

DECAY OF RADIATION

RULE-OF-THUMB

Intensity is divided by 10 as Time is multiplied by 7

RADIATION INTENSITY

10,000 r / hr

1000 r / hr

100 r / hr

10 r / hr

1 r / hr

.1 r / hr

TIME AFTER DETONATION

1 hour after detonation

7 hours later

49 (2 days later)

343 (14 days--2 wks.)

2401 (100 days--14 wks.)

16,708 (700 days--2 yr.)

200 ROENTGENS
SICKNESS



600 ROENTGENS
FATAL



LETHAL DOSE

50% CASUALTY RATE



750 r



450 r



450 r



350 r



1000 r

SHIELDING FROM STRUCTURES



FIRST FLOOR OF HOUSE

reduces hazard to...

$\frac{1}{2}$



BASEMENT OF HOUSE

reduces hazard to...

$\frac{1}{10}$



IMPROVISED BASEMENT REFUGE

reduces hazard to...

$\frac{1}{100}$



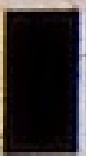
UNDERGROUND FALLOUT SHELTER


reduces hazard to...


$\frac{1}{5000}$

COMPARATIVE THICKNESS OF BUILDING MATERIALS

1/1000 +

 LEAD 2.5 IN.

 STEEL 7 IN.

 CONCRETE 24 IN.

 EARTH 36 IN.

 WATER 50 IN.

 WOOD 90 IN.

20-MEGATON WEAPON

30 m.p.h. Wind (Average)

290 Miles from Detonation

Arrives at H + 8--55r/hr

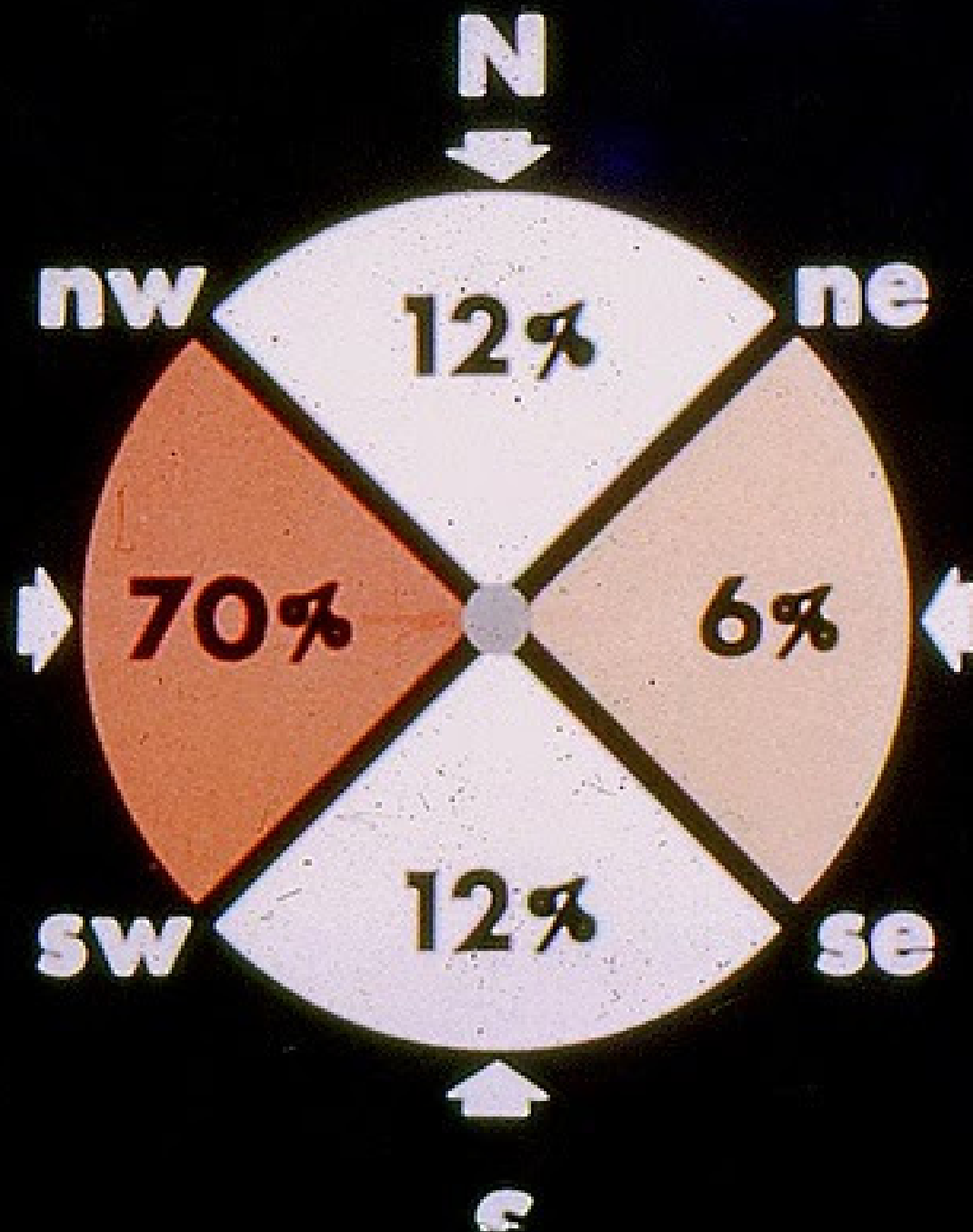
ACCUMULATED DOSES

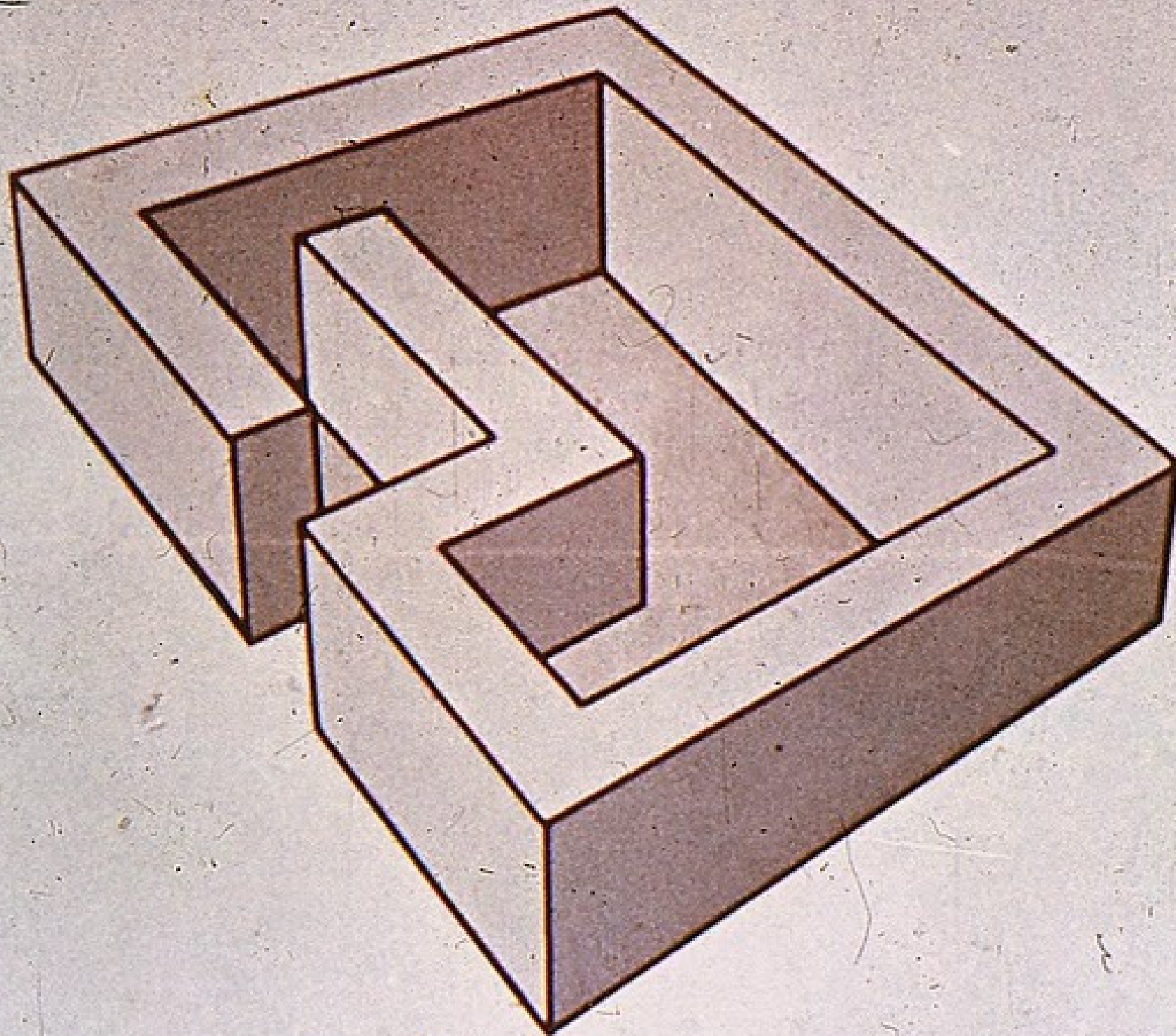
Type Protection	1 Day	2 Weeks	Through 6 Months *
Outside	440	1200	1600
Inside House 1/2	220	600	880 *
Basement 1/10	44	120	290 *
Shelter 1/100	4	12	140 *

* After 2 weeks assuming 1/3 time outside and 2/3 time inside

 Some Deaths  Some Sickness  Relatively Safe

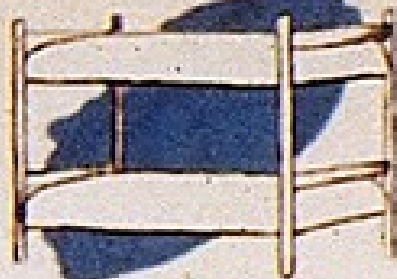
WIND DIRECTION PROBABILITIES



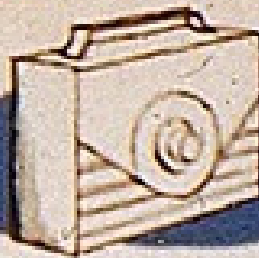


Shelter Entrance

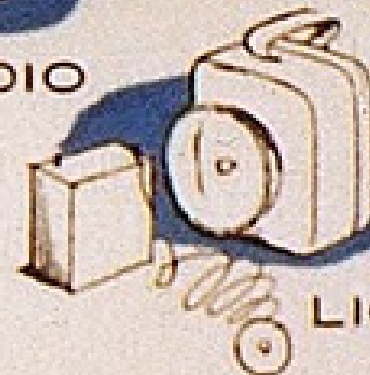
SURVIVAL = 2 WEEKS ON YOUR OWN



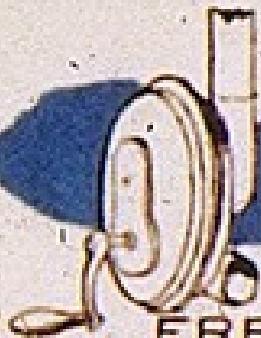
SLEEPING



RADIO



LIGHT

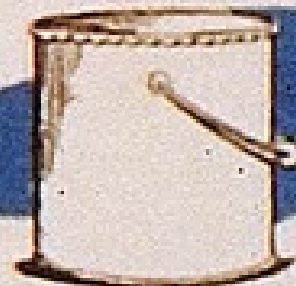


FRESH AIR

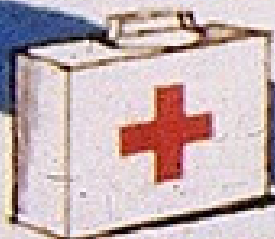
AMUSEMENTS



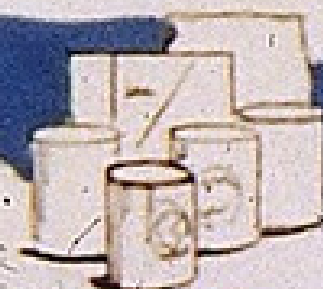
WASTE DISPOSAL



WATER



FIRST AID



FOOD