

Non-Receipt of Departure (DEP) Message

Piyawut Tantimekabut (Toon)

Chair, ICAO APAC ATFM/SG

ICAO MID ATFM/TF/3

12– 14 Jan 2020

Amman, Jordan





11.4.2.2.6 *DEPARTURE (DEP) MESSAGES*

11.4.2.2.6.1 Unless otherwise prescribed on the basis of regional air navigation agreements, a DEP message shall be transmitted immediately after the departure of an aircraft for which basic flight plan data have been previously distributed.

11.4.2.2.6.2 The DEP message shall be transmitted by the ATS unit serving the departure aerodrome to all recipients of basic flight plan data.

Use of DEP Messages

Thailand and International
CNS/ATM SYSTEM



- Activate flight plans in ATS automation systems
- ATFM demand prediction and monitoring
- ATFM Post-Ops Analysis
- Confirmation that a flight operated in order to levy air navigation charges

Problems from Missing DEP Messages

CNS/ATM SYSTEM



- Additional ATCO workload activating flights with no DEP messages => unnecessary reduction of airspace sector capacity => potential for error/distraction under high workload
- Inaccurate traffic demand prediction => inaccurate demand-capacity balance => inaccurate activation of ATFM Measure => unnecessary ATFM delays
- Additional workload / cost in confirming flight's operation in collecting air navigation charges

Potential Causes of Missing DEP Messages

ATM SYSTEM



- Operational procedures and automation configuration for originating DEP messages at departure aerodromes
 - Need to be reviewed at departure aerodromes
 - ATM system configuration – use fixed addressee list per city pair instead of FPL content analysis (message address line, Item 15 – route details, and/or Item 18 – EET)
- Non-standard FPL & ATS messages addressing requirements vis-à-vis PANS-ATM 11.2.1.2.3.3
 - ICAO Standard-Compliant Example: VTBBZQZX
- Incomplete listing of FIR Boundary EET in FPL Messages
 - May be addressed with AIP / Doc 7030

APANPIRG/27 Conclusion on DEP Messages



Conclusion APANPIRG/27/12: Origination and Distribution of Departure (DEP) Messages

That, recognizing the importance of AFTN departure (DEP) messages in the management and coordination of flight plans in both manual and automated ATM environments, ICAO be requested to:

1. Conduct an analysis of the incidence of non-receipt of DEP messages required by ICAO Doc 4444 Procedures for Air Navigation Services (PANS-ATM) Section 11.4.2.2;
2. Request that States failing to ensure correct transmission of DEP messages promptly take corrective action and report the status of corrective actions to the ICAO APAC Regional Office by 30 April 2017; and
3. Raise APANPIRG Air Navigation Deficiencies against failure by States to comply with Doc 4444 Section 11.4.2.2, at APANPIRG/28.

Expected impact:

- ☐ Political / Global
- ☐ Inter-regional
- ☐ Economic
- ☐ Environmental
- ☒ Ops/Technical

Why: To improve regional performance in complying with the requirements of Doc 4444, to improve ATM outcomes by ensuring activation of flight plan details in ATM systems, and to improve ATFM outcomes by improving the accuracy of demand calculation and ATFM measures.

When: 1 October 2017

Status: Adopted by PIRG

Who: ☐ Sub groups ☒ APAC States ☒ ICAO APAC RO ☐ ICAO HQ ☐ Other:

APANPIRG/27 Conclusion on FPL Messages

ATM SYSTEM



Conclusion APANPIRG/27/11: Origination of Flight Plan and ATS Messages

That, taking into account the Regional Framework for Collaborative ATFM Performance Improvement Plan provisions relating to the submission of FPL and ATS messages, States are urged to publish in AIP the requirement that:

a) except where necessary for operational or technical reasons, FPL should be submitted not less than 3 hours before EOBT;

b) DLA messages should be originated when the departure of an aircraft, for which basic flight plan data (FPL or RPL) has been sent, is delayed by 15 minutes or more after the EOBT contained in the basic flight plan data; and

c) CHG and CNL messages are promptly originated in accordance with the provisions of ICAO Doc 4444 Procedures for Air Navigation Services (PANS-ATM) 11.4.2.2.

Expected impact:

- ☐ Political / Global
- ☐ Inter-regional
- ☐ Economic
- ☐ Environmental
- ☒ Ops/Technical

Why: To ensure to the maximum extent possible the timely submission and update of flight plan data used for ATFM demand calculation and the formulation of ATFM measures.

When: 8-Sep-16

Status: Adopted by PIRG

Who: ☐ Sub groups ☒ APAC States ☐ ICAO APAC RO ☐ ICAO HQ ☐ Other:



- Action Item 4/1
 - Analysis of ANSPs which failed to send Departure (DEP) messages, notify the States and raise deficiencies

<u>4/1</u>	Analysis of ANSPs which failed to send Departure (DEP) messages, notify the States and raise deficiencies	ATM/SG/5	ICAO	Open CLOSED	Some States were not Asia/Pacific so were just subject to notification
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- Action Item 5/4
 - Include analysis of missing FPL message in ATFM/SG task on missing DEP messages

<u>5/4</u>	Include analysis of missing FPL messages in ATFM/SG task on missing DEP messages	ATFM/SG/8	ATFM/SG	Open	
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- **ICAO APAC RO Criteria**
 - Non-Receipt of DEP reported > 5% traffic sample
 - Sample > 20 flights/day
- **Updated ANS Deficiencies (Nov 2019)**
 - Bangladesh
 - India
 - Malaysia
 - Maldives (new)
 - Nepal (new)
 - USA

ICAO ATM/SG/7 Data Collection – Jun 2019

and Monitoring
ICAO ATM SYSTEM



- **ICAO Data Collection Date : 14 Jun 2019**
- **Full Data : ATM/SG/7**
- **Reporting States :**
 - Australia
 - China
 - Japan
 - Singapore
 - Thailand

Non-Receipt of DEP Messages Outside APAC



- **Data Date:** 14 Jun 2019

State	Region	Number	Reporting
Austria	EUR	4	Ch, In, Th
Azerbaijan	EUR	5	Ch
Bahrain	MID	26	Ch, In, Th
Belgium	EUR	8	Ch, In, Th
Czech Republic	EUR	1	Ch
Denmark	EUR	4	Ch, In, Th
Egypt	MID	3	Ch, In
France	EUR	33	Ch, In, Sg, Th

Non-Receipt of DEP Messages Outside APAC



- **Data Date:** 14 Jun 2019

State	Region	Number	Reporting
Germany	EUR	26	Ch, In, Sg, Th
Iran	MID	6	Ch, In, Th
Iraq	MID	3	In
Ireland	EUR	1	Ch
Italy	EUR	5	Ch, In, Th
Jordan	MID	3	In, Th
Kuwait	MID	25	In, Th
Latvia	EUR	1	Ch

Non-Receipt of DEP Messages Outside APAC



- **Data Date:** 14 Jun 2019

State	Region	Number	Reporting
Luxembourg	EUR	3	Ch
Netherlands	EUR	1	In
Oman	MID	14	In, Th
Poland	EUR	4	Ch
Portugal	EUR	1	In
Qatar	MID	92	In
Russia	EUR	24	Ch, In, Jp, Sg, Th

Non-Receipt of DEP Messages Outside APAC



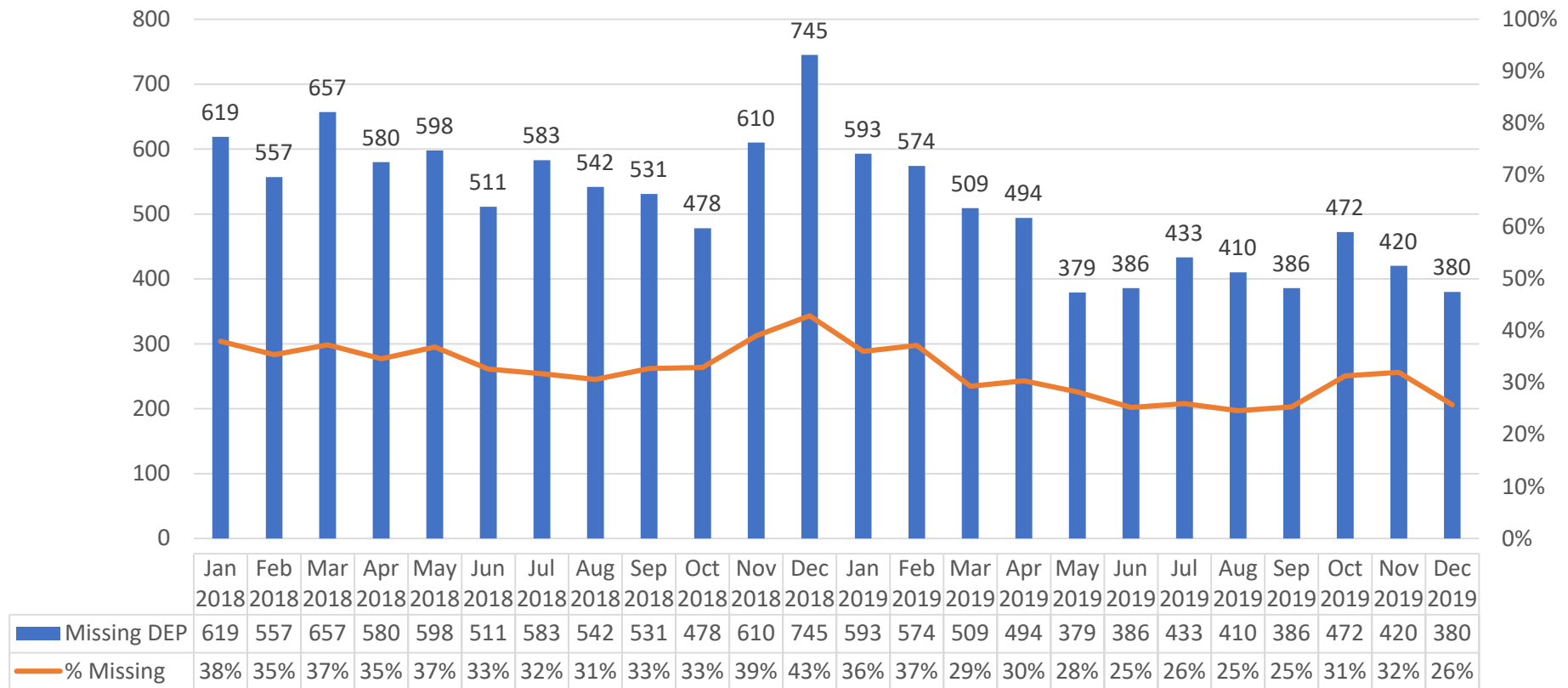
- **Data Date:** 14 Jun 2019

State	Region	Number	Reporting
Saudi Arabia	MID	53	Ch, In, Th
Spain	EUR	9	Ch, Sg
Sweden	EUR	4	Ch, In, Th
Switzerland	EUR	12	Ch, In, Sg, Th
Turkey	EUR	27	Ch, In, Sg, Th
Turkmenistan	EUR	1	Ch
UAE	MID	45	Ch, In, Th
United Kingdom	EUR	59	Ch, In, Sg, Th
Ukraine	EUR	1	In

Thailand Non-Receipt of DEP Messages (MID)



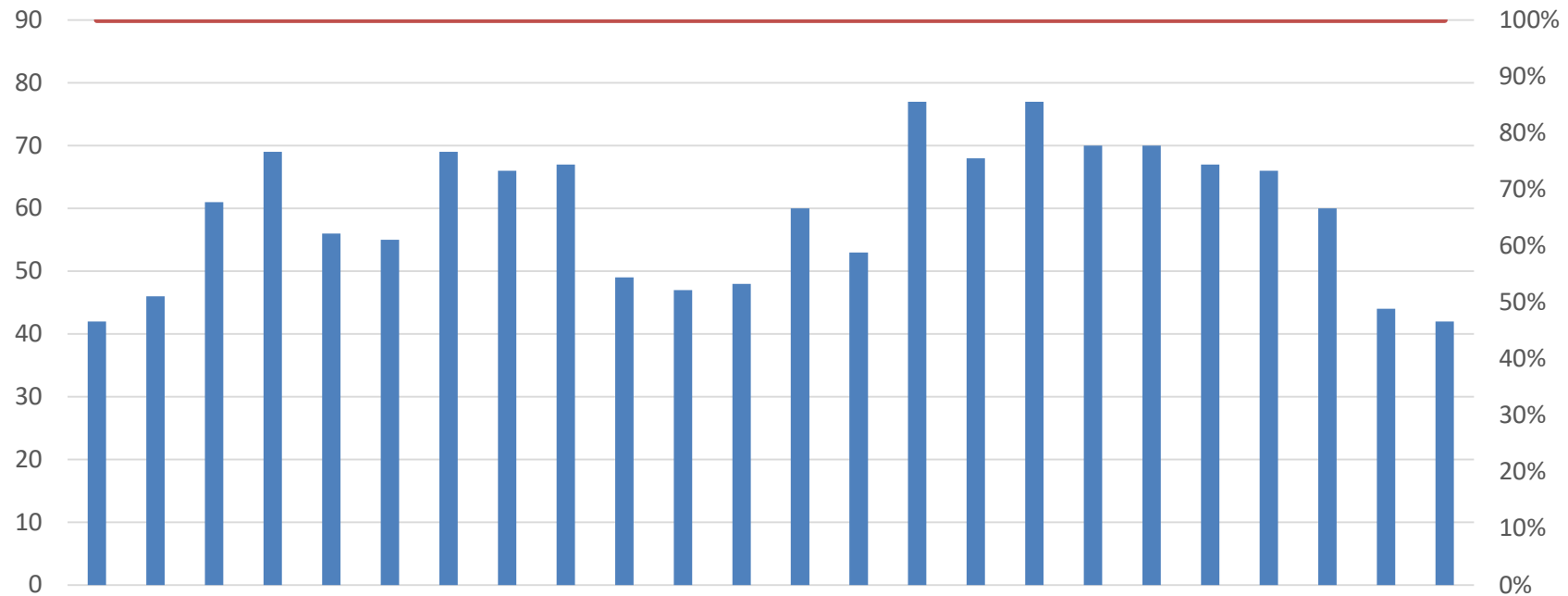
Monthly Non-Receipt of DEP Messages (MID)



Thailand Non-Receipt of DEP Messages (Bahrain)



Monthly Non-Receipt of DEP Messages (Bahrain)

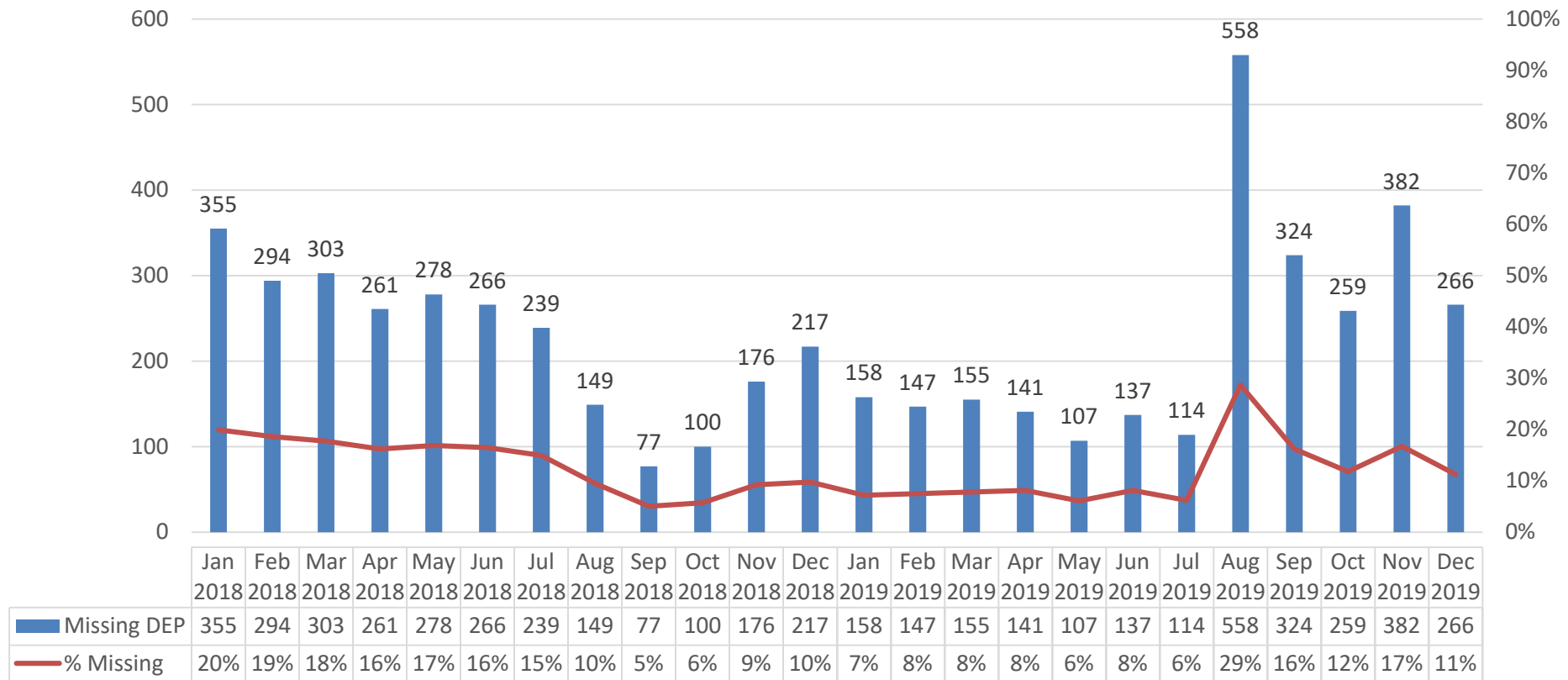


	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Missing DEP	42	46	61	69	56	55	69	66	67	49	47	48	60	53	77	68	77	70	70	67	66	60	44	42
% Missing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Thailand Non-Receipt of DEP Messages (India)



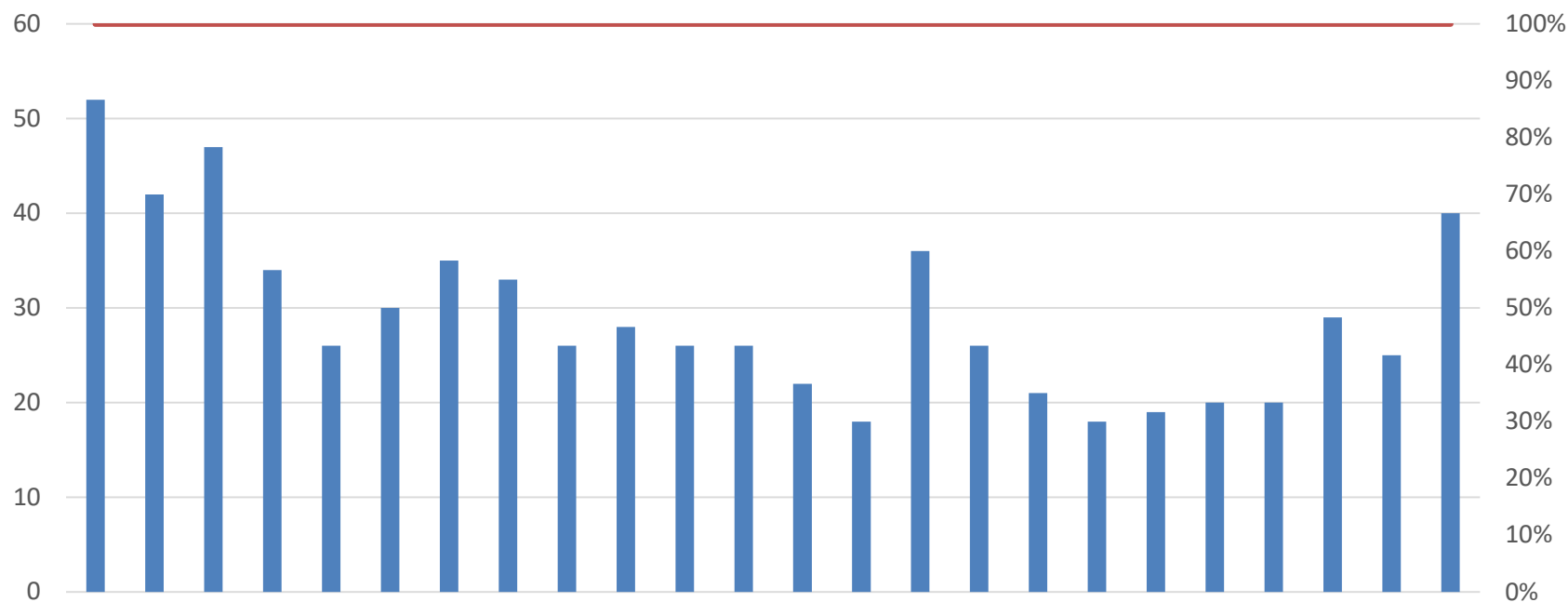
Monthly Non-Receipt of DEP Messages (India)



Thailand Non-Receipt of DEP Messages (Iran)



Monthly Non-Receipt of DEP Messages (Iran)



Missing DEP

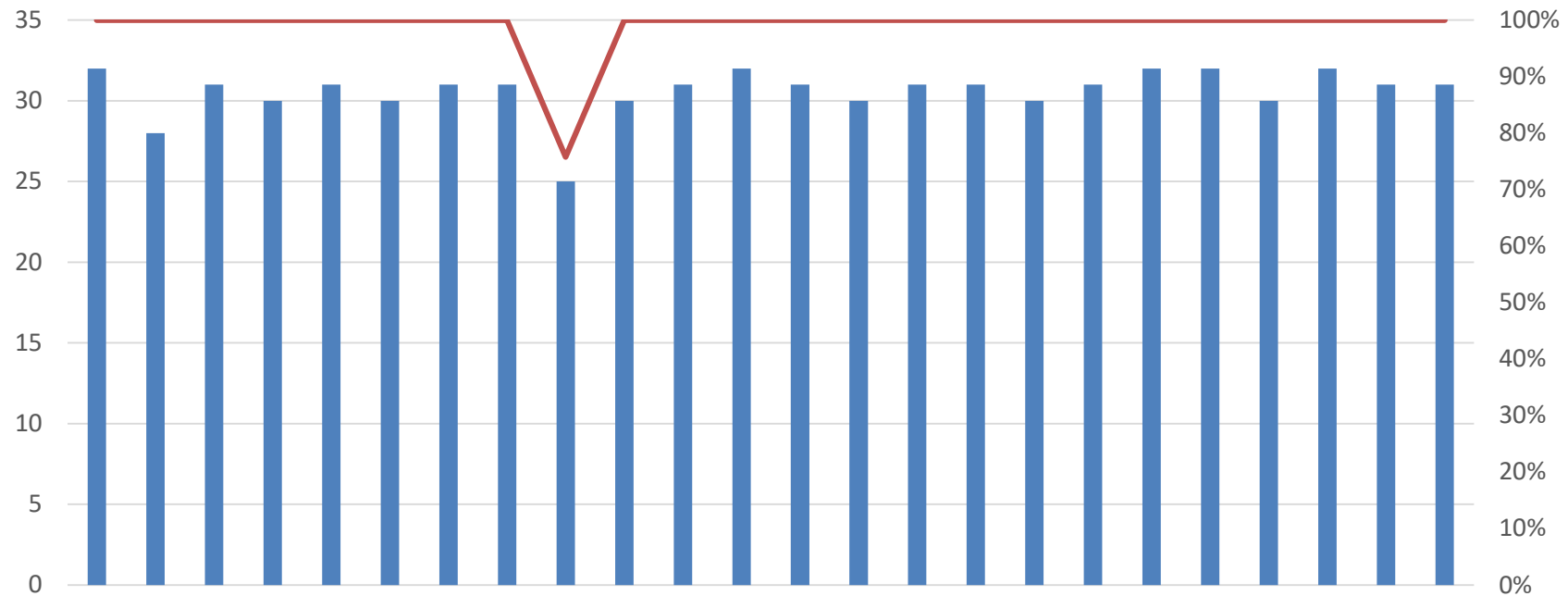
% Missing

Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
52	42	47	34	26	30	35	33	26	28	26	26	22	18	36	26	21	18	19	20	20	29	25	40
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Thailand Non-Receipt of DEP Messages (Jordan)



Monthly Non-Receipt of DEP Messages (Jordan)

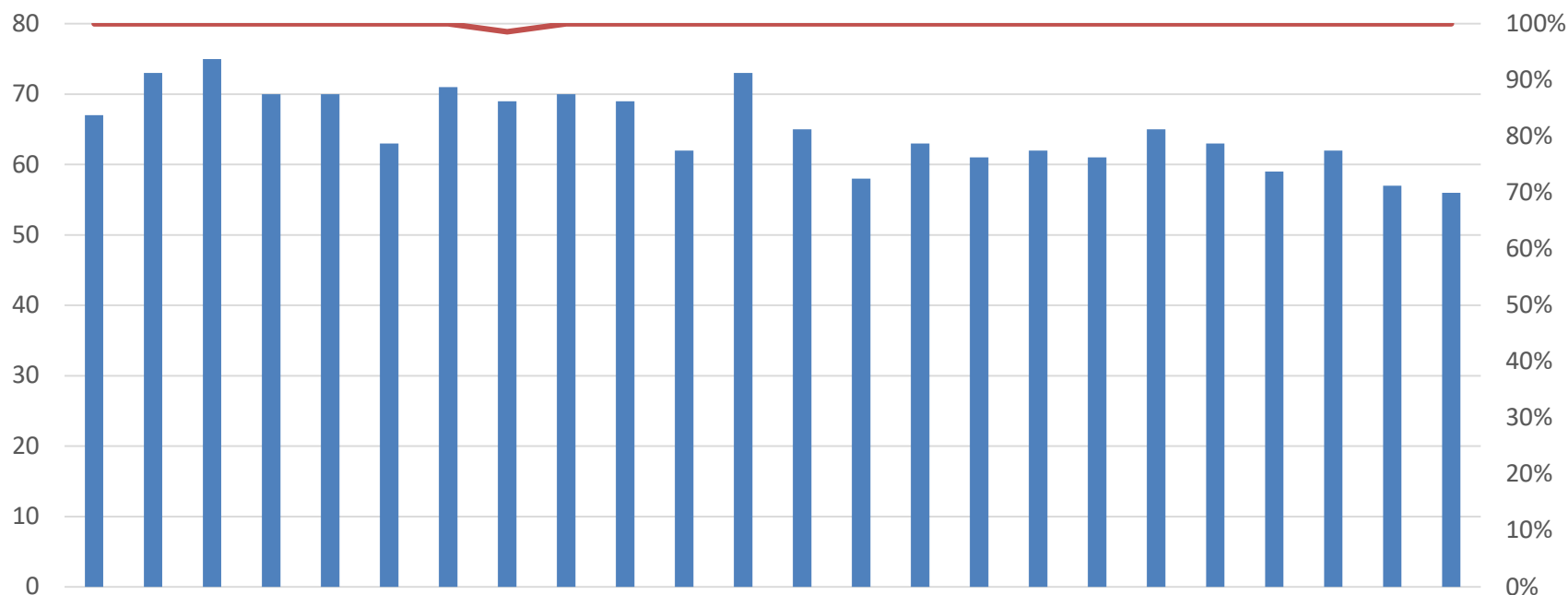


	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Missing DEP	32	28	31	30	31	30	31	31	25	30	31	32	31	30	31	31	30	31	32	32	30	32	31	31
% Missing	100%	100%	100%	100%	100%	100%	100%	100%	76%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Thailand Non-Receipt of DEP Messages (Kuwait)



Monthly Non-Receipt of DEP Messages (Kuwait)

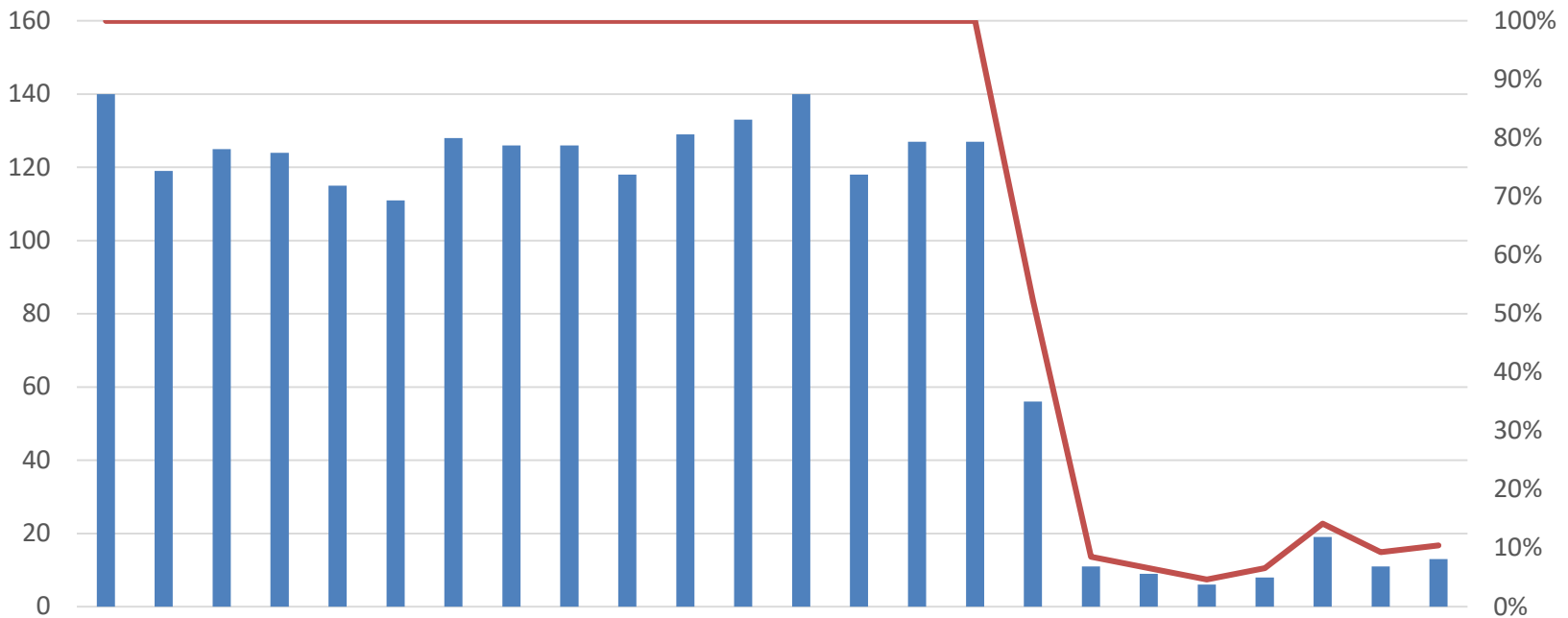


	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Missing DEP	67	73	75	70	70	63	71	69	70	69	62	73	65	58	63	61	62	61	65	63	59	62	57	56
% Missing	100%	100%	100%	100%	100%	100%	100%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Thailand Non-Receipt of DEP Messages (Oman)



Monthly Non-Receipt of DEP Messages (Oman)

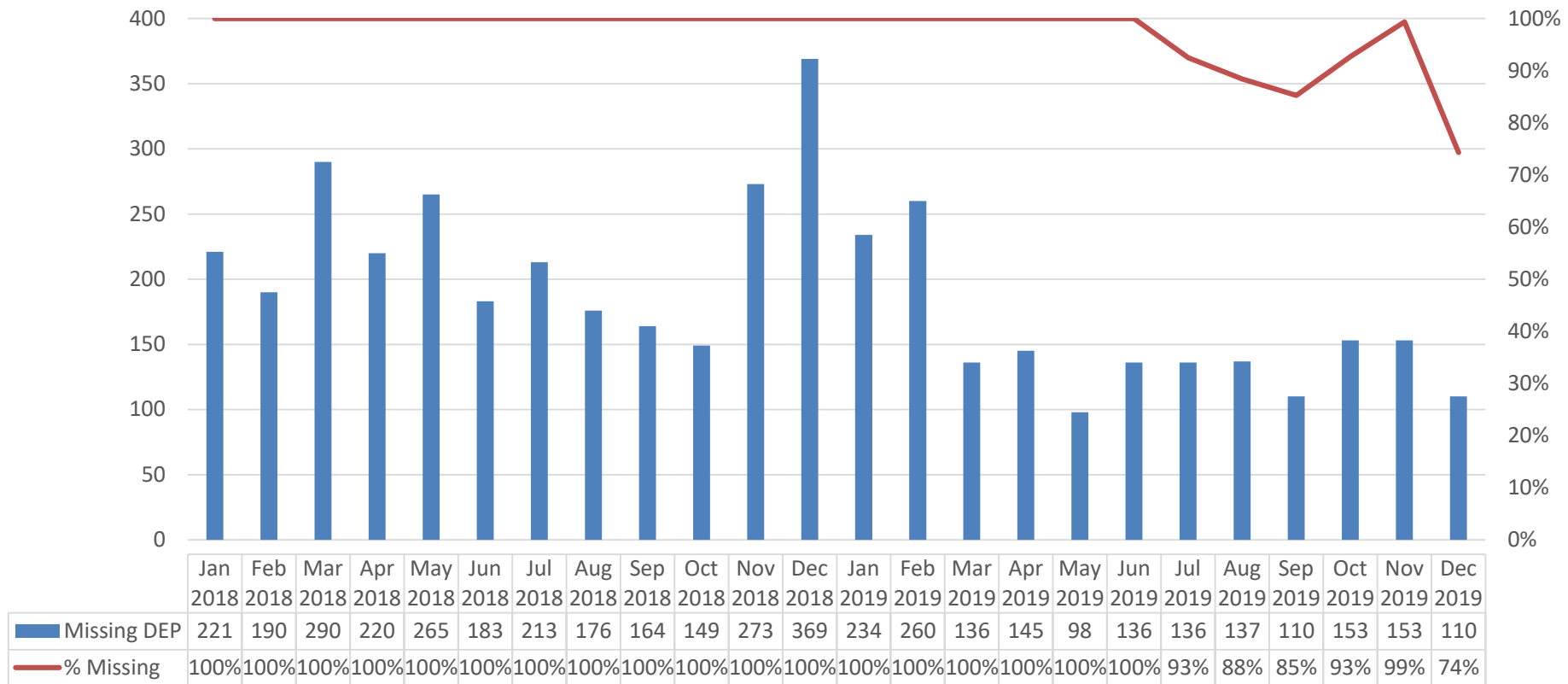


	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
Missing DEP	140	119	125	124	115	111	128	126	126	118	129	133	140	118	127	127	56	11	9	6	8	19	11	13
% Missing	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	52%	9%	7%	5%	7%	14%	9%	10%

Thailand Non-Receipt of DEP Messages (Saudi Arabia)



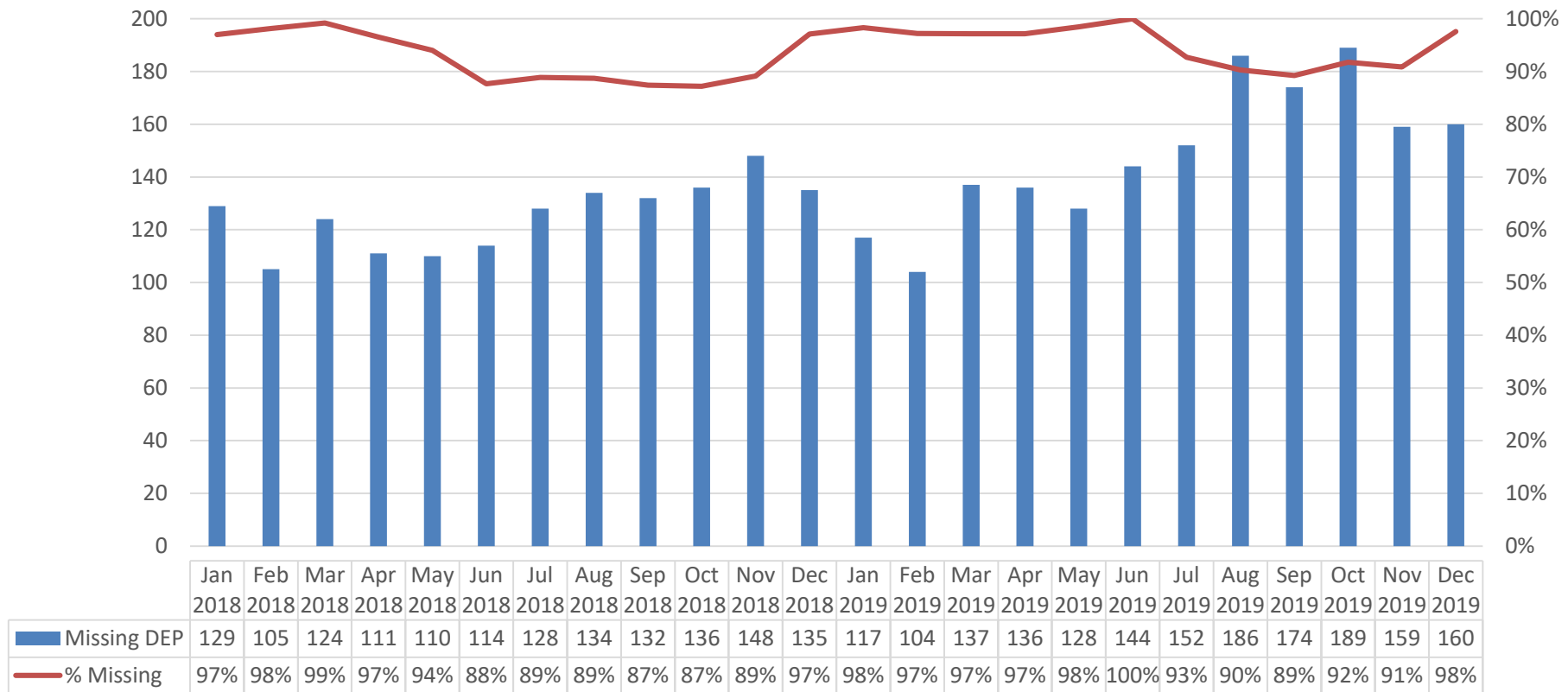
Monthly Non-Receipt of DEP Messages (Saudi Arabia)



Thailand Non-Receipt of DEP Messages (Turkey)



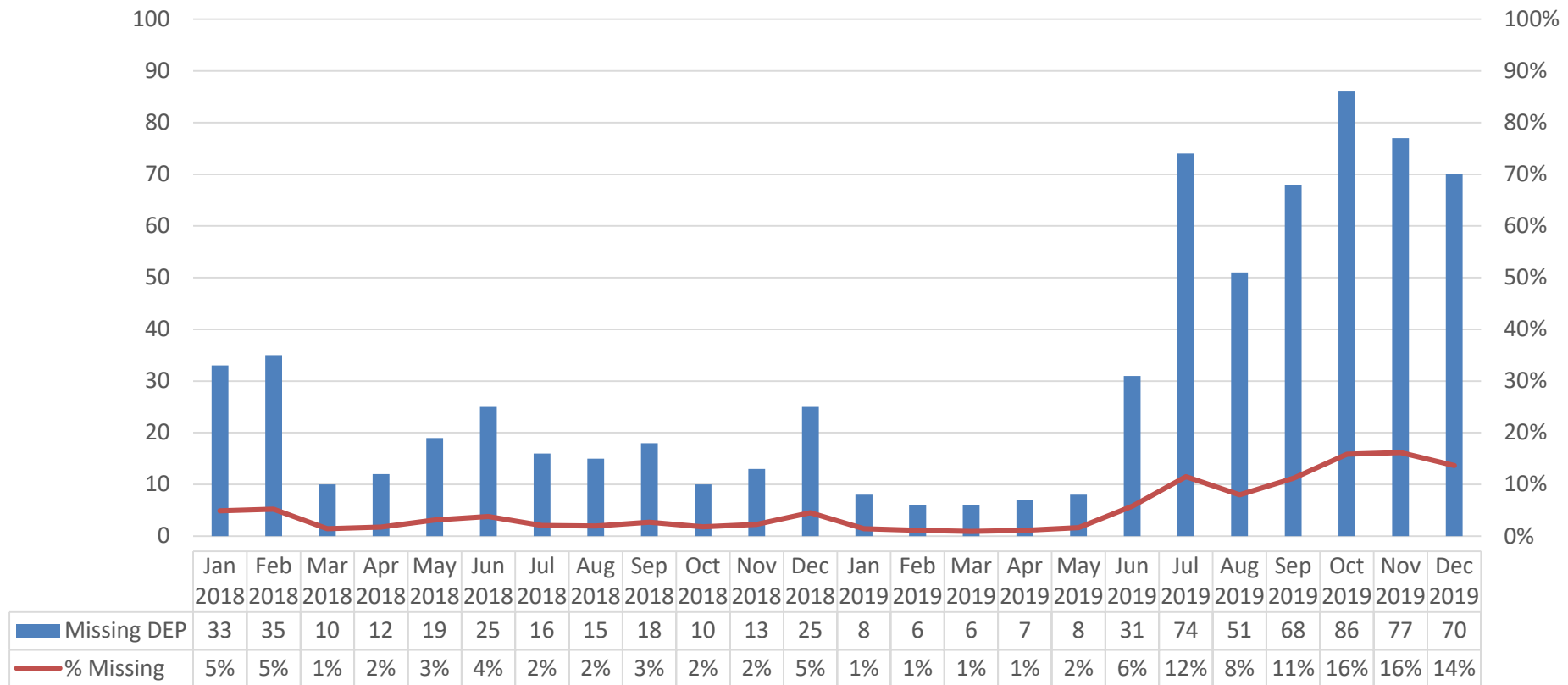
Monthly Non-Receipt of DEP Messages (Turkey)



Thailand Non-Receipt of DEP Messages (UAE)



Monthly Non-Receipt of DEP Messages (UAE)



Action by the Meeting



- ICAO MID States to review operational procedure / automation configuration in originating FPL and DEP messages and resolve non-receipt of these messages
 - Includes procedure to originate DEP, addressee list in case ATM automation system is configured to send DEP messages to fixed addressee list instead of FPL analysis
 - Data from ICAO APAC ATM/SG WP and detailed data for Dec 2019 provided by Thailand can be starting point
- ICAO MID States consider releasing AIP Amendment requiring inclusion of all FIR Boundary EETs in Item 18 of FPLs or consider PfA to Doc 7030 requiring so
 - May be used to alleviate missing DEP messages for overflights
 - Early dynamic trajectory update for ATFM demand calculation
- ICAO MID States to review FPL & ATS message addressing requirement and ensure compliance with ICAO PANS-ATM 11.2.1.2.3.3 and 11.4.2.2.3 to 11.4.2.2.6, (especially 11.4.2.2.6.2, for DEP)
- Ensures that addressee list can be correctly simplified into [**loc_ind**]ZQZX
 - (**location indicator of centre in charge of the FIR**)