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Health conference calls for smoking ban on commercial flights

Participants at the 8th World Conference on Tobacco or Health agreed that smoking should be prohibited aboard aircraft.

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HEALTH experts attending a major conference sponsored by the World Health Organization (WHO) last spring recommended that ICAO adopt provisions which would prohibit smoking on all commercial airline flights. The recommendation to ban smoking on aircraft took the form of a resolution adopted at the 8th World Conference on Tobacco or Health, which concluded in Buenos Aires in April 1992.

The conference drafted the resolution as a response to concerns about the effects of in-flight smoking on health and safety. It has been determined that the build-up of "tar" and other residue from tobacco smoke can incapacitate life-saving oxygen masks and contaminate aircraft outflow valves. And although exposure to environmental tobacco smoke is hazardous to health, conference participants noted that non-smoking aircrew and passengers are frequently and involuntarily exposed to smoke since it can infiltrate the non-smoking sections of airliner cabins.

Smoking can also have adverse physiological effects on both cockpit and cabin crews by reducing tolerance to altitude, impairing vision, judgement and coordination, and inhibiting the ability of crew members to react effectively to emergency situations, the resolution noted.

The conference called on the ICAO Secretariat to work in collaboration with WHO in developing the anti-smoking provisions. In 1991, WHO adopted a resolution urging member States "to ban smoking in public conveyances where protection against involuntary exposure to tobacco smoke cannot be ensured."

The conference's discussions on smoking and aviation focused on campaigns for smoke-free skies, with a review of developments in the United States and Canada, in particular.

The United States Congress prohibited smoking on virtually all domestic airline flights as of February 1990. Leading health promotion organizations and flight attendants in the United States are working with supportive legislators and federal officials to eliminate smoking on all international flights.

Conference participants had praise for Canada's policy on in-flight smoking but expressed regret that the full implementation of the ban had been postponed to 1 July 1993.

Other States also have implemented anti-smoking measures, and many domes-

tic operations are now smoke-free.

Although aircraft ventilation systems could be improved to reduce the level of in-flight smoke, the modification would not provide a rational solution to the health and safety problem, according to experts at the health conference. The consensus they reached was that smoking must be completely eliminated on public transportation, including aircraft.

Close to 600 working papers were presented on such topics as smoking prevalence, epidemiology, education, legislation, smoking cessation, smoking and cardiovascular diseases, and smoking and cancer. Some conference sessions focused on environmental tobacco smoke (ETS), also known as second-hand smoke or side-stream smoke. Evidence was given that smokers release more smoke into the environment than they take into their own lungs.



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ICAO continues to assess effects of smoking on flight safety

THE SUBJECT of smoking in aircraft has been under assessment by the Aviation Medicine Section of the ICAO Air Navigation Bureau. As noted by ICAO several years ago,¹ it is well-known and documented that smoking significantly reduces tolerance to altitude by producing concentrations of carboxyhaemoglobin in the blood which affect oxygenation and might interfere with vision, thereby impairing sensory perception and affecting mental processes, including judgement. There can be a significant impairment on psychomotor skills, including neuromuscular coordination. All of these effects are of great significance as far as flight crew duties are concerned.

It has been properly documented that smoking significantly produces an increased morbidity and mortality in the population at large. Epidemiological studies have shown that aviation personnel cannot be excluded from this general trend.

Considering the proven health-damaging aspects of smoking, aviation personnel responsible for critical tasks should be free from potentially incapacitating diseases which might significantly interfere with the safety of flight operations. The potentially incapacitating effect of smoking on several organ systems also is well documented. For instance, smoking has a deleterious effect on the cardiovascular system, which is the most common cause for loss of licence on medical grounds, and also the most common cause for acute total in-flight incapacitation.

The initial period of abstinence in a smoker might have some negative side effects for flight safety. It is recog-

nized, for example, that neuromuscular coordination during withdrawal periods is severely affected.

It should also be noted that the performance of the outflow valves of the ventilation system of a pressurized aircraft is affected by contamination from tobacco smoke and requires more careful, more frequent and more expensive maintenance.

On account of all the above considerations, the ICAO Secretariat a few years ago requested Contracting States' views on the matter, including details of any specific action taken or proposed to limit smoking on board aircraft. All the States which replied expressed the view that smoking aboard aircraft represents a safety hazard, and proposed some measures to enforce the existing regulations.

More recently the ICAO Air Navigation Commission reassessed the issue. It concluded that "smoking has a potentially deleterious effect on flight safety if existing restrictions are not enforced," and decided that Contracting States and international organizations should be consulted again and requested to provide updated information, with particular reference to the following aspects:

- accidents and incidents involving smoking;
- the danger of fires caused by smoking;
- pressurization problems caused by smoke;
- the effect of smoke on oxygen masks;
- performance degradation related to smoking;
- existing restrictions and enforcement;
- preventative measures;
- any safety-related health aspects of smoking. □

1. See "Contemporary Trends In International Civil Aviation Medicine," *ICAO Journal*, December 1988.

Tobacco smoke is not just a simple nuisance: it is a major public health hazard. Scientific evidence linking ETS to death and disease is clear and overwhelming; there is no safe level of exposure for the carcinogens found in tobacco smoke.

Tobacco smoke contains more than 4,700 chemical compounds, including more than 40 highly toxic ones such as carbon monoxide, sulfur dioxide, ammonia, nitrogen oxides, hydrogen cyanide, formaldehyde, benzene and arsenic. All surveys conducted by individuals or organizations independent of the tobacco industry, including the U.K. Independent Scientific Committee on Smoking and Health, the U.S. Surgeon General, and the National Health and Medical Research Council of Australia, have reported a link between passive smoking and lung disease.

Non-smokers exposed to ETS show significant amounts of nicotine, cotinine, carbon monoxide and other evidence of passive smoking in their body tissues.

Tobacco smoke is the most widespread and harmful indoor pollutant most people will encounter, according to the confer-

BOTH SMOKERS AND NON-SMOKERS WANT SMOKE-FREE POLICIES IN THE WORKPLACE AND RESTAURANTS AND ON PUBLIC TRANSPORTATION.

ence, and the elimination of tobacco smoke from public places is the only approach that guarantees non-smokers protection from exposure to ETS. Surprisingly, smokers and non-smokers alike agree that there is a need for clean indoor air. Public opinion polls in Australia, the United Kingdom

and the United States have shown that the vast majority of both smokers and non-smokers want smoke-free policies in the workplace and restaurants and on public transportation.

Most experts agree that nicotine is one of the most addictive substances in the world. The sessions on smoking cessation therapies were well attended, a clear indication that efforts in this direction are well supported. ICAO is considering how these various methods might be presented by medical officers when counselling crew members and ground personnel who smoke.

More than 1,000 representatives from 82 Contracting States of WHO and several organizations (including ICAO) attended the health conference. The 9th World Conference on Tobacco or Health is scheduled to take place in Paris in 1994. □

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