

# ClearFlite® airfield obstruction identification tool

## Federal Aviation Administration Airport Compliance Program: Airport Surveying GIS Program and Third Party Survey System

### ClearFlite® overview

ClearFlite®, available in BAE Systems' SOcET SET® software, is a module used to identify, measure, and record obstructions around airfields to comply with the obstruction identification surfaces (OIS) defined in U.S. and international standards. Stereo imagery, along with other SOcET SET functionality, is used to help operators define obstructions efficiently and accurately.

### Key capabilities

- Uses stereo imagery to view terrain features and to identify and map critical runway points.
- Generates the complex airspace surface models defined by governing agencies, the FAA, National Geospatial-Intelligence Agency, and International Civil Aviation Organization.
- Creates 3-D vector and elevation models of a runway's OIS.
- Documents features such as hills, buildings, hangars, trees, towers, and antennas that could cause problems for aircraft.
- Gives operators the ability to confirm obstructions at their desktops before and after field verification.
- Offers an unequalled range of image imports and sensor models from multiple sources, including LIDAR point data.
- Provides an easy way of determining airfield obstructions using photogrammetry, rather than traditional airfield surveying.



BAE Systems' ClearFlite software generates OIS data for airport runways.

For more information on ClearFlite:

[www.socetxp.com/content\\_products/modules/module\\_clearflite.htm](http://www.socetxp.com/content_products/modules/module_clearflite.htm)

### FAA Airport Compliance Program

U.S. airport sponsors agree to certain obligations when they accept federal grant funds for airport purposes. The FAA enforces these obligations through its Airport Compliance Program. The program protects the public interest in civil aviation and verifies compliance with applicable federal laws, FAA rules, and policies.

The FAA is transferring the responsibility of developing aeronautical surveys to the U.S airport owners and sponsors. These aerodrome tasks are:

- Establish geodetic control.
- Acquire and submit airport imagery to the National Oceanic and Atmospheric Administration's National Geodetic Survey. The NGS reviews the imagery for ground sample distance, stereo coverage, geometric fidelity, georeferencing, positional accuracy, resolution, image quality, and acquisition date.
- Collect, analyze, and evaluate obstructions found within an airport's airspace.

In addition to imagery review, the NGS provides quality assurance for the obstruction data delivered. Detailed information regarding the NGS Aeronautical Survey Program can be found at: [www.ngs.noaa.gov/AERO/aero.html](http://www.ngs.noaa.gov/AERO/aero.html)

When a U.S. airport enters into a contract with a mapping, surveying, or engineering firm for the collection of aeronautical survey data, the FAA recommends that the airport collect the information using standard tools and verifiable procedures. The FAA's Airport Improvement Program provides guidelines and funding for airport development.

## FAA Web links for airport issues

FAA Airport Compliance Program

[www.faa.gov/airports\\_airtraffic/airports](http://www.faa.gov/airports_airtraffic/airports)

### Highlights

- Advisory circulars (series 150)
  - Draft advisory circulars
  - New and revised advisory circulars
- Airport Improvement Program Handbook
- Airport data (5010) and contact information
- Engineering and design resources
- National Plan of Integrated Airport Systems (NPIAS)
- Obstruction evaluations (Part 77)
- Opening or closing an airport
- Part 139 certification
- Passenger boarding and all-cargo data
- Voluntary Airport Low Emissions program
- Wildlife hazard mitigation

FAA series 150 advisory circulars for airport projects

[www.faa.gov/airports\\_airtraffic/airports/resources/advisory\\_circulars](http://www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars)

### 150/5300-16

General guidance and specifications for aeronautical surveys; establishment of geodetic control and submission to the National Geodetic Survey.

### 150/5300-17

General guidance and specifications for aeronautical surveys; airport imagery acquisition and submission to the National Geodetic Survey.

### 150/5300-18A/18B

General guidance and specifications for submission of aeronautical surveys to the National Geodetic Survey; field data collection and GIS standards.

## Airport Improvement Program

The Airport Improvement Program provides grants to public agencies — and, in some cases, to private owners and entities — for the planning and development of public-use airports that are included in the NPIAS.

[www.faa.gov/airports\\_airtraffic/airports/aip/](http://www.faa.gov/airports_airtraffic/airports/aip/)

## Third Party Survey System

The Third Party Survey System allows surveyors to electronically submit airport survey data to the FAA and track its progress through a validation and acceptance workflow.

[tpss.faa.gov/tpss/](http://tpss.faa.gov/tpss/)

## Airport Surveying-GIS Program

The Airport Surveying-GIS Program defines the FAA process for the collection and maintenance of airport and aeronautical data required to meet the demands of the next-generation National Airspace System.

[airports-gis.faa.gov/airportsgis/](http://airports-gis.faa.gov/airportsgis/)

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