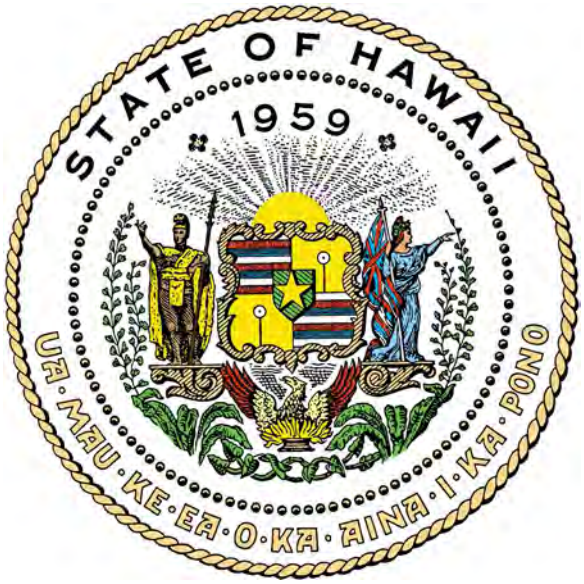


2010 Annual Report

HSDC

HAWAII
STRATEGIC
DEVELOPMENT
CORPORATION

Table of Contents

Message from the Chairman

I would like to take this opportunity to thank the members of the Tech Caucus Group and others who spent considerable time and effort this past legislative session in an attempt to activate the State Private Investment Fund. Ultimately, this legislative initiative did not succeed, but the effort did help to educate policy makers and the community on the economic benefits of a well managed investment program. Current examples of these benefits are the contributions made by the Follow-on-Funding Program and the Hydrogen Special Capital Fund to Hawaii's economy over the past year.

Three members of HSDC's board had their terms expire this past year; our thanks to Glenn Yamada, Darren Kimura, and Jason Ikaika Hauanio, for their years of service.

Danton S. Wong
Chairman of the Board

Message from the President

This year's report highlights an increase in activity in our investment portfolio. Many of our fund investments are reaching the end of their terms and we are managing their exits. There may be opportunities to reinvest capital that is returned to HSDC and we are researching potential investments. However, to fulfill our mission as a catalyst for technology based economic development in Hawaii, HSDC will need to increase the financial resources we have to invest.

This past December, HSDC co-hosted a symposium on Best Practices in State Investment Programs. Representatives from Pennsylvania, New Mexico, Tennessee and Utah presented the positive impact their respective state's fund of funds investment programs have had on their economies. This coming December we plan on co-hosting a second Best Practices symposium, this time focused on Entrepreneurial Development. Again, representatives from several states will be invited to showcase their nationally recognized programs that have created a sustainable culture of entrepreneurial development in their communities.

Through these efforts and the tangible contributions our programs are producing we hope the technology sector stakeholders and policy makers will recognize the importance of well managed investment programs as part of the policy mix to drive entrepreneurial growth and capital formation here in Hawaii.

Karl Fooks
President

Report on the Follow-on-Funding Program

Act 267, SLH 2007 provided $5 million for the Follow on Funding Program to be managed, under contract, by the Pacific International Center for High Technology Research (PICHTR). HSDC worked with PICHTR to establish a competitive process to select companies with promising technologies and to establish a set of metrics to evaluate the effectiveness of the program.

The purpose of the program was to provide funding for companies to commercialize the technologies they developed under research programs funded by the U.S. Department of Defense through the High Technology Development Venture and the Center of Excellence for Research in Ocean Sciences. These DOD funded programs support technology research and development, but not the commercial product development and marketing of the technology to generate revenues for the companies.

Through the Follow-on-Funding Program the state was able to provide funds to Hawaii's Dual Use sector companies, on a competitive basis, that allowed them to commercialize their innovations and build a sustainable business in Hawaii. The funds were disbursed in the first half of 2009 and 20 projects were funded with an average award of $225,000. PICHTR has delivered a final report on the program that details the selection process and their program oversight. Their report is included as an appendix to this report.

The program was successful in achieving its objectives. The 20 projects that received funding represented a cross section of Hawaii's Dual Use sector companies and most of the participating companies were able to generate new revenues from their technologies, attract additional funding, and maintain or increase employment: the key metrics that were tracked under this program. These results were all achieved in a very difficult economic environment. The following table provides a summary of the projects funded and their performance.

Follow-on-Funding Program Metrics

June 30, 2010

Project	Award Amount	Revenue or Anticipated Product Sales	Additional Capital Raised	Additional Capital Anticipated	Total Additional Capital	Hired New Employees	Transfer to Acquisition Cycle	Develop Commercial Product
Cellular Bioengineering, Inc [2]	$285,238	not reported			$0	YES	YES	YES
Concentris Systems, LLC	$300,000	$1,380,000	$780,000	$1,500,000	$2,280,000	NO	YES	YES
Fatigue Science[1]	$300,000	$587,845	$775,000	$500,000	$1,275,000	YES	YES	YES
Makai Ocean Engineering	$300,000	$1,900,000			$0	YES	NO	YES
Oceanit Laboratories, Inc. - LiquidWeb	$225,000	$3,250,000			$0	YES	PENDING	YES
SEE/RESCUE - DeSalinator	$44,660	not reported			$0	YES	YES	YES
SEE/RESCUE - PocketFloat	$49,660	not reported			$0	YES	YES	YES
Innovative Technical Solutions - EOD	$299,956	$680,000		$1,500,000	$1,500,000	YES	NO	NO
Innovative Technical Solutions - Mini	$250,237	$370,000			$0	YES	NO	NO
Nanopoint, Inc.	$300,000	$125,000	$573,000		$573,000	NO	NO	YES
Oceanit Laboratories, Inc. - Inspecta	$275,000	$16,000,000			$0	NO	YES	YES
Oceanit Laboratories, Inc. - WIND	$300,000	$2,100,000			$0	YES	YES	YES
Referentia Systems, Inc.	$299,996	$200,000	$893,000		$893,000	YES	YES	YES
SEE/RESCUE Corporation - LifeFloat	$201,500	not reported			$0	YES	PENDING	YES
TeraSys Technologies, LLC	$198,496	$1,255,000			$0	YES	IN PROGRESS	YES
Archinoetics	$189,943	$0		$3,000,000	$3,000,000	NO	NO	YES
Hawaii Hydrogen Carriers	$95,100	$100,000	$100,000	$1,000,000	$1,100,000	YES	YES	YES
Kuehnle Agrosystems	$200,000	$36,000		$0	$0	YES	YES	YES
Pipeline Micro, Inc.	$200,190	$0			$0	YES	NO	NO
Williams Aerospace	$185,000	$672,219	$120,000	$3,500,000	$3,620,000	YES	YES	YES
TOTAL	**$4,499,976**	**$28,656,064**	**$3,241,000**	**$11,000,000**	**$14,241,000**			
Program Commitments (number of projects)		**12**			**5**	**15**	**5**	**5**
Number of projects achieving program commitments		**12**			**8**	**16**	**11**	**17**
PERCENTAGE OF COMMITMENT		100%			160%	107%	220%	340%

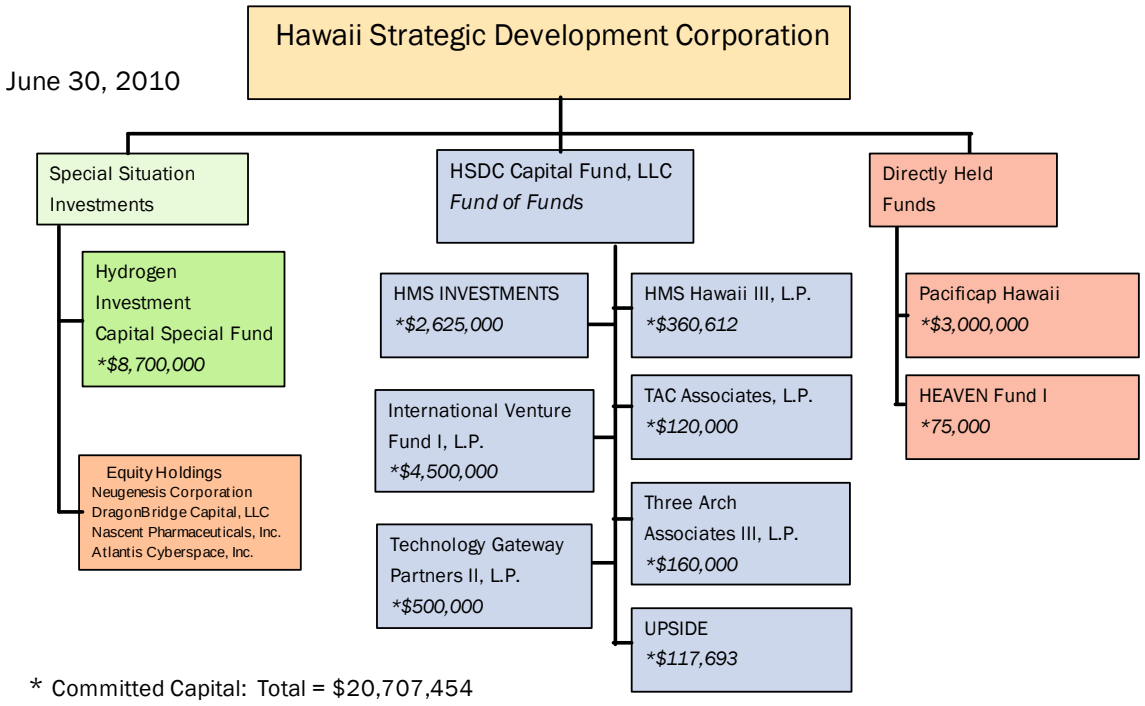
1/ Figures for Fatigue Science were updated in May 2010, after the submission of their final report in February 2010.

2/ Cellular Bioengineering, Inc. did not report revenue or sales, but has sold product.

Programs like the Follow-on-Funding Program help to leverage the significant amount of Federal funding of research programs in Hawaii because they provide the required matching funds for Federal programs, allow companies to focus on developing a business and not just a technology, and help an emerging technology sector develop into an innovation cluster. In the future, these programs could be structured to return capital to provide resources for the next round of funding.

HSDC's Investment Portfolio

As of June 30, 2010, HSDC's investment portfolio totaled $11.7 million in invested capital. The portfolio has returned $4.0 million to date and the current carrying value of the investments is $4.1 million, including $817 thousand of cash awaiting investments held at HSDC Capital Fund, LLC, a fund of funds that is the legal entity through which HSDC holds most of its investments in venture partnerships. HSDC also administered the Follow-on Funding Program, a $5 million grant program that ended this year, and is the administrative agent for DBEDT's $8.7 million Hydrogen Fund program.



HSDC Investment Portfolio
June 30, 2010

Active Funds	Pro Rata Interest	Mgt. Fee	Vintage Year	Capital Commitment	Capital Contributed	Cash and Securities Distributed	Reported Value [1]	Distributions + Reported Value	Date of Latest Report
Heaven Fund 1 Series B & C	100.00%	3.00%	2007	$ 75,000	$ 75,000	$ -	$ 71,750	$ 71,750	12/31/2009
HMS Investments	80.00%	3.50%	2003	$ 2,625,000	$ 2,662,968	$ 3,242,685	$ 501,804	$ 3,744,489	6/30/2010
HMS Hawaii III, L.P.	12.10%	2.50%	2004	$ 360,612	$ 349,794	$ 158,914	$ 161,370	$ 320,284	6/30/2010
International Venture Fund I, L.P.	27.01%	2.50%	2000	$ 4,500,000	$ 4,500,000	$ -	$ 1,257,421	$ 1,257,421	6/30/2010
PacifiCap Hawaii, L. P.	99.00%	2.50%	2000	$ 3,000,000	$ 3,000,000	$ 347,113	$ 868,992	$ 1,216,105	6/30/2010
TAC Associates, L.P.	1.50%	1.50%	2001	$ 120,000	$ 76,107	$ 7,548	$ 79,339	$ 86,887	6/30/2010
Technology Gateway Partners II, L.P. [3]	3.24%	2.25%	2004	$ 500,000	$ 500,000	$ 175,924	$ 94,949	$ 270,873	6/30/2010
Three Arch Associates III, L.P. [3]	1.50%	0.38%	2000	$ 160,000	$ 111,223	$ 110,314	$ 69,342	$ 179,657	6/30/2010
UPSIDE & UPSIDE I	18.75% 23.84%	1.50%	2004	$ 117,693	$ 117,693	$ -	$ 96,332	$ 96,332	6/30/2010
TOTAL ACTIVE FUNDS				**$ 11,458,305**	**$ 11,392,786**	**$ 4,042,499**	**$ 3,201,299**	**$ 7,243,798**	

Active Equity Holdings	Pro Rata Interest	Mng. Fee	Vintage Year	Capital Commitment	Capital Contributed	Cash and Securities Distributed	Reported Value [2]	Distributions + Reported Value	Date of Latest Report
DragonBridge CapitaL LLC	1.67%	N/A	N/A	$ 50,000	$ 50,000	$ -	$ -	$ -	11/17/2009
Nascent Pharmaceuticals, Inc. [4]	0.19%	N/A	N/A			$ -	$ -	$ -	3/15/2010
Neugenesis Corporation [2]	0.25%	N/A	N/A	$ 128,401	$ 128,401	$ -	$ -	$ -	3/22/2010
Atlantis Cyberspace, Inc. [2]	0.98%	N/A	N/A	$ 115,560	$ 115,560	$ -	$ -	$ -	4/30/2009
Nellix, Inc. [3]								$ -	
Series B Preferred Stock	0.23%			$ 40,000	$ 40,000		$ 42,424	$ 42,424	3/31/2010
Secured Convertible Promissory Note				$ 6,417	$ 6,417		$ 6,417	$ 6,417	3/31/2010
TOTAL ACTIVE EQUITY				**$ 340,378**	**$ 340,378**	**$ -**	**$ 48,841**	**$ 48,841**	
TOTAL ACTIVE PORTFOLIO				**$11,798,683**	**$11,733,163**	**$ 4,042,499**	**$ 3,250,140**	**$ 7,292,639**	

1/ Valuations are as of the most recent data available from General Partners.

2/ Received as a distribution from the dissolution of Keo Kea Hawaii, LP

3/ Received as a distribution from the dissolution of Lava Ventures IV

4/ Received as a distribution from the dissolution of Hawaii Venture Fund

Below are descriptions of HSDC's active investment portfolio with the amount of capital invested in each fund as of June 30, 2010:

Hawaii-based Venture Capital Funds

HMS Investments; $2.66 million: Initial investment in September 1995. HSDC holds an 80% limited partner interest in this Hawaii based venture capital investment partnership. The investment portfolio consists of private equity investments in Firetide and Hawaii Biotech.

HMS Hawaii III; $0.35 million: Initial investment in March 2004. HSDC holds a 12.1% limited partner interest in this Hawaii based venture capital partnership. The investment portfolio consists of private equity investments in AGIS Network, Sprout, and Firetide. It also holds publicly traded shares of Hoku Scientific.

PacifiCap Hawaii, L.P.; $3.0 million: Initial investment in June 2000. HSDC holds a 99% limited partner interest in this Hawaii based venture capital partnership. The investment portfolio consists of private equity investments in Fresh Direct Holdings Inc., 4Charity.com, Iris Wireless, Bivision Systems and Trex-Cross Fiber VIPP Note.

Regional Venture Capital Funds

International Venture Fund I; $4.5 million: Initial investment in April 2000. HSDC holds a 27.01% limited partner interest in this California based venture capital partnership. The investment portfolio consists of private equity investments in Lumidigm, Napo Pharma, AssistGuide, Hawaii Biotech, and Cardax Pharmaceuticals.

TAC Associates; $ 0.076 million: Received a 0.87% limited partner interest in this California based venture capital partnership as a distribution from the dissolution of Lava Ventures IV.

Three Arch Associates III; $ 0.111 million: Received a 1.58% limited partner interest in this California based venture capital partnership as a distribution from the dissolution of Lava Ventures IV.

Technology Gateway Partners II; $0.5 million: Initial investment in April 2004. HSDC holds a 3.24% limited partner interest in this California based venture capital partnership. The investment portfolio consists of Perlan Therapeutics and Neophotonics.

Fund to Support Hawaii Angels

Heaven Fund I; $0.075 million: Initial investment in November 2007. HSDC holds a 3.0% limited partner interest in the Series B and Series C of this Hawaii based venture capital partnership. This investment partnership supports investments made by the Hawaii Angels, a Hawaii based Angel investing network and currently holds private equity investments in 19 companies in its investment portfolio.

Fund to Support Technology Transfer from the University of Hawaii

UPSIDE I; $0.118 million: Initial investment June 2003. HSDC holds a 23.84% interest in this pooled capital fund. The balance is held

by the Research Corporation of the University of Hawaii. The capital fund is tasked with investing in promising start-up companies using UH developed intellectual property. HSDC holds an 18.75% interest in the original UPSIDE investment portfolio which consists of private equity investments in Pipeline Micro and Kuehnle Agrosystems.

Direct Equity Holdings

HSDC directly holds share certificates, due largely to the liquidation of previous investment partnerships, in the following companies: Neugenesis, Atlantis Cyberspace, DragonBridge Capital LLC, Nascent Pharmaceuticals, and Nellix. DragonBridge Capital LLC was a direct investment by HSDC. As these are non-traded shares, it is difficult to accurately value these interests.

HSDC is also the administrative agent on two important programs, listed below, promoting the development of technology based companies in Hawaii:

Follow-on Funding Program; $5 million: The State awarded this grant program to the Pacific International Center for High Technology Research in June 2008. HSDC executed and administers the contract implementing this program with the Pacific International Center for High Technology Research. This is a multi-year grant program to support Hawaii technology companies' efforts to commercialize for the civilian market, technology originally developed for the military market. $4.5 million has been provided to 20 projects in Hawaii through a competitive solicitation process. This program was successfully completed this fiscal year.

The Hydrogen Investment Capital Special Fund; $4.4 million: Despite its authorization in 2006, the investment program did not begin until December 2008. HSDC is the administrative agent for this DBEDT managed $8.7 million program, which is divided equally between an investment program and a cost match grant program, both contracted out to Kolohala Ventures to implement. To date, $2.4 million of the $4.2 million investment program has been invested in a portfolio of Hawaii based clean energy companies consisting of: Clearfuels Technology, Kuehnle Agrosystems, Big Island Biodiesel, and Real Green Power. These investments have been instrumental in mobilizing resources for these companies to export their

clean energy technologies and leverage Hawaii's commitment to a clean energy future.

The $4.2 million subprogram to provide cost-matching grants to entities in Hawaii pursuing grants for their Hydrogen related projects has disbursed $1.3 million to date.

Lava Ventures IV, LLC

Lava Ventures IV was liquidated in March 2010. This investment fund was managed by Gwen Watanabe and generated a 34.5% IRR on HSDC's $500,000 investment. The fund's major success was its investment in Hoku Scientific, Inc. which successfully IPO'd in 2005. The remaining assets in the fund were principally two limited partner interests in Three Arch Associates III, L.P. and TAC Associates L.P., two funds that are part of the family of funds managed by Three Arch Partners. These limited partner interests were distributed to HSDC.

Financial Report

Revolving Fund ($000)

HSDC funds its operations and investments through the HSDC Revolving Fund and from returns on investment generated through the HSDC Capital Fund, LLC.

FY Ending	6/30/2008	6/30/2009	6/30/2010
Interest Income/Partnership Distributions	$348	$89	$8
Investments	$75	$0	$0
Operating expenditures	$229	$101	$161
HSDC Revolving Fund Balance	$479	$466	$313
HSDC Capital Fund, LLC			
Uncommitted cash awaiting investment	$862	$790	$817

Special Funds ($000)

Act 240, SLH 2006 established the Hydrogen Investment Capital Special Fund within HSDC, with expenditures to be overseen by the Department of Business, Economic Development and Tourism. The fund was capitalized with $10,000,000 in October 2006. In June 2009, Act 79, SLH 2009, Sect. 12, transferred $2,000,000 out of the fund and back to the general fund.

Act 267, SLH 2007 provided $5 million for the Follow on Funding Program within HSDC.

FY Ending	6/30/2008	6/30/2009	6/30/2010
Hydrogen Investment Capital Special Fund	$10,493	$4,839	$4,379
R&D Follow on Funding Program	$5,000	$350	$100

HSDC's Board of Directors

Fiscal Year 2010

Danton S. Wong, Chairman
Attorney/Partner
Chun Kerr Dodd Beaman & Wong

Eric B. Yee, Vice Chairman
Vice President, Private Banking
First Hawaiian Bank

Jason I. Hauanio
Asst. Vice President, Sr. Financial Advisor
Merrill Lynch

H. Brian Moore
Senior Vice President
Pacific Guardian Life Insurance Co.

Theodore Liu
Director
Department of Business, Economic Development & Tourism

Roland Resurreccion, AIA LEED
Project Manager
Hawaii Pacific Health
Design and Construction

Darren T. Kimura
President / CEO
Sopogy, Inc.

Glenn S. Yamada
Pearlridge Market Manager
American Savings Bank

Blenn Fujimoto
President and CEO
Central Pacific HomeLoans Inc.

Edward H. W. Young
TEYC Hawaii

Assumpta Siu Rapoza
Director, Enterprise Risk Mgt.
Hawaii Medical Service Association

Corporate Staff & Contact

Karl K. Fooks
President
Hawaii Strategic Development Corporation
P. O. Box 2359
Honolulu, Hawaii 96804
Email: karl.fooks@dbedt.hawaii.gov
Tel : (808) 587-3830

APPENDIX

FINAL REPORT

SUBMITTED TO

HAWAII STRATEGIC DEVELOPMENT CORPORATION

FOR THE

STATE OF HAWAII FOLLOW-ON-FUNDING PROGRAM

HAWAII TECHNOLOGY DEVELOPMENT VENTURE (HTDV)

JUNE 2010

State of Hawaii, Hawaii Strategic Development Corporation #57257

FINAL REPORT

SUBMITTED TO

HAWAII STRATEGIC DEVELOPMENT CORPORATION

FOR THE

STATE OF HAWAII FOLLOW-ON-FUNDING PROGRAM

HAWAII TECHNOLOGY DEVELOPMENT VENTURE (HTDV)

JUNE 2010

State of Hawaii, Hawaii Strategic Development Corporation #57257

By

Pacific International Center for High Technology Research
1440 Kapiolani Boulevard, Suite 1225, Honolulu, Hawaii 96814
Telephone: (808) 943-9581 Facsimile: (808) 943-9582

Executive Summary

The Hawaii Technology Development Venture (HTDV) was initiated in 2004 under a cooperative agreement with the Office of Naval Research (ONR). The venture has grown and become a model of success in nurturing the high technology sector of Hawaii. Specifically, the defense & dual-use industry has benefitted from HTDV's effort.

HTDV was able to secure from the State of Hawaii, via Act 267, SLH 2007, a matching follow-on-funding program that leverages the significant federal investment in Hawaii's defense & dual-use industry. The appropriation amount of $5 million dollars for this program was released to the administering agency for the State, the Hawaii Strategic Development Corporation (HSDC). HTDV, under contract to the State of Hawaii, provided the project administration and oversight to fund eligible Hawaii companies for commercialization and transition activities.

Fifty-five abstracts were received in response to three requests for proposals. From those 55, 20 projects representing 15 different Hawaii-based companies were selected to receive funding. All projects were successfully completed and contributed to the overall metrics commitment as follows:

HTDV TARGET GOAL	ACHIEVEMENTS	PERCENTAGE OF GOAL ACHIEVED
At least 12 companies will increase total revenue by 25% each.	12 companies reported increasing revenue by 25% or more	100%
At least 15 eligible companies will increase their employee base by a total of 90.	14 companies reported hiring or anticipate hiring a total of 97 employees	108%
At least 5 eligible companies will transition their products into the acquisition cycle.	12 companies reported transitioning their products, with 3 projects pending	240%
At least 5 eligible companies will develop products for the civilian market.	13 companies reported developing products for the civilian market	260%
At least 5 eligible companies will be able to attract additional funding equal to twice the assistance provided.	15 companies reported attracting or anticipating additional funding equal to twice the assistance provided	300%

The State of Hawaii Follow-on-Funding Program has been a success. The direct investment in companies that leverages the significant federal investment has, and will continue to, provide significant returns on the investment through increased general excise tax revenues, corporate and individual income tax revenues, increased employment, and increased capital throughout to the funded companies.

Table of Contents

Attachments

Exhibits

Introduction and Background

In early 2004, the Office of Naval Research (ONR) issued a Research Announcement (RA) for the development of the Hawaii Technology Development Venture (HTDV). HTDV is a center to exploit the capabilities of Hawaii-based small business firms in performing high technology efforts related to current and future U.S. Navy programs. The center is responsible for identifying opportunities where Hawaii-based small businesses possess the technological expertise to perform research into technologies to meet existing and future naval requirements. Additionally, a major effort of the center is to sponsor outreach activities to Hawaii-based small businesses and the U.S. Navy to ensure that appropriate opportunities for research participation and technology application are identified. Efforts to assist Hawaii-based small businesses in understanding the business, financial, and technical aspects of applying for, and performing such efforts, is also within the center's responsibilities.

Specific activities or services provided by HTDV include:

- Company consultations and mentoring services;
- Technology assessments;
- Market assessments and studies;
- Business plan assistance and services;
- Administrative capacity building;
- Small Business Administration support;
- Partnering assistance including collaboration with established programs such as the Small Business Innovation Research (SBIR) and Center for Excellence for Research in Ocean Sciences (CEROS), and;
- Project funding assistance to: (1) support technology innovation and development; (2) enhance commercialization potential of developed technologies; and (3) support long-term economic sustainability for technology businesses in Hawaii.

HTDV's projects have been varied but quite impressive. A number of HTDV projects have resulted in commercial revenue. Due to this, technology industry representatives secured, with the support of both houses of the Hawaii State Legislature, a $5 million commitment for follow-on-funding to support "final stage" technology development, transition and commercialization via Act 267, SLH 2007, a matching follow-on-funding program that leverages the significant federal investment in Hawaii's defense & dual-use industry. The result of the funding is described in the following sections.

Description of Tasks

The initial deliverable submission to the Hawaii Strategic Development Corporation (HSDC) was to define nine specific tasks which included: Program Performance Goals and Objectives; Eligibility for Participation; Conserving and Leveraging Funds; Competition and Evaluation Criteria; Evaluation Team and Evaluation Process; Contracting Process; Outreach Obligations; Program Oversight; and Program Planning and Reporting. HTDV's submission to the HSDC Board of Directors was approved and is included as Attachment A of this Final Report.

All task commitments have been fully completed and achieved under this project as follows:

TASK 1: PROGRAM PERFORMANCE GOALS AND OBJECTIVES

PICHTR and HTDV committed that the expected outcome of the program would result in the following:

1. At least 12 companies will increase total revenue by 25% each.

2. At least 15 eligible companies will increase direct employees by 90 employees.

3. At least 5 eligible companies will transition their products into the acquisition cycle.

4. At least 5 eligible companies will develop products for the civilian market.

5. At least 5 eligible companies will be able to attract additional funding equal to twice the assistance provided.

These performance goals and objectives were passed down to each project. The cumulative result of that effort is shown below:

GOALS AND PERCENTAGES ACHIEVED

HTDV TARGET GOAL	ACHIEVEMENTS	PERCENTAGE OF GOAL ACHIEVED
At least 12 companies will increase total revenue by 25% each.	12 companies reported increasing revenue by 25% or more	100%
At least 15 eligible companies will increase their employee base by a total of 90.	14 companies reported hiring or anticipate hiring a total of 97 employees	108%

At least 5 eligible companies will transition their products into the acquisition cycle.	12 companies reported transitioning their products, with 3 projects pending	240%
At least 5 eligible companies will develop products for the civilian market.	13 companies reported developing products for the civilian market	260%
At least 5 eligible companies will be able to attract additional funding equal to twice the assistance provided.	15 companies reported attracting or anticipating additional funding equal to twice the assistance provided	300%

These metrics provided transparency for the direct investment made through this State Follow-on-Funding Program. All outcomes were met and/or exceeded as a result of the metrics, a summary (which includes individual company contributions to the metrics) can be found in Attachment F.

TASK 2: ELIGIBILITY FOR PARTICIPATION, TASK 3: CONSERVING AND LEVERAGING FUNDS, TASK 4: COMPETITION AND EVALUATION PROCESS

The requirements under Tasks 2, 3 and 4 were incorporated into the Requests for Proposals (RFP) and were the basis of many of the disqualifications for abstract submissions for administrative non-compliance.

TASK 5: EVALUATION TEAM AND EVALUATION PROCESS

The Technical Evaluation Committee was established in parallel with the issuance of the Round One RFP. Five members were nominated by the CEROS Technical Director along with four members of the HTDV Technical Review Committee. As requested by the HSDC Board of Directors, resumes of the members were submitted and approved.

- David Anderson, Senior Analyst/System Architect, SAIC Pacific Rim Division
- Eugene Bal III, Executive Director, Maui High Performance Computing Center
- Susan Bales, Consultant
- Alan Beam, Beam Engineering and Management
- Tom Cooper, Director, Kauai Operations/Senior Program Manager, General Dynamics - Advanced Information Systems
- Bill Friedl, Principal, BDI Maritime
- Jeffrey Haun, Head, Systems Technology Department, NATO Undersea Research Centre
- F. Michael Pestorius, Applied Research Laboratories, The University of Texas at Austin
- Vassilis Syrmos, Professor, College of Engineering & Associate Vice Chancellor for Research and Graduate Education, University of Hawaii at Manoa.

All members of the Technical Evaluation Committee received stipends for their work in evaluating project abstracts.

The evaluation process included scoring sheets and were cumulated anonymously onto an evaluation spreadsheet. Selection was based on both quantitative and qualitative scores with successful applicants passing minimum scores on both quantitative and qualitative evaluations.

TASK 6: CONTRACTING PROCESS

The contracting process was fully executed and all companies were fully compliant with subcontracting requirements of PICHTR and the State of Hawaii. Evidence of such compliance is available upon request or physical review at PICHTR's corporate offices.

TASK 7: OUTREACH OBLIGATIONS

All funded projects were required to commit to participation in STEM related activities. Individual company and project participation in such activities are reflected in their respective Final Reports including participation in Science Fair, Robotics activities, and other STEM programs.

TASK 8: PROGRAM OVERSIGHT, TASK 9: PROGRAM PLANNNG AND REPORTING

HTDV provided to HSDC the following reports:

2nd Week of October 2008	**1st Quarterly Report**
October 2008	Review/Status Report to HSDC Board
November/December 2008	Review/Status Report to HSDC Board
2nd Week of January 2009	**2nd Quarterly Report**
February 2009	Review/Status Report to HSDC Board
2nd Week of April 2009	**3rd Quarterly Report**
April 2009	Review/Status Report to HSDC Board
2nd Week of July 2009	**4th Quarterly Report**
August 2009	Review/Status Report to HSDC Board
2nd Week of October 2009	**5th Quarterly Report**
October 2009	Review/Status Report to HSDC Board
2nd Week of January 2010	**6th Quarterly Report**
February 2010	Review/Status Report to HSDC Board
2nd Week of April 2010	**7th Quarterly Report**
April 2010	Review/Status Report to HSDC Board

The final deliverable is this Final Report. HTDV also collaborated on a public reporting event on March 25, 2010. HTDV, in collaboration with the Hawaii Science & Technology Council, sponsored a "Technology Industry Update" for the Hawaii State Legislature. Thirty legislators attended with 23 staff members. Ten of the Follow-on-Funding companies gave brief "show and tell" presentations to the Legislators in attendance. These companies represented 13 of the 20 projects.

Also in attendance were State and County government officials, representatives from the Chamber of Commerce of Hawaii, and news media organizations. Collateral materials and a DVD of the session were provided to HSDC and Legislators.

The final public reporting session will occur on June 23, 2010, during “Tech Enterprise 2010,” HTDV’s annual conference. The remaining seven projects will provide presentations to the attendees.

Summary of RFPs and Funding Rounds

On July 25, 2008, prior to the issuance of the first RFP, HTDV provided a briefing on the State of Hawaii Follow-on-Funding Program to companies that successfully completed HTDV and/or CEROS projects. The briefing contained an overview of the program and included discussion and receipt of input on the draft RFP. Approximately 40 individuals representing 29 companies attended the event.

REQUEST FOR PROPOSALS – ROUND ONE

On August 8, 2008, the first RFP was issued. Twenty-two abstracts from 19 companies were received on time and one was submitted late. The 22 abstracts requested a total funding of $6.6 million. Of these abstracts, 11 were deemed non-compliant with the solicitation requirements.

Companies submitting the 11 non-compliant abstracts were notified by letter and provided an opportunity to appeal the decision. Inquiries from companies were handled via e-mail, phone call and/or meetings. All of the companies acknowledged that they had failed to meet the solicitation requirements and were invited by HTDV to resubmit compliant abstracts in a subsequent release of the RFP.

The 11 remaining compliant abstracts with a total requested funding of $2,936,920.00 were submitted to the Technical Evaluation Committee. On October 15, 2008, the following seven projects were selected by the Technical Evaluation Committee to receive awards totaling $1,504,558.00.

Company: Concentris Systems, LLC
Project Name: RapidLink Mesh Networking Commercial Launch
Funding Amount: $300,000.00

Company: SEE/RESCUE
Project Name: Commercialization of the Patented MiniRESCUE POCKET/FLOAT
Funding Amount: $44,660.00

Company: SEE/RESCUE
Project Name: Commercialization of the Patented Emergency Pocket Water DeSalinator
Funding Amount: $49,660.00

Company: Makai Ocean Engineering
Project Name: 4D Visualization Software: GIS Integration and Commercialization
Funding Amount: $300,000.00

Company: Oceanit Laboratories
Project Name: LiquidWeb Admixture for Nano Concrete
Funding Amount: $225,000.00

Company: Cellular Bioengineering, Inc.
Project Name: DeconGel for Decontamination and Removal of Radioactive and Other Contaminants
Funding Amount: $285,238.00

Company: Fatigue Science
Project Name: Fatigue-Risk Management System
Funding Amount: $300,000.00

PICHTR held a kick-off briefing for the successful companies on October 17, 2008. Topics discussed included an explanation of the full proposal process; required documentation/clearances; and the performance objectives PICHTR had set for the program.

REQUEST FOR PROPOSALS – ROUND TWO

As the available funding of $4.5 million was not fully committed under the initial solicitation response, PICHTR issued a second RFP on December 8, 2008. PICHTR made up to $3 million available to fund proposals.

Twenty-one abstracts were received by the deadline and 12 were rejected for administrative non-compliance issues. The nine remaining proposals were submitted to the Technical Evaluation Committee for review. All nine members of the Technical Evaluation Committee agreed to participate in the second round evaluations. Selection of the awards was done in March 2009.

The following eight projects were selected by the Technical Committee to receive funding for a total of $2,125.185. PICHTR held a briefing for the awardees to go over the full proposal process; required documentation/clearances and the performance objectives PICHTR set for the program.

Company: Innovative Technical Solutions
Project Name: EOD Lasercomm
Funding Amount: $299,956

Company: Innovative Technical Solutions
Project Name: MiniARCHER
Funding Amount: $250,237

Company: Nanopoint, Inc.
Project Name: CT20000 Fluidics Imaging System
Funding Amount: $300,000

Company: Oceanit Laboratories
Project Name: Inspecta for Emergency Damage Assessment
Funding Amount: $275,000

Company: Oceanit Laboratories
Project Name: Wind 3D-Oceanit's Wind Lidar
Funding Amount: $300,000

Company: Referentia Systems, Inc.
Project Name: Time Series; Rapid Exploration (T-Rex) Commercialization
Funding Amount: $299,995.73

Company: SEE/RESCUE Corporation
Project Name: Commercialization of Patented LIFE/FLOAT Rescue Board
Funding Amount: $201,500

Company: Terasys Technologies, LLC
Project Name: Commercialization of Fixed Frequency RF Absorptive Filter
Funding Amount: $198,496

REQUEST FOR PROPOSALS – ROUND THREE

Based on the first two RFPs, there remained approximately $825,000 of uncommitted project award funds. At the March 13, 2009 HSDC Board of Directors' Meeting, PICHTR requested approval to issue a third RFP which would be limited to companies that were not evaluated over the course of the first two RFPs due to administrative non-compliance. The Board approved the request, but asked that the RFP remain an open solicitation with special consideration given to those previously rejected.

The third and final RFP was released in March 2009 with abstracts due on April 20, 2009. Eleven abstracts were received, ten of which were administratively compliant and forwarded to the evaluation team for review. Five were selected for awards totaling $870,233.33.

The following five projects were selected by the Technical Committee to receive funding for a total of $870,233.33. PICHTR held a briefing for the awardees to go over the full proposal process; required documentation/clearances and the performance objectives PICHTR set for the program.

Company: Archinoetics
Project Name: Corvid Video Analytics
Funding Amount: $189,943

Company: Hawaii Hydrogen Carriers
Project Name: Commercialization of a Solid-State Hydrogen Storage System for PEM Fuel Powered Forklifts
Funding Amount: $95,100

Company: Kuehnle Agrosystems
Project Name: Algae Biomass to Oil Transition
Funding Amount: $200,000

Company: Pipeline Micro
Project Name: Heat Sinks
Funding Amount: $200,190.33

Company: Williams Aerospace
Project Name: Unmanned Aerial System (UAS) Products
Funding Amount: $185,000

SUMMARY OF ROUNDS ONE - THREE

As a result of the RFP process for Rounds One-Three, a total of 55 proposals were received - the total number of proposals received, evaluated, and funded are reflected in the table below. All proposals that did not meet the first round prior to evaluation were denied as a result of non-compliance to RFP instructions. Due to the numerous applications that did not meet the criteria set forth, HTDV offered a proposal development workshop to assist companies in the early stages of development.

	Proposal Received	Proposals Evaluated	Proposals Funded	Total Dollars Awarded
Round 1 2007	23	11	7	$1,504,558
Round 2 2008	21	9	8	$2,125,185
Round 3 2009	11	10	5	$870,233
Rounds 1 - 3	55	30	20	$4,499,976

All funded companies were debriefed on contract obligations, timeline specifics and technical deliverables prior to the commencement of projects and have fully met their contractual and programmatic requirements.

Copies of the actual Round One, Two and Three RFPs and evaluation spreadsheets are included in Attachments B, C and D, respectively. Summaries of all 20 projects are included in Attachment E. As required by the agreement with the State of Hawaii, a separate electronic media submission of all project final reports is also included as an Exhibit to this Final Report.

Conclusion

HTDV successfully executed the Follow-on-Funding (FOF) program with favorable results. The ultimate success of HTDV is reflected in the success of the companies given commercialization and employment retention/new hire opportunities as a result of the State funding. All projects have met their stated technical objectives and have contributed to the program metrics during the period of performance of this contract. Most, if not all, will continue to benefit from the FOF funding and provide an ongoing return on investment to the State of Hawaii

At this snapshot in time, all of the metrics have been met or exceeded. A simple analysis of the results of the State investment provides the following:

- 100% of companies increased revenue by at least 25%;
- Employees hired or anticipated to be hired by the end of calendar year 2010 is 97;
- Over $39 million in new contracts were leveraged with the $5 million investment.

These performance measures correlate to over $1.8 million in direct payments to the State of Hawaii general fund through general excise tax revenue and payroll tax contributions. Additional revenue to the State from increased corporate tax is anticipated but is difficult to estimate with the figures reported under this award.

HTDV greatly appreciates the support of the HSDC Board of Directors and president. The vision and confidence shown by the Hawaii State Legislature and the Executive Branch has been rewarded by a successful program which, we hope, may be a model for ongoing State support to the technology industry.

ATTACHMENT A

Tasks 1-9

PACIFIC INTERNATIONAL CENTER FOR HIGH TECHNOLOGY RESEARCH
Pacific Guardian Tower • 1440 Kapiolani Boulevard, Suite 1225 • Honolulu, Hawaii 96814
Ph: (808) 943-9581 • Fax: (808) 943-9582

July 30, 2008

Mr. Richard Hess
Acting President
Hawaii Strategic Development Corporation
No. 1 Capitol District Building
250 South Hotel Street, Suite 503
Honolulu, Hawaii 96813

Dear Mr. Hess:

Enclosed please find our deliverable submissions for Tasks 1 through 9 as required by Contract No. 57257, Attachment S1, "Scope of Services."

If you have any questions, please do not hesitate to contact me.

Sincerely,

Dennis Y. Teranishi
Interim President & Chief Executive Officer

Enclosure

TASK 1: ESTABLISHING, COMPLYING WITH AND REPORTING ON PROGRAM PERFORMANCE GOALS AND OBJECTIVES

Performance Goals and Objectives should include:

Minimum and maximum expected outcomes with regards to:

a. **Industries to be served, employment demographic changes, salaries:**

   Assistance to at least 15 eligible companies of which:

   - At least 12 will increase total revenue by 25% each.
   - The 15 eligible companies will increase direct employees by 90 employees.
   - At least 5 eligible companies will transition their product into the acquisition cycle.
   - At least 5 eligible companies will develop products for the civilian commercial market.
   - At least 5 eligible companies will be able to attract additional funding equal to twice the assistance provided.

b. **Intellectual property:** Add to each recipient's portfolio of intellectual property; however, since the goal of the FOF Program is not the addition of intellectual property, but the exploitation of intellectual property that have been developed with prior CEROS and HTDV funding, it is expected that the exploitation will result in the outcomes described above.

c. **Outreach programs:** Enhance opportunities for, and participation in, STEM programs. The expected outcome is increased participation in self-selected activities. Since bonus points will be awarded in the review process, participation is expected to increase and all recipients will be expected to engage in or increase their participation in STEM programs.

These items as well as other evidence of meeting the FOF objectives will be subject to review in the applications for funding submitted to HTDV and will be part of the reporting requirements to HTDV. This, in turn, will be summarized and reported to the Hawaii Strategic Development Corporation in HTDV's Final Report.

TASK 2: ELIGIBILITY FOR PARTICIPATION

Consideration shall include, but not be limited to:

a. **Size of company:** Qualify as a small business under the U.S. Small Business Administration's standards, utilizing the appropriate NAICS codes.

b. **Number of employees:** Qualify as a small business under the U.S. Small Business Administration's standards..

c. **Historic revenues:**

(1) Provide a certification that Corporate Income Taxes and General Excise Taxes for the fiscal year prior to application were filed and appropriate taxes paid.

(2) Provide a Tax Clearance Certificate from the State Department of Taxation.

d. **Headquarter locations:**

(1) Be registered to do business in the State of Hawaii as a for-profit entity and be in good standing – a Certificate of Good Standing must be provided in the application.

(2) 51% of the company's total employees based in Hawaii – a formal certification from an authorized corporate officer must be included in the application stating the total number of employees and the number of employees based in Hawaii.

(3) Provide a statement that provides the Federal and State Tax Identification numbers.

e. **Workforce location:**

(1) Have at least 75% of proposed labor performed in Hawaii.

(2) Provide a Form LIR #27 which states that company is in compliance with Department of Labor and Industrial Relations requirements.

f. **Historic HTDV/CEROS projects subcontractors:** Have qualified, been awarded, and have successfully completed an award from HTDV or CEROS – the award must be supported by a copy of the agreement and final report as part of the application package.

These requirements will be communicated to all potential applicants as part of the application requirements and will be reviewed as part of the evaluation process.

TASK 3: CONSERVING AND LEVERAGING FUNDS

Define and document the FOF Program policies to be employed to:

Conserve the limited funds available in the program.

Only companies qualified under the eligibility requirements enumerated under Task 2 may apply for funding under this program.

No fee or profit will be allowed. However, reasonably allocated indirect costs will be allowed.

Leverage other funds.

Priority in selection will be given to companies that commit to expending other than FOF funding to completion of the proposal project; sources of such funding may include:

- Federal funds.
- Private investment
- In-kind contributions of direct funding, facilities and equipment, and indirect costs.

TASK 4: COMPETITION AND EVALUATION CRITERIA

Define and document the FOF Program policies to be employed to ensure its competitive nature. Consideration shall include, but not be limited to:

a. **Solicitation periods:** Request for Proposals will be released in August 2008 with a submission deadline of noon on 15 September 2008. HTDV will attempt to respond no later than 24 October 2008. If all available funding is not committed under this solicitation, HTDV may, subject to the availability of funding, issue another solicitation within 180 days. (See Attachment A – RFP)

Publicly known schedule of events:

August 2008	Issuance of 2008 RFP
15 September 2008	Abstract submission deadline
September 2008	Evaluation of 2008 abstracts
24 October 2008	Decision on successful abstracts
October 2008	Submission of full proposals
November 2008	Evaluation of full proposals
November /December 2008	Subcontracting of 2008 Projects
April 2009	As appropriate, issuance of 2009 RFP
May 2009	As appropriate, evaluation of 2009 abstracts
June 2009	As appropriate, subcontracting of 2009 projects

b. **Proposer instructions:** Abstracts should be submitted electronically by e-mail to htdv@pichtr.org according to procedures outlined in this document. The submissions shall be prepared in either PDF or Microsoft Word 2000 for IBM-compatible formats and each project should have a separate submission. (See Attachment A – RFP)

c. **Submission process:** Abstracts submitted by any means other to the e-mail address specified will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve point type, with margins not less than one inch, and pages numbered. HTDV will attempt to respond no later than 24 October 2008, to companies whose project abstracts are received on or before 12 PM Noon, Hawaii Standard Time, 15 September 2008. (See Attachment A – RFP)

d. **Submission format templates:** The abstract shall consist of a cover page and up to four additional pages of project information, excluding attachments, exhibits, figures and tables. Abstracts exceeding 5 pages will be rejected. The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to transition and/or commercialize the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations. (See Attachment A – RFP)

e. **Deadline for proposals:** Submissions must be received prior to Noon, HST, on 15 September 2008. (See Attachment A – RFP)

f. **Understood evaluation criteria:** The following criteria apply to both Abstracts and full proposals requested under this announcement. HTDV will select for award those projects offering the best value and transition/ commercialization potential.

(1) Quality. Technical quality of the proposed effort and its potential for success. Significant emphasis will be placed on the revenue potential for end products and economic benefit to the State of Hawaii. The proposal should define specific quantifiable metrics outline key requirement and industry standards that will be utilized to determine the successful outcome of the project.

(2) Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans.

(3) Anticipated Benefits. Potential to transition and/or commercialize products at reasonable cost and in a timely manner; and potential for sustained, significant economic benefit to the State of Hawaii. Success contractors shall provide sales information (i.e. number of units sold and associated revenue) to HTDV for reporting and evaluation purposes.

(4) Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence and commercial revenue potential.

(See Attachment A – RFP)

g. **Abstract evaluations:** Upon receipt of the abstracts, HTDV will do an initial screening for compliance with RFP requirements. Those abstracts meeting the RFP requirements will be consolidated on a CD and distributed to each of the technical evaluators. (See Attachment B – EVALUATION STEP-BY-STEP)

h. **Full proposal evaluations:** Upon receipt of the full proposals, HTDV will screen for compliance with the Full Proposal Requirements as well as compliance with comments received during the technical evaluation phase. If the full proposal is in compliance with requirements then it would move to the subcontracting phase. If the full proposal is incomplete, then HTDV will work with the applicant to ensure compliance with all requirements prior to moving to the subcontracting phase. (See Attachment C – FULL PROPOSAL REQUIREMENTS)

If all available funding is not committed under this solicitation, HTDV may, subject to the availability of funding, issue another solicitation within 180 days.

Define and document the FOF Program policies to be employed to ensure its evaluation criteria is fair and publicly known. The program must use clear evaluation criteria for all steps of the process. Consideration shall include, but not be limited to:

a. **Technical and business plan quality:** Assess the scientific/technical strength of the proposal including its technical quality, innovation and importance. The proposal should define specific quantifiable metrics outline key requirement and industry standards that will be utilized to determine the successful outcome of the project. (See Attachment B – EVALUATION STEP-BY-STEP)

b. **Follow-on business plan:** Assess the scientific/technical strength of the proposal including its technical quality, innovation and importance. (See Attachment B – EVALUATION STEP-BY-STEP)

c. **Technical approach and capabilities:** Assess the quality of methods, materials and team members. (See Attachment B – EVALUATION STEP-BY-STEP)

d. **Anticipated benefits:** Assess the Work's potential benefits to commercial technology development in Hawaii. (See Attachment B – EVALUATION STEP-BY-STEP)

e. **Costs and budget:** Assess the effort's budget and schedule. (See Attachment B – EVALUATION STEP-BY-STEP)

f. **Scoring mechanisms:** Scaled from poor to excellent with corresponding point system. (See Attachment B – EVALUATION DEFINITIONS)

TASK 5: EVALUATION TEAM & EVALUATION PROCESS

Define and document the FOF Program policies to be employed to ensure an unbiased and professional evaluation process.

a. **Identifying paid and unpaid expert proposal evaluators:** The technical evaluation committee will be comprised as follows:

   Four (4) members from HTDV Board:
   Eugene Bal, Executive Director, Maui High Performance Computing Center
   Tom Cooper, Senior Manager Business Operations, General Dyamics - AIS
   William Friedl, BDI Maritime and former Technical Director of CEROS
   Vassillis Syrmos, Vice Chancellor, University of Hawaii at Manoa

   Up to five (5) members nominated by CEROS Technical Director:
   _____
   _____
   _____
   _____

   Input from Subject Matter Experts will be solicited as appropriate including, but not limited to, representatives of federal government agencies.

b. **Identifying permanent staff, other evaluation sources:** HTDV – Keith Matsumoto, Technical Director (consultant**)**.

c. **Selection process scoring guidelines, oral presentations, steps that further refined the candidate selection process, quality & integrity of the evaluation team, final selection authority and maintaining the complete confidence of the State.**

   Upon receipt, the abstracts will be complied and logged by the HTDV Administrative Assistant.

   The abstracts and log spreadsheet will be forwarded electronically to the technical evaluation committee along with an evaluation form (See Attachment B – HTDV FOF PROPOSAL EVALUATION SUMMARY).

   The technical evaluation committee will evaluate the proposals and submit their comments and evaluation forms to the HTDV Administrative Assistant for compilation. If any evaluator recommends submission of the abstract to a verified subject matter expert, HTDV will follow-up accordingly.

A meeting of the technical evaluation committee and HTDV will be scheduled. During the meeting the committee will review and discuss each abstract and make recommendations. Decisions of the committee will be based by majority vote and will be final.

Upon approval, the company will be notified and invited to submit a full proposal. Proposals will be evaluated based on feedback from the technical evaluation committee and for compliance with:

- Full Proposal Requirements (See Attachment C – FULL PROPOSAL REQUIREMENTS);

- Terms and conditions of the prime agreement with the State of Hawaii (See Attachment E – SUBCONTRACT AGREEMENT); and

- PICHTR/HTDV requirements (See Attachment E – SUBCONTRACT AGREEMENT).

TASK 6: CONTRACTING PROCESSES

Define and document the FOF Program policies to be employed to ensure an appropriate contracting vehicle, with the necessary oversight resulting in the desired results.

Selected companies will be required to execute cost reimbursable, fixed ceiling subcontracts with PICHTR. A copy of the template subcontract agreement is attached (See Attachment E – SUBCONTRACT AGREEMENT). The terms and conditions of the subcontract agreement will not be subject to negotiation.

Key components of the agreement will be:

- Exhibit A – Statement of Work, and Management Plan
- Exhibit B – Budget and Supporting Cost Proposal
- Exhibit E – Quad Chart Requirement: A quad chart will be required to be submitted monthly and quarterly to monitor progress.
- The application forms (See Attachment D – HTDV APPLICATION FORM) will be incorporated as part of the contracts file.

Additional State requirements include:

- Current State Department of Taxation Tax Clearance.
- Certification that Corporate Income Tax and General Excise Tax for the fiscal year prior to application were filed and paid.
- Certificate of Good Standing.
- Statement providing Federal and State identification numbers.
- Form DLIR #27.

Upon construction of the subcontract agreement by HTDV staff, Janel Pang, PICHTR fiscal and contracts officer, will perform a final review to ensure compliance. Upon completion, PICHTR will forward the agreement to the company for execution. Once the company executes the agreement, 2 copies will be returned to PICHTR for execution.

Upon full execution, PICHTR will return 1 original to the company.

TASK 7: OUTREACH OBLIGATIONS

Define and document the outreach obligations for private companies that may participate and compete for assistance in the FOF program.

PICHTR/HTDV will strongly encourage or require participation of funded companies to participate in Science, Technology, Engineering and Math (STEM) education programs, internships, high technology training for employees, local school 'adoptions', and FIRST efforts.

A list of events and activities for which involvement will be encouraged, includes, but is not limited to:

- University of Hawaii College of Engineering Career Day
- Marine Advanced Technology Education Center ROV Challenge
- Science Bowl and Science Olympiad
- Physics Olympics & Bridge Building
- "Imagine It" Global Challenge
- FIRST Robotics
- Hawaii State Science and Engineering Fair
- Earth Day activities
- BotBall
- First Lego League

Bonus points in the evaluation of proposals will be awarded for a commitment to participate and/or support STEM and related programs.

TASK 8: PROGRAM OVERSIGHT

Define and document the FOF Program policies to be employed to ensure appropriate oversight, both at overall program level and the individual contract level to reach the desired results.

HTDV will provide to HSDC the following reports:

2nd Week of October 2008	**1st Quarterly Report**
2nd Week of January 2009	**2nd Quarterly Report**
2nd Week of April 2009	**3rd Quarterly Report**
2nd Week of July 2009	**4th Quarterly Report**
2nd Week of October 2009	**5th Quarterly Report**
2nd Week of January 2010	**6th Quarterly Report**
2nd Week of April 2010	**7th Quarterly Report**
30 June 2010	**Final Report**

Project oversight will be conducted by HTDV staff and consultants. Harold S. Masumoto, HTDV project director, will be involved in the overall process. Primary contractual and technical oversight will be the responsibility of Keith Matsumoto, technical director of HTDV. Appropriate subject matter experts may be engaged to assist in technical oversight. Janel Pang, PICHTR fiscal and contracts officer, will be the contracting officer for the project.

Standard project management tools will be utilized including, but not limited to, quad charts and Gantt charts as required under the contractual requirements (See Task 6 – Contracting Process).

TASK 9: PROGRAM PLANNING AND REPORTING

Define and document the FOF program schedule, processes and policies to be employed to execute the program described above ensuring completion with the desired results.

PICHTR/HTDV has defined the following schedule with milestones and deliverables.

Schedule; List of Milestones & Deliverables

June 2008	Execute agreement with State of Hawaii
July 2008	Complete, submit and secure approval of HSDC President and Board for Tasks 1 – 9
August 2008	Issuance of 2008 RFP
15 September 2008	Abstract submission deadline
September 2008	Evaluation of 2008 abstracts
2nd Week of October 2008	**1st Quarterly Report**
24 October 2008	Decision on successful abstracts
October 2008	Submission of full proposals
November 2008	Evaluation of full proposals
November/December 2008	Subcontracting of 2008 Projects
2nd Week of January 2009	**2nd Quarterly Report**
April 2009	As appropriate, issuance of 2009 RFP
2nd Week of April 2009	**3rd Quarterly Report**
May 2009	As appropriate, evaluation of 2009 abstracts
June 2009	As appropriate, subcontracting of 2009 projects
2nd Week of July 2009	**4th Quarterly Report**
2nd Week of October 2009	**5th Quarterly Report**
2nd Week of January 2010	**6th Quarterly Report**
2nd Week of April 2010	**7th Quarterly Report**
30 June 2010	**Final Report**

REQUEST FOR PROPOSAL

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

DATE: August 2008

Administered by the Pacific International Center for High Technology Research (PICHTR)
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814

SOLICITATION: HTDV 08-02 (State of Hawaii)

POINT OF CONTACT: Harold S. Masumoto, HTDV Project Director, Phone (808) 237-5160

INITIAL ABSTRACT DUE: 15 September 2008

The Hawaii Technology Development Venture (HTDV), a project of the Pacific International Center for High Technology Research (PICHTR), is soliciting proposals for advanced technology development, transition, and commercialization. HTDV is seeking proposals from prior recipients of funding from HTDV and the Center of Excellence for Research in Ocean Sciences (CEROS). HTDV will execute the program outlined in this announcement contingent upon execution of an agreement with the State of Hawaii, funding amount and availability of funds.

HTDV is particularly interested in projects commercializing HTDV and/or CEROS-funded technologies with significant commercialization and/or DoD transition and Hawaii economic development potential (dual use technologies) Projects must demonstrate a clear technology transition and commercialization pathway, and for which interest for transition and commercialization is documented and verifiable. Submission of a technology transition and/or commercialization plan, for acceptance by HTDV, will be required during the application process, and updated as the project progresses.

Contract awards shall be based on proposal merit and funding availability. Proposed work should be structured with a base period of performance of 6 to 12 months. Options to extend the period of performance may be included in proposal plans but is not guaranteed. HTDV anticipates that initial contractor selections will be made during November 2008 from submissions received by HTDV in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, 15 September 2008.

HTDV will use a two-step submission process to formulate a Core Transition & Commercialization Program from projects submitted under this announcement. The first step requires submission of a Proposal Abstract. HTDV will evaluate all abstracts against the evaluation criteria herein without regard to other abstracts submitted. For the second step, HTDV will request full technical and cost proposals from selected offerors for proposed efforts deemed as best qualified for potential negotiation under this announcement.

PROPOSAL PROCESS

To be considered, offerors shall submit an unclassified abstract of the proposed effort to HTDV in Honolulu, Hawaii, by 12 PM Noon, Hawaii Standard Time, 15 September 2008. The abstract should provide an overview of the project and associated costs. To be eligible for consideration, the offeror must have successfully completed a previous project with HTDV or CEROS. Documentation of prior HTDV/CEROS award(s), copy of the agreement and final report, must be submitted with initial abstract submission including a summary of work and results, and total funding received for development of the product poised for commercial sales.

Abstracts should be submitted electronically through the e-mail to htdv@pichtr.org according to procedures outline in this document. The submissions shall be prepared in either PDF or Microsoft Word 2000 for IBM-compatible formats and each project should have a separate submission.

Abstracts submitted by any means other than the specified e-mail address will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve-point type, with margins not less than one inch, and pages numbered. HTDV will attempt to respond no later than 24 October 2008, to companies whose project abstracts are received on or before 12 PM Noon, Hawaii Standard Time, 15 September 2008.

The abstract shall consist of a cover page and up to four additional pages of project information, excluding attachments, exhibits, figures and tables. Abstracts exceeding five pages will be rejected. The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to transition and/or commercialize the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations.

The balance of the Abstract should clearly describe the project's Product, Process, Importance and Transition/Commercialization potential; and Price. The Abstract shall include the following sections, each clearly labeled:

A. Product(s), describing the work's expected results and discussing transition and/or commercial application of the result. This section should document the immediate sales potential the product as well as manufacturing, distribution and marketing/sales plans.

B. Process, describing the technical approach and methods to be used, including work schedules, task assignments, and major project milestones. This section should summarize specials capabilities of the work team, and special techniques or facilities to be used for the proposed work. If a subcontractor, or subcontractor facilities are to be included in the project, include an approved draft of the cost-reimbursable subcontract agreement and/or approval for use of subcontractor facilities, as appropriate. Such agreements are not subject to the page limitation for the submission.

C. Importance, stating specific technical advances and innovation that will be demonstrated by the work, describing the work's anticipated benefits to military and/or commercial technology and discussing the advances to state-of-the-art expected. Firm letters of intent to transition and/or commercialize, purchase orders, and other relevant documentation to support the transition and/or commercialization of the product.

D. Price, consisting of an estimate for a not to exceed level of effort project, including the principal cost elements, direct material costs, direct labor costs, other direct costs, indirect costs, facilities capital cost of money, and management. No profit will be allowed. The cost proposal should outline any cost sharing by federal, or third party funding.

The Abstract may also contain any other information deemed germane to the proposed effort, such as descriptions of leveraged assets, co-funding arrangements, consultant commitments, or technical references.

EVALUATION CRITERIA

The following criteria apply to both Abstracts and full proposals requested under this announcement. HTDV will select for award those projects offering the best value and transition/ commercialization potential.

A. Quality. Technical quality of the proposed effort and its potential for success. Significant emphasis will be placed on the revenue potential for end products and economic benefit to the State of Hawaii.

B. Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans, including the company business plan.

C. Anticipated Benefits. Potential to transition and/or commercialize products at reasonable cost and in a timely manner; and potential for sustained, significant economic benefit to the State of Hawaii. Successful contractors shall provide sales information (i.e. number of units sold and associated revenue) to HTDV for reporting and evaluation purposes.

D. Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence and commercial revenue potential.

Bonus points in the evaluation of proposals will be awarded for company commitment to participate and/or support STEM and related programs.

QUALIFIED COMPANIES

Companies must qualify as a small business under the U.S. Small Business Administration's standards, be registered to do business in the State of Hawaii, in good standing, and have a significant corporate presence with at least 51% of its employees based in the State of Hawaii. The company must have filed corporate income taxes for the prior fiscal year as well as State of Hawaii General Excise Taxes.

A certification from the Chief Financial Officer that Hawaii State corporate income taxes and General Excise Taxes were filed for the fiscal year prior to application must be submitted as part of the initial abstract filing. A separate certification from an authorized corporate representative that at least 51% of company employees are based in the State of Hawaii must be submitted as part of the abstract filing. The certification must state the year of incorporation in the State of Hawaii, the total number of company employees and the number of employees based in the State of Hawaii.

Successful applicants will be required to provide a State of Hawaii Tax Clearance, Certificate of Good Standing, and Form LIR #27, as well as updated information on the number of employees and corporate revenues at the end of the contract period.

OTHER REQUIREMENTS

HTDV plans to make up to $4.5 Million available to fund proposals in response to this announcement. Multiple, cost-reimbursable (fixed ceiling) contract awards are anticipated as a result of this announcement, contingent upon funding. Contract awards will be based on proposal merit and funding availability. HTDV may require that successful offerors deliver at least one technical presentation in Hawaii as part of the project.

This solicitation will remain open for sixty (60) days from the date of this announcement. However, to be considered in the initial award period, a properly formatted abstract must be received by HTDV in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, 15 September 2008. Offerors responding to this announcement are wholly responsible for timely submissions.

It is HTDV policy to treat all submissions as competitive information and to disclose the contents only for the purposes of evaluation. HTDV may use selected contractors as special resources to evaluate abstracts and proposals. These contractors are restricted by contract from disclosing proposal information or using it for purposes other than the technical assessments for HTDV.

By submitting an abstract to HTDV, an offeror agrees that the project's technical and management information may be disclosed to selected contractors and evaluators for the limited purpose stated above or unless otherwise required by law. Any information submitted to HTDV that an offeror intends to exclude from such limited release must be clearly marked proprietary and submitted apart from other proposal material.

All abstracts submitted under this announcement must be unclassified. An invitation from HTDV to submit a full proposal does not assure subsequent award. The decision to submit or not submit a full proposal is the sole responsibility of the offeror submitting the abstract.

Successful offerors will be required to execute a cost reimbursable subcontract agreement with the Pacific International Center for High Technology Research (PICHTR) and contract payments shall be contingent upon the receipt of State of Hawaii funds. All lower tier subcontracts shall be executed on a cost reimbursable-basis consistent with all terms and conditions of the prime subcontract.

Contact Point: questions relating to this announcement are to be directed to Harold S. Masumoto, Project Director, or Keith T. Matsumoto, HTDV Project Office, 2800 Woodlawn Drive, Suite 192, Honolulu, Hawaii 96822, phone (808) 237-5160.

All responsive sources may submit a proposal abstract, which shall be considered by HTDV. HTDV reserves the right to select for award all, some, or none of the proposals received in response to this announcement. The program described in this announcement is contingent upon funding availability, and the terms and conditions of the prime agreement between PICHTR and the State of Hawaii.

HTDV FOF PROPOSAL EVALUATION SUMMARY

PROPOSAL NUMBER: _____ (See Index)

The HTDV Advisory Board requires technical evaluations to formulate the HTDV project under SOLICITATION HTDV 08-02 (State of Hawaii).

EVALUATIONS:

Minimum qualifications:

Addresses subject areas of interest:	Yes _____	No _____
Under funding limitations:	Yes _____	No _____
6-12 month time frame:	Yes _____	No _____
Near-term relevance to FOF priorities:	Yes _____	No _____

_____ Quality (20%) 20 pts. Max.	_____ Approach & Capability (20%) 20 pts. Max.
_____ Benefits (40%) 40 pts. Max	_____ Cost & Budget (20%) 20 pts. Max.

_____ *Bonus Points for Outreach Obligations (up to 5 points)*

_____ **TOTAL POINTS**

RECOMMENDATION:

A. _____ FUND ESSENTIALLY AS PROPOSED

B. _____ FUND WITH SUGGESTED LIMITATIONS OR MODIFICATIONS

C. _____ RECONSIDER IF ADDITIONAL FUNDS BECOME AVAILABLE

D. _____ REJECT

SUMMARY COMMENTS:

EVALUATION STEP-BY-STEP

Upon receipt of the abstracts, HTDV will do an initial screening for compliance with RFP requirements. Those abstracts meeting the RFP requirements will be consolidated on a CD and distributed to each of the technical evaluators.

The technical evaluator rates each proposal according to the published criteria and completes a form summarizing the evaluation and recommending a specific funding action for the proposed effort. The summaries comprise the Evaluator's Report for the proposals. The HTDV Project Director monitors and coordinates the evaluation process.

Important points to remember for each evaluation criterion follow.

Criterion A. *Quality* (up to 20 points)

Assess the scientific/technical strength of the proposal including its technical quality, innovation and importance.

- Is the technical objective clear?
- Is the result likely to advance the commercialization or revenue potential?
- Will the work enhance product development and transition to commercial or military application?
- Is the proposed effort relevant to FOF requirements?

Criterion B. *Approach and Capabilities* (up to 20 points)

Assess the quality of methods, materials and team members.

- Are the methods sound?
- Is the team qualified for the work?
- Are the technical, business and market risks identified and fully addressed?
- Does the effort use or enhance facilities or infrastructure in Hawaii?

Criterion C. *Anticipated Benefits* (up to 40 points)

*(**Remember**, this criterion carries double the weight of any other)*

Assess the work's potential benefits to commercial technology development in Hawaii.

- Are the likely benefits from the effort obvious and compelling?
- Does the effort address important product needs?
- Are DoN/DoD transitions or commercial products likely?
- Are business, product development, transition and commercialization plans evident in the proposal?
- Will the work produce commercially valuable intellectual property or capabilities?
- Is follow-on or spin-off technical development likely from the proposed effort?
- Will the work create new technology sector jobs in Hawaii?

Criterion D. *Costs & Budget* (up to 20 points)

Assess the effort's budget and schedule.

- Are the planned costs and schedule realistic and reasonable?
- Does the work involve leveraged assets or supplemental funding that adds value to the effort?
- Is follow-on funding required to reach the ultimate technical goal?
- Are cost savings possible without loss of technical benefits from the proposed work?
- Does the work represent good value?
- Is there low risk with high payback potential?

Bonus Points. *Outreach Obligations* (up to 5 additional points)

EVALUATION DEFINITIONS

The following adjectives shall be used for grading proposals on each evaluation criterion:

EXCELLENT (17 to 20 points / Criterion C: 33 to 40 points)
Proposal exceeds all or nearly all criterion requirements with outstanding quality, technique and value. All aspects of the criterion are fully addressed with exceptional innovation, imagination and technique. Timely, superior products and performance are assured. Offeror applies "Leading Edge" thinking and approaches to criterion requirements and demonstrates a clear mastery of the techniques required for success.

An EXCELLENT rating is warranted for the strongest efforts that offer exceptional quality and great value added to the program

VERY GOOD (13 to 16 points / Criterion C: 25 to 32 points)
Proposal fulfills all criterion requirements and exceeds some or many. All significant aspects of the criterion are addressed with innovation and quality technique. Timely and high-quality products, deliverables, and performance are assured. Offeror presents innovative approaches and state-of-the-art techniques to the criterion requirements and demonstrates a capability to deliver as proposed.

A VERY GOOD evaluation is warranted for proposals that fully meet and exceed the criteria and offer high quality and value added to the program.

GOOD (9 to 12 points / Criterion C: 17 to 24 points)
Proposal meets all the criterion requirements and may exceed some. Proposal team is likely to fulfill all stated criterion requirements with timely deliverables and state-of-the-art methods. Cost-effective performance assured. Offeror presents a quality effort with state-of-the-art techniques that fully addresses the criterion requirements. Plan is timely and appropriate.

A GOOD evaluation is warranted for proposals that satisfy the stated criterion and at least meet the objectives of the program.

ADEQUATE (5 to 8 points / Criterion C: 9 to 16 points)
Proposal meets the criterion requirements, but offers little added value or "leading edge" commitment. Proposed work is comprehensive but not compelling. Offeror addresses the scope and breadth of the requirements but proposed effort lacks robustness. Plan is comprehensive but lacks certain critical elements required by the criterion.

An ADEQUATE evaluation is warranted for proposals that address the essential elements of a criterion but remain ambivalent or incomplete in certain aspects.

POOR (0 to 4 points / Criterion C: 0 to 8 points)
Proposal fails to satisfy criterion requirements. Proposed effort meets some requirements of the criterion, but approach is inadequate or incomplete. Offeror fails to provide a work plan sufficient for the requirements. Plan is mundane, unimaginative and devoid of leading edge technology.

A POOR evaluation is warranted for proposals that are clearly flawed, incomplete or inadequate.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE
FULL PROPOSAL REQUIREMENTS
2008-2009

The Full Proposal submission to the Hawaii Technology Development Venture (HTDV) shall include, at minimum, the following items:

Section I – Technical

- Background on previously funded technology and product development activities.
- Detailed Technical Plan with scope of work, project objectives, technical approach, milestones and deliverables, schedule and Gantt Chart.
- The proposal should define specific quantifiable metrics outline key requirement and industry standards that will be utilized to determine the successful outcome of the project.
- As applicable, Technical Plan should identify the federal government program sponsor and transition/commercialization partner(s).

Section II – Cost and Pricing

- Complete HTDV Application Forms, found at: www.hitdv.com. DCAA Rate Letter(s) or detailed indirect cost proposal, and prior year Single Audit (A-133) or External Audit Reports should be attached. A statement shall be attached to indicate the accounting method (i.e. cash or accrual) utilized by the company.

Section III – Management & Administrative

- Detailed management plan including corporate/company capabilities. Information regarding intellectual property should be included.
- A business plan, if available, should be submitted. If a plan is not available, a strategy for the development of business, product development, and technology commercialization plan(s) should be outlined.

Additional details are provided in the Full Proposal Process available through the website.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE
FULL PROPOSAL REQUIREMENTS
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Additional details are provided in the Full Proposal Process available through the website.

HTDV ASSISTANCE
APPLICATION FORMS

(Not to be submitted with abstract)

Hawaii Technology
Development Venture
2800 Woodlawn Drive
Suite 160
Honolulu, Hawaii
96822

APPLICATION FORMS

PREFACE

Each applicant seeking an award from the Hawaii Technology Development Venture (HTDV) must submit an application. This application kit provides the forms, instructions and other information to be used in applying for awards.

Applications are normally made in response to announcements or through programmatic contact. The requirements for the content of applications are contained in the individual announcements. Careful adherence to guideline requirements facilitates the processing and review of proposals. Therefore, **HTDV encourages all applicants to read carefully the specific program announcement to determine eligibility and application requirements.**

CONTENTS

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039. The time required to complete this information collection is estimated to average 6 hours and 45 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

A project of the PACIFIC INTERNATIONAL CENTER FOR HIGH TECHNOLOGY RESEARCH (PICHTR)

HTDV=01

OMB Approved 0524-0039

PROPOSAL COVER PAGE

1. LEGAL NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE	3. NAME AND TITLE OF AUTHORIZED ORGANIZATIONAL REPRESENTATIVE (AOR)		
2. ADDRESS (Give complete mailing address and Zip Code)	4. a. Telephone No.:	b. Fax Number:	c. E-mail Address:
	5. ADDRESS OF AOR (If different from Item 2.)		

6a. TYPE OF PERFORMING ORGANIZATION (Choose 1 only)

- ☐ Private For-Profit
- ☐ Private Non-Profit
- ☐ Public Secondary School
- ☐ State, Local or Tribal Government
- ☐ Individual
- ☐ Other

7. TITLE OF PROPOSED PROJECT (140-character maximum, including spaces)

8. PROGRAM TO WHICH YOU ARE APPLYING (Include Program Area and Number: Refer to Federal Register announcement or program solicitation where applicable)	9. TAX IDENTIFICATION NO. (TIN)	10. CONGRESSIONAL DISTRICT NO.
HAWAII TECHNOLOGY DEVELOPMENT VENTURE		
11. DUNS NO. (Data Universal Numbering System)	12. PROPOSED START DATE	13. DURATION REQUESTED (No. of months)
14. TYPE OF REQUEST (Check only one) ☐ New ☐ Supplement ☐ Resubmission		15. FEDERAL FUNDS REQUESTED

16. PROJECT DIRECTOR (PD)			17. PD BUSINESS ADDRESS (INCLUDE DEPARTMENT/ZIP CODE)
18. a. PD Phone No.:	b. PD Fax No.:	c. PD E-mail Address:	

19. CO-PD(s) NAME	TELEPHONE NUMBER	E-MAIL ADDRESS

20. IF THIS IS A RESEARCH PROJECT, WILL IT INVOLVE RECOMBINANT DNA, HUMAN SUBJECTS, OR LIVING VERTEBRATE ANIMALS?	21. WILL THIS PROJECT BE SENT OR HAS IT BEEN SENT TO OTHER FUNDING AGENCIES?
☐ No ☐ Yes (If yes, complete Form HTDV-06)	☐ No ☐ Yes (If yes, list Agency acronym(s) & program(s))

By signing and submitting this proposal, the applicant is providing the required certifications set forth in 7 CFR Part 3017, as amended, regarding Debarment and Suspension and Drug-Free Workplace; and 7 CFR Part 3018 regarding Lobbying. Submission of the individual forms is not required. (Please read the Certifications included in this booklet before signing this form.) In addition, the applicant certifies that the information contained herein is true and complete to the best of its knowledge and accepts as to any award the obligation to comply with the terms and conditions in effect at the time of the award.

SIGNATURE OF PROJECT DIRECTOR(S) (All PDs listed in blocks 16 or 19 must sign if they are to be included in award documents.)	DATE
SIGNATURE OF AUTHORIZED ORGANIZATIONAL REPRESENTATIVE (Same as Item 3)	DATE
SIGNATURE (OPTIONAL USE)	DATE

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039.

PROJECT SUMMARY

Project Director(s) (PD):

PD _____ Institution _____

CO-PD _____ Institution _____

CO-PD _____ Institution _____

CO-PD _____ Institution _____

Project Title: _____

Key Words: _____

Please attach the following:

- Technical Proposal
- Cost Proposal
- Any additional information (charts, pictures, formulas, etc.)

Project Summary:

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

BUDGET

HTDV=03
OMB Approved 0524-0039

ORGANIZATION AND ADDRESS				HTDV AWARD NO.			
PROJECT DIRECTOR(S)				DURATION PROPOSED MONTHS: _____ **Funds Requested by Proposer**	DURATION PROPOSED MONTHS: _____ **Funds Approved by HTDV** (If different)	Non-Federal Proposed Cost-Sharing/ Matching Funds (If required)	Non-federal Cost-Sharing/Matching Funds Approved by HTDV (If Different)
A. Salaries and Wages	**WORK MONTHS**						
1. No. of Senior Personnel	Calendar	Academic	Summer				
a. ____ (Co)-PD(s)							
b. ____ Senior Associates							
2. No. of Other Personnel							
a. ____ Research Associates/Post-doctorates							
b. ____ Other Professionals							
c. ____ Paraprofessionals							
d. ____ Graduate Students							
e. ____ Pre-baccalaureate Students							
f. ____ Secretarial-Clerical							
g. ____ Technical, Shop and Other							
Total Salaries and Wages				$0.00	$0.00	$0.00	$0.00
B. Fringe Benefits (If charged as Direct Costs)							
C. Total Salaries, Wages, and Fringe Benefits (A plus B)				$0.00	$0.00	$0.00	$0.00
D. Nonexpendable Equipment (Attach supporting data. List items and dollar amounts for each item.)							
E. Materials and Supplies							
F. Travel							
G. Publication Costs/Page Charges							
H. Computer (ADPE) Costs							
I. Student Assistance/Support (Scholarships/fellowships, stipends/tuition, cost of education, etc. Attach list of items and dollar amounts for each item.)							
J. All Other Direct Costs (In budget narrative, list items and dollar amounts, and provide supporting data for each item.)							
K. Total Direct Costs (C through J)				$0.00	$0.00	$0.00	$0.00
L. F&A/Indirect Costs (If applicable, specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases.)							
M. Total Direct and F&A/Indirect Costs (K plus L)				$0.00	$0.00	$0.00	$0.00
N. Other							
O. Total Amount of This Request				$0.00	$0.00	$0.00	$0.00

P. Carryover -- (If Applicable)Federal Funds: **Non-Federal funds:** **Total:** $0.00

Q. Cost-Sharing/Matching (Breakdown of total amounts shown on line O)		
Cash (both Applicant and Third Party)		
- Non Cash Contributions (both Applicant and Third Party)		

NAME AND TITLE (Type or print)	**SIGNATURE** (required for revised budget only)	**DATE**
Project Director		
Authorized Organizational Representative		

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039

INSTRUCTIONS FOR COMPLETING FORM HTDV=03, BUDGET

NOTE: Unless a particular program announcement provides otherwise, each application must contain a budget for each year of funds requested and a cumulative budget for the full term of requested HTDV support.

BUDGET NARRATIVE: A narrative for each line item explaining both Federal and any required cost-sharing/matching funds along with any remarks and budget justifications must be submitted on separate pages following the budget form.

A. Salaries and Wages -- Salaries of the project director(s) and other personnel associated directly with the project should constitute direct costs in proportion to their effort devoted to the project. Charges by academic institutions for work performed by faculty members during the summer months or other periods outside the base salary period are to be at a monthly rate not in excess of that which would be applicable under the base salary and other provisions of the applicable cost principles. All salaries requested must be consistent with the regular practices of the institution.

Award funds may not be used to augment the total salary or rate of salary of project personnel or to reimburse them for consulting or other time in addition to a regular full-time salary covering the same general period of employment.

Under the HTDV-Funded Work Months on Form HTDV=03, show the number of months that will be charged to the project for which salary is paid by HTDV to individuals listed in Items A.1.a. & b. and A.2.a., b. & c. (e.g., 2 PDs listed in A.1.a. on a 12-month project. One will spend 100% of time (12 months) and one will spend 50% of time (6 months). Total work months for A.1.a. would be 18)).

Note: A paraprofessional is an individual who through formal education, work experience and/or training has the knowledge and expertise to assist a professional person.

For other personnel (graduate students, technical, clerical, etc.), only the total number of persons and total amount of salaries per year in each category are required.

For institutions of higher education, requests for salaries of administrative and clerical staff as direct costs must be justified in the budget narrative in accordance with OMB Circular A-21, Cost Principles for Educational Institutions.

B. Fringe Benefits -- If the usual accounting practices of the performing organization provide that the organizational contributions to employee benefits (social security, FERS, retirement, etc.) be treated as direct costs, award funds may be requested to defray such expenses as a direct cost.

C. Total, Salaries and Benefits -- Self-explanatory.

D. Nonexpendable Equipment Nonexpendable equipment is defined as tangible property, including exempt property, charged directly to the award having a useful life of more than one year and an acquisition cost of $5,000 or more. However, consistent with recipient policy, lower limits may be established. General purpose equipment (equipment whose use is not limited only to research, medical, scientific, educational, or other technical activities; i.e., office equipment and furnishings, air conditioning equipment, reproduction and printing equipment, motor vehicles, and automatic data processing equipment) requires special justification and prior approval from HTDV.

In the budget narrative, list each item of equipment with cost and justify why it is needed for the project. If appropriate, provide a lease versus purchase cost analysis (e.g., motor vehicle).

E. Materials and Supplies -- The types of expendable materials and supplies required should be indicated in general terms with estimated costs.

F. Travel -- The type and extent of travel and its relationship to the project should be specified. Funds may be requested for field work or for travel to professional meetings. In the budget narrative, for both domestic and foreign travel, provide the purpose, the destination, method of travel, number of persons traveling, number of days, and estimated cost for each trip. If details of each trip are not known at the time of proposal submission, provide the basis for determining the amount requested. For example, conduct 100 producer interviews in two States: 10 people, 4 days each, traveling by car = $5,200.

Travel and subsistence should be in accordance with organizational policy. Irrespective of the organizational policy, allowances for airfare will not normally exceed round trip jet economy air accommodations. Please note that 7 CFR Part 3015.205 is applicable to air travel.

G. Publication Costs/Page Charges -- Costs of preparing and publishing the results of a project conducted under the award, including costs of reports, reprints, page charges or other journal costs, and necessary illustrations, may be included. Photocopying should be included under Item I. All Other Direct Costs.

H. Computer (ADPE) Costs -- The cost of computer services, including computer-based retrieval of scientific and technical information, may be requested. A justification based on the established computer service rates at the proposing organization should be provided. Reasonable costs of leasing automatic data processing equipment may be requested, if justified. Note that items of automatic data processing equipment should be included in D. Nonexpendable Equipment or E. Materials and Supplies, as appropriate.

Internet connection costs may be requested, as appropriate, in this category.

I. Student Assistance/Support -- Scholarships, stipends, tuition, etc. should be itemized with a dollar amount provided for each item. In addition, the number of students to be supported should be indicated for each item.

J. All Other Direct Costs -- Other anticipated direct costs not included above should be included in this category and itemized in the budget narrative. Examples are subcontracts, space rental at establishments away from the performing organization, service charges for use of equipment and user fees for procedures or processes charged to the grantee, lease of equipment, equipment maintenance, photocopying, and analyses. Reference books and periodicals may be charged to the award only if they are related specifically to the project.

Proposed subcontracts should be disclosed in the proposal, including a statement of the work to be performed, so that the award instrument may contain prior HTDV authorization, if appropriate. **For each subcontract, a separate Form HTDV=03, "Budget," must be included to show the breakdown of costs, along with a budget narrative.**

Consultant services should be included in this section. Applicants normally are expected to utilize the services of their own staff to the maximum extent possible in managing and performing the activities supported by awards. If the need for consultant services is anticipated, the proposal narrative should provide a justification for the use of such services, a statement of work to be performed, and a resume or curriculum vita for each consultant. The proposal budget should indicate the amount of funds required for this purpose. The budget narrative should list the name(s) of the consultant(s), the name(s) of their organization(s), and a breakdown of the amount being charged to the award (e.g., number of days of service, rate of pay, travel, per diem, etc.). If this information is not available at the time of award, funds for this purpose will be withheld until the information is provided to and approved by HTDV.

If participant support costs at conferences/meetings are requested, indicate purpose, dates, and place of conference/meeting; number of participants; cost for each; speaker fees (include number of persons, number of days, and cost per person); cost of facilities rental, and other related expenses.

K. Total Direct Costs -- Self-explanatory.

L. F&A/Indirect Costs (if allowable) -- The F&A/indirect cost rate(s) established by the cognizant Federal negotiating agency cannot be exceeded in computing F&A/indirect costs for a proposal. Determination of the appropriate F&A/indirect cost rate(s) is dependent upon a combination of factors including, but not limited to, the physical location of the work and any statutory limit. The proposal official responsible for Federal business relations should review this part of the proposal to see that it properly describes any particular factors which may have a bearing upon the F&A/indirect cost rate(s) applicable to the project. Normally, the rate in effect on the date the proposal is recommended for award by the HTDV program director will be used.

If an organization elects to charge a lesser amount or rate for F&A/indirect costs, the budget should be so noted (e.g., if an applicant's rate is 50% of Modified Total Direct Costs and the Modified Total Direct Costs amount is $20,000, then the applicant is entitled to $10,000 for F&A/indirect costs, but it elects to charge only $8,000 to the award. Line K. of the HTDV=03 would appear as follows: 50% of MTDC = $10,000; Amount Requested = $8,000).

The organization may also elect to charge no F&A/indirect costs and utilize all award funds for direct costs. This option should also be indicated on Line K. of the HTDV=03 with the statement, "None requested."

If an organization has not established an F&A/indirect cost rate and wishes to charge F&A/indirect costs, it should consult HTDV, which will establish liaison with the cognizant Federal negotiating agency to develop an acceptable F&A/indirect cost rate for the awardee.

M. Total Direct and F&A/Indirect Costs (K plus L) -- Self-explanatory.

N. Other -- Check specific program announcement for use of this line item.

O. Total Amount of this Request -- Self-explanatory.

P. Carryover (if applicable -- check the specific program announcement for use of this line item) -- Report estimated balance at the end of the prior project period. Carryover funds must be reported and justified in the budget narrative. Carryover funds must be expended first before drawing down approved Federal funds for each line item on the budget.

Q. Total Cost-Sharing/Matching (if required) -- On the budget form, indicate the total amount (both cash and non-cash) of non-Federal cost-sharing or matching support that will be available to the proposed project. In the budget narrative, identify the source, the amount, and the nature (cash or third-party in-kind contribution) of the cost-sharing or matching funds. To be used as matching support, a cost must be allowable under the authorizing legislation, the applicable Federal cost principles, and the program guidelines.

Check the program announcement for the requirement of cost-sharing/matching funds; only required cost-sharing/matching should be included on the budget form. Additional contributions may be addressed in the proposal. Definitions of cash and non-cash contributions can be found at section 2. of 7 CFR Part 3019.2.

CURRENT AND PENDING SUPPORT

Instructions:

1. Record information for active and pending projects, including this proposal. (Concurrent submission of a proposal to other organizations will not prejudice its review by HTDV.)
2. All current efforts to which project director(s) and other senior personnel have committed a portion of their time must be listed, whether or not salary for the person involved is included in the budgets of the various projects.
3. Provide analogous information for all proposed work which is being considered by, or which will be submitted in the near future to, other possible sponsors.

NAME (List/PD #1 first)	SUPPORTING AGENCY AND AGENCY ACTIVE AWARD/PENDING PROPOSAL NUMBER	TOTAL $ AMOUNT	EFFECTIVE AND EXPIRATION DATES	% OF TIME COMMITTED	TITLE OF PROJECT
	Active:				
	Pending:				

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National Environmental Policy Act Exclusions Form

Project Director Name	Institution
Address	

In order to comply with regulations of the National Environmental Policy Act of 1969 (NEPA)), environmental data or documentation is required in order to assist HTDVS in carrying out its responsibilities under NEPA, which includes determining whether the proposed activity requires the preparation of an environmental assessment or an environmental impact statement, or whether such activity can be excluded from this requirement on the basis of several categories. Therefore, it is necessary for the applicant to advise HTDV whether the proposed activity falls into a categorical exclusions, or whether the activity does not fall into one of these exclusions (in which case the preparation of an environmental assessment or an environmental impact statement may be required). Even though the applicant considers that a proposed project may or may not fall within a categorical exclusion, HTDV may determine that an environmental assessment or an environmental impact statement is necessary for a proposed project should substantial controversy on environmental grounds exist or if other extraordinary conditions or circumstances are present that may cause such activity to have a significant environmental effect.

Please Read All of the Following and Check All Which Apply

☐ **The proposed activity falls under the categorical exclusion(s) indicated below:**

Categorical Exclusions

- ☐ (i) Policy development, planning and implementation which are related to routine activities such as personnel, organizational changes, or similar administrative functions
- ☐ (ii) Activities that deal solely with the functions of programs, such as program budget proposals, disbursements, and transfer or reprogramming of funds
- ☐ (iii) Inventories, research activities, and studies such as resource inventories and routine data collection when such actions are clearly limited in context and intensity
- ☐ (iv) Educational and informational programs and activities
- ☐ (v) Civil and criminal law enforcement and investigative activities
- ☐ (vi) Activities that are advisory and consultative to other agencies and public and private entities, such as legal counseling and representation
- ☐ (vii) Activities related to trade representation and market development activities abroad

OR

☐ **Proposed activity does *not* fall into one of the above categorical exclusions**

(**NOTE**: If checked, please attach an explanation of the potential environmental impacts of the proposed activity. May require completion of an environmental assessment or an environmental impact statement.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

A project of the PACIFIC INTERNATIONAL CENTER FOR HIGH TECHNOLOGY RESEARCH (PICHTR)

HTDV=06
OMB approved 0524-0039

ASSURANCE STATEMENT(S)

STATEMENT OF POLICY - Institutions receiving HTDV funding for research are responsible for protecting human subjects, providing humane treatment of animals, and monitoring use of recombinant DNA. To provide for the adequate discharge of this responsibility, HTDV requires an assurance by the institution's Authorized Organizational Representative (AOR) that appropriate committees in each institution have carried out the initial reviews of protocol and will conduct continuing reviews of supported projects HTDV also requires AOR certification by citing a timely date that an appropriate committee issued an approval or exemption.

NOTE: Check appropriate statements, supplying additional information when necessary.

1. INSTITUTION	2. HTDV AWARD NUMBER OR PROJECT NAME
	3. PROJECT DIRECTOR(S)

4. TITLE OF PROJECT

BIOSAFETY OF RECOMBINANT DNA

☐ Project does not involve recombinant DNA.

☐ Project involves recombinant DNA and was either approved ( ) or determined to be exempt ( ) from the NIH Guidelines by an Institutional Biosafety Committee (IBC) on _____ (Date).

This performing organization agrees to assume primary responsibility for complying with both the intent and procedures of the National Institutes of Health (NIH), DHHS Guidelines for Research Involving Recombinant DNA Molecules, as revised.

CARE AND USE OF ANIMALS

☐ Project does not involve vertebrate animals.

☐ Project involves vertebrate animals and was approved by the Institutional Animal Care and Use Committee (IACUC) on _____ (Date).

This performing organization agrees to assume primary responsibility for complying with the Animal Welfare Act (7 USC, 2131-2156), Public Law 89-544, 1996, as amended, and the regulations promulgated thereunder by the Secretary of Agriculture in 9 CFR Parts 1, 2, 3, and 4. In the case of domesticated farm animals housed under farm conditions, the institution shall adhere to the principles stated in the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching, Federation of Animal Science Societies, 1999.

PROTECTION OF HUMAN SUBJECTS

☐ Project does not involve human subjects.

☐ Project involves human subjects and

☐ Was approved by the Institutional Review Board (IRB) on _____ (Date). Performing Institution holds a Federalwide assurance number _____; if not, a Single Project Assurance is required.

☐ Is exempt based on exemption number _____.

☐ Specific plans involving human subjects depend upon completion of survey instruments, prior animal studies, or development of material or procedures. No human subjects will be involved in research until approved by the IRB and a revised Form HTDV=06 is submitted.

This performing organization agrees to assume primary responsibility for complying with the Federal Policy for Protection of Human Subjects as set forth in 45 CFR Part 46, 1991, as amended, and USDA regulations set forth in 7 CFR 1c, 1992. All nonexempt research involving human subjects must be approved and under continuing review by an IRB. If the performing organization submits a Single Project Assurance, supplemental information describing procedures to protect subjects from risks is required.

SIGNATURE OF AUTHORIZED ORGANIZATIONAL REPRESENTATIVE	TITLE	DATE

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0524-0039.

Instructions for Completing Assurance Statements and Certifications of Protection from Research Risks

STATEMENT OF POLICY - Institutions receiving HTDV funding for research are responsible for protecting human subjects, providing humane treatment of animals, and monitoring the use of recombinant DNA. To provide for the adequate discharge of this responsibility, HTDV requires an assurance by the institution's Authorized Organizational Representative (AOR) that appropriate committees in each institution have carried out the initial review of protocols and will conduct continuing reviews of supported projects. HTDV also requires AOR certification by citing a timely date that an appropriate committee issued an approval or exemption.

If a research proposal covers multiple projects in which experimental protocols vary, the AOR must provide documentation of certification, through multiple copies of Form HTDV=06, by the appropriate committee(s) for each specific protocol utilized in the projects. Examples of multiple project/proposals may include large multi-faceted special grants, multi-institutional consortia, multi-state research projects and some large umbrella Hatch proposals.

Formula funded activities require a certification of action taken by appropriate committees, which necessitates inclusion of the date of the action; the designation of 'pending' is not an option. The designation of 'pending' may be inserted for other grant proposals in lieu of reporting a date of certification that an appropriate committee took action. However, a subsequent approval must be obtained, and a revised Form HTDV=06 must be submitted before a final award can be made.

A. BIOSAFETY OF RECOMBINANT DNA

If the project involves the use of recombinant DNA molecules, the performing organization shall assume primary responsibility for complying with both the intent and procedures of the National Institutes of Health (NIH), DHHS, Guidelines for Research Involving Recombinant DNA Molecules, as revised:

http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html

This responsibility includes:

1. Ensuring that a standing Institutional Biosafety Committee (IBC) is maintained in accordance with Part IV of the NIH Guidelines and also ensuring that the research plan is reviewed and approved by the IBC prior to commencing substantive work under the project. Actions by the IBC must be documented in Section A of the Form HTDV=06.

2. Registering with the IBC all experiments involving recombinant DNA molecules conducted with funds provided under the project and complying with the containment requirements specified in Part III of the NIH Guidelines. Records of this research must be kept in a form that is available to CSREES upon request.

In addition, the funded recipient must report the following supplemental data to HTDV and to the reviewing IBC:

a. New technical information relating to risks and safety procedures.
b. Serious accidents or releases involving recombinant DNA.
c. Serious illness of a laboratory worker which may be project related.
d. Other safety problems.

The NIH Guide for Reporting the Occurrence of Serious Adverse Events is published at:

http://grants.nih.gov/grants/policy/recombinentdnaguidelines.htm

IBC review and approval or exemption must be documented in Section A of the Form HTDV=06. The approval date should reflect a timely review and not older than 36 months.

B. CARE AND USE OF ANIMALS

The responsibility for the humane care and treatment of vertebrate animals used in any research project supported with CSREES funds rests with the performing organization. If a project involves animals, except farm animals used for food and fiber research, the personnel identified with the project, and the endorsing officials of the recipient's organization must comply with the Animal Welfare Act (AWA). The AWA (7 USC, 2131-2156; Public Law 89-544, 1996, as amended) and the regulations promulgated thereunder by the Secretary of Agriculture (9 CFR Parts 1, 2, 3, and 4, and subsequent rules and regulations) that pertain to the care, handling, and treatment of vertebrate animals held or used for research, teaching, or other activities supported by Federal awards are published at:

http://www.nal.usda.gov/awic/legislat/awicregs.htm

In the case of laboratory animals used or intended for use in research, the institution shall adhere to the principles enunciated in the Guide for the Care and Use of Laboratory Animals, (ILAR, National Academy of Sciences); 1996:

http://www.nap.edu/readingroom/books/labrats/

and to the USDA regulations and standards issued under the public laws stated above. In case of a conflict between the guidelines, the higher standard of care shall be used.

When domesticated farm animals are used or intended for use in agricultural food and fiber production research, teaching or other activities and housed under farm conditions, the institution shall adhere to the principles stated in the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching, 1999 which is available from the Federation of Animal Science Societies, 1111 N Dunlap, Savoy, IL 61874.

http://www.fass.org/publications.asp

Prior to commencing research activities with vertebrate animals, all protocols involving animals in HTDV funded projects must be approved by the Institutional Animal Care and Use Committee (IACUC):

http://grants.nih.gov/grants/olaw/olaw.htm

IACUC review and approval must be documented in Section B of the Form HTDV=06. The approval date should reflect a timely review and not older than 36 months.

C. PROTECTION OF HUMAN SUBJECTS

The performing organization is responsible for protecting the rights and welfare of any human subject involved in HTDV sponsored research and related activities. If a research project protocol involves the use of human subjects, the institution must agree to comply with the Department of Health and Human Services' (DHHS) regulations on the protection of human subjects:

http://ohrp.osophs.dhhs.gov/polasur.htm

as set forth in 45 CFR Part 46, 1991, as amended (formally adopted as The 'Common Rule'), and USDA regulations set forth in 7 CFR 1c, 1992. If a research project protocol involves the use of human subjects, one and only one of the three options outlined under section C of Assurance Form 2008 must be completed.

Definitions pertaining to this regulation include:

Human subject means a living individual about whom the investigator (whether professional or student) conducting research obtains data through intervention or interaction with the individual, or identifiable private information.

Research means a systematic investigation, including research development, testing and evaluation, designed to develop generalizable knowledge. For example, some demonstration and service programs may include research activities.

Intervention includes both physical procedures by which data are gathered and manipulations of the subject that are performed for research purposes.

Interaction includes communication or interpersonal contact (e.g., surveys) between investigator and subject.

Private information includes information which is individually identifiable and the individual can reasonably expect will not be made public.

All research protocols involving human subjects must be approved and undergo continuing review by an Institutional Review Board (IRB). If the performing organization qualifies for Federal-wide Assurance (FWA) status and has been approved by the Office for Human Research Protections (OHRP), DHHS, then report the assurance number along with the approval date. A list of IRBs with FWA status is available at:

http://ohrp.osophs.dhhs.gov/irbasur.htm

If the performing organization does not have FWA status, a Single Project Assurance (SPA) form may be obtained from OHRP, DHHS at:

http://ohrp.osophs.dhhs.gov/humansubjects/assurance/spa.htm

and must be submitted. A SPA is a document to assure compliance and continuing review of the project being proposed, and it is limited in use and duration to this individual research activity. A SPA signed by the IRB Chairperson, AOR, and Project Director of the research project must be submitted. Also, provide additional information regarding the recruitment and selection of subjects, the proposed processes of informed consent and maintenance of confidentiality, and risk and benefit assessments for review by HTDV staff. An institution submitting a SPA may utilize its own IRB or the IRB of a neighboring institution.

The IRB approval date should reflect a timely review. The date reported in section C of the Assurance Form 2008 should not be older than twelve months, because the 'Common Rule' requires annual review.

Research activities in which the only involvement of human subjects is in one or more of the following categories are exempt from IRB review:

1. Research conducted in established or commonly accepted educational settings.
2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless information obtained is recorded in such a manner that human subjects can be identified, and any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk or be damaging.
3. Research not exempt in #2 may be exempt if, in the use of educational tests, the subjects are elected or appointed officials, or federal statutes require that confidentiality will be maintained.
4. Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens.
5. Research and demonstration projects which are designed to study, evaluate, or otherwise examine public benefit or service programs.
6. Taste and food quality evaluation and consumer acceptance studies.

It is typically the responsibility of the IRB or AOR, and not the Program Director, to determine whether research activities qualify for an exemption. A complete explanation of these exemptions can be found at:

http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm#46.101

A project may be funded but temporarily excused from IRB approval if specific protocols involving human subjects depend upon the development of survey instruments, procedures or materials, or completion of animal studies. However, human subjects may not be involved in research activities until IRB approval is obtained and a revised Form HTDV=06 is submitted.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR Part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989 Federal Register (pages 4722-4733).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
   (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
   (b) have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
   (c) are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
   (d) have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization Name HTDV Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s) Date

Instructions for Certification

1. By signing and submitting this form, the prospective primary participant is providing the certification set out above in accordance with these instructions.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out on this form. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this form that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non-procurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization Name HTDV Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s) Date

Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out above in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," without modification, in all lower tier covered transaction and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Certification Regarding Drug-Free Workplace Requirements (Grants)
Alternative I – For Grantees Other Than Individuals

This certification is required by the regulations implementing Sections 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701 *et seq*.), 7 CFR Part 3017, Subpart F, Section 3017.600, Purpose. The January 31, 1989, regulations were amended and published as Part II of the May 25, 1990 **Federal Register** (pages 21681-21691).

(Before completing Certification, read instructions below)

Alternative I

A. The grantee certifies that it will or will continue to provide a drug-free workplace by:
   (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
   (b) Establishing an ongoing drug-free awareness program to inform employees about --
      (1) The dangers of drug abuse in the workplace;
      (2) The grantee's policy of maintaining a drug-free workplace;
      (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
      (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
   (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
   (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
      (1) Abide by the terms of the statement; and
      (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
   (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
   (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
      (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
      (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
   (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

_____
Place of Performance (Street address, city, county, State, zip code)

Check ☐ if there are workplaces on file that are not identified here.

_____
Organization Name

_____
HTDV Award Number or Project Name

_____
Name and Title of Authorized Representative

_____
Signature Date

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this form, the grantee is providing the certification set out above.
2. The certification set out above is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.
3. Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.
4. Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).
5. If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see paragraph three).
6. Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:
   "Controlled" substance means a controlled substance in Schedules I through V of the Controlled Substances Act (21 U.S.C. 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15);
   "Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;
   "Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;
   "Employee" means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) all "direct charge" employees; (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in coveredworkplaces).

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Certification Regarding Drug-Free Workplace Requirements (Grants)
Alternative II – For Grantees Who Are Individuals

This certification is required by the regulations implementing Sections 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701 *et seq*.), 7 CFR Part 3017, Subpart F, Section 3017.600, Purpose. The January 31, 1989, regulations were amended and published as Part II of the May 25, 1990 Federal Register (pages 21681-21691).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW)

Alternative II

(a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant.

(b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

Organization Name HTDV Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s) Date

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this form, the grantee is providing the certification set out above.
2. The certification set out above is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.
3. Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.
4. Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).
5. If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see paragraph three).
6. Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:
   "Controlled substance" means a controlled substance in Schedules I through V of the Controlled Substances Act (21 U.S.C. 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15);
   "Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;
   "Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;
   "Employee" means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) all "direct charge" employees; (ii) all "indirect charge" employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in covered workplaces).

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Notice To Applicants - Certification/Disclosure Requirements Related To Lobbying

Section 319 of Public Law 101-121 (31 U.S.C.), signed into law on October 23, 1989, imposes new prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans. Certain provisions of the law also apply to Federal commitments for loan guarantees and insurance; however, it provides exemptions for Indian tribes and tribal organizations.

Effective December 23, 1989, current and prospective recipients (and their subtier contractors and/or subgrantees) will be prohibited from using Federal funds, other than profits from a Federal contract, for lobbying Congress or any Federal agency in connection with the award of a particular contract, grant, cooperative agreement or loan. In addition, for each award action in excess of $100,000 (or $150,000 for loans) on or after December 23, 1989, the law requires recipients and their subtier contractors and/or subgrantees to: (1) certify that they have neither used nor will use any appropriated funds for payment to lobbyists; (2) disclose the name, address, payment details, and purpose of any agreements with lobbyists whom recipients or their subtier contractors or subgrantees will pay with profits or **non-appropriated** funds on or after December 23, 1989; and (3) file quarterly updates about the use of lobbyists if materials changes occur in their use. The law establishes civil penalties for noncompliance.

If you are a current recipient of funding or have an application, proposal, or bid pending as of December 23, 1989, the law will have the following immediate consequences for you:

☐ You are prohibited from using appropriated funds (other than profits from Federal contracts) on or after December 23, 1989, for lobbying Congress or any Federal agency in connection with a particular contract, grant, cooperative agreement, or loan;

☐ you are required to execute the attached certification at the time of submission of an application or before any action in excess of $100,000 is awarded; and

☐ you will be required to complete the lobbying disclosure form if the disclosure requirements apply to you.

Regulations implementing Section 319 of Public Law 101-121 have been published as an Interim Final Rule by the Office of Management and Budget as Part III of the February 26, 1990, **Federal Register** (pages 6736-6746).

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

Certification Regarding Lobbying - Contracts, Grants, Loans And Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement;

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Organization Name HTDV Award Number or Project Name

Name(s) and Title(s) of Authorized Representative(s)

Signature(s) Date

Agreement Number: _____
Project Title: _____
Key Manager: Harold S. Masumoto

SUBCONTRACT AGREEMENT
(COST REIMBURSABLE)

_____
Name of Contractor, Firm, Association, Individual (Contractor)

Address _____
Street City State Zip

has entered into this Agreement on this _____ day of _____, 20___, and made effective as of _____, 20___, by and between the Pacific International Center for High Technology Research ("PICHTR"), a Hawaii not-for-profit corporation, whose business address is 1440 Kapiolani Boulevard, Suite 1225, Honolulu, Hawaii 96814.

In consideration of the promises and mutual covenants herein contained, Contractor and PICHTR hereby agree as follows:

ARTICLE I — WORK AND MANAGEMENT

1.1 Scope of Work. Contractor agrees to use during the term of this Agreement its best efforts, and to employ the necessary resources and high standards of professional judgment, to perform the tasks described in Exhibit A annexed hereto ("Work") and according to the Budget and Payment Schedule annexed hereto as Exhibit B.

1.2. Contractor Key Manager. This Work shall be performed under the direction of _____ ("Key Manager"). If for any reason _____ is unable to continue serving as Key Manager, Contractor shall inform PICHTR, in writing, of any change in Key Manager and designate a qualified replacement. Such replacement may be subject to the approval of the funding agency.

1.3 PICHTR Project Manager. Contractor shall direct inquiries and reports hereunder to Harold S. Masumoto ("PICHTR Project Manager"), at the address stated in Article III. All modifications to this Agreement are subject to the "Amendment" section hereof.

1.4 PICHTR Contracts Officer. Contractor shall provide a transmittal relating to each Deliverable, and a copy of all Deliverables, hereunder to "PICHTR's Contracts Officer", at the PICHTR address stated in Article III. In the event that deliverables are hardware or voluminous documentation, Contractor may provide only a copy of the transmittal letter of each such deliverable to the PICHTR Contracts Officer.

ARTICLE II — DURATION AND PAYMENT

2.1 Term of Agreement. This Agreement is effective for the period commencing on _____, and ending on _____. This Agreement may be extended only by written agreement executed by both parties hereto.

2.2 Allowable Costs and Fees. Contractor shall be reimbursed for all pre-approved costs incurred, and paid for contractor fees payable, in connection with the Work, all as detailed in Exhibits A and B annexed hereto, up to a maximum amount of _____ DOLLARS ($_____) ("Costs"). PICHTR shall not be liable for any payment in excess of the Cost (e.g., Hawaii G.E. Tax), unless this Agreement is amended to that effect in writing and executed by both parties hereto.

2.3 Audit. Contractor shall maintain appropriate accounting and payroll records sufficient to properly document costs, and hours for professional services, claimed as incurred or delivered, respectively, in the performance of this Agreement and shall make such records available, upon request, to authorized personnel of PICHTR, State of Hawaii, or the Federal Government for audit purposes. Said records shall be retained and kept available by Contractor for a period of not less than three (3) years after final payment by PICHTR, or until audit and resolution of any exceptions resulting therefrom, whichever occurs later.

2.4 Payment Schedule and Form of Invoice. PICHTR shall make payments to Contractor upon acceptance by PICHTR of the work products ("Deliverables"), and/or the occurrence of events ("Milestones"), as more particularly described in Exhibit B. Such payment shall not exceed the amounts, and shall not be made earlier than the dates, set forth in Exhibit B annexed hereto. Contractor shall invoice PICHTR no more frequently than the schedule set forth in Exhibit B, and if no schedule is set forth in Exhibit B, no more frequently than monthly, and submit Contractor's Final Invoice no more than sixty (60) days after the expiration or earlier termination hereof. Within thirty (30) days of the receipt and approval by PICHTR of Contractor's invoice and of the Milestone documentation showing costs incurred and contractor fees payable for services rendered hereunder by Contractor, PICHTR shall pay such invoice. PICHTR shall notify Contractor within ten (10) working days of any deficiencies or delay in the approval of such invoice.

2.5 RESERVED

2.6 Disallowance of Cost. In the event that payments by PICHTR include payment for any costs (as distinguished from firm fixed price contractor fees) invoiced and paid hereunder and subsequently disallowed by the third party funding agency of the Work hereunder, through audit exception or by other appropriate means, Contractor shall repay on demand the amount of any such disallowed costs, subject to Contractor's right to establish the allowability of such cost.

2.7 Right of Termination. Either Contractor or PICHTR may terminate this Agreement for any reason upon thirty (30) calendar days prior written notice to the other party; provided, however, that the parties shall negotiate in good faith the remaining work toward, and payment for, a full or intermediate completion of any Task or Subtask, as defined in Exhibit A annexed hereto, underway on the date that a notice of termination is issued.

2.8 Progress Reviews. A telephone call between the Contractor and the PICHTR Project Manager may be conducted, at the PICHTR Project Manager's discretion, at the end of each two (2) week period during the term hereof (until acceptance of final Deliverable) to evaluate Contractor's progress on the Tasks described in Exhibit A hereto, which calls shall hereinafter be called "Progress Reviews." If progress is deemed unsatisfactory by the PICHTR Project Manager, PICHTR may elect in its sole judgment to terminate this Agreement on the fourteenth (14th) calendar day immediately following the date of the determination of unsatisfactory progress.

2.9 Final Accounting After Termination. In the event of termination, Contractor shall promptly submit to PICHTR, a final accounting of all costs and commitments incurred and all funds received under this Agreement. The final accounting shall be accompanied by a check in the amount of any excess of funds advanced over costs and allowable commitments incurred in excess of the funds provided, which invoice shall be due and payable within thirty (30) days.

ARTICLE III — MISCELLANY

3.1 Notices. Any notices given or payments made under this Agreement shall be in writing and delivered by hand or by first-class mail, postage prepaid, and addressed to the parties as follows:

PICHTR:

Chief Financial Officer
Pacific International Center for High Technology Research
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814
Phone: (808) 943-3762
FAX: (808) 943-9582

CONTRACTOR: _____

_____

_____

_____

_____

Phone: ( )
FAX: ( )

Contractor shall promptly provide the PICHTR Project Manager with a copy of all notices by Contractor to PICHTR.

3.2 Headings. The Article and Section headings in this Agreement are for convenience and do not affect its construction or interpretation.

3.3 Entire Agreement. This agreement represents the entire Agreement and understanding between Contractor and PICHTR with respect to its subject matter. This Agreement supersedes any prior and/or contemporaneous discussions, representations, or Agreements, whether written or oral, with respect to the subject matter of the Agreement.

3.4 Amendment. This Agreement can be modified only by written amendment signed by the Contractor and a duly authorized representative of PICHTR. Any purported amendment not in writing and not so signed shall be invalid and void.

3.5 Exhibits. The following Exhibits are annexed hereto and fully incorporated herein by reference:

Exhibit A	Statement of Work
Exhibit B	Budget and Payment Schedule
Exhibit C	PICHTR General Conditions, Other Conditions or Release, Waiver and Indemnification Agreement
Exhibit D	State of Hawaii, Terms and Conditions
Exhibit E	Quad Chart Requirement
Exhibit F	Reporting Format

Words with initial capital letters in the Exhibits hereto shall have the same meaning as in the body of the Agreement, or if first defined in the Exhibits, as in said Exhibits.

3.6 Order of Precedence. In the event of any inconsistency between (i) the Articles of this Agreement, (ii) the Exhibits hereto or other documents referenced or incorporated herein, the order of precedence shall be: the body of this Agreement (Articles I through III); Exhibit A ("Statement of Work"); Exhibit B ("Budget and Payment Schedule"); and Exhibit C ("PICHTR General Conditions"), and (iii) the terms and conditions of the prime contract under which this subcontract is subject – _____.

IN WITNESS HEREOF, the Contractor and PICHTR hereby execute this Agreement.

PACIFIC INTERNATIONAL CENTER FOR
HIGH TECHNOLOGY RESEARCH
a Hawaii not-for-profit corporation

BY:

Signature	Printed Name
Title	Date

CONTRACTOR

BY:

Signature	Printed Name
Title	Date

FED ID/SSN: _____

EXHIBIT A
STATEMENT OF WORK

The statement of work is as stated in the Technical Proposal titled, , dated , and is hereby incorporated by reference.

End of Exhibit A

EXHIBIT B
BUDGET AND PAYMENT SCHEDULE

Budget

The total budget of $_____ is detailed in the attached budget sheets. Confirmation of indirect costs requested in the attached budgets are subject to verification by either a DCAA Rate Agreement Letter, submission of a complete and acceptable indirect cost proposal, and/or audit by PICHTR staff or representative.

Payment Schedule

The subcontractor shall invoice not more frequently than monthly, by the 10th working day of the following month for incurred costs in accordance with Paragraph 2.4. Payment to the subcontractor shall be made within 30 days of the receipt and approval by PICHTR of the subcontractors invoice, including standard US Government and HTDV required documentation showing costs incurred and deliverables.

Deliverables/Milestones:

In addition to the deliverables and milestones noted in Exhibit A, the subcontractor shall submit written reports via email to HTDV at htdv@pichtr.org with copy to ktmatsumoto@msn.com as specified below:

1. Project Presentation Quad Chart (see Exhibit E-1 for format) due 30 days after execution of this Agreement;
2. Monthly Technical Progress Report with Quad Chart (see report format in Exhibit F and Exhibit E-2 for project Quad Chart format) due not later than the 10th working day of the following month;
3. Quarterly Technical Progress Report with Quad Chart, due not later than the 10th working day of the month following the end of the calendar quarter;
4. Participation in various industry and HTDV events as requested by HTDV;
5. Proof of registration in Central Contractor Registration (CCR) at www.ccr.gov;
6. Final Technical Report due no later than 30 days after the contract termination date.

End of Exhibit B

EXHIBIT C
PICHTR GENERAL CONDITIONS

C.1 **Acknowledgment**. Contractor shall give PICHTR the option of receiving an acknowledgment in publication or presentation for its sponsorship of the Work.

C.2 **Indemnification**. Contractor hereby waives and agrees to indemnify, defend, and hold harmless PICHTR, its directors, officers, employees, and agents from any liability, loss, expense (including reasonable attorneys' fees), or claims (collectively, "Claims") arising out of or connected with the Agreement or the Work done under the Agreement, except to the extent that such claim is due to the intentional acts of PICHTR or PICHTR's failure to comply with the terms of the Agreement. PICHTR shall promptly notify Contractor or any such Claim(s) and shall cooperate with Contractor in the defense of the Claim(s).

C.3 **Insurance**. Contractor shall have the following types of insurance and shall maintain them in the amounts shown during the term of this Agreement:

1. Comprehensive General Liability: $1,000,000 for each occurrence and $2,000,000 aggregate per project.
2. Automobile Liability: $1,000,000 for liability coverage and $1,000,000 for personal injury.
3. Workers Compensation and Employer's Liability: $1,000,000 for bodily injury per accident and $1,000,000 for bodily injury by disease.

The Contractor shall provide a certificate of insurance executed by an authorized insurer that such insurance is in full force and effect and that PICHTR will be notified thirty days prior to the modification or cancellation of such insurance. The Contract further certifies that it shall continuously maintain such insurance for the duration of this Agreement.

C.4 **Independent Contractors**. Contractor and PICHTR are independent contractors and neither is an agent, joint venturer, or partner of the other.

C.5 **Independent Work**. Subject to the intellectual property provisions hereof, the Agreement shall not be construed to limit the freedom of individuals participating in this Work to engage in any other work.

C.6 **Force Majeure**. Neither party shall be liable for any failure to perform as required by the Agreement to the extent such failure to perform is caused due to circumstances reasonably beyond such party's control, such as labor disturbances or labor disputes of any kind, accidents, failure of any governmental approval required for full performance, civil disorders or commotions, acts of aggression, acts of God, energy or other conservation measures, explosions, failure of utilities, mechanical breakdowns, material shortages, disease, or other such occurrences; provided, however, such circumstances shall not excuse either party from any duty of payment of money hereunder.

C.7 **Nondiscrimination**. Contractor shall follow its normal employment policies, which prohibit discrimination against any employee or applicant for employment on the basis of race, color, creed, religion, national origin, marital status, age, sex, handicap (except where bona fide occupational qualifications so requires), with respect to the Agreement. Qualified individuals will not be denied the opportunity to contribute to the work to be conducted by Contractor under the Agreement on those bases or based upon the citizenship of such individuals.

C.8 **Assignment**. Neither the Contractor nor PICHTR shall assign the Agreement to another party without the prior written consent of the other, which consent may be withheld in the sole judgment of the party from whom consent is requested. Any purported assignment without such written consent shall be invalid and void. Assignability of any patent(s) or patent licenses(s) arising out of the Work is not addressed in the Agreement, but shall be addressed in such patent license(s).

C.9 **Severability**. In the event a court or arbitral tribunal of competent jurisdiction holds any provision of the Agreement to be invalid, such holding shall have no effect on the remaining provisions of the Agreement and such remaining provisions shall continue in full force and effect. Such court or tribunal shall use its best efforts to give effect to the offending provision after excising the invalid element.

C.10 **No Use of Name or Trademark**. Neither the Contractor nor PICHTR shall use the name, trademark, and names of employees of the other in connection with any products, publicity, promotion, or advertising without the prior written consent of the other party.

C.11 **Disputes, Governing Law, Forum**. Any dispute arising between Contractor and PICHTR in connection with the Agreement that cannot be resolved by mutual agreement shall be settled under the Commercial Arbitration Rules of the American Arbitration Association by one or more arbiters appointed in accordance with such Rules. The Agreement shall be governed by the laws of the State of Hawaii. Any such arbitration hereunder shall be held in Honolulu, Hawaii, or, if mutually acceptable to the parties in a location other than Honolulu. Arbitral decisions shall be binding and enforceable as provided for in, among other decisional and statutory law, Chapter 658, Hawaii Revised Statutes, as amended.

C.12 **Lower Tier Subcontractors**. Contractor shall not subcontract all or any part of the Work to be performed under this Agreement without the prior written consent of PICHTR. In the event a subcontract is approved by PICHTR, Contractor shall pass through to any and all lower tier subcontractors any and all provisions vesting in PICHTR the title to intellectual property created in the performance of this Agreement. Contractor shall also include in its reports to PICHTR the progress made by any and all lower tier subcontractors hereunder. . All lower tier Subcontractors shall be made on a cost reimbursable basis.

C.13 **Limitation on Liability**. In no event shall PICHTR be liable to Contractor or to any third parties claiming through Contractor for any liability, loss, expense (including reasonable attorneys' fees), or claims (collectively, "Claims") arising out of or connected with the Agreement or the Work done under the Agreement in an amount in excess of the amount of compensation stated in Exhibit B as payable to Contractor.

C.14 **Professional Codes and Standards**. In performing design, construction, and/or other work to which professional codes and standards (for example, National Electrical Code, building codes, architectural and engineering codes, etc.) published by bodies of competent jurisdiction apply, Contractor shall adhere to such codes and standards and hereby warrants such adherence.

C.15 **Survival**. The provisions of this Exhibit C and of Sections 2.3 and 2.6 of the main body of the Agreement shall survive the expiration or earlier termination of this Agreement.

EXHIBIT C
Part II

PICHTR TRAVEL CONDITIONS

1. PICHTR's policy is based on prudence and the guidelines set forth in the Federal Travel Regulations (FTR) which have been modified to meet the special and exceptional needs of PICHTR.

The following terms shall apply to this agreement:

A. Travel arrangements must employ the most economical means of travel.

B. Original receipts are required for the following:
   (1) Airline, railroad and bus tickets
   (2) Lodging
   (3) Car rentals and gas
   (4) Taxicabs
   (5) Parking

C. Unallowable costs:
   (1) First and business class travel
   (2) Personal telephone charges
   (3) Valet parking (if self-parking is available)
   (4) Room service

D. Per diem rates - Unless prior written approval of PICHTR is obtained, reimbursement for subsistence allowance (i.e., hotel, meals, etc.) shall not exceed the applicable daily authorized rates for interisland or out-of-state travel that are set forth in the General Services Administrations (GSA) Federal Travel Directory.

End of Exhibit C

EXHIBIT D

STATE OF HAWAII
TERMS AND CONDITIONS

End of Exhibit D

EXHIBIT E
QUAD CHART REQUIREMENT

The subcontractor shall prepare a Presentation Quad Chart in the format specified in Exhibit E-1. An electronic version of this Presentation Quad Chart shall be submitted to htdv@pichtr.org not later than 30 days after execution of this Agreement. A hard copy of this Presentation Quad Chart (not smaller than 24 x 32 inches) shall be prepared for use as requested by HTDV.

The subcontractor shall prepare Project Reporting Quad Charts in the format specified in Exhibit E-2 for use in monthly and quarterly reporting.

End of Exhibit E

EXHIBIT E-1
PRESENTATION QUAD CHART FORMAT

Company Name
Address
Telephone
Contact Individual
Email address

Product or Idea Name

Type Picture or Diagram Title Here

INSERT: Picture, Diagram or Photograph

This object should depict the project end technology. Ideally, this will convey the main idea of the final capability/use of the product/idea. If applicable, the picture should further give an idea of the size and weight of the end object.

Key Discriminators

Operational Capability

Describe how the system will provide new or enhanced operational capability to target user(s). Describe system specifications to be met at the end of the project. If known, list specific agencies that have expressed interest in this approach.

Problem/Readiness/Champions

Problem Being Addressed

What is the problem being addressed. How will the problem(s) be approached?

Technology Readiness Level

What is the current stage of development? See instructions on page 3 and input the appropriate number.

Champions

Describe who or what organizations are assisting with the development of the project. Also, detail the type of support they are contributing. Examples: $, technology, consulting etc.

Milestones/Deliverable/Date/Status

Milestones	Deliverable	Date	Status

Provide all milestone decision points that are required in the current development plan. If there are phases, list each milestone under a new heading. Provide detail on the finished product of the milestone under the Deliverable heading. Lastly, include the target completion month and year and status of the milestone. Examples of status are: Complete, WIP (work-in-process) and Future.

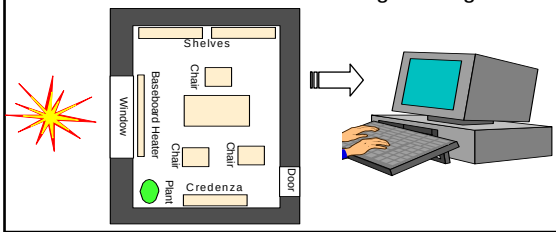
Prepared by:
Version:
Date:

Example

ABC Inc
111 Main Street, Anytown, VA 22102
Phone: (703) 222-8888, Fax: (703) 222-8889
Ms. Jane Doe
Email: jane.a.doe@abcinc.com

Blast Distribution Modeling for Buildings

Blast Distribution for Modeling Buildings



Key Discriminators

Operational Capability

•Database of blast debris generated from actual events and field testing.
•Empirical model that will predict size, mass, velocity and distribution of debris produced inside buildings by bombs.
  –Model will consider windows, walls, utility systems, office equipment, and furnishings as sources.
  –Model will use charge weight, location, building characteristics, and equipment as input data
•User friendly windows version of model will add credibility to force protection vulnerability assessments, show benefit of upgrades to facilities.
•The Office of Naval Research has expressed interest in the end product, when developed.

Problem/Readiness/Champions

Problem Being Addressed

Both terrorist threat and accidental explosion in high-risk facilities have been targets of increased concern among industrial and governmental leaders. Responding to recent events in the United States and abroad, regulators are seeking new methods of risk evaluation and management. ABC, Inc. is combining structural and process safety engineering to produce effective solutions.

Technology Readiness Level

This technology has completed level 5.

Champions

•The American Society of Civil Engineers has donated damage assessments from actual explosions
•The Blast Mitigation Action Group has awarded $50,000 for alpha stage development.
•The Nuclear Regulatory Commission has expressed interest in field testing once the alpha stage of development is complete.

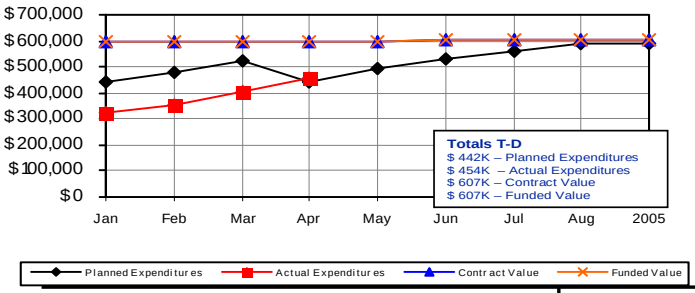
Milestones/Deliverable/Date/Status

Milestones	Deliverable	Date	Status
Gather data from actual blast events and tests.	Aggregated data into readable report format	3/8/02	Completed
Evaluate and tabulate data into categories with like characteristics.	Written analysis in report format	3/24/02	Completed
Develop debris distribution model(s) that replicate debris Data.	Written document detailing models	4/26/02	In progress
Validate model against new tests and other data sources.	Written competitive analysis report.	5/21/02	Future
Develop user friendly Blast Debris Model software and manual.	Working Beta version of software and 1st draft of user manual.	6/15/02	Future

Prepared by: Ms.Jane Doe
Version: 0.1
Date:4/5//02

EXHIBIT E-2
PROJECT REPORTING QUAD CHART FORMAT

Project Title



ACCOMPLISHMENTS

Last 90 Days
- Kicked off meeting with program manager
- Completed Task 1 and Task 2 (describe)

Next 90 Days
- Task 3
- Task 4
- Event

PROGRAM DESCRIPTION

Organization: **Company Name**

Manager: **Point of Contact**

Summary: **Project Title**
Project Description

STATUS

- Milestone deliverable A
  - Results 1
  - Next steps
- Milestone deliverable B
  - Results 2
  - Results 3
  - Next Steps

Proprietary

EXHIBIT F
REPORTING FORMAT

Company: Name
Address
City, State, Zip
Website
Phone Fax
Project Title:
PICHTR Contract No.
Award $: $000
Duration: X months
Technical POC:
Administrative POC:
Subcontractor (if applicable):

SECTION I – TECHNICAL
Project:
Objective (include beginning TRL/ending TRL):
Government Program Sponsor:
Transition/Commercialization Partner(s):
Tasks:
Deliverables:
Gantt Chart:
Quad Chart:
Problems, if any:

SECTION II – BUDGET
Detailed budget versus actual

SECTION III – MANAGEMENT & ADMINISTRATIVE
Address items such as:
Background:
Business Plan:
Product Development Plan:
Commercialization Plan:
Product Sales, Marketing & Distribution Plan
Intellectual Property:
Data Rights:
Company Information (# employees; approximate revenue)

EVENTS (participation is required or strongly recommended):
HTDV Events
HTDV-Sponsored Training Workshops, Honolulu, various dates

End of Exhibit F

ATTACHMENT B

Round One

RFP
List of Abstract Submissions

REQUEST FOR PROPOSAL

HAWAII TECHNOLOGY DEVELOPMENT VENTURE

DATE: August 2008

Administered by the Pacific International Center for High Technology Research (PICHTR)
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814

SOLICITATION: HTDV 08-02 (State of Hawaii)

POINT OF CONTACT: Harold S. Masumoto, HTDV Project Director, Phone (808) 237-5160

INITIAL ABSTRACT DUE: 15 September 2008

The Hawaii Technology Development Venture (HTDV), a project of the Pacific International Center for High Technology Research (PICHTR), is soliciting proposals for advanced technology development, transition, and commercialization. HTDV is seeking proposals from prior recipients of funding from HTDV and the Center of Excellence for Research in Ocean Sciences (CEROS). HTDV will execute the program outlined in this announcement contingent upon execution of an agreement with the State of Hawaii, funding amount and availability of funds.

HTDV is particularly interested in projects commercializing HTDV and/or CEROS-funded technologies with significant commercialization and/or DoD transition and Hawaii economic development potential (dual use technologies) Projects must demonstrate a clear technology transition and commercialization pathway, and for which interest for transition and commercialization is documented and verifiable. Submission of a technology transition and/or commercialization plan, for acceptance by HTDV, will be required during the application process, and updated as the project progresses.

Contract awards shall be based on proposal merit and funding availability. Proposed work should be structured with a base period of performance of 6 to 12 months. Options to extend the period of performance may be included in proposal plans but is not guaranteed. HTDV anticipates that initial contractor selections will be made during November 2008 from submissions received by HTDV in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, 15 September 2008.

HTDV will use a two-step submission process to formulate a Core Transition & Commercialization Program from projects submitted under this announcement. The first step requires submission of a Proposal Abstract. HTDV will evaluate all abstracts against the evaluation criteria herein without regard to other abstracts submitted. For the second step, HTDV will request full technical and cost proposals from selected offerors for proposed efforts deemed as best qualified for potential negotiation under this announcement.

PROPOSAL PROCESS

To be considered, offerors shall submit an unclassified abstract of the proposed effort to HTDV in Honolulu, Hawaii, by 12 PM Noon, Hawaii Standard Time, 15 September 2008. The abstract should provide an overview of the project and associated costs. To be eligible for consideration, the offeror must have successfully completed a previous project with HTDV or CEROS. Documentation of prior HTDV/CEROS award(s), copy of the agreement and final report, must be submitted with initial abstract submission including a summary of work and results, and total funding received for development of the product poised for commercial sales.

Abstracts should be submitted electronically through the e-mail to htdv@pichtr.org according to procedures outline in this document. The submissions shall be prepared in either PDF or Microsoft Word 2000 for IBM-compatible formats and each project should have a separate submission.

Abstracts submitted by any means other than the specified e-mail address will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve-point type, with margins not less than one inch, and pages numbered. HTDV will attempt to respond no later than 24 October 2008, to companies whose project abstracts are received on or before 12 PM Noon, Hawaii Standard Time, 15 September 2008.

The abstract shall consist of a cover page and up to four additional pages of project information, excluding attachments, exhibits, figures and tables. Abstracts exceeding five pages will be rejected. The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to transition and/or commercialize the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations.

The balance of the Abstract should clearly describe the project's Product, Process, Importance and Transition/Commercialization potential; and Price. The Abstract shall include the following sections, each clearly labeled:

A. Product(s), describing the work's expected results and discussing transition and/or commercial application of the result. This section should document the immediate sales potential the product as well as manufacturing, distribution and marketing/sales plans.

B. Process, describing the technical approach and methods to be used, including work schedules, task assignments, and major project milestones. This section should summarize specials capabilities of the work team, and special techniques or facilities to be used for the proposed work. If a subcontractor, or subcontractor facilities are to be included in the project, include an approved draft of the cost-reimbursable subcontract agreement and/or approval for use of subcontractor facilities, as appropriate. Such agreements are not subject to the page limitation for the submission.

C. Importance, stating specific technical advances and innovation that will be demonstrated by the work, describing the work's anticipated benefits to military and/or commercial technology and discussing the advances to state-of-the-art expected. Firm letters of intent to transition and/or commercialize, purchase orders, and other relevant documentation to support the transition and/or commercialization of the product.

D. Price, consisting of an estimate for a not to exceed level of effort project, including the principal cost elements, direct material costs, direct labor costs, other direct costs, indirect costs, facilities capital cost of money, and management. No profit will be allowed. The cost proposal should outline any cost sharing by federal, or third party funding.

The Abstract may also contain any other information deemed germane to the proposed effort, such as descriptions of leveraged assets, co-funding arrangements, consultant commitments, or technical references.

EVALUATION CRITERIA

The following criteria apply to both Abstracts and full proposals requested under this announcement. HTDV will select for award those projects offering the best value and transition/ commercialization potential.

A. Quality. Technical quality of the proposed effort and its potential for success. Significant emphasis will be placed on the revenue potential for end products and economic benefit to the State of Hawaii.

B. Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans, including the company business plan.

C. Anticipated Benefits. Potential to transition and/or commercialize products at reasonable cost and in a timely manner; and potential for sustained, significant economic benefit to the State of Hawaii. Successful contractors shall provide sales information (i.e. number of units sold and associated revenue) to HTDV for reporting and evaluation purposes.

D. Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence and commercial revenue potential.

Bonus points in the evaluation of proposals will be awarded for company commitment to participate and/or support STEM and related programs.

QUALIFIED COMPANIES

Companies must qualify as a small business under the U.S. Small Business Administration's standards, be registered to do business in the State of Hawaii, in good standing, and have a significant corporate presence with at least 51% of its employees based in the State of Hawaii. The company must have filed corporate income taxes for the prior fiscal year as well as State of Hawaii General Excise Taxes.

A certification from the Chief Financial Officer that Hawaii State corporate income taxes and General Excise Taxes were filed for the fiscal year prior to application must be submitted as part of the initial abstract filing. A separate certification from an authorized corporate representative that at least 51% of company employees are based in the State of Hawaii must be submitted as part of the abstract filing. The certification must state the year of incorporation in the State of Hawaii, the total number of company employees and the number of employees based in the State of Hawaii.

Successful applicants will be required to provide a State of Hawaii Tax Clearance, Certificate of Good Standing, and Form LIR #27, as well as updated information on the number of employees and corporate revenues at the end of the contract period.

OTHER REQUIREMENTS

HTDV plans to make up to $4.5 Million available to fund proposals in response to this announcement. Multiple, cost-reimbursable (fixed ceiling) contract awards are anticipated as a result of this announcement, contingent upon funding. Contract awards will be based on proposal merit and funding availability. HTDV may require that successful offerors deliver at least one technical presentation in Hawaii as part of the project.

This solicitation will remain open for sixty (60) days from the date of this announcement. However, to be considered in the initial award period, a properly formatted abstract must be received by HTDV in Honolulu, Hawaii by 12 PM Noon, Hawaii Standard Time, 15 September 2008. Offerors responding to this announcement are wholly responsible for timely submissions.

It is HTDV policy to treat all submissions as competitive information and to disclose the contents only for the purposes of evaluation. HTDV may use selected contractors as special resources to evaluate abstracts and proposals. These contractors are restricted by contract from disclosing proposal information or using it for purposes other than the technical assessments for HTDV.

By submitting an abstract to HTDV, an offeror agrees that the project's technical and management information may be disclosed to selected contractors and evaluators for the limited purpose stated above or unless otherwise required by law. Any information submitted to HTDV that an offeror intends to exclude from such limited release must be clearly marked proprietary and submitted apart from other proposal material.

All abstracts submitted under this announcement must be unclassified. An invitation from HTDV to submit a full proposal does not assure subsequent award. The decision to submit or not submit a full proposal is the sole responsibility of the offeror submitting the abstract.

Successful offerors will be required to execute a cost reimbursable subcontract agreement with the Pacific International Center for High Technology Research (PICHTR) and contract payments shall be contingent upon the receipt of State of Hawaii funds. All lower tier subcontracts shall be executed on a cost reimbursable-basis consistent with all terms and conditions of the prime subcontract.

Contact Point: questions relating to this announcement are to be directed to Harold S. Masumoto, Project Director, or Keith T. Matsumoto, HTDV Project Office, 2800 Woodlawn Drive, Suite 192, Honolulu, Hawaii 96822, phone (808) 237-5160.

All responsive sources may submit a proposal abstract, which shall be considered by HTDV. HTDV reserves the right to select for award all, some, or none of the proposals received in response to this announcement. The program described in this announcement is contingent upon funding availability, and the terms and conditions of the prime agreement between PICHTR and the State of Hawaii.

STATE OF HAWAII FOLLOW-ON FUNDING
EVALUATIONS SUMMARY

ID	COMPANY	PROJECT NAME	REQUEST	Qualitative Consensus	Quantative Scoring	RECOMMENDATION If Fund, then Amt	Notes on Award Recommendations
08-FOF-03	Concentris	RapidLink Mesh Networking Commercial Launch	$350,000.00	Fund	C+	$300,000.00	Funding Limited
08-FOF-07	Nanopoint	cellTRAY Products	$249,000.00	Reject	D	Reject	
08-FOF-08	SEE/RESCUE	Commercialization of the Patented LIFE/FLOAT RescueBoard	$201,500.00	Fund	D	Reject	
08-FOF-09	SEE/RESCUE	Commercialization of the Patented MiniRESCUE POCKET/FLOAT	$44,660.00	Fund	C	$34,660.00	Direct Cost Only and require Cost Share from AquaLung
08-FOF-10	SEE/RESCUE	Commercialization of the Patented Emergency Pocket Water DeSalinator	$49,660.00	Fund	C-	$39,660.00	Direct Cost Only and require Cost Share from AquaLung
08-FOF-11	Makai Ocean Engineering	4D Visualization Software: GIS Integration and Commercialization	$420,000.00	Fund	C	$300,000.00	Funding Limited
08-FOF-12	NovaSol	Miniaturized Airborne Real Time Cueing Hyperspectral Enhanced Recon (miniARCHER)	$250,000.00	Reject	C-	Reject	
08-FOF-14	Cellular Bioengineering, Inc.	DeconGel for Decontamination and Removal of Radioactive and Other Contaminants	$530,000.00	Fund	C-	$285,238.00	Direct Cost Only
08-FOF-15	NovaSol	Low-Cost Near-Shore Commercial Lasercomm Link for Intermediate-Range Intermediate-Bandwidth Applications	$270,000.00	Reject	D	Reject	
08-FOF-18	Oceanit	LiquidWeb Admixture for Nano Concrete	$225,000.00	Fund	C+	$225,000.00	FUND FULLY
08-FOF-19	Fatigue Science	Fatigue-Risk Management System	$347,000.00	Fund	C	$300,000.00	Funding Limited
					Min C-	$1,484,558.00	

CONSENSUS TRACKING/SCORING

		From Scoring
A/B	C/D	Quantitative
6	3	min C-
4	5	
5	4	
6	3	min C-
6	3	min C-
6	2	min C-
4	5	
6	3	min C-
3	6	
9	0	min C-
7	2	min C-

ATTACHMENT C

Round Two

RFP
List of Abstract Submissions

HTDV
Hawaii Technology Development Venture

REQUEST FOR PROPOSALS

HAWAII TECHNOLOGY DEVELOPMENT VENTURE
December 2008

Administered by the Pacific International Center for High Technology Research (PICHTR)
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814

SOLICITATION: HTDV 08-04 (State of Hawaii)

POINT OF CONTACT: Harold S. Masumoto, HTDV Project Director, Phone (808) 237-5160

INITIAL ABSTRACT DUE: By 12:00 p.m. Noon, HST, Wednesday, 21 January 2009

The Hawaii Technology Development Venture (HTDV), a project of the Pacific International Center for High Technology Research (PICHTR), is soliciting proposals for advanced technology development, transition, and commercialization. HTDV is seeking proposals from prior recipients of funding from HTDV and the National Defense Center of Excellence for Research in Ocean Sciences (CEROS). HTDV will execute the program outlined in this announcement contingent upon execution of an agreement with the State of Hawaii, funding amount and availability of funds.

HTDV is particularly interested in projects commercializing HTDV and/or CEROS-funded technologies with significant commercialization and/or DoD transition and Hawaii economic development potential (dual use technologies). Projects must demonstrate a clear technology transition and commercialization pathway, and for which interest for transition and commercialization is documented and verifiable. Submission of a technology transition and/or commercialization plan, for acceptance by HTDV, will be required during the application process, and updated as the project progresses.

Contract awards shall be based on proposal merit and funding availability. Proposed work should be structured with a base period of performance of 6 to 12 months. Options to extend the period of performance may be included in proposal plans but is not guaranteed. HTDV anticipates that initial contractor selections will be made during March 2009 from submissions received by HTDV in Honolulu, Hawaii by 12:00 p.m. Noon, Hawaii Standard Time, 21 January 2009.

HTDV will use a two-step submission process to formulate a Core Transition & Commercialization Program from projects submitted under this announcement. The first step requires submission of a Proposal Abstract. HTDV will evaluate all abstracts against the evaluation criteria herein without regard to other abstracts submitted. For the second step, HTDV will request full technical and cost proposals from selected offerors for proposed efforts deemed as best qualified for potential negotiation under this announcement.

PROPOSAL PROCESS

To be considered, offerors shall submit an unclassified abstract of the proposed effort to HTDV in Honolulu, Hawaii, by 12:00 p.m. Noon, Hawaii Standard Time, 21 January 2009. The abstract should provide an overview of the project and associated costs. To be eligible for consideration, the offeror must have successfully completed a previous project with HTDV or CEROS. Documentation of prior HTDV/CEROS award(s), copy of the agreement(s) and final report(s), must be submitted with initial abstract submission. A separate "Summary of Work and Results and Total Funding Received" for development of the product poised for commercial sales must also be attached.

Abstracts should be submitted electronically through the e-mail to htdv@pichtr.org according to procedures outlined in this document. The submissions shall be prepared in either PDF or Microsoft Word 2003 for IBM-compatible formats and each project should have a separate submission. Your submission must be received at HTDV by the deadline of 12:00 p.m. Noon, HST, on 21 January 2009. You should ensure that your documents are e-mailed early enough to allow for delays or problems with transmission. Any submissions, electronic or otherwise, received after the deadline will not be accepted.

Abstracts submitted by any means other than the specified e-mail address will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve-point type, with margins not less than one inch, and pages numbered. HTDV will attempt to respond no later than 6 March 2009, to companies whose project abstracts are received on or before the submission deadline.

The abstract shall consist of a cover page and up to four additional pages of project information, excluding attachments, exhibits, figures and tables. Abstracts exceeding five pages will be rejected. The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to transition and/or commercialize the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations.

The balance of the Abstract should clearly describe the project's Product, Process, Importance and Transition/Commercialization potential; and Price. The Abstract shall include the following sections, each clearly labeled:

A. Product(s), describing the work's expected results and discussing transition and/or commercial application of the result. This section should document the immediate sales potential of the product. A business plan describing management, financial, manufacturing, distribution and marketing/sales strategies must be attached.

B. Process, describing the technical approach and methods to be used, including work schedules, task assignments, and major project milestones. This section should summarize specials capabilities of the work team, and special techniques or facilities to be used for the proposed work. If a subcontractor, or subcontractor facilities are to be included in the project, include an approved draft of the cost-reimbursable subcontract agreement and/or approval for use of subcontractor facilities, as appropriate. Such agreements are not subject to the page limitation for the submission.

C. Importance, stating specific technical advances and innovation that will be demonstrated by the work, describing the work's anticipated benefits to military and/or commercial technology and discussing the advances to state-of-the-art expected. Firm letters of intent to transition and/or commercialize, purchase orders, and other relevant documentation to support the transition and/or commercialization of the product.

D. Price, consisting of an estimate for a not to exceed level of effort project, including the principal cost elements, direct material costs, direct labor costs, other direct costs, indirect costs, facilities capital cost of money, and management. No profit will be allowed. The cost proposal should outline any cost sharing by federal, or third party funding.

The Abstract may also contain any other information deemed germane to the proposed effort, such as descriptions of leveraged assets, co-funding arrangements, consultant commitments, or technical references.

EVALUATION CRITERIA

The following criteria apply to both Abstracts and full proposals requested under this announcement. HTDV will select for award those projects offering the best value and transition/ commercialization potential.

A. Quality. Technical quality of the proposed effort and its potential for success. Significant emphasis will be placed on the revenue potential for end products and economic benefit to the State of Hawaii.

B. Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans, including the company business plan.

C. Anticipated Benefits. Potential to transition and/or commercialize products at reasonable cost and in a timely manner; and potential for sustained, significant economic benefit to the State of Hawaii. Successful contractors shall provide sales information (i.e. number of units sold and associated revenue) to HTDV for reporting and evaluation purposes.

D. Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence and commercial revenue potential.

Bonus points in the evaluation of proposals will be awarded for company commitment to participate and/or support STEM and related programs.

QUALIFIED COMPANIES

Companies must qualify as a small business under the U.S. Small Business Administration's (SBA) standards, be registered to do business in the State of Hawaii, in good standing, and have a significant corporate presence with at least 51% of its employees based in the State of Hawaii. The company must have filed corporate income taxes for the prior fiscal year as well as State of Hawaii General Excise Taxes.

A certification from the Chief Financial Officer that Hawaii State corporate income taxes and general excise taxes were filed for the fiscal year prior to application must be submitted as part of the initial abstract filing.

A separate certification from an authorized corporate representative must also be submitted as part of the abstract filing and must state the following: (1) that at least 51% of company employees are based in the State of Hawaii; (2) the total number of company employees and the number of employees based in the State of Hawaii; (3) the company's year of incorporation in the State of Hawaii; and (4) that the company is a small business qualified under SBA standards, including declaration of applicable NAICS codes and qualifying standards.

Successful applicants will be required to provide a State of Hawaii Tax Clearance, Certificate of Good Standing, and Form LIR #27, as well as updated information on the number of employees and corporate revenues at the end of the contract period.

OTHER REQUIREMENTS

HTDV plans to make up to $3 million available to fund proposals in response to this announcement. Multiple, cost-reimbursable (fixed ceiling) contract awards are anticipated as a result of this announcement, contingent upon funding. Contract awards will be based on proposal merit and funding availability. HTDV may require that successful offerors deliver at least one technical presentation in Hawaii as part of the project.

This solicitation will remain open for sixty (60) days from the date of this announcement. However, to be considered in the initial award period, a properly formatted abstract must be received by HTDV in Honolulu, Hawaii by 12:00 p.m. Noon, Hawaii Standard Time, 21 January 2009. Offerors responding to this announcement are wholly responsible for timely submissions.

It is HTDV policy to treat all submissions as competitive information and to disclose the contents only for the purposes of evaluation. HTDV may use selected contractors as special resources to evaluate abstracts and proposals. These contractors are restricted by contract from disclosing proposal information or using it for purposes other than the technical assessments for HTDV.

By submitting an abstract to HTDV, an offeror agrees that the project's technical and management information may be disclosed to selected contractors and evaluators for the limited purpose stated above or unless otherwise required by law. Any information submitted to HTDV that an offeror intends to exclude from such limited release must be clearly marked proprietary and submitted apart from other proposal material.

All abstracts submitted under this announcement must be unclassified. An invitation from HTDV to submit a full proposal does not assure subsequent award. The decision to submit or not submit a full proposal is the sole responsibility of the offeror submitting the abstract.

Successful offerors will be required to execute a cost reimbursable subcontract agreement with the Pacific International Center for High Technology Research (PICHTR) and contract payments shall be contingent upon the receipt of State of Hawaii funds. All lower tier subcontracts shall be executed on a cost reimbursable-basis consistent with all terms and conditions of the prime subcontract.

Contact Point: questions relating to this announcement are to be directed to Harold S. Masumoto, Project Director, or Keith T. Matsumoto, HTDV Project Office, 2800 Woodlawn Drive, Suite 192, Honolulu, Hawaii 96822, phone (808) 237-5160.

All responsive sources may submit a proposal abstract, which shall be considered by HTDV. HTDV reserves the right to select for award all, some, or none of the proposals received in response to this announcement. The program described in this announcement is contingent upon funding availability, and the terms and conditions of the prime agreement between PICHTR and the State of Hawaii.

STATE OF HAWAII FOLLOW-ON FUNDING EVALUATIONS SUMMARY

ID	COMPANY	PROJECT NAME	REQUEST	Qualitative Consensus	Quantitive Scoring	RECOMMENTATION If Fund, then Amt	Notes on Award Recommendations
08-04-02	Nanopoint	CT-2000 Fluidics Imaging System	$300,000.00	Fund	C	$300,000.00	Fully Fund
08-04-04	Peletex	Peletex Smog/Vog Air Filter	$389,450.00	Reject	D	Reject	
08-04-08	SEE/RESCUE	Commercialization of the Patented LIFE/FLOAT RescueBoard	$201,500.00	Fund	C-	$201,500.00	Fully Fund
08-04-09	NovaSol/ITS	miniARCHER	$250,000.00	Fund	C	$250,000.00	Fully Fund
08-04-10	TeraSys Technologies	High Power Electronically Tunable Resonator	$198,496.00	Fund	B	$198,496.00	Fully Fund
08-04-11	NovaSol/ITS	EOD Lasercomm	$303,000.00	Fund	B-	$300,000.00	Funding Limited
08-04-17	Referentia	Time Series: Rapid Exploration (T-REX)	$399,998.00	Fund	C+	$300,000.00	Funding Limited
08-04-18	Oceanit Laboratories	Wind 3D - Oceanit's Wind LIDAR	$300,000.00	Fund	C	$300,000.00	Fully Fund
08-04-19	Oceanit Laboratories	Inspecta for Emergency Damage Assessment	$250,000.00	Fund	C+	$250,000.00	Fully Fund
					Min C-	$2,099,996.00	

Consensus Tracking/Scoring

A/B	C/D	Quantitive
5	4	min C-
4	5	
5	4	min C-
6	3	min C-
8	1	min C-
9	0	min C-
7	1	min C-
8	1	min C-
6	3	min C-

ATTACHMENT D

Round Three

RFP
List of Abstract Submissions

HTDV
Hawaii Technology Development Venture

LIMITED OFFERING
REQUEST FOR PROPOSALS

HAWAII TECHNOLOGY DEVELOPMENT VENTURE
March 20, 2009

Administered by the Pacific International Center for High Technology Research (PICHTR)
1440 Kapiolani Boulevard, Suite 1225
Honolulu, Hawaii 96814

SOLICITATION: HTDV 09-01 (State of Hawaii)

POINT OF CONTACT: Harold S. Masumoto, HTDV Project Director, Phone (808) 237-5160

INITIAL ABSTRACT DUE: By 12:00 p.m. Noon, HST, Monday, April 20, 2009

The Hawaii Technology Development Venture (HTDV), a project of the Pacific International Center for High Technology Research (PICHTR), is soliciting proposals for advanced technology development, transition, and commercialization. HTDV is seeking proposals from companies that have been recipients of funding from HTDV and the National Defense Center of Excellence for Research in Ocean Sciences (CEROS). HTDV will execute the program outlined in this announcement contingent upon execution of an agreement with the State of Hawaii, funding amount and availability of funds.

HTDV is particularly interested in projects commercializing HTDV and/or CEROS-funded technologies with significant commercialization and/or DoD transition and Hawaii economic development potential (dual use technologies). Projects must demonstrate a clear technology transition and commercialization pathway, and for which interest for transition and commercialization is documented and verifiable. Submission of a technology transition and/or commercialization plan, for acceptance by HTDV, will be required during the application process, and updated as the project progresses.

Contract awards shall be based on proposal merit and funding availability. Proposed work should be structured with a base period of performance of 6 to 9 months. The anticipated project start date is July 1, 2009 and all project work must be completed by March 31, 2010. HTDV anticipates that initial contractor selections will be made during May 2009 from submissions received by HTDV in Honolulu, Hawaii by 12:00 p.m. Noon, Hawaii Standard Time, April 20, 2009.

HTDV will use a two-step submission process to formulate a Core Transition & Commercialization Program from projects submitted under this announcement. The first step requires submission of a Proposal Abstract. HTDV will evaluate all abstracts against the evaluation criteria herein without regard to other abstracts submitted. *Prior applicants of HTDV State of Hawaii Follow-On-Funding that were administratively non-compliant will be given special consideration.* For the second step, HTDV will request full technical and cost proposals from selected offerors for proposed efforts deemed as best qualified for potential negotiation under this announcement.

PROPOSAL PROCESS

To be considered, offerors shall submit an unclassified abstract of the proposed effort to HTDV in Honolulu, Hawaii, by 12:00 p.m. Noon, Hawaii Standard Time, April 20, 2009. The abstract should provide an overview of the project and associated costs. To be eligible for consideration, the offeror must have successfully completed a previous project with HTDV or CEROS. Documentation of prior HTDV/CEROS award(s), copy of the agreement(s) and final report(s), must be submitted with initial abstract submission. A separate "Summary of Work and Results and Total Funding Received" for development of the product poised for commercial sales must also be attached.

Abstracts should be submitted electronically through the e-mail to htdv@pichtr.org according to procedures outlined in this document. The submissions shall be prepared in either PDF or Microsoft Word 2003 for IBM-compatible formats and each project should have a separate submission. Your submission must be received at HTDV by the deadline of 12:00 p.m. Noon, HST, on April 20, 2009. You should ensure that your documents are e-mailed early enough to allow for delays or problems with transmission. Any submissions, electronic or otherwise, received after the deadline will not be accepted.

Abstracts submitted by any means other than the specified e-mail address will be disregarded. Abstracts shall be prepared in the following format: 8.5 x 11 inch plain paper, single or double spaced, in at least twelve-point type, with margins not less than one inch, and pages numbered. HTDV will attempt to respond no later than May 26, 2009, to companies whose project abstracts are received on or before the submission deadline.

The abstract shall consist of a cover page and up to four additional pages of project information, excluding attachments, exhibits, figures and tables. Abstracts exceeding five pages will be rejected. The Cover Page shall include the following: title of the proposed effort; intended product or result; name, company affiliation, phone number, fax number, and electronic and postal mailing addresses of the Principal Investigator and Administrative Point of Contact; proposed period of performance; funding required to transition and/or commercialize the proposed products; names and affiliations of sub-contractors and co-investigators; and special requirements or considerations.

The balance of the Abstract should clearly describe the project's Product, Process, Importance and Transition/Commercialization potential, and Price. The Abstract shall include the following sections, each clearly labeled:

A. Product(s), describing the work's expected results and discussing transition and/or commercial application of the result. This section should document the immediate sales potential of the product. A business plan describing management, financial, manufacturing, distribution and marketing/sales strategies must be attached.

B. Process, describing the technical approach and methods to be used, including work schedules, task assignments, and major project milestones. This section should summarize specials capabilities of the work team, and special techniques or facilities to be used for the proposed work. If a subcontractor, or subcontractor facilities are to be included in the project, include an approved draft of the cost-reimbursable subcontract agreement and/or approval for use of subcontractor facilities, as appropriate. Such agreements are not subject to the page limitation for the submission.

C. Importance, stating specific technical advances and innovation that will be demonstrated by the work, describing the work's anticipated benefits to military and/or commercial technology and discussing the advances to state-of-the-art expected. Firm letters of intent to transition and/or commercialize, purchase orders, and other relevant documentation to support the transition and/or commercialization of the product.

D. Price, consisting of an estimate for a not to exceed level of effort project, including the principal cost elements, direct material costs, direct labor costs, other direct costs, indirect costs, facilities capital cost of money, and management. No profit will be allowed. The cost proposal should outline any cost sharing by federal, or third party funding.

The Abstract may also contain any other information deemed germane to the proposed effort, such as descriptions of leveraged assets, co-funding arrangements, consultant commitments, or technical references.

EVALUATION CRITERIA

The following criteria apply to both Abstracts and full proposals requested under this announcement. HTDV will select for award those projects offering the best value and transition/ commercialization potential.

A. Quality. Technical quality of the proposed effort and its potential for success. Significant emphasis will be placed on the revenue potential for end products and economic benefit to the State of Hawaii.

B. Approach and Capabilities. Realism of the proposed technical approach and methods and their potential for attaining stated objectives and milestones on schedule using the techniques and resources described; corporate and individual qualifications for the work; adequacy of equipment, materials and facilities proposed; and quality of technical management and plans, including the company business plan.

C. Anticipated Benefits. Potential to transition and/or commercialize products at reasonable cost and in a timely manner; and potential for sustained, significant economic benefit to the State of Hawaii. Successful contractors shall provide sales information (i.e. number of units sold and associated revenue) to HTDV for reporting and evaluation purposes.

D. Costs and Budget. Cost realism and value of anticipated results for funding requested and schedule presented; leveraged, cost-saving, or value added aspects to the proposed effort. Cost is considered a substantial evaluation criterion but is secondary to technical excellence and commercial revenue potential.

Bonus points in the evaluation of proposals will be awarded for company commitment to participate and/or support STEM and related programs.

Companies that previously submitted an abstract to HTDV for the State of Hawaii Follow-On Funding Program but were deemed non-compliant for administrative omissions of required information will be given special consideration.

QUALIFIED COMPANIES

Companies must qualify as a small business under the U.S. Small Business Administration's (SBA) standards, be registered to do business in the State of Hawaii, in good standing, and have a significant corporate presence with at least 51% of its employees based in the State of Hawaii. The company must have filed corporate income taxes for the prior fiscal year as well as State of Hawaii General Excise Taxes.

A certification from the Chief Financial Officer that Hawaii State corporate income taxes and general excise taxes were filed for the fiscal year prior to application must be submitted as part of the initial abstract filing.

A separate certification from an authorized corporate representative must also be submitted as part of the abstract filing and must state the following: (1) that at least 51% of company employees are based in the State of Hawaii; (2) the total number of company employees and the number of employees based in the State of Hawaii; (3) the company's year of incorporation in the State of Hawaii; and (4) that the company is a small business qualified under SBA standards, including declaration of applicable NAICS codes and qualifying standards.

Successful applicants will be required to provide a State of Hawaii Tax Clearance, Certificate of Good Standing, and Form LIR #27, as well as updated information on the number of employees and corporate revenues at the end of the contract period.

OTHER REQUIREMENTS

HTDV plans to make up to $825,000 available to fund proposals in response to this announcement. Multiple, cost-reimbursable (fixed ceiling) contract awards are anticipated as a result of this announcement, contingent upon funding. Contract awards will be based on proposal merit and funding availability. HTDV may require that successful offerors deliver at least one technical presentation in Hawaii as part of the project.

This solicitation will remain open for thirty (30) days from the date of this announcement. However, to be considered in the initial award period, a properly formatted abstract must be received by HTDV in Honolulu, Hawaii by 12:00 p.m. Noon, Hawaii Standard Time, April 20, 2009. Offerors responding to this announcement are wholly responsible for timely submissions.

It is HTDV policy to treat all submissions as competitive information and to disclose the contents only for the purposes of evaluation. HTDV may use selected contractors as special resources to evaluate abstracts and proposals. These contractors are restricted by contract from disclosing proposal information or using it for purposes other than the technical assessments for HTDV.

By submitting an abstract to HTDV, an offeror agrees that the project's technical and management information may be disclosed to selected contractors and evaluators for the limited purpose stated above or unless otherwise required by law. Any information submitted to HTDV that an offeror intends to exclude from such limited release must be clearly marked proprietary and submitted apart from other proposal material.

All abstracts submitted under this announcement must be unclassified. An invitation from HTDV to submit a full proposal does not assure subsequent award. The decision to submit or not submit a full proposal is the sole responsibility of the offeror submitting the abstract.

Successful offerors will be required to execute a cost reimbursable subcontract agreement with the Pacific International Center for High Technology Research (PICHTR) and contract payments shall be contingent upon the receipt of State of Hawaii funds. All lower tier subcontracts shall be executed on a cost reimbursable-basis consistent with all terms and conditions of the prime subcontract.

Contact Point: questions relating to this announcement are to be directed to Harold S. Masumoto, Project Director, or Keith T. Matsumoto, HTDV Project Office, 2800 Woodlawn Drive, Suite 192, Honolulu, Hawaii 96822, phone (808) 237-5160.

All responsive sources may submit a proposal abstract, which shall be considered by HTDV. HTDV reserves the right to select for award all, some, or none of the proposals received in response to this announcement. The program described in this announcement is contingent upon funding availability, and the terms and conditions of the prime agreement between PICHTR and the State of Hawaii.

STATE OF HAWAII FOLLOW-ON FUNDING
EVALUATIONS SUMMARY

ID	COMPANY	PROJECT NAME	REQUEST	Qualitative Consensus	Quantitive Scoring	RECOMMENTATION If Fund, then Amt	Notes on Award Recommendations
09-01-01	Williams Aerospace	Unmanned Aerial System (UAS) Products Transition and Commercialization	$554,967.00	Fund	C-	$185,000.00	Funding Limited
09-01-02	CTA, Inc.	Commercialization of Static Soft Rail	$225,000.00	Reject	D	Reject	
09-01-03	Hawaii Hydrogen Carriers	Commercialization of a Solid-State Hydrogen Storage System for PEM Fuel Cell Powered Forklifts	$95,100.00	Fund	B-	$95,100.00	Fully Fund
09-01-04	Pace Tech	Aerosol Collection and Analysis Sytem (ACAS) Development	$289,000.00	Reject	C-	Reject	
09-01-05	Bump Networks	ubAlert for Disaster Alert Networking	$283,600.00	Reject	D	Reject	
09-01-06	Crossfiber/Trex	Development of Products Derived from Fiber Optic Collimators for the U.S. Navy	$250,000.00	Reject	C-	Reject	
09-01-07	Oceanic Imaging	DiveSight	$345,000.00	Reject	D	Reject	
09-01-08	Kuehnle AgroSystems	Algae Biomass to Oil Transition Using Hawaiian "Greenwater"	$313,096.00	Fund	C+	$200,000.00	Funding Limited
09-01-09	Pipeline Micro	Evaluation of Skiving Technology for Manufacturing Micro-Channel Heat Sinks to Commercialize Stable Flow Two Phase Liquid Cooling System	$300,000.00	Fund	C+	$200,000.00	Funding Limited
09-01-10	Concurrent Analytical	Vitamin D1,25 Diagnostic for Regional Testing Centers	$467,188.00				Non Compliant
09-01-11	Archinoetics	TREE Video Analytics Final Development	$190,000.00	Fund	C	$190,000.00	Funding Limited
				Majority Vote	Min C-	$870,100.00	
						$870,257.27	Funding Available

Consensus Tracking/Scoring

A/B	C/D	Quantitive
6	3	min C-
4	5	
9	0	min C-
4	5	
2	7	
4	5	
4	5	
5	4	min C-
7	2	min C-
6	3	min C-

ATTACHMENT E

Final Report Summaries

ROUND ONE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Cellular Bioengineering, Inc.	Decon Gel for Decontamination and Removal of Radioactive and Other Contaminants	$285,238.00	CBI Polymers, a division of Cellular Bioengineering, Inc. (CBI) has developed a safe, simply applied decontamination polymeric hydrogel, DeconGel, that contains traps, encapsulates and decontaminates a range of radioisotopes on different substrates in a simple, easy, no-preparation process. To effectively commercialize the DeconGel product, the following tasks were implemented: 1) sales to commercial nuclear power plants and Department of Energy sites through value added reseller (VAR)/distribution relationships; 2) promotion of Decon Gel to increase awareness and sales; and, 3) evaluation and implementation of new Customer Relationship Management (CRM)/Enterprise Resource Planning (ERP)/e-Commerce software to build the infrastructure to support the commercialization of DeconGel. CBI has performed many successful field tests at a variety of nuclear facilities including nuclear power plants, Department of Energy sites, and waste processing companies. DeconGel has been introduced at key conferences on health physics, waste management and radiochemistry and nuclear sciences. DeconGel is currently used by many notable institutions including Ontario Power Generation and Savannah River Site and has been shown to be more effective than other products in remediating a variety of substrates contaminated with radionucleotides. CBI now has a set of very professional looking materials that it uses to provide its end users to help them better understand what CBI have to offer. DeconGel will continue to generate increased jobs and revenue for the State of Hawaii.
Concentris Systems, LLC	RapidLink Mesh Networking Commercial Launch	$300,000.00	The State funding supported the worldwide commercial launch of the RapidLink Mesh Network System, leveraging Hawaii-based resources to the fullest extent possible. Funds supplemented private investment and corporate funds to accelerate the development of manufacturing, marketing, and product support capability necessary to effectively position the RapidLink product line of wireless mesh networking equipment in the commercial and military markets. Commercialization of wireless mesh networking technology was developed in part through the following HTDV/CEROS contracts: 1) HTDV 2005 Enhanced Wireless Mesh Networking Technology; 2) HTDV 2006 Automatically Deployed Communications Relays; 3) CEROS 2007 Frequency Translation and Amplification of COTS Wireless Components; and, 4) HTDV 2007 Militarization of Wireless Mesh Networks. Overall, Concentris was able to apply follow-on-funding to successfully obtain a multi-year $780,000 Phase II SBIR contract with the U.S. Army Research Development and Engineering Command and supported commercialization of technology by developing and executing a focused corporate marketing plan to align resources to strategies. Concentris has chosen "MakaMesh" for its product name, and the development and branding were completed. In addition to attending four trade shows, Concentris was able to design and begin development of their new website. Sales targets have been identified and arrangements for sales made via a GSA-certified vendor. Plans were developed for FIPS certification, and operationally an improved manufacturing operational capacity with inventory and MRP software was undertaken.

ROUND ONE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Fatigue Science/Archinoetics	Fatigue-Risk Management System	$300,000.00	Sleep Performance, Inc. (dba Fatigue Science) was founded in 2007 as a spin-off to Archinoetics LLC, a Hawaii-based high technology company. Fatigue Science is a privately held company with products to assess fatigue and reduce the risk of fatigue-related accidents. Fatigue Science's first market is commercial transport and trucking industries, in which it offers the first scientifically validated solution for high-risk industries to reduce the number of fatigue-related accidents through its comprehensive Fatigue-Risk Management System (FRMS), which utilizes the Sleep Bank and proprietary analysis software. Through the use of follow-on-funding, Fatigue Science (FS) established efficacy of its basic approach via work performed. Most notable was FS's Queensland Rail (QR) control center personnel. Using its ReadiBand Technology, FS determined that 58% of workers were sleeping significantly less than recommended and that 22% were functioning at cognitive effectiveness levels below 80 (a level determined unsafe). Customized fatigue mitigation was conducted to address the issue. A post assessment across three centers indicated that FS mitigation resulted in a reduction of approximately 17% overall, with one center reporting a fatigue reduction of a full 39%. To date, one of the largest air carriers has decided to implement the program and 14 other major aviation companies have expressed a strong interest in similar programs. Another sector successfully engaged has been in the energy and mining sectors in Australia and Tasmania (in conjunction with Healthy Business in Tasmania). Utilizing follow-on funds, FS has gathered $775,000 in leverage, hiredfive employees and accrued revenue of $280,874. *(UPDATED FIGURES: In May 2010, FS updated their figures to 6 hired and $587,845 in revenues after submission of their final report in Feburary 2010.)*
Makai Ocean Engineering	4D Visualization Software: GIS Integration and Commercialization	$300,000.00	Makai Ocean Engineering has successfully developed a high performance 3D/4D visualization engine capable of displaying large amounts of terrain and volumetric data on a standard PC workstation. The performance engine surpasses any visualization technology available today - to display the same amount of data at a high interactive rate (>10fps) requires the use of a supercomputer or parallel system. Makai proposed to commercialize this technology by interfacing the visualization engine with InService - a comprehensive package of GIS-based tools from Intergraph used to manage, analyze, and maintain the operational efficiency of the utility network. Makai teamed up with Intergraph Corporation, a leading global provider of geospatially powered solutions to defense and intelligence, public safety, government, transportation, photogrammertry, utilities, and communications industries. The commercialization of the technology was presented to the Hawaiian Electric Company, and, if successful, will be expanded to other utility companies. In October 2009, Makai started participation in the Lockheed Martin Mentor Protege Program, a Department of Defense initiative designed to help protege companies such as Makai to qualify to compete for business. Early in the Lockheed-Makai relationship, several potential transition opportunities were identified. Makai Engineering was able to hire two employees and secure $1,900,000 in leverage.

ROUND ONE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Oceanit Laboratories, Inc.	LiquidWeb Admixture for Nano Concrete	$225,000.00	Oceanit's patented nanomaterial based admixture can be used to transform concrete into multifunctional nanoconcrete. The admixture is a stable dispersion composed of carbon nanotubes and a surfactant that can be directly mixed with other common concrete ingredients to make nanoconcrete. It has been shown that with an ~8% increase in cost LiquidWeb can provide high strength, durability and sensing capabilities. The carbon nanotubes form a continuous network in the concrete bulk, bridging cracks to prevent propagation and improving the compression and flexural strength. It should be noted that the concentration of nanotubes required to achieve good electrical response is different than the optimum for best mechanical strength. Further refinement is necessary to strike a perfect balance between both properties. In summary, Oceanit's LiquidWeb admixture based nanoconcrete exhibits: 1) 20% improvement in compression strength; 2) reversible load sensing through electrical signs; and, 3) structural health monitoring capability. With support from HTDV and Oceanit's internal R&D funding, the LiquidWeb team addressed major issues in the synthesis of LiquidWeb and produced samples for characterization and testing. Successful results will lead to a Hawaii-based startup with potential to revolutionize "green" and traditional building materials industries. Oceanit achieved several key milestones during the duration of the State follow-on-funding contract: 1) Tested strength and flexure at BASF. This has put Oceanit in a position to test durability at BASF SE (Germany) and potential BASF Venture funding (potential series A funding round); 2) Incorporated LiquidWeb as a Delaware company; 3) Secured Nanite as a registered trade mark; 4) Obtained a patent for Multifunctional Cementitious Nanocomposite Material and Methods of Making Same (US patent #7,666,327); 5) Produced the LiquidWeb product sheet; 6) Produced the LiquidWeb Material Safety Data Sheet; and, 7) Launched Nanite-Tech.com web site. The State follow-on-funding has helped position LiquidWeb for commercialization. The initial $10,000 investment from the Oceanit Innovation Fund led to key discoveries, two patent filings and ASTM testing. The $225,000 follow-on-funding led to key milestones in BASF lab testing, potential customers and investors. Most importantly this directly contributed to the $16 million national transportation safety customer with a potential for a further $5 million contract.
SEE/RESCUE	Commercialization of the Patented MiniRESCUE POCKET/FLOAT	$44,660.00	The MINIRESCUE™ PocktFloat® is a compact inflatable emergency floatation device with an incorporated radio distress signal that can be carried "on your person" in military, commercial, and recreational environments. MINIRESCUE™ PocketFloat® provides opportunities in a multitude of life-saving and recreational market sectors that will be exploited via sub-contractor Aqua Lung's International distribution network. SEE/RESCUE finalized its product design and engineering and ran successful sea trials of the production unit. The units performed the designed goal of providing a simple means to provide an emergency floatation mechanism for a person inadvertently finding themselves in water and were able to withstand exposure to the sun, saltwater, wind, and high moisture ocean environments. Packaging and marketing materials were designed and the effort utilized Aqua Lung logo and artwork design strategies. A full initial production run and associated packaging for distribution was undertaken successfully, and final stage production runs were completed by adding on materials to assure the system would be able to fully function in rough seas. Aqua Lung supplied the product run into its distribution system and SEE/RESCUE was able to generate positive results during the Cobra Gold 10 in Thailand. Subsequently, an analysis of initial potential sales performance for future distribution was performed.

ROUND ONE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
SEE/RESCUE	Commercialization of the Patented Emergency Pocket Water DeSalinator	$49,660.00	The Emergency Pocket Water DeSalinator™ is a compact emergency solar water desalination device that can be carried "on your person" in military, commercial, and recreational environments. The Emergency Pocket Water DeSalinator™ provides opportunities in a multitude of life saving and recreational market sectors that will be exploited via sub-contractor Aqua Lung's International distribution network. SEE/RESCUE finalized its product design and was able to successfully produce a DeSalinator unit that is able to produce ~20ml of fresh water - a "mouthful" that can be repeated throughout the day in open ocean. Survivors have shown that such amounts of fresh water are adequate for survival. Packaging and marketing materials were produced with the effort utilizing Aqua Lung logos and artwork design strategies. After the completion of its initial production run, SEE/RESCUE successfully demonstrated the DeSalinator at Cobra Gold 10 in Thailand. Aqua Lung has supplied the initial product run into its distribution system and will be leveraging SEE/RESCUE's highly successful RescueStreamer product line in its initial promotion and marketing.
		$1,504,558.00	TOTAL EXPENDED FOR ROUND ONE

ROUND TWO PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Innovative Technical Solutions, Inc.	EOD Lasercomm	$299,956.00	Novasol sought to productize its Lasercomm interrogator, used for free space optical communication, to meet the urgent need of explosive ordnance disposal (EOD) teams for a wireless, high-bandwidth robot communications and control technology that does not rely on radio transmissions. The product was recast to a purpose-designed, low-parts-count solution to offer a lower cost product that fully meets all user requirements. State follow-on-funding contributed directly to NovaSol's successful marketing efforts, through subsidizing several valuable marketing trips to meet with EOD decision makers and development funders. Funding also provided indirect but crucial support to the marketing effort as the technology demonstrator was built and tested. NovaSol received a $680,000 contract to supply EOD-specific interrogators to NAVEODTECHDIV and will continue its marketing efforts with vigor.
Innovative Technical Solutions, Inc.	MiniARCHER	$250,237.00	MiniARCHER is a low power, light weight, compact HyperSpectral Imaging (HIS) system for deployment on small aircraft and Unmanned Aerial Vehicles (UAVs) for missions ranging from Intelligence, Reconnaissance and Surveillance (ISR) to environmental monitoring and Search and Rescue (SAR). MiniARCHER inherited critical processing components from the HTDV's MFP and CEROS' CASE programs and combined them with Novasol's in-house miniaturized sensor developments for a system that is directly traceable to the successful and widely recognized ARCHER® system. The end commercial product of the program is a versatile HIS reconnaissance and data acquisition system that is user friendly, and readily and cost-effectively reproduced. In particular, the miniARCHER allows the rapidly expanding fleet of small military UAVs to take advantage of the powerful target detection and environment discrimination inherent to HSI sensing. The miniARCHER system is a commercial turnkey product ready for sale. NAVAIR provided $370,000 in funding for the development of a very rugged miniARCHER system to operate in the harsh desert environments typical of today's deployments. A Technical Assistance Agreement (TAA) between NEC Corporation of Japan and Novasol has been approved by the U.S. State Department allowing NEC to sell Novasol products in Japan and Asia.
Nanopoint, Inc.	CT20000 Fluidics Imaging System	$300,000.00	Nanopoint is a privately-held biotechnology company that has developed a microfluidics system capable of culturing live cells and imaging them over extended periods of time. A new application for microfluidics is in the Assisted Reproductive Technology (ART) field. Nanopoint's CT-2000 Fluidics System is the only commercially available microfluidics device that can address the needs of the In Vitro Fertilization (IVF) community. Nanopoint has used investor funds to open the market in the U.S. and is now well-positioned to broaden its worldwide reach by implementing its European marketing and sales strategy. Nanopoint used the State follow-on-funding to broaden its reach in market and sales efforts of its CT-2000 Fluidics system to the European assisted reproduction (ART) market, as well as the Asian drug discovery and ART markets. The funding was also used for Nanopoint brand awareness, lead generation, distributor recruitment and training, early adopter customer recruitment and training, and building systems for deployment to European distributors and customers to help accelerate worldwide revenue growth. By leveraging the combination of investor funds and follow-on-funds, Nanopoint accelerated worldwide introduction beyond Europe of its products, and generated worldwide revenue while enabling the obtaining of additional investor funding to scale its operations.

ROUND TWO PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Oceanit Laboratories	Inspecta for Emergency Damage Assessment	$275,000.00	Oceanit designed, developed, and implemented a damage assessment system for the Hawaii State Civil Defense (HSCD). The system is a fully functional system implemented as a pilot program that allowed HSCD and the Hawaii National Guard (HNG) to evaluate the effectiveness of the system as a potential statewide emergency damage assessment tool. The objectives of the effort were: 1) develop an Inspecta application for the Apple iPhone that will collect damage assessment data including photographs, GPS location, voice annotations, and electronic form data; 2) develop synchronization capabilities to download iPhone data to a Microsoft SQL Server database; 3) customize the Inspecta system (asset management, GIS mapping, photo libraries, document management, and reporting for damage assessment; and 4) create a workflow tasking system that flows down from the damage assessment, request for assistance, mission planning, and project closeout. Benefits of this effort include: 1) low risk pilot program that is successful and can be deployed statewide; 2) standardized data gathering procedures and workflows. The mobile data collection tool will establish consistent data gathering procedures and workflows that inspectors and engineers can follow and thus facilitate greater consistency in data collection methods and practices used by damage assessment personnel, irrespective of their level of expertise or experience; 3) geocoded digital imagery. Digital images will be encoded with GPS data (based upon GPS signal availability), which will greatly improve the accuracy of, and reduce the effort involved in image association with locations; 4) command center updates direct from the field. Field damage assessment reports, which include digital images and voice annotations, are transmitted back to the central command center for analysis and comparison with other damage assessment reports using wireless broadband. More timely updates resulted in enhanced decision making capabilities and faster deployment of appropriate resources to prioritized locations; and, 5) GIS Integration. Damage assessment reports are presented geographically thereby offering rapid data visualization of locations that have sustained damage. The State follow-on-funding helped Inspecta create an enhanced mobile assessment tool on the iPhone platform as well as a rich web server data management product. Data collected from iPhones in the field can be rapidly viewed and summarized on the web server product. This data can be exported in formats accessible by applications such as Microsoft Excel and Google Earth.
Oceanit Laboratories	Wind 3D-Oceanit's Wind Lidar	$300,000.00	Wind power is one of the fastest growing forms of electricity generation in the U.S. In 2007, 35% of all new generation capacity added to the U.S. electric grid was from wind power projects. Generating electricity from wind is both technically and economically feasible. Wind power has many advantages, including the reduction in the demand of fossil fuels which reduces pressure on fuel prices, but also reduces environmental pollution, CO_2 emissions, water consumption for plant cooling, while creating U.S. jobs and domestic energy independence. Oceanit requested $300,000 for the development and demonstration of a ground-based Wind LIDAR system for Pacific Wind, one of over 100 wind power developers in the U.S. Successful results can create a business to fill the need for comprehensive, sophisticated, and validated information for site prospectors, project financiers, turbine manufacturers, and electrical utilities. Utilizing follow-on-funding, Oceanit has submitted multiple proposals and is continuously looking for wind survey customers. Oceanit was able to help HECO/AWS secure funding for a wind forecasting project, as well as negotiate participation timing in an upcoming forecasting project. Oceanit has hired one full-time optical engineer, andMDA has expressed interest in the system with follow-up exchanges in progress. Oceanit is currently exploring further leads in the civilian market and will be micro-sitting opportunities with multiple Wind development partners.

ROUND TWO PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Referentia Systems, Inc.	Time Series; Rapid Exploration (T-REX) Commercialization	$299,995.73	The Time Series Rapid Exploration (T-REX) Commercialization project resulted in two specific enhancements to the existing T-REX product. The first is an enhanced version of the T-REX software including ease of use features (i.e., pre-packaged visual analysis tools) and ease of deployment tools (i.e., installation wizard and user documentation) which will facilitate customer adoption. The second was a successful evaluation of T-REX software by potential users such as Boeing and NAVSEA that will result in immediate license sales. T-REX was deployed into an operational environment at Maui Electric Company (MECO) and is efficiently warehousing data sets on server hardware enabling efficient and scalable knowledge discovery from the volumes of data gathered during complex systems operations. Results have shown increased storage efficiency with a 20x size reduction and a 375x improvement in query speed over the historical RDBMS database. Marketing plans (which include a product development plan) have been developed and will continue to drive the commercialization of T-REX.
SEE/RESCUE Corporation	Commercialization of Patented LIFE/FLOAT Rescue Board	$201,500.00	SEE/RESCUE sought the commercialization of the CEROS-funded and patented LIFE/FLOAT™ Rescue Board™ to provide opportunities in a multitude of life-saving and recreational market sectors that can be exploited via Team Partner Aqua Lung's International distribution system. Aqua Lung's network of companies will also provide manufacturing expertise. A visit to a Korean factory to work out terms for the prototype base construction was undertaken and the result was two separate construction unit types based on market needs. The final drawings and layout of the initial product prototype were provided to the factory for construction. With the completion of the production prototype, sea trials showed that the product is able to support a prone human with excellent results. The product paddles well and is able to withstand towing at high speeds by motorboat. Aqua Lung supplied the initial product run and supportive material into its distribution system.
Terasys Technologies, LLC	Commercialization of Fixed Frequency RF Absorbtive Filter	$198,496.00	Commercialization of the Fixed Frequency RAF, Terasys Technologies' first product, was developed with the support of HTDV and a Phase I NAVSEA SBIR. The project plan was to develop a detailed marketing plan, build a family of product samples and data sheets, and make contact with decision makers both within the U.S. military and commercial vendors that service the military. The goal of product commercialization was achieved by: 1) the capturing of additional R&D funding to take the technology further; 2) securing of the first commercial purchase order from Syracuse Research Corp; 3) involvement in a high priority Department of Defense project, which if successful could result in a production order exceeding 10,000 units; 4) the writing of a "white paper" that will be used as the cornerstone of the marketing campaign; and, 5) the revamping of the website to focus efforts on being a solution provider for RF CoSite Interference.
		$2,125,184.73	TOTAL EXPENDED FOR ROUND TWO

ROUND THREE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Archinoetics	Corvid Video Analytics	$189,943.00	At present, the network video surveillance market offers no good software solutions for analyzing video feeds from pan-tilt-zoom cameras, and also lacks good solutions for analyzing outdoor scenes - particularly scenes of marine environments. Using HTDV funding, Archinoetics developed its cutting edge TREE video analytics system which consists of two main algorithms: 1) an algorithm for identifying and tracking scenes in pan-tilt-zoom cameras tours; and, 2) an algorithm that learns to identify objects from example photographs. With State follow-on-funding, Archinoetics transitioned its TREE video analytics algorithms into a commercially viable product by adding key features and by integrating with existing market-leading security packages. The key features added include a graphical user interface; a vastly expanded repertoire of objects to detect; an image stabilizer module; and the ability to set rules that define the conditions under which alerts should be triggered. Archinoetics planned to integrate its software with one or both of Lenel OnGuard and OnSSI Ocularis, thereby gaining access to the established marketing and sales channels of dominant video surveillance and security sites. The project focused on the commercialization of the Corvid project, and work completed culminated in a pilot installation at the City and County's Fasi Municipal Building. This integrated into the existing network of surveillance cameras and Lenel OnGuard 2009. Lenel granted Archinoetics official certification for 2008 and 2009. This certification acts as an assurance to the market as to the quality of the Corvid product and its integration with Lenel OnGuard. Certification also led to a formal product announcement by Lenel to its 500+ VARS and over 15,000 customers. A successful demonstration to Lenel representatives resulted in the potential for integration into installations in Southern California. Corvid will continue to develop toward commercialization through a Phase II SBIR focused on the algorithms that drive the object detection feature. The Corvid analytics algorithm has also been leveraged in an application to DARPA for expansion of work completed to date.
Hawaii Hydrogen Carriers	Commercialization of a Solid-State Hydrogen Storage System for PEM Fuel Powered Forklifts	$95,100.00	Hawaii Hydrogen Carriers (HHC) developed scale-up synthesis capabilities for advanced hydrogen storage materials. HHC's expertise with commercial production and handling of hydrogen storage materials led us to win contracts from the military and private industry. Since the previous award from HTDV, HHC has expanded its activities to include: the design of prototype solid, hydrogen storage systems, and interface engineering of hydrogen storage systems and fuel cells for operation in complete, operating vehicles. This product will bring to the market place a version of a hydrogen storage system that is modified for PEM fuel cell (PEMFC) powered fork trucks. Currently, thousands of battery-powered forklifts are used in factories and warehouses where it is desirable to operate zero emission vehicles. However, there is a general dissatisfaction with the productivity limitations, safety issues, and charging floor space associated with battery power. HHC proposed the development of a low cost, low-pressure, metal hydride-based hydrogen storage system that eliminates the safe concerns associated with high-pressure gaseous storage systems. HHC's solid-state storage system also extends the operating time between re-charges, improves the general accessibility and safety of the PEMFC technology. The proposed project will allow HHC to demonstrate the practical feasibility of teaming with interested fuel cell manufacturers. The completion of this project will be directly followed by a demand to produce dozens of our systems for fuel cell powered fork trucks test fleets, thus enabling rapid entry into the relatively unpenetrated, $3 billion-per-year market for PEMFC powered forklifts and eventual expansion into the $45 billion-per-year market for all low speed vehicles including farm tractors, postal vehicles, and mining machinery. The main emphasis of the project was to design and produce a system that utilizes much lower cost components than previous prototypes while still meeting the performance requirements of the system. At the beginning of the project the TRL was 3. HHC is confident that the hydrogen tank has reached TRL of 5 at project's end. Although testing showed that a TRL of 7 could be possible, the complete integrated system is still in need of "validation." Funding has been secured through the Department of Energy SBIR program to continue validation of the system in real world and simulated environments.

ROUND THREE PROJECT SUMMARIES

COMPANY	PROJECT TITLE	TOTAL EXPENDED	PROJECT FINAL REPORT SUMMARY
Kuehnle Agrosystems	Algae Biomass to Oil Transition	$200,000.00	The project proposed to significantly enhance product development of algae-based oil as a petrochemical substitute for sustainable fuel supply, and to demonstrate the utility of enriched production water and dissolved air flotation as a means for continuous algae biomass generation and harvest for oil extraction. This system, already operational, will be evaluated for its commercial risk for oil production based on underlying technical inputs and improvements, ability to scale, and expanding operational opportunities in conjunction with Department of Defense transition partners. The project significantly enhanced the product development of algae-based fuel as a petroleum substitute for sustainable fuel supply. Successful demonstration of algae-rich "greeenwater" cultivated in shrimp ponds highly suitable for biofuel production was achieved. Commercial risk for biofuel production appears low with a capital investment and operation profitability expected within a two-year period. Additionally, the project presents a strategic opportunity of interest to the U.S. Pacific Command. Utilizing the State follow-on-funding, Kuehnle Agrosystems generated $36,000 in revenue and hired three employees in the high-tech sector.
Pipeline Micro	Heat Sinks	$200,190.33	Since late last year, Pipline Micro has won three NRE contracts from three major global companies in the electronic industry. Currently, all three contracts produced prototypes for proof of validation of the technology in their respective in-situ product forms, and are all in the final evaluation stage. To further evaluate, Pipline Micro needed to carry out more systematic, empirical analyses, and develop a number of software and hardware tools for parametric testing and performance validation will inevitably advance commercialization efforts of the stable flow, two-phase liquid cooling systems. The proposed project will lead to the conclusion of possible adaptation of skiving technology heat sink production that is high-speed and low cost by producing a total of 24 samples of skived heat-sinks with seven designs of different thermal requirements and milling ratio. Pipeline Micro has shown it is feasible to use micro-deformed heat sinks to replace micro-milled heat sinks in its two-phase liquid cooling system. For high volume production, the manufacturing cost of MDT heat sink is less by two orders of magnitude than the cost of micro-milled heat sink. In summary, micro-deformed heat sinks as compared to micro-milled heat sinks have the following characteristics: 1) similar thermal performance; 2) reduction of manufacturing cost by 99%; and, 3) higher aspect ratio MCHS (up to 15:1).
Williams Aerospace	Unmanned Aerial System (UAS) Products	$185,000.00	Williams Aerospace proposed project utilized follow-on-funding to assist in the advancement and development, transition and commercialization of two previously funded HTDV/ONR UAS projects. The funding along with local, private investment and partnering efforts with prime vendors transitioned these systems into a product offering to DoD customers and into the small UAV (Tier 1) market as a "next generation" aircraft system. The Nano Shrike II and Night Stalker II UAS have both been demonstrated to USMC and USA personnel, and were evaluated by MARFORPAC MEC during the Cobra Gold and Balikatan military exercises in 2009. This funding will also present a unique opportunity for all Hawaii-based high technology companies developing UAV-related products, and as the prime contractor WA will seek local companies and their technology as a part of integration efforts into WA aircraft. Last, and more importantly, funding was a first step in allowing WA to expand its workforce, and to increase state revenues through future sales of the aircraft to U.S. DoD markets. Project goals and objectives were met and exceeded with the exception of the NMSU flight operations intended to assist in the establishment of an Air Worthiness (AW) Certification for the UAS, which will be funded privately. Both prototypes - Snoopy and NightStalker - have market potential in their current form and plans to exploit military and commercial opportunities are formulated.
		$870,233.33	TOTAL EXPENDED FOR ROUND THREE

ATTACHMENT F

Program Metrics and Evaluation

ATTACHMENT F
FOLLOW-ON-FUNDING METRICS

Round	Project	Increase Revenue by 25%	Revenue Reported or Anticipated	Hired Employees	Anticipated Hiring	Total Employees Hired or Anticipated	Transfer to Acquisition Cycle	Develop Commercial Product	Leverage by 2x Assistance Provided or Negotiating	Actual Leverage Amount	Leverage Currently Negotiating	Total Leverage
1	Cellular Bioengineering, Inc.	YES	not reported	1	0	1	YES	YES	YES			not reported
1	Concentris Systems, LLC	YES	$1,380,000	5	0	5	YES	YES	YES	$780,000	$1,500,000	$2,280,000
1	Fatigue Science[1]	YES	$587,845	6	16	22	YES	YES	YES	$775,000	$500,000	$1,275,000
1	Makai Ocean Engineering	NO	not reported	4	1	5	YES	YES	YES	$1,900,000		$1,900,000
1	Oceanit Laboratories, Inc. - LiquidWeb	NO	not reported	2	1	3	YES	YES	YES		$3,250,000	$3,250,000
1	SEE/RESCUE - DeSalinator	YES	not reported	5	0	5	YES	YES	YES			not reported
1	SEE/RESCUE - PocketFloat[2]	YES	not reported	0	0	0	YES	YES	YES			not reported
2	Innovative Technical Solutions - EOD	YES	not reported	0	17	17	PENDING	NO	YES		$1,500,000	$1,500,000
2	Innovative Technical Solutions - Mini	NO		0	0	0	NO	NO	NO	$370,000		$370,000
2	Nanopoint, Inc.	YES	$125,000	1	0	1	NO	YES	YES	$573,000		$573,000
2	Oceanit Laboratories, Inc. - Inspecta	YES	$16,000,000	3	0	3	YES	YES	YES	$16,000,000		$16,000,000
2	Oceanit Laboratories, Inc. - WIND	YES	not reported	1	1	2	YES	YES	YES			not reported
2	Referentia Systems, Inc.	YES	$1,117,000	2	0	2	YES	YES	YES	$1,117,000		$1,117,000
2	SEE/RESCUE Corporation - LifeFloat[2]	YES	not reported	0	0	0	YES	YES	YES			not reported
2	TeraSys Technologies, LLC	YES	$1,255,000	3	0	3	PENDING	YES	YES	$1,255,000		$1,255,000
3	Archinoetics	NO		0	0	0	PENDING	YES	YES		$3,000,000	$3,000,000
3	Hawaii Hydrogen Carriers	YES	$100,000	4	0	4	YES	YES	YES	$100,000	$2,500,000	$2,600,000
3	Kuehnle Agrosystems	YES	$36,000	3	0	3	YES	YES	YES			not reported
3	Pipeline Micro, Inc.	NO	$25,000	6	0	6	NO	NO	YES	$450,000		$450,000
3	Williams Aerospace	YES	$672,219	9	5	14	YES	YES	YES	$120,000	$3,500,000	$3,620,000
COMMITMENT		**12**				**90**	**5**	**5**	**5**			
TOTALS	**YES/TOTALS**	**12**	**$21,298,064**	**55**	**42**	**97**	**12**	**13**	**15**	**$23,440,000**	**$15,750,000**	**$39,190,000**
	PERCENTAGE OF COMMITMENT	**100%**				**108%**	**240%**	**260%**	**300%**			**784%**
	TOTAL FUNDING AMOUNT											**$5,000,000**

Average Annual Salaries		$68,000
Total Payroll		$6,596,000
Payroll Tax		0.0425
State Payroll Tax Contribution		$280,330
Actual and Anticipated Leverage	$39,190,000	
GET	0.04	
Total GET Contribution	$1,567,600	
Total Contribution (Payroll/GET)	$1,847,930	

[1] Figures for Fatigue Science were updated in May 2010, after the submission of their final report in February 2010.

[2] Refer to SEE/RESCUE - DeSalinator project for employee counts.

STATE FOLLOW-ON-FUNDING METRICS SUMMARY ANALYSIS

Metrics Summary

1. At least 12 companies will increase revenue by 25%

    a. 12 companies, 15 of 20 projects, reported an increase in their revenue by 25%

    b. 10 companies exceeded more than 25% increase in revenue totaling $21,298,064

Concentris Systems	$1,380,000
Fatigue Science	$587,345
Hawaii Hydrogen Carriers	$100,000
Kuehnle Agrosystems	$36,000
Nanopoint	$125,000
Oceanit – Inspecta	$16,000,000
Pipeline Micro	$25,000
Referentia Systems	$1,117,000
TeraSys Technologies	$1,255,000
Williams Aerospace	$672,219

2. 15 eligible companies will increase direct employment by 90 employees

    a. 15 companies will increase direct employment
        - 14 companies, 18 of the 20 projects, reported that they hired or anticipate hiring one or more employees

    b. Eligible companies will increase direct employment by 90 employees
        - A total of 55 employees actually hired to date
        - Companies reported anticipated hiring 42 additional employees based on positions created through FOF efforts
        - New employees hired (55) and anticipated hiring (42) totaled 97

3. At least 5 companies transfer to acquisition cycle

    a. 9 companies, 14 of 20 projects, reported successful transition into the acquisition cycle, with 3 companies currently pending

4. At least 5 companies will have the development of commercial product

    a. 13 companies reported their product has moved into the commercial product phase

5. At least 5 companies will leverage twice the amount of assistance provided

   a. 15 companies, 19 of 20 projects, reported leverage of twice the amount of FOF assistance provided

   b. Amount of Leverage

      - Actual Leverage - 11 companies reported the following leverage amounts for a total of $23,440,000 in actual leverage raised:

Concentris Systems	$780,000
Fatigue Science	$775,000
Hawaii Hydrogen Carriers	$100,000
ITS Novasol –MiniArcher	$370,000
Makai Ocean Engineering	$1,900,000
Nanopoint	$573,000
Oceanit – Inspecta	$16,000,000
Referentia Systems	$1,117,000
TeraSys Technologies	$1,255,000
Pipeline Micro	$450,000
Williams Aerospace	$120,000

      - Anticipated Leverage - 7 companies reported that they are currently negotiating leverage amounts for an additional total of $15,750,00

Archinoetics	$3,000,000
Concentris Systems	$1,500,000
Fatigue Science	$500,000
Hawaii Hydrogen Carriers	$2,500,000
ITS Novasol – EOD	$1,500,000
Oceanit – LiquidWeb	$3,250,000
Williams Aerospace	$3,500,000

      - Total Leverage (Actual and Anticipated) = $39,190,000

Metrics Analysis and Contribution to State Revenue

1. State Payroll Tax Contribution

    a. Average annual salary of $68,000 for a total of 97 actual and anticipated jobs

    b. Total annual payroll = $6,596,000

    c. State payroll tax contribution percentage = 4.25% (based on 2009)

    d. Total State payroll tax contribution based on 97 actual and anticipated jobs created = $280,330 to the State general fund

2. State GET Contribution

    a. $39,190,000 (actual and anticipated leverage) x 4% = $1,567,600 to the State general fund

    b. Total Contribution (Payroll, GET) = $1,847,930 to the State general fund

3. State corporate tax contributions based on net profit can also be considered a source of additional revenue to the State, although it is difficult to define without the companies' reporting of such information.