

airport coordination  
netherlands

# Advice reduction night flights Schiphol

Edition 2021

# Management Summary

## Introduction

The Dutch Cabinet has announced to establish a step by step reduction to 29,000, 27,000 and 25,000 flight movements during night at Amsterdam Airport Schiphol. The night is defined as the period from 11PM to 7AM. The Cabinet wants to record the first step towards 29,000 night flights in an amendment of the Airport Traffic Decree for Schiphol Airport (referred to as LVB1). These last steps partly depend on conditions such as the opening of Lelystad Airport and substitution by train at destinations such as Brussels and Düsseldorf.

The reduction of the number of night flights is seen as an effective measure to limit the noise nuisance and improve the night rest of the residents. However, this reduction has complexity. Not only because of the impact with regards to the network function and the competitive position of the airport and its users, but also with regards to the legal restrictions in relation to European slot regulations which give airlines the historic rights to operate flights at specific times and because of the large number of deviations from the allocated slot times.

As a result of the complexity outlined before, the Ministry of Infrastructure and Water Management has requested Airport Coordination Netherlands (ACNL) to *“indicate how in conjunction with the rules and procedures regarding slot allocation a reduction in the number of night movements and the associated slots can be achieved.”* Also is requested to respond to the motion of the member of the parliament Paternotte calling the government to investigate the extinction policy for night slots.

## The system: flight movements and slots

The number of aircraft movements is mainly controlled by the number of slots available for allocation, as well as the extent to which operations are carried out in accordance with the allocated slots. The figure below shows how the system works.

The essence of the slot allocation process is to achieve an efficient utilization of the capacity within the constraints in an impartial, transparent and non-discriminatory manner. Rules for this have been laid down in the European Slot Regulation.

At the national level, different roles and responsibilities can be distinguished. The figure below shows how the system works.



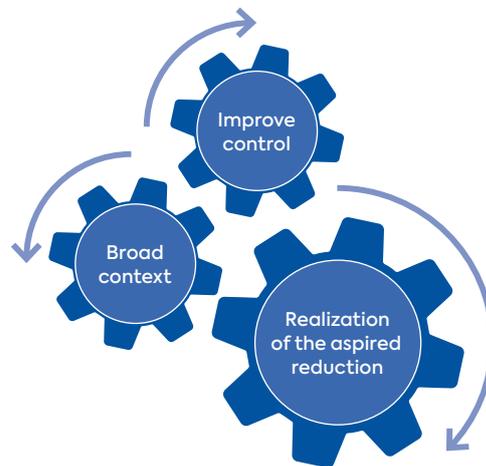
Currently, for the night, the number of slots with historic rights (approximately 34,800) is higher than the number of permitted flight movements (32,000). In principle, this difference will increase if the number of movements permitted for the night is reduced. Although all historical rights are currently allocated by ACNL, the permitted number of flight movements during the night is not exceeded at this moment. This is the result of a large number of unplanned day movements having a night slot, resulting in not using the available night capacity to the full extent (there are approximately 30,000 flight movements during the night). The exact number of movements during the night cannot be accurately predicted in advance, certainly not in the event of a further reduction of the permitted number of movements.

In addition, both the role and the legal basis of the capacity declaration (which includes the number of slots available for allocation) and the interpretation of the rules for slot allocation often have been debated, as evidenced by various court cases between airlines and ACNL or Schiphol.

The wish of the Cabinet to reduce the number of flight movements during the night to 29,000 (and eventually to 27,000 and 25,000) cannot be seen separated from the way in which this reduction is legally anchored and the way in which the link between flight movements and the number of slots will be designed.

**This is elaborated in the advice based on the following themes:**

- Improve control of the system
- Reduction of night flights
- Broad context: reducing noise pollution



Concrete advice has been formulated for the various themes. The elaboration of advice has been included in an implementation agenda, in which a leader is appointed for each advice.

## Improve control of the system

With the current system, it is uncertain in advance what number of flight movements will be reached during the night. In addition, the roles and responsibilities of the various parties involved are not clearly defined. In order to avoid uncertainty about the various roles and responsibilities in the future when the number of flight movements at night is reduced, it is important that the system is unambiguous, robust and transparent. The advice therefore focuses on a clear division of roles and setting clear frameworks to legally anchor.

The reduction in the number of flight movements during the night must be recorded in the LVB1. In addition, a specific effective date must be determined and laid down in a Royal Decree which makes this part of the LVB1 effective. The maximum number of night movements recorded in LVB1 forms the basis for the capacity declaration prepared by Royal Schiphol Group (RSG).

The number of flight movements is mainly controlled by the number of slots available for allocation. In the capacity declaration, the airport managing body Royal Schiphol Group (RSG) declares the number of slots available for allocation. In concrete terms, the capacity declaration states, in addition to technical parameters such as runway capacity, the number of slots available on a seasonal basis for the 24-hour period and for the night. This means there is no more capacity available in terms of slots than stated in the capacity declaration. ACNL is responsible for the allocation of slots and can therefore not allocate more slots than are made available for allocation by RSG. This is a fundamental starting point in the advice from the perspective of certainty and predictability.

To determine the available capacity, it is advised to use a calculation method that determines the relation between the number of maximum permitted flight movements during the night and the number of available slots as declared in the capacity declaration. The calculation method aims to create clarity at the start of the season and to increase the manageability in order to ensure that a) the maximum permitted number of movements is not exceeded and b) optimal use of available capacity during the night. This calculation method is laid down in a ministerial regulation based on the Dutch Slot Allocation Decree.

The advice also deals with enforcement of unplanned day and night movements (for example, a night movement has been made while a day slot has been allocated). These numbers represent one third of the total number of movements and are too high for control reasons.

## Advice

In summary, the following advice is given with regard to the improvement of the control of the system:

1. Anchor the reduction of the number of flight movements during the night to 29,000 in the LVB1 and set a specific date in a Royal Decree that brings this part of the LVB1 into effect. The maximum number of night movements recorded in LVB1 forms the basis for the capacity declaration prepared by Royal Schiphol Group (RSG).
2. ACNL is responsible for the allocation of slots and does not allocate more slots than are made available for allocation by RSG.
3. Use a calculation method to translate the maximum number of movements into the maximum number of slots available for allocation that is declared in the capacity declaration. A calculation method provides certainty in advance for airlines and increases manageability.

4. Based on the Dutch Slot Allocation Decree, lay down in a ministerial regulation how this calculation method looks like.
5. Increase the control over unplanned day and night movement by increasing enforcement on slots structurally flown at a different time and by creating a certain degree of operational tolerance.
6. Introduce a procedure to allocate (unused) slots based on current developments in the season in order to make optimal use of the night capacity.

## Reduction of night flights

As mentioned before, the maximum number of flight movements during the night is mainly steered by the number of available slots for the night. A reduction of the number of flight movements during the night requires a reduction in the number of allocated (historical) slots for the night. This will be possible because airlines discontinue or reduce their operations or because of flights are moved from the night to the day.

This requires adjustments by the airlines in their network and/or fleet. A year is therefore required between the completion of the legislation and regulation and the effective date of the reduction. If the legislation and legislation are ready in the autumn of 2021, the winter season 2022 can be used as the first possible implementation date for 29,000 aircraft movements during the night. Airlines must include this in their Initial Submission at the beginning of May 2022. When the legislation and regulation are ready later, the implementation date has to be postponed by one year (in view of the definition of an operational year and associated maximum numbers).

Prior the implementation date set up in the LVB1, a transition period will take place in which airlines can voluntary give up their night slots and convert them to a day slot. With a so-called extinction policy, night slots that are not used will no longer return to the slot pool for re-allocation (until the recorded number has been realized).

Ideally, at time of implementation, historical rights for night slots will not exceed the number of available slots declared by RSG in the capacity declaration. However, at that time, it might be possible historic rights are still higher than the number of available slots. In that case, ACNL will not be able to allocate all requests with historical rights.

The EU Slot Regulation does not include rules for allocation in case a negative slotpool (number of available slots is smaller than the number of slots with historical rights) exists. This means that a certain allocation procedure must be followed by ACNL. This allocation procedure must offer equal opportunities for all parties, be transparent and – timely prior the transition period – getting published. This procedure have to be worked out in the near future.

The mechanism described for the reduction to 29,000 also applies to the further reduction to 27,000 and 25,000. The implementation date for 27,000 and 25,000 must be anchored in LVB2. It is advised to first implement the improvement of the control of the system, to see how the reduction to 29,000 proceeds before setting an implementation date for 27,000 and 25,000 night movements.

## Advice

In summary, the following advice is given with regard to the reduction of night movements:

7. A year is required between the completion of the legislation and regulation and the effective date of the reduction. If legislation and regulation are ready in Autumn 2021, include the winter season 2022 as first possible implementation date for the reduction to 29,000 flight movements at night in LVB1. Airlines must include this in their Initial Submission at the beginning of May 2022. This requires the legislation and regulations to be ready by Autumn 2021. In case the legislation and regulations are ready later, the implementation date will be postponed by one year.
8. Prior the implementation date, a transition period will take place. During this period, following incentives could be offered to voluntary induces airlines to convert their night slots to day slots:
  - a. Priority when retiming from night slots to available slots during the day;
  - b. Priority when issuing slots ad hoc.
9. During the transition period, apply an extinction policy for slots which disappeared or revoked due to bankruptcies or the application of the use-it-or-lose-it rule.
10. Include in a ministerial regulation a transitional arrangement that makes it possible to reduce the number of night slots with historic rights already as much as possible during the transition period.
11. ACNL must establish a certain allocation procedure as from the implementation date for 29,000 flight movements during the night. This allocation procedure must offer equal opportunities for all parties, be transparent and - timely prior the transition period – getting published.

12. Coordinate the process during the transition period in a CCN environment in collaboration with ACNL. In this context, also evaluate for the purpose for the further reduction to 27,000 and 25,000 flight movements at night.

### Broad context: reducing noise pollution

The purpose of the reduction of night flights is to reduce noise pollution. In the context of the programme “Minder Hinder Schiphol” (less nuisance), a lot of work is being done to make flying at night less attractive by, for example, steering with more expensive airport charges for the night.

Although it is possible to include aspects with regard to sustainability and/ or noise when designing new additional allocation criteria, it is not recommended to do so. Other effective instruments, such as airport charges, are available to steer on noise nuisance.

The impact of reducing flight movements at night is significant for airlines. Therefore it is advised not to impose further restrictions to the transfer of flights from night to day or other moments in the night, obviously within the established runway capacity and “Nieuwe Normen en Handhavingstelsel Schiphol” (‘new standard and enforcement system Schiphol’).

In addition, the Slot Allocation Decree does not offer the option of prohibiting the transfer of flights from the night to the beginning or the end of the day or at times during the night. The policy aspiration can only be met if a limit is included in LVB1 for the number of movements for these periods, which would further increase the complexity of the reduction.

With reference to a night closure, it is a very complex issue that needs to be investigated in more depth (also in connection with unwanted side effects such as, for example, the continuing circling of arriving aircraft and flying with ‘heavier’ aircraft. Also here applies that, if there is a decision made, it must be anchored in LVB1 and before a balanced approach procedure must be followed.

## Advice

In summary, in order to achieve an extra impulse with regard to noise nuisance or to limit unwanted side effects, the following advice is given:

13. Continue to focus on reducing noise nuisance through the programme “Minder Hinder Schiphol”.
14. Do not impose further restrictions to the transfer of flights from the night to beginning of the day or night.
15. Do not decide regarding a night closure at this moment, as more research is required.

## Impact reduction at night flights

The exact consequences are different in nature for the different types of airlines that use night slots. In all cases, however, reducing night flights means that airlines have to make adjustments to their network and/ or fleet. Given the size of the impact, it is advised that airlines:

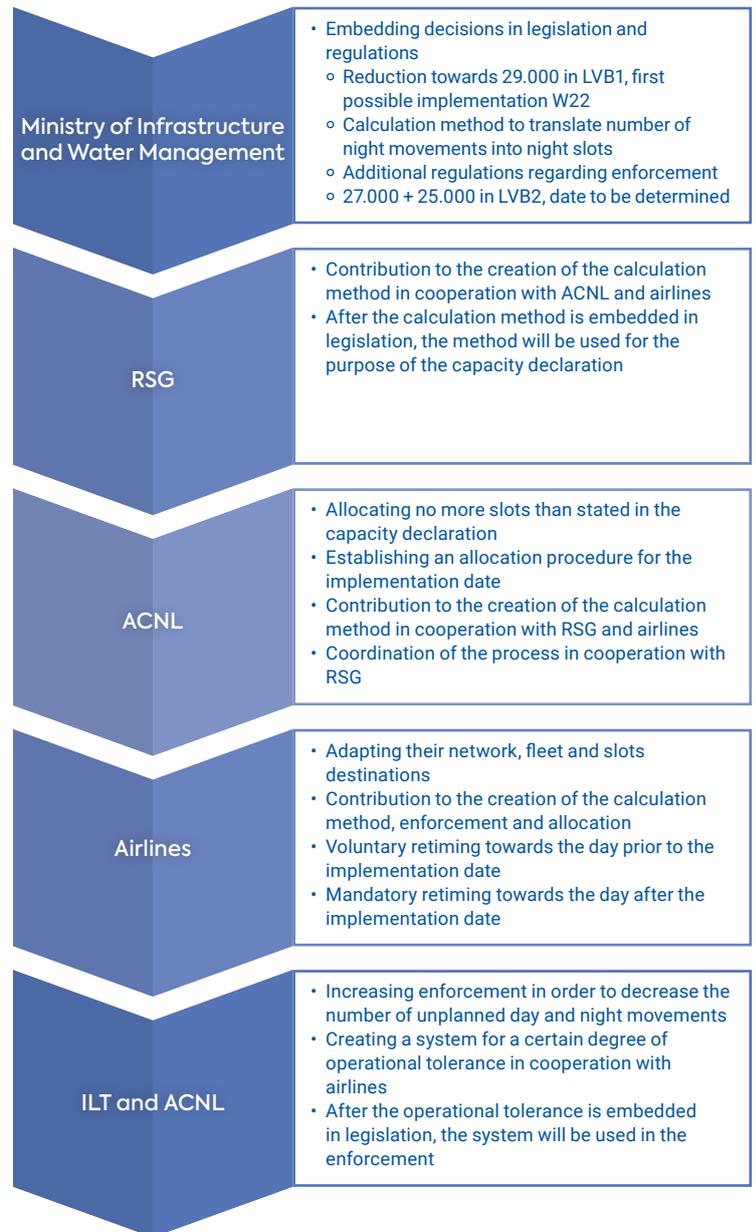
- a. Allow sufficient time to adapt their network and, if necessary, their fleet. The implementation date of winter season 2022 for the reduction to 29,000 night flights is the earliest possible date provided the legislation is completed. The first year is seen as a transition year in which a different procedure is followed in order to further adapt and adjust work processes and slot times at other airports;
- b. Not to limit airlines in their optimization and to leave freedom in the breakdown of the reduction in winter and summer season, for which it will be investigated whether a multi-year procedure (already submitted slots in previous seasons(s) are included;
- c. Leave the possibility open for airlines to adjust their schedule times to the beginning (7AM-8AM) and the end (10PM-11PM) of the day provided bracket capacity is available, with the side note that there is limited availability between 7AM-8AM.

## Implementation agenda

The recommendations have been incorporated into an implementation agenda in which the activities are allocated to the various parties and put in time. A distinction has been made between a preparatory phase (prior to entry into force of LVB1), a transition phase (LVB1 in force, prior to the implementation date 29,000 flight movements), a transition year (first year after implementation date 29,000) and the subsequent period (reduction realized and system in operation). This is visualized in the figure below.



The various parties each have their own role and responsibility in reducing the number of flight movements at night. Therefore, the implementation of the advice does not lie with one specific party, but requires a combined effort. The effort for each party is shown in the figure below.







**Airport coordination**  
Netherlands

**The Base A**  
Evert van de Beekstraat 1-23  
1118 CL Schiphol  
The Netherlands

 +31 (0)20 405 97 30  
(09.30-16.30 hours AMS time)

 [info@slotcoordination.nl](mailto:info@slotcoordination.nl)