



FUTURE RUNWAY OPERATIONS

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Heathrow
Building for the future

OVERVIEW

- How we operate our three-runway airport in the future will be key to how we manage and minimise the noise effects from aircraft arriving or departing at an expanded Heathrow.
- Our proposals for how we manage **runway alternation** and **night flights** will play a big part in shaping how we provide respite and look to create the best outcomes for local communities.

RUNWAY ALTERNATION

RUNWAY ALTERNATION IN THE FUTURE

What is runway mode?

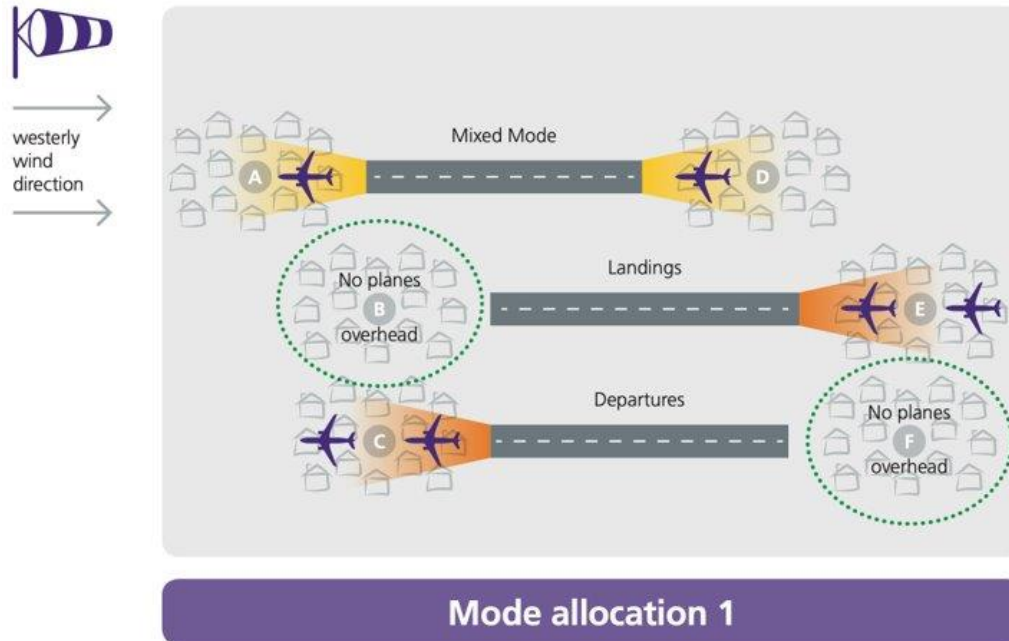
A runway mode means whether a runway is used for: **Landings** or **Departures**, or **Mixed Mode** (both landing & departures).

What is mode allocation?

Mode allocation is how we describe how runway modes are used together across all the runways at one time.

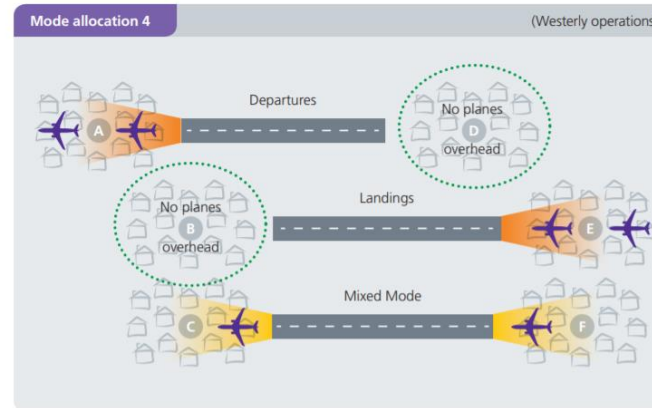
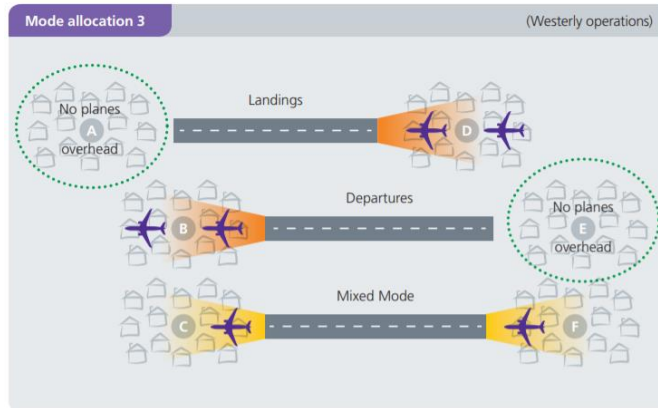
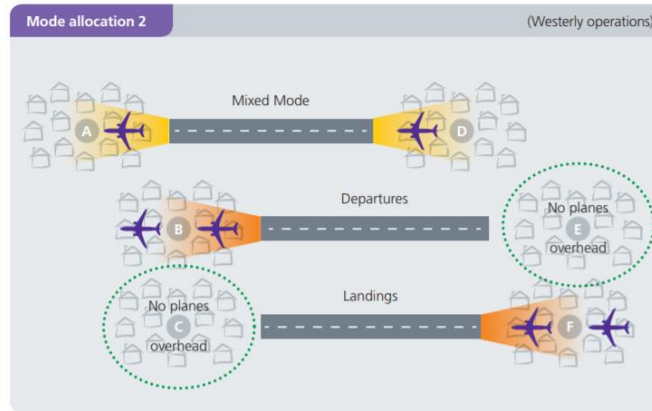
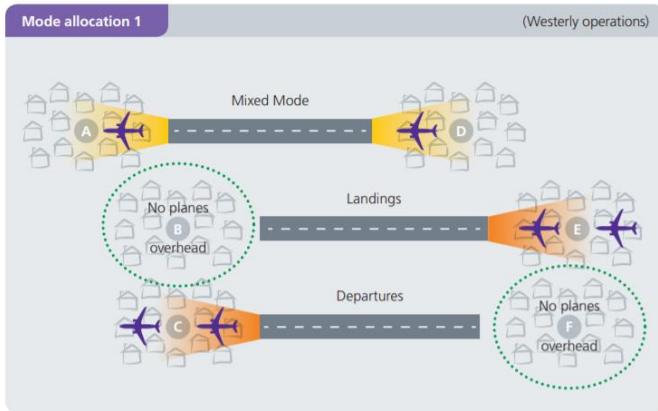
- When a runway is used for just landings or departures, this is called “segregated mode”
- Mixed mode means that the runway is being used by both landing and departing aircraft over the same period
- Communities would experience fewer aircraft overhead under mixed mode than they would under segregated mode
- ***The centre runway cannot operate in mixed mode for safety reasons***

An example of one mode allocation: ‘M, L, D’



Key: M, L, D		
(New) Northern Runway	M	Mixed Mode
Centre Runway	L	Landing
Southern Runway	D	Departure

FOUR POSSIBLE MODE ALLOCATIONS



Day 1: Mode Allocation 1 (06:00 to 14:00) then 3 (14:00 to 00:00) - (MLD to LDM)

Day 2: Mode Allocation 4 (06:00 to 14:00) then 1 (14:00 to 00:00) - (DLM to MLD)

Day 3: Mode Allocation 2 (06:00 to 14:00) then 4 (14:00 to 00:00) - (MDL to DLM)

Day 4: Mode Allocation 3 (06:00 to 14:00) then 2 (14:00 to 00:00) - (LDM to MDL)

Day 5: Repeats from Day 1

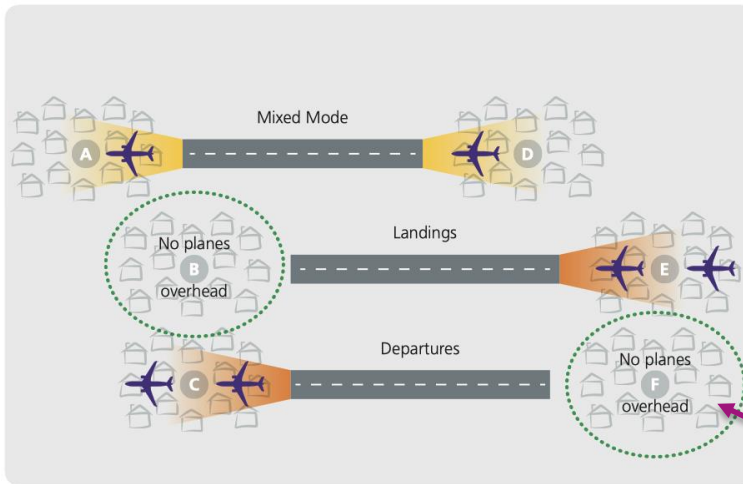
- There are four modes allocations
- This diagram shows westerly operations
- These modes will alternate twice over a 24 hour period
- Once at 14:00* each day
- Then at the end of the operational day before the start of the next days operation

* 14:00 or 15:00 change - a question being asked in the current Airport Expansion Consultation

OUR PROPOSALS INCLUDE THE INTRODUCTION OF REFLECTIVE ALTERNATION



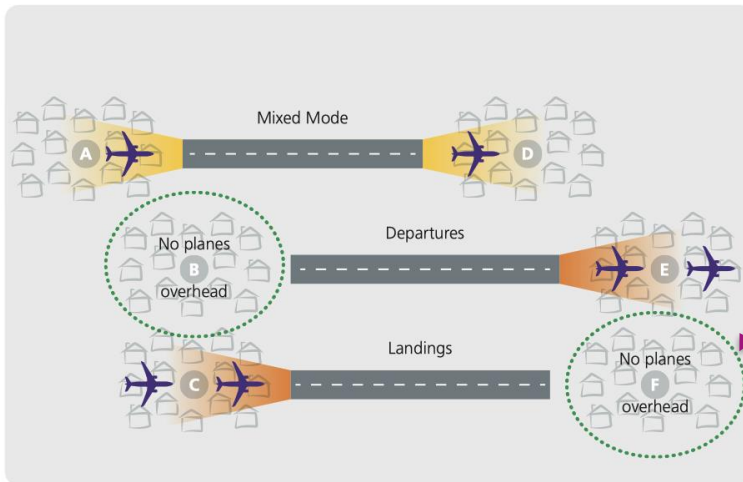
westerly
wind
direction



Mode allocation 1

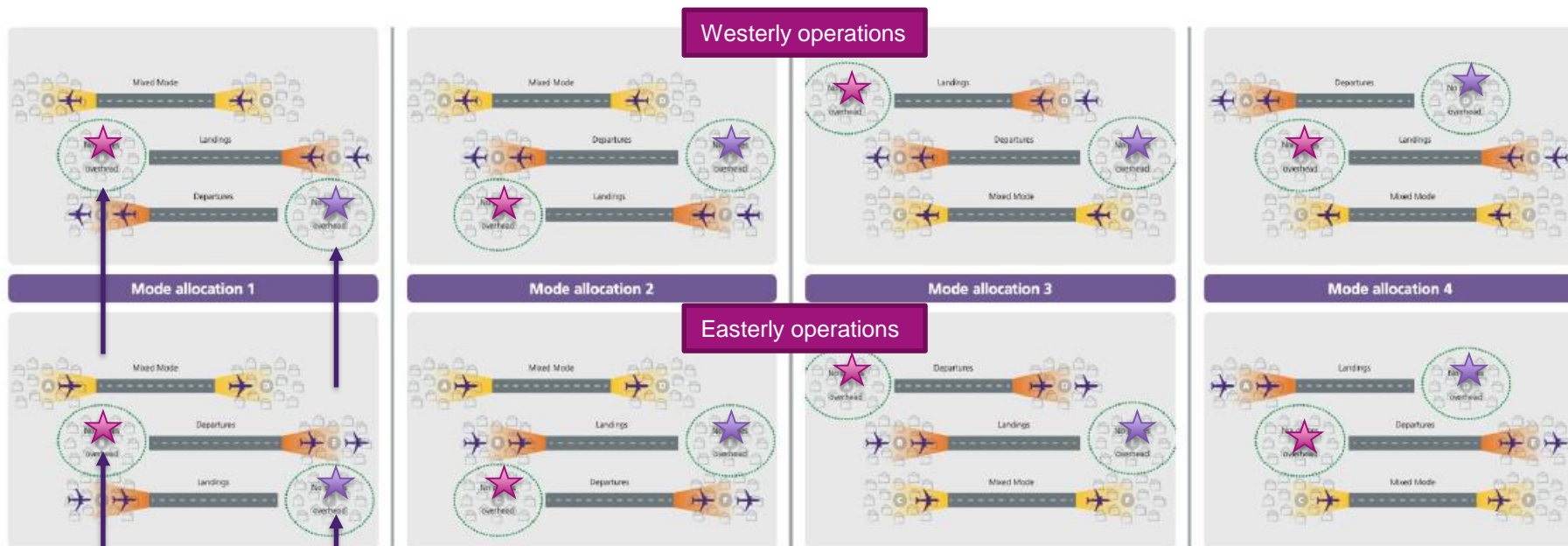


easterly
wind
direction



- If the wind changes direction, we have to change the direction the aircraft land/take off in
- Under **reflective alternation**, we can continue to offer respite to the same communities regardless of the direction of operation
- This allows us to offer predictable respite which we know our communities value

REFLECTIVE ALTERNATION OVER THE FOUR MODE ALLOCATIONS DURING EASTERLY & WESTERLY OPERATIONS

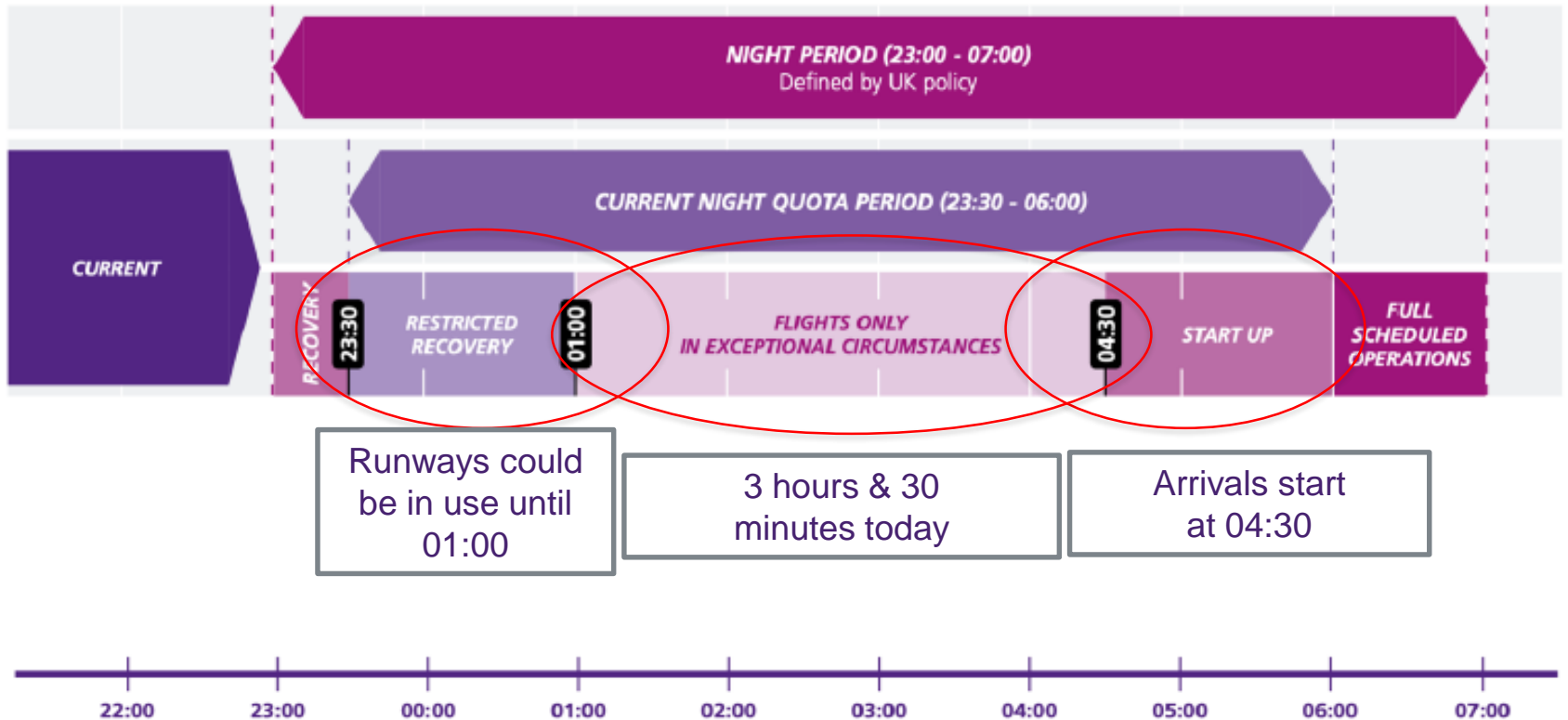


The stars illustrate how the same areas closest to the runways will continue to receive respite regardless of the change in wind direction

NIGHT FLIGHTS

CURRENT NIGHT TIME RESTRICTIONS

We are proposing a more stringent night flight restrictions in the future compared with today - to reduce noise at the most sensitive times



Runways could be in use until 01:00

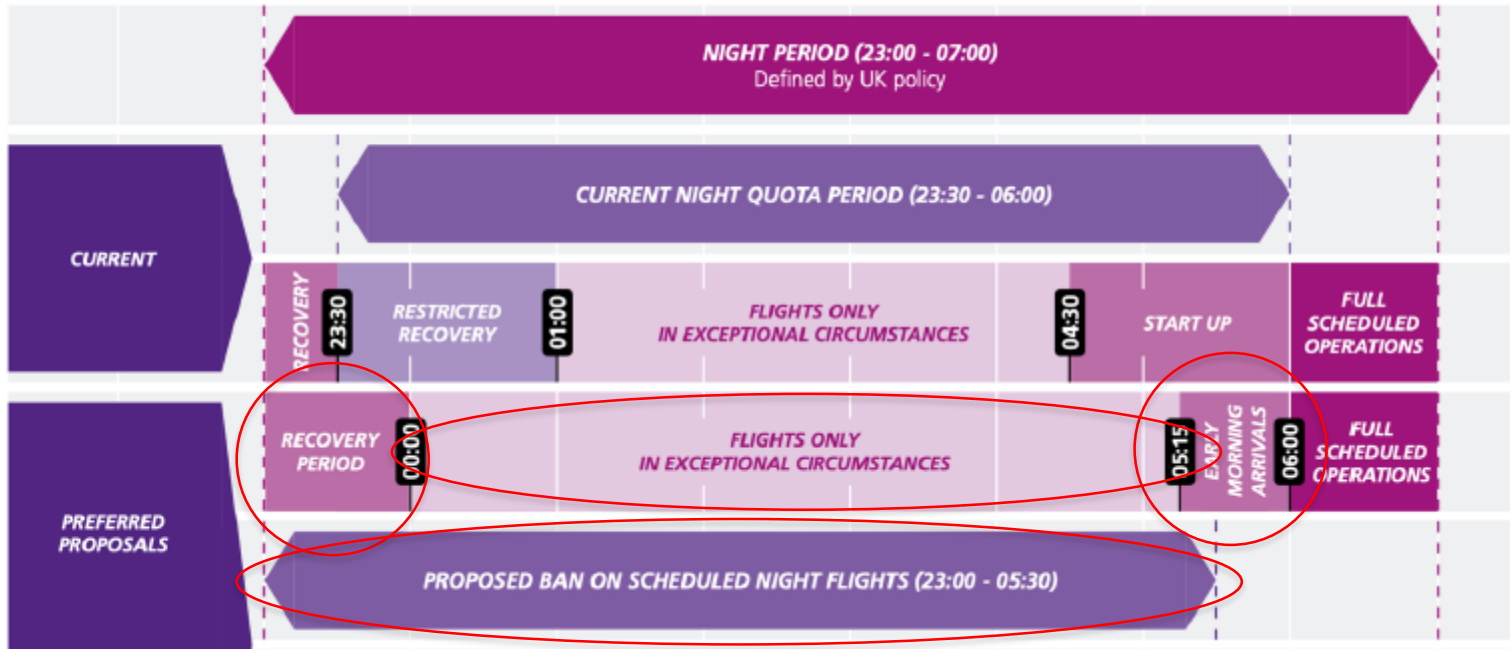
3 hours & 30 minutes today

Arrivals start at 04:30

Current night restrictions

PROPOSED FUTURE NIGHT TIME RESTRICTIONS

We are proposing a 6.5 hour ban on scheduled night flights



Recovery period until midnight

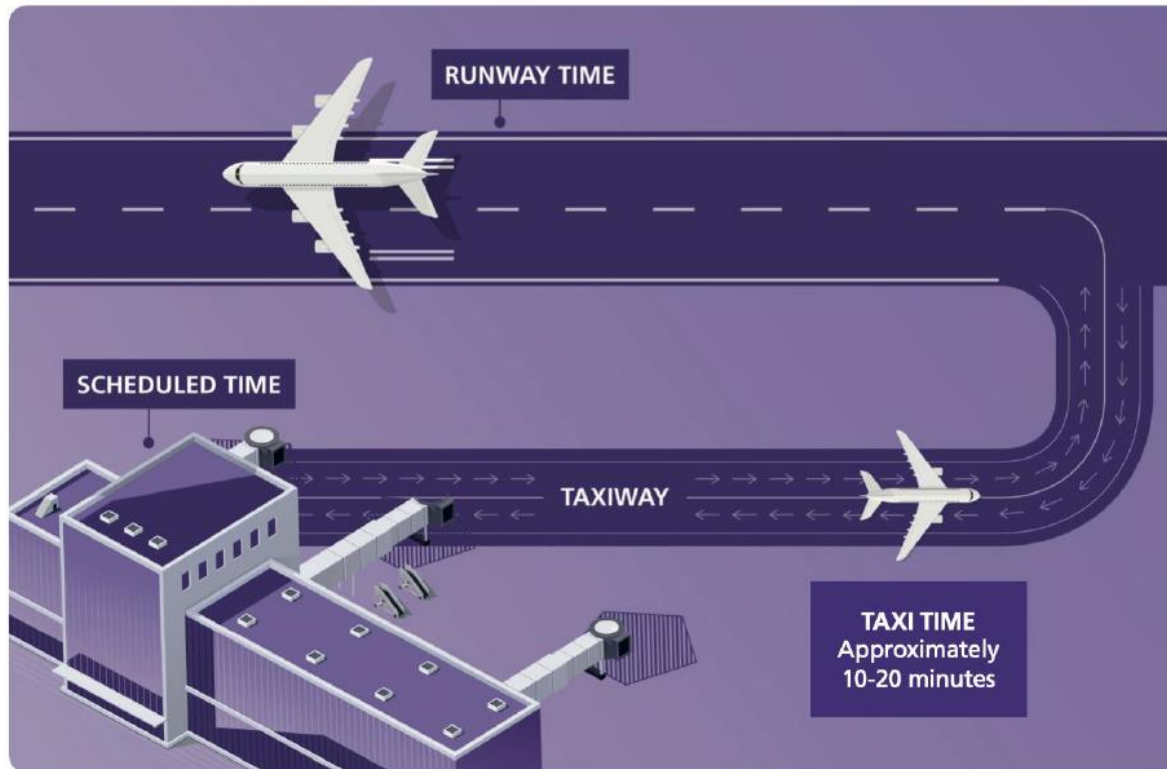
Longer period without flights

Early Morning Arrivals from 05:15

6.5 hour schedule ban

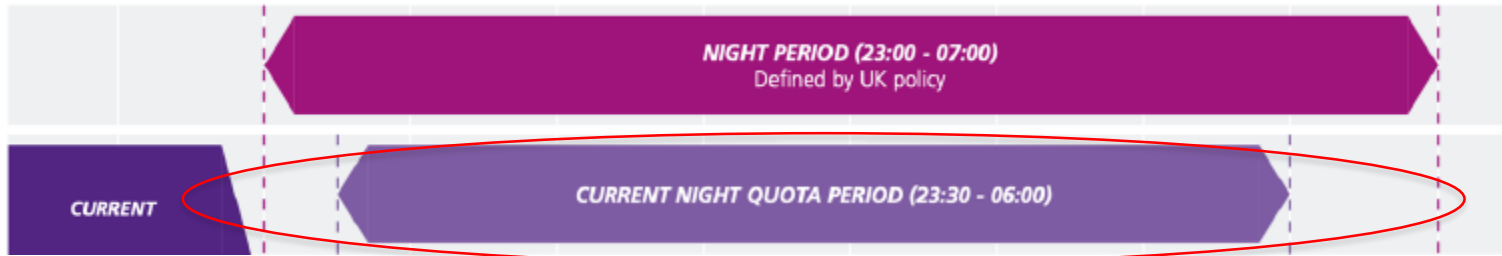


SCHEDULE VS RUNWAY TIME



- The **scheduled time** of an arrival is the time that the plane reaches the airport stand (when the plane stops at the terminal gate and you get off).
- The **runway time** is the time the plane touches down on the runway.
- It is the same for departures - the scheduled time is the time the plane will push back from the gate and the runway time will be approximately 15 minutes later when it takes off.

NIGHT QUOTA PERIOD – OUR **CURRENT** OPERATION



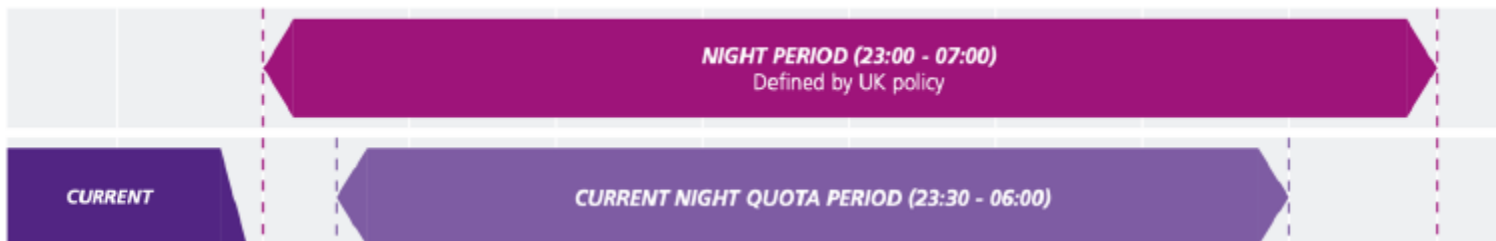
Current Night Quota Period - 6 hours 30 minutes

- No ban on scheduled flights (ban is voluntary)
- Quota Count (QC) point limits across the whole period
- Movement limits across the whole period

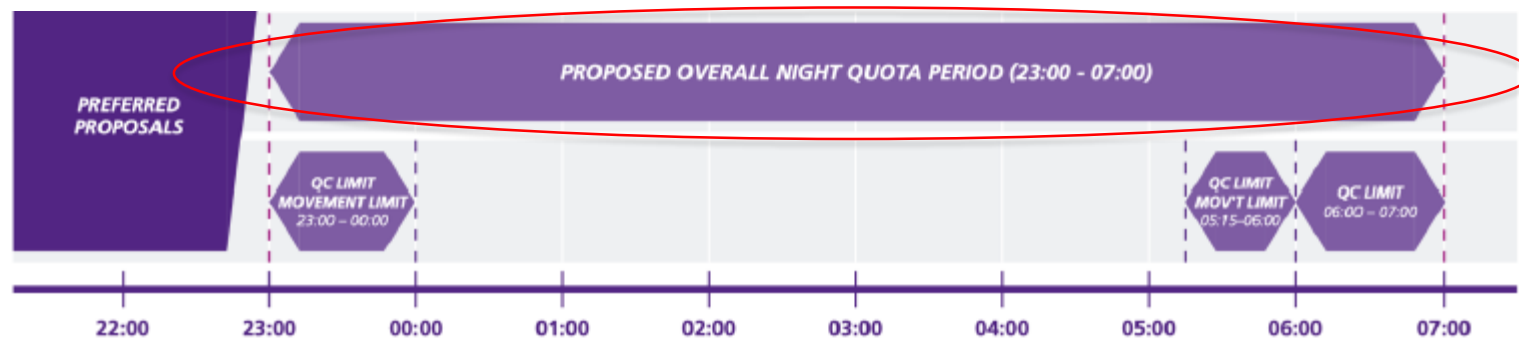
There are effectively no restrictions on the number of aircraft permitted between 23:00 and 23:30 or between 06:00 and 07:00.



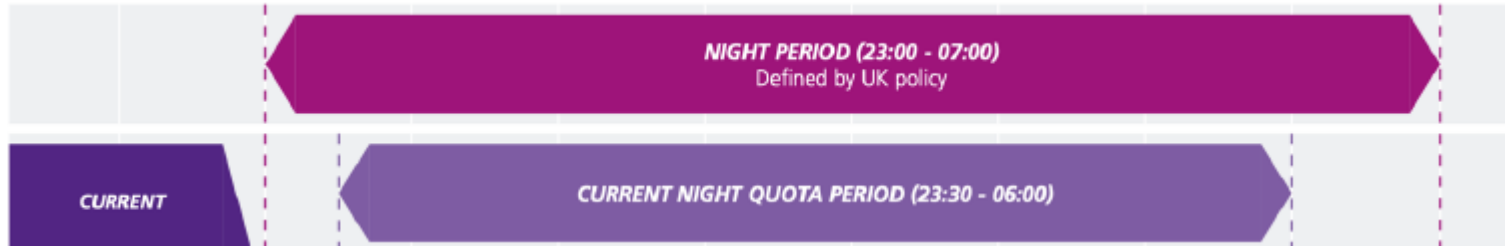
NIGHT QUOTA PERIOD – OUR PROPOSED **FUTURE** OPERATION



Night Quota Period **increased** by 1 hour 30 minutes:
from 23:30 – 06:00
to
23:00 – 07:00



NIGHT QUOTA PERIOD – OUR PROPOSED OPERATION



Night Quota separated into distinct parts

During the Recovery Period (23:00 to 00:00):

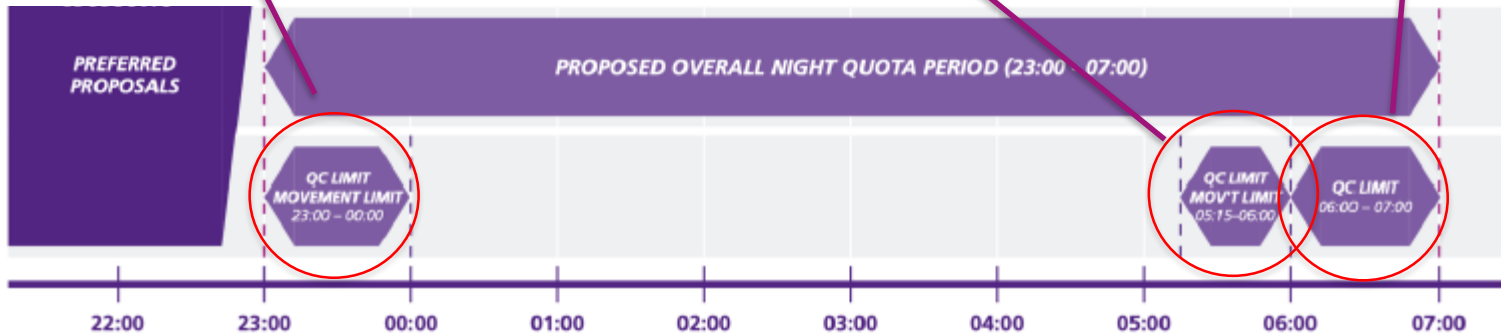
- Restriction on the aircraft types that can be used
- QC point limit
- Limit on number of aircraft movements

Early Morning Period (05:15 to 06:00):

- Restriction on the aircraft types that can be used.
- QC point limit
- Limit on number of aircraft movements.

Morning Period (06:00 to 07:00):

- Restriction on the aircraft types that can be used
- QC point limit



BENEFITS OF COMBINING PACKAGE OF RUNWAY ALTERNATION & NIGHT FLIGHTS

We believe that our proposals give the right overall package of measures because when combined, they provide every community **at least 7 hours' respite between 22:00 and 07:00.**

It will also:

- share early morning, evening and night respite between communities
- ensure that a community which experiences early morning arrivals before 06:00 is not subject to any operations after 14:00 / 15:00 the previous day
- ensure that where any community experiences night operations it will not experience any operations the following day before 14:00 / 15:00
- ensure that the number of communities experiencing early morning operations (pre 06:00) on any particular day is minimised by using just one runway.