APPENDIX – E

Performance of ADS-C/CPDLC systems in ASECNA Area _2017

1   Global FANS Datalink traffic: Below are presented the results compiled in 2017:

Centers	ASA Aircom Service Availability		USR Uplink Success Rate= 1		UDT Uplink messages Delivery Time	
	VHF Service via DHP	Satellite Service via DHP	VHF Service	Satellite Service	FANS (< 120s)	FANS (< 360s)
Abidjan	97.37%	100.0%	100.0%	100.0%	98.58%	99.84%
Dakar	95.56%	100.0%	100.0%	99.98%	99.33%	99.96%
Nouakchott	NA	100.0%	100.0%	100.0%	99.42%	100.0%

2   FANS Reliability performance

FANS Services	AFN (Log-on)			CPDLC			ADS			TOTAL		
Success / Reject Rate	2017	Last 3 Months	Last 12 Months	2017	Last 3 Months	Last 12 Months	2017	Last 3 Months	Last 12 Months	2017	Last 3 Months	Last 12 Months
Messages Delivered	99.26%	99.08%	99.33%	99.45%	99.32%	99.52%	99.66%	99.55%	99.60%	99.54%	99.42%	99.54%
No Ack + NAK	0.01%	0.16%	0.06%	0.04%	0.10%	0.04%	0.01%	0.07%	0.03%	0.02%	0.09%	0.04%
No Ack	0.01%	0.16%	0.06%	0.04%	0.10%	0.04%	0.01%	0.07%	0.03%	0.02%	0.09%	0.04%
NAK	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
No Station To	0.00%	0.02%	0.03%	0.01%	0.02%	0.02%	0.01%	0.01%	0.02%	0.01%	0.01%	0.02%
Not Logged On	0.47%	0.46%	0.33%	0.37%	0.38%	0.24%	0.17%	0.21%	0.19%	0.28%	0.30%	0.22%
Message Too Old	0.02%	0.03%	0.02%	0.00%	0.01%	0.01%	0.00%	0.02%	0.01%	0.01%	0.02%	0.01%
Other SITA Rejects	0.04%	0.10%	0.07%	0.01%	0.07%	0.04%	0.00%	0.04%	0.03%	0.01%	0.06%	0.04%
Internetworking Rejects	0.19%	0.15%	0.17%	0.12%	0.11%	0.13%	0.14%	0.11%	0.12%	0.14%	0.11%	0.13%

3. AIRCOM FANS service availability

Service Availability	# of outages	Shortest Duration	Average Duration	Longest Duration	Total Duration	Availability	3-month average	12-month average
VHF FANS AIRCOM Processor Availability	0	0	0	0	0	100.00%	100.00%	100.00%
Satellite FANS AIRCOM Processor Availability	0	0	0	0	0	100.00%	100.00%	100.00%
VHF Access Network Availability						99.56%	97.77%	92.62%
Satellite Access Network Availability						100.00%	99.95%	99.97%
VHF FANS Service Availability						99.56%	97.77%	92.62%
Satellite FANS Service Availability						100.00%	99.95%	99.97%

4   FANS service performance (VHF+SAT)

Uplink Message Delivery Time	10 s	20 s	30 s	40 s	50 s	60 s	100 s	120 s	180 s	360 s	>360 s
ATS Provider	66.13%	86.46%	92.14%	94.39%	95.92%	96.74%	99.04%	99.33%	99.77%	99.96%	100.00%
AFN (Log-on)	72.62%	91.16%	95.13%	96.07%	97.14%	97.57%	99.53%	99.70%	99.84%	99.96%	100.00%
CPDLC	72.20%	88.98%	93.25%	94.77%	95.75%	96.26%	99.12%	99.44%	99.82%	99.94%	100.00%
ADS	60.98%	83.92%	90.85%	93.81%	95.79%	96.88%	98.89%	99.17%	99.73%	99.98%	100.00%

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Downlink Message Delivery Time	10 s	20 s	30 s	40 s	50 s	60 s	100 s	120 s	180 s	360 s	>360 s
ATS Provider	40.61%	75.25%	87.45%	92.10%	94.45%	95.93%	98.24%	98.64%	99.10%	99.75%	100.00%
AFN (Log-on)	35.11%	69.03%	85.54%	93.31%	95.79%	96.65%	98.33%	98.80%	99.17%	99.82%	100.00%
CPDLC	47.31%	81.53%	90.11%	93.59%	95.55%	96.82%	98.55%	98.86%	99.19%	99.76%	100.00%
ADS	38.53%	73.50%	86.58%	91.19%	93.70%	95.39%	98.08%	98.50%	99.04%	99.74%	100.00%

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Area Control Center	State of implementation of CPDLC	Ground traffic in messages (Uplink and Downlink)	Percentage of message delivered (reliability)	Percentage of messages rejected		FANS service availability 12 month average		Percentage of Traffic by media
				Procedural error	by Co-DSP	Service	Availability	
Dakar	Operational since 2008	35.776	99,84%	0,04%	0,12%	via VHF	96,93%	10,04%
						via satellite	100%	65,61%
						via co-DSP	100%	24,35%
Abidjan	Operational since 2009	4.327 6811	99,66%	0.20%	0.10%	via VHF	89,87%	10,93%
						via satellite	100%	60,07%
						via co-DSP	100%	29,00%