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THE ASATT SENSOR

OCTOBER 1991

THE QUARTERLY NEWSLETTER OF THE

AMERICAN SOCIETY OF ANESTHESIA TECHNOLOGISTS AND TECHNICIANS

President's Message ...

by Dennis McMahon

As we go to press, details are being finalized for our Second Annual meeting in San Francisco Sunday and Monday, Oct 27th and 28th. Registrations for the meeting have been brisk, and we hope to see as many of you as possible there. Peter Chase has been putting a lot of energy into making this a successful conference, and Chris Patterson is making sure that we put on our best face at our display booth in the ASA exhibition hall. John Spaulding of our management company and George Mann in Syracuse also deserve mention for their support of the logistics and preparations. Major meetings involve major expenses, and we have been able to keep the registration fees as low as possible due to the support of the corporate sector. Specific thanks go to Haemonetics Corp., Burroughs-Wellcome, Nellcor, Stuart Pharmaceuticals, Organon, Nellcor, Anaquest, Ohmeda, North American Drager, Electromedics, and Diatek for their generous assistance to the meeting and exhibit.

In addition to the importance of the educational presentations, the business meeting will provide a forum for deciding the direction we take in the next year. If you cannot be at the meeting, let your regional director know your ideas about the focus and activities of the ASATT. What are the technical topics you would most like to know more about? What other services can the Society provide? How can the ASATT better support the regional societies? Let us know - *it's your society.*

Within the past few weeks, each society member should have received a copy of the ASATT Training Guidelines. This is the product of a great deal of effort on the part of our Training Committee and liaison people within the community of anesthesia providers over the past six months, and represents their collective judgment on the definition and training for anesthesia technicians and technologists. We realize that there may be institutions where the level of technical support does not require the extent of training and duties covered by the guidelines, but they are written to allow for the full range of duties that anesthesia technology involves, and to allow for professional growth. The standardization of our training is a primary goal of the Society; your suggestions and additions to the guidelines are encouraged.

Finally, I am happy to announce that beginning December 1st, the ASATT will have a set of video tapes on various topics of anesthesia safety and technology for loan to any ASATT member. The tapes, provided through the generosity of Burroughs-Wellcome and promoted by the Anesthesia Patient Safety Foundation, are an ideal resource for inservice sessions at your hospital, or for regional society meetings. Details on this program will be announced at the annual meeting in San Francisco, and will be published in the January *Sensor*. Stay tuned.

INTEGRATED MONITORING SYSTEMS

L. Dianne Holley
Chief Anesthesia Technician
Seton Medical Center, Austin, TX

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Assistant Chief of Anesthesia
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While advancing technology has certainly increased the complexity of anesthesia monitoring, some areas have actually been simplified. Most anesthesia professionals and paraprofessionals are well aware of the new types of anesthesia monitoring that are becoming available. However, one area that has gone largely unheralded is the integration of these various monitoring capabilities into single systems. This integration simplifies several problems inherent in monitoring, and creates some exciting prospects for the future.

Among the first monitors which integrated separate monitoring functions into a single unit and screen was the ECG / invasive pressure monitor. Hewlett-Packard developed one of the first single ECG/ dual invasive pressure monitors and later expanded it to a dual ECG / triple invasive pressure / temperature monitor. Soon, other manufacturers followed suit and eventually several brands of ECG/ invasive pressure / temperature monitors were available. This multiple-function monitor has long been an accepted standard of care in anesthesia and until relatively recently, was the only electronic monitor used routinely in the operating room. However, many other monitors have arrived on the anesthesia scene to take their places beside this faithful original.

The 1980's brought a virtual explosion of sophisticated electronics and computerization. This led to a similar explosion in the types and capabilities of

(continued on page 3)

The View From...

SHANDS HOSPITAL AT THE UNIVERSITY OF FLORIDA

by Geoffrey C. Bright
Supervisor, Anesthesia Technical Services

Shands Hospital is a 548-bed, tertiary care nonprofit medical center affiliated with the University of Florida in Gainesville, Florida.

The Department of Anesthesiology employs 45 anesthesiologists and 81 anesthesia residents. The program director, Jerome H. Modell, MD, is also the Senior Associate Dean for Clinical Affairs of the University of Florida College of Medicine (UFCM). We have ten anesthesia technicians, 15 secretarial and clerical members, and at least five research assistants.

As Supervisor of Anesthesia Technical Services, I work directly for Shands hospital. Besides technical services in the Operating Room, I am also responsible for technical support to the Pain Clinic and Pre-Op Clinic. I am a member of the hospital's Product Evaluation Committee and a Cardiopulmonary Basic Life Support instructor.

Our anesthesia technicians are responsible for stocking thirty anesthesia carts, transporting blood samples to the stat lab, and providing ancillary equipment and supplies requested by anesthesiologists. Our services are required in thirty locations each day. The hospital is currently undergoing renovation to add three operating rooms. As technicians in a teaching hospital we do not perform some services that are part of the training exercises for the anesthesia residents. We have a wide variety of equipment: Datascope, Marquette, and Hewlett-Packard physiologic monitors, a transesophageal echocardiograph, Ohmeda stand-alone gas analyzer, fiberoptic bronchoscopes, Bullard laryngoscopes, and oximetric cardiac output monitors. All of our anesthesia machines are manufactured by Ohmeda. We have Datatrac and Arkive record keepers. The physical layout consists of 19 operating rooms in the main suite, two cystoscopy suites, three rooms in Labor and Delivery, an operating room solely for burn patients, cardiac cath lab, mobile lithotripsy, two radiology carts and machines, radiation therapy, induction cart, and Pain Clinic. Our surgical procedures range from herniorrhaphy and tonsillectomy to laparoscopic cholecystectomy, and heart, kidney, and liver transplantation.

One of only two functional anesthesia simulators in the country was developed in our department, and is an integral part of our anesthesia training program. The Gainesville Anesthesia Simulator (GAS) is a functional replica of the anesthesiologist's environment at the head of the operating table. The simulator consists of an actual anesthesia machine, monitoring instruments, and a patient mannequin. The machine delivers gases to the "patient" while the monitors display vital signs as they would with an actual patient. Additionally, a variety of clinical signs such as palpable radial and carotid pulses, heart and lung sounds, and a twitch response are simulated. Under computer control, clinical and equipment-related problems are created that must be detected and corrected by the clinician. Thus the simulator presents a unique learning opportunity: there is no risk to a real patient and exercises can be repeated until problems are fully understood.

The riskless environment provided by the GAS opens a broad range of educational possibilities for professionals in all branches of anesthesia. One of our visions is an Anesthesia Technologist Certification seminar that will start with the basic machine setup and include troubleshooting and problem solving. The Department of Anesthesiology at UFCM has initiated procedures to seek endorsement of such a program by the ASA. We hope to begin the seminars in 1992.

INTEGRATED MONITORING SYSTEMS *continued from page 1...*

anesthesia monitors. One of the first to gain understandable popularity was the non-invasive blood pressure monitor. Soon pulse oximeters, capnograph/ respiratory gas analyzers, and multiple-site temperature monitors joined the monitoring team in "stand alone" units.

As the monitor stands became more crowded with these assorted individual units, they also became proportionally more complicated as caregivers were required to learn how to operate each new and separate piece of equipment. Fortunately, this also helped lead to a corresponding explosion in the field of anesthesia technology.

Early attempts to combine the functions of the newer stand-alone monitors into single units were often unsuccessful since the technology for each individual function was not fully developed. Nonetheless, the mid-1980's were inundated with monitors that combined two or more functions in various formats -- ECG & non-invasive pressure, pulse oximetry and capnography, etc. Innovations in the computer and microelectronics fields also allowed certain stand-alone monitors to be linked by data cables to other monitors or remote monitor screens. Soon the advantages of a single screen displaying multiple parameters became apparent and a manufacturing race to perfect this ideal was underway.

Toward the latter half of the 1980's, Spacelabs, Hewlett-Packard, Marquette, and other companies developed and began marketing the first large integrated monitors. Each individual monitor could have a flexible array of monitoring functions depending upon the modules accessed to it. Thus a single monitor could be set up to meet an assortment of needs. From simple ECG and pulse oximetry to highly sophisticated cardiac monitoring functions and calculations, a single monitor could span the range with the appropriate modules in place. Even from hour to hour, a monitor could be changed to its most effective and efficient array for a particular need, using the small, portable, and quickly installed modules. In addition to the ease of upgrading or downgrading a monitoring system, a caregiver now had only one monitor to learn how to operate, rather than several types and brands of stand-alones. Manufacturers of anesthesia machines incorporated some of these concepts into their products, attempting to produce a single machine that could fill all the equipment needs of the practitioner. Integrated monitors had several other advantages that helped sell them to medical facilities.

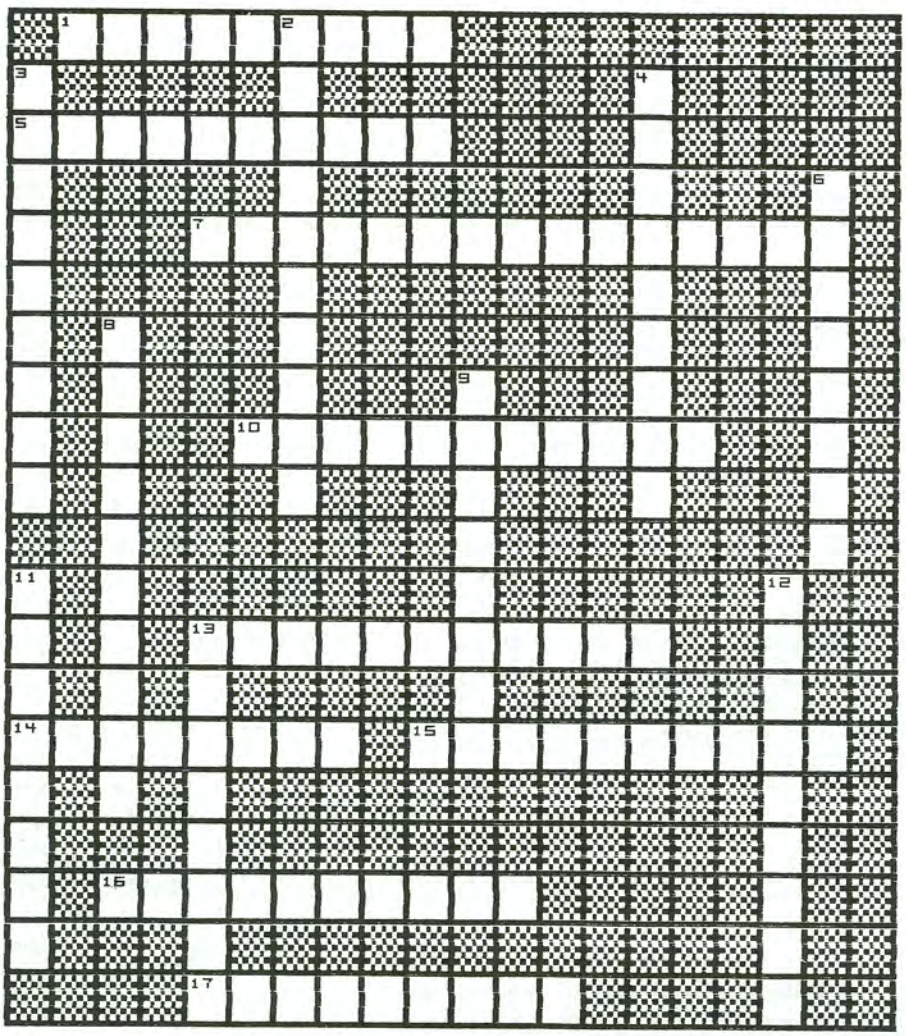
With the current Information Age in full swing, a desirable monitoring system should allow easy access to patient information. Fortunately, the integrated systems fulfill this requirement in many ways. A single integrated monitor has access to all the real-time patient data that it is currently monitoring. With this data in a single computer (the integrated monitor), various calculations such as systemic vascular resistance or drug dose calculations, can be quickly and easily accomplished. In addition to the real-time information access, these computer/monitors also have memory capabilities.

Most integrated monitoring systems have modules that are capable of storing the data they have gathered while monitoring the patient. If a patient is transferred to another area in the medical facility, his module can be transported with him and thus transport his monitoring history. This history can be accessed by plugging the module into any other monitor of the same type and brand. The module in turn can even monitor the patient in route by being plugged into a transport unit. Therefore, a patient can be moved from the emergency room to surgery and then to intensive care while a continuous monitoring history is being obtained, even during transport. This ability to network patient information to different locations is another advantage of the integrated monitoring systems.

Intensive care units have long depended upon the use of remote bedside monitors all linked to a central monitoring station. More recently mass spectrometer units have been similarly linked in surgery with the central unit being shared among several operating rooms. This networking of remote computer / monitoring systems is a newer application for the integrated monitor systems. Although intensive care units may benefit the most by these enhanced versions of their central station concept, other areas can benefit also. If an anesthesiologist is busy in one area of a hospital, and he or she receives a call about a patient in another area, the patient's monitored data can be checked, both past and real-time, on a remote link-up, and better prescribe proper treatment. A doctor could even access the hospital's computer / monitor system by modem, using a personal computer from outside the hospital and retrieve the patient's most current monitor data. Eventually a patient's medical records could be contained on a computer disk, to be simply inserted into an integrated computer / monitor with each treatment or return visit. The far-reaching possibilities for this type of advanced technology defy the imagination. With medical technology advancing so quickly, computer / monitoring needs are being met almost before they become "needs".

TECHNICIAN CROSSWORD

by Dianne Holley



Answers to previous puzzle:

ANSWERS: V1#3

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      R    C N
DEATH U   SODALIME
A   E BAIN O S  H
Y   A B   BLOODGAS
  R R E     G  U
 HISTORY  B  A  S
  G      BIOPSY
  I  R    C  T
  D TEMPERATURE
M I  C    R  I
Y T  O    B  C
OXYGEN    O     I
G    SUCCINYLCHOLINE
L    T    A  A    C
O    I DANTROLENE R
B    T    E  C    E
ISOFLURANE   I  I A
N    T       U  C S
    METABOLISM GENE
     D           D
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FAMILIAR PHARMACEUTICALS...

What is the generic name for:

ACROSS

1. Xylocaine
5. Forane
7. Anectine
10. Marcaine *or* Sensorcaine
13. Pavulon
14. Diprivan
15. Norcuron
16. Pentothal
17. Ethrane

DOWN

2. Tracrium
3. Versed
4. Fluothane
6. Ketalar
8. Inderal
9. Narcan
11. Duramorph
12. Proventil *or* Ventolin
13. Novocain

Reference: Physicians' Desk Reference 1991
Medical Economics Company, Oradell, NJ

TECHNICALLY SPEAKING...

by Wes Simpson II, San Diego, CA

This issue of the *Sensor* introduces a new column which is planned as a regular feature. With the rapid expansion of technology, it becomes increasingly difficult to remain current with the literature. TECHNICALLY SPEAKING... is intended to help in this regard by offering citations and brief descriptions of articles of clinical relevance to the field of anesthesia technology. Every effort will be made to review a variety of literature, including controversial authors, and to cite from sources that should be readily available at most institutions. From time to time, historical citations of particular interest will also be offered.

AORN: Recommended practices, cleaning and processing anesthesia equipment. AORN JOURNAL, 53:3, 775-777, 1991.
(Updates previously issued recommended practices.)

Bjoraker DG: Liquid crystal temperature indicators. ANESTHESIOLOGY REVIEW, 17:2, 50-56, 1990.
(Details the formulation, clinical utility, and accuracy of these indicators for use in anesthesia.)

ECRI: ECG safety leads. TECHNOLOGY FOR ANESTHESIA, 11:12, 1-2, June 1991.
(Update on the recommended use of ECG leads that prohibit connecting to AC power sockets.)

ECRI: Law mandates reporting of device-related injuries. TODAY'S O.R. NURSE, 13:7, 38-39, 1991.
(A brief overview of the Safe Medical Devices Act of 1990.)

ECRI: Needlestick injuries. TECHNOLOGY FOR ANESTHESIA, 11:11, 1-9, May 1991.
(Synopsis of the risks, and means of prevention, of needlestick injuries for health care workers.)

ECRI: Reducing the risk of endotracheal tube fires. TODAY'S O.R. NURSE, 13:1, 39, 1991.
(Brief overview of a comprehensive study done by ECRI.)

Eichhorn JH: ASA Standards Amended: CO2 Seen after intubation now the 'Standard of Care'. Anesthesia Patient Safety Foundation Newsletter, 6:1, 1, Spring 1991.
(Summarizes amendments made to the ASA's standards of patient care.)

Fay MF: Hand dermatitis, the role of gloves. AORN JOURNAL, 54:3, 451-467, 1991.
(Comprehensive overview of etiology, treatment, and prevention.)

Freund PR, *et al*: A prospective study of intraoperative pulse oximetry failure. JOURNAL OF CLINICAL MONITORING, 7:3, 253-258, 1991.
(Study of the rate, and possible causes, of failure of pulse oximeters in over 11,000 cases in four clinical settings.)

Korniewicz DM, Kirman K, Larson E: Do your gloves fit the task? AMERICAN JOURNAL OF NURSING, 91, 38-40, June 1991.
(Comparison of vinyl vs latex gloves.)

Marousk RT: The Material Safety Data Sheet: A guide to chemical safety in the O.R. TODAY'S O.R. NURSE, 13:1, 6-11, 1991.
(A basic guide to interpreting the MSDS, exposure limits, and right-to-know standards.)

Roy J, McNulty SE, Torjman MC: An improved nasal prong apparatus for end-tidal CO2 monitoring in awake, sedated patients. JOURNAL OF CLINICAL MONITORING, 7:3, 249-252, 1991.
(Describes modification of nasal prong for simultaneous O2 delivery and CO2 sampling.)

NEW MEMBERS ... *Welcome to the following new ASATT members, entered on the roster since June 24th:*

Celia O'Doan
Reno, NV
Larry Brown
Philadelphia, PA
Cheri Giangiacomo
Sinking Spring, PA
Susan Orlich
Franklin, WI
Adolpho Gonzalez
San Bernadino, CA
Dale Cosner
Mount Clemens, MI
Richard Harrison
Joppa, MD
Robert Bruce
San Anselmo, CA
Eugene A. Daly
Canton, OH
Jeffrey Drummond
Milwaukee, WI
Ronald James
Philadelphia, PA
Susan Maurer
So Milwaukee, WI

Don Millbauer
Kirkland, WA
John P. Miner, Jr
Kailua, HI
Rodney E. Adkins
Cincinnati, OH
Bruce W. Deboer
Apple Valley, MN
Dario J. Grear
Cherry Hill, NJ
Gloria A. Thomas
Fort Myer, VA
Penny R. Switalski
Harbor Springs, MI
Amy Miller
Lacey, WA
Budella Ballew
Richmond, KY
Jeff Calderone
Wilmore, KY
Janice Carter
Lexington, KY
Joseph Edwards
Lexington, KY

Naomi M. Farris
Lexington, KY
Alvin Hale
Philadelphia, PA
Eric Lancaster
Lexington, KY
Dorris C. Mullins
Georgetown, KY
Ken E. Strain
Little Rock, AR
William O. Witt, MD
Lexington, KY
Roger Sargent
Clarksville, IN
Jeffrey A, Lewis
Cottonwood, CA
Terry A. Bernier
Richfield, MN
Robert S. Garcia
Chicago, IL
Rebecca Bonmomme
Philadelphia, PA
Ronald Farnen
Akron, OH

Mike A. Garcia
Los Angeles, CA
Allen O. Patterson
Clinton, MS
Fannie Riggins
Philadelphia, PA
Joan Becker
Waukesha, WI
S. Michael Farar
No Little Rock, AR
Carol Shively
Des Moines, IA
Kay Stuber
Des Moines, IA
Richard J. Bresett
Madison, WI
Gregory Bickford
Unionville, CT
Vasilios Filintarakis
New Britain, CT
Alan Katten
Plainville, CT
Charles McDonald
Wethersfield, CT
Maciej Szczypinski
Wethersfield, CT

Josephine Trinidad, LPN
Boca Raton, FL
Betty Wells
South Windsor, CT
Sheveney Willfahrt
Auburndale, WI
Kathy Chambers
Nashville, TN
Barry Howard
Nashville, TN
Nestor Bongaong
Chicago, IL
Linda Stokes
Omaha, NE
George E. Robinson, Jr
Richmond, CA
Nestor Louis Torres
Lawrence, MA
Marianne Jenkins
Granite Bay, CA
David P. Sokol
Oak Park, IL
Haileselassie Tuku
New Rochelle, NY
Victoria A. Reyes
Palmdale, CA

LETTERS...

Infection Control and the Anesthesia Technician: The Controversy

Infection control and anesthesia: Where are we now? This is an issue that seems to increasingly plague anesthesia technology. In this day of HIV, HBV, and other diseases yet to be discovered, the need for understanding the modes and mechanics of cross-contamination is greater than ever before. The primary goal in infection control is to reduce or eliminate the risk of cross-contamination from patient to health care worker, health care worker to patient, and between patients. Reciprocal infection control between patient and health care worker is a matter of good technique and the use of personal protection. However, the stakes change in the issue of contamination between patients, since many items used in the practice of anesthesia might be vectors for the transfer of micro-organisms. The issues before us are still under debate by medical practitioners and researchers. However, there may be issues in which we can take a stand as an organization.

Let's take a look at some of the issues which confront us: The gas machine, what should be changed after each case? What needs to be done between procedures? What about needle-less anesthesia? Think of the times someone may touch equipment with bloody gloves during the process of placing a central line. Examples of some of the latest information coming out in recent studies and from the Centers for Disease Control are:

- There is no such thing as a dirty case. We must treat each patient as having an infectious disease. To have several levels of precautions based on our awareness of the patient's history, as some have advocated, poses a dilemma in which we must justify not providing the same standard of care for each individual.
- Filters are not usually able to protect the patient from contamination from reused, unclean systems, *ie* the absorber, absorber manifold, or ventilator.
- Non-rebreathing systems is a topic for which there is not much data. Due to the mechanics involved, the possibility of cross-contamination is less likely.
- Laryngoscopes must receive high-level disinfection or sterilization, as must any item coming in contact with intact mucous membranes. A simple scrub and soaping is no longer appropriate.

Perhaps this is the perfect time to take a stand on this issue since there may be some who are not aware of, or following, the current recommended infection control protocols. As a national anesthesia tech organization, this may be one of the first concerns on which we can take a stand by issuing a "Statement of Suggested Protocol" or "Guidelines for Infection Control for the Anesthesia Technician". Perhaps simply a statement that the ASATT recognizes the CDC Universal Precautions. This may be an issue that should be an agenda item for our next national meeting. It would be the first statement issued from our group relative to practice and safety that we could all refer to.

There may be resistance from directors, house staff, and administrators on this topic. Do they understand our concerns? As a director of an anesthesia assistants, it would be useful to reference a national organization on practice matters, and use this information for justifying more help, equipment, etc. The ASATT might be able to set aside funding for research. In implementing any of these suggestions, our organization would receive some immediate notice and influence. This would also be part of our first steps toward standardization and eventual certification. Perhaps this is a good topic for lively debate?

— Ivan M. George, Senior Anesthesia Assistant
Department of Anesthesia
University of Kentucky Medical Center, Lexington, KY

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Centers for Disease Control. Update: Human immunodeficiency virus infections in healthcare workers exposed to blood of infected patients. MMWR
1987, 36:286-289.

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1991, 5:50-69

Green ES: Infection control in anesthesia and critical care medicine. Anesthesiology Report.
1990; 3:280-290.

Lumley J: Decontamination of anaesthetic and ventilatory equipment. in Bailliere's Clinical Anaesthesiology.
1988; 2:391-399.

Martin P: Management of the contaminated patient: preventing infection transmission. Anesthesiology Report
1990; 2:332-338.

US Occupational Safety and Health Administration: Occupational exposure to bloodborne pathogens: proposed rule and notice of hearing. *Federal Register*,
May 30, 1989; 54(102);23042-23139.

Seattle, WA: Jack Millay of Spacelabs fields questions after his presentation on noninvasive blood pressure monitors.

REGIONAL SOCIETY ACTIVITIES ...

Let us know what's happening in your area! Send a brief report of recent and future activities to the editor by December 6, 1991. Photos (black & white, 3x5, captioned on back) are also welcome.

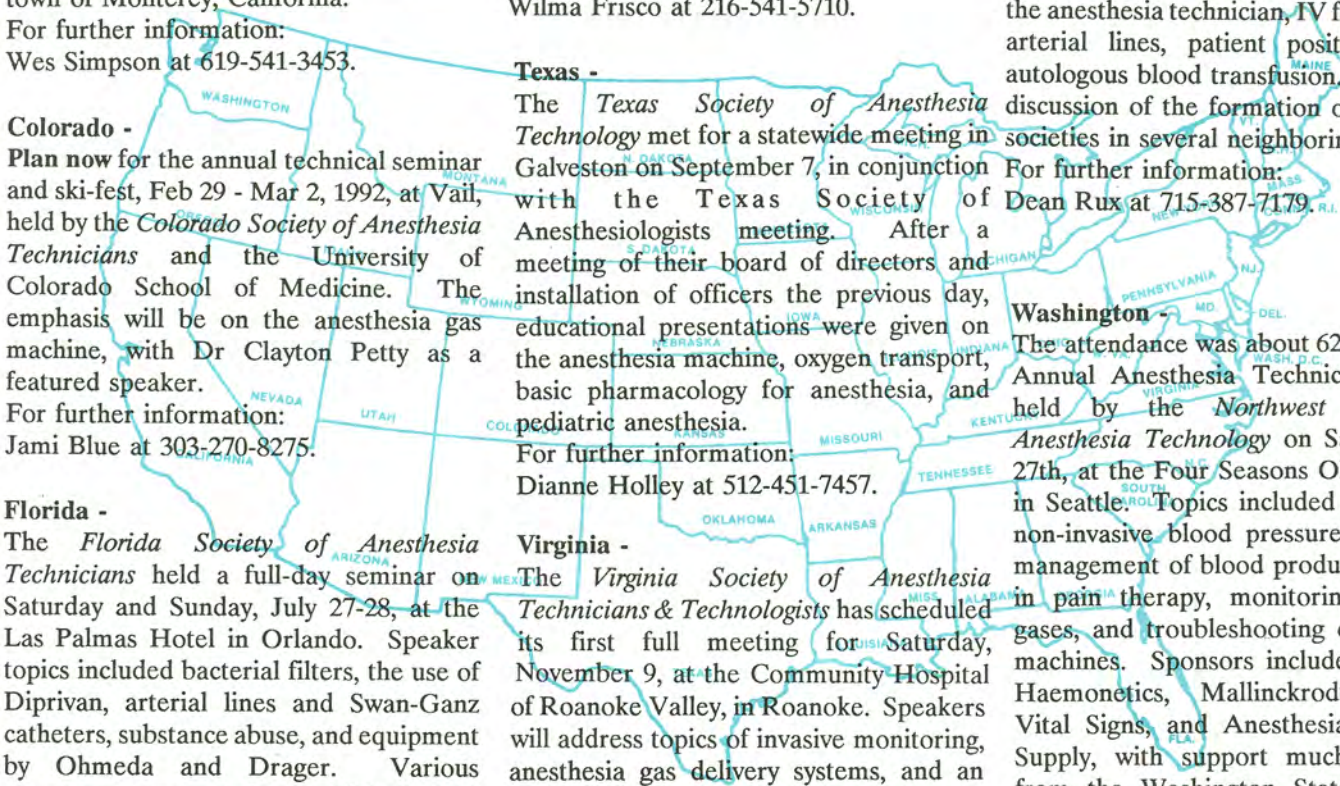
California -
The *California Association of Anesthesia Technologists and Technicians* has plans for the Eighth Annual Meeting already underway. It will be held next May at the convention center in the beautiful coastal town of Monterey, California.
For further information:
Wes Simpson at 619-541-3453.

Colorado -
Plan now for the annual technical seminar and ski-fest, Feb 29 - Mar 2, 1992, at Vail, held by the *Colorado Society of Anesthesia Technicians* and the University of Colorado School of Medicine. The emphasis will be on the anesthesia gas machine, with Dr Clayton Petty as a featured speaker.
For further information:
Jami Blue at 303-270-8275.

Florida -
The *Florida Society of Anesthesia Technicians* held a full-day seminar on Saturday and Sunday, July 27-28, at the Las Palmas Hotel in Orlando. Speaker topics included bacterial filters, the use of Diprivan, arterial lines and Swan-Ganz catheters, substance abuse, and equipment by Ohmeda and Drager. Various company representatives exhibited their products and fielded questions from the techs. There was a total of 44 anesthesia technicians from across the state, and they were very excited about the progress being made nationally to support our field. We anticipate a greater number of memberships before the end of the year.
For further information:
Ed Vasquez at 407-897-1529 (work), or 407-823-7687 (home).

New York -
The *New York State Anesthesia Technology Association* meets monthly in the Rochester area, with topics on anesthesia technology.
For further information:
John Armstrong at 716-275-5545 or George Mann at 315-464-4640.

Ohio -
The *Ohio Society of Anesthesia Technicians & Technologists* held its regular monthly meeting on Saturday, Sept 28, with an inservice on lasers and cell-savers. Their next meeting will be on Saturday, Oct 28, with an inservice on Physio Control transport monitor-defibrillators.
For further information:
Wilma Frisco at 216-541-5710.



Texas -
The *Texas Society of Anesthesia Technology* met for a statewide meeting in Galveston on September 7, in conjunction with the Texas Society of Anesthesiologists meeting. After a meeting of their board of directors and installation of officers the previous day, educational presentations were given on the anesthesia machine, oxygen transport, basic pharmacology for anesthesia, and pediatric anesthesia.
For further information:
Dianne Holley at 512-451-7457.

Virginia -
The *Virginia Society of Anesthesia Technicians & Technologists* has scheduled its first full meeting for Saturday, November 9, at the Community Hospital of Roanoke Valley, in Roanoke. Speakers will address topics of invasive monitoring, anesthesia gas delivery systems, and an overview of the pharmaceuticals used in anesthesia.
For further information:
Linda Ferris at 703-985-8351.

Wisconsin -
On Saturday, September 14th, the newly-formed *Wisconsin Great Lakes Society of Anesthesia Technicians* held its first annual seminar at the Marshfield Clinic in central Wisconsin, with an attendance of almost 40 technicians from Wisconsin, Illinois, Minnesota, and Iowa. Presentations were given on the role of the anesthesia technician, IV fluid therapy, arterial lines, patient positioning, and autologous blood transfusion. There was discussion of the formation of technician societies in several neighboring states.
For further information:
Dean Rux at 715-387-7179.

Washington -
The attendance was about 62 at the Third Annual Anesthesia Technician Seminar held by the *Northwest Society of Anesthesia Technology* on Saturday, July 27th, at the Four Seasons Olympic Hotel in Seattle. Topics included invasive and non-invasive blood pressure monitoring, management of blood products, advances in pain therapy, monitoring of airway gases, and troubleshooting of anesthesia machines. Sponsors included Anaquest, Haemonetics, Mallinckrodt, Ohmeda, Vital Signs, and Anesthesia Equipment Supply, with support much-appreciated from the Washington State Society of Anesthesiologists. The NSAT meets quarterly in the Seattle area; our next meeting will be during the first week of November.
For further information:
Lee Amorin at 206-223-3059.

Orlando, FL: Carlo Bracci of Ohmeda inservices techs on an anesthesia machine at the Florida Society seminar.

MOVING? JUST MOVED? ABOUT TO MOVE?

LET US KNOW!

If you have a new name, address, and/or phone recently, please let us know. Fill out this form and send to the ASATT address:

Name: _____ Phone: (____)_____

NEW Address: _____

number & street apt/unit

_____

city state zip

THE COMPUTER THANKS YOU!

American Society of Anesthesia Technologists & Technicians
P.O. Box 22492, San Francisco, CA 94122