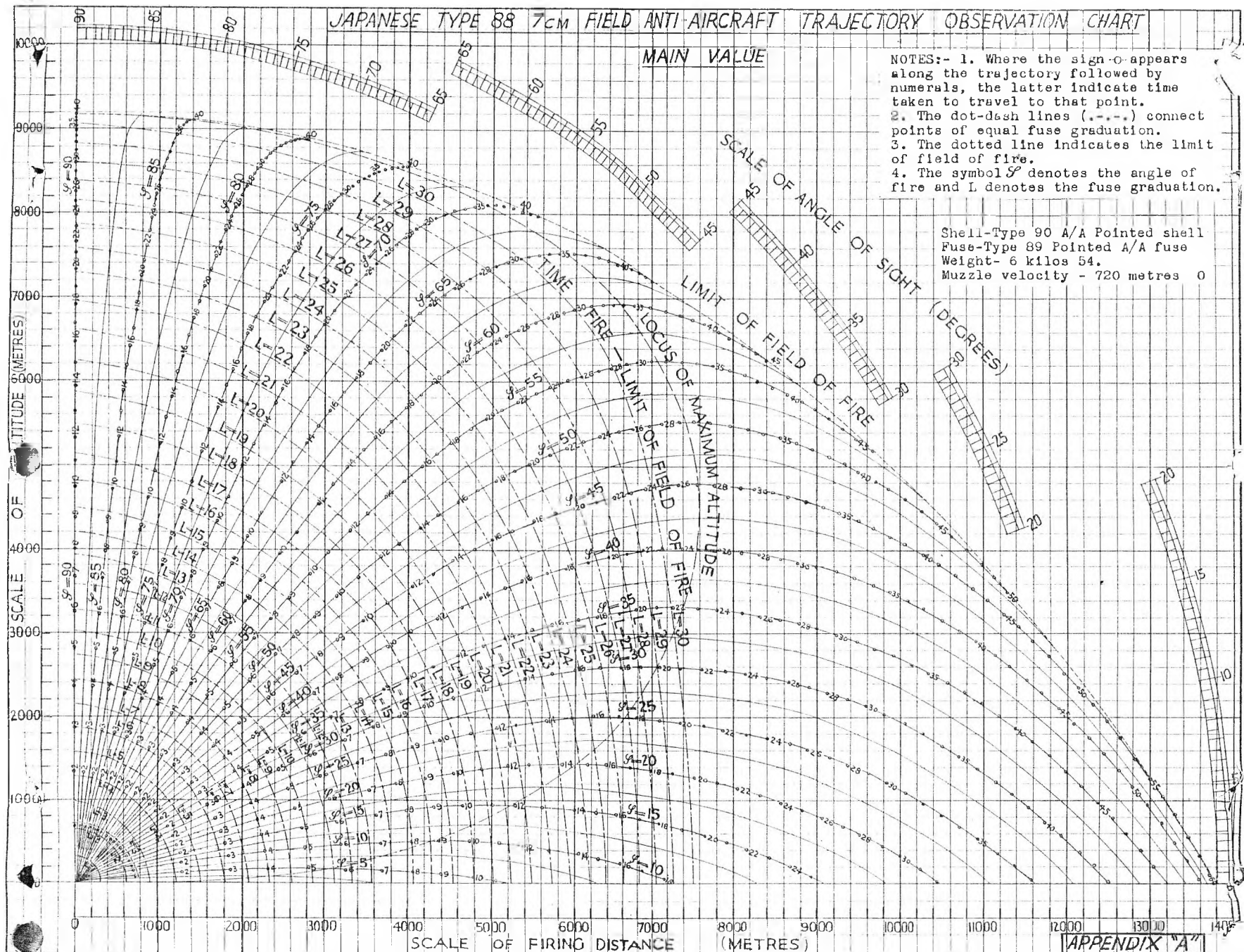


JAPANESE TYPE 88 7cm FIELD ANTI-AIRCRAFT TRAJECTORY OBSERVATION CHART

MAIN VALUE

- NOTES:- 1. Where the sign $\circ$ appears along the trajectory followed by numerals, the latter indicate time taken to travel to that point.
2. The dot-dash lines (.-.-.) connect points of equal fuse graduation.
3. The dotted line indicates the limit of field of fire.
4. The symbol ϕ denotes the angle of fire and L denotes the fuse graduation.

Shell-Type 90 A/A Pointed shell
Fuse-Type 89 Pointed A/A fuse
Weight- 6 kilos 54.
Muzzle velocity - 720 metres O



JAPANESE TYPE 88 7cm FIELD ANTI-AIRCRAFT TRAJECTORY OBSERVATION CHART

Shell-Type 90 A/A Pointed shell : Fuse-Type 89 Pointed A/A fuse : Weight- 6 kilos 54 : Muzzle velocity - 720 metres per second

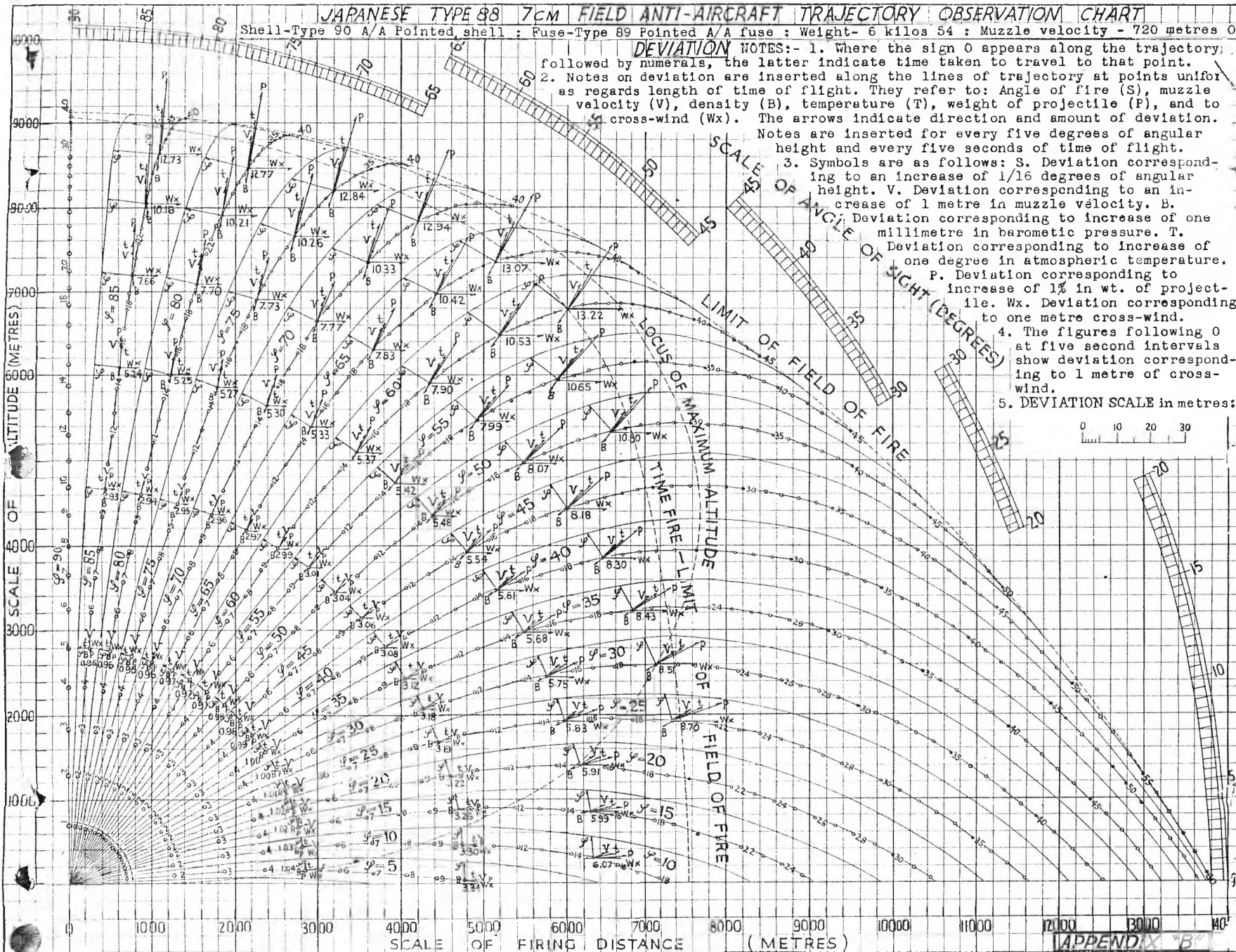
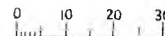
DEVIATION NOTES:- 1. Where the sign 0 appears along the trajectory, followed by numerals, the latter indicate time taken to travel to that point.
2. Notes on deviation are inserted along the lines of trajectory at points uniform as regards length of time of flight. They refer to: Angle of fire (S), muzzle velocity (V), density (B), temperature (T), weight of projectile (P), and to cross-wind (Wx). The arrows indicate direction and amount of deviation.

Notes are inserted for every five degrees of angular height and every five seconds of time of flight.

3. Symbols are as follows: S. Deviation corresponding to an increase of 1/16 degrees of angular height. V. Deviation corresponding to an increase of 1 metre in muzzle velocity. B. Deviation corresponding to an increase of one millimetre in barometric pressure. T. Deviation corresponding to increase of one degree in atmospheric temperature. P. Deviation corresponding to increase of 1% in wt. of projectile. Wx. Deviation corresponding to one metre cross-wind.

4. The figures following 0 at five second intervals show deviation corresponding to 1 metre of cross-wind.

5. DEVIATION SCALE in metres:



JAPANESE TYPE 88 7CM FIELD ANTI-AIRCRAFT TRAJECTORY OBSERVATION CHART

DISPERSION ELLIPSES

- NOTES:- 1. Where the sign O appears along the trajectory followed by numerals, the latter indicate the time taken to travel to that point.
2. The dispersal ellipses indicate the dispersion at points of burst at five second intervals along trajectories which are at five degree intervals.
3. The figures beside the dispersal ellipses denote No. of metres of lateral 50% burst zone.
4. The interval between the parallel lines which can be drawn at a tangent to the side of the dispersal ellipses shows the value of the 50% burst zone seen from the direction of projection.

Shell-Type 90 A/A Pointed
 Shell - Type 90 A/A Pointed
 Fuse - Type 89 Pointed A/A fuse.
 Weight - 6 kilos 54.
 Muzzle velocity - 720 metres

