

DIETRICH JOHN W  
 Form 144  
 September 17, 2009

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SEC USE ONLY
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**UNITED STATES  
 SECURITIES AND EXCHANGE COMMISSION  
 Washington, DC 20549**

**FORM 144**

**NOTICE OF PROPOSED SALE OF SECURITIES  
 PURSUANT TO RULE 144 UNDER THE SECURITIES ACT OF 1933**

**ATTENTION:** *Transmit for filing 3 copies of this form concurrently with either placing an order with a broker to execute sale or executing a sale directly with a market maker.*

<b>1(a) Name of Issuer</b>	<b>(b) IRS Ident. No.</b>	<b>(c) S.E.C. File No.</b>
Atlas Air Worldwide Holdings, Inc.	13-4146982	0-25732
<b>(d) Address of Issuer</b>	<b>(e) Telephone No.</b>	
2000 Westchester Avenue	Purchase, NY 10577	914 701-8000
(Street)	(City) (State) (Zip Code)	(Area Code) (Number)
<b>2(a) Name of Person For Whose Account the Securities are to be Sold</b>		<b>(b) Relationship to Issuer</b>
John W. Dietrich		Executive Officer

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(c) **Address**

2000 Westchester Avenue

Purchase, NY 10577

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(Street)

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(City) (State) (Zip Code)

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**INSTRUCTION:** *The person filing this notice should contact the issuer to obtain the I.R.S. Identification Number and the S.E.C. File Number*

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3(a) Title of the Class of Securities to be Sold	(b) Name and Address of Each Broker Through Whom the Securities are to be Offered or Each Market Maker Who is Acquiring the Securities	SEC USE ONLY  Broker-Dealer File Number	(c) Number of Shares or Other Units to be Sold <i>(See Instr. 3(c))</i>	(d) Aggregate Market Value <i>(See Instr. 3(d))</i>	(e) Number of Shares or Other Units Outstanding <i>(See Instr. 3(e))</i>	(f) Approximate Date of Sale (Mo/Day/Yr) <i>(See Instr. 3(f))</i>	(g) Name of Each Securities Exchange <i>(See Instr. 3(g))</i>
Common Stock	Fidelity Investments 100 Summer Street Boston, MA 02110		Up to 10,000 shares	Approximately \$300,000	21,095,802	09/16/09 to 09/17/09	NASDAQ

**INSTRUCTIONS:**

1. (a) Name of issuer  
 (b) Issuer's I.R.S. Identification Number  
 (c) Issuer's S.E.C. file number, if any  
 (d) Issuer's address, including zip code  
 (e) Issuer's telephone number, including area code
  
2. (a) Name of person for whose account the securities are to be sold  
 (b) Such person's relationship to the issuer (e.g., officer, director, 10% stockholder, or member of immediate family of any of the foregoing)  
 (c) Such person's address, including zip code
  
3. (a) Title of the class of securities to be sold  
 (b) Name and address of each broker through whom the securities are intended to be sold  
 (c) Number of shares or other units to be sold (if debt securities, give the aggregate face amount)  
 (d) Aggregate market value of the securities to be sold as of a specified date within 10 days prior to the filing of this notice  
 (e) Number of shares or other units of the class outstanding, or if debt securities the face amount thereof outstanding, as shown by the most recent report or statement published by the issuer  
 (f) Approximate date on which the securities are to be sold  
 (g) Name of each securities exchange, if any, on which the securities are intended to be sold

**TABLE I SECURITIES TO BE SOLD**

*Furnish the following information with respect to the acquisition of the securities to be sold and with respect to the payment of all or any part of the purchase price or other consideration therefor:*

Title of the Class	Date You Acquired	Nature of Acquisition Transaction	Name of Person from Whom Acquired <i>(if gift, also give date donor acquired)</i>	Amount of Securities Acquired	Date of Payment	Nature of Payment
Common Stock	Various times from 07/27/04	Stock awarded by the issuer pursuant to its long-term incentive plans	Atlas Air Worldwide Holdings, Inc.	48,756 shares as of 09/16/09	N/A	N/A

**INSTRUCTIONS:**

If the securities were purchased and full payment therefor was not made in cash at the time of purchase, explain in the table or in a note thereto the nature of the consideration given. If the consideration consisted of any note or other obligation, or if payment was made in installments describe the arrangement and state when the note or other obligation was discharged in full or the last installment paid.

**TABLE II SECURITIES SOLD DURING THE PAST 3 MONTHS**

*Furnish the following information as to all securities of the issuer sold during the past 3 months by the person for whose account the securities are to be sold.*

Name and Address of Seller	Title of Securities Sold	Date of Sale	Amount of Securities Sold	Gross Proceeds

**REMARKS:**

**INSTRUCTIONS:**

See the definition of person in paragraph (a) of Rule 144. Information is to be given not only as to the person for whose account the securities are to be sold but also as to all other persons included in that definition. In addition, information shall be given as to sales by all persons whose sales are required by paragraph (e) of Rule 144 to be aggregated with sales for the account of the person filing this notice.

**ATTENTION:**

The person for whose account the securities to which this notice relates are to be sold hereby represents by signing this notice that he does not know any material adverse information in regard to the current and prospective operations of the issuer of the securities to be sold which has not been publicly disclosed.

September 16, 2009

/s/ John W. Dietrich

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DATE OF NOTICE

(SIGNATURE)

*The notice shall be signed by the persons for whose account the securities are to be sold.*

*At least one copy of the notice shall be manually signed.*

*Any copies not manually signed shall bear typed or printed signatures.*

<p><b>ATTENTION:</b> <b>Intentional misstatements or omission of facts constitute Federal Criminal Violations (See 18 U.S.C. 1001)</b></p>
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