TESTIMONY OF

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on behalf of

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BEFORE THE
SUBCOMMITTEE ON AVIATION
COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION

U.S. HOUSE OF REPRESENTATIVES

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Mr. Chairman, members of the subcommittee, I am Charles Whitley. I am here today to present the testimony of The Tobacco Institute, which represents major manufacturers of cigarettes. With me today is Dr. Larry C. Holcomb, a consultant in environmental toxicology who will present testimony on claims that environmental tobacco smoke poses a health hazard to nonsmokers.

## INTRODUCTION

Mr. Chairman, The Tobacco Institute opposes all legislation that would tamper with the current arrangement of accommodating smokers and nonsmokers on airlines. Such legislation is ill-conceived, unjustified by objective scientific evidence, and fundamentally unfair to the millions of U.S. air travelers who choose to smoke.

For nearly 15 years, federal regulations have assured U.S. airline passengers a choice of seating in either "smoking" or "nonsmoking" sections of commercial aircraft. The rules also specifically guarantee a seat in the nonsmoking section to all passengers who so request. This basic approach, which accommodates the preferences of smokers and nonsmokers, has been examined and re-examined in repeated administrative rulemaking proceedings. After considering literally hundreds of written submissions and

conducting three days of public hearings, the Civil
Aeronautics Board ("CAB") only three years ago concluded
that "the current system of separating smokers from nonsmokers on . . . aircraft works reasonably well and should
be retained." 49 Fed. Reg. 25412 (June 20, 1984). The
airlines agree. As the Air Transport Association reaffirmed
only one week ago, current airline smoking policies, in
concurrence with federal regulations, "balance the needs of
airline consumers."1/

Proposals to discard this now-familiar system in favor of a Congressionally-imposed ban on smoking aboard commercial aircraft represent a radical departure from a balanced regulatory approach. These proposals are neither justified by any proven health considerations, nor responsive to the wishes of the great majority of airline passengers. Enactment would exacerbate critical safety concerns, and pose major administrative and compliance problems for airlines and their employees.

For these and other reasons, proposals to ban smoking aboard airlines have been consistently rejected by the expert federal agencies responsible for airline regulation. Only six months ago, the Department of Transportation, like the CAB before it, refused to enact a proposed

<sup>1/</sup> Aviation Daily, September 30, 1987, p. 506.

smoking ban, this time urged by the National Academy of Sciences. DOT found "further study . . . needed before the Department can propose a definitive response to this recommendation."2/ Indeed, less than a month ago, Secretary Dole reaffirmed that "additional study needs to be done" and that "a statutory ban at this time is premature."3/ No new evidence justifies, or even significantly supports, a reversal of the longstanding practice of giving passengers the choice of smoking or nonsmoking seats aboard commercial airlines.

A. The Evidence Demonstrates No Adverse Health Effect on Passengers from Smoking Aboard Aircraft.

Anti-smoking advocates argue that health considerations justify rejecting existing smoking/no-smoking accommodations. They rely mainly on an August, 1986 report of the National Academy of Sciences ("NAS") that reviewed academic literature but undertook no systematic evaluation of actual cabin air. The fact is that available scientific data fails to demonstrate that smoking aboard aircraft causes adverse health effects in nonsmoking passengers. The Department of

U.S. Department of Transportation, <u>Report to Congress:</u> <u>Airline Cabin Air Quality</u> (February, 1987) at i.

<sup>&</sup>lt;u>3</u>/ Letter of Elizabeth Dole, Secretary, Department of Transportation, to Honorable John C. Stennis, Chairman, Senate Appropriations Committee, September 14, 1987, at 7.

Transportation so recognized last February when, after careful review of the NAS report and its proposal for a smoking ban, it found that further study is needed.

The DOT's determination is plainly sound, given the speculative basis for the NAS conclusions and the substantial contrary evidence. In fact, empirical studies dealing specifically with the situation aboard aircraft consistently find minimal levels of exposure of nonsmoking passengers to environmental tobacco smoke ("ETS"). The first such study — conducted by the Federal Aviation Administration (FAA) and the National Institute for Occupational Safety and Health (NIOSH) in 1971 — concluded that the "low levels of contaminants measured do not represent a health hazard to the nonsmoking passengers on aircraft."4/

The FAA's conclusion that exposure to environmental tobacco smoke in the unique aircraft cabin environment presents no adverse health effects for nonsmoking passengers remains unrebutted. Dr. Robert L. Wick, medical director

<sup>4/ 38</sup> Fed. Reg. 12207, 19048 (1973). (Emphasis added.) Significantly, these findings were based on studies of smoking aboard aircraft conducted before the CAB issued rules in 1973 requiring segregation of smokers and nonsmokers in separate sections of the cabin. 38 Fed. Reg. 12207-12211 (1973) (codified at 14 C.F.R. § 252.1-.5). Moreover, these studies were undertaken prior to the 1984 CAB regulations prohibiting pipe and cigar smoking or smoking while an aircraft is on the ground or when the ventilation system is not "fully functioning" up to design specifications. 49 Fed. Reg. 25408-25420 (1984) (codified at 14 C.F.R. §§ 252.3, 252.4).

for American Airlines, former professor of preventive medicine at Ohio State University and chairman of the Division of Environmental Medicine, aptly summarized the state of the medical evidence in 1982 Congressional testimony:

There is nothing in the literature today which would suggest that there is a significant hazard to a healthy individual from casual exposure to smoke in an airplane, albeit it is unpleasant. 5/

Again in 1983, the FAA reaffirmed its 1971 conclusion in Congressional testimony on the adequacy of modern aircraft ventilation:

It is the FAA's view that casual exposure to 'second hand' cigarette smoke in a reasonably ventilated environment is not expected to have any relation to cardio-vascular or pulmonary disease causation. . . Therefore, from a health perspective, we have seen no need to require changes in aircraft ventilation systems. 6/

<sup>5/</sup> Airliner Cabin Safety and Health Standards: Hearing on S.1770 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 97th Cong., 2nd Sess. 113 (1982) (statement of Dr. Robert L. Wick, American Airlines).

<sup>6/</sup> Cabin Air Quality: Hearing on S.197 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 98th Cong., 1st Sess. 10 (1983) (statement of Craig Beard, Director, Office of Airworthiness, Federal Aviation Administration) [hereinafter "FAA Statement"].

In so reaffirming the 1971 study in 1983, the FAA had available virtually all of the studies claimed to suggest health effects of smoking on nonsmokers in non-aviation environments.

In addition, the FAA's medical expert, Deputy
Federal Air Surgeon Dr. Jon L. Jordan, testified before
Congress in 1983 that the 1971 FAA/NIOSH study "revealed
that there were minimal contaminants in the [aircraft cabin]
air, especially in reference to cigarette smoking, and none
of those posed a health hazard problem to either the
passengers or crew."7/

The most recent scientific study -- published this month in the American Chemical Society's peer-reviewed periodical, Environmental Science & Technology -- further demonstrates the near-negligible exposure of passengers in the nonsmoking section to environmental tobacco smoke in the aircraft cabin. According to the study findings, based on actual in-flight sampling of cabin air aboard typical

<sup>7/</sup> Cabin Air Quality: Hearing on S.197 Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Science, and Transportation, 98th Cong., 1st Sess. 12 (1983) (statement of Dr. Jon L. Jordan, Dep. Federal Air Surgeon). (Emphasis added.)

commercial aircraft, 8/ a nonsmoking passenger would have to make eight continuous New York-to-Tokyo roundtrips before being exposed to the nicotine equivalent of a single cigarette.

This latest study, the first to take systematic actual measurements of passenger cabin air in U.S. airlines, indicates that passengers in an aircraft's no-smoking section are exposed to an average of only four one-thousandths of a single "cigarette equivalent" 2/ during an approximate one hour flight. As the researchers found, "average exposures to ETS are orders of magnitude less than

<sup>8/</sup> Oldaker & Conrad, Estimation of Effect of Environmental Tobacco Smoke (ETS) On Air Quality Within Passenger Cabins of Commercial Aircraft (October, 1987). The researchers, from R. J. Reynolds Tobacco Company, analyzed air samples taken from cabin air aboard domestic commercial airline flights. Measurements of vapor phase nicotine were obtained using sampling systems contained in briefcases, placed in both smoking and no-smoking sections of B727-200, B737-200, and B737-300 aircraft. These three types of aircraft constitute approximately half of the U.S. domestic commercial aircraft fleet and include both "once-through" and recirculation ventilation systems. (The B737-300 recirculates approximately 40% of passenger cabin air.)

<sup>9/</sup> The "smoke equivalent of a cigarette" is calculated from measurements of nicotine and particles, major components of environmental tobacco smoke. Calculation assumes a person breathing at a certain rate and a cigarette delivering a sales-weighted average amount of nicotine and/or tar as reported by the FTC. The cigarette equivalent is an estimate of exposure and should not be confused with dose (that is, how much smoke a person breathes and retains in the body). For example, it is inaccurate to assume that one smokes the air (passive smoking) as one would smoke a cigarette, because non-smokers generally take relatively shallow breaths through the nose.

exposures represented by smoking a single cigarette."10/ The researchers further determined that the present system of segregating smokers and nonsmokers effectively reduces and controls nonsmokers' ETS exposure.

All of these empirical studies were available to the NAS Cabin Air Quality Committee last August. The Committee nonetheless chose to recommend a smoking ban, wholly unsupported by any scientific research on the exposure of airline passengers to ETS or on the effect of ETS in aircraft cabins. In its report, the NAS itself reported that its Committee "found no published peer-reviewed data on ETS concentrations in [airline] cabins"11/and that no experimentally valid measurements of actual ETS levels had been conducted aboard aircraft. The Committee explicitly conceded that ". . . [m]easurements [of ETS constituents] have not been conducted systematically for a variety of aircraft."12/ Given the lack of empirical scientific evidence to support the NAS ban recommendation,

<sup>10/</sup> Oldaker & Conrad, supra, at 14. Comparable exposures
were reported in 1984 by Japanese researchers,
Muramatsu, et al., 35 Environmental Research 218 (1984).

<sup>12/ &</sup>lt;u>Id</u>., at 137. (Emphasis added.)

DOT properly found further study needed. 13/ DOT has accordingly indicated that it will receive bids this month for a study to begin in March on passenger exposure to both ETS and airborne microbes (microbial aerosols) in aircraft cabins.

Equally unsupportive of an airline smoking ban is the Surgeon General's 1986 report on ETS. That report included no scientific research whatsoever on ETS exposure aboard the commercial aircraft cabin, a uniquely ventilated environment not readily comparable to other indoor environments. 14/ Measurements of ETS in non-aviation environments cannot be reliably applied to the uniquely-ventilated aircraft cabin environment, as the NAS Report itself recognized:

"Health effects data from other environments do not permit us to present reliable quantitative risk estimate's related to the health impact of present concentrations of ETS on exposed non-smokers in an aircraft environment."

NAS Report, at 150-151. (Emphasis added.)

<sup>13/</sup> As the Air Transport Association observed in testimony before the Senate Aviation Subcommittee in September, 1986, "NAS's report time and again decries the paucity of data upon which to found conclusions and recommendations" regarding health effects of "air impurities."

<sup>14/</sup> Even with respect to non-aviation environments, the Surgeon General's conclusions regarding harm from exposure to ETS are contradicted by the report itself which, inter alia, characterizes the "risk" as "uncertain."

Congress too acknowledged this fact when authorizing the NAS study and requiring that "special and objective considerations shall be given to the uniqueness of the environment on board civil commercial aircraft."15/ As the CAB also recognized in 1984 in refusing further to regulate aircraft smoking "on the specific basis of the health aspects of passive smoking" in non-aviation environments, "no commenter has shown that the findings of [passive smoking] studies are applicable to the situation aboard aircraft."16/

The modern aircraft cabin is in fact designed to provide a uniquely ventilated environment, effective in dealing with tobacco smoke. Indeed, FAA experts, aircraft manufacturers, and airline officials have repeatedly testified that aircraft cabin ventilation systems are "fully

<sup>15/</sup> Pub. L. No. 98-466, § 1(b), 98 Stat. 1825 (1984). (Emphasis added.)

<sup>16/</sup> As the CAB concluded in 1984 in specifically refusing further to regulate on asserted health grounds, studies of "passive" smoking effects in nonaviation environments are inapplicable to the aircraft cabin environment:

<sup>&</sup>quot;The cited studies involved smoking in the home or office, places where people spend a significant portion of their life. This differs from the situation aboard aircraft where most people spend a relatively short time. Aircraft also differ from homes and offices in that nonsmokers are separated from the smokers in the former, but usually are not in the latter."

<sup>49</sup> Fed. Reg. 25410 (1984).

adequate."17/ Within the last four years, the FAA specifically found "no need to require changes in aircraft ventilation systems" to deal with tobacco smoke "from a health perspective."18/

Aircraft cabin air flow rates compare favorably with recommended standards of non-aviation environments and provide passengers ventilation three to five times that recommended by the American Society of Heating, Refrigerating and Air Conditioning Engineers. 19/ Existing regulations permit smoking, moreover, only when ventilation systems are "fully functioning" to provide ventilation meeting design specifications. 20/

B. Airline Passengers Overwhelmingly Support the Existing Smoking/No-Smoking Rules.

The vast majority of airline passengers -- smokers and nonsmokers alike -- are satisfied with the present smoking/no-smoking rules, as numerous professionally conducted opinion polls confirm. The most recent poll,

<sup>17/</sup> FAA statement, supra, at 9.

<sup>18/</sup> Id. at 10.

<sup>19/</sup> The FAA's review of the ventilating characteristics of seven current transport aircraft in 1981 revealed that "the ventilation varies from 15.2 to 25.7 cfm/person in the passenger cabin or 3 to 5 times that recommended by ASHRAE."

<sup>20/ 14</sup> C.F.R. § 252.3(a) (1984).

taken of registered voters in April, 1987 by the well-known polling firm of Hamilton, Frederick & Schneiders for the Air Line Pilots Association, demonstrates widespread public support for current airline smoking practices. The ALPA survey found that, by a margin of 87% to 12%, respondents agree that the "current practice of separating smoking and nonsmoking passengers is a reasonable policy that respects the rights of each."21/

This recent ALPA poll confirms the results of an April, 1985 opinion survey conducted for The Tobacco Institute by the Tarrance & Associates polling firm. The Tarrance poll found that 82% of those questioned expressed satisfication with the current rules providing smoking and "no-smoking" sections aboard aircraft, agreeing that the "present arrangement works pretty well in making all

<sup>21/</sup> The ALPA poll was designed as a telephone survey of a randomly-selected national sample of 1,000 registered voters. Telephone interviewing was conducted April 2, 1987 through April 7, 1987 by professional callers. The nationally-recognized polling firm indicates that the margin of error is plus or minus 3% at the 95% confidence level. A complete copy of the poll is attached to this testimony.

passengers comfortable."22/ Both the ALPA and Tarrance polls are also consistent with other recent polls of airline passengers' views on smoking accommodations.23/ The consistent results of these professionally conducted opinion polls convincingly demonstrates that those demanding a radical revision of established airline practices are in the distinct, albeit vocal, minority.24/

<sup>22/</sup> Designed as a telephone survey of a national probability sample of air travelers, the Tarrance Poll surveyed individuals over 18 years old who flew at least twice during the previous year. Respondents were asked the following question: "As you know, government regulations require separate seating sections on airplanes for smokers and non-smokers. Do you think this present arrangement works pretty well in making all passengers comfortable, or should this arrangement be changed in some way?" In response, 82% preferred the present arrangement, 62% strongly, while 16% desired some change.

<sup>23/</sup> For example, a British poll of some 1,243 adults conducted last February and March by the Harris Research Centre found that 62% favored the present smoking/nonsmoking arrangements on intercontinental flights, with a majority of passengers favoring separate seating on all flights. A March, 1986 airline passenger survey conducted in Australia by the Roy Morgan Research Centre Pty., Ltd. for the Tobacco Institute of Australia found that some 80.2% of passengers "strongly agreed" or were "inclined to agree" with "the present policy of separate areas on aeroplanes for smoking and non-smoking."

<sup>24/</sup> Some smoking ban advocates have sought to publicize a "survey" taken at various airports by anti-smoking "volunteers" for an anti-smoking organization, The American Association for Respiratory Care. The recent release of this "poll," among a flurry of other AARC anti-smoking press releases, was apparently timed to coincide with legislative consideration of smoking ban proposals.

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An equally telling barometer of passenger satisfaction with existing practices is the exceedingly small number of airline passenger consumer complaints to DOT (and, formerly, CAB) about smoking aboard aircraft. Indeed, complaints to DOT about smoking -- including complaints from smokers denied a seat in the smoking section -- represent approximately two percent of all consumer complaints.

Consumer complaint data over the last decade, taken as a whole, shows only a single smoking complaint for approximately every one million passengers flown.

Recognizing their own customers' preferences, U.S. air carriers, speaking through their trade association, agree that existing rules "endeavor to balance the wishes and rights of non-smokers and smokers."25/ In a submission to the Senate Appropriations Committee last July, the Air Transport Association accordingly opposed smoking ban legislation then pending in the House of Representatives:

"Given the current displeasure of some passengers with airline service, this prohibition will certainly add to consumer complaints and exacerbate an already difficult situation."26/

<sup>25/</sup> Letter of William J. Burhop, Senior Vice President, Air Transport Association to Hon. John C. Stennis, Chairman, Senate Appropriations Committee, July 21, 1987.

<sup>&</sup>lt;u> 26/ Ibid.</u>

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Together with these airline views of consumer preference, consistent public opinion poll evidence and the near-insignificant level of complaints to DOT makes clear that smoking aboard airlines is simply not a significant consumer issue for the vast majority of airline passengers. Millions of passengers are confronted daily with reports of dangerously crowded skies, flight problems and delays, overbooking, baggage loss, and numerous other concerns. Focusing legislative attention on revamping accepted smoking rules will be seen as misdirected, if not trivial.

## C. Airline Smoking Bans Threaten Aircraft Safety.

Proposals to ban in-flight smoking are especially ill-conceived at present, when Congress is seeking to enhance airline safety, and passengers are expressing profound concern with the safety of air travel. A ban on smoking may well exacerbate the threat of aircraft cabin fires, by precipitating surreptitious smoking in firesensitive aircraft lavatories. The Department of Transportation, the Air Transport Association, and the Air Line Pilots Association have all warned of these dangers of a smoking ban.

The Civil Aeronautics Board was explicit in discussing the potential fire danger in its comprehensive 1984 rulemaking:

"[A ban on smoking] might increase, rather than decrease, the incidents of smoking and risk of fire in the aircraft lavatories where it poses the greatest danger to the lives of passengers."

49 Fed. Reg. 25411 (June 20, 1984). The Air Transport Association again warned the Senate Appropriations Committee last July of its "fear[s] that passengers may attempt to smoke in the lavatories, creating a risk of fire." The ATA further cautioned that "[e]ven with the addition of smoke detectors, smokers may try to disconnect the detectors in order to smoke."27/

These same fears of a potential fire catastrophe caused by surreptitious smoking in lavatories impelled the pilots' association of South African Airways in August to demand a cessation of that nation's ban on smoking aboard its domestic flights. 28/ As reported by Reuter, the SAA pilots found that "dozens of passengers have been caught" smoking in aircraft lavatories since the airline banned smoking earlier this year. The pilots warned that "[t]he danger of a fire in the toilets is the most frightening inflight hazard feared by cockpit and cabin crews alike."

<sup>27/</sup> Ibid:

<sup>28/</sup> See "Frustrated Smokers Light up in Toilets on South African Airways," Reuter News Service, August 13, 1987.

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There is a very real possibility that proposed smoking bans will actually exacerbate already-heightened airline safety concerns. This should be sufficient reason, alone, to reject these proposals.

On the other hand, there is no basis for the contention of some anti-smoking advocates that a smoking ban is somehow needed to protect passengers from cigarette-related in-flight fires. In fact, records of the National Transportation Safety Board (NTSB) since 1970 demonstrate that no significant U.S. airline fire has been determined to have been smoking-related. After studying the NTSB records, TriData Corporation of Arlington, Virginia, a noted fire safety consulting firm, concluded as follows:

"With current FAA regulations, the risk of fires from careless smoking is very low. In our opinion, there is no need to curtail smoking on board aircraft as a fire prevention method."29/

In summary, why would Congress wish to exchange a wellestablished practice that has produced an excellent safety

<sup>29/</sup> A copy of the October, 1987 TriData Corporation report is attached to this testimony. The last major in-flight fire aboard a commercial airline occurred in June 1983 when an Air Canada flight was forced to make an emergency landing in Cincinnati. The NTSB spent well over a year investigating the incident and smoking was not determined to be the cause.

record for an untested measure that could, unintentionally, have the opposite effect?

D. The Proposed Smoking Bans Would Pose

<u>Massive Compliance and Enforcement Problems.</u>

A ban on all smoking aboard commercial aircraft would pose enormous compliance problems — diverting the time and attention of flight crews, imposing additional burdens on already busy airline employees, and potentially creating further resentment and discomfort among the millions of passengers who have long become accustomed to established airline smoking arrangements. Substantially for these reasons, the CAB in 1984 specifically rejected a proposal to ban smoking on flights of two hours or less, after exhaustive review. Citing the massive administrative problems such a ban would pose for airlines, the CAB found that even a ban on smoking on "short" flights would "likely . . . result in confusion or administrative problems." 49 Fed. Reg. 25411 (1984). The Board also warned of the "quite real" possibility of defiance of a ban:

"Compliance problems under the Board's [present] simple and less restrictive rule have been widely reported. They could get worse if smoking were banned."

Id. at 25412. These compliance problems, and their potential safety implications, are starkly presented by proposals that would require cabin attendants or cockpit crew to enforce smoking prohibitions against passengers. Aside from the need for crew to devote complete attention to critical on-board duties -- including safely guiding the aircraft through increasingly-congested airspace -- delegating anti-smoking "sky-cop" duties to untrained airline employees is ill-advised in the extreme.

A smoking ban may also create significant competitive disadvantages for U.S. carriers, especially on international routes. Foreign carriers -- which overwhelmingly permit smoking -- would enjoy a competitive edge, particularly on long-haul flights to destinations (like Japan and the Far East) where smoking is especially popular. Even a partial ban (for example on flights of two hours or less) could disadvantage U.S. carriers in direct competition with Central and South American, and Caribbean carriers. Both the CAB in 1984, and the ATA last July, have made clear that a smoking prohibition would be "discriminatory" in favor of foreign competitors and could in some cases create "a competitive inequity among the U.S. carriers."30/

Perhaps most troubling, however, is the inequitable and disruptive effect of any proposed smoking ban on the

<sup>30/</sup> Letter of William J. Burhop, Senior Vice President, Air Transport Association to Hon. John C. Stennis, Chairman, Senate Appropriations Committee, July 21, 1987.

millions of U.S. airline passengers who choose to smoke, as they have been permitted to do for decades. The existing rules are already heavily weighted against smokers who symbolically, and in fact, are sent to "the back of the bus." Proposals now to ban smoking would dismiss any effort to accommodate the rights and wishes of all passengers -- smokers and nonsmokers alike -- at the behest of a small anti-smoking minority opposed to a balanced approach that has proven satisfactory for nearly 15 years.

## CONCLUSION

Existing arrangements -- providing smoking and nonsmoking sections aboard U.S. commercial aircraft -- continue to work well for the vast majority of the nation's air travelers. Proposals to reject this balanced approach in favor of a wholesale ban on airline smoking are simply not justified by the scientific evidence regarding health considerations. Nor do these proposals make sense in terms of preserving airline safety or service.

The Department of Transportation has wisely called for further scientific study, including study of the actual in-flight cabin environment. The Tobacco Institute stands ready to cooperate in any way it can to assist or facilitate such efforts. However, the Tobacco Institute respectfully submits that proposals to tamper with the present arrangement are ill-advised and unsupportable.