

## Aerial Firefighting planning

The program is designed to calculate several parameters for the purpose of planning of use of Aerial Firefighting. These are following:

- ✓ Number of drops
- ✓ Total flight time
- ✓ Average time for one drop on fire line
- ✓ Total amount of water dropped on fire line
- ✓ Average of water dropped in one hour

These parameters are calculated in relation to the following initial set-up parameters:

- ✓ Aircraft type
- ✓ Location of the departure airport
- ✓ Location of airport fueling
- ✓ Location of water well
- ✓ Location of fire site

Calculated and graphically displayed parameters are displayed on following User Interface.

The screenshot displays the user interface for aerial firefighting planning. It includes input fields for location coordinates, aircraft selection, map settings, and simulation parameters. The calculated data section provides key metrics such as distances, flight times, and water volume. The aircraft characteristics section lists specific performance metrics for the CL-415 aircraft. The map shows the geographical context of the simulation area.

**Location of the departure airport:** 49 29 25 N 11 04 15 E

**Location of airport fueling:** 49 08 37 N 12 04 51 E

**Location of water well:** 49 00 55 N 11 59 10 E

**Location of fire site:** 48 58 24 N 11 56 44 E

**Select the aircraft type:** CL-415

**Select the type of map:** Simple map

**Size of the map display:** 9

**Speed of moving the cursor:** 8

**The duration of the simulation:** 4:30

**The calculated data**

**Distances:** departure airport - water well: **84,96 km (17 min)**  
airport fueling - water well: **15,87 km (5 min)**  
water well - fire site: **5,53 km**  
fire site - airport fueling: **21,37 km (6 min)**  
fire site - departure airport: **85,76 km (17 min)**  
departure airport - airport fueling: **82,83 km (17 min)**

Number drain on the fire: **64 times**    Number of departures on pouring fuel: **0 times**

Total flight time: **273 min**

Time required for a drainage on the fire: **3,73 min**

The amount of water thrown on the fire: **17984 l (70663 l in one hour)**

**The characteristics of the aircraft**

**CL-415**

Average fuel consumption: **938 l/h**

Speed of the aircraft without cargo: **333 km/h**

Speed of the aircraft with cargo: **270 km/h**

Water tank: **6137 liters**

Tank: **5796 liters**

Max flight time: **270 minutes**

Change radius around points (default: 10000 m)

Airport 1: 10000 m

Point of fire: 10000 m

Water well: 20000 m

Airport 2: 10000 m

Buttons: Calculate, Reset, Example, SHOW