

ELITE

ELITE SALES, Inc. Box 345, Accord, MA 02018 (617) 749-4389 (800) 433-0324



**** NIKE ****

RIVAL PLUS — Poly-pag and suede upper. EVA wedge and forefoot pad with rubber outsole & forefoot nylon 6-spike plate. A great versatile entry level team spike.

White/Natural-Charcoal, White/Red, White/Royal Blue.
 Sizes: 3-13,14,15,16 \$35.00

ZOOM LIGHT — Poly-pag, stretch mesh & synthetic suede upper. Phylon silver wedge, EVA forefoot pad with rubber outsole wrap & forefoot nylon 6-spike plate. Superb snug fitting sprint shoe. White/Royal Blue-Cerise, Yellow.
 Sizes: 6½-12 \$60.00

ZOOM EXTRA — New wave shadow poly-pag and synthetic suede upper. Full length EVA silver midsole with EVA heel wedge. Solid rubber waffle stud outsole with flexible polyurethane 7-spike plate. Versatile spike for track & cross-country runners. White/Amazon Green-Clockwork Orange.
 Sizes: 4-13 \$44.00

LONG JUMP — Nylon and synthetic suede upper. EVA midsole with negative taper. Solid rubber outsole and forefoot nylon 7-spike plate. White/Navy Blue-Red.
 Sizes: 6-13 \$52.00

HIGH JUMP — Nylon and synthetic suede upper. EVA forefoot pad. Full-length nylon 10-spike plate and rubber outsole wrap. White/Royal Blue-Black.
 Sizes: 6-13 \$52.00

NIKE LARGE DUFFLE BAG — Denier nylon, water resistant, front zipper compartment, side mesh shoe/wet zipper compartment, carry handle, adjustable/detachable shoulder strap. Available in Blue or Black.
 22½" x 11" x 14" \$24.00

NIKE SIGNATURE LYCRA SHORTS & TIGHTS — 78% Antron nylon/22% Lycra, elastic waist with drawcord, heat transfer logo on upper left leg. Flame, Blue, or Black.
 Sizes: S,M,L,XL \$20.00

Shorts \$20.00
 Tights \$26.00



*** NEW COLORS AND MODELS ***

WAFFLE RACER — Extremely Lightweight "spikeless spike" racing shoe. White/Black-Electric Green.
 Sizes: 4-13 \$35.00

SHOT & DISCUS — Athletic mesh and suede upper. Phylon silver wedge and full-length BRS 1000 outsole. White/Blue/Black.
 Sizes: 6-14,15 \$52.00

JAVELIN — Athletic mesh & synthetic leather upper. Ankle and arch support straps with 10-spike plate and solid rubber mini-waffle outsole. White/Red/Black.
 Sizes: 6-14,15 \$52.00

INTERNATIONALIST — Poly-pag & synthetic suede upper. EVA wedge and forefoot pad with rubber outsole and forefoot nylon 6-spike plate. Versatile spike for runners, hurdlers and vaulters. White/Blue.
 Sizes: 3-13,14,15,16 \$44.00

NIKE ZOOM SPRINT — Synthetic nylon & suede upper. Phylon silver wedge, EVA forefoot pad & forefoot 6-spike plate designed for optimal flexibility & traction. Silver/Black.
 Sizes: 6-13 \$69.00

**** CONVERSE CLOSE-OUT SPECIALS ****

JAVELIN — Durable blue suede upper with adjustable mid-foot strap which stabilizes and secures foot. Sole is made of non-slip rubber studded material. Ten spikes in each shoe (four in heel). Blue/White.
 Sizes: 7-13 \$38.00

HIGH JUMP — Special nylon cork forefoot spike plate attenuates shock and stabilizes the foot when jumping. Red suede upper. Eight spikes in each shoe (two in heel). Red/White.
 Sizes: 4-10½ \$35.00

LONG JUMP, SPRINT, HURDLES — Lightweight performance shoe designed for optimal support, traction, and stability. Six spikes in each shoe. White/Red.
 Sizes: 6,7,8,8½,9,9½, 10-12½ \$32.00

DISTANCE NYLON — Lightweight with extra cushioning designed for events with extreme or prolonged heel impact. Six spikes in each shoe. White/Blue.
 Sizes: 4-9½ (no 8½) \$30.00

SHOT, DISCUS, & HAMMER — Blue/White suede.
 Sizes: 4-5½ \$30.00

INDOOR — Molded rubber outsole and unique spike plate provides superb traction on different indoor surfaces. Yellow/Red.
 Sizes: 8-10½ (no 10) \$30.00

SPRINT — A lightweight performance shoe designed for intermediate and advanced sprinters. White/Red.
 Sizes: 8-9½ \$30.00

STEEPLECHASE — A light, cushiony shoe with open weave mesh which allows water to pass through. Blue/White.
 Sizes: 10½,11 \$30.00



Product	Size	QTY	Price	Ext.
Shipping & Handling			\$3.00	
COD Orders \$3.00 Extra				
Total Amount Enclosed				

ELITE SALES, Inc.
 Box 345
 Accord, MA 02018
 In Mass (617) 749-4389
 1 (800) 433-0324

Overseas orders add
 20% for surface freight,
 30% for air freight

SHIP TO :

Name _____

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☐ MC ☐ VISA No. _____

Exp. Date _____

Signature _____

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MASTERS AGE-GRADED TABLES



Quickly and easily compare your performances at different ages and in different events.

1990 EDITION

\$5.95

"Age-grading can relieve two problems in masters running: the inevitable and often depressing slowdown with age; and the confusion with age-group awards. These tables give runners a way to improve indefinitely, and they give races a way to award fewer but more meaningful prizes."

Joe Henderson
Eugene, Oregon

"I have received the age-graded book with single-age standards and factors. This is a marvelous piece of work and a real contribution to the sport. Thanks and congratulations."

Jim Saxon
Charlotte, North Carolina

"I am greatly indebted to the National Masters News and others who developed these age-graded tables. They are providing a significant service to our sport."

Norman Green, Jr.
Wayne, Pennsylvania

"The creation of age-graded standards will make a big contribution to achieving the goals and objectives of MAAD (Masters Against Age Discrimination).

Jim O'Neil
San Diego

U.S. MASTERS ALL AMERICAN STANDARDS OF EXCELLENCE FOR MASTERS RACE WALKERS

Event	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94
100	7:12	7:24	7:36	7:48	8:04	8:21	8:41	9:18	9:42	10:30	11:48	12:36	14:03
200	13:59	14:23	14:46	15:12	15:36	16:12	16:54	18:00	19:00	20:30	23:00	24:36	27:18
300	15:04	15:30	15:54	16:24	16:54	17:30	18:12	19:24	20:27	22:06	24:48	26:30	29:24
400	23:36	24:13	24:48	25:33	26:24	27:18	28:24	30:24	31:54	34:33	38:42	41:24	45:54
500	48:08	49:10	50:27	51:54	53:33	55:26	59:06	63:21	66:30	70:09	78:36	84:06	93:18
1M	1:12	1:14	1:16	1:19	1:23	1:27	1:31	1:35	1:40	1:47	1:58	2:10	2:22
2M	1:38	1:40	1:43	1:47	1:52	1:57	2:02	2:09	2:17	2:27	2:40	2:55	3:10
Event	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94
100	8:00	8:15	8:30	8:45	9:03	9:42	10:18	11:30	12:09	12:54	13:48	15:21	16:48
200	15:30	16:00	16:30	17:00	17:33	18:48	20:06	22:12	23:33	25:00	26:48	29:48	32:36
300	16:44	17:15	17:44	18:18	18:54	20:12	21:36	24:00	25:21	26:54	28:54	32:09	35:09
400	26:13	26:56	27:42	28:33	29:36	31:33	33:48	37:30	39:36	42:06	45:09	50:18	55:12
500	33:25	34:41	36:12	38:00	40:12	43:48	48:30	54:42	57:54	64:12	71:42	80:12	89:12
1M	1:24	1:26	1:29	1:32	1:35	1:39	1:44	1:55	2:04	2:13	2:22	2:33	2:48
2M	1:54	1:57	2:01	2:05	2:09	2:14	2:23	2:34	2:47	2:58	3:13	3:30	3:47

A minimum of two judges must be present and the competition must be limited to race walkers (i.e. no runners).

U.S. MASTERS STANDARDS OF EXCELLENCE FOR MEN

Event	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89
100	11.0	11.33	11.67	12.0	12.5	13.0	13.5	14.0	15.0	16.5	18.0	20.0
200	22.4	23.3	24.2	25.1	26.0	27.2	28.5	29.8	32.4	35.8	39.8	44.0
300	31.0	32.5	34.0	36.0	38.5	41.5	45.0	50.0	56.5	64.5	74.0	86.0
400	40.0	42.0	44.0	47.0	50.0	54.0	59.0	65.0	73.0	83.0	95.0	110.0
500	49.0	51.0	53.0	56.0	60.0	65.0	71.0	78.0	88.0	100.0	114.0	130.0
600	58.0	60.0	62.0	65.0	69.0	74.0	80.0	88.0	99.0	112.0	128.0	146.0
700	67.0	69.0	71.0	74.0	78.0	83.0	90.0	99.0	111.0	126.0	144.0	164.0
800	76.0	78.0	80.0	83.0	87.0	92.0	99.0	108.0	121.0	137.0	156.0	178.0
900	85.0	87.0	89.0	92.0	96.0	101.0	108.0	118.0	132.0	150.0	170.0	194.0
1000	94.0	96.0	98.0	101.0	105.0	110.0	117.0	127.0	142.0	161.0	182.0	208.0
1100	103.0	105.0	107.0	110.0	114.0	119.0	126.0	136.0	152.0	172.0	194.0	222.0
1200	112.0	114.0	116.0	119.0	123.0	128.0	135.0	145.0	162.0	183.0	206.0	236.0
1300	121.0	123.0	125.0	128.0	132.0	137.0	144.0	154.0	172.0	194.0	218.0	250.0
1400	130.0	132.0	134.0	137.0	141.0	146.0	153.0	163.0	182.0	205.0	230.0	264.0
1500	139.0	141.0	143.0	146.0	150.0	155.0	162.0	172.0	192.0	216.0	242.0	278.0
1600	148.0	150.0	152.0	155.0	159.0	164.0	171.0	181.0	202.0	226.0	252.0	290.0
1700	157.0	159.0	161.0	164.0	168.0	173.0	180.0	190.0	212.0	236.0	262.0	302.0
1800	166.0	168.0	170.0	173.0	177.0	182.0	189.0	199.0	222.0	246.0	272.0	314.0
1900	175.0	177.0	179.0	182.0	186.0	191.0	198.0	208.0	232.0	256.0	282.0	326.0
2000	184.0	186.0	188.0	191.0	195.0	200.0	207.0	217.0	242.0	266.0	292.0	338.0
2100	193.0	195.0	197.0	200.0	204.0	209.0	216.0	226.0	252.0	276.0	302.0	348.0
2200	202.0	204.0	206.0	209.0	213.0	218.0	225.0	235.0	262.0	286.0	312.0	358.0
2300	211.0	213.0	215.0	218.0	222.0	227.0	234.0	244.0	272.0	296.0	322.0	368.0
2400	220.0	222.0	224.0	227.0	231.0	236.0	243.0	253.0	282.0	306.0	332.0	378.0
2500	229.0	231.0	233.0	236.0	240.0	245.0	252.0	262.0	292.0	316.0	342.0	388.0
2600	238.0	240.0	242.0	245.0	249.0	254.0	261.0	271.0	302.0	326.0	352.0	398.0
2700	247.0	249.0	251.0	254.0	258.0	263.0	270.0	280.0	312.0	336.0	362.0	408.0
2800	256.0	258.0	260.0	263.0	267.0	272.0	279.0	289.0	322.0	346.0	372.0	418.0
2900	265.0	267.0	269.0	272.0	276.0	281.0	288.0	298.0	332.0	356.0	382.0	428.0
3000	274.0	276.0	278.0	281.0	285.0	290.0	297.0	307.0	342.0	366.0	392.0	438.0
3100	283.0	285.0	287.0	290.0	294.0	299.0	306.0	316.0	352.0	376.0	402.0	448.0
3200	292.0	294.0	296.0	299.0	303.0	308.0	315.0	325.0	362.0	386.0	412.0	458.0
3300	301.0	303.0	305.0	308.0	312.0	317.0	324.0	334.0	372.0	396.0	422.0	468.0
3400	310.0	312.0	314.0	317.0	321.0	326.0	333.0	343.0	382.0	406.0	432.0	478.0
3500	319.0	321.0	323.0	326.0	330.0	335.0	342.0	352.0	392.0	416.0	442.0	488.0
3600	328.0	330.0	332.0	335.0	339.0	344.0	351.0	361.0	402.0	426.0	452.0	498.0
3700	337.0	339.0	341.0	344.0	348.0	353.0	360.0	370.0	412.0	436.0	462.0	508.0
3800	346.0	348.0	350.0	353.0	357.0	362.0	369.0	379.0	422.0	446.0	472.0	518.0
3900	355.0	357.0	359.0	362.0	366.0	371.0	378.0	388.0	432.0	456.0	482.0	528.0
4000	364.0	366.0	368.0	371.0	375.0	380.0	387.0	397.0	442.0	466.0	492.0	538.0
4100	373.0	375.0	377.0	380.0	384.0	389.0	396.0	406.0	452.0	476.0	502.0	548.0
4200	382.0	384.0	386.0	389.0	393.0	398.0	405.0	415.0	462.0	486.0	512.0	558.0
4300	391.0	393.0	395.0	398.0	402.0	407.0	414.0	424.0	472.0	496.0	522.0	568.0
4400	400.0	402.0	404.0	407.0	411.0	416.0	423.0	433.0	482.0	506.0	532.0	578.0
4500	409.0	411.0	413.0	416.0	420.0	425.0	432.0	442.0	492.0	516.0	542.0	588.0
4600	418.0	420.0	422.0	425.0	429.0	434.0	441.0	451.0	502.0	526.0	552.0	598.0
4700	427.0	429.0	431.0	434.0	438.0	443.0	450.0	460.0	512.0	536.0	562.0	608.0
4800	436.0	438.0	440.0	443.0	447.0	452.0	459.0	469.0	522.0	546.0	572.0	618.0
4900	445.0	447.0	449.0	452.0	456.0	461.0	468.0	478.0	532.0	556.0	582.0	628.0
5000	454.0	456.0	458.0	461.0	465.0	470.0	477.0	487.0	542.0	566.0	592.0	638.0
5100	463.0	465.0	467.0	470.0	474.0	479.0	486.0	496.0	552.0	576.0	602.0	648.0
5200	472.0	474.0	476.0	479.0	483.0	488.0	495.0	505.0	562.0	586.0	612.0	658.0
5300	481.0	483.0	485.0	488.0	492.0	497.0	504.0	514.0	572.0	596.0	622.0	668.0
5400	490.0	492.0	494.0	497.0	501.0	506.0	513.0	523.0	582.0	606.0	632.0	678.0
5500	499.0	501.0	503.0	506.0	510.0	515.0	522.0	532.0	592.0	616.0	642.0	688.0
5600	508.0	510.0	512.0	515.0	519.0	524.0	531.0	541.0	602.0	626.0	652.0	698.0
5700	517.0	519.0	521.0	524.0	528.0	533.0	540.0	550.0	612.0	636.0	662.0	708.0
5800	526.0	528.0	530.0	533.0	537.0	542.0	549.0	559.0	622.0	646.0	672.0	718.0
5900	535.0	537.0	539.0	542.0	546.0	551.0	558.0	568.0	632.0	656.0	682.0	728.0
6000	544.0	546.0	548.0	551.0	555.0	560.0	567.0	577.0	642.0	666.0	692.0	738.0
6100	553.0	555.0	557.0	560.0	564.0	569.0	576.0	586.0	652.0	676.0	702.0	748.0
6200	562.0	564.0	566.0	569.0	573.0	578.0	585.0	595.0	662.0	686.0	712.0	758.0
6300	571.0	573.0	575.0	578.0	582.0	587.0	594.0	604.0	672.0	696.0	722.0	768.0
6400	580.0	582.0	584.0	587.0	591.0	596.0	603.0	613.0	682.0	706.0	732.0	778.0
6500	589.0	591.0	593.0	596.0	600.0	605.0	612.0	622.0	692.0	716.0	742.0	788.0
6600	598.0	600.0	602.0	605.0	609.0	614.0	621.0	631.0	702.0	726.0	752.0	798.0
6700	607.0	609.0	611.0	614.0	618.0	623.0	630.0	640.0	712.0	736.0	762.0	808.0
6800	616.0	618.0	620.0	623.0	627.0	632.0	639.0	649.0	722.0	746.0	772.0	818.0
6900	625.0	627.0	629.0	632.0	636.0	641.0	648.0	658.0	732.0	756.0	782.0	828.0
7000	634.0	636.0	638.0	641.0	645.0	650.0	657.0	667.0	742.0	766.0	792.0	838.0
7100	643.0	645.0	647.0	650.0	654.0	659.0	666.0	676.0	752.0	776.0	802.0	848.0
7200	652.0	654.0	656.0	659.0	663.0	668.0	675.0	685.0	762.0	786.0	812.0	858.0
7300	661.0	663.0	665.0	668.0	672.0	677.0	684.0	694.0	772.0	796.0	822.0	868.0
7400	670.0	672.0	674.0	677.0	681.0	686.0	693.0	703.0	782.0	806.0	832.0	878.0
7500	679.0	681.0	683.0	686.0	690.0	695.0	702.0	712.0	792.0	816.0	842.0	888.0
7600	688.0	690.0	692.0	695.0	699.0	704.0	711.0	721.0	802.0	826.0	852.0	898.0
7700	697.0	699.0	701.0	704.0	708.0	713.0	720.0	730.0	812.0	836.0	862.0	908.0
7800	706.0	708.0	710.0	713.0	717.0	722.0	729.0	739.0	822.0	846.0	872.0	918.0
7900	715.0	717.0	719.0	722.0	726.0	731.0	738.0	748.0	832.0	856.0	882.0	928.0
8000	724.0	726.0	728.0	731.0	735.0	740.0	747.0	757.0	842.0	866.0	892.0	938.0
8100	733.0	735.0	737.0	740.0	744.0	749.0	756.0	766.0	852.0	876.0	902.0	948.0
8200	742.0	744.0	746.0	749.0	753.0	758.0	765.0	775.0	862.0	886.0	912.0	958.0
8300	751.0	753.0	755.0	758.0	762.0	767.0	774.0	784.0	872.0	896.0	922.0	968.0
8400	760.0	762.0	764.0	767.0	771.0	776.0	783.0	793.0	882.0	906.0	932.0	978.0
8500	769.0	771.0	773.0	776.0	780.0	785.0	792.0	802.0	892.0	916.0	942.0	988.0
8600	778.0	780.0	782.0	785.0	789.0	794.0	801.0	811.0	902.0	926.0	952.0	998.0
8700	787.0	789.0	791.0	794.0	798.0	803.0	810.0	820.0	912.0	936.0	962.0	1008.0
8800	796.0	798.0	800.0	803.0	807.0	812.0	819.0	829.0	922.0	946.0	972.0	1018.0
8900	805.0	807.0	809.0	812.0	816.0	821.0	828.0	838.0	932.0	956.0	982.0	1028.0
9000	814.0	816.0	818.0	821.0	825.0	830.0	837.0	847.0	942.0	966.0	992.0	1038.0
9100	823.0	825.0	827.0	830.0	834.0	839.0	846.0	856.0	952.0	976.0	1002.0	1048.0
9200	832.0	834.0	836.0	839.0	843.0	848.0	855.0	865.0	962.0	986.0	1012.0	1058.0
9300	841.0	843.0	845.0	848.0	852.0	857.0	864.0	874.0	972.0			

PUBLICATIONS ORDER FORM

Quantity		Total (US\$)
_____	Masters Age Records Men's and women's world and U.S. age bests for all track & field events, age 35 and up; and for all racewalking events, age 40 and up, as of Oct. 31, 1989. 52 pages. Lists name, age, state and date of record. Compiled by Peter Mundle, WAVA and TAC Masters T&F Records Chairman. \$4.00.	\$ _____
_____	Masters Track & Field Rankings Men's and women's 1989 U.S. outdoor track & field, 5-year age-group rankings. 52 pages. Over 100-deep in some events. All T&F events, including 3000, 10,000, weight relays, 1500 walk, and 5000 walk. Coordinated by Jerry Wojcik, TAC Masters T&F Rankings Chairman, and the National Masters News. \$5.95.	\$ _____
_____	Masters Age-Graded Tables Single-age factors and standards from age 21 to 90 for men and women for every common track & field, long distance running, and race-walking event. Shows how to conduct an age-graded event. Tells how to keep track of your progress over the years. Compares performances of different ages/sexes in different events. 66 pages, including samples and charts. Compiled by the National Masters News and the World Association of Veteran Athletes. Includes world and U.S. 5-year age-group records, as of July, 1990. \$5.95	\$ _____
_____	Masters 5-Year Age-Group Records Men's and women's official world and U.S. Outdoor and Indoor 5-year age-group records for all track & field events, age 35 and up, as of July, 1990. 8 pages. Lists name, age, state and date of record. Compiled by Peter Mundle, WAVA and TAC Masters T&F Records Chairman. \$1.50.	\$ _____
_____	Competition Rules for Athletics (1990) U.S. rules of competition for men and women for track & field, long distance running and race walking — youth, open and masters. \$9.95.	\$ _____
_____	TAC/USA Directory (1990) Includes TAC By-Laws and operating regulations, as well as listings of National officers and staff, Board of Directors, sports committees, administrative committees, and TAC associations. \$9.95.	\$ _____
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On the cover: Start of the 800-meter run at the National Masters News Age-Graded Meet in Los Angeles. Mary Ames, 84, starts first, to be followed 20 seconds later by Bess James, 78. Others follow in order from oldest to youngest.
Photo by Gretchen Snyder

INTRODUCTION

WHAT ARE AGE-GRADED TABLES?

Age-graded tables are a series of age factors and age standards which can be used to compare performances at different ages in different athletics events.

Age-graded tables show how much a person's athletic performance declines as he or she ages. The decline varies by event. In this book, factors and standards are published for each age from 21 to 90 for both men and women for every common track & field, long distance running, and race walking event.

WHAT'S THE PURPOSE OF AGE-GRADED TABLES?

Age-graded tables can be used to:

- 1) Keep track of your progress over the years.
- 2) Compare your own performance in a given event.
- 3) Compare your own performance in different events.
- 4) Compare your progress in the current year.
- 5) Set goals for the current year and future years.
- 6) Estimate your performance in new events.
- 7) Compare performances of older and younger individuals in the same or different events.
- 8) Select the best performance in an event among all age groups.
- 9) Select the best overall performance in a meet or race.
- 10) Select outstanding athletes.
- 11) Give recognition to good performances in the upper age groups.
- 12) Enable athletes at the upper end of their age groups to compete on an equal level.
- 13) Make the competition more interesting and exciting.
- 14) Make awards more meaningful.
- 15) Establish medal standards.
- 16) Score multi-events (decathlon, pentathlon, etc.) using IAAF scoring tables.

2000 METER STEEPCHASE *** UNOFFICIAL ***				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W40	8:12.83	SUSANNE HOLLAND(CA)	42	8-5-89
W45	7:45.96	JOAN COLMAR(CA)	45	8-5-89
W55	9:52.28	SALLY STRAZINS(US)	55	8-5-89

SHORT HURDLES (35-39: 100m, 33"; 40+: 80m, 30")				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	13.77	JANE FREDERICK(CA)	35	8-31-87
W40	12.10h	PHIL RASCHKE(CA)	40	11-23-87
W45	12.5	PHIL RASCHKE(CA)	45	6-6-87
W50	13.82	CHERRIE SHERRARD(CA)	50	7-14-84
W55	16.6	CHERRIE SHERRARD(CA)	55	7-30-89
W60	19.08	SHIRLEY KINSEY(CA)	60	7-30-89

LONG HURDLES (400m: 35-49, 30"; 50m: 50+, 30") *** UNOFFICIAL ***				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	87.08	SHELLEY KEALING(WY)	37	8-3-89
W40	65.03	PHIL RASCHKE(USA)	40	12-5-87
W45	95.18	ANN CARTER(CA)	47	7-21-89
W50	68.14	TAMI GRAF(CA)	53	8-3-89
W55	65.9h	TAMI GRAF(CA)	53	8-3-89
W60	68.01	PATRICIA PETERSON(WY)	63	8-3-89

HIGH JUMP				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	6-1 1/4	1.86 JANE FREDERICK(CA)	36	6-15-88
W40	5-3 3/4	1.62 PHIL RASCHKE(CA)	42	5-20-89
W45	4-4	1.32 SHIRLEY SMITH(FL)	47	7-16-82
W50	4-4 1/2	1.33 CHRISTEL MILLER(CA)	51	3-29-86
W55	4-4 1/2	1.33 BECKY SISLEY(CO)	50	8-3-89
W60	3-9 1/2	1.27 CHRISTEL MILLER(CA)	55	3-4-90
W65	3-8	1.12 JOYCE VARNNEY(WI)	57	9-17-83
W70	3-9 1/2	1.15 PATRICIA PETERSON(WY)	60	5-19-89
W75	3-8	1.12 MARY BOWERMASTER(OH)	67	8-17-84
W80	3-8 1/2	1.13 MARY BOWERMASTER(OH)	70	11-28-87

LONG JUMP				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	21-4	6.50 WILLYE WHITE(US)	35	10-26-74
W40	16-10 3/4	5.15 JOANNE GRISSOM(IN)	44	7-20-83
W45	15-9	5.43 PHIL RASCHKE(CA)	40	6-6-87
W50	14-6 1/2	4.80 IRENE OBERA(CA)	45	4-7-79
W55	12-9 1/4	4.43 IRENE OBERA(CA)	54	7-30-88
W60	11-7	3.89 CHRISTEL MILLER(CA)	55	3-4-90
W65	10-5 1/4	3.53 JEAN CAMPBELL(VA)	62	4-30-88
W70	10-2 1/2	3.18 MARY BOWERMASTER(OH)	66	9-23-83
W75	8-2 3/4	3.11 MARY BOWERMASTER(OH)	70	12-1-87
		2.51 POLLY CLARKE(CO)	78	8-13-88

TRIPLE JUMP				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	36-7	11.15 PHIL RASCHKE(CA)	36	9-18-83
W40	37-3	11.35 PHIL RASCHKE(CA)	42	8-1-89
W45	30-8 1/4	9.35 JOAN GRISSOM(IN)	45	9-18-83
W50	28-9 3/4	8.78 CHRISTEL MILLER(CA)	52	12-5-87
W55	26-1 1/2	7.96 MAGDALENA KUHN(CA)	56	7-11-87
W60	21-7	6.58 MARY BOWERMASTER(OH)	64	7-20-89
W65	21-9 1/2	6.64 MARY BOWERMASTER(OH)	65	5-26-90
W70	20-9 1/4	6.33 SHIELA EVANS(IN)	74	7-20-89
W75	15-7	4.75 EDITH MENDYKA(CA)	75	5-17-86

SHOT PUT (30-49: 80/4KG; 50+: 60/3KG)				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	55-5 3/4	16.30 JANE FREDERICK(CA)	35	8-31-87
W40	39-7	12.06 JOANNE GRISSOM(IN)	41	6-19-80
W45	39-7 1/2	12.08 JOANNE GRISSOM(IN)	45	7-22-84
W50	39-7 1/2	12.08 JOANNE GRISSOM(IN)	50	7-30-89
W55	31-6	19.35 EDITH MENDYKA(CA)	48	10-6-79
W60	31-11 1/2	9.74 BERNICE HOLLAND(OH)	58	8-25-85
W65	32-2 3/4	9.82 BERNICE HOLLAND(OH)	62	7-20-89
W70	26-9	8.05 MARY BOWERMASTER(OH)	68	7-18-86
W75	24-5	8.15 EDITH MENDYKA(CA)	72	9-17-83
W80	11-0 3/4	7.44 EDITH MENDYKA(CA)	75	7-18-86
		3.37 MARILLA SALISBURY(CA)	81	3-5-89

DISCUS THROW				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	146-11	44.78 JANE FREDERICK(CA)	35	7-3-88
W40	107-5	32.74 LURLINE STRUPPECK(LA)	40	8-15-87
W45	107-5	32.74 PAULINE THOMAS(WA)	40	8-4-89
W50	111-4	33.94 MARY PRIEST(CO)	43	8-15-87
W55	106-5	32.44 JOANNE GRISSOM(IN)	45	8-7-83
W60	97-3	29.64 MARJORIE LARNEY(CA)	50	8-15-87
W65	100-8	30.68 BERNICE HOLLAND(OH)	57	6-30-84
W70	91-1 3/4	27.78 BERNICE HOLLAND(OH)	62	8-4-89
W75	62-6 1/2	19.05 HARRIET BOYD(FL)	65	8-4-89
W80	58-1	17.70 EDITH MENDYKA(CA)	75	1-19-86
W85	19-2	5.84 MARILLA SALISBURY(CA)	81	3-5-89

HAMMER THROW -49: 4KG; 50+: 3KG *** UNOFFICIAL ***				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	117-5	35.80 JOAN STRATTON(CA)	35	11-29-87
W40	51-6	15.70 MARTIN KNIGHT(CO)	44	6-23-85
W45	103-1 1/4	22.28 BRENDA BLOOMFIELD(SC)	44	5-3-86
W50	98-1 1/4	29.90 BRENDA BLOOMFIELD(SC)	47	8-5-89
W55	102-6	31.24 MILDRED TOMAN(OH)	51	8-5-89
W60	93-10	28.60 SALLY POLK(WM)	58	10-1-88
W65	62-1 3/4	18.94 JIMMIE REID(WC)	62	8-5-89
W70	75-1 1/2	22.90 HARRIET BOYD(FL)	65	8-5-89
W75	30-10	9.40 BERTY SYRINGER(OH)	70	10-9-83

JAVELIN THROW (30-49: 600G; 50+: 400G)				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	152-11	46.62 JANE FREDERICK(CA)	35	9-1-87
W40	139-3	42.44 LURLINE STRUPPECK(LA)	41	7-23-88
W45	102-2	31.30 CHRISTEL MILLER(CA)	48	3-23-83
W50	109-8	33.42 BECKY SISLEY(CO)	50	6-10-90
W55	95-7	29.13 CHRISTEL MILLER(CA)	55	2-25-90
W60	92-10 1/4	28.30 BERNICE HOLLAND(OH)	60	11-29-87
W65	74-0	22.55 EDITH MENDYKA(CA)	65	6-27-76
W70	72-7	22.12 EDITH MENDYKA(CA)	72	5-14-83
W75	65-7 1/2	20.00 EDITH MENDYKA(CA)	76	6-20-87
W80	20-4	6.20 MARILLA SALISBURY(CA)	80	7-23-88

WAVA/TAC Hurdles and Implements Specifications					
HURDLES					
WOMEN					
Age	Race Distance	Hurdle Height	To 1st Hurdle	Between Hurdles	To Finish
30-39	100m	.840m	13.00m	8.5m	10.5m
40-49	80m	.762m	12.00m	8.0m	12.00m
50-59	80m	.762m	12.00m	7.0m	19.00m
60-69	80m	.762m	12.00m	7.0m	19.00m
70 plus	80m	.762m	12.00m	7.0m	19.00m
30-39	400m	.762m	45.00m	35.00m	40.00m
40-49	400m	.762m	45.00m	35.00m	40.00m
50-59	400m	.762m	45.00m	35.00m	40.00m
60-69	400m	.762m	45.00m	35.00m	40.00m
70 plus	400m	.762m	45.00m	35.00m	40.00m
MEN					
30-39	110m	.991m	13.72m	9.14m	14.02m
40-49	110m	.991m	13.72m	9.14m	14.02m
50-59	100m	.914m	13.00m	8.50m	10.50m
60-69	100m	.840m	13.00m	8.50m	10.50m
70 plus	80m	.762m	12.00m	7.0m	19.00m
30-49	400m	.914m	45.00m	35.00m	40.00m
50-59	400m	.840m	45.00m	35.00m	40.00m
60+	300m	.762m	50.00m	38.00m	40.00m
IMPLEMENTS					
AGE	SHOT PUT	DISCUS	HAMMER	JAVELIN	
Women					
30-49	4.00k	1.00k	4.00k	600gms.	
50 plus	3.00k	1.00k	3.00k	400 gms.	
Men					
30-49	7.26k (16 lbs.)	2.00k	7.26k (16 lbs.)	800 gms.*	
50-59	6.00k	1.50k	6.00k	800 gms.*	
60-69	5.00k	1.00k	5.00k	600 gms.	
70 plus	4.00k	1.00k	4.00k	600 gms.	

* Either "old" or "new" javelin may be used

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300 METER HURDLES (50-59: 33"; 60+: 30") *** UNOFFICIAL

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M50	43.16	RICHARD RIZZO(NY)	50	8-4-88
M55	43.36	BOB HICKMAN(CA)	55	8-1-89
M60	43.49	JACK GREENWOOD(CO)	63	8-3-89
M65	51.31	ROBERT HUNT(CA)	69	8-3-89
p50-1		RUDY VALENTINE(NY)	65	8-5-88
N70	52.44	DAN BULKLEY(OR)	72	8-3-89
N75	60.78	GILBERTO GONZALEZ(FL)	76	8-3-89

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	6-8 3/4	2.05 JOHN DOROTHY(CA)	38	5-13-79
p6-9		2.06 JOHN HARTFIELD(UT)	37	8-7-82
M40	6-9	2.06 JOHN HARTFIELD(UT)	40	9-1-85
M45	6-2 3/4	1.90 NERN WYATT(CA)	48	4-19-80
M50	6-2	1.88 NERN WYATT(CA)	51	8-20-83
M55	5-9	1.75 NERN WYATT(CA)	55	10-4-86
p5-10 1/2		1.79 NERN WYATT(CA)	55	5-23-87
M60	5-5 1/2	1.66 JIM GILLCRIST(LA)	61	8-5-89
M65	5-1	1.55 BURL GIST(CA)	67	8-29-87
N70	4-8	1.42 NAM MORNINGSTAR(NI)	70	7-25-87
N75	4-3 1/4	1.30 HERBERT ANDERSON(CO)	75	3-24-78
p4-4		1.32 STAM THOMPSON(NI)	75	12-28-85
M80	3-11 1/4	1.20 HERBERT ANDERSON(CO)	80	8-29-82
M85	3-8 1/2	1.13 BUELL CRANE(ID)	85	7-26-85
N90	3-0 1/2	0.93 COLLISTER WHEELER(OR)	90	7-29-83

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	16-7	5.05 STEPHEN SMITH(OR)	36	7-15-88
M40	15-1 1/4	4.60 ROGER RUTH(CAN)	44	9-7-72
p15-3		4.65 CHARLES POLHAMUS(GA)	41	6-28-85
M45	15-0	4.57 ROGER RUTH(CAN)	45	7-21-73
M50	14-4	4.37 VIC COOK(CA)	50	7-25-82
M55	13-6 1/4	4.12 RICHMOND MORCOM(PA)	55	8-4-76
M60	12-3 1/2	3.74 BOO MORCOM(PA)	63	8-2-84
M65	12-4 1/2	3.77 BOO MORCOM(PA)	65	8-3-86
N70	10-3	3.12 JIM VERNON(CA)	71	7-23-88
N75	9-6 1/4	2.90 CAROL JOHNSTON(CA)	75	2-7-87
M80	6-6 1/2	1-99 BOB MACCONAGHY(CA)	80	5-28-88
M85	5-8	1.73 A. E. PITCHER(IN)	86	5-14-88

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	25-11	7.90 TOM CHILTON(TN)	35	6-8-72
M40	24-4 3/4	7.43 TOM CHILTON(TN)	40	3-24-78
M45	21-11	6.68 SHIRLEY DAVISSON(CA)	45	10-4-75
M50	21-1	6.42 SHIRLEY DAVISSON(CA)	50	4-12-80
M55	20-1 1/4	6.10 TOM PATSALIS(CA)	59	7-18-81
M60	19-11	6.07 TOM PATSALIS(CA)	60	7-10-82
M65	17-4 1/4	5.29 TOM PATSALIS(CA)	65	12-1-87
N70	14-10 1/4	4.53 CLAUDE HILLS(PA)	70	7-3-82
N75	12-10 1/2	3.92 HERBERT ANDERSON(CO)	76	8-5-78
M80	11-7	3.53 WALT MESBROCK(CA)	80	6-24-78
M85	9-1	2.77 BUELL CRANE(ID)	85	6-6-85
N90	8-0 1/4	2.44 BUELL CRANE(ID)	90	4-21-90

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	55-7 1/4	16.95 RAY KIMBLE(US)	35	8-12-88
M40	51-6 1/4	15.70 MILAN TIEFF(CA)	40	8-3-89
M45	45-2 1/4	13.77 DAVE JACKSON(CA)	45	8-11-77
M50	43-3 1/2	13.19 DAVE JACKSON(CA)	50	7-10-82
M55	41-5	12.62 GORDON FARRELL(CA)	57	1-8-75
M60	39-3	11.96 TOM PATSALIS(CA)	60	7-10-82
M65	35-6 3/4	10.84 TOM PATSALIS(CA)	65	12-5-87
N70	29-5 1/4	8.97 JOHN DAMSKI(CA)	70	5-25-85
N75	28-2 3/4	8.60 WINFIELD MCFADDEN(CA)	75	8-17-80
M80	22-8	6.91 HERBERT ANDERSON(CO)	80	7-24-82
p25-4		7.72 WINFIELD MCFADDEN(CA)	81	10-4-86
p24-5		7.44 WINFIELD MCFADDEN(CA)	80	5-25-85
M85	20-2 1/4	6.15 BUELL CRANE(ID)	85	8-23-85
N90	16-9	5.10 BUELL CRANE(ID)	90	4-21-90

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	72-9 3/4	22.19 BRIAN OLDFIELD(CA)	38	5-26-84
M40	70-3	21.41 BRIAN OLDFIELD(CA)	40	8-22-85
M45	55-2 1/2	16.83 ED HILL(MD)	45	8-23-88
M50	52-7 1/2	16.04 PARRY O'BRIEN(CA)	53	6-22-85
M55	44-2 1/2	13.47 PHIL MULKEY(CA)	55	8-5-88
M60	47-4 1/2	14.44 HARRY HAUKE(CA)	60	7-20-89
M65	42-11 1/2	13.09 BILL BANGERT(CA)	65	7-20-89
N70	43-11 1/2	13.40 ROSS CARTER(OR)	72	8-2-86
N75	41-5 3/4	12.64 ROSS CARTER(OR)	75	9-3-89
M80	27-8 3/4	8.45 BOB MACCONAGHY(CA)	81	7-29-89
M85	25-0	7.62 BUELL CRANE(ID)	87	8-14-87
N90	22-10 1/2	6.97 BUELL CRANE(USA)	90	6-21-90

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	233-9	71.24 JOHN POMELL(US)	36	6-9-84
M40	227-11	69.48 AL OERTER(NY)	43	5-31-80
M45	216-11	66.12 AL OERTER(NY)	45	3-28-82
p222-9		67.90 AL OERTER(NY)	46	11-12-83
M50	205-10	62.74 AL OERTER(NY)	52	8-3-89
p214-3		65.30 AL OERTER(NY)	50	12-28-86
M55	171-0	52.12 WENDELL PALMER(TX)	56	5-14-88
M60	174-1	53.06 DANIEL ALDRICH(CA)	62	8-17-80
M65	163-1	49.72 THOMAS McDERMOTT(CT)	66	5-1-84
p164-10		50.24 DANIEL ALDRICH(CA)	65	4-28-84
N70	142-6	43.44 DANIEL ALDRICH(CA)	70	3-5-89
N75	127-10	38.96 ROSS CARTER(OR)	75	7-9-89
M80	91-4	27.84 BURT DEGROOT(CA)	80	8-15-87
p97-3		29.64 KEN CARLINE(CA)	80	4-30-88
M85	67-2	20.47 BUELL CRANE(ID)	85	7-26-85
p69-2		21.08 BUELL CRANE(ID)	87	7-3-87
p67-7		20.60 BUELL CRANE(ID)	86	7-11-86
N90	67-6	20.57 BUELL CRANE(USA)	90	6-20-90

HAMMER THROW (35-49: 16#; 50-59: 6kg; 60-69: 5kg; 70+: 4kg)

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	232-5	70.84 HAROLD CONNOLLY(CA)	37	7-20-89
M40	243-11	74.34 ED BURKE(CA)	44	4-28-84
M45	198-5	60.48 ED BURKE(CA)	45	5-19-85
M50	182-6	55.62 BOB BACKUS(MA)	50	6-12-77
M55	175-0	53.34 BOB BACKUS(MA)	55	8-9-81
N70	197-8	60.26 BOB BACKUS(MA)	55	8-2-81
M60	155-0	47.24 BOB RICHARDS(CA)	60	4-20-86
M65	134-2	40.90 THOMAS McDERMOTT(CT)	68	7-19-86
p136-9		41.68 THOMAS McDERMOTT(CT)	65	7-15-83
N70	140-2	42.72 DANIEL ALDRICH(CA)	70	7-16-88
N75	119-6	36.42 MOLAN FOMLER(TN)	75	8-4-89
M80	66-3	20.19 JOHN WHITTENORE(CA)	80	6-7-80
M85	54-3 1/2	16.55 BUELL CRANE(ID)	87	8-16-87
N90	55-8	16.97 BUELL CRANE(ID)	90	4-21-90

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	268-8	81.72 WILLIAM FLOERKE(KS)	35	7-21-79
M40	242-9	74.00 LARRY STUART(CA)	41	6-9-79
M45	238-10	72.80 LARRY STUART(CA)	46	5-12-84
p239-7		73.02 LARRY STUART(CA)	48	6-14-86
M50	215-9	65.76 LARRY STUART(CA)	50	4-30-88
M55	180-9	55.10 BILL MORALES(CA)	56	4-19-73
M60	191-10	58.48 DELES PICKARTS(CA)	60	11-28-87
M65	148-3	45.18 BILL MORALES(CA)	67	5-26-84
p168-2		51.26 BILL MORALES(CA)	65	3-13-82
N70	151-6	46.18 BILL MORALES(CA)	72	7-30-89
p157-9		48.08 BILL MORALES(CA)	70	8-16-87
p152-1		46.36 BILL MORALES(CA)	70	7-25-87
N75	108-0	32.92 EMERY CURTICE(CA)	75	7-24-82
M80	94-6	28.80 HERBERT ANDERSON(CO)	80	7-24-82
p97-5		29.69 HERBERT ANDERSON(CO)	80	1-29-82
M85	62-5	19.02 BUELL CRANE(ID)	85	6-6-85
p66-0		20.11 HERBERT ANDERSON(CO)	85	8-16-87
p74-5 1/2		22.69 HERBERT ANDERSON(CO)	85	9-5-87
N90	53-3	16.23 COLLISTER WHEELER(OR)	90	7-20-83

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	6230	PHIL MULKEY(ALA)	38	3-26-71
M40	6394	REX HARVEY(IA)	43	7-29-89
M45	5734	GARY MILLER(CA)	47	3-23-85
M50	6212	GARY MILLER(CA)	50	5-27-88
M55	5246	RICHMOND MORCOM(PA)	55	9-11-76
M60	4552	RICHMOND MORCOM(PA)	61	8-28-82
M65	5583	CLAUDE HILLS(PA)	65	6-24-77
p5064		RICHMOND MORCOM(PA)	65	7-26-86
N70	2513	CLAUDE HILLS(PA)	70	7-3-82
N75	1659	HERBERT ANDERSON(CO)	75	3-24-78
M80	994	HERB ANDERSON(CO)	80	8-28-82
M85	252	A. E. PITCHER(USA)	85	9-19-87

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	3377	FRANK REILLY(CA)	39	6-20-87
p3432		MIKE HILL(US)	36	6-20-87
M40	3055	GARY MILLER(CA)	43	8-16-81
p3157-4		REX HARVEY(IA)	40	7-13-86
M45	3117	GARY MILLER(CA)	45	9-30-83
M50	2976	GARY MILLER(CA)	50	6-26-88
M55	2566	RICHMOND MORCOM(PA)	56	8-12-87
M60	2301	JOHN ALEXANDER	61	5-8-81
M65	1988	RICHMOND MORCOM(PA)	66	6-20-87
2043w		RICHMOND MORCOM(PA)	65	7-13-86
N70	1384	BILL MORALES(CA)	71	12-3-87
N75	927	CLAUDE HILLS(PA)	76	6-26-88
p943		KEN CARLINE(CA)	77	6-22-85
M80	710	KEN CARLINE(CA)	80	7-16-88
M85	372	HERBERT ANDERSON(CO)	85	12-3-87

WOMEN'S AMERICAN FIVE YEAR AGE GROUP RECORDS AS OF JULY 1990

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	12.3	ALMETA PARISH(CA)	38	5-17-75
M40	11.4	IRENE OBERA(CA)	42	5-15-76
M45	11.7	IRENE OBERA(CA)	45	4-28-79
M50	13.5	SHIRLEY KINSEY(CA)	51	2-7-81
M55	14.8	SALLIE STIEGELMEIER(OH)	55	10-14-87
M60	14.7	JOSEPHINE KOLDA(CA)	64	5-1-82
M65	15.2	POLLY CLARKE(CO)	67	5-21-78
N70	26.6	MARILLA SALISBURY(CA)	73	8-1-81
N75	27.5	MARILLA SALISBURY(CA)	75	7-23-83

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	11.9	PHIL RASCHKER(GA)	36	6-25-83
M40	12.31h	PHIL RASCHKER(GA)	40	12-1-87
p12.3h		PHIL RASCHKER(GA)	40	6-6-87
M45	12.63	IRENE OBERA(CA)	45	7-7-79
M50	12.9	IRENE OBERA(CA)	51	6-1-85
M55	13.84	IRENE OBERA(CA)	55	7-21-89
M60	15.5	JOSEPHINE KOLDA(CA)	63	10-3-81
M65	16.1	POLLY CLARKE(CO)	67	5-6-78
N70	16.2	POLLY CLARKE(CO)	70	4-17-81
M75	16.87	POLLY CLARKE(CO)	75	8-31-85
M80	25.77	ANNE WARD(MD)	84	6-21-89

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	24.63	PHIL RASCHKER(GA)	36	9-24-83
M40	24.69	JANE FREDERICK(CA)	35	8-31-87
M45	24.84	PHIL RASCHKER(GA)	42	8-3-89
M50	26.21	IRENE OBERA(CA)	47	1-13-81
M55	27.3	IRENE OBERA(CA)	51	6-1-85
M60	28.48	IRENE OBERA(CA)	55	8-3-89
M65	33.3	JOSEPHINE KOLDA(CA)	63	2-27-82
M70	34.2	JOSEPHINE KOLDA(CA)	67	5-18-85
M75	34.2	POLLY CLARKE(CO)	71	9-6-81
M80	35.93	POLLY CLARKE(CO)	75	8-31-85
M85	57.8	ANNE WARD(MD)	83	5-30-88

400 METERS

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
M35	56.8	PHIL RASCHKER(GA)	36	6-25-83
M40	58.07	PHIL RASCHKER(GA)	42	8-5-89
M45	61.1	IRENE OBERA(CA)	46	8-16-80
M50	63.7	IRENE OBERA(CA)	51	5-18-85
M55	66.99	IRENE OBERA(CA)	55	8-5-89
M60	79.1	MELEN DARNALL(AR)	60	7-20-89
M65	82.3	JOSEPHINE KOLDA(CA)	65	10-1-83
N70	84.23	POLLY CLARKE(CO)	73	9-28-83
N75	89.42	POLLY CLARKE(CO)	75	8-25-85
M80	2:21.5	ANNE WARD(MD)	83	5-30-88

W40	2:21.91	SUSAN MOULTON(GA)	42	7-23-89
	2:22.0	SANDRA KNOTT(OH)	43	1-10-81
	2:26.39	CAROL FLEXER(WA)	46	8-1-89
	p2:26.2	SHIRELY SWANSON(CA)	48	9-16-89
W50	2:45.00	JOAN SWIDER(CA)	50	5-19-84
W55	2:48.2	BERYL SKELTON(NY)	55	8-17-84
W60	3:11.4	PAT DIXON(OR)	62	8-29-81
W65	3:06.20	RAYE JOHNSON(US)	65	7-30-89
W70	3:26.39	MARIE STAFFORD(OR)	70	8-1-89
W75	3:37.19	PEARL NEHL(CO)	75	9-2-89
W80	5:47.5	HILDA CROOKS(CA)	82	6-24-78

HOW TO CONDUCT AN AGE-GRADED TRACK & FIELD

MEET, ROAD RACE, OR RACE WALK

I. SUMMARY

AGE FACTORS

Age factors (pages 21-27) can be used to compare an individual's performance in a given event to what he/she did -- or might have done -- in his/her prime. The factor expresses the rate of decline based on age. It converts a performance to the equivalent performance by an open-class athlete.

Factors work well when you want to score men and women separately, and when you want to compare performances in only one event (such as a road race).

The factors require only one calculation to determine the places in an event. Simply multiply the factor for a person's age/event by his/her actual mark.

That gives you an "age-graded mark" or "equivalent open-class performance." The person with the best age-graded mark is the winner, regardless of age. All the men compete in one "division." All the women compete in a separate "division."

AGE STANDARDS

Age standards (pages 30-37) can be used to compare performances in a single event or in many events, among both sexes -- with only one calculation.

Standards work well when you want to score men and women together, or when you want to compare performances in several events (such as a track & field meet). But standards can also be used for single events, and to score men and women separately.

For running events, divide the "time standard" for a person's age/event by the time he/she ran. For field events, divide the person's actual throw or jump by the "distance standard" for his/her age/event.

That give you a "performance-level percentage." The person with the best percentage is the winner, regardless of age or sex.

A meet or race can be staged using individual age standards, or five-year age-group standards (pages 38-40), whichever you prefer.

TRIPLE JUMP

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	37-7 1/2	11.47 EILEEN HINDLE(AUS)	38	1-16-88
W40	37-3	11.35 PHIL RASCHKE(USA)	42	8-1-89
W45	33-2 1/2	10.12 JAN MYNES(URS)	45	11-18-89
W50	31-8 1/4	9.66 HELEN SEARLE(AUS)	50	8-1-89
W55	31-9 1/4	9.68 ELZBIETA KRZESINSKA(POL)	55	8-1-89
W60	27-2	8.28 SHIRLEY(PETERSON)(NZL)	61	2-25-90
W65	24-9 1/4	7.55 GLEN DAVIDSON(AUS)	66	7-20-89
W70	20-9 1/4	6.33 SHIELA EVANS(RSA)	74	7-20-89
W75	15-7	4.75 EDITH MENDOTA(USA)	75	5-17-86

SHOT PUT (35-49: 4kg; 50+: 3kg)

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	70-1 3/4	21.38 HELENA FIBINGEROVA(CZE)	35	8-22-84
W40	62-10 1/2	19.16 ANTONINA IVANOVA(URS)	41	2-24-74
W45	46-6 1/4	14.18 LIESL HUBER(FRG)	45	10-13-79
W50	48-8 3/4	16.79 MELBA PARTS(URS)	45	8-1-89
W55	42-6 3/4	14.85 VALERIE YOUNG(AUS)	50	11-29-87
W60	35-8 3/4	12.97 ROSEMARY CHAINES(GBR)	56	7-30-89
W65	35-8 3/4	10.89 MARIANNE HAMM(FRG)	60	5-9-81
W70	32-5 1/2	11.74 MARIA VAN AS(RSA)	60	6-25-88
W75	25-7 1/2	10.05 MARIA VAN AS(RSA)	65	4-5-86
W80	24-0 1/4	7.32 IRJA SARNAHA(FIN)	70	9-23-83
		7.80 IRJA SARNAHA(FIN)	78	8-22-84
		7.32 IRJA SARNAHA(FIN)	81	8-31-87

DISCUS THROW (1kg)

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	228-4	69.60 FAINA MYSLIK(URS)	35	9-9-80
W40	206-5	62.92 HELGI PARTS(URS)	41	10-4-78
W45	p209-0	63.70 HELGI PARTS(URS)	43	10-2-80
W50	160-7	48.94 ODETE DOMINGOS(BRA)	47	4-8-82
W55	p194-6	59.30 HELGI PARTS(URS)	45	9-2-83
W60	142-10	43.54 VALERIE YOUNG(AUS)	50	12-5-87
W65	p147-11	45.10 CHATRIE RUMLOM(FRG)	51	7-3-88
W70	p145-0	44.20 ODETE DOMINGOS(BRA)	50	9-13-84
W75	p143-2	43.64 ODETE DOMINGOS(BRA)	50	6-27-85
W80	134-0	40.86 ROSEMARY CHAINES(GBR)	56	8-4-89
W85	107-2	32.68 MARIANNE HAMM(FRG)	61	8-4-89
W90	94-9 3/4	28.90 ANNECHEN REILE(FRG)	66	8-9-81
W95	76-7 3/4	23.36 ANNECHEN REILE(FRG)	72	6-25-88
W00	p79-1 3/4	24.12 ANNECHEN REILE(FRG)	76	8-4-89
	63-9 1/2	19.44 HANNA GELBRICH(FRG)	80	7-29-86
	56-4 1/2	17.18 IRJA SARNAHA(FIN)	80	7-29-86

HAMMER THROW (35-49: 4kg; 50+: 3kg) *** UNOFFICIAL ***

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	132-5	40.36 CHRISTINE SCHULTZ(AUS)	36	11-29-87
W40	114-6	34.90 TRISH CONNELL(AUS)	44	2-8-90
W45	130-0	39.62 PAT MCNAB(GBR)	47	6-3-90
W50	137-3	41.84 HELEN SEARLE(AUS)	50	9-23-89
W55	122-6	37.34 JUTTA SCHAEFFER(FRG)	51	8-5-89
W60	99-11 1/4	30.46 LYDIA VIDEIRA(AUS)	58	8-5-89
W65	98-6 3/4	30.04 ILSE BELLIN(FRG)	74	8-5-89
W70	57-5	17.50 ANNECHEN REILE(FRG)	70	8-5-89
W75	65-7 1/2	20.00 RUTH FRITH(AUS)	82	11-28-87
W80	56-6	17.22 IRJA SARNAHA(FIN)	80	8-16-86

JAVELIN THROW (30-49: 600g; 50+: 400g)

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	193-4	58.94 ANNECHEN REILE(FRG)	37	8-13-72
W40	p209-4	63.80 NINA NIKANOROVA(URS)	35	9-4-82
W45	170-1	51.84 ANNECHEN REILE(FRG)	40	8-2-87
W50	143-9	43.82 GERTRUDE SCHONAUER(AUT)	52	7-29-89
W55	131-7	40.10 HEATHER DONERTY(AUS)	55	1-7-89
W60	103-0	31.40 JOAN OGDEN(GBR)	62	7-9-89
W65	84-7 3/4	25.80 HANNA GELBRICH(FRG)	67	8-6-80
W70	81-11	24.97 HANNA GELBRICH(FRG)	70	9-26-83
W75	74-2 1/2	22.62 IRJA SARNAHA(FIN)	77	9-26-83
W80	58-7 1/4	17.86 IRJA SARNAHA(FIN)	80	8-16-86

AMERICAN TRACK & FIELD AGE-GROUP RECORDS

NEWS AMERICAN FIVE YEAR AGE GROUP RECORDS AS OF JULY 1990

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	9-7	WALT BUTLER(CA)	37	6-11-78
W40	9-8	THANE BAKER(TX)	42	7-13-74
W45	9-8	PERCY KNOWN(CA)	41	7-11-75
W50	10-4	THANE BAKER(TX)	52	6-23-84
W55	10-7	PAYTON JORDAN(CA)	55	3-25-72
	10-7	ALFRED GUIDET(CA)	55	7-14-73
	10-7	CHARLES BEAUDRY(TX)	55	8-10-74
W60	10-9	PAYTON JORDAN(CA)	61	5-6-78
W65	12-1	HARRY KOPPEL(CA)	66	7-19-79
W70	13-4	BARRY IVERS(ME)	72	8-6-83
W75	13-4	HERBERT ANDERSON(CO)	75	10-1-77
W80	15-1	HERBERT ANDERSON(CO)	80	7-24-82
W85	18-8	A. E. PITCHER(IN)	87	9-25-88
W90	21-3	HERB KIRK(USA)	90	8-16-86

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	10-3	RUBEN WHITNEY(TX)	35	6-14-80
W40	10-87	EDDIE HART(CA)	40	7-30-89
W45	10-6n	EDDIE HART(CA)	48	9-11-89
W50	11-0	THANE BAKER(TX)	48	6-14-80
W55	11-2	KEH DENNIS(CA)	50	7-18-87
W60	11-6	PAYTON JORDAN(CA)	56	6-23-73
	11-6	ALFRED GUIDET(CA)	56	6-22-74
W65	12-6	PAYTON JORDAN(CA)	61	5-27-78
W70	13-0	PAYTON JORDAN(CA)	70	4-25-87
W75	14-3	JOSIAN PACKARD(CA)	75	6-23-79
W80	15-4	JOSIAN PACKARD(CA)	80	2-25-84
W85	18-7	BUELL CRANE(ID)	85	7-26-85
W90	23-4	HERB KIRK(MT)	90	8-16-86

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	20-8	DELANO MERIMETHER(US)	35	6-9-78
W40	22-20	STAN WHITLEY(CA)	42	8-7-88
W45	22-9	RICHARD STOLPE(MB)	45	6-20-70
W50	22-9	MILTON NEWTON(CA)	46	6-22-80
W55	22-9	KEH DENNIS(CA)	50	7-18-87
W60	23-6	ALFRED GUIDET(CA)	55	6-24-73
W65	24-9	PAYTON JORDAN(CA)	60	6-19-77
W70	26-1	PAYTON JORDAN(CA)	65	6-12-82
W75	26-8	PAYTON JORDAN(CA)	70	6-20-87
W80	29-5	JOSIAN PACKARD(CA)	75	6-24-79
W85	32-3	JOSIAN PACKARD(CA)	80	2-18-84
W90	40-29	KONRAD BOAS(NY)	86	8-3-89
	48-6	COLLISTER WHEELER(CO)	90	7-30-87

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	46-38	JAMES KING(CA)	35	5-25-84
W40	48-44	JAMES KING(CA)	40	8-5-89
W45	50-59	JAMES BURNETT(IL)	45	8-25-85
	50-46	JAMES BURNETT(IL)	45	6-29-85
W50	52-79	LARRY COLBERT(MD)	50	12-5-87
W55	54-56	RUDOLPH VALENTINE(MY)	55	6-9-79
W60	57-64	JACK GREENWOOD(CO)	60	8-5-89
W65	61-4	JOHN ALEXANDER(TX)	65	5-16-87
W70	62-2	JOHN ALEXANDER(TX)	70	9-24-89
W75	68-5	JOSIAN PACKARD(CA)	75	6-23-79
W80	75-4	HAROLD CHAPSON(HI)	80	7-9-83
W85	94-95	KONRAD BOAS(NY)	85	8-27-88
W90	2:00.2	PAUL SPANGLER(CA)	90	9-16-89

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	1:52.1	RALPH LEE(CA)	37	6-7-79
W40	1:53.99	NOLAN SMITH(CA)	40	5-12-90
W45	1:56.27	DON PARKER(USA)	47	5-12-90
W50	2:01.1	BILL FITZGERALD(CA)	50	6-29-75
W55	2:08.9	BILL FITZGERALD(CA)	55	7-5-80
W60	2:18.87	DEAN SMITH(IL)	61	8-16-87
W65	2:25.3	FRANK FINGER(VA)	65	7-5-80
W70	2:34.5	MONTY MONTGOMERY(CA)	71	9-4-77
W75	2:40.0	HAROLD CHAPSON(HI)	75	5-14-78
W80	2:53.5	HAROLD CHAPSON(HI)	80	7-11-82
	p2:49.4	HAROLD CHAPSON(HI)	81	10-9-83
W85	3:58.3	PAUL SPANGLER(CA)	85	5-5-84
W90	4:39.59	PAUL SPANGLER(CA)	90	6-10-89

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	3:52.7	RANSAY THOMAS(MD)	35	7-11-79
	p3:50.9	BILL STEWART(MI)	37	5-24-80
W40	3:53.18	LARRY ALMBERG(WA)	42	8-5-89
W45	4:04.4	ERNEST BILLUPS(IL)	46	9-27-83
	p4:03.13	MIKE HAMLEY(CO)	45	8-15-87
W50	4:05.8	RAY NATION(CO)	50	7-8-82
W55	4:25.24	RAY NATION(PA)	55	7-19-86
W60	4:46.96	JOE KING(CA)	63	8-5-89
W65	4:59.1	WILLIAM ANDERBERG(MN)	65	7-4-76
W70	5:19.38	AUSTIN NEUMAN(NJ)	70	7-19-86
W75	5:30.1	NORLIND CHAPSON(HI)	75	8-11-77
W80	6:04.28	ED BENHAM(MD)	80	12-5-87
	p5:54.5	HAROLD CHAPSON(HI)	80	7-17-82
W85	7:44.96	PAUL SPANGLER(CA)	85	5-5-84
W90	9:25.2	PAUL SPANGLER(CA)	90	6-10-89

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	4:12.4	RANSAY THOMAS(MD)	35	7-26-79
W40	4:12.24	LARRY ALMBERG(WA)	43	4-28-90
W45	4:29.5	BILL FITZGERALD(CA)	46	4-23-72
	p4:28.02	MIKE HAMLEY(CO)	46	6-25-88
W50	4:32.2	BILL FITZGERALD(CA)	50	7-13-75
W55	4:55.3	WILLIAM FRASER(MN)	55	7-22-85
	p4:45.1	RAY NATION(CO)	55	5-16-87
	p4:46.5	DON GAMMIE(ON)	55	10-5-86
W60	5:14.2	DAVE STEVENSON(CA)	60	8-10-89
W65	5:22n	MONTY MONTGOMERY(CA)	65	4-8-72
W70	5:42.2	MONTY MONTGOMERY(CA)	70	7-9-77
W75	6:15.1	HAROLD CHAPSON(HI)	75	7-5-81
W80	8:07.1	PAUL SPANGLER(CA)	81	6-7-80
	p6:43.3	HAROLD CHAPSON(HI)	80	3-4-83
W85	12:23.6	HERB KIRK(MT)	85	8-26-83
W90	13:43.6	HERB KIRK(MT)	90	8-18-86

DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
W35	8:31.5	RANSAY THOMAS(MD)	35	8-4-79
W40	8:43.7	WEB LOUDAT(MH)	40	6-13-87
	p8:17.4	BARRY BROWN(FL)	40	7-30-84
W45	9:06.6	KIRK RANDALL(MA)	45	6-13-87
W50	8:53.8	RAY NATION(CO)	50	6-25-82
W55	9:37.88	RAY NATION(CO)	56	6-26-88
W60	10:31.4	DAVE STEVENSON(CA)	60	9-16-89
W65	10:51.0	NORMAN BRIGHT(WA)	65	6-17-75
W70	11:46.2	HAROLD CHAPSON(HI)	73	3-28-76
W75	13:06.4	RICHARD BREDEMBECK(ON)	75	6-13-81
	p12:23.4	ED BENHAM(MD)	75	5-7-83
W80	14:39.0	PAUL SPANGLER(CA)	80	7-22-79
W85	16:32.0	PAUL SPANGLER(CA)	85	5-4-84
W90	20:08.4	PAUL SPANGLER(CA)	90	9-16-89

5000 METERS				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
N35	13:51.7	MIKE HAMLEY(CO)	38	6-1-80
N40	14:59.6N	NAL NIGDOM(IN)	41	8-25-72
	p14:27.0	MIKE HAMLEY(CO)	40	6-6-82
N45	15:12.25	MIKE HAMLEY(CO)	47	8-1-89
	p15:11.0	SALVADOR VASQUEZ(CA)	46	7-5-86
N50	15:43.58	DAN CONWAY(VT)	50	8-1-89
	p15:42.0	RAY NATION(CO)	51	7-30-83
N55	16:27.1	JAMES O'NEIL(CA)	55	1-12-81
N60	17:19.0	CLIVE DAVIES(CO)	64	8-2-88
	p16:52.0	JAMES O'NEIL(CA)	60	6-25-88
N65	18:30	WILLIAM ANDERSON(MN)	65	7-4-77
	p17:40.4	CLIVE DAVIES(CO)	64	7-30-88
N70	20:02.57	ALFRED FUNK(NT)	66	8-16-86
N75	20:55.39	ALFRED FUNK(NT)	75	8-1-88
N80	21:57.88	EDWARD BEHMAN(MD)	81	8-6-88
N85	28:03.8	PAUL SPANGLER(CA)	85	4-16-88
N90	37:39.34	PAUL SPANGLER(CA)	90	8-1-88

SHOT PUT (35-49: 16lb; 50-59: 6kg; 60-69: 5kg; 70+ 4kg)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	72-9 3/4	22.19 BRIAN OLDFIELD(USA)	38	5-26-84	
N40	70-3	21.41 BRIAN OLDFIELD(USA)	40	8-22-85	
N45	58-1 1/4	17.71 PIERRE COLNARD(FRA)	47	6-12-76	
N50	57-7 1/4	20.77 IVAN IVANIC(YUG)	45	8-31-83	
N55	51-9	17.56 NERHMAN HOMBRECHER(FRG)	50	8-14-75	
N60	49-2 1/4	15.77 NERHMAN HOMBRECHER(FRG)	55	8-6-80	
N65	48-2 3/4	14.99 TORSTEN VON WACHENFELDT(S61)	60	6-25-88	
N70	46-1 1/4	15.16 TORSTEN VON WACHENFELDT(S61)	65	8-3-85	
N75	41-5 3/4	14.70 REINO NOKELAINEN(FIN)	65	8-3-85	
N80	41-5 3/4	14.05 VOITTO ELO(FIN)	70	6-23-85	
N85	41-5 3/4	12.64 ROSS CARTER(USA)	75	9-3-89	
N90	21-9 1/2	12.80 VOITTO ELO(FIN)	75	5-27-90	
N95	25-0	9.69 KARSTEN BRODERSEN(CHL)	80	11-28-87	
N99	22-10 1/2	7.62 BUELL CRAME(USA)	85	8-14-87	
		6.97 BUELL CRAME(USA)	90	6-20-90	

DISCUS THROW (35-49: 2kg; 50-59: 1.5kg; 60+: 1kg)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	233-9	71.24 JOHN POMELL(USA)	36	6-9-84	
N40	227-11	69.48 AL OERTER(NY)	43	5-31-80	
N45	216-11	66.12 AL OERTER(USA)	45	3-28-82	
N50	205-10	67.90 AL OERTER(USA)	46	11-12-83	
N55	205-10	62.74 AL OERTER(USA)	50	8-3-89	
N60	177-1	65.30 AL OERTER(USA)	50	12-28-86	
N65	177-1	53.98 KAUKO JOUPLILA(FIN)	56	9-3-77	
N70	167-2	57.06 KAUKO JOUPLILA(FIN)	61	7-16-82	
N75	162-6	55.62 KONSTANTY MAKSYMOWICZ(GBR)	65	9-17-79	
N80	156-6	47.70 OLAV REPPEN(NOR)	71	9-17-82	
N85	136-6	41.60 OSMD RENVALL(FIN)	76	7-19-86	
N90	111-9	34.08 KARSTEN BRODERSEN(CHL)	80	12-4-87	
N95	67-2	20.47 BUELL CRAME(USA)	85	7-26-85	
N99	67-2	21.08 BUELL CRAME(USA)	87	7-3-87	
		20.60 BUELL CRAME(USA)	86	7-11-86	
		20.57 BUELL CRAME(USA)	90	6-20-90	

HAMMER THROW (35-49: 16lb; 50-59: 6kg; 60-69: 5kg; 70+: 4kg)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	256-5	78.16 GIAMPAULO URLANDO(ITA)	39	7-25-84	
N40	243-11	74.34 ED BURKE(USA)	44	4-28-84	
N45	205-1	62.52 NANS POTISCH(AUT)	48	7-18-81	
N50	206-3	62.86 SREKO STIGLIC(YUG)	45	- -88	
N55	204-8	63.56 NANS POTISCH(AUT)	54	11-29-87	
N60	190-3	62.40 NANS POTISCH(AUT)	55	7-16-88	
N65	160-3	58.00 PENTTI SAARIKOSKI(FIN)	61	8-26-87	
N70	155-11	48.84 EINO ANTILLA(FIN)	66	7-21-89	
N75	133-5	47.54 BOY FOLEY(AUS)	71	3-20-88	
N80	112-5	40.68 OSMD RENVALL(FIN)	75	6-15-86	
N85	89-6 3/4	45.92 AARNE NIETTINEN(FIN)	75	- -88	
N90	55-8	34.28 KARSTEN BRODERSEN(CHL)	80	12-1-87	
		27.30 FRIEDRICH BENDER(FRG)	85	6-22-85	
		16.97 BUELL CRAME(USA)	90	4-21-90	

JAVELIN THROW (35-59: 800 GRAMS; 60+: 600 GRAMS)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	286-1	87.20 JAMIS ZIRNIS(URS)	35	5-14-83	
N40	259-1	78.98 URS VON WARTBURG(SWI)	42	8-2-79	
N45	238-10	72.80 LARRY STUART(USA)	46	5-12-84	
N50	215-9	73.02 LARRY STUART(USA)	48	6-14-86	
N55	189-3	65.76 LARRY STUART(USA)	50	4-30-88	
N60	191-10	57.70 JAN SMIDING(SWE)	55	8-18-87	
N65	160-5	58.48 DELES PICKARTS(USA)	60	11-28-87	
N70	151-6	51.26 BILL MORALES(USA)	65	3-13-82	
N75	126-4	46.18 BILL MORALES(USA)	72	7-30-89	
N80	94-6	48.08 BILL MORALES(USA)	70	8-16-87	
N85	94-6	44.36 BILL MORALES(USA)	70	7-25-87	
N90	97-5	38.52 GERHARD SCHEPE(FRG)	76	12-5-87	
N95	62-5	28.80 HERBERT ANDERSON(USA)	80	7-24-82	
N99	53-3	29.69 HERBERT ANDERSON(USA)	80	1-29-82	
		19.02 BUELL CRAME(USA)	85	6-6-85	
		22.69 HERBERT ANDERSON(USA)	85	9-5-87	
		20.11 HERBERT ANDERSON(USA)	85	8-16-87	
		16.23 COLLISTER WHEELER(USA)	90	7-20-83	

DECATHLON(1962 IAAF SCORING TABLES)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	754-7	WERNER VON HOLTEKE(FRG)	35	5-12-72	
N40	678-6	WOLFGANG LINDMANN(FRG)	40	6-6-81	
N45	573-4	GARY MILLER(USA)	47	3-23-85	
N50	621-2	GARY MILLER(USA)	50	5-27-86	
N55	524-6	RICHMOND MORCOM(USA)	55	9-11-76	
N60	455-2	RICHMOND MORCOM(USA)	61	8-28-87	
N65	340-0	IAN HUME(CAN)	66	6-20-81	
N70	309-7	GILBERTO GONZALEZ(PUR)	70	7-2-83	
N75	165-9	HERBERT ANDERSON(USA)	75	3-24-78	
N80	99-4	HERB ANDERSON(USA)	80	8-28-82	
N85	25-2	A. E. PITCNER(USA)	85	9-19-87	

PENTATHLON(1985 IAAF SCORING TABLES)					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	380-6	SILVIO MODOS(FRA)	35	4-17-83	
N40	345-5	WERNER SCHALLAU(FRG)	40	9-24-78	
N45	311-7	GARY MILLER(USA)	45	9-30-83	
N50	297-6	GARY MILLER(USA)	50	6-26-88	
N55	256-6	RICHMOND MORCOM(USA)	56	8-12-77	
N60	234-6	RUDY MOCHREITER(AUS)	61	12-3-87	
N65	202-8	GUORAND SKRIVERIK(NOR)	65	7-31-86	
N70	204-3w	RICHMOND MORCOM(USA)	65	7-13-86	
N75	100-2	ADOLF KOCH(FRG)	70	12-3-87	
N80	86-9	GERHARD SCHEPE(FRG)	76	12-3-87	
N85	37-2	WALTER STRUBEL(FRG)	75	8-24-84	
		KARSTEN BRODERSEN(CHL)	80	12-3-87	
		HERB ANDERSON(USA)	85	12-3-87	

WOMENS WORLD FIVE YEAR AGE GROUP RECORDS AS OF JULY 1990

100 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	11.6	ERIKA ROST(FRG)	35	6-2-79	
N40	12.0	MAEVE KYLE(IRL)	40	- -87	
N45	12.5	MAEVE KYLE(IRL)	45	1-21-74	
N50	12.5	WENDY EY(AUS)	45	2-4-84	
N55	12.9	IRENE OBERA(USA)	51	6-1-85	
N60	13.6	SHIRLEY PETERSON(AUS)	55	1-21-84	
N65	13.9	SHIRLEY PETERSON(AUS)	60	2-25-89	
N70	15.04h	PAULA SCHNEIDERMAN(FRG)	65	12-4-87	
N75	14.90	PAULA SCHNEIDERMAN(FRG)	66	6-25-88	
N80	16.2	POLLY CLARKE(USA)	70	4-17-81	
N85	16.87	POLLY CLARKE(USA)	75	8-31-85	
N90	20.93	BERTA NIELSCHER(FRG)	80	7-30-89	

200 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	22.5	MARINA STEPANOVA(URS)	36	6-27-86	
N40	24.84	PHIL RASCHNER(USA)	42	8-3-89	
N45	26.2	WENDY EY(AUS)	45	3-4-84	
N50	27.3	IRENE OBERA(USA)	51	6-1-85	
N55	28.48	SHIRLEY PETERSON(AUS)	55	8-3-89	
N60	30.0	SHIRLEY PETERSON(AUS)	60	2-11-89	
N65	31.65	PAULA SCHNEIDERMAN(FRG)	67	8-3-89	
N70	34.2	POLLY CLARKE(USA)	71	9-6-81	
N75	35.93	POLLY CLARKE(USA)	75	8-31-85	
N80	45.27	BERTA NIELSCHER(FRG)	80	8-3-89	

400 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	50.56	AURELIA PENTON(CUB)	35	7-15-78	
N40	55.3	MAEVE KYLE(IRL)	41	7-22-70	
N45	57.8	JAN HUGHES(AUS)	45	11-9-89	
N50	63.2	ANNE MCKENZIE(RSA)	50	10-15-75	
N55	66.99	PAT SMITH(NZL)	52	6-7-88	
N60	69.00	IRENE OBERA(USA)	55	8-5-89	
N65	73.71	ANN COOPER(AUS)	60	8-5-89	
N70	84.23	ANNA MANDLER(FRG)	65	8-5-89	
N75	89.74	POLLY CLARKE(USA)	70	9-28-83	
N80	99.41	ALDREY REID(RSA)	70	6-27-83	
N85	89.62	ALDREY REID(RSA)	70	9-17-83	
N90	2:21.5	POLLY CLARKE(USA)	75	8-25-85	
		ANNE MAND(USA)	85	5-30-88	

800 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	1:56.51	JARMIILA KRATOCHVILLOVA(CZE)	35	7-13-86	
N40	2:06.5	ANNE MCKENZIE(RSA)	41	7-1-67	
N45	2:19.2	ANNE MCKENZIE(RSA)	45	11-13-70	
N50	2:23.1	JUDY POLLOCK(AUS)	45	8- -85	
N55	2:23.1	GUDELIEVE ROGGENMAN(BEL)	45	6-23-85	
N60	2:23.1	ANNE MCKENZIE(RSA)	50	10-29-75	
N65	2:42.03	VALBERG OSTBERG(NOR)	55	8-1-86	
N70	2:42.03	OLGA VYSKOVSKA(CZE)	55	6-22-85	
N75	3:03.10	ANN COOPER(AUS)	60	8-1-89	
N80	3:03.10	ANNA MANDLER(FRG)	65	8-1-89	
N85	3:14.90	BRITTA TIBBLING(NOR)	71	8-1-89	
N90	3:32.98	JOHANNA LUTHER(FRG)	75	8-1-89	
N95	4:18.12	BERTA NIELSCHER(FRG)	80	8-1-89	

1500 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	3:57.73	MARICICA PUTICA(ROM)	35	8-30-85	
N40	4:20.7	JOYCE SMITH(GBR)	40	5-21-78	
N45	4:45.84	BARBARA LEHMANN(FRG)	47	8-5-89	
N50	4:40.35	JUDY POLLOCK(AUS)	45	8- -85	
N55	4:43.84	GUDELIEVE ROGGENMAN(BEL)	45	6-28-85	
N60	4:54.5	ANNE MCKENZIE(RSA)	50	10-15-75	
N65	5:11.19	I. NELLWAGNER(AUT)	50	6-25-88	
N70	5:15.7	JEAN ALBURY(AUS)	55	4-6-85	
N75	5:44.9	MARGARET MILLER(USA)	60	7-16-86	
N80	5:44.81	SHIRLEY BRASHER(AUS)	61	12-5-87	
N85	6:10.17	BRITTA TIBBLING(SWE)	66	8-25-84	
N90	6:39.04	BRITTA TIBBLING(SWE)	71	7-22-89	
N95	7:09.72	JOHANNA LUTHER(FRG)	76	8-5-89	
N99	11:09.2	ANNE MAND(USA)	83	5-30-88	

ONE MILE					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	4:17.33	MARICICA PUTICA(ROM)	35	8-21-85	
N40	4:54.69	DORIS HERITAGE(USA)	40	4-23-83	
N45	5:21.5	CAROL FLEXER(USA)	46	7-19-89	
N50	5:29.39	JEANNE MONGLAND(USA)	51	12-6-87	
N55	5:50.6	MARGARET MILLER(USA)	55	2-7-81	
N60	6:35	PAT DIXON(USA)	63	7-23-82	
N65	6:41.64	ROSAMUND DASHWOOD(CAN)	65	6-8-89	
N70	7:26.0	PAT DIXON(USA)	70	6-24-89	

3000 METERS					
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE	
N35	8:27.83	MARICICA PUTICA(ROM)	35	9-7-85	
N40	9:11.2	JOYCE SMITH(GBR)	40	4-30-78	
N45	10:23.4	URSULA BLASCHKE(FRG)	45	7-30-77	
N50	9:31.38	EVY PALM(SWE)	45	- -87	
N55	9:34.7	JOYCE SMITH(GBR)	46	9-15-84	
N60	10:24.01	EDELTRAUD POHL(FRG)	52	8-25-88	
N65	11:20.2	MARION IRVINE(USA)	59	9-16-89	
N70	12:26.8	LIESELOTTE SCHULTZ(FRG)	61	6-13-81	
N75	13:15.6	JACLYN CASELLI(USA)	65	7-6-86	
N80	14:25.2	JOHANNA LUTHER(FRG)	71	9-22-84	
N85	17:37.2	BESS JAMES(USA)	75	8-10-85	
N90	25:09.0	MARY AMES(USA)	84	5-30-87	

5000 METERS				
DIV.	MARK	NAME(RESIDENCE)	AGE	MEET DATE
N35	15:15.2	FRANCIS LARRIEU(USA)	35	7-2-88
N40	16:02.88	EVY PALM(SWE)	43	7-17-85
N45	17:45.03	JOAN COLMAN(USA)	45	8-4-89
	p16:17.6	EVY PALM(SWE)	45	- -87
	p17:33.4	DOT BROOME(AUS)	45	3-28-86
	p17:41.24	ANNA MARIE GRUENER(FRG)	45	6-25-85
N50	17:46.2	EDELTRAUD POHL(FRG)	50	7-1-87
N55	18:49.0	JEAN ALMURY(AUS)	55	4-7-85
N60	19:14.8	MARION IRVINE(USA)	60	10-19-89
N65	22:16.8	JOE WALLER(GR)	66	10-2-88
N70	24:52.83	PAT DIXON(USA)	70	8-4-89
N75	25:43.39	JONANNA LUTHER(GR)	76	8-4-89
N80	30:21.85	MAVIS LINDGREEN(USA)	80	8-16-87

II. HOW TO CONDUCT AN AGE-GRADED TRACK & FIELD MEET,
ROAD RACE, OR RACE WALK USING AGE FACTORS

Age factors (pages 21-27) can be used to compare an individual's performance in a given event to what he/she did -- or might have done -- in his/her prime. The factor expresses the rate of decline based on age. It converts a performance to the equivalent performance by an open-class athlete.

Factors work well when you want to score men and women separately, and when you want to compare performances in only one event.

The factors require only one calculation to determine the places in an event. Simply multiply the factor for a person's age/event by his/her actual mark.

That gives you an "age-graded mark" or "equivalent open-class performance." The person with the best age-graded mark is the winner, regardless of age. All the men compete in one "division." All the women compete in a separate "division."

Example 1: A 40-year-old man runs 100 meters in 12.07 seconds.

- 1) Use the track age factors (page 21) to find the M40 factor for 100 meters.
- 2) The M40 factor for 100m is .9435. (That means a 40-year-old man will run the 100 about six percent slower than when he was 25.)
- 3) Multiply .9435 by 12.07 seconds = 11.39 seconds. That's his "age-graded time" or his "equivalent open-class performance."

Example 2: A 62-year-old man high jumps 4'8".

- 1) Convert to meters: 4'8" = 56" x .0254 = 1.42 meters.
- 2) Use the field-event age factors (page 23) to find the M62 factor for the high jump.
- 3) The M62 factor for the high jump is 1.4148.
- 4) Multiply 1.4148 by 1.42 meters = 2.01 meters.
- 5) To convert meters to inches, divide by .0254 (or use standard conversion tables). Thus, 2.01 divided by .0254 = 79" = 6'7". That's his "age-graded mark."

Example 3: A 53-year-old woman runs 10K in 45:18.

- 1) Use the long-distance running factors (pages 24-25) to find the W53 factor for 10K.
- 2) The W53 factor for 10K is .8450.
- 3) Convert 45:18 to seconds (45 x 60 = 2700 seconds + 18 seconds = 2718 seconds).
- 4) Multiply .8450 x 2718 seconds = 2297 seconds.
- 5) Convert 2297 seconds to minutes by dividing 2297 by 60 = 38.28 minutes.
- 6) Convert .28 minutes to seconds by multiplying .28 x 60 =

WORLD TRACK & FIELD AGE-GROUP RECORDS

MENS WORLD FIVE YEAR AGE GROUP RECORDS AS OF JULY 1990

100 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	10.28	ALAN WELLS(GBR)	35 8-1-87
M35	10.3n	EDWARD JEFFERIS(USA)	35 11-24-71
M40	10.87	EDDIE HART(USA)	40 7-30-89
M40	10.6n	EDDIE HART(USA)	40 9-16-89
M45	11.0	THANE BAKER(USA)	45 6-14-80
M50	11.2	KEN DENNIS(USA)	50 7-18-87
M55	11.6	PAYTON JORDAN(USA)	55 6-23-73
M55	11.6	ALFRED GUIDET(USA)	55 6-22-74
M60	11.8	PAYTON JORDAN(USA)	60 5-27-78
M65	12.5	BERNARD WOCAN(USA)	65 11-30-85
M70	13.0	PAYTON JORDAN(USA)	70 4-25-87
M75	14.3	JOSIAH PACKARD(USA)	75 6-23-79
M80	15.4	JOSIAH PACKARD(USA)	80 2-25-84
M85	16.3	DUNCAN MCCLEAN(SCO)	85 7-6-73
M90	19.9	DUNCAN MCCLEAN(SCO)	90 6-14-75

200 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	20.62	DON QUARRIE(JAM)	37 6-18-88
M40	20.68	PIETRO MENNECA(ITA)	35 9-26-87
M40	21.9	REGINALD AUSTIN(AUS)	40 8-10-77
M45	21.8	MANUEL ULACIO(VEN)	42 9-4-82
M50	22.3	GEORGE RHODEN(JAM)	45 7-2-72
M50	22.91	RON TAYLOR(GBR)	52 7-31-86
M55	22.9n	KEN DENNIS(USA)	50 7-18-87
M55	23.6	ALFRED GUIDET(USA)	55 6-24-73
M60	24.9	PAYTON JORDAN(USA)	60 6-19-77
M65	25.6	BERNARD WOCAN(USA)	65 12-6-85
M70	26.8	PAYTON JORDAN(USA)	70 6-20-87
M75	29.5	JOSIAH PACKARD(USA)	75 6-24-79
M80	32.3	JOSIAH PACKARD(USA)	80 2-18-84
M85	39.3	CHARLES BOOTH(AUS)	85 3-19-89
M90	48.6	COLLISTER WHEELER(USA)	90 7-30-87

400 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	46.38	JAMES KING(USA)	35 5-25-84
M40	48.44	JAMES KING(USA)	40 8-5-89
M45	50.46	NAHMO RHEINECK(FRG)	45 12-5-87
M50	50.46	JAMES BURNETT(USA)	45 6-29-85
M55	51.8	RON TAYLOR(GBR)	52 9-27-86
M55	53.98	CHARLIE WILLIAMS(GBR)	57 12-5-87
M60	53.81	BERTHOLD MESELMANN(FRG)	55 9-6-86
M60	57.64	JACK GREENWOOD(USA)	63 8-5-89
M65	61.29	PETER HIRKES(FRG)	60 8-28-88
M65	61.4	TOM NISHOMI(AUS)	65 8-5-89
M70	62.2	JOHN ALEXANDER(USA)	70 9-24-89
M75	68.5	JOSIAH PACKARD(USA)	75 6-23-79
M80	75.4	HAROLD CHAPSON(USA)	80 7-9-83
M85	91.54	LONGINO PEREZ(MEX)	85 12-5-87
M90	2:00.2	PAUL SPANGLER(USA)	90 9-16-89

800 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	1:49.2Y	GEORGE SCOTT(NZL)	35 5-12-72
M40	1:51.25	PETER BROMME(GBR)	41 6-11-90
M45	1:56.27	DON PARKER(USA)	47 5-12-90
M50	2:00.40	ALAN BRADFORD(GBR)	50 8-1-89
M55	2:05.07	TOM ROBERTS(AUS)	55 8-1-89
M60	2:12.62	DEREK TURNBULL(NZL)	62 7-21-89
M65	2:20.5	JACK STEVENS(AUS)	65 8-13-82
M70	2:34.5	MONTY MONTGOMERY(USA)	71 9-4-77
M75	2:40.0	HAROLD CHAPSON(USA)	75 5-14-78
M80	2:53.5	HAROLD CHAPSON(USA)	80 7-11-82
M85	3:29.42	LONGINO PEREZ(MEX)	85 11-29-87
M90	4:39.59	PAUL SPANGLER(USA)	90 6-10-89

1500 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	3:33.91	MIKE BOIT(GBR)	36 8-21-85
M40	3:49.47	WILSON WATGAM(KEN)	40 8-5-89
M45	4:01.47	DAVID STRL(NZL)	45 12-5-87
M50	4:05.2	TOM ROBERTS(AUS)	50 3-22-84
M55	4:17.4	DEREK TURNBULL(NZL)	55 2-20-82
M60	4:14.4	GUNTHER MESELMANN(FRG)	55 6-23-81
M60	4:28.66	DEREK TURNBULL(NZL)	62 8-5-89
M65	4:41.82	JACK RYAN(AUS)	65 12-5-87
M70	5:09.73	JOHN GILMOUR(AUS)	70 8-5-89
M75	5:30.1	HAROLD CHAPSON(USA)	75 8-11-77
M80	6:04.28	ED BENHAM(USA)	80 12-5-87
M85	7:03.38	LONGINO PEREZ(MEX)	85 12-5-87
M90	9:25.2	PAUL SPANGLER(USA)	90 6-10-89

1 MILE			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	3:52.48	JOHN WALKER(NZL)	36 7-2-88
M40	4:07.4	WILSON WATGAM(KEN)	40 5-7-89
M45	4:16.75	WILSON WATGAM(KEN)	40 6-3-89
M50	4:30.06	DAVID STRL(NZL)	45 12-6-87
M55	4:40.4	TOM ROBERTS(AUS)	53 12-6-87
M60	4:57.1	JACK RYAN(AUS)	55 12-15-77
M65	5:05.61	JOHN GILMOUR(AUS)	61 11-13-80
M70	5:42.2	JACK RYAN(AUS)	65 12-6-87
M75	6:15.1	MONTY MONTGOMERY(USA)	70 7-9-77
M80	6:07.1	HAROLD CHAPSON(USA)	78 7-5-81
M85	8:04.7	PAUL SPANGLER(USA)	81 6-7-80
M90	13:43.6	JOSEF GALIA(FRG)	80 3-4-83
		HERB KIRK(USA)	87 9-4-85
			90 8-18-86

3000 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	7:47.61	THOMAS WESSINGHAGE(FRG)	35 8-16-87
M40	8:17.4	JACK FOSTER(NZL)	43 1-31-76
M45	8:36.0	BARRY BROWN(USA)	40 7-30-84
M50	8:53.8	LAURIE OHARA(GBR)	45 7-8-77
M55	9:12.8	RAY WATTON(USA)	50 6-25-82
M60	9:01.8	JACK RYAN(AUS)	55 1-24-78
M65	9:41.2	GUNTHER MESELMANN(FRG)	55 7-15-81
M70	10:10.2	JOHN GILMOUR(AUS)	61 11-22-80
M75	11:46.2	JOHN GILMOUR(AUS)	65 11-22-84
M80	11:43.8	HAROLD CHAPSON(USA)	73 3-28-76
M85	13:06.4	JOHN FARRELL(GBR)	70 6-27-82
M90	14:39.0	RICHARD BREDEBECK(USA)	75 6-13-81
M95	16:32.0	ED BENHAM(USA)	75 5-7-83
M90	20:08.4	PAUL SPANGLER(USA)	80 7-22-79
		FRITZ WELBER(FRG)	80 9-14-86
		PAUL SPANGLER(USA)	85 5-4-84
		PAUL SPANGLER(USA)	90 9-16-89

5000 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	13:16.36	CARLOS LOPEZ(POR)	37 6-28-84
M40	13:45.6	LUCIEN RAULT(FRA)	40 5-21-76
M45	14:23.6	LUCIEN RAULT(FRA)	46 6-19-82
M50	15:31.0	ALAIN MINOUM(FRA)	50 6-6-71
M55	15:06.0	JEAN ONSELEN(BEL)	50 9-12-84
M60	15:52.8	EDGAR FRIEDLI(SUI)	50 7-4-84
M65	17:43.4	JACK RYAN(AUS)	55 4-20-78
M70	18:46.62	GUNTHER MESELMANN(FRG)	55 6-27-81
M75	20:36.0	JOHN GILMOUR(AUS)	61 8-9-80
M80	21:57.88	JACK RYAN(AUS)	65 12-1-87
M85	24:50.2	JOHN GILMOUR(AUS)	70 8-1-89
M90	37:39.38	DAVID MORRISON(GBR)	75 9-9-89
		EDWARD BENHAM(USA)	81 8-6-88
		JOSEF GALIA(FRG)	87 8-28-85
		PAUL SPANGLER(USA)	90 7-29-89

10,000 METERS			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	27:17.48	CARLOS LOPEZ(POR)	37 7-2-84
M40	28:33.4	LUCIEN RAULT(FRA)	40 6-9-76
M45	30:02.56	ANTONIO VILLAMUEVA(MEX)	45 11-29-87
M50	32:05.6	LUCIANO AQUARONE(ITA)	51 10-1-81
M55	33:00.66	EDGAR FRIEDLI(SUI)	50 7-11-84
M60	34:23.0	NORMAN GREEN(USA)	57 7-29-89
M65	36:04.6	GUNTHER MESELMANN(FRG)	55 6-2-81
M70	38:27.0	JOHN GILMOUR(AUS)	61 11-26-80
M75	42:03.4	TEDDE JENSEN(SWE)	65 9-15-72
M80	44:29.4	JOHN GILMOUR(AUS)	70 6-21-89
M85	54:29.4	DAVID MORRISON(GBR)	75 9-9-89
M90	71:40.78	EDWARD BENHAM(USA)	81 8-4-88
		JOSEF GALIA(FRG)	87 8-28-85
		PAUL SPANGLER(USA)	90 7-29-89

ONE HOUR RUN			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	12:15.99	20.774 GASTON ROELANTS(BEL)	35 9-20-72
M40	11:13.09	18.900 WILLIAM STODDART(GBR)	40 8-21-71
M45	11:12.68	18.862 ALAIN MINOUM(FRA)	45 3-20-66
M50	11:95.4	18.575 ALAIN MINOUM(FRA)	50 5-16-71
M55	10:11.94	17.185 JOHN GILMOUR(AUS)	55 10-14-74
M60	10:83.1	16.853 JOHN GILMOUR(AUS)	61 10-21-79
M65	9:15.40	15.892 JOHN GILMOUR(AUS)	65 10-7-84
M70	9:10.83	15.474 JOHN GILMOUR(AUS)	70 6-21-89
M75	8:33.5	13.181 LOU GREGORY(USA)	75 12-17-77
M80	7:46.6	13.697 ED BENHAM(USA)	75 4-9-83
M85	6:47.2	12.130 PAUL SPANGLER(USA)	81 11-1-80
M90		10.088 PAUL SPANGLER(USA)	85 11-18-84

3000 METER STEEPLECHASE			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	8:33.4	IVAN KABANOV(URS)	36 7-27-75
M40	8:41.5	GASTON ROELANTS(BEL)	40 7-6-77
M45	9:25.28	ROM ROBERTSON(NZ)	46 12-5-87
M50	9:50.96	NILS UNDERSAKER(NOR)	45 9-12-84
M55	10:39.0	NILS UNDERSAKER(NOR)	50 8-5-89
M60	11:41.6	ELIGIO GALICIA(MEX)	56 8-1-79
M65	11:24.8	OLLE ELVLAND(SWE)	61 8-1-79
M70	13:26.5	NORMAN BRIGHT(USA)	65 8-15-75
M75	15:21.0	STAN NICHOLLS(AUS)	70 4-11-81
		STAN NICHOLLS(AUS)	75 11-15-86

2000 METER STEEPLECHASE			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	7:13.93	JOAQUIM SILVA(POR)	61 8-5-89
M40	8:23.74	AVERY BRYANT(USA)	65 7-20-89
M45	8:38.17	DAN BULKLEY(USA)	71 8-5-88
M50	10:32.17	STAN NICHOLLS(AUS)	76 12-5-87

HURDLES: 110M: 35-39,42"; 40-49,39"; 50-59,36"; 100M: 60-69,30"; 80M: 70			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	14.13	SEBASTIAN LIEF(ITA)	35 8-9-78
M40	14.13	CHURAM BAZZ(PAK)	36 2-16-69
M45	14.24	STAN DRUCKERY(USA)	40 7-30-89
M50	14.7y	VALBJORN THORLAKSSON(ICE)	45 7-8-79
M55	15.1y	JACK GREENWOOD(USA)	51 8-10-77
M60	16.6	ANDRE FINELLI(FRA)	55 9-14-78
M65	16.3	JACK GREENWOOD(USA)	56 8-29-82
M70	14.98	JACK GREENWOOD(USA)	60 7-19-86
M75	16.4	ALBERTOS VAN ZYL(RSA)	65 8-29-87
M80	14.50h	AL GUIDET(USA)	71 7-29-89
M85	13.52	TEOFILO COLON(PUR)	70 6-23-85
M90	16.14	BERT MORROW(CAN)	76 7-30-89
		KARL TREI(CAN)	80 7-30-89

100 METER HURDLES (50-59: 36"; 60-69: 30")			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M50	14.87	CHARLES MILLER(USA)	51 8-27-88
M55	14.3n	CHARLES MILLER(USA)	50 5-28-88
M55	15.28	BOB NICKMAN(USA)	55 7-30-89

400 METER HURDLES (35-49: 36"; 50-59: 33"; 60+: 30")			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M35	49.72	JAMES KING(USA)	35 5-13-84
M40	52.76	JAMES KING(USA)	40 8-3-89
M45	52.7n	STAN DRUCKERY(USA)	40 7-8-89
M45	55.18	GUIDO MUELLER(FRG)	47 8-1-86
M50	58.1	JACK GREENWOOD(USA)	50 7-3-76
M55	59.85	JACK GREENWOOD(USA)	57 9-27-83
M60	66.01	RUDOLPH VALENTINE(USA)	62 8-23-85
M65	64.45	FRANS BUYS(HOL)	60 6-28-85
M65	71.4	FRANS BUYS(HOL)	60 5-3-85
M70	77.50	ROBERT HUNT(USA)	65 5-18-85
M75	89.58	GILBERTO GONZALEZ(PUR)	70 9-27-83
M80	1:51.0	RUSSELL MEYERS(USA)	77 5-9-81
		HERBERT ANDERSON(USA)	80 7-24-82

300 METER HURDLES (50-59: 33"; 60+: 30")			
DIV.	MARK	NAME(RESIDENCE)	AGE MEET DATE
M50	39.96	GUIDO MUELLER(WG)	50 8-3-89
M55	43.28	ERKKI KNAAPP(FIN)	55 8-3-89
M60	43.49	JACK GREENWOOD(USA)	63 8-3-89
M65	47.82	ARNE PETERSSON(SWE)	65 6-25-88
M70	52.44	DAN BULKLEY(USA)	72 8-3

NAME _____

[illegible]

7) Thus, 38:17 is her age-graded time.

Example 4: A 45-year-old decathlete runs 400 meters in 58.12 seconds.

- 1) Use the track age factors (page 21) to find the M45 factor for 400 meters.
- 2) The M45 factor for 400m is .8839.
- 3) Multiply $.8839 \times 58.12 = 51.38$. That's his age-graded time.
- 4) Look up 51.38 in the 1985 IAAF scoring tables, and find that 51.38 = 752 points.
- 5) Do the same for all 10 decathlon events and get a total score. (Note: in WAVA and TAC multi-event championships, scoring is kept separately for each five-year age group.)

Even though the weight of the implement being thrown at older ages may vary, the age-graded mark reflects using the open-class implement (16-pound shot and hammer, 2kg discus, and 800g javelin for men and 4kg shot and hammer, 1kg discus, and 600g javelin for women). Likewise for hurdlers, even though hurdle heights at older ages may vary, the age-graded time reflects using the open-class (OC) hurdle distance and height (110H/42" and 400H/36" for men; and 100H/33" and 400H/30" for women).

- + For the men's 100H and 80H, the age factors are predicated on the men's 110H OC world record, and thus performances convert from the 100H and 80H to the equivalent 110H/42" OC performance for men.
- + For the women's 80H, the age factors are predicated on the women's 100H OC world record, and thus performances convert from the 80H to the equivalent 100H/33" OC performance for women.
- + Similarly, the men's 300H performances convert to the equivalent 400H/36" OC performance for men, and the women's 300H performances convert to the equivalent 400H/30" performance for women.
- + Similarly, the men's 2000SC performances convert to the equivalent 3000SC performance for men.

Example 5: A 42-year-old woman runs 80-meter hurdles in 12.33.

- 1) Use the hurdles age factors (page 22) to find the W42 factor for 80-meter hurdles.
- 2) The W42 factor for 80H is 1.1365.
- 3) Multiply $1.1365 \times 12.33 = 14.01$ seconds. That's her age-graded time for 100H/33".

PERSONAL PERFORMANCE CHART

5. ESTIMATE YOUR PERFORMANCE IN NEW EVENTS

NAME _____

			7x9(R) 7÷9(F) 4x5	3÷5	3÷4	4÷9(R) 4x9 (F) 7÷5	3÷9(R) 3x9 (F) 5x6; 5x8	4÷9(R) 4x9 (F) 7÷5	4÷6or8(R) 6or8÷4(F) 3÷7(R) 7÷3(F)	Find pts. in IAAF tables
DATE or YEAR	1 AGE	2 EVENT	3 OC STANDARD	4 AGE STANDARD	5 AGE FACTOR	6 ACTUAL MARK	7 AGE-GRADED MARK	8 GOAL	9 PERF. LEVEL PCT	10 IAAF PTS.
	M51	100	9.85	11.02	.8940	12.70	11.35		86.8%	
	"	200	19.62	22.60	.8679			26.04	"	
	"	400	43.29	51.43	.8418			59.25	"	
	"	800	1:41.73	1:58.27	.8602			2:16.15	"	
	M51	1500	3:29.46	4:02.41	.8641	4:53.06	4:13.23		82.7%	
	"	MILE	3:46.09	4:21.51	.8646			5:16.21	"	
	"	5000	12:57	14:50	.8735			17:56	"	
	M51	10K	26:55	30:49	.8735	38:16	33:16		80.5%	
		MARA	2:04:20	2:20:23	.8856			2:54:23	"	
	M51	5K	12.90	13.63	.9465	17.30	16.37		78.8%	
	"	LH	47.02	40.10	1.1724			50.89	"	
	M51	HJ	2.42	1.94	1.2485	1.60/5-3	1.99/6-6½		82.6%	
	"	PV	6.03	4.63	1.3023			3.82/12-6¼	"	
	"	LJ	8.79	6.78	1.2959			5.60/18-4¼	"	
	"	TJ	17.97	13.79	1.3025			11.39/37-4¼	"	
	M51	SP	20.40	17.59	1.1596	14.17/46-6	16.43/53-11		80.6%	
	"	DT	69.50	60.99	1.1396			49.16/161-3	"	
	"	HT	76.85	63.74	1.2056			51.37/168-6	"	
	"	JAV	90.42	64.69	1.3978			52.14/171-0	"	
	M51	M-W	5:44.0	6:29.5	.8832	7:58.50	7:02.61		81.4%	
	"	5K-W	18:51	21:13	.8881			26:04	"	
	"	20K-W	1:18:40	1:28:05	.8931			1:48:12	"	

Final note on age factors: age factors are mainly designed to compare performances of one sex in one event. However, after using the factors to determine the age-graded marks, you can compare both sexes in one or many events by one additional calculation: for running events, divide the open-class standard (OC) by the age-graded time; for field events, divide the age-graded distance/height by the open-class standard. That gives you a "performance level" percentage. 100% is potential world-record level. The person with the best percentage is the winner, regardless of age or sex.

III. HOW TO CONDUCT AN AGE-GRADED TRACK & FIELD MEET, ROAD RACE, OR RACE WALK USING AGE STANDARDS

Age standards can be used to compare performances in a single event or in many events, among both sexes -- with only one calculation.

Standards work well when you want to score men and women together, or when you want to compare performances in several events (such as a track & field meet). But standards can also be used for single events, and to score men and women separately.

For running events, divide the "time standard" for a person's age/event by the time he/she ran. For field events, divide the person's actual throw or jump by the "distance standard" for his/her age/event.

That gives you the "performance level percentage." 100% is potential world-record level. The person with the best percentage is the winner, regardless of age or sex.

Example 1: A 40-year-old man runs 100 meters in 12.07 seconds.

- 1) Use the men's track standards (page 31) to find the M40 standard for 100 meters.
- 2) The M40 standard for 100m is 10.44.
- 3) Divide 10.44 by 12.07 = .865, or 86.5%. His "performance level percentage (P.L.%) is 86.5%.

Example 2: A 62-year-old man high jumps 4'8".

- 1) Convert 4'8" to meters: 4'8" = 56" x .0254 = 1.42 meters.
- 2) Use the men's field event standards (page 33) to find the M62 standard for the high jump.
- 3) The M62 standard for the high jump is 1.71.
- 4) Divide 1.42 by 1.71 = .830, or 83.0%. His performance level is 83.0%.

4. CHART YOUR WORKOUT PROGRESS IN THE CURRENT YEAR

[illegible]

- 1) Use the long-distance running standards (page 35) to find the W53 standard for 10K.
- 2) The 10K standard for W53 is 35:22.
- 3) Convert 45:18 into seconds ($45 \times 60 = 2700$ seconds + 18 seconds = 2718 seconds).
- 4) Convert 35:22 into seconds ($35 \times 60 + 22 = 2122$ seconds).
- 5) Divide 2122 by $2718 = .781$, or 78.1%.

- 1) Use the men's track standards (page 31) to find the M45 standard for 400 meters.
- 2) The 400-meter standard for M45 is 48.98.
- 3) Divide 48.98 by 58.12 = 84.3%.

- 1) Use the women's hurdle standards (page 32) to find the W42 standard for 80H.
- 2) The W42 standard for 80H is 10.78.
- 3) Divide 10.78 by 12.33 = 87.4%.

Grade Levels: 90%+ = World Class
 80%+ = National Class
 70%+ = Regional Class
 60%+ = Local Class

Calculations must always be made in seconds or meters. So in the 1500, for example, 5:02.7 must be converted to 302.7 seconds before calculations begin.

The performance-level percentage can also be expressed as an age-graded mark, by either dividing (running events) or multiplying (field events) the open-class standard by the P.L. %.

2. COMPARE YOUR PERFORMANCES IN DIFFERENT EVENTS

NAME _____

- 1) Age factors for each age and event -- pages 21-29.
- 2) Age standards for each age and event -- pages 30-40.
- 3) Sample of completed heat sheets of mythical competitions, using the age factors -- pages 41-44.
- 4) Samples of completed heat sheets of mythical competitions, using the age standards -- pages 45-47.
- 5) Blank heat sheets which can be copied for use in meets and races -- pages 48-50.

[illegible]

3. CHART YOUR PROGRESS IN THE CURRENT YEAR

NAME _____

										4÷6or8(R) 6or8÷4(F) 3÷7(R) 7÷3(F)	Find pts. in IAAF tables						
										7x9(R) 7÷9(F) 4x5	3÷5	3÷4	4÷9(R) 4x9 (F) 7÷5	3÷9(R) 3x9 (F) 5x6; 5x8	4÷9(R) 4x9 (F) 7÷5		
DATE or YEAR	1 AGE	2 EVENT	3 OC STANDARD	4 AGE STANDARD	5 AGE FACTOR	6 ACTUAL MARK	7 AGE-GRADED MARK	8 GOAL	9 PERF. LEVEL PCT	10 IAAF PTS.							
90 GOAL	51	800	1:41.73	1:58.27	.8602		1:56.53	2:15.47	87.3%								
5/15	"	"	"	"	"	2:25.10	2:04.82		81.5%								
6/10	"	"	"	"	"	2:22.25	2:02.42		83.1%								
7/1	"	"	"	"	"	2:20.14	2:00.53		84.4%								
7/22	"	"	"	"	"	2:17.50	1:58.29		86.0%								
8/2	"	"	"	"	"	2:15.46	1:56.52		87.3%								

PERSONAL PERFORMANCE CHART

- KEEP TRACK OF YOUR PROGRESS OVER THE YEARS, AND SET GOALS FOR THE CURRENT YEAR AND FUTURE YEARS

NAME JOHN

			7x9(R) 7÷9(F) 4x5	3÷5	3÷4	4÷9(R) 4x9 (F) 7÷5	3÷9(R) 3x9 (F) 5x6; 5x8	4÷9(R) 4x9 (F) 7÷5	4÷6or8(R) 6or8÷4(F) 3÷7(R) 7÷3(F)	Find pts. in IAAF tables
DATE or YEAR	AGE	EVENT	OC STANDARD	AGE STANDARD	AGE FACTOR	ACTUAL MARK	AGE-GRADED MARK	GOAL	PERF. LEVEL PCT	IAAF PTS.
1960	21	100	9.85		1.0000	11.6	11.60		84.9%	732
1979	40	"	"		.9435	12.07	11.39		86.5%	776
1984	45	"	"		.9217	12.31	11.35		86.8%	784
1989	50	"	"		.8987	12.85	11.55		85.3%	742
1990	51	-	"	11.02	.8940		11.35	12.70	86.8%	784
2009	70	-	"		.7832		"	14.49	"	784
1960	21	800	1:41.73		1.0000	2:02.4	2:02.40		83.1%	
1979	40	"	"		.9285	2:12.3	2:02.56		82.8%	
1984	45	"	"		.8985	2:09.7	1:56.53		87.3%	
1989	50	"	"		.8670	2:12.04	1:59.68		85.0%	
1990	51	"	"		.8602		1:56.53	2:15.47	87.3%	
2009	70	"	"		.7083		"	2:44.52	"	
1960	21	10K	26:55		1.0000	-	-	-	-	
1979	40	"	"		.9430	36:15	34:12		78.7%	
1984	45	"	"		.9125	34:21	31:20		85.9%	
1989	50	"	"		.8804	37:06	32:40		82.4%	
1990	51	"	"		.8735		31:20	35:52	85.9%	
2009	70	"	"		.7192		"	43:34	"	
1960	21	LJ	8.79		1.0000	7.10/23-3/4	7.10/23-3/4		80.8%	838
1979	40	"	"		1.1320	6.65/19-8	6.79/22-3/4		77.3%	764
1984	45	"	"		1.2010	5.80/19-0	6.96/22-10		79.2%	804
1989	50	"	"		1.2790	5.20/17-1/4	6.85/21-9/16		75.7%	732
1990	51	"	"		1.2959		7.10/23-3/4	5.48/17-11/16	80.5%	838
2009	70	"	"		1.6940		"	4.10/13-9	80.8%	838

R=running events; F=field events -54- x=multiply by ÷=divide by

IV. HOW TO USE THE HEAT SHEETS USING AGE FACTORS

The sample heat sheets of mythical competitions (pages 41-44) show how an age-graded meet or race works using age factors.

Factors work well when you want to score men and women separately, and when you want to compare performances in only one event (such as a road race).

In the 100 meter example, there are nine entrants -- six men and three women -- of all ages. List each sex separately, on one or more heat sheets, depending on the number of entrants. You can have one race for men and one for women; or combine everyone into one race.

Assign lanes (column 1), list the name (column 2), club or affiliation (column 3), and sex and age (column 4). Write the age factor for each runner (on page 21) in column 5.

Each person runs 100 meters. Their finishing times go in column 6. To determine the age-graded winner, multiply the age factor (column 5) by the actual time (column 6). Thus, Jack, M40, whose age factor is .9435, ran 12.07. Multiply .9435 x 12.07 = 11.39, his age-graded time, which you write in column 7. Do the same with the other men. Bill, M55, has an age-graded time of 10.73, the best. So he wins. List the places in column 8.

Do the same with the women. Jane, W35, has an age-graded time of 12.62, the best of the three women. So she wins.

As an additional piece of information (but not necessary to determining the winners), you may wish to find out the "performance-level percentage" of each runner. The higher the P.L.%, the better the performance. In Jack's case, divide the open-class (OC) men's standard (9.85) by his age-graded time (11.39) and get .865, or 86.5%. List that in column 9. The age-graded times and P.L. percentages are perfectly related, so the best age-graded time will always produce the best P.L. percentage.

Do the same for the women, except divide the women's OC standard (10.78) by their age-graded times. Jane's 85.4% is, therefore, 85.4% of the potential world-record level for her age.

Now, if you want to combine both men's and women's performance-level percentages to determine an overall winner, you can easily do so. Bill, with a 91.8%, is the overall best; Bob's 86.9% is second; Jack's 86.5% is third and Jane's 85.4% is fourth.

100, 200 and 400 (Handicap Start)

Whereas Steve Ferraz, M40, and Gail Scott, W40, were the overall male and female masters winners, the best age-graded time was turned in by Steve Lester, M45, with a 28:51. Gina Faust led the women with an age-graded time of 33:08.

- 12 -

OC std.
÷ col.7

[illegible]

800 and 1500 (Portsmouth Start)

Open Std. Men

[illegible]

MEET _____ DATE _____ RUNNING EVENT 100

Open-Class Standard (OC): 9.85
men

									OC std. col.7
1	2	3	4	5	6	7	8	9	10
LANE	NAME	AFFILIATION	AGE	HANDICAP (meters)	DISTANCE RUN	ACTUAL AND AGE- GRADED TIME	PLACE	PERF. LEVEL PCT.	OVER- ALL PLACE
1	BESS		W78	33.9	66.1	11.3	5	87.2	
2	TONY		M74	23.1	76.9	11.5	7	85.6	
3	BRUCE		M55	12.1	87.9	10.4	1	94.7	
4	KEN		M37	4.3	95.7	10.9	3	90.4	
5	BOB		M61	15.1	84.9	11.4	6	86.4	
6	IRENE		W53	19.3	80.7	10.5	2	93.8	
7	BEN		M25	0	100.0	11.0	4	89.5	

If you combine the men and women, Lester's 93.3% is the best, followed by Orlo Kenniston (M60, 90.5%), Ferraz (M40, 90.5%), and Faust (W50, 90.2%).

Note that it was simpler, in this example, to use the age-group factors, rather than the single-age factors. However, a computer program could easily do the single-age calculations, if exact ages were known.

V. HOW TO USE THE HEAT SHEETS USING AGE STANDARDS

The sample heat sheets of mythical competitions (pages 45-47) show how an age-graded meet or race works using age standards.

Standards work well when you want to score men and women together, or when you want to compare performances in several events (such as a track & field meet). But standards can also be used for single events, and to score men and women separately.

In the 100-meter example, there are the same nine entrants as in the age-factor example. For award purposes, you can separate the men and women, as with the factor example, or you can combine both sexes together. In this example, men and women are combined.

The heat sheet is essentially the same sheet as in the factor example, but a few column headings have been changed. Assign lanes (column 1), list the name (column 2), club or affiliation (column 3), and sex and age (column 4). Write the age standard for each runner (found in the yellow tables) in column 5.

Each person runs 100 meters. Their finishing times go in column 6. To determine the "performance-level percentage" winner, divide the age standard (column 5) by the actual time (column 6). Thus, Jack, M40, whose age standard is 10.44, ran 12.07. Divide 10.44 by 12.07 = .865, or 86.5% (column 7). Do the same with the others. Bill, 55, has a 91.8%, the best. So he wins. List the places in column 8.

As an additional piece of information (but not necessary to determine the winners), you may wish to find out the age-graded time of each runner -- what he/she would theoretically have run in their prime. In Jack's case, divide the men's open-class standard (9.85) by his performance level (86.5%) and get 11.39. List that in column 9. To get Mary's age-graded time, divide the open-class women's standard (10.78) by her performance level (84.0%) and get 12.83. The age-graded times and P.L. percentages are perfectly related, so the best age-graded time will always produce the best P.L. percentage.

Sample Completed Heat Sheet - Portsmouth Start
Meet _____ Date _____ Event 800 (PORTSMOUTH START)

OC STD 1:42 (102 sec.) REPORT OF HEAD JUDGE OF FINISH

Head Judge _____				Head Timer _____					
(Signed)				(Signed)					
1	2	3	4	5	6	7	8	9	10
Age	Time Std	TIME STD (SEC.)	NAME	AFFILIATION	HCP (sec.)	START DELAY	Total Time	Place	Actual Time
W60	2:27	147	JANE		45	100	3:15	7	3:15
M62	2:11	131	TIM		29	116	2:57	5	2:41
W39	2:02	122	MARY		20	125	3:07	6	2:42
W25	1:53	113	DEBBIE		11	134	2:50	3	2:16
M44	1:52	112	JOE		10	135	2:47	1	2:12
M35	1:46	106	MARK		4	139	2:56	4	2:17
M25	1:42	102	JOHN		0	145	2:49	2	2:04

In the short hurdle example, it works the same. Each hurdler can run his/her proper distance and height, and be compared to others of all ages and sexes. Thus, Philippa, 42, who runs 80 meters over 30" barriers, wins with an 87.4%. Larry, 33, who runs 110 meters over 39" obstacles, places 6th in 82.8%.

The field events work in reverse. You divide the athlete's best mark by his age standard. Thus, to get John's high jump percentage, divide his jump (1.83 meters) by the standard for age 37 (2.23 meters) and get 82.4%. If you want to get his age-graded leap, multiply the open-class standard 2.42) by his P.L. (82.1%) and get 1.99 meters (6'6").

Now, if you want to give a prize or recognition to the best performance of the meet (a four-event meet, in the example), you find the best percentage from all four events. Bill's 91.8% in the 100 is the best; second goes to Philippa's 87.4% in the hurdles; third best is George's 87.1% in the high jump.

Any meet can be handled the same way, no matter how big or small.

Use the same heat sheet for a road race or race walk as for the track running events. The calculations are exactly the same. Remember to convert all times into seconds.

Whereas Steve Ferraz, M40, and Gail Scott, W40, were the overall male and female masters winners, the best age-graded performance was turned in by Steve Lester, M45, with a 93.3%. Next was Orlo Kenniston (M60, 90.5%). Ferraz was third (90.5%); Gina Faust (W50, 90.2%) was fourth.

Again, as with the factor example, age-group standards, rather than single-age standards, were used. You may use whichever you prefer. The single-age standards/factors enable an athlete at the upper end of his/her age group to compete equally with one who has entered a new five-year age division. But using the age-group standards means you have less numbers to deal with.

As with the track running events, you can find each runner's age-graded time -- what he/she would theoretically run in their prime. In Lester's case, divide the open-class men's standard (26:55) by his P.L. (93.3%) and get 28:51. To get Faust's age-graded time, divide the open-class women's standard (29:53) by her P.L. (90.2%) and get 33:08.

DISTANCE RUN - MEN				MEN'S HANDICAP (meters)				DISTANCE RUN - WOMEN				WOMEN'S HANDICAP (meters)			
AGE	T=9.85	T=19.62	T=43.29	100 M	200 M	400 M		AGE	T=9.85	T=19.62	T=43.29	100 M	200 M	400 M	
OC	100.0	200.0	400.0	OC	0.0	0.0	0.0	OC	91.4	181.9	366.7	OC	8.6	18.1	33.3
30	98.5	196.8	394.0	30	1.5	3.2	6.0	30	89.9	178.7	360.7	30	10.1	21.3	39.3
31	98.1	195.7	391.8	31	1.9	4.3	8.2	31	89.5	177.7	358.6	31	10.5	22.3	41.4
32	97.7	194.7	389.6	32	2.3	5.3	10.4	32	89.1	176.7	356.4	32	10.9	23.3	43.6
33	97.3	193.6	387.3	33	2.7	6.4	12.7	33	88.7	175.7	354.3	33	11.3	24.3	45.7
34	96.9	192.6	385.1	34	3.1	7.4	14.9	34	88.3	174.7	352.1	34	11.7	25.3	47.9
35	96.5	191.5	382.9	35	3.5	8.5	17.1	35	87.9	173.7	349.9	35	12.1	26.3	50.1
36	96.1	190.5	380.6	36	3.9	9.5	19.4	36	87.6	172.7	347.7	36	12.4	27.3	52.3
37	95.7	189.5	378.4	37	4.3	10.5	21.6	37	87.2	171.7	345.5	37	12.8	28.3	54.5
38	95.3	188.4	376.1	38	4.7	11.6	23.9	38	86.8	170.7	343.2	38	13.2	29.3	56.8
39	94.8	187.4	373.9	39	5.2	12.6	26.1	39	86.4	169.7	341.0	39	13.6	30.3	59.0
40	94.4	186.3	371.6	40	5.6	13.7	28.4	40	86.0	168.7	338.8	40	14.0	31.3	61.2
41	94.0	185.3	369.3	41	6.0	14.7	30.7	41	85.6	167.6	336.6	41	14.4	32.4	63.4
42	93.6	184.2	367.0	42	6.4	15.8	33.0	42	85.2	166.6	334.3	42	14.8	33.4	65.7
43	93.2	183.1	364.7	43	6.8	16.9	35.3	43	84.8	165.6	332.1	43	15.2	34.4	67.9
44	92.7	182.1	362.3	44	7.3	17.9	37.7	44	84.4	164.6	329.8	44	15.6	35.4	70.2
45	92.3	181.0	360.0	45	7.7	19.0	40.0	45	84.0	163.5	327.5	45	16.0	36.5	72.5
46	91.9	179.9	357.7	46	8.1	20.1	42.3	46	83.6	162.5	325.3	46	16.4	37.5	74.7
47	91.5	178.9	355.4	47	8.5	21.1	44.6	47	83.2	161.5	323.0	47	16.8	38.5	77.0
48	91.1	177.8	353.0	48	8.9	22.2	47.0	48	82.8	160.4	320.7	48	17.2	39.6	79.3
49	90.6	176.7	350.6	49	9.4	23.3	49.4	49	82.4	159.4	318.4	49	17.6	40.6	81.6
50	90.2	175.6	348.3	50	9.8	24.4	51.7	50	82.0	158.3	316.0	50	18.0	41.7	84.0
51	89.8	174.5	345.9	51	10.2	25.5	54.1	51	81.6	157.3	313.7	51	18.4	42.7	86.3
52	89.3	173.4	343.5	52	10.7	26.6	56.5	52	81.1	156.2	311.4	52	18.9	43.8	88.6
53	88.8	172.2	341.1	53	11.2	27.8	58.9	53	80.7	155.1	309.1	53	19.3	44.9	90.9
54	88.4	171.1	338.7	54	11.6	28.9	61.3	54	80.3	154.0	306.7	54	19.7	46.0	93.3
55	87.9	170.0	336.3	55	12.1	30.0	63.7	55	79.8	152.9	304.3	55	20.2	47.1	95.7
56	87.4	168.8	333.9	56	12.6	31.2	66.1	56	79.3	151.8	302.0	56	20.7	48.2	98.0
57	87.0	167.7	331.5	57	13.0	32.3	68.5	57	78.9	150.7	299.6	57	21.1	49.3	100.4
58	86.5	166.5	329.0	58	13.5	33.5	71.0	58	78.4	149.6	297.2	58	21.6	50.4	102.8
59	86.0	165.3	326.6	59	14.0	34.7	73.4	59	77.9	148.4	294.8	59	22.1	51.6	105.2
60	85.4	164.1	324.1	60	14.6	35.9	75.9	60	77.4	147.3	292.3	60	22.6	52.7	107.7
61	84.9	162.9	321.6	61	15.1	37.1	78.4	61	76.9	146.1	289.9	61	23.1	53.9	110.1
62	84.4	161.7	319.1	62	15.6	38.3	80.9	62	76.4	144.9	287.4	62	23.6	55.1	112.6
63	83.8	160.4	316.6	63	16.2	39.6	83.4	63	75.8	143.7	284.9	63	24.2	56.3	115.1
64	83.3	159.2	314.0	64	16.7	40.8	86.0	64	75.3	142.5	282.4	64	24.7	57.5	117.6
65	82.7	157.9	311.4	65	17.3	42.1	88.6	65	74.7	141.2	279.9	65	25.3	58.8	120.1
66	82.1	156.6	308.9	66	17.9	43.4	91.1	66	74.2	140.0	277.3	66	25.8	60.0	122.7
67	81.5	155.3	306.3	67	18.5	44.7	93.7	67	73.6	138.7	274.8	67	26.4	61.3	125.2
68	80.9	153.9	303.6	68	19.1	46.1	96.4	68	73.0	137.4	272.2	68	27.0	62.6	127.8
69	80.3	152.6	301.0	69	19.7	47.4	99.0	69	72.4	136.1	269.6	69	27.6	63.9	130.4
70	79.6	151.2	298.3	70	20.4	48.8	101.7	70	71.7	134.8	266.9	70	28.3	65.2	133.1
71	79.0	149.8	295.6	71	21.0	50.2	104.4	71	71.1	133.4	264.2	71	28.9	66.6	135.8
72	78.3	148.4	292.9	72	21.7	51.6	107.1	72	70.5	132.0	261.5	72	29.5	68.0	138.5
73	77.7	147.0	290.1	73	22.3	53.0	109.9	73	69.8	130.6	258.8	73	30.2	69.4	141.2
74	76.9	145.5	287.4	74	23.1	54.5	112.6	74	69.1	129.2	256.0	74	30.9	70.8	144.0
75	76.2	144.0	284.5	75	23.8	56.0	115.5	75	68.4	127.7	253.2	75	31.6	72.3	146.8
76	75.5	142.5	281.7	76	24.5	57.5	118.3	76	67.6	126.2	250.4	76	32.4	73.8	149.6
77	74.7	140.9	278.8	77	25.3	59.1	121.2	77	66.9	124.7	247.6	77	33.1	75.3	152.4
78	73.9	139.3	275.9	78	26.1	60.7	124.1	78	66.1	123.1	244.7	78	33.9	76.9	155.3
79	73.0	137.7	272.9	79	27.0	62.3	127.1	79	65.2	121.5	241.7	79	34.8	78.5	158.3
80	72.2	136.0	269.9	80	27.8	64.0	130.1	80	64.4	119.9	238.7	80	35.6	80.1	161.3
81	71.3	134.3	266.9	81	28.7	65.7	133.1	81	63.5	118.2	235.6	81	36.5	81.8	164.4
82	70.4	132.6	263.8	82	29.6	67.4	136.2	82	62.7	116.5	232.6	82	37.3	83.5	167.4
83	69.5	130.9	260.7	83	30.5	69.1	139.3	83	61.7	114.8	229.4	83	38.3	85.2	170.6
84	68.5	129.0	257.5	84	31.5	71.0	142.5	84	60.8	113.0	226.2	84	39.2	87.0	173.8
85	67.5	127.2	254.3	85	32.5	72.8	145.7	85	59.8	111.1	223.0	85	40.2	88.9	177.0
86	66.5	125.3	251.1	86	33.5	74.7	148.9	86	58.8	109.2	219.6	86	41.2	90.8	180.4
87	65.5	123.4	247.8	87	34.5	76.6	152.2	87	57.7	107.3	216.3	87	42.3	92.7	183.7
88	64.4	121.4	244.4	88	35.6	78.6	155.6	88	56.6	105.3	212.9	88	43.4	94.7	187.1
89	63.3	119.4	241.1	89	36.7	80.6	158.9	89	55.5	103.3	209.4	89	44.5	96.7	190.6
90	62.2	117.4	237.6	90	37.8	82.6	162.4	90	54.4	101.3	205.9	90	45.6	98.7	194.1

MEET _____ DATE _____ RUNNING
EVENT _____

Open-Class Standard (OC):

		men		women		col. 5 ÷ col. 6		OC std. ÷ col. 7
1	2	3	4	5	6	7	8	9
LANE	NAME	AFFILIATION	AGE	TIME STANDARD	ACTUAL TIME	PERF. LEVEL PCT.	PLACE	AGE- GRADED TIME

VI. HOW TO CONDUCT MEETS AND RACES USING TIME AND DISTANCE HANDICAPS

An age-graded meet, road race, or race walk can be made even more exciting by using distance handicaps in the 100, 200 and 400; and/or time handicaps in races from 800 up. (The hurdles and field events do not easily lend themselves to these variations.)

Example: As in the sample 100-meter heat sheet (page 52), list the sex and age in column 4. (You can easily run men and women together, or you can split them up, as you choose.) It is not necessary to list an age factor.

Refer to the "Handicap Racing" tables (page 51). Find the "handicapped start" in meters for each runner and write it in column 5. (For information purposes, you may also list the actual distance to be run in column 6).

Ben, 25, starts from "scratch" and runs the full 100 meters. Bob, 61, gets a 15.1-meter handicap and runs 84.9 meters. Bess, 78, gets a 33.9-meter head start, and runs 66.1 meters. The first one to the finish line wins.

Although it's not necessary, you can determine a performance-level percentage by dividing the men's open-class standard (OC) by the actual time. Heats and semifinals can be run, if necessary.

The 200 and 400 work the same way. It's not difficult to get the starting points on the track by using a measuring tape and/or the existing line marks on the track. (For specific helpful hints, contact the National Masters News).

* * * * *

For races of 800 meters or more, a time handicap, or Portsmouth Start, may be used. The oldest runner generally starts first, followed seconds later by the next oldest and down to the youngest. Each participant runs the full distance. As always, men and women can run together.

Example: As in the sample 800-meter sheet (page 52);

- 1) List the ages (column 1) and names (column 4).
- 2) List the time standard (from page 31) in column 2.
- 3) Convert the time standard to seconds in column 3.
- 4) Determine and list the time handicap (in seconds) for each runner (in column 6) by subtracting the men's open-class (OC) time standard from each runner's time standard. (e.g. Tim's time standard is 131 seconds. The OC standard is 102 seconds. Thus, 131 - 102 = 29 seconds. Write 29 in column 6.)

MEET _____ DATE _____ FIELD
EVENT _____

Open-Class Standard (OC):

Open-Class Standard (OC):										col. 6 ÷ col. 5		col. 7 × OC	
		men		women									
1	2	3	4	5					6	7	8	9	
WT.	NAME	CLUB	AGE	DIST. STD.	1	2	3	4	ACTUAL MARK	PERF. LEVEL PCT.	PL.	AGE- GRADED MARK	

- 5) In column 7, list the "start delay." Jane, with a 45-second handicap, will start first. Tim, with a 29-second handicap, will start next -- 16 seconds after Jane. And so on down to John, 25, who starts 45 seconds after Jane.
- 6) Assemble the runners at the starting line in a column with Jane, 60, first in line; Tim, 62, second in line; Mary, 39, third in line, etc.
- 7) Simultaneously, the starter fires his gun, the timers start their watches, and Jane begins to run.
- 8) The waiting line of runners moves up as the timer calls the elapsed time. When 16 seconds is called, Tim, the 62-year-old man now at the head of the line, starts. The line again moves up and, at 25 seconds, Mary starts. And so on.
- 9) The first runner to the finish line is the winner. Each runner is timed as he/she crosses the finish line.
- 10) Write the total time (from the timer's watch) in column 8 for each runner.
- 11) Write the place, based on total time, in column 9.
- 12) Individual runners want to know what their actual time was, so subtract the runner's start-delay from their total time and write it in column 10. Thus, Mary, with a total time of 3:07 less a 25-second start-delay, actually ran the distance in 2:42.

If you want to get a performance percentage for each runner, divide column 2 (the time standard) by column 10 (the actual time). (Note: the performance percentage rankings may not always correspond to the actual placings. To help minimize this aberation, increase the start-delay by dividing the handicap (column 6) by the general class of the field. If it's a world-class field, divide column 6 by 95%; if a national class field, by 85%, etc. This is admittedly a complicated area, but the adjustment does make the final placings more accurate. For further info, contact NMN.)

Open-Class Standard (OC):

		men	women			col. 5 x col. 6		
1	2	3	4	5	6	7	8	9
LANE	NAME	AFFILIATION	AGE	AGE FACTOR	ACTUAL TIME	AGE- GRADED TIME	PLACE	IAAF POINTS

**RUNNING
EVENT**

women

OC std.
÷ col.7

TO KEEP TRACK OF YOUR OWN PERSONAL PROGRESS

By using the age-graded tables, you can keep track of your progress over the years, set goals for the current year and future years, compare your performances in different events, chart your current progress, and estimate your performances in new events.

On pages 54 through 57 are sample "personal performance charts" which you can use as a guide to charting your own progress.

For simplicity, in all the examples we've used a mythical athlete named John who turns 51 in 1990.

Chart 1: Keep Track of Your Progress Over the Years and Set Goals for the Current Year and Future Years

John's progress is charted in four representative events -- 100, 800, 10K, and long jump -- at six arbitrary points in his athletic career:

- 1) In 1960, as a 21-year-old college senior
- 2) In 1979, at age 40
- 3) In 1984, at age 45
- 4) In 1989, at age 50
- 5) In 1990, at age 51
- 6) In 2009, at age 70

Starting from the left, list the year, age, event and open-class standard (OC). You may list the age standard in column 4, but it's not necessary.

In column 5, list the age factor for each age (from the pink tables), just as in the age-factor examples, explained earlier.

In column 6, list the actual mark. Multiply column 5 x column 6 to get the age-graded mark (column 7). Divide the OC standard (column 3) by the age-graded mark (column 7) to get the performance-level percentage (column 9).

At age 21, John ran the 100 in 11.6. Multiply 11.6 by his age-21 factor (1.0000) and get his age-graded time, 11.60. Divide the OC (9.85) by 11.60 and get 84.9% -- his P.L.%.

At age 40, John ran the 100 in 12.07. Multiply 12.07 by his age-40 factor (.9435) and get an age-graded time of 11.39 and a P.L. of 86.5%. So even though John has slowed in 19 years from 11.6 to 12.07, he's actually running faster for his age than he did in college (11.60 to 11.39).

At age 45, John runs the 100 in 12.31, which gives him an age-graded time of 11.35, the best of his career. His P.L. is a comparable 86.8%.

FIELD
EVENT

women

col.7
÷ OC

At age 50, John runs 12.85, for an age-graded time of 11.55, his slowest since he was 21.

So he decides that when he turns 51, he wants to run as fast, on an age-graded basis, as he did at his best -- when he was 45. So he has to run an age-graded time of 11.35, or a P.L. of 86.8%).

What time does he have to run at age 51 to achieve an age-graded time of 11.35 (P.L. 86.8%).

Easy. Just divide the desired age-graded time (11.35 in column 7) by the age-51 factor (.8940 in column 5) and get 12.70 (column 8). So he has to run 12.70 at age 51 to equal his age-graded best of 11.35 at age 45.

How about when he turns 70? Divide 11.35 by .7832 = 14.49. So if John stays healthy and continues to train, he should be able to run 14.49 when he turns 70.

So, now he knows that he's the equivalent of an 11.35 open-class sprinter, or a 14.49 age-70 sprinter. He can scan the results pages and see how he stacks up against people in other age divisions. If he sees a 70-year-old in the next meet running, say, 14.40, he may develop new respect for the oldster.

The formulas at the top of each column show the mathematical relationship of each of the categories, and enable you to experiment with the equations. (Note: due to rounding, there may occasionally be a fractional difference in mathematically identical figures).

For example, to find John's goal (column 8) at age 51 in the 100, you can also divide his age standard (11.02 in column 4) by his desired P.L. (86.8% in column 9). You get 12.70, the same time as when you divided column 7 by column 5.

All the other running events work the same way. For the field events, note that some of the formulas require multiplication instead of division -- the same as in our previous examples. R=running events; F=field events.

In the 10K example, assume John didn't run the distance until he was age 40, when he ran 36:15 -- an age-graded 34:12. He did his best at age 45 when he ran 34:21 -- an age-graded 31:20 and a P.L. of 85.9%. That means that if he had run a 10K in his prime, he likely would have run about 31:20.

To run an age-graded 31:20 at age 51, divide 31:20 by the age-51 factor for 10K (.8735 in column 5) and get 35:52 (column 8). So he has to run 35:52 at age 51 to equal his age-graded best of 31:20 at age 45.

MEET		DATE		RUNNING EVENT 10K				
Open-Class Standard (OC):		26:55	29:53					
		men	women					
1	2	3	4	5	6	col. 5 ÷ col. 6	8	OC std. ÷ col. 7
LANE	NAME	AFFILIATION	AGE	TIME STANDARD	ACTUAL TIME	PERF. LEVEL PCT.	PLACE	AGE- GRADED TIME
	STEVE FERRAZ		M40	28:33	31:33	90.5	3	29:45
	STEVE LESTER		M45	29:30	31:38	93.3	1	28:51
	BILL JOHNSTON		M50	30:34	33:59	89.9	5	29:56
	PATRICK DEVINE		M55	31:53	37:45	84.4	11	31:54
	ORLO KENNISTON		M60	33:29	37:00	90.5	2	29:45
	MAC OSBORN		M70	37:25	43:28	86.1	7	31:16
	BILL BROBOSTON		M75	39:50	46:36	85.5	9	31:29
	CHET CRABB		M80	42:36	58:25	72.9	14	36:55
	PAUL SPANGLER		M85	45:49	65:52	69.6	15	38:40
	GAIL SCOTT		W40	31:53	37:30	85.0	10	35:09
	CHRIS TATTERSALL		W45	33:04	38:03	86.9	6	34:23
	GINA FAUST		W50	34:25	38:10	90.2	4	33:08
	HELEN DICK		W60	38:06	44:20	85.9	8	34:47
	GERRY DAVIDSON		W65	40:28	51:00	79.3	12	37:41
	JUDY SIMON		W70	43:14	55:48	77.5	13	38:34
	MARY AMES		W80	50:13	81:16	61.8	16	48:21

MEET _____ DATE _____

RUNNING
EVENT SHORT HURDLES

Open-Class Standard (OC): 12.90 12.25
men women

1	2	3			4	5	6	col. 5 ÷ col. 6	8	col. 7 ÷ col. 8
LANE	NAME	CLUB	DIST.	HT	AGE	TIME STANDARD	ACTUAL TIME	PERF. LEVEL PCT.	PLACE	AGE- GRADED TIME
1	ROGER		110	42"	M25	12.90	14.95	86.3	3	14.95
2	LARRY		110	39"	M33	13.15	15.89	82.8	7	15.58
3	DON		110	39"	M40	13.71	16.25	84.4	6	15.28
4	MIKE		100	36"	M57	14.68	17.03	86.2	4	14.97
5	HARRY		100	33"	M65	15.89	18.37	86.5	2	14.91
6	JIM		80	30"	M76	14.10	16.62	84.8	5	15.21
7	PHILIPPA		80	30"	W42	10.78	12.33	87.4	1	14.01
8	MARTHA		80	30"	W54	12.00	15.46	77.6	8	15.78

For yet another piece of information, column 10 allows you to fill in the respective IAAF points. You find these in the 1985 IAAF scoring tables. The IAAF tables are designed for multi-event competition, and only assign points to certain events. But for those events, it's interesting information. You can buy the IAAF scoring tables from the National Masters News, Track and Field News, TAC, the IAAF, or other sources.

Chart 2: Compare Your Performances in Different Events

Which are your best events? Looking at John's best marks in his best year -- at age 45 -- scan column 9 and see he scored 86.8% in the 100, 87.3% in the 800, 85.9% in the 10K, and 79.2% in the long jump. So his 800 performance was best.

Caution: the P.L. percentages in the field events -- particularly in the throwing events -- may be generally lower than in the running events. This is due to the technical difficulty of the throwing events, as mentioned earlier. Thus, a P.L. of 86% in the 100 may not necessarily be better than an 85% in the javelin. But you can generally compare the same family of events with great accuracy, such as the 100, 200 and 400; the 800, 1500 and mile; the long jump and triple jump; the shot and discus; etc.

MEET _____ DATE _____

FIELD
EVENT SHOT PUT

Open-Class Standard (OC): 20.40 19.58
men women

1	2	3	4	5					6	col. 6 ÷ col. 5	8	col. 7 × OC
WT.	NAME	CLUB	AGE	DIST. STD.	1	2	3	4	ACTUAL MARK	PERF. LEVEL PCT.	PL.	AGE- GRADED MARK
16#	BOB		M42	17.73					12.96/42.6	73.1	5	14.91/48.11
6K5	PHIL		M53	17.15					13.24/43.5	77.2	4	15.75/51.8
3K5	DAVE		M67	14.43					12.03/39.5	83.4	2	17.01/55.91
4K5	DOC		M72	14.19					12.24/40.2	86.3	1	17.60/57.9
4K6	HERB		M85	9.95					7.17/23.6	72.1	6	14.71/48.3
4K6	JOAN		W38	17.35					10.36/34.0	59.7	7	11.69/38.4
3K6	LINDA		W55	14.40					7.72/25.4	53.6	8	10.50/34.5
3K6	BERNICE		W64	11.90					9.42/30.11	79.1	3	15.49/50.10

Chart 3: Chart Your Progress in the Current Year

Assume John's goal at age 51 is 2:15.47 in the 800 (from chart 1). List that in the first line in column 8. On May 15, in a time trial, he runs 2:25.10. That's an age-graded time of 2:04.82 (his goal is an age-graded 1:56.53) and a P.L. of 81.5% (his goal is 87.3%).

On June 10, he races to a 2:22.25, or 83.1%. On July 1, he clocks 2:20.14 -- 84.4%. On July 22, he runs 2:17.50, 86.0%. And on August 2, he reaches his goal with a 2:15.46 -- 87.3%.

Chart 4: Chart Your Workout Progress in the Current Year

Assume John does interval workouts starting in February. On February 15, he does 4 x 200 at an average of 40 seconds each. That's a P.L. of 56.5%. On March 3, he runs 3 x 400 at an average of 90 -- a P.L. of 57.1%. He progresses during the year until, on June 29, he runs 3 x 400 at an average of 68 seconds -- a P.L. of 75.6%.

Assume he trains for longer distances. He runs a mile on February 22 in 8:00 -- a 54.5%. On March 10, he clocks 26:00 for 5K -- 57.1%. He progresses to July 5, when he runs the 5K in 20:00 -- 74.1%.

Chart 5: Estimate Your Performance in New Events

Assume John runs the 100 in 12.70 at age 51, which gives him a P.L. of 86.8%. What should he run the 200, 400 and 800 to give him the same P.L. percentage?

List all the data in columns 3, 4, 5 and 9 for each event. To find the goal (column 8) for the 200, divide the age-51 200 standard (22.60 in column 4) by the desired P.L. (86.8% in column 9) and get 26.04 seconds (column 8). So John's goal at age 51 is to run the 200 in 26.04 -- the equivalent of a 100 in 12.70.

Do the same for the 400, assuming John puts in a bit of distance training. Do the same for any event, but that assumes specific training for each separate event.

The most realistic way of estimating your performance in new events is to stay in the same family of events. Thus, if John runs the 1500 in 4:53.06 (82.7%), he should expect to run the mile in 5:16.21 and the 5000 in 17:56.

Similarly, if he throws the shot 14.17 (46'6", or 80.6%), he should expect to throw the discus 49.16 (161'3"), the hammer 51.37 (168'6"), and the javelin 52.14 (171'0").

If he can walk a mile in 7:58.50 (81.4%), he should walk the 5K in 26:04 and the 20K in 1:48:12.

If you'd like a personalized performance progress chart prepared for you, send your marks for up to five years and two events along with \$10 to National Masters News, P.O. Box 2372, Van Nuys CA 91404. For 10 years and two events, send \$20; for 5 years and 4 events, send \$20; for 10 years and 4 events, send \$40, etc. Your personalized chart will be sent to you within two weeks.

MEET _____ DATE _____ RUNNING EVENT 100

Open-Class Standard (OC): 9.85 10.78
men women

1	2	3	4	5	6	col. 5 ÷ col. 6	8	OC ÷ col. 7
LANE	NAME	AFFILIATION	AGE	TIME STANDARD	ACTUAL TIME	PERF. LEVEL PCT.	PLACE	AGE- GRADED TIME
1	JACK		M40	10.44	12.07	86.5	3	11.39
2	DICK		M32	10.08	13.91	72.5	9	13.59
3	BOB		M41	10.49	12.07	86.9	2	11.34
4	BILL		M55	11.27	12.26	91.8	1	10.73
5	DAVID		M27	9.85	11.90	82.8	7	11.90
6	TOM		M66	12.16	15.00	81.1	8	12.15
7	MARY		W77	15.37	18.30	84.0	6	12.83
8	JANE		W35	11.22	13.13	85.5	5	12.61
9	LAURIE		W21	10.78	12.64	85.3	4	12.64

MEET _____ DATE _____ FIELD EVENT HIGH JUMP

Open-Class Standard (OC): 2.42 2.09
men women

1	2	3	4	5					6	col. 6 ÷ col. 5	8	OC x col. 7
WT.	NAME	CLUB	AGE	DIST. STD.	1	2	3	4	ACTUAL MARK	PERF. LEVEL PCT.	PL.	AGE-GRADED MARK
	TED		M62	1.71					1.42/4-8	83.0	3	2.01/6-7
	JOHN		M37	2.23					1.83/6-0	82.1	4	1.99/5-6
	CHUCK		M72	1.51					1.26/4-14	83.4	2	2.01/6-7
	PETE		M65	1.65					1.32/4-4	80.0	7	1.94/6-4
	GEORGE		M40	2.17					1.89/6-2	87.1	1	2.11/6-11
	DAPHNE		W40	1.83					1.37/4-6	74.9	8	1.57/5-2
	EDITH		W75	1.15					.94/3-1	81.7	5	1.71/5-7
	SUSAN		W24	2.09					1.68/5-6	80.4	6	1.68/5-6

MEET _____ DATE _____ MULTI-EVENT DECATHLON/HEPTATHLON

Open-Class Standard (OC):

		men	women			col. 5 x col. 6		
1	2	3	4	5	6	7	8	9
LANE	NAME	AFFILIATION	AGE	AGE FACTOR	ACTUAL TIME	AGE-GRADED TIME	PLACE	IAAF POINTS
MEN'S 400								
1	BARRY		M45	.8839	58.12	51.37	3	753
2	JOE		M45	.8839	57.27	50.62	2	786
3	GARY		M45	.8839	56.16	49.64	1	831
4	STAN		M45	.8839	59.07	52.21	4	716
WOMEN'S 200								
1	MARILYN		W40	.9238	27.51	25.41	2	850
2	PHILIPPA		W40	.9238	26.60	24.57	1	927
3	MARY		W40	.9238	28.15	26.00	3	797
4	KELLY		W40	.9238	29.64	27.38	4	681

MEN'S TRACK RUNNING EVENT AGE-FACTORS

AGE	100 M	200 M	400 M	800 M	1500 M	1 MILE	3000 M	5000 M
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.9850	0.9839	0.9829	0.9850	0.9894	0.9900	0.9950	1.0000
31	0.9809	0.9787	0.9766	0.9796	0.9840	0.9846	0.9901	0.9946
32	0.9769	0.9735	0.9702	0.9742	0.9786	0.9792	0.9851	0.9892
33	0.9728	0.9683	0.9638	0.9687	0.9731	0.9737	0.9799	0.9837
34	0.9686	0.9630	0.9574	0.9631	0.9675	0.9681	0.9746	0.9781
35	0.9645	0.9577	0.9509	0.9575	0.9619	0.9625	0.9691	0.9724
36	0.9604	0.9524	0.9444	0.9518	0.9561	0.9567	0.9633	0.9666
37	0.9562	0.9470	0.9378	0.9460	0.9503	0.9509	0.9575	0.9608
38	0.9520	0.9416	0.9312	0.9402	0.9445	0.9451	0.9516	0.9549
39	0.9478	0.9362	0.9246	0.9344	0.9386	0.9392	0.9457	0.9490
40	0.9435	0.9307	0.9179	0.9285	0.9327	0.9333	0.9397	0.9430
41	0.9392	0.9252	0.9112	0.9226	0.9268	0.9274	0.9338	0.9370
42	0.9349	0.9197	0.9044	0.9167	0.9209	0.9214	0.9277	0.9310
43	0.9306	0.9141	0.8976	0.9107	0.9148	0.9154	0.9217	0.9249
44	0.9262	0.9085	0.8908	0.9046	0.9088	0.9093	0.9155	0.9187
45	0.9217	0.9028	0.8839	0.8985	0.9026	0.9031	0.9093	0.9125
46	0.9172	0.8971	0.8770	0.8926	0.8966	0.8971	0.9033	0.9064
47	0.9127	0.8914	0.8700	0.8865	0.8905	0.8910	0.8971	0.9002
48	0.9081	0.8856	0.8630	0.8801	0.8841	0.8846	0.8907	0.8938
49	0.9034	0.8797	0.8560	0.8737	0.8776	0.8781	0.8841	0.8872
50	0.8987	0.8738	0.8489	0.8670	0.8709	0.8714	0.8774	0.8804
51	0.8940	0.8679	0.8418	0.8602	0.8641	0.8646	0.8705	0.8735
52	0.8891	0.8619	0.8346	0.8532	0.8571	0.8576	0.8634	0.8664
53	0.8842	0.8558	0.8274	0.8460	0.8499	0.8504	0.8562	0.8591
54	0.8791	0.8496	0.8201	0.8387	0.8425	0.8430	0.8488	0.8517
55	0.8740	0.8434	0.8128	0.8312	0.8350	0.8355	0.8412	0.8441
56	0.8689	0.8372	0.8055	0.8234	0.8271	0.8276	0.8333	0.8362
57	0.8636	0.8308	0.7981	0.8155	0.8192	0.8197	0.8254	0.8282
58	0.8582	0.8244	0.7906	0.8076	0.8112	0.8117	0.8173	0.8201
59	0.8527	0.8179	0.7831	0.7996	0.8032	0.8037	0.8092	0.8120
60	0.8470	0.8113	0.7756	0.7915	0.7951	0.7956	0.8011	0.8038
61	0.8413	0.8047	0.7680	0.7834	0.7870	0.7875	0.7929	0.7956
62	0.8355	0.7980	0.7604	0.7753	0.7788	0.7793	0.7847	0.7874
63	0.8295	0.7911	0.7527	0.7671	0.7705	0.7711	0.7764	0.7790
64	0.8233	0.7842	0.7450	0.7588	0.7623	0.7628	0.7680	0.7706
65	0.8170	0.7771	0.7372	0.7505	0.7539	0.7544	0.7596	0.7622
66	0.8106	0.7700	0.7294	0.7421	0.7455	0.7460	0.7511	0.7537
67	0.8041	0.7628	0.7215	0.7337	0.7371	0.7375	0.7426	0.7451
68	0.7973	0.7554	0.7136	0.7253	0.7286	0.7290	0.7340	0.7365
69	0.7903	0.7479	0.7056	0.7168	0.7200	0.7205	0.7254	0.7279
70	0.7832	0.7403	0.6975	0.7083	0.7115	0.7119	0.7168	0.7192
71	0.7760	0.7327	0.6894	0.6998	0.7029	0.7033	0.7082	0.7106
72	0.7686	0.7249	0.6813	0.6913	0.6943	0.6947	0.6995	0.7019
73	0.7609	0.7169	0.6731	0.6827	0.6857	0.6861	0.6908	0.6932
74	0.7530	0.7088	0.6648	0.6741	0.6771	0.6775	0.6821	0.6844
75	0.7449	0.7006	0.6564	0.6655	0.6684	0.6688	0.6734	0.6757
76	0.7367	0.6923	0.6480	0.6569	0.6598	0.6602	0.6647	0.6670
77	0.7283	0.6839	0.6396	0.6483	0.6511	0.6515	0.6560	0.6582
78	0.7196	0.6753	0.6311	0.6396	0.6424	0.6429	0.6473	0.6495
79	0.7107	0.6665	0.6225	0.6309	0.6337	0.6341	0.6385	0.6406
80	0.7015	0.6576	0.6138	0.6222	0.6250	0.6254	0.6297	0.6318
81	0.6923	0.6486	0.6051	0.6135	0.6163	0.6166	0.6209	0.6230
82	0.6828	0.6394	0.5962	0.6048	0.6075	0.6079	0.6120	0.6141
83	0.6729	0.6301	0.5874	0.5960	0.5987	0.5991	0.6032	0.6052
84	0.6628	0.6206	0.5785	0.5873	0.5899	0.5902	0.5943	0.5963
85	0.6525	0.6110	0.5696	0.5785	0.5811	0.5814	0.5854	0.5874
86	0.6419	0.6012	0.5607	0.5697	0.5723	0.5726	0.5765	0.5785
87	0.6311	0.5914	0.5517	0.5609	0.5634	0.5637	0.5676	0.5695
88	0.6201	0.5814	0.5427	0.5521	0.5546	0.5549	0.5587	0.5606
89	0.6089	0.5713	0.5337	0.5433	0.5457	0.5460	0.5498	0.5516
90	0.5975	0.5611	0.5247	0.5345	0.5369	0.5372	0.5409	0.5427

WOMEN'S TRACK RUNNING EVENT AGE-FACTORS

AGE	100 M	200 M	400 M	800 M	1500 M	1 MILE	3000 M	5000 M
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.9835	0.9823	0.9812	0.9835	0.9883	0.9890	0.9945	1.0000
31	0.9791	0.9766	0.9743	0.9776	0.9824	0.9831	0.9891	0.9941
32	0.9746	0.9709	0.9673	0.9716	0.9765	0.9771	0.9836	0.9881
33	0.9701	0.9651	0.9602	0.9655	0.9704	0.9710	0.9779	0.9820
34	0.9656	0.9593	0.9531	0.9594	0.9643	0.9649	0.9720	0.9758
35	0.9610	0.9535	0.9460	0.9532	0.9581	0.9587	0.9660	0.9696
36	0.9565	0.9476	0.9388	0.9469	0.9518	0.9524	0.9596	0.9633
37	0.9519	0.9418	0.9316	0.9406	0.9454	0.9460	0.9532	0.9568
38	0.9473	0.9358	0.9244	0.9342	0.9390	0.9396	0.9468	0.9504
39	0.9426	0.9298	0.9171	0.9278	0.9325	0.9331	0.9403	0.9439
40	0.9379	0.9238	0.9097	0.9213	0.9260	0.9266	0.9337	0.9373
41	0.9332	0.9178	0.9023	0.9148	0.9195	0.9201	0.9271	0.9307
42	0.9284	0.9117	0.8949	0.9083	0.9130	0.9135	0.9205	0.9241
43	0.9236	0.9055	0.8874	0.9017	0.9064	0.9069	0.9138	0.9174
44	0.9188	0.8993	0.8799	0.8950	0.8997	0.9002	0.9070	0.9106
45	0.9139	0.8931	0.8723	0.8883	0.8929	0.8934	0.9002	0.9037
46	0.9091	0.8869	0.8647	0.8818	0.8863	0.8868	0.8936	0.8970
47	0.9042	0.8805	0.8571	0.8751	0.8795	0.8800	0.8868	0.8902
48	0.8992	0.8742	0.8494	0.8682	0.8726	0.8731	0.8797	0.8831
49	0.8941	0.8677	0.8416	0.8610	0.8654	0.8659	0.8725	0.8759
50	0.8889	0.8612	0.8338	0.8537	0.8580	0.8585	0.8651	0.8684
51	0.8836	0.8547	0.8260	0.8462	0.8505	0.8510	0.8575	0.8608
52	0.8782	0.8480	0.8181	0.8385	0.8428	0.8433	0.8498	0.8530
53	0.8727	0.8413	0.8101	0.8306	0.8349	0.8354	0.8418	0.8450
54	0.8671	0.8346	0.8021	0.8226	0.8268	0.8273	0.8336	0.8369
55	0.8614	0.8277	0.7941	0.8143	0.8185	0.8190	0.8253	0.8285
56	0.8557	0.8208	0.7861	0.8057	0.8099	0.8104	0.8166	0.8198
57	0.8499	0.8139	0.7779	0.7970	0.8011	0.8017	0.8079	0.8110
58	0.8440	0.8068	0.7698	0.7883	0.7924	0.7929	0.7991	0.8021
59	0.8379	0.7997	0.7615	0.7795	0.7835	0.7841	0.7902	0.7932
60	0.8317	0.7924	0.7532	0.7706	0.7746	0.7752	0.7812	0.7842
61	0.8255	0.7851	0.7449	0.7617	0.7657	0.7663	0.7722	0.7752
62	0.8190	0.7778	0.7365	0.7528	0.7567	0.7572	0.7631	0.7661
63	0.8124	0.7702	0.7280	0.7437	0.7476	0.7482	0.7540	0.7569
64	0.8057	0.7626	0.7195	0.7346	0.7385	0.7390	0.7448	0.7477
65	0.7997	0.7548	0.7109	0.7255	0.7293	0.7298	0.7355	0.7384
66	0.7917	0.7470	0.7023	0.7163	0.7200	0.7205	0.7262	0.7290
67	0.7845	0.7390	0.6936	0.7071	0.7107	0.7112	0.7168	0.7196
68	0.7770	0.7309	0.6849	0.6978	0.7014	0.7019	0.7074	0.7101
69	0.7694	0.7227	0.6761	0.6885	0.6920	0.6925	0.6980	0.7006
70	0.7615	0.7143	0.6672	0.6791	0.6826	0.6831	0.6885	0.6911
71	0.7536	0.7059	0.6583	0.6698	0.6732	0.6737	0.6790	0.6816
72	0.7454	0.6974	0.6494	0.6604	0.6637	0.6642	0.6694	0.6721
73	0.7370	0.6886	0.6403	0.6509	0.6542	0.6547	0.6599	0.6625
74	0.7283	0.6798	0.6312	0.6415	0.6447	0.6452	0.6503	0.6529
75	0.7194	0.6707	0.6220	0.6320	0.6352	0.6357	0.6407	0.6433
76	0.7105	0.6616	0.6129	0.6226	0.6257	0.6262	0.6312	0.6337
77	0.7012	0.6524	0.6036	0.6131	0.6162	0.6167	0.6217	0.6241
78	0.6916	0.6429	0.5943	0.6035	0.6067	0.6071	0.6120	0.6144
79	0.6818	0.6332	0.5848	0.5940	0.5971	0.5975	0.6024	0.6047
80	0.6717	0.6234	0.5752	0.5844	0.5875	0.5879	0.5927	0.5950
81	0.6616	0.6135	0.5654	0.5748	0.5779	0.5783	0.5830	0.5853
82	0.6511	0.6034	0.5555	0.5653	0.5683	0.5688	0.5732	0.5755
83	0.6402	0.5932	0.5457	0.5556	0.5586	0.5589	0.5635	0.5657
84	0.6291	0.5827	0.5358	0.5460	0.5489	0.5492	0.5537	0.5559
85	0.6177	0.5721	0.5260	0.5363	0.5392	0.5395	0.5439	0.5461
86	0.6060	0.5613	0.5162	0.5266	0.5295	0.5298	0.5341	0.5363
87	0.5941	0.5505	0.5064	0.5169	0.5197	0.5200	0.5243	0.5264
88	0.5820	0.5395	0.4966	0.5072	0.5100	0.5103	0.5145	0.5166
89	0.5697	0.5284	0.4869	0.4976	0.5003	0.5006	0.5047	0.5068
90	0.5572	0.5172	0.4772	0.4879	0.4906	0.4909	0.4950	0.4970

MEN'S HURDLES AND STEEPLECHASE AGE-FACTORS WOMEN'S HURDLES AND STEEPLECHASE

AGE 110 H 100 H 80 H 400 H 300 H 3000 SC 2000 SC

	1.067m/42"		.914m/36"	
OC	1.0000		1.0000 1.3990 1.0000	
30	.991m/39"			
31	0.9923		0.9812 1.3740 0.9841	
32	0.9890		0.9744 1.3647 0.9793	
33	0.9852		0.9675 1.3552 0.9743	
34	0.9811		0.9606 1.3456 0.9690	
35	0.9764		0.9535 1.3359 0.9635	
36			0.9464 1.3260 0.9577	
37			0.9394 1.3162 0.9519	
38			0.9322 1.3063 0.9458	
39			0.9249 1.2960 0.9394	
40			0.9174 1.2856 0.9326	
41	0.9401		0.9098 1.2750 0.9256	
42	0.9328		0.9020 1.2642 0.9183	
43	0.9251		0.8941 1.2532 0.9107	
44	0.9171		0.8861 1.2419 0.9029	
45	0.9088		0.8779 1.2306 0.8947	
46			0.8696 1.2190 0.8863	
47			0.8612 1.2073 0.8775	
48			0.8526 1.1954 0.8685	
49			0.8440 1.1833 0.8594	
50			0.8353 1.1712 0.8501	
51	0.8681 0.9583		0.8442 1.1600 0.8406	
52	0.8574 0.9465		0.8357 1.1480 0.8310	
53	0.8468 0.9348		0.8273 1.1365 0.8212	
54	0.8364 0.9233		0.8189 1.1253 0.8113	
55	0.8261 0.9120		0.8107 1.1144 0.8013	
56			0.8025 1.1040 0.7911	
57			0.7944 1.0945 0.7808	
58			0.7864 1.0851 0.7705	
59			0.7785 1.0757 0.7600	
60			0.7707 1.0663 0.7494	
61			0.7624 1.0570 0.7441	
62			0.7548 1.0482 0.7368	
63			0.7473 1.0393 0.7293	
64			0.7398 1.0301 0.7218	
65			0.7323 1.0206 0.7143	
66			0.7248 1.0110 0.7058	
67			0.7173 1.0010 0.6973	
68			0.7098 0.9909 0.6888	
69			0.7023 0.9807 0.6813	
70			0.6948 0.9704 0.6738	
71			0.6873 0.9600 0.6653	
72			0.6798 0.9497 0.6568	
73			0.6723 0.9392 0.6483	
74			0.6648 0.9286 0.6398	
75			0.6573 0.9179 0.6313	
76			0.6498 0.9070 0.6228	
77			0.6423 0.8962 0.6143	
78			0.6348 0.8852 0.6058	
79			0.6273 0.8740 0.5973	
80			0.6198 0.8626 0.5888	
81			0.6123 0.8510 0.5803	
82			0.6048 0.8393 0.5718	
83			0.5973 0.8275 0.5633	
84			0.5898 0.8154 0.5548	
85			0.5823 0.8033 0.5463	
86			0.5748 0.7910 0.5378	
87			0.5673 0.7788 0.5293	
88			0.5598 0.7664 0.5208	
89			0.5523 0.7538 0.5123	
90			0.5448 0.7410 0.5038	

SAMPLE COMPLETED HEAT SHEETS - USING AGE FACTORS

MEET PARAMOUNT 10K DATE 1/24/88 RUNNING EVENT 10K

Open-Class Standard (OC): 26:55
men women

1	2	3	4	5	6	col. 5 x col. 6	8	OC std. ÷ col. 7	10
LANE	NAME	AFFILIATION	AGE	AGE FACTOR	ACTUAL TIME	AGE-GRADED TIME	PLACE	PERF. LEVEL PCT.	OVER-ALL PLACE
	STEVE FERRAZ		M40	.9430	31:33	29:45	3	90.5	3
	STEVE LESTER		M45	.9125	31:38	28:51	1	93.3	1
	BILL JOHNSTON		M50	.8804	33:59	29:56	4	89.9	5
	PATRICK DEVINE		M55	.8441	37:45	31:54	7	84.4	11
	ORLO KENNISTON		M60	.8038	37:00	29:45	2	90.5	2
	MAC OSBORN		M70	.7192	43:28	31:16	5	86.1	7
	BILL BROBSTON		M75	.6757	46:36	31:29	6	85.5	9
	CHET CRAIG		M80	.6318	58:15	36:55	9	72.9	14
	PAUL SPANGLER		M85	.5874	65:52	38:40	8	69.6	15

MEET PARAMOUNT 10K DATE 1/24/88 RUNNING EVENT 10K

Open-Class Standard (OC): 29:53
men women

1	2	3	4	5	6	col. 5 x col. 6	8	OC std. ÷ col. 7	10
LANE	NAME	AFFILIATION	AGE	AGE FACTOR	ACTUAL TIME	AGE-GRADED TIME	PLACE	PERF. LEVEL PCT.	OVER-ALL PLACE
	GAIL SCOTT		W40	.9373	37:30	35:09	4	85.0	10
	CHRIS TATTERSALL		W45	.9037	38:03	34:23	2	86.9	6
	GINA FAUST		W50	.8684	38:10	33:08	1	90.2	4
	HELEN DICK		W60	.7842	44:20	34:47	3	85.9	8
	GERRY DAVIDSON		W65	.7384	51:00	37:41	5	79.3	12
	JUDY SIMON		W70	.6911	55:48	38:34	6	77.5	13
	MARY AMES		W80	.5950	81:16	48:21	7	61.8	16

MEET _____ DATE _____ RUNNING EVENT SHORT HURDLESOpen-Class Standard (OC): 12.90 12.25
men women

Open-Class Standard (OC):										12.90	12.25	col. 5	OC std.
										men	women	x col. 6	÷ col. 7
1	2	3			4	5	6	7	8	9	10		
LANE	NAME	CLUB	DIST	HT	AGE	AGE FACTOR	ACTUAL TIME	AGE- GRADED TIME	PLACE	PERF. LEVEL PCT.	OVER- ALL PLACE		
1	ROGER		110	42	M25	1.0000	14.95	14.95	2	86.3	3		
2	LARRY		110	39	M33	.9811	15.89	15.59	6	82.7	7		
3	DON		110	39	M40	.9401	16.25	15.28	4	84.4	6		
4	MIKE		100	36	M57	.8789	17.03	14.97	3	86.2	4		
5	HARRY		100	33	M65	.8118	18.37	14.91	1	86.5	2		
6	JIM		80	30	M76	.9150	16.62	15.21	5	84.8	5		
1	PHILIPPA		80	30	W42	1.1365	12.33	14.01	1	87.4	1		
2	MARTHA		80	30	W54	1.0206	15.46	15.78	2	77.6	8		

MEET _____ DATE _____ FIELD EVENT SHOT PUTOpen-Class Standard (OC): 20.40 19.58
men women

Open-Class Standard (OC):

20.40

men

19.58

women

col. 5

x col. 6

col. 7

÷ OC

1	2	3	4	5					6	7	8	9	10
WT.	NAME	CLUB	AGE	AGE FACTOR	1	2	3	4	ACTUAL MARK	AGE- GRADED MARK	PL.	PERF. LEVEL PCT.	OVER- ALL PLACE
16#	BOB		M42	1.1502					12.96/42-6	14.91/48-11	4	73.1	5
6kg	PHIL		M53	1.1894					13.24/43-5	15.75/51-2	3	77.2	4
5kg	DAVE		M67	1.4135					12.03/39-5	15.01/55-9	2	83.4	2
4kg	DOC		M72	1.4377					12.24/40-2	17.60/57-9	1	86.3	1
4kg	HERB		M85	2.0500					7.17/23-6	14.70/48-2	5	72.1	6
4kg	JOAN		W38	1.1238					10.30/34-0	11.69/37-4	2	59.7	7
3kg	LINDA		W55	1.3600					7.72/25-4	10.50/34-5	3	53.6	8
3kg	BERNICE		W64	1.6415					9.42/30-11	15.49/50-10	1	79.1	3

MEN'S FIELD EVENT AGE-FACTORS

AGE	HIGH JUMP	POLE VAULT	LONG JUMP	TRIPLE JUMP	SP 16 #	DT 2 KG	HT 16 #	JT 800 G
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	1.0210	1.0250	1.0210	1.0220	1.0120	1.0010	1.0120	1.0600
31	1.0296	1.0343	1.0305	1.0317	1.0224	1.0114	1.0224	1.0740
32	1.0384	1.0439	1.0404	1.0418	1.0330	1.0219	1.0330	1.0880
33	1.0474	1.0539	1.0506	1.0522	1.0438	1.0324	1.0438	1.1020
34	1.0566	1.0642	1.0611	1.0629	1.0548	1.0432	1.0548	1.1160
35	1.0660	1.0750	1.0720	1.0740	1.0660	1.0540	1.0660	1.1300
36	1.0755	1.0863	1.0833	1.0855	1.0773	1.0642	1.0773	1.1440
37	1.0853	1.0979	1.0950	1.0974	1.0889	1.0748	1.0889	1.1580
38	1.0953	1.1099	1.1070	1.1096	1.1007	1.0860	1.1007	1.1720
39	1.1055	1.1222	1.1193	1.1221	1.1127	1.0977	1.1127	1.1860
40	1.1160	1.1350	1.1320	1.1350	1.1250	1.1100	1.1250	1.2000
41	1.1267	1.1483	1.1451	1.1483	1.1375	1.1228	1.1375	1.2140
42	1.1376	1.1619	1.1586	1.1619	1.1502	1.1362	1.1502	1.2280
43	1.1488	1.1759	1.1724	1.1759	1.1632	1.1502	1.1632	1.2420
44	1.1603	1.1902	1.1865	1.1902	1.1765	1.1648	1.1765	1.2560
45	1.1720	1.2050	1.2010	1.2050	1.1900	1.1800	1.1900	1.2700
46	1.1841	1.2203	1.2159	1.2202	1.2038	1.1939	1.2038	1.2852
47	1.1964	1.2359	1.2311	1.2358	1.2178	1.2124	1.2178	1.3006
48	1.2090	1.2519	1.2467	1.2518	1.2321	1.2296	1.2321	1.3225
49	1.2219	1.2682	1.2626	1.2682	1.2468	1.2476	1.2468	1.3450
50	1.2350	1.2850	1.2790	1.2850	1.2615	1.2650	1.2615	1.3700
51	1.2485	1.3023	1.2959	1.3025	1.2766	1.2806	1.2766	1.3978
52	1.2622	1.3199	1.3131	1.3204	1.2924	1.2974	1.2924	1.4285
53	1.2762	1.3379	1.3307	1.3386	1.3089	1.3144	1.3089	1.4624
54	1.2905	1.3562	1.3486	1.3571	1.3260	1.3324	1.3260	1.4994
55	1.3050	1.3750	1.3670	1.3760	1.3438	1.3506	1.3438	1.5400
56	1.3199	1.3943	1.3858	1.3951	1.3625	1.3698	1.3625	1.5843
57	1.3350	1.4139	1.4050	1.4147	1.3818	1.3896	1.3818	1.6325
58	1.3504	1.4339	1.4246	1.4346	1.4018	1.4101	1.4018	1.6849
59	1.3661	1.4542	1.4446	1.4551	1.4224	1.4312	1.4224	1.7420
60	1.3820	1.4750	1.4650	1.4760	1.4438	1.4530	1.4438	1.8000
61	1.3983	1.4959	1.4860	1.4975	1.4658	1.4756	1.4658	1.8599
62	1.4148	1.5173	1.5074	1.5194	1.4885	1.4988	1.4885	1.9206
63	1.4316	1.5393	1.5291	1.5418	1.5118	1.5226	1.5118	1.9832
64	1.4487	1.5619	1.5514	1.5647	1.5358	1.5471	1.5358	2.0478
65	1.4660	1.5850	1.5740	1.5880	1.5605	1.5724	1.5605	2.1144
66	1.4837	1.6085	1.5971	1.6118	1.5858	1.5982	1.5858	2.1830
67	1.5016	1.6328	1.6206	1.6361	1.6118	1.6242	1.6118	2.2536
68	1.5198	1.6578	1.6446	1.6609	1.6385	1.6514	1.6385	2.3262
69	1.5383	1.6835	1.6691	1.6862	1.6658	1.6792	1.6658	2.4008
70	1.5570	1.7100	1.6940	1.7120	1.6938	1.7076	1.6938	2.4774
71	1.5761	1.7372	1.7195	1.7384	1.7228	1.7366	1.7228	2.5560
72	1.5954	1.7653	1.7484	1.7653	1.7524	1.7662	1.7524	2.6366
73	1.6150	1.7942	1.7778	1.7927	1.7824	1.7962	1.7824	2.7192
74	1.6349	1.8241	1.7987	1.8206	1.8124	1.8262	1.8124	2.8038
75	1.6550	1.8550	1.8260	1.8490	1.8430	1.8568	1.8430	2.8904
76	1.6755	1.8868	1.8524	1.8765	1.8730	1.8868	1.8730	2.9790
77	1.6962	1.9197	1.8800	1.9052	1.9018	1.9156	1.9018	3.0696
78	1.7172	1.9537	1.9088	1.9352	1.9284	1.9422	1.9284	3.1622
79	1.7385	1.9888	1.9387	1.9664	1.9598	1.9736	1.9598	3.2568
80	1.7600	2.0250	1.9700	1.9990	1.9918	2.0056	1.9918	3.3534
81	1.7819	2.0625	2.0057	2.0363	2.0248	2.0386	2.0248	3.4520
82	1.8040	2.1012	2.0413	2.0735	2.0588	2.0726	2.0588	3.5526
83	1.8264	2.1411	2.0767	2.1105	2.0938	2.1076	2.0938	3.6552
84	1.8491	2.1824	2.1120	2.1474	2.1298	2.1436	2.1298	3.7598
85	1.8720	2.2250	2.1470	2.1840	2.1658	2.1796	2.1658	3.8664
86	1.8952	2.2690	2.1818	2.2204	2.2018	2.2156	2.2018	3.9750
87	1.9187	2.3145	2.2163	2.2565	2.2378	2.2516	2.2378	4.0856
88	1.9425	2.3614	2.2506	2.2924	2.2738	2.2876	2.2738	4.1982
89	1.9666	2.4099	2.2845	2.3279	2.3100	2.3238	2.3100	4.3128
90	1.9910	2.4600	2.3180	2.3630	2.3460	2.3598	2.3460	4.4294

WOMEN'S FIELD EVENT AGE-FACTORS

AGE	HIGH JUMP	POLE VAULT	LONG JUMP	TRIPLE JUMP	SP 4 KG	DT 1 KG	HT 4 KG	JT 600 G
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	1.0260	1.0310	1.0230	1.0240	1.0400	1.0010	1.0400	1.0900
31	1.0367	1.0427	1.0335	1.0347	1.0447	1.0136	1.0447	1.1112
32	1.0476	1.0549	1.0443	1.0457	1.0510	1.0262	1.0510	1.1328
33	1.0588	1.0675	1.0555	1.0571	1.0590	1.0390	1.0590	1.1548
34	1.0703	1.0805	1.0670	1.0688	1.0686	1.0520	1.0686	1.1772
35	1.0820	1.0940	1.0790	1.0810	1.0800	1.0650	1.0800	1.2000
36	1.0941	1.1081	1.0915	1.0937	1.0956	1.0776	1.0956	1.2222
37	1.1064	1.1227	1.1043	1.1067	1.1118	1.0906	1.1118	1.2453
38	1.1190	1.1377	1.1175	1.1201	1.1288	1.1040	1.1288	1.2693
39	1.1319	1.1531	1.1310	1.1338	1.1465	1.1178	1.1465	1.2942
40	1.1450	1.1690	1.1450	1.1480	1.1650	1.1320	1.1650	1.3200
41	1.1583	1.1854	1.1595	1.1626	1.1843	1.1460	1.1843	1.3468
42	1.1719	1.2024	1.1743	1.1776	1.2044	1.1608	1.2044	1.3747
43	1.1859	1.2197	1.1895	1.1930	1.2254	1.1764	1.2254	1.4037
44	1.2002	1.2376	1.2050	1.2088	1.2472	1.1928	1.2472	1.4338
45	1.2150	1.2560	1.2210	1.2250	1.2700	1.2100	1.2700	1.4650
46	1.2305	1.2750	1.2374	1.2416	1.2937	1.2286	1.2937	1.4975
47	1.2463	1.2945	1.2542	1.2588	1.3185	1.2478	1.3185	1.5312
48	1.2623	1.3145	1.2714	1.2763	1.3443	1.2678	1.3443	1.5662
49	1.2785	1.3350	1.2890	1.2944	1.3711	1.2885	1.3711	1.6026
50	1.2950	1.3560	1.3070	1.3130	1.4000	1.3100	1.4000	1.6400
51	1.3115	1.3777	1.3257	1.3326	1.4305	1.3326	1.4305	1.6788
52	1.3283	1.3998	1.3447	1.3525	1.4625	1.3558	1.4625	1.7188
53	1.3455	1.4224	1.3641	1.3727	1.5000	1.3798	1.5000	1.7600
54	1.3630	1.4455	1.3838	1.3932	1.5385	1.4045	1.5385	1.8025
55	1.3810	1.4690	1.4040	1.4140	1.5800	1.4300	1.5800	1.8460
56	1.3995	1.4931	1.4244	1.4347	1.6225	1.4565	1.6225	1.8900
57	1.4184	1.5176	1.4453	1.4559	1.6660	1.4838	1.6660	1.9350
58	1.4376	1.5426	1.4667	1.4777	1.7105	1.5118	1.7105	1.9810
59	1.4571	1.5681	1.4886	1.5001	1.7560	1.5405	1.7560	2.0280
60	1.4770	1.5940	1.5110	1.5230	1.8025	1.5700	1.8025	2.0760
61	1.4973	1.6200	1.5341	1.5469	1.8500	1.6005	1.8500	2.1250
62	1.5180	1.6467	1.5576	1.5712	1.9000	1.6318	1.9000	2.1750
63	1.5390	1.6741	1.5816	1.5960	1.9510	1.6637	1.9510	2.2260
64	1.5603	1.7022	1.6061	1.6213	2.0040	1.6965	2.0040	2.2780
65	1.5820	1.7310	1.6310	1.6470	2.0600	1.7300	2.0600	2.3310
66	1.6041	1.7603	1.6564	1.6731	2.1185	1.7645	2.1185	2.3850

MEN'S LONG DISTANCE RUNNING EVENT AGE-FACTORS

AGE	5 KM	8 KM	10 KM	15 KM	10 MILE	20 KM	21097	25 KM	30 KM	42195
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	0.9724	0.9724	0.9724	0.9724	0.9724	0.9724	0.9724	0.9724	0.9742	0.9859
36	0.9666	0.9666	0.9666	0.9666	0.9666	0.9666	0.9666	0.9666	0.9684	0.9800
37	0.9608	0.9608	0.9608	0.9608	0.9608	0.9608	0.9608	0.9608	0.9625	0.9741
38	0.9549	0.9549	0.9549	0.9549	0.9549	0.9549	0.9549	0.9549	0.9566	0.9681
39	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9490	0.9506	0.9621
40	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9430	0.9446	0.9560
41	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9370	0.9386	0.9500
42	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310	0.9326	0.9438
43	0.9249	0.9249	0.9249	0.9249	0.9249	0.9249	0.9249	0.9249	0.9265	0.9377
44	0.9187	0.9187	0.9187	0.9187	0.9187	0.9187	0.9187	0.9187	0.9203	0.9314
45	0.9125	0.9125	0.9125	0.9125	0.9125	0.9125	0.9125	0.9125	0.9141	0.9251
46	0.9064	0.9064	0.9064	0.9064	0.9064	0.9064	0.9064	0.9064	0.9081	0.9190
47	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9018	0.9127
48	0.8938	0.8938	0.8938	0.8938	0.8938	0.8938	0.8938	0.8938	0.8954	0.9061
49	0.8872	0.8872	0.8872	0.8872	0.8872	0.8872	0.8872	0.8872	0.8888	0.8995
50	0.8804	0.8804	0.8804	0.8804	0.8804	0.8804	0.8804	0.8804	0.8820	0.8926
51	0.8735	0.8735	0.8735	0.8735	0.8735	0.8735	0.8735	0.8735	0.8751	0.8856
52	0.8664	0.8664	0.8664	0.8664	0.8664	0.8664	0.8664	0.8664	0.8680	0.8784
53	0.8591	0.8591	0.8591	0.8591	0.8591	0.8591	0.8591	0.8591	0.8607	0.8710
54	0.8517	0.8517	0.8517	0.8517	0.8517	0.8517	0.8517	0.8517	0.8532	0.8635
55	0.8441	0.8441	0.8441	0.8441	0.8441	0.8441	0.8441	0.8441	0.8456	0.8558
56	0.8362	0.8362	0.8362	0.8362	0.8362	0.8362	0.8362	0.8362	0.8377	0.8478
57	0.8282	0.8282	0.8282	0.8282	0.8282	0.8282	0.8282	0.8282	0.8297	0.8397
58	0.8201	0.8201	0.8201	0.8201	0.8201	0.8201	0.8201	0.8201	0.8216	0.8315
59	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8120	0.8135	0.8233
60	0.8038	0.8038	0.8038	0.8038	0.8038	0.8038	0.8038	0.8038	0.8053	0.8150
61	0.7956	0.7956	0.7956	0.7956	0.7956	0.7956	0.7956	0.7956	0.7971	0.8067
62	0.7874	0.7874	0.7874	0.7874	0.7874	0.7874	0.7874	0.7874	0.7888	0.7983
63	0.7790	0.7790	0.7790	0.7790	0.7790	0.7790	0.7790	0.7790	0.7805	0.7899
64	0.7706	0.7706	0.7706	0.7706	0.7706	0.7706	0.7706	0.7706	0.7721	0.7814
65	0.7622	0.7622	0.7622	0.7622	0.7622	0.7622	0.7622	0.7622	0.7636	0.7728
66	0.7537	0.7537	0.7537	0.7537	0.7537	0.7537	0.7537	0.7537	0.7550	0.7641
67	0.7451	0.7451	0.7451	0.7451	0.7451	0.7451	0.7451	0.7451	0.7464	0.7554
68	0.7365	0.7365	0.7365	0.7365	0.7365	0.7365	0.7365	0.7365	0.7378	0.7467
69	0.7279	0.7279	0.7279	0.7279	0.7279	0.7279	0.7279	0.7279	0.7292	0.7380
70	0.7192	0.7192	0.7192	0.7192	0.7192	0.7192	0.7192	0.7192	0.7205	0.7292
71	0.7106	0.7106	0.7106	0.7106	0.7106	0.7106	0.7106	0.7106	0.7118	0.7204
72	0.7019	0.7019	0.7019	0.7019	0.7019	0.7019	0.7019	0.7019	0.7031	0.7116
73	0.6932	0.6932	0.6932	0.6932	0.6932	0.6932	0.6932	0.6932	0.6944	0.7028
74	0.6844	0.6844	0.6844	0.6844	0.6844	0.6844	0.6844	0.6844	0.6857	0.6940
75	0.6757	0.6757	0.6757	0.6757	0.6757	0.6757	0.6757	0.6757	0.6769	0.6851
76	0.6670	0.6670	0.6670	0.6670	0.6670	0.6670	0.6670	0.6670	0.6682	0.6763
77	0.6582	0.6582	0.6582	0.6582	0.6582	0.6582	0.6582	0.6582	0.6594	0.6674
78	0.6495	0.6495	0.6495	0.6495	0.6495	0.6495	0.6495	0.6495	0.6507	0.6585
79	0.6406	0.6406	0.6406	0.6406	0.6406	0.6406	0.6406	0.6406	0.6418	0.6496
80	0.6318	0.6318	0.6318	0.6318	0.6318	0.6318	0.6318	0.6318	0.6330	0.6406
81	0.6230	0.6230	0.6230	0.6230	0.6230	0.6230	0.6230	0.6230	0.6242	0.6316
82	0.6141	0.6141	0.6141	0.6141	0.6141	0.6141	0.6141	0.6141	0.6153	0.6226
83	0.6052	0.6052	0.6052	0.6052	0.6052	0.6052	0.6052	0.6052	0.6064	0.6136
84	0.5963	0.5963	0.5963	0.5963	0.5963	0.5963	0.5963	0.5963	0.5974	0.6045
85	0.5874	0.5874	0.5874	0.5874	0.5874	0.5874	0.5874	0.5874	0.5885	0.5955
86	0.5785	0.5785	0.5785	0.5785	0.5785	0.5785	0.5785	0.5785	0.5795	0.5865
87	0.5695	0.5695	0.5695	0.5695	0.5695	0.5695	0.5695	0.5695	0.5706	0.5774
88	0.5606	0.5606	0.5606	0.5606	0.5606	0.5606	0.5606	0.5606	0.5616	0.5684
89	0.5516	0.5516	0.5516	0.5516	0.5516	0.5516	0.5516	0.5516	0.5527	0.5593
90	0.5427	0.5427	0.5427	0.5427	0.5427	0.5427	0.5427	0.5427	0.5437	0.5503

SAMPLE COMPLETED HEAT SHEETS - USING AGE FACTORS

MEET _____ DATE _____ RUNNING EVENT 100

Open-Class Standard (OC): 9.85 10.78
men women

1	2	3	4	5	6	col. 5 x col. 6	8	OC std. ÷ col. 7	10
LANE	NAME	AFFILIATION	AGE	AGE FACTOR	ACTUAL TIME	AGE- GRADED TIME	PLACE	PERF. LEVEL PCT.	OVER- ALL PLACE
1	JACK	NEW YORK	M40	.9435	12.07	11.39	3	86.5	3
2	DICK	DENVER TC	M32	.9769	13.91	13.59	6	72.5	9
3	BOB	GREAT BRITAIN	M41	.9392	12.07	11.34	2	86.9	2
4	BILL	PHILA. PIONEERS	M55	.8740	12.28	10.73	1	91.8	1
5	DAVID	ATLANTA TC	M27	1.0000	11.90	11.90	4	82.8	7
6	TOM	LOS ANGELES	M66	.8106	15.00	12.16	5	81.1	8
1	MARY	STRIDERS	W77	.7012	18.30	12.83	3	84.0	6
2	JANE	TAMPA, FLA.	W35	.9610	13.13	12.62	1	85.4	4
3	LAURIE	CHICAGO	W21	1.0000	12.64	12.64	2	85.3	5

MEET _____ DATE _____ FIELD EVENT HIGH JUMP

Open-Class Standard (OC): 2.42 2.09
men women

Open-Class Standard (OC):

2.42

men

2.04

women

col. 5

x col. 6

col. 7

÷ OC

1	2	3	4	5					6	7	8	9	10
WT.	NAME	CLUB	AGE	AGE FACTOR	1	2	3	4	ACTUAL MARK	AGE-GRADED MARK	PL.	PERF. LEVEL PCT.	OVER-ALL PLACE
	TED		M62	1.4149					1.42/4-8	2.01/6-7	3	83.1	2
	JOHN		M37	1.0853					1.83/6-0	1.99/6-6	4	82.2	4
	CHUCK		M72	1.5954					1.26/4-1 1/2	2.01/6-7	2	83.1	2
	PETE		M65	1.4600					1.32/4-4	1.94/6-4	5	80.2	7
	GEORGE		M40	1.1160					1.89/6-2	2.11/6-11	1	87.2	1
	DAWNE		W40	1.430					1.37/4-6	1.57/5-2	3	75.1	8
	EDITH		W75	1.5190					.94/3-1	1.71/5-7	1	81.8	5
	SUEAN		W24	1.0000					1.68/5-6	1.68/5-6	2	80.4	6

AGE	5 KM	8 KM	10 KM	15 KM	10 MILE	20 KM	21097	25 KM	30 KM	42195
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	0.9696	0.9696	0.9696	0.9696	0.9696	0.9696	0.9696	0.9696	0.9716	0.9845
36	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9633	0.9652	0.9780
37	0.9568	0.9568	0.9568	0.9568	0.9568	0.9568	0.9568	0.9568	0.9587	0.9715
38	0.9504	0.9504	0.9504	0.9504	0.9504	0.9504	0.9504	0.9504	0.9522	0.9649
39	0.9439	0.9439	0.9439	0.9439	0.9439	0.9439	0.9439	0.9439	0.9457	0.9583
40	0.9373	0.9373	0.9373	0.9373	0.9373	0.9373	0.9373	0.9373	0.9391	0.9516
41	0.9307	0.9307	0.9307	0.9307	0.9307	0.9307	0.9307	0.9307	0.9325	0.9450
42	0.9241	0.9241	0.9241	0.9241	0.9241	0.9241	0.9241	0.9241	0.9259	0.9382
43	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174	0.9192	0.9314
44	0.9106	0.9106	0.9106	0.9106	0.9106	0.9106	0.9106	0.9106	0.9124	0.9245
45	0.9037	0.9037	0.9037	0.9037	0.9037	0.9037	0.9037	0.9037	0.9055	0.9176
46	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8989	0.9109
47	0.8902	0.8902	0.8902	0.8902	0.8902	0.8902	0.8902	0.8902	0.8920	0.9039
48	0.8831	0.8831	0.8831	0.8831	0.8831	0.8831	0.8831	0.8831	0.8849	0.8968
49	0.8759	0.8759	0.8759	0.8759	0.8759	0.8759	0.8759	0.8759	0.8777	0.8894
50	0.8684	0.8684	0.8684	0.8684	0.8684	0.8684	0.8684	0.8684	0.8702	0.8819
51	0.8608	0.8608	0.8608	0.8608	0.8608	0.8608	0.8608	0.8608	0.8626	0.8742
52	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8530	0.8548	0.8663
53	0.8450	0.8450	0.8450	0.8450	0.8450	0.8450	0.8450	0.8450	0.8468	0.8582
54	0.8369	0.8369	0.8369	0.8369	0.8369	0.8369	0.8369	0.8369	0.8386	0.8499
55	0.8285	0.8285	0.8285	0.8285	0.8285	0.8285	0.8285	0.8285	0.8302	0.8414
56	0.8198	0.8198	0.8198	0.8198	0.8198	0.8198	0.8198	0.8198	0.8215	0.8326
57	0.8110	0.8110	0.8110	0.8110	0.8110	0.8110	0.8110	0.8110	0.8126	0.8237
58	0.8021	0.8021	0.8021	0.8021	0.8021	0.8021	0.8021	0.8021	0.8038	0.8147
59	0.7932	0.7932	0.7932	0.7932	0.7932	0.7932	0.7932	0.7932	0.7948	0.8056
60	0.7842	0.7842	0.7842	0.7842	0.7842	0.7842	0.7842	0.7842	0.7858	0.7965
61	0.7752	0.7752	0.7752	0.7752	0.7752	0.7752	0.7752	0.7752	0.7768	0.7874
62	0.7661	0.7661	0.7661	0.7661	0.7661	0.7661	0.7661	0.7661	0.7677	0.7782
63	0.7569	0.7569	0.7569	0.7569	0.7569	0.7569	0.7569	0.7569	0.7586	0.7689
64	0.7477	0.7477	0.7477	0.7477	0.7477	0.7477	0.7477	0.7477	0.7493	0.7595
65	0.7384	0.7384	0.7384	0.7384	0.7384	0.7384	0.7384	0.7384	0.7400	0.7501
66	0.7290	0.7290	0.7290	0.729						

AGE DIV.	5K	8K	10K	15K	10M	20K	HALF-MAR	25K	30K	MARATHON	AGE DIV.
OC	12:57	21:18	26:55	41:17	44:29	56:02	59:25	1:11:09	1:26:27	2:04:20	OC
M35	13:19	21:54	27:41	42:27	45:45	57:37	1:01:06	1:13:10	1:28:44	2:06:06	M35
M40	13:44	22:35	28:33	43:47	47:10	59:25	1:03:00	1:15:27	1:31:31	2:10:03	M40
M45	14:12	23:21	29:30	45:15	48:45	1:01:24	1:05:07	1:17:58	1:34:34	2:14:24	M45
M50	14:43	24:12	30:34	46:53	50:32	1:03:39	1:07:29	1:20:49	1:38:01	2:19:17	M50
M55	15:21	25:14	31:53	48:54	52:42	1:06:23	1:10:23	1:24:17	1:42:14	2:25:17	M55
M60	16:07	26:29	33:29	51:22	55:20	1:09:43	1:13:55	1:28:31	1:47:21	2:32:33	M60
M65	16:59	27:56	35:18	54:09	58:22	1:13:31	1:17:57	1:33:21	1:53:13	2:40:53	M65
M70	18:00	29:36	37:25	57:24	1:01:51	1:17:55	1:22:37	1:38:56	1:59:59	2:50:30	M70
M75	19:10	31:31	39:50	1:01:06	1:05:50	1:22:56	1:27:56	1:45:18	2:07:43	3:01:29	M75
M80	20:30	33:42	42:36	1:05:20	1:10:24	1:28:41	1:34:03	1:52:37	2:16:34	3:12:17	M80
M85	22:02	36:16	45:49	1:10:17	1:15:44	1:35:24	1:41:09	2:01:08	2:26:54	3:28:47	M85
M90	24:32	39:15	49:35	1:16:42	1:21:58	1:43:15	1:49:29	2:11:06	2:39:00	3:45:56	M90
WOC	14:22	23:39	29:53	45:49	49:23	1:02:12	1:05:57	1:18:59	1:35:58	2:18:00	WOC
W35	14:49	24:23	30:49	47:15	50:56	1:04:09	1:08:01	1:21:27	1:38:47	2:20:10	W35
W40	15:20	25:14	31:53	48:53	52:41	1:06:22	1:10:22	1:24:16	1:42:12	2:25:01	W40
W45	15:54	26:10	33:04	50:43	54:39	1:08:50	1:12:59	1:27:24	1:45:59	2:30:24	W45
W50	16:33	27:14	34:25	52:46	56:52	1:11:38	1:15:57	1:30:57	1:50:17	2:36:29	W50
W55	17:20	28:33	36:04	55:18	59:36	1:15:05	1:19:36	1:35:20	1:55:36	2:44:01	W55
W60	18:19	30:09	38:06	58:25	1:02:58	1:19:19	1:24:06	1:40:43	2:02:08	2:53:15	W60
W65	19:27	32:02	40:28	1:02:03	1:06:53	1:24:14	1:29:19	1:46:58	2:09:41	3:03:59	W65
W70	20:47	34:13	43:14	1:06:18	1:11:27	1:30:00	1:35:26	1:54:17	2:18:52	3:16:33	W70
W75	22:20	36:46	46:27	1:11:13	1:16:46	1:36:41	1:42:31	2:02:46	2:29:11	3:31:08	W75
W80	24:49	39:45	50:13	1:17:00	1:23:00	1:44:32	1:50:50	2:12:44	2:41:18	3:48:13	W80
W85	26:18	43:18	54:43	1:23:54	1:30:26	1:53:54	2:00:46	2:24:37	2:55:44	4:08:39	W85
W90	28:54	47:15	60:08	1:32:11	1:39:22	2:05:09	2:12:42	2:38:55	3:13:06	4:33:06	W90

AGE DIV.	1500	MILE	3000	2-MI	5000	8K	10K	15K	20K	30K	40K	50K	AGE DIV.
OC	5:19.0	5:44.0	11:08	12:00	18:51	30:36	38:30	58:00	1:18:40	2:00:00	2:43:00	3:38:00	OC
M30	5:20.3	5:45.5	11:11	12:03	18:53	30:40							M35
M35	5:29.5	5:55.3	11:30	12:24	19:22	31:26	39:20	59:15	1:20:22	2:02:35	2:46:31	3:42:42	M40
M40	5:37.9	6:04.4	11:49	12:43	19:52	32:14	40:20	1:00:46	1:22:25	2:05:43	2:50:46	3:48:24	M45
M45	5:47.6	6:14.9	12:08	13:05	20:26	33:10	41:29	1:02:30	1:24:47	2:09:19	2:55:40	3:54:56	M50
M50	5:58.7	6:26.9	12:31	13:30	21:05	34:13	42:50	1:04:30	1:27:30	2:13:28	3:01:18	4:02:46	M55
M55	6:11.6	6:40.7	12:58	13:59	21:50	35:27	44:21	1:06:49	1:30:37	2:18:14	3:07:46	4:11:07	M60
M60	6:26.3	6:56.6	13:29	14:32	22:42	36:51	46:07	1:09:28	1:34:13	2:23:44	3:15:14	4:21:07	M65
M65	6:43.4	7:15.0	14:04	15:10	23:42	38:29	48:09	1:12:33	1:38:24	2:30:56	3:23:53	4:32:40	M70
M70	7:03.4	7:36.5	14:47	15:56	24:53	40:23	50:32	1:16:08	1:43:15	2:37:30	3:33:56	4:46:08	M75
M75	7:26.6	8:01.7	15:35	16:48	26:15	42:37	53:19	1:20:19	1:48:57	2:46:11	3:45:44	5:01:54	M80
M80	7:54.3	8:31.5	16:33	17:50	27:52	45:15	56:36	1:25:17	1:55:40	2:56:26	3:59:40	5:20:32	M85
M85	8:27.2	9:07.0	17:42	19:05	29:48	48:23	60:33	1:31:13	2:03:43	3:08:42	4:16:20	5:42:49	M90
M90	9:07.1	9:50.1	19:06	20:35	32:09	52:12	65:19	1:38:23	2:13:27	3:23:34	4:36:30	6:09:48	
WOC	5:54.1	6:21.8	12:21	13:19	20:55	33:58	42:44	1:04:23	1:27:19	2:13:12	3:01:00	4:02:00	WOC
W30	5:55.7	6:23.6	12:24	13:23	20:58	34:04							W35
W35	6:07.0	6:35.7	12:48	13:48	21:33	34:59	43:45	1:05:55	1:29:23	2:16:22	3:05:17	4:07:45	W40
W40	6:17.3	6:46.9	13:10	14:11	22:09	36:12	44:58	1:07:46	1:31:55	2:20:13	3:10:32	4:14:44	W45
W45	6:29.3	6:59.8	13:35	14:39	22:52	37:07	46:25	1:09:56	1:34:50	2:24:40	3:16:35	4:22:51	W50
W50	6:43.3	7:14.8	14:04	15:10	23:41	38:27	48:04	1:12:25	1:38:13	2:29:50	3:23:36	4:32:13	W55
W55	6:59.4	7:32.2	14:38	15:46	24:37	39:59	49:59	1:15:19	1:42:08	2:35:48	3:31:43	4:43:04	W60
W60	7:18.1	7:52.3	15:17	16:28	25:43	41:46	52:13	1:18:40	1:46:41	2:42:46	3:41:10	4:55:42	W65
W65	7:39.9	8:15.9	16:02	17:18	27:00	43:51	54:49	1:22:36	1:52:01	2:50:53	3:52:12	5:10:27	W70
W70	8:05.9	8:43.9	16:57	18:16	28:31	46:19	57:54	1:27:14	1:58:18	3:00:28	4:05:13	5:27:52	W75
W75	8:36.5	9:16.9	18:01	19:25	30:19	49:14	61:33	1:32:44	2:05:46	3:11:51	4:20:42	5:48:33	W80
W80	9:13.4	9:56.6	19:18	20:49	32:29	52:45	65:56	1:39:20	2:14:44	3:25:31	4:39:17	6:13:24	W85
W85	9:58.3	10:45.2	20:52	22:30	35:12	57:02	71:17	1:47:					

MEN'S RACE WALKING EVENT AGE-FACTORS

AGE	1500 M	1 MILE	3 KM	2 MILE	5 KM	8 KM	10 KM	15 KM	20 KM	30 KM	40 KM	50 KM
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.9958	0.9958	0.9958	0.9958	0.9979	0.9979	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	0.9900	0.9900	0.9900	0.9900	0.9930	0.9930	0.9961	0.9961	0.9961	0.9961	0.9961	0.9961
32	0.9843	0.9843	0.9843	0.9843	0.9881	0.9881	0.9920	0.9920	0.9920	0.9920	0.9920	0.9920
33	0.9787	0.9787	0.9787	0.9787	0.9832	0.9832	0.9878	0.9878	0.9878	0.9878	0.9878	0.9878
34	0.9733	0.9733	0.9733	0.9733	0.9784	0.9784	0.9834	0.9834	0.9834	0.9834	0.9834	0.9834
35	0.9681	0.9681	0.9681	0.9681	0.9735	0.9735	0.9789	0.9789	0.9789	0.9789	0.9789	0.9789
36	0.9635	0.9635	0.9635	0.9635	0.9688	0.9688	0.9742	0.9742	0.9742	0.9742	0.9742	0.9742
37	0.9587	0.9587	0.9587	0.9587	0.9640	0.9640	0.9694	0.9694	0.9694	0.9694	0.9694	0.9694
38	0.9539	0.9539	0.9539	0.9539	0.9592	0.9592	0.9645	0.9645	0.9645	0.9645	0.9645	0.9645
39	0.9490	0.9490	0.9490	0.9490	0.9542	0.9542	0.9596	0.9596	0.9596	0.9596	0.9596	0.9596
40	0.9440	0.9440	0.9440	0.9440	0.9492	0.9492	0.9545	0.9545	0.9545	0.9545	0.9545	0.9545
41	0.9389	0.9389	0.9389	0.9389	0.9441	0.9441	0.9494	0.9494	0.9494	0.9494	0.9494	0.9494
42	0.9338	0.9338	0.9338	0.9338	0.9389	0.9389	0.9441	0.9441	0.9441	0.9441	0.9441	0.9441
43	0.9285	0.9285	0.9285	0.9285	0.9337	0.9337	0.9388	0.9388	0.9388	0.9388	0.9388	0.9388
44	0.9231	0.9231	0.9231	0.9231	0.9283	0.9283	0.9334	0.9334	0.9334	0.9334	0.9334	0.9334
45	0.9177	0.9177	0.9177	0.9177	0.9228	0.9228	0.9279	0.9279	0.9279	0.9279	0.9279	0.9279
46	0.9122	0.9122	0.9122	0.9122	0.9172	0.9172	0.9223	0.9223	0.9223	0.9223	0.9223	0.9223
47	0.9066	0.9066	0.9066	0.9066	0.9116	0.9116	0.9167	0.9167	0.9167	0.9167	0.9167	0.9167
48	0.9009	0.9009	0.9009	0.9009	0.9058	0.9058	0.9109	0.9109	0.9109	0.9109	0.9109	0.9109
49	0.8951	0.8951	0.8951	0.8951	0.9000	0.9000	0.9050	0.9050	0.9050	0.9050	0.9050	0.9050
50	0.8892	0.8892	0.8892	0.8892	0.8941	0.8941	0.8991	0.8991	0.8991	0.8991	0.8991	0.8991
51	0.8832	0.8832	0.8832	0.8832	0.8881	0.8881	0.8931	0.8931	0.8931	0.8931	0.8931	0.8931
52	0.8772	0.8772	0.8772	0.8772	0.8821	0.8821	0.8870	0.8870	0.8870	0.8870	0.8870	0.8870
53	0.8710	0.8710	0.8710	0.8710	0.8759	0.8759	0.8808	0.8808	0.8808	0.8808	0.8808	0.8808
54	0.8648	0.8648	0.8648	0.8648	0.8696	0.8696	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745
55	0.8585	0.8585	0.8585	0.8585	0.8633	0.8633	0.8681	0.8681	0.8681	0.8681	0.8681	0.8681
56	0.8521	0.8521	0.8521	0.8521	0.8569	0.8569	0.8617	0.8617	0.8617	0.8617	0.8617	0.8617
57	0.8457	0.8457	0.8457	0.8457	0.8504	0.8504	0.8551	0.8551	0.8551	0.8551	0.8551	0.8551
58	0.8391	0.8391	0.8391	0.8391	0.8438	0.8438	0.8485	0.8485	0.8485	0.8485	0.8485	0.8485
59	0.8324	0.8324	0.8324	0.8324	0.8371	0.8371	0.8417	0.8417	0.8417	0.8417	0.8417	0.8417
60	0.8257	0.8257	0.8257	0.8257	0.8303	0.8303	0.8349	0.8349	0.8349	0.8349	0.8349	0.8349
61	0.8189	0.8189	0.8189	0.8189	0.8235	0.8235	0.8280	0.8280	0.8280	0.8280	0.8280	0.8280
62	0.8121	0.8121	0.8121	0.8121	0.8165	0.8165	0.8210	0.8210	0.8210	0.8210	0.8210	0.8210
63	0.8051	0.8051	0.8051	0.8051	0.8095	0.8095	0.8139	0.8139	0.8139	0.8139	0.8139	0.8139
64	0.7980	0.7980	0.7980	0.7980	0.8023	0.8023	0.8068	0.8068	0.8068	0.8068	0.8068	0.8068
65	0.7908	0.7908	0.7908	0.7908	0.7951	0.7951	0.7995	0.7995	0.7995	0.7995	0.7995	0.7995
66	0.7835	0.7835	0.7835	0.7835	0.7878	0.7878	0.7922	0.7922	0.7922	0.7922	0.7922	0.7922
67	0.7762	0.7762	0.7762	0.7762	0.7804	0.7804	0.7848	0.7848	0.7848	0.7848	0.7848	0.7848
68	0.7687	0.7687	0.7687	0.7687	0.7730	0.7730	0.7772	0.7772	0.7772	0.7772	0.7772	0.7772
69	0.7611	0.7611	0.7611	0.7611	0.7654	0.7654	0.7696	0.7696	0.7696	0.7696	0.7696	0.7696
70	0.7535	0.7535	0.7535	0.7535	0.7577	0.7577	0.7619	0.7619	0.7619	0.7619	0.7619	0.7619
71	0.7459	0.7459	0.7459	0.7459	0.7500	0.7500	0.7541	0.7541	0.7541	0.7541	0.7541	0.7541
72	0.7381	0.7381	0.7381	0.7381	0.7422	0.7422	0.7463	0.7463	0.7463	0.7463	0.7463	0.7463
73	0.7302	0.7302	0.7302	0.7302	0.7342	0.7342	0.7383	0.7383	0.7383	0.7383	0.7383	0.7383
74	0.7223	0.7223	0.7223	0.7223	0.7262	0.7262	0.7303	0.7303	0.7303	0.7303	0.7303	0.7303
75	0.7142	0.7142	0.7142	0.7142	0.7181	0.7181	0.7221	0.7221	0.7221	0.7221	0.7221	0.7221
76	0.7061	0.7061	0.7061	0.7061	0.7099	0.7099	0.7139	0.7139	0.7139	0.7139	0.7139	0.7139
77	0.6979	0.6979	0.6979	0.6979	0.7017	0.7017	0.7056	0.7056	0.7056	0.7056	0.7056	0.7056
78	0.6895	0.6895	0.6895	0.6895	0.6933	0.6933	0.6972	0.6972	0.6972	0.6972	0.6972	0.6972
79	0.6811	0.6811	0.6811	0.6811	0.6849	0.6849	0.6887	0.6887	0.6887	0.6887	0.6887	0.6887
80	0.6726	0.6726	0.6726	0.6726	0.6763	0.6763	0.6801	0.6801	0.6801	0.6801	0.6801	0.6801
81	0.6641	0.6641	0.6641	0.6641	0.6677	0.6677	0.6715	0.6715	0.6715	0.6715	0.6715	0.6715
82	0.6554	0.6554	0.6554	0.6554	0.6591	0.6591	0.6627	0.6627	0.6627	0.6627	0.6627	0.6627
83	0.6467	0.6467	0.6467	0.6467	0.6503	0.6503	0.6539	0.6539	0.6539	0.6539	0.6539	0.6539
84	0.6378	0.6378	0.6378	0.6378	0.6414	0.6414	0.6449	0.6449	0.6449	0.6449	0.6449	0.6449
85	0.6289	0.6289	0.6289	0.6289	0.6324	0.6324	0.6359	0.6359	0.6359	0.6359	0.6359	0.6359
86	0.6199	0.6199	0.6199	0.6199	0.6233	0.6233	0.6268	0.6268	0.6268	0.6268	0.6268	0.6268
87	0.6108	0.6108	0.6108	0.6108	0.6141	0.6141	0.6176	0.6176	0.6176	0.6176	0.6176	0.6176
88	0.6016	0.6016	0.6016	0.6016	0.6049	0.6049	0.6083	0.6083	0.6083	0.6083	0.6083	0.6083
89	0.5923	0.5923	0.5923	0.5923	0.5956	0.5956	0.5989	0.5989	0.5989	0.5989	0.5989	0.5989
90	0.5830	0.5830	0.5830	0.5830	0.5862	0.5862	0.5895	0.5895	0.5895	0.5895	0.5895	0.5895

FIELD EVENT STANDARDS - 1989

AGE	HJ	PV	LJ	TJ	AGE	SHOT	DISCUS	HAMMER	JAVELIN
DIV.					DIV.	16#	2kg	16#	800g
OC	2.42	6.03	8.79	17.97	OC	20.40	69.50	76.85	90.42
M30	2.37	5.88	8.61	17.58	M30	20.16	69.43	75.94	85.30
M35	2.27	5.61	8.20	16.73	M35	19.14	65.94	72.09	80.02
M40	2.17	5.31	7.76	15.83	M40	18.13	62.61	68.31	75.35
M45	2.06	5.00	7.32	14.91	M45	17.14	58.90	64.58	71.20
M50	1.96	4.69	6.87	13.98		6kg	1.5kg	6kg	
M55	1.85	4.39	6.43	13.06	M50	17.82	61.78	64.58	66.00
M60	1.75	4.09	6.00	12.17	M55	16.72	57.92	60.51	58.71
M65	1.65	3.80	5.58	11.32		5kg	1kg	5kg	600g
M70	1.55	3.53	5.19	10.50	M60	16.52	62.05	60.04	59.48
M75	1.46	3.25	4.81	9.72	M65	15.00	56.50	54.50	54.14
M80	1.37	2.98	4.46	8.99		4kg		4kg	
M85	1.29	2.71	4.09	8.23	M70	14.89	50.73	54.12	48.88
M90	1.22	2.45	3.79	7.60	M75	13.16	44.84	47.15	43.47
					M80	11.53	39.49	40.03	38.31
					M85	9.95	34.41	33.56	33.61
					M90	8.54	29.70	27.54	29.17
	HJ	PV	LJ	TJ		SHOT	DISCUS	HAMMER	JAVELIN
WOC	2.09	3.63	7.45	14.90		4kg	1kg	4kg	600g
W30	2.04	3.52	7.28	14.55	WOC	19.58	66.00	60.00	66.12
W35	1.93	3.32	6.90	13.78	W30	18.83	65.93	57.69	60.66
W40	1.83	3.11	6.51	12.98	W35	18.13	61.97	55.56	55.10
W45	1.72	2.89	6.10	12.16	W40	16.81	58.30	51.50	50.09
W50	1.61	2.68	5.70	11.35	W45	15.42	54.55	47.24	45.13
W55	1.51	2.47	5.31	10.54		3kg		3kg	400g
W60	1.42	2.35	4.93	9.78	W50	15.92	50.38	47.24	44.08
W65	1.32	2.10	4.57	9.05	W55	14.40	46.15	42.55	39.59
W70	1.23	1.92	4.23	8.36	W60	12.97	42.04	38.22	35.36
W75	1.15	1.75	3.90	7.70	W65	11.65	38.15	34.29	31.49
W80	1.07	1.59	3.60	7.10	W70	10.47	34.55	30.61	28.02
W85	1.00	1.43	3.29	6.47	W75	9.41	31.28	27.40	24.95
W90	.93	1.28	3.04	5.96	W80	8.48	28.33	24.59	22.26
					W85	7.36	25.68	21.35	19.92
					W90	6.68	23.32	19.35	17.40

TRACK STANDARDS - 1989

AGE DIV.	100	200	400	800	1500	MILE	3000	5000	AGE DIV.
OC	9.85	19.62	43.29	1:41.73	3:29.46	3:46.09	7:32.0	12:57	OC
M30	10.00	19.94	44.04	1:43.28	3:31.70	3:48.37	7:34.3	12:57	M30
M35	10.21	20.49	45.53	1:46.24	3:37.76	3:54.90	7:46.4	13:19	M35
M40	10.44	21.08	47.16	1:49.56	3:44.57	4:02.24	8:01.0	13:44	M40
M45	10.69	21.73	48.98	1:53.22	3:52.06	4:10.35	8:17.1	14:12	M45
M50	10.96	22.45	51.00	1:57.34	4:00.51	4:19.46	8:35.2	14:43	M50
M55	11.27	23.26	53.26	2:02.39	4:10.85	4:30.60	8:57.3	15:21	M55
M60	11.63	24.18	55.81	2:08.53	4:23.44	4:44.18	9:24.2	16:07	M60
M65	12.06	25.24	58.72	2:15.55	4:37.84	4:59.70	9:55.1	16:59	M65
M70	12.58	26.50	62.06	2:23.63	4:54.39	5:17.59	10:30.6	18:00	M70
M75	13.22	28.00	65.95	2:32.86	5:13.38	5:38.05	11:11.2	19:10	M75
M80	14.04	29.84	70.53	2:43.50	5:35.14	6:01.51	11:57.8	20:30	M80
M85	15.10	32.11	76.00	2:55.85	6:00.45	6:28.87	12:52.1	22:02	M85
M90	16.49	34.97	82.50	3:10.33	6:30.13	7:00.87	13:55.6	24:32	M90
WOC	10.78	21.58	47.83	1:52.92	3:52.50	4:10.96	8:21.7	14:22	WOC
W30	10.96	21.97	48.75	1:54.81	3:55.25	4:13.75	8:24.5	14:22	W30
W35	11.22	22.63	50.56	1:58.46	4:02.67	4:21.77	8:39.4	14:49	W35
W40	11.49	23.36	52.58	2:02.57	4:11.08	4:30.84	8:57.3	15:20	W40
W45	11.80	24.16	54.83	2:07.12	4:20.39	4:40.90	9:17.3	15:54	W45
W50	12.13	25.06	57.36	2:12.27	4:30.98	4:52.32	9:39.9	16:33	W50
W55	12.51	26.07	60.23	2:18.67	4:44.06	5:06.42	10:07.9	17:20	W55
W60	12.96	27.23	63.50	2:26.53	5:00.15	5:23.73	10:42.2	18:19	W60
W65	13.50	28.59	67.28	2:35.64	5:18.80	5:43.88	11:22.1	19:27	W65
W70	14.16	30.21	71.69	2:46.28	5:40.61	6:07.38	12:08.7	20:47	W70
W75	14.98	32.18	76.90	2:58.67	6:06.03	6:34.78	13:03.0	22:20	W75
W80	16.05	34.62	83.15	3:13.22	6:35.74	7:06.88	14:06.5	24:49	W80
W85	17.45	37.72	90.83	3:30.55	7:11.19	7:45.17	15:22.4	26:18	W85
W90	19.35	41.72	100.23	3:51.44	7:53.91	8:31.22	16:53.5	28:54	W90

HURDLES AND STEEPLECHASE STANDARDS - 1989

AGE DIV.	110H	100H	80H	400H	300H	3000SC	2000SC	AGE DIV.
OC	1.067m/42"			.914m/36"				OC
	12.90			47.02	33.60		8:05.0	
	.991m/39"			.914m/36"				
M30	13.00			47.92	34.23		8:12.8	M30
M35	13.28			49.68	35.47		8:26.4	M35
M40	13.71			51.68	36.88		8:44.0	M40
M45	14.33			54.07	38.56		9:07.2	M45
	.914m/36"			.840m/33"				
M50	14.86	13.46		55.70	39.70		9:37.0	M50
M55	15.81	14.32		58.59	41.72		10:13.1	M55
	.840m/33"			.762m/30"				
M60	16.47	14.92		61.19	43.46		7:03.9	M60
M65	17.54	15.89		65.59	46.46		7:38.0	M65
	.762m/30"			.762m/30"				
M70	18.32	16.59	13.06	71.46	50.43		8:18.0	M70
M75			13.92	77.51	54.38		9:04.1	M75
M80			14.87	84.65	58.86		9:56.8	M80
M85			15.96	93.33	64.11			M85
M90			17.16	104.37	70.47			M90
		100H	80H	400H	300H		2000SC	
		.840m/33"		.762m/30"				
WOC		12.25	9.68	52.94	37.77		6:00.0	WOC
W30		12.51		54.36	38.57		6:02.2	W30
W35		12.90		56.57	40.16		6:20.1	W35
		.762m/30"		.762m/30"				
W40		13.36	10.56	59.10	42.07		6:43.3	W40
W45		14.04	11.10	62.16	43.98		7:09.3	W45
W50			11.58		46.71		7:38.0	W50
W55			12.12		49.53		8:10.9	W55
W60			12.76		52.78		8:48.1	W60
W65			13.51		56.58		9:29.6	W65
W70			14.40		61.06		10:16.3	W70
W75			15.48		66.43		11:10.6	W75
W80			16.82		72.97			W80
W85			18.52		81.12			W85
W90			20.74		91.54			W90

WOMEN'S RACE WALKING EVENT AGE-FACTORS

AGE	1500 M	1 MILE	3 KM	2 MILE	5 KM	8 KM	10 KM	15 KM	20 KM	30 KM	40 KM	50 KM
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.9954	0.9954	0.9954	0.9954	0.9977	0.9977	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	0.9890	0.9890	0.9890	0.9890	0.9923	0.9923	0.9957	0.9957	0.9957	0.9957	0.9957	0.9957
32	0.9827	0.9827	0.9827	0.9827	0.9869	0.9869	0.9912	0.9912	0.9912	0.9912	0.9912	0.9912
33	0.9766	0.9766	0.9766	0.9766	0.9815	0.9815	0.9865	0.9865	0.9865	0.9865	0.9865	0.9865
34	0.9707	0.9707	0.9707	0.9707	0.9762	0.9762	0.9817	0.9817	0.9817	0.9817	0.9817	0.9817
35	0.9649	0.9649	0.9649	0.9649	0.9708	0.9708	0.9768	0.9768	0.9768	0.9768	0.9768	0.9768
36	0.9598	0.9598	0.9598	0.9598	0.9657	0.9657	0.9717	0.9717	0.9717	0.9717	0.9717	0.9717
37	0.9546	0.9546	0.9546	0.9546	0.9605	0.9605	0.9664	0.9664	0.9664	0.9664	0.9664	0.9664
38	0.9493	0.9493	0.9493	0.9493	0.9552	0.9552	0.9610	0.9610	0.9610	0.9610	0.9610	0.9610
39	0.9439	0.9439	0.9439	0.9439	0.9497	0.9497	0.9556	0.9556	0.9556	0.9556	0.9556	0.9556
40	0.9384	0.9384	0.9384	0.9384	0.9442	0.9442	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
41	0.9328	0.9328	0.9328	0.9328	0.9386	0.9386	0.9443	0.9443	0.9443	0.9443	0.9443	0.9443
42	0.9272	0.9272	0.9272	0.9272	0.9329	0.9329	0.9386	0.9386	0.9386	0.9386	0.9386	0.9386
43	0.9214	0.9214	0.9214	0.9214	0.9271	0.9271	0.9327	0.9327	0.9327	0.9327	0.9327	0.9327
44	0.9155	0.9155	0.9155	0.9155	0.9211	0.9211	0.9268	0.9268	0.9268	0.9268	0.9268	0.9268
45	0.9095	0.9095	0.9095	0.9095	0.9151	0.9151	0.9207	0.9207	0.9207	0.9207	0.9207	0.9207
46	0.9034	0.9034	0.9034	0.9034	0.9090	0.9090	0.9146	0.9146	0.9146	0.9146	0.9146	0.9146
47	0.8973	0.8973	0.8973	0.8973	0.9028	0.9028	0.9083	0.9083	0.9083	0.9083	0.9083	0.9083
48	0.8910	0.8910	0.8910	0.8910	0.8964	0.8964	0.9020	0.9020	0.9020	0.9020	0.9020	0.9020
49	0.8846	0.8846	0.8846	0.8846	0.8900	0.8900	0.8955	0.8955	0.8955	0.8955	0.8955	0.8955
50	0.8781	0.8781	0.8781	0.8781	0.8835	0.8835	0.8890	0.8890	0.8890	0.8890	0.8890	0.8890
51	0.8715	0.8715	0.8715	0.8715	0.8769	0.8769	0.8824	0.8824	0.8824	0.8824	0.8824	0.8824
52	0.8649	0.8649	0.8649	0.8649	0.8703	0.8703	0.8757	0.8757	0.8757	0.8757	0.8757	0.8757
53	0.8581	0.8581	0.8581	0.8581	0.8635	0.8635	0.8689	0.8689	0.8689	0.8689	0.8689	0.8689
54	0.8512	0.8512	0.8512	0.8512	0.8566	0.8566	0.8619	0.8619	0.8619	0.8619	0.8619	0.8619
55	0.8443	0.8443	0.8443	0.8443	0.8496	0.8496	0.8549	0.8549	0.8549	0.8549	0.8549	0.8549
56	0.8373	0.8373	0.8373	0.8373	0.8425	0.8425	0.8478	0.8478	0.8478	0.8478	0.8478	0.8478
57	0.8302	0.8302	0.8302	0.8302	0.8354	0.8354	0.8406	0.8406	0.8406	0.8406	0.8406	0.8406
58	0.8230	0.8230	0.8230	0.8230	0.8281	0.8281	0.8333	0.8333	0.8333	0.8333	0.8333	0.8333
59	0.8157	0.8157	0.8157	0.8157	0.8208	0.8208	0.8259	0.8259	0.8259	0.8259	0.8259	0.8259
60	0.8083	0.8083	0.8083	0.8083	0.8133	0.8133	0.8184	0.8184	0.8184	0.8184	0.8184	0.8184
61	0.8009	0.8009	0.8009	0.8009	0.8058	0.8058	0.8108	0.8108	0.8108	0.8108	0.8108	0.8108
62	0.7933	0.7933	0.7933	0.7933	0.7982	0.7982	0.8032	0.8032	0.8032	0.8032	0.8032	0.8032
63	0.7856	0.7856	0.7856	0.7856	0.7905	0.7905	0.7954	0.7954	0.7954	0.7954	0.7954	0.7954
64	0.7778	0.7778	0.7778	0.7778	0.7827	0.7827	0.7875	0.7875	0.7875	0.7875	0.7875	0.7875
65	0.7699	0.7699	0.7699	0.7699	0.7747	0.7747	0.7795	0.7795	0.7795	0.7795	0.7795	0.7795
66	0.7619	0.7619	0.7619	0.7619	0.7666	0.7666	0.7714	0.7714	0.7714	0.7714	0.7714	0.7714
67	0.7538	0.7538	0.7538	0.7538	0.7585	0.7585	0.7633	0.7633	0.7633	0.7633	0.7633	0.7633
68	0.7455	0.7455	0.7455	0.7455	0.7502	0.7502	0.7550	0.7550	0.7550	0.7550	0.7550	0.7550
69	0.7372	0.7372	0.7372	0.7372	0.7419	0.7419	0.7466	0.7466	0.7466	0.7466	0.7466	0.7466
70	0.7288	0.7288	0.7288	0.7288	0.7334	0.7334	0.7381	0.7381	0.7381	0.7381	0.7381	0.7381
71	0.7204	0.7204	0.7204	0.7204	0.7249	0.7249	0.7296	0.7296	0.7296	0.7296	0.7296	0.7296
72	0.7119	0.7119	0.7119	0.7119	0.7163	0.7163	0.7209	0.7209	0.7209	0.7209	0.7209	0.7209
73	0.7032	0.7032	0.7032	0.7032	0.7076	0.7076	0.7122	0.7122	0.7122	0.7122	0.7122	0.7122
74	0.6945	0.6945	0.6945	0.6945	0.6988	0.6988	0.7033	0.7033	0.7033	0.7033	0.7033	0.7033
75	0.6856	0.6856	0.6856	0.6856	0.6899	0.6899	0.6943	0.6943	0.6943	0.6943	0.6943	0.6943
76	0.6767	0.6767	0.6767	0.6767	0.6810	0.6810	0.6853	0.6853	0.6853	0.6853	0.6853	0.6853
77	0.6677	0.6677	0.6677	0.6677	0.6719	0.6719	0.6762	0.6762	0.6762	0.6762	0.6762	0.6762
78	0.6585	0.6585	0.6585	0.6585	0.6627	0.6627	0.6669	0.6669	0.6669	0.6669	0.6669	0.6669
79	0.6493	0.6493	0.6493	0.6493	0.6534	0.6534	0.6576	0.6576	0.6576	0.6576	0.6576	0.6576
80	0.6399	0.6399	0.6399	0.6399	0.6440	0.6440	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481
81	0.6305	0.6305	0.6305	0.6305	0.6346	0.6346	0.6386	0.6386	0.6386	0.6386	0.6386	0.6386
82	0.6210	0.6210	0.6210	0.6210	0.6250	0.6250	0.6290	0.6290	0.6290	0.6290	0.6290	0.6290
83	0.6114	0.6114	0.6114	0.6114	0.6153	0.6153	0.6193	0.6193	0.6193	0.6193	0.6193	0.6193
84	0.6017	0.6017	0.6017	0.6017	0.6055	0.6055	0.6095	0.6095	0.6095	0.6095	0.6095	0.6095
85	0.5918	0.5918	0.5918	0.5918	0.5956	0.5956	0.5995	0.5995	0.5995	0.5995	0.5995	0.5995
86	0.5819	0.5819	0.5819	0.5819	0.5856	0.5856	0.5895	0.5895	0.5895	0.5895	0.5895	0.5895
87	0.5718	0.5718	0.5718	0.5718	0.5755	0.5755	0.5793	0.5793	0.5793	0.5793	0.5793	0.5793
88	0.5617	0.5617	0.5617	0.5617	0.5654	0.5654	0.5691	0.5691	0.5691	0.5691	0.5691	0.5691
89	0.5515	0.5515	0.5515	0.5515	0.5552	0.5552	0.5588	0.5588	0.5588	0.5588	0.5588	0.5588
90	0.5413	0.5413	0.5413	0.5413	0.5449	0.5449	0.5485	0.5485	0.5485	0.5485	0.5485	0.5485

TRACK AGE FACTORS - 1989

	100	200	400	800	1500	MILE	3000	5000
OC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
M30	.9850	.9839	.9829	.9850	.9894	.9900	.9950	1.0000
M35	.9645	.9577	.9509	.9575	.9619	.9625	.9691	.9724
M40	.9435	.9307	.9179	.9285	.9327	.9333	.9397	.9430
M45	.9217	.9028	.8839	.8985	.9026	.9031	.9093	.9125
M50	.8987	.8738	.8489	.8670	.8709	.8714	.8774	.8804
M55	.8740	.8434	.8128	.8312	.8350	.8355	.8412	.8441
M60	.8470	.8113	.7756	.7915	.7951	.7956	.8011	.8038
M65	.8170	.7771	.7372	.7505	.7539	.7544	.7596	.7622
M70	.7832	.7403	.6975	.7083	.7115	.7119	.7168	.7192
M75	.7449	.7006	.6564	.6655	.6684	.6688	.6734	.6757
M80	.7015	.6576	.6138	.6222	.6250	.6254	.6297	.6318
M85	.6525	.6110	.5696	.5785	.5811	.5814	.5854	.5874
M90	.5975	.5611	.5247	.5345	.5369	.5372	.5409	.5427
WOC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
W30	.9835	.9823	.9812	.9835	.9883	.9890	.9945	1.0000
W35	.9610	.9535	.9460	.9532	.9581	.9587	.9660	.9696
W40	.9379	.9238	.9097	.9213	.9260	.9266	.9337	.9373
W45	.9139	.8931	.8723	.8883	.8929	.8934	.9002	.9037
W50	.8889	.8612	.8338	.8537	.8580	.8585	.8651	.8684
W55	.8614	.8277	.7941	.8143	.8185	.8190	.8253	.8285
W60	.8317	.7924	.7532	.7706	.7746	.7752	.7812	.7842
W65	.7987	.7548	.7109	.7255	.7293	.7298	.7355	.7384
W70	.7615	.7143	.6672	.6791	.6826	.6831	.6885	.6911
W75	.7194	.6707	.6220	.6320	.6352	.6357	.6407	.6433
W80	.6717	.6234	.5752	.5844	.5875	.5879	.5927	.5950
W85	.6177	.5721	.5260	.5363	.5392	.5395	.5439	.5461
W90	.5572	.5172	.4772	.4879	.4906	.4909	.4950	.4970

HURDLES AND STEPLECHASE AGE FACTORS - 1989

	110H	100H	80H	400H	300H	3000SC	2000SC
OC	1.0000	1.0000	1.0000	1.0000	1.399	1.0000	
M30	.9923			.9812	1.374	.9841	
M35	.9714			.9464	1.326	.9577	
M40	.9401			.9098	1.275	.9256	
M45	.9002			.8696	1.219	.8863	
M50	.8681	.9583		.8442	1.184	.8406	
M55	.8159	.9008		.8025	1.127	.7911	
M60	.7832	.8640		.7684	1.082		1.1441
M65	.7355	.8118		.7169	1.012		1.0590
M70	.7042	.7776	.9877	.6580	.9324		.9739
M75			.9267	.6066	.8647		.8914
M80			.8675	.5555	.7988		.8126
M85			.8072	.5038	.7334		
M90			.7517	.4505	.6672		
WOC	1.0000			1.0000	1.402		1.0000
W30	.9792			.9738	1.373		.9939
W35	.9496			.9358	1.318		.9471
W40	.9169	1.160		.8957	1.258		.8926
W45	.8725	1.104		.8517	1.204		.8386
W50		1.057			1.133		.7860
W55		1.011			1.069		.7333
W60			.960		1.003		.6817
W65			.907		.936		.6320
W70			.851		.867		.5841
W75			.791		.797		.5369
W80			.728		.726		
W85			.661		.653		
W90			.591		.578		

WOMEN'S RACE WALKING EVENT STANDARDS

AGE	1500 M	1 MILE	3 KM	2 MILE	5 KM	8 KM	10 KM	15 KM	20 KM	30 KM	40 KM	50 KM
OC	5:54.1	6:21.8	12:21	13:19	20:55	33:58	42:44	1:04:23	1:27:19	2:13:12	3:01:00	4:02:00
30	5:55.7	6:23.6	12:24	13:23	20:58	34:04						
31	5:58.0	6:26.1	12:29	13:28	21:05	34:14						
32	6:00.3	6:28.5	12:34	13:33	21:12	34:24						
33	6:02.6	6:30.1	12:39	13:38	21:19	34:35						
34	6:04.8	6:33.3	12:43	13:43	21:26	34:47						
35	6:07.0	6:35.7	12:48	13:48	21:33	34:59	43:45	1:05:55	1:29:23	2:16:22	3:05:17	4:07:45
36	6:08.9	6:37.8	12:52	13:52	21:40	35:15	43:59	1:06:16	1:29:52	2:17:05	3:06:16	4:09:04
37	6:10.9	6:39.1	12:56	13:57	21:47	35:30	44:13	1:06:37	1:30:21	2:17:50	3:07:17	4:10:25
38	6:12.1	6:42.2	13:01	14:01	21:54	35:45	44:27	1:06:59	1:30:52	2:18:36	3:08:20	4:11:49
39	6:15.1	6:44.5	13:05	14:06	22:01	35:59	44:42	1:07:22	1:31:23	2:19:24	3:09:25	4:13:15
40	6:17.3	6:46.9	13:10	14:11	22:09	36:12	44:58	1:07:46	1:31:55	2:20:13	3:10:32	4:14:44
41	6:19.5	6:49.3	13:15	14:16	22:17	36:21	45:14	1:08:11	1:32:28	2:21:03	3:11:40	4:16:16
42	6:21.9	6:51.8	13:20	14:22	22:26	36:31	45:31	1:08:36	1:33:02	2:21:55	3:12:51	4:17:50
43	6:24.3	6:54.4	13:25	14:27	22:34	36:42	45:49	1:09:02	1:33:37	2:22:48	3:14:03	4:19:28
44	6:26.7	6:57.1	13:30	14:33	22:43	36:54	46:07	1:09:29	1:34:13	2:23:43	3:15:18	4:21:08
45	6:29.3	6:59.8	13:35	14:39	22:52	37:07	46:25	1:09:56	1:34:50	2:24:40	3:16:35	4:22:51
46	6:31.9	7:02.6	13:40	14:45	23:01	37:22	46:44	1:10:24	1:35:28	2:25:38	3:17:54	4:24:37
47	6:34.7	7:05.5	13:46	14:51	23:11	37:38	47:03	1:10:53	1:36:08	2:26:39	3:19:16	4:26:26
48	6:37.5	7:08.5	13:52	14:57	23:21	37:54	47:23	1:11:23	1:36:48	2:27:40	3:20:40	4:28:18
49	6:40.3	7:11.6	13:58	15:03	23:31	38:10	47:43	1:11:53	1:37:30	2:28:44	3:22:07	4:30:14
50	6:43.3	7:14.8	14:04	15:10	23:41	38:27	48:04	1:12:25	1:38:13	2:29:50	3:23:36	4:32:13
51	6:46.3	7:18.1	14:10	15:17	23:51	38:44	48:26	1:12:58	1:38:57	2:30:57	3:25:07	4:34:15
52	6:49.4	7:21.5	14:17	15:24	24:02	39:02	48:48	1:13:32	1:39:43	2:32:06	3:26:42	4:36:21
53	6:52.7	7:24.9	14:24	15:31	24:13	39:20	49:11	1:14:06	1:40:30	2:33:18	3:28:19	4:38:31
54	6:55.1	7:28.5	14:31	15:38	24:25	39:39	49:35	1:14:42	1:41:18	2:34:32	3:29:59	4:40:46
55	6:59.4	7:32.2	14:38	15:46	24:37	39:59	49:59	1:15:19	1:42:08	2:35:48	3:31:43	4:43:04
56	7:02.9	7:35.1	14:45	15:54	24:49	40:19	50:24	1:15:57	1:42:59	2:37:06	3:33:29	4:45:26
57	7:06.5	7:39.8	14:53	16:02	25:02	40:40	50:50	1:16:35	1:43:52	2:38:27	3:35:19	4:47:53
58	7:10.3	7:43.9	15:01	16:10	25:15	41:01	51:17	1:17:16	1:44:46	2:39:51	3:37:12	4:50:24
59	7:14.1	7:48.0	15:09	16:19	25:29	41:23	51:45	1:17:57	1:45:43	2:41:17	3:39:09	4:53:01
60	7:18.1	7:52.3	15:17	16:28	25:43	41:46	52:13	1:18:40	1:46:41	2:42:46	3:41:10	4:55:42
61	7:22.1	7:56.7	15:25	16:37	25:57	42:09	52:42	1:19:24	1:47:41	2:44:17	3:43:14	4:58:27
62	7:26.3	8:01.2	15:34	16:47	26:12	42:33	53:12	1:20:10	1:48:43	2:45:51	3:45:21	5:01:18
63	7:30.7	8:05.1	15:43	16:57	26:28	42:58	53:43	1:20:57	1:49:47	2:47:28	3:47:34	5:04:15
64	7:35.2	8:10.8	15:52	17:07	26:44	43:24	54:16	1:21:46	1:50:53	2:49:09	3:49:51	5:07:18
65	7:39.9	8:15.9	16:02	17:18	27:00	43:51	54:49	1:22:36	1:52:01	2:50:53	3:52:12	5:10:27
66	7:44.8	8:21.1	16:12	17:29	27:17	44:19	55:23	1:23:28	1:53:11	2:52:40	3:54:37	5:13:42
67	7:49.8	8:26.5	16:23	17:40	27:35	44:47	55:59	1:24:21	1:54:24	2:54:31	3:57:08	5:17:03
68	7:54.1	8:32.1	16:34	17:52	27:53	45:17	56:36	1:25:17	1:55:39	2:56:26	3:59:44	5:20:32
69	8:00.4	8:37.9	16:45	18:04	28:12	45:47	57:14	1:26:14	1:56:57	2:58:25	4:02:26	5:24:08
70	8:05.9	8:43.9	16:57	18:16	28:31	46:19	57:54	1:27:14	1:58:18	3:00:28	4:05:13	5:27:52
71	8:11.6	8:50.0	17:09	18:29	28:51	46:51	58:35	1:28:15	1:59:41	3:02:35	4:08:05	5:31:42
72	8:17.4	8:56.4	17:21	18:42	29:12	47:25	59:17	1:29:19	2:01:07	3:04:46	4:11:04	5:35:41
73	8:23.6	9:02.1	17:34	18:56	29:33	47:60	1:00:00	1:30:25	2:02:37	3:07:02	4:14:10	5:39:49
74	8:29.9	9:09.8	17:47	19:10	29:56	48:36	1:00:46	1:31:33	2:04:10	3:09:24	4:17:22	5:44:06
75	8:36.5	9:16.9	18:01	19:25	30:19	49:14	1:01:33	1:32:44	2:05:46	3:11:51	4:20:42	5:48:33
76	8:43.3	9:24.2	18:15	19:41	30:43	49:53	1:02:21	1:33:57	2:07:25	3:14:22	4:24:07	5:53:08
77	8:50.4	9:31.8	18:30	19:57	31:07	50:33	1:03:12	1:35:13	2:09:08	3:16:59	4:27:41	5:57:54
78	8:57.8	9:39.7	18:45	20:14	31:33	51:15	1:04:04	1:36:32	2:10:56	3:19:43	4:31:24	6:02:52
79	9:05.4	9:47.1	19:01	20:31	32:01	51:59	1:04:59	1:37:54	2:12:48	3:22:34	4:35:16	6:08:01
80	9:13.4	9:56.6	19:18	20:49	32:29	52:45	1:05:56	1:39:20	2:14:44	3:25:31	4:39:17	6:13:24
81	9:21.6	10:05.5	19:35	21:07	32:58	53:32	1:06:55	1:40:49	2:16:44	3:28:34	4:43:25	6:18:56
82	9:30.2	10:14.8	19:53	21:27	33:29	54:21	1:07:56	1:42:21	2:18:49	3:31:45	4:47:45	6:24:43
83	9:39.1	10:24.5	20:12	21:47	34:02	55:12	1:09:00	1:43:58	2:20:60	3:35:05	4:52:16	6:30:46
84	9:48.5	10:34.6	20:31	22:08	34:36	56:06	1:10:07	1:45:39	2:23:16	3:38:33	4:56:59	6:37:04
85	9:58.3	10:45.2	20:52	22:30	35:12	57:02	1:11:17	1:47:24	2:25:39	3:42:11	5:01:55	6:43:40
86	10:08.5	10:56.2	21:13	22:53	35:50	58:00	1:12:30	1:49:14	2:28:08	3:45:58	5:07:04	6:50:33
87	10:19.2	11:07.7	21:36	23:17	36:29	59:01	1:13:46	1:51:09	2:30:44	3:49:56	5:12:26	6:57:44
88	10:30.4	11:19.7	21:59	23:42	37:10	1:00:05	1:15:06	1:53:08	2:33:26	3:54:03	5:18:03	7:05:13
89	10:42.0	11:32.3	22:24	24:09	37:54	1:01:11	1:16:29	1:55:13	2:36:15	3:58:22	5:23:54	7:13:03
90	10:54.2	11:45.3	22:49	24:36	38:39	1:02:20	1:17:55	1:57:23	2:39:12	4:02:51	5:30:00	7:21:12

AGE	1500 M	1 MILE	3 KM	2 MILE	5 KM	8 KM	10 KM	15 KM	20 KM	30 KM	40 KM	50 KM
OC	5:19.0	5:44.0	11:08	12:00	18:51	30:36	38:30	58:00	1:18:40	2:00:00	2:43:00	3:38:00
30	5:20.3	5:45.5	11:11	12:03	18:53	30:40						
31	5:22.2	5:47.5	11:15	12:07	18:59	30:49						
32	5:24.1	5:49.5	11:19	12:12	19:04	30:58						
33	5:25.9	5:51.5	11:22	12:16	19:10	31:07						
34	5:27.7	5:53.4	11:26	12:20	19:16	31:17						
35	5:29.5	5:55.3	11:30	12:24	19:22	31:26	39:20	59:15	1:20:22	2:02:35	2:46:31	3:42:42
36	5:31.1	5:57.0	11:34	12:28	19:28	31:35	39:31	59:32	1:20:45	2:03:10	2:47:19	3:43:44
37	5:32.7	5:58.8	11:38	12:31	19:34	31:44	39:43	59:50	1:21:09	2:03:47	2:48:08	3:44:53
38	5:34.4	6:00.6	11:41	12:35	19:40	31:54	39:55	1:00:08	1:21:34	2:04:25	2:48:59	3:46:01
39	5:36.1	6:02.5	11:45	12:39	19:46	32:04	40:07	1:00:27	1:21:59	2:05:03	2:49:52	3:47:12
40	5:37.9	6:04.4	11:49	12:43	19:52	32:14	40:20	1:00:46	1:22:25	2:05:43	2:50:46	3:48:24
41	5:39.7	6:06.4	11:52	12:47	19:58	32:25	40:33	1:01:06	1:22:52	2:06:24	2:51:41	3:49:36
42	5:41.6	6:08.4	11:56	12:51	20:05	32:36	40:46	1:01:26	1:23:19	2:07:06	2:52:39	3:50:52
43	5:43.6	6:10.5	11:60	12:56	20:12	32:47	41:00	1:01:47	1:23:48	2:07:49	2:53:37	3:52:10
44	5:45.6	6:12.7	12:04	13:00	20:19	32:58	41:14	1:02:08	1:24:17	2:08:33	2:54:38	3:53:32
45	5:47.6	6:14.9	12:08	13:05	20:26	33:10	41:29	1:02:30	1:24:47	2:09:19	2:55:40	3:54:56
46	5:49.7	6:17.2	12:12	13:10	20:33	33:22	41:44	1:02:53	1:25:18	2:10:06	2:56:44	3:56:28
47	5:51.8	6:19.5	12:17	13:15	20:41	33:34	42:00	1:03:16	1:25:49	2:10:54	2:57:49	3:58:00
48	5:54.1	6:21.9	12:21	13:20	20:49	33:47	42:16	1:03:40	1:26:22	2:11:44	2:58:57	3:59:34
49	5:56.3	6:24.4	12:26	13:25	20:57	33:60	42:33	1:04:05	1:26:56	2:12:35	3:00:07	4:01:10
50	5:58.7	6:26.9	12:31	13:30	21:05	34:13	42:50	1:04:30	1:27:30	2:13:28	3:01:18	4:02:46
51	6:01.1	6:29.5	12:36	13:35	21:13	34:27	43:07	1:04:56	1:28:05	2:14:22	3:02:31	4:04:19
52	6:03.7	6:32.2	12:41	13:41	21:22	34:41	43:25	1:05:23	1:28:41	2:15:17	3:03:46	4:05:55
53	6:06.2	6:34.9	12:47	13:47	21:31	34:56	43:43	1:05:51	1:29:19	2:16:15	3:05:04	4:07:35
54	6:08.9	6:37.8	12:52	13:53	21:40	35:11	44:02	1:06:20	1:29:57	2:17:13	3:06:24	4:09:19
55	6:11.6	6:40.7	12:58	13:59	21:50	35:27	44:21	1:06:49	1:30:37	2:18:14	3:07:46	4:11:07
56	6:14.4	6:43.7	13:04	14:05	21:60	35:43	44:41	1:07:19	1:31:18	2:19:12	3:09:10	4:12:60
57	6:17.2	6:46.8	13:10	14:12	22:10	35:59	45:02	1:07:50	1:31:59	2:20:14	3:10:37	4:14:56
58	6:20.1	6:49.1	13:16	14:18	22:20	36:16	45:23					

					SHOT	DISCUS	HAMMER	JAVELIN	
	HJ	PV	LJ	TJ		16#	2kg	16#	800g
OC	1.000	1.000	1.000	1.000	OC	1.000	1.000	1.000	1.00
M30	1.021	1.025	1.021	1.022	M30	1.012	1.001	1.012	1.06
M35	1.066	1.075	1.072	1.074	M35	1.066	1.054	1.066	1.13
M40	1.116	1.135	1.132	1.135	M40	1.125	1.110	1.125	1.20
M45	1.172	1.205	1.201	1.205	M45	1.190	1.180	1.190	1.27
M50	1.235	1.285	1.279	1.285		6kg	1.5kg	6kg	
M55	1.305	1.375	1.367	1.376	M50	1.145	1.125	1.190	1.37
M60	1.382	1.475	1.465	1.476	M55	1.220	1.200	1.270	1.54
M65	1.466	1.585	1.574	1.588		5kg	1kg	5kg	600g
M70	1.557	1.710	1.694	1.712	M60	1.235	1.120	1.280	1.52
M75	1.655	1.855	1.826	1.849	M65	1.360	1.230	1.410	1.67
M80	1.760	2.025	1.970	1.999		4kg		4kg	
M85	1.872	2.225	2.147	2.184	M70	1.370	1.370	1.420	1.85
M90	1.991	2.460	2.318	2.363	M75	1.550	1.550	1.630	2.08
					M80	1.770	1.760	1.920	2.36
					M85	2.050	2.020	2.290	2.69
					M90	2.390	2.340	2.790	3.10
	HJ	PV	LJ	TJ		4kg	1kg	4kg	600g
WOC	1.000	1.000	1.000	1.000	WOC	1.000	1.000	1.000	1.000
W30	1.026	1.031	1.023	1.024	W30	1.040	1.001	1.040	1.090
W35	1.082	1.094	1.079	1.081	W35	1.080	1.065	1.080	1.200
W40	1.145	1.169	1.145	1.148	W40	1.165	1.132	1.165	1.320
W45	1.215	1.256	1.221	1.225	W45	1.270	1.210	1.270	1.465
W50	1.295	1.356	1.307	1.313		3kg		3kg	400g
W55	1.381	1.469	1.404	1.414	W50	1.230	1.310	1.270	1.500
W60	1.477	1.594	1.511	1.523	W55	1.360	1.430	1.410	1.670
W65	1.582	1.731	1.631	1.647	W60	1.510	1.570	1.570	1.870
W70	1.696	1.887	1.763	1.783	W65	1.680	1.730	1.750	2.100
W75	1.819	2.069	1.909	1.934	W70	1.870	1.910	1.960	2.360
W80	1.950	2.281	2.067	2.099	W75	2.080	2.110	2.190	2.650
W85	2.090	2.531	2.262	2.302	W80	2.310	2.330	2.440	2.970
W90	2.239	2.825	2.450	2.500	W85	2.660	2.570	2.810	3.320
					W90	2.930	2.830	3.100	3.800

LONG DISTANCE RUNNING

AGE FACTORS - 1989

	5K-25K	30K	MARATHON
OC	1.0000	1.0000	1.0000
M35	.9724	.9742	.9859
M40	.9430	.9446	.9560
M45	.9125	.9141	.9251
M50	.8804	.8820	.8926
M55	.8441	.8456	.8558
M60	.8038	.8053	.8150
M65	.7622	.7636	.7728
M70	.7192		

WOMEN'S LONG DISTANCE RUNNING EVENT STANDARDS

AGE	5 KM	8 KM	10 KM	15 KM	10 MILE	20 KM	21097	25 KM	30 KM	42195
OC	14:22	23:39	29:53	45:49	49:23	1:02:12	1:05:57	1:18:59	1:35:58	2:18:00
35	14:49	24:23	30:49	47:15	50:56	1:04:09	1:08:01	1:21:27	1:38:47	2:20:10
36	14:55	24:33	31:01	47:34	51:16	1:04:34	1:08:28	1:21:59	1:39:26	2:21:06
37	15:01	24:43	31:14	47:53	51:37	1:05:00	1:08:56	1:22:32	1:40:06	2:22:03
38	15:07	24:53	31:27	48:12	51:58	1:05:27	1:09:24	1:23:06	1:40:47	2:23:01
39	15:14	25:03	31:40	48:32	52:19	1:05:54	1:09:53	1:23:41	1:41:29	2:24:00
40	15:20	25:14	31:53	48:53	52:41	1:06:22	1:10:22	1:24:16	1:42:12	2:25:00
41	15:26	25:25	32:06	49:14	53:03	1:06:50	1:10:52	1:24:52	1:42:55	2:26:00
42	15:33	25:35	32:20	49:36	53:26	1:07:19	1:11:22	1:25:28	1:43:39	2:27:05
43	15:40	25:47	32:34	49:58	53:50	1:07:49	1:11:54	1:26:06	1:44:25	2:28:10
44	15:47	25:58	32:49	50:20	54:14	1:08:19	1:12:26	1:26:44	1:45:11	2:29:16
45	15:54	26:10	33:04	50:43	54:39	1:08:50	1:12:59	1:27:24	1:45:59	2:30:24
46	16:01	26:22	33:19	51:05	55:03	1:09:21	1:13:32	1:28:03	1:46:46	2:31:30
47	16:09	26:34	33:34	51:29	55:29	1:09:53	1:14:06	1:28:44	1:47:35	2:32:40
48	16:16	26:47	33:51	51:53	55:55	1:10:26	1:14:41	1:29:26	1:48:27	2:33:53
49	16:25	27:00	34:07	52:19	56:23	1:11:01	1:15:18	1:30:11	1:49:21	2:35:09
50	16:33	27:14	34:25	52:46	56:52	1:11:38	1:15:57	1:30:57	1:50:17	2:36:29
51	16:42	27:29	34:43	53:14	57:22	1:12:16	1:16:37	1:31:45	1:51:15	2:37:52
52	16:50	27:44	35:02	53:43	57:53	1:12:56	1:17:19	1:32:35	1:52:16	2:39:18
53	16:50	27:59	35:22	54:13	58:26	1:13:37	1:18:03	1:33:28	1:53:20	2:40:49
54	17:10	28:16	35:42	54:45	59:00	1:14:20	1:18:48	1:34:23	1:54:27	2:42:23
55	17:20	28:33	36:04	55:18	59:36	1:15:05	1:19:36	1:35:20	1:55:36	2:44:01
56	17:31	28:51	36:27	55:53	1:00:14	1:15:53	1:20:27	1:36:21	1:56:50	2:45:45
57	17:43	29:09	36:51	56:29	1:00:53	1:16:42	1:21:19	1:37:23	1:58:06	2:47:33
58	17:54	29:29	37:15	57:07	1:01:33	1:17:33	1:22:13	1:38:28	1:59:24	2:49:27
59	18:07	29:49	37:40	57:45	1:02:15	1:18:25	1:23:09	1:39:34	2:00:45	2:51:13
60	18:19	30:09	38:06	58:25	1:02:58	1:19:19	1:24:06	1:40:43	2:02:08	2:53:15
61	18:32	30:30	38:33	59:06	1:03:42	1:20:14	1:25:05	1:41:53	2:03:31	2:55:16
62	18:45	30:52	39:00	59:48	1:04:28	1:21:11	1:26:05	1:43:06	2:04:58	2:57:20
63	18:58	31:15	39:29	1:00:32	1:05:15	1:22:10	1:27:08	1:44:21	2:06:29	2:59:29
64	19:12	31:38	39:58	1:01:17	1:06:03	1:23:11	1:28:12	1:45:38	2:08:03	3:01:42
65	19:27	32:02	40:28	1:02:03	1:06:53	1:24:14	1:29:19	1:46:58	2:09:41	3:03:59
66	19:42	32:27	40:59	1:02:51	1:07:45	1:25:19	1:30:28	1:48:21	2:11:26	3:06:21
67	19:58	32:52	41:31	1:03:41	1:08:38	1:26:26	1:31:39	1:49:46	2:13:14	3:08:47
68	20:14	33:18	42:05	1:04:32	1:09:32	1:27:35	1:32:53	1:51:14	2:15:04	3:11:18
69	20:30	33:45	42:39	1:05:24	1:10:29	1:28:47	1:34:08	1:52:44	2:16:57	3:13:53
70	20:47	34:13	43:14	1:06:18	1:11:27	1:30:00	1:35:26	1:54:17	2:18:52	3:16:33
71	21:02	34:42	43:50	1:07:13	1:12:27	1:31:15	1:36:46	1:55:52	2:20:48	3:19:17
72	21:18	35:11	44:28	1:08:10	1:13:29	1:32:33	1:38:08	1:57:31	2:22:48	3:22:06
73	21:37	35:42	45:06	1:09:09	1:14:32	1:33:53	1:39:33	1:59:12	2:24:51	3:25:01
74	21:57	36:13	45:46	1:10:10	1:15:38	1:35:16	1:41:00	2:00:58	2:26:59	3:28:02
75	22:20	36:46	46:27	1:11:13	1:16:46	1:36:41	1:42:31	2:02:46	2:29:11	3:31:08
76	22:54	37:19	47:09	1:12:18	1:17:56	1:38:09	1:44:04	2:04:37	2:31:26	3:34:18
77	23:26	37:54	47:53	1:13:24	1:19:04	1:39:39	1:45:40	2:06:33	2:33:47	3:37:36
78	23:56	38:30	48:38	1:14:34	1:20:22	1:41:14	1:47:20	2:08:32	2:36:12	3:41:01
79	24:23	39:07	49:25	1:15:46	1:21:40	1:42:51	1:49:03	2:10:36	2:38:42	3:44:33
80	24:49	39:45	50:13	1:17:00	1:23:00	1:44:32	1:50:50	2:12:44	2:41:18	3:48:13
81	25:02	40:26	51:03	1:18:17	1:24:23	1:46:16	1:52:41	2:14:56	2:43:59	3:52:01
82	25:17	41:07	51:55	1:19:37	1:25:49	1:48:05	1:54:35	2:17:13	2:46:45	3:55:57
83	25:35	41:50	52:49	1:20:59	1:27:18	1:49:57	1:56:34	2:19:36	2:49:38	4:00:02
84	25:55	42:34	53:45	1:22:25	1:28:50	1:51:53	1:58:38	2:22:04	2:52:38	4:04:16
85	26:18	43:18	54:43	1:23:54	1:30:26	1:53:54	2:00:46	2:24:37	2:55:44	4:08:39
86	26:43	44:03	55:43	1:25:26	1:32:05	1:55:59	2:02:59	2:27:16	2:58:57	4:13:12
87	27:12	44:50	56:46	1:27:02	1:33:49	1:58:09	2:05:17	2:30:01	3:02:18	4:17:54
88	27:43	45:37	57:51	1:28:41	1:35:36	2:00:24	2:07:40	2:32:53	3:05:46	4:22:47
89	28:17	46:26	58:58	1:30:24	1:37:27	2:02:44	2:10:08	2:35:50	3:09:22	4:27:51
90	28:54	47:15	1:00:08	1:32:11	1:39:22	2:05:09	2:12:42	2:38:55	3:13:06	4:33:06

MEN'S LONG DISTANCE RUNNING EVENT STANDARDS

AGE	5 KM	8 KM	10 KM	15 KM	10 MILE	20 KM	21097	25 KM	30 KM	42195
OC	12:57	21:18	26:55	41:17	44:29	56:02	59:25	1:11:09	1:26:27	2:04:20
35	13:19	21:54	27:41	42:27	45:45	57:37	1:01:06	1:13:10	1:28:44	2:06:06
36	13:24	22:02	27:51	42:42	46:01	57:58	1:01:28	1:13:36	1:29:16	2:06:52
37	13:29	22:10	28:01	42:58	46:18	58:19	1:01:50	1:14:03	1:29:49	2:07:38
38	13:34	22:18	28:12	43:14	46:35	58:41	1:02:13	1:14:31	1:30:22	2:08:25
39	13:39	22:26	28:22	43:30	46:52	59:03	1:02:36	1:14:59	1:30:56	2:09:14
40	13:44	22:35	28:33	43:47	47:10	59:25	1:03:00	1:15:27	1:31:31	2:10:03
41	13:49	22:44	28:44	44:04	47:28	59:48	1:03:24	1:15:56	1:32:06	2:10:53
42	13:55	22:53	28:55	44:21	47:47	1:00:11	1:03:49	1:16:25	1:32:41	2:11:44
43	14:00	23:02	29:06	44:39	48:06	1:00:35	1:04:14	1:16:55	1:33:18	2:12:36
44	14:06	23:11	29:18	44:57	48:25	1:00:59	1:04:40	1:17:26	1:33:56	2:13:29
45	14:12	23:21	29:30	45:15	48:45	1:01:24	1:05:07	1:17:58	1:34:34	2:14:24
46	14:18	23:30	29:42	45:33	49:05	1:01:49	1:05:33	1:18:29	1:35:12	2:15:18
47	14:24	23:40	29:54	45:52	49:25	1:02:15	1:06:00	1:19:02	1:35:52	2:16:14
48	14:30	23:50	30:07	46:11	49:47	1:02:42	1:06:29	1:19:36	1:36:33	2:17:12
49	14:36	24:01	30:20	46:32	50:09	1:03:10	1:06:58	1:20:12	1:37:16	2:18:13
50	14:43	24:12	30:34	46:53	50:32	1:03:39	1:07:29	1:20:49	1:38:01	2:19:17
51	14:50	24:23	30:49	47:15	50:56	1:04:09	1:08:01	1:21:27	1:38:48	2:20:23
52	14:57	24:35	31:04	47:38	51:21	1:04:41	1:08:34	1:22:07	1:39:36	2:21:32
53	15:05	24:48	31:19	48:03	51:47	1:05:13	1:09:09	1:22:49	1:40:27	2:22:44
54	15:13	25:01	31:36	48:28	52:14	1:05:47	1:09:45	1:23:32	1:41:19	2:23:59
55	15:21	25:14	31:53	48:54	52:42	1:06:23	1:10:23	1:24:17	1:42:14	2:25:17
56	15:30	25:28	32:11	49:22	53:12	1:07:01	1:11:03	1:25:05	1:43:12	2:26:39
57	15:39	25:43	32:30	49:51	53:42	1:07:40	1:11:44	1:25:55	1:44:12	2:28:04
58	15:48	25:58	32:49	50:21	54:14	1:08:20	1:12:27	1:26:45	1:45:13	2:29:31
59	15:57	26:13	33:09	50:51	54:47	1:09:01	1:13:10	1:27:37	1:46:16	2:31:01
60	16:07	26:29	33:29	51:22	55:20	1:09:43	1:13:55	1:28:31	1:47:21	2:32:33
61	16:17	26:45	33:49	51:53	55:54	1:10:26	1:14:41	1:29:26	1:48:27	2:34:07
62	16:27	27:02	34:11	52:26	56:30	1:11:10	1:15:28	1:30:22	1:49:36	2:35:44
63	16:37	27:20	34:32	52:59	57:06	1:11:56	1:16:16	1:31:20	1:50:46	2:37:24
64	16:48	27:38	34:55	53:33	57:44	1:12:43	1:17:06	1:32:20	1:51:58	2:39:07
65	16:59	27:56	35:18	54:09	58:22	1:13:31	1:17:57	1:33:21	1:53:13	2:40:53
66	17:11	28:15	35:42	54:46	59:02	1:14:21	1:18:50	1:34:25	1:54:30	2:42:42
67	17:22	28:34	36:07	55:24	59:42	1:15:12	1:19:45	1:35:30	1:55:49	2:44:35
68	17:35	28:54	36:32	56:03	1:00:24	1:16:05	1:20:41	1:36:37	1:57:10	2:46:30
69	17:47	29:15	36:58	56:43	1:01:07	1:16:59	1:21:38	1:37:45	1:58:33	2:48:28
70	18:00	29:36	37:25	57:24	1:01:51	1:17:55	1:22:37	1:38:56	1:59:59	2:50:30
71	18:13	29:58	37:52	58:06	1:02:36	1:18:52	1:23:37	1:40:08	2:01:27	2:52:42
72	18:27	30:20	38:21	58:49	1:03:23	1:19:50	1:24:39	1:41:22	2:02:57	2:54:54
73	18:41	30:43	38:50	59:34	1:04:10	1:20:51	1:25:43	1:42:39	2:04:30	2:57:06
74	18:55	31:07	39:19	1:00:19	1:04:60	1:21:52	1:26:49	1:43:57	2:06:05	2:59:18
75	19:10	31:31	39:50	1:01:06	1:05:50	1:22:56	1:27:56	1:45:18	2:07:43	3:01:29
76	19:25	31:56	40:21	1:01:54	1:06:41	1:24:01	1:29:05	1:46:41	2:09:23	3:03:14
77	19:41	32:21	40:53	1:02:43	1:07:35	1:25:08	1:30:16	1:48:06	2:11:06	3:05:11
78	19:57	32:47	41:27	1:03:34	1:08:29	1:26:17	1:31:30	1:49:33	2:12:52	3:07:20
79	20:13	33:14	42:01	1:04:26	1:09:26	1:27:28	1:32:45	1:51:04	2:14:41	3:09:42
80	20:30	33:42	42:36	1:05:20	1:10:24	1:28:41	1:34:03	1:52:37	2:16:34	3:12:17
81	20:44	34:11	43:12	1:06:13	1:11:24	1:29:57	1:35:23	1:54:13	2:18:30	3:15:32
82	21:01	34:41	43:50	1:07:09	1:12:26	1:31:15	1:36:45	1:55:52	2:20:30	3:18:48
83	21:19	35:12	44:28	1:08:09	1:13:30	1:32:35	1:38:10	1:57:34	2:22:34	3:22:06
84	21:39	35:43	45:08	1:09:11	1:14:36	1:33:58	1:39:38	1:59:19	2:24:42	3:25:26
85	22:02	36:16	45:49	1:10:17	1:15:44	1:35:24	1:41:09	2:01:08	2:26:54	3:28:47
86	22:27	36:50	46:31	1:11:26	1:16:54	1:36:52	1:42:43	2:03:00	2:29:10	3:32:10
87	22:54	37:24	47:15	1:12:39	1:18:07	1:38:24	1:44:19	2:04:56	2:31:31	3:35:34
88	23:24	38:00	48:00	1:13:56	1:19:21	1:39:58	1:45:59	2:06:55	2:33:56	3:38:60
89	23:57	38:37	48:47	1:15:17	1:20:38	1:41:35	1:47:43	2:08:55	2:36:26	3:42:27
90	24:32	39:15	49:35	1:16:42	1:21:58	1:43:15	1:49:29	2:11:06	2:39:00	3:45:56

MEN'S TRACK RUNNING EVENT STANDARDS

AGE	100 M	200 M	400 M	800 M	1500 M	1 MILE	3000 M	5000 M
							7:22.96	
OC	9.85	19.62	43.29	1:41.73	3:29.46	3:46.09	7:32.0	12:57.0
30	10.00	19.94	44.04	1:43.28	3:31.70	3:48.37	7:34.3	12:57.0
31	10.04	20.05	44.33	1:43.84	3:32.85	3:49.61	7:36.5	13:01.2
32	10.08	20.16	44.62	1:44.42	3:34.04	3:50.89	7:38.9	13:05.5
33	10.12	20.27	44.92	1:45.01	3:35.25	3:52.19	7:41.3	13:09.9
34	10.17	20.38	45.22	1:45.62	3:36.49	3:53.53	7:43.8	13:14.4
35	10.21	20.49	45.53	1:46.24	3:37.76	3:54.90	7:46.4	13:19.0
36	10.25	20.60	45.84	1:46.88	3:39.07	3:56.31	7:49.2	13:23.8
37	10.30	20.72	46.16	1:47.53	3:40.41	3:57.75	7:52.1	13:28.7
38	10.35	20.84	46.49	1:48.19	3:41.77	3:59.21	7:54.1	13:33.7
39	10.39	20.96	46.82	1:48.87	3:43.16	4:00.71	7:57.1	13:38.8
40	10.44	21.08	47.16	1:49.56	3:44.57	4:02.24	8:01.0	13:44.0
41	10.49	21.20	47.51	1:50.26	3:45.99	4:03.79	8:04.1	13:49.4
42	10.54	21.33	47.87	1:50.97	3:47.46	4:05.37	8:07.2	13:54.9
43	10.59	21.46	48.23	1:51.70	3:48.95	4:06.99	8:10.4	14:00.5
44	10.64	21.59	48.60	1:52.45	3:50.49	4:08.65	8:13.7	14:06.2
45	10.69	21.73	48.98	1:53.22	3:52.06	4:10.35	8:17.1	14:12.0
46	10.74	21.87	49.37	1:53.97	3:53.61	4:12.02	8:20.4	14:17.7
47	10.79	22.01	49.76	1:54.76	3:55.23	4:13.76	8:23.9	14:23.6
48	10.85	22.15	50.16	1:55.59	3:56.91	4:15.58	8:27.5	14:29.8
49	10.90	22.30	50.58	1:56.44	3:58.67	4:17.48	8:31.3	14:36.3
50	10.96	22.45	51.00	1:57.34	4:00.51	4:19.46	8:35.2	14:43.0
51	11.02	22.60	51.43	1:58.27	4:02.41	4:21.51	8:39.3	14:50.0
52	11.08	22.76	51.87	1:59.24	4:04.39	4:23.64	8:43.5	14:57.3
53	11.14	22.92	52.32	2:00.25	4:06.46	4:25.87	8:47.9	15:04.9
54	11.20	23.09	52.79	2:01.30	4:08.61	4:28.19	8:52.5	15:12.8
55	11.27	23.26	53.26	2:02.39	4:10.85	4:30.60	8:57.3	15:21.0
56	11.34	23.43	53.74	2:03.55	4:13.23	4:33.17	9:02.4	15:29.8
57	11.41	23.61	54.24	2:04.75	4:15.68	4:35.81	9:07.6	15:38.7
58	11.48	23.80	54.75	2:05.97	4:18.20	4:38.53	9:12.1	15:47.9
59	11.55	23.99	55.27	2:07.23	4:20.78	4:41.32	9:18.5	15:57.3
60	11.63	24.18	55.81	2:08.53	4:23.44	4:44.18	9:24.2	16:07.0
61	11.71	24.38	56.36	2:09.86	4:26.16	4:47.11	9:30.0	16:16.7
62	11.79	24.58	56.93	2:11.22	4:28.96	4:50.12	9:36.0	16:26.8
63	11.88	24.79	57.51	2:12.62	4:31.84	4:53.22	9:42.2	16:37.2
64	11.97	25.01	58.11	2:14.07	4:34.80	4:56.42	9:48.6	16:47.9
65	12.06	25.24	58.72	2:15.55	4:37.84	4:59.70	9:55.1	16:59.0
66	12.16	25.47	59.35	2:17.08	4:40.97	5:03.09	10:01.8	17:10.5
67	12.25	25.72	59.99	2:18.65	4:44.19	5:06.57	10:08.7	17:22.4
68	12.36	25.97	1:00.66	2:20.27	4:47.49	5:10.14	10:15.8	17:34.6
69	12.47	26.23	1:01.35	2:21.93	4:50.89	5:13.82	10:23.1	17:47.1
70	12.58	26.50	1:02.06	2:23.63	4:54.39	5:17.59	10:30.6	18:00.0
71	12.69	26.78	1:02.79	2:25.37	4:57.98	5:21.46	10:38.3	18:13.3
72	12.82	27.06	1:03.54	2:27.16	5:01.68	5:25.44	10:46.2	18:26.9
73	12.94	27.36	1:04.32	2:29.01	5:05.47	5:29.53	10:54.3	18:40.9
74	13.08	27.67	1:05.12	2:30.91	5:09.37	5:33.73	11:02.6	18:55.2
75	13.22	28.00	1:05.95	2:32.86	5:13.38	5:38.05	11:11.2	19:10.0
76	13.37	28.34	1:06.80	2:34.86	5:17.47	5:42.46	11:19.1	19:25.1
77	13.52	28.69	1:07.68	2:36.93	5:21.69	5:47.00	11:28.1	19:40.7
78	13.69	29.06	1:08.60	2:39.05	5:26.04	5:51.69	11:38.3	19:56.7
79	13.86	29.44	1:09.55	2:41.24	5:30.52	5:56.52	11:47.9	20:13.1
80	14.04	29.84	1:10.53	2:43.50	5:35.14	6:01.51	11:57.8	20:30.0
81	14.23	30.25	1:11.55	2:45.81	5:39.88	6:06.64	12:07.1	20:44.3
82	14.43	30.68	1:12.60	2:48.20	5:44.78	6:11.94	12:18.5	21:00.6
83	14.64	31.14	1:13.70	2:50.67	5:49.84	6:17.41	12:29.4	21:18.1
84	14.86	31.61	1:14.83	2:53.22	5:55.06	6:23.05	12:40.5	21:39.4
85	15.10	32.11	1:16.00	2:55.85	6:00.45	6:28.87	12:52.1	22:02.0
86	15.35	32.63	1:17.21	2:58.56	6:06.01	6:34.88	13:04.0	22:26.9
87	15.61	33.18	1:18.47	3:01.37	6:11.76	6:41.07	13:16.3	22:54.2
88	15.89	33.75	1:19.77	3:04.26	6:17.69	6:47.47	13:29.0	23:24.1
89	16.18	34.35	1:21.11	3:07.25	6:23.81	6:54.06	13:42.1	23:56.6
90	16.49	34.97	1:22.50	3:10.33	6:30.13	7:00.87	13:55.6	24:32.0

MEN'S HURDLES AND STEEPLECHASE STANDARDS

AGE 110 H 100 H 80 H 400 H 300 H 3000 SC 2000 SC

	1.067m/42"			.914m/36"	8.0208		
OC	12.90			47.02	33.60	8:05.0	
	.991m/39"						
30	13.00			47.92	34.23	8:12.8	
31	13.04			48.25	34.47	8:15.2	
32	13.09			48.60	34.71	8:17.8	
33	13.15			48.95	34.95	8:20.5	
34	13.21			49.31	35.21	8:23.4	
35	13.28			49.68	35.47	8:26.4	
36	13.35			50.05	35.73	8:29.5	
37	13.43			50.44	36.00	8:32.8	
38	13.52			50.84	36.29	8:36.3	
39	13.61			51.25	36.58	8:40.1	
40	13.71			51.68	36.88	8:44.0	
41	13.82			52.13	37.19	8:48.1	
42	13.93			52.59	37.52	8:52.5	
43	14.06			53.06	37.85	8:57.2	
44	14.19			53.56	38.20	9:02.1	
45	14.33			54.07	38.56	9:07.2	
46	14.48			54.60	38.93	9:12.7	
47	14.64			55.15	39.31	9:18.4	
48	14.80			55.71	39.71	9:24.4	
49	14.98			56.29	40.12	9:30.6	
	.914m/36"			.840m/33"			
50	14.86	13.46		55.70	39.70	9:37.0	
51	15.05	13.63		56.27	40.10	9:43.7	
52	15.23	13.80		56.84	40.50	9:50.6	
53	15.42	13.97		57.42	40.90	9:57.8	
54	15.62	14.14		58.00	41.31	10:05.3	
55	15.81	14.32		58.59	41.72	10:13.1	
56	16.01	14.50		59.18	42.14	10:21.2	
57	16.21	14.68		59.78	42.56	10:29.5	
58	16.41	14.86		1:00.38	42.98	10:38.2	
59	16.61	15.04		1:00.99	43.41	10:47.2	
	.840m/33"			.762m/30"			
60	16.47	14.92		1:01.19	43.46	7:03.9	
61	16.68	15.11		1:01.96	43.99	7:10.3	
62	16.89	15.30		1:02.79	44.55	7:16.9	
63	17.10	15.49		1:03.67	45.15	7:23.7	
64	17.32	15.69		1:04.60	45.79	7:30.7	
65	17.54	15.89		1:05.59	46.46	7:38.0	
66	17.76	16.09		1:06.75	47.25	7:45.6	
67	17.99	16.29		1:07.91	48.05	7:53.3	
68	18.22	16.50		1:09.09	48.84	8:01.3	
69	18.45	16.71		1:10.27	49.64	8:09.5	
	.762m/30"	.762m/30"					
70	18.32	16.59	13.06	1:11.46	50.43	8:18.0	
71	18.56	16.80	13.23	1:12.59	51.18	8:26.7	
72	18.80	17.02	13.39	1:13.76	51.95	8:35.7	
73	19.05	17.23	13.57	1:14.97	52.74	8:44.9	
74	19.30	17.46	13.74	1:16.22	53.55	8:54.4	
75			13.92	1:17.51	54.38	9:04.1	
76			14.10	1:18.83	55.22	9:14.1	
77			14.28	1:20.20	56.09	9:24.3	
78			14.47	1:21.63	56.98	9:34.9	
79			14.67	1:23.11	57.91	9:45.7	
80			14.87	1:24.65	58.86	9:56.8	
81			15.08	1:26.22	59.83		
82			15.29	1:27.87	1:00.84		
83			15.51	1:29.60	1:01.89		
84			15.73	1:31.42	1:02.98		
85			15.96	1:33.33	1:04.11		
86			16.19	1:35.33	1:05.29		
87			16.43	1:37.43	1:06.51		
88			16.67	1:39.64	1:07.78		
89			16.91	1:41.95	1:09.10		
90			17.16	1:44.37	1:10.47		

WOMEN'S HURDLES AND STEEPLECHASE

AGE 100 H 80 H 400 H 300 H 2000 SC STDS.

	.840m/33"	.762m/30"			
OC	12.25	9.68	52.94	37.77	6:00.0
30	12.51		54.36	38.57	6:02.2
31	12.59		54.78	38.86	6:05.4
32	12.66		55.21	39.17	6:08.8
33	12.74		55.65	39.49	6:12.3
34	12.82		56.10	39.82	6:16.1
35	12.90		56.57	40.16	6:20.1
36	12.98		57.04	40.54	6:24.5
37	13.06		57.52	40.92	6:29.1
38	13.14		58.03	41.31	6:33.7
39	13.22		58.55	41.69	6:38.4
	.762m/30"				
40	13.36	10.56	59.10	42.07	6:43.3
41	13.49	10.67	59.67	42.39	6:48.3
42	13.63	10.78	1:00.26	42.74	6:53.4
43	13.76	10.89	1:00.87	43.12	6:58.6
44	13.90	10.10	1:01.50	43.54	7:03.9
45	14.04	11.10	1:02.16	43.98	7:09.3
46	14.18	11.19	1:02.84	44.52	7:14.7
47	14.32	11.29	1:03.55	45.06	7:20.3
48	14.46	11.38	1:04.28	45.61	7:26.0
49	14.61	11.48	1:05.04	46.16	7:31.9
50		11.58		46.71	7:38.0
51		11.68		47.24	7:44.3
52		11.78		47.79	7:50.7
53		11.89		48.35	7:57.3
54		12.00		48.93	8:03.1
55		12.12		49.53	8:10.9
56		12.24		50.14	8:18.0
57		12.36		50.77	8:25.3
58		12.49		51.42	8:32.7
59		12.62		52.09	8:40.3
60		12.76		52.78	8:48.1
61		12.90		53.49	8:56.0
62		13.04		54.22	9:04.1
63		13.19		54.98	9:12.4
64		13.35		55.77	9:20.9
65		13.51		56.58	9:29.6
66		13.67		57.41	9:38.4
67		13.85		58.27	9:47.4
68		14.02		59.17	9:56.8
69		14.21		1:00.10	10:06.4
70		14.40		1:01.06	10:16.3
71		14.60		1:02.05	10:26.5
72		14.80		1:03.08	10:37.0
73		15.02		1:04.15	10:47.9
74		15.24		1:05.27	10:59.1
75		15.48		1:06.43	11:10.6
76		15.72		1:07.62	
77		15.98		1:08.87	
78		16.24		1:10.18	
79		16.53		1:11.54	
80		16.82		1:12.97	
81		17.12		1:14.44	
82		17.44		1:15.99	
83		17.78		1:17.62	
84		18.14		1:19.33	
85		18.52		1:21.12	
86		18.92		1:23.01	
87		19.34		1:24.98	
88		19.78		1:27.06	
89		20.25		1:29.25	
90		20.74		1:31.54	

MEN'S FIELD EVENT STANDARDS

AGE	HIGH JUMP	POLE VAULT	LONG JUMP	TRIPLE JUMP	SP 16 #	DT 2 KG	HT 16 #	JT 800 G
OC	2.422.44	6.03	8.79	17.97	20.40	69.50	76.85	90.42
30	2.37	5.88	8.61	17.58	20.16	69.43	75.94	85.30
31	2.35	5.83	8.53	17.41	19.96	68.72	75.16	84.19
32	2.332.34	5.78	8.45	17.25	19.75	68.01	74.39	83.11
33	2.31	5.72	8.378.70	17.08	19.55	67.32	73.62	82.05
34	2.29	5.67	8.28	16.90	19.34	66.62	72.85	81.02
2735	2.272.16	5.61	8.208.19	16.7316.95	19.14	65.94	72.09	80.02
36	2.25	5.55	8.11	16.55	18.94	65.31	71.33	79.04
37	2.23	5.49	8.02	16.37	18.73	64.66	70.57	78.09
38	2.21	5.43	7.94	16.19	18.53	63.99	69.82	77.15
39	2.19	5.37	7.85	16.01	18.33	63.31	69.06	76.24
40	2.172.06	5.31	7.767.54	15.8315.70	18.13	62.61	68.31	75.35
41	2.15	5.25	7.67	15.65	17.93	61.90	67.56	74.62
42	2.12	5.19	7.59	15.46	17.73	61.17	66.81	73.83
43	2.10	5.12	7.50	15.28	17.53	60.42	66.07	72.10
44	2.08	5.06	7.41	15.10	17.34	59.67	65.32	72.12
45	2.061.90	5.00	7.327.27	14.9114.18	17.14	58.90	64.58	71.20
46	2.04	4.94	7.23	14.72	16.94	58.12	63.84	70.36
47	2.02	4.87	7.14	14.54	16.75	57.33	63.11	69.41
48	2.00	4.81	7.05	14.35	16.56	56.53	62.37	68.37
49	1.98	4.75	6.96	14.17	16.36	55.72	61.64	67.23
50	1.961.88	4.69	6.876.54	13.9813.55	6 KG 17.82	1.5 KG 61.78	6 KG 64.58	66.00
51	1.94	4.63	6.78	13.79	17.59	60.99	63.74	64.69
52	1.91	4.57	6.69	13.61	17.37	60.21	62.92	63.29
53	1.89	4.51	6.60	13.42	17.15	59.43	62.11	61.83
54	1.87	4.45	6.52	13.24	16.93	58.67	61.30	60.30
55	1.851.79	4.39	6.436.10	13.0612.75	16.72	57.92	60.51	58.71
56	1.83	4.33	6.34	12.88	16.51	57.18	59.73	57.07
57	1.81	4.27	6.26	12.70	16.30	56.44	58.96	55.38
58	1.79	4.21	6.17	12.52	16.09	55.72	58.19	53.66
59	1.77	4.15	6.09	12.34	15.89	55.01	57.44	51.90
60	1.751.66	4.09	6.006.07	12.1712.33	5 KG 16.52	1 KG 62.05	5 KG 60.04	600 G 59.48
61	1.73	4.03	5.91	11.10	16.20	60.97	58.89	58.41
62	1.71	3.97	5.83	11.83	15.89	59.87	57.76	57.34
63	1.69	3.91	5.74	11.66	15.59	58.76	56.65	56.27
64	1.67	3.86	5.66	11.49	15.29	57.63	55.57	55.20
65	1.651.55	3.80	5.585.29	11.32	15.00	56.50	54.50	54.14
66	1.63	3.75	5.50	11.15	14.71	55.37	53.45	53.11
67	1.61	3.69	5.42	10.99	14.43	54.22	52.43	52.07
68	1.59	3.64	5.34	10.82	14.16	53.06	51.42	51.01
69	1.57	3.58	5.27	10.66	13.89	51.90	50.44	49.95
70	1.551.48	3.53	5.194.98	10.5010.25	4 KG 14.89	50.73	49.12	48.88
71	1.53	3.47	5.11	10.34	14.54	49.51	52.76	47.78
72	1.51	3.42	5.03	10.18	14.19	48.31	51.38	46.69
73	1.50	3.36	4.96	10.03	13.84	47.13	49.98	45.61
74	1.48	3.31	4.88	9.87	13.50	45.97	48.57	44.53
75	1.461.44	3.25	4.814.77	9.7210.05	13.16	44.84	47.15	43.47
76	1.44	3.20	4.74	9.58	12.83	43.75	45.68	42.40
77	1.42	3.14	4.67	9.43	12.50	42.67	44.23	41.35
78	1.40	3.09	4.60	9.29	12.18	41.60	42.80	40.32
79	1.39	3.03	4.53	9.14	11.85	40.54	41.40	39.30
80	1.37	2.98	4.46	8.99	11.53	39.49	40.03	38.31
81	1.35	2.93	4.38	8.83	11.20	38.45	38.71	37.35
82	1.34	2.87	4.30	8.67	10.88	37.42	37.40	36.40
83	1.32	2.82	4.23	8.52	10.56	36.40	36.10	35.46
84	1.31	2.76	4.16	8.37	10.25	35.40	34.82	34.53
85	1.29	2.71	4.09	8.23	9.95	34.41	33.56	33.61
86	1.28	2.66	4.02	8.09	9.65	33.44	32.31	32.70
87	1.26	2.60	3.96	7.96	9.37	32.48	31.09	31.80
88	1.25	2.55	3.90	7.84	9.08	31.54	29.88	30.91
89	1.23	2.50	3.84	7.72	8.81	30.61	28.70	30.03
90	1.22	2.45	3.79	7.60	8.54	29.70	27.54	29.17