

Noob Guide to OF

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1 Common Questions & Answers

Also called Frequently Asked Questions or FAQ ;).

- **Q:** *I can't fire my AIM-120. What is wrong?*
A: Hold the pickle button longer than 1 second.
- **Q:** *My HARM display will not show?*
A: Use the interactive training and check section 3.5 on page 7.
- **Q:** *Can I use my stick set up from AF?*
A: Some Yes Others NO. A key list is provided in `x/microprose/falcon4/docs`.
- **Q:** *Why can't I see my flight on the HSD*
A: Use the interactive training for Datalink and check section 5 on page 17.
- **Q:** *How do I boost my GFX?*
A: In your short cut on your desktop, right click and select properties.
Where it shows the command line add `-g5` to it. Like this:
`X:\MicroProse\Falcon4\BMS.exe -g5`
Hit apply then ok , Boot up and u should now be able to slide the detail.
- **Q:** *How do I get more resolutions?*
A: In your short cut on your desktop, right click and select properties.
Where it shows the command line add `- hires` to it. Like this:
`X:\MicroProse\Falcon4\BMS.exe - hires`
Hit apply then ok , Boot up and u should now be able to select more resolutions.
- **Q:** *I have found some TE's that I downloaded , were do I put them?*
A: Place the files in this directory.
`X:/Microprose/Falcon4/campaign/SAVE`
- **Q:** *If i switch to a Mastermode like A-A or A-G i get blank MFDs?*
A: Check section 4 on page 9.
- **Q:** *I get the black screen of death when exiting the sim?*
A: Set your windows resolution the same as your sim resolution.
Open up your config editor and expand the Hardware folder.
Check the black screen fix box and hit apply.
- **Q:** *I cant talk to tower. To wingman i can talk well?*
A: Use the interactive Training on Radios and check section 6 on page 25.
- **Q:** *How do i have to set up the ConfigEditor and Setup?*
A: Refer to section 2 on page 5
- **Q:** *After updating to 4.5 the version number is still 3.9.1.6?*
A: Thats perfectly normal. Check the Changelog.txt in your Falcon4 directory.
- **Q:** *Why are the Fly-Buttons of some training missions greyed out?*
A: Set the clock to 1x (upper right corner).

2 ConfigEditor and Setup

The ConfigEditor is really up to you what you select and don't select. But if some checkboxes are marked "recommended" you should select them for better playability.

The Setup in Open Falcon is a different story. In Simulation Tab it is necessary that you select Flightmodel-Realistic and Avionics-Realistic. If you don't, you get bugs and CTDs. In the Graphics Tab it is necessary to set the PlayerBubble to 3 and the Vehicle Magnification to 1. Everything else is up to you. But remember: If you fly simplified at first, you have to start learning again if you want to fly realistic in the future.



3 Weapon Employment

Some weapons are deployed differently in OF compared to other versions or have different symbology. Because most guys have flown Allied Force the last time, here the differences between OF and AF are shown.

The Air-Air-Weapons aren't deployed completely different, so we will concentrate on Air-Ground-Weapons.

3.1 Dumb Bombs

If you use ripple settings, your target cue does not mark the center of your bomb line, but the first impact.

If the bombs are not released in CCRP because of wind or something, but you believe they will hit, release and press the pickle button again just after the release cue has left the Flight Path Marker.

3.2 Mavericks

They are deployed quite similar. But the time to Power them on takes 3 minutes instead of a few seconds. So remember to power them up far away from the enemy! Also use the interactive training. To do so, run training missions 24 A or 24 B and make sure that "Enable Training Script" is checked in the lower right corner.

JSOWs and JASMs are deployed like mavericks which is not realistic!

3.3 Laser Guided Bombs

Because in Open Falcon the Targeting Pod is quite usefull, not only for bombing stationary targets, the deployment of Laser Guided Bombs is summed up in section 7 on page 28

3.4 JDAMs

JDAMs are bombs that are guided to the target via GPS and are very precise. To deploy a JDAM in Open Falcon, make a normal CCRP delivery. If the bombs aren't dropped because of wind just press the pickle button again. The bombs will hit the target you have locked in your FCR if you are in range!

3.5 AGM-88 HARM

In other versions of Falcon, the HTS screen was imbedded into the SMS screen. This is incorrect and not this usefull. In OF the HTS is called HAD (Harm Attack Display) and can be called up even if you haven't didn't call up the A-G-Mode. Thus you have increases situation awareness on SEAD Missions.

To deploy a HARM you have to call up the A-G-Mastermode first and select the AGM88 in your SMS Screen. Then call up the HAD screen on the MFD you like. I prefer the left one. Press OSB 13 twice (figure 1) to get to the MFD Main Screen. There you have



Figure 1: Press OSB 13 twice

to press OSB 2 (figure 2) to access the HAD page.



Figure 2: Access the HAD page

In the HAD page, you can reduce or expand the range just like in the FCR page. The white line is the footprint of your HARM. It depends on your altitude and speed. If the size of the footprint is greater than the selected range, the white lines will be dashed (figure 4). Figure 3 shows a typical HAD page. Because all threats are in range of our HARM, reduce the range by pressing OSB 19. In figure 4 you can see



Figure 3: Reduce the Range of the HAD page

the symbology of the HAD page. The numbers and letters stand for the appropriate radar.

- Yellow = emitter active
- Red = emitter tracking
- Flashing Red = emitter launching
- Green = emitter inactive



Figure 4: Symbology of the HAD page

To have a more detailed view on a radar site, you can expand your screen twice. Press OSB 3 to switch between NORM, EXP1 and EXP2. By expanding the HAD, the chance of a destroyed search radar near the SAM site will decrease! To lock on a radar press TMS-Forward or "0" on the numblock. The locked emitter will be shown in a white square. You still can move the cursor, but to lock a different radar, unlock first and then lock the new one. Also check the interactive training mission "39 AGM-88 Harm v2".




Figure 5: Locked SA-2

4 The Datacartridge(DTC)

Because these modern fighters are very expensive, not every pilot has his very own plane, but many pilots share the same planes. But to increase individuality, each pilot has his own datacartridge. There he adds much information concerning his flight. OF is the very only version of Falcon 4.0 which adds such a great feature.

With the DTC you can programm precision waypoints, your EWS programs, your MFDs and your radio. Additionally you can manage your Pre-Planned-Sterpoints and your Sterpointlines. Now it is very important to make a detailed briefing to have a perfectly set up DTC. But one step after another. In the UI screen before flight (the one with the

2d map) on the right side, you see a button like this:  With this button you open the DTC. Remember this. Also remember, after entering the 2d Map, open the DTC, hit LOAD and then SAVE.

4.1 Precision Waypoints

Perhaps you know already about the feature of how to make a precision waypoint. If not this doesn't matter because OF makes a complete new approach towards this.

You have to attack a Army Base in low level flight because of SAMs. So your weapon of joice is the MK84 AIR because it is a high drag bomb. So you have no time to search for your target. You want to destroy the Ammo Dump and have marked in the recon screen as in figure 6 and your TGT waypoint is number five. Now press the small arrow next to ACCEPT till the 1 changed into a 5.

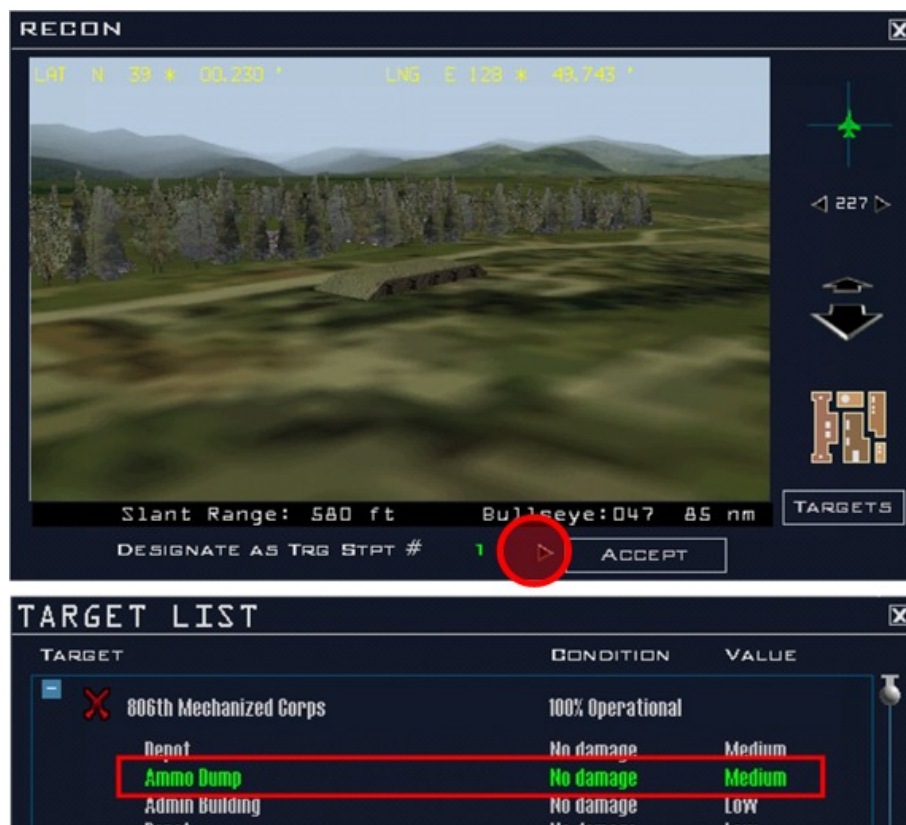


Figure 6: Recon Screen

Then you have to press the ACCEPT button as shown in figure 7. By doing this the Target and the GPS coordinates will show up in the DTC. Open the DTC now and



Figure 7: TGT Steerpoint 5

change the steerpoint number to 5 (figure 8). As you can see in figure 9 the target and

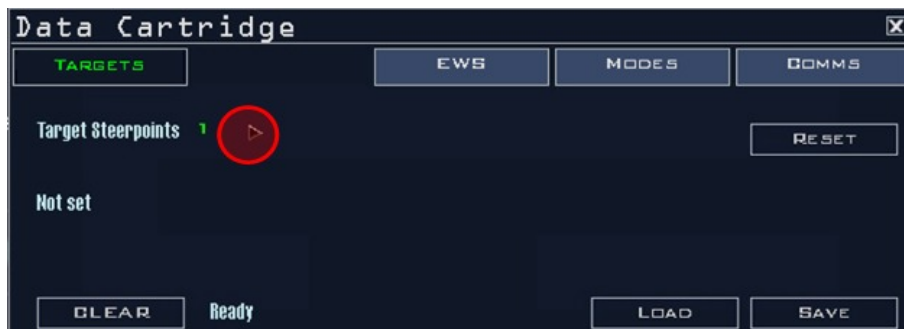


Figure 8: Opened DTC

the coordinates are shown in the DTC. Then press SAVE.

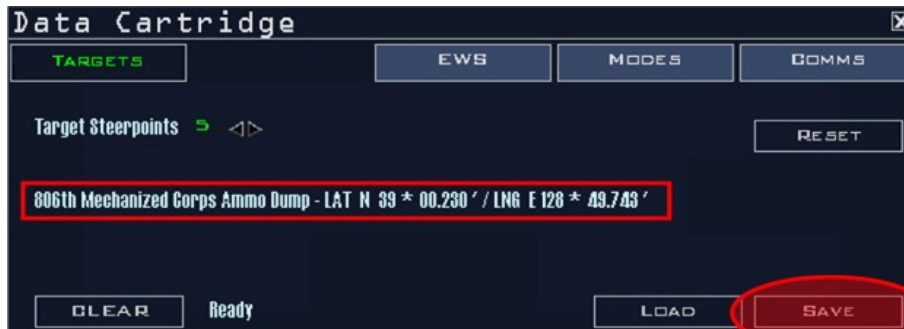


Figure 9: DTC showing the coordinates of target

Now the diamond of the target waypoint is right over the Ammo Dump. You don't have to search for the target, just drop the bombs on the waypoint as you can see in figure 10. Of course you can use this in CCRP bombing, too. You don't have to guess from the radar screen which target you should attack. Just put a precision waypoint onto the target and the radar cursor will be right over it. Of course you can use for every waypoint own precision coordinates but is only usefull for the TGT steerpoints.



Figure 10: Waypoint Diamond right over the Ammo Dump

4.2 The EWS Panel

The EWS Panel is very complicated if you don't know anything about programming the EWS. If you are unsure about what to program into your EWS Panel, you can use Naldo's Datacartridge (see 4.7 on page 16). In the EWS panel of the DTC (figure 11) you can program 6 different EWS Programs. I use only 4:

1. Many Chaffs only to avoid missiles and SAM
2. Chaff and Flares combined to be prepared for every situation
3. Many Flares only to avoid IR missiles and IR SAM
4. 8 Flares in 8 seconds for a low level attack (OCA-Strike e.g.)

Remember: The more Flares/Chaffs are dumped per second, the greater the chance to evade the missile. But if you have no Flares/Chaffs for the next missile this is bad, too. After setting the EWS up, press SAVE again!



Figure 11: EWS Panel of the DTC

4.3 MFD Modes

This is also more complicated than the precision waypoints. If you have absolutely no clue about which MFDs are important for you, use Naldo's Datacartridge(see 4.7 on page 16).

In the MODES page of the DTC you can set up 4 MFDs individually for every submode like MRM,DGF,NAV or AG. MFD 1 is the left one, MFD 2 the right one and MFD 3 and 4 are part of the 1-View. If you rarely use the 1-View don't set up MFD 3 and 4. Figure 12 shows the MODES page. You can switch between the Master Modes, MFDs and MFD Modes. "Current" is the MFD that is displayed if you enter this Master Mode in 3D world. Display Bullseye is a checkbox whether the Bullseye shall be displayed in the MFDs. I prefer it checked. After setting up the MFDs, press SAVE again.



Figure 12: MODES Panel of the DTC

4.4 COMMS Page

The COMMS Page is quite complex as well. First it is very important to understand the chapter about Aircraft Radios(section 6 on page 25). In figure 13 there is a screenshot of the COMMS page. Working left to right, the "Band" drop-down menu selects the radio

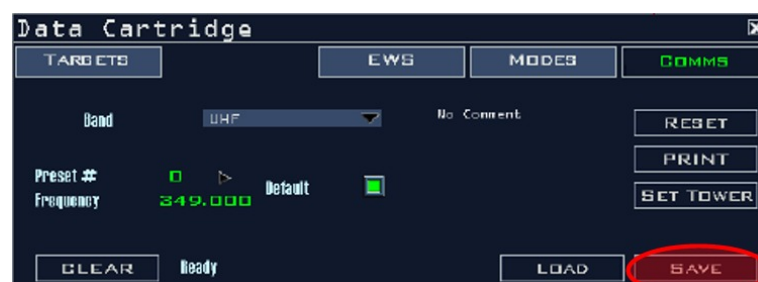


Figure 13: COMMS Panel of the DTC

you want to configure UHF and VHF. The "Preset #" has numbers 0 through 20. The "Frequency" field allows the pilot to manually type in a valid UHF or VHF frequency to be assigned to a given preset. It is important to understand what constitutes a valid frequency as discussed in the Aircraft Radios section(section 6 on page 25). The "Reset" button will reset all presets in both bands to their default frequencies. The "Print" button will print your UHF and VHF presets/frequencies to the printer. The "Set Tower" button will attempt to lookup the tower frequency of the airbase out of which you are flying. Press SAVE after each frequency change.

!!!Don't change any frequencies, unless you have to(Force on Force)!!!

4.5 Preplanned Threats(PPT)

In other versions of Falcon 4.0 PPTs are dealt in a very unrealistic and inaccurate way. The PPTs pop up on the HSD if your aircraft comes closer to the threat and are always up to date. If you destroy the radar of a SAM site, the PPT vanishes from the HSD. In OF the PPTs are managed in a completely different way. As the name implies Preplanned Threats (PPTs) are exactly that—threat systems the pilot plans for during mission planning that could be of harm to him. So if you are in the briefingphase of a flight, you should check, where threats are, that might affect you and your flightpath. Ok lets begin adding these PPTs. At first display air defence battalions on the map as shown in figure 14. Then do a RECON on the air defence battalion to find out which threats are where.

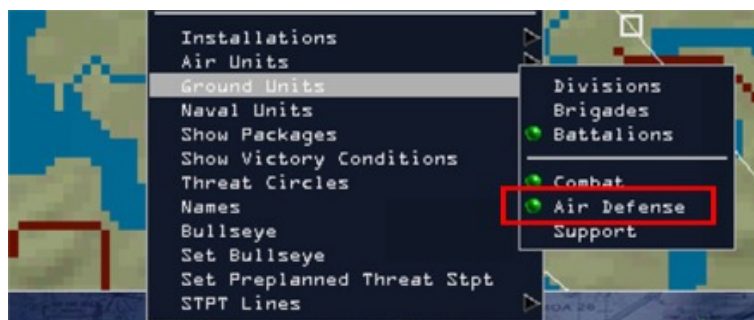


Figure 14: Display air defence battalions on map

Here we found an SA 3 battalion. Right click near the battalion and select "Set Preplanned Threat Stp" as shown in figure 15.

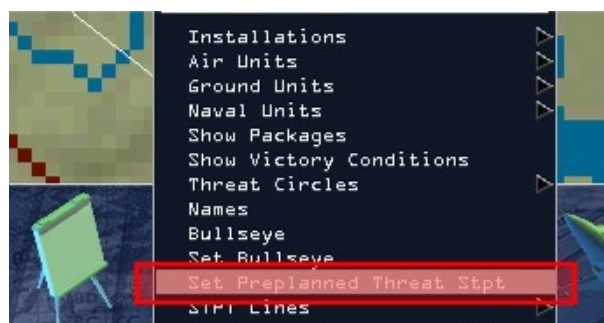


Figure 15: Set Preplanned Threat Stp

Then a window similar to figure 16 appears. Because our air defence battalion is a SA 3 battalion, use the dropdownmenu to select the SA 3. Then press the ACCEPT button. Repeat this procedure for every threat, that might affect your mission. Then you have a map which looks like figure 17. Open the Datacartridge and press SAVE.

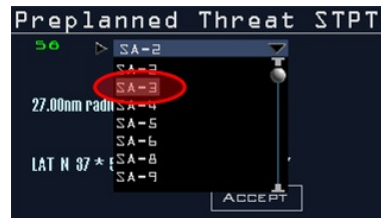


Figure 16: Set the kind of PPT to SA 3

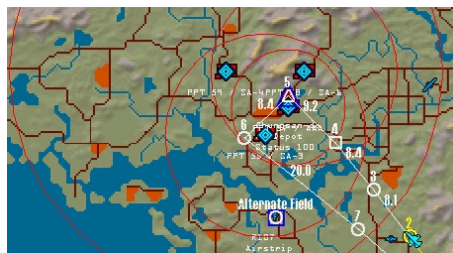


Figure 17: Preplanned Threats in Briefing Map

In your HSD something like in the figure below should show up. The if the ring is red, you are inside the engagement zone of the threat, if the ring is yellow, you are outside the engagement zone. Here i am inside the engagement zone of the SA 4 but outside of the SA 3 and the Rest.



4.6 Steerpoint Lines

In other flavors of Falcon 4.0, the only line that shows up on the HSD is the ugly drawn FLOT line. In Open Falcon you can draw 4 different lines which consist of 5 steerpoints each. Thus you can draw in the FLOT, a kill box, location of friendlies etc. These lines show up on the HSD as dashed white lines.

To draw a line, right click on the area on the map where your line shall begin. Then select STPT Lines and Additional STPT in line 1 as shown in figure 18. After this a

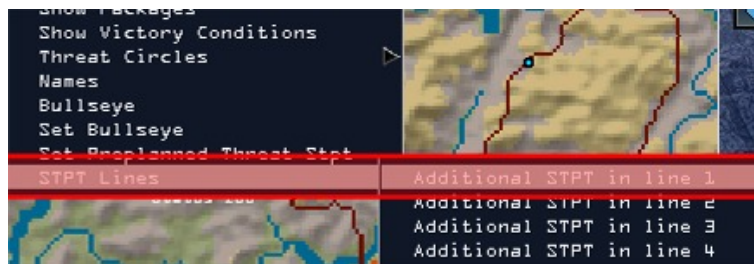


Figure 18: Starting a Line

small circle should appear on the place where you right clicked the map. Right click onto this circle and select Additional STPT to line as shown in figure 19. Then left click and drag this circle wherever you want it to have. Continue adding STPTs till you line is finished.



Figure 19: Adding another Steerpoint to line

After adding the lines you want, open the DTC and press SAVE. Figure 20 shows how it can look like on a BAI mission.



Figure 20: Lines in 2D Map and in the HSD

4.7 Naldo's preset Datacartridge

Naldo from www.globalfalcon.org uploaded his DTC setup, that new users of OF have it a bit simpler to get flying. So if you had problems with setting up the EWS Programm or the MFD Modes, download this file:

<http://www.globalfalcon.org/vb/forums/downloads.php?do=file&id=7>

Unpack the zip file and copy the "Naldo.ini" and paste it into ".../Falcon4/config/" folder. This is the folder where all those keystrokes files are.

Then rename the "Naldo.ini" to your "callsign.ini". For example "Slammer.ini". Then you have a preset Datacartridge.



5 The Improved Data Modem (IDM)

The Datalink in OF is very realistic and very powerful in the right hands. But it is a bit more complex than in AF or RV. But if you know how to work with the **IDM** it is much more usefull than in other versions.

First add these two lines to your keystrokes file, if they aren't included yet.

```
SimCommsSwitchLeft -1 0 0X18 2 0 0 1 "Comms Switch Left"
SimCommsSwitchRight -1 0 0X19 2 0 0 1 "Comms Switch Right"
```

For joystick users, it is highly recommended to have these programmed to the stick to allow easy hands-on control. If you don't want to programm these keystrokes to your joystick, CTRL + O is Comms switch Left and CTRL + P is Comms switch Right.

5.1 Setting up the Data Link

In OF it is possible to have multiple flights in your Data Link if they are part of your package. If you are part of a multiflight package, check in which row you are. Thus check your left kneeboard as you can see in Figure 42. You are on a BAI and your flight is Avenger1. Thus your plane has got the number *11* because you are the flightlead of the first flight in the package. Your Elementlead has got the number *13* because he is the third plane in the first flight in the package. Accordingly the lead of Mongo1 has the number *21* because he is the first plane in the second flight in the package. So now the huge question: What number has the Flightlead of Lobo2 flight? – Yep it is the *31*. If you haven't understood this, go back and read again till you understood it.

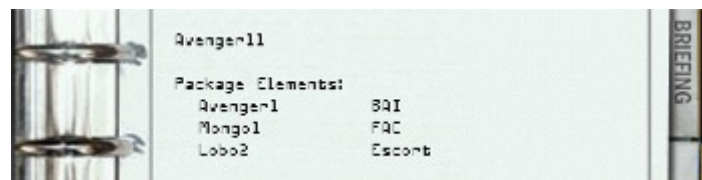


Figure 21: Left Kneeboard

Ok now we found out which planenumbers our flights have. Because you are the BAI leader you want your 4 flightplanes in your Datalink. Additionally you want the FAC to be displayed and the Flightlead of the Escort.

Ok lets begin to set up the DataLink. On the ICP press LIST (see figure 22) Then press



Figure 23: ICP LIST ENTR



Figure 22: ICP LIST

ENTR as shown in figure 23. Now you should see a picture similar to figure 24. Then you have to Press SEQ. After doing this you get a DED page like in figure 25. Press the



Figure 24: ICP SEQ

DCS Down till you get to slot number 5. The first 4 numbers are reserved to your own flight and should not be given to other flights of your package.



Figure 25: DCS Down



Figure 26: Dial in the Planenumbers

Now dial in the planenumbers and confirm them via ENTR (see figure 26). Here we want to use number 21 and 31. Confirm the last number via ENTR and press RTN to get to the standard DED page (figure 27). After doing this you still have to set up the Data



Figure 27: Return to standard DED page

Link in flight. As soon as you are airborne press OSB 6 on the LEFT MFD and change the ASGN to CONT just like in figure 28. Then Press Comms Switch Left (CTRL + O)



Figure 28: OSB 6 ASGN to CONT

longer than 1 second. Doing this you have set up the Data Link and you see some additional information on your FCR and HSD. In figure 29 you see some typical Data Link symbology. The green symbols are friendly planes and the cyan symbols are planes of your flight. Above these symbols there is the number of the plane and beneath these symbols you see the current Altitude in 1000 feet.

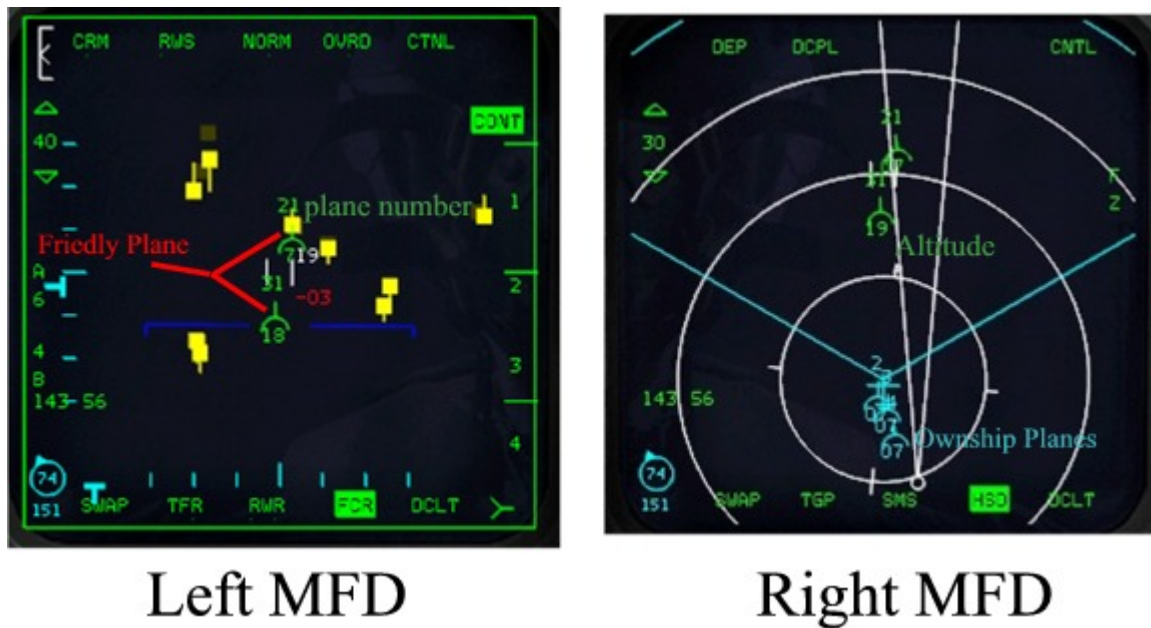


Figure 29: Left and Right MFD

5.2 Using of the Data Link in Single Player

Using the Data Link in Single Player is quite simple but very usefull as well. You can use the Data Link in three general flight situations. In navigation, air-air-combat and mudmoving. And that is almost everytime.

5.2.1 Navigation

As soon as the Data Link is set up(see 5.1) you see the planes of your flight and probably the planes of other flights in your HSD/FCR. Thus you have increased situation awareness.

If you see that number 4 of your flight is quite behind the rest of the flight reduce speed that he is able to rejoin without using the afterburner.

If you are on a Strike Mission but you see that your SEAD Escort is 20 miles behind you, you should think about a 360 degree turn, that he is infront of you again and you don't get butchered by enemy air defence.

Yep using the Data Link in navigation is very simple and intuitive.

5.2.2 Air-Air-Combat

Using the Data Link in Air-Air-Combat as as simple as using it in Navigation issues. If you have set up a Continous Data Link the members of your flight will always send you the targets they have locked and engage. Thus you see where enemys are and which enemys are already under attack. So you won't waste a Slammer anymore on a plane which will explode in 2 seconds by a slammer of your wingman. In figure 30 you can see the symbology of the Data Link in Air-Air-Combat. The yellow symbols are the locked

targets of your flight. The number above the symbol tells us which plane of our flight has locked this target and the number beneath the symbol tells us the altitude of the target in 1000 feet. The enemy in the lower left corner of the HSD (figure 30) is locked by our element lead and is flying at an altitude of 11.000 feet. The same symbology appears on the FCR as well so it is quite easy to find a target with your radar that is already locked by a flightmember.



Figure 30: Air-Air-Combat Symbology

5.2.3 Air-Ground-Combat

Using the Data Link in Air-Ground-Combat is a bit more complicated than in Air-Air-Combat, because the targets which are engaged by your flight members aren't displayed autonomously. You have to ask your Flight/Wingman for Ground Target. How often does this happen? You are on a Interdiction Mission but you have no clue where the 2nd armored brigade and you have to attack this brigade. But as soon as you order weapons free, your wingman begins his attack run. Now open the radio menu of your wingman (default: W) and go to page two by pressing W again. You should see a page similar to figure 31. Press 9 then and your wingman will send you his target.

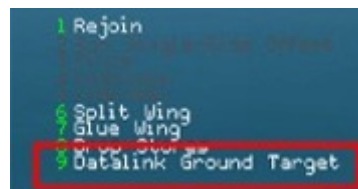


Figure 31: Datalink Ground Target

Then you will get several cues that you have received data.

- Bitchin' Betty sais: "data"
- On the HUD you get a message: "CURSOR DATA" (figure 32)
- The FCR and HSD show the position of the radar cursor of your wingman (figure 33)

The yellow asterisk is the radar cursor of your wingman. The number above the cursor tells us the number of the plane in the Data Link network. The 2 tells us that it is our wingman, who sent this target. The asterix will disappear after 13 seconds because then the transmitted cursor is invalid. But of course you can ask again for data!



Figure 32: Reception Message on HUD

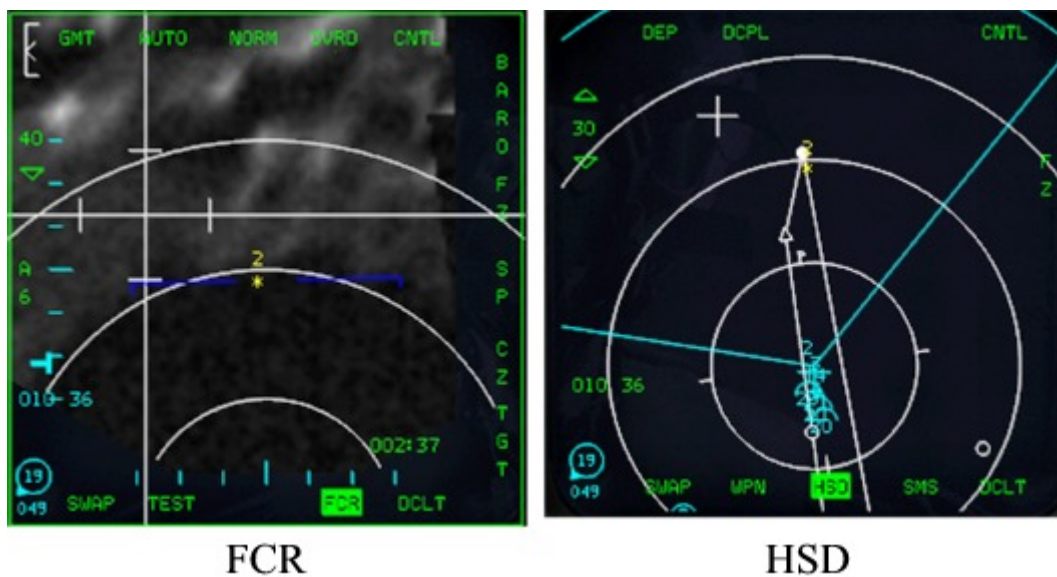


Figure 33: cursor position of wingman

5.3 Using the Datalink in Multiplayer

Of course the Datalink is very usefull in Multiplayer as well.

5.3.1 Setting up the Datalink

Setting up the Datalink is very similar to Singleplayer.

The flightlead of each flight dials in the numbers he wants to have in the DL and tells these numbers to his flightmembers. Those dial the numbers in as well. Then the flightlead switches to CONT mode and establishes the DL via CTRL + O.

In multiflight packages every flightlead has to establish his own DL. Datalink between two or more packages is not possible.

5.3.2 Using the Datalink in Air-Ground-Combat

Using the Datalink in Air-Ground-Combat is almost the same to Singleplayer. If you want to transmit a Air-Ground target, put the Radar cursor right above it and press CTRL + P to transmit the target. The symbology on MFDs and HUD is similar to the one in Single Player(see 5.2.3 on page 21).

5.3.3 Using the Datalink in Air-Air-Combat

Using the Datalink in Air-Air-Combat is similar to Singleplayer as written in 5.2.2 on page 20. But another feature is added in OF which helps sorting targets.

You as a flightlead see two targets inbound on radar, AWACS has declared them as hostile and you switched to MRM modus and the RADAR to TWS. Then you switch to EXP mode to make sorting easier as shown in figure 34. After doing so switch via TMS-Right



Figure 34: Switch to EXP Mode

to the contact your wingman should engage and press OSB 8 (figure 35). This will transmit the target to your flight. The "2" next to OSB 8 will change to "XMT". This shows you that you transmit the target. On your HUD the message "ASSIGN" will appear. Your



Figure 35: TMS Right and Assign Target

wingman gets the ASSIGN message on his HUD as well, and he will get a symbol on his FCR where his target is. This symbol will show on the HSD as well. These steps are



Figure 36: Reception of a Airtarget

to be repeated for number 3 and 4 as well. You can assign a target yourself, that your flightmembers which target will be engaged by yourself.

6 Radios

The comms have undergone huge changes if you select *Manual Radio Tuning* in the ConfigEditor. So go and select it! As you might have figured out, you aren't able to talk to the Tower. That's because you didn't tune in the right frequency to your radios. There are two ways to get the right frequencies into your radios for communicating with the tower:

- The Datacartridge
- Manually tuning in the frequencies

But it is not sufficient to only know one way, because you might get into situations where you need the other one. Ok let's start. In the planning phase of the mission in the map-screen, open the datacartridge and go to *COMMS* page. There change the *Preset #* to 15 as shown in figure 37. Then press *SET TOWER* as shown in figure 38. Now

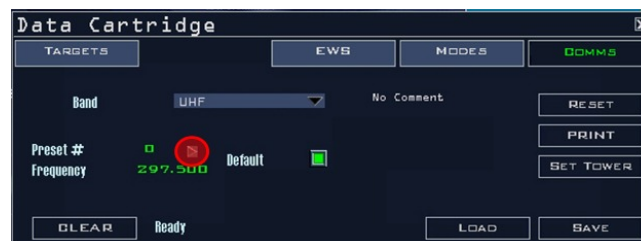


Figure 37: Change the Preset # to 15

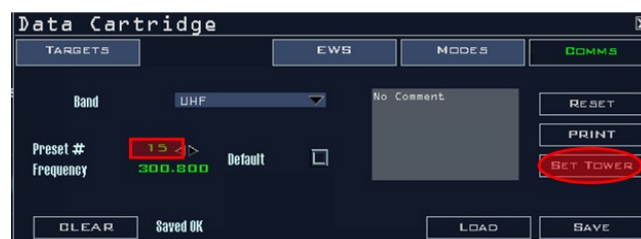


Figure 38: Press SET TOWER

in figure 39 you see that it reads *Kimpo Airbase* and the frequency has changed to the appropriate tower.

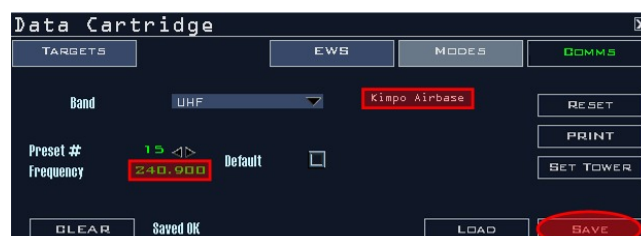


Figure 39: The frequency has been changed to Kimpo Airbase

Now if you want to talk to the tower of Kimpo Airbase, for example if you want to start taxiing, press COM1 on your ICP as shown in figure 40, to change the UHF frequency. As you have set the Preset # 15 to the frequency of the tower you have to dial in 1



Figure 40: Press COM 1 to change the UHF frequency

and 5 via the ICP and confirm by pressing ENTR. This procedure is shown in figure 41. Then you should hear the tower or hear a response if you ask for takeoff clearance. After



Figure 41: Change the Preset # to 15 and confirm via ENTR

getting airborne, you can change the UHF to #6 and VHF to #12.

Now let's assume you got a fuel problem and won't make it to your home base. The R218 airstrip is nearby and you want to make a hotpit refuel there. First you have to find out the right frequency of the tower. So check your right kneeboard and click onto it a few times until you get to the page with the tower frequencies. There you have to find R218 airstrip. As you can see in figure 42, its UHF frequency is 242.40.

PUSAN	94X	100	308.80	126.20	126.20	18/34 LR
PYONGTAE	87X	50	232.40	122.10		02/20
R103	19X	25	232.40	118.10	109.50	02/20 08/27
R107	15Y	25	257.80	118.10	109.50	14/32
R110	16Y	25	232.40	118.10	109.50	18/34
R113	03Y		233.00			
R218	08Y		242.40	123.40	123.40	
R419	04Y		242.40	123.40	123.40	
R505	07Y		233.80	126.00		
R605	06Y		225.30	127.70		
SACHON	05Y					
SEOSAN	37Y	25	305.40	126.20		
SEOUL	52X	25	305.40	126.20		

Figure 42: UHF frequency of R218 airstrip

To dial in the frequency in your UHF radio press COM 1 on your ICP as shown in figure 40. Then use the ICP to dial in the frequency (figure 43). Confirm via ENTR. Now you should be able to talk to the tower of R218 airstrip.

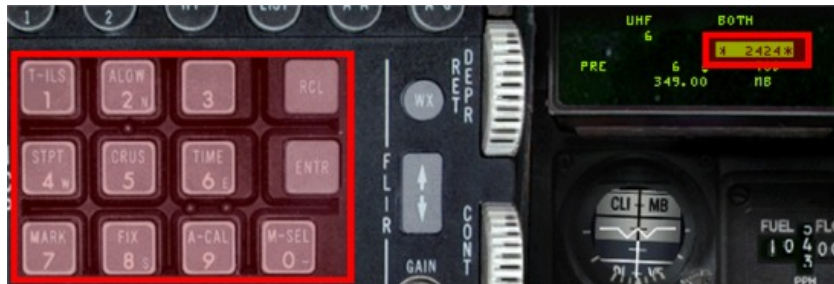


Figure 43: Change the UHF frequency to 242.40



7 Sniper Advanced Targeting Pod

The Targeting Pod has undergone huge changes and is more powerfull than ever! OF is the only version in which you can use the TGP in Air-Air-Combat! But other changes were made as well. You can track now moving ground units in POINT mode and tracking a target behind you does not "swap" the controls (i.e., to slew the TGP left, you had to move your cursors right). The TGP can be used in all Mastermodes now.

7.1 Air-Ground-Combat

7.1.1 Stationary Target (Building)

First you have to go to Air-Ground-Mastermode, select your targetwaypoint and select the LGB in the SMS page. Go to the TGP page. To do this you, go to the MFD Main page by pressing OSB 14 twice (figure 44) and then OSB 19 as shown in figure 45. But the



Figure 44: Go to the MFD Main page



Figure 45: Access the TGP page

Targeting Pod is still in Standby mode, thus you have to change the mode to Air-Ground. To do so press OSB 1 and then OSB 6 (figure 46 and 47).



Figure 46: Press OSB 1



Figure 47: Set the TGP to A-G-Mode

Then you should see a picture on your TGP page similar to figure 48. Note the **NOT SOI** message. To switch the Sensor of Interest to the TGP page press DMS-Down (SHIFT + NUMPAD 2). To get a better view on the target area, you can expand your Field



Figure 48: The first sight of the target ;-)

of View to NORM and EXP via pressing OSB 3 (figure 49) Then ground stabilize the



Figure 49: Expand your Field of View

TGP and put it in AREA Mode by pressing TMS Up (CTRL + ARROW UP). Now you should get a screen similar to figure 50. Now in the AREA mode, you can move the TGP cursor.



Figure 50: TGP in AREA Mode

Now you have to set your Laser-Arm-Switch to ON and ensure that Mater-Arm is ON as well (figure 51). Now a **L** appears right of **AREA**. To make out your target better, you



Figure 51: Set Laser-Arm to ON

can change the polarity of the screen between White-Hot (WHOT), Black-Hot (BHOT) and TV via pressing OSB 6 as shown in figure 52. Now put the TGP cursor over your target and line up for a normal CCRP run. Drop the bombs. As soon as the laser fires, the L starts flashing. In the lower right corner you can see the time till impact.



Figure 52: Change the display polarity

7.1.2 Moving Targets

In contrary to other versions, POINT track of moving targets is possible. Thus you get many kills if you carry GBU-12s on a BAI or CAS mission!

First, you have to get to A-G-Mastermode, set the TGP to AG and set the LaserArm to ON as described in section 7.1.1 on page 28. Now search for your targets on your radar. In figure 53 are the targets marked. Now lock one of the targets, switch to the

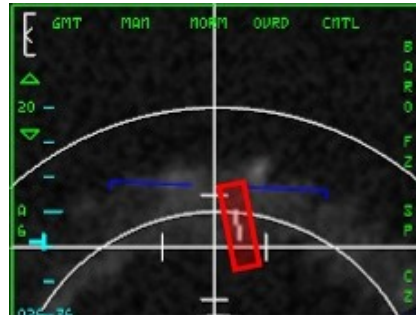


Figure 53: Our targets on GMT

TGP page and expand the picture as you want. Then you have to move the SOI by pressing DMS-Down (SHIFT + NUMPAD 2). Then go to AREA mode by pressing TMS Up (CTRL + ARROW UP) as shown in figure 54. Then move the cursor in the



Figure 54: Moving targets in AREA track

moving path of the target, to lead the mover and let him drive into your cursors and then command POINT track by pressing TMS Up again. If you press TMS Up while slewing the cursor, POINT track can't be established. Figure 55 shows an established POINT track. As soon as POINT track is established a white box will draw around the target till the target is completely inside this box. To break lock and designate a different target, just move the cursor to the new target and establish a new POINT track via TMS Up. Now make your normal CCRP run, and manually lase the target to ensure a hit. A good release altitude is 5.000 to 10.000 feet. Now establish AREA track again via TMS Up and follow the targets, turn, establish POINT track and drop the next



Figure 55: Established POINT track on a tank

bomb. Or slew the TGP to the radar's line of sight via TMS Down (CTRL + ARROW DOWN) and search for your targets again via radar. I got a nice hit or what do you think?



7.2 Air-Air-Combat

In OF you even can use the TGP in Air-Air-Combat. This might be usefull to ID targets in near-BVR or to track a target to sneak on him with radar off. In NAV, A-A, DGFT and MRM Mastermodes the Air-Air mode of the TGP is usable. To activate it go to the TGP page of the MFD and press OSB 1 as shown in section 7.1.1 on page 28. Then press OSB 20 to access the A-A mode as shown in figure. Then you should see a picture. If you lock or bug a target in FCR, the TGP should look at the target. You can zoom in via changing to EXP mode by pressing OSB 3. You have a radar contact at 35 miles and unfortunately you don't have AWACS support. You bug it and change FOV to EXP. In figure 56 you see the target. It looks like huge plane and somehow russian ;-). If you



Figure 56: Switch to A-A mode of the TGP

are near enough, you can change the SOI via DMS-Down (SHIFT + NUMPAD 2) and establish Point Track via TMS-Up (CTRL + CURSOR DOWN). In figure 57 you see a Point Track on a enemy tanker. Now you can set your radar to STBY and the target is still tracked and a dashed box will draw around the target on the HUD. Now you can sneak on the target and get some sidewinders into it ;-).



Figure 57: Point Track on a Il-78

8 Online Gaming

Finally we get to the real important stuff! How to establish a rock solid internet flight. The multiplayercode of *Open Falcon* got a complete overhaul, and is superior to MP code of previous versions.

8.1 What is needed for online flying?

- Open Falcon in the latest version (4.5)
- Internet ;-)
- Teamspeak
- Opened Ports 21,2934,2935,2936 TCP and UDP (see page 8.1.2)
- latest Rapace Launcher

Most likely you already have version 4.5 because you read this guide and you have internet as well, because you want to do some online-flying ;-).

8.1.1 Teamspeak

If you haven't installed Teamspeak already download it at

<http://www.goteamspeak.com/>

www.globalfalcon.org provides a TS server where OF pilots from the whole world are flying together:

IP: 87.117.194.77:10122

PW: harrier

If you need help configuring your TS, just drop by and we will help you.

8.1.2 Opened Ports

Falcon 4.0 and the Rapace Launcher need the ports 21,2934,2935,2936 UDP and TCP opened to establish a connection. Go to the Porttesting Applet made by Strider an check if your ports are already opened:

<http://strider-fr.homelinux.net/falcon/globalfalcon.html>

If you own a router and didn't get a positive response, forward these ports to your local IP-address. If you have no clue what to do, get onto TS or visit <http://portforward.com/routers.htm>

Most routers are listed there. Also shut down all firewalls including the Windows firewall. When you think you have forwarded all ports mentioned above, try the testapplet again. If you still get a bad response get onto the TS server that we get you sorted.

8.1.3 Rapace Launcher

Download the latest Version of the Rapace Launcher:

http://nanardlecanard.free.fr/RL/RL_OF.zip

Just unzip it where you want it, and get a shortcut of the `OF_Rapace_Launcher.exe` to your desktop. Then launch it. It will tell you to update if you don't have the latest version. Just press the *RL Updater* button in the bottom and the Rapace Launcher will be updated.

Now lets assume everyone who wants to join the online-flight is on TS, has the right OF version and the latest Rapace launcher. Then you have to start establishing the connection.

8.2 General Procedures

To have a solid connection with Open Falcon, it is necessary to follow these procedures:

1. Launch TS and join the TS server
2. Shut down all chat programs, browser windows and none essential programs
3. Shut down all AntiVirus software and firewalls
4. Make sure that all additional hardware (joysticks, TIR etc.) are active and the right profile is loaded
5. Launch the Rapace Launcher

8.2.1 Rapace Launcher

The Rapace Launcher has many many features. For a full list of features check the Rapace Launcher manual.

First not that your external IP address is shown in the Network IP box as shown in figure 58. Select internet flight. In the Command line edition box, you can add stuff to your command line. If you use the *-hires* setting, check the appropriate box.

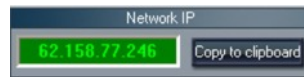


Figure 58: Check your external IP address

The bandwidth parameter will be described later. Figure 59 shows how it could like.

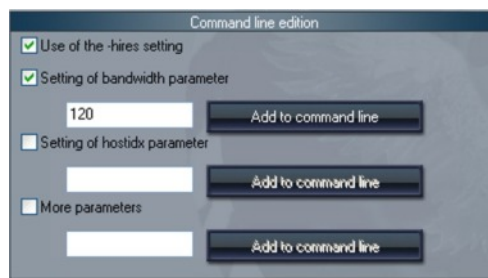


Figure 59: Command Line Edition

8.3 Host Procedures

The Host should be the person with the best bandwidth, especially Upload. The Host starts the online-game, selects the TE/Campaign/Dogfight and decides in which difficulty the game is played.

First, you have to show the Clients your IP address. Thus Press the Copy to Clipboard button besides your IP address in the rapace launcher (figure 58). After doing this, go to your TS window, make a right click onto the channel tree, and select *Send Text Message to All*. Then press CTRL + V and send this message. Thus the Clients get your IP address and nothing gets lost because of a bad TS quality.

Then in the Rapace Launcher, go to the Lobby page, Type in your Nickname and press Initiate Server as shown in figure 60. Now let the Clients join. Mark the

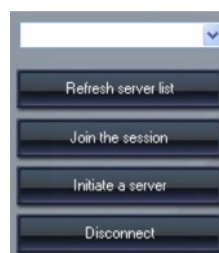


Figure 60: Initiate a Server

Client you want to check as shown in figure 61 and press the right mouse button.

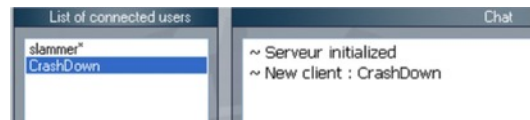


Figure 61: Mark the Client

The interface which shows up is shown in figure 62. There select *Check Client Setup*. Thus you interrogate the Client Setup, Config Editor settings and if the important files like aircraft parameters etc match. So you can ensure that the connection is solid. But

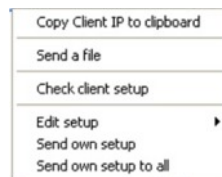


Figure 62: Interface on RightClicking the Client

unluckily, as you can see in figure 63, the client setup mismatches. But with the rapace launcher, you as a host can edit the clients setup that it matches. Right click onto the

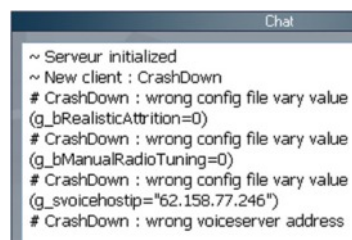


Figure 63: Client Setup mismatches

marked client again, and select *Send Own Setup*. As you can see in figure 64, the Rapace Launcher edited the client's setup. Then again check the clients setup. If you still get a mismatch, try again to send the setup. If you get a mismatch in *ivc host ip* don't care. So if all clients have the correct setup, go back to the Launch area.

There set you host ip to 0.0.0.0 and press *Update the Phonebook* as shown in figure 65. Now you have to set your bandwidth. To find out your bandwidth, visit

<http://www.speedtest.net/index.php>

and do the speedtest. Note your upload speed. Now take approx. 80% of this speed and use it as your bandwidth setting. So if you get an upload of 400, set your bandwidth to 320. Now in the Command line edition box (figure 59) mark the bandwidth box, type in the desired bandwidth setting and press *Add to command line*.

```
# CrashDown : Client setup mismatches
# CrashDown received the setup
# CrashDown applied the setup
```

Figure 64: Client applied setup

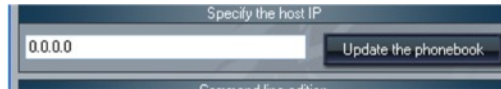


Figure 65: Set Host-IP to 0.0.0.0

Now you as host, you have to tell the clients which bandwidth they shall use. They should make the speedtest as well, and tell you their uploadspeed. Now take the lowest one, take 80% of it and tell the others to use this setting. If the lowest is 128, tell the clients to use 100 as bandwidth. It might be a good idea to use TS chat, to ensure noone has understood a wrong value. As bw setting, don't use a higher setting than the host and not a lower than 100. Also make sure that everyone uses the same bw setting. If everyone is ready, has a matching setup and set his bandwidth, check if your command line is shown correct above the *Launch OF* button. If it is correct, press *Launch OF* and tell your mates to do so as well.

8.3.1 In OF GUI

In the OF GUI, you press *COMMS*. There you check whether the Host-IP reads 0.0.0.0 and your bandwidth is set correct. Then press *CONNECT*. A new window appears called *CHAT*. On the left-hand side, you see your callsign and on the right the chat-window. Then tell the other guys, that the Chat is up. Then they connect to the Lobby as well and they appear in the player list. Always type in the numbers of players you see. As soon everybody is in the lobby, you close the chat-window and press *Tactical Engagement/Campaign*, you choose the TE/Savegame you want and press the COMMIT button (right side at the bottom). Then you select the difficulty you allow your players and press OK. As soon as you are in the map-screen, set the clock to STOP and tell the other guys: "In game, clock stopped!" Then they join the game as well and set the clock to STOP as well. Then choose your flights(the host MUST be in the first flight to take off) do your briefing etc. If everybody is ready, the Host says to click FLY and the appropriate takeoff method (RAMP, TAXI or TAKEOFF). Then everyone does so, the clock is running. As soon as you are in pit, you say: "Callsign in pit!". The host MUST be in pit first! So if the first flight is in pit, they are allowed to move/set up their planes, not before! Then just make your flight. If you, the host, gets shot down, don't exit the sim or ALT+TAB out of it, just leave it as it is. The host is the last one to exit the 3d world!

8.4 Client Procedures

Wait till the host puts his ip address into the TS chat, copy it and paste it into the Specify the host IP box (figure 65). Then wait till the host has established his server in the Rapace Launcher Lobby. Then go to the Lobby page, get you a nickname and press *Refresh Server List*. Then select the one of your host and press *Join the session* (figure 60). There just wait untill the host tells you, that your version is correct. Also if the host wants you to do something, DO IT ;-)! Quite soon the host tells you to Launch OF, do this via the *Launch OF* button in the Launch area of the Rapace Launcher. In OF GUI, you wait till the host says, that the chat is up. Then press *COMMS*. There check wether the Host-IP and the bandwidth are correct. Then press *CONNECT*. There in the chat-window you see the other players. Always type in the numbers of players you see. As soon everybody is in the chat, the host will launch the TE/Campaign mission he wants to play. As soon as he says:"In game, clock stopped!" , you press *Tactical Engagement/Campaign* and select *Online*. There you should read something like "Hostcallsign's Game". Select it and press the COMMIT button (right side at the bottom). In the difficulty menu, just press OK and wait till the TE/Campaign is loaded. If the TE is big or it is a Campaign, this might take a while. DO NOT PRESS ANYTHING TILL YOU ARE IN GAME! As soon as you are in game, set the clock to STOP and say:"Callsign in game, clock stopped!" Select your flight, do the briefing and when the host tells you to klick FLY and the appropriate takeoff method (RAMP, TAXI or TAKEOFF), just do so. As soon as you are in pit, you say:"Callsign in pit!" When your whole flight is in the pit, you can move/set up your plane. Then just do your flight.

If you need to reconnect to the host for some reason, wait 30 seconds before you reconnect to the host.

Happy Flying!