



AOP

for you

Making information clear

A new era in airport efficiency

Heathrow

1. Screens explained

Heathrow

Introduction

Welcome to the AOP Screens Explained document for the Airport Operations Plan (AOP). This booklet provides information for the screens that most users experience, with explanations for acronyms and abbreviations. It also provides guidance on how to find your way around AOP. For more detailed information on how to perform key functions, refer to the AOP Foundation Use booklet.

AOP is used by colleagues across Heathrow to share information on the status and intention of every flight. It enables accurate, timely allocation of resources and it allows Air Traffic Control to have a much clearer picture of the overall demand for airspace and runways. It provides airport stakeholders with a common picture of how the airport is performing and allows for better operational decision making.

We recommend using Chrome, Firefox or Mozilla for a more stable AOP experience.

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Account requests and navigation

How to request an account

Heathrow Airport Limited (HAL) colleagues

1. Visit the New Generation Service Desk (NGSD) portal
2. Select 'Raise a Request'
3. Select 'Software Deployment & Systems Access' then 'New AOP Account'
4. Complete the form and submit

Non HAL colleagues

1. Please call the HAL IT service desk on 0208 745 5355
2. Request an external AOP account. Please ensure that you have a corporate email account for your details to be sent to, e.g. someone@yourcompany.co.uk



Navigation

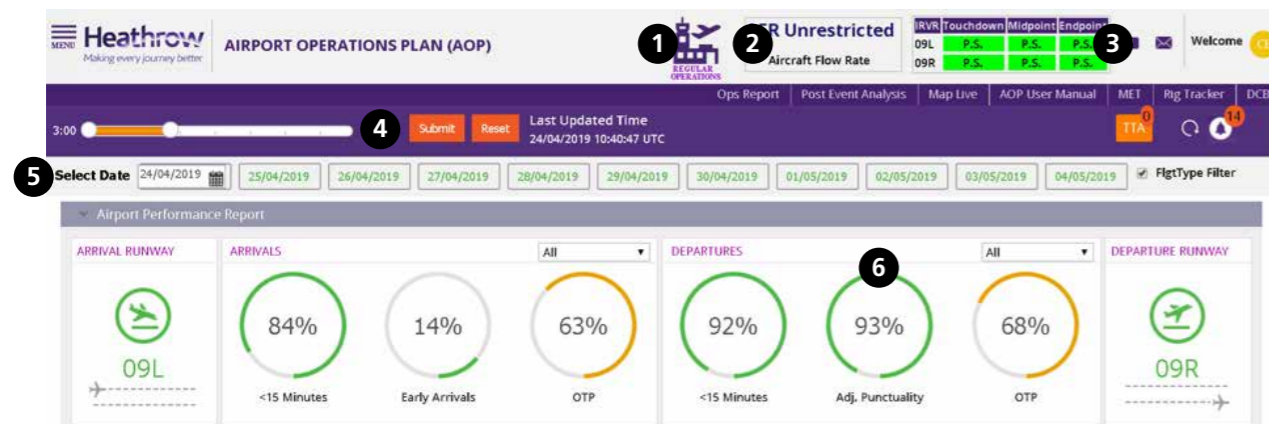
AOP is navigated using the pop-out menu which is available on the left side of every page by clicking the three horizontal lines in the top left-hand corner. Some roles have access to additional screens depending on user privileges, but for most colleagues the primary screens are the Home, Arrivals, Departure, Stand Jetty and Flight Search pages. Hover over the menu icon and the available screens pop out from the left. Each icon has a pop up link to the right which opens the selected screen in a new window. This allows you to open several windows at once and toggle between screen views as you wish, using your browser tool bar.



Using the home page

The Home page provides an overall summary of current airport performance and can be adjusted to show a prediction of performance throughout the rest of the day. It can show performance data for the last 99 days and up to 10 days ahead. It's a great tool for daily briefings and shift handovers.

Grey heading bars for key areas of performance can be expanded and collapsed using arrows to the left of the performance title. The explanation below covers some of the features and metrics that Heathrow specifically provide to further improve performance. Don't worry, if you worked in aviation before we also use the more well known measurements.

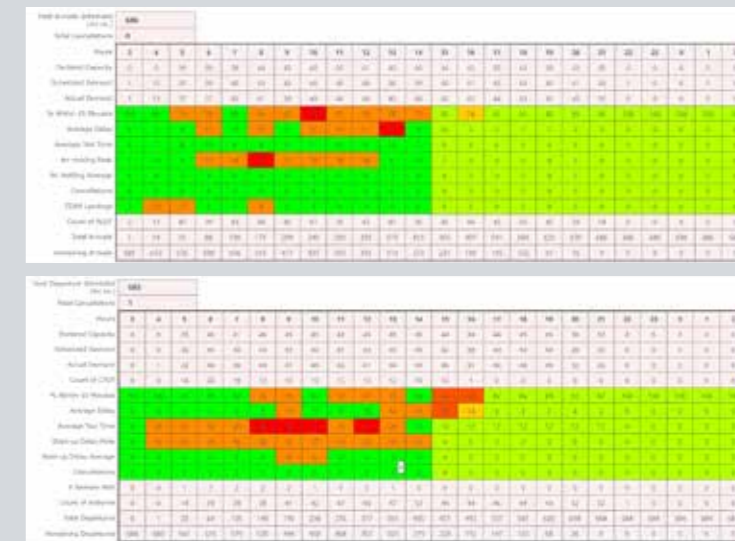


- 1. Airfield status** – this example shows Regular Operations. This will change to show disruptive conditions, e.g. during winter operations the icon changes to 'SNOW'.
- 2. Arrival regulations** – when active, this displays the number of aircraft that can land each hour imposed as a flow measure by Air Traffic Control. It is expressed as a value per hour (e.g. 36/60). If Target Time of Arrival is in force, it shows that landing times of individual flights are being managed.
- 3. Runway visibility** – displayed for every third runway distance interval.
- 4. Slider bar** – this can be moved forward in 30-minute intervals to predict the airport's performance taking historic and current data into account.
- 5. Date selection** – click on a future date to see the current performance prediction, or use the date selection box to review any other date including up to 99 days in the past.
- 6. Adjusted departures punctuality** – Adjusted departures punctuality – this figure removes any flights that became unpunctual due to an imposed Calculated Take-Off Time (CTOT) e.g. due to en route weather or delays at the destination airport.



- 1. Pilot Missed Calls** – when a pilot has not called to request start clearance by Target Off-Block Time (TOBT) +5 minutes.
- 2. Late Updates** – when the flight's TOBT was updated less than 10 mins before the previous TOBT. Unless you plan to delay the TOBT, such updates cause system instability and adversely affect the departure sequence.

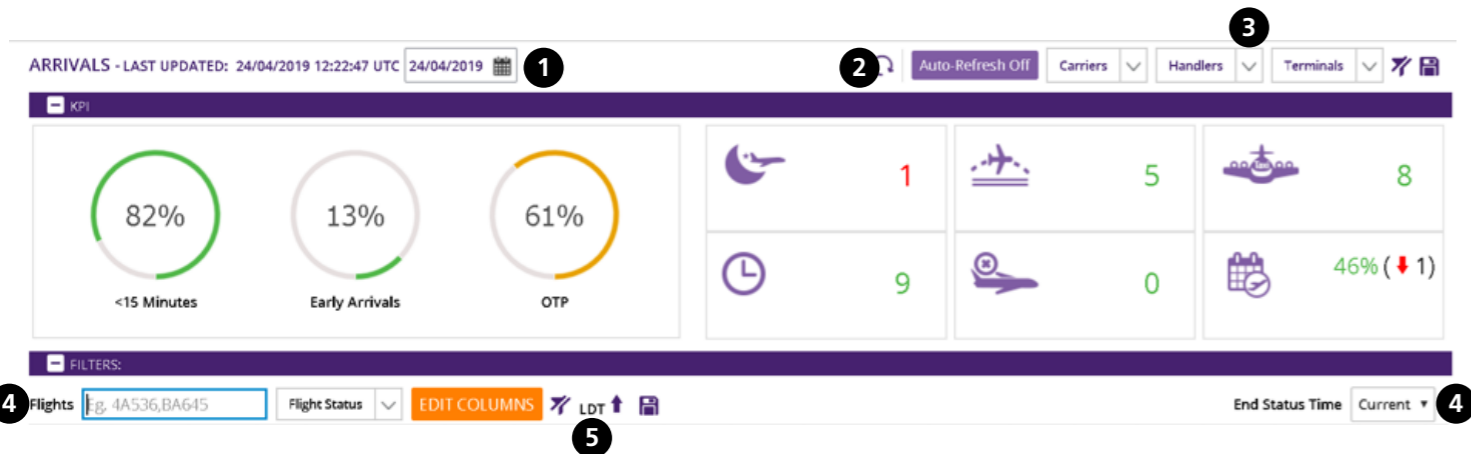
From the Hourly Performance Indicators information bar:



A detailed hourly breakdown for performance metrics is shown for both arrivals and departures, indicating progress against the planned schedule. Green boxes indicate performance up to the most recent hour that met or exceeded targets, with amber and red indicating sub-optimal results. Light green and light amber boxes indicate a prediction for the rest of the day based on current performance.

Arrivals

For details on filtering see the AOP Foundation Use document.
With Auto-Refresh set to ON this page refreshes every 30 seconds.



- 1. Date selection box** – works in the same way as the Home screen and enables you to see arrivals data on dates up to 99 days in the past and 10 days in the future.
- 2. Auto-Refresh button** – leaving Auto-Refresh ON is recommended unless you are searching historical data, in which case toggle to Auto-Refresh OFF (otherwise your request will be continually overwritten by the current data refresh).
- 3. Top level filters** – these allow users to focus on their own operation according to preference. Clicking the 'save' icon will keep preferences set to default each time you log in. These can be changed at any time.
- 4. Mid-level filters** – these can be used to remove unwanted columns or flight status and can be used in isolation or with top level filters. Using the 'save' icon will also keep preferences set to default each time you log in. These can be changed at any time.
- 5. Current ordering** – the acronym displayed shows the way rows of flight data are ordered below. In this example rows are ordered by LDT (landing time) in ascending order. To change, simply click on the heading of the preferred column, click again to change from ascending to descending.



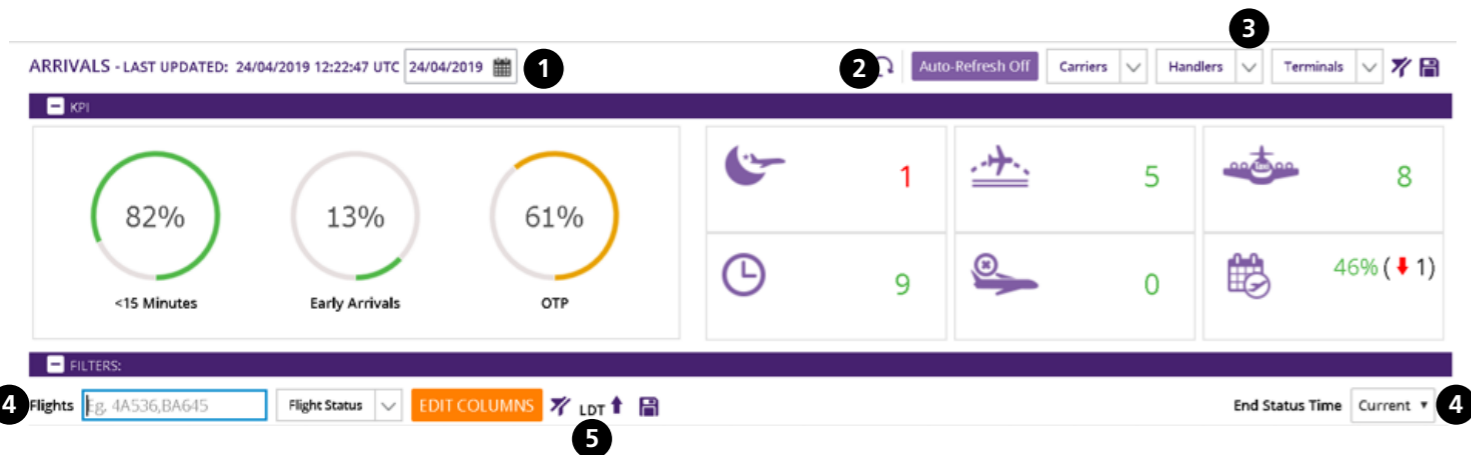
Arrivals

The abbreviations used for default column headings on the Arrivals page are from left to right:

| | | | |
|------------------|---|----------------|---|
| Flt | The aircraft's flight number | NJM | Identifies the risk of the flight operating as a Night Jet Movement. It also identifies flights scheduled to arrive before 06:02 local time |
| Call Sign | The aircraft's call sign | TTA | Target Time of Arrival. Indicates the flight has been requested to arrive at a certain time to smooth peaks in demand |
| Reg | The aircraft's registration | Lnk Flt | Shows the known linked outbound flight for that same aircraft |
| Type | The type of aircraft operating the service | Flt Typ | The flight type, shown as 'I' for international and 'D' for domestic |
| Std | The number of the stand allocated for the arrival. If blank, no current allocation | Orig | The origin of the flight from its last scheduled airport |
| H | The amount of ground holding time for an arriving flight (waiting for a stand), in excess of the taxi time normally expected | Rclm | The baggage reclaim belt allocated to the arriving flight |
| Status | The flight status of the arriving flight. The flight is removed from the screen 15 minutes after the delivery of the last bag | Fst Bag | The time the first bag was delivered to the reclaim belt |
| Air Hld | The amount of air holding that the arriving flight experienced | Lst Bag | The time the last bag was delivered to the reclaim belt |
| LDT | Landing Time, indicated as 'A' for actual and 'E' for estimated | PAX | The number of passengers on the flight |
| IBT | In-Block Time | PAX T | The number of passengers transferring to another flight with a known valid connection |
| SIBT | Scheduled In-Block Time | WC | The number of Persons of Reduced Mobility requiring assistance |
| PIBT | Predicted In-Block Time | UM | Unaccompanied Minors |
| Stack | The arrival holding stack used by the aircraft | TIBT | Target In-Block time |
| Rwy | The runway used by the arriving aircraft | | |

Departures

For details on filtering see the AOP Foundation Use document.
With Auto-Refresh set to ON this screen refreshes every 30 seconds.



- 1. Date selection box** – works in the same way as the Home screen and enables you to see arrivals data on dates up to 99 days in the past and 10 days in the future.
- 2. Auto-Refresh button** – leaving Auto-Refresh ON is recommended unless you are searching historical data, in which case toggle to Auto-Refresh OFF (otherwise your request will be continually overwritten by the current data refresh).
- 3. Top level filters** – these allow users to focus on their own operation according to preference. Clicking the 'save' icon will keep preferences set to default each time you log in. These can be changed at any time.
- 4. Mid-level filters** – these can be used to remove unwanted columns or flight status and can be used in isolation or with top level filters. Using the 'save' icon will also keep preferences set to default each time you log in. These can be changed at any time.
- 5. Current ordering** – the acronym displayed shows the way rows of flight data are ordered below. In this example rows are ordered by TOBT (Target Off-Block Time) in ascending order. To change, simply click on the heading of the preferred column, click again to change from ascending to descending.



Departures

The abbreviations used for default column headings on the Departure page are from left to right.

| | |
|------------------|---|
| Alert | The triggered performance alert reference is displayed for the flight. Click on the alert for more information. If a flight has more than one, the most severe alert will appear. |
| Flt | The aircraft's flight number |
| Call Sign | The aircraft's call sign |
| Reg | The aircraft's registration |
| Type | The type of aircraft operating the service |
| Std | The number of the stand allocated for the departure. |
| Status | The status of the departing flight |
| SOBT | Scheduled Off-Block Time |
| POBT | Predicted Off-Block Time |
| COBT | Calculated Off-Block Time |
| EOBT | Estimated Off-Block Time |
| TOBT | Target Off-Block Time |
| Strt Req | Start request counter. A green flag indicates the request has been made. The -5 to +5 counter reflects the TOBT +/- 5 minute window |
| TSAT | Target Start Up Approval Time. This reflects any departure delays, e.g. en route or outstation regulations |
| AOBT | Actual Off-Block Time |

| | |
|----------------|---|
| TOT | Take-Off Time, indicated as 'A' for Actual, T for Target, C for Calculated (the latter for those flights assigned a slot restriction) |
| Rwy | The runway used by the departing aircraft |
| NJM | Night Jet Movement risk |
| Lnk Flt | Shows the known linked inbound flight for that same aircraft |
| Dest | The flight's destination airport |
| SID | The Standard Instrument Departure route the aircraft will use |
| T-POBT | Target Predicted Off-Block Time |

During winter operations the following columns are visible when aircraft anti-icing or de-icing is anticipated or underway:

| | |
|---------------|--|
| Std/Pd | Indicates whether de-icing will take place on stand or at a remote pad |
| De-ic | Indicates the status of a de-icing request |
| RZT | The time at which de-icing was requested (not the de-icing start time) |
| CZT | The time de-icing commenced, indicated as 'A' for actual and 'E' for estimated |
| EZT | The time de-icing was completed, indicated as 'A' for actual and 'E' for estimated |

Flight split

The split screen facility allows users to avoid toggling between the Arrivals and Departure pages by providing a condensed version of both pages on one screen. It has the added advantages of maintaining most of the filtering available to end users and allows use of the End Status Time facility. This facilitates investigations on flights that have already operated that day from the same screen. The image below shows a potential future enhancement of providing transfer passenger numbers via an icon to the left of some flight's information. It is not yet agreed if this enhancement will occur.

The split screen refreshes to the selected End Status Time at the time of the refresh, as opposed to the main arrivals and departures screens which refresh to your default selection.

ARRIVALS - Flights (2,455,342,556) Flight Status LDT ↑ End Status Time Current

| IR | Typ | Stat | Status | Air | LDT | SBT | SBT | Link Flt | Orig | Room | For bag | Last Bag |
|-------|------|------|-----------|-----|---------|---------|-------|----------|------|------|---------|----------|
| IB162 | AJ21 | | Overhd | 3 | 10:28 E | 10:29 E | 09:50 | | MAD | | | |
| V5166 | B759 | 335 | First Bag | 4 | 10:47 A | 10:55 A | 11:10 | V5106 | SEA | 04 | 11:11 | |
| BA182 | B772 | 534 | First Bag | 1 | 10:51 A | 11:05 A | 11:05 | BA157 | JFK | 9 | 11:47 | |
| LH994 | A35K | 217 | Last Bag | 1 | 11:00 A | 11:31 A | 10:45 | LH905 | FRA | 8 | 11:42 | 12:01 |
| BA253 | B772 | 542 | First Bag | 1 | 11:05 A | 11:27 A | 11:00 | BA909 | GCM | 6 | 11:50 | |
| AI177 | B768 | 243 | First Bag | 8 | 11:07 A | 11:17 A | 11:05 | AI172 | BLR | 7 | 11:32 | |
| LX318 | A329 | 216 | Last Bag | 4 | 11:22 A | 11:38 A | 11:10 | LX313 | ZRH | 8 | 11:41 | 12:10 |
| N2002 | B77W | 247 | Last Bag | 5 | 11:25 A | 11:29 A | 10:50 | N2001 | AKL | 10 | 11:52 | 12:19 |
| KM100 | A35K | 420 | Last Bag | 0 | 11:29 A | 11:33 A | 10:25 | KM101 | MLA | 4 | 11:44 | 12:02 |
| AC854 | B789 | 281 | Last Bag | 3 | 11:30 A | 11:37 A | 11:20 | AC855 | YVR | 8 | 11:46 | 12:03 |
| AA046 | B759 | 236 | First Bag | 1 | 11:32 A | 11:45 A | 12:05 | AA991 | ORD | 07 | 12:07 | |
| V5020 | B759 | 342 | Last Bag | 0 | 11:34 A | 11:43 A | 11:15 | V5250 | SFO | 05 | 11:58 | 12:05 |

DEPARTURES - Flights (eg. A436) Flight Status SDBT ↑ End Status Time Current

| Alert | IR | CAR Sign | Reg | Typ | Stat | SDBT | ADBT | SBT | Stat | TSAT | ADBT | EDT | Reg | Last Flt | Dest | | |
|-------|--------|----------|--------|--------|-----------|-------|-------------|-------|-------|---------|------|-------|-------|----------|------|--------|-----|
| 0 | 811 | B62182 | BEE72M | DH8D | Cancelled | 09:15 | 09:16 | | | | | | | | NOY | | |
| 0 | 811 | B1355 | BH13N | A21N | Cancelled | 09:50 | 09:56 | | Y | | | | | | DUK | | |
| 0 | 008 | AA651 | AAL31 | N726AN | B77W | 327 | Gate Closed | 09:55 | 12:00 | 12:00 D | | | | | | | |
| 0 | 007x | UA028 | UAL26 | N299GT | B785 | 232 | Airborne | 10:45 | 11:15 | 11:20 D | Y | 11:47 | 11:44 | 12:05 A | 27R | UA027 | DFW |
| 0 | 008 | IB175 | IB31CM | EC32M | A321 | | Expected | 10:49 | 10:29 | 10:28 D | Y | | | | | | |
| 0 | 008 | EI157 | EI15X | 10Y1M | A320 | 223 | Airborne | 10:59 | 11:42 | 11:30 D | Y | 11:54 | 11:50 | 12:11 A | 27R | EI155 | DUB |
| 0 | LH2473 | DLH17W | DA1UV | A320 | 219 | | Airborne | 11:10 | 11:45 | 11:45 D | Y | 11:45 | 11:44 | 12:03 A | 27R | LH2472 | MUC |
| 0 | AA621 | AAL31 | N726AN | B77W | 382 | | Start Req | 11:15 | 12:00 | 12:00 D | Y | 12:43 | | 13:07 T | 27R | AAL38 | DFW |
| 0 | KL1624 | KL1004 | PH8XF | B738 | 454 | | Taxed | 11:15 | 11:45 | 11:45 D | Y | 12:03 | 11:58 | 12:20 T | 27R | KL1001 | AMS |
| 0 | 008 | BG2104 | BG99Y | GR6PF | DH8D | 203R | Airborne | 11:20 | 11:40 | 11:25 D | Y | 11:40 | 11:45 | 12:02 A | 27R | BG2103 | EDI |
| 0 | BA213 | BAW13G | GBVGB | B744 | 543 | | Airborne | 11:20 | 11:20 | 11:30 D | Y | 11:49 | 11:46 | 12:13 A | 27R | BA176 | BOS |



Stands & Jetty

This page shows the serviceability of stand equipment and the planned time that aircraft are expected to vacate stands. Some users also have access to the Stand Jetty KPIs.



- 1. Top level filters** – these allow users to focus on their own operation according to preference. Clicking the 'save' icon will keep preferences set to default each time you log in. These can be changed at any time.
- 2. Towing Performance** – this provides updates for actual towing performance against the plan and offers the ability to drill down to individual flights by clicking on the dial.
- 3. Stand Allocation** – this provides a breakdown of remote versus jetty stand allocation.

- 4. # Stand Changes** – this provides information on the time that a stand is changed after its original allocation. Changes close to the arrival time can cause ground handler issues.
- 5. # Stand Hold** – provides a summary of aircraft holding for stands. This may be due to late pushbacks or arriving flights electing to hold for specific stands.

| Stand | A | B | C | REG | IBT | OBT | FGP | SEG |
|-------|---|---|---|-------|----------------|----------------|-----------|-----|
| 258R | | | | | | | Available | AU |
| 301 | A | B | C | GVOOH | 25/04/19 07:34 | 25/04/19 10:30 | Available | AU |
| 303 | A | B | C | VHZNH | 25/04/19 06:59 | 25/04/19 11:10 | Available | AU |
| 303L | A | | | | | | Available | AU |
| 303R | | | C | | | | | AU |

Stands presented in the list highlighted in yellow are fully serviceable. Stands highlighted in blue have restrictions applied and those highlighted in red are currently closed. Jetties that are out of service have the relevant jetty on the stand also highlighted in red. If there is no equipment type listed for a stand, then it is not provided on that stand.

