

CDU OFFSET TUTORIAL

Version 1

Pictures from the DCS A-10C Flight Manual

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THANK YOU DCS

- Just want to start off thanking DCS for making a true Simulator. It has been a long time since the last attempt at a U.S. combat airframe at this level of fidelity. The need for this CDU Offset Tutorial is a testament to that level of fidelity.

INTRODUCTION

- This tutorial is designed to help the reader create a new waypoint based off of radio information given as a “Bullseye Reference”.
- The reader will learn how to accomplish this by using the OFFSET functionality of the CDU.
- A bullseye is a pre agreed upon location that will be used by one side to reference locations without giving out map coordinates over the radio.
- The “bullseye” is represented in your TAD as a small group of green concentric circles, that look like a bullseye on a target.
- A bullseye radio call comes in the form of “Pig 1-1, enemy factory, bulls 120 for 50” The 120 represents the bearing from the bullseye that the factory is located, and the 50 represents the nautical miles from the bullseye on bearing 120.
- This information can come from the AWACS Controller over your radio, or from a human wingman.

REQUIRED KNOWLEDGE - MFCD



- This Tutorial references button presses on the bezel of the Right MFCD. The buttons are arranged on all 4 sides of the MFCD and are referred to as OSB Buttons. Each side of the MFCD has 5 OSB Buttons.
- The OSB Buttons are identified by a numbering system that begins with the top row, left most button, and continues clockwise around the MFCD bezel.
- This concept is illustrated in the image above with the yellow numbers around the MFCD bezel.

REQUIRED KNOWLEDGE – AAP

- You will need to interact with the AAP (Auxiliary Avionics Panel) that is located just below the CDU.
- The STEER PT Dial referenced below as 4 in the image, is a dial you will need to interact with on the panel.



REQUIRED KNOWLEDGE - CDU

You will need to interact with the following buttons on the CDU as well as the numerical and alphabetic keys:

The CDU display can show 10 lines of information on both the left and right side of the display.

References to these lines are divided up by Left, and Right, and then the specific line number. The image to the right shows the orange numbers for the display lines.

L10 for example, references the scratchpad data entry box.



The keys with the arrows on them, that are on both the left and right sides of the CDU are called Line Select Keys or LSK's. They are numbered 1-4 in a descending order.

Offset Key

Numerical Keys

Alphabetical Keys

+/- Rocker

SUGGESTED MATERIALS

- Having the right tools for the job, makes the job easier to manage. That is very relevant in the high task saturation environment of the A-10C Pilot. I suggest making it a habit to use a Mission Data Card to help you manage all the data points you need during a flight.
- Use a Mission Data Card to copy all the info from AWACS on the target location.

SAFETY FIRST

- You will want to concentrate on the data given to you by the AWACS Controller and flying and writing do not mix, so I suggest a controlled orbit. Here is how.
- Find a safe area to do a wide orbit. Set your autopilot to ALT and then make a left or right banking level turn and hold it. Then engage the autopilot and ensure it is holding the turn and you have no elevation conflicts around you.

OFFSET WAYPOINT CREATION SET-UP

- Set your right MFCD to CDU.
- Make sure your AAP Page dial is set to OTHER
- Set your left MFCD to TAD, and zoom out your TAD display until you can see the bullseye.



Bullseye Icon

North Reference
Triangle

ENTERING DATA INTO THE CDU OFFSET PAGE

- Press the OSET key on the CDU. The MFCD will show this:



- The Offset Page needs you to tell it what the initial point is, and then give it the location of the point you want to go to. We will call this our destination point.
- For this example, the initial point will be set to the Bullseye, and then we will input the bearing and distance from the Bullseye given to us by AWACS, to create a destination point.

ENTERING IP DATA INTO THE CDU OFFSET PAGE

- To set the Bullseye as the initial point, go to the CDU and press the + - Rocker until the word BULLSEYE comes up in the field next to LLSK 2 for the CDU Display, or OSB 18 on the MFCD.
- Now our initial point is set.
- Let's set our destination.



ENTERING DESTINATION DATA INTO THE CDU OFFSET PAGE

- To set our destination point, we are going to use the data provided to us by AWACS, our Bullseye Reference. It was provided in the format of bearing (or **H**eading), then **D**istance, and that is exactly how the CDU wants the input....**HHHDDD**. Three digits for Heading and Three Digits for Distance. (*Put a 0 in front of either value if they are less than 100*). For example, 120 for 50, would be entered **120050**.
- Input the Heading/Distance into the scratchpad as formatted above.
- RLSK 2 on the CDU, OSB 8 on the MFC/D shows a field called MH/DIS (Magnetic Heading/Distance) Press the RLSK 2 / OSB 8 to input the scratchpad data into this field.



Magnetic Heading/Distance Data

Formatted HHHDDD in scratchpad

MAKING THE DESTINATION A WAYPOINT

- You have already entered the HHHDDD destination point data into the CDU. All that is left to finish our interaction with the Offset Page is to transform our previously entered destination data, into a waypoint that we can navigate to.
- Press RLSK 3 or OSB 9 to create a waypoint. There will be a ? preceding the intended waypoint number. (Make note of the waypoint number before you press the key)
- Set the AAP Steerpoint Dial from FLT PLAN to MISSION.
- Using the Steerpoint Rocker on the UFC, cycle up to your created waypoint number.
- Follow the HUD symbology to steer towards your Bullseye target.

OFFSET PAGE WRAP UP

- You have just finished taking a Bullseye radio call and setting it as a working waypoint, but that is only one of many formats that the Offset Page can help you with.
- Remember, the Offset Page is a point to point navigator. You can provide it with an initial point, being an existing waypoint number, or waypoint name, or markpoint, or bullseye.
- Then once the initial point is set, you can then create your destination point by entering Lat/Long, or UTM Coordinates, or the previously described MH/DIS. You can even use another existing waypoint as your destination point.
- To reference more about the Offset Page, and it's capabilities, go to page 246 in the Flight Manual.
- Good Hunting!