

LETTER OF AGREEMENT

BETWEEN

**HO CHI MINH AREA CONTROL CENTRE
(HCM ACC)**

And

**PHNOM PENH AREA CONTROL CENTRE
(SSCA)**

Document Management

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I OVERVIEW

INTRODUCTION

The following document is a Letter of Agreement (LOA) between Ho Chi Minh Area Control Center and Phnom Penh Area Control Center. The LOA details separation standards, level assignment and co-ordination procedures between the following Air Traffic Services (ATS) units:

Ho Chi Minh Area Control Centre (Ho Chi Minh ACC)

Phnom Penh Area Control Centre (Phnom Penh ACC)

Objective

A statement of agreed procedures applicable between ATS Units of Vietnam and Thailand in respect to aircraft operating between the Ho Chi Minh and Phnom Penh FIRs

Scope

The procedures contained in this operational Letter of Agreement (LOA) supplement or detail, where so required in the vicinity of the common FIR boundary, those prescribed by ICAO Annex2, Annex11, PAN-ATM (Document 4444), Regional Supplementary Procedures (Document 7030) and local AIP and ATS Instructions.

Effective Date

This Letter Of Agreement shall become effective on 3 July 2008 at 2100UTC and supersedes the previous LOA, dated 29 September 2005.

II. AIRSPACE

2.1

Ho Chi Minh ACC

- a) Ho Chi Minh ACC shall be responsible for provision of Air Traffic Control Service, Flight Information Service and Alerting Service to all aircraft within Ho Chi Minh FIR, and
- b) To facilitate the ATC coordination, the responsibility for provision of Air Traffic Control Service on the portion of R468 from PNH to SAPEN above FL195 to FL460 and from POPET to SAPEN below FL195 to FL080 is delegated to Ho Chi Minh ACC.
- c) Phnom Penh ACC delegates the provision of Air Navigation Services over the southern portion of Phnom Penh FIR bounded by 091442.0N 1025018.0E; 090800.0N 10227.0E; 070007.8N 1025947.4E to Ho Chi Minh ACC.

2.2

Phnom Penh ACC

Phnom Penh ACC shall be responsible for the provision of Air Traffic Control Services, Flight Information Service and Alerting Service to all aircraft within Phnom Penh FIR, except for paragraph (b) and (c) above.

2.3

RVSM Airspace

Controlled airspace within Ho Chi Minh and Phnom Penh FIRs is designated as RVSM airspace between FL290 and FL410 inclusive. RVSM airspace is exclusionary in nature. Therefore, non-RVSM approved aircraft may not flight plan into this altitude stratum. There are exceptions for non-RVSM approved aircraft that meet specific criteria as described in the respective State's AIP Supplements.

When all aircraft are permitted to flight plan and operate at RVSM flight levels, RVSM approved aircraft will be given a higher priority over non-RVSM approved aircraft

2.4

Route Assignment

Except for prior coordination effected individually for each flight off airways, the air traffic between Ho Chi Minh FIR and Phnom Penh FIR shall be routed along ATS/RNAV routes outlined in the respective Aeronautical Information Publications (AIPs).

Aircraft may deviate from the established ATS/RNAV routes in case of potential hazards, which may affect the safety of flight (severe meteorological conditions, failure of aircraft equipment, etc.) and the receiving ACC shall be informed of such deviation as soon as possible.

III. SEPARATION

3.1

Vertical Separation

A single alternate FLOS (i.e. east odd flight levels, west even flight levels) in compliance with the Table "RVSM-FEET" of Appendix 3 of Annex 2.

Non-standard flight Levels may be assigned subject to prior co-ordination and agreement. This provision is to be used judiciously to make more optimum levels available.

Arrangement for contingency cases is as follows:

- a) 2000 ft vertical separation shall be applied in contingency and emergency situations within RVSM airspace between FL 290 and FL 410
- b) 2000 ft vertical separation shall be applied between non-RVSM approved aircraft and other aircraft when operating in RVSM airspace from FL290 to FL410.

3.2

Flight level Arrangement

- a) HCM ACC shall normally assign the following flight levels without prior coordination:
 - L628/G474: FL 280, 340
 - G474/R588, W1/R588, R468: FL 280, 320, 340
 - M755 or M753: FL 260, 300, 380
 - N891: FL 260, 300, 380
 - R468: All Even Level
 - Other flight levels may be available, subject to prior coordination
- b) Phnom Penh ACC shall normally assign the following flight levels without prior coordination:
 - G474/L628, R588/G474/L628: FL 330, 370, 410
 - R588/W1/A1: FL270
 - R468: All levels will be available for flights to Ho Chi Minh/Tan Son Nhat int'l airport
 - R468/N500: FL330
 - R468/M768: FL270, 330, 410
 - M755 or M753: FL270, 330
 - N891: FL330
 - Other flight levels may be available, subject to prior coordination

3.3

Longitudinal separation

During the transfer of control, the minimum non-radar longitudinal separation to be used between aircraft assigned the same level along the same ATS routes and operating routes between Ho Chi Minh FIR and Phnom Penh FIR shall be 10 (ten) minutes continuous or increasing.

3.4

Longitudinal separation-converging routes

Both ACCs shall ensure that 10 (ten) minutes longitudinal time separation is applied between traffic on converging routes nearest from the FIR boundary.

3.5

Longitudinal Separation –

At least ten (10) minutes longitudinal separation shall be provided prior to the aircraft are estimated to pass and after the aircraft are

Reciprocal Tracks	estimated to have passed each other. Provided that it has been determined that the aircraft has passed each other, this separation minima need not apply.
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3.6

Radar Separation	The application of radar separation standard shall be applied as specifies in Air Traffic Management (PANS-ATM) Doc. 4444
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IV. COORDINATION

4.1**Transfer of Communication/
Control Points
(TCPs)**

Routes	Transfer of Control Points	Remark
G474	ANINA	N13 59.00E107 25.00
R588	GONLY	N13 40.00E107 30.00
R468	POPET*	N11 06.00E105 57.00
	PNH**	N11 32.48E104 50.30
M753	CAMPU	N10 30.00E104 08.28
M755	KISAN	N103220E10440.30
B202	BOMPA***	N14 20.00E107 24.30
N891	XONAN	N09 1442E102 50.18

Note:

* For flight below FL195

** For flight above FL195

*** For flight above FL245, Ho Chi Minh ACC shall transfer to Vientiane ACC and pass information to Phnom Penh. Both ACCs shall ensure that standard longitudinal separation shall be applied between converging traffic on ATS routes between B202 and R575.

4.2**ATC Clearance
Limit**

In all cases where coordination between Ho Chi Minh ACC and Phnom Penh can be achieved before departure or prior to the transfer of control points (TCP) after airborne, the clearance limit shall be the aerodrome of destination.

Where coordination cannot be achieved due to failure of the ATS communications, the clearance limit shall be at the transfer of control points.

If coordination can subsequently be achieved, a revision to the clearance limit is to be issued.

4.3**Coordination
Timing**

Transfer of control information shall be transmitted at least 20 (twenty) minutes prior to the time when the aircraft is estimated to cross the transfer of control points.

If flying time is less than 20(twenty) minutes, the transferring ACC shall make coordination with the receiving ACC before departure.

4.4

Estimate Messages

The EST message shall contain the following information:

- a) The word "transfer"
- b) Aircraft call-sign and type;
- c) Transfer of control point;
- d) Estimated time over the transfer of control point;
- e) Flight level;
- f) SSR transponder code;
- g) Assigned Mach Number or true air speed;
- h) Any pertinent information.

Confirmation by the accepting unit shall contain the following:

- a) Aircraft Identification
- b) Aircraft Type
- c) TCP Estimate
- d) The level assigned by the transferring unit
- e) Mach Number (if assigned)
- f) SSR Code
- g) The words "STANDBY FOR" the requested level (if necessary).

If the accepting unit is able to accept the requested level, phraseology shall include:

- a) The aircraft identification
- b) The flight level approved

The transferring unit shall acknowledge the flight level approved with the phraseology:

If the accepting unit is unable to accept any element of the EST message, the phraseology shall include:

- a) The word "UNABLE"
- b) The aircraft identification
- c) The element of the transfer that is unacceptable
- d) A suggestion

AFTN Estimate (EST) and Acceptance (ACP) messages are not required when voice communication has been successful.

When an AFTN message is required the following format shall be used:

Estimate Message

(Designator-Aircraft Identification/SSR Mode and Code-Departure Aerodrome-Estimate data-Destination)

Acceptance Message

Designator-Aircraft Identification/SSR Mode and Code-Departure Aerodrome-Destination)

4.5

Readbacks

Readbacks shall comprise all elements of the Estimate Message listed above. Readback by the receiving ACC confirms acceptance of the offer of transfer control, subject to other conditions negotiated.

4.6 Revision Messages	<p>Revision to the estimate at the transfer of control point shall be passed to the receiving ACC if the revised estimated time differs by three (3) minutes or more.</p>
4.7 Communication Establishment	<p>In the event that communication with aircraft is not established within five (5) minutes after the estimated time over the transfer of control point, the receiving ACC shall notify the transferring ACC of this fact</p>
4.8 Level changes	<p>No change in the flight level and/or route of flight specified in the transfer of control message shall be made without approval of the receiving ACC. In emergency requiring changes, the receiving ACC shall be immediately informed of any action taken.</p>
4.9 Contingency	<p>In case of unusual circumstance, such as weather conditions and other emergency situation that the civil aircraft has to deviate and penetrate into the controlled airspace of adjacent ACC, the affected ACC shall be notified of such deviation before this aircraft passed over the boundary. Content of such notification shall contain:</p> <ol style="list-style-type: none"> Aircraft identification SSR squawking Flight Level Intention of the flight.
4.10 Coordination For Non-RVSM Aircraft	<p>The transferring ACC shall make prior coordination and obtain approval from the accepting ACC, at least one (1) hour prior to the time the non-RVSM compliant aircraft is estimated to pass over the transfer of control point. The coordination message shall contain the following items:</p> <ul style="list-style-type: none"> The word ("REQUEST APPROVAL NON RVSM") Aircraft Call sign Aircraft Type Departure Point The route to be flown The Estimated time and requested Flight level at the transfer point Other pertinent information if required. <p>The transferring ACC shall immediately notify the accepting ACC of any aircraft, which is being transferred, that is no longer RVSM compliant due to equipment failure before this aircraft passes over the transfer of control point and ensure that the appropriate separation between aircraft concerned exists.</p>
4.11 RVSM Suspension	<p>Both ACCs will consider suspending RVSM procedures within its RVSM airspace when there are pilot reports of greater than moderate turbulence.</p> <p>When decision is made to suspend RVSM, the ACC where RVSM is suspended should notify the other ACC of the level band and area where RVSM operation is suspended and advise of any planned or active suspension of RVSM as soon as possible</p>

4.14
ATFM
Coordination

To avoid overloading the ATC systems as a result of inclement weather or any other reasons, Duty Supervisors of the two ACCs, shall coordinate appropriate flow control measures to regulate traffic flow between Ho Chi Minh FIR and Phnom Penh FIR.

V RADAR CONTROL SERVICES

5.1

Transfer of Radar Identification and Control

Transfer of Radar Identification and Control may be effected along the ATS route R468 for flight operating not beyond Ho Chi Minh FIR and all westbound flights, under the following circumstances:

- a) vertical separation does not exist, or
- b) longitudinal separation standard is less than the minimum, and
- c) prior coordination between controllers of both units is required.

The separation with radar monitoring between the aircraft shall be as follows:

- a) the longitudinal separation shall be twenty (20) NM or more when radar hand-over is effected;
- b) radar identification of the aircraft shall be established at least ten (10) NM before the TCP.

If the accepting controller has any doubt as to the target's Identification, the accepting controller shall request the transferring controller to use another method to transfer identification.

The accepting unit shall continue providing radar control services to the aircraft concerned. Therefore, the accepting controller shall be kept currently informed of any level or vectoring instructions given to the aircraft prior to its transfer.

If circumstances arise in which technical or operational requirements can no longer be satisfied, the accepting controller shall inform the transferring controller that the above procedures are suspended until the situation is resolved.

5.2

Transfer of Radar Identification Procedure

The transfer of radar Identification and control message shall be effected by one of the following methods:

- a) the notification of the discrete code of the aircraft, or
- b) Instruction to the aircraft by the transferring controller to squawk IDENT and the observation of this response by the accepting controller.

5.3

Suspension of the Application of Transfer of Radar Control

Application of these procedures may be suspended at any time by the accepting controller. Circumstances that warrant this suspension will normally be due to:

- a) degradation of ATC facilities, e.g. failure of a particular radar sensor; or
- b) weather phenomena in the vicinity of the TCP which will not permit radar vectors; or
- c) other circumstances that may affect safety.

VI COMMUNICATION

6.1**Primary means**

Primary communications shall be ATS direct speech circuit. This circuit must be continuously guarded.

There are 02 ATS direct speech circuits between Ho Chi Minh & Phnom Penh ACCs. The first circuit (HCM/PNH01) is used for coordination at the points of ANINA, GONLY and the second circuit (HCM/PNH 02) is used for coordination at the points of POPET, PNH, KISAN and CAMPU.

6.2**Secondary means**

International Direct Dialing (IDD) could be used as secondary means of communications.

The IDD telephone numbers are as follows:

Ho Chi Minh ACC: +84- 8- 844 1153, (Fax: 84- 8- 844 3774)

Phnom Penh ACC: + 855 23 890194, (Fax: + 855 890 463)

6.3**Alternative means**

In the event of unserviceability of ATS direct speech circuit, IDD, ATC coordination shall be carried out via the Aeronautical Fixed Telecommunication Network (AFTN) circuit and higher priority prefixes may be used at the discretion of the controller.

Ho Chi Minh ACC: VVTSZRZX

Phnom Penh ACC: VDPPZRZX

When the ATS Direct Speech Circuit resumes normal operations and an aircraft, which is being transferred, has not passed the transfer of control point, a previous transfer of control message which was sent via the AFTN shall be retransmitted on the ATS Direct Speech Circuit for confirmation.

6.4**Use of Prefixes**

Each speech communication shall be prefixed by a term indicating the type of message to follow such as Request Flight Plan, Transfer, Position Report, Revision or Approval Request.

Initials shall be exchanged at the termination of every message

6.5**Recording**

All verbal coordination shall be recorded and taped recordings of communications between Ho Chi Minh ACC and Phnom Penh ACC shall be kept for a period of thirty (30) days.

6.6**ADS/CPDLC application**

Ho Chi Minh ACC implemented ATS data link services for the equipped aircraft on the ATS routes L642, M771, L625, N892, L628, N500, M768 and M765. The address of Ho Chi Minh ATM system is **VVTS**

VII. AGREEMENT

The designated persons for the coordination and management of this LOA are:

Ho Chi Minh ACC		Phnom Penh ACC	
<i>Name</i>	Mr. Phan Tan Thanh	<i>Name</i>	Mr. Chhun Sivorn
<i>Title</i>	Chief of Ho Chi Minh ACC	<i>Title</i>	Deputy Director, Flight Operation and Air Safety
<i>Address</i>	Southern Region Air Traffic Services Viet Nam Air Traffic Management 22 Tran Quoc Hoan street, Tan Son Nhat Airport, Ho Chi Minh city Viet Nam	<i>Address</i>	State Secretariat of Civil Aviation 62 Norodom Blvd. Phnom Penh Kingdom of Cambodia
<i>Phone</i>	848 845 7152	<i>Phone</i>	+855 23 224 258
<i>Fax</i>	848 844 3774	<i>Fax</i>	+855 23 224 259
<i>AFTN</i>	VVTSZRZX	<i>AFTN</i>	VDPPYAYC
<i>E-mail</i>	atc_hcm@hcm.fpt.vn	<i>E-mail</i>	chhunsivorn@yahoo.com

7.1

Temporary Deviations / Amendments

If a temporary deviation from the procedures established under this LOA becomes necessary, the Watch Supervisors on duty at the time of both ACCs may agree to put into effect temporary amendments to the procedures contained in this LOA provided that flight safety is not compromised. The temporary amendments shall be clearly defined with a mutually agreed upon effective and expiry date or time.

7.2

Revisions

This LOA shall be revised whenever a modification of ICAO's Standards and Recommended Practices occurs which might affect the procedures contained in this LOA. These include the commissioning of new communications or new air traffic services facilities.

AUTHORITY

HO CHI MINH ACC

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Phan Tat Thanh
Chief of Ho Chi Minh ACC
Southern Region Air Traffic Services
Viet Nam Air Traffic Management
22 Tran Quoc Hoan street, Tan Son Nhat Airport,
Ho Chi Minh city, Viet Nam

Date: 28 March 2008

PHNOM PENH ACC

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Chhun Sivorn
Deputy Director
Flight Operation and Air Safety
State Secretariat of Civil Aviation
62 Norodom Blvd. Phnom Penh,
Kingdom of Cambodia

Date: 28 March 2008

Attachment A

AREA OF RESPONSIBILITY

Ho Chi Minh Area Control Centre

Unit	Responsible for	Telephone
Ho Chi Minh Area Control Centre Supervisor		001 848 844 1153 <u>Fax</u> 001 848 844 3774
Sector 1	G474, R588	
Sector 3	R468, M753, M755 & N891	

Phnom Penh ATS Units

Unit	Responsible for	Telephone
Phnom Penh Air Traffic Control Centre Supervisor		+855 23 890 194 <u>Fax</u> +855 23 890 463
Sector	G474, R588	
Sector	R468, M753, M755 & N891	

Attachment B

Inter-unit Incident Reporting Procedures

1. Upon receipt of a report, details should be passed to the relevant Centre by facsimile, which shall be acknowledged by a return facsimile.
2. A response shall be provided to each report within 2 weeks.

Centre / Name	Contact	Remark
Ho Chi Minh ACC	Phone: 001 848 845 7152 Fax: 001 848 844 3774 AFTN: VVTSZRZX	
Phnom Penh ACC	Phone: +855 23 890 194 Fax: +855 23 890 463 AFTN: VDPPZRZX	