



Heathrow Independent Parallel Approaches

Assessment Meeting 14th September 2018

ORIGINAL DAP1916 (ON CAA WEBSITE) – FOR DISCUSSION & REVIEW

“TEAM is Tactically Enhanced Arrival Measures. The concept was introduced with runway alternation in 1972. It is a tactical procedure which allows for a temporary suspension of runway alternation to increase the flow of arriving aircraft. It does not provide additional capacity. There are different criteria for 0600-0700 and 0700 till last landing. All current TEAM procedures are detailed in MATS Part 2. Although there is technically no TEAM on easterlies, as there is no runway alternation, the same practice of alleviating delay in the stacks is used through allowing landers on the departures runway, when there are no departures and the DfT has accepted that it may be referred to as TEAM.

The current TEAM operation is inefficient due to the need to diagonally space aircraft to achieve radar separation rules.

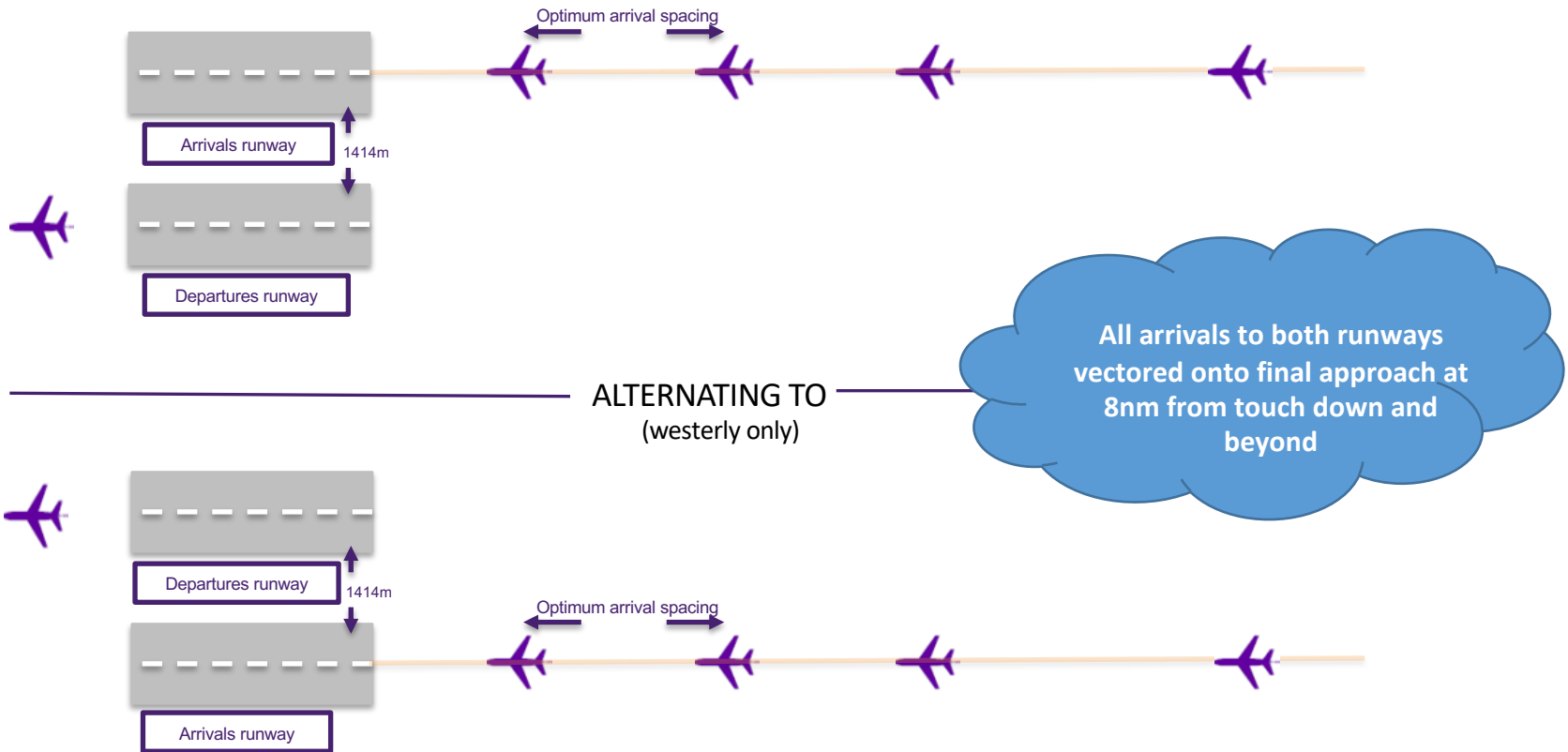
Where possible we wish to introduce PBN routes (currently RNAV into RNP-AR) for appropriately equipped TEAM aircraft from the holding stacks to each of the runways. This will make the use of TEAM more efficient – as every TEAM lander will count as an additional movement. This has the potential to reduce stack holding, and the number of out-of-alternation flights. It would also enable faster recovery post disruption thereby reducing the number of late running flights.

This airspace change will have no impact on the DfT TEAM rules.

This airspace change does involve a review of the DfT joining point rules for the arrivals on the IPA routes.”

*CPT has been separated from the IPA ACP

CURRENT OPERATIONS



LANDING ON THE DEPARTURES RUNWAY

Although most of the time we use one runway for departures and one for arrivals, when there is a build-up of delays both runways can be used for landing. This can also be known as TEAM (Tactically Enhanced Arrival Measures)

We can land on the departures runway when airborne holding delay reaches certain thresholds:

- Between 6.00am and 6.29am where there is a forecast delay of 10 minutes or more
- Between 6.30am and 7.00am where there is a forecast delay of five minutes or more
(Between 6.00am and 7.00am there is no limit on the number of arrivals that can land on the designated departures runway)
- After 7.00am where there is a forecast delay of 20 minutes or more¹
After 7.00am no more than six arrivals per hour are permitted to land on the designated departures runway²

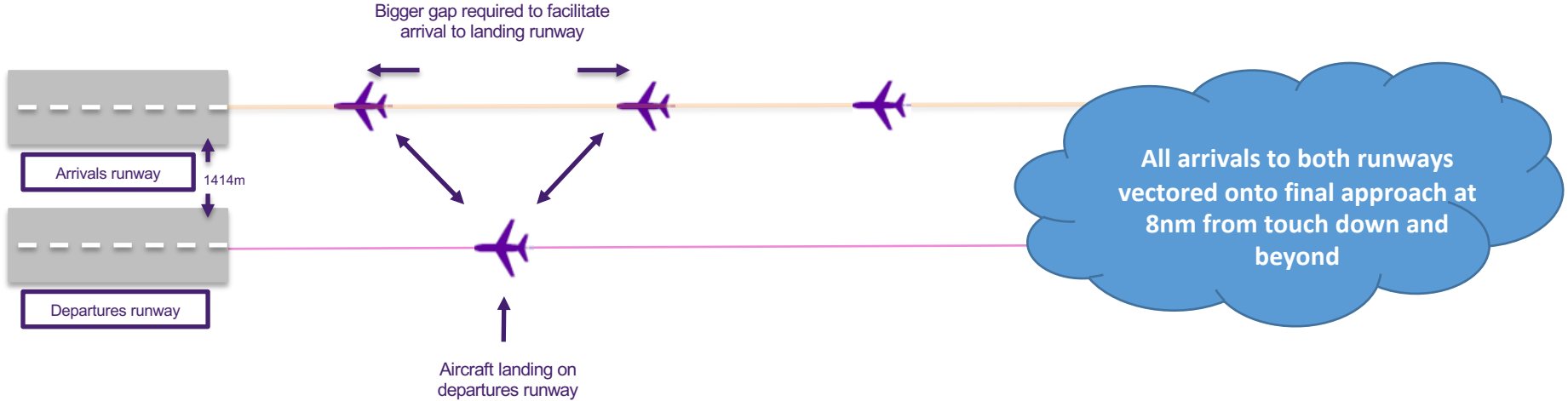
Easterly operations

Landing on the departures runway after 6.00am is also permitted on easterly operations. This is a similar practice to westerly operations although the Government limits do not apply to the numbers of arriving aircraft landing on the departures runway after 7.00am.

¹ These rules apply to westerly operations only.

² Landing more than 6 per hour may occur for safety reasons only

LANDING ON THE DEPARTURES RUNWAY



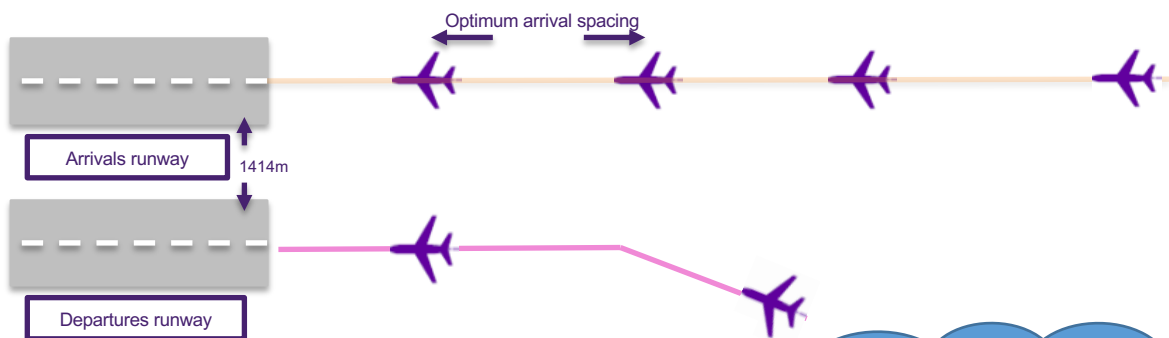
When arriving aircraft are allowed to land on the departures runway, arrivals to the departures and arrivals runway must be spaced by at least two nautical miles

To achieve this, the spacing between aircraft on the landing runway has to be increased compared to when only one runway is used for landing

This additional spacing means that fewer aircraft land on the arrivals runway. So, even if six aircraft were to land on the departures runway in an hour, the overall landing rate across both runways for that hour can increase by up to two aircraft only

WHAT IS IPA?

Independent Parallel Approaches (IPA) will seek to remove the dependency between simultaneous arrivals to both runways so that the landing rate on the arrivals runway does not have to reduce to enable the additional aircraft to land on the departures runway



Aircraft arriving on the departures runway will use Performance Based Navigation to follow specified flight paths from the holding stacks to the final approach, requiring little interaction from air traffic control. These arrivals will need to join final approach closer than 8nm from touchdown to ensure that the tracks of the aircraft using the main landing runway remain unchanged.

This will require a change to Heathrow's Noise Abatement procedure, subject to approval from The Department for Transport

Arrivals to the main arrivals runway will still be directed onto final approach at 8nm from touch down and beyond, as per today's operations

Aircraft landing to the departures runway only will join final approach inside 8nm from touchdown

With the introduction of IPA, aircraft landing on the arrivals runway would continue to be directed by air traffic control as they are today and be vectored onto final approach outside 8nm from touchdown

ISSUES OR OPPORTUNITIES ARISING FROM PROPOSED CHANGE

Opportunities

- Safety –PBN results in accurate and reliable track-keeping – reducing pilot workload
- Efficiency – provides operational resilience, potential to support an increase in capacity* (with other ATC tools and procedures), reduction in airborne holding and reductions in late flights & cancellations
- Environmental benefits – reduction in airborne holding, potential to assist in delivering a scheduled night ban and improved periods of respite through runway alternation.

Considerations

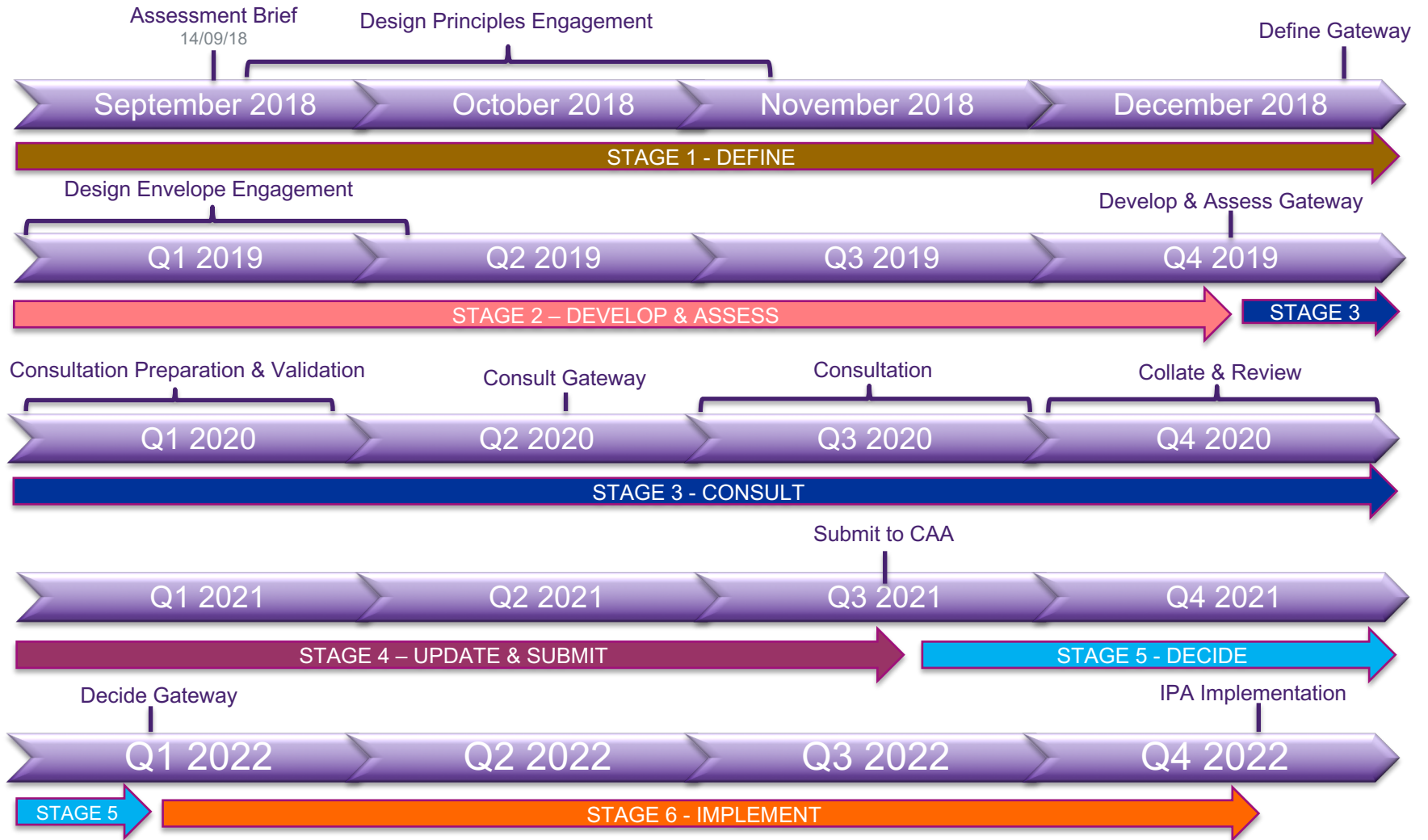
- Overflying some new communities, not currently regularly overflowed by arrivals
- Requires a change to DfT rules on the minimum joining point. DfT have been briefed

* Subject to planning consent

PROVISIONAL INDICATION OF THE LEVEL AND PROCESS REQUIREMENTS

HAL considers IPA to be a level 1 ACP

PROVISIONAL PROCESS TIMESCALES (HAL)



NEXT STEPS & AOB

HAL – Next Steps

- Produce minutes
- Stage 1b – Design Principles Engagement

CAA – Next Steps

- Review minutes
- Stage 1b – Define Gateway December 2018

Heathrow

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