International Civil Aviation Organization

Sixteenth Meeting of the FANS Interoperability Team – Asia (FIT–Asia/16)

Bangkok, Thailand, 9 – 11 June 2026

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

DATA LINK PERFORMANCE REPORT FOR INDIA

(Presented by India)

SUMMARY

This paper presents data link performance data for 2025 for the Chennai, Kolkata and Mumbai FIRs and information on actions taken to identify and rectify the causes of performance issues

1. INTRODUCTION

1.1 **Tables 1A to 4F** summarize Automatic Dependent Surveillance – Contract (ADS-C) and Data Link Communications (CPDLC) performance where the Required Surveillance Performance (RSP) and Required Communications Performance (RCP) criteria stipulated in ICAO Doc 4444 – Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM) were not met. Actions taken to address performance not meeting the criteria are discussed, together with the outcomes of such actions.

2. DISCUSSION

Chennai, Kolkata and Mumbai FIRs ADS-C RSP180 Performance – Media Type, RGS and GES

2.1 **Table 1A-1C** summarizes overall ADS-C performance per media type, Remote Ground Station (RGS) and Ground Earth Station (GES) for downlinks sent within the Chennai, Kolkata and Mumbai FIRs during 2025, where performance did not meet the RSP180 performance criteria.

Table 1A: Chennai FIR ADS-C Downlink Latency per Media Type, RGS and GES

FIR	CHENNAI					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % < = 90sec	99.90% % <= 180sec	Message Counts	95% % < = 90sec	99.90% % <= 180sec
By Media Type						
SATCOM	177566	96.78%	99.07%	178848	97.40%	99.31%
VHF	121595	98.86%	99.66%	141848	99.18%	99.72%

HF							
ALL		299161	97.63%	99.31%	320696	98.19%	99.49%
By Remote Ground Station (RGS) Ground Earth Station (GES)							
Designator	**Type**	(only RGS/GES with message counts >100 recorded)					
EUA1	SAT	2553	92.64%	98.49%	1695	94.10%	98.80%
IG1	SAT	3600	81.56%	93.75%	3706	82.08%	95.01%
IGW1	SAT	14679	84.40%	94.31%	11806	87.79%	95.71%
XXF	SAT	376	85.64%	95.31%	370	84.32%	95.54%
BOM2	VHF	619	91.11%	96.77%	255	96.21%	98.78%

Table 1B: Kolkata FIR ADS-C Downlink Latency per Media Type, RGS and GES

FIR	**Kolkata FIR**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-December 2025**		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**
By Media Type						
SATCOM	215665	97.21%	99.21%	251573	97.16%	99.19%
VHF	309223	99.36%	99.77%	415438	99.49%	99.83%
HF						
ALL	524888	98.48%	99.54%	667011	98.61%	99.59%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(only RGS/GES with message counts >100 recorded)				
IG1	SAT	5040	90.22%	97.34%	6416	89.39%	97.04%
IGW1	SAT	10273	78.38%	91.81%	13963	79.52%	92.00%
MDL	VHF	1258	93.83%	97.06%	1119	95.38%	98.06%
RGN	VHF	1629	95.42%	97.91%	2258	94.82%	97.80%
TCZ	VHF	727	92.94%	96.97%	1005	90.25%	95.01%
IST7	VHF	269	93.61%	98.84%	249	96.60%	99.39%

Table 1C: Mumbai FIR ADS-C Downlink Latency per Media Type, RGS and GES

FIR	**Mumbai FIR**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-December 2025**		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% < = 90sec**	**99.90%** **% <= 180sec**

By Media Type							
SATCOM		569736	96.46%	99.07%	574045	97.50%	99.43%
VHF		253358	96.37%	98.72%	266242	98.22%	99.40%
HF							
ALL		823094	96.44%	98.96%	840287	97.73%	99.42%
By Remote Ground Station (RGS) Ground Earth Station (GES)							
Designator	**Type**	(only RGS/GES with message counts >100 recorded)					
APK2	SAT	12280	94.80%	98.26%	12132	96.65%	99.13%
IGW1	SAT	22005	89.58%	96.73%	21632	91.76%	97.69%
XXP	SAT	635	94.57%	98.66%	937	92.16%	96.57%
AUH	VHF	289	94.69%	98.06%	570	98.96%	99.79%
B4P	VHF	159	85.85%	97.87%	141	96.28%	100.00%
DXB	VHF	392	94.13%	98.10%	165	96.79%	100.00%
BOM2	VHF	10658	87.69%	95.25%	6238	94.10%	98.03%
DAC1	VHF	112	94.76%	97.99%			
DOH8	VHF	128	92.94%	97.83%			
DOH9	VHF	278	94.17%	97.65%	309	98.71%	99.16%
DXB7	VHF	268	92.45%	97.12%	225	97.91%	98.66%
JNJ1	VHF	71357	94.87%	98.18%	79022	97.36%	99.03%
MCT1	VHF	4716	94.55%	98.49%	5157	95.25%	98.84%
PNQ1	VHF	3605	94.40%	98.20%	1792	98.35%	99.46%
RKT1	VHF	197	94.73%	97.21%	262	100.00%	100.00%
SEZ1	VHF	110	93.11%	95.71%			

2.2 **Table 1A-1C** outlines overall ADS-C performance per media type, Remote Ground Station (RGS) and Ground Earth Station (GES) for downlinks sent within Chennai FIR, Kolkata FIR and Mumbai FIR respectively during 2025. The assessment for ADS-C performance by HF for all three FIRs were not statistically significant due to the low number of data points. ADS-C performances EUA1, IG1, IGW1, XXF, BOM2 in Chennai FIR; IG1, IGW1, MDL, TCZ, IST7 in Kolkata FIR and APK2, IGW1, XXP, AUH, B4P, DXB, BOM2, DAC1, DOH8, DOH9, DXB7, JNJ1, MCT1, PNQ1 , RKT1, SEZ1 in Mumbai FIR failed to meet all criteria for first semesters and IGW1 fails to meet in all three FIRs. The ADS-C performance by SATCOM and VHF almost meet the 95% requirement but fail marginally under the 99.9% performance criteria for all three FIRs. In Chennai FIR EUA1, IG1, IGW1, XXF; In Kolkata FIR IG1, IGW1, TCZ and In Mumbai FIR IGW1, XXP and BOM2 fails to meet all criteria for both semesters.

2.3 Limited VHF Coverage over the oceanic area within Indian FIRs could affect the transition duration between VHF and SATCOM. The assessment for ADS-C performance on HF is not statistically significant due to the low amount of data available for analysis.

2.4 ANSP is in communication with Boeing regarding provision of CRA services. The above issues are taken up through CSP[SITA] the communication service provider for India since most of the issues are related with CSP network.

2.5 India is continuously monitoring the RSP180 performance and will take appropriate steps to meet the criteria.

Chennai, Kolkata and Mumbai FIR ADS-C RSP180 Performance – Aircraft Operator/Type

2.6 **Table 2A-2C** summarizes overall ADS-C performance per Aircraft Operator/Type for downlinks sent within the Chennai, Kolkata and Mumbai FIRs during 2025, where performance did not meet the RSP180 performance criteria.

Table 2A: Chennai FIR ADS-C Downlink Latency per Aircraft Operator/Type

FIR	Chennai FIR					
Criteria	RSP180					
Period	Jan-June 2025			July-December 2025		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% % <= 90sec	99.90% % <= 180sec	Message Counts	95% % <= 90sec	99.90% % <= 180sec
By Aircraft Operator / Type (only message counts >100 recorded)						
ABD/B744				175	89.71%	97.23%
ADY/A320	143	91.96%	93.21%	292	94.70%	96.48%
AFR/B772	103	99.94%	100.00%	252	94.17%	98.74%
AFR/B77W	1694	90.85%	98.29%	1190	98.34%	99.58%
AIC/A20N	1532	92.86%	97.36%			
ALK/A320	431	90.26%	95.93%	274	95.79%	99.08%
AZG/B744	182	79.67%	92.62%	215	70.08%	91.16%
BAW/B772	277	81.59%	94.04%	392	88.27%	96.81%
CES/A333	204	89.83%	97.65%	271	94.10%	99.14%
CFG/A339	291	80.76%	92.96%	521	84.07%	93.25%
CPA/A333	1555	84.76%	95.14%	2541	86.74%	96.54%
CPA/B744	1249	83.11%	94.40%	1132	85.16%	96.11%
CTV/A339	720	93.61%	97.59%			
DHX/B763	1333	88.90%	96.04%	385	83.64%	97.27%
ETD/A21N	1008	79.07%	95.14%	3231	95.57%	99.16%
ETD/A35K				280	93.93%	98.44%
FDX/B763	576	86.89%	94.74%			
IGO/B38M	237	93.07%	96.87%	115	93.86%	96.79%
KAC/A20N	710	90.28%	97.68%	1571	93.70%	98.49%
MAS/B38M	6377	86.31%	95.28%	1060	82.92%	90.94%

MAS/B738	5020	92.39%	97.67%	9761	95.22%	98.76%
NCR/B744	543	88.40%	94.41%	563	93.43%	97.87%
RBA/A20N	791	88.50%	94.76%	895	93.69%	97.97%
RHH/CL60				157	81.61%	90.73%
SIA/B38M	3175	91.45%	94.25%	3464	93.16%	95.93%
SVA/B772	180	88.10%	96.89%			
TGW/A20N				357	83.19%	94.12%
TGW/A21N	2019	88.66%	97.08%	2586	94.01%	98.44%
UZB/A21N	172	80.49%	91.17%	109	67.61%	84.90%
VJT/GL7T	280	94.29%	98.71%	561	92.81%	95.81%
VKG/A339	137	87.70%	94.47%			

Table 2B: Kolkata FIR ADS-C Downlink Latency per Aircraft Operator/Type

FIR	**Kolkata FIR**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-Dec 2025**		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	**95%** **% <= 90sec**	**99.90%** **% <= 180sec**	**Message Counts**	**95%** **% <= 90sec**	**99.90%** **% <= 180sec**
By Aircraft Operator / Type (only message counts >100 recorded)						
AIC/A20N	1623	92.98%	96.94%	460	96.75%	98.91%
CFG/A339	1852	93.63%	97.11%	2764	95.44%	97.55%
CKS/B744	258	93.27%	97.58%	274	97.23%	98.66%
CPA/A333	1727	92.88%	98.19%	3077	94.44%	98.28%
CPA/B744	2117	94.38%	98.50%	3028	94.55%	98.20%
EAU/B744	151	85.81%	93.28%			
FDX/B763	472	93.11%	97.47%			
IFA/CL60	114	93.48%	97.67%	116	87.59%	95.75%
IGA/B763				262	86.64%	97.40%
MAS/B38M	11241	84.65%	94.46%	19274	87.64%	95.44%

MAS/B738	1560	90.13%	96.15%	769	95.19%	98.57%
MFX/A20N				153	94.89%	96.91%
MFX/A21N	140	94.64%	96.40%	348	97.52%	98.29%
SIA/B38M	1522	93.97%	96.75%	2325	93.42%	95.89%
SVW/A19N	102	88.89%	94.16%			
TUA/B77L	248	93.35%	96.27%	593	96.71%	99.03%
UZB/A21N	666	93.36%	96.77%	2267	93.94%	97.27%
UZB/B763	508	92.60%	96.46%	271	95.60%	98.36%
UZS/A333	352	92.56%	96.10%			
VKG/A339	460	93.60%	97.38%	360	97.78%	99.31%

Table 2C: Mumbai FIR ADS-C Downlink Latency per Aircraft Operator/Type

FIR	**Mumbai FIR**					
Criteria	**RSP180**					
Period	**Jan-June 2025**			**July-December 2025**		
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	**95%**	**99.90%**	**Message Counts**	**95%**	**99.90%**
		% <= 90sec	**% <= 180sec**		**% <= 90sec**	**% <= 180sec**
By Aircraft Operator / Type (only message counts >100 recorded)						
ABD/B744	651	90.63%	97.74%	888	92.00%	97.89%
ABY/A20N				141	90.43%	95.55%
ADY/A320	1149	86.64%	91.99%	2069	88.84%	93.07%
AFR/B772	1034	93.23%	98.60%	1201	96.02%	98.06%
AFR/B77L	442	85.39%	96.92%	388	95.42%	98.82%
AFR/B77W	1796	90.81%	97.93%	1361	97.21%	99.41%
AIC/A20N	2624	86.78%	94.59%	277	92.60%	97.91%
ALK/A320	710	92.68%	97.05%	558	95.64%	97.39%

AOJ/GLF5	127	93.77%	98.09%	101	91.98%	97.86%
AXB/A20N	271	85.24%	90.99%	290	90.56%	92.69%
AXB/B38M				214	91.87%	98.20%
AXB/B738	341	95.75%	98.37%	465	94.30%	98.78%
AZG/B744	238	88.57%	96.55%			
BBC/B738	199	87.47%	92.66%			
BCS/B744				332	92.39%	96.33%
CAL/A359	484	94.94%	97.87%			
CAL/B744	124	91.23%	97.21%			
CAO/B77L	166	93.07%	98.35%			
CES/A333	1740	92.59%	97.30%	634	95.93%	98.98%
CFG/A339	1472	94.29%	98.12%	928	94.40%	98.11%
CKS/B744	154	86.58%	94.78%			
CSG/B77L	866	94.00%	98.83%	514	95.82%	99.05%
CTV/A339	1236	90.78%	96.79%			
DCF/GL5T	134	90.96%	98.21%			
DHK/B763	149	93.88%	97.54%	173	95.63%	100.00%
DLH/A346	193	87.77%	98.03%			
DLH/A388	290	90.92%	95.62%			
DLH/B744	1986	94.81%	98.72%	1278	97.18%	99.69%
EAU/B744	385	78.96%	91.43%	120	90.28%	100.00%
ESW/GLF5	103	86.69%	94.98%			
ETD/A20N	513	91.42%	95.70%	194	91.75%	95.38%
ETD/A21N	5002	90.68%	97.28%	7039	96.15%	99.00%
ETH/B38M	1025	75.19%	87.41%	506	71.94%	83.00%
ETH/B77W	5039	93.61%	98.29%	6656	96.94%	99.12%
EVA/B77W	205	93.01%	97.75%			
EVA/B789	139	92.87%	97.42%			
EXV/A320	401	88.45%	94.09%	624	97.01%	99.41%
FIN/A359	546	93.88%	97.62%	436	97.81%	99.48%

GFA/A21N	4231	91.66%	97.23%	5239	91.03%	97.41%
GIA/A339	1096	92.06%	98.66%	1641	97.62%	99.47%
HIM/A320	334	94.51%	97.94%			
HVN/B789	322	93.32%	98.91%			
HYS/A21N	188	92.05%	96.35%			
IAW/B77L	102	92.48%	96.52%			
ICV/B744				203	93.50%	97.83%
IGO/B38M	12494	82.98%	92.60%	3243	83.41%	92.11%
IGO/B77W	2179	92.29%	98.21%	2579	95.77%	99.02%
JZR/A20N	155	91.65%	97.52%	224	93.53%	97.30%
KAC/A20N	6840	93.83%	98.00%	7155	95.14%	98.94%
KAL/A333	467	92.02%	96.57%	252	96.12%	99.38%
KAL/B77L	112	93.86%	98.38%	105	99.07%	100.00%
KLM/B772	823	90.28%	97.27%	379	95.73%	99.21%
MPH/B744	284	88.38%	95.99%	392	91.84%	97.92%
OMS/A320	143	84.78%	91.89%	392	87.37%	91.58%
QQE/GA7C				285	85.57%	95.64%
QTR/B77W	54945	93.85%	98.36%	40558	96.09%	99.06%
RJA/A20N				217	87.62%	93.49%
SEJ/A343	437	92.97%	97.53%	200	99.77%	100.00%
SEY/A20N	1208	92.30%	97.35%	347	89.24%	94.62%
SIA/B77W	2622	90.88%	97.22%	4931	97.44%	99.49%
SVA/B744	553	93.31%	98.46%	512	93.03%	98.98%
SVA/B772	991	86.58%	95.96%	334	91.84%	97.44%
TAY/B744	133	92.21%	97.59%	416	96.50%	98.81%
THA/A359	263	85.61%	95.65%			
THA/B772	158	93.29%	98.59%			
THA/B77W	436	86.01%	95.53%			

TVR/B744	116	96.67%	98.26%	1028	94.94%	98.77%
UAE/B744	1919	92.70%	97.33%	916	94.00%	98.64%
UAL/B789	149	88.37%	95.88%			
UGD/A338	702	94.30%	98.17%	545	95.60%	98.97%

2.7 **Table 2A-2C** outline overall ADS-C performance per Aircraft Operator/Type for downlinks sent within the Chennai FIR, Kolkata FIR and Mumbai FIR respectively during 2025. The assessment for ADS-C performance by HF for all three FIRs was not statistically significant due to low number of data points. Aircraft Operator/Type ADSC performance failed to meet all criteria for both semesters.

in Chennai FIR
ADY(A320), AZG(B744), BAW(B772), CFG(A339), CPA(A333), CPA(B744), CTV(A339), DHX(B763), IGO(B38M), KAC(A20N), MAS(B38M), NCR(B744), RBA(A20N), SIA(B38M), TGW(A21N), UZB(A21N), VJT(GL7T);

in Kolkata FIR
CPA(A333), CPA(B744), IFA(CL60), MAS(B38M), SIA(B38M), UZB(A21N) and in Mumbai Fir, ABD(B744), ADY(A320), AIC(A20N), AOJ(GLF5), AXB(A20N), CFG(A339), ETD(A20N), ETH(B38M), GFA(A21N), IGO(B38M), JZR(A20N), MPH(B744), OMS(A320), SEY(A20N), SVA(B744), SVA(B772), UAE(B744)

2.8 The aircraft captured with low performance may be due to connectivity (CSP/SSP) or improper transfer of control from one FIR to another FIR via datalink.

2.9 The above issues will be carried through CSP (SITA), State Regulatory Directorate of General Civil Aviation (DGCA) and CRA.

2.10 The ANSP continuously monitors the ADS-C downlink performance of Aircraft Operator/Type.

Chennai, Kolkata and Mumbai FIRs CPDLC RCP240 Performance – Media Type, RGS and GES

2.11 **Tables 3A and 3F** summarize overall CPDLC performance per Media Type, RGS and GES for messages sent within the Chennai, Kolkata and Mumbai FIRs during 2025, where performance did not meet the RCP240 performance criteria.

Table 3A: Chennai FIR CPDLC Performance Latency per Media Type, RGS and GES – Jan-Jun 2025.

FIR	**Chennai FIR**				
Criteria	**RCP240**				
Period	**Jan - Jun 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark	
		ACP **% < = 180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**

By Media Type						
SATCOM		62645	99.56%	99.56%	99.80%	99.70%
ALL		123190	99.70%	99.74%	99.85%	99.82%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(RGS/GES with message counts >100)				
IG1	**SAT**	344	96.75%	96.95%	98.68%	98.99%
IGW1	**SAT**	1221	96.89%	96.40%	98.12%	97.95%

Table 3B: Chennai FIR CPDLC Performance Latency per Media Type, RGS and GES – Jul-Dec 2025

FIR		**Chennai FIR**				
Criteria		**RCP240**				
Period		**Jul-Dec 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP **% < =180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type						
SATCOM		75305	99.54%	99.48%	99.80%	99.70%
ALL		150456	99.70%	99.71%	99.86%	99.83%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(RGS/GES with message counts >100)				
IG1	**SAT**	788	97.46%	97.72%	98.70%	98.63%
EUA1	**SAT**	415	96.72%	95.66%	98.34%	98.07%
IGW1	**SAT**	1909	97.55%	96.98%	98.53%	98.09%

Table 3C: Kolkata FIR CPDLC Performance Latency per Media Type, RGS and GES – Jan-Jun 2025

FIR	**Kolkata FIR**				
Criteria	**RCP240**				
Period	**Jan - Jun 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	**Message Counts**	95% benchmark		99.9% Benchmark	
		ACP **% < = 180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type					
SATCOM	9650	98.99%	99.05%	99.27%	99.28%
VHF	2830	99.65%	99.75%	99.82%	99.80%
HF					

ALL		12480	99.13%	99.20%	99.39%	99.39%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(RGS/GES with message counts >100)				
IGW1	**SAT**	216	77.22%	76.08%	79.99%	79.94%

Table 3D: Kolkata FIR CPDLC Performance Latency per Media Type, RGS and GES – Jul-Dec 2025

FIR		**Kolkata FIR**				
Criteria		**RCP240**				
Period		**Jul-Dec 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP **% < =180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type						
SATCOM		14239	98.86%	98.82%	99.16%	99.16%
VHF		4404	99.84%	99.89%	99.88%	99.90%
HF						
ALL		18643	99.08%	99.07%	99.33%	99.33%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	Type	(RGS/GES with message counts >100)				
IGW1	**SAT**	446	80.72%	77.06%	84.26%	83.41%

Table 3E: Mumbai FIR CPDLC Performance Latency per Media Type, RGS and GES – Jan-Jun 2025

FIR		**Mumbai FIR**				
Criteria		**RCP240**				
Period		**Jan - Jun 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP **% < = 180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type						
SATCOM		60035	99.11%	99.35%	99.47%	99.66%
VHF		14226	99.35%	99.52%	99.56%	99.66%
HF						
ALL		74261	99.15%	99.38%	99.49%	99.66%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(RGS/GES with message counts >100)				

APK2	**SAT**	1201	95.67%	97.67%	97.63%	98.87%
IGW1	**SAT**	2718	96.91%	97.35%	97.91%	98.59%

Table 3F: Mumbai FIR CPDLC Performance Latency per Media Type, RGS and GES – Jul-Dec 2025

FIR		**Mumbai FIR**				
Criteria		**RCP240**				
Period		**Jul - Dec 2025**				
Colour Key Meets Criteria 99.0%-99.89% Under Criteria		**Message Counts**	95% benchmark		99.9% Benchmark	
			ACP **% < =180sec**	**ACTP** **% <= 120sec**	**ACP** **% < = 210sec**	**ACTP** **% <= 150sec**
By Media Type						
SATCOM		67220	99.22%	99.41%	99.60%	99.72%
VHF		18168	99.49%	99.61%	99.65%	99.77%
HF						
ALL		85388	99.27%	99.46%	99.61%	99.73%
By Remote Ground Station (RGS) Ground Earth Station (GES)						
Designator	**Type**	(RGS/GES with message counts >100)				
XXP	**SAT**	126	97.96%	96.79%	98.49%	97.99%
IGW1	**SAT**	2972	97.91%	98.03%	98.86%	98.97%

2.12 Actual Communication Performance (ACP) measurement for CPDLC messages sent within Chennai, Kolkata and Mumbai FIRs for the year 2025 are analyzed based on media type, RGS and GES. In Jan-Jun, in Chennai FIR, IG1(SAT) and IGW1(SAT), in Kolkata FIR IGW1(SAT) and in Mumbai FIR APK2(SAT) and IGW1(SAT) fails to meet the 99.9% criteria. In Jul-DEC, in Chennai FIR IG1(SAT), IGW1(SAT) and EUA1(SAT); In Kolkata FIR IGW1(SAT); In Mumbai FIR XXP(SAT) and IGW1(SAT) fails to meet the 99.9% criteria.

2.13 Limited VHF Coverage over the oceanic area within Indian FIR may affect the transition duration between VHF and SATCOM which is well understood from the SV and VS performance criteria.

2.14 The above issues will be carried through CSP (SITA), State Regulatory Directorate of General Civil Aviation (DGCA) and CRA to rectify performance not meeting RCP 240 criteria.

2.15 The ANSP continuously monitoring RCP 240 performance to rectify performance not meeting RCP 240 criteria.

Chennai, Kolkata and Mumbai FIRs CPDLC RCP240 Performance – Aircraft Operator/Type

2.16 **Table 4A-4F** summarizes overall CPDLC performance per Aircraft Operator/Type for messages sent within the Chennai, Kolkata and Mumbai FIRs during 2025, where performance did not meet the RCP 240 performance criteria.

Table 4A: Chennai FIR CPDLC Performance Latency per Aircraft Operator/Type – Jan-Jun 2025

FIR	CHENNAI FIR					
Criteria	RCP240					
Period	Jan - Jun 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT %<60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
TGW/A21N	844	96.80%	96.45%	98.10%	97.99%	96.09%

Table 4B: Chennai FIR CPDLC Performance Latency per Aircraft Operator/Type – Jul-Dec 2025

FIR	CHENNAI FIR					
Criteria	RCP240					
Period	Jul - Dec 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT %<60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
CFG/A339	199	98.07%	97.16%	98.89%	97.92%	99.05%
TGW/A20N	184	93.32%	94.20%	95.62%	95.83%	93.37%

Table 4C: Kolkata FIR CPDLC Performance Latency per Aircraft Operator/Type – Jan-Jun 2025

FIR	Kolkata FIR					
Criteria	RCP240					
Period	Jan - Jun 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT %<60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
MAS/B38M	153	82.61%	79.93%	86.04%	83.61%	89.54%
QTR/B77W	672	98.05%	98.00%	98.63%	98.39%	98.81%

Table 4D: Kolkata FIR CPDLC Performance Latency per Aircraft Operator/Type – Jul-Dec 2025

FIR	Kolkata FIR					
Criteria	RCP240					
Period	Jul - Dec 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT %<60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
BAW/B77W	106	97.20%	96.01%	98.20%	96.51%	99.69%
MAS/B38M	331	86.10%	81.77%	89.93%	87.92%	91.68%
QTR/B77W	866	97.64%	98.17%	98.53%	98.59%	96.77%
SIA/B77W	457	98.10%	98.22%	98.92%	98.73%	98.14%

Table 4E: Mumbai FIR CPDLC Performance Latency per Aircraft Operator/Type – Jan-Jun 2025

FIR	Mumbai FIR					
Criteria	RCP240					
Period	Jan - Jun 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < = 180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT %<60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
AFR/B772	103	98.60%	98.08%	98.89%	98.39%	99.84%
AIC/A20N	110	97.69%	96.87%	98.99%	97.62%	96.46%
CTV/A339	213	97.97%	97.31%	98.51%	98.42%	98.53%
ETD/A21N	593	96.80%	97.94%	98.35%	98.97%	94.18%
ETD/A321	1622	96.47%	98.30%	98.34%	98.84%	92.73%
ETH/B77W	328	98.08%	97.96%	98.76%	98.33%	99.57%
KAC/A20N	625	96.43%	97.28%	98.72%	98.69%	94.77%
QTR/A333	653	97.53%	99.13%	98.66%	99.85%	94.33%
SEY/A20N	184	96.01%	97.37%	96.59%	97.93%	92.61%

Table 4F: Mumbai FIR CPDLC Performance Latency per Aircraft Operator/Type – Jul-Dec 2025

FIR	Mumbai FIR					
Criteria	RCP240					
Period	Jul - Dec 2025					
Colour Key Meets Criteria 99.0%-99.89% Under Criteria	Message Counts	95% benchmark		99.9% Benchmark		95%
		ACP % < =180sec	ACTP % <= 120sec	ACP % < = 210sec	ACTP % <= 150sec	PORT <60secs
By Aircraft Operator / Type (only message counts >100 recorded)						
ADY/A320	172	92.87%	92.85%	93.29%	93.24%	94.82%
ETD/A320	1185	98.14%	99.24%	98.99%	99.60%	93.50%
FDX/B77L	465	98.02%	98.29%	98.58%	98.71%	95.48%
GFA/A21N	577	97.75%	97.32%	98.56%	98.51%	96.71%

2.17 **Table 4A-4F** outlines overall RCP240 CPDLC performance per Aircraft Operator/Type for downlinks sent within the Chennai, Kolkata and Mumbai FIRs respectively during 2025. The RCP 240 CPDLC performance by Operator/ Type almost meet the 95% requirement except TGW/A20N (Chennai Jul-Dec), MAS/B38M (Kolkata Jan-Jun; Jul-Dec) and ADY/A320 (Mumbai Jul-Dec).In Chennai FIR, TGW/A21N (Jan-Jul), TGW/A20N (Jul-Dec) and CFG/A339 (Jul-Dec), In Kolkata FIR, Jan-Jul, MAS/B38M QTR/B77W , In Jul -Dec BAW/B77W, MAS/B38M, QTR/B77W, SIA/B77W and In Mumbai FIR in Jan-Jul, AFR/B772, AIC/A20N, CTV/A339, ETD/A21N, ETD/A321, ETH/B77W, KAC/A20N, QTR/A333 and SEY/A20N, In Jul-Dec ADY/A320, FDX/B77l and GFA/A21N failed to meet the 99.9% criteria.

2.18 The aircraft captured with low performance may be due to connectivity (CSP/SSP0 or transition between SATCOM and VHF) and improper transfer of control from one FIR to another FIR via datalink.

2.19 The above issues will be carried through CSP (SITA), State Regulatory Directorate of General Civil Aviation (DGCA) and CRA to rectify performance not meeting RCP 240 criteria.

2.20 ANSP is closely monitoring the RCP 240 CPDLC performance per aircraft Operator/ Type to take action to rectify poor performance.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper; and

b) discuss any relevant matters as appropriate.

— END —