



Civil Aviation Economic Directive – 901

Directive Relating to The Implementation of The Quality of Service Framework at KL International Airport Terminal 1 and 2

QoS (MA Sepang)
Civil Aviation Authority of Malaysia

Issue 01
Revision 00 – 1st December 2025

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Introduction

In exercise of the powers conferred by Section 43B of the Civil Aviation Authority of Malaysia Act 2017 [Act 788], the Authority issues this Civil Aviation Economic Directive (CAED) 901 – Directive Relating to The Implementation of The Quality of Service Framework at KL International Airport Terminal 1 and 2 (QoS MA Sepang).

This CAED contains the standards, requirements and procedures pertaining to the Airports Quality of Service (“QoS”) Framework issued by the Authority to improve passenger comfort at airports, ensure the aerodrome operators give priority to consumer service levels, and facilitate better airport user experience for airlines, ground handling operators and other users of airports in Malaysia.

This Civil Aviation Economic Directive 901 – Quality of Service MA Sepang (“CAED 901 – QoS MA Sepang”) is published by the Authority under Section 43B of Civil Aviation Authority of Malaysia Act 2017 [Act 788] and comes into operation on 1 December 2025.

Non-compliance with this CAED

Any person who contravenes any provision in this CAED shall be imposed a financial penalty under Subsection 43B (3) of the Civil Aviation Authority of Malaysia Act 2017 [Act 788].



(Dato’ Captain Norazman bin Mahmud)
Chief Executive Officer
Civil Aviation Authority of Malaysia



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Record of Revisions

Revisions to this CAED shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The '*Initials*' has to be signed off by the personnel responsible for the change.

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Summary of Changes

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1 General

1.1 Citation

- 1.1.1 This Directive is the Civil Aviation Economic Directive 901 – Directive Relating to The Implementation of The Quality of Service Framework at KL International Airport Terminal 1 and 2 (“QoS MA Sepang”), Issue 01/Revision 00, and comes into operation on 1 December 2025.
- 1.1.2 This CAED 901 – QoS MA Sepang, Issue 01/Revision 00 will remain current until withdrawn or superseded.

1.2 Applicability

- 1.2.1 The Quality of Service Directive set out in this CAED 901 shall apply to the person who is authorised under the Act to operate Kuala Lumpur International Airport Terminal 1 (“KLIA T1”) and Kuala Lumpur International Airport Terminal 2 (“KLIA T2”) (“Aerodrome Operator”).

1.3 Revocation

- 1.3.1 This CAED 901 revokes the directives issued pursuant to the Malaysian Aviation Commission Act 2015 [Act 771]:
- a) Directive Relating to the Implementation of the Quality of Service Framework at KL International Airport and KL International Airport 2 No. 1 of 2018;
 - b) Amendment to the Directive Relating to the Implementation of the Quality of Service Framework at KL International Airport and KL International Airport 2 No. 1 of 2018 (2024);
 - c) Directive Relating to the Implementation of the Second Phase of the Quality of Service Framework at KL International Airport and KL International Airport 2 No. 2 of 2018;
 - d) Directive Relating to the Implementation of the Third Phase of the Quality of Service Framework at KL International Airport and KL International Airport 2 No. 1 of 2019;
 - e) Amendment to the Directive Relating to the Implementation of the Third Phase of the Quality of Service Framework at KL International Airport and KL International Airport 2 No. 1 of 2019 (2023);
 - f) Directive Relating to the Implementation of the Fourth Phase of the Quality of Service Framework at KL International Airport Terminal 1 and 2 No. 1 of 2024; and

- g) Amendment to the Directive Relating to the Implementation of the Fourth Phase of the Quality of Service Framework at KL International Airport Terminal 1 and 2 No.1 of 2024 (2024).

2 Airport Quality of Service Framework

2.1 The QoS Framework comprises of five components:

- a) services quality category;
- b) service quality element;
- c) measurement mechanism;
- d) target; and
- e) revenue at risk.

2.2 The service quality category comprises of the passenger comfort and facilities, the operator and staff facilities, queuing times, and the passenger and baggage flow. Each of this service quality category is divided into the following specific service quality element:

- a) Passenger comfort and facilities
 - 1) Overall satisfaction with the airport
 - 2) Cleanliness of the terminal
 - 3) Ambience of the terminal
 - 4) Overall satisfaction with passenger washrooms
 - 5) Flight information display system
 - 6) Wayfinding
 - 7) Availability of Wi-Fi
 - 8) Kerbside congestion
 - 9) Cleanliness of passenger washrooms
- b) Operator and staff facilities
 - 1) Availability of Ramp Wi-Fi
 - 2) Availability of aerobridge
 - 3) Availability of aerobridge operator
 - 4) Availability of visual docking guidance system
 - 5) Cleanliness of staff washrooms

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- c) Queuing times
 - 1) Passenger security search – Centralised
 - 2) Passenger security search – Gate
 - 3) Check-in
 - 4) Immigration (Manned counter) – Arrival
 - 5) Immigration (Manned counter) – Departure
 - 6) Immigration (Manned counter) – Transfer
 - 7) Immigration (Automatic gate) – Arrival
 - 8) Immigration (Automatic gate) – Departure
 - 9) Immigration (Automatic gate) – Transfer
 - 10) Customs – Arrival
 - 11) Customs – Departure
 - d) Passenger and baggage flow
 - 1) Availability of lifts, escalators, and walkalators
 - 2) Availability of Baggage Handling System (“BHS”) equipment
 - 3) Baggage retrieval – time to first baggage
 - 4) Baggage retrieval – time to last baggage
 - 5) Outbound baggage (short-shipped)
 - 6) Availability of Aerotrain Track Transit System (“TTS”)
 - 7) Availability of bussing services
 - 8) Punctuality of bussing services
- 2.3 Each service quality element is measured with specific measurement mechanism to ensure that these services quality elements are measured in a clear and precise manner.
- 2.4 The Aerodrome Operator shall achieve the target allocated to each service quality element. Failure to achieve any of the targets as specified in column (5) of Schedule 1 and Schedule 2 of this Directive is a non-compliance and the Authority may impose a financial penalty on the Aerodrome Operator based on the percentage of the revenue at risk assigned to each service quality element.
- 2.5 The details of the QoS Framework for KLIA T1 and KLIA T2 are as specified in Schedule 1 and Schedule 2, respectively.

3 Computation of Financial Penalty for Non-Compliance with The QoS Framework

- 3.1 In the event of any non-compliance of the QoS Framework, the computation of financial penalty shall be based on the revenue at risk as per column (6) of Schedule 1 and Schedule 2.
- 3.2 The financial penalty shall be computed respectively for KLIA T1 and KLIA T2 on a monthly basis.
- 3.3 The amount of financial penalty for each non-compliance is calculated from the monthly accrued regulated aeronautical revenue of the Aerodrome Operator based on the percentage of the revenue at risk.
- 3.4 The financial penalty to be imposed pursuant to paragraph 3.3 shall not exceed five per cent of the annual turnover of the Aerodrome Operator from the preceding financial year.
- 3.5 The accrued regulated aeronautical revenue shall not include the User Fee paid by the Aerodrome Operator to the Government.
- 3.6 For the purposes of this paragraph –
- “accrued regulated aeronautical revenue” means –
- a) Passenger Service Charges and Security Charges:
 - b) Landing Charges; and
 - c) Parking Charges.

“User Fee” has the meaning assigned to it in the Operating Agreement for KL International Airport dated 18 March 2024 between the Government of Malaysia, Malaysia Airports Holdings Berhad and Malaysia Airports (Sepang) Sdn. Bhd.

4 Payment of Financial Penalty for Non-Compliance of QoS Framework

- 4.1 In the event the Aerodrome Operator fails to comply with the QoS Framework, the Authority shall issue the notice of financial penalty on a quarterly basis for each calendar year.
- 4.2 The Aerodrome Operator shall pay the financial penalty to the Authority within thirty days from the date the Authority issues the notice of financial pursuant to paragraph 4.1.

5 Authority to Require Information or Document

- 5.1 The Authority may, for the purposes of implementing this Directive, require the Aerodrome Operator to provide any information or document and the Aerodrome Operator shall provide such information or document to the Authority in accordance with any timeline as specified by the Authority.
- 5.2 The Aerodrome Operator shall disclose relevant information or document to the Authority and shall ensure that such information or document are not false or misleading in nature.

6 Compliance of the Directive by Aerodrome Operator

- 6.1 The Aerodrome Operator shall comply with this Directive.
- 6.2 Subsection 43B (3) of the Act shall apply in the event the Aerodrome Operator fails to comply with this Directive.



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7 Appendices

7.1 Appendix 1 – Schedule 1: Quality of Service Framework for KLIA T1

(1) No.	(2) Service quality category	(3) Service quality element	(4) Measurement mechanism (monthly)	(5) Target	(6) Revenue at risk (%)
1	Passenger comfort and facilities	Overall satisfaction with the airport	Survey response from a representative sample of passengers	Compliance of at least 98% of the size of the survey	Results are for notification and publication purposes only
		Cleanliness of the terminal		Compliance of at least 98% of the size of the survey	0.46
		Ambience of the terminal		Compliance of at least 97% of the size of the survey	0.11
		Overall satisfaction with passenger washrooms		Compliance of at least 93% of the size of the survey	0.30
		Flight information display system		Compliance of at least 96% of the size of the survey	0.11
		Wayfinding		Compliance of at least 94% of the size of the survey	0.28
		Availability of Wi-Fi		Compliance of at least 91% of the size of the survey	0.28
		Kerbside congestion		Compliance of at least 96% of the size of the survey	Results are for notification

					and publication purposes only
		Cleanliness of passenger washrooms	Independent inspection based on the 20 items as specified in Schedule 3	(i) Compliance of at least 90% of the 20 items per washroom; and (ii) Compliance of at least 90% of the total washrooms inspected	0.30
		Total			1.84
2	Operator and staff facilities	Availability of Ramp Wi- Fi	Independent inspection consisting of service availability, weekly onsite random checking of hot-spots and weekly device connectivity testing for Baggage Reconciliation System	(i) The availability of Ramp Wi-Fi service of at least 99.7% (ii) Signal strength indication of “Good” which is -50 to -60 dBm or more than -50dBm (iii) Successful authentication of Baggage Reconciliation System device	0.13
		Availability of aerobridge	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	99.5%	0.21
		Availability of aerobridge operator	The percentage of arrival flights where the aerobridge operator was available 10 minutes before on- chock time based on the reports	95% of arrivals	0.10

			submitted by the Aerodrome Operator		
			The percentage of arrival flights where the aerobridge operator was available 5 minutes before on-chock time based on the reports submitted by the Aerodrome Operator	99% of arrivals	0.10
		Availability of visual docking guidance system	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	99.5%	0.10
		Cleanliness of staff washrooms	Independent inspection based on the 19 items as specified in Schedule 4	(i) Compliance of at least 80% of the 19 items per washroom; and (ii) Compliance of at least 80% of the total washrooms inspected	0.22
		Total			0.86
3	Queueing times	Passenger security search – Centralised	Automated queue monitoring system installed at KLIA T1	95% – Passenger queues not more than 10 minutes	0.22
		Passenger security search – Gate		90% – Passenger queues not more than 15 minutes	0.30
		Check-in		95% – Passenger queues not more than 15 minutes	Results are for notification

		Immigration (Manned counter) – Arrival		85% – Passenger queues not more than 25 minutes	and publication purposes only
		Immigration (Manned counter) – Departure		85% – Passenger queues not more than 20 minutes	
		Immigration (Manned counter) – Transfer		90% – Passenger queues not more than 10 minutes	
		Immigration (Automatic gate) – Arrival		95% – Passenger queues not more than 5 minutes	
		Immigration (Automatic gate) – Departure		95% – Passenger queues not more than 5 minutes	
		Immigration (Automatic gate) – Transfer		95% – Passenger queues not more than 5 minutes	
		Customs – Arrival		95% – Passenger queues not more than 10 minutes	
		Customs – Departure		95% – Passenger queues not more than 10 minutes	
		Total			0.52
4	Passenger and baggage flow	Availability of lifts, escalators, and walkalators	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	Availability of lifts, escalators, and walkalators for at least 99.5% of the duration of time the lifts, escalators, and walkalators are in service	0.26

		Availability of baggage handling system equipment		Availability of BHS equipment for at least 99.5% of the duration of time the BHS equipment is in service	0.26
		Baggage retrieval – Time to first baggage	Reports submitted by the Aerodrome Operator on the arrival of the first baggage from on-chock to reclaim area	Compliance of at least 85% inbound passenger flights receiving the first baggage no later than 20 minutes for main terminal building and no later than 30 minutes for satellite building at KLIA T1	0.25
		Baggage retrieval – Time to last baggage	Reports submitted by the Aerodrome Operator on the arrival of the last baggage from on-chock to reclaim area	Compliance of at least 85% inbound passenger flights receiving the last baggage no later than 40 minutes for main terminal building and no later than 50 minutes for satellite building at KLIA T1	0.25
		Outbound baggage (short-shipped)	Reports submitted by the Aerodrome Operator on short-shipment for all outbound baggage	Compliance of at least 9,996 baggage for every 10,000 outbound baggage for KLIA T1	0.26
		Availability of 2 Aerotrain TTS	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	Availability of 2 trains for at least 98% of the duration of time the train is in service	0.25
		Availability of 1		Availability of 1 train for at least 99.5% of the	0.25

		Aerotrain TTS		duration of time the train is in service	
		Availability of bussing services	GPS-enabled tracking system on busses	99% – Availability of bus	Results are for notification and publication purposes only
		Punctuality of bussing services		99% – Punctuality of bus based on a 4-minute interval	
		Total			1.78
Grand Total					5.00

7.2 Appendix 2 – Schedule 2: Quality of Service Framework for KLIA T2

(1) No.	(2) Service quality category	(3) Service quality element	(4) Measurement mechanism (monthly)	(5) Target	(6) Revenue at risk (%)
1	Passenger comfort and facilities	Overall satisfaction with the airport	Survey response from a representative sample of passengers	Compliance of at least 98% of the size of the survey	Results are for notification and publication purposes only
		Cleanliness of the terminal		Compliance of at least 98% of the size of the survey	0.46
		Ambience of the terminal		Compliance of at least 97% of the size of the survey	0.11
		Overall satisfaction with passenger washrooms		Compliance of at least 93% of the size of the survey	0.30
		Flight information display system		Compliance of at least 96% of the size of the survey	0.11
		Wayfinding		Compliance of at least 94% of the size of the survey	0.28
		Availability of Wi-Fi		Compliance of at least 91% of the size of the survey	0.28
		Kerbside congestion		Compliance of at least 96% of the size of the survey	Results are for notification and publication

					purposes only
		Cleanliness of passenger washrooms	Independent inspection based on the 20 items as specified in Schedule 3	(i) Compliance of at least 90% of the 20 items per washroom; and (ii) Compliance of at least 90% of the total washrooms inspected	0.30
		Total			1.84
2	Operator and staff facilities	Availability of Ramp Wi-Fi	Independent inspection consisting of service availability, weekly onsite random checking of hot-spots and weekly device connectivity testing for Baggage Reconciliation System	(i) The availability of Ramp Wi-Fi service of at least 99.7% (ii) Signal strength indication of “Good” which is -50 to -60 dBm or more than -50dBm (iii) Successful authentication of Baggage Reconciliation System device	0.13
		Availability of aerobridge	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	99.5%	0.21
		Availability of aerobridge operator	The percentage of arrival flights where the aerobridge operator was available 10 minutes before on-chock time based on the reports submitted by the	95% of arrivals	0.10

			Aerodrome Operator		
			The percentage of arrival flights where the aerobridge operator was available 5 minutes before on-chock time based on the reports submitted by the Aerodrome Operator	99% of arrivals	0.10
		Availability of visual docking guidance system	The Equipment Service Availability based on reports submitted by the Aerodrome Operator	99.5%	0.10
		Cleanliness of staff washrooms	Independent inspection based on the 19 items as specified in Schedule 4	(i) Compliance of at least 80% of the 19 items per washroom; and (ii) Compliance of at least 80% of the total washrooms inspected	0.22
		Total			0.86
3	Queueing times	Passenger security search – Centralised	Automated queue monitoring system installed at KLIA T2	95% – Passenger queues not more than 10 minutes	0.52
		Check-in		95% – Passenger queues not more than 15 minutes	Results are for notification and publication purposes only
		Immigration (Manned counter) – Arrival		85% – Passenger queues not more than 25 minutes	

		Immigration (Manned counter) – Departure		85% – Passenger queues not more than 20 minutes			
		Immigration (Manned counter) – Transfer		90% – Passenger queues not more than 10 minutes			
		Immigration (Automatic gate) – Arrival		95% – Passenger queues not more than 5 minutes			
		Immigration (Automatic gate) – Departure		95% – Passenger queues not more than 5 minutes			
		Immigration (Automatic gate) – Transfer		95% – Passenger queues not more than 5 minutes			
		Customs – Arrival		95% – Passenger queues not more than 10 minutes			
		Customs – Departure		95% – Passenger queues not more than 10 minutes			
		Total				0.52	
		4		Passenger and baggage flow		Availability of lifts, escalators, and walkalators	The Equipment Service Availability based on reports submitted by the Aerodrome Operator
Availability of baggage handling	Availability of BHS equipment for at least 99.5% of the duration of time the		0.26				

		system equipment		BHS equipment is in service	
		Baggage retrieval – Time to first baggage	Reports submitted by the Aerodrome Operator on the arrival of the first baggage from on-chock to reclaim area	Compliance of at least 85% inbound passenger flights receiving the first baggage no later than 25 minutes at KLIA T2	0.25
		Baggage retrieval – Time to last baggage	Reports submitted by the Aerodrome Operator on the arrival of the last baggage from on-chock to reclaim area	Compliance of at least 85% inbound passenger flights receiving the last baggage no later than 40 minutes at KLIA T2	0.25
		Outbound baggage (short-shipped)	Reports submitted by the Aerodrome Operator on short-shipment for all outbound baggage	Compliance of at least 9,999 baggage for every 10,000 outbound baggage for KLIA T2	0.26
		Total			1.28
	Grand Total				4.50



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7.3 Appendix 3 – Schedule 3: Inspection Checklist for Passenger Washrooms

Washroom overall	
1	There is a working ventilation system
2	The toilet is free from unpleasant smells
3	There is sufficient lighting
4	Floors are dry and free from slipping hazards
5	Floors are free from cracks, damage, rubbish, or excess dirt or staining
6	Walls are free from cracks, damage, or excess dirt or staining
7	Waste and sanitary bins have spare capacity
Cubicles and urinals	
8	All inspected cubicles and urinals have a working flush system
9	All inspected toilet bowls are free from cracks, or damage, or excessive dirt or staining
10	All inspected cubicles have toilet tissue available
11	All inspected cubicles have a working door with a latch or lock, and free from excess dirt
12	All inspected cubicles have a coat hook
13	All inspected bidets are fully functional
Hand washing area	
14	Clean water is available
15	Washing basins are free from cracks or damage, watermarks or excessive dirt
16	Taps are in working order
17	Soap is available
18	One or more hand dryers are available and in working order
19	Mirrors are free from excess dirt or fingerprints
20	Mirrors are free from cracks or damage



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7.4 Appendix 4 – Schedule 4: Inspection Checklist for Staff Washrooms

Washroom overall	
1	There is a working ventilation system
2	The toilet is free from unpleasant smells
3	There is sufficient lighting
4	Floors are dry and free from slipping hazards
5	Floors are free from cracks, damage, rubbish, or excess dirt or staining
6	Walls are free from cracks, damage, or excess dirt or staining
7	Waste and sanitary bins have spare capacity
Cubicles and urinals	
8	All inspected cubicles and urinals have a working flush system
9	All inspected toilet bowls are free from cracks, or damage, or excessive dirt or staining
10	All inspected cubicles have toilet tissue available
11	All inspected cubicles have a working door with a latch or lock, and free from excess dirt
12	All inspected cubicles have a coat hook
13	All inspected bidets are fully functional
Hand washing area	
14	Clean water is available
15	Washing basins are free from cracks or damage, watermarks or excessive dirt
16	Taps are in working order
17	Soap is available
18	Mirrors are free from excess dirt or fingerprints
19	Mirrors are free from cracks or damage



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