FORM 11-K
(Amendment No. 1)
ANNUAL REPORT PURSUANT TO SECTION 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
[X] Annual report pursuant to Section 15 (d) of the Securities Exchange Act of 1934 (No fee required)

For the fiscal years ended December 31, 1998 and 1997

OR
[ ] Transition report pursuant to SECTION 15 (d) of the Securities Exchange Act of 1934 (No fee required)

For the transition period from $\qquad$ to $\qquad$
Commission file number 333-03959
A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

NORTHROP GRUMMAN ELECTRONIC SENSORS \& SYSTEMS DIVISION SAVINGS AND INVESTMENT PROGRAM
B. Name of issuer of the securities held pursuant to the Plan and the address of its principal executive office:

NORTHROP GRUMMAN CORPORATION
1840 Century Park East
Los Angeles, California 90067

## $-1$

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

NORTHROP GRUMMAN ELECTRONIC SENSORS \&
SYSTEMS DIVISION SAVINGS AND
INVESTMENT PROGRAM
/s/ Gary W. McKenzie

Vice President, Tax
NORTHROP GRUMMAN ELECTRONIC SENSORS \& SYSTEMS DIVISIONSAVINGS AND INVESTMENT PROGRAM
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To the Administrative Committee of the
Northrop Grumman Electronic Sensors \&
Systems Division Savings and Investment Program:
We have audited the accompanying statements of net assets available for plan benefits of the Northrop Grumman Electronic Sensors \& Systems Division Savings and Investment Program (the "Plan") as of December 31, 1998 and 1997, and the related statement of changes in net assets available for plan benefits for the year ended December 31, 1998. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets available for plan benefits as of December 31, 1998 and 1997, and the changes in net assets available for plan benefits for the year ended December 31, 1998 in conformity with generally accepted accounting principles.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of assets held for investment purposes at December 31, 1998, and reportable transactions for the year then ended are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental information by fund in the statement of net assets available for plan benefits and the statement of changes in net assets available for plan benefits is presented for the purpose of additional analysis rather than to present the net assets available for plan benefits and changes in net assets available for plan benefits of the individual funds. The supplemental schedules and supplemental information by fund are the responsibility of the Plan's management. Such supplemental schedules and supplemental information by fund have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.
/s/ Deloitte \& Touche LLP
June 24, 1999
Los Angeles, California

NORTHROP GRUMMAN ELECTRONIC SENSORS \& SYSTEMS DIVISION
SAVINGS AND INVESTMENT PROGRAM
STATEMENT OF NET ASSETS AVAILABLE FOR PLAN BENEFITS
DECEMBER 31, 1998

|  |  | Janus Fund | Fidelity <br>  <br> Income <br> Portfolio | American Century Ultra Investors | ```JPM Institutional Diversified Fund``` | ```JPM Institutional International Equity Fund``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |  |  |
| Investments, at fair value (Note B) : |  |  |  |  |  |  |
| Temporary investments | \$ | - | \$ 1 | \$ | \$ | \$ |
| Shares of registered investment companies: |  |  |  |  |  |  |
| Fidelity Growth \& Income Portfolio |  |  | 100,267,634 |  |  |  |
| Twentieth Century Ultra Investors |  |  |  |  |  |  |
| JPM Institutional Diversified Fund |  |  |  | 66,792,189 |  |  |
| JPM Institutional International Equity Fund |  |  |  |  | 5,773,854 |  |
| BT Investment Lifecycle Short Range Fund |  |  |  |  |  | 6,336,464 |
| BT Investment Lifecycle Mid Range Fund |  |  |  |  |  |  |
| BT Investment Lifecycle Long Range Fund |  |  |  |  |  |  |
| BT Investment Equity 500 Index Fund |  |  |  |  |  |  |
| U.S. governmental obligations |  |  |  |  |  |  |
| Corporate obligations |  |  |  |  |  |  |
| Corporate stocks |  |  |  |  |  |  |
| Investments, at contract value (Note C) - |  |  |  |  |  |  |
| Master Trust (Note D) |  |  |  |  |  |  |
| Participant loans |  |  |  |  |  |  |
| Total investments |  | 58,608,091 | 100,267, 635 | 66,792,189 | 5,773,854 | 6,336,464 |
| Contributions receivable: |  |  |  |  |  |  |
| Employer |  | 4,088 | 7,261 | 4,909 | 611 | 469 |
| Employee |  | 15,914 | 25,325 | 17,353 | 1,667 | 1,904 |
| Other receivables: |  |  |  |  |  |  |
| Due from broker for securities sold |  | 110,171 | 149,034 | 89,185 | 6,359 | 336 |
| Interest and dividends receivable |  |  |  |  |  |  |
| Total assets |  | 58,738,264 | 100, 449, 255 | 66,903,636 | 5,782,491 | 6,339,173 |
| LIABILITIES - |  |  |  |  |  |  |
| Due to broker for securities purchased |  |  |  |  |  |  |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |  |
| PLAN BENEFITS | \$ | 58,738,264 | \$100, 449, 255 | \$ 66,903,636 | \$ 5,782,491 | \$ 6,339,173 |

See notes to financial statements.
STATEMENT OF NET ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)

## DECEMBER 31, 1998

|  | Supplemental Information by Fund |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BT <br> Investment <br> Lifecycle <br> Short Range <br> Fund | BT <br> Investment <br> Lifecycle <br> Mid Range Fund | BT <br> Investment <br> Lifecycle <br> Long Range <br> Fund | BT <br> Investment <br> Equity 500 <br> Index Fund | Fixed Income Fund |
| ASSETS: |  |  |  |  |  |
| Investments, at fair value (Note B): | \$ | \$ | \$ | \$ | \$ |
| Temporary investments |  |  |  |  |  |
| Shares of registered investment companies: |  |  |  |  |  |
| Janus Fund |  |  |  |  |  |
| Fidelity Growth \& Income Portfolio |  |  |  |  |  |
| Twentieth Century Ultra Investors |  |  |  |  |  |
| JPM Institutional Diversified Fund |  |  |  |  |  |
| JPM Institutional International Equity Fund |  |  |  |  |  |
| BT Investment Lifecycle Short Range Fund | 3,559,353 |  |  |  |  |
| BT Investment Lifecycle Mid Range Fund |  | 4,760, 057 |  |  |  |
| BT Investment Lifecycle Long Range Fund |  |  | 7,567,638 |  |  |
| BT Investment Equity 500 Index Fund |  |  |  | 89,992,755 |  |
| U.S. governmental obligations |  |  |  |  |  |
| Corporate obligations |  |  |  |  |  |
| Corporate stocks |  |  |  |  |  |
| Investments, at contract value (Note C) - |  |  |  |  |  |
| Master Trust (Note D) |  |  |  |  |  |
| Participant loans |  |  |  |  |  |
| Total investments | 3,559,353 | 4,760, 057 | 7,567,638 | 89,992,755 |  |
| Contributions receivable: |  |  |  |  |  |
| Employer | 290 | 413 | 747 | 5,562 |  |
| Employee | 1,120 | 1,633 | 2,678 | 21,219 |  |
| Other receivables: |  |  |  |  |  |
| Due from broker for securities sold |  |  |  |  |  |
| Interest and dividends receivable |  |  |  |  |  |
| Total assets | 3,560,763 | 4,762,103 | 7,571,063 | 90, 019,536 |  |
| LIABILITIES - |  |  |  |  |  |
| Due to broker for securities purchased | 17,960 | 28,249 | 30,163 | 94,616 |  |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |
| PLAN BENEFITS | \$ 3,542,803 | \$ 4,733,854 | \$ 7,540,900 | \$ 89,924,920 | \$ |

See notes to financial statements.
STATEMENT OF NET ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)

|  | CBS <br> Common <br> Stock Fund | Fixed Income Contract Fund | Northrop <br> Grumman <br> Fund | Northrop Grumman Loan Fund | Cash Disbursement Account | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |  |  |
| Investments, at fair value (Note B): |  |  |  |  |  |  |
| Temporary investments | \$ 518,679 | \$ | \$ 4,568 | \$ | \$ 188,658 | \$ 711,906 |
| Shares of registered investment companies: |  |  |  |  |  |  |
| Janus Fund |  |  |  |  |  | 58,608,091 |
| Fidelity Growth \& Income Portfolio |  |  |  |  |  | 100, 267, 634 |
| Twentieth Century Ultra Investors |  |  |  |  |  | 66,792,189 |
| JPM Institutional Diversified Fund |  |  |  |  |  | 5,773,854 |
| JPM Institutional International Equity Fund |  |  |  |  |  | 6,336,464 |
| BT Investment Lifecycle Short Range Fund |  |  |  |  |  | 3,559,353 |
| BT Investment Lifecycle Mid Range Fund |  |  |  |  |  | 4,760,057 |
| BT Investment Lifecycle Long Range Fund |  |  |  |  |  | 7,567,638 |
| BT Investment Equity 500 Index Fund |  |  |  |  |  | 89, 992,755 |
| U.S. governmental obligations |  |  |  |  |  |  |
| Corporate obligations | 75,460,515 |  | 1,924,943 |  |  | 77,385,458 |
| Corporate stocks |  |  |  |  |  |  |
| Investments, at contract value (Note C) - |  |  |  |  |  |  |
| Northrop Grumman Stable Value |  |  |  |  |  |  |
| Master Trust (Note D) |  | 392,637, 208 |  |  |  | 392,637, 208 |
| Participant loans |  |  |  | 21,121, 581 |  | 21,121,581 |
| Total investments | 75,979,194 | 392,637, 208 | 1,929,511 | 21,121,581 | 188,658 | 835,514,188 |
| Contributions receivable: |  |  |  |  |  |  |
| Employer |  | 51,250 | 1,413 |  |  | 77,013 |
| Employee |  | 149,186 | 3,831 |  |  | 241,830 |
| Other receivables: |  |  |  |  |  |  |
| Due from broker for securities sold | 147,057 |  |  |  |  | 502,142 |
| Interest and dividends receivable | 2,699 |  | 74 | 10 | 2,341 | 5,124 |
| Total assets | 76,128,950 | 392,837,644 | 1,934,829 | 21,121, 591 | 190,999 | 836,340, 297 |
| LIABILITIES - |  |  |  |  |  |  |
| Due to broker for securities purchased |  | 561,624 |  |  |  | 732,612 |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |  |
| PLAN BENEFITS | \$76,128, 950 | \$392, 276, 020 | \$1,934, 829 | 21,121, 591 | \$190,999 | \$835, 607, 685 |

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|  |  | Janus Fund | Fidelity <br>  <br> Income <br> Portfolio | American Century Ultra Investors | ```JPM Institutional Diversified Fund``` | ```JPM Institutional International Equity Fund``` |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |  |  |
| Investments, at fair value (Note B): |  |  |  |  |  |  |
| Temporary investments | \$ | - | \$ | \$ | \$ | \$ |
| Shares of registered investment companies: |  |  |  |  |  |  |
| Fidelity Growth \& Income Portfolio |  |  | 75,890,290 |  |  |  |
| Twentieth Century Ultra Investors |  |  |  |  |  |  |
| JPM Institutional Diversified Fund |  |  |  | 45,587,669 |  |  |
| JPM Institutional International Equity Fund |  |  |  |  | 4,583,613 |  |
| BT Investment Lifecycle Short Range Fund |  |  |  |  |  | 4,571,899 |
| BT Investment Lifecycle Mid Range Fund |  |  |  |  |  |  |
| BT Investment Lifecycle Long Range Fund |  |  |  |  |  |  |
| BT Investment Equity 500 Index Fund |  |  |  |  |  |  |
| U.S. governmental obligations |  |  |  |  |  |  |
| Corporate obligations |  |  |  |  |  |  |
| Corporate stocks |  |  |  |  |  |  |
| Investments, at contract value (Note C) - |  |  |  |  |  |  |
| Participant loans |  |  |  |  |  |  |
| Total investments |  | 35,989, 067 | 75,890,290 | 45,587,669 | 4,583,613 | 4,571,899 |
| Contributions receivable: |  |  |  |  |  |  |
| Employer |  |  |  |  |  |  |
| Employee |  |  |  |  |  |  |
| Other receivables: |  |  |  |  |  |  |
| Loan repayments and interest receivable |  | 14,006 | 21,570 | 18,301 | 98 | 120 |
| Due from broker for securities sold |  | 7,959 | 4,626 | 85,780 | 82 |  |
| Interest and dividends receivable |  | 1 |  |  |  |  |
| Other receivables |  |  |  |  |  |  |
| Total assets |  | 36,011,033 | 75,916,486 | 45,691, 750 | 4,583,793 | 4,572,019 |
| LIABILITIES - |  |  |  |  |  |  |
| Due to broker for securities purchased |  |  |  |  |  | 220 |
| DUE (TO) FROM OTHER FUNDS |  | $(21,965)$ | $(26,195)$ | $(104,081)$ | (180) | 101 |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |  |
| PLAN BENEFITS | \$ | 35,989,068 | \$ 75,890,291 | \$ 45,587,669 | \$ 4,583,613 | \$ 4,571,900 |

STATEMENT OF NET ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)

## DECEMBER 31, 1997

|  |  | Supplemental | ormation by |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BT <br> Investment <br> Lifecycle <br> Short Range <br> Fund | BT <br> Investment <br> Lifecycle <br> Mid Range Fund | BT <br> Investment <br> Lifecycle <br> Long Range Fund | BT <br> Investment <br> Equity 500 <br> Index Fund | Fixed Income Fund |
| ASSETS: |  |  |  |  |  |
| Investments, at fair value (Note B) : | \$ | \$ | \$ | \$ | \$ 9,558,475 |
| Temporary investments |  |  |  |  |  |
| Shares of registered investment companies: Janus Fund |  |  |  |  |  |
| Fidelity Growth \& Income Portfolio |  |  |  |  |  |
| Twentieth Century Ultra Investors |  |  |  |  |  |
| JPM Institutional Diversified Fund |  |  |  |  |  |
| JPM Institutional International Equity Fund |  |  |  |  |  |
| BT Investment Lifecycle Short Range Fund | 1,917,318 |  |  |  |  |
| BT Investment Lifecycle Mid Range Fund |  | 3,305,934 |  |  |  |
| BT Investment Lifecycle Long Range Fund |  |  | 5,075,848 |  |  |
| BT Investment Equity 500 Index Fund |  |  |  | 65,343,237 |  |
| U.S. governmental obligations |  |  |  |  | 8,733,161 |
| Corporate obligations |  |  |  |  | 16,254,722 |
| Corporate stocks |  |  |  |  |  |
| Investments, at contract value (Note C) Guaranteed insurance contracts |  |  |  |  | 318, 017,198 |
| Participant loans |  |  |  |  |  |
| Total investments | 1,917,318 | 3,305,934 | 5,075,848 | 65,343,237 | 352,563,556 |
| Contributions receivable: |  |  |  |  |  |
| Employer |  |  |  |  |  |
| Employee |  |  |  |  |  |
| Other receivables: |  |  |  |  |  |
| Loan repayments and interest receivable | 60 | 133 | 167 | 33,695 | 140,407 |
| Due from broker for securities sold |  | 82 |  |  |  |
| Interest and dividends receivable |  |  |  |  | 286,554 |
| Other receivables |  |  |  |  | 148,088 |
| Total assets | 1,917,378 | 3,306,149 | 5,076,015 | 65,376,932 | 353,138,605 |
| LIABILITIES - |  |  |  |  |  |
| Due to broker for securities purchased | 60 |  | 10,247 | 31,612 | 44,236 |
| DUE (TO) FROM OTHER FUNDS | (1) | (215) | 10,081 | $(2,082)$ | 61,930 |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |
| PLAN BENEFITS | \$ 1, 917, 317 | \$ 3, 305,934 | \$ 5, 075, 849 | \$ 65,343,238 | \$353,156, 299 |

See notes to financial statements.
STATEMENT OF NET ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)

## DECEMBER 31, 1997

|  | CBS Common Stock Fund | Northrop <br> Grumman <br> Fund | Northrop Grumman Loan Fund | Cash Disbursement Account | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS: |  |  |  |  |  |
| Investments, at fair value (Note B): |  |  |  |  |  |
| Temporary investments | \$ 743,345 | \$ 11,152 | \$ | \$248, 117 | \$ 10, 561, 089 |
| Shares of registered investment companies: |  |  |  |  | 35,989, 067 |
| Janus Fund |  |  |  |  | 75,890,290 |
| Fidelity Growth \& Income Portfolio |  |  |  |  | 45,587,669 |
| Twentieth Century Ultra Investors |  |  |  |  | 4,583,613 |
| JPM Institutional Diversified Fund |  |  |  |  | 4,571,899 |
| JPM Institutional International Equity Fund |  |  |  |  | 1, 917,318 |
| BT Investment Lifecycle Short Range Fund |  |  |  |  | 3,305,934 |
| BT Investment Lifecycle Mid Range Fund |  |  |  |  | 5,075,848 |
| BT Investment Lifecycle Long Range Fund |  |  |  |  | 65,343,237 |
| BT Investment Equity 500 Index Fund |  |  |  |  | 8,733,161 |
| U.S. governmental obligations |  |  |  |  | 16, 254, 722 |
| Corporate obligations | 75,242,557 | 1,295,245 |  |  | 76,537,802 |
| Corporate stocks |  |  |  |  |  |
| Investments, at contract value (Note C) Guaranteed insurance contracts |  |  |  |  | 318, 017,198 |
| Participant loans |  |  | 20,780, 086 |  | 20,780, 086 |
| Total investments | 75,985,902 | 1,306,397 | 20,780,086 | 248,117 | 693,148,933 |
| Contributions receivable: Employer Employee |  |  |  |  |  |
| Other receivables: |  |  |  |  |  |
| Loan repayments and interest receivable |  | 9,280 | $(227,256)$ | (229) | 10,352 |
| Due from broker for securities sold |  |  | 235, 257 |  | 333,786 |
| Interest and dividends receivable | 3,302 | 87 |  | 1,984 | 291,928 |
| Other receivables |  |  |  | 2,942 | 151, 030 |
| Total assets | 75,989,204 | 1,315,764 | 20,788, 087 | 252,814 | 693,936,029 |
| LIABILITIES - |  |  |  |  |  |
| Due to broker for securities purchased |  | 5,971 | 7,100 | $(74,977)$ | 24,469 |
| DUE (TO) FROM OTHER FUNDS | $(2,301)$ | (123) | (901) | 7,100 | $(78,832)$ |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |
| PLAN BENEFITS | \$75,986,903 | \$1,309,670 | \$20,780, 086 | \$334, 891 | \$693, 832, 728 |

[^1]|  | Janus Fund | Fidelity <br>  <br> Income <br> Portfolio | American Century Ultra Investors | JPM ```Institutional Diversified Fund``` | JPM <br> Institutional International Equity Fund |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net appreciation (depreciation) in |  |  |  |  |  |
| Investment income: |  |  |  |  |  |
| Interest and other income |  | (98) |  |  | 2 |
| Dividends | 1,536,273 | 5,278,878 | 5,623,569 | 508,623 | 180,377 |
| Total investment income | 15,196,564 | 21,625,812 | 16,257,446 | 861,303 | 630,270 |
| CONTRIBUTIONS: |  |  |  |  |  |
| Employer | 1,038,579 | 1,685,581 | 1,346,632 | 140,662 | 169,495 |
| Employee | 4, 022,680 | 6,836,993 | 4,721,342 | 524,897 | 655,931 |
| Loan repayment | 744,071 | 1,164,718 | 1,081,754 | 105,632 | 97,070 |
| Other |  |  |  |  |  |
| Total contributions | 5,805,330 | 9,687,292 | 7,149,728 | 771,191 | 922,496 |
| Total additions | 21,001,894 | 31,313,104 | 28,407,174 | 1,632,494 | 1,552,766 |
| DEDUCTIONS: |  |  |  |  |  |
| Benefits paid to participants | 1,630,135 | 3,262,620 | 2,101,996 | 149,783 | 218,123 |
| Administrative expenses |  |  |  |  |  |
| Loan withdrawals | 458,266 | 778,045 | 683,401 | 50,859 | 52,434 |
| Total deductions | 2,088,401 | 4,040,665 | 2,785,397 | 200,642 | 270,557 |
| TRANSFERS BETWEEN FUNDS | 3,835,703 | $(2,713,475)$ | 694,190 | $(232,974)$ | 485,064 |
| NET INCREASE (DECREASE) | 22,749,196 | 24,558,964 | 21,315,967 | 1,198,878 | 1,767,273 |
| NET ASSETS AVAILABLE FOR |  |  |  |  |  |
| PLAN BENEFITS |  |  |  |  |  |
| Beginning of year | 35,989, 068 | 75,890,291 | 45,587,669 | 4,583,613 | 4,571,900 |
| End of year | \$58,738,264 | \$100, 449, 255 | \$66,903,636 | \$5,782,491 | \$6,339,173 |

See notes to financial statements.
STATEMENT OF NET CHANGES IN ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)
YEAR ENDED DECEMBER 31 ) 1998
$\qquad$

Net appreciation (depreciation) in fair value of investments
Investment income:
Interest and other income Dividends

Total investment income
CONTRIBUTIONS:
Employer
Employee
Loan repayment
other
Total contributions
Total additions
DEDUCTIONS:
Benefits paid to participants
Administrative expenses
Loan withdrawals
Total deductions
TRANSFERS BETWEEN FUNDS
NET INCREASE (DECREASE)
NET ASSETS AVAILABLE FOR
PLAN BENEFITS:
Beginning of year
End of year

| Supplemental Information by Fund |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BT |  | BT |  | BT |  |  |
| Investment |  | Investment |  | Investment | BT |  |
| Lifecycle |  | Lifecycle |  | ifecycle | Investment |  |
| Short Range |  | Mid Range |  | ong Range | Equity 500 | Fixed Income |
| Fund |  | Fund |  | fund | Index Fund | Fund |
| \$ $(58,716)$ | \$ | $(427,732)$ | \$ | $(597,565)$ | \$16,703,665 | \$ (104, 720) |
|  |  |  |  |  |  | 817,446 |
| 397,938 |  | 1,055,256 |  | 1,769,296 | 2,474,010 |  |
| 339,222 |  | 627,524 |  | 1,171,731 | 19,177,675 | 712,726 |
| 57,653 |  | 96,621 |  | 167,463 | 1,431, 821 |  |
| 203,234 |  | 408,360 |  | 585,615 | 5,335,751 |  |
| 54,266 |  | 57,971 |  | 104,868 | 1,044,245 |  |
| 315,153 |  | 562,952 |  | 857,946 | 7,811,817 |  |
| 654,375 |  | 1,190,476 |  | 2,029,677 | 26,989,492 | 712,726 |
| 130,142 |  | 151,374 |  | 242,228 | 2,771,886 |  |
| 24,303 |  | 52,053 |  | 76,255 | 952,897 |  |
| 154,445 |  | 203,427 |  | 318,483 | 3,724,783 | 7,662 |
| 1,125,556 |  | 440,871 |  | 753,857 | 1,316,973 | $(353,861,363)$ |
| 1,625,486 |  | 1,427,920 |  | 2,465, 051 | 24,581,682 | $(353,156,299)$ |
| 1,917,317 |  | 3,305,934 |  | 5, 075,849 | 65,343,238 | 353,156,299 |
| \$3,542, 803 |  | \$4,733,854 |  | 7,540,900 | \$89, 924,920 | \$ |

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR PLAN BENEFITS (Continued)

Net appreciation (depreciation) in
fair value of investments
Investment income:
Interest and other income Dividends

Total investment income
CONTRIBUTIONS:
Employer
Employee
Loan repayment
Other
Total contributions
Total additions
DEDUCTIONS:
Benefits paid to participants
Administrative expenses
Loan withdrawals

## Total deductions

TRANSFERS BETWEEN FUNDS
NET INCREASE (DECREASE)
NET ASSETS AVAILABLE FOR
PLAN BENEFITS
Beginning of year
End of year


See notes to financial statements.

## NOTES TO FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 1998 AND 1997

## A. DESCRIPTION OF THE PLAN

The following description of the Northrop Grumman Electronic Sensors and Systems Division Savings and Investment Plan (the "Plan") provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

General - The Plan is a qualified profit sharing and employee stock ownership plan sponsored by the former Electronic Sensors \& Systems Division of Northrop Grumman Corporation (the "Company"). The Plan was established on March 1, 1996 and covers all regular employees who are citizens of the United States of America or resident aliens and are not covered by another plan. It is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

The Plan was established by the Company as a successor to the Westinghouse Savings Program (the "Predecessor Plan"), maintained by Westinghouse Electric Corporation ("Westinghouse") for the benefit of employees who were employed by the Westinghouse Electronic Systems Group as of February 29, 1996 and became employees of the Company as of March 1, 1996, and any other subsequent eligible employees of the Company. Plan participants should refer to the Plan agreement.

Contributions - Plan participants may contribute between $2 \%$ and $20 \%$ of eligible compensation, in increments of $1 \%$ on an after-tax basis, a pre-tax basis, or a combination thereof. As of the end of each month, for each dollar a participant contributes, the Company makes a matching contribution of $\$ 0.50$, subject to a maximum Company matching contribution of $3 \%$ of eligible compensation for that month.

A participant other than a terminated participant who has received a rollover distribution from a qualified defined contribution plan or a distribution from an individual retirement account may elect to roll over not more than the cash value of the distribution, less any amount attributable to the participant's after-tax contributions, to his or her Standard account within 60 days of receipt of such distribution. The participant may elect to invest any amount rolled over or transferred to the Plan in any of the investment options available in increments of $1 \%$.

Participant Accounts - A separate account is maintained for each participant, each of which has subaccounts. After-tax contributions are allocated to the participant's Standard Account, and pre-tax contributions are allocated to the participant's Tax-Deferred Account. Company matching contributions are allocated to the participant's Company Matching Contribution Account ("Matching Account"). Assets of the trust are valued daily, and take into account earnings and losses of the trust along with appreciation or depreciation, expenses and distributions.

Vesting - Plan participants are $100 \%$ vested in, and have a nonforfeitable right to, the balance of their Standard and Tax-Deferred accounts at all times. Plan participants as of March 1, 1996 who had a $100 \%$ vested interest
in their accounts under the Predecessor Plan as of February 29, 1996 shall be 100\% vested in their Company Matching Contribution Accounts as of March 1, 1996. All other plan participants who were not fully vested as of March 1, 1996 in their Company Matching Contribution Accounts will not be vested in any portion of their Company Matching Contribution Accounts until they accrue five years of service, at which time they become $100 \%$ vested in and have a nonforfeitable right to their Company Matching Contribution Accounts. Company Matching Contribution Accounts become 100\% vested upon retirement or death.

Investment Options - Upon enrollment in the Plan, each participant may direct that his or her accounts, in $1 \%$ increments, be invested in any of the following 11 investment funds:

Janus Fund
Fidelity Growth \& Income Portfolio
American Century Ultra Investors
JPM Institutional Diversified Fund
JPM Institutional International Equity Fund
BT Investment Lifecycle Short Range Fund
BT Investment Lifecycle Mid Range Fund
BT Investment Lifecycle Long Range Fund
BT Investment Equity 500 Index Fund
Fixed Income Contract Fund
Northrop Grumman Fund

The CBS Common Stock Fund was transferred from the Predecessor Plan. This fund was frozen, and no employee contributions have been allowed since the transfer

Participant Notes Receivable - Participants may borrow from their fund accounts a minimum of $\$ 1,000$, in $\$ 100$ increments, equal to the lesser of $\$ 50,000$ reduced by the highest outstanding loan balance during the preceding 12 months or $50 \%$ of their account balance. A participant may not have more than two outstanding loans at any given time. Loan transfers are treated as a transfer to (from) the investment fund from (to) the loan fund. Loans may be prorated across all investment funds or directed against specific funds based on the participant's request. Loans are secured by the balance in the participant's account and bear interest determined at the Bankers Trust prime interest rate on the close of business on the last business day of the preceding calendar month plus 1\%. Repayments are made from monthly payroll deductions over a period of 6 to 60 months, in increments of 6 months.

Payment of Benefits - On termination of service due to retirement, a participant may elect to receive a lump-sum amount equal to the value of the participant's vested interest in his or her account, or monthly or annual installments, the amount of which is determined by the participant at retirement. A retired participant may cancel or change such election at any time, and may also elect a partial distribution. For termination of service due to other reasons, a participant may receive the value of the vested interest in his or her account as a lump-sum amount, or leave his or her vested account in the plan if he or she has not yet reached normal retirement age; however, amounts must be withdrawn in a lump sum by the terminated participant's normal retirement age. Death benefits for active participants are to be paid to the designated beneficiary in a lump sum, or, if the designated beneficiary is also the surviving spouse, he or she may elect to leave the vested balance in the Plan and be treated as the retired participant. Death benefits for terminated employees are paid in a lump sum to the designated beneficiary.

Withdrawals - A vested participant is permitted to make a withdrawal for any reason from his or her Standard or Matching Account. A vested participant is permitted to make a withdrawal for any reason from his or her Tax-Deferred Account upon the attainment of age 59-1/2, or prior to the attainment of age 59-1/2 in the case of hardship (as described in the plan document). A nonvested participant is permitted to make a withdrawal for any reason from the portion of his or her Standard Account which represents contributions that were not matched by contributions in the Matching Account. A nonvested participant is permitted to make a withdrawal from that portion of his or her Standard Account which represents contributions that were not matched by contributions in the Matching Account only in the case of hardship. A nonvested participant is permitted to make a withdrawal from his or her Tax-Deferred Account in the case of hardship. A nonvested participant is not permitted to make a withdrawal from the Matching Account.

Forfeited Accounts - Any amounts forfeited shall be used to reduce the Company's obligation to make company matching contributions under the Plan. Employer contributions were reduced by $\$ 183,411$ and $\$ 201,792$ from forfeited nonvested accounts in 1998 and 1997, respectively.
B. SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting - The financial statements of the Plan are prepared under the accrual basis of accounting.

Use of Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Investment Valuation and Income Recognition - The Plan's investments are stated at fair value based on quoted market prices except for its investments in insurance and investment contracts, which are valued at contract value (see Note C). Participant notes receivable are valued at cost, which approximates fair value.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Broker commissions, transfer taxes and other charges and expenses incurred in connection with the purchase, sale or other disposition of securities or other investments held by the Plan are added to the cost of the securities or other investments or are deducted from the proceeds of the sale or other disposition thereof, as appropriate. Taxes (if any) on the assets of the funds, or on any gain resulting from the sale or other disposition of such assets, or on the earnings of the funds, are apportioned in such a manner as the trustees deem equitable among the participants and former participants (if any) whose interests in the Plan are affected, and the share of such taxes apportioned to each person is charged against his or her account of the Plan

Payment of Benefits - Benefits are recorded when paid. As of December 31, 1998, benefits payable to participants are $\$ 292,155$. There were no benefits payable to participants as of December 31, 1997.
C. INVESTMENT CONTRACTS WITH INSURANCE COMPANIES

All investment and insurance contracts held by the Plan are considered to be fully benefit - responsive and, therefore, are reported at contract value. Contract value represents contributions made under the contract, plus interest at the contract rate, less withdrawals and administrative expenses.

The following information is disclosed for the investment and insurance contracts within the Northrop Grumman Stable Value Master Trust (the "Master Trust") as of December 31, 1998, and the Fixed Income Fund as of December 31, 1997 (in millions):

|  | 1998 | 1997 |
| :--- | :---: | :---: |
| Contract value of assets: | $\$ 1,299$ | $\$ 318$ |
| Fair value of assets: | $\$ 1,343$ | $\$ 337$ |
| Average yield of assets on December 31: | $.00 \%$ | $6.72 \%$ |
| Crediting interest rate of assets at | $7.08 \%$ | $5.95 \%$ |
| December 31: 2.58 years | 2.90 years |  |

D. INVESTMENTS

Except for its insurance and investment contracts (see Note C), the Plan's investments as of December 31, 1998 and 1997, are stated at fair value as determined by quoted market prices.

On January 1, 1998, Northrop Grumman Corporation pooled all of the insurance and investment contracts for the Northrop Grumman Corporation Savings and Investment Plan Master Trust, the Northrop Grumman Master Trust, and the contracts held by the Northrop Grumman Electronic Sensors and Systems Division Savings and Investment Program into the Northrop Grumman Stable Value Master Trust.

Investments held at contract value in the Master Trust as of December 31, 1998 are as follows (in thousands):

| Guaranteed and Bank Investment Contracts | $\$ 1,298,790$ |
| :--- | ---: |
| Northrop Retirement Savings Temporary Investment Fund | 60,090 |
| Accrued Income | 113 |
| Total | $-\mathbf{-}$ |
|  | $\$ 1,358,993$ |
|  | $==========$ |

The Plan's investment in the Master Trust as of December 31, 1998 is as follows (in thousands):

Contract Value of guaranteed and bank investment contracts
\$ 392,637
Percentage of ownership
28.89\%

Investment income in the Master Trust was $\$ 91,158,197$ for the year ended December 31, 1998.
E. PLAN TERMINATION

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of the Plan's termination, participants will become $100 \%$ vested in their accounts.
F. TAX STATUS

The Plan is intended to be qualified under Section 401(a) of the Internal Revenue Code of 1986, (the "IRC") as amended, and to include a qualified cash or deferred arrangement under Section 401(k) of the IRC. The Company believes that the Plan is designed and currently being operated in compliance with the applicable provisions of the IRC.

## (a)

(b)

Identity of Issue, Borrower, Lessor or Similar Party

* Bankers Trust
* Northrop Grumman
* American Century Mutual Funds
* Bankers Trust
* Bankers Trust
* Bankers Trust
* Bankers Trust
* CBS Corp
* Fidelity
* JPM

J JPM

* Janus Fund
* Northrop Grumman
* Primco Capital Management

Total
(c)

Description of Investment, Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value

711,906 Shares of participation in the Pyramid Directed Account Cash Fund

21,121,580 Shares of participation in the ESSD Loan Fund

1,999,168 Shares of participation in the Ultra Fund Investment

576,951 Shares of participation in the Large Cap Equity Fund (Equity 500)

343, 236 Shares of participation in the Lifecycle Short Range Fund

451, 190 Shares of participation in the Lifecycle Mid Range Fund

611, 279 Shares of participation in the Lifecycle Long Range Fund

2,299,714 Shares of participation in the COM
$2,187,339$ Shares of particiption in the Growth \& Income

415, 087 Shares of participation in the Institutional Diversified Fund

533, 822 Shares of participation in the Institutional Funds - Int'l Equity Fund

1,741,697 Shares of participation in the FD Income Fund

26,324 Shares of participation in the Corporate Stock

Fixed Income Contract fund
(d)
(e)

Current
Value

| \$ | 711,906 | \$ 711,906 |
| :---: | :---: | :---: |
|  | 21, 121, 581 | 21,121, 581 |
|  | 58,778,559 | 66,792,189 |
|  | 63,483, 077 | 89, 992,755 |
|  | 3,704,483 | 3,559,353 |
|  | 5,168,145 | 4,760, 057 |
|  | 7,935,833 | 7,567,638 |
|  | 40, 075,797 | 75,460,515 |
|  | 72,611,910 | 100, 267,634 |
|  | 5,281,833 | 5,773,854 |
|  | $6,154,721$ | $6,336,464$ |
|  | 46,726,583 | 58, 608, 091 |
|  | 2,374,184 | 1,924,943 |
|  | 392,637, 208 | 392, 637, 208 |
|  | \$726, 765,829 | \$835, 514, 188 |

NORTHROP GRUMMAN CORPORATION ELECTRONIC SENSORS \&
SYSTEMS SAVINGS AND INVESTMENT PROGRAM
ITEM 27d - SCHEDULE OF REPORTABLE TRANSACTIONS
SERIES TRANSACTIONS, WHEN AGGREGATED, IN EXCESS OF 5\% OF THE CURRENT VALUE OF ASSETS
YEAR ENDED DECEMBER 31, 1998

| (a) |  | (b) |  | (c) | (d) | (g) | (h) | (i) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Identity of Party Involved |  | Description of Assets |  | Purchase Price | Selling Price | Cost of Assets | Current Value of Assets On <br> Transaction Date |  |
| Bankers Trust | Directed | Cash Account | \$ | 92,587,217 |  | \$92,587,217 |  |  |
| Bankers Trust | Directed | Cash Account |  |  | \$96,936,402 | 96,936,402 | \$ 96, 936, 402 |  |

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INDEPENDENT AUDITORS' CONSENT
We consent to the incorporation by reference in Registration Statement No. 333-03959 of Northrop Grumman Corporation on Form S-8 of our report dated June 24, 1999, appearing in this Annual Report on Form 11-K/A of the Northrop Grumman Electronic Sensors \& Systems Division Savings and Investment Program for the year ended December 31, 1998.

## /s/ Deloitte \& Touche LLP

DELOITTE \& TOUCHE LLP Los Angeles, California

August 30, 1999


[^0]:    See notes to financial statements

[^1]:    See notes to financial statements

