

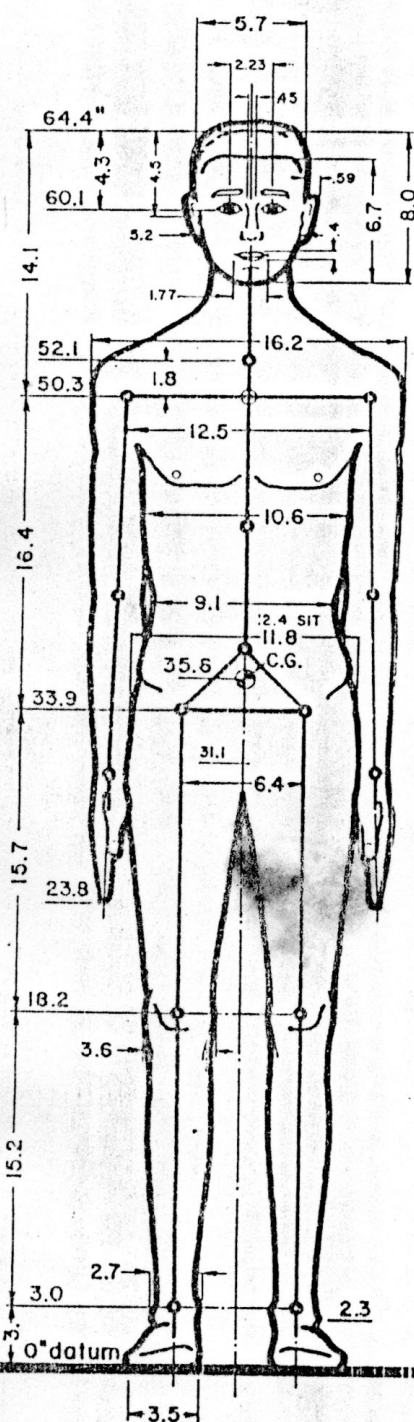
ANTHROPOMETRIC DATA — STANDING ADULT MALE

ACCOMMODATING 95% OF U.S. ADULT MALE POPULATION

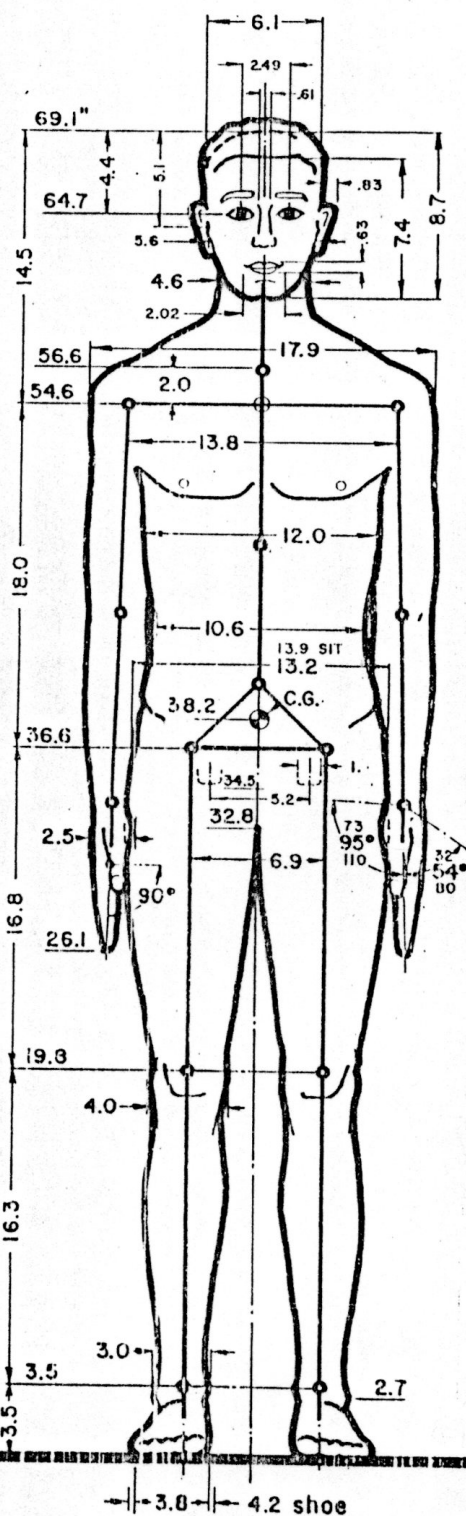
2.5%tile

50.%tile

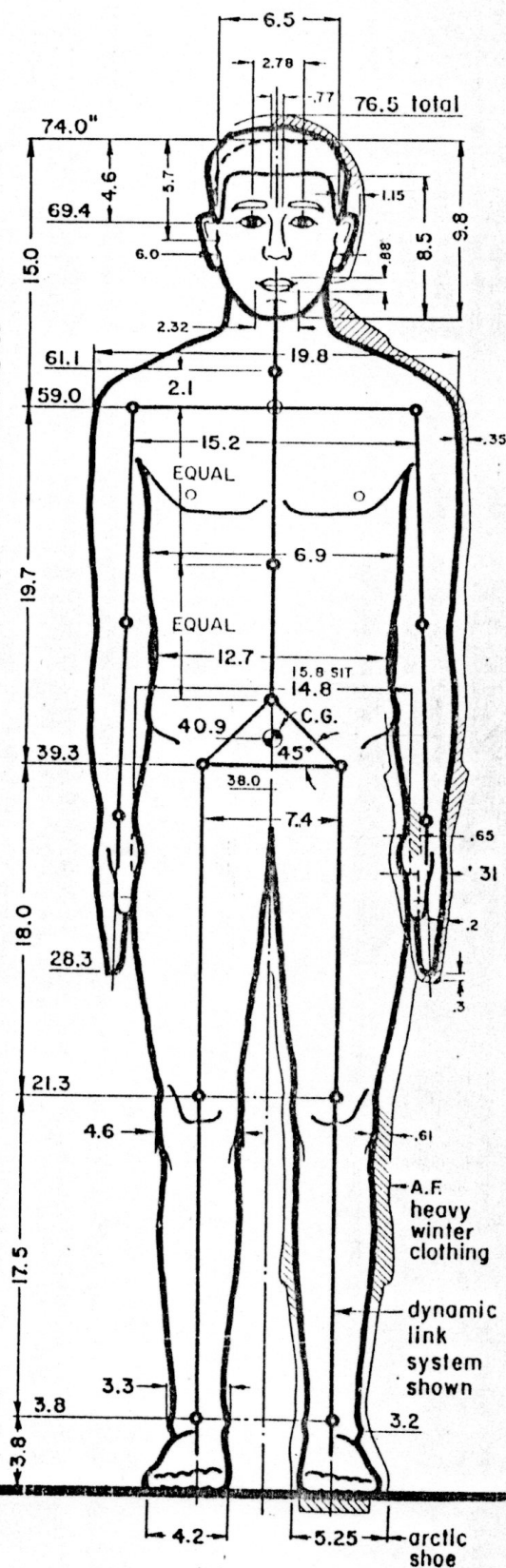
97.5%tile



weight — 127.7 LB.
span — 65.5"
akimbo — 34.9"



weight — 161.9 LB.
span — 70.8"
akimbo — 38.4"



weight — 208.9 LB.
span — 76.6"
akimbo — 42.4"

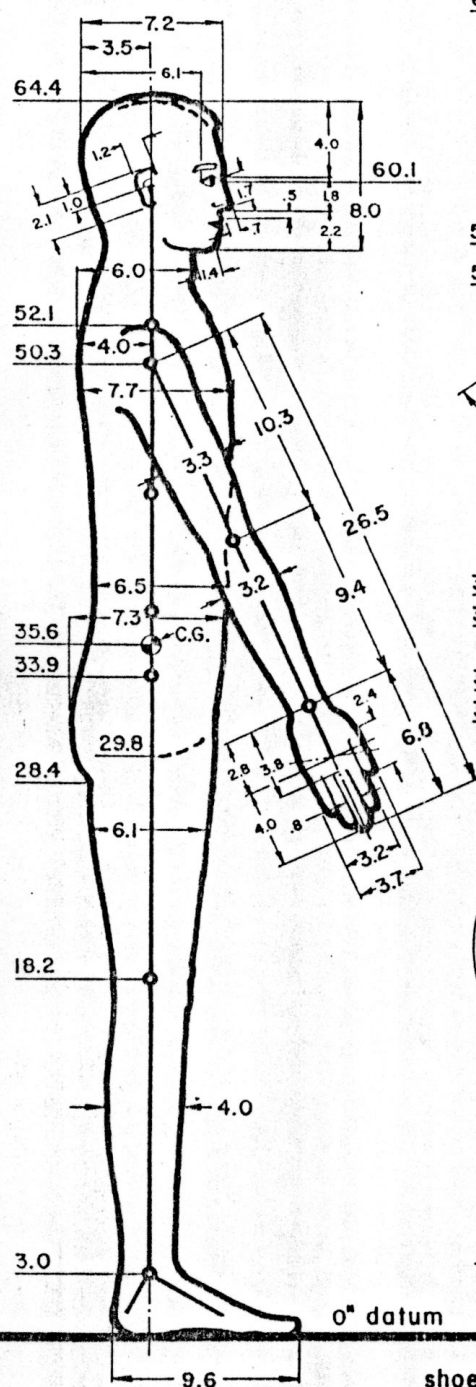
ANTHROPOMETRIC DATA - STANDING ADULT MALE

ACCOMMODATING 95% OF U.S. ADULT MALE POPULATION

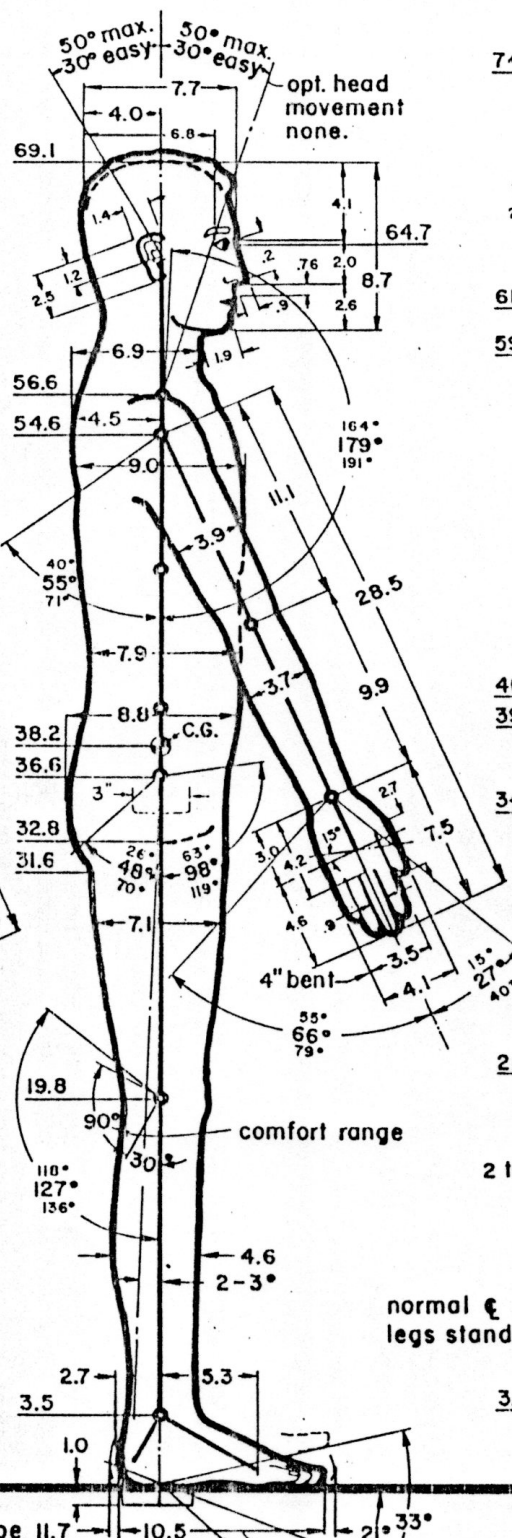
2.5 % tile

50. % tile

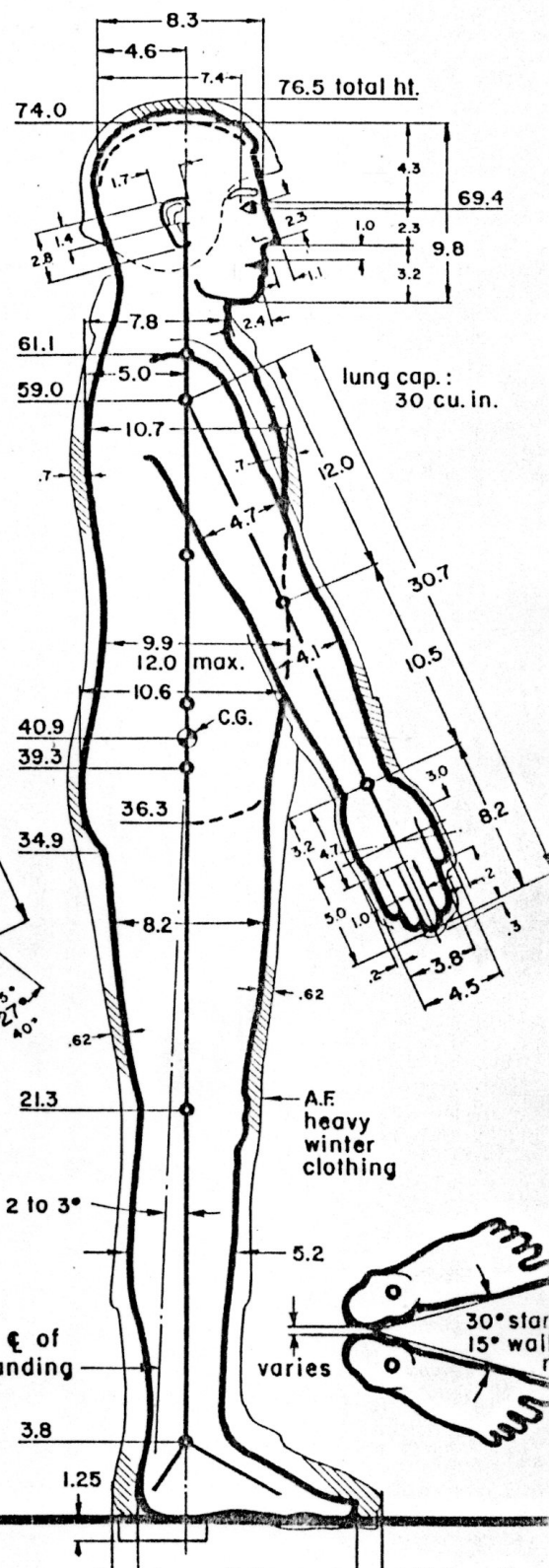
97.5 %tile



chest circ.—34.4"
waist circ.—27.1"
hip circ.—33.7"



chest circ. — 38.7"
waist circ. — 31.7"
hip circ. — 37.7"



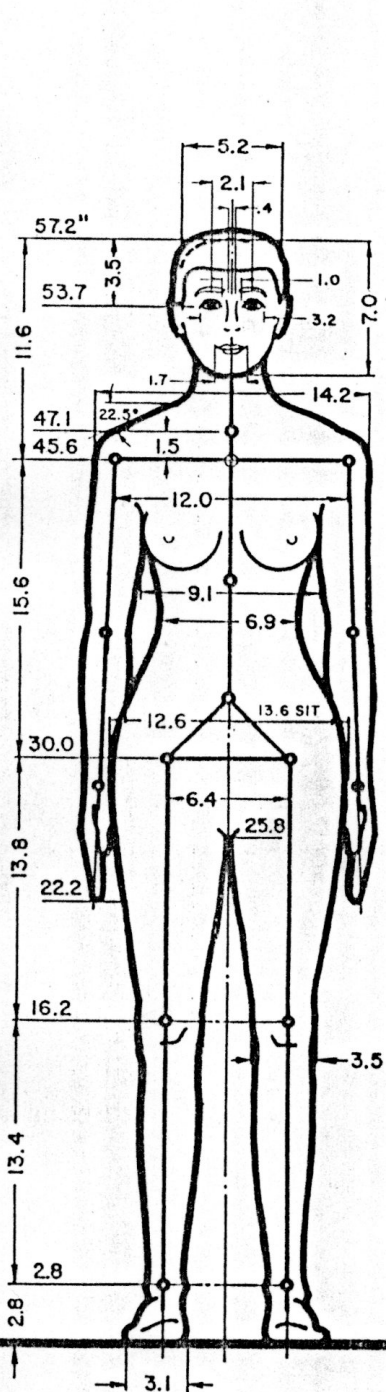
chest circ.—43.9"
waist circ.—38.8"
hip circ.—42.6"

ANTHROPOMETRIC DATA — STANDING ADULT FEMALE
ACCOMMODATING 95% OF U.S. ADULT FEMALE POPULATION

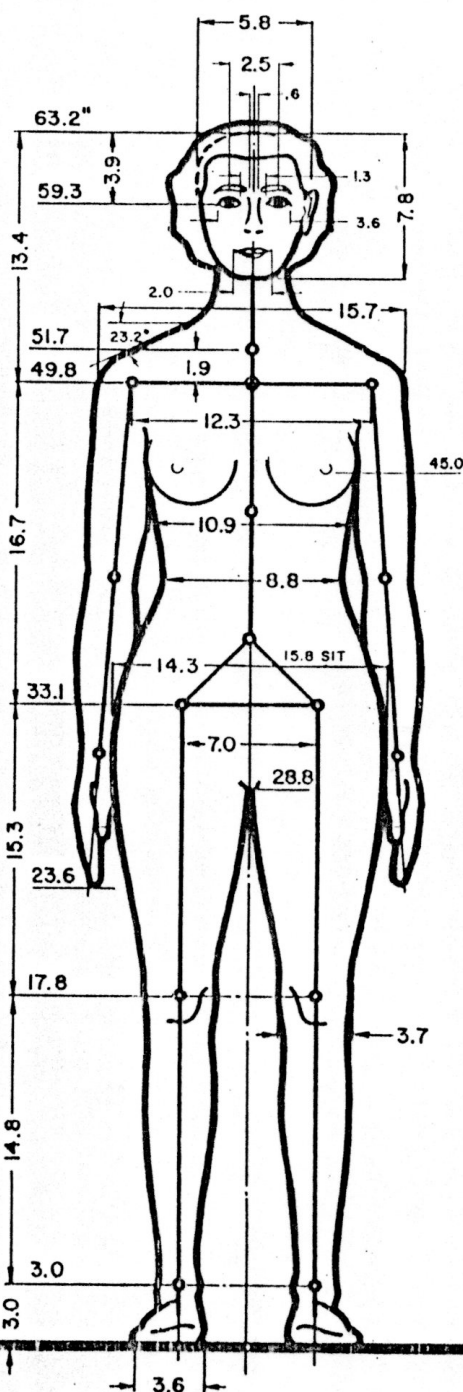
2.5 %tile

50. %tile

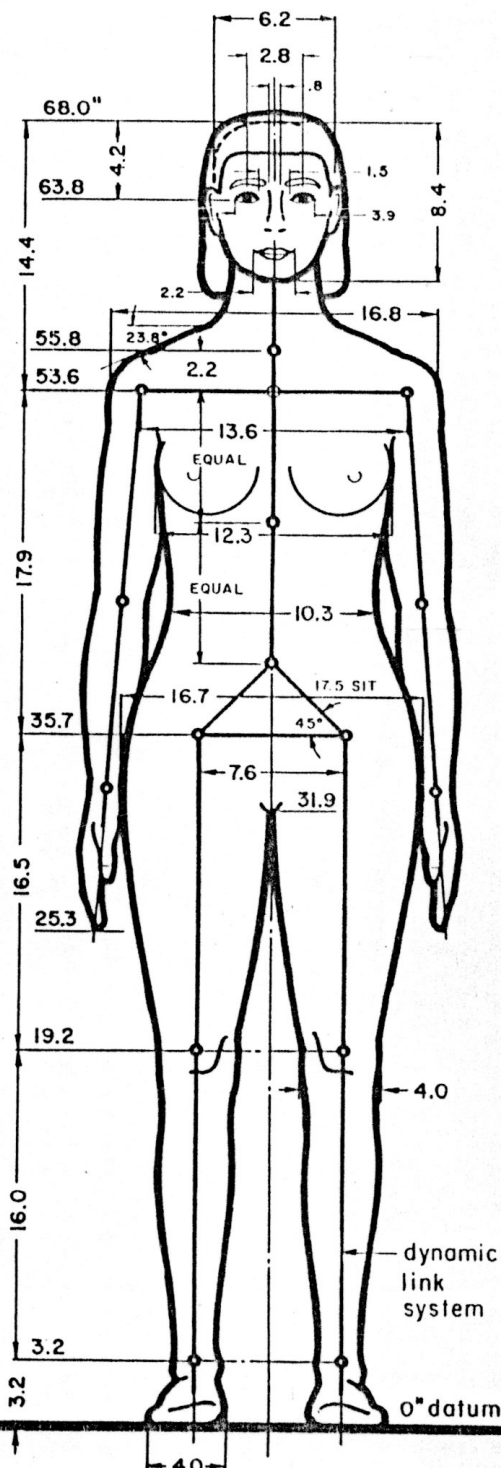
97.5 %tile



weight — 95.0 LB.
 span — 58.8"
 akimbo — 31.8"



weight — 134.8 LB.
 span — 64.7"
 akimbo — 34.7"



weight — 195.0 LB.
 span — 70.2"
 akimbo — 38.0"

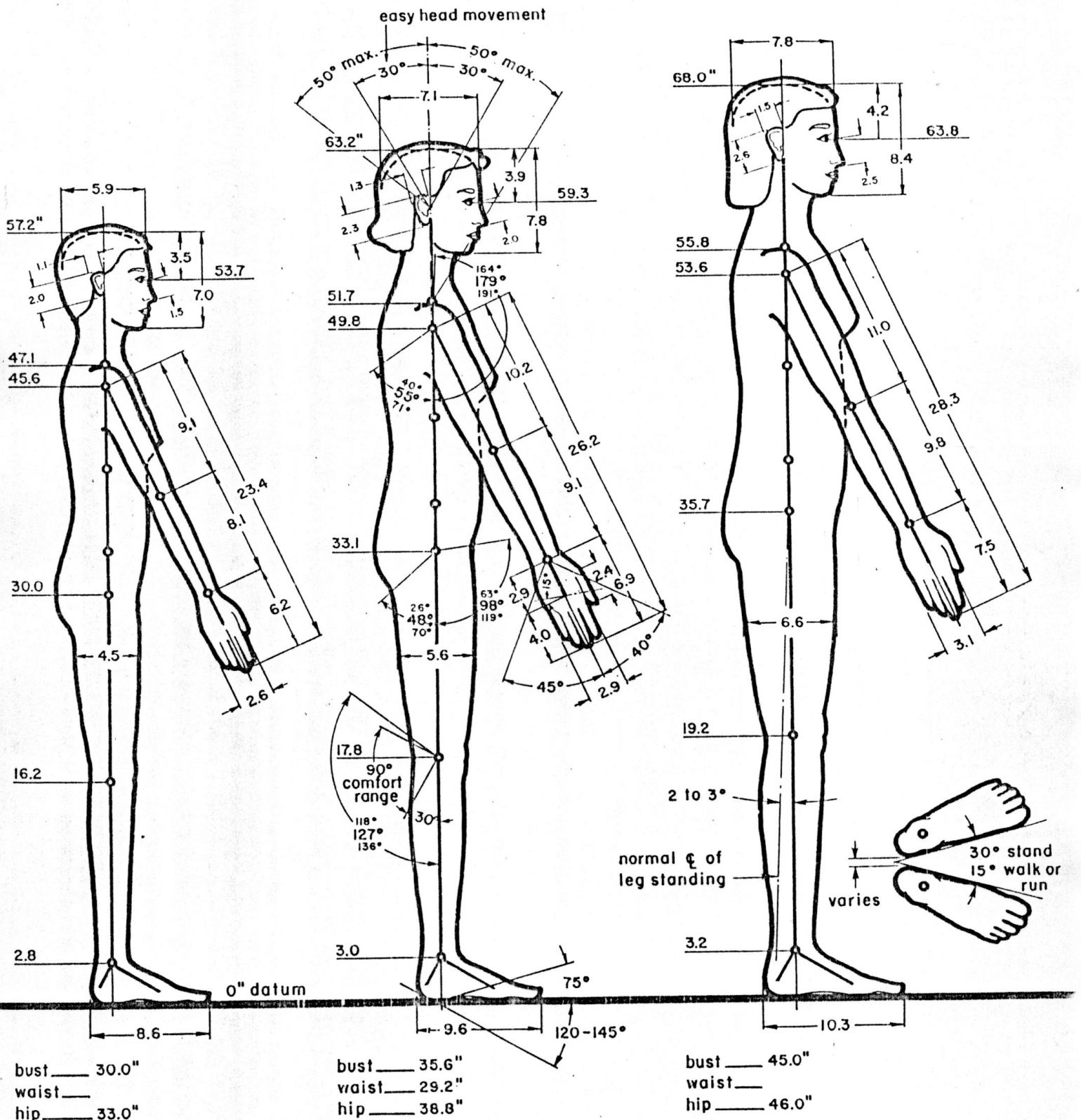
ANTHROPOMETRIC DATA — STANDING ADULT FEMALE

ACCOMMODATING 95% OF U.S. ADULT FEMALE POPULATION

2.5 %tile

50. %tile

97.5 %tile





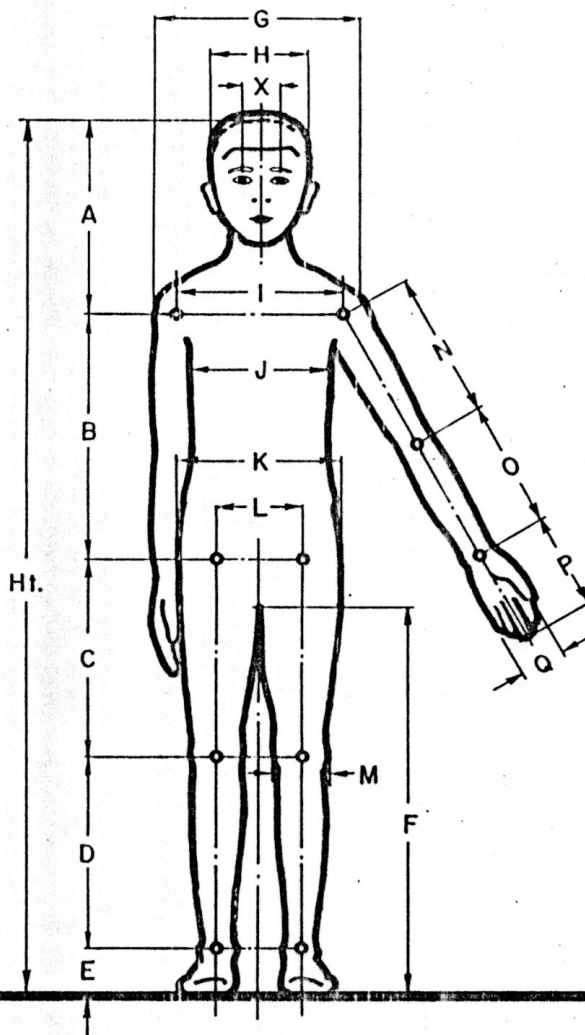
ANTHROPOMETRIC DATA - MALE AND FEMALE CHILDREN

top figure in box is data for boys, lower figure is for girls, and one figure applies to both.

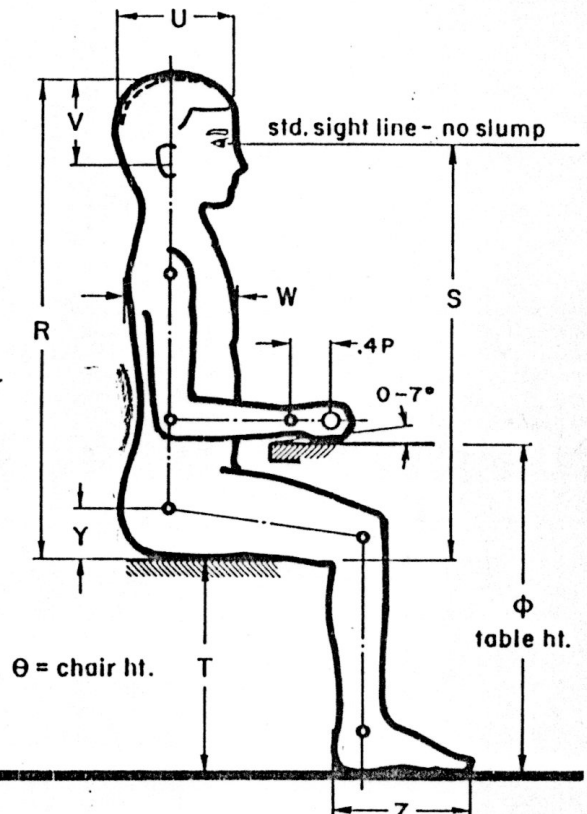
Age	Ht.	Wt.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	θ	φ
17	682 63.6	138. 11.5	12.2 11.5	20.7 19.7	16.3 15.1	15.6 14.4	3.4 3.	31.7 28.9	15.7 14.4	6. 5.8		13.2 12.1	12.9		3.7	12.3 11.5	10. 9.1	7.6 7.		35.3 33.5	31.3 29.5	17. 16.	7.3 7.6	5.2 5.	7.6 6.7		2.9 2.8	10.1 9.5	16"	27"
16	673 63.5	132. 11.8	11.8 11.3	20.5 19.8	16.2 14.9	15.5 14.5	3.3 3.	31.5 28.9	15.2 14.3	6. 5.8		12.9 12.1	12.7 12.8		3.7	12.2 11.7	9.9 9.1	7.6 7.		34.5 33.4	30.5 29.4	17. 15.5	7.6 7.3	5.2 5.	7.4 6.9		2.8 2.7	9.8 9.4		
15	656 63.2	122. 11.5	11.1	20.1 19.7	15.9 14.9	15.2 14.5	3.3 3.	31. 28.9	14.7 14.2	5.9 5.8		12.4 11.9	12.3 12.7		3.7	11.9 11.5	9.7 9.	7.5 7.		33.4 33.	29.4 29.	16. 15.5	7.5 7.3	5.1 5.	7.2 6.8	2.3	2.7	9.5 9.3	15	25
14	63. 62.3	109. 10.8	10.9 11.	19.2 18.8	15.1 15.2	14.6 14.3	3.2 3.	29.7 28.5	14.1 14.	5.9 5.7	11.	11.6 11.4	11.6 12.3	5.6	3.6	11.4	9.3 9.	7.2 6.9	3.	32.1 32.4	28.1 28.4	16. 15.	7.4 7.3	5.1 5.	6.9 6.7	2.2 2.3	2.6	9.1		
13	60.5 60.6	96. 100.	10.2 10.2	17.9 19.	15.5 14.3	13.9 14.1	3.2 3.	28.5 28.2	13.5 13.6	5.8 5.7		11. 11.1	11. 11.8		3.5	10.7 11.	8.8 10.	6.8 6.6		30.9 31.5	26.9 27.5	15.5 15.	7.4 7.2	5.1 5.	6.6 6.5	2.2	2.5	8.9	14	24
12	58.2 59.	86. 90.	10.8 10.6	17.1 17.9	13.9 14.3	13.3 13.5	3.1	27.3 27.4	13. 13.	5.8 5.7		10.6 10.7	10.6 11.2		3.4	10.3 10.6	8.4 8.5	6.6		29.9 30.3	25.9 26.3	14.5 14.7	7.3 7.2	5.1 4.9	6.4 6.3	2.2	2.5	8.6 8.5		
11	56.2 56.5	77. 79.	10.6 10.4	16.6 16.8	13.3 13.4	12.7 12.9	3.	26.1 26.3	12.6 12.4	5.8 5.7	10.5	10.2 10.3	10.1 10.5	5.	3.3	9.9 10.	8.1 7.6	6.3 6.4	2.8	29.2 29.1	25.2 25.1	14. 14.4	7.3 7.1	5. 4.9	6.2 6.	2.2	2.5	8.4	13	22
10	54.3 54.2	71. 70.	10.6 10.4	15.9 15.9	12.7 12.3	12.2 12.3	2.9	25.1 25.	12.3 12.	5.8 5.6		9.9 10.	9.8 10.		3.2	9.5	7.8 7.7	6.1		28.5 28.2	24.5 24.2	14. 13.	7.3 7.1	5. 4.9	6. 5.7	2.2	2.5	8.3		
9	52.4 52.	64. 63.	10.7 10.3	15.1 15.1	12.2 12.1	11.6 11.7	2.8	23.9 23.8	11.8 11.5	5.7 5.6		9.5 9.5	9.1 9.5		3.1	9.1	7.4 7.3	5.9 5.8		27.7 27.4	23.7 23.4	13.5 13.	7.2 7.	5. 4.9	5.8 5.5	2.1	2.4	7.9 8.	12.5	20.5
8	50.4 50.	58. 57.	10.6 10.2	14.5 14.4	11.5 11.1	11.1 11.7	2.7	22.7 22.7	11.4 11.1	5.7 5.6	9.2	9.2 9.1	9. 9.1	4.4	3.	8.7	7.1 6.9	5.7 5.6	2.5	27. 26.6	23. 22.6	13. 12.5	7.2 7.	5. 4.9	5.7 5.4	2.1	2.4	7.7		
7	48.2 47.9	53. 51.	10.7 10.3	13.6 13.6	10.8 10.9	10.5 10.5	2.6	21.5 21.4	10.9 10.7	5.7 5.5		8.8 8.8	8.7 8.8		2.9	8.2	6.8 6.6	5.4 5.3		26.1 25.7	22.1 21.7	12. 11.5	7.1 6.9	5. 4.8	5.5 5.4	2.1	2.4	7.4		
6	46.1 45.8	48. 46.	10.8 10.4	12.7 12.7	10.3 10.3	9.8 9.9	2.5	20.2 20.2	10.4 10.2	5.6 5.5	8.5	8.5 8.4	8.3 8.4	4.1	2.8	7.6	6.1 6.2	5.1 4.6	2.3	25.4 25.	21.4 21.	11.6 11.	7.1 6.8	4.9 4.8	5.5 5.3	2.	2.4	7.	11	18.5
5	43.9 43.6	43. 42.	10. 9.7	12.7 12.7	9.6 9.6	9.2 9.2	2.4	18.9 18.8	10.1 9.8	5.6 5.4		8.2 8.1	8. 8.1		2.7	7.	6. 5.9	4.9 4.8		24.5 24.3	20.5 20.3	11. 10.	7. 6.8	4.9 4.8	5.4 5.2	2. 1.9	2.3	6.8 6.6	10	17.5
4	40.9 37.	38. 37.	10.4 10.5	11.1 10.9	8.8 8.5	8.4 8.5	2.2	17.2 17.2	9.7 9.4	5.6 5.4		7.9 7.7	7.4 7.7		2.7	6.4	5.6 5.4	4.7 4.6		23.5 23.1	19.5 19.1	9.5 10.	6.9 6.7	4.9 4.8	5.2 5.2	1.9 1.8	2.3	6.6 6.5		

3	37.5
2.5	35.9
2	35.8
1.5	34.
1	33.7
.5	31.8
0	31.5
	29.5
	28.8
	26.
	25.5
	21.2
	20.8
	19.9
	19.8

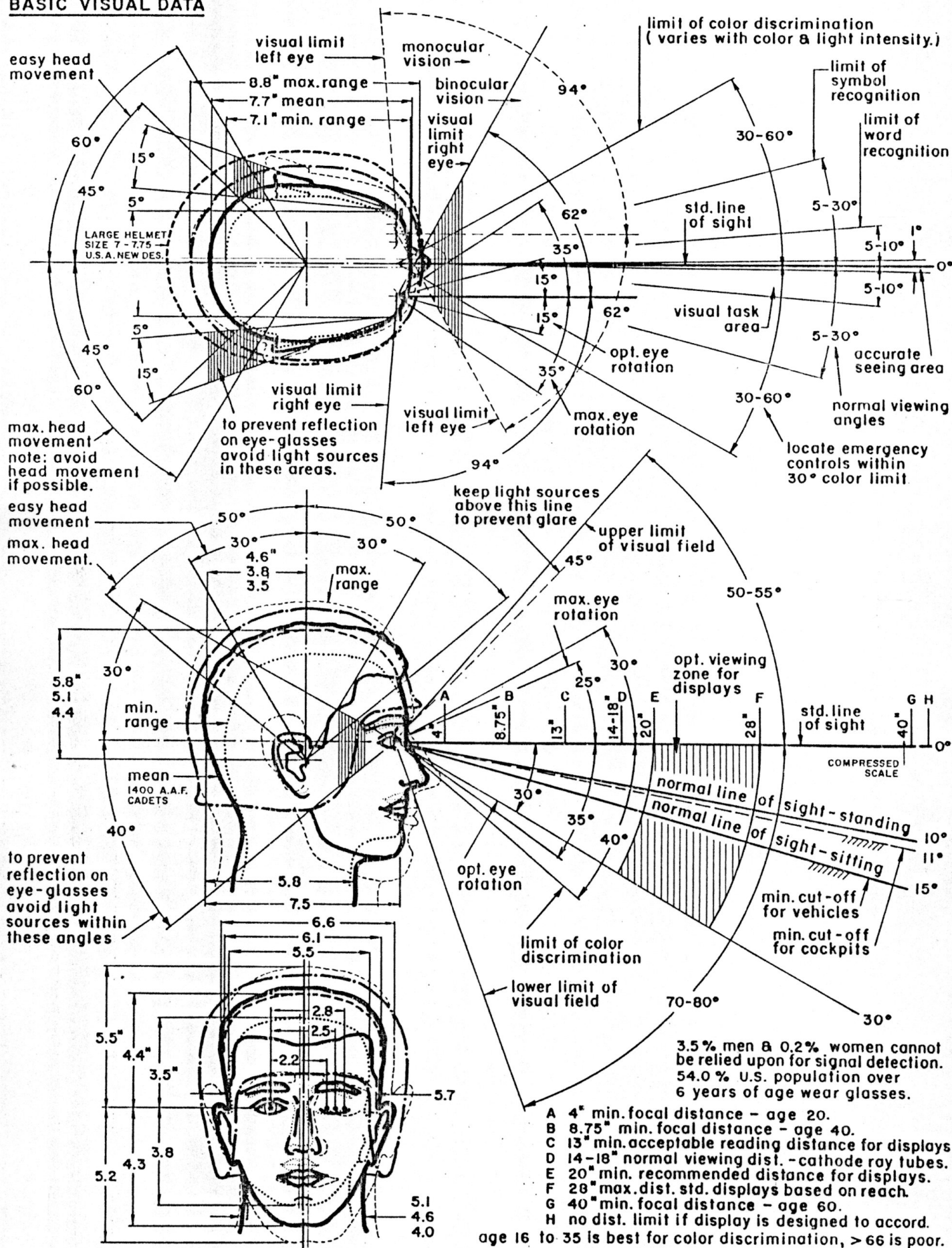
6 MO.
1 MO.
BIRTH



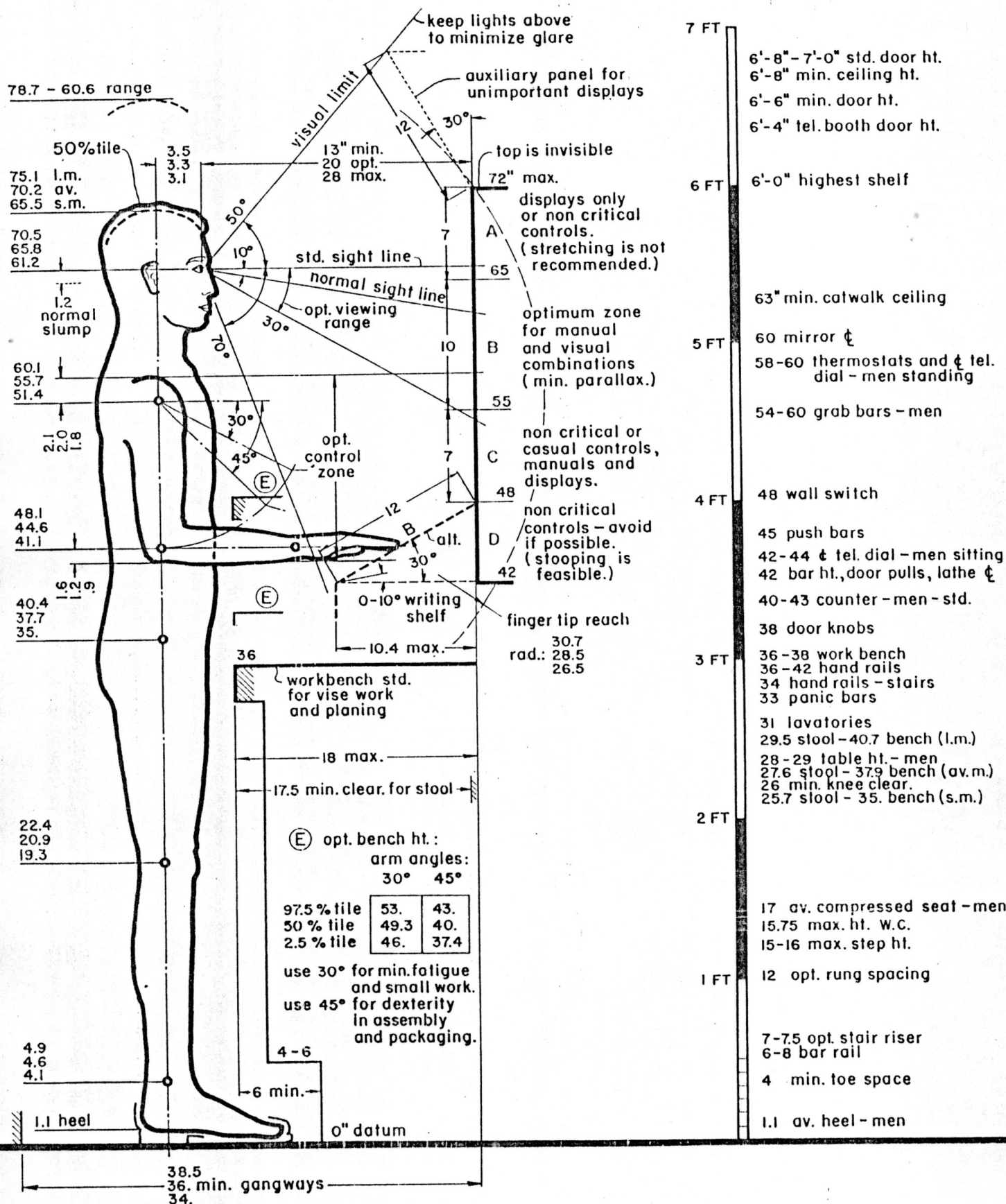
50% TILE YOUTHS



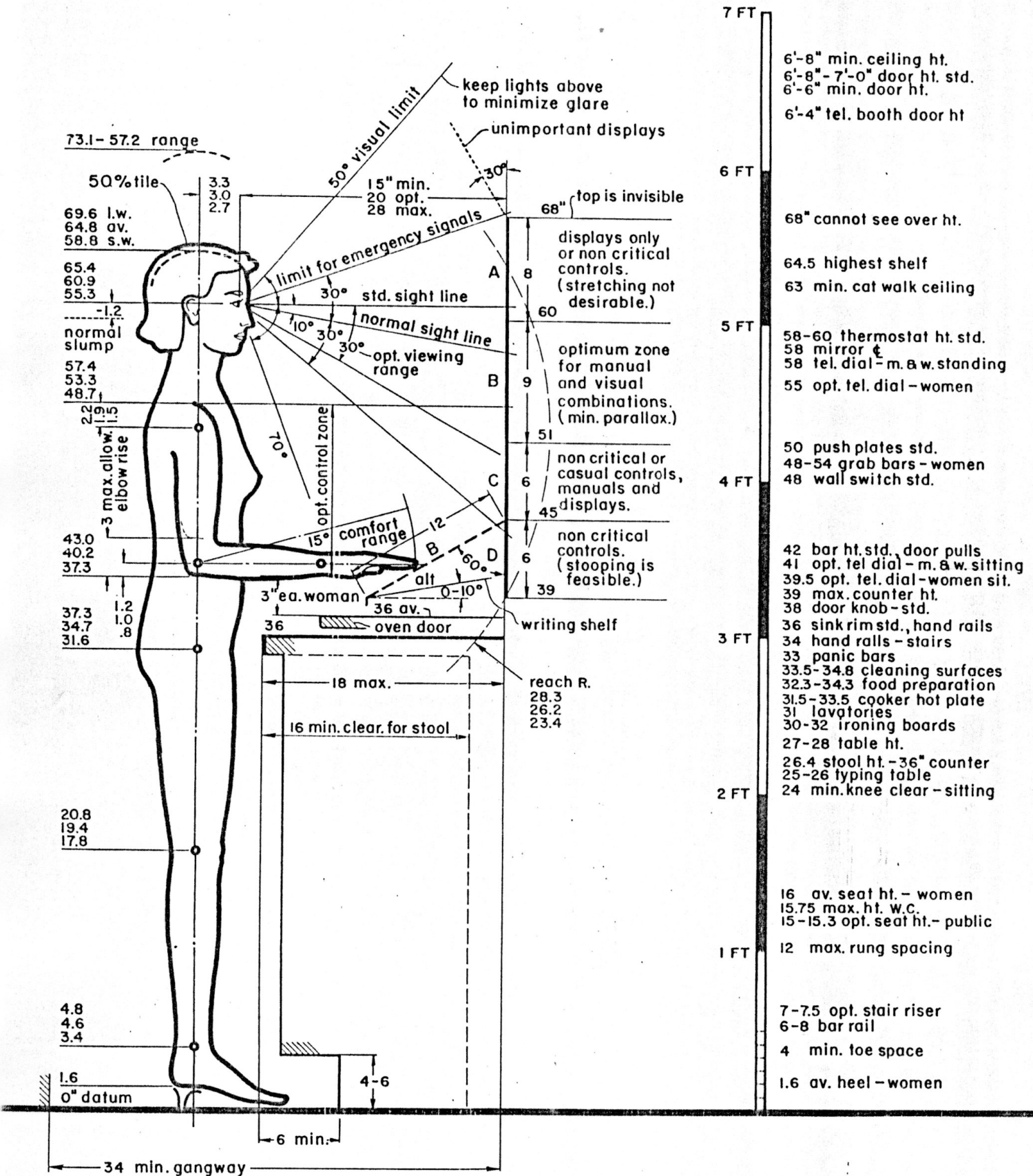
BASIC VISUAL DATA



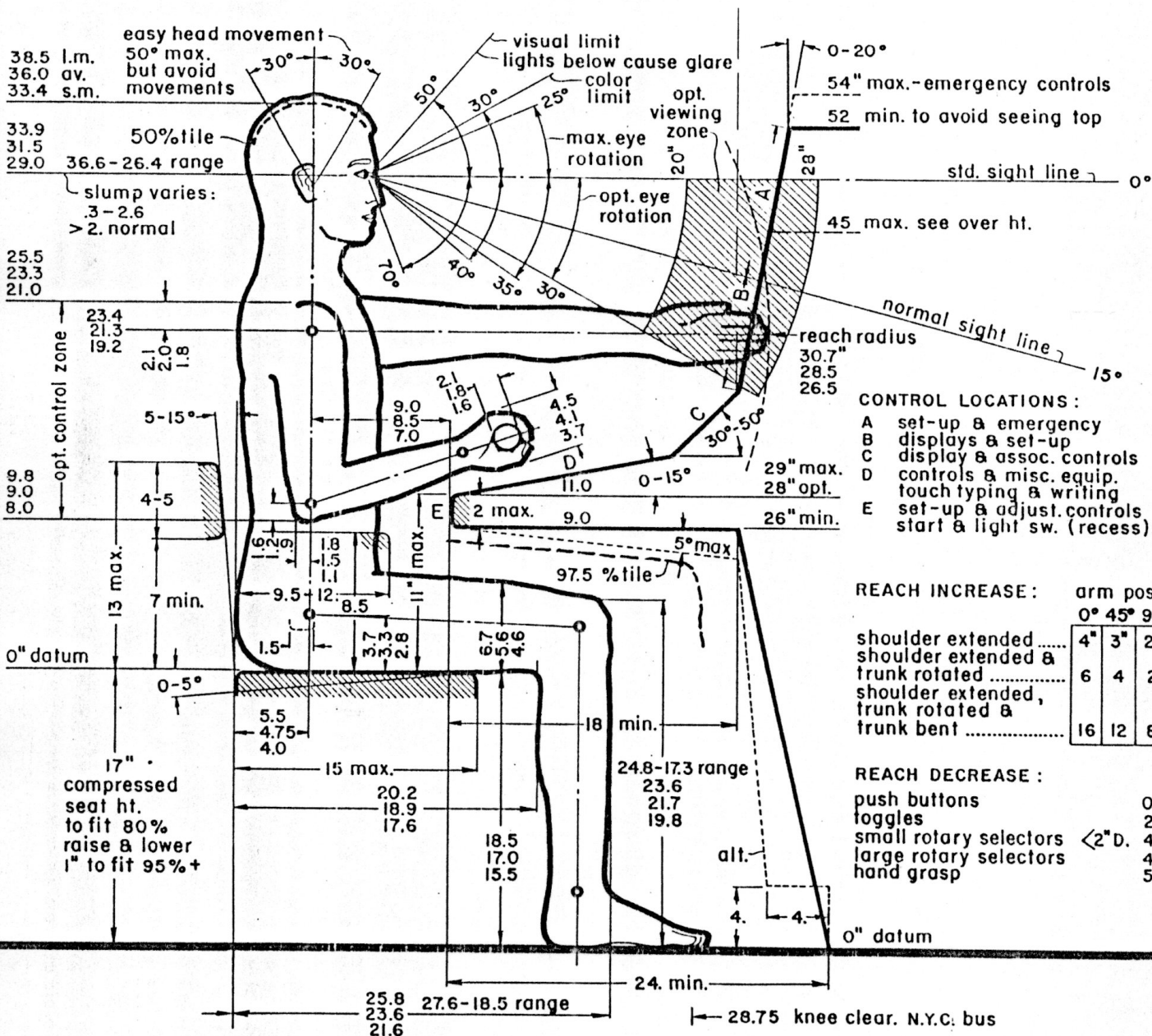
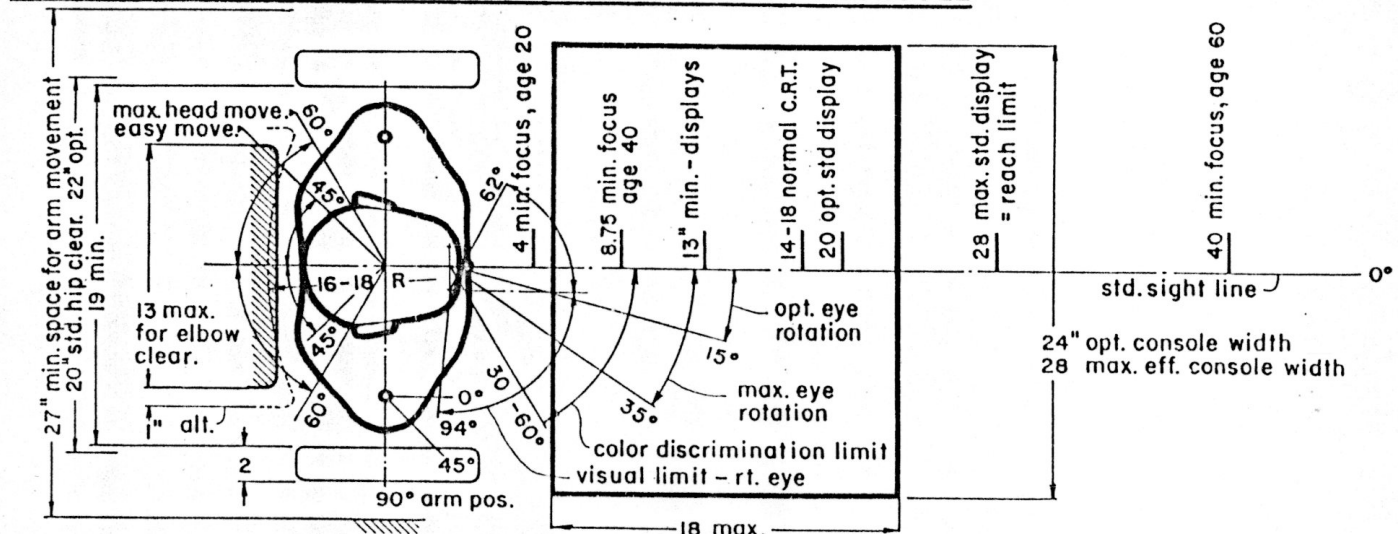
ANTHROPOMETRIC DATA — ADULT MALE STANDING AT CONTROL BOARD



ANTHROPOMETRIC DATA — ADULT FEMALE STANDING AT CONTROL BOARD

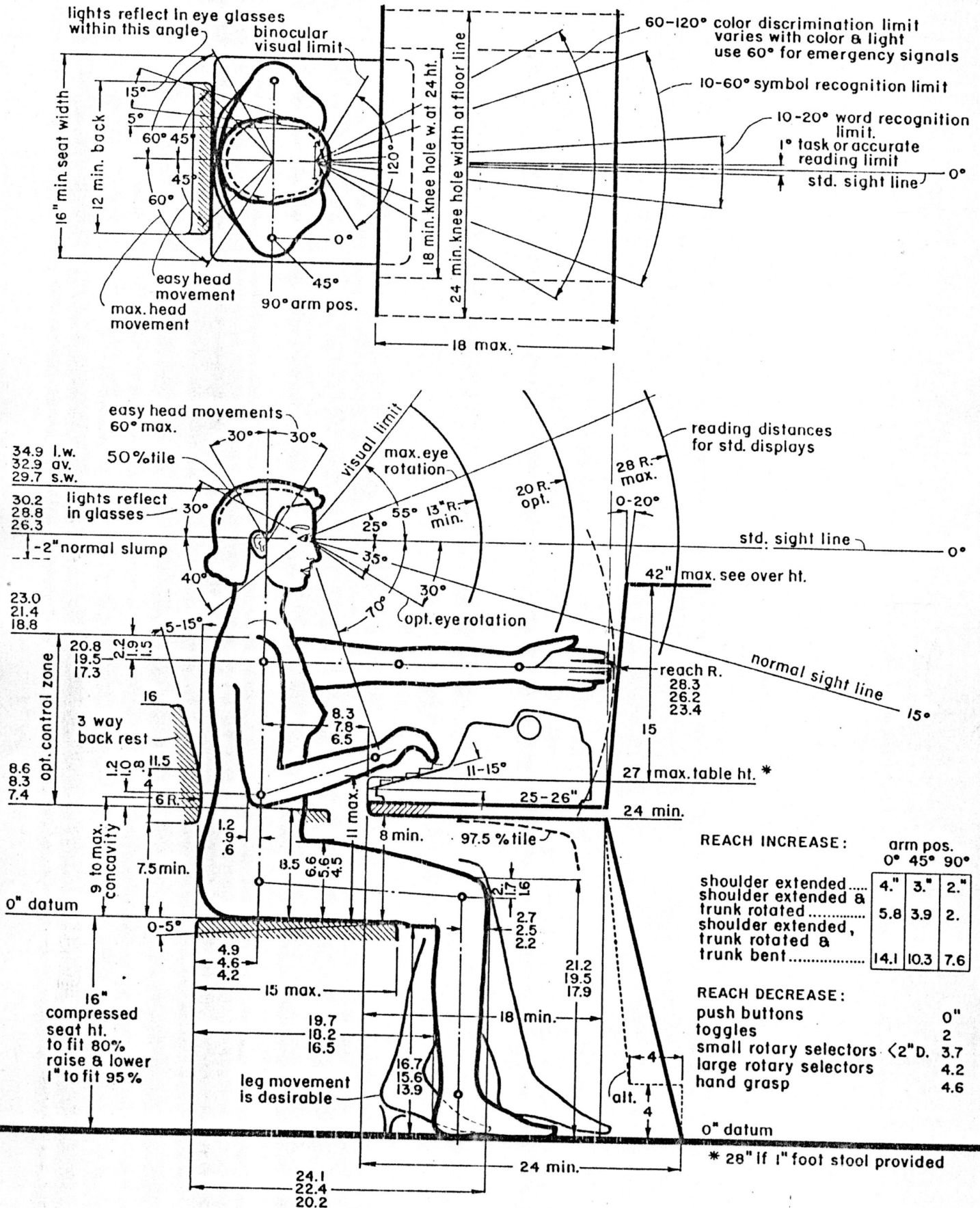


ANTHROPOMETRIC DATA — ADULT MALE SEATED AT CONSOLE

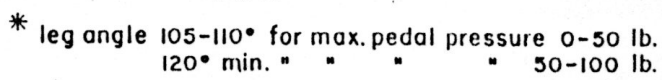


6.6-9.4% left handed, 3.5-6.4% color blind, 4.5% hard of hearing, 29.3% wear glasses

ANTHROPOMETRIC DATA — ADULT FEMALE SEATED AT CONSOLE



6.6-7. % left handed, 3.5-6. % color blind, 4.5 % hard of hearing, 37.9 % wear glasses



© 1959, 1960 HENRY DREYFUSS

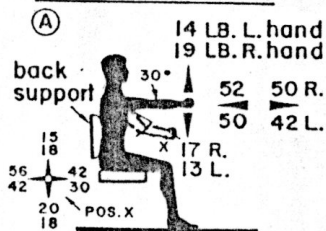


HUMAN STRENGTH

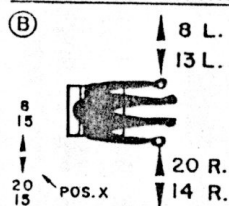
(for short durations)

strength correction factors:
 X 0.9 left hand and arm
 X 0.84 hand-age 60
 X 0.5 arm & leg-age 60
 X 0.72 women

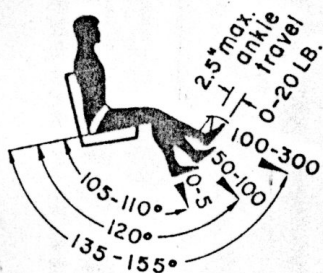
ARM FORCES SITTING



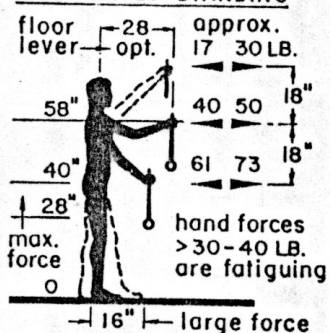
ARM FORCES SITTING



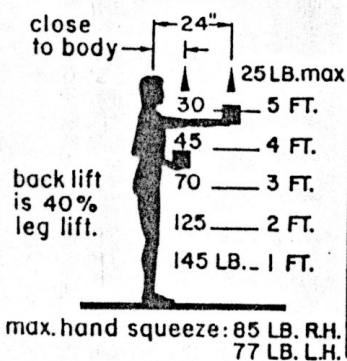
LEG FORCES SITTING



ARM FORCES STANDING



LIFTING FORCES



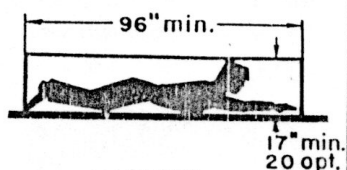
max. hand squeeze: 85 LB. R.H.
77 LB. L.H.

BODY CLEARANCES

SUPINE



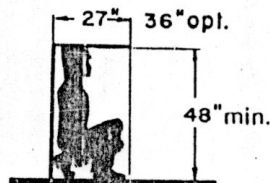
PRONE



CRAWL



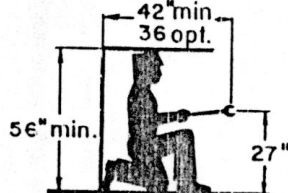
SQUAT



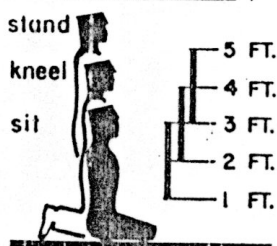
STOOP



KNEEL



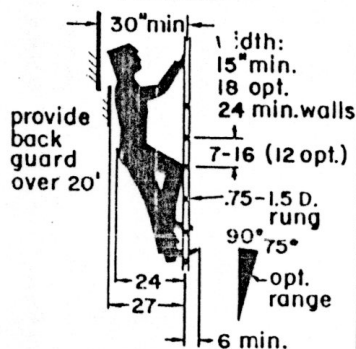
MAINTENANCE REACH LEVELS



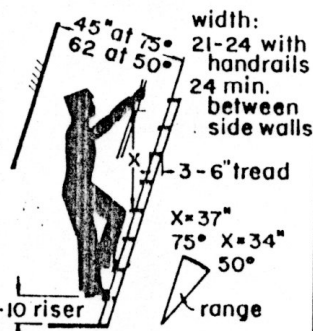
CLIMBING DATA

all data on this sheet
 accommodates
 95% U.S.A. adult males

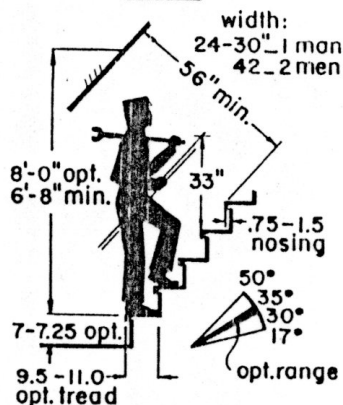
LADDERS



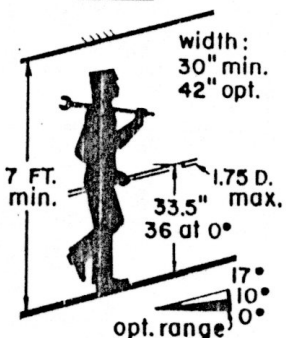
STEP LADDERS



STAIRS



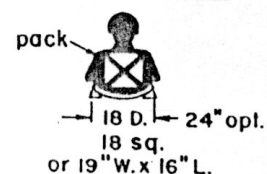
RAMPS



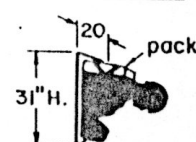
INGRESS & EGRESS

min. entries:
 13-18 difficult — 1 man
 18-24 fair — 1 man
 24-36 good — 1 man
 > 36 good — 2 men

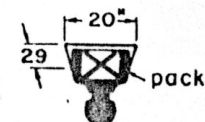
MIN. ESCAPE HATCH



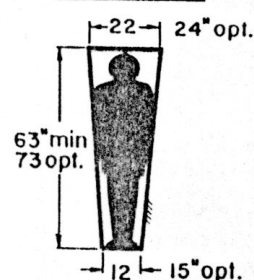
MIN. SIDE HATCH



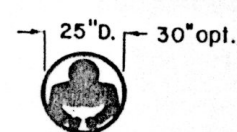
MIN. BELLY HATCH



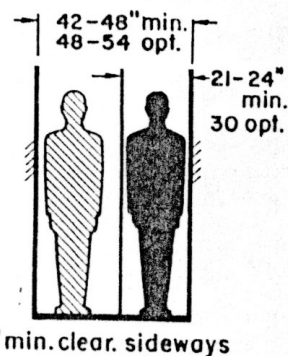
MIN. CATWALK



MIN. CRAWL THRU PIPE

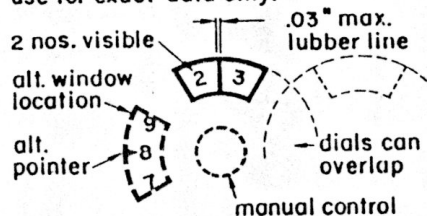


PASSAGE WAYS



BASIC DISPLAY DATA

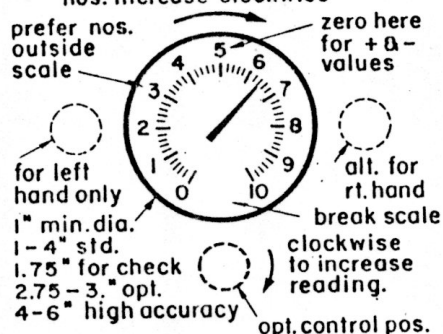
OPEN WINDOW DIALS
99 % accuracy in reading
use for exact data only.



RULE 1. numbers increase clockwise
RULE 2. associated control to move in same direction as dial.
RULE 3. move control clockwise to increase.
not recommended with manual control

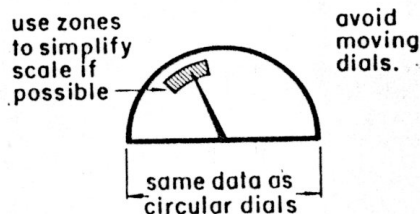
CIRCULAR DIALS

89 % accuracy in reading
use for exact, relative or check data.
nos. increase clockwise



SEMI-CIRCULAR DIALS

83 % accuracy in reading
use for exact, relative or check data.

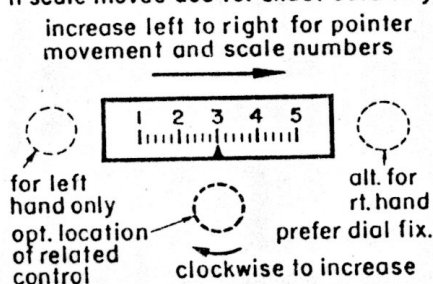


avoid distracting trademarks on all dials.

nos. & spacing of scale markings ultimately determines dial sizes.

HORIZONTAL SCALES

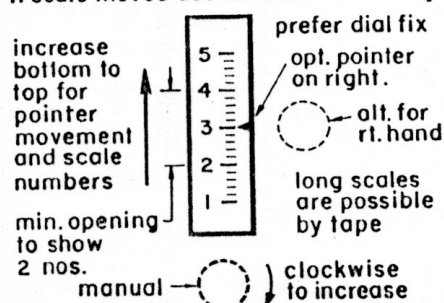
72 % accuracy in reading
use for exact, relative or check data.
if scale moves use for exact data only.



recommend manual & moving pointer

VERTICAL SCALES

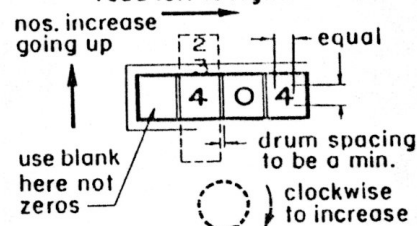
64 % accuracy in reading
use for exact, relative or check data.
if scale moves use for exact data only.



recommend manual & moving pointer

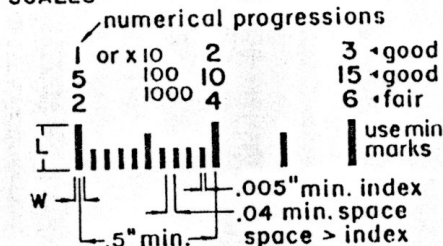
COUNTERS

99 % accuracy in reading
use for exact data only.
rate: 2 nos. per sec. max.
read left to right.



frame to be same color as drums
minimize frame shadows
least count nos. to snap into position

SCALES

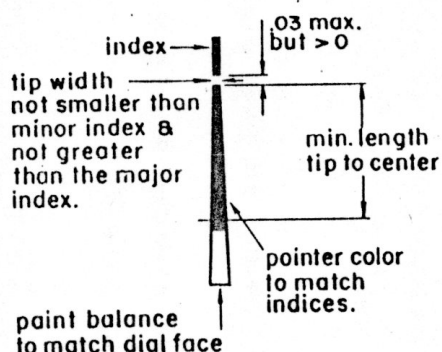


Average data:

	L (in.)	W (in.)
major index.....	.095 S	.015 S
intermediate index.....	.069 S	.013 S
minor index.....	.043 S	.011 S

s equals viewing distance in feet

POINTERS



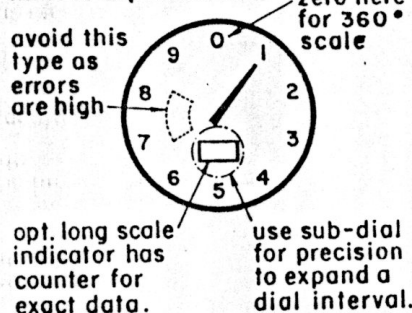
NUMERALS AND LETTERS

all nos. & letters to read vertically.
std. ht.
prefer titles on single line.
futura or U.S.A.F. std. cond. if req.
stroke ratio: 1:6 black on white
1:8 white on black
background contrast: 75-80 % +
Min. light = 1 ft.L.
critical markings.....
instructions.....
moving markers.....
s equals viewing distance in feet

	min.(in.)	max.(in.)
.043 S	.086 S	
.021 S	.086 S	
.051 S	.086 S	

MULTI-REVOLUTION DIALS

avoid multi-pointer dials
errors in reading are high
limit to 2 pointers



SIGNAL LIGHTS

label on top or within.
min. space .75
or rect. .25" dia. good if bright
5" dia. std. 1" master or emerg. signal
dark background increases eff.
flashing signals
brightness 2 X .5" signal
flash rate: 3-5 per sec.
on time: .05 sec. min.
off time > on
use green for satisfactory.
use red for unsatisfactory.
use amber for impending unsatisfactory.

DIAL ARRAY

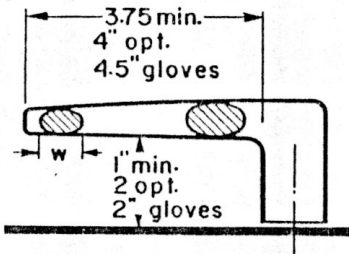
order of sequence
consider green safe zones
opt. pointer position for check reading
2 nd. choice
min. 3
min. 4
use std. sizes
prefer rows to columns.
manuals to have relative positions

BASIC CONTROL DATA

BALL GRIPS fingers .5 min. hands 1.5 opt. 2. max. 10 lb. pull 20 lb. push 30 lb. max. 2-4" 1 hand 4-5" 2 hands 90° max. lever make L = max. consider wrist support 2" min. displ. for L = 6" 14. max. fwd. & aft. displ. 38. max. laterally	CYLINDRICAL GRIPS lever handles 1" min. 1.75 max. 3" min. no max. avoid finger notching grab bars and lifting handles 3.8 min. 4.5 opt. 1.6 min. 2 finger 1.5" min. 2.0 opt. also side clear. .375 min. 0-40 lb. .875 min. 0-100 lb.	FLUSH PULLS for door, drawers etc. 1.25" min. 1.5 opt. 1.1 min. 1.5 opt. .25 1.7 min. 1.9 opt. 15° opening width: 3.5" min. 4.0 opt.
ROTARY KNOBS use 1" for non critical settings. & 2-4" for critical settings. .25" min. typ. serrations: .08" dia. .22 space. .05 deep .375" min. .25 low force 4.0 max. 1 hand 1-2" 2 hands 3-5" .5" min. .875-1" opt. skirt torque: 4.5 in.-oz. max. < 1" dia. 6.0 in.-oz. max. > 1" dia.	BAR KNOBS 15° min. - visual 30° min. - non visual 40° max. for opt. perform. 90° max. if req. mech. displ. 25 min. 1" min. no max. 1" max. 5" min. 3.0 max. resistance: 12 oz. min. - 48 oz. max. no. of positions: 24 max. use round knob for rotation > 180°	GANGED KNOBS sequential order 1 2 3 assoc. displays 3" opt. 1.75 opt. .5" opt. serrate or knurl 5° .75 opt. .75 opt. .25 min.
HIGH TORQUE KNOBS for 5 finger grab profiles for max. force: < 90° rotate. > 90° rotate. avoid 3 5 and 6 prongs. 2" min. 4" max. .37 min. R. 1" min. space. finger flutes. .5" to 1" 1" min. clear. torque: 50 in. lb. max.	CRANKS for rotations more than 90° 1.5" fingers 3.75 hand R. taper avoids hand slip handle should rotate 5 fingers 1.0 hand .5" min. radius 20.0" max. - heavy load 4.5 max. - min. load, high speed resistance: 5 lb. max. < 3.5" rad. 10 lb. max. 5"-8" rad.	HAND WHEELS 7" min. 21" max. prefer min. no. spokes down up .75 min. 2.0 max. 90° - 120° rotation to avoid shifting hands. resistance: 5 lb. min. 30 lb. max. - 1 hand 50 lb. max. - 2 hands
PUSH BUTTONS .625 min. 1 finger .75-1.25 2 fingers 1.25-2.0 .93 min. recess dia. rect. for titles .375 min. dia. .25 lb. min. force .5-1" opt. 1-3 lb. opt. 1.5-2 palm 31. lb. max. .5-2 foot 4-20 lb. - foot 10-20 lb. if foot rests on it. .05 R. 2" sp. rad. .125 min. - 1.0 max. defl. - no gloves .25-2.0 gloves .5-2.0 shoes 1.0-4.0 boots * not required	PUSH BUTTONS - TOUCH SYSTEMS prefer vertical buttons, fig. B A 11" opt. 20° max. B 4-11 oz. .438 max. .5" wide .187 defl. .75 .312 min. clear. operation rate: 4.1-5.3 per sec.	TOGGLE SWITCHES prefer ON OFF OFF ON .125 min. 1.0 max. .875 min. 4"-6" blind reach. 40° min. 60° opt. 120° max. 10 oz. min. 40 oz. max. .5" min. 2.0 max. 1.5 min. - gloves prefer bat shape prefer 2 settings to 3 or 4

BASIC CONTROL DATA, PART 2

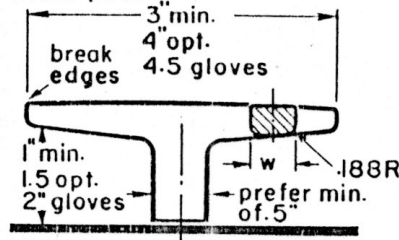
OPEN OR J HANDLE



w = .5" min. for over 40 lb
side clear: 2" ϕ to wall

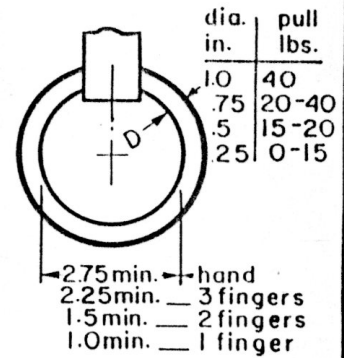
T HANDLE

note: prefer J or stirrup handles to avoid post

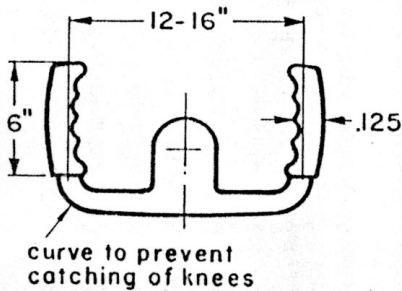


w = .125 up to 15 lb
w = .5" min. for over 40 lb
side clear: 2" to wall

RING PULLS

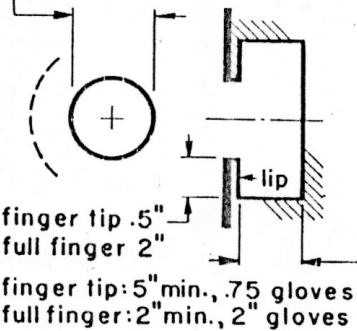


AIRCRAFT HAND WHEEL

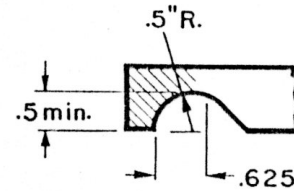


FINGER RECESS PULL

finger tip .75 min., 1" gloves
full finger: 1.25 min., 1.5 gloves

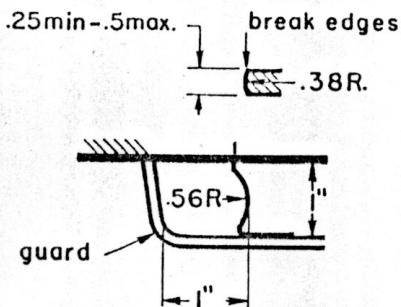


FINGER TIP RECESSED PULL



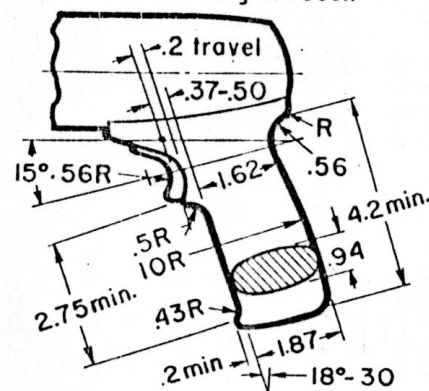
length of recess 3.5 for 4 fingers

TRIGGERS



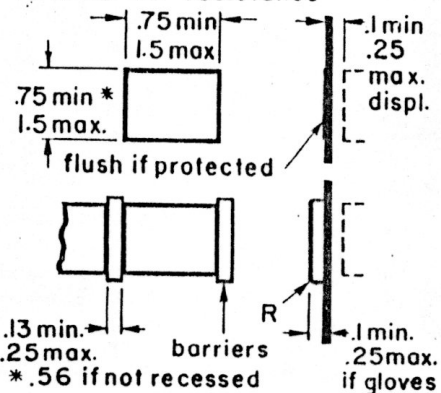
PISTOL GRIP FOR TOOLS

consider shock mtg. if recoil



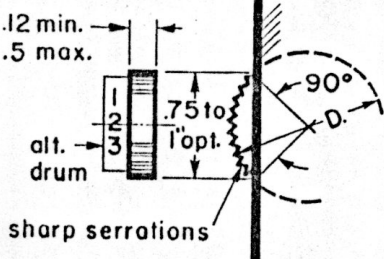
LEGEND SWITCHES

10 to 45 oz. resistance



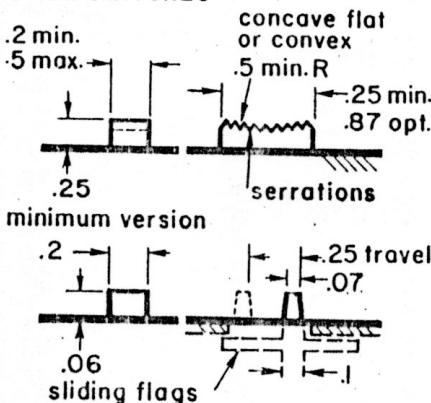
THUMB WHEELS

dia. is 1.5 for 1 in.-lb.
2.5 for 3 in.-lb.

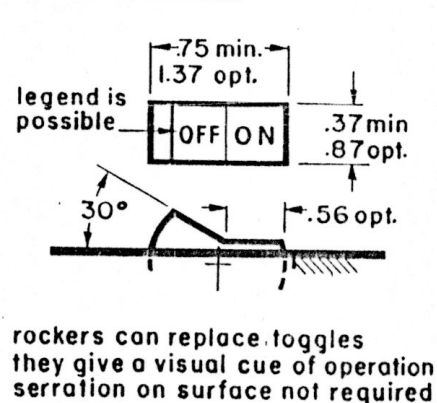


note: avoid markings on wheel which are obscured by fingers

SLIDE SWITCHES



ROCKER SWITCHES

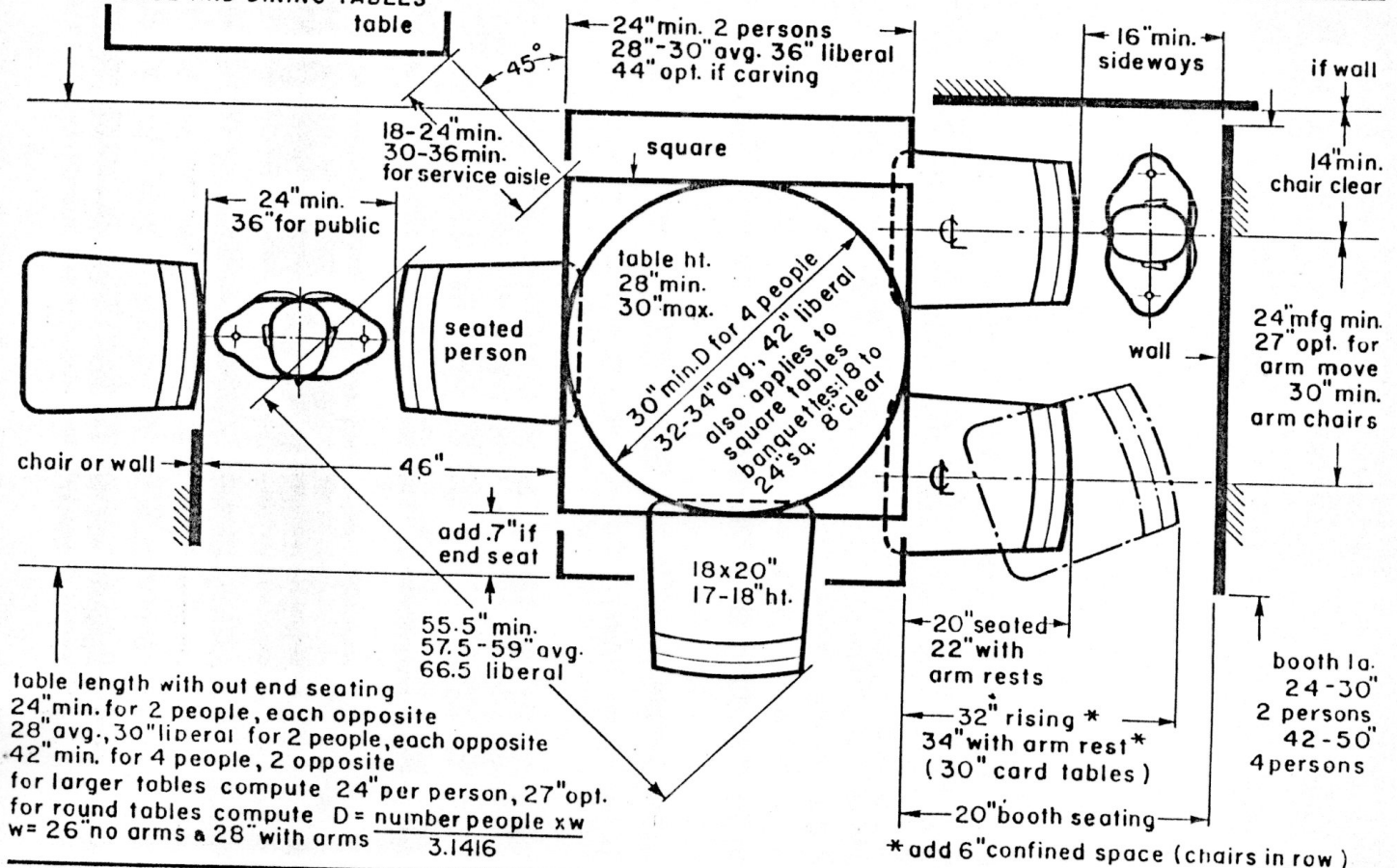


rockers can replace toggles
they give a visual cue of operation
serration on surface not required

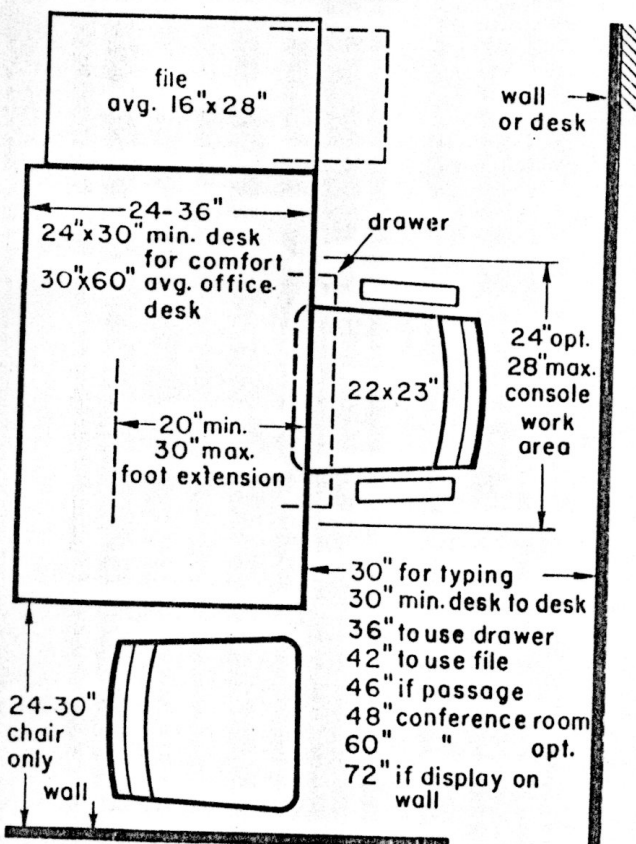


SPACE STANDARDS

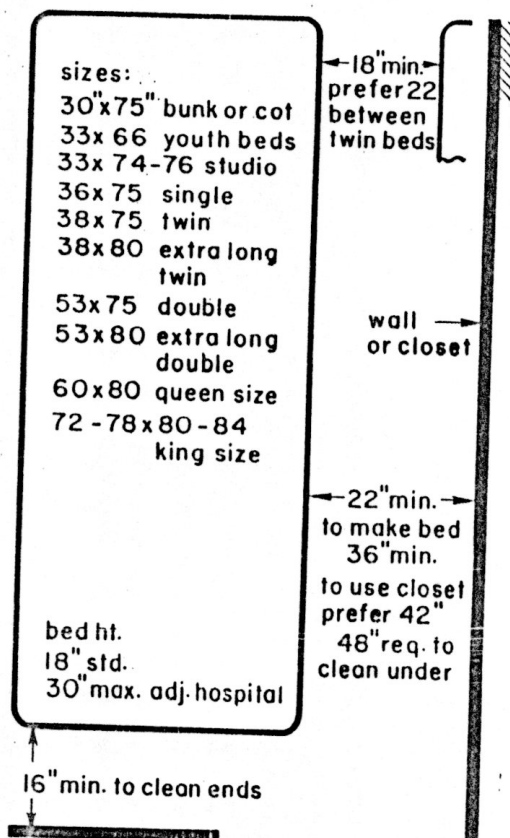
CONFERENCE AND DINING TABLES



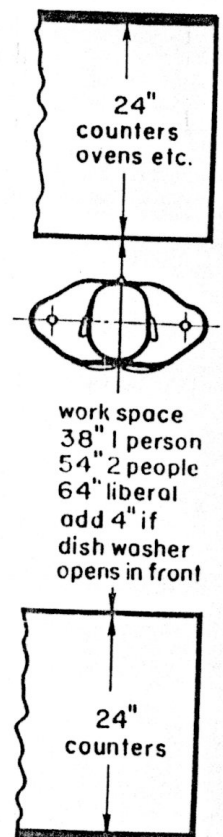
OFFICE DESKS AND CONSOLES



BEDS



KITCHENS



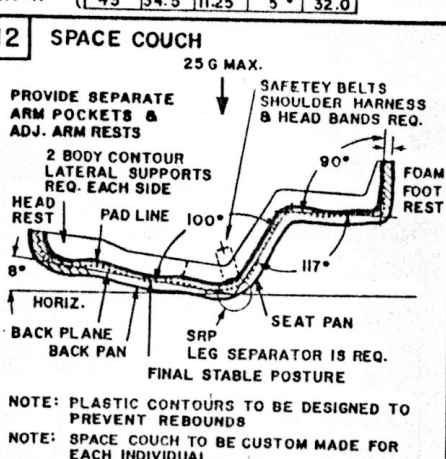
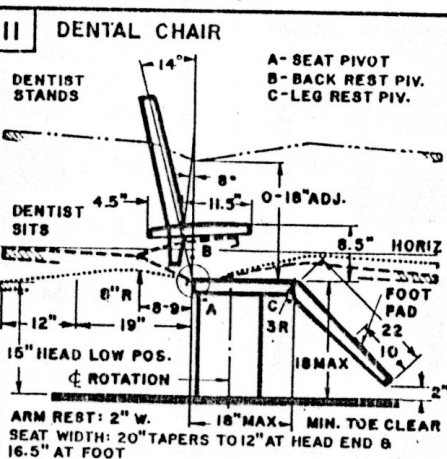
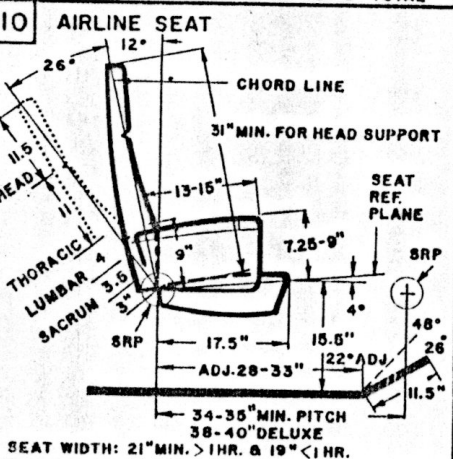
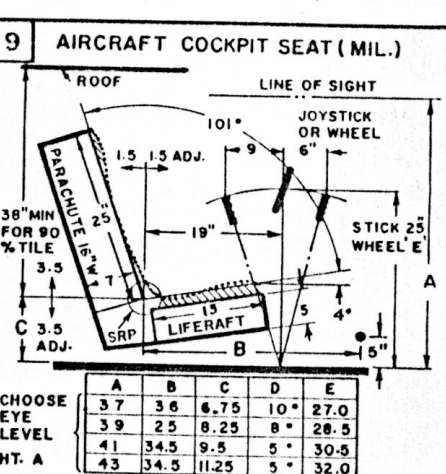
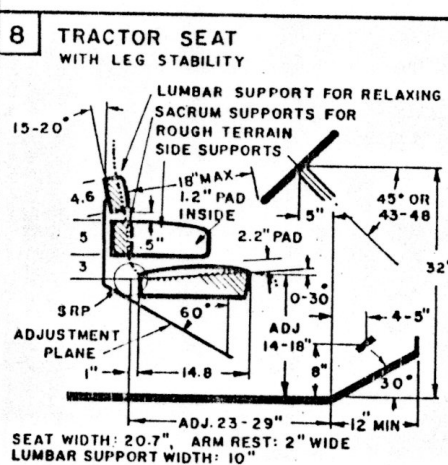
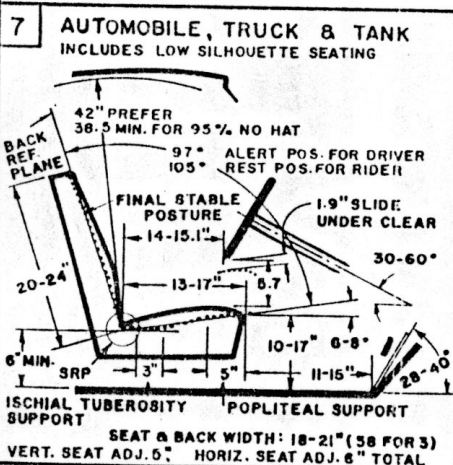
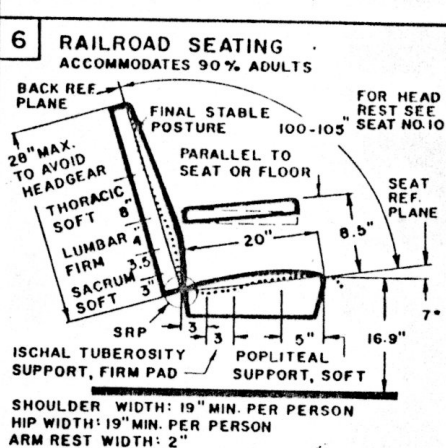
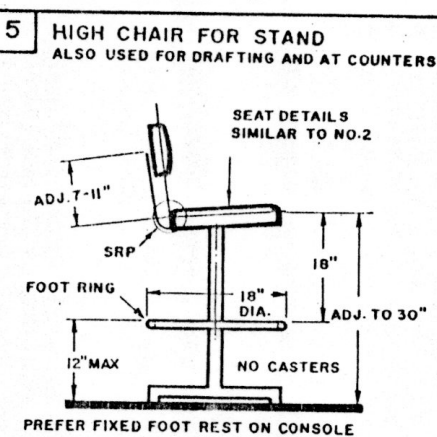
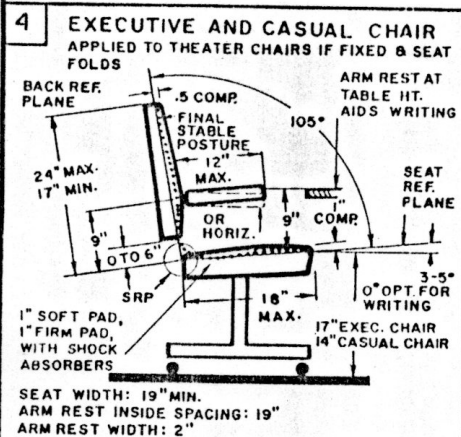
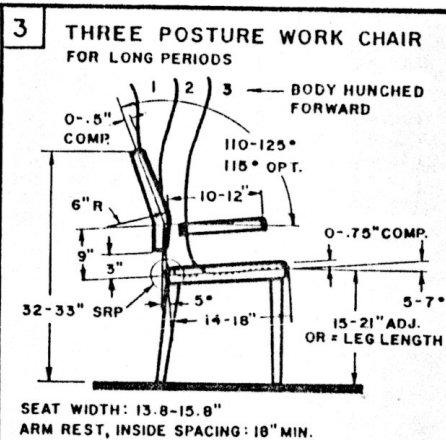
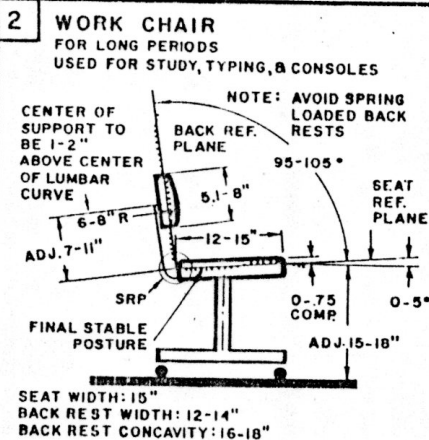
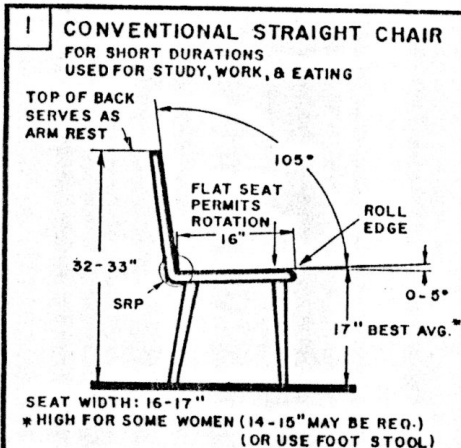


ACCESS OPENINGS

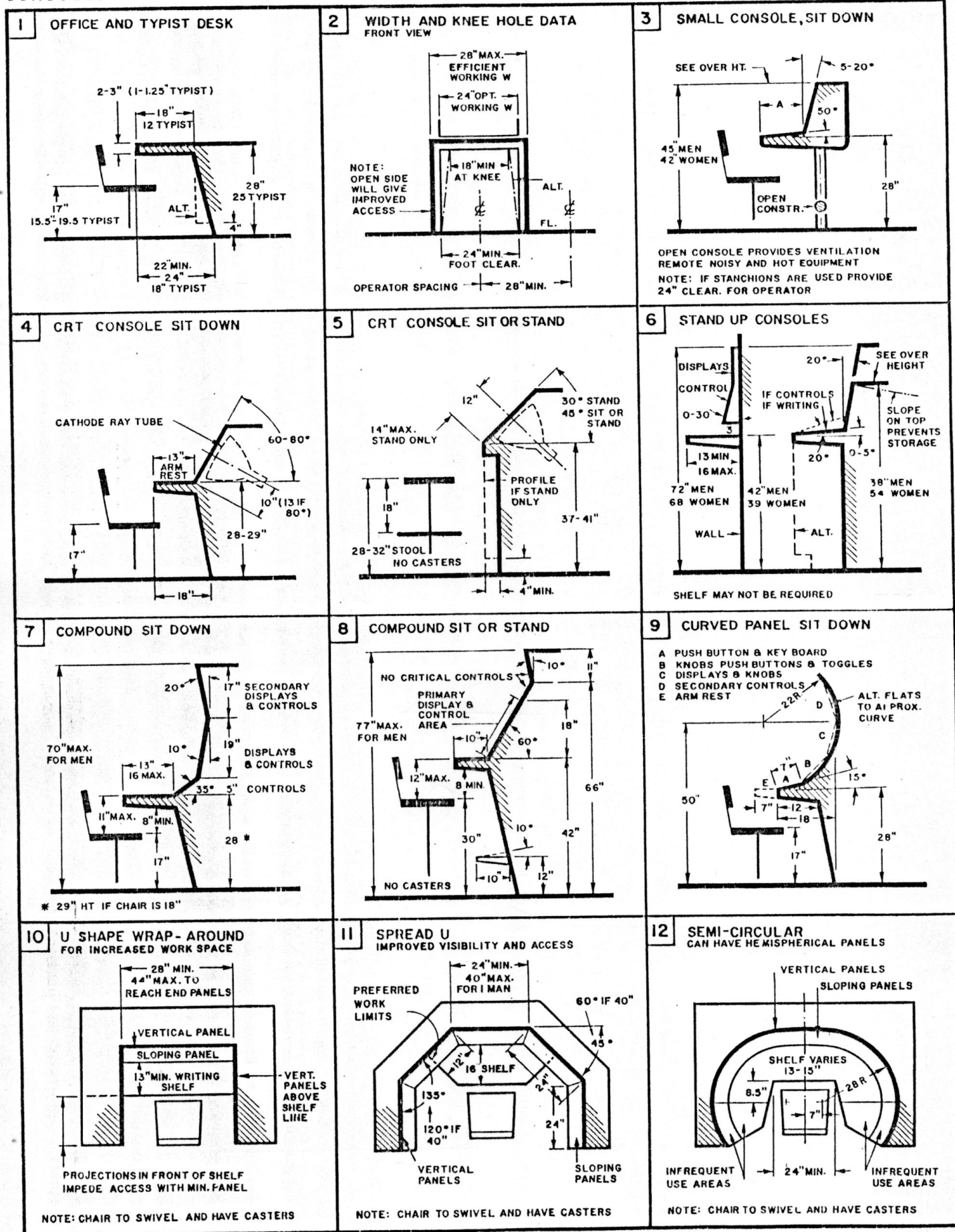
*INDICATES DESCRIPTION APPLIES TO DATA TABULATED BELOW

HANDS					BODY				
	empty hand held flat	* bare 4x2.25"	* work gloves 6x3"	* arctic gloves 6.5 x 4"		manhole	work clothes 22.8	—	space suit 36"D
	min. to wrist	3.5 sq.	5.5 sq.	6. sq.		crawl thru pipe	*min. avg. clothes 25" I.D.	* prefer 30" I.D.	* arctic clothes 32" I.D.
	clenched hand	3.75 D	5.75 D	6.25 D		ceiling and floor hatch	18"D	22"D	32"D
	inserting 1" object to wrist	3.5 x 5	4.5 x 6	7 x 8.5		" "	18 sq.	22 sq.	32 sq.
	using pliers screw driver	5.0	6.0	8.5 D		side hatch incl. pack	18 x 15	22 x 20	32 x 24
	one hand passing object	3.75 D	6.0	7.0		belly hatch incl. pack	20 x 32	—	—
	two hands straight ahead reach = 6-25"	5.2 x 4.5 4.2 x 4.6	—	—		crawl thru	20 x 29	—	—
	arms	L = 4" A+B = 1.75	L = 6" A+B = 2.5	L = 6.5" A+B = 2.5		prone access	20 x 31	22 x 36	30 x 38
	arm to elbow	—	* clothed 4.5"D	* arctic 7"D		catwalk	22" H = 63 12	24" H = 73 15	32" H = 75 15
	arm to shoulder	—	4.5 sq.	7. sq.		normal pass	22 x 76	30 x 80	30 x 80
	fingers	—	5.0	8.5 D		pass sideways	13 x 76	15 x 80	19 x 80
	one finger	—	5. sq.	8.5 sq.		pressure hatch	20x44 A=16" to floor	26x66 A=10" to floor	—
	recessed push button	0.93 D	—	—		head bent head erect	20 to 24 x 60 20 to 24 x 70	30 x 70 30 x 80 to 84	30 x 70 30 x 80 to 84
	twist access eg: hold screw	2. D	2.5" D	—		two men facing each other	30 x 76	36 x 80 to 84	36 x 80 to 84
	foot	—	—	—		two men passing abreast	42 x 76	54 x 80 to 84	60 x 80 to 84
	access to pedal	bare 4.3x11.5	avg. shoe 4.7x12.7	arctic boot 6.3x15.3					
	head passage	bare 9.3"	military helmet 11.5"	work helmet 12.5"					

SEATING



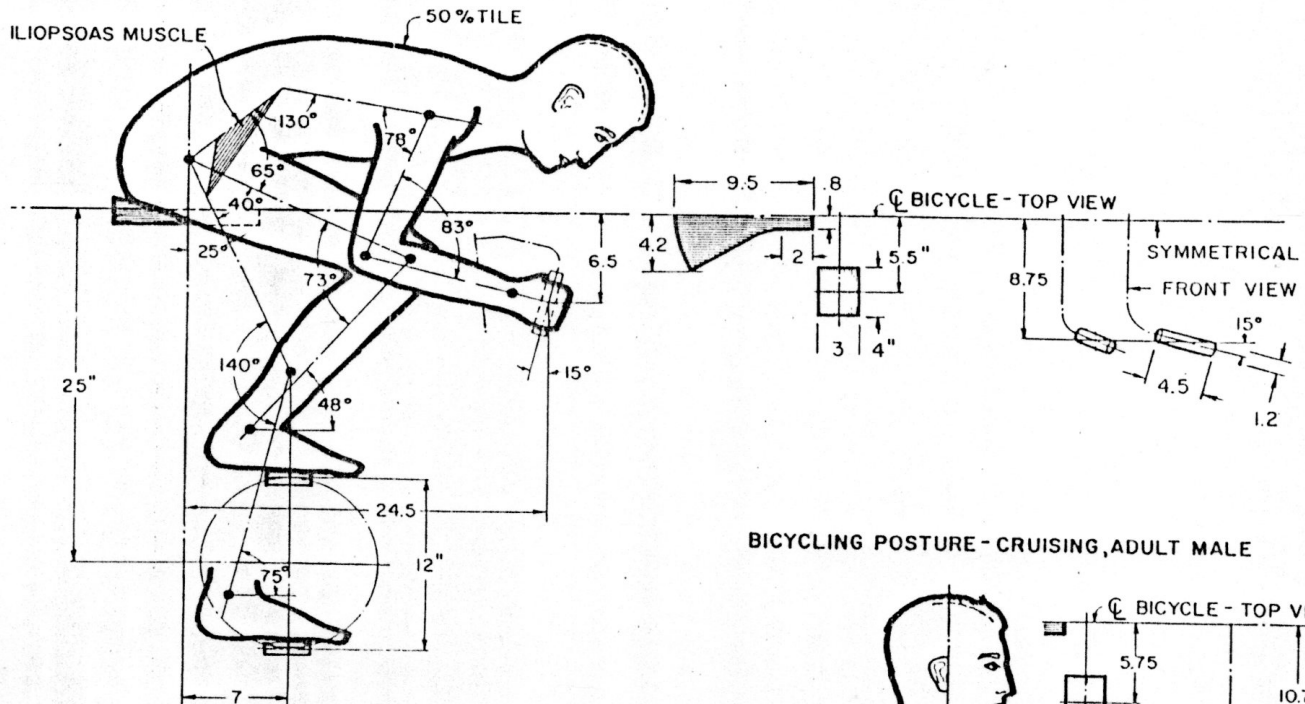
CONSOLES



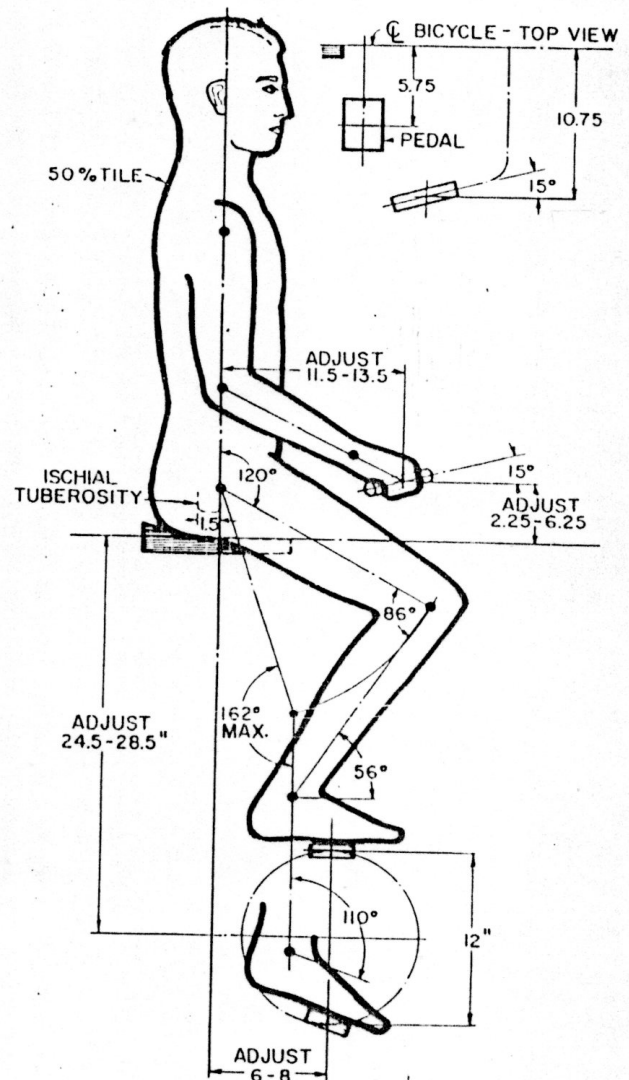


BICYCLES

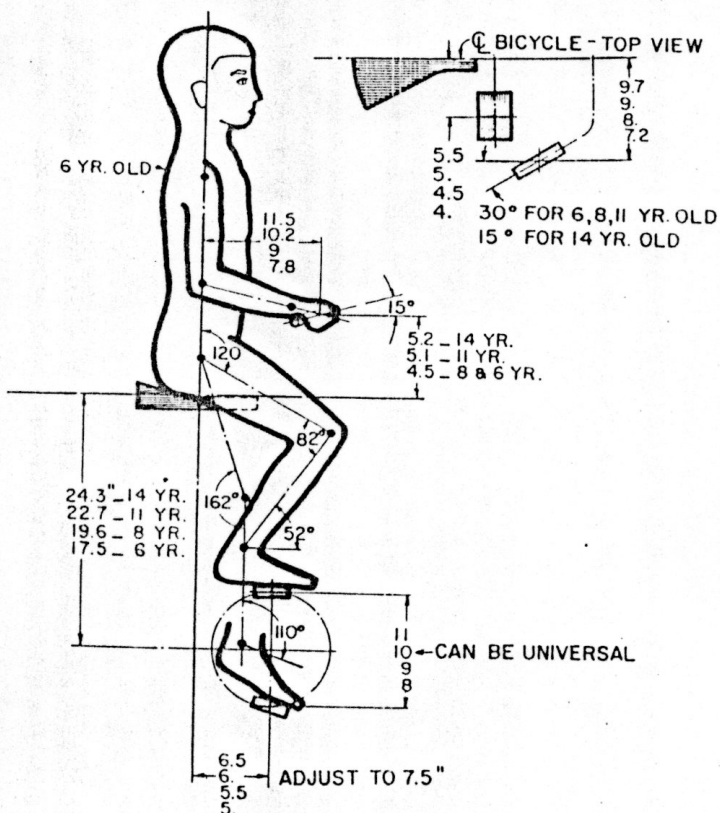
BICYCLING POSTURE - RACING, ADULT MALE



BICYCLING POSTURE - CRUISING, ADULT MALE

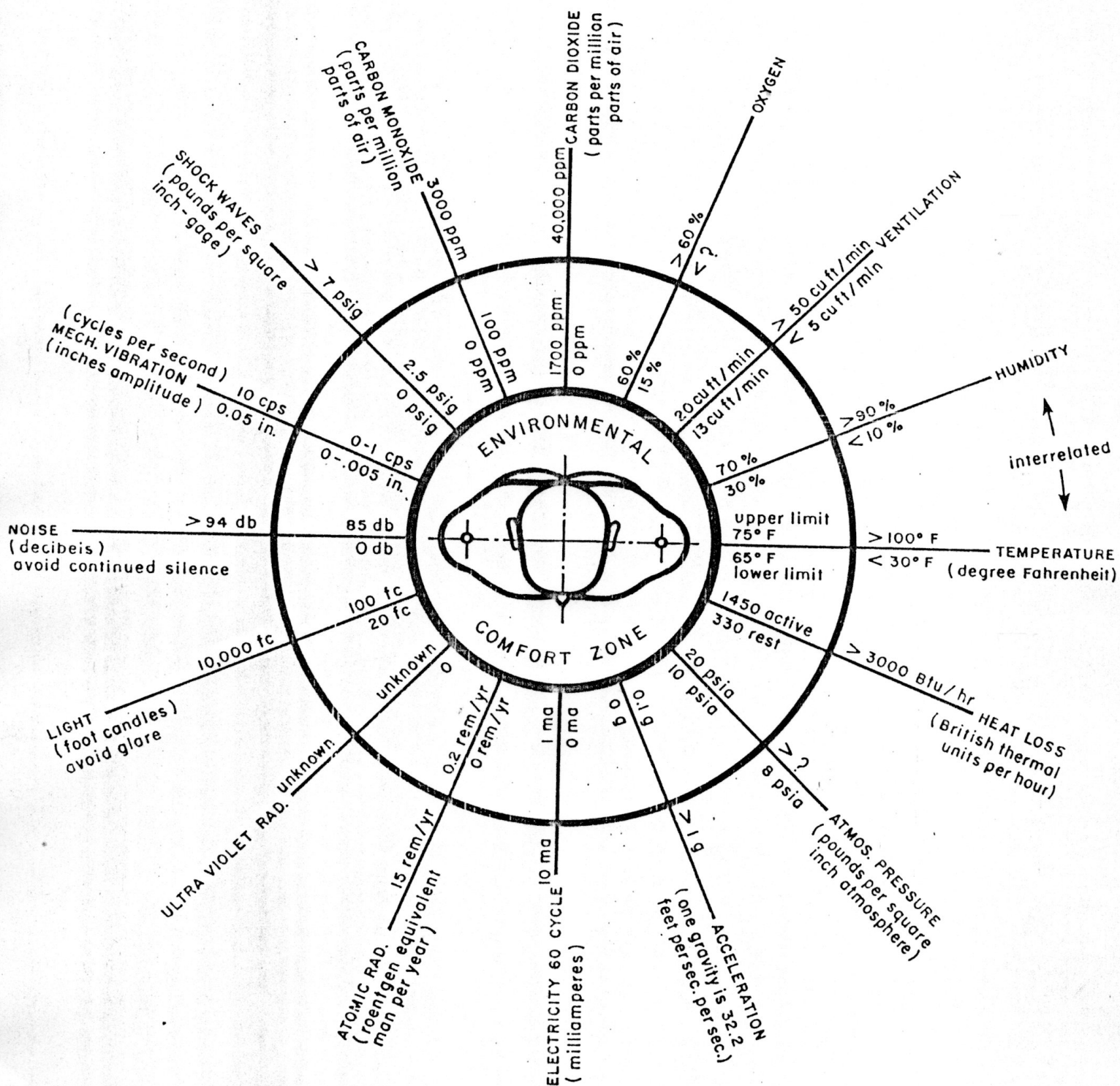


BICYCLING POSTURE - CRUISING, JUVENILE GROUP 14, 11, 8 & 6 YR. OLD BOYS





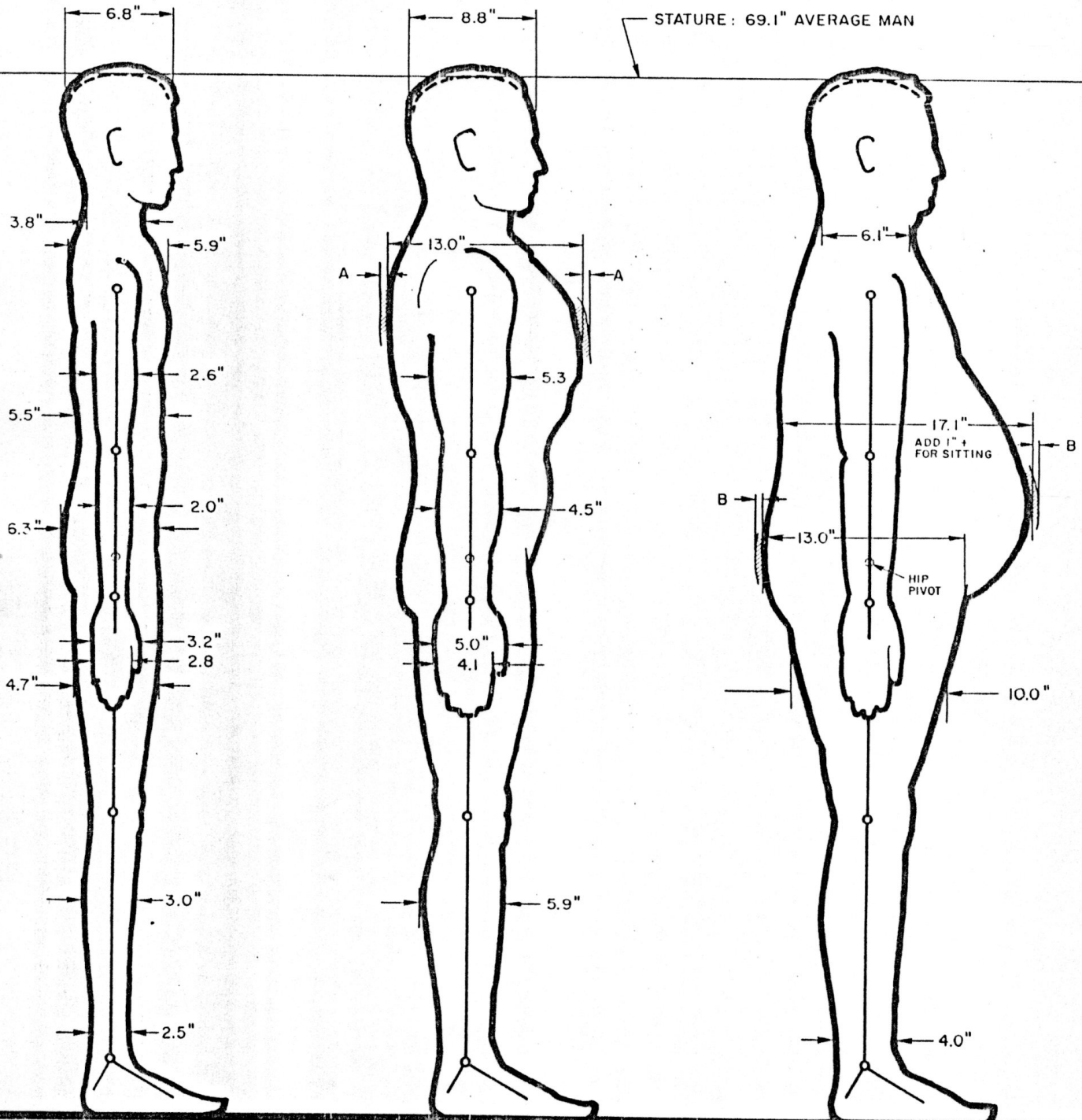
ENVIRONMENTAL TOLERANCE ZONES



THE BAND BETWEEN THE CIRCLES INDICATES THE ZONE FROM COMFORT TO THE TOLERANCE LIMIT. OUTSIDE THIS LIMIT GREAT DISCOMFORT OR PHYSIOLOGICAL HARM IS ENCOUNTERED. OTHER FACTORS NOT SHOWN AND TO BE CONSIDERED ARE: INFRA-RED RADIATION, ULTRA-SONIC VIBRATIONS, NOXIOUS GASES, DUST, POLLEN, CHEMICALS & FUNGI.

THREE BASIC HUMAN BODY TYPES

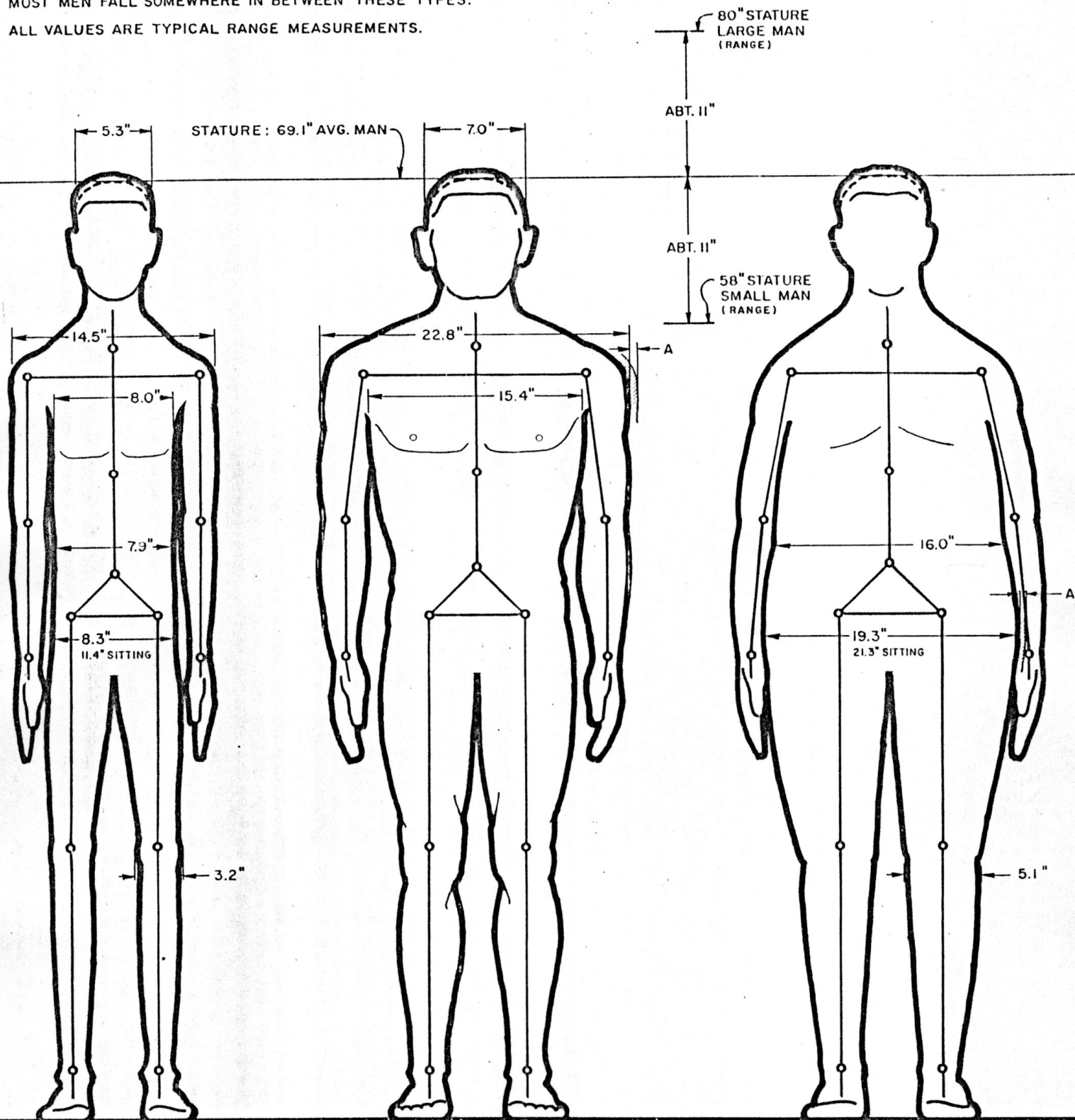
EXTREME VARIATIONS OF THE AVERAGE MAN IN THE U.S.A.
 MOST MEN FALL SOMEWHERE IN BETWEEN THESE TYPES.
 ALL VALUES ARE TYPICAL RANGE MEASUREMENTS.



CLOTHING THICKNESS: A = 0.25" LIGHT, 0.75" HEAVY
 B = 0.5" LIGHT, 1.0" MEDIUM, 1.25" HEAVY

THREE BASIC HUMAN BODY TYPES

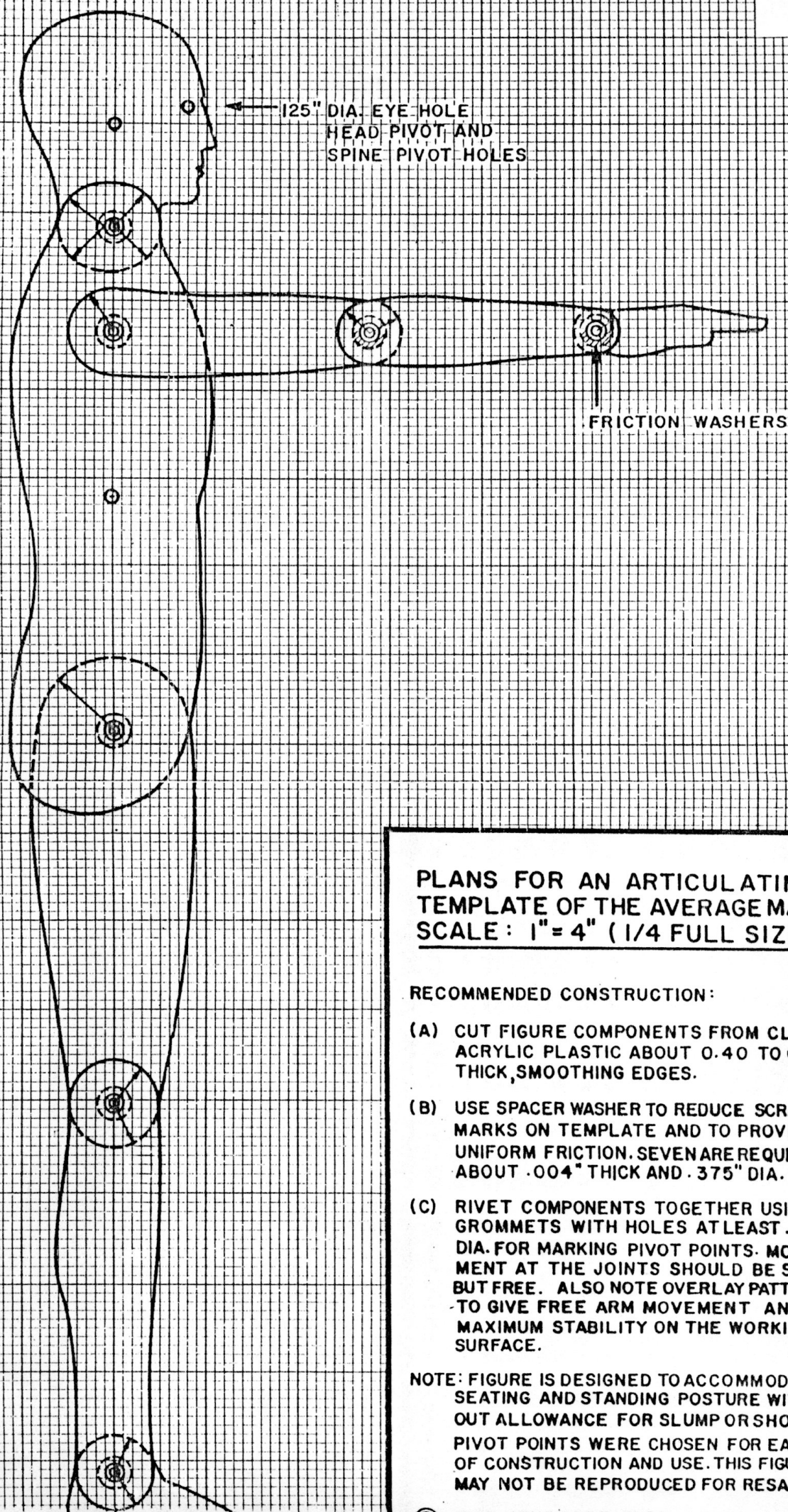
EXTREME VARIATIONS OF THE AVERAGE MAN IN THE U.S.A.
 MOST MEN FALL SOMEWHERE IN BETWEEN THESE TYPES.
 ALL VALUES ARE TYPICAL RANGE MEASUREMENTS.



ECTOMORPH

MESOMORPH

ENDOMORPH



**PLANS FOR AN ARTICULATING
TEMPLATE OF THE AVERAGE MAN
SCALE: 1" = 4" (1/4 FULL SIZE)**

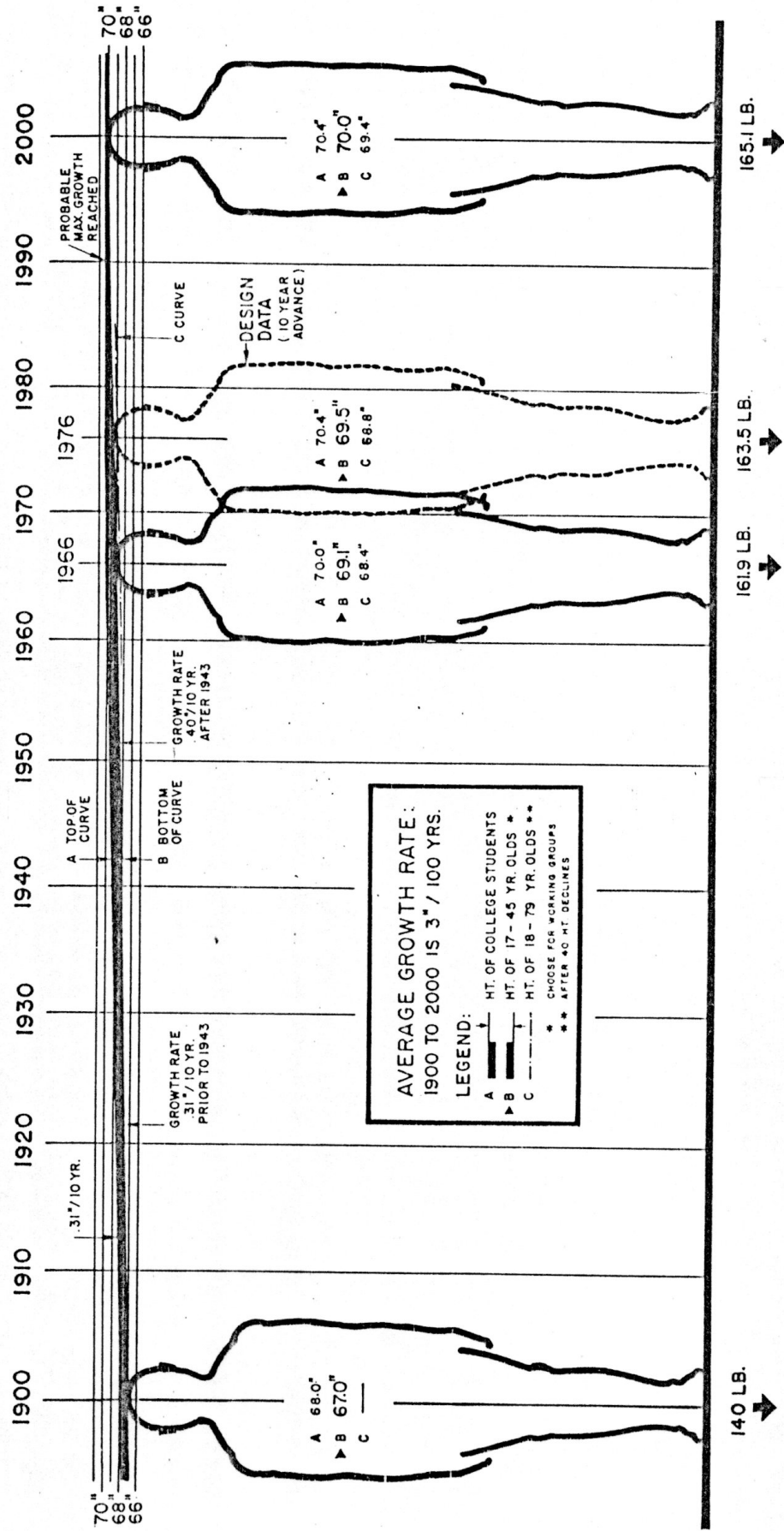
RECOMMENDED CONSTRUCTION:

- (A) CUT FIGURE COMPONENTS FROM CLEAR ACRYLIC PLASTIC ABOUT 0.40 TO 0.62" THICK, SMOOTHING EDGES.
- (B) USE SPACER WASHER TO REDUCE SCRATCH MARKS ON TEMPLATE AND TO PROVIDE UNIFORM FRICTION. SEVEN ARE REQUIRED ABOUT .004" THICK AND .375" DIA.
- (C) RIVET COMPONENTS TOGETHER USING GROMMETS WITH HOLES AT LEAST .094" DIA. FOR MARKING PIVOT POINTS. MOVEMENT AT THE JOINTS SHOULD BE SNUG BUT FREE. ALSO NOTE OVERLAY PATTERN TO GIVE FREE ARM MOVEMENT AND MAXIMUM STABILITY ON THE WORKING SURFACE.

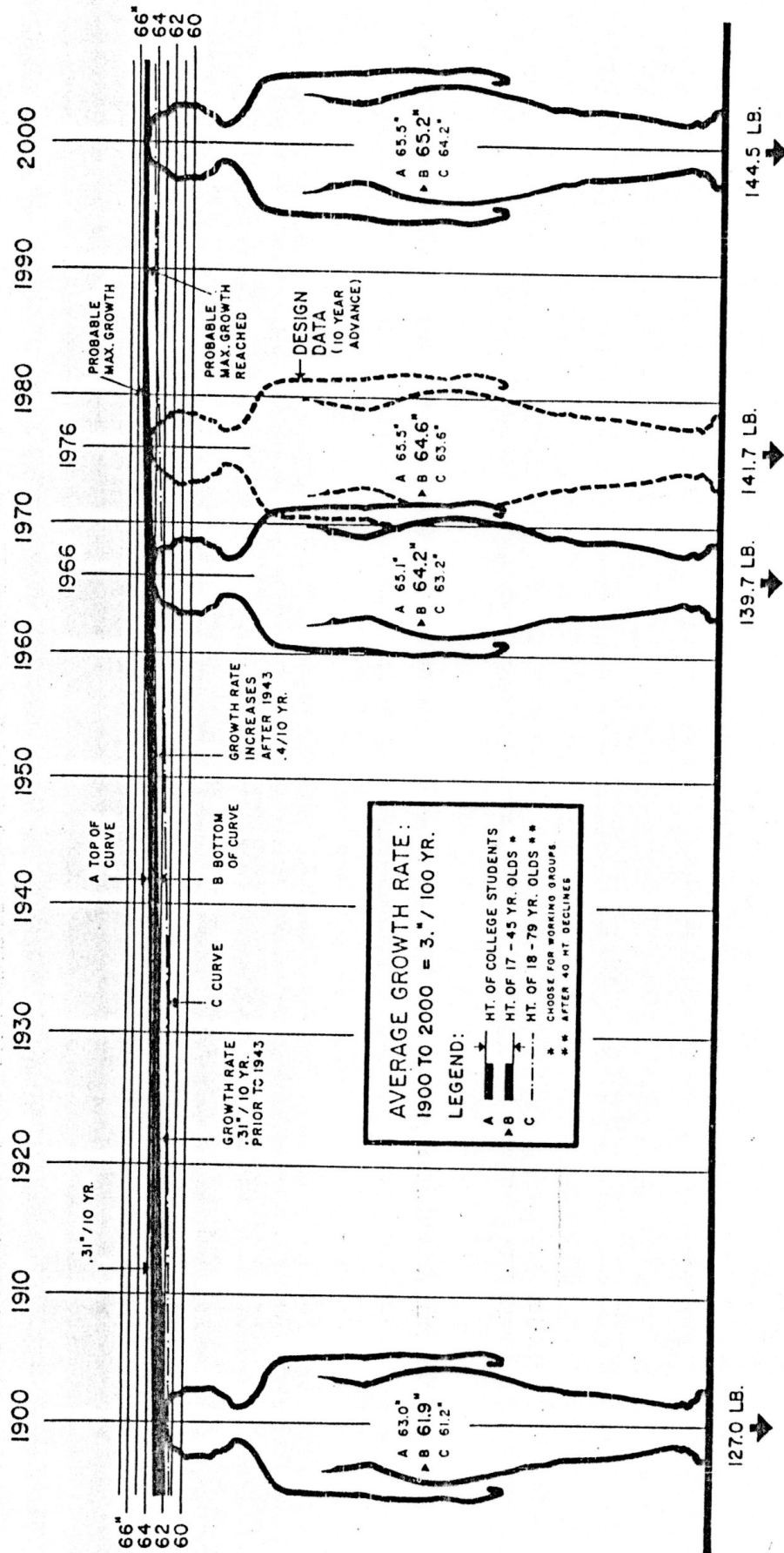
NOTE: FIGURE IS DESIGNED TO ACCOMMODATE SEATING AND STANDING POSTURE WITHOUT ALLOWANCE FOR SLUMP OR SHOES. PIVOT POINTS WERE CHOSEN FOR EASE OF CONSTRUCTION AND USE. THIS FIGURE MAY NOT BE REPRODUCED FOR RESALE.



GROWTH OF THE AVERAGE MAN IN THE U.S.A.



GROWTH OF THE AVERAGE WOMAN IN THE U.S.A.



COMPARISON OF THE 2.5 PERCENTILE U.S. ADULT MALE IN SUMMER ATTIRE AND THE 97.5 PERCENTILE IN HEAVY WINTER CLOTHES.

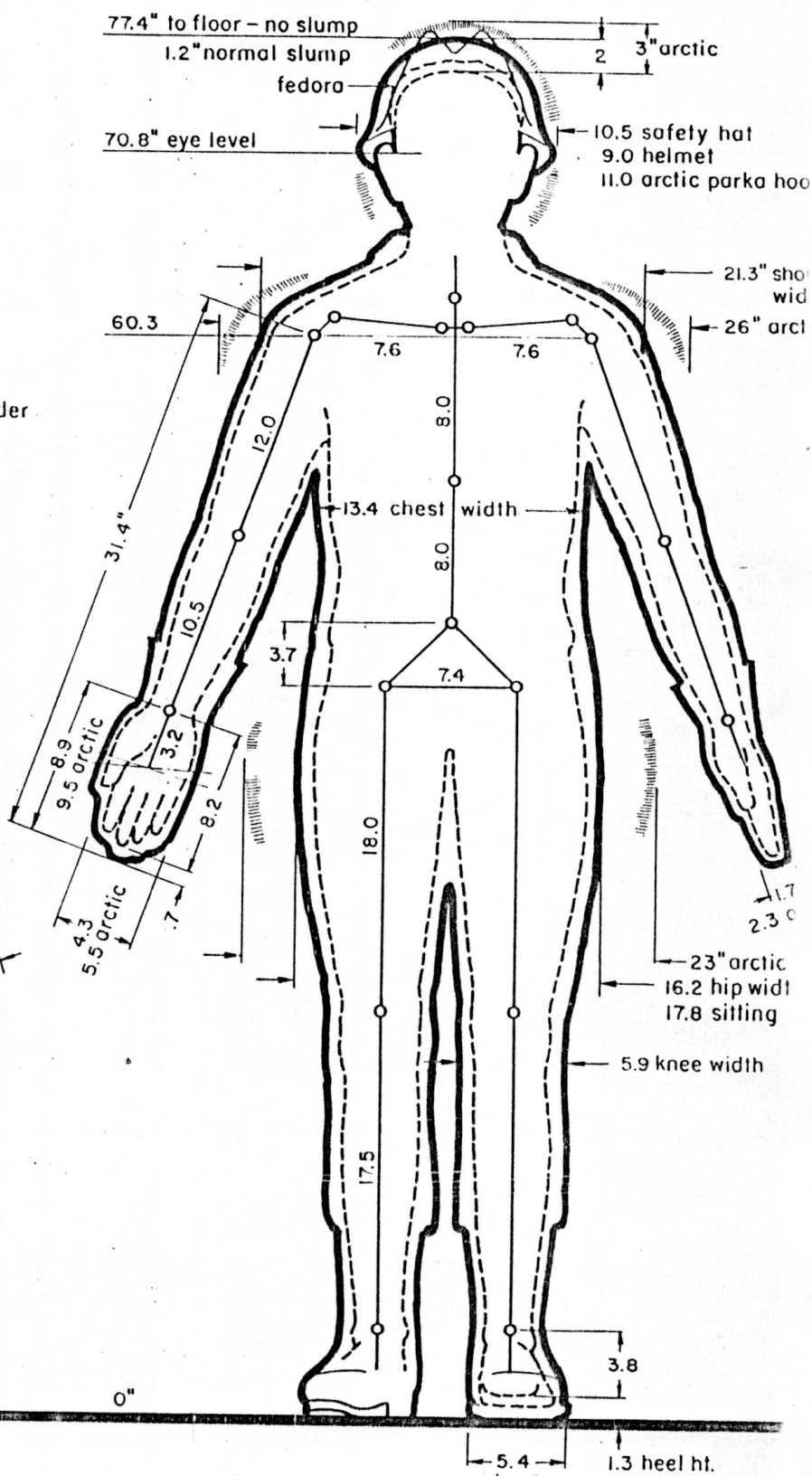
A DESIGN WHICH INCLUDES THESE 2 MEN WILL ACCOMMODATE 95 PERCENT UNDER MOST CLIMATIC CONDITIONS.

dimensions include all types of Army gear, heavy winter flying clothes (A.F.), and civilian work and street clothes.

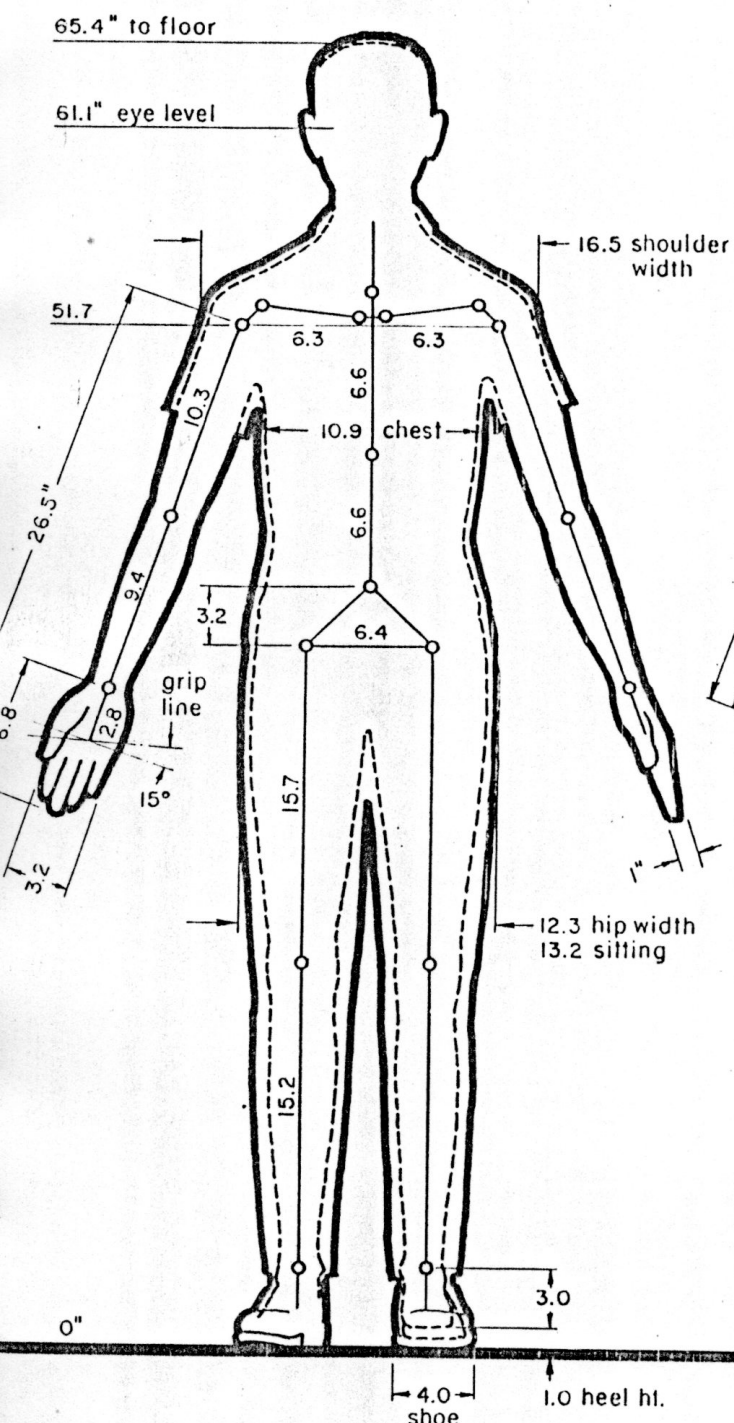
pressure suits and heated suits are not included.

data on arctic clothing is uncompressed.

97.5 PERCENTILE



2.5 PERCENTILE



arm span _____ 65.5"
arm akimbo span _____ 34.9"
total weight _____ 131.7 lb.

arm span _____ 78.1"
arm akimbo span _____ 43.2"
total weight _____ 132.1b.

COMPARISON OF 2.5 PERCENTILE U.S. ADULT MALE IN SUMMER ATTIRE AND THE 97.5 PERCENTILE IN HEAVY WINTER CLOTHES

