



International Civil Aviation Organization

**FIFTEENTH MEETING OF THE
ASIA/PACIFIC AIR NAVIGATION PLANNING AND
IMPLEMENTATION REGIONAL GROUP (APANPIRG/15)
Bangkok, Thailand, 23 to 27 August 2004**

Agenda Item 2.4: Other Air Navigation Matters

**TRAFFIC FORECASTS FOR TRANS-PACIFIC
AND INTRA-ASIA/PACIFIC REGION**

(Presented by the Secretariat)

SUMMARY

This paper presents a brief report and preliminary forecasts of passengers and aircraft movements for the traffic flows within or through the Asia/Pacific region for the period up to 2020, as well as forecasts of passenger traffic for top 41 city pairs of Intra-Asia/Pacific and Trans-Pacific for the year 2007.

1. INTRODUCTION

1.1 The Asia Pacific Area Traffic Forecasting Group (APA TFG) has been developing forecasts of air traffic initially in the Trans-Pacific market, to support air navigation systems planning activity for ICAO and its contracting States.

1.2 The scope of the Group's work has progressively expanded over the years and now covers Intra-Asia Pacific as well as Trans-Pacific. For APANPIRG/11 the Group held a special meeting at the request of APANPIRG/10 to develop traffic forecasts for the nine major traffic flows within and across the Asia and Pacific regions. The Group continues to analyse the level of traffic on the high-density city-pairs within the Transpacific and Intra-Asia/Pacific regions. This information is presented to indicate the level of traffic on the high-density city-pairs within the Transpacific and the Intra-Asia/Pacific regions. Forecasts of this density may be developed in the future as resources permit and priorities for various tasks have been clearly defined.

1.3 The Group conducted its regular meeting from 23 to 30 July to review and update traffic forecasts previously developed previously in 2002 for the Trans-Pacific and Intra-Asia/Pacific. This paper presents the preliminary results of the meeting.

2. **DISCUSSION**

2.1 The SARS outbreak had devastating effects on air traffic both to, from and within the affected areas in the first half of 2003. Reported monthly figures suggest that the drop in passenger traffic reached its lowest in May after which it started a steady recovery. It is estimated that in 2003 passenger traffic on Transpacific and Intra-Asia/Pacific routes dropped by some 10 and 13 per cent, respectively. It was against this background that the twelfth meeting of the APA TFG focussed on the revision of the medium-and long-term forecasts for Transpacific and Intra-Asia/Pacific; the horizon of the long-term forecasts being extended to the year 2020.

2.2 In the course of the meeting, in light of the actual data as it became available, the Group developed passenger traffic forecasts and air traffic movement forecasts for both the Trans-Pacific and Intra-Asia/Pacific markets. Tables 1 and 2 provide the passenger traffic and aircraft movement forecasts respectively for Trans-Pacific up to 2020 and Tables 3 and 4 provide these forecasts for Intra-Asia/Pacific.

2.3 The Trans-Pacific passenger aircraft movements for the period 2002-2020 are projected to increase at an average annual growth rate of 5.0 per cent, with a range from a low of 3.8 per cent to a high of 6.4 per cent (Table 2). The Intra-Asia/Pacific passenger aircraft movements for the period 2002-2020 are expected to increase at an annual average growth rate of 4.6 per cent, slightly lower than Trans-Pacific, and expected to reach almost 1.5 million movements by 2020. (Table 4).

2.4 As regards the city pair forecasts on the busiest city pairs in Trans-Pacific and Intra-Asia/Pacific, in terms of passengers carried, Table 5 sets out the top 41 city pairs with forecasted numbers of passengers and expected growth rates to 2007.

3. **ACTION BY APANPIRG**

3.1 The meeting is invited to note the preliminary passenger traffic and air traffic movement forecasts for the Trans-Pacific and Intra-Asia/Pacific region to 2020.

Table 1
TRANS-PACIFIC PASSENGER FORECAST
 (Thousands of one-way journeys)

Year	Passengers Low	Passengers Base	Passengers High
Historical			
1986		10,044	
1987		11,517	
1988		13,363	
1989		14,729	
1990		16,033	
1991		16,363	
1992		18,121	
1993		18,967	
1994		20,266	
1995		22,567	
1996		24,816	
1997		26,779	
1998		25,184	
1999		26,681	
2000		28,842	
2001		25,946	
2002		25,318	
2003		22,791	
Forecasts			
2004	25,532	25,937	26,368
2005	26,841	28,046	29,376
2006	28,664	30,283	32,097
2007	30,086	32,151	34,499
2008	31,563	34,116	37,062
2009	33,096	36,183	39,796
2010	34,686	38,355	42,709
2011	36,278	40,574	45,744
2012	37,924	42,900	48,970
2013	39,624	45,335	52,397
2014	41,380	47,883	56,035
2015	43,192	50,548	59,896
2016	44,958	53,212	63,847
2017	46,772	55,988	68,024
2018	48,635	58,878	72,438
2019	50,547	61,886	77,101
2020	52,508	65,014	82,023
Average Annual Percentage Growth Rates (%)			
2002-2005	2.0	3.5	5.1
2005-2010	5.3	6.5	7.8
2010-2015	4.5	5.7	7.0
2015-2020	4.0	5.2	6.5
2002-2020	4.1	5.4	6.7

Table 2

Trans-Pacific AIRCRAFT MOVEMENTS FORECAST

Year	Passenger Aircraft Movements			Cargo	Other	Total Movement Forecast		
	Low	Most Likely	High			Low	Most Likely	High
Historical								
2000		112,283		24,810	8,000		145,093	
2001		107,692		22,857	8,000		138,549	
2002		97,444		25,413	8,000		130,857	
2003		90,762		23,900	8,000		122,662	
Forecast								
2004	102,036	103,324	105,378	21,970	8,000	132,006	133,294	135,348
2005	109,844	114,776	120,218	24,771	8,000	142,615	147,547	152,989
2006	118,630	125,330	132,837	27,049	8,000	153,679	160,379	167,885
2007	124,262	132,789	142,487	28,659	8,000	160,921	169,448	179,145
2008	128,048	138,405	150,355	29,871	8,000	165,919	176,276	188,226
2009	132,946	145,347	159,858	31,369	8,000	172,315	184,716	199,227
2010	137,682	152,247	169,532	32,696	8,000	178,378	192,943	210,228
2011	142,867	159,787	180,147	34,316	8,000	185,182	202,103	222,463
2012	148,177	167,619	191,337	35,998	8,000	192,174	211,617	235,334
2013	151,590	173,436	200,454	37,247	8,000	196,837	218,683	245,701
2014	157,076	181,759	212,705	39,034	8,000	204,110	228,793	259,739
2015	162,683	190,388	225,599	40,887	8,000	211,571	239,276	274,487
2016	168,025	198,876	238,621	42,287	8,000	218,313	249,163	288,908
2017	173,462	207,641	252,277	44,151	8,000	225,613	259,793	304,428
2018	178,990	216,688	266,591	46,075	8,000	233,065	270,763	320,666
2019	184,608	226,020	281,587	48,059	8,000	240,667	282,079	337,646
2020	190,313	235,640	297,288	50,105	8,000	248,418	293,745	355,393
Average Annual Percentage Growth Rates (%)								
2002-2005	4.1	5.6	7.3	-0.8	0.0	2.9	4.1	5.3
2005-2010	4.6	5.8	7.1	5.7	0.0	4.6	5.5	6.6
2010-2015	3.4	4.6	5.9	4.6	0.0	3.5	4.4	5.5
2002-2020	3.8	5.0	6.4	3.8	0.0	3.6	4.6	5.7

Table 3

INTRA – ASIA/PACIFIC PASSENGER TRAFFIC FORECAST

(Thousands of one-way journeys)

Year	Low	Base	High
Historical			
1986		31,305	
1987		36,910	
1988		41,476	
1989		46,642	
1990		44,627	
1991		45,660	
1992		51,142	
1993		55,230	
1994		59,096	
1995		63,646	
1996		67,100	
1997		68,100	
1998		67,480	
1999		73,891	
2000		78,197	
2001		77,102	
2002		83,270	
2003		72,278	
Forecasts			
2004	83,781	85,315	86,923
2005	89,243	92,509	97,492
2006	94,969	99,538	105,083
2007	98,734	105,014	111,469
2008	102,619	110,769	118,235
2009	106,638	116,817	125,391
2010	110,796	123,171	132,957
2011	114,954	129,063	140,784
2012	119,247	135,213	149,045
2013	123,680	142,727	157,765
2014	128,255	149,477	166,966
2015	132,976	156,519	176,673
2016	137,677	163,664	186,685
2017	142,519	171,926	197,231
2018	147,506	179,712	208,337
2019	152,641	187,820	220,031
2020	157,928	196,259	232,341
Average Annual Percentage Growth Rates (%)			
2002-2005	2.3	3.6	5.4
2005-2010	4.4	5.9	6.4
2010-2015	3.7	4.9	5.9
2015-2020	3.5	4.6	5.6
2002-2020	3.6	4.9	5.9

Table 4**INTRA-ASIA/PACIFIC AIRCRAFT MOVEMENTS FORECAST**

Year	Passenger Aircraft Movements		
Historical			
1994		418,772	
1995		464,241	
1996		509,709	
1997		528,604	
1998		547,499	
1999		543,296	
2000		577,819	
2001		633,020	
2002		662,000	
2003		613,338	
	Low	Most Likely	High
Forecast			
2004	702,898	715,772	729,259
2005	739,537	766,603	807,899
2006	780,735	818,296	863,882
2007	805,276	856,495	909,139
2008	825,446	891,005	951,060
2009	853,047	934,473	1,003,060
2010	880,645	979,008	1,056,791
2011	907,562	1,018,952	1,111,489
2012	935,575	1,060,836	1,169,361
2013	966,322	1,115,138	1,232,633
2014	998,616	1,163,854	1,300,027
2015	1,026,926	1,208,742	1,364,385
2016	1,058,882	1,258,753	1,435,811
2017	1,091,662	1,316,914	1,510,745
2018	1,125,282	1,370,977	1,589,345
2019	1,159,755	1,427,040	1,671,777
2020	1,195,098	1,485,165	1,758,214
Average Annual Percentage Growth Rates (%)			
2002-2005	3.8	5.0	6.9
2005-2010	3.6	5.0	5.5
2010-2015	3.1	4.3	5.2
2015-2020	3.1	4.2	5.2
2002-2020	3.3	4.6	5.6

Table 5

TOP 41 CITY – PAIRS

INTRA – ASIA/PACIFIC AND TRANSPACIFIC

CITY - PAIRS	(NUMBER OF PASSENGERS PER CALENDAR YEAR)											Annual Growth (%)	Annual Growth (%)	Passengers Forecasts	Annual growth rates
	1984	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002	1984-94	1994-02	2007	2002-07
LONG HAUL CITY-PAIRS															
Tokyo-Singapore	328,380	1,010,094	1,106,410	1,163,384	1,208,699	1,188,228	1,035,429	1,400,114	1,275,803	1,136,324	1,155,667	12.9	0.5	1,307,531	2.5
Tokyo-Bangkok	264,891	950,250	881,147	1,049,392	1,172,964	1,227,528	1,254,049	1,435,434	1,607,319	1,512,283	1,675,610	12.8	8.4	2,242,344	6.0
Tokyo-Manila	494,323	671,975	680,963	655,574	684,605	668,399	729,057	865,523	883,831	859,492	936,846	3.3	4.1	1,173,078	4.6
Seoul-Hong Kong	270,530	620,529	979,681	1,027,093	1,077,145	1,040,657	1,115,635	1,256,849	1,326,504	1,407,736	1,379,683	13.7	4.4	1,735,852	4.7
Tokyo-Sydney	144,609	513,540	484,036	449,489	459,760	444,943	416,230	424,800	435,884	426,670	475,909	12.8	-0.2	512,689	1.5
Singapore-Osaka	166,046	345,882	396,170	522,481	565,173	550,937	476,218	480,181	504,965	431,091	401,626	9.1	0.2	430,538	1.4
Singapore-Sydney	225,185	370,012	449,662	473,706	497,062	549,169	622,026	702,500	855,525	1,003,607	1,042,987	7.2	11.1	1,483,466	7.3
Hong Kong-Sydney	179,077	290,347	395,433	468,561	507,044	513,448	562,716	584,048	485,792	607,290	599,689	8.2	5.3	813,940	6.3
Singapore-Perth	162,811	338,686	431,925	439,395	417,339	470,573	524,125	549,846	635,704	745,961	779,347	10.2	7.7	1,108,484	7.3
Singapore-Melbourne	147,848	249,852	311,462	334,714	335,520	363,138	453,635	519,168	569,924	689,049	726,487	7.7	11.2	1,028,494	7.2
MEDIUM HAUL CITY PAIRS															
Hong Kong-Tokyo	1,242,588	1,984,081	1,881,383	2,042,946	2,323,710	1,880,078	1,660,858	1,851,299	2,037,093	1,868,033	1,972,643	4.2	0.6	2,354,221	3.6
Hong Kong-Bangkok	903,472	1,679,278	1,796,119	1,845,993	2,142,767	1,965,020	1,977,001	2,131,137	2,036,646	1,996,351	2,068,146	7.1	1.8	2,492,114	3.8
Tokyo-Taipei	780,554	1,073,384	1,033,441	965,328	966,169	990,073	976,126	1,042,776	1,148,199	1,449,833	1,661,509	2.8	6.1	2,233,981	6.1
Hong Kong-Singapore	705,752	951,954	1,382,533	1,355,247	1,552,893	1,439,631	1,449,774	1,476,200	1,699,685	1,859,566	1,823,950	7.0	3.5	2,383,830	5.5
Singapore-Bangkok	665,235	1,156,108	1,490,357	1,498,115	1,617,474	1,596,352	1,734,973	1,880,183	2,131,251	2,265,875	2,506,383	8.4	6.7	3,515,332	7.0
Hong Kong-Osaka	440,932	698,226	667,753	707,908	958,548	723,938	658,533	613,998	717,036	541,655	606,027	4.2	-1.2	702,551	3.0
Seoul-Taipei	238,573	582,326	595,425	522,925	459,411	411,553	350,846	380,444	418,119	479,085	475,928	9.6	-2.8	517,781	1.7
Hong Kong-Kuala Lumpur	133,173	272,887	399,708	410,977	426,233	455,590	449,260	514,642	569,717	525,655	647,710	11.6	6.2	908,447	7.0
Bangkok-Taipei	56,483	487,925	371,854	418,009	398,001	395,085	429,414	472,341	530,173	529,802	463,698	20.7	2.8	575,093	4.4
Singapore-Taipei	113,227	362,373	325,002	339,766	351,957	340,637	528,127	342,085	754,447	620,669	621,149	11.1	8.4	879,366	7.2
Tokyo-Beijing	132,947	150,085	502,946	546,482	718,095	718,671	640,479	744,193	722,943	796,773	756,934	14.2	5.2	1,076,606	7.3
SHORT HAUL CITY PAIRS															
Hong Kong-Taipei	863,896	1,815,156	2,462,816	2,556,230	2,406,237	2,343,355	2,383,717	2,486,867	2,759,426	2,622,293	2,698,445	11.0	1.1	3,346,694	4.4
Singapore-Kuala Lumpur	1,316,148	1,866,492	2,318,779	2,304,079	2,541,516	2,607,266	2,131,268	2,055,162	2,180,393	2,190,116	2,027,226	5.8	-1.7	2,282,454	2.4
Tokyo-Seoul	836,515	1,965,907	2,189,387	1,909,888	1,897,946	2,037,653	2,048,135	2,274,812	2,498,117	2,601,310	2,437,427	10.1	1.4	2,894,899	3.5
Singapore-Jakarta	584,457	1,357,297	1,615,182	2,043,076	2,154,859	2,205,236	1,141,702	1,353,264	1,509,493	1,887,706	1,956,691	10.7	2.4	2,606,166	5.9
Hong Kong-Manila	584,855	885,552	1,206,597	1,344,489	1,460,368	1,402,990	1,426,405	1,430,977	977,181	788,995	740,736	7.5	-5.9	850,411	2.8
Singapore-Penang	331,379	515,888	650,528	611,463	657,403	643,718	543,682	580,267	620,614	615,343	572,117	7.0	-1.6	647,298	2.5
Sydney-Auckland	479,470	644,953	661,807	720,899	781,023	749,137	738,759	780,370	937,056	1,011,430	1,016,685	3.3	5.5	1,360,554	6.0
Seoul-Osaka	380,634	798,968	545,528	837,812	922,536	1,090,874	1,113,023	1,308,409	1,522,414	1,447,360	1,632,622	3.7	14.7	1,920,380	3.3
Tokyo-Saipan	115,902	419,680	505,732	526,470	539,673	496,394	413,235	479,252	487,904	411,735	421,992	15.9	-2.2	520,866	4.3
TRANSPACIFIC CITY PAIRS															
Tokyo-Honolulu	970,715	2,062,698	2,149,091	2,264,427	2,292,100	2,207,826	1,912,596	1,973,918	1,776,873	1,538,565	1,664,802	8.3	-3.1	2,124,756	5.0
Tokyo-Los Angeles	677,653	1,220,350	1,023,983	1,112,387	1,282,204	1,339,942	1,200,879	1,603,928	1,659,023	1,393,749	1,560,999	4.2	5.4	2,138,704	6.5
Tokyo-Guam	382,042	861,641	857,834	859,986	828,222	949,940	912,310	892,998	990,499	781,023	823,733	8.4	-0.5	1,076,586	5.5
Tokyo-San Francisco	418,864	814,494	744,389	789,694	842,579	824,339	743,696	900,265	905,590	859,598	953,169	5.9	3.1	1,251,669	5.6
Honolulu-Osaka	458,839	759,222	810,346	915,818	1,071,866	1,059,377	948,292	753,771	846,995	640,386	740,927	5.9	-1.1	897,125	3.9
Tokyo-New York	400,831	688,064	698,230	752,085	714,745	742,693	714,435	886,823	937,721	841,236	1,028,666	5.7	5.0	1,350,809	5.6
Hong Kong-San Francisco	183,433	416,167	424,746	524,953	574,435	514,000	362,481	452,254	493,199	572,607	634,841	8.8	5.2	761,305	3.7
Tokyo-Chicago	215,801	264,905	439,782	445,446	467,894	462,607	549,146	679,347	759,332	669,677	706,797	7.4	6.1	954,811	6.2
Los Angeles-Seoul	205,828	477,875	675,521	667,126	693,658	782,979	700,390	794,689	888,988	780,346	773,832	12.6	1.7	884,095	2.7
Los Angeles-Sydney	125,778	289,961	564,416	584,170	635,657	703,281	702,705	763,731	604,572	719,970	731,490	16.2	3.3	942,512	5.2
Hong Kong-Vancouver	113,579	250,371	423,387	308,038	471,402	520,829	512,799	488,658	525,675	614,093	702,511	14.1	6.5	935,692	5.9
TOTAL ALL ROUTES	17,443,255	33,135,435	37,531,491	39,316,021	42,076,892	41,618,084	39,244,166	42,607,523	45,227,625	44,740,338	46,603,635	8.0	2.7	59,223,523	4.9