

出國報告（出國類別：其他）

東北亞鄰區航管作業協調

服務機關：民航局飛航服務總臺

姓名職稱：林正宗 管制員

派赴國家：日本福岡

出國期間：102年1月15~18日

報告日期：102年2月22日

提 要 表

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計畫名稱：	東北亞鄰區航管作業協調																	
報告名稱：	東北亞鄰區航管作業協調																	
計畫主辦機關：	交通部民用航空局																	
出國人員：	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9ead3;"> <th style="width: 15%;">姓名</th><th style="width: 15%;">服務機關</th><th style="width: 15%;">服務單位</th><th style="width: 10%;">職稱</th><th style="width: 10%;">官職等</th><th style="width: 30%;">E-MAIL 信箱</th></tr> </thead> <tbody> <tr> <td>林正宗</td><td>交通部民用航空局飛航服務總臺</td><td>臺北區域管制中心</td><td>管制員</td><td>薦任(派)</td><td>聯絡人 linchengtsung@yahoo.com.tw</td></tr> </tbody> </table>						姓名	服務機關	服務單位	職稱	官職等	E-MAIL 信箱	林正宗	交通部民用航空局飛航服務總臺	臺北區域管制中心	管制員	薦任(派)	聯絡人 linchengtsung@yahoo.com.tw
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前往地區：	日本																	
參訪機關：	無																	
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關鍵詞：	非正式東亞飛航管制作業協調會，East Asia Air Traffic Management Coordination Group，EATMCG																	
報告書頁數：	46 頁																	
報告內容摘要：	<p>本次任務的目的是參加由日本主辦的第六次非正式東亞飛航管制作業協調會(the 6th East Asia Air Traffic Management Coordination Group, EATMCG6)，主要的議題是針對 B576 往韓國航機過於擁擠的問題，在去年四月我方提出建構另一條經日本福岡飛航情報區進入仁川飛航情報區的航路，此次會中達成初步共識，在今年陸續完成建置，另一個議題是討論透過自動化系統進行雷達交接作業，以取代人工口頭交接的程序，除了正式會議外，我方也與香港、日本與韓國舉行 side meeting，主要的議題是我方給予日韓在 SALMI FL300 及 320 的西南向限制，這部分又有關日本提出建置西南向 B576 平行航路的建議，三方達成部分共識，但在平行航路部分三方皆存在歧見，將再進行磋商，另一個討論已久的議題是航機在 123~124 間(ADIZ 及 FIR 邊界間)偏航的資訊傳遞給日本的問題，關係到日本自衛隊因航空識別問題，在緊急波道呼叫在我方管制下的航機，造成作業上的干擾。</p>																	
電子全文檔：																		
出國報告審核表：	C10200385_A.pdf																	
限閱與否：	否																	
專責人員姓名：																		
專責人員電話：																		

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壹、 目的

本次任務的主要目的是參加由日本主辦的第六次非正式東亞飛航管制作業協調會(the 6th East Asia Air Traffic Management Coordination Group, EATMCG6)，這個會議是臺北飛航情報區與相關鄰區如日本、香港、菲律賓及韓國的航管作業的協商平臺，由於我們不是國際民航組織(ICAO)成員，這個會議變成了我國民航對外的主要的國際會議，但是也由於我們不是 ICAO 會員，因此定調為非正式會議，而且是透過管制員協會的名義來舉辦，雖然我們與鄰區也一直保持個別的聯繫與合作，但是區域性的整體作業協調及統合，這個會議就扮演了極重要的角色。

另外，這個會議也是我們吸收 ICAO 資訊與動態及分享鄰區作業知識與經驗的重要管道，會中國際管制員聯盟(IFATCA)代表都會在會議一開始先報告 ICAO 動態，各成員國也會以 information paper 的方式在會議中報告，與會員分享，就資訊的層面上來看，可以在此平臺，吸收及分享國際較新的資訊。

每一次會議議程外，主辦國或是會員國亦會安排 side meeting，在會議之外進行雙邊或多邊的協商，我國歷次會議便是善用這種 side meeting，可以在一次會議中與所有鄰區做個別面對面的討論及協商，在短短四到五天中完成許多重要的雙邊議題，效率非常的高。

此次行程亦如往年開放同仁以自費公假方式來參與會議，有一位同仁熱烈參與，期待吸取經驗及國際觀，以培養國際會議人才。

故此次任務有多重的意義，希望能完成區域運作合作及與鄰區雙邊協商、國際民航資訊的吸收及培養同仁國際會議運作的經驗。

貳、 行程

一、 行程說明

日期	行程	說明
1/15	臺北桃園機場出發前往日本福岡， 入住西鐵飯店。	西鐵飯店就坐落福岡 AKROS 會議中心
1/16	報到、與與會各國代表互動及會議	福岡 AKROS 會議中 心舉行
1/17	會議及討論與 side meeting	分別與香港、韓國及日 本做了 side meeting
1/18	會議最後總結，出發返國	

二、會議進程說明

這個會議基本上是一年舉辦一次，這次是輪到日本舉辦，去年四月在香港舉辦的 EATMCG5 會議留下一部分議題要持續進行追蹤及討論，但由於菲律賓沒有出席此次會議，因此加上此次與會國提出的議題，本次會議共只有七個 working paper 及四個 information paper，比往年少了一些，但部份議題卻是異常的重要，例如夜間 B576 往韓國的航機過於擁塞，我方於上次會議提出建立一條航路分掉部分航行量的方法，及取消口頭交接作業也以大量減少管制工作量的措施等議題，都是此次會議的重頭戲，三天的會議議程及相關議題如下，並請參考附件：

PROPOSED TIMETABLE

	16 January (Wed.)	17 January (Thu.)	18 January (Fri.)
10:00 ↓ 12:00	Registration & Opening	09:15 Agenda Item 6	Wrap-up 11:45
	Agenda Item 1,2,3		Tours to Fukuoka ACC & JCAB/ATMC
	Lunch	Lunch	
13:30 ↓ 16:00	Agenda Item 4, 5	Agenda Item 7, 8	
		Side Meeting:	
18:00	Social Event	Free	

PROVISIONAL AGENDA

- Agenda Item 1 Adoption of Provisional agenda
- Agenda Item 2 Review of EATMCG/5 and Task List for EATMCG/6
- Agenda Item 3 Report on recent ICAO meetings and outcomes
- Agenda Item 4 Review of the trail of operational procedures of the daily capacity notification scheme and associated ATFM issues.
- Agenda Item 5 Review of collecting the data based on the new common report form for ATFM
- Agenda Item 6 Review of the improvement on ATS routes in the East Asia airspace
- Agenda Item 7 Review of operational issues
- Agenda Item 8 Presentations from participating organizations
- Agenda Item 9 Other business

List of Working Papers and Information Papers

WP/IP	Title	Presenter
WP 1	Provisional Agenda	Japan
WP 2	Trial for the operational procedures to share the notification, HONG KONG ATCC / TAIPEI ACC / ATMC	Japan
WP 3	The proposal to make rules of submitting common report form for Air Traffic Flow Management in East Asia	Japan
WP 4	Review of establishment of double track routes and reduction of longitudinal separation of B576	Japan
WP 5	Adjustment of longitudinal separation standard on Y711/722 and suggestion on establishing Conditional Route on B576(Taiwan, Japan and Korea)	Korea
WP 6	Flight Level Restriction on G581	Japan
WP 7	Implementation of AIDC TOC and AOC messages between Japan (Fukuoka and Naha ACC) and Taipei	Taiwan
IP 1	Report on trial operation applying 20NM longitudinal separation on ATS routes G581/R583/R595 between Naha and Taipei Area Control Center	Japan Taiwan
IP 2	Implementation of 2 PBN Routes in Incheon FIR to safeguard air safety	Korea
IP 3	Notification of RCTP Runway Reconditioning and the Relevant Procedure of Flow Control	Taiwan
IP 4	Summary of Recent ICAO Meeting	IFATCA

三、EATMCG 6 相關議題協商說明

以下將針對主要的議題做說明，比較重要的議題會擺在較後面：

1. WP2: Trial for the operational procedures to share the notification, HONG KONG ATCC / TAIPEI ACC / ATMC

在東亞，香港國際機場是本區域內航行量最大的國際機場，因此香港

國際機場如果因惡劣天氣、跑道關閉等問題出現，其跑道容量將會受到壓縮，也會做出相對應的流量管制措施，對於上游的臺北、福岡及馬尼拉等飛航情報區的航管及航空公司，在作業上就會造成衝擊，以區管中心長年紀錄的各飛航情報區的流管資料顯示，香港機場的流管次數所佔的比例達到八成，也因此日本民航局(JCAB)在前幾次會議中就要求香港必須公佈每日機場狀況給上游的飛航情報區，幾年試作下來，也不斷做了些修改，目前香港每日會針對機場狀況發佈二次通告(0000UTC 及 0800UTC)，通告是以 e-mail 的方式寄送，但是此次 JCAB 要求增加次數，希望以幾個小時為單位，並預測將使用的流管措施，最後再去評估預測的準確性，並將此資訊提供給航空公司。

香港表示作業上要再評估，目前他們的規劃進程如下：

- (1) 2013 年四月至六月之間可以增加一次通告，再依天氣等狀況臨時增加次數。
- (2) 2013 年中後，將會把此資訊公告到網站上，提供給航空公司等相關使用者。
- (3) 計畫在 2015 年後能透過 CDM 平臺來提供資訊。

2.WP3: The proposal to make rules of submitting common report form for Air Traffic Flow Management in East Asia

在 EATMCG3 會議中，日本流管中心(ATMC)要求與會國提供各國國際航路的航情資料給日本 ATMC，由其彙整成資料庫，透過此種合作可以提供 ICAO、與會國及研究機構做參考，對於區域民航作業的狀況可以得到全貌，我們也樂見其成，因此在這幾年都陸續由航管組收集資料，提供給 ATMC，今年 ATMC 又再度要求希望在三月之前提供資料，與會國皆表示配合之意，但我方表示因為農曆年的緣故及上海 AIDC 等相關測試要進行，最後決議在六月底以前將相關資料提供給 ATMC，據了解在返國之後，航管組已通知相關單位開始收集資料，並將會透過 POC (point of contact)航管組陳文桂送出。

3. WP6: FL400 restriction on G581

香港與臺北在 KAPLI 這個交管點的 FLAS 是 FL300、340、380 及 400，已經有好幾年了，香港以其境內往 IKELA 的航情衝突必須有 escape window 為由，以 NOTAM 的形式限制臺北使用 FL400，由於日韓亦有大批由 SALMI、BULAN 及 IGURU 進入臺北並由 KAPLI 出管的航機，因此臺北為因應此限制亦另發一 NOTAM，限制由 IGURU 進管的航機使用 FL400，為什麼只限制 IGURU 這個點呢？事實也是經過評估後所作的決定，北面 SALMI 及 BULAN 如果也實施限制的話，福岡管制員必須每一架航機去檢查其在臺北的路徑，在配合上會有困難，IGURU 的狀況就比較容易了，因為那霸的管制員在 IGURU 這個點查看路徑的量少多了，而且只要看 HCN 之後的航路就可以了。

雖然，在日本及我國多次的要求下，香港也做了席位、空域及程序的修改，但是內部還沒有得到一致的看法去取消此限制，香港目前已縮短了限制的時段為 0600-1300UTC，我們也修改了 IGURU 的限制時段為 1100-1300UTC，但 JCAB 及那霸區管中心還是極力地要求臺北取消限制，加上去年底香港發佈新的 KAPLI FL400 限制的 NOTAM，並未知會臺北新 NOTAM 期限只有半年，而臺北發佈的新 NOTAM 是依往例期限是一年，因此 JCAB 及那霸區管中心為此也要求我方期限要一致，在發佈公告前亦應告知日方以因應，我方的回應是：

- (1) 在 IGURU FL400 的限制是由於香港在 KAPLI 的限制所做配合措施
- (2) 香港在 KAPLI 的限制時段為 0600-1300Z，而臺北在 IGURU 的限制時段卻只在 1100-1300Z，不但比香港方的限制少，而且未限制 SALMI 及 BULAN 的航機，另外 KAPLI 出管的 FLAS 是 FL300、340 及 380，SALMI 及 BULAN 的 FLAS 是 FL300、320、340、360、380 及 400，在 IGURU 的 FLAS 是 FL300、320、340、360 及 380，臺北已充分考慮日方的困難，也盡了最大的誠意。

(3) 主要的問題在於香港是否取消限制，臺北會依情況來決定是否取消限制，至於事先通知日方的部分，基於 EATMCG 會議過往的決議，與會國應儘早對於會影響鄰區的限制或作業儘早通知鄰區的默契，臺北表示尊重，並帶回給單位。

此議題香港也表示由於內部尚未達成一致決議才會發此 NOTAM，目前程序發展 Mid-term conflict probe，應該可以把問題解決，香港代表表示會在年中把進度向各國報告。

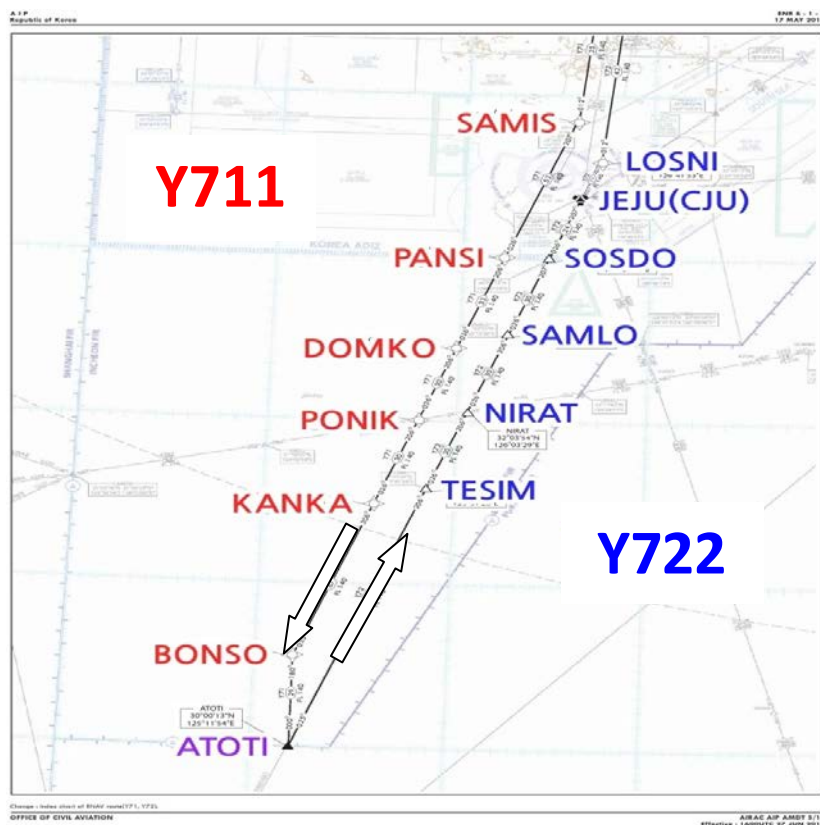
4. IP3: Notification of RCTP Runway Reconditioning and the Relevant

Procedure of Flow Control

這幾年臺北桃園機場因為跑道或滑行道的整修，影響到機場的運作，臺北區管中心必須對鄰區實施流管，鄰區特別是日本對於此一直希望臺北能早一點提供時程給他們，EATMCG 4 在香港的會議中，我方曾為此準備了資料向日方說明，鑒於臺北桃園機場將進行機場道面整建的招標，大局及總臺皆認為依循最大的誠意儘早向鄰區提供資訊，因此準備了這個 information paper，報告中提到即將實施的道面整建計畫，更正式把臺北區管中心會實施流管的時段及強度作了表述，讓各國瞭解可能的狀況，並表示有正式確定的期程將會立即提供給各國。

5. IP2: Implementation of 2 PBN Routes in Incheon FIR to safeguard air safety

B576 一直是韓國境內最忙碌的一條航路，每年平均成長 7.4%，2012 年的航行量已達 551,744 架次，韓國被邀請參加 EATMCG 會議的原因也是因為這條航路過於擁擠，韓國的自己的作法是在原 B576 航路西面建立一條爬升用的西南向航路 Y711，原 B576 航路更名 Y722，目前 Y722 在密度上還是很高，特別是在 1000-1300UTC 及 1900-2200UTC 這兩個時段，因此韓國一直在尋找解決方案，透過這個 information paper，提醒各國針對 B576 航路問題提出具體的解決方案，後續的討論會在其他 working paper 及 side meeting 提到。



6. WP7: Implementation of AIDC TOC and AOC messages between Japan
(Fukuoka and Naha ACC) and Taipei

在 EATMCG 5 會議中香港提到在臺北與香港的協議書中，有條文允許在 ELATO 這個交管點使用 20 海浬的前後隔離，但管制員必須事先協調，並採取口頭的 handoff，但由於這項規定，使得他們的同仁普遍不願意採用這個較短的前後隔離交管，因此，提出 ICAO DOC.4444 CH. 8.4 的規定來討論，認為事實上雙方並不使用口頭 handoff，以香港與臺北之間航管的整體條件已經符合了文字裡的規定了，要求臺北考慮修改協議書內容。

在去年的會議中，我們也提出臺北 ATMP CH.4.9 的規定與 ICAO DOC.4444 CH. 8.4 的規定有類似之處，但需要再做進一步討論。

另一方面，臺北與日本之間的整體航管條件與臺北與香港之間的條件相同，但是仍實施口頭的 handoff，為求作法能夠一致，臺北希望日本也能一併考慮取消口頭 handoff 的作法，日方當時沒有準備，因此把議題帶回，由於取消口頭 handoff 能大大地減輕航路管制員的工作負擔，如果在符合法源規定及飛航安全的條件下，能促成此一作業的變革，將是同仁的一大福音。

在 EATMCG 5 會議後，內部有針對此議題做了充分的討論及評估，ATMP CH.4.9 的規定與 ICAO DOC.4444 CH. 8.4 的專章並沒有完全相同，ATMP CH.4.9 有關 Interunit Automated Information Transfer (AIT) 的精神是需要自動化系統的作業去取代人工口頭的 handoff，因此此次 EATMCG 會議，臺北特別以此 working paper 提出以 AIDC 的 TOC 及 AOC message 的自動化方式來進行作業，特別是目前臺北與日本及香港已經在進行 AIDC 的作業，也相當的順暢，可以把作業提升至下一個階段，那就是 AIDC 的 TOC 及 AOC message 的自動化作業。

日本 JCAB 表示目前由於日本 ATMS 系統功能無法符合需求，無法以 TOC 及 AOC message 來替代口頭的交接，因為日本的航管系統的 AIDC TOC 及 AOC message 都是自動發送的，也就是說當臺北發送 TOC message 給日本時，日本的 ATM 系統自動幫管制員接 handoff，中間管制員完全不知有人 handoff 航機給他，並且已經接受了，這就是為什麼日本與韓國做 TOC 及 AOC message，還是需要做口頭的 handoff。

但是日方還是發出善意，認為這種進步對管制員助益極大，會考慮各種的可行方式，可行的方案可能是修改現行的軟體、其他的自動或方式或者就是在下一代航管系統中建立此功能，日本會作出評估，目前我們也只能靜觀其變了。

7. WP4: Review of establishment of double track routes and reduction of longitudinal separation of B576

WP5: Adjustment of longitudinal separation standard on Y711/722 and suggestion on establishing Conditional Route on B576(Taiwan, Japan and Korea)

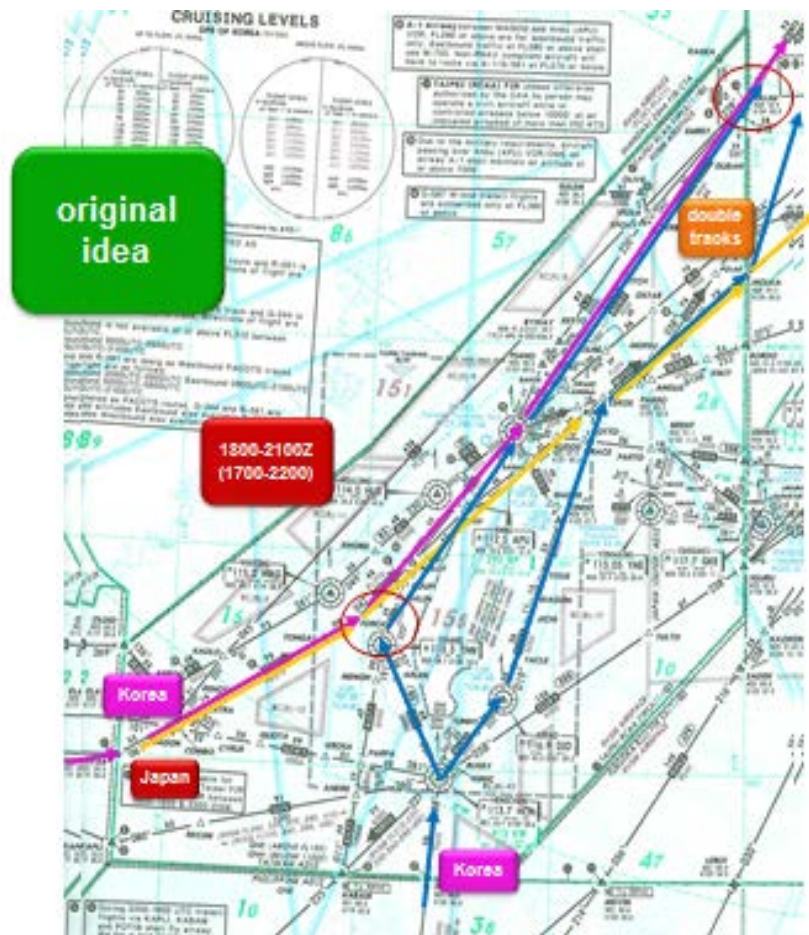
這是此次會議的重頭戲，也是延續 EATMCG 5 的議題，在上次會議中我方提到希望能減輕 B576 航路在夜間的擁擠現象，建議另外建立一條經福岡 FIR 進入韓國空域的航路，在那次會議中韓國代表亦表示支持，日本則表示要帶回研究。

去年四月會議後，據了解日本與韓國馬上在五月就進行了會談，仁川區管中心提議在 1900 至 2100UTC 間，將目的地為 Busan (RCPK)及 Daegu (RKTU)的航機導引到另一條路徑上，以減輕 B576 航路擁擠的狀況，最後韓國與日本取得共識，將在 2013 年在上述時間內建立新的程序，要求 RCPK/RKTU 的航機走下列路徑，減輕 B576 航路在夜間的擁擠現象：

SALMI-(B576)-BOLOD-(Published Direct Route)-MIKES-(OTR30)
-ESBIS-(Y579)-RUGMA

另外，日本也要延續 EATMCG 5 與臺北在此議題上的共識，希望達成下列兩個主要的目標：

- (1) 建立另一條 conditional route (CDR) 去分散 B576 航路上的航行量
- (2) 縮短前後隔離以增加容量



以目前在區管中心一整天的作業航行量來看，在凌晨期間(1700 ~ 2100UTC)有一波純粹東北向的航機，是一天中最密集的一波，如果以出管點來看，75%是由 SALMI 這個點出管，經福岡 ACC 再進入仁川 ACC，

而由 MOLKA 出管到日本的航機僅暫將近 22%，由這些數字來看，便不難了解為甚麼我們要提出建立另一條進入仁川 ACC 的航路，以分散航行量，並減輕管制員的工作壓力，韓國及日本在這兩個 working paper 裡，提到的內容也就是呼應我們看到的容量問題，替臺灣、日本及韓國解決共同的問題。

日本提議由 BUALN 之後定向 MIKES，加入 OTR30，聯結與韓國的協議路線，但只有提到目的地為 RKPK 的航機，時段為 1900 至 2100UTC，這個提案與我方去年的提案大致相同，但仍有二個差異：

(1) 交管點: BULAN 還是 MOLKA

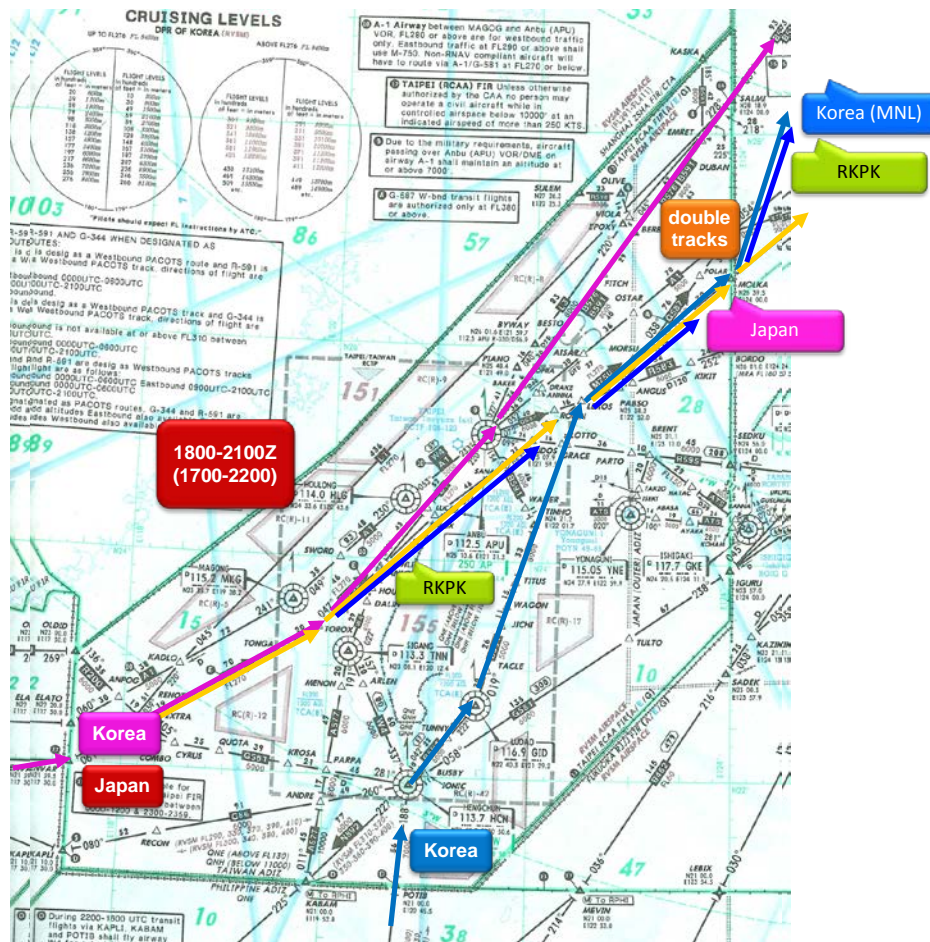
日本的想法是在 PABSO 之後走 G587 到 BULAN，再定向 MIKES，但因為 A1 與 M750 為平行航路，一直以來 MOLKA(M750)才是主要的交管點，使用的高度從 FL270 至 410，A1 東北向往日本只可以使用 FL270 一個高度，日本的提議一來不符合協議書規定，再來也違背管制長久的習慣，因此我們向 JCAB 表達以上看法，JCAB 表示會向福岡 ACC 詢問意見，再作答覆。

(2) 這條並不是只給前往 RKPK 的航機使用

去年原本的構想是把由 POTIB (M646) 北向往 SALMI 佔 21% B576 航行量的航機，導引到 MOLKA 出管交給福岡 ACC，如果照日本的構想來作會完全打壞臺北在這個提案的規劃及利益，而且從未有一條國際航路只為單一目的地設立，加上管制員作業上會有些困難，我方在會中向日本與韓國表達以上意見。

這次會議有趣的地方是，重要的議題不是在會上討論出來，而是在休息時間進入熱烈的討論，然後達成協議，這個議題便是如此，白板上大家把各自在乎的部分提出，展開 JEPPESEN CHART，把航路劃上，最後在這部分日本與韓國不再堅持特定機場，達成以下協議：

- 由 ENVAR 進管的航機自行決定要走 B576 或是新的 CDR, POTIB 北上的走新的 CDR
- 路徑為 MOLKA (BULAN) – MIKES – POTET - RUGMA
- 至於時段上，臺北希望為 MOLKA (BULAN) 1800-2100UTC，日本為 POTET 1900-2100UTC
- 因為是由 MOLKA (BULAN) 交管，因此採用 20 海浬前後隔離



這是一個重大的進步，令人感到振奮，這代表了許多的意義：

- 這是 EATMCG 會議地一次成功透過國際的合作建立了一條全新的 conditional direct route，同時符合各國的利益。
- 有效的分散了 B576 夜間擁擠的航行量，以目前的數字來看，當新路徑建立後，SALMI 及 MOLKA 的航行量比例應該會是 55%

及 45%。

- c. 縮短前後隔離為 20 海浬(現在 SALMI 的前後隔離採為 30 海浬為原則)。
- d. 臺北區管中心夜間這波航行量不管是在衝突點延後到 APU (SANAS)之後這部分，或是 B576 高度安排上，對於管制同仁的壓力會得到紓緩。
- e. 對航空公司而言，往 RKPK、RKTU 或是 POTIB 北上往韓國的航機航程上都縮短了。

後續的發展會分兩個階段，首先日本與韓國會在四月份進行會議，會後將會進行第一階段的作業，讓航機在 SALMI 之後定向 MIKES 加入新的 CDR，並決定好第二階段改接上臺北端由 MOLKA/BULAN 定向 MIKES 加入新的 CDR 的程序，屆時日方會與我方協商，待協商完成後，我方必須由航管組發佈公告讓夜間由 POTIB 北上的航機，改走 B591 北上加入 M750 航路。

8. EATMCG 7 舉辦國的協調

在出國會前會之前日方已來詢問我方舉辦 EATMCG 7 的意向，我方以韓國已列入會員國 (參考 EATMCG Term of Reference)，應該有義務舉辦會議為由，請日方先行詢問韓國意向，但韓國表示他們還不是 EATMCG 會員國，但是在此次會議中韓方代表表示，他們已向上級報告，會在四月份日韓會議中作出決定是否成為會員國及舉辦 EATMCG 7 會議，我方則表示如果韓國無意舉辦會議，臺灣將會舉辦 EATMCG 7 會議，另外各國皆同意不管 EATMCG 7 由那個國家舉辦，都應該在舉辦日期前二個月通知會員國。

四、與隣區進行的 SIDE BAR MEETINGS

此次跟往年一樣我們與香港、日本及韓國進行了 SIDE BAR MEETING，特別

是與日本及韓國的會談更是重要，以下是說明:

1. 與香港的 SIDE BAR MEETING

與香港的議題有四項，討論的細節如下:

- (1) 由於上次 EATMCG 5 會議中，香港代表反應由於臺北在夜間限制由 KAPLI 進入臺北的航機必須是落地航機或是走 HCN G581 IGURU 進入那霸的空域，形成絕大部份航機選擇較短的路徑由 ENVAR 進入臺北空域，造成航機集中在香港的單一席位，雖然本質上在香港空域裡完全沒有同高度的衝突，但是波道變得比較擁擠，他們目前的對策就是以高度去分波道，分割的界線是 FL370。

香港希望臺北將限制改為往日本的航機由 KAPLI 進管，走 G86 HCN G581 IGURU，往韓國的航機由 ENVAR 進管，走 M750 ANLOT B1 APU B576 SALMI，此次我們回絕了他們的提議，原因如下:

- a. 目前的這種夜班的航行狀態及特質，如果接受香港的建議，就必須加開席位，夜班就必須增加至少二個人力，就現在區管中心長期人力不足的狀況及增加成本的考慮下，無法去配合香港的提議。
- b. KAPLI 進管的 FLAS 是 FL290、330、370 及 410，往日本的航行量約占 22%，會與由 POTIB 進管的 27%進管航機在 HCN 有衝突，除了上述 FLAS 相同外，POTIB 至 HCN 僅有 56 海浬，加上馬尼拉 ACC 經常性的會較晚更換波道給臺北，有密集的衝突常會因此反應不及，我們與馬尼拉 ACC 曾協商 block 一個 FL370 的高度以因應，馬尼拉 ACC 一直不願作答覆，沒有這層保障我們同意香港的可能性就低了。
- c. 另外，航空公司不選擇這條路徑，主要是因為這條路比較長，我們曾經請航榮航空試算過不同路徑的距離，證明了這個看法，航

空公司的利益應該得到尊重。

基於上述原因，我們回絕了香港的請求，香港代表也對此表示尊重，並會把臺北的答覆轉達回去。

(2) 香港管制同仁未依協議作業的溝通

這段期間臺北區管中心的同仁反映，在實施 AIDC 作業之後，香港的管制同仁出現未按協議作業情形變得嚴重了，主要的問題有兩個：

- a. 後機追前機未提供協議的隔離
- b. 夜間由 KAPLI 進管的航機，未按協議路徑交管，或是協調時口氣不佳。

對此香港代表表示會向同仁宣導，避免再出現上述問題，雙方做了正面的溝通。

(3) City Pair flight 的 CDM (Collaborative Decision Making) 與離場航機跑到佔用時間的規定查詢

在總臺的行前會議中，馮副總特別指示要與香港查詢有關上述兩個議題，在離場航機跑道佔用時間的規定部分，香港國際機場目前沒有這項的程序，同樣的 JCAB 境內的機場也沒有此程序，因此無法取得相關資訊。

至於 City Pair flight 的 CDM 部分，香港代表表示他個人不負責此部份，但是他會提供香港聯絡人資料，查詢相關資料給我方，主要的資訊在 ICAO，返港後香港代表來信表示，香港負責 CDM 的是 Samuel NG，此人在印度 ICAO 會議中，待此人回港後會請他與我們連絡。

(4) 在此次會談中有另外提到臺北由 KAPLI 出管的航機，一架往 IDOSI 與另一架往 SIKOU 的航機是否可不管空速，一律採 30 海裡的前後隔離？因為兩機在 KAPLI 就分航路了，香港表示應該沒有問題，並在返港後回信表示接受臺北的請求，這部份會列入追蹤，以修改協議書的方式進行。

五、與日本及韓國的 SIDE BAR MEETING

一直以來我們與日本的 SIDE BAR MEETING 就是 EATMCG 會議另一個重頭戲，這次也不例外，這次又加上韓國在 B576 航機的議題，會談花了超過二個小時的時間，會談內容如下：

1. SALMI 西南向 FL300 及 320 限制的部分

由於在北部空域第二條兩岸航路(KASKA-B591-DUBAN)建立的位置過於接近 B576 的交管點 SALMI，在 EATMCG 4 會議中我方要求限制福岡區管中心 B576 航路西南向 FL300 及 320 的使用，之後協調的結果是福岡區管中心在 2300 至 1200UTC 間不得使用這兩個高度，上游的仁川區管中心當然也受到同樣的限制。

為爭取回這兩個高度，日本在此次會議前提出方案，希望建立一條西南向的平行航路以躲避 KASKA B591 南向同高度的航機，藉此便可以取回 SALMI FL300 及 320 這兩個高度。

我方在總臺及大局的兩次會前會便為此議題定調，認可平行航路的功能，並有意願建立適當的平行航路，但是細節上必須跟日韓再做細部討論，以避免衝擊到現有北部空域的作業模式，但是在會談中日方表明此條航路的建立只為取回 FL300 及 320，而且日本與韓國並未有一致的意見：

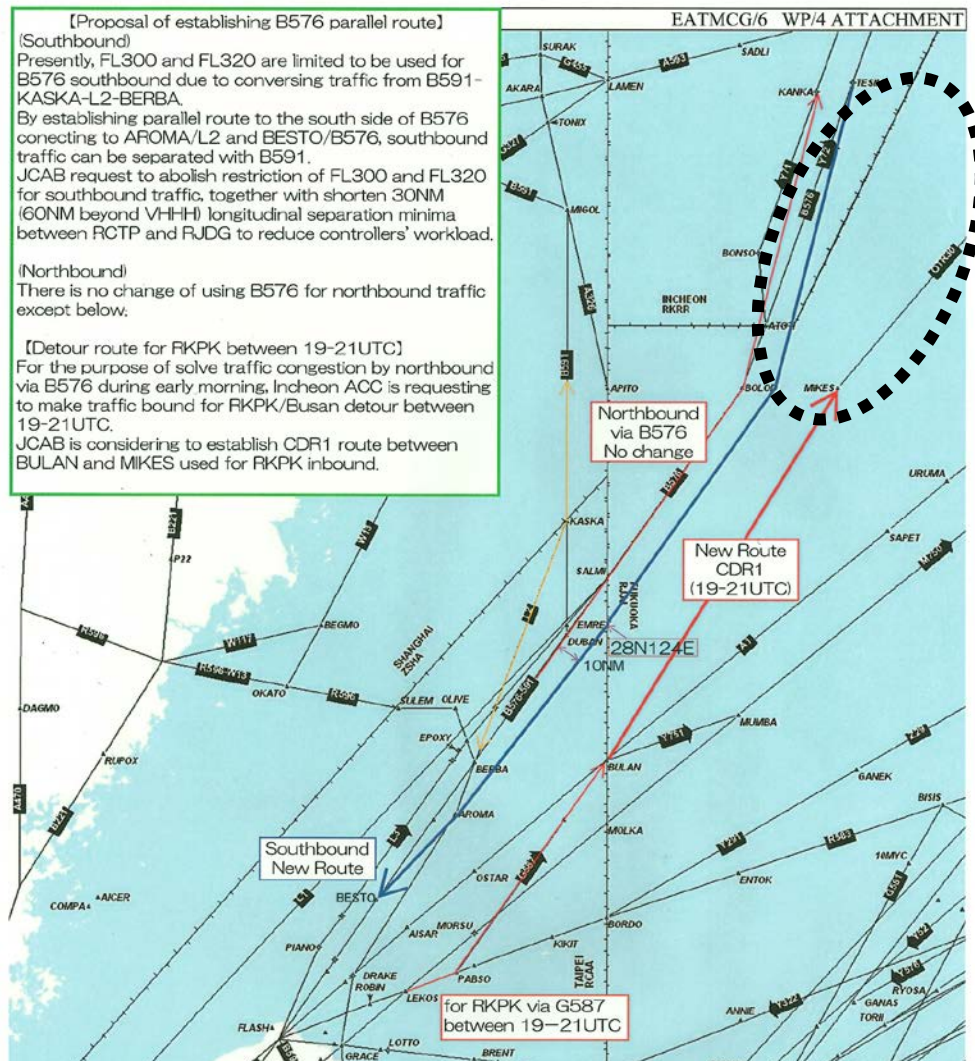
(1) B576 航路在仁川飛航情報區的部份已如韓國 IP 2 (Implementation of 2 PBN Routes in Incheon FIR to safeguard air safety)所言，在西面的 Y711 為西南向航路，東面的 Y722 為東北向航路，這種模式適合仁川區管的離到場運作。

(2) 日本 JCAB 的意見卻剛好相反，西南向航路擺在東面，東北向航路擺在西面，日本也感受到這個部份的困難，誠如其 WP 4 (Proposal of establishment of double track routes and reduction of longitudinal separation of B576) 中 2.2 所言：

Japan recognizes that it will take not a short time for coordination such as modify of route structure within Taipei FIR considering B591 conversion as well as changing direction of double track routes which has already established within Incheon FIR.

所以在 side bar meeting 時，日本表明只要臺北取消限制，並沒有建立平行航路的必要，對此我方亦表明建立平行航路是有實質的功效，除了消除與 B591 的衝突外，在臺北雷達涵蓋在雷達交接及無線電的品質上是有正面的效果，但三方還是無法達成共識，最後三方決定平分高度：

- a. 臺北使用 FL300
- b. 福岡/仁川使用 FL320
- c. 採修改協議書，並取消此限制性備忘錄(區管中心業務手冊 2.3.2.1)的原則進行後續動作



就臺北使用 FL300 的結果來看，也符合現行彼此作業實況，事實上我方亦早在去年就為因應 B591 與 B576 航路的衝突，建立了 L2 航路在 KASKA 與 BERBA 之間的航路，延緩衝突，讓管制員有較足夠的時間反應。

但是我方還是不放棄建立平行航路的可行性，總臺也指示建立平行航路的方針，因此商請日本與韓國聽取我方建立平行航路的構想，在我方簡報後日本表示現階段及此次會議不會考慮更改航路的架構，我方在此議題上必須如日本所言，要在花更多時間思索、溝通、協調三方皆可行的方案，但日本在 EATMCG 6 draft report 2.6.5 亦提到雙方願意在航路架構上再進行討論。

3. 與福岡區管中心及流管中心作業溝通

這部份是利用此次會議之便與日本相關作業單位就作業問題做溝通，基本上是比较小的議題：

- (1) 福岡區管中心曾經有同仁修改了 AIDC 中 ABI message 裡航路內容，如此會覆寫了我們 ATMS FDR，造成航機飛行的路徑與飛行計畫不同，是個風險高的事件，根據協議雙方都不應該修改 ABI message 境外的航路資料，這是偶發事件，但事關重大，必須請福岡及那霸區管中心再次與其同仁宣導，日方已領知。
- (2) 福岡區管中心一如香港區管中心，在實施 AIDC 作業後，出現較多次的未依協議條件接管的情形，也請福岡區管中心再次與其同仁宣導，福岡區管中心代表已領知。
- (3) 每當香港或臺北地需實施流量管制時，日本流管中心回覆的時效都會較慢，偶而甚至需要一個小時的時間，藉此機會向日本流管中心反應，日方表示盡量改善。
- (4) 福岡區管中心希望建立區管中心等級的聯絡人(POC)制度，他們的聯絡人 Nobuteru Isaka 也特地到場，臺北區管中心則表示會把議題帶回，由何主任裁示。

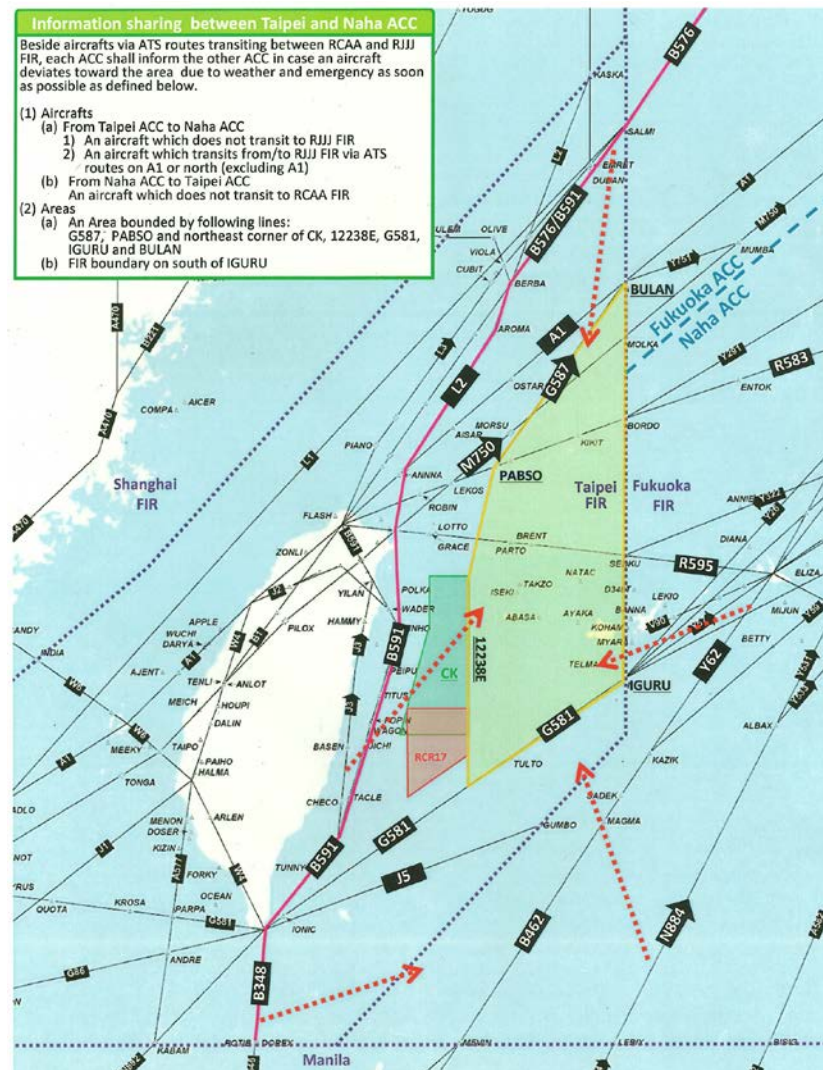
4. 民航機偏行相互通報的機制討論

由於臺灣防空識別區東緣位於 123 東經，而飛航情報區東緣卻位於 124 東經，在 123 及 124 東經間還有一些日本的島嶼及敏感的釣魚臺，這兩年日本自衛隊便開始會在緊急波道 121.5 上，對在我北部席空域管制下的部分航機進行呼叫，甚至會給予航向的指示，造成

管制上的風險，我方曾於 EATMCG 4 會議提出，希望 JCAB 向日本自衛隊表達關切，JCAB 的確也與自衛隊進行過溝通，因此在這幾個月來自衛隊已大幅減少干擾的動作，我方也在此次會議中向日方表示謝意，但 JCAB 也有來自自衛隊的壓力，在會前 JCAB 便把此議題再提出，希望建立一個固定的機制，在總臺及大局的會前會中，區管中心便提出下列原則以因應：

- (1) 由 KASKA 進管的航機會依協議提供航機資訊
- (2) 東北向進入福岡飛航情報區的航機會透過 AIDC 傳送航機資訊
- (3) 西南向將進入臺北飛航情報區的航機日方已有航機資訊
- (4) 由 SULEM 進管的航機如偏到 123 東經以東，臺北將會提供資訊
- (5) 其他航機資訊如果日方需要掌握，可主動來詢問

在 side meeting 時日本 JCAB 提出與日本自衛隊協商後的構想如下圖，



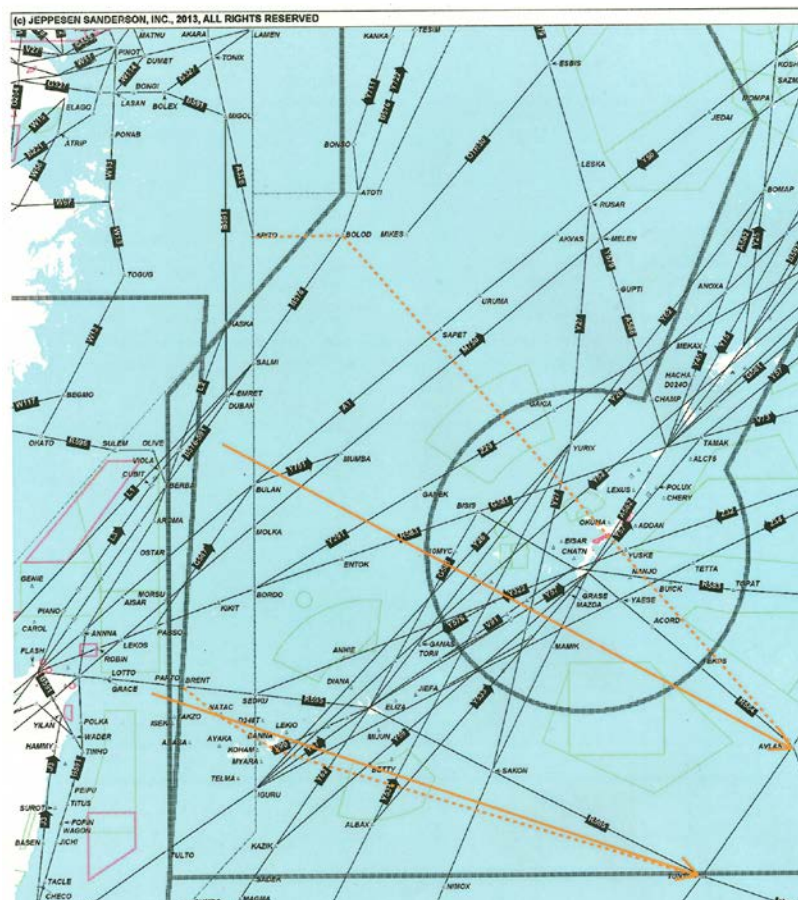
這個方案不僅範圍太大，而且涵蓋到 123 東經以西的部分空域，最重要的是這原本就是臺北飛航情報區的空域，本質上我們沒有提供的義務，雖然如此我們也了解此情勢與 JCAB 的困擾，臺北區管中心早已做了一些相對應的措施，例如：

- (1) 在 ATMS 系統圖裡加上以與那國島為中心畫上 15 海裡的圓，以提醒同仁如果航機有進入此空域之虞，便主動通知那霸區管中心
- (2) 頒布技令，提供同仁適時給予福岡/那霸區管中心偏航航機資訊的原則

在會談中，我方也把我們已經做得努力向日方說明，加上在實際作業上也有執行的困難，特別是北部席是臺北區管中心最忙碌的空域，偏航時會更加忙碌，明文規定下來的協議，要求忙碌的同仁去向鄰區提供偏航航機的資訊是過分的要求，日方也明白執行上的困難，但立場上還是希望臺北能同意以文字的方式簽訂協議，但我方表示執行上有困難，無法配合日方的要求，日方表示會再思考縮小範圍或其他方式，再與我方協商。

5. IATA 要求直飛航路

最後一個議題是有關 **IATA** 要求建立由中國離場進入太平洋空域的直飛路徑，詳細的內容請參考下圖，主要與我方有關的部分有二，第一條是一條在 **KASKA** 東面的路徑，日本與我方都不表同意，日本已備案處理。



另一條由 R595 航路出發的路徑，日本是想利用目前由 BRENT 到小島的低高度航路向東南延伸至那霸與馬尼拉邊界，這一條問題較小，但在 BRENT 之後偏南並使用高高度，必須透過大局與軍方協商，因此我方建議 JCAB 直接與大局聯絡人聯繫與協商。

叁、心得及建議

1. 由於 ADIZ 及 FIR 邊界的差異，造成日本自衛隊、JCAB 及臺北區管中心於處理航機在 123 及 124 東經間偏航通知福岡或那霸區管中心的問題，這個問題自民國 100 年開始，在我方提出要求後有減少的情況，但釣魚台及琉球群島部分島嶼位於這個區域，使得不明機出現在北部空域的機率增加許多，特別是中國及日本近日為釣魚台主權的發言，都讓這個空域的民航作業增加了風險，JCAB 在追求多方協議的文字化，接受與否都應該考量現實作業的可行信，態度上及文字上都需要智慧。
2. EATMCG 會議已進行至第六次會議，許多的議題都順利解決，以目前的趨勢看，接下來應該都會討論到“容量”的問題，特別是較忙碌的路線，例如 B576、N892 及 G86 的某些時段，建議持續收集並分析資料，以發現問題及尋找可行方案，建立議題與鄰區積極協調。
3. EATMCG 會議一直是我們與鄰區航管作業間重要的會議，會議進行至今已經是第六次會議了，每一次會議的議題都很多，再加上區管中心間的作業協調事項，工作及責任是很繁重的，不管是事前的議題的擬想、資料收集、評估及溝通、對我議題的答覆協調整合等等，需要長時間的準備及持續的追蹤，建議設立一個團隊來執行，除了航管專業外，在外語、協調及整合的能力方面，培養適當的人才，並持續參與會議，以銜接此項任務。該小組的成員宜包含大局、總臺及區管中心的固定人員，EATMCG 小組固定開會討論及追蹤議題，讓整體的運作更能有長久的成效。

4. 由於會議的重要性，及其與各國專責單位與主管的互動，藉之以建立良好關係，若可能建議多提供參加名額，以今年為例，區管中心整年只有一個出國會議或參訪的名額，單單就這個會議區管中心的部分建議應有三個名額較為適當，加上總臺及大局各一名，以這六次會議的經驗來看這樣應該是比較好的組合。

肆、附錄

THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/6)

(Fukuoka, Japan, 16 – 18 January 2013)

PROPOSED AGENDA AND TIMETABLE

1. AGENDA AND TIMETABLE FOR THE MEETING

The proposed agenda and timetable for the meeting appear at Appendix A. The timetable will be reviewed during the meeting and modifications will be made as necessary to facilitate the meeting.

2. LANGUAGE OF THE MEETING

The working language of the meeting is English.

3. WORKING HOURS

The proposed working hours are as follows;

Day 1: 10:00 - 16:00 (After the meeting and Social event in the evening)

Day 2: 09:15 - 12:15 and 13:30 - 15:45 plus Side Meeting till 18:00 (To extend the ending time is available if required.)

Day 3: 09:30 - 11:45

(13:30 - 16:30 Tour to Fukuoka ACC&ATMC)

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, 16-18 January 2013)

Agenda Item 4

**TRIAL FOR THE OPERATIONAL PROCEDURES TO SHARE
THE NOTIFICATION, HONG KONG ATCC / TAIPEI ACC / ATMC**

(Presented by Air Traffic Management Center, Japan)

SUMMARY

This working paper presents a review of the latest trial and a future subject of the operational procedures to share the notification, among HONG KONG ATCC / TAIPEI ACC / ATMC

1. Introduction

1.1. According to our preceding discussions, we are aware of the necessity to share the notification among related parties including Hong Kong ATCC, Taipei ACC, and Japan ATMC. We agreed to take a step-by-step trial to establish the operational procedures to share the notification. At the present stage, Hong Kong ATCC provides the notification of runway capacities at Hong Kong Int. Airport to Taipei ACC and Japan ATMC twice a day.

2. Review

2.1. There is no big change from the contents reported last time. The outline of trial is as follows;

- a. Hong Kong ATCC provides the notification of capacities to Taipei ACC and Japan ATMC.
- b. The starting time of provision of the notification is at 0000UTC and 0800UTC each day.
- c. The provided notification is effective for eight hours.
- d. In case there is a change or a predicted change of the information, the notification will be provided appropriately after modifying the time.
- e. The information is provided by an email.
- f. The formats are as the table below;

CAPACITY RELATED INFORMATION VHHH (FOR ARRIVALS)

VALID: 140000 to 140800 UTC

CAPACITY LEVEL: 1

AIRPORT ACCEPTANCE RATE: 32 flights per hour

EXPECTED DELAY: Up to 15 mins

REASON: -

REMARK:

2.2. We verified the relation between the provided information and the flow control restriction. The result is as follows;

< 1 Jan. 2012～30 Nov. 2012 >

CAPACITY LEVEL 2 or more	78days (88% of factors are bad weather)
Flow control restriction	51days
Flow control restriction on LEVEL 1	13days
Flow control restriction / LEVEL 2	31days / 69days
Flow control restriction / LEVEL 3	4days / 6days
Flow control restriction / LEVEL 4	3days / 3days

(Except for the restriction of FL400 on G581)

2.3. Although there was much flow control last year because of the bad weather, the notification was really effective because we were able to grasp the present and future situation of Hong Kong and coordinate with Taipei based on the same information.

2.4. We can appreciate that we were able to obtain the notification about two or three hours before the effective time.

2.5. We were able to obtain the information, but nothing about the restriction. So, we would like to obtain the information from Hong Kong in case there is any existing or expected flow control.

3. Discussion

3.1. In order to realize the efficient and economic traffic flow among Hong Kong, Taipei and Fukuoka FIR, JCAB would like to make proposals as follows;

- a. Subdivide the capacity level into a time frame of hours
- b. Predict and provide ATC constraints information based on expected traffic volume against the CAPACITY LEVEL
- c. Share the information with more airline operators
- d. Evaluate the accuracy of the capacity notification

3.2. By conducting 3.1, JCAB recognizes the following effects;

- a. Reduction of the ground delay by alleviating the unnecessary restrictions.
- b. Contribution to the economic operations by providing the information with the operators to alleviate the excessive holding around Hong Kong airport etc.

3.3. We are informed that Hong Kong is considering providing the notification by web. If it is materialized in the near future, JCAB is convinced that this will be very effective method for realizing the effects above.

4. Action by the meeting

4.1. The meeting is invited to note and discuss the information in this paper.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, 16-18 January 2013)

Agenda Item 5

**The proposal to make rules of submitting common report form
for Air Traffic Flow Management in East Asia**

(Presented by JCAB)

SUMMARY

This paper presents and confirms the rules to make common report form for Air Traffic Flow Management more effective and sustainable for every member of EATMCG.

1 Introduction

- 1.1 At the EATMCG/3, Air Traffic Management Center made the proposal to commence the common report form with which ATSUs could report statistics traffic data to EATMCG ATFMSG.
- 1.2 All delegates agreed that the updated data of traffic flow should be submitted to the EATMCG/4 meeting.
- 1.3 At EATMCG/5, JCAB proposed the new rules to collect and share the traffic data with members of EATMCG for realizing more efficient traffic flow.

2 Discussion

- 2.1 JCAB recognizes that it is very useful for us to collect the traffic data of every member by using the common report form(See ATTACHMENT) because these data could be used to make us better understanding the situations of neighboring FIRs, such as the congested airway, the changes of traffic volume ,which will lead to effective coordination of ATFM between ACCs.
- 2.2 To make this common report form more useful and enhance the mutual understanding among every member, JCAB would like to make a proposal again and share the following rules.
 - The traffic data that should be collected is from January to December each year.
 - JCAB will send the common report form to all members in advance when the next meeting is decided.
 - The members are not requested to fulfill all the blanks, but to input your data where the “□”mark is depicted as much as you can.
 - After completing the form, you are asked to send them to JCAB by the attachment of e-mail.
 - JCAB will compile these data to share them with the members of EATMCG.

- The data that are asked to submit should be reconsidered in the meeting, reflecting the members' needs.

3 Action by the meeting

- 3.1** This meeting is invited to note and discuss the information provided in this paper.
- 3.2** JCAB would like to exchange the POC of each state/region for sharing traffic data.
- 3.3** All members are kindly requested to send the traffic data from January to December 2012 to the following POC after going back to your state/region.

Tatsuya Iwase

Chief, Operations Section, Air Traffic Control Division

ANS Department, JCAB

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**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**
(Fukuoka, 16-18 January 2013)

Agenda Item 6

**Proposal of establishment of double track routes and
reduction of longitudinal separation of B576**
(Presented by JCAB)

SUMMARY

This paper is provided for discussion by reviewing of consideration through the past meeting with regard to establishment of double track routes and reduction of longitudinal separation of B576.

1. Introduction

- 1.1. At the EATMCG/5, issue of operational improvement as for B576 was discussed as follows. The meeting agreed to consider shortening longitudinal separation and establishing double track route of B576.
- 1.2. Republic of Korea presented that Incheon ACC requests to establish double track route of B576 or detour route operated periodically to solve the bottle neck caused by increment of traffic volume of B576. Korea proposed to corroborate on easing the traffic congestion of B576 with concerning FIR.
- 1.3. Hong Kong reported that the concentration of traffic volume bound for Incheon FIR during early morning is making controllers' workloads higher.
- 1.4. Taiwan commented that establishing alternative route via G581 from Manila to Incheon FIR can be one solution in case traffic volume keeps on increasing.
- 1.5. Japan proposed to start with consideration of shortening longitudinal separation of B576 if the main purpose is for expanding airspace capacity. Japan responded that detailed examination is needed to confirm the establishment of ATS route and RNAV routes near FIR boundary can ensure adequate separation.

2. Discussion

- 2.1. As stated above 1.5, Japan proposes shortening of longitudinal separation of B576 as a first practical measure to achieve enhancement of capacity.
- 2.2. As second step, Japan proposes Taiwan and Korea to establish double track route along B576 as shown on the attached chart. Japan recognizes that it will take not a short time for coordination such as modify of route structure within Taipei FIR considering B591

conversion as well as changing direction of double track routes which has already established within Incheon FIR.

2.3. At EATMCG/5 followed by Japan – Korea ATC working group meeting held in May 2012, Incheon ACC proposed operational procedure in which arrival traffic for Busan (RKPK) and Daegu (RKTU) to be detoured as remedial measure of concentration traffic of B576 during 1900-2100 UTC in the early morning.

2.4. Per Incheon ACC's request, Japan presented condition that flights bound for RKPK/RKTU shall file flight plan via existing ATS routes. Incheon ACC made coordination with operators and eventually reached agreement to file existing ATS routes. This procedure is going to be implemented in 2013 via routing below.

SALMI – (B576) – BOLOD – (Published Direct Route) – MIKES – (OTR30) – ESBIS – (Y579) – RUGMA

2.5. Japan regards this procedure as a tentative solution until establishment double track route. And based on the recognition of operators' demands to plan via shorter length of flight planned route, Japan has already proposed Taiwan to establish conditional route (CDR) shown on the attachment and it is now under consideration by Taiwan.

3. Action by the meeting

3.1. Based on the discussion at EATMCG/5, Japan, Korea, Taiwan and concerning states will discuss possibility of shortening longitudinal separation and establishing double track route to ease congestion on B576.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, Japan, 16 – 18 January 2013)

Agenda Item 6

**Adjustment of longitudinal separation standard on Y711/722
and suggestion on establishing Conditional Route on B576(Taiwan, Japan and Korea)**

(Presented by Korea)

This paper presents the need for adjustment of longitudinal separation on Y711/722(B576), including review on establishing

1. INTRODUCTION

- 1.1 The traffic volume that pass through Philippine, Hong Kong, Taiwan, Fukuoka (Japan) and Korea is going up gradually, while traffic congestion on certain time zones becoming worse
- 1.2. In case of Incheon FIR, the traffic movement that flies on new PBN route Y711 and Y722 has been increased by around 25% compared to that of last year on B576 airway, and the frequency of congestion happens more often as time goes on.
- 1.3 To cope with this situation, it is required to establish a new conditional route(CDR) on certain segment in B576.
- 1.4 In addition, it is urged to review and discuss for the need to adjust and test present longitudinal separation standard to enhance air safety level and expedite air movement on congested routes with positive cooperation in ATFM aspects among related parties.

2. DISCUSSIONS

2.1 Analysis of current situation

2.1.1 About 85% air traffic of heading or incoming from ATOTI are departing and landing at Incheon international airport, the last 15% are traffics of local airports in Korea.

2.1.2 Aircraft heading toward ATOTI (southbound traffic) in Korea shows particular trend to be congested during evening time zones(1000~1300(UTC)), as well as on the opposite direction(northbound traffic) from ATOTI to northbound during the early morning time zones(1900~2200(UTC)).

2.1.3 There are high possibility that the congestion may cause difficulty in assigning optimum altitude and identifying targets, frequent occurrence of merging targets, frequency congestion which may lead to similar callsign confusion to cause altitude deviation. This can have negative effect in securing air safety.

2.2. *Proposal*

2.2.1 Suggest to review and test current longitudinal separation standard among related parties to solve above mentioned latent problems.

2.2.2 Discuss and test new conditional direct route on certain time zone during the early morning (1900~2200(UTC)) to solve traffic congestion with an aim of disseminating the inbound traffic coming from ATOTI to enter Incheon FIR.

3. **ACTION BY THE MEETING**

3.1 Adjusting current longitudinal separation standard is required to be discussed among Hong Kong, Taiwan, Philippine, Japan and Korea.

3.2 Review and discussion is needed on establishing new conditional direct route with Taiwan, Japan and Korea.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, 16-18 January 2013)

Agenda Item 7

Flight Level Restriction on G581

(Presented by Naha area control center)

SUMMARY

This paper provides the information about altitude block at IGURU (G581) which has been imposed since 2008 when current flight level allocation scheme was implemented. This restriction originated from Hong Kong. JCAB considers the necessity of a negotiated settlement.

1 Introduction

1.1 As mentioned at EATMCG/4, FL400 has been restricted to aircraft overflying Taipei FIR and entering Hong Kong FIR at IGURU between 1100UTC and 1300UTC in accordance with NOTAM issued by Taipei ACC.

1.2 Since the timeframe of limitation has been shortened drastically, the limitation is 2 hours per day, and Naha ACC has a small number of concerning traffic during this timeframe, controllers' workload has been reduced compared with the last few years.

2 Current Status

2.1 According to the NOTAM, Naha ACC will not assign FL400 to aircraft entering Taipei FIR via G581 between 1100~1300UTC until December 31, 2013.

2.2 Since the applied timeframe is short and limited to the route from G581 through G86, there are few concerning aircraft and substantially little effect on the traffic. In most cases, Taipei ACC accepts coordination when there are concerning aircraft.

3 Discussion

3.1 Taking the above-mentioned 2.2 facts into consideration, this limitation may not be necessary.

3.2 Although there are no big hindrances, we question this flight level restriction by NOTAM.

3.3 In our last meeting, we had been informed that when the system in Hong Kong has been updated, Taipei will be released from the restrictions. How is the situation in Hong Kong?

3.4 At least, abolishing the limitation by issued NOTAM is required.

4 Action by the meeting

The meeting is invited to note and discuss the information in this paper.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, Japan, 16 – 18 January 2013)

Agenda Item 7

**Implementation of AIDC TOC and AOC messages
between Japan (Fukuoka and Naha ACC) and Taipei**

(Presented by Taiwan)

This paper presents that Taipei's inviting Japan to further cooperate on AIDC operation by implementing TOC and AOC messages.

1. INTRODUCTION

Continuing the Task 5-6 listed on the Task List for EATMCG 6 (or ref. Para. 2.5.2) at the final report of EATMCG 5 meeting, Japan, Hong Kong and Taipei are urged to review ICAO radar transfer procedures and coordination requirements. Furthermore, enhancing the collaboration on AIDC after 8 months satisfactory operation, Taipei would like to invite Fukuoka ACC and Naha ACC to implement TOC and AOC messages of AIDC so as to maximize the benefits of the progress.

2. DISCUSSIONS

2.1 At the EATMCG 5 meeting, Hong Kong proposed and Taipei seconded after deliberation and study on ICAO Doc. 4444 articles about transfer of control without verbal coordination. Japan also co-agreed to study the possibility on this topic within their procedures.

2.2 Fukuoka ACC and Naha ACC have been running AIDC's ABI and EST messages with Taipei since April this year. The results are satisfactory. Taipei would like to extend the cooperation by implementing TOC and AOC messages with Fukuoka ACC and Naha ACC, meanwhile fulfil the target of the Task listed at previous meeting.

3. ACTION BY THE MEETING

The meeting is invited to discuss on the implementation between Japan and Taipei.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, 16-18 January 2013)

Agenda Item 7

**Report on trial operation applying 20NM longitudinal separation on ATS routes
G581/R583/R595 between Naha and Taipei Area Control Center**

(Presented by JCAB and Taiwan)

SUMMARY

This paper provides result of trial operation with 20NM intervals of
G581/R583/R595 between Naha and Taipei Area Control Center,
which has conducted since 25th August, 2011.

1 Introduction

1.1 At EATMCG/3, JCAB proposed the trial of in-trail radar separation and it was agreed. The trial to shorten longitudinal separation under RADAR environment was started on 28 July, 2010, and 20 NM separations has been applied to the flight at the same altitude on A1/M750.

1.2 The trial was reviewed at EATMCG/4, and it had the approval to be implemented officially. In addition, spreading the trial to G581 was also approved.

1.3 Through the coordination between parties concerned, the trial to shortened longitudinal separation not only for G581, but also for R595 and R583 has been conducted between Naha ACC and Taipei ACC since August 25, 2011.

1.4 At EATMCG/5, Taipei advised that the new procedure was very satisfactory and the current MoU will be replaced by a LoA once the details are finalized and the reduced spacing will become an operational procedure.

2 Implementation date of formal operation

Through coordination between Naha ACC and Taipei ACC, it has determined that the implementation date of operation based on 20NM longitudinal separation will be 7th March, 2013 with effective of mutual LoA.

3 Action by the meeting

The meeting is invited to note the information provided.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**

(Fukuoka, Japan, 16 – 18 January 2013)

Agenda Item 7

Implementation of 2 PBN Routes in Incheon FIR to safeguard air safety

(Presented by Korea)

This paper presents information on operational background, expected benefits and latent problems of new two PBN routes in

1. INTRODUCTION

1.1 The B576 airway that is most congested single route in Korea had been applying 3 NM offset procedures from airway center line of it to avoid air misfortune until June 27, 2012.

1.2 New PBN routes Y71 and Y72 were newly established on June 28, 2012 to supplement the single B576 airway according to ICAO's PBN concept.

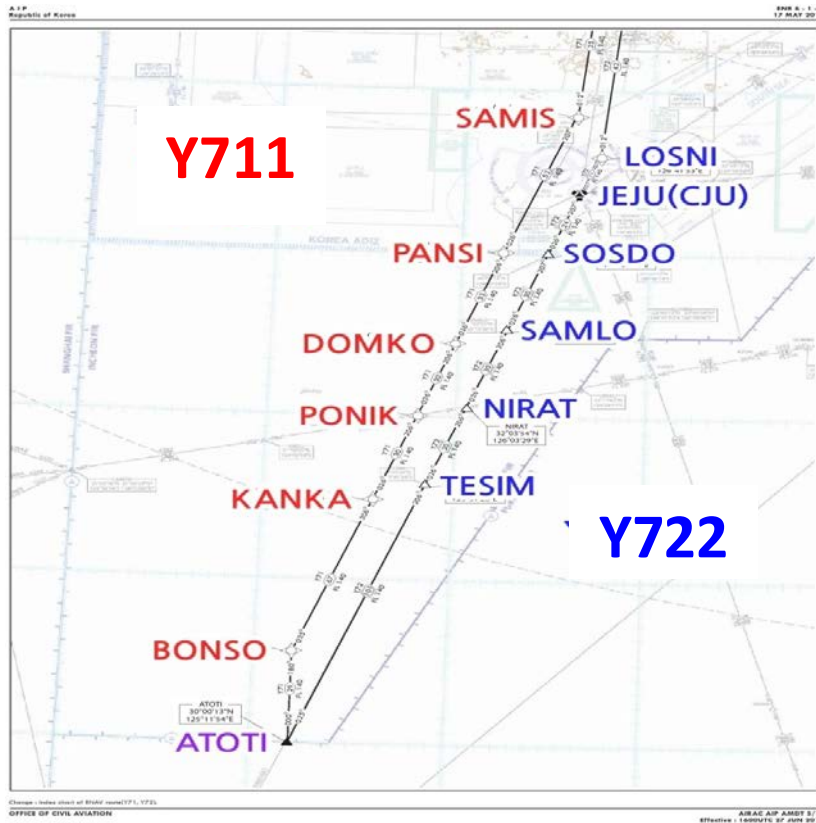
1.3 But as there arise problems in operating AIDC with Japan because of the duplicated route names (Y71 and Y72) of Japan, Y71 was renamed as Y711, and Y72 as Y722 on December 12, 2012.

1.4 With these new PBN routes, it came to be possible to provide safe, efficient and economic ATS service to the airspace users in Korea.

1.5 The two PBN routes solved potential midair collision between opposite traffic on the busiest single B576 airway in Korea.

1.6 However, still there exist problems that air movement on each routes (Y711 and Y722) show congested trend on certain time zones (1000~1300(UTC) and 1900~2200(UTC)) which requires mutual discussion on it among related parties.

1.7 New PNB route chart



2. OPERATIONAL METHOD OF 2 PBN ROUTES

2.1 Y711: Dedicated only to southbound (heading ATOTI) traffic.

2.2 Y722: Dedicated only to northbound (inbound from ATOTI) traffic.

2.3 The operational requirement on these routes needs RNAV 2(from PANSI fix to northbound traffic) and 5(out of PANSI to southbound traffic) capability. Other aircrafts that can't meet these requirements should fly on conventional B576 airway at or below 14,000ft.

2.4 Hereby we politely request to remind to your airlines about this operational requirement on Y711 and Y722 in Incheon FIR though we've already notified this through applicable means.

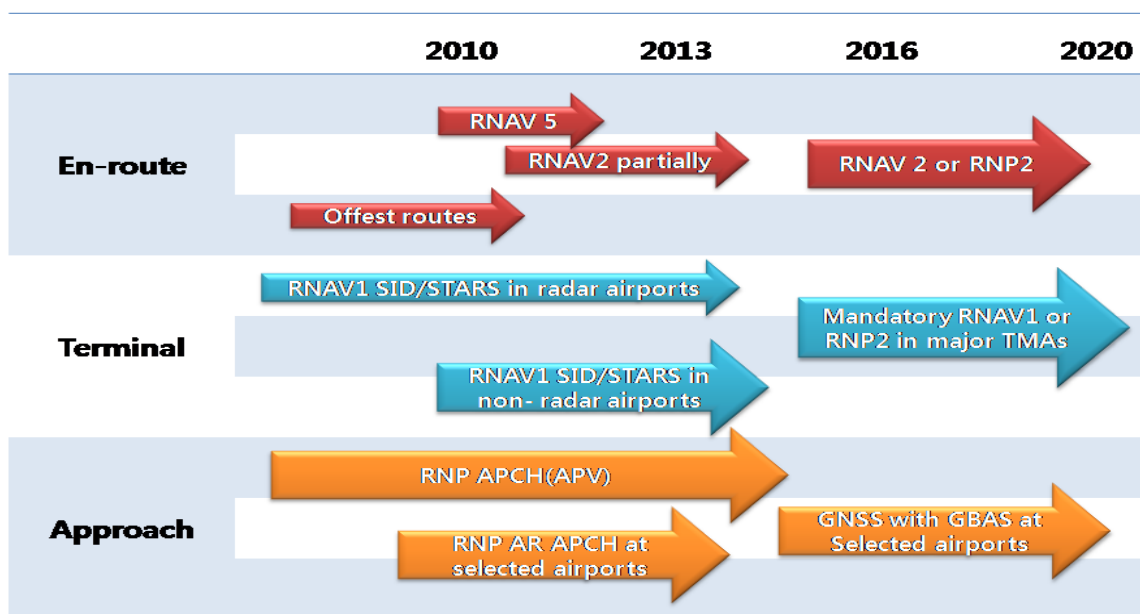
3. OPERATIONAL BENEFITS

3.1 The air safety and airway efficiency had been enhanced with the introduction of new PBN routes Y711 and Y722 compared to that of conventional single B576 airway.

3.2 Fuel saving effect for airliners when flying on these PBN routes is expected to reach US \$ 13,200,000.

3.3 In addition, it will contribute in realizing Green Sky by reducing carbon dioxide emission from aircraft (in total 38,600 tons)

4. PBN IMPLEMENTATION MASTER PLAN OF KOREA



5. Action by the meeting

The meeting is invited to be notified on this matter.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**
(Fukuoka, Japan, 16 – 18 January 2013)

Agenda Item 7

**Notification of RCTP Runway Reconditioning
and the Relevant Procedure of Flow Control**
(Presented by Taiwan)

<p>This paper presents information notifying upstream FIRs the lead time of announcement and the relevant procedure of flow control when RCTP runway</p>
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1. INTRODUCTION

Taipei Taoyuan International Airport (RCTP) is scheduling to repair its runway surfaces according to the company's recent meetings. Even though the exact dates are not settled, the CAA would like to share our agreed arrangements with the airport company and the relevant procedure of flow control to the upstream FIRs.

2. ARRANGEMENT AND PROCEDURE OF FLOW CONTROL

2.1 The deal made between the airport company and CAA requires the company to notify CAA before its construction works is undergoing. Accordingly, CAA will publish AIP supplement or NOTAM as official announcement.

2.2 As a regard to the appeal from the adjacent FIRs to encourage early notification for events that may influence other FIRs, Taipei would relay the information to FIRs concerned as soon as possible once the schedule is set.

2.3 The reduction on runway capacity would require appropriate flow control to alleviate ATC workload at approach sectors. After some studies and trials in past months, Taipei believes that there're needs to impose flow control in some specific window times to cope with the single runway operation when construction work is in progress. The following window times are references which may require tuning subject to the real situations that occur:

- VHHH departures for RCTP: 3 minutes at ENVAR or ELATO
- VMMC departures for RCTP: 6 minutes at ENVAR or ELATO
- KAPLI traffic bound for RCTP: 3 minutes / 25 NM between 0530Z and 0700Z
- POTIB traffic bound for RCTP: 3 minutes / 25 NM between 0530Z and 0700Z
- SALMI / BULAN traffic bound for RCTP: 3 minutes / 25 NM between 0230Z and 0415Z, between 0830Z and 0945Z, and between 1130Z and 1330Z

Please be advised that the spacing and windows times may be extended due to adverse weather and circumstances.

3. ACTION BY THE MEETING

The meeting is invited to be notified on this matter.

**THE SIXTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC
MANAGEMENT COORDINATION GROUP (EATMCG/6)**
(Fukuoka, 16-18 January 2013)

Agenda Item 3

Summary of Recent ICAO Meeting

(Presented by HKATCA on behalf of IFATCA)

SUMMARY

This paper summarises the ICAO Asia Pacific Region meetings that have been held since the EATMCG 5 meeting in April 2012.

1. Introduction

1.1 The ICAO Regional Office in Bangkok held a number of meetings in 2012, but because the ICAO Air Navigation Conference was held at ICAO Headquarters in Montreal, Canada, in November 2012, the regular meeting schedule was abbreviated.

1.2 The ICAO meeting protocol is that a number of Working Groups, Task Forces and Study Groups are directed to handle specific tasks. These groups report annually to either ATM/AIS/SAR Sub Group or CNS/MET Sub Group who review the work and then make a report to the Asia-Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG). This is a high level group which meets once a year and from which any Meeting Conclusions are passed to ICAO Headquarters for their consideration and any the ICAO Regional Office will address any Meeting Decisions.

1.3 Highlights of the meetings are given below.

2. Discussion

2.1 AIS-AIM Implementation Task Force

ICAO noted a significant number of duplications of 5 letter name codes within the region. With a significant increase in names not being allocated in accordance with Annex 11, ICAO requested all States to utilise the data-base maintained by the regional office for the selection of new names. The implementation of the new flight plan format on 15 November 2012 was accomplished with few problems. Although there had been some worries

concerning the readiness of some States in achieving full operations of new equipment, on the day there were no major issues.

2.2 South East Asia Route Review Task Force

16 routes reviewed, 5 improvements implemented. Work on remaining 11 routes delegated to other groups – EATMCG was given responsible for progressing work on B462/B348 between Manila and Taipei.

2.3 South East Asia ATM Coordination Group

West Pacific-South China Sea and Indonesia areas have exceeded the ICAO Target Level of Safety primarily due to the number of inter-facility coordination errors. States urged to expedite implementation of AIDC equipment to improve the level of safety. Formation of 3 Small Working Groups to progress introduction of AIDC, utilise appropriate surveillance separation standards, and establish coordinated ATFM procedures.

2.4 ATM/AIS/SAR Sub Group

The meeting in 2013 will also have an Aerodrome Operations and Planning Working Group as an ancillary set of the main group. Their tasks will include airport capacity criteria and improving runway safety.

2.5 Aviation System Block Upgrade Seminar

ICAO plan for Aviation System Block Upgrades adopted at 12th Air Navigation Conference in November. Block 0 to be implemented in 2013. It was noted that not all the modules in Block 0 may be beneficial for the every State in the region in terms of cost and operational benefits, so the priority is to identify the modules that are applicable for the region and a particular State.

2.6 PBN Task Force Datalink Performance Monitoring Group

New Zealand reported that it has implemented a safety standard target of service of a maximum of 520 minutes outage in a 12 month period. A 52 minutes outage with no more than 4 outages of greater than 10 minutes in 12 months were acceptable for an efficiency target. It was noted that a single outage event of over 15 hours (910 minutes) on 22 October 2011 had resulted in a performance in the FIR significantly below the specified targets.

2.7 Ionospheric Study Task Force

This group reports on ‘space weather’ events that can impact satellite and communication performance with consequent repercussions to the operation

of aircraft and ATC. It was noted that Japan is planning to evaluate GPS with GBAS for CAT III approaches.

2.8 Seamless ATM Planning Group

Draft plan proposes for States to implement Preferred Airspace and Route Specifications (PARS) and establish ANSPs with facilities and systems in compliance with Preferred ATM Service Specifications (PASL).

It also recommends ICAO to conduct training workshops for senior managers and regulators on implementing human performance criteria in the workplace.

2.9 ICAO noted the good work that is being done by the number of informal groups and meetings, including EATMCG and the contribution they have made in progressing issues that the Regional Office is not able to address in the general agenda of ICAO meetings.

3. Action by the meeting

3.1 The meeting is invited to note the contents of the paper.