F-15C Within Visual Range combat missiles mode selection guide

The various F-15C missile radar and non-radar modes (and HUD-views that come with them) are explained very well in the manual (the pdf that you can download from the Lock-On site). If you want to know for instance what a specific HUD looks like when you got a lock with a specific missile and what all the displayed information means: go look in the manual of follow the ingame tutorial; you will find it all there.
But what isn't explained very well and what remains very confusing, is how you should get into a specific mode and how these different modes influence each other! Without knowing this it can be very hard and frustrating getting certain radarmodes to work!
So that's why I wrote this guide. I will only deal with the selection of WVR modes because they were the real confusing ones. The use of the cannon and the BVR modes are explained very well in the manual and the ingame tutorials (specially the latter are vital for understanding the game well!)

First of all: forget what you might have seen on the key chart and in the tutorials when it comes to enabling a certain mode: the provided information is wrong and/or incomplete and misleading. Specially when it come to the **'6'** key... Since I am not certain if this is due to various bugs or not, I decided to make this tutorial a simple one. If everything I discovered turns out to be intended and the way it should be, I will (maybe) make an illustrated guide which will also tell all you need to know about the HUD-modes and PADS views. But because there is a change this document will only be valid until the first patch arrives, I don't want to waste any more time... (this already took me a LOT of hours!)

First some more general (and very simplified!) information for those who don't want to go through the official manual and all the tutorials...: WVR combat is really quit simple. You choose a missile and a mode (or a mode and a missile...). All modes will require you to fly the plane in such a way that you get the target into a circle on the HUD (always the largest one if there are more) in order to get a lock, or, in case you use a mode without a lock, a change to shoot down your opponent.
When you get a lock (Radar Boresight, Vertical Scan, SCAN, Boresight) you will clearly see it because the info on the HUD or the sound will change. Getting a lock depends on various things: distance, speed, altitude. etc.
In the modes without a lock (Visual, FLOOD) you can fire as soon as the target is withing range (10 - 15 miles).
Some modes will do their job by using the radar on your F-15C (Radar Boresight and Vertical Scan) and some will not (the other four modes use various methods). The advantage of the modes without radar is that you will not reveal your position to the enemy.

The F-15C has three different missiles. The AIM-120 AMRAAM and AIM-9 Sidewinder are 'fire and forget' missiles. After shooting them you can forget about them and do anything you want to (unless they miss, of course...). The AIM-7 Sparrow however is NOT a 'fire and forget' missile: you will have to keep your target withing the largest circle to guide the missile towards it!

To select the different modes for the three missiles the F15-C can take along, you have three keys: **'3'**, **'4'** and **'6'**. Together with the **'i'**, which toggles the radar on and off, you can get all modes you need for WVR combat.

First of all: when you start a new flight and go into (any) combat mode for the first time, a missile will be selected and armed automatically. The radar will be set as needed (or left off as needed). The trouble begins when you switch from mode to mode: that's when things get confusing. You can select a missile before going into a mode, but it's not necessary and it will not change anything, apart from the FLOOD mode!

For everyone who doesn't care about the problems that can arise and just want to know how to enable a certain mode, here's a chart. On the left you see the modes, at the top are the missiles and in the chart itself you see which keys you have to press or whatever you have to do to get the mode working properly. Still, if you want to prevent getting into trouble when choosing other modes or missiles, I advice you to read on after this...

	AIM-120	AIM-7	AIM-9
Radar Boresight	**4**	**4**	**4**
Vertical Scan	**3**	**3**	**3**
SCAN	-	-	**4** and **i** or **3** and **i**
Boresight	-	-	**6** and turn radar off it it is on
Visual	**3**, **4** or **6** (turn radar off for 'real' Visual)	-	-
FLOOD	-	select AIM-7 first and THEN press **6**	-

So (for those not interested in the how and why): if you first select a missile and then a mode (the way it is shown in the chart) you will never go wrong again. Have fun!

And now I'll tell you ALL about it... Some things I will say are very obvious, but I want to be real clear, so I'll tell it all.

I'll start with a general remark that goes for all modes: whenever you are in a certain WVR combat mode and manually (have to) turn the radar off by pressing **'i'** to get in a specific other mode (like SCAN or Visual), pressing **'i'** again will NOT (always) bring you back into the previous mode! Turning the radar back on again without pressing a mode key first (**'3'**, **'4'** or **'6'**) will only put the radar (and the VSD too) in BVR mode (with various settings, depending on the mode)! So to get back into a specific radar mode you'd better always press one of the numbered key first!

Okay, to keep the rest of the tutorial simple and to explain the weird chart entry, here is the...

Visual mode

- Whenever you select a mode and the AIM-120, **Visual** mode will be on and usable! That's it! That's all! Anytime you've got the AIM-120 armed, you've got the **Visual** mode at your disposal! You will always see **VISUAL** in the lower right corner of the HUD when the AIM-120 is armed.
  For example: you are in **Radar Boresight** mode with the AIM-120 selected and you get a target in the HUD-circle which is in range but you have no lock yet: in that case you CAN fire the missile: it will use it's onboard radar and try (you never know with the **Visual** mode...) to find the target!
- Whenever you want to switch to 'real' **Visual** mode (so you will NEVER get a lock with the AIM-120) just select the AIM-120 (if you haven't selected it already) and make sure the radar is off (regardless what the previous mode was: turn it off it it's on, leave it off if it was already off).
- When you've just started a flight and aren't yet in a combat mode, pressing **'6'** will put you in real **Visual** mode: radar off and big circle on the HUD. This is the ONLY time you can be SURE that pressing **'6'** will give you the 'real' **Visual** mode!

Key 4

- Pressing key **'4'** brings ALL three missiles into **Radar Boresight** mode at the same time, regardless which missile is selected.
- The radar will be on automatically with the appropriate settings, regardless which state it was in.
- While you're in **Radar Boresight** mode you can switch weapons on and on and on (using **'D'**) without problems: every weapon will use it's own **Radar Boresight** HUD.

- If at anytime you turn the radar off while in **Radar Boresight** mode by pressing **'i'**, regardless which missile is selected, you will disable **Radar Boresight** mode for ALL missiles at the same time and put the AIM-9 Sidewinder into **SCAN** mode. The AIM-120 will go into 'real' **Visual** mode (as explained before) and the AIM-7 will be completely useless.
  For example: if you are in **Radar Boresight** mode with the AIM-7 selected and you press the **'i'** and select the AIM-9 after that, you will see it has gone into **SCAN** mode.
- In this mode you can also switch weapons without problems: the AIM-9 will stay in **SCAN** mode, the AIM-120 in **Visual** and the AIM-7 will remain useless.
- Don't forget: turning the radar on again in this state by pressing **'i'** will NOT return you to the previous mode (**Radar Boresight** for all missiles)! Only by pressing 4 again will you enable **Radar Boresight**, with the appropriate radar settings and turn **SCAN** mode off!

- Switching to another mode by pressing **'3'** or **'6'** and going back again to **'4'** has no negative side effects because pressing 4' always resets the radar to the proper settings. This also means that in order to get the AIM-9 in **SCAN** mode you have to press **'4'** AND **'i'** again, because the **'4'** will ALWAYS turn the radar on!

Key 3

See key **'4'**! That's it! That's all!

The ONLY difference is that the radar will use a different setting (a smaller and higher cone), which is specially defined for real close combat: dogfights. The only change in the HUD will be a vertical line, extending to the top, which shows where the radar is scanning. All missiles can use this mode, but it is generally used with the AIM-9, since this is the missile or close combats. Everything else works as described above.

Key 6

This is a weird one... It only has a use for the AIM-120 if this is the first mode you will get into during your flight: it will bring the AIM-120 straight into real **Visual** mode. But as soon as you've been into other modes you don't need the **'6'** for the AIM-120 anymore.

Switching missiles while in one of the modes 'under' the **'6'** key CAN have bad side effetcs! Unlike the modes under key **'3'** and **'4'** modes, situations change while switching!
Changing from the AIM-9 **Boresight** mode (see below) to the AIM-120 will bring you into real **Visual** mode: no problem. Switching on until you get back to the AIM-9 again will give you the **Boresight** mode once more.

But changing from the AIM-7 **FLOOD** mode (see below) will give strange results! Going from the AIM-7 in **FLOOD** mode (which needs the radar to be on!) to the AIM-120 or AIM-9 will will bring you into **Visual** mode/**Boresight** mode, but with the radar in **FLOOD** settings! This will give unpredictable results. So if you want to lock targets you'd better switch to a **'3'** or **'4'** mode!
Also, when you keep on switching until the AIM-7 is active again, the **FLOOD** mode will NOT be active automatically! The radar will have the **FLOOD** mode settings, but the word **FLOOD** will not appear on the VSD! The mode is not functional! You have enable the **FLOOD** mode by pressing **'6'** again! (Or, very weird, by turning the radar off and on again!)

So keep that in mind when we come to the last two modes.

AIM-9 Boresight
- Press **'6'** with the AIM-9 selected (or press **'6'** and select the AIM-9 afterwards), make sure the radar is off (turn it off it it's on, leave it off if it was already off) and you will get into **Boresight** mode.
- If you leave the radar on (coming for a radar mode!) you will STILL be in that specific mode! The HUD may change, but the mode will work like the one you just think you have left! ONLY after turning the radar off after pressing **'i'** the real **Boresight** mode will be enabled! In other words: just pressing the **'6'** key is useless! You HAVE to make sure the radar is off!
- Pressing **'6'** once again brings you back to the **'3'** or **'4'** mode you were in before goint to **'6'** mode! It works as a toggle! This ONLY works with the AIM-9. The results however are unpredictable because of the state of the radar (did you turn it off alrady or not yet? Or did you just switched to the AIM-9 from the **FLOOD** mode?) So you'd better use the official keys in order to get fully functional modes!

AIM-7 FLOOD
- ALWAYS select the AIM-7 BEFORE pressing **'6'** to get into **FLOOD** mode! **FLOOD** is the ONLY mode which requires you to press the mode key AFTER selecting the AIM-7 EVERYTIME! If you come from another mode, if there are no combat modes active yet, if you've pressed any of the mode keys (**'3'**, **'4'** and/or **'6'**), if you've another missile, no matter what: the **FLOOD** mode will only be enabled when you select the AIM-7 first and press **'6'** after that!

Well, that's it... I hope someone is still reading this... As I said it's pretty hard to keep it all simple. Now I wonder if I discovered some genuine features or just bugs... The way the **'6'** key works, seems pretty buggy. All in all it doesn;t do what the official information tells us! But maybe this all will be solved with the patch. And then all the hours I've put into this will be worthless. Hey, I think I'm the only guy on earth wo doesn't mind if the patch will be released later...! ;)

Happy flying!

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