HOLOGRAPHIC SIGHT

The holographic sight is an aiming device where a projected holographic reticle is used for fast and accurate aiming. It is a unit magnification sight with large (practically unlimited) field of view, because of both eye open shooting. When a holographic sight is mounted on a small infantry weapon like a rifle or carbine, there is no need to align the eye with front and back portions of iron sight for shooting. Thus it replaces the use of iron sight of the referred weapon and provides speed advantage. Further an accurate aiming is provided by the projection of reticle on the target plane. Both eyes can remain open and shooting can be realized along with larger eye relief.

The viewing window of this sight is a transparent hologram which acts as a combiner for see-through target image and a projected reticle recorded in the hologram. The role of a holographic sight is crucial in the Close Quarter Battle (CQB), where speed (faster target acquisition) is a matter of life and death.

Advantages can be summarized as -

- Instant target acquisition (speed)
- Accuracy
- Leaves no signature to be detected by enemy
- Shooting with both eyes open
- Works fine even if the holographic window is partly damaged

It is the first application of holography in India for small arms.

IRDE has developed fully qualified units of Holographic Sight for INSAS rifle based on the GSQR from Army Headquarters. It uses laser diode for reticle hologram reconstruction. The light emitted from laser diode reflected back by a mirror is collimated by a holographic collimator enclosed inside the sight. This collimated light falls on the Reticle hologram at predefined angle, resulting in generation of a projected reticle image on the target.

Holographic Sight

Sight mounted on INSAS Rifle

Projected Reticle