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

# **FORM 10-K**

(MARK ONE)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED OCTOBER 2, 2011

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM TO

**COMMISSION FILE NUMBER 0-20225** 

# **ZOLL MEDICAL CORPORATION**

(Exact name of registrant as specified in its charter)

MASSACHUSETTS (State or other jurisdiction of incorporation or organization)

269 MILL ROAD, CHELMSFORD, **MASSACHUSETTS** 

(Address of principal executive offices)

04-2711626 (I.R.S. Employer Identification No.)

01824 (Zip Code)

Registrant's telephone number, including area code (978) 421-9655 Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered The NASDAQ Stock Market LLC

**Common Stock**, \$0.01 Par Value **Stock Purchase Rights** 

Securities registered pursuant to Section 12(g) of the Act:

None (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 🗆 Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes  $\Box$  No  $\boxtimes$ 

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 such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  $\boxtimes$  No  $\Box$ .

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 for such shorter period that the registrant was required to submit and post such files). Yes 🗵 No 🗆

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 amendment to this 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 (Check one):

Large accelerated filer 🖾 Accelerated filer 🗆 Non-accelerated filer 🗆 Smaller reporting company 🗆

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes 🗆 No 🗵 The aggregate market value of the voting stock held by non-affiliates of the registrant as of April 3, 2011 was \$968,067,620 based on a

closing sales price of \$44.57 (the closing price on April 1, 2011) per share as reported on the NASDAQ Global Select Market (for this computation, the registrant has excluded the market value of all shares of Common Stock reported as beneficially owned by directors and executive officers of the registrant, but includes certain shares beneficially owned by persons known to the registrant to beneficially own more than 10% of the registrant's Common Stock.)

The number of shares of the registrant's single class of common stock outstanding as of November 8, 2011 was 22,146,937.

Philips Exhibit 2012 Zoll Lifecor v. Philips IPR2013-00606

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# DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement for the Registrant's 2012 Annual Meeting of Shareholders that the Registrant intends to file with the Securities and Exchange Commission within 120 days of the Registrant's fiscal year ended October 2, 2011 are incorporated by reference into Part III of this Annual Report on Form 10-K.

# ZOLL MEDICAL CORPORATION

# Annual Report on Form 10-K For the Year Ended October 2, 2011

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# PART I

Certain statements contained herein constitute "forward-looking statements" as that term is defined under the Private Securities Litigation Reform Act of 1995 (the "Act") and releases issued by the SEC and within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words "anticipates," "believes," "expects," "intends," "sees," "future," "may," "will," "would," "can," "could," "estimates," "plans," "target," "goal," "project" and other expressions which are predictions of or indicate future events and trends and which do not relate to historical matters identify forward-looking statements. Particularly, the Company's expectations regarding its business, operational results, future operational liquidity, contractual obligations and other commercial commitments, and capital requirements are forward-looking statements. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements of the Company to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. Factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements include, but are not limited to, the actions of competitors, the acceptance of our products in their respective markets, adverse economic conditions, and those other risks and uncertainties contained in this Annual Report on Form 10-K, including in Item 1A of Part I entitled "Risk Factors".

#### Item 1. Business.

#### Overview

ZOLL Medical Corporation (ZOLL, the Company, we or us) develops, manufactures, and markets resuscitation devices, related data management and software solutions, and temperature management technology. ZOLL is continuing its expansion from its founding focus on external pacemakers and defibrillators for the treatment of cardiac arrest to a much broader focus on a range of resuscitation devices and temperature management solutions for critical care and surgical patients. This expanded focus involves not only initial care but prevention of sudden cardiac death in patients with a known risk, as well as care after an event, where initial resuscitation success can be enhanced with specific strategies for improving recovery and reducing morbidity. As the science of resuscitation continues to expand, so does our business opportunity and the potential for revenue growth. We believe there is a substantially greater opportunity to improve operating profitability and achieve significant recurring revenues as we provide products and services to a much larger resuscitation and critical care market.

Historically, ZOLL grew primarily from its core defibrillation and pacing technologies used to treat victims of sudden cardiac arrest (SCA) and other heart arrhythmias. This primarily involved the sale of capital equipment to the hospital and emergency medical services (EMS) markets. With a strong product differentiation strategy, ZOLL has been successful at driving long-term revenue growth by increasing its market share through significant investments in research and development and building direct sales and distribution channels.

In the late 1990's, ZOLL entered the data management software business, seeking to gain leverage in the pre-hospital market. Although these software solutions offer higher profitability, with margins significantly greater than the capital equipment products, and recurring revenues, the revenues generated by this business are relatively modest in comparison to defibrillator revenue. The addition of automatic external defibrillators (AEDs) in 2002 to our product portfolio, targeting the public access portion of the defibrillator market, again provided new opportunities to drive revenue growth through market expansion. We built market share with our introduction of cardiopulmonary resuscitation (CPR) feedback technology, although operating profitability was constrained by the highly fragmented nature of this new, highly competitive part of the market.

Also in the early 2000's, we recognized the growth opportunity associated with improving SCA outcomes beyond defibrillation and expanded our strategy to focus on the broader resuscitation opportunity. Expanding product offerings to address each of the links in the American Heart Association's (AHA's) Chain of Survival

(COS) was a key element of our strategy. In fiscal 2005, ZOLL acquired the AutoPulse® Non-Invasive Cardiac Support Pump to offer enhanced circulatory support and chest compression capability, and also acquired the Power Infuser® fluid resuscitation product, which is used primarily in military applications. In 2006, ZOLL completed a long-term plan to acquire the LifeVest® wearable defibrillator business, which provides proactive protection for patients at risk of SCA. In 2007 and 2009, ZOLL acquired therapeutic hypothermia technology and products that are used to provide therapeutic management of patients' core body temperatures, including as part of post-resuscitation care. Throughout this period, ZOLL's data management offerings were also expanded.

We believe ZOLL's focus on the much larger resuscitation market has opened up significant new, long-term market opportunities beyond our core business of defibrillation and pacing. The current defibrillation/pacing market is estimated to be approximately \$1.5 billion annually. The annual U.S. market for the LifeVest, which achieved \$105.8 million of revenue in 2011, has a long-term potential of growing to approximately \$1.9 billion annually. In Germany, where we have begun sales of the LifeVest, the market opportunity is more than \$500 million. Similar, if not larger, market opportunities for the LifeVest exist in other countries like Japan. While our AutoPulse and temperature management products compete in markets of modest annual size currently, the potential worldwide markets for these products long-term are estimated at \$600 million and \$2.5 billion, respectively. These new markets are expected to develop over a number of years, accelerating as they expand from the initial indication and early adopters; clinical research will drive further use, offering increased growth opportunities.

Equally important, we believe there is a significant opportunity to increase ZOLL's profitability well above our historical levels due to the business models associated with these new markets. In particular, the LifeVest has been built as a service business relying on new and recurring physician prescriptions. The AutoPulse leverages our existing capital equipment distribution channels. Our temperature management solutions offer both a capital equipment product and a steady stream of recurring revenue from single-use, proprietary, disposable catheters used for each treated patient. These opportunities offer the potential of higher levels of profitability when compared to our historical levels. Finally, we expect that our broader focus on resuscitation will give rise to opportunities to develop or acquire additional resuscitation products to further leverage existing infrastructure.

As ZOLL continues its expansion and its mix of businesses changes, we expect to realize greater opportunities for revenue growth. In addition, we believe there is significantly greater opportunity to improve our rate of operating profitability.

#### The Clinical Need and Opportunity

#### Sudden Cardiac Arrest and Resuscitation

An estimated 450,000 people die from SCA annually in the United States. Approximately 1,000 people die of SCA every day outside of the hospital, and similar unexpected deaths occur in hospitalized patients at a rate of nearly 100,000 per year. Estimates of worldwide deaths exceed 1 million each year, making SCA one of the largest public health problems in the world.

Resuscitation in this context refers to the restoration of normal physiological function in a patient who has had an episode of SCA. An individual's chances of surviving SCA in the United States can fluctuate dramatically, depending on where he lives, and international results are similar. According to the AHA, the median survival-to-discharge rate after SCA is 6.4% in the United States. Medical interventions can treat the underlying disease, but many tens of thousands of lives could be saved with better quality resuscitation care.

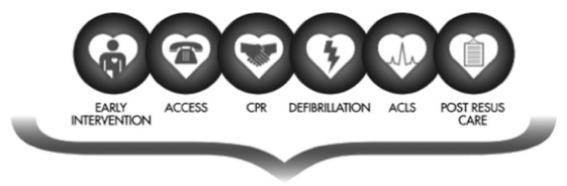
For SCA victims, time is the most critical element to survival. For every minute of delay in the restoration of effective cardiac function provided by defibrillation—the process of delivering electrical current to the heart to stop the fibrillation and permit the return of coordinated cardiac contractions—survival decreases by as much as 10%. According to the AHA, about 95% of SCA victims in the United States die, in many cases because lifesaving defibrillators arrive too late, if at all.

Providing temporary circulatory support with CPR is also critical to survival when SCA occurs. When appropriate care is provided in the form of CPR, early defibrillation, advanced life support (ALS), and continuing post-resuscitation care, as many as 50% of victims can survive SCA resulting from ventricular fibrillation. For some patients with a known and identified risk of SCA, immediate defibrillation with a wearable external defibrillator or implanted defibrillator can be highly effective, and the survival rate can approach 100%.

# Chain of Survival (COS)

A useful metaphor to describe dependent relationships among different aspects of care contributing to survival is the "Chain of Survival." The metaphor suggests that survival is dependent on the strength of each link and that any weakness in one link will break the chain and reduce the likelihood of survival. ZOLL's resuscitation business strategy seeks to provide products that support and strengthen each link in the chain.

Historically, the AHA's COS defined the four key steps that rescuers should follow in treating SCA: early access, circulation, defibrillation, and advanced cardiac life support (ACLS). Historically, heavy emphasis was focused by the market on the defibrillation link in the chain. Over the past decade, the AHA's view of this COS has emerged to place balanced emphasis on all links of the chain. In addition, the AHA has recently added a fifth link, post-resuscitation care. From our viewpoint, we believe the COS should include an additional link, preventive care, at the beginning of the COS, and utilize data collection and analysis to tie it all together.



#### DATA MANAGEMENT AND ANALYSIS

ZOLL's version of the COS adds to the AHA's 5-link chain Early Intervention as the first link, with data management and analysis tying all the links together.

# **ZOLL Products as Related to the COS**

# Early Intervention Link: The LifeVest Wearable Defibrillator

ZOLL manufactures and markets the only wearable defibrillator, the LifeVest, worn by patients at risk for SCA. It provides protection during their changing medical condition and while permanent SCA risk has not been established. The LifeVest allows a patient's physician time to assess the patient's long-term arrhythmic risk and implement appropriate treatment. Lightweight and easy to wear, it allows patients to return to their activities of daily living, while providing the peace of mind that they are protected from SCA. The LifeVest continuously monitors the patient's heart and, if a life-threatening heart rhythm is detected, the device delivers a treatment shock to restore normal heart rhythm.

The LifeVest is used for a wide range of indications, including following a heart attack, before or after bypass surgery or stent placement, as well as in patients with cardiomyopathy or congestive heart failure that places them at particular risk of SCA. In addition, the LifeVest is worn by patients awaiting an implantable defibrillator or after removal of an implantable device due to infection or other reasons. We believe there is a wide range of conditions that place patients at risk of SCA, for which the LifeVest could be an attractive treatment option.

The LifeVest is prescribed by a physician, typically a cardiologist, for a patient to wear during a period of temporary risk of a fatal arrhythmic event and is covered by most health plans in the United States, including commercial, state, and federal plans. Medicare provides coverage for the device rental for patients satisfying specific medical criteria and physician prescription requirements. As of November 2011, the LifeVest has been prescribed for more than 50,000 patients.

The LifeVest durable medical equipment (DME) rental business model allows a physician to protect a specific patient from SCA by placing a medical order (i.e., prescription) directly with ZOLL. From this point, ZOLL manages the process, which includes fitting the LifeVest to the specific patient, educating the patient in the hospital, managing the medical documentation and insurance paperwork, and being available to address patient needs once discharged from the hospital.

Potential applications of the LifeVest are broad, and the understanding of the factors placing patients at risk of SCA continues to evolve. Wearable defibrillation remains in the early stages of market development. We believe that there is ever-growing awareness of the LifeVest system as a treatment option for patients with SCA risk, and some physicians have incorporated the LifeVest into their practice standards. Despite this progress, market penetration remains low, and we believe that there is substantial opportunity for growth, to the extent that the LifeVest becomes accepted as a standard of care. Our ongoing commercial efforts focus on generating growth through clinical acceptance and research demonstrating patient benefit. In our model of potential acceptance across current coverage indications, we estimate that the LifeVest's market in the United States has the potential to grow over many years to be approximately \$1.9 billion annually.

On August 4, 2011, Durable Medical Equipment Regional Carriers issued for comment draft revisions to the local coverage determinations with respect to Medicare reimbursement for AEDs and wearable defibrillators, including our LifeVest product. The draft revisions would limit the indications for Medicare reimbursement for the LifeVest product. These draft revisions are subject to public hearings and comments. The public comment period ended September 23, 2011. We have been advised that a decision could be made in the near future, although there is no statutory provision that defines a timeline for a decision. We believe that following the public hearing process, the current indications for Medicare reimbursement of the LifeVest product will not be limited; however, in the event the draft revisions were to become final, the draft limitations on the indications for Medicare reimbursement would have a material adverse effect on our LifeVest business.

# Key Differentiators

The LifeVest is the only non-invasive wearable defibrillator on the market or commercially available today.

# Competition

At the present time, there is no other device on the market similar to the ZOLL LifeVest. Other treatment options for physicians managing patients at high risk of SCA are an AED that requires bystander intervention by a family member or other person, or an implantable cardiac defibrillator (ICD) that requires surgery. Advances in implantable devices may someday provide for less invasive and less expensive therapies, such as subcutaneous implantable defibrillators, but the non-invasive nature of the LifeVest is a strong differentiator whenever SCA risk is considered temporary or changing. Finally, we believe that any interested, potential competitor would need to follow the same clinical and regulatory path that was required of the LifeVest to prove both safety and efficacy.

# CPR Link: AutoPulse

CPR is a means to provide temporary circulation of blood for patients whose hearts have stopped beating. It can be a lifesaving intervention before the arrival or availability of skilled medical care. Public safety personnel, hospital medical personnel, and many others are required to be regularly trained in CPR. It consists of pressing

hard on the patient's chest to a depth of at least 2 inches and at a rate of at least 100 times per minute, as is now recommended in the 2010 AHA guidelines. In some cases, ventilation with mouth-to-mouth breathing or mechanical ventilating devices should be provided. CPR is demanding physically and difficult to perform effectively, especially over long periods, and particularly when a patient needs to be moved or is in the back of a moving ambulance. When performed effectively, manual CPR can provide about 30% of normal blood flow to temporarily support a patient and preserve cardiac and brain function.

ZOLL develops and markets the AutoPulse<sup>®</sup>, an automated CPR device. The AutoPulse is battery operated and portable and is designed for use in emergency medical services applications and in hospitals. It consists of a backboard and a simple disposable load-distributing band that fastens across a victim's chest. The AutoPulse automatically calculates the patient's shape and size for maximum compression/decompression benefit without the need to enter patient information or make manual adjustments. The AutoPulse improves the consistency of circulatory support, reduces the manpower required to perform CPR, and enhances the safety of rescue personnel in a moving vehicle.

The AutoPulse compresses the entire upper chest (thorax) in a unique, semi-circumferential "hands-free" manner, circulating more blood than is customary with manual chest compressions. Studies of the device have shown that it can achieve coronary perfusion pressures equal to normal heart function in some patients. Additionally, it offers the benefit of providing CPR without the need for additional personnel who can provide the required manpower to sustain CPR over a long period. It also permits rescuers to focus on other lifesaving interventions while CPR is being done mechanically. At the end of fiscal 2011, there were approximately 6,000 AutoPulse units installed in hospitals and emergency services worldwide.

More recently, significant attention has been directed to decreasing the risk of injury to rescuers when providing care during ambulance transport, since rescuers are often unrestrained while providing care and subject to serious injury in the event of a crash. The National Association of EMS Physicians, the International Association of Fire Chiefs, and a number of other interested parties have instituted safety initiatives. Providing manual CPR in a moving vehicle while unrestrained has been identified as an area of focus. The AutoPulse addresses this risk and facilitates the provision of CPR in a moving ambulance while the rescuers are safely restrained.

# Key Differentiators

The AutoPulse uses a proprietary mechanism of action (e.g., a load-distributing band vs. sternal compression) to provide blood flow nearly equal to normal circulation.

Research supporting the AutoPulse is more extensive than for any other mechanical chest compression device. The CIRC (Circulation Improving Resuscitation Care) trial compared the rates of survival to hospital discharge among patients who suffered out-of-hospital cardiac arrest and were treated with the AutoPulse to similar patients who received manual CPR. Initial results from CIRC were presented in November at the AHA Resuscitation Science Symposium (ReSS) in Orlando. Full results of the trial are expected to be published in 2012.

The CIRC trial confirmed the impact that high-quality CPR can have on improving survival rates from SCA. The trial demonstrated that AutoPulse compressions are equivalent to high-quality manual CPR compressions. Manual CPR is the current standard for providing temporary circulatory support and oxygen delivery during cardiac arrest and has the highest treatment recommendation (Class I) in the AHA guidelines. However, delivery of manual CPR is often inconsistent. Significant decreases in quality have been seen after as little as one minute. The physical challenges associated with providing consistent manual CPR are recognized as a key factor in limiting CPR quality.

Comparing high-quality manual CPR to AutoPulse CPR was a major focus of the CIRC trial. The protocol incorporated intensive training in manual CPR beyond that which is required in current guidelines; this training

was uniformly delivered to caregivers at all participating sites. It focused on minimizing hands-off time and frequent re-training, and it also closely tracked CPR fraction, the percentage of time that compressions are being delivered during resuscitation, which is a marker of CPR quality. Performance audits were also used to track CPR quality. The CPR fractions reported in both arms of the trial were very high for a large, multicenter prospectively randomized study. The resulting overall survival rate in the CIRC trial was also comparatively higher. Further, because of the high standards employed in the design of this trial, it is expected that the CIRC trial will set a new standard for research in the pre-hospital environment.

We believe most EMS and hospitals are not able to provide the consistently high-quality manual CPR that was incorporated by extensive training and monitoring of staff in the CIRC trial. The trial clearly demonstrates that AutoPulse can be a safe and effective option for significantly improving CPR quality and providing improved outcomes. We believe many systems will incorporate the AutoPulse in their efforts to improve system performance. The AutoPulse will be especially effective when manual CPR performance is known to be lower than that reported in the CIRC trial.

# **Competition**

Competitors offer devices that provide mechanical CPR. Other products duplicate the mechanism of manual CPR by compressing the sternum (i.e., the center of the chest.) Michigan Instruments, which originally pioneered the introduction of a mechanical CPR device known as a "Thumper," manufactures the Life-Stat® Model 1108, the newest model. It is sold through independent distributors in the United States and internationally. The LUCAS device, similar to the Michigan Instruments device in terms of its mechanism of operation, was developed by Jolife AB, a privately held Swedish company, which was acquired in February 2011 by Physio-Control, a division of Medtronic, Inc.

#### **Defibrillation Link: Defibrillators**

#### Professional Defibrillators

Professional defibrillators are used by health care professionals to treat patients experiencing SCA in all areas of health care. They are installed on all ambulances that provide ACLS and in virtually all health care facilities. In hospitals, defibrillators are typically placed on "crash carts" located in either every hospital unit and care area or placed strategically so they may be rapidly brought to a patient's bedside by trained staff in the event of need.

Professional defibrillators incorporate monitoring capabilities, so professionals can view the patient's electrocardiogram (ECG), e.g. heart rhythm, and other vital physiologic information, such as oxygen saturation and blood pressure. The ECG helps to determine the patient's treatment and may indicate the need for a defibrillating shock or external pacing. Another characteristic of professional defibrillators is that they permit the user to determine whether a shock is needed and to manually select the level of energy ("dose"), calculated in joules, used to defibrillate. They incorporate a wide range of energy outputs to cover the various defibrillating energy doses required for adult, pediatric, and neonatal patients. Disposable electrodes are typically used to deliver defibrillation and pacing therapy to patients. Professional defibrillators can also have paddles, held by the user on the chest to deliver defibrillation. In addition, professional defibrillators have the capability to perform a procedure called cardioversion, which is used to terminate an abnormal but non-life-threatening heart rhythm. The defibrillator delivers a shock at a specific point in the ECG, thereby "converting" the rhythm.

ZOLL's professional defibrillators include many selectable monitoring parameters to provide a detailed assessment of a patient's condition. Examples of these parameters include: oxygen saturation levels (SpO<sub>2</sub>); 12-lead acquisition and analysis; invasive and non-invasive blood pressure; end-tidal CO<sub>2</sub> concentrations (EtCO<sub>2</sub>); carboxyhemoglobin saturation levels (SpCO); methemoglobin saturation levels (SpMet); and patient temperature.

Professional defibrillators may also incorporate some features that allow operation with automated ECG analysis and permit use as both an AED and manual device by different levels of care providers in either the organization or facility. These devices typically operate using either AC power or batteries.

ZOLL currently offers many different models of professional defibrillators that are targeted to various use-specific needs.

Our R Series<sup>®</sup> models are offered mainly to hospitals. R Series defibrillators are Code-Ready<sup>®</sup>, because they automatically monitor and test the complete defibrillator system—electronics, batteries, cables, and defibrillator discharge. If a component is not functioning, the monitor will display a message warning staff. The Code-Ready<sup>®</sup> R Series offers multiple channels on a color monitor display. We supply it in versions that allow for its use as both a manual defibrillator and an AED.

The E Series<sup>®</sup> models are primarily designed for use in EMS, where their rugged design and reliability match the rigorous environment inherent with emergency medical calls. This device combines both manual defibrillator and AED capabilities, although it is primarily used as a conventional device.

In 2010, we began marketing a new defibrillator called the Propaq<sup>®</sup> MD for military applications, as well as air medical applications, where its very small size, and light weight make it ideally suited for these highly specialized uses. A companion device, the Propaq M, which features just the monitoring capabilities, is also being offered to the military. This permits a set of common user interfaces, common accessories, and common batteries to support both products. This commonality is well-suited for the military environment.

Other professional defibrillators we market include the M Series<sup>®</sup>, which has been sold for both hospitals and EMS applications, and the M Series<sup>®</sup> CCT device for critical care transport. Our AED Pro<sup>®</sup> device, which is primarily sold as an AED, also can be operated as a conventional defibrillator and is sometimes purchased for this purpose.

# Key Differentiators

We have, with few exceptions, maintained a unique user interface on our professional defibrillators for more than two decades to ensure consistency from one generation of product to another. This Uniform Operating System has been an important differentiator in our devices, especially in hospitals where this consistency allows staff familiar with the operation of one model to easily use a new model in an emergency situation. Many hospitals manage defibrillator replacement through yearly partial inventory upgrades rather than single purchases that replace all inventory at the same time. Consistency in the operation of the devices makes it easy to integrate new models with existing inventory by minimizing the training required with new product integration.

We maintain many common accessories across our products, enhancing the value of the investment in accessories since they may be used with both old and new models of devices.

Our devices incorporate a proprietary feature called "Real CPR Help<sup>®</sup>," which provides both visual and audible feedback to rescuers when they are administering CPR, with the purpose of coaching performance and improving the quality of the CPR they provide. Significant research in this area demonstrates both the need for this feedback technology and improvements in performance when it is provided. No other competitor matches the breadth and depth of this technology across their product lines. We have specific displays on our monitors to show rescuers how well they are performing CPR, and extensive capabilities in data collection to provide post-event data for education and performance assessment. This technology has been licensed to Laerdal Corporation for incorporation into defibrillators manufactured by Philips Medical, a division of Royal Philips Electronics, NV (Philips).

Our defibrillators offer another unique feature, See-Thru CPR<sup>®</sup>, which can reduce the duration of interruptions to CPR by filtering out CPR "noise" in the monitor traces. By allowing rescuers to see the patient's cardiac electrical activity, the need to interrupt CPR, which can reduce its effectiveness, is minimized.

We utilize a proprietary Rectilinear Biphasic<sup>TM</sup> defibrillating waveform in all of our products, which delivers higher current than other manufacturers' waveforms to high impedance patients. This defibrillating waveform is the only waveform reviewed by the United States Food and Drug Administration (FDA) and allowed to have a claim of superiority to monophasic waveforms. We use a unique external pacing waveform originally developed by the late Paul Zoll, M.D., one of the company's co-founders, that provides electrical capture at substantially lower current and energy than other external pacing waveforms, with far less muscle artifact and patient discomfort during external pacing.

### AEDs

An AED includes only basic defibrillation technology. AEDs have an algorithm that analyzes the heart's rhythm and, if necessary, allows a rescuer to deliver an electric shock to a victim of SCA. An AED can automatically determine the appropriate treatment for the victim and provide rescuers with instructions usually via audio and text prompts.

The AED Plus® was introduced in 2002. A second AED, the AED Pro, was introduced in 2005. The primary difference is that the AED Plus has a large display that allows users to see the patient's ECG. It also offers advanced capabilities for basic life support (BLS) and advanced life support (ALS) users. These features include ECG monitoring with standard ECG electrodes; combined AED capability with controlled access manual defibrillation for ALS users; and heightened ruggedness and durability.

#### Key Differentiators

ZOLL'S AEDs are the only AEDs to provide rescuers with real-time feedback related to both depth and rate of chest compressions. Research on AED usage suggests that a shock will be advised only about half of the time an AED is used; however, nearly every victim of cardiac arrest will require CPR. If no shock is advised, to improve the victim's chances of survival, a lay rescuer should provide CPR until other rescuers arrive. Most other manufacturer's AEDs now incorporate rescuer assistance for CPR in the form of prompts or metronomes, but no other AED available in the United States provides real-time monitoring of CPR depth and rate. The Company believes this capability is an important element in improving resuscitation outcomes. Strong support for CPR improvement by the AHA and other similar authoritative bodies provides validation of the importance of this feature in ZOLL devices.

In the AED Plus, the use of readily available consumer batteries is an important feature that simplifies maintenance of the device over long standby periods due to the convenience of supply. Consumer batteries are also lower in cost than other manufacturers' dedicated batteries.

#### Competition for Defibrillators

The principal competitors in the area of conventional defibrillators (in hospital and EMS) are Physio-Control and Philips. Both Physio-Control and Philips compete across our entire defibrillator product line. ZOLL also competes with Cardiac Science Corporation, Heartsine Technologies, and Defibtech in the lower cost AED market. In the international market, ZOLL competes with Physio-Control, Philips and several other companies varying by country. Physio-Control has generally been the market leader in the industry, mainly due to the large installed base of product accumulated over their years of operation. Today, this leadership is challenged by ZOLL. Medtronic has announced the sale of Physio-Control to Bain Capital.

Two large competitors in Japan are Nihon Kohden Corporation and Philips. Nihon Kohden competes across all conventional defibrillator products and AEDs, with products of their own in Japan and outside of the United States, but has no approvals for U.S. sales of defibrillators. Philips sells both conventional defibrillators and AEDs in Japan. Physio-Control is resuming distribution of AEDs in Japan.

In 2009, Mindray, a medical device manufacturer with headquarters in China, began distribution of a new monitor/defibrillator product. We expect this product to compete in markets outside of the U.S.; however, whether it will be submitted and cleared for sale by the FDA in the U.S. is unknown. We do not expect it will significantly affect the differentiation we maintain that drives the sale of ZOLL products in our major markets.

#### Disposable Defibrillator Electrodes

Proprietary disposable electrodes are a key component of both our conventional defibrillators and AEDs. ZOLL manufactures, markets, and sells approximately a dozen different types of electrodes suited for different applications, including monitoring and delivering electrical therapy to patients, as well as providing CPR feedback.

ZOLL's Real CPR Help electrodes provide a proprietary, integrated, single-use CPR sensor to enable real-time CPR feedback in the form of Real CPR Help. ZOLL brands that employ this technology include the OneStep<sup>™</sup> Resuscitation electrodes, CPR Stat-padz<sup>®</sup>, and CPR-D-padz<sup>®</sup>.

#### Key Differentiators

Key differentiators for our disposable electrodes include the ability to monitor CPR depth, rate, and release, all elements of providing adequate and effective CPR. ZOLL's resuscitation electrodes incorporate proprietary technology utilizing an accelerometer to provide information about rescuer CPR performance to the connected defibrillator. ZOLL defibrillators provide displays of these CPR measurements and messages to help rescuers achieve CPR performance recommendations made by groups such as the AHA and the European Resuscitation Council when providing chest compressions. In addition, our resuscitation electrodes are preconnected, limiting the steps necessary in applying the electrodes and speeding the therapy delivered.

Electrodes provided with our AEDs designed for non-professional rescuers incorporate a proprietary technology that extends their shelf life to about five years. Most other electrodes from competitive manufacturers last three years or less, necessitating more frequent replacement and added cost.

We also manufacture the Pro-padz<sup>®</sup> family of electrodes, designed specifically for cardioversion, an elective procedure done in the hospital. ZOLL is the only electrode manufacturer that offers a liquid gel electrolyte, which is designed to reduce skin injury when defibrillating or cardioverting. The complete line of electrodes offered by ZOLL for all adult, pediatric, and neonatal patient requirements is more extensive than that of any other competitor.

#### **Competition**

Competition by third-party manufacturers who offer generic electrodes adapted to operate with ZOLL devices include Kendall-Cadence (a division of Covidien, plc) and ConMed Corporation. Often, modifications to ZOLL devices must be made to use generic electrodes. Competition with generic electrodes versus OEM ZOLL-manufactured electrodes is based mainly on price. The selection of electrodes to be used for lifesaving resuscitation is frequently tied to the perceived risk of having a problem while using accessories that are not supplied by the manufacturer.

#### Post-Resuscitation Care Link: Temperature Management

Cooling and warming of patients in emergency settings and during hospitalization is a standard of care in many clinical situations. These include fever management, particularly in intensive care patients with neurologic injuries, as well as managing hypothermia in surgical patients and burn patients. More recently, the use of cooling has been associated with improved outcomes in patients who have been resuscitated from out-of-hospital ventricular fibrillation SCA.

The therapy is typically administered with either a non-invasive technique that can range from simple application of ice to patient extremities for cooling and warm blankets for warming, to intravascular techniques that include the placement of a heat exchange catheter in the bloodstream of the patient to regulate the temperature of circulating blood.

ZOLL acquired intravascular temperature management (IVTM) technology related to therapeutic hypothermia and rewarming from Radiant Medical, Inc. in September 2007, and entered the commercial market after the purchase of substantially all of the assets of Alsius Corporation in May 2009. ZOLL temperature management products include a portable cooling and warming console and a selection of intravascular catheters. The resulting heat transfer between the catheter and circulating blood can, at a very controlled rate, lower or raise body temperature.

IVTM has established benefits for fever management in patients with cerebral infarction and intracranial hemorrhage (e.g., stroke). This therapy is also used to induce, maintain, and reverse mild hypothermia in neurosurgery, recovery, and intensive care. In addition, cardiac surgery patients benefit from the ability of the system to achieve or maintain normothermia during surgery, recovery, and intensive care. IVTM is employed to maintain normothermia in burn patients; however, this therapy is not currently cleared for this use by the FDA. The International Liaison Committee on Resuscitation (ILCOR) and the AHA recommend mild therapeutic hypothermia for post-resuscitation care of patients, in spite of the fact that no product has been cleared or approved by the FDA for use for this indication in the United States. ZOLL is currently working on trials necessary to achieve FDA approval for this use.

ZOLL's IVTM<sup>™</sup> system is a closed loop, feedback-controlled technology that uses a heat exchange catheter to cool or warm the blood. The Thermogard XP<sup>®</sup> controls the flow and temperature of saline circulating within the catheter's balloons; blood is then directly cooled or warmed as it passes by each balloon. The feedback-controlled mechanism responds to the patient's core temperature, which is monitored via a bladder, esophageal or rectal temperature probe.

We offer a variety of single-use, disposable, proprietary catheters, which can be inserted via a vein in the thigh or in the neck. Catheters are packaged in kits containing various accessories to facilitate and provide convenience during the insertion. They are assembled from physiologically compatible materials, including special coatings, and are sterilized as part of production.

#### Fluid Delivery and Resuscitation Devices

ZOLL manufactures and markets the Power Infuser<sup>®</sup>, a small, lightweight, easy-to-use device that provides highly controlled, rapid delivery of intravenous fluids. While primarily sold up to this point for military applications related to fluid resuscitation, this product has applications for delivery of cold saline solution associated with early administration of hypothermia in air medical transport, EMS, and emergency room settings. It is expected to add to our therapeutic temperature management product portfolio.

The Power Infuser utilizes a patented process to precisely control the infusion of fluid into the patient. Its automated fluid control features are suited to the harsh conditions typically found on a battlefield or in EMS environments. The technology is highly efficient, allowing the device to be extremely small and portable and to run on standard AAA batteries.

#### Key Differentiators

ZOLL believes that the benefits of invasive therapeutic hypothermia technology as embodied in our products offer significant advantages in speed of achieving target temperature and in the ability to precisely control and maintain this temperature, as compared to non-invasive techniques. Another key advantage of the intravascular approach is the ability to tightly control the rate at which patients are rewarmed following

therapeutic hypothermia therapy, compared to what is possible with non-invasive technologies. Intravascular delivery of hypothermia also eliminates the potential for skin injury associated with blanket and pad-type disposables, and also lowers the doses of paralytics and sedation needed to control patient discomfort and shivering associated with external cooling methods.

In addition, IVTM simplifies patient care by reducing the amount of time nurses must devote to changing ice packs and pads.

The proprietary design of ZOLL's catheters combines precise temperature management with the critical care functions of a standard central venous catheter, reducing the need for multiple catheters. Because IVTM catheters have three additional lumens, it is possible to use the same catheter for infusion of medication and for drawing blood.

# **Competition**

The primary competitor for the non-invasive induction of hypothermia is Medivance Corporation (which announced in October 2011 that it is being acquired by C.R. Bard, Inc.). Cincinnati Sub-Zero, Gaymar Industries (acquired by Stryker Corporation in 2011), and MTRE Corporation are the other major competitors in North America. Products from these competitors are widely used across all hospitals for a variety of both cooling and warming applications, ranging from reducing fever to warming patients who are cold due to circulatory disorders. The products typically have a console component and a disposable component, such as a mat that circulates warm or cold fluid under or around the patient.

These noninvasive devices and techniques can be used to achieve a reduction in core body temperature (e.g. therapeutic hypothermia) but often interfere with other aspects of patient care due to the nature of their heat exchange interface and coverage of the patient's body. However, because they are non-invasive, they can be easily applied to a patient by nursing staff, not requiring a physician to place a catheter.

The Medivance system, the Arctic Sun, consists of a console and proprietary adhesive cooling pads. It is more sophisticated than the other surface devices, achieving more rapid cooling and incorporating feedback control. The Arctic Sun is currently sold by a direct sales organization in the United States and Germany and by distributors in other markets in the rest of the world. A newer surface competitor is EMCools, which manufactures a device that consists of mats that are chilled in a refrigerator/freezer and then laid on the patient.

Our primary competitor in intravascular cooling is Philips, through their InnerCool family of products. Philips is funding a significant clinical trial in the area of therapeutic hypothermia for victims of stroke. Because most critically ill patients requiring this therapy need monitoring or sampling of blood and delivery of medications, combining temperature management with the critical care function of a central venous catheter in one design is preferred. Although the InnerCool catheter is placed in the bloodstream, it does not have the triple-lumen capability of the ZOLL system.

#### What Unifies All Links: Data Management and Analysis—The RescueNet® Suite of Software

ZOLL develops and markets a suite of software products supporting EMS, fire service, and hospital needs in the area of data management information.

ZOLL RescueNet, an integrated suite of data management solutions is designed to maximize specific business processes through the information presented via a common database. RescueNet gathers and centralizes information and links the pre-hospital chain of events into a single system.

Included in the wide range of products offered by ZOLL are electronic patient records, computer-assisted dispatching (CAD) programs, crew and vehicle scheduling software, fire records management software for fire



department incident reporting and pre-planning, billing software, and driver modification and safety systems. Data reporting to federal agencies, such as the National Fire Incident Reporting System (NFIRS) and the National Emergency Medical Services Information System (NEMSIS), is also incorporated into many of the software products. Other capabilities include reporting for EMS events and patient data provided in required formats to meet requirements from multiple state EMS agencies. Products also provide for the collection and review of information from ZOLL devices like AEDs and manual defibrillators to permit post-event documentation of care and review of device use, as well as, post-event training and assessment of care provided.

These software products support EMS and fire organizations by reducing duplication of processes and data entry, improving data accuracy, facilitating data sharing to increase operational efficiency, and—most importantly—improving patient care and enhancing quality of service. RescueNet software solutions allow these organizations to obtain measurable process and quality improvements such as better clinical documentation, improved quality management, more efficient cash flow, and improved operational effectiveness. Furthermore, RescueNet solutions allow customers to review data to make better-informed decisions that help improve resuscitation protocols and outcomes. More than 1,600 EMS, fire and ambulance customer locations in the United States, Canada, the United Kingdom, and Germany, use ZOLL RescueNet software products in their operations.

ZOLL also develops and markets software for data collection related to resuscitation practices in hospitals. ZOLL offers a system called CodeNet® to provide data collection during resuscitation and to later organize this data into useful information related to performance measures for resuscitation practices. CodeNet also provides for the collection of resuscitation data from ZOLL devices like AEDs and manual defibrillators to permit post-event documentation and review of device use and related patient information, which is useful for documentation of care, post-event review and training, and assessment of quality of care provided. Additionally, CodeNet provides a link to download case event information to the AHA's National Registry of Cardiopulmonary Resuscitation, a database of in-hospital cardiac arrest events.

ZOLL's products are designed to efficiently exchange and share data and work in conjunction with one another to reduce the need for custom interfaces between different manufacturers' products. The suite of software products we offer is designed to operate as a system as well as stand-alone products.

Most ZOLL data products are sold in the United States and Canada, with emerging sales prospects outside of North America driven mainly by the highly specialized nature of software for emergency services and resuscitation. Overseas sales have commenced recently in Germany, where our direct operations can provide sales, deployment, and maintenance contracts associated with software products. We are exploring additional opportunities in international markets, as sales of other products, such as conventional defibrillators, AED, and temperature management devices, expand.

The software business also derives ongoing revenue from contracts that provide for initial deployment of software products in an organization, support for the application, updates to software programs, and training in the use of the products, all under the category of ongoing support.

#### Key Differentiators

The RescueNet software suite is a fully integrated information management system that has the ability to improve clinical and operational performance by collecting and analyzing data across EMS or fire organizations, including medical device data. We work closely with customers to develop and improve software solutions that are highly specific to the unique market we serve and include many product features and benefits that are unique to our applications.

Strong customer support and service in the areas of deployment, after-sale support, software upgrades, and education are important to customer satisfaction.

ZOLL believes that its software solutions offer the most comprehensive set of applications to export data from its software products to various state and national database applications to assist customers in maintaining compliance with regulatory and reporting requirements, as well as supporting benchmarking and quality programs.

### Competition

Because of the specialized nature of information management in emergency services, medicine, and resuscitation, the competition is fairly diverse. Competitors include many smaller organizations, since the barriers to software development are relatively low. In addition, many agencies develop and support "in-house" software and systems to meet their information management needs. Different competitors compete across our suite of products, so depending on the application the competitive environment will vary.

The largest competitor in this product area is TriTech Corporation, which competes directly in CAD and billing software products. In CAD software alone, Intergraph Corporation, Tiburon, Inc., Motorola, Inc., and approximately six other manufacturers compose most of the balance of the market. In the area of billing software, our biggest competitor other than TriTech is RAM Software Systems, Inc. In the area of electronic records for EMS (ePCR), Image Trend Inc., Sansio Corporation, Medusa Corporation, ESO Solutions, and emsCharts, Inc. cover a significant portion of the market. Many smaller companies and in-house solutions compose the balance of this market.

ZOLL competes in the area of software applications to manage records associated with fire suppression and prevention. Fire Records Management Systems products are sold to many of the same customers who purchase other ZOLL software products and services that link data between software products such as CAD. Our largest competitor is Firehouse Software Corporation. Tiburon Systems is our next largest competitor, with the balance of the market split among the many other software providers that offer these types of applications.

In the hospital market, both Physio-Control and Philips offer software products that collect and store information related to resuscitation, defibrillator use, and monitoring, and receipt and storage of 12-lead information from the field related to diagnosis and treatment of myocardial infarction. ZOLL believes its competitors' products are generally much more limited in scope and capability than the RescueNet products and the applications they offer. For example, no other competitive products are currently capable of exporting data to the National Registry of Cardiopulmonary Resuscitation, a registry sponsored by the AHA that helps hospitals assess the quality of their services associated with resuscitation and post-resuscitation care.

# **ZOLL's Markets**

#### North American Hospital

The North American hospital market consists of approximately 6,000 acute-care community hospitals and 1,000 additional hospitals. ZOLL also includes in this market sales to U.S. military hospitals and applications used in this market.

ZOLL defibrillators are used extensively in top hospitals included on the 2011 U.S. News and World Report "Honor Roll" list. To be on the Honor Roll, a hospital has to demonstrate breadth of excellence by achieving a high ranking in no fewer than six specialties. A majority of the 14 Honor Roll hospitals use one or more of ZOLL's products, and nearly half are completely standardized to ZOLL defibrillators.

ZOLL believes that overall long-term market growth for hospital defibrillator sales will be driven primarily by increased capabilities, including monitoring parameters, CPR support, and ECG filtering and analysis to minimize interruptions in CPR, along with data, communication, and asset management support. Additional growth potential for ZOLL arises from the Propaq MD and Propaq M products for critical care transport and military applications.

The North American hospital market for mechanical CPR devices like the AutoPulse is currently modest. Sales to hospitals of the AutoPulse and other mechanical CPR devices are small in relation to the pre-hospital sales at this stage in market development due to the availability of staff to perform CPR, constraints in hospital spending, and the need for continuing education about the advantages of mechanical devices. Sales to EMS comprise the larger portion of AutoPulse revenues due to more compelling needs than hospitals in terms of the number of people available to provide CPR, as well as the advantages for administering CPR during transportation. Sales to U.S. hospitals in fiscal 2011 were \$1.4 million. As hospital spending recovers and additional information about the need to improve CPR quality is disseminated, we expect to see more widespread adoption of the AutoPulse by hospitals.

ZOLL believes that the North American market for temperature management devices and accessories is currently modest. ZOLL also believes that it has the largest share of invasive temperature management sales and a more modest share of sales of combined invasive and non-invasive products. Future growth is expected to be significant, driven by increasing adoption of therapeutic hypothermia as a treatment for post-resuscitation care. In addition, there is a potential opportunity for long-term growth from a number of other indications being driven by research in areas such as myocardial infarction, stroke, and neurologic injury.

Electrodes and other supplies contribute mainly to North American hospital revenues and, in general, are specific to use on ZOLL devices. ZOLL believes that the increased use of interpretive algorithms for automated defibrillation and the adoption of CPR feedback will drive future electrode sales growth. More than 85% of our newest R Series defibrillators are sold with CPR electrodes.

#### Distribution

ZOLL sells its products to hospitals and military customers primarily through direct sales channels in North America.

#### North American Pre-hospital

The North American pre-hospital market for defibrillators includes an EMS component that consists of care providers such as paramedics, Emergency Medical Technicians, firefighters, and other first-response personnel in public safety. Most of the estimated 40,000 ambulances in North America are equipped with defibrillators, and other vehicles, such as fire apparatus, also carry defibrillators. ZOLL believes that first-response emergency vehicles will represent an increasingly important market for cardiac resuscitation equipment as the medical community places a higher priority on providing such equipment and the necessary training to all first responders. As older defibrillators are replaced on ambulances and other emergency vehicles, we expect that many purchasers will be interested in including additional monitoring capabilities and features necessary to provide better patient care.

ZOLL currently believes that overall market growth for EMS defibrillator sales remains constrained by economic uncertainty and challenging customer budgets. At 27%, we believe that ZOLL has the second largest share of the advanced life support portion of the North American pre-hospital market.

As a subset of the pre-hospital market, public access includes non-traditional, non-healthcare users of AEDs. ZOLL believes this market will continue to grow because of the increased awareness of the lifesaving potential of simplified lower-cost devices, which can be used before the arrival of professional rescuers. We expect that efforts by the AHA, American Red Cross, National Safety Council, Sudden Cardiac Arrest Association, and Sudden Cardiac Arrest Foundation should help to expand public knowledge of AEDs and increase demand for these devices.

The existence of federal and state Good Samaritan legislation in the United States increases the likelihood that non-medically trained personnel will be providing care to victims of SCA. Furthermore, some states are

passing legislation encouraging or requiring, AEDs in public places (e.g., schools, health clubs, dental offices, and government buildings). These legislative efforts continue to expand AED usage by non-traditional users, including police, fire, and highway patrol personnel. The AHA and many corresponding international organizations have established programs to bring early defibrillation to communities. Early defibrillation is included in the AHA CPR training for all health care personnel and some laypersons. We expect growth to increase as uncertainty in the economy abates.

The North American pre-hospital market for mechanical CPR devices like the AutoPulse is currently modest. Adoption of this technology and other mechanical CPR devices in EMS organizations is moving more rapidly than in hospitals at present due to the limited number of staff available to perform CPR in the pre-hospital setting, and the needs associated with safely restraining ambulance staff when CPR is required during ambulance transport. We believe the recent data from the CIRC trial supporting the improvements in CPR quality available with AutoPulse use and the subsequent publication of the full results will significantly increase demand for the AutoPulse.

The market for data management products is diverse, and many companies provide competitive software applications. Historically, ZOLL's position has been strongest among private ambulance and fire services. In the public safety CAD software market, ZOLL is a new competitor. We believe our position in the EMS data management market for software and data products position us to expand into the public safety market and leverage sales coverage and support resources that are already in place. ZOLL believes that the domestic market for EMS and fire field data management is significant and is growing rapidly.

# Distribution

ZOLL sells defibrillation and circulation products, as well as software products, for the EMS pre-hospital market through a direct sales force. Because of the diverse nature of public access AED customers and sales opportunities across many applications, ZOLL uses a mix of alternate distribution approaches, including direct sales staff, distributors, and manufacturers' representatives. The Company has agreements with approximately 400 independent distributors and manufacturers' representatives to sell AEDs to non-traditional providers of health care.

#### International

The International market for professional defibrillators and AEDs varies considerably from country to country, but is generally less developed than the market in North America. Unlike the North American market, the administration of pacing and defibrillation in hospitals and EMS is generally viewed as a skill reserved for physicians. ZOLL believes it has a modest share of the overall international market for conventional defibrillators, AEDs, electrodes and supplies, and accessories. Demand for defibrillators is expected to grow as more hospitals are built and existing hospitals modernize and update their approaches to cardiac and emergency care. Emerging standards of care and the acceptance of automated equipment should result in increased emphasis on cardiac resuscitation and demand for resuscitation products.

While our international data management product sales were not significant in terms of market share or sales revenue in 2011, we believe there are many opportunities to leverage our success with conventional defibrillators and AEDs to our data management product expertise in select international markets. Currently, we are selling ePCR software products in Germany, and we expect to add additional sales resources internationally.

Sales of our temperature management products in international markets were \$14.8 million in fiscal 2011. We believe we are solidly positioned in this early stage market. Outside the U.S., therapeutic hypothermia is being widely adopted for post-resuscitation care, based on the recommendations of both the International Liaison Committee on Resuscitation and the AHA, which has endorsed this therapy although no product has been cleared by the FDA for this indication. Based on ongoing research, therapeutic hypothermia is expanding into larger

markets. For example, hypothermia is being used to treat myocardial infarction patients prior to revascularization. This expansion of the therapy is occurring more quickly in international markets because they are not subject to the same government approvals as in the U.S., where the FDA regulates indications for use and labeling.

#### Distribution

ZOLL has direct sales operations in the major developed markets, including the United Kingdom, Germany, France, The Netherlands, Austria, and Australia. These subsidiaries all have direct sales representatives who target the professional markets for conventional defibrillators, data products localized for the market, and temperature management products in Germany. We typically rely on independent distributors for other markets, such as public access for sales of AEDs in countries with direct subsidiaries.

In Japan, a major market for our products, we have engaged a large Japanese medical company as a distributor focused on the market for the AutoPulse. We have recently received approval of our AEDs and defibrillator waveform in Japan from Japanese regulatory authorities. On July 12, 2011, we granted exclusive distribution rights to Asahi Kasei Corporation, Tokyo, to import and distribute the ZOLL AED Plus in Japan.

We have country managers or representative liaison offices in most other major international medical device markets and rely on local independent distributors assigned to focus on different products in the markets.

#### LifeVest Wearable Defibrillators

ZOLL revenues for the LifeVest wearable defibrillator in fiscal 2011 were \$111.0 million, up 57% from fiscal 2010. We believe we can drive significant growth in this market, as penetration is low and alternative treatment options are limited and generally quite costly. Acceptance of the concept of a wearable defibrillator by professional organizations like the American College of Cardiology, AHA, and the Heart Rhythm Society in North America also represents an opportunity for growth. These organizations' guidelines are typically driven by clinical studies demonstrating efficacy and improvements to the outcomes of patients treated with new devices. ZOLL is currently participating in such clinical studies to provide the requisite data to demonstrate the efficacy and successful reduction of mortality in high-risk SCA patients with the LifeVest. The LifeVest has been prescribed by physicians at all of the 14 "Honor Roll" hospitals, all of the 50 "Best Heart and Heart Surgery" hospitals, and #1 Ranked "Top Metro" hospitals as designated by U.S. News and World Report for 2010-2011.

We estimate that the annual market opportunity in the United States for these potential applications when fully penetrated over many years is approximately \$1.9 billion. In Germany, where we have recently established direct sales and services for the LifeVest, we estimate the market opportunity at full penetration to be approximately \$500 million annually. Similar opportunity exists in other international markets subject to the same prerequisites for sales and revenue in the United States, such as regulatory approval of the device and therapy, adequate patient service capabilities, and reimbursement coverage.

The market for a wearable defibrillator is currently served only by ZOLL.

#### **Distribution**

We currently rent the LifeVest to patients for whom the device is prescribed in the United States via a direct sales organization of more than 140 field representatives, 20 managers and over 500 independent patient service representatives, most of whom are part-time medical professionals. We currently rent the LifeVest to prescribed patients in Germany via a direct sales organization.

#### **Foreign Operations**

ZOLL currently conducts business outside of the United States through subsidiaries in Canada, Germany, Austria, the Netherlands, France, Australia, New Zealand, China, India and the United Kingdom. The Company operates a number of additional international offices and has entered into distributor and sales representative business relationships in the world's major markets. ZOLL sells its products in more than 140 countries. For additional information concerning foreign operations, see Note O of the Notes to Consolidated Financial Statements.

# **Research and Development**

ZOLL's research and development strategy is to continually improve and expand its product lines by combining existing proprietary technologies, newly developed proprietary technologies and the technologies of ZOLL's suppliers into new product offerings that provide additional valued benefits to its customers.

ZOLL pursues a multi-disciplinary approach to product design that includes substantial electrical, mechanical, software and biomedical engineering efforts. The Company is currently focusing research and development programs in temperature management, data management, next-generation product platforms, clinical trials, expansion of its long-term technical research efforts, and other initiatives. Research and development expenses for fiscal 2011, 2010 and 2009 were approximately \$44.4 million, \$45.9 million and \$39.5 million, respectively.

# Manufacturing

ZOLL's primary manufacturing facilities are located in Chelmsford, Massachusetts, Pawtucket, Rhode Island, Sunnyvale, California, Thousand Oaks, California and Pittsburgh, Pennsylvania. In Chelmsford, ZOLL generally assembles its defibrillation devices and the Power Infuser from components produced to its specifications by ZOLL's suppliers. In Pawtucket, ZOLL manufactures its electrode products. The AutoPulse and temperature management products are manufactured at the facility located in Sunnyvale. The Road Safety products are assembled at the Thousand Oaks facility and the LifeVest is built at the facility in Pittsburgh.

#### **Patents and Proprietary Information**

ZOLL and its subsidiaries currently hold approximately 270 U.S., and over 210 foreign patents, and numerous pending applications. The Company's patents and patent applications relate to pacing, defibrillation, CPR, temperature management and other resuscitation therapies.

# Customers

There is no customer whose purchases accounted for 10% or more of the Company's revenues or accounts receivable in any of the years presented in this annual report on Form 10-K or whose loss the Company believes would have a material adverse effect on the Company and its subsidiaries taken as a whole. Total sales to various branches of the United States military were approximately \$31.4 million in fiscal 2011, \$22.1 million in fiscal 2010 and \$23.4 million in fiscal 2009.

#### Employees

As of October 2, 2011, ZOLL employed approximately 1,908 people on a full-time basis, with approximately 1,718 in the United States and the remainder outside the United States. None of ZOLL's employees is subject to collective bargaining agreements.

# **Executive Officers of the Registrant**

Name	Age	Position
Richard A. Packer	54	Chief Executive Officer
Jonathan A. Rennert	47	President
A. Ernest Whiton	50	Vice President of Administration and Chief Financial Officer
Ward M. Hamilton	64	Senior Vice President; Vice President, Marketing
Steven K. Flora	60	Senior Vice President; Vice President, North American Sales
John P. Bergeron	60	Vice President and Corporate Treasurer
Alexander N. Moghadam		Vice President, International Operations
E. Jane Wilson, Ph.D.	62	Vice President, Research and Development
Aaron M. Grossman	40	Vice President, General Counsel and Secretary
Ward M. Hamilton Steven K. Flora John P. Bergeron Alexander N. Moghadam E. Jane Wilson, Ph.D.	64 60 60 47 62	Senior Vice President; Vice President, Marketing Senior Vice President; Vice President, North American Sales Vice President and Corporate Treasurer Vice President, International Operations Vice President, Research and Development

Mr. Packer joined the Company in 1992 and in 1999 was appointed Chairman of the Board, Chief Executive Officer and President. Mr. Packer served as President until 2008 and as Chairman until November 2010, and he continues to serve as Chief Executive Officer. Mr. Packer served as President, Chief Operating Officer and director from 1996 to his appointment as CEO. From 1992 to 1996 he served as Vice President of Operations, and additionally, as Chief Financial Officer from 1995 to 1996. From 1987 to 1992, Mr. Packer served as Vice President of various functions for Whistler Corporation, a consumer electronics company. Prior to this, Mr. Packer was a manager with the consulting firm of PRTM/KPMG, specializing in operations of high technology companies. Since April 2007, Mr. Packer has also served as a director of Bruker Corporation, a scientific instruments company. Mr. Packer provides a critical contribution to the Board of Directors as a result of his extensive and detailed knowledge of the Company and of the Company's industry, prospects, customers and strategic marketplace. Mr. Packer received B.S. and M. Eng. degrees from the Rensselaer Polytechnic Institute and a M.B.A. from the Harvard Graduate School of Business Administration.

Mr. Rennert joined the Company as President in June 2008. Prior to joining ZOLL, Mr. Rennert served starting in January 2007 as President and Chief Executive Officer of BioProcessors Corporation, a venture-financed life science tools developer, based in Woburn, Massachusetts. Prior to that position, Mr. Rennert held positions in general management, manufacturing and engineering with PerkinElmer, Inc. and United Technologies' Carrier Corporation. Earlier in his career, he was employed by General Electric and Andersen Consulting. Mr. Rennert holds M.S. degrees in Management and Mechanical Engineering from the Massachusetts Institute of Technology (MIT) and a B.S. degree in Engineering from Princeton University.

Mr. Whiton joined the Company as Vice President of Administration and Chief Financial Officer in January 1999. Prior to joining the Company, Mr. Whiton was Vice President and Chief Accounting Officer of Ionics, Incorporated, a global separations technology company, which he joined in 1993. Prior to Ionics, he was a manager at Price Waterhouse. Mr. Whiton received a B.S. in Accounting from Bentley College and a M.B.A. from the Harvard Graduate School of Business Administration.

Mr. Hamilton joined the Company as Vice President of Marketing in February 1992. Prior to this time, Mr. Hamilton served from 1985 to 1991 as Director of New Business Development and Director of Marketing for ACLS products for Laerdal Medical Corporation, a manufacturer of portable automated defibrillators, and from 1977 to 1985 as Marketing Manager for defibrillators and non-invasive blood pressure monitors for Datascope Corporation. Mr. Hamilton received a B.A. in political science from Hartwick College and a M.P.A. from the University of Southern California.

Mr. Flora joined the Company as Vice President of North American Sales in September 1998. Prior to joining the Company, Mr. Flora served from 1981 to 1998 in various positions with Marquette Medical systems, a manufacturer of cardiovascular and physiological monitoring systems, most recently as Vice President of Sales. Mr. Flora received his B.S. in Biology from the University of Illinois.

Mr. Bergeron joined the Company as Vice President and Corporate Treasurer in August 2000. Prior to joining the Company, Mr. Bergeron was Vice President at Ionics, Incorporated, a global separations technology company, where he also served as Corporate Treasurer and Tax Director. Prior to joining Ionics in 1988, Mr. Bergeron served in a variety of tax positions at other multinational corporations. Mr. Bergeron received a B.B.A. from the University of Massachusetts at Amherst and a M.S. in Taxation from Bentley College.

Mr. Moghadam joined the Company as Vice President of International Operations in January 2005. Prior to joining the Company, from 1995 to 2005 Mr. Moghadam held a variety of commercial and operational roles with Thermo Electron Corporation, a scientific instrument and supply company, which included eight years of overseas assignments in Asia (Shanghai and Hong Kong) and France. Mr. Moghadam holds a M.B.A. from DePaul University, a Master of International Management from American Graduate School of International Management (Thunderbird), and a B.S. in biology from Loyola University of Chicago.

Ms. Wilson joined the Company as Vice President of Research and Development in April 2007. Prior to joining the Company, Ms. Wilson was Vice President of Research and Development of Haemonetics Corp., a developer and manufacturer of blood processing technology, from 2005 to 2007. Prior to Haemonetics, Ms. Wilson held executive research and development positions at Baxter Healthcare and Abbott Laboratories. Ms. Wilson received a B.S. in Chemistry from the University of Virginia and an M.S. and Ph.D. in Nuclear Chemistry from Carnegie-Mellon University.

Mr. Grossman joined the Company in 2011, and serves as Vice President, General Counsel, and Secretary. Previously Mr. Grossman served as Vice President, General Counsel and Secretary of LeMaitre Vascular, Inc., a publicly-traded medical device company in Burlington, MA, where he became General Counsel in 2004 and Vice President in 2007. Mr. Grossman holds a J.D. from Harvard Law School, an M.A.L.D. from the Fletcher School of Law and Diplomacy at Tufts University, and an A.B. in political science from Vassar College.

#### **Marketing and Sales**

ZOLL operates with sales and managerial staff composed of direct representatives and their managers, distribution managers, special account representatives, distributors and manufacturer's representatives throughout the world. In the United States, the staff is split into dedicated groups, focused on the hospital, EMS, and public access markets. In the United States, ZOLL sells products directly to hospitals and EMS organizations and through distributors, manufacturer's representatives, and other indirect channels in the public safety market. The organization is similar in its international markets, and a mix of both direct and indirect channels are maintained relative to a country's size and business potential. ZOLL sells its RescueNet, LifeVest and temperature management products primarily through separate, dedicated sales forces.

#### Backlog

ZOLL ended fiscal 2011 with a backlog of approximately \$30 million. The Company anticipates that all of this backlog will ship during fiscal 2012. In order to facilitate shipments in light of the heavy end-of-quarter orders, ZOLL attempts to maintain a permanent backlog level of orders that will not be shipped at the end of each quarter. ZOLL believes this helps improve efficiency, lower costs and improve profitability. Due to possible changes in delivery schedules, cancellation of orders and delays in shipments, ZOLL's backlog at any particular date is not necessarily an accurate predictor of revenue for any succeeding period.

#### **Government Regulation**

The manufacture and sale of ZOLL's products are subject to extensive regulation by numerous governmental authorities, principally by the FDA, and corresponding foreign agencies. The FDA administers the Federal Food, Drug and Cosmetic Act and the regulations promulgated there under. ZOLL is subject to the standards and procedures with respect to the manufacture of medical devices and are subject to inspection by the FDA for compliance with such standards and procedures.

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The FDA classifies medical devices into one of three classes depending on the degree of risk associated with each medical device and the extent of control needed to ensure safety and effectiveness. ZOLL's manual defibrillation and pacing products have been classified by the FDA as Class II devices. ZOLL's AED products have been classified as Class III devices. These devices must secure a 510(k) pre-market notification clearance before they can be introduced into the United States market. The process of obtaining 510(k) clearance typically takes several months and may involve the submission of limited clinical data supporting assertions that the product is substantially equivalent to an already approved device or to a device that was on the market before the enactment of the Medical Device Amendments of 1976.

Recently, we have noticed the 510(k) process is taking longer as the applications appear to be subject to increased scrutiny which could result in delays in product launches or even expensive redesigns. Delays in obtaining 510(k) clearance could have an adverse effect on the introduction of future products. Moreover, approvals, if granted, may limit the uses for which a product may be marketed, which could reduce or eliminate the commercial benefit of manufacturing any such product.

Every company that manufactures or assembles medical devices is required to register with the FDA and adhere to certain "good manufacturing practices" in accordance with the FDA's Quality System Regulation, which regulates the manufacture of medical devices, prescribes record-keeping procedures and provides for the routine inspection of facilities for compliance with such regulations. The FDA also has broad regulatory powers in the areas of clinical testing, marketing and advertising of medical devices.

Medical device manufacturers are routinely subject to periodic inspections by the FDA. If the FDA believes that a company may not be operating in compliance with applicable laws and regulations, it can:

- place the company under observation and re-inspect the facilities;
- issue a warning letter apprising of violating conduct;
- detain or seize products;
- mandate a recall;
- enjoin future violations; and
- assess civil and criminal penalties against the company, its officers or its employees.

ZOLL is also subject to regulation in each of the foreign countries where its products are sold. Many of the regulations applicable to the Company's products in such countries are similar to those of the FDA. The national health or social security organizations of certain countries require that ZOLL's products be qualified before they can be marketed in those countries.

#### **Investor Information**

Financial and other information relating to the Company can be accessed from the Company's main Internet website (http://www.zoll.com) by clicking on "Investors". Information on, or linked to, the Company's website is not part of this Annual Report on Form 10-K. The Company makes available, free of charge, copies of its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC. A copy of any such filings may also be obtained upon written request to the Company at: Stockholder Relations, ZOLL Medical Corporation, 269 Mill Road, Chelmsford, MA 01824-4105.



#### Item 1A. Risk Factors.

# If We Fail to Compete Successfully in the Future Against Existing or Potential Competitors, Our Operating Results May Be Adversely Affected.

Our principal global competitors with respect to our entire cardiac defibrillator equipment product line are Physio-Control and Philips. Physio-Control is in the process of being sold to Bain Capital, a private equity firm, and had been the market leader in the defibrillator industry for over 20 years. As a result of Physio-Control's large position in this industry, many potential customers have relationships with Physio-Control that could make it difficult for us to continue to penetrate the markets for our products. In addition, Bain Capital and Philips and other competitors each have significantly greater resources than we do. Accordingly, competitors could substantially increase the resources they devote to the development and marketing of products that are competitive with ours. These competitors may develop and successfully commercialize medical devices that directly or indirectly accomplish what our products are designed to accomplish in a superior and/or less expensive manner.

There are a number of smaller competitors in the United States, which include Cardiac Science Corporation, HeartSine Technology, and Defibtech. Internationally, we face the same competitors as in the United States as well as Nihon Kohden, Corpuls, Schiller, and other local competitors. It is possible the market may embrace these competitors' products, which could negatively impact our market share. Additional companies may enter the market.

Currently, we believe there are no direct competitors for our LifeVest product. However, competitors may develop their own products to compete against the LifeVest. It is possible that similar products developed by competitors could be superior to or more cost-effective than our LifeVest product. Consequently, our ability to sell/lease/rent the LifeVest could be materially affected and our financial results could be materially and adversely affected.

In addition to external defibrillation and external pacing with cardiac resuscitation equipment, it is possible that other alternative therapeutic approaches to the treatment of SCA may be developed. These alternative therapies or approaches, including pharmaceutical or other alternatives, could prove to be superior to our products.

There is significant competition in the business of developing and marketing software for data collection, billing, scheduling, dispatching, records and resource management in the emergency medical system and fire markets. Our principal competitors in this business include Sansio, emsCharts, Intermedix, Safety Pad Software, ImageTrend, Inc., eCore Software Solutions, Inc., PDSI Software, Inc., EnRoute Emergency Systems (formerly Geac Computer Corporation, Ltd.), DocuMed, Inc., Tritech Software Systems, Inc., RAM Software Systems, Inc., Intergraph Corporation, Affiliated Computer Services, Inc., Emergency Reporting, Inc., AmbPac, Inc., ESO Solutions, Golden Hour and Innovative Engineering, some of which have greater financial, technical, research and development and marketing resources than we do. Because the barriers to entry in this business are relatively low, additional competitors may easily enter this market in the future. It is possible that systems developed by competitors could be superior to our data management system. Consequently, our ability to sell our data management systems could be materially affected and our financial results could be materially and adversely affected.

Our principal competitors in the area of temperature management are Philips (Innercool), Medivance Inc. (who recently announced that they will be acquired by C.R. Bard, Inc.), Cincinnati SubZero Products, Inc. and Stryker Corporation. The temperature management market is primarily divided into "Intravascular" technologies and "Surface" technologies. The Philips InnerCool RTx Endovascular System competes with ZOLL's IVTM solution. Philips also competes in the surface cooling market with Philips InnerCool STx Surface Pad System. ZOLL expects Philips to be more active in the promotion of the Innercool technology. Medivance, Inc. markets the Arctic Sun® Temperature Management system. This surface technology utilizes gel coated pads that are



placed directly on the patient's skin. These pads can have either cold or warm water circulating depending upon the mode of operation. Medivance continues to aggressively market their products within the U.S. marketplace. Both Cincinnati SubZero (Blanketrol<sup>®</sup>) and Stryker Corporation's Gaymar Industries, Inc. (Medi-Therm<sup>®</sup>) provide cooling blanket products that are wrapped around the patient.

# General Economic Conditions, Which Are Out of the Company's Control, May Adversely Affect the Company's Financial Condition and Results of Operations.

The Company's businesses may be affected by changes in general economic conditions, both nationally and internationally. Recessionary economic cycles, higher interest rates, higher fuel and other energy costs, inflation, higher levels of unemployment, changes in the laws or industry regulations or other economic factors may adversely affect the demand for the Company's products. Additionally, these economic factors, as well as higher tax rates, increased costs of labor, insurance and healthcare, and changes in other laws and regulations may increase the Company's cost of sales and operating expenses, which may adversely affect the Company's financial condition and results of operations.

# Current Economic Trends Could Adversely Affect our Financial Performance.

The global economic recession has adversely affected the levels of both our sales and profitability. Weakening economic conditions and outlook may result in a further decline in the level of our customers' spending that could adversely affect our results of operations and liquidity. The largest portion of our business is the sale of capital equipment. While customers may delay their capital equipment purchases of defibrillator products in the near-term due to the current economic environment, the equipment is a standard of care and will ultimately need to be replaced. However, we cannot be sure as to how long such delays may continue. However, our AutoPulse product and certain of our other products are not currently standards of care. Consequently, customers may indefinitely postpone the purchase of these products and any of their accessories. We are unable to predict the likely duration and severity of the current adverse economic conditions.

# Current and Future State and Municipal Budget Deficits Could Adversely Affect our Financial Performance.

Many of our customers include state and municipal agencies. In an article by the Center on Budget and Policy Priorities, the Center estimated that approximately 46 states were facing budget deficits in fiscal 2011, and these fiscal problems are likely to continue into fiscal 2012. Because of these budget deficits, our customers may delay their purchases of capital equipment from the Company due to the current economic environment. Significant purchasing delays may adversely affect our financial performance.

# The Adoption of Federal Medical Device Tax Surcharge by the U.S. Government Could Reduce Our Profitability.

In March 2010, the U.S. Congress adopted and President Obama signed into law comprehensive health care reform legislation through the passage of the Patient Protection and Affordable Health Care Act (A.R. 3590) and the Health Care and Education Reconciliation Act (H.R. 4872). Among other initiatives, these bills impose a 2.3% excise tax on domestic sales of medical devices commencing January 1, 2013. Approximately 75% of our revenues come from capital equipment and related accessories sales. As currently enacted, the annual excise tax to our Company could approximate \$10 million. Outside of the excise tax, which will impact results of operations commencing January 1, 2013, we cannot predict with any certainty what healthcare initiatives, if any, will be implemented at the state level, or what the ultimate effect of federal health care reform or any future legislation or regulation will have on us. As we expect the capital equipment portion of our business would derive limited benefit from healthcare reform, we would seek to pass this surtax on to our customers. If we are unsuccessful, this surtax could reduce our profitability.

# If Competitors Increase Their Use of Price Discounting, Our Gross Margins Could Decline.

Some competitors have, from time to time, used price discounting in order to attempt to gain market share. If this activity were to increase in the future, it is possible that our gross margin and overall profitability could be adversely affected if we decided to respond in kind.

# Our Estimates of Market Size Are Based on Numerous Assumptions Which May Not Be Correct, in Which Case the Actual Size of Our Markets May Be Substantially Smaller Than We Estimate.

We have estimated the long-term size of the markets for our LifeVest, AutoPulse and temperature management products. These estimates rely on numerous assumptions, any or all of which may prove to be incorrect. In each of these markets, we are currently the sole participant or one of the major participants; therefore, any negative impact on our business due to any of the considerations set forth in our other Risk Factors are likely to adversely affect our business and may negatively affect the overall market size. Moreover, our market estimates are based on market developments over many years and therefore our ability to accurately predict market developments over such an extended period is limited. Other factors that may impact our estimates include:

- emergence of competitive products, technologies or therapies that move the markets away from our products, technologies and therapies;
- changes in standards of care in ways that emphasize therapies or treatments not provided by our products;
- changes to the healthcare system or reimbursement rates that reduce payments for our products or therapies;
- failure of clinical trials or studies (whether sponsored by us or others) to support the safety and efficiency of our products;
- publication of adverse publicity regarding our products;
- action by regulatory authorities limiting our ability to market our products; and
- continuation of challenging economic conditions which slows adoption of new technologies and products.

In addition, the occurrence of these factors and concerns with respect to competitive products in the same market may adversely affect the overall growth of the market.

These factors and concerns apply generally to the size of the markets for each of our products. More specifically, reductions in average wear time of the LifeVest and a change in the accepted treatments which shortens the waiting period for the implantation of ICDs would impact the growth of the wearable defibrillator market. Our estimate of the long-term automated CPR market assumes that eventually Advanced Life Support providers in both hospitals and ambulances will have an automated CPR device alongside every professional defibrillator. Growth of the temperature management market is particularly dependent on the use of the therapy for indications not yet approved by the FDA, such as post-resuscitation treatment, stroke treatment and MI.

The failure of the markets to grow over many years as we estimate may have an adverse effect on our business, financial condition and results of operations.

# Our Operating Results are Likely to Fluctuate, Which Could Cause Our Stock Price to be Volatile, and the Anticipation of a Volatile Stock Price Can Cause Greater Volatility.

Our quarterly and annual operating results have fluctuated and may continue to fluctuate. Various factors have and may continue to affect our operating results, including:

• high demand for our products, which could disrupt our normal factory utilization and cause shipments to occur in uneven patterns;



- variations in product orders;
- timing of new product introductions;
- temporary disruptions of buying behavior due to changes in technology or the introduction of next-generation products;
- changes in distribution channels;
- the long sales cycle inherent in the capital equipment purchasing processes of many of our customers;
- actions taken by our competitors such as the introduction of new products or the offering of sales incentives;
- the ability of our sales forces to effectively market our products;
- supply interruptions from our single-source vendors;
- temporary manufacturing disruptions;
- regulatory actions, including actions taken by the FDA or similar agencies; and
- delays in obtaining domestic or foreign regulatory approvals.

A large percentage of our sales are made toward the end of each quarter. As a consequence, our quarterly financial results are often dependent on the receipt of customer orders in the last weeks of a quarter. The absence of these orders could cause us to fall short of our quarterly sales and earnings targets which, in turn, could cause our stock price to decline sharply. As we grow in size, and these orders are received closer to the end of a period, we may not be able to manufacture, test, and ship all orders in time to recognize the shipment as revenue for that quarter.

Based on these factors, period-to-period comparisons should not be relied upon as indications of future performance. In anticipation of less successful quarterly results, parties may take short positions in our stock. The actions of parties shorting our stock might cause even more volatility in our stock price. The volatility of our stock may cause the value of a stockholder's investment to decline rapidly.

# We May be Subject to Intellectual Property Litigation, Which Could Have an Adverse Effect on Our Business.

If certain patents issued to others are upheld or if certain patent applications filed by others issue and are upheld, we may be:

- · required to obtain licenses or redesign our products or processes to avoid infringement;
- · prevented from practicing the subject matter claimed in those patents; or
- required to pay damages.

There is substantial litigation regarding patent and other intellectual property rights in the medical device industry. Litigation or administrative proceedings, including interference proceedings before the U.S. Patent and Trademark Office, related to intellectual property rights have been and in the future could be brought against us or be initiated by us. The Company is a defendant in a pending patent infringement lawsuit filed in Boston by Philips Electronics North America Corporation and its parent, and the Company has brought a patent infringement lawsuit against Philips. Adverse determinations in any patent litigation could subject us to significant liabilities to third parties, could require us to seek licenses from third parties and could, if licenses are not available, prevent us from manufacturing, selling or using certain of our products, some of which could have a material adverse effect on the Company. In addition, the costs of any such proceedings are likely to be substantial whether or not we are successful.

# We Are Conducting Clinical Trials Related to Newer Technologies Which May Prove Unsuccessful and Have a Negative Impact on Future Sales.

We are conducting clinical trials related to the LifeVest and Temperature Management product. While we are confident in the future outcomes of these trials, an unsuccessful trial could adversely affect the marketability of these products in the future.

# Our Approach to Our Backlog Might Not Be Successful.

We maintain a backlog in order to generate operating efficiencies. If order rates are insufficient to maintain such a backlog, we may be subject to operating inefficiencies.

# We May be Required to Implement a Costly Product Recall.

In the event that any of our products proves to be defective, we can voluntarily recall, or the FDA could require us to redesign or implement a recall of, any of our products. Both our larger competitors and we have, on numerous occasions, voluntarily recalled products in the past, and based on this experience, we believe that future recalls could result in significant costs to us and significant adverse publicity, which could harm our ability to market our products in the future. Though it may not be possible to quantify the economic impact of a recall, it could have a material adverse effect on our business, financial condition and results of operations.

# Changes Affecting Healthcare Reimbursement and Payors May Require Us to Decrease the Selling Price for Our Products or Could Result in a Reduction in the Size of the Market for Our Products, Each of Which Could Have a Negative Impact on Our Financial Performance.

Trends toward managed care, healthcare cost containment, and other changes in government and private sector initiatives in the United States and other countries in which we do business are placing increased emphasis on the delivery of more cost-effective medical therapies, which could adversely affect the sale and/or the prices of our products. For example:

- major third-party payers of hospital and pre-hospital services, including Medicare, Medicaid and private healthcare insurers, have substantially revised their payment methodologies during the last few years, which has resulted in stricter standards for reimbursement of hospital and pre-hospital charges for certain medical procedures;
- Medicare, Medicaid and private healthcare insurer cutbacks could create downward price pressure in the cardiac resuscitation prehospital market;
- there has been a consolidation among healthcare facilities and purchasers of medical devices in the United States who prefer to limit the number of suppliers from whom they purchase medical products, and these entities may decide to stop purchasing our products or demand discounts on our prices;
- there is economic pressure to contain healthcare costs in international markets;
- there are proposed and existing laws and regulations in domestic and international markets regulating pricing and profitability of companies in the healthcare industry; and
- there have been initiatives by third-party payers to challenge the prices charged for medical products, which could affect our ability to sell products on a competitive basis.

We expect the healthcare industry to continue to change significantly in the future. Both the pressure to reduce prices for our products in response to these trends and the decrease in the size of the market as a result of these trends could adversely affect our levels of revenues and profitability of sales, which could have a material adverse effect on our business.



# We Can be Sued for Producing Defective Products and We May be Required to Pay Significant Amounts to Those Harmed If We are Found Liable, and Our Business Could Suffer from Adverse Publicity.

The manufacture and sale of medical products such as ours entail significant risk of product liability claims, and product liability claims are made against us from time to time. Our quality control standards comply with FDA requirements, and we believe that the amount of product liability insurance we maintain is adequate based on past product liability claims in our industry. We cannot be assured that the amount of such insurance will be sufficient to satisfy claims made against us in the future or that we will be able to maintain insurance in the future at satisfactory rates or in adequate amounts. Product liability claims could result in significant costs or litigation. A product liability lawsuit is currently pending. A successful claim brought against us in excess of our available insurance coverage or any claim that results in significant adverse publicity against us could have a material adverse effect on our business, financial condition and results of operations.

# Recurring Sales of Disposables to Our Customers May Decline.

We typically have recurring sales of disposables to our customers. Other vendors have developed generic disposables to be compatible with our products. If we are unable to continue to differentiate the superiority of our disposables over these generic disposables, our future revenue from the sale of disposables could be reduced, or our pricing and profitability could decline.

# Failure to Produce New Products or Obtain Market Acceptance for Our New Products in a Timely Manner Could Harm Our Business.

Because substantially all of our revenue comes from the sale of cardiac resuscitation devices and related products, our financial performance will depend upon market acceptance of, and our ability to deliver and support, new products. We cannot be assured that we will be able to produce viable products in the time frames we currently estimate. Factors which could cause delay in these schedules or even cancellation of our projects to produce and market these new products include: research and development delays, the actions of our competitors producing competing products, and the actions of other parties who may provide alternative therapies or solutions, which could reduce or eliminate the markets for pending products.

The degree of market acceptance of any of our products will depend on a number of factors, including:

- our ability to develop and introduce new products in a timely manner;
- our ability to successfully implement new product technologies;
- the market's readiness to accept new products;
- the standardization of an automated platform for data management systems;
- the clinical efficacy of our products and the outcome of clinical trials;
- the ability to obtain timely regulatory approval for new products; and
- the prices of our products compared to the prices of our competitors' products.

If our new products do not achieve market acceptance, our financial performance could be adversely affected.

# Our Dependence on Sole and Single Source Suppliers Exposes Us to Supply Interruptions and Manufacturing Delays Caused by Faulty Components, Which Could Result in Product Delivery Delays and Substantial Costs to Redesign Our Products.

Although we use many standard parts and components for our products, some key components are purchased from sole or single source vendors for which alternative sources at present are not readily available.

For example, we currently purchase proprietary components, including capacitors, display screens, gate arrays and integrated circuits, for which there are no direct substitutes. Our inability to obtain sufficient quantities of these components as well as our limited ability to deal with faulty components may result in future delays or reductions in product shipments, which could cause a fluctuation in our results of operations.

These or any other components could be replaced with alternatives from other suppliers, which could involve a redesign of our products. Such a redesign could involve considerable time and expense. We could be at risk that the supplier might experience difficulties meeting our needs.

If our manufacturers are unable or unwilling to continue manufacturing our components in required volumes, we will have to transfer manufacturing to acceptable alternative manufacturers which could result in significant interruptions of supply. The manufacture of these components is complex, and our reliance on the suppliers of these components exposes us to potential production difficulties and quality variations, which could negatively impact the cost and timely delivery of our products. Accordingly, any significant interruption in the supply, or degradation in the quality, of any component would have a material adverse effect on our business, financial condition and results of operations.

#### We May Not be Able to Obtain Appropriate Regulatory Approvals for Our New Products.

The manufacture and sale of our products are subject to regulation by numerous governmental authorities, principally the FDA and corresponding state and foreign agencies. The FDA administers the Federal Food, Drug and Cosmetic Act, as amended, and the rules and regulations promulgated thereunder. Some of our products have been classified by the FDA as Class II devices and others, such as our AEDs, have been classified as Class III devices. All of these devices must secure a 510(k) pre-market notification clearance before they can be introduced into the U.S. market. The process of obtaining 510(k) clearance typically takes several months and may involve the submission of limited clinical data supporting assertions that the product is substantially equivalent to an already approved device or to a device that was on the market before the Medical Device Amendments of 1976. Recently, we have noticed the 510(k) process is taking longer as the applications appear to be subject to increased scrutiny which could result in delays in product launches or even expensive redesigns. Delays in obtaining 510 (k) clearance could have an adverse effect on the introduction of future products. Moreover, approvals, if granted, may limit the uses for which a product may be marketed, which could reduce or eliminate the commercial benefit of manufacturing any such product.

We are also subject to regulation in each of the foreign countries in which we sell products. Many of the regulations applicable to our products in such countries are similar to those of the FDA. However, the national health or social security organizations of certain countries require our products to be qualified before they can be marketed in those countries. We cannot be assured that such clearances will be obtained. For example, although we received U.S. 510(k) clearance on our biphasic waveform in 1999, we have only recently obtained similar clearance in Japan, a process that took a number of years. As a result, our Japanese defibrillator revenues have been very small in recent years.

In addition, the FDA has announced recent proposals to reform the 510(k) process. These proposals are wide-ranging and, if fully implemented, would likely result in a longer process to obtain 510(k) clearance and would likely require us to conduct more extensive clinical studies as part of the 510(k) process. These developments in achieving 510(k) clearance would increase the costs for the introduction of new products and features and may adversely affect our business, financial condition and results of operations.

# If We Fail to Comply With Applicable Regulatory Laws and Regulations, the FDA and Other U.S. and Foreign Regulatory Agencies Could Exercise Any of Their Regulatory Powers, Which Could Have a Material Adverse Effect on Our Business.

Every company that manufactures or assembles medical devices is required to register with the FDA and to adhere to certain quality systems, which regulate the manufacture of medical devices and prescribe record

keeping procedures and provide for the routine inspection of facilities for compliance with such regulations. The FDA also has broad regulatory powers in the areas of clinical testing, marketing and advertising of medical devices. To ensure that manufacturers adhere to good manufacturing practices, medical device manufacturers are routinely subject to periodic inspections by the FDA. If the FDA believes that a company may not be operating in compliance with applicable laws and regulations, it could take any of the following actions:

- place the company under observation and re-inspect the facilities;
- issue a warning letter apprising of violating conduct;
- detain or seize products;
- mandate a recall;
- enjoin future violations; and
- assess civil and criminal penalties against the company, its officers or its employees.

We, like most of our U.S. competitors, have received warning letters from the FDA in the past, and we may receive warning letters in the future. The number of warning letters issued within the industry has been on the rise, and the number issued within the industry in 2009 and 2010 significantly exceeded the number issued prior to this period. We received a warning letter from the FDA, dated April 22, 2011, addressing certain aspects of battery life claims on our AED Plus product. We have provided additional data and action plans concerning battery life claims to the FDA. The FDA has reviewed the material and has indicated that our response appears to be adequate, pending re-inspection in the future to insure that all actions have been implemented. We expect to fully comply with the actions required by this warning letter. However, our failure to comply with FDA regulations could result in sanctions being imposed on us, including restrictions on the marketing or recall of our products. These sanctions could have a material adverse effect on our business.

If a foreign regulatory agency believes that we are not operating in compliance with their laws and regulations, they could prevent us from selling our products in their country, which could have a material adverse effect on our business.

# Our Industry Is Experiencing Greater Scrutiny by Governmental Authorities, Which May Lead to Greater Governmental Regulation and Heightened Regulatory Enforcement.

Our medical devices and our business activities are subject to rigorous regulation, including by the FDA and numerous other federal, state and foreign governmental authorities. These authorities and members of the U.S. Congress have been increasing their scrutiny of our industry. Certain states have recently passed or are considering legislation restricting our interactions with health care providers and requiring disclosure of many payments to them. While recent case law has clarified that the FDA's authority over those medical devices for which the FDA has granted premarket approval (including our LifeVest product) preempts certain state tort laws, legislation has been introduced at the federal level to allow state intervention. We anticipate that governmental authorities will continue to scrutinize our industry closely and that additional regulation by governmental authorities may result in increased compliance costs, increased exposure to litigation and other adverse effects to our business. In addition, heightened regulatory enforcement arising from changes in the political and regulatory environment may adversely affect our ability to obtain regulatory approval for our products and to maintain for sale products previously approved. The FDA's enhanced reporting requirements and ability to analyze reported data may result in more frequent field actions which may include communications to physicians and patients, recalls of products and repair or replacement of devices. One or more of these actions could have a material impact on our net sales, profitability and reputation in the marketplace.

In addition, in November 2010, the FDA launched an initiative to facilitate the development of safer and more effective external defibrillators through improved design and manufacturing practices. The FDA states its

initiative will promote innovation of next-generation external defibrillators, enhance the ability of the external defibrillator industry and the FDA to identify and respond to safety problems and risks more quickly and effectively, and designate an appropriate premarket regulatory pathway for AEDs that promotes best practices for design and testing. As a result of this initiative, we expect the FDA to focus greater scrutiny on external defibrillator companies such as ZOLL. The FDA may also require AEDs to obtain premarket approvals (PMA) before they may be commercially distributed in the United States. The PMA process is much longer than the 510(k) process and must be supported by extensive clinical data. This FDA initiative has been only recently launched, and so we are unable to determine the impact on our business or products; nonetheless, depending on the actions taken by the FDA this initiative could adversely affect our business, financial condition and results of operations.

# We Are Dependent upon Licensed and Purchased Technology for Upgradeable Features in Our Products, and We May Not Be Able to Renew These Licenses or Purchase Agreements in the Future.

We license and purchase technology from third parties for upgradeable features in our products, including a 12 lead analysis program, SPO<sup>2</sup>, EtCO<sup>2</sup>, CO and NIBP technologies. We anticipate that we will need to license and purchase additional technology to remain competitive. We may not be able to renew our existing licenses and purchase agreements or to license and purchase other technologies on commercially reasonable terms or at all. If we are unable to renew our existing licenses and purchase agreements or we are unable to license or purchase new technologies, we may not be able to offer competitive products.

# Fluctuations in Currency Exchange Rates May Adversely Affect Our International Sales.

Our revenue from foreign operations can be denominated in, or significantly influenced by, the currency and general economic climate of the country in which we make sales. A decrease in the value of such foreign currencies relative to the U.S. dollar could result in downward price pressure for our products or losses from currency exchange rate fluctuations. As we continue to expand our international operations, downward price pressure and exposure to gains and losses on foreign currency transactions may increase.

Approximately 21% of our fiscal 2011 revenue is denominated in a foreign currency and, as such, is subject to direct foreign currency exposure. The currency exposure on the revenue is partially offset by the operating expenses which are also denominated in local currencies. The currency exposure is also partially offset by any forward contracts entered into to hedge our exposure to exchange rates. The other portion of revenue generated in the foreign markets is sold to distributors and is denominated in U.S. dollars. This revenue could be subject to price pressure if the U.S. dollar strengthens.

We may use forward contracts and other instruments to reduce our exposure to exchange rate fluctuations from intercompany accounts receivable and forecasted intercompany sales to our subsidiaries denominated in foreign currencies, and we may not be able to do this successfully. Accordingly, we may experience economic loss and a negative impact on our results of operations and equity as a result of foreign currency exchange rate fluctuations.

#### Our Current and Future Investments May Lose Value in the Future.

We hold investments in two private companies and may in the future invest in the securities of other companies and participate in joint venture agreements. These investments and future investments are subject to the risks that the entities in which we invest will become bankrupt or lose money.

For example, in fiscal 2003, we made a \$1.3 million investment in Advanced Circulatory Systems, Inc. (ACSI). We will continue to monitor our investment to determine if there are any triggering events that might impact the carrying value of our investment. If a triggering event or series of events indicate a permanent impairment of our investment, we will be required to write off our investment or some portion thereof in future periods.

Investing in other businesses involves risks and no assurance can be made as to the profitability of any investment. Our inability to identify profitable investments could adversely affect our financial condition and results of operations. Unless we hold a majority position in an investment or joint venture, we will not be able to control all of the activities of the companies in which we invest or the joint ventures in which we are participating. Because of this, such entities may take actions against our wishes and not in furtherance of, and even opposed to, our business plans and objectives. These investments are also subject to the risk of impasse if no one party exercises ultimate control over the business decisions.

# Future Changes in Applicable Laws and Regulations Could Have an Adverse Effect on Our Business.

Federal, state or foreign governments may change existing laws or regulations or adopt new laws or regulations that regulate our industry. Changes in or adoption of new laws or regulations could result in the following consequences that would have an adverse effect on our business:

- regulatory clearance previously received for our products could be revoked;
- costs of compliance could increase; or
- we may be unable to comply with such laws and regulations so that we would be unable to sell our products.

# Changes in Tax Laws or Exposure to Additional Income Tax Liabilities Could Have a Material Impact on Our Financial Condition, Results of Operations and Liquidity.

We are subject to income taxes as well as non-income based taxes, in both the United States and various foreign jurisdictions. We are also subject to ongoing tax audits in various jurisdictions. Tax authorities may disagree with certain positions we have taken and assess additional taxes. We regularly assess the likely outcomes of these audits in order to determine the appropriateness of our tax provision. However, there can be no assurance that we will accurately predict the outcomes of these audits, and the actual outcomes of these audits could have a material impact on our net income or financial condition. Changes in tax laws or tax rulings could materially impact our effective tax rate. For example, proposals for fundamental U.S. international tax reform, such as recent proposals by the Obama administration and others that would have the effect of increasing U.S. taxes on non-U.S. income could, if enacted, have a significant adverse impact on our future results of operations.

# Some of Our Activities May Subject Us to Risks under Federal and State Laws Prohibiting "Kickbacks" and False or Fraudulent Claims.

We are subject to the provisions of a federal law commonly known as the Medicare/Medicaid anti-kickback law, and several similar state laws, which prohibit payments intended to induce physicians or others either to refer patients or to acquire or arrange for or recommend the acquisition of healthcare products or services. While the federal law applies only to referrals, products or services for which payment may be made by a federal healthcare program, state laws often apply regardless of whether federal funds may be involved. These laws constrain the sales, marketing and other promotional activities of manufacturers of medical devices by limiting the kinds of financial arrangements, including sales programs, with hospitals, physicians, laboratories and other potential purchasers of medical devices. Other federal and state laws generally prohibit individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payers that are false or fraudulent, or are for items or services that were not provided as claimed. Anti-kickback and false claims laws prescribe civil and criminal penalties (including fines) for noncompliance that can be substantial. While we continually strive to comply with these complex requirements, interpretations of these laws are ever evolving and even an unsuccessful challenge could cause adverse publicity and be costly to respond to, and thus could harm our business.

# Patients May Not Be Able to Obtain Appropriate Insurance Coverage for Our LifeVest Product.

The ability of patients to obtain appropriate insurance coverage for our LifeVest product from government and third-party payors is critical to the success of the product. The availability of insurance coverage affects which products physicians may prescribe. Implementation of healthcare reforms in the United States and abroad may limit the price of, or the level at which, insurance is provided for our LifeVest product and adversely affect both our pricing flexibility and the demand for the product. Hospitals or physicians may respond to such pressures by substituting other therapies for our LifeVest product.

Further legislative or administrative reforms to the U.S. or international reimbursement systems that significantly reduce insurance coverage for our LifeVest product or deny coverage for our LifeVest product, or adverse decisions regarding coverage or reimbursement issues relating to our LifeVest product by administrators of such systems would have an adverse impact on sales of our LifeVest product. This in turn could have an adverse effect on our financial condition and results of operations.

In particular, the LifeVest product is governed by the Durable Medical Equipment Regulations and is subject to audit. The LifeVest is reimbursed by Medicare, Medicaid or other third-party payors that may limit coverage or reduce reimbursement rates with little notice, which may have an adverse impact on sales of our LifeVest product.

On August 4, 2011, Durable Medical Equipment Regional Carriers issued for comment draft revisions to local coverage determinations with respect to Medicare reimbursement for AEDs and wearable defibrillators, including our LifeVest product. The draft revisions would limit the indications for Medicare reimbursement for the LifeVest product. These draft revisions are subject to public hearings and comments. The public comment period ended September 23, 2011. There is no statutory provision that defines a timeline for a decision. We believe that following the public hearing process, the current indications for Medicare reimbursement of the LifeVest product will not be limited; however, if the draft revisions were to become final, the draft limitations on the indications for Medicare reimbursement would have a material adverse effect on our LifeVest business.

# Failure to Comply with HIPAA Obligations Would Put Us at Risk.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA), which is primarily applicable to our LifeVest product, created two new federal crimes: healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private payers. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from government-sponsored programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. A violation of this statute is a felony and may result in fines or imprisonment.

HIPAA also protects the security and privacy of individually identifiable health information maintained or transmitted by healthcare providers, health plans and healthcare clearinghouses. HIPAA restricts the use and disclosure of patient health information, including patient records. Although we believe that HIPAA does not apply to us directly, most of our customers have significant obligations under HIPAA, and we intend to cooperate with our customers and others to ensure compliance with HIPAA with respect to patient information that comes into our possession. Failure to comply with HIPAA obligations can entail criminal penalties. Some states have also enacted rigorous laws or regulations protecting the security and privacy of patient information. If we fail to comply with these laws and regulations, we could face additional sanctions.

# Uncertain Customer Decision Processes May Result in Long Sales Cycles, Which Could Result in Unpredictable Fluctuations in Revenues and Delay the Replacement of Cardiac Resuscitation Devices.

Many of the customers in the pre-hospital market consist of municipal fire and emergency medical systems departments. As a result, there are numerous decision-makers and governmental procedures in the decision-making process. In addition, decisions at hospitals concerning the purchase of new medical devices are

sometimes made on a department-by-department basis. Accordingly, we believe the purchasing decisions of many of our customers may be characterized by long decision-making processes, which have resulted in and may continue to result in long sales cycles for our products. For example, the sales cycles for cardiac resuscitation products typically have been between six to nine months, although some sales efforts have taken as long as two years.

# Reliance on Domestic and International Distributors to Sell Our Products Exposes Us to Business Risks That Could Result in Significant Fluctuations in Our Results of Operations.

Although we perform credit assessments with sales to distributors, payment by the distributor may be affected by the financial stability of the customers to which the distributor sells. Future sales to distributors may also be affected by the distributor's ability to successfully sell our products to their customers. Either of these scenarios could result in significant fluctuations in our results of operations.

# Our International Sales Expose Our Business to a Variety of Risks That Could Result in Significant Fluctuations in Our Results of Operations.

Approximately 32% of our sales for fiscal 2011 were made to foreign purchasers, and we plan to increase the sale of our products to foreign purchasers in the future. As a result, a significant portion of our sales is and will continue to be subject to the risks of international business, including:

- fluctuations in foreign currencies;
- trade disputes;
- changes in regulatory requirements, tariffs and other barriers;
- consequences of failure to comply with U.S. laws and regulations concerning the conduct of business outside the U.S.;
- the possibility of quotas, duties, taxes or other changes or restrictions upon the importation or exportation of the products;
- timing and availability of import/export licenses;
- political and economic instability;
- higher credit risk and difficulties in accounts receivable collections;
- increased tax exposure if our revenues in foreign countries are subject to taxation by more than one jurisdiction;
- customer purchase orders governed by foreign laws, which may differ significantly from U.S. laws and limit our ability to enforce our rights under such agreements and to collect damages, if awarded;
- disruption in the international transportation industry;
- our use of international distributors; and
- changes in local economic conditions that could cause some customers to defer purchases.

As international sales become a larger portion of our total sales, these risks could create significant fluctuations in our results of operations. These risks could affect our ability to resell trade-in products to domestic distributors, who in turn often resell the trade-in products in international markets. Our inability to sell trade-in products might require us to offer lower trade-in values, which might impact our ability to sell new products to customers desiring to trade in older models and then purchase newer products.

We intend to continue to expand our direct sales forces and our marketing support for these sales forces. We intend to continue to expand these areas, but if our sales forces are not effective, or if there is a sudden decrease in the markets where we have direct operations, we could be adversely affected.

# We May Fail to Adequately Protect or Enforce Our Intellectual Property Rights or Secure Rights to Third Party Intellectual Property, and Our Competitors Can Use Some of Our Previously Proprietary Technology.

Our success will depend in part on our ability to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets and to operate without infringing the proprietary rights of third parties. Our issued patents are for a definitive period of time and will eventually expire. We cannot be assured as to:

- the degree and range of protection any patents will afford against competitors with similar products;
- if and when patents will be issued;
- whether or not others will obtain patents claiming aspects similar to those covered by our patent applications;
- whether or not competitors will use information contained in our expired patents;
- whether or not others will design around our patents or obtain access to our know-how; or
- the extent to which we will be successful in avoiding any patents granted to others.

Our success is also dependent upon the skills, knowledge and experience of our scientific and technical personnel. To help protect our rights, we require all U.S. employees, consultants and advisors to enter into confidentiality agreements, which prohibit the disclosure of confidential information and require disclosure and assignment to us of their ideas, developments, discoveries and inventions. We cannot be assured that these agreements will provide adequate protection for our trade secrets, know-how or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of such information.

# We May Acquire Other Businesses, and We May Have Difficulty Integrating These Businesses or Generating an Acceptable Return from Acquisitions.

We may acquire other businesses or make strategic purchases of interests in other companies related to our business in order to grow, add product lines, acquire customers or otherwise attempt to gain a competitive advantage in new or existing markets. Such acquisitions and investments may involve the following risks:

- our management may be distracted by these acquisitions and may be forced to divert a significant amount of time and energy into integrating and running the acquired businesses;
- we may face difficulties associated with financing the acquisitions;
- we may face the inability to achieve the desired outcomes justifying the acquisition;
- we may face difficulties integrating the acquired business' operations and personnel; and
- we may face difficulties incorporating the acquired technology into our existing product lines.

For example, we recently acquired temperature management technology from Alsius Corporation. As part of the successful development of the market for this technology, we must:

- establish new marketing and sales strategies;
- identify respected health professionals and organizations to champion the products;
- · work with potential customers to develop new sources of unbudgeted funding;
- conduct successful clinical trials;

- achieve early success for the product in the field; and
- obtain FDA approval of new indications.

If we are delayed or fail to achieve these objectives, we may encounter difficulties building our customer base for these products, which could cause our operating results to be unfavorably affected.

# Reliance on Overseas Vendors for Some of the Components for Our Products Exposes Us to International Business Risks, Which Could Have an Adverse Effect on Our Business.

Some of the components we use in our products are acquired from foreign manufacturers, particularly countries located in Europe and Asia. As a result, a significant portion of our purchases of components is subject to the risks of international business. The failure to obtain these components as a result of any of these risks can result in significant delivery delays of our products, which could have an adverse effect on our business.

#### Intangibles and Goodwill We Currently Carry on Our Balance Sheet May Become Impaired.

At October 2, 2011, we had approximately \$117 million of goodwill and intangible assets on our balance sheet. These assets are subject to impairment if the cash flow that we generate from these assets specifically, or our business more broadly, are insufficient to justify the carrying value of the assets. Factors affecting our ability to generate cash flow from these assets include, but are not limited to, general market conditions, product acceptance, pricing and competition, distribution, costs of production and operations.

In addition, volatility in our stock price and declines in our market capitalization could put pressure on the carrying value of our goodwill and other long-lived assets if the current period of economic uncertainty and related volatility in the financial markets persist for an extended period of time.

#### Provisions in Our Charter Documents, Our Shareholder Rights Agreement and State Law May Make It Harder for Others To Obtain Control of the Company Even Though Some Stockholders Might Consider Such a Development to be Favorable.

Our board of directors has the authority to issue up to 1,000,000 shares of undesignated preferred stock and to determine the rights, preferences, privileges and restrictions of such shares without further vote or action by our stockholders. The rights of the holders of Common Stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of preferred stock could have the effect of making it more difficult for third parties to acquire a majority of our outstanding voting stock. In addition, our restated articles of organization provide for staggered terms for the members of the board of directors, which could delay or impede the removal of incumbent directors and could make a merger, tender offer or proxy contest more difficult. Our restated articles of organization, restated by-laws and applicable Massachusetts law also impose various procedural and other requirements that could delay or make a merger, tender offer or proxy contest involving us more difficult.

We have also implemented a so-called poison pill by adopting our shareholders rights agreement, which was renewed in April 2008. This poison pill significantly increases the costs that would be incurred by an unwanted third party acquirer if such party owns or announces its intent to commence a tender offer for more than 15% of our outstanding Common Stock or otherwise "triggers" the poison pill by exceeding the applicable stock ownership threshold. The existence of this poison pill could delay, deter or prevent a takeover.

All of these provisions could limit the price that investors might be willing to pay in the future for shares of our Common Stock, which could preclude our shareholders from recognizing a premium over the prevailing market price of our stock.

# We Have Only One Manufacturing Facility for Each of Our Major Products and Any Damage or Incapacitation of Any of the Facilities Could Impede Our Ability to Produce These Products.

We have only one manufacturing facility for each of our major products. Damage or loss of power to any such facility could render us unable to manufacture the relevant product or require us to reduce the output of products at the damaged facility. In addition, a severe weather event, other natural disaster or any other significant disruption affecting a facility occurring late in a quarter could make it difficult to meet product shipping targets. Any of these events could materially and adversely impact our business, financial condition and results of operations.

# We Hold Various Marketable Securities Investments Which Are Subject to Market Risk, Including Volatile Interest Rates and a Volatile Stock Market.

Our investment policy calls for investing in high quality investment grade securities with an average duration of 24 months or less. However, with the volatility of interest rates and fluctuations in credit quality of the underlying investments and issues of general market liquidity, there can be no assurance that our investments will not lose value.

# We May Incur Significant Liability if it is Determined Under FDA Regulations That We Are Promoting Off-Label Use of Our Temperature Management Products.

We have regulatory clearances to sell our temperature management products in Europe, Canada and in other countries outside the United States to treat cardiac arrest, but we do not have FDA clearance to sell these products in the United States to treat cardiac arrest. In the United States, the use of our temperature management products to treat cardiac arrest is considered off-label use unless and until we receive regulatory clearance for use of our temperature management products to treat cardiac arrest patients. In the event that we are not able to obtain FDA clearance or approval, we may be at risk for liabilities and lost revenue as a result of off-label use.

Under the Federal Food, Drug and Cosmetic Act and other laws, we are prohibited from promoting our temperature management products for off-label uses. This means that we may not make claims about the safety or effectiveness of our temperature management products for the treatment of cardiac arrest patients, and means that we may not proactively discuss or provide information on the use of our temperature management products for the treatment of cardiac arrest patients, with very specific exceptions. Physicians, however, may lawfully choose to purchase our temperature management products and use them off-label. We do not track how physicians use our temperature management product is derived from off-label use. We are aware, however, that physicians in the United States may be using our temperature management products off-label to treat cardiac arrest due to the 2010 American Heart Association recommendation that cooling after cardiac arrest be considered a Class 1 (Standard of Care) recommendation. A company that is found to have improperly promoted off-label uses may be subject to significant liability, including civil and administrative remedies, and even criminal sanctions. We do not believe any of our activities constitute promotion of off-label use, and we are actively engaged with the FDA on a trial in support of an indication for cardiac arrest but there can be no assurance that such a trial would generate data necessary to support this indication or that the FDA would approve this indication. Should the FDA determine, however, that our activities constitute promotion of off-label use, could impose fines and penalties on us and our executives, and could prohibit us from participating in government healthcare programs such as Medicare and Medicaid.

#### Item 1B. Unresolved Staff Comments.

None.

#### **Item 2. Properties.**

Our executive headquarters are located in Chelmsford, Massachusetts, along with our research and development and our defibrillator and Power Infuser manufacturing operations. The Chelmsford facility offers approximately 221,000 square feet of leased office, warehouse and assembly space. We own a 33,000 square foot building in Pawtucket, Rhode Island, where we manufacture our electrode products and conduct related research and development. We lease approximately 67,000 square feet in Broomfield, Colorado, where our data management software business offices are located. We lease an approximate 40,000 square foot manufacturing facility in Sunnyvale, California, where the AutoPulse and temperature management products are manufactured. During fiscal 2011, we leased approximately 42,000 square feet in Pittsburgh, Pennsylvania where our LifeVest manufacturing facility is located. In October 2011, we exercised our option to purchase this facility for approximately \$10.8 million. We also lease administrative offices in Manchester, England; Elst, the Netherlands; Cologne, Germany; Paris, France; Moscow, Russia; Sydney, Australia; Mississauga, Ontario, Canada; Shanghai, China; New Delhi, India; Amman, Jordan; and Singapore.

#### **Item 3. Legal Proceedings**

On June 18, 2010, Koninklijke Philips Electronics N.V. and Philips Electronics North America Corporation filed a lawsuit against us in U.S. District Court, Boston, MA, alleging that fifteen patents owned by the Philips entities are infringed by certain of our defibrillators and associated products and seeking monetary and equitable remedies for infringement. The plaintiffs filed an amended complaint on October 13, 2010. On July 12, 2010, we filed a lawsuit against Philips Electronics North America Corporation in U.S. District Court, Boston, MA, alleging that five of our patents are infringed by certain of their defibrillators and associated products and seeking monetary and equitable remedies for infringement. The two cases have been consolidated through the pre-trial phase and bifurcated into an initial liability phase and a later damages phase. Discovery has commenced in the liability phase.

We are, from time to time, involved in the normal course of our business in various legal proceedings, including intellectual property, contract, employment and product liability suits. Although we are unable to quantify the exact financial impact of any of these matters, we believe that none of these currently pending matters will have an outcome material to our financial condition or business.

#### Item 4. Removed and Reserved.

#### PART II

#### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our Common Stock is traded on the NASDAQ Global Select Market under the symbol "ZOLL." The following table sets forth the high and low sales prices during the fiscal quarters specified:

	Sales Prices				
20	2011		)10		
High	Low	High	Low		
\$41.00	\$29.87	\$28.08	\$19.00		
47.87	37.46	29.95	25.51		
61.51	44.74	31.92	25.66		
70.82	33.84	33.23	23.07		

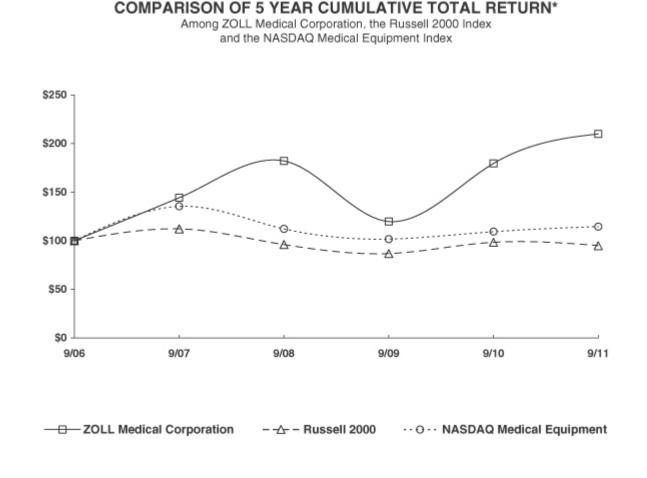
#### Dividends

We have never declared or paid cash dividends on our capital stock. We do not anticipate paying any cash dividends in the foreseeable future.

As of November 8, 2011, there were approximately 270 stockholders of record of our Common Stock. We believe there are approximately 10,000 beneficial holders of our Common Stock.

#### Performance Graph

The following graph compares the cumulative 5-year total return attained by shareholders on ZOLL Medical Corporation's common stock relative to the cumulative total returns of the Russell 2000 index and the NASDAQ Medical Equipment index. The graph tracks the performance of a \$100 investment in our common stock and in each of the indexes (with the reinvestment of all dividends) from 9/30/2006 to 9/30/2011.



\*\$100 invested on 9/30/06 in stock or index, including reinvestment of dividends. Fiscal year ending September 30.

	9/06	9/07	9/08	9/09	9/10	9/11
ZOLL Medical Corporation	100.00	144.44	182.33	119.92	179.83	210.31
Russell 2000	100.00	112.34	96.07	86.90	98.50	95.02
NASDAQ Medical Equipment	100.00	135.62	112.41	101.85	109.52	114.58

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

#### **Equity Compensation Plan Information**

The following table provides information concerning the Company's stock incentive plans as of October 2, 2011:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	price of out	average exercise tstanding options, nts and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) as of end of most recently completed fiscal year	
	(a)		(b)	(c)	
Equity compensation plans approved by security holders Equity compensation plans not approved	1,917,818(1)	\$	22.48	1,023,494(2)	
by security holders Total	1,917,818(1)	\$	N/A 22.48	1,023,494(2)	

(1) Does not include 67,857 shares of restricted Common Stock issued under the Amended and Restated 2001 Stock Incentive Plan, since such shares are issued and outstanding.

(2) Includes 332,316 shares available for issuance as restricted Common Stock under the Amended and Restated 2001 Stock Incentive Plan.

#### **Issuer Purchases of Equity Securities**

For the quarter ended October 2, 2011, the Company made no purchases of shares of its common stock.

On November 15, 2011, our Board of Directors authorized a stock repurchase program of up to \$50 million.

Additionally, the Company's stock incentive plans permit the netting of common stock upon vesting of restricted stock awards in order to satisfy individual tax withholding requirements. During the quarter ended October 2, 2011, the Company acquired no shares as a result of such withholdings.

#### Item 6. Selected Financial Data.

# **ZOLL Medical Corporation**

#### **Consolidated Five-Year Financial Summary**

	FISCAL YEAR						
	2011	2010	2009	2008	2007		
(000's omitted, except per share data) Income Statement Data:							
Net sales	\$523,709	\$443,989	\$385,185	\$398,018	\$309,451		
Cost of goods sold	224,028	202,518	187,840	187,330	140,664		
Cost of Boods pord		202,510	107,010	107,550			
Gross profit	299,681	241,471	197,345	210,688	168,787		
Expenses:							
Selling and marketing	159,592	130,869	113,891	111,835	91,855		
General and administrative	47,517	37,539	32,366	30,681	26,203		
Research and development	44,361	45,931	39,474	32,398	28,686		
Total expenses	251,470	214,339	185,731	174,914	146,744		
Income from operations	48,211	27,132	11,614	35,774	22,043		
Investment and other (expense) income	(10)	924	1,768	(258)	3,591		
Income before income taxes	48,201	28,056	13,382	35,516	25,634		
Provision for income taxes	16,913	9,137	3,818	12,075	8,972		
Net income	\$ 31,288	\$ 18,919	\$ 9,564	\$ 23,441	\$ 16,662		
Basic earnings per common share	\$ 1.43	\$ 0.88	\$ 0.45	\$ 1.12	\$ 0.82		
Weighted average common shares outstanding	21,815	21,384	21,078	20,862	20,208		
Diluted earnings per common and common equivalent share	\$ 1.39	\$ 0.87	\$ 0.45	\$ 1.10	\$ 0.81		
Weighted average common and common equivalent shares							
outstanding	22,560	21,713	21,217	21,304	20,678		
outstanding	22,500	21,715	21,217	21,504	20,070		
Balance Sheet Data:							
Working capital	\$203,733	\$158,213	\$157,523	\$163,349	\$125,159		
Total assets	\$474,483	\$430,770	\$370,954	\$346,020	\$315,849		
Stockholders' equity	\$362,109	\$313,578	\$280,558	\$267,858	\$235,786		

Certain prior period amounts have been reclassified to conform to the current period presentation with no impact on either net income or earnings per share.

#### Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

We are committed to developing technologies that help advance emergency care and save lives, while increasing clinical and operational efficiencies. With products for defibrillation and monitoring, circulation and CPR feedback, data management, fluid resuscitation, and therapeutic temperature management, we provide a comprehensive set of technologies which help clinicians, EMS and fire professionals, and lay rescuers treat victims needing resuscitation and critical care.

We intend for this discussion and analysis to provide you with information that will assist you in understanding our consolidated financial statements, the changes in certain key items in those consolidated financial statements from year to year and the primary factors that accounted for those changes. Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the

United States. This discussion and analysis should be read in conjunction with our consolidated financial statements as of October 2, 2011 and for the year then ended and the notes accompanying those consolidated financial statements.

Our fiscal 2011 consisted of 52 weeks while our fiscal 2010 consisted of 53 weeks. Our three months ended January 3, 2010 included the additional week in fiscal 2010 and, therefore, consisted of 14 weeks, while the three months ended January 2, 2011 in fiscal 2011 and December 28, 2008 in fiscal 2009 consisted of 13 weeks. We estimate that the revenue and expense impact of the additional week was approximately \$2 million during the three months ended January 3, 2010.

#### **Executive** Overview

Our sales for the fiscal year ended October 2, 2011 increased approximately \$79.7 million, or 18%, to \$523.7 million, as compared to fiscal year 2010. Revenue results reflected a positive foreign exchange impact of approximately \$6 million. The increase in sales was driven primarily by the LifeVest business and our International business. LifeVest revenue grew 57% in fiscal 2011 compared to fiscal 2010 as this product continues to gain greater acceptance and we expand the LifeVest sales force both in the U.S. and Germany. International revenues grew 21% in fiscal 2011 compared to fiscal 2010. This increase in International revenues stretched across all of our product lines. Revenues from the North American hospital core defibrillator business, excluding military, grew approximately 8% as we continued to see modest recovery in this market. The North American EMS environment continues to experience tightened budgetary restrictions within public agencies, and revenue was down modestly from the prior year. Although, on a shipments basis, North American EMS was down and North American hospital core defibrillator business uncreased at a much higher rate, which is reflected in our increased backlog. Our total temperature management product sales worldwide increased 38% to \$26 million in fiscal 2011. Our gross margin reflected an increased volume of higher margin LifeVest business and favorable North American pricing.

#### **Results of Operations**

#### Fiscal 2011 Compared to Fiscal 2010

#### Sales

Our net sales increased 18% to \$523.7 million in fiscal 2011 compared to \$444.0 million in the prior fiscal year.

Net sales by customer/product categories in fiscal 2011 and 2010 were as follows:

	2011	2010	% Change
(000's omitted) Devices and Accessories to the Hospital Market-North America	\$142,647	\$125,102	14%
Devices, Accessories, and Data Management Software to the Pre-hospital			
Market-North America	130,672	133,352	(2)%
Devices, Accessories, and Data Management Software to the International			
Market	139,347	114,829	21%
LifeVest to the North America and International Markets	111,043	70,706	57%
Total Sales	\$523,709	\$443,989	18%

Our sales to the North American hospital market increased \$17.5 million, or 14%, in fiscal 2011 compared to fiscal 2010. This growth is primarily attributable to increased revenue from sales to the U.S. Military of approximately \$9.2 million and increased sales of professional defibrillators.

Our sales to the North American pre-hospital market decreased \$2.7 million, or 2%, in fiscal 2011 compared to fiscal 2010. The decrease in pre-hospital sales was primarily due to the continued softness in this market due to the general economic environment and the spending constraints this has placed on EMS agencies, although we were encouraged by the increase in order flow as the year progressed.

International sales increased by \$24.5 million, or 21%, to \$139.3 million in fiscal 2011 compared to \$114.8 million in fiscal 2010. The increase in International sales was due to an increased volume of sales of AEDs, Temperature Management products and professional defibrillator equipment. The increased volume of sales also included a positive impact from foreign currency exchange rate fluctuations, excluding Canada, of approximately \$5.0 million. The sales volume growth was driven primarily by Australia, the U.K., the Middle East, Africa and China.

Total rental revenue of the LifeVest product increased 57% to \$111.0 million in fiscal 2011 compared to \$70.7 million in fiscal 2010. The increased volume is attributable to continued acceptance of the LifeVest and the continued growth and productivity of our sales force.

Total sales of AEDs to all of our markets increased \$9.8 million, or 14%, from \$71.6 million in fiscal 2010 to \$81.4 million in fiscal 2011. This growth is attributable to a large Australian AED sale during 2011, which was offset by slight decreases in our domestic markets.

Total sales of the AutoPulse product to all of our markets decreased 1% to \$17.3 million in fiscal 2011, compared to \$17.5 million for fiscal 2010. An 11% increase in sales volume of the AutoPulse in the International market was offset by a larger decrease in sales volume in the North American pre-hospital market and the emergence of competition.

#### **Gross Margins**

Cost of sales consists primarily of material, labor, overhead, and freight associated with our various medical equipment devices, data collection software and disposables. These products are primarily sold to the hospital, pre-hospital, and International markets. We lease the LifeVest product and sell our data collection software mainly to the pre-hospital market.

Overall, gross margins for fiscal 2011 increased to approximately 57% compared to 54% in fiscal 2010. Approximately one percentage point of the increase was attributable to the higher margin LifeVest business being a larger percentage of our overall sales in fiscal 2011. Another percentage point was due to favorable North American pricing. Other factors affecting the fluctuation in gross margin each individually represented less than one percentage point of our overall gross margin, including the positive impact of our international business mix, foreign exchange rate fluctuations and temperature management product cost reductions. Our gross margin tends to fluctuate from period to period as a result of unit volume levels, mix of product and customer class, geographical mix, foreign exchange rate fluctuations and overall market conditions.

#### Backlog

We ended fiscal 2011 with a backlog of approximately \$30 million, compared to approximately \$32 million at the end of the prior quarter. Backlog was approximately \$14 million at October 3, 2010. Typically, our backlog decreases during the first and second quarters, remains relatively flat during the third quarter, and increases during the fourth quarter due to the purchasing practices of our customers. During fiscal 2011, we had higher levels of backlog earlier in the year due to variation of the timing of orders over the course of the year relative to our shipments. Due to possible changes in delivery schedules, cancellation of orders and delays in shipments, our backlog at any particular date is not necessarily an accurate predictor of revenue for any succeeding period.

#### Costs and Expenses

Operating expenses in fiscal 2011 and 2010 were as follows:

	2011	% of Sales	2010	% of Sales	Change %
(000's omitted)					
Selling and marketing	\$159,592	30%	\$130,869	29%	22%
General and administrative	47,517	9%	37,539	8%	27%
Research and development	44,361	8%	45,931	10%	(3)%
Total expenses	\$251,470	48%	\$214,339	48%	17%

As a percentage of sales, selling and marketing expenses for fiscal 2011 increased approximately 1% as compared to fiscal 2010 as we continued to aggressively increase the sales effort around the LifeVest business. The spending for selling and marketing expenses increased approximately \$28.7 million for the year ended October 2, 2011 compared to the same period last year. The spending increase in fiscal 2011 was primarily attributable to increased compensation expenses for the LifeVest sales force, as well as other costs related to the growth of the business.

As a percentage of sales, general and administrative expenses for fiscal 2011 increased 1% compared to fiscal 2010. General and administrative expenses increased approximately \$10.0 million for the year ended October 2, 2011 compared to the previous year. The increase in spending was primarily attributable to increased personnel-related costs including salaries and stock-based compensation for general and administrative employees, primarily in support of the growth in the LifeVest business.

As a percentage of sales, research and development expenses in fiscal 2011 decreased 2% compared to fiscal 2010. Research and development expenses decreased approximately \$1.6 million for the year ended October 2, 2011 compared to fiscal 2010. The decrease is predominantly due to reduced spending related to our CIRC trial as the trial was completed during fiscal 2011.

#### Investment and Other Income (Expense)

Investment and other income (expense) was a nominal amount in fiscal 2011, as compared to \$0.9 million in the previous fiscal year. This decrease was a result of a strengthening U.S. dollar at the end of fiscal 2011 as we marked our foreign denominated intercompany receivables to market at the end of the year.

#### Income Taxes

Our effective tax rate for fiscal 2011 increased to 35% compared to 33% in fiscal 2010. The extension of the R&D tax credit by Congress in October 2010 resulted in seven quarters of R&D tax credits benefiting the 2011 effective tax rate. The 2010 effective tax rate was lower due to the greater rate impact with the release of approximately \$836,000 of tax liabilities due to the expiration of tax statutes, completion of tax audits and the resolution of uncertain tax positions, along with the decrease of \$664,000 of deferred tax liabilities for international positions.

At October 2, 2011 and October 3, 2010, we had \$2.9 million and \$3.8 million, respectively, of gross unrecognized tax benefits, of which, \$1.8 million, if recognized, would affect our effective tax rate compared to \$2.2 million at October 3, 2010 which, if recognized, would have impacted our effective tax rate.

We are subject to U.S. federal income tax as well as the income tax of multiple states and foreign jurisdictions. We have concluded all U.S. federal and most state and foreign income tax matters through fiscal 2007. Our tax return covering fiscal 2007 was audited by the IRS with no material adjustments made. The acquired losses from Revivant for tax years 2003 and 2004 remain open to examination by the IRS to the extent losses are claimed in open years.

Our historical practice is to recognize interest and penalties related to income tax matters in income tax expense. We had \$218,000 and \$312,000 accrued for interest and penalties in income taxes payable, at October 2, 2011 and October 3, 2010, respectively.

We currently estimate that our fiscal 2012 effective tax rate will be approximately 37%.

#### Fiscal 2010 Compared to Fiscal 2009

#### Sales

Our net sales increased 15% to \$444.0 million in fiscal 2010 compared to \$385.2 million in the prior fiscal year.

Net sales by customer/product categories in fiscal 2010 and 2009 were as follows:

	2010	2009	% Change
(000's omitted)	¢125.102	<b>0112 200</b>	
Devices and Accessories to the Hospital Market-North America	\$125,102	\$113,308	10%
Devices, Accessories, and Data Management Software to the Pre-hospital			
Market-North America	133,352	130,345	2%
Devices, Accessories, and Data Management Software to the International			
Market	114,829	97,632	18%
LifeVest to the North America and International Markets	70,706	43,900	61%
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Total Sales	\$443,989	\$385,185	15%

Our sales to the North American hospital market increased \$11.8 million, or 10%, in fiscal 2010 compared to fiscal 2009. This growth was primarily attributable to increased revenue from sales of professional defibrillators and an increased volume derived from our Temperature Management business, which benefited from a full year of revenue as compared to five months of revenue in fiscal year 2009. These increases were partially offset by a decrease in the volume of US Military/Big Government sales.

Our sales to the North American pre-hospital market increased \$3.0 million, or 2%, in fiscal 2010 compared to fiscal 2009. The increase in pre-hospital sales was primarily due to increased sales of professional defibrillators as our product pricing returned to what we believe are more typical levels.

International sales increased by \$17.2 million, or 18%, to \$114.8 million in fiscal 2010 compared to \$97.6 million in fiscal 2009. The increase in International sales was due to an increased volume of sales of AEDs, Temperature Management products and the AutoPulse. The increased volume of sales also included a positive impact from foreign currency exchange rate fluctuations, excluding Canada, of approximately \$2.9 million. The increased volume of sales was driven primarily by sales growth in Australia, Latin America, Europe and Japan.

Total rental revenue of the LifeVest product increased 61% to \$70.7 million in fiscal 2010 compared to \$43.9 million in fiscal 2009. The increased volume was attributable to increased acceptance of the product, improved productivity of existing sales representatives and to the increase in sales personnel as we continued to penetrate this large market potential.

Total sales of AEDs to all of our markets increased \$10.3 million, or 17%, from \$61.3 million in fiscal 2009 to \$71.6 million in fiscal 2010. This growth was primarily attributable to increased International sales.

Total sales of the AutoPulse product to all of our markets increased 5% to \$17.5 million in fiscal 2010, compared to \$16.7 million for fiscal 2009. An increase in sales volume of the AutoPulse in the International market was partially offset by a decrease in sales volume in the North American pre-hospital market, which we believe was due to funding restrictions within the public agencies for capital equipment.

#### **Gross Margins**

Overall, gross margins for fiscal 2010 increased to approximately 54% compared to 51% in fiscal 2009. Approximately two percentage points of the increase was attributable to higher pricing. Other factors affecting the fluctuation in gross margin each individually represented less than one percentage point of our overall gross margin, including the positive impact of foreign exchange rate fluctuations and the LifeVest business. Our gross margin tends to fluctuate from period to period as a result of unit volume levels, mix of product and customer class, geographical mix, foreign exchange rate fluctuations and overall market conditions.

#### Backlog

We ended fiscal 2010 with a backlog of approximately \$14 million, compared to approximately \$14 million at the end of the prior quarter. Backlog was approximately \$20 million at September 27, 2009. Typically, our backlog decreases during the first and second quarters, remains relatively flat during the third quarter, and increases during the fourth quarter due to the purchasing practices of our customers. During fiscal 2010, we had higher levels of backlog earlier in the year and a lower level at the end of the year due to variation of the timing of orders over the course of the year relative to our shipments. Due to possible changes in delivery schedules, cancellation of orders and delays in shipments, our backlog at any particular date is not necessarily an accurate predictor of revenue for any succeeding period.

#### Costs and Expenses

Operating expenses in fiscal 2010 and 2009 were as follows:

		% of			Change
	2010	Sales	2009	Sales	%
(000's omitted)					
Selling and marketing	\$130,869	29%	\$113,891	30%	15%
General and administrative	37,539	8%	32,366	8%	16%
Research and development	45,931	10%	39,474	10%	16%
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Total expenses	\$214,339	48%	\$185,731	48%	15%

As a percentage of sales, selling and marketing expenses for fiscal 2010 decreased approximately 1% as compared to fiscal 2009 as we gained efficiency with our growth. The dollar spending for selling and marketing expenses increased approximately \$17.0 million for the year ended October 3, 2010 compared to the same period last year. The dollar spending increase in fiscal 2010 was primarily attributable to approximately \$9.6 million related to increased personnel-related costs, including salaries, commissions and travel expenses for selling and marketing employees, primarily for the LifeVest business. An additional increase of approximately \$4.2 million was due to our Temperature Management business which was purchased from Alsius in May 2009. The extra week in fiscal 2010 and the impact of foreign exchange rate fluctuations both contributed an additional increase of approximately \$1 million to selling and marketing expenses.

As a percentage of sales, general and administrative expenses for fiscal 2010 remained flat as compared to fiscal 2009. General and administrative expenses increased approximately \$5.2 million for the year ended October 3, 2010 compared to the previous year. The increase in dollar spending was primarily attributable to increased personnel-related costs including salaries and stock-based compensation for general and administrative employees, primarily related to the growth of LifeVest and Temperature Management businesses.

As a percentage of sales, research and development expenses in fiscal 2010 remained flat as compared to fiscal 2009. Research and development expenses increased approximately \$6.5 million for the year ended October 3, 2010 compared to fiscal 2009. Approximately \$2.9 million of the dollar increase was related to the on-going AutoPulse and LifeVest clinical trial work. Other contributors include increased personnel-related costs including salaries and stock-based compensation for research and development employees and expenses associated with the arrangement with Welch Allyn.

#### Investment and Other Income (Expense)

Investment and other income (expense) decreased to \$0.9 million in fiscal 2010, as compared to \$1.8 million in the previous fiscal year. This decrease primarily reflected significant foreign exchange gains on marking our foreign denominated intercompany receivable balances to the spot rate at the end of fiscal 2009.

#### Income Taxes

Our effective tax rate for fiscal 2010 increased to 33% compared to 29% in fiscal 2009. The increased rate resulted from a discrete benefit provided by the research and development tax credit being applied to expected annual earnings in fiscal 2009. The prior-year effective tax rate benefited from the retroactive extension of the research and development tax credit, retroactively from January 1, 2008, during the first quarter of fiscal 2009. This extension allowed a full-year tax credit estimate for fiscal 2009 to be included in our fiscal 2009 rate calculation along with a discrete period adjustment of approximately \$400,000 recognized during the first quarter of fiscal 2009 to record the tax credit related to the retroactive application of the credit extension. The fiscal 2010 annual rate only contains one quarter of a full-year credit. The increase in the current year rate was partially offset by the release of approximately \$836,000 of tax liabilities due to the expiration of tax statutes, completion of tax audits and the resolution of uncertain tax positions in the third quarter of fiscal 2010. Additionally, during the third quarter of 2010, we undertook a detailed review of our international tax positions and concluded that our deferred tax liabilities should be decreased by approximately \$664,000. This adjustment was immaterial to all prior periods.

At October 3, 2010 and September 27, 2009, we had \$3.8 million and \$4.9 million, respectively, of gross unrecognized tax benefits, of which, \$2.2 million, if recognized, would affect our effective tax rate compared to \$2.8 million at September 27, 2009 which, if recognized, would have impacted our effective tax rate.

#### **Financial Condition**

#### Liquidity and Capital Resources

We believe our overall financial condition remains strong. Our cash, cash equivalents and short-term marketable securities at October 2, 2011 totaled \$75.5 million compared with \$62.3 million at October 3, 2010. We continue to have no long-term debt.

We have used cash, and it is possible we will use additional cash, to assist customers who transition to our products with various financing arrangements. We also may use cash to assist creditworthy customers with various financing arrangements as a result of the current difficult liquidity and credit environment.

On November 15, 2011, our Board of Directors authorized a stock repurchase program of up to \$50 million.

#### **Cash Requirements**

We believe that the combination of existing cash, cash equivalents, and highly liquid short-term investments, together with future cash to be generated by operations and amounts available under our line of credit, will be sufficient to meet our ongoing operating and capital expenditure requirements for the foreseeable future. We believe we have, and will maintain, sufficient cash to meet future contingency payments related to acquisitions made in prior periods. We may also need to use these funds in the future for potential acquisitions. On October 11, 2011, we exercised our option to purchase the LifeVest facility in Pittsburgh, Pennsylvania for cash in the amount of \$10.8 million.

#### Sources and Uses of Cash

To assist with the discussion, the following table presents the abbreviated cash flows for the years ended October 2, 2011, October 3, 2010 and September 27, 2009:

	2011	2010	2009
(000's omitted) Net income	\$ 31,288	\$ 18,919	\$ 9,564
Changes not affecting cash	43,957	33,675	26,517
Changes in assets and liabilities	(30,074)	(30,626)	(2,684)
Cash provided by operating activities	45,171	21,968	33,397
Cash used for investing activities	(42,256)	(23,114)	(18,239)
Cash provided by financing activities	13,453	8,829	217
Effect of foreign exchange rates on cash	(1,265)	314	(989)
Net change in cash and cash equivalents Cash and cash equivalents—beginning of period	15,103 59,058	7,997 51,061	14,386 36,675
Cash and cash equivalents-end of period	\$ 74,161	\$ 59,058	\$ 51,061
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#### **Operating** Activities

Cash provided by operating activities increased approximately \$23.2 million in fiscal 2011 to \$45.2 million compared to \$22.0 million in fiscal 2010. This increase in cash provided by operating activities was primarily attributable to higher net income.

#### **Investing** Activities

Cash used in investing activities increased approximately \$19.1 million in fiscal 2011 to \$42.3 million as compared to \$23.1 million in the prior year. This increase in the use of cash was primarily attributable to the \$26.3 million earn-out payment to LifeCor, Inc. ("Lifecor"), compared to \$12.8 million in earnout payments in 2010, higher capital expenditures and fewer proceeds from sales of marketable securities.

#### **Financing** Activities

Cash provided by financing activities increased approximately \$4.6 million in fiscal 2011 to \$13.5 million as compared to approximately \$8.8 million in the previous year. The change reflects a substantially higher number of stock options exercised during fiscal 2011 (approximately 564,000 shares exercised in 2011 compared to approximately 426,000 shares exercised in 2010), and a larger tax benefit related to the options that were exercised.

#### Investments

In March 2004, we acquired substantially all the assets of Infusion Dynamics, Inc. ("Infusion Dynamics"). Under the terms of the acquisition, we are obligated to make additional earn-out payments through 2011 ("contingencies") based on performance of the acquired business. As these contingencies are resolved and the consideration is distributable, we record the fair value of the additional consideration as additional cost of the acquired assets. Our earn-out payments, in the form of cash, for fiscal 2009 and fiscal 2010 were approximately \$19,000 and \$25,000, respectively. We have accrued, but not yet paid, an earn-out for fiscal 2011 of approximately \$25,000, which is expected to be paid in cash during the first half of fiscal 2012, and will be the final earn-out payment for the assets of Infusion Dynamics.

We exercised our option to acquire the business and assets of Lifecor and acquired the business and assets on April 10, 2006. We assumed Lifecor's outstanding debt (plus an additional \$3.0 million owed to us, which

was cancelled) and certain stated liabilities. We paid the third-party debt in April 2006. We agreed to pay additional consideration in the form of earn-out payments to Lifecor based upon future revenue growth of the acquired business over a five-year period. Earn-out payments to Lifecor were made in the form of cash for fiscal 2009 and fiscal 2010 in the approximate amounts of \$12.8 million and \$26.3 million, respectively. For both annual earn-outs, the additional consideration was accrued during the fiscal period when earned and paid out in the subsequent fiscal period. The fiscal 2010 payment was the final earn-out payment for the Lifecor acquisition.

In October 2010, we acquired the assets and assumed certain liabilities of Road Safety International, Inc. ("Road Safety"). The Road Safety product is installed in an ambulance or fire vehicle and provides real-time feedback via audible alerts in situations such as speeding or hard cornering to help the driver avert an accident. The Road Safety product encourages a safer ambulance environment during patient treatment, records vehicle operating data for analysis, and can also be used to help reduce vehicle maintenance costs. The acquisition provides for consideration to be paid in the form of possible annual earn-out payments based on revenues for the next two fiscal years. If both earn-outs are achieved, total consideration (including liabilities assumed) could approximate \$550,000.

#### **Debt Instruments and Related Covenants**

We maintain an unsecured working capital line of credit with our bank. Under this working capital line, we may borrow, on a demand basis and with no expiration date, up to \$12 million. This line of credit bears interest at the rate of LIBOR plus 2%. No borrowings were outstanding on this line during either fiscal 2011 or 2010. There are no covenants related to this line of credit.

#### **Off-Balance Sheet Arrangements**

Our only off-balance sheet arrangements consist of non-cancelable operating leases entered into in the ordinary course of business and one minimum purchase commitment contract for a critical raw material component. The table below in the next section titled "Contractual Obligations and Other Commercial Commitments" shows the amounts of our operating lease commitments and purchase commitments payable by year. For liquidity purposes, in general, we choose to lease our facilities instead of purchasing them.

#### **Contractual Obligations and Other Commercial Commitments**

The following table sets forth certain information concerning our obligations and commitments to make future payments under contracts, such as debt and lease agreements, and under contingent commitments.

	Payments Due by Period							
Contractual Obligations (in \$000s)	Total	Less than 1 year	1 – 3 years	4 – 5 years	After 5 years			
Non-Cancelable Operating Lease Obligations	\$39,750	\$ 3,047	\$9,757	\$9,390	\$17,556			
Purchase Obligations	647	647						
Total Contractual Obligations	\$40,397	\$ 3,694	\$9,757	\$9,390	\$17,556			

The Company leases certain office and manufacturing space under operating leases. The Company's office leases are subject to adjustments based on actual floor space occupied. The leases also require payment of real estate taxes and operating costs. On October 11, 2011, we exercised our option to purchase the LifeVest facility in Pittsburgh, Pennsylvania for approximately \$10.8 million. In addition to the office leases, the Company leases automobiles for business use by a portion of the sales force.

The Company's executive headquarters and defibrillator and fluid resuscitation manufacturing operations are located in Chelmsford, Massachusetts. The Chelmsford facility is covered by a ten year lease, beginning July 1, 2011 and expiring on June 30, 2021. The agreement includes an option to renew the lease for two

successive periods of five years each. The agreement provides that the Company pay a pro-rata amount of the landlord's real estate taxes and operating expenses based upon square footage. The lease also provides the Company with a lease incentive of approximately \$3.6 million. This incentive is recorded as a deferred lease incentive within "Accrued expenses and other liabilities" and "Other long-term liabilities" on the Company's consolidated balance sheet and is being amortized as a reduction to rent expense over the life of the lease. Any leasehold improvements made to the property will be capitalized as leasehold improvements within Property and Equipment and will be amortized over the ten year life of the lease. The Company's previous eight year lease for the same facility expired on June 30, 2011.

Purchase orders represent authorizations to purchase rather than binding agreements. For the purposes of this table, contractual obligations for the purchase of goods and services are defined as agreements that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Our purchase orders are based upon our current inventory needs and are fulfilled by our suppliers within short time periods. We also enter into contracts for outsourced services; however, the obligations under these contracts are not significant and the contracts generally contain clauses allowing for cancellation without significant penalty.

#### Hedging Activities

At times, we use forward contracts to reduce our exposure to foreign currency risk due to fluctuations in exchange rates underlying the value of forecasted sales to subsidiaries denominated in foreign currencies as well as intercompany accounts receivable denominated in foreign currencies.

As of October 2, 2011 we had one foreign currency forward contract designated as a cash flow hedge in the amount of approximately \$2.8 million, serving as a hedge of our forecasted sales to our subsidiaries, all maturing in less than twelve months. The net settlement amount of these contracts on October 2, 2011 was an unrealized gain of approximately \$82,200, which is included within "Accumulated other comprehensive loss" on our consolidated balance sheet. We had a net realized loss of approximately \$371,000 from foreign currency forward contracts designated as cash flow hedges during fiscal 2011, which was included in earnings. We did not have any foreign currency forward contracts designated as cash flow hedges during fiscal 2010 or 2009. Any gains or losses on the fair value of the derivative contracts would be largely offset by the losses and gains on the underlying transactions. These offsetting gains and losses are not reflected above.

#### **Critical Accounting Estimates**

Our management strives to report our financial results in a clear and understandable manner, even though in some cases accounting and disclosure rules are complex and require us to use technical terminology. We follow accounting principles generally accepted in the United States in preparing our consolidated financial statements. These principles require us to make certain estimates of matters that are inherently uncertain and to make difficult and subjective judgments that affect our financial position and results of operations. Our most critical accounting policies include revenue recognition, and our most critical accounting estimates include accounts receivable reserves, warranty reserves, fair value measurements, the valuation of goodwill and other long-lived assets, income taxes and stock-based compensation. Management continually reviews its accounting policies, how they are applied and how they are reported and disclosed in our financial statements. The following is a summary of our more significant accounting policies, which include revenue recognition and those that require significant estimates and judgments and uncertainties, and potentially could result in materially different results under different assumptions, conditions, and methods of application in preparation of the financial statements.

#### **Revenue Recognition**

Revenues from sales of cardiac resuscitation and temperature management therapy devices, disposable electrodes, catheters and accessories are recognized when a signed non-cancelable purchase order exists, the



product is shipped, title and risk have passed to the customer, the fee is fixed or determinable, and collection is considered probable. Circumstances that generally preclude the immediate recognition of revenue include shipping terms of FOB destination or the existence of a customer acceptance clause in a contract based upon customer inspection of the product. In these instances, revenue is deferred until adequate documentation is obtained to ensure that these criteria have been fulfilled. Similarly, revenues from the sales of our products to distributors fall under the same guidelines. For all significant orders placed by our distributors, we require an approved purchase order, we perform a credit review, and we ensure that the terms on the purchase order or contract are proper and do not include any contingencies which preclude revenue recognition. We do not typically offer any special right of return, stock rotation or price protection to our distributors or end customers. For sales in which payment extends beyond a twelve month period, we generally recognize revenue at its net present value using an imputed rate of interest based on our experience of successful collection on these terms without concession.

Our sales to customers often include a device, disposables and other accessories. For the vast majority of our shipments, all deliverables are shipped together. However, in cases some elements of a multiple element arrangement are not delivered as of a reporting date. In September 2009, the FASB amended the accounting standards related to revenue recognition for arrangements with multiple deliverables. We adopted this new guidance prospectively during the first quarter of 2010. Under the historical accounting guidance, FASB ASC 605-25, Multiple Element Arrangements (formerly Emerging Issues Task Force ("EITF") Issue No. 00-21, Accounting for Revenue Arrangements with Multiple Deliverables), we deferred the fair value of the undelivered elements and only recognized the revenue related to the delivered elements if we had established fair value for the undelivered elements. If we had not established fair value for any undelivered elements, the entire order was deferred. Under the new guidance of ASU No. 2009-13, Multiple-Deliverable Revenue Arrangements, fair value as the measurement criteria is replaced with the term selling price and establishes a hierarchy for determining the selling price of a deliverable. ASU No. 2009-13 also eliminates the use of the residual value method for determining the allocation of arrangement consideration. For multi-element arrangements, we allocate revenue to all deliverables based on their relative selling prices. In such circumstances, we use a hierarchy to determine the selling price to be used for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of fair value ("VSOE"), (ii) third-party evidence of selling price ("TPE"), and (iii) best estimate of the selling price ("ESP"). VSOE generally exists only when we sell the deliverable separately and is the price actually charged for that deliverable. Our process for determining an ESP for deliverables without VSOE or TPE considers multiple factors that may vary depending upon the unique facts and circumstances related to each deliverable. Revenues are recorded net of estimated returns.

We license software under non-cancelable license agreements and provide services including training, installation, consulting and maintenance, which consists of product support services, and unspecified upgrade rights (collectively, post-contract customer support, "PCS"). Revenue from the sale of software is recognized in accordance with FASB ASC 985-605, *Software—Revenue Recognition* (formerly SOP 97-2). License fee revenues are recognized when a non-cancelable license agreement has been signed, the software product has been delivered, there are no uncertainties surrounding product acceptance, the fees are fixed or determinable, and collection is considered probable. Revenues from maintenance agreements and upgrade rights are recognized ratably over the period of service. Revenue for services, such as software deployment and consulting, is recognized when the service is performed. Our software arrangements contain multiple elements, which include software products, services and PCS. Generally, we do not sell computer hardware products with our software products. We will occasionally facilitate the hardware purchase by providing information to the customer such as where to purchase the equipment. We generally do not have vendor-specific objective evidence of fair value for our software products. We do, however, have vendor-specific objective evidence of fair value for our software products. We do, however, have vendor-specific objective evidence of fair value for our software products. We do, however, have vendor-specific objective evidence of fair value for our software products. We do, however, have vendor-specific objective evidence of fair value for tenss such as consulting and technical services, deployment and PCS based upon the price charged when such items are sold separately. Accordingly, for transactions where vendor-specific objective evidence elements but not for delivered elements, we use the residual method. Under the residual method, the total fair value of the undelivered for the undelivered el

as revenue related to the delivered elements. If we cannot objectively determine the fair value of any undelivered element included in such multiple-element arrangements, we defer revenue until all elements are delivered and services have been performed, or until fair value can objectively be determined for any remaining undelivered elements.

We do not typically ship any of our software products to distributors or resellers. Our software products are sold by our sales force directly to the end user. We may sell software to system integrators who provide complete solutions to end users on a contract basis.

On September 28, 2009, we entered into a "state of readiness" contract awarded by the U.S. government to supply defibrillators on short notice. A similar contract with the U.S. government expired on September 27, 2009. Based upon the award, we expect to receive two types of payments from the U.S. government. The first payment of approximately \$4 million, which was received during the first half of fiscal 2010 and is carried within "Deferred revenue" on our balance sheet, is to reimburse us for the cost to acquire inventories required to meet potentially short-notice delivery schedules. We also receive payments from the U.S. government to compensate us for managing the purchase, build, storage and inventory rotation process over the term of the contract. We expect that this payment will also compensate us for making future production capacity available. The portion of this payment associated with the purchase and build aspects of the contract we expect will be recognized on a proportional performance basis. The contract has a one-year term with up to an additional four one-year extensions. The U.S. Government extended the contract for a third year in September 2011. Under this contract, the U.S. Government has two options to acquire defibrillators. The U.S. government may buy on a replenishment basis, which means we will record a sale under our normal U.S. Government price list and maintain our "state of readiness", or the U.S. Government may buy on a non-replenishment basis, which will generally allow us to obtain normal margins but will reduce our future obligations under this arrangement.

For those markets for which we sell separately priced extended warranties, revenue is deferred and recognized over the applicable warranty period, based upon the estimated selling price of the contract.

We also generate rental revenue from our LifeVest product. Doctors prescribe the LifeVest equipment for use by their patients. The patients then rent the LifeVest product from us for use over a prescribed period of time, typically between two to three months. The patients are generally covered by health plan contracts, which typically contract with a third party payor that agrees to pay based on fixed or allowable reimbursement rates. Third party payors are entities such as insurance companies, governmental agencies, health maintenance organizations or other managed care providers. The rental income is recognized ratably over the rental period.

#### Allowance for Doubtful Accounts / Sales Returns and Allowances / Trade-In Allowances

We maintain an allowance for doubtful accounts for estimated losses, for which related provisions are included in bad-debt expense, resulting from the inability of our customers to make required payments. Specifically identified reserves are charged to selling and marketing expenses. Provisions for general reserves are charged to general and administrative expenses. We determine the adequacy of this allowance by regularly reviewing the aging of our accounts receivable and evaluating individual customer receivables, considering customers' financial condition, historical experience, communications with the customers, credit history and current economic conditions. We also maintain an estimated reserve for potential future product returns and discounts given related to trade-ins and to current period product sales, which is recorded as a reduction of revenue. We analyze the rate of historical returns when evaluating the adequacy of the allowance for sales returns, which is included in the accounts receivable allowance amounts on our balance sheet.

As of October 2, 2011, our accounts receivable balance of \$118.7 million is reported net of allowances of \$10.3 million. We believe our reported allowances at October 2, 2011 are adequate. If the financial conditions of our customers were to deteriorate, however, resulting in their inability to make payments, we might need to record additional allowances, resulting in additional expenses being recorded for the period in which such determination would be made.

Although we are not typically contractually obligated to provide trade-in allowances under existing sales contracts, we may offer such allowances when negotiating new sales arrangements. When pricing sales transactions, we contemplate both cash consideration and the net realizable value of any used equipment to be traded in. The trade-in allowance value stated in a sales order may differ from the estimated net realizable value of the underlying equipment. Any excess in the trade-in allowance over the estimated net realizable value of the used equipment represents additional sales discount.

We account for product sales transactions by recording as revenue the total of the cash consideration and the estimated net realizable value of the trade-in equipment less a normal profit margin. Any difference between the estimated net realizable value of the used equipment and the trade-in allowance granted is recorded as a reduction to revenue at the time of the sale.

Used ZOLL equipment is recorded at the lower of cost or market. We regularly review our reserves to ensure that the balance sheet value associated with our trade-in equipment is properly stated.

If the trade-in equipment is a competitor's product, we will usually resell the product to a third-party distributor who specializes in the sale of used medical equipment, without any refurbishment. We typically do not recognize a profit upon the resale of a competitor's used equipment, although as a result of the inherent nature of the estimation process, we could recognize either a nominal gain or loss.

#### Warranty Reserves

Our products are sold with warranty provisions that require us to remedy deficiencies in quality or performance over a specified period of time, usually one year for pre-hospital and international customers and five years for hospital customers. Revenue is deferred for pre-hospital customers who receive warranties beyond one year. Such revenue is then recognized over the period of extended warranty. We provide for the estimated cost of product warranties at the time product is shipped and revenue is recognized. The costs that we estimate include material, labor, and shipping. While we engage in product quality programs and processes, our warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. We believe that our recorded liability of \$4.9 million at October 2, 2011 is adequate to cover future costs for the servicing of our products sold through that date and under warranty. If actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required.

#### Inventory

We value our inventories at the lower of cost or market. Cost is determined by the first-in, first-out ("FIFO") method, including material, labor and factory overhead.

Inventory on hand may exceed future demand either because the product is outdated or obsolete, or because the amount on hand is in excess of future needs. We provide for the total value of inventories that we determine to be obsolete based on criteria such as customer demand and changing technologies. We estimate excess inventory amounts by reviewing quantities on hand and comparing those quantities to sales forecasts for the next 12 months, identifying historical service usage trends, and matching that usage with the installed base quantities to estimate future needs. At October 2, 2011, our inventory was recorded at net realizable value requiring reserves of \$6.6 million, or 9% of our \$72.5 million gross inventories.

#### Fair Value Measurements

During the first quarter of fiscal 2009, we adopted FASB ASC 820, *Fair Value Measurements and Disclosures* (formerly referenced as SFAS No. 157, *Fair Value Measurements*), which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. This



accounting standard does not require any new fair value measurements. We apply fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. We elected to defer implementation of FASB ASC 820 as it relates to our non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis until fiscal 2010. The implementation of FASB ASC 820 as it relates to nonfinancial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis did not have a material impact on our financial statements. We define fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, which are required to be recorded at fair value, we consider the principal or most advantageous market in which we would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions and credit risk.

During the first quarter of 2009, we adopted FASB ASC 825, *Financial Instruments* (formerly referenced as SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—an amendment of FASB Statement No. 115*), which allows companies to choose to measure eligible financial instruments and certain other items at fair value that are not required to be measured at fair value. We have not elected the fair value option for any eligible financial instruments.

Refer to Note L, "Fair Value Measurements," to the consolidated financial statements in this Annual Report on Form 10-K for additional information.

#### Goodwill

At October 2, 2011, we had approximately \$79 million in goodwill, primarily resulting from our acquisitions of the assets of Lifecor (approximately \$45 million), Revivant, Inc. (approximately \$22 million), certain assets of BIO-key International, Inc. (approximately \$5 million), the assets of Infusion Dynamics (approximately \$4 million), and the assets of Alsius Corporation (approximately \$3 million). We test our goodwill for impairment at least annually by comparing the fair value of our reporting units to the carrying value of those reporting units. Additionally, we periodically review our goodwill for impairment whenever events or changes in circumstances indicate that a potential impairment has occurred.

For our 2011 fiscal year-end annual impairment assessment, we identified four reporting units which have goodwill allocated to them and are ultimately aggregated up to our single reportable segment. Fair value is determined based on the income approach, which is an estimate of the discounted future cash flows expected from the reporting units. We considered the use of the market approach and the cost approach, but we concluded that these methods were not appropriate for valuing our reporting units due to the lack of relevant and available market comparisons. The income approach is based on the projected cash flows that are discounted to their present value using discount rates that consider the timing and risk of the forecasted cash flows. We believe that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term operating cash performance. The key variables that drive the fair value of our reporting units are estimated revenue growth rates and discount rate assumptions. The projected cash flows use internally-developed revenue and expense forecasts and assumptions. The discount rate used is the average estimated value of a market participant's cost of capital and debt, derived using customary market metrics. Other significant assumptions include terminal value margin rates, future capital expenditures and changes in future working capital requirements. We also compare our overall fair value to our market capitalization. While there are inherent uncertainties related to the assumptions used and to our application of these assumptions to this analysis, we believe that the income approach provides a reasonable estimate of the fair value of our reporting units. The foregoing assumptions were consistent with our long-term performance. However, these assumptions could deviate materially from actual results.

Our 2011 annual goodwill impairment testing did not identify any reporting units whose carrying values exceeded implied fair values. We believe that none of our reporting units has a material amount of goodwill that is at risk of failing future impairment tests. For each of the reporting units, the level of excess fair value over the carrying value exceeded 25% at the end of our 2011 fiscal year. The determination of fair value requires significant judgment on the part of management about future revenues, expenses and other assumptions that contribute to the net cash flows of the reporting units. Although we use consistent methodologies in developing the assumptions and estimates underlying the fair value calculations used in impairment tests, these estimates are uncertain by nature and can vary from actual results.

#### Long-Lived Assets

We periodically review the carrying amount of our long-lived assets, including property and equipment, and intangible assets, to assess potential impairment whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. The determination includes evaluation of factors such as current market value, business climate and future cash flows expected to result from the use of the related assets. Fair value is determined based on an estimate of the undiscounted cash flows in assessing potential impairment and to record an impairment loss based on fair value in the period when it is determined that the carrying amount of the asset may not be recoverable. This process requires judgment on the part of management.

#### Income Taxes

We use the asset and liability method of accounting for deferred income taxes. The provision for income taxes includes income taxes currently payable and those deferred as a result of temporary differences between the financial statement and tax bases of assets and liabilities. A valuation allowance is provided to reduce deferred tax assets to the amount of future tax benefit when it is more likely than not that some portion of the deferred tax assets will not be realized. Projected future taxable income and ongoing tax planning strategies are considered and evaluated when assessing the need for a valuation allowance. Any increase or decrease in a valuation allowance could have a material adverse or beneficial impact on our income tax provision and net income in the period in which the determination is made.

In accordance with FASB ASC 740, *Income Tax*, formerly FASB Interpretation No. 48, "*Accounting for Uncertainty in Income Taxes*", we follow a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained upon audit, including resolutions of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision. This provision also provides guidance on classification, interest and penalties, accounting in interim periods, disclosure and transition.

#### **Stock-Based Compensation**

In accordance with FASB ASC Topic 718, *Compensation—Stock Compensation*, we measure the cost of employee services in exchange for an award of equity instruments based on the grant-date fair value of the award and recognize cost over the requisite service period. We recognize compensation expense on fixed awards with pro rata vesting on a straight-line basis over the vesting period.

#### Safe Harbor Statement

Certain statements contained herein constitute "forward-looking statements" as that term is defined under the Private Securities Litigation Reform Act of 1995 (the "Act") and releases issued by the SEC and within the

meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The words "anticipates," "believes," "expects," "intends," "sees," "future," "may," "will," "would," "can," "could," "estimates," "plans," "target," "goal," "project" and other expressions which are predictions of or indicate future events and trends and which do not relate to historical matters identify forward-looking statements. Particularly, the Company's expectations regarding its business, operational results, future operational liquidity, contractual obligations and other commercial commitments, and capital requirements are forward-looking statements. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements of the Company to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. The Company undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise. Factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements include, but are not limited to, the actions of competitors, the acceptance of our products in their respective markets, adverse economic conditions, and those other risks and uncertainties contained in this Annual Report on Form 10-K, including in Item 1A of Part I entitled "Risk Factors".

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We have cash equivalents and marketable securities that consist of money market accounts, U.S. Treasuries and fixed-rate, asset-backed corporate securities. The majority of these investments have maturities within one year. We believe that our exposure to interest rate risk is minimal due to the term and type of our investments and that the fluctuations in interest rates would not have a material adverse effect on our results of operations.

We have international subsidiaries in Canada, the United Kingdom, the Netherlands, France, Germany, Australia, Australia, New Zealand, Singapore, China and India. These subsidiaries transact business in their functional or local currency. Therefore, we are exposed to foreign currency exchange risks and fluctuations in foreign currencies, along with economic and political instability in the foreign countries in which we operate, all of which could adversely impact our results of operations and financial condition.

At times, we use foreign currency forward contracts to manage our currency transaction exposures from forecasted foreign currency denominated sales to our subsidiaries. These foreign currency forward contracts are designated as cash flow hedges under FASB ASC 815, *Derivatives and Hedging*. Therefore the effective portion of the gain or loss is reported as a component of other comprehensive income and will be reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings. The ineffective portion of the derivative's change in fair value is recognized currently through earnings regardless of whether the instrument is designated as a hedge. At October 2, 2011, we had one foreign currency forward contract outstanding, maturing in less than twelve months, to exchange the Euro for U.S. Dollars totaling approximately \$2.8 million. A sensitivity analysis of a change in the fair value of the derivative foreign currencies, the fair value of these contracts would decrease by approximately \$268,000 resulting in a total loss on the contracts of approximately \$186,000. Conversely, if the U.S. dollar strengthened by 10% against the different foreign currencies, the fair value of these contracts would increase by approximately \$243,000 resulting in a total gain on the contracts of approximately \$243,000 resulting in a total gain on the contracts of approximately \$243,000 resulting in a total gain on the contracts of approximately \$243,000 resulting in a total gain on the contracts of approximately \$243,000 resulting in a total gain on the contracts of approximately \$26,000. Any gains and losses on the fair value of the derivative contracts would be largely offset by losses and gains on the underlying transactions. These offsetting gains and losses are not reflected in the analysis below.

We also from time to time use foreign currency forward contracts not designated as hedging instruments to manage our currency transaction exposures. These derivative instruments are marked-to-market with changes in fair value recorded to earnings. These derivative instruments do not subject our earnings or cash flows to material risk since gains and losses on those derivatives generally offset losses and gains on the assets and liabilities being hedged. These derivative instruments are intended to mitigate a substantial portion of the foreign currency risk of our foreign-denominated intercompany balances. Any gains and losses on the fair value of the derivative

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contracts would be largely offset by losses and gains on the underlying transaction. We did not have any foreign currency forward contracts outstanding at October 2, 2011 for purposes of hedging our foreign-denominated intercompany balances.

#### Cash Flow Hedges Exchange Rate Sensitivity: October 2, 2011 (Amounts in \$)

	Expected Maturity Dates					Unrealized		
	2012	2013	2014	2015	2016	Thereafter	Total	gain
Forward Exchange Agreements (Receive \$/Pay Euro)								
Contract Amount	\$2,758,200						\$2,758,200	\$ 82,200
Average Contract Exchange Rate	1.3791						1.3791	

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### Item 8. Financial Statements and Supplementary Data.

#### ZOLL MEDICAL CORPORATION

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#### **Report of Independent Registered Public Accounting Firm**

Board of Directors and Stockholders ZOLL Medical Corporation Chelmsford, Massachusetts

We have audited the accompanying consolidated balance sheets of ZOLL Medical Corporation as of October 2, 2011 and October 3, 2010 and the related consolidated statements of income, stockholders' equity and comprehensive income, and cash flows for each of the three years in the periods ended October 2, 2011, October 3, 2010 and September 27, 2009. In connection with our audits of the financial statements, we have also audited the financial statement schedule listed in the Index at Item 15(a)(2). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements and schedule. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of ZOLL Medical Corporation as of October 2, 2011 and October 3, 2010, and the results of its operations and its cash flows for each of the three years ended October 2, 2011, October 3, 2010 and September 27, 2009 in conformity with accounting principles generally accepted in the United States of America.

Also, in our opinion, the financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), ZOLL Medical Corporation's internal control over financial reporting as of October 2, 2011, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated November 23, 2011, expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Boston, Massachusetts November 23, 2011

### **Consolidated Balance Sheets**

$(000)_{a}$ arrithmed arrange basis arrange (	Oct. 2, 2011	Oct. 3, 2010
(000's omitted, except per share amounts) Assets		
Current assets:		
Cash and cash equivalents	\$ 74,161	\$ 59,058
Marketable securities Accounts receivable, less allowances of \$10,269 and \$5,843 at October 2, 2011 and October 3, 2010,	1,318	3,203
respectively	118,691	99,543
Inventories: Raw materials	20.062	20,152
Work-in-process	30,062 8,769	29,152 6,799
Finished goods	27,048	34,007
	65,879	69,958
Prepaid expenses and other current assets	25,971	24,649
Total current assets Property and equipment at cost:	286,020	256,411
Land, building and improvements	3,294	1,355
Machinery and equipment	85,408	79,388
Rental equipment	57,973	35,868
Construction in progress	2,679	3,180
Tooling	20,656	18,678
Furniture and fixtures	5,401	4,245
Leasehold improvements	7,845	6,533
	183,256	149,247
Less accumulated depreciation and amortization	115,815	99,324
Net property and equipment	67,441	49,923
Investments	1,310	1,310
Notes receivable	2,201	3,709
Goodwill	79,086	79,048
Intangibles and other assets, net	38,425	40,369
	\$474,483	\$430,770
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 24,153	\$ 22,801
Deferred revenue	21,808	20,871
Accrued expenses and other liabilities	36,326	54,526
Total current liabilities	82,287	98,198
Non-Current liabilities:		
Other long-term liabilities	30,087	18,994
Total liabilities	112,374	117,192
Commitments and contingencies (Note J and Note P)		
Stockholders' equity:		
Preferred stock, \$0.01 par value, authorized 1,000 shares, none issued or outstanding		
Common stock, \$0.01 par value, authorized 38,000 shares, 22,080 and 21,504 issued and outstanding at		
October 2, 2011 and October 3, 2010, respectively	221	215
Capital in excess of par value	189,780	172,077
Accumulated other comprehensive loss Retained earnings	(7,357)	(6,891) 148 177
	179,465	148,177
Total stockholders' equity	362,109	313,578
Page 62 of 112	\$474,483	\$430,770

See accompanying notes, which are an integral part of the consolidated financial statements.

#### **Consolidated Income Statements**

		YEAR ENDED		
	Oct. 2, 2011	Oct. 3, 2010	Sept. 27, 2009	
(000's omitted, except per share data) Product sales	\$412,666	\$373,283	\$341,285	
Rental revenue	111,043	70,706	43,900	
Total net sales	523,709	443,989	385,185	
Cost of product sales	198,096	185,489	177,841	
Cost of rental revenue	25,932	17,029	9,999	
Total cost of goods sold	224,028	202,518	187,840	
Gross profit Expenses:	299,681	241,471	197,345	
Selling and marketing	159,592	130,869	113,891	
General and administrative	47,517	37,539	32,366	
Research and development	44,361	45,931	39,474	
Total expenses	251,470	214,339	185,731	
Income from operations	48,211	27,132	11,614	
Investment and other income (expense)	(10)	924	1,768	
Income before income taxes	48,201	28,056	13,382	
Provision for income taxes	16,913	9,137	3,818	
Net income	\$ 31,288	\$ 18,919	\$ 9,564	
Basic earnings per common share	\$ 1.43	\$ 0.88	\$ 0.45	
Weighted average common shares outstanding	21,815	21,384	21,078	
Diluted earnings per common and common equivalent share	\$ 1.39	\$ 0.87	\$ 0.45	
Weighted average common and common equivalent shares outstanding	22,560	21,713	21,217	

See accompanying notes, which are an integral part of the consolidated financial statements.

### Consolidated Statements of Stockholders' Equity and Comprehensive Income

(000's omitted)	Common Shares	Amount	Capital in Excess of Par Value	Con	cumulated Other prehensive ome (Loss)	Retained Earnings	Total Stockholders' Equity		iprehensive Income
Balance at September 28, 2008	21,018	\$ 210	\$ 155,547	\$	(7,593)	\$119,694	\$ 267,858		
Exercise of stock options Issuance of restricted stock	30 15		220				220		
Cancellation of restricted stock Stock-based compensation Excess tax benefit realized upon	(1)		(18) 3,460				(18) 3,460		
exercise of stock options			15				15		
Comprehensive income: Net income Unrealized gain on available-for-sale						9,564	9,564	\$	9,564
securities Cumulative foreign currency translation					128		128		128
adjustment					(669)		(669)		(669)
Total comprehensive income								\$	9,023
Balance at September 27, 2009	21,062	\$ 210	\$ 159,224	\$	(8,134)	\$129,258	\$ 280,558		
Exercise of stock options Issuance of restricted stock	425 18	5	7,866				7,871		
Cancellation of restricted stock Stock-based compensation	(1)		(64) 4,029				(64) 4,029		
Excess tax benefit realized upon exercise of stock options Comprehensive income:			1,022				1,022		
Net income						18,919	18,919	\$	18,919
Unrealized gain on available-for-sale securities Cumulative foreign currency translation					182		182		182
adjustment					1,061		1,061		1,061
Total comprehensive income								\$	20,162
Balance at October 3, 2010	21,504	\$ 215	\$ 172,077	\$	(6,891)	\$148,177	\$ 313,578		
Exercise of stock options Issuance of restricted stock	564 14	6	9,881				9,887		
Cancellation of restricted stock Stock-based compensation	(2)		(117) 4,256				(117) 4,256		
Excess tax benefit realized upon exercise of stock options Comprehensive income:			3,683				3,683		
Net income Unrealized loss on available-for-sale						31,288	31,288	\$	31,288
securities					(18)		(18)		(18)
Unrealized gain on derivatives Cumulative foreign currency translation adjustment					82 (530)		82 (530)		82 (530)
Total comprehensive income					(550)		(550)	\$	30,822
Balance at October 2, 2011	22,080	\$ 221	\$ 189,780	\$	(7,357)	\$179,465	\$ 362,109	φ	50,022

See accompanying notes, which are an integral part of the consolidated financial statements.

#### **Consolidated Statements of Cash Flows**

	YEAR ENDED			
	Oct. 2, 2011	Oct. 3, 2010	Sept. 27, 2009	
(000's omitted)				
Operating Activities:	¢ 21 200	¢ 10.010	\$ 9,564	
Net income	\$ 31,288	\$ 18,919	\$ 9,564	
Adjustments to reconcile net income to net cash provided by operating activities:	27.506	25.225	10 120	
Depreciation and amortization	27,506	25,335	19,130	
Stock-based compensation expense	4,256	4,029	3,460	
Net realized gain on sale of marketable securities		462	285	
Provision for warranty expense	1,952	1,456	1,290	
Deferred income taxes	10,243	2,393	2,352	
Changes in current assets and liabilities, net of effect of acquisitions:				
Accounts receivable	(19,693)	(18,884)	3,942	
Inventories	(20,204)	(16,756)	(4,200)	
Prepaid expenses and other current assets	(1,038)	(3,407)	(172)	
Accounts payable and accrued expenses	10,861	8,421	(2,254)	
Net cash provided by operating activities	45,171	21,968	33,397	
Investing Activities:	(15.000)	(11 = 4 = )	(10, 101)	
Additions to property and equipment	(15,890)	(11,745)	(18,481)	
Purchases of marketable securities			(35,800)	
Proceeds from sales and maturities of marketable securities	1,877	4,099	62,363	
Payments for acquisitions, net of cash acquired	—		(17,333)	
Milestone payment related to prior year acquisitions	(26,278)	(12,798)	(4,500)	
Other assets, net	(1,965)	(2,670)	(4,488)	
Net cash used in investing activities	(42,256)	(23,114)	(18,239)	
Financing Activities:				
Exercise of stock options	9,887	7,871	220	
Excess tax benefit from the exercise of stock options	3,683	1,022	15	
Taxes paid related to net share settlement of equity awards	(117)	(64)	(18)	
Net cash provided by financing activities	13,453	8,829	217	
Effect of exchange rates on cash and cash equivalents	(1,265)	314	(989)	
Net increase in cash and cash equivalents	15,103	7,997	14,386	
Cash and cash equivalents at beginning of year	59,058	51,061	36,675	
Cash and cash equivalents at end of year	\$ 74,161	\$ 59,058	\$ 51,061	
Supplemental disclosures of cash flow information:				
Cash paid during the year:				
Income taxes	\$ 3,288	\$ 6,365	\$ 1,441	
Earnout accrual for Lifecor asset acquisition	\$ —	\$ 26,253	\$ 12,779	
Earnout accrual for Infusion asset acquisition	\$ 25	\$ 25	\$ 19	

See accompanying notes, which are an integral part of the consolidated financial statements.

#### Notes to Consolidated Financial Statements

#### **Note A-Significant Accounting Policies**

*Description of Business:* ZOLL Medical Corporation (ZOLL or the Company), a Massachusetts corporation incorporated in 1980, develops and markets medical devices and related software solutions that help advance emergency care and save lives, while increasing clinical and operational efficiencies. With products for defibrillation and monitoring, circulation and CPR feedback, data management, fluid resuscitation, and therapeutic temperature management, the Company provides a comprehensive set of technologies which help clinicians, EMS and fire professionals, and lay rescuers treat victims needing resuscitation and critical care.

*Principles of Consolidation:* The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated. The Company accounts for investments in companies over which it has the ability to exercise significant influence under the equity method if the Company holds 50 percent or less of the voting stock and is not the primary beneficiary. As of October 2, 2011 and October 3, 2010, the Company did not have any investments which were accounted for under the equity method.

*Reclassification:* Certain amounts in prior year financial statements have been reclassified to conform to the current year presentation with no impact on net income or earnings per share.

*Fiscal Year:* The Company's fiscal year ends on the Sunday closest to September 30. The year ended October 3, 2010 included 53 weeks. The years ended October 2, 2011 and September 27, 2009 each included 52 weeks.

Subsequent Events: All material events occurring subsequent to the date of the financial statements up to the filing date of this annual report as filed on Form 10-K have been evaluated for disclosure.

*Use of Estimates:* The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

*Cash and Cash Equivalents:* The Company considers all highly liquid instruments with an original maturity of three months or less to be cash equivalents. Substantially all cash and cash equivalents are invested in U.S. Treasury Bills and other U.S. government agency securities and these securities are carried at cost, which approximates fair value.

*Marketable Securities:* All marketable securities must be classified as one of the following: held-to-maturity, available-for-sale, or trading. The Company classifies its marketable securities as available-for-sale and, as such, carries the investments at fair value, with unrealized holding gains and losses reported in stockholders' equity as a separate component of accumulated other comprehensive income (loss). The cost of securities sold is determined based on the specific identification method. Realized gains and losses, and declines in value judged to be other than temporary, are included in investment income.

*Fair Value Measurements:* During the first quarter of 2009, the Company adopted FASB ASC 820, *Fair Value Measurements and Disclosures* (formerly referenced as SFAS No. 157, *Fair Value Measurements*), which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. This accounting standard does not require any new fair value measurements. The Company applies fair value accounting for all financial assets and liabilities and non-financial assets and liabilities that are

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#### Notes to Consolidated Financial Statements—(Continued)

recognized or disclosed at fair value in the financial statements on a recurring basis. The Company elected to defer implementation of FASB ASC 820 as it relates to non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis until fiscal 2010. The implementation of FASB ASC 820 as it relates to non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial impact on the Company's financial statements. The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, which are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions and credit risk.

During the first quarter of 2009, the Company adopted FASB ASC 825, *Financial Instruments*, (formerly referenced as SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB Statement No. 115*), which allows companies to choose to measure eligible financial instruments and certain other items at fair value that are not required to be measured at fair value. The Company has not elected the fair value option for any eligible financial instruments.

Refer to Note L, "Fair Value Measurements," for additional information.

*Concentration of Risk:* The Company sells its products primarily to hospitals, emergency care providers, the U.S. military and university teaching hospitals. Collateral is generally not required. The Company has established distribution agreements with distributors to distribute the AED Plus product to non-professional users, including in no particular order, schools, corporations, health clubs, and other public and non-public entities. The Company performs periodic credit evaluations of its customers' financial condition. Total sales to various branches of the U.S. military were approximately \$31.4 million in fiscal 2011, \$22.1 million in fiscal 2010 and \$23.4 million in fiscal 2009. No single customer accounted for more than 10% of the Company's total net sales or accounts receivable in any of the periods presented.

In addition, the Company sells its products to the international market to both end users and distributors. Although the Company does not foresee a material credit risk associated with international receivables to either end users or distributors, repayment is dependent upon the financial stability of the customers to which it sells. In order to mitigate the risk of loss in geographical areas with historical credit risks, in some cases the Company requires letters of credit from its foreign customers. Foreign sales accounted for 32%, 31% and 32% of the Company's net sales in fiscal 2011, 2010 and 2009, respectively. The percentage of foreign sales to distributors was approximately 34% in fiscal 2011, 39% in fiscal 2010 and 40% in fiscal 2009. No single distributor or end-user customer accounts for a significant portion of the Company's international sales or accounts receivable. No individual foreign country represented 10% or more of the Company's sales, accounts receivable or total assets. For sales, the foreign country is generally based on the location of customers. Accounts receivable and total assets are determined by the location of the Company's subsidiaries.

The Company maintains reserves for potential trade receivable credit losses, and such losses historically have been within management's expectations. These reserves are charged to bad debt expense when established. Specifically identified reserves are charged to selling and marketing expenses. Provisions for general reserves are charged to general and administrative expenses. The Company determines the adequacy of this allowance by regularly reviewing the aging of its accounts receivable and evaluating individual customer receivables, considering customers' financial condition, historical experience, credit history and current economic condition.

#### Notes to Consolidated Financial Statements—(Continued)

*Financial Instruments:* Management estimates the fair value of the Company's financial instruments, which include cash and cash equivalents, marketable securities, accounts receivable, notes receivable and accounts payable based on assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates reflecting varying degrees of perceived risk. The carrying value of these financial instruments approximated their fair value at October 2, 2011 and October 3, 2010, respectively, due to the short-term nature of these instruments.

The Company may utilize foreign currency forward contracts to reduce its exposure to foreign currency risk due to fluctuations in exchange rates underlying the value of intercompany accounts receivable denominated in foreign currencies and forecasted foreign currency denominated sales to subsidiaries. The Company accounts for all derivative financial instruments (foreign currency forward contracts) in accordance with FASB ASC 815, *Derivatives and Hedging*. Changes in the fair value of derivative instruments are recorded in earnings unless hedge accounting criteria are met. For derivative instruments designated as fair value hedges, the changes in fair value of both the derivative instrument and the hedged item are recorded in earnings. For derivative instruments designed as cash flow and net investment hedges, the effective portions of changes in the fair value of the derivative are recorded in other comprehensive income ("OCI"), and the ineffective portions are recognized in earnings. At the end of fiscal 2011, the Company had one derivative designated as a hedging instrument. During fiscal 2010 and 2009, the Company did not have any derivative instruments that met the criteria for hedge accounting.

*Inventories:* Inventories, principally purchased parts, are valued at the lower of first-in, first-out ("FIFO") cost or market. Market is determined by the replacement value for raw materials and net realizable value, after allowance for estimated costs of completion and disposal, for work-in-process and finished goods. At October 2, 2011 and October 3, 2010, inventory was recorded at net realizable value requiring reserves of \$6.6 million, or 9% of our \$72.5 million gross inventories in fiscal 2011, and \$7.1 million, or 9% of our \$77.0 million gross inventories in fiscal 2010.

*Goodwill:* At October 2, 2011, the Company had approximately \$79 million in goodwill, primarily resulting from its acquisitions of the assets of Lifecor (approximately \$45 million), Revivant, Inc. (approximately \$22 million), certain assets of BIO-key International, Inc. (approximately \$5 million), the assets of Infusion Dynamics (approximately \$4 million), and the assets of Alsius Corporation (approximately \$3 million). Goodwill is tested for impairment at least annually by comparing the fair value of the reporting units to which goodwill is allocated to the carrying value of those reporting units. Additionally, goodwill is periodically reviewed for impairment throughout the year whenever events or changes in circumstances indicate that a potential impairment has occurred.

For the Company's 2011 fiscal year-end annual impairment assessment, four reporting units were identified which have goodwill allocated to them and are ultimately aggregated up to the Company's single reportable segment. Fair value is determined based on the income approach, which is an estimate of the discounted future cash flows expected from the reporting units. The market approach and the cost approach both were considered for use in testing, but the Company concluded that these methods were not appropriate for valuing its reporting units due to the lack of relevant and available market comparisons. The income approach is based on the projected cash flows that are discounted to their present value using discount rates that consider the timing and risk of the forecasted cash flows. The Company believes that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term operating cash performance. The key variables that drive the fair value of the reporting units are estimated revenue growth rates and discount rate assumptions. The projected cash flows use internally-developed revenue and expense forecasts and assumptions. The discount rate used in the income approach is the average estimated value of a market participant's cost of

#### Notes to Consolidated Financial Statements—(Continued)

capital and debt, derived using customary market metrics. Other significant assumptions include terminal value margin rates, future capital expenditures and changes in future working capital requirements. The estimated overall fair value also was compared to the Company's market capitalization. While there are inherent uncertainties related to the assumptions used and to the Company's application of these assumptions to this analysis, the Company believes that the income approach provides a reasonable estimate of the fair value of its reporting units. The foregoing assumptions are consistent with the Company's long-term performance. However, these assumptions could deviate materially from actual results.

The Company's 2011 annual goodwill impairment testing did not identify any reporting units whose carrying values exceeded implied fair values. The Company believes that none of its reporting units has a material amount of goodwill that is at risk of failing future impairment tests. For each of the reporting units, the level of excess fair value over the carrying value exceeded 25% at the end of the 2011 fiscal year. The determination of fair value requires significant judgment on the part of management about future revenues, expenses and other assumptions that contribute to the net cash flows of the reporting units. Although the Company uses consistent methodologies in developing the assumptions and estimates underlying the fair value calculations used in impairment tests, these estimates are uncertain by nature and can vary from actual results.

Long-lived Assets: The Company reviews long-lived assets, including property and equipment and intangible assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable in accordance with FASB ASC 360-10-35-15, *Impairment or Disposal of Long-Lived Assets*. Conditions that would trigger an impairment assessment include, but are not limited to, a significant adverse change in legal factors or business climate that could affect the value of an asset or an adverse action or assessment by a regulator. If the carrying amount of an asset exceeds the sum of its undiscounted cash flows, the carrying value is written down to fair value in the period identified. Fair value is calculated as the present value of estimated future cash flows using a risk-adjusted discount rate.

Intangible Assets: Patents are stated at cost and amortized using the straight-line method over their expected lives. Prepaid license fees are amortized over the term of the related contract, once commercialization of the related product begins.

*Property and Equipment:* Property and equipment are stated at cost. In general, depreciation is computed on a straight-line basis over the estimated economic useful lives of the assets (40 years for buildings, three to ten years for machinery and equipment and five years for tooling, furniture, fixtures, and software). Leasehold improvements are amortized over the shorter of the useful life or the life of the related lease. Depreciation expense totaled \$21,538,000, \$19,914,000 and \$14,492,000 in fiscal 2011, 2010 and 2009, respectively. Repair and maintenance costs are expensed as incurred.

*Investments*: Investments in those entities where the Company owns less than twenty percent of the voting stock of the individual entity and does not exercise significant influence over operating and financial policies of the entity are accounted for using the cost method. Investments in those entities where the Company owns twenty percent or more but not in excess of fifty percent of the voting stock of the individual entity or less than twenty percent and exercises significant influence over operating and financial policies of the entity are accounted for using the equity method. As of October 2, 2011 and October 3, 2010, the Company's investments were in companies that are not publicly traded and, therefore, no established market for their securities exists. The Company has a policy in place to review its investments on a regular basis to evaluate the carrying value of the investments in these companies. The fair value of a cost method investment is not estimated if there are no identified events or changes in circumstance that may have a significant adverse effect on the fair value of the investment. If the Company believes that the carrying value of an investment is in excess of estimated fair value, it is the Company's policy to record an impairment charge to adjust the carrying value to estimated fair value.

#### Notes to Consolidated Financial Statements—(Continued)

As of October 2, 2011 and October 3, 2010, the Company had investments in privately held companies of \$1.3 million.

*Notes Receivable, Long-term:* The Company has long-term notes receivable with outstanding balances aggregating \$2.2 million and \$3.7 million at October 2, 2011 and October 3, 2010, respectively, from customers to whom extended payment terms have been granted. The notes range in length from 1 year to 5 years and earn interest at a fixed rate. The range of interest rates on the notes is 6.0% to 8.0%. Included in accounts receivable, current are the current portions of the notes receivable due within one year totaling \$7.2 million and \$5.5 million at October 2, 2011 and October 3, 2010, respectively.

*Income Taxes:* The Company uses the asset and liability method of accounting for deferred income taxes. The provision for income taxes includes income taxes currently payable and those deferred as a result of temporary differences between the financial statement and tax bases of assets and liabilities. A valuation allowance is provided to reduce deferred tax assets to the amount of future tax benefit when it is more likely than not that some portion of the deferred tax assets will not be realized. Projected future taxable income and ongoing tax planning strategies are considered and evaluated when assessing the need for a valuation allowance. Any increase in a valuation allowance could have a material adverse or beneficial impact on the Company's income tax provision and net income in the period in which the determination is made.

In accordance with FASB ASC 740-10, *Income Taxes—Overall* (formerly FASB Interpretation ("FIN") No. 48, *Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109*), we follow a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained upon audit, including resolutions of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. The Company reevaluates these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision. This provision also provides guidance on classification, interest and penalties, accounting in interim periods, disclosure and transition.

*Revenue Recognition:* Revenues from sales of cardiac resuscitation and temperature management therapy devices, disposable electrodes, catheters and accessories are recognized when a signed non-cancelable purchase order exists, the product is shipped, title and risk have passed to the customer, the fee is fixed or determinable, and collection is considered probable. Circumstances that generally preclude the immediate recognition of revenue include shipping terms of FOB destination or the existence of a customer acceptance clause in a contract based upon customer inspection of the product. In these instances, revenue is deferred until adequate documentation is obtained to ensure that these criteria have been fulfilled. Revenues from the sales of our products to distributors fall under the same guidelines. For all significant orders placed by our distributors, we require an approved purchase order, we perform a credit review, and we ensure that the terms on the purchase order or contract are proper and do not include any contingencies which preclude revenue recognition. The Company does not typically offer any special right of return, stock rotation or price protection to distributors or end customers. For sales in which payment extends beyond a twelve month period, revenue is generally recognized at its net present value using an imputed rate of interest based on the Company's experience of successful collection on these terms without concession.

Sales to customers often include a device, disposables and other accessories. For the vast majority of shipments, all deliverables are shipped together. However, in some cases some elements of a multiple element

#### Notes to Consolidated Financial Statements—(Continued)

arrangement are not delivered as of a reporting date. In September 2009, the FASB amended the accounting standards related to revenue recognition for arrangements with multiple deliverables and include some software elements. The Company adopted this new guidance prospectively during the first quarter of 2010. Under the historical accounting guidance, FASB ASC 605-25, *Multiple Element Arrangements* (formerly Emerging Issues Task Force ("EITF") Issue No. 00-21, *Accounting for Revenue Arrangements with Multiple Deliverables*), the fair value of the undelivered elements were deferred and only the revenue related to the delivered elements was recognized if fair value had been established for the undelivered elements. If fair value had not been established for any undelivered elements, the entire order was deferred. Under the new guidance of ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*, fair value as the measurement criteria is replaced with the term selling price and establishes a hierarchy for determining the selling price of a deliverable. ASU No. 2009-13 also eliminates the use of the residual value method for determining the allocation of arrangement consideration. For multi-element arrangements, revenue is allocated to all deliverables based on their relative selling prices. In such circumstances, a hierarchy is used to determine the selling price to be used for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of fair value ("VSOE"), (ii) third-party evidence of selling price ("TPE"), and (iii) best estimate of the selling price ("ESP"). VSOE generally exists only when the deliverable is sold separately and is the price actually charged for that deliverable. The process for determining an ESP for deliverables without VSOE or TPE considers multiple factors that may vary depending upon the unique facts and circumstances related to each deliverable. Revenues are recorded net of estimated returns.

The Company licenses software under non-cancelable license agreements and provides services including training, installation, consulting and maintenance, which consists of product support services, and unspecified upgrade rights (collectively, post-contract customer support, "PCS"). Revenue from the sale of software is recognized in accordance with FASB ASC 985-605, Software—Revenue Recognition (formerly SOP 97-2). License fee revenues are recognized when a non-cancelable license agreement has been signed, the software product has been delivered, there are no uncertainties surrounding product acceptance, the fees are fixed or determinable, and collection is considered probable. Revenues from maintenance agreements and upgrade rights are recognized ratably over the period of service. Revenue for services, such as software deployment and consulting, is recognized when the service is performed. Our software arrangements contain multiple elements, which include software products, services and PCS. Generally, the Company does not sell computer hardware products with its software products. The Company will occasionally facilitate the hardware purchase by providing information to the customer such as where to purchase the equipment. The Company generally does not have vendor-specific objective evidence of fair value for its software products. The Company does, however, have vendor-specific objective evidence of fair value for items such as consulting and technical services, deployment and PCS based upon the price charged when such items are sold separately. Accordingly, for transactions where vendor-specific objective evidence exists for undelivered elements but not for delivered elements, the residual method is used. Under the residual method, the total fair value of the undelivered elements, as indicated by vendor-specific objective evidence, is deferred and the difference between the total arrangement fee and the amount deferred for the undelivered elements is recognized as revenue related to the delivered elements. If the fair value of any undelivered element, which is part of a multiple-element arrangement, cannot be objectively determined, the revenue is deferred until all elements are delivered and services have been performed, or until fair value can objectively be determined for any remaining undelivered elements.

The Company typically does not ship any of its software products to distributors or resellers. Software products are sold by the Company's sales force directly to the end user. The Company may sell software to system integrators who provide complete solutions to end users on a contract basis.

On September 28, 2009, the Company entered into a "state of readiness" contract awarded by the U.S. government to supply defibrillators on short notice. A similar contract with the U.S. government expired on

#### Notes to Consolidated Financial Statements—(Continued)

September 27, 2009. Based upon the award, the Company expects to receive two types of payments from the U.S. government. The first payment of approximately \$4 million, which was received during the first half of fiscal 2010 and is carried within "Deferred revenue" on the balance sheet as a liability, is to reimburse the Company for the cost to acquire inventories required to meet potentially short-notice delivery schedules. The Company also receives payments from the U.S. government to compensate it for managing the purchase, build, storage and inventory rotation process. This payment will also compensate the Company for making future production capacity available. The portion of this second payment associated with the purchase and build aspects of the contract will be recognized on a proportional performance basis. The contract has a one-year term with up to an additional four one-year extensions. The U.S. Government extended the contract for a third year in September 2011. Under this contract, the U.S. Government has two options to acquire defibrillators. The U.S. Government may buy on a replenishment basis, which means the Company will record a sale under its normal U.S. Government price list and maintain a "state of readiness", or the U.S. Government may buy on a non-replenishment basis, which will generally allow the Company to obtain normal margins but will reduce the Company's future obligations under this arrangement.

For those markets for which the Company sells separately priced extended warranties, revenue is deferred and recognized over the applicable warranty period, based upon the fair value of the contract.

The Company also generates rental revenue from its LifeVest product. Doctors prescribe the LifeVest equipment for use by their patients. The patients then rent the LifeVest product for use over a prescribed period of time, typically between two to three months. The patients are generally covered by health plan contracts, which typically contract with a third party payor that agrees to pay based on fixed or allowable reimbursement rates. Third party payors are entities such as insurance companies, governmental agencies, health maintenance organizations or other managed care providers. The rental income is recognized ratably over the rental period.

Advertising Costs: Advertising costs are expensed as incurred and totaled \$2.6 million, \$2.3 million and \$2.2 million in fiscal 2011, 2010 and 2009, respectively.

Shipping & Handling Costs: Shipping and handling costs are recorded in "Costs of Goods Sold."

*Product Warranty:* Expected future product warranty costs, included in accrued expenses and other liabilities, are recognized at the time of sale for all products covered under warranty. Warranty periods usually range from one to five years. The Company estimates its warranty reserve requirement based upon the number of units remaining under warranty, the historical per unit repair costs and return rates, and specific known warranty issues.

Product warranty activity for fiscal 2011, 2010 and 2009 was as follows:

	Accruals for Warranties						
	Beginning Balance		l During the Period		e to Preexisting arranties	Ending Balance	
(000's omitted)							
October 2, 2011	\$ 4,304	\$	1,952	\$	(1,355)	\$4,901	
October 3, 2010	\$ 4,176	\$	1,456	\$	(1,328)	\$4,304	
September 27, 2009	\$ 3,733	\$	1,290	\$	(847)	\$4,176	

Research and Development Expenses: The Company evaluates whether to capitalize or expense software development costs in accordance with FASB ASC 985-20, Software—Costs of Software to be Sold, Leased or Marketed. The Company sells products in a market that is subject to rapid technological change, new product development and changing customer needs; accordingly, the Company has concluded that technological

### Notes to Consolidated Financial Statements—(Continued)

feasibility is not established until the development stage of the product is nearly complete. The Company defines technological feasibility as the completion of a working model. The time period during which costs could be capitalized from the point of reaching technological feasibility until the time of general product release, is very short and, consequently, the amounts that could be capitalized are not material to the Company's financial position or results of operations. For products other than software products, research and development costs are expensed as incurred.

*Foreign Currency:* The functional currency for each of the Company's subsidiaries is each country's local currency. All assets and liabilities are translated into U.S. dollar equivalents at the exchange rate in effect on the balance sheet date. Revenues and expenses are translated at the average exchange rates for the year. Translation gains or losses are recorded in stockholders' equity as an element of accumulated other comprehensive income. The Company also incurs transactional gains and losses resulting from transactions denominated in foreign currencies and the translation of intercompany balances. Such items are recorded as investment and other income (expense) in the consolidated income statement and totaled approximately \$(924,000), \$(84,000) and \$663,000 in 2011, 2010 and 2009, respectively.

*Stock-Based Compensation*: In accordance with FASB ASC 718, *Compensation—Stock Compensation*, the Company is required to measure the cost of employee services in exchange for an award of equity instruments based on the grant-date fair value of the award and to recognize cost over the requisite service period. The Company recognizes compensation expense on fixed awards with pro rata vesting on a straight-line basis over the vesting period.

Stock-based compensation charges during the twelve months ended October 2, 2011, October 3, 2010, and September 27, 2009 totaled approximately \$4.3 million, \$4.0 million and \$3.5 million, respectively. The effect of recording stock-based compensation by line item for the fiscal years ended October 2, 2011, October 3, 2010 and September 27, 2009 was as follows:

	2011	2010	2009
(000's omitted)			
Cost of goods sold	\$ 393	\$ 307	\$ 312
Selling and marketing expense	824	880	804
General and administrative expense	2,603	2,214	1,825
Research and development expense	436	628	519
Total stock-based compensation	\$4,256	\$4,029	\$3,460

The fair value of each option grant is estimated on the date of the grant using the Black-Scholes option-pricing model with the following weighted average assumptions used for grants in fiscal 2011, 2010 and 2009:

	2011	2010	2009
Dividend yield	0%	0%	0%
Expected volatility	44.1%	42.5%	44.6%
Risk-free interest rate	1.59%	2.37%	2.37%
Expected lives (years)	5.27	5.14	5.10
Weighted-average fair value of options granted during the year	\$12.98	\$8.86	\$8.58

Historical Company information was the primary basis for the expected volatility assumption. For grants made in fiscal years 2006 through 2008, the Company's expected volatility is based upon historical volatility over a ten year period (the contractual life of the option grants.) For grants made in fiscal 2009 through 2011, the volatility assumption is based upon the historical volatility over the expected term of the option (five to eight and

#### Notes to Consolidated Financial Statements—(Continued)

a half years depending upon the type of grant.) The Company now believes that the historical volatility over the expected term of the option is more indicative of the option grant's expected volatility in the future. Prior to December 31, 2007, the Company was unable to use historical information to estimate the expected lives and therefore used the "simplified" method as prescribed by FASB ASC 718, *Compensation—Stock Compensation* (SEC's Staff Accounting Bulletin No. 107). The Company now believes that it has sufficient internal historical data to refine the expected term assumption. As such, expected life now is calculated based on the contractual term of each grant and takes into account the historical exercise and termination behavior of participants. Forfeiture rates used for executives and non-executives, based on historical information, ranged from 0% to 25%.

*Earnings per Share:* The shares used for calculating basic earnings per common share were the weighted average shares of common stock outstanding during the period and the shares used for calculating diluted earnings per common share were the weighted average shares of common stock outstanding during the period plus the dilutive effect of stock options and restricted stock.

	2011	2010	2009
(000's omitted) Average shares outstanding for basic earnings per share	21.815	21.384	21,078
Dilutive effect of stock options and restricted stock grants	745	329	139
Average shares outstanding for diluted earnings per share	22,560	21,713	21,217

Average shares outstanding for diluted earnings per share does not include options to purchase 36,500, 953,268 and 1,411,738 shares of common stock for the fiscal years 2011, 2010 and 2009, respectively, as their effect would have been antidilutive.

*Comprehensive Income:* The Company computes comprehensive income (loss) in accordance with FASB ASC 220, *Comprehensive Income*, (formerly SFAS No. 130, *Reporting Comprehensive Income*). FASB ASC 220 establishes standards for the reporting and display of comprehensive income (loss) and its components in financial statements. Other comprehensive income (loss), as defined, includes all changes in equity during a period from non-owner sources, such as unrealized gains and losses on available-for-sale securities, unrealized gains and losses on derivative instruments and foreign currency translation. Total accumulated other comprehensive loss as of fiscal year-end 2011 and 2010 was as follows:

	20	)11	2	010
(000's omitted) Unrealized gain on available-for-sales securities	\$	15	\$	33
Unrealized gain on derivative instruments	Ψ	82	Ψ	
Cumulative foreign currency translation	(7	,454)	(6	5,924)
Accumulated other comprehensive loss	\$(7	,357)	\$(6	6,891)

Recently Adopted Accounting Pronouncements:

Effective January 4, 2010, the Company adopted ASU No. 2010-06, *Fair Value Measurements and Disclosures (Topic 820)—Improving Disclosures about Fair Value Measurements* (ASU 2010-06). ASU 2010-06 requires additional disclosure within the rollforward activity for assets and liabilities measured at fair value on a recurring basis, including transfers of assets and liabilities between Level 1 and Level 2 of the fair value hierarchy and the separate presentation of purchases, sales, issuances and settlements of assets and liabilities within Level 3 of the fair value hierarchy. In addition, ASU 2010-06 requires enhanced disclosures of the valuation techniques and inputs used in the fair value measurements within Level 2 and Level 3. ASU 2010-06 was adopted beginning with the Company's second quarter ended April 4, 2010, except for the disclosure of

#### Notes to Consolidated Financial Statements—(Continued)

purchases, sales, issuances and settlements of Level 3 measurements, for which disclosures were not required until the Company's first quarter of fiscal 2011. The Company did not have any transfers of assets or liabilities between Level 1 and Level 2 of the fair value hierarchy during fiscal 2010 and fiscal 2011. See Note L. The adoption of the additional disclosures for Level 1 and Level 2 fair value measurements did not have a material impact on the Company's financial position, results of operations or cash flows. The Company adopted the requirement of additional disclosures of purchases, sales, issuances and settlements of Level 3 measurements beginning with the Company's quarter ended January 2, 2011. The adoption of the additional requirements had no impact on the Company's financial position, results of operations or cash flows.

In December 2010, the FASB issued ASC update No. 2010-28, *Intangibles-Goodwill and Other (Topic 350)*, *When to Perform Step 2 of the Goodwill Impairment Test for Reporting Units with Zero or Negative Carrying Amounts a consensus of the FASB Emerging Issues Task Force (ASC 2010-28)*. This amendment modifies Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. The qualitative factors that an entity should consider when evaluating whether it is more likely than not that a goodwill impairment exists are consistent with the existing guidance for determining whether an impairment exists between annual tests. The adoption of this update did not have a material impact on the Company's financial statements. This update was effective for fiscal periods beginning after December 15, 2010.

### Recently Issued Accounting Pronouncements

In September 2011, the FASB issued ASC update No. 2011-08, *Intangibles—Goodwill and Other (Topic 350), Testing Goodwill for Impairment*, which gives an entity the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after assessing the totality of events or circumstances, an entity determines it is not more likely than not that the fair value of a reporting unit is less than its carrying unit is less than its carrying amount, then performing the two-step impairment test is unnecessary. However, if an entity concludes otherwise, then it is required to perform the steps necessary under current rules. This update is effective for annual and interim goodwill impairment tests performed for fiscal years beginning after December 15, 2011, and early adoption is permitted. The Company does not expect the adoption of this update to have a material impact on its consolidated financial statements.

In June 2011, the FASB issued ASC update No. 2011-05, *Comprehensive Income (Topic 220), Presentation of Comprehensive Income (ASC 2011-05),* which amends the existing accounting guidance for the presentation of comprehensive income in the financial statements. ASC 2011-05 eliminates the option for entities to present comprehensive income within the Statement of Stockholders' Equity. An entity has the option to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In both choices, an entity is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income is income along with a total for other comprehensive income to net income and a total amount for comprehensive income. Entities are also required to present on the face of the financial statements reclassification adjustments for items that are reclassified from other comprehensive income to net income in the statements where the components of net income and the components of other comprehensive income must be reclassified to net income. The amendment also does not change the option for an entity to present components of other comprehensive income either net of related tax effects or before related tax effects, with one amount shown for the aggregate income tax expense or benefit



#### Notes to Consolidated Financial Statements—(Continued)

related to the total of other comprehensive income items. In both cases, the tax effect for each component must be disclosed in the notes to the financial statements or presented in the statement in which other comprehensive income is presented. The amendment does not affect how earnings per share is calculated or presented. The amendment is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011 and early adoption is allowed.

#### Note B-Cash Equivalents and Marketable Securities

The Company considers all highly liquid instruments with an original maturity of three months or less to be cash equivalents. Substantially all cash and cash equivalents are invested in U.S. Treasury Bills and other U.S. government agency securities. The Company accounts for marketable securities in accordance with FASB ASC 320, *Investments—Debt and Equity Securities*. All marketable securities must be classified as one of the following: held-to-maturity, available-for-sale, or trading. The Company classifies its marketable securities as available-for-sale and, as such, carries the investments at fair value, with unrealized holding gains and losses reported in stockholders' equity as a separate component of accumulated other comprehensive income (loss). The cost of securities sold is determined based on the specific identification method. Realized gains and losses, and declines in value judged to be other than temporary, are included in investment income.

As of October 2, 2011, available-for-sale securities consisted of the following:

		Accrued	Gross U	nrealized	Estimated
(000):= ===:244==1)	Cost	Interest	Gains	Losses	Fair Value
(000's omitted) Money-market funds	\$ 47	\$ —	\$—	<u>\$ —</u>	\$ 47
U.S. government agency and Treasury securities	10,400				10,400
Corporate obligations	1,302	9	7	—	1,318
	\$11,749	\$ 9	\$ 7	\$ —	\$11,765

As of October 3, 2010, available-for-sale securities consisted of the following:

			Gross U	nrealized	
	Cost	Accrued Interest	Gains	Losses	Estimated Fair Value
(000's omitted) Money-market funds	\$ 77	\$ —	<u>\$</u> —	<u>\$ —</u>	\$ 77
U.S. government agency and Treasury securities	13,498				13,498
Corporate obligations	3,163	10	30	—	3,203
	\$16,738	\$ 10	\$ 30	\$-	\$16,778

The contractual maturities of these investments as of October 2, 2011 were as follows:

	Cost	Fair Value
(000's omitted)		<b>0.11.7</b> (5
Within 1 year	\$11,749	\$ 11,765
After 1 year through 5 years	—	
After 5 years through 10 years	—	
After 10 years	—	
	\$11,749	\$11,765

### Notes to Consolidated Financial Statements-(Continued)

The contractual maturities of these investments as of October 3, 2010 were as follows:

	Cost	Fair Value
(000's omitted) Within 1 year After 1 year through 5 years	\$13,575 3,160	\$13,575 3,200
After 5 years through 10 years After 10 years	3	-3
	\$16,738	\$16,778

The Company's available-for-sale securities were included in the following captions in the condensed consolidated balance sheets:

(000's omitted) Cash equivalents Marketable securities	October 2, 2011	October 3, 2010		
	\$ 10,447 1,318	\$ 13,575 3,203		
	\$ 11,765	\$ 16,778		

Gross realized gains and losses on available-for-sale securities for the three years ended October 2, 2011, October 3, 2010 and September 27, 2009 included in "*Investment and other income (expense)*" on the consolidated income statements were as follows:

	Oct. 2, 2011	Oct. 3, 2010	Sept. 27, 2009
(000's omitted) Gross realized gains Gross realized losses	\$ <u> </u>	\$ <u>1</u>	\$ <u>5</u> (290)
Total, net	\$—	\$ 1	\$ (285)

For fiscal years 2011, 2010 and 2009, the Company had interest income of approximately \$1.2 million, \$0.9 million and \$0.7 million, respectively. The Company had no interest expense in 2011, 2010 and 2009.

# **Note C-Investments**

In January 2003, the Company invested approximately \$1.3 million in the common stock of Advanced Circulatory Systems, Inc. (formerly ResQSystems, Inc.), a development stage medical device corporation. The Company's investment in Advanced Circulatory Systems, Inc. ("ACSI") represented approximately 6% of ACSI's outstanding common stock as of October 2, 2011. The Company accounts for its investment using the cost method.

# **Note D-Acquisitions**

Road Safety International, Inc.

In October 2010, the Company acquired the assets and assumed certain liabilities of Road Safety International, Inc. ("Road Safety"). The Road Safety product is installed in an ambulance or fire vehicle and provides real-time feedback via audible alerts in situations such as speeding or hard cornering to help the driver avert an accident. The Road Safety product encourages a safer ambulance environment during patient treatment, records vehicle operating data for analysis, and can also be used to help reduce vehicle maintenance costs. The

#### Notes to Consolidated Financial Statements—(Continued)

acquisition provides for consideration to be paid in the form of possible annual earn-out payments based on revenues for the next two fiscal years. If both earn-outs are achieved, total consideration (including liabilities assumed) could approximate \$550,000. The contingent consideration is recorded in "Accrued expenses and other liabilities" and "Other long-term liabilities" on the Company's consolidated balance sheet. Beginning October 4, 2010, the results of operations of Road Safety are included in the consolidated income statements of the Company. Pro forma information is not provided as this acquisition was immaterial to the Company's financial statements.

### Contingent Consideration for Prior Period Acquisitions

The terms of the March 2004 acquisition of the assets of Infusion Dynamics provided for possible annual earn-out payments based upon revenue growth through fiscal 2011. Annual earn-out payments to former stockholders of Infusion Dynamics, in the form of cash were approximately \$25,000 for fiscal 2010 and \$19,000 for fiscal 2009. For fiscal 2011, approximately \$25,000 has been accrued for payment to the former shareholders of Infusion Dynamics, which is expected to be paid in cash during the first quarter of fiscal 2012. The fiscal 2011 earn-out payment is the final annual earn-out payment for the assets of Infusion Dynamics. Annual earn-out payments for Infusion Dynamics are accrued during the respective fiscal year in which they are earned and are paid in the respective subsequent fiscal year.

The terms of the April 2006 acquisition of the assets of Lifecor also provided for possible annual earn-out payments based upon revenue growth through fiscal 2010. The form of earn-out payments were at the discretion of the Company and could have been made in the form of cash, Company stock, or a combination of the two. The earn-out payments for fiscal 2009 and beyond were calculated as 100% of qualifying revenues earned in the current fiscal year in excess of the greater of the prior fiscal year qualifying revenues or \$30 million. The annual earn-out payments were accrued during the respective fiscal year in which they were earned and were paid in the respective subsequent fiscal year. For the fiscal 2010 earn-out, approximately \$26.3 million was paid to Lifecor in the form of cash during the first half of fiscal 2011. The fiscal 2010 earn-out payment was the final annual earn-out payment for the Lifecor acquisition.

The annual earn-out payments for Lifecor and Infusion Dynamics were recorded as an additional cost of the purchase and recorded as goodwill. These acquisitions were accounted for under FASB ASC 805, *Business Combinations* (formerly SFAS No. 141, "Business Combinations").

### Note E-Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of:

	Oct. 2, 2011	Oct. 3, 2010
(000's omitted)	¢ 15.0(2	¢ 15.092
Deferred income taxes (Note I)	\$ 15,962	\$ 15,082
Prepaid income taxes (Note I)	5,212	4,914
Other	4,797	4,653
Total prepaid expenses and other current assets	\$ 25,971	\$ 24,649

# **ZOLL Medical Corporation**

# Notes to Consolidated Financial Statements—(Continued)

# Note F-Goodwill, Intangibles and Other Assets

The changes in the carrying amount of goodwill for the year ended October 2, 2011 were as follows:

(000's omitted) Balance as of October 3, 2010 Goodwill acquired during the year	\$79,048 38
Balance as of October 2, 2011	\$79,086

The changes in the carrying amount of goodwill for the year ended October 3, 2010 were as follows:

\$52,100 26,948
\$79,048

Intangibles and other assets consist of:

		Oct	. 2, 2011	Oct	. 3, 2010
	Weighted Average Life	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
(000's omitted) Dranaid license fees	15	\$12,021	\$ 5.416	\$12.764	\$ 4,495
Prepaid license fees	15 years	\$12,931	\$ 5,416	\$12,764	
Patents and developed technology	11 years	38,008	17,068	36,066	13,839
Customer-related intangible	10 years	5,035	2,572	5,000	2,082
Intangible assets not subject to amortization		1,620		1,530	—
Other assets		11,192	5,305	9,512	4,087
		\$68,786	\$ 30,361	\$64,872	\$ 24,503

Total amortization expense for the fiscal 2011, 2010 and 2009 was approximately \$5,968,000, \$5,421,000 and \$4,638,000, respectively.

The following table provides estimated amortization expense for each of the five succeeding fiscal years and thereafter based upon the Company's intangible asset portfolio at October 2, 2011.

Fiscal Year	Estimated Amortization Expense (000's omitted)
2012	\$ 5,989
2013	5,784
2014	5,521
2015	3,600
2016	1,960
Thereafter	13,703
	\$ 36,557

# Notes to Consolidated Financial Statements—(Continued)

### Note G-Accrued Expenses, Other Liabilities, and Other Long-Term Liabilities

Accrued expenses and other liabilities consist of:

	Oct. 2, 2011	Oct. 3, 2010
(000's omitted)	¢ 10.001	¢ 15 166
Accrued salaries and wages and related expenses	\$ 19,991	\$ 15,166
Accrued warranty expense	1,704	1,515
Deferred lease incentives	153	457
Accrued corporate income taxes	563	598
Accrued earn out payments	25	26,278
Other accrued expenses	13,890	10,512
Total accrued expenses and other liabilities	\$ 36,326	\$ 54,526
Other long-term liabilities consist of:		
	Oct. 2, 2011	Oct. 3, 2010
(000's omitted)	0.107	<b>A 2 7</b> 00
Accrued warranty expense, long-term	\$ 3,197	\$ 2,789
Deferred revenue, long-term	5,711	7,597
Deferred tax liabilities	16,651	5,420
Unrecognized tax benefits	2,502	3,188
Deferred lease incentives, long-term	1,837	
Other, long-term	189	
Total other long-term liabilities	\$ 30,087	\$ 18,994

# Note H-Line of Credit

The Company maintains an unsecured working capital line of credit with its bank with borrowing capacity, on a demand basis and with no expiration date, up to \$12 million. This line of credit bears interest at the rate of LIBOR plus 2%. The full amount of the line was available to the Company at October 2, 2011. There are no covenants related to this line of credit.

# **ZOLL Medical Corporation**

# Notes to Consolidated Financial Statements-(Continued)

# **Note I-Income Taxes**

The provision for income taxes consists of the following:

(000's omitted)	2011	2010	2009
Federal: Current	\$ 2,226	\$4,370	\$77
Deferred	11,275	2,901	2,399
	13,501	7,271	2,476
State:		.,	,
Current	1,650	1,253	385
Deferred	359	33	(4)
	2,009	1,286	381
Foreign:			
Current	2,794	1,121	1,004
Deferred	(1,391)	(541)	(43)
	1,403	580	961
Total:			
Current	6,670	6,744	1,466
Deferred	10,243	2,393	2,352
	\$16,913	\$9,137	\$3,818

The following table allocates income before income taxes between domestic and foreign jurisdictions:

(000's omitted) Domestic Foreign	<b>2011</b> \$44,704 3,497 \$48,201	2010 \$23,796 4,260 \$28,056	2009 \$ 9,930 3,452 \$13,382
The income tax provision differed from the statutory federal income tax provision as follows:			
(000's omitted) Income taxes at statutory rate Tax credits, federal and state Production deduction State income taxes, net of federal benefit Foreign income taxes at different rates Other	<b>2011</b> \$16,871 (2,036) (494) 2,169 130 273 \$16,913	2010 \$9,820 (354) (312) 1,150 (924) (243) \$9,137	2009 \$ 4,684 (1,545) (36) 323 (205) 597 \$ 3,818

#### Notes to Consolidated Financial Statements—(Continued)

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities are as follows:

(000's omitted)	Oct. 2, 2011	Oct. 3, 2010
Deferred tax assets:		
	¢ 1214	¢ 2041
Acquired NOL—Revivant Corp.	\$ 1,314	\$ 2,841
Accounts receivable and inventory	7,362	5,080
Product warranty accruals and deferred revenues	4,158	4,149
Stock-based compensation	4,632	3,903
Other assets	6,466	4,378
Total deferred tax assets	23,932	20,351
Deferred tax liabilities:		
Accelerated tax depreciation	18,229	7,254
Intangible assets	5,967	3,435
Other liabilities	318	—
Total deferred tax liabilities	24,514	10,689
Net deferred tax asset (liability) before valuation allowance	(582)	9,662
Valuation allowance		—
Net deferred tax asset (liability)	\$ (582)	\$ 9,662

As a result of the acquisition of the assets of Revivant, the Company, at the date of acquisition, obtained net operating loss carryovers of approximately \$43.8 million, which will expire in its fiscal years ending 2012 through 2024. The utilization of these losses is subject to the Internal Revenue Code Section 382 limitations. In 2011, the Company used \$3.1 million of NOLs to reduce taxes payable. The Company believes the NOLs are more likely than not to be realized. The Company also obtained approximately \$900,000 of research tax credit carryovers. These credits will expire at the end of fiscal years 2012 through 2024. The Company also acquired technology, valued at \$9.0 million on its books, which has no income tax basis, resulting in \$3.0 million of net deferred tax liabilities.

We have federal research and development tax credits of \$2.1 million, which begin to expire in 2030, available to offset future taxable income. These credits include stock option deductions. The benefit of these tax deductions will be credited to additional paid-in-capital once we receive a cash benefit from the stock options being utilized.

The Company is subject to U.S. federal income tax as well as income tax of multiple states and foreign jurisdictions. The Company has concluded all U.S. federal and most state and foreign income tax matters through fiscal 2007. The tax return covering fiscal 2007 was audited by the IRS with no material adjustments proposed. The acquired losses from Revivant for tax years 2003 and 2004 remain open to examination by the IRS to the extent losses are claimed in open years.

The Company does not provide U.S. income taxes on the undistributed earnings of non-U.S. subsidiaries as such earnings are considered to be indefinitely invested outside the United States. Non-U.S. income taxes are, however, provided on these foreign subsidiaries' undistributed earnings. At October 2, 2011 and October 3, 2010, approximately \$29.4 million and \$27.5 million, respectively, of pretax undistributed earnings of non-U.S. subsidiaries were indefinitely invested outside the U.S.

#### Notes to Consolidated Financial Statements—(Continued)

At October 2, 2011 and October 3, 2010, the Company had \$2.9 million and \$3.8 million of gross unrecognized tax benefits, respectively, of which, \$1.8 million and \$2.2 million, if recognized, could impact the effective tax rate.

The reconciliation of the total amounts of unrecognized tax benefits for October 2, 2011, October 3, 2010 and September 27, 2009 is as follows:

(000's omitted) Balance at September 28, 2008	\$ 3,264
Reclass amount from deferred taxes	893
Additions based on tax positions related to the current year	703
Additions for tax positions of prior years	479
Reductions for positions of prior years	(431)
Balance at September 27, 2009	\$ 4,908
Additions based on tax positions related to the current year	208
Additions for tax positions of prior years	37
Reductions for positions of prior years	(1,385)
Balance at October 3, 2010	\$ 3,768
Additions based on tax positions related to the current year	279
Additions for tax positions of prior years	297
Reductions for positions of prior years	(1,418)
Balance at October 2, 2011	\$ 2,926

Of the \$2.9 million current-year balance, approximately \$1.4 million is expected to reverse in fiscal 2012. Of the \$1.4 million reduction, approximately \$450,000 is expected to reduce a deferred tax asset. The Company recognizes interest and penalties related to unrecognized tax benefits in income tax expense in the consolidated statements of income. As of October 2, 2011 and October 3, 2010, the Company had \$218,000 and \$312,000, respectively, of accrued interest and penalties, respectively, in income taxes payable.

### Note J-Commitments and Contingencies

On June 18, 2010, Koninklijke Philips Electronics N.V. and Philips Electronics North America Corporation filed a lawsuit against us in U.S. District Court, Boston, MA, alleging that fifteen patents owned by the Philips entities are infringed by certain of our defibrillators and associated products and seeking monetary and equitable remedies for infringement. The plaintiffs filed an amended complaint on October 13, 2010. On July 12, 2010, we filed a lawsuit against Philips Electronics North America Corporation in U.S. District Court, Boston, MA, alleging that five of our patents are infringed by certain of their defibrillators and associated products and seeking monetary and equitable remedies for infringement. The two cases have been consolidated through the pre-trial phase and bifurcated into an initial liability phase and a later damages phase. Discovery has commenced in the liability phase.

The Company is, from time to time, involved in the normal course of its business in various legal proceedings, including intellectual property, contract, employment and product liability suits. Although the Company is unable to quantify the exact financial impact of any of these matters, it believes that none of these currently pending matters will have an outcome material to its financial condition or business.

#### Notes to Consolidated Financial Statements—(Continued)

The Company leases certain office and manufacturing space under operating leases. The Company's office leases are subject to adjustments based on actual floor space occupied. The leases also require payment of real estate taxes and operating costs In addition to the office leases, the Company leases automobiles for business use by a portion of the sales force.

The Company's executive headquarters and defibrillator manufacturing operations are located in Chelmsford, Massachusetts. The Chelmsford facility is covered by a ten year lease, beginning July 1, 2011 and expiring on June 30, 2021. The agreement contains two five-year renewal options and provides that the Company pay a pro-rata amount of the landlord's real estate tax and operating expenses based upon square footage. The lease also provided the Company with a lease incentive of approximately \$3.6 million. This incentive has been recorded as a deferred lease incentive within "Accrued expenses and other liabilities" and "Other long-term liabilities" on the Company's consolidated balance sheet. The balance as of October 2, 2011 was approximately \$2.0 million and is being amortized as a reduction to rent expense over the life of the lease. Any leasehold improvements made as part of the relocation have been capitalized as leasehold improvements within Property and Equipment and are being amortized over the ten year life of the lease. The Company's previous lease for the same facility expired on June 30, 2011.

Listed below are the future minimum rental payments (excluding common area maintenance and real estate tax charges) required under operating leases with non-cancelable terms in excess of one year at October 2, 2011.

(000's omitted)	
2012	\$ 3,047
2013	4,746
2014	5,011
2015	4,741
2016	4,649
Thereafter	17,556
	\$39.750

Total rental expense under operating leases was approximately \$6,150,000, \$5,036,000 and \$4,340,000 in fiscal 2011, 2010 and 2009, respectively.

The Company also has non-cancelable purchase commitments of approximately \$647,000 as of October 2, 2011. Purchases under these commitments totaled approximately \$264,000, \$253,000 and \$460,000 in fiscal 2011, 2010 and 2009, respectively.

### **Note K-Hedging Activities**

The Company operates globally, and its earnings and cash flows are exposed to market risk from changes in currency exchange rates. The Company addresses these risks through a risk management program that includes the use of derivative financial instruments. The program is operated pursuant to documented corporate risk management policies. The Company does not enter into any derivative transactions for speculative purposes. The Company recognizes all derivative financial instruments in the consolidated financial statements at fair value in accordance with FASB ASC 815, *Derivatives and Hedging*.

### Notes to Consolidated Financial Statements-(Continued)

### **Designated Foreign Currency Contracts**

The Company sometimes uses foreign currency forward contracts to manage its currency transaction exposures from forecasted foreign currency denominated sales to its subsidiaries. These foreign currency forward contracts are designated as cash flow hedges under FASB ASC 815, *Derivatives and Hedging*. Therefore, the effective portion of the gain or loss is reported as a component of other comprehensive income and will be reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings. The ineffective portion of the derivative's change in fair value is recognized currently through earnings regardless of whether the instrument is designated as a hedge. At October 2, 2011, the Company had one foreign currency forward contract outstanding, maturing in less than twelve months, to exchange the Euro for U.S. Dollars totaling approximately \$2.8 million.

Net recognized losses from foreign currency forward contracts totaled approximately \$371,000 during fiscal 2011 and are included in the consolidated statements of income. The net settlement amount of the outstanding contracts recorded in "Accumulated other comprehensive loss" to recognize the effective portion of the fair value of the contracts at October 2, 2011 was an unrealized gain of approximately \$82,200. The net settlement of this outstanding contract will be reclassified to earnings within the next twelve months.

The following table presents the effect of the Company's derivative instruments designated as hedging instruments on the consolidated statement of income as of October 2, 2011 (in thousands):

Derivatives Designated as Hedging Instruments	Recogniz	Gain (Loss) æd in OCI e Portion)	(Loss) from Earning	nt of Gain Reclassed AOCI into gs (Effective ortion)	Location in Statement of Income	(Loss) R Ear Ineffect and Exclu	nt of Gain ecognized in nings on tive Portion Amount ded from eness Testing	Location in Statement of Income
Foreign currency contracts	\$	82	\$	(375)	Investment and other income (expense)	\$		
	\$	82	\$	(375)	× 1 /	\$		

The following table presents the fair value of the Company's derivative instrument designated as a hedging instrument on the consolidated balance sheet as of October 2, 2011 (in thousands):

Derivatives Designated as Hedging Instruments	Balance Sheet Location	Fair Value
Current assets Foreign currency contracts	Prepaid expenses and other current assets	\$ 82
Total current assets		\$ 82

The Company did not enter into any derivative contracts designated as hedging instruments in 2010 or 2009.

### Non-Designated Foreign Currency Contracts

The Company also at times uses foreign currency forward contracts to manage its currency transaction exposures with intercompany receivables denominated in foreign currencies. These foreign currency forward contracts are not designated as cash flow, fair value or net investment hedges under FASB ASC 815, *Derivatives and Hedging*, and therefore, are marked to market with changes in fair value recorded to earnings. These

### Notes to Consolidated Financial Statements—(Continued)

derivative instruments do not subject the Company's earnings or cash flows to material risk since gains and losses on those derivatives generally offset losses and gains on the assets and liabilities being hedged.

The Company had no foreign currency forward contracts outstanding at October 2, 2011 for purposes of mitigating foreign currency risk associated with foreign-denominated intercompany balances.

The Company had one foreign currency forward contract outstanding at October 3, 2010, serving to mitigate the foreign currency risk of a substantial portion of the Company's Euro-denominated intercompany balances in the notional amount of approximately 5 million Euros. The fair value of this contract at October 3, 2010 was approximately \$6.9 million, resulting in an unrealized loss of approximately \$25,000 for the period ended October 3, 2010. The Company estimates the fair value of the derivative instruments based on the exchange rates of the underlying currencies.

The following table presents the fair value of the Company's derivative instrument not designated as a hedging instrument as of October 3, 2010 (in thousands):

Derivatives Not Designated as Hedging Instruments	Balance Sheet Location	Fair Value
Current liabilities Foreign currency contracts	Accrued expenses and other current liabilities	\$25
Total current assets		\$25

The following table presents the pretax impact that changes in the fair value of derivatives not designated as hedging instruments had on earnings in fiscal 2011, 2010 and 2009:

			Gain	(Loss) R	ecognized in 1	Income	
(000's omitted) Foreign currency contracts	Location of Gain (Loss) Recognized in Income	Year Ended October 2, 2011		Year Ended October 3, 2010		Year Ended September 27, 2009	
	Investment and other income (expense), net	\$	90	\$	409	\$	(193)

Net realized gains (losses) from foreign currency forward contracts not designated as hedging instruments totaled approximately \$65,000, \$440,000 and \$1.4 million during fiscal 2011, 2010 and 2009, respectively, and are included in "Investment and other income" in the consolidated income statements.

### **Note L-Fair Value Measurements**

Effective September 29, 2008, the *Fair Value Measurements and Disclosures* topic, FASB ASC 820, formerly SFAS No. 157, "*Fair Value Measurements*," required that financial assets and liabilities be re-measured and reported at fair value at each reporting period-end date, and that non-financial assets and liabilities are re-measured and reported at fair value at least annually (on a recurring basis). In the first quarter of fiscal 2010, the Company adopted FASB ASC 820 as it relates to any non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis. This adoption did not have a material impact on the Company's financial results.

The Company defines fair value as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities, which are required to be recorded at fair value, the Company

#### Notes to Consolidated Financial Statements—(Continued)

considers the principal or most advantageous market in which the Company would transact and the market-based risk measurements or assumptions that market participants would use in pricing the asset or liability, such as inherent risk, transfer restrictions and credit risk.

The Company applies the following fair-value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

*Level 1*—Unadjusted quoted prices for identical assets or liabilities in an active market that the Company has the ability to access at the measurement date (examples include active exchange-traded equity securities, listed derivatives and most U.S. Government and agency securities).

*Level 2*—Quoted prices in markets where trading occurs infrequently or whose values are based on quoted prices of instruments with similar attributes in active markets. Level 2 inputs include the following:

- Quoted prices for identical or similar assets or liabilities in non-active markets (examples include corporate and municipal bonds which trade infrequently);
- Inputs other than quoted prices that are observable for substantially the full term of the asset or liability (examples include interest rate and currency swaps); and
- Inputs that are derived principally from or corroborated by observable market data for substantially the full term of the asset or liability (examples include certain securities and derivatives).

*Level 3*—Prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These inputs reflect management's own assumptions about the assumptions a market participant would use in pricing the asset or liability. We currently do not have any Level 3 financial assets or liabilities.

The Company uses the market approach technique to value its assets and liabilities that are measured at fair value on a recurring basis. The Company's financial assets and liabilities carried at fair value are primarily comprised of marketable securities and derivative contracts used to hedge the Company's currency risk. For Level 1 inputs, the Company used quoted market prices for financial instruments that have active markets. The financial instruments for which Level 1 inputs are used were money market funds and U.S. government agency and Treasury securities. For Level 2 inputs, the Company used quoted market prices in markets that are not active, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency. The financial instruments for which Level 2 inputs are used were corporate obligations, all of which have counterparties with high credit ratings, and foreign currency contracts.

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis as of October 2, 2011, and indicates the fair value hierarchy of the valuation techniques utilized to determine such fair value (in thousands):

Significant

	Total	in Ac	oted Prices tive Markets Level 1)	Observ	cant Other vable Inputs vevel 2)	Unob Ir	servable puts evel 3)
(000's omitted)		-				-	
Assets:	* · * · · · -	<u>_</u>		<b>\$</b>		<b>.</b>	
Cash equivalents	\$10,447	\$	10,447	\$		\$	
Available for sale securities (1)	1,318				1,318		
Foreign currency contract (2)	82				82		
Total	\$11,847	\$	10,447	\$	1,400	\$	

#### Notes to Consolidated Financial Statements-(Continued)

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(000's omitted)	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities: Foreign currency contracts (1)	\$ <u> </u>	\$	\$ —	\$ —
Total	\$	\$	\$	\$
		s		

(1) Included in short-term marketable securities in the accompanying consolidated balance sheet

(2) Included in prepaid expenses and other current assets in the accompanying consolidated balance sheet.

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis as of October 3, 2010, and indicates the fair value hierarchy of the valuation techniques utilized to determine such fair value (in thousands):

(000's omitted) Assets:	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents Available for sale securities (1)	\$13,575 3,203	\$ 13,575	\$	\$
Total	\$16,778	\$ 13,575	\$ 3,203	\$
(000's omitted) Liabilities: Foreign currency contracts (2)	Total 	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2) \$ 25	Significant Unobservable Inputs (Level 3) \$ —
Total	\$ 25	\$	\$ 25	\$

(1) Included in short-term marketable securities in the accompanying consolidated balance sheet.

(2) Included in accrued expenses and other current liabilities in the accompanying consolidated balance sheet.

The Company held cost method investments of \$1.3 million at October 2, 2011 and October 3, 2010. The fair value of a cost method investment is not estimated if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investment. The Company has a policy in place to review its investments on a regular basis to evaluate the carrying value of the investments in these companies. If the Company believes that the carrying value of an investment is in excess of estimated fair value, it is the Company's policy to record an impairment charge to adjust the carrying value to estimated fair value, if the impairment is deemed other-than-temporary.

### Note M-Stockholders' Equity

*Preferred Stock:* On April 22, 2008, the Company's Board of Directors renewed a Shareholder Rights Plan. In connection with the Shareholder Rights Plan, the Board of Directors declared a dividend distribution of one Preferred Stock purchase right for each outstanding share of Common Stock to stockholders of record as of the close of business on April 24, 2008. Initially, these rights are not exercisable and trade with the shares of ZOLL's Common Stock. Under the Shareholder Rights Plan, the rights generally become exercisable if a person becomes

#### Notes to Consolidated Financial Statements—(Continued)

an "acquiring person" by acquiring 15% or more of the Common Stock of ZOLL, if a person who owns 10% or more of the Common Stock of ZOLL is determined to be an "adverse person" by the Board of Directors, or if a person commences a tender offer that would result in that person owning 15% or more of the Common Stock of ZOLL. Under the Shareholder Rights Plan, a shareholder of ZOLL who beneficially owns 15% or more of the Company's Common Stock as of April 24, 2008 generally will be deemed an "acquiring person" if such shareholder acquires additional shares of the Company's Common Stock. In the event that a person becomes an "acquiring person" or is declared an "adverse person" by the Board, each holder of a right (other than the acquiring person or the adverse person) would be entitled to acquire such number of shares of Preferred Stock which are equivalent to ZOLL Common Stock having a value of twice the then-current exercise price of the right. If ZOLL is acquired in a merger or other business combination transaction after any such event, each holder of a right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value twice the exercise price of the right. The Board of Directors is authorized to fix the designations, relative rights, preferences and limitations on the Preferred Stock at the time of issuance. To date, no shares of preferred stock have been issued.

Stock Option Plans: At October 2, 2011, the Company had two active stock-based compensation plans under which stock-based grants may be issued, and two other stock-based compensation plans under which grants are no longer being made. No further grants are being made under the Company's 1992 Stock Option Plan ("1992 Plan") or 1996 Non-Employee Directors' Stock Option Plan ("1996 Plan"), and option grants remain outstanding under both such plans. The Company's active plans are the Amended and Restated 2001 Stock Incentive Plan ("2001 Plan") and the Amended and Restated 2006 Non-Employee Director Stock Option Plan ("2006 Plan").

On November 16, 2010, the Board of Directors adopted certain amendments to the 2001 Plan and 2006 Plan. With respect to the 2001 Plan, the Board adopted, subject to stockholder approval, an amendment that increased by 920,000 shares (for a total of 4,170,000 shares) the shares of Common Stock available for issuance under the 2001 Plan. With respect to the 2006 Plan, the Board adopted, subject to stockholder approval, an amendment that increased by 35,000 shares (for a total of 192,500 shares) the shares of Common Stock available for issuance under the 2001 Plan and the 2006 Plan were approved by the stockholders at the 2011 annual meeting held on February 10, 2011. The amendments to both Plans also generally prohibit a repricing through cancellation and re-grants or cancellation of stock options in exchange for cash.

Stock options outstanding under the 1992 Plan, the 1996 Plan, the 2001 Plan, and the 2006 Plan generally vest over a four-year period and have exercise prices equal to the fair market value of the Common Stock at the date of grant. All options have a 10-year contractual term. All options issued under the 2001 Plan and 2006 Plan must have an exercise price no less than fair market value on the date of grant. Restricted Common Stock grants made under the 2001 Plan will generally vest over a four-year period.

The total number of shares currently authorized under the 2001 Plan and the 2006 Plan is 4,362,500. Of the total number of shares authorized, approximately 1,023,000 shares remain available for grant at October 2, 2011. Approximately 2,941,000 shares of common stock are reserved for future issuance under the Company's stock option plans as of October 2, 2011.

# Notes to Consolidated Financial Statements-(Continued)

Changes in outstanding stock options for the three years ended October 2, 2011, were as follows:

	Number of Shares	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term in Years	Aggregate Intrinsic Value (\$000's)
Outstanding at September 28, 2008	1,901,819	\$ 18.42	6.03	\$29,243
Exercisable at September 28, 2008	1,077,677	17.09	4.28	17,993
Granted	325,300	20.18		
Exercised	(30,101)	7.34		517
Forfeited	(6,301)	15.84		
Outstanding at September 27, 2009	2,190,717	18.84	5.74	7,018
Exercisable at September 27, 2009	1,329,729	17.58	4.17	5,409
Granted	334,050	21.81		,
Exercised	(425,756)	18.49		2,560
Forfeited	(15,000)	24.03		,
Outstanding at October 3, 2010	2,084,011	19.35	6.19	26,231
Exercisable at October 3, 2010	1,245,659	17.66	4.85	17,781
Granted	414,000	31.46		,
Exercised	(564,018)	17.53		17,589
Forfeited	(16,175)	21.80		,
Outstanding at October 2, 2011	1,917,818	\$ 22.48	6.63	\$29,488
Exercisable at October 2, 2011	1,026,115	\$ 19.22	5.18	\$19,004
Vested and expected to vest at October 2, 2011	1,891,682	\$ 22.49	6.61	\$29,181

It is the Company's policy to issue new shares upon the exercise of options.

The following table summarizes the activity for unvested restricted stock awards for the three years ended October 2, 2011:

Number of Shares	Weighted- Average Fair Value
42,500	\$ 21.23
10,800	14.91
(15,468)	19.43
(1,119)	23.71
36,713	20.05
21,800	27.79
(18,021)	18.65
(338)	26.51
40,154	24.82
44,150	47.57
(14,308)	24.94
(2,139)	25.88
67,857	\$ 39.56
	Shares 42,500 10,800 (15,468) (1,119) 36,713 21,800 (18,021) (338) 40,154 44,150 (14,308) (2,139)

#### Notes to Consolidated Financial Statements—(Continued)

At October 2, 2011, there was approximately \$8.8 million of unrecognized compensation cost related to both non-vested stock options and restricted stock awards, which the Company expects to recognize over a weighted-average vesting period of 2.8 years.

Stock Repurchase Program: On November 15, 2011, our Board of Directors authorized a stock repurchase program of up to \$50 million.

### **Note N-Employee Benefit Plans**

Defined contribution retirement plan: ZOLL has a defined contribution retirement plan (the "ZOLL Plan") which contains a 401(k) program for all employees with three months of service who have attained 21 years of age. Participants in the ZOLL Plan may contribute up to 15% of their eligible compensation. The Company may make discretionary matching contributions to the ZOLL Plan in an amount determined by its Board of Directors. The discretionary employer match is calculated at 50% of the employee contribution up to 7% of eligible compensation. The discretionary employer match for fiscal 2009 was subject to an aggregate "cap", and certain executive officers were excluded from participation. For each of the three years reported, the discretionary employer match was subject to an aggregate "cap". The Company recorded expense related to Company contributions of approximately \$2,202,000, \$2,064,000 and \$1,791,000 in fiscal 2011, 2010 and 2009, respectively, related to the ZOLL Plan.

# Note O-Segment and Geographic Information

Segment information: The Company operates in a single business segment: the design, manufacture and marketing of technologies that help advance the practice of resuscitation and temperature control therapies for the treatment of critical care patients. In order to make operating and strategic decisions, the Company's chief executive officer (the "chief operating decision maker") evaluates revenue performance based on the worldwide revenues of four customer/product categories, but, due to shared infrastructures, profitability is based on an enterprise-wide measure. These customer/product categories consist of (1) the sale of resuscitation devices, temperature management products, accessories and disposable electrodes to the North American hospital market, including the military marketplace, (2) the sale of resuscitation devices, accessories, disposable electrodes, temperature management products and data collection management software to the North American pre-hospital market, (3) the sale of resuscitation devices, accessories, disposable electrodes, temperature management products and data collection management software to the North American pre-hospital market, or the international market, and (4) the rental of wearable resuscitation devices in the North American and International pre-hospital markets.

Net sales by customer/product categories in fiscal 2011, 2010 and 2009 were as follows:

	2011	2010	2009
(000's omitted)			
Hospital Market-North America	\$142,647	\$125,102	\$113,308
Pre-hospital Market-North America	130,672	133,352	130,345
International Market-excluding North America	139,347	114,829	97,632
LifeVest-North America and International	111,043	70,706	43,900
	\$523,709	\$443,989	\$385,185

The Company reports assets on a consolidated basis to the chief operating decision maker.

#### Notes to Consolidated Financial Statements—(Continued)

Geographic information: Net sales by major geographical area, determined on the basis of destination of the goods, are as follows:

	2011	2010	2009
(000's omitted) United States Foreign	\$357,242 166,467	\$304,254 139,735	\$261,612 123,573
	\$523,709	\$443,989	\$385,185

No individual foreign country represented 10% or more of the Company's revenues or assets for the years ended October 2, 2011, October 3, 2010 and September 27, 2009. Therefore, no revenue attributable to any individual foreign country was material during these periods.

In each of the years in the three year period ended October 2, 2011, October 3, 2010 and September 27, 2009, no single customer represented over 10% of the Company's consolidated net sales.

#### **Note P-Legal Proceedings**

On June 18, 2010, Koninklijke Philips Electronics N.V. and Philips Electronics North America Corporation filed a lawsuit against us in U.S. District Court, Boston, MA, alleging that fifteen patents owned by the Philips entities are infringed by certain of our defibrillators and associated products and seeking monetary and equitable remedies for infringement. The plaintiffs filed an amended complaint on October 13, 2010. On July 12, 2010, we filed a lawsuit against Philips Electronics North America Corporation in U.S. District Court, Boston, MA, alleging that five of our patents are infringed by certain of their defibrillators and associated products and seeking monetary and equitable remedies for infringement. The two cases have been consolidated through the pre-trial phase and bifurcated into an initial liability phase and a later damages phase. Discovery has commenced in the liability phase.

The Company is, from time to time, involved in the normal course of its business in various legal proceedings, including intellectual property, contract, employment and product liability suits. Although the Company is unable to quantify the exact financial impact of any of these matters, it believes that none of these currently pending matters will have an outcome material to its financial condition or business.

### Note Q-Quarterly Financial Data (Unaudited)

Summarized quarterly financial data for 2011 and 2010 is as follows:

	Quarter Ended						
	Oct. 2, 2011	July 3, 2011	April 3, 2011	Jan. 2, 2011			
(000's omitted, except per share data)			_				
Net sales	\$151,901	\$136,151	\$ 122,495	\$113,162			
Gross profit	87,823	79,145	71,363	61,350			
Income from operations	20,259	13,413	9,181	5,358			
Net income	11,875	9,489	6,021	3,903			
Basic earnings per common share	\$ 0.54	\$ 0.43	\$ 0.28	\$ 0.18			
Diluted earnings per common and equivalent share	\$ 0.52	\$ 0.42	\$ 0.27	\$ 0.18			

### Notes to Consolidated Financial Statements—(Continued)

	Quarter Ended							
	Oct	. 3, 2010	July	y <b>4, 2010</b>	Apr	il 4, 2010	Jan	. 3, 2010
(000's omitted, except per share data)	ф 1 <i>(</i>	20.202	ф <b>1</b>	11.226	ф. 1	07.050	ф <b>1</b>	05.010
Net sales	\$120,393			11,326	\$ 107,058			
Gross profit	66,517		60,083		58,700		) 56,171	
Income from operations	11,413			6,500		5,533		3,686
Net income	7,216		7,216			3,656		2,310
Basic earnings per common share	\$	0.34	\$	0.27	\$	0.17	\$	0.11
Diluted earnings per common and equivalent share	\$	0.33	\$	0.26	\$	0.17	\$	0.11

As discussed in Note A, the Company's financial statements are prepared on a fiscal year basis ending on the last Sunday closest to September 30. The year ended October 3, 2010 included 53 weeks. The extra week was included in the Company's first quarter of fiscal 2010, which ended January 3, 2010. The years ended October 2, 2011 and September 27, 2009 each included 52 weeks.

# Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not Applicable.

### Item 9A. Controls and Procedures.

### **Evaluation of Disclosure Controls and Procedures**

Our Chief Executive Officer and Chief Financial Officer (our principal executive officer and principal financial officer, respectively) have evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our principal executive officer and principal financial officer have concluded that, as of the end of the period covered by this report, the Company's disclosure controls and procedures are effective.

### **Changes in Internal Control Over Financial Reporting**

There were no changes in the Company's internal control over financial reporting that occurred during the quarter ended October 2, 2011 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

## Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control—Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of October 2, 2011.

The effectiveness of our internal control over financial reporting as of October 2, 2011 has been audited by BDO USA, LLP, our independent registered public accounting firm, as stated in their report below.

/S/ RICHARD A. PACKER

Richard A. Packer Chief Executive Officer /S/ A. ERNEST WHITON

A. Ernest Whiton Vice President of Administration and Chief Financial Officer

Item 9B. Other Information.

Not Applicable.

# **Report of Independent Registered Public Accounting Firm**

Board of Directors and Shareholders ZOLL Medical Corporation Chelmsford, Massachusetts

We have audited ZOLL Medical Corporation's internal control over financial reporting as of October 2, 2011, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). ZOLL Medical Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Item 9A, Management's Report on Internal Control Over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, ZOLL Medical Corporation maintained, in all material respects, effective internal control over financial reporting as of October 2, 2011, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of ZOLL Medical Corporation as of October 2, 2011 and October 3, 2010, and the related consolidated statements of income, stockholders' equity and comprehensive income, and cash flows for each of the three years in the periods then ended October 2, 2011, October 3, 2010 and September 27, 2009 and our report dated November 23, 2011 expressed an unqualified opinion thereon.

/s/ BDO USA, LLP

Boston, Massachusetts November 23, 2011

### Part III

### Item 10. Directors, Executive Officers and Corporate Governance.

The information relating to our executive officers in response to this Item is contained, in part, under the caption "Executive Officers of the Registrant" in Part I of this Annual Report on Form 10-K and is incorporated herein by reference; and the remainder of such information is incorporated herein by reference to the Company's Proxy Statement for the 2012 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the Company's fiscal year ended October 2, 2011 (the "Proxy Statement").

### Code of Ethics

The Company has adopted a Code of Ethics that applies to all its employees, including its principal executive officer, principal financial officer and controller. This Code of Ethics was ratified by the Board of Directors in December 2003 and amended in November 2010. This policy became effective for all of ZOLL's employees in June 2004. This Code of Ethics is available on ZOLL's website, *www.zoll.com*, under the heading Investors-Financial Overview—Corporate Governance, and is called "ZOLL Code of Conduct". The Company intends to disclose any amendment to or waiver of a provision of the Code of Ethics that applies to its principal executive officer, principal financial officer or controller by posting such information on ZOLL's website, *www.zoll.com*. Information contained on ZOLL's website is not part of this Annual Report on Form 10-K.

The remainder of the information required by this Item is incorporated by reference from the Proxy Statement.

### Item 11. Executive Compensation.

The information required by this Item is incorporated by reference from the Proxy Statement.

#### Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item is incorporated by reference from the Proxy Statement. See also "Equity Compensation Plan Information" under Part II, Item 5 of this Annual Report on Form 10-K, which is incorporated herein by reference.

#### Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated by reference from the Proxy Statement.

#### Item 14. Principal Accountant Fees and Services.

The information required by this Item is incorporated by reference from the Proxy Statement.

# SCHEDULE II-VALUATION AND QUALIFYING ACCOUNTS

The following table sets forth activities in our accounts receivable reserve accounts:

Classifications	Balance Beginning of Period	Additions Charged to Costs and Expenses	Deductions	Balance At End of Period
Year Ended October 2, 2011			·	
Allowance for doubtful accounts and sales returns	\$5,843,000	\$6,655,000	\$(2,229,000)	\$10,269,000
Year Ended October 3, 2010				
Allowance for doubtful accounts and sales returns	\$5,464,000	\$2,191,000	\$(1,812,000)	\$ 5,843,000
Year Ended September 27, 2009				
Allowance for doubtful accounts and sales returns	\$6,229,000	\$1,076,000	\$(1,841,000)	\$ 5,464,000

The following table sets forth activities in our inventory reserve accounts:

Classifications	Balance Beginning of Period	Additions Charged to Costs and Expenses	Additions Charged to Other Accounts	Deductions	Balance At End of Period
Year Ended October 2, 2011					
Inventory reserves	\$7,068,000	\$2,773,000	\$ (421,000)(1)	\$(2,813,000)	\$ 6,607,000
Year Ended October 3, 2010					
Inventory reserves	\$7,587,000	\$1,710,000	\$ (355,000)(1)	\$(1,874,000)	\$ 7,068,000
Year Ended September 27, 2009					
Inventory reserves	\$5,844,000	\$2,142,000	\$1,035,000(1)	\$(1,434,000)	\$ 7,587,000
-					

(1) Increase in inventory reserve was offset by a corresponding reduction in property and equipment.

### Part IV

### Item 15. Exhibits, Financial Statement Schedules

(a)	The following Consolidated Financial Statements, Notes thereto and Reports of Independent Registered Public Accounting Firms
(1)	are set forth under Item 8:

	Report of Independent Registered Public Accounting Firms
	Consolidated Balance Sheets
	Consolidated Income Statements
	Consolidated Statements of Stockholders' Equity and Comprehensive Income
	Consolidated Statements of Cash Flows
	Notes to Consolidated Financial Statements
(a)	
(2)	The following Consolidated Financial Statement Schedule is included herein:
	Schedule II - Valuation and Qualifying Accounts

All other schedules have been omitted since the information is not required, the amounts are not sufficient to require submission of the schedules or because the information is included in the consolidated financial statements.

(a) (3) The following is a complete list of Exhibits filed or incorporated by reference as part of this report:

		<b>Incorporated by Reference</b>				
Exhibit No.	Exhibit	Form	File Date	Exhibit or File No.	Filed Herewith	Furnished Herewith
3.1	Restated Articles of Organization	S-1	5/15/1992	333-47937		
3.2	Articles of Amendment to the Restated Articles of Organization	8-K	2/13/2007	3.1		
3.3	Amended and Restated By-laws	S-1	5/15/1992	333-47937		
3.4	Certificate of Amendment to the Company's Amended and Restated By- laws	8-K	1/25/2007	3.1		
3.5	Certificate of Amendment to the Company's Amended and Restated By- laws	8-K	11/12/2008	3.1		
3.6	Certificate of Amendment to the Company's Amended and Restated By- laws	8-K	4/22/2009	3.1		
3.7	Certificate of Amendment to the Company's Amended and Restated By- laws	8-K	1/31/2011	3.1		
3.8	Amended and Restated Certificate of Vote of Directors Establishing a Series of Preferred Stock of ZOLL Medical Corporation classifying and designating the Series A Junior Participating Cumulative Preferred Stock	8-A	4/24/2008	3.1		
4.1	Amendment No. 2 to Shareholders Rights Agreement, dated as of June 8, 1998, between the Company and Computershare Trust Company, N.A., dated as of April 24, 2008	8-K	4/24/2008	4.2		
4.2	Shareholders Rights Agreement dated as of April 23, 2008, between the Company and Computershare Trust Company, N.A.	8-A	4/24/2008	4.1		

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			Incorporated by Reference			
Exhibit No.	Exhibit	Form	File Date	Exhibit or File No.	Filed Herewith	Furnished Herewith
10.1	Amended and Restated 2001 Stock Incentive Plan, as amended through February 11, 2004*	S-8	11/9/2004	10.1		
10.2	Form of Incentive Option Agreement under the 2001 Stock Incentive Plan*	S-8	11/9/2004	99.1		
10.3	Form of Non-Qualified Stock Option Agreement under the 2001 Stock Incentive Plan.*	S-8	11/9/2004	99.2		
10.4	Amended and Restated 2001 Stock Incentive Plan, as amended through January 25, 2006*	10-Q	2/10/2006	10.4		
10.5	Form of Restricted Stock Award Agreement under Amended and Restated 2001 Stock Incentive Plan*	10-Q	2/10/2006	10.2		
10.6	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2001 Stock Incentive Plan*	10-Q	2/10/2006	10.3		
10.7	Amended and Restated 2001 Stock Incentive Plan, as amended and restated by the Board of Directors on November 11, 2008 and approved by the Company's stockholders on January 20, 2009*	10-Q	2/6/2009	10.1		
10.8	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2001 Stock Incentive Plan, as amended on November 11, 2008*	10 <b>-</b> K	12/8/2008	10.31		
10.9	Form of Restricted Stock Award Agreement under Amended and Restated 2001 Stock Incentive Plan, as amended on November 11, 2008.*	10 <b>-</b> K	12/8/2008	10.32		
10.10	Amended and Restated 2001 Stock Incentive Plan, as amended and restated by the Board of Directors on November 16, 2010 and approved by the Company's stockholders on February 10, 2011*	8-K	2/15/2011	10.1		
10.11	Non-Employee Directors' Stock Option Plan*	S-8	12/4/1998	10.1		
10.12	Form of Non-Qualified Stock Option Agreement under the ZOLL Medical Corporation Non-Employee Directors Stock Option Plan*	8-K	11/15/2004	10.1		
10.13	2006 Non-Employee Director Stock Option Plan*	10-Q	2/10/2006	10.5		
10.14	Form of Non-Qualified Stock Option Agreement under the 2006 Non-Employee Director Stock Option Plan*	10-Q	2/10/2006	10.1		
10.15	Amended and Restated 2006 Non-Employee Director Stock Option Plan, as amended and restated by the Board of Directors on November 11, 2008 and approved by the Company's stockholders on January 20, 2009.*	10-Q	2/6/2009	10.2		
10.16	Form of Non-Qualified Stock Option Agreement under Amended and Restated 2006 Non-Employee Director Stock Option Plan, as amended on November 11, 2008.*	10-K	12/8/2008	10.34		

		Incorporated by Reference				
Exhibit No.	Exhibit	Form	File Date	Exhibit or File No.	Filed Herewith	Furnished Herewith
10.17	Amended and Restated 2006 Non-Employee Director Stock Option Plan, as amended and restated by the Board of Directors on November 16, 2010 and approved by the Company's stockholders on February 10, 2011*	8-K	2/15/2011	10.2		
10.18	1992 Stock Option Plan*	S-1	5/15/1992	333-47937		
10.19	First Amendment to the 1992 Stock Option Plan*	S-8	12/4/1998	10.2		
10.20	Second Amendment to the 1992 Stock Option Plan*	S-8	12/4/1998	10.3		
10.21	Third Amendment to the 1992 Stock Option Plan.*	S-8	12/13/2002	10.4		
10.22	Fourth Amendment to the 1992 Stock Option Plan.*	S-8	12/13/2002	10.5		
10.23	Employment Agreement dated July 19, 1996 between the Company and Richard A. Packer regarding Mr. Packer's employment*	10 <b>-</b> K	12/27/1996	10.10		
10.24	Amendment dated November 17, 2008 to Employment Agreement dated July 19, 1996 between the Company and Richard A. Packer.*	10 <b>-</b> K	12/8/2008	10.35		
10.25	Senior Executive Severance Agreement dated January 21, 2000 between the Company and Richard A. Packer.*	10 <b>-</b> K	12/29/2000	10.12		
10.26	Amendment dated November 17, 2008 to Senior Executive Severance Agreement dated as of January 21, 2000 between the Company and Richard A. Packer.*	10-K	12/8/2008	10.36		
10.27	Executive Severance Agreement dated as of November 11, 2008 between the Company and Jonathan Rennert*	10 <b>-</b> K	12/8/2008	10.43		
10.28	Amended and Restated Executive Severance Agreement dated April 1, 2002 between the Company and A. Ernest Whiton.*	8-K	12/20/2004	10.13		
10.29	Amendment dated November 11, 2008 to Amended and Restated Executive Severance Agreement dated April 1, 2002 between the Company and A. Ernest Whiton*	10-K	12/8/2008	10.37		
10.30	Executive Severance Agreements by and between the Company and Steve Flora*	10 <b>-</b> K	12/20/2004	10.17D		
10.31	Amendment dated December 1, 2008 to Executive Severance Agreement dated May 6, 2002 between the Company and Steven Flora.*	10 <b>-</b> K	12/8/2008	10.42		

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		incorporated by Reference				
Exhibit No.	Exhibit	Form	File Date	Exhibit or File No.	Filed Herewith	Furnished Herewith
10.32	Executive Severance Agreement dated as of November 11, 2008 between the Company and E. Jane Wilson*	10-K	12/8/2008	10.44		
10.33	Executive Severance Agreements by and between the Company and Ward Hamilton*	10 <b>-</b> K	12/20/2004	10.17A		
10.34	Amendment dated December 1, 2008 to Executive Severance Agreement dated May 7, 2002 between the Company and Ward Hamilton.*	10 <b>-</b> K	12/8/2008	10.41		
10.35	Executive Severance Agreement between the Company and Alexander Moghadam dated August 10, 2005.*	10-Q	8/12/2005	10.1		
10.36	Amendment dated November 11, 2008 to Executive Severance Agreement dated August 10, 2005 between the Company and Alexander Moghadam*	10-K	12/8/2008	10.45		
10.37	Summary of Cash Incentive Bonus Plan.*	10-Q	2/5/2008	10.1		
21.1	Subsidiaries of the Company				Х	
23.1	Consent of BDO USA, LLP				Х	
24	Power of Attorney included in signature page.				Х	
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Х	
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				Х	
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					Х
32.2 * R	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 epresents management contract or compensatory plan arrangements.					Х

Incorporated by Reference

### SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on November 23, 2011.

ZOLL Medical Corporation

By: /s/ RICHARD A. PACKER

Richard A. Packer Chief Executive Officer

#### **POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints each of Richard A. Packer and A. Ernest Whiton such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities on the dates indicated.

SIGNATURE	TITLE	DATE		
/s/ Richard A. Packer	Chief Executive Officer	November 23,		
Richard A. Packer	(Principal Executive Officer)	2011		
/S/ A. ERNEST WHITON	Vice President of Administration	November 23, 2011		
A. Ernest Whiton	and Chief Financial Officer   (Principal Financial and   Accounting Officer)			
/s/ Thomas M. Claflin, II	Director	November 23, 2011		
Thomas M. Claflin, II		2011		
/S/ JAMES W. BIONDI, M.D. Director		November 23, 2011		
James W. Biondi, M.D.	James W. Biondi, M.D.			
/s/ Judith C. Pelham	Director	November 23, 2011		
Judith C. Pelham		2011		
/S/ BENSON F. SMITH	Chairman of the Board of Directors	November 23, 2011		
Benson F. Smith		2011		
/S/ ROBERT J. HALLIDAY	Director	November 23, 2011		
Robert J. Halliday		2011		
/s/ Lewis H. Rosenblum	LEWIS H. ROSENBLUM Director			
Lewis H. Rosenblum		2011		
/S/ JOHN J. WALLACE Page 103 of 112 John J. Wallace	Director	November 23, 2011		

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Bio-Detek, Incorporated, incorporated in Massachusetts.

- ZOLL Medical (U.K.) Ltd, incorporated in United Kingdom.
- ZOLL Medical Deutschland (GmbH), incorporated in Germany.
- ZOLL Medical Canada, Inc., incorporated in Canada.
- ZOLL Data Systems, Inc., incorporated in Delaware.
- ZOLL Medical France SNC, established in France.
- ZOLL Medical Australia, Pty. Limited, incorporated in Australia.
- ZOLL International Holding BV, incorporated in the Netherlands.
- ZOLL Medical New Zealand Pty. Limited, incorporated in New Zealand.
- ZOLL Circulation, Inc. (formerly Revivant Corporation), incorporated in Delaware.
- ZOLL Medical Österreich, GmbH, incorporated in Austria.
- ZOLL Securities Corporation, incorporated in Massachusetts.
- ZOLL Lifecor, Inc., incorporated in Delaware.
- ZOLL CMS GmbH, incorporated in Germany.
- ZOLL Medical (Shanghai) Co. Ltd., incorporated in China.
- ZOLL Medical Singapore Pte. Ltd., incorporated in Singapore.

### **Consent of Independent Registered Public Accounting Firm**

We hereby consent to the incorporation by reference in the Registration Statements on Forms S-8 (No. 333-68403, 333-101839, 333-68401, 333-38048, 333-137245, 333-120310, 333-132804 and 333-157282) of ZOLL Medical Corporation of our reports dated November 23, 2011, relating to the consolidated financial statements and financial statement schedule and the effectiveness of ZOLL Medical Corporation's internal control over financial reporting which appear in this Form 10-K.

/s/ BDO USA, LLP

November 23, 2011 Boston, Massachusetts

# **ZOLL MEDICAL CORPORATION**

# CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Richard A. Packer, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended October 2, 2011 of ZOLL Medical Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 23, 2011

/s/ Richard A. Packer

Richard A. Packer Chief Executive Officer

# **ZOLL MEDICAL CORPORATION**

# **CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, A. Ernest Whiton, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended October 2, 2011 of ZOLL Medical Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting;

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 23, 2011

/s/ A. Ernest Whiton

A. Ernest Whiton Vice President of Administration and Chief Financial Officer

# ZOLL MEDICAL CORPORATION CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of ZOLL Medical Corporation (the "Company") hereby certifies that, to my knowledge, the Company's annual report on Form 10-K for the period ended October 2, 2011 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

Date: November 23, 2011

Name: /s/ Richard A. Packer

Richard A. Packer, Chief Executive Officer

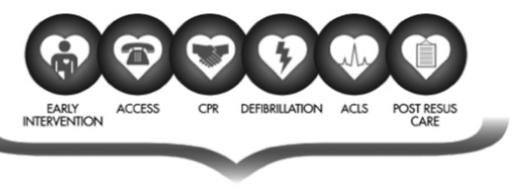
# ZOLL MEDICAL CORPORATION CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

The undersigned officer of ZOLL Medical Corporation (the "Company") hereby certifies that, to my knowledge, the Company's annual report on Form 10-K for the period ended October 2, 2011 (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be a part of the Report or "filed" for any purpose whatsoever.

Date: November 23, 2011

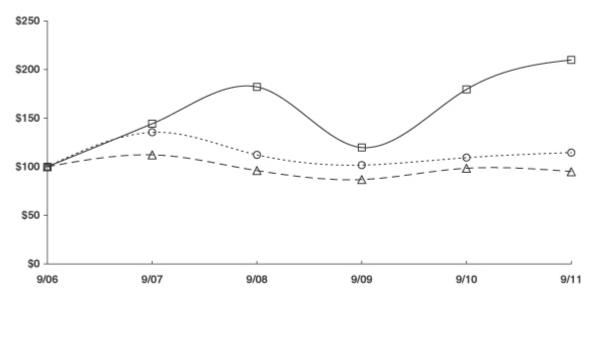
Name: /s/ A. Ernest Whiton

A. Ernest Whiton, Vice President of Administration and Chief Financial Officer



DATA MANAGEMENT AND ANALYSIS

Among ZOLL Medical Corporation, the Russell 2000 Index and the NASDAQ Medical Equipment Index



- ZOLL Medical Corporation - - A - Russell 2000 ···· O··· NASDAQ Medical Equipment

\*\$100 invested on 9/30/06 in stock or index, including reinvestment of dividends. Fiscal year ending September 30.