

## Clear 2 Fire® Licensed Software

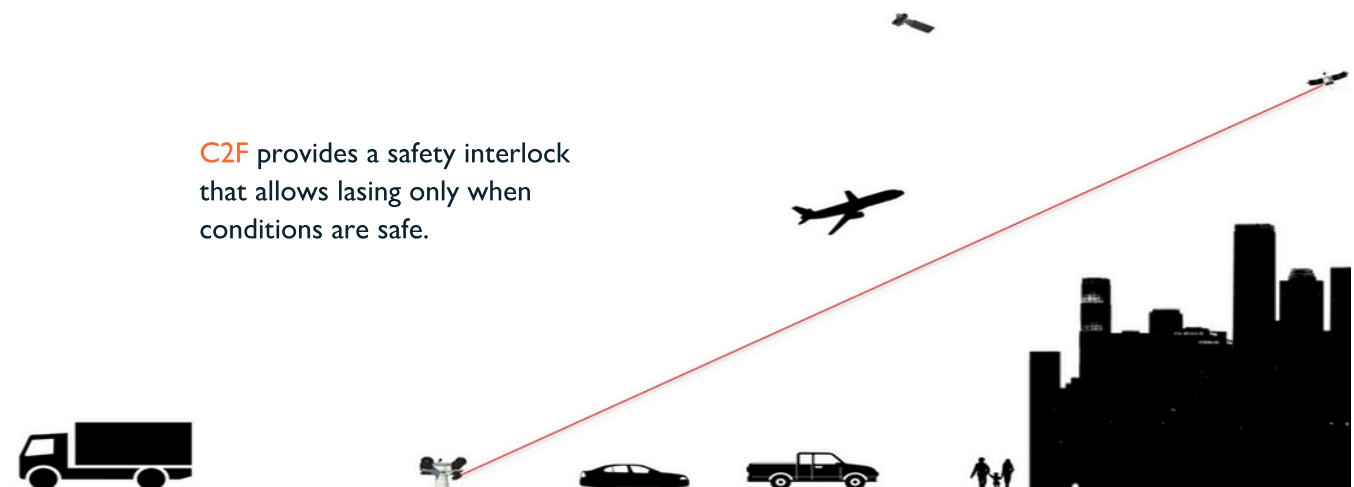
Laser safety system for high-powered lasers with dynamic pointing systems

Clear2Fire®, or C2F®, is a highly adaptable laser safety system for use with high power lasers with dynamic pointing systems, such as high energy laser systems, LIDAR/LADAR systems, and laser communication systems. C2F provides a fail-safe way to protect people and assets from inadvertent illumination. C2F constantly monitors the laser system, gimbal, and surrounding environment for safety conflicts, and if any are found, laser emission can be inhibited. The system can deconflict laser operations with static constraints such as 2D (azimuth and elevation) and 3D (latitude-longitude-altitude) keep-out areas, and dynamic keep areas for aircraft and satellites. C2F is also designed to meet the exacting requirements of the Air Force Laser Clearinghouse (LCH), should the need arise.

## Features

- 3D graphical situational awareness display
- Can be integrated on dedicated hardware, in a networked arrangement, or embedded within a command-and-control system
- Deconfliction for multiple lasers (on the same gimbal)
- Data logging of system status, with time tags
- Process inertial guidance data in real time
- Platform motion correction
- Remote user interface
- Reduce friendly fire
- Reduce unintentional illumination of assets
- Enable operation of laser systems in urban environments
- Designed for moving platforms: vehicles, boats, planes

**C2F** provides a safety interlock that allows lasing only when conditions are safe.

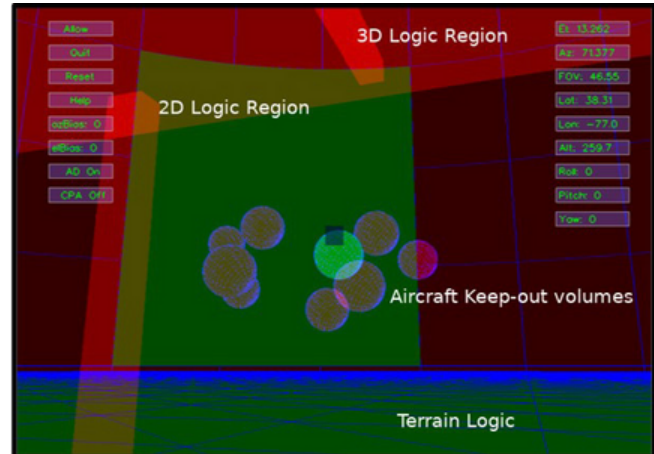


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Laser safety system for high-powered lasers with dynamic pointing systems

In addition to providing this failsafe laser safety function, C2F can also provide the user with a 3D graphical situational awareness display. It can be integrated on dedicated hardware, in a networked arrangement, or embedded within a command-and-control system. C2F is the result of over 20 years of designing, building, and fielding real-time laser safety systems.

Clear2Fire combines the following situational awareness data to determine if it is safe to illuminate:



- Airspace traffic
- Satellite locations
- Local Terrain
- Predefined 2D and 3D Safety Regions
- Laser Clearinghouse (LCH)
- Safety rules

### Laser System Data:

- Location
- Orientation
- Gimbal Direction
- System Health
- Laser State
- Operation mode

### Laser Inhibit/Allow Signal based on:

- Situational Awareness Data
- System Data
- User Input from GUI