

Requirements:

- UO familiarization course or equivalent
- Ability to use the ACRE radios
- Map reading ability, including 8 digit grids, reading contour lines and recognizing terrain features
- A working game, I am not going to play tech support.
- Ability to ask questions when confused

Introduction and Fundamentals of Joint Terminal Attack Control

Start Recording... Welcome (5-7 mins)

- What is this course?
 - By the end of this course you will be able to control fixed and rotary wing aircraft in game so that they provide safe, effective fire upon enemy positions. You will be able to properly help your team utilize the full potential of an attack aircraft. Most players do not know how to properly control an attacking aircraft in a forward area - this tends in air missions which are ineffective, slow to arrive and often contain an elevated risk of fratricide.
- Introduction re: Chris Krause
 - Do not have military experience
 - I do not claim to be an expert on this topic, only a amateur and academic
 - Most of the information in this course is based upon my experience reading field manuals and studying fully modeled flight simulators. I have a list of resources from which I based my knowledge which I can make available to you.
- You can and should ask questions
- Native english speaker.
- This is a small class, so we have time for questions.
- If you don't understand something you must ask for clarification
 - Not understanding = killing friendlies with assets or not being effective
- If you want anything in particular covered that is not on the syllabus, I am open to suggestions
- The course contents are as follows:
 - First: a brief introduction to close air support, definitions, what you should be able to do by the end of this course, special equipment, procedures for the execution of close air support requests.
 - Two: Practice with special equipment, map tools and CAS requests.
 - Third: A practical segment which you must complete before I will endorse you

as having taken this course. The practical is a scenario in which a “Tactical air control party” must stop a Russian mechanized wave attack on a friendly AI force of light infantry. If you don’t support them, they will die. You will use your new skills as a joint terminal attack controller, or JTAC, to accomplish this.

- Fourth: A debrief, in which I will cover any topics you are interested in, will take feedback from you and conclude the course.
- This course should run about 3 hours.

- This course will only cover the fundamentals of joint terminal attack control - it is outside the scope of our time frame to teach you everything. If you take anything away from this class hopefully it will be an understanding of what a type 1, type 2, type 3 CAS request are - how to do a 9 line and how to use special equipment of the JTAC. If you have that roughed out, the rest will come with practice or study and you'll be more proficient in this than the vast majority of the players here.
- One note: this course covers air control as it applies to the US armed forces, in particular the army. Some notes will be offered on Marine corps and NATO cooperation.

What is the JTAC? (10 mins)

1. This term gets thrown around a lot
2. It's the guy who controls and "calls in" attack aircraft, explain typical presence in missions nowadays
3. What is a JTAC in reality?
 - JTAC = Joint terminal attack controller
 - Extension of the historical army forward observer. But JTAC has a much more rigorous and in-depth training. JTACs are either army or air force personnel.
 - The JTAC MOS only became active in the US military in 2003.
 - They typically function in two formations:
 - **tactical air control parties:** The TACP is the principal Air Force liaison unit collocated with Army maneuver units from BN through corps. It consists of two JTACs, a forward observer and a air force liaison officer. The TACP has two primary missions: advise ground commanders on the capabilities and limitations of air operations, and provide the primary terminal attack control of CAS. TACPs coordinate air combat missions and deconflict the aircraft with Army fire support. TACPs are organized into expeditionary air support operations groups or squadrons that are aligned with their respective Army corps, division, or brigade HQ. TACPs may employ JTACs at the company/team level.
 - **terminal attack control teams** which are two man teams consisting of a JTAC and a JTAC apprentice.
 - The marine corps does not have JTAC in name, although their forward observers are certified as JTACs.
 - **The official definition of a JTAC is as follows:**
 - The JTAC is the forward Army ground commander's qualified (certified) Service member, who, from a forward position, directs the action of combat aircraft engaged in CAS and other air operations in the ground commander's operational area. JTACs provide the ground commander recommendations on the use of CAS and its integration with ground maneuver. The JTAC must:
 - Know the enemy situation and location of friendly units.
 - Know the supported commander's target priority, desired effects and timing of fires.
 - Know the commanders intent and applicable ROE.
 - Validate targets of opportunity.
 - Advise the commander on proper employment of air assets.

- Submit immediate requests for CAS.
- Control CAS with supported commander's approval.
- Deconflict aircraft and fires from CAS sorties.
- Provide initial BDA report.

4. The JTAC knows how to conceal himself, conduct observation, call in close air support safely and without error. It is difficult or impossible to do close air support properly without a proficient joint terminal attack controller.
5. Does anyone not understand what the JTAC is, or what he does?

Close Air Support (30 minutes)

- Close air support (CAS) is air action by fixed-wing and rotary-wing aircraft against hostile targets that are in close proximity to friendly forces, and requires detailed integration of each air mission with the fire and movement of those forces.
- The JTAC directs CAS.
- CAS is implemented in three phases [GO OVER NAMES FIRST, THEN READ DESCRIPTION].
 - Planning
 - Receipt of mission: Read the briefing.
 - Mission analysis
 - Understand higher's fire support plan: you may need to call in artillery to mark a target, you will need to deconflict your aircraft from other fire support assets
 - Understand air threats - ranging from heavy machine guns, to man portable surface to air missiles, to anti-aircraft artillery and fully developed SAM systems.
 - Understand the commander's intent, maneuver plan and the approximate location of friendly forces at all stages of the operation
 - Understand restrictions, taskings, and capabilities of CAS aircraft
 - High value targets
 - Rules of engagement
 - Command and signals
 - Course of action development/analysis
 - Develop a plan to employ CAS to achieve the commander's intent and the tactical realities.
 - Designate OPs for JTAC
 - Integrate triggers with maneuver. - i.e. restrictions on CAS dependant on the movement of friendly force
 - Movement plan for the TACP or TACT
 - Allocate fire support assets
 - Designate restricted air space etc
 - Aircraft/pilot abilities, limitations and operating abilities
 - Air threat posture analysis
 - Orders production
 - Commander approves plan for CAS.
 - Preparation
 - Movement

- Move to OPs
 - Execute maneuver plan.
 - Observation
 - Observe targets
 - Observe areas of interest
- Execution
 - Execution
 - Track friendly units
 - Observe triggers
 - Scan for air threats and enemy movements
 - Deconflict/coordination fires
 - <http://www.krauselabs.net/dump/deconfliction.png>
 - **Execute CAS requests on targets of opportunity**
 - Reality vs game: in reality you would be working with a tactical operations center, in game you have free reign to call in CAS without considering theatre-wide demands and developments
 - Determine type of control needed
 - Once the CAS is on station:
 - Aircraft check in
 - CAS briefing (9 line)
 - CAS attack
 - Depart initial point
 - Mark targets
 - Confirm target/marks
 - Weapon release request
 - Weapon cleared hot
 - Weapons release
 - Assessment
 - BDA/assessment
 - Further tasking
 - Re-attack
 - Return to initial point or battle position
 - Depart
- We are going to briefly go over all of this, because if any of these steps are missing from close air support deployment, problems can result.

- **CONDITIONS FOR EFFECTIVE CLOSE AIR SUPPORT**
 - EFFECTIVE TRAINING AND PROFICIENCY
 - Both pilots and JTAC need to have a basic ability to understand the nuances of close air support (as outlined above)
 - PLANNING AND INTEGRATION
 - If you don't plan what you are doing with moving friendly forces, you will kill them.
 - COMMAND AND CONTROL
 - Can you contact and control the aircraft?
 - AIR SUPERIORITY
 - CAS in an area contested by enemy aircraft is dangerous and ineffective.
 - TARGET MARKING
 - If you mark a target, and the pilot is able to contact the mark - fratricide is reduced and effect is increased
 - STREAMLINED AND FLEXIBLE PROCEDURES
 - In ARMA 2 terms, this refers to the freedom of the TACP/TACT to move away from the main body of the friendly forces and to conduct observation. IN addition, it involves that both the observer and the weapon operator are on the same page.
 - APPROPRIATE ORDNANCE
 - Some weapons won't do the job, some weapons may endanger friendly forces.
 - FAVORABLE ENVIRONMENTAL CONDITIONS
 - Don't do CAS on a mission with less than a 3000 meter visibility. In reality CAS never flies when there are sand storms or blizzards.
- We could spend hours on each one of the phases of CAS, so let's break down into an ultra minimal form so you guys understand the basics:
 - Planning: Read the mission briefing, copy and understand what aircraft will be available, what can shoot them down, the enemy threat and how you will use your aircraft to destroy that threat or otherwise achieve the commander's intent. Give aircraft initial orders: get airborne and come on station at IP ford. Determine where you will be during the mission, make sure you can observe friendly movement and enemy forces. Get confirmation from the commander.
 - Preparation: In game now, you will establish coms with your aircraft, get an ordnance check, confirm they are inbound, set up your radios and begin movement to an observation post. In more complex missions, this would also involve rehearsals and practice.
 - Execution: You will observe for targets and send CAS requests to the aircraft until the mission end state. You will ensure aircraft do not fly into artillery. You will use artillery to support the employment of aircraft, which usually means a white phosphorous fire mission to mark targets.

Questions? We just went over a lot of shit there.

CAS Briefing (30 minutes)

So you have gone out away from the company and set up at an OP. Suddenly you spot a contact or a request for CAS from another unit comes up on the net. You need to control attack aircraft onto the enemy.

3 types of CAS mission control are possible: type 1, type 2 and type 3.

Type 1:

"A laser guided GBU attack on trenchline of infantry, observed by the JTAC"

Type 1 control is used when the JTAC must visually acquire the attacking aircraft and the target for each attack. Analysis of attacking aircraft geometry is required to reduce the risk of the attack affecting friendly forces. Type 1 control is used when the visual acquisition of the attacking aircraft by the JTAC and the analysis of attacking aircraft geometry is the best means available to reduce risk of the attack affecting friendly forces. Language barriers when controlling coalition aircraft, lack of confidence in a particular platform, ability to operate in adverse weather, or aircrew capability are all examples where visual means of TAC may be the method of choice. Due to the use of visual cues to mitigate risk under Type 1 control, JTACs should not change the type of control to Type 2 or Type 3 after the CAS attack briefing has been given to CAS aircraft. Type 1 control procedures are as follows:

- JTAC must visually identify the target.
- JTAC will send a 9 line cas briefing to the aircraft.
- Attack aircraft will verify target location correlates with expected target area.
- Aircraft will read back Line 4, Line 6, and any restrictions provided by the JTAC.
- JTAC will provide a verbal description or talk-on to the mark and/or target and confirm aircraft correctly identifies the mark and/or target.
- Aircraft will provide an "IP INBOUND" call if requested.
- JTAC will mark/designate target (as practicable).
- Attack aircraft will provide "IN" call indicating entering terminal phase of air-to-ground attack prior to weapons release.
- Attack aircraft will visually acquire target or mark.
- JTAC will visually acquire the attacking aircraft.
- JTAC will analyze attacking aircraft geometry to reduce the risk of the attack affecting friendly forces.
- JTAC will provide a "CLEARED HOT" or "ABORT" based on the above procedures being met.

What is the anatomy of a CAS briefing?

<http://www.krauselabs.net/dump/9line.png>

1. **IP/BP**: initial point/battle position. IP for fixed wing aircraft, BP for rotary wing. This is where

the aircraft starts its attack run from. It should be lined up to the target along the heading.

2. **Heading:** In magnetic or mils. You measure this using your map tools, although in a rush you can just take a cardinal direction and convert it into magnetic. If “left” or “right” follows the heading, an offset direction is designated. The offset direction tells the aircrew on which side of the IP-to-target line they can maneuver for the attack. JTACs use an offset direction to ease fire support coordination, align the aircraft for the attack or egress, or keep aircrews away from known threats. The offset direction regulates the attack quadrant without assigning a specific attack heading. <http://www.krauselabs.net/dump/offsetdirection.png>

3. **Distance:** Distance from IP to target in meters.

4. **Elevation:** Self-explanatory.

5. **Target description:** Describe the target in a simple few words. examples: “a column of t-90 tanks on a road” “infantry in the open” “infantry in buildings” “BMP3 vehicles in the tree line” “a bunker”

6. **Target location:** the GRID of the target, 8 or 10 digit for precision strikes using dumb ordnance, 6 digit for most requests.

7. **Type mark:** How you are marking the target. Can be WP, laser (followed by the code number), talk-on, IR etc

8. **Location of friendlies:** distance in meters + cardinal direction from the front line trace of friendly troops. “north 1000 green smoke”

9. **Egress:** Where the aircraft goes after the attack is complete. Usually an IP or a BP, but can be a direction, “east.”

Remarks: This is an EXTREMELY important part of the CAS request. Here you are going to tell the aircraft remarks (special features of the CAS mission) and restrictions (conditions that it must observe in order to execute the mission). All restrictions must be read back from the aircraft during the readback phase of the briefing.

Common Remarks:

1. Desired type/number of ordnance and/or weapons effects. “Use times 2 AGM 65-d”
2. Threat, location, and type of suppression (if any). “ZSU-23 North 1000”
3. Hazards to aviation.
4. Weather.
5. Additional target information.
6. Other time considerations.
7. Friendly mark (if any). “Friendlies marked green smoke”

Common restrictions:

1. Final attack heading. “**Final attack heading X**” or “**Final attack heading x-x**” where x are degrees magnetic or cardinal directions. Final attack heading is a restriction often used for gun or rocket runs which limits the attack heading on the target. This is often done to deconflict fires from the aircraft with nearby friendly ground troops or to keep the aircraft at distance from a nearby air threat. When it is given as a range, it is a cone or sector of fire that is acceptable.

2. Geographical references “Make all

attacks parallel to the road.” “Make all attacks above northing 61” “Restrict all fires on the west side of hill 48”

3. Danger close - if the target is close enough to friendlies to endanger them. In reality the range is different per the weapon. In ARMA you might just want to use 600-800 meters.

4. TOT - time on target. This is how play “playtime” the aircraft has. Useful in type 3 requests or for especially dangerous missions, or used to deconflict with other fires or aircraft. Reported as “TOT 45-55” which means 45-55 of the current hour. i.e. if its 1240 right now, and a TOT of 45-55 is supplied, this means the aircraft should be attacking between 1245-1255.

5. Altitude “Stay above 3000 ASL”

No Nos

1. Saying “line x” before each line
2. Saying “break” after each line - the aircraft is already copying what you are saying and no one else is going to be on your net
3. Saying the description of each line before sending it - the point of a 9 line is to be speedy method of transmitting complex information, don’t slow it down.
4. Do not abbreviate numbers - 1900 is not “nineteen hundred” it is “one, niner, zero, zero”

Type 1 request:

<http://www.krauselabs.net/dump/type1.png>

Type 2:

“A precision strike on an unmarked t-80 that is not observed by the JTAC”

Type 2 control is used when the JTAC requires control of individual attacks and any or all of the conditions highlighted as follow exist:

- JTAC is unable to visually acquire the attacking aircraft at weapons release.
- JTAC is unable to visually acquire the target.
- The attacking aircraft is unable to acquire the mark/target prior to weapons release.
- Same procedure as type 1.

The following must be kept in mind:

- When employing unguided munitions using Type 2 control, consideration must be given to host aircraft navigation/weapons system accuracy. Inaccurate navigation/weapon systems can result in excessive miss distances.

- Weapon time of flight will be a factor relative to movement of enemy targets and friendly forces when employing standoff weapons. Detailed planning and preparation by both the joint terminal attack controller/forward air controller (air) and the aircrew are required to identify situations and locations conducive to standoff weapons attacks, and to address flight profile and deconfliction (aircraft/weaponry/terrain) considerations.

Type 2 request:

<http://www.krauselabs.net/dump/type2.png>

Type 3:

“An engagement on a column of tanks moving along a road out of sight of the JTAC”

Type 3 control is used when the JTAC requires the ability to provide clearance for multiple attacks within a single engagement subject to specific attack restrictions, and any or all of the conditions highlighted as follows exist:

- JTAC is unable to visually acquire the attacking aircraft at weapons release.
- JTAC is unable to visually acquire the target.
- The attacking aircraft is unable to acquire the mark/target prior to weapons release.
- Different procedure than type 1 or 2. Type 3 is an engagement of an area under restrictions, type 1 and 2 are attacks on individual point targets.
 - A “CLEARED TO ENGAGE” call is made by the JTAC preceding IP inbound.
 - A “COMMENCING ENGAGEMENT” call is made by the aircraft after the IP
 - A “ENGAGEMENT COMPLETE” call is made by the aircraft once it is off the target

Type 3 request:

<http://www.krauselabs.net/dump/type3.png>

Quiz (5 minutes)

Select random people:

1. When would you use a type 1 CAS request?

Answer: When you can see the target.

2. ... type 2

Answer: When you can't see the target and want to attack a point target.

3. ... type 3

Answer: When you can't see the target and want to define an engagement area

4. What is special about type 1 versus type 2 or 3?

Answer: In type 1 you MUST see the target

5. What are remarks?

Answer: Details of the CAS mission

6. What are restrictions?

Answer: Conditions that the aircraft MUST observe in order to execute the mission

7. To pilot: What is included in a readback?

Answer: Lines 4-6 and any restrictions

8. When can you change the type of control during a CAS mission?

Answer: You can't. Once a type of control is selected, do not change it.

9. What does a "left" or "right" after the heading magnetic indicate?

Answer: Offset direction

10. How do you speak each line of the 9 line?

Answer: Without breaks, line numbers or descriptors

11. What is a final attack heading and what is it used for?

Answer: Restricts a cone of fire to the aircraft, useful for guns and rockets

12. How does a type 3 engagement differ from type 2 and 1 in procedure?

Answer: Engagement terminology, on previous page.

13. What is the significance of the planning phase of CAS?

14. ... the preparation phase?

15. ... the execution phase?

16. What are some factors or conditions needed for effective CAS?

Practical Procedure (5-7 minutes)

- Type 2 and 3 would occur when you do not have eyes on the target but you want to hit it or another observer is requesting a CAS request through your net.
- Type 1 occurs when you spot an enemy target.
 - Spot the target.
 - Will you be able to predict its movement or will it remain stationary long enough for an aircraft that is already loitering to be effective against it, following a briefing? (3-5 minutes out)
 - Is it in a position which allows close air support? If it is right on top of friendlies, this is a no no.
 - Assess the terrain.
 - Assess enemy air threats.
 - For example: if a shilka is to the south, make note of this to include in the remarks. Furthermore, if the aircraft is ingressing east to west, you can set an offset direction of right to steer it clear of the shilka's effective max range.
 - Copy the grid/elevation of the target. This is most easily acquired by a SOFLAM or Vector 2 nite connected to a DAGR - but you also need to have map reading skills when equipment is unreliable or unavailable.
 - Designate an IP based off of terrain and air threat analysis. You will need to imagine the aircraft flying in, from his perspective. Make sure you do not make impossible angles, and give the aircraft ample altitude to deconflict with terrain features.
 - Use the map tools to determine a heading from the IP to the target, copy this down.
 - If you have marking equipment, get it ready, otherwise get artillery on a separate net to mark the target and conduct a fire mission.
 - Consider the ordnance and capabilities of the CAS aircraft against the target. A gun run against a Tunguska would be a suicide mission, while a stand off engagement using AGM-65 "maverick" might be a more logical choice.

- Call the aircraft:
 - “Slayer 1 this is deathstar 1, type 1 in effect, advise when ready for 9 line”
 - “Slayer 1 ready to copy”
 - Deathstar 1 supplies (9 line)
 - “Deathstar 1 Advise when ready to copy remarks”
 - “Slayer 1 Ready to copy remarks”
 - Deathstar 1 supplies (Remarks/restrictions)
 - Readback lines 4 and 6, and any restrictions “Slayer 1, 270 right, 1354 0421, engage west of the river only”
 - “Deathstar 1, readback correct, report IP inbound” (report when you are at the IP)
 - “Slayer 1, IP inbound” (I am at the IP)
 - “Deathstar 1, continue” (Authorized to proceed with the attack profile, but you may not release any ordnance yet. Used to acknowledge aircraft without providing clearance)
 - “Deathstar 1, mark is on the deck” (mark is now in effect)
 - “Slayer 1, contact the mark” (i see your mark)
 - “Deathstar 1, cleared hot” (you may release ordnance)
 - “Slayer 1, in from the east” (im attacking from the east)
 - “Slayer 1, off” (im egressing)
- BDA/Re-attack/Abort
 - “From hits, west 100” (re-attack the target west 100 meters)
 - “ABORT ABORT ABORT” (tells the aircraft to stop whatever its doing and return to IP, usually done when it is about to attack friendlies, is off target or is going to endanger itself)

Special Mark: Talk-On (5 minutes)

If you supply line 7 of a 9 line as “talk-on” then you explain what the pilot will see from the IP as he flies, guiding him onto the target by use of visual references. This is a very useful way to help the pilot attack the target if the terrain is complex or if marking is impossible. A talk-on can also be done by a remote observer, although the CAS mission is always controlled by the JTAC, as we see in the type 3 example:

[reference type 3 pic]

Quiz (5 minutes)

Select random people:

1. What information do we need before we call the aircraft for CAS?
2. What do we tell the pilot after he is at the IP?
3. What does “continue” mean?
4. When can an aircraft release ordnance?
5. When do you mark the target?
6. What is a scenario in which a talk-on would be useful?
7. How do you tell an aircraft to stop the attack?
8. How do you tell the aircraft to re-attack?

How to copy and execute CAS requests as a pilot (10 minutes)

- We have gone over the procedure from the JTAC's perspective. You all know what goes into preparation, planning and execution of CAS. Understanding this is key for pilots, which is why we have pilots in this class.
- Now we're gonna go briefly over the pilot's place in close air support.
- The first thing you're going to do when operating a CAS aircraft is to get airborne and proceed to the IP. Once you are in place at the IP you are "on station." Newly on station aircraft should check in with the JTAC.
- A check-in is conducted as follows:
 - Line 1: "[JTAC CS] this is [FLIGHT LEAD CS]."
 - Line 2: "[number] [type of aircraft]"
 - Line 3: "on station at [bullseye/grid] [altitude]"
 - Line 4: "[list weapons]"
 - Line 5: "[play time]"
 - "Available for tasking."
- Once a check-in is conducted, the aircraft loiters at the IP and awaits tasking.
- When it comes in, you should level off and write down the 9 line. Next you will be asked to advise when ready to copy remarks and restrictions. Copy these down. You will be asked to read back.
- A readback is lines 4-6 and any restrictions, as we have gone over already.
- Once you have all the mission data, you should reference your map. You should shift click on the target, which will create a personal waypoint (a green carrot on the top of your screen). This will allow you to have some situational awareness on where the target is, as well as zero in on it after the IP.
- Now fly to the IP. When at the IP, report IP inbound.
- You will be told to continue or abort.
- If you are to continue, align the nose of your aircraft on the attack heading.
- If there is a final attack heading you will need to fly the initial heading, followed by a turn point onto the final attack heading.
- You will be able to visually see the target using your eyes. It will be a faint green carrot on the ground. I do not consider this gamey, because in reality the aircraft has avionics which will visually show you EXACTLY where the target is.
- At this point, the JTAC will mark the target, if type 1 or clear you to engage if type 3. If you see the mark, you will respond with "contact the mark", if you cannot, you will respond with "Negative mark" or "No joy the mark"
- If you contact the mark, you will be cleared hot. NOW and ONLY NOW may you release weapons and ONLY on the target. The only circumstance in which you would be allowed to release weapons prior to this would be for self-defense reasons. You may also not attack targets of opportunity unless they pose a direct threat to you - you do not have the situational awareness and overall targeting skills of the JTAC from the air.

- In a type 3 CAS run you will be cleared to engage rather than cleared hot. You may basically attack at your own discretion now, as long as you follow the restrictions in the remarks section.
- You will make ONE pass (type 3 excluded) after reporting “in from the [cardinal direction where your attacking from]”, even if you miss the target. You will then egress to whatever direction is stipulated in line 9.
- When egressing you will report “off” and “X away” where X is the amount of bombs or missiles. In a type 3 request, you will report “attack complete.”
- If the JTAC deems a re-attack is necessary, he will call for it by saying like something “from hits, west 500” - at this point you can return to the IP and follow the exact same attack profile unless stipulated otherwise.
- The mission ends with you returning to the IP.

PROPER RADIO BREVITY AND TERMINOLOGY

A lot of using aircraft properly is radio brevity. Why? It isn't so you sound cool. It isn't so you feel like you have a big dick. We need to make that clear right now. Instead, its because air combat is so fast paced that you must convey complicated information in a clear, quick and concise manner. Whenever anyone thinks you are milsiming or nerding out challenge them to convey the same information using their regular language. They will fail.

Now that we have that out of the way, let's talk about some terminology.

<http://www.krauselabs.net/dump/brevity1.png>

<http://www.krauselabs.net/dump/brevity2.png>

What everything looks like together:

<http://www.krauselabs.net/dump/casattack.png>

Any questions? I know that was very brief. Ultimately it will fall to individual skills when it comes to piloting. The thing to take away from this is to understand the theoretical process of close air support, so you can better understand the JTAC, and better attack the enemy.

Crash Course on Ordnance (7 minutes)

Practice @ co_13_close_air_support_Training (25 minutes)

- Go over special gear
- Run dry runs
- Any final questions/guidance

Practical @ co_13_close_air_support (45-60 minutes)

Grading Criteria:

1. Know the enemy situation and location of friendly units.
2. Know the supported commander's target priority, desired effects and timing of fires.
3. Know the commanders intent and applicable ROE.
4. Validate targets of opportunity.
5. Advise the commander on proper employment of air assets.
6. Submit immediate requests for CAS.
7. Control CAS with supported commander's approval.
8. Deconflict aircraft and fires from CAS sorties.
9. Provide initial BDA report.

What you did right:

What you did wrong:

Points for improvement:

Debrief

- Go around to each person, real quickly, what I could improve upon, what was done well, what are your overall thoughts
- Anyone interested in helping me run future courses?