

494th Training Instructions

494th Virtual Fighter Squadron

Instructions

132nd Virtual Wing



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494th Training Instructions

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Contents

[Introduction 4](#_Toc49193427)

[Abbreviations 4](#_Toc49193428)

[Definitions 4](#_Toc49193429)

[1. Requirements to start training in the 494th 6](#_Toc49193430)

[1.1. New trainees 6](#_Toc49193431)

[1.2. Conversion to Type (CTT) pilots 6](#_Toc49193432)

[2. General regulations 6](#_Toc49193433)

[2.1. Self Qualification (SQ) 6](#_Toc49193434)

[2.2. IP Lessons 6](#_Toc49193435)

[2.3. Progress / pace through training program 7](#_Toc49193436)

[2.4. Standards 7](#_Toc49193437)

[2.5. Failure to follow standards or expected progress 8](#_Toc49193438)

[2.6. Qualification levels 8](#_Toc49193439)

[3. Grading 8](#_Toc49193440)

[4. Training programs 8](#_Toc49193441)

[4.1 Initial Qualification Training (IQT) 8](#_Toc49193442)

[4.2. Mission Qualification Training (MQT) 9](#_Toc49193445)

[4.3. Continuation Training 9](#_Toc49193446)

[4.4. Upgrades 9](#_Toc49193447)

[4.4.1. 2Ship Flight Lead Upgrade (2FLUG) 9](#_Toc49193448)

[4.4.2. 4ship Flight Lead Upgrade (4FLUG) 10](#_Toc49193449)

[4.4.5. Mission Commander 10](#_Toc49193450)

[4.4.6. Instructor Pilot 10](#_Toc49193451)

# Introduction

Scope: This document provides all necessary information for new pilots to the 494th VFS. The document outlines the process which new pilots to the squadron will follow in order to undertake the required training to become a ‘mission qualified’ pilot. The document outlines the standards required both during and after the training process and whilst it aims to be definitive in doing so, suitable discretion may be applied in interpreting this document according to individual circumstances.

Content: This document contains information about the requirements to join the 494th, details regarding the training program and expectations of standards while remaining a part of the squadron.

Pilot responsibility: Read these instructions closely. If you do not want to be a part of the squadron on these terms, please let any of the IP’s know. By starting training, you accept these instructions and are part of the squadron on these terms.

Deviations: 132nd Command Staff and the 494th Squadron Commander may approve deviations from this regulation, provided that the integrity of the training program is not compromised.

Recommended changes: Improvements and recommended changes to the training program (TRP) should be addressed to 494th Instructor Pilots or the Squadron Commander.

# Abbreviations

**ACT:** Air Combat Tactics

**COMAO:** Composite Air Operations

**CT:** Continuation Training

**FLUG:** Flight Lead Upgrade

**IP:** Instructor Pilot

**IQT:** Initial Qualification Training

**MC:** Mission Commander

**MQT:** Mission Qualification Training

**P:** Pilot

**SAT:** Surface Attack Tactics

**SP:** Student Pilot

**TR:** Trainee

**TRP:** Training Program

**UP:** Upgrade pilot

# Definitions

**ACT:** Air Combat Tactics. Air-to-Air<(A-A) combat and tactics as part of a flight

**COMAO:** Composite Air Operations is the term used when dissimilar types of aircraft interact in coordinated actions to achieve defined military objectives within a given time and geographical area. It normally involves between six and 30 aircraft. Also see package.

**Conversion course:** A conversion course for eligible 132nd Virtual Wing pilots.

**FLUG:** Flight Lead Upgrade. Either an upgrade, or part of an official upgrade,

**MC: Mission Commander**: A commander leading a COMAO with delegated execution authority to make on-scene decisions that exploit opportunities in complex rapidly changing or fluid situations.

**Opposed SAT:** A-G attacks with a A-A aspect.

**Package:** A group of two or more flights with the same overall mission and commanded by a Package Commander, also known as Mission Commander. (For example, a Strike flight supported by SEAD and Sweep flights.)

**SAT:** Surface Attack Tactics. Air-to-Ground (A-G) attacks and tactics as part of a flight.

**Student Pilot:** An MQT graduated pilot going through continuation training. Is used to show who the primary training audience is for in a lesson in the CT TRP.

**Trainee:** A new 494th pilot going through IQT and MQT.

# Requirements to start training in the 494th

## New trainees

In order to being a training programme with the 494th VFS, all trainees must:

* Be able to conduct Air-to-Air refuelling without issues:
  + Navigating to the tanker using TACAN.
  + Communicate with the tanker.
  + Rejoin on the tanker and maintain a formation.
  + Take a minimum of 8,000 lbs of fuel in a reasonable time.
* Dedicate appropriate time to conduct their training.
* Demonstrate a willingness to self-study for the appropriate lessons in the training program.
* Commit to regularly (but not always) prepare for and participate in weekly sessions held on Wednesdays and Sundays at 1800z.

## Conversion to Type (CTT) pilots

Only MQ pilots from the 388thth VFS will be accepted into the conversion course, provided that they meet the hours requirement to join another squadron.

It should be noted that if a converting pilot is not deemed to meet the standard required by the 494th, they may be asked to revisit certain other lessons from the 494th TRP until such a time that they are able to demonstrate the required competence in the F/A-18C.

# General regulations

## Self Qualification (SQ)

‘Self Qualification’ or SQ lessons are intended to be conducted without an Instructor Pilot. For Initial Qualification Training (IQT), all SQ lessons are to be conducted offline, not connected to the 132nd Virtual Wing Server, regardless of proficiency in another squadron. Once a student pilot achieves IQT status by completing the required lessons and check-rides, they may begin to conduct SQ lessons connected to the server in the multiplayer environment.

SQ lessons may be flown alone, or they can be flown with other pilots in the MQT phase. Items from SQ lessons will be assessed in future lessons with an Instructor Pilot.

Trainees joining the 494th must ensure that all required SQ lessons are completed before signing up for an IP mandatory flight. Failure to demonstrate the required level of knowledge when attending an IP mandatory flight may result in being asked to re-fly a SQ lesson or being removed from the training program.

## IP Lessons

All lessons listed as “IP” are mandatory to be flown with an IP. These lessons will teach you everything you need to know and operate safely on the 132nd MP server and give you the basics to continue training without an instructor.

Instructor time is one of the scarcest resources we have, and everyone attending IP lessons needs to be prepared and this will include an element of self-study and self-briefing. IP lessons will also be used to verify that the pilot has the correct knowledge from the self-qualification lessons.

**How to request IP lessons:**

Simply make sure you have self-qualified in the required training missions for the IP lesson you wish to fly and sign up to any training event. Having signed up, write in the event chatter that you are looking for an IP flight within the 494th. The event host will then assign you and an IP (if IPs are available) to a flight, and you will receive instructions and additional information from the IP in the flight chatter (available by clicking on your assigned flight’s tasking number in the event page, typically “TR” and a four digit number).

## Progress / pace through training program

The 132nd normally hosts a minimum of 8 multiplayer events per month. It is expected that any new pilot in the 494th is available for a minimum of 4 multiplayer training events in a month. In addition, it is also expected that any new 494th pilot is available to conduct several self-qualification and practice flights offline to gain the necessary skills needed to progress through the training program.

We understand that real life has priority and pilots might have unanticipated real-life obligations that prevent attendance in the training program. If the trainee understands that he is not able to achieve the expected rate of progress, he should immediately let the IPs of the squadron know and give a best assessment of his availability for the next months. IPs may be able to conduct events at times other than official 132nd training events to mitigate for the real-life incursion. In any case the 494th IPs will decide if the expected and experienced activity level is sufficient for continuing through the training based on demand for training places in the 494th and IP availability.

Failure to notify IPs of drop of activity may lead to removal from the squadron.

The activity level requirement is in place in order to ensure that the most appropriate use is made of the time which Instructor Pilots volunteer to the programme – by implementing a currency requirement during the training programme, the requirement to re-train already validated topics is minimised, subsequently reducing the dependency on Ips. The activity requirement is active from the start of the training until graduating as a 2-ship Flight Lead.

The expected time from starting training until graduating as a 2-ship flight lead: **3 months.** It is possible to graduate a lot sooner based on availability and initiative from pilots.

## Standards

The 494th expect pilots to adhere to the following:

1. All pilots are required to be CV qualified.
2. Pilots joining the squadron on or after the 1st August 2020 must own a legitimate copy of the DCS Super Carrier module.
3. All pilots should maintain proficiency in all disciplines of flying and fighting the F/A-18C, identifying and addressing their own areas of weakness routinely.
4. Flight leads should always submit a flight-plan on the event page on the 132nd website.
5. Flight leads will ensure that an MDC (Mission Data Card) is produced for the flight.
6. Pilots will demonstrate the initiative to conduct self-qualification training during the continuation training phase.
7. Pilots will demonstrate initiative to conduct training, particularly when no organised training is setup by the event host, or from 494th IPs.
8. All pilots starting training will, where possible, complete the training program including their 2-ship FLUG within the timeframe stated in section 2.3.
9. The goal for all 494th pilots is to become 4-ship FL and Mission Commander qualified.

## Failure to follow standards or expected progress

Pilots failing to demonstrate the standards or achieve the progress described in section 2.3 and 2.4 will be removed from the 494th and will subsequently not be permitted to fly the F/A-18C during events hosted by the 132nd. Prior to a decision for removal from the squadron a formal warning will be given by one of the squadron IPs or the Squadron Commander.

The decision to give a warning and decision to remove someone from the squadron will be coordinated and agreed upon by the squadron IPs by a majority voting. NOTE: receiving Q- is **not** regarded as a failure of the pilot to follow the progress needed in the training program. Only a U is regarded as a failure to meet the required standard, and the pilot will need to obtain at least a Q- before being able to proceed.

## Qualification levels

The 494th has 5 qualification levels for F/A-18C pilots:

* **Trainee (TR):** Pilot going through IQT and MQT
* **Mission Qualified (MQ):** Pilot graduated from MQT and cleared to fly as wingman on combat missions.
* **Flight Lead (FL):** Pilot graduated FLUG and cleared to fly 2-ship or 4-ship formation lead (depending on the FLUG flight flown) during combat missions.
* **Mission Commander (MC):** Pilot graduated MC upgrade and cleared to lead COMAO (packages)
* **Instructor Pilot (IP):** A pilot who has undertaken to train other pilots within the 494th under the direction of the Squadron Commander.

# Grading

For each lesson the IP will fill out an overall grade together with comments on how the lesson went and any areas requiring improvement.

The overall grades should be understood as follows:

* **BLANK:** Lesson not flown.
* **(U) Unqualified:** Unsatisfactory performance. The pilot is either dangerous or well below program standard and requires additional training. The IP will fill in the instructor feedback and provide details on what the pilot needs to work on.
* **(Q-) Qualified minus:** Fair performance. The pilot is either slightly below or just meets the program standard. The pilot can progress within the training program, but there are elements that the pilot needs to undertake further training on. The IP will fill in the instructor feedback and provide details on what the pilot needs to work on.
* **(Q) Qualified:** Good performance. The pilot is either comfortably meeting or exceeding the program standard.

# 4. Training programs

## 4.1 Initial Qualification Training (IQT)

Training to qualify pilots in basic aircraft flying duties without specific regard to 494th missions:

* The goal of IQT is aircraft familiarization, basic flight and systems training, enabling the trainee to operate the aircraft and its’ systems independently. IQT provides a basis for further solo training.
* This phase consists of several self-qualification lessons that need to be completed before the first flight with an IP. This phase minimizes the number of flights where an Instructor Pilot is required and aims to provide the pilot the skills needed to operate on the 132nd server in a safe way.
* Completing this phase of training means that an IQ pilot can sign up to and fly in online training events to practice their skills and fly SQ lessons as required.



## Mission Qualification Training (MQT)

Training required to achieve a basic level of competence as wingman in the 494th:

* The goal of MQT is to train skills that enable the pilot to support his squadron more effectively during operations, e.g. proper communications, lead/wing tactical maneuvering, weapons employment, joint operations and tactics. MQT provides the minimum skill needed to operate in a combat mission and gives the foundation to continue training in CT.
* This phase consists of a number IP mandatory flights, covering tactical formations and turns, within visual range combat and beyond visual range combat, in addition to the MQT checkout. In addition to the IP mandatory flight, there is one SAT lesson that is to be flown with another MQ pilot or IP, covering Surface Attack Tactics.

## Continuation Training

Additional training to improve capability while preparing for check-out as 2-ship Flight Lead:

* This phase is about undertaking additional training in tactics and weapon employment, while building flight hours to gain experience both in combat missions as a WM, and on training as a FL or WM. The aim of the continuation training is to build confidence and experience in the various missions in the 494th and progress through the training to become a qualified flight lead, 4ship flight lead and mission commander.
* Continuation training is separated into 4 parts. The first part is a self-qualification phase for weapons, avionics, sensors and items not covered during the IQT and MQT.
* The next parts are Air Combat Tactics (ACT) and Surface Attack Tactics (SAT). They can be flown in either order. The last part is Suppression of Enemy Air Defences (SEAD).
* Air Combat Tactics (ACT) contains 4 different lessons placing the student pilot in various A-A mission types: CAP, Sweep, Escort, QRA.
* Surface Attack Tactics (SAT) contains 4 different lessons placing the student pilot in various A-G mission types: CAS, AR, SCAR.
* Following the conclusion of all tactical and weapons employment training in this phase, pilots will be eligible to undertake their 2-ship Flight Lead Upgrade (FLUG) flight.

## Upgrades

Various checkouts flown with IPs to verify that a student pilot has the required knowledge to fill additional functions in the 494th.

### 2Ship Flight Lead Upgrade (2FLUG)

The 2-ship flight lead upgrade is flown as a single event:

* The mission is flown as a strike mission, encompassing a variety of threats and a randomly selected weapon to employ.
* The student pilot will act as flight lead for the mission and will be expected to plan the flight appropriately, produce supporting documentation, brief the Instructor Pilot (wingman) and lead the flight.
* The success criteria will be briefed by the Instructor Pilot before commencing the planning phase, but it should be noted that successfully completing the mission should not be considered the sole factor in determining the success of the FLUG.

Having successfully completed the 2-FLUG, 494th pilots will be eligible to lead flights with one wingman on combat operations with the 132nd Virtual Wing.

### 4.4.2. 4ship Flight Lead Upgrade (4FLUG)

The 4-ship flight lead upgrade is conducted over two separate events:

* **Event 1:** Opposed SAT with a 4 ship. A strike with potential threats of both A-A and A-G, where the student pilot as flight lead will plan and execute a strike which are protected by enemy air and /or SAMs.
* **Event 2:** DCA CAP with a 4ship. A Combat Air Patrol in a designated area using 4 ship tactics.

Once both events are completed and passed (can be taken in any order), the student pilot is qualified as a 4-ship flight lead in the 494th.

### 4.4.5. Mission Commander

The Mission Commander upgrade is the highest qualification a 494th pilot can have, and is conducted over two separate events:

* **Event 1:** An Air Interdiction strike package with minimum 3 flights (Strike, SEAD and Escort/Sweep) into enemy territory. The package will consist of different types of aircrafts.
* **Event 2:** A DCA CAP mission, where the CAP package is tasked to protect 2 different Fighter Areas of Responsibility (FAOR). The package consists of 3 DCA CAP flights supported by an AAR tanker.

Once both events are completed and passed (can be taken in any order), the student pilot is qualified as a Mission Commander in the 494th.

### 4.4.6. Instructor Pilot

The privilege to instructor others is potentially the highest accolade that a pilot within the 132nd Virtual Wing can be awarded, but alongside it comes great responsibility. Instructor Pilots should be experienced, capable pilots from within the 494th and will be selected in conjunction with Command Staff.

Those pilots who are selected as Instructor Pilots will be expected to abide by the terms of a separate document regarding the maintenance of their own standards and the way in which instruction will be delivered.