HOLOGIC INC Form SC 13G February 06, 2004

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G (RULE 13d - 102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO 13d-1(b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d

(Amendment No.) *

Hologic Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

436440101

(CUSIP Number)

January 29, 2004

(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- [] Rule 13d-1(b)
- [x] Rule 13d-1(c)
- [] Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on the Following Pages)

NAMES OF REPORTING PERSONS

 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Amaranth LLC

2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) [x] (b) []
3.	SEC USE ONLY
4.	CITIZENSHIP OR PLACE OF ORGANIZATION
	Cayman Islands
NUMBER OF	SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:
5.	SOLE VOTING POWER
	0
6.	SHARED VOTING POWER
	1,017,500
7.	SOLE DISPOSITIVE POWER
	0
8.	SHARED DISPOSITIVE POWER
	1,017,500
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	See 6 and 8 above.
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* []
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
	5.0%
12.	TYPE OF REPORTING PERSON*
	CO
	*SEE INSTRUCTIONS BEFORE FILLING OUT!
1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)
	Amaranth Global Equities Master Fund Limited
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) [x] (b) []
3.	SEC USE ONLY
4.	CITIZENSHIP OR PLACE OF ORGANIZATION
	Cayman Islands

NUMBER O	F SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:
5.	SOLE VOTING POWER
	0
6.	SHARED VOTING POWER
	1,017,500
7.	SOLE DISPOSITIVE POWER
	0
8.	SHARED DISPOSITIVE POWER
	1,017,500
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	See 6 and 8 above.
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* []
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
	5.0%
12.	TYPE OF REPORTING PERSON*
	СО
	*SEE INSTRUCTIONS BEFORE FILLING OUT!
1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)
	Amaranth Advisors L.L.C.
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) [x] (b) []
3.	SEC USE ONLY
4.	CITIZENSHIP OR PLACE OF ORGANIZATION
	Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:

5. SOLE VOTING POWER

0

6. SHARED VOTING POWER

1,017,500

7.	SOLE DISPOSITIVE POWER
	0
8.	SHARED DISPOSITIVE POWER
	1,017,500
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
	See 6 and 8 above.
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* []
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)
	5.0%
12.	TYPE OF REPORTING PERSON*
	IA
	*SEE INSTRUCTIONS BEFORE FILLING OUT!
1.	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)
	Nicholas M. Maounis
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*
	(a) [x] (b) []
3.	SEC USE ONLY
4.	CITIZENSHIP OR PLACE OF ORGANIZATION
	United States
NUMBER O	F SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH
5.	SOLE VOTING POWER
	0
6.	SHARED VOTING POWER
	1,017,500
7.	SOLE DISPOSITIVE POWER
	0
8.	SHARED DISPOSITIVE POWER
	1,017,500
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

See 6 and 8 above.

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* []

11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.0%

12. TYPE OF REPORTING PERSON*

IN, HC

*SEE INSTRUCTIONS BEFORE FILLING OUT!

ITEM 1(a). Name of Issuer:

Hologic Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:

35 Crosby Drive Bedford, MA 01730

Item 2(a). Name of Persons Filing:

Item 2(b). Address of Principal Business Office or, if None, Residence:

Item 2(c). Citizenship:

Amaranth LLC c/o Amaranth Advisors L.L.C. One American Lane Greenwich, Connecticut 06831 Cayman Islands company

Amaranth Global Equities Master Fund Limited c/o Amaranth Advisors L.L.C. One American Lane Greenwich, Connecticut 06831 Cayman Islands company

Amaranth Advisors L.L.C.
One American Lane
Greenwich, Connecticut 06831
Delaware limited liability company

Nicholas M. Maounis c/o Amaranth Advisors L.L.C. One American Lane Greenwich, Connecticut 06831 U.S. Citizen

Amaranth Advisors L.L.C. is the investment advisor for each of Amaranth LLC ("Amaranth") and Amaranth Global Equities Master Fund Limited ("Global") and has been granted investment discretion over portfolio investments, including the Securities (as defined below), held by each of them. Maounis is the managing member of Amaranth Advisors L.L.C. and may, by virtue of his position as managing member, be deemed to have power to direct the vote and disposition of the Securities held for each of Amaranth and Global.

Item 2(d). Title of Class of Securities

Common Stock, \$.01 Par Value ("Common Stock")

Item 2(e). CUSIP Number: 136440101

- Item 3. If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b)
 or (c), Check Whether the Person Filing is a:
 - (a) [] Broker or dealer $\mbox{registered}$ under Section 15 of the Exchange Act.
 - (b) [] Bank as defined in Section 3(a)(6) of the Exchange Act.
 - (c) [] Insurance company defined in Section 3(a)(19) of the Exchange Act.
 - (d) [] Investment company registered under Section 8 of the Investment Company Act.
 - (e) [] An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
 - (f) [] An employee benefit plan or endowment fund in accordance with Rule 13d-1(b) (1) (ii) (F).
 - (g) [] A parent holding company or control person in accordance with Rule 13d-1(b) (i) (ii) (G).
 - (h) [] A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
 - (i) [] A church plan that is excluded from the definition of an investment company under Section $3(c)\,(14)$ of the Investment Company Act;
 - (j) [] Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

If this statement is filed pursuant to Rule 13d-1(c), check this box [x]

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

1,017,500

(b) Percent of class:

5.0%

- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or direct the vote

0

(ii) Shared power to vote or to direct the vote

See Item 4(a).

(iii) Sole power to dispose or to direct the disposition of $$\rm O$$

(iv) Shared power to dispose or to direct the disposition of See Item $4\,(a)\,.$

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owner of more than five percent of the class of securities, check the following []. Not applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Shareholders of Amaranth and Global indirectly participate in the receipt of dividends from, and proceeds from the sale of, the Securities held for the account of Amaranth and Global.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

See Item 2(c) in lieu of an Exhibit.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

By signing below the undersigned certifies that, to the best of its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information with respect to it set forth in this statement is true, complete, and correct.

Dated: February 5, 2004

AMARANTH LLC, by Amaranth Advisors L.L.C., as Trading Advisor

By: /s/ Nicholas M. Maounis
---Nicholas M. Maounis,
President

AMARANTH GLOBAL EQUITIES MASTER FUND LIMITED,

By Amaranth Advisors L.L.C., as Investment Manager

By: /s/ Nicholas M. Maounis
---Nicholas M. Maounis,
President

AMARANTH ADVISORS L.L.C.

By: /s/ Nicholas M. Maounis
---Nicholas M. Maounis,
President

/s/ Nicholas M. Maounis
----Nicholas M. Maounis

EXHIBIT A JOINT FILING AGREEMENT

The undersigned hereby agree that the statement on Schedule 13G signed by each of the undersigned shall be, filed on behalf of each of the undersigned pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended.

Dated: February 5, 2004

AMARANTH LLC,

By: /s/ Nicholas M. Maounis

Nicholas M. Maounis,

President

AMARANTH GLOBAL EQUITIES MASTER FUND LIMITED,

By: /s/ Nicholas M. Maounis
---Nicholas M. Maounis,
President

AMARANTH ADVISORS L.L.C.

By: /s/ Nicholas M. Maounis
---Nicholas M. Maounis,
President

/s/ Nicholas M. Maounis
----Nicholas M. Maounis