

***THAILAND, KINGDOM OF**

***泰王國**

**MEMORANDUM OF TECHNICAL COOPERATION
BETWEEN THE CENTRAL WEATHER BUREAU
(CWB) OF THE REPUBLIC OF CHINA (ROC) AND
THE THAI METEOROLOGICAL DEPARTMENT
(TMD) OF THAILAND (REVISED VERSION)**

**中華民國交通部中央氣象局
與泰國氣象局技術合作備忘
錄(修訂版)(譯)**

Signed on August 13, 1999
Entered into force on August 13, 1999

八十八年八月十三日簽訂
八十八年八月十三日生效

- I. Date: August 13, 1999
- II. Place: Central Weather Bureau, Taipei, Taiwan, ROC
- III. Objective: Minimizing and preventing damage caused by meteorological disasters including floods, tropical cyclones, and monsoons.
- IV. Actions to be taken by the two Parties of CWB and the TMD:
 1. Implement data exchange.
The TMD agrees to send Regional Telecommunication Hub (RTH) data to the CWB, and the CWB agrees to provide synoptic and upper-air data as well as numerical weather prediction (NWP) products to the TMD.
 2. The TMD and the CWB agree to upgrade the speed of Bangkok-Taipei GTS circuit from 2400 bps to 9600 bps and to change the protocol to be X.25 with ASCII & GRIB transmission.
 3. The CWB agrees to bear the extra costs due to the upgrading of the telecommunications system. The payment should make to deposit as a fund to the Bangkok Bank in Taipei.
 4. The upgrading of the circuit will be operated within 2 months after the ink of both sides.
 5. Improve data collection from the Southeast Asia region through the assistance provided by the CWB

- 一、日期：民國八十八年八月十三日
- 二、地點：中央氣象局（中華民國台灣）
- 三、目的：減低及防止因氣象災害，包括水災、熱帶氣旋及季風所造成的損失。
- 四、中央氣象局及泰國氣象局雙方約定採取的行動。
 - (一)執行資料交換
泰國氣象局同意傳送區域通信中心(RTH)資料給中央氣象局，而中央氣象局也同意提供綜觀、高空及數值天氣預報產品給泰國氣象局。
 - (二)泰國氣象局和中央氣象局同意將曼谷—台北間全球通信系統電路傳輸速率由每秒 2400 位元提升為 9600 位元，並將傳輸協定變更為 X.25，以便傳輸美國信息互換標準代碼(ASCII)及數位碼網格點(GRIB)資料。
 - (三)中央氣象局同意負擔因通信系統升級所增加的額外費用，這項費用應存入在台北之曼谷銀行做為專款之用。
 - (四)線路升級的工作將在雙方簽字後二個月內作業。
 - (五)藉由中央氣象局與泰國氣象局雙方的協助，改善東

and the TMD.

6. Exchange scientists including technology transfer and training
 - (1) The CWB offers to provide the TMD with training on NWP techniques.
 - (2) The TMD proposes to exchange the visits of weather forecasters through the familiarization flight.
 - (3) The TMD offers to provide necessary accommodations in Bangkok for CWB scientists to be trained in Bangkok at meteorological seminars under international programs.
7. The TMD and the CWB will jointly organize meteorological seminars or meetings in Bangkok or Taipei for the concerned Southeast Asian countries.
8. The TMD and the CWB agree to exchange the publications related to the above mentioned subjects.
9. Nowadays, the GRIB data, GRID data and Satellite data are available at RTH-Bangkok, The abbreviated headers are as follows:

- * Forecast text
- * Notice text
- * Bathy (Japan area)
- * Synop
- * Satob
- * Satem
- * TBUS
- * Upper air data (Airep, Temp, and Pilot)
- * Warnings
- * Singapore GRID model
- * Sarep: cloud data from the satellite
- * ECMWF GRID model: 90°E-180°E, 45°S-45°N
2.5*2.5 degrees
- * Bracknell (England) GRID model

南亞地區資料蒐集。

- (六) 交換專家，包括技術轉移及訓練
 1. 中央氣象局願意提供泰國氣象局數值天氣預報技術的訓練。
 2. 泰國氣象局提議飛行航路氣象預報人員的互訪。
 3. 泰國氣象局願意提供中央氣象局人員在曼谷參與國際訓練計畫所舉辦氣象研討會的住宿。
- (七) 泰國氣象局及中央氣象局將分別在曼谷或台北共同籌辦東南亞國際氣象研討會或會議。
- (八) 泰國氣象局及中央氣象局雙方同意交換有關之氣象出版刊物。
- (九) 現今，在泰國曼谷的區域通信中心現成可使用的氣象資料有數位碼網格點資料、明碼網格點資料 (GRID) 及衛星資料。而其完整的氣象資料報告類別有：
 - ◎ 預報正文報告
 - ◎ 通告正文報告
 - ◎ 海溫觀測報告
 - ◎ 地面綜觀報告
 - ◎ 衛星風場報告
 - ◎ 衛星探空報告
 - ◎ 衛星軌道資料報告
 - ◎ 高空報告 (飛機報告、高空壓溫報告、高空風報告)
 - ◎ 各種警報
 - ◎ 新加坡網格點模式報告
 - ◎ 衛星雲場報告
 - ◎ 歐洲中期天氣預報中心模式報告：範圍是 90°E - 180°E, 45°S - 45°N, 解析度 2.5×2.5 度

◎ 英國 Bracknell 網格模式
報告

V. Conclusin:

The TMD and the CWB agree to undertake the proposed plans specified in this Memorandum which is duly authorized by the representatives of each Party.

VI. P lease note:

This Memorandum shall not affect any other agreements between the two countries.

Lt. JG. Wit Worakupt
Director General
Meteorological Department
Thailand

Mr. Shinn-liang Shieh
Director General
Central Weather Bureau
Republic of China

五、結論：

泰國氣象局及中央氣象局同意授權雙方代表從事本備忘錄之所有規劃事項。

六、本備忘錄不影響中泰兩國間其他任何協議。

泰國氣象局局長
Wit Worakupt

中華民國交通部中央氣象局局長
謝信良