



A-CDM@FRA

*Key Performance Indicators
2017*

Introduction

This leaflet provides an overview of the most important Key Performance Indicators comparing the years 2016 and 2017.

For further information, questions, comments or suggestions we will always be at your disposal.

Kind regards,
Your A-CDM Team

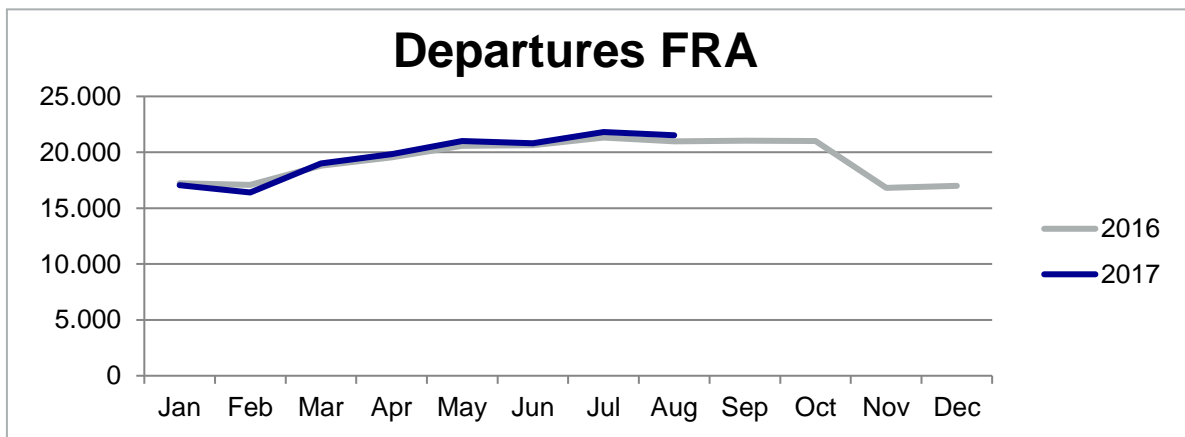
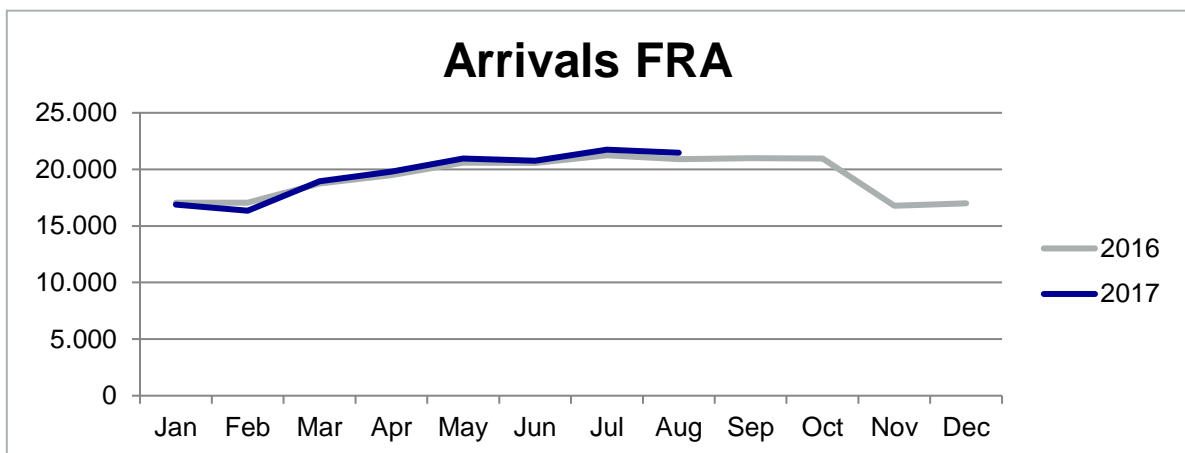
Index

Key Performance Indicators	4
1. Movements	4
2. Punctuality and Stability	5
3. TOBT and TSAT	6
4. Start-Up and Off-Block Request (Cockpit)	7
5. Start-Up Given (Tower)	8
6. Push-Back and Taxi-Given (Apron)	9
7. Taxi Times	10
8. Network Management	11
A-CDM@FRA Team – we support you!	13
KPI Definitions	15
Glossary	17

Key Performance Indicators

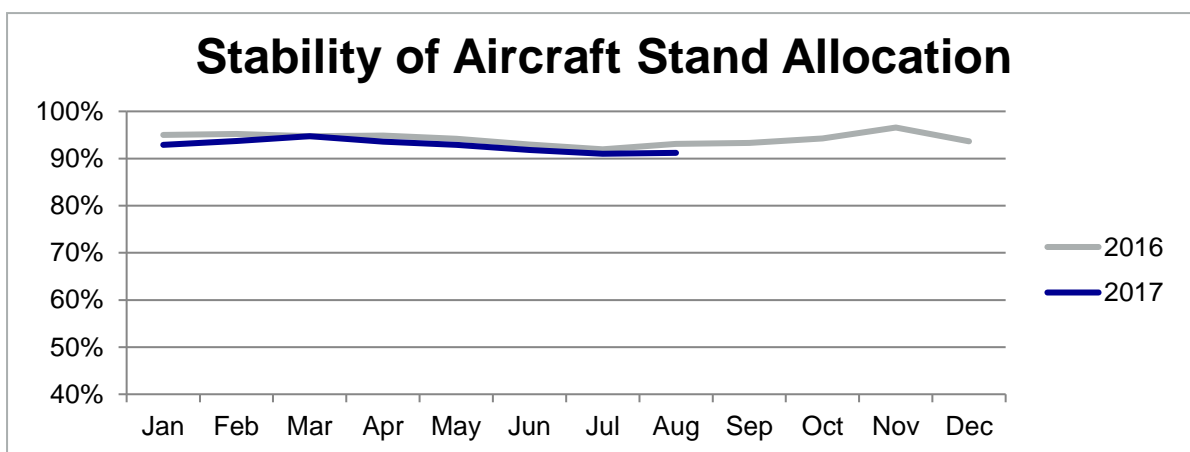
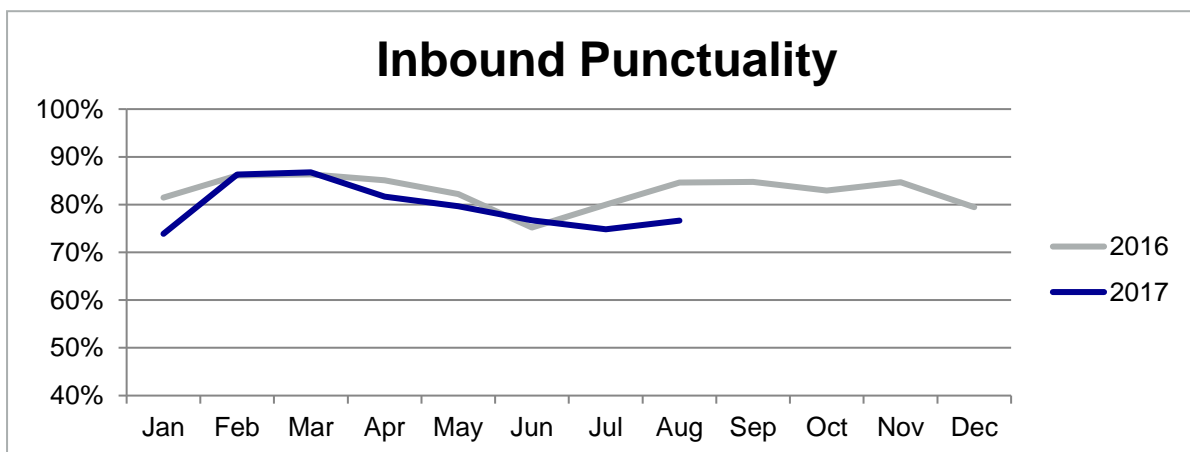
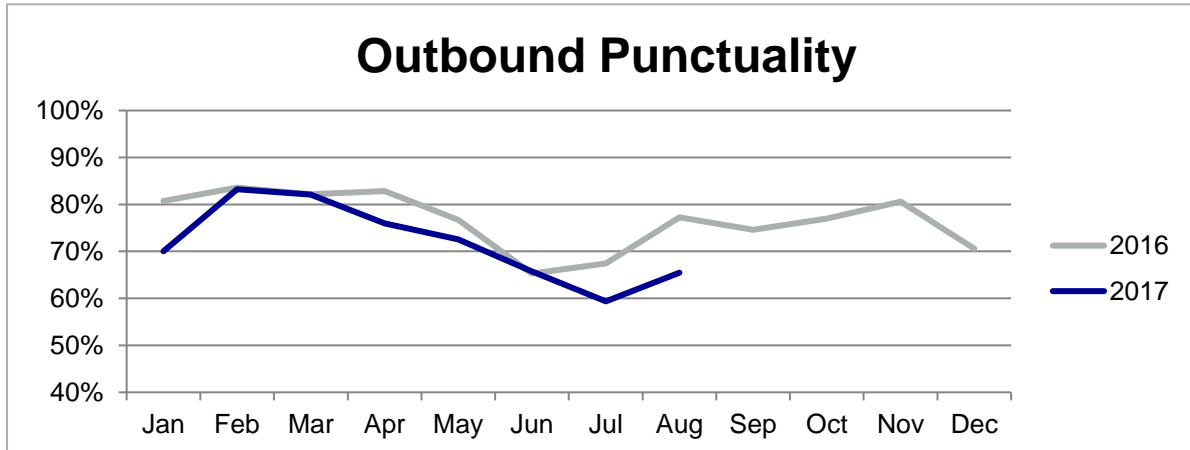
While reading this document you may find it helpful to unfold the KPI-Definitions, which can be found at the end.

1. Movements



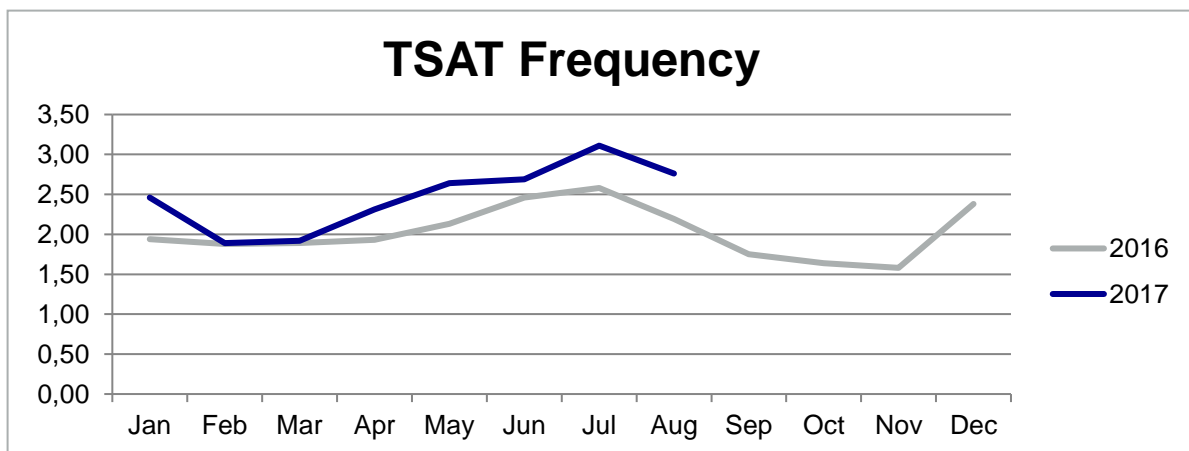
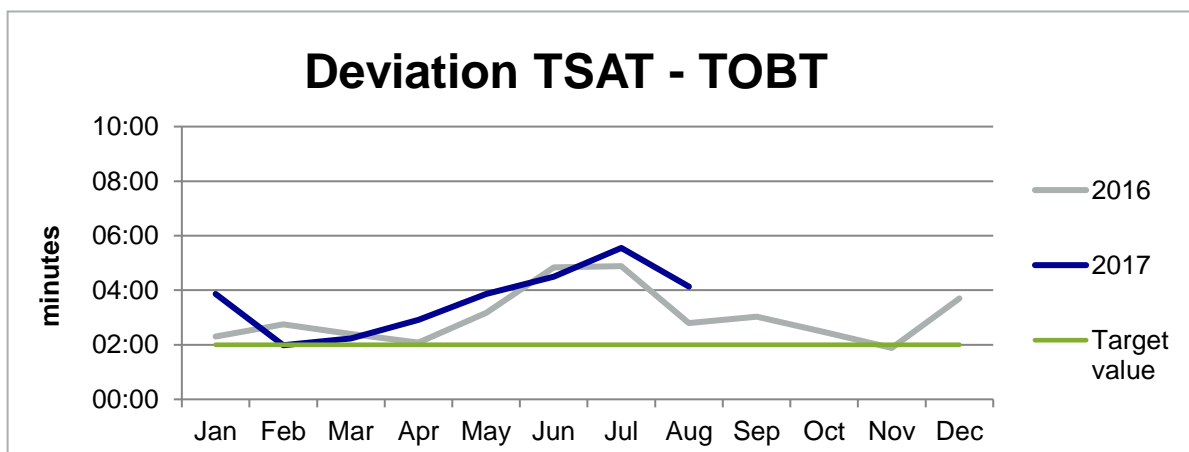
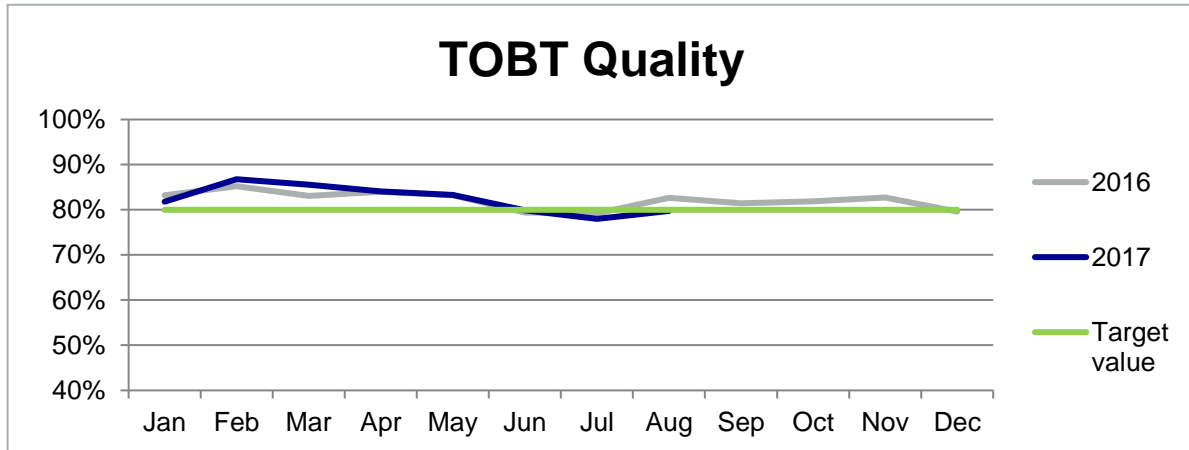
Reference Period Jan-Aug	2016	2017	Difference
Arrivals FRA	155.677	156.929	+ 1.252
Departures FRA	156.163	157.474	+ 1.311

2. Punctuality and Stability



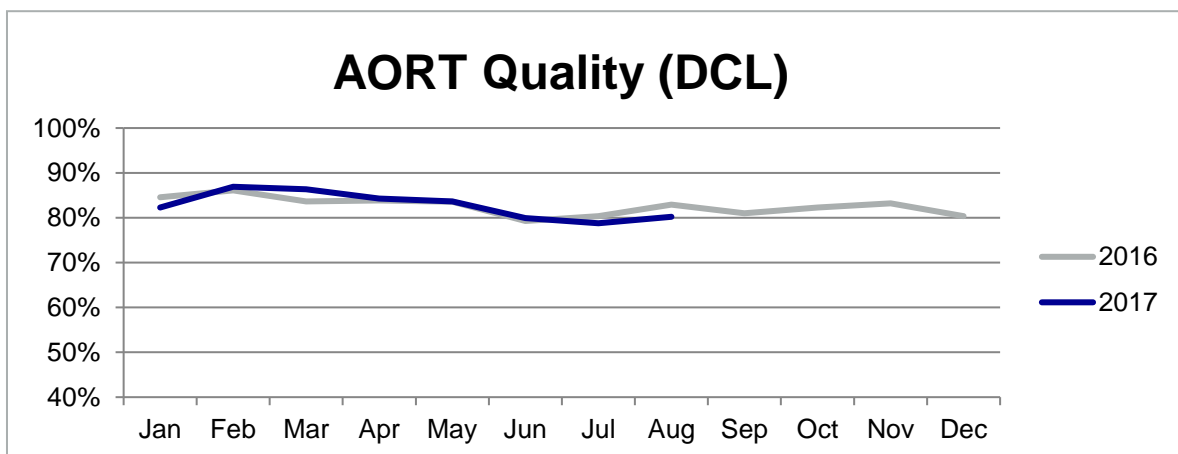
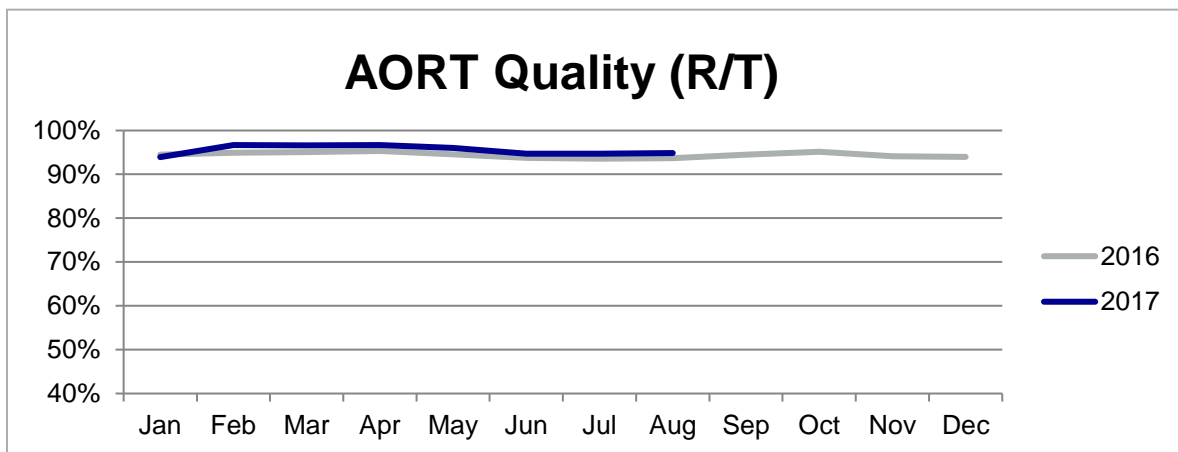
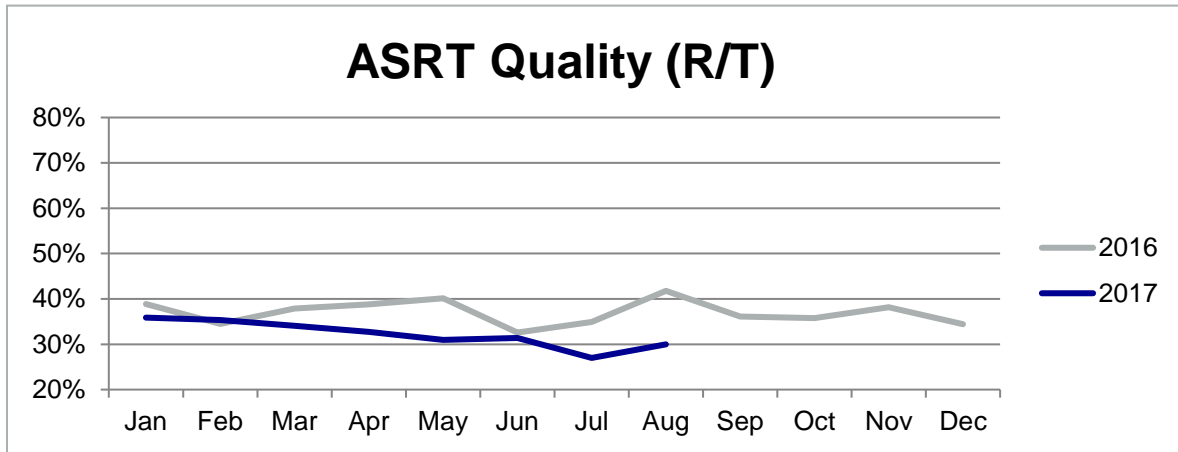
Reference Period Jan-Aug	2016	2017	Difference
Outbound Punctuality	76,6%	71,3%	- 5,3%
Inbound Punctuality	82,5%	79,4%	- 3,1%
Stability of Aircraft Stand Allocation	93,9%	92,7%	- 1,2%

3. TOBT and TSAT



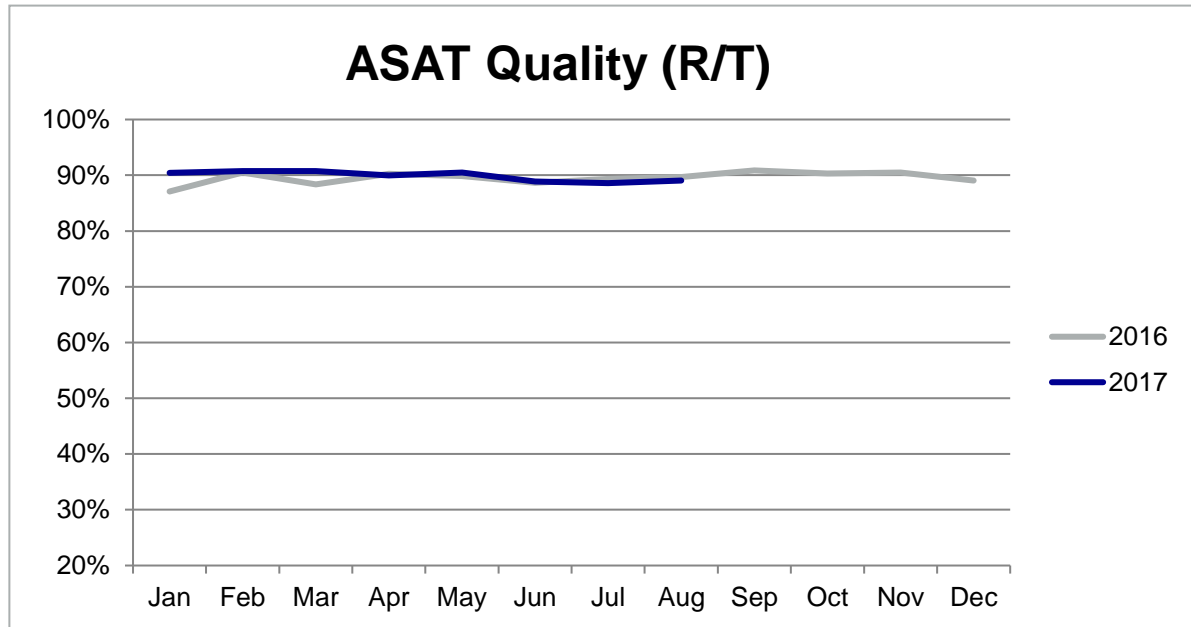
Reference Period Jan-Aug	2016	2017	Difference
TOBT Quality	82,4%	82,2%	- 0,2%
Deviation TOBT - TSAT	03:12 min	03:42 min	+ 00:30 min
TSAT Frequency	2,14	2,50	+ 0,36

4. Start-Up and Off-Block Request (Cockpit)



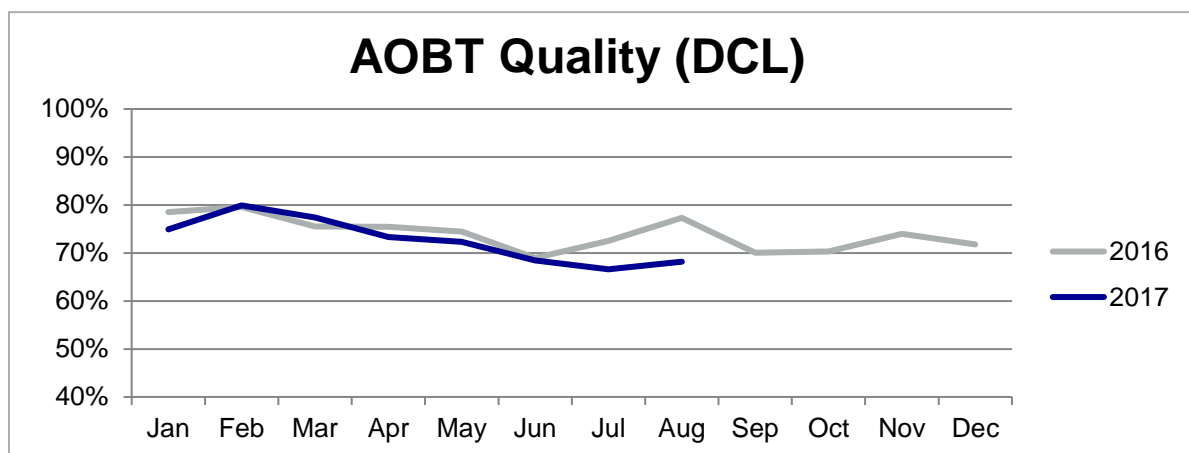
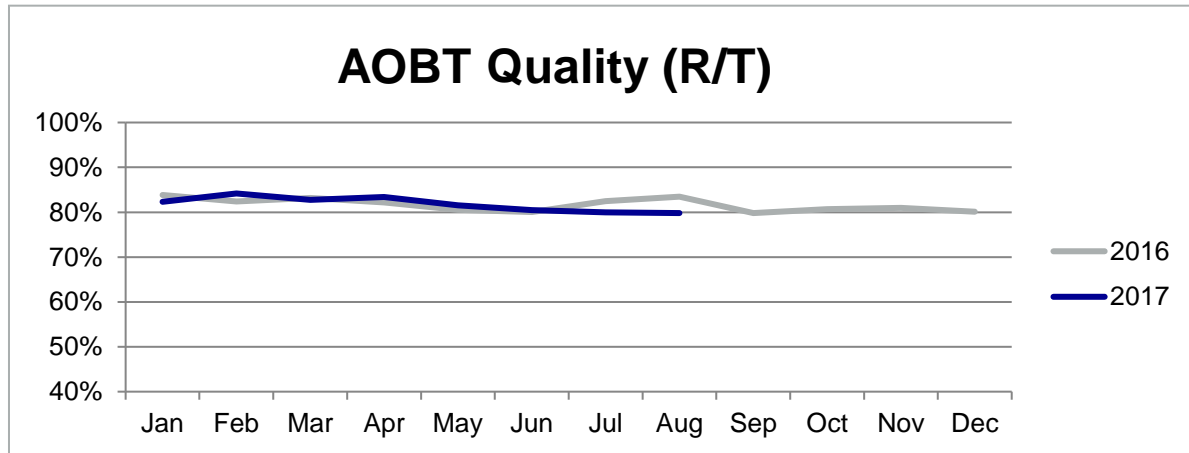
Reference Period Jan-Aug	2016	2017	Difference
ASRT Quality (R/T)	37,5%	31,9%	- 5,6%
AORT Quality (R/T)	94,4%	95,5%	+ 1,1%
AORT Quality (DCL)	82,9%	82,6%	- 0,3%

5. Start-Up Given (Tower)



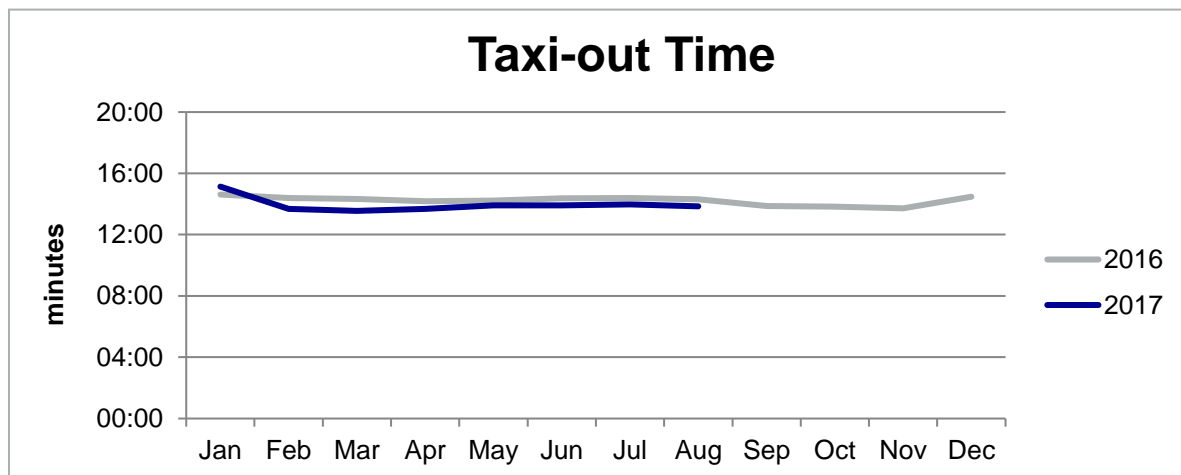
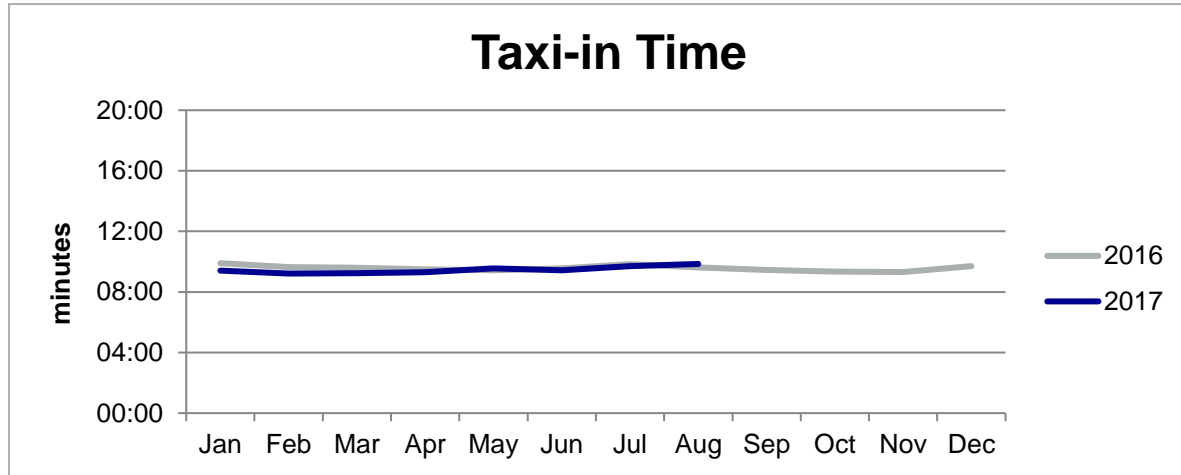
Reference Period Jan-Aug	2016	2017	Difference
ASAT Quality (R/T)	89,2%	89,8%	+ 0,6%
IASAT-ASRTI	01:33 min	01:43 min	+ 00:10 min

6. Push-Back and Taxi-Given (Apron)



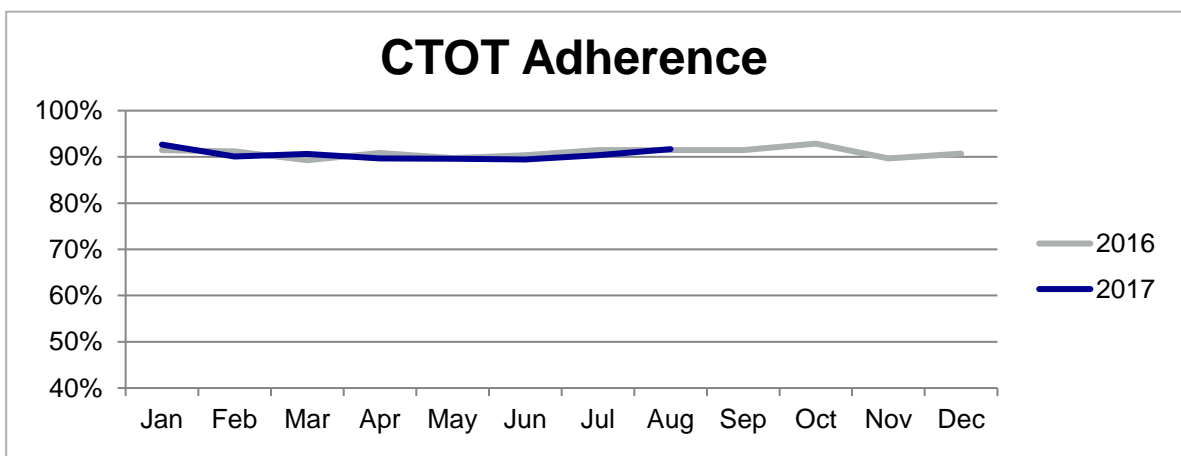
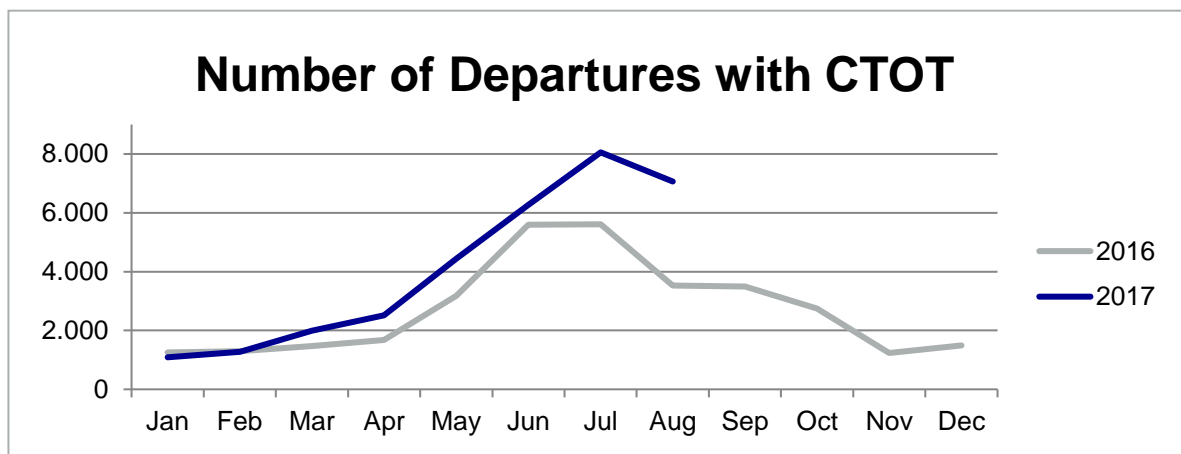
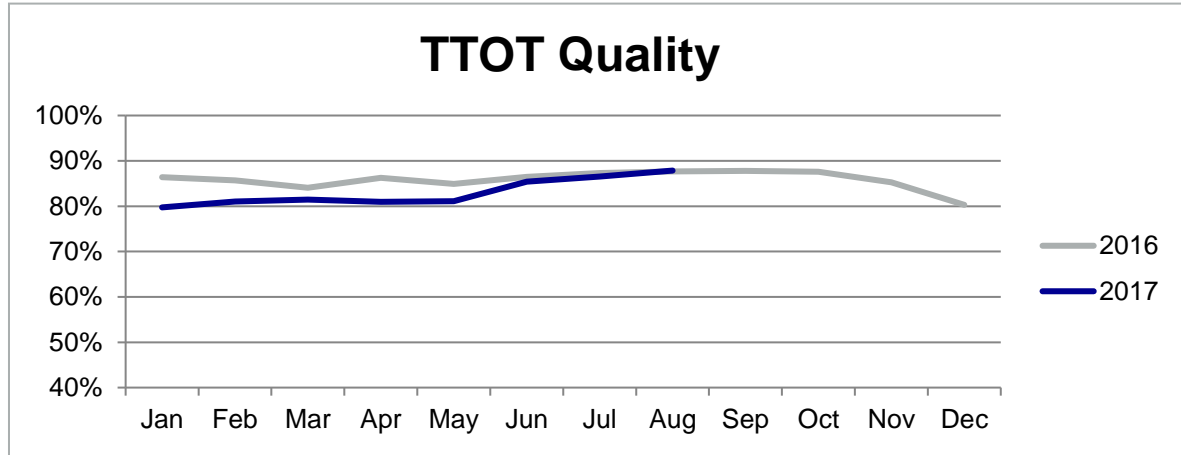
Reference Period Jan-Aug	2016	2017	Difference
AOBT Quality (R/T)	82,2%	81,7%	- 0,5%
AOBT Quality (DCL)	75,1%	72,3%	- 2,8%
IAOBT-AORTI	01:25 min	01:42 min	+ 00:17 min

7. Taxi Times

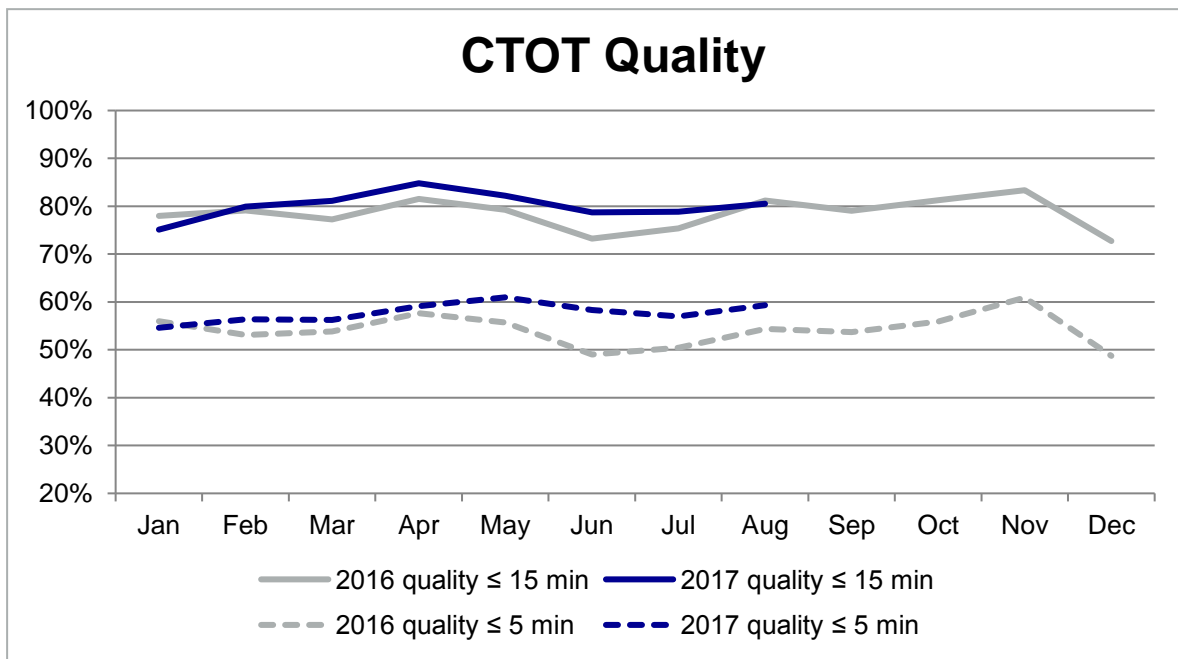
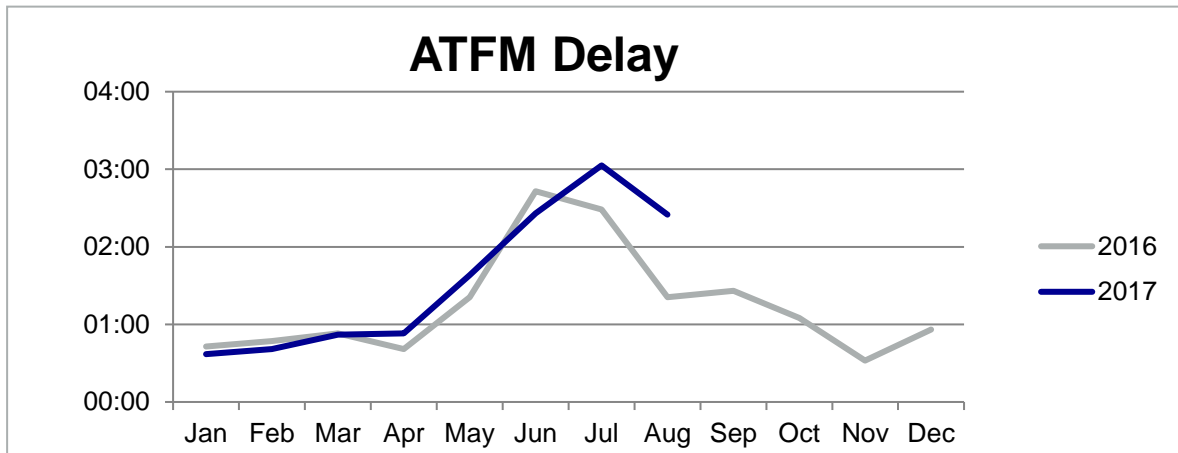


Reference Period Jan-Aug	2016	2017	Difference
Taxi-in Time	09:38 min	09:29 min	- 00:09 min
Taxi-out Time	14:21 min	13:57 min	- 00:24 min

8. Network Management



Reference Period Jan-Aug	2016	2017	Difference
TTOT Quality	86,1%	83,2%	- 2,9%
Departures with CTOT	23.616	32.699	+ 9.083
CTOT Adherence	90,7%	90,5%	- 0,2%



Reference Period Jan-Aug	2016	2017	Difference
ATFM Delay	01:25 min	01:39 min	+ 00:14 min
CTOT Quality (≤ 15 min)	78,1%	80,2%	+ 2,1%
CTOT Quality (≤ 5 min)	53,7%	57,9%	+ 4,2%

A-CDM@FRA Team – we support you!

Services

- Requests concerning specific flights
➔ We need flightnumber and date of flight
- Aircraft Operator Performance Reports
➔ For Airlines and Handling Agents responsible for TOBT
- Registration of CSA Tool accounts and changes of TOBT Responsibility
- Registration of A-CDM Alert email addresses
- Customized consulting and training
- Procedure documents and information
- Documents and training material
- Actual information



Contact

- **Email: info@cdm.frankfurt-airport.com**
- **Homepage: www.cdm.frankfurt-airport.com**
- **Phone: 28544 (forwarded to ACDC, if office is not occupied)**

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KPI Definitions

1. Movements	
Arrivals FRA	All Arrivals at Frankfurt Airport [movements]
Departures FRA	All Departures at Frankfurt Airport [movements]

2. Punctuality and Stability	
Outbound Punctuality	$(\text{AOBT} - \text{SOBT}) \leq 15 \text{ minutes } [\%] \text{ (IATA)}$
Inbound Punctuality	$(\text{AIBT} - \text{SIBT}) \leq 15 \text{ minutes } [\%] \text{ (IATA)}$
Stability of Aircraft Stand Allocation	Percentage of flights without change of parking position after ALDT-10min

3. TOBT and TSAT	
TOBT Quality	Combined Quality of $ \text{AORT} - \text{TOBT}^{\text{AORT}} \leq 5 \text{ min}$ for Push-Back positions <u>and</u> $(\text{AORT} - \text{TOBT}^{\text{AORT}})$ between -5 and +10 min for Roll-Out positions for flights with TOBT=TSAT [%]
Deviation TSAT - TOBT	Average deviation from TSAT and TOBT (regulated and non-regulated flights): $ \text{TSAT} - \text{TOBT} $ [min]
TSAT Frequency	Average amount of TSATs per flight (first TSAT and TSAT-updates)

4. Start-Up and Off-Block Request (Cockpit)	
ASRT Quality (Start-Up Request, R/T)	$ \text{ASRT} - \text{TSAT} \leq 5 \text{ minutes } [\%]$
AORT Quality (Off-Block Request, R/T)	Combined Quality of $ \text{AORT} - \text{ASAT} \leq 5 \text{ minutes}$ for Push-Back positions <u>and</u> $(\text{AORT} - \text{ASAT})$ between -5 and +10 minutes for Roll-Out positions [%]
AORT Quality (Off-Block Request, DCL)	Combined Quality of $ \text{AORT} - \text{TSAT} \leq 5 \text{ minutes}$ for Push-Back positions <u>and</u> $(\text{AORT} - \text{TSAT})$ between -5 and +10 min for Roll-Out positions [%]

5. Start-Up Given (Tower)	
ASAT Quality (R/T) (Start-Up Given, R/T)	$ \text{ASAT} - \text{TSAT} \leq 5 \text{ minutes } [\%]$
$ \text{ASAT} - \text{ASRT} $	Average deviation from Start-Up Request and Start-Up Given: $ \text{ASAT} - \text{ASRT} $ [min]

6. Push-Back and Taxi-Given (Apron)	
AOBT Quality (Off-Block Given, R/T)	Combined Quality of (AOBT-ASAT) ≤ 5 minutes for Push-Back positions <u>and</u> (AOBT-ASAT) ≤ 10 minutes for Roll-Out positions [%]
AOBT Quality (Off-Block Given, DCL)	Combined Quality of AOBT-TSAT ≤ 5 minutes for Push-Back positions <u>and</u> (AOBT-TSAT) between -5 and +10 min for Roll-Out positions [%]
AOBT-AORT	Average deviation from Off-Block Request and Off-Block Given: AOBT-AORT [min]

7. Taxi Times	
Taxi-in Time	Average Taxi-in time [min]
Taxi-out Time	Average Taxi-out time [min]

8. Network Management	
TTOT Quality	Quality of ^{last} TTOT-ATOT ≤ 5 minutes [%]
Departures with CTOT	Number of regulated departures with CTOT
CTOT Adherence	ATOT within Slot Tolerance Window (STW) [%]
ATFM Delay	Duration between the last Take-Off time requested by the aircraft operator and the Take-Off slot allocated by Network Manager following a regulation communicated by the FMP, in relation to an airport (airport delay) or sector (en-route delay) location [min]
CTOT Quality	Quality of CTOT assignment by NMOC: CTOT in relation to TTOT (transmitted by DPI), which were both valid immediately before ASAT: Quality of CTOT@ASAT - TTOT@ASAT [%]

Glossary

Acronym	Definition
AIBT	Actual In-Block Time
ALDT	Actual Landing Time
AOBT	Actual Off-Block Time
AORT	Actual Off-Block Request Time
ASAT	Actual Start-Up Approval Time
ASRT	Actual Start-Up Request Time
ATOT	Actual Take-Off Time
CTOT	Calculated Take-Off Time
DCL	Departure Clearance (Data link)
NMOC	Network Manager Operations Centre
R/T	Radio Telephony
SIBT	Scheduled In-Block Time
SOBT	Scheduled Off-Block Time
STW	Slot Tolerance Window
TOBT	Target Off-Block Time
TSAT	Target Start-Up Approval Time
TTOT	Target Take-Off Time