AMERICAN SHARED HOSPITAL SERVICES Form 10-K March 31, 2011

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

## 

American Shared Hospital Services (Exact name of registrant as specified in its charter)

California
(State or other jurisdiction of incorporation or organization)

94-2918118 (IRS Employer Identification No.)

Four Embarcadero Center, Suite 3700, San Francisco, California (Address of Principal Executive Offices)

94111-4107 (Zip Code)

Registrant's telephone number, including area code: (415) 788-5300

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

Title of each class Common Stock No Par Value Name of each exchange on which registered NYSE Amex

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes "No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes "No x

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for 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 x No "

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

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 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 the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition 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 x

Indicate by check mark if the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes "No x

As of June 30, 2010, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately \$9,973,000.

Number of shares of common stock of the registrant outstanding as of March 1, 2011: 4,597,070.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2011 Annual Meeting of Shareholders are incorporated by reference into Part III of this report.

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PART I

ITEM 1.

**BUSINESS** 

**GENERAL** 

American Shared Hospital Services ("ASHS" and, together with its subsidiaries, the "Company") provides Gamma Knife stereotactic radiosurgery equipment and radiation therapy and related equipment to nineteen (19) medical centers in seventeen (17) states, as of March 1, 2011. The Company provides Gamma Knife services through its 81% indirect interest in GK Financing, LLC, a California limited liability company ("GKF"). The remaining 19% of GKF is owned by GKV Investments, Inc., a wholly owned U.S. subsidiary of Elekta AG, a Swedish company ("Elekta"). Elekta is the manufacturer of the Leksell Gamma Knife® (the "Gamma Knife"). GKF is a non-exclusive provider of alternative financing services for Elekta Gamma Knife units. During 2010, GKF established wholly-owned subsidiaries, GK Financing U.K., Limited ("GKUK") and Instituto de Gamma Knife del Pacifico S.A.C. ("GKPeru") for the purpose of potentially providing similar Gamma Knife services in England and Peru. Gamma Knife revenue accounted for 94% of the Company's revenue in 2010. The Company provides Image Guided Radiation Therapy ("IGRT") and related equipment to one medical center in Massachusetts which accounted for 6% of the Company's revenue in 2010.

In April 2006, the Company invested \$2,000,000 for a minority equity interest in Still River Systems, Inc. ("Still River"), a development-stage company based in Littleton, Massachusetts which, in collaboration with scientists from MIT's Plasma Science and Fusion Center, is developing a medical device for the treatment of cancer patients using proton beam radiation therapy ("PBRT"). On September 5, 2007 the Company invested approximately \$617,000 for an additional equity interest in Still River. The Company has deposited an additional \$2,500,000 towards the purchase of three Monarch250<sup>TM</sup> ("Monarch250") PBRT systems from Still River for anticipated delivery beginning in 2012. The Still River PBRT systems are not currently approved by the U.S. Food and Drug Administration ("FDA").

Separately, the Company is seeking to expand its financing model to the supply of multi-room PBRT systems to major medical centers. This effort remains in the development stage and no significant revenues are expected in the next two years.

The Company continues to develop its design and business model for "The Operating Room for the 21st Century" ("OR21" ®). OR21 is not expected to generate significant operations within the next twelve months.

The Company was incorporated in the State of California in 1983 and its predecessor, Ernest A. Bates, M.D., Ltd. (d/b/a American Shared Hospital Services), a California limited partnership, was formed in June 1980.

## **OPERATIONS**

## Gamma Knife Operations

Gamma Knife stereotactic radiosurgery, a non-invasive procedure, is an alternative to conventional brain surgery or can be an adjunct to conventional brain surgery. Compared to conventional surgery, Gamma Knife radiosurgery usually involves shorter patient hospitalization, lower risk of complications and can be provided at a lower cost. Typically, Gamma Knife patients resume their pre-surgical activities one or two days after treatment. The Gamma Knife treats patients with 201 single doses of gamma rays that are focused with great precision on small and medium size, well circumscribed and critically located structures in the brain. During 2006 Elekta introduced a new Gamma Knife model, the Perfexion<sup>TM</sup> unit ("Perfexion"), which treats patients with 192 single doses of gamma rays and

will also provide the ability to perform procedures on areas of the upper cervical spine. The Gamma Knife delivers a concentrated dose of gamma rays from Cobalt-60 sources housed in the Gamma Knife. The Cobalt-60 sources converge at the target area and deliver a dose that is high enough to destroy the diseased tissue without damaging surrounding healthy tissue.

The Gamma Knife treats selected malignant and benign brain tumors, arteriovenous malformations, and functional disorders including trigeminal neuralgia (facial pain). Research is being conducted to determine whether the Gamma Knife can be effective in the treatment of epilepsy and other functional disorders.

As of December 31, 2010, there were approximately 114 Gamma Knife sites in the United States and 276 units in operation worldwide. Based on the most recent available data, an estimated percentage breakdown of Gamma Knife procedures performed in the U.S. by indications treated is as follows: malignant (44%) and benign (35%) brain tumors, vascular disorders (13%), and functional disorders (8%).

The Company, as of March 1, 2011, has nineteen (19) Gamma Knife units located at nineteen (19) sites in the United States. The Company's first Gamma Knife commenced operation in September 1991. The Company's Gamma Knife units performed approximately 1,800 procedures in 2010 for a cumulative total of approximately 24,400 procedures through December 31, 2010.

Revenue from Gamma Knife services for the Company during each of the last five (5) years ended December 31, and the percentage of total revenue of the Company represented by the Gamma Knife for each of the last five years, are set forth below:

Year Ended	Tota	al Gamma Kn	ife Ga	amma Knife (	% of
December 31,	Rever	nue (in thousa	ınds)	Total Revenu	ıe
2010	\$	15,600		93.6	%
2009	\$	15,505		92.5	%
2008	\$	17,713		92.7	%
2007	\$	22,056	(1)	97.5	%
2006	\$	20,385		100.0	%

(1)includes \$3,200,000 of equipment sales revenue from the sale of a Gamma Knife system to an existing Gamma Knife customer at the end of the contract term.

The Company conducts its Gamma Knife business through its 81% indirect interest in GKF. The remaining 19% interest is indirectly owned by Elekta. GKF, formed in October 1995, is managed by its policy committee. The policy committee is composed of one representative from the Company, Ernest A. Bates, M.D., ASHS's Chairman and CEO, and one representative from Elekta. The policy committee sets the operating policy for GKF. The policy committee may act only with the unanimous approval of both of its members. The policy committee selects a manager to handle GKF's daily operations. Craig K. Tagawa, Chief Executive Officer of GKF and Chief Operating and Financial Officer of ASHS, serves as GKF's manager.

GKF's profits and/or losses and any cash distributions are allocated based on membership interests. GKF's operating agreement requires that it have a cash reserve of at least \$50,000 before cash distributions are made to its members. From inception to December 31, 2010, GKF has distributed \$33,048,000 to the Company and \$7,752,000 to the minority partner.

## Image Guided Radiation Therapy Operations

The Company's radiation therapy business currently consists of one IGRT system that began operation in September 2007 at an existing Gamma Knife customer site. Revenue generated under IGRT services accounted for approximately 6% of the Company's total revenue in 2010.

IGRT technology integrates imaging and detection components into a state-of-the-art linear accelerator, allowing clinicians to plan treatment, verify positioning, and deliver treatment with a single device, providing faster, more effective radiation therapy with less damage to healthy tissue. IGRT captures cone beam imaging, fluoroscopic and/or x-ray images on a daily basis, creating three-dimensional images that pinpoint the exact size, location and coordinates of tumors. Once tumors are pinpointed, the system delivers ultra-precise doses of radiation which ultimately leads to improved patient outcomes.

Based on the most recently available census information, there are approximately 3,235 linear accelerator based radiation therapy units installed in the United States, of which approximately 1,170 provided IGRT services. Radiation therapy services were provided through approximately 1,400 hospital based oncology centers and approximately 700 non-hospital based oncology centers.

Additional information on our operations can be found in Item 6–"Selected Financial Data", Item 7–"Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 1 of our consolidated financial statements beginning on page A-8 of this report.

#### **CUSTOMERS**

The Company's current business is the outsourcing of stereotactic radiosurgery services and radiation therapy services. The Company typically provides the equipment, as well as planning, installation, reimbursement and marketing support services. The majority of the Company's customers pay the Company on a fee per use basis. The market for these services primarily consists of major urban medical centers. The business is capital intensive; the total cost of a Gamma Knife or IGRT facility usually ranges from \$3 million to \$5.5 million, including equipment, site construction and installation. The Company pays for the equipment and the medical center generally pays for site and installation costs. The following is a listing of the Company's sites as of March 1, 2011:

	Original Term of	Year Contract	
Customers (Gamma Knife except as noted)	Contract	Began	Basis of Payment
Southwest Texas Methodist Hospital	10 years	1998	Fee per use
San Antonio, Texas			
Yale New Haven Hospital	10 years	1998	Fee per use
New Haven, Connecticut			
Kettering Medical Center	10 years	1999	Revenue sharing
Kettering, Ohio			
Tufts Medical Center	10 years	1999	Fee per use
Boston, Massachusetts			
University of Arkansas for Medical Sciences	15 years	1999	Revenue sharing
Little Rock, Arkansas			
Froedtert Memorial Lutheran Hospital	10 years	1999	Fee per use
Milwaukee, Wisconsin			
JFK Medical Center	10 years	2000	Fee per use
Edison, New Jersey			
Sunrise Hospital and Medical Center	10 years	2001	Fee per use
Las Vegas, Nevada			
Central Mississippi Medical Center	10 years	2001	Fee per use
Jackson, Mississippi			
OSF Saint Francis Medical Center	10 years	2001	Fee per use
Peoria, Illinois			
Bayfront Medical Center	10 years	2002	Fee per use
St. Petersburg, Florida			
Mercy Medical Center	10 years	2002	Fee per use
Rockville Centre, New York			
Baptist Medical Center	8 years	2003	Revenue Sharing
Jacksonville, Florida			
Albuquerque Regional Medical Center	10 years	2003	Fee per use

Albuquerque, New Mexico

Lehigh Valley Hospital	10 years	2004	Fee per use
Allentown, Pennsylvania			
Northern Westchester Hospital	10 years	2005	Fee per use
Mt. Kisco, New York			
Mercy Health Center	10 years	2005	Revenue Sharing
Oklahoma City, Oklahoma			
Tufts Medical Center (IGRT)	10 years	2007	Revenue Sharing
Boston, Massachusetts			
USC University Hospital	10 years	2008	Fee per use
Los Angeles, California			
Ft. Sanders Regional Medical Center	10 years	2011	Revenue Sharing
Knoxville, Tennessee			

The Company's fee per use agreement is typically for a ten year term. The fixed fee per use reimbursement amount that the Company receives from the customer is based on the Company's cost to provide the service and the anticipated volume of the customer. The Gamma Knife contracts signed by the Company typically call for a fee ranging from \$7,500 to \$9,500 per procedure. There are no minimum volume guarantees required of the customer. Typically, GKF is responsible for providing the Gamma Knife and related ongoing Gamma Knife equipment expenses (i.e., personal property taxes, insurance, and equipment maintenance) and also helps fund the customer's Gamma Knife marketing. The customer generally is obligated to pay site and installation costs and the costs of operating the Gamma Knife. The customer can either renew the agreement or terminate the agreement at the end of the contractual term. If the customer chooses to terminate the agreement, then GKF removes the equipment from the medical center for possible placement at another site.

The Company's revenue sharing agreements ("retail") are for a period of eight to fifteen years. Instead of receiving a fixed fee, the Company receives all or a percentage of the reimbursement (exclusive of physician fees) received by the customer. The Company is at risk for any reimbursement rate changes for radiosurgery or radiation therapy services by the government or other third party payors. There are no minimum volume guarantees required of the customer.

In 2010, one customer accounted for approximately 13% of the Company's total revenue. In 2009, two customers accounted for approximately 14% and 10% each of the Company's total revenue. In 2008, three customers accounted for approximately 14%, 13% and 12% each of the Company's total revenue.

#### **MARKETING**

The Company markets its services through its preferred provider status with Elekta and a direct sales effort. In January 2007, the Company hired a Vice President of Sales and Business Development to lead the direct sales effort. Prior to that, the direct sales effort was generally led by the Company's Chief Executive and Chief Operating Officers, with the assistance of a Director of Sales. The major advantages to a health care provider in contracting with the Company for Gamma Knife services include:

- § The medical center avoids the high cost of owning the equipment. By not acquiring the Gamma Knife unit or other medical equipment, the medical center is able to allocate the funds otherwise required to purchase and/or finance the Gamma Knife to other projects.
- §The medical center avoids the risk of equipment under-utilization. The Company does not have minimum volume requirements. The medical center pays the Company only for each procedure performed on a patient.

The medical center transfers the risk of technological obsolescence to the Company. The medical center and its physicians are not under any obligation to utilize technologically obsolete equipment.

§ The Company provides planning, installation, operating and marketing assistance and support to its customers.

#### **FINANCING**

The Company's IGRT site is owned by ASHS and is financed at approximately 100% of the total project cost, under a loan that fully amortizes over an 84-month period and is fully collateralized by the equipment, the customer contract and accounts receivable.

The Company's Gamma Knife business is operated through GKF. GKF generally funds its Gamma Knife units, upgrades and additions with loans or capital leases from various finance companies for 100% of the cost of each Gamma Knife, plus any sales tax, customs and duties. The financing is predominantly fully amortized over an 84-month period. The financing is collateralized by the Gamma Knife, customer contracts and accounts receivable, and is generally without recourse to the Company and Elekta.

## **COMPETITION**

Conventional neurosurgery and radiation therapy are the primary competitors of Gamma Knife radiosurgery. Gamma Knife radiosurgery has gained acceptance as an alternative and/or adjunct to conventional surgery due to its more favorable morbidity outcomes for certain procedures as well as its non-invasiveness. Utilization of the Company's Gamma Knife units is contingent on the acceptance of Gamma Knife radiosurgery by the customer's neurosurgeons, radiation oncologists and referring physicians. In addition, the utilization of the Company's Gamma Knife units is impacted by the proximity of competing Gamma Knife centers and providers using other radiosurgery devices.

The Company's ability to secure additional customers for Gamma Knife services and other radiosurgery and radiation therapy services is dependent on its ability to effectively compete against (i) Elekta, the manufacturer of the Gamma Knife, (ii) manufacturers of other radiosurgery and radiation therapy devices, and (iii) other companies that outsource these services. The Company does not have an exclusive relationship with Elekta or other manufacturers and has previously lost sales to customers that chose to purchase equipment directly from manufacturers. The Company may continue to lose future sales to such customers and may also lose sales to the Company's competitors.

## **GOVERNMENT PROGRAMS**

The Medicare program is administered by the Centers for Medicare and Medicaid Services ("CMS") of the U.S. Department of Health and Human Services ("DHHS"). Medicare is a health insurance program primarily for individuals 65 years of age and older, certain younger people with disabilities, and people with end-stage renal disease, and is provided without regard to income or assets.

The Medicare program is subject to statutory and regulatory changes, administrative rulings, interpretations and determinations, requirements for utilization review, and federal and state funding restrictions, all of which could materially increase or decrease payments from these government programs in the future, as well as affect the cost of providing services to patients and the timing of payments to our client hospitals.

The Company's Gamma Knife and radiation therapy customers receive payments for patient care from federal government and private insurer reimbursement programs. Currently in the United States, Gamma Knife services are performed primarily on an out-patient basis. Gamma Knife patients with Medicare as their primary insurer, treated on either an in-patient or out-patient basis, comprise approximately 35% of the total Gamma Knife patients treated nationwide. Radiation therapy patients with Medicare as their primary insurer are treated primarily on an out-patient basis, and comprise an estimated 45% to 50% of the total radiation therapy patients treated. The Company estimates that its percentage of patients with Medicare as their primary insurer approximates these national averages.

A Prospective Payment System ("PPS") is utilized to reimburse hospitals for care given to hospital in-patients covered by federally funded reimbursement programs. Patients are classified into a Diagnosis Related Group ("DRG") in accordance with the patient's diagnosis, necessary medical procedures and other factors. Patient

reimbursement is limited to a predetermined amount for each DRG. The reimbursement payment may not necessarily cover the cost of all medical services actually provided because the payment is predetermined. Effective October 1, 1997, Gamma Knife services for Medicare hospital in-patients are predominantly reimbursed under either DRG 7 or DRG 8.

In 1986 and again in 1990, Congress enacted legislation requiring the DHHS to develop proposals for a PPS for Medicare out-patient services. DHHS proposed a new payment system, Ambulatory Payment Classifications ("APC"), which affects all out-patient services performed in a hospital based facility. APC implementation took place in the third quarter of 2000.

The APC consists of 346 clinically homogenous classifications or groupings of codes that are typically used in out-patient billing. Out-patient services are bundled with fixed rates of payment determined according to specific regional and national factors, similar to that of the in-patient PPS.

The Gamma Knife APC rate is modified periodically but the total reimbursement amount has historically remained fairly constant. Effective January 1, 2011, total Gamma Knife reimbursement based on all commonly used billing codes will have an increase of approximately 4% (to approximately \$9,480) compared to 2010. This follows a 3% decrease in 2010, a 5% decrease in 2009 and a 5% decrease in 2008 compared to the prior years, respectively. The Company has five Gamma Knife contracts from which its revenue is directly affected by changes in payment rates under the APC system.

IGRT is a relatively new service to radiation oncology. The 2005 through 2007 APC payment rates averaged approximately \$80 for each of five procedure codes. In 2008 DHHS determined that these services are to be packaged into other services. As a result, there are currently no specific outpatient payment rates for IGRT, and reimbursement is made through various packaged codes. However, standard radiation therapy services are reimbursed by CMS and other third party payors.

We are unable to predict the effect of future government health care funding policy changes on operations. If the rates paid by governmental payers are reduced, if the scope of services covered by governmental payers is limited, or if one or more of our hospital clients are excluded from participation in the Medicare program or any other government health care program, there could be a material adverse effect on our business.

#### Affordable Care Act

In March 2010, President Obama signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, ("Affordable Care Act") into law, which will result in significant changes to the health care industry. The primary goal of the legislation is to extend health care coverage to approximately 32 million uninsured legal U.S. residents through both an expansion of public programs and reforms to private sector health insurance. The expansion of insurance coverage is expected to be funded by measures designed to promote quality and cost efficiency in health care delivery and by budgetary savings in the Medicare and Medicaid programs. Because the Company is not a health care provider, we are not directly affected by the law, but we could be indirectly affected as follows:

- An increase in the number of insured residents could potentially increase the number of patients seeking Gamma Knife or radiation therapy treatment.
- •The Company's five retail contracts are subject to reimbursement rate changes for radiosurgery or radiation therapy services by the government or other third party payors. Any changes to Medicare or Medicaid reimbursement through the implementation of the Affordable Care Act could affect revenue generated from these sites.

We are unable to predict with certainty the full impact of the Affordable Care Act on our future revenues and operations at this time due to the law's complexity, the limited amount of guidance available, pending court challenges

and possible amendments.

## **GOVERNMENT REGULATION**

The payment of remuneration to induce the referral of health care business has been a subject of increasing governmental and regulatory focus in recent years. Section 1128B(b) of the Social Security Act (sometimes referred

to as the "federal anti-kickback statute") provides criminal penalties for individuals or entities that knowingly and willfully offer, pay, solicit or receive remuneration in order to induce referrals for items or services for which payment may be made under the Medicare and Medicaid programs and certain other government funded programs. The Social Security Act provides authority to the Office of Inspector General through civil proceedings to exclude an individual or entity from participation in the Medicare and state health programs if it is determined any such party has violated Section 1128B(b) of the Social Security Act. The Company believes that it is in compliance with the federal anti-kickback statute. Additionally, the Omnibus Budget Reconciliation Act of 1993, often referred to as "Stark II", bans physician self-referrals to providers of designated health services with which the physician has a financial relationship. On September 5, 2007, the third and final phase of the Stark regulations (Phase III) was published. The term "designated health services" includes, among others, radiation therapy services and in-patient and out-patient hospital services. On January 1, 1995, the Physician Ownership and Referral Act of 1993 became effective in California. This legislation prohibits physician self-referrals for covered goods and services, including radiation oncology, if the physician (or the physician's immediate family) concurrently has a financial interest in the entity receiving the referral. The Company believes that it is in compliance with these rules and regulations.

On August 19, 2008, the CMS published a final rule relating to inpatient hospital services paid under the Inpatient Prospective Payment System for discharges in the Fiscal Year 2009 (the "Final Rule"). Among other things, the Final Rule prohibits "per-click payments" to certain physician lessors for services rendered to patients who were referred by the physician lessor. This prohibition on per-click payments for leased equipment used in the treatment of a patient referred to a hospital lessee by a physician lessor applies regardless of whether the physician himself or herself is the lessor or whether the lessor is an entity in which the referring physician has an ownership or investment interest. The effective date of this prohibition was October 1, 2009. The Company does not participate in transactions of this nature, and therefore, believes that it is in compliance with this Final Rule.

A range of federal civil and criminal laws target false claims and fraudulent billing activities. One of the most significant is the Federal False Claims Act, which prohibits the submission of a false claim or the making of a false record or statement in order to secure a reimbursement from a government-sponsored program. In recent years, the federal government has launched several initiatives aimed at uncovering practices which violate false claims or fraudulent billing laws. Claims under these laws may be brought either by the government or by private individuals on behalf of the government, through a "whistleblower" or "qui tam" action. The Company believes that it is in compliance with the Federal False Claims Act; however, because such actions are filed under seal and may remain secret for years, there can be no assurance that the Company or one of its affiliates is not named in a material qui tam action.

Legislation in various jurisdictions requires that health facilities obtain a Certificate of Need ("CON") prior to making expenditures for medical technology in excess of specified amounts. Four of the Company's existing customers were required to obtain a CON or its equivalent. The CON procedure can be expensive and time consuming and may impact the length of time before Gamma Knife services commence. CON requirements vary from state to state in their application to the operations of both the Company and its customers. In some jurisdictions the Company is required to comply with CON procedures to provide its services and in other jurisdictions customers must comply with CON procedures before using the Company's services.

The Company's Gamma Knife units contain Cobalt 60 radioactive sources. The medical centers that house the Company's Gamma Knife units are responsible for obtaining possession and user's licenses for the Cobalt 60 source from the Nuclear Regulatory Commission.

Standard linear accelerator equipment utilized to treat patients is regulated by the FDA. The licensing is obtained by the individual medical center operating the equipment.

The Company believes it is in substantial compliance with the various rules and regulations that affect its businesses.

#### INSURANCE AND INDEMNIFICATION

The Company's contracts with equipment vendors generally do not contain indemnification provisions. The Company maintains a comprehensive insurance program covering the value of its property and equipment, subject to deductibles, which the Company believes are reasonable.

The Company's customer contracts generally contain mutual indemnification provisions. The Company maintains general and professional liability insurance. The Company is not involved in the practice of medicine and therefore believes its present insurance coverage and indemnification agreements are adequate for its business.

## PROTON BEAM RADIATION THERAPY BUSINESS

PBRT is an alternative to traditional external beam, photon based radiation delivered by linear accelerators. PBRT, first clinically introduced in the 1950s, has physics advantages compared to photon based systems which allow PBRT to deliver higher radiation doses to the tumor with less radiation to healthy tissue. PBRT currently treats prostate, eye, cranial-spinal, head and neck, lung, liver and breast tumors. In excess of 70,000 patients have been treated with protons worldwide.

Introduction of PBRT in the United States, until recently, has been limited due to lack of adequate reimbursement and the high capital costs of these projects. The Company believes that the current development of one and two treatment room PBRT systems at lower capital costs, and the recent implementation of reimbursement rates for PBRT from the CMS will help make this technology available to a larger segment of the market.

There are several competing manufacturers of proton beam systems, including Still River, IBA Particle Therapy Inc., Hitachi Ltd., Optivus Proton Therapy Inc., Varian Medical Systems, Inc. (Accel), Sumitomo Heavy Industries and Mitsubishi Electric. The Company has invested in Still River and has made deposits towards the purchase of three of Still River's Monarch250 systems. The Still River system potentially provides cancer centers the opportunity to introduce single treatment room PBRT services with cost in the range of approximately \$20 to \$25 million rather than four and five PBRT treatment room programs costing in excess of \$120 million. The Still River system is not yet FDA approved and there can be no assurance that it will be approved.

The Company believes the business model it has developed for use in its Gamma Knife and radiation therapy businesses can be tailored for the PBRT market segment. The Company is targeting large, hospital based cancer programs. The Company's ability to develop a successful PBRT financing entity depends on the decision of cancer centers to self fund or to fund the PBRT through conventional financing vehicles, the Company's ability to capture market share from competing alternative PBRT financing entities, and the Company's ability to raise capital to fund PBRT projects.

## **EMPLOYEES**

At December 31, 2010, the Company employed eleven (11) people on a full-time basis. None of these employees is subject to a collective bargaining agreement and there is no union representation within the Company maintains various employee benefit plans and believes that its employee relations are good.

## EXECUTIVE OFFICERS OF THE COMPANY

The following table provides current information concerning those persons who serve as executive officers of the Company. The executive officers were appointed by the Board of Directors and serve at the discretion of the Board of Directors.

Name: Age: Position:

Ernest A. Bates, M.D. 74 Chairman of the Board of Directors and Chief Executive Officer Craig K. Tagawa 57 Senior Vice President - Chief Operating and Financial Officer

Ernest R. Bates 44 Vice President of Sales and Business Development

Ernest A. Bates, M.D., founder of the Company, has served in the positions listed above since the incorporation of the Company. A board-certified neurosurgeon, Dr. Bates is Emeritus Vice Chairman of the Board of Trustees of the Johns Hopkins University and serves on the Board of Visitors of the Johns Hopkins Medical Center and the Johns Hopkins Neurosurgery Advisory Board. He serves on the boards of the University of Rochester, FasterCures and the Salzburg Global Seminar. Dr. Bates was appointed to the California Commission for Jobs and Economic Growth and the Magistrate Judge Merit Selection Panel. From 1981-1987 he was a member of the Board of Governors of the California Community Colleges, and he served on the California High Speed Rail Authority from 1997 to 2003. Dr. Bates is a member of the Board of Overseers at the University of California, San Francisco, School of Nursing. Dr. Bates is a member in Black Coyote Chateau, LLC. He is a graduate of the School of Arts and Sciences of the Johns Hopkins University, and he earned his medical degree at the University of Rochester School of Medicine and Dentistry.

Craig K. Tagawa has served as Chief Operating Officer since February 1999 in addition to serving as Chief Financial Officer since May 1996. Mr. Tagawa also served as Chief Financial Officer from January 1992 through October 1995. Previously a Vice President in such capacity, Mr. Tagawa became a Senior Vice President on February 28, 1993. He is also the Chief Executive Officer of GKF. From September 1988 through January 1992, Mr. Tagawa served in various positions with the Company. He is a former Chair of the Industrial Policy Advisory Committee of the Engineering Research Center for Computer-Integrated Surgical Systems and Technology at The Johns Hopkins University. He received his undergraduate degree from the University of California at Berkeley and his M.B.A. from Cornell University.

Ernest R. Bates joined the Company in January 2007 as Vice President of Sales and Business Development. He was on the Board of Directors of the Company from 2004 through February 2007. Prior to joining the Company, he had been Managing Director, Institutional Fixed Income Sales of HSBC Securities (USA), Inc. since 2003. Mr. Bates has also served as Managing Director, Head of Asian Product for HSBC Securities (USA) Inc. from 1999 to 2003. From 1993 through 1999, Mr. Bates held various positions with Merrill Lynch, last serving as Vice President, European Syndicate for Merrill Lynch International. He received his undergraduate degree from Brown University and a M.B.A. degree from The Wharton Business School. Ernest R. Bates is the son of Chairman of the Board and Chief Executive Officer Dr. Ernest A. Bates.

## **AVAILABLE INFORMATION**

Our Internet address is www.ashs.com. We make available free of charge through our Internet website our annual report 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 ("Exchange Act") as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. The information contained on our Internet website is not part of this document.

#### ITEM 1A.

#### RISK FACTORS

In addition to the other information in this report, the following factors could affect our future business, results of operations, cash flows or financial position, and could cause future results to differ materially from those expressed in any of the forward-looking statements contained in this report.

## The Company's Capital Investment at Each Site is Substantial

Each radiosurgical or radiation therapy device requires a substantial capital investment. In some cases, we contribute additional funds for capital costs and/or annual operating and equipment related costs such as marketing, maintenance, insurance and property taxes. Due to the structure of our contracts with medical centers, there can be no assurance that these costs will be fully recovered or that we will earn a satisfactory return on our investment.

## The Market for the Gamma Knife is Limited

There is a limited market for the Gamma Knife, and the market in the United States may be mature. The Company has begun operation at only four new Gamma Knife sites in the United States since 2004. Due to the substantial costs of acquiring a Gamma Knife unit, we must identify medical centers that possess neurosurgery and radiation oncology departments capable of performing a large number of Gamma Knife procedures. As of December 31, 2010, there were approximately 114 operating Gamma Knife units in the United States, of which 19 units were owned by us, and approximately 276 units in operation worldwide. There can be no assurance that we will be successful in placing additional units at any sites in the future. The Company's existing contracts with its customers are fixed in length and there can be no assurance that the customers will wish to extend the contract beyond the end of the term.

## The Company Has a High Level of Debt

The Company's business is capital intensive. The Company finances its IGRT system through ASHS and its Gamma Knife units through its GKF subsidiary. The amounts financed through GKF have been generally non-recourse to ASHS. The Company's combined long term debt and present value of capital leases totals \$29,243,000 as of December 31, 2010 and is collateralized by the Gamma Knife and IGRT equipment and other assets, including accounts receivable and future proceeds from any contract between the Company and any end user of the financed equipment. This high level of debt may adversely affect the Company's ability to secure additional credit in the future, and as a result may affect operations and profitability. If default on debt occurs in the future, the Company's creditors would have the ability to accelerate the defaulted loan, to seize the Gamma Knife unit or other equipment with respect to which default has occurred, and to apply any collateral they may have at the time to cure the default. The Company also has a line of credit with a bank, against which it has drawn \$8,500,000 as of December 31, 2010.

## The Market is Competitive

The Company estimates that there are three other companies that actively provide alternative, non-conventional Gamma Knife financing to potential customers. We believe there are no competitor companies that currently have more than six Gamma Knife units in operation. The Company's relationship with Elekta, the manufacturer of the Leksell Gamma Knife unit, is non-exclusive, and in the past the Company has lost sales to customers that chose to purchase a Gamma Knife unit directly from Elekta. In addition, the Company may continue to lose future sales to such customers and may also lose future sales to its competitors. There can be no assurance that the Company will be able to successfully compete against others in placing future units.

## There are Alternatives to the Gamma Knife

Other radiosurgery devices and conventional neurosurgery compete against the Gamma Knife. Each of the medical centers targeted by the Company could decide to acquire another radiosurgery device instead of a Gamma Knife. In addition, neurosurgeons who are primarily responsible for referring patients for Gamma Knife surgery may not be

willing to make such referrals for various reasons, instead opting for invasive surgery. There can be no assurance that the Company will be able to secure a sufficient number of future sites or Gamma Knife procedures to sustain its profitability and growth.

## The Company's Revenue Could Decline if Federal Reimbursement Rates are Lowered

The amount reimbursed to medical centers for each Gamma Knife or radiation therapy treatment may decline in the future. The reimbursement decrease may come from federally mandated programs (i.e., Medicare and Medicaid) or other third party payor groups. Fourteen of the Company's twenty existing contracts are reimbursed by the medical center to the Company on a fee per use basis. The primary risk under this type of contract is that the actual volume of procedures could be less than projected. However, a significant reimbursement rate reduction may result in the Company restructuring certain of its existing contracts. There are also six contracts where the Company receives revenue based directly on the amount of reimbursement received for procedures performed. Revenue under those contracts and any future contracts with revenue based directly on reimbursement amounts will be impacted by any reimbursement rate change. Some of the Company's future contracts for Gamma Knife services may have revenue based on such reimbursement rates instead of a fee per use basis. There can be no assurance that future changes in healthcare regulations and reimbursement rates will not directly or indirectly adversely affect the Company's Gamma Knife revenue.

## New Technology and Products Could Result in Equipment Obsolescence

There is constant change and innovation in the market for highly sophisticated medical equipment. New and improved medical equipment can be introduced that could make the Gamma Knife technology obsolete and that would make it uneconomical to operate. During 2000, Elekta introduced an upgraded Gamma Knife which cost approximately \$3.6 million plus applicable tax and duties. This upgrade includes an Automatic Positioning System<sup>TM</sup> ("APS"), and therefore involves less health care provider intervention. In early 2005, Elekta introduced a new upgrade, the Gamma Knife Model 4C ("Model 4C"). The cost to upgrade existing units to the Model 4C with APS is estimated to be approximately \$200,000 to \$1,000,000, depending on the current Gamma Knife configuration. In 2006 Elekta introduced a new model of the Gamma Knife, the Perfexion, which costs approximately \$4.5 million plus applicable taxes and duties. The Perfexion can perform procedures faster than previous Gamma Knife models and it provides the additional ability to perform procedures on areas of the cervical spine. Existing models of the Gamma Knife are not upgradeable to the Perfexion model. As of March 1, 2011, eight of the Company's Gamma Knife units are Perfexion models; of the Company's remaining Gamma Knife units, five are Model 4C with APS and six are upgradeable to more advanced Model 4C units. The failure to acquire or use new technology and products could have a material adverse effect on our business and results of operations.

In addition, there are constant advances made in radiation therapy equipment. The Company purchased an IGRT system in 2006 with a list price of approximately \$8,300,000. As in the Gamma Knife business, new and improved IGRT equipment can be introduced that could make the existing technology obsolete and that would make it uneconomical to operate.

## The Company Has Invested in a Proton Beam Business that is Developmental and Unproven

We have committed a substantial amount of our financial resources to next-generation proton beam technology. The PBRT system being developed by Still River is not commercially proven and cannot be reimbursed by most major insurors prior to FDA approval, which may not be obtained. Prior to that time, we must make progress payments of \$6,500,000 for three Monarch250 systems (the Company has already made deposits of \$2,500,000 towards this commitment). There can be no assurance that we will recover this investment or future investments, or our \$2,617,000 minority investment in Still River. Our current belief is that we will begin to receive revenue for PBRT systems placed and financed by us during 2012, assuming FDA approval is obtained.

## The Trading Volume of Our Common Stock is Low

Although our common stock is listed on the NYSE Amex Exchange, our common stock has experienced low trading volume, both historically and recently. Reported average daily trading volume in our common stock for the three-month period ended December 31, 2010 was approximately 4,800 shares. There is no reason to think that a more active trading market in our common stock will develop in the future. Limited trading volume subjects our

common stock to greater price volatility and may make it difficult for you to sell your shares in a quantity or at a price that is attractive to you.

#### ITEM 2.

#### **PROPERTIES**

The Company's corporate offices are located at Four Embarcadero Center, Suite 3700, San Francisco, California, where it leases approximately 4,600 square feet for \$23,195 per month. This lease originally was set to expire in May 2011, but was renewed for a period of five years through May 2016. The Company also leases an apartment for \$3,495 per month in San Francisco for use by corporate officers, board members and business guests. The lease is an annual renewable lease with a renewal date of September 2011.

For the year ended December 31, 2010 the Company's aggregate net rental expenses for all properties and equipment were approximately \$463,000.

## ITEM 3.

#### LEGAL PROCEEDINGS

There are no material pending legal proceedings involving the Company or any of its property. The Company knows of no legal or administrative proceedings against the Company contemplated by governmental authorities.

#### ITEM 4. REMOVED AND RESERVED

### **PART II**

## ITEM 5.

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

Market Information and Dividend Policy

The Company's common shares, no par value (the "Common Shares"), are currently traded on the NYSE Amex Exchange. At December 31, 2010, the Company had 4,597,070 issued and outstanding common shares, 609,830 common shares reserved for options and 4,000 restricted stock units issued.

The following table sets forth the high and low closing sale prices of the Common Shares of the Company on the NYSE Amex Exchange for each full quarter for the last two fiscal years.

Quarter Ending	Prices for Con High			Shares Low
March 31, 2009	\$	2.18	\$	1.00
June 30, 2009	\$	2.47	\$	1.84
September 30, 2009	\$	3.00	\$	1.85
December 31, 2009	\$	3.70	\$	2.50

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March 31, 2010	\$	3.04	\$	2.53
June 30, 2010	\$	3.10	\$	2.55
September 30, 2010	\$	3.37	\$	2.70
September 50, 2010	Ψ	3.31	Ψ	2.70
December 31, 2010	\$	3.10	\$	2.75

The Company estimates that there were approximately 2,500 beneficial holders of its Common Shares at December 31, 2010.

There were no dividends declared or paid during 2010 or 2009. Dividends had been paid by the Company from 2001 to 2007, but during 2007 the Board of Directors suspended dividends for the purpose of preserving cash for the development of its PBRT business. The Company did not pay cash dividends prior to 2001.

## Stock Repurchase Program

In 1999 and 2001, the Board of Directors approved resolutions authorizing the Company to repurchase up to a total of 1,000,000 shares of its own stock on the open market from time to time at prevailing prices, and in 2008 the Board reaffirmed these authorizations. There were no shares repurchased during 2010. In 2009 and 2008, the Company repurchased approximately 119,000 and 316,000 shares of its stock, respectively. Prior to 2008, there were no shares repurchased on the open market since the year ended December 31, 2001. A total of approximately 919,000 shares have been repurchased in the open market pursuant to these authorizations at a cost of approximately \$1,927,000. As of December 31, 2010 there are approximately 81,000 shares remaining under the repurchase authorizations.

## Shareholder Rights Plan

On March 22, 1999, the Company adopted a Shareholder Rights Plan ("Plan"). Under the Plan, the Company made a dividend distribution of one Right for each outstanding share of the Company's common stock as of the close of business on April 1, 1999. The Rights become exercisable only if any person or group, with certain exceptions, becomes an "acquiring person" (acquires 15 percent or more of the Company's outstanding common stock) or announces a tender or exchange offer to acquire 15 percent or more of the Company's outstanding common stock. The Company's Board of Directors adopted the Plan to protect shareholders against a coercive or inadequate takeover offer. On March 12, 2009, the Board of Directors of the Company approved the First Amendment to its existing shareholder rights plan which, among other things, extends the final date on which the Rights are exercisable until the close of business on April 1, 2019.

## **Equity Compensation Plans**

During 2010 no holders of options to acquire the Company's common stock exercised their respective rights pursuant to such securities; however, 2,000 new shares of common stock were issued to the Company's Board of Directors from stock grants that vested in 2010. Additional information regarding our equity compensation plans is incorporated herein by reference from the 2011 Proxy Statement. Also, see Note 9-Shareholders' Equity to the Consolidated Financial Statements.

2009

\$16,768

2010

\$16,675

ITEM 6.
SELECTED FINANCIAL DATA

**Summary of Operations** 

Revenue

Year Ended December 31, (Amounts in thousands except per share data)

2008

\$19,099

2007

\$22,622

2006

\$20,385

Revenue	\$10,075	φ10,700	\$12,022	\$22,022	\$20,363
Costs of revenue	9,466	9,781	10,877	13,354	10,365
Selling and administrative expense	4,240	3,928	4,323	4,646	3,995
Transaction costs	-	342	-	-	-
Interest expense	2,104	2,064	2,437	1,946	2,161
Total expenses	15,810	16,115	17,637	19,946	16,521
Income from operations	865	653	1,462	2,676	3,864
Interest and other income	107	60	404	328	308
Income before income taxes	972	713	1,866	3,004	4,172
Income tax expense	166	247	534	919	1,202
Net income	\$806	\$466	\$1,332	\$2,085	\$2,970
Less net income attributable to					
non-controlling interest	(749	) (654	) (855	) (1,134	) (1,314 )
Net (loss) income attributable to ASHS	\$57	\$(188	) \$477	\$951	\$1,656
Net (loss) income per common share					
attributable to ASHS:					
Basic	\$0.01	\$(0.04	) \$0.10	\$0.19	\$0.33
Assuming dilution	\$0.01	\$(0.04	) \$0.10	\$0.19	\$0.33
Cash dividend declared per common share	\$0.0000	\$0.0000	\$0.0000	\$0.0950	\$0.1900
Dividend payout ratio (paid and declared)	-	-	-	0.50	0.58
See accompanying note (1)					
Balance Sheet Data			As of Decemb	•	
		(A	Amounts in the	ousands)	
	2010	2000	2000	2007	2006
Coch and each agriculants	2010	2009 \$833	2008	2007 \$6,340	2006
Cash and cash equivalents	\$1,438		\$10,286	•	\$3,952
Certificate of deposit and securities- current Restricted cash	9,000 50	9,000 50	50	2,605 50	1,574 50
Working capital (deficit)	7,631	6,497	(205		(541)
Securities- long-term	7,031	-	-	) 747 1,065	3,380
Total assets	65,340	60,621	62,196	63,044	50,905
Advances on line of credit	8,500	7,900	6,500		
	8,300	7,900	0,300	4,100	4,000
Current portion of long-term debt/capital leases	6,073	6,705	7,633	8,272	5,876
Long-term debt/capital leases, less current	0,073	0,703	7,033	0,272	3,670
portion	23,170	19,069	21,053	24,004	15,189
Shareholders' equity	\$23,044	\$22,755	\$22,938	\$22,693	\$22,054
See accompanying note (1)	φ <i>43</i> ,044	Φ 4 4 , 1 3 3	φ44,936	φ 44,093	φ44,UJ4
see accompanying note (1)					

(1)In October 1995, the Company entered into an operating agreement granting to American Shared Radiosurgery Services (a California corporation and a wholly-owned subsidiary of the Company) an 81% ownership interest in GKF. During 2010, GKF established two new wholly-owned subsidiaries, GKUK and GKPeru. ASHS incorporated a new wholly-owned subsidiary, OR21, Inc. in November 1999, and a new wholly-owned subsidiary, MedLeader.com, Inc. ("MedLeader") in April 2000. Accordingly, the financial data for the Company presented above include the results of GKF and its subsidiaries, OR21 and MedLeader for 2006 through 2010.

This financial data as of December 31, 2010, 2009 and 2008 and for the years ended December 31, 2010, 2009 and 2008 should be read in conjunction with our consolidated financial statements and the notes thereto beginning on

page A-1 of this report and with Item 7–"Management's Discussion and Analysis of Financial Condition and Results of Operations."

ITEM 7.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## APPLICATION OF CRITICAL ACCOUNTING POLICIES

The Company's consolidated financial statements are prepared in accordance with generally accepted accounting principles and follow general practices within the industry in which it operates. Application of these principles requires management to make estimates, assumptions and judgments that affect the amounts reported in the financial statements and accompanying notes. These estimates, assumptions and judgments are based on information available as of the date of the financial statements; accordingly, as this information changes, the financial statements could reflect different estimates, assumptions and judgments. Certain policies inherently have a greater reliance on the use of estimates, assumptions and judgments and as such have a greater possibility of producing results that could be materially different than originally reported.

The most significant accounting policies followed by the Company are presented in Note 2 to the consolidated financial statements. These policies along with the disclosures presented in the other financial statement notes and in this discussion and analysis, provide information on how significant assets and liabilities are valued in the financial statements and how those values are determined. Based on the valuation techniques used and the sensitivity of financial statement amounts, and the methods, assumptions and estimates underlying those amounts, management has identified the determination of the allowance for doubtful accounts, revenue recognition and the carrying value of its Still River investment to be three areas that required the most subjective or complex judgments, and as such could be most subject to revision as new information becomes available. The following are our critical accounting policies in which management's estimates, assumptions and judgments most directly and materially affect the financial statements:

## Revenue Recognition

The Company has one revenue-generating activity, which consists of equipment leasing to hospitals, and includes the operation of Gamma Knife units by GKF and the operation of an IGRT site by ASHS.

Revenue is recognized when services have been rendered and collectability is reasonably assured, on either a fee per use or revenue sharing basis. The Company has contracts with fourteen hospitals for fee per use services and six hospitals for retail services. Under both of these types of agreements, the hospital is responsible for billing patients and collection of fees for services performed. Revenue associated with installation of the Gamma Knife and IGRT units, if any, is a part of the negotiated lease amount and not a distinctly identifiable amount. The costs, if any, associated with installation of the units are amortized over the period of the related lease to match revenue recognition of these costs.

For fee per use agreements, revenue is not estimated because these contracts provide for a fixed fee per procedure, and are typically for a ten year term. Revenue is recognized at the time the procedures are performed, based on each hospital's contracted rate. There is no guaranteed minimum payment. Costs related to operating the units are charged to costs of operations as incurred, which approximates the recognition of the related revenue. Revenue under fee per use agreements is recorded on a gross basis.

ASHS has one agreement and GKF has five agreements that are based on revenue sharing. These can be further classified as either "turn-key" arrangements or "revenue sharing" arrangements. For GKF's four turn-key sites, GKF is solely responsible for the costs to acquire and install the Gamma Knife. In return, GKF receives payment from the hospital in the amount of its reimbursement from third party payors. Revenue is recognized by the Company during the period in which the procedure is performed, and is estimated based on what can be reasonably expected to be paid by the third party payor to the hospital. The estimate is primarily determined from historical experience and hospital contracts with third party payors. These estimates are reviewed on a regular basis and adjusted as necessary to more accurately reflect the expected payment amount. The Company also records an

estimate of operating costs associated with each procedure during the period in which the procedure is performed. Costs are determined primarily based on historical treatment protocols and cost schedules with the hospital. The Company's estimated operating costs are reviewed on a regular basis and adjusted as necessary to more accurately reflect the actual operating costs. Revenue for turn-key sites is recorded on a gross basis, and the operating expenses the Company reimburses to the hospital are recorded in other operating costs.

Under revenue sharing arrangements the hospital shares in the responsibility and risk with the Company for the capital investment to acquire and install the equipment. Unlike our turn-key arrangement, the lease payment under a revenue sharing arrangement is a percentage of revenue. Payments are made by the hospital, generally on a monthly basis, to the Company based on an agreed upon percentage allocation of cash collected. Revenue is recognized during the period in which procedures are performed, and is estimated based on the reimbursement amount that the Company expects to receive from the hospital for those procedures. This estimate is reviewed on a regular basis and adjusted as necessary to more accurately reflect the expected payment amount. Revenue from revenue sharing sites is recorded on a gross basis.

Revenue from retail arrangements amounted to approximately 35%, 35% and 42% of revenue for the years ended December 31, 2010, 2009 and 2008, respectively.

## Allowance for Doubtful Accounts

The allowance for doubtful accounts is estimated based on possible losses relating to the Company's revenue sharing customers. The Company receives reimbursement from the customer based on the customer's collections from individuals and third-party payors such as insurance companies and Medicare. Receivables are charged against the allowance in the period that they are deemed uncollectible.

If the Company's net accounts receivable estimates for revenue sharing customers as of December 31, 2010 changed by as much as 10% based on actual collection information, it would have the effect of increasing or decreasing revenue by approximately \$223,000.

## Carrying Value of Still River Investment

The Company carries its investment in Still River at cost (\$2,617,000) and reviews it for impairment on a quarterly basis, or as events or circumstances might indicate that the carrying value of the investment may not be recoverable. In assessing whether the impairment is other than temporary, we evaluated the length of time and extent to which market value has been below cost, the financial condition and near term prospects of Still River and our ability and intent to retain our investment for a period sufficient to allow for an anticipated recovery in the market value. The investment is not without certain risk, and the completion of the first unit is taking longer than originally anticipated. However, the Company believes that the current market value, which we believe to be less than cost, is a temporary situation brought on solely due to the continuing downturn of the economy, and is not a reflection on the progress or viability of Still River or its PBRT design, and believes that our investment in Still River is only temporarily impaired. If the Company's view changes, it could be required to write off some or all of its investment, which would have a material negative impact on earnings in the period.

## **GENERAL**

For the year ended December 31, 2010, 94% of the Company's revenue was derived from its Gamma Knife business, and 6% from its IGRT business. For the year ended December 31, 2009, 92% of the Company's revenue was derived from its Gamma Knife business, and the remaining 8% from its IGRT business.

#### TOTAL REVENUE

(in thousands)	2010	Increase (Decrease)	)	2009	Increase (Decrease	)	2008	
Medical services revenue	\$ 16,675	(0.6	)% \$	16,768	(12.2	)% \$	19,099	

Total revenue decreased 0.6% in 2010 compared to 2009, primarily due to a 14.9% decrease in IGRT revenue, partially offset by a 0.6% increase in Gamma Knife revenue. Total revenue decreased 12.2% in 2009 compared to

2008, primarily due to a decline in Gamma Knife procedures of approximately 4.5%, which resulted in a decrease of Gamma Knife revenue of approximately 12.5%.

## Gamma Knife Revenue

Total Gamma Knife revenue for 2010 increased 0.6% to \$15,600,000 compared to \$15,505,000 in 2009. Total Gamma Knife revenue for 2009 decreased by 12.5% to \$15,505,000 compared to \$17,713,000 in 2008.

	Increase			Increase	
	2010	(Decrease)	2009	(Decrease)	2008
Medical services revenue from Gamma					
Knife (in thousands)	\$15,600	0.6	% \$15,505	$(12.5)^{\circ}$	% \$17,713
Number of Gamma Knife procedures	1,864	4.4	% 1,785	$(4.5)^{\circ}$	% 1,869
-					
Average revenue per procedure	\$8,369	(3.6)	% \$8,686	(8.3)	% \$9,477

The increase in 2010 Medical services revenue from Gamma Knife operations compared to 2009 was primarily due to a 4.4% increase in procedure volume, particularly at sites where Perfexion units have been placed. The Company upgraded two additional customer sites to the Perfexion unit during 2010, bringing the total number of Company sites with Perfexion units to seven at December 31, 2010. The decrease in 2009 compared to 2008 was primarily due to low volume for the year at one Gamma Knife site, physician turnover at another Gamma Knife site that resulted in no procedures being performed for the last two quarters of 2009, and lower per procedure collections at one of the Company's retail sites. In addition, three sites were out of service for several weeks each for upgrades to Perfexion and Model 4C units. The Company had nineteen Gamma Knife units in operation at December 31, 2010, 2009 and 2008.

The number of Gamma Knife procedures performed in 2010 increased by 79 compared to 2009, primarily due to an increase in the number of procedures performed at sites where Perfexion model units have been installed. The number of Gamma Knife procedures in 2009 decreased by 84 compared to 2008 primarily due to low volume at one Gamma Knife site because a competing technology was installed at the site. In addition, physician turnover at another site resulted in no procedures being performed there for the last two quarters of 2009. Excluding these two sites, Gamma Knife procedures at sites in operation more than one year were approximately the same as in 2008.

Revenue per procedure decreased by \$317 in 2010 and by \$791 in 2009 compared to the prior years, respectively. For 2010, this is primarily due to normal variations in procedure mix between sites. The Company's contracts generally have different procedure rates because their investment basis varies, so revenue per procedure can vary year to year depending primarily on the mix of procedures performed at certain locations. The decrease in 2009 was primarily due to lower volumes at two retail sites where there was a competing technology installed at one site and physician turnover resulted in no procedures being performed for the last two quarters of 2009 at the other site.

## **IGRT** Revenue

		Increase				Increase					
(In thousands)		2010	(Dec	(Decrease)		2009		(Decrease)		2008	
Medical services revenue from											
IGRT	\$	1,075	(1	14.9	)% \$	1,263		(8.9)	)% \$	1,386	

Revenue from the Company's contract for IGRT services decreased by \$188,000 in 2010 compared to 2009 and decreased by \$123,000 in 2009 compared to 2008. The decrease in both 2010 and 2009 was due to generally lower volume at the Company's IGRT site.

### **COSTS OF REVENUE**

			Increase				Increase			
(In thousands)	2010		(Decrease	)	2009		(Decrease)	)	2008	
Total costs of revenue	\$ 9,466		(3.2	)% \$	9,781		(10.1	)% \$	10,877	
Percentage of total revenue	56.8	%			58.3	%			57.0	%

The Company's costs of revenue, consisting of cost of equipment sales, maintenance and supplies, depreciation and amortization, and other operating expenses (such as insurance, property taxes, sales taxes, marketing costs and operating costs from the Company's retail sites) decreased \$315,000 in 2010 compared to 2009, and decreased \$1,096,000 in 2009 compared to 2008.

The Company's maintenance and supplies costs were 9% of total revenue in each of the years 2010 and 2009 and 6% of total revenue in 2008. Maintenance and supplies costs increased \$137,000 in 2010 compared to 2009 and increased \$266,000 in 2009 compared to 2008. The increase in 2010 compared to 2009 is primarily due to a maintenance contract that started at the Company's IGRT site, and an increase in costs of maintenance that weren't covered by maintenance contracts. The increase in 2009 compared to 2008 is primarily the result of maintenance contract expense that began for three sites that had been under warranty due to Perfexion upgrades that occurred in late 2007 and 2008. Partially offsetting this was the discontinuance of maintenance expense at one existing customer site that was upgraded to a Perfexion model in 2009 and two other sites that were upgraded to Model 4C units, and were under warranty during much of the year.

Depreciation and amortization decreased \$490,000 in 2010 compared to 2009, and decreased \$211,000 in 2009 compared to 2008. The decrease in 2010 compared to 2009 is primarily because depreciation ended on three Gamma Knife units where the remaining value of the equipment had reached salvage value. In addition, the asset life of one Gamma Knife unit was changed because the contract with the customer was extended. The decrease in 2009 was primarily due to depreciation being stopped for periods of time at three sites while they were being upgraded to Model 4C or Perfexion units. Depreciation also ended at another site whose contract was nearing its end, and its net book value had reached its salvage value.

Other direct operating costs as a percentage of medical services revenue were 12%, 12% and 16% in 2010, 2009 and 2008, respectively. The increase of \$38,000 in 2010 compared to 2009 is primarily due to higher property and other taxes, partially offset by lower insurance costs. The decrease of \$1,151,000 in 2009 compared to 2008 was primarily due to lower operating costs at the Company's turn-key sites because of lower revenue generated at those sites. It was also due to reduced site marketing and promotion costs and lower insurance costs.

### SELLING AND ADMINISTRATIVE EXPENSE

(In thousands)	2010	(	Increase Decrease		20	009		Increase (Decrease		2008	
Selling and administrative costs	\$ 4,240		7.9	% \$	3,	,928		(9.1	)% \$	4,323	
Percentage of revenue	25.4	%			23	3.4	%			22.6	%
Transaction costs	\$ -		n/a	\$	34	42		n/a	\$	-	
Percentage of revenue	n/a				2.	.0	%			n/a	

The Company's selling and administrative costs increased \$312,000 in 2010 compared to 2009, and decreased \$395,000 in 2009 compared to 2008. The increase in 2010 compared to 2009 was primarily due to increased travel and other business development costs of \$55,000, legal fees, most of which were for the development of new business, of approximately \$278,000 and investor relations costs of approximately \$65,000. These increases were partially offset by lower insurance costs of \$46,000 and lower accounting and tax fees and various other costs. The decrease in 2009 was primarily due to lower payroll costs of approximately \$157,000, travel and other business

development costs of approximately \$150,000, investor relations costs of approximately \$67,000, and lower contributions and other fees, partially offset by increased rent expense.

There were no transaction costs in 2010 compared to \$342,000 in 2009 and none in 2008. In 2009 the Company had engaged in discussions with two parties concerning the possible sale of its 81% interest in GKF, with one of the parties providing indicative pricing for the interest that would be attractive to the Company if it were to sell its interest in GKF. Accordingly, the Company permitted the prospective acquirer to conduct a due diligence review of GKF and the parties engaged in preliminary negotiations of the terms of a transaction. In May 2009, the Company announced that the parties failed to reach an agreement and that the negotiations had terminated. Under applicable accounting rules, the Company is required to expense the legal, accounting, investment banking and other costs incurred for these activities.

### INTEREST EXPENSE

(In thousands)	2010	(	Increase (Decrease		2009		Increase (Decrease		2008	
Interest expense	\$ 2,104		1.9	% \$	2,064		(15.3	)% \$	2,437	
Percentage of revenue	12.6	%			12.3	%			12.8	%

The Company's interest expense increased \$40,000 in 2010 compared to 2009, and decreased \$373,000 in 2009 compared to 2008. The increase in 2010 compared to 2009 was primarily due to new financing on two Perfexion units and a 4C upgrade during 2010. This was partially offset by lower interest expense on the financing for the Company's more mature Gamma Knife units. Interest expense on financing decreases over time as payments reduce the principal amount outstanding. The decrease in 2009 compared to 2008 was primarily due to lower interest expense on financing for the Company's more mature Gamma Knife units, and the payment of cash for deposits and upgrades that the Company had historically financed. This reduction was partially offset by new financing obtained on one Perfexion unit and one Model 4C upgrade during 2009.

### OTHER INCOME

(In thousands)	2010		crease Decrease)		2009		Increase (Decrease)		2008	
Other income	\$ 107		78.3	% \$	60		(85.1	)% \$	404	
Percentage of revenue	0.6	%			0.4	%			2.1	%

Other income increased \$47,000 in 2010 compared to 2009 and decreased \$344,000 in 2009 compared to 2008. The increase in 2010 was primarily from higher interest income due to interest received on state and federal income tax refunds. The interest income was offset by a cost of approximately \$9,000 on the early extinguishment of debt, compared to a \$20,000 cost in 2009. The decrease in 2009 was primarily due to lower interest income because of lower interest rates available on invested cash in 2009 compared to 2008. In addition there was a cost of approximately \$20,000 in 2009 for early extinguishment of debt, and no gain on sale of assets compared to a \$60,000 gain in 2008.

### INCOME TAX EXPENSE

		Increase		Increase					
(In thousands)	2010	(Decrease)	2009	(Decrease)	2008				

Income tax expense	\$ 166		(32.8	)% \$	247		(53.7	)% \$	534	
Percentage of revenue	1.0	%			1.5	%			2.8	%
Percentage of income before										
income taxes	17.1	%			34.6	%			28.6	%

Income tax expense decreased \$81,000 in 2010 compared to 2009, and decreased \$287,000 in 2009 compared to 2008. The decrease in 2010 is due mostly to lower state income taxes, primarily from a reduction in a state income tax valuation allowance, which offset higher federal income taxes on higher income before income taxes compared to 2009. Although income tax as a percentage of income before income taxes decreased to 17.1% in 2010 compared to 34.6% in 2009, the overall effective income tax rate remains high. This is primarily from state income taxes calculated at the Company's profitable operating subsidiary, where in many states, separate state income tax returns are required and net operating loss carryforwards cannot be applied. This results in a higher effective income tax rate at the consolidated level. Lower income before income taxes in 2009 of \$713,000 compared to \$1,866,000 in 2008 is the primary reason for lower income tax expense in 2009 compared to 2008. Income tax as a percentage of net income before income taxes increased to 34.6% compared to 28.6% in 2008.

The Company anticipates that it will continue to record income tax expense if it operates profitably in the future. Currently there are state income tax payments required for most states in which the Company operates. However there are minimal current federal income tax payments required due to net operating loss carryforwards and other deferred tax assets available for tax purposes.

The Company had a net operating loss carryforward for federal income tax return purposes at December 31, 2010 of approximately \$10,370,000.

### NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTEREST

(In thousands)	2010		Increase (Decrease	)	2009		Increase (Decrease	)	2008	
Net income attributable to non-controlling interest	\$ 749		14.5	% \$	654		(23.5	)% \$	855	
Percentage of revenue	4.5	%			3.9	%			4.5	%

Net income attributable to non-controlling interest increased \$95,000 in 2010 compared to 2009 and decreased \$201,000 in 2009 compared to 2008. Net income attributable to non-controlling interest represents the pre-tax income earned by the minority partner's 19% interest in GKF. The decrease or increase in net income attributable to non-controlling interest reflects the relative profitability of GKF.

### NET INCOME (LOSS) ATTRIBUTABLE TO AMERICAN SHARED HOSPITAL SERVICES

(In thousands, except per share amounts)	2010	Increase (Decrease)	2009	Increase (Decrease)	2008
Net income (loss) attributable to ASHS	\$ 57	130.3 % \$	(188	) (139.4 )%	% \$ 477
Net income (loss) per share attributable to ASHS, diluted	\$ 0.01	125.0 % \$	6 (0.04	) (140.0 )9	% \$ 0.10

Net income attributable to American Shared Hospital Services in 2010 was \$57,000 compared to a net loss of \$188,000 in 2009 and net income of \$477,000 in 2008. Net income attributable to American Shared Hospital Services in 2010 was \$245,000 higher than in 2009. This was primarily due to increased revenue from the Company's Gamma Knife sites, lower depreciation expense, no transaction costs, and lower income tax expense. This was partially offset

by lower revenue from the Company's IGRT site and an increase in selling and administrative expense and maintenance and supply costs. The net loss attributable to American Shared Hospital Services for 2009 was \$665,000 less than the net income attributable to American Shared Hospital Services in 2008. This was primarily because of reduced medical services revenue at two of the Company's Gamma Knife sites, a reduction of interest and other income of \$344,000, and transaction costs in 2009 of \$342,000. This was partially

offset by a reduction in selling and administrative costs, depreciation expense, and other direct operating costs, particularly marketing costs and operating costs at the Company's turn-key sites.

### IMPAIRMENT ANALYSIS OF INVESTMENT IN PREFERRED STOCK

The Company evaluated its investment in Still River for impairment at December 31, 2010 in light of both current market conditions and the ongoing needs of Still River to raise cash to continue its development of the first compact, single room PBRT system, including the following specific events.

During the first quarter of 2009, Still River proposed a Series D round of financing to raise cash, which it was able to do, but at a per share price lower than the Company's cost basis investment. In June 2010, Still River received approximately \$20 million funding from an extended Series D offering at \$0.17 per share, the same price as the earlier offering under Series D, of which existing investors contributed \$13 million and new investors contributed \$7 million.

In late December 2010, two lawsuits were filed by MIT against Still River, alleging patent infringement. Still River disputes the allegations and is attempting to reach agreement with MIT. Still River believes this issue will not have a significant long-term impact on the business.

In February 2011, an additional round of financing under a Series D extension was offered to existing major investors, and raised in excess of \$12 million. This offer is also being extended into April 2011 to another group of investors to raise an additional amount up to \$3.5 million. These additional funds should allow Still River to complete the installation of the first proton beam unit, and allow it to make progress towards the manufacture of additional units. This round was offered at \$0.17 per share, the same price as earlier offerings under Series D. Investors were offered an inducement to quickly close the round in the form of a warrant for 20% of additional shares. The warrant was offered because of the delays in construction that have occurred and because of the uncertainty from the pending lawsuits.

The lower price per share of the Series D offering, along with the 20% warrant offered in the recent round of financing in 2011, could be viewed as a reasonable estimate of the fair value of our cost-method investment, indicating that our investment is impaired. The Company estimates that there is currently an unrealized loss (impairment) of approximately \$1.2 million based on the issuance of the Series D funding compared to the Company's cost of its investment, and this unrealized loss could increase to approximately \$1.5 million once the current round of financing has been completed, due to the issuance of warrants.

Based on its analysis, the Company determined that its investment in Still River is not other than temporarily impaired. This is based primarily on the following:

- The installation of Still River's first proton beam unit is nearing completion, with the final phase of installation expected to be completed in summer 2011. The first two of three installation phases have been completed at the initial site, and Still River has begun work on the final phase. Still River believes that installation of the first system will be completed and a working system in place before the end of 2011. The three phases of installation are:
- oPhase 1 consists of rigging and mounting the accelerator gantry, which holds and positions the proton source with sub-millimeter accuracy.
- oPhase 2 includes assembling and installing the clinical environment which comprises the 6D robotic couch, the high-accuracy treatment gantry and its applicators, the 2D/3D imaging and positioning systems and the clinical software interfaces.
- oPhase 3 consists of the installation of the accelerator module. In connection with the final phase, the accelerator module has recently passed a series of tests, and final fabrication of the second magnet, an integral part of the accelerator module, was completed in November 2010. The module continues to pass more tests as manufacturing progresses.

•In spite of the uncertain economic climate and a limited number of potential investors, with the initial Series D offering Still River was still able to raise the cash required to continue its operations, was able to add two new major investors, and continues to be able to raise additional cash with Series D extensions. Due to the high level of interest in more compact and lower cost proton beam radiation therapy devices, Still River has been able to attract funding from financially significant and highly sophisticated investors,

such as Caxton Health and Life Sciences, Venrock Associates and CHL Medical Partners. All of these major investors, as well as Still River management, continue to invest in the Series D extensions.

•Based on ongoing discussions with Still River management and regular review of their financial statements and cash flow projections, the Company believes that Still River will have adequate cash flow to continue development of the system. Still River states that their burn rate of cash is approximately \$1.2 million per month, and expects that the additional funding from the current offering will be sufficient to complete the installation of the first system. Still River, as a development stage company manufacturing its first product, continuously analyzes its cash requirements.

In addition the Company considered the following:

- Much of Still River's unique design is based on existing technology:
- oThe single room PBRT concept and design, although a departure from the large scale three and four room PBRT systems on the market, is based on the existing principle of generating protons from a cyclotron. Still River, through design innovations and advances in magnet technology, has made the cyclotron more compact such that it can be mounted on the gantry.
- oA gantry mounted cyclotron, although appearing to be revolutionary, has in fact been done previously. A neutron generating gantry mounted cyclotron has successfully treated patients for over ten years at Detroit Medical Center.
- oStill River's development approach for the Monarch250 has been to integrate as many commercially existing components as possible into the Monarch250. The patient couch, CT imaging and treatment planning software are all commercially available and will be integrated into the Monarch250.
  - o Still River has hired engineers and staff with many years of accelerator and proton beam experience. Personnel have been hired with prior experience at MIT's Plasma Fusion Lab, as well as Still River rival, IBA.
- Still River has completed several significant milestones towards its manufacture and installation of its first proton beam unit:
  - o built the magnet and other cyclotron subsystems for the first three units
    o completed the manufacture/assembly of the gantry system
    o demonstrated integrated software control of all cyclotron operations on the prototype unit
    o completed and passed the cold mass test on the prototype unit.
    o completed the beam extraction test phase.
- Preliminary submissions have been made to the FDA, and Still River anticipates that it will file its final 510(k) submission in mid-year 2011. The minimum expected review period is 3 months, and Still River is planning for a 6 month review period. It is not possible to predict the actual review period and outcome, and it is uncertain as to whether the FDA will require an inspection of the unit prior to deeming Still River's application complete.
- There were some minor problems during some of the tests that were quickly rectified, but have caused delays in the scheduled delivery of the first unit. As a result, the Company's expected delivery of its first two units has also been delayed. However, minor problems such as these are expected in a new technology, and do not affect the Company's position on the viability of Still River technology.
- A respected physicist was hired by the Company as a third party consultant to perform a technical review of this project, and continues to make periodic reviews at the request of the Company. His discussions with Still River's chief technology officer indicated that the delays encountered have at times resulted in modifications being required, but the modifications were not significant, and he still believes that development of the PBRT machine will be completed in Still River's timeline. The consultant was not engaged to analyze Still River's financial condition.
- •Still River added a new CEO, Joseph Jachinowski, in late 2009 strengthening its management depth, and with the new investors, increased its board strength as well. Independent board members consist of the following: Robert Wilson, Former Vice Chairman of Johnson and Johnson; Peter P. D'Angelo, President, Caxton Associates; Dr. Anders Hove, MD, Partner, Venrock Associates; Dr. Myles D. Greenberg, MD, General Partner, CHL Medical Partners; Dr. Jay Rao, MD, JD, Portfolio Manager, Green Arrow Capital Management; and Mr. Paul Volcker,

Former Chairman, United States Federal Reserve.

• Still River currently has 15 sites agreeing to install the Monarch250 system.

Once FDA approval is obtained, the per share investment in Still River will likely increase to a level higher than the Company's existing carrying value (cost). As the first unit nears completion in 2011, and FDA approval appears more imminent, the Company believes that the value of its investment will meet and exceed its carrying value. The estimated recovery period is anticipated to occur subsequent to the first system's clinical treatment of patients, which would shortly follow obtaining FDA approval. The first system is projected to be ready to treat patients in late 2011. The Company has the intent and the ability to maintain its investment in Still River until at least these milestones are met.

### LIQUIDITY AND CAPITAL RESOURCES

The Company had cash and cash equivalents of \$1,438,000 at December 31, 2010 compared to \$833,000 at December 31, 2009, an increase of \$605,000. The Company's expected primary cash needs on both a short and long-term basis are for capital expenditures, business expansion, working capital and other general corporate purposes.

It is the Company's intent at appropriate times to invest a portion of its cash in high-quality short to long-term fixed income marketable securities in order to maximize income on its available cash and to hold these securities until maturity. Securities with maturity dates between three and twelve months are classified as current assets and securities with maturities in excess of one year are classified as long-term. At both December 31, 2010 and December 31, 2009 the Company had no short-term or long-term investments in securities. However, at both December 31, 2010 and 2009 the Company had approximately \$9,000,000 invested in certificates of deposit with a bank. The certificate of deposit the Company holds as of December 31, 2010 matures on August 30, 2011.

Restricted cash of \$50,000 at December 31, 2010 reflects cash that may only be used for the operations of GKF.

The Company has a \$9,000,000 renewable line of credit with a bank that is secured by cash and securities. The line of credit has been in place since June 2004 and has a maturity date of August 1, 2012. As of December 31, 2010, there was \$8,500,000 borrowed against the line of credit. The Company believes it has the ability, and it is the Company's intention, to renew the line of credit at its maturity in 2012.

Operating activities provided cash of \$7,184,000 in 2010, which is primarily due to net income of \$806,000 increased by non-cash charges for depreciation and amortization of \$6,001,000, deferred income taxes of \$168,000 and stock-based compensation expense of \$110,000. Decreases in accounts payable and accrued liabilities of \$99,000 and accounts receivable of \$76,000 were offset by an increase in prepaid expense and other assets of \$76,000. The Company's trade accounts receivable decreased by \$87,000, or about 2%, to \$3,730,000 at December 31, 2010 from \$3,817,000 at December 31, 2009. The number of days revenue (sales) outstanding ("DSO") in accounts receivable as of December 31, 2010 remained fairly consistent at 76 days compared to 78 days at December 31, 2009. DSO can and does fluctuate depending on timing of customer payments received and the mix of fee per use versus retail customers. Retail sites generally have longer collection periods than fee per use sites.

Investing activities used \$315,000 of cash in 2010 due to payments made towards the purchase of property and equipment. The Company's acquisition of property and equipment included an additional \$250,000 deposit toward the purchase of a Still River proton beam unit.

Financing activities used \$6,264,000 of cash during 2010, primarily due to principal payments on long-term debt of \$5,381,000, principal payments towards capital leases of \$2,784,000, and distributions to minority owners of \$627,000. This was partially offset by long term debt financing on property and equipment of \$928,000, proceeds from capital lease financing of \$1,000,000 and advances on the line of credit of \$600,000.

The Company had working capital at December 31, 2010 of \$7,631,000 compared to working capital of \$6,497,000 at December 31, 2009. This \$1,134,000 increase was due to an increase in cash of \$605,000, a reduction in the current portion of long-term debt and capital leases of \$632,000, and an increase in current deferred tax assets of \$94,000. These increases were partially offset by a reduction in receivables of \$76,000, a reduction in prepaid expenses of \$22,000 and an increase in accounts payable, employee compensation and benefits, and other accrued liabilities of \$99,000.

The Company primarily invests its cash in certificates of deposit, money market or similar funds, and high quality short to long-term securities in order to minimize the potential for principal erosion. Cash is invested in these funds pending use in the Company's operations. The Company believes its cash position is adequate to service the Company's cash requirements in 2011.

The Company initially finances all of its Gamma Knife and radiation therapy units and anticipates that it will continue to do so with future contracts. The Company has secured financing for its projects from several lenders and anticipates that it will be able to secure financing on future projects from these or other lending sources, but there can be no assurance that financing will continue to be available on acceptable terms. The Company meets all debt covenants required under notes with its lenders, and expects that any covenants required by future lenders will be acceptable to the Company.

### IMPACT OF INFLATION AND CHANGING PRICES

The Company does not believe that inflation has had a significant impact on operations because a substantial majority of the costs that it incurs under its customer contracts are fixed through the term of the contract.

# CONTRACTUAL OBLIGATIONS, COMMITMENTS, CONTINGENT LIABILITIES AND OFF BALANCE SHEET ARRANGEMENTS

The following table presents, as of December 31, 2010, the Company's significant fixed and determinable contractual obligations by payment date. The payment amounts represent those amounts contractually due to the recipient and do not include any unamortized premiums or discounts, hedge basis adjustments, or other similar carrying value adjustments. Further discussion of the nature of each obligation is included in the notes to the consolidated financial statements referenced below.

	yments Due b	Period									
	Total amounts Less than										
Contractual Obligations		committed		1 year		1-3 years		4-5 years	A	fter 5 years	
Long-term debt (includes interest)	\$	14,181,000	\$	4,320,000	\$	6,775,000	\$	3,086,000	\$	-	
Capital leases (includes interest)		20,253,000		3,637,000		9,633,000		4,809,000		2,174,000	
Line of credit		8,500,000		-		8,500,000		-		-	
Future equipment purchases (1)		38,705,000		2,605,000		36,100,000		-		-	
Operating leases		1,642,000		323,000		594,000		725,000		-	
Total contractual obligations	\$	83,281,000	\$	10,885,000	\$	61,602,000	\$	8,620,000	\$	2,174,000	

(1) The Company has made cash deposits totaling \$4,845,000 toward these equipment purchase commitments. The commitments include the purchase of one Gamma Knife Perfexion unit, one Model 4C unit and three Monarch250 proton beam units as of December 31, 2010. For the first two Monarch250 units specifically, the Company has a commitment to total deposits of \$3,000,000 per machine until FDA approval is received, at which time the remaining balance is committed. For the third Monarch250 unit, the Company has a commitment to total deposits of \$500,000 until FDA approval is received, at which time the remaining balance is committed. The Company has made a commitment to purchase the Perfexion Gamma Knife unit for the purpose of upgrading existing equipment. The Company has made no deposits towards the purchase of this unit as of December 31, 2010, however a lease financing commitment has been obtained. Financing has not yet been obtained for any of the other equipment. For all equipment in this classification, term financing for these purchases will not be finalized until 2011 or later, and therefore an accurate determination of payments by period cannot be made as of December 31, 2010. For purposes of this table, these commitments are listed in the 1-year or 1-3 year categories.

Further discussion of the long-term debt commitment is included in Note 5, capital leases in Note 6, and operating leases in Note 12 of the consolidated financial statements.

The Company has no significant off-balance sheet arrangements.

### ITEM 7A.

### QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The table below presents information about certain market-sensitive financial instruments as of December 31, 2010. The fair values were determined based on quoted market prices for the same or similar instruments.

(amounts in thousands)	Payme 2011		Oue by 2012	Per	riod 2013		2014		2015		There after	-	Total		Fair Value
Fixed rate long-term debt and present value of															
capital leases	\$ 6,073	3	\$ 8,957	7	\$ 5,094	ļ	\$4,767	7	\$ 2,306	5	\$ 2,04	5	\$ 29,24	2	\$ 29,178
Average interest rates	7.2	%	7.0	%	8.1	%	8.2	%	8.3	%	8.6	%	7.4	%	

We do not hold or issue derivative instruments for trading purposes and are not a party to any instruments with leverage or prepayment features.

At December 31, 2010, we had no significant long-term, market-sensitive investments.

We have no affiliation with partnerships, trusts or other entities whose purpose is to facilitate off-balance sheet financial transactions or similar arrangements, and therefore have no exposure to the financing, liquidity, market or credit risks associated with such entities.

### ITEM 8.

### FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

See the Index to Consolidated Financial Statements and Financial Statement Schedules included at page A-1 of this report.

ITEM 9.

CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A

### **CONTROLS AND PROCEDURES**

(a) Evaluation of disclosure controls and procedures.

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control system was designed to provide reasonable assurance to its management and Board of Directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2010. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control – Integrated Framework. Based on this assessment management believes that, as of December 31, 2010, the Company's internal control over financial reporting is effective based on those criteria.

Our Chief Executive Officer and our Chief Financial Officer, after evaluating the effectiveness of the Company's "disclosure controls and procedures" (as defined in the Securities Exchange Act of 1934 ("Exchange Act") Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this annual report, have concluded that our disclosure controls and procedures are effective based on their evaluation of these controls and procedures required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15.

(b) Changes in internal controls over financial reporting.

Our Chief Executive Officer and our Chief Financial Officer have evaluated the changes to the Company's internal control over financial reporting that occurred during our last fiscal quarter ended December 31, 2010, as required by paragraph (d) of Exchange Act Rules 13a-15 and 15d-15, and have concluded that there were no such changes that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B.

OTHER INFORMATION

None.

PART III

ITEM 10.

### DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding directors is incorporated herein by reference from the Company's definitive Proxy Statement for the 2011 Annual Meeting of Shareholders (the "2011 Proxy Statement"). Information regarding executive officers of the Company, included herein under the caption "Executive Officers of the Company" in Part I, Item 1 above, is incorporated herein by reference.

Information concerning the identification of our standing audit committee required by this Item is incorporated by reference from the 2011 Proxy Statement.

Information concerning our audit committee financial experts required by this Item is incorporated by reference from the 2011 Proxy Statement.

Information concerning compliance with Section 16(a) of the Exchange Act required by this Item is incorporated by reference from the 2011 Proxy Statement.

We have adopted a Code of Ethics that is available on our website at www.ashs.com. The information on our website is not part of this report. You may also request a copy of this document free of charge by writing our Corporate Secretary.

### ITEM 11.

### **EXECUTIVE COMPENSATION**

Information required by this Item is incorporated herein by reference from the 2011 Proxy Statement.

ITEM 12.

# SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this Item is incorporated herein by reference from the 2011 Proxy Statement.

ITEM 13.

### CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this Item is incorporated herein by reference from the 2011 Proxy Statement.

ITEM 14.

### PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this Item is incorporated herein by reference from the 2011 Proxy Statement.

**PART IV** 

ITEM 15.

### EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements and Schedules.

The following Financial Statements and Schedules are filed with this Report:

Report of Independent Registered Public Accounting Firm

**Audited Consolidated Financial Statements** 

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Shareholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

Financial Statement Schedules- no schedules are included since the required information is not present or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the financial statements and notes thereto.

(b) Exhibits.

The following Exhibits are filed with this Report.

Exhibit

Number: Description:

- 2.1 Securities Purchase Agreement, dated as of March 12, 1999, by and among Alliance Imaging, Inc.; Embarcadero Holding Corp. I; Embarcadero Holding Corp. II; American Shared Hospital Services; and MMRI, Inc. (1)
- 3.1 Articles of Incorporation of the Company, as amended. (2)

3.2	By-laws of the Company, as amended. (3)
4.6	Form of Common Stock Purchase Warrant of American Shared Hospital Services. (3)
4.8	Registration Rights Agreement, dated as of May 17, 1995, by and among American Shared Hospital Services, the Holders referred to in the Note Purchase Agreement, dated as of May 12, 1995 and General Electric Company, acting through GE Medical Systems. (3)
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4.9	Rights Agreement dated as of March 22, 1999 between American Shared Hospital Services and American Stock Transfer & Trust Company as Rights Agent. (25)
10.1	The Company's 1984 Stock Option Plan, as amended. (4)
10.2	The Company's 1995 Stock Option Plan, as amended. (5)
10.3	Form of Indemnification Agreement between American Shared Hospital Services and members of its Board of Directors. (4)
10.4	Ernest A. Bates Stock Option Agreement dated as of August 15, 1995. (6)
10.5	Operating Agreement for GK Financing, LLC, dated as of October 17, 1995. (3)
10.6	Amendments dated as of October 26, 1995 and as of December 20, 1995 to the GK Financing, LLC Operating Agreement, dated as of October 17, 1995. (7)
10.7	Amendment dated as of October 16, 1996 to the GK Financing, LLC Operating Agreement, dated as of October 17, 1995. (1)
10.8	Amendment dated as of March 31, 1998 ("Fourth Amendment") to the GK Financing, LLC Operating Agreement dated as of October 17, 1995. (8)
10.9	Amendment dated as of March 31, 1998 ("Fifth Amendment") to the GK Financing, LLC Operating Agreement dated as of October 17, 1995. (8)
10.10	Amendment dated as of June 5, 1999 to the GK Financing, LLC Operating Agreement dated as of October 17, 1995. (8)
10.11a	Assignment and Assumption Agreement, dated as of December 31, 1995, between American Shared Radiosurgery Services (assignor) and GK Financing, LLC (assignee). (8)
10.11b	Assignment and Assumption Agreement, dated as of November 1, 1995, between American Shared Hospital Services (assignor) and American Shared Radiosurgery Services (assignee). (4)
10.11c	Amendment Number One dated as of August 1, 1995 to the Lease Agreement for a Gamma Knife Unit between The Regents of the University of California and American Shared Hospital Services. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)
10.11d	Lease Agreement dated as of July 3, 1990 for a Gamma Knife Unit between American Shared Hospital Services and The Regents of the University of California. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)

Amendment Number Two dated as of February 6, 1999 to the Lease Agreement for a Gamma Knife Unit between UCSF-Stanford Health Care and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)

- 10.13 Assignment and Assumption Agreement, dated as of February 3, 1996, between American Shared Radiosurgery Services (assignor) and GK Financing, LLC (assignee). (4)
- 10.14 Lease Agreement for a Gamma Knife Unit dated as of April 6, 1994, between Ernest A. Bates, M.D. and NME Hospitals, Inc. dba USC University Hospital. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)

- 10.15 Assignment and Assumption Agreement dated as of February 1, 1996 between Ernest A. Bates, M.D. and GK Financing, LLC with respect to the Lease Agreement for a Gamma Knife dated as of April 6, 1994 between Ernest A. Bates, M.D. and NME Hospitals, Inc. dba USC University Hospital. (8)
- 10.16 Lease Agreement for a Gamma Knife Unit dated as of October 31, 1996 between Hoag Memorial Hospital Presbyterian and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)
- 10.17 Addendum to Lease Agreement for a Gamma Knife Unit dated as of December 1, 1999 between Hoag Memorial Hospital Presbyterian and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)
- 10.18 Lease Agreement for a Gamma Knife Unit dated as of October 29, 1996 between Methodist Healthcare Systems of San Antonio, Ltd., dba Southwest Texas Methodist Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)
- 10.18a Amendment to Lease Agreement for a Gamma Knife Unit effective December 13, 2003 by and between Methodist Healthcare Systems of San Antonio, Ltd., dba Southwest Texas Methodist Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (22)
- 10.18b Second Amendment to Lease Agreement for a Gamma Knife Unit effective December 23, 2009 by and between Methodist Healthcare Systems of San Antonio, Ltd., dba Southwest Texas Methodist Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (38)
- 10.19 Lease Agreement for a Gamma Knife Unit dated as of April 10, 1997 between Yale-New Haven Ambulatory Services Corporation and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (8)
- 10.19a Amendment to Lease Agreement for a Gamma Knife Unit effective October 25, 2005 by and between Yale-New Haven Ambulatory Services Corporation and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been

replaced with asterisks.) (27)

- 10.19b Amendment to Lease Agreement for a Gamma Knife Unit effective June 30, 2006 by and between Yale-New Haven Ambulatory Services Corporation and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (31)
- 10.19c Second Amendment to Lease Agreement for a Gamma Knife Unit effective May 15, 2009 by and between Yale-New Haven Hospital, Inc. a/k/a Yale-New Haven Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the

Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (37)

- 10.20 Lease Agreement for a Gamma Knife Unit dated as of June 1, 1999 between GK Financing, LLC and Kettering Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (9)
- 10.21 Addendum to Contract with GKF and KMC/WKNI, dated June 1, 1999 between GK Financing, LLC and Kettering Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (9)
- 10.21a Purchased Services Agreement for a Gamma Knife Perfexion Unit dated November 19, 2008 between GK Financing, LLC and Kettering Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (34)
- 10.21b First Amendment to Purchased Services Agreement for a Gamma Knife Perfexion Unit dated June 11, 2009 between GK Financing, LLC and Kettering Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (34)
- Lease Agreement for a Gamma Knife Unit dated as of October 5, 1999 between GK Financing, LLC and New England Medical Center Hospitals, Inc. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (9)
- Addendum to Lease Agreement for a Gamma Knife unit effective April 1, 2005 between GK Financing, LLC and New England Medical Center Hospitals, Inc. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (24)
- Equipment Lease Agreement dated as of October 29, 1999 between GK Financing, LLC and the Board of Trustees of the University of Arkansas on behalf of The University of Arkansas for Medical Sciences. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (9)

Amendment to Lease Agreement effective as of September 15, 2005 between GK Financing, LLC and the Board of Trustees of the University of Arkansas on behalf of The University of Arkansas for Medical Sciences. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (26)

- 10.23b Amendment to Lease Agreement effective as of October 31, 2007 between GK Financing, LLC and the Board of Trustees of the University of Arkansas on behalf of The University of Arkansas for Medical Sciences. (32)
- 10.23c Amendment Three to Lease Agreement effective as of June 11, 2010 between GK Financing, LLC and the Board of Trustees of the University of Arkansas on behalf of The University of Arkansas for Medical Sciences. (36)

- 10.24 First Amendment to Lease Agreement for a Gamma Knife Unit effective as of August 2, 2000 between GK Financing, LLC and Tenet HealthSystems Hospitals, Inc. (formerly known as NME Hospitals, Inc.) dba USC University Hospital. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (9)
- Addendum Two, dated as of October 1, 2000, to Lease Agreement for a Gamma Knife Unit dated as of October 31, 1996 between Hoag Memorial Hospital Presbyterian and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (10)
- 10.26 Lease Agreement for a Gamma Knife Unit dated as of May 28, 2000 between Froedtert Memorial Lutheran Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (10)
- 10.26a First Amendment to Lease Agreement for a Gamma Knife Unit dated as of December 28, 2009 between Froedtert Memorial Lutheran Hospital and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (35)
- Addendum dated June 24, 2000 to Lease Agreement for a Gamma Knife Unit dated as of May 28, 2000 between Froedtert Memorial Lutheran Hospital and GK Financing, LLC. (10)
- Amendment dated July 12, 2000 to Lease Agreement for a Gamma Knife Unit dated May 28, 2000 between Froedtert Memorial Lutheran Hospital and GK Financing, LLC. (10)
- Amendment dated August 24, 2000 to Lease Agreement for a Gamma Knife Unit dated May 28, 2000 between Froedtert Memorial Lutheran Hospital and GK Financing, LLC. (10)
- 10.30 Lease Agreement for a Gamma Knife Unit dated as of December 11, 1996 between The Community Hospital Group, Inc. dba JFK Medical Center and GK Financing, LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (11)
- Addendum One to Lease Agreement for a Gamma Knife Unit dated January 9, 2008 between GK Financing, LLC and The Community Hospital Group, Inc. dba JFK Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks). (33)

- 10.30b Addendum Two to Lease Agreement for a Gamma Knife Unit dated January 9, 2008 between GK Financing, LLC and The Community Hospital Group, Inc. dba JFK Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks). (33)
- Lease Agreement for a Gamma Knife Unit dated as of June 3, 1999 between GK Financing, LLC and Sunrise Hospital and Medical Center, LLC dba Sunrise Hospital and Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (12)
- 10.32 Addendum to Lease Agreement for a Gamma Knife Unit dated as of June 3, 1999 between GK Financing, LLC and Sunrise Hospital and Medical Center, LLC dba Sunrise Hospital and Medical

Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (12)

- 10.33 Lease Agreement for a Gamma Knife Unit dated as of November 1, 1999 between GK Financing, LLC and Jackson HMA, Inc. dba Central Mississippi Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (13)
- 10.34 Addendum to Lease Agreement for a Gamma Knife Unit dated as of November 1, 1999 between GK Financing, LLC and Jackson HMA, Inc. dba Central Mississippi Medical Center. (13)
- 10.35 Lease Agreement for a Gamma Knife Unit dated as of February 18, 2000 between GK Financing, LLC and OSF HealthCare System. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (13)
- Addendum to Lease Agreement for a Gamma Knife Unit effective April 13, 2007, between GK Financing, LLC and OSF HealthCare System. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (30)
- 10.36 American Shared Hospital Services 2001 Stock Option Plan. (14)
- Amendment Number Three to Lease Agreement for a Gamma Knife Unit dated as of June 22, 2001 between GK Financing, LLC and The Regents of the University of California. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (15)
- Addendum Three to Lease Agreement for a Gamma Knife Unit dated as of October 1, 2000 between GK Financing, LLC and Hoag Memorial Hospital Presybterian. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (15)
- 10.39 Lease Agreement for a Gamma Knife Unit dated as of July 18, 2001 between GK Financing, LLC and Bayfront Medical Center, Inc.. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (16)

- 10.40 Lease Agreement for a Gamma Knife Unit dated as of September 13, 2001 between GK Financing, LLC and Mercy Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (17)
- 10.41 Addendum Number One to Contract dated September 13, 2001 between GK Financing, LLC and Mercy Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (17)
- 10.42 Lease Agreement for a Gamma Knife Unit dated as of May 22, 2002 between GK Financing, LLC and The Johns Hopkins Hospital. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule

- 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (18)
- Lease Agreement for a Gamma Knife Unit dated as of July 11, 2002 between GK Financing, LLC and Southern Baptist Hospital of Florida, Inc. D/B/A Baptist Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (19)
- Lease Agreement for a Gamma Knife Unit dated as of February 13, 2003 between GK Financing, LLC and AHS Albuquerque Regional Medical Center LLC. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (20)
- Lease Agreement for a Gamma Knife Unit dated as of May 28, 2003 between GK Financing, LLC and Lehigh Valley Hospital. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (21)
- 10.45a First Amendment to Lease Agreement for a Gamma Knife Unit dated November 2006 between GK Financing, LLC and Lehigh Valley Hospital. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (28)
- Lease Agreement for a Gamma Knife Unit dated as of March 21, 2003 between GK Financing, LLC and Northern Westchester Hospital Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (23)
- Amendment Four to Lease Agreement for a Gamma Knife Unit effective as of December 1, 2002 between GK Financing, LLC and Hoag Memorial Hospital Presbyterian. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (23)
- Line of credit agreement between American Shared Hospital Services and Bank of America dated July 1, 2004 and related amendments No. 1 and No. 2 dated June 23, 2005. (23)
- 10.49 Lease Agreement for a Gamma Knife Unit dated as of May 28, 2004 between GK Financing, LLC and Mercy Health Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted

information has been replaced with asterisks.) (24)

- Lease Agreement for a Gamma Knife Unit dated as of August 7, 2003 between GK Financing, LLC and Baptist Hospital of East Tennessee. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (26)
- 10.50a Amendment No. 1 to Lease Agreement for a Gamma Knife Unit dated as of May 28, 2004 between GK Financing, LLC and Baptist Hospital of East Tennessee. (26)
- Addendum Two to Lease Agreement for a Gamma Knife Unit dated as of November 6, 2006 between GK Financing, LLC and Jackson HMA, Inc. d/b/a Central Mississippi Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the

- Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (28)
- Amendment dated as of October 18, 2006 to the GK Financing, LLC Operating Agreement, dated as of October 17, 1995. (28)
- Addendum Two to Lease Agreement for a Gamma Knife Unit effective January 17, 2007 between GK Financing, LLC and Sunrise Hospital Medical Center, LLC d/b/a Sunrise Hospital Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (29)
- Amendment Five to Lease Agreement for a Gamma Knife Unit effective May 9, 2007 between GK Financing, LLC and The Regents of the University of California. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.)
- Addendum Two to Lease Agreement for a Gamma Knife Unit effective June 20, 2007 between GK Financing, LLC and The Regents of the University of California. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (30)
- Agreement to Purchase Gamma Knife Perfexion Unit effective May 7, 2007 between GK Financing, LLC and The Regents of the University of California. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (30)
- 10.57 Purchased Services Agreement for a Gamma Knife Perfexion Unit dated as of March 5, 2008 between GK Financing, LLC and USC University Hospital, Inc. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks). (33)
- 10.57a First Amendment to Purchased Services Agreement for a Gamma Knife Perfexion Unit dated as of April 1, 2009 between GK Financing, LLC and USC University Hospital, Inc. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks). (34)

Addendum Three to Lease Agreement for a Gamma Knife Unit effective as of June 20, 2007 between GK Financing, LLC and Sunrise Hospital and Medical Center, LLC dba Sunrise Hospital and Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (37)

- 10.59 Addendum Four to Lease Agreement for a Gamma Knife Unit effective as of February 8, 2010 between GK Financing, LLC and Sunrise Hospital and Medical Center, LLC dba Sunrise Hospital and Medical Center. (Confidential material appearing in this document has been omitted and filed separately with the Securities and Exchange Commission in accordance with Rule 24b-2, promulgated under the Securities and Exchange Act of 1934, as amended. Omitted information has been replaced with asterisks.) (37)
- 21. Subsidiaries of American Shared Hospital Services.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 31. Rule 13a-14(a)/15d-14(a) Certifications.

- 32. Section 1350 Certifications (furnished and not to be considered filed as part of the Form 10-K).
- (1) These documents were filed as Exhibits 2.1 and 10.13b, respectively, to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1997, which is incorporated herein by this reference.
- (2) This document was filed as Exhibit 3.1 to registrant's Registration Statement on Form S-2 (Registration No. 33-23416), which is incorporated herein by this reference.
- (3) These documents were filed as Exhibits 3.2, 4.6 and 4.8, respectively, to registrant's Registration Statement on Form S-1 (Registration No. 33-63721) filed on October 26, 1995, which is incorporated herein by this reference.
- (4) These documents were filed as Exhibits 10.24 and 10.35, respectively, to registrant's Registration Statement on Form S-2 (Registration No. 33-23416), which is incorporated herein by this reference.
- (5) This document was filed as Exhibit A to registrant's Proxy Statement, filed on August 31, 1995, which is incorporated herein by this reference.
- (6) This document was filed as Exhibit B to registrant's Proxy Statement, filed on August 31, 1995, which is incorporated herein by this reference.
- (7) These documents were filed as Exhibits 4.14 and 10.13, respectively, to the registrant's Pre-Effective Amendment No. 1 to registrant's Registration Statement on Form S-1 (Registration No. 33-63721) filed on March 29, 1996, which is incorporated herein by this reference.
- (8) These documents were filed as Exhibits 10.8, 10.9, 10.10, 10.11a, 10.11c, 10.11d, 10.12, 10.14, 10.15, 10.16, 10.17, 10.18 and 10.19, respectively, to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1999, which is incorporated herein by this reference.
- (9) These documents were filed as Exhibits 10.20, 10.21, 10.22, 10.23, and 10.24, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2000, which is incorporated herein by this reference.
- (10) These documents were filed as Exhibits 10.25, 10.26, 10.27, 10.28 and 10.29, respectively, to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2000, which is incorporated herein by this reference.
- (11) This document was filed as Exhibit 10.30 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2000, which is incorporated herein by this reference.
- (12) These documents were filed as Exhibits 10.31 and 10.32, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2001, which is incorporated herein by this reference.
- (13) These documents were filed as Exhibits 10.33, 10.34 and 10.35, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2001, which is incorporated herein by this reference.
- (14) This document was filed as Exhibit 10.36 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2001, which is incorporated herein by this reference.

(15)

These documents were filed as Exhibits 10.37 and 10.38 to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, which is incorporated herein by this reference.

- (16) This document was filed as Exhibit 10.39 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2002, which is incorporated herein by this reference.
- (17) These documents were filed as Exhibits 10.40 and 10.41, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2002, which is incorporated herein by this reference.
- (18) This document was filed as Exhibit 10.42 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2003, which is incorporated herein by this reference.

- (19) This document was filed as Exhibit 10.43 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2003, which is incorporated herein by this reference.
- (20) This document was filed as Exhibit 10.44 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2003, which is incorporated herein by this reference.
- (21) This document was filed as Exhibit 10.45 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2004, which is incorporated herein by this reference.
- (22) This document was filed as Exhibit 10.18a to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2005, which is incorporated herein by this reference.
- (23) These documents were filed as Exhibits 10.46, 10.47 and 10.48, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2005, which is incorporated herein by this reference.
- (24) These documents were filed as Exhibits 10.22a and 10.49, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2005, which is incorporated herein by this reference.
- (25) This document was filed as Exhibit 4 to the registrant's Current Report on Form 8-K filed on April 1, 1999, which is incorporated herein by this reference.
- (26) These documents were filed as Exhibits 10.23a, 10.50 and 10.50a, respectively, to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2005, which is incorporated herein by this reference.
- (27) This document was filed as Exhibit 10.19a to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006, which is incorporated herein by this reference.
- (28) These documents were filed as Exhibits 10.45a, 10.51 and 10.52, respectively, to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2006, which is incorporated herein by this reference.
- (29) This document was filed as Exhibit 10.53 to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2007, which is incorporated herein by this reference.
- (30) These documents were filed as Exhibits 10.35a, 10.54, 10.55 and 10.56, respectively, to the registrant's Quarterly Report on Form 10-Q for the fiscal year ended June 30, 2007, which is incorporated herein by this reference.
- (31) This document was filed as Exhibit 10.19b to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2007, which is incorporated herein by this reference.
- (32) This document was filed as Exhibit 10.23b to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2007, which is incorporated herein by this reference.
- (33) These documents were filed as Exhibits 10.30a, 10.30b and 10.57, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2008, which is incorporated herein by this reference.
- (34) These documents were filed as Exhibits 10.21a, 10.21b and 10.57a, respectively, to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2009, which is incorporated herein by this reference.

- (35) This document was filed as Exhibit 10.26a to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2009, which is incorporated herein by this reference.
- (36) This document was filed as Exhibit 10.23c to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010, which is incorporated herein by this reference.
- (37) These documents were filed as Exhibits 10.19c, 10.58 and 10.59, respectively, to the registrant's Quarterly Report on Form 10-Q /A for the quarterly period ended June 30, 2010, which is incorporated herein by this reference.
- (38) This document was filed as Exhibit 10.18b to the registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2010, which is incorporated herein by this 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.

AMERICAN SHARED HOSPITAL SERVICES (Registrant)

March 31, 2011 By: /s/ Ernest A. Bates, M.D.

Ernest A. Bates, M.D. Chairman of the Board and Chief Executive Officer

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 in the capacities and on the dates indicated.

Signature Title Date /s/ Ernest A. Bates Chairman of the Board and March 31, 2011 Ernest A. Bates Chief Executive Officer (Principal Executive Officer) /s/ Olin C. Robison Director March 31, 2011 Olin C. Robison /s/ John F. Ruffle Director March 31, 2011 John F. Ruffle /s/ Raymond C. Stachowiak Director March 31, 2011 Raymond C. Stachowiak /s/ Stanley S. Trotman, Jr. Director March 31, 2011 Stanley S. Trotman, Jr. /s/ Craig K. Tagawa Chief Operating Officer and March 31, 2011 Craig K. Tagawa Chief Financial Officer (Principal Accounting Officer)

### AMERICAN SHARED HOSPITAL SERVICES

# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM and ${\it CONSOLIDATED FINANCIAL STATEMENTS}$

DECEMBER 31, 2010, 2009 and 2008

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders American Shared Hospital Services

We have audited the accompanying consolidated balance sheets of American Shared Hospital Services and subsidiaries (the "Company") as of December 31, 2010 and 2009, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2010. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. 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 consolidated financial position of American Shared Hospital Services and subsidiaries at December 31, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2010 in conformity with accounting principles generally accepted in the United States of America.

/S/ MOSS ADAMS LLP

Stockton, California March 31, 2011

### American Shared Hospital Services Consolidated Balance Sheets

	DECEMBER 31,			
		2010		2009
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	\$	1,438,000	\$	833,000
Restricted cash		50,000		50,000
Certificate of deposit		9,000,000		9,000,000
Trade accounts receivable, net of allowance for doubtful				
accounts of \$100,000 in 2010 and 2009		3,730,000		3,817,000
Other receivables		71,000		60,000
Prepaid expenses and other current assets		473,000		495,000
Current deferred tax assets		313,000		219,000
Total current assets		15,075,000		14,474,000
PROPERTY AND EQUIPMENT, net		47,360,000		43,289,000