GRUMMAN AIRCRAFT
ENGINEERING CORPORATION

Annual Report for 1949
"THE BLUE ANGELS"

When jet planes came into general use, everybody thought old-style wing-to-wing, nose-to-tail precision flying was out. Now along comes a team of seven Navy fliers who call themselves the "Blue Angels." Flying Grumman F9F jets (Panthers), they have been performing all over the country at speeds of over 550 mph, in formation as tight as any stunt men executed in lumbering old propeller-driven planes. With shrewd showmanship, and partly because the scene of their acrobatics can shift suddenly to hard-to-see altitudes, they have perfected a technique for leaving long, lacy vapor trails behind them. The spectacular stunts of the Blue Angels, therefore, make spectacular pictures.

—from LIFE, December 7, 1949.
Grumman Aircraft Engineering Corporation

DIRECTORS

LEROY R. GRUMMAN  CHARLES A. WIGHT
ALBERT P. LOENING  WM. T. SCHWENDLER
LEON A. SWIRBUL  EDMUND W. POOR
E. CLINTON TOWL

OFFICERS

LEROY R. GRUMMAN - - - - - - - - - - - - - - - - Chairman of the Board
LEON A. SWIRBUL - - - - - - - - - - - - - - - - President
WM. T. SCHWENDLER - - - - - - - - - - - - - - Executive Vice-President
E. CLINTON TOWL - - - - - - - - - - - - - - - - Vice-President
JOSEPH A. STAMM - - - - - - - - - - - - - - Secretary
EDMUND W. POOR - - - - - - - - - - - - - - - - Treasurer

TRANSFER AGENT

Bankers Trust Company, 16 Wall Street, New York City

REGISTRAR

Chemical Bank & Trust Company, 165 Broadway, New York City
## COMPARATIVE TABLE

1941 ——— 1949

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Sales</th>
<th>Net Income (After Provision for Taxes)</th>
<th>Percentage Net Income to Gross Sales</th>
<th>Dividends Paid During the Year Per Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1941</td>
<td>$21,858,680</td>
<td>$1,066,682</td>
<td>4.88%</td>
<td>$1.50</td>
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<tr>
<td>1942</td>
<td>143,155,930</td>
<td>3,454,654</td>
<td>2.41</td>
<td>1.50</td>
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<td>1943</td>
<td>278,695,000</td>
<td>6,598,287</td>
<td>2.37</td>
<td>1.50</td>
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<tr>
<td>1944</td>
<td>323,749,330</td>
<td>9,550,001</td>
<td>2.95</td>
<td>1.50</td>
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<td>1945</td>
<td>236,846,861</td>
<td>5,713,528</td>
<td>2.41</td>
<td>1.50</td>
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<td>1946</td>
<td>37,615,540</td>
<td>337,771</td>
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<tr>
<td>1947</td>
<td>24,241,247</td>
<td>2,291,120</td>
<td>9.45</td>
<td>3.00</td>
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<td>1948</td>
<td>41,031,662</td>
<td>2,393,311</td>
<td>5.83</td>
<td>2.00*</td>
</tr>
<tr>
<td>1949</td>
<td>59,756,838</td>
<td>3,191,520</td>
<td>5.34</td>
<td>2.00*</td>
</tr>
</tbody>
</table>

* On shares outstanding after two for one stock distribution.
To the Stockholders of

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

This report covers the operation of Grumman Aircraft Engineering Corporation and subsidiary for the year 1949 and includes a Balance Sheet as of December 31, 1949. This date marks the completion of the twentieth year of the Corporation's existence.

Review of 1949 Financial Operations:

A comparison of the Company's 1949 business with that of the preceding years is shown in the table on the opposite page.

Gross Sales in 1949 amounted to $59,756,838.00, the highest in the history of the Company in a peace-time year. Most of this volume of business resulted from the manufacture of four types of post-war airplanes,—three for the Armed Services and one Commercial,—which were either in production or put into production during the year. Working capital requirements for the increased volume of work made necessary the utilization during the year of a portion of the Company's reserve funds, normally held in Government Bonds. By the year end, however, the Bond account had been restored to its original figure.

Net earnings for 1949 are reported as $3,191,520.00. This is 5.34% of Gross Sales, as compared to 5.83% for 1948.

Dividends totaling $2.00 per share were paid to stockholders during 1949. The Company's record of income earned and dividends paid each year since its inception has now been maintained for twenty years. In view of the uncertainties and fluctuations characteristic of the business, this is believed to be an unusual, if not unique, record for an aircraft manufacturing company.

Effect of Profit Limitation Statutes:

In our letter to Stockholders last year, we stated that "the accuracy of future earning statements will be impaired because the full extent of liability under Profit Limitation Statutes is likely to be unknown". The statement of 1949 earnings, presented herein, should be viewed accordingly.
Altho the 1950 Appropriations Act suspended application of the Vinson-Trammell Act in the case of contracts subject to renegotiation, approximately 65% of our 1949 sales remain subject to the Vinson-Trammell Act, and approximately 21% is subject to renegotiation. Our possible liability for 1949 under the Vinson-Trammell limitation has been estimated at $1,520,000 (the exact amount being indeterminable until completion of the contracts involved) and this amount has been set aside. As we know of no basis for estimating our liability, if any, under renegotiation, no reserve for this has been created.

**Plant Property and Equipment:**

Nearly a half million dollars of our 1949 earnings went into modernization of plant during the year. Continuous expenditures for alterations and improvements to our facilities are made necessary by the evolution of our product. The revolutionary change-over to the production of jet aircraft during 1949 required new types of manufacturing and testing equipment, and improvements to the flying field. As of December 31, 1949, our Plant Property and Equipment Account showed a net increase, after depreciation, of $498,951.00 over the figure for 1948.

Jet propelled aircraft cannot be operated with a satisfactory margin of safety from ground facilities which have been and continue to be suitable for propeller aircraft. Consequently, further expenditures for improvements to our flying field will be probably required during 1950.

**Products Manufactured in 1949:**

**MILITARY AIRCRAFT**

Our principal efforts during 1949 have been devoted to the manufacture, in peace-time quantities, of three post-war designs of aircraft for the Armed Services.

The "Panther", a jet fighter for the Navy, which was started in production in 1948, attained the maximum rate of delivery, required by the Services, during the year. Continued production at this rate is scheduled thru 1950. Squadrons of these planes are now in service aboard carriers. It is gratifying to find that the service record of these high speed jet aircraft in reliability and safety seems as good, if not better, than that of the slower propeller aircraft they replace.
The "Albatross", a twin-engine utility amphibian, was manufactured during 1949, for both the Air Force and the Navy. Most of the planes were delivered to the Air Force, where they are used in the Air Rescue Squadrons.

The "Guardian", a propeller-driven single-engine plane was also manufactured during the year, with deliveries starting late in 1949. Equipped alternately with search and attack equipment, these planes will be used by the Navy for anti-submarine work.

COMMERCIAL AIRPLANES

The manufacture and sale of the "Mallard", a twin-engine executive type amphibian was continued in 1949. The number of sales in 1949 was extremely limited, presumably because a large number of surplus transport airplanes are still available at low cost.

NON-AERONAUTICAL PRODUCTS

The manufacture and sale of canoes and dinghies, of aluminum alloy construction, was continued thru 1949. Early this year, this line was augmented by new models, including a 20 foot canoe, and a 15 foot sport boat, intended primarily for use with an outboard motor. These new products, built of aluminum alloy, were exhibited to the public for the first time at the New York Motor Boat Show in January 1950.

"Aerobilt Bodies, Inc.", the wholly owned subsidiary corporation, formed last year, continued the manufacture of aluminum alloy truck bodies in their plant at Athens, New York, during 1949. In spite of the handicap of moving this work into the new plant, early in 1949, Aerobilt Bodies, Inc. showed a slight profit on their sales, which amounted to approximately $850,000.00.

It is again pointed out that the total volume of business on these non-aeronautical products is relatively small, constituting slightly more than 4% of our total sales in 1949.

Outlook for the Future:

The necessity for maintaining the strength of the military establishment of the United States, and particularly the air strength of our Air Force and Navy, continues today and provides a backlog of Government work for the aircraft industry.
Because of the ever increasing complexity of modern military aircraft, procurement by the Armed Services must now be planned further in advance. As a result, aircraft companies are today better able to plan their next year’s program.

As of December 31, 1949, uncompleted contract work on hand amounted to approximately $135,000,000. This does not include additional work amounting to approximately $80,000,000, authorized by Letter of Intent, for which contracts are expected during the early part of 1950.

As in 1949, a high percentage of this backlog of work is for the Government. As conditions remain unfavorable for the development and sale of commercial aircraft, no increase in commercial sales is expected in 1950.

Design Research and Development:

Much of the time and effort of our Engineering force during 1949 has been required for the continuous improvement, modification, and installation changes in the aircraft being manufactured.

In addition, a new version of the "Panther", featuring increased thrust, longer fuselage, new wings of lower drag and greater overall weight, was designed, built and flown during 1949.

The research, design, calculation and testing necessary for the construction of a prototype of a new and advanced type of jet fighter continued throughout the year.

A section of our Engineering Department, set up for the design, construction and testing of supersonic pilotless aircraft or guided missiles, has continued work on this project. Progress has been made, and tests of actual launchings are under way. Altho this work is admittedly a long range project, it appears that guided missiles may ultimately replace certain types of military aircraft.

The most revolutionary change in the history of aviation—the change-over from propeller driven to jet propeller aircraft—has taken place since the war. Today, daily flights of jet propelled "Panthers" from our field are as routine and commonplace as those of the propeller driven "Hellcats", "Bearcats" or "Tigercats" of a few years ago. The smoothness with which this transition has taken place reflects great credit on our Engineering force.
Twentieth Anniversary:

Twenty years ago, Grumman Aircraft Engineering Corporation was formed and started in business. Altho twenty years is a relatively short life in other industries, it will be recalled that it was only forty-six years ago that the Wright Brothers first proved that power flight was possible.

When we look back twenty years, the startling progress made in aviation during that time becomes evident. The military fighter plane, pioneer in high performance of airplanes, had a top speed of 170 miles per hour in 1930. Today it has attained 670 miles per hour, an increase of 500 miles per hour or average rate of increase of 25 miles per hour per year. Other characteristics of the plane, weight, complexity of construction and installation, and cost have changed as much, if not more than the performance.

In many other ways, our most optimistic dreams of aeronautical progress of twenty years ago, have since been surpassed. Luxury airliners, covering world wide routes—airplanes flying without propellers, and at speeds of over 600 miles per hour, practical helicopters which can actually land on a dime—these things then seemed impossible—but are commonplace today.

In fact, advances in aeronautical design and related equipment, forced by military necessity, have been too rapid to permit costs to subside before the next round of improvements has been started. This has had an adverse effect on the ability of the industry to operate profitably in the commercial field.

Progress has not stopped. In fact, research and development in aeronautics is proceeding today at a far greater rate than ever. The most optimistic predictions for the future will undoubtedly be surpassed again, in the not too distant future.

Conclusion:

At the end of twenty years, our records show that 168 employees have been associated with the Company for fifteen years or more, 705 for ten years or more, and 3,893 for five years or more. To these men and women and to all others now with the Company, the Board of Directors wish to express their appreciation for the loyalty and cooperation and effort put forth in behalf of the Company.

For the Board of Directors,

[Signature]
Chairman of the Board.
APPROXIMATE DISTRIBUTION OF 1949 SALES INCOME

$23,432,807 TO OUR EMPLOYEES 39.2%

$19,554,240 FOR MATERIALS 32.7%

$8,328,180 FACTORY RUNNING EXPENSE 13.9%

$5,250,091 FOR TAXES 8.8%

$2,000,000 TO STOCKHOLDERS $1,191,520 TO SURPLUS 3.4% 2.0%
CURRENT ASSETS

Cash
Cash on Hand and in Banks $ 5,557,583
Employees’ Federal Income Taxes Withheld (Per Contra) 456,289 $ 6,013,872
Cash and United States Savings Bonds Held for Employees’ Subscriptions (Per Contra) 10,333

United States Treasury Bonds (Par Value $10,000,000) 10,009,782
Accounts Receivable (United States Government $5,119,016) 5,785,962

Inventories (At cost) (Note 1)
Finished Goods and Work in Process $18,761,982
Raw Materials and Purchased Parts 11,898,778
Supplies 204,888

$30,865,648

Deduct Billings and Progress Payments 13,711,210 17,154,438
Miscellaneous Deposits 71,444

TOTAL CURRENT ASSETS $39,045,831

FIXED ASSETS

Buildings, Machinery and Equipment, Aprons, and Runways $ 7,673,297

Less Accumulated Provision for Depreciation (Note 2) 2,210,009

$ 5,463,288

Land 379,668 5,842,956

DEFERRED CHARGES AND OTHER ASSETS (Including Patents at $1.00) 156,563

$45,045,350
CORPORATION AND SUBSIDIARY

STATEMENT

1, 1949

(INCOME STATEMENTS)

LIABILITIES, CAPITAL STOCK, AND SURPLUS

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<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Accounts Payable and Accrued Wages</td>
<td>$3,692,858</td>
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<tr>
<td>Employees' Federal Income Taxes Withheld (Per Contra)</td>
<td>456,289</td>
</tr>
<tr>
<td>Employees' Deposits for Purchase of United States Savings Bonds (Per Contra)</td>
<td>10,333</td>
</tr>
<tr>
<td>Liability to United States Government for Refunds (Note 3)</td>
<td>8,202,738</td>
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<tr>
<td>Federal Taxes on Income (Note 5)</td>
<td>2,706,764</td>
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<tr>
<td>Estimated Liability to United States Government for Refund of Profits Under Vinson-Trammell Act on Uncompleted Contracts</td>
<td>2,040,000</td>
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<tr>
<td>Other Taxes</td>
<td>456,548</td>
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<tr>
<td>Deposits on Contracts</td>
<td>112,500</td>
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<td>Other Liabilities</td>
<td>308,545</td>
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<td><strong>TOTAL CURRENT LIABILITIES</strong></td>
<td><strong>$17,986,575</strong></td>
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CAPITAL STOCK AND SURPLUS

Capital Stock—$1.00 Par Value

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<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Authorized</td>
<td>3,000,000 Shs.</td>
</tr>
<tr>
<td>Unissued</td>
<td>2,000,000 &quot;</td>
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<tr>
<td>Outstanding</td>
<td>1,000,000 &quot; Stated Value $5,000,000</td>
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<tr>
<td>Earned Surplus</td>
<td>22,058,775</td>
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</tbody>
</table>

$45,045,350
GRUMMAN AIRCRAFT ENGINEERING CORPORATION
AND SUBSIDIARY

STATEMENTS OF INCOME AND EARNED SURPLUS
Year Ended December 31, 1949

(See Notes Relating to Financial Statements)

INCOME

Sales, Including Costs and Fees Under Cost-Plus-a-Fixed Fee Contracts (Note 4) $59,756,838

Other Income

Interest $ 155,699
Other Credits 52,740 208,439

$59,965,277

Deduct

Wages, Salaries, Materials, and Other Costs and Expenses $52,646,510

Provision for Federal Income Taxes (Note 5) $2,707,247

Less Adjustment of Federal Income Taxes of Prior Years 100,000 2,607,247

Provision for Estimated Refund of Profits to United States Government Under Vinson-Trammell Act on Uncompleted Contracts 1,520,000 56,773,757

Net Income, Transferred to Earned Surplus $ 3,191,520

EARNED SURPLUS

Balance, December 31, 1948 $20,867,255
Net Income, Year Ended December 31, 1949 3,191,520

$24,058,775

Deduct Dividends Paid ($2 Per Share on 1,000,000 Shares) 2,000,000

Balance, December 31, 1949 $22,058,775
GRUMMAN AIRCRAFT ENGINEERING CORPORATION AND SUBSIDIARY

Notes Relating to Financial Statements

1—Billings deducted from inventories in the amount of $13,711,210 include progress payments of $12,107,181 applicable to Government contracts. With respect to the latter contracts, the United States Government has liens on work in process and on materials allocated to the contracts.

2—The Corporation has included provision for depreciation in its statement of income calculated on the original cost of the assets depreciated. The amount of depreciation for the year 1949 was $483,218.

3—Contracts from which a substantial portion of the Corporation's income for the year was derived provide for redetermination of prices. Price redeterminations in respect of these contracts were made by the Corporation at December 31, 1949 and, although the redetermined prices have not been ratified by contract amendments, it is the opinion of the management that the provision of $8,202,738, shown on the balance sheet, is the amount of refund the Corporation would be required to make based on the status of these contracts at December 31, 1949.

4—Approximately 21% of the 1949 sales are subject to the Renegotiation Act of 1948. As no basis is known for estimating liability, if any, under renegotiation, no provision has been made therefor.

5—Federal Income and Excess Profits Tax Returns have been examined by the Treasury Department through the year 1948 and all additional assessments proposed, as a result of such examination, had been paid at December 31, 1949. The Corporation has filed claims for relief under Section 722 of the Internal Revenue Code for the years 1940, 1941 and 1942. No effect has been given in the accounts or in the accompanying statements to these claims.
Board of Directors,
Grumman Aircraft Engineering Corporation,
Bethpage, New York.

We have examined the balance sheet of Grumman Aircraft Engineering Corporation and Subsidiary as of December 31, 1949 and the statements of income and earned surplus for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and other supporting evidence and other procedures as we considered necessary in the circumstances.

The major portion of accounts receivable represents amounts due from the United States Government. It was impracticable to confirm these amounts by direct correspondence, but we satisfied ourselves as to their substantial correctness by other auditing procedures.

In our opinion, subject to such adjustments, if any, as may be required as to the profit of contracts subject to the Renegotiation Act of 1948 (see Note 4), the accompanying balance sheet and statements of income and earned surplus, together with the notes relating thereto, present fairly the position of Grumman Aircraft Engineering Corporation and Subsidiary at December 31, 1949, and the results of operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

HURDMAN AND CRANSTOUN
Certified Public Accountants

February 20, 1950
THE PANTHER

The turbo-jet Panther succeeds such famous Grumman predecessors as the Wildcat, Hellcat, and Bearcat. Now carrier-based by the Navy and employed by the Marines on land, this aircraft is capable of impressive performance. Recently, two Panthers completed a routine flight at normal cruise power settings from Pensacola, Florida to Bethpage, L. I., in one hour and forty minutes.
THE ALBATROSS

Used by the Air Force as an air-sea rescue ship and by the Navy as a general utility amphibian, the Albatross must operate under extremes of tropic heat and arctic cold. With a wing span of eighty feet and a length of sixty-one feet, this rugged aircraft can accommodate twelve litter patients in addition to a crew of four. It is the largest of the long line of Grumman amphibians on which work began in 1932.
The Albatross production line where thousands of parts join to form completed aircraft.

* * *

Ability to make short take-offs is an Albatross characteristic.
THE GUARDIAN

As Navy carrier-based anti-submarine aircraft, two Guardians form a deadly "hunter-killer" team prepared to find and destroy enemy submarines. Each plane is designed to accommodate the equipment needed for its particular task. Despite their large size, Guardians require short take-off, have low landing speeds.
The Grumman Mallard is an executive aircraft combining the speed of a land plane with the versatility of an amphibian. Sleek outside, it is luxurious inside, with accommodations for the comfort and convenience of 8-10 passengers. Owned by many leading corporations and private individuals here and abroad, the Mallard performs varied tasks throughout the world.
METAL BOATS

Unusual strength and stability combined with light weight are outstanding features of Grumman Metal Boats. Sales of over eighteen thousand of these sturdy craft indicate their popularity.
TRUCK BODIES

Many famous names have been lettered on truck bodies built by Grumman’s subsidiary—Aerobilt Bodies, Inc. The light weight and durability of these bodies is of prime importance to the operator. Illustrated are the two types produced during 1949.
Grumman Aircraft Engineering Corporation
Bethpage Long Island New York