The original documents are located in Box C51, folder "Presidential Handwriting, 11/6/1976 (3)" of the Presidential Handwriting File at the Gerald R. Ford Presidential Library.

FOR PRESIDENT'S TALK SHEET

SUMMARY OF WHY THE PROPOSED NOISE POLLUTION/AIRCRAFT REPLACEMENT PROGRAM IS UNNECESSARY AND INADVISABLE

Peterson et al.

I. Noise Standards Consideration

The proposal will promulgate unrealistically low noise level standards which present aircraft cannot meet; then proposes a financial program to enable airlines to purchase aircraft that will meet the standards.

- Airport noise is a local problem confined to five or six airports and perceived only by those residents directly under or adjacent to aircraft routes. It is not a national problem.

- Those localities that assign greater weight to the airport noise issue have been successful in addressing the problem by curfews, land acquisition near airports, etc.

- The aircraft noise standards proposed will not significantly reduce the noise as perceived by the public or by those who live near airports. Clearly the marginal benefit derived is not worth the cost involved.

II. Aircraft Financing Proposal Consideration

- Proposal prevents the consumer from receiving the benefits of lower airfares through a reduction of the ticket tax.

If the tax is not reduced, the proposal

- diverts a portion of the ticket tax contributed by millions of airline passengers to pay for an exceedingly small benefit to at most 6 million people who are affected by aircraft noise

- would increase the Federal budget deficit by $300 million annually or $3.5 billion over the life of the program since airport trust fund revenues will not be available to "sop up" government deficits.

- Trust fund resources are now available for maintenance of airport facilities, i.e. airport operations. Heretofore, trust fund monies were limited to capital expenditures.

- The financing proposal presumes that airline companies are or will be unable to finance the acquisition of such aircraft. In fact, within the past month 2 airlines have placed substantial orders for new aircraft and the financial community reports that there is considerable optimism that "equipment certificate financing" will be widely used in the airline industry in the future.

- European manufacturers have never been successful in penetrating the U. S. market -- by far the most significant component of the world market. It is most desirable to have a fleet composed of aircraft manufactured by the same manufacturer. It is much easier to maintain, parts inventory are reduced, etc. Therefore, foreign manufacturers have not been able to break into the U. S. market.

- If, indeed, Europeans are subsidizing aircraft production, it is preferable to face that issue squarely. If, as in the case of the Concorde, production costs far exceed the expected revenues, European governments will cease production. If on the other hand such assistance appears beneficial to foreign governments, then it would be far more preferable to directly subsidize American aircraft manufacturers to an extent equal to or greater than foreign manufacturers are subsidized by their governments; and to tell the American public forthrightly and directly that we are doing so to fight foreign competition.

- The financing proposal compels airline companies to take the 2% ticket diversion for the purpose of aircraft acquisition, therefore, precluding efficient companies from reporting the income as earnings and thereby enhancing the chance of issuing stock.

- For the reasons primarily related to the preceeding reason, Atlanta-based Delta Airlines -- an extremely efficient carrier -- has opposed this proposal.

- The financing proposal would create a high undesirable precedent for the government assistance to meet other environmental standards such as automotive, water pollution, etc.

- The financing proposal would require that present aircraft would be retired prior to the end of this useful life.

III. Foreign Policy Consideration

- Presently many foreign airlines fly aircraft which would not meet the proposed noise standard; to prohibit their landing in the U. S. could create severe foreign policy problems.

IV. Regulatory Reform Consideration

- The financing proposal is inconsistent with your regulatory reform effort in the airline area. The Administration is on record supporting deregulation of this industry and Secretary Coleman has testified that this deregulation effort will generate improved airline profitability; presumably, carriers would be better able to finance new aircraft acquisitions.

- Moreover, it is tactically imprudent to propose any assistance to the airline industry without linking the issue to industry support for the Administration's deregulation effort. This view is strongly held by CAB Chairman Robson.

V. Political Consideration

- This issue is likely to be perceived as a "bail out" to large aircraft manufacturers at least one of whom, Lockheed, is widely perceived as guilty of questionable business ethics.

- The political impact of this proposal on the airline and aircraft manufacturers labor force will be nil. The job impact will be felt, if at all, not before 1980.

- Moreover, the establishment of a pooling of revenues is contrary to antitrust policy and is contrary to all your procompetitive deregulation efforts.

- Thus, the public reaction is more likely to be negative rather than positive.

- Even if the reaction were to be positive, the plus would be minimal because the subject matter is way down the scale of voter concerns. The jobs aspect will never get across in any forceful way.

THE WHITE HOUSE

WASHINGTON

September 10, 1976

MEMORANDUM FOR THE PRESIDENT

FROM: EDWARD SCHMULTS

SUBJECT: DOT Proposal on Noise Pollution and Aircraft Financing

Very briefly, I believe much more work should be done on the financing aspects of this proposal before you make a decision. Some threshold objections which I believe support my recommendation are as follows:

-- Precedential considerations are significant, i.e., should the federal government finance capital requirements for a major private industry.

-- The proposal is not really "free" -- we all know there is no "free lunch" -- another option would be to return the 2 percent tax to the public, with a resulting decrease in air fares and an increase in traveling.

-- Your Administration, which has championed the free enterprise system, should not, without more analysis, put forward a proposal which is based in part on the argument of "competitive equalization". What this means to me is government support of the weaker airlines which, on a worse case basis, will lead to more and more government assistance and eventually government ownership as these airlines are unable to survive unaided during business downturns. In a real sense, we weaken the stronger airlines which on their own are able to finance new aircraft. (See also the last point below).

-- There is no requirement that the money will be used to finance a new generation of jet aircraft and thus advance the competitive position of American airplane manufacturers in world markets. In today's Wall Street Journal there is an article that American Airlines is buying ten Boeing 727's to replace aging planes that burn too much fuel and don't meet federal noise standards. If the money can be spent this way, does the proposal make sense? This consideration should be given more thought.

-- Through this proposal, should the Administration really encourage an allocation of $2 - 2 1/2 billion over the next ten years into new jet aircraft? Isn't it possible this will be a misallocation of resources? Doesn't the market do a better job than government bureaucrats?

-- This proposal will be seen by some as a turnabout on airline regulatory reform. The air bills now before Congress, including the Administration's, have been seen by some market analysts as leading to a much more profitable airline industry. We should not make a quick decision on this proposal as industry circumstances seem to be improving.

-- The Administration may be viewed as being too closely allied with big business a la the Lockheed situation which has some parallel to this proposal. By supporting Lockheed with a loan guarantee, one can argue that the federal government really weakened the United States commercial air frame industry. Without the Lockheed guarantee, resources would have been deployed elsewhere and presumably Boeing and McDonnell-Douglas would be stronger world competitors today. Lockheed teaches that once into an industry it is tough to get the federal government out.

THE PRESIDENT HAS SEEN....

THE WHITE HOUSE

WASHINGTON

September 3, 1976

MEETING WITH SECRETARY COLEMAN ON AIRCRAFT NOISE

Monday, September 6
12:30 p.m. (20 minutes)
The Oval Office

From: Jim Cannon

I. PURPOSE

This meeting was requested by Secretary Coleman to discuss your views on his proposed aviation noise policy prior to his testimony before the House Aviation Subcommittee on Thursday, September 9.

II. BACKGROUND, PARTICIPANTS AND PRESS PLAN

A. Background

Secretary Coleman has submitted a proposed aviation noise policy (Tab A) which has been reviewed by the Domestic Council, OMB and has also undergone an interagency review.

In addition, I have prepared a decision memorandum for your consideration (Tab B) which incorporates the comments of these agencies and your senior staff.

B. Participants

Secretary Coleman
Jim Lynn
Dick Cheney
Jim Cannon

C. Press Plan

To be announced.

III. TALKING POINTS

1. Bill, your proposal brings together the issuance of noise standards and efforts to alleviate the financial problems of the airlines and the aircraft manufacturers. Each is a difficult and controverial area. The decision is one with environmental and economic implications. I would be interested in hearing your concept of the appropriate Federal role in each of these areas.

2. What brings the issue of the noise regulations to a decision at this time?

3. If we take no action now on either aspect of your proposal what would be the effect on the airlines?

THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

JUL 2 1976

MEMORANDUM FOR THE PRESIDENT
The White House

Subject: Aviation Program

The Administration has a unique opportunity to propose an innovative aviation program managed by the private sector to reduce airport noise, stimulate private financing of new aircraft, increase employment in the depressed aeronautical manufacturing industry, advance aircraft technology, and preserve the American share of the world aircraft market which is now being challenged by the Europeans.

The Department of Transportation submitted to the Office of Management and Budget on June 1 a proposed Aviation Noise Policy Statement. This Noise Policy placed the primary responsibility on the airport proprietors and state and local governments to take action to reduce airport noise by locating airports outside populated areas, by assuring compatible land use and zoning, and by acquiring land around airports. The policy further clarifies the responsibility of the federal government to reduce aircraft noise at its source both by promulgating noise standards for new airplanes and by bringing the 75% of the existing fleet that does not now comply with federal noise standards into compliance within eight years. This policy statement is currently in the process of interagency review. I urge that the statement be approved, with certain refinements.

Bringing the current aircraft fleet into compliance with federal noise standards will require special financing arrangements. The Department of Transportation recommends that airlines be permitted to collect a 2% surcharge on airline tickets for domestic flights for ten years and use these funds primarily as down payments for the replacement of the oldest, noisiest four engine jets in the commercial fleet. 1/ The

1/ A 2% surcharge on domestic tickets for a ten year period would raise about $3 billion, which is almost one-half of the cost of replacing those old noisy four engine airplanes that would remain in the fleet at the end of 1984, the date when full compliance with federal noise standards would be required. If, after further analysis within the Administration, we reach agreement that this objective may be achieved with less financing, then we could reduce the number of years or the surcharge percentage. Several options along these lines are described in the attachments.

carriers, not the federal government, would operate the fund, and they would have maximum flexibility in determining how to use the funds. At the same time the surcharge is imposed, the domestic passenger ticket tax collected for the Airport Trust Fund would be reduced by 2%. Other collections for the Trust Fund would remain the same. The Trust has accumulated a surplus that now exceeds $1 billion. If the ticket tax continues to be levied at its present rate, the surplus will exceed $2 billion by 1980, assuming full funding of all current authorizations. Although we would prefer to broaden the uses of the Trust Fund to include maintenance of the air traffic system, Congress has permitted this only to a limited extent. Eventually, the surplus will either become a target for unjustified spending proposals or the tax will be reduced. Of course, the moment the tax is reduced, the airlines probably would apply to the CAB to increase their fares by a like amount, but it is doubtful that the CAB would permit the increase, and if it does, there would be no direction as to how the increase is spent. I believe that this proposal is sound public policy because it prevents an increase in the cost of air travel while dedicating resources to the attainment of important national objectives. It is also my judgment that Congress will accept an Administration proposal to reduce the ticket tax by 2% to 3%.

We recommend further that the Administration seek legislation to authorize the expenditure of an additional $350 million from the existing Trust Fund surplus to quiet some of the newer two and three engine airplanes. The Congress will then have the opportunity to consider whether the retrofit of the newer airplanes with sound absorbent material provides sufficient noise reduction to be worth the cost. 2/

I would like to highlight for you some of the advantages of this program:

Minimum Federal Involvement: Use of a surcharge collected and managed by the carriers with CAB approval avoids direct and continuing federal involvement in private sector capital investment decisions.

2/ Alternatively, we could include the cost of retrofitting these two and three engine planes in the CAB-approved fund that would be used for aircraft replacement and avoid the need to seek specific legislation to authorize the expenditure of trust funds.

- The financial burden will be placed on airline users rather than on the general public.

- A surcharge avoids use of general federal revenues.

- The airlines collect the surcharge, determine the distribution formula, and decide whether they prefer to replace or retrofit airplanes.

New Technology: Stimulating private financing for aircraft replacement will provide the estimated $1 billion needed for Boeing to develop the 7X7 and $500-$800 million for McDonnell-Douglas to build to DCX200. A new generation of U. S. manufactured airplanes is presently stalled at the design stage because U. S. air carriers have not been able to finance new airplanes.

Employment: Aircraft replacement will generate jobs in the aerospace and related industries.

- An accelerated replacement program by the airlines that generates about $12 billion dollars in aircraft sales, including sales abroad, would create over 240,000 jobs in the aerospace and related industries.

- Aircraft orders could reverse the heavy unemployment of the scientists and engineers in the commercial jet manufacturing industry.

- Immediate aircraft replacement would prevent a major shift of jobs to European countries whose manufacturers have captured a larger share of the aircraft market.

Exports: Accelerated production of these airplanes will help American manufacturers remain competitive in the world market.

- Aerospace products have been, in recent years, an important export of the United States, equaling 7% of the total in 1974. Twenty-seven percent of 1974 U. S. aerospace sales in 1974 were exported.

- European governments are now subsidizing their aerospace industries. (France's 5 year plan for 1971-75 contained a $220 million annual subsidy for its aerospace industry).

- European aerospace manufacturers are beginning to produce aircraft, for example, the A-300-B, that will take sales away from U.S. manufacturers if U.S. companies do not produce new aircraft soon.

Energy: Production of a new generation of planes will promote energy conservation by improving fuel efficiency about 30% over the older four engine planes.

Better Air Service: New generation airplanes are more cost efficient to the airlines.

- New technology airplanes will be more efficient to the carriers than the older aircraft in terms of seats, range and operational characteristics (easier maintenance, increased reliability of systems).

- Improved air service would be achieved without a significant increase in cost to users since DOT, as part of its proposal, requests a 2% reduction in the ticket tax collected for the Airport Trust Fund.

Noise Reduction: Affirmative federal action to reduce aircraft noise by the early retirement of the noisiest, oldest four engine jets (about 500 B-707s, DC-8s) and the retrofit of some of the newer two and three engine jets (B-727, B-737, DC-9) is necessary.

- New aircraft containing new noise control technology would reduce by more than two-thirds the land area and number of people presently impacted by noise problems for six million Americans, helping to forestall increasing damage suits against airports.

- Proliferation of curfews and other airport use restrictions that increasingly threaten to interfere with interstate commerce and disrupt the air traffic system will be deterred.

Air Quality: New airplanes will comply with engine pollution standards to be in effect in 1979.

I believe this proposal offers you an opportunity to address affirmatively a number of serious environmental, energy, transportation, export promotion and employment problems with minimal federal involvement and maximum private sector flexibility. If you approve the concept generally, I hope to work closely with my colleagues in the Cabinet to refine and improve the proposal to enable you to announce it as soon as possible.

William T. Coleman, Jr.

Enclosures:

Preferred financing proposal

Alternative financing proposals

Backup paper on financing aircraft noise reduction

DEPARTMENT OF TRANSPORTATION

AVIATION NOISE FINANCING

DOT recommends a financing plan with the following key elements:

1. CAB would be asked to approve, and the Executive Branch would support (perhaps with an expression of Congressional desire), an across the board surcharge for 10 years of 2% on domestic passenger tickets and freight waybills. The airlines would be required to deposit the revenues from the surcharge in an Aircraft Replacement Fund.

Effect:

About $3 billion (in inflated dollars) would flow into the Aircraft Replacement Fund over 10 years. This amount would finance approximately one-half of the cost (roughly $6.4 billion) of some 200 to 275 of the B-707s and DC-8s that would otherwise be in airline service at the end of 1984, when the noise standard applies to those aircraft.*

2. The Aircraft Replacement Fund would be managed by intercarrier agreement under which each carrier would have entitlements to the Fund in proportion to its total system passenger and cargo revenue.

Effect:

Administration of the Fund by the airlines would minimize federal involvement.

3. The federal air passenger ticket and freight waybill taxes would be reduced from 8% to 6%, and from 5% to 3%, respectively.

* The amount of $3 billion to be collected through the surcharge has been chosen because it is the sum that commercial banks have indicated to the airline industry would be required to induce their participation in financing an early aircraft replacement program. DOT is, however, conducting an analysis to ascertain whether some lesser amount might induce the participation of the financial community. Upon completion of that analysis the recommendation as to the duration of the 2% surcharge will be adjusted so that the collection will yield the amount deemed necessary.

Effect:

The lower user taxes flowing into the Airport and Airway Trust Fund would cover all outlays chargeable to the Fund under the ADAP bill. (An amendment would be needed to permit the use of uncommitted balances ($1.4 billion) to finance the full annual authorizations included in the ADAP Act.)

Once the pending ADAP bill is enacted without a tax reduction, unused Trust Fund balances would grow rapidly (to $1.7 billion by 1979) and become a target for tax reductions or unjustified spending proposals.

From a national interest point of view, the use of these excess revenues to help meet environmental and broad economic objectives is a sound and defensible policy alternative.

4. Any balances remaining in the Fund after program objectives have been achieved would be deposited in the Airport and Airway Trust Fund and dedicated to noise control purposes (including land acquisitions and easements).

5. The cost of retrofitting two and three engine airplanes will be paid from the Airport and Airway Trust Fund.

Effect:

About $350 million (inflated dollars) will be taken from the Trust Fund for retrofit.

Attachments:

1. Effect of Aircraft Replacement Fund on carriers' finances.
2. Estimated Aircraft Replacement Fund revenues, 1977-1986.
3. (A&B) -- Impact on airport/airway fund of lower tax rates.

Carrier	Contribution (2% Passenger & Waybill Surcharge- 10 Years, 1977-1986)	Number of Non-Complying 707's & DC-8's	Total Entitlement	Entitlement less Contribution
Cargo				
Flying Tiger	31.1	16	8	(23.1)
Seaboard	17.4	11	46	28.6
Airlift	4.5	5	24	19.5
Total Cargo	$53.0	32	78	25.0
Other				
Supplemental Carriers	48.2	31	92	43.8
Intrastate Carriers	125.5	-	42	(83.5)
Hawaiian	14.8	-	11	(3.8)
Aloha	11.5	-	7	(4.5)
Total Other	$200.0	31	152	(48.0)
TOTAL	$3327.0	495	3327.0	- 0 -
Other Carriers 2/		17		
TOTAL		523		

2/ Includes commercial operators and flying clubs. Revenue contribution and entitlements for these carriers are not provided due to lack of revenue data.

Attachment 2

REVENUE COLLECTIONS - AIRCRAFT REPLACEMENT FUND

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	Ten Year Total
CRAFT REPLACEMENT FUND											
Ticket Surcharge	224	244	258	271	284	303	322	341	360	377	2484
Waybill Surcharge	22	26	28	32	36	38	38	40	40	42	342
Total	246	270	206	303	320	341	360	381	400	419	3327

5/27/76

CASE A. EXISTING TAX STRUCTURE, LATEST CONFEREE COMPROMISE ON ADAP & MAINTENANCE

(In $ Millions)

	1976	TQ	1977	1978	1979	1980	1981
Beginning Uncommitted Balance	889	1269	1378	1520	1693	1892	2105
Plus Trust Fund Revenues	969	254	1046	1128	1205	1268	1338
Subtotal	1858	1523	2424	2648	2898	3160	3443
Less: ADAP	412	103	525	555	590	625	
Maintenance	-	-	250	275	300	325	
F&E	250	62	250	250	250	250	
RE&D	68	18	77	85	90	95	
Subtotal	1128	1340	1322	1483	1668	1865	
Plus Estimated Interest *	141	38	198	210	224	240	
Ending Uncommitted Balance	1269	1378	1520	1693	1892	2105	

* Interest for FY 1976 and the transition quarter is as shown in the FY 1977 Budget; interest thereafter is calculated at 8% of average cash balance.

Beginning Cash Balance	2013	2393	2502	2644	2817	3016	3229
Plus Revenues Less Expenses	239	71	-56	-37	-25	-27	
Ending Cash Balance	2252	2464	2446	2607	2792	2989	
Average Cash Balance			(2474)	(2625)	(2804)	(3002)	
Interest	141	38	198	210	224	240	
Balance Carried Forward	2393	2502	2644	2817	3016	3229	

5/27/76

CASE. B. 6% PASSENGER TICKET TAX, 3% WAYBILL TAX, LATEST CONFEREE COMPROMISE ON ADAP & MAINTENANCE

(In $ Millions)

	1976	TQ	1977	1978	1979	1980	1981
Beginning Uncommitted Balance	889	1269	1378	1276	1165	1038	884
Plus Trust Fund Revenues	969	254	811	874	932	981	1035
Subtotal	1858	1523	2189	2150	2097	2019	1919
Less: ADAP	412	103	525	555	590	625	
Maintenance	-	-	250	275	300	325	
F&E	250	62	250	250	250	250	
RE&D	68	18	77	85	90	95	
Subtotal	1128	1340	1087	985	867	724	
Plus Estimated Interest *	141	38	189	180	171	160	
Ending Uncommitted Balance	1269	1378	1276	1165	1038	884	

* Interest for FY 1976 and the transition quarter is as shown in the FY 1977 Budget; interest thereafter is calculated at 8% of average cash balance.

Beginning Cash Balance	2013	2393	2502	2400	2289	2162	2008
Plus Revenues Less Expenses	239	71	-291	-291	-298	-314	
Ending Cash Balance	2252	2464	2211	2109	1991	1848	
Average Cash Balance			(2351)	(2254)	(2140)	(2005)	
Interest	141	38	189	180	171	160	
Balance Carried Forward	2393	2502	2400	2289	2162	2008	

ALTERNATIVE OPTIONS FOR AVIATION NOISE FINANCING

The following options might be considered as alternatives to DOT proposal to facilitate replacement and retrofit of aircraft that do not comply with the FAA noise standards:

Option #1

1. CAB would be encouraged through an expression of legislative intent to permit an environmental surcharge of 2% on domestic passenger tickets and freight waybills for 5 years. Revenues from the surcharge would be placed in an escrow fund to be used primarily for replacement of 4 engine aircraft.

Effect:

About $1.4 billion would be provided for the replacement fund over 5 years.

2. The replacement fund would be managed by the airlines under an inter-carrier agreement.

Effect:

Administration of the replacement fund by the carriers would keep federal involvement to a minimum.

3. The replacement fund would be disbursed as follows:

- - 50% would be distributed in cash to the participating airlines in proportion to the surcharges each contributes to the fund;

- - 50% would be used as a loan guarantee fund with the

entitlement of each participating carrier computed on the basis of its total system revenues. Loan guarantees would be authorized up to three times the amount of each airline's entitlement.

Effect:

About $1.4 billion in cash would be available to carriers.

Use of a loan guarantee fund enables carriers to obtain financing for new airplanes.

4. Any unused balance in the loan guarantee fund after all loans have been paid off will be placed in the Airport and Airways Trust Fund.

5. The tax on passenger tickets and freight waybills collected for the Airport and Airways Trust Fund would be reduced by 2% for 5 years.

Effect:

A reduction in the ticket tax to balance the surcharge prevents the cost of air transportation from increasing.

6. Appropriations would be authorized from the Airport and Airways Trust Fund to pay the cost of retrofitting those non-FAR 36 aircraft which the airlines elect to retain in domestic service, rather than replace or retire them.

Effect:

The cost of retrofitting 2/3 engine airplanes is estimated to be about $350 million (in inflated dollars). If the airlines choose to retrofit the approximately 75 four-engine aircraft which may be economic to retrofit

then the cost would increase by $225 million.

Option #2

1. The CAB would be encouraged to approve a 2% surcharge for 7 years on carriers' domestic passenger tickets and freight waybills. Revenues from the surcharge would go into a replacement fund.

Effect:

About $2 billion in revenues, 30% of the approximately $6.4 billion needed to replace 4 engine airplanes would flow into the replacement fund.

2. The replacement fund, managed by the airlines under an inter-carrier agreement, would be distributed according to the amount each carrier contributes.

Effect:

Administration of the fund by carriers minimizes federal involvement.

Funds could be used for purchase of any type of new aircraft.

There would not be any cross subsidy or pooling of funds.

3. International carriers and the portion of a domestic carrier's airplanes used in international service (determined by the proportion its international revenues bear to total revenues) are exempt from the domestic standard and do not participate in the domestic Aircraft Replacement Fund.

Option #3

1. Require the carriers to submit a plan within 6 months after a noise rule takes effect stating the number of airplanes they intend to retrofit and the number they intend to replace.

Effect:

The FAA, airframe manufacturers, and airlines will know the estimated demand for retrofit kits and new airplanes and can estimate the costs.

2. An escrow fund would be created and would receive moneys from two sources:

- - the $1.4 billion surplus in the Airport and Airways Trust Fund;

- - a 1% surcharge approved by the CAB to be levied on domestic passenger tickets and freight waybills.

Effect:

About $2 billion would be placed in the fund in 5 years. Of this amount, $1.4 billion would be available immediately to be used for replacement. The carriers would decide how they would meet the noise requirements.

3. Disburse the funds as follows:

- - Estimate the retrofit costs and set the amount necessary to meet them aside;

- - Allocate the funds remaining after retrofit equally among the airplanes to be replaced.

Effect:

About one-third of TWA's and almost all of Pan Am's fleet would be exempted. The exempt portion of an American carrier's fleet would come within the international fund (6 below).

4. Any balance in the replacement fund at the end of the 7 year period would be placed in the Airport and Airways Trust Fund.

5. The tax on passenger tickets and freight waybills collected for the Airport and Airways Trust would be reduced by 2% for 7 years.

Effect:

A reduction in the ticket tax that corresponds to the surcharge will not increase the cost of air transportation.

6. A surcharge on all international tickets and waybills would be collected to facilitate replacement of 4 engine airplanes in international service for both domestic and foreign carriers. A distribution formula would be worked out through ICAO.

Effect:

Separation of domestic and international operations prevents uneven treatment of either domestic or foreign carriers.

7. Appropriations would be authorized from the uncommitted balance ($1.4 billion) in Airport and Airways Trust Fund to pay for retrofit of 2/3 engine airplanes.

Effect:

The total cost of retrofit ($350 million in current dollars) would be covered.

About $1.6 billion, approximately 25% of the amount needed to replace 4-engine airplanes (roughly $6.4 billion), would be available for that purpose.

BACKUP PAPER ON FINANCING AIRCRAFT NOISE REDUCTION

I. INTRODUCTION

- There are four parts to the aircraft noise problem:
  - -- One, an unacceptably high level of noise at major U.S. airports, and the resultant pressure for a responsible Federal Government noise-reduction program.
  - -- Two, the inability of much of the airline industry to obtain conventional financing to undertake a noise reduction program.
  - -- Three, the present unavailability of new-generation aircraft as suitable replacements under the program.
  - -- Four, declining employment in the U.S. aerospace industry, and threatening encroachment of government subsidized foreign competition on the U.S. share of the world aerospace market.

II. DEFINITION OF THE PROBLEM

A. The National Airport Noise Problem

- Aircraft noise has become a serious problem at seven key U.S. airports and a considerable irritation and annoyance at about one hundred more, derogating the quality of life for 6 to 7 million citizens. Pressure from airport operators and consumer groups compel action by the Federal Government in order to avoid:
  - -- Curfews at major airports, which would interfere with air commerce and disrupt our national air system by delaying mail and cargo, and requiring expensive and difficult repositioning and rescheduling of aircraft.
  - -- Billions of dollars in potential law suits and/or land acquisitions.
  - -- Federal preemption of local restrictions and the resultant Federal liability for claims against local airport operators.
- To correct the noise problem, DOT proposes issuance of a regulation requiring operators of the aircraft not meeting FAR 36 standards to comply with these standards within a 6- to 8-year period, depending on aircraft type, by retiring and replacing them except in the case of newer aircraft for which retrofit makes sense.

- There are 2,148 jet aircraft in the U.S. commercial fleet today. Of these, 77 percent, or 1,654 planes, exceed FAR 36 standards. These consist of approximately 500 1960-vintage four-engine aircraft, 1,100 more recent two- and three-engine aircraft, and 50 early 747's. Relatively few of the noisy aircraft are found in the fleets of the all-cargo and supplemental carriers. The majority are owned by the trunk carriers; four trunks--American, Pan Am, TWA, and United--account for nearly two-thirds.

- If all 1,654 noisy aircraft were retrofitted, the cost in today's dollars would range from approximately $870 million to $1.6 billion:

  -- $255 million for the 1,100 two- and three-engine aircraft (at an average cost of over $200,000 per aircraft).

  -- From $600 million to $1.3 billion for the approximately 500 four-engines (not including the 747's). The cost of these kits--which have not yet been developed--is estimated to range from $1.2 million to $4.5 million, depending on certain assumptions, the most important of which is the number of aircraft to be retrofitted. A reasonable estimate, assuming all four-engines were retrofitted, would be from $1.2 million to $2.5 million per aircraft. The higher unit cost, as compared to the two- and three-engine retrofit, is a function of the greater difficulty of retrofitting these planes, the larger number of engines, and the smaller numbers of planes involved.

  -- The 50 747's would cost approximately $13 million to retrofit.

- Retrofit is conceded to increase operating costs for most narrow-bodied four-engine aircraft, and it is expected the airlines will choose to replace rather than retrofit these aircraft. The kits are expensive and would add nothing to the useful life of the planes. The airlines have indicated it would be economically preferable to replace almost all with a quieter, more efficient aircraft, if one were available, contingent upon obtaining the necessary financing.

- Not all the four-engine aircraft in the fleet today will be in the fleet at the end of 1984. But not all will have been retired either. Between now and then, it is expected that the airlines will purchase on the order of 700 additional aircraft* to meet

* Projecting the composition of individual carrier fleets and the total U.S. fleet 8 years into the future is a difficult, complicated exercise, requiring considerable amounts of judgment as to carrier decisions, as well as quantitative data. The figures included in this paper are preliminary and may be revised; however, the relationships and the ranges are firmly established and can be used with reasonable confidence.

anticipated traffic growth and to replace worn out, uneconomic aircraft (additional requirements resulting from Federal noise reduction policies not included). Several points central to the program should be noted here:

-- The airlines are not expected to need a significant number of new aircraft before 1980 or 1981. Existing aircraft, combined with orders currently on the books and supplemented only slightly by additional purchases, should handle projected traffic increases until then. In addition, because of their poor financial condition, some carriers will find it difficult to obtain financing for new equipment. For this and other reasons, the carriers can be expected to postpone replacement orders until they become absolutely necessary.

-- On the other hand, to meet the 1984 noise regulation with a new technology aircraft, the airlines would have to place firm orders for such aircraft in the next 12 to 18 months. Thus, there is a gap of from 2 to 3 years between the investment decision the airlines would make in the normal course of events--absent a noise regulation--and the accelerated decision they must make to comply with the noise reduction program.

-- Many of the noisy four-engine aircraft currently in the fleet will be retired under the airlines' anticipated schedule. But more than half--between 275 and 350--are expected to be still in the fleet by the end of 1984 (as cargo and charter aircraft, if not in passenger scheduled service). Most of these planes are, or soon will be, fully depreciated. However, the expense of retrofitting them, with kits ranging from $1.2 million to $4.5 million, would make continued operation in most cases uneconomic.

The cost of a realistic and economic program to meet the noise reduction requirement by 1984 has been estimated as follows:

-- $400 to $450 million (in 1976 dollars) for retrofit of approximately 950 two- and three-engine aircraft, 50 747's, and approximately 75 four-engines that may be economical to retrofit.

-- From $4.0 to $5.5 billion (in 1976 dollars) for accelerated replacement of the other 200 to 275 noisy four-engines expected to be in the fleet after 1984.

-- If the airlines choose to retrofit none of the narrow-bodied four-engine aircraft then the cost of replacement

increases to a range of from $5.5 billion to $7 billion (in 1976 dollars).

B. The Financial Situation of the Trunk Airline Industry* (Detail in Appendix A).

- Although the national interest quite clearly compels a noise reduction program, the financial condition of the trunk airline industry, and in particular of certain companies within the industry, calls into serious doubt the industry's ability to finance such a program through conventional means.

- In the normal course of events, the airline industry will have to raise on the order of $25 billion to $30 billion (in inflated dollars) between now and 1985 in order to purchase an estimated 700 new aircraft that will be made necessary by traffic growth and obsolescence of existing aircraft, to repay debt, and for other miscellaneous capital expenditures.

- As is well known, the air carriers have had almost 10 years of very lean earnings (since 1967 an average pre-tax profit margin of 2.5 percent and ROI of 5.7 percent). There seems little doubt that for the last year or so (principally as a result of the 1974-75 economic recession combined with rapidly escalating costs) the industry's collective ability to finance any major capital acquisitions has been at an extreme low point, both in terms of its own history and as compared to other industries.

- Fortunately, the resurging economy is bringing the industry out of its doldrums and positive earnings are in sight for the next several years. The size of the existing fleet, with the addition of current orders, is sufficient to make the need for new aircraft investments relatively low through the period from 1976 to 1979. By the time substantial new aircraft capacity is needed, it seems likely that the industry will have redeveloped adequate financial strength to fund it. (This assumes no extraordinary financing needs and the help of regulatory reform.)

- However, the realistic noise reduction program would add $5.6 to $7.7 billion (in inflated dollars) to the industry's capital requirement, which clearly constitutes an extraordinary financing

* The focus of attention in this paper is on the financial condition of the trunk air carrier industry because the majority of the noisy aircraft, and virtually all of the noisy four-engine aircraft which should be replaced, are concentrated therein. Any financing options considered by either the industry or the government must of course take into account the fact that there are noisy aircraft owned by companies outside the trunk airline industry.

need.* Capital needs would increase by 19 to 31 percent, from which the airlines would derive no direct traffic or revenue increases, and only slight capacity increases. An incremental requirement of this magnitude is beyond the near-term ability of the industry to finance in any normal fashion, since both the debt and equity markets have been foreclosed effectively for several years.**

- Yet, to obtain delivery of new generation aircraft in time to comply with the regulation by 1984, the airline industry would have to accelerate its replacement schedule and make firm purchase commitments within the next 12 to 18 months. The industry very simply is not in adequate financial condition to make such commitments. It will begin to do so eventually, but too late to obtain the economically and environmentally efficient aircraft desired for the noise reduction program, to generate the jobs needed now in the aerospace industry, and to counter the competitive threat of new-technology foreign aircraft.***

- Compounding the problem greatly is the financial condition of certain individual carriers within the industry. The use of aggregate data to analyze the ability of an industry to meet a specific financial need is often misleading. Individual companies, possessing a specialized knowledge of their own situation, can find ways around financial barriers that seem insurmountable to the industry analyst. In this case, however, the reverse is true. Several of the financially weakest carriers in the industry are also the owners of large numbers of

* Assumes the combination of replacement and retrofit discussed earlier, with a 5 percent annual inflation rate and using 1982 prices. Excludes those four-engine aircraft possessed by other than the trunk airlines.

**In hearings on the Aviation Act, the heads of several banks and insurance companies, the industry's traditional institutional lenders, testified that they did not anticipate making further loans to any carriers, and advised that capital formation was, and would continue to be, a critical problem for the industry.

***An additional consideration is the potential impact of some approaches that have been proposed for dealing with the industry's re-equipment problem. Frank Borman, the CEO of Eastern Airlines, has recommended, for example, that the industry conduct a design competition, select a single new aircraft, and then agree to purchase that aircraft only. The consequences of such an approach for the competitive structure of the aerospace industry are serious.

noisy aircraft, and will face some of the largest requirements for funds with which to replace those aircraft.

- TWA, for example, has had an extremely difficult time remaining solvent over the past year and a half. In fact, having asked for and been refused Federal subsidy, it has avoided bankruptcy only through extraordinary efforts on the part of management and acquiescence on the part of its lenders. TWA's problems will not vanish overnight. Even though it will approach breakeven in 1976, and should see a return to profitability in 1977, the company is a few years away from being an effective competitor for funds in the capital marketplace.* Yet by 1985, TWA probably will require from $2 to $3 billion in capital (in inflated dollars) merely to stay competitive and remain in business. The added cost of achieving noise reduction goals (that is, of replacing before 1985 those aircraft that would otherwise remain in its fleet) could increase TWA's capital needs by as much as $1.5 to 2.0 billion (in inflated dollars) between now and then. Present projections say it is highly unlikely that TWA could finance independently such a tremendously increased capital requirement.

- Two of the other carriers strongly impacted by the noise regulation, Pan Am and American, also have had financial difficulties recently and would face similar problems in financing the purchase of replacement aircraft. Pan Am's capital requirements in the 1976 to 1984 period could increase on the order of $1 billion (from around $2 billion to as much as $3 billion), as would American's (from around $3 billion to around $4 billion).

C. The Need for a New-Generation Aircraft (Detail in Appendix B):

- No major new aircraft has been developed in the United States for almost 10 years. In that time important design and technological advances have been made -- many specifically to meet the new economic, operating, and environmental constraints dictated by rising labor costs, energy shortages, and changing market demands.

* TWA's recent announcement that it plans to sell 2 million shares of common stock should not be construed as a sign of ability to compete in the capital marketplace. The company quite clearly has been forced into the sale by financial exigencies and as a result will suffer a serious dilution to its equity base. The shares will sell at a current market price of around $13 as compared to a book value of $21. Something like 15 percent of the company will thus be sold for approximately $25 million, or the price of one 747.

- Although the technology exists, the present inability of the U.S. airline industry to finance a new generation of aircraft prevents the manufacturers from moving beyond the design stage. It is clearly in the national interest, however, and in the interest of the air traveler and the airline industry, to take advantage of of such gains:

  -- Greater noise reduction: A new technology aircraft would sound about three times quieter than a nonretrofitted 707, and twice as quiet as a retrofitted 707.

  -- Greater fuel efficiency: In the period from 1981 (when the first new-technology aircraft would be introduced under the accelerated-replacement program) until 1986 (when all new-technology replacement aircraft would be delivered) the total savings in jet fuel is estimated to amount to about 2.5 billion gallons.

  -- Productivity: Measured against existing aircraft, a new-technology aircraft would offer greater payload for its size and weight, would be more reliable and more easily maintained, and would cost less to operate and less to acquire per unit of productivity.

D. The Declining Prospects of the U.S. Aerospace Industry (Detail in Appendix B).

- The United States achieved its prominence in the world aerospace market because of its technical superiority; most important civil aviation advances historically have been made in U.S. products. But lack of orders for a new plane has virtually stalled technical development since the widebody jets were introduced. Newer foreign aircraft such as the A-300-B show the potential for meeting certain market demands which current U.S. products cannot (i.e. efficient operation over short-medium range routes). This, combined with declines in U.S. Government outlays for aircraft and engines, has already had serious consequences for U.S. airframe and engine manufacturers, a major source of employment and export sales. Since 1968:

  -- Real industry sales have declined 37 percent.

  -- Employment has declined 37 percent.

  -- Aerospace exports as a percent of GNP have declined 42 percent.

  -- Each $30 million lost in sales translates into a loss of 1,000 full time jobs and $15.5 million in payroll.

While the U.S. industry shrinks in real terms, foreign aerospace manufacturers -- spurred by Government subsidy -- are growing larger, more capable technologically, and more agressive. It is conceded that the U.S. cannot continue to hold its present 80 percent market share (of world civil aircraft in operation). The question of how large a share European and other foreign manufacturers take will depend in part on how long U.S. production of a new aircraft is delayed. A 2- to 3-year acceleration of the present timetable could be very important in that it would allow U.S. manufacturers to produce a new generation of planes when U.S. airlines will need them and when new foreign products will be on the market.

APPENDIX A

FINANCIAL CONDITION OF THE TRUNK AIRLINE INDUSTRY

- The ability of the airline industry to finance equipment replacement depends, as it would in any other industry, on its ability to generate funds internally (through depreciation and earnings) and/or externally (from the equity market and/or debt market). Table 1, following, projects sources and uses for the 1977-1984 period, using the specified economic and traffic assumptions.

1. Internal Sources

- As the table shows, depreciation will yield a total of $10.0 billion through 1984. Aircraft sales will yield only about $400 million, leaving the airlines $18.7 billion short of their total needs of $29.1 billion. This amount must be met through earnings, new loans, leases, or new equity financing. The cost of a realistic noise reduction program would increase the total need for funds by the end of 1984 by around 23 percent, to $36 billion and would increase the deficit by around 36 percent, to $25 billion.*

- Industry earnings are projected to range from $.3 to $.5 billion in 1976-1977 to $.6 to $.7 billion toward the end of the period,** and could total about $5 billion, which would leave a financing need of $13.7 billion, or about $21 billion when noise reduction costs are taken into account. This "gap" must be met through external sources -- the equity market and/or the debt market.

2. External Sources

- Because of the airlines' poor earnings record for the past 10 years (see Table 2) both the equity and debt markets have been effectively foreclosed to them for some time. Airline stocks have not been a recommended buy for much of this period, and are not being recommended as an investment for the future, except for possible short-term

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* Assumes the cost of the replacement/retrofit program is in the middle of the $5.6 to $7.7 billion range.

** To earn $.5 billion, the industry would have to achieve about 9 percent to 10 percent ROI at current investment levels. Since 1967, ROI for the domestic trunks plus Pan American has ranged from a high of 8.5 percent to a low of 2.1 percent, averaging only 5.7 percent.

gains in the next six months.* At present, airline stocks stand at approximately 60 percent of their 1967 value (versus 120 percent for the Dow-Jones Average).

- The major source of airline debt financing through the 1960's--traditionally the large insurance companies--has been closed for six years. Under New York law, New York insurance companies are forbidden to make further loans. In a statement submitted to the House Public Works and Transportation Committee George Jenkins, Chairman of Metropolitan Life Insurance, said: ". . . we feel confident that Metropolitan will lose no money on its current airline investments as they run off, but under present conditions, no new money will be loaned." Before lenders will commit new debt capital, Jenkins added, "(they) will require a sound equity base and good profits . . ."

- The DOT is confident that the proposed Aviation Act of 1976 will return the Aviation industry to long-term profitability and eliminate the capital expenditure problem of the future. However, no remedy is seen for the problem of funding the capital decisions that must be made now in order to achieve a quieter and more fuel efficient fleet by the end of 1984. Airline earnings are the key to both internal and external funds generation, but as the foregoing data makes clear even a high level of earnings will not insure that the industry will be able to finance the $5.6 to $7.7 billion needed for the noise reduction program through normal means.

3. Problem Carriers

- The financing problems anticipated for the industry will be concentrated heavily in major carriers, which have the most four-engine aircraft in their fleet and consequently the greatest retrofit burden, particularly American, TWA, and Pan Am. As shown in Table 3, these three carriers have together accounted for a large portion of the industry's losses over the last five years and, with the possible exception of American, have relatively undesirable debt burdens. Further, as shown in Table 4, American and TWA, (presuming that they could obtain the debt financing they would need,) under the burden of the noise reduction program would have debt/equity ratios of over 4 and 5.7 respectively, while Pan Am's would be near 2. These carriers are likely to have great difficulty in raising the capital that would be required by the noise regulation.

* A potential exception to this statement is the pending TWA issue of 2 million shares of stock. As explained in the text, the need for such an issue is created by TWA's poor financial situation and at the expected price of the sale will seriously dilute the company's equity base.

TABLE 1

PROJECTED USES AND SOURCES OF FUNDS
U.S. TRUNK AIR CARRIERS
1977, 1980 AND 1984

(Current Dollars in Billions)

Uses of Funds	1977	1980	1984	1977-1984
Property & Equipment	$1.2B	$1.6B	$5.7B	$24.4B
Debt Repayment	.5	.5	.4	3.6
Dividends & Other	.3	.6	.1	1.1
Total Uses	$2.0B	$2.7B	$6.2B	$29.1B
Sources of Funds				
Depreciation	1.1	1.1	1.6	10.0
Sales of Aircraft	.1	.0	.1	.4
Total Sources	1.2	1.1	1.7	10.4
Uses Less Internal Sources	$ .8B	$1.6B	$4.5B	$18.7B

NOTE: The following growth rates are assumed in the projections:

Real GNP	3.7%
Inflation	5.1%
RPM's	
Domestic	6.5%
International	5.3%
System	6.2%

TABLE 2

SELECTED FINANCIAL DATA FOR TRUNK CARRIER INDUSTRY
(System Operations, Including Pan Am)
1967-1975

(Dollars in millions)

	Operating Revenue	Pre-Tax Profit	Pre-Tax Profit Margin	Return on Investment 1/
1967	$6,117	$638	10.4%	8.5%
1968	6,902	411	5.6	6.1
1969	7,765	247	3.2	4.6
1970	8,131	(154)	(1.9)	1.8
1971	8,811	55	0.6	3.7
1972	9,783	266	2.8	6.0
1973	10,905	287	2.6	5.6
1974	12,865	447	3.5	6.8
1975	13,374	(121)	(-)	2.8
9 Yr. Total	$84,653	$2,076	2.5%	NA

1/ Return element includes net income and interest on long term debt.

Source: CAB Form 41/TPI-32 Reports

TABLE 3

SELECTED FINANCIAL DATA FOR TRUNK CARRIERS (Including Pan Am) 1971 TO 1975

Carriers with Large Numbers of 4-Engine Aircraft	Operating Revenues ($ Millions)	Net Income (Loss) ($ Millions)	Profit (Loss) Margin (Percent)	Debt as a Proportion of Total Capitalizati (Percent)
Trans World	$ 7,679.9	$ (24.5)	(0.3)%	73.0%
American	7,583.5	(39.5)	(0.5)	45.4
United	9,681.2	155.6	1.6	48.2
Pan American	7,169.1	(233.9)	(3.3)	75.9.
Others				
Eastern	6,629.2	(65.1)	(1.0)	68.2
Delta	5,502.5	268.8	4.9	44.8
Braniff	2,281.3	93.1	4.1	57.7
Western	2,113.4	74.5	3.5	43.8
Northwest	2,984.8	203.5	6.8	28.3
Continental	2,081.4	21.3	1.0	71.7
National	1,821.1	82.3	4.5	46.7

1/ Trunk Air Carriers - System Operations, December 31, 1975

TABLE 4

PROJECTIONS OF DEBT EQUITY RATIOS,
SELECTED TRUNK CARRIERS, 1976, 1989, AND 1984
(Dollars in Billions)

AIRLINE	ANTICIPATED CAPITAL EXPENDITURES (1977-1984)	LONG TERM DEBT/EQUITY 1/			ADDITIONAL REPLACEMENT CAPITAL REQUIRED BY 1984 2/	DEBT/EQUITY RATIO INCLUDING REPLACEMENT FINANCING (1984)
		1976	1980	1984		
American	$3-3.5	.78	.47	2.3	$1.2	4.4
Pan Am	1.8	3.0	1.7	.74	1.0	2.17
TWA	$2-.3	3.0	2.2	2.8	1.5-2.0	5.77
United	4.2	1.1	.56	.34	2.0	1.52
Industry	$27.1	1.3	.74	.98	5.6-7.7	1.78

SOURCE: Alliance One Institutional Services and TPI-32

1/ Assumes borrowings for capital needs without respect to carriers ability to obtain financing.

2/ Based on number of four-engine aircraft remaining in fleet after 1984, with replacements (including spares) valued at a 1982 cost of $27 million each.

APPENDIX B

ADVANTAGES OF ACCELERATED DEVELOPMENT OF NEW TECHNOLOGY AIRCRAFT

1. Greater Noise Reduction

- A new-technology replacement aircraft would be far quieter than the quietest existing aircraft. The gain achievable is illustrated in Figure 1, which outlines the area exposed, on a single event, to a noise level equal to or greater than 90 EPNdB--roughly equivalent to the sound of a busy downtown street.

  -- The 90 EPNdB contour of the 707/DC-8 aircraft (technology of the 1950's) extends more than 20 miles beyond the brake release point of takeoff and roughly nine miles prior to the touchdown point on landing.

  -- The DC-10, employing the late 1960's technology CF-6 engine, is able to confine the 90 EPNdB contour to a much smaller area, equivalent to the over-water area south of Logan International. It is significantly quieter than a SAI retrofitted 727, which meets FAR 36 standards.

  -- Further important noise reduction advances are reflected in the noise contour of a new Tri-jet which has double layer acoustical linings, and the 1970's technology CFM-56 or JT10D engines with new design fan and turbine stages. Those engines are expected to be available for use in new aircraft.

2. Productivity, Operating and Safety Gains

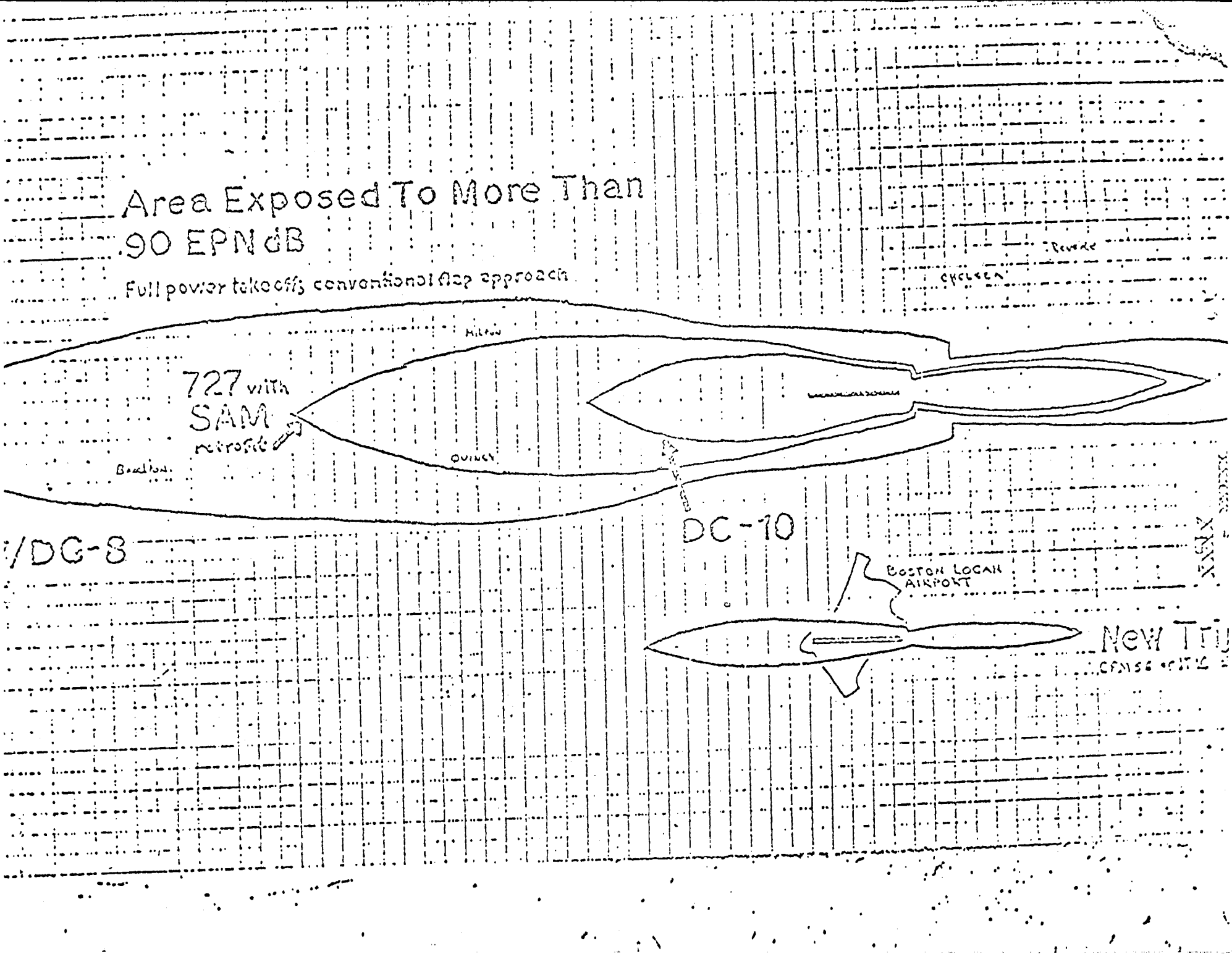
- Technological advances possible today will result in a new aircraft with greater payload for its size and weight--an aircraft that is more reliable, more easily maintained, costs less to operate, and costs less to acquire per unit of productivity. These benefits accrue to the public, the air traveler, and the airlines.

- Greater efficiencies are achieved through such technological advances as:

  -- Supercritical aerodynamics concepts in wing airfoil and body design, which can yield a lighter and more efficient aircraft.

  -- Lighter, more aerodynamic propulsion system and more efficient engines and nacelles.

  -- Digital electronics for avionics systems and in-flight control to avoid engine abuse, improve navigation and approach precision, provide increased reliability, maintainability, safety and fuel efficiencies.


Area Exposed To More Than
90 EPN dB
Full power takeoffs conventional flap approach
727 with
SAM
retrofit
DC-10
/DC-8
BOSTON LOGAN
AIRPORT

- New structural concepts, new materials, and computer-aided designs which will result in a lighter aircraft made up of fewer, less complex parts.

- The new aircraft will be safer for the air traveler, through improvements in inflight control, and new interior materials of much improved flammability/smoke/toxicity characteristics.

- The new aircraft will comply with the more rigorous engine pollutant standards set for 1979.

- The new aircraft, by virtue of improvements in systems and avionics, will be certified with a two-man flight deck crew--an important contribution to control of airline costs and hence ticket prices.

- In terms of seats, range and operational characteristics, the new aircraft will be more closely attuned to marketing requirements of the late 1970's and mid 1980's. On many routes today the aircraft used are smaller than optimal, making additional flights necessary; on other routes aircraft of longer range than necessary are used, which incurs both weight and efficiency penalties. A market-matched aircraft would convert into increased airline efficiencies.

- The new aircraft will use computer-aided flight profile management, which increases aircraft, airport and airways system productivity.

- The new aircraft will accept the standardized interline cargo container (LD-3). This would allow much improved efficiency in the high growth air cargo industry, by avoiding much of the labor and handling costs, while interfacing efficiently with all-cargo and interline air cargo services.

3. Energy Savings

- Replacement of 707/DC-8 aircraft with new, high-technology aircraft would result in reduced energy consumption per seat mile flown. 1/ The estimated magnitudes of the savings from various noise reduction programs are shown below:

  -- A program resulting in the retrofit of about 100 of the 707/DC-8 aircraft and replacement of the rest with new, high-technology aircraft would provide an energy saving of about 2.5 billion gallons of jet fuel--an energy cost saving of about $900 million over the period of the program (1981-1986) at today's price.

1/ This is based on comparison of the fleet mix that was estimated to result from implementation of the proposed programs with the fleet mix estimated to result in the event that no program were undertaken. The new, high-technology aircraft is estimated to be 30% more fuel efficient than a 707/DC-8 on a seat mile per gallon basis.

-- A program resulting in the replacement of all 707/DC-8 aircraft with new, high-technology aircraft would provide an energy saving of about 2.8 billion gallons--a cost saving of over $1 billion over the program period.

-- A program resulting in the retrofit of all 707/DC-8 aircraft would impose an additional energy requirement of about 220 million gallons over the program period.

-- It should also be noted that retrofit of the 727/737/DC-9 aircraft would not cause a measurable change in the energy requirement of the commercial aircraft fleet.

-- The annual energy saving of the program would in 1986 amount to about 8% of the total jet fuel consumption of the commercial aircraft fleet.

4. Positive Impact on the U.S. Aerospace Industry

- The 2- to 3-year gap between expected development and accelerated development of a new-generation aircraft is significant for the national interest in general, but could be crucial for the U.S. aerospace industry. Lacking a market for a new plane -- and thus the opportunity to put their drawing-board technology to work -- the U.S. manufacturers already have lost some of the technological advantage they have always enjoyed over foreign competition.

- A potentially more critical loss is U.S. share of the world aerospace market. If delivery of a new aircraft is delayed to 1985, as appears likely absent the spur of a realistic noise reduction program, foreign competition -- with newer products to offer -- may secure their hold on a major share of the world market, and the U.S. industry may decline to a level from which it cannot easily recover.*

- The economic impact on the aerospace industry and on the U.S. economy in general would be enormous. With sales of $28 billion, and employment of around 950 thousand, the industry has been a major factor in the U.S. economy for nearly the last quarter century. Since 1968, however -- as a result of the problems of its client industry, the U.S. airlines, and a reduction in military purchases -- aerospace has experienced a very sharp decline:

  -- Direct employment has declined 37 percent.

  -- Industry payroll as a percent of all manufacturing payroll has declined 30 percent.

* The domestic market is also at issue. In the absence of a new U.S. 180-to-200 passenger aircraft, U.S. airlines are looking at such foreign aircraft as the French-made A-300-B, which already developed is substantially cheaper -- though less efficient -- than a new generation U.S. aircraft would be.

-- As a percent of GNP, aerospace industry sales have declined 42 percent.

-- Real aerospace industry sales have declined 37 percent.

- As the real domestic and military markets have declined, U.S. manufacturers have grown heavily dependent on foreign markets for sales of civil aircraft. Since 1968 civil aircraft exports as a percentage of total civil aircraft sales have almost doubled. U.S. airframe and engine manufacturers have turned more and more to consortiums with European firms, both to share developmental costs and to ensure continued access to European markets. However, the consequent sharing of production will further erode U.S. aerospace employment.*

- Anxious to reduce U.S. dominance of the lucrative aerospace market, foreign governments have become increasingly protective of their own aerospace industries and markets, and increasingly aggressive about penetrating other markets, forming alliances where necessary to do so (the French and German combined forces to produce the successful A-300-B). Thus, while the U.S. aerospace industry has been declining in real terms, European and other foreign governments have been subsidizing expansion of their own aerospace industries, and threaten to encroach on both the U.S. and world markets. A loss of only 5 percent of present U.S. sales to foreign competition would result in a loss of 47,000 jobs and $729 million in payroll.

- Assuming that past relationships hold true, the proposed program would accelerate by 2 to 3 years the rehiring of about 25,000 aerospace workers at a payroll of about $400 million a year.

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* An important consideration here is the effect erosion would have on the structure of the U.S. aerospace industry. The competition between the three major manufacturers has helped to establish and maintain U.S. technological superiority. If a sizable share of the world market is lost to foreign competition, one and possibly two manufacturers could suffer seriously.

CARRIER CONTRIBUTION AND ENTITLEMENT
(Dollars in millions)

Carrier	Contribution (2% Passenger & Waybill Surcharge-10 Years, 1977-1986)	Number of Non-Complying 707's & DC-8's	Total Entitlement 1/	Entitlement less Contribution
Trunk				
American	$ 424.8	91	$ 377	$ (47.8)
Braniff	119.8	11	124	4.2
Continental	132.5	5	112	(20.5)
Delta	384.0	34	299	(85.0)
Eastern	357.1	-	342	(15.1)
National	83.2	-	75	(8.2)
Northwest	162.3	10	171	8.7
Pan American	28.7	79	353	324.3
Trans World	319.4	90	379	59.6
United	598.3	100	469	(129.3)
Western	126.2	23	109	(17.2)
Total Trunk	$ 2736.2	443	$ 2810	$ 73.8
Local Service				
Allegheny	$ 103.5	-	$ 80	$ (23.5)
Frontier	41.2	-	37	(4.2)
North Central	39.6	-	34	(5.6)
Ozark	31.5	-	28	(3.5)
Piedmont	35.9	-	28	(7.9)
Air West	44.0	-	38	(6.0)
Southern	26.3	-	25	(1.3)
Texas International	15.8	-	17	1.2
Total Local Service	$ 337.8	-	$ 287	$ (50.8)

1/ Total entitlement is determined by distributing the funds collected among carriers, on the basis of the proportion that each carrier's system revenues bear to the total of all revenues collected by the carriers.

B

THE WHITE HOUSE

WASHINGTON

DECISION

August 30, 1976

MEMORANDUM FOR THE PRESIDENT

FROM: JIM CANNON

SUBJECT: Aircraft Noise Proposal

This is an important environmental decision which could have considerable political impact.

You may want to meet with Secretary Coleman, Jim Lynn, Dick Cheney and myself to discuss major points in this memorandum before you reach your decision.

THE WHITE HOUSE

WASHINGTON DECISION

MEMORANDUM FOR THE PRESIDENT

FROM: JIM CANNON

SUBJECT: Secretary Coleman's Proposal on Aircraft Noise

Secretary Coleman proposes that he announce, at a Congressional hearing on Thursday, September 2, 1976, a new Administration policy to establish noise standards for all commercial aircraft, to be met by the end of 1984. His memorandum to you is at Tab A.

POLICY ISSUES

Secretary Coleman's proposal raises two policy issues for your consideration:

1. Should the Ford Administration initiate stricter noise standards and regulations for U.S. commercial aircraft?

2. If so, should the Ford Administration announce a $3.5 billion proposal to assist U.S. airlines in paying the cost of meeting the new Federal standards and regulations?

SUMMARY OF THE COLEMAN PROPOSAL

Secretary Coleman has submitted to OMB a 100-page Aviation Noise Policy Statement which would:

1. Place responsibility on state and local governments and airport proprietors to reduce the human problem of aircraft noise by locating airports outside populated areas, by zoning, and by buying land around airports.

2. Place responsibility on the Federal government to set and enforce noise standards for some 1600 planes (77% of the existing commercial fleet) which do not meet the FAA noise standards that apply to new planes coming off the production lines.

3. Provide financial assistance to airlines to muffle or replace their older, noisier planes by--

   a. reducing the Federal tax on fares and freight by 2%;

   b. imposing, simultaneously, a 2% environmental surcharge on fares and freight, with the money going into an industry-administered trust fund from which the airlines could draw for this purpose only.

OBJECTIVES OF THE COLEMAN PROPOSAL

In brief, Secretary Coleman states these objectives:

1. To reduce noise levels at and around metropolitan airports. For 600,000 Americans around 5 major airports, aircraft noise is a serious problem. For 6 million Americans around 100 airports, noise is a significant problem.

2. To conserve energy. The quieter engines on new planes are 25% to 40% more efficient in fuel use.

3. To stimulate jobs. Refitting and replacing some 1600 older planes would create 240,000 job years in the private sector.

4. To preserve the U.S. share of the world aircraft market. Next to agricultural products, aircraft is our biggest dollar export.

BACKGROUND

In 1968 Congress passed a law requiring the FAA to issue noise standards for new and existing aircraft.

In 1969, FAA issued standards (Federal Aviation Regulations, Part 36, "FAR 36") that require aircraft produced after January 1, 1975, of the size of 707's to make 50 percent less noise than existing 707's and DC-8's. All DC-10's and Lockheed 1011's meet FAR-36 standards; most 747's do.

FAA has not extended FAR-36 standards to some 1600 older aircraft. No 707's and DC-8's meet the standards; most 727's, DC-9's, and 737's do not.

The State of Illinois filed suit July 12, 1976 against the Department of Transportation to force FAA to comply with the 1969 law.

EPA, which has jurisdiction to propose (but not enforce) aircraft noise standards, has proposed that all older commercial aircraft be required to meet the standards for new aircraft.

To reduce the noise problem, some airports--such as Washington National--impose curfews on jet planes. But these can have a significant economic impact, especially with air freight and mail. On August 20, 1976, the Massachusetts Port Authority reversed its earlier decision to impose a night curfew at Boston's Logan Airport after an economic impact statement predicted a loss of up to 17,000 jobs and $1.3 billion in annual sales.

CONGRESSIONAL SITUATION

Nine separate bills have been introduced in Congress to deal with the aircraft noise problem. Some would require the Federal government to pay for the muffling of all commercial aircraft that do not comply with the FAA standards.

No Congressional action to extend FAA standards to all commercial aircraft is expected at this session. Max Friedersdorf estimates that no more than 50 Congressmen consider aircraft noise a serious problem in their districts.

OPTIONS

Option 1: Should the Ford Administration initiate new noise standards for all commercial aircraft?

Arguments for:

- Secretary Coleman feels strongly that the enunciation of an aircraft noise policy is an appropriate action of Presidential leadership.
- If no action is taken by the President, the next Congress may attempt to legislate standards--much as Congress did on water quality and air quality.
- FAA may, on its own initiative or as a result of a court decision, set noise standards for aircraft.
- Aircraft noise would be reduced over the next eight years.
- A Presidential decision could emphasize your concern for improving the quality of life in America--with the additional benefits of jobs, energy conservation, and maintaining U.S. leadership in aircraft sales throughout the world.

Arguments against:

- Initiating new regulation of a major industry goes against Administration policy of reducing Federal government regulation of industry.
- There is no compelling pressure for Federal action at this time--either from Congress or the courts.
- An Administration noise policy would increase pressure for Federal action to assist the airlines in meeting the noise standards.

Option 2: If you decide to authorize Secretary Coleman to initiate new noise standards, should you also authorize Secretary Coleman's proposal to assist the airlines in paying the cost of meeting the new standards?

Under Secretary Coleman's plan:

-- Congress would reduce the Federal domestic passenger ticket tax from 8% to 6% and the domestic freight tax from 5% to 3%.

-- Simultaneously, CAB would authorize the airlines to impose a 2% environmental surcharge for 10 years on all domestic passenger fares and freight waybills, with the money to go into an industry-administered Aircraft Replacement Fund.

-- Each U.S. airline would draw from the fund a share based on the ratio of its total passenger and cargo revenues to the aggregate of passenger and cargo revenues for all U.S. owned airlines. Each airline would be required to use its share to replace aircraft which do not meet noise standards.

-- Congress would also authorize the airlines to draw $250 to $300 million from the Airport-Airway Trust Fund (which has a surplus of $1.3 billion) to muffle older two-engine and three-engine aircraft.

Arguments for:

- Secretary Coleman's proposal would provide the airlines with about 50% of the capital they would need to meet the noise standards.

- It would create 30,000 jobs annually over the next eight years.

- It would bring into service a fleet of quieter commercial airplanes that would conserve fuel (25% to 40%) and lower operating costs for airlines.

- It would make it possible for U.S. aircraft manufacturers to develop a new generation of aircraft.

- It would allow the user-tax principle, i.e., the users of aircraft would pay a tax to meet an environmental problem created by airplanes.

- It has the support of the Air Transport Association. ATA proposed a similar plan, which Coleman modified and now supports.

Arguments Against:

- Any step to have the Federal government impose a surcharge to meet capital requirements of private industry is without precedent, and would be criticized as a Federal bail-out of big business.

- Pooling and redistributing funds in this way is contrary to Federal antitrust policy.

- It would reduce Federal revenues by $300 million yearly for ten years (OMB estimate).

- The program would tend to help weak and inefficient airlines, and penalize strong, well-managed airlines.

- The CAB, which has the statutory responsibility to protect the public interest in airline service and rates, could assist the airlines in meeting the noise standards by appropriate fare increases.

- Since the 2% environmental surcharge would not apply to international flights, one airline--Pan American--would receive $324 million more than it collected, while most other airlines would receive less than they paid in. (Tab B)

- Members of the Ford Administration, including Secretary Coleman, have consistently stated that adoption of the Administration's proposed Aviation Act of 1975 would lead to financially healthy airlines which earn reasonable returns and can finance their own aircraft replacement.

COMMENT

I recommend against approving Secretary Coleman's financing proposal. However, if you should choose to approve this financing plan, I recommend that you consider certain modifications to it, e.g., create no separate fund but permit airlines to keep the money they raise, consider imposing a take-off and landing fee instead of the 2% surtax, etc.

DECISIONS

Option 1: Authorize Secretary Coleman to initiate noise standards for all U.S. commercial aircraft.

_____ Approve. Supported by Secretary Coleman, Commerce, State, HEW, NASA, CEQ, Bill Seidman, and Guy Stever.

_____ Disapprove. Recommended by OMB (Jim Lynn), Justice, CEA (Paul MacAvoy), Council on Wages and Price Stability, Max Friedersdorf, Counsel's Office (Ed Schmults), and Jim Cannon.

Option 2: If Option 1 is approved, authorize proposals to Congress for a $3.5 billion Aircraft Replacement Fund.

_____ Approve. Supported by Secretary Coleman, State, HEW, NASA and Bill Seidman.

_____ Disapprove. Recommended by OMB (Jim Lynn), Justice, CEA (Paul MacAvoy), CEQ, Council on Wages and Price Stability, Max Friedersdorf, Counsel's Office (Ed Schmults), and Jim Cannon.

Commerce, CEQ, CEA and Dr. Stever recommend further study of the financing issue.

THE PRESIDENT HAS SEEN....

A

THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

JUL 2 1976

MEMORANDUM FOR THE PRESIDENT
The White House

Subject: Aviation Program

The Administration has a unique opportunity to propose an innovative aviation program managed by the private sector to reduce airport noise, stimulate private financing of new aircraft, increase employment in the depressed aeronautical manufacturing industry, advance aircraft technology, and preserve the American share of the world aircraft market which is now being challenged by the Europeans.

The Department of Transportation submitted to the Office of Management and Budget on June 1 a proposed Aviation Noise Policy Statement. This Noise Policy placed the primary responsibility on the airport proprietors and state and local governments to take action to reduce airport noise by locating airports outside populated areas, by assuring compatible land use and zoning, and by acquiring land around airports. The policy further clarifies the responsibility of the federal government to reduce aircraft noise at its source both by promulgating noise standards for new airplanes and by bringing the 75% of the existing fleet that does not now comply with federal noise standards into compliance within eight years. This policy statement is currently in the process of interagency review. I urge that the statement be approved, with certain refinements.

Bringing the current aircraft fleet into compliance with federal noise standards will require special financing arrangements. The Department of Transportation recommends that airlines be permitted to collect a 2% surcharge on airline tickets for domestic flights for ten years and use these funds primarily as down payments for the replacement of the oldest, noisiest four engine jets in the commercial fleet. 1/ The

1/ A 2% surcharge on domestic tickets for a ten year period would raise about $3 billion, which is almost one-half of the cost of replacing those old noisy four engine airplanes that would remain in the fleet at the end of 1984, the date when full compliance with federal noise standards would be required. If, after further analysis within the Administration, we reach agreement that this objective may be achieved with less financing, then we could reduce the number of years or the surcharge percentage. Several options along these lines are described in the attachments.

carriers, not the federal government, would operate the fund, and they would have maximum flexibility in determining how to use the funds. At the same time the surcharge is imposed, the domestic passenger ticket tax collected for the Airport Trust Fund would be reduced by 2%. Other collections for the Trust Fund would remain the same. The Trust has accumulated a surplus that now exceeds $1 billion. If the ticket tax continues to be levied at its present rate, the surplus will exceed $2 billion by 1980, assuming full funding of all current authorizations. Although we would prefer to broaden the uses of the Trust Fund to include maintenance of the air traffic system, Congress has permitted this only to a limited extent. Eventually, the surplus will either become a target for unjustified spending proposals or the tax will be reduced. Of course, the moment the tax is reduced, the airlines probably would apply to the CAB to increase their fares by a like amount, but it is doubtful that the CAB would permit the increase, and if it does, there would be no direction as to how the increase is spent. I believe that this proposal is sound public policy because it prevents an increase in the cost of air travel while dedicating resources to the attainment of important national objectives. It is also my judgment that Congress will accept an Administration proposal to reduce the ticket tax by 2% to 3%.

We recommend further that the Administration seek legislation to authorize the expenditure of an additional $350 million from the existing Trust Fund surplus to quiet some of the newer two and three engine airplanes. The Congress will then have the opportunity to consider whether the retrofit of the newer airplanes with sound absorbent material provides sufficient noise reduction to be worth the cost. 2/

I would like to highlight for you some of the advantages of this program:

Minimum Federal Involvement: Use of a surcharge collected and managed by the carriers with CAB approval avoids direct and continuing federal involvement in private sector capital investment decisions.

2/ Alternatively, we could include the cost of retrofitting these two and three engine planes in the CAB-approved fund that would be used for aircraft replacement and avoid the need to seek specific legislation to authorize the expenditure of trust funds.

- The financial burden will be placed on airline users rather than on the general public.

- A surcharge avoids use of general federal revenues.

- The airlines collect the surcharge, determine the distribution formula, and decide whether they prefer to replace or retrofit airplanes.

New Technology: Stimulating private financing for aircraft replacement will provide the estimated $1 billion needed for Boeing to develop the 7X7 and $500-$800 million for McDonnell-Douglas to build to DCX200. A new generation of U. S. manufactured airplanes is presently stalled at the design stage because U. S. air carriers have not been able to finance new airplanes.

Employment: Aircraft replacement will generate jobs in the aerospace and related industries.

- An accelerated replacement program by the airlines that generates about $12 billion dollars in aircraft sales, including sales abroad, would create over 240,000 jobs in the aerospace and related industries.

- Aircraft orders could reverse the heavy unemployment of the scientists and engineers in the commercial jet manufacturing industry.

- Immediate aircraft replacement would prevent a major shift of jobs to European countries whose manufacturers have captured a larger share of the aircraft market.

Exports: Accelerated production of these airplanes will help American manufacturers remain competitive in the world market.

- Aerospace products have been, in recent years, an important export of the United States, equaling 7% of the total in 1974. Twenty-seven percent of 1974 U. S. aerospace sales in 1974 were exported.

- European governments are now subsidizing their aerospace industries. (France's 5 year plan for 1971-75 contained a $220 million annual subsidy for its aerospace industry).

- European aerospace manufacturers are beginning to produce aircraft, for example, the A-300-B, that will take sales away from U.S. manufacturers if U.S. companies do not produce new aircraft soon.

Energy: Production of a new generation of planes will promote energy conservation by improving fuel efficiency about 30% over the older four engine planes.

Better Air Service: New generation airplanes are more cost efficient to the airlines.

- New technology airplanes will be more efficient to the carriers than the older aircraft in terms of seats, range and operational characteristics (easier maintenance, increased reliability of systems).

- Improved air service would be achieved without a significant increase in cost to users since DOT, as part of its proposal, requests a 2% reduction in the ticket tax collected for the Airport Trust Fund.

Noise Reduction: Affirmative federal action to reduce aircraft noise by the early retirement of the noisiest, oldest four engine jets (about 500 B-707s, DC-8s) and the retrofit of some of the newer two and three engine jets (B-727, B-737, DC-9) is necessary.

- New aircraft containing new noise control technology would reduce by more than two-thirds the land area and number of people presently impacted by noise problems for six million Americans, helping to forestall increasing damage suits against airports.

- Proliferation of curfews and other airport use restrictions that increasingly threaten to interfere with interstate commerce and disrupt the air traffic system will be deterred.

Air Quality: New airplanes will comply with engine pollution standards to be in effect in 1979.

I believe this proposal offers you an opportunity to address affirmatively a number of serious environmental, energy, transportation, export promotion and employment problems with minimal federal involvement and maximum private sector flexibility. If you approve the concept generally, I hope to work closely with my colleagues in the Cabinet to refine and improve the proposal to enable you to announce it as soon as possible.

William T. Coleman, Jr.

Enclosures:

Preferred financing proposal

Alternative financing proposals

Backup paper on financing aircraft noise reduction

DEPARTMENT OF TRANSPORTATION

AVIATION NOISE FINANCING

DOT recommends a financing plan with the following key elements:

1. CAB would be asked to approve, and the Executive Branch would support (perhaps with an expression of Congressional desire), an across the board surcharge for 10 years of 2% on domestic passenger tickets and freight waybills. The airlines would be required to deposit the revenues from the surcharge in an Aircraft Replacement Fund.

Effect:

About $3 billion (in inflated dollars) would flow into the Aircraft Replacement Fund over 10 years. This amount would finance approximately one-half of the cost (roughly $6.4 billion) of some 200 to 275 of the B-707s and DC-8s that would otherwise be in airline service at the end of 1984, when the noise standard applies to those aircraft.*

2. The Aircraft Replacement Fund would be managed by intercarrier agreement under which each carrier would have entitlements to the Fund in proportion to its total system passenger and cargo revenue.

Effect:

Administration of the Fund by the airlines would minimize federal involvement.

3. The federal air passenger ticket and freight waybill taxes would be reduced from 8% to 6%, and from 5% to 3%, respectively.

* The amount of $3 billion to be collected through the surcharge has been chosen because it is the sum that commercial banks have indicated to the airline industry would be required to induce their participation in financing an early aircraft replacement program. DOT is, however, conducting an analysis to ascertain whether some lesser amount might induce the participation of the financial community. Upon completion of that analysis the recommendation as to the duration of the 2% surcharge will be adjusted so that the collection will yield the amount deemed necessary.

Effect:

The lower user taxes flowing into the Airport and Airway Trust Fund would cover all outlays chargeable to the Fund under the ADAP bill. (An amendment would be needed to permit the use of uncommitted balances ($1.4 billion) to finance the full annual authorizations included in the ADAP Act.)

Once the pending ADAP bill is enacted without a tax reduction, unused Trust Fund balances would grow rapidly (to $1.7 billion by 1979) and become a target for tax reductions or unjustified spending proposals.

From a national interest point of view, the use of these excess revenues to help meet environmental and broad economic objectives is a sound and defensible policy alternative.

4. Any balances remaining in the Fund after program objectives have been achieved would be deposited in the Airport and Airway Trust Fund and dedicated to noise control purposes (including land acquisitions and easements).

5. The cost of retrofitting two and three engine airplanes will be paid from the Airport and Airway Trust Fund.

Effect:

About $350 million (inflated dollars) will be taken from the Trust Fund for retrofit.

Attachments:

1. Effect of Aircraft Replacement Fund on carriers' finances.
2. Estimated Aircraft Replacement Fund revenues, 1977-1986.
3. (A&B) -- Impact on airport/airway fund of lower tax rates.

Carrier	Contribution (2% Passenger & Waybill Surcharge- 10 Years, 1977-1986)	Number of Non-Complying 707's & DC-8's	Total Entitlement	Entitlement less Contribution
Cargo				
Flying Tiger	31.1	16	8	(23.1)
Seaboard	17.4	11	46	28.6
Airlift	4.5	5	24	19.5
Total Cargo	$53.0	32	78	25.0
Other				
Supplemental Carriers	48.2	31	92	43.8
Intrastate Carriers	125.5	-	42	(83.5)
Hawaiian	14.8	-	11	(3.8)
Aloha	11.5	-	7	(4.5)
Total Other	$200.0	31	152	(48.0)
TOTAL	$3327.0	495	3327.0	- 0 -
Other Carriers 2/		17		
TOTAL		523		

2/ Includes commercial operators and flying clubs. Revenue contribution and entitlements for these carriers are not provided due to lack of revenue data.

Attachment 2

REVENUE COLLECTIONS - AIRCRAFT REPLACEMENT FUND

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	Ten Year Total
CRAFT REPLACEMENT FUND											
Ticket Surcharge	224	244	258	271	284	303	322	341	360	377	2484
Waybill Surcharge	22	26	28	32	36	38	38	40	40	42	342
Total	246	270	206	303	320	341	360	381	400	419	3327

5/27/76

CASE A. EXISTING TAX STRUCTURE, LATEST CONFEREE COMPROMISE ON ADAP & MAINTENANCE

(In $ Millions)

	1976	TQ	1977	1978	1979	1980	1981
Beginning Uncommitted Balance	889	1269	1378	1520	1693	1892	2105
Plus Trust Fund Revenues	969	254	1046	1128	1205	1268	1338
Subtotal	1858	1523	2424	2648	2898	3160	3443
Less: ADAP	412	103	525	555	590	625	
Maintenance	-	-	250	275	300	325	
F&E	250	62	250	250	250	250	
RE&D	68	18	77	85	90	95	
Subtotal	1128	1340	1322	1483	1668	1865	
Plus Estimated Interest *	141	38	198	210	224	240	
Ending Uncommitted Balance	1269	1378	1520	1693	1892	2105	

* Interest for FY 1976 and the transition quarter is as shown in the FY 1977 Budget; interest thereafter is calculated at 8% of average cash balance.

Beginning Cash Balance	2013	2393	2502	2644	2817	3016	3229
Plus Revenues Less Expenses	239	71	-56	-37	-25	-27	
Ending Cash Balance	2252	2464	2446	2607	2792	2989	
Average Cash Balance			(2474)	(2625)	(2804)	(3002)	
Interest	141	38	198	210	224	240	
Balance Carried Forward	2393	2502	2644	2817	3016	3229	

5/27/76

CASE. B. 6% PASSENGER TICKET TAX, 3% WAYBILL TAX, LATEST CONFEREE COMPROMISE ON ADAP & MAINTENANCE

(In $ Millions)

	1976	TQ	1977	1978	1979	1980	1981
Beginning Uncommitted Balance	889	1269	1378	1276	1165	1038	884
Plus Trust Fund Revenues	969	254	811	874	932	981	1035
Subtotal	1858	1523	2189	2150	2097	2019	1919
Less: ADAP	412	103	525	555	590	625	
Maintenance	-	-	250	275	300	325	
F&E	250	62	250	250	250	250	
RE&D	68	18	77	85	90	95	
Subtotal	1128	1340	1087	985	867	724	
Plus Estimated Interest *	141	38	189	180	171	160	
Ending Uncommitted Balance	1269	1378	1276	1165	1038	884	

* Interest for FY 1976 and the transition quarter is as shown in the FY 1977 Budget; interest thereafter is calculated at 8% of average cash balance.

Beginning Cash Balance	2013	2393	2502	2400	2289	2162	2008
Plus Revenues Less Expenses	239	71	-291	-291	-298	-314	
Ending Cash Balance	2252	2464	2211	2109	1991	1848	
Average Cash Balance			(2351)	(2254)	(2140)	(2005)	
Interest	141	38	189	180	171	160	
Balance Carried Forward	2393	2502	2400	2289	2162	2008	

ALTERNATIVE OPTIONS FOR AVIATION NOISE FINANCING

The following options might be considered as alternatives to DOT proposal to facilitate replacement and retrofit of aircraft that do not comply with the FAA noise standards:

Option #1

1. CAB would be encouraged through an expression of legislative intent to permit an environmental surcharge of 2% on domestic passenger tickets and freight waybills for 5 years. Revenues from the surcharge would be placed in an escrow fund to be used primarily for replacement of 4 engine aircraft.

Effect:

About $1.4 billion would be provided for the replacement fund over 5 years.

2. The replacement fund would be managed by the airlines under an inter-carrier agreement.

Effect:

Administration of the replacement fund by the carriers would keep federal involvement to a minimum.

3. The replacement fund would be disbursed as follows:

- - 50% would be distributed in cash to the participating airlines in proportion to the surcharges each contributes to the fund;

- - 50% would be used as a loan guarantee fund with the

entitlement of each participating carrier computed on the basis of its total system revenues. Loan guarantees would be authorized up to three times the amount of each airline's entitlement.

Effect:

About $1.4 billion in cash would be available to carriers.

Use of a loan guarantee fund enables carriers to obtain financing for new airplanes.

4. Any unused balance in the loan guarantee fund after all loans have been paid off will be placed in the Airport and Airways Trust Fund.

5. The tax on passenger tickets and freight waybills collected for the Airport and Airways Trust Fund would be reduced by 2% for 5 years.

Effect:

A reduction in the ticket tax to balance the surcharge prevents the cost of air transportation from increasing.

6. Appropriations would be authorized from the Airport and Airways Trust Fund to pay the cost of retrofitting those non-FAR 36 aircraft which the airlines elect to retain in domestic service, rather than replace or retire them.

Effect:

The cost of retrofitting 2/3 engine airplanes is estimated to be about $350 million (in inflated dollars). If the airlines choose to retrofit the approximately 75 four-engine aircraft which may be economic to retrofit

then the cost would increase by $225 million.

Option #2

1. The CAB would be encouraged to approve a 2% surcharge for 7 years on carriers' domestic passenger tickets and freight waybills. Revenues from the surcharge would go into a replacement fund.

Effect:

About $2 billion in revenues, 30% of the approximately $6.4 billion needed to replace 4 engine airplanes would flow into the replacement fund.

2. The replacement fund, managed by the airlines under an inter-carrier agreement, would be distributed according to the amount each carrier contributes.

Effect:

Administration of the fund by carriers minimizes federal involvement.

Funds could be used for purchase of any type of new aircraft.

There would not be any cross subsidy or pooling of funds.

3. International carriers and the portion of a domestic carrier's airplanes used in international service (determined by the proportion its international revenues bear to total revenues) are exempt from the domestic standard and do not participate in the domestic Aircraft Replacement Fund.

Option #3

1. Require the carriers to submit a plan within 6 months after a noise rule takes effect stating the number of airplanes they intend to retrofit and the number they intend to replace.

Effect:

The FAA, airframe manufacturers, and airlines will know the estimated demand for retrofit kits and new airplanes and can estimate the costs.

2. An escrow fund would be created and would receive moneys from two sources:

- - the $1.4 billion surplus in the Airport and Airways Trust Fund;

- - a 1% surcharge approved by the CAB to be levied on domestic passenger tickets and freight waybills.

Effect:

About $2 billion would be placed in the fund in 5 years. Of this amount, $1.4 billion would be available immediately to be used for replacement.

The carriers would decide how they would meet the noise requirements.

3. Disburse the funds as follows:

- - Estimate the retrofit costs and set the amount necessary to meet them aside;

- - Allocate the funds remaining after retrofit equally among the airplanes to be replaced.

Effect:

About one-third of TWA's and almost all of Pan Am's fleet would be exempted. The exempt portion of an American carrier's fleet would come within the international fund (6 below).

4. Any balance in the replacement fund at the end of the 7 year period would be placed in the Airport and Airways Trust Fund.

5. The tax on passenger tickets and freight waybills collected for the Airport and Airways Trust would be reduced by 2% for 7 years.

Effect:

A reduction in the ticket tax that corresponds to the surcharge will not increase the cost of air transportation.

6. A surcharge on all international tickets and waybills would be collected to facilitate replacement of 4 engine airplanes in international service for both domestic and foreign carriers. A distribution formula would be worked out through ICAO.

Effect:

Separation of domestic and international operations prevents uneven treatment of either domestic or foreign carriers.

7. Appropriations would be authorized from the uncommitted balance ($1.4 billion) in Airport and Airways Trust Fund to pay for retrofit of 2/3 engine airplanes.

Effect:

The total cost of retrofit ($350 million in current dollars) would be covered.

About $1.6 billion, approximately 25% of the amount needed to replace 4-engine airplanes (roughly $6.4 billion), would be available for that purpose.

BACKUP PAPER ON FINANCING AIRCRAFT NOISE REDUCTION

I. INTRODUCTION

- There are four parts to the aircraft noise problem:

  -- One, an unacceptably high level of noise at major U.S. airports, and the resultant pressure for a responsible Federal Government noise-reduction program.

  -- Two, the inability of much of the airline industry to obtain conventional financing to undertake a noise reduction program.

  -- Three, the present unavailability of new-generation aircraft as suitable replacements under the program.

  -- Four, declining employment in the U.S. aerospace industry, and threatening encroachment of government subsidized foreign competition on the U.S. share of the world aerospace market.

II. DEFINITION OF THE PROBLEM

A. The National Airport Noise Problem

- Aircraft noise has become a serious problem at seven key U.S. airports and a considerable irritation and annoyance at about one hundred more, derogating the quality of life for 6 to 7 million citizens. Pressure from airport operators and consumer groups compel action by the Federal Government in order to avoid:

  -- Curfews at major airports, which would interfere with air commerce and disrupt our national air system by delaying mail and cargo, and requiring expensive and difficult repositioning and rescheduling of aircraft.

  -- Billions of dollars in potential law suits and/or land acquisitions.

  -- Federal preemption of local restrictions and the resultant Federal liability for claims against local airport operators.

- To correct the noise problem, DOT proposes issuance of a regulation requiring operators of the aircraft not meeting FAR 36 standards to comply with these standards within a 6- to 8-year period, depending on aircraft type, by retiring and replacing them except in the case of newer aircraft for which retrofit makes sense.

- There are 2,148 jet aircraft in the U.S. commercial fleet today. Of these, 77 percent, or 1,654 planes, exceed FAR 36 standards. These consist of approximately 500 1960-vintage four-engine aircraft, 1,100 more recent two- and three-engine aircraft, and 50 early 747's. Relatively few of the noisy aircraft are found in the fleets of the all-cargo and supplemental carriers. The majority are owned by the trunk carriers; four trunks--American, Pan Am, TWA, and United--account for nearly two-thirds.

- If all 1,654 noisy aircraft were retrofitted, the cost in today's dollars would range from approximately $870 million to $1.6 billion:

  -- $255 million for the 1,100 two- and three-engine aircraft (at an average cost of over $200,000 per aircraft).

  -- From $600 million to $1.3 billion for the approximately 500 four-engines (not including the 747's). The cost of these kits--which have not yet been developed--is estimated to range from $1.2 million to $4.5 million, depending on certain assumptions, the most important of which is the number of aircraft to be retrofitted. A reasonable estimate, assuming all four-engines were retrofitted, would be from $1.2 million to $2.5 million per aircraft. The higher unit cost, as compared to the two- and three-engine retrofit, is a function of the greater difficulty of retrofitting these planes, the larger number of engines, and the smaller numbers of planes involved.

  -- The 50 747's would cost approximately $13 million to retrofit.

- Retrofit is conceded to increase operating costs for most narrow-bodied four-engine aircraft, and it is expected the airlines will choose to replace rather than retrofit these aircraft. The kits are expensive and would add nothing to the useful life of the planes. The airlines have indicated it would be economically preferable to replace almost all with a quieter, more efficient aircraft, if one were available, contingent upon obtaining the necessary financing.

- Not all the four-engine aircraft in the fleet today will be in the fleet at the end of 1984. But not all will have been retired either. Between now and then, it is expected that the airlines will purchase on the order of 700 additional aircraft* to meet

* Projecting the composition of individual carrier fleets and the total U.S. fleet 8 years into the future is a difficult, complicated exercise, requiring considerable amounts of judgment as to carrier decisions, as well as quantitative data. The figures included in this paper are preliminary and may be revised; however, the relationships and the ranges are firmly established and can be used with reasonable confidence.

anticipated traffic growth and to replace worn out, uneconomic aircraft (additional requirements resulting from Federal noise reduction policies not included). Several points central to the program should be noted here:

-- The airlines are not expected to need a significant number of new aircraft before 1980 or 1981. Existing aircraft, combined with orders currently on the books and supplemented only slightly by additional purchases, should handle projected traffic increases until then. In addition, because of their poor financial condition, some carriers will find it difficult to obtain financing for new equipment. For this and other reasons, the carriers can be expected to postpone replacement orders until they become absolutely necessary.

-- On the other hand, to meet the 1984 noise regulation with a new technology aircraft, the airlines would have to place firm orders for such aircraft in the next 12 to 18 months. Thus, there is a gap of from 2 to 3 years between the investment decision the airlines would make in the normal course of events--absent a noise regulation--and the accelerated decision they must make to comply with the noise reduction program.

-- Many of the noisy four-engine aircraft currently in the fleet will be retired under the airlines' anticipated schedule. But more than half--between 275 and 350--are expected to be still in the fleet by the end of 1984 (as cargo and charter aircraft, if not in passenger scheduled service). Most of these planes are, or soon will be, fully depreciated. However, the expense of retrofitting them, with kits ranging from $1.2 million to $4.5 million, would make continued operation in most cases uneconomic.

The cost of a realistic and economic program to meet the noise reduction requirement by 1984 has been estimated as follows:

-- $400 to $450 million (in 1976 dollars) for retrofit of approximately 950 two- and three-engine aircraft, 50 747's, and approximately 75 four-engines that may be economical to retrofit.

-- From $4.0 to $5.5 billion (in 1976 dollars) for accelerated replacement of the other 200 to 275 noisy four-engines expected to be in the fleet after 1984.

-- If the airlines choose to retrofit none of the narrow-bodied four-engine aircraft then the cost of replacement

increases to a range of from $5.5 billion to $7 billion (in 1976 dollars).

B. The Financial Situation of the Trunk Airline Industry* (Detail in Appendix A).

- Although the national interest quite clearly compels a noise reduction program, the financial condition of the trunk airline industry, and in particular of certain companies within the industry, calls into serious doubt the industry's ability to finance such a program through conventional means.

- In the normal course of events, the airline industry will have to raise on the order of $25 billion to $30 billion (in inflated dollars) between now and 1985 in order to purchase an estimated 700 new aircraft that will be made necessary by traffic growth and obsolescence of existing aircraft, to repay debt, and for other miscellaneous capital expenditures.

- As is well known, the air carriers have had almost 10 years of very lean earnings (since 1967 an average pre-tax profit margin of 2.5 percent and ROI of 5.7 percent). There seems little doubt that for the last year or so (principally as a result of the 1974-75 economic recession combined with rapidly escalating costs) the industry's collective ability to finance any major capital acquisitions has been at an extreme low point, both in terms of its own history and as compared to other industries.

- Fortunately, the resurging economy is bringing the industry out of its doldrums and positive earnings are in sight for the next several years. The size of the existing fleet, with the addition of current orders, is sufficient to make the need for new aircraft investments relatively low through the period from 1976 to 1979. By the time substantial new aircraft capacity is needed, it seems likely that the industry will have redeveloped adequate financial strength to fund it. (This assumes no extraordinary financing needs and the help of regulatory reform.)

- However, the realistic noise reduction program would add $5.6 to $7.7 billion (in inflated dollars) to the industry's capital requirement, which clearly constitutes an extraordinary financing

* The focus of attention in this paper is on the financial condition of the trunk air carrier industry because the majority of the noisy aircraft, and virtually all of the noisy four-engine aircraft which should be replaced, are concentrated therein. Any financing options considered by either the industry or the government must of course take into account the fact that there are noisy aircraft owned by companies outside the trunk airline industry.

need.* Capital needs would increase by 19 to 31 percent, from which the airlines would derive no direct traffic or revenue increases, and only slight capacity increases. An incremental requirement of this magnitude is beyond the near-term ability of the industry to finance in any normal fashion, since both the debt and equity markets have been foreclosed effectively for several years.**

- Yet, to obtain delivery of new generation aircraft in time to comply with the regulation by 1984, the airline industry would have to accelerate its replacement schedule and make firm purchase commitments within the next 12 to 18 months. The industry very simply is not in adequate financial condition to make such commitments. It will begin to do so eventually, but too late to obtain the economically and environmentally efficient aircraft desired for the noise reduction program, to generate the jobs needed now in the aerospace industry, and to counter the competitive threat of new-technology foreign aircraft.***

- Compounding the problem greatly is the financial condition of certain individual carriers within the industry. The use of aggregate data to analyze the ability of an industry to meet a specific financial need is often misleading. Individual companies, possessing a specialized knowledge of their own situation, can find ways around financial barriers that seem insurmountable to the industry analyst. In this case, however, the reverse is true. Several of the financially weakest carriers in the industry are also the owners of large numbers of

* Assumes the combination of replacement and retrofit discussed earlier, with a 5 percent annual inflation rate and using 1982 prices. Excludes those four-engine aircraft possessed by other than the trunk airlines.

**In hearings on the Aviation Act, the heads of several banks and insurance companies, the industry's traditional institutional lenders, testified that they did not anticipate making further loans to any carriers, and advised that capital formation was, and would continue to be, a critical problem for the industry.

***An additional consideration is the potential impact of some approaches that have been proposed for dealing with the industry's re-equipment problem. Frank Borman, the CEO of Eastern Airlines, has recommended, for example, that the industry conduct a design competition, select a single new aircraft, and then agree to purchase that aircraft only. The consequences of such an approach for the competitive structure of the aerospace industry are serious.

noisy aircraft, and will face some of the largest requirements for funds with which to replace those aircraft.

- TWA, for example, has had an extremely difficult time remaining solvent over the past year and a half. In fact, having asked for and been refused Federal subsidy, it has avoided bankruptcy only through extraordinary efforts on the part of management and acquiescence on the part of its lenders. TWA's problems will not vanish overnight. Even though it will approach breakeven in 1976, and should see a return to profitability in 1977, the company is a few years away from being an effective competitor for funds in the capital marketplace.* Yet by 1985, TWA probably will require from $2 to $3 billion in capital (in inflated dollars) merely to stay competitive and remain in business. The added cost of achieving noise reduction goals (that is, of replacing before 1985 those aircraft that would otherwise remain in its fleet) could increase TWA's capital needs by as much as $1.5 to 2.0 billion (in inflated dollars) between now and then. Present projections say it is highly unlikely that TWA could finance independently such a tremendously increased capital requirement.

- Two of the other carriers strongly impacted by the noise regulation, Pan Am and American, also have had financial difficulties recently and would face similar problems in financing the purchase of replacement aircraft. Pan Am's capital requirements in the 1976 to 1984 period could increase on the order of $1 billion (from around $2 billion to as much as $3 billion), as would American's (from around $3 billion to around $4 billion).

C. The Need for a New-Generation Aircraft (Detail in Appendix B):

- No major new aircraft has been developed in the United States for almost 10 years. In that time important design and technological advances have been made -- many specifically to meet the new economic, operating, and environmental constraints dictated by rising labor costs, energy shortages, and changing market demands.

* TWA's recent announcement that it plans to sell 2 million shares of common stock should not be construed as a sign of ability to compete in the capital marketplace. The company quite clearly has been forced into the sale by financial exigencies and as a result will suffer a serious dilution to its equity base. The shares will sell at a current market price of around $13 as compared to a book value of $21. Something like 15 percent of the company will thus be sold for approximately $25 million, or the price of one 747.

Although the technology exists, the present inability of the U.S. airline industry to finance a new generation of aircraft prevents the manufacturers from moving beyond the design stage. It is clearly in the national interest, however, and in the interest of the air traveler and the airline industry, to take advantage of of such gains:

-- Greater noise reduction: A new technology aircraft would sound about three times quieter than a nonretrofitted 707, and twice as quiet as a retrofitted 707.

-- Greater fuel efficiency: In the period from 1981 (when the first new-technology aircraft would be introduced under the accelerated-replacement program) until 1986 (when all new-technology replacement aircraft would be delivered) the total savings in jet fuel is estimated to amount to about 2.5 billion gallons.

-- Productivity: Measured against existing aircraft, a new-technology aircraft would offer greater payload for its size and weight, would be more reliable and more easily maintained, and would cost less to operate and less to acquire per unit of productivity.

D. The Declining Prospects of the U.S. Aerospace Industry (Detail in Appendix B).

The United States achieved its prominence in the world aerospace market because of its technical superiority; most important civil aviation advances historically have been made in U.S. products. But lack of orders for a new plane has virtually stalled technical development since the widebody jets were introduced. Newer foreign aircraft such as the A-300-B show the potential for meeting certain market demands which current U.S. products cannot (i.e. efficient operation over short-medium range routes). This, combined with declines in U.S. Government outlays for aircraft and engines, has already had serious consequences for U.S. airframe and engine manufacturers, a major source of employment and export sales. Since 1968:

-- Real industry sales have declined 37 percent.

-- Employment has declined 37 percent.

-- Aerospace exports as a percent of GNP have declined 42 percent.

-- Each $30 million lost in sales translates into a loss of 1,000 full time jobs and $15.5 million in payroll.

While the U.S. industry shrinks in real terms, foreign aerospace manufacturers -- spurred by Government subsidy -- are growing larger, more capable technologically, and more agressive. It is conceded that the U.S. cannot continue to hold its present 80 percent market share (of world civil aircraft in operation). The question of how large a share European and other foreign manufacturers take will depend in part on how long U.S. production of a new aircraft is delayed. A 2- to 3-year acceleration of the present timetable could be very important in that it would allow U.S. manufacturers to produce a new generation of planes when U.S. airlines will need them and when new foreign products will be on the market.

APPENDIX A

FINANCIAL CONDITION OF THE TRUNK AIRLINE INDUSTRY

- The ability of the airline industry to finance equipment replacement depends, as it would in any other industry, on its ability to generate funds internally (through depreciation and earnings) and/or externally (from the equity market and/or debt market). Table 1, following, projects sources and uses for the 1977-1984 period, using the specified economic and traffic assumptions.

1. Internal Sources

- As the table shows, depreciation will yield a total of $10.0 billion through 1984. Aircraft sales will yield only about $400 million, leaving the airlines $18.7 billion short of their total needs of $29.1 billion. This amount must be met through earnings, new loans, leases, or new equity financing. The cost of a realistic noise reduction program would increase the total need for funds by the end of 1984 by around 23 percent, to $36 billion and would increase the deficit by around 36 percent, to $25 billion.*

- Industry earnings are projected to range from $.3 to $.5 billion in 1976-1977 to $.6 to $.7 billion toward the end of the period,** and could total about $5 billion, which would leave a financing need of $13.7 billion, or about $21 billion when noise reduction costs are taken into account. This "gap" must be met through external sources -- the equity market and/or the debt market.

2. External Sources

- Because of the airlines' poor earnings record for the past 10 years (see Table 2) both the equity and debt markets have been effectively foreclosed to them for some time. Airline stocks have not been a recommended buy for much of this period, and are not being recommended as an investment for the future, except for possible short-term

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* Assumes the cost of the replacement/retrofit program is in the middle of the $5.6 to $7.7 billion range.

** To earn $.5 billion, the industry would have to achieve about 9 percent to 10 percent ROI at current investment levels. Since 1967, ROI for the domestic trunks plus Pan American has ranged from a high of 8.5 percent to a low of 2.1 percent, averaging only 5.7 percent.

gains in the next six months.* At present, airline stocks stand at approximately 60 percent of their 1967 value (versus 120 percent for the Dow-Jones Average).

- The major source of airline debt financing through the 1960's--traditionally the large insurance companies--has been closed for six years. Under New York law, New York insurance companies are forbidden to make further loans. In a statement submitted to the House Public Works and Transportation Committee George Jenkins, Chairman of Metropolitan Life Insurance, said: ". . . we feel confident that Metropolitan will lose no money on its current airline investments as they run off, but under present conditions, no new money will be loaned." Before lenders will commit new debt capital, Jenkins added, "(they) will require a sound equity base and good profits . . ."

- The DOT is confident that the proposed Aviation Act of 1976 will return the Aviation industry to long-term profitability and eliminate the capital expenditure problem of the future. However, no remedy is seen for the problem of funding the capital decisions that must be made now in order to achieve a quieter and more fuel efficient fleet by the end of 1984. Airline earnings are the key to both internal and external funds generation, but as the foregoing data makes clear even a high level of earnings will not insure that the industry will be able to finance the $5.6 to $7.7 billion needed for the noise reduction program through normal means.

3. Problem Carriers

- The financing problems anticipated for the industry will be concentrated heavily in major carriers, which have the most four-engine aircraft in their fleet and consequently the greatest retrofit burden, particularly American, TWA, and Pan Am. As shown in Table 3, these three carriers have together accounted for a large portion of the industry's losses over the last five years and, with the possible exception of American, have relatively undesirable debt burdens. Further, as shown in Table 4, American and TWA, (presuming that they could obtain the debt financing they would need,) under the burden of the noise reduction program would have debt/equity ratios of over 4 and 5.7 respectively, while Pan Am's would be near 2. These carriers are likely to have great difficulty in raising the capital that would be required by the noise regulation.

* A potential exception to this statement is the pending TWA issue of 2 million shares of stock. As explained in the text, the need for such an issue is created by TWA's poor financial situation and at the expected price of the sale will seriously dilute the company's equity base.

TABLE 1

PROJECTED USES AND SOURCES OF FUNDS
U.S. TRUNK AIR CARRIERS
1977, 1980 AND 1984

(Current Dollars in Billions)

Uses of Funds	1977	1980	1984	1977-1984
Property & Equipment	$1.2B	$1.6B	$5.7B	$24.4B
Debt Repayment	.5	.5	.4	3.6
Dividends & Other	.3	.6	.1	1.1
Total Uses	$2.0B	$2.7B	$6.2B	$29.1B
Sources of Funds				
Depreciation	1.1	1.1	1.6	10.0
Sales of Aircraft	.1	.0	.1	.4
Total Sources	1.2	1.1	1.7	10.4
Uses Less Internal Sources	$ .8B	$1.6B	$4.5B	$18.7B

NOTE: The following growth rates are assumed in the projections:

Real GNP	3.7%
Inflation	5.1%
RPM's	
Domestic	6.5%
International	5.3%
System	6.2%

TABLE 2

SELECTED FINANCIAL DATA FOR TRUNK CARRIER INDUSTRY
(System Operations, Including Pan Am)
1967-1975

(Dollars in millions)

	Operating Revenue	Pre-Tax Profit	Pre-Tax Profit Margin	Return on Investment 1/
1967	$6,117	$638	10.4%	8.5%
1968	6,902	411	5.6	6.1
1969	7,765	247	3.2	4.6
1970	8,131	(154)	(1.9)	1.8
1971	8,811	55	0.6	3.7
1972	9,783	266	2.8	6.0
1973	10,905	287	2.6	5.6
1974	12,865	447	3.5	6.8
1975	13,374	(121)	(-)	2.8
9 Yr. Total	$84,653	$2,076	2.5%	NA

1/ Return element includes net income and interest on long term debt.

Source: CAB Form 41/TPI-32 Reports

TABLE 3

SELECTED FINANCIAL DATA FOR TRUNK CARRIERS (Including Pan Am) 1971 TO 1975

Carriers with Large Numbers of 4-Engine Aircraft	Operating Revenues ($ Millions)	Net Income (Loss) ($ Millions)	Profit (Loss) Margin (Percent)	Debt as a Proportion of Total Capitalizati (Percent)
Trans World	$ 7,679.9	$ (24.5)	(0.3)%	73.0%
American	7,583.5	(39.5)	(0.5)	45.4
United	9,681.2	155.6	1.6	48.2
Pan American	7,169.1	(233.9)	(3.3)	75.9.
Others				
Eastern	6,629.2	(65.1)	(1.0)	68.2
Delta	5,502.5	268.8	4.9	44.8
Braniff	2,281.3	93.1	4.1	57.7
Western	2,113.4	74.5	3.5	43.8
Northwest	2,984.8	203.5	6.8	28.3
Continental	2,081.4	21.3	1.0	71.7
National	1,821.1	82.3	4.5	46.7

1/ Trunk Air Carriers - System Operations, December 31, 1975

TABLE 4

PROJECTIONS OF DEBT EQUITY RATIOS,
SELECTED TRUNK CARRIERS, 1976, 1989, AND 1984
(Dollars in Billions)

AIRLINE	ANTICIPATED CAPITAL EXPENDITURES (1977-1984)	LONG TERM DEBT/EQUITY 1/			ADDITIONAL REPLACEMENT CAPITAL REQUIRED BY 1984 2/	DEBT/EQUITY RATIO INCLUDING REPLACEMENT FINANCING (1984)
		1976	1980	1984		
American	$3-3.5	.78	.47	2.3	$1.2	4.4
Pan Am	1.8	3.0	1.7	.74	1.0	2.17
TWA	$2-.3	3.0	2.2	2.8	1.5-2.0	5.77
United	4.2	1.1	.56	.34	2.0	1.52
Industry	$27.1	1.3	.74	.98	5.6-7.7	1.78

SOURCE: Alliance One Institutional Services and TPI-32

1/ Assumes borrowings for capital needs without respect to carriers ability to obtain financing.

2/ Based on number of four-engine aircraft remaining in fleet after 1984, with replacements (including spares) valued at a 1982 cost of $27 million each.

APPENDIX B

ADVANTAGES OF ACCELERATED DEVELOPMENT OF NEW TECHNOLOGY AIRCRAFT

1. Greater Noise Reduction

- A new-technology replacement aircraft would be far quieter than the quietest existing aircraft. The gain achievable is illustrated in Figure 1, which outlines the area exposed, on a single event, to a noise level equal to or greater than 90 EPNdB--roughly equivalent to the sound of a busy downtown street.

  -- The 90 EPNdB contour of the 707/DC-8 aircraft (technology of the 1950's) extends more than 20 miles beyond the brake release point of takeoff and roughly nine miles prior to the touchdown point on landing.

  -- The DC-10, employing the late 1960's technology CF-6 engine, is able to confine the 90 EPNdB contour to a much smaller area, equivalent to the over-water area south of Logan International. It is significantly quieter than a SAI retrofitted 727, which meets FAR 36 standards.

  -- Further important noise reduction advances are reflected in the noise contour of a new Tri-jet which has double layer acoustical linings, and the 1970's technology CFM-56 or JT10D engines with new design fan and turbine stages. Those engines are expected to be available for use in new aircraft.

2. Productivity, Operating and Safety Gains

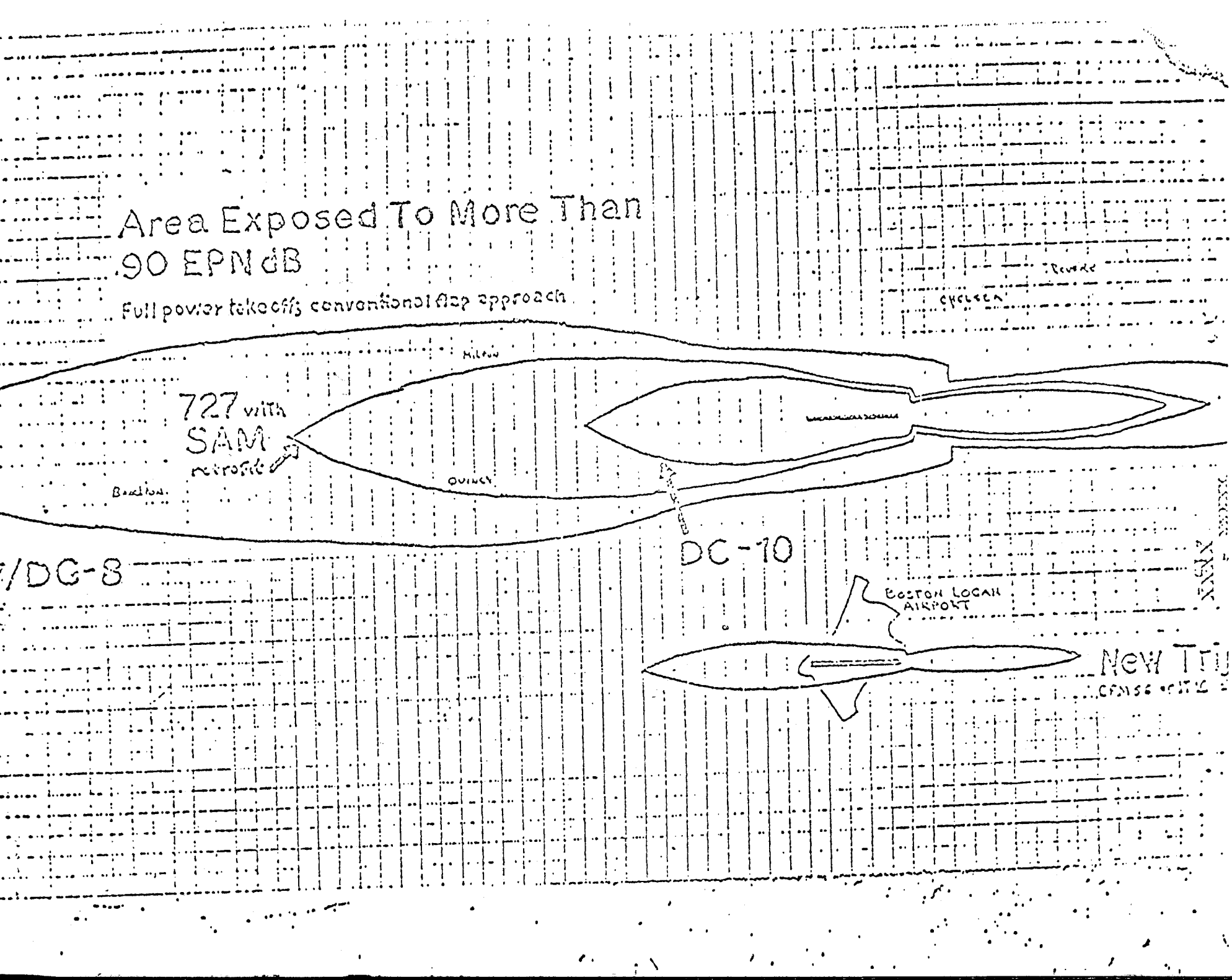
- Technological advances possible today will result in a new aircraft with greater payload for its size and weight--an aircraft that is more reliable, more easily maintained, costs less to operate, and costs less to acquire per unit of productivity. These benefits accrue to the public, the air traveler, and the airlines.

- Greater efficiencies are achieved through such technological advances as:

  -- Supercritical aerodynamics concepts in wing airfoil and body design, which can yield a lighter and more efficient aircraft.

  -- Lighter, more aerodynamic propulsion system and more efficient engines and nacelles.

  -- Digital electronics for avionics systems and in-flight control to avoid engine abuse, improve navigation and approach precision, provide increased reliability, maintainability, safety and fuel efficiencies.


Area Exposed To More Than
90 EPNdB
Full power takeoffs conventional flap approach
727 with
SAM
retrofit
DC-10
/DC-8
Boston Logan
Airport
New

- New structural concepts, new materials, and computer-aided designs which will result in a lighter aircraft made up of fewer, less complex parts.

- The new aircraft will be safer for the air traveler, through improvements in inflight control, and new interior materials of much improved flammability/smoke/toxicity characteristics.

- The new aircraft will comply with the more rigorous engine pollutant standards set for 1979.

- The new aircraft, by virtue of improvements in systems and avionics, will be certified with a two-man flight deck crew--an important contribution to control of airline costs and hence ticket prices.

- In terms of seats, range and operational characteristics, the new aircraft will be more closely attuned to marketing requirements of the late 1970's and mid 1980's. On many routes today the aircraft used are smaller than optimal, making additional flights necessary; on other routes aircraft of longer range than necessary are used, which incurs both weight and efficiency penalties. A market-matched aircraft would convert into increased airline efficiencies.

- The new aircraft will use computer-aided flight profile management, which increases aircraft, airport and airways system productivity.

- The new aircraft will accept the standardized interline cargo container (LD-3). This would allow much improved efficiency in the high growth air cargo industry, by avoiding much of the labor and handling costs, while interfacing efficiently with all-cargo and interline air cargo services.

3. Energy Savings

- Replacement of 707/DC-8 aircraft with new, high-technology aircraft would result in reduced energy consumption per seat mile flown. 1/ The estimated magnitudes of the savings from various noise reduction programs are shown below:

  -- A program resulting in the retrofit of about 100 of the 707/DC-8 aircraft and replacement of the rest with new, high-technology aircraft would provide an energy saving of about 2.5 billion gallons of jet fuel--an energy cost saving of about $900 million over the period of the program (1981-1986) at today's price.

1/ This is based on comparison of the fleet mix that was estimated to result from implementation of the proposed programs with the fleet mix estimated to result in the event that no program were undertaken. The new, high-technology aircraft is estimated to be 30% more fuel efficient than a 707/DC-8 on a seat mile per gallon basis.

-- A program resulting in the replacement of all 707/DC-8 aircraft with new, high-technology aircraft would provide an energy saving of about 2.8 billion gallons--a cost saving of over $1 billion over the program period.

-- A program resulting in the retrofit of all 707/DC-8 aircraft would impose an additional energy requirement of about 220 million gallons over the program period.

-- It should also be noted that retrofit of the 727/737/DC-9 aircraft would not cause a measurable change in the energy requirement of the commercial aircraft fleet.

-- The annual energy saving of the program would in 1986 amount to about 8% of the total jet fuel consumption of the commercial aircraft fleet.

4. Positive Impact on the U.S. Aerospace Industry

- The 2- to 3-year gap between expected development and accelerated development of a new-generation aircraft is significant for the national interest in general, but could be crucial for the U.S. aerospace industry. Lacking a market for a new plane -- and thus the opportunity to put their drawing-board technology to work -- the U.S. manufacturers already have lost some of the technological advantage they have always enjoyed over foreign competition.

- A potentially more critical loss is U.S. share of the world aerospace market. If delivery of a new aircraft is delayed to 1985, as appears likely absent the spur of a realistic noise reduction program, foreign competition -- with newer products to offer -- may secure their hold on a major share of the world market, and the U.S. industry may decline to a level from which it cannot easily recover.*

- The economic impact on the aerospace industry and on the U.S. economy in general would be enormous. With sales of $28 billion, and employment of around 950 thousand, the industry has been a major factor in the U.S. economy for nearly the last quarter century. Since 1968, however -- as a result of the problems of its client industry, the U.S. airlines, and a reduction in military purchases -- aerospace has experienced a very sharp decline:

  -- Direct employment has declined 37 percent.

  -- Industry payroll as a percent of all manufacturing payroll has declined 30 percent.

* The domestic market is also at issue. In the absence of a new U.S. 180-to-200 passenger aircraft, U.S. airlines are looking at such foreign aircraft as the French-made A-300-B, which already developed is substantially cheaper -- though less efficient -- than a new generation U.S. aircraft would be.

-- As a percent of GNP, aerospace industry sales have declined 42 percent.

-- Real aerospace industry sales have declined 37 percent.

- As the real domestic and military markets have declined, U.S. manufacturers have grown heavily dependent on foreign markets for sales of civil aircraft. Since 1968 civil aircraft exports as a percentage of total civil aircraft sales have almost doubled. U.S. airframe and engine manufacturers have turned more and more to consortiums with European firms, both to share developmental costs and to ensure continued access to European markets. However, the consequent sharing of production will further erode U.S. aerospace employment.*

- Anxious to reduce U.S. dominance of the lucrative aerospace market, foreign governments have become increasingly protective of their own aerospace industries and markets, and increasingly aggressive about penetrating other markets, forming alliances where necessary to do so (the French and German combined forces to produce the successful A-300-B). Thus, while the U.S. aerospace industry has been declining in real terms, European and other foreign governments have been subsidizing expansion of their own aerospace industries, and threaten to encroach on both the U.S. and world markets. A loss of only 5 percent of present U.S. sales to foreign competition would result in a loss of 47,000 jobs and $729 million in payroll.

- Assuming that past relationships hold true, the proposed program would accelerate by 2 to 3 years the rehiring of about 25,000 aerospace workers at a payroll of about $400 million a year.

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* An important consideration here is the effect erosion would have on the structure of the U.S. aerospace industry. The competition between the three major manufacturers has helped to establish and maintain U.S. technological superiority. If a sizable share of the world market is lost to foreign competition, one and possibly two manufacturers could suffer seriously.


B

CARRIER CONTRIBUTION AND ENTITLEMENT
(Dollars in millions)

Carrier	Contribution (2% Passenger & Waybill Surcharge-10 Years, 1977-1986)	Number of Non-Complying 707's & DC-8's	Total Entitlement 1/	Entitlement less Contribution
Trunk				
American	$ 424.8	91	$ 377	$ (47.8)
Braniff	119.8	11	124	4.2
Continental	132.5	5	112	(20.5)
Delta	384.0	34	299	(85.0)
Eastern	357.1	-	342	(15.1)
National	83.2	-	75	(8.2)
Northwest	162.3	10	171	8.7
Pan American	28.7	79	353	324.3
Trans World	319.4	90	379	59.6
United	598.3	100	469	(129.3)
Western	126.2	23	109	(17.2)
Total Trunk	$ 2736.2	443	$ 2810	$ 73.8
Local Service				
Allegheny	$ 103.5	-	$ 80	$ (23.5)
Frontier	41.2	-	37	(4.2)
North Central	39.6	-	34	(5.6)
Ozark	31.5	-	28	(3.5)
Piedmont	35.9	-	28	(7.9)
Air West	44.0	-	36	(6.0)
Southern	26.3	-	25	(1.3)
Texas International	15.8	-	17	1.2
Total Local Service	$ 337.8	-	$ 287	$ (50.8)

1/ Total entitlement is determined by distributing the funds collected among carriers, on the basis of the proportion that each carrier's system revenues bear to the total of all revenues collected by the carriers.

THE PRESIDENT HAS SEEN....

THE WHITE HOUSE
WASHINGTON

MR PRESIDENT:

Secretary Coleman requested that you see these clippings before the meeting.

Jim Connor

WALL ST. JOURNAL, MAY 19, 1976

Atlantic Alliance?

Discussions of Joint Projects Are Pressed By French and U.S. Plane Manufacturers

(1)

By ROBERT PRINSKY
Staff Reporter of THE WALL STREET JOURNAL

PARIS—French aircraft manufacturers are looking across the Atlantic for partners and, with perhaps more interest than ever before, U.S. plane makers are looking back.

"This is the best time there ever has been or ever will be" for a transatlantic linkup to build new civil aircraft, says an official of France's privately owned Avions Marcel Dassault-Breguet Aviation — Dassault, for short.

In the past, U.S. makers have so dominated the world market that they could afford to remain aloof to periodic European talk of transatlantic cooperation. And the French government backed a purely European air industry to maintain the Continent's independence. But "today there are conditions that didn't exist a few years ago," observes a high aide in the French Transport Ministry.

These conditions include the inflated costs of developing new aircraft and the shaky financial condition of most aircraft makers and airlines. Fuel prices have climbed in recent years. Air-traffic growth has fallen off sharply, with a companion reduction in the need for new planes.

For U.S. manufacturers such as Boeing Co. and McDonnell Douglas Corp., cooperation holds the lure of French government funds to subsidize development costs. Washington doesn't show a similar desire to provide financing. On the U.S. side, there is also the fear that if transatlantic cooperation doesn't materialize, Europeans may close off their own internal markets to ensure sales by their domestic manufacturers.

The U.S. Market

Further, the U.S. plane builders are becoming increasingly concerned that foreign competitors over the next few years may at long last crack the U.S. airline market on their own. The Americans fear that the foreign companies will have the right-sized and technically advanced planes available for sale while U.S. builders won't. That's because the Americans have no new-aircraft programs in progress right now and because the state of the industry makes it doubtful that any such programs can be launched very soon.

From the Europeans' standpoint, a linkup would enhance their chance to crack the vital U.S. market, without which an aircraft's sales rarely exceed a few dozen. Hundreds of sales are needed to recoup development costs. To date, French manufacturers have never penetrated the U.S. market with much success, even with products like the A300 "Airbus," a wide-body twin-engine jet that's showing signs of selling comparatively well elsewhere.

"Certainly it would be easier to sell the Airbus in the U.S. if part of it were constructed there," says an official of France's government-owned Societe Nationale Industrielle Aerospatiale. (That firm and one from West Germany are the dominant partners in the A300 consortium, with lesser participation by Spanish and British firms.)

Boeing is proposing to do just that. In talks that have been going on with Aerospatiale since early this year, the two companies are working on a plan to develop a new, shorter version of the Airbus with a revised wing built by Boeing. In return, Aerospatiale would get a share of the work in a possible new Boeing "7N7," a bigger version of its smaller twin-engine 737.

Dassault and McDonnell Douglas, which have been dickering since last fall, have a different plan. They propose developing a bigger version of Dassault's Mercure, a twin-engine 150-seater that so far has been sold only to France's government-owned domestic carrier, Air Inter. McDonnell Douglas would get a new plane to market at a third the cost of developing it from scratch, and Dassault would have an entree to the U.S. market, the reasoning goes.

The Mercure Plan

Both projects would involve French government aid, which normally is given toward development costs of new aircraft and is repayable out of sales proceeds. Thus, if an aircraft sells poorly, Paris doesn't get its money back.

At present, government officials are contemplating which project to support, if either. They feel they can't put money into both because Boeing's 7N7 would compete with the Mercure. The officials face a tricky political decision.

On paper, the Dassault-McDonnell Douglas project looks more attractive to some French officials. Boeing is so much bigger than Aerospatiale that an alliance of these two companies risks reducing the French firm to the role of subcontractor, they fear. Also, some of them say, there isn't any guarantee that U.S. airlines will want to add Airbuses to their fleets of wide-body jets, which currently are made up exclusively of Lockheed L1011 TriStars, McDonnell Douglas DC10s and Boeing 747s. Airlines like to minimize the number of different craft they must service.

In contrast, McDonnell Douglas and Dassault are on a more equal footing, though the U.S. firm is considerably bigger. But Boeing is bigger than both of them and could squeeze a go-it-alone McDonnell Douglas out of the industry in the next decade, many analysts say. Thus, McDonnell Douglas has more to gain than Boeing from a transatlantic alliance, French officials reason.

There's a Catch

The catch is that the French government owns Aerospatiale, while Dassault is privately owned. (It is controlled by 84-year-old Marcel Dassault, who still puts in a 5½-hour day as "technical adviser" to the company and is something of a legend in aviation.) The government, some observers believe, is thus more likely to support an Aerospatiale project than a Dassault one, no matter which one looks better on paper.

To counter the government's reluctance to decide against its own company, Dassault is proposing to give Aerospatiale a 35% share of construction of the new Mercure. Dassault, which is mainly interested in providing work for its research-and-development staff, would perform only final assembly, or less than 10% of the work, leaving the rest for McDonnell Douglas, Aerospatiale and a group of firms that participate in building the existing Mercure, as well as any other European manufacturers that wish to join the consortium.

Dassault is sweetening its proposal by stipulating that the bigger Mercure will use the CFM56 engine jointly designed by General Electric Co. and France's government-controlled SNECMA, or Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. The government is anxious to secure customers for this transatlantically developed engine, which Boeing is considering for its 7N7.

"Whether or not Dassault sells Mercures, it will survive," one industry source says. For Aerospatiale, the source adds, a transatlantic link is "a matter of survival." In 1974, the latest full year for which earnings figures are available, Aerospatiale had a net loss of $78.2 million while Dassault had a net profit of $18.4 million, computing the French franc at its current value.

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Worried British Hold Talks With U.S. Firms

By a WALL STREET JOURNAL *Staff Reporter*

LONDON—British government officials, concerned that France may be close to reaching cooperative commercial aerospace agreements with U.S. companies, have been conversing this week with two major U.S. aircraft-industry concerns about possible U.S.-British joint aircraft ventures, industry sources reported.

Chief executives of Boeing Co. and United Technologies Corp., the world's largest aircraft engine producer, met with their counterpart at Rolls-Royce (1971) Ltd., the British engine maker, and with Industry Secretary Eric Varley and Prime Minister James Callaghan, among others. British officials are worried that U.S.-French agreements might cut their aerospace industry out of some future projects.

Spokesmen indicated that much of the discussion centered on the new JT10D engine, originally designed by United Technologies' Pratt & Whitney Aircraft unit but since last September a joint project of Rolls-Royce and Pratt & Whitney. Money is likely to be sought from the British government. The new engine is expected to compete with the SNECMA-General Electric CFM56 to power the next generation of Boeing and other commercial airliners.

Cooperation and the SST

In the distant future, French officials see transatlantic cooperation as the only way to develop a bigger and more practical supersonic airliner. Right or wrong, they are convinced that U.S. environmental opposition to a supersonic craft would melt away if a U.S. builder were involved in it. But a Transport Ministry aide says, "The time isn't ripe for transatlantic supersonic cooperation."

The aide also stresses that France hasn't abandoned the idea of a purely European aircraft consortium, even though talks to date haven't led to any European projects as concrete as the McDonnell Douglas-Dassault or Boeing-Aerospatiale plans. "We would like a European solution, but we don't want to search for one endlessly and put off a decision on new aircraft forever," he adds. The government, he says, wants to make up its mind on a new aircraft policy this year.

Other European plane makers also are talking with U.S. firms, but French approaches seem to be the furthest advanced. Within Europe, the aircraft industry is in a state of flux. Britain, for example, is in the process of nationalizing its industry, raising questions about who will control British policy on new-craft development. "I don't know who to talk to there," complains one senior French official.

Some analysts think France is using the scare of a transatlantic deal to galvanize other European nations into agreeing on a new European project, just as U.S. manufacturers may be using the scare to prod a reluctant Washington into more sympathy for the airline and aircraft-manufacturing industries there.

But the world aviation industry is at a turning point, key French officials agree. If transatlantic cooperation can't be worked out, European countries may be forced to close off their markets to U.S. makers to generate the sales needed to repay their firms' development costs, French officials reason. This theory also is appreciated by Boeing and McDonnell Douglas. "Each U.S. company fears an alliance will be struck by the other," says one French official, noting that Boeing got serious with Aerospatiale after it saw how McDonnell Douglas and Dassault were getting along. (Lockheed Aircraft Corp., the other large U.S. builder of commercial airliners, doesn't appear interested in a transatlantic deal, French sources say.)

If McDonnell Douglas and Dassault don't get together now, Boeing is likely to dominate the world civil aircraft market so thoroughly in years ahead that the smaller companies will be reduced to subcontractor roles, a Dassault official argues. Which is why he thinks this is the best moment there ever will be for striking up a transatlantic alliance.

year is unclear. This is partly because of the complexity of the issues involved and partly because the affected economic interests—even when repre-

astounded as the affected industries over President Ford's apparent enthusiasm for the long-standing theory that the regulatory agencies slow the

A house Commerce Sub committee did a study of the 120 officials appointed during

Continued on Page 37, Column 4

and currency exchanges in the United States and Canada were closed yesterday for the New Year's holiday.

commercial exploration of Venezuelan oil in 1914 and made the nation the world's

billion in compensation in form of cash (about 10 and Five-year gov bonds.

Continued Investmen

The largest concerns inv are to continue providing nical assistance and mar Venezuelan oil abroad three-month contracts w out only a few days ago.

The nationalizations wa malized today when Pre Carlos Andres Perez rais Venezuelan tricolor in early morning sky at th of Venezuela's first comm well in Zulia state.

A band struck up the n al anthem, Venezuelan fighters soared overhea army cannon boomed a to mark the occasion biggest states take-over republic's history.

Later, the Venezuelan dent told a large, enthu crowd in nearby Cabima "Today we are fixing th tiny of the nation. We a simply nationalizing an try, but we are national challenge."

In the nationally bro speech, the president a a conciliatory tone towa international oil concern do not seek or want con tion," he said.

The process of nation the 21 oil companies other companies work the petroleum industry gun last August when th ident promulgated the dustry nationalization which set the date for tual change of ownersh

Only one foreign com Occidental Petroleum — in a state of limbo. Occ

Continued on Page 37, Co

Plane Makers Start '76 Stalled on Commercial Sales

By ROBERT LINDSEY

Special to The New York Times

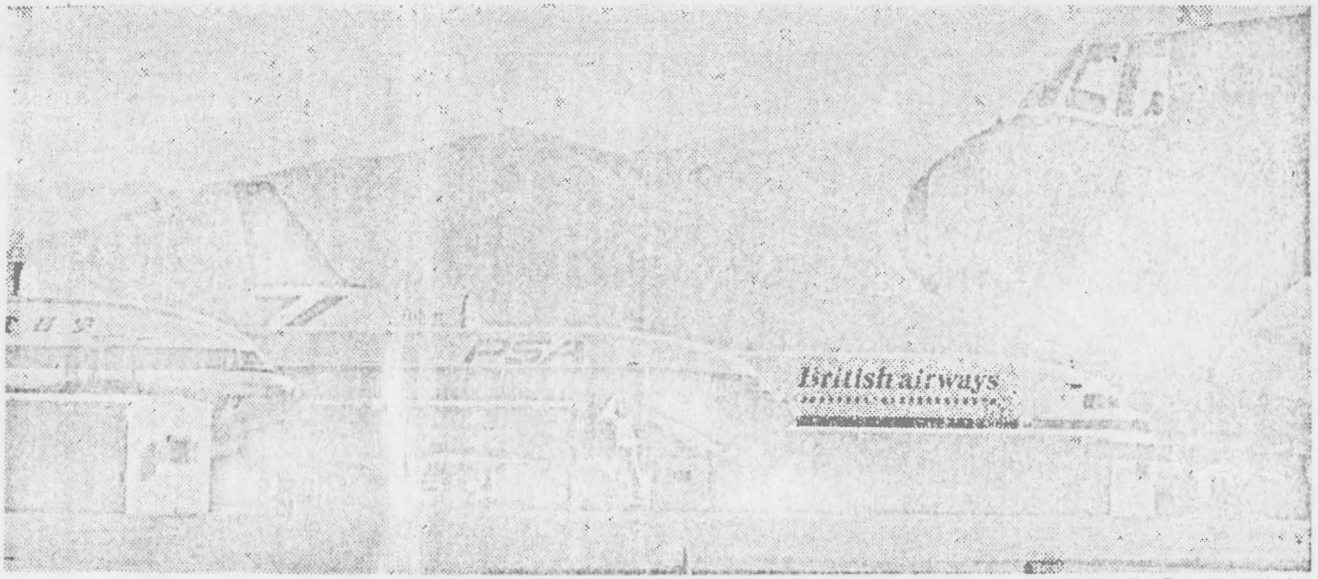
LOS ANGELES — On a windswept desert plateau about 50 miles from downtown Los Angeles, stand five 250-feet L-1011 jet airliners, each valued at more than $20 million, that no one seems to want.

Three were built by the Lockheed Aircraft Corporation for Pacific Southwest Airlines, but the airline now refuses to accept them because it does not have enough passengers to fill the jumbo jets. The other two were flown to Lockheed's desert production plant after Court Ltd., a British charter airline that was using them, went bankrupt.

As the sun bounces brightly off their aluminum skins at the Lockheed plant, the five jets are glittering symbols of the weakest segment of the nation's aerospace industry—commercial airliners.

Lockheed ended 1975 without selling a single new jetliner, and in fact lost ground because it now must try to sell jets that it already sold once before.

The McDonnell Douglas Company transport plant near here added firm orders for only 36 new aircraft during the first 11 months of the year, compared with 50 the year before, and its backlog of orders for DC-10 tri-



The New York Times/David Strick

Jet airliners parked at the Lockheed assembly plant in Palmdale, Calif. The company did not sell any in 1975.

jets slumped to 18 from 47 a year earlier.

At the Boeing Company in Seattle things are better but nobody is cheering. Its Seattle area work force was cut more than 15 percent, to 46,000 last year, and the company says reductions of 10 to 12 percent more this year are possible unless there is a strong recovery in orders.

Boeing announced orders for 111 commercial jets—most of them abroad — through mid-December, compared with a total of 168 sold during the same period in 1974.

In a major setback for Boeing, United Airlines, after months of consideration, elected last fall to put off purchase of a new version of Boeing's popular 727 trijet that the company wanted as a pump-priming order to start a new product line. United blamed the economy.

Boeing's over-all jet sales dropped to $1.6 billion from $2.3 billion in 1974.

C. F. Wilde, vice president in sales for jet transports, says he is hopeful that sales this year can match 1975, "but the economy has to continue to strengthen."

A sales slump for airliners is a reflection of the problems and uncertainties for the manufacturers' customers in the airline industry.

Airlines were bedeviled during 1974 and 1975 by increasing costs for jet fuel, inflation pressure on wages, landing fees, insurance and other items. At the same time, a recession-induced decline in travel, partly caused by high fares imposed to offset the effects of inflation, hurt revenues.

The volume of air travel in the last quarter of 1975 showed some signs of rebounding, producing some optimism among airline executives. And despite continuing economic problems there was hope that the worst for the industry might be over—at least for the moment.

"There have been encouraging indications for the months ahead," John E. Robson, chairman of the Civil Aeronautics Board, said recently. "As the economy recovers, traffic seems to be firming up. The pace of in-

Continued on Page 37, Column 3

Commercial Sales of Planes Are Stalled

Continued From Page 33

crease in nonfuel cost appears to be moderating."

Some airline unions have tempered demands, he said, conscious "that the goose that lays the golden egg is not immortal." As a result, he said, "I'm optimistic that 1976 can be a much improved year."

Although some airline executives are not quite as optimistic, most at least hope for improvement during the next 18 months or so, depending if and how fast the economy recovers.

But there appeared to be little chance for an early return of the kind of optimism that would result in orders for large numbers of additional jetliners. As a result, there did not appear to be much chance of a pickup in orders at least to mid-1976. One uncertainty: whether Congress will trigger a restructuring of the airline industry by increasing competition through so-called deregulation.

In terms of over-all sales, aerospace has not done badly lately. Military sales were up, and United States companies were flourishing in the international arms market.

The Aerospace Industries Association, a trade organization, estimates that sales of the industry as a whole in 1975 reached $28.4 billion, up from $26.4 billion in 1974. The association predicts a continued upturn this year, with sales of $29.2 billion, which would be the highest ever.

At the same time, however, the association is forecasting a continuing slide in the number of workers. It estimates that total industry employment, which peaked at 1.5 million in 1968, will drop to 903,000 by June, which will be the lowest level since 1960, the year President John F. Kennedy announced the national goal to reach the moon, and when airlines began ordering the first jet airliners in large numbers.

During 1975, industry employment declined from 973,000 to approximately 946,000.

The seeming paradox of climbing sales and declining employment largely reflects inflation on the prices of industry products and research. In terms of prices in 1968, when the industry logged record sales of $28.9 billion, 1975 sales would have totaled only $18.8 billion, according to a trade group analysis designed to measure the impact of inflation.

Despite the deep slump in jet transport orders, there were optimistic corners in the industry. Helicopter sales, for example, have remained fairly strong, partly because of extensive use in energy development. And sale of private general aviation aircraft, a market highly sensitive to corporate profit levels, increased last year and reached $1 billion for the first time.

Aerospace export sales increased to $7.8 billion from $7.1 billion in 1974, with spare parts exports alone constituting a strong $1.9 billion.

American products are familiar in the air throughout the non-Communist world—not only airliners, but Bell Helicopters and Grumman F-14 jet fighters in Iran and Lockheed P3 submarine-hunting planes in Canada, to name only a few examples.

The aerospace industry came under blistering attack in 1975 after a series of revelations about kickbacks and questionable commissions made to foreign officials by Lockheed and other companies to obtain foreign sales. Many people in the industry feel the payoffs are far more pervasive than the disclosures reveal to date.

If Congressional pressure against such payoffs continues, some industry leaders maintain they will increasingly lose business to foreign manufacturers that continue to make payoffs. But critics of such payments have maintained that American leadership is so great in many fields that foreign nations will continue to buy from American industry because of high quality.

As a whole, the aerospace industry in the past has found it easier to deal with customers in a military uniform than those in airline offices. Its executives complain of too much paperwork associated with Government contracts, federally imposed restrictions that they say needlessly increase costs, and what they consider inadequate profit margins on some projects.

But in an industry that has been noted for a frequent failure to deliver production items at the price originally promised, aerospace companies have found customers in the Pentagon generally more willing to accept cost overruns than those in private companies.

Industry sales to the Defense Department reached $13.3 billion last year, up 5.5 percent from the year before. And based on the current order backlog, the industry predicts a 15 percent increase this year, to $15.5 billion.

There is increasing pressure within the Ford Administration to keep a lid on defense spending, and the dispute contributed to the ousting last year of Defense Secretary James R. Schlesinger. Despite this pressure defense products are assuming a greater and greater proportion of the aerospace industry's sales again, after a period in which commercial jet sales had risen and lessened the industry's much-criticized dependence on Pentagon spending for survival.

Ford Proposals on Deregulation Bring Opposition From Industry

Continued From Page 35

the last five years to nine different regulatory agencies and discovered that half of them came from the industries they were named to regulate and, thus, faced potential conflict-of-interest problems.

The Senate Commerce Committee rejected the nomination of Isabel A. Burgess for

tion wher he had no major-party opposition.

sition and a general election where he had no major-party opposition.

The Senate Commerce Committee approved Senator Inouye's bill in the same week that Democratic Congressional leaders met with President Ford to endorse regulatory reform designed to encourage American businessmen to compete harder by reducing their prices.

ACCOUNTING PLAN

THE NEW YORK TIMES
Friday, September 3, 1976

Replacing the Airlines' Fleets

By RICHARD WITKIN
Special to The New York Times

LONDON, Sept. 2—If there is one thing on which there is almost universal agreement among aviation experts, it is that the world's airlines are going to need a lot of new aircraft—many hundreds of them—starting about 1980 or 1981. That means large, staggeringly expensive plane orders will probably have to be placed some time in 1977. The bulk of the newly ordered planes will be tailored for route lengths and passenger loads below those of today's jumbo jets.

Analysis
Economic

While the need for the new fleets is taken as gospel, no one has a clear idea where the financing will come from. No one is confident which manufacturers, or quite likely international teams of manufacturers, will build them. And most of all, no one is clear about how radically advanced they will be technologically.

But with the time for decision not too far away, the choices are beginning to be defined more sharply. And the latest list of options, surveyed at a two-day international conference here this week, contains some possibilities that have heretofore caught little public attention.

The high-level industry officials attending the conference, arranged by the London newspaper The Financial Times, gave primary attention to replacement aircraft for their aging fleets of first-generation jetliners.

Much talk in past months has been of replacing these pioneer jets with a totally new design, whose up-to-the-minute technology would mean lowest possible noise, enormous fuel savings and a carefully calculated seating capacity for the most profitable possible operations on intended routes.

But as airline travel in 1976 has climbed out of a painful recession, the issue of replacements for the old jets has quite unexpectedly been transformed. Instead of creating a brand new plane, some suggest, why not do the job with so-called "derivatives" of the existing three- and two-engine wide-body planes? These would include the Lockheed L-1011 Tristar, the McDonnell Douglas DC-10, and the A-300 airbus —in other words, all existing wide-bodies except the mammoth four-engine Boeing 747.

A "derivative" would be the basic airplane pared down in size, passenger capacity and engine power. The reason the three-and two-jet jumbos have been little regarded for this replacement job in the past is that it was assumed the most economical substitute for the old downgraded jets would be a plane with significantly fewer than 200 seats. The jumbos could not conceivably be scaled down that much.

But with the resurgence in air travel, some plane manufacturers argue, the intended market could well use a plane carrying more than 200 passengers. And now rejiggering the three-and two-engine wide-bodies is a live option.

A corollary question is whether the replacement plane, whether brand new or a derivative, would use a brand new engine or a lower-powered version of an existing jumbo engine. The case for the modified existing engine has been gaining some momentum in step with the growing interest in using a modified existing aircraft.

Battle Brought into Open

The sales battle was brought into the open at the industry conference here by the president of the Lockheed Aircraft Corporation, L.O. Kitchen.

Noting that the Boeing company had been going after the replacement market by offering its brand new 7X7 design, Mr. Kitchen told the conference:

"McDonnell Douglas and Lockheed appear to be somewhat more fortunate. Having smaller basic fuselages in our wide-bodies, either of us can compete in this market using potential DC-10-L-1011 derivatives, either a twin or trijet version of our basic trijets."

Boeing's president, Malcolm T. Stamper, spoke prior to Mr. Kitchen and did not argue the issue publicly. But in an interview, he insisted that a new airplane made a good deal more sense. He indicated a strong belief that the extra expense of developing a plane from scratch would be outweighed over the long pull by operating costs that would be much cheaper than those of a jumbo shrunk from its optimum design. He also noted that altering the jumbos would involve considerable development costs.

The president of Mcdonnell Douglas's airliner division, John C. Brizendine, took a middle position, saying his company "go either way."

The whole matter of replacements must remain somewhat blurred until someone finds a solution for the overriding difficulty: how will the new fleets be financed?

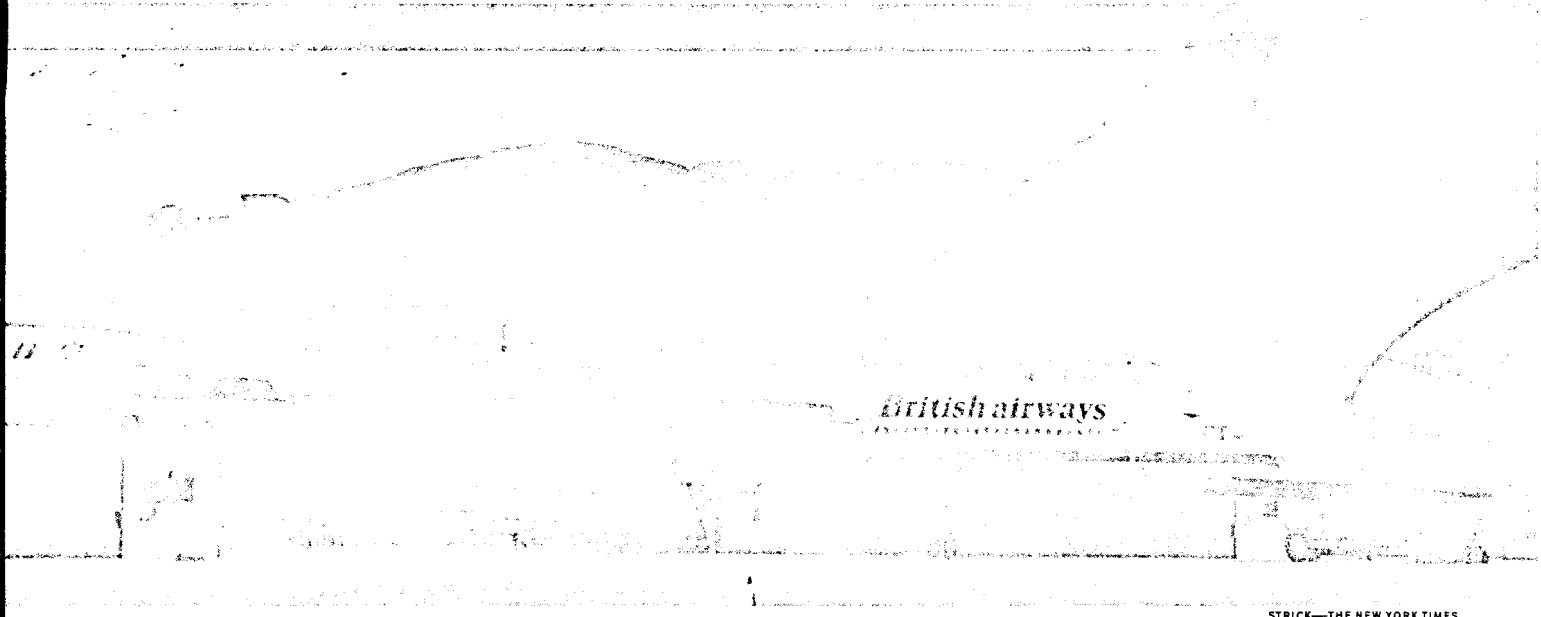
Large Orders Vital

Almost everyone concedes that large new plane programs will only be started with large orders that only United States airlines could be expected to provide. But these airlines' traditional lenders have said repeatedly they cannot provide financing unless the industry's financial health improves markedly —and not just in a one or two-year spurt.

The Ford Administration has been working for months on projected legislation that would help finance new aircraft purchases from a fund fed by 2 percent of the existing 8 percent ticket tax. However, it has not yet won all the behind-the-scenes approvals needed. And there is no telling, in an election year, when such legislation could be acted on.

Conceivably, if the airline recovery continues, the lenders might relent and agree to provide financing. But they are worried not just about short-run profit level s but about where the industry is headed in the long run, and what might be the effects of proposed changes in Federal regulation of the industry.

If the expert analysts are right, the decisions that will shape the industry for years to come have to be made by the end of 1977.



L-1011 JETLINERS—SOME NOT YET CLAIMED—PARKED AT LOCKHEED PLANT IN PALMDALE, CALIF.

STRICK—THE NEW YORK TIMES

AIRCRAFT

No Market for the Jumbos

A scene outside Lockheed Aircraft Corp.'s assembly plant in Palmdale, Calif., symbolizes the condition of the $4.7 billion U.S. commercial aircraft industry today. There, glinting in the desert sun, stand five immense L-1011 TriStar jetliners, each worth $23 million. At first glance, they seem ready for delivery. The lettering on two of them spells out the name of Court Line, a British charter airline. The other three wear the bright symbol of Pacific Southwest Airlines' "grinning birds"—a broad smile painted under their striped cockpits. But Court went bankrupt in 1974, and PSA's business was so bad that ungrinning executives could not take the L-1011s. So Lockheed has been stuck with the five planes, which are parked on a ramp awaiting buyers.

It will probably be a long wait. Not only Lockheed but the entire U.S. commercial aircraft industry is in such a deep slump that there is no market for surplus planes. Worldwide deliveries of U.S.-made jetliners tumbled from 332 planes in 1974 to 282 last year. Jumbo jets, the big-ticket items, led the dive. McDonnell Douglas (revenues through September 1975: $2.6 billion) sold 14 of its DC-10s in 1974, but got orders for only eleven in the first nine months of 1975. Boeing ($2.7 billion through September) watched its sales of 747s drop from 29 in 1974 to 20 last year. And Lockheed ($2.5 billion through September), which won 28 orders for the TriStar in 1974, did not get even one last year. (Military business, which accounts for more than half of each company's revenues, and deliveries of jetliners under old orders muffled the impact on profits.)

More bad news is ahead. The authoritative Aerospace Industries Association predicts that commercial-transport sales this year will not exceed 215 planes. That means still fewer jobs in an industry whose direct employment had already fallen from 973,000 people in 1974 to 921,000 last year. The expected total next December: 903,000. When subcontractors' layoffs and the ripple effect on housing and other in-

Supersonic Debut: Two Views

After $3 billion in development costs and years of delay, the supersonic Concorde went into commercial service last week. An Air France plane made an inaugural flight from Paris to Rio de Janeiro; a British Airways craft flew from London to Bahrain. Aboard the Rio flight was Chris English, a TIME *Washington Bureau copy clerk whose hobby is flying commercial airliners (since 1969 he has logged 412,000 air miles).* TIME *London Bureau Chief Herman Nickel flew to Bahrain. Their accounts follow, along with their ratings of their flights on factors other than speed (four airplanes was the highest possible).*

PARIS TO RIO. 5,741 miles; total time: 6 hr. 30 min. (plus a 1-hr. refueling stop), *v.* the usual 11 hr. 55 min.; fare: $1,434, *v.* $1,195 standard first class; comfort rating:

My seat, 6-D on starboard, was comfortable without being luxurious, about equal to a DC-9 in coach. Engine start-up seemed quiet,* although I was some distance forward in cabin 1.

No one clapped or cheered at lift-off. We climbed steeply into a cloud bank. By the time we were out of it, our speed was nearly that of a conventional jetliner. Aside from a brief sinking feeling shortly after takeoff the flight was remarkably smooth in accelerating. A "mach meter," an aerial speedometer, in view of passengers in the first few rows reached mach 1. There were gasps and cheers. Then came an announcement from the cockpit: "Ladies and gentlemen, you have just become the first 100 passengers in the history of the world to pass the speed of sound in a scheduled flight." [Actually, some passengers aboard the Soviet TU-144 were first.]

Champagne flowed at a rate that rivaled that of the Olympus engines' fuel consumption. At mach 2 (1,320 m.p.h.) which we passed without a tremor, came the food—smoked salmon, rib of veal, château potatoes, cheese, apricot pastry, Chablis Vaudésir and Château Haut-Brion, plus liqueurs. Many passengers paid the smoothness of supersonic flight the ultimate compliment; they fell asleep. We touched down in Dakar, West Africa, right on schedule, refueled and were on our way to Rio in an hour. A minor engine problem held our speed below mach 1 for an extra 20 min., but it was corrected and we landed in Rio

*To observers outside, the Concorde's engines seem anything but quiet. Takeoff noise, as measured at London's Heathrow Airport, was four times as loud as that produced by a 747 jumbo jet.

dustries in plant towns are added in, the sag in the airplane industry might well be a drag on the nation's economic recovery.

As recently as 1972, the industry seemed to be an engine thrusting the economy higher. But then came the wave of increases in oil prices. Aviation fuel, which even at 11¢ per gal. in 1973 represented 20% of an airplane's operating costs, soared to 33¢ in the U.S. (72¢ abroad). The climb at least doubled the fuel portion of each jumbo jet's operating costs. Inflation drove up landing fees, insurance rates, wages. To stay solvent, the airlines had to hike fares.

No Growth. Most of the boosts came in the midst of the recession, and would-be passengers saved money by staying home. Air travel in the U.S. had increased by 14% a year through the late '60s, then flattened out, but jumped 12% in 1972. It rose 6% in 1973, a mere 1% in 1974, and last year showed almost no growth at all. Pan Am, Eastern, American and Trans World Airlines plunged deep into the red. Not surprisingly, airlines ordered few new jets. Even United, the biggest U.S. airline and one that is still flying at a profit, could not justify more planes. Last fall it dropped plans to buy a fleet of 20 "stretched" versions of Boeing's 727.

A resurgence of air travel could reverse the trend, but only if it were of startling—and unlikely—proportions. Says one Wall Street analyst: "The airlines could handle a 10% growth in passengers without buying a single new plane. They have been flying at least that many empty seats for a couple of years." As the aircraft manufacturers see it, new orders will not pick up before mid-1977.

Meanwhile, the planemakers are counting on military orders to speed development of new wing shapes and quieter, more powerful engines, both of which might eventually lead to improvements in commercial planes. An order for cargo transports that has pitted McDonnell Douglas' YC-15 against Boeing's YC-14 could have that effect. The manufacturers are also trying to adapt existing jetliners to new uses. Boeing has already developed a smaller version of its original jumbo jet called the 747SP. It will carry 100 fewer passengers (capacity: 280 seats), burn 10% less fuel and fly much faster than its parent. These advantages persuaded Pan Am officials to stretch the airline's thin financial resources to lease five of the planes for the New York-to-Tokyo run. Boeing also plans a brand new 180- to 200-seat medium-range 7X7, which should roll off the production lines in the early 1980s—just in time to compete with McDonnell Douglas' DC-X-200 and Lockheed's "mini-trijet" derivative of the L-1011.

Ironically, the slump in the U.S. jetliner business seems to have spurred old competitors to new heights. By far the most noteworthy planes of 1975—the Concorde supersonic transport, the medium-range, twin-engined Airbus A300B and the short-range Fokker VFW-614—were built by European consortiums. None of these craft pose an immediate threat to U.S. pre-eminence in the world market. But the European planes are of such quality that U.S. manufacturers now must watch not only one another but foreigners determined to open new horizons of excitement and speed in air travel.

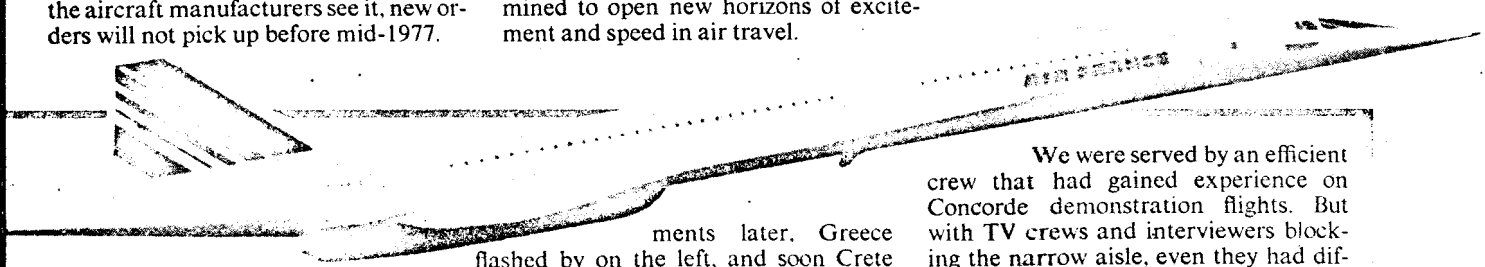
OUTLOOK

Slowing in '77?

In past years, the annual report of the President's Council of Economic Advisers provided the first glimpse of an Administration's view of the economic road ahead. The report for 1976, out this week, mainly makes official what had been widely known to be the Government's expectations. It forecasts 6% to 6.5% growth in real gross national product, about 6% inflation, an average of 7.7% unemployment; all those figures are in line with predictions that private economists have been publicizing for months. More interesting, the report also predicts a slowing of this already modest recovery in 1977, and implies that the slowdown will be necessary to keep inflation from flaring up and cutting off the recovery in later years.

Safety First. According to the CEA, the slowing will be to a 5.7% growth rate in 1977, and that will permit a small further reduction in unemployment, to 6.9% next year. Actually, TIME has learned, all of the officials on whom Ford leans most heavily for economic counsel —CEA Chairman Alan Greenspan, Treasury Secretary William Simon, Federal Reserve Chairman Arthur Burns —believe that the recovery will be more vigorous in both 1976 and 1977 than the report predicts. But to be safe, the CEA stuck with the numbers coming out of its computers.

Nonetheless, the policymakers all think it necessary to keep a tight rein on the recovery, primarily by holding



at 4:10 p.m. local time, 40 min. behind schedule. It didn't matter. We had sipped Gevrey Chambertin (1961) at twice the speed of sound.

LONDON TO BAHRAIN. 3,515 miles; total time: 4 hr. 10 min., v. the regular 6 hr. 20 min.; fare: $686, v. $597 standard first class; comfort rating:

The flight was fairly routine until we reached supersonic speed. It then became a new and exhilarating sensation —like having the carpet of the world map magically moved away from you. Just 20 min. after Venice, the heel of the Italian boot had been reached. Moments later, Greece flashed by on the left, and soon Crete and Cyprus were behind us, too. The yellow-brown dusk of the desert began to descend as Captain Norman Todd of British Airways throttled back and glided toward Bahrain, a 231-sq.-mi. island of oil rigs, a refinery and an aluminum smelter; it is a key stopover on the air route to Australia.

In terms of space, Concorde seems like a throwback to the cramped piston age. "Mind your head," warned the steward as I boarded and made my way to my seat in the long cigar-tube fuselage. If your seat is near one of the tiny windows, you notice the sharp curvature of the fuselage. The reading light is close to your head. In supersonic flight, the windows warm up and the cabin tends to get a bit stuffy.

We were served by an efficient crew that had gained experience on Concorde demonstration flights. But with TV crews and interviewers blocking the narrow aisle, even they had difficulty coping with the limited space. The tiny galleys produced two hot-food choices: duck and steak. I chose steak, and it arrived thoroughly overdone, though upgraded by a prior portion of caviar and lobster hors d'oeuvres and a fine 1970 Château Brane-Cantenac. The passengers did not seem to mind the limited menu or the out-of-the-way destination. Said the Duchess of Argyll, 62: "I would have flown her anywhere."

A postscript: Nickel returned to London by subsonic jet, taking 9½ hr. door to door, including stops in Vienna and Amsterdam. The Concorde carries 100 passengers from London to Bahrain, but only 71 the other way; takeoff temperatures, head winds and weather delays in Europe require more fuel.

WALL ST. JOURNAL, JAN. 30, 1976

U.S. Airlines Rebuff DC10 Discount Bid Made by McDonnell

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Price Is Cut $6 Million for '77 Delivery; Foreign Carriers May Order 11 of the Planes

By TODD E. FANDELL
Staff Reporter of THE WALL STREET JOURNAL

NEW YORK—Major U.S. airlines are politely but firmly rebuffing a vigorous pitch from McDonnell Douglas Corp. to sell them DC10 wide-body aircraft for 1977 delivery at a discount of $6 million each, industry executives say.

In an effort to bolster a nearly void 1977 production-line schedule for the big plane, McDonnell Douglas formally offered in October to sell planes at the cut-rate price. Depending on the customers and other factors, the $6 million discount would drop the price per plane into the "low 20s" from previously quoted prices in the "high 20s" for 1977 deliveries, one airline executive says. Price escalations have moved the cost of a DC10 up to well over $25 million from quotes as low as $15 million when it first was being ordered by airlines in 1968.

The McDonnell offer at first was scheduled to expire Jan. 1, but then was extended for another month. It has succeeded in attracting possible orders for 11 planes (many of them being only tentative "letters of intent") from several foreign airlines, but none from U.S. carriers. "The price was awfully attractive and we gave it some hard thought," says one carrier executive, "but we decided we just don't need the planes and couldn't afford them if we did."

Five of the discounted planes were offered to United Airlines, a unit of UAL Inc., the nation's largest airline and McDonnell's biggest DC10 customer. But United turned down the bid in early December and an official said it has been "a dead issue for two months with no chance we'll reconsider." American Airlines, the next largest DC10 fleet owner, also rejected the overtures.

Yesterday, McDonnell Douglas reported that fourth quarter profit increased to nearly $25 million, or 66 cents a share, from $21.4 million, or 57 cents a share, the year before. Sale rose to $743.1 million from $721.5 million.

For the year, however, net fell to $85.6 million, or $2.27 a share, from $106.7 million, or $2.77 a share a year earlier. Sales rose to $3.26 billion from $3.08 billion.

The company attributed the lower 1975 earnings to higher costs and the impact of the Oct. 1 1974, reduction in the DC10 accounting pool to 400 from 500 aircraft. This action had the effect of spreading costs over a smaller base.

McDonnel Douglas said it continues to believe that the slowdown in DC10 orders is tempolary and that the sale of the additional aircraft required to complete the 400-unit pool is realistic and achievable in the early 1980s.

The company said that in 1975, 43 DC10s were delivered, down from 47 in 1974. As of Dec. 31, firm orders totaled 230 and there were 34 conditional orders and options. Deliveries have reached 212.

McDonnell Douglas's firm backlog on Dec. 31 was $2.95 billion, compared with $3.2 billion the year before, and was composed of 29% commercial and 71% government business. Total backlog approximated $6 billion, compared with nearly $5 billion a year earlier.

Total backlog, which doesn't include options, was 21% commercial and 79% government business.

Corporate employment at year-end was 62,830, down from 70,739 a year earlier.

Delta Exercises Option

By a WALL STREET JOURNAL *Staff Reporter*

BURBANK, Calif. — Lockheed Aircraft Corp. said Delta Air Lines exercised one second-buy option for an L-111 TriStar jet, raising that airline's firm orders to 22. Delta already operates a fleet of 18 TriStars.

At the same time, the airline decided to postpone a decision on firming up orders for two additional aircraft. Delta has eight remaining second-buy options. The latest aircraft is scheduled for delivery in December 1977.

Lockheed also said Cathay Pacific Airways canceled two second-buy options for the Tri-Star, thus reducing the total order backlog to 207, made up of 158 firm orders and 49 second buys. A TriStar sells for about $24 million to $25 million.

JOURNAL OF COMMERCE

Airframe Firm Feeling Impact Of Airline Ills

By ALAN GOLDSAND
Journal of Commerce Staff

The severe financial problems of the U. S. scheduled airline industry are now starting to have their impact felt by at least one major U. S. airframe manufacturer in its sales of wide - body aircraft, airline industry sources revealed Thursday.

McDonnell Douglas, which has been trying to sell U. S. carriers — more of its wide-body DC-10s for delivery in 1977 has been unsuccessful in its attempts to interest the airlines, despite the fact that the airframe manufacturer has been offering substantial discounts from heretofore existing prices.

Big Discounts Offered

McDonnell Douglas has reportedly been offering the carriers discounts of $6 million from the estimated excess of $25 million purchase price of each aircraft, but so far none of the U. S. airlines has been tempted into placing an order for additional DC-10s. Carriers such as United and American, the two largest U. S. DC-10 operators, have recently been approached by the manufacturer with the discount offer but have turned it down.

The best McDonnell Douglas has been able to do so far has been to go several foreign airlines to submit letters of intent for the possible purchase of 11 of the planes. No U. S. carriers have done even this much.

The McDonnell Douglas's DC-10 production line is presently winding up work on aircraft ordered for delivery prior to next year, and the company would like to keep the line going on its newest model commercial airliner. But if the hard-pressed airline industry can't see its way to buying new aircraft, the manufacturer would have no choice but to ultimately shut down production of that particular airplane. Meanwhile, McDonnell Douglas has continued to attract substantial numbers of orders for various versions of an aircraft that has been around quite some time longer — the narrow body, smaller capacity DC-9.

The manufacturer begun its discount offer on the DC-10s last fall hoping that the U. S. carriers would find the offer to reduce the price from the high $20 million level to the low 20s, according to airline officials. When the DC-10 went into production in 1968 the purchase price was about $15 million.

As far as the airlines are concerned, the discount on the purchase price would be very attractive, if times were better. But with financial results in a rather depressed state, and airline traffic not growing at a very rapid rate, there seems to be very little justification for the purchase of additional wide-body planes that would up their seating capacities beyond a level considered reasonable.

Furthermore, carriers have begun to find that the problems of capital formation to invest in new equipment and facilities have begun to escalate. Concern over their inability to get the Civil Aeronautics Board to approve requests for fare relief to offset their rising costs and greater concern about the effects of proposed deregulation has extended itself to the airlines institutional lenders and the investment community in general.