



VIRTUAL INTELLIGENCE SERVICE
VICTORIA PER INTELLECTUM

CombatFlite tutorial

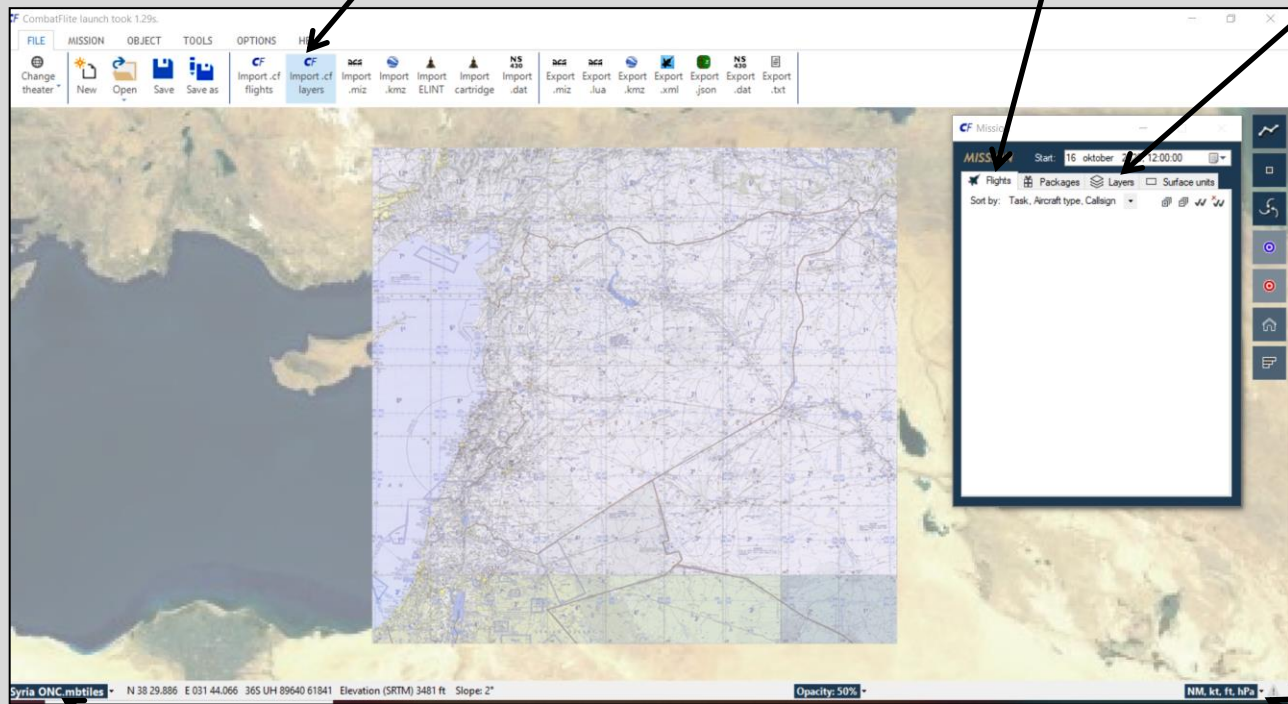
Version: 1.0
Published: 2020-10-16



Import CombatFlite layers (from other CombatFlite files)

Select flights

Select layers



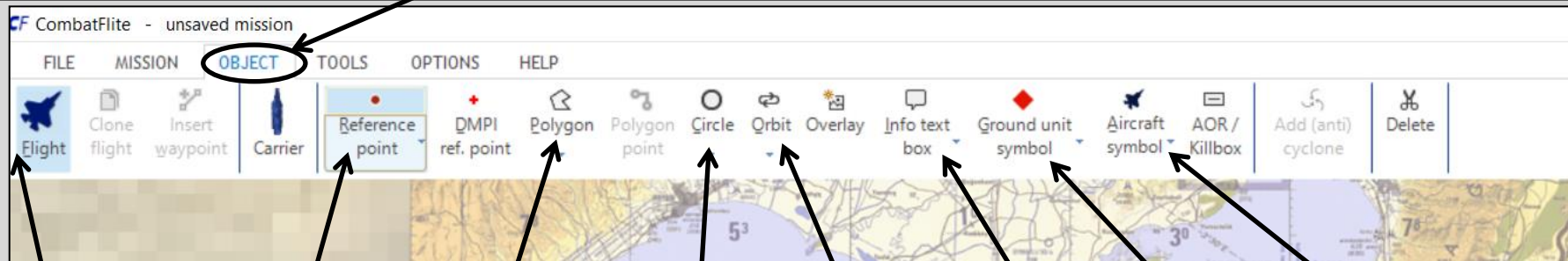
Turn on/off flightroutes

Turn on/off bullseye

Select map (Syrian TPC.mbtiles is used in OPAR)

Set map opacity (40 % used for briefings / products)

Change units of measure



Create a flight

Add a point

Create a zone

Create a circle

Create a orbit
(AWACS / AAR
/CAP)

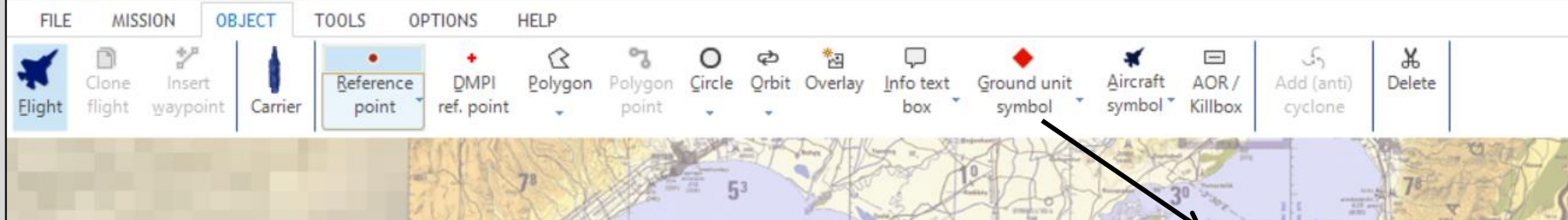
Add a info text
box

Add a ground
unit symbol

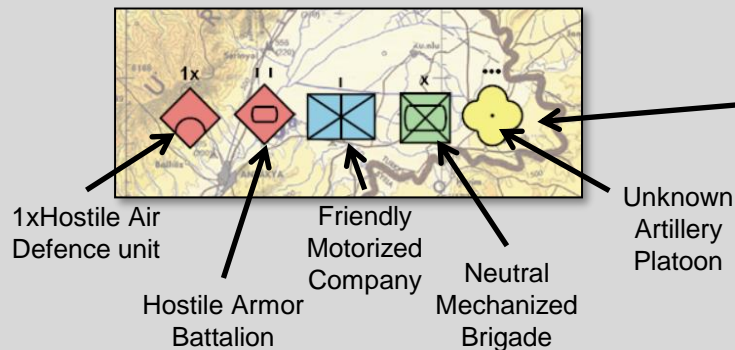
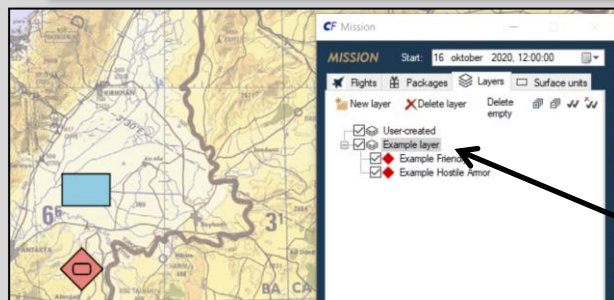
Add a aircraft
symbol



CF CombatFlite - unsaved mission



Ground unit symbols



- Both the color and shape is unique for Friendly, Hostile, Neutral and Unknown.
- Each ground unit symbol will be placed under layers
- Each ground unit symbol can have a unit size
- Each ground unit symbol can have a unit type
- Can use copy / paste on ground unit symbols
- Need to manually set color and classification (Friendly/hostile/neutral/unknown when making the unit)
- Tip: Make a friendly unit and hostile unit, and copy/paste as needed (as color and type is then already set)



Ground unit symbols

Lock (if you dont want to move it any further. The lock prevents it from beeing moved)

Input name

Input location (if you have it. You can also just click on the map)

Input unit type

Input unit size

Set color

Set symbol size

SYMBOL

BASIC PROPERTIES

Name

Position

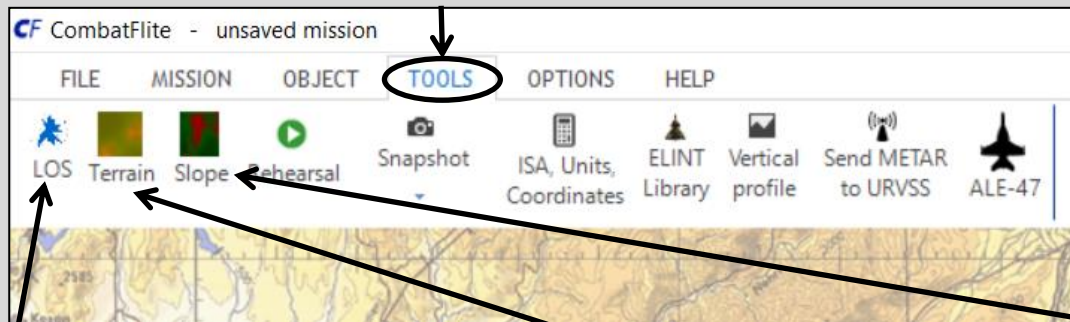
Unit type

Unit size

STYLE

Color Preset:

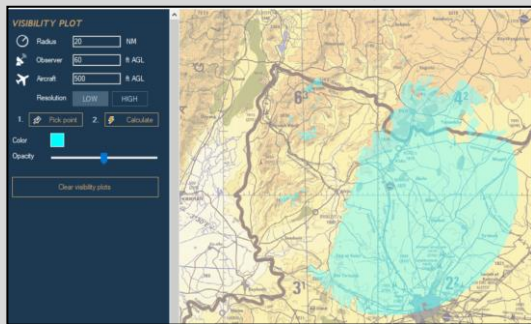
Symbol size



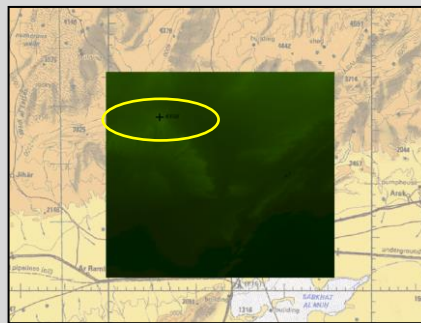
LOS = Line Of Sight

Terrain

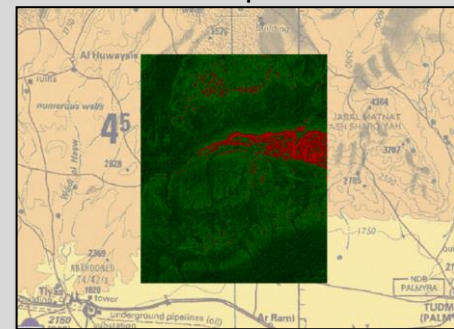
Slope



Shows what can be seen from the selected position. Can set radius, height of observer, and altitude of aircraft. Can also be by clicking on the map, or on a unit/symbol on the map.



Shows the terrain. But most importantly, finds and shows the highest location within the selected area, as shown in the yellow circle. Gives altitude of the highest location.



Shows the slopes and terrain in greater detail. Can be used for detailed planning of routes as required.

Good for seeing what enemy SAMs can see, and what altitude friendlies need to stay away from.



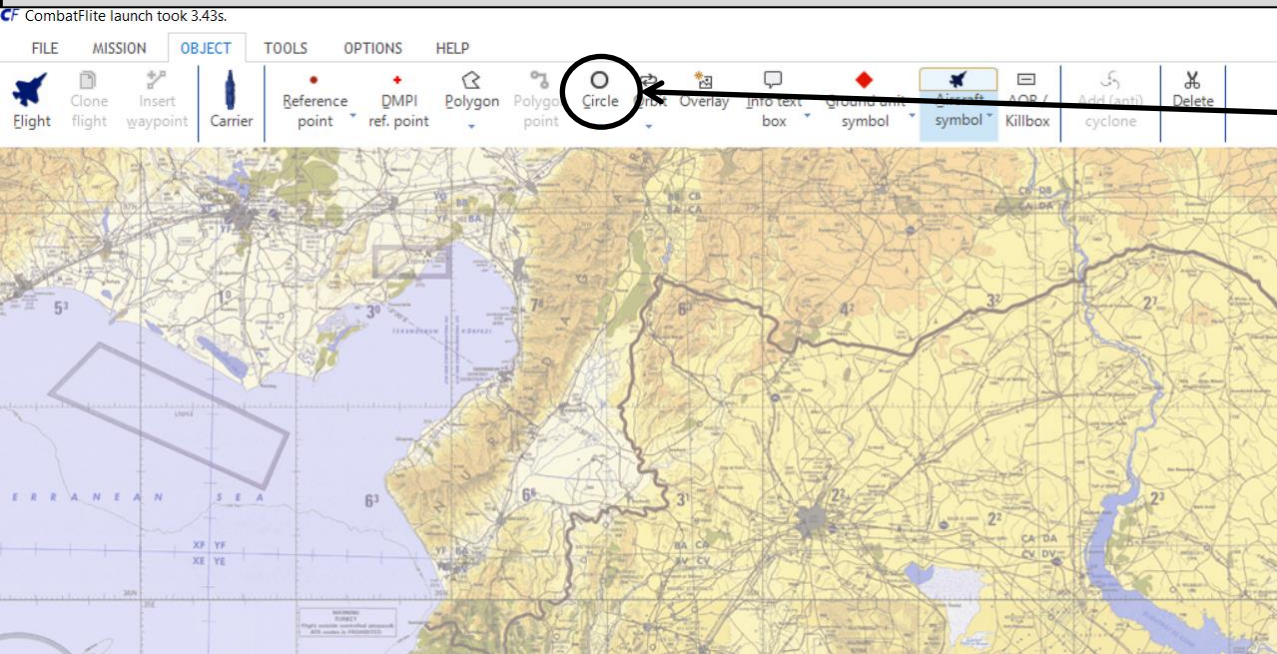
HOW TO ADD THREAT CIRCLES

(For SAM ranges)



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

CombatFlite launch took 3.43s.



STEP 1:

Click on the Circle button and click on the map.



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

CombatFlite launch took 3.43s.

The screenshot shows the 'CIRCLE' object properties panel on the left and a map on the right. The panel has two sections: 'BASIC PROPERTIES' and 'STYLE'. In the 'BASIC PROPERTIES' section, the 'Name' field is 'Circle1', the 'Lat/Lon' field is 'N 36 23.081 E 037 05.220', and the 'Radius' is '11 NM'. In the 'STYLE' section, the 'Color' is red, 'Line thickness' is 2, 'Line opacity' is at a medium level, 'Fill opacity' is at a low level, and 'Line style' is 'Solid'. There are also checkboxes for 'Center label' and 'Labels around the circle'. The 'OTHER PROPERTIES' section has a 'Predefined' dropdown menu set to 'Select...', a 'Max Alt' field set to '0 ft', and a checkbox for 'Export to DCS as a nav point'. A 'Show LOS' button is at the bottom. On the map, a red circle labeled 'Circle1' is centered on a location, with a black arrow pointing from the 'Lat/Lon' field to it. Another black arrow points from the 'Predefined' dropdown menu to the 'Circle1' label on the map.

STEP 2:

Click on the Circle you have just placed on the map.

If you have coordinates for a SAM system, add the coordinates in Lat/Lon

STEP 3:

If you know what kind of SAM system it is, select the SAM under other properties



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

CIRCLE

BASIC PROPERTIES

Name

LatLon

Radius NM

STYLE

Color ☒ ☐ Filled

Line thickness

Line opacity

Fill opacity

Line style

☒ Center label

☐ Labels around the circle

OTHER PROPERTIES

Predefined

Max Alt ft

☒ Export to DCS as a nav point

Show LOS

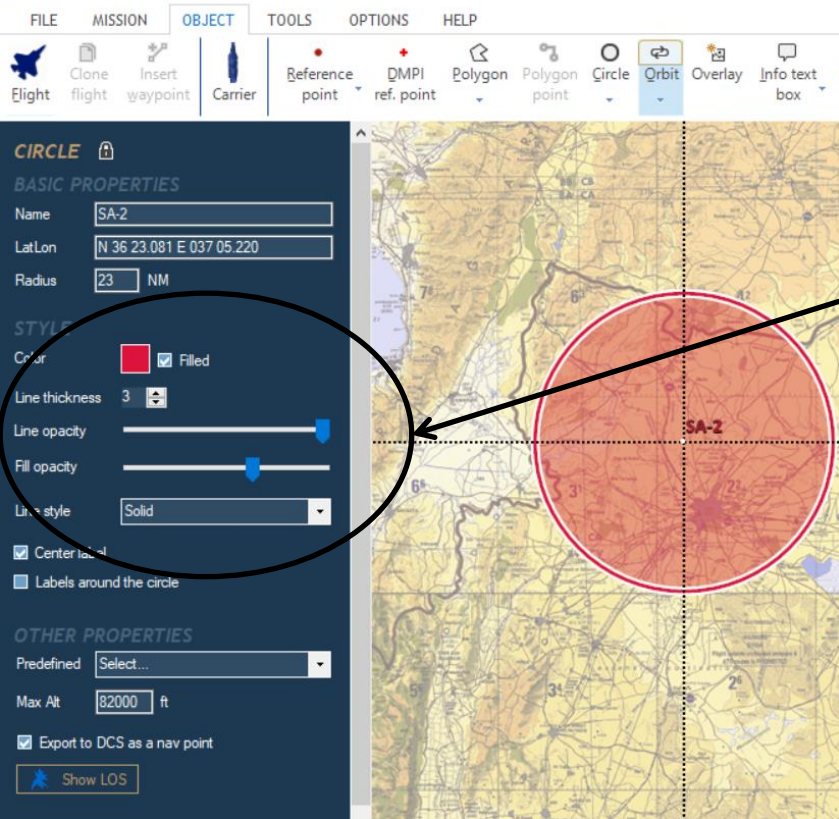
STEP 4:

In this example SA-2 was chosen. The name will be automatically be changed to SA-2. In Step 4, change the name to the name you want.



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

CF CombatFlite launch took 3.43s.



STEP 5 (Alternative 1) :

In this step, if you have a confirmed or highly likely enemy SAM, use the following settings for marking the SAM.

Line style: solid

Line thickness: 3

Line opacity: As shown

Fill opacity: As shown

Filled: Yes

Color: Red



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

The screenshot displays the 'CIRCLE' settings panel on the left and a map on the right. The settings panel is divided into three sections: BASIC PROPERTIES, STYLE, and OTHER PROPERTIES. The 'STYLE' section is circled in red, highlighting the 'Line style' dropdown set to 'Dash', 'Line thickness' set to 3, 'Line opacity' and 'Fill opacity' sliders, and the 'Filled' checkbox checked. The 'OTHER PROPERTIES' section shows 'Predefined' set to 'Select...', 'Max Alt' set to 82000 ft, and 'Export to DCS as a nav point' checked. The map on the right shows a red dashed circle centered on a point labeled 'SA-2'.

CIRCLE

BASIC PROPERTIES

Name: SA-2

LatLon: N 36 23.856 E 037 04.739

Radius: 23 NM

STYLE

Color: ☒ Filled

Line thickness: 3

Line opacity:

Fill opacity:

Line style: Dash

☒ Center label

☐ Labels around the circle

OTHER PROPERTIES

Predefined: Select...

Max Alt: 82000 ft

☒ Export to DCS as a nav point

Show LOS

STEP 5 (Alternative 2) :

In this step, if you have a unconfirmed location or assessed position for a SAM, use the following settings for marking the SAM.

Line style: Dash

Line thickness: 3

Line opacity: As shown

Fill opacity: As shown

Filled: Yes

Color: Red



HOW TO ADD THREAT CIRCLES (FOR SAM RANGES)

The screenshot displays the 'CIRCLE' tool settings on the left and a map on the right. The settings panel includes:

- CIRCLE** (locked icon)
- BASIC PROPERTIES**
 - Name: SA-2
 - LatLon: N 36 23.856 E 037 04.739
 - Radius: 23 NM
- STYLE**
 - Color: Red (filled)
 - Line thickness: 3
 - Line opacity: 100%
 - Fill opacity: 100%
 - Line style: Dash
 - ☒ Center label
 - ☐ Labels around the circle
- OTHER PROPERTIES**
 - Predefined: Select...
 - Max Alt: 82000 ft
 - ☒ Export to DCS as a nav point
 - Show LOS** (button with a star icon, circled in red)

The map on the right shows a red dashed circle centered on a point labeled 'SA-2'. A black arrow points from the 'Show LOS' button to the circle on the map.

STEP 6:

For further analysis you can also use the Line Of Sight tool to see what the SAM unit is able to see at various altitudes

This will give you a good visual representation.

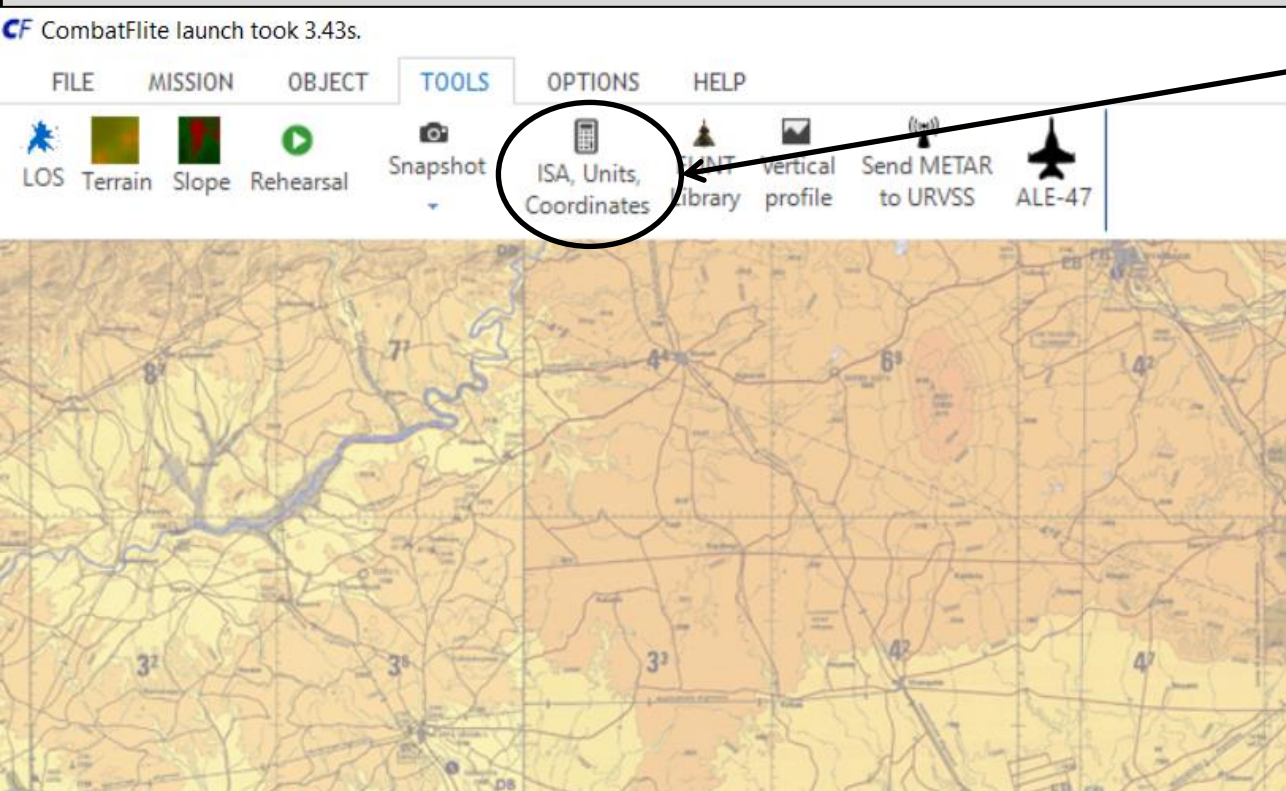
If you want to adjust the values (height of observer, height of aircraft, distance, go to the TOOLS menu, and select LOS to adjust values.



HOW TO CONVERT COORDINATES



HOW TO CONVERT COORDINATES



STEP 1:

Go to the TOOLS menu, and click on ISA, Units, Coordinates



HOW TO CONVERT COORDINATES

The screenshot shows the 'Tools' menu with options: MISSION, OBJECT, TOOLS, OPTIONS, and HELP. The 'TOOLS' menu is open, showing options: Snapshot, ISA, Units, Coordinates, ELINT Library, Vertical profile, Send METAR to URVSS, and ALE-47. The 'ISA, Units, Coordinates' dialog box is open, showing various conversion options. The 'Coordinates conversion' section is highlighted with a red circle, and an arrow points to the 'Convert' button.

Tools Menu:

- MISSION
- OBJECT
- TOOLS
- OPTIONS
- HELP

ISA, Units, Coordinates Dialog:

- ISA**
 - Altitude [ft]: 0
 - Density [kg-m⁻³]: 1.225
 - Pressure [hPa]: 1013.25
 - Temperature [°C]: 15
 - Speed of sound [kt]: 661
- Airspeeds, Mach**
 - KTAS: 0
 - Altitude [ft]: 0
 - KEAS: 0
 - KCAS: 0
 - Mach: 0
- Mach (non-ISA)**
 - KTAS: 0
 - OAT [°C]: 0.0
 - Mach: 0
 - Speed of sound [kt]: 644
- Turn rate, radius**
 - KTAS: 0
 - AoB [°]: 0.0
 - G: 1.0
 - Turn radius [ft]: 0
 - Turn radius [NM]: 0
 - Rate of turn [°/s]: 0
 - t360 [s]: 0
- Dive recovery height loss**
 - KTAS: 0.00
 - Dive angle [°]: 0.00
 - G: 1.00
 - delta H [ft]: 0
- Rate of descend**
 - GS [kt]: 0.00
 - Glideslope [°]: 3.00
 - Rate of descend [fpm]: 0
- Unit conversion - distance / height**
 - ft: 0.00
 - m: 0.00
 - km: 0.00
 - NM: 0.00
- Unit conversion - velocity**
 - m/s: 0.00
 - km/h: 0.00
 - kt: 0.00
 - ft/s: 0.00
- Unit conversion - JET A1 fuel**
 - litre: 0.00
 - U.S. gal: 0.00
 - kg: 0.00
 - lb: 0.00
- Unit conversion - pressure**
 - hPa: 0.00
 - Pa: 0.00
 - inHg: 0.00
 - torr: 0.00
 - psi: 0.00
 - bar: 0.00
- Coordinates conversion**
 - Lat Lon DD MM.MMM: N 36 23.856 E 037 04.739
 - Lat Lon DD MM.MSS:
 - MGRS:

STEP 2:

Add your coordinates and click on convert



HOW TO CONVERT COORDINATES

STEP 3:

Now you have the coordinates in 3 different options.

NOTE: 132nd Virtual Wing standard are DD MM.MMM

	psi	<input type="text" value="0.00"/>	
	bar	<input type="text" value="0.00"/>	

Coordinates conversion

Lat Lon DD MM.MMM	<input type="text" value="N 36 23.856 E 037 04.739"/>	<input type="button" value="Convert"/>	<input type="button" value="Copy to clipboard"/>
Lat Lon DD MM SS	<input type="text" value="N36°23'51 E037°04'44"/>	<input type="button" value="Convert"/>	<input type="button" value="Copy to clipboard"/>
MGRS	<input type="text" value="37S CA 27727 29764"/>	<input type="button" value="Convert"/>	<input type="button" value="Copy to clipboard"/>

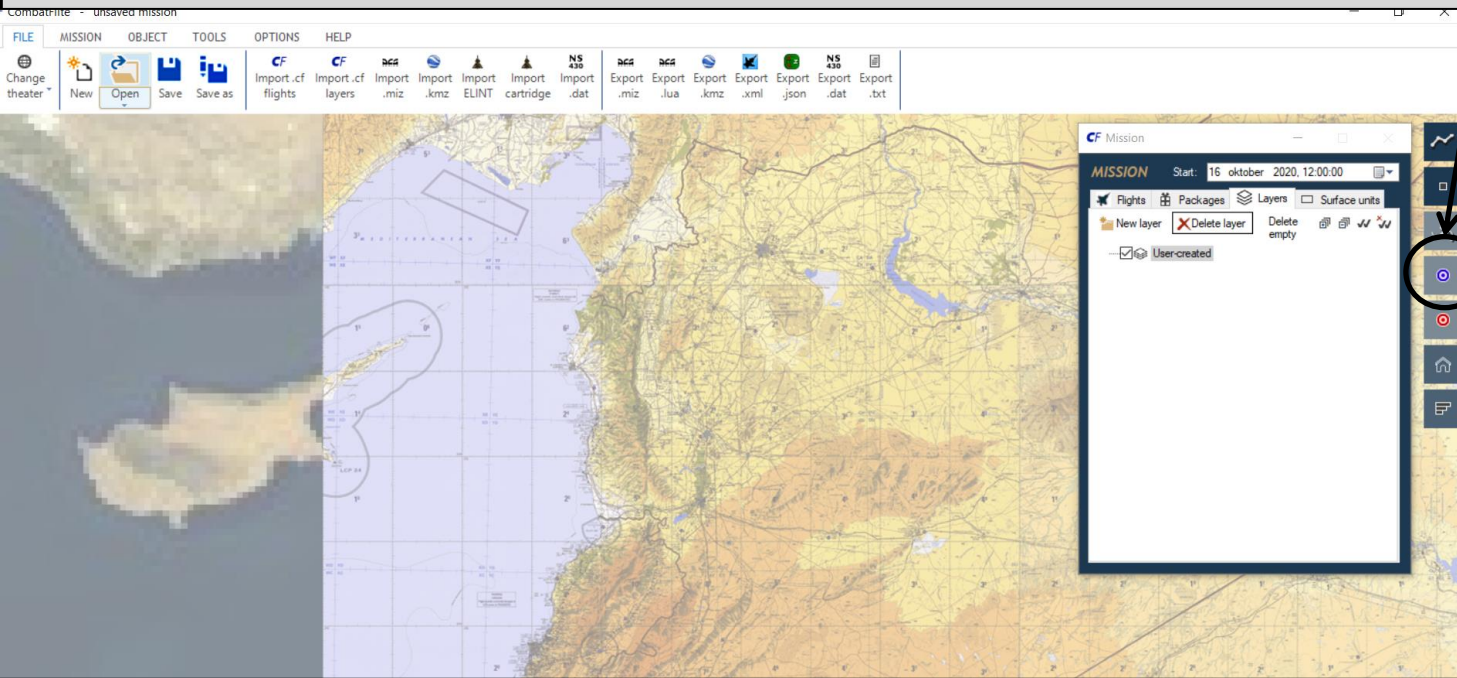


HOW TO GET COORDINATES FROM A BULLSEYE LOCATION

(For BDA or intelligence reports)



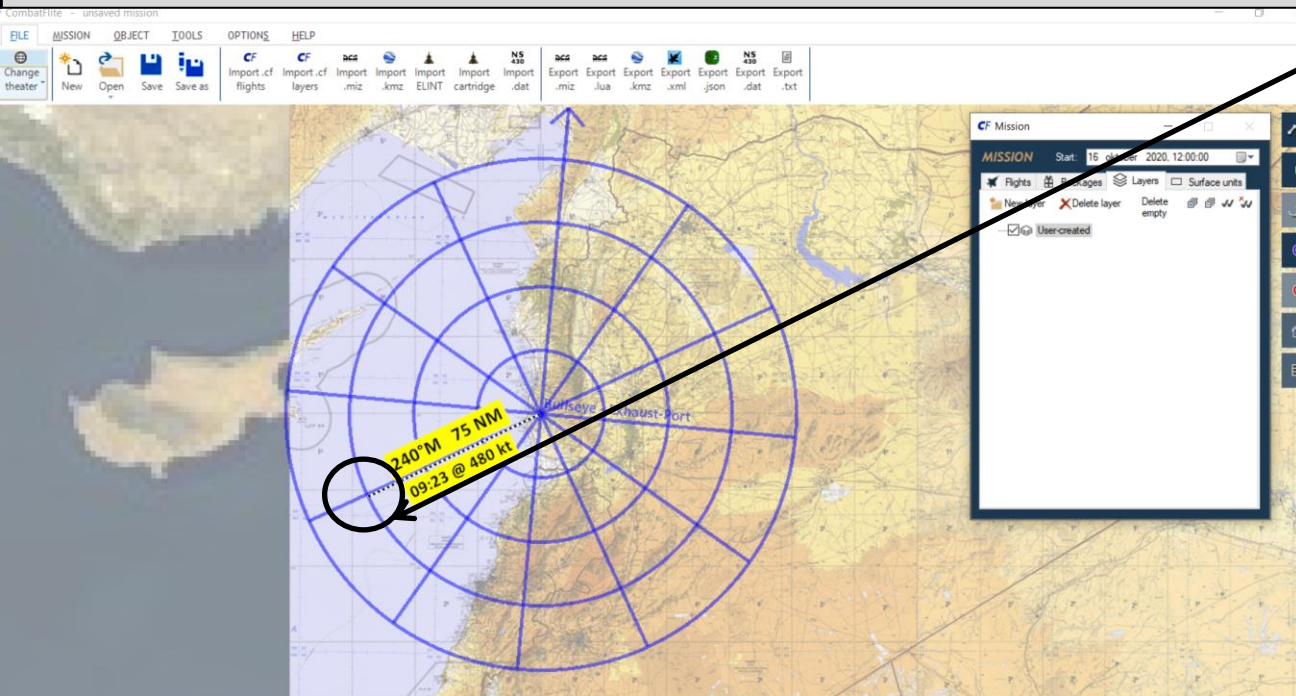
HOW TO GET COORDINATES FROM A BULLSEYE LOCATION



STEP 1:
Make Bullseye visible



HOW TO GET COORDINATES FROM A BULLSEYE LOCATION

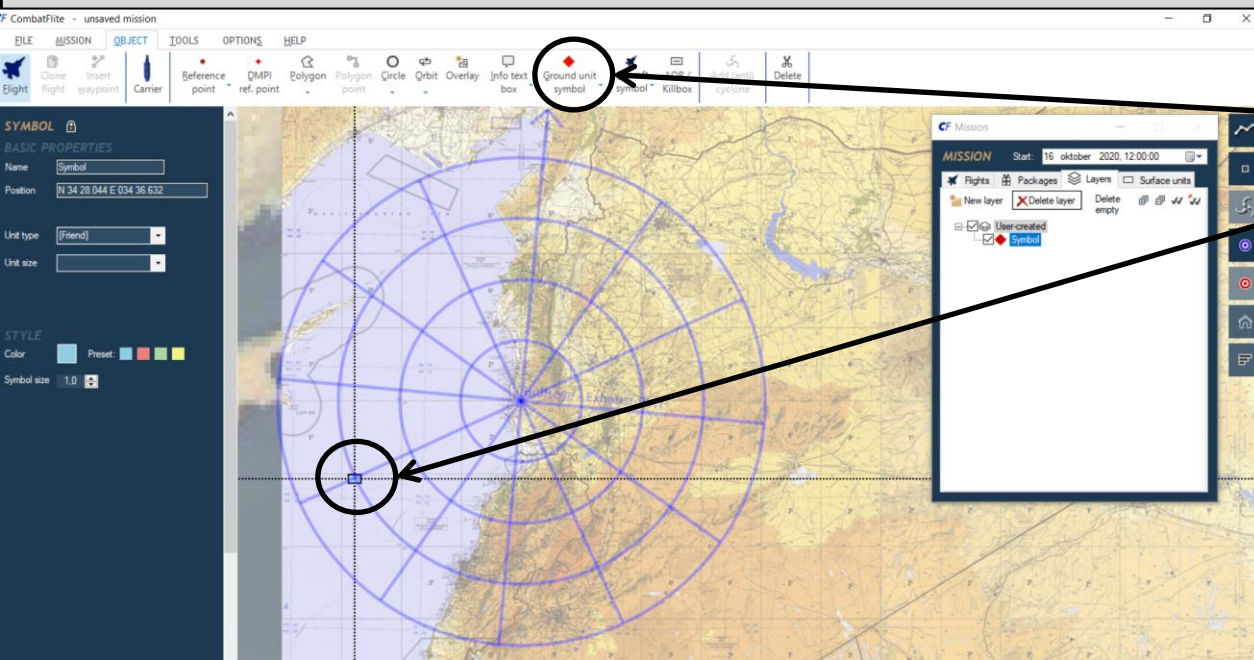


STEP 2:

If you have a bullseye location of 240 / 75, you go to the center of bullseye, click and hold and drag until you get a course of 240 and 75 nm distance from the bullseye.



HOW TO GET COORDINATES FROM A BULLSEYE LOCATION



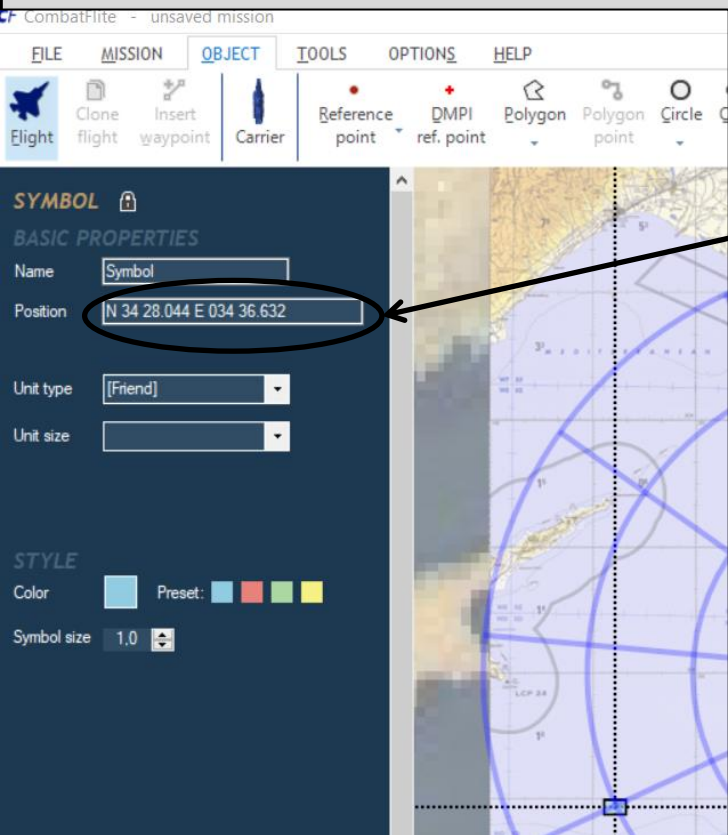
STEP 3:

Click on add ground symbol

Place it at the location from step 2
(240 / 75NM)



HOW TO GET COORDINATES FROM A BULLSEYE LOCATION



STEP 4:

Readout the coordinate

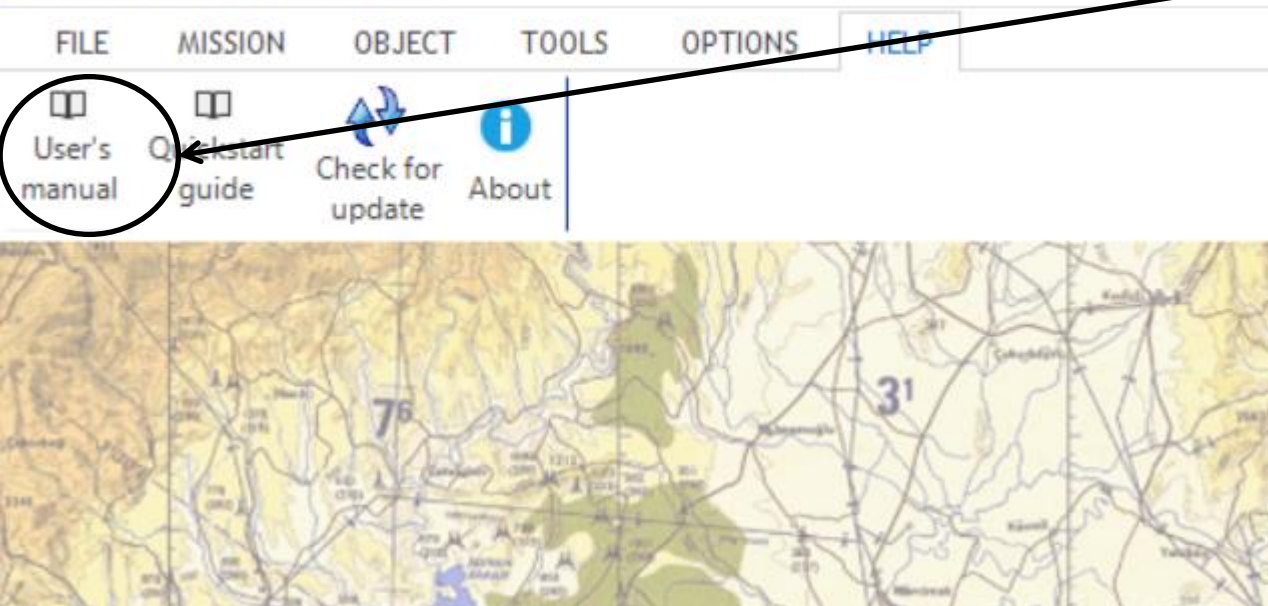
If you are using the location for additional planning or other purposes, you can edit the other values depending on what kind of unit it is



ADDITIONAL RESOURCES



CF CombatFlite launch took 3.43s.



STEP 1:

Go to the HELP menu. Select User's manual. This will give you the full CombatFlite manual that can describe any other function or question you may have.