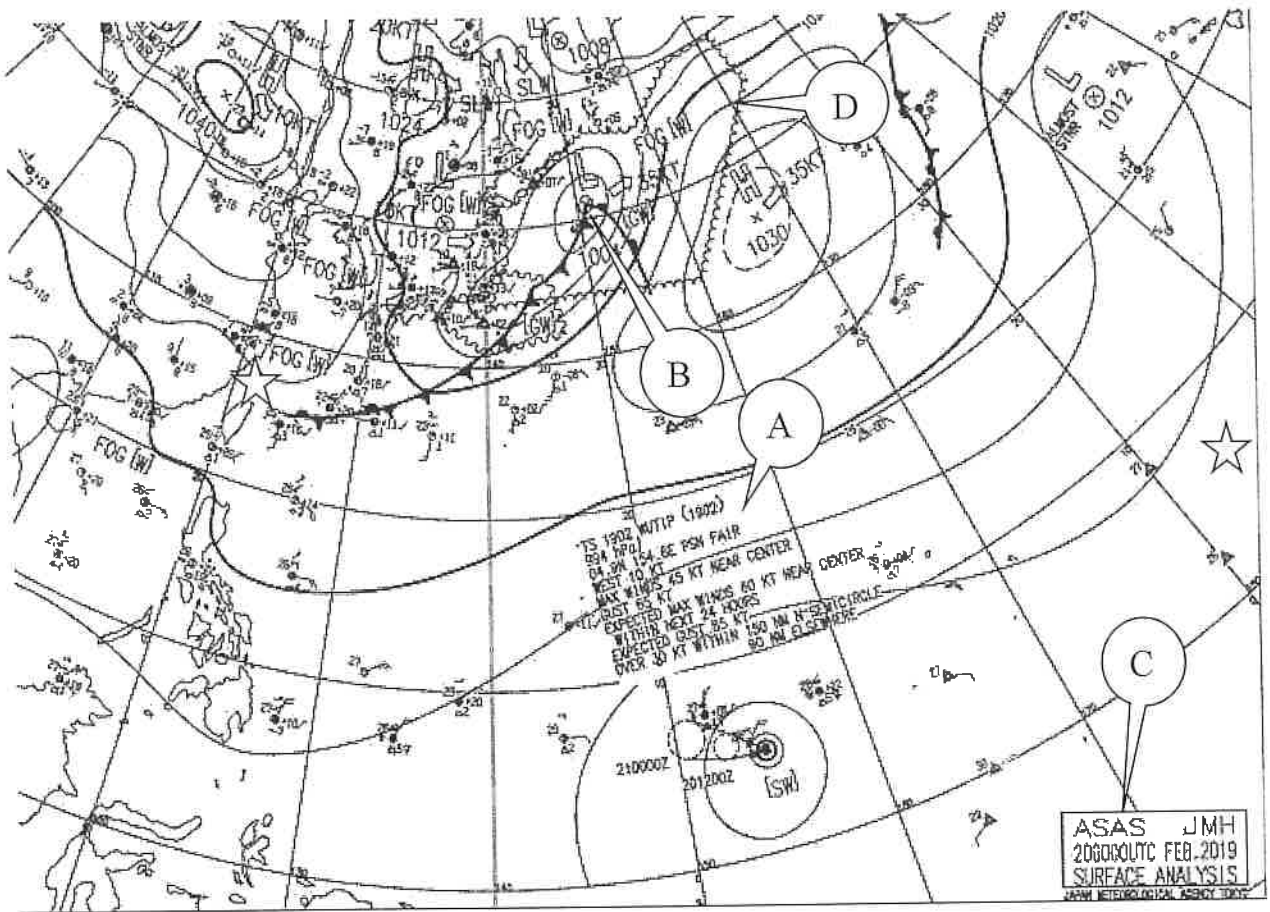


交通部航港局 111 年度第 1 梯次適任性評估實作試卷  
一等大副 氣象傳真圖 實作評估試題

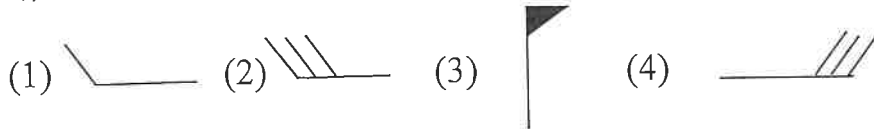


一、氣象傳真圖判讀：請參考以上附圖，回答下列問題：(40%)

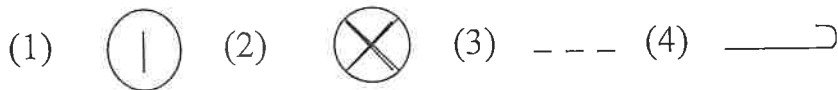
- 請將(A)箭頭所指 TS WUTIP 之英文敘述(全文如下)翻譯為中文。  
TS 1902 WUTIP (1902), 994 hPa, 04.9N 154.6E, PSN FAIR, WEST 10 KT, MAX WINDS 45 KT NEAR CENTER, GUST 65 KT, EXPECTED MAX WIND 60 KT NEAR CENTER WITHIN NEXT 24 HOURS, EXPECTED GUST 85 KT, OVER 30 KT WITHIN 150 NM N-SEMICIRCLE, 90 NM ELSEWHERE.
- (B) 箭頭所指出的低氣壓系統，其中有一些附有黑色三角形或半圓形或兩者交錯的黑色線段，請問它們分別表達出那幾種鋒面？
- (C) 箭頭所指的氣象傳真圖之種類，及其說明(全文如下)的意思？  
ASAS, JMH, 200000 UTC, FEB. 2019, SURFACE ANALYSIS
- (D) 箭頭所指不規則的黑色波浪狀線條框，其所框起的範圍，代表的是何意義？

二、 氣象電碼編報與傳真接收填圖辨識： (30%)

1. 請說明下圖中，風向風速符號之意義 (包括風向與風速)：



2. 請說明下圖中，雲量(1 & 2)或雲種(3 & 4)符號之意義：



3. Based on the Douglas sea scales, The following are parts of the tables of the state of the sea (The wind generated waves) and the state of swell (The background swell).

State of the sea (wind sea) - Table 1 (partly)

SEA DEGREE	HEIGHT (M)	DESCRIPTION
2	0.10 - 0.50	Smooth
3	0.50 - 1.25	Slight
4	1.25 - 2.50	Moderate
5	2.50 - 4.00	Rough
6	4.00 - 6.00	Very Rough

State of the Swell - Table 2 (Partly)

SWELL DEGREES	SWELL	DESCRIPTION
2	Low	(long and low wave)
3	Light	(short and moderate wave)
4	Moderate	(average and moderate wave)
5	Moderate rough	(long and moderate wave)
6	Rough	(short and heavy wave)

**Wave length (L) name**

Short wave      100 m -  
 Average wave    100 - 200 m  
 Long wave        201 m +

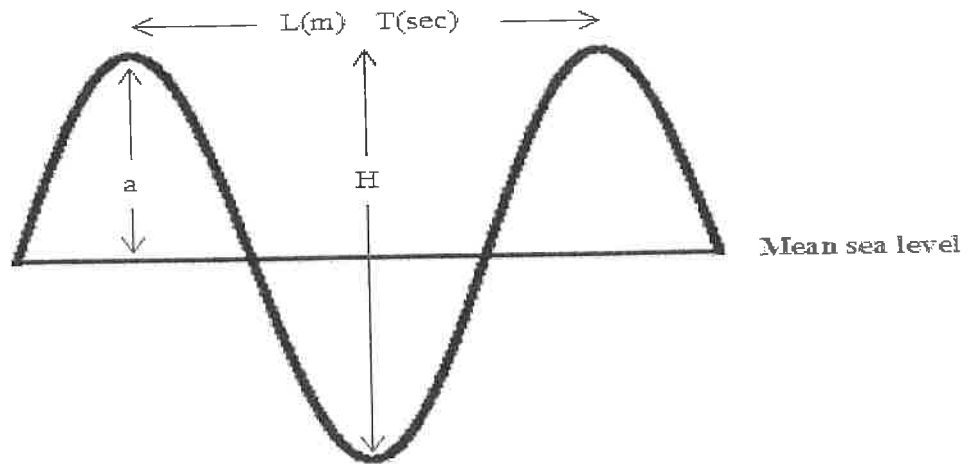
**Wave height (H) name**

Low wave        2 m -  
 Moderate wave    2 - 4 m  
 Heavy wave       4.01 m +

Remark: The sea name & degree was decide by the wave height H ,  
 checking from the Table 1 directly.

The swell name & degree was decided by combining both of the wave length name & wave height name, which can be found under Table 2, then checked inside Table 2 with these two names, finally fixed the swell name & degree.

The following wave was what you observed at sea at 18<sup>th</sup> noon time :  
Wave length ( $L=220\text{ m}$ ) and Wave height ( $H=3\text{ m}$ )



Please answer the following questions:

- (1) What is the sea degree of this wave? How to express it?
- (2) What is the swell degree of this wave? How to express it?

三、氣象傳真圖運用：(30%)

1. 參考第一頁氣象圖，有一個低氣壓的滯留鋒正在台灣北部盤旋，您擔任大副，正在台北港錨地拋錨等碼頭（也即在第一頁氣象圖上的星狀符號處），請分析您現在位置的天氣與海況現象？
2. 根據上題，倘若您擔任該輪大副，請問今天是否可以進行甲板除銹補漆工作？理由為何？WUTIP 熱帶風暴對本輪是否有影響？
3. 根據上題，如果您正在研判氣象圖，您認為在貴輪東北方的低氣壓（約在  $41.5\text{N}, 151\text{E}, 1004\text{ hPa}$ ，也即 B 低氣壓）所帶出的一長條冷鋒面上，最可能產生副低氣壓的地區在哪裡，請指出其概略位置的經緯度？理由為何？