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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

01-04-1999

U.S. Patent & TMO/TM Mail Rcpt Dt. #58

To the Honorable Commissioner of Patents and Trademarks

100999215

original documents or copy thereof.

1. Name of conveying party(ies):

NORTHROP CORPORATION

- Individual(s)
- General Partnership
- Corporation-State Delaware
- Other _____

Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)

Name: Northrop Grumman Corporation

Internal Address: SEE BELOW

Street Address: 1840 Century Park East

City: Los Angeles State: CA ZIP: 90067-2199

- Individual(s) citizenship _____
- Association _____
- General Partnership _____
- Limited Partnership _____
- Corporation-State Delaware
- Other _____

If assignee is not domiciled in the United States, a domestic representative designation is attached: Yes No

(Designations must be a separate document from assignment)

Additional name(s) & address(es) attached? Yes No

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other _____
- Merger
- Change of Name

Execution Date: 6/16/94

4. Application number(s) or patent number(s):

A. Trademark Application No.(s)

B. Trademark Registration No.(s)

1,712,617

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Bruce B. Brunda
STETINA BRUNDA GARRED & BRUCKER
 Internal Address: 24221 Calle de la Louisa
4th Floor
Laguna Hills, CA 92653-7602

Street Address: STETINA BRUNDA GARRED & BRUCKER
24221 Calle de la Louisa
4th Floor
 City: Laguna Hills State: CA ZIP: 92653-7602

6. Total number of applications and registrations involved: 1

7. Total fee (37 CFR 3.41).....\$ 40
(\$40 for 1st and \$25 for 2nd and additional)

Enclosed

Authorized to be charged to deposit account --
ANY ADDITIONAL FEES NEEDED

8. Deposit account number:

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Bruce B. Brunda

Name of Person Signing
(attorney)

Signature

12/28/98

Date

Total number of pages including cover sheet, attachments, and document: 15

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION

Northrop Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST: That the Board of Directors of said corporation at a meeting duly held on March 25, 1994, adopted a resolution proposing and declaring advisable the following amendment to the Certificate of Incorporation of said corporation:

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors propose the amendment of Article FIRST of the Certificate of Incorporation, said amendment to read in its entirety as follows:

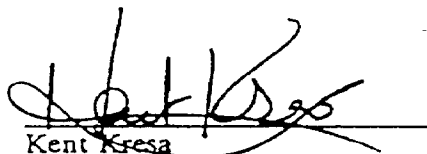
"FIRST: the name of the corporation is Northrop Grumman Corporation (the "Corporation")."

SECOND: That said amendment has been approved by a vote of the stockholders entitled to vote thereon in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

THIRD: That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said Northrop Corporation has caused this Certificate to be signed by Kent Kresa, its Chairman, President and Chief Executive Officer and attested by Sheila M. Gibbons, its Corporate Vice President and Secretary, this 18th day of May, 1994.

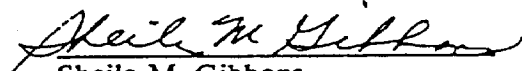
By:



Kent Kresa
Chairman, President and
Chief Executive Officer

ATTEST: .

By:



Sheila M. Gibbons
Vice President and Secretary

State of Delaware
Office of the Secretary of State

I, WILLIAM T. QUILLEN, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "NORTHROP GRUMMAN CORPORATION", FILED IN THIS OFFICE ON THE SIXTEENTH DAY OF JUNE, A.D. 1994, AT 4:30 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.



William T. Quillen

William T. Quillen, Secretary of State

AUTHENTICATION: 7153304

DATE: TRADEMARK

REEL: 1876 FRAME: 0560

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944109960

RESTATED CERTIFICATE OF INCORPORATION

OF

NORTHROP GRUMMAN CORPORATION

Northrop Grumman Corporation, a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

1. The name of the corporation is Northrop Grumman Corporation, and the name under which the corporation was originally incorporated is Northrop Corporation. The date of filing of its original Certificate of Incorporation with the Secretary of State was March 12, 1985.

2. This Restated Certificate of incorporation only restates and integrates and does not further amend the provisions of the Certificate of Incorporation of this corporation as heretofore amended or supplemented and there is no discrepancy between those provisions and the provisions of this Restated Certificate of Incorporation.

3. The text of the Certificate of Incorporation as amended or supplemented heretofore is hereby restated without further amendments or changes to read as herein set forth in full:

RESTATED CERTIFICATE OF INCORPORATION

OF

NORTHROP GRUMMAN CORPORATION

FIRST: The name of the corporation is Northrop Grumman Corporation (the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name and address of the Corporation's registered agent in the State of Delaware is The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware 19801.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which corporations may now or hereafter be organized under the General Corporation Law of the State of Delaware.

FOURTH: 1. The total number of shares of stock which the Corporation shall have authority to issue is Two Hundred Ten Million (210,000,000), consisting of Two Hundred Million (200,000,000) shares of Common Stock, par value One Dollar (\$1.00) per share (the "Common Stock"), and Ten Million (10,000,000) shares of Preferred Stock, par value One Dollar (\$1.00) per share (the "Preferred Stock").

2. Shares of Preferred Stock may be issued from time to time in one or more classes or series, each of which class or series shall have such distinctive designation or title as shall be fixed by resolution of the Board of Directors of the Corporation (the "Board of Directors") prior to the issuance of any shares thereof. Each such class or series of Preferred Stock shall have such voting powers, full or limited, or no voting powers, and such preferences and relative, participating, optional or other special rights and such qualifications, limitations or restrictions thereof, as shall be stated in such resolution providing for the issuance of such class or series of Preferred Stock as may be adopted from time to time by the Board of Directors prior to the issuance of any shares thereof pursuant to the authority hereby expressly vested in it, all in accordance with the laws of the State of Delaware. The Board of Directors is further authorized to increase or decrease (but not below the number of shares of such class or series then outstanding) the number of shares of any class or series subsequent to the issuance of shares of that class or series.

FIFTH: In furtherance and not in limitation of the powers conferred by statute and subject to Article Sixth hereof, the Board of Directors is expressly authorized to adopt, repeal, rescind, alter or amend in any respect the bylaws of the Corporation (the "Bylaws").

SIXTH: Notwithstanding Article Fifth hereof, the Bylaws may be adopted, repealed, rescinded, altered or amended in any respect by the stockholders of the Corporation, but only by the affirmative vote of the holders of not less than eighty percent (80%) of the voting power of all outstanding shares of Voting Stock (as defined in paragraph (f) of Section 3 of Article Fourteenth hereof), regardless of class and voting together as a single voting class and, where such action is proposed by an Interested Stockholder (as defined in paragraph (d) of Section 3 of Article Fourteenth hereof, or by any Affiliate or Associate (each as defined in paragraph (g) of Section 3 of Article Fourteenth hereof) of an Interested Stockholder, including the affirmative vote of the holders of a majority of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single voting class, other than shares held by the Interested Stockholder which proposed (or the Affiliate or Associate of which proposed) such action, or any Affiliate or Associate of such Interested Stockholder, *provided, however*, that where such action is approved by a majority of the Continuing Directors (as defined in paragraph (a) of Section 3 of Article Fourteenth hereof), the affirmative vote of a majority of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single voting class shall be required for approval of such action.

SEVENTH: The business and affairs of the Corporation shall be managed by and under the direction of the Board of Directors. Except as may otherwise be provided pursuant to Section 2 of Article Fourth hereof in connection with rights to elect additional directors under specified

circumstances which may be granted to the holders of any class or series of Preferred Stock, the exact number of directors of the Corporation shall be determined from time to time by a Bylaw or amendment thereto.

EIGHTH: The Board of Directors shall be and is divided into three classes: Class I, Class II and Class III. The number of directors in each class shall be the whole number contained in the quotient obtained by dividing the authorized number of directors by three. If a fraction is also contained in such quotient, then additional directors shall be apportioned as follows: if such fraction is one-third, the additional director shall be a member of Class I; and if such fraction is two-thirds, one of the additional directors shall be a member of Class I and the other shall be a member of Class II. Each director shall serve for a term ending on the date of the third Annual Meeting of Stockholders of the Corporation (the "Annual Meeting") following the Annual Meeting at which such director was elected; *provided, however*, that the directors first elected to Class I shall serve for a term ending on the date of the first Annual Meeting next following the end of the calendar year 1985, the directors first elected to Class II shall serve for a term ending on the date of the second Annual Meeting next following the end of the calendar year 1985 and the directors first elected to Class III shall serve for a term ending on the date of the third Annual Meeting next following the end of the calendar year 1985.

Notwithstanding the foregoing provisions of this Article Eighth: each director shall serve until his successor is elected and qualified or until his death, resignation or removal; no decrease in the authorized number of directors shall shorten the term of any incumbent director, and additional directors, elected pursuant to Section 2 of Article Fourth hereof in connection with rights to elect such additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, shall not be included in any class, but shall serve for such term or terms and pursuant to such other provisions as are specified in the resolution of the Board of Directors establishing such class or series.

NINTH: Except as may otherwise be provided pursuant to Section 2 of Article Fourth hereof in connection with rights to elect additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, newly created directorships resulting from any increase in the number of directors, or any vacancies on the Board of Directors resulting from death, resignation, removal or other causes, shall be filled solely by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until such director's successor shall have been elected and qualified or until such director's death, resignation or removal, whichever first occurs.

TENTH: Except as may otherwise be provided pursuant to Section 2 of Article Fourth hereof in connection with rights to elect additional directors under specified circumstances which may be granted to the holders of any class or series of Preferred Stock, any director may be removed from office only for cause and only by the affirmative vote of the holders of not less

than eighty percent (80%) of the voting power of all outstanding shares of Voting Stock entitled to vote in connection with the election of such director, regardless of class and voting together as a single voting class; *provided, however*, that where such removal is approved by a majority of the Continuing Directors, the affirmative vote of a majority of the voting power of all outstanding shares of Voting Stock entitled to vote in connection with the election of such director, regardless of class and voting together as a single voting class, shall be required for approval of such removal.

ELEVENTH: Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called Annual Meeting or at a special meeting of stockholders of the Corporation, unless such action requiring or permitting shareholder approval is approved by a majority of the Continuing Directors, in which case such action may be authorized or taken by the written consent of the holders of outstanding shares of Voting Stock having not less than the minimum voting power that would be necessary to authorize or take such action at a meeting of stockholders at which all shares entitled to vote thereon were present and voted, provided all other requirements of applicable law and this Certificate have been satisfied.

TWELFTH: Special meetings of the stockholders of the Corporation for any purpose or purposes may be called at any time by a majority of the Board of Directors or by the Chairman of the Board. Special meetings may not be called by any other person or persons. Each special meeting shall be held at such date and time as is requested by the person or persons calling the meeting, within the limits fixed by law.

THIRTEENTH: Meetings of stockholders of the Corporation may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision of applicable law) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws.

FOURTEENTH: 1. Subject to the provisions of Section 2 of this Article Fourteenth, in addition to any vote required by law, a Business Combination (as defined in paragraph (b) of Section 3 of this Article Fourteenth) shall be approved by the affirmative vote of the holders of not less than:

(a) eighty percent (80%) of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single voting class; and

(b) a majority of the voting power of all outstanding shares of Voting Stock, other than shares held by any Interested Stockholder which is (or the Affiliate or Associate of which is) a party to such Business Combination or by any Affiliate or Associate of such Interested Stockholder, regardless of class and voting together as a single voting class.

The affirmative votes referred to in paragraphs (a) and (b) of this Section 1 shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage or proportion may be specified, by law, or in any agreement between the Corporation and any national securities exchange or any other person, or otherwise.

2. Notwithstanding the provisions of Section 1 of this Article Fourteenth, a Business Combination may be approved if all of the conditions specified in either of the following paragraphs (a) or (b) have been satisfied:

(a) both of the following conditions specified in clauses (i) and (ii) of this paragraph (a) have been satisfied:

(i) there are one or more Continuing Directors and a majority of such Continuing Directors shall have approved such Business Combination; and

(ii) such Business Combination shall have been approved by the affirmative vote of the Corporation's stockholders required by law, if any such vote is so required: or

(b) all of the following conditions satisfied in clauses (i) through (vii) of this paragraph (b) have been satisfied:

(i) such Business Combination shall have been approved by the affirmative vote of holders of a majority of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single voting class;

(ii) the aggregate amount of (A) the cash and (B) the Fair Market Value (as defined in paragraph (i) of Section 3 of this Article Fourteenth), as of the date of the consummation of the Business Combination (the "Consummation Date"), of consideration other than cash received or to be received, per share, by holders of shares of Common Stock in such Business Combination, shall be at least equal to the higher of the following:

(1) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) paid or agreed to be paid by the Interested Stockholder which is (or the Affiliate or Associate of which is) a party to such Business Combination for any shares of Common Stock (x) within the two-year period immediately prior to and including the date of the final public announcement of the terms of the proposed Business Combination (the "Announcement Date"), or (y) in the transaction in which it became an Interested Stockholder, whichever is higher; or

(II) the Fair Market Value per share of Common Stock (x) on the Announcement Date, or (y) on the date on which the Interested Stockholder became an Interested Stockholder (the "Determination Date"), whichever is higher;

(iii) the aggregate amount of (A) the cash and (B) the Fair Market Value, as of the Consummation Date, of consideration other than cash received or to be received, per share, by holders of shares of any class of outstanding Voting Stock other than Common Stock in such Business Combination, shall be at least equal to the highest of the following (it being intended that the requirements of this clause (iii) shall be required to be met with respect to every class of outstanding Voting Stock other than Common Stock, whether or not such Interested Stockholder (or such Affiliate or Associate) has previously acquired any shares of a particular class of Voting Stock):

(I) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) paid or agreed to be paid by the Interested Stockholder for any shares of such class of Voting Stock (x) within the two-year period immediately prior to the Announcement Date, or (y) in the transaction in which it became an Interested Stockholder, whichever is higher;

(II) (if applicable) the highest preferential amount per share to which the holders of shares of such class of Voting Stock are entitled in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation; or

(III) the Fair Market Value per share of such class of Voting Stock (x) on the Announcement Date, or (y) on the Determination Date, whichever is higher;

(iv) the consideration to be received by the holders of a particular class of outstanding Voting Stock (including Common Stock) shall be in cash or in the same form as the Interested Stockholder has previously paid (or agreed to pay) for shares of such class of Voting Stock; if the Interested Stockholder has paid for shares of any class of Voting Stock with varying forms of consideration, the form of consideration to be received by holders of shares of such class of Voting Stock shall be either cash or the form used to acquire the largest number of shares of such class of Voting Stock previously acquired by such Interested Stockholder, and the price determined in accordance with clauses (ii) and (iii) of this paragraph (b) shall be subject to appropriate adjustment in the event of any stock dividend, stock split, combination of shares or similar event;

(v) after such Interested Stockholder has become an Interested Stockholder, and prior to the consummation of such Business Combination, neither such Interested Stockholder nor any of its Affiliates or Associates shall have become the beneficial owner of any additional shares of Voting Stock, except (A) as part of the action which resulted in such Interested Stockholder becoming an Interested Stockholder, or (B) upon conversion of convertible securities acquired by it prior to such Interested Stockholder becoming an Interested Stockholder, upon exercise of warrants acquired by it prior to such Interested Stockholder becoming an Interested Stockholder, or as a result of a stock split or a *pro rata* stock dividend;

(vi) after such Interested Stockholder has become an Interested Stockholder, neither such Interested Stockholder nor any of its Affiliates or Associates shall have received the benefit, directly or indirectly (except proportionately as a stockholder), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided by the Corporation, whether in anticipation of or in connection with such Business Combination or otherwise; and

(vii) a proxy or information statement describing the proposed Business Combination and complying with the requirements of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules and/or regulations) shall be mailed to stockholders of the Corporation at least thirty (30) days prior to the consummation of such Business Combination (whether or not such proxy or information statement is required to be mailed pursuant to such Act, rules and/or regulations or such subsequent provisions).

3. For the purposes of this Certificate of Incorporation, the following definitions shall apply:

(a) "Continuing Director" means (i) any member of the Board of Directors who (A) is not an Interested Stockholder or an Affiliate or Associate of an Interested Stockholder and (B) was a member of the Board of Directors prior to the time that an Interested Stockholder became an Interested Stockholder, and (ii) any person who is elected or nominated to succeed a Continuing Director, or to join the Board of Directors, by a majority of the Continuing Directors.

(b) "Business Combination" means any one or more of the following transactions referred to in clauses (i) through (vi) of this paragraph (b):

(i) any merger or consolidation of the Corporation or any Subsidiary (as defined in paragraph (h) of this Section 3) with or into (A) any Interested Stockholder or (B) any other corporation (whether or not itself an Interested

Stockholder) which immediately before is, or after such merger or consolidation would be, an Affiliate or Associate of an Interested Stockholder;

(ii) any sale, lease, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of related transactions) to or with any Interested Stockholder, Affiliate and/or any Associate of any Interested Stockholder of any assets of the Corporation and/or any Subsidiary, where such assets have an aggregate Fair Market Value of Twenty-Five Million Dollars (\$25,000,000) or more;

(iii) the issuance or transfer by the Corporation and/or any Subsidiary (in one transaction or a series of related transactions) of any equity securities of the Corporation and/or any Subsidiary to a person which, immediately prior to such issuance or transfer, is an Interested Stockholder or an Affiliate or Associate of an Interested Stockholder, where such equity securities have an aggregate Fair Market Value of Ten Million Dollars (\$10,000,000) or more;

(iv) the adoption of any plan or proposal for the liquidation or dissolution of the Corporation;

(v) any reclassification of securities (including any reverse stock split) or recapitalization of the Corporation, or any merger or consolidation of the Corporation with any of its Subsidiaries or any similar transaction (whether or not with or into or otherwise involving an Interested Stockholder), which has the effect, directly or indirectly, of increasing the percentage of the outstanding shares of any class of equity or convertible securities of the Corporation or any Subsidiary which is directly or indirectly owned by any Interested Stockholder or by any Affiliate and/or Associate of any Interested Stockholder; or

(vi) any agreement, contract or other arrangement providing for any of the transactions described in clauses (i) through (v) of this paragraph (b).

(c) A "person" means an individual, firm, partnership, trust, corporation or other entity.

(d) "Interested Stockholder" means any person who or which, together with its Affiliates and Associates, as of the record date for the determination of stockholders entitled to notice of, and to vote on, any Business Combination, the removal of a director or the adoption of any proposed amendment, alteration, rescission or repeal of any provision of this Certificate of Incorporation or any Bylaw, or immediately prior to the Consummation Date:

(i) is the beneficial owner (as defined in paragraph (e) of this Section 3), directly or indirectly, of ten percent (10%) or more of the voting power of (A)

all outstanding shares of Voting Stock or (B) all outstanding shares of the capital stock of a Subsidiary having general voting power ("Subsidiary Stock"); or

(ii) is an assignee of or has otherwise succeeded to any share of Voting Stock or Subsidiary Stock which was, at any time within the two-year period prior thereto, beneficially owned by any person who at such time was an Interested Stockholder, and such assignment or succession shall have occurred in the course of a transaction or series of transactions not involving a public offering within the meaning of the Securities Act of 1933, as amended, and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules and/or regulations);

provided, however, that the term "Interested Stockholder" shall not include (A) the Corporation or any Subsidiary or (B) any profit-sharing, employee stock ownership or other employee benefit plan of the Corporation or any Subsidiary, or any trustee of, or fiduciary with respect to, any such plan when acting in such capacity.

(e) A person is the "beneficial owner" of any shares of capital stock:

(i) which such person or any of its Affiliates or Associates beneficially owns, directly or indirectly;

(ii) which such person or any of its Affiliates or Associates has (A) the right to acquire (whether such right is exercisable immediately or only after the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise, or (B) the right to vote pursuant to any agreement, arrangement or understanding; or

(iii) which are beneficially owned, directly or indirectly, by any other person with which such first-mentioned person or any of its Affiliates or Associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares of capital stock of the Corporation or a Subsidiary, as the case may be.

(f) "Voting Stock" means the capital stock of the Corporation having general voting power. For the purpose of determining whether a person is an Interested Stockholder pursuant to paragraph (d) of this Section 3, the number of shares of Voting Stock or Subsidiary Stock, as the case may be, deemed to be outstanding shall include shares deemed owned by a beneficial owner through application of paragraph (e) of this Section 3, but shall not include any other shares of Voting Stock or Subsidiary Stock, as the case may be, which may be issuable to any other person pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

(g) "Affiliate" and "Associate" have the respective meanings given to those terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended, as in effect on January 1, 1985.

(h) "Subsidiary" means any corporation of which a majority of any class of equity security (as defined in Rule 3a 11-1 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended, as in effect on January 1, 1985) is owned, directly or indirectly, by the Corporation.

(i) "Fair Market Value" means (i) in the case of stock (A) the highest closing sale price during the 30-day period including and immediately preceding the date in the question of a share of such stock on the Composite Tape for New York Stock Exchange-Listed Stocks, or (B) if such stock is not quoted on the Composite Tape, the highest closing sale price during such 30-day period on the New York Stock Exchange, or (C) if such stock is not listed on such Exchange, the highest closing sale price during such 30-day period on the principal United States securities exchange registered under the Securities Exchange Act of 1934, as amended, on which such stock is listed, or (D) if such stock is not listed on any such exchange, the highest closing bid quotation with respect to a share of such stock on the National Association of Securities Dealers, Inc. Automated Quotations System or any system then in use during such 30-day period, or (E) if no such quotations are available, the fair market value on the date in question of a share of such stock as determined in good faith by a majority of the Continuing Directors (or if there are no Continuing Directors, then by a majority of the Board of Directors), and (ii) in the case of property other than cash or stock, the fair market value of such property on the date in question as determined in good faith by a majority of the Continuing Directors (or if there are no Continuing Directors, then by a majority of the Board of Directors).

(j) In the event of any Business Combination in which the Corporation survives, the phrase "consideration other than cash received or to be received" as used in clauses (ii) and (iii) of paragraph (b) of Section 2 of this Article Fourteenth shall include the shares of Common Stock and/or the shares of any other class of Voting Stock retained by the holder of such shares.

4. A majority of the Continuing Directors shall have the power and duty to determine, for purposes of this Article Fourteenth, on the basis of information known to them: (a) whether a person is an Interested Stockholder, (b) the number of shares of Voting Stock or Subsidiary Stock beneficially owned by any person, (c) whether a person is an Affiliate or Associate of another person, (d) whether a person has an agreement, arrangement or understanding with another person as to the matters referred to in clause (vi) of paragraph (b), or clause (ii) or (iii) of paragraph (e), of Section 3 of this Article Fourteenth, (e) whether any particular assets of the Corporation and/or any Subsidiary have an aggregate Fair Market Value of Twenty-Five Million Dollars (\$25,000,000) or more, or (f) whether the consideration received for the issuance or transfer of securities by the Corporation and/or any Subsidiary has an aggregate Fair Market

Value of Ten Million Dollars (\$10,000,000) or more. In furtherance and not in limitation of the preceding powers and duties set forth in this Section 4, a majority of the Continuing Directors shall have the power and duty to interpret all of the terms and provisions of this Article Fourteenth.

5. Nothing contained in this Article Fourteenth shall be construed to relieve any Interested Stockholder or any Affiliate or Associate thereof from any fiduciary obligation imposed by law.

6. The fact that any action or transaction complies with the provisions of this Article Fourteenth shall not be construed to impose any fiduciary duty, obligation or responsibility on the Board of Directors or any member thereof to approve such action or transaction or recommend its adoption or approval to the stockholders of the Corporation, nor shall such compliance limit, prohibit or otherwise restrict in any manner the Board of Directors, or any member thereof, with respect to evaluations of, or actions and responses taken with respect to, such action or transaction.

FIFTEENTH: To the maximum extent permissible under Section 262 of the General Corporation Law of the State of Delaware, the stockholders of the Corporation shall be entitled to the statutory appraisal rights provided therein, notwithstanding any exception otherwise provided therein, with respect to any Business Combination involving the Corporation and any Interested Stockholder (or any Affiliate or Associate of any Interested Stockholder), which requires the affirmative vote specified in paragraph (a) of Section I of Article Fourteenth hereof.

SIXTEENTH: The provisions set forth in this Article Sixteenth and in Articles Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Twelfth, Fourteenth and Fifteenth hereof may not be repealed, rescinded, altered or amended in any respect, and no other provision or provisions may be adopted which impair(s) in any respect the operation or effect of any such provision, except by the affirmative vote of the holders of not less than eighty percent (80%) of the voting power of all outstanding shares of Voting Stock regardless of class and voting together as a single voting class and, where such action is proposed by an Interested Stockholder or by any Associate or Affiliate of an Interested Stockholder, the affirmative vote of the holders of a majority of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single class, other than shares held by the Interested Stockholder which proposed (or the Affiliate or Associate of which proposed) such action, or any Affiliate or Associate of such Interested Stockholder, *provided, however*, that where such action is approved by a majority of the Continuing Directors, the affirmative vote of a majority of the voting power of all outstanding shares of Voting Stock, regardless of class and voting together as a single voting class, shall be required for approval of such action.

SEVENTEENTH: The Corporation reserves the right to adopt, repeal rescind, alter or amend in any respect any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by applicable law, and all rights conferred on stockholders herein are granted subject to this reservation. Notwithstanding the preceding sentence, the provisions

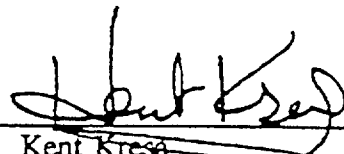
set forth in Articles Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Eleventh, Twelfth, Fourteenth, Fifteenth and Sixteenth may not be repealed, rescinded, altered or amended in any respect, and no other provision or provisions may be adopted which impair(s) in any respect the operation or effect of any such provision, unless such action is approved as specified in Article Sixteenth hereof.

EIGHTEENTH: A director of the Corporation shall not be personally liable to the Corporation or to its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or to its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of the State of Delaware, or (iv) for any transaction from which the director derives any improper personal benefit. If, after approval of this Article by the stockholders of the Corporation, the General Corporation Law of the State of Delaware is amended to authorize the further elimination or limitation of the liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

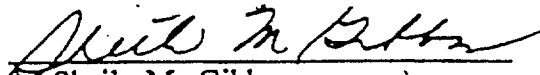
Any repeal or modification of this Article by the stockholders of the Corporation as provided in Article Seventeen hereof shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

4. This Restated Certificate of Incorporation was duly adopted by the Board of Directors in accordance with Section 245 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, said Northrop Grumman Corporation has caused this Certification to be signed by Kent Kresa, Chairman, President and Chief Executive Officer, and attested by Sheila M. Gibbons, its Corporate Vice President and Secretary, this 10th day of June, 1994.

BY 
Kent Kresa
Chairman, President and
Chief Executive Officer

ATTEST:

BY 
Sheila M. Gibbons
Corporate Vice President
and Secretary