SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM S-8  
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

GRAY COMMUNICATIONS SYSTEMS, INC.  
(Exact name of Registrant as specified in its charter)

GEORGIA  
(State or other jurisdiction of incorporation or organization)  
58-0285030  
(I.R.S. Employer Identification No.)

4370 PEACHTREE ROAD, N.E.  
ATLANTA, GEORGIA 30319  
(Address of principal executive offices)  
30319  
(Zip Code)

GRAY COMMUNICATIONS SYSTEMS, INC. 1992 LONG-TERM INCENTIVE PLAN  
(Full title of the plan)

JAMES C. RYAN  
GRAY COMMUNICATIONS SYSTEMS, INC.  
4370 PEACHTREE ROAD, N.E.  
ATLANTA, GEORGIA 30319  
(404) 564-9828

(Name, address and telephone number, including area code, of agent for service)

Copies to:

NEAL H. RAY  
TROUTMAN SANDERS LLP  
600 PEACHTREE STREET, SUITE 5200  
ATLANTA, GEORGIA 30308  
(404) 885-3268

Title of each class of securities to be registered  
Amount to be registered(1)(2)  
Proposed maximum offering price per share(3)  
Proposed maximum aggregate offering price(3)  
Amount of registration fee

Class B Common Stock, no par value per share  
1,000,000 shares  
$13.925  
$13,925,000  
$3,482

(1) Pursuant to General Instruction E of Form S-8, this Registration Statement covers the registration of 1,000,000 shares of the Class B Common Stock in addition to shares previously registered under Registration Statements No. 33-15711 and No. 333-89855.

(2) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this Registration Statement also covers an indeterminate number of additional shares that may be offered and issued to prevent dilution resulting from stock splits, stock dividends or similar transactions as provided in the Gray Communications Systems, Inc. 1992 Long-Term Incentive Plan.

(3) Estimated solely for the purpose of calculating the registration fee, in accordance with Rule 457(h)(1) under the Securities Act, on the basis of the average of the high and low sales prices of $14.00 and $13.85 per share for the Class B Common Stock as reported on the New York Stock Exchange on September 4, 2001.
As permitted by Rule 429 under the Securities Act of 1933, the prospectus related to this Registration Statement also covers securities registered under Registration Statements No. 33-15711 and No. 333-89855 on Form S-8.
This Registration Statement on Form S-8 is being filed to register 1,000,000 additional shares of Class B Common Stock, no par value per share (the "Class B Common Stock"), of Gray Communications Systems, Inc., a Georgia corporation (the "Company"), which have been reserved for issuance under the Gray Communications Systems, Inc. 1992 Long-Term Incentive Plan (the "Plan"). The contents of the Company's Registration Statement on Form S-8, filed with the Securities and Exchange Commission on November 6, 1996 (Registration No. 33-15711), relating to the registration of 300,000 shares of the Company's Class A Common Stock, no par value per share (the "Class A Common Stock"), and 600,000 shares of the Class B Common Stock (in each case, after giving effect to a 50% stock dividend on the Class A Common Stock and Class B Common Stock paid to shareholders on September 16, 1998) reserved for issuance under the Plan, is incorporated by reference in its entirety herein in accordance with General Instruction E to Form S-8. In addition, the contents to the Company's Registration Statement on Form S-8, filed with the Securities and Exchange Commission on October 28, 1999 (Registration No. 333-89855), relating to the registration of 1,000,000 shares of the Class B Common Stock reserved for issuance under the Plan, is incorporated by reference in its entirety herein in accordance with General Instruction E to Form S-8. The opinions and consents listed at Item 8 below are annexed hereto.

Item 8. Exhibits.

<table>
<thead>
<tr>
<th>Exhibit No.</th>
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<tr>
<td>5</td>
<td>Opinion of Troutman Sanders LLP</td>
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<tr>
<td>23.1</td>
<td>Consent of Ernst &amp; Young LLP</td>
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<tr>
<td>23.2</td>
<td>Consent of Troutman Sanders LLP (contained in its Opinion filed as Exhibit 5).</td>
</tr>
<tr>
<td>24</td>
<td>Powers of Attorney (contained on the signature page).</td>
</tr>
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</table>
Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Atlanta, State of Georgia, on this 5th day of September, 2001.

GRAY COMMUNICATIONS SYSTEMS, INC.

By: /s/ J. Mack Robinson
----------------------------------
J. Mack Robinson
President and Chief Executive Officer

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert S. Prather, Jr. and James C. Ryan, and each of them (with full power in each to act alone), his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorneys-in-fact, or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated below on the dates indicated.

<table>
<thead>
<tr>
<th>SIGNATURE</th>
<th>TITLE</th>
<th>DATE</th>
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<tr>
<td>/s/ J. Mack Robinson</td>
<td>President, Chief Executive Officer</td>
<td>September 5, 2001</td>
</tr>
<tr>
<td>J. Mack Robinson</td>
<td>and Director (principal executive officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ James C. Ryan</td>
<td>Vice President and Chief Financial Officer</td>
<td>September 5, 2001</td>
</tr>
<tr>
<td>James C. Ryan</td>
<td>(principal financial officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ Jackson S. Cowart, IV</td>
<td>Chief Accounting Officer</td>
<td>September 5, 2001</td>
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<td>Jackson S. Cowart, IV</td>
<td>(principal accounting officer)</td>
<td></td>
</tr>
<tr>
<td>/s/ Richard L. Boger</td>
<td>Director</td>
<td>September 5, 2001</td>
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<tr>
<td>Richard L. Boger</td>
<td></td>
<td></td>
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<tr>
<td>/s/ Hilton H. Howell, Jr.</td>
<td>Director, Vice President</td>
<td>September 5, 2001</td>
</tr>
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<td>Hilton H. Howell, Jr.</td>
<td></td>
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</tr>
<tr>
<td>/s/ William E. Mayher, III</td>
<td>Chairman of the Board of Directors</td>
<td>September 5, 2001</td>
</tr>
<tr>
<td>William E. Mayher, III</td>
<td></td>
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<tr>
<td>/s/ Howell W. Newton</td>
<td>Director</td>
<td>September 5, 2001</td>
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/s/ Hugh Norton
- ---------------------------------                      Director                           September 5, 2001
Hugh Norton

/s/ Robert S. Prather, Jr.
- ---------------------------------              Director, Vice President                   September 5, 2001
Robert S. Prather, Jr.

/s/ Harriett J. Robinson
- ---------------------------------                      Director                           September 5, 2001
Harriett J. Robinson
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Gray Communications Systems, Inc.
4370 Peachtree Road, N.E.
Atlanta, Georgia 30319

Ladies and Gentlemen:

We have examined a copy of the registration statement on Form S-8 proposed to be filed by Gray Communications Systems, Inc., a Georgia corporation (the "Company"), with the Securities and Exchange Commission (the "Commission"), relating to the registration pursuant to the provisions of the Securities Act of 1933, as amended (the "Securities Act"), of 1,000,000 shares (the "Shares") of the Company's Class B Common Stock, no par value per share (the "Common Stock"), reserved for issuance in connection with options to be granted under the Gray Communications Systems, Inc. 1992 Long-Term Incentive Plan (the "Plan"). In rendering this opinion, we have reviewed such documents and made such investigations as we deemed appropriate.

We are of the opinion that, subject to compliance with the pertinent provisions of the Securities Act and to compliance with such securities or "Blue Sky" laws of any jurisdiction as may be applicable, when certificates evidencing the Shares have been duly executed, countersigned, registered, issued and delivered in accordance with the terms of the Plan and the respective stock option agreements entered into, under and in accordance with the Plan, the Shares will be duly and validly issued and outstanding, fully paid and non-assessable shares of Common Stock of the Company.

We are members of the Bar of the State of Georgia. In expressing the opinions set forth above, we are not passing on the laws of any jurisdiction other than the laws of the State of Georgia and the Federal law of the United States of America.

We hereby consent to the filing of this opinion or copies thereof as an exhibit to the registration statement referred to above. In giving the foregoing consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Troutman Sanders LLP
CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in this Registration Statement on Form S-8 pertaining to the Gray Communications Systems, Inc. 1992 Long-Term Incentive Plan of our reports dated January 29, 2001 with respect to the consolidated financial statements and schedule of Gray Communications Systems, Inc. included in the Annual Report (Form 10-K) for the year ended December 31, 2000.

/s/ Ernst & Young LLP

Atlanta, Georgia
September 4, 2001