International Civil Aviation Organization

WORKING PAPER

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ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 43: Non-chemical disinsection of the aircraft cabin and flight deck for international flights

PROGRESS IN NON-CHEMICAL APPROACHES TO AIRCRAFT DISINSECTION

(Presented by the United States)

EXECUTIVE SUMMARY

There is continuing concern that aircraft disinsection using pesticides, as required by some countries, can result in discomfort and possible adverse health effects to aircraft crews and passengers. Results of United States government research show that non-chemical aircraft disinsection is a promising alternative to the use of pesticides. The working paper requests that the Council and Contracting States take action to improve aircraft disinsection.

Action: The Assembly is invited to consider the information in this paper and adopt the proposed resolution.

Strategic Objectives:	This working paper relates to Strategic Objective A.
Financial implications:	None.
References:	Resolution A36-24

1. INTRODUCTION

1.1 Vector-borne diseases pose a serious health hazard, and recent outbreaks of vector-borne diseases serve as a warning that we need to continue vigilance in preventing the introduction of vector-borne diseases through air transportation. However, the disinsection of aircraft with insecticides, as required by some countries, can result in discomfort and possible adverse health effects to aircraft crews and passengers. There is a need to take safe and effective health measures to prevent the spread of vector-borne diseases.

1.2 Accordingly, the United States Government initiated research into alternative approaches for disinsecting aircraft. The results of the research show that non-chemical aircraft disinsection is a promising alternative to the use of pesticides for disinsection of the cabin and flight deck.

2. DISCUSSION

2.1 Studies conducted by a United States laboratory found the use of a curtain of air at the aeroplane passenger doors to be at least 99 percent effective in preventing mosquitoes and flies from entering an airplane passenger cabin. Moreover, with non-chemical disinsection, there is no possibility of misapplication of pesticides that may result in possible risk to humans or the environment, and there is no evidence of any adverse health effects from exposure to the moving air currents characteristic of air curtains.

2.2 For those Contracting States in which pesticide registration and application is controlled, non-chemical disinsection may also prove to be more feasible from a cost-benefit and risk-mitigation perspective than pesticide-based disinsection.

2.3 Progress in allowing non-chemical alternatives to aircraft disinsection has been shown by ICAO and the World Health Organization (WHO). Both organizations have changed the definition of disinsection to allow non-chemical approaches, and WHO, at the request of ICAO, held a symposium on aircraft disinsection in December 2008.

3. CONCLUSION

3.1 Based on the progress shown by research to date, the Assembly is invited to adopt the following resolution:

Resolution 43/xx: Efficacy of insecticide-based disinsection, and adoption of non-chemical disinsection of the cabin and flight deck for international flights

Whereas ICAO Assemblies have demonstrated a concern for and a contribution to human welfare in the quality of life and in the environment in which human beings work and engage in other pursuits, including matters related to engine emissions, the ozone layer, aircraft noise, smoking and invasive alien species;

Whereas the 35th Assembly declared that "the protection of the health of passengers and crews on international flights is an integral element of safe air travel and that conditions should be in place to ensure its preservation in a timely and cost-effective manner";

Whereas there is strong concern that the current practice by some States of requiring the use of insecticides to disinsect aircraft can result in a medical emergency and discomfort and raises questions about possible adverse health effects to aircraft crews and passengers;

Whereas there are conflicting reports about (a) the efficacy of insecticides used for disinsection and (b) the effectiveness of existing insecticide-based disinsection protocols;

Whereas recently conducted research has shown non-chemical methods of disinsection to be efficacious in preventing the entry into aircraft of mosquitoes and other flying insects and eliminating exposure to insecticides by passengers and crew; and

Whereas recent outbreaks of vector borne diseases highlight the need for maintaining the capability to prevent moving insect vectors by air transportation,

The Assembly:

1. *Requests* the Council to urge the World Health Organization to explore the efficacy of both insecticide-based and non-chemical disinsection, along with the effectiveness of currently used disinsection protocols.

2. *Requests* the Council to urge the World Health Organization to evaluate and develop guidelines and protocols for the application of chemical and non-chemical aircraft disinsection.

3. *Encourages* Contracting States to allow the demonstration of non-chemical aircraft disinsection technology on flights into their territories to develop efficient approaches for disinsecting aircraft.

4. *Encourages* Contracting States to develop and adopt risk-based thresholds utilizing epidemiological and entomological surveillance for establishing disinsection requirements.

5. *Encourages* Contracting States to require integrated pest management programmes around airports and related facilities.

6. *Requests* the Council to report on implementing this Resolution in the next ordinary Session of the Assembly.

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