

Formation Flight Guidance

09 May 2019

I. The purpose of this document is to provide amplifying information on the conduct of formation flight. It is in no way a replacement for the FTI. Rather, it is meant to clarify conduct of flight procedures.

II. Preflight / Turn-up / Taxi

- a. In order to save time, IPs may send the students to the plane to preflight while they read the book. Ensure that you know where both aircraft are located on the line.
- b. Inform lineman that you are a formation if parked in close relation to each other.
- c. Preflight and turn-up will be done individually. Lead will conduct the flight check-in per briefing timeline. The IP may bring the twist grip full open and conduct take-off checks while the student copies ATIS.
- d. There is NO check-in on ground.
- e. Lead will call for taxi, explicitly stating wingman's side number, souls on board for both aircraft, and both aircraft spot numbers. This enables ground to file a single flight plan for the section with both aircraft on it.
- f. The switch to tower is automatic with no check-in.

III. Take-off / Operating Area / Maneuvers

- a. When cleared for takeoff, Lead aircraft makes distinct taxi movement to intended spot corner. Wing taxis to the aft adjacent corner.
- b. Waving thumbs AND searchlight is used as visual signal in hover.
- c. After take-off, proceed normal course rules to the Eastern Formation Area. At Point Fish, conduct an automatic switch to button 17, with a wingman check-in.
 - a. There is no additional requirement to check in to the operating area; the form check-in will suffice.
- d. While in the working area, Wing will initiate all maneuvers using brevity codes and the internal call-sign. Lead will roger the calls, again stating the internal call-sign and brevity code.
- e. Lead is responsible for keeping the formation in the operating area and clear from all traffic and obstacles.

IV. Pattern Work

- a. After completing all the maneuvers, Wing will call for pattern work using the brevity code "TL".
- b. Lead will turn towards Point Race track and accelerate to 100 KIAS. Lead will not descend to 700' MSL until South or East of the Blackwater River and clear of the Orange Route.
 - i. The Orange Route is directly below the form operating area and is flown at 500' AGL which equates to approximately 700' MSL.
- c. Prior to Point Race Track, Lead will conduct a positive switch to button 12 (Harold), with a check-in.
- d. At Point Race Track, Lead will call inbound using ONLY the external call-sign. When Lead makes the section's "splitting" call, then Lead will explicitly state both Lead and Wing's individual side numbers.

e. Wing will initiate High Speed Approaches using the brevity code “HS”. Lead will make the appropriate OLF call in the crosswind.

f. Landing Sequence for individual events (subject to IP discretion):

F4001: 3 x Normal Approach

F4002: 1 x Normal Approach, 3 x High Speed Approach

F4003: 1 x Normal Approach, 1 x High Speed Approach

F4101 1 x High Speed Approach

Note: When normal and high speed approaches are initially introduced, both IPs will be on the controls for the first iteration. For the second, the IP will fly in the lead aircraft. For the third, both students will be at the controls (IP/IP, IP/SNA, SNA/SNA).

V. Return to Base / Landing

a. Wing will initiate the OLF departure by making the call “RTB”. Lead will make the OLF departing call followed by a positive switch to base, with a check-in.

b. After calling inbound to base, Lead will conduct a positive switch to tower via ATIS. Do not check-in on tower.

c. On F4001, Lead will request the break when calling inbound at Point Juniper.

d. On all other events, students will brief either a normal approach to a spot or the home-field break. When returning to South Whiting, sections shall utilize a spot on the active duty runway. For example: when landing RWY 32, the section may land at spot 3 or 4, but not spot 1.

e. The section is considered dissolved when ground states that the flight plan has been closed out. No explicit call is required.

VI. F4101

a. The purple route forward and reverse are conducted on the F4101.

b. In the lead aircraft, the IP will be the PAC and the student will navigate. In the wing aircraft, the student will be the PAC and the IP will conduct the duties of a good copilot and combat cruise employment.

c. Brief the route all the way to and from the purple route:

i. At Point Fish, conduct a positive switch to button 15 (Orange Route) with a check-in.

ii. At Deaton Bridge, descend to 500’ AGL and make a traffic call on button 15.

iii. When clear of the Orange Route, make a traffic call and conduct a positive switch to button 16 (Purple Route) with a check-in.

iv. Approaching CP 1 of the purple route, descend to 200’ AGL. Wing will call for Combat Cruise using the brevity code “CC” and Lead will make the appropriate traffic call.

d. At the completion of the Purple Route forward, the section will conduct a lead change at 500’ AGL while following the pipe line slash just South of CP 10.

i. Wing will return to Cruise Formation using the brevity code “CF” and then call for the Lead Change “LD”.

ii. After the lead change, Wing will call for Combat Cruise and Lead will turn back to CP 10 of the Purple Route making the appropriate traffic call.

e. Upon completion of the Purple Reverse, the flight will climb to 700’ MSL, remain east and south of the Blackwater River enroute to Point Racetrack. Lead will conduct a positive switch to button 17, with a check-

- in. Wing will return to Cruise Formation. The flight will monitor button 17 enroute through the Form area. No transit or traffic call required.
- f. Approaching Point Race Track, Lead will conduct a positive switch to button 12, with a check-in. The remainder of the flight will be conducted in the same manner as F4001-4003.

VII. F4003 / F4101 Out and In

- a. F4003 and F4101 may be scheduled and flown in the same day.
- b. The section will depart South Whiting and conduct maneuvers in the Formation Area as per a normal F4003. At the completion of the maneuvers, Wing will call for PTR (proceed to route). Lead will navigate to the Purple Route CP 1, changing altitudes and switching to button 16 when briefed.
- c. At the completion of the Purple Route forward, the section will proceed to Floral (0J4) to conduct pattern work and hot refuel.
- d. After refueling, the section will depart Floral for the Purple Route reverse. Upon completion of the Purple Route Reverse, the section may proceed to Harold for pattern work or directly to Point Juniper for South Whiting course rules.
 - i. Note: the IPs may elect to do the F4101 pattern work at either Floral or Harold.
- e. Prepare a route of flight from the Purple Route CP 10 to Floral and from Floral back to CP 10 of the Purple Route. DO NOT EXPECT TO USE THE GPS TO GO DIRECT TO FLORAL.

VIII. Smart Pack Guidance

- a. Highlight the name of the person to whom the smart pack belongs.
- b. Ensure all pages are the same size and the edges are aligned. Use one staple in the upper left-hand corner.
- c. Include the appropriate landing sequence for the flight on the cover page.
- d. Remove all VHF/UHF NAV1 frequencies from the cover page that do not apply to the flight. For example: do not leave Purple Route Common on the F4001.
- e. Put a flight plan in the GPS section of the cover page that makes sense, don't just put IVORY.

IX. Briefing Guidance

- a. Brief all pen and ink changes per page as you do the inventory so people only have to flip through the smart pack once.
- b. Brief who is flying lead aircraft during major portions of flight such as Takeoff, course rules, Purple Route.
- c. Brief Fuel Requirements at Floral for out and in events.
- d. Check yourself over to make sure you are presenting in a professional manner. Ex. Zippers closed, clean flight suit, clean boots, etc.
- e. Ensure the briefing space is cleaned up and presentable. Do not leave old papers, white boards, staplers and pointers laying around on the tables and floor.
- f. Brief the audience and not the board. The items on the wall are briefing aids. Point to them when the audience attention needs to be drawn to them. The pointer comes down after. Continue talking to the audience with eye contact, tasking as necessary.
- g. Walkthrough. Be prepared to discuss the entire scheme of maneuver in detail to include maneuver descriptions and responsibilities of section lead, lead, and wing during for every portion of flight.