CLAIMS

1. A fire-control system (1) comprising
   - a housing (20),
   - a light channel, through which a user may directly observe a target and receive visually displayed information simultaneously, said light channel comprising partially reflective optics (4, 6, 8),
   - a light source, for visualization of a reticle to the user via the partially reflective optics (4, 6, 8),
   - means for receiving a measure of the distance to the target
   - a processor, for determining the adequate position of the reticle, based on the distance to the target, and for controlling the light source to emit light so that the reticle is visualized at the adequate position,

   wherein the light source is an array capable of selectively emitting light in well defined locations on its surface, the partially reflective optics being adapted to reflect the light and image the emitted light for generation of a virtual reticle.

2. The fire-control system of claim 1, wherein the light-emitting array is a one-dimensional array capable of selectively emitting light in well defined locations on its surface.

3. The fire-control system of claim 1, wherein the light-emitting array is a two-dimensional array capable of selectively emitting light in well defined locations on its surface.

4. The fire-control system of claim 3, wherein the light-emitting array is an array of resonant-cavity light emitting diodes.

5. The fire-control system of any preceding claim, wherein the light-emitting array has a trapezoid shape.

6. The fire-control system of any preceding claim, wherein the sight further comprises a range finder within its housing.

7. The fire-control system of any preceding claim, wherein the optics displaying the reticle for the user comprise optics being adapted to create an image of the reticle which is essentially parallax free relative to the target.

8. The fire-control system of any preceding claim, wherein the fire-control system further comprises a sensor for measuring inclination of the sight in a cross-direction, and means for compensating the position of the position of the reticle responding to said inclination.

9. The fire-control system of any preceding claim, wherein the sight further comprises means for communication with external sources.

10. Method for displaying a reticle in a fire-control system according to any preceding claim, the method comprising

acquiring distance information representing a distance to a target;

determining a position for imaging the reticle based on said distance information and trajectory information for ammunition to be used; and

controlling light emission from the array to emit light from a position of the surface of the array which via the partially reflective optics images reticle at the determined position.

11. The method of claim 10, further comprising the step of acquiring an inclination in a cross direction of the fire-control system and compensating the position of the reticle responding to said inclination.

12. The method according to claim 10, wherein the acquiring of distance information comprises

transmitting electromagnetic radiation towards the target;

receiving a reflection of said electromagnetic radiation from the target; and

calculating the distance to the target based on the time elapsed from the transmitting to the receiving.

13. The method according to claim 10, further comprising acquiring the trajectory information from any of the group comprising ballistics, inclination, windage, humidity, barometric pressure, position, altitude, geographical coordinates.

14. The method according to claim 10, further comprising controlling the light emission from the array to, via the partially reflective optics, display alphanumerical information.

15. A computer readable medium comprising program code, which when executed by a processor is arranged to cause the processor to perform the method according to claim 10.

CLAIMS

1. A fire-control system comprising:

- a housing;
- a light channel, through which a user may directly observe a target and receive visually displayed information simultaneously, said light channel comprising partially reflective optics;
- a light source, for visualization of a reticle to the user via the partially reflective optics;
- means for receiving a measure of the distance to the target; and
- a processor, arranged to determine the adequate position of the reticle, based on the distance to the target, and to control the light source to emit light so that the reticle is visualized at the adequate position;

wherein the light source is an array capable of selectively emitting light in well defined locations on its surface, the partially reflective optics being adapted to reflect the light and image the emitted light for generation of a virtual reticle.

2. The fire-control system of claim 1, wherein the light-emitting array is a one-dimensional array capable of selectively emitting light in well defined locations on its surface.

3. The fire-control system of claim 1, wherein the light-emitting array is a two-dimensional array capable of selectively emitting light in well defined locations on its surface.

4. The fire-control system of claim 3, wherein the light-emitting array is an array of resonant-cavity light emitting diodes.

5. The fire-control system of any one of claims 1 to 4, wherein the light-emitting array has a trapezoid shape.

6. The fire-control system of any one of claims 1 to 5, wherein the sight further comprises a range finder within its housing.

7. The fire-control system of any one of claims 1 to 6, wherein the optics displaying the reticle for the user comprise optics being adapted to create an image of the reticle which is essentially parallax free relative to the target.

8. The fire-control system of any one of claims 1 to 7, wherein the fire-control system further comprises a sensor for measuring inclination of the sight in a cross-direction, and means for compensating the position of the position of the reticle responding to said inclination.

9. The fire-control system of any one of claims 1 to 8, wherein the sight further comprises means for communication with external sources.

10. Method for displaying a reticle in a fire-control system, the method comprising

acquiring distance information representing a distance to a target;

determining a position for imaging the reticle based on said distance information and trajectory information for ammunition to be used; and

controlling light emission from an array, which is capable of selectively emitting light in well defined locations on its surface, to emit light from a position of the surface of the array which via partially reflective optics of a light channel through which a user may directly observe a target and receive visually displayed information simultaneously, images the reticle at the determined position.

11. The method of claim 10, further comprising the step of acquiring an inclination in a cross direction of the fire-control system and compensating the position of the reticle responding to said inclination.

12. The method according to claim 10, wherein the acquiring of distance information comprises

transmitting electromagnetic radiation towards the target;

receiving a reflection of said electromagnetic radiation from the target; and

calculating the distance to the target based on the time elapsed from the transmitting to the receiving.

13. The method according to claim 10, further comprising acquiring the trajectory information from any of the group comprising ballistics, inclination, windage, humidity, barometric pressure, position, altitude, geographical coordinates.

14. The method according to claim 10, further comprising controlling the light emission from the array to, via the partially reflective optics, display alphanumerical information.

15. A computer readable medium comprising program code, which when executed by a processor is arranged to cause the processor to perform the method according to claim 10.