



Winter 2019 (W19)

Schedule Coordination Committee Meeting

DXB & DWC

10 April 2019

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W19 Schedule Coordination Committee Meeting

- 12:30** **Welcome & Lunch**
- 13:15 **Introduction**
Rob Whitehouse, Vice President – Research, Dubai Airports (DA)
- 13:20 **S19 Seasonal Report**
James DeGroot, DXB/DWC Coordinator, Airport Coordination Limited (ACL)
- 13:35 **Runway, Terminal & Stands Capacity Declaration and Historical Performance**
Rob Whitehouse, Vice President – Research, Dubai Airports (DA)
- 13:50 **Airfield Development**
Jeremy Rowton, Head of Development (Airfield Delivery), Dubai Airports (DA)
- 14:10** **Break (10 minutes)**
- 14:20 **W18 Airfield Performance**
Michael Dolbey, Vice President – Air Traffic Services, Dubai Air Navigation Services (dans)
- 14:35 **Southern Runway Rehabilitation Schedule & Performance Monitoring**
Fernando de Freitas, DXB/DWC Coordination Manager, Airport Coordination Limited (ACL)
Rob Whitehouse, Vice President – Research, Dubai Airports (DA)
- 14:50 **Southern Runway Rehabilitation – Disruption Resilience Plan**
Rob Whitehouse, Vice President – Research, Dubai Airports (DA)
- 15:00 **End of W19 Scheduling Coordination Committee/ Q&A**
Rob Whitehouse, Vice President – Research, Dubai Airports (DA)

Purpose of Schedule Coordination Committee Meeting

Dubai Airports holds two Schedule Coordination Committee meetings per annum for summer and winter seasons, respectively. The purpose of the meetings is to provide the airport community with a view on matters relating to airport capacity and the declaration.

Key Objectives:

- **Discuss the Start of Season Report for DXB and DWC;**
- **Provide visibility on the proposed capacity declaration for runways, terminals and stands;**
- **Provide visibility of the upcoming season's report;**
- **Update on coordination-related challenges, for example, major works impacting capacity for future seasons;**
- **Provide an update on proposed airfield and airport development to increase future capacity;**
- **Inform the airline community of any proposed policy changes, such as adjustments to the Conditions of Use;**
- **Invite stakeholders to engage in discussions related to all of the above.**

S19 Seasonal Report

James DeGroot, DXB/DWC Coordinator
Airport Coordination Limited (ACL)

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Schedule Facilitator's Report DXB - Summer 2019 Update

Integrity | Together | Own it | Professional | Striving for better



Post SRR Update – Summer 2019

(31st May 2019 – 26th October 2019)

Integrity | Together | Own it | Professional | Striving for better

DXB Post SRR Summary

Air Transport Movements

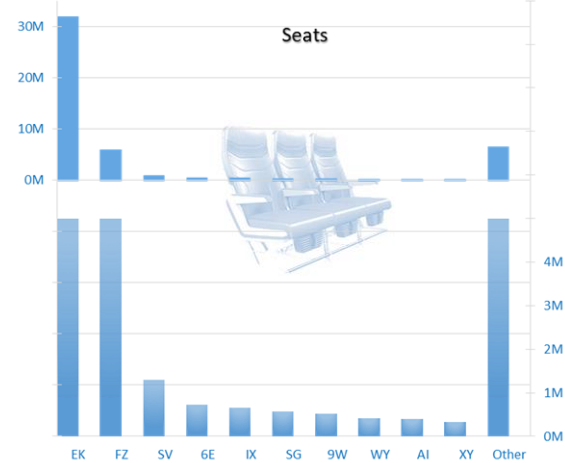
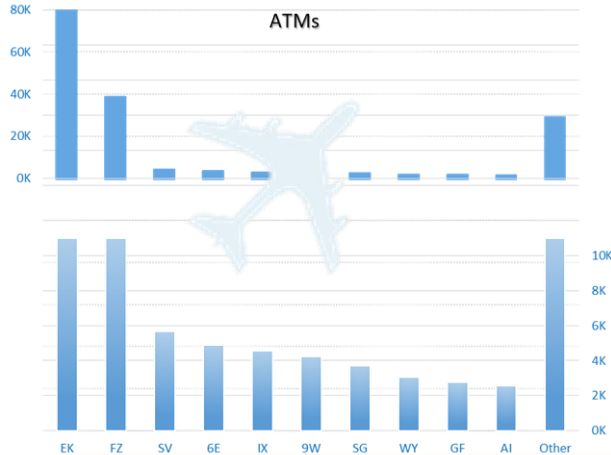


Operator	EK	FZ	SV	6E	IX	9W	SG	WY	GF	AI	Other	Total
Slot Count	78,996	38,854	4,468	3,873	3,407	3,277	2,892	2,373	2,172	1,958	29,631	171,901
Proportion	46.0%	22.6%	2.6%	2.3%	2.0%	1.9%	1.7%	1.4%	1.3%	1.1%	17.2%	100.0%

Seat Utilisation



Operator	EK	FZ	SV	6E	IX	9W	SG	AI	WY	PK	Other	Total
Seat Count	27,768,681	5,000,348	806,910	559,034	514,155	447,774	442,323	315,426	299,718	267,952	5,093,594	41,515,915
Proportion	66.9%	12.0%	1.9%	1.3%	1.2%	1.1%	1.1%	0.8%	0.7%	0.6%	12.3%	100.0%



DXB Post SRR Summary

Routes by ATM

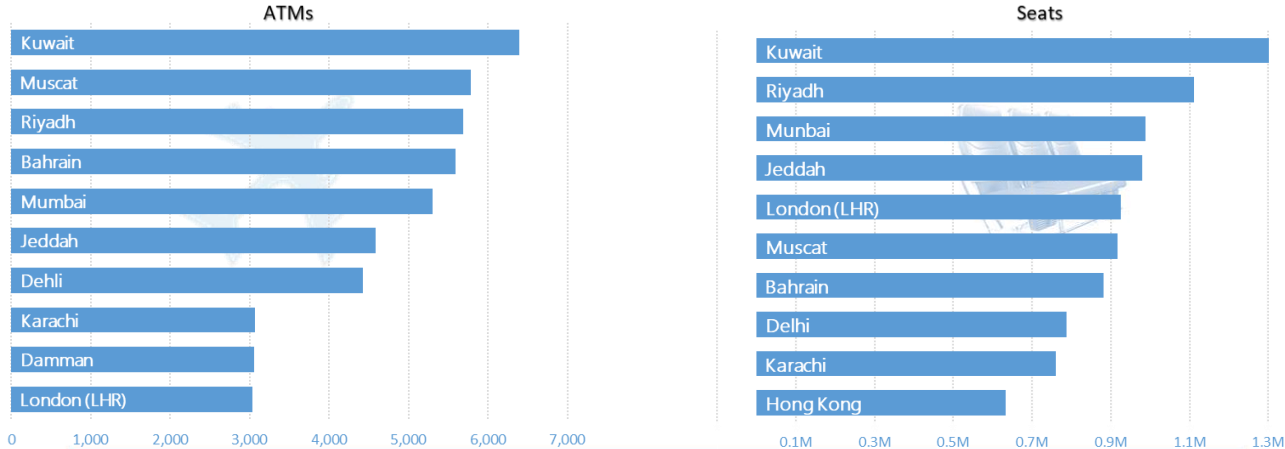


Route	Kuwait	Muscat	Riyadh	Bahrain	Mumbai	Jeddah	Dehli	Karachi	Damman	London (LHR)	Other	Total
Slot Count	7,099	5,779	5,700	5,397	5,279	4,641	4,127	3,223	2,988	2,591	125,077	171,901
Proportion	4.1%	3.4%	3.3%	3.1%	3.1%	2.7%	2.4%	1.9%	1.7%	1.5%	72.8%	100.0%

Routes by Seat

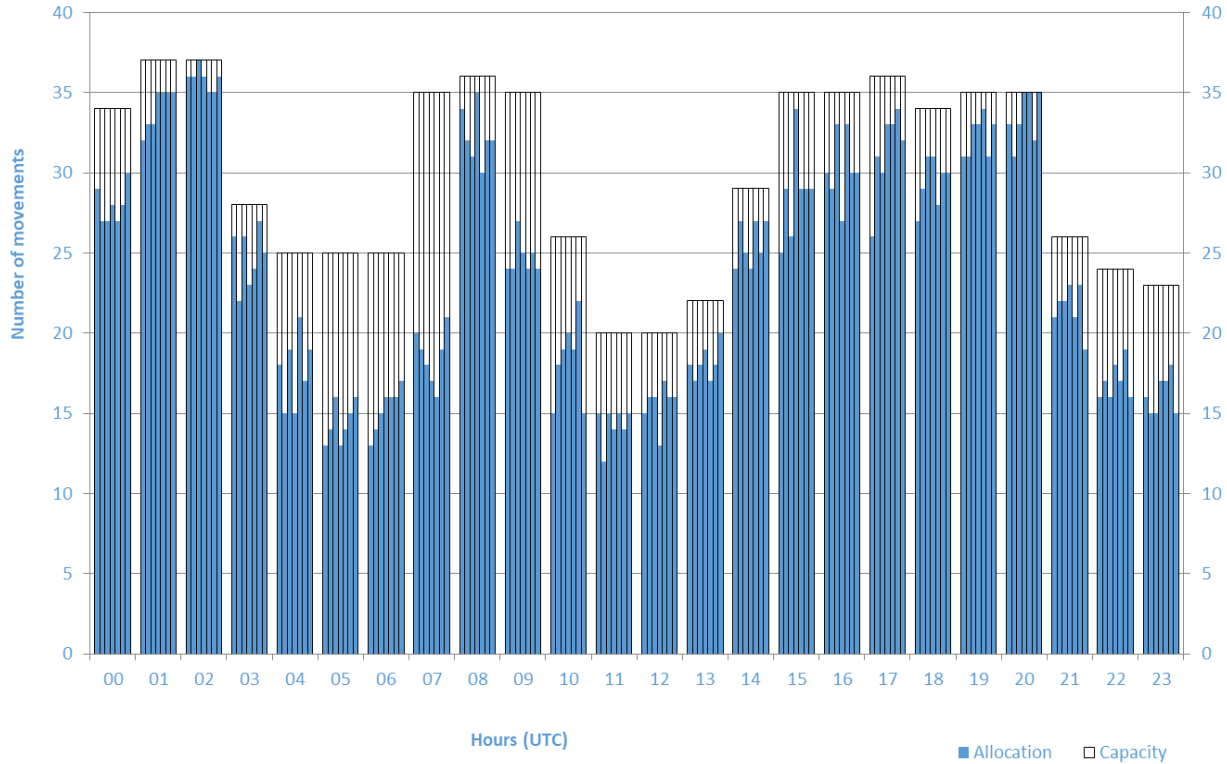


Route	Kuwait	Riyadh	Mumbai	Jeddah	London (LHR)	Muscat	Bahrain	Delhi	Karachi	Hong Kong	Other	Total
Seat Count	1,333,356	1,110,434	988,519	979,276	924,692	917,750	881,303	787,436	760,252	633,907	32,198,990	41,515,915
Proportion	3.2%	2.7%	2.4%	2.4%	2.2%	2.2%	2.1%	1.9%	1.8%	1.5%	77.6%	100%

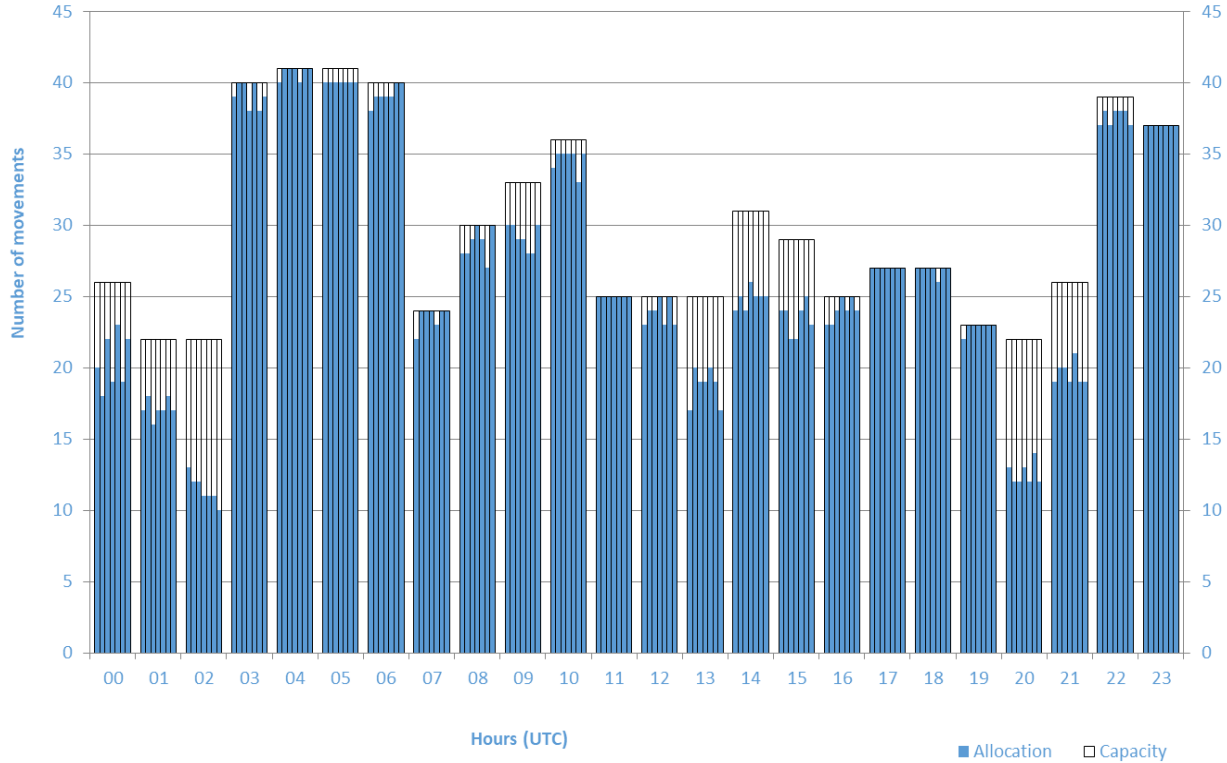


Post SRR Peak Week

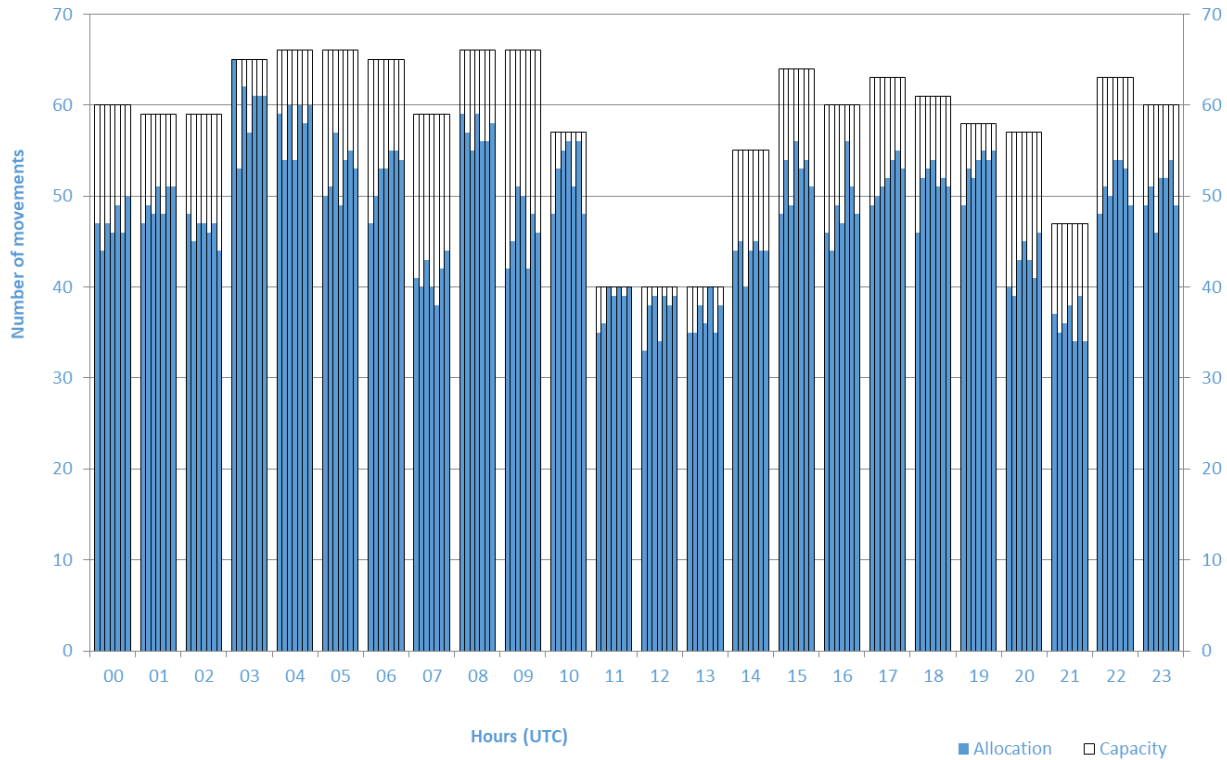
Runway Movement Allocation Hourly (R60) – Arrivals - UTC



Post SRR Peak Week Runway Movement Allocation Hourly (R60) – Departures - UTC



Post SRR Peak Week Runway Movement Allocation Hourly (R60) – Totals - UTC



Combined Runway Constraints (R60/R10) Peak Week - UTC

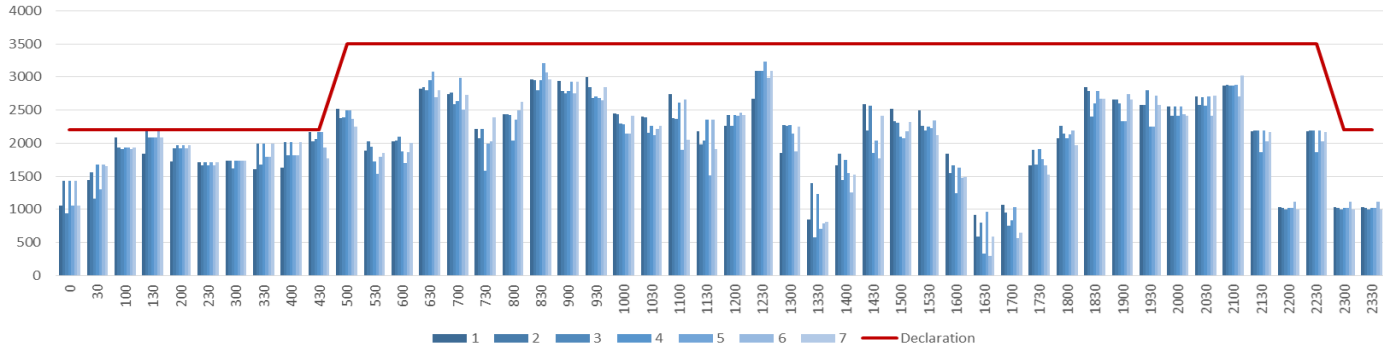
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30	2	1	1	1	1	1	2
40	1	2	1	2	1	1	1
50	3	2	2	1	3	2	
100	2	1	1	0	0	0	1
110	0	0	0	0	0	0	0
120	1	0	0	1	0	0	0
130	0	0	1	0	0	0	0
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350	2	3	2	3	2	1	2
400	2	4	1	4	1	2	3
410	0	1	0	0	0	0	0
420	2	2	3	3	1	3	2
430	4	4	2	3	2	3	4
440	5	5	5	4	5	5	5
450	6	5	6	4	6	5	5
500	4	4	4	4	4	3	3
510	6	6	6	6	6	6	6
520	3	3	1	3	2	3	2
530	4	4	4	4	4	3	4
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600	5	5	5	6	5	6	5
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700	4	3	4	4	4	3	3
710	4	4	4	4	3	4	3
720	3	2	4	4	4	3	3
730	2	4	2	3	2	3	1
740	2	2	3	3	4	2	3
750	1	2	1	1	3	1	2

ARRIVALS							
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810	0	0	0	0	0	0	0
820	0	0	0	0	0	0	0
830	1	2	1	0	1	0	1
840	0	1	1	0	1	1	1
850	1	0	2	1	0	1	1
900	0	1	0	0	0	0	0
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950	3	4	3	3	5	3	4
1000	4	4	4	3	4	4	4
1010	6	5	5	5	5	4	4
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1030	3	2	3	2	3	3	3
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1100	2	3	3	3	2	2	4
1110	5	4	5	5	5	4	4
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1220	5	4	4	6	3	4	4
1230	3	3	3	4	3	4	3
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1250	3	3	3	3	2	3	3
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1320	1	1	1	0	0	0	1
1330	2	3	3	3	3	3	2
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1350	4	4	4	3	4	2	2
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1440	2	1	2	2	2	2	1
1450	2	2	1	2	1	2	0
1500	1	1	0	0	1	0	0
1510	4	1	4	1	4	2	4
1520	2	0	2	0	1	1	1
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1540	1	1	0	0	0	1	0
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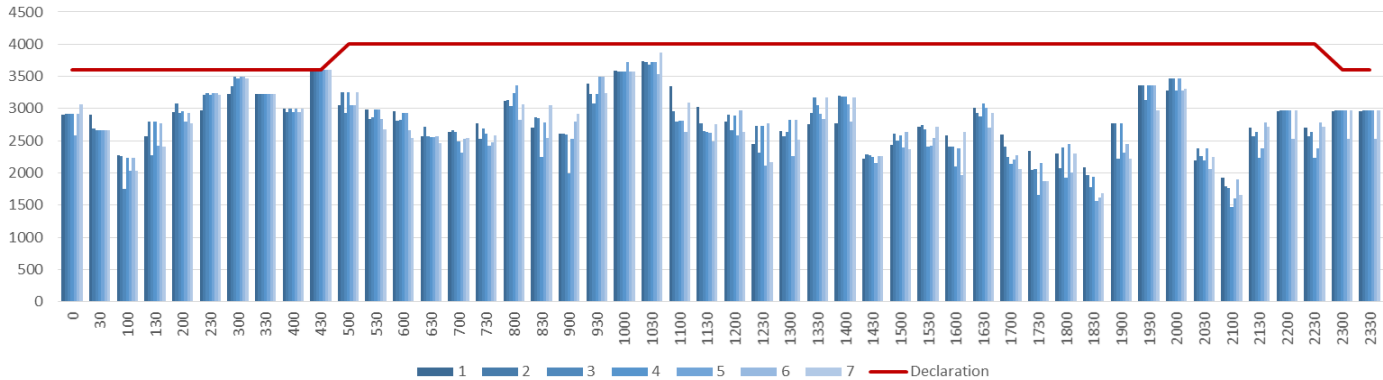
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50	5	6	5	4	5	6	6
100	3	2	3	2	3	3	3
110	4	5	5	6	5	3	3
120	4	4	4	4	4	5	3
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220	5	4	5	3	5	4	6
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240	6	6	6	6	6	6	6
250	3	5	3	5	3	2	5
300	1	2	1	1	1	0	1
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340	0	0	0	0	0	0	0
350	0	3	1	2	0	3	1
400	0	0	0	1	1	0	0
410	0	1	0	1	0	0	0
420	0	0	0	0	0	0	0
430	0	1	0	1	0	0	0
440	0	1	0	0	0	0	0
450	0	0	0	0	1	0	0
500	1	0	0	1	0	0	0
510	1	0	0	1	0	0	0
520	0	0	0	0	0	0	0
530	1	2	0	1	0	1	2
540	1	2	1	1	1	1	1
550	1	1	0	2	1	0	2
600	0	0	0	0	0	0	0
610	0	0	0	0	0	0	0
620	2	2	1	1	0	1	1
630	1	1	1	0	0	0	1
640	2	0	0	1	0	0	1
650	3	2	3	1	1	3	3
700	3	3	0	1	2	1	1
710	3	2	0	1	2	1	1
720	3	3	0	1	2	1	1
730	3	3	0	1	2	1	1
740	3	3	0	1	2	1	1
750	2	3	0	1	2	1	1

DEPARTURES							
UTC	1	2	3	4	5	6	7
800	2	3	2	1	2	1	2
810	2	2	2	2	3	3	2
820	2	2	2	2	2	2	2
830	3	3	4	3	3	4	4
840	4	4	4	5	4	3	4
850	4	4	3	4	3	4	4
900	2	4	2	3	4	6	4
910	5	6	4	6	5	4	3
920	7	5	7	6	7	3	5
930	0	1	0	1	1	0	1
940	3	3	4	0	4	3	4
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1010	3	1	0	0	4	2	3
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1050	0	0	0	0	0	0	0
1100	1	0	0	0	0	0	0
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1120	5	1	0	0	0	0	0
1130	4	1	0	0	0	0	0
1140	5	1	0	0	0	0	0
1150	4	1	0	0	0	0	0
1200	2	1	0	1	0	0	0
1210	1	1	0	1	0	1	1
1220	5	3	2	4	3	3	2
1230	6	3	2	4	3	3	2
1240	6	6	6	6	6	6	6
1250	5	3	2	4	3	3	2
1300	2	2	2	2	0	2	2
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1320	5	5	4	5	2	5	5
1330	4	5	4	5	2	5	5
1340	6	7	5	7	2	7	7
1350	6	4	5	4	2	5	5
1400	1	1	2	1	0	1	2
1410	5	4	5	3	3	5	3
1420	6	6	6	6	7	6	6
1430	5	6	5	5	6	5	6
1440	1	2	3	3	3	3	3
1450	4	5	4	5	4	5	4
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1510	3	3	3	3	3	3	3
1520	3	3	3	4	3	3	3
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1540	1	1	1	1	2	1	2
1550	6	4	6	6	5	4	6

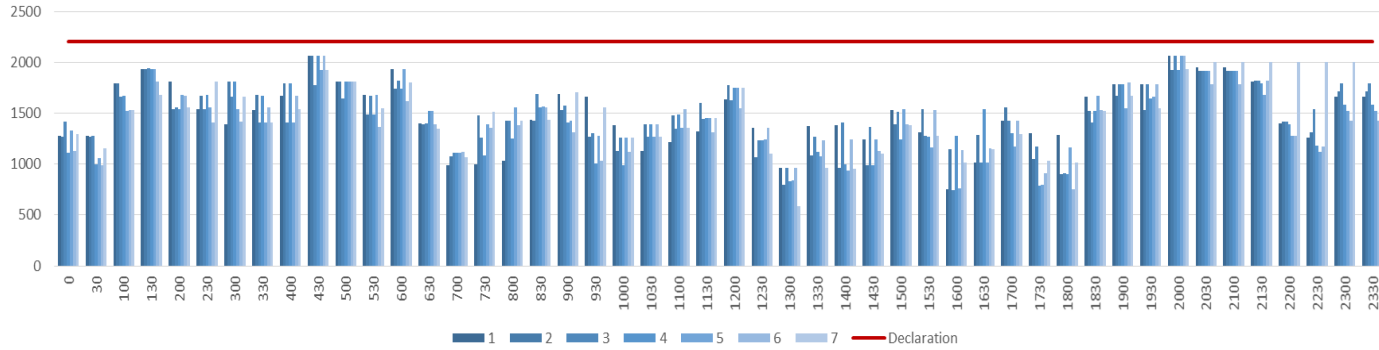
Terminal 1 Arrivals Allocation – Peak Week – Passengers by UTC Hour



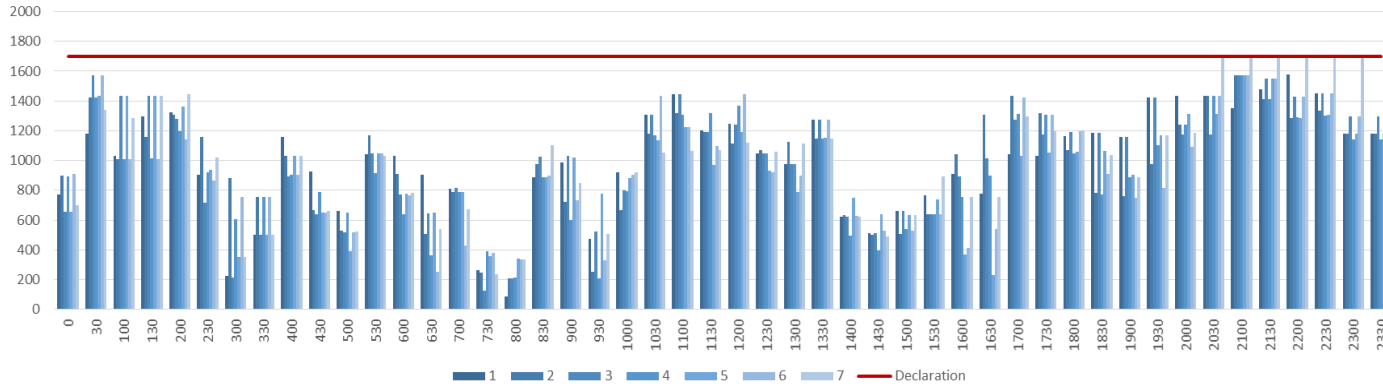
Terminal 1 Departures Allocation – Peak Week – Passengers by UTC Hour



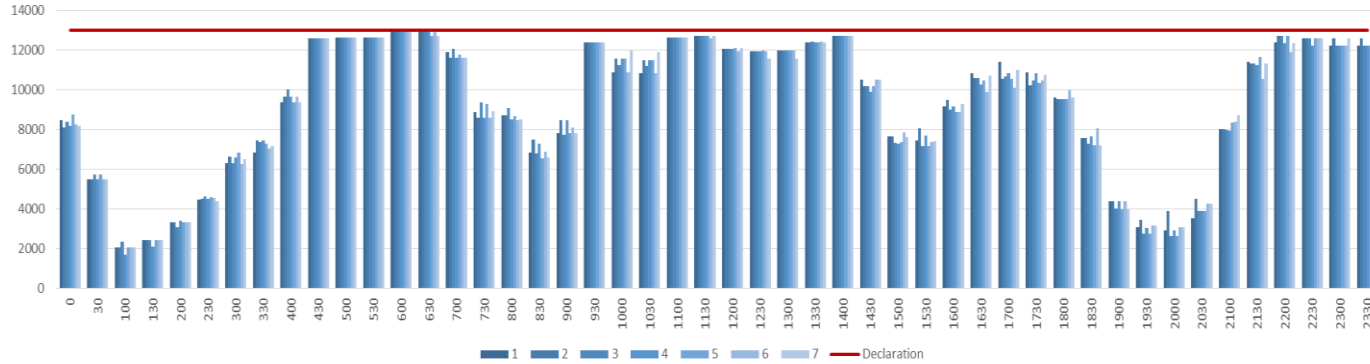
Terminal 2 Arrivals Allocation – Peak Week – Passengers by UTC Hour



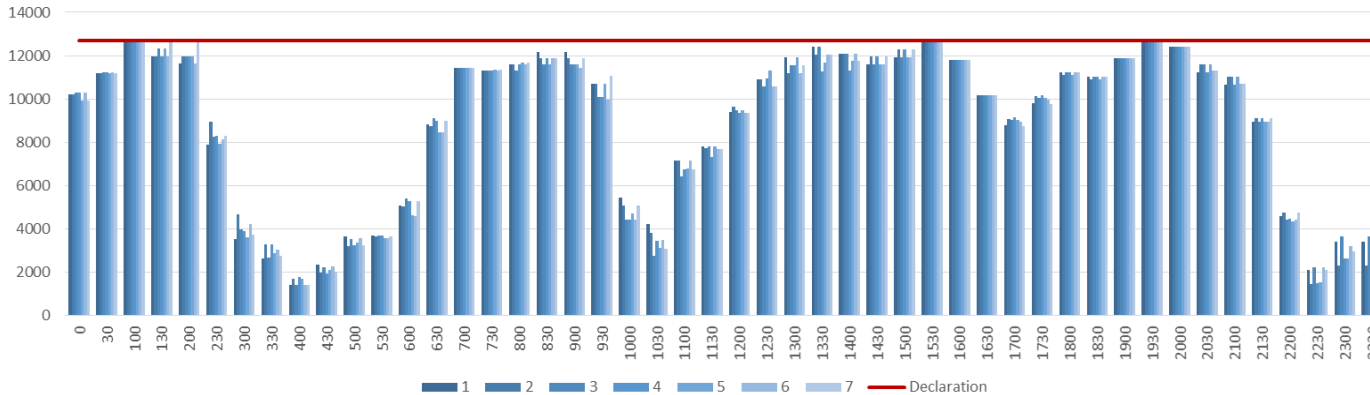
Terminal 2 Departures Allocation – Peak Week – Passengers by UTC Hour



Terminal 3 Arrivals Allocation – Peak Week – Passengers by UTC Hour



Terminal 3 Departures Allocation – Peak Week – Passengers by UTC Hour



DXB Local Rules

- Historic Eligibility Local Rule
- Includes the existing Cargo Local Rule
- Includes the existing Positioners and Transit flights
- Slot Enforcement Local Rule
- GA Slot Adherence
- Charter Local Rule
- Southern Runway Closure Local Rule

The link <https://www.acl-uk.org/airport-info-details/?aid=14> gives access to all DXB local rules and conditions of use alongside other useful information such as seasonal capacity reports and presentations.

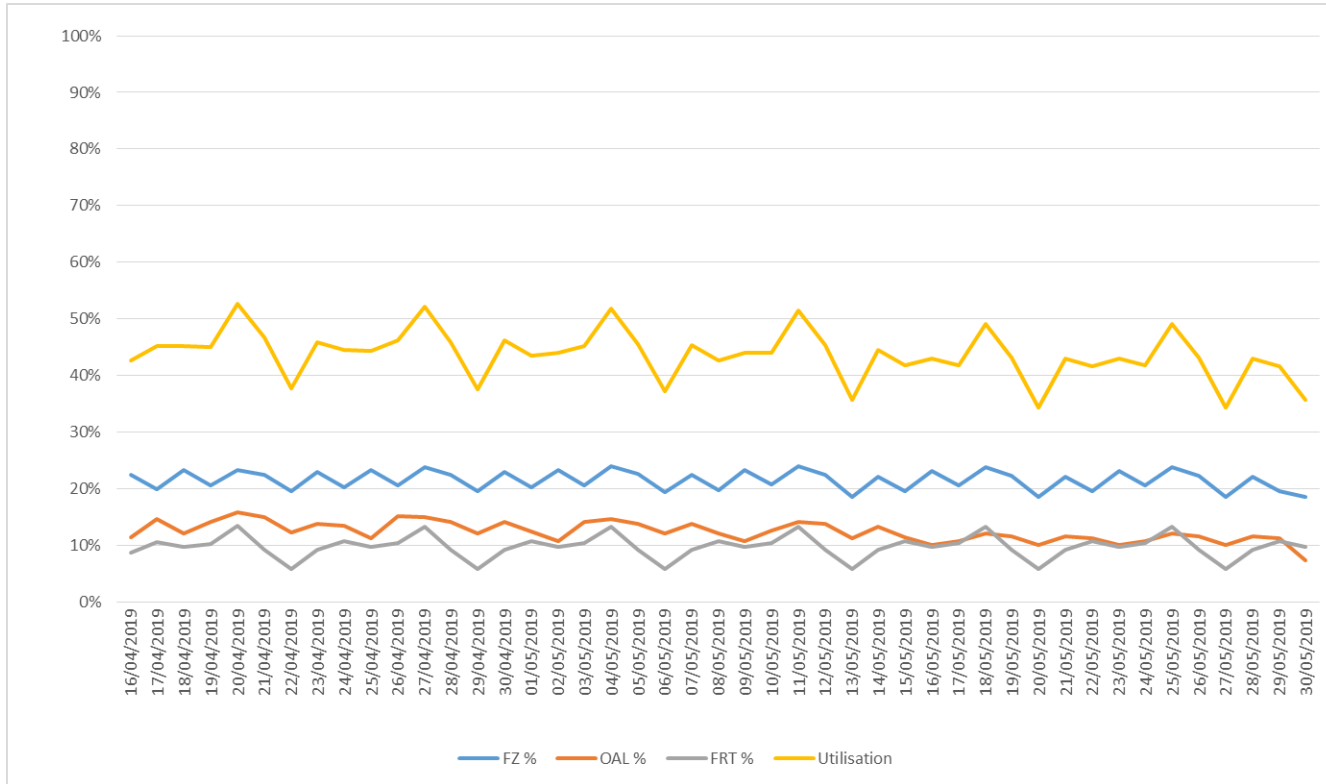




Schedule Facilitator's Report DWC SRR – Summer 2019 (16th April – 30th May 2019)

Integrity | Together | Own it | Professional | Striving for better

DWC SRR Allocated Runway Utilisation (R60 Totals)



DWC SRR Summary

Air Transport Movements

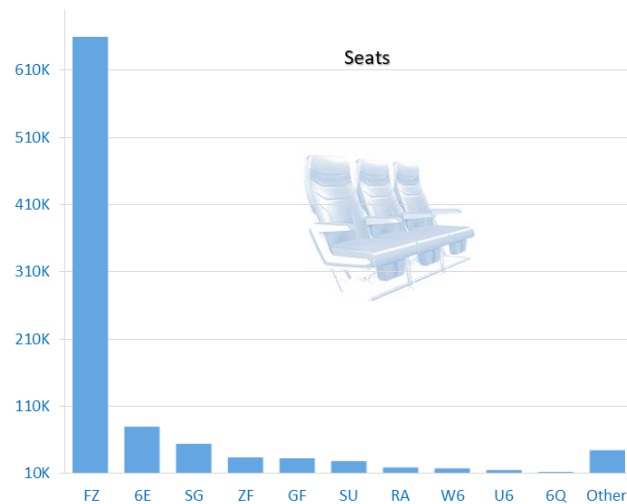
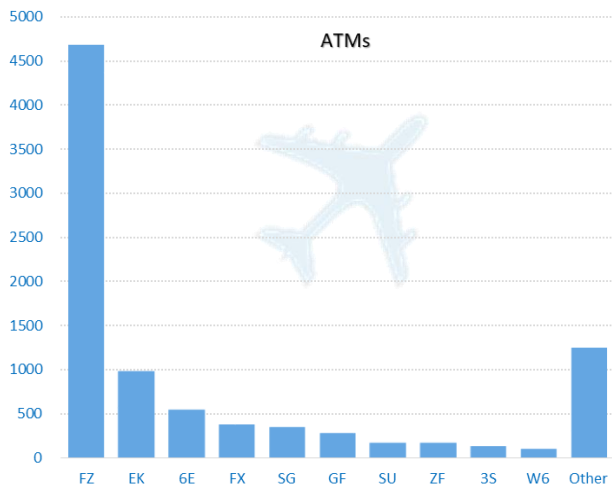


Operator	FZ	EK	6E	FX	SG	GF	SU	ZF	3S	W6	Other	Total
Slot Count	4,678	994	553	387	360	288	180	179	144	116	1,255	9,134
Proportion	51.2%	10.9%	6.1%	4.2%	3.9%	3.2%	2.0%	2.0%	1.6%	1.3%	13.7%	100.0%

Seat Utilisation



Operator	FZ	6E	SG	ZF	GF	SU	RA	W6	U6	6Q	Other	Total
Seat Count	658,822	79,488	54,360	34,718	32,328	28,366	19,710	17,744	15,072	12,960	44,923	998,491
Proportion	66.0%	8.0%	5.4%	3.5%	3.2%	2.8%	2.0%	1.8%	1.5%	1.3%	4.5%	100.0%



DWC SRR Summary

Route by ATM

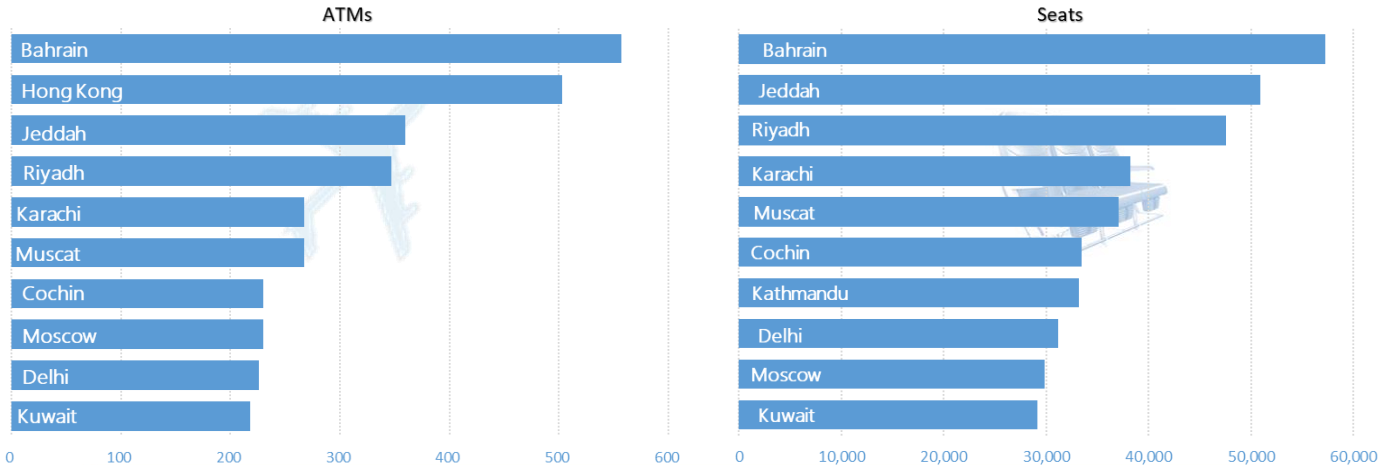


Route	Bahrain	Hong Kong	Jeddah	Riyadh	Karachi	Muscat	Cochin	Moscow	Delhi	Kuwait	Other	Total
Slot Count	557	503	360	347	267	267	230	230	226	218	5,929	9,134
Proportion	6.1%	5.5%	3.9%	3.8%	2.9%	2.9%	2.5%	2.5%	2.5%	2.4%	64.9%	100%

Routes by Seat Count



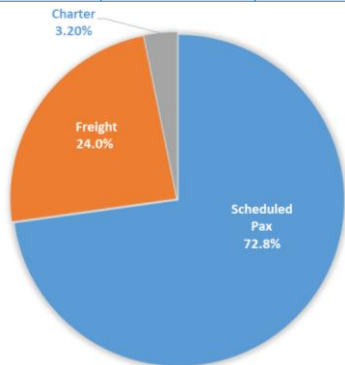
Route	Bahrain	Jeddah	Riyadh	Karachi	Muscat	Cochin	Kathmandu	Delhi	Moscow	Kuwait	Other	Total
Seat Count	57,293	50,904	47,609	38,193	37,113	33,490	33,180	31,126	29,876	29,132	610,575	998,491
Proportion	5.7%	5.1%	4.8%	3.8%	3.7%	3.4%	3.3%	3.1%	3.0%	2.9%	61.1%	100.0%



DWC SRR Summary

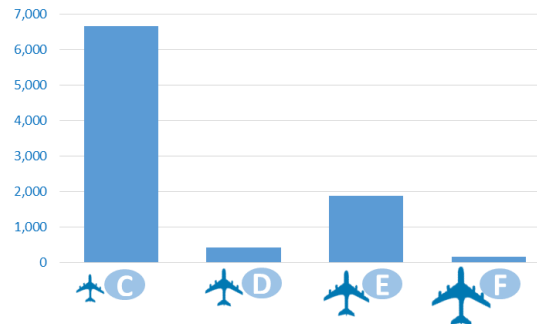
Type of Operation

Service Type	Scheduled Pax	Freight	Charter	Total
Slot Count	6,649	2,193	292	9,134
Proportion	72.8%	24.0%	3.2%	100.0%



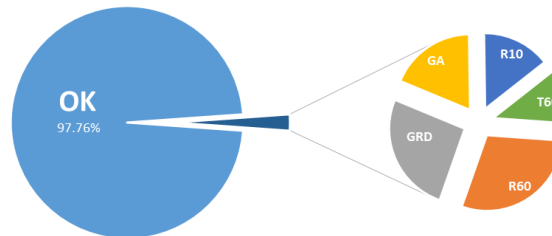
Aircraft Sizes

ICAO Group	C	D	E	F	Total
Slot Count	6,666	421	1,887	160	9,134
Proportion	73.0%	4.6%	20.7%	1.8%	100.0%



Capacity Constraints

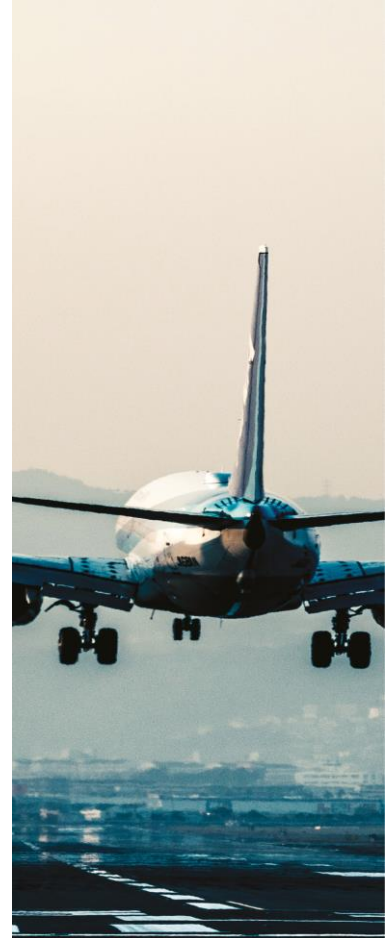
Constraint	OK	R60	GRD	GA	R10	T60	Total
Slot Count	8929	60	53	38	30	24	9134
Proportion	97.76%	0.66%	0.58%	0.42%	0.33%	0.26%	100.00%



IATA Scheduling Calendar

ACTIVITY	Typical dates	W19 (SC 144)	S20 (SC 145)
SHL Deadline	SC -57 days	22 Apr 19	09 Sep 19
Agreed Historics Deadline	SC -40 days	09 May 19	26 Sep 19
Confirmation of final coordination parameters and details of available capacity	SC -40 days	09 May 19	26 Sep 19
Initial Submission Deadline	SC -33 days	16 May 19	03 Oct 19
Appointments calendar opened to coordinators to make appointments with airlines	SC -14 days	04 Jun 19	29 Oct 19
SAL Deadline	SC -12 days	06 Jun 19	31 Oct 19
Appointments calendar opened to airlines to make appointments with coordinators	SC -8 days	10 Jun 19	04 Nov 19
IATA Slot Conference	mid-Nov / mid-Jun	18-20 Jun 19	12-15 Nov 19
Slot Return Deadline	15 Jul (Winter) / 15 Dec (Summer)	<u>15 Jul 19*</u>	<u>15 Dec 19*</u>
Historics Baseline Date	31 Aug (Winter) / 31 Jan (Summer)	31 Aug 19	31 Jan 20
Start of Season	Last Sun in Mar / Oct	27 Oct 19	29 Mar 20

* Series Return Deadline only for W19 and S20 seasons



Runway, Terminal & Stands Capacity Declaration and Historical Performance

Rob Whitehouse, Vice President – Research
Dubai Airports (DA)

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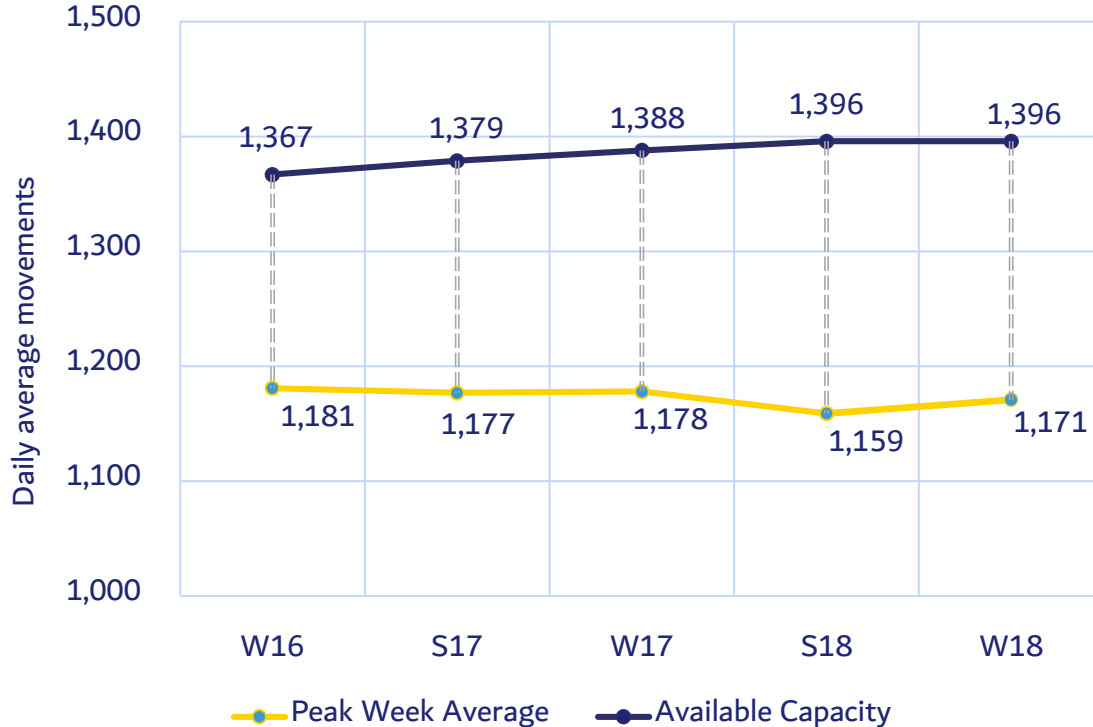
W19 Runway Capacity Declaration

DXB & DWC



Peak Week Daily Average Coordinated Movements vs. Capacity (W16-W18)

DXB Actual Slot Utilisation and Capacity (peak week)



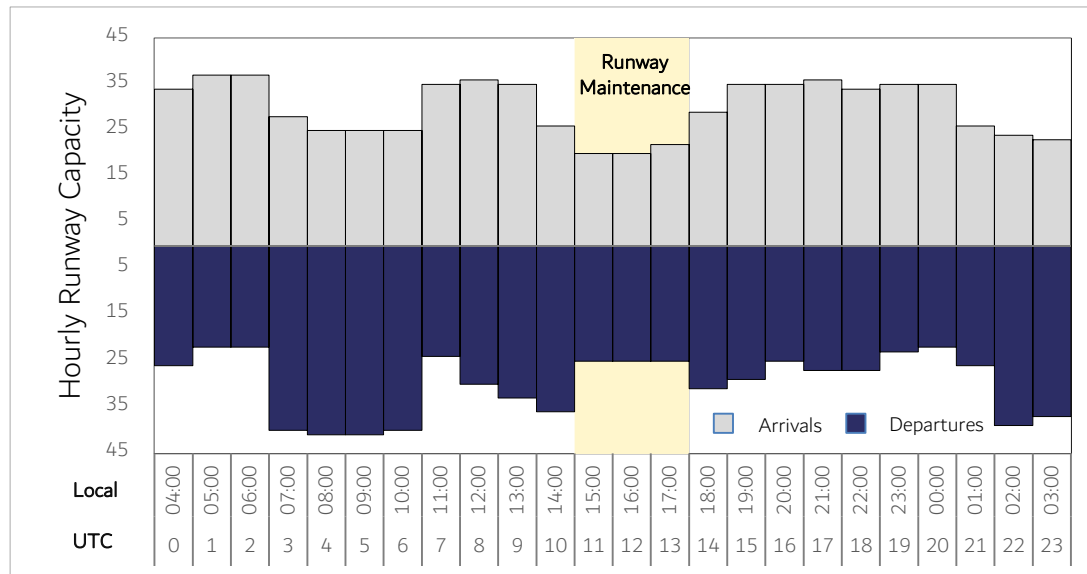
DXB Capacity Utilisation

Season	Peak Week Avg. ATMs	Available Capacity	Capacity Utilisation	Notes
W16	1,181	1,367	86%	
S17	1,177	1,379	85%	
W17	1,178	1,388	85%	
S18	1,159	1,396	83%	
W18	1,171	1,396	84%	FZ move southside

- Assumes latest adjusted version of coordinated schedule.

W19 DXB Runway Capacity Declaration

W19 DXB R60 Slot Capacity Limit					
Hour (UTC)	Hour (L)	Arrivals	Departures	Total	Notes
0	4	34	26	60	Total Cap Limited
1	5	37	22	59	
2	6	37	22	59	
3	7	28	40	65	Total Cap Limited
4	8	25	41	66	Total Cap Limited
5	9	25	41	66	Total Cap Limited
6	10	25	40	65	Total Cap Limited
7	11	35	24	59	
8	12	36	30	66	Total Cap Limited
9	13	35	33	66	Total Cap Limited
10	14	26	36	57	Total Cap Limited
11	15	20	25	40	Runway Maintenance
12	16	20	25	40	Runway Maintenance
13	17	22	25	40	Runway Maintenance
14	18	29	31	55	Total Cap Limited
15	19	35	29	64	
16	20	35	25	60	
17	21	36	27	63	Total Cap Limited
18	22	34	27	61	Total Cap Limited
19	23	35	23	58	
20	0	35	22	57	
21	1	26	26	47	Runway Maintenance
22	2	24	39	63	Total Cap Limited
23	3	23	37	60	Total Cap Limited
Grand Total		717	716	1396	

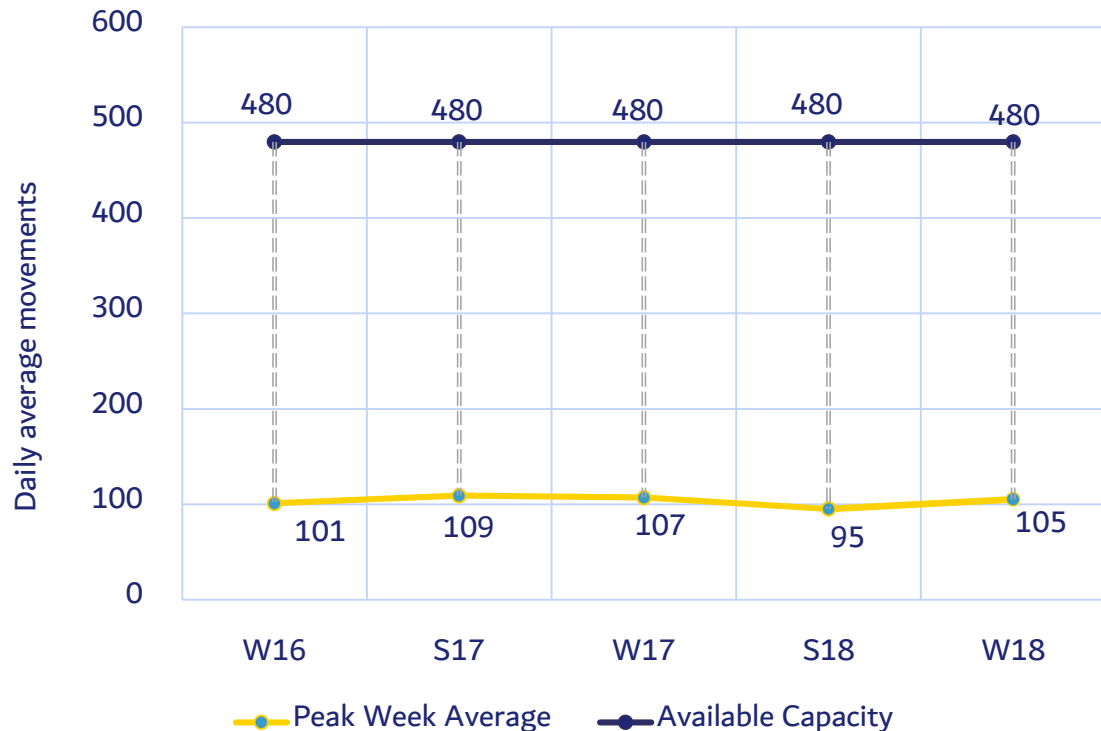


37
Peak
Arrival Capacity

41
Peak
Departure Capacity

Peak Week Daily Average Coordinated Movements vs. Capacity (W16-W18)

DWC Actual Slot Utilisation and Capacity (peak week)

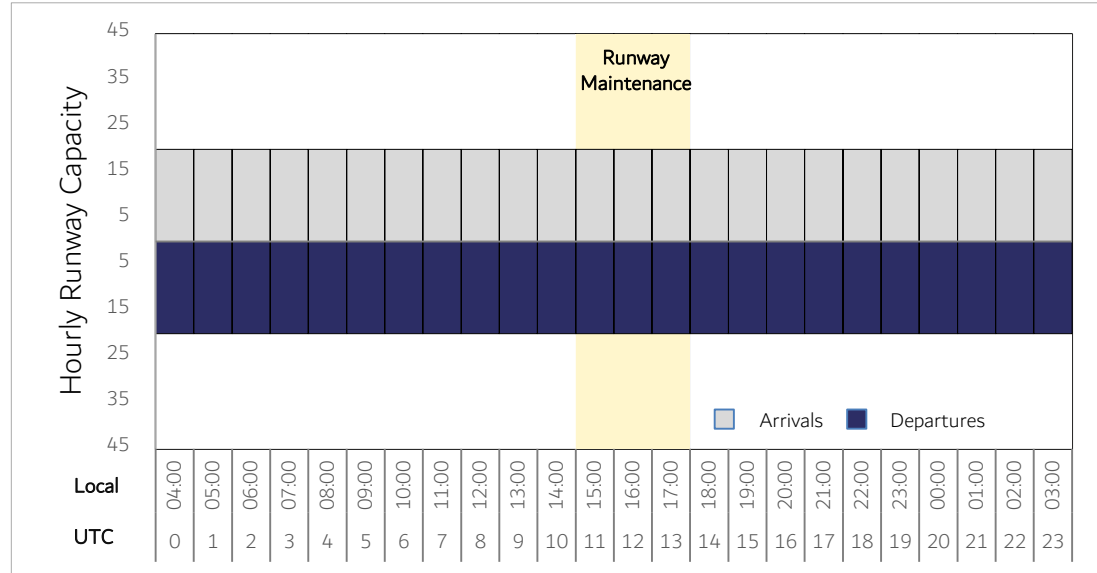


DWC Capacity Utilisation				
Season	Peak Week Avg. ATMs	Available Capacity	Capacity Utilisation	Notes
W16	101	480	21%	
S17	109	480	23%	
W17	107	480	22%	
S18	95	480	20%	
W18	104	480	22%	

• Assumes latest adjusted version of coordinated schedule.

W19 DWC Runway Capacity Declaration

W19 DWC R60 Slot Capacity Limit					
Hour (UTC)	Hour (L)	Arrivals	Departures	Total	Notes
0	4	20	20	20	
1	5	20	20	20	
2	6	20	20	20	
3	7	20	20	20	
4	8	20	20	20	
5	9	20	20	20	
6	10	20	20	20	
7	11	20	20	20	
8	12	20	20	20	
9	13	20	20	20	
10	14	20	20	20	
11	15	20	20	20	Runway Maintenance
12	16	20	20	20	Runway Maintenance
13	17	20	20	20	Runway Maintenance
14	18	20	20	20	
15	19	20	20	20	
16	20	20	20	20	
17	21	20	20	20	
18	22	20	20	20	
19	23	20	20	20	
20	0	20	20	20	
21	1	20	20	20	
22	2	20	20	20	
23	3	20	20	20	
Grand Total		480	480	480	



20
Peak
Arrival Capacity

20
Peak
Departure Capacity

20
Total Peak Hourly
Capacity

Runway Closure Times (Provisional)

Practice: November 13-15, 2019

- 1000 – 1200 LT & 1500-1700 LT

Dress rehearsal: November 16, 2019

- 1400 – 1700 LT

Show dates: November 17-21, 2019

- 1400 – 1700 LT



N.B. Timings based on 2018 event schedule; final timings for 2019, to be confirmed.

W19 Terminal Capacity Limits

DXB & DWC



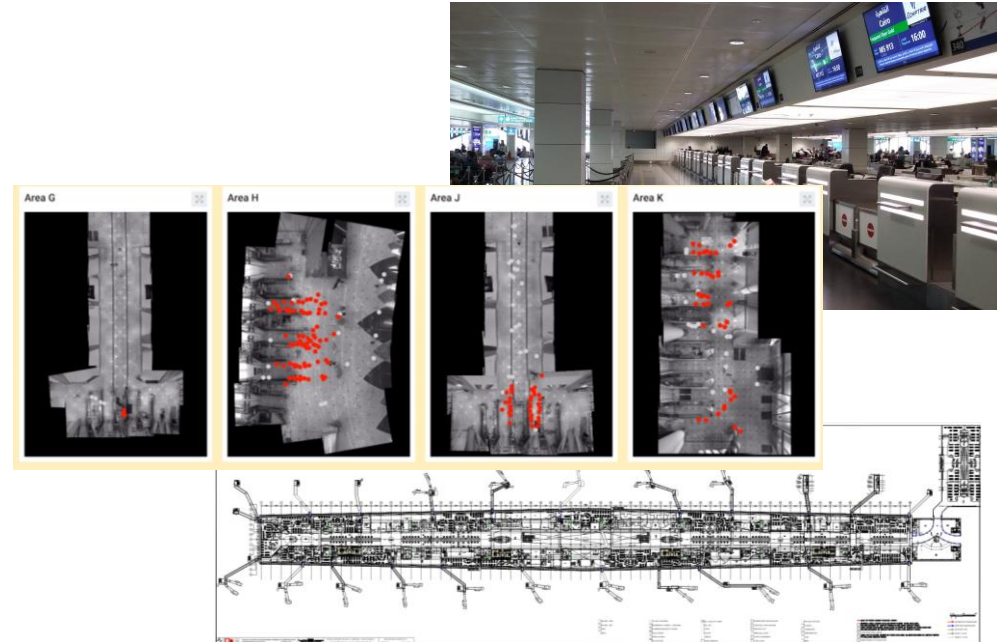
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Monitoring Methodology

Establishing a robust declared capacity needs accurate inputs for facility provision and performance. In accordance with World Slot Guidelines, all facilities are assumed to be staffed.

- Regular facility audits provide an updated count of facility provision and availability.
- Performance measurement is moving away from labour-intensive surveys and towards:
 - Automated passenger monitoring systems;
 - Resource monitoring.
- Development plans for future provision provided by DA Development team provide a breakdown of provision by month for future season.
- Lowest available provision used in declared capacity.



No Changes to Declared Limits

DXB Terminal 1

- No planned changes to T1 facility provision.
- Small changes to the observed / declared transaction times and throughputs; however, these do not impact terminal limits.

Departure Limits

- No change to the current departure limits.

Arrival Limits

- No change to the current arrival limits.

Minimal Changes to Departures Limits

DXB Terminal 2

- No planned changes to T2 facility provision.

Departure Limits

- The overall T2 Departure Limit (1,700 pax/hr) and Referral Limit (1,400 pax/hr) will remain unchanged.
- The FZ Departures Hard Limit of 3,100 pax/3hrs against T180 R30 demand was introduced in W18. This was to control both the peaking and spreading of demand at check-in to ensure that an acceptable Level of Service is achieved for passengers during peak times. The limit is based on the number of FZ-allocated desks and declared transaction times.
- **Change to limit from 00:00 to 05:00 to 2,300 pax/3hrs** based on revised check-in allocation rules allowing OALs to overspill into FZ's footprint during off-peak times.
- No change to the OAL referral limit of 390 pax/hr (against T60 R30 demand).

Arrival Limits

- No change to the current arrival limits.

No Changes to Declared Limits

DXB Terminal 3

- Planned changes to T3 Immigration facility provision with additional Conventional Desks and Smart Gates being delivered during S19, before the start of the W19 season.
- Small changes to the observed / declared transaction times and throughputs; however, these do not impact terminal limits.

Departure Limits

- No change to the current departure limits.

Arrival Limits

- No change to the current arrival limits.

Additional Facility Provision Prior to S19 SRR

DWC PTB

- Completion of works during W18 providing additional facilities in DWC PTB for S19 and W19.
- At Check-In, approximately 56 desks will be operational (100 desks have been delivered).
- At Departure Emigration, 10 desks will be operational (20 desks have been delivered).
- At Arrival Immigration, 20 desks will be operational (40 desks have been delivered).

Departure Limits

- No change to current limits.
- Propose to incrementally raise the limits according to demand, as required.

Arrival Limits

- No change to current limits.
- Propose to incrementally raise the limits according to demand, as required.

DXB: Terminal 1



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W19 DXB Terminal 1 Facilities: Key Changes

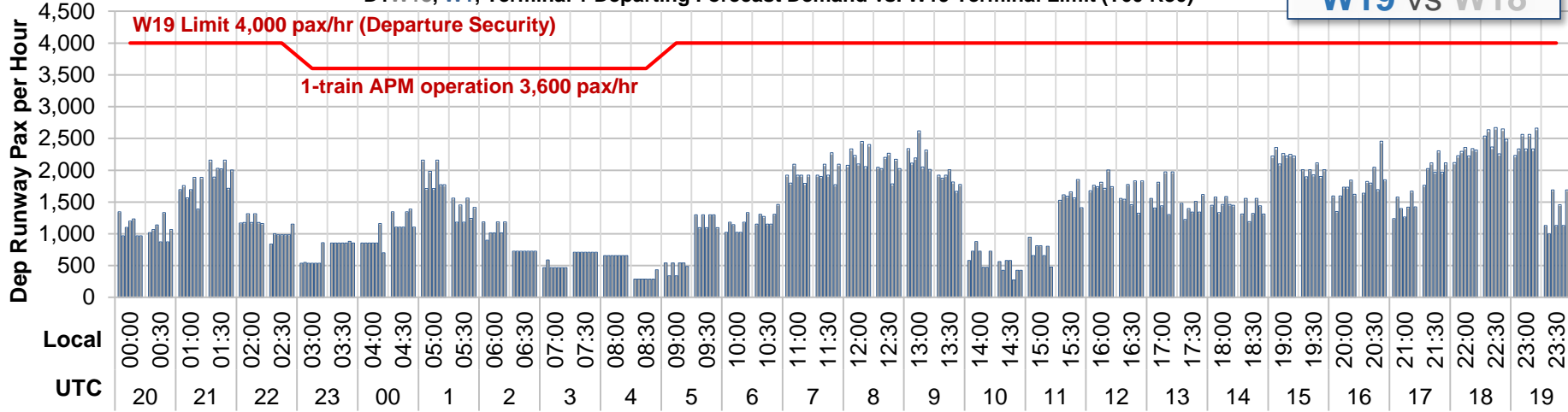
No Change to T1 Facility Provision

		Terminal 1		Terminal 2		Terminal 3	
		S19	W19	S19	W19	S19	W19
Check-in		208	208	52	52	216	216
Emigration	Conventional	26	26	14	14	36 ¹	38 ²
	Smart Gates	10	10	8	8	25	25
Departure Security		10	10	6	6	19	19
Transfer Security		3	3	6	6	78	82
Immigration	Conventional	44	44	36	36	34	40
	Smart Gates	20	20	10	10	28	40
Reclaim		8		6		14	

W19 DXB Terminal 1 Departures

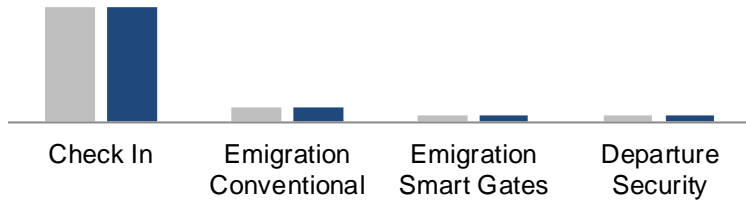
D1W18, W1, Terminal 1 Departing Forecast Demand vs. W19 Terminal Limit (T60 R30)

W19 vs W18



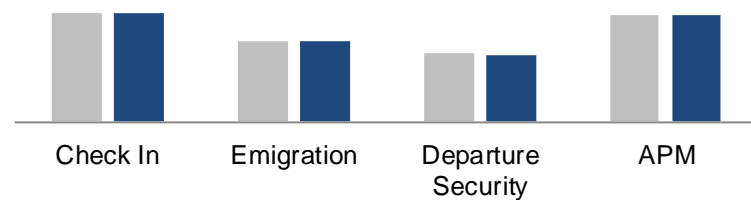
T1 Departures - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



T1 Departures - Facility Constraint

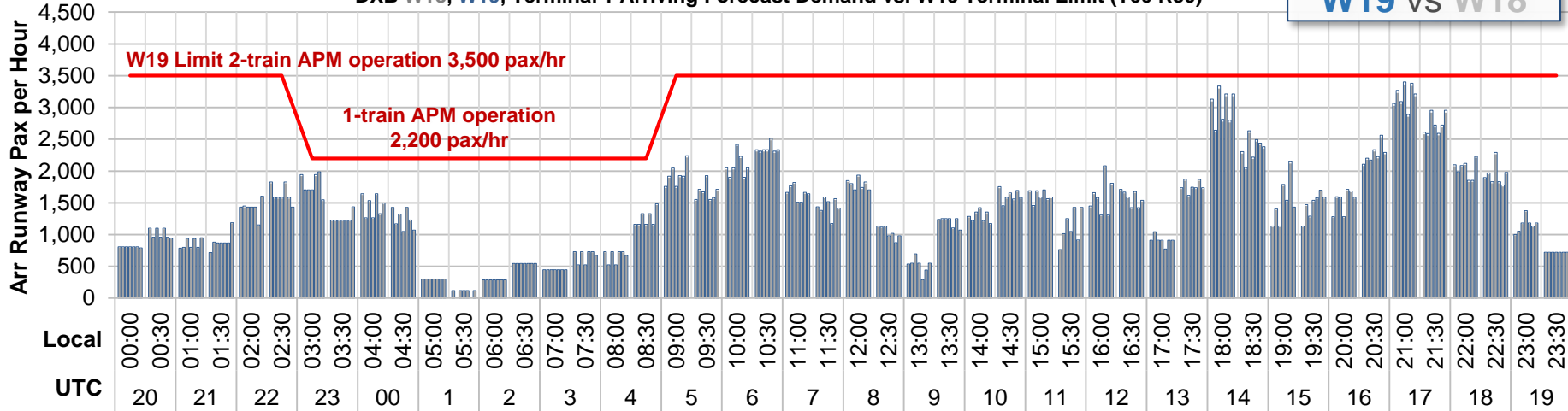
■ S'19 Throughput ■ W'19 Throughput



W19 DXB Terminal 1 Arrivals

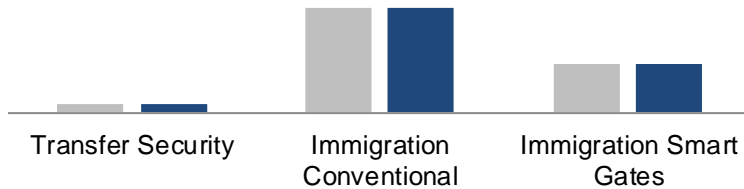
DXB W18, W19, Terminal 1 Arriving Forecast Demand vs. W19 Terminal Limit (T60 R30)

W19 vs W18



T1 Arrivals - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



T1 Arrivals - Facility Constraint

■ S'19 Throughput ■ W'19 Throughput



DXB: Terminal 2



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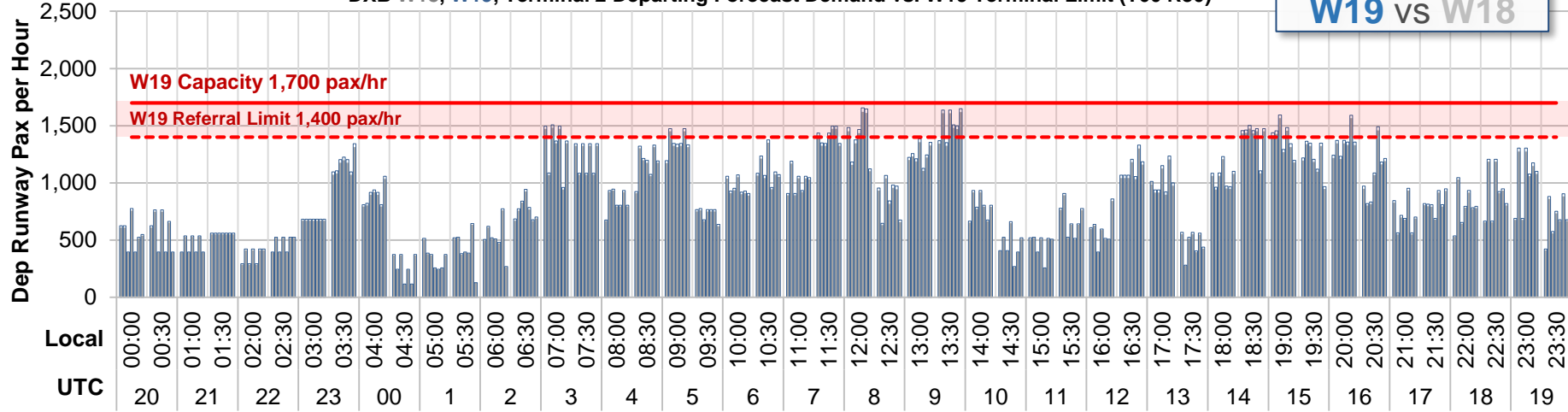
W19 DXB Terminal 2 Facilities: Key Changes

No Change to T2 Facility Provision

		Terminal 1		Terminal 2		Terminal 3	
		S19	W19	S19	W19	S19	W19
Check-in		208	208	52	52	216	216
Emigration	Conventional	26	26	14	14	36 ¹	38 ²
	Smart Gates	10	10	8	8	25	25
Departure Security		10	10	6	6	19	19
Transfer Security		3	3	6	6	78	82
Immigration	Conventional	44	44	36	36	34	40
	Smart Gates	20	20	10	10	28	40
Reclaim		8		6		14	

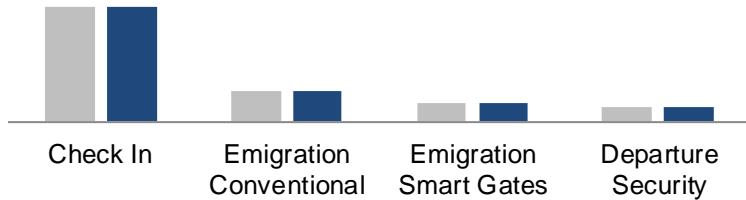
W19 DXB Terminal 2 Departures

DXB W18, W19, Terminal 2 Departing Forecast Demand vs. W19 Terminal Limit (T60 R30)



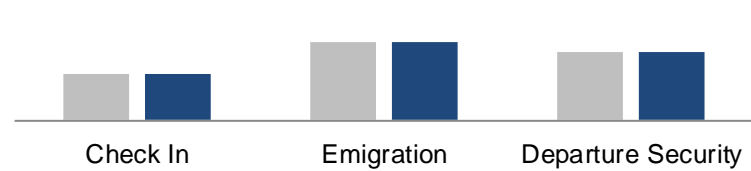
T2 Departures - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



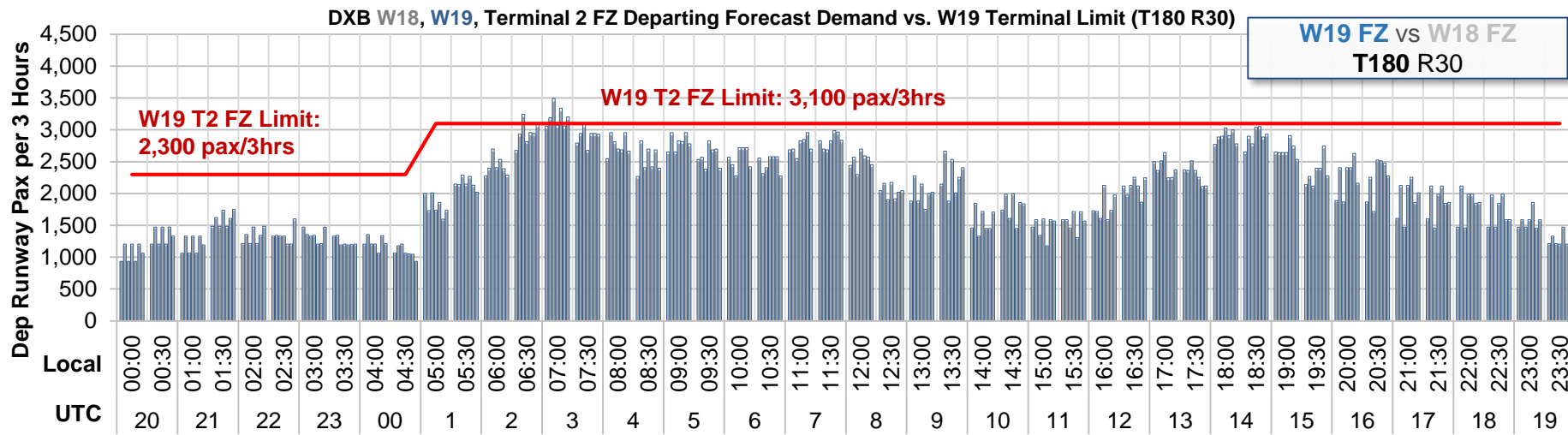
T2 Departures - Facility Constraint

■ S'19 Throughput ■ W'19 Throughput



W19 DXB Terminal 2 Departures: FZ Limit

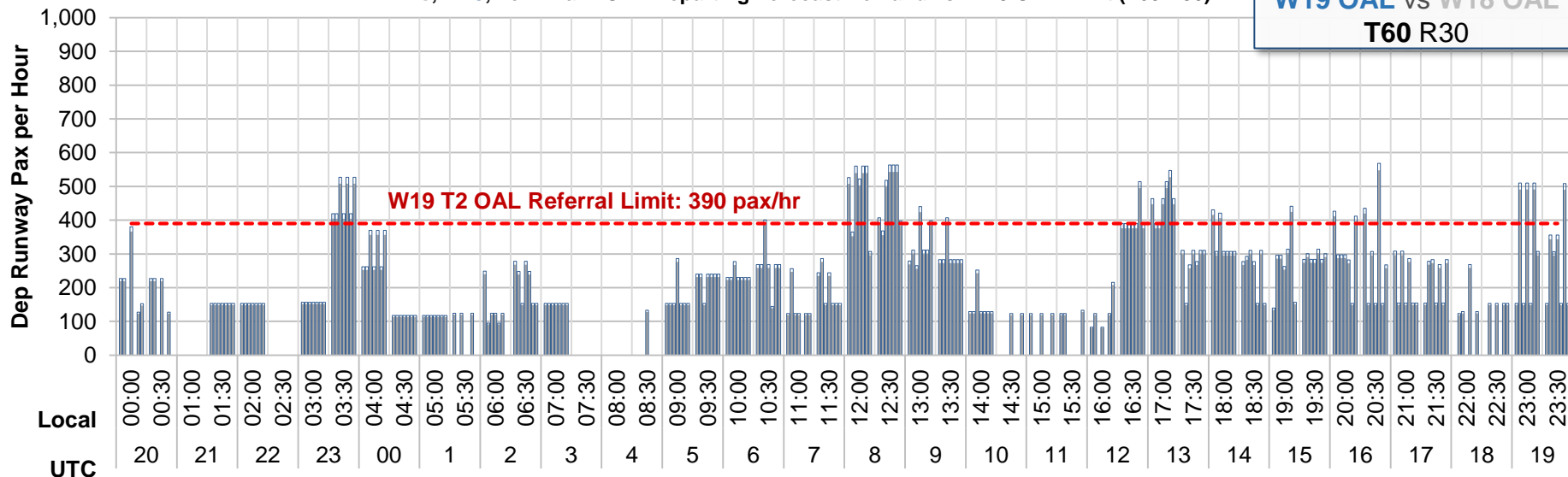
The FZ Departures Limit is applied against **T180 R30** demand in order to control both the peaking and spreading of demand at Check-In. This has been implemented to ensure that an acceptable Level of Service is achieved for passengers during peak times. The limit of 3,100 pax/3hrs is based on the number of FZ allocated desks and declared transaction times. From 00:00 to 05:00 there is a reduction in the T180 R30 from 3,100 to 2,300 driven by a reduction in the number of check-in desks allocated to FZ, as these are not currently utilised. These desks have been released for use by OAL's.



W19 DXB Terminal 2 Departures: OAL Referral Limit

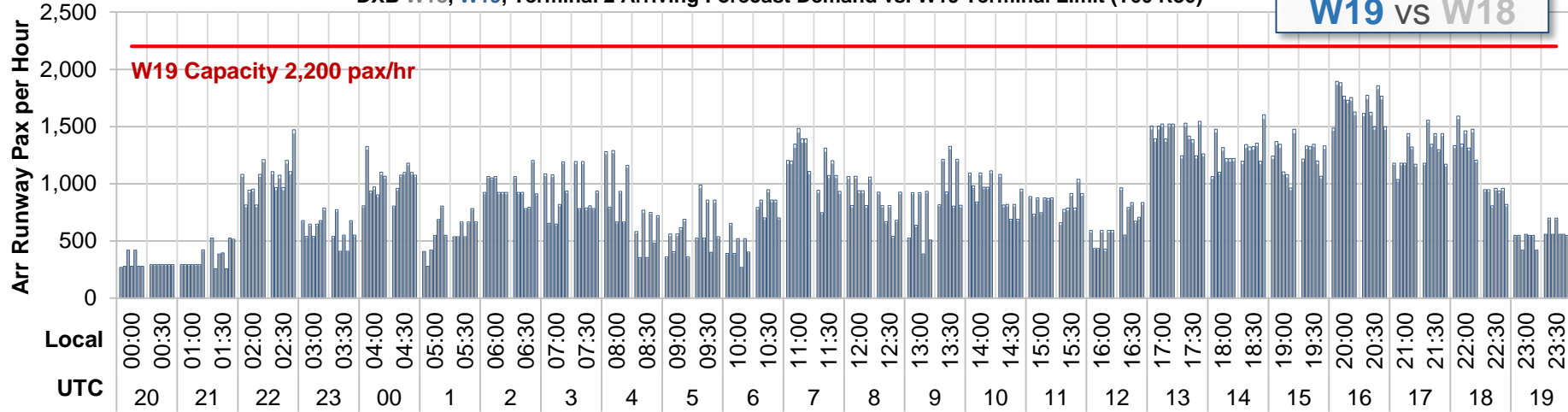
The T2 OAL Departure Referral Limit is in addition to the overall Terminal 2 Departure limit of 1,700 passengers/hour and is designed to assist in managing the demand on Check-In desk provision. An average to this limit will refer the request to Dubai Airports for review, considering overall demands on T2 Check-In.

DXB W18, W19, Terminal 2 OAL Departing Forecast Demand vs. W19 OAL Limit (T60 R30)



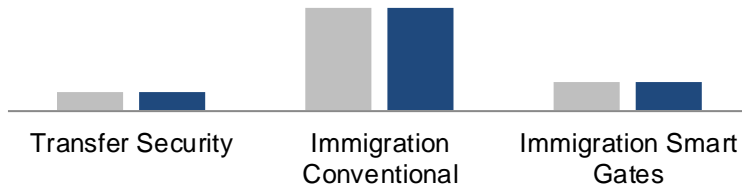
W19 DXB Terminal 2 Arrivals

DXB W18, W19, Terminal 2 Arriving Forecast Demand vs. W19 Terminal Limit (T60 R30)



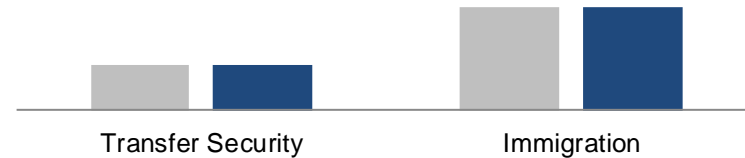
T2 Arrivals - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



T2 Arrivals - Facility Constraint

■ S'19 Throughput ■ W'19 Throughput



DXB: Terminal 3



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Additional Immigration and Transfer Security Facilities

		Terminal 1		Terminal 2		Terminal 3	
		S19	W19	S19	W19	S19	W19
Check-in		208	208	52	52	216	216
Emigration	Conventional	26	26	14	14	36 ¹	↑ 38
	Smart Gates	10	10	8	8	25	25
Departure Security		10	10	6	6	19	19
Transfer Security		3	3	6	6	78	↑ 82 ²
Immigration	Conventional	44	44	36	36	34	↑ 40 ³
	Smart Gates	20	20	10	10	28	↑ 40
Reclaim		8		6		14	

¹ T3 Emigration Works being carried out during S19

² Transfer Security Area B in Concourse A to be operational by start of W19 season

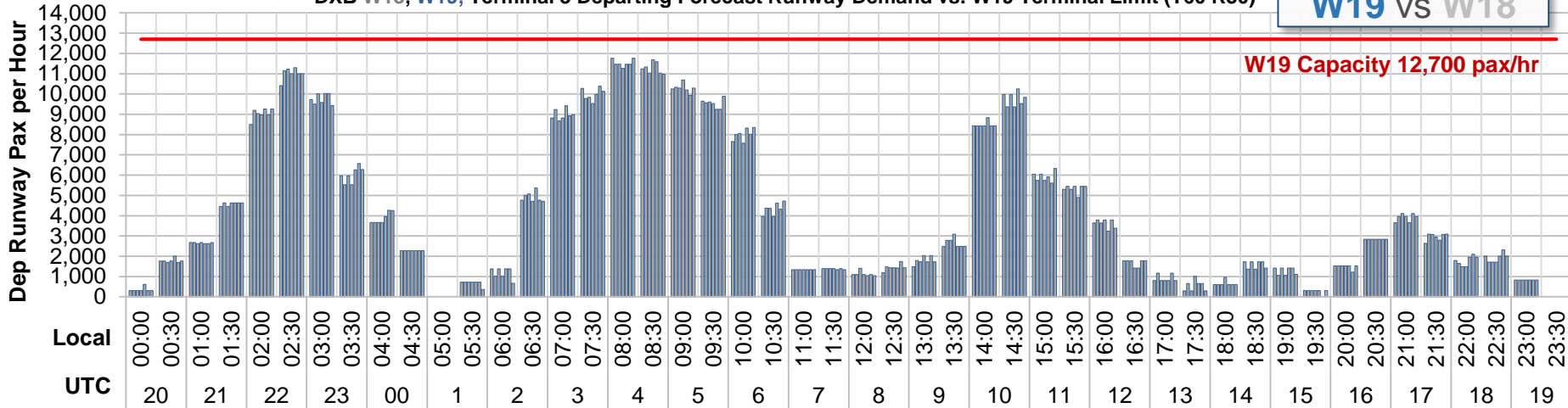
³ T3 Immigration works to be completed delivering 40 conventional desks and 40 smart gates.

W19 DXB Terminal 3 Departures

DXB W18, W19, Terminal 3 Departing Forecast Runway Demand vs. W19 Terminal Limit (T60 R30)

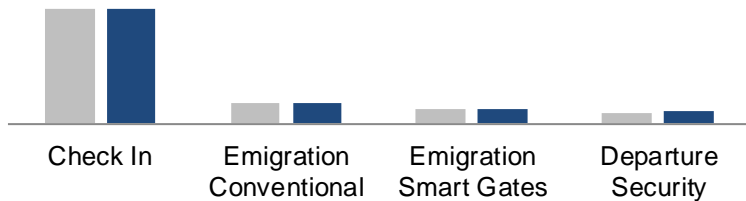
W19 vs W18

W19 Capacity 12,700 pax/hr



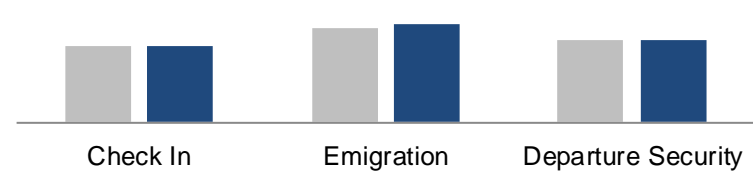
T3 Departures - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



T3 Departures - Facility Constraint

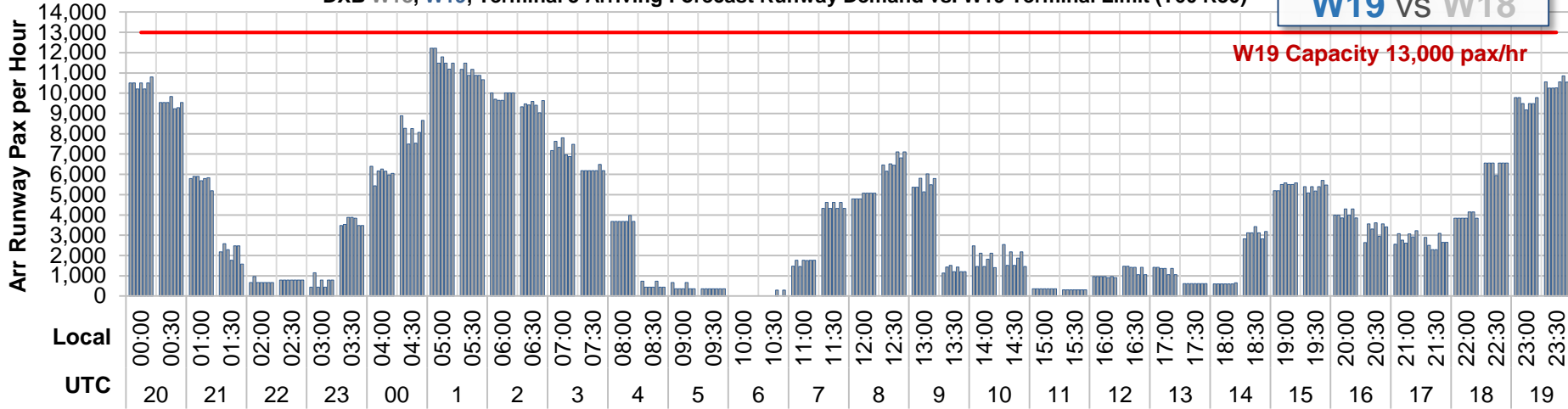
■ S'19 Throughput ■ W'19 Throughput



DXB W18, W19, Terminal 3 Arriving Forecast Runway Demand vs. W19 Terminal Limit (T60 R30)

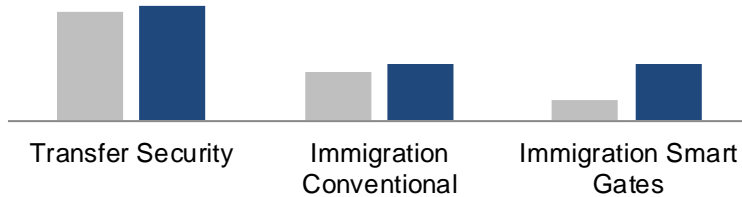
W19 vs W18

W19 Capacity 13,000 pax/hr



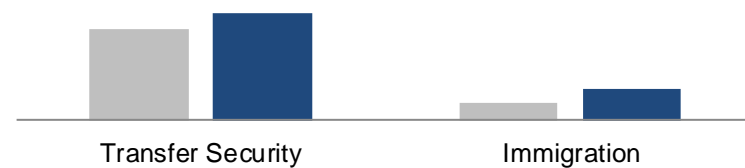
T3 Arrivals - No. of Facilities

■ S'19 Facilities ■ W'19 Facilities



T3 Arrivals - Facility Constraint

■ S'19 Throughput ■ W'19 Throughput



DWC: PTB



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No Change Expected in DWC PTB Facility Provision

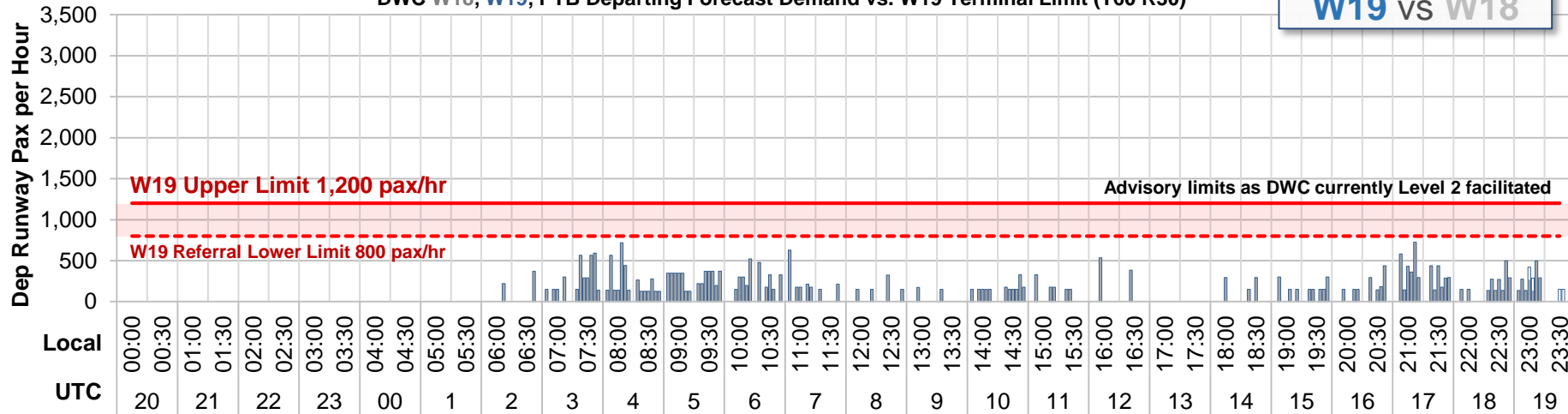
		PTB	
		S19	W19
Check-in		56	56
Emigration	Conventional	10	10
	Smart Gates	5	5
Departure Security		10	10
Transfer Security		12	12
Immigration	Conventional	20	20
	Smart Gates	5	5
Reclaim		7	

Note:

- **Check-In:** desk provision 90 Economy and 10 Business Class desks, however 56 desks currently operable.
- **Emigration:** 20 Conventional Desks have been provided, 10 are enabled for utilisation.
- **Immigration:** 40 Conventional Desks have been provided, 20 are enabled for utilisation.
- **Transfer Security:** 12 lanes are available, however operational area may be reduced depending on expected demand.
- The declaration is based on the lowest provision of passenger processing facilities during season.

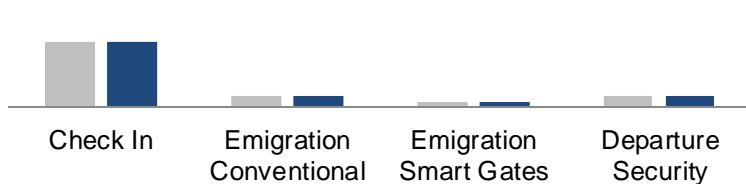
DWC W18, W19, PTB Departing Forecast Demand vs. W19 Terminal Limit (T60 R30)

W19 vs W18



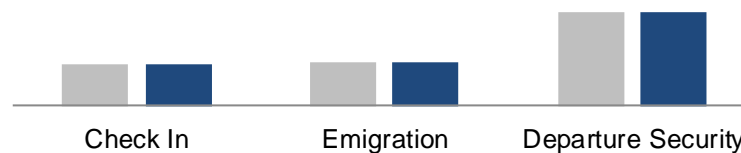
DWC PTB Departures - No. of Facilities

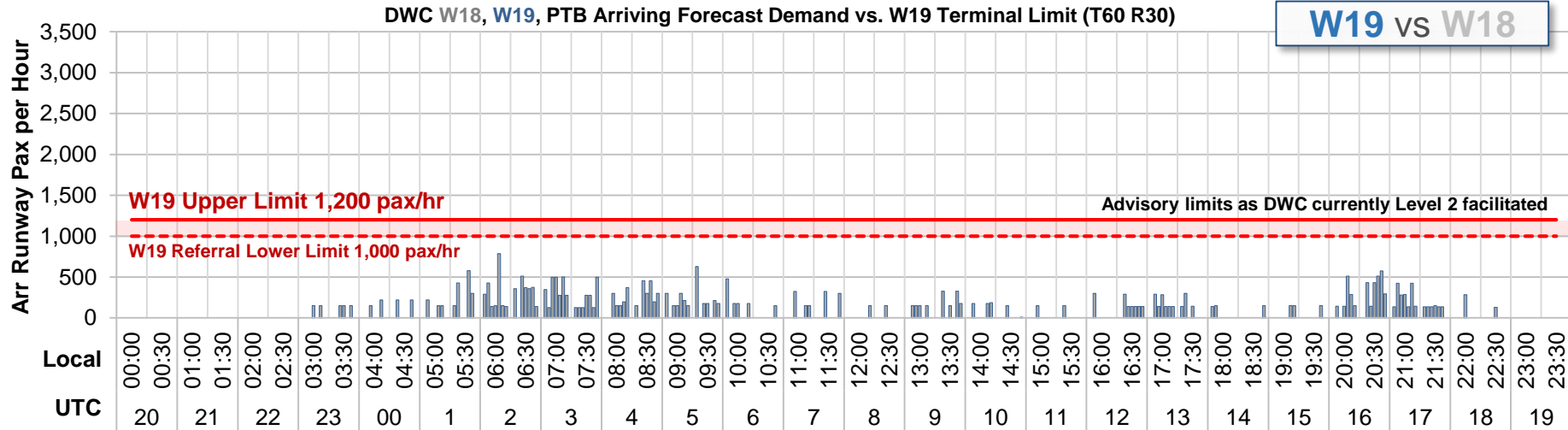
■ S'19 Facilities ■ W'19 Facilities



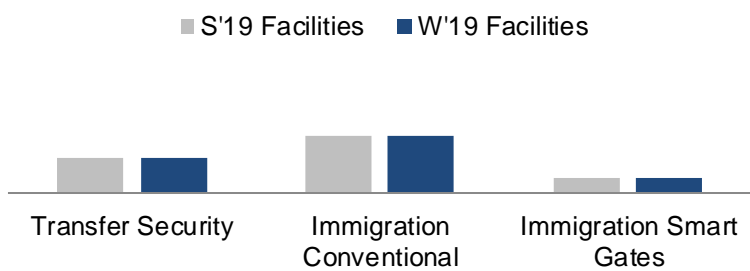
DWC PTB Departures - Facility Constraint

■ S'19 Throughput ■ W'19 Throughput

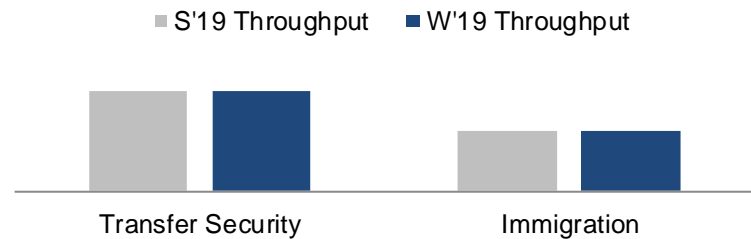




DWC PTB Arrivals - No. of Facilities



DWC PTB Arrivals - Facility Constraint



Summary of Key Constraints (that may potentially limit growth)

Terminal 1 Departures:

- Departures Security area is currently configured with 10 lanes, with limited available space to provide an additional lane within the existing footprint. Capacity assessments demonstrate that sufficient capacity is available to meet planning standards. However, facility throughput will be monitored season-by-season to review. W19 has seen a small reduction in throughput.
- Demand is constrained by 1-train operation of APM during maintenance period (03:00 – 09:00).

Terminal 1 Arrivals:

- Demand restricted by 1-train operation of APM during maintenance hours (03:00 – 09:00).
- Smart Gate uptake needs to be encouraged to make best use of capacity at peak times.

Summary of Key Constraints (that may potentially limit growth)

Terminal 2 Departures:

- Capacity is limited by Check-In, efficiency improvements required to increase capacity, rework in progress to improve the allocation methodology.
- Departure lounge also suffers from limited gate seating and space capacity due to building footprint.

Terminal 3 Departures:

- Fragmentation of check-in products does not make best use of available capacity in T3. Improvement in utilisation could lead to an increase in T3's declared departures capacity. Additional capacity could also be realised from developing a product for Zone C.

Terminal 3 Arrivals:

- Additional facility provision is planned in the T3 Immigration Hall that could potentially release additional capacity. However, Smart Gate uptake needs to be encouraged to make best use of capacity at peak times.

W19 Stands Capacity Declaration

DXB & DWC

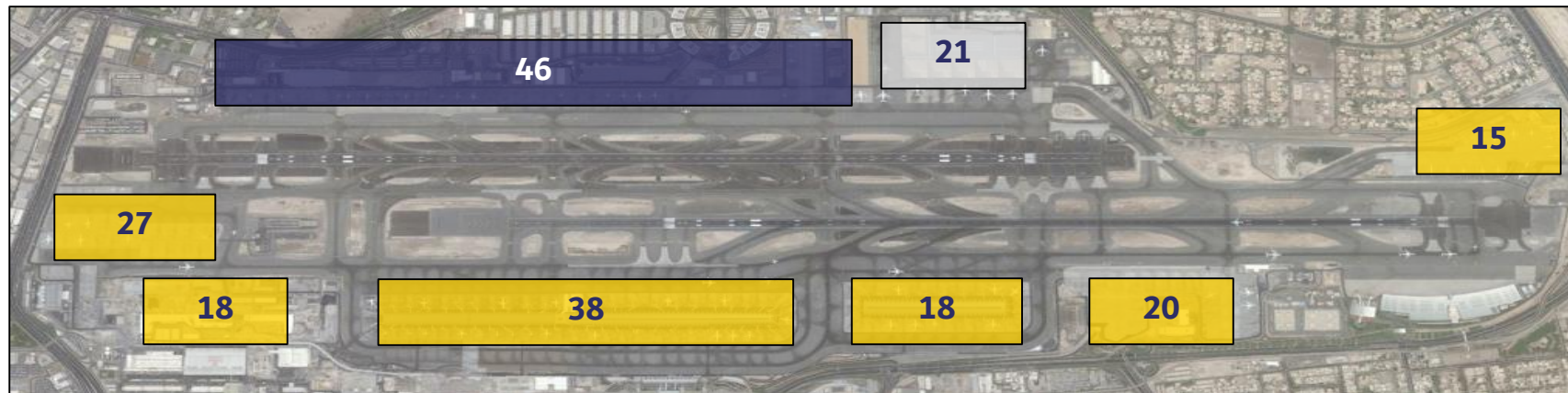


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W19 DXB Declared Stand Capacity

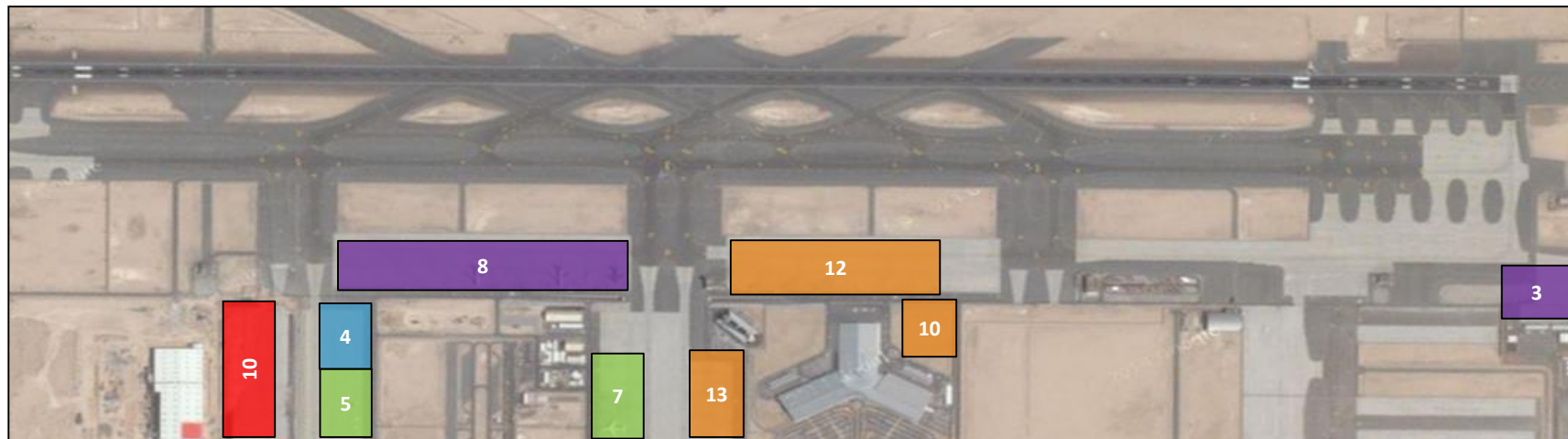
Summary of Capacity by Season



Season	South Side	North Side	Total
W19	136	46	182
S19	136	46	182
W18	138	46	184
S18	139	46	185
W17	135	43	178
S17	136	44	180
W16	132	43	175
S16	130	43	173

W19 **DWC** Declared Stand Capacity

Summary of Capacity by Season



Season	Total
W19	72
S19	72
W18	53
S18	53
W17	53
S17	34

PAX	35
EK SkyCargo	10
OAL Cargo	12
PAX / Cargo	11
EK SkyCargo / OAL Cargo	4

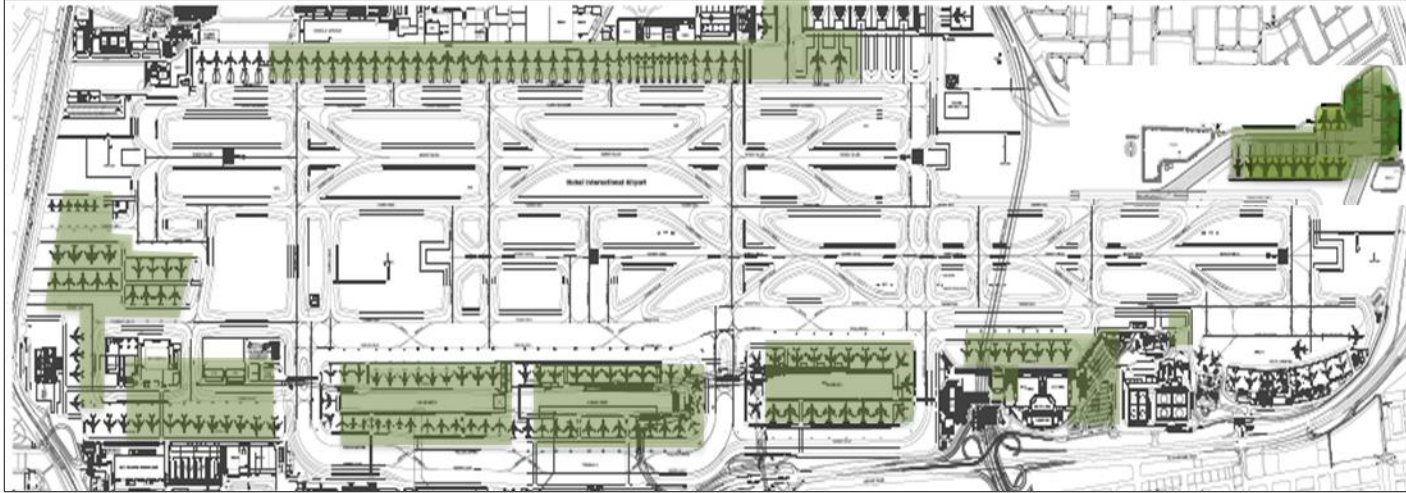
Airfield Development

Jeremy Rowton, Head of Development - Airfield Delivery
Dubai Airports (DA)

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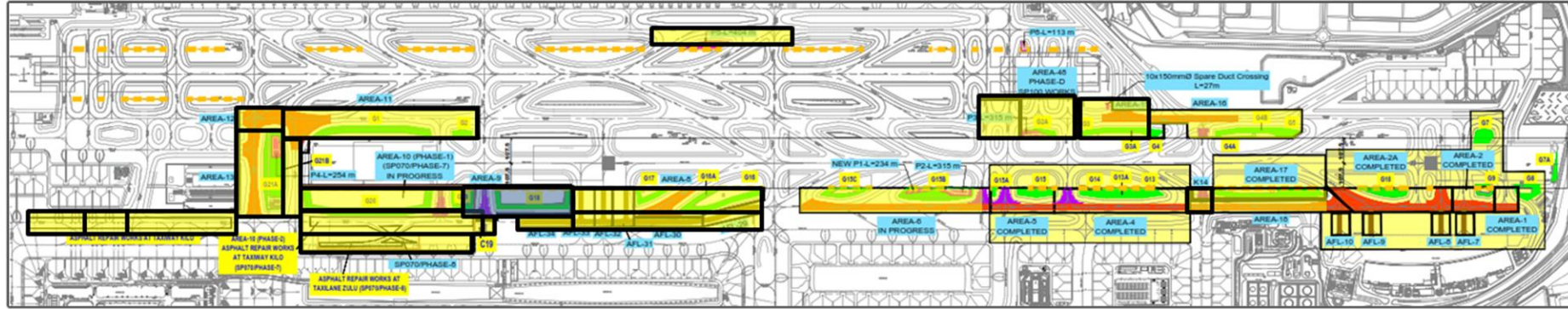
Stand Development Programme



127 Stands Total - Complete

- North (25 Stands)
- East (37 Stands)
- West (24 Stands)
- South (41 Stands) – *Completed April 2019*

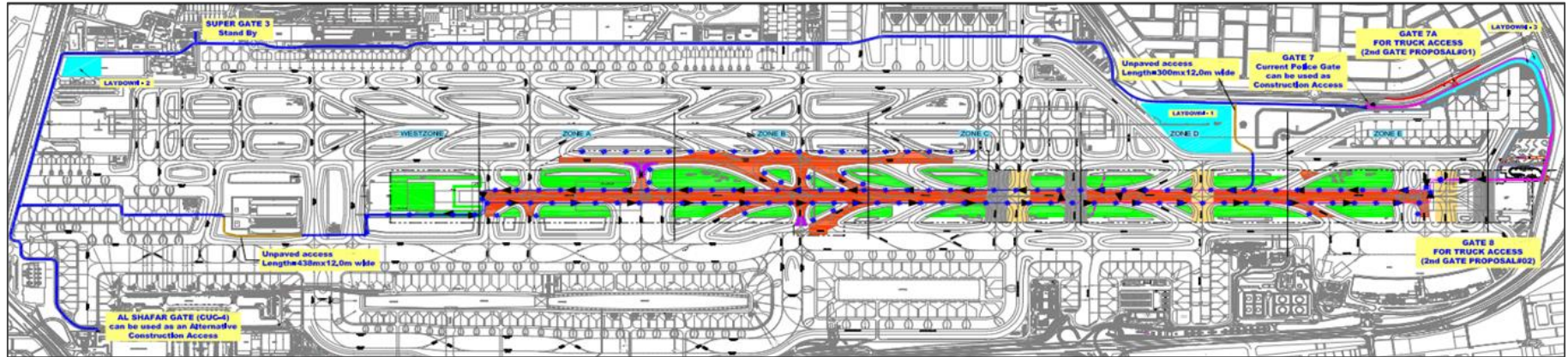
Pre- 45-day Closure



Legend:

- 60mm Milling and Overlay
- 450mm Concrete Pavement Holding Points
- 40mm Wearing Course 150mm Wetmix
- Concrete Pavement Sleeper Slab
- New Extended Pond Limit
- AFL, Cable, Equipment and Fixture Replacement
- New FOD Fence

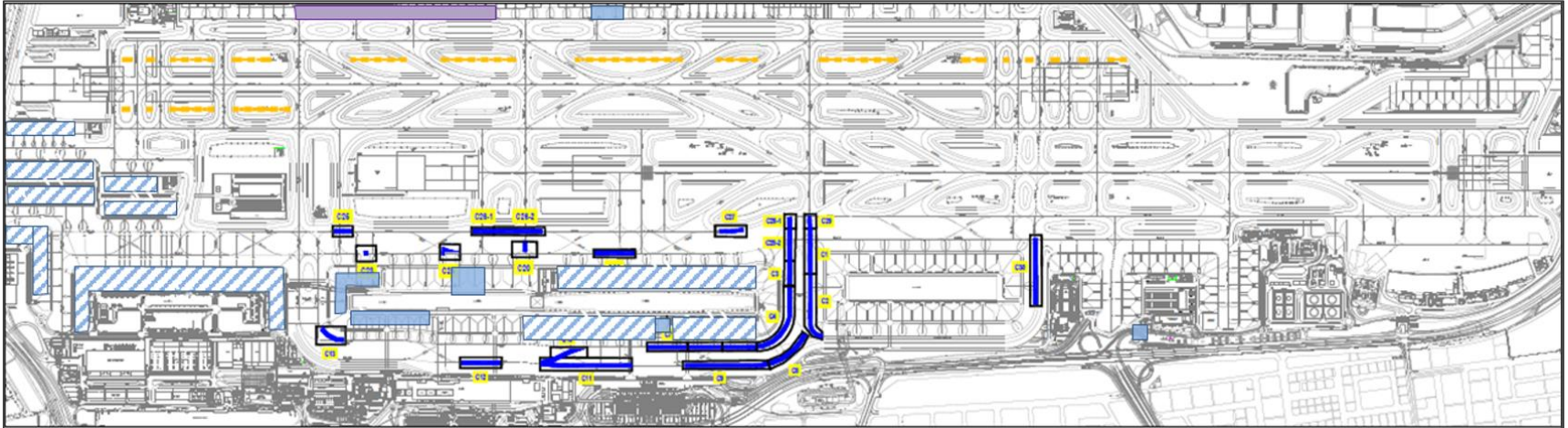
45-day Closure



Legend:

- 60mm Milling and Overlay
- 450mm Concrete Pavement Holding Points
- 40mm Wearing Course 150mm Wetmix
- Concrete Pavement Sleeper Slab
- New Extended Pond Limit
- AFL, Cable, Equipment and Fixture Replacement
- New FOD Fence

Planned Works Post-SRR



Post-SRR

- Taxiway Rehabilitation (Concourses A,B & C)

Stand Reconfiguration (New Aircraft Types)

- Charlie Apron
- Concourse B
- Concourse D
- Concourse C (B14/15)
- Echo Apron (E28/29)
- Golf Apron

B19 – Arrivals Building

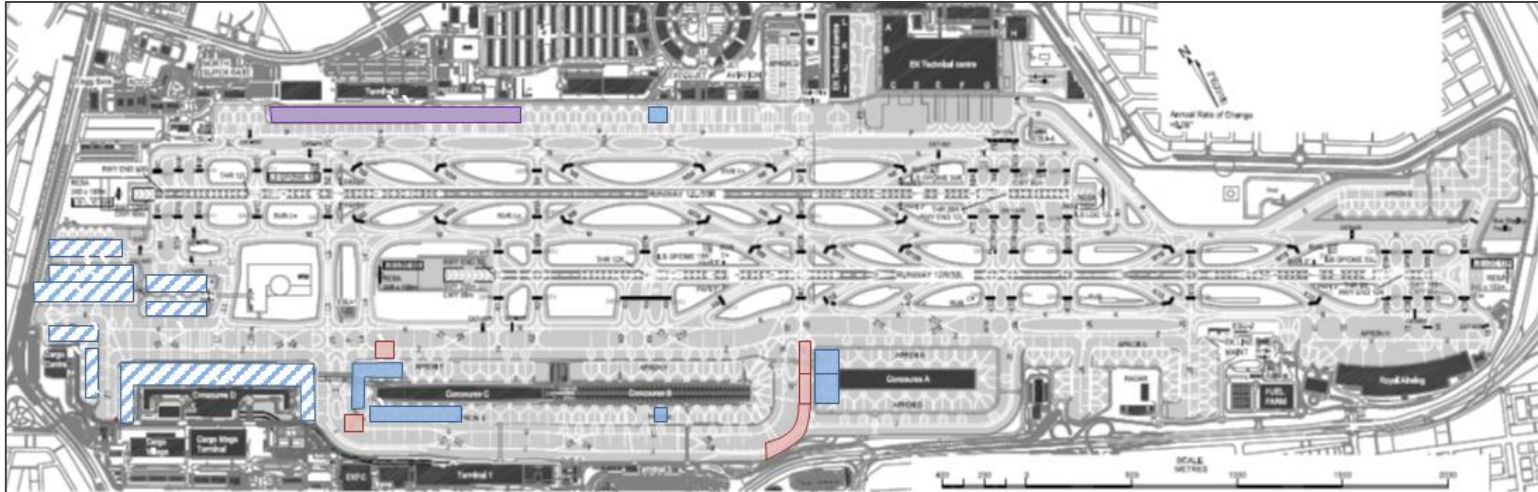
Concourse C

- Fuel Upgrade
- Gateroom Works

ES Works

- Taxiway Papa / Echo Pavement Maintenance

Excluding SRR



Post-SRR

- Taxiway Rehabilitation
- Taxiway J2
- Taxiway Z
- Taxiway U/Y

B19 – Arrivals Building (Ongoing)

Concourse C

- Fuel Upgrade
- Gateroom Works

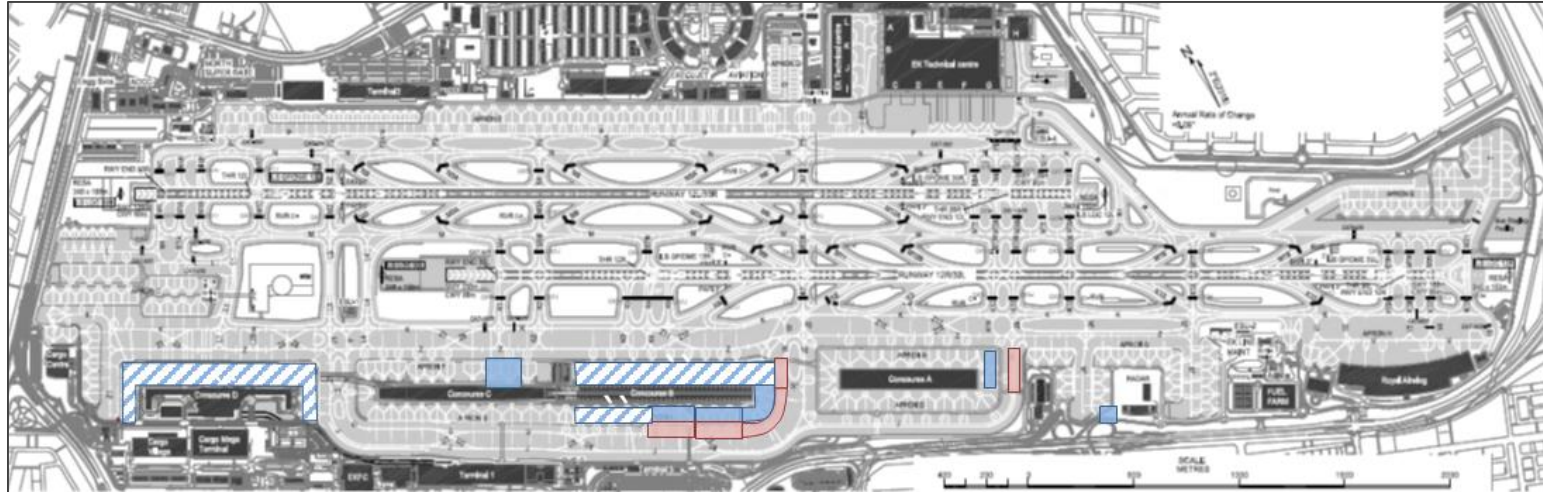
Stand Reconfiguration (New Aircraft Types)

- Charlie Apron
- Concourse D
- Concourse C
- Echo Apron (E28/29)

ES Works

- Taxiway Papa / Echo Stand Maintenance

Planned Works



Taxiway Rehabilitation

- Taxiway W
- Taxiway U
- Taxiway J3

Stand Reconfiguration (New Aircraft Types)

- Concourse D
- Golf Apron

W18 Airfield Performance

Michael Dolbey, Vice President – Air Traffic Services
Dubai Air Navigation Services (dans)

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W19 COORDINATION PRESENTATION

W18 Airfield Performance

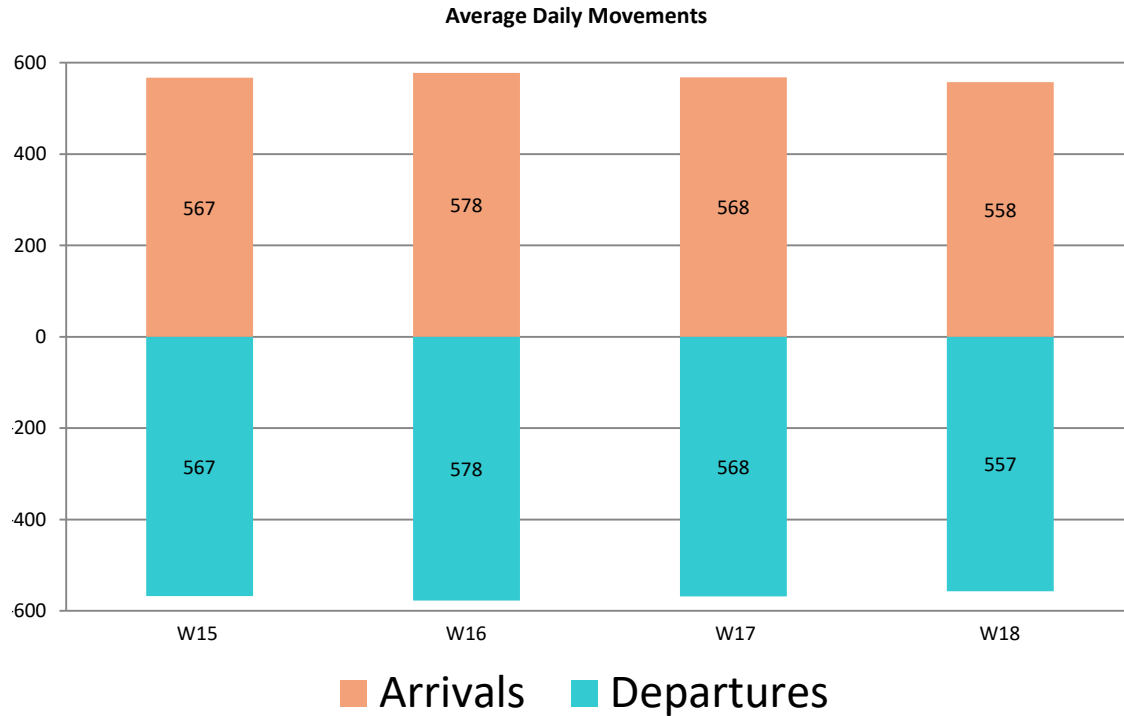
Michael Dolbey, Vice President –Air Traffic Services

dans

دبي لخدمات الملاحة الجوية
DUBAI AIR NAVIGATION SERVICES

MOVEMENTS

• • •

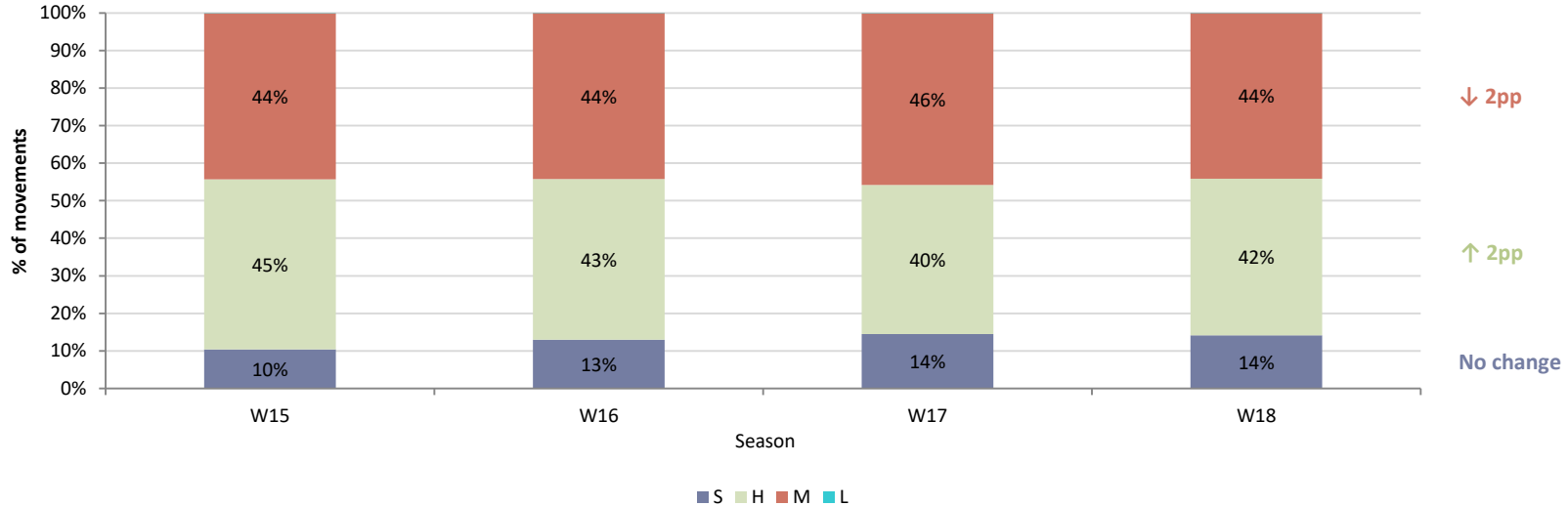


- Average daily arrivals decreased by 10 movements in W18 compared to W17
- Average daily departures decreased by 11 movements in W18 compared to W17

FLEET MIX

• • •

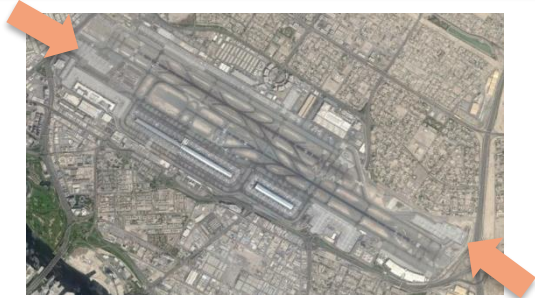
Percentage of Aircraft by Wake Turbulence Category



- The percentage of Heavy category aircraft increased by 2 percentage points in W18 compared to W17
- The percentage of Medium wake category aircraft decreased by 2 percentage points in W18 compared to W17

RUNWAY USAGE

Runway Configuration

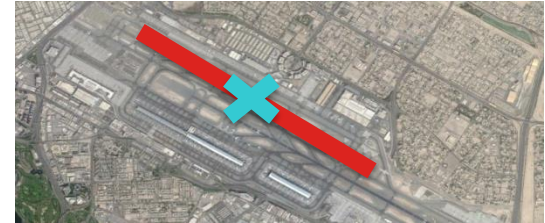


Season	% of flights in 12 direction
W15	11%
W16	25%
W17	20%
W18	25%

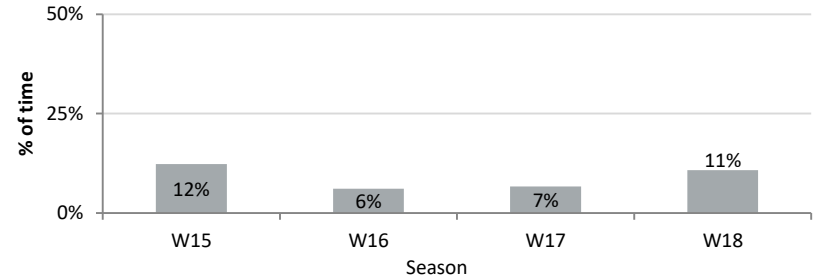
Season	% of flights in 30 direction
W15	89%
W16	75%
W17	80%
W18	75%

- The percentage of flights operated in 30 direction in W18 has decreased by 5% to 75% of the flights, compared to 80% of the flights in W17
- The percentage of flights operated in 12 direction in W17 has increased by 5% to 25% of the flights, compared to 20% of the flights in W17

Single Runway Operations



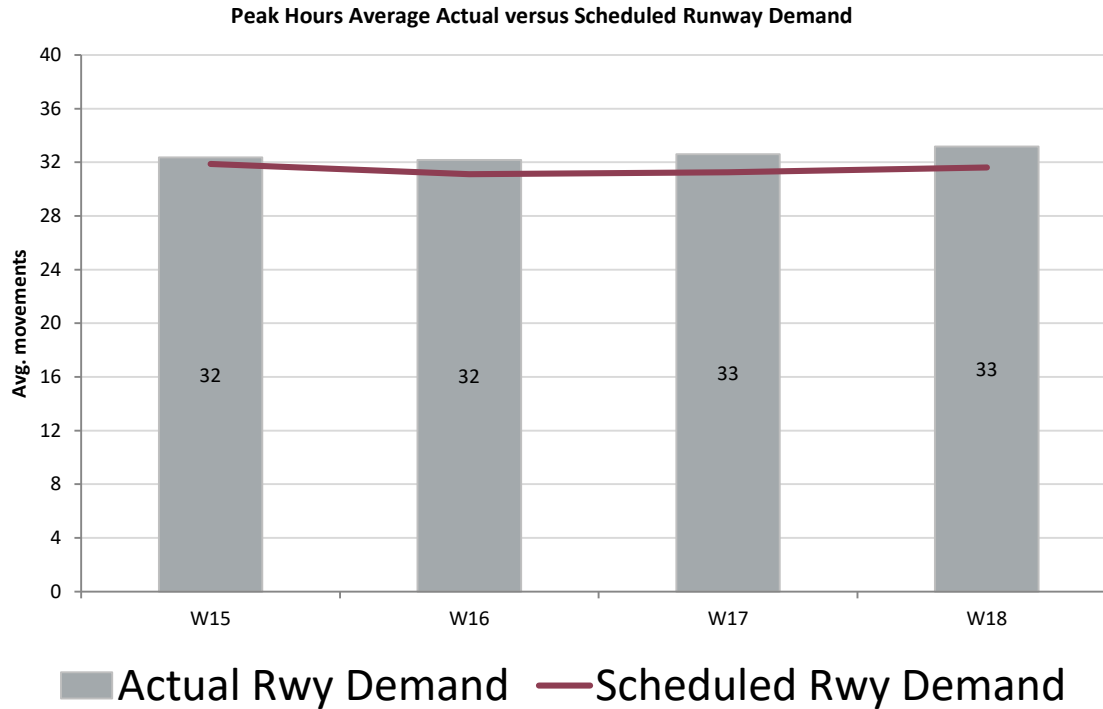
Percentage of time in SRO



- In W18, the percentage of time when OMDB was working in SRO increased to 11% of the time, compared to 7% during W17

ARRIVALS – RUNWAY DEMAND

• • •

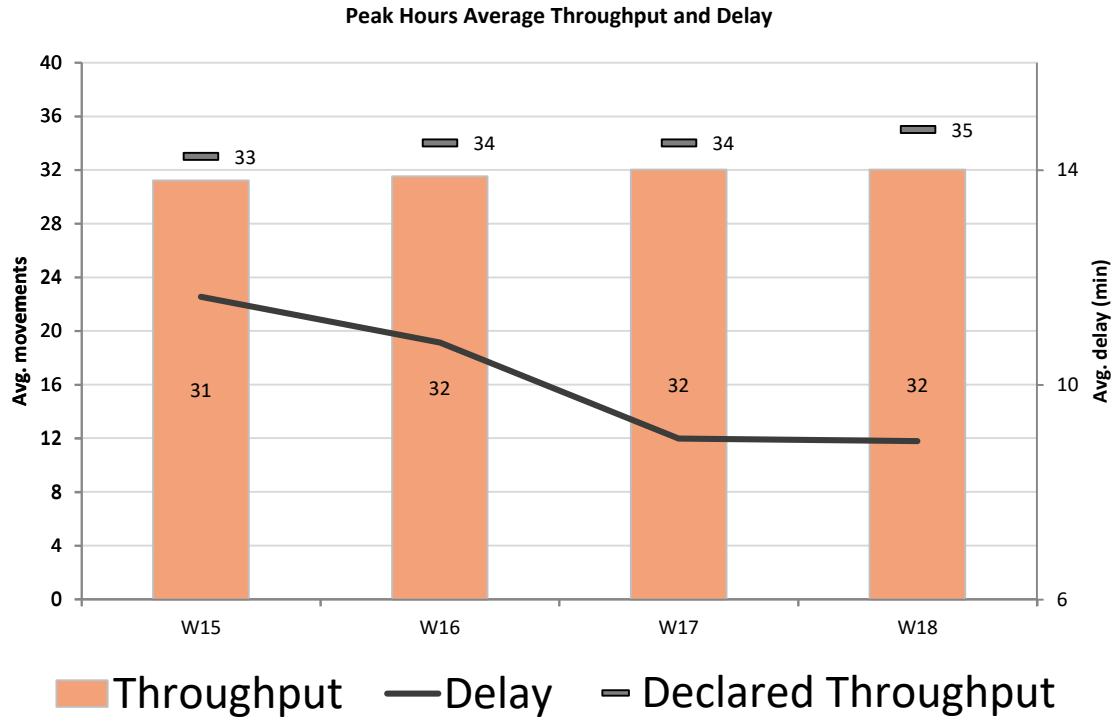


- Average actual runway demand in the peak hours stayed the same in W18 compared to W17
- Average scheduled runway demand in the peak hours increased by 0.36 movements in W18 compared to W17

*Arrival peak period:
UTC hours 01, 02, 17-20*

ARRIVALS – THROUGHPUT AND DELAY

• • •

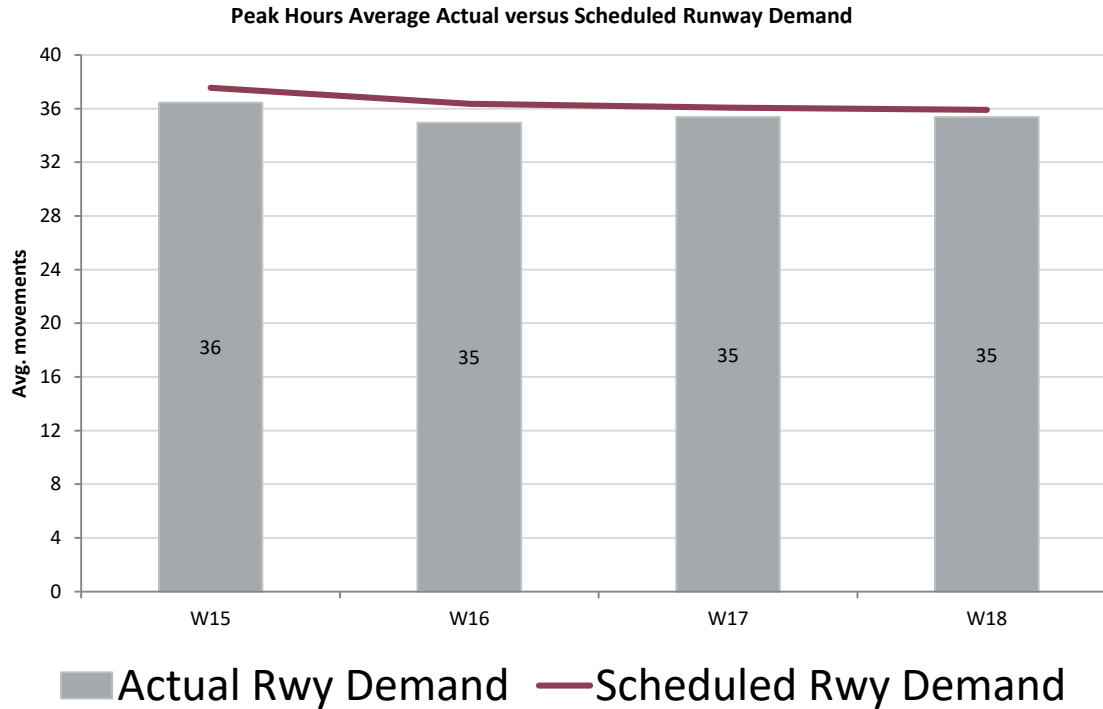


- Average throughput in the peak hours stayed the same in W18 compared to W17
- Average delay in the peak hours decreased by 3 seconds in W18 compared to W17

*Arrival peak period:
UTC hours 01, 02, 17-20*

DEPARTURES – RUNWAY DEMAND

• • •

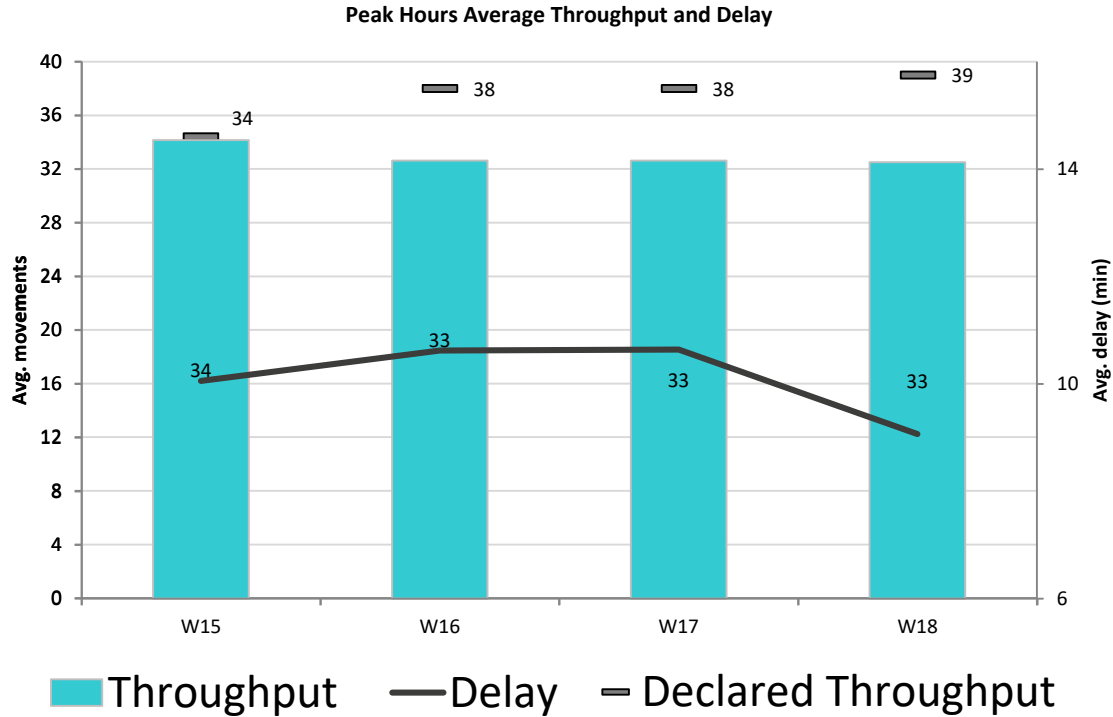


- Average actual runway demand in the peak hours stayed the same in W18 compared to W17
- Average scheduled runway demand in the peak hours decreased by 0.17 movements in W18 compared to W17

*Departure peak period:
UTC hours 03-06*

DEPARTURES – THROUGHPUT AND DELAY

• • •



- Average throughput in the peak hours stayed the same in W18 compared to W17
- Average delay in the peak hours decreased by 1 minute and 34 seconds in W18 compared to W17

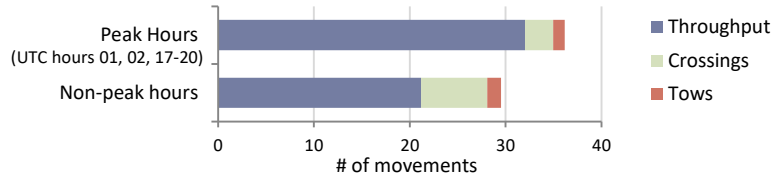
*Departure peak period:
UTC hours 03-06*

OTHER METRICS – WINTER 2018

• • •

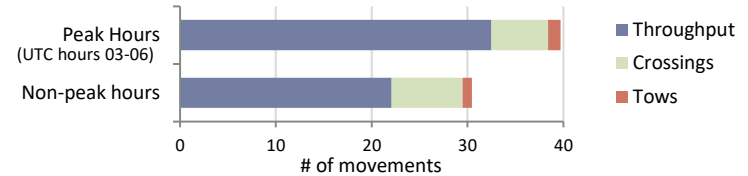
Total runway movements

Average number of total movements in the arrival runway (excluding SRO timings)



- **Arrival peak hours:** an hourly average of **32 arrivals, 3 aircraft crossings and 1 tow crossing** in each of those hours, adding up to 36 movements using the arrival runway
- **Arrival non-peak hours:** an hourly average of **21 arrivals, 7 aircraft crossings and 1 tow crossings** in each of those hours, adding up to 29 movements using the arrival runway

Average number of total movements in the departure runway (excluding SRO timings)



- **Departure peak hours:** an hourly average of **33 departures, 6 aircraft crossings and 1 tow crossing** in each of those hours, adding up to 40 movements using the departure runway
- **Departure non-peak hours:** an hourly average of **22 departures, 7 aircraft crossings and 1 tow crossing** in each of those hours, adding up to 30 movements using the departure runway

Tows



- A **daily average of 112** tows operate in Dubai International during the current winter season
- The daily average has **increased from 105 tows in W17 to 112 tows in W18**

SEPARATIONS DURING PEAK HOURS

. . .



A-A Separation (NM)

Season	A-A Separation
W15	4.7
W16	4.6
W17	4.6
W18	4.5

D-D Separation (hh:mm:ss)

Season	D-D Separation
W16	00:01:38
W16	00:01:40
W17	00:01:40
W18	00:01:40

- Arrival-arrival separation - W18 vs. W17 : -0.1NM
- Departure-departure separation - W18 vs. W17 : no change

S19 Southern Runway Rehabilitation Schedule & Performance Monitoring

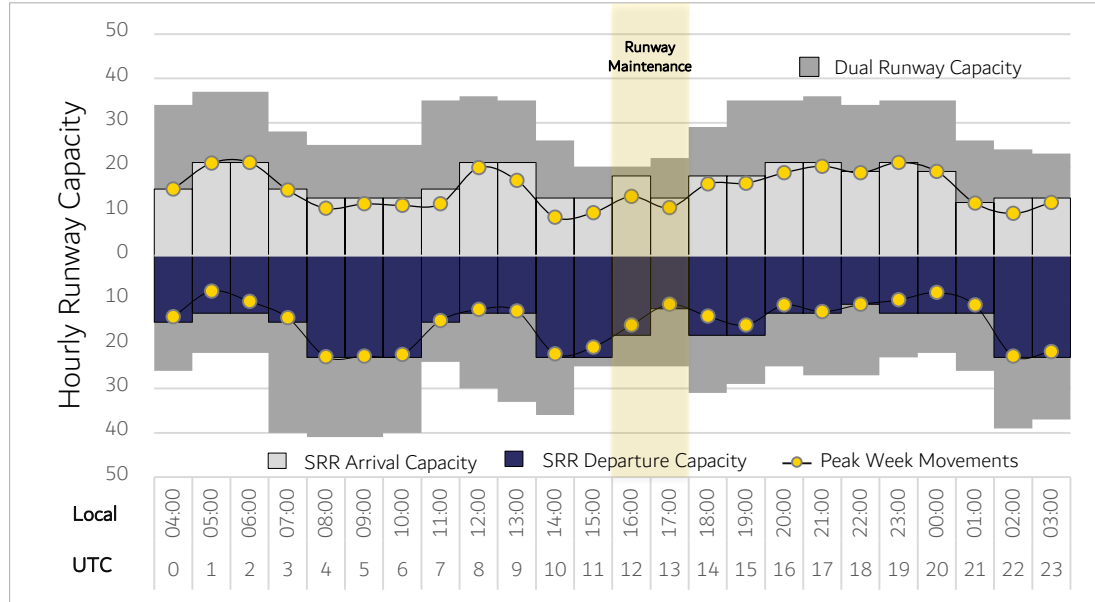
Fernando de Freitas, DXB/DWC Coordination Manager
Airport Coordination Limited (ACL)
& Rob Whitehouse, Vice President – Research
Dubai Airports (DA)

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S19 DXB SRR Runway Capacity Utilisation

S19 DXB SRR R60 Slot Capacity Limit					
Hour (UTC)	Hour (L)	Arrivals	Departures	Total	Notes
0	4	15	15	30	
1	5	21	13	34	
2	6	21	13	34	
3	7	15	15	30	
4	8	13	23	36	
5	9	13	23	36	
6	10	13	23	36	
7	11	15	15	30	
8	12	21	13	34	
9	13	21	13	34	
10	14	13	23	36	
11	15	13	23	36	
12	16	18	18	36	Runway Maintenance
13	17	13	12	25	Runway Maintenance
14	18	18	18	36	
15	19	18	18	36	
16	20	21	13	34	
17	21	21	13	34	
18	22	19	11	30	
19	23	21	13	34	
20	0	19	13	32	
21	1	12	13	25	
22	2	13	23	36	
23	3	13	23	36	
Grand Total		400	400	800	
Runway maintenance (Day 7)					



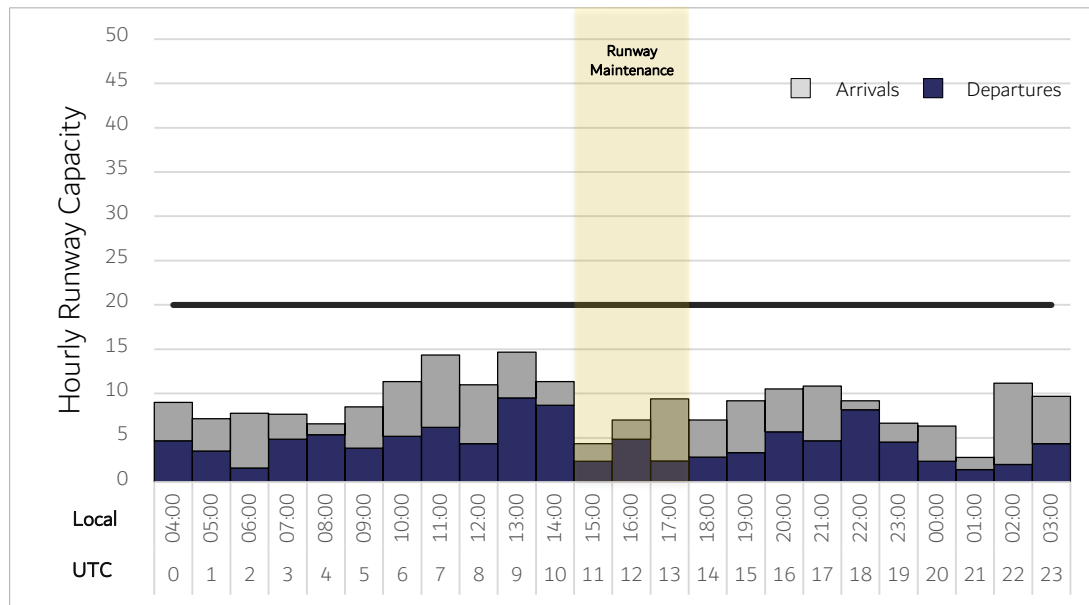
21
Peak
Arrival Capacity

23
Peak
Departure Capacity

90%
Capacity
Utilisation

S19 DWC SRR Runway Capacity Utilisation

S19 DWC SRR R60 Slot Capacity Limit					
Hour (UTC)	Hour (L)	Arrivals	Departures	Total	Notes
0	4	20	20	20	
1	5	20	20	20	
2	6	20	20	20	
3	7	20	20	20	
4	8	20	20	20	
5	9	20	20	20	
6	10	20	20	20	
7	11	20	20	20	
8	12	20	20	20	
9	13	20	20	20	
10	14	20	20	20	
11	15	20	20	20	Runway Maintenance
12	16	20	20	20	Runway Maintenance
13	17	20	20	20	Runway Maintenance
14	18	20	20	20	
15	19	20	20	20	
16	20	20	20	20	
17	21	20	20	20	
18	22	20	20	20	
19	23	20	20	20	
20	0	20	20	20	
21	1	20	20	20	
22	2	20	20	20	
23	3	20	20	20	
Grand total		480	480	480	
Runway maintenance (Day 1)					



20
Peak
Arrival Capacity

20
Peak
Departure Capacity

44%
Capacity
Utilisation

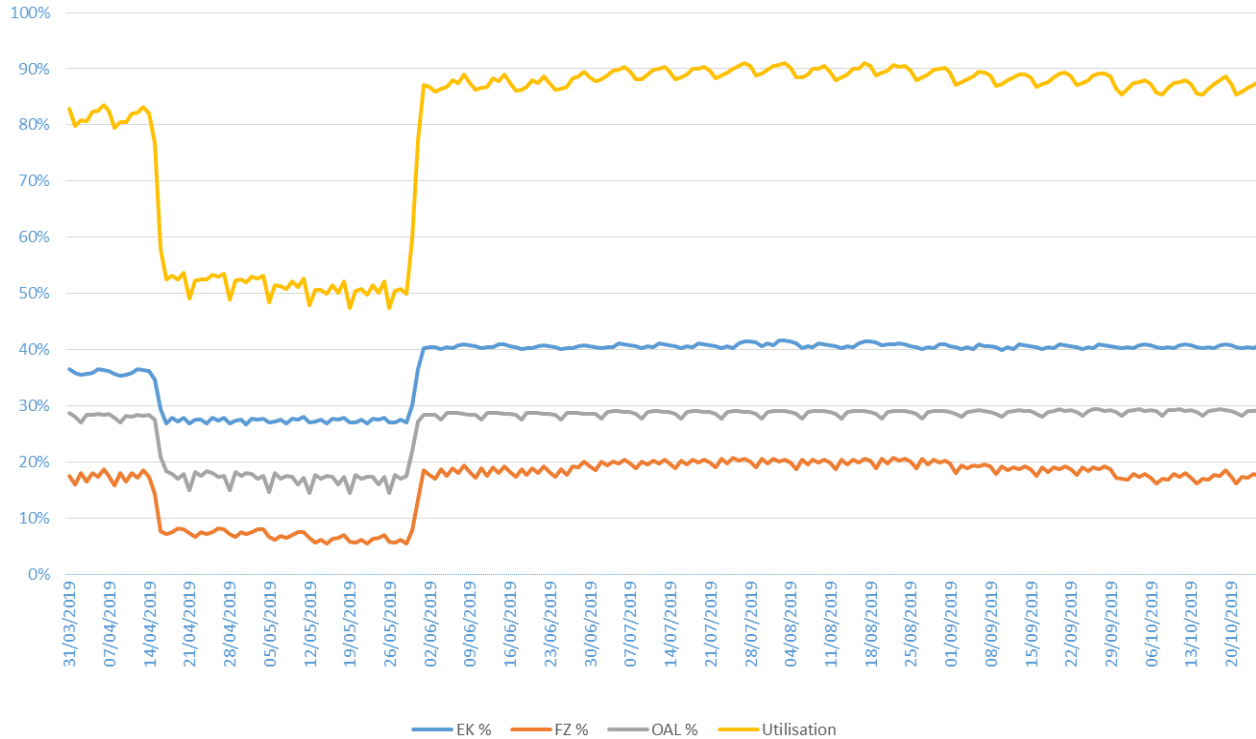


SRR Peak Week Update Summer 2019

(16th April – 30th May 2019)

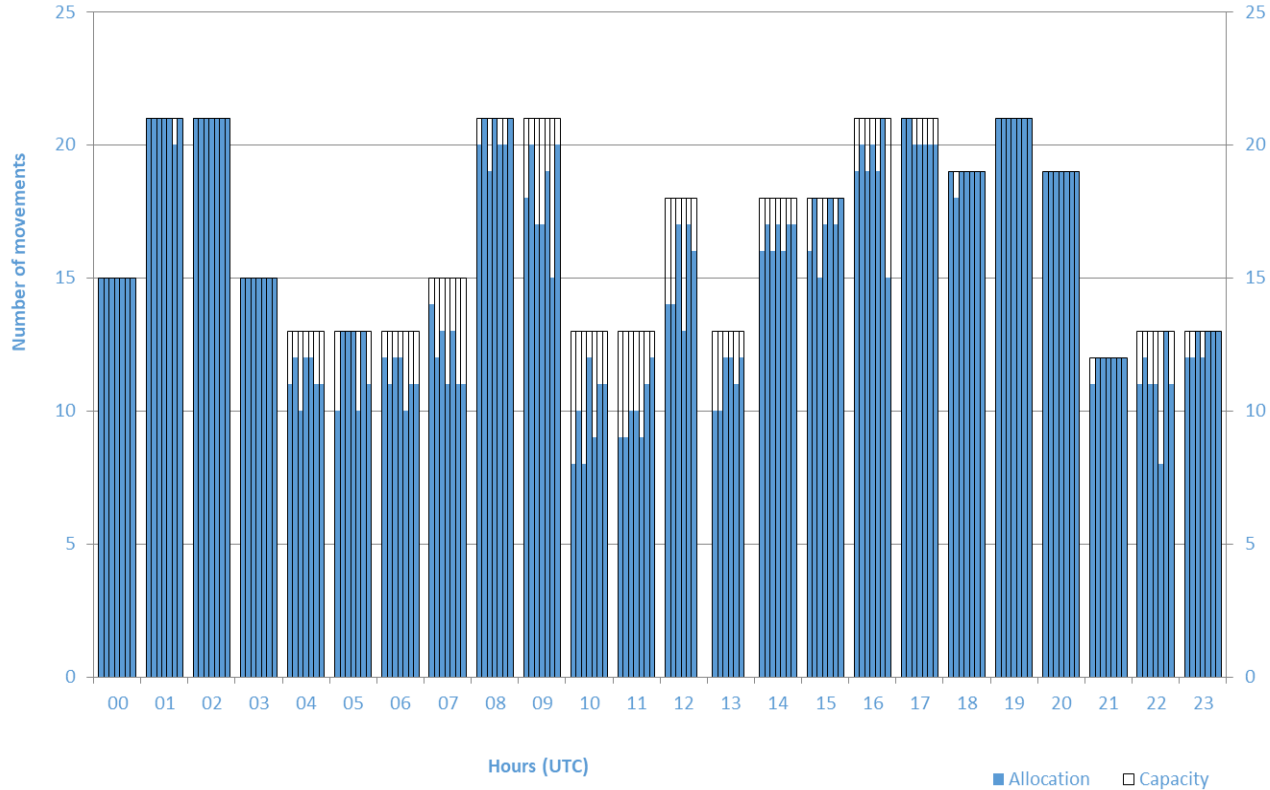
Integrity | Together | Own it | Professional | Striving for better

DXB S19 Allocated Runway Utilisation (R60 Totals)

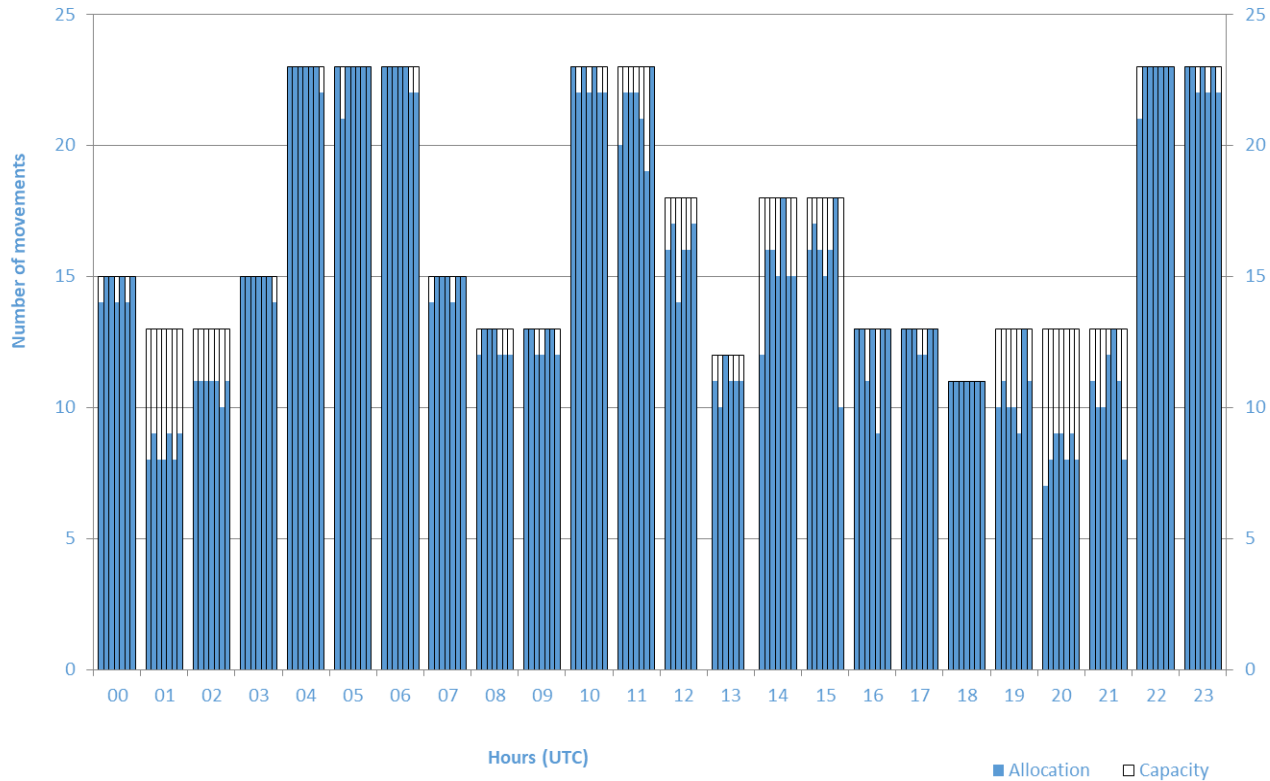


* Utilisation indicated is a % of S19 declared runway capacity, with reduced availability during the SRR period.

SRR Peak Week Runway Movement Allocation Hourly (R60) Arrivals - UTC



SRR Peak Week Runway Movement Allocation Hourly (R60) Departures - UTC



SRR S19 Slot Monitoring

Local rules during SRR:

- Operating at times significantly different from the allocated slots (either as one-off or regularly, excluding unforeseen operational delays as detailed in the Conditions of Use).
- Go Shows – Operation without approved slot (except in emergency cases).
- Operation of a slot in a manner other than coordinated (e.g. aircraft type different than approved even within the same ICAO Code and within the same aircraft family e.g. B73H vs B7M8).
- No Shows – Failure to cancel approved slot for reasons that are not beyond the airline's control.



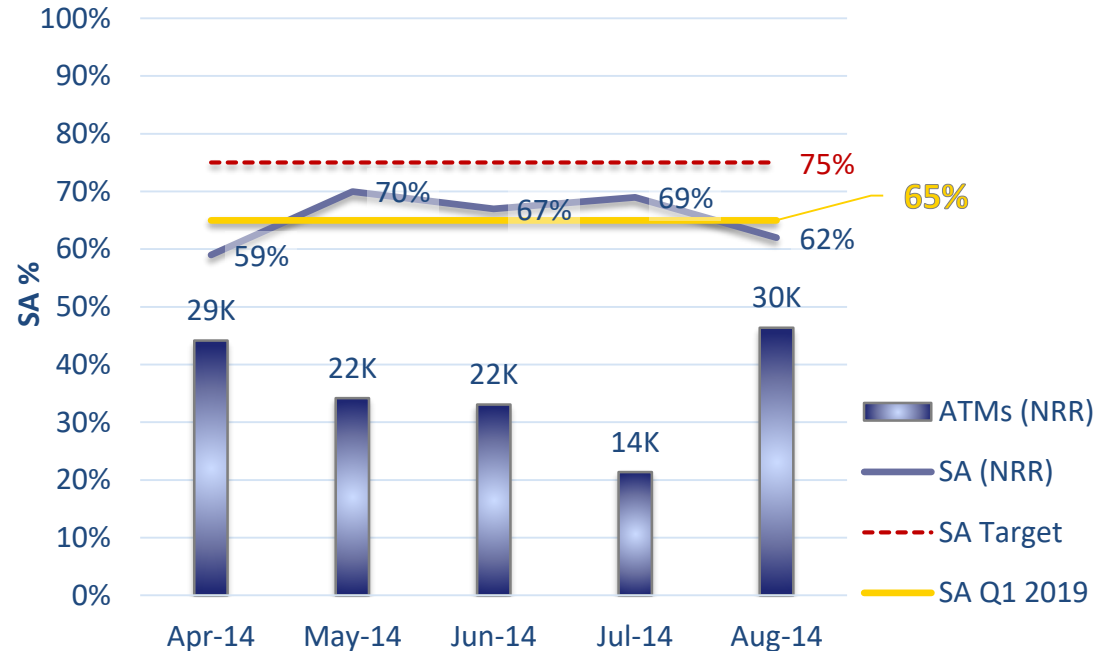


Slot Adherence as an Enabler

- On-Time Performance and Slot Adherence (SA) will be key to the success of the project and must have a focus over the entire airport community, led from the top.
- **Current SA for Q1 2019 is only 65%; i.e. less than SA during the NRR.**
- During NRR, the improved SA helped in achieving desired throughput during peak hours.
- However, the performance quickly deteriorated as we went back to normal dual runway operations post-works.

It is key that airlines adhere to their slot timings in order to minimise impact on delay and optimise throughput.

Slot Adherence (NRR vs. Q1 2019) - DXB Pax Operations



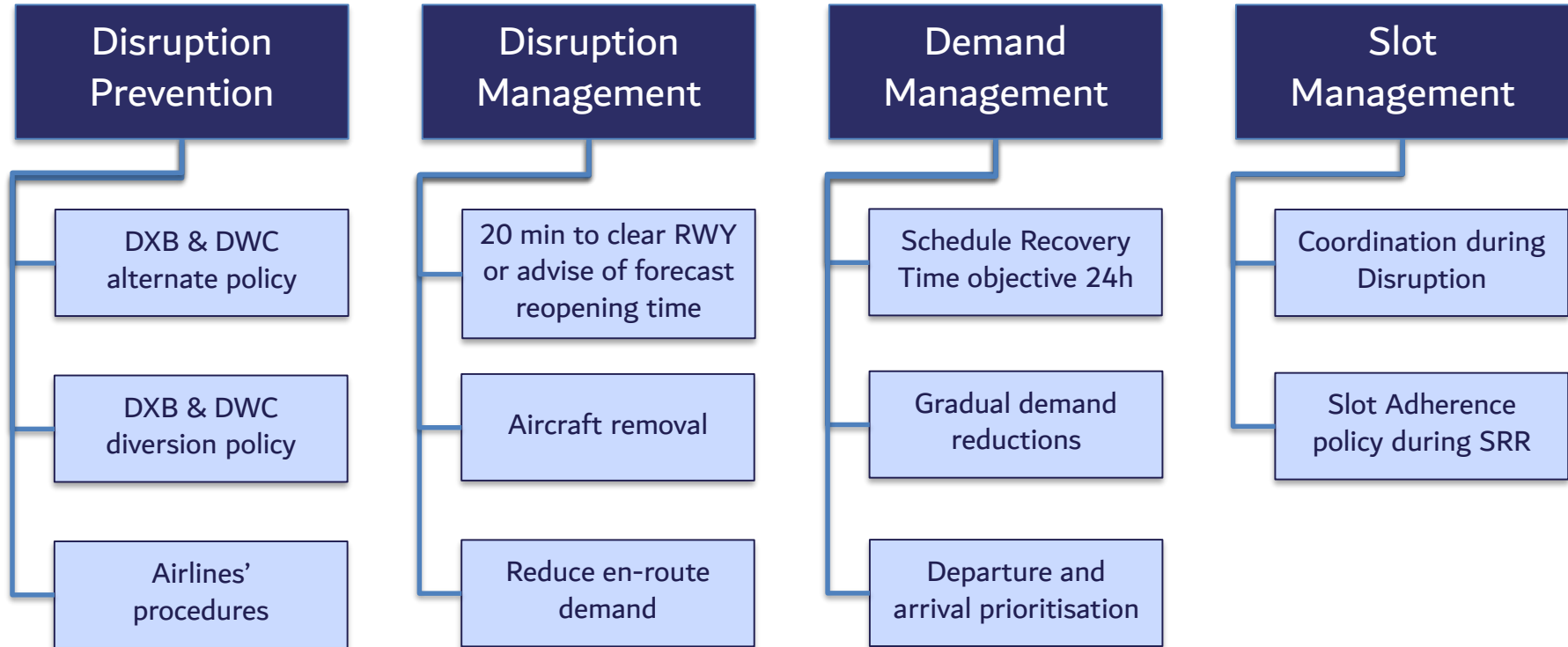
Southern Runway Rehabilitation – Disruption Resilience Plan

Rob Whitehouse, Vice President – Research
Dubai Airports (DA)

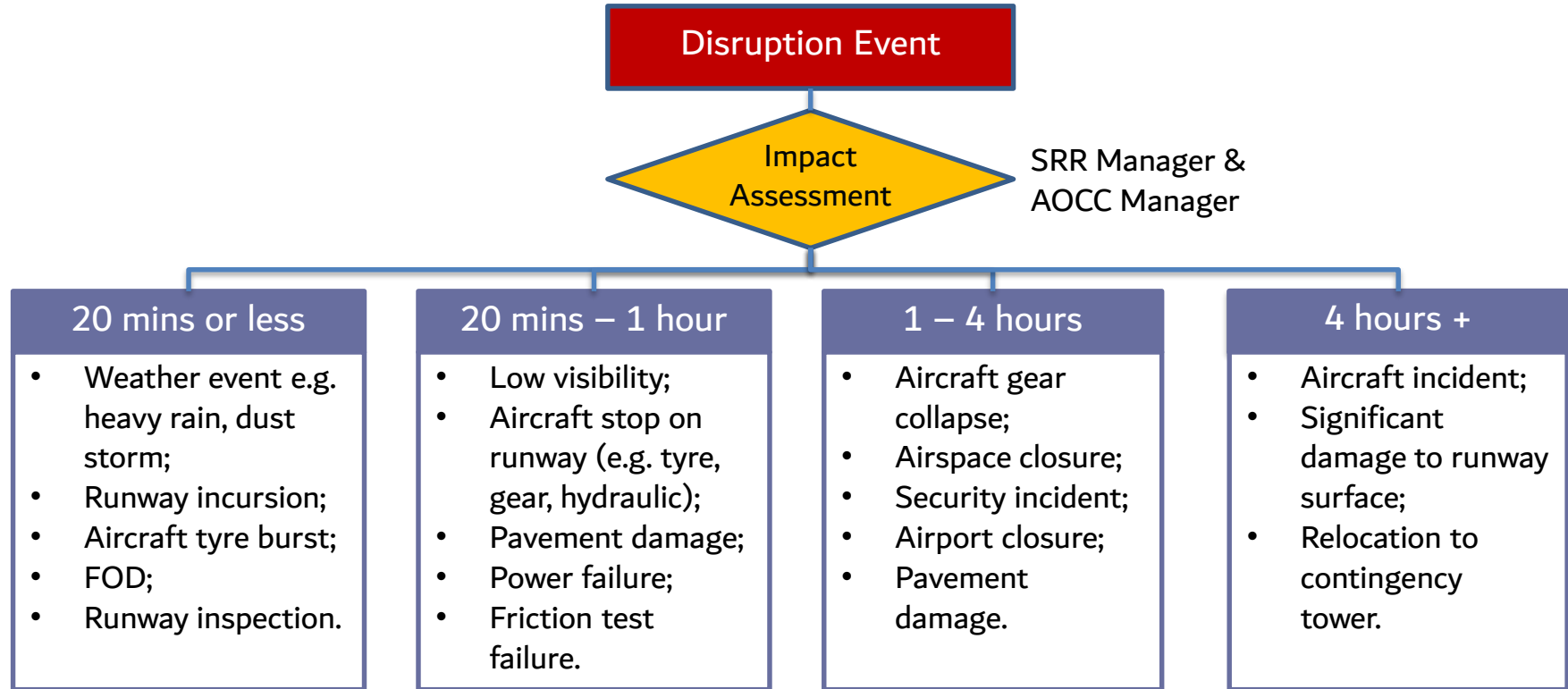
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Key Principles



Indicative Impact of Disruption Event (for illustrative purposes only)



Schedule Recovery & Demand Reductions

Demand Reductions Adapted to Schedule Recovery Time Objective

Closure Duration	2hrs	2 – 6hrs	6hrs +
Base Carriers	No Cancellation	~50 % of Total Cancellations	Up to 65% of Total Cancellations
OAL Multiple Daily Services	No Cancellation	~50 % of Total Cancellations	50% + Schedule Reduction
OAL Single Daily Service	No Cancellation	No Cancellation	Slot Withdraw Number (SWN)

N.B. This plan assumes a throughput of 36 movements per hour. The actual impact may vary depending on various factors.

Published for IATA Summer Season 2019

Dubai International (DXB)

3.11 Ad Hoc, Charter Operators and Helicopter Movements

3.11.2 Helicopter movements are restricted to Royal Airwing (RAW) premises only, and remain subject to RAW's explicit approval.

10.2 Annex II: Local Rules

AMENDMENT TO LOCAL RULE AT DUBAI INTERNATIONAL AIRPORT (DXB) FOR CARGO AND FREIGHT OPERATIONS:

- Ground times longer than 2 hours within the peak stand utilisation period (0200 to 0800 Local Time) will not be permitted and will carry penalties as outlined in the schedule of charges.
- The peak period will be reviewed season by season.

(Effective from 25th March 2018)



Available online: <http://www.dubaiairports.ae/corporate/airline-development/conditions-of-use-charges>



End of W19 Scheduling Coordination Committee - Q&A

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