



International Civil Aviation Organization

The Twentieth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/21)

Bangkok, Thailand, 14-17 June 2016

Agenda Item 5: Airspace Safety Monitoring Activities/Requirements in the Asia/Pacific Region

LATEST MONITORING RESULTS FROM THE SETOUCHI HMU

(Presented by JASMA)

SUMMARY

This paper presents a summary of the latest height monitoring results obtained from Setouchi height monitoring unit (HMU).

1. INTRODUCTION

1.1 This paper presents a summary of the latest height monitoring results obtained from Setouchi HMU for the period between 16 March 2015 and 15 March 2016. JASMA conducts careful verification including monitoring flight information over Setouchi HMU to updating the RMA's (KSN) Knowledge Sharing Network website and Japan Airspace Safety Monitoring Agency (JASMA) website. JASMA uploaded monthly the monitoring date, registration number and Mode S code which were successful height monitored results in KSN and JASMA website. It should be noted that the period of data of each months are from day 16th to 15th, which is as same as the period of upload data to the KSN site.

2. DISCUSSION

2.1 **Figure 1** shows the proportion of the major monitoring groups monitored by Setouchi HMU between 16 March 2015 and 15 March 2016. The top eleven of the monitoring groups are B737NX, A320, B772, B767, B787, E170-190, A330, B773, B744-10, B737CL and B748 in this period. The proportion of B737NX, A320, B772 and B767 are continuously large amount as previous report.

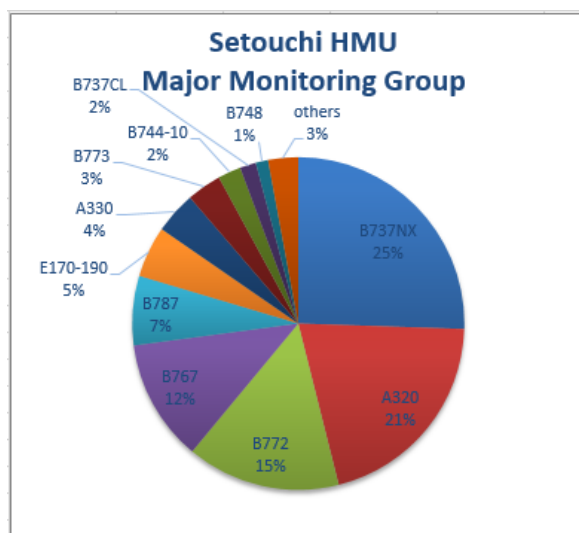


Figure 1: The proportion of the major monitoring group by Setouchi HMU

2.2 **Table 1** shows the mean ASE of top 11 monitoring groups for the same period. **Figure 2** draws focus on the mean ASE of each monitoring group and made it a bar graph and a monthly line graph shown in **Figure 3**. The details of each monitoring groups are shown in **Appendix A** in descending order of ASE.

Table 1: Result of recent height monitoring per monitoring groups

Monitoring Group	count	Mean(ft)			ASE+3SD(ft)
		TVE	AAD	ASE	
A320	29475	62.5	1.4	61.1	246.8
A330	5832	52.4	0.1	52.3	204.4
B787	9668	39.8	-0.4	40.2	198.3
E170-190	7144	39.1	-0.2	39.3	260.0
B772	21435	25.1	-0.2	25.2	193.8
B773	4839	14.6	0.0	14.6	177.4
B737NX	36583	6.0	-0.2	6.1	176.1
B748	1727	1.2	-0.1	1.2	201.4
B767	16981	-50.1	0.1	-50.2	244.1
B737CL	2257	-51.1	-0.3	-50.8	288.0
B744-10	3211	-70.8	0.0	-70.8	266.6

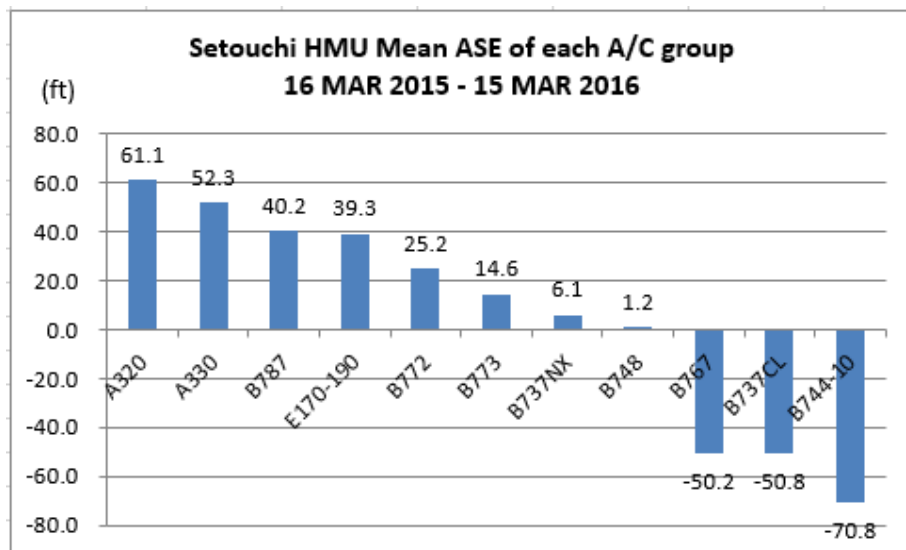


Figure 2: Mean ASE of each Monitoring Group

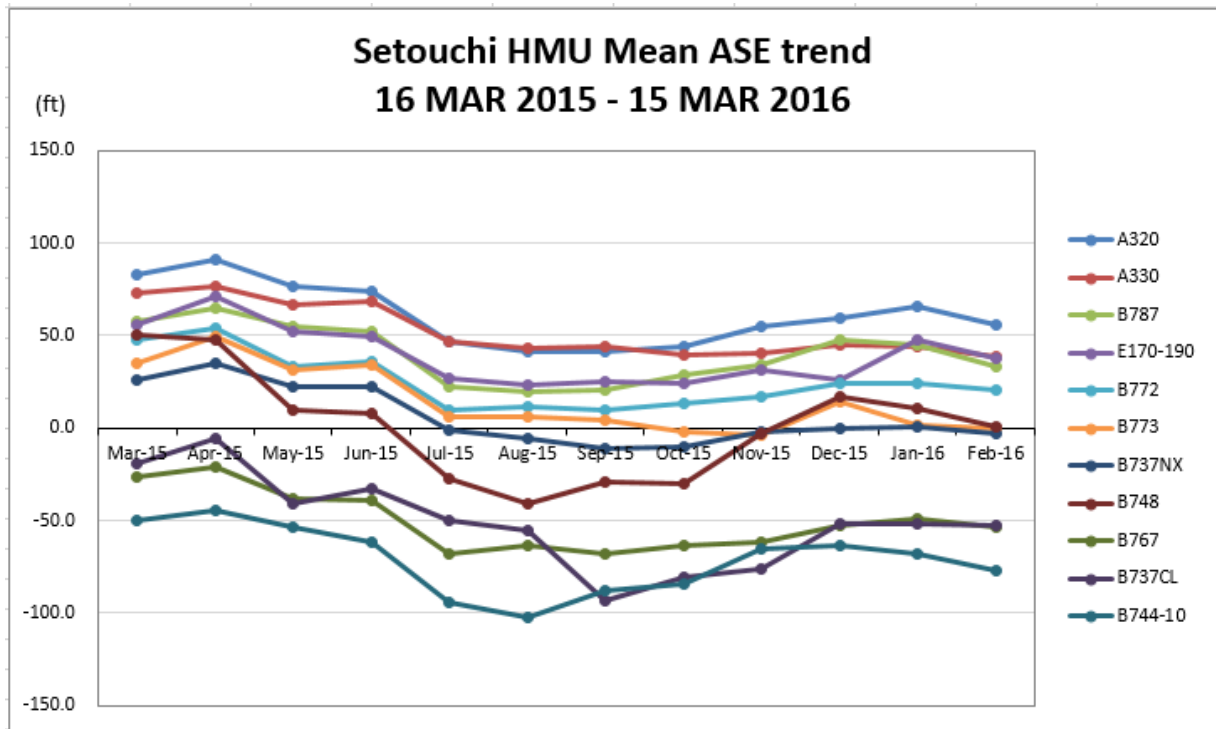


Figure 3: Monthly Mean ASE of each Monitoring Group

3. ACTION BY THE MEETING

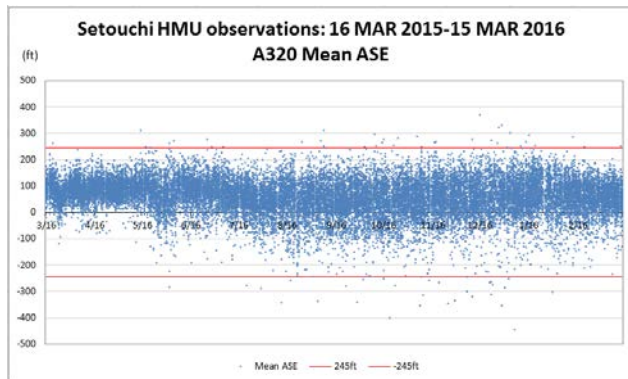
3.1 The meeting is invited to:

- a) note the information contained in this paper; and

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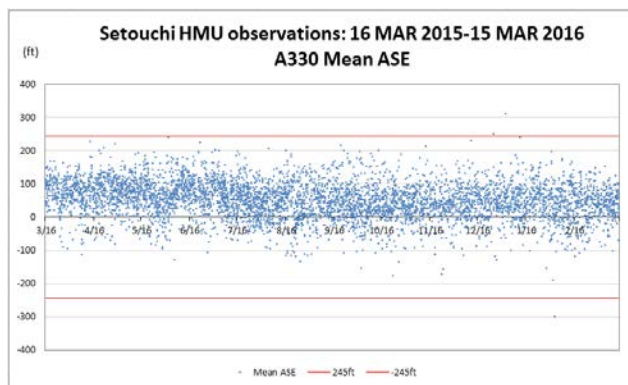
Appendix A

TVE, AAD and ASE trend of each aircraft type



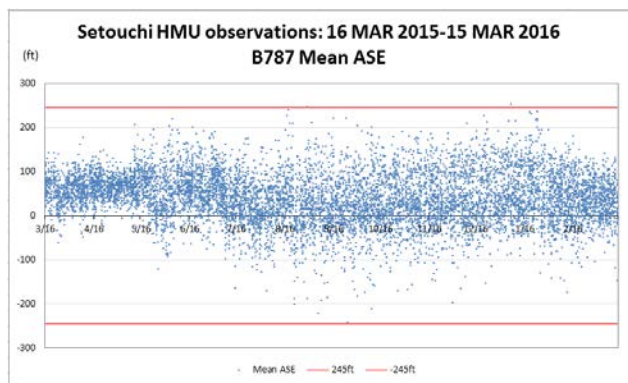
A320

A320	TVE	AAD	ASE
AVE	62.1	1.4	60.7
SD	65.4	5.4	65.1
MAX	367.6	99.7	370.7
MIN	-443.7	-37.7	-443.7
MEDIAN ASE			65.2
ABS ASE			75.1
ASE+3SD			256.0
Count			29475



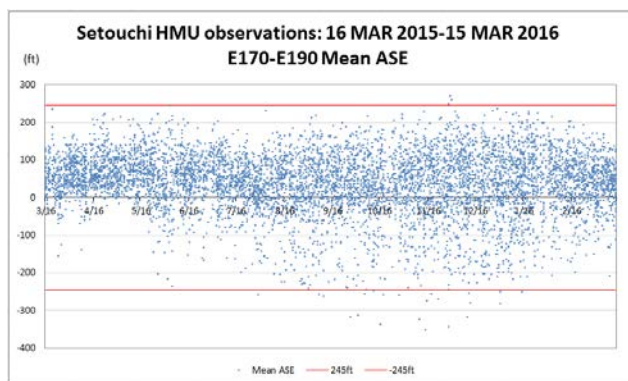
A330

A330	TVE	AAD	ASE
AVE	53.0	0.1	52.9
SD	52.6	3.0	52.6
MAX	311.6	100.0	311.6
MIN	-298.2	-11.4	-298.2
MEDIAN ASE			54.3
ABS ASE			62.4
ASE+3SD			210.8
Count			5832



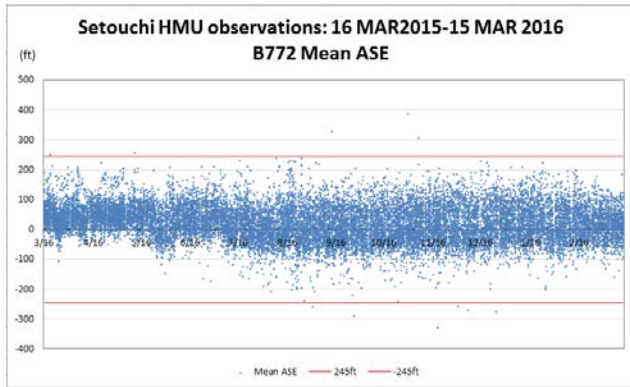
B787

B787	TVE	AAD	ASE
AVE	39.9	-0.3	40.2
SD	54.7	1.2	54.8
MAX	249.2	7.4	251.9
MIN	-243.3	-17.0	-243.3
MEDIAN ASE			40.6
ABS ASE			54.8
ASE+3SD			204.6
Count			9668



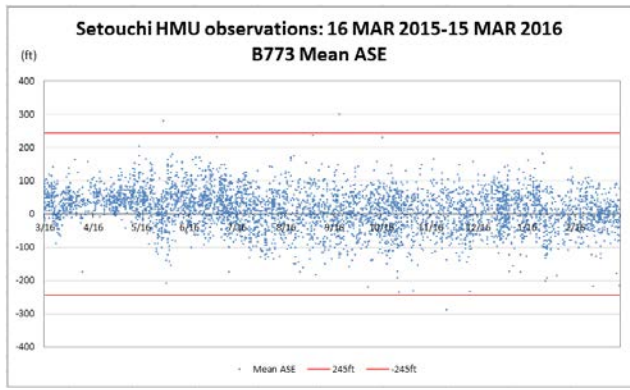
E170-190

E170-190	TVE	AAD	ASE
AVE	38.5	-0.2	38.7
SD	77.6	1.3	77.6
MAX	266.2	80.6	268.0
MIN	-356.5	-15.2	-353.0
MEDIAN ASE			45.7
ABS ASE			70.1
ASE+3SD			271.5
Count			7144



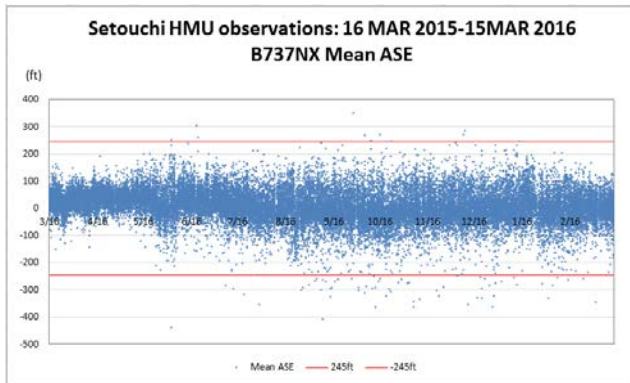
B772	TVE	AAD	ASE
AVE	24.4	-0.2	24.6
SD	58.2	1.4	58.2
MAX	389.6	19.5	389.6
MIN	-325.3	-100.0	-325.3
MEDIAN ASE			24.2
ABS ASE			50.2
ASE+3SD			199.4
Count			21435

B772



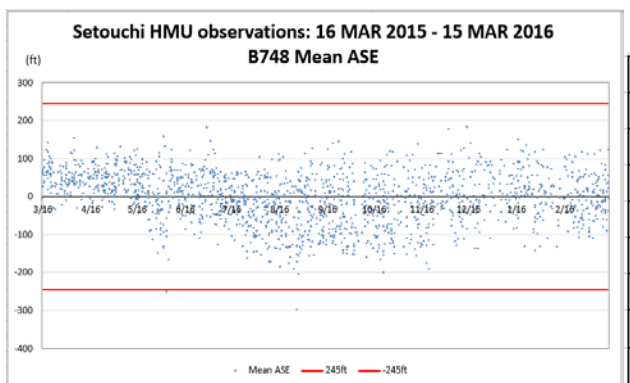
B773	TVE	AAD	ASE
AVE	15.2	0.0	15.3
SD	57.3	0.7	57.3
MAX	299.8	14.0	299.6
MIN	-286.6	-7.8	-286.6
MEDIAN ASE			19.5
ABS ASE			47.3
ASE+3SD			187.1
Count			4839

B773



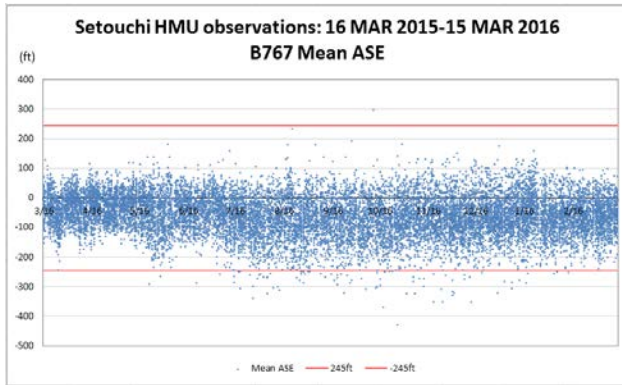
B737NX	TVE	AAD	ASE
AVE	6.1	-0.2	6.3
SD	57.8	2.0	57.8
MAX	347.9	100.0	347.9
MIN	-443.5	-21.2	-441.7
MEDIAN ASE			6.4
ABS ASE			44.1
ASE+3SD			179.7
Count			36583

B737NX



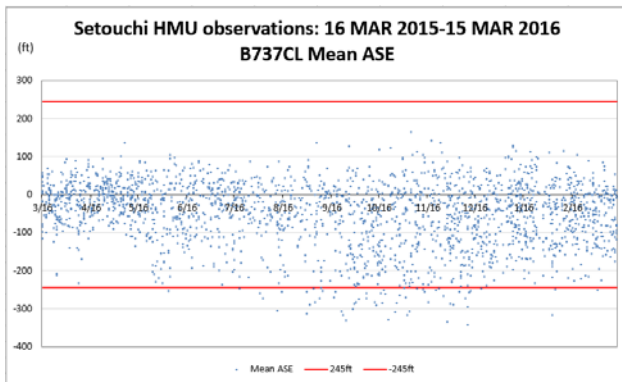
B748	TVE	AAD	ASE
AVE	-1.3	-0.1	-1.3
SD	67.4	2.3	67.4
MAX	184.0	10.8	184.0
MIN	-295.9	-91.9	-295.9
MEDIAN ASE			5.8
ABS ASE			54.3
ASE+3SD			203.4
Count			1727

B748



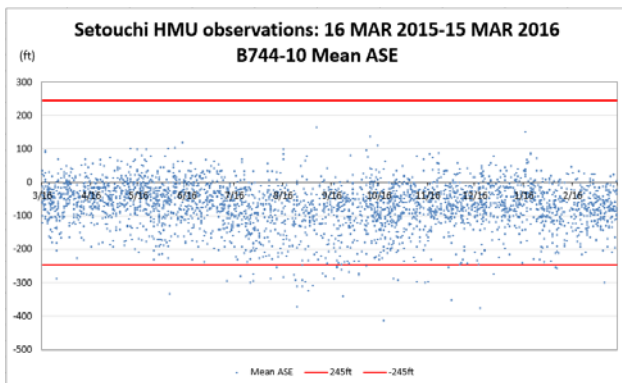
B767

B767	TVE	AAD	ASE
AVE	-49.8	0.1	-49.8
SD	66.6	5.6	66.7
MAX	305.1	100.0	305.1
MIN	-419.5	-100.0	-419.5
MEDIAN ASE			-48.4
ABS ASE			66.3
ASE+3SD			249.8
Count			16981



B737CL

B737CL	TVE	AAD	ASE
AVE	-51.0	-0.4	-50.7
SD	84.0	4.4	83.9
MAX	164.8	63.6	164.8
MIN	-343.8	-102.0	-342.1
MEDIAN ASE			-36.0
ABS ASE			72.4
ASE+3SD			302.5
Count			2257



B744-10

B744-10	TVE	AAD	ASE
AVE	-69.4	0.0	-69.4
SD	67.0	6.6	67.1
MAX	165.7	100.0	163.8
MIN	-411.5	-100.2	-411.5
MEDIAN ASE			-63.5
ABS ASE			76.5
ASE+3SD			270.7
Count			3211