SONEX RESEARCH INC
Form 10KSB
May 15, 2002

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-QSB

QUARTERLY REPORT UNDER SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended March 31, 2002.

SONEX RESEARCH, INC.

Incorporated in the State of Maryland
23 Hudson Street
Annapolis, Maryland 21401

Telephone Number: (410) 266-5556
IRS Employer Identification No. 52-1188993

Commission file number 0-14465

Check whether the Issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days.

YES [x] NO [ ]

There were 21,572,669 shares of the Issuer's $.01 par value Common Stock outstanding at May 15, 2002.

SONEX RESEARCH, INC. FORM 10-QSB

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS (Unaudited)

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of Sonex Research, Inc.

We have reviewed the condensed financial statements appearing on pages 3 through 12 of this Form 10Q-SB Quarterly Report of Sonex Research, Inc. (the "Company") as of March 31, 2002. These financial statements are the responsibility of the Company's management.

We conducted our review in accordance with standards established by the American Institute of Certified Public Accountants. A review of interim financial information consists principally of applying analytical procedures to financial data and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with generally accepted auditing standards, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statements for them to be in conformity with generally accepted accounting principles.

We previously audited, in accordance with generally accepted auditing standards, the balance sheet as of December 31, 2001, and the related statements of operations and accumulated deficit and cash flows for the year then ended (the "audited financial statements", not presented herein), and in our report dated April 10, 2002, we expressed an unqualified opinion on those financial statements. We also stated that the audited financial statements were prepared assuming that the Company will continue as a going concern; however, as described in Note 3 to the audited financial statements, the Company has incurred significant net losses since its inception and its ability to commence generation of significant revenue and ultimately achieve profitable operations raise substantial doubt about the Company's ability to continue as a going concern. The audited financial statements and the accompanying condensed financial statements do not include any adjustments that might result from the outcome of this uncertainty.

C. L. STEWART & COMPANY
Annapolis, Maryland
May 15, 2002

SONEX RESEARCH, INC.
CONDENSED BALANCE SHEETS
(Unaudited)

ASSETS	March 31, 2002	December 31, 2001

Current assets		
Cash and equivalents	$ 28,086	$ 3,355
Accounts receivable	25,870	37,828
Prepaid expenses	23,887	25,783
Loans to officers and employees	22,500	22,500
Total current assets	100,343	89,466
Notes receivable from officers and employees	18,125	18,125
Patents and technology, net of accumulated amortization of $51,955 in 2002 and $47,155 in 2001	200,585	204,088
Property and equipment, net of accumulated depreciation of $444,672 in 2002 and $440,472 in 2001	53,049	57,249
Total assets	$ 372,102	$ 368,928
LIABILITIES AND STOCKHOLDERS' EQUITY/(DEFICIT)		
Current liabilities		
Accounts payable and other accrued liabilities	$ 71,128	$ 46,923
Convertible note to shareholder	6,000	
Accrued compensation and benefits	245,555	221,228
Total current liabilities	322,683	268,151
Deferred compensation	870,625	857,944
Stockholders' equity/(deficit)		
Preferred stock, $.01 par value - 2,000,000 shares issued; 1,540,001 shares outstanding	15,400	15,400
Common stock, $.01 par value - shares issued and outstanding: 21,572,669 in 2002 and 21,212,669 in 2001	215,727	212,127
Additional paid-in capital	21,392,602	21,334,577
Accumulated deficit	(22,444,935)	(22,319,271)
Total stockholders' equity/(deficit)	(821,206)	(757,167)
Commitments (Note 9)		
Total liabilities and stockholders' equity	$ 372,102	$ 368,928

The accompanying notes are an integral part of the financial statements.

SONEX RESEARCH, INC.
CONDENSED STATEMENTS OF OPERATIONS AND ACCUMULATED DEFICIT
(Unaudited)

	Three months ended March 31,	
	2002	2001

Revenue		
Defense	$ 35,870	
Commercial		$ 25,000
	35,870	25,000
Costs and expenses		
Cost of revenue	25,547	9,321
Research and development	71,505	131,876
General and administrative	64,490	78,650
	161,542	219,847
Net loss from operations	(125,672)	(194,847)
Other income and expense		
Investment and other income	8	958
Gain on sale of marketable securities		
Net loss	(125,664)	(193,889)
Accumulated deficit		
Beginning of period	(22,319,271)	(21,628,916)
End of period	$(22,444,935)	$(21,822,805)
Weighted average number of common shares outstanding	21,224,669	19,487,141
Net loss per share	$.006	$.010

The accompanying notes are an integral part of the financial statements.

SONEX RESEARCH, INC.
CONDENSED STATEMENTS OF PAID-IN CAPITAL
(Unaudited)

	Price per share	Preferred stock ($.01 par value) Shares	Amount	Common stock ($.01 par value) Shares	Amount	Additional paid-in capital
Balance, January 1, 2000		1,540,001	$15,400	18,008,169	$180,082	$20,430,476
February exercise of warrants	.35			285,000	2,850	96,900
March for services	.40			24,130	241	10,125
June exercise of warrants	.375			196,667	1,967	71,783
June exercise of warrants						

for notes	.375			48,333	483	17,642
June for services	.41			31,538	315	12,695
September for services	.24			56,877	569	13,181
December private placement	.25			775,000	7,750	186,000
December for services	.25			54,154	542	12,996
Stock option compensation						45,875
Amortization of deferred compensation from grant of stock options						29,764
Balance, December 31, 2000		1,540,001	15,400	19,479,868	194,799	20,927,437
March private placement	.25			300,000	3,000	72,000
March for services	.25			54,577	546	13,099
April private placement	.25			125,000	1,250	30,000
June private placement	.20			325,000	3,250	61,750
June for services	.29			44,916	449	12,667
August payment of stock subscription	.20			25,000	250	4,750
September for services	.25			55,000	550	13,200
October private placement	.15			750,000	7,500	105,000
December for services	.25			53,308	533	12,794
December forgiveness of payables						10,000
Stock option compensation						42,120
Amortization of deferred compensation from grant of stock options						29,761
Balance, December 31, 2001		1,540,001	15,400	21,212,669	212,127	21,334,577
March private placement	.15			360,000	3,600	50,400
Stock option compensation						7,625
Balance, March 31, 2002		1,540,001	$15,400	21,572,669	$215,727	$21,392,602

The accompanying notes are an integral part of the financial statements.

SONEX RESEARCH, INC.
CONDENSED STATEMENTS OF CASH FLOWS
(Unaudited)

	Three months ended March 31,	
	2002	2001
Cash flows from operating activities		
Net loss	$ (125,664)	$ (193,889)
Adjustments to reconcile net loss to net cash used by operating activities		
Depreciation	4,200	4,500
Amortization of patents	4,800	3,800
Amortization of deferred compensation from stock options		7,440
Current charges paid in stock or options	7,625	21,145
(Increase) decrease in accounts receivable	11,958	17,340
(Increase) decrease in prepaid expenses	1,896	2,701

Increase (decrease) in current liabilities	48,532	29,434
Increase (decrease) in deferred compensation	12,681	12,681
Net cash used in operating activities	(33,972)	(94,848)
Cash flows from investing activities		
Acquisition of property and equipment		
Additions to patents and technology	(1,297)	(10,722)
Net cash provided by (used in) investing activities	(1,297)	(10,722)
Cash flows from financing activities		
Issuance of convertible note	6,000	
Issuance of stock - private placement	54,000	75,000
Net cash provided by financing activities	60,000	75,000
Increase (decrease) in cash	24,731	(30,570)
Cash		
Beginning of period	3,355	89,306
End of period	$ 28,086	$ 58,736

The accompanying notes are an integral part of the financial statements.

SONEX RESEARCH, INC
NOTES TO CONDENSED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1 - THE COMPANY

Sonex Research, Inc. has developed a proprietary technology, known as the Sonex Combustion System (SCS), which improves the combustion of fuel in internal combustion engines through modification of the pistons in large engines or the cylinder heads in small engines. The SCS achieves in-cylinder control of ignition and combustion to increase fuel mileage of gasoline engines, reduce emissions of diesel engines, and permit small gasoline engines to run on safer diesel-type fuels. The Company's objective is to execute broad agreements with engine and parts manufacturers for industrial production of SCS components under license from Sonex.

NOTE 2 - PRESENTATION OF FINANCIAL STATEMENTS

The accompanying unaudited condensed financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-QSB and Item 310(b) of Regulation S-B. Accordingly, these financial statements do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a

fair presentation have been included.

Operating results for the three month period ended March 31, 2002 are not necessarily indicative of the results that may be expected for the year ending December 31, 2002. For further information, reference is made to the financial statements and notes thereto included in the Company's Annual Report on Form 10-KSB for the year ended December 31, 2001.

NOTE 3 - LIQUIDITY

Management recognizes that the Company's history of operating losses, level of available funds, and revenue from current and future development contracts, in relation to projected expenditures, raise substantial doubt as to the Company's ability to commence generation of significant revenues from the commercialization of the SCS and ultimately achieve profitable operations. Accordingly, the Company will continue to minimize its operating expenditures through a number of measures, including the continued deferral by its officers of portions of their salaries.

As further described in Note 6, in a private placement at the end of March 2002 the Company raised capital of $60,000, including $27,000 in cash investments, $27,000 from the conversion to equity of accrued liabilities, and cash proceeds of $6,000 through the issuance of a short-term convertible note. Also at the end of March 2002, the Company received a purchase order of approximately $92,000 from a defense contractor for a four-month effort to develop a small heavy fuel engine for an experimental unmanned aerial vehicle.

Based upon available resources, current and projected spending levels, and expected revenue from current and anticipated contracts, management believes the Company will have sufficient capital to fund operations through June 30, 2002. The Company's prospects beyond that date are dependent upon its ability to enter into significant funded contracts for the further development of its SCS technology, establish joint ventures or strategic partnerships with major industrial concerns, or secure a major capital infusion. There is no assurance that the Company will be able to achieve these objectives.

NOTE 4 - PATENTS

The costs associated with the filing of patent applications are deferred. Amortization is recorded on a straight-line basis over the remaining legal life of patents, commencing in the year in which the patent is granted. Costs related to patent applications which ultimately fail to result in the grant of a patent, as well as the unamortized costs of patents abandoned by the Company due to lack of expected commercial potential, are charged to operations at the time such determination is made.

NOTE 5 - ACCRUED COMPENSATION AND BENEFITS

Accrued compensation consists of the following amounts payable to current employees:

	March 31, 2002	December 31, 2001
Accrued vacation pay	$ 55,675	$ 58,000
Accrued bonuses	60,500	83,000
Accrued wages	129,380	80,228

$ 245,555	$ 221,228

The Company's only liability to employees for future compensated absences is for accrued but unused vacation pay. The amount of vacation pay earned by employees is determined by job classification and length of service. Such amounts are payable upon termination of employment and are not subject to the terms of the Company's written agreement with current and former employees to defer payment of portions of their salaries as described in Note 6. The amount of accrued vacation included above that was payable to the Company's officers at March 31, 2002 and December 31, 2001 was $40,213 and $41,406, respectively.

In December of each of the last three years, the Company awarded bonuses to its officers and employees with the stipulation that payment of such bonuses is to be deferred until the Board of Directors determines that the Company's cash resources are sufficient to enable such payments. In December 2001 the Company awarded bonuses totaling $57,500, including an aggregate of $50,000 to its two officers. During 2001 the Company paid $12,500 of the bonuses accrued as of the previous year-end, portions of which payments represented the conversion of accrued bonuses to equity. In connection with a private placement at the end of March 2002, the Company paid $22,500 of accrued bonuses through the conversion of such amounts to equity.

Since early 2001, the Company's officers have voluntarily and at their own discretion deferred receipt of payment of significant portions of their current wages to reduce the Company's monthly cash requirements. Such wages payable to the Company's officers totaling $113,710 are included in the total of accrued wages as of March 31,2002. The continued deferral of portions of current wages by the Company's officers cannot be expected to continue indefinitely, and the Company will be required to pay such accrued wages as soon as cash flow permits. The amount and timing of such payments will be determined at the discretion of the Company's officers, as these accrued wages are not subject to the terms of the Company's written agreement with current and former employees to defer payment of portions of their salaries as described in Note 6.

NOTE 6 - DEFERRED COMPENSATION

In order to help conserve the Company's limited cash resources, the Company's officers and certain of employees for several years have voluntarily deferred receipt of payment of significant portions of their authorized annual salaries at the request of the Board of Directors. By written agreement with the Company, these individuals have consented to the deferral of payment of amounts so accumulated until the Company has received licensing revenue of at least $2 million or at such earlier date as the Board of Directors determines that the Company's cash flow is sufficient to allow such payment.

Deferred compensation outstanding is payable to the following classifications of personnel:

	March 31, 2002	December 31, 2001
Current officers	$ 538,018	$ 525,337
Current employees and consultants	62,088	62,088
Former officers and other employees	270,519	270,519

$ 870,625	$ 857,944

The conditions that would require repayment of deferred amounts have yet to occur, and it is unlikely that such conditions will occur prior to March 31, 2003. Accordingly, such deferred compensation is reported separately in the accompanying balance sheet as a non-current liability.

At the conclusion of a legal challenge by two former officers of the Company initiated in 1993 demanding full payment of deferred salaries upon the termination of their employment, in 1996 the Maryland Court of Special Appeals rejected this demand and ruled that the written agreement to defer compensation was a valid and enforceable contract.

NOTE 7 - INCOME TAXES

The Company has not incurred any federal or state income taxes since its inception due to operating losses. At December 31, 2001, the Company had net operating loss and capital loss carryforwards of approximately $14.2 million available to offset future taxable income. If certain substantial changes in the Company's ownership should occur, there would be an annual limitation on the amount of the carryforwards which can be utilized. Since 1995 net operating loss carryforwards aggregating $4,781,634 have expired unused, as have capital loss carryforwards of $201,681.

NOTE 8 - STOCKHOLDERS' EQUITY

Authorized capital stock

The Company is presently authorized to issue 48 million shares of $.01 par value common stock and 2 million shares of $.01 par value convertible preferred stock. All of the authorized shares of preferred stock, along with common stock purchase warrants, were issued for $2 million in February 1992 (the "Preferred Stock Investment") to a small number of individuals who qualified as "accredited investors" pursuant to Rule 501 of Regulation D of the Securities Act of 1933 (the "Act") and to Proactive Partners, L.P. and certain of its affiliates ("Proactive"), who became the largest beneficial owner of the Company's common stock by virtue of the acquisition of the convertible preferred stock and common stock purchase warrants.

The preferred stock has priority in liquidation over the common stock, but it carries no stated dividend. The holders of the preferred stock, voting as a separate class, have the right to elect that number of directors of the Company which represents a majority of the total number of directors. The preferred stock is convertible at any time at the option of the holder into common stock at the rate of $.35 per share of common stock. As of March 31, 2002, a total of 459,999 shares of preferred stock had been converted into 1,314,278 shares of common stock.

Private placements of common equity

In a private placement at the end of March 2002, the Company raised capital of $60,000, including $27,000 in cash investments, $27,000 from the conversion to equity of accrued liabilities to officers, employees and consultants, and cash proceeds of $6,000 through the issuance of a short-term note that is convertible to equity at the option of the holder. A total of 360,000 shares of the Company's common stock and five-year warrants to purchase an additional 180,000 shares of common stock at $.25 per share were issued in this financing, and

60,000 shares were reserved for future issuance upon the conversion of the note payable to common stock and a warrant to purchase common stock.

The offer and sale of these shares of common stock and warrants to purchase shares of common stock satisfied the conditions of Rule 506 of Regulation D of the Act and, as such, were exempt from the registration requirements of Section 5 of the Act as transactions not involving any public offering within the meaning of Section 4(2) of the Act.

Stock options

The Company maintains a non-qualified stock option plan (the "Plan") which has made available for issuance a total of 7.5 million shares of common stock. All directors, full-time employees and consultants to the Company are eligible for participation. Option awards are determined at the discretion of the Board of Directors. Upon a change in control of the Company, all outstanding options granted to employees and directors become vested with respect to those options which have not already vested. Options outstanding expire at various dates through March 2012.

The Company accounts for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board (APB) Opinion No. 25. Under APB No. 25, compensation cost is measured as the excess, if any, of the quoted market price of the Company's stock at the date of grant over the exercise price of the option granted. Compensation cost for stock options, if any, is recognized ratably over the vesting period. In its complete annual financial statements presented in its Form 10-KSB, the Company provides additional pro forma disclosures as required under Statement of Financial Accounting Standards No. 123 - "Accounting for Stock-Based Compensation" as if the fair value based method of accounting had been applied to the Company's stock option grants.

From January 1, 2002 through March 31, 2002, the Company had the following activity in options to purchase shares of common stock under the Plan:

	# of shares	Weighted average exercise price	# of shares exercisable	Weighted average exercise price
Unexercised at January 1, 2002	4,534,316	$.46	3,919,316	$.49
Granted		15,000 .25		
Becoming exercisable			44,062	.25
Exercised				
Lapsed	(34,250)	.50	(3,000)	.50
Unexercised at March 31, 2002	4,519,128	$.46	3,960,378	$.49

Common stock reserved for future issuance

At March 31, 2002, a total of 11,516,832 shares of common stock were reserved by the Company for issuance for the following purposes:

Purpose	# of shares

Currently exercisable warrants expiring in	
December 2005, exercisable at $.50 per share	387,500
March 2006, exercisable at $.50 per share	250,000
April 2006, exercisable at $.50 per share	175,000
March 2007, exercisable at $.25 per share	180,000
	992,500
Currently exercisable options	3,960,378
Granted options becoming exercisable in the future	558,750
Options available for future grants	1,545,204
Conversion of note payable	60,000
Conversion of preferred stock	4,400,000
Total shares reserved	11,516,832

NOTE 9 - COMMITMENTS

The Company occupies its office and laboratory facility on a month-to-month basis under the terms of an operating lease agreement pursuant to which the property owner is required to provide thirty days notice if he wants the Company to vacate the premises. The lease currently provides for monthly rent of $4,000 and requires the Company to pay all property related expenses. The Company will seek to negotiate a new long-term lease for its facility or search for an alternative location in the event that a long-term agreement cannot be reached for the existing premises. Management believes that the resolution of the uncertainty with respect to the facility will not result in a significant interruption in the operations of the Company.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL POSITION AND RESULTS OF OPERATIONS

Caution regarding forward-looking statements

Sections of this document, as well as all publicly disseminated material about Sonex Research, Inc. (the "Company" or "Sonex"), contain information in the form of "forward-looking" statements within the meaning of the Private Securities Litigation Act of 1995 (the "Act"). Such statements are based on current expectations, estimates, projections and assumptions by management with respect to, among other things, trends affecting the Company's financial condition or results of operations and the impact of competition. Words such as "expects", "anticipates", "plans", "believes", "estimates", variations of such words, and similar expressions are intended to identify such statements that include, but are not limited to, projections of revenues, earnings, cash flows and contract awards. Such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, all of which are difficult to predict and many of which are beyond the control of the Company.

Risk factors

In order to obtain the benefits of the "safe harbor" provisions of the Act for any such forward-looking statements, the Company cautions shareholders, investors and prospective investors about significant factors which, among other things, have in some cases affected the Company's actual results and are in the future likely to affect the Company's actual results and cause them to differ materially from those expressed in any such forward-looking statements.

Factors that could cause actual results to differ materially include the specific risks listed below. These risks and uncertainties are not the only ones faced by the Company or that may adversely affect its business. If any of the following risks or uncertainties actually occur, the Company's business, financial condition or results of operations could be materially adversely affected.

- ability to generate cash flow from revenue or to secure financing necessary to fund future operations
- ability to demonstrate commercial viability of its technology
- ability to complete technology development and demonstration programs and execute licensing agreements that produce significant revenue
- ability to maintain and protect its patents
- ability to attract and retain skilled personnel
- changes in general economic conditions
- competition

Furthermore, since its inception in 1980, the Company has generated cumulative net losses in excess of $22 million, and is likely to incur quarterly operating losses for the foreseeable future. The business has not generated sufficient cash flow to fund operations without resorting to external sources of capital. In the event that funding from internal and external sources is insufficient, the Company would have to cut back significantly its level of spending, which could substantially curtail the Company's operations. These reductions could have an adverse effect on the Company's relations with its potential customers.

The Company's success also depends in significant part on the continued services of its key technical and senior management personnel. Losing one or more key employees, including for reasons of poor health, disability, or death, could have a material adverse effect on the Company's business, results of operations, and financial condition. Due to the expense involved, the Company does not maintain life insurance policies for any of its employees. Additionally, in order to avoid long-term financial commitments, the Company does not have employment agreements with any of its personnel.

Further, the market price of the Company's Common Stock could be affected adversely by the substantial number of shares that are reserved for, and may be issued in, the future. As of May 15, 2002, there were 21,572,669 shares of Common Stock issued and outstanding, with an additional 9,971,628 shares reserved for future issuance as follows: 4,400,000 shares issuable upon the conversion of preferred stock; 4,519,128 shares issuable upon the exercise of options granted under the Company's Stock Option Plan; 992,500 shares issuable upon the exercise of warrants; and 60,000 issuable upon the conversion of notes payable.

Overview of the Company and its technology

Sonex Research, Inc. ("Sonex" or the "Company"), incorporated in Maryland in 1980, is an engineering research and development firm that is seeking to commercialize its patented proprietary technology (the "Sonex Combustion System", "SCS" or "Ultra Clean BurnTM technology") for in-cylinder control of ignition and combustion. The Company was co-founded in 1980 by Dr. Andrew A. Pouring, a former Professor of Aerospace Engineering and Chairman of the Department of Aerospace Engineering at the U.S. Naval Academy. At Sonex, Dr.

Pouring conducted basic research into the principle of in-cylinder control of ignition and combustion, concentrating on the piston. By the late 1980's and early 1990's, the development of the SCS had moved in the direction of chemical/turbulent enhancement of combustion through investigation of the effects of changing the chemical characteristics and fuel disbursement characteristics within the combustion chamber.

The SCS technology for in-cylinder control of ignition and combustion is designed to

- o increase fuel mileage of gasoline engines
- o reduce emissions of diesel engines
- o permit small gasoline engines to run on safer diesel-type heavy fuels

The SCS improves the combustion of fuel in engines through design modification of the pistons in four-stroke direct injected (DI) engines or the cylinder heads in two-stroke spark-ignited (SI) gasoline engines to achieve chemical/turbulent enhancement of combustion. The SCS process changes only a single engine component while introducing no additional parts and is self-driven by the combustion process.

Sonex believes it can show the technical feasibility of achieving higher fuel economy standards while lowering emissions in a new class of DI gasoline engined vehicles without sacrificing weight and vehicle safety. In 2000 Sonex introduced its Stratified Charge Radical Ignition (SCRI) combustion technology, a new branch of the SCS which Sonex believes will enable practical application of an alternative combustion process known as homogeneous charge compression ignition (HCCI) that has the potential for lowering both emissions and fuel consumption. Unresolved issues with ignition have prevented practical implementation of HCCI to date. Sonex believes it has attained the control of ignition that will make HCCI viable for commercial application such that the SCRI piston design, with further development, can enable DI gasoline engined automobiles, currently sold only in markets outside the U.S. because of emissions problems, to become emissions compliant in the U.S. while maintaining their current fuel consumption advantages. In addition, the evolution of hybrid gasoline and electric powered vehicles would be accelerated since a major improvement in engine fuel mileage would provide opportunities for tradeoff of vehicle weight versus power.

SCS reductions of soot in diesel truck engines have been confirmed by an independent engine consulting firm. SCS diesel engine designs require very little engine modification, and should provide cost advantages over complex exhaust aftertreatment devices. Evidence to date indicates that the SCS is a significant new engine design variable, and that the synergy of the SCS in combination with exhaust gas recirculation can reduce aftertreatment measures and enable in-cylinder emissions reduction to meet future regulatory standards.

The SCS process for the conversion of reliable, lightweight, SI, two-stroke, gasoline engines to start and operate on diesel-type heavy fuels has been applied successfully in a variety of applications such as small, remotely controlled military unmanned aerial vehicles (UAVs). The military now requires such engines to operate on less volatile heavy fuels to reduce the hazard associated with gasoline, making heavy fuel engines (HFEs) more suitable for applications where gasoline storage and use are undesirable. Sonex HFEs achieve power and fuel consumption substantially equal to that of the stock gasoline engines. Potential applications of the SCS heavy fuel conversion process can be expanded to other military and commercial uses.

Sonex is seeking committed business partners for further technical development and marketing of the various SCS engine applications. Sonex believes that having one or more such partners experienced in dealing with the engine and automotive industries on state-of-the-art technological developments is a key to the commercial acceptance of the SCS technology in the form of revenue-generating

license agreements for industrial production of SCS components.

As of March 31, 2002, the Company has three full-time employees, and engages the part-time services of a consultant who serves as its director of business development and manager of government programs. The Company also engages the services of several other consultants as needed. The Company has never experienced a strike or work stoppage, and believes its relations with its employees are good.

Competition

The Company faces significant competition from the extensive research departments of the world's major vehicle and engine manufacturers. These companies exercise a bias toward in-house technologies over those developed by independent suppliers. Competition also comes from several independent engine testing and consulting firms around the world which are in the business of developing engine technologies. The Company's competitors have substantially greater financial, technical and marketing resources than does the Company. Accordingly, the Company cannot be sure that it will have the resources or expertise to compete successfully in the future.

Although the experience and financial resources of its competitors far exceed those of the Company, management believes that the SCS can provide significant advantages over the competition in terms of low cost, improved performance, and simplicity.

Secrecy and non-disclosure

Due to the highly competitive nature of the world's automotive and truck industries, in connection with its contracts and/or demonstration programs with such manufacturers, Sonex is required to execute joint secrecy and disclosure agreements that, in most cases, expressly prohibit the public disclosure of the names and other significant information about the participants and the current or proposed programs. Failure by Sonex to maintain this strict level of confidentiality would jeopardize its relationship with these organizations.

Overview of SCS design modifications

The SCS technology for DI diesel engines improves the process of combustion through a combination of chemical and fluid dynamic effects that occur by modifying the engine's combustion chamber and the processes occurring within that chamber. Patented SCS piston designs for four-stroke engines integrate cavities called micro-chambers (MCs) which form a ring around the piston bowl, with each MC positioned with respect to each spray from the fuel injector of a DI engine. The MCs are designed to function as chemical reactors and are connected to the piston bowl by vents. The MCs produce highly active radical (chemical) species from a fraction of the fuel-air charge that are expelled on the intake stroke of low compression ratio DI engines to fumigate incoming air.

The SCS "Low Soot" design, based on the Sonex U.S. patents issued in January 1999 and January 2001, is a recent invention in the series for the SCS for "classical" DI diesel engines and involves re-arrangement of SCS features to exploit new fundamental understandings of fluid dynamics. The SCS "Low Soot" design has shown significant reductions in soot and oxides of nitrogen (NOx) while maintaining fuel consumption and power. The key feature of the SCS DI diesel technology is the presence of improved MCs in the piston which produce and conserve intermediate and radical chemical species from a small portion of the incoming fuel. The expulsion of these materials at high velocity enhances turbulence mixing, achieving better than a 50% soot reduction and a 10% NOx

reduction in the Sonex single cylinder, DI, normally aspirated research engine with no change in injection timing. Sonex has also demonstrated that the SCS technology can be transferred to a modern turbocharged, intercooled DI diesel engine.

SCS generated radical chemical species from a design similar to the "Low Soot" design are also being used at Sonex in relation to an alternative combustion process known as homogeneous charge compression ignition (HCCI) that is being examined by the worldwide automotive industry. HCCI has been studied by many researchers for years because, in theory, it can lower emissions while also achieving reduced fuel consumption, because compression ignition does not require the use of a spark plug; however, the lack of a method for controlling the ignition point has prevented practical implementation of HCCI. Sonex believes it has attained the control of ignition that will make HCCI viable for commercial application by achieving radical assisted, four-stroke combustion to enable fully controllable compression ignition at low pressures as a function of fuel injection timing, a mode Sonex refers to as Stratified Charge, Radical Ignition (SCRI).

With SCRI, radical (chemical) species that enable ignition are created by interaction of the injected fuel spray with specially designed MCs in the piston side wall. The net result is an engine that is fully controllable at all loads and speeds without limitation, has extremely low emissions and the fuel economy of a diesel engine. On a DI, single cylinder laboratory engine at Sonex, the SCRI reduced NOx emissions by 80% and smoke by 90% while maintaining fuel consumption, using diesel-type fuels.

The SCRI combustion chamber modifications make use of certain chemically active products of combustion known as "free radicals" that, in conventional internal combustion engines, are not carried from one combustion cycle to the next. The SCRI process isolates free radicals to be carried from one combustion cycle to the next to take advantage of the combustion enhancing properties of the free radicals, thereby enabling ignition of all types of fuels and allowing more complete combustion of the fuel. The SCRI relies on direct injection of fuel into the cylinder (rather than in the intake manifold) as well as the production of radicals for ignition.

The SCS engine design modifications for heavy fuel operation in two-stroke engines consist of a machined cylinder head and combustion chamber insert integrated with a glow plug starting system. For engines that have the cylinder head and cylinder in one casting, the stock cylinder head is removed and the remaining cylinder casting is decked and machined for cylinder head screws. The SCS starting system consists of a heavy fuel vaporizer block positioned between the carburetor and cylinder.

Primary Sonex initiatives

The Company seeks to commercialize its SCS technologies for a variety of engine applications for commercial and military use. To date, Sonex has engaged in development and demonstration programs with the engine industry and has sought funding from the federal government for further development of the SCS technologies. Some of these proposed projects are expected to achieve certain milestones that will be key to the commercial development of the SCRI process for automotive engines.

The next few paragraphs provide an overview of the primary opportunities for Sonex. Additional detailed information can be found in the Company's December 31, 2001 Annual Report on Form 10-KSB.

Gasoline engined vehicles: With its SCRI process, Sonex intends to show the technical feasibility of achieving higher fuel economy standards while lowering emissions in a new class of DI gasoline engined vehicles without sacrificing weight and vehicle safety. Such an achievement could also accelerate the evolution of hybrid gasoline and electric powered vehicles since a major improvement in engine fuel mileage would provide opportunities for tradeoff of vehicle weight versus power.

Initially, Sonex must transition the results achieved by its SCRI process using a single-cylinder laboratory engine on diesel-type fuels to gasoline. Preliminary work on gasoline at Sonex has demonstrated that the SCRI process does achieve the desired ignition and high rate of heat releases which are necessary to achieve improved fuel consumption and lower emissions. The first stage of this effort, expected to take at least six months, will establish feasibility and design parameters and must also take place on a single cylinder engine. The emphasis on this first phase will be to establish a knowledge base upon which a prototype engine can be designed in a second phase.

Immediately following the first stage, Sonex would be in a solid position to work with the auto industry on demonstration projects to transition SCRI to multi-cylinder engines so gasoline can be burned effectively in eventual production engines of all sizes. Fortunately, demonstration projects with automotive manufacturers could provide results fairly quickly since the sparkless SCRI process can advantageously employ the centrally located spark plug hole of most production 4-valve per cylinder engines for the installation of the injector.

Truck diesel engines: Sonex has engaged in development and demonstration programs with various international truck diesel engine manufacturers. The SCS "Low Soot" piston design for the reduction of emissions require very little engine modification, and should provide cost advantages over complex exhaust aftertreatment devices.

Recently one the world's leading engine engineering and powertrain consulting firms, Ricardo Consulting Engineers of the U.K., confirmed the soot reduction capability of the SCS "Low Soot" design in a DI diesel engine used in medium-duty trucks. Ricardo published the findings in a technical paper presented at the Society of Automotive Engineers' May 2002 Fuels and Lubes Conference. Ricardo is currently introducing the SCS "Low Soot" design results to engine manufacturers and piston suppliers while Sonex continues its efforts in that regard.

Heavy fuel engines: The Company, in its laboratory and under contract with the U.S. military and defense contractors, also has applied a proprietary patented SCS starting system and modified combustion chamber to the conversion of reliable, lightweight, SI, two-stroke, gasoline engines to start and operate on JP-5/JP-8 standard military fuels (also referred to as "heavy fuels") in a variety of applications such as small, remotely controlled military UAVs. The military now requires such engines to operate on less volatile heavy fuels to reduce the hazard associated with gasoline, making HFEs more suitable for applications where gasoline storage and use are undesirable. The requirement for a single military fuel is also a logistics issue, as the military seeks to minimize the number and complexity of fuels.

Sonex HFEs achieve power and fuel consumption substantially equal to that of the stock gasoline engines. The Company has performed HFE conversions for various sizes of small gasoline engines for UAVs, and expects to be awarded shortly one or more contracts from the U.S. Department of Defense (DoD) and or its prime contractors, although there can be no assurance. In addition, over the past few months the Company has been developing a relationship with a foreign UAV engine

company and is optimistic of executing a contract later this year for HFE conversion development.

Technology marketing partners: Sonex believes commercial acceptance of the SCS technology can be accelerated through the establishment of relationships with entities which possess technical development and marketing capabilities within the engine industry. In addition to the relationship with Ricardo, Sonex has been in exploratory discussions with another leading engine engineering and powertrain consulting firm regarding a formal arrangement for the technical development and marketing of the various SCS engine applications.

Financial position and liquidity

Sonex has been operating under cash flow difficulties for several months, having fallen behind in payments due to some vendors. Since the fall of 2001 the Company's officers have received only a small portion of the cash compensation due them. In December 2001 Sonex took steps to reduce further its monthly cash requirements by eliminating one full-time position in its shop and by restructuring compensation arrangements with its part-time consultants. A second full-time position became vacant at the end of February 2002.

As of March 31, 2002, the Company had available cash and equivalents of $28,086 and accounts receivable of $25,870. At the end of March 2002, the Company received a purchase order of approximately $92,000 from a defense contractor for a four-month effort to develop a small heavy fuel engine for an experimental unmanned aerial vehicle. A payment of $15,000 due upon the receipt of the purchase order is included in the March 31, 2002 accounts receivable balance. This amount was received in April 2002.

Since early 2001, the Company's officers have voluntarily and at their own discretion deferred receipt of payment of significant portions of their current wages to reduce the Company's monthly cash requirements. Such wages payable to the Company's officers totaling $113,710 are included in the total of accrued wages as of March 31, 2002. The continued deferral of portions of current wages by the Company's officers cannot be expected to continue indefinitely, and the Company will be required to pay such accrued wages as soon as cash flow permits. The amount and timing of such payments will be determined at the discretion of the Company's officers, as these accrued wages are not subject to the terms of the Company's written agreement with current and former employees to defer payment of portions of their salaries as described in Note 6 to the accompanying financial statements.

Based upon available resources, current and projected spending levels, and expected revenue from current and anticipated contracts, management believes the Company will have sufficient capital to fund operations through June 30, 2002. The Company's prospects beyond that date are dependent upon its ability to enter into significant funded contracts for the further development of its SCS technology, establish joint ventures or strategic partnerships with major industrial concerns, or secure a major capital infusion. There is no assurance that the Company will be able to achieve these objectives. If these objectives are not achieved, the Company will have to reduce the scope of its operations even further, primarily by laying off its remaining employees and, possibly, by abandoning its facility. These circumstances could lead to bankruptcy as well.

The Company has high expectations of receiving one or more additional revenue-generating contracts from the military in the near future for heavy fuel engine development. Once such contracts are secured, the Company will supplement its workforce as needed with part-time personnel before defining and filling full-time positions. Sonex also intends to seek a commercial marketing partner experienced in dealing with the industry on state-of- the-art technological

developments. In addition, in May 2002 the Company engaged the services of a professional investor relations firm to develop, implement and maintain an ongoing program to increase the investment community's awareness of Sonex activities.

Results of operations

A net loss of $125,664 was recorded for the first three months of 2002, as compared to $193,889 for the corresponding period in 2001, a decrease of $68,225. The decrease in the loss was due primarily to substantially lower personnel costs in 2002 versus 2001.

Revenue and cost of revenue:

	Three months ended March 31,	
	2002	2001
Defense revenue	$ 35,870	
Commercial revenue		$ 25,000
	$ 35,870	$ 25,000
Cost of revenue	$ 25,547	$ 9,321

Defense contracts relate to the Company's technology for conversion of commercial gasoline fueled engines used in UAVs and the like to heavy fuel operation. Commercial revenue earned in connection with the Company's DI diesel engine piston technology is subject to the negotiated amount, if any, that an engine manufacturer is willing to provide in funding to partially offset the development costs incurred by the Company in applying its technology to one of the manufacturer's engines. Cost of revenue primarily consists of direct labor charges and direct purchases attributable to funded programs.

Research and development (R&D) expenses:

R&D expenses for the first three months of the year decreased by $60,371, or 46%, from $131,876 in 2001 to $71,505 in 2002, almost entirely due to lower personnel costs. Net R&D personnel costs, after reclassification of amounts charged to cost of revenue, decreased by $56,711, or 56%, from $101,136 in 2001 to $44,425 in 2002. Amounts charged to cost of revenue were $8,416 in 2001 and $22,501 in 2002, resulting in total R&D personnel costs before reclassification of $109,552 in 2001 and $66,926 in 2002, a decrease of $42,626.

The decrease in overall R&D personnel costs resulted from a reduction in the workforce, including consultants, which was placed in effect late in 2001 and continued into the first quarter of 2002. Payroll and related taxes and benefits decreased by $25,046. The Company discontinued its consulting agreement at the end of 2001 with the individual residing in Europe who served as R&D Supervisor and International Liaison Officer. This individual was compensated in the form of restricted stock and cash, with related charges totaling $17,580 in the first quarter of 2001.

General and administrative (G&A) expenses:

Total G&A expenses for the first three months of the year decreased by $14,160, or 18%, from $78,650 in 2001 to $64,490 in 2002. The largest expense category, personnel costs, accounted for most of the reduction in total G&A expenses.

Personnel costs decreased $11,383, from $55,673 in 2001 to $44,290 in 2002, or 20%, primarily as a result of lower charges for consulting services, which declined by $10,108 from $26,374 in 2001 to $16,266 in 2002. Charges for consulting services for the first quarter of 2001 included $5,000 related to the former president of the Company, who was engaged on a part-time basis under a consulting agreement that provided for annnual compensation of $20,000. This arrangement was terminated by mutual agreement effective June 30, 2001, and in September 2001 this individual resigned as president but remains on the Board of Directors. An additional $7,440 in 2001 represents amortization of deferred compensation of charges resulting from the grant of stock options in 1997 to the president by the Company's principal shareholder. Amortization of the related charges ended in December 2001.

PART II - OTHER INFORMATION

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

(a) Exhibits:

4 Instruments defining the rights of security holders (contained in the Articles of Incorporation and By-laws, as amended, filed with the 1992 Annual Report on Form 10-KSB)

(b) Reports on Form 8-K:

On January 15, 2002, the Registrant filed a Current Report on Form 8-K to disclose the prospects of receiving one or more funded contracts in the near future for application of its heavy fuel engine technology, and to disclose that it would need to raise additional capital.

On February 6, 2002, the Registrant filed a Current Report on Form 8-K to disclose that feasibility testing of its SCRI combustion technology by a major international truck engine manufacturer had not attained the performance achieved by Sonex in a single-cylinder laboratory diesel engine. The Registrant expressed confidence that with the appropriate comprehensive test program and sufficient funding, the SCRI for vehicular diesel engines could be realized.

On April 4, 2002, the Registrant filed a Current Report on Form 8-K to disclose that it had raised capital of $60,000 and had been awarded a $92,000 contract for application of its heavy fuel engine technology.

SIGNATURES

In accordance with the requirements of the Exchange Act, the Registrant caused this report to be signed on its behalf by the undersigned, thereto duly authorized.

SONEX RESEARCH, INC.
(Registrant)

/s/ George E. Ponticas
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by: George E. Ponticas
Chief Financial Officer

May 15, 2002