

ARRIVALS

REVIEW

GATWICK

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THE TASK

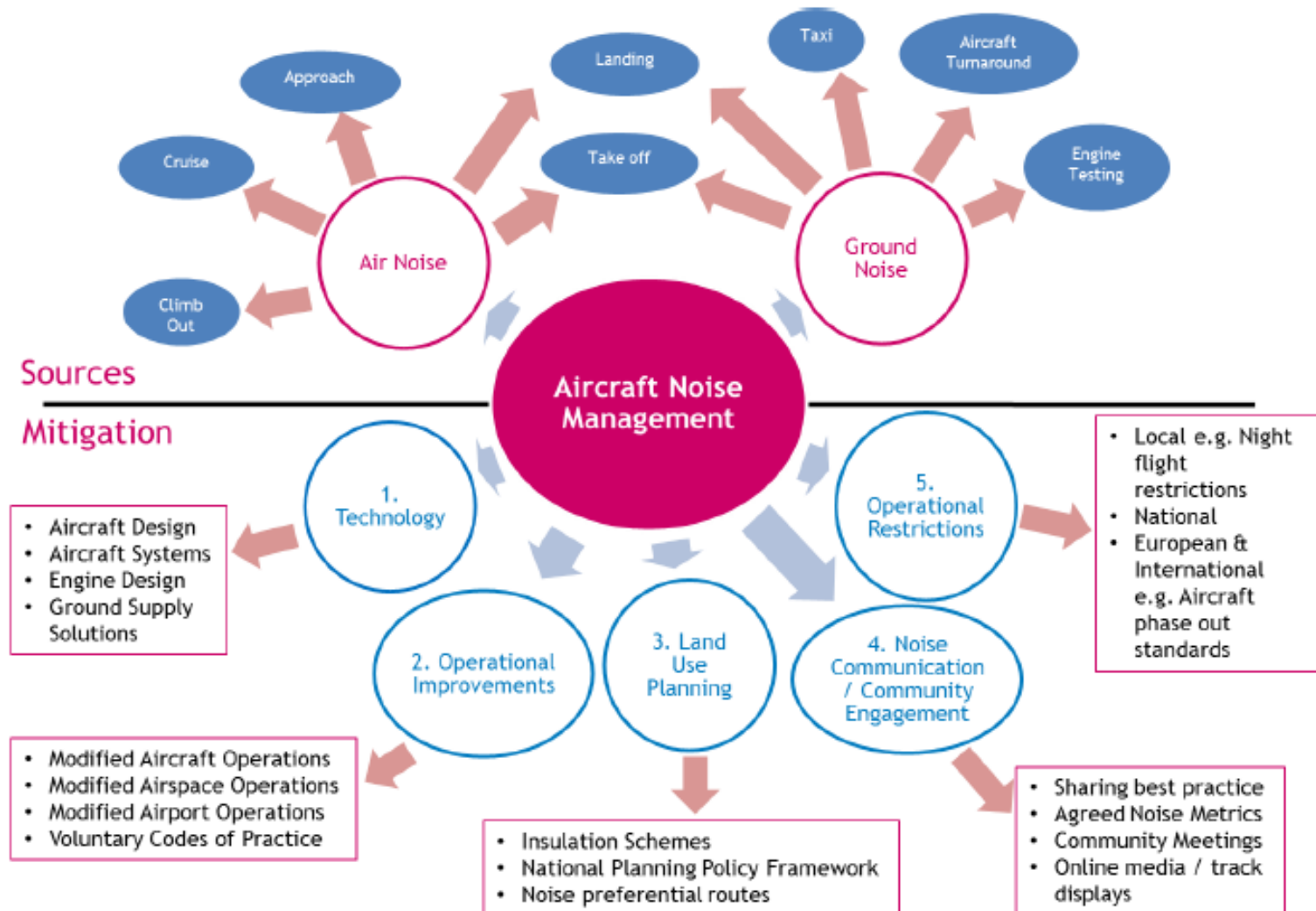
Has everything been done that is possible to alleviate the noise problems from arriving traffic to Gatwick?

Whether the mechanisms which Gatwick has adopted for providing information to the local community and for handling of complaints have been fully adequate for the task.

PROGRESS

| | September | October | November | December | January |
|----------------------------|-----------|---------|----------|----------|---------|
| Document Review | ■ | ■ | | | |
| Stakeholder Identification | ■ | ■ | | | |
| Stakeholders Engagement | ■ | ■ | ■ | ■ | |
| Gather New evidence | | ■ | ■ | | |
| Site Familiarisation | | ■ | ■ | | |
| Understanding of Issues | | ■ | ■ | | |
| Identification of options | | | ■ | ■ | |
| Evaluation of options | | | | ■ | ■ |
| Report and Recommendations | | | | | ■ |

NOISE



GLOBAL ISSUES

Concentration vs. Dispersal

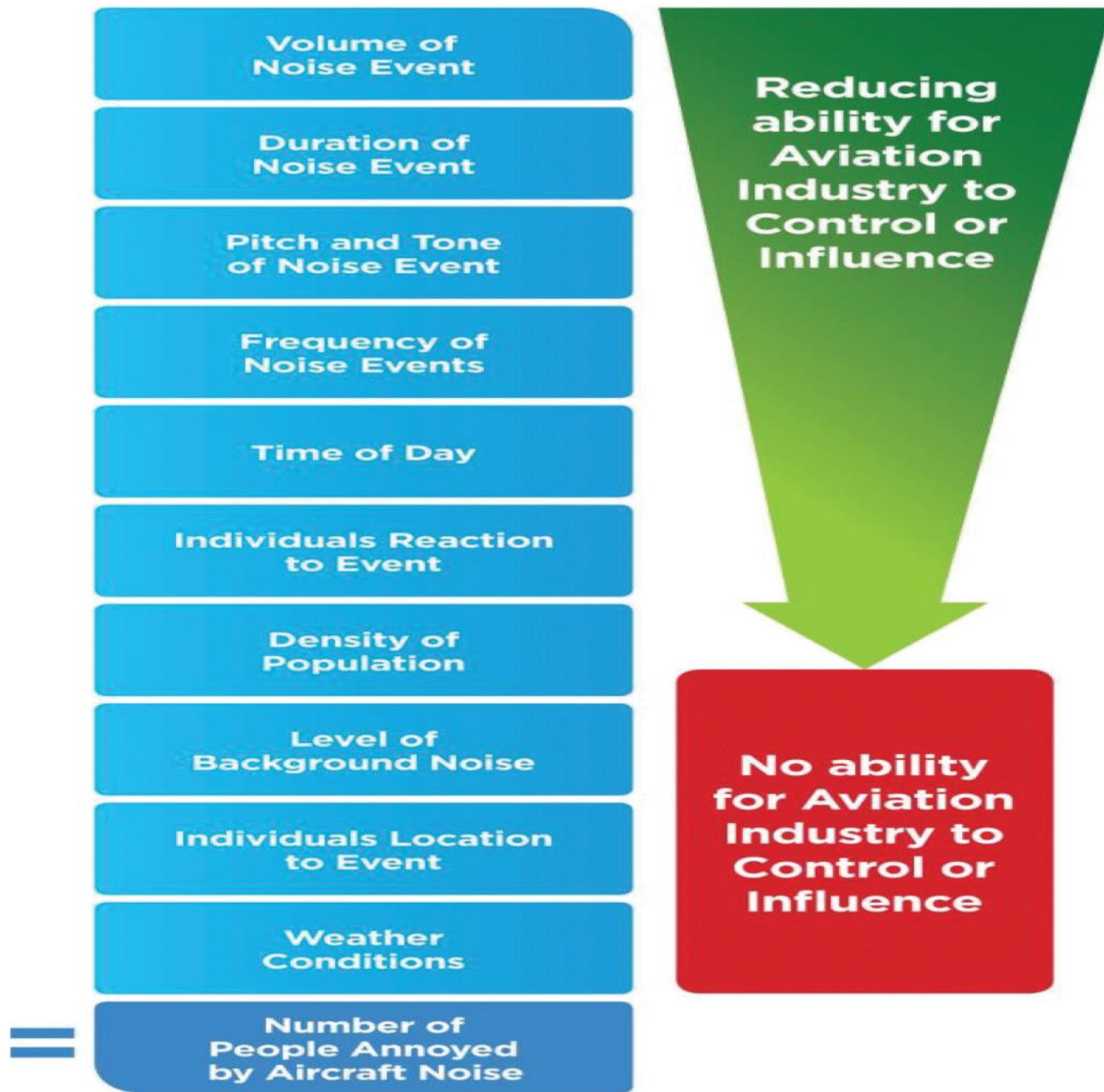
The problem is global.

Concentration reduces the number of people disturbed.

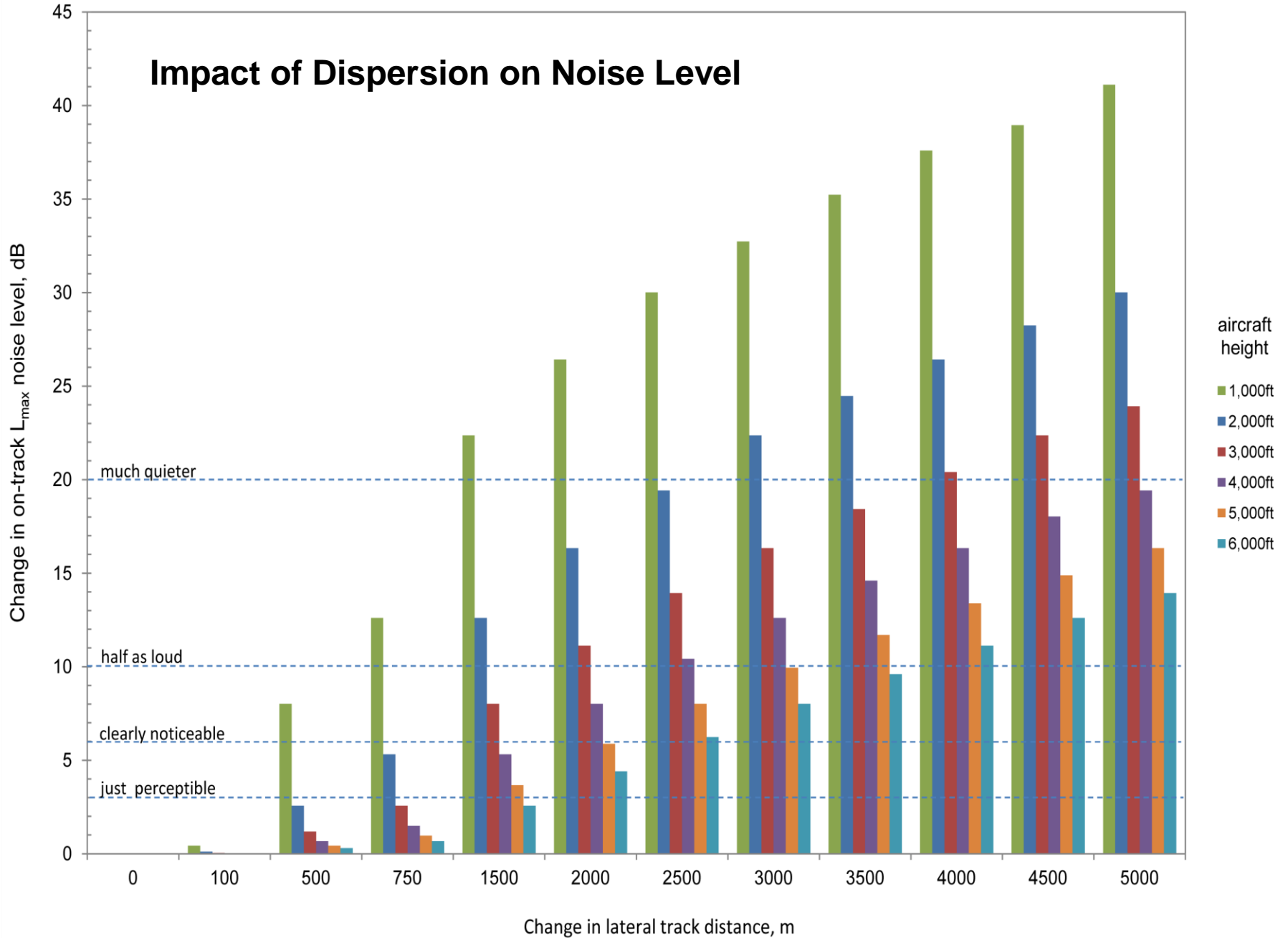
Dispersal distributes the noise to more people but can provide a tolerable situation for those concerned.

Control of the solutions

The aviation industry can control some variables and influence others, but has no control or influence on the rest.



Impact of Dispersion on Noise Level



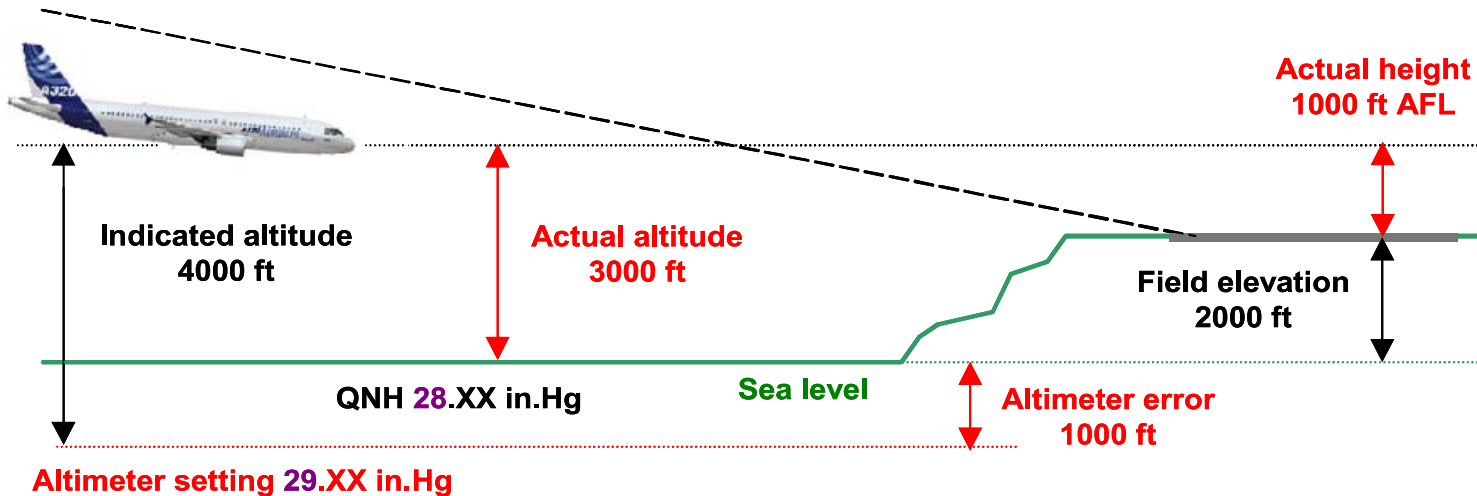
AVAILABLE DESCRIPTIONS SOURCE CAA

Dispersion, or dispersed aircraft tracks, refers to aircraft that are instructed to follow the same routing yet fly a variety of tracks when measured over the ground. Dispersion is the consequence of a combination of, often variable, factors such as the procedure's design criteria, weather, aircraft performance, pilot or air traffic control reaction and time of the day.

Concentration of aircraft is the opposite of dispersion. It takes place when aircraft instructed to follow the same routing consistently end up on very similar tracks. Concentration, is a consequence of the accuracy of RNAV-1 design criteria. The accuracy and predictability associated with RNAV-1 related concentration is that it is possible to make a more efficient use of airspace by allowing more aircraft through a block of airspace with less air traffic controller intervention.

Respite, by contrast, must be planned. For example it may be planned or designed that different runways are used at different times of day, this gives residents near to the runways predictable respite. Another example could be alternating or changing between different SIDs taking different routes to the same UK exit point. Respite can be designed into airspace structures more easily once aircraft tracks are predictably concentrated on to safely separated routings, enabling the use of them to be alternated or varied. There is currently no agreed minimum distance between routes such that alternating their use would result in acceptable respite.

AIRCRAFT TOO LOW?



Aircraft tracking Apps can only report altitude with reference to standard atmospheric pressure (1013.2 hP).

Actual pressure varies all the time but altitude reporting from aircraft always makes reference to standard pressure.

The implication of that is that from one day to another the altitude read out will differ even if the aircraft fly on the same altitude (MSL).

GATWICK COMMUNITY FINDINGS

Noise groups lack of trust in Gatwick, CAA, NATS and DFT. Disbelieve official statements.

Limited understanding of the roles and remits of aviation stakeholders, although organised groups are better informed.

Sub-optimal communication and community engagement.

Most contributors acknowledge the economic value of Gatwick, show little desire to constrain the airport.

Gatwick complaints procedures perceived unsatisfactory.

Sensitised by 2nd runway campaign and airspace trials.

Changes to final approach joining tracks in 2013 had a negative impact.

Community noise groups feel resentful of and neutered by due change processes.

Little or no knowledge of Land Use Planning techniques to limit housing and other development activity in areas subject to aircraft noise.

ARRIVAL NOISE ISSUES

Reported to the review team

High noise from arriving aircraft

Airbus whine

Similar path every time (concentration)

Impact of 2013 extension to ILS join point

Unfair distribution of noise

Unnecessary low altitudes far out

Gatwick's ability to deliver improvements

NATS service role

CAA/DfT regulatory and policy role

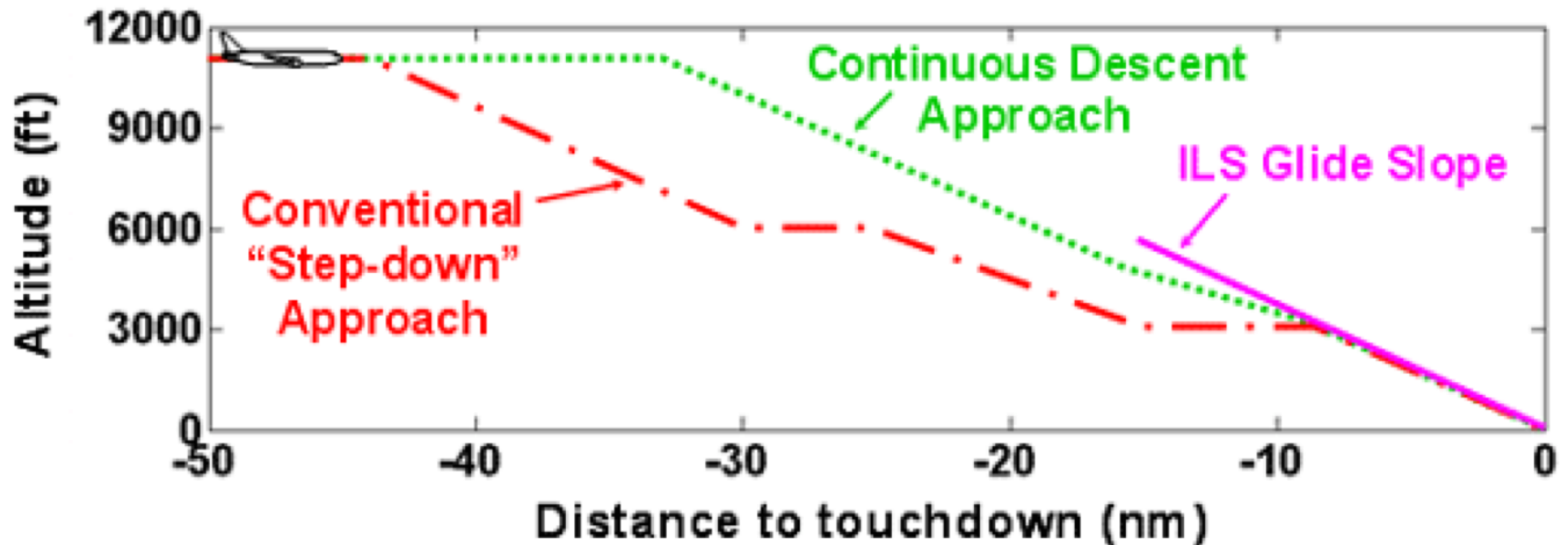
Significance of Heathrow and London City traffic impact

LOW NOISE APPROACHES

A variety of techniques can be employed to reduce the noise impacts of aircraft as they approach an airport, including:

- **keeping the aircraft high for as long as possible (increasing the distance from the aircraft noise sources to communities on the ground),**
- **keeping the aircraft at low engine power for as long as possible (reducing engine noise),**
- **keeping the aircraft in a clean aerodynamic configuration for as long as possible (reducing airframe noise), and**
- **minimising over flights of highly populated or sensitive areas.**

CONTINUOUS DESCENT APPROACH



SELECTION CRITERIA

Safe operation

Less noise

Fewer disturbed

No negative impact on capacity

Consistent with regulatory provisions

Achievable without major airspace changes elsewhere

In line with the Global Air Navigation Plan and ATM Master Plan

Compatible with the UK future airspace strategy

INITIAL FINDINGS

AIRSPACE

Significant improvements are possible to achieve short-term.

Multiple RNAV arrival routes to join ILS (require major airspace change).

Dispersal through a greater spread of joining the final approach between 8-14 nautical miles. Short-term option.

Flight Idle, low noise descent when possible.

Spacing further out and higher up, hold areas over water.

Introduction of time based operation to reduce need for low altitude maneuvering near Gatwick.

Scheduling improvements to allow on-time operations.

OTHER POTENTIAL IMPROVEMENT AREAS

Aircraft modification to reduce whining noise from Airbus 320 series.

Arrival dispersal (noise sharing).

Further noise optimisation for night operations.

Runway selection in still air.

Improved transparent noise complaints process.

LAND USE PLANNING

Land use planning (LUP) is the process whereby planning approval for noise sensitive areas such as residences, hospitals and schools, are avoided as much as possible by current and planned aircraft operations.

The review team is considering to recommend:

A review of the application of Land Use Policy by planning authorities in southern England in context of Gatwick aircraft noise.

That steps are taken to encourage effective consideration of flight routes by planning authorities.

Runway data sheets for home buyers and planners.

INFORMATION AND COMMUNICATION

Short Term

Establish joint noise management board GAL-GATCOM-NATS-CAA.

Establish a mechanism to allow community groups to be better represented.

Medium Term

Strengthen Community Messaging @GatwickAirport.com.

Establish a single entry point for complaints.

INFORMATION AND COMMUNICATION

Long term

Review by planning authorities of the application of Land Use Policy in context of Gatwick aircraft noise.

Runway data sheets for home buyers and planners.

More diligent and appropriate consideration of flight routes by planners.

After one year GAL should publish a report of overall progress post the independent arrivals review team report.

QUESTIONS?