



International Civil Aviation Organization

**The Twentieth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/20)**

Bangkok, Thailand, 26-29 May 2015

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

**LATEST MONITORING RESULT OF SETOUCHI HMU**

(Presented by JASMA)

**SUMMARY**

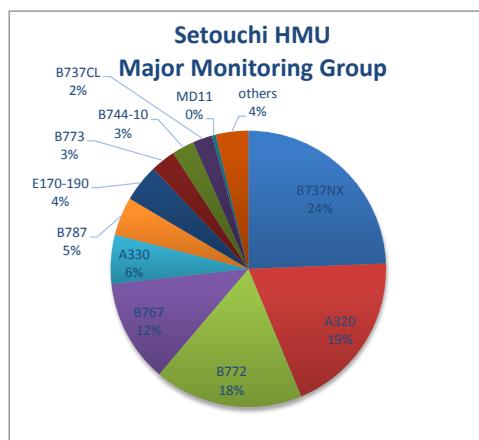
This paper presents a summary of the latest height monitoring results obtained from Setouchi height monitoring unit (HMU).

**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 2014 and 15 March 2015. 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 2014 and 15 March 2015. The top eleven of the monitoring groups are B737NX, A320, B772, B767, B737CL, E170-190, B787, B773, B774-10, A330 and MD11 in this period. The proportion of B737NX, A320, B772 and B767 are continuously large amount as previous report.

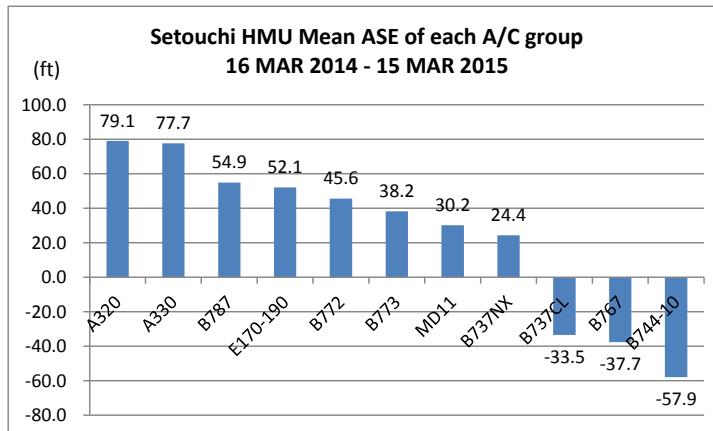


**Figure 1:** The proportion of the major monitoring group by Setouchi HMU

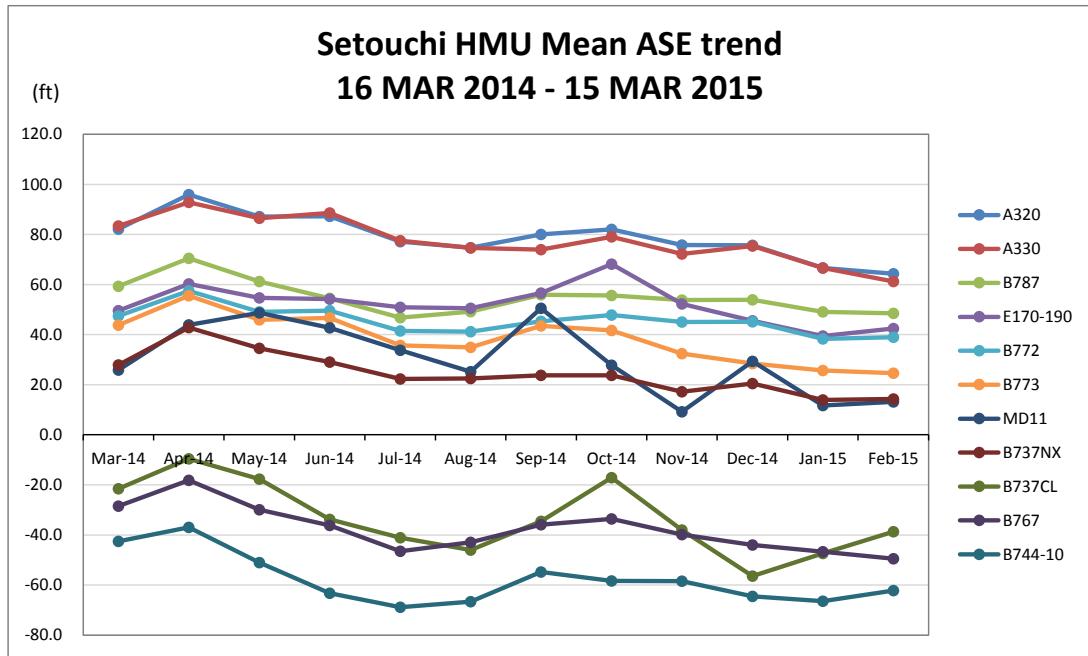
2.2 **Table 1** shows the mean ASE of top 11 monitoring groups for the same period. **Figure 2** draws focus on the mean ASE of each monitoring group and made it a bar graph and a monthly line graph shown in **Figure 3**. The details of each monitoring groups are shown in **Appendix A** in descending 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	28061	80.8	1.7	79.1	205.6
A330	8311	77.7	0.0	77.7	196.1
B787	6532	54.5	-0.3	54.9	153.4
E170-190	6391	51.9	-0.2	52.1	193.9
B772	25334	45.4	-0.2	45.6	167.1
B773	4262	38.2	0.0	38.2	154.1
MD11	648	37.9	7.8	30.2	204.8
B737NX	35391	24.1	-0.3	24.4	128.2
B737CL	3314	-33.5	0.0	-33.5	183.2
B767	17495	-37.6	0.0	-37.7	193.3
B744-10	3813	-57.9	0.0	-57.9	223.9



**Figure 3:** Mean ASE of each Monitoring Group



**Figure 4:** Monthly Mean ASE of each Monitoring Group

### 3. ACTION BY THE MEETING

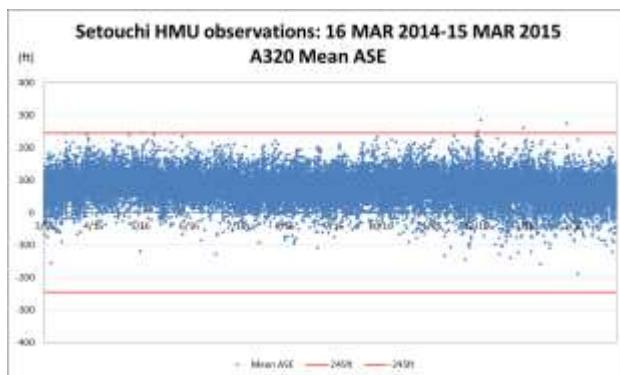
#### 3.1 The meeting is invited to:

- note the information contained in this paper; and

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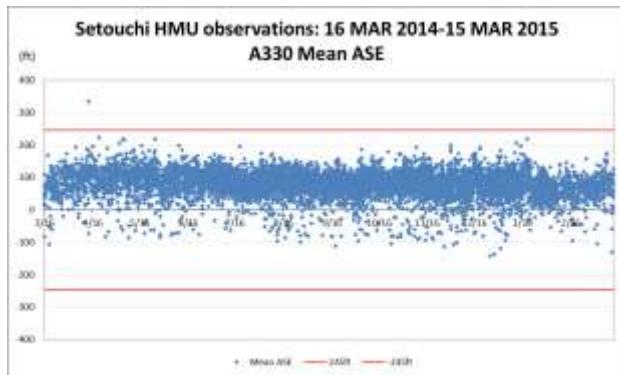
## Appendix A

### TVE, AAD and ASE trend of each aircraft type



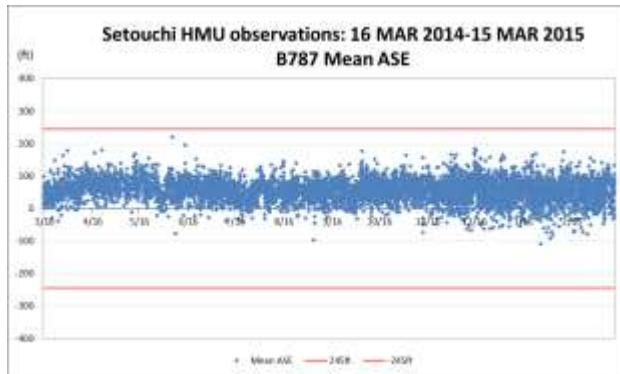
A320	TVE	AAD	ASE
AVE	80.5	1.7	78.7
SD	43.1	5.9	43.1
MAX	283.2	97.4	285.5
MIN	-190.4	-36.6	-186.4
MEDIAN ASE			79.6
ABS ASE			80.6
ASE+3SD			208.1
Count			28061

**A320**



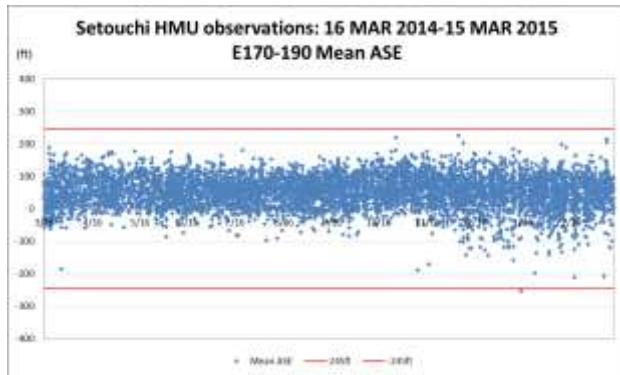
A330	TVE	AAD	ASE
AVE	77.4	0.0	77.4
SD	39.6	2.2	39.7
MAX	332.0	100.0	332.0
MIN	-143.1	-7.1	-143.1
MEDIAN ASE			79.7
ABS ASE			80.2
ASE+3SD			196.4
Count			8311

**A330**



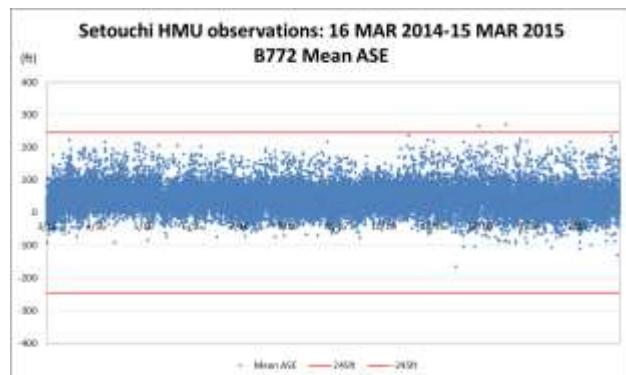
B787	TVE	AAD	ASE
AVE	53.9	-0.3	54.2
SD	34.2	1.2	34.0
MAX	218.7	8.0	218.7
MIN	-113.0	-13.6	-110.4
MEDIAN ASE			55.0
ABS ASE			56.4
ASE+3SD			156.3
Count			6532

**B787**



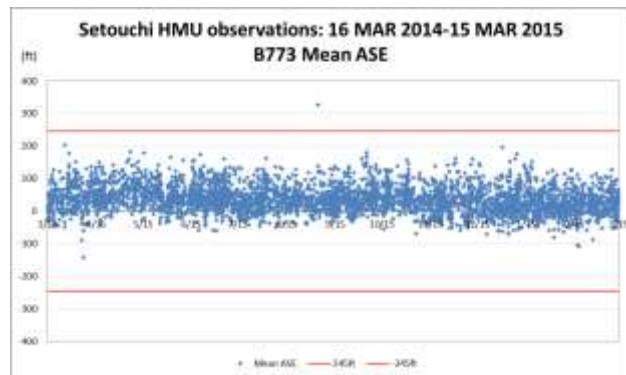
E170-190	TVE	AAD	ASE
AVE	51.8	-0.2	52.0
SD	48.5	1.6	48.5
MAX	225.1	100.0	225.1
MIN	-255.0	-15.8	-255.0
MEDIAN ASE			53.7
ABS ASE			59.7
ASE+3SD			197.3
Count			6391

**E170-190**



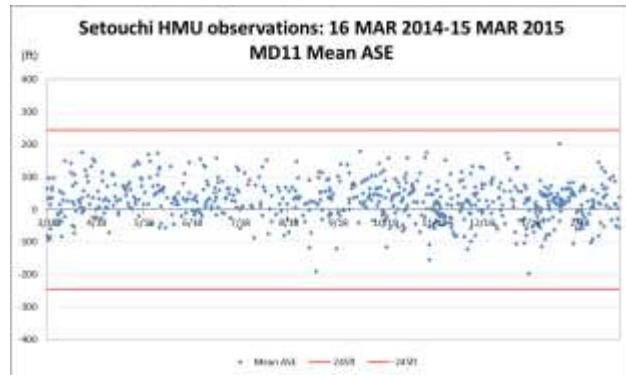
B772	TVE	AAD	ASE
AVE	45.3	-0.2	45.5
SD	40.8	1.3	40.8
MAX	271.6	13.6	271.6
MIN	-165.0	-97.4	-165.0
MEDIAN ASE			43.4
ABS ASE			49.7
ASE+3SD			168.0
Count			25334

**B772**



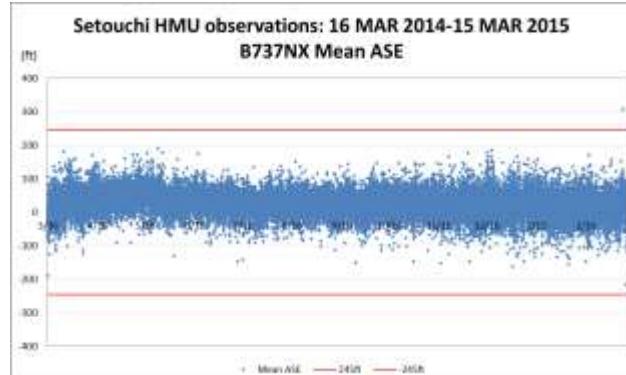
B773	TVE	AAD	ASE
AVE	38.0	0.0	38.0
SD	39.8	0.8	39.8
MAX	327.3	13.7	327.3
MIN	-143.8	-8.0	-141.1
MEDIAN ASE			35.3
ABS ASE			43.7
ASE+3SD			157.2
Count			4266

**B773**



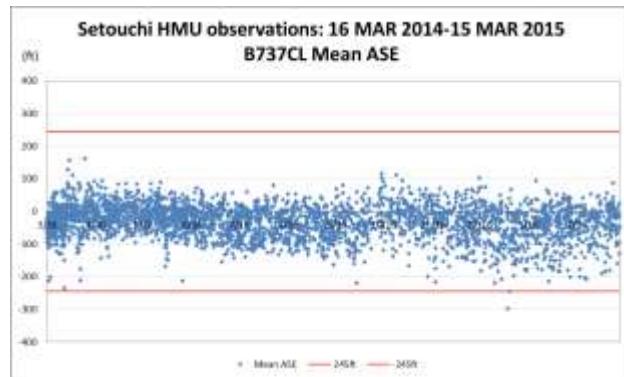
MD11	TVE	AAD	ASE
AVE	35.8	7.6	28.2
SD	57.9	13.6	59.7
MAX	210.1	76.8	201.5
MIN	-177.9	-29.0	-197.3
MEDIAN ASE			29.0
ABS ASE			52.2
ASE+3SD			207.4
Count			648

**MD11**



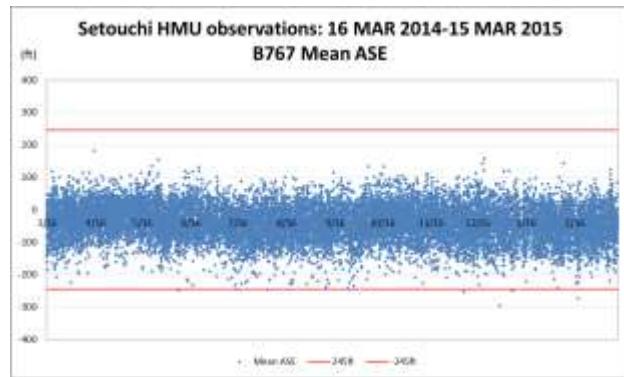
B737NX	TVE	AAD	ASE
AVE	23.9	-0.3	24.2
SD	35.8	1.3	35.7
MAX	305.5	96.6	305.5
MIN	-219.3	-19.1	-217.5
MEDIAN ASE			24.8
ABS ASE			34.6
ASE+3SD			131.4
Count			35391

**B737NX**



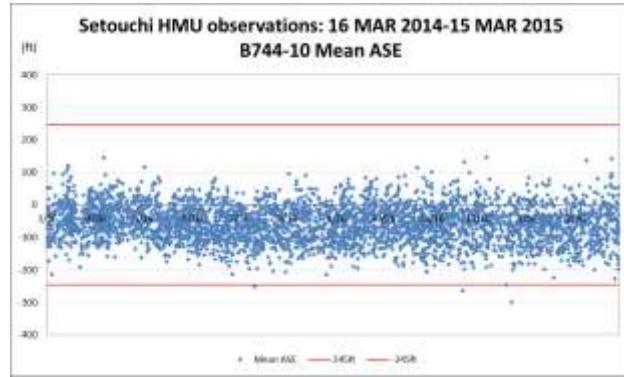
B737CL	TVE	AAD	ASE
AVE	-31.7	0.0	-31.7
SD	51.2	3.1	51.1
MAX	161.6	83.3	161.6
MIN	-297.6	-8.2	-297.6
MEDIAN ASE			<b>-26.2</b>
ABS ASE			<b>45.6</b>
ASE+3SD			<b>184.9</b>
Count			3314

**B737CL**



B767	TVE	AAD	ASE
AVE	-37.2	0.0	-37.3
SD	52.6	6.2	52.6
MAX	185.1	100.5	185.1
MIN	-292.9	-190.1	-292.9
MEDIAN ASE			<b>-35.8</b>
ABS ASE			<b>51.4</b>
ASE+3SD			<b>195.1</b>
Count			17495

**B767**



B744-10	TVE	AAD	ASE
AVE	-57.7	0.0	-57.7
SD	55.9	7.2	56.0
MAX	155.7	100.0	146.9
MIN	-299.0	-100.0	-299.0
MEDIAN ASE			<b>-58.0</b>
ABS ASE			<b>66.6</b>
ASE+3SD			<b>225.8</b>
Count			3813

**B744-10**