出國報告（出國類別：其他）

「非正式東亞飛航管制協調小組及流量管理研究分組會議」出國報告書

服務機關：交通部民用航空局
姓名職稱：薛少怡　簡任技正
陳文桂　技正
鄒慧蒂　科員
派赴國家：香港
出國期間：自 101 年 4 月 17 日至 4 月 20 日
報告日期：101 年 6 月14 日

「非正式東亞飛航管制協調小組及流量管理研究分組會議」出國報告書

目錄

「非正式東亞飛航管制協調小組及流量管理研究分組會議」出國報告

壹、前言與目的

一、 本次參加之航管技術作業會議『非正式東亞飛航管制協調小組會議（The East Asia Air Traffic Management Coordination Group, EATMCG）』，為本區與鄰近飛航情報區為解決管制作業相關議題而召開，並針對流量管理進行分析及規劃。由於我國非國際民航組織（ICAO）會員國，EATMCG 為本區與鄰區間協調解決相關航管議題及資訊交流之重要平臺。

二、 過去幾年東亞地區之航情維持穩定成長,並以東南亞至韓國間之航行量增加最劇，包括我國、日本、香港、韓國及菲律賓等相關國家/地區間為了增加對彼此航管作業的了解，蒐集分析基礎飛行資料以謀求可行的區域性流量管理機制,並更有效協調溝通因縮減垂直隔離作業（RVSM：Reduced Vertical Separation Minimum）實施後仍須轉換高度所衍生的問題，分別於 2007 年 8 月在日本福岡召開第 1 次非正式東亞飛航管制協調小組會議（EATMCG/1），2008 年 9 月於那霸召開第 2 次（EATMCG/2）會議，2009 年 12 月由臺北主辦（EATMCG/3）會議，2010 年 12 月於香港召開第 4 次會議（EATMCG/4），本次在香港召開的是第 5 次會議（EATMCG/5），自第 3 次 EATMCG 會議起，會議皆邀集韓國民航當局 CASA 參與，以研討解決 B576 航路遽增的航行量所衍生之容量問題，以及與 B591 航路交會之航情衝突解決等議題。

三、 ETMCG 飛航流量管理研討小組（ATFM SG：Air Traffic Flow Management Study Group）會議主要研究日、韓飛航情報區往返香港飛航情報區間之流量管制議題，日方於第 4 次 EATMCG 會議提議，各 EATMCG 成員國家提供航路航行量、

主要機場容量等資料，藉由區域性之分析及研究，以創造各飛航情報區間和諧且一致之流量管理策略。

貳、行　程

本次會議由民用航空局飛航制管組簡任技正薛少怡擔任領隊，成員有飛航制管組陳文桂、鄒慧蒂，以及飛航服務總臺主任管制員陳文德、督導林正宗、管制員楊皖卿、林雅婷、黃群堯、游成俊等九人。

4 月 17 日	搭乘長榮航空公司班機至香港
4 月 18 日至 20 日	參加非正式東亞飛航管制協調小組第 5 次會議
4 月 20 日	搭乘長榮航空公司班機返回桃園國際機場

參、會議過程

一、 出國前之準備工作

為確認本次會議所提報的內容並預做演練，於 101 年 3 月 28 日舉行會前準備會議，確認報告內容均已完備。

(一) 工作報告(Working Paper, WP)：

不明機活動之情形及相關訊息分享（Incursions of unknown traffic in Taipei FIR）。

(二) 資訊報告（Information Paper, IP）：

1. 國際民航組織新的飛航計畫格式實施方案及支援飛航服務訊息(Implementation of New ICAO Flight Plan Format and Supporting ATS Message – Update on Taipei FIR)。
2. 臺北飛航情報區之 ADS-B 實施計畫資訊分享（ADS-B Implementation update in Taipei FIR）。

二、 會議地點於香港飛行員學會會議室舉行，主席為國際飛航管制員協會聯盟之代表 Mr. John Wagstaff，其他參與國家代表除主辦國香港外，尚有日本、菲律賓、韓國及我國。

三、 出席國家與組織

與會人數總計 26 人，人員名單詳如附件二。

(一) 國際飛航管制員協會聯盟(International Federal Air Traffic Controllers'Association, IFATCA)

(二) 香港民航處(Civil Aviation Department, Hong Kong, China, HKCAD)

(三) 香港航空管制協會 (Hong Kong Air Traffic Control Association, HKATC)

(四) 日本民航局(Japan Civil Aviation Bureau, JCAB)

(五) 日本飛航管制協會 (Japan Air Traffic Control Association, JATC)

(六) 中華民國交通部民航局(Civil Aviation Aeronautics, Republic Of China, CAA ROC)

(七) 菲律賓馬尼拉區管中心(TACC Manila)

(八) 韓國仁川區管中心(Incheon ACC)

四、 會議過程

(一) 開幕式，致歡迎詞 – 主辦國家，香港民航處航空交管理部總航空交通管制主任 Mr. Raymond Li.

(二) EATMCG/5 主席 – 國際飛航管制員協會聯盟亞太地區代表 Mr. John Wagstaff

(三) 介紹各國代表

日本代表

香港代表

菲律賓代表

韓國代表


我國代表

五、 確認會議議程

(一) 本次會議共有 12 項議題，分列如下：

1. 檢視及確認本次議程。
2. EATMCG/4 前次會議結論報告、後續處理與追蹤，EATMCG/5 工作項目確認。
3. 檢視與回顧最近 ICAO 各項相關會議事項。
4. 檢視 PBN 完成進度及縮減航路前後隔離工作報告。
5. 檢視流量管制與每日最大容量通告及流管相關事務。
6. 日本民航局專題報告。
7. 臺灣民航局專題報告。
8. 菲律賓民航局專題報告。
9. 香港民航處專題報告。
10. 韓國民航局專題報告。
11. 其他事項。
12. EATMCG/6 準備事項。

(二) 因 12 項議題，包括 18 項工作報告及 9 項資訊報告，主席 Mr. John Wagstaff 在獲得各與會國代表同意下，分爲 4 個議程，以利會議之進行。

1. 議程一：於 4 月 18 日上午舉行

(1) WP1：檢視及確認本次議程，報告人爲本次會議主席 Mr. John Wagstaff。

(2) WP2：EATMCG/4 議題之後續處理及追蹤，以及 EATMCG/5 之工作項目，報告人會議主席 Mr. John Wagstaff。

(3) WP4：流管資料統計報告，報告人爲日本航空交通管理中心代表 Mr. Hiromu Hayashi。

(4) WP4-2：流量管理(Sharing the notification in the early stage among planning officers) 統計情形，報告人日本福岡管制中心代表 Mr. Hideo Takemote。

(5) WP9.1：A1/M750 航路縮減雷達隔離爲 20 浬之工作狀況報告（Review Use of 20 NM Longitudinal Spacing），報告人香港民航局代表 Mr. Kermit Yuen。

(6) IP4.1：ATFM 統計表格(Common report form)，報告人爲日本民航局代表 Mr.Tatsuya Iwase。

(7) WP5.1：日本與鄰區交流狀況報告，報告人爲日本民航局代表 Ms. Nakagawa Tomoko。

(8) WP4.1：A1 與 M750 縮減隔離爲 20 浬工作成果報告，報告人爲日本代表 Ms. Yumiko Inoue。

(9) IP8.1:A1 隔離 20 浬隔離工作報告，報告人爲香港代表 Mr. Kermit Yuen。

我國代表報告

日本代表報告

香港代表報告

我國與日本雙邊會談

2. 議程二：於4月19日上午舉行

(1) WP5.3：報告日本與臺灣間之高度指定(B462)，FLAPS 高度(FL360)與日本境內高度相衝突。日本請馬尼拉變更北向航機 FLAPS 高度。

(2) IP5.6：由日本往 KAPLI 限制使用高度 FL400，日本表示已開啓席位，今年十二月將啓用新軟體，屆時將可解決此問題。報告人日本代表 Ms. Yumiko Inoue。

(3) WP5.4：B576 實施雷達交接之工作情形報告，報告人日本代表 Mr. Hideo Takemoto。

(4) WP9.1：B576 航行量報告，報告人韓國代表 Ms. Lee。

(5) WP5-3：B462 航路及相關航路之高度安排，報告人馬尼拉代表 Mr. Tienzo 。

(6) IP8.1A：M750 航路規劃爲 RNAV5 航路之工作情形報告，報告人香港民航處代表黃珊娜。

日本代表報告

我國代表報告

3. 議程三：於4月19日下午舉行

(1) WP6.1：不明機活動之資訊分享，報告人民航局代表楊皖卿、林正宗。

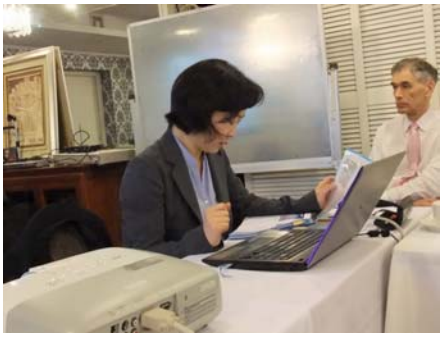
(2) IP5.2:臺北與福岡/那霸間實施 AIDC 資料交換之工作情形，報告人日本民航局代表 Mr. Hideo Takemoto。

(3) WP8.2A：香港 AIDC 預計實施狀況，報告人香港代表 Mr. Kermit Yuen。

(4) IP5-1:日本 SCAS(specifying CFDT)系統試用情形資訊分享，報告人日本代表 Mr. Hiromu Hayashi。

(5) IP6.2：EATMCG/4 工作進度報告，報告人民航局代表陳文桂。

(6) IP6.3：臺北境內 ADS-B 建置情形及實行計畫簡介，報告人民航局代表鄒慧蒂。



韓國代表報告　　我國代表與韓國代表交換意見

4. 議程四：於 4 月 20 日上午舉行

(1) IP7.2：馬尼拉 CNS/ATM 系統及設備配置簡介。報告人馬尼拉代表 MR. Ruddy。

(2) EATMCG/6 準備：國際飛航管制員協會聯盟亞太地區代表告知，下一次 EATMCG/ 6 由日本主辦，日本原預計 2012 年 11 月舉行該會議，我國代表團提出於同一年度舉行，我國有預算限制，希望於 2013 再行召開。

(3) 1300 主席宣布會議圓滿結束。

我國與 IFATCA 代表　　菲律賓代表

六、 會議成果

(一) 我國提出之議題可分爲三部分：

1. EATMCG/5 會議中提出之議題：

(1) 請香港解除 KAPLI 進管之高度限制（飛航空層 400），以達增加 G86 航路容量之目的。

由於香港限制該高度之使用時段，致韓國、日本及我國至東南亞之容量受壓縮，日本及臺北皆請香港開放該空層。香港表示現正建置新系統，預計於 2012 年 12 月底完成，屆時將重新配置人力，將會開放 40,000 呎予通過 KAPLI 之航機使用。

(2) 請鄰區間分享不明機之動態訊息，以提供資訊予民航機，各鄰區之回應如下：

a. 菲律賓：不明機飛航於臺北至菲律賓間，大致由 MEVIN 經 POTIB 進入本區，臺北與菲律賓間已建立良好之不明機資訊互相告知習慣。

b. 香港：不明機飛航於臺北至香港間，大致由 ENVAR 或 KAPLI 北面 20 浬處進入本區。

a) 香港與臺北間已建立良好之不明機資訊互相告知習慣。

b) 另香港亦分享其對不明機之處理經驗，即提供航情予民航機，但不建議使用引導或變更民航機高度之方式以避讓不明機。

c. 日本：不明機飛航於臺北至日本間，大致由 SALMI 或 BULAN 北面 10 浬處進入本區，並飛航於東經 123 度至東經 124 度之間。

a) 由其飛行路徑判斷，大部分爲日本自衛隊之訓練航機。

b) 經我方多次與日方協商，日方仍表明其無法掌握自衛隊訓練機之動態，有實行上之困難，無法配合辦理。

(3) 請鄰區對於往仁川飛航情報區之航情實施分流以提高容量：

a. 由香港過境臺北至韓國之航情，經由 M750、B576 航路至韓國；過境本區至日本之航機，經由 G86、G581 航路至日本。

b. 由馬尼拉過境本區至韓國之航情，經 B348、B591、TINHO 直飛 LEKOS、M750 航路至韓國；並請馬尼拉重新安排 B348 航路之 FLAPS，以避免由香港至日本之航機，在本區 HCN 點產生衝突。

c. 對於我方提出之議題，日本代表認爲短期應以提升容量爲目標；長期則應藉由航路設計以達到航情分流、兼顧各飛航情報區間之隔離要求及經濟考量之目的。

d. 香港、韓國及馬尼拉代表皆承諾將此議題携回研究。

(4) 菲律賓請我方將 B348 航路規劃爲 RNAV 航路，我方允諾將持續進行。

2. 雙邊會談的協商議題，分香港及日本二部分：

(1) 與香港的雙邊會談：

a. 有關協議書的部份:有關 M750/A1 航路 20 海浬雷達隔離試作已結束，雙方決定將該作業備忘錄納入工作協議書；有關 AIDC 實施，雙方簽訂備忘錄，並進行技術軟體之協調與修正。

b. 有關夜間進管航機的分流：我方提議對進管本區之航情，依其目的地於本區分流，以提高安全係數及整體容量。目的地爲韓國之航班經 M750、B576 航路至韓國；至日本落地之航班，經 G86、G581 航路飛往日本。香港原則同意此規劃案，若其他鄰區可配合，香港亦可配合。

(2) 與日本的雙邊會談：

a. 有關雙方協議書部分：雙方同意將 M750/A1 航路 20 海浬雷達隔離之作業納入工作協議書中，同時納入 AIDC 實行備忘錄，並持續紀錄雙方資料之正確性，做爲修正系統參數之依據。

b. 有關不明機於東經 123 度至東經 124 度間飛航，推測一部分爲日本自衛隊之活動，然日本民航局表示其無法掌握軍機動態，故無法提供該區航機活動訊息予臺北。

c. 有關我方提議，於花蓮至石垣島規劃航路事宜，日本民航局提議由 TINHO、PARTO 至石垣島，我方則建議更符合效益之路線，即由花蓮至石垣島，日方表示該直達航路需與軍方協調空域之使用，並將研究此方案之可行性。

d. 日本民航局再次提及 B576 平行航路的想法，我方向日方表達有實行上的困難，然而提議利用現有航路及航情特性，於夜間實施分流，雖未完全解除 B576 航路之航情交錯爬升、下降之情形，但仍紓解航情集中於 B576 航路之情形，

EATMCG 各會員國皆承諾將此議題携回研究，再行討論。

3. 會議中其他相關的議題

(1) WP4：日本希望我國在 NOTAM 發布前告流量管理訊息。

我方表示若因航管因素而實施流量管理，我方將於能力範圍內盡全力配合；倘爲桃園國際機場施工而實施流量管理，因機場現已獨立爲公司，航管也是接獲 NOTAM 後，方可確認實際施工時間，無法提前告知，但允諾轉知桃機公司，若爲計畫性之跑滑道修繕作業，請及早發布飛航公告。

(2) WP8：香港提出與臺灣間，實施雷達識別，不必口頭交接。

此議題雖經香港提出 ICAO 文件說明「口頭交接」非必要程序，我方表示同意遵循國際民航組織相關規範，惟我方與日本實施雷達交接，均輔以口頭交接，未避免相同作業卻因實施對象不同而有不一致的做法，我方請日本評估雙方雷達交接取消口頭交接之可行性。

肆、心得與建議

一、 由於我國非國際民航組織（ICAO）會員國，故針對民航相關議題缺乏參加國際會議之討論機會，EATMCG 會議是我國難得可在國際發聲之機會。經由前 4 次之會議結果，亦可印證此會議確實解決我國於民航所遭遇之實務難題，藉著與鄰區技術交流及資訊分享，進而提昇本飛航情報區之飛航安全係數，創造合乎國際民航標準之飛航環境。

二、 本局歷年來皆派員參與 EATMCG 會議，已利用參加會議之便，建立豐沛的人脈及直接便捷的溝通管道。惟此等會議議題皆具延伸性，未避免人員職務調動而影響對會議的熟悉度，建議酌增參加會議人數，藉由次第參加會議，以達累積專業知識及經驗傳承之目的。

三、 本次會議日本提議將韓國納為 EATMCG 正式成員，經所有 EATMCG 成員國同意，並修正 EATMCG 會議相關文件。另日本觀察員提案，邀請其他非會員國以觀察員身份參與 EATMCG 會議，惟日本代表主張 EATMCG 會議是現各會員國討論航管議題及各國航管政策資訊分享的重要平臺，囿於時間限制，歷屆會議行程皆十分緊湊，倘邀集其他觀察員加入，勢必瓜分會員國討論時間，恐對議題之進行有負面影響。故建議邀集固定國家為觀察員不宜為常態，倘有涉及非會員國之議題，再視情況邀請該國為觀察員，各會員國一致同意日本之建議。

伍、附件

附件一：東亞飛航管制協調小組會議第 5 次會議(EATMCG/5)議程

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 17 – 20 Apr. 2012)

AGENDA	
AGENDA ITEM 1	Adoption of Provisional Agenda
AGENDA ITEM 2	Review of EATMCG/4
AGENDA ITEM 3	Report on recent ICAO meetings and outcomes
AGENDA ITEM 4	Review of PBN implementation and reduction of en-route
AGENDA ITEM 5	Review of Daily Capacity Notification Scheme and associated
AGENDA ITEM 6	Japan Working Papers/Presentations
AGENDA ITEM 7	Taiwan Working Papers/Presentations
AGENDA ITEM 8	Philippine Working Papers/Presentations
AGENDA ITEM 9	Hong Kong Working Papers/Presentations
AGENDA ITEM 10	South Korea Working Papers/Presentations
AGENDA ITEM 11	Any other business
AGENDA ITEM 12	Provisional arrangements for EATMCG/6

附件二：東亞飛航管制協調小組會議第 5 次會議代表名單

IFATCA		
John Wagstaff	Asia Pacific Representative	John.wags@gmail.com
Hong Kong		
Raymond Li	Chief Air Traffic Control Officer	rkcli@cad.gov.hk
Stanley Lau	Electronics Engineer	smylau@cad.gov.hk
Kermit Yuen	Senior Safety and Quality Officer	kkfyuen@cad.gov.hk
Sarah Wong	Acting Senior Operations Officer	ssnwong@cad.gov.hk
Ivan Chen	HKATCA	ipkchan@cad.gov.hk
Japan		
Tatsuya Iwase	JCAB	iwase-t07yf@mlit.go.jp
Tomoko Nakagawa	JCAB	nakagawa-t07au@mlit.go.jp
Yumiko Inoue	Naha ACC	Inoue-y04kn@cab.mlit.go.jp
Hiromu Hayashi	ATMC, Fukuoka	hayashi-h076r@cab.mlit.go.jp
Hideo Takemoto	Fukuoka ACC	Atc-ops@cab.mlit.go.jp
Toshio Yoshida	JATCA	yoshida@atcaj.or.jp
Nakatsuji Yoshiro	JATCA	Nakaocean21@siren.ocn.ne.jp

Taiwan		
Daniel Shiue	Chief, Audit Section, ATS Division, CAA	ssy1023@mail.caa.gov.tw
Carl Chen	Technical Specialist, Operation and Procedure Section, ATS Division, CAA	carl@mail.caa.gov.tw
Judy Tsou	Officer, ATS Division	judytsou@mail.caa.gov.tw
Tony Lin	Supervisor, Taipei ACC	linchengtsung@yahoo.com.tw
Narita Yang	Controller, Taipei ACC	atc62ya@ms1.anws.gov.tw
Garfield Lin	Controller, Taipei ACC	garcat@ms1.anws.gov.tw
Richard Huang	Controller, Taipei ACC	azulito@ms1.anws.gov.tw
Cheng-Chun, Yu	Coordinator, Kaohsiung Approach	yu0308@ms1.anws.gov.tw
James Chen	Senior Controller, Air Traffic Services Management Office	wd@ms1.anws.gov.tw
Philippines		
Ferdinand Tienzo	Manila ACC	tienzoda@yahoo.com
Rudy Boctot	PATCA	rudy_fifes@yahoo.com
Korea		
Kang Chang-Jin	Incheon ACC	acckang@korea.kr
Lee, Hye-Young	Incheon ACC	imhaze@korea.kr

附件三：工作報告（**Working Paper, WP**）/資訊報告（**Information Paper, IP**）

WP01：Agenda

WP02：Review of EATMCG-4（ICAO）

WP03：Review of Recent ICAO Meetings and Outcomes（ICAO）

WP04：Review of Daily Notification Scheme（Japan）

WP05：Report of JCAB's ATM（Japan）

WP06：Report of Traffic of J5（Japan）

WP07：FLAS of B462（Japan）

WP08：Radar Separation on B576（Japan）

WP09：Review of Operation of Applying 20NM Separation on G581, R583 and R595（Japan）

WP10：Restrictions on G581（Japan）

WP11：Report of ATFM Common Report form（Japan）

WP12：Incursions of unknown traffic and information sharing（Taipei）

WP13：Review of Operation of Applying 20NM Separation on G581, R583 and R595（Hong Kong）

WP14：Review Use of 20NM Longitudinal Spacing on G581, R583 and R595（Hong Kong）

IP01：Review of ICAO Aviation System Block Upgrades(ICAO-3.1)

IP02：Operational Trial of SCAS（Japan）

IP03：Implementation of AIDC between Taipei ACC and Fukuoka/Naha ACC（Japan）

IP04：Update of EATMCG/4 Task List for EATMCG/5 Concerning TPE FIR（Taipei）

IP05：RNAV Redesignation of B348（Philippine）

IP06：CNS-ATM Project（Philippine）

IP07：RNAV Designation of M750（Hong Kong）

IP08：AIDC Development（Hong Kong）

THE FIFTH MEETING OF THE EAST ASIA TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG)

(Hong Kong, China 18 – 20 April 2012)

PROVISIONAL AGENDA

AGENDA ITEM 1	Adoption of Provisional Agenda
AGENDA ITEM 2	Review of EATMCG/4 Meeting
AGENDA ITEM 3	Report on recent ICAO meetings and outcomes
AGENDA ITEM 4	Review of Daily Capacity Notification Scheme and associated ATFM matters
AGENDA ITEM 5	Japan presentations
AGENDA ITEM 6	Taiwan presentations
AGENDA ITEM 7	Philippine presentations
AGENDA ITEM 8	Hong Kong presentations
AGENDA ITEM 9	Republic of Korea presentation
AGENDA ITEM 10	Any other business
AGENDA ITEM 11	Provisional arrangements for EATMCG/6

THE FIFTH MEETING OF THE EAST ASIA TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG)

(Hong Kong, China 18 – 20 April 2012)

REVIEW OF EATMCG/4 MEETING

(Presented by IFATCA)

Summary

This Paper gives a review of EATMCG/4 and highlights the action items for EATMGC/5 to address.

1. Introduction

1.1 EATMCG/4 was hosted by the Hong Kong Air Traffic Control Association in Hong Kong from 1 to 3 December 2010. The meeting was attended by 26 delegates representing the aviation authorities and ATC Associations of Hong Kong, Japan, the Philippines and Taiwan, together with the IFATCA Asia Pacific Representative.

2. Details of the Meeting

2.1 The trial of the reduction of en-route longitudinal spacing on A1/M750 was reviewed and it was agreed to extend the trial period until the LOAs were revised to include the new procedures. There was discussion on expanding the trial to include G581, R595 and R583 and it was agreed that a trial could commence once the nem MOU between Taipei ACC and Naha ACC was concluded.

2.2 The restrictions on level availability on G581 was raised by Japan. Hong Kong advised that they planned to restructure their sector boundaries and introduce a new sector which should permit a relaxation of the current restrictions imposed on the use of FL400 on G581.

2.3 There was discussion on overnight traffic capacity on B576 which has seen a significant growth in recent years.

2.4 The Philippines proposed establishing a second route between Manila and Taipei, but Taipei advised the suggested route would increase traffic problems at KABAM.

2.5 Japan provided information on their experiences of implementing AIDC with adjacent ACCs. They advised of a significant reduction of LHDs even though there had been an increase in traffic.

2.6 Taiwan gave details of Taoyuan Airport runway upgrade works and the consequent traffic restrictions that will have to be implemented.

2.7 Taiwan presented a proposal to classify M750 as an RNAV5 route. Japan supported the proposal as it was in line with their airspace plan and the ICAO Regional PBN Plan.

2.8 The meeting agreed that the initial trial of a Flow Management Daily Notification Scheme had been successful and the second phase should proceed.

2.9 The realignment of J5 at the Naha/Taipei FIR boundary was discussed and it was agreed that further consultation with the airline operators and military was necessary before a conclusion could be finalised.

2.10 Taipei updated the meeting on their plans for implementing the new flight plan procedures in November 2012.

2.11 Japan provided a draft of the EATMCG Terms of Reference and this generated much discussion. As there was no conclusion, the item was carried over to the next meeting.

3. Task List

3.1 The EATMCG Task List was updated and the following are to be reviewed by EATMCG/5:

3-2 Coordination with Shanghai ACC in terms of level allocation on B591 by Taipei ACC. (Taiwan)

3-3 Review implementing ATS Route M750 as RNAV5. (Hong Kong, Japan, Taiwan)

3-4 Review the trial operational procedures to share notification. (Hong Kong, Japan, Taiwan)

3-5 Collect data based on new Common Report Form for Air Traffic Flow Management in East Asia. (Hong Kong, Japan ,Philippines, Taiwan)

4-1 Review use of 20 NM longitudinal spacing among Fukuoka, Taipei and Hong Kong FIRs. (Hong Kong, Japan, Taiwan)

4-2 Review flight level restrictions on G581. (Hong Kong, Japan, Taiwan)

4-3 Review longitudinal spacing on B576. (Hong Kong, Japan, Taiwan)

4-4 Review traffic level and relocation of ATS Route J5. (Hong Kong, Japan, Taiwan)

4. Discussion

4.1 The meeting is invited to note the Task List items and provide updates and information concerning these matters.

- End -

THE FIFTH MEETING OF THE EAST ASIA TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG)

(Hong Kong, China 18 – 20 April 2012)

REPORT OF RECENT ICAO MEETINGS AND OUTCOMES

(Presented by IFATCA)

Summary

This Paper gives a resume of recent ICAO Asia Pacific Region meetings and the conclusions and decisions of the meetings that are relevant to EATMCG.

1. Introduction

1.1 In recent months there have been a number of changes to the personnel in the ATM Section of the ICAO Asia Pacific Regional Office. It is noteworthy that the Section is now fully staffed following a long period of serious under-manning. Mr Len Wicks (New Zealand) is the Regional Officer with Mr Shane Sumner (Australia) as the second Regional Officer. They are assisted by ATM Experts Mr Soon Boon Hai (Singapore) and Mr John Richardson (Australia).

1.2 Even though the Regional Office continues to organise a full and comprehensive schedule of meetings, seminars and workshops, the ATM Section is unable to arrange as many meetings as it would like and acknowledges the work carried out by a number of Informal groups and meetings in undertaking tasks and resolving issues that ICAO is unable to directly address. A report on this meeting will be submitted to the ATM/AIS/SAR Sub Group of APANPIRG in June.

2. Details of Meetings

2.1 APANPIRG 22 (September 2011)

2.1.1 The meeting produced 56 Conclusions and Decisions, the relevant items were:

i) Flight Plan 2012 – ICAO will strengthen and facilitate inter-regional coordination.

ii) ATFM Study Group – this group will produce high level guidance material and policies for the region.

iii) ATFM Regional Concept of Operations – ICAO will produce guidance material.

iv) ADS-B Airspace Mandate – States to issue notice of implementation and provide priority service to approved operators.

v) Japan Airspace Safety Monitoring Agency (JASMA) – ICAO endorsement as Regional Monitoring Agency.

vi) Regional PBN Plan – States to adopt Version 3.0.

vii) Development of ADS-B Guidance Material – ICAO to publish on website.

viii) Expedite Implementation of ADS-B in South China Sea – States requested to coordinate actions.

ix) Establishment of Asia Pacific Seamless ATM Planning Group – Group to develop plan and implementation strategy for regional coordinated airspace.

2.2 ASIA/PACIFIC SEAMLESS ATM PLANNING GROUP MEETING 1 (January 2012)

2.2.1 With many States in the region either developing or planning upgrades to their ATM systems, ICAO established the Seamless ATM Planning Group to coordinate these activities and to ensure common procedures and similar practices were in place to provide a 'seamless' service to aircraft throughout the region.

2.2.2 Whilst the SESAR and NextGen projects within Europe and the USA respectively are recognised as leading programmes with many new plans, and Japan is developing their CARATS project for their own airspace, the Planning Group suggested that the overall region needed an 'Asian' solution to the task and highlighted the basic requirement for States to retain control of their own airspace with no plans for a unification of airspace or changes to FIR boundaries. With the absence of a single entity or authority to oversee the Asia Pacific region, it was proposed that the Planning Group develop a strategy taking into account the ICAO Aviation System Block Upgrade (ASBU) programme and other regional and global ATM initiatives. The Planning Group will provide an interim report at the 2013 APANPIRG Meeting and present the Seamless ATM Plan at the 2014 APANPIRG Meeting.

2.2.3 The Asia Pacific Seamless ATM Planning Group's proposal for a 'seamless airspace' concept is based on the development of a network of ATM systems with common standards and harmonised procedures linked to enable the pilot to utilise the on-board capabilities of the aircraft to achieve the most efficient and environmentally responsible flight and also permit the ATM units to rapidly exchange data so that the controller can deliver a safe and efficient service. It was noted that the ICAO ASBU programme details many of the projected tasks that are were envisaged in the initial plans presented for consideration by the Planning Group. Therefore, as a first step a gap analysis of current and planned ATM facilities and procedures will be conducted.

2.2.4 The Group recognised that any airspace plan must involve coordination and cooperation with the military as in many States 50% or more of the airspace is not available to civil operators because of military restrictions.

2.2.5 ICAO noted that any plan should be developed by the States and promoted the concept of sub-Regional groups coordinating common procedures in local areas and then using this to developing a Region-wide plan as the ICAO Regional Office lacked the resources to organise

a number of planning meetings for the entire area. IATA is actively pursuing a number of initiatives with some States.

2.2.6 The next meeting of the Asia Pacific Seamless ATM Planning Group will be in June.

2.3 REGIONAL AIRSPACE MONITORING ADVISORY GROUP MEETING 16 (February 2012)

2.3.1 The Target Level of Safety (TLS) for the various areas were reviewed, including:

i) Fukuoka FIR 2011 - risk estimation 4.85 x 10^{-9} below TLS 5.0 x 10^{-9}, a considerable improvement over last year mainly due to the introduction of AIDC.

ii) Western Pacific/South China 2011 (including Hong Kong and Philippines) - risk estimation 5.28 x 10^{-9} exceeding TLS 5.0 x 10^{-9} due to a number of LHDs involving aircraft at the incorrect flight level for the direction of flight.

iii) Incheon FIR 2011 - risk estimation 1.628 x 10^{-9} below TLS 5.0 x 10^{-9}.

2.3.2 The use of RVSM cruising levels by non-approved aircraft was highlighted by ICAO and they requested States to regularly update their monitoring agency of newly approved aircraft.

2.3.3 It was noted that the monitoring of approved aircraft is proving difficult. Japan is due to start using new Setouchi Height Monitoring Unit in March 2012. Australia and USA are using ADS-B derived information, and they are requesting ICAO to adopt this as a standard form of monitoring.

2.3.4 Satellite systems serviceability continues to be a matter of concern and with the increasing reliance on satellite based information for providing separation between aircraft further cooperation with the service suppliers is essential. New Zealand reported a 15 hour outage of an Inmarsat satellite in October 2011 that disrupted communications and surveillance over the South Pacific.

2.4 AERONAUTICAL INFORMATION MANAGEMENT IMPLEMENTATION TASK FORCE MEETING 7 (March 2012)

2.4.1 This meeting included a seminar on the ICAO ICARD 5 Letter Name Code (5LNC) system. The naming of reporting points and way-points has become an important safety issue due to the recent proliferation of new PBN procedures and ATS routes with numerous reporting points. In accordance with Annex 11 each 5LNC is to be unique within the area, but many States have duplication of names within their own country.

2.4.2 ICAO has produced a list of duplicate 5LNCs within the Asia Pacific region and a list of each 5LNC used by each State. All States were urged to utilise the services of the ICAO ICARD organisation when allocating names for new reporting points to avoid any further duplication.

2.5 CIVIL / MILITARY COORDINATION SEMINAR (March 2012)

2.5.1 ICAO noted that there have been many agreements between civil and military organisations on coordination and cooperation over the years, but barring a few exceptions, there has been very little progress in the overall improvement in combined civil/military airspace use.

2.5.2 Japan gave a presentation on JCAB/JSDF and US military coordination and the flexible use of airspace, but none of the other States present had any arrangement for joint or flexible use of airspace.

2.5.3 At APANPIRG/9 in 1998 produced a Conclusion on the need for a number of steps for the improvement of civil/military coordination, including airspace planning, management and design of the airspace, and a regular review of civil and military users needs.

2.5.4 There is a need for the development at national levels of a process that considers both civil and military priorities and needs. In addition there should be regular communication between the high levels of civil and military organisations to improve the understanding of each other priorities and constraints.

2.6 PERFORMANCE BASED NAVIGATION TASK FORCE MEETING (March 2012)

2.6.1 A review by the PBN Plan Regional Team showed that there has been a slight improvement in the overall planning and implementation of PBN procedures by the States – in 2011 50% of the States had presented plans and in the first three months of 2012, a further 3 States have presented plans. Unfortunately a large number of States still have either incomplete plans or no formal plan at all – however many of these States are small island States in the Pacific.

2.6.2 The PBN Flight Procedures Planning Office has held a number of seminars and workshops to assist States in planning PBN procedures during 2011 and a 'Go Team' will visit India next month to assist in their development and implementation of PBN Procedures. In addition, ICAO will be holding a PBN Symposium in October 2012 on Advanced RNP procedures.

2.6.3 The ICAO Regional Office Seamless ATM Plan will require a significant number of PBN procedures to be in place for the Plan to be effective. These include:

a) the continued transition from ground-based aids to satellite-based PBN procedures, while maintaining a necessary redundancy and contingency network;
b) support for a GNSS-based, integrated regional PBN approval standard;
c) regional cooperation for SBAS in terms of interoperability and increased service areas;
d) support for PBN specifications that include GNSS 'low end' aircraft;
e) implementation of CDO and CCO unless restricted by factors such as terrain, SUA, and noise constraints;
f) early implementation of AIM (including SWIM) for advanced States; and
g) regulation of aeronautical data and its quality, to ensure interoperable operations.

2.6.4 The process of PBN flight procedure validation and approval was raised together with the need for State Regualtors to mandate aircraft equipage and certification was highlighted.

2.6.5 The abbreviation GLS is now accepted for Global Navigation Satellite System Landing System. GLS has been introduced at Sydney where a single system provides ILS CAT 1-type guidance to all six runways. Other airports are showing an interest in such systems either to replace ILS equipment or where ILS cannot be installed due to technical or physical reasons.

3. Discussion

3.1 The meeting is invited to note the work items of the various meetings and discuss the proposals and suggestions concerning this area.

- End -

EAST ASIA ATM COORDINATION GROUP MEETING 5

Hong Kong 18-20 April 2012

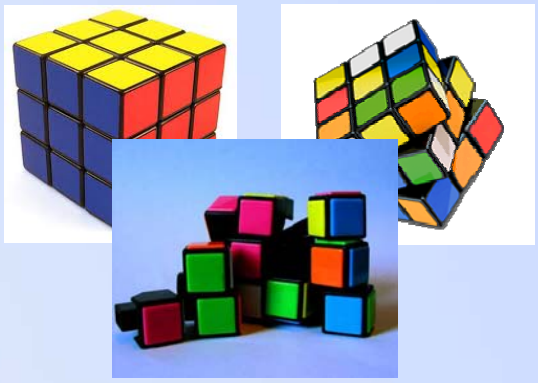
The Controller and Seamless ATM

John Wagstaff
IFATCA Asia-Pacific Representative

EATMCG / 5

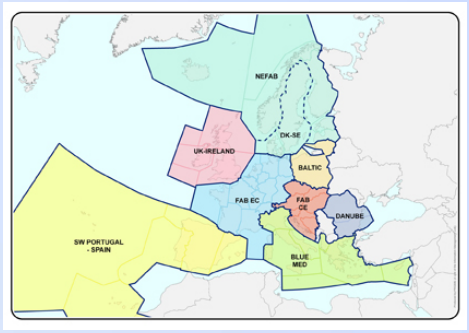
The major air traffic regions of the world . . . .

EATMCG / 5



EATMCG / 5

The 8 Eurocontrol Functional Airspace Blocks



EATMCG / 5

FAA 20 Air Route Traffic Control Centres

EATMCG / 5

IATA's View of the Current ATM Structure

EATMCG / 5

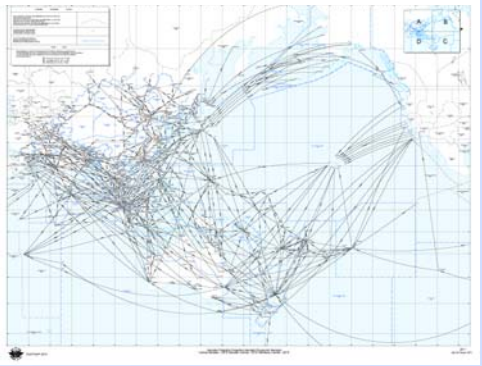
North American Pilots Association
Comment on the Progress of NextGen

EATMCG / 5

Asia Pacific Major Traffic Flows

EATMCG / 5

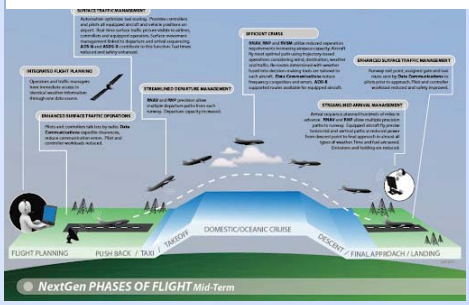
Asia-Pacific ATS Routes



EATMCG / 5

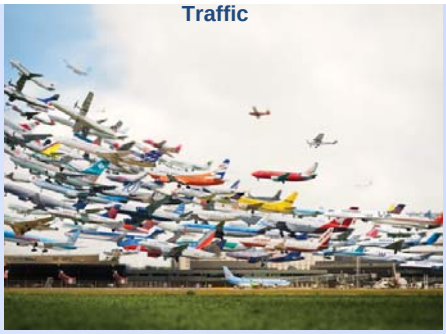
EATMCG / 5

The SESAR and NextGen Vision



EATMCG / 5

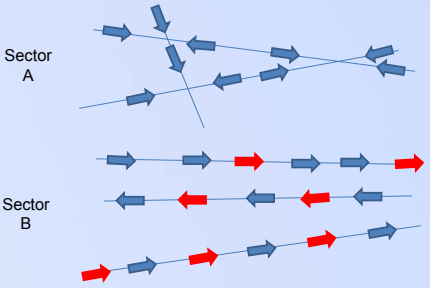
Over Efficient Management of Airport Traffic



EATMCG / 5

Less Than Efficient Management of Airport Traffic

EATMCG / 5



IFATCA Proposal

ICAO Proposals

- Sub-Regional Airspace Groups
- Civil / Military Cooperation
- ICAO Aviation System Block Upgrades
- Bold visionary stateme

EATMCG / 5

- Use of the ICAO Standard Flight Level Allocation System (FLAS) throughout the Asia-Pacific Region

  South China Sea FLAS implemented in 2002

  A common FLAS will eliminate transition problems and reduce controller workload. Lessen the impact of LHD events

  Non-PDC can still be maintained with re-assigned levels

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 4-1

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 trial to embody the operational procedures to share the notification, among HONG KONG ATCC / TAIPEI ACC / ATMC

1 Introduction

1.1 Through 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 the establishment of the operational procedures to share the notification. We have been in the process of improving the trial contents since we carried out, as the first step, the paper trial where the notification of runway capacities at Hong Kong Int. Airport was distributed by Hong Kong ATCC to Taipei ACC and Japan ATMC.

2 Discussion

2.1 A review of the latest trial operations is as follows;

a. The notification of capacities is distributed by Hong Kong ATCC to Taipei ACC and Japan ATMC.

b. The starting time of distribution of the notification is at around 2200UTC and 0600UTC daily.

c. The duration of time is eight hours.

d. The means of notification is email.

e. The formats are as the table below;

CAPACITY RELATED INFORMATION VHHH (FOR ARRIVALS)
VALID: 132200 to 140600 UTC
CAPACITY LEVEL: 1
AIRPORT ACCEPTANCE RATE: 32 flights per hour
EXPECTED DELAY: Up to 15 mins
REASON: -
REMARK:

2.2 We highly evaluate that thanks to Hong Kong's cooperation, the twice-a-day of notification concerning Hong Kong's capacities can cover most of their operation hours. Especially the notification at 2200Z is so effective that we can acquire the capacity notification earlier than most of the aircraft departing from Japan to Hong Kong in the morning.

2.3 Challenges to clear in the current stage are as follows;

a. Subdivision of capacity level into a time frame of hours
b. Move up the starting time of notification in the afternoon
c. Predict ATC constraints and provide the information
d. Evaluate the accuracy of the capacity notification

2.4 In order to develop the trial, the following methods should be examined.

a. Increase airports to be targeted
b, Provide the information to airline operators
c. Provide expected delays based on CAPACITY LEVEL and traffic volume

2.5 Continue "Trial Operations" aimed at the establishment of the operation procedures with the evaluation and verification of the subjects mentioned above.

3 ACTION BY THE MEETING

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

Ministry of Land Infrastructure
CIVIL AVIATION BUREAU OF JAPAN

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

Air Traffic Management Center, Japan
Hiromu Hayashi

THE FIFTH MEETING OF THE INFORMAL EAST ASIA
AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)
18-20 Apr. 2012 / Hong Kong

JCAB Civil Aviation Bureau Japan

WP4-1

THE FIFTH MEETING OF THE INFORMAL EAST ASIA
AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)
18-20 Apr. 2012 / Hong Kong

Agenda Item 4-1:

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(Presented by ATMC, Japan)

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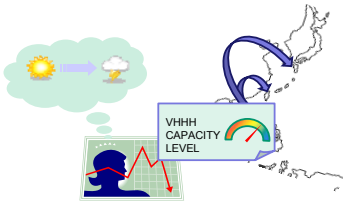
INTRODUCTION

1. Introduction

We agreed to take a step-by-step trial to the establishment of the operational procedures to share the notification.
We have been in the process of improving the trial contents.



DISCUSSIONS

2. Discussions

2.1 A review of the latest trial operations

a. The notification of capacities is distributed by Hong Kong ATCC to Taipei ACC and Japan ATMC.
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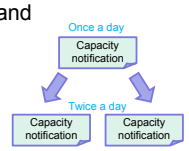

DISCUSSIONS

SAMPLE

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VALID: 132200 to 140600 UTC
CAPACITY LEVEL: 1
AIRPORT ACCEPTANCE RATE: 32 flights per hour
EXPECTED DELAY: Up to 15 mins
REASON: -
REMARK:

DISCUSSIONS

2. Discussions

2.2 The twice-a-day of notification can cover most of operation hours.

We can acquire the notification earlier than most of the aircraft departing from Japan to Hong Kong in the morning.

BEFORE THE AIRCRAFT DEPARTING FROM JAPAN

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.3 Challenges to clear in the current stage are as follows;

a. Subdivision of capacity level into a time frame of hours

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

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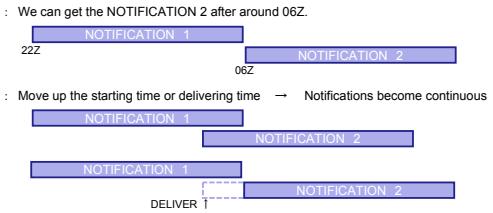
b. Move up the starting time of notification in the afternoon



JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

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JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

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JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.4 In order to develop the trial, the following methods should be examined.

a. Increase airports to be targeted

b. Provide the information to airline operators

c. Provide expected delays based on CAPACITY LEVEL and traffic volume

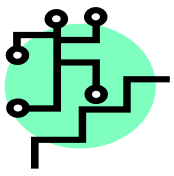
CAPACITY	LEVEL 1	LEVEL 2	LEVEL 2	LEVEL 1
TRAFFIC VOLUME	HIGH	LOW	HIGH	LOW
DELAYS	NON < 15min	NON < 15min	POSSIBLE < 30min	NON < 15min

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.5 Continue “Trial Operations” aimed at the establishment of the operation procedures with the evaluation and verification of the subjects mentioned above.



ACTION BY THE MEETING

3. ACTION BY THE MEETING

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

Ministry of Land Infrastructure
CIVIL AVIATION BUREAU OF JAPAN

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

Air Traffic Management Center, Japan
Hiromu Hayashi

THE FIFTH MEETING OF THE INFORMAL EAST ASIA
AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)
18-20 Apr. 2012 / Hong Kong

JCAB Civil Aviation Bureau Japan

WP4-2

THE FIFTH MEETING OF THE INFORMAL EAST ASIA
AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)
18-20 Apr. 2012 / Hong Kong

Agenda Item 4-2:

SHARING THE NOTIFICATION IN THE EARLY STAGE AMONG PLANNING OFFICERS
(Presented by ATMC, Japan)

SUMMARY
This working paper presents to establish the operational procedures to share the notification in the early stage, among planning officers

JCAB Civil Aviation Bureau Japan

INTRODUCTION

1. Introduction

We are still in a trial stage aiming at the establishment of operational procedures on the notification distribution framework. In the current trial, the provision of notification on a daily basis becomes the main purpose.

If we acquire the medium to long term information on all sides beforehand, we can realize more efficient air traffic management.

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

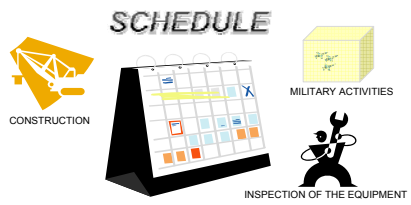
2.1 Difficult to predict the implementation of air traffic flow control derived from abrupt inclement weather or malfunctions of equipment

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.1 Possible to get schedules of construction, inspection of the equipment and notified airspace constrains caused by military activities



JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.1 By sharing those notifications in the early stage among planning officers on all sides, the following items will be attainable.

- To predict the traffic volume and study how to manage

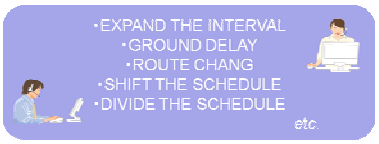
JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.1 By sharing those notifications in the early stage among planning officers on all sides, the following items will be attainable.

- To study measures to cope with the predicted traffic volume among related parties



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DISCUSSIONS

2. Discussions

2.1 By sharing those notifications in the early stage among planning officers on all sides, the following items will be attainable.

- To notify the coordinated measures to all controllers in the operation room
- To make smooth daily coordination

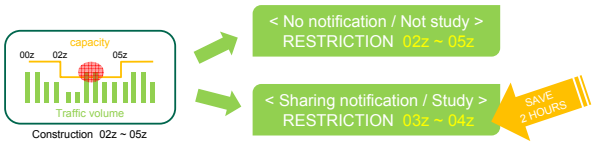
JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.1 By sharing those notifications in the early stage among planning officers on all sides, the following items will be attainable.

- To realize efficient air traffic management with minimum required restrictions



JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.2 In order to establish the notification sharing operational procedures, the following items should be specified.

- POC
  Planning officers in charge of ATFM
- Notifications to be shared
  Events requiring flow controls in adjoining countries
  （Runway construction, scheduled suspension of systems and NAVIADS , Airspace constraints ….. ）
- Measures of coordination
  e-mail
- Time of notification
  As soon as possible

JCAB Civil Aviation Bureau Japan

DISCUSSIONS

2. Discussions

2.3 As the first step, we would like to commence coordination with Taipei ACC to establish operational procedures for sharing the notifications.

2.4 We will search for a framework to expand partners to share the notifications in the future.

JCAB Civil Aviation Bureau Japan

ACTION BY THE MEETING

3. ACTION BY THE MEETING

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

JCAB

Civil Aviation Bureau Japan

ific management Center

Thanks!

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

JCAB's CURRENT INITIATIVES TOWARD SEAMLESS ATM

(Presented by JCAB)

SUMMARY

This paper presents some of the current initiatives, from JCAB perspective, highlighting particularly the initiatives for Seamless ATM relating to Fukuoka FIR along with the Major Traffic Flows (MTFs) identified in the ICAO GANP (Global Air Navigation Plan).

1 Introduction

1.1 1st Asia/Pacific (APAC) Seamless ATM Planning Group (APSAPG/1) was held in ICAO APAC Office from 31 Jan. to 2 Feb. 2012. The establishment of this new ICAO planning group was approved by APANPIRG/22 in 2011 through several discussions starting from "Seamless Sky" proposed at DGCA/46 held in Osaka, Japan, in 2009.

1.2 The objective of APSAPG is to determine the means for Seamless ATM development in the APAC Regions and submit a final report to APANPIRG/24 in 2013. It is summarized that three points were agreed at APSAPG/1. They are:

- Pursuing Seamless ATM operation along with 10 Major Traffic Flows (MTFs) in APAC region identified in GANP, which are considered as high density of air traffic flow;
- Working on gap analysis along with MTFs as the first step; and
- Determine such as minimum requirements, key issues, and priorities for Seamless ATM taking into account Aviation System Block Upgrades (ASBUs).

1.2.1 ASBU is a framework for global harmonization and interoperability of airspace which is under development by ICAO and will be discussed at 12th Air Navigation Conference (AN-Conf/12) in Nov. 2012. ASBU designates a set of improvements that can be implemented

globally to enhance the performance of the ATM system. ASBUs will be included in GANP in due course. ASBU working document is posted on the ICAO web-site at http://www.icao.int/Meetings/anconf12/Pages/asbus.aspx

1.3 APAC region could be characterized as "jigsaw puzzled" airspace consisting of about 50 FIRs. In addition, ANSPs which have diversities in culture, language and economy provide ATM operation. Therefore, considering the uniqueness of APAC region, close coordination and cooperation between ANSPs is the key for ATM harmonization which leads to Seamless ATM.

1.4 This paper introduces some of the current initiatives, from JCAB perspective, highlighting particularly the harmonization initiatives with neighboring ANSPs along with MTFs.

2 Discussion

2.1 There are 5 MTFs which are related to Fukuoka FIR. They are:

- "AR2": Asia (Indonesia north to China, Japan and ROK) and Australia/New Zealand;
- "AR3": Asia and Europe via north of the Himalayas;
- "AR5": Asia and North America via the Russian Far East and the Polar Tracks via the Arctic Ocean and Siberia;
- "AR6": Asia and North America (including Hawaii) via the Central and North Pacific; and
- "AR9": South-East Asia and China, ROK and Japan.

2.2 Regarding traffic flows within Fukuoka FIR, "AR2" is north from/to south traffic flow and most of the flight is spent in the oceanic airspace. "AR3" is southeast/east from/to northwest/west traffic flow and mainly flying over domestic airspace. "AR5" is north from/to south traffic flow and mainly flying over domestic airspace. "AR6" is east from/to west traffic flow and most of the flow covers oceanic airspace. "AR9" is northeast from/to southeast and has mixed environment of oceanic and domestic airspace with radar control and procedural control.

2.3 The following table describes current situation concerning neighboring FIRs, non-ICAO coordination framework, CNS environment and ATM operation along with each MTF.

	Neighboring FIRs	Coordination framework	CNS environment	ATM operation
AR2	Oakland FIR	IPACG ISPACG (Observer)	CPDLC RNP10/RNP4 ADS-C AIDC	50nm hand-off (H/O) (30/30 within RJJJ) UPRs
AR3	Khabarovsk FIR, Incheon FIR	RUS-JPN ATC meeting ROK-JPN CNS/ATM WG ROK-JPN ATC WG CHINA-JPN Future ATM System WG CHINA-JPN ATC WG	VHF RNAV5(above FL290) Radar AIDC (ROK-JPN) AIDC(China-JPN under development)	To/from Khabarovsk 20nm H/O To Incheon FIR 20 or 30nm H/O From Incheon FIR 20 or 30 or 60nm H/O
AR5	Khabarovsk FIR	RUS-JPN ATC meeting CPWG	VHF RNAV5(above FL290) Radar Procedural control	20nm H/O 10 minutes H/O
AR6	Anchorage FIR Oakland FIR	IPACG CPWG	CPDLC RNP10/RNP4 ADS-C AIDC	50nm H/O (30/30 within RJJJ) UPRs DARP
AR9	Manila FIR Taipei FIR Incheon FIR	SEACG ROK-JPN CNS/ATM WG ROK-JPN ATC WG	CPDLC RNP10/RNP4 ADS-C Procedural control VHF RNAV5(above FL290) Radar AIDC (Taipei -JPN) AIDC(ROK-JPN)	To/from Manila 10min with MNT H/O (30/30 within RJJJ) To/from Taipei FIR 20 or 30 or 60nm H/O To/from Incheon FIR 20 or 30nm H/O

IPACG: Informal Pacific ATC Coordinating Group (US-JPN)

ISPACG: Informal South Pacific ATS Coordinating Group (US, AUS, NZ, Fiji, etc.)

CPWG: Cross Polar Work Group (RUS, US, CAN, Iceland, Norway, JPN, China)

2.4 Considering the “jigsaw puzzled” airspace of APAC FIRs, it is particularly necessary for ANSPs to promote close coordination and cooperation by sharing common understanding of Seamless ATM in APAC region. In this sense, EATMCG could work as a platform to drive Seamless ATM in East Asia in line with the work of APSAPG.

3 Recommendation

3.1 The Meeting is invited to

a) note the information provided in this paper;

b) recognize the importance of Seamless ATM in APAC region; and

c) propose to follow the work of APSAPG and to share the information about each ANSP’s initiatives for Seamless ATM under EATMCG.

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

Review traffic level and relocation of ATS route J5

(Presented by JCAB)

SUMMARY

This paper provides the review of ATS route J5's relocation which was proposal of JCAB to improve the effectiveness of PACOTS/UPR in the Pacific Ocean.

1 Introduction

1.1 Former J5 was connecting HCN to BOGUS located on the boundary of Taipei FIR and Fukuoka FIR, but there were no ATS routes from BOGUS and eastward within the Naha ACC jurisdiction, and since the relevant fix was located out of radar coverage, there were situations in which an altitude was reserved for a long period of time to provide separation and situations in which inefficient altitude changes were unavoidable between (among) aircraft bound for Hong Kong/Taipei FIR entering from Oceanic airspace of ATM Center jurisdiction and aircraft passing through three airways extending over Manila FIR.

1.2 This issue was proposed at the IPACG31, and IATA also declared that an improvement is necessary to improve the efficiency of Hong Kong/Taiwan bound aircraft. At the EATMCG4, JCAB requested for an improvement to establish a safe and efficient routing network and received a reply from Taiwan CAA that they will consider relocating.

1.3 By April of 2011, Taiwan CAA and the military made coordination, and the new fix was established at the location which the JCAB proposed, leading to the relocation of J5 and JCAB appreciates the swift correspondence of Taiwan CAA.

1.4 For a route connecting J5, JCAB established the direct route between TUNTO of A590 and GUMBO (new fix on the boundary of FIRs) of J5, and since August 25, 2011, the relocated J5 has been in application and it can be connected to PACOTS/UPR in the Pacific Ocean.

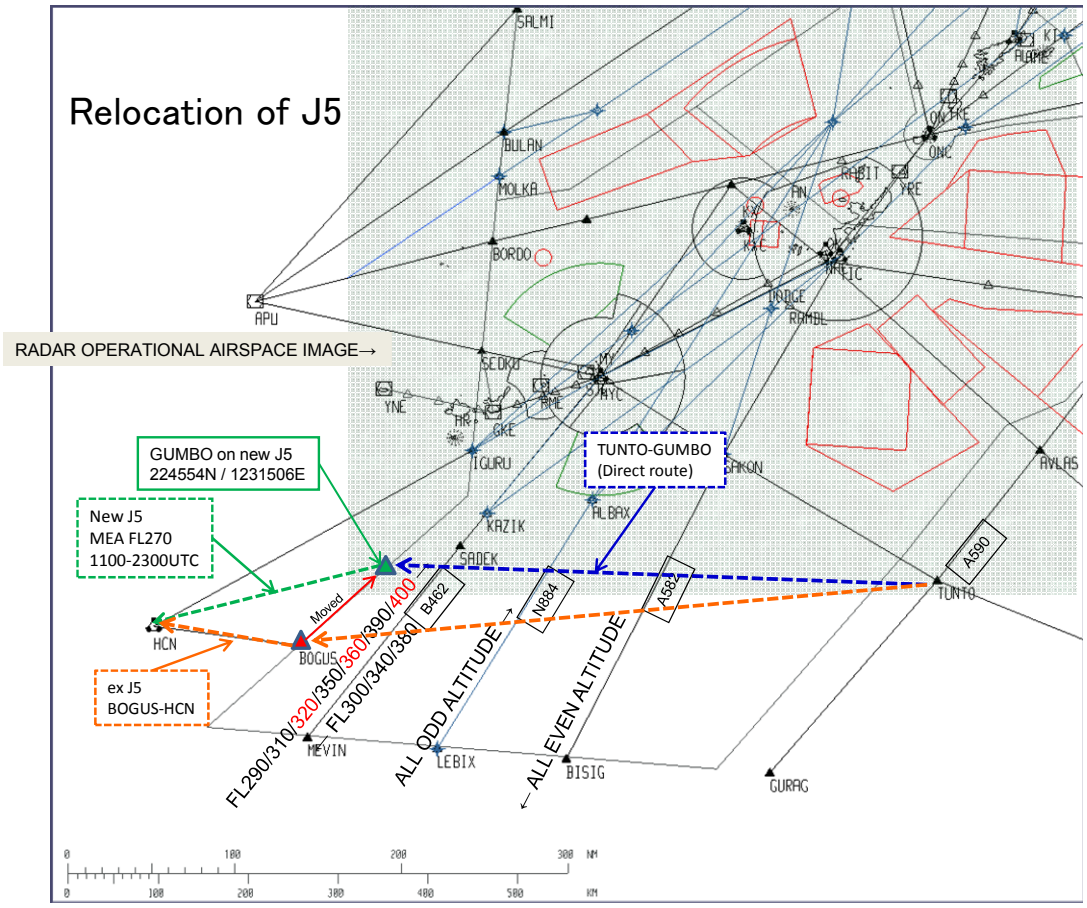
2 Current Status in Naha's jurisdiction

2.1 The J5 is in use during 1100~2300UTC, limiting its use to night flights. There are not many aircraft flying via J5, but there are days in which several aircraft fly consecutively via J5. Since the direct route between TUNTO-GUMBO and B462 are intersecting near the Taipei FIR, aircraft flying via J5 is affected by Flight Level Allocation Scheme (FLAS) of the relevant airway.

3 Action by the Meeting

3.1 The confirmation of any plans to revise the time restriction of J5 in the near future.

3.2 The confirmation of Taiwan's prospect of the future traffic volume.


Relocation of J5
RADAR OPERATIONAL AIRSPACE IMAGE→
GUMBO on new J5
224554N / 1231506E
New J5
MEA FL270
1100-2300UTC
ex J5
BOGUS-HCN
TUNTO-GUMBO
(Direct route)
Moved
FL290/310/320/350/360/390/400
FL300/340/380
ALL ODD ALTITUDE
ALL EVEN ALTITUDE
B462
N884
A584
A590
SALMI
BULAN
MOLKA
BORDO
APU
SEDKO
YNE
GKE
IQURU
KAZIK
SADEK
ALBAX
SAKON
TUNTO
AVLAS
HCN
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MEVIN
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ONC
DODGE
RAMBL
NYC
0 100 200 300 NM
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THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

Flight Level Allocation Scheme concerning ATS route B462

(Presented by JCAB)

SUMMARY

This paper provides the current status of Flight Level Allocation Scheme (FLAS) concerning ATS route B462 in Naha ACC jurisdiction.

1 Introduction

1.1 As a result of EATMCG/1 (August 27-29, 2007, Fukuoka), an agreement has been settled to assign FL290,310,320,350,360,390,400 to north bound flights and FL300,340,380 to south bound flights regarding Flight Level Allocation Scheme (FLAS) of B462. This has been included in the LOA between Naha ACC and Manila ACC.

2 Current Status

2.1 Although there are not many south bound flights on B462, most of them are U.S. military aircraft that request FL360 frequently. But this altitude cannot be assigned because of the FLAS and LOA.

2.2 As for the north bound flights, most of the traffics are civil aircraft (Narita arrival etc.) on night flights, and many of them move northward on even number altitudes. Since traffic volume increases during the night, assigning altitude of opposite direction could confuse the air traffic controllers. At Naha ACC, there has been an instance in which FL360 was assigned to a south bound aircraft without confirming the north bound aircraft on the even number altitude.

2.3 Furthermore, since there are cases in which west bound flights via J5 on even number altitude coming from the ATMC Oceanic airspace and the north bound flights via B462 on even

number altitude intersect near the Taipei FIR boundary, non-radar separation is necessary until the north bound flights are under radar coverage. If west bound traffic on J5 increases, increase in workload during this timeframe can be expected.

2.4 For that reason, Naha ACC does not recommend B462 by AIC. (For a route from Southeast Asia, N884 for north bound flights and A582 for south bound flights are recommended.)

3 Requirement

3.1 As for Naha ACC, we request the prohibition of assigning even number altitudes to north bound flights and allow only the odd number altitudes to be assigned on B462. If that is too complicating, we would like to be able to assign FL360 to the south bound flights.

3.2 Naha ACC would like to confirm that Manila ACC has any plan on revising the FLAS regarding B462 for Manila FIR.

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

Review of application for radar separation on ATS route B576

(Presented by JCAB)

SUMMARY

This paper provides the review of application for radar separation on airway B576 among Incheon, Fukuoka and Taipei FIR started the regular operation on 25 May 2011.

1 Introduction

1.1 Okino-Nishi sector was transferred from Naha ACC to Fukuoka ACC in Feb, 2010. Since then, Fukuoka ACC has provided ATC services for aircraft on both B576 and AKARA corridor, and it has contributed to further improvement in safety and efficiency around AKARA corridor.

1.2 JCAB installed KUMEJIMA radar to cover the area of airway B576 between ATOTI and SALMI for handling the increasing air traffic on the airway. JCAB proposed that Taipei ACC and Incheon ACC conduct a trial operation of radar service on airway B576. That was aimed at both enhancing safe and efficient operation on B576 and expanding its capacity of airway.

1.3 Taipei, Incheon and Fukuoka ACC all agreed with the MOU of “Trial for radar handoff procedures on airway B576,” including the longitudinal separation of 30NM and 60NM. Since July 15th 2010, the radar separation (trial operation) has been implemented instead of the non-radar separation.

1.4 Since there were no complications during the trial operation of approximately 10 months, the LOA regarding the implementation of official operation between Taipei ACC and Incheon ACC has been agreed, implementing the radar service official operation on May 25, 2011.

2 Review of radar operation on airway B576
(The outcome of comprehensive verification in ATC operations)

As of March 2012, ten months have passed since the beginning of radar service official operation on airway B576.

The verification outcomes on the current operation are as follows;

2.1 Advantage

a) Workload reduced in selecting optimum altitudes.
b) It expanded the capacity of airspace.
c) It would enhance the efficiency of aircraft operation to increase the opportunity for taking optimum altitudes.
d) It has become easier to respond to aircraft requests for deviation or altitude changes in bad weather.

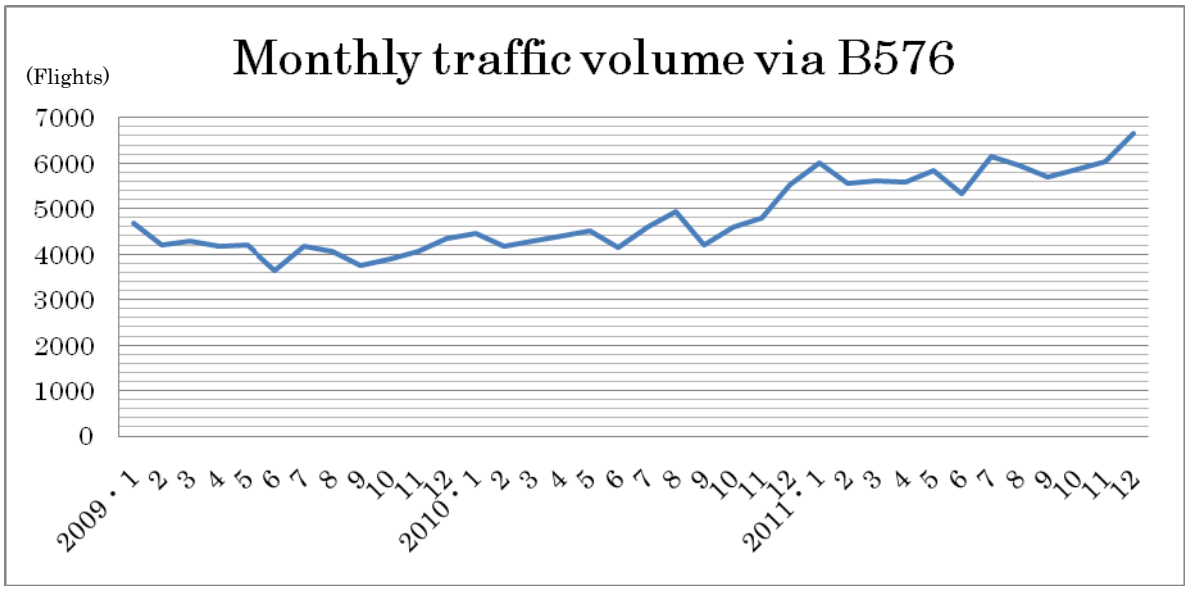
2.2 Possible to congest

The controller's workload can be increased unexpectedly because of the temporary congestion of air traffic caused by applying the radar separation.

3 Issues

3.1 By the introduction of AIDC between Taipei ACC and Fukuoka ACC since 22 March 2012 , JCAB attempted to reduce transfer errors, which contributes to the improvement of safety of flight. JCAB recognizes that the introduction of the automated radar handoff is one of the effective measures in order to lessen the workload caused by the temporary congestion of air traffic in the near future.

3.2 Due to increasing the number of traffic on airway B591(Cross Strait route) during Chinese New Year holidays, Taipei ACC requested Fukuoka ACC to impose altitude restrictions on the related traffic at FL300 and FL320 for all day long. As a result, changing route led increase in flying distance of concerned aircraft and in workload of Fukuoka ACC in point of making separation-adjustments with other related airways.



4. JCAB's proposal

4.1 JCAB recognizes well that there are some problems in radar hand-over for B576, such as deviation to West-side, traffic congestion. But no significant problems are reported in ATC operations. There are many benefits have been produced after introducing AIDC, radar hand-over and reducing transferring separation. JCAB propose to consider further improvements for capacity and safety operation on airway B576 based on close collaboration among ACCs continuously.

5. ACTION BY THE MEETING

5.1 The meeting is invited to consider JCAB's proposal stated in paragraph 4 above.

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

Review of trial on 20NM intervals on G581/R583/R595 in Naha Area Control Center

(Presented by JCAB)

SUMMARY

This paper provides the review of trial on 20NM intervals of G581/R583/R595 in Naha Area Control Center, which has started the operation on 25 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.

2 Status of trial

Through this trial operation, the workload at Naha ACC has decreased during the timeframe when traffic volume usually increases, and the shorten longitudinal separation has been effective. Moreover, there are no problems reported regarding this trial.

3 Proposal

After obtaining Taipei ACC's consent, we would like to proceed into the official implementation of this operation.

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

Agenda Item 5

Flight Level Restriction on G581

(Presented by JCAB)

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, 2012.

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 2.2 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 We need to conduct a detailed investigation on the necessity of continuing this limitation, and abolish this limitation as soon as possible.

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 FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)

(Hong Kong, 18-20 April 2012)

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 the new 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 JCAB would like to continue to share 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 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 as follows.

- The traffic data that should be collected is from January to December each year.
- JCAB will send the common report form to all members when the timing to hold the 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.

THE FIFTH MEETING OF THE INFORMAL EAST ASIA AIR TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG/5)
(Hong Kong 18 – 20 April 2012)

Incursions of unknown traffic and their conflicts with civilian aircraft in TPE FIR

(PRESENTED BY TAIPEI)

SUMMARY
This paper is to reveal the severity of the incursion of unknown traffic in Taipei FIR and seeking a common procedure to share information of unknown traffic and consensus to have the circumstance known by ICAO and JCAB etc.

1. INTRODUCTION

1.1 Unknown traffic is no stranger to ATC in Taipei. They frequently manoeuvre in our space and become an existing risk to air safety. After some discussions with concerned parties in Taipei, we believe that those unknown traffic are military aircraft of international powers that is based in Japan or operate combat carriers in Far East.

1.2 This paper proposes discussions to relay the severity of the situation to influential bodies, namely ICAO and JCAB, to have the circumstance known and fixed.

2. DISCUSSION:

2.1 In good weather condition, the figure of unknown traffic is in large number. Most of them are not harmful. But some of them penetrate several airways and stay in popular cruising levels of civilian aircraft during their operations. The duration of their operation may last more than one hour or two. And their intention is unpredictable. ATC are helpless to manage potential conflicts.

2.2 In recent months four TCAS RA incidents occurred and detailed information is as followed:

no.	date	time	callsign	altitude of civilian A/C	altitude of unknown A/C	location
1	6 Jan.	0242Z	KAL643	360	365	15 nm N of KABAM
2	12 Jan.	0003Z	CEB191	310	315	5 nm SE of SALMI
3	19 Jan.	0832Z	CPA870	310	315	5nm E of ENVAR
4	24 Feb.	0442Z	CPA094	310	315	RENOT

2.3 Observations show that unknown traffic enters Taipei FIR from 3 major boundary areas:

(1) ENVAR (between Hong Kong and Taipei)
(2) POTIB (between Manila and Taipei)
(3) Along 123°E (the ADIZ between Taiwan and Japan)

It indicates the requirement to share information of unknown traffic, so that may make it known to each other between concerned ACC. We urge all parties to build a common procedure to cope with the situation.

2.4 In anticipation of accidents or tragedies that are likely to happen if the situation continues. Taipei would like to urge all members to collaborate on this issue through your well knowledge and networking to help to manage the situation.

3. ACTION BY THE MEETING

3.1 The meeting is invited to build a procedure to share information of unknown traffic and a common consensus to be relayed to ICAO, JCAB and other viable channels.

THE FIFTH MEETING OF THE EAST ASIA TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG)

(Hong Kong, China 18 – 20 April 2012)

REVIEW USE OF 20NM LONGITUDINAL SPACING

(Presented by Hong Kong)

Summary

This paper reports the progress in the application of 20NM minimum longitudinal spacing on A1, M750 and G581 between Hong Kong and Taipei FIRs. Hong Kong proposes that the procedure be refined to further enhance operational efficiency in order to allow operators to gain full benefits of the improved airspace capacity.

1. Introduction

1.1 The application of 20NM minimum longitudinal spacing on A1, M750 and G581 has been implemented since May 2011 between Hong Kong and Taipei FIRs. The airspace capacity gained as a result of this reduction of longitudinal spacing was well accepted by Hong Kong controllers.

1.2 However, despite the advantages, the actual occasions of application of this procedure were less than expected. The reason for such infrequent application was due to the conditions attached to the procedures which could generate additional workload. One of these conditions stated that a radar handoff between the controllers was required when applying the 20NM spacing. The controllers were required to use a direct line to communicate information and acceptance of the traffic with 20NM spacing.

1.3 Another condition for this procedure stated that this distance-based spacing should be applied when the 5-minute time-based spacing could not be achieved. This condition was also not inline with the goal of airspace capacity enhancement. For example, 5 minutes spacing is equivalent to 40NM between 2 aircraft flying at 480kt ground speed which is a double of the 20NM distance-based spacing requirement).

1.4 These conditions in the procedure are considered to be holding back the airspace capacity enhancement from achieving the expected results.

2. Details

2.1 The above-mentioned conditions were included in the procedure to reduce operational risks as it was the first time such a short distance was applied between aircraft when they cross FIR boundaries. It was a reasonable arrangement during the introduction of reduction in spacing/separation between aircraft.

2.2 However, during the review of the procedure, it was found that in the ICAO Document 4444 PANS-ATM Chapter 8 Paragraph 8.7.4 there were criteria for Transfer of Control of aircraft when surveillance service was being provided. The review confirmed that the operation between Hong Kong and Taipei FIRs for ATS Routes A1, G581 and RNAV 5 Route M750 complied with the criteria laid down in PANS-ATM which would allow the radar handoff procedure for traffic on these routes to be dispensed with.

2.3 As the example in paragraph 1.3, it is clear that distance – based spacing is more efficient than time – based spacing. Distance – based spacing would be the preferred format in daily operation to increase the capacity to accommodate traffic growth.

2.4 Historical data shows that the surveillance and communication tools between Hong Kong ATCC and Taipei ACC, and perhaps, within the East Asia region have been very reliable and there is sufficient redundancy to cater for any equipment un-serviceability. The risk of losing surveillance service is extremely low.

2.5 Based on the reliability of the surveillance and communication tools and the well – established procedures laid down in the Letter of Agreement, Hong Kong, suggests that the above – mentioned conditions in the application of 20NM minimum longitudinal spacing to be removed to streamline the procedure.

2.6 Distance – based spacing shall have precedence over time – based spacing to maximize airspace utilisation to accommodate traffic growth. Hong Kong, also suggests that time – based spacing shall only be used when distance – based spacing cannot be applied due to weather deviation or when communication and/or surveillance capabilities is not available for whatever reasons.

3. Discussion

3.1 The meeting is invited to note the progress made on the application of 20NM minimum longitudinal spacing and discuss the suggestions in paragraphs 2.5 and 2.6.

- End -

THE FIFTH MEETING OF THE EAST ASIA TRAFFIC MANAGEMENT COORDINATION GROUP (EATMCG)

(Hong Kong, China 18 – 20 April 2012)

REVIEW USE OF 20NM LONGITUDINAL SPACING

(Presented by Hong Kong)

Summary

This paper reports the progress in the application of 20NM minimum longitudinal spacing on A1, M750 and G581 between Hong Kong and Taipei FIRs. Hong Kong proposes that the procedure be refined to further enhance operational efficiency in order to allow operators to gain full benefits of the improved airspace capacity.

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