 N-E:72% E-S:28% S-W:0% W-N:0%



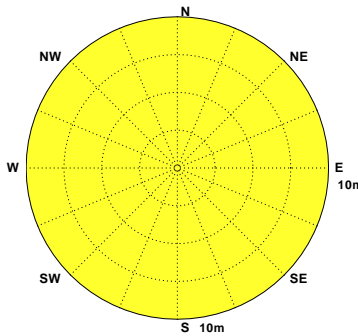
Wave of MSY0 at 2018/01



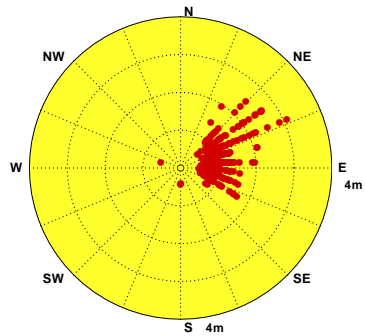
Wave of MSY0 at 2018/02



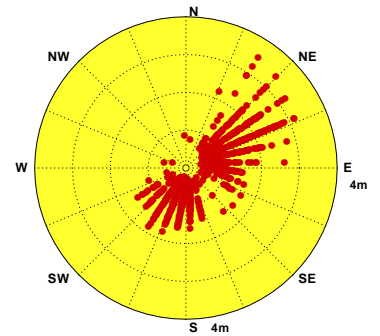
Wave of MSY0 at 2018/03



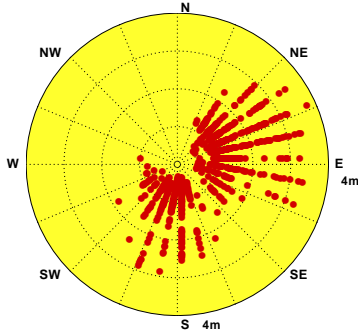
Wave of MSY0 at 2018/04 NO=296(41%)
 Hs : MEAN=1.0m MAX=2.9m(ENE,6s)
 N-E:47% E-S:52% S-W:1% W-N:0%



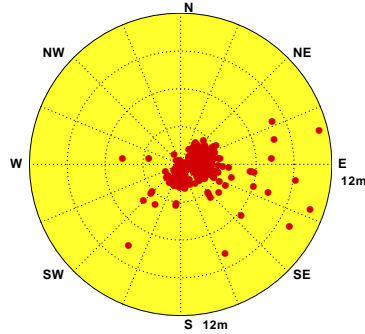
Wave of MSY0 at 2018/05 NO=739(99%)
 Hs : MEAN=1.2m MAX=3.3m(NNE,6s)
 N-E:41% E-S:22% S-W:37% W-N:0%



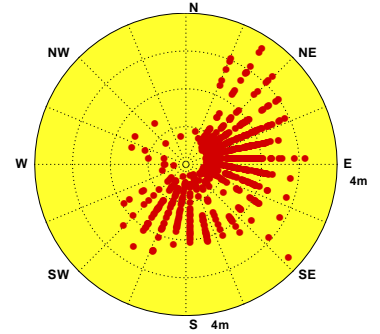
Wave of MSY0 at 2018/06 NO=720(100%)
 Hs : MEAN=1.4m MAX=3.6m(ENE,7s)
 N-E:46% E-S:25% S-W:29% W-N:0%



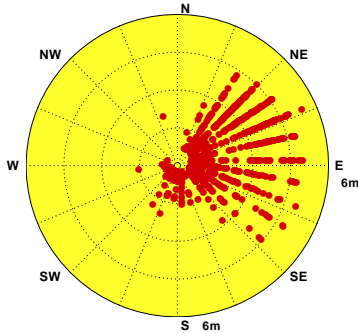
Wave of MSY0 at 2018/07 NO=744(100%)
 Hs : MEAN=1.5m MAX=10.9m(ENE,11s)
 N-E:16% E-S:55% S-W:29% W-N:0%



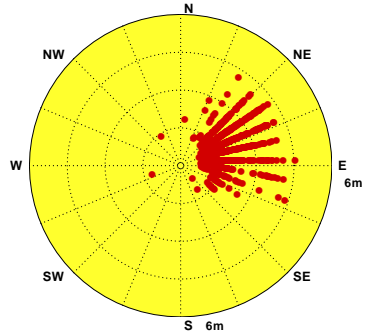
Wave of MSY0 at 2018/08 NO=740(99%)
 Hs : MEAN=1.3m MAX=3.7m(SE,8s)
 N-E:38% E-S:44% S-W:17% W-N:1%



Wave of MSY0 at 2018/09 NO=717(100%)
 Hs : MEAN=2.0m MAX=5.2m(ENE,9s)
 N-E:51% E-S:40% S-W:9% W-N:0%



Wave of MSY0 at 2018/10 NO=744(100%)
 Hs : MEAN=1.9m MAX=4.4m(E,10s)
 N-E:74% E-S:26% S-W:0% W-N:0%



Wave of MSY0 at 2018/11 NO=714(99%)
 Hs : MEAN=1.8m MAX=4.7m(NE,7s)
 N-E:77% E-S:23% S-W:0% W-N:0%

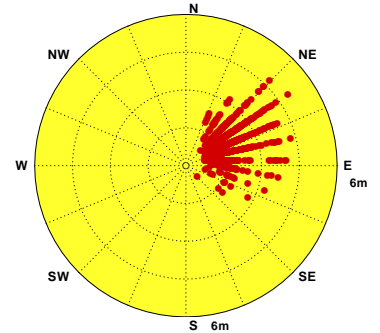


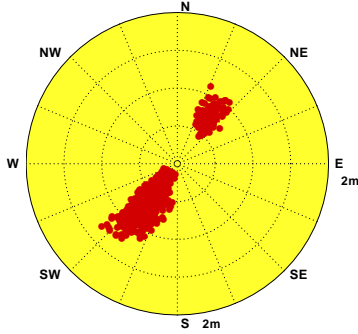
圖2.5.1 2018年馬祖海域每月 Y 站修補前觀測波高向量分佈圖

V17CMSY0.1H0 V181MSY0.1H0 V182MSY0.1H0 V183MSY0.1H0 V184MSY0.1H0 V185MSY0.1H0
 V186MSY0.1H0 V187MSY0.1H0 V188MSY0.1H0 V189MSY0.1H0 V18AMSY0.1H0 V18BMSY0.1H0

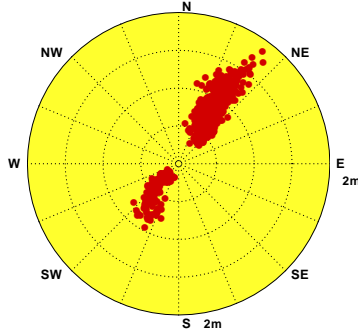
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

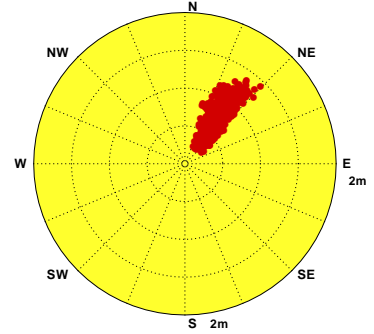
Wave of MSX0 at 2017/12 NO=744(100%)
Hs : MEAN=.7m MAX=1.4m(SW,7s)
N-E:14% E-S:0% S-W:86% W-N:0%



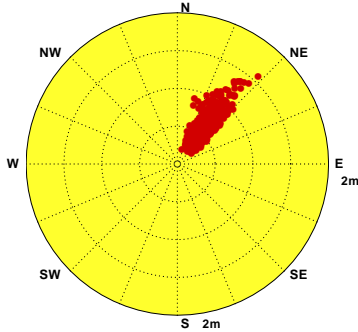
Wave of MSX0 at 2018/01 NO=738(99%)
Hs : MEAN=.7m MAX=1.8m(NE,8s)
N-E:80% E-S:0% S-W:20% W-N:0%



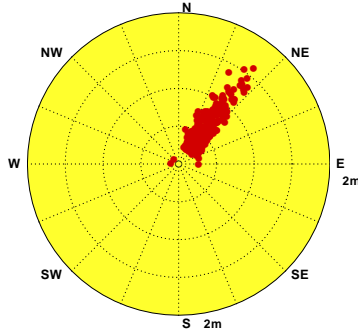
Wave of MSX0 at 2018/02 NO=672(100%)
Hs : MEAN=.6m MAX=1.3m(NE,8s)
N-E:99% E-S:0% S-W:0% W-N:0%



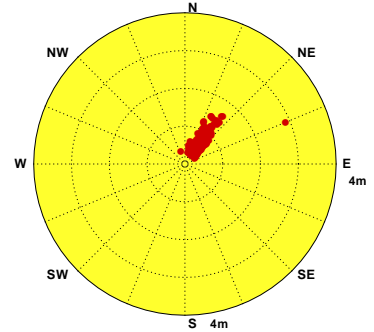
Wave of MSX0 at 2018/03 NO=732(98%)
Hs : MEAN=.5m MAX=1.5m(NE,8s)
N-E:99% E-S:0% S-W:0% W-N:0%



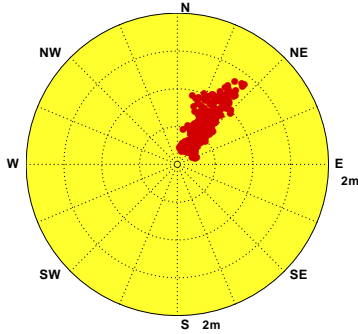
Wave of MSX0 at 2018/04 NO=711(99%)
Hs : MEAN=.4m MAX=1.5m(NE,8s)
N-E:99% E-S:0% S-W:0% W-N:0%



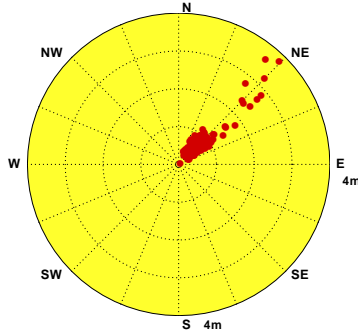
Wave of MSX0 at 2018/05 NO=727(98%)
Hs : MEAN=.4m MAX=2.7m(ENE,37s)
N-E:99% E-S:0% S-W:0% W-N:1%



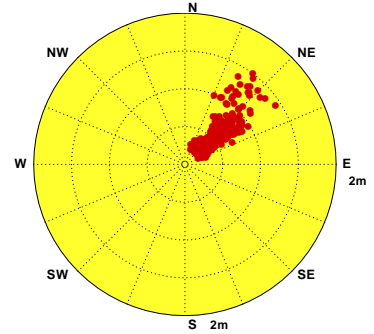
Wave of MSX0 at 2018/06 NO=719(100%)
Hs : MEAN=.4m MAX=1.3m(NE,8s)
N-E:99% E-S:0% S-W:0% W-N:1%



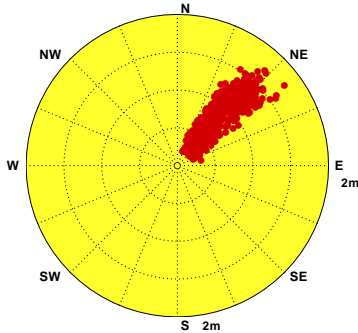
Wave of MSX0 at 2018/07 NO=702(94%)
Hs : MEAN=.4m MAX=3.6m(NE,14s)
N-E:99% E-S:0% S-W:0% W-N:0%



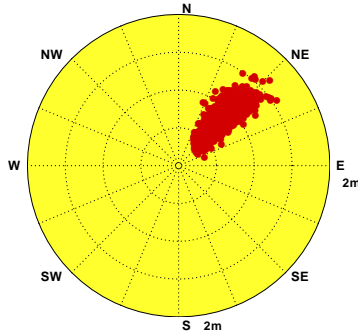
Wave of MSX0 at 2018/08 NO=743(100%)
Hs : MEAN=.4m MAX=1.4m(NE,15s)
N-E:99% E-S:0% S-W:0% W-N:0%



Wave of MSX0 at 2018/09 NO=701(97%)
Hs : MEAN=.7m MAX=1.7m(NE,12s)
N-E:99% E-S:0% S-W:0% W-N:0%



Wave of MSX0 at 2018/10 NO=735(99%)
Hs : MEAN=.7m MAX=1.6m(NE,12s)
N-E:99% E-S:0% S-W:0% W-N:0%



Wave of MSX0 at 2018/11 NO=715(99%)
Hs : MEAN=.7m MAX=1.5m(NE,8s)
N-E:99% E-S:0% S-W:0% W-N:0%

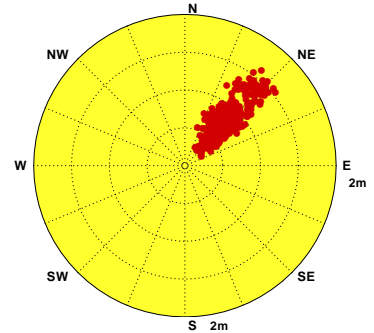


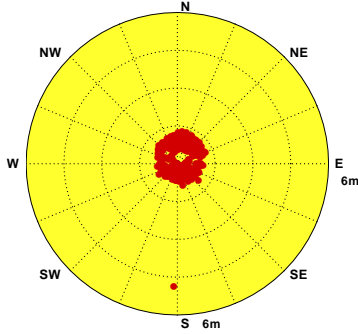
圖2.5.2 2018年馬祖海域每月 X 站修補前觀測波高向量分佈圖

V17CMSX0.1H0 V181MSX0.1H0 V182MSX0.1H0 V183MSX0.1H0 V184MSX0.1H0 V185MSX0.1H0
V186MSX0.1H0 V187MSX0.1H0 V188MSX0.1H0 V189MSX0.1H0 V18AMSX0.1H0 V18BMSX0.1H0

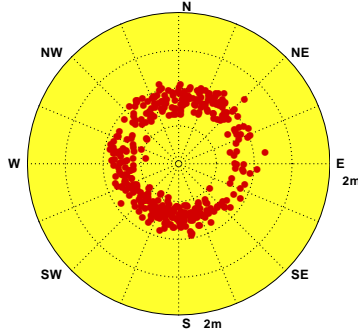
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

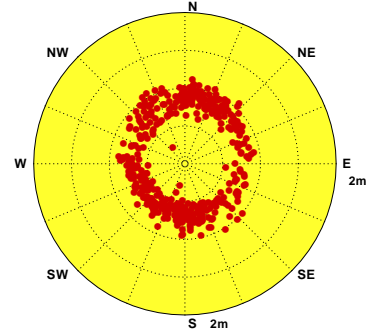
Wave of MSA0 at 2017/12 NO=594(80%)
Hs : MEAN=.7m MAX=5.1m(S, 6s)
N-E:42% E-S:16% S-W:18% W-N:24%



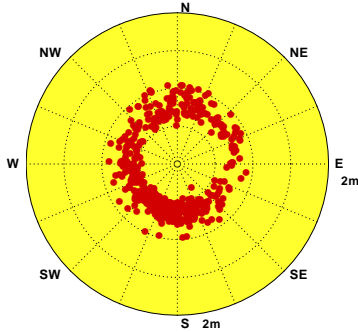
Wave of MSA0 at 2018/01 NO=399(54%)
Hs : MEAN=.8m MAX=1.1m(NE,3s)
N-E:23% E-S:18% S-W:36% W-N:23%



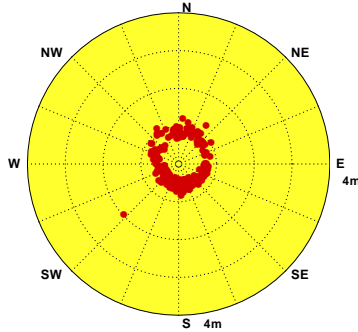
Wave of MSA0 at 2018/02 NO=462(69%)
Hs : MEAN=.8m MAX=1.1m(SSE,5s)
N-E:25% E-S:18% S-W:35% W-N:22%



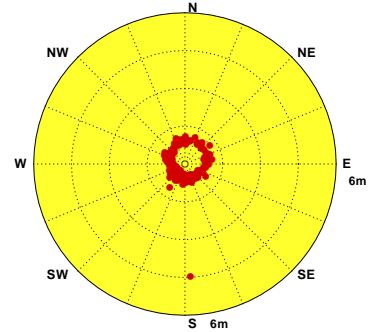
Wave of MSA0 at 2018/03 NO=470(63%)
Hs : MEAN=.7m MAX=1.1m(SSW,8s)
N-E:16% E-S:20% S-W:45% W-N:19%



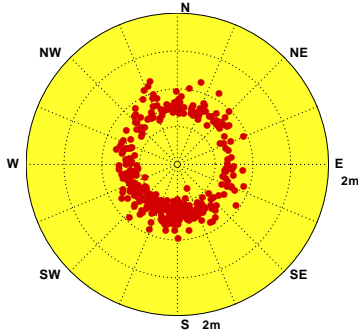
Wave of MSA0 at 2018/04 NO=267(37%)
Hs : MEAN=.7m MAX=2.2m(SW,16s)
N-E:17% E-S:25% S-W:41% W-N:17%



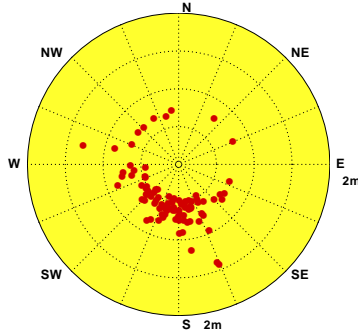
Wave of MSA0 at 2018/05 NO=176(24%)
Hs : MEAN=.8m MAX=4.7m(S, 19s)
N-E:9% E-S:23% S-W:51% W-N:17%



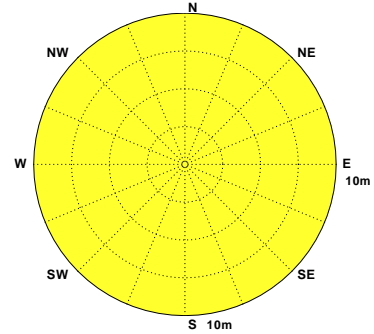
Wave of MSA0 at 2018/06 NO=362(50%)
Hs : MEAN=.7m MAX=1.1m(NNW,3s)
N-E:13% E-S:22% S-W:46% W-N:19%



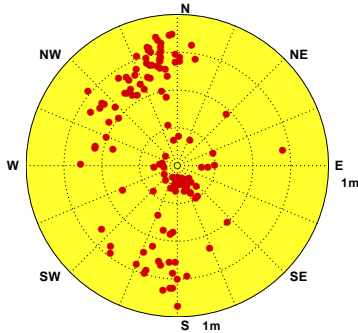
Wave of MSA0 at 2018/07 NO=96(13%)
Hs : MEAN=.7m MAX=1.5m(SSE,16s)
N-E:2% E-S:30% S-W:60% W-N:8%



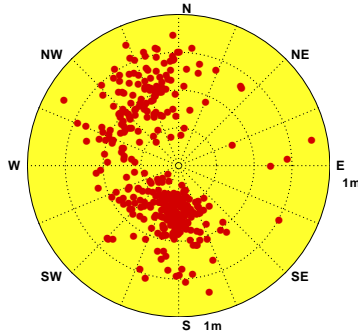
Wave of MSA0 at 2018/08



Wave of MSA0 at 2018/09 NO=129(18%)
Hs : MEAN=.5m MAX=1.0m(S, 7s)
N-E:5% E-S:16% S-W:33% W-N:46%



Wave of MSA0 at 2018/10 NO=368(49%)
Hs : MEAN=.4m MAX=.9m(S, 7s)
N-E:4% E-S:18% S-W:44% W-N:34%



Wave of MSA0 at 2018/11 NO=718(100%)
Hs : MEAN=.5m MAX=1.2m(S, 9s)
N-E:5% E-S:16% S-W:45% W-N:34%

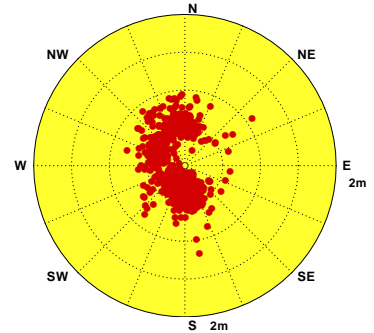


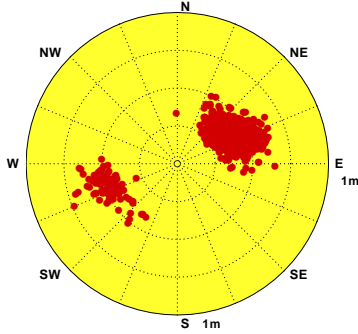
圖2.5.3 2018年馬祖海域每月 A 站修補前觀測波高向量分佈圖

V17CMSA0.1H0 V181MSA0.1H0 V182MSA0.1H0 V183MSA0.1H0 V184MSA0.1H0 V185MSA0.1H0
V186MSA0.1H0 V187MSA0.1H0 V188MSA0.1H0 V189MSA0.1H0 V18AMSA0.1H0 V18BMSA0.1H0

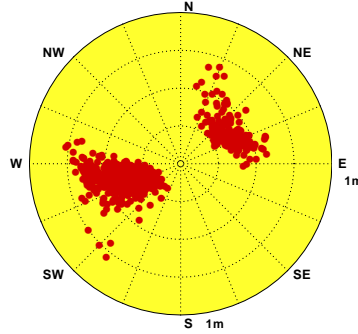
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

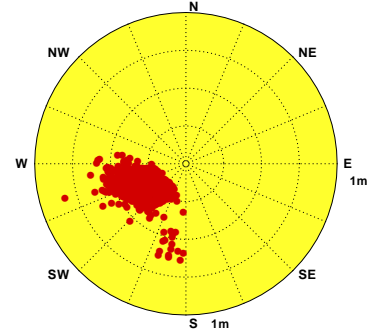
Wave of MS20 at 2017/12 NO=743(100%)
 Hs : MEAN=.4m MAX=.8m(WSW,10s)
 N-E:85% E-S:2% S-W:13% W-N:0%



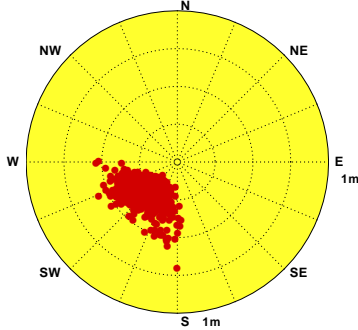
Wave of MS20 at 2018/01 NO=724(97%)
 Hs : MEAN=.4m MAX=.8m(SW,7s)
 N-E:26% E-S:1% S-W:71% W-N:2%



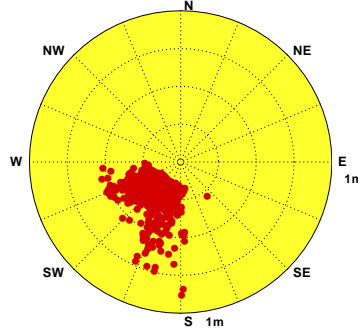
Wave of MS20 at 2018/02 NO=671(100%)
 Hs : MEAN=.4m MAX=.9m(WSW,10s)
 N-E:0% E-S:0% S-W:99% W-N:0%



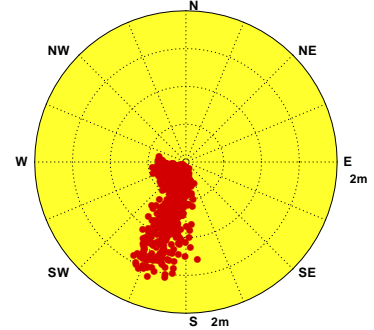
Wave of MS20 at 2018/03 NO=734(99%)
 Hs : MEAN=.4m MAX=.7m(S, 3s)
 N-E:0% E-S:0% S-W:99% W-N:0%



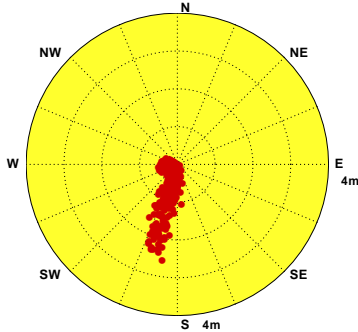
Wave of MS20 at 2018/04 NO=711(99%)
 Hs : MEAN=.3m MAX=.9m(S, 5s)
 N-E:0% E-S:0% S-W:99% W-N:0%



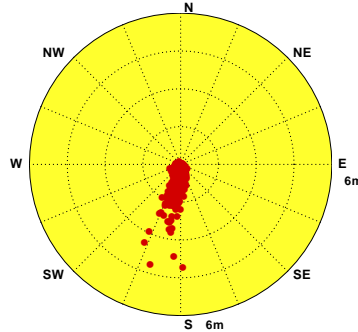
Wave of MS20 at 2018/05 NO=740(99%)
 Hs : MEAN=.6m MAX=1.7m(SSW,5s)
 N-E:0% E-S:1% S-W:99% W-N:0%



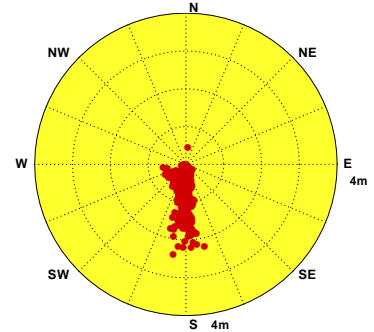
Wave of MS20 at 2018/06 NO=696(97%)
 Hs : MEAN=.7m MAX=2.8m(S, 7s)
 N-E:0% E-S:0% S-W:99% W-N:0%



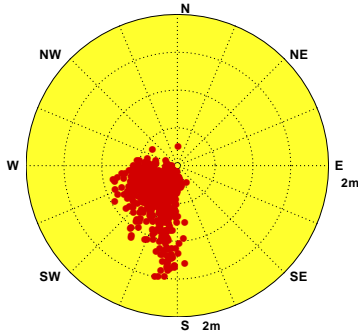
Wave of MS20 at 2018/07 NO=743(100%)
 Hs : MEAN=.7m MAX=4.4m(SSW,9s)
 N-E:0% E-S:2% S-W:98% W-N:0%



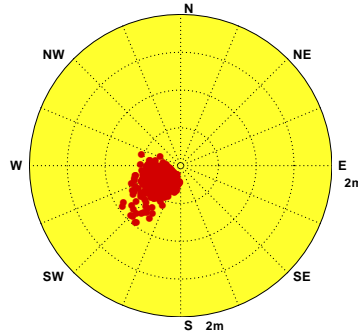
Wave of MS20 at 2018/08 NO=743(100%)
 Hs : MEAN=.7m MAX=2.6m(S, 7s)
 N-E:0% E-S:6% S-W:94% W-N:0%



Wave of MS20 at 2018/09 NO=706(98%)
 Hs : MEAN=.6m MAX=1.6m(SSW,5s)
 N-E:0% E-S:1% S-W:98% W-N:1%



Wave of MS20 at 2018/10 NO=735(99%)
 Hs : MEAN=.4m MAX=1.1m(SW,13s)
 N-E:0% E-S:0% S-W:99% W-N:1%



Wave of MS20 at 2018/11 NO=712(99%)
 Hs : MEAN=.4m MAX=.7m(WSW,8s)
 N-E:0% E-S:0% S-W:99% W-N:0%

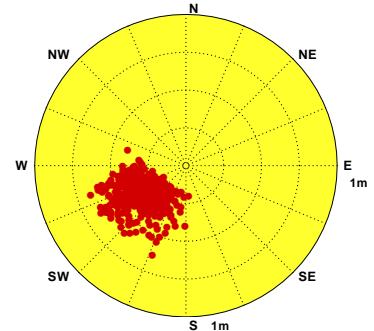


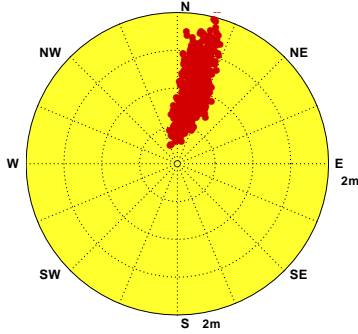
圖2.5.4 2018年馬祖海域每月2站修補前觀測波高向量分佈圖

V17CMS20.1HO V181MS20.1HO V182MS20.1HO V183MS20.1HO V184MS20.1HO V185MS20.1HO
 V186MS20.1HO V187MS20.1HO V188MS20.1HO V189MS20.1HO V18AMS20.1HO V18BMS20.1HO

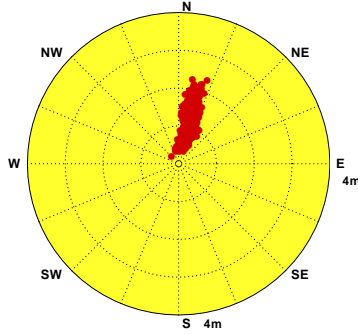
Institute of Harbor & Marine Technology

Distribution of H_s Vectors

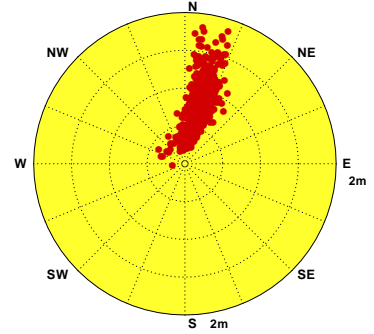
Wave of MS30 at 2017/12 NO=744(100%)
Hs : MEAN=.9m MAX=2.0m(NNE,7s)
N-E:92% E-S:0% S-W:0% W-N:8%



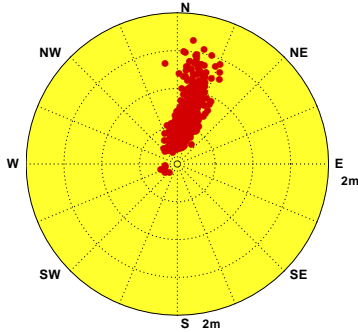
Wave of MS30 at 2018/01 NO=744(100%)
Hs : MEAN=.8m MAX=2.2m(NNE,7s)
N-E:88% E-S:0% S-W:0% W-N:12%



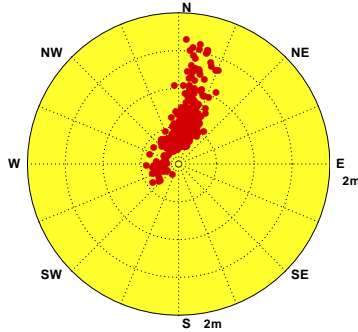
Wave of MS30 at 2018/02 NO=672(100%)
Hs : MEAN=.7m MAX=1.8m(NNE,6s)
N-E:86% E-S:0% S-W:0% W-N:14%



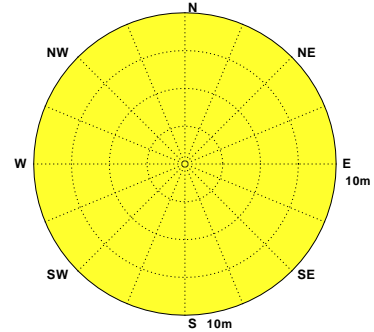
Wave of MS30 at 2018/03 NO=744(100%)
Hs : MEAN=.5m MAX=1.6m(N, 8s)
N-E:65% E-S:0% S-W:1% W-N:34%



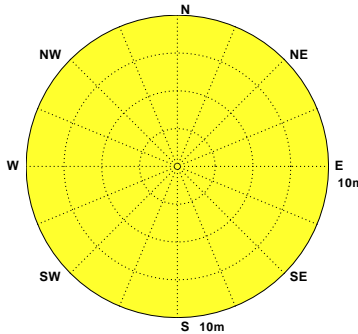
Wave of MS30 at 2018/04 NO=489(68%)
Hs : MEAN=.4m MAX=1.6m(N, 7s)
N-E:47% E-S:0% S-W:6% W-N:47%



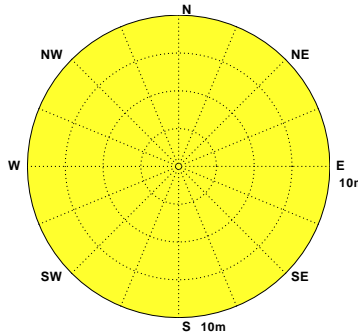
Wave of MS30 at 2018/05



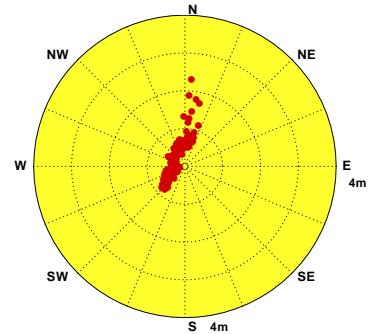
Wave of MS30 at 2018/06



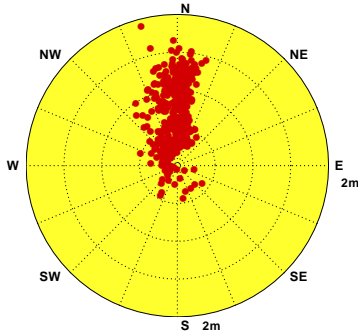
Wave of MS30 at 2018/07



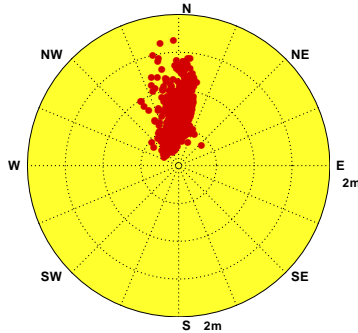
Wave of MS30 at 2018/08 NO=177(24%)
Hs : MEAN=.6m MAX=2.2m(N, 7s)
N-E:10% E-S:0% S-W:54% W-N:36%



Wave of MS30 at 2018/09 NO=400(56%)
Hs : MEAN=.7m MAX=1.9m(NNW,12s)
N-E:30% E-S:2% S-W:6% W-N:62%



Wave of MS30 at 2018/10 NO=718(97%)
Hs : MEAN=.6m MAX=1.6m(N, 7s)
N-E:38% E-S:0% S-W:0% W-N:62%



Wave of MS30 at 2018/11 NO=359(50%)
Hs : MEAN=.6m MAX=1.5m(N, 6s)
N-E:30% E-S:0% S-W:0% W-N:70%

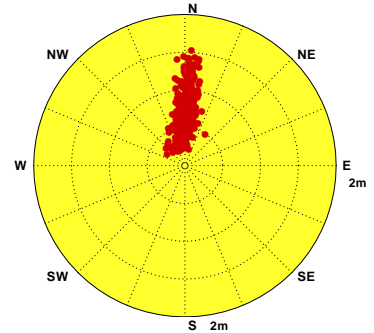


圖2.5.5 2018年馬祖海域每月3站修補前觀測波高向量分佈圖

V17CMS30.1HO V181MS30.1HO V182MS30.1HO V183MS30.1HO V184MS30.1HO V185MS30.1HO
V186MS30.1HO V187MS30.1HO V188MS30.1HO V189MS30.1HO V18AMS30.1HO V18BMS30.1HO

Institute of Harbor & Marine Technology

第三章 2018 年馬祖海域觀測潮汐資料年報

馬祖海域潮汐之觀測包括測站 **T**、測站 **S**、測站 **G**、測站 **L**、測站 **M**、測站 **X**、測站 **A**、測站 **2** 及測站 **3** 等 9 個測站(測站位置如第 O 章圖 TU1)。測站 **T** 與其他 9 個測站特性皆相近。本年報取經檢核及補遺之測站 **T** 資料作為**主要測站 1**，測站 **G** 資料作為**主要測站 2**，測站 **L** 資料作為**主要測站 3**。

3.1 2018 年馬祖海域觀測潮汐資料年報圖表

本章第 1 節**潮汐**年報資料處理之圖表包括：

1. 表 3.1.1a 2018 年**各觀測站**每月**觀測潮汐**資料**修補前**記錄表。
2. 表 3.1.1b 2018 年**主要測站**每月**觀測潮汐**資料**修補後**記錄表。
3. 表 3.1.2 2018 年**主要測站 1** **修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
4. 表 3.1.3 2018 年**主要測站 2** **修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
5. 表 3.1.4 2018 年**主要測站 3** **修補後**每月(季)及整年觀測潮位、潮差及週期重要統計量統計表。
6. 圖 3.1.1 2018 年**主要測站 1** **修補前後**每月觀測潮位歷線比較圖。
7. 圖 3.1.2 2018 年**主要測站 1** **修補後**每月觀測潮位及計算天文潮位歷線比較圖。
8. 圖 3.1.3 2018 年**主要測站 2** **修補前後**每月觀測潮位歷線比較圖。
9. 圖 3.1.4 2018 年**主要測站 2** **修補後**每月觀測潮位及計算天文潮位歷線比較圖。

10. 圖 3.1.5 2018 年**主要測站 3 修補前後**每月觀測潮位歷線比較圖。

11. 圖 3.1.6 2018 年**主要測站 3 修補後**每月觀測潮位及計算天文潮位歷線比較圖。

第 2 節潮汐年報資料處理之圖表包括: 2018 年馬祖海域**各測站修補前**每月(季)及整年潮位、潮差及週期重要統計量統計表。

第 3 節潮汐年報資料處理之統計圖包括: 2018 年馬祖海域**主要測站 1 修補後與其他測站(修補前)**每月觀測潮位歷線比較圖。

第 4 節潮汐年報資料處理之統計圖包括: 2018 年馬祖海域**主要測站 2 修補後與其他測站(修補前)**每月觀測潮位歷線比較圖。

第 5 節潮汐年報資料處理之統計圖包括: 2018 年馬祖海域**主要測站 3 修補後與其他測站(修補前)**每月觀測潮位歷線比較圖。

表 3.1.1a 2018 年每月馬祖海域修補前各測站觀測潮汐資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|------|
| 年月/測站 | T | G | L | S | M | X | A | 2 | 3 | 1 | F | |
| 2017/12 月 | 558(75.0%) | 729(98.0%) | * | * | * | 744(100%) | 594(79.8%) | 742(99.7%) | 744(100%) | * | * | * |
| 2018/ 1 月 | 408(54.8%) | 732(98.4%) | * | * | * | 738(99.2%) | 399(53.6%) | 724(97.3%) | 744(100%) | * | * | * |
| 2018/ 2 月 | 582(86.6%) | 667(99.3%) | 355(52.8%) | * | * | 672(100%) | 462(68.8%) | 671(99.9%) | 672(100%) | * | * | * |
| 2018/ 3 月 | 696(93.5%) | 721(96.9%) | 669(89.9%) | * | 679(91.3%) | 732(98.4%) | 470(63.2%) | 734(98.7%) | 744(100%) | * | * | * |
| 2018/ 4 月 | 549(76.3%) | 704(97.8%) | 710(98.6%) | * | 687(95.4%) | 711(98.8%) | 267(37.1%) | 711(98.8%) | 489(67.9%) | * | * | * |
| 2018/ 5 月 | 711(95.6%) | 730(98.1%) | 732(98.4%) | 233(31.3%) | 707(95.0%) | 727(97.7%) | 176(23.7%) | 740(99.5%) | * | * | * | * |
| 2018/ 6 月 | 563(78.2%) | 709(98.5%) | 698(96.9%) | 708(98.3%) | 322(44.7%) | 719(99.9%) | * | 696(96.7%) | * | * | * | * |
| 2018/ 7 月 | 235(31.6%) | 735(98.8%) | 737(99.1%) | 736(98.9%) | 381(51.2%) | 702(94.4%) | 96(12.9%) | 743(99.9%) | * | * | * | * |
| 2018/ 8 月 | 470(63.2%) | 730(98.1%) | 662(89.0%) | 730(98.1%) | 486(65.3%) | 743(99.9%) | * | 743(99.9%) | 177(23.8%) | * | * | * |
| 2018/ 9 月 | 653(90.7%) | 661(91.8%) | 386(53.6%) | 702(97.5%) | 301(41.8%) | 701(97.4%) | 546(75.8%) | 706(98.1%) | 554(76.9%) | * | * | * |
| 2018/10 月 | 736(98.9%) | 743(99.9%) | 446(59.9%) | 735(98.8%) | * | 735(98.8%) | 550(73.9%) | 735(98.8%) | 718(96.5%) | * | * | * |
| 2018/11 月 | 708(98.3%) | 706(98.1%) | 636(88.3%) | 707(98.2%) | 428(59.4%) | 715(99.3%) | 718(99.7%) | 712(98.9%) | 359(49.9%) | * | * | * |
| 2018/冬季 | 1548(71.7%) | 2128(98.5%) | 355(16.4%) | 11(.5%) | * | 2154(99.7%) | 1455(67.4%) | 2137(98.9%) | 2160(100%) | * | * | * |
| 2018/春季 | 1956(88.6%) | 2155(97.6%) | 2111(95.6%) | 233(10.6%) | 2073(93.9%) | 2170(98.3%) | 913(41.3%) | 2185(99.0%) | 1233(55.8%) | * | * | * |
| 2018/夏季 | 1268(57.4%) | 2174(98.5%) | 2097(95.0%) | 2174(98.5%) | 1189(53.8%) | 2164(98.0%) | 96(4.3%) | 2182(98.8%) | 177(8.0%) | * | * | * |
| 2018/秋季 | 2097(96.0%) | 2110(96.6%) | 1468(67.2%) | 2144(98.2%) | 729(33.4%) | 2151(98.5%) | 1814(83.1%) | 2153(98.6%) | 1631(74.7%) | * | * | * |
| 2018/整年 | 6869(78.4%) | 8567(97.8%) | 6031(68.8%) | 4551(52.0%) | 3991(45.6%) | 8639(98.6%) | 4278(48.8%) | 8657(98.8%) | 5201(59.4%) | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | 2018/02 | 2018/05 | 2018/03 | 2017/12 | 2017/12 | 2017/12 | 2017/12 | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | 2018/11 | * | * | * |

3-1-3

表 3.1.1b 2018 年每月馬祖海域修補後各測站潮汐資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|-----------|------------|------------|------------|------|------|------|------|------|------|------|------|------|
| 年月/測站 | T | G | L | | | | | | | | | |
| 2017/12 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 1 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 2 月 | 672(100%) | 672(100%) | 672(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 3 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 4 月 | 720(100%) | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 5 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 6 月 | 720(100%) | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 7 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 8 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/ 9 月 | 720(100%) | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * |
| 2018/10 月 | 744(100%) | 744(100%) | 744(100%) | * | * | * | * | * | * | * | * | * |
| 2018/11 月 | 720(100%) | 720(100%) | 720(100%) | * | * | * | * | * | * | * | * | * |
| 2018/冬季 | 2160(100%) | 2160(100%) | 2160(100%) | * | * | * | * | * | * | * | * | * |
| 2018/春季 | 2208(100%) | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * |
| 2018/夏季 | 2208(100%) | 2208(100%) | 2208(100%) | * | * | * | * | * | * | * | * | * |
| 2018/秋季 | 2184(100%) | 2184(100%) | 2184(100%) | * | * | * | * | * | * | * | * | * |
| 2018/整年 | 8760(100%) | 8760(100%) | 8760(100%) | * | * | * | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | 2017/12 | * | * | * | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | * | * | * | * | * | * | * | * | * |

3-1-8

表3.1.2 2018年馬祖海域主要測站1修補後潮差週期及潮位重要統計量統計表

| 序 號 | 日期 (年/月) | 測 站 | 平均 潮差 (公分) | 最大 潮差 (公分) | 1/3 潮差 (公分) | 1/10 潮差 (公分) | 平均 週期 (時) | 最大 週期 (時) | 1/3 週期 (時) | 1/10 週期 (時) | 潮差 個數 (個) | 平均 潮位 (公分) | 最高 潮位 (公分) | 最低 潮位 (公分) | 水位 點數 (個) |
|--------|-------------|--------|------------------|------------------|-------------------|--------------------|-----------------|-----------------|------------------|-------------------|-----------------|------------------|------------------|------------------|-----------------|
| 1 | 2017/12 | T | 458 | 691 | 566 | 668 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 318 | -383 | 744(100%) |
| 2 | 2018/01 | T | 455 | 748 | 569 | 662 | 12.9 | 25.0 | 14.4 | 18.2 | 57 | 0 | 331 | -465 | 744(100%) |
| 3 | 2018/02 | T | 450 | 762 | 569 | 651 | 12.4 | 14.0 | 13.1 | 13.2 | 53 | 0 | 348 | -442 | 672(100%) |
| 4 | 2018/03 | T | 460 | 644 | 576 | 627 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 302 | -354 | 744(100%) |
| 5 | 2018/04 | T | 450 | 649 | 567 | 616 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 353 | -346 | 720(100%) |
| 6 | 2018/05 | T | 449 | 644 | 562 | 632 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 305 | -361 | 744(100%) |
| 7 | 2018/06 | T | 443 | 632 | 542 | 608 | 12.6 | 25.0 | 13.7 | 15.4 | 56 | 0 | 342 | -335 | 720(100%) |
| 8 | 2018/07 | T | 452 | 707 | 574 | 674 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 346 | -364 | 744(100%) |
| 9 | 2018/08 | T | 460 | 659 | 570 | 636 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 340 | -369 | 744(100%) |
| 10 | 2018/09 | T | 465 | 647 | 577 | 628 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 326 | -343 | 720(100%) |
| 11 | 2018/10 | T | 463 | 612 | 571 | 604 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 318 | -338 | 744(100%) |
| 12 | 2018/11 | T | 458 | 610 | 564 | 601 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 304 | -356 | 720(100%) |
| 13 | 2018/冬 | T | 455 | 762 | 567 | 658 | 12.6 | 25.0 | 13.5 | 14.8 | 169 | 0 | 348 | -465 | 2160(100%) |
| 14 | 2018/春 | T | 453 | 649 | 569 | 621 | 12.4 | 14.0 | 13.0 | 13.1 | 175 | 0 | 353 | -361 | 2208(100%) |
| 15 | 2018/夏 | T | 452 | 707 | 561 | 635 | 12.5 | 25.0 | 13.2 | 13.8 | 174 | 0 | 346 | -369 | 2208(100%) |
| 16 | 2018/秋 | T | 462 | 647 | 570 | 610 | 12.4 | 14.0 | 13.1 | 13.2 | 173 | 0 | 326 | -356 | 2184(100%) |
| 17 | 2018/年 | T | 455 | 762 | 568 | 630 | 12.5 | 25.0 | 13.2 | 13.7 | 691 | 0 | 353 | -465 | 8760(100%) |

表3.1.3 2018年馬祖海域主要測站2修補後潮差週期及潮位重要統計量統計表

| 序 號 | 日期 (年/月) | 測 站 | 平均 潮差 (公分) | 最大 潮差 (公分) | 1/3 潮差 (公分) | 1/10 潮差 (公分) | 平均 週期 (時) | 最大 週期 (時) | 1/3 週期 (時) | 1/10 週期 (時) | 潮差 個數 (個) | 平均 潮位 (公分) | 最高 潮位 (公分) | 最低 潮位 (公分) | 水位 點數 (個) |
|--------|-------------|--------|------------------|------------------|-------------------|--------------------|-----------------|-----------------|------------------|-------------------|-----------------|------------------|------------------|------------------|-----------------|
| 1 | 2017/12 | G | 443 | 669 | 556 | 651 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 311 | -372 | 744(100%) |
| 2 | 2018/01 | G | 428 | 631 | 538 | 604 | 12.9 | 25.0 | 14.3 | 17.8 | 57 | 0 | 313 | -367 | 744(100%) |
| 3 | 2018/02 | G | 417 | 650 | 531 | 602 | 12.4 | 13.0 | 13.0 | 13.0 | 53 | 0 | 314 | -338 | 672(100%) |
| 4 | 2018/03 | G | 444 | 622 | 553 | 593 | 12.6 | 25.0 | 13.6 | 15.4 | 58 | 0 | 294 | -339 | 744(100%) |
| 5 | 2018/04 | G | 426 | 588 | 531 | 570 | 12.4 | 13.0 | 13.0 | 13.0 | 57 | 0 | 283 | -308 | 720(100%) |
| 6 | 2018/05 | G | 409 | 636 | 520 | 603 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 289 | -347 | 744(100%) |
| 7 | 2018/06 | G | 403 | 641 | 510 | 610 | 12.4 | 14.0 | 13.2 | 13.6 | 57 | 0 | 328 | -320 | 720(100%) |
| 8 | 2018/07 | G | 445 | 653 | 551 | 635 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 312 | -366 | 744(100%) |
| 9 | 2018/08 | G | 453 | 648 | 558 | 623 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 331 | -351 | 744(100%) |
| 10 | 2018/09 | G | 457 | 642 | 565 | 616 | 12.4 | 13.0 | 13.0 | 13.0 | 57 | 0 | 338 | -342 | 720(100%) |
| 11 | 2018/10 | G | 456 | 603 | 560 | 592 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 311 | -331 | 744(100%) |
| 12 | 2018/11 | G | 449 | 601 | 554 | 591 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 293 | -346 | 720(100%) |
| 13 | 2018/冬 | G | 430 | 669 | 542 | 618 | 12.6 | 25.0 | 13.4 | 14.5 | 169 | 0 | 314 | -372 | 2160(100%) |
| 14 | 2018/春 | G | 426 | 636 | 538 | 585 | 12.5 | 25.0 | 13.2 | 13.7 | 174 | 0 | 294 | -347 | 2208(100%) |
| 15 | 2018/夏 | G | 434 | 653 | 542 | 619 | 12.4 | 14.0 | 13.1 | 13.3 | 175 | 0 | 331 | -366 | 2208(100%) |
| 16 | 2018/秋 | G | 454 | 642 | 560 | 599 | 12.4 | 14.0 | 13.0 | 13.1 | 173 | 0 | 338 | -346 | 2184(100%) |
| 17 | 2018/年 | G | 436 | 669 | 547 | 605 | 12.5 | 25.0 | 13.2 | 13.6 | 691 | 0 | 338 | -372 | 8760(100%) |

3-1-6

表3.1.4 2018年馬祖海域主要測站3修補後潮差週期及潮位重要統計量統計表

| 序 號 | 日期 (年/月) | 測 站 | 平均 潮差 (公分) | 最大 潮差 (公分) | 1/3 潮差 (公分) | 1/10 潮差 (公分) | 平均 週期 (時) | 最大 週期 (時) | 1/3 週期 (時) | 1/10 週期 (時) | 潮差 個數 (個) | 平均 潮位 (公分) | 最高 潮位 (公分) | 最低 潮位 (公分) | 水位 點數 (個) |
|--------|-------------|--------|------------------|------------------|-------------------|--------------------|-----------------|-----------------|------------------|-------------------|-----------------|------------------|------------------|------------------|-----------------|
| 1 | 2017/12 | L | 443 | 669 | 556 | 651 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 311 | -372 | 744(100%) |
| 2 | 2018/01 | L | 428 | 631 | 538 | 604 | 12.9 | 25.0 | 14.3 | 17.8 | 57 | 0 | 313 | -367 | 744(100%) |
| 3 | 2018/02 | L | 384 | 650 | 499 | 600 | 12.4 | 14.0 | 13.1 | 13.4 | 53 | 0 | 312 | -340 | 672(100%) |
| 4 | 2018/03 | L | 398 | 588 | 500 | 551 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 363 | -300 | 744(100%) |
| 5 | 2018/04 | L | 384 | 547 | 479 | 523 | 12.4 | 13.0 | 13.0 | 13.0 | 57 | 0 | 273 | -309 | 720(100%) |
| 6 | 2018/05 | L | 361 | 554 | 446 | 507 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 256 | -299 | 744(100%) |
| 7 | 2018/06 | L | 376 | 629 | 482 | 574 | 12.4 | 14.0 | 13.1 | 13.4 | 57 | 0 | 288 | -347 | 720(100%) |
| 8 | 2018/07 | L | 384 | 600 | 484 | 572 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 309 | -325 | 744(100%) |
| 9 | 2018/08 | L | 397 | 564 | 498 | 552 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 292 | -307 | 744(100%) |
| 10 | 2018/09 | L | 434 | 672 | 560 | 625 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 345 | -371 | 720(100%) |
| 11 | 2018/10 | L | 426 | 614 | 530 | 588 | 12.4 | 14.0 | 13.3 | 14.0 | 59 | 0 | 324 | -371 | 744(100%) |
| 12 | 2018/11 | L | 404 | 607 | 513 | 563 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 308 | -328 | 720(100%) |
| 13 | 2018/冬 | L | 419 | 669 | 536 | 618 | 12.6 | 25.0 | 13.5 | 14.6 | 169 | 0 | 313 | -372 | 2160(100%) |
| 14 | 2018/春 | L | 381 | 588 | 480 | 526 | 12.4 | 13.0 | 13.0 | 13.0 | 175 | 0 | 363 | -309 | 2208(100%) |
| 15 | 2018/夏 | L | 386 | 629 | 487 | 561 | 12.4 | 14.0 | 13.0 | 13.1 | 175 | 0 | 309 | -347 | 2208(100%) |
| 16 | 2018/秋 | L | 421 | 672 | 536 | 592 | 12.4 | 14.0 | 13.1 | 13.4 | 173 | 0 | 345 | -371 | 2184(100%) |
| 17 | 2018/年 | L | 402 | 672 | 512 | 577 | 12.4 | 25.0 | 13.1 | 13.5 | 692 | 0 | 363 | -372 | 8760(100%) |

3-1-7

Tidal Level in Ma-Tsu Harbor of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

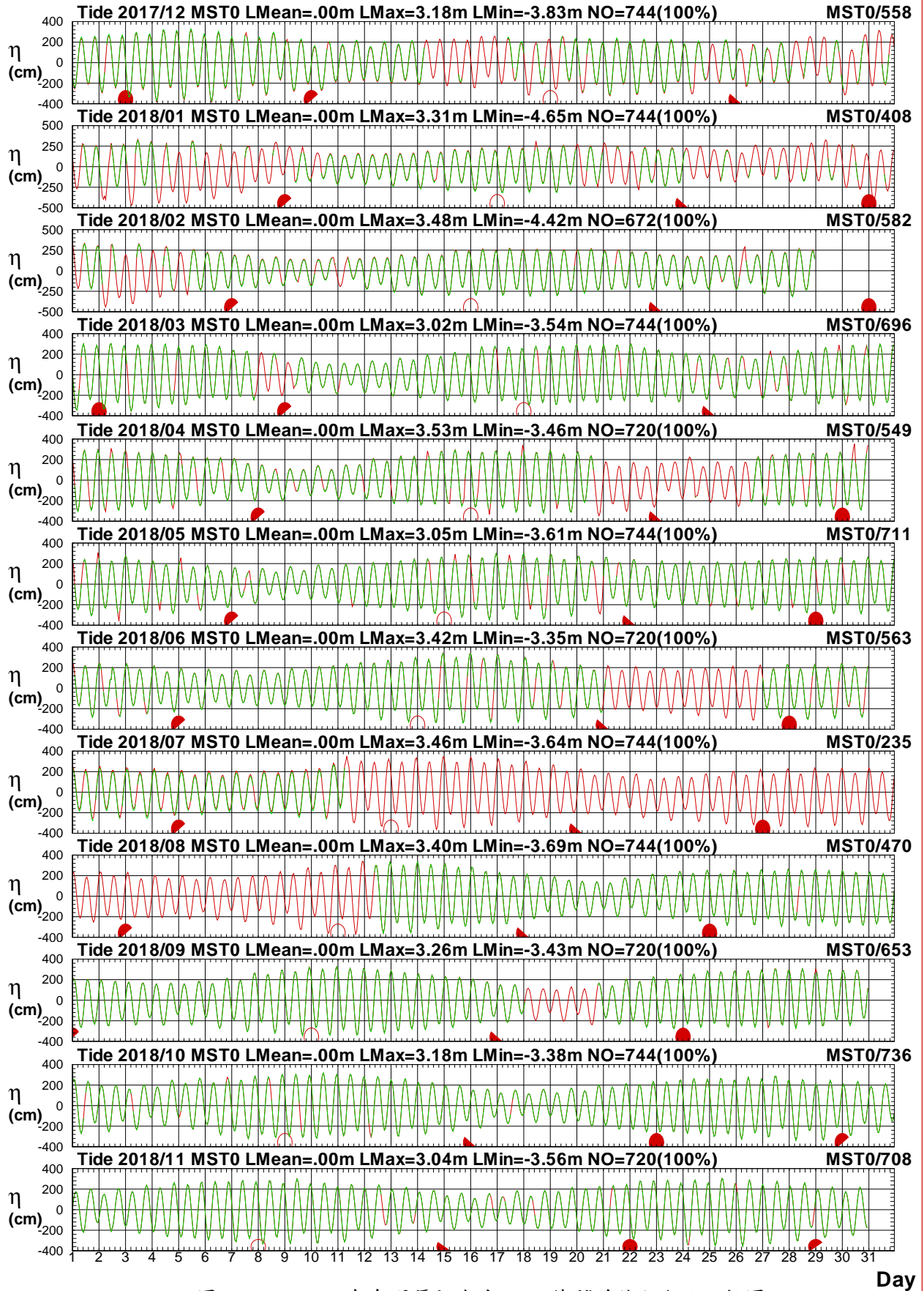


圖3.1.67 2018年每月馬祖海域 T 站修補前後之潮位比較圖

T17CMST0.1HA T17CMST0.1HO T181MST0.1HA T181MST0.1HO T182MST0.1HA T182MST0.1HO
T183MST0.1HA T183MST0.1HO T184MST0.1HA T184MST0.1HO T185MST0.1HA T185MST0.1HO

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Harbor of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

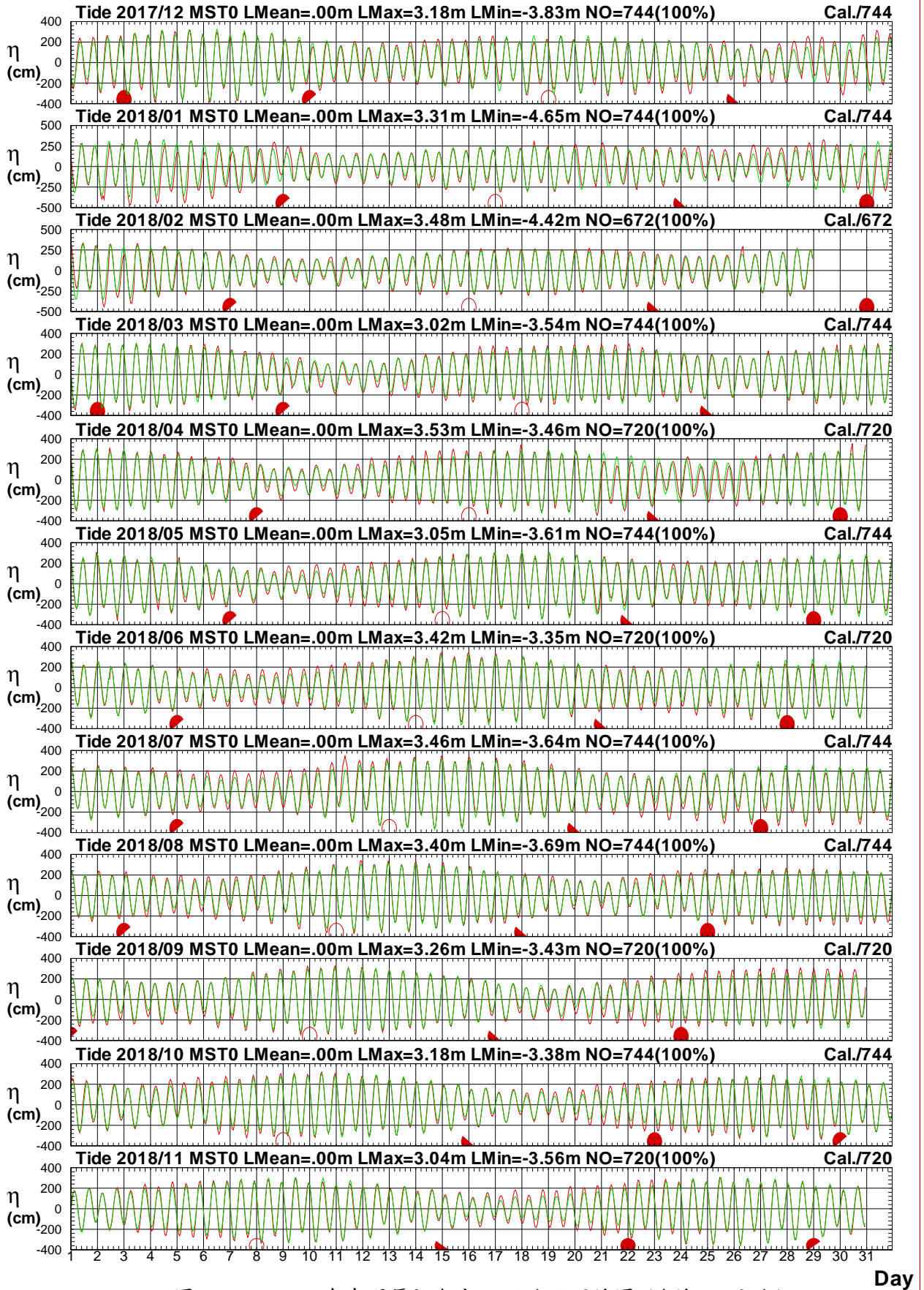


圖3.1.68 2018年每月馬祖海域 T 站潮位歷線圖 (綠線: 天文潮)

T17CMST0.1HA T17CMST0.1HC T181MST0.1HA T181MST0.1HC T182MST0.1HA T182MST0.1HC
T183MST0.1HA T183MST0.1HC T184MST0.1HA T184MST0.1HC T185MST0.1HA T185MST0.1HC

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Harbor of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

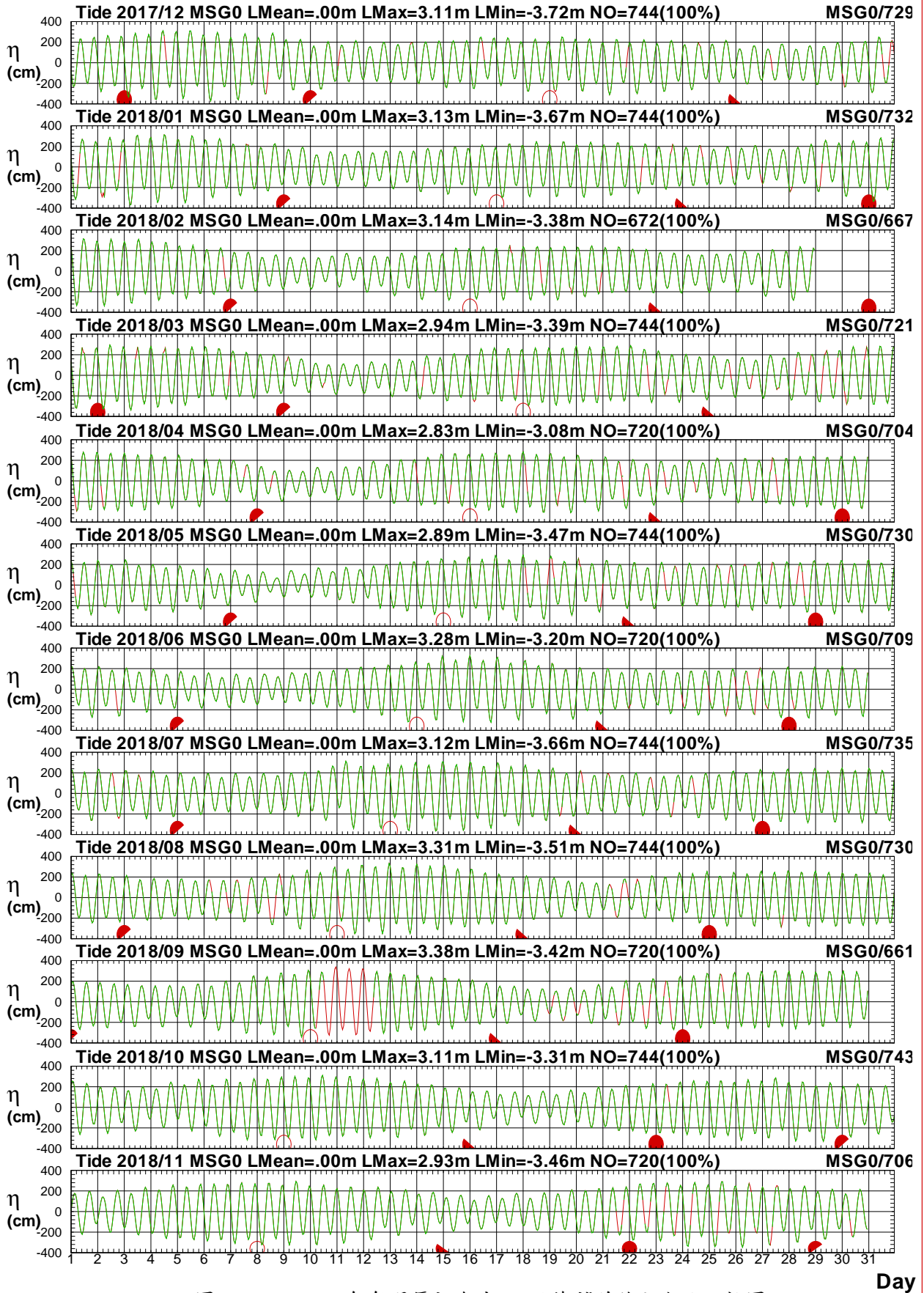


圖3.1.69 2018年每月馬祖海域 G 站修補前後之潮位比較圖

T17CMSG0.1HA T17CMSG0.1H0 T181MSG0.1HA T181MSG0.1H0 T182MSG0.1HA T182MSG0.1H0
T183MSG0.1HA T183MSG0.1H0 T184MSG0.1HA T184MSG0.1H0 T185MSG0.1HA T185MSG0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Harbor of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

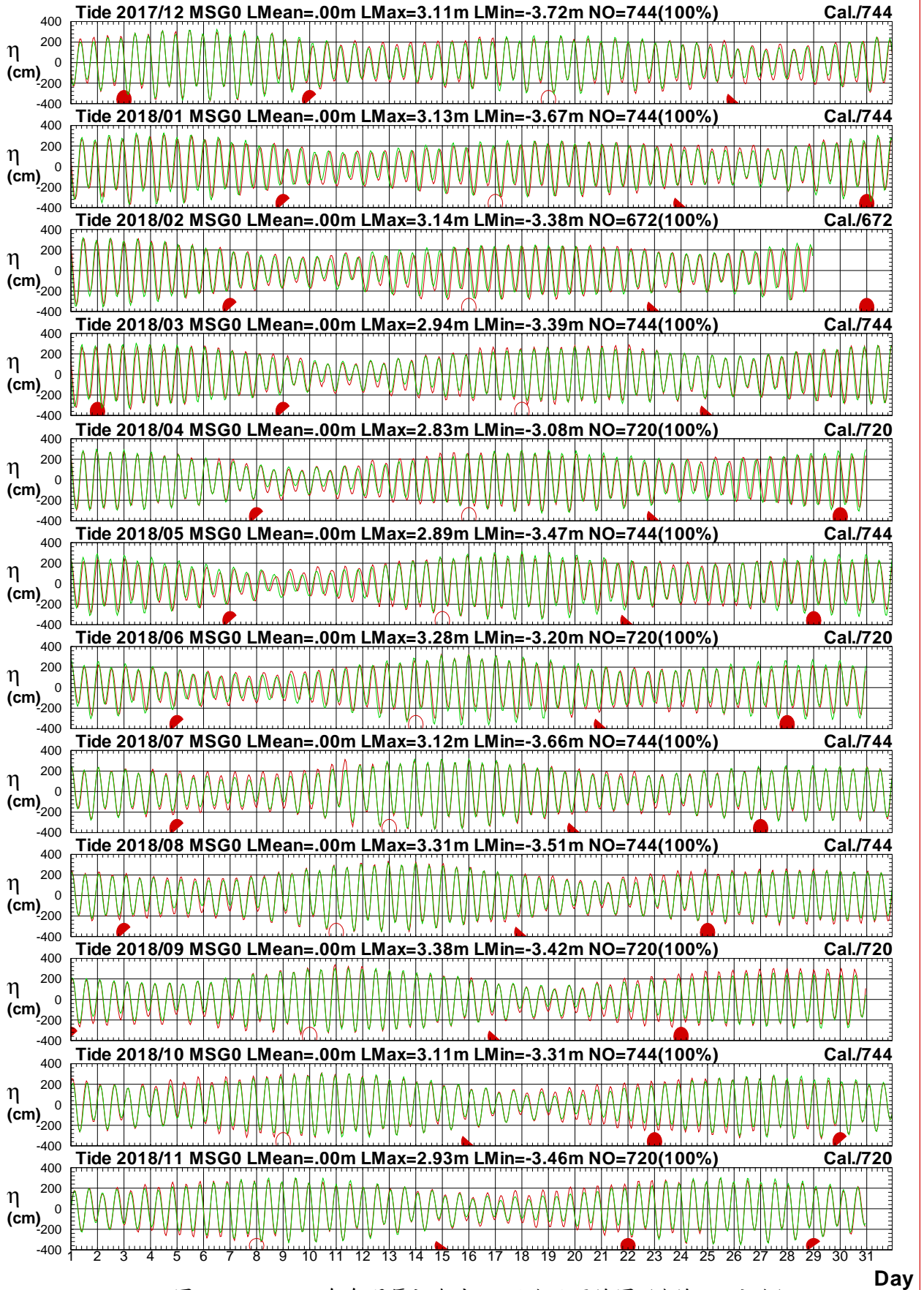


圖3.1.70 2018年每月馬祖海域 G 站潮位歷線圖 (綠線: 天文潮)

T17CMSG0.1HA T17CMST0.1HC T181MSG0.1HA T181MST0.1HC T182MSG0.1HA T182MST0.1HC
T183MSG0.1HA T183MST0.1HC T184MSG0.1HA T184MST0.1HC T185MSG0.1HA T185MST0.1HC

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Harbor of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

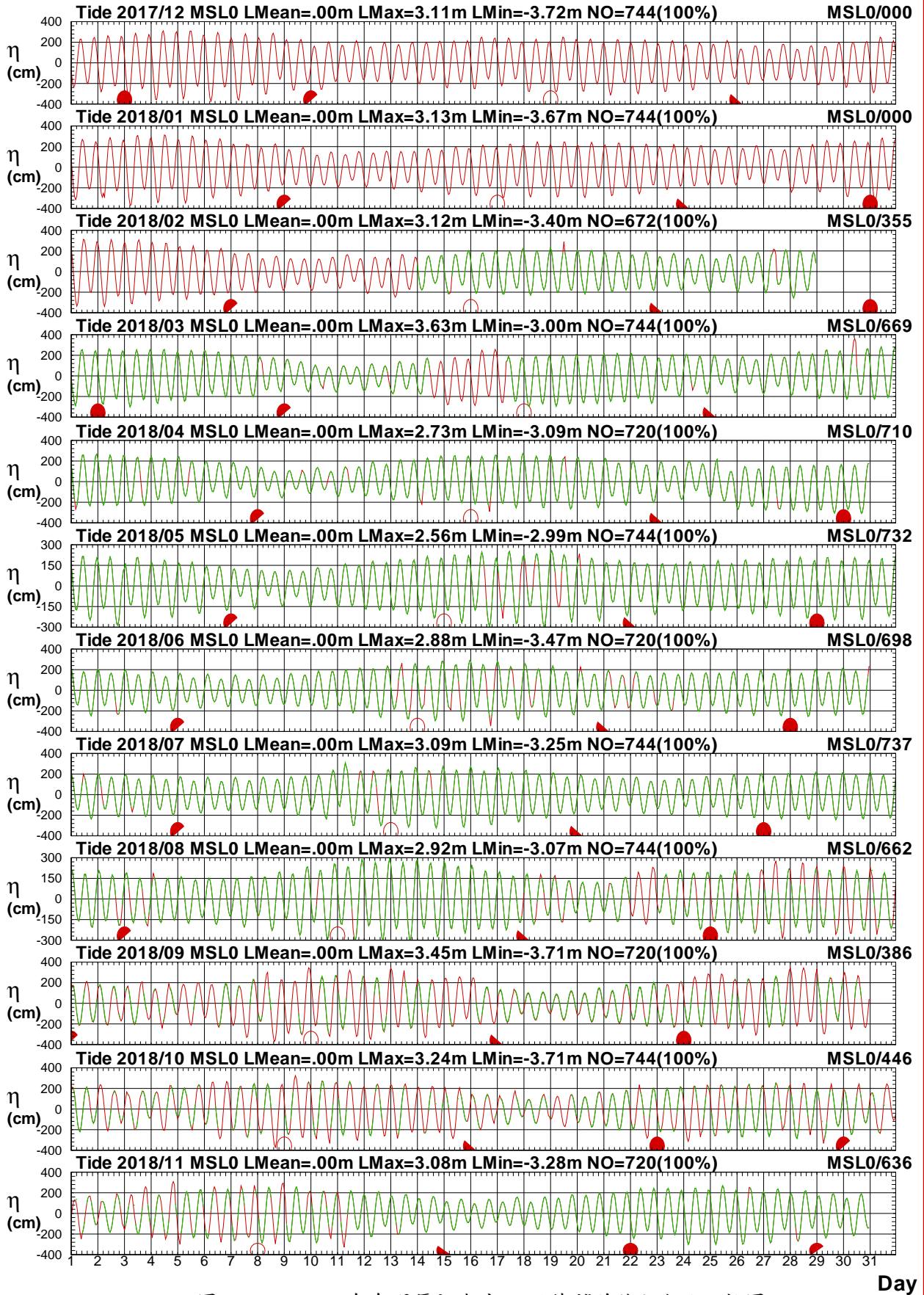


圖3.1.71 2018年每月馬祖海域 L 站修補前後之潮位比較圖

T17CMSL0.1HA T17CMSL0.1HO T181MSL0.1HA T181MSL0.1HO T182MSL0.1HA T182MSL0.1HO
T183MSL0.1HA T183MSL0.1HO T184MSL0.1HA T184MSL0.1HO T185MSL0.1HA T185MSL0.1HO

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Harbor of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

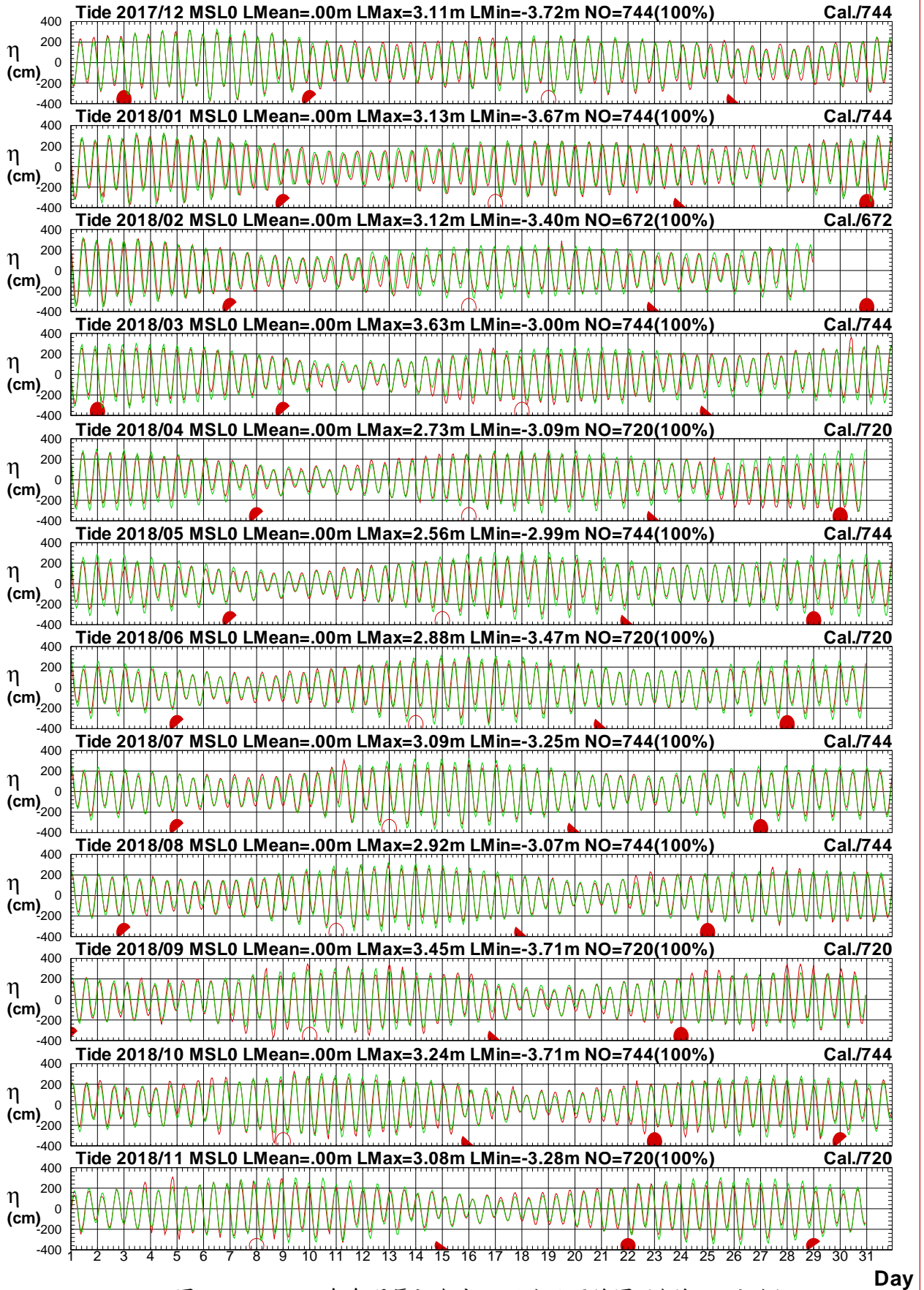


圖3.1.72 2018年每月馬祖海域 L 站潮位歷線圖 (綠線: 天文潮)

T17CMSL0.1HA T17CMST0.1HC T181MSL0.1HA T181MST0.1HC T182MSL0.1HA T182MST0.1HC
T183MSL0.1HA T183MST0.1HC T184MSL0.1HA T184MST0.1HC T185MSL0.1HA T185MST0.1HC

Institute of Harbor & Marine Technology

3.2 2018 年馬祖海域各測站修補前 潮汐統計量統計表

表3.2.1 2018年馬祖海域 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 | 2017/12 | T | 481 | 691 | 596 | 683 | 14.4 | 25.0 | 18.9 | 25.0 | 31 | 0 | 329 | -372 | 558(75%) |
| 2 | 2018/01 | T | 419 | 564 | 504 | 538 | 14.1 | 25.0 | 18.8 | 25.0 | 20 | 0 | 320 | -317 | 408(55%) |
| 3 | 2018/02 | T | 439 | 570 | 524 | 565 | 12.7 | 25.0 | 14.1 | 17.3 | 38 | 0 | 325 | -317 | 582(87%) |
| 4 | 2018/03 | T | 463 | 644 | 571 | 623 | 13.4 | 26.0 | 15.9 | 22.8 | 51 | 0 | 303 | -354 | 696(94%) |
| 5 | 2018/04 | T | 445 | 593 | 559 | 589 | 15.2 | 25.0 | 21.2 | 25.0 | 31 | 0 | 293 | -320 | 549(76%) |
| 6 | 2018/05 | T | 431 | 643 | 537 | 607 | 15.3 | 25.0 | 21.6 | 25.0 | 43 | 0 | 298 | -346 | 711(96%) |
| 7 | 2018/06 | T | 450 | 677 | 568 | 659 | 13.6 | 25.0 | 16.7 | 25.0 | 40 | 0 | 339 | -338 | 563(78%) |
| 8 | 2018/07 | T | 389 | 508 | 445 | 508 | 14.7 | 25.0 | 20.7 | 25.0 | 11 | 0 | 264 | -277 | 235(32%) |
| 9 | 2018/08 | T | 471 | 659 | 579 | 645 | 12.4 | 13.0 | 13.0 | 13.0 | 37 | 0 | 334 | -360 | 470(63%) |
| 10 | 2018/09 | T | 482 | 647 | 583 | 631 | 12.9 | 25.0 | 14.4 | 18.8 | 49 | 0 | 323 | -346 | 653(91%) |
| 11 | 2018/10 | T | 463 | 624 | 580 | 609 | 13.1 | 25.0 | 15.0 | 20.2 | 56 | 0 | 318 | -338 | 736(99%) |
| 12 | 2018/11 | T | 463 | 618 | 570 | 606 | 13.6 | 25.0 | 16.6 | 25.0 | 52 | 0 | 304 | -356 | 708(98%) |
| 13 | 2018/冬 | T | 449 | 691 | 546 | 623 | 13.6 | 25.0 | 16.7 | 24.9 | 89 | 0 | 329 | -372 | 1548(72%) |
| 14 | 2018/春 | T | 447 | 644 | 561 | 609 | 14.5 | 26.0 | 19.1 | 25.2 | 125 | 0 | 303 | -354 | 1956(89%) |
| 15 | 2018/夏 | T | 451 | 677 | 565 | 650 | 13.3 | 25.0 | 15.4 | 21.9 | 88 | 0 | 339 | -360 | 1268(57%) |
| 16 | 2018/秋 | T | 469 | 647 | 577 | 616 | 13.2 | 25.0 | 15.3 | 21.0 | 157 | 0 | 323 | -356 | 2097(96%) |
| 17 | 2018/年 | T | 456 | 691 | 566 | 623 | 13.6 | 26.0 | 16.6 | 24.9 | 459 | 0 | 339 | -372 | 6869(78%) |

表3.2.2 2018年馬祖海域 S 站修補前潮差週期及潮位重要統計量統計表

| 序號 | 日期 (年/月) | 測站 | 平均 潮差 (公分) | 最大 潮差 (公分) | 1/3 潮差 (公分) | 1/10 潮差 (公分) | 平均 週期 (時) | 最大 週期 (時) | 1/3 週期 (時) | 1/10 週期 (時) | 潮差 個數 (個) | 平均 潮位 (公分) | 最高 潮位 (公分) | 最低 潮位 (公分) | 水位 點數 (個) |
|----|-------------|----|------------------|------------------|-------------------|--------------------|-----------------|-----------------|------------------|-------------------|-----------------|------------------|------------------|------------------|-----------------|
| 1 | 2017/12 | S | | | | | | | | | | | | | |
| 2 | 2018/01 | S | | | | | | | | | | | | | |
| 3 | 2018/02 | S | | | | | | | | | | | | | |
| 4 | 2018/03 | S | | | | | | | | | | | | | |
| 5 | 2018/04 | S | | | | | | | | | | | | | |
| 6 | 2018/05 | S | 446 | 541 | 509 | 541 | 14.8 | 25.0 | 21.0 | 25.0 | 10 | 0 | 261 | -307 | 233(31%) |
| 7 | 2018/06 | S | 441 | 639 | 548 | 608 | 13.7 | 25.0 | 16.7 | 24.8 | 50 | 0 | 339 | -356 | 708(98%) |
| 8 | 2018/07 | S | 456 | 654 | 572 | 633 | 12.9 | 25.0 | 14.3 | 17.6 | 54 | 0 | 330 | -380 | 736(99%) |
| 9 | 2018/08 | S | 453 | 714 | 564 | 655 | 13.6 | 25.0 | 16.3 | 24.4 | 54 | 0 | 342 | -388 | 730(98%) |
| 10 | 2018/09 | S | 446 | 661 | 573 | 640 | 13.6 | 25.0 | 16.5 | 24.5 | 44 | 0 | 345 | -347 | 702(98%) |
| 11 | 2018/10 | S | 463 | 615 | 574 | 604 | 13.1 | 25.0 | 15.1 | 20.2 | 53 | 0 | 322 | -332 | 735(99%) |
| 12 | 2018/11 | S | 452 | 632 | 562 | 599 | 13.4 | 25.0 | 15.9 | 22.6 | 53 | 0 | 300 | -351 | 707(98%) |
| 13 | 2018/冬 | S | * | * | * | * | * | * | * | * | 0 | 0 | 7 | -6 | 11(1%) |
| 14 | 2018/春 | S | 446 | 541 | 510 | 541 | 14.8 | 25.0 | 21.0 | 25.0 | 10 | 0 | 261 | -307 | 233(11%) |
| 15 | 2018/夏 | S | 450 | 714 | 562 | 633 | 13.4 | 25.0 | 15.7 | 22.4 | 158 | 0 | 342 | -388 | 2174(99%) |
| 16 | 2018/秋 | S | 454 | 661 | 568 | 612 | 13.4 | 25.0 | 15.7 | 21.7 | 150 | 0 | 345 | -351 | 2144(98%) |
| 17 | 2018/年 | S | 452 | 714 | 564 | 621 | 13.4 | 25.0 | 15.8 | 22.5 | 318 | 0 | 345 | -388 | 4551(52%) |

表3.2.3 2018年馬祖海域 G 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 | 2017/12 | G | 442 | 669 | 552 | 651 | 13.3 | 25.0 | 15.6 | 22.4 | 55 | 0 | 312 | -371 | 729(98%) |
| 2 | 2018/01 | G | 426 | 631 | 541 | 604 | 13.8 | 26.0 | 17.2 | 25.2 | 53 | 0 | 313 | -368 | 732(98%) |
| 3 | 2018/02 | G | 414 | 650 | 526 | 600 | 12.9 | 25.0 | 14.4 | 17.8 | 51 | 0 | 314 | -338 | 667(99%) |
| 4 | 2018/03 | G | 441 | 602 | 556 | 592 | 14.8 | 26.0 | 20.0 | 25.3 | 47 | 0 | 295 | -338 | 721(97%) |
| 5 | 2018/04 | G | 424 | 587 | 532 | 569 | 13.4 | 25.0 | 15.7 | 22.2 | 52 | 0 | 283 | -309 | 704(98%) |
| 6 | 2018/05 | G | 407 | 636 | 510 | 599 | 13.6 | 26.0 | 16.4 | 25.2 | 54 | 0 | 291 | -345 | 730(98%) |
| 7 | 2018/06 | G | 402 | 641 | 512 | 610 | 13.2 | 26.0 | 15.3 | 20.8 | 51 | 0 | 326 | -321 | 709(99%) |
| 8 | 2018/07 | G | 445 | 672 | 562 | 652 | 13.4 | 26.0 | 15.9 | 22.8 | 52 | 0 | 313 | -366 | 735(99%) |
| 9 | 2018/08 | G | 455 | 682 | 563 | 652 | 13.8 | 26.0 | 17.2 | 25.2 | 53 | 0 | 331 | -351 | 730(98%) |
| 10 | 2018/09 | G | 440 | 608 | 535 | 578 | 13.2 | 25.0 | 15.4 | 22.0 | 45 | 0 | 306 | -343 | 661(92%) |
| 11 | 2018/10 | G | 456 | 603 | 560 | 592 | 12.4 | 14.0 | 13.1 | 13.2 | 59 | 0 | 311 | -331 | 743(100%) |
| 12 | 2018/11 | G | 444 | 601 | 551 | 587 | 12.7 | 25.0 | 13.8 | 15.6 | 53 | 0 | 292 | -347 | 706(98%) |
| 13 | 2018/冬 | G | 427 | 669 | 540 | 623 | 13.4 | 26.0 | 15.7 | 22.5 | 159 | 0 | 314 | -371 | 2128(99%) |
| 14 | 2018/春 | G | 423 | 636 | 535 | 586 | 13.9 | 26.0 | 17.2 | 24.9 | 153 | 0 | 295 | -345 | 2155(98%) |
| 15 | 2018/夏 | G | 434 | 682 | 545 | 640 | 13.4 | 26.0 | 16.1 | 23.6 | 156 | 0 | 331 | -366 | 2174(99%) |
| 16 | 2018/秋 | G | 447 | 608 | 550 | 586 | 12.8 | 25.0 | 14.0 | 16.3 | 157 | 0 | 311 | -347 | 2110(97%) |
| 17 | 2018/年 | G | 433 | 682 | 544 | 609 | 13.4 | 26.0 | 15.7 | 22.1 | 625 | 0 | 331 | -371 | 8567(98%) |

3-2-3

表3.2.4 2018年馬祖海域 L 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 | 2017/12 | L | | | | | | | | | | | | | |
| 2 | 2018/01 | L | | | | | | | | | | | | | |
| 3 | 2018/02 | L | 355 | 426 | 405 | 419 | 13.4 | 25.0 | 16.1 | 25.0 | 26 | 0 | 230 | -258 | 355(53%) |
| 4 | 2018/03 | L | 389 | 553 | 489 | 538 | 13.2 | 25.0 | 15.3 | 22.0 | 49 | 0 | 279 | -303 | 669(90%) |
| 5 | 2018/04 | L | 379 | 526 | 470 | 510 | 13.6 | 25.0 | 16.5 | 24.6 | 52 | 0 | 272 | -310 | 710(99%) |
| 6 | 2018/05 | L | 360 | 532 | 453 | 513 | 13.1 | 25.0 | 14.9 | 20.0 | 56 | 0 | 255 | -299 | 732(98%) |
| 7 | 2018/06 | L | 370 | 578 | 470 | 556 | 14.2 | 25.0 | 18.5 | 25.0 | 47 | 0 | 288 | -297 | 698(97%) |
| 8 | 2018/07 | L | 383 | 597 | 482 | 574 | 12.9 | 24.0 | 14.2 | 17.4 | 54 | 0 | 310 | -324 | 737(99%) |
| 9 | 2018/08 | L | 390 | 564 | 500 | 549 | 13.1 | 25.0 | 14.9 | 19.0 | 41 | 0 | 295 | -305 | 662(89%) |
| 10 | 2018/09 | L | 326 | 532 | 451 | 0 | 16.7 | 26.0 | 25.3 | .0 | 9 | 0 | 275 | -295 | 386(54%) |
| 11 | 2018/10 | L | 383 | 487 | 455 | 487 | 17.4 | 26.0 | 25.3 | 26.0 | 10 | 0 | 267 | -289 | 446(60%) |
| 12 | 2018/11 | L | 382 | 572 | 484 | 529 | 13.8 | 25.0 | 16.9 | 25.0 | 37 | 0 | 271 | -301 | 636(88%) |
| 13 | 2018/冬 | L | 355 | 426 | 405 | 419 | 13.4 | 25.0 | 16.1 | 25.0 | 26 | 0 | 230 | -258 | 355(16%) |
| 14 | 2018/春 | L | 376 | 553 | 473 | 517 | 13.3 | 25.0 | 15.5 | 21.7 | 157 | 0 | 279 | -310 | 2111(96%) |
| 15 | 2018/夏 | L | 380 | 597 | 482 | 558 | 13.4 | 25.0 | 15.7 | 22.2 | 142 | 0 | 310 | -324 | 2097(95%) |
| 16 | 2018/秋 | L | 373 | 572 | 479 | 522 | 14.9 | 26.0 | 20.3 | 25.4 | 56 | 0 | 275 | -301 | 1468(67%) |
| 17 | 2018/年 | L | 376 | 597 | 473 | 531 | 13.6 | 26.0 | 16.3 | 24.0 | 381 | 0 | 310 | -324 | 6031(69%) |

3-2-4

表3.2.5 2018年馬祖海域 M 站修補前潮差週期及潮位重要統計量統計表

| 序號 | 日期 (年/月) | 測站 | 平均 潮差 (公分) | 最大 潮差 (公分) | 1/3 潮差 (公分) | 1/10 潮差 (公分) | 平均 週期 (時) | 最大 週期 (時) | 1/3 週期 (時) | 1/10 週期 (時) | 潮差 個數 (個) | 平均 潮位 (公分) | 最高 潮位 (公分) | 最低 潮位 (公分) | 水位 點數 (個) |
|----|-------------|----|------------------|------------------|-------------------|--------------------|-----------------|-----------------|------------------|-------------------|-----------------|------------------|------------------|------------------|-----------------|
| 1 | 2017/12 | M | | | | | | | | | | | | | |
| 2 | 2018/01 | M | | | | | | | | | | | | | |
| 3 | 2018/02 | M | | | | | | | | | | | | | |
| 4 | 2018/03 | M | 429 | 555 | 532 | 548 | 15.3 | 26.0 | 21.5 | 25.3 | 43 | 0 | 286 | -344 | 679(91%) |
| 5 | 2018/04 | M | 426 | 596 | 534 | 583 | 15.8 | 25.0 | 22.8 | 25.0 | 37 | 0 | 287 | -319 | 687(95%) |
| 6 | 2018/05 | M | 438 | 593 | 537 | 583 | 15.4 | 26.0 | 22.0 | 25.3 | 40 | 0 | 290 | -342 | 707(95%) |
| 7 | 2018/06 | M | 385 | 566 | 472 | 540 | 15.4 | 25.0 | 21.6 | 25.0 | 21 | 0 | 290 | -331 | 322(45%) |
| 8 | 2018/07 | M | 385 | 511 | 434 | 511 | 14.8 | 25.0 | 19.7 | 25.0 | 21 | 0 | 251 | -267 | 381(51%) |
| 9 | 2018/08 | M | 384 | 542 | 471 | 527 | 19.2 | 26.0 | 25.3 | 26.0 | 22 | 0 | 373 | -251 | 486(65%) |
| 10 | 2018/09 | M | 379 | 570 | 496 | 570 | 16.6 | 26.0 | 24.8 | 26.0 | 15 | 0 | 297 | -299 | 301(42%) |
| 11 | 2018/10 | M | | | | | | | | | | | | | |
| 12 | 2018/11 | M | 417 | 617 | 554 | 617 | 15.3 | 26.0 | 22.1 | 25.5 | 26 | 0 | 283 | -347 | 428(59%) |
| 13 | 2018/冬 | M | | | | | | | | | | | | | |
| 14 | 2018/春 | M | 431 | 596 | 533 | 571 | 15.5 | 26.0 | 21.9 | 25.2 | 120 | 0 | 290 | -344 | 2073(94%) |
| 15 | 2018/夏 | M | 385 | 566 | 460 | 526 | 16.5 | 26.0 | 24.9 | 25.3 | 64 | 0 | 373 | -331 | 1189(54%) |
| 16 | 2018/秋 | M | 403 | 617 | 537 | 604 | 15.8 | 26.0 | 23.1 | 25.5 | 41 | 0 | 297 | -347 | 729(33%) |
| 17 | 2018/年 | M | 413 | 617 | 521 | 571 | 15.8 | 26.0 | 22.8 | 25.3 | 225 | 0 | 373 | -347 | 3991(46%) |

3-2-5

表3.2.6 2018年馬祖海域3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 | 2017/12 | 3 | 438 | 660 | 546 | 636 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 316 | -357 | 744(100%) |
| 2 | 2018/01 | 3 | 437 | 685 | 557 | 649 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 315 | -372 | 744(100%) |
| 3 | 2018/02 | 3 | 428 | 643 | 539 | 605 | 12.4 | 13.0 | 13.0 | 13.0 | 53 | 0 | 320 | -331 | 672(100%) |
| 4 | 2018/03 | 3 | 441 | 614 | 551 | 599 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 287 | -347 | 744(100%) |
| 5 | 2018/04 | 3 | 432 | 584 | 544 | 579 | 12.4 | 13.0 | 13.0 | 13.0 | 39 | 0 | 289 | -305 | 489(68%) |
| 6 | 2018/05 | 3 | | | | | | | | | | | | | |
| 7 | 2018/06 | 3 | | | | | | | | | | | | | |
| 8 | 2018/07 | 3 | | | | | | | | | | | | | |
| 9 | 2018/08 | 3 | 480 | 516 | 509 | 516 | 12.2 | 13.0 | 12.8 | 13.0 | 13 | 0 | 262 | -272 | 177(24%) |
| 10 | 2018/09 | 3 | 399 | 536 | 491 | 527 | 12.5 | 14.0 | 13.1 | 13.3 | 39 | 0 | 285 | -276 | 554(77%) |
| 11 | 2018/10 | 3 | 450 | 598 | 554 | 586 | 14.4 | 26.0 | 18.7 | 25.2 | 51 | 0 | 290 | -321 | 718(97%) |
| 12 | 2018/11 | 3 | 454 | 581 | 549 | 571 | 13.4 | 25.0 | 16.1 | 25.0 | 26 | 0 | 287 | -321 | 359(50%) |
| 13 | 2018/冬 | 3 | 435 | 685 | 545 | 625 | 12.4 | 13.0 | 13.0 | 13.0 | 171 | 0 | 320 | -372 | 2160(100%) |
| 14 | 2018/春 | 3 | 437 | 614 | 548 | 588 | 12.4 | 13.0 | 13.0 | 13.0 | 98 | 0 | 289 | -347 | 1233(56%) |
| 15 | 2018/夏 | 3 | 480 | 516 | 509 | 516 | 12.2 | 13.0 | 12.8 | 13.0 | 13 | 0 | 262 | -272 | 177(8%) |
| 16 | 2018/秋 | 3 | 434 | 598 | 538 | 575 | 13.5 | 26.0 | 16.2 | 24.1 | 116 | 0 | 290 | -321 | 1631(75%) |
| 17 | 2018/年 | 3 | 437 | 685 | 544 | 599 | 12.7 | 26.0 | 13.9 | 16.1 | 398 | 0 | 320 | -372 | 5201(59%) |

3-2-6

表3.2.7 2018年馬祖海域 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 | 2017/12 | X | 451 | 689 | 563 | 656 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 326 | -372 | 744(100%) |
| 2 | 2018/01 | X | 449 | 674 | 551 | 641 | 12.6 | 25.0 | 13.6 | 15.4 | 58 | 0 | 325 | -376 | 738(99%) |
| 3 | 2018/02 | X | 441 | 673 | 556 | 623 | 12.4 | 13.0 | 13.0 | 13.0 | 53 | 0 | 329 | -345 | 672(100%) |
| 4 | 2018/03 | X | 448 | 642 | 560 | 602 | 13.1 | 26.0 | 15.1 | 20.2 | 53 | 0 | 299 | -356 | 732(98%) |
| 5 | 2018/04 | X | 442 | 599 | 549 | 587 | 12.6 | 25.0 | 13.7 | 15.4 | 56 | 0 | 292 | -315 | 711(99%) |
| 6 | 2018/05 | X | 432 | 590 | 518 | 568 | 12.9 | 26.0 | 14.4 | 18.0 | 54 | 0 | 296 | -344 | 727(98%) |
| 7 | 2018/06 | X | 435 | 674 | 547 | 645 | 12.4 | 13.0 | 13.0 | 13.0 | 57 | 0 | 340 | -343 | 719(100%) |
| 8 | 2018/07 | X | 449 | 647 | 550 | 622 | 12.6 | 25.0 | 13.7 | 15.4 | 54 | 0 | 329 | -361 | 702(94%) |
| 9 | 2018/08 | X | 452 | 685 | 562 | 640 | 12.6 | 24.0 | 13.6 | 15.2 | 58 | 0 | 329 | -360 | 743(100%) |
| 10 | 2018/09 | X | 459 | 662 | 579 | 636 | 12.9 | 25.0 | 14.5 | 18.0 | 52 | 0 | 326 | -340 | 701(97%) |
| 11 | 2018/10 | X | 454 | 623 | 567 | 606 | 13.4 | 25.0 | 15.8 | 22.8 | 54 | 0 | 313 | -334 | 735(99%) |
| 12 | 2018/11 | X | 458 | 621 | 570 | 612 | 13.1 | 25.0 | 15.2 | 20.4 | 53 | 0 | 300 | -355 | 715(99%) |
| 13 | 2018/冬 | X | 447 | 689 | 555 | 633 | 12.5 | 25.0 | 13.2 | 13.7 | 170 | 0 | 329 | -376 | 2154(100%) |
| 14 | 2018/春 | X | 441 | 642 | 544 | 586 | 12.9 | 26.0 | 14.4 | 17.6 | 163 | 0 | 299 | -356 | 2170(98%) |
| 15 | 2018/夏 | X | 446 | 685 | 554 | 633 | 12.6 | 25.0 | 13.4 | 14.4 | 169 | 0 | 340 | -361 | 2164(98%) |
| 16 | 2018/秋 | X | 457 | 662 | 571 | 618 | 13.1 | 25.0 | 15.1 | 20.5 | 159 | 0 | 326 | -355 | 2151(99%) |
| 17 | 2018/年 | X | 448 | 689 | 557 | 619 | 12.8 | 26.0 | 14.0 | 16.3 | 661 | 0 | 340 | -376 | 8639(99%) |

表3.2.8 2018年馬祖海域 A 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 | 2017/12 | A | 470 | 682 | 587 | 669 | 12.4 | 13.0 | 13.0 | 13.0 | 34 | 0 | 303 | -388 | 594(80%) |
| 2 | 2018/01 | A | 408 | 475 | 462 | 0 | 16.4 | 25.0 | 24.7 | .0 | 9 | 0 | 282 | -383 | 399(54%) |
| 3 | 2018/02 | A | 411 | 491 | 477 | 0 | 15.5 | 26.0 | 25.0 | .0 | 8 | 0 | 305 | -361 | 462(69%) |
| 4 | 2018/03 | A | 375 | 458 | 438 | 458 | 14.7 | 25.0 | 19.3 | 25.0 | 12 | 0 | 275 | -357 | 470(63%) |
| 5 | 2018/04 | A | 302 | 347 | 0 | 0 | 18.5 | 25.0 | .0 | .0 | 2 | 0 | 281 | -321 | 267(37%) |
| 6 | 2018/05 | A | * | * | * | * | * | * | * | * | 0 | 0 | 230 | -349 | 176(24%) |
| 7 | 2018/06 | A | | | | | | | | | | | | | |
| 8 | 2018/07 | A | * | * | * | * | * | * | * | * | 0 | 0 | 207 | -317 | 96(13%) |
| 9 | 2018/08 | A | | | | | | | | | | | | | |
| 10 | 2018/09 | A | 430 | 612 | 539 | 571 | 12.8 | 25.0 | 14.2 | 17.0 | 32 | 0 | 315 | -335 | 546(76%) |
| 11 | 2018/10 | A | 435 | 572 | 534 | 562 | 12.5 | 14.0 | 13.1 | 13.3 | 42 | 0 | 291 | -331 | 550(74%) |
| 12 | 2018/11 | A | 447 | 601 | 552 | 590 | 12.4 | 14.0 | 13.1 | 13.2 | 57 | 0 | 295 | -350 | 718(100%) |
| 13 | 2018/冬 | A | 450 | 682 | 551 | 651 | 13.6 | 26.0 | 16.5 | 24.8 | 51 | 0 | 305 | -388 | 1455(67%) |
| 14 | 2018/春 | A | 365 | 458 | 438 | 458 | 15.2 | 25.0 | 22.3 | 25.0 | 14 | 0 | 281 | -357 | 913(41%) |
| 15 | 2018/夏 | A | * | * | * | * | * | * | * | * | 0 | 0 | 207 | -317 | 96(4%) |
| 16 | 2018/秋 | A | 439 | 612 | 544 | 578 | 12.5 | 25.0 | 13.3 | 14.1 | 131 | 0 | 315 | -350 | 1814(83%) |
| 17 | 2018/年 | A | 437 | 682 | 544 | 597 | 13.0 | 26.0 | 14.7 | 18.8 | 196 | 0 | 315 | -388 | 4278(49%) |

3-2-8

表3.2.9 2018年馬祖海域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 | 2017/12 | 2 | 382 | 592 | 470 | 566 | 12.6 | 25.0 | 13.6 | 15.4 | 58 | 0 | 281 | -318 | 742(100%) |
| 2 | 2018/01 | 2 | 378 | 579 | 481 | 546 | 13.1 | 25.0 | 15.0 | 20.2 | 56 | 0 | 284 | -313 | 724(97%) |
| 3 | 2018/02 | 2 | 374 | 576 | 472 | 535 | 12.7 | 26.0 | 13.8 | 15.6 | 52 | 0 | 280 | -300 | 671(100%) |
| 4 | 2018/03 | 2 | 383 | 549 | 484 | 529 | 12.9 | 25.0 | 14.3 | 17.8 | 54 | 0 | 254 | -308 | 734(99%) |
| 5 | 2018/04 | 2 | 375 | 521 | 470 | 504 | 12.6 | 24.0 | 13.6 | 15.2 | 56 | 0 | 268 | -288 | 711(99%) |
| 6 | 2018/05 | 2 | 371 | 514 | 454 | 496 | 12.6 | 26.0 | 13.7 | 15.6 | 58 | 0 | 252 | -297 | 740(100%) |
| 7 | 2018/06 | 2 | 381 | 528 | 468 | 521 | 13.5 | 26.0 | 16.3 | 25.3 | 46 | 0 | 285 | -297 | 696(97%) |
| 8 | 2018/07 | 2 | 375 | 586 | 476 | 563 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 284 | -322 | 743(100%) |
| 9 | 2018/08 | 2 | 381 | 559 | 475 | 535 | 12.4 | 13.0 | 13.0 | 13.0 | 59 | 0 | 281 | -309 | 743(100%) |
| 10 | 2018/09 | 2 | 385 | 550 | 487 | 531 | 13.9 | 25.0 | 17.2 | 24.8 | 51 | 0 | 291 | -278 | 706(98%) |
| 11 | 2018/10 | 2 | 389 | 534 | 486 | 513 | 13.9 | 25.0 | 17.2 | 24.6 | 53 | 0 | 268 | -277 | 735(99%) |
| 12 | 2018/11 | 2 | 382 | 558 | 488 | 526 | 12.7 | 25.0 | 13.9 | 16.0 | 53 | 0 | 264 | -298 | 712(99%) |
| 13 | 2018/冬 | 2 | 378 | 592 | 473 | 547 | 12.8 | 26.0 | 14.1 | 16.8 | 166 | 0 | 284 | -317 | 2137(99%) |
| 14 | 2018/春 | 2 | 376 | 549 | 471 | 508 | 12.7 | 26.0 | 13.9 | 16.0 | 168 | 0 | 268 | -308 | 2185(99%) |
| 15 | 2018/夏 | 2 | 379 | 586 | 473 | 537 | 12.7 | 26.0 | 13.9 | 16.1 | 164 | 0 | 285 | -322 | 2182(99%) |
| 16 | 2018/秋 | 2 | 386 | 558 | 486 | 524 | 13.5 | 25.0 | 16.0 | 23.2 | 157 | 0 | 291 | -298 | 2153(99%) |
| 17 | 2018/年 | 2 | 380 | 592 | 476 | 529 | 12.9 | 26.0 | 14.4 | 17.9 | 655 | 0 | 291 | -322 | 8657(99%) |

3.3 2018 年馬祖海域**主要測站 1**(修補後)與 **其他測站**(修補前)潮位歷線比較圖

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

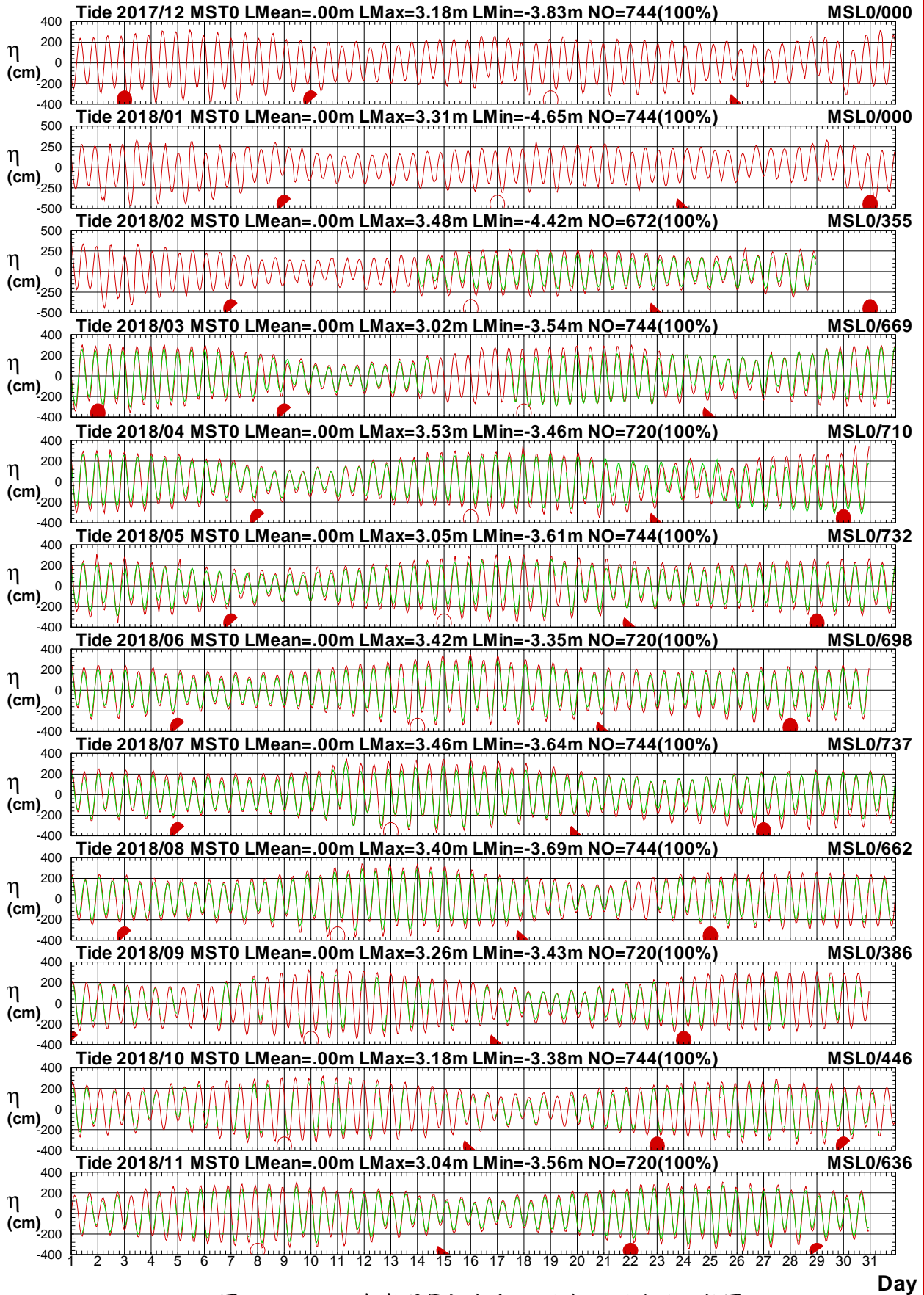


圖3.3.1 2018年每月馬祖海域 T 站與 L 站潮位比較圖

T17CMST0.1HA T17CMSL0.1H0 T181MST0.1HA T181MSL0.1H0 T182MST0.1HA T182MSL0.1H0
 T183MST0.1HA T183MSL0.1H0 T184MST0.1HA T184MSL0.1H0 T185MST0.1HA T185MSL0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

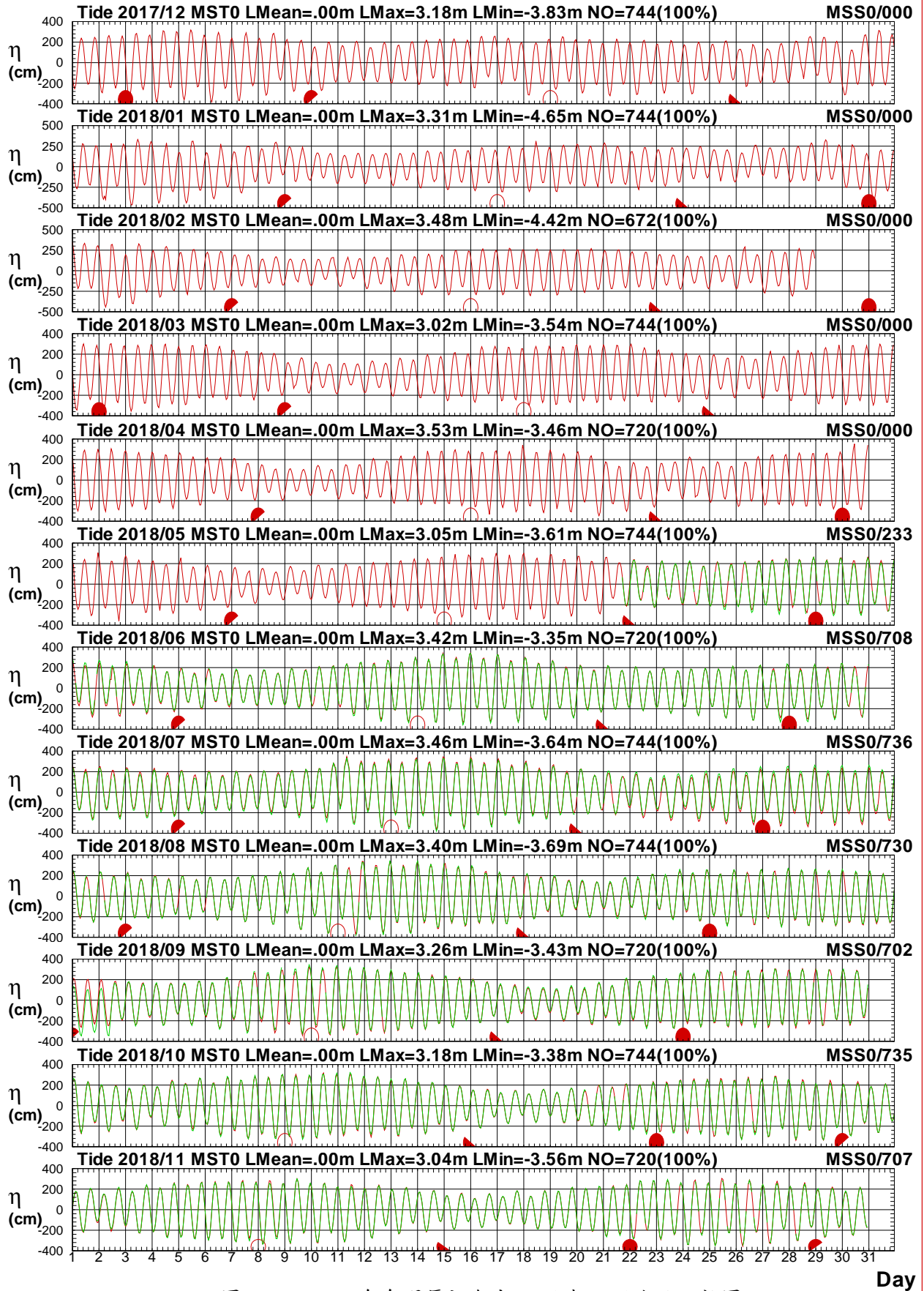


圖3.3.2 2018年每月馬祖海域 T 站與 S 站潮位比較圖

T17CMST0.1HA T17CMSS0.1H0 T181MST0.1HA T181MSS0.1H0 T182MST0.1HA T182MSS0.1H0
 T183MST0.1HA T183MSS0.1H0 T184MST0.1HA T184MSS0.1H0 T185MST0.1HA T185MSS0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

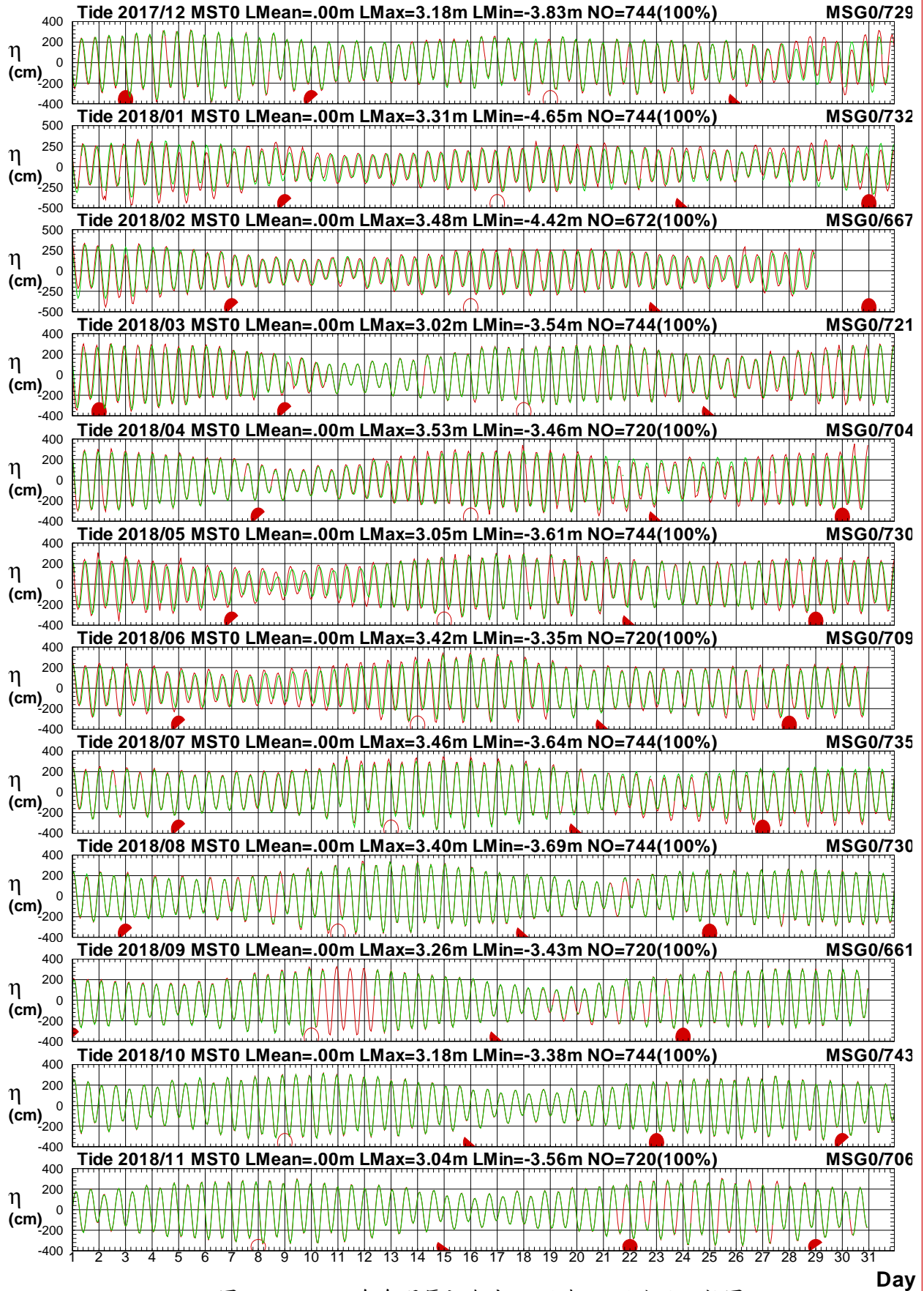


圖3.3.3 2018年每月馬祖海域 T 站與 G 站潮位比較圖

T17CMST0.1HA T17CMSG0.1H0 T181MST0.1HA T181MSG0.1H0 T182MST0.1HA T182MSG0.1H0
T183MST0.1HA T183MSG0.1H0 T184MST0.1HA T184MSG0.1H0 T185MST0.1HA T185MSG0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

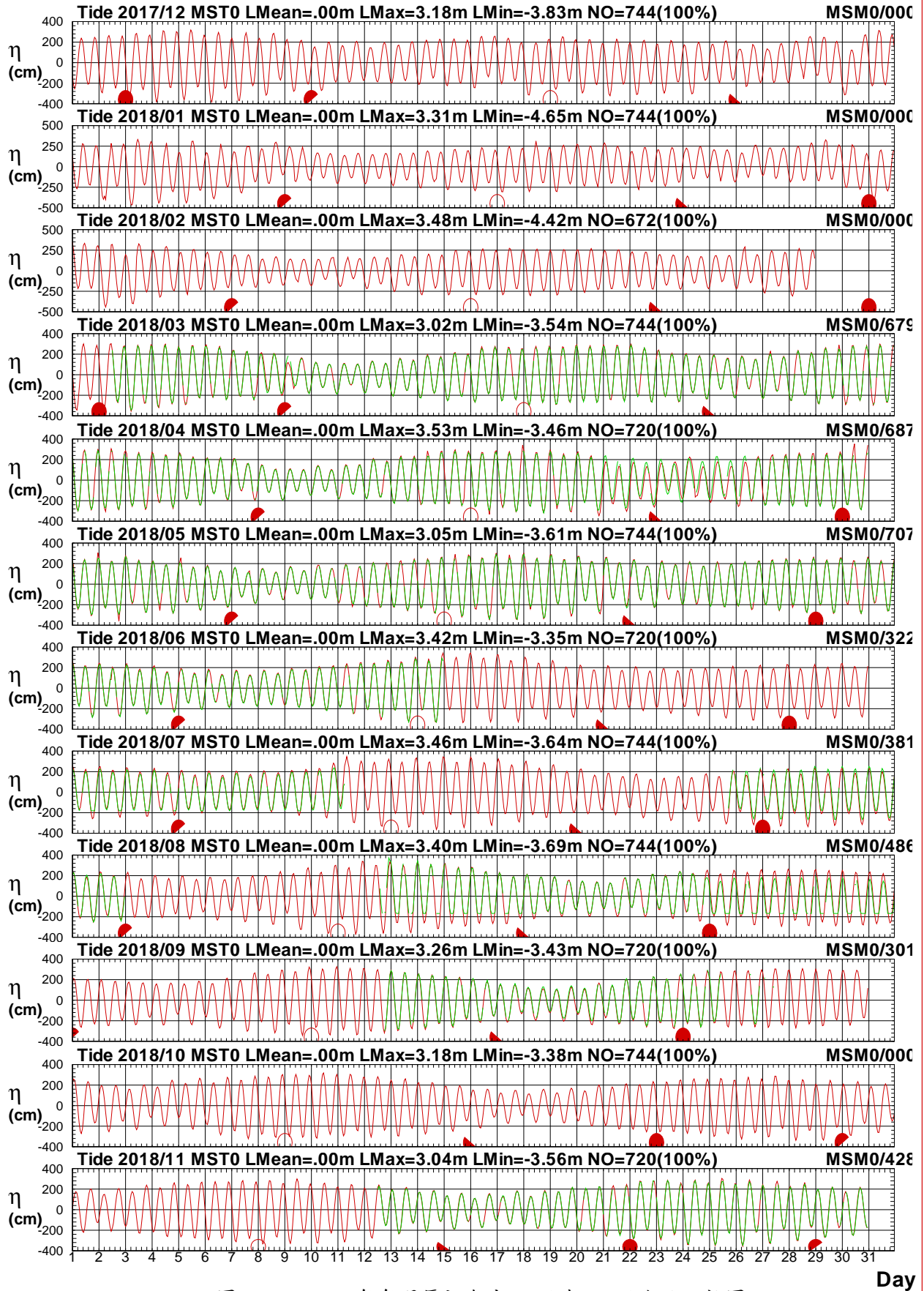


圖3.3.4 2018年每月馬祖海域 T 站與 M 站潮位比較圖

T17CMST0.1HA T17CMSM0.1H0 T181MST0.1HA T181MSM0.1H0 T182MST0.1HA T182MSM0.1H0
 T183MST0.1HA T183MSM0.1H0 T184MST0.1HA T184MSM0.1H0 T185MST0.1HA T185MSM0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

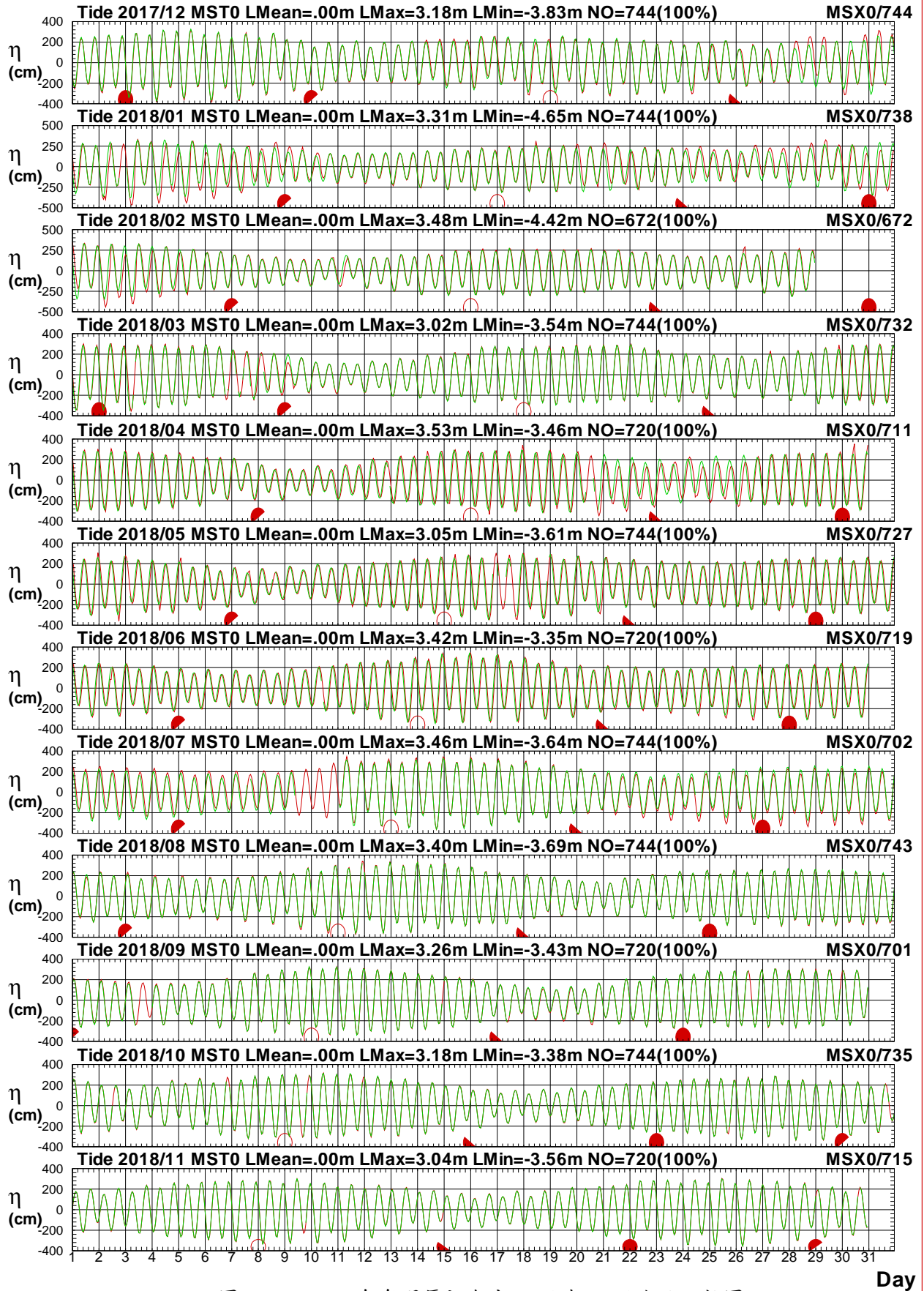


圖3.3.5 2018年每月馬祖海域 T 站與 X 站潮位比較圖

T17CMST0.1HA T17CMSX0.1H0 T181MST0.1HA T181MSX0.1H0 T182MST0.1HA T182MSX0.1H0
T183MST0.1HA T183MSX0.1H0 T184MST0.1HA T184MSX0.1H0 T185MST0.1HA T185MSX0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

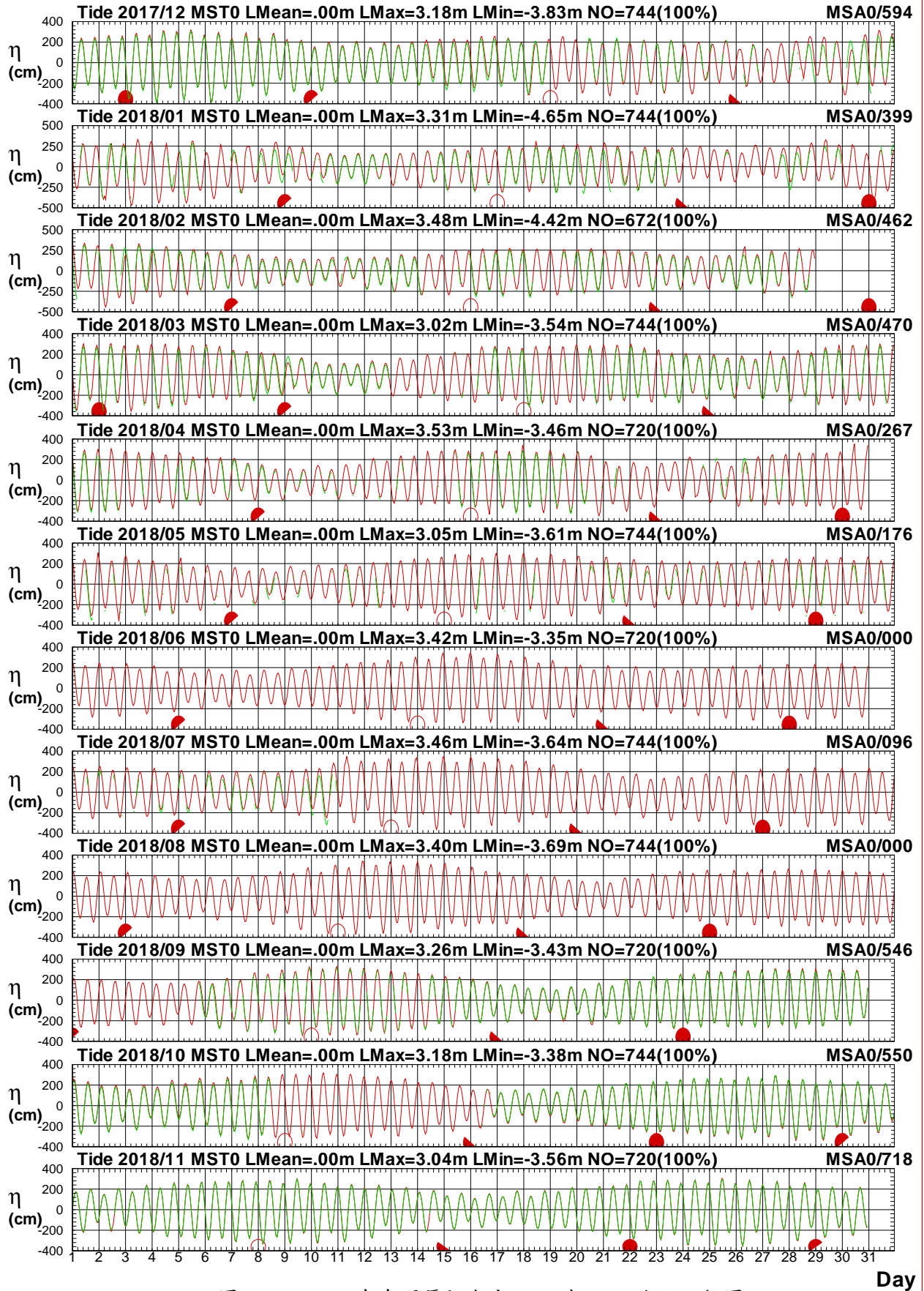


圖3.3.6 2018年每月馬祖海域 T 站與 A 站潮位比較圖

T17CMST0.1HA T17CMSA0.1H0 T181MST0.1HA T181MSA0.1H0 T182MST0.1HA T182MSA0.1H0
 T183MST0.1HA T183MSA0.1H0 T184MST0.1HA T184MSA0.1H0 T185MST0.1HA T185MSA0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

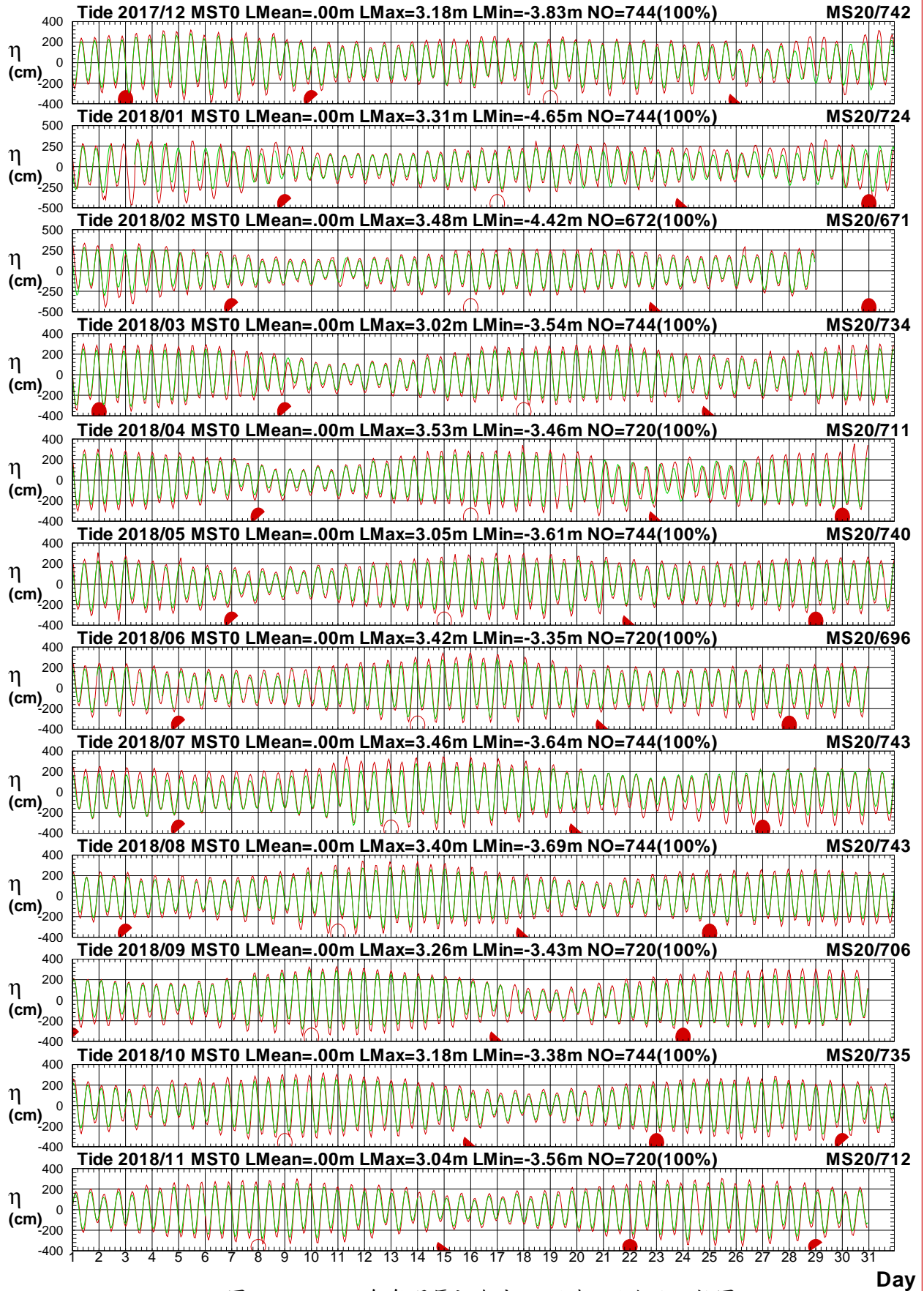


圖3.3.7 2018年每月馬祖海域 T 站與2站潮位比較圖

T17CMST0.1HA T17CMS20.1H0 T181MST0.1HA T181MS20.1H0 T182MST0.1HA T182MS20.1H0
 T183MST0.1HA T183MS20.1H0 T184MST0.1HA T184MS20.1H0 T185MST0.1HA T185MS20.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MST0 at 2018

1 ○ 8 ● 15 ● 22 ●

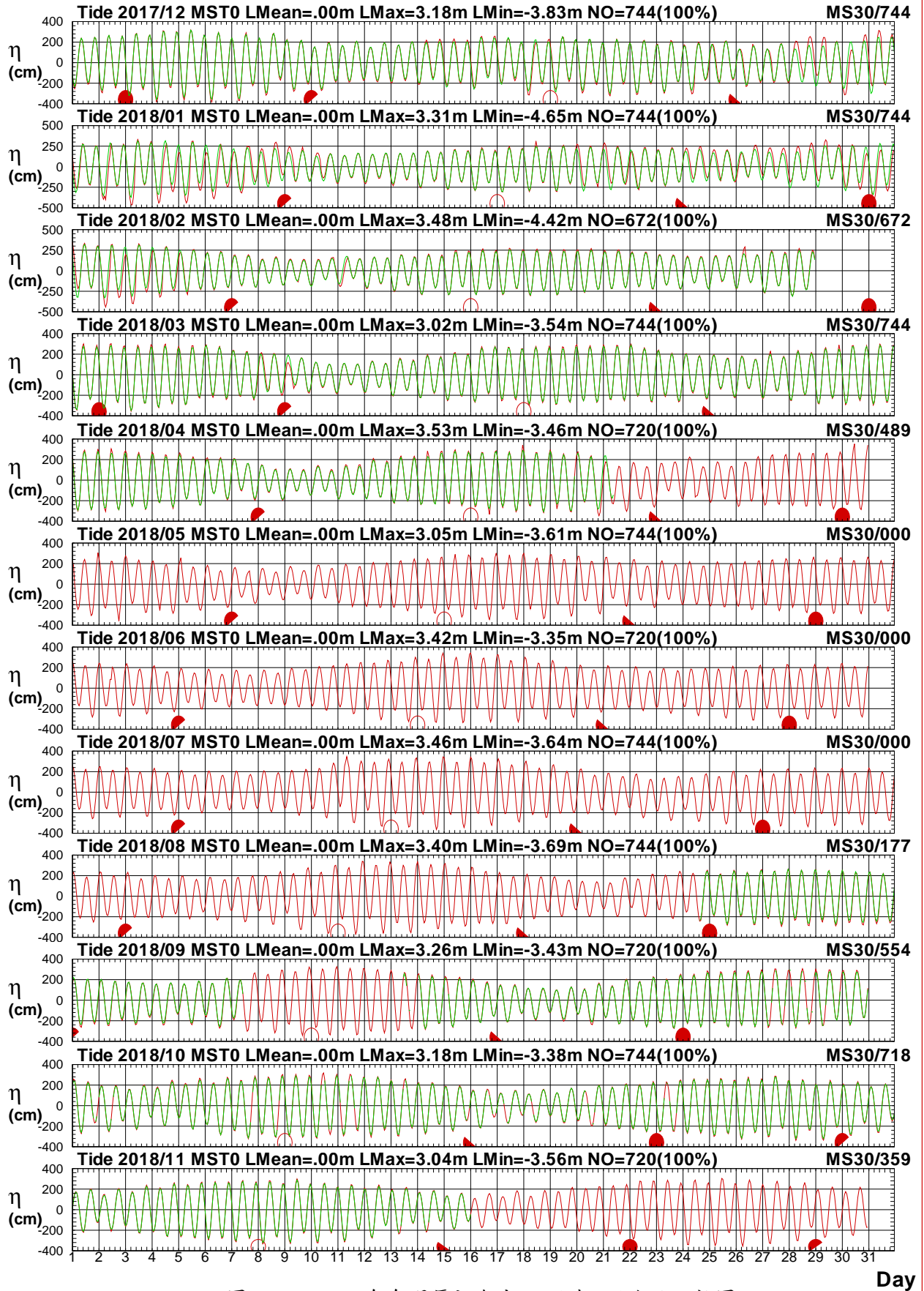


圖3.3.8 2018年每月馬祖海域 T 站與3站潮位比較圖

T17CMST0.1HA T17CMS30.1H0 T181MST0.1HA T181MS30.1H0 T182MST0.1HA T182MS30.1H0
 T183MST0.1HA T183MS30.1H0 T184MST0.1HA T184MS30.1H0 T185MST0.1HA T185MS30.1H0

Institute of Harbor & Marine Technology

3.4 2018 年馬祖海域**主要測站 2**(修補後)與 **其他測站**(修補前)潮位歷線比較圖

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

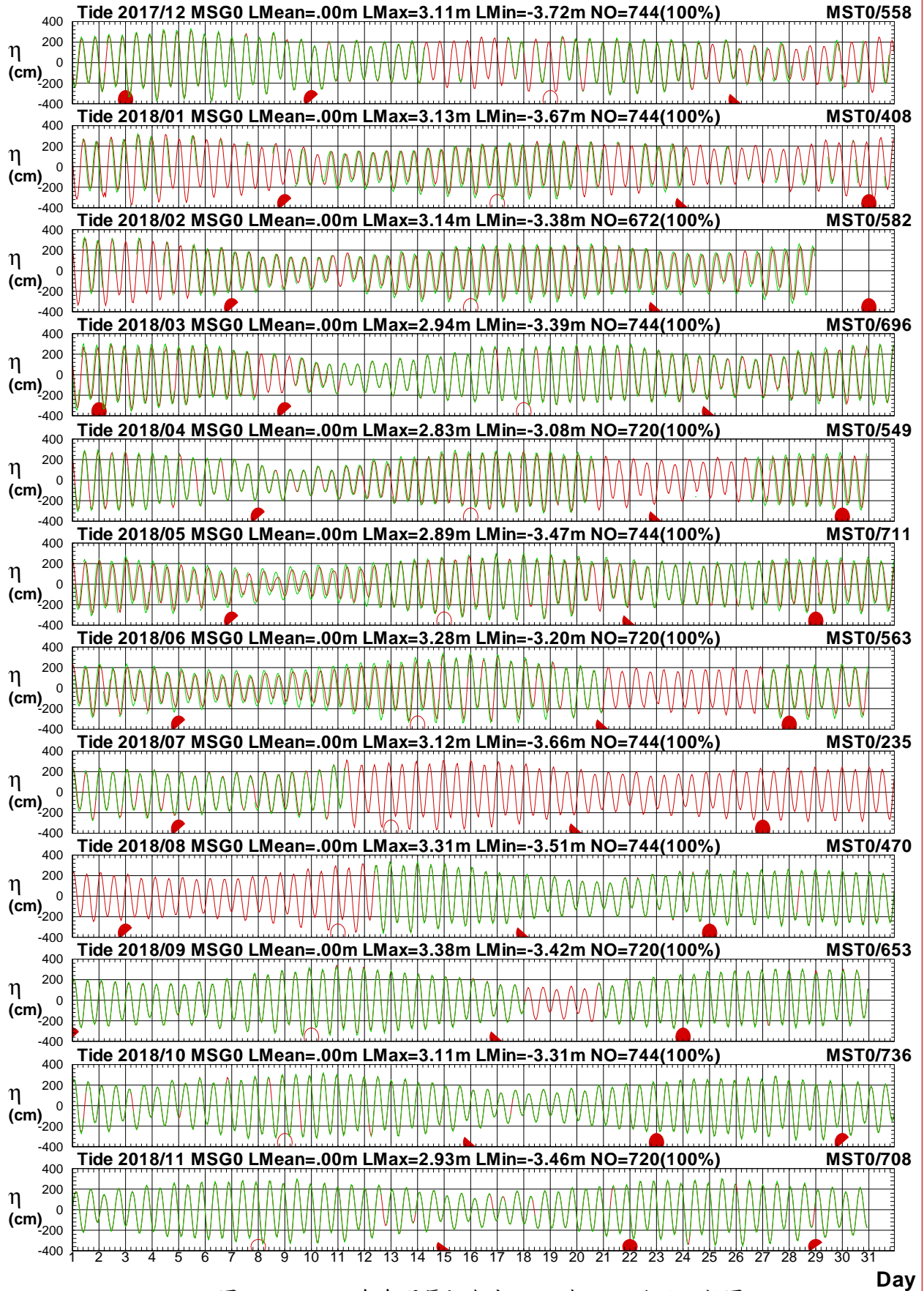


圖3.4.1 2018年每月馬祖海域 G 站與 T 站潮位比較圖

T17CMSG0.1HA T17CMST0.1H0 T181MSG0.1HA T181MST0.1H0 T182MSG0.1HA T182MST0.1H0
T183MSG0.1HA T183MST0.1H0 T184MSG0.1HA T184MST0.1H0 T185MSG0.1HA T185MST0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

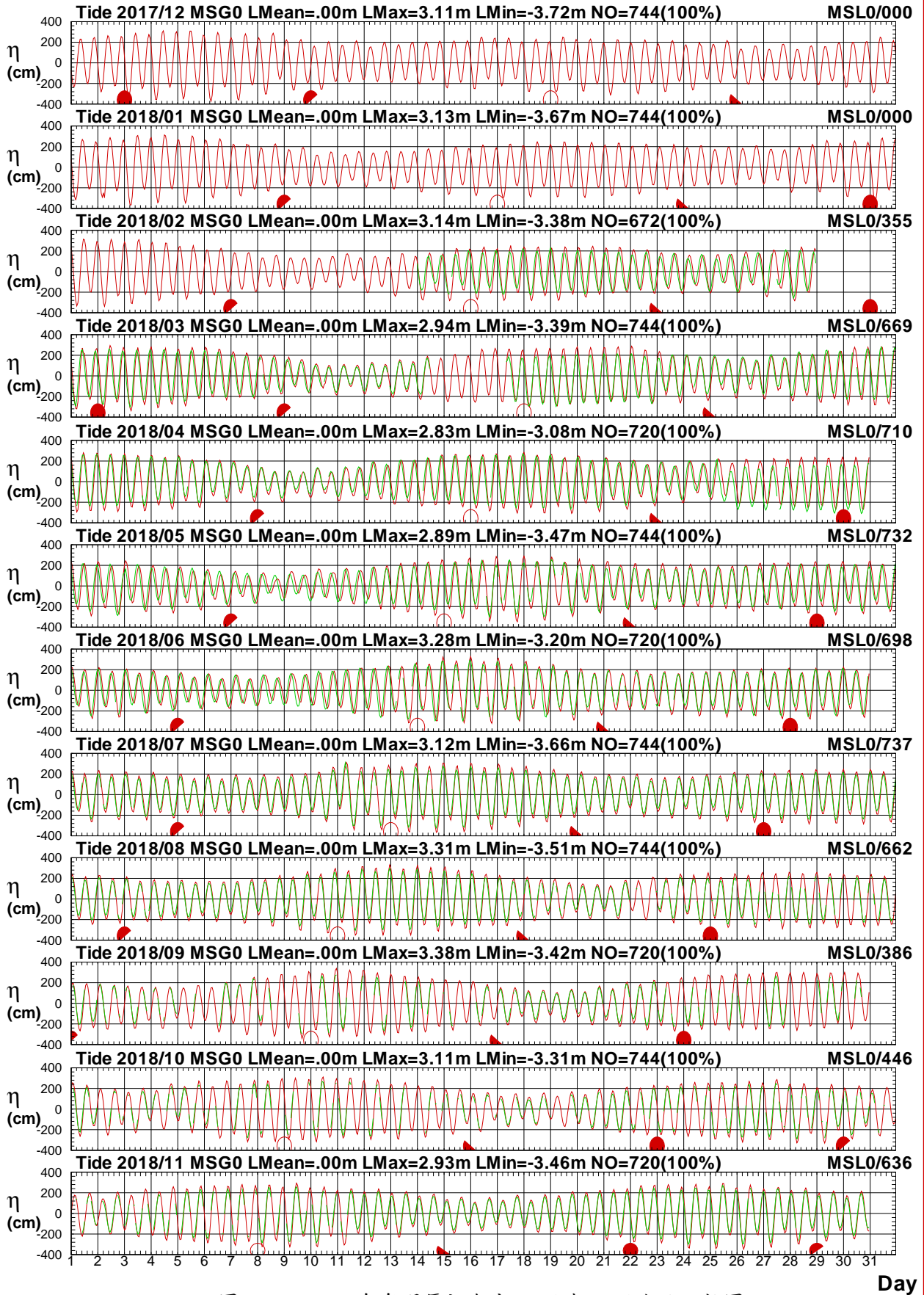


圖3.4.2 2018年每月馬祖海域 G 站與 L 站潮位比較圖

T17CMSG0.1HA T17CMSL0.1H0 T181MSG0.1HA T181MSL0.1H0 T182MSG0.1HA T182MSL0.1H0
 T183MSG0.1HA T183MSL0.1H0 T184MSG0.1HA T184MSL0.1H0 T185MSG0.1HA T185MSL0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

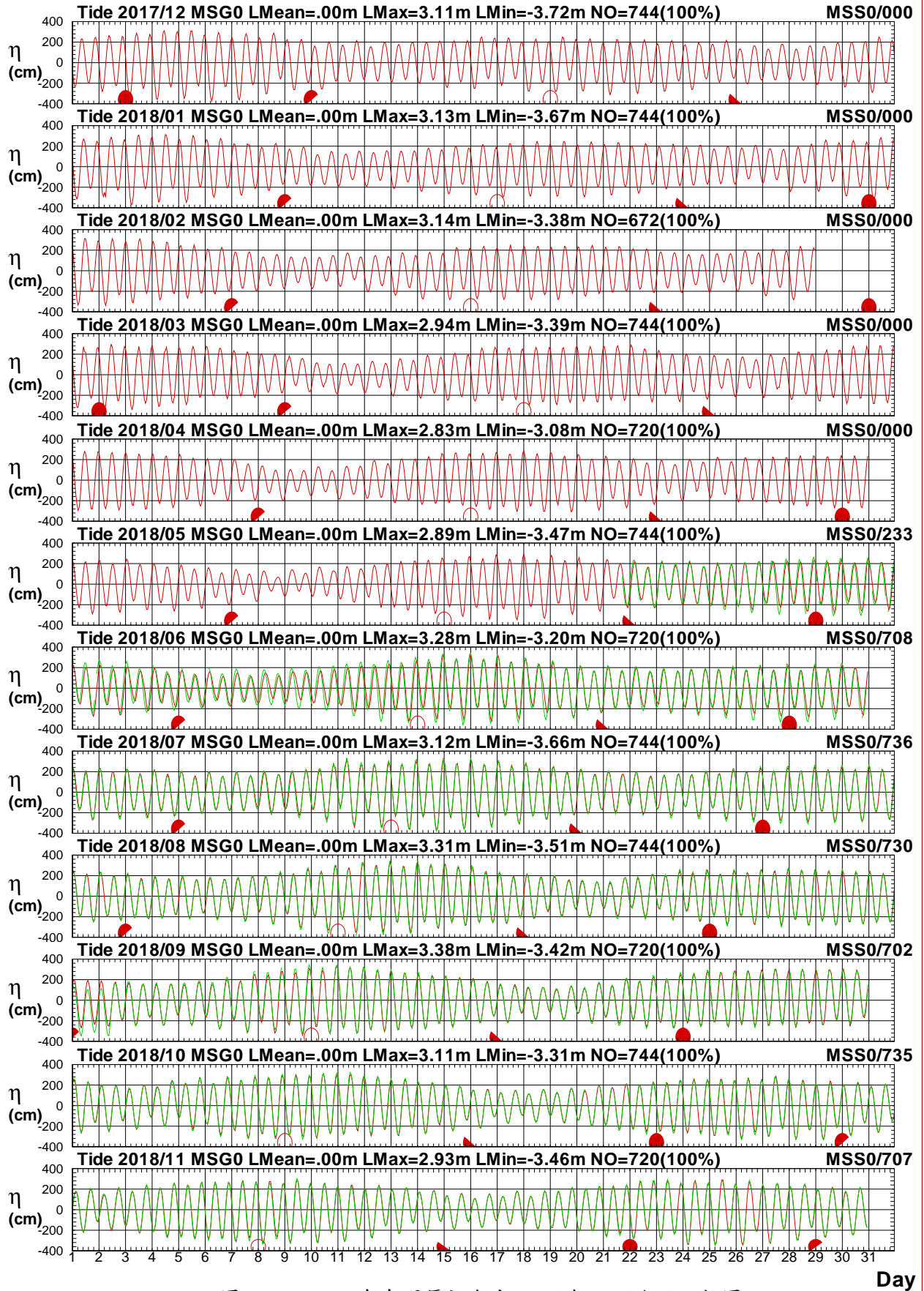


圖3.4.3 2018年每月馬祖海域 G 站與 S 站潮位比較圖

T17CMSG0.1HA T17CMSS0.1H0 T181MSG0.1HA T181MSS0.1H0 T182MSG0.1HA T182MSS0.1H0
 T183MSG0.1HA T183MSS0.1H0 T184MSG0.1HA T184MSS0.1H0 T185MSG0.1HA T185MSS0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

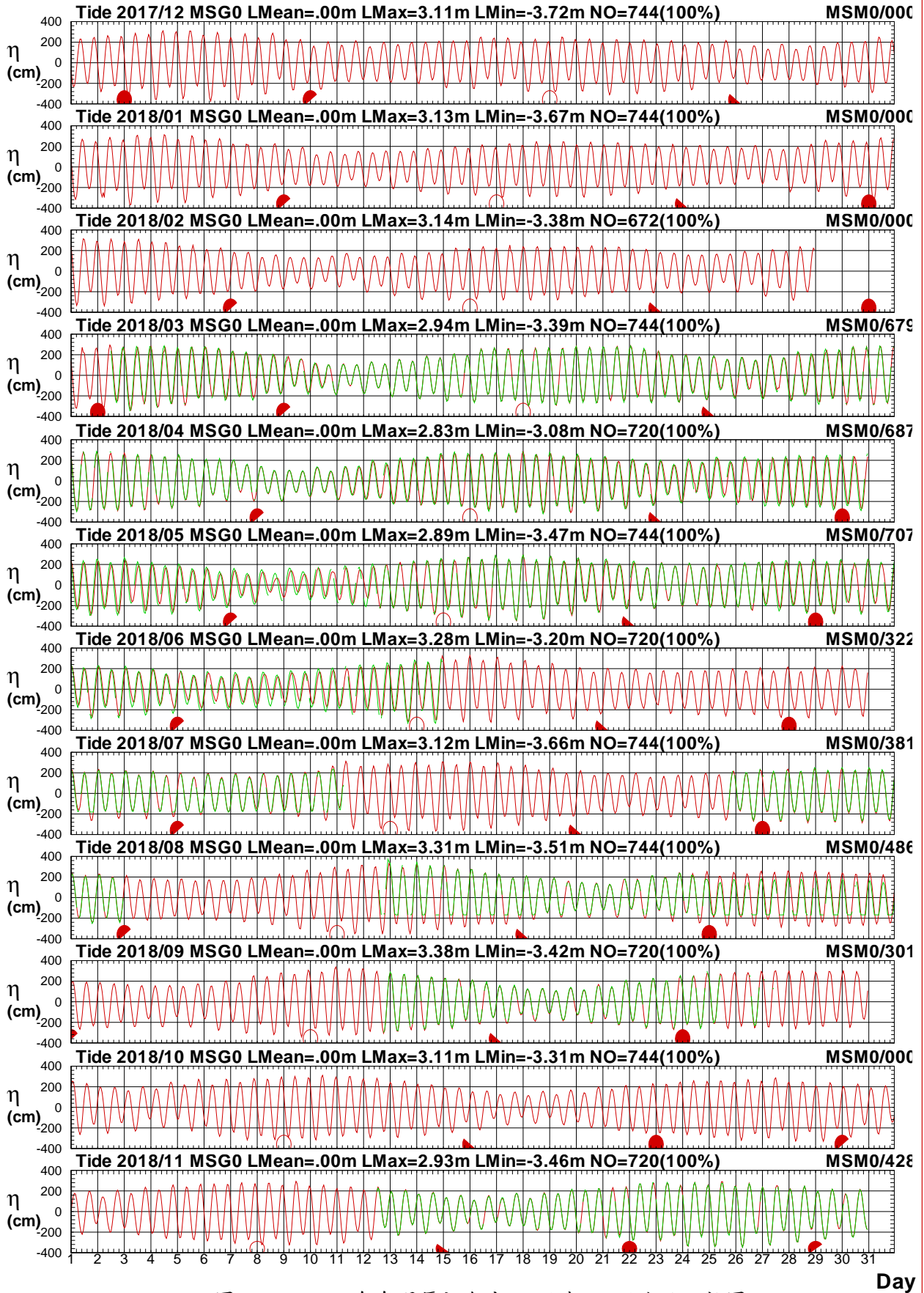


圖3.4.4 2018年每月馬祖海域 G 站與 M 站潮位比較圖

T17CMSG0.1HA T17CMSM0.1H0 T181MSG0.1HA T181MSM0.1H0 T182MSG0.1HA T182MSM0.1H0
 T183MSG0.1HA T183MSM0.1H0 T184MSG0.1HA T184MSM0.1H0 T185MSG0.1HA T185MSM0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

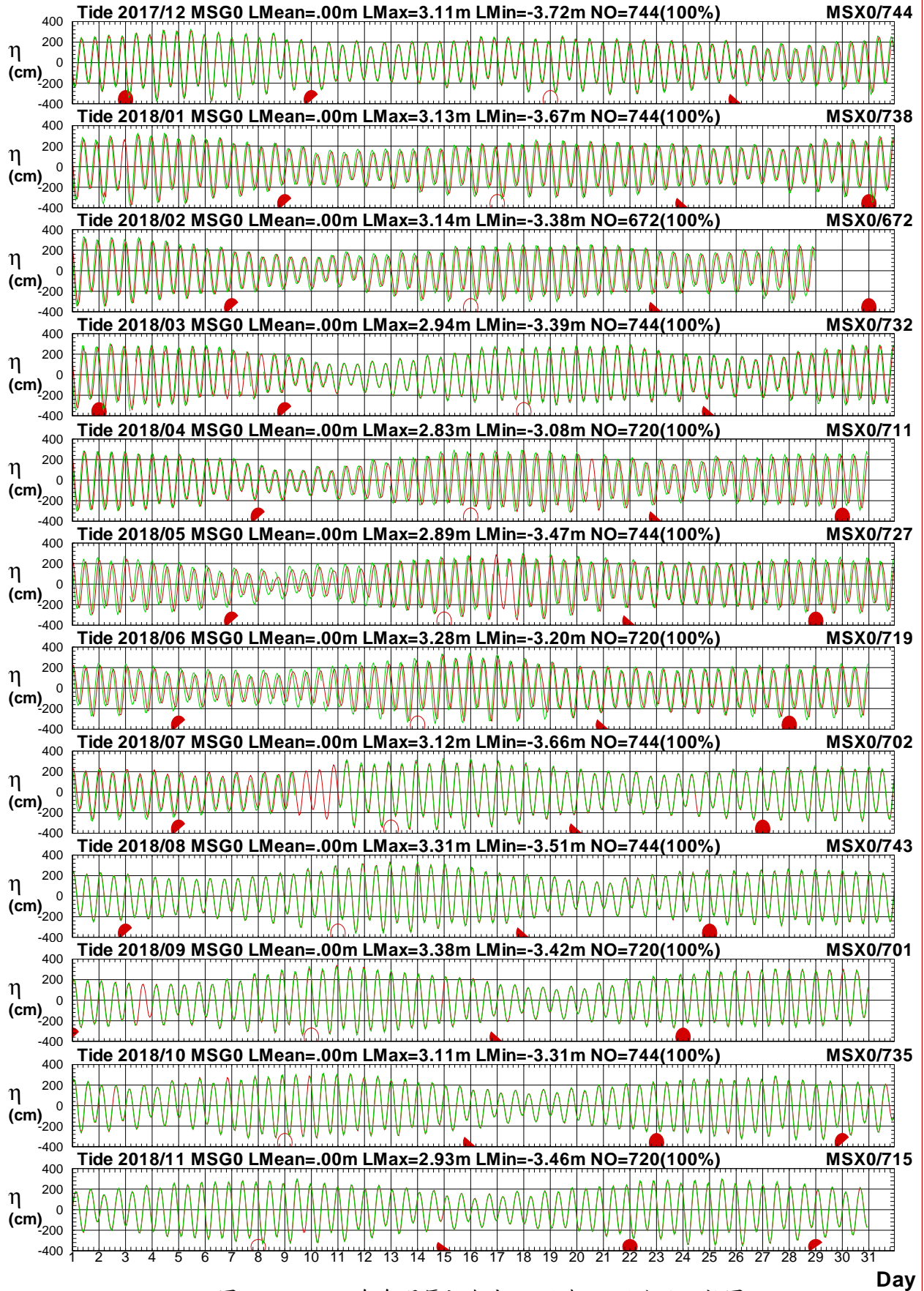


圖3.4.5 2018年每月馬祖海域 G 站與 X 站潮位比較圖

T17CMSG0.1HA T17CMSX0.1H0 T181MSG0.1HA T181MSX0.1H0 T182MSG0.1HA T182MSX0.1H0
T183MSG0.1HA T183MSX0.1H0 T184MSG0.1HA T184MSX0.1H0 T185MSG0.1HA T185MSX0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

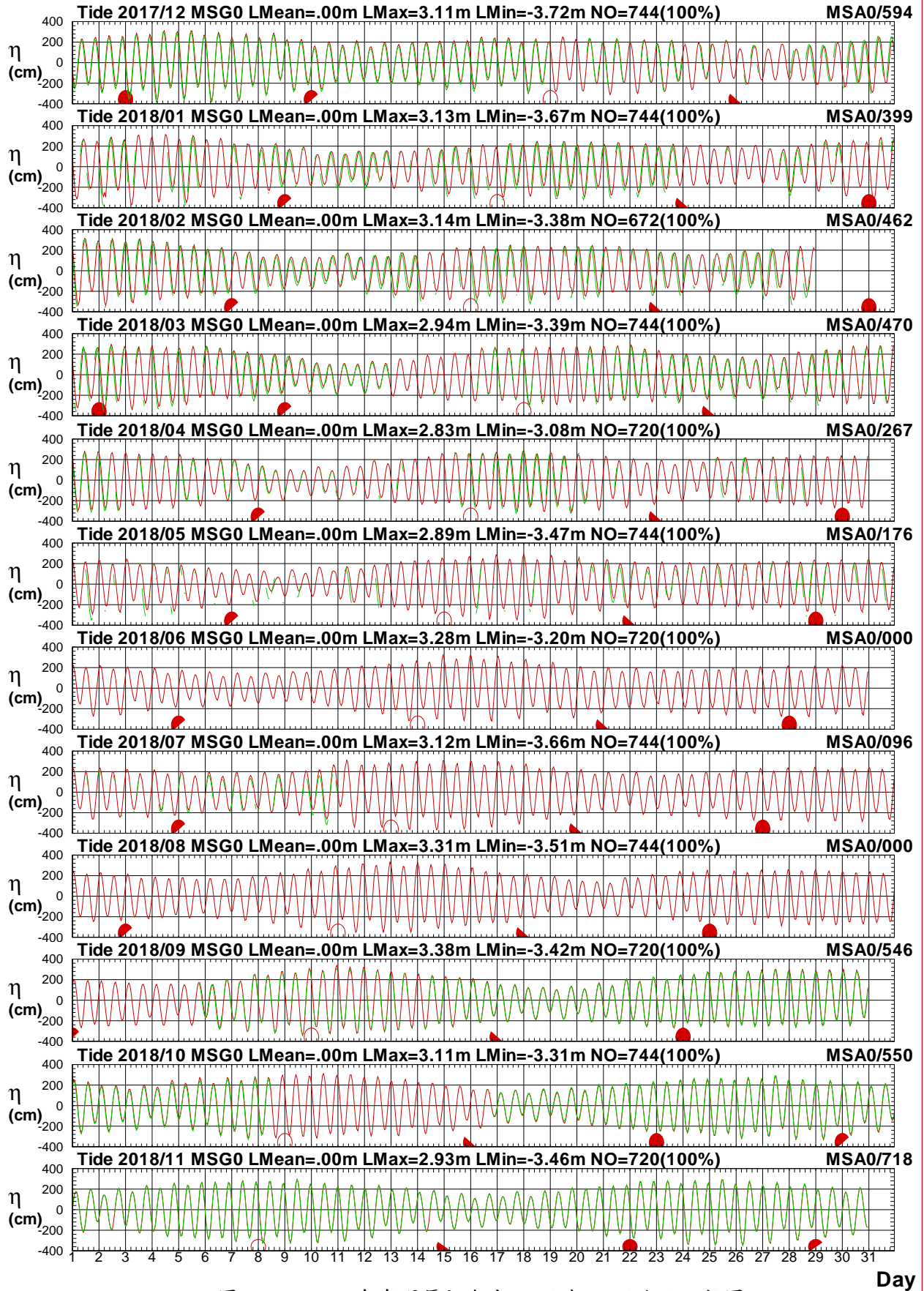


圖3.4.6 2018年每月馬祖海域 G 站與 A 站潮位比較圖

T17CMSG0.1HA T17CMSA0.1H0 T181MSG0.1HA T181MSA0.1H0 T182MSG0.1HA T182MSA0.1H0
 T183MSG0.1HA T183MSA0.1H0 T184MSG0.1HA T184MSA0.1H0 T185MSG0.1HA T185MSA0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

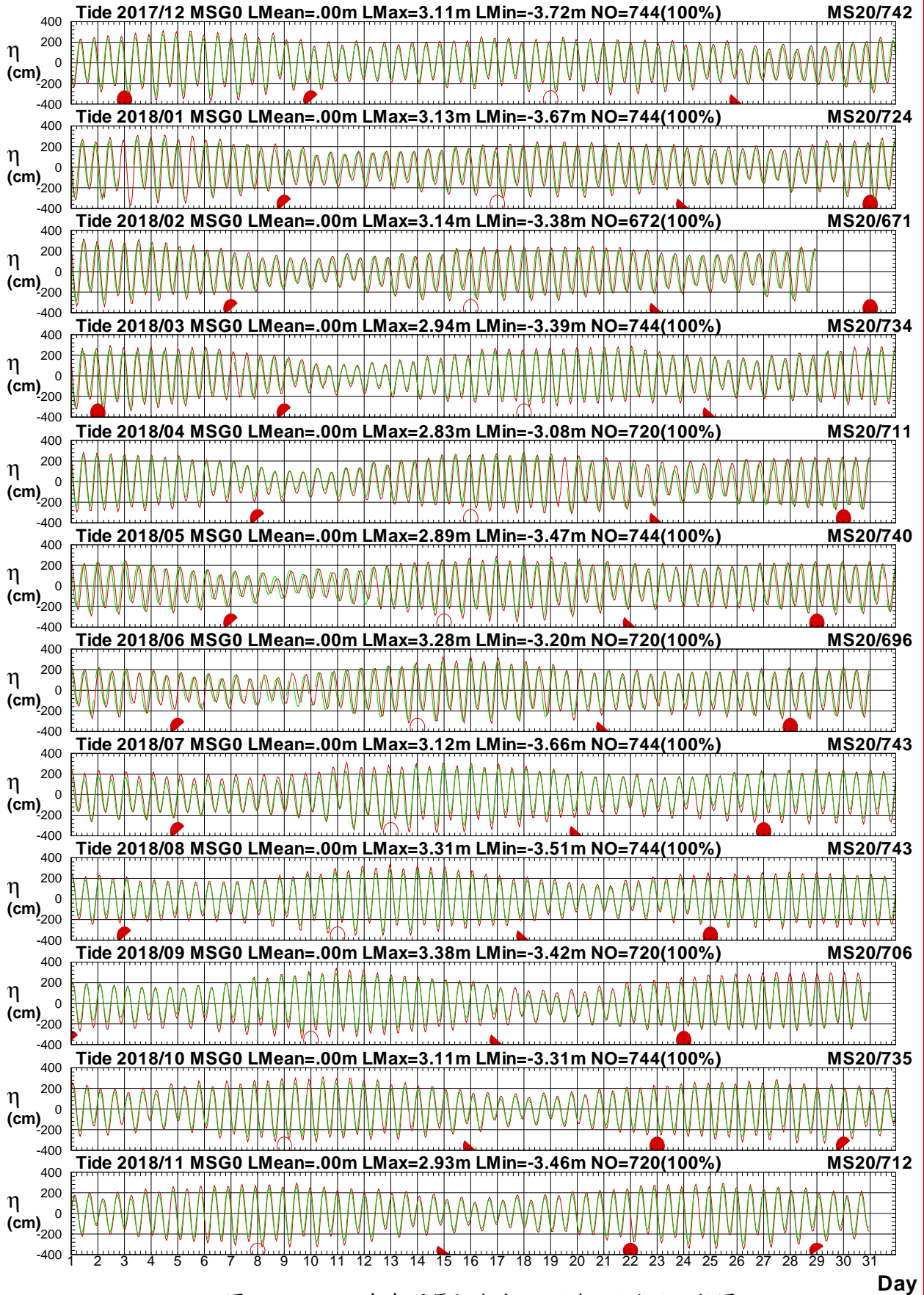


圖3.4.7 2018年每月馬祖海域 G 站與 2 站潮位比較圖

T17CMSG0.1HA T17CMS20.1H0 T181MSG0.1HA T181MS20.1H0 T182MSG0.1HA T182MS20.1H0
T183MSG0.1HA T183MS20.1H0 T184MSG0.1HA T184MS20.1H0 T185MSG0.1HA T185MS20.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSG0 at 2018

1 ○ 8 ● 15 ● 22 ●

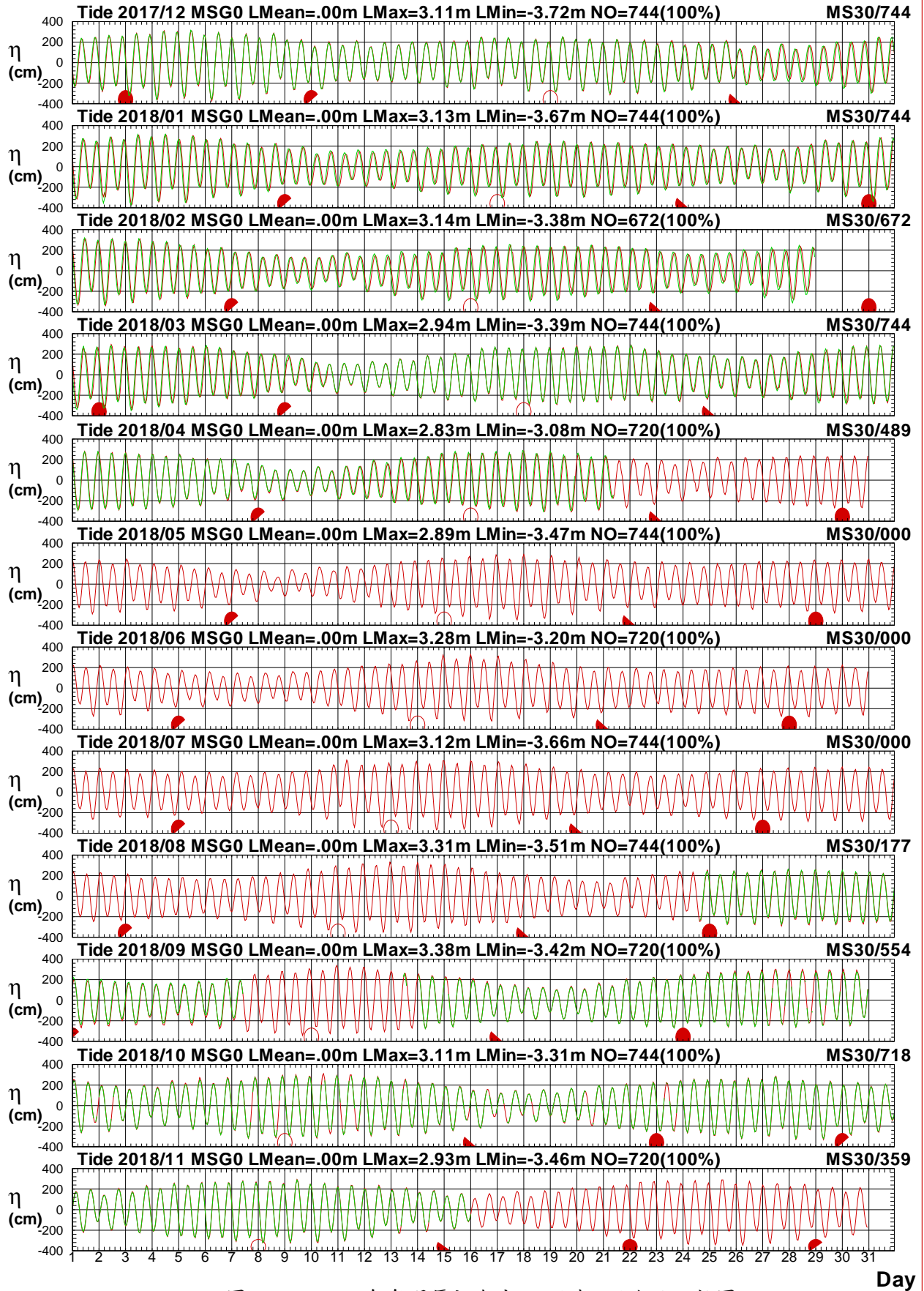


圖3.4.8 2018年每月馬祖海域 G 站與3站潮位比較圖

T17CMSG0.1HA T17CMS30.1H0 T181MSG0.1HA T181MS30.1H0 T182MSG0.1HA T182MS30.1H0
T183MSG0.1HA T183MS30.1H0 T184MSG0.1HA T184MS30.1H0 T185MSG0.1HA T185MS30.1H0

Institute of Harbor & Marine Technology

3.5 2018 年馬祖海域**主要測站 3**(修補後)與 **其他測站**(修補前)潮位歷線比較圖

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

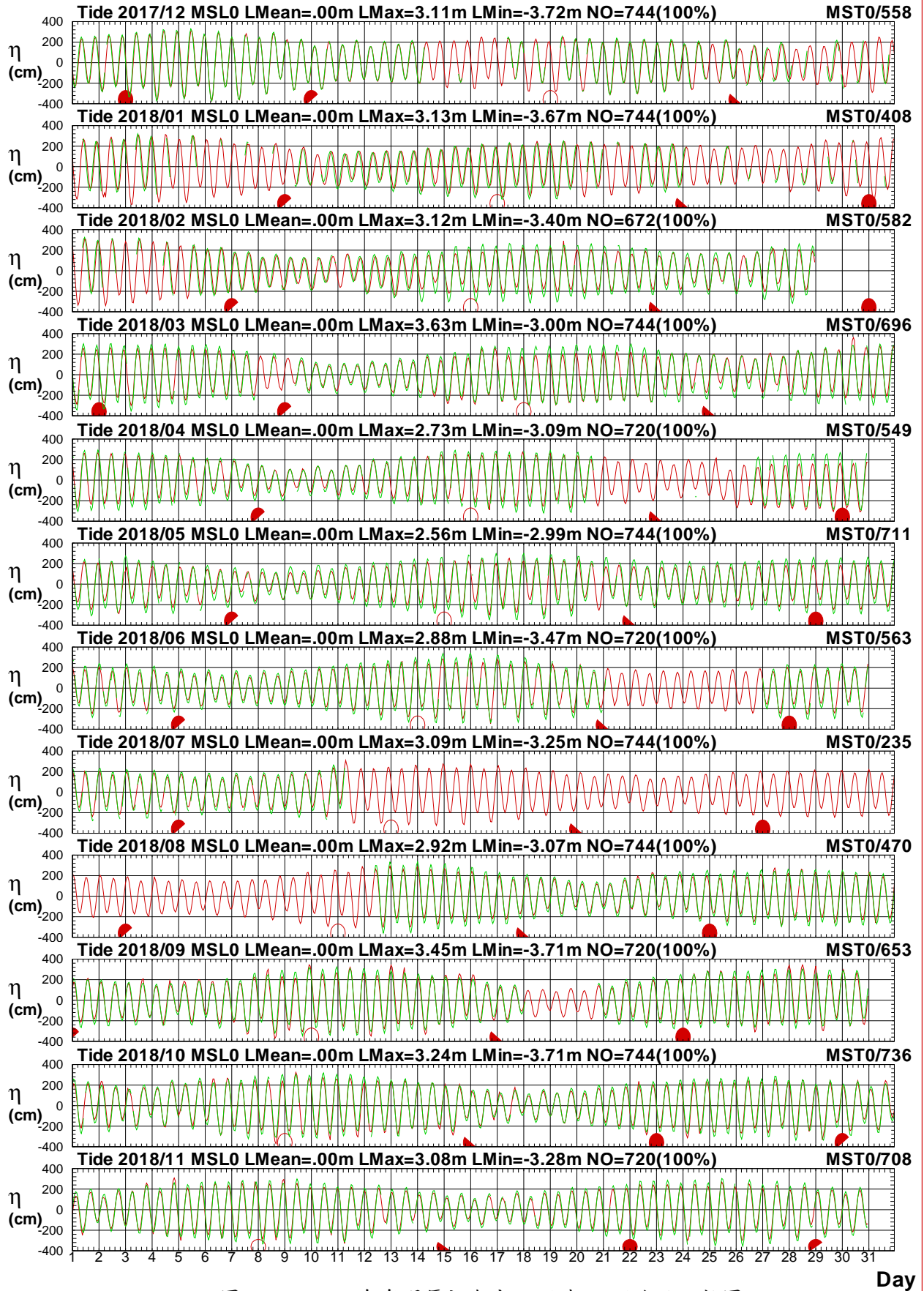


圖3.5.1 2018年每月馬祖海域 L 站與 T 站潮位比較圖

T17CMSL0.1HA T17CMST0.1H0 T181MSL0.1HA T181MST0.1H0 T182MSL0.1HA T182MST0.1H0
 T183MSL0.1HA T183MST0.1H0 T184MSL0.1HA T184MST0.1H0 T185MSL0.1HA T185MST0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

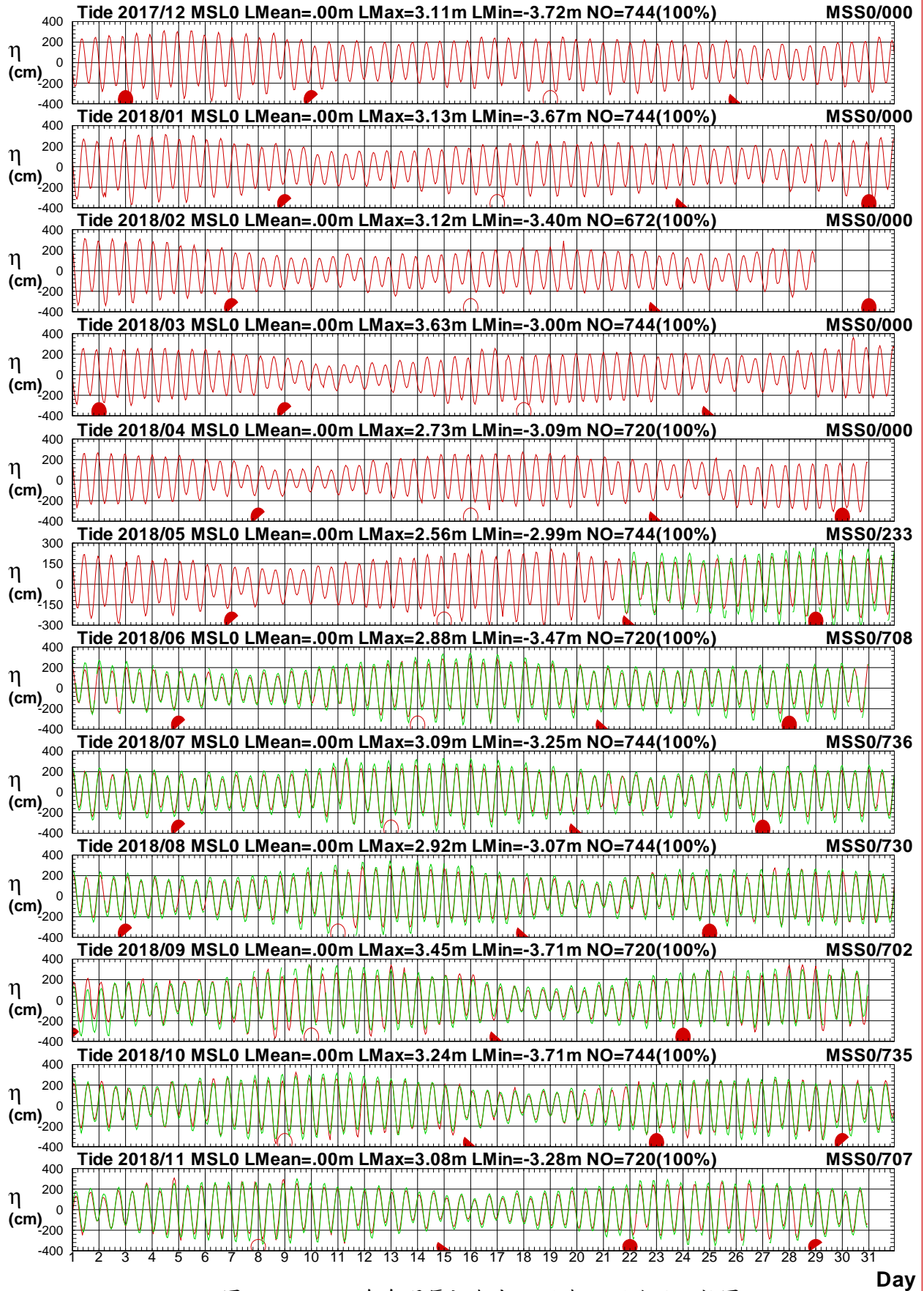


圖3.5.2 2018年每月馬祖海域 L 站與 S 站潮位比較圖

T17CMSL0.1HA T17CMSS0.1H0 T181MSL0.1HA T181MSS0.1H0 T182MSL0.1HA T182MSS0.1H0
 T183MSL0.1HA T183MSS0.1H0 T184MSL0.1HA T184MSS0.1H0 T185MSL0.1HA T185MSS0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

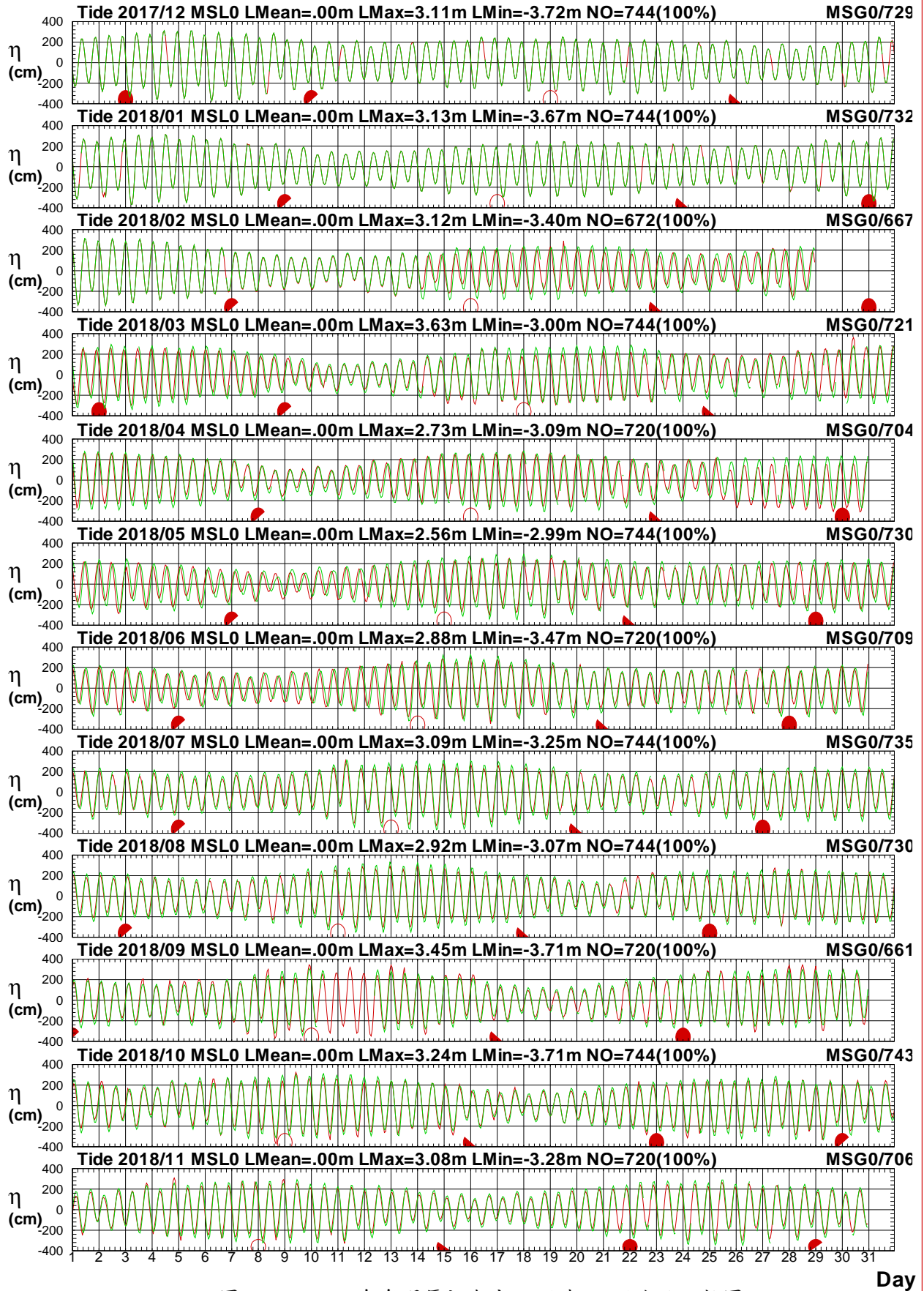


圖3.5.3 2018年每月馬祖海域 L 站與 G 站潮位比較圖

T17CMSL0.1HA T17CMSG0.1H0 T181MSL0.1HA T181MSG0.1H0 T182MSL0.1HA T182MSG0.1H0
 T183MSL0.1HA T183MSG0.1H0 T184MSL0.1HA T184MSG0.1H0 T185MSL0.1HA T185MSG0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

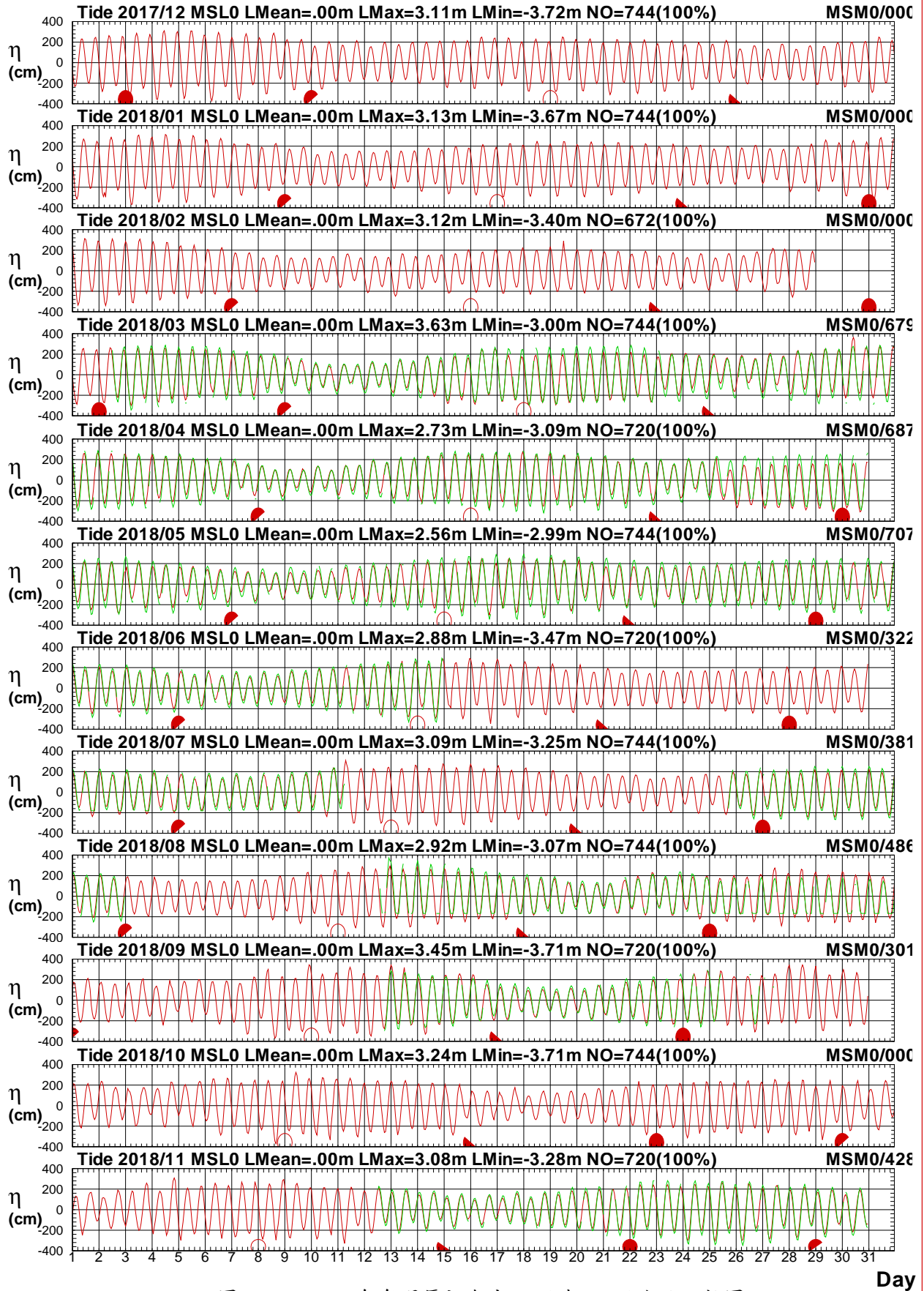


圖3.5.4 2018年每月馬祖海域 L 站與 M 站潮位比較圖

T17CMSL0.1HA T17CMSM0.1H0 T181MSL0.1HA T181MSM0.1H0 T182MSL0.1HA T182MSM0.1H0
 T183MSL0.1HA T183MSM0.1H0 T184MSL0.1HA T184MSM0.1H0 T185MSL0.1HA T185MSM0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

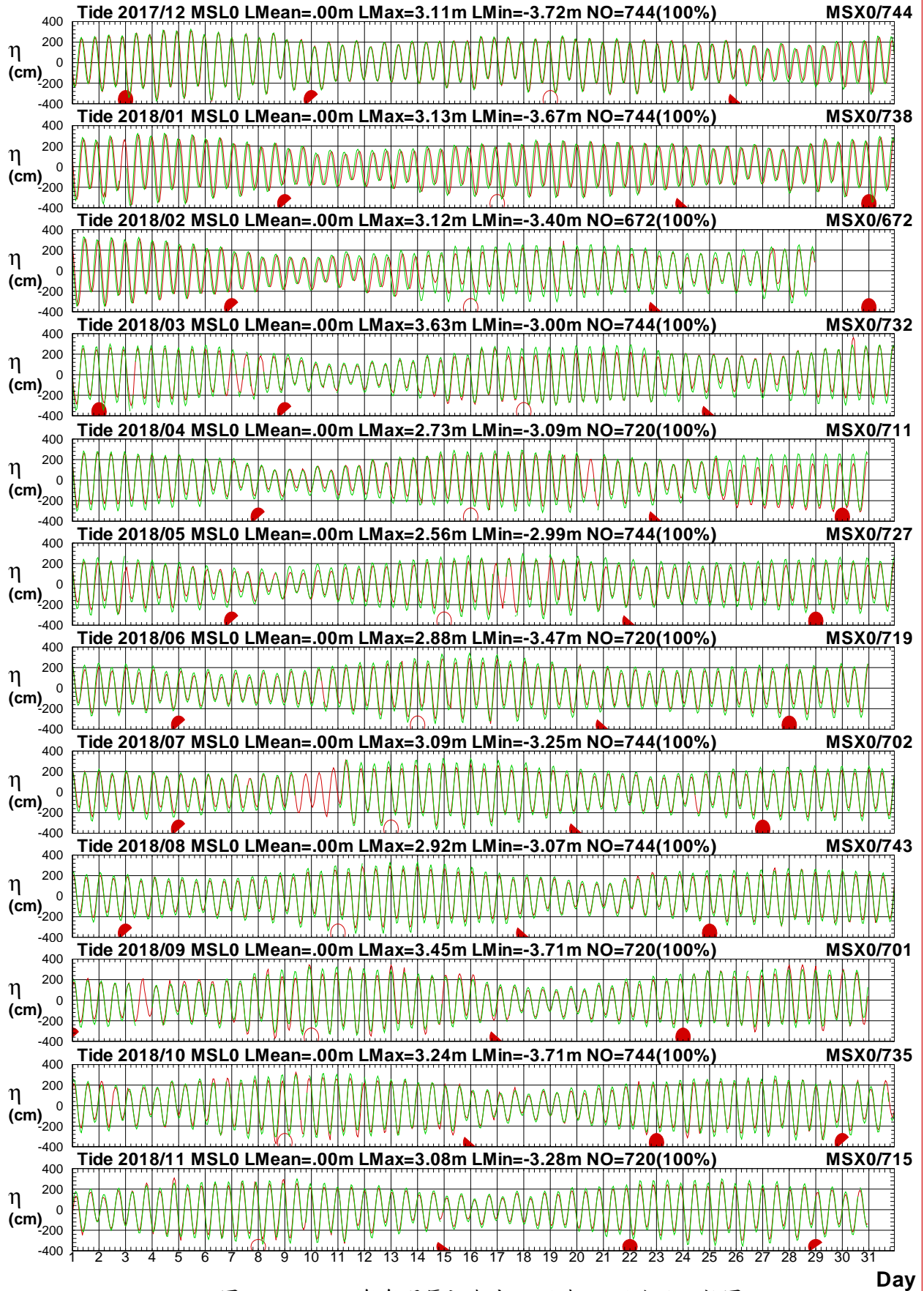


圖3.5.5 2018年每月馬祖海域 L 站與 X 站潮位比較圖

T17CMSL0.1HA T17CMSX0.1H0 T181MSL0.1HA T181MSX0.1H0 T182MSL0.1HA T182MSX0.1H0
 T183MSL0.1HA T183MSX0.1H0 T184MSL0.1HA T184MSX0.1H0 T185MSL0.1HA T185MSX0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

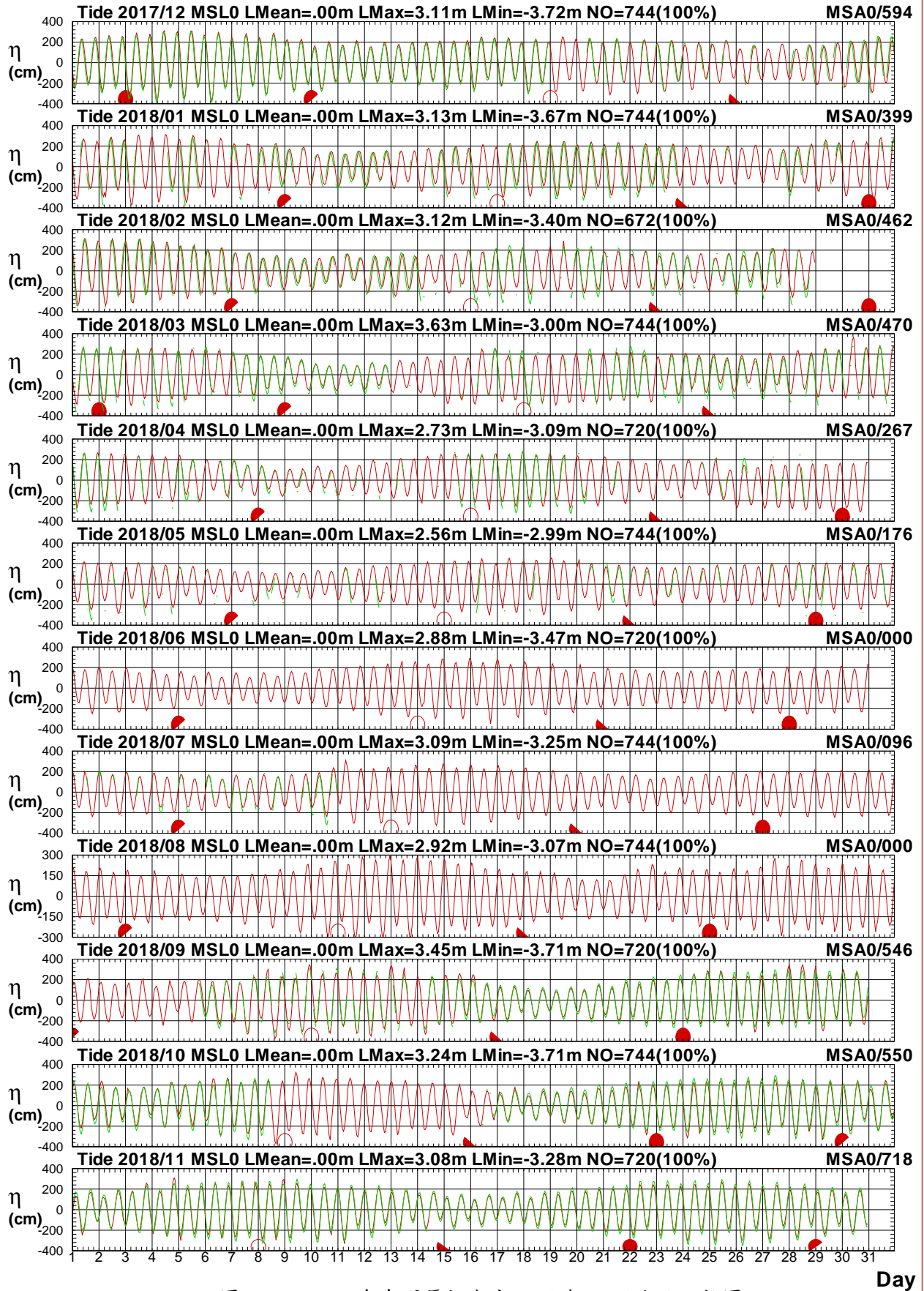


圖3.5.6 2018年每月馬祖海域 L 站與 A 站潮位比較圖

T17CMSL0.1HA T17CMSA0.1H0 T181MSL0.1HA T181MSA0.1H0 T182MSL0.1HA T182MSA0.1H0
 T183MSL0.1HA T183MSA0.1H0 T184MSL0.1HA T184MSA0.1H0 T185MSL0.1HA T185MSA0.1H0

Institute of Harbor & Marine Technology

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

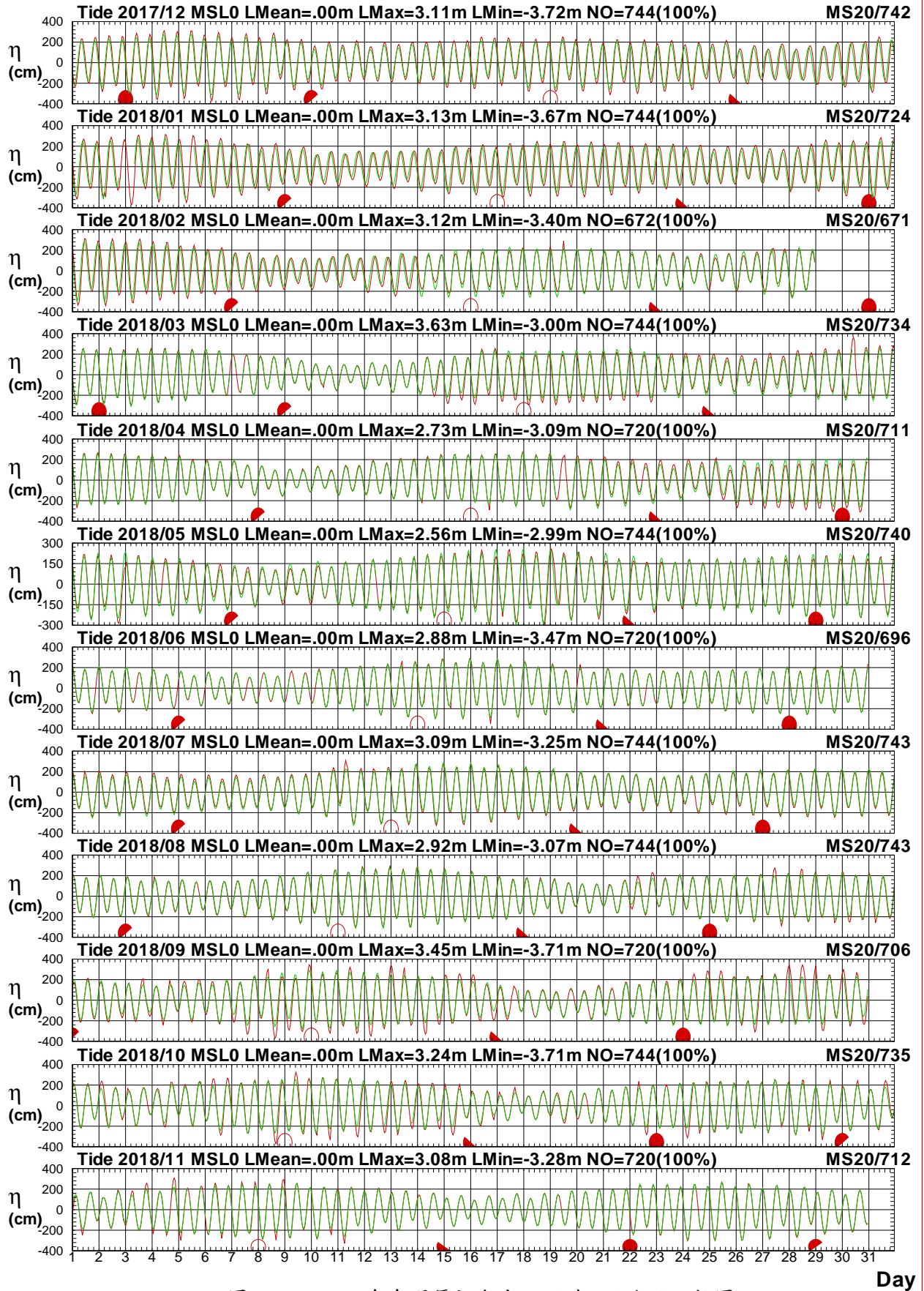


圖3.5.7 2018年每月馬祖海域 L 站與2站潮位比較圖

Tidal Level in Ma-Tsu Seas of MSL0 at 2018

1 ○ 8 ● 15 ● 22 ●

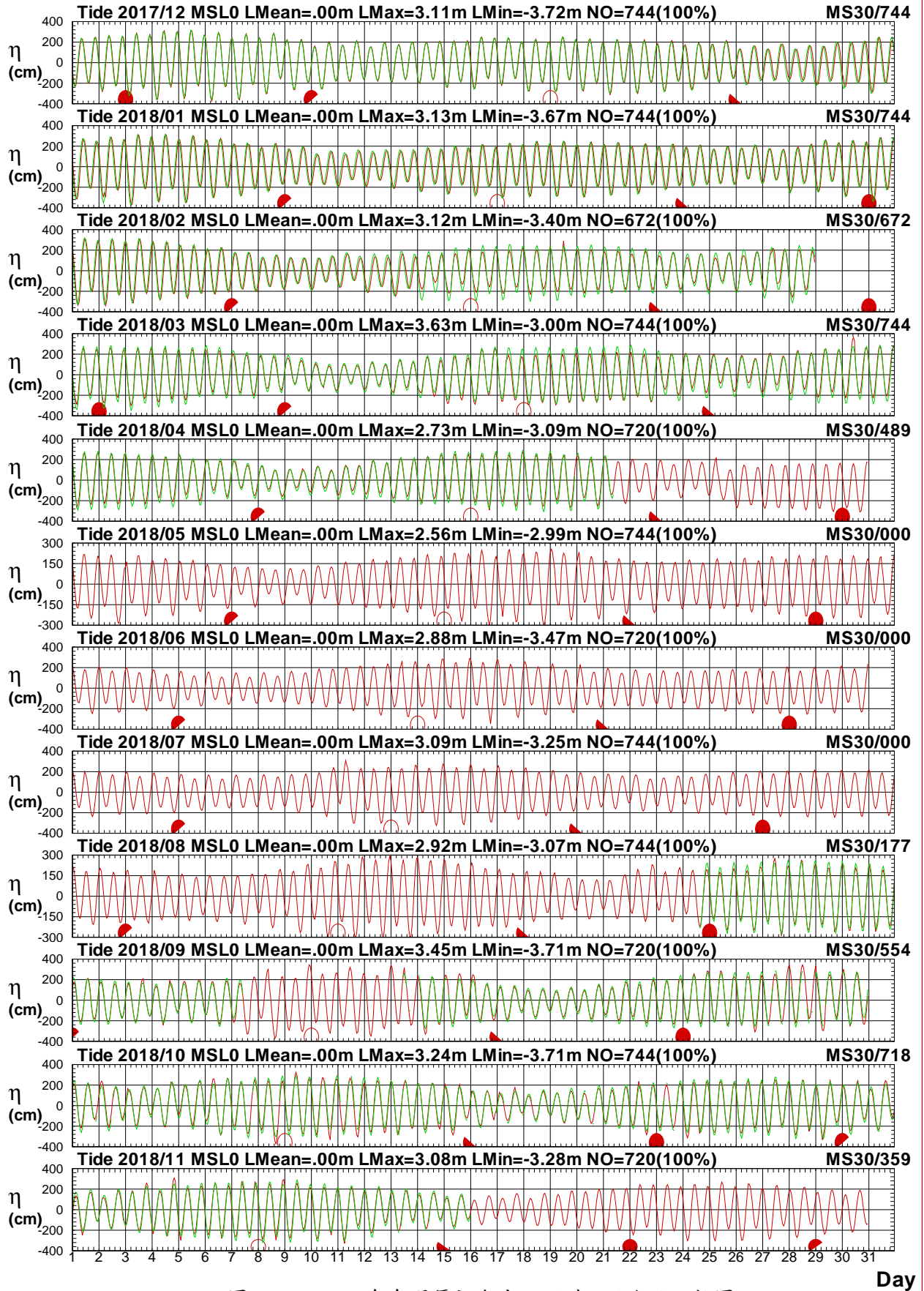


圖3.5.8 2018年每月馬祖海域 L 站與3站潮位比較圖

第四章 2018 年馬祖海域觀測海流資料年報

馬祖海域海流之觀測包括測站 X、測站 Y、測站 A、測站 2 及測站 3 等 5 個測站(測站位置如第 0 章圖 CU1)。

本年報利用調和分析方法觀測海流可分解為：

(1) 計算潮流(包括平均流)。

(2) 計算殘(餘)流(或稱非潮流)。

4.1 2018 年馬祖海域觀測海流資料年報圖表

本章第 1 節風力年報資料處理之統計表包括：

1. 表 1.1.1a 2018 年各觀測站每月觀測海流資料記錄表。
2. 表 1.1.1b 2018 年各觀測站每月計算潮流資料記錄表。

本章第 2 節海流年報資料處理之統計表包括：

1. 2018 年各觀測站每月觀測流速及流向重要統計量統計表。
2. 2018 年各觀測站每月計算潮流流速及流向重要統計量統計表。
3. 2018 年各觀測站每月計算殘(餘)流流速及流向重要統計量統計表。

本章第 3 節海流年報資料處理之統計圖包括：

1. 2018 年各觀測站之觀測海流與計算潮流歷線比較圖。
2. 2018 年各觀測站之觀測海流與計算殘(餘)流歷線比較圖。

本章第 4 節海流年報資料處理之統計圖包括:2018 年各觀測站之觀測海流、計算潮流及計算殘流等 3 個向量分佈圖。

本章第 5 節海流年報資料處理之統計圖包括:2018 年各觀測站之觀測海流、計算潮流及計算殘流等 3 個向量行進圖。

表4.1.1a 2018年每月馬祖海域各測站觀測海流資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|----------|-------------|-------------|-------------|------|-------------|-------------|------|------|------|------|------|------|
| 年月/測站 | X | Y | A | 1 | 2 | 3 | | | | | | |
| 2017/12月 | 744(100%) | 116(15.6%) | 594(79.8%) | * | 743(99.9%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 1月 | 738(99.2%) | * | 399(53.6%) | * | 724(97.3%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 2月 | 672(100%) | * | 462(68.8%) | * | 671(99.9%) | 672(100%) | * | * | * | * | * | * |
| 2018/ 3月 | 732(98.4%) | * | 470(63.2%) | * | 734(98.7%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 4月 | 711(98.8%) | 298(41.4%) | 267(37.1%) | * | 711(98.8%) | 489(67.9%) | * | * | * | * | * | * |
| 2018/ 5月 | 727(97.7%) | 644(86.6%) | 176(23.7%) | * | 740(99.5%) | * | * | * | * | * | * | * |
| 2018/ 6月 | 719(99.9%) | 717(99.6%) | 362(50.3%) | * | 696(96.7%) | * | * | * | * | * | * | * |
| 2018/ 7月 | 702(94.4%) | 744(100%) | 96(12.9%) | * | 743(99.9%) | * | * | * | * | * | * | * |
| 2018/ 8月 | 743(99.9%) | 744(100%) | * | * | 743(99.9%) | 177(23.8%) | * | * | * | * | * | * |
| 2018/ 9月 | 701(97.4%) | 716(99.4%) | 129(17.9%) | * | 706(98.1%) | 400(55.6%) | * | * | * | * | * | * |
| 2018/10月 | 735(98.8%) | 744(100%) | 368(49.5%) | * | 735(98.8%) | 718(96.5%) | * | * | * | * | * | * |
| 2018/11月 | 715(99.3%) | 720(100%) | 718(99.7%) | * | 712(98.9%) | 359(49.9%) | * | * | * | * | * | * |
| 2018/冬季 | 2154(99.7%) | 116(5.4%) | 1455(67.4%) | * | 2138(99.0%) | 2160(100%) | * | * | * | * | * | * |
| 2018/春季 | 2170(98.3%) | 942(42.7%) | 913(41.3%) | * | 2185(99.0%) | 1233(55.8%) | * | * | * | * | * | * |
| 2018/夏季 | 2164(98.0%) | 2205(99.9%) | 458(20.7%) | * | 2182(98.8%) | 177(8.0%) | * | * | * | * | * | * |
| 2018/秋季 | 2151(98.5%) | 2180(99.8%) | 1215(55.6%) | * | 2153(98.6%) | 1477(67.6%) | * | * | * | * | * | * |
| 2018/整年 | 8639(98.6%) | 5443(62.1%) | 4041(46.1%) | * | 8658(98.8%) | 5047(57.6%) | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | 2017/12 | * | 2017/12 | 2017/12 | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | * | 2018/11 | 2018/11 | * | * | * | * | * | * |

4-1-3

表4.1.1b 2018年每月馬祖海域計算潮流各測站資料紀錄表

| 海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 | 馬祖海域 |
|----------|------------|------------|------------|------|------------|------------|------|------|------|------|------|------|
| 年月/測站 | X | Y | A | 1 | 2 | 3 | | | | | | |
| 2017/12月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 1月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 2月 | 672(100%) | 672(100%) | 672(100%) | * | 672(100%) | 672(100%) | * | * | * | * | * | * |
| 2018/ 3月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 4月 | 720(100%) | 720(100%) | 720(100%) | * | 720(100%) | 720(100%) | * | * | * | * | * | * |
| 2018/ 5月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 6月 | 720(100%) | 720(100%) | 720(100%) | * | 720(100%) | 720(100%) | * | * | * | * | * | * |
| 2018/ 7月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 8月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/ 9月 | 720(100%) | 720(100%) | 720(100%) | * | 720(100%) | 720(100%) | * | * | * | * | * | * |
| 2018/10月 | 744(100%) | 744(100%) | 744(100%) | * | 744(100%) | 744(100%) | * | * | * | * | * | * |
| 2018/11月 | 720(100%) | 720(100%) | 720(100%) | * | 720(100%) | 720(100%) | * | * | * | * | * | * |
| 2018/冬季 | 2160(100%) | 2160(100%) | 2160(100%) | * | 2160(100%) | 2160(100%) | * | * | * | * | * | * |
| 2018/春季 | 2208(100%) | 2208(100%) | 2208(100%) | * | 2208(100%) | 2208(100%) | * | * | * | * | * | * |
| 2018/夏季 | 2208(100%) | 2208(100%) | 2208(100%) | * | 2208(100%) | 2208(100%) | * | * | * | * | * | * |
| 2018/秋季 | 2184(100%) | 2184(100%) | 2184(100%) | * | 2184(100%) | 2184(100%) | * | * | * | * | * | * |
| 2018/整年 | 8760(100%) | 8760(100%) | 8760(100%) | * | 8760(100%) | 8760(100%) | * | * | * | * | * | * |
| 起始年月 | 2017/12 | 2017/12 | 2017/12 | * | 2017/12 | 2017/12 | * | * | * | * | * | * |
| 結束年月 | 2018/11 | 2018/11 | 2018/11 | * | 2018/11 | 2018/11 | * | * | * | * | * | * |

4-14

4.2 2018 年馬祖海域各測站觀測海流與 計算潮流(殘流)統計量統計表

表4.2.1a 2018年馬祖海域 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 | 2017/12 | 744(100%) | 16.2 | 10.6/SSW | 65.1/SW | 82.1 | 16.9 | .9 | .0 | 10.3 | 29.3 | 54.4 | 5.9 | SW /21.8% |
| 2 | 2018/01 | 738(99%) | 14.8 | 7.9/SSW | 62.5/SW | 86.6 | 13.0 | .4 | .0 | 16.1 | 28.9 | 47.2 | 7.9 | SW /19.1% |
| 3 | 2018/02 | 672(100%) | 14.3 | 5.2/S | 64.8/SW | 89.0 | 10.6 | .4 | .0 | 21.7 | 27.7 | 40.9 | 9.7 | SW /15.0% |
| 4 | 2018/03 | 732(98%) | 16.0 | 4.5/S | 57.4/N | 85.0 | 14.2 | .8 | .0 | 26.6 | 24.9 | 37.0 | 11.5 | E /12.4% |
| 5 | 2018/04 | 711(99%) | 18.6 | 2.8/SW | 78.1/NNE | 76.4 | 21.4 | 2.3 | .0 | 26.9 | 21.7 | 34.2 | 17.3 | WSW/10.7% |
| 6 | 2018/05 | 727(98%) | 20.7 | 4.8/NNE | 67.6/E | 68.0 | 29.4 | 2.6 | .0 | 46.8 | 8.8 | 28.9 | 15.5 | ENE/16.1% |
| 7 | 2018/06 | 719(100%) | 22.1 | 4.1/NW | 69.2/NE | 64.3 | 32.4 | 3.3 | .0 | 32.3 | 10.8 | 41.9 | 15.0 | WSW/21.3% |
| 8 | 2018/07 | 702(94%) | 24.4 | 5.0/N | 75.4/E | 57.5 | 38.3 | 4.1 | .0 | 42.3 | 10.5 | 33.3 | 13.8 | WSW/16.1% |
| 9 | 2018/08 | 743(100%) | 24.7 | 7.8/N | 73.2/NE | 58.8 | 35.9 | 5.2 | .0 | 41.3 | 8.3 | 28.1 | 22.2 | WSW/14.5% |
| 10 | 2018/09 | 701(97%) | 20.9 | 9.7/WSW | 65.3/WSW | 67.2 | 30.1 | 2.7 | .0 | 18.4 | 11.1 | 60.5 | 10.0 | WSW/27.1% |
| 11 | 2018/10 | 735(99%) | 20.3 | 16.7/WSW | 65.6/WSW | 69.5 | 29.1 | 1.4 | .0 | 6.3 | 11.0 | 76.9 | 5.9 | WSW/35.6% |
| 12 | 2018/11 | 715(99%) | 17.9 | 13.1/SW | 56.7/WSW | 76.2 | 22.7 | 1.1 | .0 | 7.3 | 17.3 | 69.9 | 5.5 | WSW/32.0% |
| 13 | 2018/冬 | 2154(100%) | 15.1 | 8.0/SSW | 65.1/SW | 85.8 | 13.6 | .6 | .0 | 15.9 | 28.6 | 47.7 | 7.8 | SW /18.8% |
| 14 | 2018/春 | 2170(98%) | 18.4 | .8/S | 78.1/NNE | 76.5 | 21.7 | 1.9 | .0 | 33.5 | 18.4 | 33.4 | 14.7 | WSW/11.8% |
| 15 | 2018/夏 | 2164(98%) | 23.7 | 5.2/N | 75.4/E | 60.2 | 35.5 | 4.3 | .0 | 38.6 | 9.9 | 34.4 | 17.1 | WSW/17.3% |
| 16 | 2018/秋 | 2151(99%) | 19.7 | 13.2/WSW | 65.6/WSW | 71.0 | 27.3 | 1.7 | .0 | 10.6 | 13.2 | 69.2 | 7.1 | WSW/31.7% |
| 17 | 2018/年 | 8639(99%) | 19.2 | 4.3/SW | 78.1/NNE | 73.4 | 24.5 | 2.1 | .0 | 24.7 | 17.5 | 46.1 | 11.7 | WSW/17.1% |

4-2-1

表4.2.1b 2018年馬祖海域 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 | 2017/12 | 744(100%) | 8.2 | 4.3/SW | 20.7/WSW | 100.0 | .0 | .0 | .0 | 21.9 | 16.8 | 57.9 | 3.4 | WSW/39.4% |
| 2 | 2018/01 | 744(100%) | 8.4 | 4.3/SW | 20.0/WSW | 100.0 | .0 | .0 | .0 | 22.7 | 15.7 | 58.3 | 3.2 | WSW/37.5% |
| 3 | 2018/02 | 672(100%) | 8.1 | 4.3/SW | 19.8/WSW | 100.0 | .0 | .0 | .0 | 21.7 | 16.8 | 58.6 | 2.8 | WSW/37.4% |
| 4 | 2018/03 | 744(100%) | 8.2 | 4.3/SW | 19.9/WSW | 100.0 | .0 | .0 | .0 | 22.2 | 16.3 | 59.4 | 2.2 | WSW/39.9% |
| 5 | 2018/04 | 720(100%) | 8.1 | 4.3/SW | 19.8/WSW | 100.0 | .0 | .0 | .0 | 21.4 | 16.4 | 60.0 | 2.2 | WSW/40.3% |
| 6 | 2018/05 | 744(100%) | 8.1 | 4.4/SW | 20.2/WSW | 100.0 | .0 | .0 | .0 | 21.8 | 16.7 | 58.9 | 2.7 | WSW/40.7% |
| 7 | 2018/06 | 720(100%) | 8.1 | 4.3/SW | 20.4/WSW | 100.0 | .0 | .0 | .0 | 21.1 | 15.6 | 59.0 | 4.3 | WSW/39.2% |
| 8 | 2018/07 | 744(100%) | 8.1 | 4.4/SW | 20.1/WSW | 100.0 | .0 | .0 | .0 | 21.0 | 17.5 | 58.1 | 3.5 | WSW/37.4% |
| 9 | 2018/08 | 744(100%) | 8.1 | 4.4/SW | 20.3/WSW | 100.0 | .0 | .0 | .0 | 20.4 | 16.8 | 59.1 | 3.6 | WSW/37.1% |
| 10 | 2018/09 | 720(100%) | 8.0 | 4.3/SW | 20.1/WSW | 100.0 | .0 | .0 | .0 | 22.1 | 16.9 | 59.2 | 1.8 | WSW/38.5% |
| 11 | 2018/10 | 744(100%) | 8.1 | 4.3/SW | 19.7/WSW | 100.0 | .0 | .0 | .0 | 22.6 | 16.0 | 59.0 | 2.4 | WSW/40.6% |
| 12 | 2018/11 | 720(100%) | 8.1 | 4.3/SW | 20.2/WSW | 100.0 | .0 | .0 | .0 | 21.9 | 15.4 | 59.6 | 3.1 | WSW/40.3% |
| 13 | 2018/冬 | 2160(100%) | 8.2 | 4.3/SW | 20.7/WSW | 100.0 | .0 | .0 | .0 | 22.1 | 16.4 | 58.3 | 3.1 | WSW/38.1% |
| 14 | 2018/春 | 2208(100%) | 8.1 | 4.3/SW | 20.2/WSW | 100.0 | .0 | .0 | .0 | 21.8 | 16.4 | 59.4 | 2.4 | WSW/40.3% |
| 15 | 2018/夏 | 2208(100%) | 8.1 | 4.4/SW | 20.4/WSW | 100.0 | .0 | .0 | .0 | 20.8 | 16.6 | 58.7 | 3.8 | WSW/37.9% |
| 16 | 2018/秋 | 2184(100%) | 8.1 | 4.3/SW | 20.2/WSW | 100.0 | .0 | .0 | .0 | 22.2 | 16.1 | 59.2 | 2.4 | WSW/39.8% |
| 17 | 2018/年 | 8760(100%) | 8.1 | 4.3/SW | 20.7/WSW | 100.0 | .0 | .0 | .0 | 21.7 | 16.4 | 58.9 | 2.9 | WSW/39.0% |

4-2-2

表4.2.1c 2018年馬祖海域 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 | 2017/12 | 744(100%) | 13.1 | 7.4/S | 53.1/E | 92.1 | 7.7 | .3 | .0 | 16.9 | 33.6 | 42.2 | 7.3 | SSW/17.5% |
| 2 | 2018/01 | 738(99%) | 12.3 | 5.5/SSE | 50.9/SSW | 92.0 | 8.0 | .0 | .0 | 25.9 | 35.6 | 32.7 | 5.8 | S /13.6% |
| 3 | 2018/02 | 672(100%) | 12.2 | 4.1/SE | 62.6/NE | 93.0 | 6.4 | .6 | .0 | 33.9 | 32.4 | 26.6 | 7.0 | ENE/11.5% |
| 4 | 2018/03 | 732(98%) | 13.6 | 3.8/ESE | 67.7/NNE | 91.5 | 7.8 | .7 | .0 | 37.8 | 28.3 | 25.3 | 8.6 | ENE/11.3% |
| 5 | 2018/04 | 711(99%) | 16.8 | 2.0/E | 85.1/NNE | 82.8 | 15.5 | 1.7 | .0 | 34.7 | 19.5 | 27.0 | 18.7 | ENE/10.1% |
| 6 | 2018/05 | 727(98%) | 20.1 | 8.8/NE | 72.7/ENE | 69.7 | 26.5 | 3.7 | .0 | 55.8 | 6.5 | 21.3 | 16.4 | ENE/21.5% |
| 7 | 2018/06 | 719(100%) | 20.6 | 5.2/N | 78.6/NE | 70.0 | 25.2 | 4.9 | .0 | 38.4 | 7.4 | 37.4 | 16.8 | WSW/16.8% |
| 8 | 2018/07 | 702(94%) | 23.3 | 8.6/NNE | 79.7/E | 64.0 | 30.2 | 5.8 | .0 | 47.7 | 8.5 | 28.6 | 15.1 | NE /16.0% |
| 9 | 2018/08 | 743(100%) | 23.8 | 10.8/NNE | 76.9/NE | 60.3 | 33.6 | 6.1 | .0 | 49.8 | 7.5 | 22.9 | 19.8 | NE /19.2% |
| 10 | 2018/09 | 701(97%) | 18.1 | 5.5/WSW | 69.5/ENE | 76.9 | 21.3 | 1.9 | .0 | 21.4 | 12.6 | 55.1 | 11.0 | SW /18.8% |
| 11 | 2018/10 | 735(99%) | 16.5 | 12.3/WSW | 50.5/ENE | 83.4 | 16.6 | .0 | .0 | 9.0 | 7.8 | 74.4 | 8.8 | WSW/30.7% |
| 12 | 2018/11 | 715(99%) | 14.0 | 8.8/WSW | 63.3/NNE | 88.4 | 11.3 | .3 | .0 | 12.4 | 11.0 | 64.1 | 12.4 | WSW/23.2% |
| 13 | 2018/冬 | 2154(100%) | 12.5 | 5.4/SSE | 62.6/NE | 92.3 | 7.4 | .3 | .0 | 25.3 | 33.9 | 34.1 | 6.7 | SSW/13.6% |
| 14 | 2018/春 | 2170(98%) | 16.8 | 4.0/ENE | 85.1/NNE | 81.4 | 16.6 | 2.0 | .0 | 42.9 | 18.1 | 24.5 | 14.5 | ENE/14.3% |
| 15 | 2018/夏 | 2164(98%) | 22.5 | 8.1/NNE | 79.7/E | 64.7 | 29.7 | 5.6 | .0 | 45.3 | 7.8 | 29.6 | 17.3 | NE /15.9% |
| 16 | 2018/秋 | 2151(99%) | 16.2 | 8.9/WSW | 69.5/ENE | 82.9 | 16.4 | .7 | .0 | 14.2 | 10.4 | 64.7 | 10.7 | WSW/24.4% |
| 17 | 2018/年 | 8639(99%) | 17.0 | .0/ENE | 85.1/NNE | 80.3 | 17.5 | 2.2 | .0 | 32.0 | 17.6 | 38.2 | 12.3 | WSW/11.9% |

4-2-3

表 4.2.2a 2018年馬祖海域 Y 站觀測流速及流向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 流速 平均值 (cm/s) | 平均流 流速/流向 (cm/s)/(來向) | 最大流 流速/流向 (cm/s)/(來向) | 1/2節流 <25.7 (%) | 1節流 ~51.4 (%) | 2節流 ~103 (%) | 大流 >103 (%) | 流向 N~E (%) | 流向 E~S (%) | 流向 S~W (%) | 流向 W~N (%) | 主要流向 方向/百分比 |
|--------|-------------|------------|---------------------|-----------------------------|-----------------------------|-----------------------|---------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 116(16%) | 26.0 | 13.7/SW | 77.0/SW | 55.2 | 37.9 | 6.9 | .0 | 9.5 | 25.0 | 48.3 | 17.2 | W /16.4% |
| 2 | 2018/01 | | | | | | | | | | | | | |
| 3 | 2018/02 | | | | | | | | | | | | | |
| 4 | 2018/03 | | | | | | | | | | | | | |
| 5 | 2018/04 | 298(41%) | 41.8 | 18.4/NE | 100.0/E | 25.8 | 45.6 | 28.5 | .0 | 53.7 | 3.7 | 15.8 | 26.8 | ENE/25.8% |
| 6 | 2018/05 | 644(87%) | 29.5 | 12.3/NE | 113.0/ENE | 55.1 | 28.3 | 16.3 | .3 | 48.4 | 5.1 | 22.0 | 24.4 | ENE/21.7% |
| 7 | 2018/06 | 717(100%) | 39.3 | 18.4/NE | 124.0/ENE | 34.3 | 40.6 | 22.5 | 2.6 | 54.4 | 6.3 | 18.3 | 21.1 | ENE/26.2% |
| 8 | 2018/07 | 744(100%) | 45.9 | 26.5/NE | 158.0/SW | 28.2 | 33.7 | 35.5 | 2.6 | 57.4 | 7.9 | 10.3 | 24.3 | ENE/26.1% |
| 9 | 2018/08 | 744(100%) | 42.3 | 21.5/NE | 125.0/E | 34.1 | 33.3 | 30.5 | 2.0 | 54.3 | 8.2 | 14.7 | 22.8 | ENE/23.4% |
| 10 | 2018/09 | 716(99%) | 47.3 | 12.9/NE | 116.0/ENE | 24.4 | 33.5 | 40.4 | 1.7 | 51.7 | 5.4 | 22.1 | 20.8 | ENE/23.5% |
| 11 | 2018/10 | 744(100%) | 48.6 | 11.0/SSW | 136.0/ENE | 19.2 | 38.6 | 40.5 | 1.7 | 31.9 | 7.5 | 49.5 | 11.2 | SW /16.3% |
| 12 | 2018/11 | 720(100%) | 43.3 | 4.7/SSW | 122.0/SW | 23.6 | 43.5 | 32.5 | .4 | 34.2 | 8.5 | 43.3 | 14.0 | WSW/15.4% |
| 13 | 2018/冬 | 116(5%) | 26.0 | 13.7/SW | 77.0/SW | 55.2 | 37.9 | 6.9 | .0 | 9.5 | 25.0 | 48.3 | 17.2 | W /16.4% |
| 14 | 2018/春 | 942(43%) | 33.4 | 14.2/NE | 113.0/ENE | 45.9 | 33.8 | 20.2 | .2 | 50.1 | 4.7 | 20.1 | 25.2 | ENE/23.0% |
| 15 | 2018/夏 | 2205(100%) | 42.5 | 22.2/NE | 158.0/SW | 32.2 | 35.8 | 29.6 | 2.4 | 55.4 | 7.5 | 14.4 | 22.8 | ENE/25.2% |
| 16 | 2018/秋 | 2180(100%) | 46.4 | 2.7/SSE | 136.0/ENE | 22.4 | 38.5 | 37.8 | 1.3 | 39.1 | 7.2 | 38.4 | 15.3 | ENE/17.3% |
| 17 | 2018/年 | 5443(62%) | 42.2 | 11.0/NE | 158.0/SW | 31.1 | 36.6 | 30.8 | 1.5 | 47.0 | 7.2 | 25.7 | 20.1 | ENE/21.2% |

4-2-4

表4.2.2b 2018年馬祖海域 Y 站潮流流速及流向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 流速 平均值 (cm/s) | 平均流 流速/流向 (cm/s)/(來向) | 最大流 流速/流向 (cm/s)/(來向) | 1/2節流 <25.7 (%) | 1節流 ~51.4 (%) | 2節流 ~103 (%) | 大流 >103 (%) | 流向 N~E (%) | 流向 E~S (%) | 流向 S~W (%) | 流向 W~N (%) | 主要流向 方向/百分比 |
|--------|-------------|------------|---------------------|-----------------------------|-----------------------------|-----------------------|---------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 744(100%) | 33.3 | 11.0/NE | 77.5/ENE | 38.0 | 46.5 | 15.5 | .0 | 47.7 | 9.7 | 27.3 | 15.3 | ENE/25.3% |
| 2 | 2018/01 | 744(100%) | 34.0 | 11.0/NE | 81.9/ENE | 37.4 | 45.7 | 16.9 | .0 | 47.3 | 9.8 | 29.2 | 13.7 | ENE/24.3% |
| 3 | 2018/02 | 672(100%) | 33.4 | 10.9/NE | 84.0/ENE | 37.8 | 47.0 | 15.2 | .0 | 46.3 | 10.3 | 28.9 | 14.6 | ENE/24.6% |
| 4 | 2018/03 | 744(100%) | 34.7 | 11.0/NE | 84.2/ENE | 37.1 | 44.8 | 18.1 | .0 | 46.1 | 10.3 | 29.2 | 14.4 | ENE/24.1% |
| 5 | 2018/04 | 720(100%) | 34.4 | 11.0/NE | 81.1/ENE | 35.4 | 46.8 | 17.8 | .0 | 46.8 | 10.4 | 28.1 | 14.7 | ENE/23.6% |
| 6 | 2018/05 | 744(100%) | 34.5 | 11.1/NE | 78.0/ENE | 36.2 | 46.2 | 17.6 | .0 | 47.0 | 9.5 | 28.5 | 14.9 | ENE/24.7% |
| 7 | 2018/06 | 720(100%) | 33.8 | 11.0/NE | 77.2/ENE | 37.6 | 45.6 | 16.8 | .0 | 47.9 | 8.8 | 28.3 | 15.0 | ENE/25.6% |
| 8 | 2018/07 | 744(100%) | 33.4 | 11.0/NE | 81.2/ENE | 38.0 | 45.3 | 16.7 | .0 | 47.6 | 9.4 | 28.4 | 14.7 | ENE/25.8% |
| 9 | 2018/08 | 744(100%) | 33.0 | 10.9/NE | 81.8/ENE | 40.1 | 44.8 | 15.2 | .0 | 46.9 | 10.5 | 28.4 | 14.2 | ENE/24.7% |
| 10 | 2018/09 | 720(100%) | 33.3 | 10.9/NE | 82.8/ENE | 39.0 | 44.9 | 16.1 | .0 | 46.7 | 10.1 | 28.6 | 14.6 | ENE/24.4% |
| 11 | 2018/10 | 744(100%) | 33.4 | 10.9/NE | 81.3/ENE | 37.8 | 46.4 | 15.9 | .0 | 47.2 | 9.5 | 29.2 | 14.1 | ENE/24.3% |
| 12 | 2018/11 | 720(100%) | 33.8 | 11.0/NE | 78.4/ENE | 37.5 | 45.6 | 16.9 | .0 | 45.7 | 11.3 | 27.5 | 15.6 | ENE/24.4% |
| 13 | 2018/冬 | 2160(100%) | 33.6 | 11.0/NE | 84.0/ENE | 37.7 | 46.4 | 15.9 | .0 | 47.1 | 9.9 | 28.4 | 14.5 | ENE/24.7% |
| 14 | 2018/春 | 2208(100%) | 34.6 | 11.0/NE | 84.2/ENE | 36.2 | 45.9 | 17.8 | .0 | 46.6 | 10.1 | 28.6 | 14.7 | ENE/24.1% |
| 15 | 2018/夏 | 2208(100%) | 33.4 | 11.0/NE | 81.8/ENE | 38.6 | 45.2 | 16.2 | .0 | 47.5 | 9.6 | 28.4 | 14.6 | ENE/25.4% |
| 16 | 2018/秋 | 2184(100%) | 33.5 | 10.9/NE | 82.8/ENE | 38.1 | 45.6 | 16.3 | .0 | 46.5 | 10.3 | 28.4 | 14.7 | ENE/24.4% |
| 17 | 2018/年 | 8760(100%) | 33.8 | 11.0/NE | 84.2/ENE | 37.7 | 45.8 | 16.6 | .0 | 46.9 | 10.0 | 28.4 | 14.6 | ENE/24.7% |

4-2-5

表4.2.2c 2018年馬祖海域 Y 站殘流流速及流向重要統計量統計表

| 序 號 | 日期 (年/月) | 觀測 點數 | 流速 平均值 (cm/s) | 平均流 流速/流向 (cm/s)/(來向) | 最大流 流速/流向 (cm/s)/(來向) | 1/2節流 <25.7 (%) | 1節流 ~51.4 (%) | 2節流 ~103 (%) | 大流 >103 (%) | 流向 N~E (%) | 流向 E~S (%) | 流向 S~W (%) | 流向 W~N (%) | 主要流向 方向/百分比 |
|--------|-------------|------------|---------------------|-----------------------------|-----------------------------|-----------------------|---------------------|--------------------|-------------------|------------------|------------------|------------------|------------------|----------------|
| 1 | 2017/12 | 116(16%) | 43.5 | 24.9/SW | 105.3/SW | 22.4 | 43.1 | 33.6 | .9 | 13.8 | 25.0 | 57.8 | 3.4 | WSW/35.3% |
| 2 | 2018/01 | | | | | | | | | | | | | |
| 3 | 2018/02 | | | | | | | | | | | | | |
| 4 | 2018/03 | | | | | | | | | | | | | |
| 5 | 2018/04 | 298(41%) | 40.7 | 7.6/NE | 112.6/ENE | 26.2 | 43.6 | 29.5 | .7 | 43.0 | 7.4 | 31.9 | 17.8 | ENE/24.2% |
| 6 | 2018/05 | 644(87%) | 39.7 | 1.9/NE | 120.3/WSW | 29.2 | 42.5 | 27.2 | 1.1 | 39.4 | 9.5 | 38.8 | 12.3 | ENE/23.0% |
| 7 | 2018/06 | 717(100%) | 41.6 | 7.5/NE | 132.6/E | 30.8 | 37.9 | 29.6 | 1.7 | 43.9 | 10.0 | 29.1 | 16.9 | ENE/23.0% |
| 8 | 2018/07 | 744(100%) | 46.0 | 15.5/NE | 164.4/SW | 24.5 | 37.2 | 35.5 | 2.8 | 49.6 | 7.8 | 21.2 | 21.4 | ENE/23.3% |
| 9 | 2018/08 | 744(100%) | 43.2 | 10.7/NE | 132.8/WSW | 25.7 | 43.1 | 28.9 | 2.3 | 44.0 | 9.4 | 27.4 | 19.2 | ENE/22.3% |
| 10 | 2018/09 | 716(99%) | 49.6 | 1.8/NE | 130.0/SW | 21.5 | 35.6 | 39.5 | 3.4 | 41.9 | 8.7 | 32.7 | 16.8 | ENE/21.1% |
| 11 | 2018/10 | 744(100%) | 53.1 | 21.0/SW | 133.5/SW | 18.5 | 32.3 | 45.4 | 3.8 | 23.5 | 16.8 | 50.5 | 9.1 | WSW/18.1% |
| 12 | 2018/11 | 720(100%) | 47.9 | 15.1/SW | 128.9/ENE | 19.9 | 38.3 | 40.3 | 1.5 | 26.4 | 14.3 | 49.9 | 9.4 | WSW/21.5% |
| 13 | 2018/冬 | 116(5%) | 43.5 | 24.9/SW | 105.3/SW | 22.4 | 43.1 | 33.6 | .9 | 13.8 | 25.0 | 57.8 | 3.4 | WSW/35.3% |
| 14 | 2018/春 | 942(43%) | 40.1 | 3.7/NE | 120.3/WSW | 28.2 | 42.9 | 27.9 | 1.0 | 40.6 | 8.8 | 36.6 | 14.0 | ENE/23.4% |
| 15 | 2018/夏 | 2205(100%) | 43.6 | 11.3/NE | 164.4/SW | 26.9 | 39.5 | 31.3 | 2.3 | 45.9 | 9.1 | 25.9 | 19.2 | ENE/22.9% |
| 16 | 2018/秋 | 2180(100%) | 50.2 | 11.5/SW | 133.5/SW | 20.0 | 35.4 | 41.8 | 2.9 | 30.5 | 13.3 | 44.4 | 11.7 | WSW/17.6% |
| 17 | 2018/年 | 5443(62%) | 45.6 | .2/ESE | 164.4/SW | 24.3 | 38.5 | 35.0 | 2.3 | 38.1 | 11.1 | 35.9 | 15.0 | ENE/19.7% |

4-2-6

表 4.2.3a 2018年馬祖海域 A 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 | 2017/12 | 594(80%) | 44.7 | 30.5/S | 117.2/S | 27.3 | 29.8 | 42.8 | .2 | 10.6 | 21.9 | 53.0 | 14.5 | S /49.0% |
| 2 | 2018/01 | 399(54%) | 43.6 | 30.7/S | 98.7/S | 27.3 | 31.8 | 40.9 | .0 | 9.0 | 36.6 | 39.3 | 15.0 | S /53.9% |
| 3 | 2018/02 | 462(69%) | 41.8 | 29.3/S | 113.6/S | 30.1 | 35.5 | 34.2 | .2 | 9.3 | 35.5 | 39.4 | 15.8 | S /50.4% |
| 4 | 2018/03 | 470(63%) | 40.7 | 27.8/S | 113.2/S | 31.9 | 33.8 | 33.8 | .4 | 9.1 | 41.9 | 31.1 | 17.9 | S /52.3% |
| 5 | 2018/04 | 267(37%) | 42.2 | 27.2/S | 103.3/S | 34.5 | 28.5 | 36.7 | .4 | 12.4 | 43.8 | 29.6 | 14.2 | S /46.4% |
| 6 | 2018/05 | 176(24%) | 39.0 | 27.7/S | 83.3/S | 27.3 | 43.2 | 29.5 | .0 | 6.3 | 51.7 | 29.0 | 13.1 | S /48.3% |
| 7 | 2018/06 | 362(50%) | 39.4 | 26.7/S | 109.3/S | 32.9 | 39.0 | 27.3 | .8 | 8.6 | 50.6 | 26.2 | 14.6 | S /46.1% |
| 8 | 2018/07 | 96(13%) | 29.9 | 15.2/S | 81.3/S | 39.6 | 51.0 | 9.4 | .0 | 12.5 | 41.7 | 28.1 | 17.7 | S /26.0% |
| 9 | 2018/08 | | | | | | | | | | | | | |
| 10 | 2018/09 | 129(18%) | 44.7 | 24.4/S | 106.2/S | 31.0 | 30.2 | 38.0 | .8 | 10.1 | 31.0 | 38.8 | 20.2 | S /39.5% |
| 11 | 2018/10 | 368(50%) | 41.1 | 23.6/S | 100.2/N | 29.6 | 34.0 | 36.4 | .0 | 13.0 | 31.0 | 40.5 | 15.5 | S /50.5% |
| 12 | 2018/11 | 718(100%) | 42.9 | 25.9/S | 110.7/S | 29.0 | 29.2 | 41.6 | .1 | 9.9 | 29.1 | 43.3 | 17.7 | S /50.6% |
| 13 | 2018/冬 | 1455(67%) | 43.5 | 30.1/S | 117.2/S | 28.2 | 32.2 | 39.5 | .1 | 9.8 | 30.2 | 44.9 | 15.1 | S /50.8% |
| 14 | 2018/春 | 913(41%) | 40.8 | 27.6/S | 113.2/S | 31.8 | 34.1 | 33.8 | .3 | 9.5 | 44.4 | 30.2 | 15.9 | S /49.8% |
| 15 | 2018/夏 | 458(21%) | 37.4 | 24.3/S | 109.3/S | 34.3 | 41.5 | 23.6 | .7 | 9.4 | 48.7 | 26.6 | 15.3 | S /41.9% |
| 16 | 2018/秋 | 1215(56%) | 42.6 | 25.0/S | 110.7/S | 29.4 | 30.8 | 39.7 | .2 | 10.9 | 29.9 | 42.0 | 17.3 | S /49.4% |
| 17 | 2018/年 | 4041(46%) | 41.9 | 27.3/S | 117.2/S | 30.0 | 33.2 | 36.5 | .2 | 10.0 | 35.4 | 38.7 | 15.9 | S /49.1% |

4-2-7

表4.2.3b 2018年馬祖海域 A 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 | 2017/12 | 744(100%) | 27.4 | 27.4/S | 39.1/S | 36.0 | 64.0 | .0 | .0 | .0 | 43.0 | 57.0 | .0 | S /*****% |
| 2 | 2018/01 | 744(100%) | 27.3 | 27.3/S | 39.8/S | 38.2 | 61.8 | .0 | .0 | .0 | 43.0 | 57.0 | .0 | S /*****% |
| 3 | 2018/02 | 672(100%) | 27.3 | 27.3/S | 39.8/S | 37.4 | 62.6 | .0 | .0 | .0 | 42.4 | 57.6 | .0 | S /*****% |
| 4 | 2018/03 | 744(100%) | 27.3 | 27.3/S | 39.1/S | 37.6 | 62.4 | .0 | .0 | .0 | 43.0 | 57.0 | .0 | S /*****% |
| 5 | 2018/04 | 720(100%) | 27.3 | 27.3/S | 37.9/S | 37.4 | 62.6 | .0 | .0 | .0 | 43.6 | 56.4 | .0 | S /*****% |
| 6 | 2018/05 | 744(100%) | 27.4 | 27.3/S | 38.7/S | 37.0 | 63.0 | .0 | .0 | .0 | 43.1 | 56.9 | .0 | S /*****% |
| 7 | 2018/06 | 720(100%) | 27.4 | 27.3/S | 39.2/S | 37.5 | 62.5 | .0 | .0 | .0 | 42.8 | 57.2 | .0 | S /*****% |
| 8 | 2018/07 | 744(100%) | 27.4 | 27.3/S | 39.8/S | 38.0 | 62.0 | .0 | .0 | .0 | 42.7 | 57.3 | .0 | S /*****% |
| 9 | 2018/08 | 744(100%) | 27.3 | 27.3/S | 39.7/S | 37.8 | 62.2 | .0 | .0 | .0 | 43.5 | 56.5 | .0 | S /*****% |
| 10 | 2018/09 | 720(100%) | 27.3 | 27.3/S | 39.0/S | 37.9 | 62.1 | .0 | .0 | .0 | 42.1 | 57.9 | .0 | S /*****% |
| 11 | 2018/10 | 744(100%) | 27.3 | 27.3/S | 38.0/S | 36.4 | 63.6 | .0 | .0 | .0 | 41.9 | 58.1 | .0 | S /*****% |
| 12 | 2018/11 | 720(100%) | 27.4 | 27.3/S | 38.9/S | 36.7 | 63.3 | .0 | .0 | .0 | 43.1 | 56.9 | .0 | S /*****% |
| 13 | 2018/冬 | 2160(100%) | 27.4 | 27.3/S | 39.8/S | 37.2 | 62.8 | .0 | .0 | .0 | 42.8 | 57.2 | .0 | S /*****% |
| 14 | 2018/春 | 2208(100%) | 27.3 | 27.3/S | 39.1/S | 37.3 | 62.7 | .0 | .0 | .0 | 43.3 | 56.7 | .0 | S /*****% |
| 15 | 2018/夏 | 2208(100%) | 27.4 | 27.3/S | 39.8/S | 37.8 | 62.2 | .0 | .0 | .0 | 43.0 | 57.0 | .0 | S /*****% |
| 16 | 2018/秋 | 2184(100%) | 27.3 | 27.3/S | 39.0/S | 37.0 | 63.0 | .0 | .0 | .0 | 42.4 | 57.6 | .0 | S /*****% |
| 17 | 2018/年 | 8760(100%) | 27.4 | 27.3/S | 39.8/S | 37.3 | 62.7 | .0 | .0 | .0 | 42.9 | 57.1 | .0 | S /*****% |

4-2-8

表4.2.3c 2018年馬祖海域 A 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 | 2017/12 | 594(80%) | 36.5 | 4.0/SW | 107.6/N | 31.6 | 47.5 | 20.7 | .2 | 19.5 | 13.1 | 44.3 | 23.1 | N /27.6% |
| 2 | 2018/01 | 399(54%) | 35.1 | 3.4/S | 98.4/N | 34.6 | 47.6 | 17.8 | .0 | 19.3 | 27.8 | 32.6 | 20.3 | S /34.6% |
| 3 | 2018/02 | 462(69%) | 33.8 | 2.1/S | 90.9/N | 39.8 | 40.3 | 19.9 | .0 | 21.2 | 25.3 | 32.7 | 20.8 | S /33.1% |
| 4 | 2018/03 | 470(63%) | 33.9 | .8/SE | 94.7/N | 38.1 | 43.0 | 18.9 | .0 | 17.9 | 33.6 | 23.4 | 25.1 | S /33.0% |
| 5 | 2018/04 | 267(37%) | 35.3 | 2.2/E | 102.4/N | 36.3 | 43.8 | 19.9 | .0 | 25.1 | 32.6 | 22.1 | 20.2 | S /28.5% |
| 6 | 2018/05 | 176(24%) | 30.4 | 2.5/SE | 79.8/N | 47.2 | 38.6 | 14.2 | .0 | 19.3 | 40.3 | 19.3 | 21.0 | S /28.4% |
| 7 | 2018/06 | 362(50%) | 32.3 | 2.3/E | 90.8/N | 44.5 | 37.3 | 18.2 | .0 | 22.9 | 37.0 | 18.2 | 21.8 | S /29.8% |
| 8 | 2018/07 | 96(13%) | 28.8 | 12.5/N | 82.9/N | 47.9 | 37.5 | 14.6 | .0 | 31.3 | 24.0 | 15.6 | 29.2 | N /28.1% |
| 9 | 2018/08 | | | | | | | | | | | | | |
| 10 | 2018/09 | 129(18%) | 39.2 | 3.1/NNW | 92.2/N | 32.6 | 35.7 | 31.8 | .0 | 22.5 | 18.6 | 28.7 | 30.2 | N /27.1% |
| 11 | 2018/10 | 368(50%) | 35.7 | 3.7/N | 127.9/N | 37.8 | 42.1 | 19.6 | .5 | 22.8 | 22.0 | 31.8 | 23.4 | N /32.1% |
| 12 | 2018/11 | 718(100%) | 36.7 | 1.7/NNW | 110.1/N | 33.8 | 43.9 | 22.1 | .1 | 18.0 | 22.1 | 34.1 | 25.8 | N /33.7% |
| 13 | 2018/冬 | 1455(67%) | 35.3 | 3.0/SSW | 107.6/N | 35.1 | 45.2 | 19.7 | .1 | 20.0 | 21.0 | 37.4 | 21.6 | S /31.2% |
| 14 | 2018/春 | 913(41%) | 33.6 | 1.4/ESE | 102.4/N | 39.3 | 42.4 | 18.3 | .0 | 20.3 | 34.6 | 22.2 | 22.9 | S /30.8% |
| 15 | 2018/夏 | 458(21%) | 31.5 | 3.4/NE | 90.8/N | 45.2 | 37.3 | 17.5 | .0 | 24.7 | 34.3 | 17.7 | 23.4 | S /24.7% |
| 16 | 2018/秋 | 1215(56%) | 36.6 | 2.4/NNW | 127.9/N | 34.9 | 42.5 | 22.4 | .2 | 19.9 | 21.7 | 32.8 | 25.5 | N /32.5% |
| 17 | 2018/年 | 4041(46%) | 34.9 | .1/S | 127.9/N | 37.1 | 42.9 | 19.9 | .1 | 20.6 | 25.8 | 30.4 | 23.3 | S /30.4% |

4-2-9

表 4.2.4a 2018 年馬祖海域 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 | 2017/12 | 743(100%) | 22.7 | 15.2/SSE | 79.3/SSE | 65.0 | 31.5 | 3.5 | .0 | 3.6 | 60.0 | 18.8 | 17.5 | SSE/26.0% |
| 2 | 2018/01 | 724(97%) | 20.6 | 11.4/SSE | 70.0/SE | 72.1 | 24.3 | 3.6 | .0 | 5.1 | 54.6 | 20.3 | 20.0 | SE /27.1% |
| 3 | 2018/02 | 671(100%) | 19.9 | 10.9/SSE | 81.7/SE | 75.4 | 21.5 | 3.1 | .0 | 4.6 | 58.4 | 14.8 | 22.2 | SE /31.6% |
| 4 | 2018/03 | 734(99%) | 19.5 | 11.2/SE | 66.8/SE | 74.8 | 23.6 | 1.6 | .0 | 7.6 | 58.2 | 15.1 | 19.1 | SE /27.7% |
| 5 | 2018/04 | 711(99%) | 18.6 | 7.8/SSE | 77.1/SE | 79.5 | 19.5 | 1.0 | .0 | 8.0 | 49.4 | 20.0 | 22.6 | SE /17.2% |
| 6 | 2018/05 | 740(100%) | 18.2 | 3.6/E | 58.8/NNW | 77.6 | 21.9 | .5 | .0 | 10.5 | 46.9 | 11.5 | 31.1 | SE /19.1% |
| 7 | 2018/06 | 696(97%) | 19.0 | 4.8/ESE | 55.9/NNW | 75.4 | 23.9 | .7 | .0 | 9.3 | 47.8 | 10.2 | 32.6 | SE /22.4% |
| 8 | 2018/07 | 743(100%) | 22.1 | 4.0/ESE | 77.8/SE | 65.7 | 31.5 | 2.8 | .0 | 13.2 | 41.5 | 10.0 | 35.4 | SE /19.0% |
| 9 | 2018/08 | 743(100%) | 21.0 | 4.1/ESE | 56.9/SSE | 67.6 | 31.8 | .7 | .0 | 12.7 | 43.2 | 11.4 | 32.7 | ESE/13.2% |
| 10 | 2018/09 | 706(98%) | 22.1 | 6.2/SE | 84.9/WNW | 68.3 | 27.9 | 3.8 | .0 | 8.5 | 45.8 | 16.9 | 28.9 | SE /22.5% |
| 11 | 2018/10 | 735(99%) | 19.5 | 9.7/SE | 62.8/SE | 74.1 | 23.9 | 1.9 | .0 | 6.3 | 54.1 | 16.1 | 23.5 | SE /28.3% |
| 12 | 2018/11 | 712(99%) | 20.9 | 13.2/SE | 63.5/SE | 68.3 | 29.5 | 2.2 | .0 | 5.1 | 64.0 | 13.3 | 17.6 | SE /38.8% |
| 13 | 2018/冬 | 2138(99%) | 21.1 | 12.6/SSE | 81.7/SE | 70.7 | 25.9 | 3.4 | .0 | 4.4 | 57.7 | 18.1 | 19.8 | SE /27.2% |
| 14 | 2018/春 | 2185(99%) | 18.8 | 7.2/SE | 77.1/SE | 77.3 | 21.7 | 1.1 | .0 | 8.7 | 51.5 | 15.5 | 24.3 | SE /21.3% |
| 15 | 2018/夏 | 2182(99%) | 20.8 | 4.3/ESE | 77.8/SE | 69.4 | 29.1 | 1.4 | .0 | 11.8 | 44.1 | 10.5 | 33.6 | SE /18.0% |
| 16 | 2018/秋 | 2153(99%) | 20.8 | 9.7/SE | 84.9/WNW | 70.3 | 27.1 | 2.6 | .0 | 6.6 | 54.7 | 15.4 | 23.3 | SE /29.9% |
| 17 | 2018/年 | 8658(99%) | 20.4 | 8.2/SE | 84.9/WNW | 71.9 | 26.0 | 2.1 | .0 | 7.9 | 51.9 | 14.9 | 25.3 | SE /24.1% |

4-2-10

表4.2.4b 2018年馬祖海域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 | 平均流 | 最大流 | 1/2節流 | 1節流 | 2節流 | 大流 | 流向 | 流向 | 流向 | 流向 | 主要流向 方向/百分比 |
|--------|-------------|------------|---------------|----------------------|----------------------|--------------|--------------|-------------|-------------|------------|------------|------------|------------|----------------|
| | | | 平均值 (cm/s) | 流速/流向 (cm/s)/(來向) | 流速/流向 (cm/s)/(來向) | <25.7 (%) | ~51.4 (%) | ~103 (%) | >103 (%) | N~E (%) | E~S (%) | S~W (%) | W~N (%) | |
| 1 | 2017/12 | 744(100%) | 12.1 | 8.2/SE | 30.3/SE | 95.2 | 4.8 | .0 | .0 | 2.3 | 63.6 | 5.5 | 28.6 | SE /44.5% |
| 2 | 2018/01 | 744(100%) | 12.2 | 8.2/SE | 30.8/SE | 94.9 | 5.1 | .0 | .0 | 3.4 | 62.6 | 5.9 | 28.1 | SE /44.4% |
| 3 | 2018/02 | 672(100%) | 12.0 | 8.2/SE | 30.5/SE | 96.4 | 3.6 | .0 | .0 | 2.4 | 64.1 | 7.0 | 26.5 | SE /45.8% |
| 4 | 2018/03 | 744(100%) | 12.3 | 8.2/SE | 30.3/SE | 94.4 | 5.6 | .0 | .0 | 3.1 | 63.2 | 7.0 | 26.7 | SE /46.2% |
| 5 | 2018/04 | 720(100%) | 12.1 | 8.2/SE | 29.9/SE | 94.0 | 6.0 | .0 | .0 | 2.5 | 64.4 | 6.3 | 26.8 | SE /46.3% |
| 6 | 2018/05 | 744(100%) | 12.1 | 8.2/SE | 29.1/SE | 94.4 | 5.6 | .0 | .0 | 2.4 | 64.7 | 6.0 | 26.9 | SE /47.2% |
| 7 | 2018/06 | 720(100%) | 11.9 | 8.2/SE | 29.8/SE | 95.8 | 4.2 | .0 | .0 | 3.3 | 64.2 | 5.8 | 26.7 | SE /46.3% |
| 8 | 2018/07 | 744(100%) | 11.9 | 8.2/SE | 30.4/SE | 96.0 | 4.0 | .0 | .0 | 3.2 | 63.4 | 7.0 | 26.3 | SE /45.6% |
| 9 | 2018/08 | 744(100%) | 11.9 | 8.2/SE | 30.9/SE | 95.8 | 4.2 | .0 | .0 | 2.6 | 63.3 | 7.4 | 26.7 | SE /44.9% |
| 10 | 2018/09 | 720(100%) | 12.0 | 8.2/SE | 30.6/SE | 96.0 | 4.0 | .0 | .0 | 2.8 | 63.8 | 6.1 | 27.4 | SE /44.6% |
| 11 | 2018/10 | 744(100%) | 12.0 | 8.2/SE | 29.8/SE | 94.9 | 5.1 | .0 | .0 | 3.1 | 64.4 | 5.9 | 26.6 | SE /47.2% |
| 12 | 2018/11 | 720(100%) | 12.1 | 8.2/SE | 29.5/SE | 94.4 | 5.6 | .0 | .0 | 2.9 | 64.9 | 5.8 | 26.4 | SE /47.5% |
| 13 | 2018/冬 | 2160(100%) | 12.1 | 8.2/SE | 30.8/SE | 95.5 | 4.5 | .0 | .0 | 2.7 | 63.4 | 6.1 | 27.8 | SE /44.9% |
| 14 | 2018/春 | 2208(100%) | 12.2 | 8.2/SE | 30.3/SE | 94.2 | 5.8 | .0 | .0 | 2.7 | 64.1 | 6.4 | 26.8 | SE /46.6% |
| 15 | 2018/夏 | 2208(100%) | 11.9 | 8.2/SE | 30.9/SE | 95.9 | 4.1 | .0 | .0 | 3.0 | 63.6 | 6.7 | 26.6 | SE /45.6% |
| 16 | 2018/秋 | 2184(100%) | 12.0 | 8.2/SE | 30.6/SE | 95.1 | 4.9 | .0 | .0 | 2.9 | 64.3 | 6.0 | 26.8 | SE /46.4% |
| 17 | 2018/年 | 8760(100%) | 12.0 | 8.2/SE | 30.9/SE | 95.2 | 4.8 | .0 | .0 | 2.8 | 63.9 | 6.3 | 27.0 | SE /45.9% |

4-2-11

表4.2.4c 2018年馬祖海域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 | 2017/12 | 743(100%) | 16.3 | 7.7/S | 73.6/SSE | 82.5 | 16.6 | .9 | .0 | 5.4 | 43.1 | 30.1 | 21.4 | SSE/19.9% |
| 2 | 2018/01 | 724(97%) | 16.4 | 4.1/S | 60.5/NNW | 80.8 | 18.5 | .7 | .0 | 5.8 | 39.6 | 21.0 | 33.6 | SSE/14.5% |
| 3 | 2018/02 | 671(100%) | 13.5 | 2.9/SSE | 60.1/SSE | 88.7 | 10.1 | 1.2 | .0 | 8.6 | 39.0 | 18.9 | 33.4 | SE /13.9% |
| 4 | 2018/03 | 734(99%) | 13.7 | 3.0/SSE | 60.4/SE | 88.0 | 11.4 | .5 | .0 | 12.9 | 39.2 | 18.8 | 29.0 | SE /14.6% |
| 5 | 2018/04 | 711(99%) | 15.8 | 1.4/WSW | 79.4/SE | 85.0 | 13.9 | 1.1 | .0 | 15.6 | 25.6 | 19.3 | 39.5 | NNW/11.7% |
| 6 | 2018/05 | 740(100%) | 15.2 | 6.0/NNW | 62.2/NW | 85.8 | 13.2 | .9 | .0 | 19.3 | 20.9 | 11.5 | 48.2 | NNW/17.0% |
| 7 | 2018/06 | 696(97%) | 14.9 | 4.6/N | 54.1/NNW | 88.1 | 11.4 | .6 | .0 | 18.1 | 26.4 | 9.9 | 45.5 | NW /16.4% |
| 8 | 2018/07 | 743(100%) | 17.8 | 5.2/NNW | 60.3/NW | 78.6 | 20.7 | .7 | .0 | 20.6 | 25.0 | 14.7 | 39.7 | NNW/16.6% |
| 9 | 2018/08 | 743(100%) | 18.1 | 4.9/NNW | 54.0/SSE | 78.6 | 21.3 | .1 | .0 | 19.1 | 24.4 | 13.5 | 43.1 | NNW/16.6% |
| 10 | 2018/09 | 706(98%) | 18.2 | 1.9/NNW | 77.9/WNW | 77.8 | 20.5 | 1.7 | .0 | 16.4 | 30.9 | 13.2 | 39.5 | NW /15.6% |
| 11 | 2018/10 | 735(99%) | 14.3 | 1.5/SE | 60.9/ESE | 86.9 | 12.5 | .5 | .0 | 10.6 | 39.3 | 16.9 | 33.2 | SE /13.1% |
| 12 | 2018/11 | 712(99%) | 14.3 | 5.1/SE | 63.0/ESE | 88.5 | 10.8 | .7 | .0 | 10.4 | 53.2 | 11.7 | 24.7 | SE /21.3% |
| 13 | 2018/冬 | 2138(99%) | 15.5 | 4.9/S | 73.6/SSE | 83.9 | 15.2 | .9 | .0 | 6.5 | 40.6 | 23.5 | 29.3 | SSE/16.1% |
| 14 | 2018/春 | 2185(99%) | 14.9 | 1.1/NNW | 79.4/SE | 86.3 | 12.9 | .9 | .0 | 16.0 | 28.6 | 16.5 | 38.9 | NNW/12.7% |
| 15 | 2018/夏 | 2182(99%) | 17.0 | 4.9/NNW | 60.3/NW | 81.6 | 17.9 | .5 | .0 | 19.3 | 25.3 | 12.7 | 42.7 | NNW/16.2% |
| 16 | 2018/秋 | 2153(99%) | 15.6 | 1.6/SE | 77.9/WNW | 84.4 | 14.6 | 1.0 | .0 | 12.4 | 41.2 | 13.9 | 32.5 | SE /15.6% |
| 17 | 2018/年 | 8658(99%) | 15.7 | .0/SE | 79.4/SE | 84.0 | 15.1 | .8 | .0 | 13.6 | 33.9 | 16.6 | 35.9 | NW /12.2% |

4-2-12

表4.2.5a 2018年馬祖海域3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 | 2017/12 | 744(100%) | 21.0 | 15.8/SW | 83.8/SW | 73.0 | 21.9 | 5.1 | .0 | 9.5 | 10.3 | 74.2 | 5.9 | SW /31.9% |
| 2 | 2018/01 | 744(100%) | 19.9 | 8.6/SW | 80.1/SW | 73.5 | 21.9 | 4.6 | .0 | 21.8 | 13.0 | 57.4 | 7.8 | SW /26.2% |
| 3 | 2018/02 | 672(100%) | 18.6 | 6.8/SW | 79.1/WSW | 75.9 | 21.0 | 3.1 | .0 | 21.7 | 15.8 | 55.8 | 6.7 | SW /22.8% |
| 4 | 2018/03 | 744(100%) | 22.4 | 5.4/SW | 84.4/SW | 64.7 | 30.2 | 5.1 | .0 | 29.8 | 11.6 | 52.4 | 6.2 | SW /23.5% |
| 5 | 2018/04 | 489(68%) | 23.5 | 4.5/SSW | 88.0/SW | 62.8 | 32.3 | 4.9 | .0 | 31.9 | 14.9 | 49.7 | 3.5 | SW /23.9% |
| 6 | 2018/05 | | | | | | | | | | | | | |
| 7 | 2018/06 | | | | | | | | | | | | | |
| 8 | 2018/07 | | | | | | | | | | | | | |
| 9 | 2018/08 | 177(24%) | 23.3 | 7.4/ENE | 68.8/NNE | 61.6 | 31.1 | 7.3 | .0 | 43.5 | 20.9 | 30.5 | 5.1 | NE /23.7% |
| 10 | 2018/09 | 400(56%) | 30.8 | 18.9/SSW | 86.2/SW | 48.0 | 34.0 | 18.0 | .0 | 21.0 | 13.0 | 61.3 | 4.8 | SSW/33.5% |
| 11 | 2018/10 | 718(97%) | 31.9 | 20.4/SSW | 92.0/SSW | 35.7 | 53.1 | 11.3 | .0 | 21.4 | 8.5 | 66.7 | 3.3 | SSW/44.7% |
| 12 | 2018/11 | 359(50%) | 34.3 | 25.4/SSW | 76.1/SW | 30.4 | 53.2 | 16.4 | .0 | 16.7 | 9.2 | 71.0 | 3.1 | SSW/44.3% |
| 13 | 2018/冬 | 2160(100%) | 19.9 | 10.5/SW | 83.8/SW | 74.1 | 21.6 | 4.3 | .0 | 17.5 | 13.0 | 62.7 | 6.8 | SW /27.1% |
| 14 | 2018/春 | 1233(56%) | 22.9 | 5.0/SW | 88.0/SW | 63.9 | 31.1 | 5.0 | .0 | 30.7 | 12.9 | 51.3 | 5.1 | SW /23.7% |
| 15 | 2018/夏 | 177(8%) | 23.3 | 7.4/ENE | 68.8/NNE | 61.6 | 31.1 | 7.3 | .0 | 43.5 | 20.9 | 30.5 | 5.1 | NE /23.7% |
| 16 | 2018/秋 | 1477(68%) | 32.2 | 21.2/SSW | 92.0/SSW | 37.7 | 47.9 | 14.4 | .0 | 20.2 | 9.9 | 66.3 | 3.7 | SSW/41.6% |
| 17 | 2018/年 | 5047(58%) | 24.3 | 11.6/SSW | 92.0/SSW | 60.5 | 32.0 | 7.5 | .0 | 22.4 | 12.3 | 59.8 | 5.4 | SW /21.8% |

4-2-13

表4.2.5b 2018年馬祖海域3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 | 2017/12 | 744(100%) | 16.1 | 11.6/SSW | 41.1/SW | 74.7 | 25.3 | .0 | .0 | 27.2 | 7.7 | 65.2 | .0 | SW /39.5% |
| 2 | 2018/01 | 744(100%) | 16.4 | 11.6/SSW | 41.9/SW | 74.5 | 25.5 | .0 | .0 | 26.1 | 7.4 | 66.5 | .0 | SW /40.2% |
| 3 | 2018/02 | 672(100%) | 16.2 | 11.6/SSW | 40.8/SW | 74.9 | 25.1 | .0 | .0 | 24.1 | 8.6 | 67.3 | .0 | SW /41.2% |
| 4 | 2018/03 | 744(100%) | 16.4 | 11.6/SSW | 39.1/SW | 74.2 | 25.8 | .0 | .0 | 24.7 | 8.7 | 66.5 | .0 | SW /39.2% |
| 5 | 2018/04 | 720(100%) | 16.0 | 11.6/SSW | 37.9/SW | 74.4 | 25.6 | .0 | .0 | 26.1 | 7.6 | 66.3 | .0 | SW /37.1% |
| 6 | 2018/05 | 744(100%) | 15.9 | 11.5/SSW | 39.7/SW | 75.9 | 24.1 | .0 | .0 | 25.8 | 7.7 | 66.4 | .1 | SW /37.6% |
| 7 | 2018/06 | 720(100%) | 15.9 | 11.6/SSW | 41.5/SW | 76.0 | 24.0 | .0 | .0 | 25.1 | 8.3 | 66.5 | .0 | SW /37.8% |
| 8 | 2018/07 | 744(100%) | 16.0 | 11.6/SSW | 41.7/SW | 75.3 | 24.7 | .0 | .0 | 24.7 | 8.6 | 66.7 | .0 | SW /40.3% |
| 9 | 2018/08 | 744(100%) | 16.1 | 11.6/SSW | 40.5/SW | 74.6 | 25.4 | .0 | .0 | 24.6 | 8.2 | 67.2 | .0 | SW /40.2% |
| 10 | 2018/09 | 720(100%) | 16.2 | 11.6/SSW | 39.0/SW | 74.9 | 25.1 | .0 | .0 | 24.6 | 8.5 | 66.9 | .0 | SW /38.5% |
| 11 | 2018/10 | 744(100%) | 16.1 | 11.6/SSW | 37.9/SW | 75.7 | 24.3 | .0 | .0 | 25.0 | 8.7 | 66.3 | .0 | SW /37.6% |
| 12 | 2018/11 | 720(100%) | 16.0 | 11.6/SSW | 39.9/SW | 75.7 | 24.3 | .0 | .0 | 26.4 | 7.8 | 65.7 | .1 | SW /38.1% |
| 13 | 2018/冬 | 2160(100%) | 16.2 | 11.6/SSW | 41.9/SW | 74.7 | 25.3 | .0 | .0 | 25.8 | 7.9 | 66.3 | .0 | SW /40.3% |
| 14 | 2018/春 | 2208(100%) | 16.1 | 11.6/SSW | 39.7/SW | 74.9 | 25.1 | .0 | .0 | 25.5 | 8.0 | 66.4 | .0 | SW /38.0% |
| 15 | 2018/夏 | 2208(100%) | 16.0 | 11.6/SSW | 41.7/SW | 75.3 | 24.7 | .0 | .0 | 24.8 | 8.4 | 66.8 | .0 | SW /39.4% |
| 16 | 2018/秋 | 2184(100%) | 16.1 | 11.6/SSW | 39.9/SW | 75.4 | 24.6 | .0 | .0 | 25.3 | 8.3 | 66.3 | .0 | SW /38.0% |
| 17 | 2018/年 | 8760(100%) | 16.1 | 11.6/SSW | 41.9/SW | 75.1 | 24.9 | .0 | .0 | 25.4 | 8.2 | 66.4 | .0 | SW /38.9% |

4-2-14

表4.2.5c 2018年馬祖海域3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 | 2017/12 | 744(100%) | 15.5 | 5.0/WSW | 48.2/NE | 88.6 | 11.4 | .0 | .0 | 23.7 | 8.3 | 50.9 | 17.1 | SW /18.8% |
| 2 | 2018/01 | 744(100%) | 15.9 | 3.6/N | 55.1/WSW | 82.9 | 16.9 | .1 | .0 | 43.7 | 7.4 | 32.9 | 16.0 | NNE/20.4% |
| 3 | 2018/02 | 672(100%) | 15.8 | 5.0/NNE | 48.5/NE | 84.4 | 15.6 | .0 | .0 | 42.9 | 10.3 | 26.9 | 19.9 | NE /19.6% |
| 4 | 2018/03 | 744(100%) | 17.9 | 6.3/NNE | 58.7/NE | 78.6 | 20.6 | .8 | .0 | 48.7 | 10.8 | 23.7 | 16.9 | NNE/19.8% |
| 5 | 2018/04 | 489(68%) | 19.3 | 6.9/NNE | 61.8/SW | 74.8 | 22.9 | 2.2 | .0 | 50.9 | 12.1 | 24.5 | 12.5 | NE /19.8% |
| 6 | 2018/05 | | | | | | | | | | | | | |
| 7 | 2018/06 | | | | | | | | | | | | | |
| 8 | 2018/07 | | | | | | | | | | | | | |
| 9 | 2018/08 | 177(24%) | 24.9 | 18.4/NE | 65.9/NE | 54.2 | 41.8 | 4.0 | .0 | 70.6 | 7.9 | 11.3 | 10.2 | NE /32.2% |
| 10 | 2018/09 | 400(56%) | 22.1 | 7.5/SSW | 66.3/N | 67.3 | 28.8 | 4.0 | .0 | 31.5 | 14.5 | 45.5 | 8.5 | SSW/23.0% |
| 11 | 2018/10 | 718(97%) | 20.6 | 9.0/SSW | 72.9/SSW | 70.3 | 27.6 | 2.1 | .0 | 22.4 | 21.4 | 44.8 | 11.3 | SSW/25.5% |
| 12 | 2018/11 | 359(50%) | 22.9 | 14.0/SSW | 69.2/SSW | 64.3 | 32.0 | 3.6 | .0 | 14.8 | 22.3 | 55.4 | 7.5 | SSW/29.2% |
| 13 | 2018/冬 | 2160(100%) | 15.7 | 2.3/NNW | 55.1/WSW | 85.3 | 14.6 | .0 | .0 | 36.5 | 8.6 | 37.3 | 17.6 | NNE/15.3% |
| 14 | 2018/春 | 1233(56%) | 18.5 | 6.5/NNE | 61.8/SW | 77.1 | 21.5 | 1.4 | .0 | 49.6 | 11.3 | 24.0 | 15.2 | NNE/19.4% |
| 15 | 2018/夏 | 177(8%) | 24.9 | 18.4/NE | 65.9/NE | 54.2 | 41.8 | 4.0 | .0 | 70.6 | 7.9 | 11.3 | 10.2 | NE /32.2% |
| 16 | 2018/秋 | 1477(68%) | 21.6 | 9.8/SSW | 72.9/SSW | 68.0 | 29.0 | 3.0 | .0 | 23.0 | 19.8 | 47.6 | 9.6 | SSW/25.7% |
| 17 | 2018/年 | 5047(58%) | 18.4 | .0/N | 72.9/SSW | 77.2 | 21.5 | 1.4 | .0 | 37.0 | 12.5 | 36.1 | 14.4 | NNE/14.8% |

4-2-15

4.3 2018 年馬祖海域各測站觀測海流與 計算潮流(殘流)歷線比較圖

Current Speed in Ma-Tsu Harbor of MSX0 at 2018

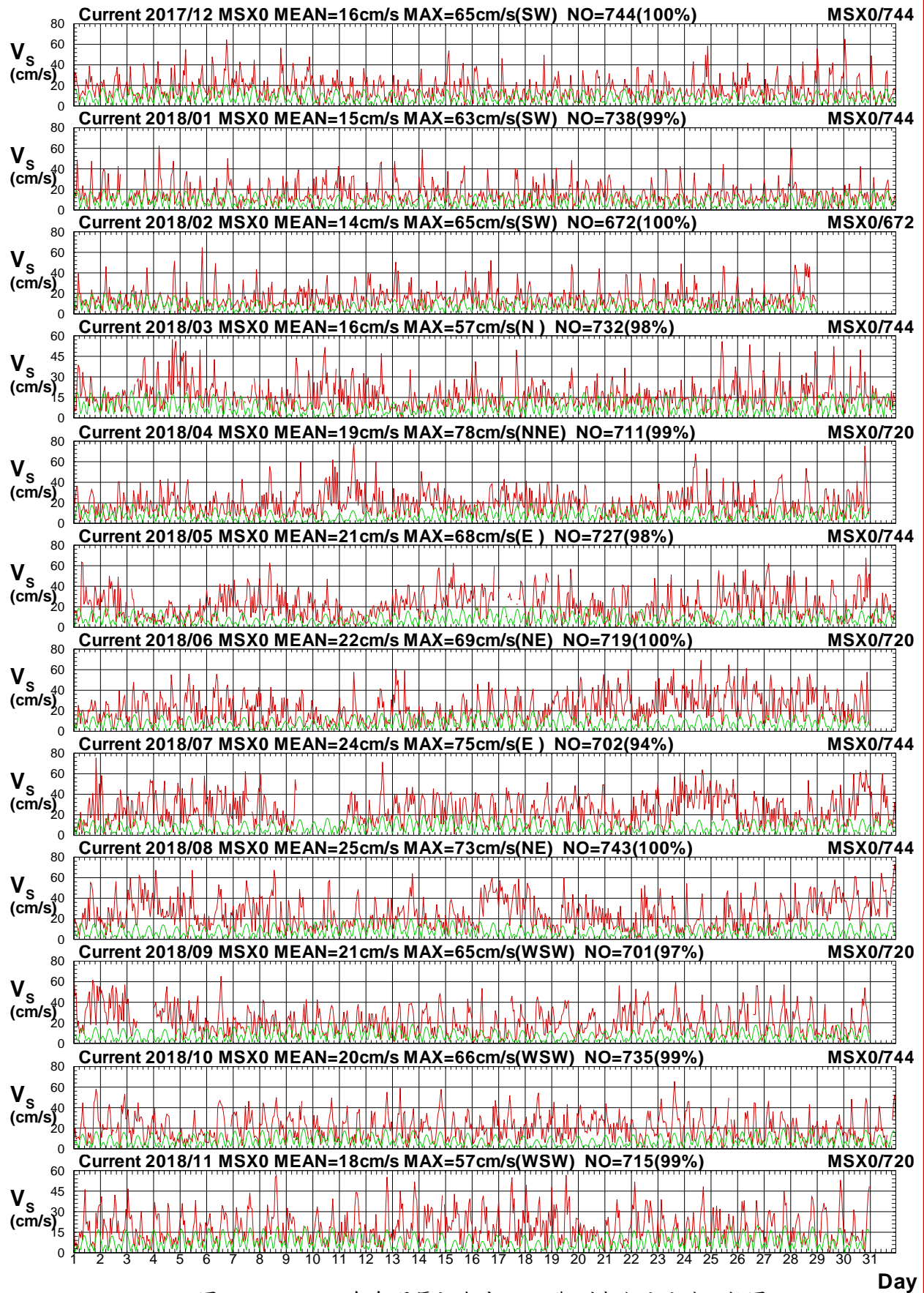


圖4.3.1a 2018年每月馬祖海域 X 站觀測與潮流流速比較圖

C17CMSX0.1H0 C17CMSX0.1HD C181MSX0.1H0 C181MSX0.1HD C182MSX0.1H0 C182MSX0.1HD
 C183MSX0.1H0 C183MSX0.1HD C184MSX0.1H0 C184MSX0.1HD C185MSX0.1H0 C185MSX0.1HD

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSX0 at 2018

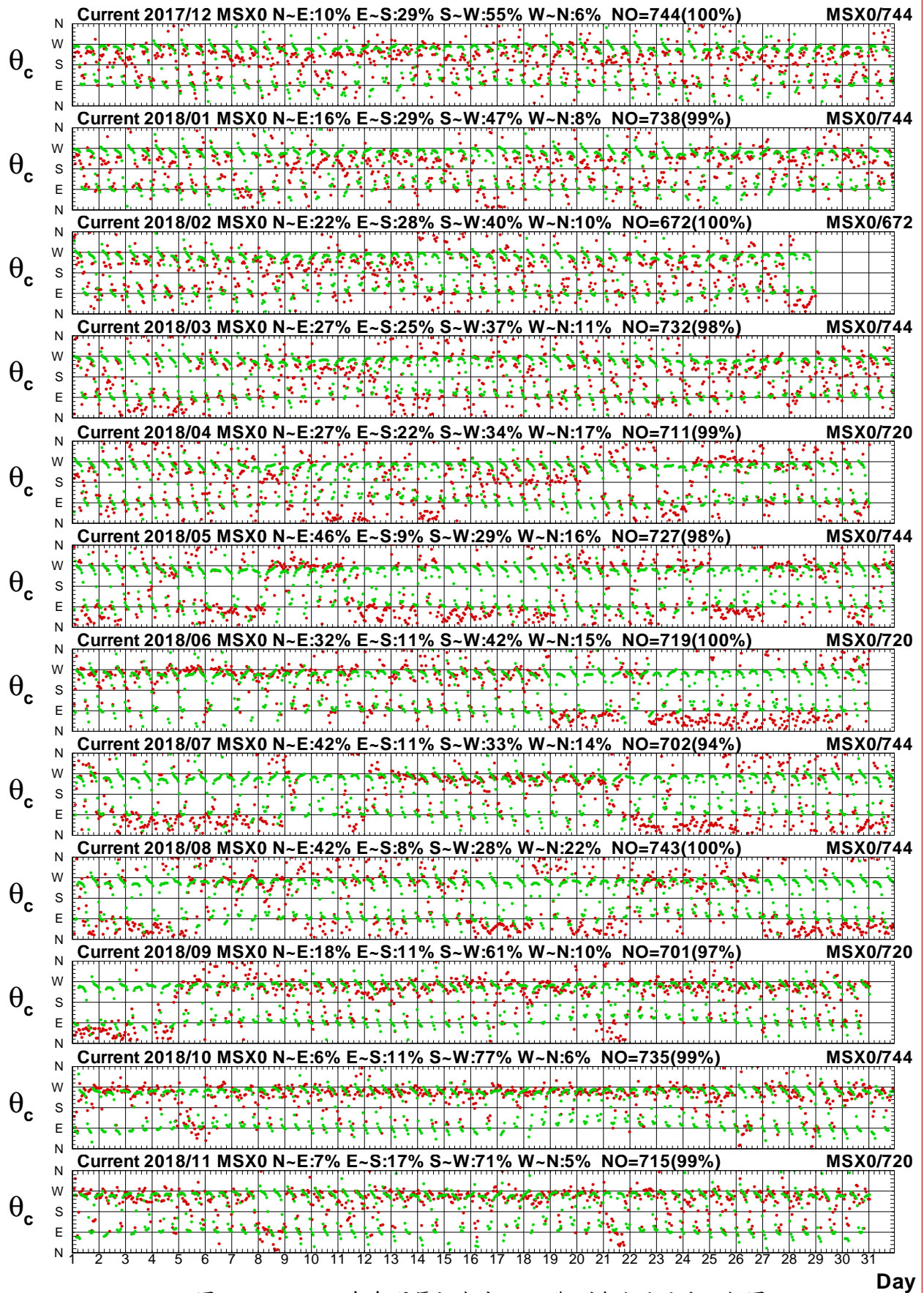


圖4.3.1b 2018年每月馬祖海域 X 站觀測與潮流流向比較圖

C17CMSX0.1H0 C17CMSX0.1HD C181MSX0.1H0 C181MSX0.1HD C182MSX0.1H0 C182MSX0.1HD
 C183MSX0.1H0 C183MSX0.1HD C184MSX0.1H0 C184MSX0.1HD C185MSX0.1H0 C185MSX0.1HD

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MSX0 at 2018

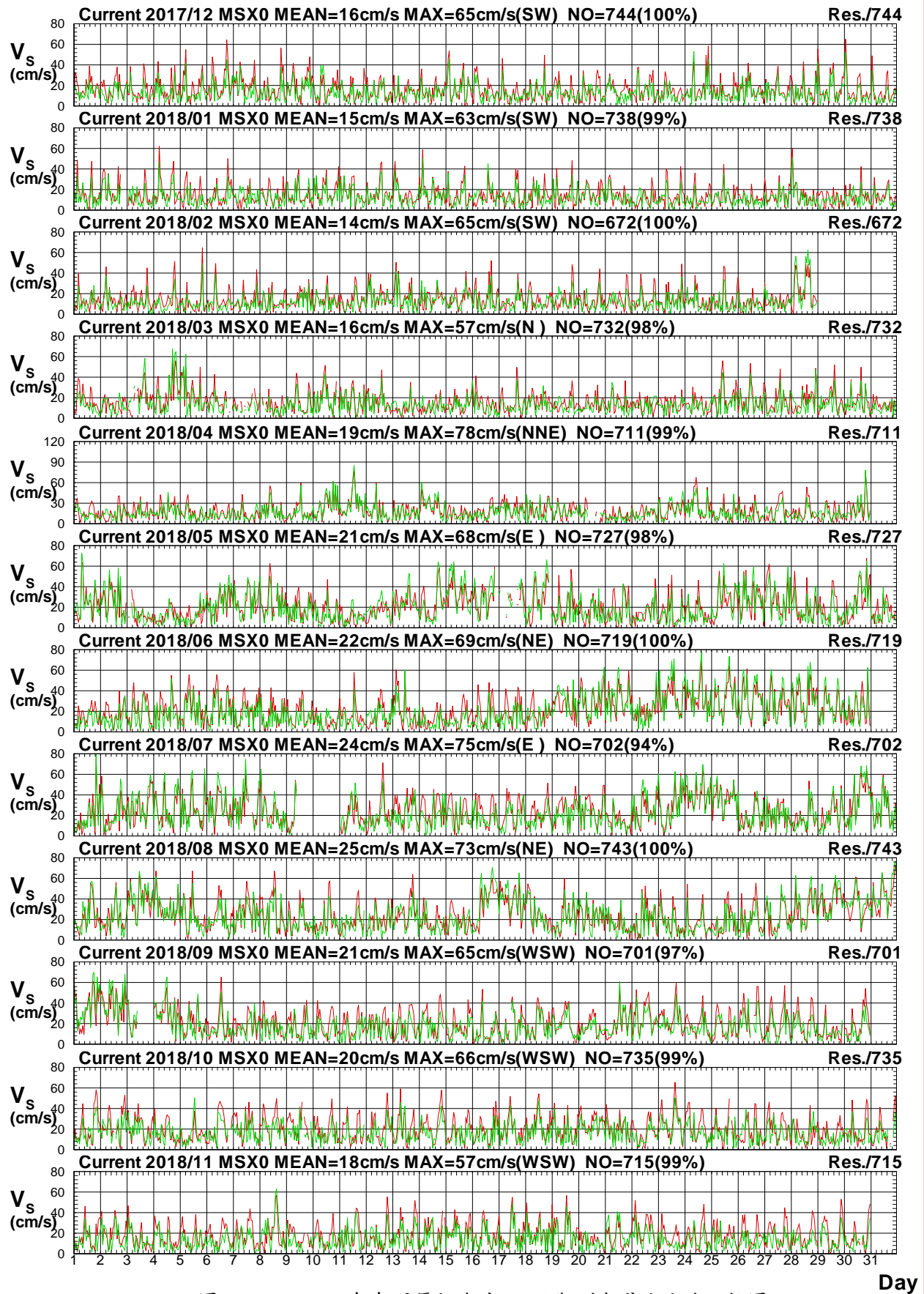


圖4.3.2a 2018年每月馬祖海域 X 站觀測與殘流流速比較圖

C17CMSX0.1H0 C17CMSX0.1HR C181MSX0.1H0 C181MSX0.1HR C182MSX0.1H0 C182MSX0.1HR
 C183MSX0.1H0 C183MSX0.1HR C184MSX0.1H0 C184MSX0.1HR C185MSX0.1H0 C185MSX0.1HR

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSX0 at 2018

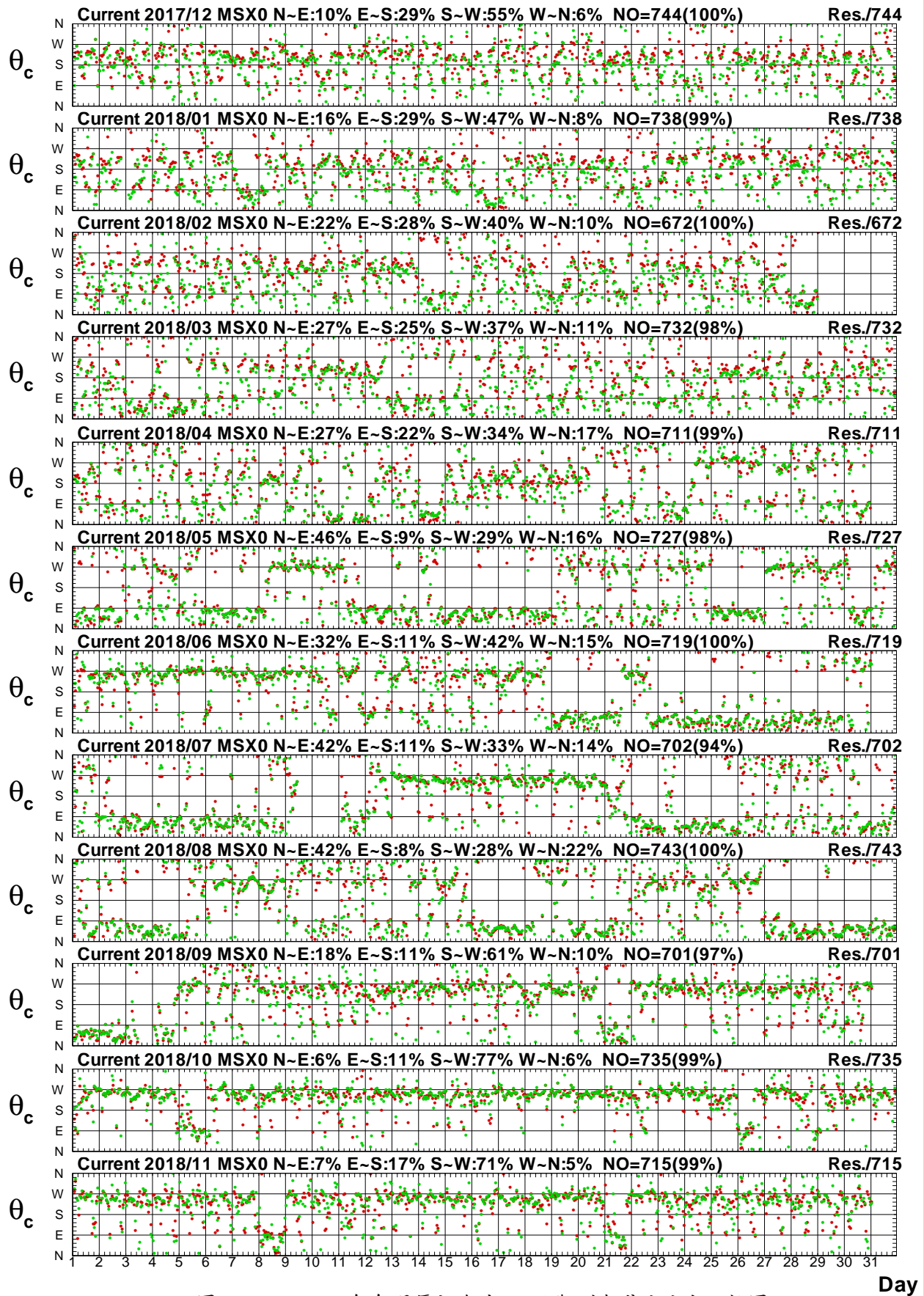


圖4.3.2b 2018年每月馬祖海域 X 站觀測與殘流流向比較圖

C17CMSX0.1H0 C17CMSX0.1HR C181MSX0.1H0 C181MSX0.1HR C182MSX0.1H0 C182MSX0.1HR
 C183MSX0.1H0 C183MSX0.1HR C184MSX0.1H0 C184MSX0.1HR C185MSX0.1H0 C185MSX0.1HR

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MSY0 at 2018

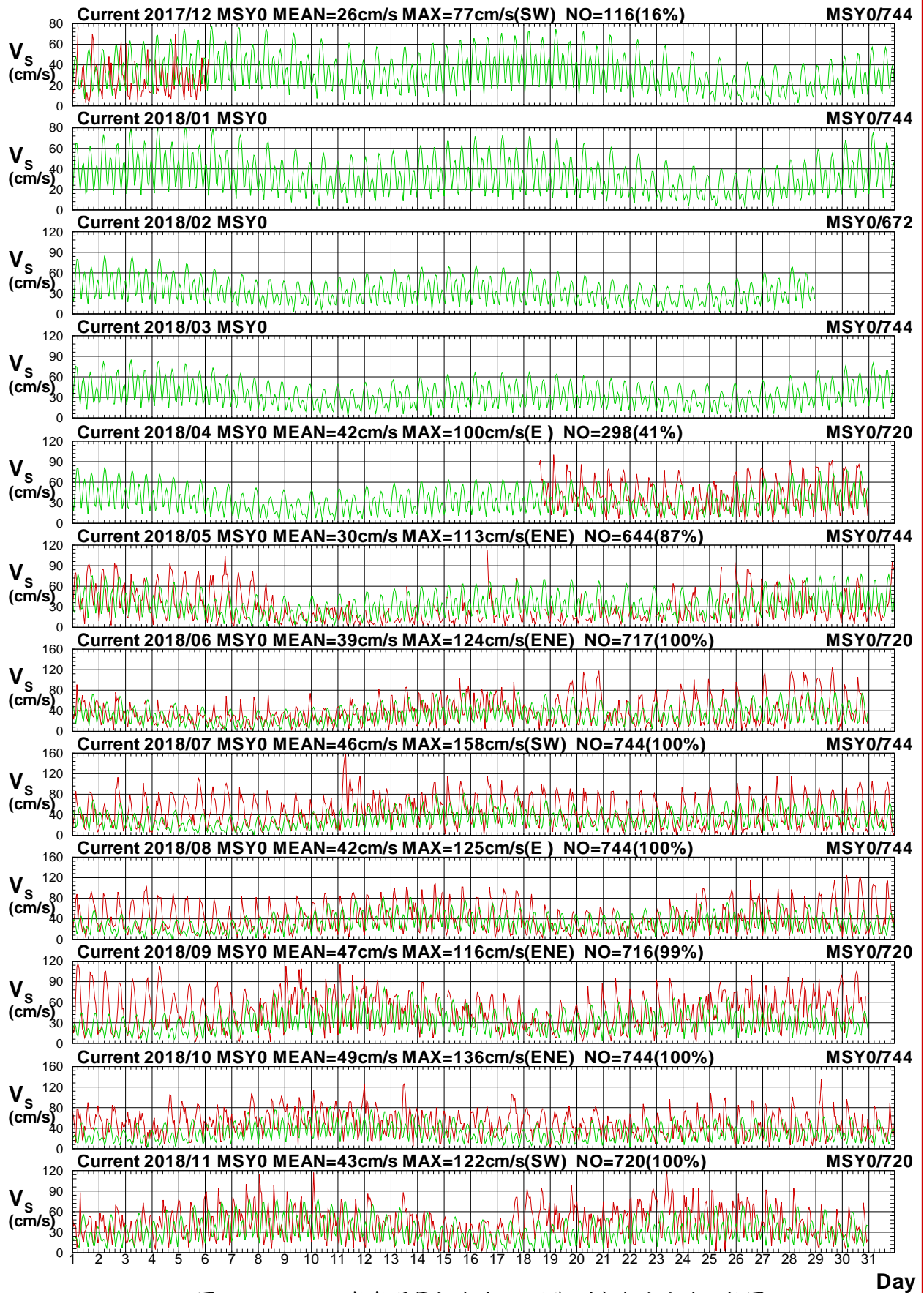


圖4.3.3a 2018年每月馬祖海域 Y 站觀測與潮流流速比較圖

C17CMSY0.1H0 C17CMSY0.1HD C181MSY0.1H0 C181MSY0.1HD C182MSY0.1H0 C182MSY0.1HD
 C183MSY0.1H0 C183MSY0.1HD C184MSY0.1H0 C184MSY0.1HD C185MSY0.1H0 C185MSY0.1HD

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSY0 at 2018

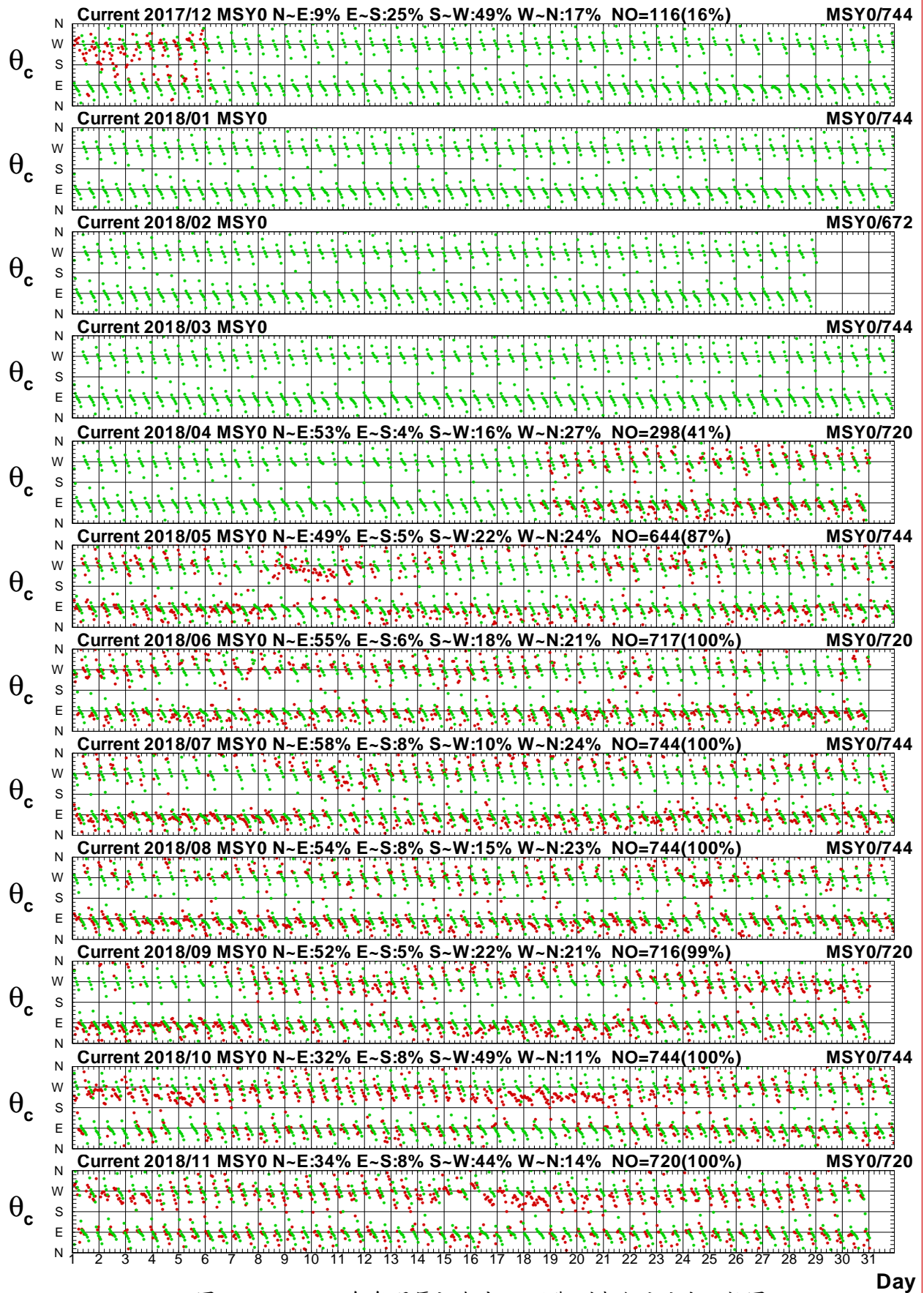


圖4.3.3b 2018年每月馬祖海域 Y 站觀測與潮流流向比較圖

C17CMSY0.1H0 C17CMSY0.1HD C181MSY0.1H0 C181MSY0.1HD C182MSY0.1H0 C182MSY0.1HD
 C183MSY0.1H0 C183MSY0.1HD C184MSY0.1H0 C184MSY0.1HD C185MSY0.1H0 C185MSY0.1HD

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MSY0 at 2018

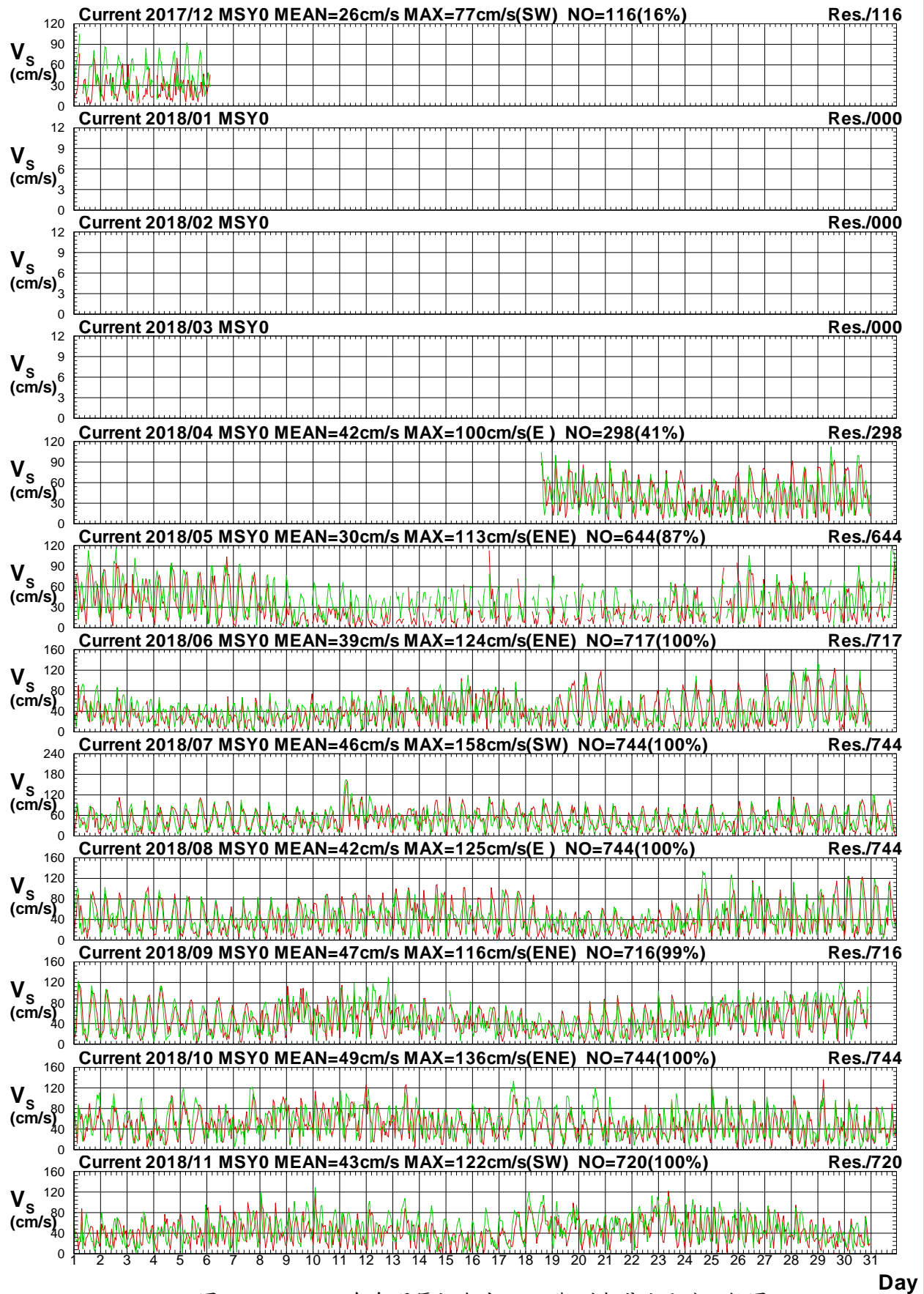


圖4.3.4a 2018年每月馬祖海域 Y 站觀測與殘流流速比較圖

C17CMSY0.1H0 C17CMSY0.1HR C181MSY0.1H0 C181MSY0.1HR C182MSY0.1H0 C182MSY0.1HR
 C183MSY0.1H0 C183MSY0.1HR C184MSY0.1H0 C184MSY0.1HR C185MSY0.1H0 C185MSY0.1HR

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSY0 at 2018

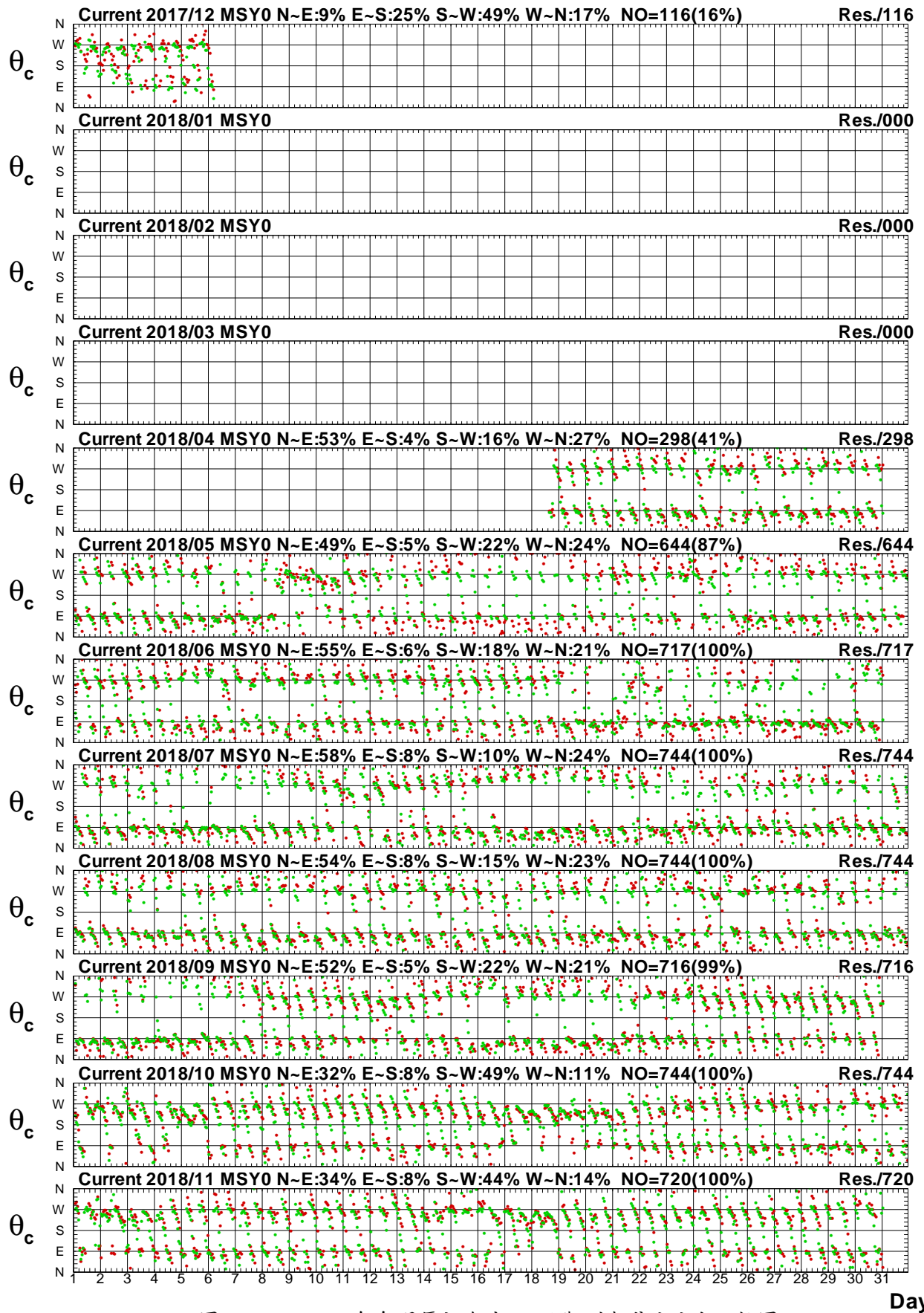


圖4.3.4b 2018年每月馬祖海域 Y 站觀測與殘流流向比較圖

C17CMSY0.1H0 C17CMSY0.1HR C181MSY0.1H0 C181MSY0.1HR C182MSY0.1H0 C182MSY0.1HR
 C183MSY0.1H0 C183MSY0.1HR C184MSY0.1H0 C184MSY0.1HR C185MSY0.1H0 C185MSY0.1HR

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MSA0 at 2018

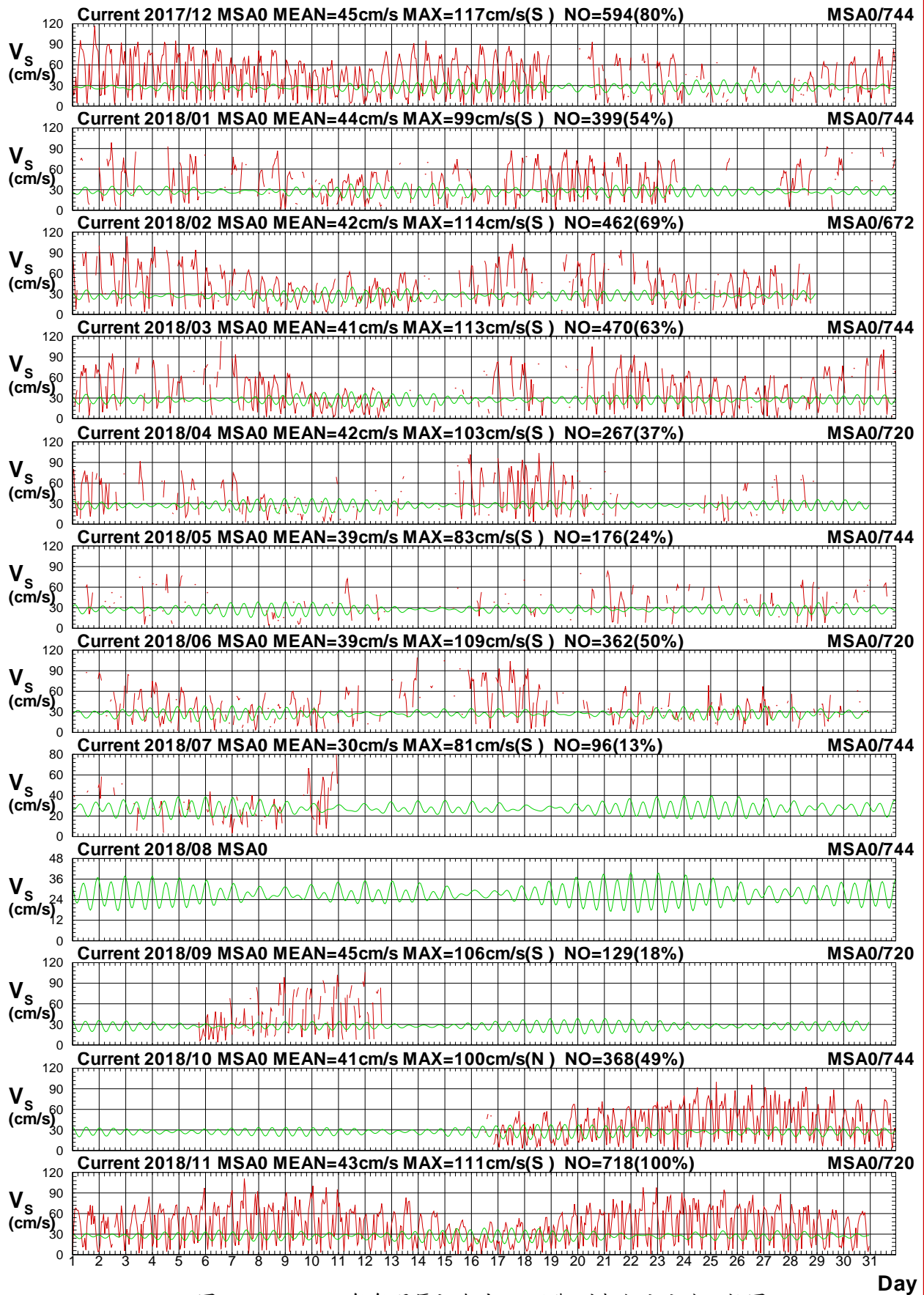


圖4.3.5a 2018年每月馬祖海域 A 站觀測與潮流流速比較圖

C17CMSA0.1H0 C17CMSA0.1HD C181MSA0.1H0 C181MSA0.1HD C182MSA0.1H0 C182MSA0.1HD
 C183MSA0.1H0 C183MSA0.1HD C184MSA0.1H0 C184MSA0.1HD C185MSA0.1H0 C185MSA0.1HD

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSA0 at 2018

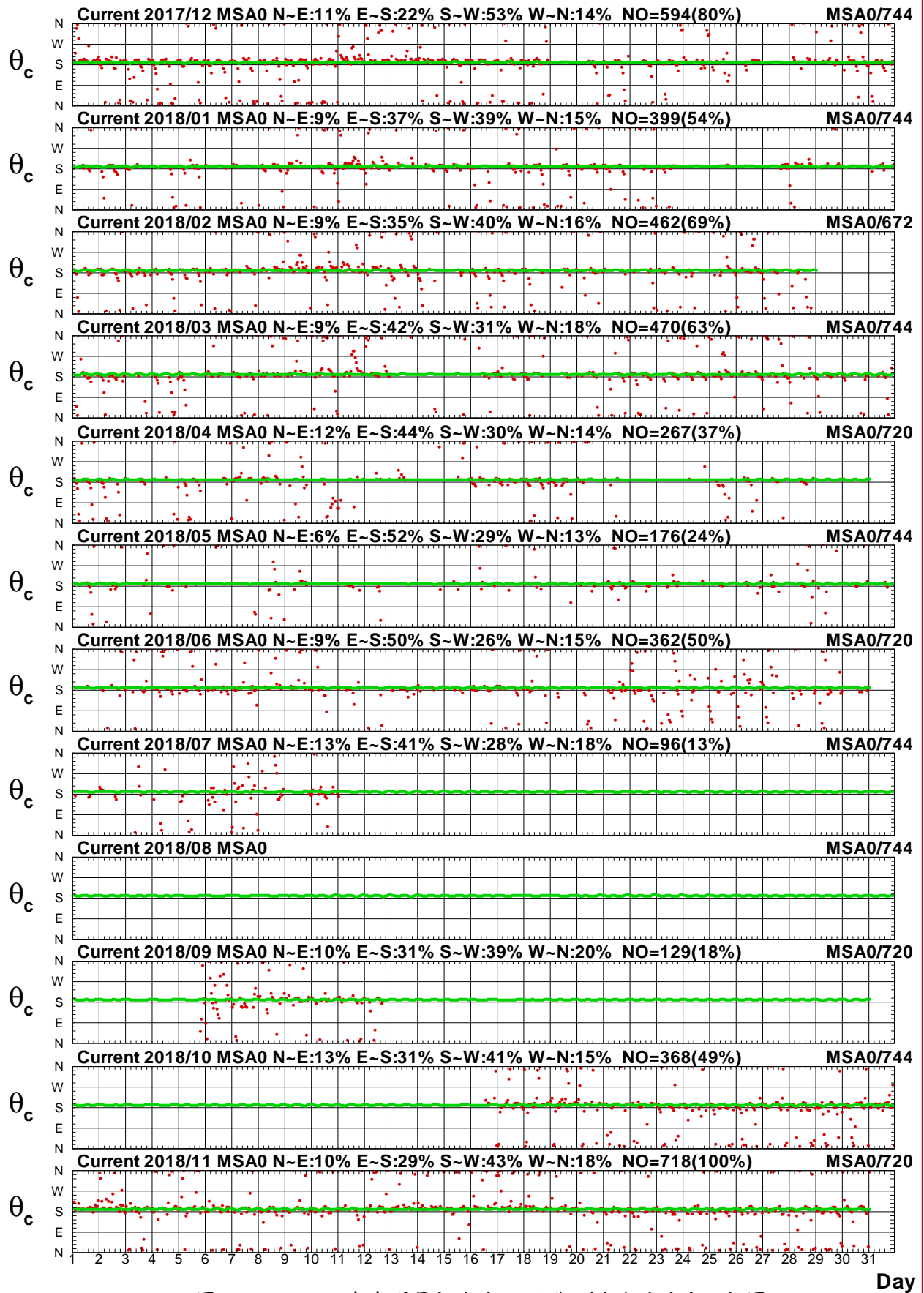


圖4.3.5b 2018年每月馬祖海域 A 站觀測與潮流流向比較圖

C17CMSA0.1HD C17CMSA0.1HD C181MSA0.1HD C181MSA0.1HD C182MSA0.1HD C182MSA0.1HD
 C183MSA0.1HD C183MSA0.1HD C184MSA0.1HD C184MSA0.1HD C185MSA0.1HD C185MSA0.1HD

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MSA0 at 2018

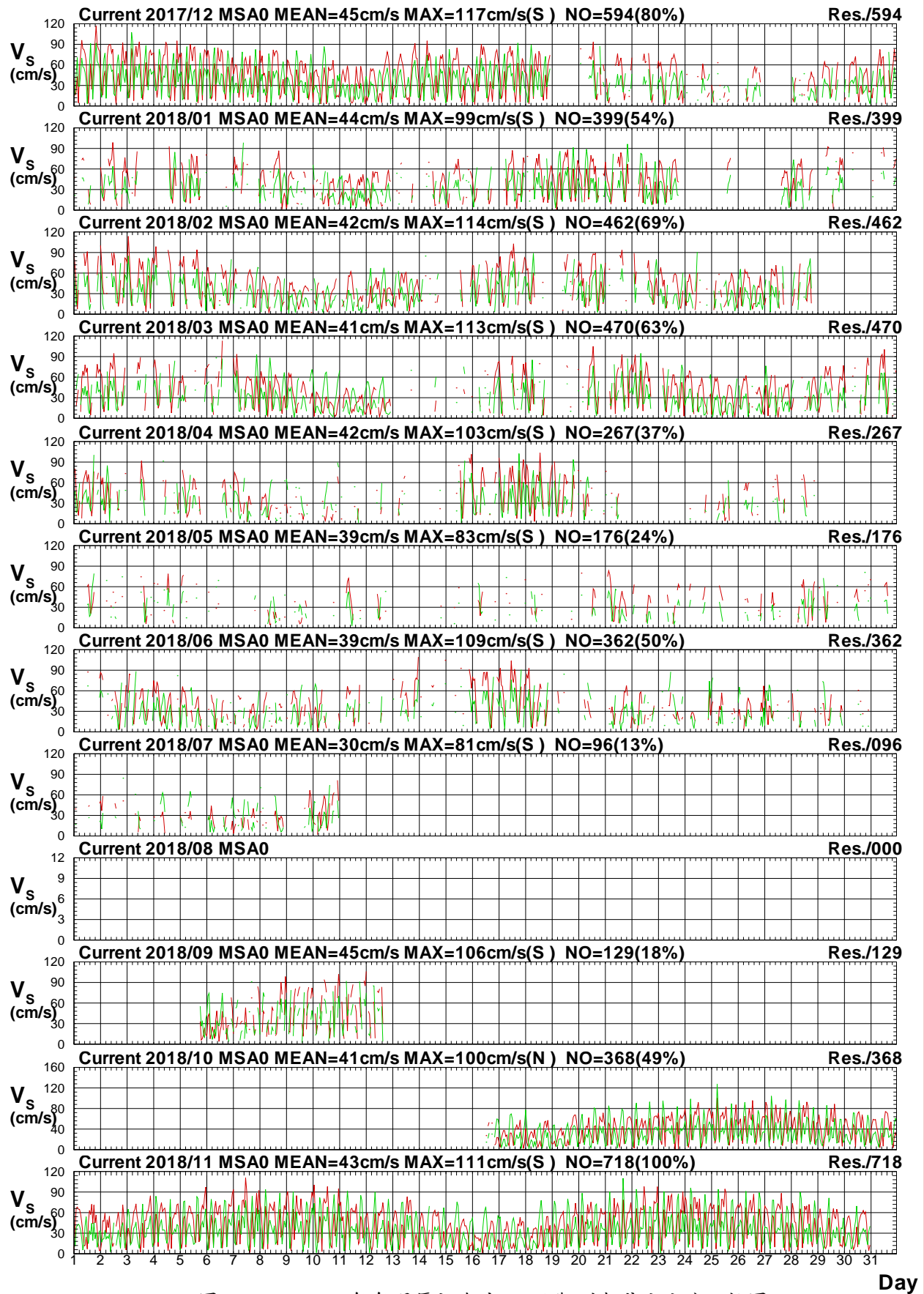


圖4.3.6a 2018年每月馬祖海域 A 站觀測與殘流流速比較圖

C17CMSA0.1H0 C17CMSA0.1HR C181MSA0.1H0 C181MSA0.1HR C182MSA0.1H0 C182MSA0.1HR
 C183MSA0.1H0 C183MSA0.1HR C184MSA0.1H0 C184MSA0.1HR C185MSA0.1H0 C185MSA0.1HR

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MSA0 at 2018

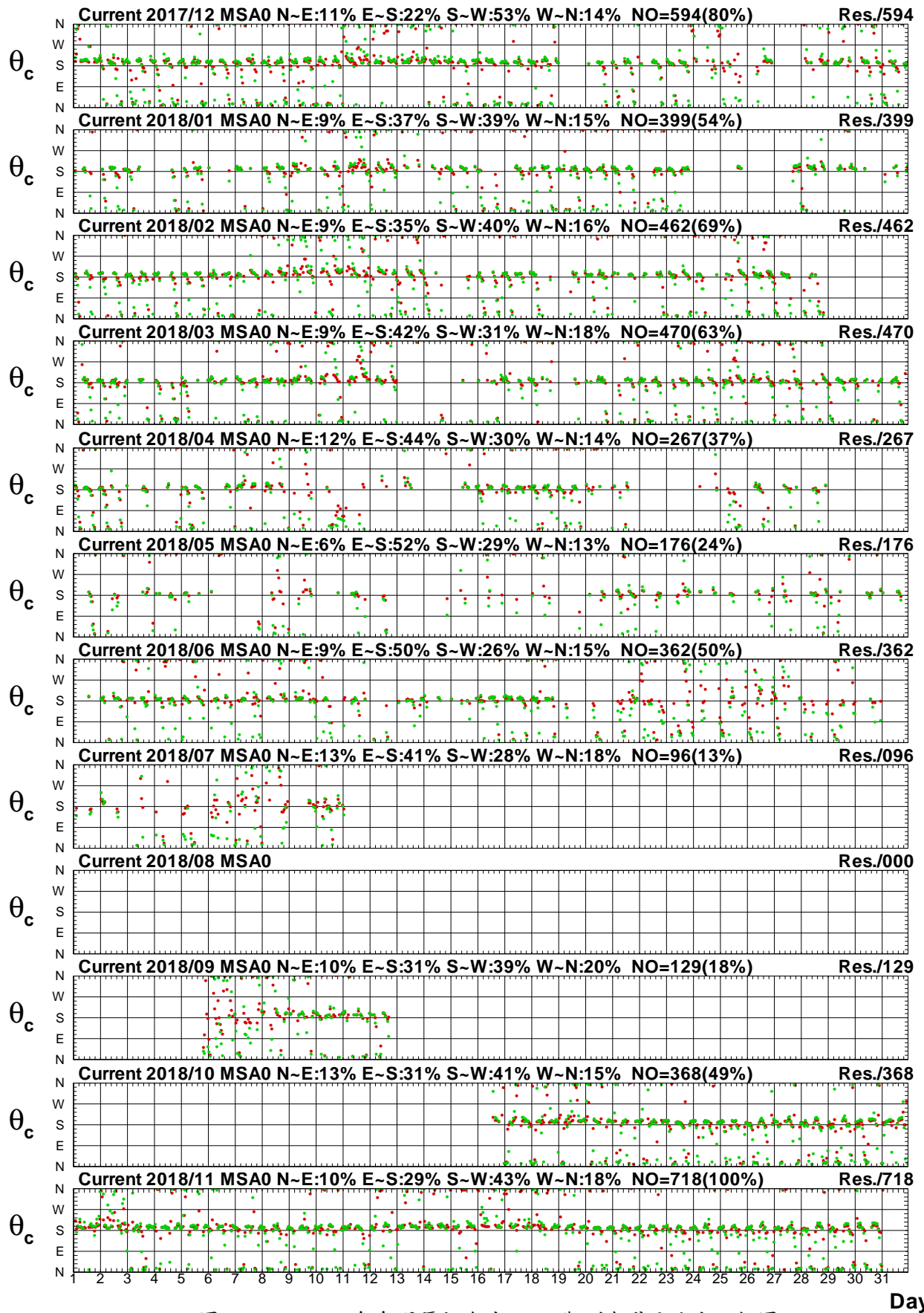


圖4.3.6b 2018年每月馬祖海域 A 站觀測與殘流流向比較圖

C17CMSA0.1H0 C17CMSA0.1HR C181MSA0.1H0 C181MSA0.1HR C182MSA0.1H0 C182MSA0.1HR
 C183MSA0.1H0 C183MSA0.1HR C184MSA0.1H0 C184MSA0.1HR C185MSA0.1H0 C185MSA0.1HR

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MS20 at 2018

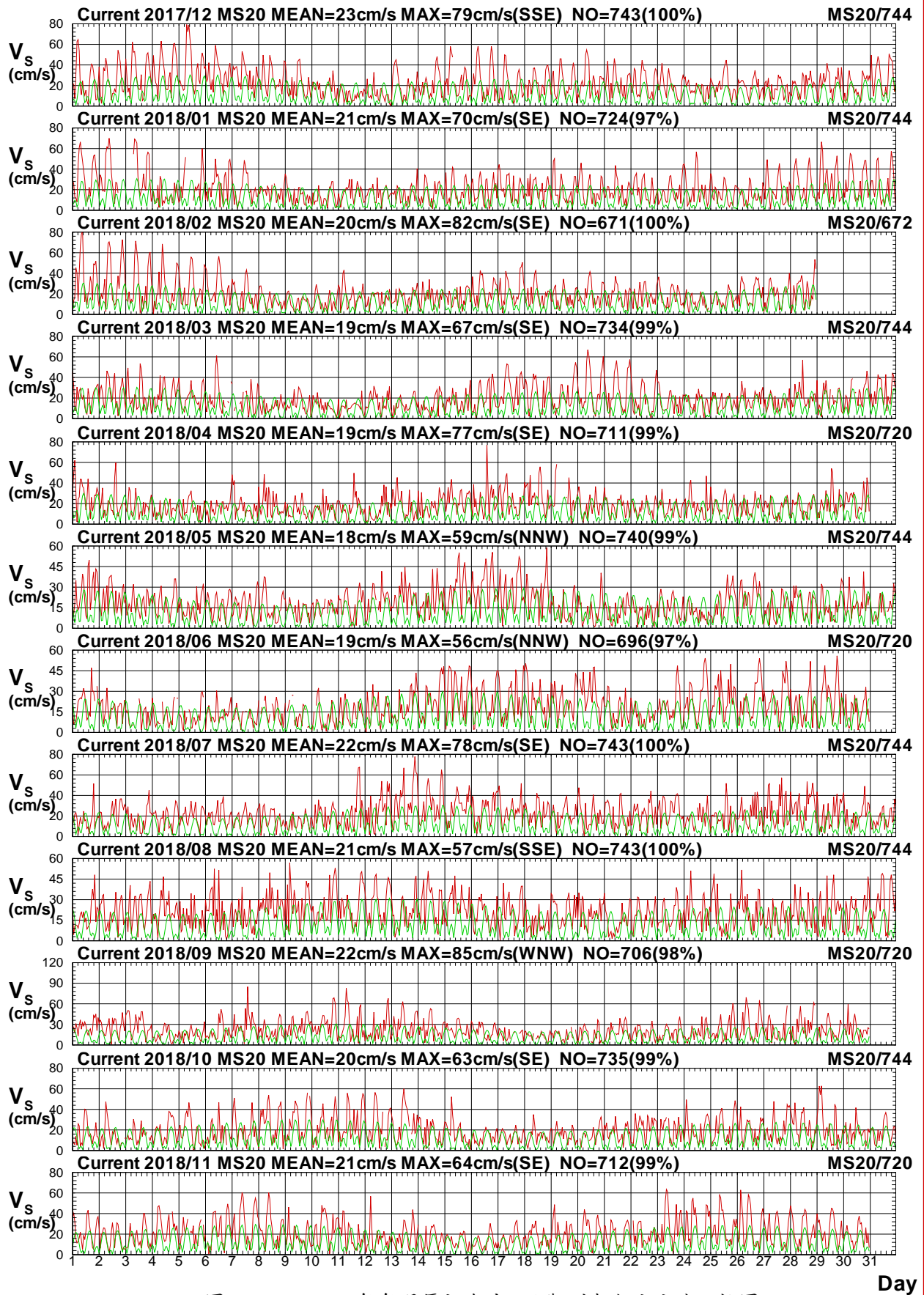


圖4.3.7a 2018年每月馬祖海域2站觀測與潮流流速比較圖

C17CMS20.1H0 C17CMS20.1HD C181MS20.1H0 C181MS20.1HD C182MS20.1H0 C182MS20.1HD
 C183MS20.1H0 C183MS20.1HD C184MS20.1H0 C184MS20.1HD C185MS20.1H0 C185MS20.1HD

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MS20 at 2018

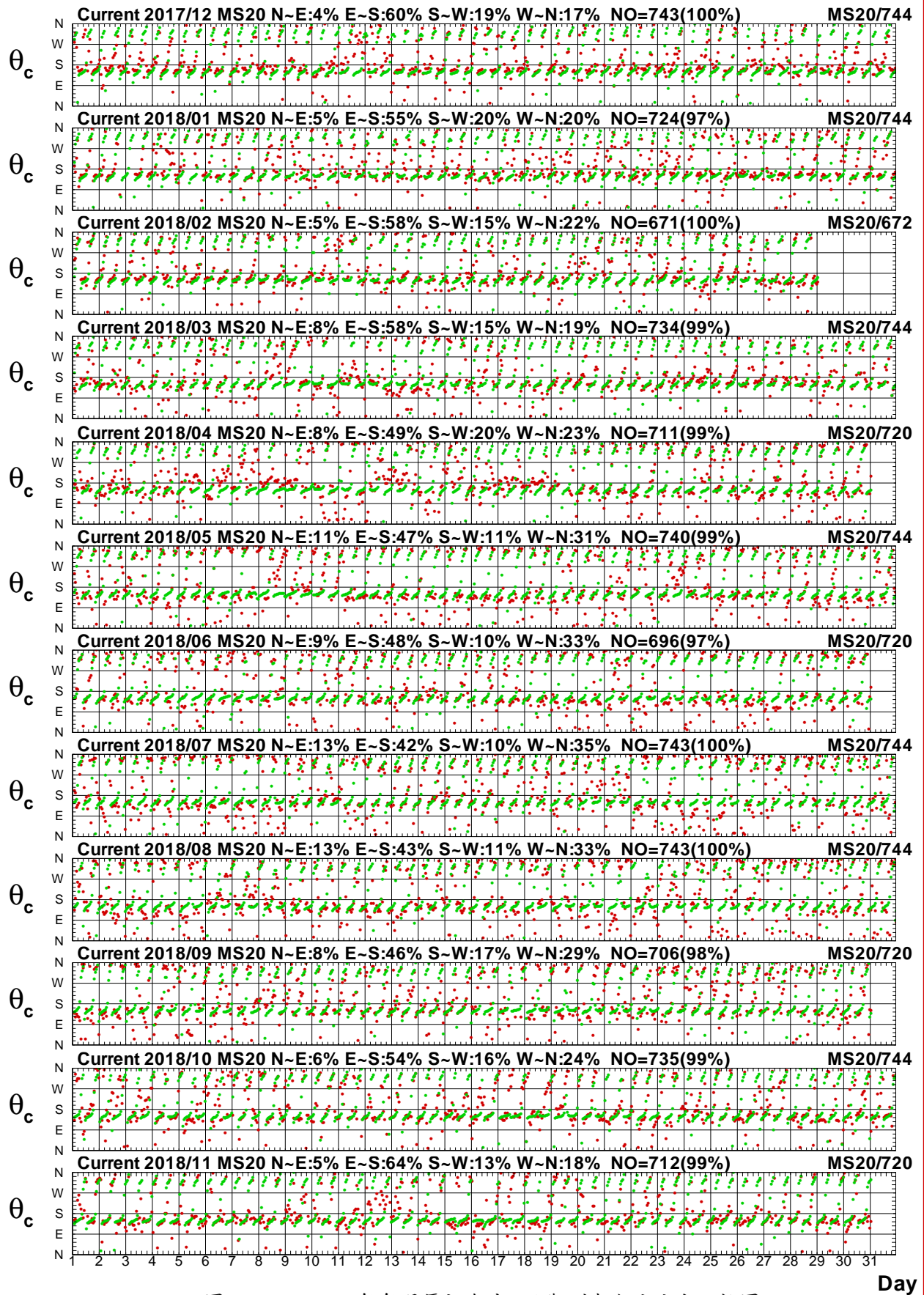


圖4.3.7b 2018年每月馬祖海域2站觀測與潮流流向比較圖

C17CMS20.1H0 C17CMS20.1HD C181MS20.1H0 C181MS20.1HD C182MS20.1H0 C182MS20.1HD
 C183MS20.1H0 C183MS20.1HD C184MS20.1H0 C184MS20.1HD C185MS20.1H0 C185MS20.1HD

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MS20 at 2018

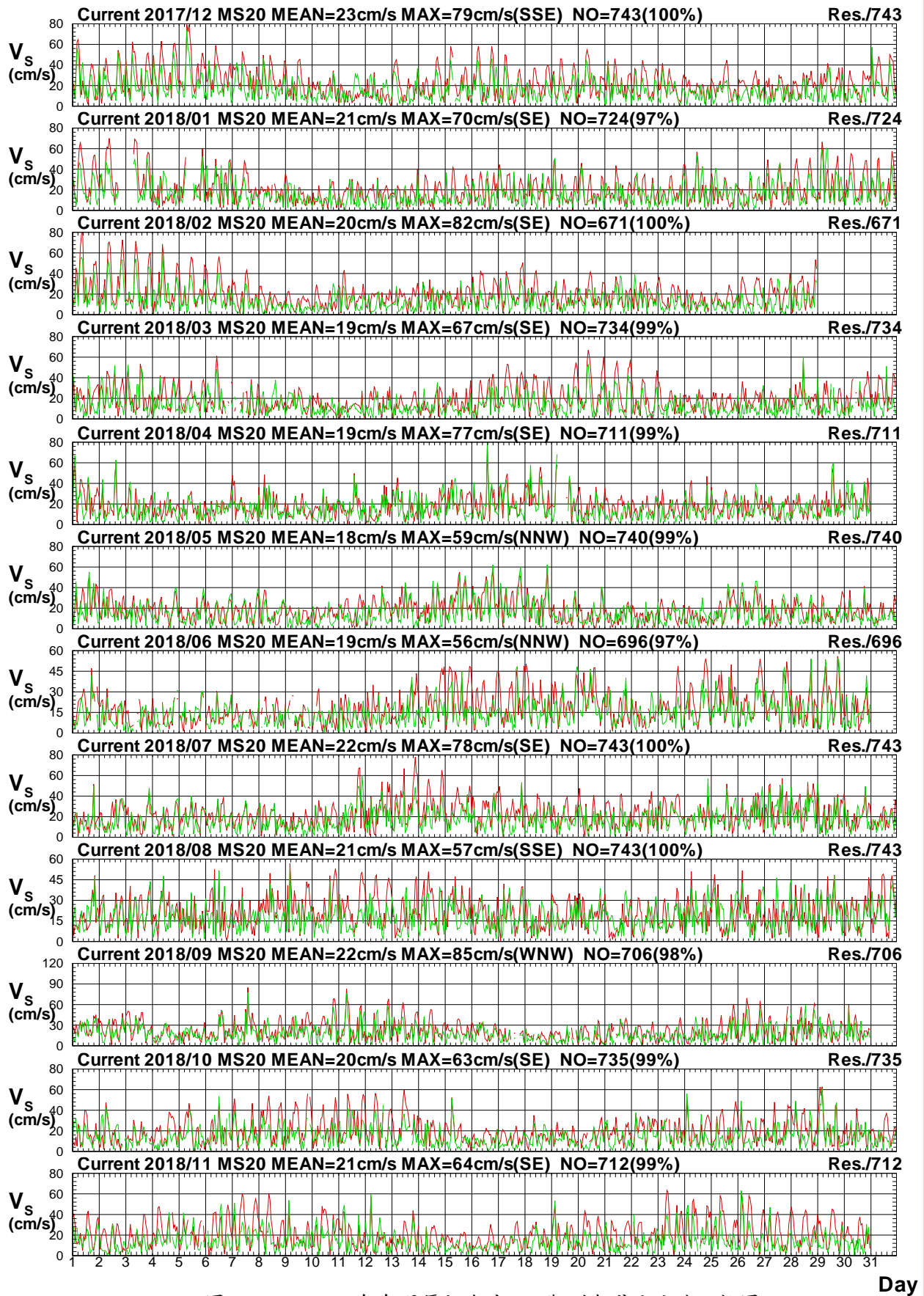


圖4.3.8a 2018年每月馬祖海域2站觀測與殘流流速比較圖

C17CMS20.1H0 C17CMS20.1HR C181MS20.1H0 C181MS20.1HR C182MS20.1H0 C182MS20.1HR
 C183MS20.1H0 C183MS20.1HR C184MS20.1H0 C184MS20.1HR C185MS20.1H0 C185MS20.1HR

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MS20 at 2018

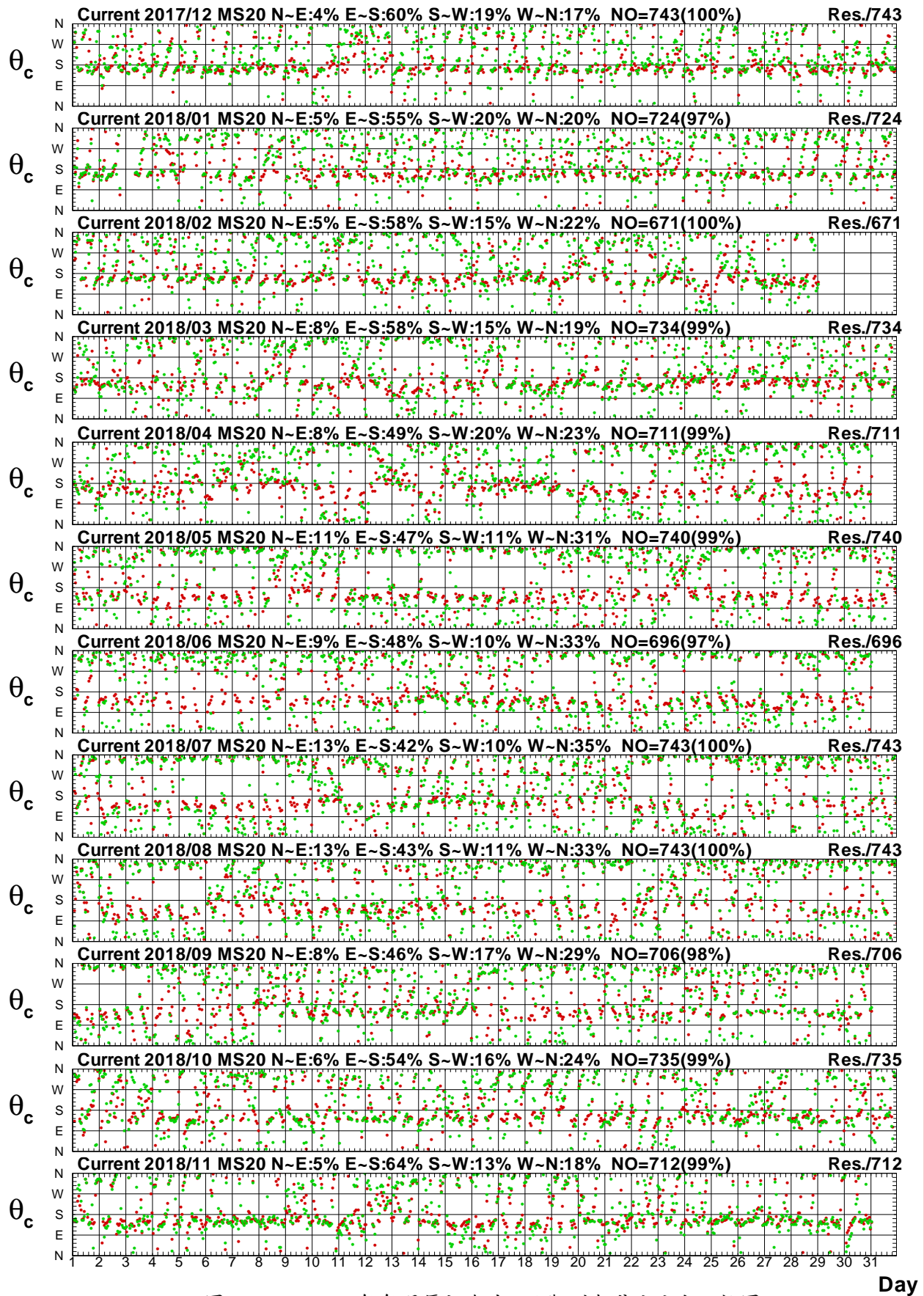


圖4.3.8b 2018年每月馬祖海域2站觀測與殘流流向比較圖

C17CMS20.1H0 C17CMS20.1HR C181MS20.1H0 C181MS20.1HR C182MS20.1H0 C182MS20.1HR
 C183MS20.1H0 C183MS20.1HR C184MS20.1H0 C184MS20.1HR C185MS20.1H0 C185MS20.1HR

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MS30 at 2018

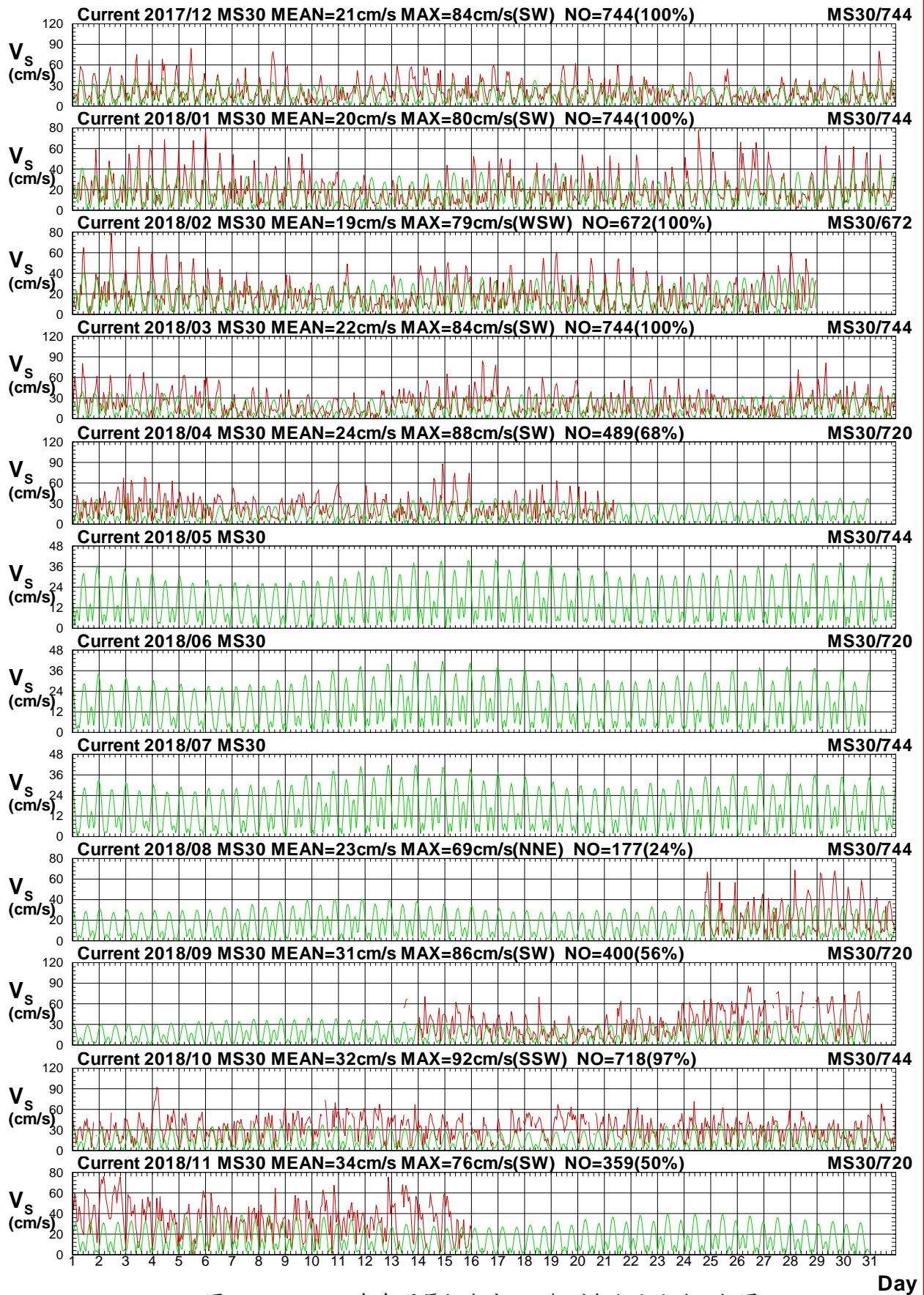


圖 4.3.9a 2018 年每月馬祖海域 3 站觀測與潮流流速比較圖

C17CMS30.1HD C17CMS30.1HD C181MS30.1HD C181MS30.1HD C182MS30.1HD C182MS30.1HD
 C183MS30.1HD C183MS30.1HD C184MS30.1HD C184MS30.1HD C185MS30.1HD C185MS30.1HD

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MS30 at 2018

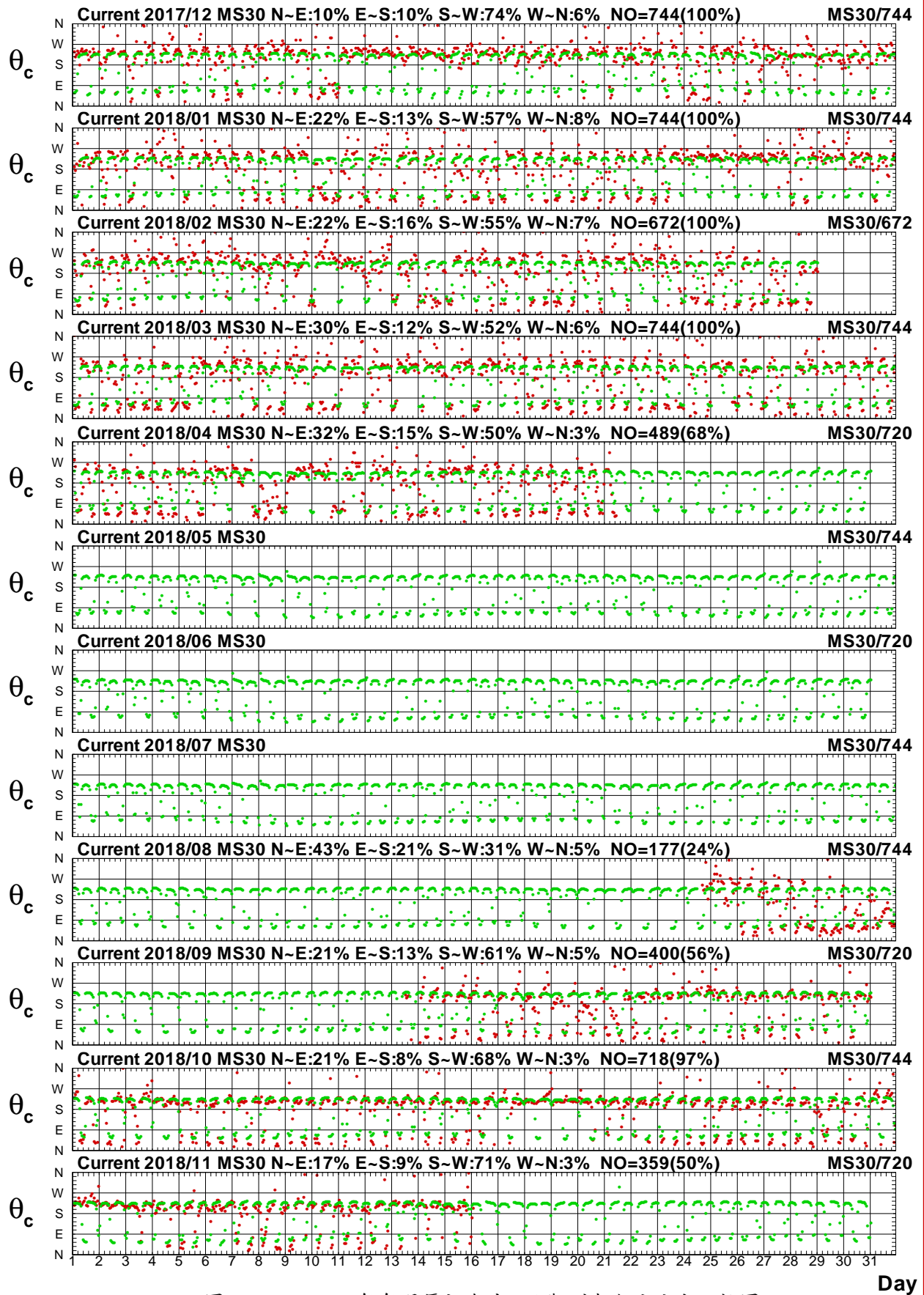


圖 4.3.9b 2018 年每月馬祖海域 3 站觀測與潮流流向比較圖

C17CMS30.1H0 C17CMS30.1HD C181MS30.1H0 C181MS30.1HD C182MS30.1H0 C182MS30.1HD
 C183MS30.1H0 C183MS30.1HD C184MS30.1H0 C184MS30.1HD C185MS30.1H0 C185MS30.1HD

Institute of Harbor & Marine Technology

Current Speed in Ma-Tsu Harbor of MS30 at 2018

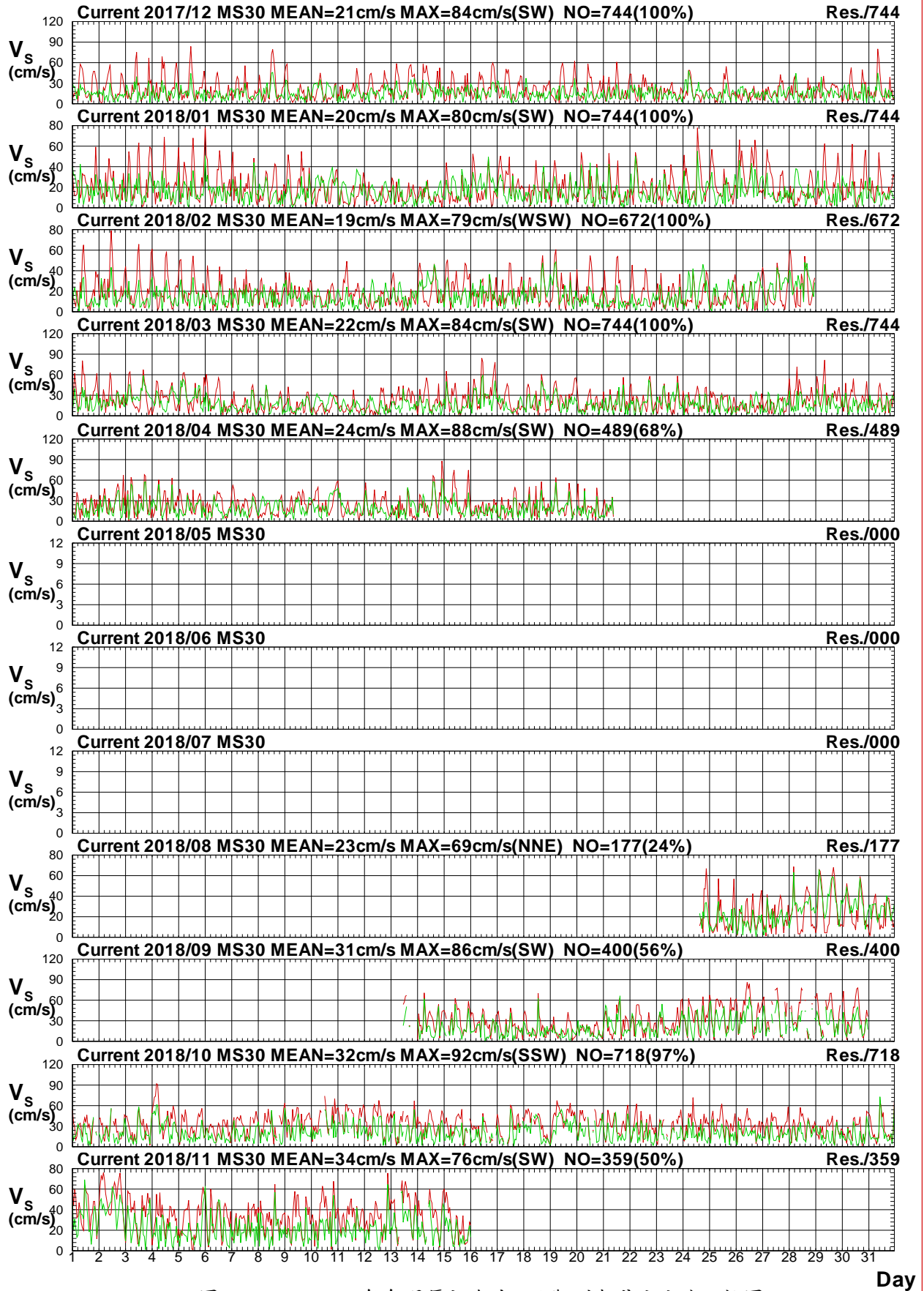


圖4.3.10a 2018年每月馬祖海域3站觀測與殘流流速比較圖

C17CMS30.1H0 C17CMS30.1HR C181MS30.1H0 C181MS30.1HR C182MS30.1H0 C182MS30.1HR
 C183MS30.1H0 C183MS30.1HR C184MS30.1H0 C184MS30.1HR C185MS30.1H0 C185MS30.1HR

Institute of Harbor & Marine Technology

Current Direction in Ma-Tsu Harbor of MS30 at 2018

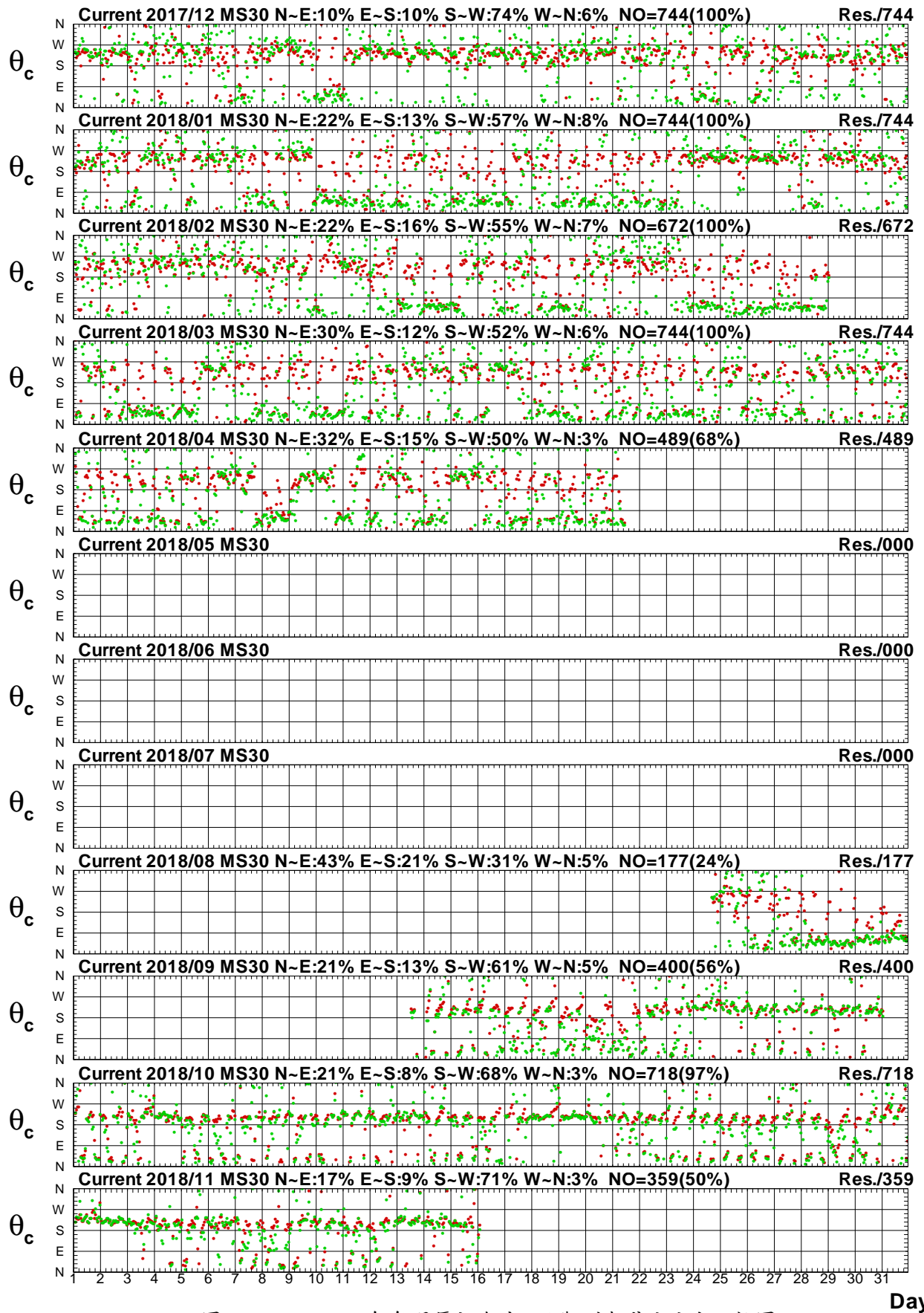


圖4.3.10b 2018年每月馬祖海域3站觀測與殘流流向比較圖

C17CMS30.1H0 C17CMS30.1HR C181MS30.1H0 C181MS30.1HR C182MS30.1H0 C182MS30.1HR
 C183MS30.1H0 C183MS30.1HR C184MS30.1H0 C184MS30.1HR C185MS30.1H0 C185MS30.1HR

Institute of Harbor & Marine Technology

4.4 2018 年馬祖海域各測站觀測海流與 計算潮流(殘流)向量分佈圖

Distribution of Current Vectors

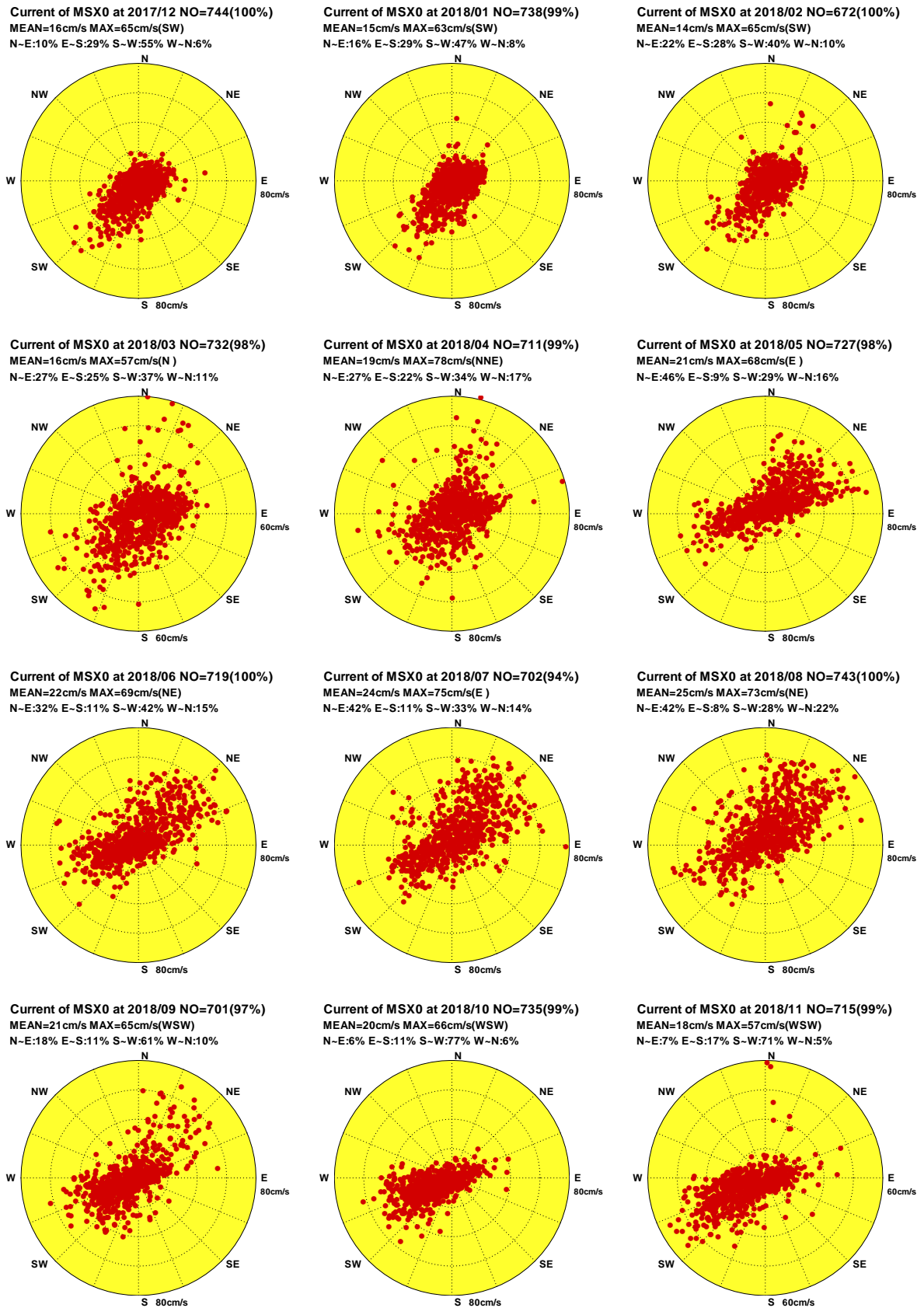


圖4.4.1a 2018年馬祖海域每月測站 X 觀測海流向量分佈圖

C17CMSX0.1H0 C181MSX0.1H0 C182MSX0.1H0 C183MSX0.1H0 C184MSX0.1H0 C185MSX0.1H0
 C186MSX0.1H0 C187MSX0.1H0 C188MSX0.1H0 C189MSX0.1H0 C18AMSX0.1H0 C18BMSX0.1H0

Institute of Harbor & Marine Technology

Distribution of Current Vectors

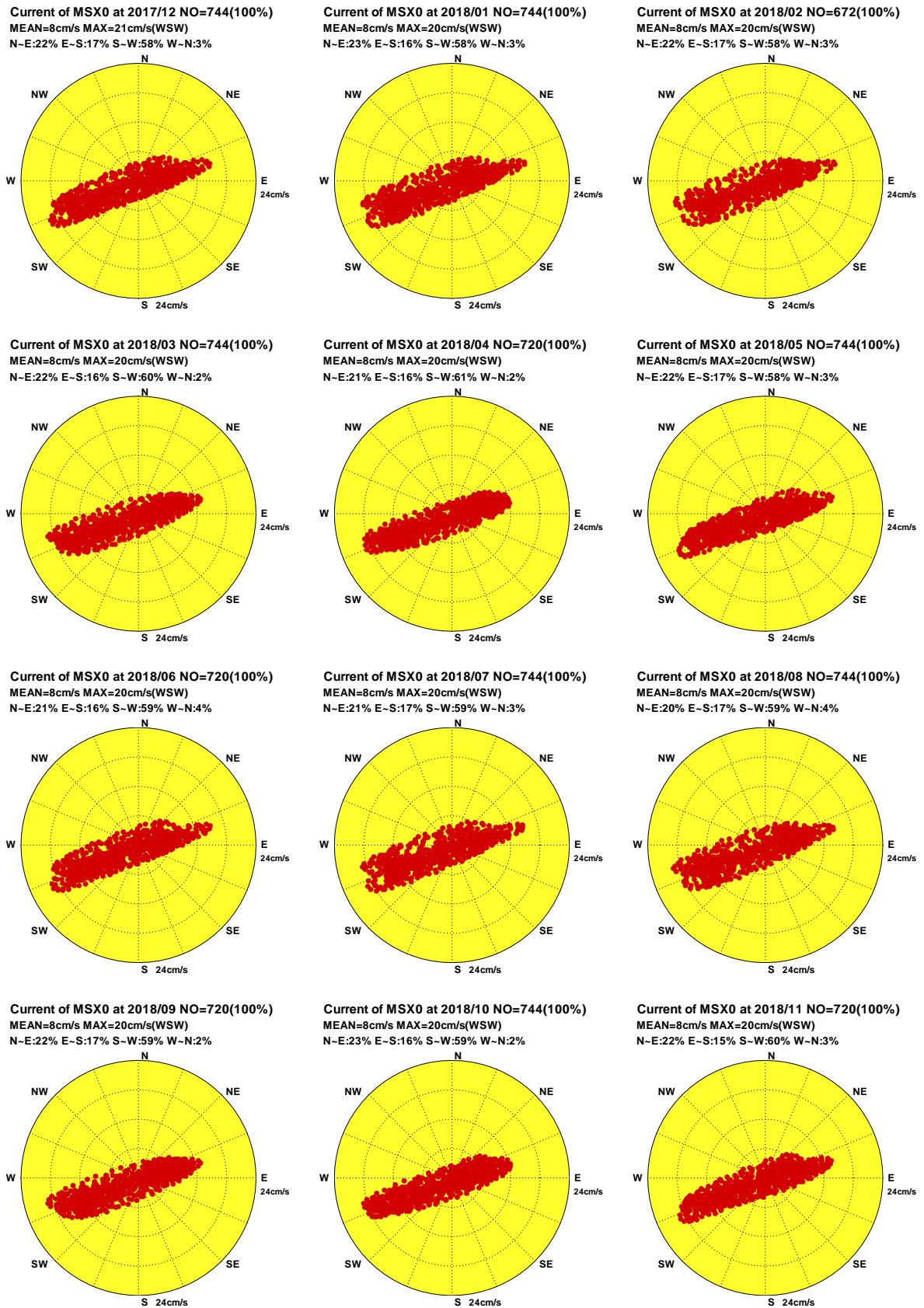


圖4.4.1b 2018年馬祖海域每月測站 X 計算潮流向量分佈圖

C17CMSX0.1HD C181MSX0.1HD C182MSX0.1HD C183MSX0.1HD C184MSX0.1HD C185MSX0.1HD
C186MSX0.1HD C187MSX0.1HD C188MSX0.1HD C189MSX0.1HD C18AMSX0.1HD C18BMSX0.1HD

Institute of Harbor & Marine Technology

Distribution of Current Vectors

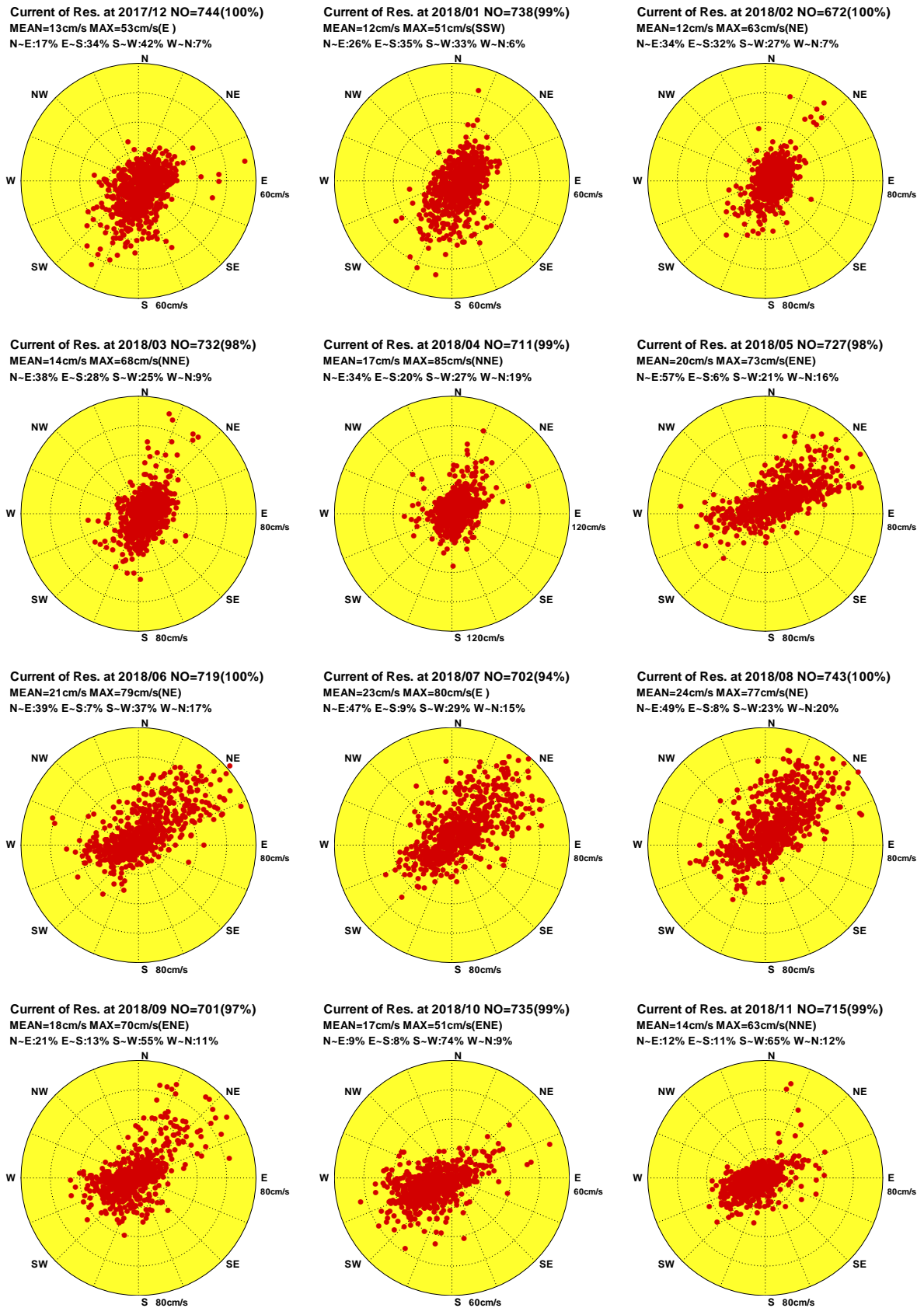


圖4.4.1c 2018年馬祖海域每月測站 X 計算殘流向量分佈圖

C17CMSX0.1HR C181MSX0.1HR C182MSX0.1HR C183MSX0.1HR C184MSX0.1HR C185MSX0.1HR
 C186MSX0.1HR C187MSX0.1HR C188MSX0.1HR C189MSX0.1HR C18AMSX0.1HR C18BMSX0.1HR

Institute of Harbor & Marine Technology

Distribution of Current Vectors

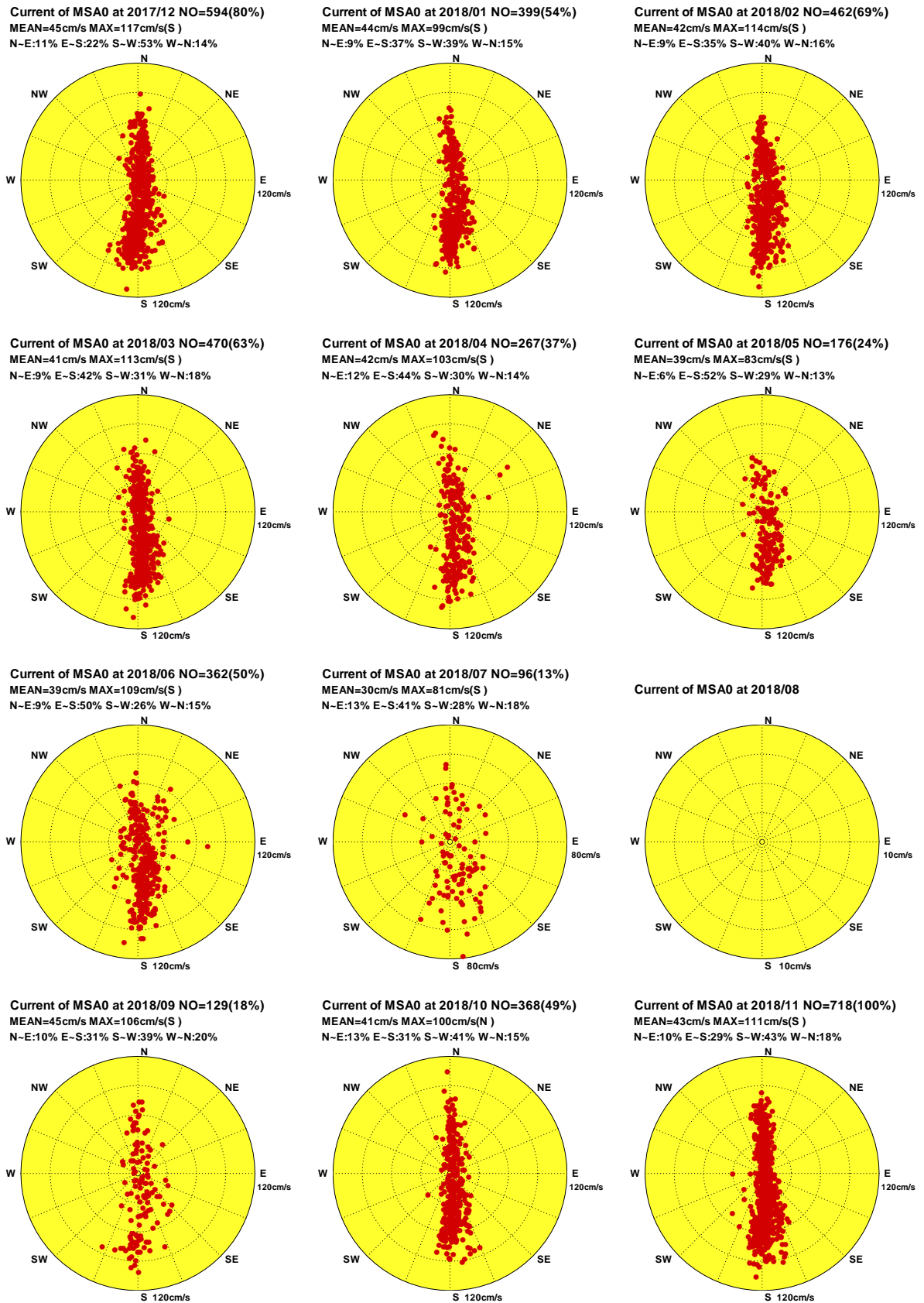


圖4.4.2a 2018年馬祖海域每月測站 A 觀測海流向量分佈圖

C17CMSA0.1H0 C181MSA0.1H0 C182MSA0.1H0 C183MSA0.1H0 C184MSA0.1H0 C185MSA0.1H0
 C186MSA0.1H0 C187MSA0.1H0 C188MSA0.1H0 C189MSA0.1H0 C18AMSA0.1H0 C18BMSA0.1H0

Institute of Harbor & Marine Technology

Distribution of Current Vectors

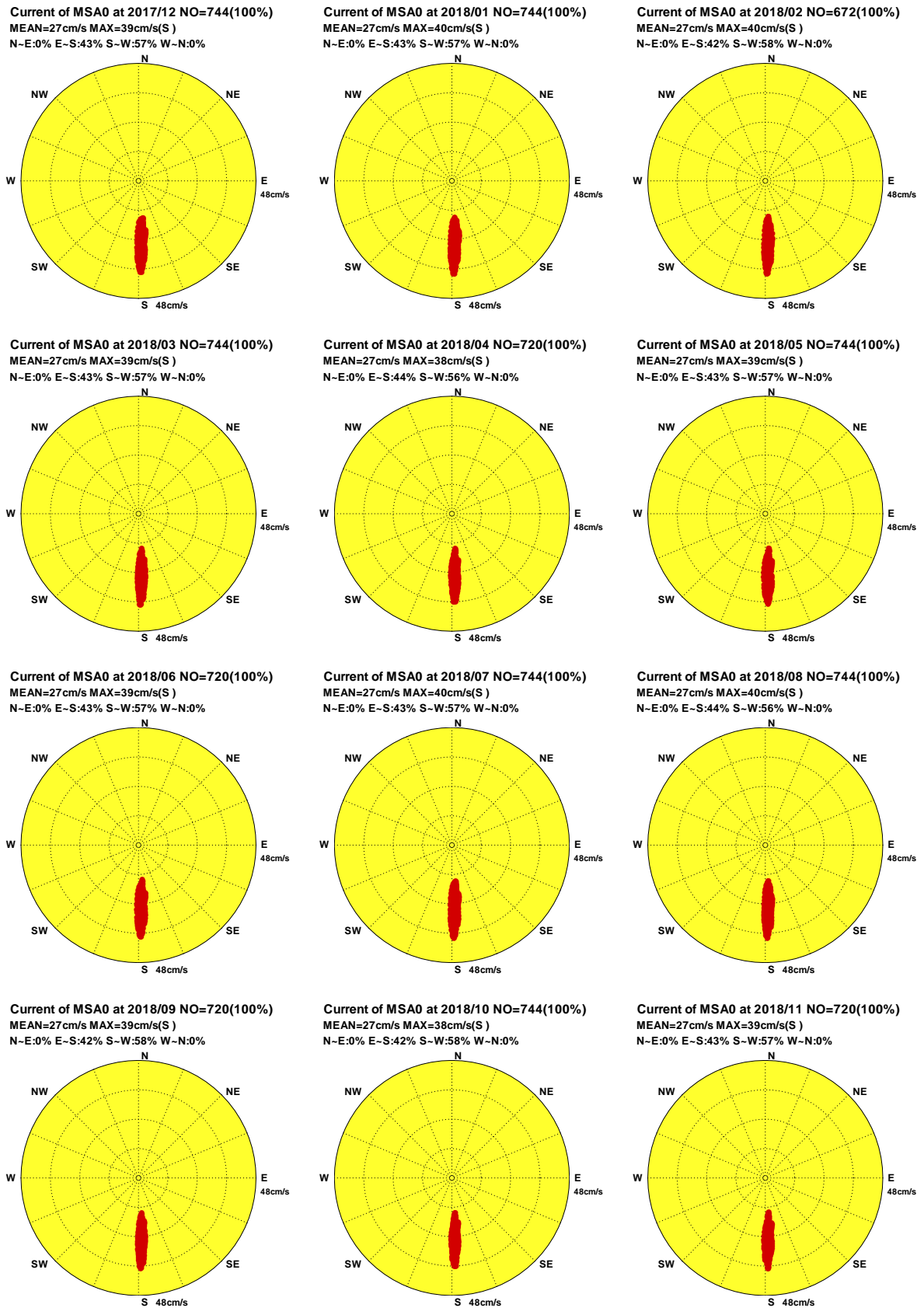


圖4.4.2b 2018年馬祖海域每月測站 A 計算潮流向量分佈圖

C17CMSA0.1HD C181MSA0.1HD C182MSA0.1HD C183MSA0.1HD C184MSA0.1HD C185MSA0.1HD
C186MSA0.1HD C187MSA0.1HD C188MSA0.1HD C189MSA0.1HD C18AMSA0.1HD C18BMSA0.1HD

Institute of Harbor & Marine Technology

Distribution of Current Vectors

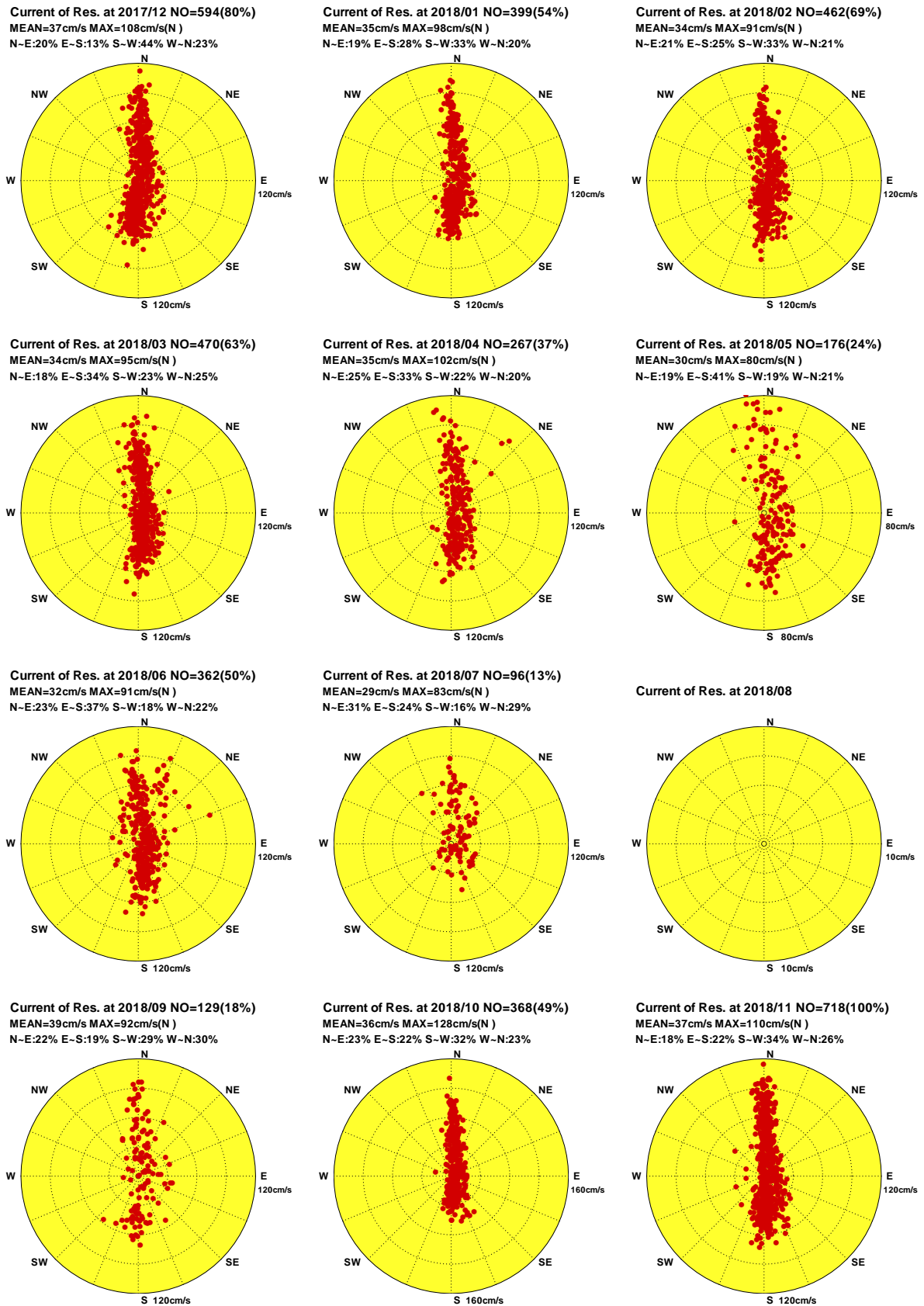


圖4.4.2c 2018年馬祖海域每月測站 A 計算殘流向量分佈圖

C17CMSA0.1HR C181MSA0.1HR C182MSA0.1HR C183MSA0.1HR C184MSA0.1HR C185MSA0.1HR
 C186MSA0.1HR C187MSA0.1HR C188MSA0.1HR C189MSA0.1HR C18AMSA0.1HR C18BMSA0.1HR

Institute of Harbor & Marine Technology

Distribution of Current Vectors

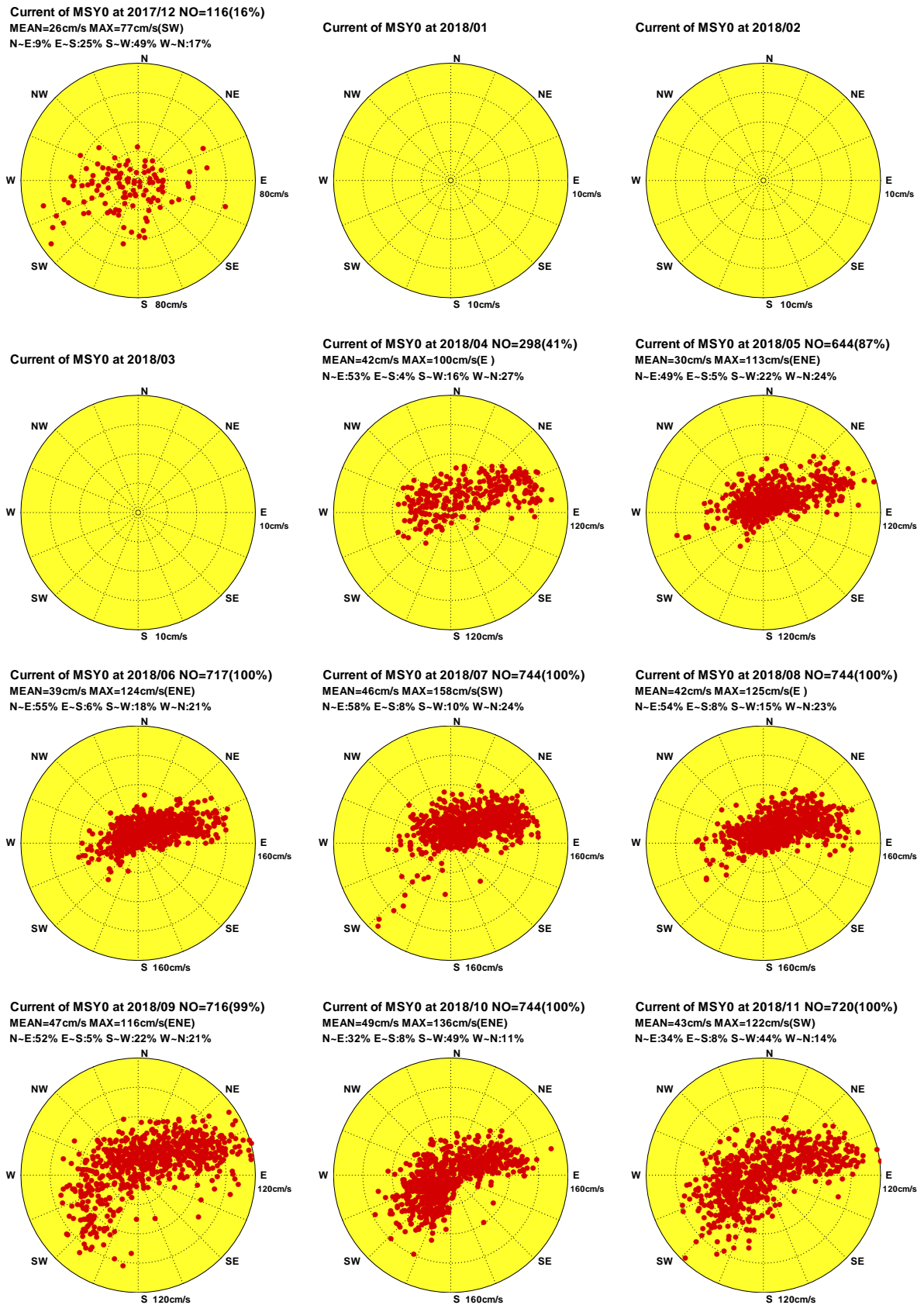


圖4.4.3a 2018年馬祖海域每月測站 Y 觀測海流向量分佈圖

C17CMSY0.1H0 C181MSY0.1H0 C182MSY0.1H0 C183MSY0.1H0 C184MSY0.1H0 C185MSY0.1H0
 C186MSY0.1H0 C187MSY0.1H0 C188MSY0.1H0 C189MSY0.1H0 C18AMSY0.1H0 C18BMSY0.1H0

Institute of Harbor & Marine Technology

Distribution of Current Vectors

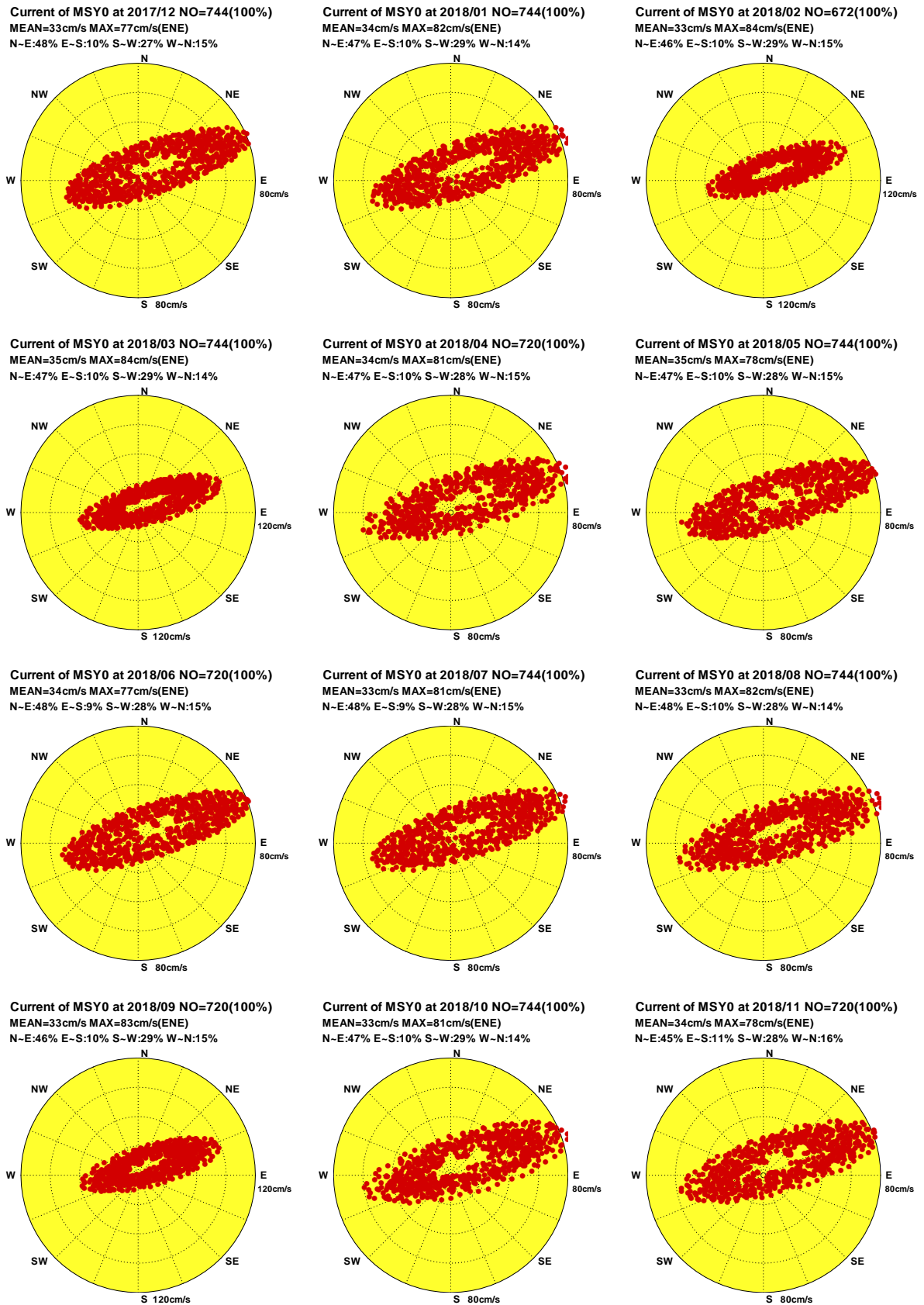


圖4.4.3b 2018年馬祖海域每月測站 Y 計算潮流向量分佈圖

C17CMSY0.1HD C181MSY0.1HD C182MSY0.1HD C183MSY0.1HD C184MSY0.1HD C185MSY0.1HD
 C186MSY0.1HD C187MSY0.1HD C188MSY0.1HD C189MSY0.1HD C18AMSY0.1HD C18BMSY0.1HD

Institute of Harbor & Marine Technology

Distribution of Current Vectors

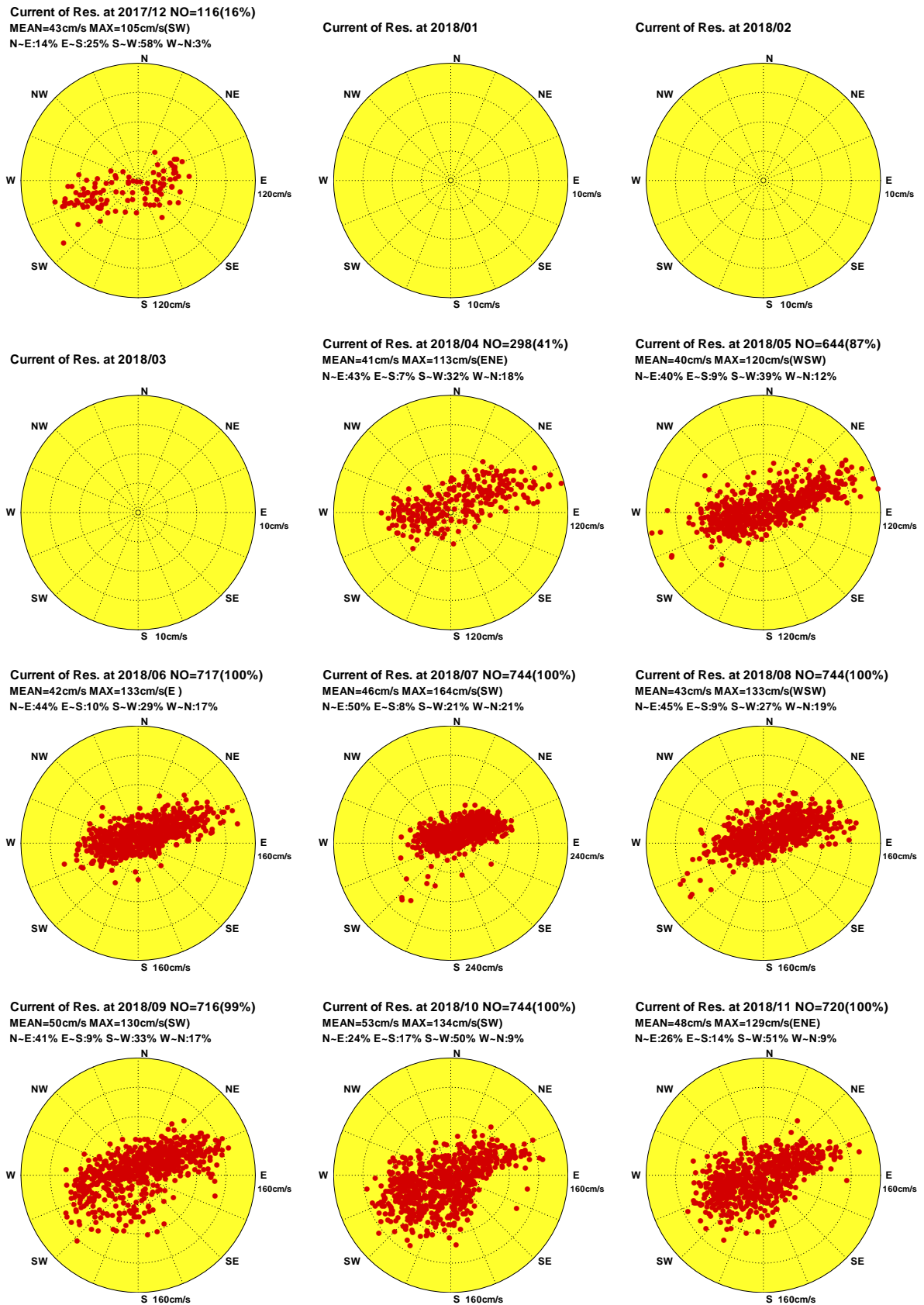


圖4.4.3c 2018年馬祖海域每月測站 Y 計算殘流向量分佈圖

C17CMSY0.1HR C181MSY0.1HR C182MSY0.1HR C183MSY0.1HR C184MSY0.1HR C185MSY0.1HR
 C186MSY0.1HR C187MSY0.1HR C188MSY0.1HR C189MSY0.1HR C18AMSY0.1HR C18BMSY0.1HR

Institute of Harbor & Marine Technology

Distribution of Current Vectors

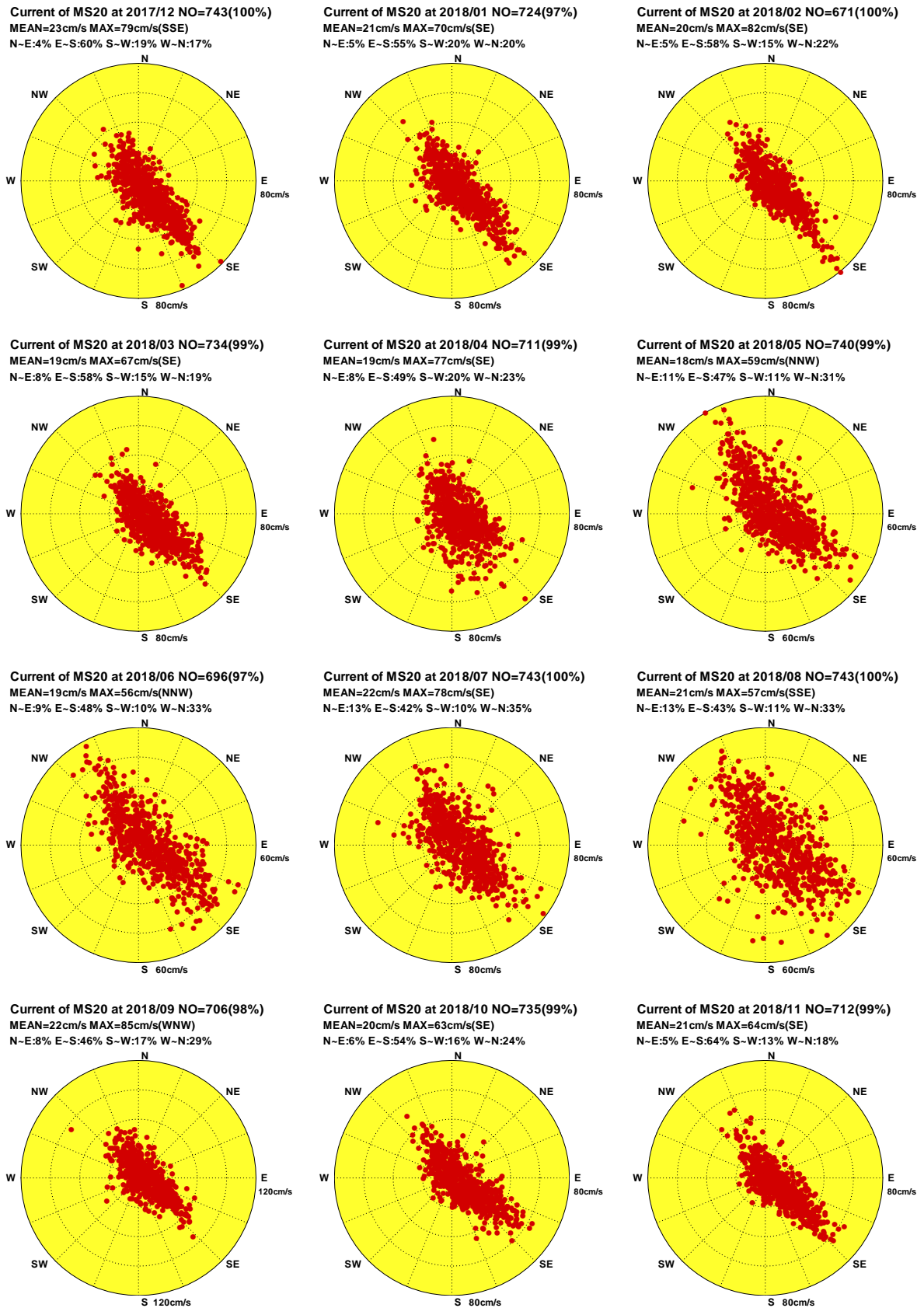


圖4.4.4a 2018年馬祖海域每月測站2觀測海流向量分佈圖

C17CMS20.1H0 C181MS20.1H0 C182MS20.1H0 C183MS20.1H0 C184MS20.1H0 C185MS20.1H0
 C186MS20.1H0 C187MS20.1H0 C188MS20.1H0 C189MS20.1H0 C18AMS20.1H0 C18BMS20.1H0

Institute of Harbor & Marine Technology

Distribution of Current Vectors

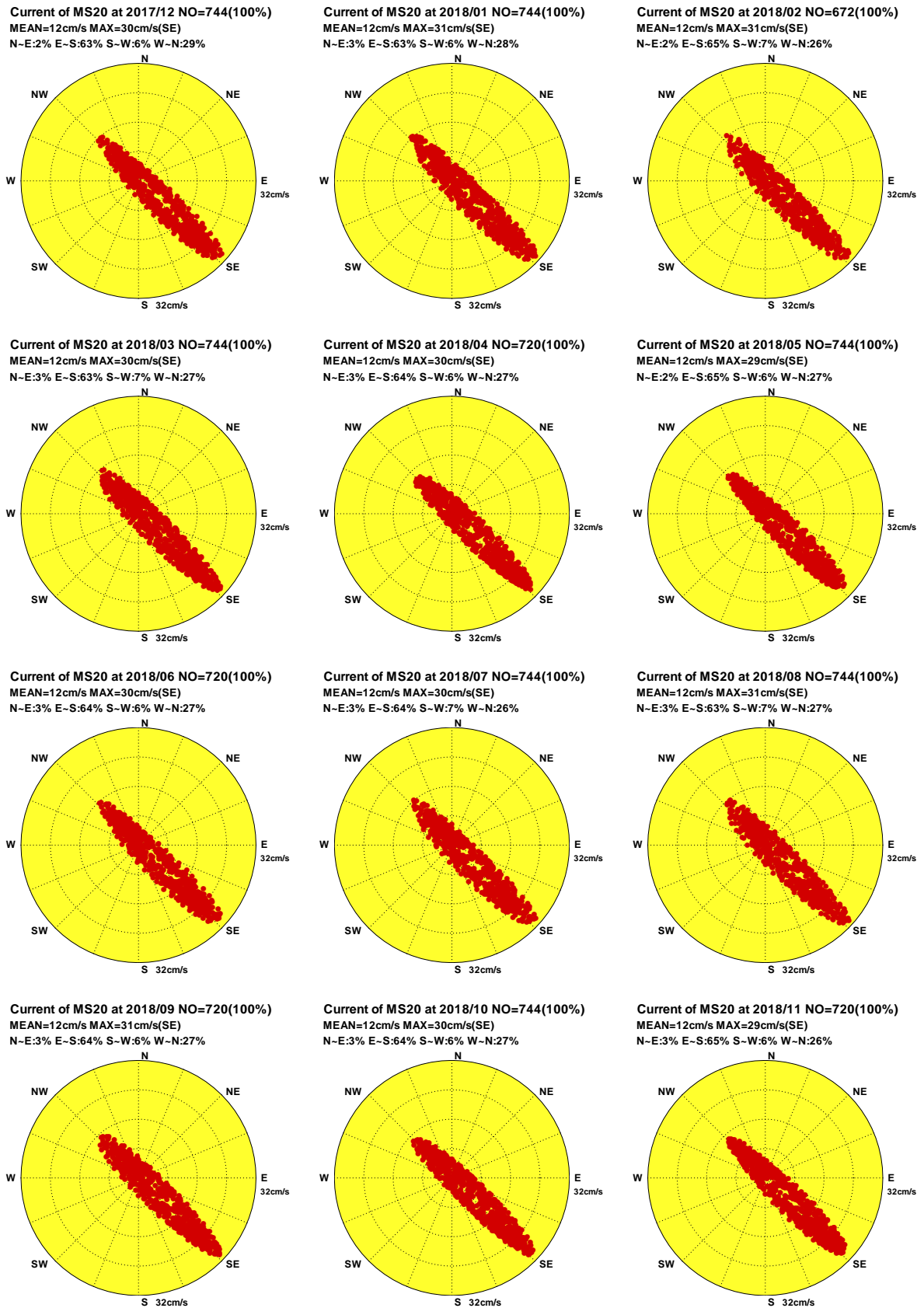


圖4.4.4b 2018年馬祖海域每月測站2計算潮流向量分佈圖

C17CMS20.1HD C181MS20.1HD C182MS20.1HD C183MS20.1HD C184MS20.1HD C185MS20.1HD
 C186MS20.1HD C187MS20.1HD C188MS20.1HD C189MS20.1HD C18AMS20.1HD C18BMS20.1HD

Institute of Harbor & Marine Technology

Distribution of Current Vectors

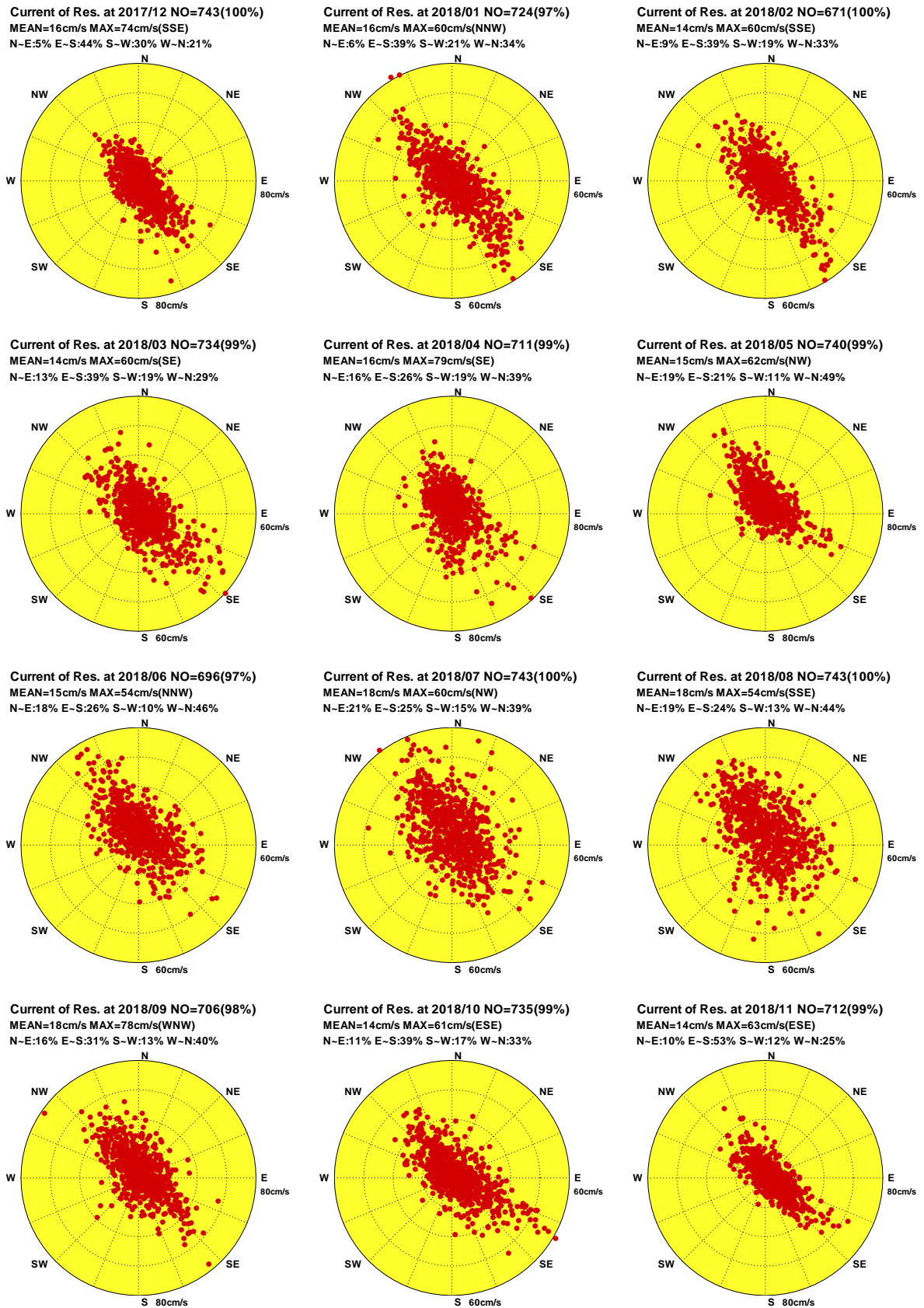


圖4.4.4c 2018年馬祖海域每月測站2計算殘流向量分佈圖

C17CMS20.1HR C181MS20.1HR C182MS20.1HR C183MS20.1HR C184MS20.1HR C185MS20.1HR
 C186MS20.1HR C187MS20.1HR C188MS20.1HR C189MS20.1HR C18AMS20.1HR C18BMS20.1HR

Institute of Harbor & Marine Technology

Distribution of Current Vectors

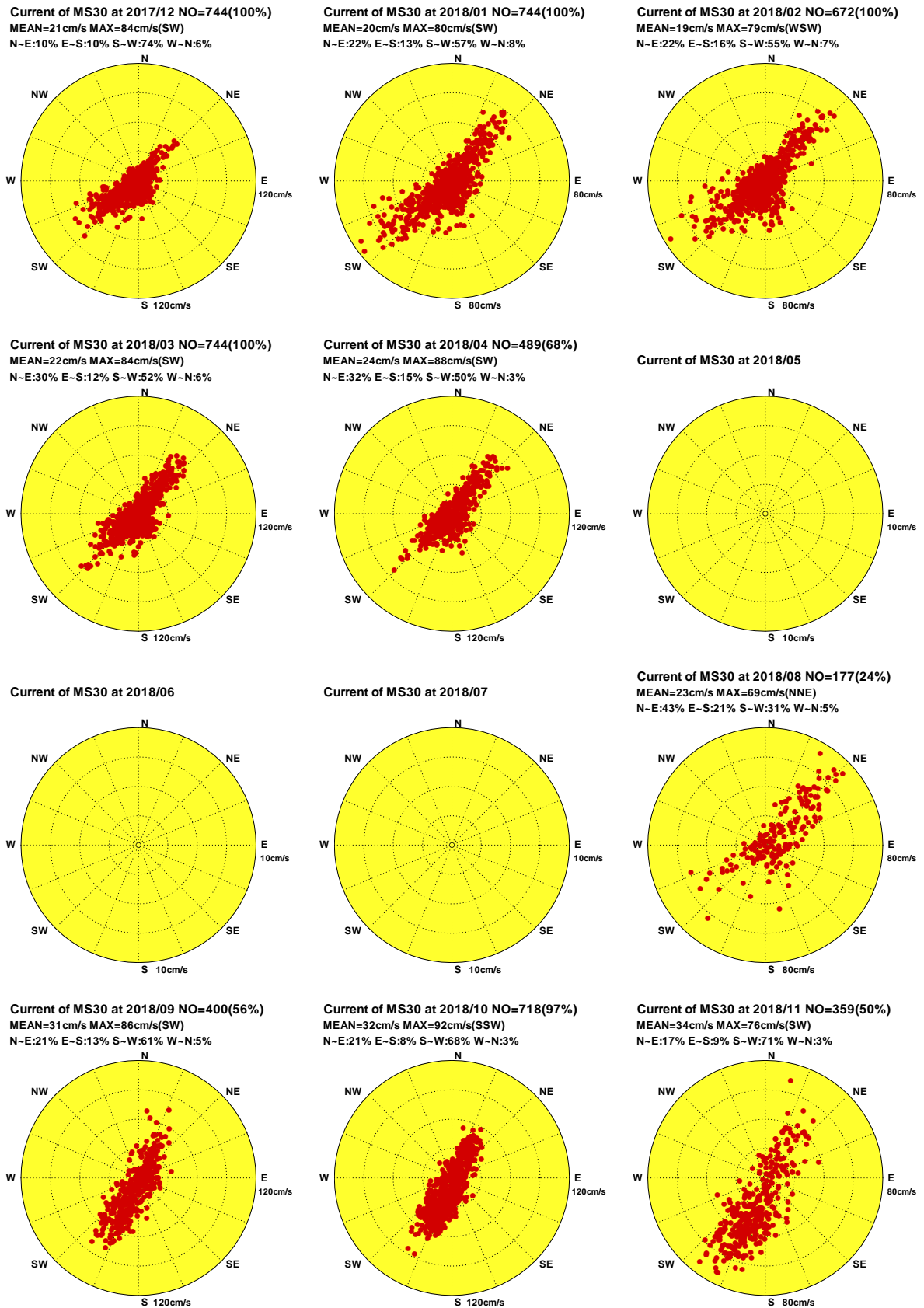


圖4.4.5a 2018年馬祖海域每月測站3觀測海流向量分佈圖

C17CMS30.1H0 C181MS30.1H0 C182MS30.1H0 C183MS30.1H0 C184MS30.1H0 C185MS30.1H0
 C186MS30.1H0 C187MS30.1H0 C188MS30.1H0 C189MS30.1H0 C18AMS30.1H0 C18BMS30.1H0

Institute of Harbor & Marine Technology

Distribution of Current Vectors

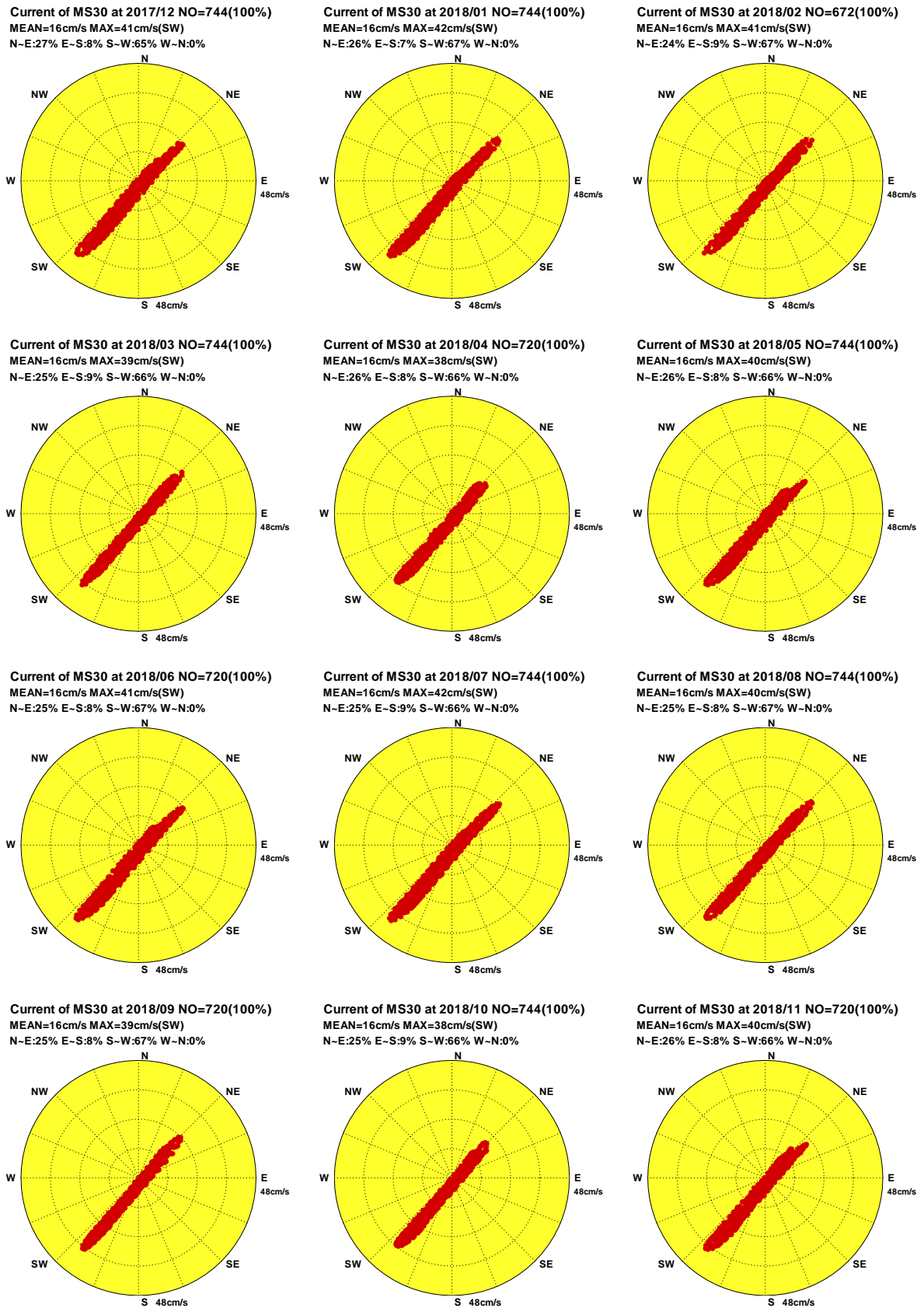


圖4.4.5b 2018年馬祖海域每月測站3計算潮流向量分佈圖

C17CMS30.1HD C181MS30.1HD C182MS30.1HD C183MS30.1HD C184MS30.1HD C185MS30.1HD
C186MS30.1HD C187MS30.1HD C188MS30.1HD C189MS30.1HD C18AMS30.1HD C18BMS30.1HD

Institute of Harbor & Marine Technology

Distribution of Current Vectors

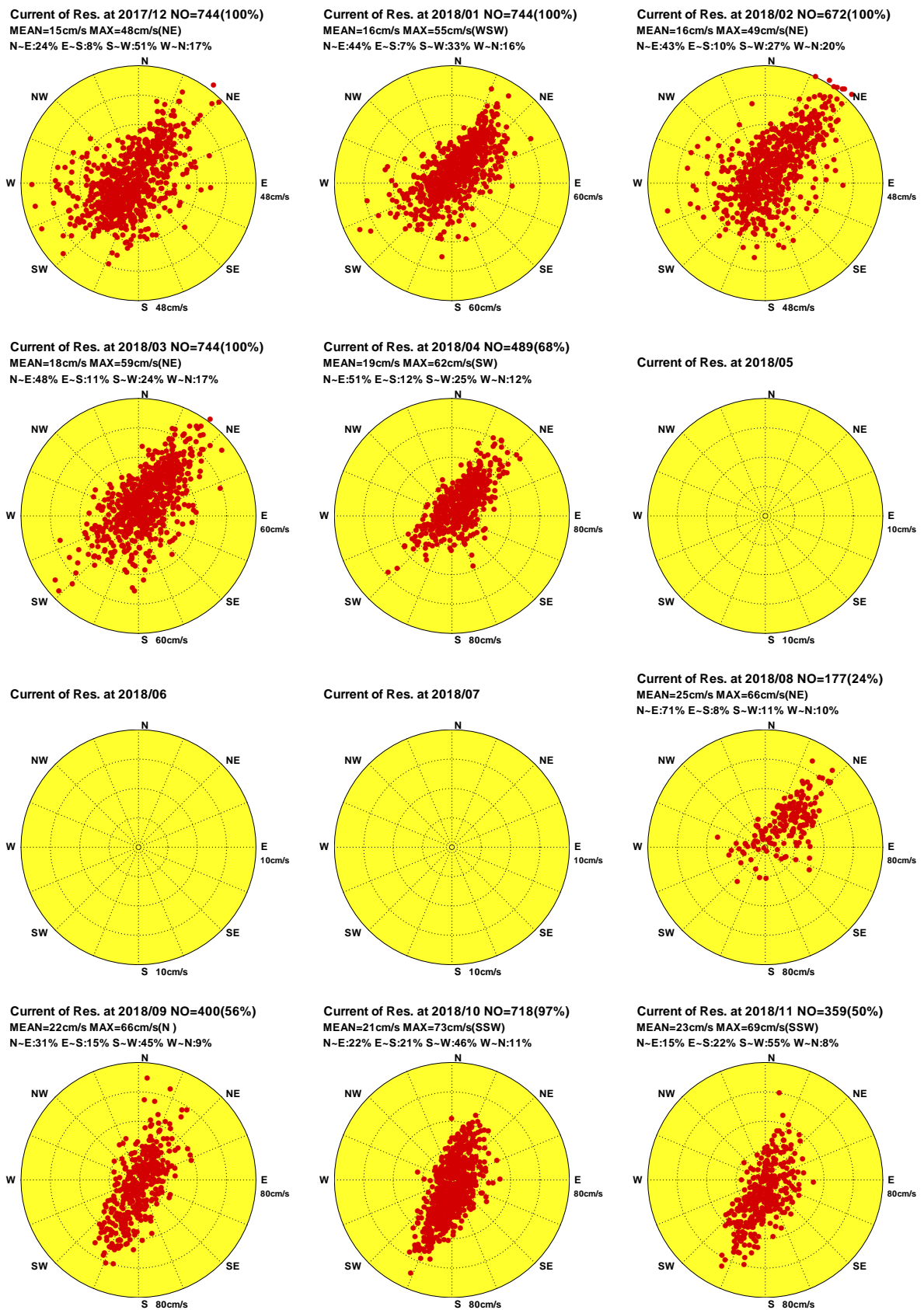


圖4.4.5c 2018年馬祖海域每月測站3計算殘流向量分佈圖

C17CMS30.1HR C181MS30.1HR C182MS30.1HR C183MS30.1HR C184MS30.1HR C185MS30.1HR
C186MS30.1HR C187MS30.1HR C188MS30.1HR C189MS30.1HR C18AMS30.1HR C18BMS30.1HR

Institute of Harbor & Marine Technology

4.5 2018 年馬祖海域各測站觀測海流與 計算潮流(殘流)向量行進圖

Progressive Vector Diagram of Current

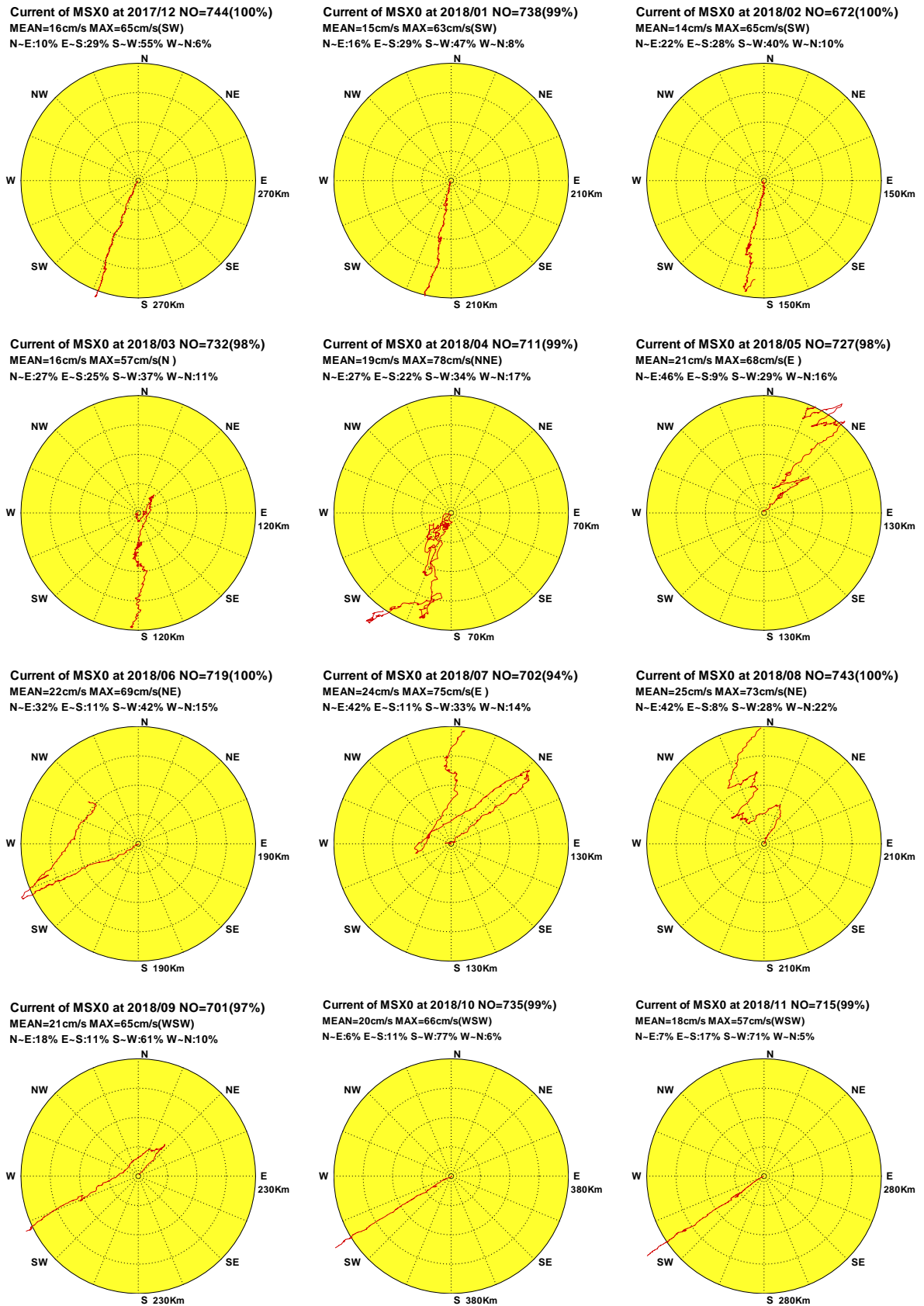


圖4.5.1a 2018年馬祖海域每月測站 X 觀測海流向量行進圖

C17CMSX0.1H0 C181MSX0.1H0 C182MSX0.1H0 C183MSX0.1H0 C184MSX0.1H0 C185MSX0.1H0
C186MSX0.1H0 C187MSX0.1H0 C188MSX0.1H0 C189MSX0.1H0 C18AMSX0.1H0 C18BMSX0.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

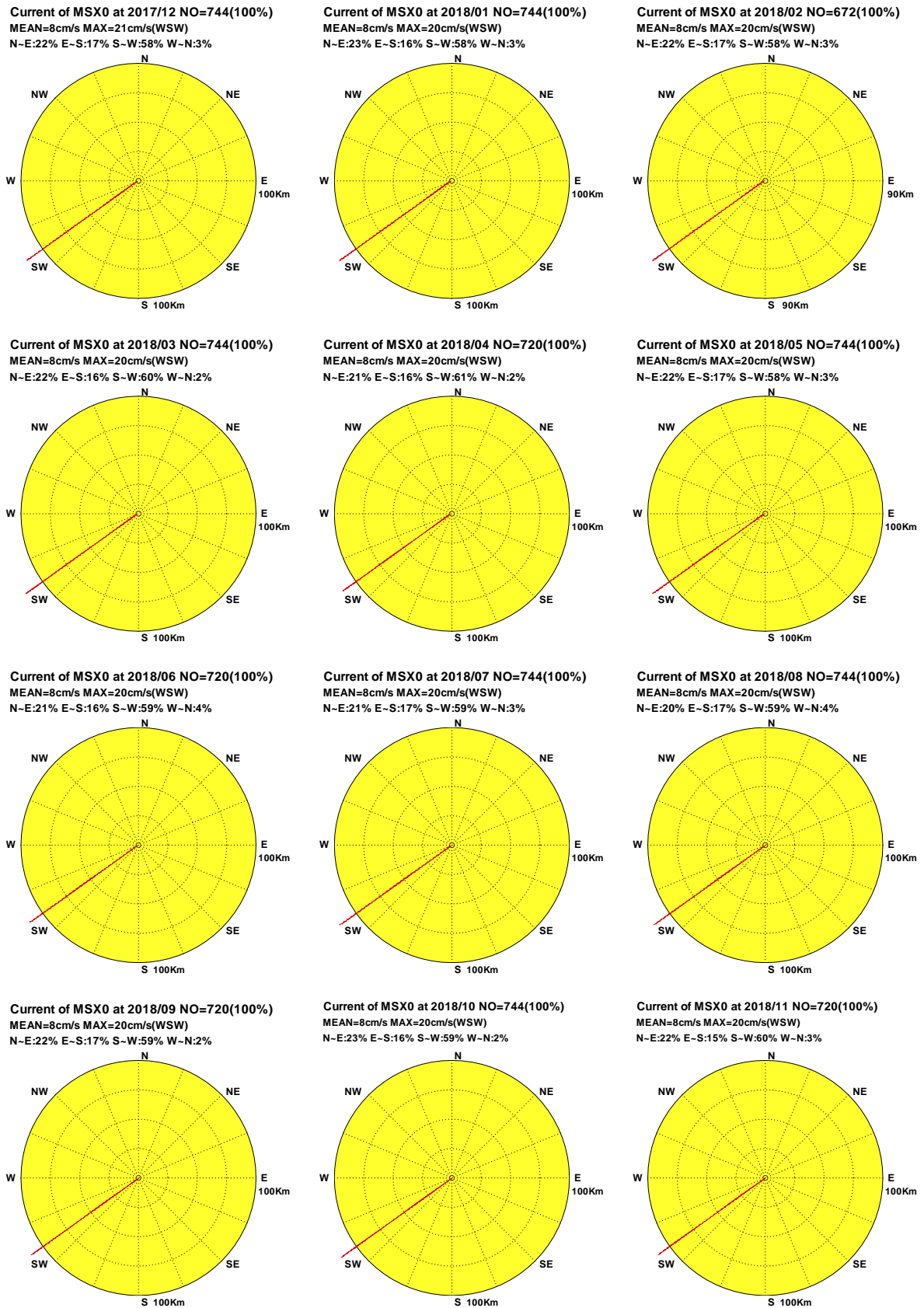


圖4.5.1b 2018年馬祖海域每月測站 X 計算潮流向量行進圖

C17CMSX0.1HD C181MSX0.1HD C182MSX0.1HD C183MSX0.1HD C184MSX0.1HD C185MSX0.1HD
C186MSX0.1HD C187MSX0.1HD C188MSX0.1HD C189MSX0.1HD C18AMSX0.1HD C18BMSX0.1HD

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

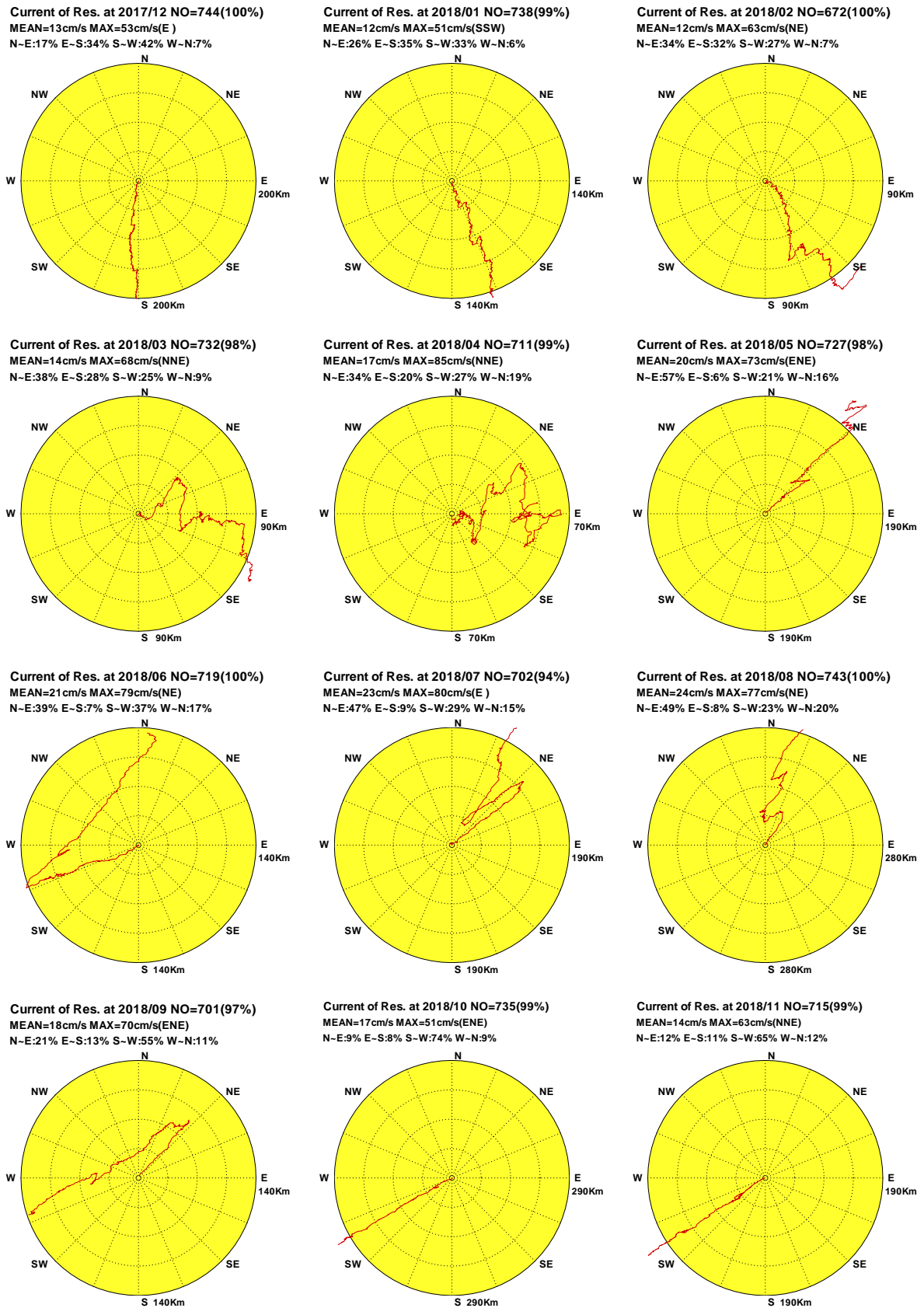


圖4.5.1c 2018年馬祖海域每月測站 X 計算殘流向量行進圖

C17CMSX0.1HR C181MSX0.1HR C182MSX0.1HR C183MSX0.1HR C184MSX0.1HR C185MSX0.1HR
C186MSX0.1HR C187MSX0.1HR C188MSX0.1HR C189MSX0.1HR C18AMSX0.1HR C18BMSX0.1HR

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

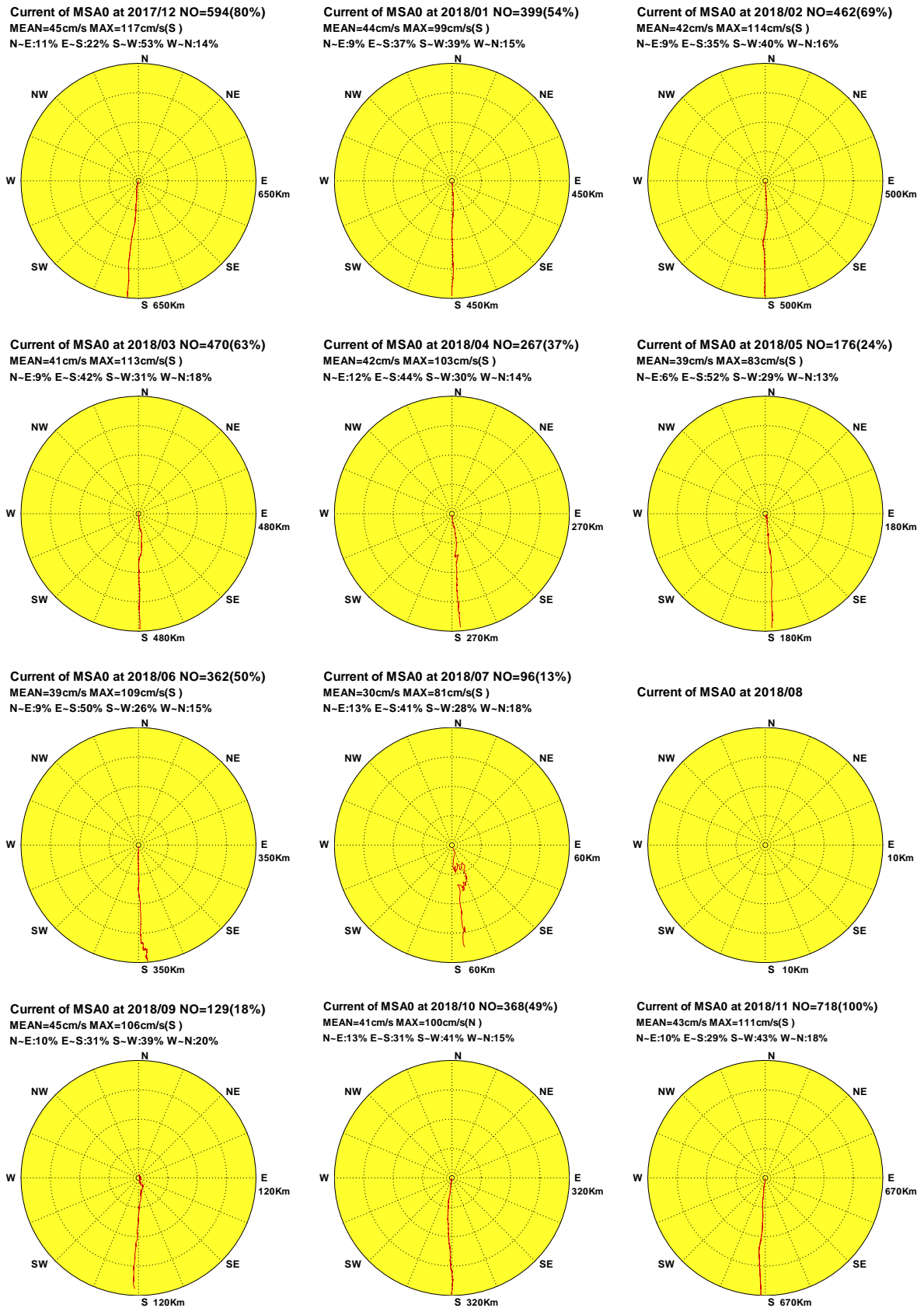


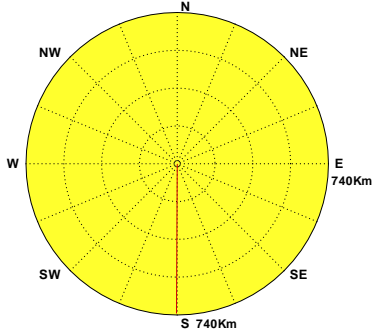
圖4.5.2a 2018年馬祖海域每月測站 A 觀測海流向量行進圖

C17CMSA0.1H0 C181MSA0.1H0 C182MSA0.1H0 C183MSA0.1H0 C184MSA0.1H0 C185MSA0.1H0
C186MSA0.1H0 C187MSA0.1H0 C188MSA0.1H0 C189MSA0.1H0 C18AMSA0.1H0 C18BMSA0.1H0

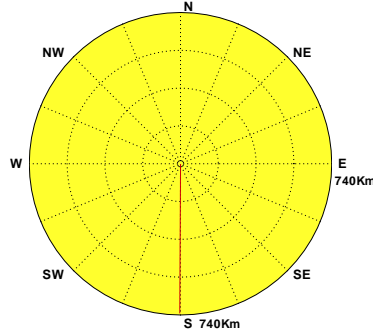
Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

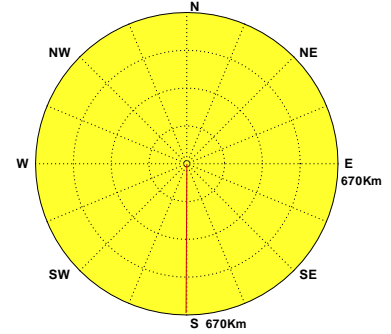
Current of MSA0 at 2017/12 NO=744(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



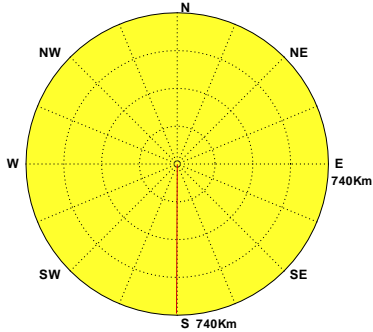
Current of MSA0 at 2018/01 NO=744(100%)
MEAN=27cm/s MAX=40cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



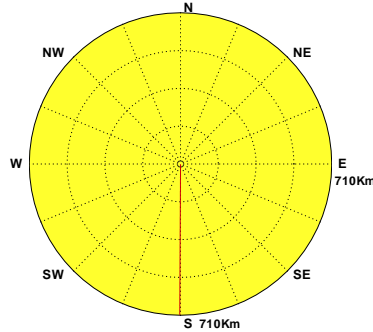
Current of MSA0 at 2018/02 NO=672(100%)
MEAN=27cm/s MAX=40cm/s(S)
N-E:0% E-S:42% S-W:58% W-N:0%



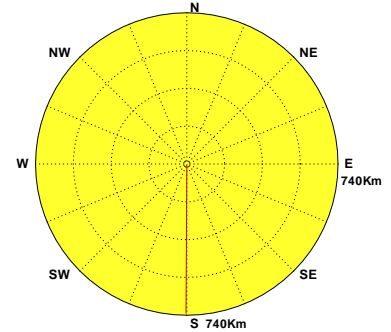
Current of MSA0 at 2018/03 NO=744(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



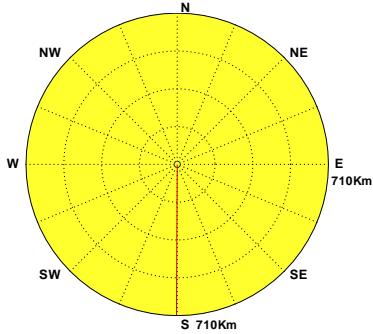
Current of MSA0 at 2018/04 NO=720(100%)
MEAN=27cm/s MAX=38cm/s(S)
N-E:0% E-S:44% S-W:56% W-N:0%



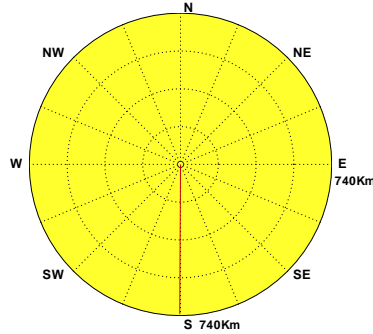
Current of MSA0 at 2018/05 NO=744(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



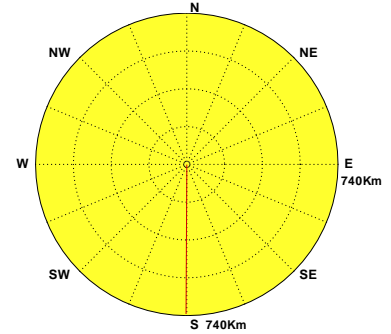
Current of MSA0 at 2018/06 NO=720(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



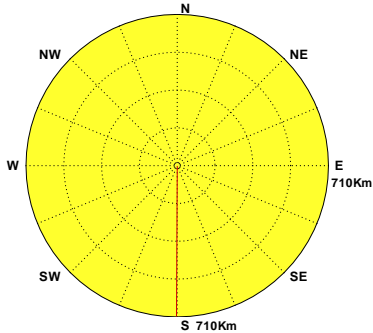
Current of MSA0 at 2018/07 NO=744(100%)
MEAN=27cm/s MAX=40cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%



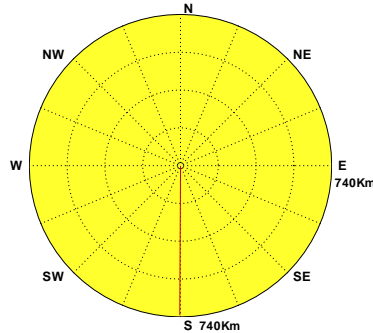
Current of MSA0 at 2018/08 NO=744(100%)
MEAN=27cm/s MAX=40cm/s(S)
N-E:0% E-S:44% S-W:56% W-N:0%



Current of MSA0 at 2018/09 NO=720(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:42% S-W:58% W-N:0%



Current of MSA0 at 2018/10 NO=744(100%)
MEAN=27cm/s MAX=38cm/s(S)
N-E:0% E-S:42% S-W:58% W-N:0%



Current of MSA0 at 2018/11 NO=720(100%)
MEAN=27cm/s MAX=39cm/s(S)
N-E:0% E-S:43% S-W:57% W-N:0%

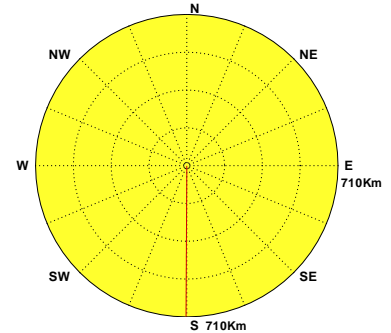


圖4.5.2b 2018年馬祖海域每月測站 A 計算潮流向量行進圖

C17CMSA0.1HD C181MSA0.1HD C182MSA0.1HD C183MSA0.1HD C184MSA0.1HD C185MSA0.1HD
C186MSA0.1HD C187MSA0.1HD C188MSA0.1HD C189MSA0.1HD C18AMSA0.1HD C18BMSA0.1HD

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

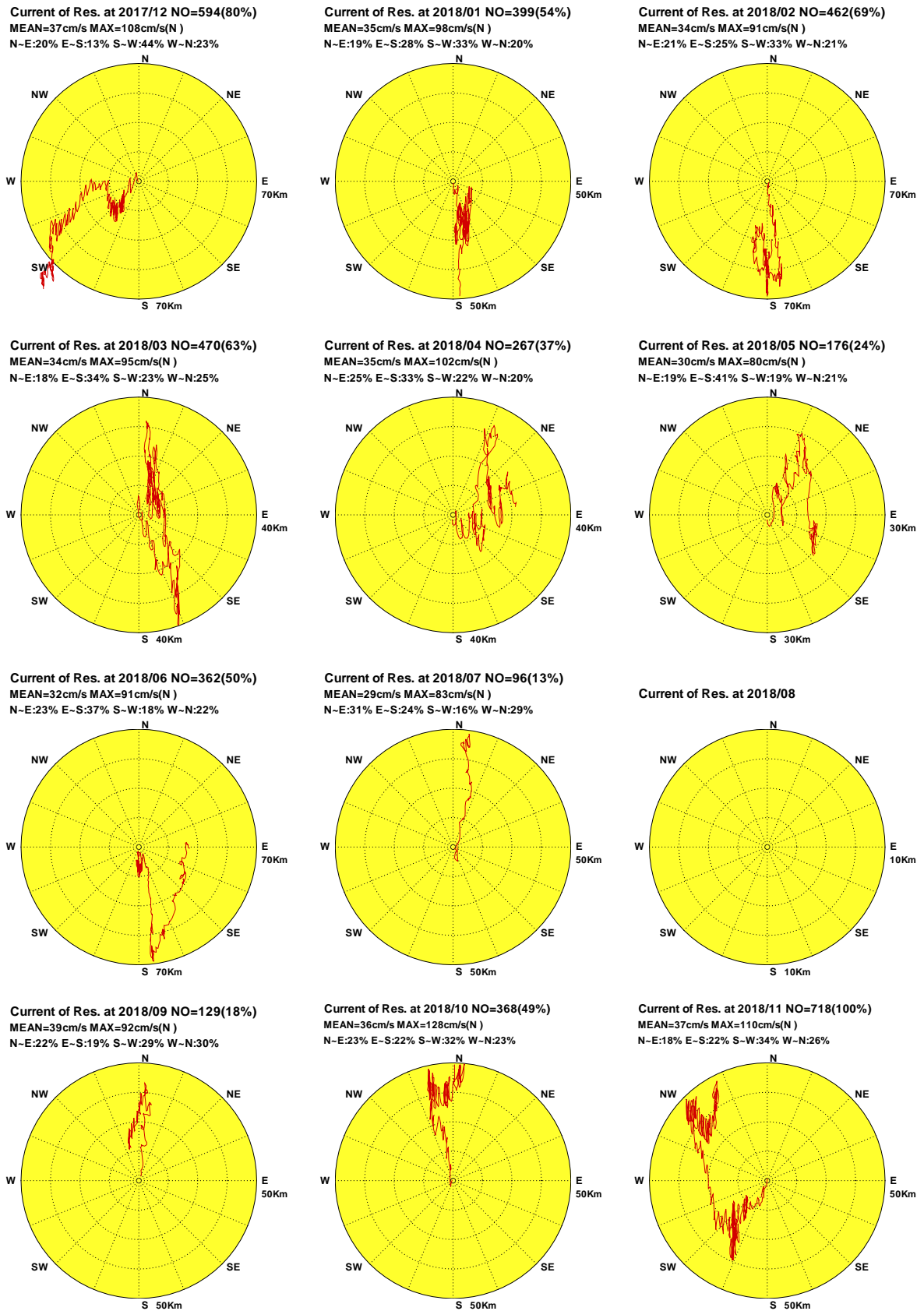


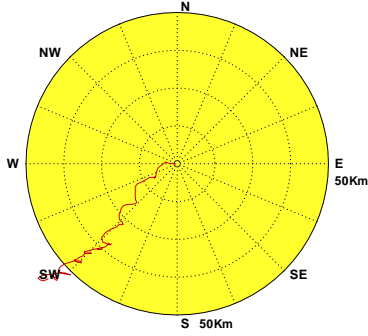
圖4.5.2c 2018年馬祖海域每月測站 A 計算殘流向量行進圖

C17CMSA0.1HR C181MSA0.1HR C182MSA0.1HR C183MSA0.1HR C184MSA0.1HR C185MSA0.1HR
C186MSA0.1HR C187MSA0.1HR C188MSA0.1HR C189MSA0.1HR C18AMSA0.1HR C18BMSA0.1HR

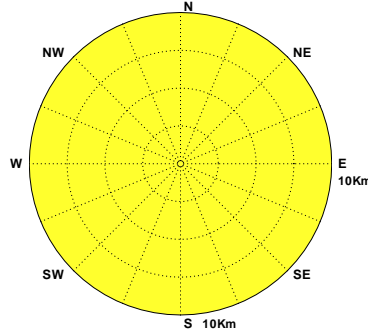
Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

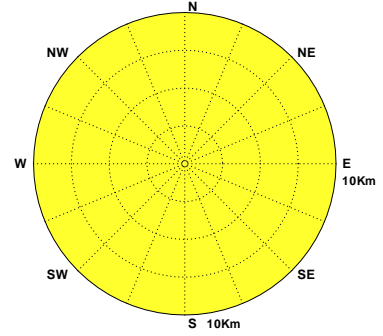
Current of MSY0 at 2017/12 NO=116(16%)
 MEAN=26cm/s MAX=77cm/s(SW)
 N-E:3% E-S:25% S-W:49% W-N:17%



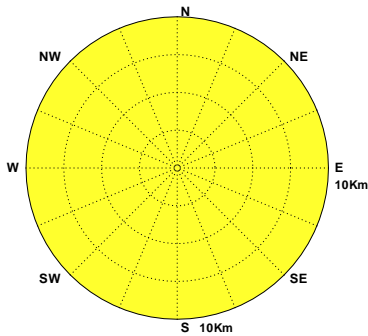
Current of MSY0 at 2018/01



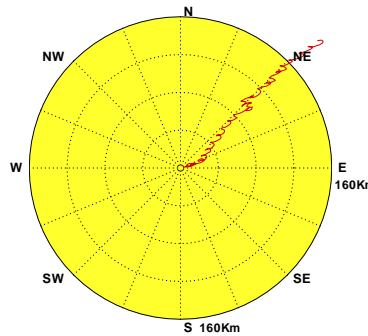
Current of MSY0 at 2018/02



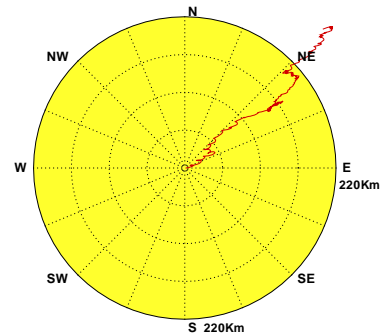
Current of MSY0 at 2018/03



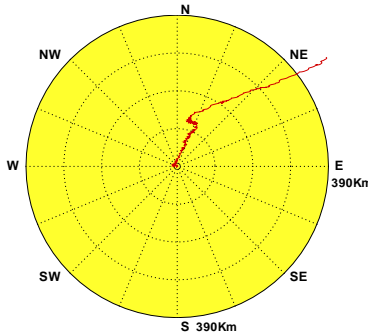
Current of MSY0 at 2018/04 NO=298(41%)
 MEAN=42cm/s MAX=100cm/s(E)
 N-E:53% E-S:4% S-W:16% W-N:27%



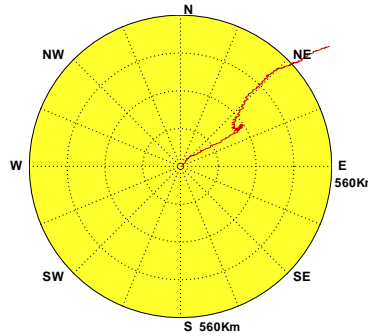
Current of MSY0 at 2018/05 NO=644(87%)
 MEAN=30cm/s MAX=113cm/s(ENE)
 N-E:49% E-S:5% S-W:22% W-N:24%



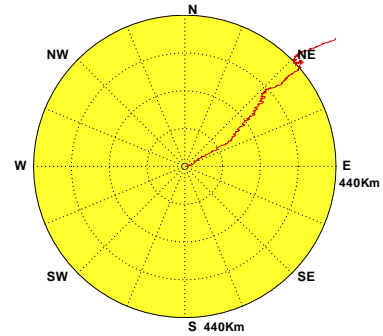
Current of MSY0 at 2018/06 NO=717(100%)
 MEAN=39cm/s MAX=124cm/s(ENE)
 N-E:55% E-S:6% S-W:18% W-N:21%



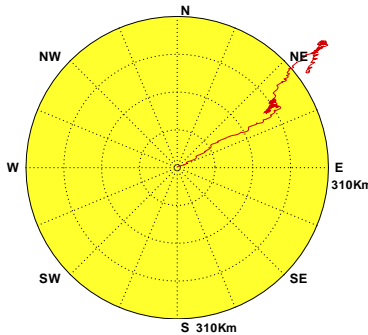
Current of MSY0 at 2018/07 NO=744(100%)
 MEAN=46cm/s MAX=158cm/s(SW)
 N-E:58% E-S:8% S-W:10% W-N:24%



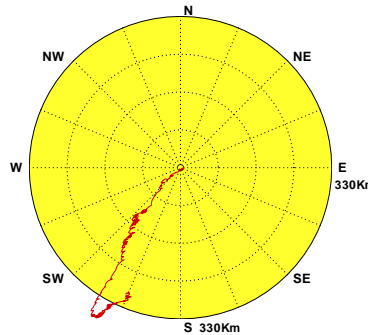
Current of MSY0 at 2018/08 NO=744(100%)
 MEAN=42cm/s MAX=125cm/s(E)
 N-E:54% E-S:8% S-W:15% W-N:23%



Current of MSY0 at 2018/09 NO=716(99%)
 MEAN=47cm/s MAX=116cm/s(ENE)
 N-E:52% E-S:5% S-W:22% W-N:21%



Current of MSY0 at 2018/10 NO=744(100%)
 MEAN=49cm/s MAX=136cm/s(ENE)
 N-E:32% E-S:8% S-W:49% W-N:11%



Current of MSY0 at 2018/11 NO=720(100%)
 MEAN=43cm/s MAX=122cm/s(SW)
 N-E:34% E-S:8% S-W:44% W-N:14%

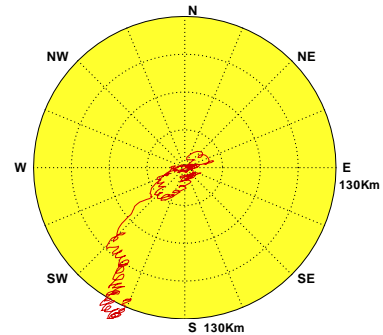


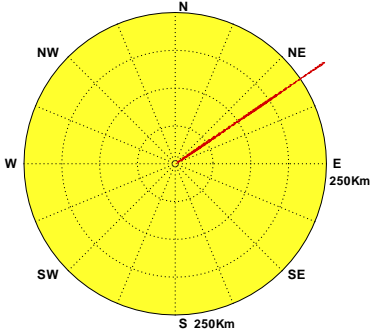
圖4.5.3a 2018年馬祖海域每月測站 Y 觀測海流向量行進圖

C17CMSY0.1H0 C181MSY0.1H0 C182MSY0.1H0 C183MSY0.1H0 C184MSY0.1H0 C185MSY0.1H0
 C186MSY0.1H0 C187MSY0.1H0 C188MSY0.1H0 C189MSY0.1H0 C18AMSY0.1H0 C18BMSY0.1H0

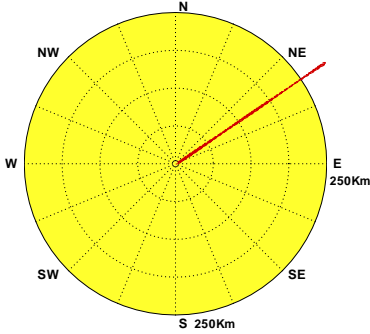
Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

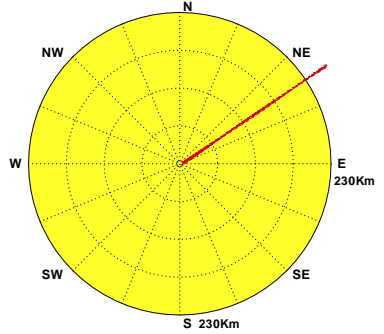
Current of MSY0 at 2017/12 NO=744(100%)
 MEAN=33cm/s MAX=77cm/s(ENE)
 N-E:48% E-S:10% S-W:27% W-N:15%



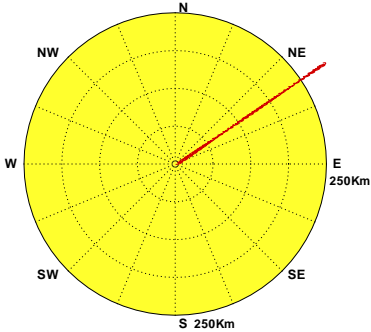
Current of MSY0 at 2018/01 NO=744(100%)
 MEAN=34cm/s MAX=82cm/s(ENE)
 N-E:47% E-S:10% S-W:29% W-N:14%



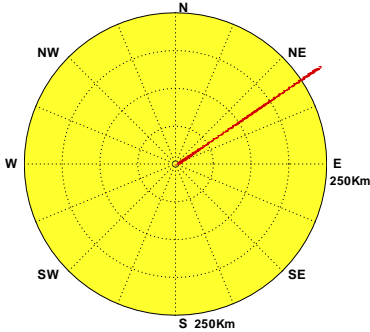
Current of MSY0 at 2018/02 NO=672(100%)
 MEAN=33cm/s MAX=84cm/s(ENE)
 N-E:46% E-S:10% S-W:29% W-N:15%



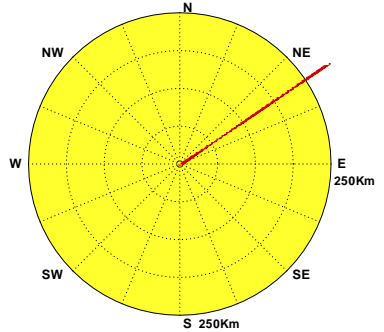
Current of MSY0 at 2018/03 NO=744(100%)
 MEAN=35cm/s MAX=84cm/s(ENE)
 N-E:47% E-S:10% S-W:29% W-N:14%



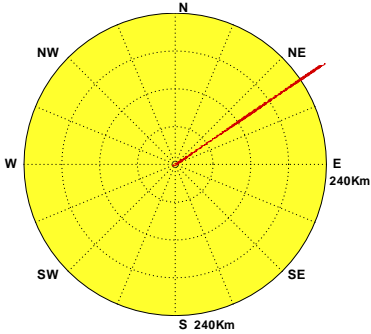
Current of MSY0 at 2018/04 NO=720(100%)
 MEAN=34cm/s MAX=81cm/s(ENE)
 N-E:47% E-S:10% S-W:28% W-N:15%



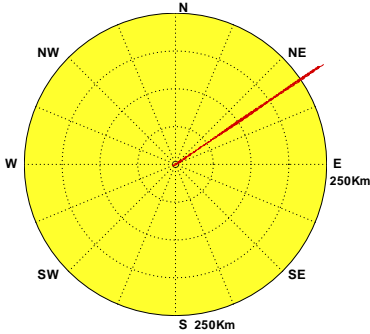
Current of MSY0 at 2018/05 NO=744(100%)
 MEAN=35cm/s MAX=78cm/s(ENE)
 N-E:47% E-S:10% S-W:28% W-N:15%



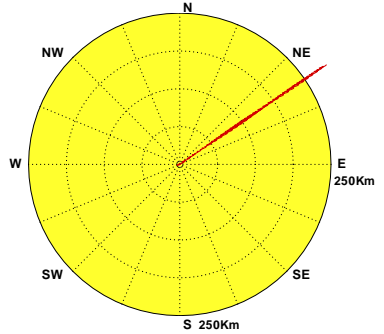
Current of MSY0 at 2018/06 NO=720(100%)
 MEAN=34cm/s MAX=77cm/s(ENE)
 N-E:48% E-S:9% S-W:28% W-N:15%



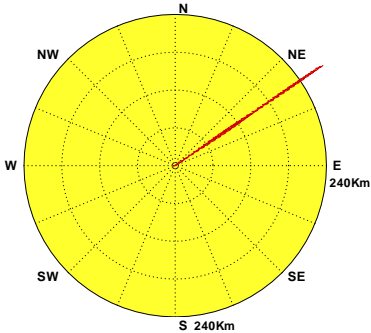
Current of MSY0 at 2018/07 NO=744(100%)
 MEAN=33cm/s MAX=81cm/s(ENE)
 N-E:48% E-S:9% S-W:28% W-N:15%



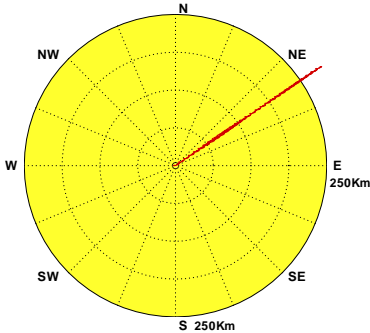
Current of MSY0 at 2018/08 NO=744(100%)
 MEAN=33cm/s MAX=82cm/s(ENE)
 N-E:48% E-S:10% S-W:28% W-N:14%



Current of MSY0 at 2018/09 NO=720(100%)
 MEAN=33cm/s MAX=83cm/s(ENE)
 N-E:46% E-S:10% S-W:29% W-N:15%



Current of MSY0 at 2018/10 NO=744(100%)
 MEAN=33cm/s MAX=81cm/s(ENE)
 N-E:47% E-S:10% S-W:29% W-N:14%



Current of MSY0 at 2018/11 NO=720(100%)
 MEAN=34cm/s MAX=78cm/s(ENE)
 N-E:45% E-S:11% S-W:28% W-N:16%

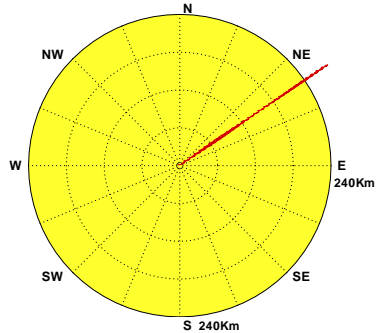


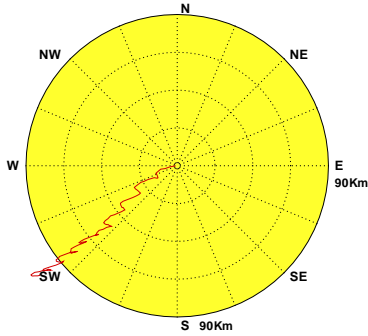
圖4.5.3b 2018年馬祖海域每月測站 Y 計算潮流向量行進圖

C17CMSY0.1HD C181MSY0.1HD C182MSY0.1HD C183MSY0.1HD C184MSY0.1HD C185MSY0.1HD
 C186MSY0.1HD C187MSY0.1HD C188MSY0.1HD C189MSY0.1HD C18AMS0.1HD C18BMSY0.1HD

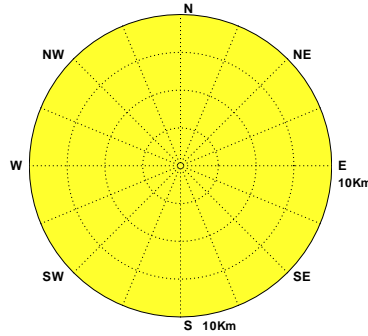
Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

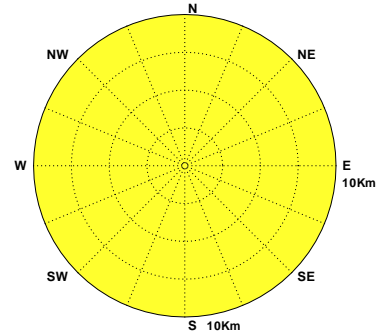
Current of Res. at 2017/12 NO=116(16%)
 MEAN=43cm/s MAX=105cm/s(SW)
 N-E:14% E-S:25% S-W:58% W-N:3%



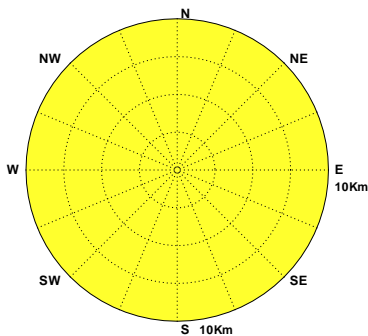
Current of Res. at 2018/01



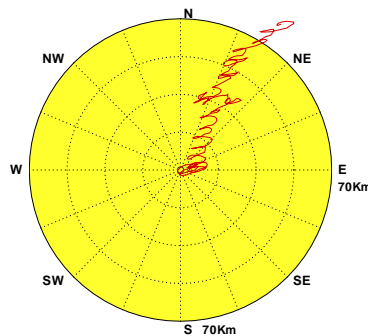
Current of Res. at 2018/02



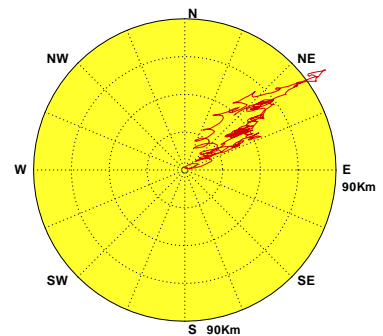
Current of Res. at 2018/03



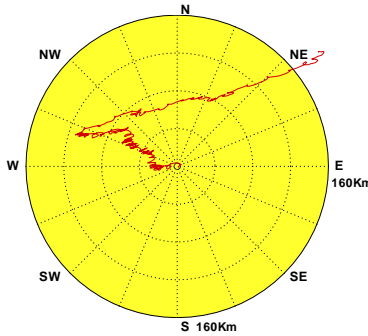
Current of Res. at 2018/04 NO=298(41%)
 MEAN=41cm/s MAX=113cm/s(ENE)
 N-E:43% E-S:7% S-W:32% W-N:18%



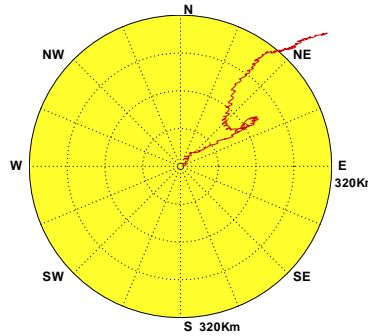
Current of Res. at 2018/05 NO=644(87%)
 MEAN=40cm/s MAX=120cm/s(WSW)
 N-E:40% E-S:9% S-W:39% W-N:12%



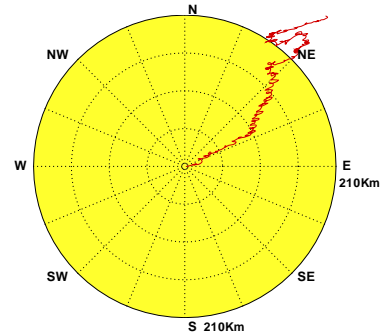
Current of Res. at 2018/06 NO=717(100%)
 MEAN=42cm/s MAX=133cm/s(E)
 N-E:44% E-S:10% S-W:29% W-N:17%



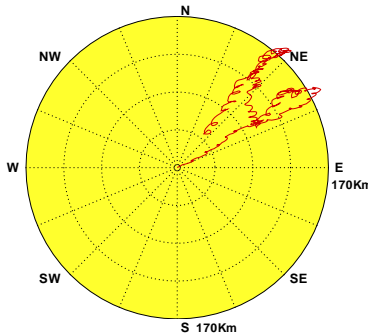
Current of Res. at 2018/07 NO=744(100%)
 MEAN=46cm/s MAX=164cm/s(SW)
 N-E:50% E-S:8% S-W:21% W-N:21%



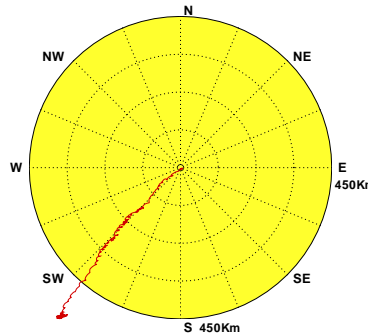
Current of Res. at 2018/08 NO=744(100%)
 MEAN=43cm/s MAX=133cm/s(WSW)
 N-E:45% E-S:9% S-W:27% W-N:19%



Current of Res. at 2018/09 NO=716(99%)
 MEAN=50cm/s MAX=130cm/s(SW)
 N-E:41% E-S:9% S-W:33% W-N:17%



Current of Res. at 2018/10 NO=744(100%)
 MEAN=53cm/s MAX=134cm/s(SW)
 N-E:24% E-S:17% S-W:50% W-N:9%



Current of Res. at 2018/11 NO=720(100%)
 MEAN=48cm/s MAX=129cm/s(ENE)
 N-E:26% E-S:14% S-W:51% W-N:9%

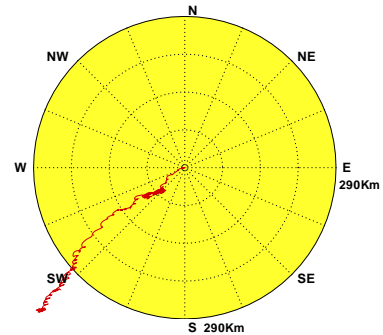


圖4.5.3c 2018年馬祖海域每月測站 Y 計算殘流向量行進圖

C17CMSY0.1HR C181MSY0.1HR C182MSY0.1HR C183MSY0.1HR C184MSY0.1HR C185MSY0.1HR
 C186MSY0.1HR C187MSY0.1HR C188MSY0.1HR C189MSY0.1HR C18AMS Y0.1HR C18BMSY0.1HR

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

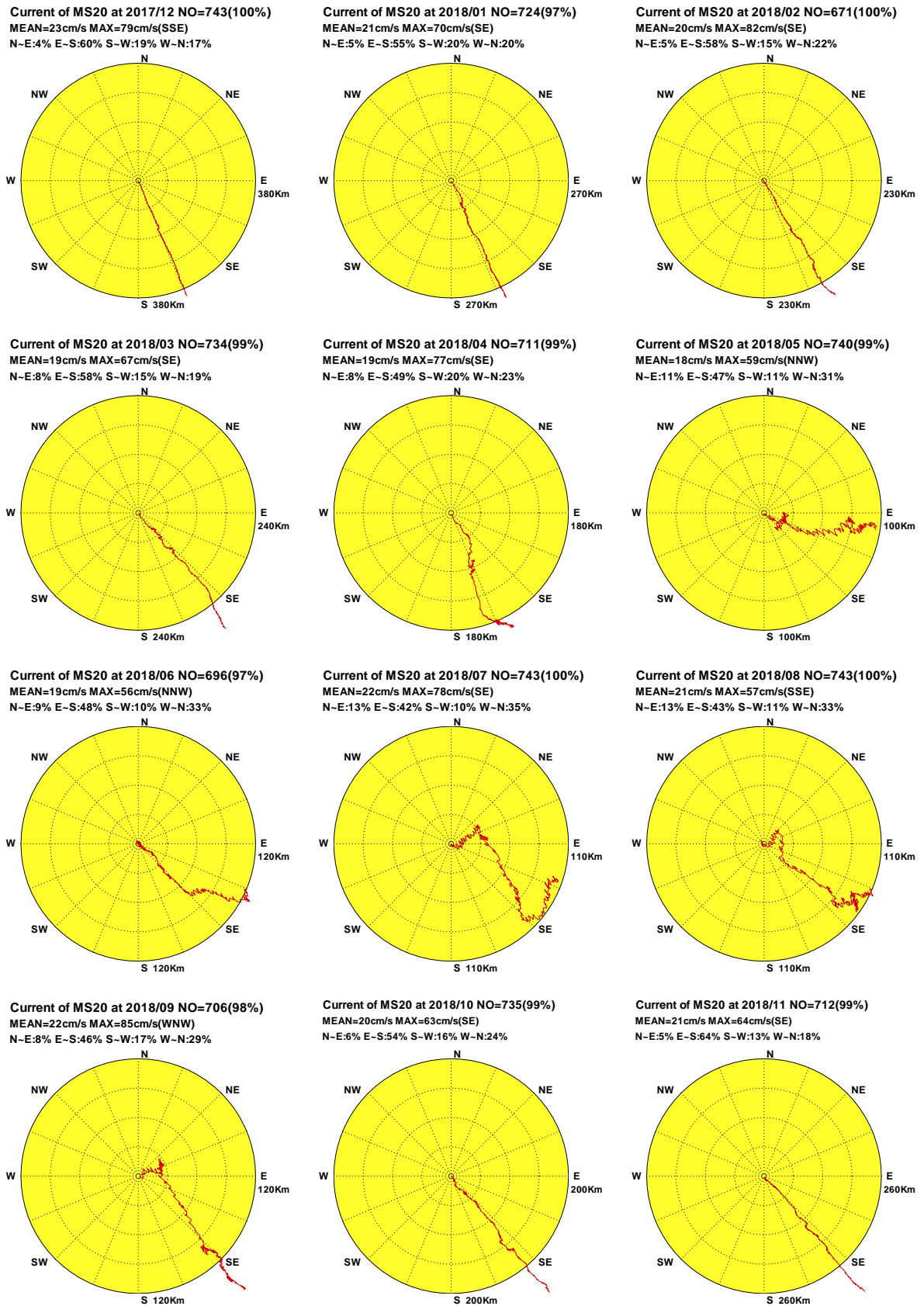


圖4.5.4a 2018年馬祖海域每月測站2觀測海流向量行進圖

C17CMS20.1H0 C181MS20.1H0 C182MS20.1H0 C183MS20.1H0 C184MS20.1H0 C185MS20.1H0
C186MS20.1H0 C187MS20.1H0 C188MS20.1H0 C189MS20.1H0 C18AMS20.1H0 C18BMS20.1H0

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

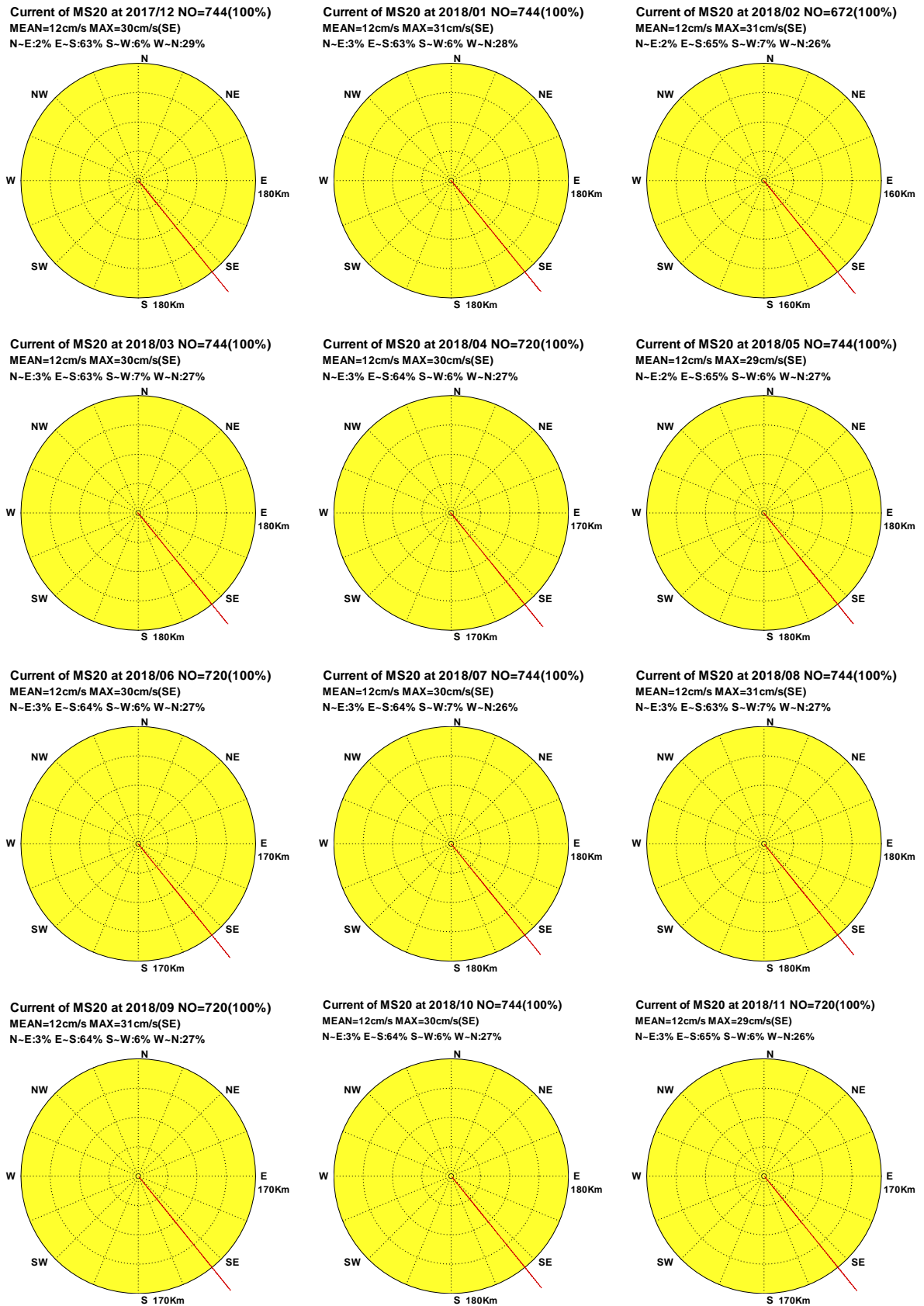


圖4.5.4b 2018年馬祖海域每月測站2計算潮流向量行進圖

C17CMS20.1HD C181MS20.1HD C182MS20.1HD C183MS20.1HD C184MS20.1HD C185MS20.1HD
C186MS20.1HD C187MS20.1HD C188MS20.1HD C189MS20.1HD C18AMS20.1HD C18BMS20.1HD

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

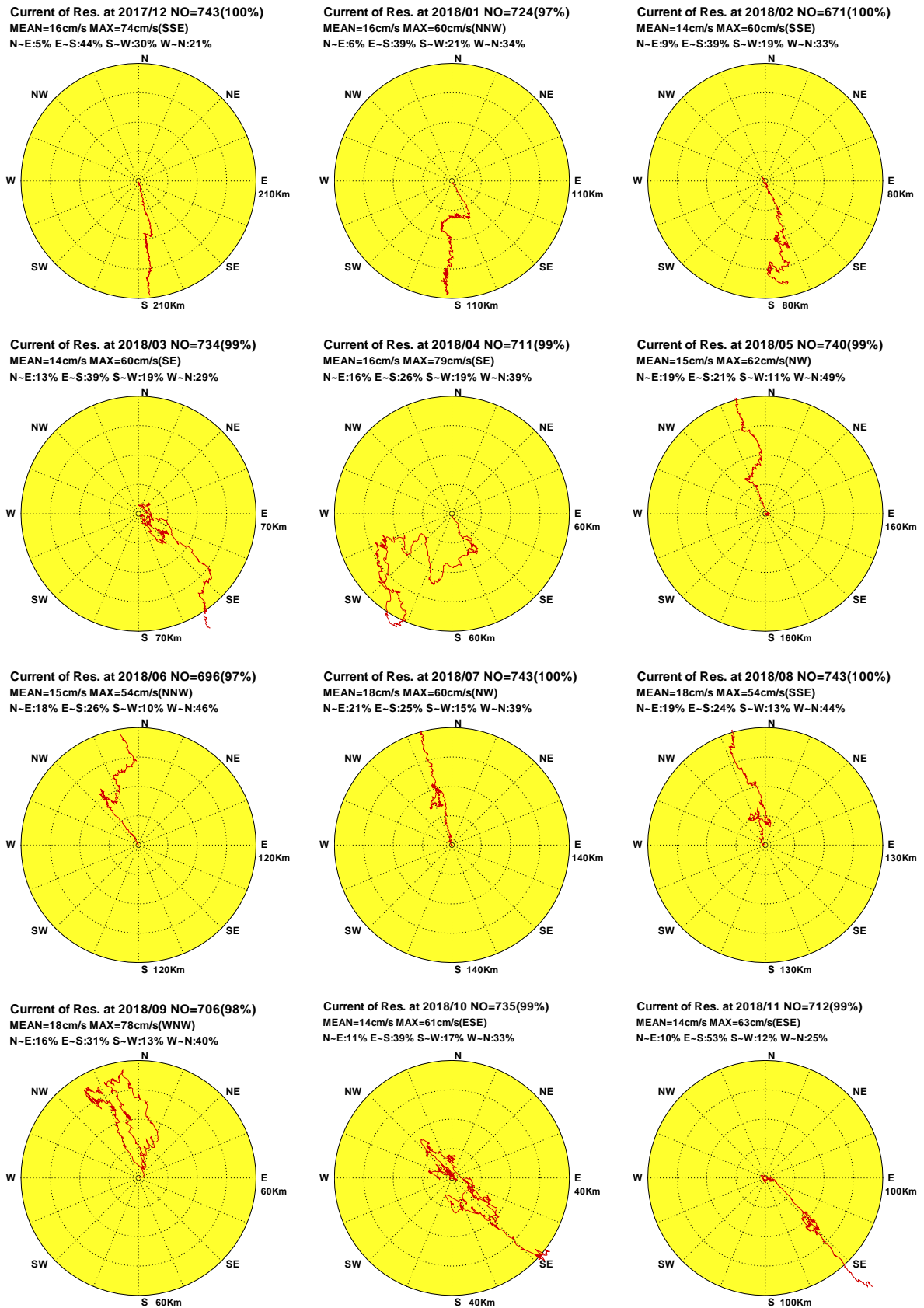


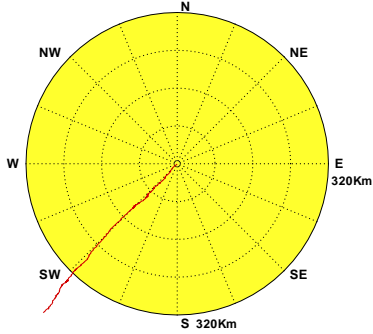
圖4.5.4c 2018年馬祖海域每月測站2計算殘流向量行進圖

C17CMS20.1HR C181MS20.1HR C182MS20.1HR C183MS20.1HR C184MS20.1HR C185MS20.1HR
C186MS20.1HR C187MS20.1HR C188MS20.1HR C189MS20.1HR C18AMS20.1HR C18BMS20.1HR

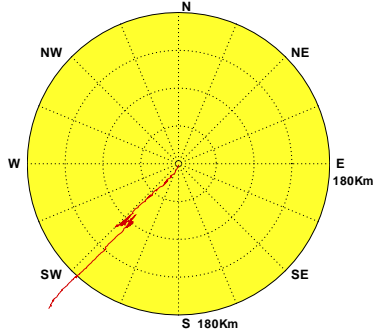
Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

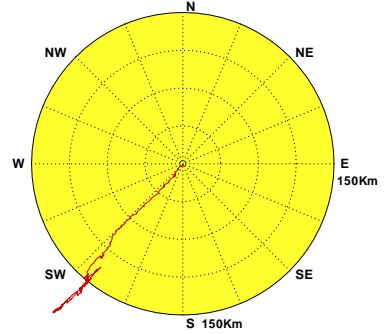
Current of MS30 at 2017/12 NO=744(100%)
 MEAN=21cm/s MAX=84cm/s(SW)
 N-E:10% E-S:10% S-W:74% W-N:6%



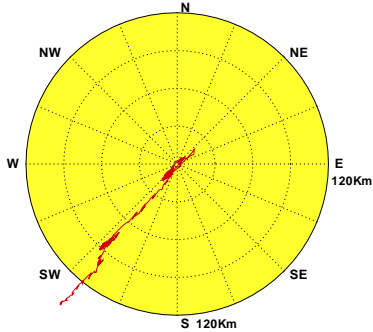
Current of MS30 at 2018/01 NO=744(100%)
 MEAN=20cm/s MAX=80cm/s(SW)
 N-E:22% E-S:13% S-W:57% W-N:8%



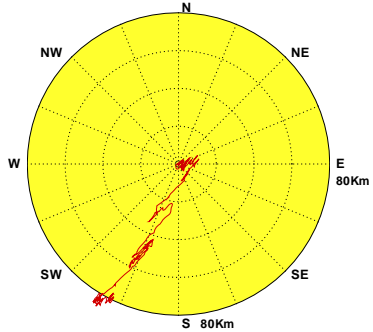
Current of MS30 at 2018/02 NO=672(100%)
 MEAN=19cm/s MAX=79cm/s(WSW)
 N-E:22% E-S:16% S-W:55% W-N:7%



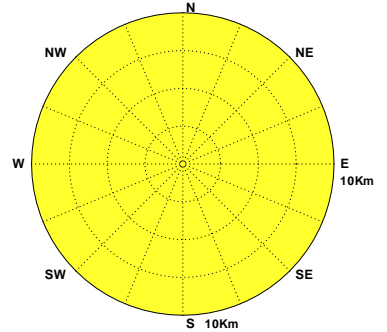
Current of MS30 at 2018/03 NO=744(100%)
 MEAN=22cm/s MAX=84cm/s(SW)
 N-E:30% E-S:12% S-W:52% W-N:6%



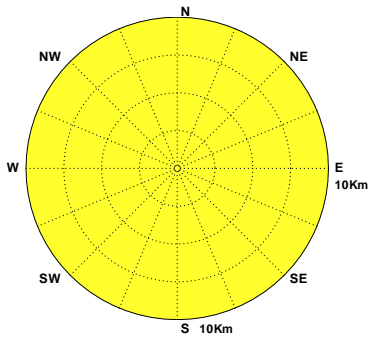
Current of MS30 at 2018/04 NO=489(68%)
 MEAN=24cm/s MAX=88cm/s(SW)
 N-E:32% E-S:15% S-W:50% W-N:3%



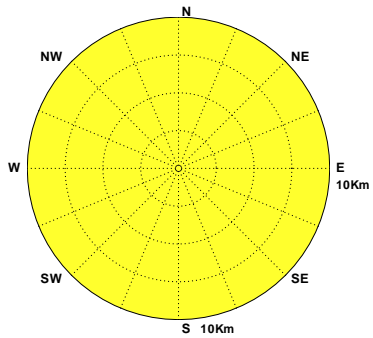
Current of MS30 at 2018/05



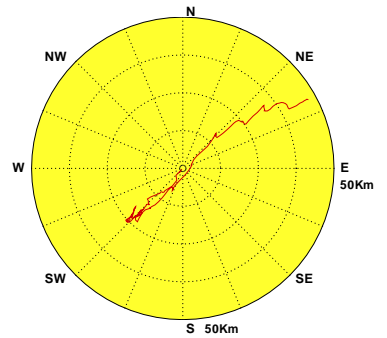
Current of MS30 at 2018/06



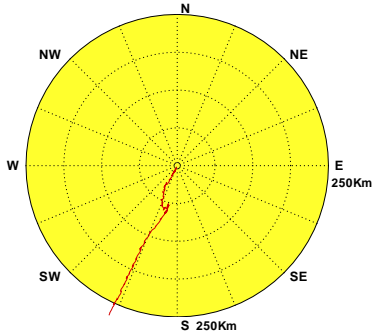
Current of MS30 at 2018/07



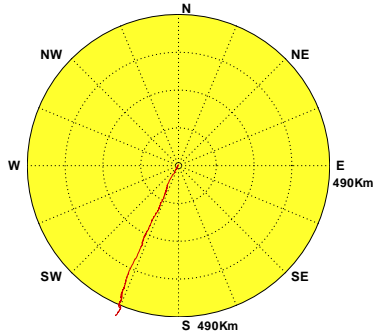
Current of MS30 at 2018/08 NO=177(24%)
 MEAN=23cm/s MAX=69cm/s(NNE)
 N-E:43% E-S:21% S-W:31% W-N:5%



Current of MS30 at 2018/09 NO=400(56%)
 MEAN=31cm/s MAX=86cm/s(SW)
 N-E:21% E-S:13% S-W:61% W-N:5%



Current of MS30 at 2018/10 NO=718(97%)
 MEAN=32cm/s MAX=92cm/s(SSW)
 N-E:21% E-S:8% S-W:68% W-N:3%



Current of MS30 at 2018/11 NO=359(50%)
 MEAN=34cm/s MAX=76cm/s(SW)
 N-E:17% E-S:9% S-W:71% W-N:3%

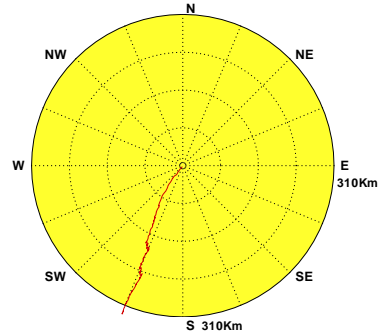


圖4.5.5a 2018年馬祖海域每月測站3觀測海流向量行進圖

C17CMS30.1HO C181MS30.1HO C182MS30.1HO C183MS30.1HO C184MS30.1HO C185MS30.1HO
 C186MS30.1HO C187MS30.1HO C188MS30.1HO C189MS30.1HO C18AMS30.1HO C18BMS30.1HO

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

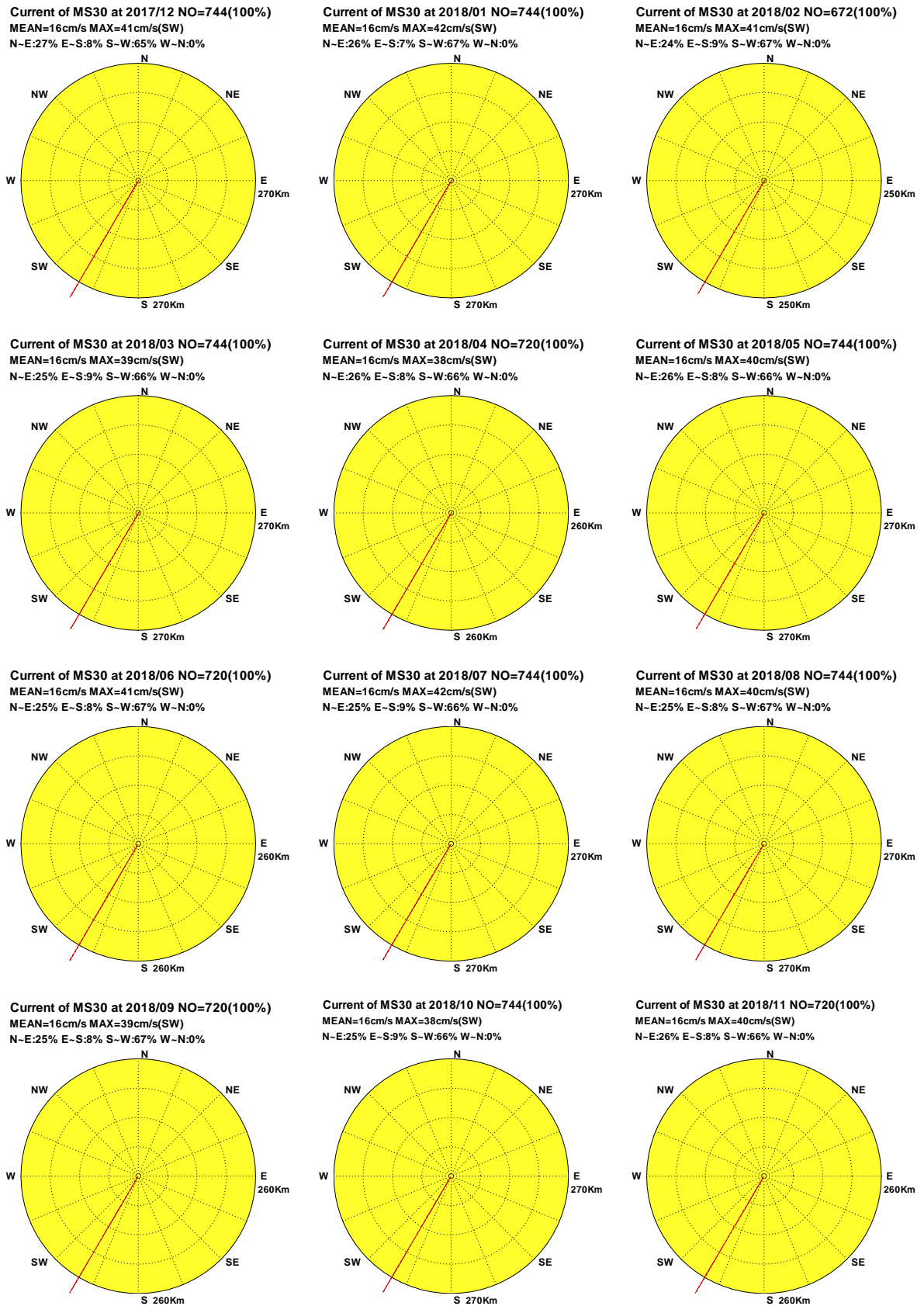


圖4.5.5b 2018年馬祖海域每月測站3計算潮流向量行進圖

C17CMS30.1HD C181MS30.1HD C182MS30.1HD C183MS30.1HD C184MS30.1HD C185MS30.1HD
C186MS30.1HD C187MS30.1HD C188MS30.1HD C189MS30.1HD C18AMS30.1HD C18BMS30.1HD

Institute of Harbor & Marine Technology

Progressive Vector Diagram of Current

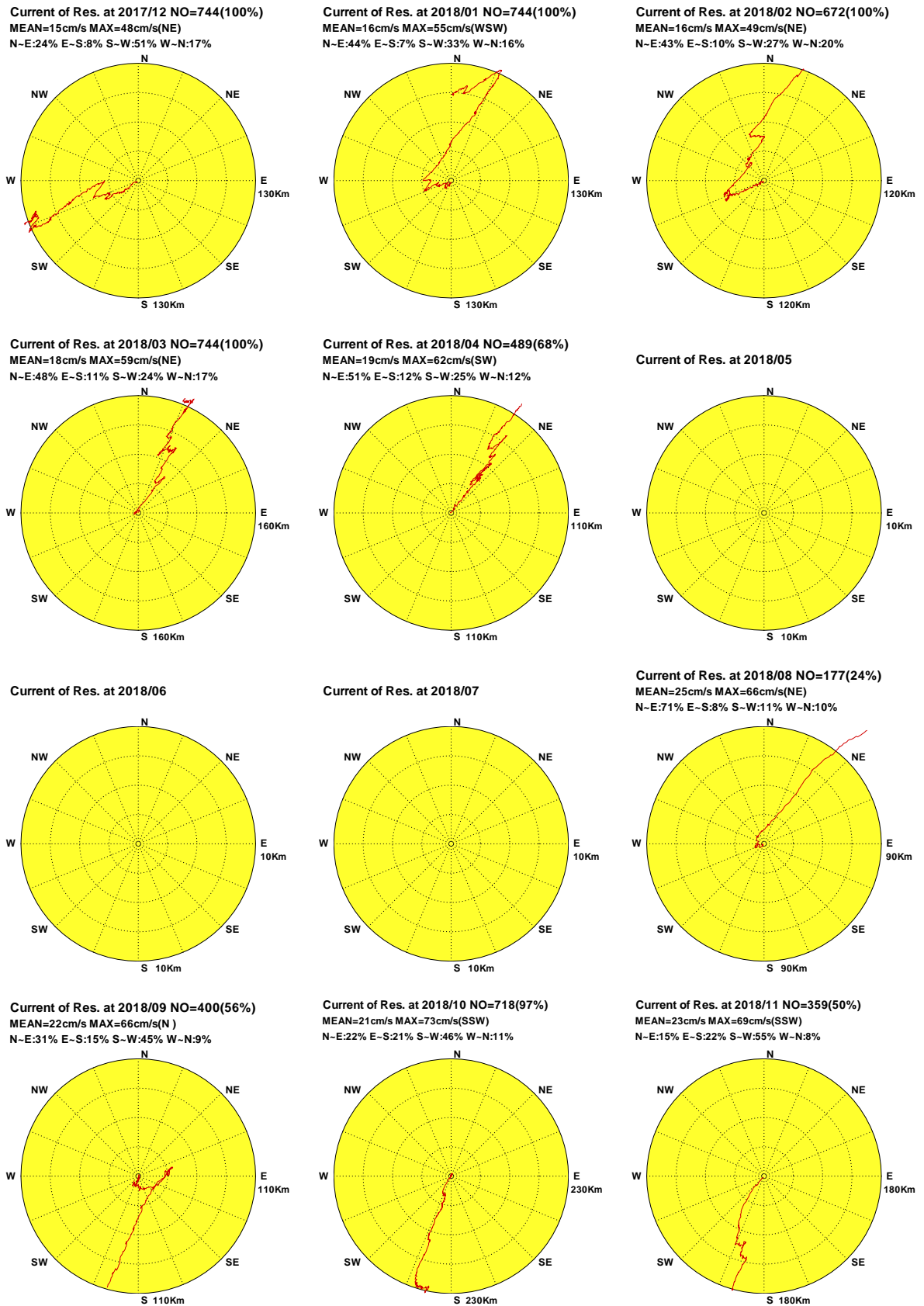


圖4.5.5c 2018年馬祖海域每月測站3計算殘流向量行進圖

C17CMS30.1HR C181MS30.1HR C182MS30.1HR C183MS30.1HR C184MS30.1HR C185MS30.1HR
C186MS30.1HR C187MS30.1HR C188MS30.1HR C189MS30.1HR C18AMS30.1HR C18BMS30.1HR

Institute of Harbor & Marine Technology

