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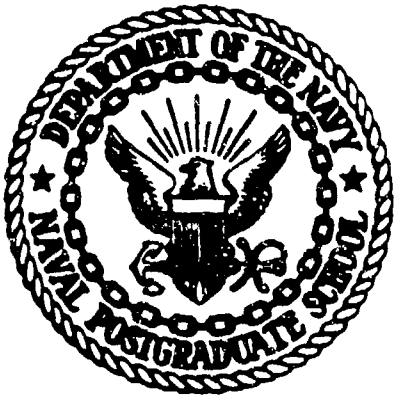

THESIS

AN ASSESSMENT OF LOCKHEED AIRCRAFT CORPORATION
AND
THE EMERGENCY LOAN GUARANTEE ACT

by

Thomas Paul Stanton

March 1977

Thesis Advisor: L. Darbyshire

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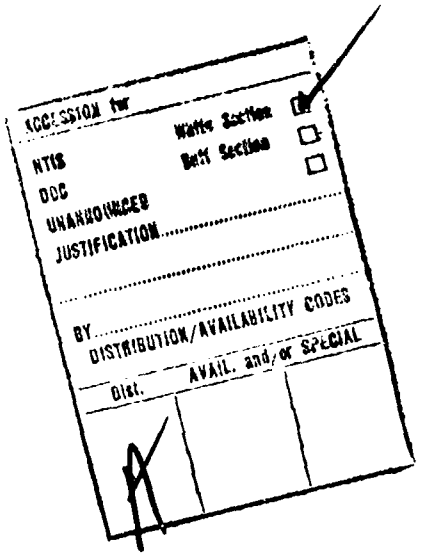

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An Assessment of Lockheed Aircraft Corporation and the Emergency Loan Guarantee Act

by

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

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ABSTRACT

The Emergency Loan Guarantee Act of 1971 provided up to $250 million in guaranteed loans to Lockheed Aircraft Corporation. As of December 1976, $100 million of these loans were still outstanding.

This thesis is an investigation of the Emergency Loan Guarantee Act, the Emergency Loan Guarantee Board, and Lockheed Aircraft Corporation during the 1971-1976 time frame. Both the legislation and Lockheed's subsequent performance under the 1971 Act are evaluated.

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I. INTRODUCTION

Lockheed Aircraft Corporation and the term "government bailout" have become synonymous to many individuals due to the operation of the Emergency Loan Guarantee Board in guaranteeing loans to a maximum of $250 million, made possible by the Emergency Loan Guarantee Act of 1971.

The debates and hearings which led to the passage of the Emergency Loan Guarantee Act were both complex and important in the issues raised. An enormous amount of material was presented by witnesses for and against the guarantees. Congressional approval came only after considerable controversy and very close votes in both the House and the Senate.

Five years later there is still considerable debate over the "Lockheed loan." Many of the same issues are raised over and over again. Confusion still exist over the "terms" of the loan guarantee. This was especially true during discussions on possible aid to New York City during its fiscal crisis in late 1975.

This thesis is divided into three main parts: (1) A brief description of the hearings and debates leading up to the passage of the Emergency Loan Guarantee Act. The Emergency Loan Guarantee Board is described and some of its actions, over the years, highlighted; (2) Lockheed Aircraft Corporation operations are looked at from the inception of the loan guarantees through 1976; and (3) conclusions are drawn based on the author's assessment of the events discussed in parts (1) and (2). Some of the more critical predictions, made by "expert"

witnesses concerning what would happen if the government did guarantee loans to Lockheed are examined.

Originally conceived as a continuation of Lockheed case studies written by management students at the Naval Postgraduate School in 1974, this project grew to its present form as research material was gathered from the many public sources available. Every attempt has been made to verify important items from more than one source and to look behind the headlines whenever possible. Complete source information is provided to aid other students in any subsequent efforts to investigate Lockheed.

II. THE LOCKHEED LOAN

The Emergency Loan Guarantee Act of 1971 was signed into law on August 9, 1971 following a period of considerable debate and controversy. Many of the issues reflected the philosophical, political and economic concerns of the Congress. All of them are of interest to those working in the defense area.

A. A BRIEF HISTORY OF THE EMERGENCY LOAN GUARANTEE ACT

The time table for major events leading to the loan guarantee in 1971 is as follows

May 13	The Administration presented the bill to Congress asking for $250 million in government guaranteed loans for Lockheed Corporation.

House of Representatives Timetable

May 13 – July 7	House Banking and Currency Committee Staff studies the Administration's bill.
July 8	Staff report presented to committee members recommending rejection of proposed guarantee.
July 13–21	House Banking and Currency Committee hearings.
July 26	Committee reports the bill (HR8432) by a vote of 23 to 11.
July 30	House roll call vote passes HR8432 (192–189).

Senate Timetable

June 7 – July 9	Senate Banking, Housing and Urban Affairs Committee holds hearings.
July 19	Committee reports the bill (S2308) by a vote of 10 to 5.
July 21–31	Senate floor debate of S2308.
August 2	Senate roll call vote passes S2308 (49–48).
August 9	President Nixon signs the bill into law.

The debate was sharp, the questioning tough, and emotions ran high throughout the hearings. This was not a typical Republican vs.

Democrat, liberal vs. conservative or North-South battle. To many the Senate appeared in a state of confusion, with Republicans expressing solicitude for the little men threatened with unemployment and Democrats preaching about discipline in the market place. The battle lines were drawn but they were not pure and simple. Various interest groups exerted enormous pressure [Ref. 1].

In the Congress activities were highlighted by:

- Active campaigning by California Senators Alan Cranston and John Tunney, both liberal Democrats, for the Republican Nixon Administration bill.

- Senator Hubert Humphrey (D-Minnesota) voted for the loan guarantee. He had been subject to severe criticism from organized labor after his earlier vote against the SST.

- 1971 Presidential hopefuls Senators Birch Bayh (D-Ind), Fred Harris (D-Okla), George McGovern (D-SD) and Edmund Muskie (D-Me) all voted against the loan guarantee.

- Senators Stuart Symington (D-Mo) and Thomas Eagleton (D-Mo) in whose state McDonnell-Douglas is headquartered, voted against the bill.

- Both Senators Edward Kennedy (D-Mass) and Edward Brook (R-Mass) voted against the measure. General Electrics aircraft engine group is located in West Lynn, Massachusetts.

- Both Connecticut Senators Ribicoff (D) and Weicker (R) voted against the bill. Pratt and Whitney Aircraft is located there.

- Only six of 38 California congressmen voted against the Lockheed guarantee.

Many Congressmen admitted voting against their true convections. This was especially true toward the end of the roll when it was apparent the vote would be close. The final tally even split one family. Senator Barry Goldwater (R-Ariz) voted against the bill while his son, Representative Barry Goldwater, Jr., voted for it. The younger Goldwater represents the Burbank, California district where a major portion of Lockheed is located [Ref. 2].

Well-known witnesses at the hearings included [Ref. 3]:

Those supporting:

Daniel Haughton, Chairman of the Board, Lockheed Corporation.
Chauncey Medberry III, Chairman of the Board, Bank of America (as well as representatives from other Lockheed banks).
John Connally, Secretary of the Treasury.
Arthur Burns, Chairman, Federal Reserve Board.
Fred Hall, Chairman, Eastern Airlines.
Ed White, President, Bowman Instruments (L-1011 subcontractor).
Thomas Kleppe, Administrator, Small Business Association (SBA).
George Meany, President, AFL-CIO.

Those against:

Senator William Proxmire (D-Wis).
Fred Borch, Chairman of the Board, General Electric.
Leonard Woodcock, President, Aerospace Union (UAW).
Ralph Nader, Center for the Study of Responsive Law.
John Galbraith, Professor of Economics, Harvard University.
Vern Countryman, Professor of Law, Harvard Law School.

Major splits occurred in both labor and industry, among congressmen and academicians. During the hearings, it became apparent that major differences within the Administration itself could be found among Defense, the Treasury and the President's own staff. Filibusters, cloture votes, name calling and threats of physical violence became commonplace on the Senate floor [Ref. 4]. (See Appendix A for vote list, House and Senate.)

B. ISSUES RELEVANT TO DOD POLICIES

1. Role of Defense Contractors and the Government

The role of the Federal Government, as it interacts with private enterprise, was a topic of much discussion. To some the loan guarantee could spell the beginning of the socialization of the American aircraft and aerospace industry. To others this socializing process had taken place many years before. Indeed the very notion of "free enterprise" was discounted by many witnesses. As Treasury Secretary John Connally said, "the time has come within the United States when we have to look

at things differently. Free enterprise is just not all that free" [Ref. 5]. He and others expressed more concern with the national economy and unemployment. Times were rough, especially in aerospace during 1971.

A parallel bill would provide up to $500 million in loans to corporations essential to national defense. But opponents charged that the American taxpayer would end up paying dearly for excess capacity. Their claim was that government contracts pick up the tab for idle equipment [Ref. 6, p. 26422].

The very important role of competitive markets came up time and time again. Proponents would argue that allowing Lockheed to fail would lessen the competitive aspects of the aerospace industry. Others argued that one of the functions of a competitive environment is to screen out inefficient competitors and punish mismanagement. They described Lockheed operations during the latter 60's in these very terms [Ref. 6, p. 26796].

The motivation for McDonnell Douglas (DC-10 airframe producer) and General Electric (DC-10 engine supplier) to oppose the loan was clear to pro-Lockheed forces. As major competitors, they would attract a large amount of Lockheed's business upon bankruptcy [Ref. 7]. For most DOD officials having Lockheed stay in business would be a definite advantage.

2. Government Contracting Issues

What would prevent the government from giving Lockheed preferential treatment in contracts if the guarantee went through? Would it not be in the government's self interest to see that Lockheed gets some "sweetheart" contracts while the guarantee is in effect [Ref. 6, p. 26409]?

Wouldn't the government have to ease up on its contract administration policies should Lockheed government contracts get in trouble [Ref. 6, p. 26797]? Proponents discounted these concerns because (1) directions of this type would have to come down from higher levels and would make a mockery of the source selection and contract administration process; (2) competitors would quickly catch on and seek redress through the bid protest channels.

A major contention by many Lockheed creditors was that the government's practice of Total Package Procurement (TPP) had led to Lockheed's demise. They pointed out that DOD no longer contracted by this method thus implying something less than satisfaction with the process. Loan opponents argued that TPP would still be around had it not been for Lockheed's mishandling and apparent "buy-ins" during the late 60's [Ref. 6, p. 26811].

When Civil Aeronautics Board (CAB) Chairman Secor Browne stated that "the government has traditionally financed commercial aircraft in this country through the Defense Department where military R&D has been used as a basis for commercial development"[5], he directly overlapped the government and commercial sectors of a business like Lockheed. This echoed the claim that the government has a direct interest in commercial projects such as the L-1011. When progress payments stop or slow down, a liquidity squeeze takes place in all areas of the business. Opponents felt this was the inherent risk in this type of business. Admiral Rickover's quote that, "We have been generating a new philosophy where we privatize profits and socialize losses" became a popular slogan for loan opponents [Ref. 6, p. 26998]. Industry spokesmen thought just the opposite was true.

3. Subcontracting

The claim that the U. S. Government pays for subcontracting mistakes and subcontractor pressuring tactics focused in on the L-1011. Rolls Royce (the makers of the L-1011 engines) went bankrupt. The British government would come to its aid only if the U. S. Government guarantees Lockheed's continued existence. This in turn infuriates G.E. and Pratt and Whitney who lost out on the original bids. Is the U. S. Government going to protect foreign jobs? What about Lockheed's reputation for "sandpapering" its subcontractors so as to get that low bid in? Isn't this really a form of "buy-in" [7]?

4. Bankruptcy

Major confusion developed throughout the hearings as to what would happen to government contracts should Lockheed go bankrupt. Secretary Packard felt sure that all government contracts would be completed, despite bankruptcy, although delays and cost increases would probably result [2]. But what about major subcontractors of the L-1011 who are also defense subcontractors? Many claimed that every defense contract that Lockheed had with others would have to be renegotiated.

Others argued that bankruptcy would actually improve performance in government contracts. With Lockheed the government was subsidizing an inefficient and wasteful producer. Transferring these contracts to others would result in new ideas, new management techniques and better cost control [Ref. 6, p. 26795]. Major competitors to Lockheed felt sure they could take over the defense portions of Lockheed's contracts and would do so with delight. Most of these projects were making a profit for Lockheed during this time frame.

5. Responsible vs. Irresponsible Management

Who was to blame? Was it government contracting under Total Package Procurement or general mismanagement within Lockheed itself? Both overoptimistic estimates and the need for follow-on defense work were cited as reasons for Lockheed's $2 billion "buy in" (C5A). But economic conditions, war material shortages and government inflexibility certainly had a major effect. Deputy Secretary Packard stated that "past procurement policies of the department had sheltered bad management by encouraging contractors to rely on the government to bail them out when they made a mistake, or took on a project beyond their capacity, or grossly underestimated costs" [Ref. 2, p. 155]. As he saw it both the government and the contractor were at fault. Would they change?

C. EMERGENCY LOAN GUARANTEE BOARD

The Emergency Loan Guarantee Board was set up with the passage and signing of Public Law 92-70 in August 1971 (see Appendix B). Under this law up to $250 million in guaranteed loans would be made available to Lockheed from its 24 lending banks (see Exhibit I) as part of an overall financing plan [Ref. 8]. This credit arrangement provided funds in amounts up to $650 million. Of this amount, $400 million represented the refinancing of previous loans to Lockheed and $250 million additional funding under the terms of this law. Exhibit II shows how this guaranteed loan would compare to direct loans and other guarantees provided by the U. S. Government in fiscal years 1972 and 1973 [Ref. 9].

At its first two meetings the Board considered the application received from Lockheed on August 18, 1971. Key Board members included

EXHIBIT I

PARTICIPATING BANKS AND PERCENTAGE OF PARTICIPATION IN THE 1971 CREDIT AGREEMENT

Specified Percentage	Credit per bank (in millions $)	Name of Bank
7.5%	48.75	Bank of America National Trust and Savings
7.5%	48.75	Bankers Trust Company
7.5%	48.75	The Chase Manhattan Bank
7.5%	48.75	First National City Bank
7.5%	48.75	Manufacturers Hanover Trust Company
7.5%	48.75	Morgan Guaranty Trust Company of New York
7.5%	48.75	Security Pacific National Bank
5.75%	37.375	Continental Illinois National Bank and Trust Company of Chicago
5.75%	37.375	Mellon National Bank and Trust Company
5.0%	32.5	Chemical Bank
5.0%	32.5	United California Bank
3.75%	24.375	Crocker National Bank
3.75%	24.375	The First National Bank of Boston
3.75%	24.375	The First National Bank of Chicago
3.75%	24.375	Irving Trust Company
3.75%	24.375	Wells Fargo Bank National Association
2.0%	13.0	Girard Trust Bank
2.0%	13.0	The Philadelphia National Bank
1.25%	8.125	The Bank of California National Association
0.5%	3.25	The Citizens and Southern National Bank
0.5%	3.25	The First National Bank of Atlanta
0.5%	3.25	Trust Company of Georgia
0.25%	1.625	The Fulton National Bank of Atlanta
0.25%	1.625	The Pacific National Bank of Washington
100%	650.0	

Source: Emergency Loan Guarantee Board, "First Annual Report"

EXHIBIT II

NEW COMMITMENTS FOR FEDERAL CREDIT PROGRAMS

(in millions of dollars)

Agency or program (*expenditure account programs in italics*)	1971 actual		1972 estimate		1973 estimate	
	Direct loans	Guaranteed loans	Direct loans	Guaranteed loans	Direct loans	Guaranteed loans
Funds appropriated to the President:						
International security assistance	686	46	350	200	493	136
International development assistance	718	56	790	121	918	105
Overseas Private Investment Corporation	2	9	10	31	25	51
Agriculture:						
Rural Electrification Administration	487		662		689	
Farmers Home Administration	463	1,098	286	2,426	11	3,288
Commodity Credit Corporation	421		450		456	
Commodity loans	1,748		2,580		1,988	
Public Law 480 Long-term export credits	558		598		705	
Commerce:						
Economic Development Administration	60	*	63	4	73	6
Maritime Administration		281	1	344		439
Trade adjustment assistance			25	50	25	50
Health, Education, and Welfare	51	1,644	101	2,251	151	2,972
Expenditure account loans	273		339		53	
Housing and Urban Development:						
Low-rent public housing	171	1,709	175	1,748	216	2,159
Community development loans	623	1,091	662	2,622	705	888
Federal Housing Administration	17	22,629	50	25,377	50	29,247
Government National Mortgage Association [1]	537		293		188	
New communities fund		50	28	160	28	300
Other mortgage credit	75	263	100	200	100	200
Interior	14		24		27	
Transportation	98	106	57	55	80	109
Veterans Administration:						
Housing loans and guarantees	239	4,356	285	7,409	287	7,691
Insurance policy loans	143		130		125	
District of Columbia	41	20	143	20	190	70
Emergency Loan Guarantee Board				120		30
Export-Import Bank [2]	2,362	3,507	319	4,512		4,176
Federal Home Loan Bank Board	6		19		8	
Small Business Administration	572	863	633	1,318	375	1,965
Other agencies and programs	64	20	84	16	45	21
Expenditure account loans	24		48		55	
Total, loan account	6,437		4,599		3,845	
Total, expenditure account	4,014		4,705		4,212	
Grand total	10,451	38,547	9,304	48,385	8,057	53,816

*Less than $0.5 million.

[1] To avoid double counting, excludes GNMA commitments for guarantees of mortgage backed securities, and for direct purchases of FHA and VA mortgages under the tandem plan.

[2] Excluded from budget totals by statute on Aug. 17 1971, direct loan commitments excluded from this table are $7,033 million in 1972 and $7,400 million in 1973.

Source: Special Analyses Budget of the U. S., Fiscal Year 1973

John B. Connally (Chairman), Secretary of the Treasury; Arthur Burns, Chairman of the Federal Reserve Board; and William Casey, Chairman of the Securities and Exchange Commission (SEC). By September 9, 1971, the Board had committed the government to guarantee loans to Lockheed up to the full extent of the $250 million limit under the Act and authorized the first takedown in the amount of $50 million. A further schedule of loan takedowns is found in Exhibit III [Ref. 10]. The highest amount of guaranteed borrowing as of December 1976 had been $245 million. By 1975 Lockheed had asked for and received a two-year extension on the guarantee arrangement. An additional one-year extension could also be authorized beyond that date.

1. Loan Collateral

As required by the law, security was pledged by Lockheed in the form of the entire capital stock of the following major wholly-owned subsidiaries:

Lockheed Air Terminal, Inc.
Lockheed Electronics Company, Inc.
Lockheed Properties, Inc.
Lockheed Shipbuilding and Construction Company
Lockheed Missiles and Space Corporation

To this pool was added (1) most of the remaining unpledged improved real estate owned by Lockheed and (2) a security interest in production and other equipment owned by Lockheed and located in Los Angeles county. The only fixed assets of significance not included as collateral consisted of the Marietta, Georgia plant facility on which the U. S. Government already had a lien.

2. Interest Rate and the Guarantee Fee

A major problem discussed during early meetings of the Board concerned the interest rate and guarantee fees. In effect the

EXHIBIT III

-Interest Rate and Guarantee Fees on Loan Takedowns by Lockheed Under Government Guarantee

Date	Loan Takedown Amount (in millions)	Maturity	Interest Rate Including ¾%	Guarantee Fee	Total Finance Charges	Cumulative Loans Outstanding (in millions)	Weighted Avg. Cumul. Fin. Charge on Loans Outstanding
September 14, 1971	$ 50	June 14, 1972	5.70%	2.3%	8.00%	$ 50	8.000%
November 18, 1971	25	August 18, 1972	5.00	2.3	7.30	75	7.767
January 26, 1972	25	October 26, 1972	4.30	2.3	6.60	100	7.475
June 14, 1972*	50	March 14, 1973	4.95	2.3	7.25	100	7.100
August 18, 1972*	25	May 18, 1973	5.25	2.3	7.55	100	7.163
August 24, 1972	30	May 24, 1973	5.25	2.3	7.55	130	7.252
October 26, 1972*	25	July 26, 1973	5.95	2.3	8.25	130	7.569
January 11, 1973	20	October 11, 1973	5.90	2.3	8.20	150	7.653
March 14, 1973*	50	December 14, 1973	6.50	2.3	8.80	150	8.170
May 18, 1973*	25	February 19, 1974	7.20	2.3	9.50	150	8.495
May 24, 1973*	30	February 25, 1974	7.25	2.3	9.55	150	8.895
July 26, 1973*	25	August 26, 1974	8.60	2.0	10.60	150	9.287
September 11, 1973	30	June 11, 1974	9.10	2.0	11.10	180	9.590
October 11, 1973*	20	July 11, 1974	8.70	2.0	10.70	180	9.868
December 14, 1973*	50	September 13, 1974	8.40	2.75	11.15	180	—
December 14, 1973	20	September 13, 1974	8.40	2.75	11.15	200	10.584
January 23, 1974	20	October 23, 1974	8.00	2.75	10.75	220	10.598
February 19, 1974*	25	November 19, 1974	7.75	2.75	10.50	220	10.711
February 25, 1974*	30	November 25, 1974	7.55	2.75	10.30	220	10.814
April 26, 1974*	25	January 27, 1975	8.95	2.75	11.70	220	10.939
June 11, 1974*	30	March 11, 1975	9.05	2.75	11.80	220	11.034
July 11, 1974*	20	April 11, 1975	9.05	3.00	12.05	220	11.157

EXHIBIT III (continued)

September 13, 1974*	70	June 13, 1975	10.10	3.00	13.10	220	—
September 13, 1974	25	June 13, 1975	10.10	3.00	13.10	245	11.912
October 23, 1974*	20	July 23, 1975	8.75	3.00	11.75	245	11.994
October 30, 1974**	(15)	—	—	—	—	230	12.091
November 19, 1974**	(10)	—	—	—	—	220	12.164
November 25, 1974*	30	August 25, 1975	8.30	3.00	11.30	220	12.300
December 16, 1974**	(25)	—	—	—	—	195	12.377
March 11, 1975*	30	December 11, 1975	6.25	3.00	9.25	195	11.985
April 11, 1975*	20	December 31, 1975	6.60	3.00	9.60	195	11.733
June 13, 1975*	95	March 15, 1976	6.30	3.00	9.30	195	9.882
July 23, 1975*	20	April 23, 1976	7.10	3.00	10.10	195	9.713
August 25, 1975*	30	May 25, 1976	7.80	3.00	10.80	195	9.636
December 11, 1975*	30	September 13, 1976	6.80	3.00	9.80	195	9.721
December 31, 1975*	20	September 30, 1976	6.80	3.00	9.80	195	9.742
March 15, 1976*	95	December 15, 1976	6.30	3.00	9.30	195	9.742
April 23, 19[illegible]**	(10)	—	—	—	—	—	—
April 23, 1976*	10	January 24, 1977	6.05	3.00	9.05	185	9.665
May 5, 1976**	(10)	—	—	—	—	175	9.600
May 25, 1976*	20	February 25, 1977	6.40	3.00	9.40	165	9.440
June 25, 1976**	(15)	—	—	—	—	160	9.406
September 13, 1976*	15	June 13, 1977	6.10	3.00	9.10	160	9.341
September 23, 1976**	(20)	—	—	—	—	140	9.275
October 15, 1976**	(10)	—	—	—	—	130	9.273
November 5, 1976**	(15)	—	—	—	—	115	9.270
December 10, 1976**	(5)	—	—	—	—	110	9.177
December 15, 1976*	65	September 15, 1977	5.30	3.00	8.30	110	8.677
December 24, 1976**	(10)	—	—	—	—	100	8.640

* This takedown was renewal of a previous borrowing maturing on this date

** Repayment applied to Notes of earliest date then outstanding

Source: Emergency Loan Guarantee Board, "Fifth Annual Report".

problem was one of trying to determine the risk to the government of Lockheed not repaying the guaranteed portion of the loan. The interest rate and guarantee fee were finally determined on the basis of two principles:

1. The banks should receive a rate of interest appropriate for a risk-free guaranteed loan adjusted for "illiquidity" (since the guaranteed loans do not have the ready marketability of government bills) and "additional servicing costs"; and

2. The total financial charge to Lockheed should be that rate which is appropriate for a loan of this risk (considering the government's unique collateral position) and maturity; and furthermore, the total charge should not be such as to allow Lockheed to acquire government guaranteed funds at a lower cost than other companies in similar circumstances can acquire non-guaranteed funds. Thus, the guaranteed fee has the characteristics of both a "risk premium" and a "competitive equalizer".

The risk free base used for determining the interest rate paid to the banks was the average yield on outstanding nine-month Treasury bills, to which was added a 1/4 percent illiquidity premium plus a 1/8 percent allowance for the servicing cost of a guaranteed loan.

After taking into consideration the general maturity and risk structure of interest rates, the rates paid on bank loans by large companies in circumstances similar to Lockheed's (prime rate plus 1/4-1/2 percent premium and standard compensatory balance requirement), the rate borne by Lockheed on the nonguaranteed $400 million loan (prime plus 1/2 percent with an additional 1/2 percent payable in the future), the value of the collateral covering the guaranteed loan, and other related economic data, the Board decided at its meeting on September 9, 1971, that the appropriate total charge to be borne by Lockheed on its first takedown under the guarantee would be 8 percent. (The rate on prime short term bank loans to business at that time was

6 percent). The Board decided that a guarantee fee of 2.3 percent would apply to the initial loan guarantee and to each subsequent loan guarantee unless altered by the Board. This fee was, in fact, altered on three different occasions prior to mid-April 1975 (see Exhibit III).

Guaranteed loans to Lockheed are evidenced by Lockheed's nine-month promissory notes (the "guaranteed notes"). The nine month maturity period was agreed upon as a result of restrictions imposed by Lockheed's indenture for the outstanding debentures of 1956. As the nine-month notes mature, Lockheed is permitted to refinance and apply the proceeds to their payment.

3. The Emergency Loan Guarantee Fund

An Emergency Loan Guarantee Fund was established on the general account of the Treasury. This Fund is credited with fees prescribed by the Board in connection with each loan guaranteed under the act. Funds in excess of the Board's needs were invested in United States Government Treasury Bills. Financial statements of the Board as of 30 September 1976 are shown in Exhibit IV. Exhibit V illustrates Board actions over the years with regard to Lockheed operations [Refs. 8, 11, 12, 13, 10].

4. Summary

As of December 24, 1976 outstanding guaranteed loans totaled $100 million. Repayment is now scheduled for December 1977 but can be extended to December 1978. The General Accounting Office (GAO), in a report dated January 1976 [Ref. 14], felt Lockheed would need the extension and still not repay the loan on time. This conflicts with Lockheed management plans. Having paid off $95 million of the guaranteed loan from January to December 1976, they had made significant progress

EXHIBIT IV

Statement of the Emergency Loan Guarantee Board Fund

Income Statement

	For the Period August 1, 1974 to July 31, 1975		For the Period August 1, 1975 to July 31, 1976		For the Period August 1, 1976 to September 30, 1976	
Income						
Guarantee Fees Earned ..	$6,102,842.12		$5,657,110.14		$786,885.24	
Commitment Fees Earned	134,349.26		124,564.30		38,592.94	
Amortized Discount	1,046,351.51		1,307,165.32		238,180.64	
Total Income		$7,283,542.89		$7,088,839.76		$1,063,658.82
Expenses						
Fiscal Agency Expenses ..	59,251.41		87,721.81		22,490.62	
Legal Expenses	—0—		—0—		—0—	
Administrative Expenses .	65,229.25		82,924.92		5,089.45	
Total Expenses		124,480.66		170,646.73		27,580.07
Net Income		7,159,062.23		6,918,193.03		1,036,078.75

EXHIBIT IV (continued)

Statement of Financial Condition
September 30, 1976

Assets		
Available Cash		$ 1,296,345.84*
Accrued Receivables		
Guarantee Fees Receivable	- 0 -	
Commitment Fees Receivable	- 0 -	- 0 -
Investments		
Treasury Bills (Amortized Value) (MK Bills 8/23/77 Face: $25,930,000.00)		24,660,488.81
Total Assets		25,956,834.65
Liabilities		
Accounts Payable and Accruals		$ 47,790.96
Equity		
Retained Earnings		25,909,043.69
Total Liabilities and Equity		25,956,834.65

* Includes $1,223,202.92 applied to the purchase of MK Bills (Par Value $1,285,000.00) on 8/4/76. MK Bills are "market special" debt obligations issued by the U.S. Government for internal investment by governmental agencies; they bear interest at an average of the rates available on governmental obligations issued to the public.

Prepared by: Bureau of Government Financial Operations, Trust & Revolving Funds Branch, November 11, 1976.

Source: Emergency Loan Guarantee Board, "Fifth Annual Report."

EXHIBIT V

EMERGENCY LOAN GUARANTEE BOARD MILESTONES

18 August 1971	Lockheed application received.
9 September 1971	Lockheed application approved.
9 September 1971	Airline customers request security interest in the collateral specified in the 1971 Credit Agreement and the Security and Pledge Agreement.
September 1971	The Comptroller General in a letter to the Board asserting the legal authority of the Government Accounting Office (GAO) to review the Board's decisions, requests access to the Board's records for that purpose.
December 1971	Board turns down GAO request to review decisions but allows them to audit the Board's records relating to its receipts and expenditures.
February 1972	GAO again asks to review records by which decisions had been made. Again Board turns down the request.
April 1972	GAO reports the Board's negative reply to Senate Committee on Banking, Housing and Urban Affairs; the committee expressed the view that the Board should cooperate fully with GAO.
June 1972	Board makes available to GAO the information requested.
September 1972	Board meets with Lockheed's banks to discuss higher than anticipated costs in the L-1011 program.
November 1972	Board approves change in loan collateral.
March 1973	Board approves Lockheed acquisition of Murdock Machine and Engineering Company (manufacturer of the L-1011 wing pylon).
April 1973	Board approves Lockheed acquisition of $1 million in assets of Control's Division of Leach Corporation (not an L-1011 supplier).

April 1973	Board expands monitoring of Lockheed. A technical analyst begins reviewing the L-1011 program.
	Weekly paperwork now required of Lockheed.
June 1973	In connection with Lockheed's purchase of certain property to be acquired from the General Services Administration (GSA), the Board approves a GSA promissory note secured by the property to be acquired. This possession fee liability did not affect the collateral pool described in the 1971 Agreement.
June 1973	Board approves Lockheed's request that would allow it to escrow prepayments received from foreign government customers to secure advanced payments or performance guarantees.
June 28, 1973	Special Report to Congress recommends that the guarantee program be disbanded and further guarantee requests be considered on a case by case basis by the Administration and the Congress.
December 1973	Board approves amendment to 1971 agreement.
December 1973	Board meets with Lockheed's banks to express concern regarding Lockheed's financial problems and to discuss possible solutions.
December 1973	Board approves a new borrowing schedule to meet Lockheed's higher than anticipated needs.
January 1974	Board meets with Lockheed's banks again.
May 1974	Board grants its consent to a new L-1011 sales contract with Eastern Airlines allowing delivery delays in 1974.
May 1974	Board O.K.'s new bank agreement and $75 million in additional credit. It also extends borrowing until December 30, 1975.
February 1975	Board consents to delay in TWA's delivery schedule.
May 1975	Board meets with Lockheed's banks to review company forecasts and a proposed refinancing plan which it approved. It also agreed to extend guaranteed borrowing until December 1977.
May 1975	The Board allowed Lockheed Shipbuilding and Construction Company to obtain the necessary working capital for a new contract award by borrowing to $20 million from the Lockheed Corporation.

July 1975	O.K.'d a schedule delay of L-1011 deliveries to Eastern Airlines.
August 1975	The Board chairman strongly condemns Lockheed's foreign payments practices. Lockheed required by the Board to stop improper payments to foreign government officials or political organizations. Board meets with principal officers of Lockheed to discuss payments.
September 1975	Board requires Lockheed to adopt strong internal measures with regard to a new policy on the selection of international consultants.
September 1975	Board asks Lockheed for additional information so as to assess the potential impact of future public disclosures of foreign payments. Board takes steps to amend the 1971 credit agreement by making improper payments an event of default under that agreement. The Board requires Lockheed to submit periodic monitoring reports indicating compliance with Lockheed's new policy in the area of foreign payments. The Board staff report concludes that Lockheed could survive the effects of disclosure of past foreign payments practices.
January 1976	Board extends deadline for effectuating the April 1975 financial restructuring plan.
February 1976	Board meets with Lockheed officers regarding the improper payments and changes in management personnel.
May 1976	The Board consents to Lockheed's request to enter into a security agreement with the Canadian Government securing the performance by Lockheed of its obligations under a contract to manufacture and sell long-range patrol aircraft to the Canadian Government.
June 1976	Board consents to the Company's request to produce a Dash 500 version of the L-1011. Lockheed required to have receipt of a minimum number of firm orders.
July 1976	Board consents to the termination of the 1974 Agreement, which provided for an additional $75 million line of revolving credit.
August 1976	Board modifies Dash 500 minimum firm order requirements. Board consents to more borrowing by Lockheed Shipbuilding and Construction from Lockheed Corporation (see May 1975).

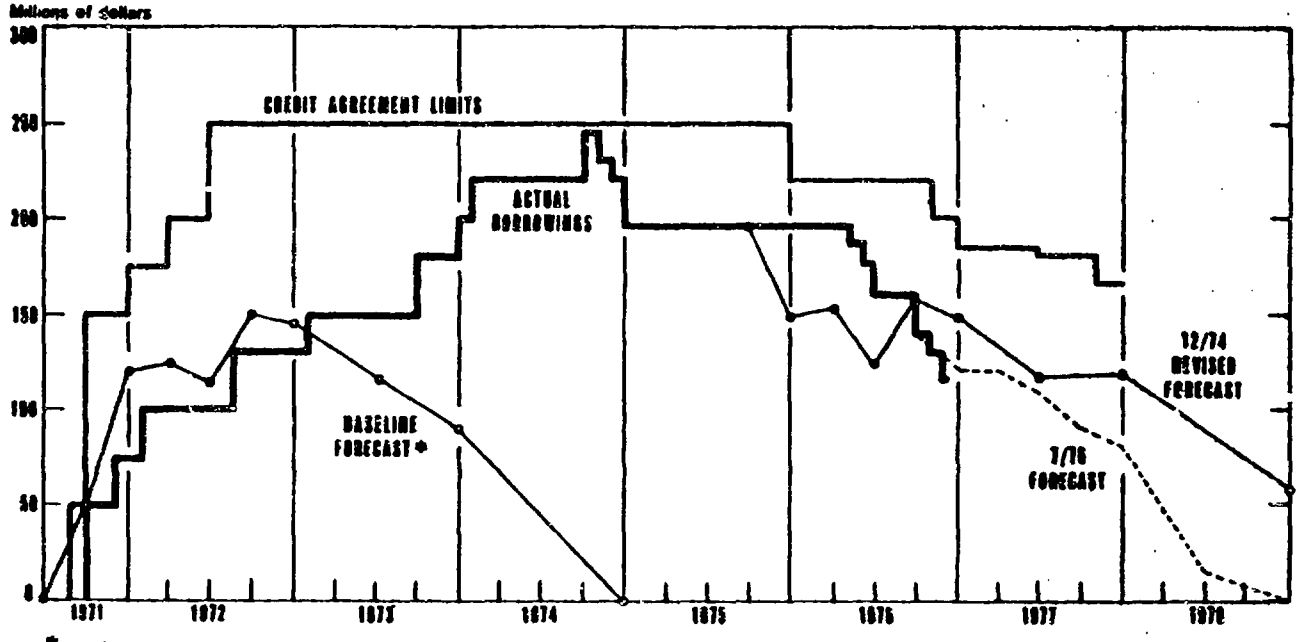
September 1976	Board meets with representatives of Lockheed and its banks to discuss the revised plan for financial restructuring, the financial condition of the Company, the improper payments and related matters. The Board retains its right to declare a default on the 1971 loan agreement with respect to any past improper foreign payment which had not been disclosed prior to September 8, 1976. The Board waives its rights to declare a default for any prior payments which had been disclosed previously.
September 1976	Board approves revised plan for financial restructuring.

Source: Emergency Loan Guarantee Board "Annual Reports," 1972-1976.

toward complete repayment (see Exhibit VI). Top management is working hard to convince the banks to waive their rights under the loan guarantee agreement. They believe the heavier interest burden on these loans are more than the company should continue to pay. By late 1976 some of Lockheed's creditors agreed with them [Ref. 15]. In any case, GAO concluded that Government interests are "adequately safeguarded". Thus it is doubtful the U. S. Government will "lose" even if Lockheed does fail. Any future guarantees under this Act seems unlikely but the impact of the "Lockheed loan" will be debated for some time.

EXHIBIT VI

LOCKHEED AIRCRAFT CORPORATION BANK BORROWINGS
GUARANTEED BY THE U.S. GOVERNMENT



* The Baseline forecast represents Lockheed's projected borrowing requirements as of August 1971, when the loan guarantee legislation was enacted by Congress.

Source: Lockheed Aircraft Corporation.

Source: Emergency Loan Guarantee Board, "Fifth Annual Report."

III. THE TRISTAR AND LOCKHEED

During the early 1960s Lockheed Aircraft Corporation remained almost entirely out of the commercial aircraft market. By 1966 this changed as the potential need for a high capacity passenger transport was made known by various airline officials.

Both domestic and international passenger traffic had been increasing at significant rates during the period 1963 to 1966. Many airlines were responding to this by adding more flights into some already overcrowded airports. If this trend continued, passenger and aircraft congestion at major airports would saturate their ability to handle projected traffic loads. Both airport and aircraft planners had to come up with something new — larger airports and larger aircraft to service them.

With many new routes beginning to develop, European aircraft manufacturers presented proposals for a high capacity "airbus". U. S. manufacturers were also encouraged to suggest ways to meet expanded airline needs.

In 1966, the decision was made at Lockheed to develop a new commercial wide-bodied jet. This decision, when combined with Lockheed's strong financial position, appeared to be the right move at the right time. By 1971 this decision, along with others in the defense area, was to bring Lockheed to its knees financially. A summary of major L-1011 events during the 1966-1971 time frame reveals why.

A. SUMMARY OF EVENTS, L-1011 (1966-1971) [Ref. 16]

February 1966	Lockheed studies possible commercial version of C-5A.

December 1966	Lockheed asks bid proposals on "jumbo jet" engines, landing gear and automatic flight control system.
March 1967	Lockheed registers $125 million debenture believed necessary to help finance the new airplane. The decision is made to "go" on the CL-1011 project.
September 1967	Lockheed announced publicly its commercial aircraft plans.
February 1968	First L-1011 setback for Lockheed as American Airlines picks the McDonnell Douglas DC-10.
March 1968	L-1011 price lowered from $17 million to $15 million per aircraft in response to DC-10 price reduction.
April 1968	Orders had been received for 172 L-1011's. Rolls Royce selected to produce the engines.
September 1968	Lockheed officials predict a need for 1400 L-1011's by 1980 with more than half to be sold by 1975.
1969	Defense contract problems hit Lockheed having a major effect on L-1011 financing. New orders came very slowly.
March 1970	Lockheed asks the Defense Department for $650 million in assistance over the next three years. They claim government programs are eating into L-1011 funding. Sec. Packard suggests receivership or merger as solution.
April 1970	Banks say they are not willing to renew and/or increase Lockheed's line of credit while the government contracts dispute is still unsettled.
September 1970	Chairman Haughton persuades Lockheed's banks to exchange $400 million line of unsecured credit for $500 million unsecured loan. He also persuades major L-1011 buyers to advance $100 million.
November 1970	Rolls Royce announces that development costs on L-1011 engine (RB-211) have more than doubled original estimates. Top Rolls management resigns.
February 1971	Lockheed agrees to accept $200 million loss on C-5A. Rolls Royce declares bankruptcy.

March 1971	Lockheed-British Government talks on RB-211 future.
April 1971	New contract worked out on RB-211. British Government and Lockheed banks insist that the U. S. Government provide guarantees for future loans to Lockheed.
May 1971	Nixon Administration asks Congress to approve U. S. guarantees for bank loans totalling $250 million to Lockheed.

B. THE L-1011 DEBATE

After months of hearings the L-1011 had been scrutinized in every way possible. Expert witnesses, committee reports, Civil Aeronautics Board reports, DOD analysis and union leaders' opinions were discussed daily.

Major arguments included:

1. Pro-Loan L-1011 Arguments

- "An estimated 60,000 persons would lose their jobs" [if the L-1011 is terminated-prime contractor and subcontractors.] -Sec. of Treasury [Ref. 2, p. 157]

- "The continued production and development of the L-1011 will maintain the healthy competitive and productive capacity of the airline industry and will most certainly be in the national interest." -FAA official [Ref. 2, p. 157]

- "[Air]carriers stand to lose all or a substantial part of their investment." -CAB Chairman [Ref. 2, p. 157]

- "Bankruptcy would not only eliminate the jobs of workers at Lockheed but those of Lockheed's suppliers and subcontractors throughout the nation." -Union leader [Ref. 2, p. 157]

- "If Lockheed is lost only two competitors will remain." -TWA Airline official [Ref. 2, p. 157]

- "Some broad guarantee program is needed to aid large companies in trouble when their collapse would result in serious repercussions throughout the economy." -former FRB Chairman [Ref. 17].

- "We have a huge investment in L-1011 inventories. There is no way to realize any substantial amount from this inventory other than by delivery of aircraft. We lack the resources to complete and deliver aircraft on which we hold firm orders,

unless we have a government guarantee. If we are unable to carry out the L-1011 program Lockheed will surely go bankrupt." -Lockheed official [Ref. 18]

- "Past Defense Department policies have encouraged defense contractors to take on programs such as the L-1011 which were beyond their means." -DOD official [18]

- "The private sector and the public sector must work together." -"There is a credit crisis in many major companies and local governments"--"Lockheed's dilemma provides only a start on a public-private capital program." -Bank officials [Ref. 19]

2. Anti-Loan L-1011 Arguments

- "The U. S. economy will gain $6.4 billion in G.N.P. over the next few years if the L-1011 is cancelled because of the lower foreign labor content of the DC-10. There would be a $1.7 billion favorable impact on the U.S. balance of payments during the next decade if the L-1011 program is terminated." -Aerospace Report[1] [Ref. 20]

- "Lockheed is likely to lose as much as $2 billion on the L-1011 program and these losses will only increase if the program is continued." -Aerospace Report[1] [20]

- "The L-1011 contains serious technical deficiencies including inadequate engine thrust, excessive weight, and questionable design features for a commercial aircraft." -Aerospace Report[1] [20]

- "There is not enough business for three firms in the wide-bodied jet field and Lockheed's entry will severely cripple the present dominant U. S. position." -Aerospace Report[1] [20]

- "Short term unemployment in California as a result of cancelling the L-1011 should be offset in six to nine months by high DC-10 employment." -Aerospace Report[1] [20]

- "Tristar had an American content of only 60%." - "If Tristar orders were diverted to McDonnell-Douglas DC-10, with a 90% U. S. labor content there ultimately would be a net gain in jobs." -U. S. Senator [Ref. 2, p. 161]

- "We are also being asked to rescue-indirectly-a large British company in direct competition with American firms." -U. S. Senator [Ref. 2, p. 156]

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[1] Some believed that this Aerospace Report was from a major competitor of Lockheed. It was entered into the Congressional Record by Senator William Proxmire after considerable debate.

- "The guarantee would be fundamentally inconsistent with a free enterprise system, would involve government favoritism toward Lockheed in relation to its competitors and might lead to similar guarantee's for other aerospace firms." -House Banking Committee Staff Report [Ref. 2, p. 154]

- "Conflicting information on L-1011 breakeven point indicates the actual breakeven will probably be much higher than Lockheed projections." -House Banking Committee Staff Report [Ref. 2, p. 154]

- "On the whole monopoly [in the airbus market] is preferable to artificial competition." -Academic Dean [17]

- "If the L-1011 program were scrapped several hundred additional DC-10's would be manufactured by McDonnell Douglas and the effects of the shift from the L-1011 with a British made engine to the DC-10 with an American made General Electric engine would be highly advantageous to the American aerospace worker." -New Jersey UAW official [18]

- "Lockheed is carrying unencumbered assets with a book value of $160 million and a current or insurable value of $400 million—which would be available to the banks to secure the additional $250 million without guarantees." -University Professor [Ref. 3, p. 702]

C. PUTTING BACK THE PIECES—1971, AFTER THE LOAN

1. New Financing

After passage of the Emergency Loan Guarantee Act, Lockheed went to work to get a new financing package completed by the end of August. In order to qualify for the guaranteed credit they would have to shuffle unpledged assets to produce the needed $250 million collateral. $153 million worth of capital stock of four subsidiaries was finally pledged along with Lockheed Missiles and Space Co., with an estimated $100 million in book value. The government would have a preferred position on $250 million of the $253 million in collateral until the guaranteed loan was repaid. After repayment, the $250 million in assets would be applied to the $400 million previously loaned Lockheed by its 24 banks. The remaining portion of the new $750

million financing package was expected to come from U. S. L-1011 customers in the form of $100 million in accelerated progress payments due in 1972 [Ref. 21].

2. Airline Negotiations

Since delays and price changes had taken place in the L-1011 program, Lockheed officials had to begin delicate renegotiation of airline contracts. With Delta and TWA accounting for 51 of Lockheed's 103 firm orders and 17 of its 75 options, these carriers would have the greatest bargaining power. Among their early demands were [Ref. 22]:

(a) Lockheed must have a firm contract with Rolls Royce which should include delivery dates and support commitments.

(b) There should be a commitment from British European Airways for an L-1011 order.

(c) There must be a settlement of all outstanding defense contract problems before they would commit themselves further to the L-1011 program.

(d) L-1011 orders should be eligible for an investment tax credit.

(e) All other firm order customers must remain in the L-1011 program as a condition to their staying with the program.

(f) Lockheed must renegotiate all option schedules and terms.

As a further hammer both airlines held firm price agreements with McDonnell Douglas on the DC-10 aircraft. Competitive price would be a big factor in any sales talks.

In addition to the airline customers, Lockheed was required by the Emergency Loan Guarantee Board to have reached agreement with all major L-1011 parties. This would include its 24 banks and its engine supplier, Rolls Royce Ltd. The first meeting of the loan Board turned down Lockheed's application because a basic agreement had not been reached.

New government economic programs caused problems in the airline negotiations. A new 10% import surcharge added further costs to the RB-211 L-1011 engines. This new tax would cost an additional $280,000 per shipset (three engines). The airlines wanted the additional expense shared, while Lockheed wanted the airline customers to pay the entire amount [Ref. 23].

The negotiations were very difficult with agreements becoming harder to obtain as time went by, with the $100 million in advanced progress payments a particularly sticky point. Varying airline needs also became an issue during the talks. Delta Airlines held out for specific delivery delays and thus was against advanced payments, while others wanted a longer range version L-1011. TWA wanted its option dates extended through June of 1972. There was unanimous agreement that Lockheed's mere existence was a major concern.

By September the major customer airlines were expressing confidence in the future and were satisfied that the loan Board would accept the compromise that had been reached. The airlines would pick up the 10% surcharge on the engines and advance the $100 million during November 1972.

3. Agreements

By mid-September Lockheed had signed contracts with its 24 banks, its major Tristar customers and the U. S. Government. The most immediate effect of the signing was to clear the way for the first guaranteed borrowing. This amount-$50 million-was urgently needed to cover the $5 million weekly payroll on the L-1011 program. Since some of the uncertainty in operations was removed, Lockheed could also re-hire 4400 employees for the L-1011 production line [Ref. 24].

4. Summary

During the remaining months of 1971 production line and testing problems would continue to cast a shadow over the L-1011. Small, nagging items caused considerable trouble for both Lockheed and Rolls Royce. With pre-certification flight hours now adding up, lingering doubts remained. How would the RB-211 stack up against the General Electric engines on the DC-10? Was there sufficient growth potential in the L-1011? Having survived a financial crisis could Lockheed afford any major technical problems? These and other questions would have to wait for some time before any clear answers would develop.

Lockheed appeared to be back from the dead by December of 1971. They had managed to better their own financial forecasts with surprising results in defense projects. (see Exhibits VII, VIII, IX) Lower fixed assets expenditures, lower inventories and greater customer advances than expected (in programs other than the L-1011) resulted in an improved cash flow, which reduced borrowing requirements. Total bank borrowings were $475 million by the end of the year instead of the $520 million anticipated.

Lockheed also took firm steps to reduce costs. Besides reducing the overall work force they cut their overhead, sold non-productive property and held new plant and equipment expenditures to a minimum. More selective bidding and the careful use of research and development funds lowered the level of new business expenditures. A conscientious program of waste reduction was having a positive effect [8].

The newly restructured AH-56A and C-5A contracts were in effect by the end of the year. The switch from fixed price to cost reimbursement contracts permitted the sale of inventories on hand under these

programs. With the risk factor reduced and better cost control measures in effect the cash drain from these programs had finally stopped. The potential to once again attain the top position among defense contractors seemed possible as the new year began.

EXHIBIT VII

—LOCKHEED AIRCRAFT CORPORATION 1971 EARNINGS STATEMENT AS COMPARED TO BASELINE FORECAST (in millions of dollars)

	*Actual	Baseline Forecast	Difference From Forecast
Sales	2,852.4	2,994.0	(141.6)
Interest and Other Income	6.4	6.1	.3
Total	2,858.8	3,000.1	(141.3)
Interest Expense	33.3	37.2	(3.9)
Other Expenses and Costs	2,800.1	2,940.8	(140.7)
Total	2,833.4	2,978.0	(144.6)
Operating Income (Loss)	25.4	22.1	3.3
Provision for Taxes	13.8	10.8	3.0
Total	11.6	11.3	.3
Gain on Sale of Land	3.8	3.8	
Net Income	15.4	15.1	.3

*Operating Statement "Actual," certified to by Arthur Young & Company, Certified Public Accountants.

Note: The Auditor's Report for 1971 continues to express a qualified opinion. Specifically, the opinion is "...subject to the realization of L-1011 Tristar inventories and finalization of amendments to certain ship construction contracts..."

Source: Lockheed Aircraft Corporation.
Emergency Loan Guarantee Board, "First Annual Report."

EXHIBIT VIII

—LOCKHEED AIRCRAFT CORPORATION BALANCE SHEET AS COMPARED TO BASELINE FORECAST (in millions of dollars)

	Actual 12/26/71	Baseline Forecast	Difference From Forecast
ASSETS			
Cash and Equivalent	102	51	51
Receivables (Net)			
United States Government	143	127	16
Other	39	36	3
Inventories (Net)	851	890	(39)
Prepaid Expenses	30	29	1
Total Current Assets	1,165	1,133	32
Fixed Assets (Net)	300	343	(43)
Other Assets	6	3	3
Total Assets	1,471	1,479	(8)
LIABILITIES AND NET WORTH			
Accounts Payable	187	193	(6)
Deferred Taxes	49	45	4
Retirement Plans	76	67	9
Salaries and Wages	88	81	7
Other Current Liabilities	114	64	50
Total Current Liabilities	514	450	64
Bank Borrowings	475	520	(45)
Notes Payable		27	(27)
Liabilities to United States Government	100	100	
Debentures	132	132	
Net Worth	250	250	
Total Liabilities and Net Worth	1,471	1,479	(8)

Source: Lockheed Aircraft Corporation. Column "Actual" taken from Statements certified to be Arthur Young & Company, Certified Public Accountants.
Emergency Loan Guarantee Board, "First Annual Report."

EXHIBIT IX

—LOCKHEED AIRCRAFT CORPORATION 1971 NET OPERATING INCOME AS COMPARED TO BASELINE FORECAST(in millions of dollars)

	Actual	Baseline Forecast	Difference From Forecast
Operating Profit (Loss)			
Other than L-1011 program	137.0	118.7	18.3
L-1011 program	(78.3)	(59.4)	(18.9)
Interest Expense	(33.3)	(37.2)	3.9
Subtotal	25.4	22.1	3.3
Less: Provision for Taxes	13.8	10.8	3.0
	11.6	11.3	.3
Gain on Sale of Land (after tax)	3.8	3.8	
	15.4	15.1	.3

Note: Operating Loss on the L-1011 program includes general and administrative expense of $38.3 million and $40 million of certain disruption costs in connection with the Rolls-Royce receivership that interrupted and delayed the Tristar program. (By the end of 1971, Lockheed had charged to income $158 million of Tristar costs.)

Source: Lockheed Aircraft Corporation
Emergency Loan Guarantee Board, "First Annual Report."

D. 1972 – 1975

The years since the 1971 disruption have been difficult for Lockheed and many other businesses. Inflation, recession, oil embargoes and little or no growth hit many very hard. This was magnified somewhat for firms like Lockheed who were also dependent on a dwindling defense procurement budget. But their largest non-defense effort ever continued to be the biggest headache.

1. The Airline Industry

L-1011 sales depend upon orders from airlines which are dependent on healthy passenger traffic. During the L-1011 planning and early

development stages airline industry growth was considered excellent. Domestic passenger traffic increases averaged about 9.3% over a 10 year (1964-1974) period, with the peak years during the middle 60's. During the same time international passenger traffic managed a growth rate of 5.5%. These early growth trends led to optimistic forecasts for wide-bodied jet sales prior to and immediately after the 1971 time frame. In 1971, Lockheed was forecasting sales of 220 L-1011's by 1977 with a market requirement for 775 airbuses by 1980. Secretary of Transportation, John Volpe, using Federal Aviation Administration (FAA) growth forecasts, predicted a market demand for 760 three engine wide bodied aircraft during the 1970's. A CAB study put the figure at 798 over the same ten year period. Every forecast used a "reasonable" airline traffic growth rate of ten percent per year in computing their forecasts. Assuming the demand for L-1011's was as expected by Lockheed, break-even was put in the 255-265 range. With 176 orders for the L-1011 by December 31, 1972, there was little reason to believe these goals would not be met. Then conditions changed.

During the summer and fall of 1973 airline revenue passenger traffic growth became extremely sluggish. The Arab oil embargo, beginning in October 1973, resulted in higher fuel costs and further complicated the outlook for the future. Operating costs skyrocketed as fuel prices doubled almost overnight. Scheduled flights were cut back sharply throughout the industry and a significant number of aircraft were temporarily grounded. The overall growth rate declined from 11.1% in 1972 to 6.9% in 1973 with the majority of this decline taking place during the latter half of the year. This slowdown had an immediate effect on Lockheed when three of its customers, TWA, Eastern, and

Pacific Southwest Airways (PSA) requested delivery delays. The uncertain environment facing Lockheed's other customers caused them to postpone either the exercising of existing options or the placing of new orders.

Higher fuel costs continued to plague the airlines throughout 1974 and 1975 and inflation helped cut passenger travel growth to a year-to-year increase of less than 2%. As a consequence, demand for wide-bodied aircraft remained depressed [Ref. 25].

2. Selling the TriStar

Sales of the Tristar were non-existent during the early months of 1972, while its major competitor, the DC-10, fared somewhat better because of its more versatile configurations. Lockheed did not have a long range version of the L-1011 and estimates of development costs exceeding $70 million were holding back any decision in this direction. By early February a 5% increase in the basic L-1011 price was thought to be necessary but had to be put off because of the lack of demand [Ref. 26]. Despite a recently devalued dollar, increased costs would have to be absorbed.

The early pessimism caused by the slow sales diminished somewhat by mid-April. After a successful test program and FAA certification, Chairman Daniel Haughton announced that the L-1011 would go long range. With this declaration Mr. Haughton's immediate problems were to (a) convince Rolls-Royce Ltd. to build the necessary higher thrust engines, (b) convince the British Government to help finance the new engine development, (c) get the estimated $70 million necessary to cover airframe development costs, and (d) find airlines willing to purchase this long range jet (designated the L-1011-2). This was to prove to be no easy task.

Quick simple decisions were not about to develop in this type of environment. Two typical problems that had to be faced were [26]:

(1) The British Government was not going to put up the necessary $52 million for the bigger engine unless Lockheed was going to build an airplane that needed it. Lockheed could not build the extended range airplane if it did not get a commitment that the bigger engine would be available.

(2) Although not building the long range L-1011 might doom all the L-1011 program, building a truly long range trijet competitive with the DC-10-30 might doom it also.

Still the thrill of seeing its first L-1011 go into service with Eastern Airlines overshadowed the immediate problems and led to even greater plans.

By May 1972 the talk was of two new versions of the L-1011. Along with a modified extended range version (designated the L-1011-100) would be added the L-1011 stretched fuselage version. This plane would be aimed directly at the high density, low fare, inclusive-tour European market. According to Chairman Haughton, the demand for this new stretched airplane could exceed 250, of which the last 100 would be profitable.

Mr. Haughton's new announcement caused quite a stir. More than a few Lockheed corporate executives wished he had said nothing at all about stretching the L-1011. They felt that the timing was inappropriate since Lockheed was working on bank approval of the long range L-1011 and there was a general softness in the airline industry. Nevertheless he continued to speak out. Since the basic L-1011 would make its international debut in London during August, interest would surely be high for the newer model. Rough technical data on the "stretch" included:

- two fuselage plugs ahead and aft of the wing.
- removing the capacity for about 30,000 lbs of fuel.
- using 42,000 lb thrust engines with the capacity to retrofit to the 45,000 lb version.

This would allow for a range-limited airplane (about 3000 nautical miles) but would accommodate 50 more passengers for a total of 400 in high density seating.

Lockheed officials were unanimous in their feelings of kinship with Rolls Royce. With a good possibility of a new engine they considered that Lockheed, Rolls Royce and the British government were firm partners in the entire L-1011 program. The goal was to develop the basic L-1011 into a family of aircraft. The extended range version was aimed at the North Atlantic areas, the stretched version was to be used within Europe and the basic L-1011 was to cover the continental United States. It was projected that the L-1011 price would be lower than all comparable DC-10's. Predictions of need by major airlines included [26]:

Air Canada	25	(extended range)
BOAC[2]	30	(extended range)
TWA	50	(extended range)
BEA[2]	30	(basic model)
British Caledonia[2]	17	(extended range)
Turkish Airlines	6	(extended range)
All-Nippon	40	(both models)
Japan Airlines	15	(both models)

The airbus market in the U. S. had all but dried up by mid-year 1972; so, it was with much relief for Lockheed officials when British European Airways (BEA) ordered six of the basic L-1011's and optioned

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[2]Presumably some of the British planes would be the stretch version, but this was not specified.

for six of the long range variety. Although less than expected, it was felt that these initial orders would "get the ball rolling." It was the first sale of any consequence in almost two years and had been eagerly awaited. Perhaps now the charter airlines in Europe and national airlines in the MidEast and Far East would "jump on the bandwagon" [Ref. 27].

Mixed results continued throughout 1972. Although a total of 29 orders were received for the Tristar, only eight of these were firm. The other 22 were options which called for a minimum down payment. This would be forfeited should the order be cancelled. Of the 21 aircraft promised for delivery during 1972 only 17 were completed [11].

Rolls Royce and the British Government began development on a new 48,000 lb thrust engine in late 1972. This would boost the basic L-1011 range to an expected 3900 miles and not require the large new development investment by Lockheed. This range was apparently satisfactory to a number of airlines. Yet Lockheed officials still dreamed of a "new" truly long range aircraft.

a. Orders Diminish

The slower than expected sales during 1972 [Ref. 28] looked good compared to the next three years. Although 23 Tristars were ordered during 1973 only seven of these were firm [Ref. 29]. Orders for 10 aircraft in 1974 [Ref. 30] were followed by zero orders in 1975 [Ref. 31]. The recession had finally caught up with Lockheed. It was a scramble in many ways just to keep the option orders alive. Many times special extensions of the option cancellation dates were necessary to prevent an option from being dropped [Ref. 32].

The difficulties experienced by Lockheed's customers and the downward revisions of their anticipated needs for fleet additions

prompted some airlines to request delivery delays and in one case cancellation. In March 1975 Pacific Southwest Airlines (PSA) requested that Lockheed defer delivery of one L-1011 and cancel two other orders. By June they had further notified Lockheed that they would not accept delivery on the already scheduled dates and would not accept two additional aircraft which were also under contract [31]. This unusual circumstance, plus the return of two other aircraft sold earlier under a market support agreement, put Lockheed in a very awkward situation. They were now reselling their own jets in the market place at a lower price than the newer ones they were producing. In effect they were competing against themselves and could only lose.

Early in 1974 the modified L-1011-2 plans were put aside [Ref. 33]. The market was not there but the competition was. Going ahead with these plans would have put the L-1011 in direct competition with the long range DC-10 and the Boeing 747, which were not selling well either. With this postponement, a possible $100 million financing package from Summa Corporation (see section III.D.3.a) was allowed to lapse [Ref. 34]. Lockheed would instead concentrate on less extensive modifications which could increase the L-1011's range enough to cross the Atlantic safely. Eventually two modified versions (L-1011-100 and L-1011-200) would be developed to meet the different needs of the many different airlines. A comparison of these versions is shown in Exhibit X. The Rolls Royce RB-211-22F would be ready in mid-1976 while the 524-engine with 48,000 lb thrust was expected to be available in 1977.

Most of the sales that did take place during 1974 were of the longer range varieties (L-1011-100) and were to foreign air carriers. Hong Kong's Cathay Pacific Airways placed the first firm

EXHIBIT X

L-1011 CHARACTERISTICS SUMMARY

	1		-100		-200	
Engine (R.B.211)	-22B	-22B	-22B	-22F	-524	-524
Takeoff Thrust, lbs	42,000	42,000	42,000	43,500	48,000	48,000
Maximum Takeoff Weight, lbs	430,000	450,000	466,000	466,000	450,000	466,000
Takeoff Field Length @ 84°F (MTOGW), ft	8,350	9,550	11,200	10,220	7,800	8,450
Maximum Landing Weight, lbs	358,000	368,000	368,000	368,000	368,000	368,000
Maximum Zero Fuel Weight, lbs	325,000	330,000	320,000	320,000	330,000	320,000
Fuel Capacity, lbs	159,560	159,560	177,560	177,560	159,560	177,560
Operating Empty Weight Increment, lbs Base		470	1,800	1,800	1,471	2,801
Structure[2]		365	365	365	365	365
Rolling Stock[3]			450	450		450
Engines					1,001	1,001
Fuel System[1]		105	950	950	105	950
Range with 273 passengers (n.mi.)	3,040	3,500	3,830	3,910	3,600	3,930

[1]466,000 lb GTOW version incorporates additional 18,000 lb fuel capacity in wing center section.

[2]All increased GTOW versions require slight strengthening of wings and fuselage, plus new nose landing gear tire.

[3]466,000 lb GTOW version requires increased strength main landing gear wheels, brakes and tires.

Source: Lockheed Aircraft Corporation

long range order in March 1974. The purchase of two planes outright and options for two more caused quite a stir. This $100 million order had been fought over for months with McDonnell Douglas Corporation [Ref. 35]. Lockheed officials now optimistically predicted other sales based on this airline's show of confidence. New sales in April to Saudi Arabian Airlines brought further confidence.

One of the more promising L-1011 sales rumors came from the Soviet Union. Lockheed was working hard on a route study for Aeroflot which would provide the Russians with recommendations on fleet size, aircraft types and, ultimately the sale of 30 or more long-range version L-1011's. Officials admitted that any sale of this type would be steeped in controversy and red tape. Nevertheless Lockheed officials conferred with the Russians many times in 1974 [Ref. 36].

b. Textron's Deadline

During 1974 a possible Lockheed-Textron recapitalization plan developed in which aircraft sales were to be an important part. (See section III.D.3.b) A major stipulation was that Lockheed would find 45 firm orders for the L-1011 by 30 November 1974. These orders would be sufficient to bring the total program, including airplanes already delivered to 180.

Airline reaction among Lockheed's best customers was, on the whole, negative. One spokesman asked why the airlines should put up more money now (down payments on additional orders) while Textron "gets all the goodies—a 45% control for $5 per share" [Ref. 37]. Delta Airline's spokesman predicted lots of pressure to firm its options (it had 18 as of June). Eastern and TWA expressed similar feelings. "If they expect us to move overnight," one equipment planner said, "they'll

be mistaken" [37]. The major carriers claimed that setting a deadline (November 30) was unrealistic, when ordering large airplanes involving millions of dollars. Airlines need to know what the traffic will allow in the coming years before raising and committing large sums of money. During 1974 traffic and predictions indicated downward trends.

During the months that followed the pressure developed as predicted. Mr. Haughton and Mr. Miller (Textron Chairman) made joint sales calls on a half-dozen U. S., Canadian and British airlines urging them to firm up options. With money tight, profits and traffic down and operating costs up, few airlines were eager to bite [Ref. 38]. By September the November 30th deadline had been pushed back into December, and by December 14th it was changed again to February of 1975. It finally became necessary to change the terms of the agreement (eliminating the 45 aircraft requirement) to give any hope that a deal would be finalized [Ref. 39].

Despite the paucity of new orders (10) during 1974, Lockheed did manage to deliver on time all 41 aircraft. It was hoped delivery schedules and predicted new orders would also be met during 1975.

With the overall condition of the airline industry worsening and the slowing general state of the economy having its effect, no new orders for the L-1011 were placed during 1975. Two customers, by selling their L-1011's, managed to divert at least five additional orders from Lockheed's books. Others indicated their intension to defer new equipment purchases by extending the service lives and increasing the seating density of their existing fleets. It was necessary to extend the cancellation dates on second-buy orders for 35 Tristars and cancel two others during 1975 [31]. This negative trend in sales became most

noticeable after July when disclosures of foreign "facilitating" payments[3] became public. Lockheed officials feared the loss of many unfilled foreign orders (military and commercial) should the names of foreign officials and political organizations that had benefitted become known. Indeed, even without names, they feared that adverse publicity would affect future sales. Total sales through 30 September 1976 are shown in Exhibit XI [10 and 13].

3. Financing Lockheed

The Government loan guarantee was an integral part of Lockheed's borrowing arrangements in 1971. These arrangements are summarized below:

(1) Lockheed's banks provide credit extension in an amount up to $650 million of which $400 million represents refinancing of a loan previously extended by these same banks. The remaining $250 million is available to Lockheed under the terms of the Government's Guarantee Agreement.

(2) Lockheed's three major airline customers agreed to make an additional $100 million in prepayments above those already scheduled.

(3) The underlying $400 million bank loans must be outstanding before any guaranteed loans are extended, and the guaranteed portion must be the first to be repaid. The guaranteed portion must be repaid within five years with a possible three year extension.

(4) A Security and Pledge Agreement between Lockheed and its banks provides for the creation of a single pool of collateral consisting of certain assets of Lockheed which are being held as security for the $650 million credit. This collateral would be used first for the repayment of the Government guaranteed portion of the loans.

Since the $400 million was outstanding by August 1971 the guaranteed bank borrowing commenced almost immediately. These loans totaled $75 million by the end of 1971.

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[3] "Facilitating" payments became a term used by corporate officials to describe foreign payments. The more harsh critics preferred to call them "bribes" or "payoffs".

EXHIBIT XI

LOCKHEED AIRCRAFT CORPORATION FIRM AND OPTION L-1011 ORDERS

	As of 30 Aug 1971			As of 30 Jun 1974			As of 30 Jun 1975			As of 30 Sep 1976			
	FIRM	OPTION	TOTAL	FIRM	OPTION	TOTAL	FIRM	OPTION	TOTAL	FIRM	OPTION	TOTAL	DELIVERED
Eastern Airlines	37	13	50	37	13	50	37	13	50	37	13	50	31
Trans World Airlines	33	11	44	33	11	44	33	11	44	33	11	44	33
Delta Airlines	18	6	24	18	12	30	21	9	30	24	6	30	21
Air Canada	10	9	19	10	9	19	10	9	19	10	6	16	10
Haas/Turner	2		2	2		2	2		2	2		2	2
Court Line**				2	3	5	2		2	2		2	2
British European Airways				9	9	18	15	3	18	15	6	21	7
L.T.U.**				1	1	2	1		1	1		1	1
All Nippon Airways				14	7	21	21		21	21		21	18
Cathay Pacific				2	2	4	2	2	4	2		2	2
Saudi Arabian Airlines				2		2	4		4	6		6	3
P.S.A.*	2	3	5	5		5	5		5	5		5	2*
Gulf Air							4	4	8	4	4	8	4
	102	42	144	135	67	202	157	51	208	162	46	208	136
Inventory													3*
Remaining Deliveries													23
Total Firm Orders													162

* In October 1976, agreements were entered into to sell or lease three inventoried aircraft substantially completed but undelivered for PSA.

** The Court-Line Group, of which Court Line Aviation is a part, went into liquidation in August 1974. Its three options expired. In July 1975, LTU purchased a used L-1011 and Lockheed removed its option orders from backlog.

Source: Lockheed Aircraft Corporation
Emergency Loan Guarantee Board

Lockheed's early forecasts projected borrowings of $550 million which would peak by September 1972. They predicted the guaranteed portion of the loan would be repaid by the end of 1974. This projection was to change several times during the coming years (see Exhibit VI). The bank borrowings for 1971 were actually less than the company had originally projected because of higher operating profits on programs other than the L-1011. A deferred liability to the U. S. Government for $100 million plus two debenture issues brought the total long term debt to $707 million at the close of 1971 [8].

An attempt to tap the equity market for funds during 1972 failed. With Lockheed stock selling at about $12 early in the year, the Board of Directors voted to increase the authorized number of shares from 20 to 30 million. This increase would have to be ratified during the annual meeting in May. The hope was that introduction of the L-1011 and other "good news" announcements would increase the market value of Lockheed's stock and allow them to fatten its equity with a new issue. The major banks indicated that they would support any attempt to increase the company's capitalization [27]. Before the end of the year the possibility of another convertible debenture offering was also brought up but both of these plans to use the capital markets failed. The increased stock price did not come about and the debenture support failed to materialize.

By the end of 1972, Lockheed's guaranteed borrowing amounted to $130 million and ominous words were coming from GAO. At hearings before the Joint Economic Subcommittee in December, Elmer Staats, the Comptroller General, told members that Lockheed sales were running far below the company's breakeven point. Unless the company received a

"substantial number" of additional orders, the L-1011 program could impair the financial condition of the company [Ref. 40]. As Lockheed was the nation's number one defense firm, the Congress and the Defense Department had good reason for concern.

a. Merger Sought

Throughout 1972 a merger partner was sought as a way to help ease this impending financial crisis. In February rumors began to fly that General Dynamics might be interested. Most analysts discounted a GD-Lockheed merger because neither could do the other any good. General Dynamics had more than its share of home grown troubles without taking on Lockheed's also. Any partner for Lockheed must have a balance sheet capable of supporting over $700 million in long term debt [Ref. 41].

Lockheed financial bosses were trying to "sell" a merger based on Lockheed's successful performance prior to the L-1011 and associated problems. The pro-merger forces contended that any risk involved would be richly rewarded but by December 1973, despite active solicitation, there had been no takers.

The reasons for this lack of interest were many but the sheer magnitude of the debt was certainly foremost. By mid-year 1972 it was apparent that Lockheed's credit would be strained even more by the events taking place.

Investors' lack of confidence resulted in Lockheed's stock falling to an all time low of 2 3/4 during 1973. Although this stock price drop was caused in part by a bearish stock market and a growing recession, many analysts were predicting bankruptcy by the end of the year. With the repayment of the guaranteed loans now moved to 1977 by

Lockheed forecasters, there again appeared a need for more short term "quick" financing to meet the company's cash requirements.

The L-1011 burden became heavier in 1973. Approximately $900 million in L-1011 gross inventory recovery was dependent upon the receipt of future firm orders. The cost and selling price of current orders was based on a 300 aircraft L-1011 program. This produced a zero gross profit in 1973 and this trend was expected to continue well into the future. At the 1973 pace the final realization of L-1011 development, tooling and production start up costs could extend into the early 1980's [11]. Given the worsening state of the airline industry even these figures were over-optimistic. Delivery delays and option cancellations would severely reduce the chances of recovering Lockheed's L-1011 investment.

Potential financing for the future long range version L-1011 did appear during 1973. Howard Hughes' Summa Corporation agreed to buy $100 million in new Lockheed convertible debentures and notes to help finance the venture. $50 million would be convertible into common stock and $50 million directly convertible in L-1011's [34]. This credit expired in 1974 when Lockheed decided not to develop the long-range L-1011.

Merger studies continued throughout 1974 under the direction of Lazard Freres and Company, the investment banking firm hired in December 1973. Finally in May the name was dropped that was to continue to stir controversy throughout the year—Textron Inc.!

b. The Lockheed-Textron Plan

Textron, a large industrial conglomerate based in Providence, Rhode Island ($1.9 billion sales in 1973) appeared very interested in

Lockheed ($2.8 billion in sales in 1973), but strings were attached, and it would be a very complex arrangement if consummated.

By early April 1974, two positive arrangements had taken place which apparently pleased Textron's management: the early sales of modified L-1011's to Cathay Pacific Airways and the favorable increase in short term credit to Lockheed from its lending banks. In a memorandum to the Emergency Loan Guarantee Board in June, Chairman Haughton (Lockheed) and Chairman Miller (Textron) explained the plans (see Appendix C) [12].

The proposed arrangement was not a merger. Textron and Lockheed were to operate as separate entities, with many others having a say in the final agreement. The Emergency Loan Guarantee Board, the British Government and Rolls Royce, the airline customers and Lockheed's banks would have to approve the plan. Lockheed and Textron's directors and stockholders, the SEC and the anti-trust division of the Justice Department were also very interested.

Many analysts felt Textron's move, with the conditions it wanted, would be very smart indeed. Potential benefits were:

(a) As a 45% owner of Lockheed common, Textron could add 45% of any Lockheed earnings to its own income. That could mean nearly $1 per share to Textron in 1975 if Lockheed earns the $2 per share some analysts forecast.

(b) Eventual retirement of the preferred stock would reduce Textron's investment to the $60 million it proposes to pay for the new common stock issue. This would be less than Textron's investment in its biggest holding (Aerospace Group).

(c) Rejection of the merger route at that time did not preclude Textron from merging with Lockheed later. It did limit Textron's liability to the $85 million investment it proposes. Unmerged, Textron would not be responsible for any unforeseen future debts or losses Lockheed might incur.

(d) Writing off the L-1011 costs, at minimum, would mean that the program would stop showing losses and could begin producing a book profit if firm orders passed the 180 goal. Just cutting out the L-1011 losses meant that Lockheed's large and profitable government programs, $165 million before taxes and interest in 1973, could exert considerable upward leverage on earnings of which Textron will own 45%.

Textron would also give up something by refusing the merger route. That would be the federal income tax offsets Lockheed losses on the L-1011 had provided [Ref. 42]. Despite that disadvantage G. William Miller called the plan a "once in a lifetime opportunity" [Ref. 43]. Textron stockholders apparently didn't think so, as Textron's stock plunged over 33% by the end of the year [Ref. 44].

In December some of the conditions of the original agreement were changed. Textron eliminated the 45 new firm order requirement as long as Lockheed would now write off $800 million before taxes instead of the $600 million originally proposed. Lockheed's banks were also asked to accept a higher debt/equity ratio than proposed in the original plans. Lockheed stockholders' equity would be about $150 million after the writeoff and refinancing, about $220 million less than before [Ref. 45]. By early 1975, an apparently unrelated matter, Navy shipbuilding claims, killed the deal.

Although officially claiming the Textron arrangement was killed by the disputed Navy claims, G. William Miller, the Textron Chairman, claimed old age helped kill the deal also. "Dragging as it did for nine months, the plan began to develop arthritis. We could hear cracks in the joints" [Ref. 46]. Whatever the reason was, the $100 million infusion of funds would be sorely missed. With this capital need, Lockheed went to work almost immediately to find another

partner. General Dynamics (again) the Rockwell Corporation and Hughes' Summa Corporation were all mentioned as prospective saviors [Ref. 47].

c. A New Credit Agreement

The lack of new L-1011 orders continued to cause cash flow problems for Lockheed. This situation resulted in the acceptance of a credit extension of $75 million by Lockheed's banks in April 1974 [Ref. 48]. This new borrowing arrangement would be short term and secured by flight line and finished L-1011 transports awaiting delivery under firm customer orders and by the stock of Lockheed Aircraft Corporation. Along with this agreement, it was also announced that, although this new credit would help, an extension of the loan guarantees would be needed beyond the present December 31, 1975 deadline.

The additional $75 million credit was to become an integral part of a three phase agreement between Lockheed and its lending banks. Phase I, which was to become effective April 1, 1975, extended the company's financing including the Government's guarantee. Phase II contemplated the conversion of a portion of the underlying nonguaranteed bank loans covered by the 1971 Agreement to preferred stock; and Phase III contemplated an exchange offer of preferred stock for outstanding convertible debentures, and an additional conversion of nonguaranteed debt to preferred stock. Both Phases II and III were subject to SEC and stockholder approval (See Appendix D for more details).

With the extended credit arrangements and the willingness of Lockheed's banks to restructure the debt, the banks would get something in return – a formal voice in the operation of Lockheed Aircraft Corporation. This role in the management would come in the form of voting rights on 2,750,000 shares of the new preferred stock issue.

Each preferred share would be entitled to one vote. Although this was something the banks had resisted for some time (getting into the operation of a company to which they lend), the situation had forced them to become more active [Ref. 49].

d. New Standards

During 1974 the Financial Accounting Standards Board took a controversial step toward correcting balance sheet valuation problems for Lockheed and others in the recent past. Beginning in 1974 all research and development costs (except those directly reimbursable by others) would be treated as an expense in the year they occurred; past capitalization costs would have to be written off against retained earnings. This new standard would have a tremendous affect on both Lockheed and its commercial competitor, McDonnell Douglas (which had capitalized close to 1/2 billion dollars of R&D expenditures itself). Although not effective until 1975, Lockheed officials announced to its stockholders they would implement the change in 1974. By year end a net amount of $448 million was removed from L-1011 inventories. This net write-off reduced the equity by $275 million to $27 million [30]. There remained, however, over $500 million in production and tooling costs in inventory that would be recoverable only if sales of L-1011 aircraft exceeded the orders already on hand [12].

e. Government Payback Begins

Lockheed did make progress in reducing its guaranteed loan commitment during 1974. From a high of $245 million in September, they were able to reduce this to $195 million by the end of the year. The burden of high interest charges was especially heavy on these loans. They paid over 13% for money borrowed during the August-September 1974

period [34]. Total interest expense, as a result, increased to $103 million in 1974 from $69 million in 1973 [29].

f. The 1975 Financial Picture

Despite the overwhelming concern with the "kickback" issue (see Section III.D.7) several financial events of importance took place during 1975. By mid-year it was apparent that earlier company forecasts on repaying the guaranteed loan had changed [13]. An updated forecast at this time from Lockheed showed that some outstanding guaranteed indebtedness would still remain as of December 1977, the date on which the original extension would run out. This would leave only a one-year extension for which the company may apply.

With sales increasing, bank borrowings at the end of 1975 remained at $595 million, the same as at year-end 1974, including the $195 million guaranteed by the U. S. Government (see Exhibits XII and XIII). Although there had been no new borrowing, there also had been no repayment. The cost of this borrowing in 1975 averaged 7.3%, down from 11.6% in 1974. This decline was primarily due to a lower prime rate and provisions of Phase I of the refinancing and recapitalization plan.

By December 1975 Tristar inventories (Exhibit XIV), reflecting the changes in accounting, could be compared to the non-Tristar inventory position. Customer advances as of December 28, 1975 included $26 million in interest-bearing prepayments from airline customers. These prepayments were to be liquidated against deliveries scheduled through 1978 [31].

EXHIBIT XII

LOCKHEED AIRCRAFT CORPORATION INCOME STATEMENT

(in millions of dollars)

	1971 (Restated)	1972 (Restated)	1973 (Restated)	1974	1975	74–75 Change
Sales:						
Aircraft:						
L-1011.....	—	302	730	811	559	−252
Other.....	1,891	1,170	1,007	1,255	1,458	203
Missiles:						
Space, and Electronics....	848	905	967	1,153	1,263	110
Shipbuilding, other.....	113	96	53	60	107	47
Total Sales.....	2,852	2,473	2,757	3,279	3,387	108
Operating Profit..	(41)	26	82	127	147	20
Interest, other...	6	7	7	11	10	−1
Earnings before Interest&Taxes..	(35)	33	89	138	157	19
Interest Expense..	33	48	69	103	67	−36
Pre-Tax Net.....	(68)	(15)	20	35	90	55
Taxes (Credit)....	(23)	(4)	6	12	45	33
Operating Net.....	(45)	(11)	14	23	45	22
Extraordinary Gain.....	5	4	4	—	—	—
Net Income.....	(40)	(7)	18	23	45	22

Source: Lockheed Aircraft Corporation. Year-end figures taken from statements certified to by Arthur Young & Company, Certified Public Accountants.

Emergency Loan Guarantee Board, "Fifth Annual Report."

EXHIBIT XIII

LOCKHEED AIRCRAFT CORPORATION CONSOLIDATED BALANCE SHEET

(in millions of dollars)

	12/29/74*	12/28/75	Change
Assets			
Current Assets:			
Cash and Equivalent	122	58	(64)
Accounts Receivable (U.S. Govt.)	130	156	26
Other Accounts Receivable	45	54	9
Inventories	343	387	44
Current Portion of Future Tax Benefit	40	62	22
Prepaid Expenses	48	49	1
Total Current Assets	728	766	38
Plant & Equipment (Net)	258	256	(2)
Future Tax Benefit, Non-Current Assets	98	49	(49)
Unrecoverable L-1011 Costs	550	502	(48)
Total Assets	1,634	1,573	(61)
Liabilities			
Current Liabilities:			
Accounts Payable	261	220	(41)
Salaries Payable	106	102	(4)
Taxes Deferred or Payable	30	39	9
Customers' Advances	161	111	(50)
Retirement Plan	95	63	(32)
Other	96	115	19
Current Portion of Debt	17	19	2
Total Current Liabilities	766	669	(97)
Deferred Taxes-Long Term	10	16	6
Notes Payable under 1971 Agreement	595	590	(5)
Deferred Liabilities to Government	80	70	(10)
Notes Payable to Government	23	21	(2)
Notes Payable to Banks	7	7	—
Debentures	127	125	(2)
Net Worth	26	75	49
Total Liabilities & Net Worth	1,634	1,573	(61)

*Reclassified to conform with the accounting changes instituted in the 1975 statements.

Source: Lockheed Aircraft Corporation. Year-end figures taken from statements certified to by Arthur Young & Company, Certified Public Accountants.

Emergency Loan Guarantee Board, "Fifth Annual Report".

EXHIBIT XIV

LOCKHEED AIRCRAFT CORPORATION INVENTORY POSITION
(in millions of dollars)

	12/29/74 restated	12/28/75	Change
L-1011 Inventories			
Gross Inventories.....	437	455	18
Less: Customer Advances.....	252	251	(1)
Net.....	185	204	19
Programs other than L-1011			
Work in Process.....	394	483	89
Materials & Spare Parts.....	81	86	5
Advances to Subcontractors.....	105	95	(10)
Gross Inventories.....	580	664	84
Less: Advances & Progress Payments.....	422	480	58
Net (Non-L-1011).....	158	184	26
Total Inventories.....	343	388	45
Deferred L-1011 Tooling & Production Expenses.....	550	503	(47)

Source: Lockheed Aircraft Corporation. Year-end figures taken from statements certified to by Arthur Young & Company, Certified Public Accountants.

Emergency Loan Guarantee Board, "Fifth Annual Report".

4. Controlling Costs

The need for new financing might not have been so great had it not been for the monumental production and manufacturing problems Lockheed experienced during the 1972-1975 time period.

In early 1972 it became apparent that the cost of delivering the initial airplanes would be greater than anticipated. The Rolls-Royce receivership resulted in substantial manufacturing disruption of the L-1011 during 1971 and led to schedule changes and significant problems in rehiring and training new personnel. After a delay of approximately eight months, during which production was all but halted, a program reorganization and renegotiation took place. Lockheed also began a reevaluation of its L-1011 program costs and cash requirements.

The higher costs were due to a number of unknowns which were associated with the reopening of such a major assembly line. When the program was restored, many of Lockheed's former employees could not be rehired. As a result, an inexperienced work force was employed, with attendant inefficiency resulting in a higher-than-anticipated level of training [8]. This and other disrupting effects, including inventory shortages and out-of-station work,[4] continued to be felt through 1972 and into the early months of 1973.

The L-1011 supply chain was often critical. With over 10,000 items used in the production of the L-1011 TriStar purchased by Lockheed from suppliers on the basis of open orders rather than on the basis of orders with a fixed delivery schedule, shortages were very common. Company response reduced these shortages considerably by mid-year, but

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[4]Out-of-station work refers to work completed outside of the normal production line flow.

the dependence on these suppliers continued. A strike from June 16, 1972 to September 8, 1972 at a Rolls Royce supplier caused considerable production and delivery disruptions. Another supplier's problems led to Lockheed's outright purchase of the company in April 1973.

In order to provide aircraft to airline customers who planned on deliveries during the summer of 1972 it was necessary for Lockheed to accelerate production. This increased production rate did not end as planned in 1972 with the deliveries of the first 12 aircraft, but continued throughout the year. The rise in production was especially marked in the last two months of 1972. This effort fell somewhat short of the expected delivery goal (17 out of 21 aircraft planned) but did result in increased efficiency. This positive effect was overshadowed by special "out of station" efforts and system control inadequacies, with a result that production costs were higher than expected.

A significant effort was made to improve manufacturing operations during the early part of 1973. Among the efforts made were:

(a) Many installations and functional tests were moved to earlier positions in the assembly line allowing work to be completed and tested before subsequent installation impeded the work.

(b) A new training program aimed at increasing production efficiency.

(c) Management changes at the L-1011 assembly facility.

The company also responded to a FAA survey of quality control procedures by instituting many changes during the assembly process. The cost of these important steps was estimated at $3 million [11].

Despite these efforts, costs continued to rise faster than expected throughout 1973. During the late summer and early fall there was a disappointing and significant flattening in actual manufacturing

hours required as compared to learning curve projections. The two prime reasons for this were

(a) Difficulties of adjusting to the acceleration of the manufacturing flow.

(b) The inability of manufacturing management to effectively control the daily work in the fabrication and assembly shops.

By October, 1973 the situation reached the stage where vigorous action was again called for. This included organizational restructuring, adjustments in assembly and flight-line station work-loading and the replacement, largely through early retirements, of several middle and senior level managers.

During November and December considerable improvement in productivity was achieved. With this in mind the company instituted an "Action Plan" in early 1974 aimed at continually reevaluating production methods. The goal was to expend $50 million less than the company originally forecast for operations during 1974.

Throughout the year this plan was continually revised. With accelerated deliveries and deferrals a fact of life, a great deal of flexibility was called for. Despite this changing environment deliveries remained on or ahead of schedule, unit production hours continued a steady decrease and the quality of the delivered aircraft improved [12].

The rampant inflation during 1974 was not without its effect on L-1011 suppliers. Lockheed, along with most other manufacturers, encountered general price increases and continually lengthened order lead-time in acquiring some basic materials. These increases were usually covered by abnormal cost escalator provisions in the original contracts.

Again during 1975 the flattened learning curve appeared when delivery schedules and delays became commonplace [13]. It was clear by then that market uncertainties, varying demand, and changing production rates were raising havoc with the cost control program. The manufacturing process, having suffered through years of disruptive influences was now at the mercy of customer needs. This could become critical in the near future should sales continue their decline as planning for uncertainty became an important part of the manufacturing process.

5. The L-1011 in Service

Some major L-1011 milestones included:

5 April 72 – First delivery to Eastern Airlines (EAL)
14 April 72 – FAA certificate issued
26 April 72 – First L-1011 revenue flight – EAL
30 June 72 – UK-CAA Airplane type certificate issued

The initial report card on the L-1011 was reasonably good. Airline and passenger acceptance was generally favorable with no more than the usual initial difficulties associated with the introduction of any new aircraft. It received very high marks in reliability and for its reduced noise levels. Field teams worked feverishly to correct small nagging problems. 1972 ended on an ominous note when on December 28th engine problems caused a forced landing of a TriStar and on the following day an Eastern Airlines L-1011 crashed into a swamp outside Miami, Florida claiming 101 lives of the 176 on board [11]. With the memory of the "Electra" crashes still fresh in some officials' minds, Lockheed experts rushed to help federal investigators determine the cause. Flight crew inattention was the opinion of National Transportation Safety Board (NTSB) report issued in June of 1973 [Ref. 50]. Lockheed continued efforts at correcting the engine problems through 1973. After a second

engine shutdown, a costly and time consuming engine inspection program was implemented. This caused schedule conflicts and delays until an engine fan disc replacement, during the fall, reduced this problem considerably [12].

Steady improvement in "Dispatch Reliability" throughout 1974 gave the L-1011 the jumbo jet the lead in "on time" departures. With "Operational Reliability" exceeding 99 percent in spite of the engine difficulties, customer reaction was good [30]. Unfortunately this good performance did not turn into sales for Lockheed.

As production and quality control standards increased so did L-1011 field performance. By the end of 1975, 500,000 L-1011 hours had been accumulated and over 30 million passengers served. The Dispatch Reliability for 1975 at 98.1% was well above average for the airline industry [31]. Performance had been more than satisfactory during a time when sales were less so.

6. Other Lockheed Programs

Major losses on Lockheed's defense programs by early 1971 had amounted to almost $450 million. These losses were most pronounced on the C-5A Galaxy, AH-56A Cheyenne, Shipbuilding and the SRAM propulsion system contracts [8]. Since 1971 the non-commercial products have been the backbone of Lockheed's financial strength despite the fact that the L-1011 program has shifted the company's sales toward the commercial markets. Sales to the U. S. Government averaged 88% of total company sales from 1968 to 1972, but represented only 74% of the aggregate in 1972. The figures for 1973, 1974 and 1975 were 60%, 62% and 65% respectively.

The major non-commercial aircraft programs of the early 70's included the P-3C and S-3A anti-submarine warfare aircraft, the C-130

and C-5A aircraft. In addition the C-130 commercial transport and Jetstar business jet contributed to sales. Shipbuilding, missiles and spacecraft, and electronic computer systems comprised a major portion of the remaining business [31].

With the exception of shipbuilding these programs contributed, in a positive way, to the company's operations during the 1972-1975 time frame. This is clearly seen upon examination of Exhibit XV.

EXHIBIT XV

LOCKHEED EARNINGS
(in millions of dollars)

	1972	1973	1974	1975
Program profits (loss) other than TriStar program and new ship constructions	149.9	165.8	192	252
New ship construction	(.9)	(14.0)	(16)	(11)
TriStar	(80.5)	(69.7)	(49)	(94)
Interest and other income	6.7	6.8	11	10
Interest costs	(47.5)	(69.3)	(103)	(67)
Provisions for income taxes	(14.7)	(5.5)	(12)	(45)
Extraordinary gain	3.2	2.7	0	0
Net Earnings	16.2	16.8	23	45
Net Earnings per share	$ 1.43	$ 1.48	$ 2.04	$ 3.86

Source: Lockheed Annual Reports (1972-1975)

7. Scandals

In July 1975 Lockheed officials told the Securities and Exchange Commission that Lockheed"could lose lucrative contracts if it was forced to disclose details of overseas sales arrangements, some of which involved payments to foreign officials" [Ref. 71]. This aspect of Lockheed's

foreign sales would be reported almost daily by the news media during the remainder of 1975 and well into 1976. They were not alone, as subsequent events showed; but, when connected with cost overruns, shipbuilding claims and government guarantees, Lockheed became the number one target of business critics. By August, it became known that at least $202 million had been funneled into foreign sales agreements with about $22 million going to foreign government officials and political organizations. Lockheed officials argued that it could not identify the beneficiaries without jeopardizing its $1.6 billion backlog in unfilled foreign orders (military and commercial). They must be allowed to continue payments or seriously hinder future sales. They claimed that such payments are a normal and necessary feature of doing business in certain parts of the world, are essential to sales and consistent with practices engaged in by numerous other companies abroad.

The list of interested probers into foreign payoffs became longer as the months went by. The SEC, Senate Foreign Relations Subcommittee, Senate Banking, Housing and Urban Affairs Committee, House International Relations Committee, Senate Subcommittee on Multinational Corporations, GAO, Defense Contract Audit Agency (DCAA) and the Emergency Loan Guarantee Board were all looking into overseas sales and commissions before the year was out. Foreign payoffs by a large number of companies were disclosed in investigation after investigation. The use of "standard foreign business practices" was much greater than anyone had imagined.

By December, 1975 Lockheed had agreed to disband a special commissions fund of approximately $750,000 but continued to deny any allegations of using corporate funds for U. S. political payoffs. They

stressed that any disclosure of future or past payments could "significantly impair Lockheed's ability to obtain foreign orders, including future foreign orders for the TriStar aircraft that are vital to the continuity of the TriStar production line" [31]. Further, Lockheed officials admitted that payments to foreign consultants would continue to be necessary in obtaining "certain significant foreign orders." However the Board of Directors had established "stringent policies and procedures" to prohibit any such payments to foreign government officials, foreign political organizations and officials of foreign non-government customers that would not be deductible for U. S. income tax purposes [31]. This stand did not make the obvious problems for Lockheed go away nor quiet the unfavorable publicity the payoffs had created.

E. LOCKHEED 1976

1. More Scandals

The Bicentennial year started off much as the previous year had ended. With foreign payoffs, resignations and disclosures becoming a daily publicity problem for Lockheed, other difficulties became secondary considerations. Decisions had to be made concerning who would lead Lockheed through these difficult times and who would help finance them. Would the L-1011 bring Lockheed to its knees again? With GAO reports, FBI probes and Emergency Loan Guarantee Board approvals continuing to dominate Lockheed's corporate life, would the U. S. Government and Lockheed continue to walk hand-in-hand?

By February, news editorials were discussing the impacts of bribes, payoffs and commissions in military and commercial sales. Lockheed Aircraft Corporation was considered one of the most influential companies in this area. Indeed, by the end of February two of the most

widely-read weekly news publications had as their cover story Lockheed's alleged foreign payoffs [Refs. 51 and 52]. Information was also revealed during Senate Subcommittee hearings, bringing further negative publicity to Lockheed.

Some of the allegations were:

- $7 million had been paid to Yoshio Kodama, a Japanese right winger, as part of a push to sell six L-1011's for $130 million to Japan's All Nippon Airways.
- $1.1 million were paid to Dutch Prince Bernard in the early 70's in connection with efforts to sell the L-1011 and military aircraft.
- $2.2 million in payments were made to Italian agents who passed 85% on to government officials in connection with Italian government purchases of Lockheed transport A/C.

Other countries said to be involved in payoffs were West Germany, Colombia, Venezuela, Saudi Arabia, Indonesia, Iran, Jordan, Turkey, and the Philippines.

By mid-year the Federal Trade Commission (FTC) had also become involved in an investigation of foreign sales. They wanted to know if the payments gave Lockheed an unfair advantage over other companies in making foreign military sales. This was especially relevant when it was revealed that All Nippon had dropped an option to buy ten DC-10 jets and suddenly ordered six L-1011's [Ref. 53]. The controversy continued throughout the year.

a. SEC Actions

During 1975 the SEC began examining the documents previously filed by the 25 top defense contractors. This review, at the request of Senator William Proxmire, was begun after some earlier disclosures about foreign business practices of U. S. corporations. Publicly owned companies are "required to file reports with the SEC regularly and

whenever there is a significant happening that could affect their financial status" [Ref. 54]. It was these reports that were being reexamined. Shortly thereafter there came the admittance by Lockheed officials that extensive foreign payments had been made (see page 70).

The SEC's policy was to require corporations involved in improper overseas payments to (a) reveal who got these payments and (b) agree not to make any more. Lockheed resisted. Negotiations between Lockheed and the SEC on a consent decree, covering the company's payments abroad, dragged on into 1976. Delayed because of these negotiations was the annual stockholder's meeting and Phase II and III of the company's refinancing plan. Finally in April 1976 the SEC filed a complaint in Federal Court alleging violations of various provisions of federal securities laws in connection with asserted nondisclosures regarding foreign payments. It further contended that Lockheed had made payments many times "without adequate records and controls" [Ref. 55] so one could not verify the purposes for which the payments were actually made. Lockheed finally consented, without acknowledging or denying, by signing an SEC decree on April 9, 1976. No names of foreign officials or countries involved were mentioned in the consent agreement.

Included as part of the settlement, Lockheed agreed to correct and amend its annual and other reports on file with the SEC from 1970 to the date of the decree. Also, a special review committee composed of outside directors was set up to investigate past payments and practices.

A high Lockheed official called the consent decree "the pacing factor" [Ref. 56] governing Lockheed's ability to complete the details of the recapitalization plan with the company's 24 lending

banks, issue a proxy statement and schedule an annual meeting. With this out of the way the long delayed stockholders meeting would be held in the fall.

2. A New Chairman

By February a significant change came about in Lockheed's management. As names of foreign sources were revealed in the payoff scandal, directors began resigning. Mr. Daniel Haughton, Chairman and A. Carl A. Kotchian, President, concluded that since they had become the focus of the controversy over foreign sales commissions, the interests of the corporation would be best served by their departure [31]. Mr. Haughton at first attempted to get his own man in as the new Chairman but was opposed by many of the outside directors, who felt that Lockheed needed a new face. He finally gave in and Mr. Robert W. Haack was voted Chairman. Mr. Haughton, who had been Chairman of the Board since 1967 and a director since 1958, would now continue his relationship with Lockheed only as an advisor.

Although there were changes in at least six different positions, Mr. Haack's job would be the most difficult. As interim Chairman, his planned time frame was expected to be about one year or until he could get Lockheed to "start refocusing on our orporate problems." This chore would be an uphill battle all the way.

Robert W. Haack at age 59 was considered one of Lockheed's most energetic outside directors. A former investment banker and ex-President of the New York Stock Exchange, he was well connected in Washington and Wall Street. He had spent the last two years drumming up support for various Lockheed refinancing schemes. He stated his priorities as "getting us through our financing problems and some of our Washington

problems. We have no cash problem at present but we do have a capitalization problem with too much leverage." By August he was claiming that "the big threat is the L-1011, and you could almost characterize that as a bookkeeping problem" [Ref. 57].

The L-1011 was a marketing problem as well. Although considered quiet and efficient and having performed to good reviews from various airline customers, only 162 firm orders had been taken by late September 1976. This compares to an original projection of over 700 when the L-1011 was introduced eight years earlier. By mid-year Lockheed had only about three years worth of orders left, which it must produce at a costly, rock bottom rate of about six planes per year. Projected operating loss on the L-1011 in 1976 alone was over $100 million. By October Lockheed had only five new orders for its plane.

Haack's goal was to keep the L-1011 alive for another five years. If Lockheed could do this, its equity may well grow large enough to absorb the remaining $250 million in deferred costs. It was now writing down $500 million of its deferred costs at a rate of $50 million a year, but, if the plane is forced out of production before 1979, a $350 million to $475 million write off would be required against an equity of between $100 million and $250 million. Lockheed would then be without equity [57].

By mid-1976 refinancing appeared again to be a reality. The new plan differed little from the one agreed on last year and killed by the foreign payoff revelations. The banks, as originally planned, would convert $50 million in debt owed by Lockheed to preferred stock. This would boost the company's fragile net worth to $86 million in June, with a total debt of $800 million. Chairman Haack was also able to persuade the banks to convert $350 million of the non-guaranteed debt. The switch

would be from 90-day revolving notes to a five-year term loan [Ref. 58]. The additional $75 million line of credit arranged for in 1974 could now be dropped.

It appeared Chairman Haack would lose his first battle for Lockheed when Canada abruptly pulled out of a $750 million order for 18 P-3 Orion ASW aircraft. But Mr. Haack acted immediately with a new proposal stretching the production schedule and reducing the outside financing required. By July, the Canadians had done an about face and signed the patrol plane agreement [Ref. 59].

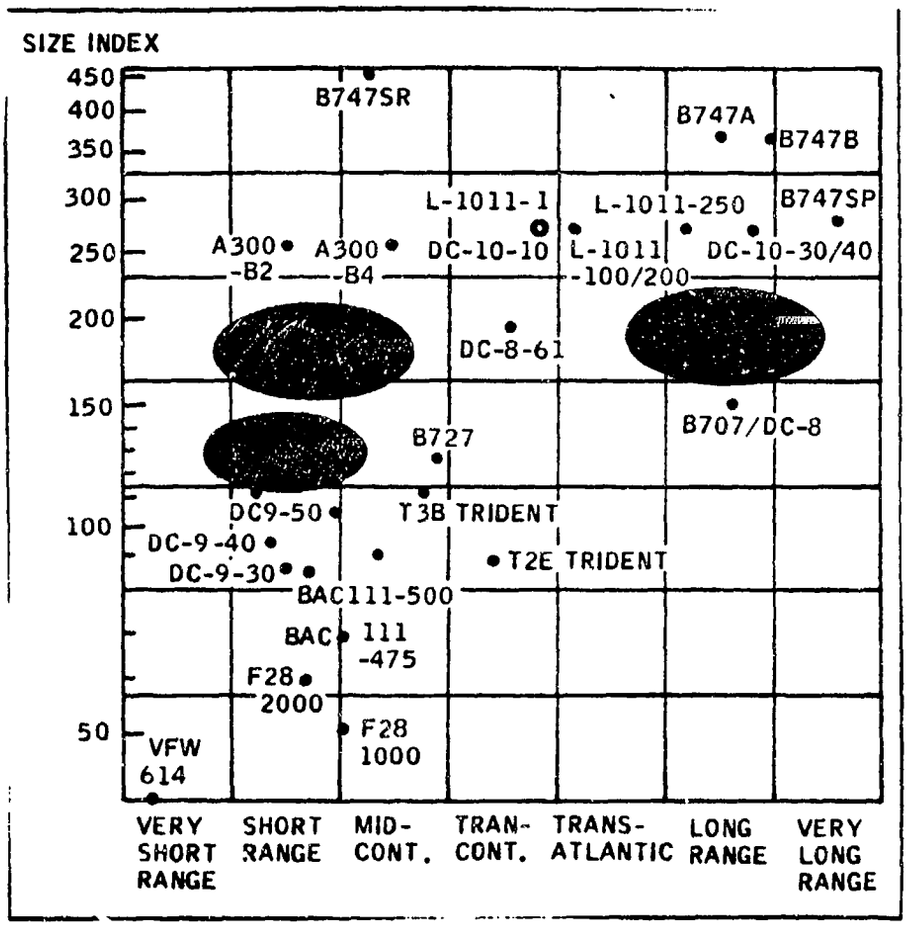
The refinancing plan, with only minor revisions, was approved during the first shareholder meeting in two-and-one-half years. This meeting was unusual in that Lockheed's lenders (who would soon become reluctant part owners) attended. By the end of the meeting officials felt confident in Lockheed's ultimate survival. Chairman Haack claimed that within six to eight months the company would no longer need the loan guarantees. "There are some banks willing to give up the guarantees at this moment," said Haack "the majority would like to wait six to eight months" [Ref. 60].

3. The L-1011 Family

Late in 1975 and into 1976 Lockheed officials dicussed the possibility of another L-1011 derivative to go with the three basic models then in production (Exhibit X). A preliminary design for a L-1011-250 was proposed to its customers. The "Dash 250", as it was called, was designed to meet the increased range and/or high altitude airport requirements of certain potential customers. Its introduction was made dependent upon the receipt of firm orders. Exhibit XVI illustrates the market in which the L-1011-250 was to compete.

EXHIBIT XVI

COMMERCIAL AIRCRAFT MARKET*



*Dark areas indicate where future expansion may take place.

Source: Aviation Week

During marketing efforts for the Dash 250 it became evident to Lockheed planners that the immediate market would require an airplane designed to provide medium-capacity, transoceanic jet transport by carrying fewer passengers at least 5000 nautical miles. A company task force, utilizing maximum commonalty of design and manufacturing facilities came up with the answer—the L-1011-500. Comparison of the Dash 250 and the "Dash 500" indicated significant differences.

	-250	-500
Engine	RB211-524	RB211-524
GTOW	496,000	496,000
No. of Passengers	273	231
Range	4300 n.m.	5300 n.m.

By August, British Airways had converted six firm and three option orders for the L-1011-1 into orders for the L-1011-500 version and added another three option orders on the same aircraft. The Dash 500 was assigned production status by September with first delivery scheduled for sometime in 1979 [10]. No orders for the Dash 250 version were received during 1976.

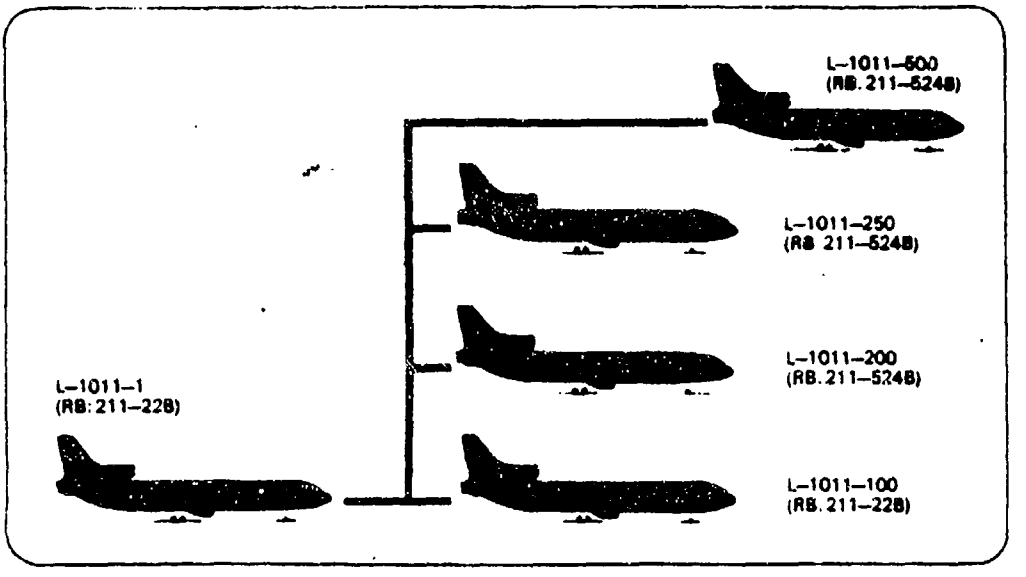
With these new models the L-1011 had branched out considerably from its basic version first flown in 1971. Lockheed officials now talked of the L-1011 family tree that would be the basis for operations into the 1980's. They also hoped to add a smaller, more efficient, two engine TwinStar when more favorable market conditions obtained. Exhibit XVII shows the L-1011 and DC-10 (its nearest competitor) family trees as of late 1976 [Ref. 61].

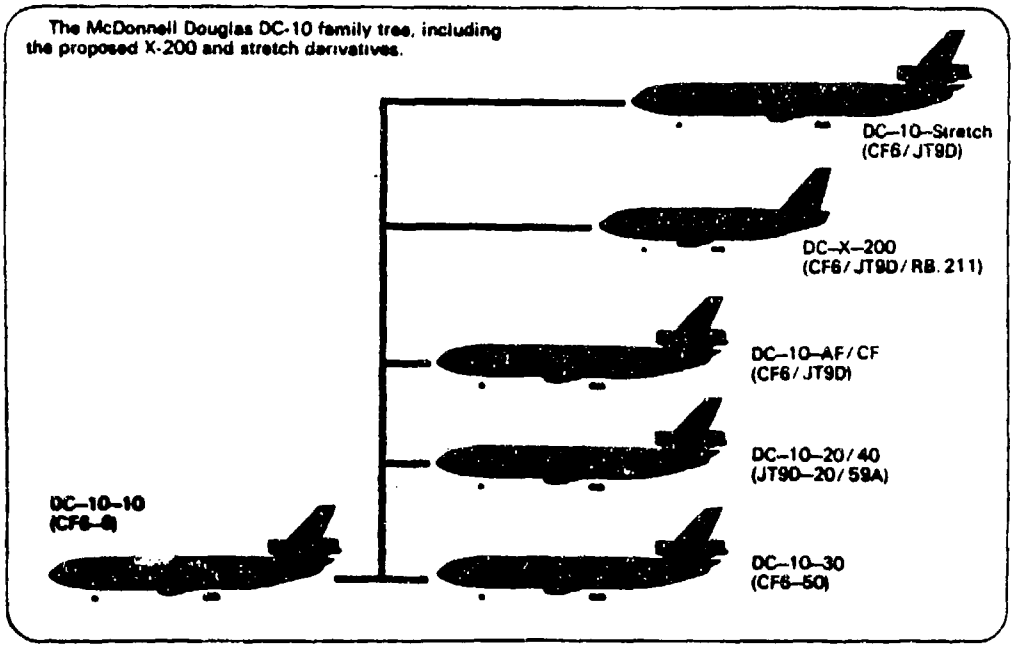
4. Airline Recovery

By early 1976, the airline industry was showing signs of recovery. With air traffic levels consistently above year-earlier levels, earnings for most carriers were improved. Many analysts predicted this upward

EXHIBIT XVII

L-1011 AND DC-10 FAMILY TREES





Source: Interavia, January 1977, Vol. XXXII

trend would continue into the 1980's. With these encouraging figures, the typical aerospace view of the wide-body aircraft market reflected a new, somewhat guarded optimism. Despite very little to show in new orders during 1976, a market appraisal by one Lockheed official reflected the industries' feelings, "the airlines are trying to postpone new acquisitions for as long as they can—by putting in more seats, going for higher load factors before increasing frequency and getting better utilization—if the air transportation market does grow at 7-8% annually, they will have to buy new equipment" [61]. Revenue-passenger mile growth averaged 10% during 1976 [Ref. 62].

5. Summary

Despite some good news from Chairman Haack the uncertainty that had existed over Lockheed continued throughout the year. It was still unclear as to what effect foreign payoff disclosures were having on Lockheed as a going concern. Some immediate results were:

(a) Claims by the GAO that foreign payments may seriously inhibit Lockheed's future success in foreign markets and invalidate its current forecasts.

(b) The possible cancellation by All Nippon Airways of its order for six L-1011's.

(c) The cancellation by Japan of a $1.2 billion planned order for Lockheed patrol planes.

(d) Very delicate negotiations with Canada over the patrol plane purchase.

(e) At least three lawsuits from interested parties asking for the reimbursement of payoff monies.

(f) The cancellation of two options by Cathay Pacific Airlines.

(g) Resignations and indictments in many foreign countries.

Total 1976 earnings and sales were down from the previous year (see Exhibit XVIII) indicating some softening in Lockheed's profitable defense business. The survival guessing game would continue.

EXHIBIT XVIII

Selected Financial Data, Lockheed Aircraft Corporation

1975–1976 Comparison
(in millions $)

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Year	
	1975	1976	1975	1976	1975	1976	1975	1976	1975	1976
Sales	747	863	876	836	902	729	862	773	3,390	3,200
Net Earnings	10	11	15	11	13	9	7.9	7.4	45.3	38.7
TriStar Sales	93	151	156	170					559	431
TriStar (losses)	(12.7)	(24.4)	(18.4)	(22.0)	(20.6)	(28.1)	(42.1)	(50.3)	(93.8)	(124.8)
Earnings per share of capital stock	.80	.83	1.10	.85	1.06	.75	.68	.50	3.86	3.10

Source: Lockheed Aircraft Corporation, Quarterly Reports, 1976

IV. CONCLUSION

A. ASSESSMENT OF MAJOR ARGUMENTS AGAINST THE EMERGENCY LOAN GUARANTEE ACT

In considering the issues, it is necessary to keep in mind the many important events that have taken place since 1971. Some of these include:

(a) Major changes in DOD contracting policies.

(b) Complete withdrawal of U. S. troops from Vietnam.

(c) Democratic party election sweeps on three occasions (1971, 1973, and 1975).

(d) Watergate and associated political problems.

(e) The Arab oil embargo.

(f) Severe inflation combined with a recession throughout the U. S. economy.

(g) A financial crisis and U. S. Government aid for New York City.

The author presents brief discussions on some of the major arguments against providing assistance to Lockheed. Many of these arguments were in the form of predictions as to what would happen if the loan guarantee program was enacted. Some of these predictions were so general in nature that the author's opinion, based on the research material gathered, must also be expressed in a very general way. Other arguments can be answered more directly. Some of the predicted events could still take place.

1. Political

The guarantee would "prove that Lockheed has the muscle not only to get the military business it needs but to be bailed out of its civilian misadventures as well " [Ref. 2, p. 159].

Discussion: J. Ronald Fox in his book Arming America: How the U. S. Buys Weapons, devotes a full chapter to what he calls "defense marketing" [Ref. 63]. An important part of defense marketing is lobbying pressure on Congressmen. Lockheed Aircraft Corporation, having received a larger share of defense contract awards than any other single contractor in seven of the past ten years (1966-1976), has a great deal of political power. This was most evident during the hearings, debates, and final vote on the Emergency Loan Guarantee Act.

The aid was necessary because of major problems financing the L-1011 program. But "civilian misadventures" does not describe the total situation. Part of their problems stemmed from large amounts lost earlier on defense contracts, (C-5A, AH-56A, SRAM propulsion system).

Where a large defense contractor locates its plants can be vital to its success. Major suppliers for large prime contractors also wield enormous political leverage by being strategically located. The L-1011 program, although not a defense contract, illustrates this political power base perfectly.

Lockheed relied on 66 major suppliers spread out over 23 states. The value of the total L-1011 production program for these suppliers was estimated at over $1.5 billion. With a Congressman's major concern being his constituents, many of whom may work for these suppliers, it would not have been difficult to predict the outcome of many individual votes on this legislation.

With political influence so important, it is not surprising when major government contractors strategically locate their plants and subsidiaries so as to influence the decisions of key congressmen

(Lockheed and its subsidiaries are located in seven states and ten countries). One Pentagon staff member ably described the atmosphere and how to get around it. A way to ensure key program passage would be to "place defense plants on wheels and pull them around from one state to another so that each Congressional district could have equal time" [Ref. 63, p. 150].

With programs such as the L-1011 it may be even more than plant location that influences a favorable vote. As one Congressman succinctly put it, Lockheed's tactics were compared to "an 80-ton dinosaur who comes to your door and says, 'If you don't feed me, I will die.' And what are you going to do with 80 tons of dead, stinking dinosaur in your yard" [Ref. 64]? By the end of 1976 there were many dinosaurs flexing their political muscles.

2. The Aerospace Industry

"The loan guarantee could spell the beginning of the socialization of the American aircraft and aerospace industry" [5].

Discussion: The largest aerospace companies are also among the U.S.'s largest defense contractors. Being a large defense contractor (Lockheed was the largest in 1971) means living with government involvement in the day-to-day activities of the firm. In 1962 Scherer commented on the dilemma in the second volume of the Weapons Acquisition Process: Economic Incentives [Ref. 65].

"A substantial degree of Government intervention-socialism if you like-is inescapable."

The amount of "intervention" had increased greatly by 1971 and is still greater in 1976.

The role of government in making decisions has been especially great in government contracting. Safety, equal opportunity, environmental

concerns and many social programs are now an integral part of contract terms. The switch from fixed price (TPP) to cost reimbursement contracts has also stimulated government involvement.

This author equates "socialization" to actual government ownership of the firm or the nationalization of an industry. This has not taken place. The activities of the Emergency Loan Guarantee Board, GAO, SEC, Justice Department, and others are not contributing to a socialization process in this strict sense. Heavy government involvement will continue to be a fact of life with or without the Emergency Loan Guarantee Act.

3. Market Discipline

"A broad loan guarantee bill will only encourage a continuation of those practices that have caused this trouble" [Ref. 2, p. 155].

Discussion: It is debatable whether the Emergency Loan Guarantee Act actually encouraged "those practices that have caused this trouble." Certainly with the threat of bankruptcy somewhat diminished (although not completely removed) truly efficient operations (conscious or unconscious) will almost always be less likely. Without the market discipline found in more commercially oriented firms, Lockheed and other large government contractors are less likely to change their old and sometimes inefficient ways.

4. Contracting

"The government may give Lockheed preferential treatment in contracts after the guarantee went through. This could be in the form of sweetheart contracts or an easing up of contract administration policies" [Ref. 6, p. 26409].

"What assurances will there be that the government will not seek to bail itself out of the guarantee commitment through defense contract Awards" [7].

Discussion: There is no hard evidence that the government went out of its way to arrange things, through its contracting policies, so Lockheed would survive. As stated in section II, favoritism in this area would reflect on the government's source selection and contract administration policies. Other firms would surely be quick to pick up unfair practices and request redress through bid protest channels.

An indication that the government has not eased up on contract administration policies is seen in at least three cases:

- The Navy's serious dispute with Lockheed in 1971 over $159 million in shipbuilding claims, which was still in an appeal status by the end of 1976.
- The loss of $9.8 million by Lockheed on a contract for two icebreakers for the U. S. Coast Guard.
- No provisions for abnormal escalation in the basic S-3 contract. Lockheed was required to live with this during a period of very high inflation rates.

Despite this Lockheed did very well in defense contract awards from fiscal 1971 through 1976.

Lockheed's Position in Defense Contract Awards (1971-1976)

Year	Position	Dollar value of Contract Awards (billions $)	% of U. S. Annual Contract Awards
1971	1st place	1.51	5.08
1972	1st place	1.71	5.11
1973	1st place	1.66	5.3
1974	2nd place	1.46	4.3
1975	1st place	2.08	5.27
1976	2nd place	1.51	3.6

Source: Wall Street Journal

Major new contract sign-ups during this period included (calendar years):

1971 – Trident development funding, Poseidon, Cheyenne development funding, P-3C, Coast Guard Icebreaker, C-5A modifications.

1972 – Trident development funding, follow on SRAM orders, first production lot for S-3A, 38 C-130's.

1973 – Trident, Space programs, Propulsion programs, C-130's, S-3A's, P-3C's.

1974 – Trident, Space programs, U. S. Navy submarine tenders, C-130's, S-3A's, P-3C's.

1975 – Trident, Space programs, C-130's, S-3A's, P-3C's.

1976 – Trident, Space programs, C-130's, S-3A's, P-3C's, Saudia Arabian air traffic control system, Canadian patrol planes.

Lockheed's profitable defense contracts have certainly helped them recover from past losses.

5. Bankruptcy

"It is the very threat of bankruptcy which often jolts firms, large and small, from inefficient practices in their utilization of labor and capital and in their methods of financing and marketing. This effect is lost when there is a guarantor of last resort" [Ref. 2, p. 158].

Discussion: The guarantee program, as established in 1971, does not make the U. S. Government the guarantor of last resort. Lockheed was still capable of going out of business. The threat of bankruptcy was lessened a great deal by the guarantees and probably did perpetuate a sick program (the L-1011). The close scrutiny during the hearings and debates (and during the past five years) probably jolted Lockheed from some less-than-efficient practices as well as a pending bankruptcy could have.

6. Who Benefits from Loan Guarantees?

"Government guarantees operate to preserve existing interests in a business and provide windfall benefits to management and stockholders. On the whole a monopoly is preferable to artificial competition" [7].

Discussion: The government guarantees do operate to preserve the existing interests in a business. This is its very basic interest in surviving. It is most probable that the guarantees did save Lockheed from bankruptcy.

The idea of "windfall benefits" to stockholders was exaggerated then and, in retrospect, seems even more exaggerated now. Stock prices during the 1971-1976 time frame varied as follows:

	High		Low
1971	15 1/4	-	7 1/2
1972	15 3/8	-	8 3/4
1973	9 3/8	-	2 3/4
1974	5 1/2	-	3 1/4
1975	13 7/8	-	3 3/4
1976	12 1/2	-	6 5/8

Source: Value Line

Dividend payments have not been made since 1969. Certainly staying in business prevented some major losses for stockholders and management (who may also be stockholders) but "windfall benefits" have not yet been attained.

The management situation has been tenuous at best. Although a case can be made that substantial salaries (up to $150,000-$200,000 range) can be equated to "windfall benefits" other, less desirable factors have had a mitigating effect. Controversy, resignations, and indications of severe emotional stress (A company vice president was found shot to death, an apparent suicide, after the disclosures in mid-1975), all indicate less than ideal working conditions. The question may come down to, where would the manager be had the guarantee program not come about? Benefits, from this perspective, range from none to many, depending on the individual involved.

Thus the real "windfall benefits" probably went to the U. S. Government (in a contracting sense) and Lockheed's biggest guarantee boosters, its banks (who stood to lose hundreds of millions of dollars in a Lockheed bankruptcy).

It is doubtful whether monopoly is preferable (from a buyer's standpoint—the U. S. Government) to artificial competition. Competition is many times artificially stimulated when large contracts are offered for bids. Competition has become the watchword for government procurement during 1976. In DOD's view, healthy (although somewhat artificial) competition is almost always better than sole source (monopoly) procurement. Other factors to consider include:

(1) Entry and exit of large prime contractors in the Aerospace market is very difficult.

(2) Competition can screen out inefficient mismanagement but may also drive out firms caught in unavoidable difficult circumstances (ex. TPP in late 60's).

The Anti-Trust division of the Department of Justice invariably takes the position that x+1 competitors are always preferable to x. Thus an opposite viewpoint that "artificial competition" is preferable to "monopoly" seems to be the standard that most government officials have adopted. Loan guarantees are certainly one way of achieving this end.

7. Loan Guarantee Controls

"The breath, magnitude and lack of enforceable controls in this measure make it a financial Tonkin Gulf resolution" [Ref. 2, p. 159].

Discussion: Although Lockheed did have problems meeting their original loan guarantee deadlines, the Emergency Loan Guarantee Board closely controlled the total loan guarantee program. Lockheed had to seek the Board's approval for any action which could affect its financial position. The Board's annual report to Congress scrutinized every major aspect relating to repayment of the loan guarantees.

The above quote indicates that the spokesman believed the Administration was trying to pull something over Congress' eyes which would lead to disastrous follow on aid. This has not been the case.

8. Potential for Government Loss

"There is substantial risk of default and loss to the government in the proposed guarantee" [Ref. 2, p. 154].

Discussion: The government adequately protected itself with collateral in the early stages of the guarantee program. Lockheed assets of $253 million backed the guaranteed loans and the government was given top priority in any bankruptcy proceedings.

There certainly has been danger points with respect to potential default by Lockheed. They required $245 million of these loans and an extension to the repayment deadline. With $100 million still to repay, as of late December 1976, and more than $253 million in assets still backing the government position, adequate protection is assured even if Lockheed should now default.

9. Credit Arrangements

"What interest rates will be charged? Will the terms be adverse to McDonnell Douglas or to Boeing, which have to go into the money market without the advantage of guarantees" [7].

Discussion: This question points out an interesting facet of the loan guarantee program. Lockheed was able to receive guaranteed bank borrowings at 8% and 7.3% during 1971. Other borrowings, in subsequent years, averaged about 3% above the prime lending rate.

If we assume that McDonnell Douglas was able to borrow at the prime interest rate (which it undoubtably was not able to do), then Lockheed paid only 3% more in interest for its borrowings.

Since Lockheed and McDonnell Douglas have similar bond offerings, a comparison of current market yields over the period 1971 to 1976 can

be made. High and low price quotes on Lockheed's convertible subordinated debenture 4 1/4's due in 1992 are as follows:

Price Range	1976	1975	1974	1973	1972	1971
High	49	44 1/4	36	44 1/4	49 3/8	47 7/8
Low	34 1/4	28 1/8	24 1/8	23 1/2	39 3/4	25 1/8

McDonnell Douglas's convertible subordinated debenture 4 3/4's due in 1991 are now compared:

Price Range	1976	1975	1974	1973	1972	1971
High	89 1/2	90 3/8	87 1/2	94 1/2	95	85 1/4
Low	59 5/8	81	79	86	81 1/4	71 5/8

Effective yields on these bonds can now be calculated and compared with the guaranteed notes and prime lending rates

Current Yield(%)	Lockheed Convertible Debentures		Lockheed Guaranteed Notes		McDonnell Douglas Convertible Debentures		Prime Rate	
	High	Low	High	Low	High	Low	High	Low
1971	16.9	8.8	8.0	7.3	6.6	5.57	6.25	5.25
1972	10.6	8.6	8.25	6.6	5.8	5.0	5.75	4.75
1973	18.0	9.6	11.15	8.2	5.5	5.0	10.0	6.25
1974	17.6	11.8	13.1	10.3	6.0	5.4	12.0	9.0
1975	15.1	9.6	10.8	9.25	5.8	5.2	10.25	7.0
1976	12.4	8.6	9.4	8.3	7.9	5.3	7.25	6.75

Lockheed's market debt shows significantly higher interest rates than either McDonnell Douglas or the Lockheed guaranteed notes. Using the market rate as a fair indication of what Lockheed should be paying for its debt, a clear government subsidy which discriminates against McDonnell Douglas' borrowing arrangements, does exist.

10. Precedent

"A dangerous precedent it in effect makes the federal government a partner in that company" [7].

Discussion: The loan guarantee to Lockheed was a precedent. Whether it was a dangerous precedent is still open for argument. Because of the environment fostered by the Congress, the news media and the Emergency Loan Guarantee Board there have been no other requests for guarantees under this Act. Firms in need have still tried to receive aid through other means.

Proponents of assistance to New York City used Lockheed as a precedent. Typical connections were:

> "The Federal government has turned its back on the problems of localities. It's been negligent too long. It's absurd, when they can bail out the bankrupt railroads, Lockheed and the oil companies, that they can turn their backs on the straphangers" [Ref. 66, p. 247].

> "Don't tell me that an Administration which asks to put $250 million to prevent [Lockheed Aircraft Corporation] from going bankrupt can be indifferent to the needs of New York City" [Ref. 66, p. 253].

A direct loan to New York City was made in December 1975. The Lockheed precedent was an important factor in getting this loan.

The Emergency Loan Guarantee Board tried to go out of existence in June 1973 saying: "While it is possible that circumstances similar to the Lockheed situation could arise in the future, such circumstances are likely to be rare and should be met by a specific request by the Administration to the Congress for authority tailored to the existing factual situation rather than by use of any continuing general authority delegated by the Congress" (Emergency Loan Guarantee Act of 1971) [Ref. 11, p. 11-12]. It is likely that, when the loans guaranteed to Lockheed are no longer necessary, the Board will again try to dissolve itself.

Given the new policies of the current Administration this will probably be successful.

Theoretically another firm can apply for a loan guarantee so long as the legislation is on the books. Given that this is still a last resort measure, some interesting events could take place should a firm be turned down in its application. If the firm should declare bankruptcy a court suit could ask for redress in the needed guarantees. The U. S. Government could in fact be held liable by the Courts for the firm's ultimate demise. This may be another reason for the Board's eagerness to go out of existence.

11. The Wide-Bodied Jet Market

"There is not enough business for three firms in the wide-bodied jet field and Lockheed's entry will severely cripple the present dominant U. S. position" [20].

"If Congress approves the bill it should be prepared to subsidize Lockheed into the indefinite future. There is not sufficient market demand to support the number of major commercial airframe makers we have in this country" [Ref. 2, p. 158].

"The airline market would not support both the Lockheed and the McDonnell-Douglas Corporation" [Ref. 2, p. 161].

"The bill might result in two sick companies instead of one" [Ref. 2, p. 161].

Discussion: As of late 1976, the argument that "there is not enough business for three firms in the wide bodied jet field" has certainly proven true. These three firms are Boeing (747), McDonnell Douglas (DC-10) and Lockheed with its L-1011.

The market, as viewed in the late 60's, was expected to handle all three manufacturers but, by the early 70's, these predictions had proven wrong. Earlier and more recent predictions show considerable disagreement.

Prediction date	Source	Prediction
September 1968	Lockheed	1400 L-1011's (more than 1/2 sold by 1975)
mid 1971	Lockheed	220 L-1011's by 1977
mid 1971	Lockheed	775 airbuses by 1980
mid 1971	FAA	760 three engine aircraft during 70's
mid 1971	CAB	798 three engine aircraft over ten year period
July 8, 1971	Unofficial Lockheed	400 L-1011's
February 1973	Lockheed	350 L-1011's
September 1973	Independent analysis [Ref.67]	270-310 L-1011's
1973	Bankers Trust	229-318 L-1011's
1973	Bankers Trust	273 L-1011's
July 1975	FAA	300 L-1011's "not unreasonable"
July 1976	Lockheed	300 L-1011's (with delivery into the late 1980's)

In July, 1976, the Emergency Loan Guarantee Board concluded that "while there is no reason to believe that the 300-plane program is not realistic, the importance of achieving it to maintain future reported earnings and for other purposes has been lessened by write-offs of research and development expenses required for accounting purposes" [Ref. 10, p. 27].

The latest Lockheed estimates of the wide bodied market reflects the expected recovery of airline passenger growth rates.

The market for wide-bodied aircraft	1975	1980	1985
Long-range (over 4,000 nmi).....	360	600	1,000
Medium-range (2-4,000 nmi)	230	400	800
Short-range (under 2,000 nmi).....	10	50	400
Totals.....	600	1,050	2,200
Aircraft added: 1976/80=450; 1981/85=1,150; 1976/85-1,600			

Note: Figures relate to the number of aircraft worldwide projected at year end. Source: Interavia 1/77

When the three major U. S. aircraft producers are compared by airliner sales, Lockheed's weak commercial position relative to Boeing and McDonnell Douglas, is seen. But Lockheed consistently comes out ahead of both firms in defense contract awards.

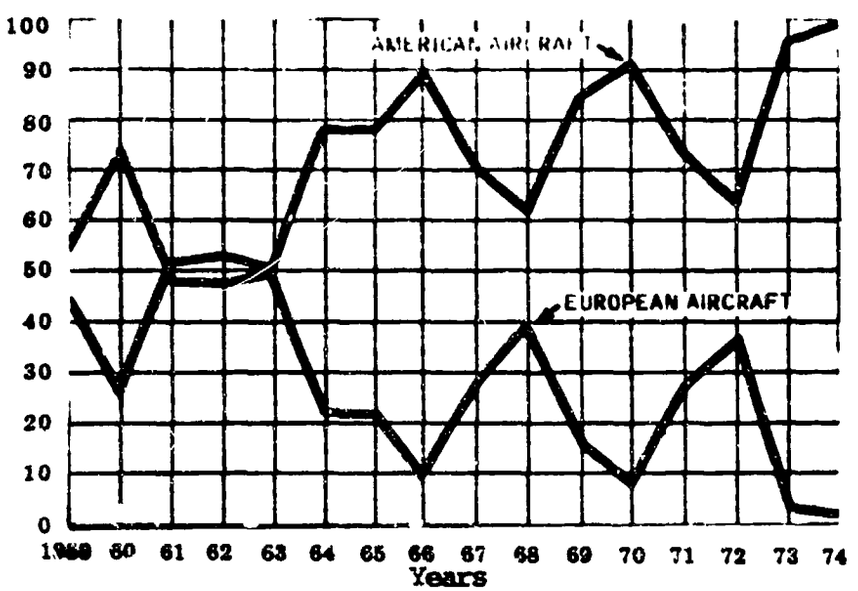
US AIRLINER SALES

Type	Total sold to 1-10-76	Sales 1974/76*	Delivery backlog at 1-10-76
Boeing 707/720	920	30	14
Boeing 727	1,345	245	132
Boeing 737	489	108	29
Boeing 747	313	55	24
Lockheed L-1011	166	37	18
McDonnell Douglas DC-9	870	92	48
McDonnell Douglas DC-10	244	37	18

Note: To October 1, 1976, backlog is estimated from announced delivery schedules. Source: Interavia 1/77

The dominant U. S. position in commercial aircraft sales has actually increased since the loan guarantee proposal. When European and U. S. aircraft sales to European airlines were compared (up through 1974), the trend toward U. S. manufacturers is made quite clear [Ref. 68].

Aircraft Sales to European Airlines



Source: Aviation Week, February 16, 1976

12. The TriStar as an Investment

"Conflicting information on the L-1011 breakeven point indicates the actual breakeven will probably be much higher than Lockheed projections" [Ref. 2, p. 154].

"Lockheed is likely to lose as much as $2 billion on the L-1011 program and these losses will only increase if the program is continued" [20].

Discussion: Both of these statements indicate a lack of confidence in Lockheed's ability to predict the future of the L-1011 program. In 1971, Lockheed was projecting a breakeven point of between 255 and 265 L-1011's. Other estimates, before and after, show considerable disagreement.

Year	Estimator	Breakeven Point (#A/C)
1968	Barron's	300
1970	DOD	370
1971	Unofficial Lockheed spokesman	200-400
1971	Lockheed auditor	255-265
1972	Lockheed	275
1973	Independent analysis [67]	287 (0% opportunity cost)
1973	Independent analysis	360 (5% opportunity cost)
1973	Independent analysis	510 (10% opportunity cost)
1973	Independent analysis	1000 (15% opportunity cost)

Value Line [Ref. 69] predicted a program profit on the L-1011 during the 1979-1981 time frame.

As of September 30, 1976, 162 firm and 46 option orders had been received. Given the 1971 estimate of 255 to 265 aircraft sales necessary to break even, there is still a considerable gap that must be closed. Some of the problems experienced by Lockheed over the past five years which have impacted the breakeven point are:

- A slow production rate which impacts the training, learning curves and supplies.
- Considerable cost increases in the capital, labor and equipment.
- A continued lack of demand combined with the need to raise prices to meet the cost increases.

The independent analysis done by Reinhardt [67] in 1973 points out another serious problem that Lockheed planners apparently failed to consider in their breakeven predictions. When opportunity costs[5] are included, significant differences appear in the breakeven point. When varying production rates are also considered breakeven figures are much higher.

A 1971 study estimated $800 million[6] in program development costs on the L-1011. The table below shows potential profit and losses based on a $14.7 million selling price and a 300 aircraft program (dollars in millions) [Ref. 3, p. 1161].

	Number of aircraft			
	100	150	300	550
Amortization of $800 million (cost per plane)	8.0	5.3	2.5	1.5
Estimated production (cost per plane original contract)	25.5	15.5	12.0	10.5
Airplane cost	33.5	20.8	14.7	12.0
Selling price	14.7	14.7	14.7	14.7
Profit (loss) plane	(18.8)	(6.1)	—	2.7
Total profit (loss)	(1.9B)	(0.9B)	—	1.5B

Source: Hearings, Committee of Banking, Housing and Urban Affairs

This early analysis assumed a constant selling price of $14.7 million along with a constant reduction in the costs associated with aircraft production.

These assumptions have been found, by this author, to be unrealistic.

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[5]Opportunity costs consider alternative uses for the money invested in a particular project. With the L-1011 these costs may have been as high as $1.4 billion and "lost" for over 10 years. Any analysis must consider this "cost of capital".

[6]This estimate of $800 million is extremely conservative. Various spokesmen indicated amounts running as high as $1.4 billion. McDonnell Douglas is said to have spent $1 ? billion in developing the DC-10.

Simple calculations using TriStar actual sales dollars and the number of aircraft delivered gives a rough estimate of the average price and cost per L-1011 (dollars in millions).

TriStar Sales/Price/Cost Information

		1972	1973	1974	1975	1976	Totals
A.	TriStar sales	302	730	811	559	431	2833
B.	TriStar cost & expenses	426	800	860	653	556	3295
C.	TriStar (losses)	(124)	(70)	(49)	(94)	(125)	(462)
D.	Forecasted sales (#A/C)	22	41	51	59	39	212
E.	Actual sales (#A/C)	17	39	41	25	16	138
F.	Average A/C price	17.8	18.7	19.8	22.4	26.9	20.5
G.	Average A/C cost	25.1	20.5	21.0	26.1	34.7	23.8
H.	Average (loss) per A/C	7.3	1.8	1.2	3.8	7.8	3.4

Source: Lockheed Annual Reports (1972-1976)

These figures give a clear indication of the price increases during the past five years and show large cost increases in the aircraft delivered in 1976. Related indices[7] increased over 50% during this same time frame. The much slower production rate during 1976, which was expected to continue throughout 1977, also had a major effect.

The final results of the L-1011 program will not be known for many years to come, but, as of 1976, it is not difficult to update the earlier predictions.

- Lockheed is likely to lose a great deal on the L-1011 program. Just how much will be lost depends on future sales and when Lockheed decides to complete the program. It is not inconceivable that these losses could amount to upwards of $1 billion should sales and production rates continue at present low levels. When more realistic assumptions of opportunity costs and slower production rates are considered, breakeven is beyond even the most optimistic sales projections.

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[7] Metal and metal products 119 (1971) - 194 (May 1976) 1967 = 100
Aircraft Industries Average Hourly Earnings $4.17 (1970) - $6.20 (1975)
Source: Statistical Abstract of the U. S., 1976.

13. L-1011 Technical Capabilities

"The L-1011 contains serious technical deficiences including inadequate engine thrust, excessive weight, and questionable design features for a commercial aircraft" [20].

Discussion: This dire prediction by loan opponents has not proven true. The L-1011 did have technical problems during the introductory phases.[8] The primary early problems were connected with the failure of engine fan discs on the early RB-211's. Other minor problems were (1) an engine "surge" or overspeed; (2) development of a high overhaul rate for the combustion module (hot section); and (3) a higher-than-expected number of accessory drive-gear failures. These difficulties had been corrected by mid-1974 and the L-1011 has performed well since. Early introductory problems are common to all new aircraft and this plane was no exception.

B. SUMMARY

Lockheed has survived and much of the controversy surrounding the "Lockheed loan" has faded. Although the U. S. Government has not lost directly, there will always be the question whether or not there has been some indirect loss. Was there a precedent set which will be brought up in the future if others need assistance? The answer is not a simple yes or no. Certainly proponents of the New York City loan in 1975 used Lockheed as an example of how government has been used to "bail out" large institutions in financial distress. Although differing widely in the circumstances, the use of the government to aid organizations in trouble financially is now considered acceptable by many people, when the national interest is at stake.

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[8]See Section III.D.5 for a discussion of the L-1011's performance.

The Emergency Loan Guarantee Act of 1971 has not been used for guaranteeing loans to other defense contractors. A combination of Congressional criticism, government involvement in the day-to-day operations of the borrower and unfavorable media exposure have all served to discourage other potential applicants for the benefits of this legislation. This has not prevented government contractors from seeking other types of aid when the situation warranted. Government assistance for defense contractors has continued by way of advance payments, progress payments, and lesser amounts of guaranteed loans.[9] The unique monopsonistic relationship between supplier and buyer of sophisticated military equipment has not changed.

This thesis looked at Lockheed operations during the 1971-1976 period. The management decision making process, during this time span, has been fraught with many uncertainties and burdened by poor choices based on overoptimistic predictions. Selling only 208,[10] $25 million[11] airplanes, while expected to sell over 700, has been a severe financial blow. This has manifested itself in a number of ways, and can most clearly be seen by tracing Lockheed's stock performance over the last six years. Lack of investor confidence has held Lockheed's common below $10 for almost the entire time.

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[9]The Defense Production Act of 1950 allows the U. S. Government through various DOD agencies to guarantee loans up to $20 million to defense contractors. These loans are sometimes called "V-loans".

[10]There were 162 firm orders and 46 option orders as of 30 September 1976.

[11]The basic L-1011 price has ranged from $15 million to $30 million over the past six years. Price differences depend on many factors including competition, financing arrangements, and individual customer needs.

The L-1011 took six years to go from the drawing board to first flight (1966-1972). Another five years (1972-1977) have passed since this major milestone. During these 11 years, significant changes have taken place in the market in which the L-1011 was to operate. Oil embargoes, reduced airline passenger demand, inflation and recession have all changed the environment for the worse. With huge amounts of money involved, the competition, although among only a few large producers, has been intense. These competitive aspects are expected to become even more prevalent should foreign producers become more successful in U. S. markets.

As of the end of 1976, 65% of all Lockheed sales were to the U. S. Government.[12] This percentage, having remained almost constant over the last four years, is a significant change from the way Lockheed used to do business. Department of Defense contracts alone represented over 90% of the total company sales during the previous ten years. Given the problems Lockheed has experienced in selling the L-1011, it is likely that the U. S. Government may again dominate its future business. However the coming end of some of its major defense programs will also have an important impact. The P-3, C-130 and S-3 contracts, although still with large potential in the foreign sales area, have diminished importance in future U. S. sales.

Lockheed operates in a high technology-high risk environment. This environment, although certainly present in defense work, is more pervasive in the commercial world. Government business tends to isolate major defense contractors from some of the hazards of the market place.

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[12]Sales to the U. S. Government include foreign military sales.

Expanding its share of commercial products has removed this "shield" and, thus far, proven unprofitable for Lockheed. This should be an important consideration in future corporate planning.

Some other uncertainties Lockheed planners may have to contend with could include:

- Another oil embargo.
- Further restricted use of available energy sources.
- Major fluctuations in the value of the dollar.
- A changing, and potentially less favorable, political environment.
- Major challenges from foreign producers in the wide-bodied jet field.
- Changes in government regulation of domestic airlines.
- A less than optimum recovery in airline passenger traffic.

Assuming a more realistic approach to all unforeseen circumstances, Lockheed management must continue to deal with their biggest uncertainty, past, present, and future—the L-1011 will continue to impact Lockheed, in an unfavorable way, for many years to come.

APPENDIX A

HOUSE OF REPRESENTATIVES VOTING RECORD ON PUBLIC LAW 92-70

[Roll No. 237]

YEAS—192

Abernethy
Adams
Addabbo
Alexander
Anderson, Calif.
Anderson, Ill.
Andrews, Tenn.
Annunzio
Arends
Ashley
Baker
Baring
Belcher
Bell
Betts
Blackburn
Blanton
Boggs
Bolling
Brasco
Brinkley
Brown, Mich.
Brown, Ohio
Broyhill, N.C.
Broyhill, Va.
Buchanan
Burke, Mass.
Burleson, Tex.
Burton
Byrnes, Wis.
Byron
Cabell
Caffery
Carey, N.Y.
Carney
Casey, Tex.
Cederberg
Celler
Chamberlain
Chappell
Clausen, Don H.
Collier
Collins, Ill.
Collins, Tex.
Colmer
Conable
Corman
Daniels, N.J.
Danielson
Davis, Ga.
Davis, S.C.
Davis, Wis.
Dickinson
Dorn
Downing
Duncan
Dwyer
Edmondson
Edwards, Ala.
Edwards, Calif.
Eshleman
Evins, Tenn.
Fish
Fisher
Flood
Flowers
Flynt
Ford, Gerald R.
Forsythe
Frelinghuysen
Frey
Fulton, Pa.
Fulton, Tenn.
Fuqua
Gallagher
Garmatz
Gettys
Giaimo
Goldwater
Grasso
Gray
Griffin
Gubser
Hagan
Halpern
Hanley
Hanna
Hansen, Wash.
Hawkins
Hébert
Hillis
Holifield
Hunt
Johnson, Calif.
Kazen
Keith
Kemp
Kuykendall
Kyl
Landgrebe
Landrum
Leggett
Lent
Lloyd
McClory
McCollister
McCormack
McDade
McDonald, Mich.
McEwen
McFall
McKevitt
McKinney
McMillan
Mailliard
Mathias, Calif.
Mathis, Ga.
Matsunaga
Meeds
Miller, Calif.
Mills, Ark.
Mills, Md.
Mink
Minshall
Mizell
Mollohan
Montgomery
Morgan
Morse
Murphy, N.Y.
Nichols
O'Konski
O'Neill
Passman
Patman
Patten
Pelly
Pepper
Pettis
Pirnie
Poff
Price, Tex.
Pucinski
Purcell
Rees
Reid, Ill.
Reid, N.Y.
Rhodes
Roberts
Robinson, Va.
Rodino
Rooney, N.Y.
Rooney, Pa.
Rousselot
Roybal
Sandman
Scott
Sebelius
Shriver
Sisk
Smith, Calif.
Smith, N.Y.
Staggers
Stanton, J. William
Steed
Steele
Stephens
Stuckey
Teague, Calif.
Teague, Tex.
Terry
Thompson, Ga.
Thomson, Wis.
Veysey
Vigorito
Waggonner
Waldie
Wampler
Ware
Watts
Whitehurst
Widnall
Wiggins
Williams
Wilson, Bob
Wilson, Charles H.
Winn
Wright
Wydler
Wylie
Young, Tex.
Zablocki

NAYS—181

Abbitt
Abourezk
Abzug
Andrews, Ala.
Andrews, N. Dak.
Archer
Ashbrook
Aspin
Badillo
Barrett
Begich
Bennett
Bergland
Bevill
Biaggi
Biester
Bingham
Blatnik
Boland
Brademas
Broomfield
Brotzman
Burke, Fla.
Burlison, Mo.
Byrne, Pa.
Camp
Chisholm
Clancy
Clawson, Del
Cleveland
Conte
Conyers
Cotter
Coughlin
Crane
Culver
Daniel, Va.
de la Garza
Delaney
Dellums
Denholm
Dennis
Derwinski
Dingell
Dow
Drinan
Dulski
du Pont
Eckhardt
Eilberg
Evans, Colo.
Fascell
Findley
Fountain
Fraser
Galifianakis
Gaydos
Gibbons
Gonzalez
Goodling
Green, Oreg.
Green, Pa.
Gross
Gude
Haley
Hall
Hamilton
Hammer-schmidt
Hansen, Idaho
Harrington
Harsha
Harvey
Hathaway
Hechler, W. Va.
Heckler, Mass.
Helstoski
Henderson
Hicks, Mass.
Hicks, Wash.
Hogan
Hosmer
Howard
Hull
Hutchinson
Ichord
Jacobs
Jarman
Jones, Ala.
Jones, N.C.
Karth
Kastenmeier
Keating
Koch
Kyros
Latta
Lennon
Link
Long, Md.
Lujan
McCloskey
McKay
Macdonald, Mass.
Madden
Mahon
Mann
Martin
Mayne
Mazzoli
Melcher
Mikva
Miller, Ohio
Minish
Mitchell
Monagan
Moorhead
Mosher
Moss
Murphy, Ill.
Natcher
Nedzi
Nix
Obey
O'Hara
Perkins
Peyser
Pickle
Pike
Podell
Powell
Preyer, N.C.
Pryor, Ark.
Quie
Railsback
Randall
Rangel
Rarick
Reuss
Riegle
Robison, N.Y.
Roe
Rogers
Roncalio
Rosenthal
Rostenkowski
Roush
Roy
Runnels
Ruth
Ryan
St Germain
Sarbanes
Satterfield
Scherle
Scheuer
Schmitz
Schneebeli
Schwengel
Seiberling
Shipley
Shoup
Sikes
Skubitz
Slack
Smith, Iowa
Springer
Stanton, James V.
Steiger, Ariz.
Steiger, Wis.
Stokes
Stratton
Stubblefield
Sullivan
Symington
Talcott
Taylor
Thompson, N.J.
Thone
Tiernan
Udall
Ullman
Vanik
Whalen
White
Whitten
Wolff
Wyatt
Yates
Young, Fla.
Zwach

ANSWERED "PRESENT"—1

King

NOT VOTING—51

Aspinall
Bow
Bray
Brooks
Carter
Clark
Clay
Dellenback
Dent
Devine
Diggs
Donohue
Dowdy
Edwards, La.
Erlenborn
Esch
Foley
Ford, William D.
Frenzel
Griffiths
Grover
Hastings
Hays
Horton
Hungate
Johnson, Pa.
Jonas
Jones, Tenn.
Kee
Kluczynski
Long, La.
McClure
McCulloch
Metcalfe
Michel
Myers
Nelsen
Poage
Price, Ill.
Quillen
Ruppe
Saylor
Snyder
Spence
Stafford
Van Deerlin
Vander Jagt
Whalley
Wyman
Yatron
Zion

APPENDIX A (continued)

SENATE VOTING RECORD ON PUBLIC LAW 92–70

[No. 185 Leg.

YEAS—46

Allen	Fannin	Packwood
Allott	Fong	Pearson
Baker	Gambrell	Prouty
Bennett	Gravel	Randolph
Bible	Gurney	Roth
Boggs	Hansen	Scott
Brock	Hollings	Sparkman
Byrd, W. Va.	Hruska	Stennis
Cannon	Humphrey	Stevens
Case	Inouye	Talmadge
Cook	Javits	Thurmond
Cooper	Long	Tower
Cotton	Mathias	Tunney
Cranston	McIntyre	Williams
Dole	Metcalf	Young
Eastland	Miller	
Ellender	Moss	

NAYS—48

Aiken	Goldwater	Montoya
Anderson	Griffin	Muskie
Bayh	Harris	Nelson
Beall	Hart	Pastore
Bellmon	Hartke	Pell
Brooke	Hatfield	Percy
Buckley	Hughes	Proxmire
Burdick	Jordan, N.C.	Ribicoff
Byrd, Va.	Jordan, Idaho	Saxbe
Chiles	Kennedy	Schweiker
Church	Magnuson	Smith
Curtis	Mansfield	Spong
Dominick	McClellan	Stevenson
Eagleton	McGee	Symington
Ervin	McGovern	Taft
Fulbright	Mondale	Weicker

NOT VOTING—6

Bentsen	Jackson	Mundt

APPENDIX B

Public Law 92-70

AN ACT

To authorize emergency loan guarantees to major business enterprises.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Emergency Loan Guarantee Act".

ESTABLISHMENT OF THE BOARD

SEC. 2. There is created an Emergency Loan Guarantee Board (referred to in this Act as the "Board") composed of the Secretary of the Treasury, as Chairman, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Securities and Exchange Commission. Decisions of the Board shall be made by majority vote.

AUTHORITY

SEC. 3. The Board, on such terms and conditions as it deems appropriate, may guarantee, or make commitments to guarantee, lenders against loss of principal or interest on loans that meet the requirements of this Act.

LIMITATIONS AND CONDITIONS

SEC. 4. (a) A guarantee of a loan may be made under this Act only if—

(1) the Board finds that (A) the loan is needed to enable the borrower to continue to furnish goods or services and failure to meet this need would adversely and seriously affect the economy of or employment in the Nation or any region thereof, (B) credit is not otherwise available to the borrower under reasonable terms or conditions, and (C) the prospective earning power of the borrower, together with the character and value of the security pledged, furnish reasonable assurance that it will be able to repay the loan within the time fixed, and afford reasonable protection to the United States; and

(2) the lender certifies that it would not make the loan without such guarantee.

(b) Loans guaranteed under this Act shall be payable in not more than five years, but may be renewable for not more than an additional three years.

(c) (1) Loans guaranteed under this Act shall bear interest payable to the lending institutions at rates determined by the Board taking into account the reduction in risk afforded by the loan guarantee and rates charged by lending institutions on otherwise comparable loans.

(2) The Board shall prescribe and collect a guarantee fee in connection with each loan guaranteed under this Act. Such fee shall reflect the Government's administrative expense in making the guarantee and the risk assumed by the Government and shall not be less than an amount which, when added to the amount of interest payable to the lender of such loan, produces a total charge appropriate for loan agreements of comparable risk and maturity if supplied by the normal capital markets.

SECURITY FOR LOAN GUARANTEES

SEC. 5. In negotiating a loan guarantee under this Act, the Board shall make every effort to arrange that the payment of the principal of and interest on any plan guaranteed shall be secured by sufficient property of the enterprise to collateralize fully the amount of the loan guarantee.

REQUIREMENTS APPLICABLE TO LOAN GUARANTEES

SEC. 6. (a) A guarantee agreement made under this Act with respect to an enterprise shall require that while there is any principal or interest remaining unpaid on a guaranteed loan to that enterprise the enterprise may not—

(1) declare a dividend on its common stock; or

(2) make any payment on its other indebtedness to a lender whose loan has been guaranteed under this Act.

The Board may waive either or both of the requirements set forth in this subsection, as specified in the guarantee agreement covering a loan to any particular enterprise, if it determines that such waiver is not inconsistent with the reasonable protection of the interests of the United States under the guarantee.

(b) If the Board determines that the inability of an enterprise to obtain credit without a guarantee under this Act is the result of a failure on the part of management to exercise reasonable business prudence in the conduct of the affairs of the enterprise, the Board shall require before guaranteeing any loan to the enterprise that the enterprise make such management changes as the Board deems necessary to give the enterprise a sound managerial base.

(c) A guarantee of a loan to any enterprise shall not be made under this Act unless—

(1) the Board has received an audited financial statement of the enterprise; and

(2) the enterprise permits the Board to have the same access to its books and other documents as the Board would have under section 7 in the event the loan is guaranteed.

(d) No payment shall be made or become due under a guarantee entered into under this Act unless the lender has exhausted any remedies which it may have under the guarantee agreement.

(e)(1) Prior to making any guarantee under this Act, the Board shall satisfy itself that the underlying loan agreement on which the guarantee is sought contains all the affirmative and negative covenants

and other protective provisions which are usual and customary in loan agreements of a similar kind, including previous loan agreements between the lender and the borrower, and that it cannot be amended, or any provisions waived, without the Board's prior consent.

(2) On each occasion when the borrower seeks an advance under the loan agreement, the guarantee authorized by this Act shall be in force as to the funds advanced only if—

(A) the lender gives the Board at least ten days' notice in writing of its intent to provide the borrower with funds pursuant to the loan agreement;

(B) the lender certifies to the Board before an advance is made that, as of the date of the notice provided for in subparagraph (A), the borrower is not in default under the loan agreement: *Provided*, That if a default has occurred the lender shall report the facts and circumstances relating thereto to the Board and the Board may expressly and in writing waive such default in any case where it determines that such waiver is not inconsistent with the reasonable protection of the interests of the United States under the guarantee; and

(C) the borrower provides the Board with a plan setting forth the expenditures for which the advance will be used and the period during which the expenditures will be made, and, upon the expiration of such periods, reports to the Board any instances in which amounts advanced have not been expended in accordance with the plan.

(f)(1) A guarantee agreement made under this Act shall contain a requirement that as between the Board and the lender, the Board shall have a priority with respect to, and to the extent of, the lender's interest in any collateral securing the loan and any earlier outstanding loans. The Board shall take all steps necessary to assure such priority against any other persons.

(2) As used in paragraph (1) of this subsection, the term "collateral" includes all assets pledged under loan agreements and, if appropriate in the opinion of the Board, all sums of the borrower on deposit with the lender and subject to offset under section 68 of the Bankruptcy Act.

INSPECTION OF DOCUMENTS; AUTHORITY TO DISAPPROVE CERTAIN TRANSACTIONS

SEC. 7. (a) The Board is authorized to inspect and copy all accounts, books, records, memoranda, correspondence, and other documents of any enterprise which has received financial assistance under this Act concerning any matter which may bear upon (1) the ability of such enterprise to repay the loan within the time fixed therefor; (2) the interests of the United States in the property of such enterprise; and (3) the assurance that there is reasonable protection to the United States. The Board is authorized to disapprove any transaction of such enterprise involving the disposition of its assets which may affect the repayment of a loan that has been guaranteed pursuant to the provisions of this Act.

(b) The General Accounting Office shall make a detailed audit of all accounts, books, records, and transactions of any borrower with respect to which an application for a loan guarantee is made under this Act. The General Accounting Office shall report the results of such audit to the Board and to the Congress.

MAXIMUM OBLIGATION

SEC. 8. The maximum obligation of the Board under all outstanding loans guaranteed by it shall not exceed at any time $250,000,000.

EMERGENCY LOAN GUARANTEE FUND

SEC. 9. (a) There is established in the Treasury an emergency loan guarantee fund to be administered by the Board. The fund shall be used for the payment of the expenses of the Board and for the purpose of fulfilling the Board's obligations under this Act. Moneys in the fund not needed for current operations may be invested in direct obligations of, or obligations that are fully guaranteed as to principal and interest by, the United States or any agency thereof.

(b) The Board shall prescribe and collect a guarantee fee in connection with each loan guaranteed by it under this Act. Sums realized from such fees shall be deposited in the emergency loan guarantee fund.

(c) Payments required to be made as a consequence of any guarantee by the Board shall be made from the emergency loan guarantee fund. In the event that moneys in the fund are insufficient to make such payments, in order to discharge its responsibilities, the Board is authorized to issue to the Secretary of the Treasury notes or other obligations in such forms and denominations, bearing such maturities, and subject to such terms and conditions as may be prescribed by the Board with the approval of the Secretary of the Treasury. Such notes or other obligations shall bear interest at a rate determined by the Secretary of the Treasury, taking into consideration the current average market yield on outstanding marketable obligations of the United States of comparable maturities during the month preceding the issuance of the notes or other obligations. The Secretary of the Treasury is authorized and directed to purchase any notes and other obligations issued hereunder and for that purpose he is authorized to use as a public debt transaction the proceeds from the sale of any securities issued under the Second Liberty Bond Act, as amended, and the purposes for which securities may be issued under that Act are extended to include any purchase of such notes and obligations.

FEDERAL RESERVE BANKS AS FISCAL AGENTS

SEC. 10. Any Federal Reserve bank which is requested to do so shall act as fiscal agent for the Board. Each such fiscal agent shall be reimbursed by the Board for all expenses and losses incurred by it in acting as agent on behalf of the Board.

PROTECTION OF GOVERNMENT'S INTEREST

SEC. 11. (a) The Attorney General shall take such action as may be appropriate to enforce any right accruing to the United States or any officer or agency thereof as a result of the issuance of guarantees under this Act. Any sums recovered pursuant to this section shall be paid into the emergency loan guarantee fund.

(b) The Board shall be entitled to recover from the borrower, or any other person liable therefor, the amount of any payments made pursuant to any guarantee agreement entered into under this Act, and upon making any such payment, the Board shall be subrogated to all the rights of the recipient thereof.

REPORTS

SEC. 12. The Board shall submit to the Congress annually a full report of its operations under this Act. In addition, the Board shall submit to the Congress a special report not later than June 30, 1973, which shall include a full report of the Board's operations together with its recommendations with respect to the need to continue the guarantee program beyond the termination date specified in section 13. If the Board recommends that the program should be continued beyond such termination date, it shall state its recommendations with respect to the appropriate board, agency, or corporation which should administer the program.

TERMINATION

SEC. 13. The authority of the Board to enter into any guarantee or to make any commitment to guarantee under this Act terminates on December 31, 1973. Such termination does not affect the carrying out of any contract, guarantee, commitment, or other obligation entered into pursuant to this Act prior to that date, or the taking of any action necessary to preserve or protect the interests of the United States in any amounts advanced or paid out in carrying on operations under this Act.

Approved August 9, 1971.

APPENDIX C

MEMORANDUM

Lockheed Recapitalization Program
3 June 1974

This will confirm the following basic terms for an agreement between Lockheed Aircraft Corporation and Textron Inc. with respect to a program for increasing Lockheed's equity capital and restructuring Lockheed's outstanding debt and credit arrangements.

1. *Textron Investment.* Subject to the conditions of this memorandum, Textron will purchase for investment (a) 12 million shares of new Lockheed common stock at a price of $5 per share, or a total of $60 million, and (b) 250,000 shares of new Lockheed Preferred Stock (described below) at a price of $100 per share, or a total of $25 million. The total Textron investment in new Lockheed shares will be $85 million.

2. *Lockheed Rights Offering.* Lockheed will sell an additional 3 million shares of new Lockheed common stock at a price of $5 per share by means of a rights offering to Lockheed shareholders. The rights offering will be registered under the Securities Laws and underwritten by Lazard Freres & Co. Textron's purchase of any Lockheed shares shall be conditioned upon the execution of an underwriting agreement and effectiveness of the registration statement for the rights offering.

3. *Restructuring Debt.* The agreement is subject to restructuring the present Lockheed bank debt and bank credit arrangements as follows:

(a) The lending banks will convert $275 million of present Lockheed bank debt into 2,750,000 shares of new Lockheed Preferred Stock (described below) at $100 per share.

(b) The lending banks will make available to Lockheed credit lines initially totaling $375 million on terms outlined below.

4. *New Lockheed Preferred.* The new Lockheed Preferred Stock to be issued to lending banks and Textron will have the following terms:

(a) Total of 3 million shares, par value $100 a share. Aggregate par value will be $300 million.

(b) Dividend rate –Cumulative from 1 October 1974 at 5% per annum, increasing to 6% per annum commencing 1 October 1979 and to 7% per annum commencing 1 October 1980.

(c) Dividend payment- Cumulative dividends payable on 1 October 1975 and on each 1 October thereafter.

(d) Voting—One vote per share on all matters, with the right as a class to elect 25% of Lockheed Directors in case of failure to pay dividends when due for a period of one year or to meet required sinking fund payments.

(e) Fixed Sinking Fund—6% of original aggregate par value, plus redemption premium, payable on 1 October 1976 and each 1 October thereafter until fully redeemed. This fixed sinking fund of $18 million, plus premium, will be applied prorata on the basis of the original preferred shareholders. The sinking fund redemption price will be $106 per share plus accrued dividends.

(f) Contingent Sinking Fund—An amount equal to 50% of Lockheed net income after taxes (at full rate whether or not paid or payable) and preferred dividends, commencing with the calendar year 1975, payable on 1 October 1977 with respect to such net income for calendar years 1975 and 1976 and on each 1 October thereafter with respect to net income for the preceding calendar year. The contingent sinking fund, plus premium, will be applied prorata on the basis of the original preferred shareholders. The sinking fund price will be $106 per share plus accrued dividends.

(g) Redemption—Redeemable at any time at the option of Lockheed, in whole or in part, at $106 per share plus accrued dividends.

5. *Lockheed Bank Lines.* The credit lines to be made available to Lockheed by the lending banks will be on the following terms:

(a) Initial amount $375 million.

(b) Interest 4% per annum until 30 September 1976, and thereafter at prime rate plus ½%. During the period from 1 January 1976 through 30 September 1976, a rate of prime plus ¼% will apply to that portion of borrowings under the lines in excess of amounts set forth below (in millions):

Period	Amount
1st Quarter	$350
2nd Quarter	315
3rd Quarter	275

(c) Commitment fee of ½% per annum for unused portion of lines.

(d) Secured by the collateral now securing the Lockheed borrowings, plus a security interest in flight-line commercial aircraft as contemplated by the recent $75 million bank credit

(e) Reduction of the lines on the following schedule (in millions):

31 December	Amount of Reduction
1977	$ 75
1978	100
1979	100
1980	100
	$375

6. *Payment of Deferred Interest.* The deferred interest accrued by Lockheed estimated to be $6 million on 30 September 1971, will be paid to the banks at closing.

7. *Change in Lockheed Accounting.* Upon the recapitalization, Lockheed's accounting policies will be amended by writing off certain non-recurring costs related to the L-1011 program. It is estimated that the write-off under an amended accounting policy, which would be charged to income in 1971, would amount to about $300 million net after providing for anticipated related tax benefits. The accounting treatment will be subject to concurrence of Lockheed, its auditors, Textron and the SEC. The projected program for 300 L-1011 airplanes will not be changed.

8. *Lockheed Management.* Provisions satisfactory to Textron will be made for Textron participation in Lockheed management, while maintaining management continuity.

9. *Conditions of Agreement.* The agreement is subject to each of the following conditions:

(a) Firm orders for the L-1011 will be sufficient to bring the total program, including airplanes already delivered, to 180 airplanes. The delivery schedules and prices will be mutually acceptable to Lockheed and Textron.

(b) Release of the U.S. Government loan guarantee upon terms mutually acceptable to Lockheed, Textron and the Lockheed banks.

(c) Indications of continued support of the L-1011 program by Rolls-Royce, including assurances with respect to funding of production of the larger engine.

(d) A favorable tax ruling permitting Lockheed to change to a program basis for tax costing in 1971, and any other required governmental approvals.

(e) Verification of Lockheed financial condition and projections.

(f) Audit of interim Lockheed financials to the extent required by Textron.

(g) No material adverse change in Lockheed's business or financial condition prior to closing. Lockheed's business to be conducted in the ordinary course, with any transactions outside the ordinary course to be subject to Textron concurrence.

(h) Definitive agreements with appropriate warranties and registration rights, and satisfactory arrangements for underwriting the rights offering to Lockheed shareholders.

(i) Proper corporate approvals including approval by Lockheed's and Textron's respective Boards of Directors and shareholders.

(j) Approval by holders of two-thirds of the outstanding Lockheed Subordinated Debentures to amend the Indenture to permit redemption of the Lockheed Preferred Stock and other necessary matters.

(k) Closing by 30 November 1971.

(signed) D. J. Haughton
LOCKHEED AIRCRAFT CORPORATION

(signed) G. William Miller
TEXTRON INC.

APPENDIX D

SUMMARY OF FINANCIAL RESTRUCTURING PLAN

PHASE I

The principal terms of the 1971 Credit Agreement are amended as follows:

- The termination date is extended to December 31, 1977.
- Maximum credit remains at $650 million, consisting of $400 million Credit Notes and $250 million Guaranteed Notes. The Credit Note maximum will be reduced by an amount equal to the amount of Credit Notes the banks convert to Series A Preferred Stock as described under Phase II
- The interest rate on Credit Notes will be 4¼ per annum for a two-year period commencing April 1, 1975 and prime plus 1¼ thereafter
- Certain provisions and covenants are modified to reflect the accounting change for write-off of development costs, and other necessary matters.

The terms of the 1974 Credit and Security Agreement, which subject to certain conditions can provide up to $75 million of additional credit, are also amended to extend the termination date to December 31, 1977.

Simultaneously with the amendment of the 1971 Credit Agreement, Lockheed issued to its lending banks ten-year warrants under which the holders may purchase 1.75 million shares of common stock at $7 per share.

PHASE II

Conversion of Bank Debt to Preferred Stock

Following the necessary approvals by Lockheed's shareholders and debentureholders, the banks would convert $43 million of outstanding Credit Notes under the 1971 Credit Agreement and $7 million of deferred interest on bank indebtedness into new Lockheed Series A Preferred Stock. Upon this conversion, Lockheed would issue to the banks ten-year warrants for an additional 1.25 million shares of common stock at $7 per share

Amendment of Credit Agreement

Certain provisions and covenants will be modified to reflect the conversion of debt to Preferred Stock and other necessary matters.

PHASE III

Exchange of Convertible Preferred Stock for Convertible Subordinated Debentures

Subsequent to the actions described in the preceding paragraphs, Lockheed would offer to exchange shares of new Series B Convertible Preferred Stock for its outstanding $125 million issue of 4¼% Convertible Subordinated Debentures.

Conversion of Additional Bank Debt to Preferred Stock

Upon consummation of the exchange offer, the banks would [illegible] up to $25 million of additional indebtedness for Series A Preferred Stock. If $45 million or more (principal amount) of the debentures are exchanged for Series B Convertible Preferred Stock, the conversion would be $25 million of additional loans. If less than that amount of debentures is exchanged, the conversion would be on a dollar-for-dollar basis for the amount exchanged in excess of $25 million but less than $45 million.

NEW LOCKHEED SERIES A PREFERRED STOCK

The new Lockheed Series A Preferred Stock, to be issued to the lending banks, will have the following terms:

a. Total of up to 750,000 shares, $1 par value, liquidation preference $100 per share. Senior to all other Preferred Stock on liquidation.

b. Dividends, payable semiannually, will be cumulative from date of issuance at $9.50 per share per year, and will be junior, in right of payment, to dividends on Series B Convertible Preferred Stock except in liquidation.

c. Sinking funds:
   (1) Fixed sinking fund will commence on May 1, 1979 in an annual amount equal to 10% of the original aggregate liquidation preference.
   (2) Contingent sinking fund will commence on May 1, 1979 in an annual amount equal to 10% of the prior year's net income (as defined) less all preferred dividends.
   (3) Sinking fund redemption price will be $108 per share.

d. Optional redemption will be provided at $108 per share after March 1, 1980, p[illegible]ata with Series B

e. Holders will have one vote per share on all matters, with the right to elect 20% of the board of directors if a sinking fund payment or two semiannual dividends are passed.

NEW LOCKHEED SERIES B CONVERTIBLE PREFERRED STOCK

The principal terms with respect to pricing of the new Lockheed Series B Convertible Preferred Stock, expected to be offered in exchange for subordinated debentures, have not yet been determined. Terms that have been determined are as follows:

a. Dividends, payable semiannually, will be cumulative from date of issuance and senior, in right of payment, to dividends on Series A Preferred Stock except in liquidation.
b. In liquidation will be junior to Series A Preferred Stock.
c. Holders will have one vote per share on all matters, with the right to elect two directors if three dividends are passed.
d. Sinking fund will commence in 1983 in an annual amount equal to 10% of the aggregate liquidation preference outstanding on October 1, 1983.
e. Shares will be convertible into Lockheed common stock.
f. Optional redemption after March 1, 1980 will be provided pro rata with Series A.

CONDITIONS OF AGREEMENT

The transactions contemplated by Phases II and III are subject to the following conditions:

a. Necessary approvals by Lockheed shareholders.
b. Approval by holders of two-thirds of the outstanding Lockheed Subordinated Debentures of an amendment to the Indenture to permit payment of dividends on, and mandatory and optional redemption of, the new Series A and Series B Preferred Stock.
c. No event of default under the amended 1971 Credit Agreement and 1974 Credit and Security Agreement.

In addition, Phase III will require that a registration statement for the exchange offer under the Securities Act of 1933 be effective.

LIST OF REFERENCES

1. "Lockheed in a Political Squeeze", The Economist, v. 240, p. 35-36, 31 July 1971.

2. "Lockheed Loan Guarantee Bill Cleared on Close Vote", Congressional Quarterly, 1971 Almanac, 92 Congress, First Session, v. XXVII, p. 152-161.

3. United States Congress, Senate Committee on Banking, Housing, and Urban Affairs, Emergency Loan Guarantee Legislation, Hearings before the Committee, 92 Congress, First Session on S.1567, S.1641, S.1891, S.1892, and S.2016 to Authorize Emergency Guaranteed Loans, June 17-22, July 7-9, 1971 and Appendix, Washington: Government Printing Office, 1971.

4. "Senate Twice Fails to End Debate on Loan Guarantee", Congressional Quarterly, 1971 Almanac, 92 Congress, First Session, v. XXVII, p. 1595-1597.

5. "Future Aerospace Funding Studied", Aviation Week, v. 94, p. 14-15, 21 June 1971.

6. Congressional Record, v. 117, Part 20, 92 Congress, First Session, 21, 22, and 23 July 1971, Washington: Government Printing Office, 1971.

7. "L-1011 Aid Issue Stirs Aerospace", Aviation Week, v. 94, p. 14-16, 17 May 1971.

8. Emergency Loan Guarantee Board, "First Annual Report", 31 July 1972.

9. Bureau of the Budget, Special Analyses Budget of the United States Government; Fiscal Year 1973, Washington, D. C., Government Printing Office, 1972.

10. Emergency Loan Guarantee Board, "Fifth Annual Report", 30 September 1976.

11. Emergency Loan Guarantee Board, "Second Annual Report", 31 July 1973.

12. Emergency Loan Guarantee Board, "Third Annual Report", 31 July 1974.

13. Emergency Loan Guarantee Board, "Fourth Annual Report", 31 July 1975.

14. U. S. General Accounting Office, "Implementation of the Emergency Loan Guarantee Act", Report to the Congress by the Comptroller General of the U. S., Washington, D. C., Government Printing Office, January 1976.

15. Fink, D. E., "Lockheed Finances Seen Stabilizing Despite Losses", Aviation Week, v. 105, p. 21-22, 15 November 1976.

16. Goodwin, M. R., "Lockheed Aircraft Corporation - A Series of Case Studies", Thesis, Naval Postgraduate School, Monterey, California, June 1974.

17. Congressional Quarterly Weekly Report, 92 Congress, First Session, v. XXIX, p. 1522, 16 July 1971.

18. Congressional Quarterly Weekly Report, 92 Congress, First Session, v. XXIX, p. 1613, 30 July 1971.

19. "Uncle Sam, The Banker", Forbes, v. 108, p. 15-17, 1 August 1971.

20. Congressional Record, v. 117, Part 21, 92 Congress, First Session, p. 27609-27623, 28 July 1971.

21. "Depression Fear Carries Loan Bill", Aviation Week, v. 95, p. 24, 9 August 1971.

22. "Lockheed Still Faces Airline Negotiations", Aviation Week, v. 95, p. 25, 9 August 1971.

23. Woolsey, J. P., "Loan Board Quickens Lockheed Talk Pace", Aviation Week, v. 95, p. 25, 6 September 1971.

24. "L-1011 Pacts Signed with Lenders Airlines", Aviation Week, v. 95, p. 31, 30 September 1971.

25. Standard and Poors Industry Survey, "Air Transport-Basic Analysis", 15 April 1976.

26. Coleman, H. J., "Lockheed Studies Longer-Range, Higher Capacity L-1011 Versions", Aviation Week, v. 96, p. 30, 8 May 1972.

27. "Lockheed Sees Hope in that Trijet Order", Business Week, p. 30, 12 August 1972.

28. Lockheed Aircraft Corporation, "Lockheed Annual Report, 1972."

29. Lockheed Aircraft Corporation, "Lockheed Annual Report, 1973."

30. Lockheed Aircraft Corporation, "Lockheed Annual Report, 1974."

31. Lockheed Aircraft Corporation, "Lockheed Annual Report, 1975."

32. "Eastern L-1011 Delivery Delay Cited in Lockheed Employee Cut", Aviation Week, v. 99, p. 30, 26 November 1973.

33. Popelewski, R. R., "Lockheed Delays L-1011-2 Plans", Aviation Week, v. 100, p. 12-13, 28 January 1974.

34. "100-Million Infusion by Hughes Could Finance TriStar Change", Aviation Week, v. 99, p. 27, 17 September 1973.

35. "A Long-Range TriStar Gives Lockheed a Lift", Business Week, p. 25-26, 23 March 1974.

36. "Lockheed Rolls Teams Visit Moscow", Aviation Week, v. 100, p. 13, 28 January 1974.

37. Gregory, W. H., "Lockheed Textron Deal Calls for New Ante", Aviation Week, v. 100, p. 12-14, 10 June 1974.

38. "Lockheed Refinancing Talks Extended", Aviation Week, v. 101, p. 28, 13 September 1974.

39. "A Mistake?", Forbes, v. 114, p. 60, 15 December 1974.

40. "Weapons Programs: Trouble for Lockheed, Ash?", Congressional Quarterly Weekly Report, v. XXX, p. 3202, 23 December 1972.

41. "Over that Fence", The Economist, v. 250, p. 105, 23 February 1974.

42. "Textron Eases the Pressure on Lockheed", Business Week, p. 30-32, 8 June 1974.

43. "A Once-in-a-Lifetime Opportunity", Fortune, v. 90, p. 17, July 1974.

44. "Take-Off", The Economist, v. 251, p. 110, 30 November 1974.

45. "Racing the TriStar Deadline", Business Week, p. 32, 14 September 1974.

46. "Old Age Kills Lockheed-Textron Plan", Aviation Week, v. 102, p. 27, 10 March 1975.

47. "Why Lockheed Needs Another Rescuer", Business Week, p. 22, 17 March 1975.

48. "Lockheed Obtains $75 Million Increase in Credit Agreement", Aviation Week, v. 100, p. 27, 8 April 1974.

49. "Banks to Get Say in Managing Lockheed", Aviation Week, v. 100, p. 20, 24 June 1974.

50. "Crews Preoccupation with Faulty Light Seen as L-1011 Crash Cause", Wall Street Journal, p. 19, 9 July 1973.

51. "The Big Payoff", Time, v. 107, p. 28-34, 23 February 1976.

52. "Payoffs: the Growing Scandal", Newsweek, v. 87, p. 26-33, 23 February 1976.

53. "FTC, in Reversal, Says Lockheed Payoffs will be Studied for Effect on Competitors", Wall Street Journal, p. 2, 24 August 1976.

54. "SEC to Reexamine Forms Filed by 25 Top Defense Contractors", Aviation Week, v. 102, p. 19, 23 June 1975.

55. "Secret Payment Complaint Consented to by Lockheed", Aviation Week, v. 104, p. 21, 19 April 1976.

56. "Lockheed Settles Foreign Payoffs Case with SEC, but U. S. Payments are Hinted", Wall Street Journal, p. 3, 14 April 1976.

57. "The Fabulous Invalid", Forbes, p. 21–22, 15 August 1976.

58. Fink, D. E., "Lockheed Negotiates New Finance Plan", Aviation Week, v. 102, p. 24–25, 19 May 1976.

59. "Canada, Lockheed Agree on P–3 Program Contract", Aviation Week, v. 105, p. 26, 26 July 1976.

60. "Lockheed's Chairman Optimistic", Monterey Herald, 5 October 1976.

61. Brindley, J. F., "Are the U. S. Airline Manufacturers Facing Five Hard Years?", Interavia, v. XXXII, p. 63, January 1977.

62. The Value Line Investment Survey, "Air Transport Industry", 14 January 1977.

63. Fox, J. R., Arming America: How the U. S. Buys Weapons, p. 287–305, Harvard University Press, 1974.

64. Slater J. and T. Nardin, "The Military Industrial Complex Muddle", The Yale Review, v. LXV, p. 17, October 1975.

65. Scherer, F. M., The Weapons Acquisition Process: Economic Incentives, Boston: Division of Research, Harvard Business School, 1964.

66. What They Said in 1975: The Yearbook of Spoken Opinion, compiled and edited by A. F. Pater and J. R. Pater, Monitor, 1976.

67. Reinhardt, U. E., "Break-Even Analysis for Lockheed's TriStar: An Application of Financial Theory", The Journal of Finance, v. 28, p. 821–838, September 1973.

68. Popelowski, R. R., "Unified European Industry Debated", Aviation Week, v. 104, p. 21–23, 16 February 1976.

69. The Value Line Investment Survey, "Lockheed", p. 115, 8 October 1976.

70. U. S. Bureau of the Census, "Statistical Abstract of the United States:" 1976 (97th edition), Washington, D. C., 1976.

71. "Lockheed Says Disclosing Payoff Terms to Foreigners Could Imperil Contracts", Wall Street Journal, p. 4, 30 July 1975.

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