

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

(Mark one)

☒ ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 (FEE REQUIRED)

For the calendar year ended December 31, 2000

☐ TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]

For the transition period from _____ to _____

Commission File No.: 0-22175

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

EMCORE Corporation 401(k) Savings Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

EMCORE Corporation
145 Belmont Drive
Somerset, NJ 08873
(732) 271-9090

REQUIRED INFORMATION

EMCORE Corporation 401(k) Savings Plan ("Plan") is subject to the Employee Retirement Income Security Act of 1974 ("ERISA"). Therefore, in lieu of the requirements of Items 1-3 of Form 11-K, the financial statements and schedules of the Plan for the two calendar years ended December 31, 2000 and 1999, which have been prepared in accordance with the financial reporting requirements of ERISA, are attached hereto and incorporated herein by this reference.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities and Exchange Act of 1934, the trustee (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.

EMCORE Corporation 401(k) Savings Plan

/s/ Thomas G. Werthan

June 28, 2001

- - - - -

- - - - -

Thomas G. Werthan

Date

Chief Financial Officer, Director and Trustee

EMCORE Corporation
401(k) Savings Plan

Independent Auditors' Report

Financial Statements
Years Ended December 31, 2000 and 1999
Supplemental Schedules
Year Ended December 31, 2000

EMCORE CORPORATION
401(k) SAVINGS PLAN

TABLE OF CONTENTS

	Page
INDEPENDENT AUDITORS' REPORT	1
FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2000 AND 1999:	
Statements of Net Assets Available for Benefits	2
Statements of Changes in Net Assets Available for Benefits	3
Notes to Financial Statements	4-8
SUPPLEMENTAL SCHEDULES AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2000:	
Schedule H, line 4i - Schedule of Assets Held at End of Year	9
Schedule H, line 4j - Schedule of Reportable Transactions - Aggregate by Issue	10

INDEPENDENT AUDITORS' REPORT

To the Trustees and Participants of the
EMCORE Corporation 401(k) Savings Plan

We have audited the accompanying statements of net assets available for benefits of the EMCORE Corporation 401(k) Savings Plan (the "Plan") as of December 31, 2000 and 1999, and the related statements of changes in net assets available for benefits for the years then ended. 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 auditing standards generally accepted in the United States of America. 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 benefits of the Plan at December 31, 2000 and 1999, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

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 at end of year and of reportable transactions 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. These schedules are the responsibility of the Plan's management. Such schedules have been subjected to the auditing procedures applied in our audit of the basic 2000 financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic 2000 financial statements taken as a whole.

Deloitte & Touche LLP

June 18, 2001

EMCORE CORPORATION
401(k) SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
AS OF DECEMBER 31, 2000 AND 1999

ASSETS	2000	1999
INVESTMENTS, AT FAIR VALUE		
Money Market:		
Prudential Government Securities Trust	\$ 312,803	\$ 210,645
Prudential Government Securities	98,690	17,866
Prudential Special Money Market Fund	-	990
Mutual Funds:		
AIM Aggressive Growth	738,344	387,915
Alliance Growth Class A	731,540	473,967
Kemper-Dreman High Return Class A	399,230	253,248
Mutual Beacon Class I	203,775	113,150
Oppenheimer Quest Opportunity Value Class A	336,442	216,819
Prudential Active Balanced A	293,655	-
Prudential Active Balanced B	30,296	-
Prudential Allocation Balanced Class A	-	249,711
Prudential Allocation Balanced Class B	-	44,169
Prudential Equity Class A	1,131,556	936,754
Prudential Equity Class B	114,476	165,102
Prudential Government Income Class A	60,237	36,262
Prudential Government Income Class B	3,086	1,250
Prudential Small Company Class A	658,336	560,233
Prudential Small Company Class B	53,052	74,902
Prudential Utility Class A	750,647	516,117
Prudential Utility Class B	81,818	139,163
Putnam Voyager Class A	847,947	449,668
EMCORE Corporation Stock Fund	5,087,512	1,661,869
Participants' Loans Fund	146,595	124,594
	-----	-----
Total investments	12,080,037	6,634,394
EMPLOYER'S CONTRIBUTIONS RECEIVABLE	46,685	27,012
	-----	-----
NET ASSETS AVAILABLE FOR BENEFITS	\$12,126,722	\$6,661,406
	=====	=====

The accompanying notes are an integral part of these
financial statements.

EMCORE CORPORATION
401(k) SAVINGS PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
YEARS ENDED DECEMBER 31, 2000 AND 1999

	2000	1999

ADDITIONS TO ASSETS ATTRIBUTED TO:		
Investment Income:		
Net appreciation in fair value of investments	\$ 2,533,583	\$ 824,217
Dividends and interest income	749,380	441,085
	-----	-----
Net investment income	3,282,963	1,265,302
	-----	-----
Contributions:		
Participant	2,058,888	1,459,242
Employer	585,742	411,389
	-----	-----
Total contributions	2,644,630	1,870,631
	-----	-----
Total additions	5,927,593	3,135,933
DISTRIBUTIONS TO PARTICIPANTS	(462,277)	(381,852)
	-----	-----
INCREASE IN NET ASSETS AVAILABLE FOR BENEFITS	5,465,316	2,754,081
NET ASSETS AVAILABLE FOR BENEFITS:		
Beginning of year	6,661,406	3,907,325
	-----	-----
End of year	\$12,126,722	\$6,661,406
	=====	=====

The accompanying notes are an integral part of these
financial statements.

1. DESCRIPTION OF PLAN

The following description of the EMCORE Corporation 401(k) 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 defined contribution plan established to provide retirement benefits to eligible employees of EMCORE Corporation (the "Company"). The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Participation - Individuals become eligible on the first day of the month immediately following their completion of one month of service provided they are 20 years of age or older. Each participant's account is credited with the participant's contribution and allocations of the Company's matching contribution and Plan earnings.

Contributions - Participants may elect to contribute to the Plan through a salary reduction up to the maximum tax deferral amount allowed pursuant to IRS regulations. Participants may also contribute amounts representing distributions from other qualified defined benefit or contribution plans. The Company contributes 50 percent of the first 6 percent of base compensation that a participant contributes to the Plan. All employer contributions are in the form of the Company's common stock. The Company may also at its discretion choose to make an additional profit sharing contribution to participants who are credited with more than 500 hours of service during the plan year and are employed by the Company on the last day of the year.

Vesting - Participants are immediately vested in their contributions plus actual earnings thereon. Vesting in the Company's matching and discretionary contributions plus actual earnings thereon is based on years of continuous service. A participant becomes 100 percent vested after five years of credited service, with vesting taking place ratably over such period. A participant becomes 100 percent vested in all employer contributions upon reaching age 60, at death, if permanently and totally disabled, or upon termination of the Plan.

Investment Options - Upon enrollment in the Plan, a participant may direct employee contributions in any percent increments in any of the available investment options. Participants may change their investment options at any time. Only employer contributions are in the form of EMCORE Corporation common stock.

Description of investment options:

Money Market -

Prudential Government Securities Trust and Prudential Government Securities - Funds are invested in United States Government securities.

Mutual Funds -

AIM Aggressive Growth - Funds are invested in equity securities of small to medium-sized companies.

Alliance Growth - Funds are invested in equity securities issued by companies with favorable earnings and long-term growth prospects.

Kemper-Dreman High Return - Funds are invested in common stocks that pay high dividends relative to the dividend yield of the S&P 500 index.

Mutual Beacon - Funds are invested in common and preferred stocks and corporate debt.

Oppenheimer Quest Opportunity Value - Funds are invested among stocks, bonds and cash.

Prudential Active Balanced - Funds are invested in a mix of equity securities, fixed-income securities and money market instruments.

Prudential Allocation Balanced - Funds are invested in allocations between stocks, bonds, convertibles and cash.

Prudential Equity - Funds are invested in common stocks of major and established corporations.

Prudential Government Income - Funds are invested on bonds backed by the United States Government or by government-linked agencies.

Prudential Small Company - Funds are invested in common stocks selected for their potential for high return on equity, increased earnings, increasing or expected dividends and low price/earnings ratios.

Prudential Utility - Funds are invested in equity and debt securities of utility companies, including electric, gas, telephone and cable companies.

Putnam Voyager - Funds are invested primarily in common stocks of mid-size firms.

EMCORE Corporation Stock - Only employer contributions are in the form of EMCORE Corporation common stock.

Payment of Benefits - The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account. On termination of service due to death, disability or retirement, a participant or their beneficiary may elect to receive either a lump-sum amount equal to the value of the participant's vested interest in his or her account or annual installments over a ten-year period. If an employee is terminated prior to age 60 for other reasons, the employee may request distribution of their vested account balance. Balances less than \$5,000 are distributed within 90 days of termination.

Forfeitures - If a participant's employment terminates for reasons other than retirement before attaining age 60, disability or death, the unvested portion of the individual's account is forfeited. Forfeitures of employer matching contributions shall be used to reduce future employer contributions. Forfeitures were approximately \$75,400 and \$11,100 for the years ended December 31, 2000 and 1999, respectively.

Continuity of Plan - 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 Plan termination, participants receive 100 percent of the vested interest in his or her account as a lump-sum distribution.

Participant Loans - Participants may borrow from their fund accounts from a minimum of \$1,000 up to a maximum amount equal to the lesser of \$50,000 or 50 percent of their vested account balance. Loan transactions are treated as transfers to (from) the investment fund(s), from (to) the Participants' Loan Fund. Loan terms range from 1-5 years or up to 25 years for the purchase of a primary residence. Loans are collateralized by the balance in the participant's account and bear interest at a rate commensurate with local prevailing rates as determined by the plan administrator. Interest rates in 2000 ranged from 7.75 percent to 10.50 percent. Principal and interest is paid ratably through bi-weekly payroll deductions.

Administrative Fees - All administrative expenses of the Plan are paid by the Company. Fees paid by the Company on behalf of the Plan amounted to approximately \$20,650 and \$20,500 for the years ended December 31, 2000 and 1999, respectively.

2. SUMMARY OF ACCOUNTING POLICIES

Basis of Accounting - The financial statements of the Plan are prepared under the accrual method 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, liabilities, and the reported amount of changes during the reporting period. The preparation of financial statements in conformity with generally accepted accounting principles also requires management to make estimates and assumptions that affect the disclosures of contingent assets and liabilities at the date of the financial statements. Actual results could differ from those estimates.

Investment Valuation and Income Recognition - The Plan's investments are stated at fair value. Shares in mutual funds are valued based on the quoted market prices of the underlying securities which represent the net asset value of shares held by the Plan. The Company's stock is valued at its quoted market price. Participants' loans are valued at cost which approximates fair value.

The Plan presents in the statement of changes in net assets available for benefits the net appreciation in the fair value of its investments which consists of both realized gains or losses and the unrealized appreciation (depreciation) on those investments.

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.

Payment of Benefits - Benefits are recorded when paid. There were no outstanding benefits payable to terminated employees as of December 31, 2000 and 1999.

3. INVESTMENTS

The fair values of the individual investments that represent 5% or more of the Plan's assets as of December 31, 2000 and 1999 are as follows:

	2000		1999	
	Number of Shares	Fair Value	Number of Shares	Fair Value

Mutual Funds:				
AIM Aggressive Growth	57,819	\$ 738,344	6,199	\$ 387,915
Alliance Growth Class A	18,116	731,540	8,407	473,967
Prudential Equity Class A	66,601	1,131,556	48,562	936,754
Prudential Small Company Class A	47,809	658,336	44,569	560,233
Prudential Utility Class A	57,876	750,647	46,707	516,117
Putnam Voyager Class A	36,393	847,947	14,524	449,668
EMCORE Corporation Stock Fund*	108,245	5,087,512	49,673	1,688,881

* Nonparticipant-directed

During 2000, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value by \$2,533,583 as follows:

Money market funds	\$ (336)
Mutual funds	(577,388)
EMCORE Corporation Stock Fund	3,111,307

	\$2,533,583
	=====

4. TAX STATUS

The Company adopted a standardized prototype plan which received an Internal Revenue Service opinion letter dated March 11, 1994 that stated that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (the "Code"). The plan administrator believes that the Plan is currently being operated in compliance with the applicable requirements of the Internal Revenue Code.

EMCORE CORPORATION
401(k) SAVINGS PLAN

SCHEDULE H, LINE 4I - SCHEDULE OF ASSETS HELD AT END OF YEAR
AS OF DECEMBER 31, 2000

Investment Type	Description of Investment	Units	Current Value
Money Market:	Prudential Government Securities Trust	312,803	\$ 312,803
	Prudential Government Securities	98,690	98,690
Mutual Funds:	AIM Aggressive Growth	57,819	738,344
	Alliance Growth Class A	18,116	731,540
	Kemper-Dreman High Return Class A	10,808	399,230
	Mutual Beacon Class I	15,275	203,775
	Oppenheimer Quest Opportunity Value Class A	9,957	336,422
	Prudential Active Balanced A	23,436	293,655
	Prudential Active Balanced B	2,422	30,296
	Prudential Equity Class A	66,601	1,131,556
	Prudential Equity Class B	6,746	114,476
	Prudential Government Income Class A	6,822	60,237
	Prudential Government Income Class B	349	3,086
	Prudential Small Company Class A	47,809	658,336
	Prudential Small Company Class B	4,320	53,052
	Prudential Utility Class A	57,876	750,647
	Prudential Utility Class B	6,318	81,818
	Putnam Voyager Class A	36,393	847,947
Common Stock:	EMCORE Corporation Stock Fund(1)	108,245	5,087,512
	Participants' Loan Fund(2)	-	146,595

(1) The cost of the investment in the EMCORE Corporation Stock Fund at December 31, 2000 was \$1,262,331.

(2) Interest rates range from 7.75 percent to 10.50 percent. Maturity dates range from 2001 through 2005.

EMCORE CORPORATION
401(k) SAVINGS PLAN

SCHEDULE H, LINE 4J - SCHEDULE OF REPORTABLE TRANSACTIONS
SERIES OF TRANSACTIONS - BY ISSUE
FOR THE YEAR ENDED DECEMBER 31, 2000

Description of Asset (Includes Rate and Maturity in Case of a Loan)	Purchase Price	Sales Price	Expenses Incurred with Transaction	Cost of Asset	Current Value of Asset on Transaction Date	Net Gain
EMCORE Corporation Stock Fund	582,557	-	-	582,557	582,557	-
	-	268,260	-	64,335	268,260	203,295

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement Nos. 333-60816, 333-45827, 333-27507, 333-39547, 333-36445 and 333-37306 of EMCORE Corporation on Form S-8 of our report dated June 18, 2001, appearing in this Annual Report on Form 11-K of EMCORE Corporation 401(k) Savings Plan for the year ended December 31, 2000.

Deloitte & Touche LLP

Parsippany, New Jersey
June 28, 2001