



Agenda Item 4: SAT Air Traffic statistics

RCP/RSP TRIALS IN EUR/SAM CORRIDOR

(Prepared by SATMA)

SUMMARY

This working paper presents RSP and RCP Trials performed in EUR/SAM Corridor.

1. Background

1.1 ICAO Doc. 9869 Performance-based Communication and Surveillance Manual offers the reader guidance on the establishment of a PBCS monitoring program, with detailed guidance in Appendix D for compilation and handling of the data to support monitoring. It determines that for continued operations, the ANSP establishes a local monitoring program to collect and analyze operational data, ensuring that the infrastructure and the aircraft operators within its airspace continue to meet the appropriate RCP and RSP specifications. A regional monitoring program may also be established to analyze performance at the regional level.

1.2 In the scope of RMACG (Regional Monitoring Agencies Coordination Group), the Regional PBCS Monitoring Program has been assigned to existing RMAs.

1.3 To determine compliance in the applicable airspace, the State should obtain a sufficient sample from the applicable airspace of the actual communication performance (ACP) of relevant communication transactions and actual surveillance performance (ASP) of surveillance data delivery measured against RCP/RSP time values.

1.4 EUR/SAM Corridor States, via ESCIT group, are studying the best approach to achieve a reduction of the longitudinal separation minima. One of the proposed options is to follow a PBCS implementation, ensuring RSP180 and RCP240 requisites in the area.

1.5 In that line, it has been concluded (in RMACG group) that already nominated RMAs are to be responsible of the monitoring of PBCS (RCP240 and RSP180) once PBCS is implemented. That will require an RMA monitoring plan for RSP180 and RCP240, and the first step is validate ATC Systems (PBCS local programs) to ensure they may measure properly CPDLC and ADS-C message delays.

2. Analysis

2.1 To determine ground systems capabilities, and amendments to be incorporated in case, a trial was agreed between EUR/SAM states. Both CPDLC (RCP240) and ADS-C (RSP180) messages delays would be measured in a time window, comparing results with required time. **See Appendices A, B, C.**

2.2 Although formal results have not been put in together for a global conclusion, it was concluded that all ground systems in EUR/SAM Corridor comply with TSP/RCP requisites.

CPDLC TRIALS

DATA SOURCE (FIR)	REGISTRATION	CPDL-C Transactions counts	95% RCP 240 benchmark ACP <=180 sec	99% RCP 240 benchmark ACP <=210 sec
Canarias FIR	All	5.283	98,96%	99,50%

ADS-C TRIALS

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	All Airframes	32759	98,86%	99,67%

3. Conclusion

3.1 EUR/SAM Corridor States establishes a procedure to send PBCS monitoring data to SATMA periodically, once PBCS is implemented, as part of the Regional Monitoring PBCS program for the Corridor.

4. Action by the Meeting

4.1 The meeting is invited to:

- a) note the information provided; and
- b) take action as required

APPENDIX A

INTERNAL EUR/SAM CORRIDOR TRIAL FOR RCP180/RCP240 AIC FOR CPDLC LATENCY MONITORING FUNCTION IN EUR-SAM CORRIDOR AIRSPACE

I. INTRODUCTION

I.1. The EUR-SAM corridor is willing to implement reduction of lateral and longitudinal separation minima based on Performance Based Communication and Surveillance (PBCS) specifications RCP240 and RSP 180 as required by ICAO in DOC 4444.

I.2. Prior to implement this concept in EUR-SAM corridor some tests of CPDLC latency monitoring function will be applied.

I.3. This AIC provides guidance to Aircraft Operators and pilots on how to react during the period of trial tests.

II. PURPOSE

II.1. The purpose of this trial is to calculate the CPDLC UPLINK MESSAGE VALUE on the ATM ground system.

II.2. When aircraft log on the first time with one of [ACC] in EUR-SAM, he will receive this free text message sent by ATC: « RCP 240 TRIALS PLEASE ANSWER ROGER ».

II.3. in this case, it has therefore been decided among the EUR SAM CORRIDOR ACC to uplink this message to all CPDLC connected aircraft immediately after they enter each control area.

III. PILOT PROCEDURES

III.1. Pilots shall be familiar with aircraft functionality that concerns the CPDLC uplink message latency monitor.

III.2 When the pilot receives the uplink CPDLC message “RCP 240 TRIALS PLEASE ANSWER ROGER”, he shall send a positive response to ATC as prompted by the avionics (ROGER).

IV. PLANNED IMPLEMENTATION DATE

IV.1. Implementation of this TRIAL PROCEDURE is planned to start in the whole EUR-SAM CORRIDOR **on 1st March 2020.**

APPENDIX B**DOWNLINK ADS MESSAGES LATENCY****SAT/ESCIT GROUP****PROJECT: EURSAM CORRIDOR PBCS IMPLEMENTATION (TRIALS)****DATA SOURCE : CANARIAS FIR (1-31 MARCH 2020)****TRIAL: DOWNLINK ADS MESSAGES LATENCY**

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	10186A	21	100,00%	100,00%
Canarias FIR	10188A	69	95,43%	96,91%
Canarias FIR	10196A	47	100,00%	100,00%
Canarias FIR	33125A	17	100,00%	100,00%
Canarias FIR	44137A	16	100,00%	100,00%
Canarias FIR	4XEDI	66	100,00%	100,00%
Canarias FIR	4XEDJ	20	97,26%	100,00%
Canarias FIR	4XEDK	10	100,00%	100,00%
Canarias FIR	4XEDL	58	100,00%	100,00%
Canarias FIR	5YKZA	11	100,00%	100,00%
Canarias FIR	5YKZH	15	97,88%	100,00%
Canarias FIR	6VANB	37	100,00%	100,00%
Canarias FIR	77701A	14	100,00%	100,00%
Canarias FIR	9HSOI	4	100,00%	100,00%
Canarias FIR	9HSOL	35	100,00%	100,00%
Canarias FIR	9HSZN	697	96,56%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	9HTOO	16	100,00%	100,00%
Canarias FIR	9HVJT	18	100,00%	100,00%
Canarias FIR	A7BFA	20	100,00%	100,00%
Canarias FIR	A7BFE	8	100,00%	100,00%
Canarias FIR	A7BFG	16	100,00%	100,00%
Canarias FIR	A7BFL	17	100,00%	100,00%
Canarias FIR	A7BFQ	7	100,00%	100,00%
Canarias FIR	A7BFS	14	100,00%	100,00%
Canarias FIR	B1138	45	100,00%	100,00%
Canarias FIR	B1368	28	100,00%	100,00%
Canarias FIR	B1431	24	94,56%	98,26%
Canarias FIR	B1466	23	100,00%	100,00%
Canarias FIR	B1467	17	100,00%	100,00%
Canarias FIR	B1591	21	100,00%	100,00%
Canarias FIR	B7832	29	100,00%	100,00%
Canarias FIR	B7879	28	100,00%	100,00%
Canarias FIR	CCBBA	15	95,47%	99,25%
Canarias FIR	CCBBE	269	99,45%	100,00%
Canarias FIR	CCBBG	49	100,00%	100,00%
Canarias FIR	CCBBI	40	99,36%	100,00%
Canarias FIR	CCBGA	8	100,00%	100,00%
Canarias FIR	CCBGC	8	100,00%	100,00%
Canarias FIR	CCBGE	23	100,00%	100,00%
Canarias FIR	CCBGF	16	100,00%	100,00%
Canarias FIR	CCBGG	91	99,08%	100,00%
Canarias FIR	CCBGH	13	100,00%	100,00%
Canarias FIR	CCBGK	13	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	CCBGL	14	93,41%	100,00%
Canarias FIR	CCBGM	9	100,00%	100,00%
Canarias FIR	CCBGO	23	100,00%	100,00%
Canarias FIR	CH07	204	96,68%	99,66%
Canarias FIR	CNGMT	11	100,00%	100,00%
Canarias FIR	CNRAM	7	100,00%	100,00%
Canarias FIR	CNRGC	19	100,00%	100,00%
Canarias FIR	CNRGT	9	100,00%	100,00%
Canarias FIR	CNRGU	7	100,00%	100,00%
Canarias FIR	CSGLC	8	84,58%	100,00%
Canarias FIR	CSGLF	9	100,00%	100,00%
Canarias FIR	CSTJJ	18	97,72%	100,00%
Canarias FIR	CSTJK	80	97,92%	100,00%
Canarias FIR	CSTJL	38	99,45%	100,00%
Canarias FIR	CSTJO	43	99,50%	100,00%
Canarias FIR	CSTJP	95	98,89%	100,00%
Canarias FIR	CSTJQ	14	100,00%	100,00%
Canarias FIR	CSTOL	175	100,00%	100,00%
Canarias FIR	CSTON	158	99,85%	100,00%
Canarias FIR	CSTOO	20	100,00%	100,00%
Canarias FIR	CSTOP	37	100,00%	100,00%
Canarias FIR	CSTOR	135	99,87%	100,00%
Canarias FIR	CSTRJ	176	100,00%	100,00%
Canarias FIR	CSTSH	33	99,27%	100,00%
Canarias FIR	CSTUA	116	100,00%	100,00%
Canarias FIR	CSTUB	110	100,00%	100,00%
Canarias FIR	CSTUC	140	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	CSTUD	106	100,00%	100,00%
Canarias FIR	CSTUE	66	100,00%	100,00%
Canarias FIR	CSTUF	65	100,00%	100,00%
Canarias FIR	CSTUG	98	100,00%	100,00%
Canarias FIR	CSTUH	133	100,00%	100,00%
Canarias FIR	CSTUI	28	100,00%	100,00%
Canarias FIR	CSTUJ	231	100,00%	100,00%
Canarias FIR	CSTUK	161	100,00%	100,00%
Canarias FIR	CSTUL	148	100,00%	100,00%
Canarias FIR	CSTUM	121	100,00%	100,00%
Canarias FIR	CSTUN	107	100,00%	100,00%
Canarias FIR	CSTUO	224	93,98%	95,34%
Canarias FIR	CSTUP	18	100,00%	100,00%
Canarias FIR	CSTUQ	135	99,30%	99,56%
Canarias FIR	CSTUR	149	100,00%	100,00%
Canarias FIR	CSTUS	117	100,00%	100,00%
Canarias FIR	CSTVA	80	100,00%	100,00%
Canarias FIR	CSTVB	190	99,31%	100,00%
Canarias FIR	CSTVC	21	97,62%	100,00%
Canarias FIR	CSTVD	117	97,54%	100,00%
Canarias FIR	CSTVE	79	98,74%	99,40%
Canarias FIR	CSTVF	182	99,00%	100,00%
Canarias FIR	CSTVG	63	100,00%	100,00%
Canarias FIR	CSTXA	70	99,82%	100,00%
Canarias FIR	CSTXB	160	98,75%	99,92%
Canarias FIR	CSTXC	92	98,95%	99,87%
Canarias FIR	CSTXD	7	93,04%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	DABTK	44	99,77%	100,00%
Canarias FIR	DABUC	12	100,00%	100,00%
Canarias FIR	DABUK	7	100,00%	100,00%
Canarias FIR	DABVM	26	100,00%	100,00%
Canarias FIR	DABVP	32	93,36%	96,16%
Canarias FIR	DABVR	10	100,00%	100,00%
Canarias FIR	DABVU	8	95,95%	100,00%
Canarias FIR	DABVX	20	100,00%	100,00%
Canarias FIR	DABVZ	8	100,00%	100,00%
Canarias FIR	DABYC	38	100,00%	100,00%
Canarias FIR	DABYF	23	95,50%	100,00%
Canarias FIR	DABYG	9	100,00%	100,00%
Canarias FIR	DABYK	17	100,00%	100,00%
Canarias FIR	DABYL	55	97,17%	100,00%
Canarias FIR	DABYM	17	99,64%	100,00%
Canarias FIR	DABYN	7	100,00%	100,00%
Canarias FIR	DABYO	4	80,95%	98,81%
Canarias FIR	DABYP	30	100,00%	100,00%
Canarias FIR	DABYR	38	94,30%	100,00%
Canarias FIR	DABYS	25	100,00%	100,00%
Canarias FIR	DABYT	67	98,79%	100,00%
Canarias FIR	DABYU	45	100,00%	100,00%
Canarias FIR	DAFAA	149	97,84%	100,00%
Canarias FIR	DAGJP	10	100,00%	100,00%
Canarias FIR	DAIXE	61	100,00%	100,00%
Canarias FIR	DAIXF	17	100,00%	100,00%
Canarias FIR	DAIXI	14	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	DAIXL	24	100,00%	100,00%
Canarias FIR	DALCB	13	94,65%	97,33%
Canarias FIR	DALCC	9	100,00%	100,00%
Canarias FIR	DASIM	20	100,00%	100,00%
Canarias FIR	DAUWE	16	100,00%	100,00%
Canarias FIR	DAXTM	27	100,00%	100,00%
Canarias FIR	DAZUR	16	100,00%	100,00%
Canarias FIR	ECIOB	30	100,00%	100,00%
Canarias FIR	ECIQR	32	100,00%	100,00%
Canarias FIR	ECIZX	113	99,02%	100,00%
Canarias FIR	ECIZY	43	100,00%	100,00%
Canarias FIR	ECJBA	53	100,00%	100,00%
Canarias FIR	ECJFX	13	100,00%	100,00%
Canarias FIR	ECJLE	44	100,00%	100,00%
Canarias FIR	ECJNQ	62	100,00%	100,00%
Canarias FIR	ECJPU	49	100,00%	100,00%
Canarias FIR	ECJZL	96	100,00%	100,00%
Canarias FIR	ECKBR	11	95,77%	100,00%
Canarias FIR	ECKOM	52	94,30%	96,16%
Canarias FIR	ECKZI	8	100,00%	100,00%
Canarias FIR	ECLCZ	105	100,00%	100,00%
Canarias FIR	ECLEU	36	100,00%	100,00%
Canarias FIR	ECLEV	104	100,00%	100,00%
Canarias FIR	ECLGV	25	93,70%	97,47%
Canarias FIR	ECLQO	108	100,00%	100,00%
Canarias FIR	ECLQP	59	100,00%	100,00%
Canarias FIR	ECLUK	31	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	ECLVL	27	100,00%	100,00%
Canarias FIR	ECLZJ	27	100,00%	100,00%
Canarias FIR	ECMDS	44	95,63%	95,98%
Canarias FIR	ECMHL	212	100,00%	100,00%
Canarias FIR	ECMIG	35	96,65%	100,00%
Canarias FIR	ECMIH	57	99,87%	100,00%
Canarias FIR	ECMIL	55	100,00%	100,00%
Canarias FIR	ECMJA	78	100,00%	100,00%
Canarias FIR	ECMJT	14	100,00%	100,00%
Canarias FIR	ECMKH	16	100,00%	100,00%
Canarias FIR	ECMKI	11	100,00%	100,00%
Canarias FIR	ECMKJ	50	100,00%	100,00%
Canarias FIR	ECMLB	51	100,00%	100,00%
Canarias FIR	ECMLP	66	100,00%	100,00%
Canarias FIR	ECMMG	46	100,00%	100,00%
Canarias FIR	ECMMX	78	99,54%	100,00%
Canarias FIR	ECMMY	7	100,00%	100,00%
Canarias FIR	ECMNK	69	100,00%	100,00%
Canarias FIR	ECMNL	124	100,00%	100,00%
Canarias FIR	ECMNS	31	99,71%	100,00%
Canarias FIR	ECMOM	41	94,37%	98,11%
Canarias FIR	ECMOU	170	100,00%	100,00%
Canarias FIR	ECMOY	118	99,91%	100,00%
Canarias FIR	ECMPE	32	98,97%	100,00%
Canarias FIR	ECMQK	47	96,94%	98,30%
Canarias FIR	ECMRL	22	98,40%	100,00%
Canarias FIR	ECMRR	12	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	ECMSY	20	100,00%	100,00%
Canarias FIR	ECMTI	21	95,84%	96,89%
Canarias FIR	ECMUA	22	100,00%	100,00%
Canarias FIR	ECMUD	29	100,00%	100,00%
Canarias FIR	ECMXV	121	100,00%	100,00%
Canarias FIR	ECMYA	89	100,00%	100,00%
Canarias FIR	ECMYX	103	100,00%	100,00%
Canarias FIR	ECNBE	140	100,00%	100,00%
Canarias FIR	ECNBM	8	96,10%	100,00%
Canarias FIR	ECNBP	62	97,39%	98,36%
Canarias FIR	ECNBU	24	100,00%	100,00%
Canarias FIR	ECNBX	6	95,56%	100,00%
Canarias FIR	ECNCX	105	100,00%	100,00%
Canarias FIR	ECNCY	182	98,72%	100,00%
Canarias FIR	ECNDR	72	100,00%	100,00%
Canarias FIR	ECNEI	307	98,60%	100,00%
Canarias FIR	ECNEN	107	100,00%	100,00%
Canarias FIR	ECNEZ	23	100,00%	100,00%
Canarias FIR	ECNFA	112	96,95%	97,59%
Canarias FIR	ECNFM	140	100,00%	100,00%
Canarias FIR	ECNFP	31	100,00%	100,00%
Canarias FIR	ECNGM	148	98,06%	99,81%
Canarias FIR	ECNGT	170	100,00%	100,00%
Canarias FIR	ECNHA	43	82,36%	88,98%
Canarias FIR	EIDBL	29	100,00%	100,00%
Canarias FIR	EIDDH	9	100,00%	100,00%
Canarias FIR	EIGJS	156	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	EIGSI	115	91,07%	100,00%
Canarias FIR	EIGXL	213	96,00%	97,44%
Canarias FIR	EISB	10	100,00%	100,00%
Canarias FIR	EISD	6	100,00%	100,00%
Canarias FIR	EISO	8	100,00%	100,00%
Canarias FIR	EINEO	19	100,00%	100,00%
Canarias FIR	EINEW	57	98,81%	99,62%
Canarias FIR	EIWLA	6	100,00%	100,00%
Canarias FIR	ETANN	10	100,00%	100,00%
Canarias FIR	ETAOQ	21	100,00%	100,00%
Canarias FIR	ETAOR	6	100,00%	100,00%
Canarias FIR	ETAOS	14	100,00%	100,00%
Canarias FIR	ETAOT	23	100,00%	100,00%
Canarias FIR	ETAOU	6	100,00%	100,00%
Canarias FIR	ETARF	15	100,00%	100,00%
Canarias FIR	ETASG	15	96,43%	100,00%
Canarias FIR	ETASH	7	100,00%	100,00%
Canarias FIR	FGLZK	10	100,00%	100,00%
Canarias FIR	FGSPA	28	100,00%	100,00%
Canarias FIR	FGSPB	26	100,00%	100,00%
Canarias FIR	FGSPC	15	96,19%	100,00%
Canarias FIR	FGSPD	10	100,00%	100,00%
Canarias FIR	FGSPE	26	100,00%	100,00%
Canarias FIR	FGSPF	24	100,00%	100,00%
Canarias FIR	FGSPG	55	99,29%	100,00%
Canarias FIR	FGSPI	11	100,00%	100,00%
Canarias FIR	FGSPJ	50	99,85%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	FGSPK	22	100,00%	100,00%
Canarias FIR	FGSPL	69	100,00%	100,00%
Canarias FIR	FGSPN	48	100,00%	100,00%
Canarias FIR	FGSPP	113	100,00%	100,00%
Canarias FIR	FGSPQ	33	100,00%	100,00%
Canarias FIR	FGSPR	43	100,00%	100,00%
Canarias FIR	FGSPS	41	100,00%	100,00%
Canarias FIR	FGSPT	27	100,00%	100,00%
Canarias FIR	FGSPU	39	100,00%	100,00%
Canarias FIR	FGSPX	21	100,00%	100,00%
Canarias FIR	FGSPY	47	100,00%	100,00%
Canarias FIR	FGSPZ	19	100,00%	100,00%
Canarias FIR	FGSQA	27	100,00%	100,00%
Canarias FIR	FGSQB	15	100,00%	100,00%
Canarias FIR	FGSQC	10	100,00%	100,00%
Canarias FIR	FGSQD	51	95,94%	100,00%
Canarias FIR	FGSQE	17	100,00%	100,00%
Canarias FIR	FGSQG	4	100,00%	100,00%
Canarias FIR	FGSQH	37	100,00%	100,00%
Canarias FIR	FGSQI	26	99,47%	100,00%
Canarias FIR	FGSQJ	28	100,00%	100,00%
Canarias FIR	FGSQL	45	96,00%	100,00%
Canarias FIR	FGSQU	5	100,00%	100,00%
Canarias FIR	FGSQY	26	100,00%	100,00%
Canarias FIR	FGZNB	40	99,56%	100,00%
Canarias FIR	FGZNC	19	100,00%	100,00%
Canarias FIR	FGZNE	7	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	FGZNH	99	97,24%	98,34%
Canarias FIR	FGZNI	45	100,00%	100,00%
Canarias FIR	FGZNJ	18	100,00%	100,00%
Canarias FIR	FGZNK	30	100,00%	100,00%
Canarias FIR	FGZNP	56	100,00%	100,00%
Canarias FIR	FGZNQ	49	98,08%	99,25%
Canarias FIR	FGZNR	79	100,00%	100,00%
Canarias FIR	FGZNS	66	100,00%	100,00%
Canarias FIR	FGZNT	46	100,00%	100,00%
Canarias FIR	FGZNU	46	100,00%	100,00%
Canarias FIR	FHRBB	24	100,00%	100,00%
Canarias FIR	FHRBC	29	100,00%	100,00%
Canarias FIR	FHRBD	7	100,00%	100,00%
Canarias FIR	FHRBE	7	100,00%	100,00%
Canarias FIR	FHRBF	49	100,00%	100,00%
Canarias FIR	FHRBG	9	100,00%	100,00%
Canarias FIR	FHRBH	35	100,00%	100,00%
Canarias FIR	FHRBI	30	100,00%	100,00%
Canarias FIR	FHTTL	13	100,00%	100,00%
Canarias FIR	FHXRG	56	95,91%	100,00%
Canarias FIR	FUJCG	37	100,00%	100,00%
Canarias FIR	GCKOF	17	100,00%	100,00%
Canarias FIR	GCKOG	5	100,00%	100,00%
Canarias FIR	GCKWB	35	100,00%	100,00%
Canarias FIR	GCKWC	18	100,00%	100,00%
Canarias FIR	GCKWE	24	100,00%	100,00%
Canarias FIR	GCKWF	6	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	GCKWN	28	100,00%	100,00%
Canarias FIR	GCKWP	6	100,00%	100,00%
Canarias FIR	GCKWS	11	100,00%	100,00%
Canarias FIR	GCKWT	37	100,00%	100,00%
Canarias FIR	GCKWU	28	97,62%	100,00%
Canarias FIR	GOBYG	149	90,86%	94,76%
Canarias FIR	GOBYH	927	96,07%	98,92%
Canarias FIR	GOOBC	73	98,74%	99,27%
Canarias FIR	GOOBD	43	100,00%	100,00%
Canarias FIR	GOOBE	436	99,61%	100,00%
Canarias FIR	GOOBF	405	99,76%	99,77%
Canarias FIR	GPOWK	20	100,00%	100,00%
Canarias FIR	GSTBC	11	92,56%	100,00%
Canarias FIR	GSTBD	110	99,04%	100,00%
Canarias FIR	GSTBE	8	100,00%	100,00%
Canarias FIR	GSTBH	184	99,56%	100,00%
Canarias FIR	GSTBJ	5	100,00%	100,00%
Canarias FIR	GSTBK	8	100,00%	100,00%
Canarias FIR	GSTBL	102	100,00%	100,00%
Canarias FIR	GTUIL	18	99,24%	100,00%
Canarias FIR	GTUIM	45	100,00%	100,00%
Canarias FIR	GTUIO	25	100,00%	100,00%
Canarias FIR	GUZHW	165	100,00%	100,00%
Canarias FIR	GUZHX	91	97,01%	100,00%
Canarias FIR	GUZHY	239	99,78%	100,00%
Canarias FIR	GUZHZ	575	100,00%	100,00%
Canarias FIR	GUZLA	69	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	GUZLB	264	97,10%	98,51%
Canarias FIR	GUZLD	255	100,00%	100,00%
Canarias FIR	GUZLF	198	95,82%	97,04%
Canarias FIR	GUZLG	39	100,00%	100,00%
Canarias FIR	GUZLH	234	100,00%	100,00%
Canarias FIR	GUZLI	158	100,00%	100,00%
Canarias FIR	GUZLJ	363	99,50%	99,65%
Canarias FIR	GVGEM	10	86,84%	100,00%
Canarias FIR	GVIV	159	98,86%	100,00%
Canarias FIR	GVYGJ	114	100,00%	100,00%
Canarias FIR	GVYGK	16	100,00%	100,00%
Canarias FIR	GVYGL	1116	100,00%	100,00%
Canarias FIR	GVYGM	54	100,00%	100,00%
Canarias FIR	GWUKJ	240	100,00%	100,00%
Canarias FIR	GWUKK	52	100,00%	100,00%
Canarias FIR	GWUKL	36	98,51%	100,00%
Canarias FIR	GYMMA	8	100,00%	100,00%
Canarias FIR	GYMMR	11	100,00%	100,00%
Canarias FIR	GYMMS	19	100,00%	100,00%
Canarias FIR	GYMMT	10	100,00%	100,00%
Canarias FIR	GYMMU	7	100,00%	100,00%
Canarias FIR	GZBJA	86	100,00%	100,00%
Canarias FIR	GZBJE	23	100,00%	100,00%
Canarias FIR	GZBJF	4	100,00%	100,00%
Canarias FIR	GZBJI	26	100,00%	100,00%
Canarias FIR	GZBJJ	6	100,00%	100,00%
Canarias FIR	GZBJK	18	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	GZBJM	14	100,00%	100,00%
Canarias FIR	GZBKC	5	100,00%	100,00%
Canarias FIR	GZBKR	7	100,00%	100,00%
Canarias FIR	HALTI	34	100,00%	100,00%
Canarias FIR	HBJHR	17	100,00%	100,00%
Canarias FIR	HBJLC	33	100,00%	100,00%
Canarias FIR	HBJMD	7	100,00%	100,00%
Canarias FIR	HBJME	17	100,00%	100,00%
Canarias FIR	HBJMF	7	100,00%	100,00%
Canarias FIR	HBJMG	10	100,00%	100,00%
Canarias FIR	HBJNA	5	100,00%	100,00%
Canarias FIR	HBJNC	5	100,00%	100,00%
Canarias FIR	HBJND	9	100,00%	100,00%
Canarias FIR	HBJNH	9	100,00%	100,00%
Canarias FIR	HBJNI	10	100,00%	100,00%
Canarias FIR	HBJNJ	18	100,00%	100,00%
Canarias FIR	HBJNL	7	100,00%	100,00%
Canarias FIR	HBJSS	39	99,43%	100,00%
Canarias FIR	HBJWB	23	100,00%	100,00%
Canarias FIR	HBJWC	102	100,00%	100,00%
Canarias FIR	HZAK45	46	100,00%	100,00%
Canarias FIR	INDMJ	60	98,99%	100,00%
Canarias FIR	LNAXX	49	96,94%	100,00%
Canarias FIR	LVFVH	214	100,00%	100,00%
Canarias FIR	LVFVI	121	99,61%	100,00%
Canarias FIR	LVGIF	94	100,00%	100,00%
Canarias FIR	LVGKO	26	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	LVGKP	31	100,00%	100,00%
Canarias FIR	LVIRQ	45	99,19%	100,00%
Canarias FIR	LXKCL	30	100,00%	100,00%
Canarias FIR	LXLCL	12	100,00%	100,00%
Canarias FIR	LXMCL	23	100,00%	100,00%
Canarias FIR	LXVCF	13	100,00%	100,00%
Canarias FIR	N1201P	55	100,00%	100,00%
Canarias FIR	N1602	13	100,00%	100,00%
Canarias FIR	N1604R	13	100,00%	100,00%
Canarias FIR	N160QS	57	100,00%	100,00%
Canarias FIR	N171DZ	11	100,00%	100,00%
Canarias FIR	N174DZ	17	100,00%	100,00%
Canarias FIR	N207AX	8	100,00%	100,00%
Canarias FIR	N316VB	7	100,00%	100,00%
Canarias FIR	N343AR	10	91,07%	98,44%
Canarias FIR	N450FK	7	71,04%	100,00%
Canarias FIR	N532LA	140	99,92%	100,00%
Canarias FIR	N534LA	119	100,00%	100,00%
Canarias FIR	N536LA	67	98,28%	100,00%
Canarias FIR	N540LA	20	100,00%	100,00%
Canarias FIR	N550JU	22	98,55%	100,00%
Canarias FIR	N567CA	36	97,70%	98,70%
Canarias FIR	N588TN	30	99,31%	100,00%
Canarias FIR	N700PR	21	100,00%	100,00%
Canarias FIR	N705CK	11	100,00%	100,00%
Canarias FIR	N744C	18	100,00%	100,00%
Canarias FIR	N793AV	9	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	N856NW	21	100,00%	100,00%
Canarias FIR	N859NW	19	100,00%	100,00%
Canarias FIR	N860NW	5	100,00%	100,00%
Canarias FIR	N940TT	15	98,59%	100,00%
Canarias FIR	N952CA	111	98,92%	100,00%
Canarias FIR	OEISB	190	100,00%	100,00%
Canarias FIR	OEISC	48	100,00%	100,00%
Canarias FIR	OEISD	326	97,59%	100,00%
Canarias FIR	OEISN	39	100,00%	100,00%
Canarias FIR	OEISX	75	100,00%	100,00%
Canarias FIR	OELIO	7	100,00%	100,00%
Canarias FIR	OELPA	12	100,00%	100,00%
Canarias FIR	OELRR	47	99,06%	100,00%
Canarias FIR	OHLWI	79	100,00%	100,00%
Canarias FIR	OHLWP	20	100,00%	100,00%
Canarias FIR	OOABB	21	100,00%	100,00%
Canarias FIR	OODOB	14	100,00%	100,00%
Canarias FIR	OOJNL	14	100,00%	100,00%
Canarias FIR	OOSFB	8	100,00%	100,00%
Canarias FIR	OOSFE	119	100,00%	100,00%
Canarias FIR	OOSFG	33	100,00%	100,00%
Canarias FIR	OOSFH	26	100,00%	100,00%
Canarias FIR	OOSFP	25	100,00%	100,00%
Canarias FIR	OOSFX	15	100,00%	100,00%
Canarias FIR	OOSFZ	8	100,00%	100,00%
Canarias FIR	OYRCK	261	98,75%	99,05%
Canarias FIR	OYVKF	270	99,73%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	OYVKG	484	99,80%	99,95%
Canarias FIR	OYVKI	240	98,77%	99,13%
Canarias FIR	P4BFK	9	100,00%	100,00%
Canarias FIR	P4BFY	15	100,00%	100,00%
Canarias FIR	P4WWS	18	100,00%	100,00%
Canarias FIR	PHAOA	33	100,00%	100,00%
Canarias FIR	PHAOB	26	100,00%	100,00%
Canarias FIR	PHAOE	8	100,00%	100,00%
Canarias FIR	PHBHA	12	100,00%	100,00%
Canarias FIR	PHBHD	16	100,00%	100,00%
Canarias FIR	PHBHE	24	100,00%	100,00%
Canarias FIR	PHBHF	35	99,78%	100,00%
Canarias FIR	PHBHH	10	100,00%	100,00%
Canarias FIR	PHBHI	6	100,00%	100,00%
Canarias FIR	PHBHM	12	100,00%	100,00%
Canarias FIR	PHBQA	9	100,00%	100,00%
Canarias FIR	PHBQB	36	94,44%	100,00%
Canarias FIR	PHBQC	7	100,00%	100,00%
Canarias FIR	PHBQD	6	100,00%	100,00%
Canarias FIR	PHBQG	11	100,00%	100,00%
Canarias FIR	PHBQK	25	100,00%	100,00%
Canarias FIR	PHBQM	22	100,00%	100,00%
Canarias FIR	PHBQO	16	100,00%	100,00%
Canarias FIR	PHBQP	3	100,00%	100,00%
Canarias FIR	PHBVC	13	100,00%	100,00%
Canarias FIR	PHBVK	66	98,82%	100,00%
Canarias FIR	PHBVN	23	91,58%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	PHBVO	11	100,00%	100,00%
Canarias FIR	PHBVP	12	100,00%	100,00%
Canarias FIR	PHBVU	18	100,00%	100,00%
Canarias FIR	PHCKA	59	96,86%	100,00%
Canarias FIR	PHCKB	7	100,00%	100,00%
Canarias FIR	PHCKC	14	100,00%	100,00%
Canarias FIR	PHEBR	9	100,00%	100,00%
Canarias FIR	PHIWS	16	93,82%	94,07%
Canarias FIR	PHOYI	16	93,33%	100,00%
Canarias FIR	PPADZ	29	100,00%	100,00%
Canarias FIR	PPAUL	21	100,00%	100,00%
Canarias FIR	PPCFJ	10	100,00%	100,00%
Canarias FIR	PPDBS	11	100,00%	100,00%
Canarias FIR	PPIZB	7	100,00%	100,00%
Canarias FIR	PPLEG	20	100,00%	100,00%
Canarias FIR	PPLIV	25	100,00%	100,00%
Canarias FIR	PPOSM	16	99,16%	100,00%
Canarias FIR	PRAIS	11	100,00%	100,00%
Canarias FIR	PRAIV	7	100,00%	100,00%
Canarias FIR	PRAIY	9	100,00%	100,00%
Canarias FIR	PRANY	21	94,43%	95,63%
Canarias FIR	PRANZ	18	96,35%	100,00%
Canarias FIR	PRBBS	40	100,00%	100,00%
Canarias FIR	PRCBK	26	91,86%	100,00%
Canarias FIR	PRCBY	55	100,00%	100,00%
Canarias FIR	PRCSE	20	100,00%	100,00%
Canarias FIR	PRGFT	1	0,00%	0,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	PRNOC	17	100,00%	100,00%
Canarias FIR	PRPTG	8	90,21%	98,60%
Canarias FIR	PRRDD	21	100,00%	100,00%
Canarias FIR	PRXTA	214	99,53%	100,00%
Canarias FIR	PRXTB	211	99,72%	100,00%
Canarias FIR	PRXTC	67	100,00%	100,00%
Canarias FIR	PRXTD	199	100,00%	100,00%
Canarias FIR	PRXTE	173	98,83%	100,00%
Canarias FIR	PRXTH	208	100,00%	100,00%
Canarias FIR	PRXTI	173	100,00%	100,00%
Canarias FIR	PRXTM	329	100,00%	100,00%
Canarias FIR	PTMOA	32	100,00%	100,00%
Canarias FIR	PTMOB	61	99,50%	100,00%
Canarias FIR	PTMOC	148	98,65%	99,99%
Canarias FIR	PTMOD	68	100,00%	100,00%
Canarias FIR	PTMOE	194	99,61%	100,00%
Canarias FIR	PTMSO	131	99,15%	100,00%
Canarias FIR	PTMSS	131	99,14%	100,00%
Canarias FIR	PTMSV	58	100,00%	100,00%
Canarias FIR	PTMSW	191	97,96%	99,10%
Canarias FIR	PTMSX	161	99,79%	100,00%
Canarias FIR	PTMSY	253	100,00%	100,00%
Canarias FIR	PTMUA	123	98,46%	100,00%
Canarias FIR	PTMUB	151	100,00%	100,00%
Canarias FIR	PTMUC	106	99,36%	100,00%
Canarias FIR	PTMUD	91	100,00%	100,00%
Canarias FIR	PTMUE	72	100,00%	100,00%

DATA SOURCE (FIR)	REGISTRATION	ADS-C downlink Messages counts	95% RSP 180 benchmark ASP <=90 sec	99% RSP 180 benchmark ASP <=180 sec
Canarias FIR	PTMUG	73	100,00%	100,00%
Canarias FIR	PTMUI	50	96,46%	100,00%
Canarias FIR	PTMUJ	174	100,00%	100,00%
Canarias FIR	SERFR	253	96,15%	97,72%
Canarias FIR	SERMT	6	100,00%	100,00%
Canarias FIR	SPLSD	8	100,00%	100,00%
Canarias FIR	SPLSG	6	100,00%	100,00%
Canarias FIR	TCOEE	36	99,03%	100,00%
Canarias FIR	TFFIK	16	88,67%	100,00%
Canarias FIR	TFISS	76	83,85%	95,18%
Canarias FIR	TFLX	9	91,05%	95,79%
Canarias FIR	TSIFM	76	100,00%	100,00%
Canarias FIR	VPBLX	47	96,66%	98,29%
Canarias FIR	VPCUA	11	100,00%	100,00%
Canarias FIR	VQBHA	26	100,00%	100,00%
Canarias FIR	VQBMY	20	100,00%	100,00%
Canarias FIR	VQBNS	126	99,44%	100,00%
Canarias FIR	VQBPI	37	100,00%	100,00%
Canarias FIR	VQBPI	18	100,00%	100,00%
Canarias FIR	YLLCV	15	98,43%	100,00%

APPENDIX C

CPDLC MESSAGES LATENCY**SAT/ESCIT GROUP****PROJECT: EURSAM CORRIDOR PBCS IMPLEMENTATION (TRIALS)****DATA SOURCE : CANARIAS FIR (1-31 MARCH 2020)****TRIAL: CPDLC MESSAGES LATENCY answered with "ROGER" or "WILCO"**

DATA SOURCE (FIR)	REGISTRATION	CPDL-C Transactions counts	95% RCP 240 benchmark ACP <=180 sec	99% RCP 240 benchmark ACP <=210 sec
Canarias FIR	All	5.283	98,96%	99,50%
Canarias FIR	10186A	2	100,00%	100,00%
Canarias FIR	10188A	21	100,00%	100,00%
Canarias FIR	10196A	8	100,00%	100,00%
Canarias FIR	33125A	5	100,00%	100,00%
Canarias FIR	44137A	3	100,00%	100,00%
Canarias FIR	4XEDJ	8	100,00%	100,00%
Canarias FIR	4XEDK	2	100,00%	100,00%
Canarias FIR	4XEDL	2	100,00%	100,00%
Canarias FIR	5YKZA	6	100,00%	100,00%
Canarias FIR	5YKZH	6	91,35%	100,00%
Canarias FIR	6VANB	2	100,00%	100,00%
Canarias FIR	77701A	8	100,00%	100,00%
Canarias FIR	9HSOL	5	100,00%	100,00%
Canarias FIR	9HSZN	139	99,82%	100,00%
Canarias FIR	9HTOO	7	100,00%	100,00%
Canarias FIR	9HVJT	3	100,00%	100,00%
Canarias FIR	A7BFA	5	100,00%	100,00%
Canarias FIR	A7BFG	2	100,00%	100,00%
Canarias FIR	A7BFL	2	100,00%	100,00%

Canarias FIR	A7BFS	4	100,00%	100,00%
Canarias FIR	B1368	5	100,00%	100,00%
Canarias FIR	B1431	3	100,00%	100,00%
Canarias FIR	B1466	6	100,00%	100,00%
Canarias FIR	B1467	7	82,73%	100,00%
Canarias FIR	B1591	5	100,00%	100,00%
Canarias FIR	B7832	3	100,00%	100,00%
Canarias FIR	B7879	6	100,00%	100,00%
Canarias FIR	CCBBA	5	100,00%	100,00%
Canarias FIR	CCBBE	8	100,00%	100,00%
Canarias FIR	CCBBG	16	100,00%	100,00%
Canarias FIR	CCBBI	11	100,00%	100,00%
Canarias FIR	CCBGA	4	100,00%	100,00%
Canarias FIR	CCBGC	5	100,00%	100,00%
Canarias FIR	CCBGE	9	100,00%	100,00%
Canarias FIR	CCBGF	10	100,00%	100,00%
Canarias FIR	CCBGG	10	100,00%	100,00%
Canarias FIR	CCBGH	7	100,00%	100,00%
Canarias FIR	CCBGK	5	100,00%	100,00%
Canarias FIR	CCBGL	7	100,00%	100,00%
Canarias FIR	CCBGM	4	100,00%	100,00%
Canarias FIR	CCBGO	5	100,00%	100,00%
Canarias FIR	CH07	8	100,00%	100,00%
Canarias FIR	CNGMT	2	100,00%	100,00%
Canarias FIR	CNRAM	3	100,00%	100,00%
Canarias FIR	CNRGC	5	100,00%	100,00%
Canarias FIR	CNRGT	5	100,00%	100,00%
Canarias FIR	CNRGU	4	100,00%	100,00%
Canarias FIR	CSGLC	4	100,00%	100,00%
Canarias FIR	CSGLF	3	100,00%	100,00%

Canarias FIR	CSTJI	6	100,00%	100,00%
Canarias FIR	CSTJJ	9	95,66%	99,49%
Canarias FIR	CSTJK	17	96,11%	97,00%
Canarias FIR	CSTJL	19	94,66%	96,33%
Canarias FIR	CSTJM	5	100,00%	100,00%
Canarias FIR	CSTJO	12	100,00%	100,00%
Canarias FIR	CSTJP	23	100,00%	100,00%
Canarias FIR	CSTJQ	9	100,00%	100,00%
Canarias FIR	CSTOL	42	100,00%	100,00%
Canarias FIR	CSTON	40	100,00%	100,00%
Canarias FIR	CSTOO	4	100,00%	100,00%
Canarias FIR	CSTOP	8	100,00%	100,00%
Canarias FIR	CSTOR	40	94,61%	96,49%
Canarias FIR	CSTSH	3	100,00%	100,00%
Canarias FIR	CSTUA	27	100,00%	100,00%
Canarias FIR	CSTUB	31	100,00%	100,00%
Canarias FIR	CSTUC	30	100,00%	100,00%
Canarias FIR	CSTUD	35	100,00%	100,00%
Canarias FIR	CSTUE	14	100,00%	100,00%
Canarias FIR	CSTUF	16	98,09%	100,00%
Canarias FIR	CSTUG	18	100,00%	100,00%
Canarias FIR	CSTUH	30	100,00%	100,00%
Canarias FIR	CSTUI	12	95,22%	96,63%
Canarias FIR	CSTUJ	53	99,10%	99,79%
Canarias FIR	CSTUK	43	98,48%	100,00%
Canarias FIR	CSTUL	38	100,00%	100,00%
Canarias FIR	CSTUM	27	99,40%	100,00%
Canarias FIR	CSTUN	30	100,00%	100,00%
Canarias FIR	CSTUO	36	96,66%	97,69%
Canarias FIR	CSTUP	8	100,00%	100,00%

Canarias FIR	CSTUQ	32	100,00%	100,00%
Canarias FIR	CSTUR	35	100,00%	100,00%
Canarias FIR	CSTUS	32	100,00%	100,00%
Canarias FIR	CSTVA	7	100,00%	100,00%
Canarias FIR	CSTVB	12	100,00%	100,00%
Canarias FIR	CSTVC	10	100,00%	100,00%
Canarias FIR	CSTVD	27	100,00%	100,00%
Canarias FIR	CSTVE	18	98,66%	100,00%
Canarias FIR	CSTVF	23	99,80%	100,00%
Canarias FIR	CSTVG	12	100,00%	100,00%
Canarias FIR	CSTXA	15	100,00%	100,00%
Canarias FIR	CSTXB	38	100,00%	100,00%
Canarias FIR	CSTXC	20	100,00%	100,00%
Canarias FIR	CSTXD	3	100,00%	100,00%
Canarias FIR	DABTK	10	100,00%	100,00%
Canarias FIR	DABUC	4	100,00%	100,00%
Canarias FIR	DABVM	5	100,00%	100,00%
Canarias FIR	DABVP	2	100,00%	100,00%
Canarias FIR	DABVR	4	49,57%	71,88%
Canarias FIR	DABVU	2	100,00%	100,00%
Canarias FIR	DABVX	6	100,00%	100,00%
Canarias FIR	DABVZ	4	100,00%	100,00%
Canarias FIR	DABYC	10	100,00%	100,00%
Canarias FIR	DABYF	7	96,81%	100,00%
Canarias FIR	DABYG	2	100,00%	100,00%
Canarias FIR	DABYK	3	100,00%	100,00%
Canarias FIR	DABYL	12	100,00%	100,00%
Canarias FIR	DABYM	9	100,00%	100,00%
Canarias FIR	DABYN	3	100,00%	100,00%
Canarias FIR	DABYP	11	100,00%	100,00%

Canarias FIR	DABYR	14	100,00%	100,00%
Canarias FIR	DABYS	8	100,00%	100,00%
Canarias FIR	DABYT	10	100,00%	100,00%
Canarias FIR	DABYU	18	100,00%	100,00%
Canarias FIR	DAFAA	26	100,00%	100,00%
Canarias FIR	DAIXE	8	100,00%	100,00%
Canarias FIR	DAIXF	3	100,00%	100,00%
Canarias FIR	DAIXI	2	100,00%	100,00%
Canarias FIR	DAIXL	3	100,00%	100,00%
Canarias FIR	DALCB	1	100,00%	100,00%
Canarias FIR	DALCC	3	100,00%	100,00%
Canarias FIR	DASIM	3	100,00%	100,00%
Canarias FIR	DAUWE	7	100,00%	100,00%
Canarias FIR	DAXTM	5	21,54%	33,08%
Canarias FIR	DAZUR	3	100,00%	100,00%
Canarias FIR	ECIOB	8	100,00%	100,00%
Canarias FIR	ECIQR	8	100,00%	100,00%
Canarias FIR	ECIZX	27	100,00%	100,00%
Canarias FIR	ECIZY	14	100,00%	100,00%
Canarias FIR	ECJBA	8	100,00%	100,00%
Canarias FIR	ECJFX	5	100,00%	100,00%
Canarias FIR	ECJLE	9	100,00%	100,00%
Canarias FIR	ECJNQ	23	100,00%	100,00%
Canarias FIR	ECJPU	12	100,00%	100,00%
Canarias FIR	ECJZL	26	100,00%	100,00%
Canarias FIR	ECKBR	5	100,00%	100,00%
Canarias FIR	ECKOM	12	100,00%	100,00%
Canarias FIR	ECKZI	2	100,00%	100,00%
Canarias FIR	ECLCZ	36	100,00%	100,00%
Canarias FIR	ECLEU	10	100,00%	100,00%

Canarias FIR	ECLEV	28	98,11%	100,00%
Canarias FIR	ECLGV	6	92,48%	95,95%
Canarias FIR	ECLQO	33	100,00%	100,00%
Canarias FIR	ECLQP	21	100,00%	100,00%
Canarias FIR	ECLUK	8	100,00%	100,00%
Canarias FIR	ECLVL	5	100,00%	100,00%
Canarias FIR	ECLZJ	4	100,00%	100,00%
Canarias FIR	ECMDS	5	100,00%	100,00%
Canarias FIR	ECMHL	44	100,00%	100,00%
Canarias FIR	ECMIG	11	100,00%	100,00%
Canarias FIR	ECMIH	15	100,00%	100,00%
Canarias FIR	ECMIL	9	100,00%	100,00%
Canarias FIR	ECMJA	21	100,00%	100,00%
Canarias FIR	ECMJT	2	100,00%	100,00%
Canarias FIR	ECMKH	4	100,00%	100,00%
Canarias FIR	ECMKI	4	100,00%	100,00%
Canarias FIR	ECMKJ	12	100,00%	100,00%
Canarias FIR	ECMLB	11	100,00%	100,00%
Canarias FIR	ECMLP	18	100,00%	100,00%
Canarias FIR	ECMMG	9	100,00%	100,00%
Canarias FIR	ECMMX	21	100,00%	100,00%
Canarias FIR	ECMMY	2	100,00%	100,00%
Canarias FIR	ECMNK	18	100,00%	100,00%
Canarias FIR	ECMNL	29	100,00%	100,00%
Canarias FIR	ECMNS	9	100,00%	100,00%
Canarias FIR	ECMOM	9	100,00%	100,00%
Canarias FIR	ECMOU	48	100,00%	100,00%
Canarias FIR	ECMOY	19	100,00%	100,00%
Canarias FIR	ECMPE	8	100,00%	100,00%
Canarias FIR	ECMQK	3	100,00%	100,00%

Canarias FIR	ECMRL	5	100,00%	100,00%
Canarias FIR	ECMRR	4	100,00%	100,00%
Canarias FIR	ECMSY	7	100,00%	100,00%
Canarias FIR	ECMTI	8	89,40%	90,67%
Canarias FIR	ECMUA	5	100,00%	100,00%
Canarias FIR	ECMUD	10	100,00%	100,00%
Canarias FIR	ECMXV	36	100,00%	100,00%
Canarias FIR	ECMYA	22	100,00%	100,00%
Canarias FIR	ECMYX	22	100,00%	100,00%
Canarias FIR	ECNBE	33	100,00%	100,00%
Canarias FIR	ECNBM	5	100,00%	100,00%
Canarias FIR	ECNBP	2	100,00%	100,00%
Canarias FIR	ECNBU	8	100,00%	100,00%
Canarias FIR	ECNBX	2	100,00%	100,00%
Canarias FIR	ECNCX	34	100,00%	100,00%
Canarias FIR	ECNCY	34	99,92%	100,00%
Canarias FIR	ECNDR	21	100,00%	100,00%
Canarias FIR	ECNEI	62	100,00%	100,00%
Canarias FIR	ECNEN	22	100,00%	100,00%
Canarias FIR	ECNFA	13	100,00%	100,00%
Canarias FIR	ECNFM	35	99,85%	100,00%
Canarias FIR	ECNFP	7	100,00%	100,00%
Canarias FIR	ECNGM	40	100,00%	100,00%
Canarias FIR	ECNGT	50	100,00%	100,00%
Canarias FIR	ECNHA	9	100,00%	100,00%
Canarias FIR	EIDBL	10	100,00%	100,00%
Canarias FIR	EIDDH	3	100,00%	100,00%
Canarias FIR	EIISB	2	100,00%	100,00%
Canarias FIR	EIISD	1	100,00%	100,00%
Canarias FIR	EIISO	3	100,00%	100,00%

Canarias FIR	EINEO	3	100,00%	100,00%
Canarias FIR	EINEW	3	100,00%	100,00%
Canarias FIR	EIWLA	3	100,00%	100,00%
Canarias FIR	ETANN	3	100,00%	100,00%
Canarias FIR	ETAOQ	5	100,00%	100,00%
Canarias FIR	ETAOR	5	100,00%	100,00%
Canarias FIR	ETAOS	7	100,00%	100,00%
Canarias FIR	ETAOT	7	100,00%	100,00%
Canarias FIR	ETAOU	3	100,00%	100,00%
Canarias FIR	ETARF	7	100,00%	100,00%
Canarias FIR	ETASG	5	100,00%	100,00%
Canarias FIR	ETASH	5	100,00%	100,00%
Canarias FIR	FGSPA	5	100,00%	100,00%
Canarias FIR	FGSPB	6	100,00%	100,00%
Canarias FIR	FGSPC	6	100,00%	100,00%
Canarias FIR	FGSPD	2	100,00%	100,00%
Canarias FIR	FGSPE	8	100,00%	100,00%
Canarias FIR	FGSPF	5	100,00%	100,00%
Canarias FIR	FGSPG	13	100,00%	100,00%
Canarias FIR	FGSPI	3	100,00%	100,00%
Canarias FIR	FGSPJ	11	100,00%	100,00%
Canarias FIR	FGSPK	3	100,00%	100,00%
Canarias FIR	FGSPL	23	100,00%	100,00%
Canarias FIR	FGSPN	11	100,00%	100,00%
Canarias FIR	FGSPP	32	100,00%	100,00%
Canarias FIR	FGSPQ	9	100,00%	100,00%
Canarias FIR	FGSPR	13	100,00%	100,00%
Canarias FIR	FGSPS	11	100,00%	100,00%
Canarias FIR	FGSPT	7	100,00%	100,00%
Canarias FIR	FGSPU	5	100,00%	100,00%

Canarias FIR	FGSPX	4	100,00%	100,00%
Canarias FIR	FGSPY	13	100,00%	100,00%
Canarias FIR	FGSPZ	7	100,00%	100,00%
Canarias FIR	FGSQA	8	100,00%	100,00%
Canarias FIR	FGSQB	4	100,00%	100,00%
Canarias FIR	FGSQC	4	100,00%	100,00%
Canarias FIR	FGSQD	12	100,00%	100,00%
Canarias FIR	FGSQE	9	99,60%	100,00%
Canarias FIR	FGSQG	1	100,00%	100,00%
Canarias FIR	FGSQH	14	100,00%	100,00%
Canarias FIR	FGSQI	6	100,00%	100,00%
Canarias FIR	FGSQJ	5	100,00%	100,00%
Canarias FIR	FGSQL	14	100,00%	100,00%
Canarias FIR	FGSQU	3	100,00%	100,00%
Canarias FIR	FGSQY	7	100,00%	100,00%
Canarias FIR	FGZNB	11	98,87%	100,00%
Canarias FIR	FGZNC	6	100,00%	100,00%
Canarias FIR	FGZNE	2	100,00%	100,00%
Canarias FIR	FGZNH	19	100,00%	100,00%
Canarias FIR	FGZNI	12	100,00%	100,00%
Canarias FIR	FGZNJ	5	100,00%	100,00%
Canarias FIR	FGZNK	14	100,00%	100,00%
Canarias FIR	FGZNP	14	100,00%	100,00%
Canarias FIR	FGZNQ	17	98,23%	99,44%
Canarias FIR	FGZNR	21	100,00%	100,00%
Canarias FIR	FGZNS	14	100,00%	100,00%
Canarias FIR	FGZNT	12	100,00%	100,00%
Canarias FIR	FGZNU	15	100,00%	100,00%
Canarias FIR	FHRBB	12	100,00%	100,00%
Canarias FIR	FHRBC	10	100,00%	100,00%

Canarias FIR	FHRBD	3	100,00%	100,00%
Canarias FIR	FHRBE	4	100,00%	100,00%
Canarias FIR	FHRBF	9	100,00%	100,00%
Canarias FIR	FHRBG	3	100,00%	100,00%
Canarias FIR	FHRBH	13	99,75%	100,00%
Canarias FIR	FHRBI	11	100,00%	100,00%
Canarias FIR	FHXRG	18	92,28%	95,80%
Canarias FIR	FUJCG	5	100,00%	100,00%
Canarias FIR	GCKOF	12	100,00%	100,00%
Canarias FIR	GCKOG	5	100,00%	100,00%
Canarias FIR	GCKWB	3	100,00%	100,00%
Canarias FIR	GCKWC	8	100,00%	100,00%
Canarias FIR	GCKWE	5	100,00%	100,00%
Canarias FIR	GCKWF	1	100,00%	100,00%
Canarias FIR	GCKWN	11	100,00%	100,00%
Canarias FIR	GCKWP	3	100,00%	100,00%
Canarias FIR	GCKWS	9	100,00%	100,00%
Canarias FIR	GCKWT	10	100,00%	100,00%
Canarias FIR	GCKWU	12	100,00%	100,00%
Canarias FIR	GOBYG	30	94,17%	95,11%
Canarias FIR	GOBYH	63	98,30%	98,58%
Canarias FIR	GOOBC	13	100,00%	100,00%
Canarias FIR	GOOBE	86	100,00%	100,00%
Canarias FIR	GOOBF	37	100,00%	100,00%
Canarias FIR	GSTBC	4	100,00%	100,00%
Canarias FIR	GSTBD	7	100,00%	100,00%
Canarias FIR	GSTBE	4	100,00%	100,00%
Canarias FIR	GSTBH	5	100,00%	100,00%
Canarias FIR	GSTBJ	2	100,00%	100,00%
Canarias FIR	GSTBK	3	100,00%	100,00%

Canarias FIR	GSTBL	5	100,00%	100,00%
Canarias FIR	GTUIL	5	100,00%	100,00%
Canarias FIR	GTUIO	3	100,00%	100,00%
Canarias FIR	GUZLJ	1	100,00%	100,00%
Canarias FIR	GVGEM	2	100,00%	100,00%
Canarias FIR	GVIIV	3	100,00%	100,00%
Canarias FIR	GVYGJ	34	100,00%	100,00%
Canarias FIR	GVY GK	3	100,00%	100,00%
Canarias FIR	GVYGL	10	100,00%	100,00%
Canarias FIR	GYMMA	4	100,00%	100,00%
Canarias FIR	GYMMR	4	100,00%	100,00%
Canarias FIR	GYMMS	11	100,00%	100,00%
Canarias FIR	GYMMT	6	100,00%	100,00%
Canarias FIR	GYMMU	3	100,00%	100,00%
Canarias FIR	GZBJA	3	100,00%	100,00%
Canarias FIR	GZBJE	8	100,00%	100,00%
Canarias FIR	GZBJF	1	100,00%	100,00%
Canarias FIR	GZBJI	10	100,00%	100,00%
Canarias FIR	GZBJJ	2	100,00%	100,00%
Canarias FIR	GZBJK	5	100,00%	100,00%
Canarias FIR	GZBJM	3	100,00%	100,00%
Canarias FIR	GZBKC	3	100,00%	100,00%
Canarias FIR	GZBKR	1	100,00%	100,00%
Canarias FIR	HBJHR	9	100,00%	100,00%
Canarias FIR	HBJLC	4	100,00%	100,00%
Canarias FIR	HBJMD	4	100,00%	100,00%
Canarias FIR	HBJME	7	100,00%	100,00%
Canarias FIR	HBJMF	2	100,00%	100,00%
Canarias FIR	HBJMG	10	100,00%	100,00%
Canarias FIR	HBJNA	2	100,00%	100,00%

Canarias FIR	HBJNC	3	100,00%	100,00%
Canarias FIR	HBJND	2	100,00%	100,00%
Canarias FIR	HBJNH	4	100,00%	100,00%
Canarias FIR	HBJNI	3	100,00%	100,00%
Canarias FIR	HBJNJ	9	100,00%	100,00%
Canarias FIR	HBJNL	4	100,00%	100,00%
Canarias FIR	HBJSS	6	100,00%	100,00%
Canarias FIR	HBJWB	4	100,00%	100,00%
Canarias FIR	HBJWC	5	100,00%	100,00%
Canarias FIR	HZAK45	1	100,00%	100,00%
Canarias FIR	INDMJ	5	100,00%	100,00%
Canarias FIR	LNXAX	6	81,17%	100,00%
Canarias FIR	LVFVH	42	100,00%	100,00%
Canarias FIR	LVFVI	26	100,00%	100,00%
Canarias FIR	LVGIF	20	100,00%	100,00%
Canarias FIR	LVGKO	5	100,00%	100,00%
Canarias FIR	LVGKP	7	100,00%	100,00%
Canarias FIR	LVIRQ	11	100,00%	100,00%
Canarias FIR	LXKCL	3	100,00%	100,00%
Canarias FIR	LXLCL	4	100,00%	100,00%
Canarias FIR	LXMCL	4	100,00%	100,00%
Canarias FIR	N1201P	6	99,24%	100,00%
Canarias FIR	N1602	5	100,00%	100,00%
Canarias FIR	N1604R	6	100,00%	100,00%
Canarias FIR	N160QS	4	100,00%	100,00%
Canarias FIR	N171DZ	3	100,00%	100,00%
Canarias FIR	N174DZ	3	100,00%	100,00%
Canarias FIR	N316VB	4	100,00%	100,00%
Canarias FIR	N343AR	3	100,00%	100,00%
Canarias FIR	N532LA	16	100,00%	100,00%

Canarias FIR	N534LA	23	100,00%	100,00%
Canarias FIR	N536LA	10	100,00%	100,00%
Canarias FIR	N540LA	3	100,00%	100,00%
Canarias FIR	N550JU	5	99,52%	100,00%
Canarias FIR	N567CA	5	100,00%	100,00%
Canarias FIR	N588TN	4	100,00%	100,00%
Canarias FIR	N700PR	5	100,00%	100,00%
Canarias FIR	N744C	2	100,00%	100,00%
Canarias FIR	N793AV	3	100,00%	100,00%
Canarias FIR	N856NW	7	100,00%	100,00%
Canarias FIR	N859NW	6	100,00%	100,00%
Canarias FIR	N860NW	5	100,00%	100,00%
Canarias FIR	N940TT	3	100,00%	100,00%
Canarias FIR	N952CA	3	100,00%	100,00%
Canarias FIR	OEISN	9	100,00%	100,00%
Canarias FIR	OEISX	14	100,00%	100,00%
Canarias FIR	OELPA	2	100,00%	100,00%
Canarias FIR	OELRR	6	100,00%	100,00%
Canarias FIR	OOABB	4	100,00%	100,00%
Canarias FIR	OOJNL	5	100,00%	100,00%
Canarias FIR	OOSFB	3	100,00%	100,00%
Canarias FIR	OOSFE	4	100,00%	100,00%
Canarias FIR	OOSFG	2	100,00%	100,00%
Canarias FIR	OOSFH	5	100,00%	100,00%
Canarias FIR	OOSFP	3	100,00%	100,00%
Canarias FIR	OOSFX	4	100,00%	100,00%
Canarias FIR	OOSFZ	4	100,00%	100,00%
Canarias FIR	OYVKG	25	100,00%	100,00%
Canarias FIR	OYVKI	29	98,21%	98,90%
Canarias FIR	P4BFK	4	89,71%	98,53%

Canarias FIR	P4BFY	3	100,00%	100,00%
Canarias FIR	P4WWS	3	100,00%	100,00%
Canarias FIR	PHAOA	7	100,00%	100,00%
Canarias FIR	PHAOB	8	100,00%	100,00%
Canarias FIR	PHAOE	4	100,00%	100,00%
Canarias FIR	PHBHA	5	100,00%	100,00%
Canarias FIR	PHBHD	7	100,00%	100,00%
Canarias FIR	PHBHE	7	100,00%	100,00%
Canarias FIR	PHBHF	9	100,00%	100,00%
Canarias FIR	PHBHH	2	100,00%	100,00%
Canarias FIR	PHBHI	2	100,00%	100,00%
Canarias FIR	PHBHM	5	100,00%	100,00%
Canarias FIR	PHBQA	3	100,00%	100,00%
Canarias FIR	PHBQB	9	100,00%	100,00%
Canarias FIR	PHBQC	3	100,00%	100,00%
Canarias FIR	PHBQG	5	100,00%	100,00%
Canarias FIR	PHBQK	3	100,00%	100,00%
Canarias FIR	PHBQM	7	100,00%	100,00%
Canarias FIR	PHBQO	6	100,00%	100,00%
Canarias FIR	PHBVC	5	100,00%	100,00%
Canarias FIR	PHBVK	12	100,00%	100,00%
Canarias FIR	PHBVN	4	100,00%	100,00%
Canarias FIR	PHBVO	5	100,00%	100,00%
Canarias FIR	PHBVP	5	100,00%	100,00%
Canarias FIR	PHBVU	3	100,00%	100,00%
Canarias FIR	PHCKA	13	100,00%	100,00%
Canarias FIR	PHCKB	4	94,18%	99,32%
Canarias FIR	PHCKC	3	100,00%	100,00%
Canarias FIR	PHEBR	5	100,00%	100,00%
Canarias FIR	PHIWS	1	100,00%	100,00%

Canarias FIR	PHOYI	5	100,00%	100,00%
Canarias FIR	PPADZ	1	100,00%	100,00%
Canarias FIR	PPAUL	3	100,00%	100,00%
Canarias FIR	PPCFJ	4	100,00%	100,00%
Canarias FIR	PPDBS	1	100,00%	100,00%
Canarias FIR	PPIZB	2	100,00%	100,00%
Canarias FIR	PPLEG	3	100,00%	100,00%
Canarias FIR	PPLIV	2	100,00%	100,00%
Canarias FIR	PPOSM	3	100,00%	100,00%
Canarias FIR	PRAIS	3	100,00%	100,00%
Canarias FIR	PRAIY	4	100,00%	100,00%
Canarias FIR	PRANY	3	100,00%	100,00%
Canarias FIR	PRANZ	3	100,00%	100,00%
Canarias FIR	PRBBS	2	100,00%	100,00%
Canarias FIR	PRCBK	2	100,00%	100,00%
Canarias FIR	PRCBY	3	100,00%	100,00%
Canarias FIR	PRCSE	2	100,00%	100,00%
Canarias FIR	PRNOC	1	100,00%	100,00%
Canarias FIR	PRPTG	3	100,00%	100,00%
Canarias FIR	PRRDD	6	100,00%	100,00%
Canarias FIR	PRXTA	49	100,00%	100,00%
Canarias FIR	PRXTB	51	100,00%	100,00%
Canarias FIR	PRXTC	21	100,00%	100,00%
Canarias FIR	PRXTD	47	100,00%	100,00%
Canarias FIR	PRXTE	50	100,00%	100,00%
Canarias FIR	PRXTH	49	100,00%	100,00%
Canarias FIR	PRXTI	45	100,00%	100,00%
Canarias FIR	PRXTM	77	100,00%	100,00%
Canarias FIR	PTMOA	6	100,00%	100,00%
Canarias FIR	PTMOB	12	100,00%	100,00%

Canarias FIR	PTMOC	13	100,00%	100,00%
Canarias FIR	PTMOD	15	100,00%	100,00%
Canarias FIR	PTMOE	17	97,75%	99,40%
Canarias FIR	PTMSO	18	100,00%	100,00%
Canarias FIR	PTMSS	6	100,00%	100,00%
Canarias FIR	PTMSV	12	100,00%	100,00%
Canarias FIR	PTMSW	16	100,00%	100,00%
Canarias FIR	PTMSX	13	100,00%	100,00%
Canarias FIR	PTMSY	17	100,00%	100,00%
Canarias FIR	PTMUA	32	93,39%	94,79%
Canarias FIR	PTMUB	36	100,00%	100,00%
Canarias FIR	PTMUC	37	100,00%	100,00%
Canarias FIR	PTMUD	17	100,00%	100,00%
Canarias FIR	PTMUE	20	100,00%	100,00%
Canarias FIR	PTMUG	21	100,00%	100,00%
Canarias FIR	PTMUI	9	100,00%	100,00%
Canarias FIR	PTMUJ	38	100,00%	100,00%
Canarias FIR	SERFR	36	99,03%	100,00%
Canarias FIR	SERMT	3	100,00%	100,00%
Canarias FIR	SPLSD	4	100,00%	100,00%
Canarias FIR	SPLSG	4	100,00%	100,00%
Canarias FIR	VPCUA	4	100,00%	100,00%
Canarias FIR	VQBHA	4	100,00%	100,00%

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