## Scenario Description

The object of this tutorial is to familiarize new players with the mission planner and some basic concepts of attack. You will have a half Squadron of German Tornado strike aircraft and two missions to complete, there is an enemy element present, but it is easily avoided. Enjoy and learn.

**Note:** This tutorial should take about 20 minutes to complete.

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## Scenario Briefing

Today you have a half squadron of German Tornado IDS (interdictor/strike). The Tornado is different than the F-16 multi-role which we used in Strike Tutorial #1, as it is a member of a family of aircraft, others being the ADV (Air Defense Variant), and the ECR (Electronic Combat/Reconnaissance). The Tornado IDS is specialized in low level strike into a heavily defended area, so much more capable in that specific role than dedicated ground attack aircraft such as the A-10 or Su-25.

In this tutorial you will set up two missions (three actually), find ground targets and then strike them.

Please enter the scenario, look around and the first set of instructions will pop up in a few seconds.

## Mission 1 Message

To set up a standard ASuW (Anti-Surface Warfare) mission follow the following steps:

- Drag select the four Reference Points (RPs) labelled "Mission 1".
- Hit "CTRL + F11" or go to the Mission menu and select the second option "New Mission".
- The "New Mission" box will appear.
- Name your mission whatever you like as long as it is recognizable to you.
- For Class, choose "Patrol".
- For Type, choose "ASuW Patrol (Ground)".

- Status, leave as active, and don't adjust the activation times as this is a simple mission.
- Leave the checkbox "Open Mission Editor window" checked (default) and click "OK".

The Mission Editor window is fairly complex but we'll only touch on the bits we need. It is a powerful tool and deserves some experimentation on your part. In the meantime, just follow along:

- Your mission's name is in the upper left, make sure it is selected. You can change the name in the box below this area.
- Below that, no changes needed to activation, take-off time, or time on target times.
- Select the "Units" tab along the top (selected by default).
  - In the "Available" box, click the arrow beside the 6x Tornado IDS to expand the category to see the available units.
  - Use "SHIFT + Left Click" to select Bomber #1 to Bomber #4. These should all be green to show they are ready to take off while the other two should be red. Select Bomber #1 then select Bomber #4 to select all the units in between. Alternatively, you can select multiple units one at a time by using "CTRL + Left Click".
  - Press the down button to assign them to the mission.
- Select the "Mission Settings" tab.
  1. Moving to the top center of the screen, leave the "Try to keep units on-station" box alone and the "1/3 rule" checked.
  2. Uncheck "Investigate unknown contacts outside the patrol area" and "Investigate unknown contacts within weapons range", so your aircraft will remain inside the patrol area.
  3. Leave the "Active emissions..." box unchecked.
  4. Nothing else to touch but note that the aircraft will fly in flights of 2 and will not take off until there are 2 ready to go.
  5. Moving to the right, in the Patrol Area box there should be four RPs with the same name as those of the desired area.

     If they are not there, go back to the map, select them and click the "Add points highlighted on map" button.

     Click the "Validate Area" button. If you get a "WARNING! Area validation has failed" message, using the up or down arrows in the box change to order of the RPs until you have a square.

Once you're done, close the mission editor and run the game.

**Mission 1 Update 1 Message**

Now what should happen is that 2x Tornado should take off in a group with radars on. They will proceed to the mission area at high altitude and search for targets. If they find them, they will automatically strike them within the definition of their WRA (Weapon Release Authority). Once in the patrol area they will drop to low altitude in accordance with their loadout profile (Hi-lo-Hi) and look for the targets.

You will note that their altitude in the search is around 1980ft. If you mouse over the area and check the data-block the ground altitude is around 1780ft. Checking in the Group status block you see the altitude is around 1980ft ASL (Above Sea Level) and 200 Ft AGL (Above Ground Level). It's important to remember these two reference altitudes when planning missions.

**Mission 1 Update 2 Message**

You might find your target, or you might not - ground targets are very hard to find, thankfully these ones are moving which makes it much easier. Picture yourself in the cockpit of an aircraft at 200 Ft AGL, that's the height of church steeple, radio mast or tall tree, flying at loiter speed of 350 Knots (400 mph, 650 KPH), looking for guys who don't want to be found. If they are not moving, they have camouflage up and will be very stealthy, moving at least you might have a chance.

If you did find someone your units automatically attacked them and the second pair took over the job. You will note that this might not be the most efficient way of looking for ground targets as that 6-hour ready time is a heck of a wait. To do this task properly you would need an entire Squadron, of 12 aircraft, with 3-4 on maintenance and 8-9 constantly running this patrol 24/7.

## Mission 2 Message

In addition to Bomber #5 with the GAF Recce Pod, you have a second aircraft Bomber #6 set up with Mk82 AIR Lo-Lo-Lo. We're going to set up a couple of missions that will work together, a recon mission and a strike mission.

Note the nasty looking red unit with the number 29 next to it. That's an SA-5, a fairly common Cold War Era SAM (Surface to Air Missile), it's been around since the 50's but this is an updated "c" version, and the missile is the size of a telephone pole, so it will hurt if it hits you. It has 18 missile launchers, 5 radars and 6 close in AAA gun systems. Too big for us to handle and that AAA makes it tricky to get close to anyway.

You will also note that the red ring around the SAM completely encompasses the Mission 2 RPs, what to do? In most military situations you need to pit your strengths against the enemy's weaknesses. This is a classic case of the right tool for the job. What is a key strength of a Tornado IDV? Low level flying!

What is a key weakness of an SA-5? This leads to the military principle of know your enemy, let's check the database. Click SA-5 and then on the blue hyperlink to go to the database. Beyond the nasty picture you find a bunch of things about the unit, like its got 36 reload missiles in its magazine! The important bit though is the missiles themselves. Click on the missile name to go to the SA-5C Gammon missile database entry. Notice anything useful? Target altitude perhaps? 650 ft AGL up to 130000 ft AGL. This thing could shoot down a U-2 at 95000 ft but it cannot shoot down a Tornado at 200 ft! We have a plan!

Next Setup the Recon mission:

- Select the RPs for Mission 2.
- Hit "CTRL + F11", name your mission, this is another "Patrol" mission, "ASuW (Ground)".
- Add Bomber #5, the one with the reconnaissance pod on it.
- You should get a warning message about flight size. Remember that you have it set to the default of 2, and you have only added 1 aircraft. Change the Flight size to a single aircraft.
- Uncheck "1/3 rule", "Investigate unknown contacts outside the patrol area" and "Investigate unknown contacts within weapons range".
- On the right-hand side of the box (**Very Important**) set Transit altitude to 600ft, station altitude to 200ft, this aircraft has no weapons to attack but just in case

you have the doctrine set to strafing, set the attack altitude to 200ft as well. Put a check in all three terrain following boxes. Speeds are fine at default.

- This mission will use a lot more fuel because of the altitude but hopefully you find your target quickly.

Now if you find a target there is no point allowing it to live, so you need to set a strike mission. Remember back in Tutorial 1, I mentioned that NATO bombs had some attachments you could add. This is an example; the Mk 82 is a standard 500lb dumb bomb, but can you imagine what might happen if you drop a low drag bomb at very low altitude, all that shrapnel could be very bad for your aircraft's complexion! Also, a good rule of thumb for dumb bombs is to drop them low to improve accuracy, stabilizing them helps accuracy even more. The AIR (Air Inflatable Retarder) slows the bomb down to allow your aircraft to egress a little further before it explodes, and it helps to stabilize the bomb in flight. Both are good things in this situation. When your recon flight finds a target, you want to launch your strike aircraft loaded with Mk 82 AIR bombs, fly low and fast, drop your bombs and stay well under the SA-5 engagement envelope.

Let's set up a strike mission:

- Hit "CTRL + F11".
- Name your mission, this is a "Strike" class mission, "Land Strike", leave as "Active".
- This page is a bit different but has many of the same features of the patrol mission, which you are now familiar with.
  1. Change "Flight size" to 1.
  2. Just above the Flight size is a dropdown which selects the level of identification to trigger the mission, select "Hostile".
  3. Assign Bomber #6 to the mission.
  4. Leave the "Target" tab blank.
- A couple important points:
  1. We will leave "Allow off-axis Attack" unchecked, we don't want the strike to wander into the SA-5 range too much, and this would allow the AI to select an off-angle attack direction that may stray too far for our current intent.
  2. There are no tankers or escorts for this mission but you can get pretty specific here.
  3. The way this is now set up, the mission will launch on ANY hostile target whenever detected. Problem! We have that nasty SA-5, which is both detected and hostile: But we don't want to go near it, our target hasn't been found yet.

4. Not an issue. Measure the distance between the base and the SA-5 ("CTRL + D" & click or select the base and watch the cursor data to see the range as you move the mouse (XXXnm from Sel). I read the SA-5 as 340nm, and the outer limit of the mission 2 box is about 320nm so put in a maximum strike radius of 320 halfway down the center column.

You're now ready to launch your second set of missions.


## Mission 2 Update

Strike aircraft are valuable, you never have enough of them, you don't want to lose them, they take a long time to prepare, and munitions are such that you may want to plan as opposed to leave it to your Fighter Jockeys to drop the world on whatever they see. So that is why commanders take some valuable and scarce strike assets and use them for reconnaissance. There are several reasons you might use a reconnaissance aircraft instead of hunting with your strikers:

- The reconnaissance pods give them an advantage.
- They are usually quicker to ready, in this case 3 hours vice 6 hours for the strike aircraft.
- They don't expend the reconnaissance pods which can be re-used.
- Since there is no droppable ordinance, many recon loadouts have a "Quick Turnaround" setting.
- Your strikers can wait on the ground ready to roll on any target and you can then launch and strike with munitions at your discretion.

QTR or Quick Turnaround is a setting that certain aircraft have with certain loadouts based on proven capability and doctrine. In this case Bomber #5 with the GAF Recce Pod has QTR turned ON, each aircraft is specific but, in this case, if the predicted sortie time is less than 8 hours (first sortie is under 4 hours), the aircraft will land, refuel, probably change pilots, do quick repairs, and take off again in 30 min. If the parameters for QTR are not met the aircraft will take a 3 hour stand-down time, which is the same as its loadout ready time. Very handy and Bomber #5 is becoming ready in a minute or two, a nice surprise.

## Summary Message

If all goes well, you have found the building and destroyed it. In this tutorial you have set up an ASuW mission, a reconnaissance version of the same mission and a Strike mission. You're well on your way to getting a grip on using your air assets to destroy your enemies.

See you in Tutorial 3 where we attack a more complex target.