### NATS RESPONSE TO OFCOM SPECTRUM PRICING PROPOSALS

The aviation sector is acutely aware of the need for spectrum efficiency and has a long history of implementing new equipment standards as technology progresses to increase the airspace capacity.

In an unconstrained environment, NATS agrees that economic measures have the potential to increase efficiency of spectrum usage and match supply to demand. NATS supports the principle of Administered Incentive Pricing (AIP) as a tool for allowing users to recognise the true cost of spectrum used as a means to incentivising efficiency. However, NATS has serious reservations about the applicability of AIP in the UK aviation sector at this stage, especially on a UK unilateral basis, for the following reasons:

### There are serious economic costs of getting it wrong

- Aviation operates in a competitive European and increasingly global marketplace. The aviation sector is currently facing severe financial pressure from the economic downturn and high fuel price. Any additional costs will further harm the financial position of the industry. There is very serious concern among airlines at another potential increase in costs.
- AIP applied on a unilateral basis has the potential to deter airlines from flying and landing in UK airspace so as to avoid paying this additional fee. Both effects could have a detrimental impact on the competitiveness of the UK economy as well as on aircraft emissions if airlines choose longer routes around UK airspace.

## Aviation is different: There are potential safety impacts of incentivising the wrong behaviour

- NATS' ability to safely and efficiently guide aircraft is dependent on access to clean, interference free radio spectrum for communication, navigation and surveillance purposes.
- Placing financial incentives on the aviation sector that might discourage the use of certain services by some aircraft, in particular general aviation users, could have a detrimental effect on the safety of the air traffic management network.
- However, neither NATS, our regulator the CAA, nor airlines will accept any action which has the potential to lead to any degradation in safety and NATS would need to mitigate any potential safety impact from Ofcom's proposals. Mitigation measures, such as placing limits on capacity, may have a detrimental effect on delay performance.

#### Aeronautical use of spectrum is subject to national European and international legislations which limit or neutralise the effectiveness of market mechanisms

- The UK, as a signatory to the Chicago Convention has international obligations to provide necessary services to enable international air transport operations throughout UK airspace. These obligations are discharged by NATS under its Transport Act Licence to provide en-route services throughout UK airspace.
- The International Civil Aviation Organisation ICAO has progressively evolved Communications, Navigation and Surveillance equipment Standards as technology and the economic environment has permitted. These systematic evolutions have permitted increases in the regularity, capacity and safety of air transport without the need for significant increases in aeronautical spectrum allocation. The UK does not have the freedom to modify these standards unilaterally.

• In addition, take up of technology is currently constrained by the lack of national and international aircraft equipage mandates and is subject to an agreement between States throughout the Europe. This problem has been observed in the transition to reduced VHF communications channel spacing (8.33kHz). AIP is the wrong vehicle to incentivise change where national or international mandates would be more appropriate.

## Aviation operates in a global environment, hence AIP should not be implemented on a unilateral basis.

- Aircraft transmissions within UK airspace limit the use of frequencies in neighbouring States and vice versa for the UK. If the UK is incentivised to reduce its spectrum usage within the aviation bands, it may remove constraints within other States allowing these frequencies to be assigned within the European core, rendering these frequencies unusable within the UK for any purpose. This would be a perverse impact which would not increase efficiency within the UK and would penalise the UK.
- Hence NATS' position is that any changes in spectrum management within aeronautical bands which requires interaction with aircraft equipment must not be undertaken unilaterally as it puts the UK aviation sector at a serious competitive disadvantage, and must be subject to co-ordination at least at the ICAO European Regional level.

# AIP is meant to incentivise a more efficient use of spectrum, but it is difficult to see how current usage for the provision of air navigation services can be made more efficient.

- International and technology constraints mean that there is currently limited scope for NATS to provide aeronautical radar, navigational and communications services through alternative technologies. This fact combined with the potential scale and timing of re-equipage required (both by NATS and by its global airline customers, together with the entire UK general aviation fleet) mean that there are very few feasible technologies available to allow NATS significantly to reduce our use of spectrum at least in the short term.
- Hence at the current time the introduction of AIP on a unilateral basis within the UK is unable to incentivise change and has the potential for unintended consequences that may erode safety and any economic benefits.

## However, expected technological advances mean that AIP could be a viable tool for future incentivisation

• Future technology advances in the medium term, such as those foreseen in the SESAR initiative will result in new and alternative concepts of operation, equipment standardisation and spectrum reform being developed. Within SESAR NATS has already proposed a specific work stream to promote improved spectrum efficiency. Once such technologies are in place throughout Europe, then AIP could become an effective tool for incentivising an efficient use of spectrum.

### NATS believes that Ofcom's proposal to use AIP on the basis of Licences held and not frequencies used is flawed:

• AIP is supposed to reflect how much spectrum is being used and hence the restrictions placed on alternative use. If the opportunity cost methodology supporting the use of AIP is to be applied correctly, i.e. if the aim is to increase efficiency of spectrum usage and not to raise revenue, then AIP should be applied on a per frequency, and not a per licence basis, as the opportunity is only forgone at the point where the frequency is denied use by another operator.

#### Summary

NATS supports a more efficient use of spectrum and is keen to continue working with Ofcom, Government and other interested stakeholders to achieve this end. However, in the light of the arguments presented above, NATS believes that Ofcom should recommend to HMG that Spectrum Reforms within the aeronautical sector are delayed until regional and International agreements have been reached on new concepts of operation, equipment standardisation and spectrum reform.

NATS would also caution against Ofcom introducing a new aeronautical charge whilst NATS is midway through its second control period (CP2).

Anticipated changes from the SESAR programme could allow for replacement of ground and airborne assets starting from 2016 at the earliest. NATS therefore suggests that the implementation of AIP in the aeronautical sector is deferred until 2020, and is then phased in only as and when alternative technology comes on stream.

We note that a similar arrangement has been agreed for the Broadcasting sector with AIP deferred until the completion of the digital switchover in 2014.

Finally, NATS requests that Ofcom undertake a full regulatory impact assessment of the proposals taking into account the costs and feasibility for the aviation industry to reduce the use of the bands in question and taking into account the viability of sharing such bands.