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ASSEMBLY — 36TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 17: Environmental protection

REVIEW OF NIGHT CURFEW RESTRICTIONS

(Presented by India)

EXECUTIVE SUMMARY

This Paper highlights the need for review of night curfew restrictions imposed in some States/ airports. The practice of night curfew adversely affects the concept of free flow of air traffic and causes inconvenience to the travelling public. In addition, curfew at some airports during night causes congestion at other times of the day leading to adverse impact on the environment and economics. ICAO has taken initiative in recommending use of the latest technology on aircraft engine design and refined operational procedures to minimise the impact of aviation on environment while curfews imposed in some States/airports is considered to retrograde ICAO's above efforts.

The present growth in aviation globally and its effect on environment is one of the greatest challenge faced by ICAO. Therefore, it is considered that the restriction imposed by night curfew be reviewed for reducing its impact on environment and economics of destination airports. In addition, removal of night curfew will help in making optimum use of airspace and infrastructure.

Action: The Assembly is invited to:

a) Note the contents of the Paper;
b) Review the restriction of night curfew imposed by some States, which causes a mismatch in utilising the available infrastructure round the clock, and hampers the growth of air transport operations;
c) Acknowledge the fact that night curfew will compound the problem of environment due to increased gaseous emission and noise pollution during the day time due to congestion resulting in holding or delay on ground and in air at destination airports;
d) Request the Council to undertake the following studies in the next triennium:

- study the use and way of implementation of the balanced approach at the airport level in particular where night curfew has been imposed and evaluate the extent to which the balanced approach contributes to solving airport noise related problems at such airports; and

	- estimate the environmental and economic impact of curfews on destination airports with a case study for a major airport; e) Request the Council to report to the next ordinary session of the Assembly the results; f) Urge all States to follow the relevant ICAO SARPs and that no State should impose standards unilaterally beyond SARPs.
Strategic Objectives:	This working paper relates to Strategic Objectives C (*Environmental Protection – Minimize the adverse effect of global civil aviation on the environment*).
Financial implications:	Not applicable.
References:	ICAO Annex 16, Volume 1 Assembly Resolution A27-11

1. INTRODUCTION

1.1 The growth of worldwide passenger traffic and freight by air is showing continuous upward trend. This would require increased operation of aircraft thereby putting pressure on existing infrastructure mainly in the developing countries. The existing practice of night curfews in some parts of the world impacts adversely on the availability of slots at such airports. Night curfew adds on to the airspace capacity requirements during the day hours thereby leading to congestion in the airspace during the day time. This in turn increases gaseous emissions due to increase in holding time by aircraft and thus further polluting the environment. This would also add to global warming problems. ICAO is already seized with the gaseous emission problem. It is, therefore, considered that the prevailing practice of night curfew in some parts of the world not only adversely impacts the air traffic handling capacity and airport infrastructure at other airports but also adds up to polluting the environment with gaseous emissions.

1.2 The airlines carried an estimated 2 billion passengers globally in the year 2006 and this year the average additional passenger growth is estimated at 2.2 billion. The added traffic volume due to growth would put pressure on operators/ service providers and may add on to the circumstances leading to unsafe situations. There is therefore need to avoid negative impact on environment as well as on safety of operations, for which efforts need to be taken at an international level.

1.3 ICAO also has a policy for noise pollution avoidance, in which a balanced approach is adopted by operational improvements in the management of air traffic by ATC, which aims to reduce the effect of noise pollution in populated areas near airports. Night curfew, however, adds on to environmental issue with regard to noise pollution since the operational improvement in ATC management gets handicapped.

1.4 Growth in air transportation industry needs additional improved airspace and infrastructure capacity. In this direction it is necessary to review the need to continue with the night curfew at aerodromes, thereby making airports available round the clock for operations.

2. NIGHT CURFEW RELATED ISSUES

2.1 Needless to say that the night curfew are resorted by some States on certain airports due to high level of noise levels caused by the aircraft of earlier design. ICAO has already upgraded the noise requirements

and today modern transport aircraft for interstate operations are certified to the Chapter 3 Standards, which is typically quieter, by 20 dB than the aircraft of earlier design. This corresponds to 75% reduction in noise annoyance.

2.2 Chapter 4 noise standards are more stringent than those contained in Chapter 3 which was adopted in 2001 and became applicable on 1st January 2006. This new standard will apply to newly certificated aeroplanes, which will be quieter by 10 dB than the earlier Chapter 3 designed aircraft in the cumulative margin of Noise certification values (flyover, lateral and approach). Therefore modern jets are quieter and are normally used for interstate air transportation. The earlier aircraft certificated to Chapter 2 design requirements can also be modified by incorporation of engine hush kit to produce lesser noise in dBs and associated with refined ATC procedures can effectively bring down the noise level. Shares of noisy aircraft have reduced considerably. As per a study on noise level at airports, Frankfurt airport's share of noisy aircraft dropped from 49% to 9%. This indicates that the operation of noisy aircraft is reducing while the operation of quieter aircraft is on increase. It is therefore urged that in light of technological development producing quieter airplane, the need for night curfew should be reviewed by enforcing States/airports.

2.3 A large number of airports, which have to handle the ever-growing air traffic demands, are constrained by their national regulations on environment resulting in imposition of night curfews. In light of quieter new design, modern aircraft, these could be reviewed by the States themselves.

2.4 Industry initiatives of the 'tailored arrival' concept has also been conceived and designed to take advantage of the capability widely available on today's transport aircraft in their flight management computers and integrated data link system. The inefficiencies of the present system in air traffic management, which put penalties on fuel-burn emissions and noise level, will be effectively reduced. While these types of initiatives help the air transport industry in its growth and efficiency with minimum environmental impact, night curfew on the other end adds on to the problem of congestion and associated pollutions.

2.5 IATA in its Paper on 'Managing the Environmental Challenges of Air Transportation' presented in 43rd Conference of Directors General of Civil Aviation Asia and Pacific Region in Bali in Dec 2006 has highlighted the increased importance of CNS/ATM activities in the management of aviation environmental impacts. While ICAO too is considering all measures to minimise the impact of aviation emissions, on the other hand measures like night curfew will increase the aviation emissions and noise due to congestion and operational delays.

2.6 ICAO's Committee on Aviation Environmental Protection (CAEP) during its seventh meeting (CAEP/7) in February 2007 in its report reflects the work taken by the committee with regard to curfews imposed at various airports in the world including types of curfews, reasons and their global scope and scale. The committee noted that *"a curfew established at an airfield does not only affect that airfield and its environs. It may also affect the departure and arrival times at other airports."*

3. DEMAND FOR NIGHT FLIGHTS

3.1 Airlines can only operate profitably if enough passengers or freight customers want to use their services at a price which covers the cost. A number of other factors can influence the customers' choice but perhaps the most important is the convenience, which is really about the timing and frequency of flight. Availability of daytime capacity can also affect the demand for night flights. The economic importance of night flights is primarily determined by their role in allowing efficient utilisation of aircraft by the airlines.

3.2 Night flights are often necessary to provide competitive levels of service. Long haul flights, which dominate the night period, generally cross several time zones and this limits their scheduling window and

the scope for making convenient connections with regional services at each end. More long haul services are now able to complete their journeys non-stop due to improvement in aircraft performance and/or because they are able to follow short direct routings.

3.3 Removal of restrictions on night operations from some airports would provide increased operational capacities which may not require complex infrastructure or operating procedures.

3.4 The Assembly Resolution A27-11 had earlier invited States to consider the possible relaxation of operating restrictions for aircraft meeting the requirements of Chapter 3 of Annex 16 including the easing of night curfews and/or quotas for off-schedule arrivals by such aircraft.

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