



ICAO

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Tenth Meeting of the FANS Interoperability Team – Asia (FIT-Asia/10)

Bangkok, Thailand, 03 – 06 August 2020

**Agenda Item 4: Review of ADS-C/CPDLC Operations and Performance**

**DATA LINK PERFORMANCE REPORT FOR MANILA FIR**

(Presented by Philippines)

**SUMMARY**

This paper presents Data Link Performance for Manila FIR for 2019

**1. INTRODUCTION**

1.1 This paper presents the data link performance for Manila (RPHI) FIR from January to December 2019. As this is the first time Manila performed this monitoring, this will serve as reference for further monitoring in the operation of PBCS performance.




**2. DISCUSSION**

2.1 The submitted data was the first PBCS monitoring performed by RPHI FIR from Jan-Dec 2019.




2.2 The table below shows the collected data for RPHI FIR which described RSP 180 by media type and the corresponding criteria that was met. Both SATCOM and VHF media has met the 95% criterion from January to December while the HF media failed to meet that criterion throughout the year.

FIR	RPHI					
	RSP 180					
Criteria	January-June 2019			July-December 2019		
Period	Message counts	95% %<=90sec	99.90% %<=180sec	Message counts	95% %<=90sec	99.90% %<=180sec
<b>Colour Key</b> Meets Criteria 99.0%-99.84% Under Criteria						
By Media Type						
SATCOM	190017	96.49%	99.47%	63596	96.41%	99.50%
VHF	40737	98.79%	99.57%	463042	99.12%	99.70%
HF	1668	64.15%	84.47%	1117	74.31%	89.88%
ALL	232422	98.34%	99.51%	527755	98.74%	99.65%




2.3 Table below summarizes the RGS/GES that meet and failed the criteria with their media used. There were nine sites which uses VHF that failed to meet the 95% and 99.90% criteria, these were BMV1,CXR1, HKG2, IG1, IGW1, MMY1, SYX, SZX, TTE1, while SATCOM has meet the criteria while HF has failed to meet the criteria that includes three sites namely HO2, HO6 and HI6.

FIR		RPHI					
Criteria		RSP 180					
Period		January-June 2019			July-December 2019		
Colour Key		Message counts	95% %<=90sec	99.90% %<=180sec	Message counts	95% %<=90sec	99.90% %<=180sec
 Meets Criteria  99.0%-99.84%  Under Criteria							
By Remote Ground Station(RGS) Ground Earth Station(GES)							
Designator	Type	(only RGS/GES with messages counts>100 recorded)					
BMV1	VHF				139	97.03%	97.89%
CXR1	VHF				115	94.88%	95.06%
DVO	VHF	2837	99.00%	99.37%	3473	99.66%	99.86%
HO2	HF	137	67.45%	84.67%			
HO6	HF	193	51.30%	79.15%			
H16	HF	1091	65.54%	85.08%	810	75.97%	91.11%
HKG	VHF	227	99.49%	99.58%	339	99.82%	100.00%
HKG2	VHF	334	97.79%	97.93%	717	98.89%	99.06%
IG1	VHF	375	87.47%	97.49%	1041	84.82%	96.35%
IGW1	VHF	15277	95.26%	99.13%	13644	95.71%	98.52%
MMY1	VHF	798	96.64%	99.01%	954	96.94%	98.50%
SYX	VHF	5025	97.67%	98.70%	6706	98.09%	99.21%
SZX	VHF	251	96.57%	98.02%	411	99.60%	99.93%

2.4 Table below summarizes the RGS/GES and Aircraft operator/type which failed 95% criterion for CPDLC.

FIR		RPHI											
Criteria		RCP240											
Period		January-June 2019					July-December 2019						
<b>Colour Key</b>   	Message counts	95% Benchmark		99.90% Benchmark		95%	Message counts	95% Benchmark		99.90% Benchmark		95%	
	ACP %<=180s ec	ACTP %<=120s ec	ACP %<=210s ec	ACTP %<=150s ec	PORT %<60sec	ACP %<=180s ec	ACTP %<=120s ec	ACP %<=210s ec	ACTP %<=150s ec	PORT %<60sec			
<b>By Remote Ground Station(RGS) / Ground Earth Station(GES)</b>													
Designator	Type	(RGS/GES with messaging counts>100 recorded)											
APK1	VHF	3082	97.18%	98.77%	97.51%	98.82%	93.74%	4948	97.64%	98.55%	97.82%	98.75%	94.44%
APK2	VHF	686	99.10%	99.94%	99.28%	99.97%	95.77%	1124	98.80%	99.91%	99.04%	99.93%	93.86%
BK1	VHF							104	90.93%	98.01%	91.08%	98.45%	90.65%
CEB	VHF	154	98.52%	94.58%	98.79%	94.71%	98.46%	267	98.64%	98.08%	98.72%	98.32%	97.63%
CRK	VHF							161	99.05%	98.95%	99.39%	99.20%	96.67%
H16	HV	118	85.88%	84.75%	88.56%	88.98%	75.88%	258	85.48%	78.52%	86.88%	84.73%	79.65%
IGW1	VHF	191	97.57%	99.36%	97.68%	99.52%	94.94%	440	96.77%	99.60%	97.41%	99.71%	90.23%
PPS	VHF	162	97.72%	98.90%	97.98%	99.17%	93.83%	301	97.87%	99.44%	97.94%	99.73%	95.93%
SYX	VHF	103	97.09%	96.59%	97.21%	96.76%	88.67%	163	93.64%	92.96%	93.79%	93.10%	89.03%
XXA	SAT	707	98.43%	100.00%	98.62%	100.00%	92.22%	1668	99.36%	100.00%	99.43%	100.00%	92.99%
XXA	SV	498	97.00%	100.00%	97.07%	100.00%	94.81%	1191	97.85%	99.93%	97.94%	99.95%	95.21%
XXP	SAT	553	98.46%	99.72%	98.78%	99.77%	90.14%	868	99.14%	100.00%	99.31%	100.00%	92.15%
ZAM	VHF	512	92.31%	98.12%	92.43%	98.19%	91.23%	781	94.94%	98.53%	95.19%	98.98%	93.47%
<b>By Aircraft Operator/Type (only message counts &gt; 100 recorded)</b>													
CAL/A359		218	95.43%	95.00%	95.73%	95.91%	94.24%	452	94.06%	94.16%	94.15%	94.79%	91.65%
CEB/A333		154	96.67%	100.00%	96.78%	100.00%	91.56%	278	96.94%	99.88%	97.38%	100.00%	93.88%
CES/A332		198	92.45%	100.00%	92.59%	100.00%		482	96.56%	99.39%	96.98%	99.52%	92.22%
CES/A333								141	96.30%	100.00%	96.78%	100.00%	91.19%
CHH/A333		195	95.49%	100.00%	95.65%	100.00%	94.98%	381	96.60%	100.00%	96.66%	100.00%	93.75%
CPA/A333		229	96.97%	100.00%	97.04%	100.00%	91.92%	482	97.64%	100.00%	97.86%	100.00%	92.79%
CPA/A359		356	94.16%	100.00%	94.19%	100.00%	91.39%	684	97.59%	99.94%	97.75%	99.97%	93.42%
CPA/B77W		218	99.30%	99.55%	99.82%	99.55%	90.95%	324	97.69%	100.00%	98.17%	100.00%	85.34%
CRK/A333								202	98.93%	100.00%	99.03%	100.00%	94.80%
CSC/A332								226	94.87%	100.00%	95.09%	100.00%	92.51%
CSC/A333								112	94.46%	100.00%	94.71%	100.00%	90.92%
CSN/A21N								280	100.00%	100.00%	100.00%	100.00%	93.93%
CSN/A332								241	92.68%	94.27%	93.15%	99.05%	89.83%
CSN/A333		483	93.61%	93.89%	93.95%	94.12%	91.53%	951	93.38%	94.39%	93.88%	95.69%	91.06%
CSN/B789		506	95.92%	94.47%	96.34%	95.19%	94.07%	443	96.09%	93.86%	96.39%	94.72%	93.36%
CXA/B788		354	93.66%	99.72%	93.77%	99.72%	90.96%	526	98.17%	100.00%	98.26%	100.00%	95.34%
EVA/A333		159	100.00%	100.00%	100.00%	100.00%	96.23%	304	99.10%	100.00%	99.17%	100.00%	94.41%
EVA/B77W								110	100.00%	100.00%	100.00%	100.00%	92.41%
GIA/A333		108	92.85%	97.72%	93.06%	98.24%	89.12%	168	95.50%	99.04%	96.68%	99.27%	88.24%
JAL/B788		213	91.33%	97.19%	91.84%	97.30%	88.30%	383	91.08%	97.60%	91.30%	98.55%	88.51%
KAL/B773								118	93.53%	92.93%	93.95%	93.36%	90.68%
PAL/A21N		123	100.00%	100.00%	100.00%	100.00%	96.54%	119	98.47%	100.00%	99.01%	100.00%	94.32%
PAL/A333		129	100.00%	100.00%	100.00%	100.00%	97.88%	174	100.00%	100.00%	100.00%	100.00%	94.64%
PAL/A359		410	95.63%	95.75%	95.78%	96.10%	93.86%	845	96.64%	96.58%	96.82%	97.08%	95.50%
RBA/A320		373	98.80%	100.00%	98.97%	100.00%	92.23%	590	99.26%	100.00%	99.51%	100.00%	94.32%
SIA/A333		339	97.98%	98.03%	98.53%	98.03%	95.28%	641	95.82%	94.49%	95.90%	95.18%	91.89%
SIA/A359		184	98.87%	100.00%	99.47%	100.00%	95.29%	460	98.82%	99.99%	98.98%	100.00%	93.48%

2.5 Table below summarize the RGS/GES and aircraft operator/type which failed the 95% criterion for ADS-C.

FIR	RPHI					
Criteria	RSP 180					
Period	January-June 2019			July-December 2019		
Colour Key	Message count	95% %<=90sec	99.90% %<=180sec	Message count	95% %<=90sec	99.90% %<=180sec
 Meets Criteria						
 99.0%-99.84%						
 Under Criteria						
<b>By Aircraft Operator/Type (only messages counts &gt;100 recorded)</b>						
CCA/B77W	115	93.91%	98.14%	369	94.31%	98.14%
CPA/B773	2349	95.40%	98.87%	5587	94.81%	99.11%
CPA/B77W	6468	92.02%	98.42%	8795	92.43%	98.37%
FJI /A332	1921	93.60%	96.84%	1894	96.33%	98.48%
FJI/A333				252	94.92%	98.61%
PAL/A321	1102	90.87%	93.49%	2993	91.43%	94.06%
THA/B773				166	93.04%	96.87%
UAE /B77L	325	93.95%	99.05%	625	96.70%	99.94%
UIA/A321	128	92.50%	99.94%	110	99.20%	100.00%
VBR/A320	156	94.87%	99.49%			
<b>By Remote Ground Station(RGS) Ground Earth Station(GES)</b>						
Designator	Type	(only RGS/GES with messages counts>100 recorded)				
CXR1	VHF			115	94.88%	95.06%
HO2	HF	137	67.45%	84.67%		
HO6	HF	193	51.30%	79.15%		
H16	HF	1091	65.54%	85.08%	810	75.97%
IG1	VHF	375	87.47%	97.49%	1041	84.82%

2.6 Additional performance data is provided in **Attachment A**.

### 3. ACTION BY THE MEETING

- a) The meeting is invited to:
- b) note the information contained in this paper; and
- c) discuss any relevant matters as appropriate.




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ATTACHMENT A

FIR		RPHI					
Criteria		RSP 180					
Period		January-June 2019			July-December 2019		
Colour Key		Message counts	95% %<=90sec	99.90% %<=180sec	Message counts	95% %<=90sec	99.90% %<=180sec
Meets Criteria							
99.0%-99.84%							
Under Criteria							
<b>By Media Type</b>							
SATCOM		190017	96.49%	99.47%	63596	96.41%	99.50%
VHF		40737	98.79%	99.57%	463042	99.12%	99.70%
HF		1668	64.15%	84.47%	1117	74.31%	89.88%
ALL		232422	98.34%	99.51%	527755	98.74%	99.65%
<b>By Remote Ground Station(RGS) Ground Earth Station(GES)</b>							
Designator	Type	(only RGS/GES with messages counts>100 recorded)					
APK1	VHF	111603	97.80%	99.37%	105731	98.63%	99.64%
APK2	VHF	32544	98.27%	99.34%	24487	99.00%	99.64%
BKI	VHF	4877	99.84%	99.92%	3748	99.59%	99.84%
BKI1	VHF	471	99.63%	99.70%	685	100.00%	100.00%
BMV1	VHF				139	97.03%	97.89%
BWN1	VHF	229	100.00%	100.00%	448	100.00%	100.00%
CAN	VHF	510	98.73%	99.15%	381	99.35%	100.00%
CEB	VHF	9278	99.64%	99.84%	10627	99.51%	99.86%
CEB1	VHF	7347	99.92%	99.97%	12515	99.85%	99.89%
CEBA	VHF				161	100.00%	100.00%
CRK	VHF	20759	99.24%	99.68%	19569	99.25%	99.74%
CRK1	VHF	33743	99.74%	99.82%	35575	99.80%	99.85%
CXR	VHF	113	99.55%	100.00%	147	100.00%	100.00%
CXR1	VHF				115	94.88%	95.06%
DVO	VHF	2837	99.00%	99.37%	3473	99.66%	99.86%
DVO1	VHF	3968	99.95%	100.00%	7016	99.92%	99.93%
HO2	HF	137	67.45%	84.67%			
HO6	HF	193	51.30%	79.15%			
H16	HF	1091	65.54%	85.08%	810	75.97%	91.11%
HKG	VHF	227	99.49%	99.58%	339	99.82%	100.00%
HKG2	VHF	334	97.79%	97.93%	717	98.89%	99.06%
HKG7	VHF				104	100.00%	100.00%
HKG8	VHF	202	100.00%	100.00%	195	100.00%	100.00%
HUN1	VHF	4541	99.39%	99.58%	5535	99.20%	99.48%
HUZ	VHF	131	96.78%	98.91%	977	98.82%	99.48%
HUZV	VHF				195	100.00%	100.00%
IG1	VHF	375	87.47%	97.49%	1041	84.82%	96.35%

FIT-Asia/10 – WP/12  
Attachment A

IGW1	VHF	15277	95.26%	99.13%	13644	95.71%	98.52%
ISG1	VHF	1393	98.03%	99.20%	1520	98.59%	99.55%
ISGV	VHF	1582	99.84%	100.00%	1465	99.82%	99.88%
KHH	VHF	6668	99.86%	99.94%	5697	99.88%	99.97%
KHH1	VHF	5526	99.54%	99.66%	8199	99.59%	99.82%
KHHV	VHF				335	100.00%	100.00%
LAO	VHF	35611	99.44%	99.65%	44532	99.66%	99.83%
LBU	VHF	732	100.00%	100.00%	355	99.76%	99.84%
MDC1	VHF	448	99.83%	99.95%	317	99.40%	99.57%
MFM	VHF	3842	97.19%	99.10%	4277	97.62%	99.26%
MMY1	VHF	798	96.64%	99.01%	954	96.94%	98.50%
MNL	VHF	26864	99.41%	99.72%	27894	99.50%	99.83%
MNL1	VHF	3891	99.70%	99.93%	4235	99.85%	99.93%
MNL2	VHF	1420	100.00%	100.00%	9774	99.90%	99.99%
MNL8	VHF	1068	100.00%	100.00%	28006	99.98%	99.99%
MNLV	VHF	1079	100.00%	100.00%	3392	99.94%	99.96%
MTS1	VHF	4103	98.33%	99.17%	6073	98.19%	99.18%
MYY	VHF	300	99.51%	100.00%	548	99.82%	99.94%
MYY1	VHF				143	100.00%	100.00%
OKA1	VHF	717	99.06%	99.50%	819	98.88%	99.62%
OKAV	VHF	133	100.00%	100.00%	136	100.00%	100.00%
PPS	VHF	7764	99.16%	99.64%	9806	99.32%	99.74%
SDK	VHF	2744	99.89%	99.96%	4348	99.68%	99.88%
SDK1	VHF	3312	99.92%	99.95%	6331	99.76%	99.83%
SFS1	VHF	10220	99.67%	99.81%	15446	99.44%	99.56%
SWA	VHF				104	100.00%	100.00%
SYX	VHF	5025	97.67%	98.70%	6706	98.09%	99.21%
SZX	VHF	251	96.57%	98.02%	411	99.60%	99.93%
TPE	VHF	462	100.00%	100.00%	642	99.79%	100.00%
TPE7	VHF	133	100.00%	100.00%			
TPE8	VHF				129	100.00%	100.00%
TSA	VHF	141	99.61%	100.00%			
TTE1	VHF	480	95.94%	96.72%	1511	97.63%	99.11%
TWU	VHF	665	100.00%	100.00%	298	99.69%	99.74%
TWU1	VHF	241	99.61%	99.79%	424	100.00%	100.00%
XXA	SAT	36366	96.84%	99.47%	39784	96.73%	99.55%
XXP	SAT	33293	95.66%	99.27%	23812	95.89%	99.44%
ZAM	VHF	10701	99.71%	99.81%	14210	99.76%	99.91%
ZUH	VHF	5061	96.25%	99.14%	5683	96.83%	99.50%

FIR	RPHI					
Criteria	RSP 180					
Period	January-June 2019			July-December 2019		
	Message count	95% %<=90sec	99.90% %<=180sec	Message count	95% %<=90sec	99.90% %<=180sec
<b>Colour Key</b>  Meets Criteria  99.0%-99.84%  Under Criteria						
By Aircraft Operator/Type (only messages counts >100 recorded)						
AAR/A333	5822	99.35%	99.77%	2746	98.97%	99.85%
AAR/A359				1119	97.99%	99.73%
AAR/B772	170	98.45%	100.00%	106	98.13%	100.00%
ANA/B77W	207	99.83%	100.00%	523	98.85%	100.00%
ANA /B788	2246	98.49%	99.43%	533	98.99%	99.63%
ANA/B789	3719	98.75%	99.66%	7085	99.38%	99.69%
ANZ /B772	1290	99.32%	99.69%	2995	99.00%	99.79%
ANZ/B789	850	99.82%	99.93%	719	98.98%	99.84%
BAW/A388	113	100.00%	100.00%			
CAL /A333	9342	98.99%	99.36%	9713	99.29%	99.64%
CAL/A359	6544	99.74%	99.96%	9746	99.78%	99.96%
CAL/B77W	1937	99.48%	99.94%	1555	99.39%	99.88%
CBJ/A332	171	98.30%	99.50%	1318	99.32%	99.84%
CBJ/A333				209	98.35%	100.00%
CCA /A332	2912	98.73%	99.57%	1622	98.64%	99.95%
CCA/A333	4971	97.63%	98.93%	4343	98.62%	99.78%
CCA/B77W	115	93.91%	98.14%	369	94.31%	98.14%
CCA/B789	734	99.49%	100.00%	1010	99.81%	99.88%
CEB /A333	17862	98.86%	99.59%	23281	99.12%	99.58%
CES /A332	10960	98.71%	99.36%	9134	98.89%	99.60%
CES/A333	5748	96.43%	99.26%	4245	97.93%	99.73%
CES/A359	203	99.72%	100.00%	1032	99.34%	99.71%
CES/B77W	535	96.26%	98.23%	215	96.51%	98.83%
CES/B789	1454	99.43%	100.00%	2458	99.86%	100.00%
CHH /A332	2721	97.56%	99.23%	1318	99.24%	100.00%
CHH/A333	4772	98.64%	99.91%	6232	99.05%	99.93%
CPA /A333	26929	97.23%	99.52%	23799	98.53%	99.78%
CPA/A359	18928	98.77%	99.87%	18134	99.01%	99.84%
CPA/A35K	2421	98.66%	99.75%	5331	99.34%	99.95%
CPA/B772	375	95.82%	99.83%			
CPA/B773	2349	95.40%	98.87%	5587	94.81%	99.11%
CPA/B77W	6468	92.02%	98.42%	8795	92.43%	98.37%
CRK /A332	3970	97.56%	99.56%	1434	98.05%	99.54%




CRK/A333	6945	97.08%	99.62%	6558	97.51%	99.65%
CSC /A332	2521	98.33%	99.32%	3795	98.76%	99.76%
CSC/A333	1707	95.52%	98.14%	1780	97.22%	99.27%
CSC/A359	1709	98.77%	99.71%	1109	99.84%	100.00%
CSN /A21N	321	99.51%	100.00%	4388	96.10%	99.62%
CSN/A332	1176	97.45%	99.03%	5192	98.73%	99.69%
CSN/A333	20044	95.84%	98.76%	17801	97.74%	99.30%
CSN/A388	1037	97.49%	100.00%	498	99.11%	100.00%
CSN/B788				707	99.73%	99.98%
CSN/B789	5286	99.74%	100.00%	3845	99.83%	99.98%
CXA /B788	2816	99.54%	99.74%	5194	99.52%	99.82%
CXA/B789	579	99.57%	99.97%	1100	99.53%	99.91%
ETD/A332				106	100.00%	100.00%
ETD/B77W	1821	99.20%	99.94%			
ETH/B788	516	99.11%	99.90%	779	99.76%	99.86%
EVA /A321	340	97.90%	100.00%	542	99.20%	99.66%
EVA/A332	1412	99.10%	99.92%	693	98.52%	99.90%
EVA/A333	10539	98.56%	99.64%	10879	99.38%	99.94%
EVA/B77L	207	100.00%	100.00%	676	99.17%	99.88%
EVA/B77W	3073	98.96%	99.78%	6199	99.58%	99.86%
EVA/B78X				649	99.74%	100.00%
FDX /B77L	282	97.52%	99.27%	1241	97.86%	99.49%
FJI /A332	1921	93.60%	96.84%	1894	96.33%	98.48%
FJI/A333				252	94.92%	98.61%
GCR/A332				534	99.00%	100.00%
GCR/A333	164	99.80%	100.00%			
GFA/A332				735	99.45%	99.85%
GFA /B789	944	99.49%	99.77%	590	100.00%	100.00%
GIA /A332	1561	98.60%	99.43%	295	98.67%	98.78%
GIA/A333	15,246	98.62%	99.73%	10226	99.60%	99.88%
GIA/B77W	4,844	97.81%	99.24%	3289	98.52%	99.60%
HDA/A333	195	97.58%	99.49%	109	96.41%	100.00%
HVN /A359	2062	99.22%	99.75%	2543	98.78%	99.69%
HVN/B789	141	99.00%	100.00%	533	98.99%	99.54%
HVN/B78X				224	99.44%	100.00%
JAL /B772	2803	98.57%	99.78%	4613	98.55%	99.70%
JAL/B788	5571	99.09%	99.56%	8596	98.95%	99.45%
JAL/B789	4836	98.49%	99.68%	5766	99.32%	99.97%
JST /B788	615	99.52%	99.79%	841	99.55%	99.66%
KAC /B77W	1431	99.80%	99.91%	2026	99.82%	99.96%
KAL /A332	1090	99.03%	99.87%	1295	99.36%	99.95%
KAL/A333	3560	98.60%	99.91%	3893	98.91%	99.87%
KAL/B772	264	98.82%	100.00%	194	99.05%	100.00%
KAL/B773	3104	98.74%	99.95%	5217	99.12%	99.90%

KAL/B77L	928	97.16%	99.72%	1367	98.02%	99.87%
KAL/B77W	1814	97.63%	99.82%	3301	97.30%	99.94%
KLM /#N/A	141	100.00%	100.00%			
KLM/B772	1452	99.42%	99.93%	1348	100.00%	100.00%
KLM/B77W	1166	100.00%	100.00%	1570	99.81%	100.00%
MAG/C560	307	99.41%	99.70%	153	100.00%	100.00%
MAS /A332	2790	98.89%	99.38%	2664	99.70%	99.96%
MAS/A333	3051	98.56%	99.41%	3531	99.54%	99.90%
MAS/A359	2469	98.95%	99.70%	3106	99.76%	99.93%
MAS/A388	1114	99.37%	100.00%	247	99.43%	100.00%
NAS/P3				320	96.18%	99.39%
OAE/B772				121	95.45%	99.74%
OMA /A332	250	99.24%	99.48%	170	98.94%	99.25%
OMA/A333	3083	99.73%	99.96%	2697	99.97%	100.00%
PAL /A21N	16035	98.24%	99.43%	17471	96.97%	98.64%
PAL/A321	1102	90.87%	93.49%	2993	91.43%	94.06%
PAL/A333	48843	97.67%	98.90%	50755	99.26%	99.72%
PAL/A359	9389	99.63%	99.97%	11209	99.88%	99.97%
PAL/B77W	12647	99.46%	99.93%	15718	99.68%	99.93%
QFA /A332	8428	98.90%	99.54%	9958	99.38%	99.73%
QFA/A333	6736	99.33%	99.79%	9451	99.47%	99.85%
QFA/A388	1203	99.50%	100.00%	248	99.95%	100.00%
QFA/B789	1942	99.67%	100.00%	4197	99.83%	100.00%
QTR /B77W	3710	99.34%	99.81%	4040	99.60%	99.91%
QTR/B788	1166	99.58%	99.72%	1398	99.24%	99.68%
RBA /A20N	1819	99.18%	99.61%	8712	99.21%	99.68%
RBA/A320	9648	96.52%	99.38%	2781	99.14%	99.81%
RCH/K35R	380	98.85%	100.00%	147	98.23%	100.00%
RPC/A333				109	100.00%	100.00%
SIA /A333	7579	99.10%	99.49%	4936	99.45%	99.75%
SIA/A359	11154	99.29%	99.86%	13259	99.56%	99.90%
SIA/A388	1812	98.57%	99.52%	1972	99.20%	99.67%
SIA/B772	998	98.86%	99.51%	477	100.00%	100.00%
SIA/B773	753	99.42%	99.99%	649	98.77%	99.89%
SIA/B77W	5135	96.20%	99.24%	7134	96.61%	99.43%
SIA/B78X	6570	98.83%	99.89%	10869	99.49%	99.90%
SLK /01A320	288	100.00%	100.00%	770	99.90%	99.99%
SLK/A320	1020	99.78%	99.89%	3914	99.70%	99.76%
SVA /B77W	2266	99.56%	99.89%	3186	99.75%	99.90%
SVW/A319				133	100.00%	100.00%
TGW /B788	1028	99.54%	99.77%	1530	99.58%	99.85%
TGW/B789	1373	99.73%	99.87%	1821	99.30%	99.62%
THA/A333	128	99.22%	100.00%	197	100.00%	100.00%
THA /B772	761	95.53%	99.27%	1034	96.23%	98.95%

FIT-Asia/10 – WP/12  
Attachment A

THA/B773				166	93.04%	96.87%
THA/B77W	166	97.68%	100.00%	212	98.11%	99.93%
THY /B77W	772	99.74%	99.88%	2152	99.90%	99.93%
UAE /B77L	325	93.95%	99.05%	625	96.70%	99.94%
UAE/B77W	7204	96.97%	99.51%	9272	97.35%	99.64%
UAL /B789	2643	99.38%	99.97%	3502	99.65%	99.90%
UIA/A321	128	92.50%	99.94%	110	99.20%	100.00%
VOZ/A332				2703	98.98%	99.90%
VBR/A320	156	94.87%	99.49%			
XAX/A333	8538	97.72%	99.35%	10969	98.79%	99.73%

FIR		RPHI											
Criteria		RCP240											
Period		January-June 2019					July-December 2019						
Colour Key <span style="color: green;">■</span> Meets Criteria <span style="color: yellow;">■</span> 99.0%-99.84% <span style="color: red;">■</span> Under Criteria	Message counts	95% Benchmark		99.90% Benchmark		95%	Message counts	95% Benchmark		99.90% Benchmark		95%	
		ACP		ACTP		PORT		ACP		ACTP		PORT	
		%<=180sec	%<=120sec	%<=210sec	%<=150sec	%<=60sec		%<=180sec	%<=120sec	%<=210sec	%<=150sec	%<=60sec	
By Media Type													
SATCOM	1260	98.40%	99.86%	98.67%	99.89%	91.27%	2536	99.27%	100.00%	99.37%	100.00%	92.82%	
VHF	7101	97.20%	98.72%	97.40%	98.76%	94.63%	12988	97.31%	98.72%	97.49%	98.88%	94.51%	
SV	787	97.85%	100.00%	97.89%	100.00%	95.45%	1728	98.07%	99.95%	98.17%	99.96%	95.25%	
VS							128	91.66%	99.17%	92.08%	99.36%	73.63%	
HV	163	87.93%	83.44%	89.88%	87.73%	78.86%	347	86.32%	78.29%	87.65%	85.19%	80.55%	
ALL	9311	97.24%	98.71%	97.47%	98.81%	93.96%	17727	97.39%	98.62%	97.58%	98.88%	93.91%	
By Remote Ground Station(RGS) / Ground Earth Station(GES)													
Designator	Type	(RGS/GES with messaging counts>100 recorded)											
APK1	VHF	3082	97.18%	98.77%	97.51%	98.82%	93.74%	4948	97.64%	98.55%	97.82%	98.75%	94.44%
APK2	VHF	686	99.10%	99.94%	99.28%	99.97%	95.77%	1124	98.80%	99.91%	99.04%	99.93%	93.86%
BK1	VHF						104	90.93%	98.01%	91.08%	98.45%	90.65%	
CEB	VHF	154	98.52%	94.58%	98.79%	94.71%	98.46%	267	98.64%	98.08%	98.72%	98.32%	97.63%
CEB1	VHF						352	99.61%	99.82%	99.68%	99.87%	98.44%	
CRK	VHF						161	99.05%	98.95%	99.39%	99.20%	96.67%	
CRK1	VHF	138	100.00%	100.00%	100.00%	100.00%	99.44%	347	100.00%	100.00%	100.00%	100.00%	98.96%
DVO	VHF	252	96.98%	99.65%	97.19%	99.73%	94.84%	374	93.37%	97.91%	93.44%	98.00%	92.07%
DVO1	VHF	269	99.66%	100.00%	99.68%	100.00%	98.98%	539	97.27%	100.00%	97.37%	100.00%	95.84%
H16	HV	118	85.88%	84.75%	88.56%	88.98%	75.88%	258	85.48%	78.52%	86.88%	84.73%	79.65%
IGW1	VHF	191	97.57%	99.36%	97.68%	99.52%	94.94%	440	96.77%	99.60%	97.41%	99.71%	90.23%
KHH1	VHF						174	100.00%	100.00%	100.00%	100.00%	98.89%	
LAO	VHF	372	97.09%	96.37%	97.16%	96.44%	96.79%	612	97.45%	95.65%	97.70%	95.73%	95.59%
MNL	VHF	205	98.54%	96.71%	98.62%	96.79%	96.97%	391	99.32%	99.17%	99.36%	99.24%	97.78%
MNL8	VHF						260	100.00%	100.00%	100.00%	100.00%	100.00%	
MTS1	VHF	183	100.00%	100.00%	100.00%	100.00%	97.81%	354	99.41%	100.00%	99.48%	100.00%	95.76%
PPS	VHF	162	97.72%	98.90%	97.98%	99.17%	93.83%	301	97.87%	99.44%	97.94%	99.73%	95.93%
SDK	VHF						159	99.07%	98.71%	99.19%	98.87%	98.16%	
SDK1	VHF						194	99.60%	99.70%	99.63%	99.76%	98.11%	
SFS1	VHF						221	100.00%	100.00%	100.00%	100.00%	97.60%	
SYX	VHF	103	97.09%	96.59%	97.21%	96.76%	88.67%	163	93.64%	92.96%	93.79%	93.10%	89.03%
XXA	SAT	707	98.43%	100.00%	98.62%	100.00%	92.22%	1668	99.36%	100.00%	99.43%	100.00%	92.99%
XXA	SV	498	97.00%	100.00%	97.07%	100.00%	94.81%	1191	97.85%	99.93%	97.94%	99.95%	95.21%
XXP	SAT	553	98.46%	99.72%	98.78%	99.77%	90.14%	868	99.14%	100.00%	99.31%	100.00%	92.15%
XXP	SV	289	99.31%	100.00%	99.33%	100.00%	96.60%	537	98.62%	100.00%	98.71%	100.00%	95.47%
ZAM	VHF	512	92.31%	98.12%	92.43%	98.19%	91.23%	781	94.94%	98.53%	95.19%	98.98%	93.47%

FIR	RPHI											
Criteria	RCP240											
Period	January-June 2019					July-December 2019						
<b>Colour Key</b>  Meets Criteria  99.0%-99.84%  Under Criteria	Message counts	95% Benchmark		99.90% Benchmark		95%	Message counts	95% Benchmark		99.90% Benchmark		95%
		ACP	ACTP	ACP	ACTP	PORT		ACP	ACTP	ACP	ACTP	PORT
		%<=180sec	%<=120sec	%<=210sec	%<=150sec	%<60sec		%<=180sec	%<=120sec	%<=210sec	%<=150sec	%<60sec
By Aircraft Operator/Type (only message counts > 100 recorded)												
ANA/B789	192	99.26%	98.82%	99.42%	98.94%	98.22%	388	98.64%	98.63%	98.86%	99.03%	96.52%
ANZ/B772							133	99.67%	100.00%	99.88%	100.00%	98.56%
CAL/A333							183	100.00%	100.00%	100.00%	100.00%	93.99%
CAL/A359	218	95.43%	95.00%	95.73%	95.91%	94.24%	452	94.06%	94.16%	94.15%	94.79%	91.65%
CCA/A333							142	98.82%	100.00%	98.90%	100.00%	97.89%
CEB/A333	154	96.67%	100.00%	96.78%	100.00%	91.56%	278	96.94%	99.88%	97.38%	100.00%	93.88%
CES/A332	198	92.45%	100.00%	92.59%	100.00%		482	96.56%	99.39%	96.98%	99.52%	92.22%
CES/A333							141	96.30%	100.00%	96.78%	100.00%	91.19%
CES/B789							223	99.27%	99.59%	99.46%	99.69%	96.76%
CHH/A333	195	95.49%	100.00%	95.65%	100.00%	94.98%	381	96.60%	100.00%	96.66%	100.00%	93.75%
CPA/A333	229	96.97%	100.00%	97.04%	100.00%	91.92%	482	97.64%	100.00%	97.86%	100.00%	92.79%
CPA/A359	356	94.16%	100.00%	94.19%	100.00%	91.39%	684	97.59%	99.94%	97.75%	99.97%	93.42%
CPA/A35K							143	99.33%	100.00%	99.37%	100.00%	96.19%
CPA/B77W	218	99.30%	99.55%	99.82%	99.55%	90.95%	324	97.69%	100.00%	98.17%	100.00%	85.34%
CRK/A333							202	98.93%	100.00%	99.03%	100.00%	94.80%
CSC/A332							226	94.87%	100.00%	95.09%	100.00%	92.51%
CSC/A333							112	94.46%	100.00%	94.71%	100.00%	90.92%
CSN/A21N							280	100.00%	100.00%	100.00%	100.00%	93.93%
CSN/A332							241	92.68%	94.27%	93.15%	99.05%	89.83%
CSN/A333	483	93.61%	93.89%	93.95%	94.12%	91.53%	951	93.38%	94.39%	93.88%	95.69%	91.06%
CSN/B789	506	95.92%	94.47%	96.34%	95.19%	94.07%	443	96.09%	93.86%	96.39%	94.72%	93.36%
CXA/B788							194	100.00%	100.00%	100.00%	100.00%	96.39%
EVA/A333	176	100.00%	100.00%	100.00%	100.00%	96.66%	235	98.39%	100.00%	98.44%	100.00%	96.81%
EVA/B77W							187	100.00%	100.00%	100.00%	100.00%	98.13%
GIA/A333	354	93.66%	99.72%	93.77%	99.72%	90.96%	526	98.17%	100.00%	98.26%	100.00%	95.34%
GIA/B77W	256	97.67%	100.00%	97.83%	100.00%	93.36%	239	100.00%	100.00%	100.00%	100.00%	99.30%
JAL/B772	139	100.00%	100.00%	100.00%	100.00%	97.30%	290	99.90%	100.00%	100.00%	100.00%	96.21%
JAL/B788	159	100.00%	100.00%	100.00%	100.00%	96.23%	304	99.10%	100.00%	99.17%	100.00%	94.41%
JAL/B789	141	99.48%	100.00%	99.59%	100.00%	95.39%	284	99.92%	100.00%	100.00%	100.00%	97.03%
KAL/A333							129	100.00%	100.00%	100.00%	100.00%	98.06%
KAL/B773							110	100.00%	100.00%	100.00%	100.00%	92.41%
KAL/B77W							133	99.61%	100.00%	99.80%	100.00%	95.77%
MAS/A333							142	98.62%	100.00%	98.68%	100.00%	95.12%
MAS/A359							145	100.00%	100.00%	100.00%	100.00%	98.62%
PAL/A21N	108	92.85%	97.72%	93.06%	98.24%	89.12%	168	95.50%	99.04%	96.68%	99.27%	88.24%
PAL/A333	213	91.33%	97.19%	91.84%	97.30%	88.30%	383	91.08%	97.60%	91.30%	98.55%	88.51%
PAL/A359							118	93.53%	92.93%	93.95%	93.36%	90.68%
PAL/B77W	252	99.86%	100.00%	100.00%	100.00%	97.42%	489	99.83%	100.00%	99.91%	100.00%	98.69%
QFA/A332	129	96.34%	100.00%	96.43%	100.00%	96.12%	328	98.19%	100.00%	98.21%	100.00%	96.49%
QFA/A333	164	100.00%	100.00%	100.00%	100.00%	97.15%	308	99.29%	100.00%	99.37%	100.00%	95.94%
QFA/B789							148	100.00%	100.00%	100.00%	100.00%	98.43%
RBA/A20N							308	99.10%	100.00%	99.18%	100.00%	95.13%
RBA/A320	123	100.00%	100.00%	100.00%	100.00%	96.54%	119	98.47%	100.00%	99.01%	100.00%	94.32%
SIA/A333	129	100.00%	100.00%	100.00%	100.00%	97.88%	174	100.00%	100.00%	100.00%	100.00%	94.64%
SIA/A359	410	95.63%	95.75%	95.78%	96.10%	93.86%	845	96.64%	96.58%	96.82%	97.08%	95.50%
SIA/B77W	373	98.80%	100.00%	98.97%	100.00%	92.23%	590	99.26%	100.00%	99.51%	100.00%	94.32%
SIA/B78X	339	97.98%	98.03%	98.53%	98.03%	95.28%	641	95.82%	94.49%	95.90%	95.18%	91.89%
TGW/B789							115	99.44%	100.00%	100.00%	100.00%	96.14%
UAE/B77W	123	99.48%	100.00%	99.72%	100.00%	96.93%	208	99.59%	100.00%	99.86%	100.00%	96.63%
UAL/B789	196	98.58%	99.27%	98.66%	99.38%	95.56%	234	100.00%	100.00%	100.00%	100.00%	98.66%
VOZ/A332							208	98.20%	99.81%	98.50%	99.93%	96.05%
XAX/A333	184	98.87%	100.00%	99.47%	100.00%	95.29%	460	98.82%	99.99%	98.98%	100.00%	93.48%



