MPHASE TECHNOLOGIES INC
Form 10-K/A
September 27, 2011

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K/A

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934 (NO FEE REQUIRED)
FOR THE YEAR ENDED JUNE 30, 2011

COMMISSION FILE NO. 000-30202

mPHASE TECHNOLOGIES, INC.
(Name of issuer in its charter)

NEW JERSEY	**22-2287503**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
587 CONNECTICUT AVE., NORWALK,	**CT 06854-1711**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(203) 838-2741**

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:

COMMON STOCK, $.01 PAR VALUE
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act.

Yes [ ] No [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes [ ] No [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for shorter period that the registrant was required to file such report), and (2) has been subject to such filing requirements for the past 90 days.

Yes [X] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if

any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files).

Yes [ ] No [ ]

Indicate by check mark if the disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendments to the Form 10-K.

[ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer [ ]
Non-accelerated filer [X] Smaller reporting company [X]
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act)

Yes [ ] No [X]

As of August 22, 2011 there were approximately 1,752,348,264 shares of common stock, $01 par value, outstanding and the aggregate market price of shares held by non-affiliates was approximately $11,060,984. (Based upon a closing common stock price of $.0069 on August 22, 2011 solely for the purpose of calculating the preceding amount, all directors and officers of the registrant are deemed to be affiliates.)

Documents Incorporated by Reference

None.

ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED JUNE 30, 2011
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Explanatory Note

This Amendment to Form 10-K for mPhase Technologies, Inc. for the period ended June 30, 2011, is being filed for the following purposes:

(1) To reclassify certain liabilities in the Balance Sheet for 6-30-11 (pg. 73); the effect of which decreased current liabilities $232,395 and increased long term liabilities by the same amount. This changed the working capital deficit to ($2,705,493) from previous amount reported on pgs.19, 46, 47, & 87. This also resulted in n edit to footnote 12 detailing changes is derivative liabilities on page 108.

(2) To reclassify certain settlement gains included in other income totaling $244,496 from continuing operations to discontinued operations on pg. 74. This also resulted in edits to the discussion of current years operations on pgs. 38, 39, & 43 as well as elements of changes in cash flows on page 85.

(3) These edits had no effect on Net Loss reported for the year ended June 30, 2011, The Statement of Changes in Stockholders Equity or Total Stockholders Deficit at June 30, 2011.

This Form *10K/A* has not been updated for any events or subsequent information other than the matters set forth herein.

PART I

FORWARD-LOOKING STATEMENTS

This report contains "forward-looking statements." In some cases, you can identify forward-looking statements by terms such as "may," "intend," "might," "will," "should," "could," "would," "expect," "believe," "estimate," "predict," "potential," or the negative of these terms and similar expressions intended to identify forward-looking statements. These statements reflect the Company's current views with respect to future events and are based on assumptions and subject to risks and uncertainties. The Company discusses many of these risks and uncertainties in greater detail in Part I, Item 1A of this 10-K under the heading "Risk Factors." These risks and uncertainties may cause the Company's actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. You should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent the Company's estimates and assumptions as of the date of this report. The Company is under no duty to update any of the forward-looking statements after the date of this report to conform such statements to actual results or to changes in our expectations.

The following discussion should be read in conjunction with mPhase Technologies' financial statements and related notes included elsewhere in this report.

ITEM 1. BUSINESS

General Description of the Business

mPhase Technologies, Inc. is a publicly-held New Jersey company founded in 1996 with approximately 23,000 shareholders and approximately 1.63 billion shares of common stock outstanding as of June 30, 2011. The Company's common stock is traded on the Over the Counter Bulletin Board under the ticker symbol XDSL. The Company has offices in Little Falls, New Jersey as well as Norwalk, Connecticut.

mPhase is a development-stage company specializing in developing smart surfaces using materials science engineering, nanotechnology science and the principles of microfluidics and microelectromechanical systems (MEMS). The Company develops products for both commercial and military applications. The Company's flagship product is its Smart NanoBattery providing Power On Command . The new patent pending and patented battery technology, based on the phenomenon of electrowetting, offers a unique way to store energy and manage power. Features of the Smart NanoBattery include potentially infinite shelf life, environmentally friendly design, fast ramp to power, programmable control, and direct integration with microelectronic devices. The platform technology behind the Smart NanoBattery is a porous nanostructured material used to repel and precisely control the flow of liquids. The material has a *Smart Surface* that can potentially be designed for other innovative products such as medical devices including heart pacemakers and pumping devices.

mPhase has completed a Phase II Small Business Technology Transfer Program (STTR) grant, part of the Small Business Innovation Research (SBIR) program, with the U.S. Army for continued development of a reserve Smart NanoBattery for a critical computer memory application. Such reserve battery can be activated by an electronic pulse.

In a separate effort, mPhase has also developed a mechanically- activated reserve battery. As a result of a unique combination of battery and mechanical engineering, such reserve battery also has a potentially infinite shelf-life. The battery was part of the Company's pilot program for a new emergency flashlight product line that has been designed by and co-branded with Porsche Design Studio, a premiere world-class company specializing in high-end accessory products for the luxury automotive manufacturer.

Description of Operations

Microfluidics, MEMS, and Nanotechnology

In February of 2004, mPhase entered the business of developing new products based on materials whose properties and behavior are controlled at the micrometer and nanometer scales. (For reference, a micrometer or micron is equal one millionth (10^{-6}) of a meter and a nanometer is one billionth (10^{-9}) of a meter the scale of atoms and molecules. A human hair is approximately 50 microns in diameter, or 50,000 nanometers thick.)

The Company has expertise and capabilities in microfluidics, microelectromechanical systems (MEMS), and nanotechnology. Microfluidics refers to the behavior, precise control and manipulation of fluids that are geometrically constrained to a small, typically micrometer scale. MEMS is the integration of mechanical elements, sensors, actuators, and electronics on a common silicon substrate through microfabrication technology. Nanotechnology is the creation of functional materials, devices and systems through control of matter (atoms and molecules) on the nanometer length scale (1-100 nanometers), and exploitation of novel phenomena and properties (physical, chemical, biological, mechanical, electrical) at that length scale.

In its Smart NanoBattery, mPhase exploits the physical phenomenon of electrowetting by which a voltage is used to change the wetting properties of a liquid/solid interface at the nanometer scale. Consider water as the liquid. Through electrowetting, mPhase can change a surface from what is referred to as a hydrophobic ("water repelling") state to a hydrophilic ("water attracting") state. In the hydrophobic state, the water beads up or is repelled by the surface. In the hydrophilic state, the water spreads out or is absorbed by the surface. The ability to electronically control the wetting characteristics of a surface at the nanometer scale forms the basis of mPhase's nanotechnology operations and intellectual property portfolio.

In the Smart NanoBattery application, mPhase uses electrowetting as a new technique to activate or literally "turn on" a battery once it is ready to be used for the first time. At the heart of the Smart NanoBattery is a porous, nanostructured superhydrophic or superlyophobic membrane designed and fabricated by mPhase. The so-called superhydrophobic membrane applies to water and the superlyophobic membrane applies to nonaqueous or organic liquids such as ethanol or mineral oil. The difference between the two membrane types lies in the nanoscale architecture at the surface. By virtue of its superhydrophobic or superlyophobic character, the membrane, although porous, is able to physically separate the liquid electrolyte from the solid electrodes so that the battery remains dormant or inactive, thus providing no voltage, or current until called upon. This electrolyte-electrode separation gives the battery the feature of potentially unlimited shelf life and the benefit of being always ready when needed, which is not necessarily the case for conventional batteries. Electrowetting alters the liquid/membrane interface so that the liquid is now able to flow over the membrane's surface and rapidly move through the pores where it is able to contact the solid electrode materials located on the other side of the membrane.

mPhase uses MEMS, to precisely control the machining of silicon-based materials at the micrometer and nanometer scales. This ability has led to the Company's proprietary membrane design that controls the wetting and movement of liquids on a solid surface. mPhase uses microfluidics to control the flow of liquid electrolyte through the porous membrane and is also the basis for other possible applications such as self-cleaning surfaces, filtration and separation and liquid delivery systems.

mPhase has also developed a manually-activated lithium reserve battery using an innovative industrial and mechanically-engineered design. The battery is activated by a unique triggering mechanism that rapidly releases and distributes the liquid electrolyte held in a glass sealed reservoir inside the battery. By twisting a screw-like mechanism outside the battery the glass seal is broken and the electrolyte immediately contacts the battery's solid electrodes to produce electric power. Unlike conventional batteries that have relatively short shelf lives prior to initial use of the flashlight, the mPhase reserve battery has a shelf life of over 20 years.

History of Nanotechnology Operations

Smart NanoBattery

mPhase Technologies, along with Bell Labs, jointly conducted research from February 2004 through April of 2007 that demonstrated control and manipulation of fluids on superhydrophobic and superlyophobic surfaces to create a new type of battery or energy storage device with power management features obtained by controlling the wetting behavior of a liquid electrolyte on a solid surface. The scientific research conducted set the ground work for continued development of the Smart NanoBattery and formed a path to commercialization of the technology for a broad range of market opportunities. The Company began its efforts by entering into a $1.2 million 12 month Development Agreement in February of 2004 with the Bell Labs division of Alcatel/Lucent for exploratory research of control and manipulation of fluids on superhydrophobic surfaces to create power cells (batteries) by controlling wetting behavior of an electrolyte on nanostructured electrode surfaces. The goal was to develop a major breakthrough in battery technology creating batteries with longer shelf lives as the result of no direct electrode contact (meaning no power drain prior to activation). During 2005 and 2006, the battery team tested modifications and enhancements to the internal design of the battery to optimize its power and energy density characteristics, as well as making engineering improvements that were essential in moving the battery from a zinc-based chemistry to a commercial lithium-based chemistry that can be manufactured on a large scale. The Company extended its development effort twice for an additional 2 year period ending in March of 2007 and for two additional periods thereafter through July 31, 2007. During this time, the technical focus shifted from trying to separate the liquid electrolyte from nanostructured electrodes to developing a nanostructured membrane that could physically separate the liquid electrolyte from the solid electrodes.

mPhase also began working with the Rutgers University Energy Storage Research Group (ESRG) in July of 2005 to conduct contract research in advanced battery chemistries involving lithium. This work involved characterizing and testing materials that could be used in the mPhase battery. In July of 2007, the relationship shifted to a collaboration focused on developing a memory backup battery needed by the U.S. Army. The work was funded through a Phase I Small Business Technology Transfer Program (STTR) grant.

In July of 2007, mPhase formed a new wholly-owned subsidiary, AlwaysReady, Inc., to focus on the development of its nanotechnology products. The Company has used this subsidiary as a division of the Company in order to develop increasing brand recognition of its battery products. The Company decided in September of 2007 to transfer its development work out of Bell Labs (Alcatel/Lucent) in order to accelerate and broaden its nanotechnology product commercialization efforts. Bell Labs had engaged in its battery research and development for the Company for zinc-based batteries and was limited since it did not have facilities capable of handling lithium chemistry. mPhase has continued to work with Rutgers ESRG which has facilities capable of handling lithium based batteries and has also engaged in work with foundries and other companies to supply essential components, fabricate prototypes, and plan manufacturing approaches. These companies currently include Silex, a well-respected silicon foundry in Sweden, and Eagle Picher, a well known battery designer and manufacturer that focuses on high-end batteries for military applications located in Joplin, Missouri.

In February of 2008, the Company announced that a prototype of its Smart NanoBattery was successfully deployed in a gun-fired test at the Aberdeen Proving Ground at Maryland. The test was conducted by the U.S. Army Armament Research and Development and Engineering Center (ARDEC) of Picatinny, New Jersey. The battery not only survived the harsh conditions of deployment at a gravitational force in excess of 45,000 g, but was also flawlessly activated in the process.

In March of 2008, mPhase announced that it had been invited to submit a proposal for a Phase II STTR grant based upon the successful work it had performed on the Phase I grant to develop a version of the Smart NanoBattery referred to as the multi-cell, micro-array reserve battery for a critical memory backup application. The Phase II grant in the gross amount of $750,000 (net $500,000) was granted to the Company in the middle of September of 2008. In March of 2008, the Company also announced the successful transfer to a commercial foundry of certain processes critical to the manufacturing of its Smart NanoBattery. This will enable fabrication of the porous membranes for the multi-cell, micro-array reserve battery mentioned above.The Company successfully manufactured nanostructured membranes at the foundry that are essential to commercial production of the battery. By achieving a series of delayed activations, the shelf-life and continuous run-time of such battery is increased to a period of time in excess of twenty years. In April of 2008, the Company announced that it had successfully activated it first Smart NanoBattery prototype by electrowetting using a hard-wired configuration and a remotely-activated device. Remote activation plays a key role in providing power to wireless sensors systems and radio frequency identification tags.

Also, in April of 2008, the Company announced that it had successfully produced its first lithium-based reserve battery with a soft or pouch package and breakable separator (in place of the electrowettable membrane) that relies on mechanical rather than electrical activation to provide Power On Command . The Company believes this to have been a significant milestone in moving from a low energy density zinc-based battery to a higher energy density lithium-based battery towards proving that this mechanically-activated reserve battery would become economically and commercially viable.

In fiscal years ended June 30, 2009 and June 30, 2010, the Company focused upon further development of its Smart Nano Battery under a Phase II STTR grant from the U.S. Army as a potential reserve battery for a back-up computer memory application for a weapons system. The Company has recently completed such Phase II Army grant. On November 12, of 2010, the Company announced that it had successfully triggered and activated its first functional multi-cell smart nano battery. Triggering and activation of the cells of the battery were achieved by using the technique of electrowetting or programmable triggering. Triggering was accomplished by applying a pulse of electrical energy to a porous, smart surface membrane located inside each cell in the battery causing the electrolyte to

come in contact with the cell s electrodes, creating the chemical reaction to produce voltage inside of the multi-cell battery. The multi-cell battery consists of a matrix of 12 individual cells populated with an electrode stack consisting of lithium and carbon monofluoride materials with each rated at 3.0 volts. Using a custom designed circuit board for testing, each of the cells in the battery were independently triggered and activated without affecting any of the non-activated cells in the multi-cell configuration. Each cell in the battery has a very long shelf-life prior to triggering.

During fiscal year ended June 30, 2011 the Company completed work on its Phase II STTR grant for the U.S. army for a nano-reserve battery for a back-up computer memory application. In addition the Company engaged First Principals, Inc to perform an evaluation or each of its patents in order to identify a strategic partner whose products line will need the Company s SmartNanoBattery as a compelling solution.

Emergency Flashlight

On December 5, 2008, mPhase Technologies, Inc. signed a contract with Porsche Design Gesellschaft m.b.H., Flugplatzstrasse 29, A,S700 Zell am see, Austria ("Porsche Design Studio"), to design a premium emergency flashlight (the mPower Emergency Illuminator). A pilot program that began in March of 2010 has resulted in the sale of approximately 56 emergency flashlights. The flashlight sold in the pilot program contained mPhase s proprietary mechanically-activated lithium reserve battery. The battery contains a breakable barrier that separates the solid electrodes from the liquid electrolyte until the battery is manually activated. Unlike traditional batteries, the mPhase battery remains in an inert state with no leakage or self-discharge until activation. The mPhase battery is designed to have an almost infinite shelf life making it ideal for emergency lighting applications. The premium flashlight will be marketed as an accessory for automobile roadside emergency kits.

On January 29, 2009, the Company announced that it had contracted with EaglePicher Technologies to design and manufacture, in small quantities, its mechanically-activated battery that were used in the pilot program of sales of the Company s new Emergency Flashlight. EaglePicher was selected for the pr0oject because of their experience in custom and standardized power solutions for the extreme environments of aerospace and military applications as well as medical and commercial applications.

The reserve battery is a manually activated lithium cell designed to provide Power On Command. The battery remains dormant until turned on by the user. It is built to the highest standards with a minimum storage life of 20 years. Once activated, the reserve battery is expected to deliver the electrical performance of a standard primary CR123 battery used in many portable electronic applications today.

EaglePicher Technologies, LLC, along with EaglePicher Company, is a world leader in custom and standardized power solutions for the extreme environments of aerospace and military applications as well as medical and commercial applications. The company specializes in design and manufacture of battery cells, battery packaging, battery management systems (BMS), analysis, environmental testing, and energetic devices. Active in battery development and testing since 1922, EaglePicher Technologies has the most experience and broadest capability in battery electrochemistry of any battery supplier.

Owing to cost considerations, the Company has decided to utilize a cost reduced active-reserve battery in its current version of its emergency flashlight product for potential sales after the pilot program. Such active reserve battery also has a very long shelf life and enables the Company to significantly reduce the selling price of the Emergency Flashlight. In March 2011,the Company received an initial order from Porsche Design Group in Germany for mPhase's Porsche design branded mPower Emergency illuminators to be sold in Porsche Design stores in Germany, Great Britain and the United States and it began shipments of the Emergency Illuminators in April of 2011.

Magnetometer

In March of 2005, the Company entered into a second Development Agreement for 12 months at a cost of $1.2 million per annum with the Bell Labs to develop MEMS-based ultrasensitive magnetic sensor devices, also known as magnetometers, that could be used in military and commercial electronics (*e.g.,* cell phones) for determining location, as well as in portable security and metal detection applications. The agreement was renewed in April of 2006 for another 12 months on the same terms. Although proven to work in the lab, the magnetometer technology could not be scaled up as quickly and as cost effectively as the battery. The project was suspended in September 2007 so that all technical resources could be allocated to the battery project. The Company is entitled to certain royalties from the magnetometer if Alcatel/Lucent ultimately generates revenues from the product.

DISCONTINUED BUSINESS-Internet Protocol Television(IPTV)

Historically, the Company, since its inception, had focused upon developing innovative solutions for the delivery of Broadcast Television as part of a "triple play" of services that would include voice and high-speed internet for telephone service providers globally. The Company, however, has not been able to derive any significant revenue from its TV+ solution and no active development of the product has occurred since fiscal year 2007. The Company determined to discontinue this line of business and all inventory has been written off. During the fourth quarter of the fiscal year ended June 30, 2010, the Company formally elected, for financial reporting purposes to treat its IPTV product line as a discontinued business.

Nanotechnology Products

Platform Technology

The surface is an important part of virtually every physical object and often plays an overriding role in many processes, beyond mere connectivity and structural support, but more deeply into areas involving chemical and biological interactions. In some instances, the surface provides an easy entry into the chemical or biological systems; in others it protects the internal elements of the object, surrounded by the surfaces.

mPhase's current flagship platform technology is the *Smart Surface*. By being able to control the surface properties of materials down to the nanometer scale, new and improved devices can be designed and built that may lead to compelling business opportunities. One type of smart surface of particular interest allows properties to be changed in response to an external stimulus.

Initially, mPhase's development focused on MEMS devices by manipulating the surface of silicon materials the same material used to make microelectronic materials and devices. Using physical and chemical processes, the surface of the silicon is modified to make solid porous structures known as membranes. This is where microfluidics comes into play. These membranes can be used to selectively control the flow of liquids through the pores or openings at the micrometer length scale.

Surfaces may be characterized as *hydrophilic* or *hydrophobic* depending on whether or not they attract or repel water (or other liquids). A hydrophilic surface can be wet and adsorbs water. A hydrophobic surface, on the other hand, cannot be wet. Hydrophilic and hydrophobic surfaces are abundant in nature and in synthetic materials, both organic and inorganic in chemical composition. A familiar example of a hydrophilic surface is a sponge that readily soaks up water. By contrast, many plant leaves and flower petals are hydrophobic, as are insect parts and bird feathers. Synthetic hydrophobic surfaces include Scotchgard treated fabric, Teflon® coated metal, or Rain-X® coated glass. On a hydrophobic surface, water beads up and can move around without being absorbed by the solid material that it is resting on.

So-called *superhydrophobic* surfaces are also found in nature and can now be replicated in the lab. The lotus leaf and rose petal, for example, exhibit superhydrophobicity. Here water droplets form almost perfect spheres with hardly any contact with the underlying solid surface. This makes the liquid even easier to move and manipulate.

The synthesis of superhydrophobic surfaces has recently been made possible by advances in nanotechnology and mPhase is leading the way to better understand and create materials and devices incorporating these unique surface properties.

As mPhase's research and development efforts evolve, in addition to silicon materials, the ability to control the surface properties of materials can be extended to other substances such as polymers, ceramics, metals, and fibers, as examples, providing opportunities for our platform technology to be used in a range of potential applications such as energy storage and power management for portable electronics and microelectronics, self-cleaning surfaces, filters for water purification or desalination systems, materials for environmental remediation that separate liquids or solvents, and other situations where the control of the interaction of a solid surface exposed to a liquid is vitally important.

Smart NanoBattery

Battery technology has changed little in its fundamentals over the past 150 years. As a result, ordinary batteries begin dissipating energy as soon as they are assembled and therefore have limited shelf life. Chemistries are fixed inside the package so the user cannot interact with the contents to program functionality. The size and form of batteries have not kept pace with the miniaturization of electrical components, microprocessors and integrated circuits. As a result, the optimal implementation of an electronic device is not always achieved. Some batteries contain chemicals that are not

considered safe or environmentally friendly ("green"). This makes disposal a potential issue.

mPhase is challenging this convention by using their proprietary superhydrophobic porous silicon membrane technology as the basis to build the Smart NanoBattery providing Power On Command .

Superhydrophobicity initially keeps the liquid electrolyte physically separated from the solid electrodes of the battery, thus preventing the chemical reactions from occurring that cause the battery to provide power. This gives the Smart NanoBattery the benefit of potentially infinite shelf life.

A conventional battery loses some capacity while sitting on the shelf in its package or stored in an electronic or electrical device, even before being used for the first time. On the other hand, the Smart NanoBattery is built so that it is inactive and remains that way indefinitely until it is turned on. No power is lost to self-discharge or leakage current prior to activation. When needed, the Smart NanoBattery can be activated on command via the phenomenon of electrowetting. The surface properties of the porous silicon membrane are selectively controlled to shift instantly from a superhydrophobic to hydrophilic state. In other words, electrowetting acts as the triggering mechanism.

mPhase has successfully fabricated and demonstrated its first 3-volt lithium-based Smart NanoBattery, based on a design allowing either manual or remote activation by the user, the feature known as Power on Command .

By incorporating the phenomenon of electrowetting on nanostructured surfaces into a revolutionary way of storing energy, the Smart NanoBattery provides power to portable electronic and microelectronic devices exactly when and where it is needed. It is an alternative and an augmentation to conventional batteries, still converting stored chemical energy into usable electrical energy, but in a way that is potentially more reliable, more versatile, more environmentally friendly, and less expensive than the industry norm.

Applications

mPhase is exploring military and commercial applications of smart surfaces in which the properties can be accurately and precisely controlled down to the nanometer scale. Electrowetting allows the switching from a hydrophobic to hydrophilic state as a result of an electronic stimulus.

The Smart NanoBattery, mPhase's first smart surface product, has a unique architecture that enables a shelf life of decades, remote activation, programmable control, scalable manufacturing, and adaptability to multiple configurations. The value proposition to the end user is to have a source of energy or power that is literally always ready - reliable, convenient, low cost - a battery guaranteed to work at full capacity when and where you need it.

The Smart NanoBattery can conceivably supply power "*on command"* to a wide variety of portable electronic and microelectronic devices used in military, medical, industrial, and consumer applications.

mPhase has demonstrated that the battery works in lab tests as well as in a significant field test conducted for the U.S. Army as part of a guided munitions project. The relationship with the Army also included an $850,000 funded project to develop a battery for a mission critical computer memory backup application. The target was a small footprint, 3-volt lithium battery with a minimum shelf life of 20 years and uninterruptible power output during this time period. No other battery technology available today can deliver the long-term performance requirements specified by the U.S. Army for this application.

The Smart NanoBattery can potentially be designed to accommodate a variety of sophisticated portable electronic and microelectronic devices including next-generation cell phones, handheld gaming devices, wireless sensor systems, radio frequency identification tags, high-tech flashlights and beacons, health alert alarms, and non-implantable and implantable medical devices such as pacemakers.

Initial applications will address the need to supply emergency and backup power to a range of products for defense and security, with future applications in the commercial and consumer arenas.

Other Potential Products

The Company has been in active discussions with Picatinny Arsenal, Picatinny, New Jersey to jointly obtain federal funding under SBIR grants to develop additional new products for military small munitions applications. The Company has a strong historic cooperative relationship for product development and testing.

In 2007 the Company entered into a Cooperative Research and Development Agreement (CRADA) with Picatinny Arsenal to test the single cell version of the SmartNanoBattery suitable for future research and development programs for projectile launched munitions. From 2007 through the first quarter of calendar year 2010, numerous internal laboratory air gun simulation tests were performed, including a live-air gun and live gun fired test at the United States Army s facility at Aberdeen Proving Grounds, Aberdeen, Maryland. A prototype of the SmartNanoBattery was the subject of a live fire test as part of a projectile fired out of an Abrams Tank. The results of the test indicated that the battery was activated by 10,000 G forces indicating that it could supply energy necessary to operate a guidance system for small munitions. In addition, the SmartNanoBattery demonstrated extreme resiliency to shock and acceleration since, it survived tests that subjected it to high acceleration of over 30,000 G forces.

On February 9, 2011, the Company announced that it had signed a 3 year CRADA with the U.S. Army Armament Research, Development, and Engineering Center (ARDEC) at Picatinny, New Jersey, to continue to cooperatively test and evaluate the mPhase Smart NanoBattery, including new design features functionally appropriate for DoD based systems requiring portable power sources. The army researchers are evaluating the prototypes using the Army s testing facilities at Picatinny Arsenal in New Jersey in order to determine applicability of the technology to gun fired munitions and potentially to incorporate the technologies into research and development and other programs sponsored by Picatinny. The Research Agreement is supported by the Fuze & Precision Armaments Technology Directorate.

BUSINESS OF THE COMPANY

Business Development, Organization, and Acquisition Activities

mPhase was incorporated in New Jersey in 1979 under the name Tecma Laboratory, Inc. In 1987, the Company changed its name to Tecma Laboratories, Inc. As Tecma Laboratories, Inc., the Company was primarily engaged in the research, development and exploration of products in the skin care field. On February 17, 1997, the Company acquired Lightpaths, Inc., a Delaware corporation, which was engaged in the development of telecommunications products incorporating DSL technology, and the Company changed its name to Lightpaths TP Technologies, Inc.

On January 29, 1997, the Company formed another wholly-owned subsidiary called TLI Industries, Inc. The shares of TLI were spun off to its stockholders on March 31, 1997 after the Company transferred the assets and liabilities, including primarily fixed assets, patents and shareholder loans related to the prior business of Tecma Laboratories. As a consequence of these transactions, the Company became the holding company of its wholly-owned subsidiary, Lightpaths, Inc., on February 17, 1997.

On May 5, 1997, the Company completed a reverse merger with Lightpaths TP Technologies, Inc. and thereafter changed its name to mPhase Technologies, Inc. on June 2, 1997.

From June of 1997-December of 2007, the Company s main business was the development and sale of telecommunication products and equipment and middleware products for the delivery of television by telephone service providers. This business was formally discontinued by the Company for financial reporting as of June 30, 2010.

Effective February 3, 2004, the Company entered into a Development Agreement with the Bell Laboratories division of Lucent Technologies, Inc. for the development of micro power source arrays fabricated using nano textured super hydrophobic materials.

Effective March 5, 2005, the Company extended its Development Agreement with Bell Labs for an additional 12 months for the development of micro power source arrays fabricated using nano textured super hydrophobic materials.

Effective March 10, 2005, the Company entered into a Development Agreement with Bell Labs for the development of a new generation of magnetic field sensors using the science of nanotechnology.

In April of 2006, the Company renewed each of the nanotechnology Development Agreements will Bell Labs dated March 5, 2005 and March 10, 2005 respectively for an additional 12 months at the cost of $100,000 per month for each agreement.

On February 3, 2007, the Company entered into Amendment No. 4 to a Development Agreement effective February 3, 2004, with Lucent Technologies, Inc. extending research and development through April 27, 2007, relating to micro-power source arrays fabricated using nano-textured superhydrophobic materials.

On February 17, 2007, the Company extended a Cooperative Research Agreement through December 31, 2007, originally entered into on July 15, 2005, with Rutgers, The State University of New Jersey governing cooperative research on a lithium nanostructured reserve battery.

On April 28, 2007, the Company extended its Development Agreement with Lucent Technologies relating to micro-power source arrays fabricated using nano-textured superhydrophobic materials originally entered into in February of 2004 with Amendment #5 through July 31, 2007.

On May 10, 2007, the Company entered into a Consulting Agreement with CT NanoBusiness Alliance to produce a report and assist the Company with respect to its strategy for development and marketing of its nano power cell product.

On July 18, 2007, the Company announced the award of a Phase I US Army Small Business Technology Transfer (STTR) Program Grant. This award was a Phase I six month research effort to develop a 30 plus year shelf life, low power, green battery (coin cell or similar) that would continuously power a static random access memory circuit for a computer device. SRAM is a common type of digital memory chip used in a wide variety of electronic systems for data storage. During the six month research period, the team was to characterize the design, conduct capacity and stability measurements of a reserve style power cell based on Lithium chemistry. Long term stability and shelf life is achieved by initially separating the active materials of the power cell during storage, and controlling the activation of the cell until needed to provide power. This research program extended the design of the company's smart battery to support the use of non-water based electrolytes that are commonly used in lithium based batteries. Lithium batteries are favored for powering many different types of electronic devices due to their higher voltage and power requirements than can be supplied by more common alkaline batteries. The Phase I grant, valued at $100,000, enabled the Company to competitively compete for a Phase II award as an avenue used by U.S. government defense agencies to adopt advanced technology for commercialization and use. Rutgers University supported the Company and its newly formed subsidiary, AlwaysReady, Inc., during the award period as a subcontractor under the award guidelines.

On October 19, 2007, the Company announced that in connection with the settlement and dismissal of a civil law suit originally filed on November 16, 2005 by the Securities and Exchange Commission in the Federal District Court in the District of Connecticut, the SEC issued a Cease and Desist Order and certain remedial sanctions against two officers of mPhase Technologies, Inc. (the "Company"). The civil suit was filed against Packetport.com, Inc. a Nevada corporation, Microphase Corporation, a Connecticut corporation that provides administrative services to the Company and shares common management with the Company, and others. The two officers of the Company were Mr. Ronald A. Durando, President and Chief Executive Officer and Mr. Gustave T. Dotoli, the Chief Operating Officer. The civil suit by the SEC named as respondents Mr. Durando, Mr. Dotoli and others in connection with their activities as officers and directors of Packetport.com. The cease and desist order from the SEC found that (1) all parties had violated Section 5 of the Securities Act of 1933, as making unregistered offers or sales of Packetport.com common stock, (2) Mr. Durando and Mr. Dotoli had violated Section 16(a) of the Securities Exchange Act of 1934, as amended, and Rule 16(a) thereunder by failing to timely disclose the acquisition of their holdings on Form 3's, and (3) Mr. Durando had violated Section 13(d) of the Securities Exchange Act of 1934, as amended, for failing to disclose the acquisition of more than five percent of the stock of Packetport.com. Under the order Mr. Durando was required to disgorge $150,000 and Mr. Dotoli was required to disgorge $100,000. The Company was not named as a party to the civil suit. More information regarding the detailed terms of the settlement can be found in SEC release No 8858 dated October 18, 2007 promulgated under the Securities Act of 1933 and SEC Release No. 56672 dated October 18, 2007 promulgated pursuant to the Securities Exchange Act of 1934. Mr. Durando and Mr. Dotoli have continued to serve as officers and directors of the Company. Mr Durando and Mr. Dotoli together with Microphase corporation and others, without admitting or denying the findings of the SEC, except as to jurisdiction and subject matter, have consented to the entry of the Order Instituting Cease and Desist Proceedings, Making Findings and Imposing a Cease and Desist Order and Remedial Sanctions pursuant to Section 8A of the Securities Exchange Act of 1933 and Section 21C of the Securities Exchange Act of 1934.

On February 20, 2008, the Company announced that a prototype of its smart reserve nanobattery was successfully deployed and activated by the resulting g-force in a gun-fired test at the Aberdeen Proving Grounds in Maryland. The test was conducted by the U.S. Army Armament Research, Development, and Engineering Center (ARDEC) of Picatinny New Jersey. In this test, the AlwaysReady battery delivered power to the test load inside the standard military anti-tank round (M830A1 or HEAT-High Explosive Anti Tank) and demonstrated extreme resiliency, surviving the harsh environment as well as the high acceleration at a g-force in excess of 45,000 (one "g" is equal to the pull of gravity at sea level). The gun-fired test was part of a prototype evaluation process that the U.S. Army was conducting as part of its CRADA (Cooperative Research and Development Agreement). The Company's Engineers collaborated with those at Picatinny involved in the development of precision guidance components to successfully package this reserve electrochemical storage system to operate during the gun-firing and flight environment of a very high "g" round. The developmental qualification work, prior to the live test firing, was performed using Picatinny's air gun test facilities by subjecting battery prototypes to various launch accelerations and various design iterations. The test validated the performance of the AlwaysReady battery with a current armament used by the Army. The Company stated that its goal was to potentially incorporate this battery technology into smart, gun-fired munitions programs being developed by Picatinny.

On May 2, 2008, the Company announced that it had produced its first lithium-based battery that can be manually activated by providing power on command with a significantly longer shelf life prior to initial activation than those found in other batteries. The battery can be activated by command wirelessly from a remote location by a radio frequency signal giving it added mobility for sensor and similar applications.

On September 9, 2008, the Company announced that it had been awarded a Phase II Small Business Technology Transfer Program (STTR) grant, part of the Small Business Innovation Research (SBIR) program, from the U.S. Army for continued development of a reserve Smart NanoBattery for a critical computer memory application.

On September 17, 2008, the Company announced that its breakthrough research in microfluidics on understanding how micro- and nanostructured surfaces could be engineered to have properties for repelling water and other types of

liquids could potentially be used in consumer applications to enable self-cleaning surfaces such as shower doors or windows and other materials used in self-cleaning systems.

On September 23, 2008, the Company announced that it had produced compact reserve lithium battery prototypes with a manually activated breakable separator capable of powering a high-intensity emergency flashlight for more than two hours continuously at full brightness. The work was done in conjunction with Eagle Picher, a respected battery design and development firm located in Joplin, Missouri. mPhase stated that it was pursuing the concept of using a reserve battery with a breakable separator in a high-intensity emergency flashlight either as the primary power supply or as a reliable source of backup power. Cylindrical and planar battery and flashlight designs are possible. These flashlights may be equipped with either a krypton bulb or light emitting diode (LED), the choice depending on the required brightness and runtime characteristics. A manually activated breakable separator technology has been created that is analogous to that of the AlwaysReady Smart NanoBattery with the patented electrowettable membrane, both of which keep the liquid electrolyte separate from the solid electrodes until the battery is actually needed. This provides a battery with potentially infinite shelf-life that will not lose power while sitting on the shelf or in storage. Whereas the electrowettable membrane is activated by applying a voltage at the interface between the liquid and membrane surface, the breakable separator is manually activated through a well-defined physical force. The result in both cases is that the liquid electrolyte mixes with the solid electrodes, thus releasing the stored energy and 3 volts of power when lithium chemistry is employed.

On December 5, 2008, the Company announced that it had signed a contract with Porsche Design Gesellschaft m.b.H., Flugplatzstrasse 29, A,S700 Zell am see, Austria ["Porsche Design Studio"], to design a premium version of the AlwaysReady emergency flashlight. The flashlight was to use mPhase's proprietary lithium reserve battery. The battery contains a breakable barrier that separates the solid electrodes from the liquid electrolyte until the battery is manually activated. Unlike traditional batteries, the mPhase battery remains in an inert state with no leakage or self-discharge until activation. The mPhase battery was designed to have an almost infinite shelf life making it ideal for emergency lighting applications. The premium flashlight was to be marketed as an accessory for automobile roadside emergency kits.

On January 15, 2009, the Company announced that its SmartNanoBattery being developed pursuant to a Phase II Army Grant for a critical mission computer backup reserve battery may also have wider application for unattended electronic ground sensors that provide mission critical information for military operatives.

On January 29, 2009, the Company announced that it had contracted EaglePicher Technologies to manufacture the reserve battery for use in its emergency flashlight. EaglePicher was selected for the project because of their experience in custom and standardized power solutions for the extreme environments of aerospace and military applications as well as medical and commercial applications.

On March 18, 2009, the Company announced that it had received the first working model for the emergency flashlight from the Porsche Design Studio in Zell am See, Austria, representing a major step forward as the Company prepared for the initial product launch.

On June 23, 2009, the Company announced that it had achieved a major milestone in the development of its Smart NanoBattery Technology. mPhase reported that it had successfully manufactured a six-inch silicon-based wafer containing its key membrane (separator) technology. This separator is responsible for keeping the Smart NanoBattery's chemicals separated until activated. The membrane's unique surface and structure allows for control of a liquid on a nanostructured surface.

On August 5, 2009, the Company announced that it had completed the first functional prototype of its lithium reserve battery intended for use in the Company's emergency flashlight. The prototype is the first time the mPhase battery technology had come together in a "ready for production" prototype. The mPhase lithium reserve battery stores energy until it is literally "turned on." It is manually activated by a unique triggering mechanism that rapidly releases and distributes the liquid electrolyte inside the battery. The electrolyte immediately contacts the solid electrode materials to produce 3 volts. The reserve battery is designed for backup power and emergency applications. With a shelf life of over 20 years, the mPhase lithium reserve battery allows the emergency flashlight to function as a reliable emergency light source in countless situations.

On August 6, 2009, the Company announced that it had completed the first fully functional prototype of its emergency flashlight. A world renowned automobile design firm created a sleek design to accompany the flashlight's unparalleled functionality. The new illuminator features mPhase's first reserve battery that allows for backup power to be always ready through a simple activation method.

On August 27, 2009, the Company announced that its Phase II grant from the United States Army had been renewed for a second year.

On November 2, 2009, the Company reported that it had been granted a United States patent for its concept for a battery that is safer for the environment in that it is based on the idea of neutralizing the harmful chemisty inside the battery by dispensing a neutralizing agent or containment polymer located inside the battery fixture and dispensed once the barrery is depleted. This reduces the risk of potentially harmful chemicals leaking through the battery container and polluting the ground or air after the battery has been discarded.

On March 9, 2010, the Company announced that its mPower On Command Reserve Battery had successfully met all United Nations/US Department of Transportation safety standards and had received UN DOT certification for the safe transport of lithium-containing batteries. Certification required successful passage of eight tests, altitude, thermal, vibration, shock, impact, overcharge, forced discharge, and external short circuit.

On May 14, 2010, the Company announced that both its mPower Emergency Illuminator and the Power On Command reserve battery technology passed a series of rigorous tests necessary to qualify for CE marking. The CE mark certifies that a product has met European Union consumer safety requirements and allows both products to be sold in the European Economic Area, which includes members and non-members of the European Union.

On June 14, 2010, the Company reported that it had been granted a United States patent for the concept of the porous membrane made from silicon that is capable of controlling the flow of a wide range of liquids, including electrolytes, used in both primary and rechargeable batteries. This is the concept used in the development of the Company s Smart NanoBattery. The issued patent is jointly held between the Company and Alcatel Lucent and is based on a prior cooperative research and development agreement between the two companies.

On July 31, 2010, the Company announced that its scalable smart reserve cell technology is one of the items included in the Fiscal Year 2011 Defense Appropriations Bill that was passed out of subcommittee by the U.S. House of Representatives to receive approximately $2,500,000 in federal funding.

On August 25, 2010 the Company announced that it signed a representative agreement with Tritech Lt. of Hod HaSharon, Israel, a leading stocking representative and distributor of major manufacturers of electronic components serving the Military, Communication, Medical, Industrial Control and Security Industries to promote the Company s products exclusively in Israel.

On November 12, 2010, the Company reported that it had successfully triggered and activated its first functional multi-cell Smart NanoBattery, achieved by applying a brief pulse of electrical energy to a porous, smart surface membrane, located inside each cell in the battery, which caused the electrolyte to come in contact with the cell's electrodes, creating the chemical reaction to produce voltage inside the cell of the multi-cell battery. The mPhase multi-cell battery consists of a matrix of 12 individual cells populated with an electrode stack consisting of lithium and carbon monofluoride materials (Li/CFx), with each cells rated at 3.0 volts. Using a specially designed circuit board for testing and characterization studies, each of the cells in the battery were independently triggered and activated without affecting any of the non-activated cells in the multi-cell configuration. Because of the unique design of the multi-cell battery, each cell in the battery has very long shelf until it is triggered.

On February 9, 2011, the Company announced that it signed a 3 year CRADA (Cooperative Research and Development Agreement) with the U.S. Army Armament Research, Development, and Engineering Center (ARDEC) at Picatinny, New Jersey, to continue to cooperatively test and evaluate the mPhase Smart NanoBattery, including new design features and functionally appropriate for DoD based systems requiring portable power sources. The army researchers would further evaluate the prototypes using the Army's testing facilities at Picatinny Arsenal in New Jersey in order to potentially incorporate the technologies into research and development and other programs sponsored by Picatinny.

On May 20, 2011, the Company reported that it had been granted a United States patent for the unique concept of a smart battery design that could contain different battery chemistries within the same battery configuration or battery pack. The techniques described in the patent are based on the idea of creating individual cells within a battery system, where each cell could contain a custom combination of electrolyte and electrode materials. The patent describes how individual cells in a battery could be activated based on conditions such as the surrounding temperatures or other conditions such as power drain requirements, which can be used in determining which cells in the battery to activate. The concepts behind this patent could be used to create a new type of reserve battery that would work in a wide range of applications, such as electronic devices and sensors used in very high and low temperature environments, where the temperature conditions may change over time, or in other environments where optimal battery performance is not easily achieved based on a single non optimized battery chemistry.

On June 15, 2011, the Company announced that it had engaged First Principals, Inc. (FPI), a world-class technology appraisal and commercialization enterprise located in Cleveland, Ohio, to perform a complete economic and strategic evaluation of mPhase's Patent Portfolio and identify a broad array of potential innovative products for "smart surfaces." In addition, FPI is to assist the Company in identifying strategic partners leading to additional commercialization applications and opportunities with respect to its SmartNanoBattery.

On June 29, 2011, the Company received approval from its shareholders at a Special Meeting of Shareholders to amend the Company s Articles of Incorporation to increase the Company s authorized shares of common stock from 2 billion to 6 billion shares.

On July 28, 2011, the Company announced it had executed a Letter of Intent to acquire Energy Innovative Products, a company engaged in energy conservation product development (See Subsequent Events on page 62).

Products & Services

Since its inception in 1996, mPhase has been a development stage company focused on the development of intellectual property involving high technology innovative solutions and products with high-growth potential. The Company has served as an incubator for exploratory research and initial development for products that are best characterized as having a high risk/high reward profile since they involve exploratory research to achieve significant scientific breakthroughs from existing products that can have a substantial economic impact and benefit upon successful commercialization.

NanoBattery

The Smart NanoBattery is an outgrowth of the science of nanotechnology that the Company began in February of 2004 with the entry into a Project Development Agreement with the Bell Labs Division of Lucent Technologies, Inc. The Company has historically outsourced its Research and Development of new products to larger companies or institutions with significant scientific resources and experience in exploratory research. mPhase Technologies along with Alcatel/Lucent/Bell Labs jointly conducted research from February 2004 through April of 2007 that demonstrated control and manipulation of fluids on superhydrophobic surfaces to create power cells by controlling wetting behavior of electrolytes on nano structured electrode surfaces. This scientific research set the ground work for continued exploration in the development of intelligent nanotechnology power cells (nano-batteries), and formed a path to commercialization of the technology for a broad range of market opportunities. During 2005 and 2006, the battery team tested modifications and enhancements to the internal design of the battery to optimize its power and energy density characteristics, as well as engineering improvements that were essential in moving the battery from a zinc based chemistry to a design using lithium based chemistry The Company established a strategic research working relationship with the Energy Storage Research Group (ESRG), a center of excellence in Rutgers University that has lab research facilities capable of handling lithium based battery development.

mPhase's current flagship product is its Smart NanoBattery that has a significantly longer shelf life prior to initial activation than that of conventional batteries. The Smart NanoBattery has potentially significant applications for critical mission power sources that must be reliable and available upon command by the electronic device it is powering. Such applications involve emergency flashlights and beacons, back-up power sources for computers and life support products, as well as significant military applications where critical mission backup power is essential for weapons control computers and electronic warfare equipment used in combat. Other potential military applications include power sources activated by g-forces for guided munitions.

The Smart NanoBattery utilizes a proprietary technology developed over a period of 5 years. The battery design, prior to initial activation, has a membrane that separates the electrolyte and electrodes used to generate power. Conventional batteries do not provide for such separation and therefore their power begins to dissipate prior to the first time they are activated causing them to lose capacity. Conventional batteries have significant limits on how long they can be stored prior to their first activation and in providing a reliable source of power needed for critical applications requiring portable power supplies.

Mechanically-Activated Reserve Battery

In April of 2008, mPhase successfully produced its first lithium-based breakable separator. This provided the basis of a new reserve battery product that relies on mechanical rather than electrical activation to provide Power on Command. In contrast to the Company's SmartNanoBattery product that is being developed using the science of nanotechnology and relies on an electro wetting membrane, this reserve battery is designed for mechanical rather than electrical activation. Such reserve battery is based upon an innovative mechanical and battery engineering design that is activated by puncturing a soft pouch containing electrolyte. Such reserve battery was especially designed to be used in the Company's new emergency flashlight product. It was designed for the Company by Eagle Picher, a major U.S. battery designer, and the flashlight was designed for the Company by Porsche Design Studio. The Company

transitioned the flashlight s backup battery from the Eagle Picher battery to a cost-reduced modified primary battery with an extended shelf life.

Magnetometer: Development Suspended in 2007

In March of 2005, the Company engaged the Bell Labs division of Lucent Technologies, Inc. to develop, using the science of nanotechnology, both a low and high sensitivity magnetometer for both military and commercial use.

Magnetometers can be used in a wide range of applications for the detection of magnetic fields in applications that include military surveillance, securing the retail environment, automotive sensors and actuators, industrial processing, medical imaging, scientific measurements, detection of mineral deposits and even air and space exploration. In sensor networks ultra-sensitive magnetometers can be used, for example, to detect and accurately pinpoint battlefield objects or they might also be used to study the workings of the human brain.

Magnetometers work by sensing changes in magnetic fields due to the motion of magnetic objects or changes in electrical currents generated by those objects. The magnetometer detects these objects by measuring time-varying magnetic signals that are superimposed on the combination of earth s background field used to orient compasses) and static magnetic fields due to near-by magnetic objects. In March of 2007, the Company ceased development with Alcatel/Bell Labs of its magnetometer product in order to conserve financial resources.

Competitive Business Conditions

Battery Segment

The design and functionality of the mPhase/AlwaysReady lithium Smart Nanobattery make it unique to the portable electronics battery market segment. To the best of our knowledge, there is no existing product that directly competes with the Smart NanoBattery in terms of its combination of small size and reserve design. As a reserve battery, the Smart NanoBattery remains dormant until it is activated on command. It does not self-discharge or die prior to its first activation, thereby offering extremely long shelf life prior to use as either a primary or backup battery in a device. Shelf life is projected to be in excess of twenty years.

There are numerous thin film batteries based on lithium metal, lithium ion and lithium polymer, as well as other chemistries, used in military devices, portable electronics, RFID tags and wireless sensor networks, that are similar in size to the Smart NanoBattery, often referred to as microbatteries. None of these designs is based on reserve battery architectures. Thin film batteries are manufactured by companies including Cymbet Corporation, Front Edge Technology, Infinite Power Solutions, ITN Energy Systems, Johnson Research and Development Company, KSW Microtec, Lithium Technology Corporation, MPower Solutions, Oak Ridge Micro-Energy, Power Paper, Solicore, VoltaFlex Corporation. Large companies such as Energizer, Ultralife, Varta and Proctor & Gamble are also involved with developing thin film batteries. Thin film battery markets are anticipated to reach 10 billion units and $11 billion dollars by 2012. The market driving forces are those of wide expansion of portable devices in that time frame. With 3.5 billion cell phone users and 67 billion RFID tags per year anticipated during that period alone, it is expected that there will be substantial commercial demand for thin film batteries.

Traditional reserve batteries are distinct from the mPhase/AlwaysReady Smart NanoBattery in terms of size and activation mechanism. The market for reserve batteries has largely been limited to the military for supplying power to munitions and other mission-critical electronic devices. The traditional reserve battery tends to be larger and certain types are built by hand and contain mechanical parts to activate the battery. The Smart NanoBattery relies on the phenomenon of electrowetting to initiate activation or a mechanical barrier that can be broken, in the case of the breakable barrier design. Traditional reserve batteries for military applications have been supplied by companies such as EaglePicher, Yardney and Storage Battery Systems, Inc.

Flashlight Market

The Company believes that there may be a significant market for a high-end emergency flashlight containing its mechanically activated reserve battery. The need for absolute reliability in many emergency situations includes those of fire, police and other emergency service providers. In addition to providing an emergency light source, when needed, the flashlight developed with such lithium reserve battery has, as an alternative to providing light, a port capable of recharging a cellular telephone produced by Porsche Design Studio as well as those of other major cellular telephone providers. Since the market for new and innovative portable electronic batteries continues to expand, especially in the field of wireless hand-held devices, the Company believes that its emergency flashlight and reserve battery may benefit significantly from this trend.

Outsourcing

Research and Development

The Company practices an outsourcing model whereby it contracts with third party vendors to perform research and development rather than performing the bulk of these functions internally. For current development of its flashlight and reserve battery, the Company has outsourced the majority of the work. It also maintains a small core R/D staff of engineers and scientists in the fields critical for the battery development. From February of 2004 through March of 2007, the Company engaged Lucent/Bell Labs to develop, using the science of nanotechnology, micro power cell arrays creating a structure for zinc batteries that separated the chemicals or electrolytes prior to initial activation. This was done by suspending on nano grass or small spoke-like pieces of silicon a liquid electrolyte taking advantage of a superhydrophobic effect that occurs as a result of the ability to manipulate materials of a very small size or less than 1/50,000 the size of a human hair. The Company has, as a result of outsourcing, been able to have access to facilities, equipment and research capabilities that the Company would not be able to develop on its own given the financial resources and time that would be required to build or acquire such research capabilities. The Company has also been able to achieve key strategic alliances with the U.S. Army to successfully test, under military combat conditions, its SmartBattery design, leading to further validation of its path to product development under a Cooperative Research and Development Agreement (CRADA). In addition, the Company has formed a relationship with Energy Storage Research Group, a center of excellence at Rutgers University, in New Jersey, that has enabled the Company to expand its battery development from a zinc to a lithium battery capable of delivering significantly more power. During fiscal years 2009 and 2010, the Company outsourced considerable foundry work for final development of the SmartNanoBattery to Silex, a Swedish company

During the period from March of 2005 to April of 2007, the Company engaged the Bell Labs division of Lucent Technologies, Inc. to develop a magnetometer or electronic sensor also using the science of nanotechnology. Although the Company has, in order to conserve financial resources, currently suspended further development of its magnetometer product line, we believe that the intellectual property developed from the research to date could be resumed to develop viable military and industrial products depending upon future financial resources of the Company and future competitive market conditions.

As previously noted, the Company outsourced to Eagle Picher company most of the prototype development of its mechanically-activated reserve battery and Porsche Design Studio the prototype development and MKE for its design and manufacturing of its pilot program Emergency Flashlight product.

Prototype Development

As the Company moved from development to commercialization of its emergency flashlight products utilizing its mechanically activated reserve battery, the Company outsourced the creation of prototypes to Porsche Design Studio in December of 2008 and MKE, a mechanical design company in Austria that works closely with them. The reserve battery prototype development work was outsourced to Eagle Picher in early 2009. The Company engaged Microphase Corporation, a related party, under contract for project management and testing of its new Emergency Flashlight and the mechanically- activated reserve battery initially used in such flashlight at a cost of $50,000 per month for 6 months beginning April 1, 2009 and ending on September 30, 2009. From October 1, 2009 through June 30, 2011 the Company has paid Microphase Corporation a total of $225,000 in connection with its Emergency Flashlight pilot sales program.

Manufacturing

mPhase subcontracts all of the manufacturing of its products to outside sources including related parties such as Microphase Corporation. During the fiscal year ended June 30, 2011, the Company paid MKE $87,766 for the manufacture and packaging of its Emergency Illuminator. During the fiscal year ended June 30, 2010, the Company

engaged MKE in connection with the manufacture and packaging of its Emergency Illuminator at a cost of $199,092. From April 1, 2009 through August 31, 2009, we paid $50,000 per month to Microphase for project management services in connection with development of the Company's flashlight with Porsche Design Studio and the concurrent development of its mechanically-activated reserve battery by Eagle Picher. The Company believes that such payments are the same as would be charged by other management services provided by non-affiliated third party providers of such services. By using contract manufacturers, mPhase avoids the substantial capital investments required for internal production.

Patents and Licenses

We have filed and intend to file United States patents, in some cases EU patents and/or copyright applications relating to some of our proposed products and technologies, either with our collaborators, strategic partners or on our own. There can be no assurance, however, that any of the patents obtained will be adequate to protect our technologies or that we will have sufficient resources to enforce our patents.

Because we may license our technology and products in foreign markets, we may also seek foreign patent protection for some specific patents. With respect to foreign patents, the patent laws of other countries may differ significantly from those of the United States as to the patentability of our products or technology. In addition, it is possible that competitors in both the United States and foreign countries, many of which have substantially greater resources and have made substantial investments in competing technologies, may have applied for, or may in the future apply for and obtain, patents, which will have an adverse impact on our ability to make and sell our products. There can also be no assurance that competitors will not infringe on our patents or will not claim that we are infringing on their patents. Defense and prosecution of patent suits, even if successful, are both costly and time consuming. An adverse outcome in the defense of a patent suit could subject us to significant liabilities to third parties, require disputed rights to be licensed from third parties or require us to cease our operations.

The Company has intellectual property as follows:

Nano Technology, Micro Electrical Mechanical Systems (MEMS) and Battery Portfolio:

Various aspects of the mPhase technology are protected by patents either owned directly by the Company or with respect to which the Company has full sub-licensing rights. The Company s current battery related patent portfolio consists of seven issued patents, of which one is jointly owned with Rutgers University, two are jointly owned with Lucent Technologies and four are licensed from Lucent Technologies. These cover such aspects of the technology as the ability to use electrowetting to create a moveable liquid lens, methodology and apparatus for reducing friction between a fluid and a body, methodology for etching planar silicon substrates to develop a reserve battery device, methodology and apparatus for controlling the flow resistance of a fluid on nanostructured or microstructured surfaces, methodology for creating a structured membrane with controllable permeability, methodology for a nanostructured battery with end of life cells, and methodology for making a multi-cell battery system with multiple chemistries in each individual cell of the battery pack. Some of these patents are specific to the development of a battery device while others are more generalized. The Company also has four patent applications related to the Smart Surfaces technology that have been filed with the United States Patent Office and other foreign patent offices and that are in various stages of examiner review, as well as four additional patent applications related to other Smart Surfaces technologies under review.

The Company has obtained trademark protection for its mPower Emergency Illuminator and mPower on Command, and it currently has one additional trademark application pending.

Other Patents

On July 12, 2005, mPhase announced that it had been granted a U.S. patent that covers a series of techniques for splitting different voice and data signals in DSL access networks that is used in its Broadband Loop Watch product. The Company has discontinued further development and marketing of this product owing to the lack of demand for loop diagnostics systems by telephone service providers.

In July of 2009, the Company filed for 3 new patents covering the unique design features of its manually-activated lithium reserve battery and emergency flashlight products.

On May 20, 2011, the Company announced that it had been granted a U.S. patent for multi-chemistry battery architecture.

We also rely on unpatented proprietary technology, and we can make no assurance that others may not independently develop the same or similar technology or otherwise obtain access to our unpatented technology.

Research and Development

From March of 2005 through March of 2007, the Company had engaged Bell Labs under separate Development Agreements for the development of a new generation of ultra magnetic sensors (magnetometers) using the science of nanotechnology with a total cost of $2.4 million. The Company did not renew such its engagement with Bell Labs upon expiration and did not incur any further costs with respect to its magnetometer since the Company has suspended further development of the product to conserve financial resources.

On September 23, 2008, the Company announced that its internal research and development effort had resulted in the successful creation of a compact lithium reserve battery reserve battery prototype with a breakable separator capable of powering a high-intensity emergency flashlight. The manually-activated reserve battery is based upon the same principles of separation of liquid electrolyte from solid electrodes as the Company s smart nanobattery but was developed based upon traditional mechanical engineering technology.

Our SmartNanoBattery and power cell technology research and development was performed by the Bell Labs division of Alcatel/Lucent from February of 2004 through March of 2007 at an aggregate cost of $3.8 million. The Company paid Bell Labs $300,000 covering the period from April 27, 2007 through July 30, 2007, at which time it determined that, in order to develop a lithium battery for higher density energy than zinc, it required facilities capable of handling lithium battery research that Bell Labs does not have. The Company engaged a number of small foundries during fiscal year ended June 30, 2008 for commercialization of its SmartNanoBattery at a cost of approximately $150,000. In fiscal year ended June 30, 2009, the Company engaged Eagle Picher at a cost of $75,000 to design and engineer a prototype of its manually-activated lithium reserve battery and Posche Design studio at a cost of $79,123 for design of its emergency flashlight product. In addition, the Company secured a Co-Branding Agreement with Porsche Design Studio for its emergency flashlight product. In fiscal year ended June 30, 2010, the Company paid $950,018 in connection with producing and bringing this product to market, and in fiscal year ended June 30, 2011, the Company incurred $33,254 of expenses in connection with this product. During the fiscal year ended June 30, 2009, the Company engaged Silex, a silicon foundry in Sweden, at a cost of $21,200 for further development of its SmartNanoBattery; payments to Silex for fiscal year ended June 30, 2010 in connection with the SmartNanoBattery amounted to $396,780, and for fiscal year ended June 30, 2011 they were $40,800.

During fiscal years ended June 30, 2008, June 30, 2009 and June 30, 2010 the Company engaged in joint research with Rutgers University in connection with a $750,000 STTR Grant from the United States Army for purposes of developing an emergency reserve battery to backup a computer memory application.

During fiscal years ended June 30, 2009, June 30, 2010 and June 30, 2011 the Company engaged MKE, an approved vendor of Porche Design Studio to manufacture prototypes as well as a series of commercialized emergency flashlights utilizing the design developed for the Company by Porsche Design Studio.

Commencing in fiscal year ended June 30, 2011, the Company engaged Porsche Design Studio to develop a second automotive product for the Company.

Employees

mPhase and its subsidiary companies presently have a total of 6 full-time employees and consultants, two of whom are also employed by Microphase Corporation. See the description in the section entitled Certain Relationships and Related Transactions.

ITEM 1A. RISK FACTORS

RISKS RELATED TO FINANCIAL ASPECTS OF OUR BUSINESS

The Company has been forced to curtail development of all products except its SmartNanoBattery and Emergency Flashlight in order to conserve financial resources

The Company has been forced to focus on commercialization of only two of its products, thereby eliminating product diversification. The Company's lack of financial resources to simultaneously develop multiple products increases its overall risk profile as a development-stage company.

mPhase's stock price has suffered significant declines during the past ten years and remains volatile.

The market price of our common stock closed at $7.88 on July 26, 2000 and at $.0069 on August 22, 2011. During such period the number of shares outstanding of the Company increased from approximately 30 million shares to approximately 1.63 billion shares. This increase was the result of periodic private placements and other financing arrangements involving convertible debt issued by the Company in order to finance company operations. Stocks in micro cap companies having stock values below $1.00 per share have been very volatile during such period. Our common stock is a highly speculative investment and is suitable only for such investors with financial resources that enable them to sustain the loss of their entire investment in such stock. Because the price of our common stock is less than $5.00 per share and is not traded on the NASDAQ National or NASDAQSmall Cap exchanges, it is considered to be a "penny stock," limiting the type of customers that broker/dealers can sell to. Such customers consist only of "established customers" and "Accredited Investors" (within the meaning of Rule 501 of Regulation D of the Securities Act of 1933, as amended),generally individuals and entities of substantial net worth, thereby limiting the liquidity of our common stock.

We may not be able to raise sufficient capital to market our SmartNanoBattery and Emergency Flashlight applications of our technology on any meaningful scale.

We may not be able to obtain the amount of additional capital needed until the Company has established significant and predictable sales and revenues from our technology. We have been successful in the past as a micro-cap development stage company in raising capital; however, recent trends in the capital markets are likely to pose significant challenges for the Company. Factors affecting the availability of capital include:

(1) the price, volatility and trading volume of our common stock;
(2) future financial results including sales and revenues generated from operations;
(3) the market's view of the business sector of nanotechnology reserve batteries and emergency flashlights; and
(4) the perception in the capital markets of our ability to execute our business plan.

We have reported net operating losses for each of our fiscal years from our inception in

We have reported net operating losses for each of our fiscal years from our inception in 1996 through the fiscal year ended June 30, 2011 and may not be able to operate profitability in the future.

We have had net losses of approximately $194.6 million since our inception in 1996 including approximately $.49 million and $7.3 million for the fiscal years ended June 30, 2011 and June 30, 2010, respectively and cannot be certain when or if we will ever be profitable. We expect to continue to have net losses for the foreseeable future and have a need to raise not less than $5 million in additional cash in the next 12 months through further equity private placements and existing convertible debt arrangements to continue operations. As of June 30, 2011, we have working capital of approximately $(2,705,493) and a stockholders deficit of $(5,591,774). Cumulative negative cash flow from operations since inception has amounted to approximately $(87,512,744).

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Economic support from affiliated companies has been significant.

During the downturn in the telecommunications industry beginning in 2001, both Microphase Corporation and Janifast Ltd. provided significant financial support to mPhase in the form of either cash infusions or conversions of related party debt. Janifast Ltd. shut down its operations in March of 2009 owing to its financial condition and is currently being liquidated. Such companies, which share common management with mPhase, are under no legal obligation to and may not be able to sustain such economic support of mPhase in the future should such support be necessary.

Our independent auditor's report expresses doubt about our ability to continue as a going concern.

The reports of the Company's outside auditors Demetrius & Company, LLC., and its prior auditors Rosenberg, Rich, Baker, Berman & Company, Arthur Andersen & Co., with respect to its latest audited reports on Form10-K for each of the fiscal years commencing in the fiscal year ended June 30, 2001 through the current fiscal year ended June 30, 2011, stated that "there is substantial doubt of the Company's ability to continue as a going concern." Such opinion from our outside auditors makes it significantly more difficult and expensive for the Company to raise additional capital necessary to continue our operations.

Our common stock is subject to significant dilution upon issuance of shares we have reserved for future issuance.

As of June 30, 2011, outstanding convertible debt plus accrued interest is equal to $1,339,505, all of which has the right to convert into additional shares of our common stock at discounts of up to 25% of mPhase's then current stock price computed on a formula basis that may adversely affect the future price of our common stock. As of June 30, 2011, we have warrants and options convertible into 21,480,837 and 113,720,000 shares of our common stock at $.05 per share or more that, upon exercise, may result in significant future dilution to many of our current shareholders and may adversely affect the future price of our common stock. In addition, certain common stock grants to officers and directors after June 30, 2011 (see Subsequent Events) have caused significant additional dilution. We may be forced to raise additional cash for operations by selling additional shares of our common stock to shareholders at depressed prices resulting in further dilution to our shareholders.

RISK FACTORS RELATED TO OUR OPERATIONS

We have been a development-stage company since our inception in 1996 and have not to date had a significant or successful deployment of any of our flagship products, including our SmartNanoBattery and our Emergency Flashlight products.

We have derived no material revenues from our SmartNanoBattery from inception of development in February 2004 through June 30, 2011 or the Emergency Flashlight and we have been forced to discontinue product development and marketing of both our TV+ and magnetometer products owing to limited financial resources.

The loss of key personnel could adversely affect our business

Management and employment contracts with all of our officers have expired and no assurances can be given that such executives will remain with the Company or that the Company will be able to successfully enter into agreements with such key executives. All of our officers have made significant investments in the Company in the form of equity periodic purchases of common stock and bridge loans and been granted stock and stock options that are intended to represent a key component of their compensation. Such grants may not provide the intended incentives to such officers if our stock price declines or experiences significant volatility.

We may incur substantial expenditures in the future in order to protect our intellectual property.

We believe that our intellectual property with respect to our SmartNanoBattery and our proprietary rights with respect to the Company's permeable membrane design consisting of both micro and nano scale silicon features that are coated with a monolayer chemistry used to repel liquids is critical to our future success. The Company s current battery related patent portfolio consists of seven issued patents, of which one is jointly owned with Rutgers University, two are jointly owned with Lucent Technologies and four are licensed from Lucent Technologies. We also have four patent applications related to the Smart Surfaces technology that have been filed with the United States Patent Office and other foreign patent offices that are in various stages of examiner review, as well as four additional patent applications related to other Smart Surfaces technologies under review. Our pending patent applications may never be granted for various reasons, including the existence of conflicting patents or defects in our applications. Even if additional U.S. patents are ultimately granted, there are significant risks regarding enforcement of patents in international markets. There are many patents being filed as the science of nanotechnology develops and the Company has limited financial resources compared to large, well established companies to bring patent litigation based upon claims of patent infringement.

RISKS RELATED TO OUR TARGETED MARKETS

The sale of new high technology products often has a long lead-time and a multiplicity of risks.

Commercialization of new technology products often has a very long lead time since it is not possible to predict when major companies will license such technology for sale to their customers. The science of nanotechnology and microfluidics used to develop our SmartNanoBattery is in its very early stages and acceptance and demand for such products can often be a long evolutionary process.

The science of nanotechnology is at a very early stage as a discipline and is subject to great uncertainty and swift changes in technology.

Microfluid dynamics and the manipulation of materials of nano size and dimensions is a very new science and the creation of new products is dependent upon new and different properties of such materials created that will result in many uncertain applications and rapid change. The evolution of nanotechnology as a new science adds greater uncertainty to new applications and new and improved product introductions is unpredictable.

We may not be able to create new products from our intellectual property using microfluidics that will be acceptable in water purification, oil separation from water and other environment markets.

The market for "green" products and solutions is characterized by changing regulatory standards, new and improved product introductions, and changing customer demands.

Large companies such as General Electric with great resources are currently focusing significant monies for new solutions.

Our future success will depend upon our ability to achieve compelling technology innovations that are economic and practical to produce in large quantities. Success in new technology, products and services is a complex and uncertain process requiring high levels of innovation, highly-skilled engineering and development personnel, and the accurate anticipation of technological and market trends. We may not be able to identify, develop, market or support new or enhanced technology, products, or services on a timely basis, if at all, owing to our size and limited financial resources.

The commercialization of many applications of our technologies will depend on our ability to establish strategic relationships with commercial partners.

We are seeking commercial partners with established lines of business and greater financial resources than our own. Such partners may not place the priority that we do on joint projects because the success or failure of such projects is not as material to other existing well developed lines of business.

Our SmartBattery and our potential applications of our technology are components of end products and therefore our products are tied to the success of such end products.

The compelling need for critical mission batteries and other applications of our nanotechnology will depend upon both military and commercial needs going forward and the demand for our products as components. Thus the success of our SmartBattery and other applications of our technology will depend upon the continuing need for the end user products and market demand.

FURTHER LEGAL AND ECONOMIC RISKS

The Company has sold convertible notes to JMJ Financial in the aggregate principal amount of $10,270,000 through June 30, 2011. JMJ has converted into common stock and sold a substantial number of shares without registration under the Securities Act of 1933, as amended of qualification under state blue sky laws. The structure of the transaction involves JMJ periodically funding the purchase price of the convertible notes over time under a secured promissory note. Since such secured note allows JMJ prepay any future amounts due under the secured note by returning the secured note to the Company rather than make a payment in cash, certain questions of economic risks may be raised to the proper holding period for shares converted and sold by JMJ under the Convertible Note as meeting the requirements of Rule 144 of the Securities Act of 1933,as amended. At June 30, 2011, approximately 395 million shares of our outstanding common stock issued in respect of our convertible note transactions with JMJ Financial could be subject to rescission with a potential liability approximating $4.08 million, including a liability of approximately $448,000 for interest at 10% per annum.

ITEM 2. PROPERTIES

Our corporate headquarters is located at 587 Connecticut Avenue, Norwalk, CT 06854-1711. The Company leases this office space from Microphase Corporation under a facilities agreement with Microphase that provides that mPhase lease office space, lab facilities and administrative staff on a month-to-month basis for $3,000 month. The Company also maintains an office in Little Falls, New Jersey with monthly rent of $2,271 per month.

ITEM 3. LEGAL PROCEEDINGS

From time to time mPhase may be involved in various legal proceedings and other matters arising in the normal course of business. During its fiscal year ended June 30, 2011, the Company was not involved in any material legal proceedings or matters.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

(A) MARKET PRICES OF COMMON STOCK. The primary market for mPhase's common stock is the NASDAQ OTC Bulletin Board, where it trades under the symbol "XDSL." The Company became publicly traded through a merger with Lightpaths TP Technologies, formerly known as Tecma Laboratories, Inc. pursuant to an agreement dated February 17, 1997. The following table sets forth the high and low closing prices for the shares for the periods indicated as provided by the NASDAQ's OTCBB System. The quotations shown reflect inter-dealer prices, without retail mark-up, markdown, or commission and may not represent actual transactions. These figures have been adjusted to reflect a 1 for 10 reverse stock split on March 1, 1997.

YEAR/QUARTER	HIGH	LOW
Fiscal year ended June 30, 2004		
First Quarter	$ .42	$ .29
Second Quarter	.61	.29
Third Quarter	.69	.38
Fourth Quarter	.46	.29
Fiscal year ended June 30, 2005		
First Quarter	$ .31	$ .21
Second Quarter	.35	.23
Third Quarter	.60	.30
Fourth Quarter	.41	.25
Fiscal year ended June 30, 2006		
First Quarter	$ .29	$ .21
Second Quarter	.32	.15
Third Quarter	.45	.19
Fourth Quarter	.34	.18
Fiscal year ended June 30, 2007		
First Quarter	$ .21	$ .16
Second Quarter	.20	.15
Third Quarter	.24	.15
Fourth Quarter	.19	.09
Fiscal year ended June 30, 2008		
First Quarter	$ .13	$ .07
Second Quarter	.09	.05
Third Quarter	.14	.05
Fourth Quarter	.13	.07
Fiscal year ended June 30, 2009		
First Quarter	$ .08	$ .03
Second Quarter	.05	.01
Third Quarter	.04	.01
Fourth Quarter	.05	.01
Fiscal year ended June 30, 2010		
First Quarter	$ .03	$ .02
Second Quarter	.02	.01
Third Quarter	.03	.02
Fourth Quarter	.02	.01
Fiscal year ended Jun		