



**THE  
MISSOURI  
MINUTES**

**APRIL 1974**

**The Missouri Society of Radiologic Technologists**

THE MISSOURI SOCIETY  
of  
RADIOLOGIC TECHNOLOGISTS

OFFICERS AND BOARD OF DIRECTORS  
1973-74

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JR. MEMBER----- Phyllis McEnerney R.T.  
Forest Park Comm. College  
5600 Oakland Ave.  
St. Louis, Mo. 63110

PRESIDENT'S MESSAGE

It is indeed a great honor to serve you as President of the Missouri Society of Radiologic Technologists. The office of president is a demanding one, and I can assure you my determination is focused in a positive direction.

As President, I can assist you in your endeavors, I can contribute my time and efforts, I can perform services and I will be loyal to you, but only you can really make the Missouri Society work. You are what this society needs. It needs everyone working together, there is enough work for all of us. It sometimes seems to be a never ending job, but our goals have been set and we must not let up. It is the responsibility of every technologist to reach out and prepare ourselves for the future.

I want to hear your ideas, your suggestions, and your problems. I want to know you. This Society can only be what you want to make it. Your contributions to Radiologic Technology will determine our destiny.

Each and every technologist has, and rightly so, the freedom and responsibility to express their beliefs and opinions. But we must not forget that regardless of ones personal feelings, we can not lose sight of our primary objectives. We are all working for the advancements of Radiologic Technology. Let our efforts be honorable and more meaningful, I urge each and every one of you to have faith and trust in your professional organization.

Any recognition we receive as x-ray technologists depends on what we are willing to give our Society. The enthusiasm and energy necessary to fulfill these goals is not always easy to find. But we can not, we must not, and we will not give up the struggles, We will continue to make progress. We can and will do it together.

Ronald A. Ott, President  
Missouri Society of Radiologic Technologists

February 11, 1974

To: MSRT Membership

From: Board of Directors

It is with deep regret that the Board of Directors accepts the resignations of Mr. David Blackwell, R.T., President, MSRT and Mrs. Suzanne Hasler, R.T., Secretary, MSRT.

Mr. Ron Ott R.T., Vice President of the MSRT has assumed the duties of the presidency.

Mr. Norman Hente R.T. has been appointed by the Board of Directors to serve the remainder of the term of Vice President. This vacancy being created when Mr. Ott became President.

Mrs. Donna D. Cassell R.T. has been appointed by the Board of Directors to serve the remainder of the term of secretary.

The following letter was received by the Chairman of the Board on February 8, 1974.

Dear Darrell:

Several weeks ago in a telephone conversation we had, I expressed doubts about my remaining President of the MSRT. The time has come that I should submit to you my resignation from this office.

It was my intention to serve this office and the MSRT in an honorable and diligent manner, but, due to personal problems and pressures I found myself not able to serve. I ask for your indulgence where I have failed to carry out the duties of the office of President.

I will make arrangements to turn over all records in my possession to Mr. Ron Ott, the Vice President, so that the business of the Society can be carried out in a professional manner.

Wishing you and all the members of the MSRT the very best, I remain

Sincerely Yours  
W. David Blackwell, R.T.

PROPOSED BUDGET**Income**

|                              |               |
|------------------------------|---------------|
| Dues                         | \$ 2000.00    |
| Advertising Missouri Minutes | 225.00        |
| Annual Meeting               | 400.00        |
| Investing                    | <u>120.00</u> |
|                              | 2745.00       |

**Expenditures**

|                                    |               |
|------------------------------------|---------------|
| Executive Office Operating Expense |               |
| Office Supplies                    | 60.00         |
| Printing and Stationary            | 100.00        |
| Affiliate Society By-Laws          | 60.00         |
| Stipend-Executive Secretary        | 360.00        |
| Telephone                          | 100.00        |
| Postage                            | 100.00        |
| Copying                            | <u>100.00</u> |
| Sub total                          | 880.00        |

**Board of Directors**

|                     |               |
|---------------------|---------------|
| President           | 250.00        |
| Other Officers      | 150.00        |
| Other Board Members | <u>100.00</u> |
| Sub total           | 500.00        |

**Committees**

|                      |               |
|----------------------|---------------|
| Education            | \$ 100.00     |
| Licensure            | 365.00        |
| Membership           | 100.00        |
| Nominating           | 50.00         |
| Professional Affairs | 150.00        |
| Student              | 50.00         |
| Sub total            | <u>815.00</u> |

**Other Disbursements**

|                          |               |
|--------------------------|---------------|
| Missouri Minutes         | 300.00        |
| Delegate to ASRT Meeting | 200.00        |
| View Boxes               | 50.00         |
| Sub total                | <u>550.00</u> |

**Grand Total \$ 2745.00**

The following article is the Sante Memorial lecture as given by Mr. Richard Hammer R.T. at the Forty-first annual meeting of the M.S.R.T.

In these days of constant change and turmoil I find this lecture particularly thought provoking and poignant. Although the dynamic and emotional presentation of Mr. Hammer is not present in black and white, his words well express his feelings.

#### BECOME A MAN

When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man, I put away childish things. 1 Corinthians 13:11

The Missouri Society of Radiologic Technologists is 42 years old and for 26 of those 42 years I have been a card-carrying member. In fact, I have a current membership card. The point I'm making is that I feel I have a right, in fact a duty, to speak openly and freely to you my fellow technologists.

It appears to me that the time has come when the Missouri Society of Radiologic Technologists should no longer speak, think or understand as a child but should in fact put away childish things and become a man. Mature, that is.

Technology has been a long time in its struggle for acceptance as professionals into the medical field. In the beginning, technologists were no more than helpers. Thanks to far-sighted individuals, like Dr. Sante and others, our lot has improved considerably, but full acceptance as professionals with resultant monetary as well as other rewards, have not been forthcoming. Maybe, just maybe it's our fault. Let's take a look at what has transpired over the years.

Too long did technologists look to the Radiologist as their great white father, the giver of all good gifts. What should never have been anything more than professional supervision, became the controlling force of the very bread we ate. We looked upon them as gods and never questioned their wisdom.

Truth ultimately prevails and in time technology slowly became of age, realizing that the relationship was not valid. The immediate outcome of this discovery was an effort to upgrade the field through technical education. We believed that if we became more proficient technicians surely the Radiologists would recognize our contributions and reward us with the stature due us and might even pay us more. Most of us, however, at this point in time, would have waived the salary increase for a few crumbs of recognition. We wanted so desperately to be called professionals that even money was secondary. We were so sure that technical education

would obtain for us our heart's desire, that to raise the question of money or working conditions at a convention or seminar was verboten.

As time passed and neither professional recognition nor adequate compensation was forthcoming, people began to leave for greener pastures. A hue and cry was raised from some "radicals" with a half dozen mouths to feed, for a society effort to seek better salaries and working conditions.

In time the American Society and The Missouri Society responded with efforts on behalf of it's members. Most of you are aware of what has been done in the area of socio-economics so I'll not bore you with details. I will say that however feeble those efforts have seemed, they have accomplished some things. Salaries have gone up throughout most of the state and in some areas there are veiled suggestions that maybe, just maybe, some technologists might be professionals.

While I certainly do not want to minimize the importance of professional organizations or the need for meetings and seminars, please, please do not be lulled into a sense of false security. Don't join this or any other organization and expect that you have bought a trip to the promised land. There are many things this society can do for you, and conversely there are many things you can do for it. An organized group whether be church, social, or professional is not an inanimate thing. It is made up of people, living, breathing, working, loving people just like you and me, and it's success or failure depends on, not the president or the vicepresident or the Board of Directors, but on you. And in the final analysis your success or failure will depend on you.

And so my friends, I want to offer you a challenge. Hopefully, to shake you up a little. Maybe even make you mad. How long has it been since you have done a self-evaluation?

Take a long hard look at yourself. What are your strengths and weaknesses?? If you were your boss would you consider yourself for promotion? Now be honest, what have you done in the past six months to lower costs, improve quality, speed up production or improve personnel or patient relationships? How much of your own time do you spend studying to improve yourself? How valuable an employee are you from your employer's point of view? You here today who do supervising are a part of the management team in your place of employment. How knowledgeable are you about management skills such as planning, organizing, controlling, motivation, discipline, effective communication and many other areas that are vitally important in dealing with people? If you are a supervisor it is estimated that 80 percent of your time is spent in communication of one type or another. It is also a fact, according to experts, that 90 percent of all communication is ineffective.



It just simply is not sufficient in today's world for us to be good technologists. If we want recognition and compensation it behooves us to be good technologists certainly, but we must broaden our thinking and our learning to include many other things. The medical field has become one of the largest businesses in the world, and to survive without complete government take-over, must adopt the more efficient methods of the business world. We are vital part in this link.

Management, no matter if Radiologist, hospital or factory, wants certain things from employees namely: high production, low cost, good quality and no trouble. And believe it or not, most of the time will pay well for these things.

I guess really what I'm trying to say is that in today's world the same as always if you want recognition, build a better mouse-trap. Groups such as the Missouri Society and others are fine and much needed but don't depend on the organizations to do what you should do for yourself. If you want to be recognized as a professional, be one. Conduct yourself as one at all times. If you want more money, improve yourself. Make yourself indispensable to your boss. Too long we have depended on someone or something to hand us the things we desire. The time has come, yes, is over-due, when we should stop thinking as a child and think as a man. Each of you has a commodity to sell, yourself, your talents, your abilities, your personality. What is it worth?

The value of any individual to an organization is the result of his competence multiplied by his initiative minus his need for close supervision. How do you rate when evaluated on this scale?

In our institution, we consider anyone in a supervisory position as a part of management. Yet, historically technologists have resisted this concept. Even the idea of proof of continuing competence is repulsive to some of us. We think in fact that we belong to our societies should be enough. And certainly if we attend a convention, even though we spend the time having fun, should be proof of our interest in continuing education. Many of us become managers or supervisors simply because we are next in line or because we are good technologists. However, we are ill equipped to step into these positions. We have done nothing to prepare ourselves for the role of manager, yet we expect larger salaries, and more prestige. If the increases are not up to our expectations we complain or worse yet, we look to our professional organizations to do battle for us. I am certainly not opposed to these organizations becoming involved in efforts to upgrade salaries and working conditions, but I am opposed to expecting them to do these things while we make no effort to improve ourselves. What right have you to expect your employer to pay you more money if you are not becoming a better employee? Simply

because you have been on the job a long time, I think this is not a valid reason. He could probably replace you with a bright new R.T. for less money and they might even be more productive. Hard for us to accept isn't it? Yet, it just might be true.

We should become more valuable, the longer we're in a position, yet experts tell us that usually we reach the peak of our performance after 3 years. Why? Because we become complacent. We stop learning. We cease trying to improve ourselves. We think we know radiography backwards and forwards. And, well we may, but in the area of management we have very little expertise and yet we are managers.

In conclusion, I want to say once more, if you want to improve your position either monetarily or otherwise, don't look outward look inward. And, don't spend a single day without learning something new. He who stops learning and growing is as good as dead.

It has been an honor and a privilege to share these thoughts with you. I trust you will accept them in the manner intended. I thank you very much and I LOVE YOU ALL!

Editors Note: Walter Anderssen has agreed to give the Sante Memorial lecture at Forty-second annual meeting of the MSRT.

BOARD OF DIRECTORS MEETING

The post-convention board of directors meeting as convened at 3:20 p.m. on October 6, 1973 with Dave Blackwell presiding. Those present were:

|                   |                   |
|-------------------|-------------------|
| Dave Blackwell    | Suzanne Hasler    |
| Darrell McKay     | David Horrell     |
| Sharon Eisterhold | Michael McMasters |
| Ron Ott           | Orvil Sikes       |
| Mary Sebacher     | Merlin Heinselman |
|                   | Judy Cortner      |
|                   | Doug Hausenbauer  |
|                   | Norman Hente      |

Mr. Blackwell welcomed the new board members and reminded them that their function is to contribute to the State Society by forming a liaison between the state and district membership. He also told the new officers that official records should be obtained from the former officers.

Vouchers authorizing the treasurer to pay expenses of the Society should be signed by the Executive Committee of the MSRT Board.

Authorization was given to Sr. Francita to have 1000 Membership forms printed.

Robert Rein moved that the District Representatives be charged with the responsibility to submit a list of institutions or physicians who employ non-registered technologists and to secure data on availability of registered technologists in their area. This information will be sent to Mr. Warren Betts, Associate Director of the Missouri Hospital Association. Motion seconded by Sharon Eisterhold. Motion carried.

Next meeting of the Board of Directors will be held in Jefferson City on January 12, 1974.

Meeting adjourned at 5:10 P.M.

MINUTES OF BOARD OF DIRECTORS MEETING

The quarterly meeting of the MSRT Board of Directors and Committee Chairpersons was called to order at 12:45 P.M. by Ron Ott, President, at Ramada Inn, Jefferson City, Missouri on Saturday February 9, 1974.

Present were: Ronald A. Ott, RT                      Orvil M. Sikes, RT  
Robert H. Rein, RT                                  David Horrell, RT  
Sharon Eisterhold, RT                              Dwayne J. TerMaat, RT  
Phyllis McEnerney, RT                              Richard T. Chavez, RT  
Darrell McKay, RT                                   Clair Vincent, RT  
Mary Sebacher, RT                                   Sr. Francita Barringhaus, RT  
Mike McMasters, RT                                  Ulysses Murray, RT

EDITOR - MO. MIN. Ron Ott recommended Mr. Richard Chavez for appointment as editor of Missouri Minutes. After discussion, Bob Rein moved that the President appoint a committee to review the previous guidelines for the editor of Missouri Minutes and make recommended revisions to be presented at the next Board meeting. Motion was seconded by Mary Sebacher. Motion carried

VACANCIES - BOARD OF DIRECTORS. Ron Ott announced that there are now two vacancies on the MSRT Board since the Vice President has assumed the office of Pres. and the Secretary, Suzanne Hasler, has resigned. After discussion and consultation, Mary Sebacher moved that the Chairman of the Board ask Gary Brink, RT to serve as Secretary and, in case he cannot, to ask Mrs. Donna Cassell, RT to serve as Secretary. Motion was seconded and carried.

Mike McMasters moved that Mr. Norman Hente, RT be appointed to serve as Vice President. Motion was seconded and motion carried.

NOMINATING COMMITTEE - Dwayne TerMaat was appointed to serve as chairman of the Nomination Committee.

SECOND DISTRICT, MSRT- Darrell McKay moved that the position on the Board of Directors of the 2nd District Representative be held open but not be counted against us in establishing a quorum at Board meetings. Whenever the 2nd District chooses to do so, they may again elect a representative to the state Board. Motion was seconded and carried.

Treasurer's report was given by Mary Sebacher and accepted. Phyllis McEnerney moved that the Treasurer be directed to order copies of the new affiliated society bylaws and distribute them to active members of MSRT. Motion was seconded by Bob Rein and motion carried.

Phyllis McEnerney moved that the bylaws be sent with renewal forms and to any new members for this year and hereafter, that they be sent to all MSRT active members at the time they are received from ASRT in order for the members to receive them closer to the date they become effective. Motion was seconded by Mary Sebacher. Motion carried.

EDUCATION COMMITTEE - report was given by Mary Sebacher. Miss Sebacher reported that the Education Committee is preparing a roster of speakers to be circulated to all members. This roster may be of help in planning District meetings.

The Committee is attempting to arrange several mock Registry examinations to be used each year at the state convention.

CONVENTION CITY COMMITTEE - A letter was read from Steve Johnson, RT of the Illinois Society of Radiologic Technologists, inviting us to consider a Bi-state meeting. The consensus of the Board members was that this decision should be put to our membership. Bob Rein moved that the Convention City Chairman be instructed to contact Steve Johnson to obtain more information on his plan. Motion was seconded and carried.

Sante Memorial Lecture - Mary Sebacher moved to invite Walter Andersen to be the guest lecturer for this year and, in event he cannot do it, to invite Jack Dohrt to be Sante Memorial lecturer for this year. Motion was seconded and carried.

Minutes of the 41st annual convention were read and approved. Phyllis McEnerney moved that the Minutes of the convention be printed in the next issue of the Missouri Minutes. Motion was seconded and carried.

Bob Rein announced that 6 used View Boxes have been donated to the Society.

The next meeting was scheduled to be held at Rolla, Missouri on Saturday, April 27, 1974 at 10:30 A.M.

## MISSOURI SOCIETY OF RADIOLOGIC TECHNOLOGISTS

## TREASURER'S REPORT

October 6, 1973 to January 8, 1974

Balance brought forward October 6, 1973 \$ 3,202.61

INCOME:

|                                    |              |                  |
|------------------------------------|--------------|------------------|
| Active member dues and renewals    | \$ 195.00    |                  |
| Associate member dues and renewals | 62.00        |                  |
| Student member dues and renewals   | 122.50       |                  |
| Overpayment of dues                | 13.00        |                  |
| Savings account interest           | <u>68.68</u> |                  |
| <u>TOTAL INCOME</u>                |              | \$ <u>461.18</u> |
|                                    |              | \$ 3,663.79      |

EXPENDITURES:

|   | <u>Voucher<br/>No.</u> |    |                  |
|---|------------------------|----|------------------|
| Sister Francita Barringhaus (postage-zerox) | 01                     | \$ | 41.00            |
| Phyllis McEnerney (phone calls)             | 02                     |    | 47.72            |
| Darrell McKay (phone calls)                 | 03                     |    | 32.23            |
| Tech.Ed., U. of Mo. (stapling, Mo. Minutes) | 04                     |    | 15.35            |
| Rollins-Vandive-Digges Inc. (bonding ins.)  | 05                     |    | 10.00            |
| Phyllis McEnerney (phone calls)             | 06                     |    | 80.00            |
| Mary Sebacher (rubber stamps)               | 07                     |    | 10.82            |
| Robert Rein (phone & pen set for Reg. Dir.) | 08                     |    | 34.63            |
| A.S.R.T. (100 copies of bylaws)             | 09                     |    | 10.00            |
| Mary Sebacher (postage)                     | 10                     |    | 6.00             |
| St. Johns (overpayment of dues)             |                        |    | 9.00             |
| Refund of dues                              |                        |    | 17.00            |
| Robert Duff (overpayment of dues)           |                        |    | <u>4.00</u>      |
| <u>TOTAL EXPENDITURES</u>                   |                        |    | \$ <u>317.75</u> |
| Balance on hand January 8, 1974 .....       |                        |    | \$ 3,346.04      |

Submitted the 12th day of January, 1974

Mary Sebacher, Treasurer  
M.S.R.T.

ULTRASONIC FETAL CEPHALOMETRY: A LIMITED RESEARCH STUDY

Although this study was done several years ago, it is hoped that this report will be of educational interest to technologists. It is regretted that many of the aspects associated with this project cannot be included due to space limitations.

With the advent of radiographic procedures, various methods were developed to measure the fetal skull size, growth and maturity, as well as any disproportion between the pelvis of the mother and skull of the fetus in utero. However, radiographic cephalometry is not as accurate as would be desired due to several factors. First, in many instances the fetal skull is not lying in a true lateral position in relation to the radiographic film. Therefore, the fetal skull is not readily accessible to accurate measurement unless the correct degree of obliquity can be employed to attain a true lateral fetal skull-film relationship. This is objectionable since guesswork must be employed as a guide in positioning the patient with the result that numerous exposures to ionizing radiation would theoretically have to be made before a radiographic film of true perspective could be obtained. Secondly, the distance from the fetal skull to the radiographic film results in magnification of the fetal skull. Although formulas have been computed to correct this magnification, a completely accurate measurement still is not obtained in many instances. Radiographic examination for fetal weight and fetal maturity in utero are also in error occasionally. This is due many times to the variations in appearance of ossification centers.

Ultrasound is produced when a sufficiently high frequency but low intensity alternating current is produced in a piezo-electric crystal or transducer. When the frequency of these sound waves exceeds 20,000 cycles per second they are outside the normal human hearing range and are aptly termed "ultrasonic waves." Vibrations of ultrasound waves are similar to sonar in that they pass most readily through a water medium. If the ultrasound wave collides with any surface or interface which is not fluid, the sound wave will reflect an echo back to the transducer which then acts as a receiver. The echo then produces an electric signal which can be amplified and displayed on an oscilloscope screen and permanently recorded through the use of a polaroid camera attached to the unit. Many ultrasound units are very mobile and can be brought to the patient's bedside much like the x-ray "portable" unit.

Ultrasound reflections can be produced from surfaces other than the first boundary. The energy which continued through the first boundary into the second medium will again be partly reflected at the next boundary. Therefore, it is possible to receive echo reflections from several boundaries. Because the transmission and reception time is extremely fast, very small distances can be measured with accuracy.

Many investigations into the safety of ultrasound have been carried out. The physiologic effects of ultrasound depend upon the power level that is utilized. Very high power levels will

have a destructive effect upon tissue. Diagnostic ultrasound, however, uses an output that is measured in milliwatts per square centimeter, rather than watts as used in therapeutic ultrasound, and the beam is pulsed rather than continuous. At these low power levels, ultrasound has no discernible effects on human tissue.

#### Technique of Procedure

The position of the fetal head within the maternal abdomen must be determined by palpation before attempting ultrasonic fetal cephalometry. First, the determination of breech, transverse or vertex presentation must be made. Then, the amount of obliquity of the fetal skull presentation, if any, just be estimated as closely as possible. Any obliquity of the fetal skull must be taken into consideration since an adequate echo pattern will be received only when the beam of pulsating sound is perpendicular to the two parallel parietal interfaces.

It was decided to obtain ultrasonic measurements as close to delivery as possible so that the significance of continued fetal skull growth would be minimal in relation to the prenatal and post-natal measurements. Therefore, in the early phases of this study ultrasonic measurements were obtained when the patient was brought into the labor room. However, when the fetal head was engaged and lying under the symphysis pubis, interfering echoes were received which made successful measurement impossible. Also, the inability of many patients in active labor to cooperate simply made the procedure unfeasible. As a result, the ultrasonic measurement obtained during the patient's last outpatient visit usually served as the prenatal measurement of interest throughout this study.

The transducer, which contains the generating crystal must be coated with a coupling agent such as mineral oil, lubricating jelly, or water to exclude air between the surface of the transducer and the skin. The transducer is then placed firmly on the maternal abdomen over the general area of the fetal head. It must be moved around until a pair of strong and equal echoes are displayed on the oscilloscope screen which is attached to the unit. This indicates that the transmitting beam is perpendicular to two parallel interfaces. In the normal vertex presentation the skull is so placed that only the parietal areas are relatively parallel. Therefore, it can be concluded that they are responsible for reflecting the beam. The distance between reflections represents the biparietal diameter, the distinguishing feature being a pair of strong echoes (fig. 1). However, the frontal-occipital interfaces are also relatively parallel and could produce confusion in interpretation. But, the magnitude of this antero-posterior dimension serves to distinguish it from the biparietal diameter.





When the proximal and distal skull echoes alone are used as a means of measuring the biparietal diameter, the measurements are usually not as valid as when the "midline" echo is obtained. This is obtained by adjusting the necessary gain controls on the unit so as to amplify the midline echo on the "down" trace. In doing this the proximal and distal skull wall echoes on the "up" trace are often lost. However, if the midline echo, which appears smaller in height than the two skull wall echoes, lies a little displaced to the right of the midpoint between the two skull echoes there is ample evidence of a valid echogram. The reason the midline echo does not lie exactly midway between the two skull echoes is because ultrasound measures the distance from the outer surface of the proximal parietal bone to the inner surface of the distal parietal bone. Assumptions are that the third ventricle or pineal gland are possible sources of the midline echo (fig. 1).

To facilitate diagnosis of the display most ultrasonic equipment is equipped with a polaroid camera. When the adequate display is obtained on the oscilloscope screen a picture is immediately taken. The diameter of the fetal head is determined by counting the distance between the leading edges of the two fetal skull deflections. The tracing is composed of longer one-centimeter markers and short two-millimeter markers for accurate measuring.

### Results of Study

Forty-four unselected patients from a prenatal clinic were included in this study. Prenatal ultrasonic measurements of the fetal biparietal diameter were compared with postnatal caliper measurements taken after delivery in the nursery. In this study the average difference between prenatal ultrasonic measurement and the postnatal caliper measurement for all cases was 4.7 mm. There were several cases in which large, unexplainable errors were obtained. The reason for these large errors is not completely understood. When these cases are not included there is an average difference in measurements of 3.7 mm. for 89% of the cases. These measurements are within the range of error obtained by other investigators (fig. 2).

#### SUMMARY OF PREVIOUS INVESTIGATIONS

Fig. 2

| Investigator  | Percent Accuracy for Fetal Weight |           |
|---|-----------------------------------|-----------|
| Thompson .....  | 68%                               | ±484 gms. |
|   | 80%                               | ±500 gms. |
| Kohorn .....  | 68%                               | ±490 gms. |
| Goldberg .....  | 80%                               | ±227 gms. |
| Average Error Between Ante and Postnatal Measurements |                                   |           |
| Anderson & Niswonger                                  | 1.9                               | mm.       |
| Durkan & Russo .....                                  | 4.13                              | mm.       |
| Willocks .....  | 4.8                               | mm.       |
| Goldberg .....  | 1.4                               | mm.       |

The effect of moulding of the fetal skull during delivery is a significant factor when seeking an explanation for the differences in prenatal and postnatal measurements. The moulding effect was evaluated by comparing the daily caliper measurements of those infants born via a normal delivery, with the caliper measurements of infants delivered by cesarean section. In this study the measurements of the biparietal diameter of infants delivered normally showed daily increases in the majority of cases; however, the rate of increase lacked any uniformity. Those infants born in the normal manner whose biparietal diameter measurements decreased on subsequent days after birth, similarly, did not have any characteristic pattern to their variation in measurements. However, eight infants who were delivered by cesarean section during the course of this study showed very minimal changes in the biparietal diameter when daily measurements were taken. The changes in the biparietal diameter of those infants delivered by cesarean section were only one to two millimeters in most cases (fig. 3) while the changes in those infants delivered normally were significantly greater. The minimal changes noted in the biparietal diameter of the infants delivered by cesarean section can be attributed to the fact that they undergo none of the moulding effects as would be encountered by a normal delivery. As a result of this observation a significant amount of the difference obtained in this study between the prenatal ultrasound measurement and the postnatal caliper measurement can probably be attributed to the moulding effect of the skull that occurs during a normal delivery.

BIPARIETAL DIAMETER OF THOSE INFANTS DELIVERED BY CESAREAN SECTION  
(mm.)

| Case   | Day |     |     |     |     |     |     |
|--------|-----|-----|-----|-----|-----|-----|-----|
|        | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th |
| 1 .... | 82  | 82  | 81  | 82  | 82  |     |     |
| 2 .... | 87  | 87  | 87  | 86  | 88  |     |     |
| 3 .... | 82  | 88  | 89  | 88  | 86  | 89  | 89  |
| 4 .... | 95  | 91  | 89  | 95  | 94  | 95  |     |
| 5 .... | 93  | 94  | 93  | 93  | 93  | 93  |     |
| 6 .... | 99  | 98  | 99  | 98  | 98  | 98  |     |
| 7 .... | 97  | 97  | 98  | 98  | 98  |     |     |
| 8 .... | 85  | 85  | 85  | 85  | 85  |     |     |

Fig. 3

Several other measurements were made in an attempt to find some variable that would provide an index of fetal weight and/or biparietal diameter of the fetal skull. The length of pregnancy, circumference of the maternal abdomen and the distance from the symphysis pubis to the fundus of the uterus were all measured and indicated that by themselves they cannot be utilized as a means of predicting fetal weight or fetal skull size.

It was anticipated that a baseline could be set up showing correlations between fetal birth weight and biparietal skull diameter of the newborn infant. Hence the postnatal caliper measurements were correlated with the birth weight of the infants. If it

could be shown that a certain skull diameter was consistently associated with a specific birth weight, then future intrauterine measurements of the biparietal diameter could be used to predict birth weight. However, only a moderate degree of correlation was achieved. It is interesting to note that the highly respected Doctor Ian Donald from Scotland indicates that the biparietal diameter is more closely related to fetal maturity than it is to fetal weight. Therefore, the moderate degree of correlation achieved in this study may indicate a need for greater emphasis of the biparietal diameter on general fetal maturity rather than on fetal weight.

Although fetal weight is of importance in the evaluation of fetal well-being, the obstetrician must of necessity be more concerned with fetal maturity. Adequate function of the lungs, heart and other organs in extrauterine life must be maintained regardless of fetal weight. The internationally accepted standard distinguishing between a premature and a mature infant is 2500 grams. In this study such an index of fetal maturity was found. In all cases a caliper measurement of 85 mm. or more of the fetal skull was associated with a weight of 2500 grams or more. The obstetrician is more interested in knowing the minimum fetal weight, since it is an indication of fetal maturity, than what the probable birth weight will be. Therefore, perhaps the greatest value of ultrasonic fetal cephalometry is its ability to provide accurate measurements of the fetal skull so the obstetrician can determine whether the fetus is premature or mature.

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EDITOR'S CORNER

I thought it fitting, as the new editor of the Missouri Minutes to explain to you, the membership, my purpose and philosophy.

It is my thought and the thought of others in the ASRT that affiliate society publications should serve a three-fold purpose. First, to provide the affiliate society members with state and regional news which will have a direct bearing on the lives and welfare of those members. Secondly, that the affiliate society publication be educational; that is, provide the membership with information and articles by the membership which is directly related to their technical and professional functions. And thirdly, to provide the membership with an effective medium in which to express their opinions and support of actions and decisions affecting their Society and profession.

As you can see from these purposes, it is unnecessary and in fact wasteful to allow the Journal to be merely an eye-catching periodical filled with commercial advertisements and glittery promotions.

It may have come to your mind, " Well, how is the Missouri Minutes going to pay for itself?" Well, my friends, the answer is; It's not! It is my feeling and that of the "Board", which I solicited, that there is no reason that the MSRT cannot absorb the small cost of publishing and mailing the Missouri Minutes. And so, there will be no further solicitation of advertisements from commercial companies. We will, however, accept donations from those who are willing to give, but I feel that we have put entirely too much pressure on the commercial companies who have been so helpful. I say that we have overstayed our welcome, and it's now high time to cut the apron strings and step out on our own.

To make this publication meet the high expectations that I have for it, it is up to you as a member to write letters to the editor, articles of technical value as well as those of socio-economic and professional importance so as to keep your Society posted about current and poignant points of interest.

Please submit any materials to be published to me no later than six (6) weeks prior to the publication of the issue in which you want your article printed. All articles and letters to be printed must be signed with the author(s) signature. All articles, unless otherwise requested, will then become the property of the MSRT.

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MINUTES OF THE FORTY-FIRST ANNUAL CONVENTION

THE FIRST BUSINESS SESSION of the 41st annual convention of the Missouri Society of Radiologic Technologists was called to order by the President, Phyllis Mcenerney, on Thursday morning, Oct. 4, 1973 at 8:45 a.m. at the Holiday Inn, Lake Ozark, Mo.

A quorum was established. Richard Hammer gave the invocation.

The following persons gave greetings to the assembly:

Doug Hausenbauer, representative of the MSRT student Comm.  
Ulysees Murray, Regional Director of the ASRT Board of Dir.  
Leslie Wilson, member of the Board of Trustees, ARRT  
Michael Mc Masters, General Chairman of the convention

Jean Detring, Chairman of the MSRT Board of Directors, responded to the greetings.

Gerald Casey, Program Chariman, announced several changes in the printed program. The program was adopted as amended.

Darrell McKay moved that the convention Rules and Regulations be adopted as printed and distributed to the members present at the convention. Motion carried.

Sharon Eisterhold assumed the Chair and introduced the President, Phyllis McEnerney, who gave the Presidential Address.

Following the Address, the Minutes of the 40th annual meeting were approved as printed in the Missouri, Minutes ( Nov. 1972)

The Chair instrusted Jean Detring, chariman of the MSRT Board of Directors, Mike McMasters, general convention chairman, and Dwayne TerMaat, chairman of tellers, to obtain the ballots from the reserved box at the bank, Lake Ozark, Mo. The report of the tellers will be given at the business session Friday morning.

Treasures's report was given by Ron Ott. The report was audited by the Executive Committee of the MSRT Board of Directors and was approved as read.

Report of the Membership Committee was read by Merlin Heinselman who moved the adoption of the first recommendation: that the information obtained from the membership forms be put on a computer, and a print-out be sent to each district. The motion was defeated.

Mr. Heinselamn moved the adoption of the second recommendation made by the Membership Committee report: that the State Membership Committee be discontinued and that the duties of this committee be incorporated into the office Treasurer. The motion was defeated.

Mike McMasters announced that the Exhibit Committee had not been able to obtain sufficient viewboxes for all of the exhibits. Therefore, some of the exhibits will be displayed from Thursday til Friday noon, and the remainder of the exhibits will be displayed from Friday noon till Saturday noon.

Total registration at the convention at this time was 154, with 61 active members registered.

The first business session was recessed at 9:30 a.m. until 8:30 a.m. on Friday.

THE SECOND BUSINESS SESSION was called to order on Friday, Oct. 5, 1973 at 8:45 a.m. by Phyllis McEnerney.

Dwayne TerMaat gave the report of the tellers as follows:

No. of ballots mailed to active members of MSRT- 257  
No. of ballots returned - 113  
No. of invalid ballots - 3  
No. of valid ballots cast- 110

The following were declared elected for the year 1973-74:

President-elect: Sharon Eisterhold  
Vice-President: Ron Ott  
Secretary: Suzanne Hasler  
Treasurer: Mary Sebacher

Dwayne TerMaat then gave the report of the Nominating Committee for the recommendations for ASRT counselors:

Western Counselor: Merlin Heinselman  
Eastern Counselor: Jean Detring  
Armand Diaz

There were no nominations from the floor for Counselor.

Dave Blackwell was nominated from the floor for Delegate to the ASRT convention. Ron Ott was nominated from the floor for Alternate Delegate to the ASRT convention.

Report of the Convention City Committee was given by Merlin Heinselman. After discussion, Dave Blackwell moved to accept the invitation of the 6th district to host the 1974 convention in the Cape Girardeau area. Motion carried.

Dennis Baird moved to accept the invitation of the 4th district to host the 1975 convention in the St. Louis area. Motion carried.

The report of the tellers showed that Jean Detring was elected as the ASRT counselor for the Eastern section.

The nominees for Western counselor, Delegate and Alternate Delegate were then accepted by acclamation.

A balanced budget for the fiscal year 1973-74 was presented by Dave Blackwell, who moved to adopt the budget. Motion carried.

Marjorie Tolan, chairperson of the Professional Affairs Committee, was called to discuss the report of that committee. Mrs. Tolan reminded the assembly that Mr. David Barnes, a member of the staff of the National Economic Council will be on the program on Saturday, Oct. 6th, and that he will be able to give us more information about the goals and structure of the N.E.C. of Associations of Health Professions.

Report of the Resolutions and Bylaws Committee was given by Robert Rein with the following recommendations:

1. That the office of secretary and treasurer be combined, effective in the 1974-75 fiscal year.

This recommendation was made because it was felt that the secretary had been relieved of many duties since the position of executive secretary had been established. The consensus of the assembly was that another year is needed to evaluate the position of executive secretary.

Marjorie Tolan moved to table the first recommendation until the next annual meeting. Motion carried.

2. That the treasurer or secretary-treasurer be elected for a two year term, effective in the 1974-75 fiscal year.

The intent of this recommendation was to provide for better continuity of the business affairs of the Society. After discussion, Marjorie Tolan moved to table this recommendation until the next annual meeting. Motion carried.

3. To increase the active member dues to 10.00 and the associate member dues to 15.00 dollars, effective in the 1974-75 fiscal year. Student dues would remain at \$3.50.

Following lengthy discussion and in the interest of time, Mike McMasters moved to table the third recommendation until the afternoon business session. Motion carried.

The second business session was recessed at 10:20 a.m.

THE THIRD BUSINESS SESSION was called to order at 3:10 p.m. by Phyllis McEnerney.

The Chair called upon Darrell Mc Kay to give the report of the Board of Directors. The following recommendations were made:

1. That the Board of Directors be authorized to reduce the amount in the Savings Account by the amount of \$400.00 to be combined with \$250.00 in the annual budget for purchase of view boxes.

Discussion followed. A standing vote was taken.  
Favor: 22; Oppose: 19. Motion carried.

2. That the position of executive secretary be continued for the fiscal year 1973-74.

Motion carried.

Mike McMasters moved that the Board of Directors of MSRT be directed to prepare a state licensure bill during the coming year for possible presentation to the legislature. Motion carried.

Ron Ott moved to take from the table the recommendation for an increase of dues. Motion carried, and discussion on the issue was re-opened.

Dennis Baird moved to amend the recommendation of the Resolutions and Bylaws Committee to read: To increase the active member dues to \$10.00 and the associate member dues to \$10.00. Student dues would remain at \$3.50. Motion carried.

Gary Brink presented the following motion:

Whereas the existing treasury of approximately \$3000 represents sufficient funds to initiate any new programs for MSRT, and

Whereas the state society has compiled a history of hoarding rather than spending the money on meaningful programs, why should we assume that additional money raised by a dues increase will be used to benefit the technologists of Missouri, and

Whereas the economy today is inflationary and the members will not graciously accept a dues increase, and

Whereas, to raise dues by \$5.00 and to subsequently lose approximately 30% of our membership will result in a net gain in society dues of \$5.00 and a tremendous loss in strength representation and growth potential,

I move that this proposed amendment be tabled until the next annual meeting at which time a more accurate assessment of the financial needs of this society can be made.

Vote was taken on the above motion. Favor: 12; Oppose: 25.  
Motion to table was defeated.

Dennis Baird moved to terminate discussion on recommendation of dues increase. Motion carried.

Vote taken on recommendation to increase dues. Motion carried.

The session was recessed at 4:10 p.m. until Saturday afternoon.



THE FOURTH BUSINESS SESSION was called to order at 1:40 p.m. on Saturday, October 6, 1973 by Phyllis McEnerney.

There was no old business

The Chair called for any new business

Dennis Baird moved that student dues be raised from \$3.50 to \$5.00 per year, effective in the 1974-75 fiscal year. During the discussion, several students expressed a desire to contribute to the programs of the state society.

Motion carried.

Ron Ott presented the following motion: That student members of the M.S.R.T. who have completed training in an AMA approved school may, after the completion of their training, be carried as associate members at no additional cost until the results of the first ARRT examination for which they were eligible have been received. Motion carried.

Dennis Baird asked that the Chair recognize a student for the purpose of introducing new business. The Chair recognized Doug Hausenbauer who proposed that the advisor to the Student Committee be selected by the student representatives. Dennis Baird amended the motion to read: That the advisor to the Student Committee shall be selected from a list of candidates chosen by the Student Committee, effective in the 1974-75 fiscal year. Motion carried.

The Chair thanked the students who have participated on the Student Committee during this past year and at the convention.

The business session was recessed at 2:20 p.m.

Ulysses Murray officiated at the installation of officers following the Banquet Saturday evening. Dave Blackwell, newly installed President, formally closed the 41st annual convention of the Missouri Society of Radiologic Technologists.

Respectfully submitted,  
Sister Francita Barringhaus, R.T.  
Executive Secretary

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