UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the

Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 7, 2013

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

814-00802 (Commission File Number) **27-2114934** (I.R.S. Employer Identification No.)

312 Farmington Avenue

Farmington, CT 06032

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (860) 676-8654 Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

| Section 8 | Other Events |
|-----------|--------------|
| Item 8.01 | Other Events |

On May 7, 2013, Horizon Technology Finance Corporation (the "Company") announced that its Board of Directors has declared monthly dividends totalling \$0.345 per share, payable in such amounts and on such dates to stockholders of record, as set forth below.

| Declared | Ex-Dividend Date | Record Date | Payment Date | Amount Per Shar | re |
|-------------|------------------|-----------------|--------------------|-----------------|-------|
| May 3, 2013 | June 18, 2013 | June 20, 2013 | July 15, 2013 | \$ | 0.115 |
| May 3, 2013 | July 15, 2013 | July 17, 2013 | August 15, 2013 | \$ | 0.115 |
| May 3, 2013 | August 15, 2013 | August 19, 2013 | September 16, 2013 | \$ | 0.115 |
| | | | | Total: \$ | 0.345 |

A copy of the press release announcing such dividend is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

| Section 9 | Financial Statements and Exhibits |
|-----------|-----------------------------------|
| Item 9.01 | Financial Statements and Exhibits |

(d) Exhibits.

99.1 Press release of the Company dated May 7, 2013.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 7, 2013

HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr. Robert D. Pomeroy, Jr. *Chief Executive Officer*

Exhibit Index

Exhibit No.Description99.1Press release of the Company dated May 7, 2013



Horizon Technology Finance Announces Monthly Dividends for July, August and September 2013

FARMINGTON, Conn., May 7, 2013 – Horizon Technology Finance Corporation (NASDAQ: HRZN) (the "Company" or "Horizon"), a leading specialty finance company that provides secured loans to venture capital and private equity backed development-stage companies in the technology, life science, healthcare information and services, and clean-tech industries, announced today that its Board of Directors declared monthly dividends of \$0.115 per share for each of July, August and September 2013. These monthly dividends, which will be payable in the third quarter of 2013 as set forth in the table below, total \$0.345 per share. Including the monthly dividends declared in the second quarter of 2013, Horizon has declared \$4.24 per share in cumulative dividends since its October 2010 initial public offering.

Monthly Dividends Declared in Second Quarter 2013

| Declared | Ex-Dividend Date | Record Date | Payment Date | Amount Pe | er Share |
|-------------|------------------|-----------------|--------------------|-----------|----------|
| May 3, 2013 | June 18, 2013 | June 20, 2013 | July 15, 2013 | \$ | 0.115 |
| May 3, 2013 | July 15, 2013 | July 17, 2013 | August 15, 2013 | \$ | 0.115 |
| May 3, 2013 | August 15, 2013 | August 19, 2013 | September 16, 2013 | \$ | 0.115 |
| | | | To | otal: \$ | 0.345 |

When declaring dividends, the Horizon Board of Directors reviews estimates of taxable income available for distribution, which may differ from consolidated net income under generally accepted accounting principles due to (i) changes in unrealized appreciation and depreciation, (ii) temporary and permanent differences in income and expense recognition, and (iii) the amount of spillover income carried over from a given year for distribution in the following year. The final determination of taxable income for each tax year, as well as the tax attributes for dividends in such tax year, will be made after the close of the tax year.

Horizon maintains a dividend reinvestment plan ("DRIP") that provides for the reinvestment of dividends on behalf of its stockholders, unless a stockholder has elected to receive dividends in cash. As a result, if Horizon declares a dividend, our stockholders who have not "opted out" of the DRIP by the dividend record date will have their dividend automatically reinvested into additional shares of our common stock. Horizon has the option to satisfy the share requirements of the DRIP through the issuance of new shares of common stock or through open market purchases of common stock by the DRIP plan administrator. Newly-issued shares will be valued based upon the final closing price of Horizon's common stock on a specified valuation date for each dividend as determined by Horizon's Board of Directors. Shares purchased in the open market to satisfy the DRIP requirements will be valued based upon the average price of the applicable shares purchased by the DRIP plan administrator, before any associated brokerage or other costs, which are borne by Horizon.

About Horizon Technology Finance

Horizon Technology Finance Corporation is a business development company that provides secured loans to development-stage companies backed by established venture capital and private equity firms within the technology, life science, healthcare information and services, and clean-tech industries. The investment objective of Horizon Technology Finance is to maximize total risk-adjusted returns by generating current income from a portfolio of directly originated secured loans as well as capital appreciation from warrants to purchase the equity of portfolio companies. Headquartered in Farmington, Connecticut, with regional offices in Walnut Creek, California and Reston, Virginia, the Company is externally managed by its investment advisor, Horizon Technology Finance Management LLC. Horizon's common stock trades on the NASDAQ Global Select Market under the ticker symbol, "HRZN." In addition, the Company's 7.375% Senior Notes due 2019 trade on the New York Stock Exchange under the ticker symbol "HTF." To learn more, please visit horizontechnologyfinancecorp.com.

Forward-Looking Statements

Statements included herein may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Statements other than statements of historical facts included in this press release may constitute forward-looking statements and are not guarantees of future performance, condition or results and involve a number of risks and uncertainties. Actual results may differ materially from those in the forwardlooking statements as a result of a number of factors, including those described from time to time in our filings with the Securities and Exchange Commission. The Company undertakes no duty to update any forward-looking statement made herein. All forward-looking statements speak only as of the date of this press release.

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