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): February 4, 2010



(Evact name of registrant as specified in its charter)

| | (Exact name of registrant as specified in its charter) | | | | |
|--------------------------------|---|---|--------------------------------------|--|--|
| | Texas | 1-7259 | 74-1563240 | | |
| | (State or other jurisdiction of incorporation) | (Commission File Number) | (I.R.S. Employer Identification No.) | | |
| P. O. Box 36611, Dallas, Texas | | 75235-1611 | | | |
| | (Address of principal executive offic | es) | (Zip Code) | | |
| | Registrar | nt's telephone number, including area code: (214) | 792-4000 | | |
| | | Not Applicable | | | |
| | Form | ner name or former address, if changed since last | report | | |
| | k the appropriate box below if the Form 8-K filing is intended; obligation of the registrant under any of the following pro | 3 3 | | | |
| [] | Written communications pursuant to Rule 425 under the (17 CFR 230.425) | ne Securities Act | | | |
| [] | Soliciting material pursuant to Rule 14a-12 under the l | Exchange Act (17 | | | |

[]

CFR 240.14a-12)

Exchange Act (17 CFR 240.14d-2(b))

Exchange Act (17 CFR 240.13e-4(c))

Pre-commencement communications pursuant to Rule 14d-2(b) under the

Pre-commencement communications pursuant to Rule 13e-4(c) under the

| Item 7.01 | Regulation FD Disclosure |
|-----------|--------------------------|
| | |

On February 4, 2010, the Registrant issued a press release announcing its traffic results for January 2010. The press release is furnished herewith as Exhibit 99.1 and is incorporated by reference into this Item 7.01.

The information furnished in this Item 7.01 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section, nor shall such information be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

- (d) Exhibits:
- 99.1 Registrant's January 2010 Traffic Release.

SIGNATURES

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.

SOUTHWEST AIRLINES CO.

February 4, 2010

By /s/ Laura Wright

Laura Wright Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit Index

Exhibit No. Description

99.1 Registrant's January 2010 Traffic Release.

CONTACT: Investor Relations (214) 792-4415

SOUTHWEST AIRLINES REPORTS JANUARY TRAFFIC

DALLAS, TEXAS -- February 4, 2010 -- Southwest Airlines Co. (NYSE: LUV) announced today that the Company flew 5.5 billion revenue passenger miles (RPMs) in January 2010, a 7.1 percent increase from the 5.1 billion RPMs flown in January 2009. Available seat miles (ASMs) decreased 6.7 percent to 7.6 billion from the January 2009 level of 8.2 billion. The load factor for the month was 72.1 percent, compared to 62.8 percent for the same period last year. For January 2010, passenger revenue per ASM is estimated to have increased in the 14 to 15 percent range compared to January 2009.

This release, as well as past news releases on Southwest, are available online at southwest.com.

/more

SOUTHWEST AIRLINES CO. PRELIMINARY COMPARATIVE TRAFFIC STATISTICS

| - | JANUARY | | | |
|-------------------------------|-----------|-----------|----------|--|
| | 2010 | 2009 | CHANGE | |
| Revenue passengers carried | 6,500,716 | 5,988,116 | 8.6% | |
| carried | 0,500,710 | 3,988,110 | 8.070 | |
| Enplaned passengers | 7,576,013 | 6,993,566 | 8.3% | |
| Revenue passenger miles (000) | 5,499,087 | 5,135,380 | 7.1% | |
| Available seat miles (000) | 7,622,575 | 8,172,539 | (6.7)% | |
| Load factor | 72.1% | 62.8% | 9.3 pts. | |
| Average length of haul | 846 | 858 | (1.4)% | |
| Trips flown | 88,406 | 94,606 | (6.6)% | |