



# SWIM-MASTER

VOL VII - No 6

USA NATIONAL PUBLICATION FOR MASTERS SWIMMERS

JULY-AUGUST 1978

## Swimmer's Edge

When Preston Vorlicek, MIT Class of 1979, took a sixth place in the National Collegiate Athletic Association's swimming championships in March, he was capitalizing on superb physical condition—and insight from an MIT wind tunnel. The wind tunnel was not an unusual place for Preston's work: he was looking for a hand most like a wing.

Vorlicek swims the butterfly stroke. If you could watch from below as a swimmer performs that stroke, you would see the crude outline of a butterfly's wings traced by the swimmer's hands. As the stroke begins, the hands slice into the water and immediately sweep down and out to make the large crescents of the wings' outline. An inward pull of the hands until they almost touch under the swimmer's chest closes the crescents; then another outward thrust forms the curve of the wings' tail. The swimmer's arms, now fully extended behind him, break from the water and return over the swimmer's head for the next stroke.

The force of the arms is concentrated in pushing and pulling the hands outward and inward. These rapid, sideways motions create lift—much as the wings of an airplane do when moving through air. Unlike the wing, which has an upward lift that enables flight, the hands with palms at a small angle from the direction of motion produce lift that propels the swimmer forward. The hands, thus, play a crucial role in giving the swimmer speed in the water.

How should the hands be used to give a swimmer most lift and power? Vorlicek, a major in aeronautics and astronautics, knew how to find the answer. He knew that a body moving through water acts much the same way as it does when moving in any other fluid—liquid or gas. So the wind tunnel's blown air could simulate the flow of water against the swimmer's hand.

Preston worked with a small wind tunnel and four life-size plaster casts of hands held in positinos that swimming coaches feel are the most effective in the water. In one case, the fingers were bent slightly to form a shallow cup; in all others, the hands and fingers were straight. In one cast the fingers and thumb were held tightly together; in another, the thumb and small fourth finger were spread out a bit with the three middle fingers still tightly held; in the fourth, all the fingers and thumb were spread slightly.

One at a time, the hands studied were mounted on a special balance which measured their lift and drag when blasted with 50 mile-an-hour winds; such high speed was needed to simulate the effects of water at much slower velocities.

The hands with the straight, closely held fingers were the most efficient in producing lift. The hand with all fingers held tightly was the most efficient when moving toward the swimmer's body, the hand with the thumb and fourth finger slightly spread when moving away from the body. As the models were rotated in the air stream, Preston found that an angle of 25 degrees between the plane of the palm and the wind produced the greatest lift.

Were the results surprising? "A little," says Preston. "Although no one was sure which of the hands would be the most effective, Coach (John A.) Benedick's (MIT swim coach) choice turned out to be the most inefficient hand in my group." How much difference does hand position make? Vorlicek is quick to point out that no one factor will assure victory; championship swimming is strength, style, and a bit of luck. On the other hand ...

"In the 1972 Olympics, Gunnar Larsson beat Tim McKee for the gold medal by two-thousandths of a second. My results can increase the efficiency of a swimmer by a tiny amount, and as you can see, in swimming you need all the help you can get."

—Roland B. Thompson



PRESTON VORLICEK and model hand in wind tunnel.

—Photo by Calvin Campbell

MIT Reports on Research is published nine times a year, monthly, except bi-monthly in Sept./Oct., Jan./Feb., and July/Aug., by the MIT News Office on behalf of the MIT Industrial Liaison Program. The News Office may be addressed at Room 5-111 and the Industrial Liaison Program at Room 39-623, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139. Copyright © 1978 by the Massachusetts Institute of Technology. Second class postage paid at Cambridge, MA.

## FREESTYLE HINTS

by  
George Haines

The opinions expressed here are purely those of the writer based upon the expressions of other men in the field and the observation of swimmers in the pool for the past 43 years, 28 of these as a coach.

CATCH AND PRESS PHASE - The entry to the catch in freestyle should be a point in front of the shoulder and head, slightly outside the mid-line of the body and inside the width of the shoulders - being just outside the mid-line of the body is important because the shoulder roll will then take the hand properly under the body.

1. Entry at almost full extension - with fingertip entry thumb side down slightly.
2. Elbow slightly higher on the entry than the fingertips - over-reaching will cause the swimmer to drop his elbow and arm toward the bottom of the pool - this will also cause bobbing up and down.
3. Rotation of the shoulders so that the fingers, elbow and shoulder drive into the water through the same hole made in the water by the fingers and hand.
4. Try to work toward a quick catch and press down by cocking or flexing at the wrist almost immediately after entering the water with the hand.
5. We try to begin the catch and press from the outside in - or flex the wrist - pressure on the fingertips and palm - but turn the hand in from the outside or little fingerside - you must maintain pressure on the palm of the hand throughout the press, pull and push phase of the stroke.

PULL PHASE - The pull should be under the body with a bent elbow of 45 degrees to 90 degrees from fingertips to elbow.

1. Try not to bend the elbow too soon as this will create a slipping of the hand and leading with the elbow and you cannot maintain pressure on the palm if you lead with your elbow.
2. Keep your elbow higher in the water than the hand or wrist position and you can eliminate leading with the elbow and slipping of the hand.
3. Pull from catch to or toward the opposite hip and, with the rotation of shoulders and body roll, your hand will be in position to get into the relaxed or push phase of the stroke.
4. The hand should maintain pressure on the water and will change direction throughout the pull - much like a sculling effect which gives the "S" curve under the water.
5. The pull phase will end directly under the mid-body or at the highest flexion point of the elbow (different in every swimmer).
6. Try to work toward constant turnover or one hand maintaining pressure on the water at all times.

PUSH PHASE - RELAXED - At the end of the pull, there should be a distinct push phase with emphasis on the following:

1. The palm will again change direction - seeking calm water - you can aid this by simply pushing the hand back making the palm face directly toward the feet or backward.
2. Over-emphasize the push-through by having the thumb go by (touching) the leg.
3. You can do dry land exercises emphasizing this phase of the stroke - wall pulleys - holding the elbows tight against the body and do extensions of the lower arm, wrist and hand.

4. The body roll or hip will help in turning the hand properly for a good finish to the push phase of the stroke.
5. Proper finish of the stroke should end approximately 4 to 6 inches below the surface and not right at the surface - this will eliminate a push up at the end of the stroke - also eliminates bobbing up and down.

The entire stroke underwater from the catch through the push phase should be accelerated with greatest speed coming at the end of the stroke.

RECOVERY - We believe in a high or bent elbow recovery in freestyle swimming as it seems to be the most relaxed way to recover the arm over the surface of the water - it is the most efficient for the highest percentage of all swimmers and their individual styles.

1. The recovery begins at the end of the push phase of the underwater stroke - start the lift of the recovery by concentrating on lifting the elbow out of the water, first - the hand should come out of the water last - slightly in front of the hole made in the water by the hand on the entry.
2. Rotate the shoulder forward by reaching with the elbow and be shrugging the shoulder forward.
3. We try to rotate the shoulder forward - keeping the elbow up and the palm of the hand facing back toward the feet at all times.
4. The hand should stay lower than the elbow in the recovery but should swing wider than the highest point of the elbow with palm facing toward the feet.
5. Reach forward by emphasizing the swing of the lower arm and reaching of the elbow.
6. Try to enter the water just outside the mid-line of the body and inside the width of the shoulders but well out in front of the shoulder.
7. Fingertip entry with the thumb slightly down - elbow up - get into the catch with that "over-the-barrel" feeling.

BREATHING - A rhythm should be developed between the arm turnover, leg kick and roll of the head - but this pattern should be developed to fit the individual swimmer's style - try to develop this by doing the following:

1. Keep the level or surface of the water somewhere between the hairline and the eyebrows - at a comfortable position for the head.
2. Turn the head to breathe as the opposite hand to the natural breathing side enters the water.
3. Inhale through the mouth at or slightly below the surface but behind the bow wave created by the head as it moves through the water.
4. Return the head to its original position - then turn the chin past the center line of the body on the push of the hand opposite the breathing side - this will give balance to the stroke.
5. Exhale - just before the head is turned to the breathing side - the breath should be exploded out before the mouth reaches for its next breath.

KICK - The leg kick in freestyle should be used for a balancing effect in this style of swimming - however, the shorter the race, the harder the legs are kicked and the more power generated - it is important to develop the kick of the individual and not try to make every swimmer use the same style.

1. The kick should not be too deep in the water, but within the surface of the water and deepest position of the body in the water.
2. The various leg kicks are: 6 beat - sprinters & middle distance; 4 beat cross over - sprinters through distance; 2 beat - distance and some middle distance.

## DELAYING THE AGING PROCESS

by

Dr. Paul Hutinger, Professor  
Western Illinois University  
(Reprinted from Lane Four)

The Master swimmer is fortunate to be in a program that starts at age 25. According to aging expert Dr. Alex Comfort, the average person displays a rapid deterioration of physiological factors after the age of 25. This is the ideal age, then, to intervene with a regular training program. Participation in the Masters program provides competition, a great motivational device which can induce both men and women to start or continue a training program.

Most aging experts such as Comfort, Shock, Brunner, and Stamler are basing their conclusions on observations and measurements of the average American who is out of shape, fat, smokes, and drinks too much. The rapid deterioration of the functioning of the physiological systems of the body is to be expected for such sedentary individuals. The same deterioration takes place even in former champion athletes; however, since their natural endowments are high to begin with, the deterioration is not as noticeable when compared to standard norms. How much of this loss of physiological functioning systems (such as cardiovascular and respiratory) is true aging and how much is due to hypokinetic disease (low Activity level)? No one has all the answers, but research in this area is demonstrating that high performance can be prolonged and maintained longer than previously thought could be expected. Older individuals 70 and 80 yrs old have demonstrated remarkable rehabilitation improvements. Researchers such as Dr. Herbert DeVries and Dr. Fred Kasch have collected some interesting data of special interest to the trained Master Swimmer.

DeVries, professor of physiology at U.S.C., has investigated this area of aging extensively. In a recent study at the Gerontology Research Center (U.S.C.), DeVries found that a proper amount of exercise increased the functional ability of the heart, lungs, and physical work capacity. The older men in their sixties and seventies achieved percentages of improvement similar to that of young men. The study also indicated that exercise has an anti-aging effect on the brain, thereby delaying the onset of senility.

DeVries was later awarded a two-year grant by the Administration of Aging to study the effects of exercise with a mobile research facility at Laguna Hills Leisure World in California. His subjects were 41 untrained oldsters ranging in age from 50-87. They were given hour-long workouts three times a week which included calisthenics, jogging, stretching, and water exercises. Within six weeks there were profound changes between the exercisers and a control group in the same age range. Pre- and post- test data demonstrated a 4.9% drop in body fat, a 6% reduction in diastolic blood pressure, a 9.2% rise in maximum oxygen consumption, a 7.2% increase in the arms, and 15% reduction in nervous tension as measured by electromyography. In terms of physical function, some persons in their seventies regained the vigor of their forties. Thus a chronological age 70 was approximately equal to a physiological age of 40 or 50. These changes also brought about psychological changes so that the individuals has a sense of well-being.

Most aging experts have stated that after 25 the deterioration of physiological factors is about 1% a year. This has

been substantiated by many research studies such as that of H. B. Dill, a research exercise physiologist, who has oxygen consumption data on himself for over a 30-year period. His data demonstrates about 1% a year decline and his is considered an active person in good physical condition. Dr. Sid Robinson, a professor emeritus at Indiana University, has measured world class runners in a longitudinal study for the past 30 years and has shown a 1% decline. These runners are active but not training regularly. How hard must you train to intervene on the aging curve to prevent the 1% a year decline in physical work capacity? Does the highly trained individual decline at the same rate? These are questions that have partly been answered by a recently reported study.

Dr. Fred Kasch reported longitudinal data in MEDICINE AND SCIENCE IN SPORTS, Spring 1976, related to several variables in subjects during 10 years of endurance exercise. The decline in physical working capacity is normally from 9 to 13% during the ages of 45-55 years. Studies have suggested the use of physical activity to prevent this decline and possibly to protect against heart infarction. The purpose of Dr. Kasch's study was to investigate the effect of endurance programs on the physical work capacity of middle-aged men for a ten-year span. Sixteen men were trained with running or swimming at an average 86% intensity of maximum oxygen uptake during the ten-year span. The mileage was about 15 miles a week for running and 5 miles for swimming. No changes were observed in body weight, resting heart rate, or resting blood pressure. Maximum heart rate declined seven beats per minute in the ten years and pulmonary ventilation increased 18%. The physical work capacity determined by oxygen uptake was about the same with a beginning 3.376 compared to 3.303 liters per minute ten years later. It was concluded that the usual 9 to 13% decline in physical work capacity from the years 45 to 55 can be foreshadowed by regular endurance exercise of 86% intensity. The key in using exercise to intervene on the aging curve to prevent 1% a year decline, seems to be the intensity of the endurance exercise. To equate this with heart rate, the 30-year-old with a maximum rate of 200 beats per minute should work at about 170 beats per minute. Your maximum heart rate is determined by the formula 220 minus age. For example, a 60-year-old would have a theoretical maximum heart rate of 220 minus 60 or 160 beats per minute.

Master swimmers will be most interested in research directly related to swimming as it affects the aging profile. One of the few longitudinal studies on masters swimming is being conducted at WIU with myself as the subject. The study is investigating the various ramifications of the long term effects of intensive year-round training. The data available from Kasch's study and my longitudinal study indicate that the Master swimmer can effect some delaying of the aging process with a regular training program of 2000 yards a day, five days a week, at an 80% intensity. The key factor in comparing aging studies showing a 1% decline seems to be the intensity of training. Some of the latest research studies on training at all age levels, such as age group and senior swimming, are finding that intensity of training is a key concept. The intensity should be at 80% or higher. The long term effects of an eight-year training program have shown only positive results with no adverse effects. It is concluded that the majority of Master swimmers will show these same aging curve reversals of the physiological factors and a continued high physical work capacity of an untrained person 20 or 30 years younger. A prevention of hypokinetic (lack of activity) diseases and a positive self image will also be realized, besides, you will feel better.

# NATIONALS



1. Gold Coast Team  
Members: Front -  
Anne McGuire,  
Joyce Abbott,  
June Krauser,  
Back Row -  
Gaither Rosser,  
Barbara West,  
Susan Peterson.

2. Texas Gulf Masters Mixed 25+ relay: Becky Aker, Robert Davis, Ria Van Egmond, and Mike Harris.
3. Dotty and Keith Bell with their baby daughter.
4. Women - June Krauser, Mildred Anderson, Jane McCollister, Trudy Murdock and Barbara Zaremski.
5. In the stands: Patti & Paul Hutinger, Bill Grant - middle foreground



**GRAHAM JOHNSTON AND MILDRED ANDERSON**  
were recently presented with Master Swimming Awards

Graham Johnston and Mildred Anderson were presented the outstanding Master Swimming Awards June 9 at the Gulf annual AAU awards dinner held at Meyerland Club.

The Gulf AAU were also celebrating their 30th active year as part of the National AAU.

Graham Johnston, 8501 Wateka, was voted the most outstanding Master Male swimmer for again being All-American and placing in the Top Ten National rating

in 11 events totaling 111 points.

Johnston placed second in the 100 meter freestyle, first in the 200, 500 and 1500 meter freestyle and the 200 meter individual medley. He also placed third in the 100 yard free, first in the 200, 500 and 1650 yard freestyle and 200 yard individual medley and fifth in the 100 yard breaststroke.

Mildred Anderson, 506 Boliver, was also voted the most outstanding Female swimmer. She also placed seventh in the 200 yard back, first in

all-American for the sixth year and placing in the National Top Ten in 22 events totaling 163 points.

Anderson placed ninth in the 50 meter back, sixth in the 100 & 200 meter back, third in the 50 meter breast, second in the 100 meter breast, fourth in the 200 meter breast, second in the 50 meter fly, fourth in the 100 meter fly, second in the 200 meter fly, 200 & 400 meter individual medley.

She also contributed many hours to the Texas and National Master's program by sending pictures, entry forms, and Master information.

the 50 meter breast, second in the 100 & 200 yard breast, sixth in the 50 yard fly, fourth in the 200 & 200 yard breast, sixth in the 50 yard fly, fourth in the 100 & 200 yard butterfly, third in the 400 yard individual medley, sixth in the 200 yard individual medley, and ninth in the 100 yard individual medley.

She also contributed many hours to the Texas and National Master's program by sending pictures, entry forms, and Master information.

## Masters Swimmers Honored At Dinner

**National Short Course  
Swimming Championships**  
NORTHSIDE INDEPENDENT SCHOOL DISTRICT SWIM CENTER  
SAN ANTONIO, TEXAS  
MAY 19, 20, 21, 22, 1978

**RESULTS AT A GLANCE**

**Women MEET RESULTS \*Foreign Swimmer**

#New Record

**WOMEN 25-29**

**50 YDS FREESTYLE**

* Merrily Stratton 26	CM	26.06	4 Helen Seidel 26	MOST	32.25
1 Cathy Brewton 25	Dads	26.74	5 Becky Acker 26	TOM	32.82
2 Susan Tendy 29	NBM	27.53	6 Ingrid Olsen 29	SMM	33.44
3 Becky Acker 26	TOM	27.97	7 Carol Riaroth 25	MUTS	33.48
4 Debbie Johnston 25	Dads	29.33	8 Judy Green 26	SLM	33.79

5 Ingrid Olsen 29

6 Jan McNeill 28

7 Johanna(Nan) Spengel 28

MOST

33.18

100 YDS BUTTERFLY

* Merrily Stratton 26	CM	57.10	1 Jamie Stewart 29	MOST	1:03.20
1 Tatti Eller 25	RIN	57.68	2 Marianne Bruns 28	SMM	1:05.29
2 Dot Wise 26	MNM	58.11	3 Jeanne Mason 26	AM	1:06.28
3 Cathy Brewton 25	Dads	58.91	4 Janet Gettling 29	Dads	1:07.03
4 Janet Gettling 29	AM	1:00.52	5 Marianne Bruns 28	SLM	1:14.22

5 Valerie C Fisher 27

6 Jamie Stewart 29

7 Susan Tendy 29

8 Becky Acker 26

9 Liz Crawford 29

10 Ginny Weinger 25

11 Carol Riaroth 25

12 Frances Eppig 28

SD

1:01.60

DQ: Judy Green 26

TM

1:02.55

100 YDS IND MIDDLE

* Merrily Stratton 26	CM	2:02.75	1 Dot Wise 26	MNM	1:05.37
1 Tatti Eller 25	RIN	2:04.01	2 Marianne Bruns 28	Dads	1:07.10
2 Dot Wise 26	MNM	2:05.75	3 Janet Gettling 29	AM	1:07.19
3 Marianne Bruns 28	SMM	2:06.19	4 Jamie Stewart 29	MSC	1:12.59
4 Valerie C Fisher 27	RIN	2:11.38	5 Ingrid Olsen 29	SMM	1:13.75

5 Gretchen Drake 28

6 Becky Acker 26

7 Susan Tendy 29

8 Pamela Scurlack 25

9 Diane Brummel 26

10 Debbie Johnston 25

11 Frances Eppig 28

12 Dottie Bell 26

13 Jan McNeil 28

14 Frances Eppig 28

15 Jamie Stewart 29

16 Melanie Hauser 25

MOST

3:02.53

DQ: Frances Eppig 28

SD

7:45.28

500 YDS FREESTYLE

*# Tatti Eller 25	RIN	5:31.03	1 Marianne Bruns 28	MNM	2:21.18
*# Merrily Stratton 26	CM	5:37.64	2 Jamie Stewart 29	SMM	2:22.03
2 Marianne Bruns 28	SMM	5:40.91	3 Merrily Stratton 26	ON	2:28.42
3 Valerie C Fisher 27	RIN	5:43.83	4 Gretchen Drake 28	UNAT	2:28.80
4 Gretchen Drake 28	SMM	5:59.97	5 Diane Brummel 26	MNM	2:32.05

5 Pamela Scurlack 25

6 Susan Tendy 29

7 Judy Green 26

8 Diane Brummel 26

9 Helen Seidel 26

10 Debbie Johnston 25

11 Frances Eppig 28

12 Dottie Bell 26

13 Jan McNeil 28

14 Frances Eppig 28

15 Jamie Stewart 29

16 Melannie Hauser 25

MOST

23:58.18

DQ: Frances Eppig 28

SD

7:45.28

100 YDS BACKSTROKE

*# Tatti Eller 25	RIN	2:21.18	200 YDS FREESTYLE	MNM	2:05.66
2 Marianne Bruns 28	SMM	2:24.62	#1 Anne Grams 30	LW	57.16
3 Diane Brummel 26	SMM	2:40.16	2 Diana Todd 34	DOM	57.82
4 Jamie Mason 26	MNM	2:42.66	3 Margaret Sugg 33	MNM	58.61
*# Liz Crawford 29	ESC	2:46.27	4 Anne Grams 30	MAC	59.62

5 Frances Eppig 28

6 Carol Riaroth 25

7 Dottie Bell 26

8 Dianne Lachkar 25

9 Frances Eppig 28

100 YDS BREASTSTROKE

*# Dot Wise 26	MNM	2:39.07	1 Dot Wise 26	MNM	2:06.94
2 Yvonne Cattrell 29	ESC	2:41.14	2 Lucy Johnson 30	LW	5:51.50
3 Mary Phelan 26	UGM	2:41.33	3 Joanne Menard 30	SAC	6:05.98
4 Gretchen Drake 28	UNAT	2:44.64	4 Kristine King 30	SMM	6:11.51
5 Janet Gettling 29	AM	2:45.08	5 Jackie MacFarlane 34	NMM	6:16.21

6 Valerie C Fisher 27

7 Jan McNeil 28

8 Dianne Lachkar 25

9 Frances Eppig 28

100 YDS BUTTERFLY

*# Dot Wise 26	MNM	28.78	1 Jamie Stewart 29	MOST	3:27.44
2 Janet Gettling 29	AM	29.19	2 Ingrid Olsen 29	Dads	29.67
3 Cathy Brewton 25	Dads	29.67	3 Bees Jones 33	KOM	7:48.27
4 Frances Eppig 28	SD	1:39.87	4 Carol Poste 31	KOM	7:48.27
500 YDS FREESTYLE			500 YDS FREESTYLE		
*# Dot Wise 26	MNM	2:39.07	#1 Anne Grams 30	NAC	5:38.25
2 Yvonne Cattrell 29	ESC	2:41.14	2 Lucy Johnson 30	LW	5:51.50
3 Mary Phelan 26	UGM	2:41.33	3 Joanne Menard 30	SAC	6:05.98
4 Gretchen Drake 28	UNAT	2:44.64	4 Kristine King 30	SMM	6:11.51
5 Janet Gettling 29	AM	2:45.08	5 Jackie MacFarlane 34	NMM	6:16.21
6 Valerie C Fisher 27	UGM	2:50.33	6 Joanne May 30	Dads	6:28.00
7 Jan McNeil 28	MNM	3:02.63	7 Carolyn Harris 30	KOM	6:33.87
8 Dianne Lachkar 25	MNM	3:27.44	8 Patricia Harris 30	TSC	6:33.87
9 Frances Eppig 28	SD	1:39.87	9 Yvonne Cattrell 29	MNM	6:57.65
100 YDS BACKSTROKE			10 Irene David 34	CDY	7:00.20
*# Dot Wise 26	MNM	2:21.18	11 Cindy Walters 33	TSC	6:33.87
2 Marianne Bruns 28	SMM	2:40.62	12 Jamie Chastain 32	MNM	7:10.85
3 Diane Brummel 26	SMM	2:40.16	13 Bees Jones 33	CDY	7:22.29
4 Jamie Mason 26	MNM	2:42.66	14 Carolyn Harris 30	KOM	7:43.03
*# Liz Crawford 29	ESC	2:46.27	15 Marilyn Digby 34	MNM	7:48.27
5 Frances Eppig 28	UNAT	3:17.05	16 Marilyn Digby 34	MNM	7:48.27
100 YDS BREASTSTROKE			17 Joanne May 30	CDY	7:48.27
*# Dot Wise 26	MNM	1:06.01	18 Carolyn Harris 30	KOM	7:48.27
2 Liz Crawford 29	AM	1:12.92	19 Carolyn Harris 30	CDY	7:48.27
3 Debra Neumayer 26	SMM	1:13.03	20 Kristine King 30	MNM	7:48.27
4 Joanne Menard 30	MNM	1:15.99	21 Marilyn Digby 34	MNM	7:48.27
*# Merrily Stratton 26	OM	20:01.22	22 Jamie Chastain 32	MNM	7:48.27
5 Pamela Scurlack 25	Dads	21:48.13	23 Bees Jones 33	MNM	7:48.27
6 Susan Tendy 29	NBM	22:17.93	24 Carolyn Harris 30	MNM	7:48.27
7 Judy Green 26	TM	22:30.90	25 Kristine King 30	MNM	7:48.27
8 Jeannine Mason 26	SLM	22:51.16	26 Marilyn Digby 34	MNM	7:48.27
9 Diane Brummel 26	SLM	22:57.49	27 Joanne May 30	MNM	7:48.27
10 Debbie Johnston 25	Dads	23:58.18	28 Carolyn Harris 30	MNM	7:48.27
11 Frances Eppig 28	SD	24:36.69	29 Kristine King 30	MNM	7:48.27
12 Dottie Bell 26	MOST	25:38.85	30 Marilyn Digby 34	MNM	7:48.27
13 Jan McNeil 28	MOST	25:48.35	31 Carolyn Harris 30	MNM	7:48.27
14 Frances Eppig 28	SD	25:58.35	32 Kristine King 30	MNM	7:48.27
15 Jamie Stewart 29	MOST	26:00.85	33 Marilyn Digby 34	MNM	7:48.27
16 Melannie Hauser 25	MOST	26:13.30	34 Carolyn Harris 30	MNM	7:48.27
17 Frances Eppig 28	SD	26:21.00	35 Kristine King 30	MNM	7:48.27
18 Dianne Lachkar 25	MOST	26:21.18	36 Marilyn Digby 34	MNM	7:48.27
19 Frances Eppig 28	SD	26:21.18	37 Carolyn Harris 30	MNM	7:48.27
200 YDS BACKSTROKE			38 Jamie Chastain 32	MNM	7:48.27
*# Dot Wise 26	MNM	2:21.18	39 Bees Jones 33	MNM	7:48.27
2 Marianne Bruns 28	SMM	2:40.62	40 Carolyn Harris 30	MNM	7:48.27
3 Diane Brummel 26	SMM	2:40.16	41 Kristine King 30	MNM	7:48.27
4 Jamie Mason 26	MNM	2:42.66	42 Marilyn Digby 34	MNM	7:48.27
*# Liz Crawford 29	ESC	2:46.27	43 Carolyn Harris 30	MNM	7:48.27
5 Frances Eppig 28	UNAT	3:17.05	44 Kristine King 30	MNM	7:48.27
100 YDS BREASTSTROKE			45 Marilyn Digby 34	MNM	7:48.27
*# Dot Wise 26	MNM	2:21.18	46 Carolyn Harris 30	MNM	7:48.27
2 Marianne Bruns 28	SMM	2:40.62	47 Kristine King 30	MNM	7:48.27
3 Diane Brummel 26	SMM	2:40.16	48 Marilyn Digby 34	MNM	7:48.27
4 Jamie Mason 26	MNM	2:42.66	49 Carolyn Harris 30	MNM	7:48.27
*# Merrily Stratton 26	OM	2:46.27	50 Kristine King 30	MNM	7:48.27
5 Pamela Scurlack 25	Dads	2:46.27	51 Marilyn Digby 34	MNM	7:48.27
6 Susan Tendy 29	NBM	2:46.27	52 Carolyn Harris 30	MNM	7:48.27
7 Judy Green 26	TM	2:46.27	53 Kristine King 30	MNM	7:48.27
8 Jeannine Mason 26	SLM	2:46.27	54 Marilyn Digby 34	MNM	7:48.27
9 Diane Brummel 26	SLM	2:46.27	55 Carolyn Harris 30	MNM	7:48.27
10 Debbie Johnston 25	Dads	2:46.27	56 Kristine King 30	MNM	7:48.27
11 Frances Eppig 28	SD	2:46.27	57 Carolyn Harris 30	MNM	7:48.27
12 Dottie Bell 26	MOST	2:46.27	58 Kristine King 30	MNM	7:48.27
13 Jan McNeil 28	MOST	2:46.27	59 Carolyn Harris 30	MNM	7:48.27
14 Frances Eppig 28	SD	2:46.27	60 Kristine King 30	MNM	7:48.27
15 Jamie Stewart 29	MOST	2:46.27	61 Carolyn Harris 30	MNM	7:48.27
16 Melannie Hauser 25	MOST	2:46.27	62 Carolyn Harris 30	MNM	7:48.27
17 Frances Eppig 28	SD	2:46.27	63 Carolyn Harris 30	MNM	7:48.27
18 Dianne Lachkar 25	MOST	2:46.27	64 Carolyn Harris 30	MNM	7:48.27
19 Frances Eppig 28	SD</				

100 YDS BUTTERFLY		50 YDS BUTTERFLY		100 YDS BUTTERFLY		3 Bobbi Turcotte 50	IN	38.57
1 Susan Peterson 35	GCM	1:03.81	*1 Beth Whittall 41	OM	32.69	*4 Thelma Roach 52	OM	43.05
2 Carolyn DeLuca 35	MN	1:06.36	1 Susan Rittenhouse 40	PCC	33.31	5 Louise Mann 50	RHM	47.50
3 Ardeth Mueller 36	SIM	1:07.68	2 Anna McGuire 43	GCM	34.19	5 Marilyn Smullen 50	SSM	48.04
4 Marsha K. Souchayry 37	NSAC	1:10.20	3 Patricia Hallin 40	ST	36.12	6 Gloria M Stupfel 51	SMM	56.36
5 Gerda Paul 36	SMM	1:16.33	4 Mercedes Galler 42	B	39.68			
6 Diane K. Hyer 38	NMM	1:25.90	5 Susan Dearborn 41	PMA	1:11.73			
7 Sallie Hamburger 36	SSBC	1:26.43	6 Pat Byrd 42	MUTS	1:34.42			
8 Jean Lachkar 37	RHM	1:36.36						
100 YDS IND MEDLEY		100 YDS BUTTERFLY		100 YDS IND MEDLEY		100 YDS BUTTERFLY		
1 Bonnie Fronk 35	OM	1:09.82	*1 Helen Russ 42	SIM	1:14.35	*1 Betty Brey 45	DGM	1:14.93
2 Nancy Ridout 36	TSC	1:10.21	*2 Beth Whittall 41	OM	1:17.05	2 Carol Taylor 49	SLM	1:29.02
3 Susan Peterson 35	GCM	1:10.21	2 Anna McGuire 43	GCM	1:20.27	3 Edie Grunender 49	AM	1:29.72
4 Ardeth Mueller 36	SIM	1:10.40	3 Pauline McCullagh 40	OM	1:20.27	4 Nancy MacBeth 49	WC	1:34.09
5 Jane Katz 35	MNMY	1:11.07	4 Pauline McCullagh 40	ST	1:25.47	5 Pat Puckett 46	MUTS	1:35.04
6 Marsha K. Souchayry 37	NSAC	1:14.13	5 Mercedes Galler 42	B	1:39.86	6 Sylvia Eiselle 48	OM	1:37.27
7 Carolyn DeLuca 35	MN	1:14.18	6 Susan Dearborn 41	PMA	1:11.73	6 Nancy Meeserve 49	SMM	1:44.27
8 Gerda Paul 36	SMM	1:14.50	7 Pat Byrd 42	MUTS	1:34.42			
9 Julie Mackey 39	COT	1:19.16						
10 Sallie Hamburger 36	SSBC	1:21.30						
11 Carolyn DeLuca 35	PNA	1:26.11						
12 Marlin's Hough 36	OM	1:26.24						
13 Diane K. Hyer 38	NMM	1:26.50						
14 Tommie Kirksmith 38	MOST	1:27.59						
15 Linda Mianigordade 36	KDN	1:31.73						
16 Jean Lachkar 37	TOM	1:32.59						
17 Karen Zentgraf 36	RHM	1:32.80						
18 Nancy Bruegmann 39	RHM	1:34.35						
200 YDS IND. MEDLEY		100 YDS IND. MEDLEY		100 YDS IND. MEDLEY		100 YDS IND. MEDLEY		
1 Susan Peterson 35	GCM	2:31.34	*1 Pauline McCullagh 40	SIM	2:41.20	*1 Betty Brey 45	DGM	3:06.12
2 Jane Katz 35	MNMY	2:32.82	*2 Pauline McCullagh 40	OM	2:50.21	2 Peggy Buchanan 45	RHM	3:08.68
3 Bonnie Fronk 35	OM	2:32.88	3 Anne McGuire 43	GCM	2:52.38	3 Carol Taylor 49	SLM	3:08.79
4 Ardeth Mueller 36	SIM	2:33.00	3 Beth Whittall 41	OM	2:58.38	4 Joanie Reed 51	AM	3:12.12
5 Betty Bennett 35	IM	2:36.32	3 Susan Rittenhouse 40	PCC	3:02.01	5 Dena Mann 46	WC	3:13.40
6 Carolyn T MacPherson 39	RHM	2:36.64	4 Pat Byrd 42	MUTS	3:30.73	6 Pat Puckett 46	MUTS	3:19.18
7 Carolyn DeLuca 35	MN	2:43.00				7 Nancy Meeserve 49	SMM	3:33.79
8 Marsha K. Souchayry 37	NSAC	2:46.82						
9 Bonnie Fronk 35	OM	2:48.88						
10 Ardeth Mueller 36	SIM	2:49.33						
11 Carolyn DeLuca 35	IM	2:51.33						
12 Marlin's Hough 36	OM	3:02.20						
13 Diane K. Hyer 38	NMM	3:02.25						
14 Karen Zentgraf 36	RHM	3:11.62						
15 Nancy Bruegmann 39	RHM	3:12.62						
16 Jean Lachkar 37	TOM	3:21.84						
17 Diane K. Hyer 38	RHM	3:26.69						
WOMEN 50-54		200 YDS IND. MEDLEY		200 YDS IND. MEDLEY		200 YDS IND. MEDLEY		
1 Susan Peterson 35	GCM	2:31.34	*1 Helen Russ 42	SIM	2:41.20	*1 Judy Oliver 46	DGM	2:46.00
2 Jane Katz 35	MNMY	2:32.82	*2 Pauline McCullagh 40	OM	2:50.21	2 Jackie Gelling 45	RHM	3:08.68
3 Bonnie Fronk 35	OM	2:32.88	3 Anne McGuire 43	GCM	2:52.38	3 Edie Grunender 49	SLM	3:08.79
4 Ardeth Mueller 36	SIM	2:33.00	3 Beth Whittall 41	OM	2:58.38	4 Nancy MacBeth 49	AM	3:12.12
5 Betty Bennett 35	IM	2:36.32	3 Susan Rittenhouse 40	PCC	3:02.01	5 Dena Mann 46	WC	3:13.40
6 Carolyn T MacPherson 39	RHM	2:36.64	4 Pat Byrd 42	MUTS	3:30.73	6 Pat Puckett 46	MUTS	3:19.18
7 Carolyn DeLuca 35	MN	2:43.00				7 Nancy Meeserve 49	SMM	3:33.79
8 Marsha K. Souchayry 37	NSAC	2:46.82						
9 Bonnie Fronk 35	OM	2:48.88						
10 Ardeth Mueller 36	SIM	2:49.33						
11 Carolyn DeLuca 35	IM	2:51.33						
12 Marlin's Hough 36	OM	3:02.20						
13 Diane K. Hyer 38	NMM	3:02.25						
14 Karen Zentgraf 36	RHM	3:11.62						
15 Nancy Bruegmann 39	RHM	3:12.62						
16 Jean Lachkar 37	TOM	3:21.84						
17 Diane K. Hyer 38	RHM	3:26.69						
WOMEN 55-59		50 YDS FREESTYLE		50 YDS FREESTYLE		50 YDS FREESTYLE		
1 Susan Peterson 35	GCM	2:31.34	*1 Helen Russ 42	SIM	2:41.20	*1 Ann Cuneo 52	TSC	30.32
2 Jane Katz 35	MNMY	2:32.82	*2 Pauline McCullagh 40	OM	2:50.21	2 Shirley Erickson 54	SBC	33.64
3 Bonnie Fronk 35	OM	2:32.88	3 Anne McGuire 43	GCM	2:52.38	3 Marilyn Smullen 50	SSM	35.51
4 Ardeth Mueller 36	SIM	2:33.00	3 Beth Whittall 41	OM	2:58.38	4 Joanie Reed 51	OM	35.80
5 Betty Bennett 35	IM	2:36.32	3 Susan Rittenhouse 40	PCC	3:02.01	5 Dena Mann 46	RHM	36.76
6 Carolyn T MacPherson 39	RHM	2:36.64	4 Pat Byrd 42	MUTS	3:30.73	6 Jackie Gelling 45	SLM	37.49
7 Carolyn DeLuca 35	MN	2:43.00				7 Joyce Abbott 58	AM	38.36
8 Marsha K. Souchayry 37	NSAC	2:46.82				8 Lorraine Pettinger 59	RHM	40.21
9 Bonnie Fronk 35	OM	2:48.88				9 Fran Woolsey 56	SSM	41.83
10 Ardeth Mueller 36	SIM	2:49.33				10 Audrey Menary 57	TSC	42.73
11 Carolyn DeLuca 35	IM	2:51.33				11 Dorothy Donnelly 56	OM	43.37
12 Marlin's Hough 36	OM	3:02.20				12 Jane McCallister 59	TSC	44.89
13 Diane K. Hyer 38	NMM	3:02.25				13 Barbara Colseth 58	AM	45.82
14 Karen Zentgraf 36	RHM	3:11.62				14 Rita Schiffler 57	RHM	46.10
15 Nancy Bruegmann 39	RHM	3:12.62				15 Joyce Abbott 58	SSM	47.83
16 Jean Lachkar 37	TOM	3:21.84				16 Anne Farrell 59	OM	48.33
17 Diane K. Hyer 38	RHM	3:26.69				17 Jeannie Wiley 56	RHM	49.37
WOMEN 60-64		50 YDS FREESTYLE		50 YDS FREESTYLE		50 YDS FREESTYLE		
1 Susan Peterson 35	GCM	29.37	*1 Betty Brey 45	DGM	1:06.36	*1 Ann Cuneo 52	TSC	30.32
2 Jane Thorberg 40	MWV	29.56	2 Lavelle Stoinoff 45	PCC	1:08.25	2 Shirley Erickson 54	SBC	33.64
3 Angels Konig 40	JAM	30.43	3 Dena Mann 46	RHM	1:08.93	3 Marilyn Smullen 50	SSM	35.51
4 Laurie Hoey 43	TSC	30.48	4 Judy Oliver 46	OM	1:10.19	4 Joanie Reed 51	OM	35.80
5 Rita Van Egmond 42	TOM	30.96	5 Kay Easson 46	OM	1:10.69	5 Lorraine Pettinger 59	RHM	36.76
6 Beth Whittall 41	OM	31.01	6 Nancy MacBeth 49	WC	1:18.60	6 Jackie Gelling 45	SLM	37.49
7 Patricia Hallin 40	ST	32.70	7 Edie Grunender 49	AM	1:19.68	7 Joyce Abbott 58	AM	38.36
8 Susan Dearborn 41	PNA	32.76	8 Jackie Gelling 45	TGM	1:11.20	8 Lorraine Pettinger 59	RHM	40.21
9 Mercedes Galler 42	B	36.36	9 Lorraine Pettinger 59	OM	1:22.85	9 Fran Woolsey 56	SSM	41.83
100 YDS FREESTYLE		100 YDS FREESTYLE		100 YDS FREESTYLE		100 YDS FREESTYLE		
1 Diane K. Hyer 43	OM	29.37	*1 Beth Whittall 41	SIM	2:41.20	*1 Dorothy Donnelly 56	OM	1:09.61
2 Carolyn DeLuca 35	MN	30.43	*2 Pauline McCullagh 40	OM	2:50.21	2 Jane McCallister 59	TSC	1:15.15
3 Angels Konig 40	JAM	30.48	3 Edie Grunender 49	OM	2:52.38	3 Barbara Colseth 58	AM	2:04.45
4 Laurie Hoey 43	TSC	30.48	4 Jackie Gelling 45	OM	2:58.38	4 Rita Schiffler 57	RHM	2:16.10
5 Rita Van Egmond 42	TOM	31.01	5 Kay Easson 46	OM	3:02.01	5 Joyce Abbott 58	SSM	2:26.36
6 Beth Whittall 41	OM	31.01	6 Edie Grunender 49	PCC	3:11.73	6 Lorraine Pettinger 59	TOM	2:36.88
7 Patricia Hallin 40	ST	32.70	7 Jackie Gelling 45	AM	3:12.20	7 Fran Woolsey 56	OM	2:46.04
8 Susan Dearborn 41	PNA	32.76	8 Jackie Gelling 45	TGM	3:12.25	8 Lorraine Pettinger 59	RHM	2:56.32
9 Mercedes Galler 42	B	36.36	9 Lorraine Pettinger 59	OM	3:14.25	9 Fran Woolsey 56	SSM	3:06.76
100 YDS FREESTYLE		100 YDS FREESTYLE		100 YDS FREESTYLE		100 YDS FREESTYLE		
1 Diane K. Hyer 43	OM	21:05.69	*1 Beth Whittall 41	SIM	23:29.25	*1 Ann Cuneo 52	TSC	2:44.67
2 Carolyn DeLuca 35	MN	2:28.27	*2 Pauline McCullagh 40	OM	25:22.51	2 Ann Cuneo 52	SBC	2:54.41
3 Angels Konig 40	JAM	2:31.92	3 Edie Grunender 49	OM	26:33.17	3 Shirley Erickson 54	AM	3:13.09
4 Laurie Hoey 43	TSC	2:37.41	4 Jackie Gelling 45	AM	27:02.84	4 Rita Schiffler 57	RHM	3:25.74
5 Rita Van Egmond 42	TOM	2:46.57	5 Kay Easson 46	AM	28:02.50	5 Joyce Abbott 58	SSM	3:32.46
6 Susan Dearborn 41	PNA	2:50.92	6 Edie Grunender 49	AM	28:12.92	6 Lorraine Pettinger 59	TSC	3:42.73
7 Mercedes Galler 42	B	2:50.92	7 Jackie Gelling 45	AM	28:12.92	7 Fran Woolsey 56	OM	3:52.86
100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		
1 Diane K. Hyer 43	SLM	6:11.56	*1 Carol Taylor 49	SIM	1:26.98	*1 Ann Adams 50	UNAT	1:19.16
2 Carolyn DeLuca 35	KDM	6:15.89	*2 Edie Grunender 49	OM	1:27.16	2 Bobbi Turcotte 50	IN	1:21.03
3 Angels Konig 40	MWV	7:02.38	3 Margrit Graef 46	RHM	1:30.55	3 Shirley Erickson 54	SBC	1:29.05
4 Laurie Hoey 43	TSC	7:10.80	4 Jackie Gelling 45	OM	1:31.22	4 Marilyn Smullen 50	SSM	1:38.96
5 Rita Van Egmond 42	TOM	7:12.72	5 Kay Easson 46	AM	1:33.22	5 Joanie Reed 51	AM	1:38.96
6 Beth Whittall 41	OM	7:13.72	6 Edie Grunender 49	MUTS	1:33.98	6 Jackie Gelling 45	RHM	1:47.68
7 Patricia Hallin 40	ST	7:15.73	7 Jackie Gelling 45	AM	1:34.91	7 Marie Pennington 50	WC	1:47.68
8 Susan Dearborn 41	PNA	7:15.73	8 Jackie Gelling 45	TGM	1:32.31	8 Jane Mailliet 53	WC	1:47.68
9 Mercedes Galler 42	B	7:15.73	9 Jackie Gelling 45	OM	1:37.16	9 Louise Mann 50	WC	1:47.68
100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		
1 Angels Konig 40	PAM	1:15.13	*1 Jackie Gelling 45	SIM	3:10.48	*1 Ann Adams 50	TSC	27:15.33
2 Susan Dearborn 41	PCC	1:18.80	*2 Jackie Gelling 45	OM	3:11.69	2 Bobbi Turcotte 50	AM	29:06.07
3 Rita Van Egmond 42	TOM	1:22.72	3 Margrit Graef 46	RHM	3:24.33	3 Shirley Erickson 54	RHM	30:07.77
4 Beth Whittall 41	OM	1:22.72	4 Jackie Gelling 45	AM	3:21.67	4 Marilyn Smullen 50	SSM	30:58.92
5 Patricia Hallin 40	MUTS	1:38.14	5 Kay Easson 46	MUTS	3:28.57	5 Joanie Reed 51	TOM	31:32.88
6 Susan Dearborn 41	PNA	1:43.40	6 Edie Grunender 49	AM	3:32.31	6 Jackie Gelling 45	OM	31:42.98
7 Mercedes Galler 42	B	1:52.71	7 Jackie Gelling 45	AM	3:37.76	7 Joyce Abbott 58	RHM	32:46.52
100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		
1 Angels Konig 40	PAM	2:15.92	*1 Jackie Gelling 45	SIM	3:16.50	*1 Ann Adams 50	TSC	1:26.37
2 Susan Dearborn 41	PCC	2:54.17	*2 Jackie Gelling 45	OM	3:21.67	2 Bobbi Turcotte 50	AM	1:26.43
3 Rita Van Egmond 42	OM	3:00.93	3 Margrit Graef 46	RHM	3:28.02	3 Shirley Erickson 54	RHM	1:30.54
4 Beth Whittall 41	OM	3:00.93	4 Jackie Gelling 45	AM	3:41.91	4 Marilyn Smullen 50	SSM	1:36.88
5 Patricia Hallin 40	TOM	3:00.93	5 Kay Easson 46	AM	3:43.91	5 Joanie Reed 51	TOM	1:45.18
6 Susan Dearborn 41	PNA	3:00.93	6 Edie Grunender 49	MUTS	3:47.76	6 Jackie Gelling 45	OM	1:46.73
7 Mercedes Galler 42	B	3:00.93	7 Jackie Gelling 45	AM	3:51.76	7 Joyce Abbott 58	RHM	1:49.13
100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		100 YDS BREASTSTROKE		
1 Angels Konig 40	OM	1:22.82	*1 Jackie Gelling 45	SIM	1:26.98	*1 Ann Adams 50	UNAT	1:09.20
2 Rita Van Egmond 42	TOM	1:26.53	*2 Jackie Gelling 45	OM	1:27.16	2 Bobbi Turcotte 50	IN	1:15.29
3 Laurie Hoey 43	TSC	1:30.20	3 Margrit Graef 46	RHM	1:32.35	3 Shirley Erickson 54	SSM	1:25.65
4 Beth Whittall 41	MWV	1:40.12	4 Jackie Gelling 45	AM	1:31.22	4 Marilyn Smullen 50	AM	1:31.31
5 Patricia Hallin 40	MUTS	1:43.73	5 Kay Easson 46	AM	1:33.67	5 Joanie Reed 51	RHM	1:31.31
6 Susan Dearborn 41	PNA	2:37.10	6 Edie Grunender 49	MUTS	1:36.31			

200 YDS BREASTSTROKE		200 YDS IND MEDLEY		WOMEN 75-79		4 R. Tod Spieker 29	
1 Charlotte Costello 55	MNY	3:21.88	1 Viola Thompson 60	CT	3:34.51	5 Peter Brunson 26	RIN 5:02.19
2 Minna L Hauner 55	DCH	3:35.57	2 Margaret George 61	CT	3:55.18	6 Carl "Jim" Yates 25	NEM 5:05.81
3 Rita Schiffier 57	MOST	3:47.05	3 Patricia Matthiesen 61	SMM	4:02.61	7 Joe Dietrich 25	PAST 5:08.71
4 Barbara Golobeth 58	AM	4:01.51	4 Rose B Steward 60	AM	5:17.30	8 John Osterloh 29	LSM 5:12.52
5 Kim Jennings 58	STRD	4:25.43				9 Keith Bell 29	AM 5:15.27
6 Helen Jorgensen 58	RIN	4:37.91				10 James D. Parker 27	MOST 5:15.27
			WOMEN 65-69			11 David Levinson 28	DCM 5:20.48
			50 YDS FREESTYLE			12 Bob Sturgess 26	RIN 5:21.75
			1 Georgia McCarthy 65	Dads	35.98	13 Bill Mixon 27	HSC 5:22.22
			2 Olga Jaggers 65	MAM	38.53	14 Paul H. Laes 26	AM 5:23.36
			3 Edie Goldman 67	SMM	42.07	15 Jeff Johnson 28	MUTS 6:09.28
			4 Beatrice Johnston 68	RIN	42.58	16 Dana Abbott 27	ACS 6:09.37
			5 Calie Ballard 67	SPRD	49.14		
			100 YDS FREESTYLE			1650 YDS FREESTYLE	
			1 Georgia McCarthy 65	Dads	1:29.31	1 Bruce Fisher 29	RIN 17:12.34
			2 Calie Ballard 67	SPRD	1:36.51	2 Michael Landis 26	TCAC 17:33.71
			3 Edie Goldman 67	SMM	1:39.95	3 R. Tod Spieker 29	RIN 17:52.70
			4 Beatrice Johnston 68	RIN	1:40.99	4 John Osterloh 29	AM 18:07.99
						5 Peter Brunson 26	NEM 18:10.64
						6 James D. Parker 27	DCM 18:24.55
			200 YDS FREESTYLE			7 Keith Bell 29	MOST 18:44.12
			1 Calie Ballard 67	SPRD	3:24.06	8 Bob Sturgess 26	HSC 18:51.42
			2 Georgia McCarthy 65	Dads	3:26.30	9 Gary Bastie 27	NS 18:53.01
			3 Beatrice Johnston 68	RIN	3:43.20	10 David Levinson 28	RIN 18:55.17
						11 Bill Mixon 27	NMST 19:19.09
			100 YDS FREESTYLE			12 Westley Bastie 25	NS 19:37.15
			1 Calie Ballard 67	SPRD	9:23.85	13 Walter W. Woo 28	DCM 21:18.28
			2 Georgia McCarthy 65	SCAC	10:03.69	14 Dana Abbott 27	ACS 21:30.01
			3 Beatrice Johnston 68	UNAT	10:05.37	15 Jeff Johnson 28	MUTS 22:03.42
			4 Edie Goldman 67	SMM	10:25.70		
			1650 YDS FREESTYLE			100 YDS BACKSTROKE	
			1 Edie Goldman 67	SMM	35:12.39	1 R. Tod Spieker 29	RIN 57.07
			2 Calie Ballard 67	SCA	2 Nellie C Brown 84	2 David Bright 25	NEM 1:01.29
			3 Beatrice Johnston 68	UNAT	3:14.20	3 Albert Peek 26	NFM 1:01.54
			4 Edie Goldman 67	SMM	20:55.08	4 Bill Barthold 29	OC 1:01.88
						5 Bob Sturgess 26	HSC 1:02.10
			200 YDS IND MEDLEY			6 Dave Carter 29	MUTS 1:02.57
			1 Dorothy Donnelly 56	CONN	1:23.24	7 Fred Forshey 29	PSM 1:02.67
			2 Charlotte Costello 55	MNY	1:23.25	8 Dave Johnston 25	DADS 1:06.14
			3 Jeannie Merryman 55	MAM	1:28.61	9 Keats McLaughlin 26	RMM 1:08.55
			4 Minna L Hauner 55	DCM	1:30.35	10 Walter W. Woo 28	DCM 1:10.91
			5 Zada Taft 58	SMM	1:38.33		
			6 Helen Fedulik 58	VM	2:15.71		
			7 Anne Farrell 59	MAM	2:28.07		
			50 YD FREESTYLE			100 YDS BACKSTROKE	
			1 Dawn Musseleman 64	FNA	33.37	1 R. Tod Spieker 29	RIN 57.07
			2 Willy van Ryssel 61	BLDSA	36.56	2 David Bright 25	NEM 1:01.29
			3 Susan Marsh 64	SMM	42.41	3 Albert Peek 26	NFM 1:01.54
			4 Marge Jewett 63	MOST	46.45	4 Bill Barthold 29	OC 1:01.88
			5 Polly Townsend 61	DCM	51.56	5 Bob Sturgess 26	HSC 1:02.10
			6 Dorothy Fraley 63	TGM	57.81	6 Dave Carter 29	MUTS 1:02.57
			7 Rose B Steward 60	AM	58.87	7 Fred Forshey 29	PSM 1:02.67
						8 Dave Johnston 25	DADS 1:06.14
			100 YDS FREESTYLE			9 Keats McLaughlin 26	RMM 1:08.55
			1 Dawn Musseleman 64	FNA	1:18.07	10 Walter W. Woo 28	DCM 1:10.91
			2 Margaret George 61	CT	1:32.75		
			3 Susan Marsh 64	RHM	1:38.33		
			4 Marge Jewett 63	MOST	1:44.60		
			5 Polly Townsend 61	DCM	2:00.12		
			6 Dorothy Fraley 63	TGM	2:22.77		
			200 YDS FREESTYLE			100 YDS BREASTSTROKE	
			1 Dawn Musseleman 64	FNA	3:03.41	1 R. Tod Spieker 29	RIN 2:03.40
			2 Margaret George 61	CT	3:15.73	2 David Bright 25	NEM 2:15.55
			3 Susan Marsh 64	RHM	3:51.73	3 Albert Peek 26	NFM 2:15.73
			4 Marge Jewett 63	MOST	4:00.20	4 Bill Barthold 29	OC 2:16.82
			5 Polly Townsend 61	DCM	4:10.22	5 Bob Sturgess 26	HSC 2:20.96
			6 Dorothy Fraley 63	TGM	4:22.77	6 Dave Carter 29	MUTS 2:20.96
						7 Fred Forshey 29	PSM 2:20.96
			500 YDS FREESTYLE			8 Dave Johnston 25	DADS 2:20.96
			1 Willy van Ryssel 61	FNA	8:51.57	9 Keats McLaughlin 26	RMM 2:20.96
			2 Polly Townsend 61	RHM	11:45.07	10 Walter W. Woo 28	DCM 2:20.96
			1650 YDS FREESTYLE			100 YDS BREASTSTROKE	
			1 Margaret George 61	CT	30:59.86	1 R. Tod Spieker 29	RIN 57.07
			2 Rose B Steward 60	AM	37:41.98	2 David Bright 25	NEM 1:01.29
						3 Albert Peek 26	NFM 1:01.54
			100 YDS BACKSTROKE			4 Bill Barthold 29	OC 1:01.88
			1 Willy van Ryssel 61	BLDSA	1:30.14	5 Bob Sturgess 26	HSC 1:02.10
			2 Dawn Musseleman 64	FNA	1:33.80	6 Dave Carter 29	MUTS 1:02.57
			3 Marge Jewett 63	MOST	1:51.85	7 Fred Forshey 29	PSM 1:02.67
			4 Susan Marsh 64	DCM	1:56.16	8 Dave Johnston 25	DADS 1:06.14
			5 Mildred Anderson 63	TGM	1:59.41	9 Keats McLaughlin 26	RMM 1:08.55
			6 Dorothy Fraley 63	TGM	2:11.99	10 Walter W. Woo 28	DCM 1:10.91
			7 Polly Townsend 61	RHM	2:21.01		
			200 YDS BACKSTROKE			100 YDS FREESTYLE	
			1 Willy van Ryssel 61	BLDSA	3:27.19	1 Joe Dietrich 25	LBM 2:15.29
			2 Dawn Musseleman 64	FNA	3:32.70	2 Richard Cooley 28	RMM 2:18.87
			3 Patricia Matthiesen 61	SMM	3:52.97	3 Tom Whatley 26	MUTS 2:22.32
			4 Marge Jewett 63	MOST	4:07.02	4 Fred Hubbell 25	DCM 2:22.55
			5 Susan Marsh 64	DCM	4:20.99	5 Bill Barthold 29	RIN 2:26.30
			6 Bunny Hawke 60	IM	4:22.29	6 James D. Parker 27	DCM 2:30.98
			7 Dorothy Fraley 63	TGM	5:07.01	7 Fred Forshey 29	PSM 2:32.60
						8 Gary Bastie 27	NS 2:32.65
			100 YDS FREESTYLE			9 Jim Mammarella 27	MOST 2:36.15
			1 Vivienne Cherrian 70	WW	40.92	10 Wesley Bastie 25	NS 2:36.44
			2 Kathleen Eschmann 70	MNY	44.36	11 Jim Rosenkild 26	MOST 2:43.18
			3 Maxine Myers 72	RHM	1:11.98	12 P. Richard Scovill 26	MOST 2:46.11
			100 YDS FREESTYLE			50 YDS BUTTERFLY	
			1 Vivienne Cherrian 70	WW	1:35.00	1 Fred Schiltcher 29	NEM 24.02
			2 Kathleen Eschmann 70	MNY	1:39.80	2 Richard Coley 28	RMM 24.29
			3 Maxine Myers 72	RHM	2:05.12	3 Dennis Glass 25	DOM 24.35
						4 Paul Katz 27	UNAT 24.41
			100 YDS FREESTYLE			5 Carl "Jim" Yates 25	PAST 24.80
			1 Vivienne Cherrian 70	WW	3:13.11	6 John T. Foote, Jr. 27	OC 24.95
			2 Kathleen Eschmann 70	MNY	4:02.54	7 Albert Peek 26	NFM 24.99
			3 Trudy Murdoch 72	MOST	4:52.15	8 Bob Sturgess 26	HSC 25.26
						9 Joe Dietrich 25	DOM 25.29
			200 YDS FREESTYLE			10 Tom Whatley 25	AM 25.32
			1 Viola Thompson 60	CT	1:45.10	11 Steve Craven 28	MUTS 25.44
			2 Patricia Matthiesen 61	SMM	1:55.35	12 David Levinson 28	RIN 25.63
			3 Margaret George 61	CT	1:56.76	13 John Lapides 28	NYAC 25.93
			4 Marge Jewett 63	MOST	2:00.10	14 Dana Abbott 27	ACS 25.93
			5 Mildred Anderson 63	TGM	2:32.89	15 Frank McIntyre 27	AM 26.21
						16 Frank McIntyre 27	MUTS 26.57
			50 YDS BUTTERFLY			17 Paul H. Laes 26	AM 26.65
			1 Viola Thompson 60	CT	1:11.36	18 Keats McLaughlin 26	RMM 26.99
			2 Willy van Ryssel 61	BLDSA	1:16.06	19 David Johnston 25	DADS 27.61
			3 Dawn Musseleman 64	FNA	53.86	20 John V. Gaudreau 27	RMM 27.78
			4 Marge Jewett 63	MOST	1:09.82	21 Curtis C. Lasher 25	SMN 28.15
			5 Mil Anderson 63	TGM	1:49.27	22 Dave Carter 29	MUTS 29.26
			100 YDS BACKSTROKE			100 YDS BUTTERFLY	
			1 Viola Thompson 60	CT	1:43.86	1 Fred Schiltcher 29	NEM 52.24
			2 Patricia Matthiesen 61	SMM	2:00.05	2 Dennis Glass 25	DOM 52.91
			3 Margaret George 61	CT	1:47.86	3 Steve Craven 28	MUTS 53.84
			4 Marge Jewett 63	TGM	2:09.82	4 Paul Katz 28	RMM 54.19
			5 Mildred Anderson 63	AM	3:11.35	5 Richard Cooley 28	PSM 54.19
						6 Fred Forshey 29	DOM 54.31
			100 YDS BACKSTROKE			7 David Levinson 28	RIN 55.97
			1 Kathleen Eschmann 70	WW	4:27.30	8 Bruce Fisher 29	RMM 56.76
			2 Maxine Myers 72	MNY	5:47.07	9 Gary Bastie 27	NS 57.16
			3 Trudy Murdoch 72	MOST	NT	10 Ron Armstrong 27	OC 57.53
						11 Tom Whatley 26	AM 57.70
			100 YDS BREASTSTROKE			12 Wesley Bastie 25	NS 57.71
			1 Viola Thompson 60	CT	1:34.77	13 David Bright 25	NEM 57.77
			2 Patricia Matthiesen 61	CT	1:37.01	14 Paul H. Laes 26	AM 57.78
			3 Margaret George 61	CT	1:47.86	15 Keith Bell 29	MOST 58.79
			4 Marge Jewett 63	SMM	1:49.60	16 Frank McIntyre 27	MUTS 59.52
			5 Mildred Anderson 63	TGM	1:58.37	17 David Johnston 25	DADS 1:03.25
			6 Rose B Steward 60	AM	2:33.55		
			100 YDS IND MEDLEY			100 YDS FREESTYLE	
			1 Viola Thompson 60	CT	1:34.57	1 Fred Schiltcher 29	NEM 4:53.11
			2 Patricia Matthiesen 61	CT	1:37.01	2 Bruce Fisher 29	RMM 4:57.29
			3 Margaret George 61	CT	1:47.86	3 Michael Landis 26	TCAC 4:57.50
			4 Marge Jewett 63	SMM	1:49.60		
			5 Mildred Anderson 63	TGM	1:58.37		
			6 Rose B Steward 60	AM	2:33.55		

100 YDS IND. MEDLEY		16 Mike Harris 31	TGM	2:13.88	100 YDS BUTTERFLY		1 V Abraham Melamed 33	VSC	53.29	5 Bill Wood 36	UNAT	1:57.08
1 Fred Schlicher 29	NEM	55.55	17 William H.Schauer 34	TGM	2:15.84	*2 Tony Jarvis 32	DM	55.12	6 Carl F. Neuman 335	CM	1:58.59	
2 Richard Cooley 28	RMM	55.73	18 John E. Buhler,Jr 31	MOST	2:16.00	2 Robert Davis 31	TGM	55.16	7 Peter Sagues 35	SMM	1:58.96	
3 Berry Hamilton 25	MUTS	55.87	19 Gary Hunsaker 31	NFM	2:18.46	3 Tom Peek 30	NFM	55.17	8 Dave Hershey 37	DCM	1:59.90	
4 Fred Hubbell 25	RMM	56.96	20 Marvin Jones 34	RMM	2:23.15	4 Dick Ennis 33	SMM	55.55	9 Charles H.Raven 39	OC	2:00.79	
5 Paul Katz 27	UNAT	57.06	21 Robert Walschaug 31	RMM	2:25.71	5 John J. Flanagan 32	DCM	55.80	*10 Edmundo Fernandez 36	SLC	2:02.04	
6 Dennis R. Glass 25	DOM	57.16	22 500 YDS FREESTYLE			*6 Gustavo Betancourt 32	SLC	55.81	11 Gary LaPrise 30	MM	2:02.92	
*7 Ron Armstrong 27	DM	57.82	*1 David Gray 32	SMM	4:57.68	7 Robin T.Kleffman 30	NSAC	56.38	12 Rowland Stanley 35	MDM	2:05.92	
7 Tom Whately 26	AM	58.54	2 Dana Curtis 30	TGM	5:02.11	8 Paul M.Hebert,Jr. 32	OC	57.46	13 Bob Walden 38	JM	2:06.59	
8 Bill Barthold 29	OC	58.56	3 William Cerny 30	DADS	5:10.63	9 Dick Hopkins 32	UNAT	57.81	14 Gregory Gwin 35	CM	2:06.97	
9 Bruce Fisher 29	RMM	58.88	*4 David Thompson 31	CN	5:25.50	10 James Green 33	TM	57.97	15 Terry Anderson 37	RMM	2:12.76	
10 S. E. Hedberg 25	AM	59.11	4 John Selmer 33	RIN	5:29.05	11 Bill Abbott 32	RMM	59.09	16 David Casebolt 36	SSM	2:14.05	
11 Steve Craven 28	MUTS	59.50	5 James Green 33	TM	5:29.72	12 David Thompson 31	CN	59.43	17 John Tobin 35	RMM	2:30.26	
12 Bruce A. Weaver 26	MUTS	1:00.04	6 Ed Rudloff 30	OC	5:30.52	13 Mike Rockwood 31	ESC	1:01.84	18 Michael S.Chessnoe 36	RMM	2:30.26	
13 David Bright 25	NEM	1:00.33	7 Paul Watts 30	SPRD	5:30.95	DO: Charles Saxe 33	NM	1:02.65				
14 John T.Foote,Jr. 27	OC	1:00.30	8 Bruce Bartling 30	SPRD	5:31.92							
15 Donald F.Anderson 26	DCM	1:00.74	9 Lawrence J. Glass 31	DADS	6:18.81							
16 Bob Sturgess 26	HSC	1:00.87	10 Michael Markman 31	MUTS	6:19.39	100 YDS IND. MEDLEY						
17 Gary Bastic 27	NSAC	1:01.30	11 Marvin Jones 34	RMM	6:27.26	1 Dan Sullivan 31	USA	57.35	1 JAMES Crane 36	DADS	5:13.21	
18 Keats McLaughlin 26	RMM	1:03.19	12 Robert W.Alspaugh 31	RMM	6:49.25	2 Ken Krueger 32	UNAT	57.42	2 Robert R.Williams 111-35CM	CM	5:17.97	
19 Frank McIntyre 27	MUTS	1:03.46				3 Steve Clark 34	OC	58.67	3 Burt Kanner 38	CT	5:20.33	
20 Curtis C. Lasher 25	SMM	1:03.51	1650 YDS FREESTYLE			4 Avraham Melamed 33	VSC	58.68	4 Philip Goode 35	JM	5:26.82	
P.Richard Silliman 26	MOST	1:04.61	*1 Dana A. Curtis 30	TGM	17:36.69	5 David Gray 32	SMM	58.90	5 Dave Hershey 37	DCM	5:29.36	
22 Dave Carter 29	MUTS	1:04.79	2 David Gray 32	SMM	17:44.31	6 David Nordstrom 30	MOST	59.31	6 Charles H.Raven 39	OC	5:43.10	
23 Paul H. Laes 26	AM	1:05.04	3 William Cerny 30	DADS	17:51.08	7 Robert Smith 34	UNAT	59.35	7 Bob Walden 38	JM	5:46.18	
24 Craig McGahey 26	DADS	1:06.48	4 Dan Sullivan 31	USA	18:16.17	8 Bob Cain 30	MUTS	59.69	8 David Casebolt 36	SSM	5:54.03	
25 Walter W. Woo 28	DCM	1:07.24	5 James Green 33	TM	18:54.74	9 John J.Flanagan 32	DCM	59.84	9 Terry Anderson 37	RMM	5:58.15	
200 YDS IND. MEDLEY			6 David Thompson 31	CN	18:55.10	10 James M.Beglinger 31	SMM	1:00.33	10 W. Timken 39	OHIO	6:04.83	
1 Fred Schlicher 29	NEM	1:59.26	7 Paul Watts 30	SPRD	19:07.20	11 Robin T.Kleffman 30	NSAC	1:00.98	11 Jim Gibbs 36	MUTS	6:27.65	
2 Richard Cooley 28	RMM	2:01.01	8 Bruce Bartling 30	SPRD	19:41.05	12 Tim Hodges 31	OM	1:01.13	12 Gordon Smith 36	TSC	6:08.26	
3 Berry Hamilton 25	MUTS	2:03.27	9 John Selmer 33	RIN	19:54.18	13 Paul Watts 30	DSC	1:01.23	13 John Tobin 35	RMM	6:42.10	
4 Dennis Glass 25	DOM	2:03.50	10 Marvin Jones 34	RMM	22:37.92	14 Dick Ennis 33	SMM	1:01.76	14 Patrick Ferguson 39	USA	6:42.24	
5 Fred Forshey 29	PSM	2:06.11	11 Ralph J.Johnson,Jr.30	RMM	22:48.02	15 Robert Davis 31	TGM	1:02.28	15 Michael S.Chessnoe 36	RMM	6:54.17	
6 Bruce Fisher 29	RMM	2:06.65	12 Mike Harris 31	RGM	24:14.30	16 James M. Green 33	TM	1:02.38	16 J.David Gillanders 39	MOST	7:04.38	
7 S.E. Hedberg 25	AM	2:08.00	17 Gustavo Betancourt 32	SLC		17 Gustavo Betancourt 32	SLC	1:02.43	17 James Crane 36	DADS	18:14.24	
8 Carl "Jim" Yates 25	PAST	2:08.30	100 YDS BACKSTROKE			18 Bill Abbott 32	RMM	1:02.85	2 Philip Goode 35	JM	19:09.49	
9 Tom Whately 26	AM	2:09.61	1 W. Timken 39	DCM	57.20	19 Tom McCarty 32	OC	1:02.99	3 Dave Hershey 37	DEM	19:36.19	
10 David Levinson 28	RIN	2:09.82	2 Robert Smith 34	UNAT	59.04	20 Mark Litman 32	NSAC	1:03.37	4 Charles H.Raven 39	OC	20:03.66	
11 Bruce A. Weaver 26	MUTS	2:10.83	3 Ken Krueger 32	UNAT	59.96	21 Lawrence J. Glass 31	DADS	1:03.77	5 Bob Walden 38	JM	20:32.19	
12 David Bright 25	NEC	2:11.50	4 Paul M.Hebert, Jr. 32	B	1:01.71	22 Mike Rockwood 31	OM	1:04.85	6 Terry Anderson 37	RMM	20:32.90	
13 Steve Craven 28	MUTS	2:11.89	5 John Selmer 33	RIN	1:02.34	23 Michael McKinlay 34	SPRF	1:05.98	7 Mike Casebolt 36	SSM	20:46.54	
14 Donald F.Anderson 26	DCM	2:14.21	6 Mark Litman 32	NSAC	1:03.11	24 Michael McKinlay 34	SPRF	1:08.83	8 W. Timken 39	OHIO	21:20.88	
15 Rich Bell 29	MOST	2:14.44	7 Michael McKinlay 34	SPRF	1:03.45	25 Michael McKinlay 34	MUTS	1:10.29	9 Arthur Smith 38	DOM	21:57.51	
16 Ron Armstrong *	OM	2:15.55	8 Michael Beglinger 31	SMM	1:03.53	26 Thomas Fuller 33	MUTS	1:12.31	10 Jim Gibbs 36	MUTS	23:01.46	
16 Curtis C. Lasher 25	SMM	2:19.84	9 Ed Rudloff 30	OC	1:03.91	27 Ralph Johnson,Jr. 30	RMM	1:12.73	11 J.David Gillanders 39	MOST	24:14.79	
17 Dave Carter 29	MUTS	2:23.10	10 Tom McCarty 32	OC	1:04.85	28 Marvin Jones 34	RMM	1:14.69				
18 Paul H. Laes 26	AM	2:27.14	11 Dick Ennis 33	SMM	1:05.14							
19 Rob Klausmeier 29	DOM	2:27.19	12 Michael Markman 31	MUTS	1:05.62							
20 David Johnston 25	DADS	2:28.48	13 Robin T.Kleffman 30	NSAC	1:06.40							
21 Craig McGahey 26	DADS	2:31.60	14 Jon E. Tyson 34	MUTS	1:08.52							
<b>MEN 30-34</b>												
<b>50 YDS FREESTYLE</b>												
#1 Tom Peek 30	NFM	21.73	200 YDS BACKSTROKE			1 Dan Sullivan 31	USA	2:07.78	1 JAMES Crane 36	DADS	18:14.24	
2 David Gray 32	SMM	22.37	1 W. Timken 39	DCM	2:11.63	2 Pete Williams 32	MOST	2:10.15	2 Philip Goode 35	JM	19:09.49	
3 Ken Krueger 32	UNAT	22.48	2 Robert Smith 34	UNAT	2:11.74	3 Art Smith 33	THMSC	10:12.72	3 Dave Hershey 37	DEM	19:36.19	
4 Dana Sullivan 31	USA	22.63	3 Ken Krueger 32	UNAT	2:13.32	4 David Nordstrom 30	MOST	2:10.88	4 Charles H.Raven 39	OC	20:03.66	
5 Steve E. Clark 34	DC	22.70	4 Paul M.Hebert, Jr. 32	B	2:15.67	5 Avraham Melamed 33	VSC	2:10.89	5 Bob Walden 38	JM	20:32.19	
6 Peter Heesch 30	USA	22.71	5 John Selmer 33	RIN	2:16.01	6 John J. Flanagan 32	DCM	2:11.92	6 Terry Anderson 37	RMM	20:32.90	
7 William B. Bacon 31	DCM	22.75	6 Mark Litman 32	NSAC	2:20.01	7 Paul Watts 30	MUTS	2:13.04	7 Mike Casebolt 36	SSM	20:46.54	
8 David Nordstrom 30	MOST	23.03	7 Ed Rudloff 30	OC	2:20.47	8 Dana Curtis 30	DCM	2:13.42	8 W. Timken 39	OHIO	21:20.88	
*9 Tony Jarvis 32	OM	23.04	9 Michael McKinlay 34	SPRF	2:20.97	9 Bob Cain 30	MUTS	2:13.50	9 Arthur Smith 38	DOM	21:57.51	
9 Robert Smith 34	UNAT	23.40	10 Tom McCarty 32	SMM	2:22.62	10 Marvin Jones 34	RMM	2:18.91	10 Jim Gibbs 36	MUTS	23:01.46	
10 Robert Davis 31	TGM	23.43	11 Michael Markman 31	MUTS	2:25.13	11 Robert Smith 34	UNAT	2:13.75	11 J.David Gillanders 39	MOST	24:14.79	
11 Dick Hodges 31	SMM	23.63	12 Gary Hunsaker 31	NFM	2:29.66	12 Ed Rudloff 30	DC	2:14.02				
*13 Tim Hodges 31	OM	23.74	13 Thomas Fuller 33	MUTS	2:37.50	13 John Selmer 33	RIN	2:14.32				
14 Chuck Worrel 31	DOM	23.77	14 Ralph Johnson,Jr. 30	RMM	2:38.87	14 Gustavo Betancourt 32	SLC	2:15.76				
15 Dick Hopkins 32	UNAT	23.87	15 Robert Davis 31	TGM	2:39.27	15 David Thompson 31	SPRD	2:17.23				
16 Bill Abbott 32	RMM	24.20	16 Art Halle 36	DC	2:39.29	16 Bruce Bartling 30	SPRD	2:17.95				
17 Lawrence J. Glass 31	DADS	24.21	17 Charles Teas 39	TM	2:45.22	17 Charles Teas 39	TM	2:18.51				
18 David Thompson 31	CN	24.95	18 Thomas C. Fuller 33	MUTS	2:57.96	18 Peter Heesch 30	USA	2:18.55				
19 William Cerny 30	DADS	25.46	19 Robert W. Alspaugh 31	RMM	2:59.38	19 Mark Litman 32	NSAC	2:22.66				
20 Michael Markman 31	MUTS	26.13	200 YDS BREASTSTROKE			21 William Cerny 30	DADS	2:23.35				
21 Mike Harris 31	TGM	26.56	*1 Art Smith 33	THMSC	2:20.80	22 Michael McKinlay 34	SPRF	2:33.97				
22 William H. Schauer 34	TGM	26.04	2 David Bartling 30	SPRD	2:24.23	23 Michael McKinlay 34	SPRF	2:34.57				
23 John Buhler 31	MOT	26.36	3 Dick Ennis 33	SMM	2:28.57	24 Marvin Jones 34	RMM	2:50.13				
24 Marvin Jones 34	RMM	26.76	4 Bob Cain 30	SPRD	2:29.79	25 Tom Peek 30	NSAC	2:50.00				
25 Robert W. Alspaugh 31	RMM	26.73	5 Robert Davis 31	TGM	2:30.74	26 Charles Teas 39	TM					
26 Tom Bartley 30	MOT	26.76	6 Robert Davis 31	TGM	2:35.70	27 Charles Teas 39	TM					
<b>200 YDS FREESTYLE</b>												
1 David Gray 32	SMM	1:47.02	7 Avraham Melmed 33	VSC	25.29	28 Charles Teas 39	TM					
2 Dan Sullivan 31	USA	1:48.30	8 William B. Bacon 31	DCM	25.30	29 Charles Teas 39	TM					
3 Dana H. Curtis 30	TGM	1:51.42	9 John J. Flanagan 32	DCM	25.31	30 Charles Teas 39	TM					
4 David Nordstrom 30	MOT	1:54.10	10 Robin T.Kleffman 30	NSAC	25.37	31 Charles Teas 39	TM					
*5 Tony Jarvis 32	OM	1:54.62	11 Bob Cain 30	MUTS	25.57	32 Charles Teas 39	TM					
5 Peter Heesch 30	USA	1:55.68	12 David Nordstrom 30	MOT	25.80	33 Charles Teas 39	TM					
6 Bob Cain 30	MUTS	1:56.49	*13 Gustavo Betancourt 32	SLC	25.85	34 Charles Teas 39	TM					
7 John Selmer 33	RIN	1:56.92	13 Robert Smith 34	UNAT	26.23	35 Charles Teas 39	TM					
8 William Cerny 30	DADS	1:57.31	*14 Tim Hodges 31	OM	26.33	36 Charles Teas 39	TM					
9 Art Smith 34	THMSC	1:57.39	15 James M.Beglinger 31	SMM	26.46	37 Charles Teas 39	TM					
10 John S. Flanagan 32	DCM	1:57.50	16 Charles Saxe 33	NM	26.63	38 Charles Teas 39	TM					
11 Ed Rudloff 30	DC	1:57.57	*16 Charles Saxe 33	NM	27.14	39 Charles Teas 39	TM					
12 Bruce Bartling 39	SPRD	1:57.84	17 Mike Harris 31	TGM	27.53	40 Charles Teas 39	TM					
*13 David Thompson 31	CN	1:58.86	18 William H.	TM	28.43	41 Charles Teas 39	TM					
14 James Bellingher 31	SMM	1:59.96				42 Charles Teas 39	TM					
15 James Green 33	TM	2:02.24				43 Charles Teas 39	TM					
<b>50 YDS FREESTYLE</b>												

10 J. David Gillanders	39	MOST	1:10.86	17 John George	42	OMSC	6:42.38	MEN 45-49	4 Ashley Jones	46	SMM	2:41.88		
11 John A. Schmidt	39	UNAT	1:16.42	18 Doug Holmes	42	CMS	6:49.77	50 YDS FREESTYLE	5 Nick Berenyl	45	HDM	2:43.64		
100 YDS IND. MEDLEY				19 Henry Zentgraf	43	RMM	7:17.03	*1 Donald P. Hitt	46	DC	22.85			
#1 Timothy R. Garton	35	RMM	57.59	20 William Hutcheson	43	MUTS	7:20.25	2 Ronald Johnson	46	AM	23.59			
2 Tom McAbee	35	CT	58.34	21 Hans Krier	42	RMM	7:40.08	3 Boe Jeritier	49	MM	25.36			
3 Bruce Clark	36	HUM	59.73	1650 YDS FREESTYLE		DSC	19:13.62	4 Edward L.Emes,Jr.	49	DCM	26.43			
Thompson Mann	35	OC	1:00.36	1 Ed Hinshaw	41	NMM	19:32.78	5 Harry Fox	48	OHIO	26.57			
5 Cap Cole	37	CT	1:01.01	2 Sam Jones	42	RMM	20:46.56	6 Robert Kueny	47	WM	26.83			
6 Rowland Stanley	35	MDM	1:01.20	3 Dennis O'Brien	42	MM	21:42.52	7 David Lomsk	49	SMM	27.35			
7 Al Cartwright	36	UNAT	1:01.25	4 Carl Christensen	40	UNAT	21:42.69	8 Gordon Gillin	47	SD	27.91			
8 Dennis Bretherton	36	DADS	1:02.90	5 James Zurcher	43	UNAT	21:42.69	9 Roland Baird	45	DADS	28.16			
9 Peter Sagues	35	SMM	1:03.13	6 Barry Fasbender	40	RIN	21:55.71	10 Monroe Allen	47	NEM	28.34			
10 Edmundo Fernandez	31	SLC	1:03.75	7 Rudy Lederer	46	NSY	23:10.35	11 Louis Raiborn	46	AM	28.68			
10 Gordon H. Smith	36	TSC	1:04.62	8 Jerry Jackson	41	MUTS	26:28.08	12 Gerald Smith	47	SMM	29.66			
11 James Crane	36	DADS	1:05.01	9 Jerry Jackson	41	TGM	25:16.94	13 Lee Walters	47	UNAT	34.73			
12 Arthur Smith	38	DCM	1:05.31	10 Joe Gilbert	42	DCM	24:04.16	14 Daniel F.Gruender	48	AM	25.99			
13 Patrick Ferguson	39	USA	1:05.79	11 Hans Krier	42	DCM	24:16.94	15 Ron Johnson	46	DCM	26.68			
14 W. Timken	39	OHIO	1:06.67	12 Richard Cheadle	40	DCM	24:28.08	16 Steve Odrobina	49	MOST	25.85			
15 George Lanum	36	RMM	1:08.62	100 YDS BACKSTROKE		DCM	24:37.01	17 Horace Knowlton	48	CH	25.71			
16 Charles Teas	39	MOST	1:11.57	1 Ed Coxon	42	SLM	1:04.12	18 James Puckett	48	MUTS	3:23.87			
17 David Casebolt	36	SSM	1:13.88	2 Lewis E. Cook,Jr.	40	DC	1:04.54	19 Don McMillin	49	UNAT	3:27.27			
18 Michael S. Chessnoe	36	RMM	1:25.70	3 Mel vanHeldingen	44	OMSC	1:05.79	20 James Furman	46	UNAT	3:33.94			
200 YDS IND. MEDLEY				4 Lin Meiring	44	OMSC	1:06.63	100 YDS FREESTYLE						
#1 Timothy R. Garton	35	RMM	2:06.94	5 Rudy Lederer	42	NSY	1:12.61	#1 Donald P. Hitt	46	DC	52.33			
2 Al Cartwright	36	UNAT	2:11.57	6 Doug Holmes	42	EMS	1:17.78	2 Ron Johnson	46	AM	52.44			
3 Tom McAbee	35	CT	2:11.70	7 Doug Holmes	42	IM	1:42.22	3 Robert Heritier	49	MM	56.09			
4 Robert R. Williams	111	CM	2:13.17	8 Rudy Lederer	42	NSY	1:14.89	4 Graham Johnston	47	TGM	56.66			
5 Bill Wood	36	UNAT	2:15.43	9 Doug Holmes	42	OMSC	1:24.43	5 Dennis Rice	45	TSC	57.45			
6 Bruce Clark	36	HUM	2:18.33	10 Monroe Allen	47	NSY	1:24.43	6 Edward L.Emes,Jr.	49	DCM	58.37			
7 Dennis Bretherton	36	DADS	2:18.63	11 Louis Raiborn	46	OMSC	1:24.43	7 Harry Fox	48	OHIO	58.94			
8 Gregory Gwin	35	CM	2:24.27	12 Gerald Smith	47	NSY	1:24.43	8 Steve Odrobina	49	AM	1:00.50			
9 Rowland Stanley	35	MDM	2:24.43	13 Lee Walters	47	NSY	1:24.43	9 Gordon Gillin	47	SD	1:00.51			
10 Patrick Ferguson	39	USA	2:26.85	14 Daniel F.Gruender	48	NSY	1:24.43	10 Monroe Allen	47	NEM	1:03.43			
11 W. Timken	39	OHIO	2:27.76	15 Ron Johnson	46	NSY	1:24.43	11 Davis Lomsk	49	SMM	1:03.90			
12 George Lanum	36	RMM	2:32.92	16 Steve Odrobina	49	NSY	1:24.43	12 Gerald Smith	47	SMM	1:05.69			
13 John Tobis	35	RMM	2:45.69	17 Harry Fox	48	NSY	1:24.43	13 Daniel F.Gruender	48	AM	1:11.94			
MEN 40-44				18 Monroe Allen	47	NSY	1:24.43	14 Weston Harper	48	TGM	1:19.46			
50 YDS FREESTYLE				19 Harry Fox	48	NSY	1:24.43	20 James Puckett	48	UNAT	1:31.94			
#1 Charles Bechtel	40	DCM	23.15	200 YDS BACKSTROKE		DCM	2:25.35	200 YDS FREESTYLE						
2 Philip Gay	43	OC	24.18	1 Ed Coxon	42	DCM	2:29.71	#1 Burwell Jones	45	SMS	1:57.09			
3 Geo. Worthington	40	CM	24.48	2 Sam Jones	42	NMM	2:39.71	2 Graham Johnston	47	RGM	2:00.94			
4 Dave Drum	42	HUM	24.66	3 Lin Meiring	44	OMSC	2:29.97	3 Hubert Williams,Jr47	RMM	2:02.14				
5 Gaither Rosser	44	GCM	24.68	4 Rudy Lederer	42	NSY	2:40.60	4 Robert Heritier	49	MM	2:05.64			
6 Don Read	43	VSC	25.08	5 Barry Fasbender	40	RIN	2:42.34	5 Denis Rice	45	TSC	2:11.07			
7 Henry Zentgraf	43	RMM	25.09	6 John George	42	OMSC	2:44.33	6 Gordon Gillin	47	SD	2:18.98			
8 Peter R. Taft	42	DCM	25.10	7 Doug Holmes	42	OMSC	2:51.29	7 Gerald Smith	47	SMM	2:26.17			
9 Carl Christensen	40	MDM	25.47	8 Doug Holmes	42	OMSC	2:57.06	8 Nick Berenyl	45	MDM	2:26.35			
10 James Barden	41	MOST	25.68	100 YDS BREASTSTROKE		DCM	2:57.95	9 John Bauman	47	WM	2:28.94			
11 Jon L. Neal	42	WTM	25.79	1 Thomas A.Long,Jr.	40	PNA	1:08.92	10 Monroe Allen	47	NEM	2:36.19			
12 William Hutcheson	43	MUTS	26.02	2 Carlyn Cruzan	40	BRY	1:10.98	11 Don McMillin	49	AM	2:52.03			
13 James Zurcher	43	UNAT	26.02	3 Carlyn Cruzan	40	BRY	1:13.52	12 Weston Harper	48	TGM	3:00.81			
14 Peter Duncan	43	OMSC	26.20	4 Budd Symes	43	UNAT	1:17.92	13 Lee Walters	47	UNAT	3:14.89			
15 Rudy Lederer	42	NSY	26.43	5 George E.Brunstad	43	CONN	2:45.97	14 Daniel F.Gruender	48	AM	7:35.12			
16 Jerry Jackson	41	MOST	26.51	6 Bob David	43	OMSC	2:55.14	15 Ron Johnson	46	SD	6:49.66			
17 Thomas Smith	41	MOST	26.65	7 Richard Cheadle	40	DCM	3:01.63	16 Gerald Smith	47	SMM	6:44.34			
18 Robert Bell	43	MOST	26.65	8 Barry Fasbender	40	RIN	3:02.13	17 James Puckett	48	MUTS	7:17.03			
19 John George	42	OMSC	27.03	9 Morgan Jones	41	MOST	3:15.55	18 Monroe Allen	47	UNAT	8:28.91			
20 Lin Meiring	44	OMSC	27.35	100 YDS BREASTSTROKE		DCM	3:25.95	19 Nick Berenyl	45	MDM	8:39.53			
100 YDS FREESTYLE				11 Henry Zentgraf	43	RMM	32.99	20 Monroe Allen	47	AM	10 Nick Berenyl	45	SMS	5:18.49
#1 Ed Hinshaw	41	DSC	51.39	12 Doug Holmes	42	OMSC	3:25.15	21 Carlyn Cruzan	40	PNA	5:24.05			
2 Charles Bechtel	40	DCM	52.36	13 Dave Drum	42	DCM	2:30.15	22 Daniel F.Gruender	48	RMM	5:27.80			
3 Geo. Worthington	40	CM	54.29	14 Peter R. Taft	42	DCM	2:31.71	23 Hubert Williams,Jr47	RMM	5:53.58				
4 Al Coxon	42	SLM	54.37	15 Gaither Rosser	44	GCM	2:31.71	24 Dennis Rice	45	TSC	6:07.51			
5 Philip Gay	43	OC	54.50	16 Dennis O'Brien	42	RMM	2:31.71	25 Art Welch	45	LBM	6:34.18			
6 Gaither Rosser	44	GCM	54.58	17 James Zurcher	43	UNAT	28.71	26 Joseph A. Prata	49	SMM	6:39.93			
7 Don Read	43	VSC	55.41	18 Doug Holmes	42	OMSC	29.05	27 John Bauman	47	WM	6:41.83			
8 Peter R. Taft	42	DCM	55.75	19 Richard Dunn	40	KCM	29.40	28 Gerald Smith	47	OMSC	6:42.90			
9 Carl Christensen	40	MDM	56.09	20 Joe L. Neal	42	WTM	29.55	29 Nick Berenyl	45	SD	6:45.49			
10 Henry Zentgraf	43	RMM	56.35	21 Jerry Jackson	41	RMM	32.99	30 Daniel F.Gruender	48	AM	6:44.34			
11 Peter Duncan	43	OMSC	56.40	22 Doug Holmes	42	OMSC	3:25.15	31 Lee Walters	47	RMM	7:17.03			
12 Jerry Jackson	41	MOST	1:00.89	23 Carlyn Cruzan	40	BRY	1:11.63	32 Don McMillin	49	MOST	8:39.53			
13 Richard Zwick	41	IM	1:05.42	24 Barry Fasbender	40	RIN	1:07.91	33 Lee Walters	47	UNAT	9:18.91			
14 Buddy Symes	43	UNAT	2:19.54	25 Sam Jones	42	NMM	1:11.63	34 Monroe Allen	47	SD	9:20.81			
15 William Hutcheson	43	MUTS	2:20.33	26 Dennis O'Brien	42	DCM	1:04.68	35 Gordon Gillin	47	AM	10:23.07			
16 William Hutcheson	43	MUTS	2:21.62	27 Mel vanHeldingen	44	RMM	1:05.01	36 Harry Fox	48	SMM	10:24.35			
17 John George	42	OMSC	2:21.62	28 Carlyn Cruzan	40	OMSC	1:05.99	37 Horace Knowlton	48	SD	10:25.64			
18 Doug Holmes	42	CMS	2:27.02	29 Doug Holmes	42	OMSC	1:06.64	38 Joseph A.Prata	49	AM	10:27.92			
19 Hans Krieg	42	RMM	2:46.87	30 Richard Dunn	40	KCM	1:18.10	39 Daniel F.Gruender	48	RMM	10:30.17			
500 YDS FREESTYLE				31 Jerry Jackson	41	RMM	1:26.60	40 Monroe Allen	47	SD	10:43.59			
#1 Ed Hinshaw	41	DSC	5:09.20	32 Dennis O'Brien	42	RMM	1:27.75	41 Carlyn Cruzan	40	PNA	1:01.59			
2 Sam Jones	42	NMM	5:34.30	33 Dave Drum	42	SLM	1:01:45	42 Daniel F.Gruender	48	SCAC	1:07.52			
3 Thomas A. Long,Jr.	40	PNA	5:41.32	34 Charles Bechtel	40	DCM	1:02.63	43 Elvin Choong	45	B	1:09.26			
4 Al Coxon	42	SLM	5:43.05	35 Peter R. Taft	42	DCM	1:06.31	44 Horace Knowlton	48	CH	1:09.64			
5 Charles Bechtel	40	DCM	5:49.97	36 Richard Cheadle	40	DCM	1:06.64	45 Joseph A.Prata	49	SHM	1:10.14			
6 Carl Christensen	40	MDM	5:54.87	37 Doug Holmes	42	OMSC	1:07.81	46 Gordon Gillin	47	SP	1:13.80			
7 Gaither Rosser	44	GCM	5:55.94	38 George Brunstad	43	CONN	1:02.56	47 Art Welch	45	SHM	1:17.04			
8 Peter Duncan	43	OMSC	5:58.79	39 Lewis E.Cook,Jr.	40	DC	1:04.68	48 Monroe Allen	47	SD	1:17.33			
9 Dave Drum	42	HUM	6:00.23	40 Dennis O'Brien	42	RMM	1:05.01	49 Daniel F.Gruender	48	AM	1:17.50			
10 James Zurcher	43	UNAT	6:05.93	41 Carlyn Cruzan	40	OMSC	1:20.80	50 Alex Dalmu	47	RMM	1:20.87			
11 Jerry Jackson	41	MOST	6:17.76	42 Doug Holmes	42	OMSC	1:01:38	51 Carlyn Cruzan	40	OMSC	1:21.58			
12 Lin Meiring	44	OMSC	2:18.79	43 Richard Dunn	40	KCM	1:18.10	52 Monroe Allen	47	AM	1:24.75			
13 Henry Zentgraf	43	RMM	2:19.35	44 Robert Bell	43	RMM	1:12.06	53 Gordon Gillin	47	SD	1:24.75			
14 Richard Zwick	41	IM	2:19.45	45 Jerry Jackson	41	RMM	1:24.33	54 Harry Fox	48	AM	1:24.75			
15 Buddy Symes	43	UNAT	2:19.54	46 Doug Holmes	42	OMSC	1:24.33	55 Nick Berenyl	45	SD	1:24.75			
16 William Hutcheson	43	MUTS	2:20.33	47 Richard Dunn	40	KCM	1:24.33	56 Robert Bauman	47	AM	1:24.75			
17 John George	42	OMSC	2:21.62	48 Monroe Allen	47	RMM	1:24.33	57 Carlyn Cruzan	40	SD	1:24.75			
18 Doug Holmes	42	CMS	2:27.02	49 Doug Holmes	42	OMSC	1:24.33	58 Daniel F.Gruender	48	AM	1:24.75			
19 Hans Krieg	42	RMM	2:46.87	50 Richard Dunn	40	KCM	1:24.33	59 Gordon Gillin	47	RMM	1:24.75			
500 YDS FREESTYLE				51 Jerry Jackson	41	RMM	1:24.33	60 Monroe Allen	47	SD	1:24.75			
#1 Ed Hinshaw	41	DSC	5:09.20	52 Dennis O'Brien	42	RMM	1:24.33	61 Carlyn Cruzan	40	AM	1:24.75			
2 Sam Jones	42	NMM	5:34.30	53 Dave Drum	42	SLM	1:01:45	62 Daniel F.Gruender	48	SCAC	1:24.75			
3 Thomas A. Long,Jr.	40	PNA	5:41.32	54 Charles Bechtel	40	DCM	1:02.63	63 Elvin Choong	45	B	1:09.26			
4 Al Coxon	42	SLM</td												

100 YDS BACKSTROKE							
1 Paul Hutingger 53	IM	1:07.33	9 Fred Donald 57	RMM	28.45	100 YDS BUTTERFLY	200 YDS BREASTSTROKE
2 John M. Woods 54	AMM	1:09.84	10 Bob Acker 57	IM	28.76	1 John Crews 58	#1 John Higgins 62
3 Alfred J. Groh 50	RIN	1:12.73	11 Neville Moise 57	DADS	29.09	2 Frank Havlicek 59	2 Edgar S. Blackledge 62
4 Gene Mack 50	RMM	1:13.01	12 Ray Nicol 57	MOST	29.52	3 Jack Warren 57	3 Bennett Y. Allen 64
5 Don Stupfel 50	SMM	1:14.25	13 Richard T. Smith 58	TSC	29.91	4 Ed Barnes 56	4 Bill Wooley 60
6 Robert Flanagan 53	DADS	1:14.52	14 E.T.H. Talmage, Jr. 58	RMM	32.53	5 Bill Stadig 55	5 Hamilton Anderson 64
7 Del Brown 53	OMSC	1:27.59	15 Luis P. Valle 55	SSM	39.09	6 Neville Moise 57	
8 Jim Forbes 52	MMNY	1:28.64				7 Robert McDermott 57	
9 Robert P. Martin 50	RMM	2:02.96				8 Alexander Watters 58	
200 YDS BACKSTROKE							
#1 Paul Hutingger 53	IM	2:26.40	#1 Raymond I. Hakomaki 57	NSAC	56.84	100 YDS BUTTERFLY	200 YDS BREASTSTROKE
2 Alfred J. Groh 50	RIN	2:32.25	2 John Florence 55	SOM	59.05	1 John Crews 58	#1 John Higgins 62
3 John M. Woods 54	AMM	2:36.85	3 Dore Schwab, Jr. 56	TSC	1:00.68	2 Frank Havlicek 59	2 Edgar S. Blackledge 62
4 Carl E. Yates 50	RIN	2:37.61	4 Frank Havlicek 59	IM	1:01.54	3 Jack Warren 57	3 Bennett Y. Allen 64
5 Gene Mack 50	RMM	2:47.05	5 William Baugher 56	IM	1:02.61	4 Ed Barnes 56	4 Bill Wooley 60
6 Don Stupfel 50	SMM	2:55.99	6 Neville Moise 57	RMM	1:03.98	5 Bill Stadig 55	5 Hamilton Anderson 64
7 Del Brown 53	OMSC	3:10.06	7 Herb Wallower 56	IM	1:04.13	6 Neville Moise 57	
8 Robert P. Martin 50	RMM	4:25.84	8 Bob Acker 57	NEM	1:04.67	7 Robert McDermott 57	
100 YDS BREASTSTROKE							
#1 Ted Heartz 50	NEM	1:11.68	100 YDS FREESTYLE	NSAC	56.84	8 Alexander Watters 58	
2 Matt Flanagan 52	DCM	1:15.28	1 John Crews 58	TM	2:12.12	100 YDS BUTTERFLY	
3 Jim Marcus 53	LBM	1:17.15	2 Ray Taft 58	SMM	2:12.58	1 John Crews 58	
4 Skip Mann 53	RMM	1:17.23	3 Jim Edwards 55	NEM	2:25.26	2 Frank Havlicek 59	
5 Jim Forbes 52	MMNY	1:17.55	4 Bob Acker 57	IM	2:25.35	3 Jack Warren 57	
6 Robert Cunningham 50	SMM	1:17.69	5 Dore Schwab, Jr. 56	TSC	2:28.48	4 Ed Barnes 56	
7 Dick Powers 54	RMM	1:21.53	6 William Baugher 56	IM	2:28.59	5 Bill Stadig 55	
*8 Ted Roach 52	OM	1:22.55	7 Richard T. Smith 58	TSC	2:29.30	6 Neville Moise 57	
*8 Henry Kivi 54	OM	1:23.05	8 Herb Wallower 56	RMM	2:30.79	7 Dan J. Miles 57	
8 George Cunningham 52	TSC	1:23.07	9 Neville Moise 57	DADS	2:35.21	8 Fred Donald 57	
9 Chuck McCarthy 53	CONN	1:24.11	10 Fred Donald 57	RMM	2:36.02	9 Thomas Cloyes 56	
200 YDS BREASTSTROKE							
#1 Ted Haartz 50	NEM	2:41.43	11 E.T.H. Talmage, Jr. 58	RMM	2:58.65	10 Ed Barnes 56	
2 Skip Mann 53	RMM	2:47.31	12 Will Worley 56	TGM	3:19.66	11 Hamilton Anderson 64	
3 Robert Cunningham 50	SMM	2:52.10	13 Luis P. Valle 55	SSM	10:44.50	12 Vern Dawson 61	
4 Matt Flanagan 52	DCM	2:52.50				13 Vern Dawson 61	
5 Jim Marcus 53	LBM	2:54.95				CONN	40.07
6 Ed Kerswill 52	RIN	2:58.77					
7 Jim Forbes 52	MMNY	2:59.72					
8 George Cunningham 52	TSC	2:59.78					
*9 Ted Roach 52	OM	3:02.70					
*9 Ransom Arthur 52	LA	3:02.72					
*10 Henry Kivi 54	OM	3:04.86					
10 Chuck McCarthy 53	CONN	3:08.59					
500 YDS FREESTYLE							
1 Paul Hutingger 53	IM	28.41	100 YDS FREESTYLE	TM	5:59.21	MEN 60-64 50 YDS FREESTYLE	
2 Charles Moss 50	MM	29.01	1 John Crews 58	NEM	6:36.64	1 Harry Rawstrom 61	
3 Ted Haartz 50	NEM	29.52	2 Jim Edwards 55	NMM	6:52.98	2 Bill Grant 64	
4 Winthrop Wilson 51	NEM	30.03	3 Dan J. Miles 57	SDM	7:55.71	3 Gus Clemens 60	
5 Matt Flanagan 52	DCM	30.48	4 Richard T. Smith 58	TSC	7:05.23	4 Edgar S. Blackledge 62	
6 Sanford Dickey 52	UNAT	30.91	5 Robert McDermott 57	RMM	7:19.39	5 Brud Cleaveland 60	
7 Gene Mack 50	RMM	31.77	6 Bob Acker 57	IM	7:20.10	6 David Rowan 64	
8 Robert Flanagan 53	DADS	32.68	7 Herb Wallower 56	RMM	7:34.13	7 Ed Barnes 56	
9 George Cunningham 52	TSC	34.40	8 E.T.H. Talmage, Jr. 58	RMM	7:34.37	8 Thomas Cloyes 56	
*10 Ted Roach 52	OM	34.75	9 William Baugher 53	IM	7:43.77	9 Robert McDermott 57	
10 Dick Powers 54	RMM	34.92	10 Scroggile Wiley 57	TGM	28:10.35	10 Alexander Watters 58	
11 John Koruga 51	PNA	35.18	11 Will Worley 56	TGM	35:38.40	11 Vern Dawson 61	
12 Chuck McCarthy 53	CONN	35.69	12 Luis P. Valle 55	SSM		12 Vern Dawson 61	
50 YDS BUTTERFLY							
1 Paul Hutingger 53	IM	28.41	100 YDS FREESTYLE	TM	5:59.21	MEN 60-64 50 YDS FREESTYLE	
2 Charles Moss 50	MM	29.01	1 John Crews 58	NEM	6:36.64	1 Harry Rawstrom 61	
3 Ted Haartz 50	NEM	29.52	2 Jim Edwards 55	NMM	6:52.98	2 Bill Grant 64	
4 Winthrop Wilson 51	NEM	30.03	3 Dan J. Miles 57	SDM	7:55.71	3 Gus Clemens 60	
5 Matt Flanagan 52	DCM	30.48	4 Richard T. Smith 58	TSC	7:05.23	4 Edgar S. Blackledge 62	
6 Sanford Dickey 52	UNAT	30.91	5 Robert McDermott 57	RMM	7:19.39	5 Brud Cleaveland 60	
7 Gene Mack 50	RMM	31.77	6 Bob Acker 57	IM	7:20.10	6 David Rowan 64	
8 Robert Flanagan 53	DADS	32.68	7 Herb Wallower 56	RMM	7:28.61	7 Ed Barnes 56	
9 George Cunningham 52	TSC	34.40	8 E.T.H. Talmage, Jr. 58	RMM	7:34.37	8 Thomas Cloyes 56	
*10 Ted Roach 52	OM	34.75	9 William Baugher 53	IM	7:35.90	9 Robert McDermott 57	
10 Dick Powers 54	RMM	34.92	10 Scroggile Wiley 57	TGM	28:16.32	10 Alexander Watters 58	
11 John Koruga 51	PNA	35.18	11 Will Worley 56	TGM	30:03.65	11 Vern Dawson 61	
12 Chuck McCarthy 53	CONN	35.69	12 Luis P. Valle 55	SSM	35:38.40	12 Vern Dawson 61	
100 YDS BACKSTROKE							
1 Charles Moss 50	MM	1:05.13	1 Ray Taft 58	SMM	1:11.42	100 YDS FREESTYLE	200 YDS FREESTYLE
2 Paul Hutingger 53	IM	1:06.69	2 Allen Hellman 56	MOST	1:15.68	1 Jim Welch 60	200 YDS FREESTYLE
3 Winthrop Wilson 51	NEM	1:08.47	3 Jim Edwards 55	NEM	1:16.43	2 Harry Rawstrom 61	
4 Matt Flanagan 52	DCM	1:09.92	4 Ray Nicol 57	MOST	1:21.47	3 Gus Clemens 60	
5 Ted Haartz 50	NEM	1:09.95	5 Fred Donald 57	RMM	1:22.81	4 Bill Grant 64	
6 Matt Flanagan 52	DCM	1:10.40	6 Scroggile Wiley 57	DCM	1:23.80	5 Ashby Harper 61	
7 Skip Mann 53	RMM	1:10.95	7 E.T.H. Talmage, Jr. 58	RMM	1:27.74	6 James H. Coon 63	
8 Sanford Dickey 52	UNAT	1:13.35	8 Bill Stadig 55	MOST	1:28.61	7 Richard Guido 60	
*9 Ted Roach 52	OM	1:17.25	9 Will Worley 56	TGM	1:38.07	8 Brud Cleaveland 60	
9 Chuck McCarthy 52	CONN	1:18.54	10 Luis P. Valle 55	SSM	1:52.18	9 Vern Dawson 61	
100 YDS IND. MEDLEY							
1 Charles Moss 50	MM	1:05.37	100 YDS BACKSTROKE	TM	1:11.42	100 YDS FREESTYLE	200 YDS FREESTYLE
2 Paul Hutingger 53	IM	1:05.58	1 Jim Edwards 55	NEM	2:32.61	1 Jim Welch 60	200 YDS FREESTYLE
3 Ted Haartz 50	NEM	1:07.33	2 Raymond Taft 58	SMM	2:42.15	2 Harry Rawstrom 61	
4 John M. Woods 54	AMM	1:08.48	3 Allen Hellman 56	MOST	2:54.68	3 Gus Clemens 60	
5 Matt Flanagan 52	DCM	1:09.13	4 Fred Donald 57	RMM	3:11.22	4 Bill Grant 64	
6 Sanford Dickey 52	UNAT	1:09.80	5 Robert McDermott 57	RMM	3:21.65	5 Ashby Harper 61	
7 Alfred Groh 50	RIN	1:10.04	6 Will Worley 56	TGM	3:33.44	6 James H. Coon 63	
8 Don Stupfel 50	SMM	1:11.67	7 Luis P. Valle 55	SSM	4:05.80	7 Richard Guido 60	
9 Robert Cunningham 50	MM	1:12.20				8 Vern Dawson 61	
10 Dick Powers 54	RMM	1:18.50				CONN	1:39.53
11 Jim Forbes 52	MMNY	1:19.18					
*12 Ted Roach 52	OM	1:19.69					
12 Chuck McCarthy 53	CONN	1:20.20					
13 Robert S. Flanagan 53	DADS	1:22.11					
14 John Koruga 51	PNA	1:22.41					
*15 Henry Kivi 54	OM	1:26.92					
200 YDS IND. MEDLEY							
1 Paul Hutingger 53	IM	2:27.79	200 YDS BACKSTROKE	TM	2:54.87	100 YDS FREESTYLE	200 YDS FREESTYLE
2 Charles Moss 50	MM	2:28.58	1 Raymond I. Hakomaki 57	NSAC	2:55.93	1 Jim Welch 60	200 YDS FREESTYLE
3 Alfred Groh 50	RIN	2:34.02	2 Dan J. Miles 57	NEM	3:00.33	2 Harry Rawstrom 61	
4 John M. Woods 54	AMM	2:32.58	3 Thomas Cloyes 56	UNAT	3:00.33	3 Gus Clemens 60	
5 Jim Marcus 53	LBM	2:39.19	4 Jack Warren 57	RMM	3:04.14	4 Bill Grant 64	
6 Matt Flanagan 52	DCM	2:40.28	5 Ed Barnes 56	SMM	3:07.70	5 Edgar S. Blackledge 62	
7 Ed Kerswill 52	RIN	2:44.22	6 Bill Stadig 55	MOST	3:14.77	6 Richard Guido 60	
8 Robert Cunningham 50	SMM	2:45.33	7 Herb Wallower 56	RMM	3:19.43	7 Vern Dawson 61	
9 Don Stupfel 50	SMM	2:51.31	8 Robert McDermott 57	RMM	3:37.86	8 James H. Coon 63	
10 Robert Flanagan 53	DADS	2:59.81	50 YDS BUTTERFLY	TM		9 Bill Grant 64	
11 Chuck McCarthy 53	CONN	3:00.27	1 Raymond I. Hakomaki 57	NSAC	30.42	100 YDS BREASTSTROKE	
MEN 55-59							
50 YDS FREESTYLE							
#1 Raymond I. Hakomaki 57	NSAC	25.25	100 YDS BUTTERFLY	TM		100 YDS BREASTSTROKE	
2 Dore Schwab 56	TSC	26.20	2 Ray Taft 58	SMM	33.22	1 John Higgins 62	
3 John Florence 55	SOM	26.49	3 Dore Schwab, Jr. 56	UNAT	34.06	2 Edgar S. Blackledge 62	
4 William Baugher 56	IM	26.66	4 Neville Moise 57	DADS	34.19	3 Bill Grant 64	
5 Scroggile Wiley 57	DCM	27.06	5 Fred Donald 57	RMM	34.43	4 Richard Guido 60	
6 Frank Havlicek 59	IM	27.33	6 Luis P. Valle 55	TSC	31.99	5 Vern Dawson 61	
7 Thomas Cloyes 56	UNAT	28.05	7 Scroggile Wiley 57	DCM	38.78	6 James H. Coon 63	
8 Herb Wallower 56	RMM	28.35				7 Bill Grant 64	

200 YDS BREASTSTROKE							
#1 Harold Perry 66	MHM	3:20.51	50 YDS FREESTYLE	MEN 70-74			
2 Donald Stevenson 65	MAC	3:25.38	1 Stanton Craigie 71	UNAT	31.36	1 Winston Kratz 72	SBSC 3:40.56
3 Bill Loughborough 67	OC	3:28.00	2 Maxwell Vogt 73	JM	31.56	2 Al Kallunki 74	MHM 3:45.39
4 Ray Kaye 66	MM	3:30.73	3 La Rue Finley 70	TY	33.68	3 Fred Lappe 73	TSC 3:36.00
5 Jesse Coon 67	TGM	3:42.83	4 Hy Goldman 71	SMH	49.70	4 T. W. Johnson,Jr 73	USNA 4:05.58
6 Harold Barr 68	MHM	3:57.15				5 Bob Blake 70	RIN 5:04.41
Ernest Hale 67	LBM	3:59.48	100 YDS FREESTYLE	200 YDS BREASTSTROKE			
d Bob Coyle 65	JM	4:28.44	1 Maxwell Vogt 73	JM	1:12.17	1 Stanton Craigie 71	UNAT 39.46
9 Sam Maxcy 69	AM	5:54.82	2 LaRue Finley 70	TY	1:18.03	2 T.W. Johnson 73	USNA 46.11
50 YDS BUTTERFLY			3 Hy Goldman 71	SMH	2:09.39	3 Al Kallunki 74	MHM 46.31
1 Reg Richardson 66	SBSC	34.97	100 YDS FREESTYLE	500 YDS FREESTYLE			
2 Sidney Weinberg 65	JM	35.99	1 Maxwell Vogt 73	JM		4 LaRue Finley 70	TY 46.75
3 Bill Loughborough 67	OC	37.55	2 LaRue Finley 70	TY		5 Sidney Silbert 70	JM 58.40
4 Jesse Coon 67	TGM	39.02	3 Harry Jaggers 71	MAM		6 Bob Blake 70	RIN 1:07.78
5 Harold Perry 66	MHM	39.27				100 YDS BREASTSTROKE	
6 Bill Stinson 69	OMSC	41.19	100 YDS BUTTERFLY	#1 August Danielsson 75 MMY			
7 Ernest Hale 67	LBM	42.17	100 YDS FREESTYLE	1 Stanton Craigie 71	UNAT 1:46.89	200 YDS BREASTSTROKE	
DQ: Jack Bartlett 66	SMH	37.15	100 YDS BACKSTROKE	2 Sidney Silbert 70	JM 2:12.97	100 YDS BREASTSTROKE	
100 YDS BUTTERFLY			1 Fred Lappe 73	TSC 8:35.12		100 YDS BREASTSTROKE	
#1 Jack Bartlett 66	SMH	1:28.98	2 Harry Jaggers 71	MAM 9:03.60		100 YDS BREASTSTROKE	
2 Jesse Coon 67	TGM	1:32.34	3 LaRue Finley 70	TY 9:10.59		100 YDS BREASTSTROKE	
3 Bill Stinson 69	OMSC	1:40.54				100 YDS BREASTSTROKE	
4 Ernest Hale 67	LBM	1:45.28	100 YDS BACKSTROKE	1 Fred Lappe 73	TSC 29:16.33	100 YDS BREASTSTROKE	
5 Bill Loughborough 67	OC	1:46.45	2 Al Kallunki 74	UNAT 32:13.86		100 YDS BACKSTROKE	
6 Harold Perry 66	MHM	1:51.21	3 Harry Jaggers 71	MAM		100 YDS BACKSTROKE	
100 YDS IN. MEDLEY			4 LaRue Finley 70	TY		100 YDS BACKSTROKE	
#1 Reg Richardson 66	SBSC	1:16.94	100 YDS BACKSTROKE	1 Fred Lappe 73	TSC 1:37.57	100 YDS BACKSTROKE	
2 Sidney Weinberg 65	JM	1:24.66	2 Harry Jaggers 71	MAM 1:45.91		100 YDS BACKSTROKE	
3 Bill Loughborough 67	OC	1:26.51	3 T.W. Johnson 73	USNA 1:47.41		100 YDS BACKSTROKE	
4 Oscar Sigrist 69	JM	1:26.94	4 Sidney Silbert 70	JM 2:01.12		100 YDS BACKSTROKE	
5 Jack Bartlett 66	SMH	1:27.03	5 Bob Blake 70	RIN 2:19.11		100 YDS BACKSTROKE	
6 Benton Wood 68	SMH	1:29.59				100 YDS BACKSTROKE	
7 Jesse Coon 67	TGM	1:33.44	100 YDS BACKSTROKE	1 Fred Lappe 73	TSC 3:16.66	100 YDS BACKSTROKE	
8 Ed Sebastian 66	SSM	1:55.21	2 Harry Jaggers 71	MAM 3:48.48		100 YDS BACKSTROKE	
9 Louis Rinna 67	RMM	2:02.75	3 Sidney Silbert 70	JM 4:37.76		100 YDS BACKSTROKE	
200 YDS IND. MEDLEY			4 Clarence Ross 78	JM 4:04.72		100 YDS BACKSTROKE	
#1 Reg Richardson 66	SBSC	2:59.78				100 YDS BACKSTROKE	
2 Benton Wood 68	SMH	3:18.04	100 YDS BREASTSTROKE	1 Winston Kratz 72	SBSC 1:37.62	100 YDS BACKSTROKE	
3 Jack Bartlett 66	SMH	3:19.98	2 Al Kallunki 74	MHM 1:42.48		100 YDS BACKSTROKE	
4 Oscar Sigrist 69	JM	3:27.45	3 Harry Jaggers 71	USNA 1:43.46		100 YDS BACKSTROKE	
5 Jesse Coon 67	TGM	3:36.96	4 LaRue Finley 70	RIN 2:15.28		100 YDS BACKSTROKE	
6 Ed Sebastian 66	SSM	4:17.28				100 YDS BACKSTROKE	
WOMEN 200 YDS FREE RELAY							
25+ YEARS							
1 MICHIGAN MASTERS							
C Rhudy 36, C DeLuca 35, L Weir 37, P Sugg 33							
2 D. C. MASTERS							
D Todd 34, F Mills 36, N Kirkendall 35, E Brey 46							
#3 ONTARIO MASTERS							
Liz Crawford 29, El Jarvis 31, Merrily Stratton 25, Louise McGonigal 34							
3 ROCKY MOUNTAIN MASTERS							
Richalie Cranmer 32, Jan McNeill 28, Cindy Walters 32, Val Fisher 27							
4 DADS CLUB							
D Johnston 25, J May 30, F Scurllock 25, G Brewton 25							
5 SAN MATEO MARLINS							
I Olsen 29, G Paul 36, K King 30, M Brums 28							
6 GOLD COAST MASTERS							
B West 30, S Peterson 35, D McGuire 43, J Krause 51							
7 KANSAS CITY MASTERS							
Ginny Weniger 25, Carol Poste 31, Pat Livingston 31, Barbara Zaremski 40							
8 MASTERS OF SOUTH TEXAS							
Helen Seidel 26, Carol Merkin 26, H Spengel 28, T Kirksmith 38							
9 TEXAS GULF MASTERS							
Hin van Hammond 42, Laura Thomas 51, Joan Calvin 46, Becky Acker 25							
25+ YEARS							
1 TAMALPAIS SWIM CLUB							
1 Hoey 43, J McCollister 59, A Canoe 52, N Ridout 36							
2 ONTARIO MASTERS							
P McCullagh 40, B Whittall 41, M Hough 36, Bonnie Pronk 35							
3 ROCKY MOUNTAIN MASTERS							
K Zentgraf 36, J Lachkar 37, N Brueggeman 39, M Harlow 35							
45+ YEARS							
15+ YEARS							
1 TAMALPAIS SWIM CLUB							
1 Hoey 43, J McCollister 59, A Canoe 52, N Ridout 36							
2 ONTARIO MASTERS							
P McCullagh 40, B Whittall 41, M Hough 36, Bonnie Pronk 35							
3 ROCKY MOUNTAIN MASTERS							
K Zentgraf 36, J Lachkar 37, N Brueggeman 39, M Harlow 35							
55+ YEARS							
25+ years							
#1 ONTARIO MASTERS "A"							
R.Armstrong 27, B.Pronk 35, M.Stratten 26, T.Jarvis 32							
1 ROCKY MOUNTAIN MASTERS "A"							
Fred Hubbell 25, Cindy Walters 32, Val Fisher 27, Ric Cooley 28							
2 SAN MATEO MARLINS "A"							
Peter Segues 35, Kristy King 30, Marianne Brems 29, DAve Gray 32							
3 RINCONADA MASTERS							
J.Selmer 33, P.Eller 25, B.Edwards 33, T.Spielker 29							
4 D. C. MASTERS							
P Todd 34, P.Mills 36, J.Parker 27, W.Bacon 31							
5 ARIZONA MASTERS							
J.Getting 29, L.Jenkins 26, J.Osterlon 29, T.Whatley 26							
6 NEW ENGLAND MASTERS							
Dave Bright 25, Sue Leady 29, Fred Schlicher 39, Pat Palmer 35							
7 MASTERS OF SOUTH TEXAS "A"							
David Nordstrum 30, K.Bell 29, J.Stewart 29, Helen Seidel 26							
8 DADS CLUB							
C.Brewton 25, J.May 30, D.Johnston 25, L.Glass 31							
9 ROCKY MOUNTAIN MASTERS "B"							
John Gaudreau 27, Van McNeill 28, R.Cranmer 32, B.Fisher 29							
10 TEXAS GULF MASTERS							
M.Harris 31, B.Acker 26, R.Van Edmond 42, R.Davis 31							
11 SAN ANTEO MARLINS "B"							
Jim Berliner 31, Ingrid Olsen 29, Gerda Paul 36, Dick Ennis 33							
12 ONTARIO MASTERS "B"							
Tim Hodges 31, E.Jarvis 31, Liz Crawford 29, Mike Rockwood 31							
13 MASTERS OF UPPER TEXAS SWIMMING							
Carol Rimroth 25, Bruce Weaver 26, Harily Bigy 34, Bob Cain 30							
14 MASTERS OF SOUTH TEXAS "B"							
John Buhler 31, Dave Gillanders 39, Trudy Bell 30, Dottie Bell 26							
DQ: ROCKY MOUNTAIN MASTERS "C"							
Jim Johnson 30, Keats McLaughlin 26, Jean Ballman 30, Bea Jones 37							
35+ YEARS							
#1 MICHIGAN MASTERS							
G.LaPrise 38, R.Heritier 49, C.DeLuca 35, L.Weir 37							
2 ROCKY MOUNTAIN MASTERS "A"							
Hank Zentgraf 43, Karen Zentgraf 36, Marcy Harlow 35, Tim Garton 35							
3 ST. LOUIS MASTERS							
Bill Grant 44, Helen Bass 42, Ardith Mueller 36, Al Coxon 42							
4 TAMALPAIS SWIM CLUB							
Dick Smith 58, Laurie Hoey 43, Gordon Smith 36, Nancy Ridout 36							
5 ILLINOIS MASTERS							
B.Acker 57, R.Tuncotte 50, B.Bennett 35, B.Baugher 56							
6 ROCKY MOUNTAIN MASTERS "B"							
G.Lanum 36, J.Lachkar 37, N.Brueggeman 39, T.Anderson 37							
7 MASTERS OF SOUTH TEXAS "A"							
J.Barden 41, A.Bean 42, T.Kirksmith 38, J.Jackson 41							
8 MASTERS OF UPPER TEXAS							
Pat Byrd 43, Jim Puckett 46, Pat Puckett 47, J.Gibbs 36							
DQ: D. C. MASTERS							
P.Hershey 37, B.Brey 46, N.Kirkendall 35, C.Bechtel 40							

MIXED 200 YDS FREE RELAY		MEN 200 YDS MEDLEY RELAY		TEAM POINTS
45+ years		25+ years	:	TOP TEN WOMEN'S TEAMS
1 ROCKY MOUNTAIN MASTERS "A"	1:56.82	T D. C. MASTERS W.Bacon 31, D.Anderson 26, J.J.Flanagan 32, J.D.Parker 27	1:42.52	Rocky Mountain Masters 414
2 BILL Williams 47, Skip Mann 53, P. Buchanan 45, D. Mann 46	1:58.20	2 ROCKY MOUNTAIN MASTERS "A" Ric Cooley 28, Fred Hubbell 25, Bill Abbott 32, Bruce Fisher 29	1:43.60	San Mateo Marlins 309
3 TAMALPAIS SWIM CLUB	2:04.20	3 ARIZONA MASTERS T.Whatley 26, S.Hedberg 25, R.Johnson 45, J.Osterlon 29	1:43.88	Masters of South Texas 25
3 ONTARIO MASTERS	2:04.52	4 SAN MATEO MARLINS Jim Beglinger 31, Dave Gray 32, Dick Ennis 33, Peter Sagues 35	1:44.25	Tamalpais Swim Club 2
Key Eason 45, Jackie Gelling 45, Henri Kwi 54, Ted Roach 52	2:13.62	5 MASTERS OF UPPER TEXAS SWIMMING "A" Dave Carter 29, Berry Hamilton 25, Steve Craven 28, Bob Cain 30	1:44.34	Arizona Masters 19
3 ARIZONA MASTERS	2:27.61	6 MASTERS OF SOUTH TEXAS "A" Chuck Worrel 31, Pete Williams 34, Keith Bell 29, Dave Nordstrom 30	1:45.59	Rinconada Masters 180
Lisa Borgotko 48, Dan Gruender 48, Ron Johnson 46	2:33.61	7 THE OLYMPIC CLUB "A" Steve Clark 34, Tom McCarty 32, John Foote 27, Bill Barthold 29	1:45.79	DC Masters 175
4 SAN MATEO MARLINS	2:40.55	8 ONTARIO MASTERS Ron Armstrong 27, Mike Rockwood 31, Tony Jarvis 32, Tim Hodges 31	1:46.88	Gold Coast Masters 163
Gloria Stupfel 51, Don Stupfel 50, Nancy Reserve 49, Ashley Jones 46	2:46.83	9 TEXAS GULF MASTERS R.Davis 30, M.Thomas 31, D.Curtis 30, T.Boak 34	1:47.75	Michigan Masters 160
5 ROCKY MOUNTAIN MASTERS "B"	2:47.61	10 DADS CLUB D.Johnston 25, W.Cerny 36, L.Glass 31	1:48.48	St. Louis Masters 142
Dick Powers 54, Jack Warren 57, L. Mann 50, Polly Townsend 61	2:48.33	11 ROCKY MOUNTAIN MASTERS "B" Marvin Jones 34, Bob Alspaugh 31, Keats McLaughlin 26, John Gaudreau 27	1:48.88	TOP TEN MEN'S TEAMS
6 MASTERS OF SOUTH TEXAS	2:49.55	35+ years		Rocky Mountain Masters 437
Marie Pennington 50, L.Raiborn 46, Fran Woolsey 56, Steve Odrobina 49	2:51.00	1 CAL TECH MASTERS Tom McAbee 35, Hal Cole 37, Burt Kanner 38, Art Hale 36	1:49.00	San Mateo Marlins 375
55+ years		2 CORONADO MASTERS George Worthington 40, Gregory Gwin 35, Robert Williams 111 35, C.Newman 35	1:49.10	DC Masters 240
#1 MASTERS OF SOUTH TEXAS	2:51.20	3 D.C. MASTERS "A" D.Hershey 37, A.Smith 38, E.Emes,Jr. 49, C.Bechtel 40	1:49.70	Jersey Masters 221
Marge Jewett 63, Allen Hellman 56, Rita Schiffler 57, Bud Dellmann 58	2:51.20	4 THE OLYMPIC CLUB Thompson Man 35, Lew Cook 40, Charles Raven 39, Don Hill 46	1:49.88	New England Masters 218
2 ROCKY MOUNTAIN MASTERS	2:51.20	5 ROCKY MOUNTAIN MASTERS "A" Tim Garton 35, George Lanum 36, Dennis O'Brien 42, Hank Zentgraf 43	1:50.48	Olympic Club 206
Herb Wallower 56, Fred Donald 57, Ann-Mary Hettinger 56, Susan Marsh 64	2:51.20	6 MASTERS OF SOUTH TEXAS "A" C.Lucas 38, J.Barden 41, R.Bell 43 J.Jackson 41	1:50.85	Rinconada Masters 178.5
3 SAN ANTONIO MARLINS	2:53.46	7 OKLAHOMA MASTERS SWIM CLUB L.Meiring 44, Bob Davis 43, Mel VanHelsdingen 44, Peter Duncan 43	1:51.33	Illinois Masters 146
Ed Barnes 56, Zada Taft 58, Pat Matthieson 61, Ray Taft 58	2:54.46	8 D.C. MASTERS "B" Scroggile Wiley 52, M.Flamagan 52, D.Cheadle 40, P.Taft 42	1:51.68	Masters of South Texas 143.5
4 RINCONADA MASTERS	2:54.55	9 MASTERS OF SOUTH TEXAS "B" L.Raiborn 46, M.Jones 41, D.Gillanders 39, T.Smith 41	1:52.00	Coronado Masters 134
R. Johnston 46, Helen Jorgensen 58, Bea Johnson 68, E. Blackledge 62	2:55.83	10 ROCKY MOUNTAIN MASTERS "B" Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	1:52.35	TOP TEN COMBINED MEN AND WOMEN
5 AKIZONA MASTERS	2:56.83	35+ years		Rocky Mountain Masters 851
B. Golseth 58, R. Steward 60, B. Cleveland 60, Sam Maxcy 69	2:57.00	1 CAL TECH MASTERS Tom McAbee 35, Hal Cole 37, Burt Kanner 38, Art Hale 36	1:47.35	San Mateo Marlins 375
65+ years		2 CORONADO MASTERS George Worthington 40, Gregory Gwin 35, Robert Williams 111 35, C.Newman 35	1:48.10	DC Masters 415
1 SAN MATEO MARLINS	2:42.04	3 D.C. MASTERS "A" D.Hershey 37, A.Smith 38, E.Emes,Jr. 49, C.Bechtel 40	1:48.70	Masters of South Texas 400.5
Jack Barlett 66, Edie Goldman 67, Bea Wayne 68, Benton Wood 68	2:42.04	4 THE OLYMPIC CLUB Thompson Man 35, Lew Cook 40, Charles Raven 39, Don Hill 46	1:49.08	Tamalpais Swim Club 314
MATERS OF SOUTH TEXAS		5 ROCKY MOUNTAIN MASTERS "A" Tim Garton 35, George Lanum 36, Dennis O'Brien 42, Hank Zentgraf 43	1:49.46	Arizona Masters 295
4 MASTERS OF UPPER TEXAS SWIMMING "A"		6 MASTERS OF SOUTH TEXAS "A" C.Lucas 38, J.Barden 41, R.Bell 43 J.Jackson 41	1:50.85	Michigan Masters 285
Bob Cain 30, Bruce Weaver 27, Steve Craven 25, Berry Hamilton 25		7 OKLAHOMA MASTERS SWIM CLUB L.Meiring 44, Bob Davis 43, Mel VanHelsdingen 44, Peter Duncan 43	1:51.33	New England Masters 266
5 D.C. MASTERS		8 D.C. MASTERS "B" Scroggile Wiley 52, M.Flamagan 52, D.Cheadle 40, P.Taft 42	1:52.26	Texas Gulf Masters 240
J. D. Parker 27, J. J. Flanagan 32, D. Anderson 26, W. B. Bacon 31		9 MASTERS OF SOUTH TEXAS "B" L.Raiborn 46, M.Jones 41, D.Gillanders 39, T.Smith 41	1:52.63	FOREIGN TEAMS
*6 ONTARIO MASTERS		10 ROCKY MOUNTAIN MASTERS "B" Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	1:53.10	Ontario Masters (Canada) 466
R. Armstrong 27, T. Hodges 31, T. Jarvis 32, M. Rockwood 31		35+ years		Royal Navy (England) 43
NORTHERN SHORES AQUATIC CLUB		1 SAN MATEO MARLINS Joe Prata 49, Bob Cunningham 50, Ashley Jones 46, Dave Lomski 49	2:00.32	Santiago deCeratas (Venezuela) 27
Wesley Bestie 25, Robin Kieffman 30, Gary Gastle 27, Ray Hakomaki 57		2 ROCKY MOUNTAIN MASTERS Gene Mack 50, Dick Powers 54, Bill Williams 47, Skip Mann 53	2:02.13	Colegio Santiago Leon (Venezuela) 25
7 TEXAS GULF MASTERS "A"		3 NEW ENGLAND MASTERS Jim Edwards 55, Ted Haartz 50, Win Wilson 51, Monroe Allen 47	2:04.27	West Wight (England) 15
R. Davis 31, Harris 31, Schauer 34, Curtis 30		4 ILLINOIS MASTERS SWIM CLUB P.Huttinger 57, W.Baugher 56, F.Havlicek 59, R.Acker 57	2:05.81	Nepean Masters (Canada) 8
8 DADS CLUB		5 RINCONADA MASTERS A.Grab 50, Ed Blackledge 52, C.Yates 50, Ed Kerswell 52	2:09.18	
D. Bretherton 36, W. Cery 30, J. Crane 36, L. Glass 31		6 TAMALPAIS SWIM CLUB Denis Rice 45, George Cunningham 52, Dore Schwab 57, Dick Smith 56	2:15.52	
9 MASTERS OF SOUTH TEXAS		7 TEXAS GULF MASTERS H.Anderson 64, Wes Harper 48, G.Johnston 47, J. Coon 67	2:23.72	
DAUTONIA MASTERS		35+ years		
9 MASTERS OF SOUTH TEXAS		1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
10 MASTERS OF UPPER TEXAS SWIMMING "B"		2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
B. Hutchinson 43, Dave Carter 29, M. Markman 31, F.McIntyre 27		3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
11 ROCKY MOUNTAIN MASTERS "B"		4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Keats McLaughlin 28, M.Jones 34, J.Johnson 30, B.Abbott 32		5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
12 ARIZONA MASTERS		35+ years		
Hedberg 25, Osterlon 29, Johnson 45, Whatley 26		1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
35 years		2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
#1 THE OLYMPIC CLUB	1:31.76	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	1:35.21	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
2 CORONADO MASTERS	1:35.66	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
G.Worthington 40, G.Gwin 35, R.Williams 35, C.Newman 35	1:37.23	35+ years		
3 D.C. MASTERS "A"	1:37.70	1 MASTERS OF SOUTH TEXAS		
E.Emes,Jr. 49, P.R.Taft 42, D.Hershey 37, C.Bechtel 40	1:38.10	2 SAN MATEO MARLINS Joe Prata 49, Bob Cunningham 50, Ashley Jones 46, Dave Lomski 49	2:00.32	
4 CAL TECH MASTERS	1:38.71	3 ROCKY MOUNTAIN MASTERS Gene Mack 50, Dick Powers 54, Bill Williams 47, Skip Mann 53	2:02.13	
Hap Cole 37, Burt Kanner 38, Tom McAbee 35, Art Hale 36	1:44.39	4 NEW ENGLAND MASTERS Jim Edwards 55, Ted Haartz 50, Win Wilson 51, Monroe Allen 47	2:04.27	
5 ROCKY MOUNTAIN MASTERS "A"	1:44.39	5 ILLINOIS MASTERS SWIM CLUB P.Huttinger 57, W.Baugher 56, F.Havlicek 59, R.Acker 57	2:05.81	
George Lanum 36, Terry Anderson 37, Hank Zentgraf 43, Tim Garton 35	1:44.39	6 RINCONADA MASTERS A.Grab 50, Ed Blackledge 52, C.Yates 50, Ed Kerswell 52	2:09.18	
6 OKLAHOMA MASTERS SWIM CLUB	1:44.39	7 TEXAS GULF MASTERS Denis Rice 45, George Cunningham 52, Dore Schwab 57, Dick Smith 56	2:15.52	
M.Van Helsingden 44, L.Meiring 44, J.George 42, P.Duncan 43	1:44.39	35+ years		
7 MASTERS OF SOUTH TEXAS "A"	1:44.97	1 MASTERS OF SOUTH TEXAS		
James Barden 41, Tom Smith 41, Jerry Jackson 41, Robert Bell 43	1:46.52	2 SAN MATEO MARLINS Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
8 D.C. MASTERS "B"	1:46.52	3 ROCKY MOUNTAIN MASTERS Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Scroggile Wiley 57, M.Flamagan 52, R.Cheacle 40, A.Smith 38	1:52.52	4 NEW ENGLAND MASTERS Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
9 PACIFIC N.W. MASTERS	1:52.62	5 ILLINOIS MASTERS SWIM CLUB P.Huttinger 57, W.Baugher 56, F.Havlicek 59, R.Acker 57	2:05.81	
R.Taylor 45, T.Long 40, J.Koruga 51, K.Adams 44	1:52.62	6 RINCONADA MASTERS A.Grab 50, Ed Blackledge 52, C.Yates 50, Ed Kerswell 52	2:09.18	
10 ROCKY MOUNTAIN MASTERS "B"	1:52.62	7 TEXAS GULF MASTERS Denis Rice 45, George Cunningham 52, Dore Schwab 57, Dick Smith 56	2:15.52	
Dennis O'Brien 42, Hans Krier 42, John Tobin 35, Mike Chesnue 36	1:59.74	35+ years		
11 TEXAS GULF MASTERS	1:59.74	1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
J.Gilbert 42, G.Johnson 47, H.Anderson 64, J.Coon 67	1:59.74	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
45 years		3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
1 SAN MATEO MARLINS	1:46.15	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Bob Cunningham 50, David Lomski 49, Don Stupfel 50, Ashley Jones 46	1:47.61	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
2 ROCKY MOUNTAIN MASTERS	1:47.61	35+ years		
Gene Mack 50, Bill Williams 47, Dick Powers 52, Skip Mann 53	1:47.91	1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
3 ILLINOIS MASTERS SWIM CLUB	1:47.91	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
W.Baugher 56, R.Acker 57, F.Havlicek 59, P.Huttinger 53	1:49.47	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
4 NEW ENGLAND MASTERS	1:49.47	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Ted Haartz 50, Jim Edwards 55, Monroe Allen 47, Win Wilson 51	1:52.04	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
5 RINCONADA MASTERS	1:52.04	35+ years		
A.Grob 50, E.Blackledge, E.Kereswill 52, C.Yates 50	2:01.45	1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
6 MASTERS OF SOUTH TEXAS "B"	2:01.45	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
Louis Raiborn 46, Don McMillin 49, Ben Allen 64, Steve Odrobina 49	2:06.75	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
7 TAMALPAIS SWIM CLUB	2:06.75	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Dick Smith 59, George Cunningham 52, Fred Lappe 73, Dore Schwab 56	2:06.75	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
55 years		35+ years		
1 ROCKY MOUNTAIN MASTERS	1:55.19	1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
Herb Wallower 56, Ed Talmage 57, Jack Warren 57, Fred Donald 57	1:57.20	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
2 MASTERS OF SOUTH TEXAS	1:57.20	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
Ray Nicol 37, Al Hellman 56, Bill Stadig 55, Bud Dellmann 58	2:03.53	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
3 SAN MATEO MARLINS	2:03.53	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
Jack Bartlett 66, Ed Barnes 56, Benton Wood 68, Ray Taft 58	2:17.34	35+ years		
45 years		1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
1 JERSEY MASTERS	2:17.34	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
M.Vogt 73, C.Ross 78, S.Silbert 70, S.Weinberg 65	2:33.11	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
2 MONTCLAIR HILLS MASTERS	2:33.11	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
Bill Task 75, Harold Perry 66, Al Kallunki 74, Gordon Carson 64	2:33.11	5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
55 years		35+ years		
1 JERSEY MASTERS	2:17.34	1 THE OLYMPIC CLUB Thompson Man 35, Charles Raven 39, Phillip Gay 43, Don Hill 46	2:10.41	
M.Vogt 73, C.Ross 78, S.Silbert 70, S.Weinberg 65	2:17.34	2 CORONADO MASTERS A.Hellman 56, B. Allen 63, R.Nicoi 56, B. Dellmann 58	2:10.41	
2 MONTCLAIR HILLS MASTERS	2:17.34	3 D.C. MASTERS "A" Ray Taft 58, Ed Barnes 56, Jack Bartlett 66, Benton Wood 68	2:15.88	
Bill Task 75, Harold Perry 66, Al Kallunki 74, Gordon Carson 64	2:17.34	4 THE OLYMPIC CLUB Ed Talmage 58, Herb Wallower 56, Jack Warren 57, Fred Donald 57	2:16.11	
55 years		5 DADS CLUB Terry Anderson 37, Hans Krier 42, John Tobin 35, Mike Chesnue 36	2:23.72	
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# Swimmer: I Brought Message for Carter



- LINDA VAZQUEZ / Miami Herald Photo

**Triumphant Walter Poenisch Flexes Muscles  
... choked with emotion after swimming from Cuba**

By MICHAEL CAPUZZO  
*Herald Writer*

Walter Poenisch is about to cry. Just about every time he talks about the warm Havana send-off Fidel Castro gave him Tuesday just before his 125-mile swim to Bahia Honda in the Florida Keys, he chokes with emotion.

In the tiny lobby of the Village Inn in Fort Lauderdale Thursday, he battles back the tears.

"I'm not going to cry," Poenisch says.

BUT THE 65-year-old has to fight hard — Castro aided his lifelong dream.

Suddenly, his face flushed red, he slams his fist on a table.

"There he goes," says his wife Faye, 31.

Tears stream from his face as he talks about Cuba — and Castro.

He says Castro shared birthday cake and secrets for Jimmy Carter with him in Havana Tuesday just hours before he departed there for his marathon swim.

Poenisch says the Castro opened his arms wide and hugged him aboard Amy N, the trawler that pulled his shark cage to the Florida Keys.

When Castro hugged him, Poenisch says, he knew he had a friend standing behind him.

"CAPTAIN Ken (Lynge) saw him first and he said, 'Oh, my God, Castro's here,'" Poenisch said Friday. "And all of a sudden Castro walks on board and puts his arm around me. Oh God, right then to know that somebody's on your side after all, what a feeling."

Castro doffed his cap and hugged Poenisch's attractive 31-year-old wife Faye.

"Then he hugged the wife," Poenisch said, "but that's all right."

POENISCH hoped to carry messages between Carter and Castro tucked in his swimsuit, but the White House never answered his request, his wife said.

Poenisch claims Castro told him something he will relay to Carter that could improve relations between Cuba and the United States.

"I'm not going to tell you what it's about. Nobody knows yet. An interpreter put something in my ear. Those people gave me their word. It's as good as gold. Castro likes Carter, did you know that?"

## Poenisch After Swim

**MARATHON** — Walter Poenisch reportedly became the first person to swim from Cuba to the United States this morning.

Swimming steadily under partly cloudy skies and through Gulf Stream swells, the 65-year-old Poenisch slowly made his way today to a point just off Duck Key near this Florida Keys city — a reported 103-mile marathon swim from Cuba to the United States.

Cuban President Fidel Castro was with Poenisch, a retired Ohio cookie baker, when he donned goggles and swim fins to enter the water off Havana at 5:42 p.m. Tuesday.

Castro spent a great deal of time with the Poenisch group before the marathon began, coming on board the support boat Amy N "for a couple of beers and a Cuban cigar."

"He signed a birthday card for Walter," said Mrs. Poenisch. Her husband turned 65 Tuesday. "Then he got in his own boat and escorted us for about a mile. He even hugged me. I can't believe how great we were treated."

Poenisch is listed in the "Guinness Book of World Records" for swimming 122½ miles in the Florida Straits in 1976. He has performed a variety of other swimming stunts since beginning his sports career about 15 years ago. He finally received permission for his swim from the Cuban government in March after several years of trying.

## Swimming Along With Sherm

**SHERMAN HINKEBEIN, 63,** wagered \$1,000 that he could swim across the Ohio River in 15 minutes.

He had a lot of (air-headed) takers, who pooled their money at the Evansville (Ind.) annual Freedom Festival. They just took one look at Sherman, guffawed and dug into their pockets — fast.

What they should have done was dig into the record books. Sherman, captain of the University of Kentucky swim team when it was undefeated in 1938, is the Senior Olympics record-holder in four events.

Needless to say, Sherm steamed across the Ohio in just under 11 minutes, collected his cash, then turned it over to a local charity.

And, as sports fans perennially wonder in Atlanta, what about next year?

"I'll bet \$1,000 I can swim across the river four times without stopping," Sherman said. "And if they come up with something they think is better, I'll go along with them."

"I'm not going to fly across, though."

# MASTERS SWIMMING NOTES

MEET RESULTS - Thank you one and all for sending me the results of your meets. As you know, there just isn't enough room to print them all. I am still receiving meet results that are not originals; are not typed in the correct event order; have skipped spaces; and do not have the same number of spaces in each column. Each meet director is responsible for telling the typist how to type up the meet results. Some typists are not familiar with swimming meets. Please be sure that the events are in order - free, back, breast, fly, IM and relays; the events are by age group - 25-29, 30-34, etc.; no skipping of lines; and 30 spaces wide with elite type and 27 spaces with pica. For best reproduction a carbon ribbon should be used.....

1978 DR. MYRON A. CHETRICK AWARD RECIPIENT - The winner of the 2nd Annual Dr. Myron A. Chetrick Award went to Jean Garbus. Dr. "Chet" believed in Master's Swimming and he loved it and gave his all for it. Jean is also a dedicated master swimmer. She is at every meet (except when she has to fly to England, Peru, or other exotic places to check them out before recommending them to us guys) working or swimming or both (mostly both). She lives in Westland, MI, with "the bod" Jerry and beautiful children. The Garbus's own a sailboat, that's the reason they all look so healthy. Congratulations Jeannie! (Michigan Masters).....

DROWNING RATS - A few years ago, researchers from the U. of Pennsylvania studied the circulatory systems of 2 groups of rats. One group lived in small cages and did not get any exercise. The other group was dropped into buckets of water for several minutes a day. To keep from drowning, the rats swam with great gusto. After a few months of this, both groups were killed and their arteries were injected with a latex suspension which became solid, making a cast of the circulatory system. When dissected out and weighed, the casts from the swimmers showed greater development of arteries in the heart (collaterals) and the volume of the circulatory system was much greater as shown by the higher weight of the latex casts. The moral of this story is that we should all jump into buckets of water every day, and avoid the U. of Pennsylvania!.....

CONGRATULATIONS JOHN SPANNUTH - Finally heard from John and he married Elsa on April 28th. John says that things are going well and those wishing to write address to John R. Spannuth, Senior Physical Director, YMCA, P.O. Box 231, Anderson, IN 46015.....

ALL AMERICAN - Hopefully, all of you that sent \$1.00 to AAU House have received their patches and certificates. I heard they had been sent and still mine did not arrive. So I had to call Indianapolis and ask them to send me a copy. Sorry they are so late but I thought they were worth waiting for.

OLD STERNWHEELER'S MASTERS MONTHLY - There is absolutely no Master's publication that I enjoy more! June's UNMATCHED PROPAGANDA began, "Hello again, sea nymphs. Welcome back to another installment of 'Lust Among the Lane Lines'. Summer is here, I can tell, because it was 39° at practice this morning at the outdoor pool. We have a new NATIONAL RECORD to report, a summer meet schedule, two new teams to introduce, and lots of other useless information. So send the kids off to bed, and grab a cold one: here we go again.".....

THE SWIMMING TIMES JUNE 1978 REPORTS - Mr. Tom Cooper, the President of Northern Counties ASA, presented 66-year-old Mrs. Nellie Harrison of Wallasey (England), with the Supreme Award for one million yards in the ASA Adult Awards Scheme. Mrs. Harrison, who was crippled with Arthritis, took up swimming for health and fitness some five years ago and has

achieved the million yards through 'social swimming' with friends at lunchtime. The Adult swimming has caught on in Wirral. The Baths authorities lay down a 'lane' whenever possible to encourage purposeful distance swimming, and have already embarked on a 'Spring Into Summer' health and fitness campaign at all their baths and sports centres.....

DESCRIPTION OF THE BUTTERFLY STROKE - "A kind of repeated convolution." - Brenda Ueland.....

PASS THE WORD (from Lane Four)...about heat sheets at nationals - Competitors should receive both Men's and Women's heat sheets, not just one or the other. If expenses are the problem, then make them available (and the location at the meet well-advertised) so that we have the opportunity to buy them. Both men and women would enjoy knowing who was swimming and when...about taking all-out time trials before a meet - DON'T. Any all-out time trials, particularly those over 50 yards, are not to be taken before a meet (i.e., at least a week prior to the meet). This is because such a time trial or set of all-out long rest repeats energy stores in the muscle. It takes several days to rebuild such energy potential. Twenty-five and 50 yard time trials and sets of repeats are recommended ONLY if you have been accustomed to taking them in your normal training...about potassium - Potassium (you can get it in bananas) is absolutely essential in your diet. Your doctor can tell, through blood tests, whether you have low levels of potassium (as well as sodium and calcium). Potassium, sodium, and calcium are necessary for the nerve impulses to function effectively. For Master swimmers, symptoms of low levels of potassium include disorientation and dizziness during workouts. One Master swimmer, who is also a coach, was having trouble with these symptoms, especially on his turns. (They seemed to bring on the dizziness and disoriented feeling.) He went to his doctor, had a series of blood tests which showed low levels of potassium. Adding that substance, thru both diet and supplements the doctor suggested, eliminated the symptoms. This situation points up the need to have an adequate diagnosis, rather than attempting to treat your symptoms yourself...about getting too fanatical about NO SUGAR - Eliminating the "hidden sugars" and the excess sugar-laden products with "empty calories" (cookies, cakes, chocolate eclairs) is one thing. But be realistic about it. Don't go way overboard. A little sugar or honey on the oatmeal is fine and won't hurt most of us a bit. A teaspoon of sugar or honey is somewhere around 17-25 calories. The problem is excess sugar. Putting sugar on your strawberries or grapefruit--that's too much! You don't need to eliminate all sugar--just most of it. ..about training and rest - At least two things are important for doing well at a meet--training and rest. One without the other leads to less effective performances. You need both. Ron Johnson, a former world class swimmer, and past Mexican Olympic coach, believes that a proper state of rest has prevented many senior swimmers from reaching their potential performances. This applies even more so to the Master swimmer...  
QUESTIONS AND ANSWERS BY PAUL HUTINGER - Q. What type and how much yardage will enable me to have a top performance? A. This is a question many coaches, working with World Class swimmers, would like to have answered. Don't believe you must go 10,000 to 15,000 yards a day to be a top performer. John Hencken, 23, gold medalist in the 1972 and 1976 Olympics, is a good example of alternate training methods. He stopped training for a year and a half and then trained for about five months before the short course AAU Senior Championships in April 1978. His training of 4000 to 5000 a day, five days a week, was about half of his Olympic training. He won the 1 yd breast with a 55.27 and a second in the 200 yard breast with a 2:00.65. This 4000 to 5000 yards a day type of training is within the time capability of many Master swimmers. Specificity of training for a particular event is the other concept to use as did Hencken, who trained only for the 100- and 200-

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yard breaststroke. Master swimmers who have trained for the 200- and 500- yard events are frequently disappointed when their 50-yd times are slower.....

MORE SUGAR RESULTS IN LESS ENERGY! - Many individuals think that sugar, honey, or a candy bar gives you extra energy, which could help you improve your performance at a

meet. Not so! The added sugar may cause water to move out of the tissues into the stomach, causing dehydration. In long distance running, liquids must not be consumed which contain more than two and one-half percent sugar before and during the race. Drinks such as Gatorade contain five percent sugar and so should be diluted to prevent water from moving out of the tissues....

**Brown's Olympic Pool** - SITE OF THE 1978 MASTERS LONG COURSE CHAMPIONSHIPS

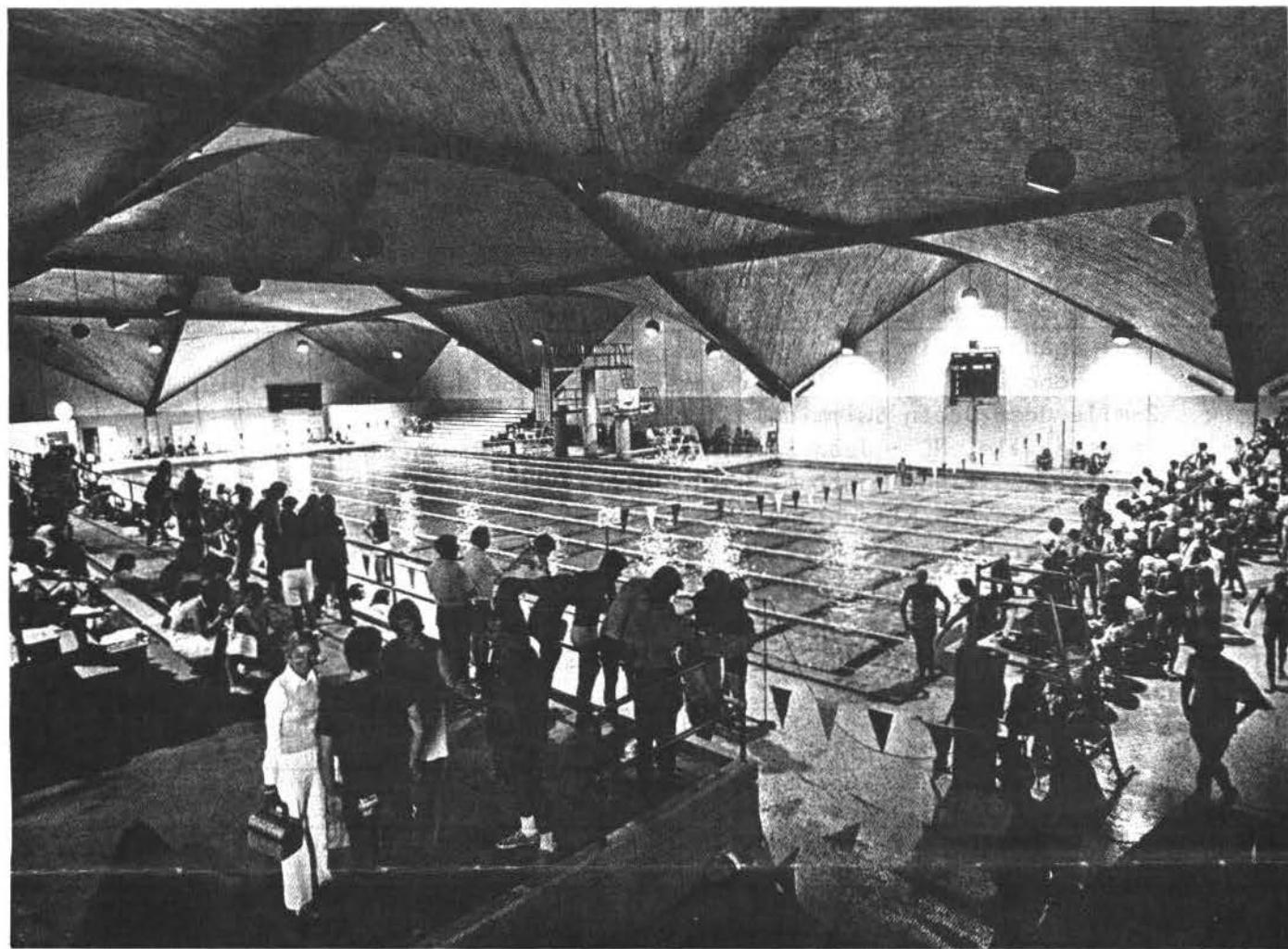


Photo: The Providence Journal

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VOL VII - No 6

## SWIM CALENDAR

JUL	22	NATIONAL LONG DISTANCE - Edie Gruender, 3329 N. Valencia Ln., Phoenix, AZ 85018
	22	LC - Curt Mosso, 5597 West Camino Cielo, Santa Barbara, CA 93105
	23	Lake Bluff in IL
	22-23	LC - Earl Walter, 3904 SW 57 Ave., Portland, OR 97221
	28-30	Swim & Div - Mush Hengst, Eisenhower Park, Nassau Co. Park & Rec, E. Meadow, NY
	29	LC - Greensboro, NC - Dot Ressiguie, P.O. Box 7, Tar Heel, NC 28392
	29-30	LC - Fran Woolsey, 4630 Wooldridge Rd., Corpus Christi, TX 78413
AUG	4-6	Region XII LC - Linda Pollock, MAC, P.O. Box 390, Portland, OR 97207
	5	LC - Larry Holley, 870 NE 192 St., North Miami Beach, FL 33162
	5-6	LC - Atlanta, GA - Fred Stokes, 1659 Cody Circle, Tucker, GA 30084
	12-13	DC Masters - Harry Dodge, 827 Aster Blvd, Rockville, MD 20853
	13	LC - Carl T. Woolley, 1240 N. Maple Rd., Ann Arbor, MI 48103
	12-13	LA Inv. - Curt Mosso, 5597 W. Camino Cielo, Santa Barbara, CA 93105
	19	Powell Crosley YMCA - Ed Hunter, 423 Flemridge Ct., Cincinnati, OH 45231
	19-20	Open Masters One Mile - Nate Roblin, Box 126, Grove, OK 74344
	20	LC - Dennis Eberhart, Freeport Rec. Ctr., 130 E. Merrick Rd., Freeport, NY 11520
	20-30	FIRST SENIOR AGE DIVISION COMPETITION CANADA '78 - 559 Jarvis St., Toronto, Ont. Can.
	26-28	NATIONAL DIVING CHAMP. - Fred Fox, 30162 Branding Iron Rd., San Juan Capistrano, CA
	31	NATIONAL LONG COURSE CHAMPIONSHIPS
SEP	1-3	Enid Uhrich, 25 Lafayette Rd., Newton, MA 02162
SEP	2	Maui Channel Swim )
	3	LC - Honolulu ) James Dean, 3960 Gail St., Honolulu, HI 96815
	4	2-mile Open Ocean Swimming)
	9-10	Fayetteville, NC - Jean Smith YMCA, 2717 Ft. Bragg Blvd., Fayetteville, NC 28303
	23-24	M.U.T.S. SC - Lou Mantrom, 9345 Heatherdale Dr., Dallas, TX 75231
	24	YMCA - Virginia Hildebrant, 5167 Robinhood Dr., Willoughby, OH 44094
OCT	21	1978 Otter Masters - R.J. Williamson, Torre House, Rag Hill, Aldermaston, Reading, England RG7 4NX
		OCEAN SWIMS - Betty Talbot, 8328 Stewart Ave., Los Angeles, CA 90045
		PACIFIC NORTHWEST ASSOCIATION - Tom Foley, 10011 - 40th S.W., Seattle, WA 98146
		JUL 15-16, AUG 12-13
		JAPAN - MASTERS SWIMMING FESTIVAL - Katsou Uzawa, SWIMMING LIFE, Tobuo Service Co., Ltd., Sanrin-Shibuya Bldg., 3-26-20, Shibuya, Shibuya-Ku, Tokyo, Japan - JUN, OCT
		DIVING - Bill McAlister, 14407 Road 23-1/2, Madera, CA 93637
		JUL 9, AUG 6, SEP 2, OCT 14, NOV 4
		WAIKIKI SWIM CLUB - Matthew J. Yingling, 2952A Park St., Honolulu, HI 96817
		JUN 4, JUN 18, JUL 9, JUL 23, AUG 13
		PACIFIC ASSOCIATION - Leroy Craig, P.O. Box 649, Ross, CA 94957 - JUN 4, JUN 24-25, JUL 22-23, AUG 12 or 14, AUG 26-27, SEP 23-24, OCT 7-8, OCT 28-29, NOV 5
		ROCKY MOUNTAIN ASSOCIATION - JUN 18, JUL 9, JUL 23, JUL 30, AUG 6, AUG 19-20,