Form **PTO-1594** 

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U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office

OMB No. 0651-0027 (exp. 5/31/2002)							
Tab settings ⇔⇔⇔ ▼ 101753035. ▼ ▼ ▼ ▼ To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.							
1. Name of conveying party(ies):  Aerodyne Research, Inc.  Association	2. Name and address of receiving party(ies)  Name: Citizens Bank of Massachusetts Internal Address:						
General Partnership Corporation-State Other	Street Address: 28 State Street  City: Boston State: MA Zip: 02110  Individual(s) citizenship						
Additional name(s) of conveying party(ies) attached? 🎴 Yes 🏖 No	Association						
3. Nature of conveyance:	Limited Partnership						
Assignment	Corporation-State MA						
Security Agreement Change of Name  Other  Execution Date: April 27, 2001	If assignee is not domiciled in the United States, a domestic representative designation is attached:  (Designations must be a separate document from assignment)  Additional name(s) & address(es) attached?  Yes  No						
4. Application number(s) or registration number(s):							
A. Trademark Application No.(s)	B. Trademark Registration No.(s) 2,023,506						
Additional number(s) at	l						
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and registrations involved:						
Name: Christopher E. Kondracki							
Internal Address:	7. Total fee (37 CFR 3.41)\$ 40.00						
	Enclosed						
	Authorized to be charged to deposit account						
Street Address: 2001 Jefferson Davis, Hwy., Suite 505	8. Deposit account number:						
City: Arlington State: VA Zip:22202	(Attach duplicate copy of this page if paying by deposit account)						
DO NOT USE THIS SPACE							
9. Statement and signature.  To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.							
Christopher E. Kondracki  Name of Person Signing  C/12/01  Signature  Date							
Total number of pages including cover sheet, attachments, and document:							
Mail documents to be recorded with required cover sheet information to:							

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Commissioner of Patent & Trademarks, Box Assignments
Washington, D.C. 20231

#### INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "IP Security Agreement") is made as of the 27th day of April, 2001, between

CITIZENS BANK OF MASSACHUSETTS (hereinafter, the "Lender"), a Massachusetts state chartered bank with offices at 28 State Street, Boston, Massachusetts 02110

and

**AERODYNE RESEARCH, INC.** (hereinafter, the "Borrower"), a Massachusetts corporation with its principal executive offices at 45 Manning Road, Billerica, Massachusetts 01821.

#### **RECITALS**

WHEREAS, pursuant to a certain loan arrangement between Borrower and Lender, evidenced by, among other documents, a certain Loan and Security Agreement of even date herewith (hereinafter, the "Loan Agreement"), made between the Borrower and the Lender, the Lender has agreed to make certain loans (hereinafter, the "Loans") available to the Borrower;

WHEREAS, under the Loan Agreement, the Borrower has granted a security interest in the Borrower's assets to secure the liabilities and obligations of the Borrower to the Lender (hereinafter, the "Liabilities");

WHEREAS, as a condition, among others, to the continuation of the credit facility contemplated by the Loan Agreement, and as to further secure the Liabilities, the parties hereto shall execute this IP Security Agreement.

NOW THEREFORE, For good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Borrower and the Lender agree as follows:

- 1. To secure the Liabilities, the Borrower hereby grants a security interest in favor of the Lender, with power of sale, in and to the following and all proceeds thereof:
  - (a) <u>Trademarks</u>.
  - (i) All of the Borrower's now owned or existing or hereafter acquired or arising trademarks, trademark applications, service marks, registered service marks and service mark applications including, without limitation, the trademarks, registered trademarks, trademark applications, service marks, registered service marks and service mark applications listed on *EXHIBIT A* annexed hereto and made a part hereof, together with any goodwill connected with and symbolized by any such trademarks, trademark applications, service marks, registered service marks or service mark applications.
    - (ii) All renewals of any of the foregoing.
  - (iii) All income, royalties, damages and payments now and hereafter due and/or payable under and with respect to any of the foregoing, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilu-

tions thereof.

- (iv) The right to sue for past, present and future infringements and dilutions of any of the foregoing.
- (v) All of Borrower's rights corresponding to any of the foregoing throughout the world. All of the foregoing trademarks, registered trademarks and trademark applications, and service marks, registered service marks and service mark applications and goodwill described in Subsection(a) (i)-(v) are hereinafter individually and/or collectively referred to as the "Trademarks".
  - (b) Patents.
- (i) All of the Borrower's now owned or existing or hereafter acquired or arising letters patent, patent applications, and the inventions and improvements therein disclosed, and any and all divisions, reissues and continuations of said letters patent including, without limitation the patents listed on *EXHIBIT B* annexed hereto and made a part hereof.
  - (ii) All renewals of any of the foregoing.
- (iii) All income, royalties, damages and payments now and hereafter due and/or payable under and with respect to any of the foregoing, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof.
- (iv) The right to sue for past, present and future infringements and dilutions of any of the foregoing.
- (v) All of Borrower's rights corresponding to any of the foregoing throughout the world. All of the foregoing letters patent, patent applications described in Subsection (b) (i)-(v) are hereinafter individually and/or collectively referred to as the "Patents".
  - (c) Copyrights.
- (i) All of the Borrower's now owned or existing or hereafter acquired or arising copyright rights (including licences), copyright applications, copyright registrations, and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, including, without limitation, the copyright rights, copyright applications, and registered copyrights, listed on <u>EXHIBIT C</u> annexed hereto and made a part hereof.
  - (ii) All renewals of any of the foregoing.
- (iii) All income, royalties, damages and payments now and hereafter due and/or payable under and with respect to any of the foregoing, including, without limitation, payments under all licenses entered into in connection therewith and damages and payments for past or future infringements or dilutions thereof.
- (iv) The right to sue for past, present and future infringements and dilutions of any of the foregoing.
- (v) All of Borrower's rights corresponding to any of the foregoing throughout the world.

  All of the foregoing copyright rights, registered copyrights and copyright applications described in

Subsection (c) (i)-(v) are hereinafter individually and/or collectively referred to as the "Copyrights". Hereinafter, all of Borrower's Trademarks, Patents and Copyrights and collectively referred to as, the "Intellectual Property".

- 2. Until this IP Security Agreement is terminated, the Borrower shall undertake in its reasonable business discretion the following with respect to the Intellectual Property:
  - (a) Pay all renewal fees and other fees and costs associated with maintaining the Intellectual Property and with the processing of the Intellectual Property.
  - (b) At Borrower's sole cost, expense, and risk, pursue the prompt, diligent, processing of each Application for Registration which is the subject of the foregoing assignment and not abandon or delay any such efforts.
  - (c) At Borrower's sole cost, expense, and risk, take any and all action which Borrower deems desirable to protect the Intellectual Property, including, without limitation, but subject to Borrower's discretion, the prosecution and defense of infringement actions.
  - (d) At Borrower's sole cost, expense, and risk, register with the United States Patent and Trademark Office or Copyright Office, as appropriate all unfiled Intellectual Property created or purchased by the Borrower.

#### 3. In the event of

- (a) any failure by the Borrower to perform any of its obligations set forth in Section 2, above; and/or
- (b) the occurrence of any Event of Default (as defined in the Loan Agreement), the Lender acting in its own name or in that of the Borrower may (but shall not be required to) act in the Borrower's place and stead and/or in the Lender's own right in connection therewith.
  - 4. The Borrower represents and warrants that to the best of its knowledge:
  - (a) The Intellectual Property listed on EXHIBITS A, B, and C include all of the registered Intellectual Property now owned by the Borrower.
  - (b) No liens, claims or security interests have been granted by the Borrower to any person or entity in such Intellectual Property other than to the Lender or as otherwise permitted pursuant to the Loan Agreement.
  - 5. In order to further secure the Liabilities:
  - (a) The Borrower shall give the Lender written notice (with reasonable detail) within ten (10) days following the occurrence of any of the following:
  - (i) The Borrower obtains rights to any new Intellectual Property (other than Borrower's right to sell products containing the Intellectual Property of others in the ordinary course of Borrower's

business).

- (ii) The Borrower becomes entitled to the benefit of any Intellectual Property, whether as licensee or licensor (other than Borrower's right to sell products containing the Intellectual Property of others in the ordinary course of Borrower's business).
  - (iii) The Borrower enters into any new Intellectual Property license agreement.
- (b) The provisions of this IP Security Agreement shall automatically apply to any such additional property or rights described in 5.(a), above, all of which shall be deemed to be and treated as "Intellectual Property" within the meaning of this IP Security Agreement.
- (c) The Borrower hereby authorizes the Lender to modify this agreement by amending the *EXHIBITS* hereto to include any future Intellectual Property, written notice of which shall be given, provided, however, the modification of said *EXHIBITS* shall not be a condition to the creation or perfection of the security interest in any Intellectual Property.
- 6. Upon the occurrence of any Event of Default, the Lender may exercise all rights and remedies of a secured party under the Uniform Commercial Code as adopted in Massachusetts (Massachusetts General Laws, Chapter 106), with respect to the Intellectual Property, in addition to which the Lender, subject to the terms of the Loan Agreement, may sell, license, assign, transfer, or otherwise dispose of the Intellectual Property. Any person may conclusively rely upon an affidavit of an officer of the Lender that an Event of Default has occurred and that the Lender is authorized to exercise such rights and remedies.
- 7. Effective upon the occurrence of any Event of Default, the Borrower hereby irrevocably constitutes and designates the Lender as and for the Borrower's attorney in fact:
  - (a) To exercise any of the rights exercisable and powers referenced in Section 2.
  - (b) To execute all and singular such instruments, documents, and papers as the Lender determines to be appropriate in connection with the exercise of such rights and remedies and to cause the sale, license, assignment, transfer, or other disposition of the Intellectual Property.

The within grant of a power of attorney, being coupled with an interest, shall be irrevocable until the within IP Security Agreement is terminated.

- 8. Any use by the Lender of the Intellectual Property as authorized hereunder in connection with the exercise of the Lender's right and remedies under the within IP Security Agreement and the Loan Agreement shall be coextensive with Borrower's rights thereunder and with respect thereto and without any liability for royalties or other related charges from the Lender to the Borrower.
- 9. Lender hereby grants to Borrower the right, prior to notice from the Lender following the occurrence of an Event of Default (as defined in the Loan Agreement), to sue for past, present and future infringement of the Intellectual Property including the right to seek injunctions and/or money damages, in an effort

by Borrower to protect the Intellectual Property against encroachment by third parties; provided, however, that Borrower first notifies Lender in writing of its intention to sue for enforcement of the Intellectual Property against a particular party. All reasonable costs arising in connection with any infringement shall be borne by Borrower.

- 10. Following the payment and satisfaction of all Liabilities, and the termination of any obligation of the Lender to provide loans or financial accommodations under the credit facility contemplated by the Loan Agreement, this Assignment shall terminate and the Lender shall execute and deliver to Borrower all such instruments as the Borrower reasonably may request to re-vest in Borrower full title to the Intellectual Property, subject to any disposition thereof which may have been made by Lender pursuant hereto or pursuant to the Loan Agreement.
- The Borrower shall, at the request of the Lender, do any and all acts and execute any and all documents required by the Lender in connection with the protection, preservation, and enforcement of the Lender's rights hereunder.
- 12. The Borrower shall, upon demand, reimburse the Lender for all reasonable costs and expenses incurred by the Lender in the exercise of any rights hereunder (including, without limitation, reasonable fees and expenses of counsel).
- 13. This IP Security Agreement is intended to be supplemental of the Loan Agreement. All provisions of the Loan Agreement shall apply to the Intellectual Property and the Lender shall have the same rights with respect to any and all Intellectual Property granted the Lender to secure the Liabilities hereunder as thereunder. In the event of a conflict between this IP Security Agreement and the Loan Agreement, the terms of this IP Security Agreement shall control with respect to the Intellectual Property, and the Loan Agreement shall control with respect to all other collateral.

IN WITNESS WHEREOF, the Borrower has caused this IP Security Agreement to be executed under seal as of the date first above written.

(The "Borrower")

AERODYNE RESEARCH, INC.

By: Charles E. Kulb

Name: Charles E. Kulb

Title: President/CEO

641725.1

# EXHIBIT "A"

# TRADEMARKS

TRADEMARK DESCRIPTION	COUNTRY	SERIAL NO.	REG. NO	STATUS
"AERODYNE RESEARCH"	USA	75-007,243	2,023,506	In Force

# EXHIBIT "B"

### **PATENTS**

PATENT DESCRIPTION STATUS	DOCKET NO.	COUNTRY	PATENT NO.	FILING DATE	
Absorption Cell		USA	5,291,265	3 Jun 92	In Force
Hybrid Rocket Fuel		USA	5,529,648	23 Dec 93	In Force
Optical Oxygen Sensor		USA	5,560,845	18 May 95	In Force
Plant Fluorescence Sensor		USA	5,567,947	1 Jun 95	In Force
Turbine Blade Cooling		USA	5,954,478	15 Jan 98	In Force
Turbine Blade Cooling		USA	5,857,836	15 Jan 98	In Force
NOx Sensor		USA	5,818,598	20 Dec 96	In Force
Optical Water Vapor Senso	or	USA	5,760,895	20 Aug 96	In Force
Vehicle Emissions Measur	ement	USA	5,877,862	26 Aug 97	In Force
Particle Analyzer		USA	6,040,374	5 Mar 98	In Force
Pollution Formation Rate N	Measurement	USA		26 Oct 98	Allowed
Polarimetric Modulation		USA		14 Feb 00	Pending

TRADEMARK
RECORDED: 06/12/2001 REEL: 002315 FRAME: 0366