2.4 LETTER OF AGREEMENT between NAHA AREA CONTROL CENTER and TAIPEI AREA CONTROL CENTER

中華民國 95 年 3 月 8 日管制字第 09500061730 號函

Effective: 0000 UTC March 16, 2006

SUBJECT: INTER-FACILITY COORDINATION PROCEDURES

- 1. GENERAL:
 - a. Purpose: This agreement between NAHA AREA CONTROL CENTER (hereinafter referred to as "Naha ACC") and TAIPEI AREA CONTROL CENTER (hereinafter referred to as "Taipei ACC") is supplemental to the procedures contained in the air traffic control manuals of the respective agencies and other pertinent documents. Revisions to this agreement shall be made only with the concurrence of both parties.
 - b. Area of Jurisdiction: The boundary between the Naha ACC and the Taipei ACC area of jurisdiction is defined as the boundary of Fukuoka FIR and Taipei FIR in the attachment.
 - c. Cancellation: This letter of agreement supersedes the LETTER OF AGREEMENT between NAHA AREA CONTROL CENTER and TAIPEI AREA CONTROL CENTER, effective as of 1900UTC September 29, 2005.

2. REDUCED VERTICAL SEPARATION MINIMUM (RVSM) AIRSPACE:

- a. RVSM will be applied between FL290 and FL410 inclusive in Fukuoka FIR and Taipei FIR.
- b. RVSM compliant aircraft will be cleared to operate in the RVSM airspace.
- c. RVSM non-compliant aircraft will be cleared to operate in the RVSM airspace in the following situations:
 - (1) The aircraft is being initially delivered to the State of Registry or Operator;
 - (2) The aircraft was formerly RVSM approved but has experienced an equipment failure and is being flown to a maintenance facility for repair in order to meet RVSM requirements and/or obtain approval;
 - (3) The aircraft is transporting a spare engine mounted under the wing;
 - (4) The aircraft is being utilized for mercy or humanitarian purpose; or
 - (5) State aircraft (those aircraft used in military, customs and police services shall be deemed as state aircraft).
- 3. ALTITUDE/FLIGHT LEVEL ASSIGNMENT:

Assignment of altitude/flight level for flights between Fukuoka FIR and Taipei FIR shall be in accordance with the following:

a. From Fukuoka FIR to Taipei FIR: Even altitudes/flight levels up to and including FL400, then flight levels at intervals of 4,000 feet beginning with FL430, except that the aircraft proceeding to IGURU in the RVSM airspace shall be assigned flight levels as follows;

(1) via G581 HCN G86/B348: FL310 FL350 FL390

- (2) via G581 HCN N892: FL300 FL320 FL340 FL360 FL380 FL400
- (3) via G581 HCN G581: FL320 FL360 FL400
- b. From Taipei FIR to Fukuoka FIR: Odd altitudes/flight levels up to and including FL410, then flight levels at intervals of 4,000 feet beginning with FL450, except that the aircraft proceeding to IGURU in the RVSM airspace shall be assigned as FL290 FL330 FL370 FL410. FL290 via B576 shall not be assigned.
- c. The vertical separation minimum between non-RVSM approved aircraft and all other aiccraft is 2,000ft within the RVSM airspace.
- NON-RADAR LONGITUDINAL SEPARATION:
 15 minutes longitudinal separation at the same altitude/flitht level shall be applied, except that 10 minutes separation may be applied between aircraft provided that;
 - a. Both aircraft proceed beyond Hong Kong FIR and the succeeding aircraft is maintaining the same or a less speed.
 - b. Both aircraft proceed beyond Fukuoko FIR and the succeeding aircraft is maintaining the same or a less speed.
 - c. Either one or both aircraft terminate in Taipei, Hong Kong, Fukuoka or Incheon FIR and the succeeding aircraft is maintaining the same or a less speed, except both aircraft are northeast-bound via SALMI B576 BOLOD-MIKES.
 - d. Both aircraft proceeding beyond Taipei FIR diverge from each other in Taipei FIR and the succeeding aircraft is maintaining the same or a less speed.
 - e. Both aircraft proceed to Manila FIR and the succeeding aircraft is maintaining the same or a less speed.
 - f. Both aircraft proceed to BONEY with the application of Mach number technique.

5. COORDINATION AND TRANSFER OF CONTROL PROCEDURES:

- a. Coordination:
 - (1) The transferring ACC shall initiate coordination for transfer of control at least 30 minutes prior to the time the aircraft is estimated to cross the FIR boundary, or within 5 minutes after the departure time of the aircraft if flight time is less than 30 minutes to the FIR boundary.
 - (2) Except in an emergency or the aircraft via A1 or M750 is without of 30 minutes from the FIR boundary, the transferring ACC shall not make a change in an aircraft's altitude/flight level and/or route after the transfer of control message has been transmitted without further coordination and approval of the receiving ACC.
 - (3) Each ACC shall advise the other ACC when the FIR boundary estimate is

changed by more than 3 minutes from that previously coordinated.

- (4) Each ACC shall inform the other ACC when altitudes/flight levels in the respective airspaces are blocked.
- (5) Naha ACC shall coordinate with Taipei ACC for the following information on Yonaguni and Hateruma flight. This coordination shall be effected within the time frames specified in (1) above. Naha ACC shall issue clearance to the aircraft and retain the control responsibility for all flights.(a) Aircraft identification
 - (b) Time
 - 1) Estimated time of 124E of the arrival to Yonaguni and Hateruma airport.
 - 2) ATD at Yonaguni and Hateruma airport.
 - (c) SSR code
- (6) Naha ACC shall obtain an approval from Taipei ACC when Yonaguni flight maintains 11,000 feet or above and Hateruma flight maintains 5,000 feet or above.
- b. Transfer of Control Message shall include;
 - (1) Aircraft identification
 - (2) Transfer point
 - (3) Estimated time of transfer point
 - (4) Altitude/flight level of the aircraft
 - (5) SSR code
 - (6) Assigned mach number if Mach number technique is applied
 - (7) Approval of non-RVSM approved aircraft operation
 - (8) Other information
- c. Transfer of Control Responsibility: The transferring ACC shall;
 - (1) transfer radio communications and control responsibility at the FIR boundary fix specified in the coordination to the receiving ACC unless otherwise coordinated.
 - (2) ensure the aircraft is at the assigned en-route altitude/flight level and at the transfer point when crossing the FIR boundary unless prior coordination has been effected and approval obtained from the receiving ACC.
 - (3) Entry in Climb: Regardless of (2) above, Taipei ACC may clear the aircraft, departing Taipei International Airport for Fukuoka FIR via Airway R583, to cross BORDO at or above FL270 and reach the assigned en-route flight level by ENTOK.
- d. Whenever aircraft report of greater than moderate turbulence, the affected ACC may coordinate with the adjacent ACC concerning temporarily suspending the use of RVSM.

- 6. RADAR PROCEDURES:
 - a. Radar handoff procedures between Naha ACC and Taipei ACC should be applied for aircraft at or above FL250 on Airway A1, R583, R595, G581 and RNAV route M750. BULAN, BORDO, SEDKU, IGURU and MOLKA shall be the common reference points.
 - b. The ACC having a scheduled outage or experiencing an unexpected outage of ARSR shall inform the other ACC of the names of common reference points where radar handoff will be suspended as soon as practicable.
 - c. Radar handoff procedures shall not exempt section 5 of this agreement.
 - d. Minimum radar separation between aircraft at the same altitude on the same or converging route under radar handoff shall be 25NM provided that;
 (1) Either one or both aircraft terminate in Fukuoka or Taipei FIR.
 - (2) Both aircraft proceed beyond Fukuoka FIR, and diverge from each other before entering the Pacific Ocean airspace.
 - (3) Both west-bound aircraft diverge from each other in the Taipei FIR.
 - e. 5 minutes longitudinal separation ensuring 25NM radar separation may be applied between aircraft at the same altitude on condition that the succeeding aircraft is maintaining the same or a less speed provided that;
 - (1) Both aircraft proceed beyond Fukuoka FIR on the same route entering the Pacific Ocean airspace.
 - (2) Either one or both aircraft terminate in Hong Kong FIR.
 - f. Radar handoff and communication transfers shall be accomplished before the aircraft enters the receiving ACC's FIR and transfer of control thereto shall be made at the common FIR boundary unless otherwise coordinated.
 - g. Transfer of radar identification shall be effected by notifying the receiving ACC of the following;
 - (1) Position of the aircraft relative to any one of the common reference points.
 - (2) Aircraft identification
 - (3) Altitude/flight level of the aircraft
 - (4) Other pertinent information
 - h. When an aircraft is radar identified, the receiving ACC shall inform the transferring ACC of radar contact.

COMMUNICATIONS:

- a. Primary means of communication are the voice page and the direct speech circuit.
 - (1) The voice page circuit shall be used for radar handoff and coordination thereto as stated in section 6. above, or in case of an emergency.
 - (2) The direct speech circuit shall be used for coordination and transfer of control as stated in section 5. above, and for the alternative to the voice page circuit.

- b. Commercial phone or AFTN TTY circuit shall be the alternatives to the direct speech circuit.
- 8. AIRWAY RESTRAINT:
 - a. At or above FL280: Airway A1 shall be used for southwest-bound aircraft and RNAV route M750 shall be used for northeast-bound aircraft. M750 is available only under radar environment, and A1 will be available for bi-directional during the period of closure of M750.
 - b. At or below FL270: A1 is available for bi-directional. M750 is not available except FL270.
 - c. Unless otherwise coordinated, west-bound aircraft on Airway R583 will be transferred at BORDO only when the aircraft maintains at or above FL380 and does not arrive at Taipei international airport.
- 9. MISCELLANEOUS:

Supervisors at the respective ACC may agree on temporary deviations from the provisions of this agreement. Except in case of emergencies, such deviations shall be subject to prior coordination. When deviations are required for emergency situations, the affected ACC shall be notified with minimum delay.

2006

Yoshiaki Kitahara Director Naha Area Control Center 2006

Andy Chien Chief Taipei Area Control Center



2.4.1 TACC / NAHA Memorandum

INTERIM MEMORANDUM OF UNDERSTANDING between NAHA AREA CONTROL CENTER and TAIPEI AREA CONTROL CENTER

EFFECTIVE: 30 March, 1995

SUBJECT: Definition of DL Area

- 1. Purpose: This Memorandum of Understanding defines DL area which is established to enable to provide ATC services for IFR flight operating to/from Yonaguni and Hateruma airport within portion of area of Taipei FIR.
- 2. Dimensions of the airspace: DL area is consisted with areas defined as follows (refer to attachment)
 - a. Area of surface to 10,000 feet:
 - (1) Area within a radius of 15NM of Yonaguni VORDME, except the west side of a west parallel line to a line at a distance of 5NM of a line extending from Yonaguni VORDME on 360° T and 180° T.
 - (2) Area within a radius of 15NM of Hateruma NDB, except the east side of 124° E and the south side of 10NM north parallel line to center line of G581.
 - (3) Area within a radius of 30NM if Ishigaki VORDME, except the east side of 124° E, the north side of 10NM south parallel line to center line of R595, the south side of 10NM north parallel line to center line of G581 and the portions of a. (2) above.
 - (4) Area within a line connecting Ishigaki VORDME, 2442N12349E, Yonaguni VORDME, Hateruma NDB and Ishigaki VORKME in consecutive order and the outer area within a distance of 5NM from any point on the line, except the east side of 124° E, the south side of 10NM north parallel line to center line of G581 and the portions of a. (1), a. (2), a. (3) above.
 - b. Area of surface to 4,000 feet:
 - (1) Area within a radius of 15NM of Hateruma NDB, except the east side of 124° E and the portions of a. (2) above.
 - (2) Area within a radius of 30NM if Ishigaki VORDME, except the east side of 124° E and the south side of 10NM south parallel line to center line of R595.
- 3. Procedure: Naha ACC shall coordinate with Taipei ACC for all Yonaguni and Hateruma flights following the procedures specified in 4.a.(5) and (6) of Letter of Agreement between Naha ACC and Taipei ACC.

Yasusaburo Matsuda	L. Y. Yian
Chief Controller	Chief
Naha Area Control Center	Taipei Area Control Center

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Attachment: Airspace Diagram of the DL area



台北區域管制中心業務手冊 與那霸備忘錄 2.4.1-2