

vVF 161 FIGHTIN' STINGRAYS

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Table of Contents

CHAPTER 1 Responsibilities	3
1.1 Mission Commander.....	3
1.2 Flight Lead (Dash-1)	3
1.3 Section Lead (Dash-3).....	3
1.4 Wingman (Dash-2, Dash-4)	3
CHAPTER 2 Communications	4
2.1 Frequencies.	4
2.2 Brevity.	4
2.3 Authentication.....	4
2.4 Security.....	4
2.5 Squadron Common Frequency.....	4
2.6 Tomcat Specific Procedures.....	5
2.7 Procedures.....	5
2.8 IFF.....	6
2.9 Other SOP	6
CHAPTER 3 External Lights	7
3.1 Shore.	7
3.2 Carrier.....	7
3.3 Tactical Operations.....	7
3.4 Meteorological Conditions.	7
CHAPTER 4 Carrier Operations	8
4.1 Spawning.....	8
4.2 Fuel.....	8
4.3 Ready 5.	8
CHAPTER 5 Tactical operations	9
5.1 Taxi/takeoff.....	9
5.2 Ingress.	9
5.3 Fence in/Out.....	9
5.4 Battle Damage Check.	9
5.5 Landing.	9
5.6 AAR/Tanker.....	9
5.7 AWACS/GCI.....	9
5.8 Target Sorting.	9

CHAPTER 1 Responsibilities

1.1 MISSION COMMANDER

Each mission will have a Mission Commander assigned during the brief. This will typically be the flight which others are supporting, such as a strike. The mission commander is responsible for ensuring that each flight follows the Phasing plan, and ABORTs as needed.

1.2 FLIGHT LEAD (DASH-1). Responsible for navigation, communication, and coordination, as well as all decisions regarding the flight and mission. Lead can delegate tasks and responsibilities to wingmen as the situation dictates.

1.3 SECTION LEAD (DASH-3). Section lead will be responsible for the maneuvering, tactical employment, and safety of his section. He will also be considered second-in-command of the flight. Dash-3 must be able and willing to relieve Lead if necessary and lead the entire flight through the assigned mission.

1.4 WINGMAN (DASH-2, DASH-4). Wingmen are responsible for the safe and effective employment of their aircraft, weapons, and equipment at all times, to achieve the goals set forth by their Leads.

Additionally, Wingmen shall act as additional sensors and lookouts to provide Lead with any information he may need for tactical decision making.

CHAPTER 2 Communications

2.1 FREQUENCIES. Frequencies for a mission will be allocated by Mission Planning Staff (MPS), Mission Commander (MC), or Flight Lead (FL) as required by the mission.

If not flying a formal squadron event, squad members should use the standard frequencies to maintain familiarity.

2.2 BREVITY. Standard brevity is always used on missions and should not be altered. Brevity words are not considered secure. (See Multiservice Tactical Brevity Codes for more details.)

2.3 AUTHENTICATION. Authentication procedures are used to verify the sender's transmission over unsecured comms. For Stingrays usage, authentication standard is by sequential response. For example, "Sting 1-1, authenticate A B." The correct response is "Sting 1-1 authenticates C." As a training and realism tool, authentication should be used during training and whenever necessary.

Note: Never confirm a valid authentication. For example, do not say, "Sting 1-1, good authentication..."

2.4 SECURITY. Communication security is necessary to prevent opposing forces from obtaining vital mission information. Members should encrypt communications to the maximum extent possible, situation dependent.

The Stingrays utilize four primary methods of security: Encryption, Codewords, RAMROD, and Comm Matrices.

2.4.1 Encryption. Stingrays will encrypt comms to the maximum extent practicable during squadron events as well as external multiplayer events.

2.4.2 Codewords. Codewords are a means of preventing tactical information from being exploited over clear (unencrypted) frequencies. While codewords are sometimes used over secure comms for brevity, they must always be used over clear frequencies.

Codewords are generally assigned for a particular mission (or theater) and differ from standard brevity terms. For example, an SA-6 may be code-worded TRACTOR, and you should refer to it as TRACTOR during that particular mission.

2.4.3 RAMROD. RAMROD should be unique to every mission and distributed in the mission briefing to all players in the theatre. RAMROD is used over unsecured frequencies whenever applicable. Like codewords, RAMROD is not required on secure frequencies.

RAMROD should be considered a tertiary backup method of encrypting numbers. Secure channel communication are much preferred and less subject to errors.[SS1]

Note: Mission coordinate format (e.g., DMS, DM, MGRS, etc.) should be decided at mission planning and included in the briefing so all players will decode the coordinates properly.

2.5 SQUADRON COMMON FREQUENCY. The Squadron Common Frequency (SCF) shall be unencrypted and monitored at all times by at least one member of each flight. The remaining open flight radios shall be tuned at the Flight Lead's discretion as the mission dictates.

The SCF (inter-flight) shall be an unencrypted frequency.

2.6 TOMCAT SPECIFIC PROCEDURES

2.6.1 Radios

The F-14B is equipped with two radios, one UHF and one VHF/UHF. Each radio is controlled from the left console. UHF(1) is controlled by the pilot, VHF/UHF(2) is controlled by the RIO. Tomcat pilots and RIOs will often have to monitor different frequencies to ensure that all needed channels are covered. This comms plan will be specified either by FL or MPS.

In other instances, such as refueling, it is often necessary to use radio 2 to speak to a particular controlling agency while also monitoring SCF. Therefore, the entire flight will temporarily tune radio 2 to the tanker's frequency and use it for intra-flight communications.

2.6.2 Encryption. The Tomcat can only encrypt one radio, usually the intra-flight frequency. This means that SCF will be unencrypted, thus the use of codewords, RAMROD, and other obscurement will be necessary.

When flights need to have a discussion that cannot effectively take place over an unsecured channel, they will arrange a temporary frequency to use (typically one of their flight frequencies) and encrypt it instead.

2.6.3 Datalink. Tomcat flight crews will use the Datalink source with the highest available Situational Awareness (SA).

2.7 PROCEDURES. In order to facilitate a realistic comms environment, specific procedures shall be used during multiplayer flights.

Note that not all radio calls require a response. This is largely subjective. In general, Directive calls require a response, while simple Informative calls do not.

2.7.1 Intra-flight Check-in

On initial startup of the jet after step, members shall prioritize radio functionality and check-in on each radio to establish positive comms. For example:

“999 radio check, 2-6-4 in the red” and “996 MIDS check, Channel 1.”

Only Flight Leads will respond to initial check-in calls.

It is important to state which radio/frequency is being transmitted on. When checking in on an unsecured radio, members will add “...in the Red.” Encrypted comms use “...in the Green.”

The responses should be in flight order and with no delay. If one flight member does not respond, the following flight members should pause for two seconds and then continue with their own check-in.

NOTE

Not all calls require a response. In general, directive calls to action require a response, while simple informative calls do not. Brevity and quick responses reduce radio clutter and saturation of frequencies.

2.8 IFF.

2.8.1 **Mode-I.** Squadron members shall set their IFF Modes and codes in accordance with the following table:

Table 1: M1 Mission Codes

A2A		A2G		OTHER	
CAP	10	SEAD	20	FERRY	30
Escort	11	CAS	21	AFAC	31
Intercept	12	AAS	22	Recce	32
		BAI	23	Refuel	33

2.8.2 Modes II & III.

MODE II — 1 + <Board number>

MODE III — 1 + <Board number>; or SQUAWK code given by ATC.

MODE IV — Encrypted data that does actual IFF. Set by ground crew.

2.9 OTHER SOP

When operating around the boat (“Mother”), members will identify themselves by their board number only. In all other situations external to the boat, members will identify by their assigned flight callsign.

Boat recovery is a mostly silent operation, “zip-lip.” Flight leads may coordinate with each other before entering the marshal stack and for commence time for the flight. This does not apply during Case III operations, and each flight crew will make individual comm calls in accordance with Case III procedures.

Due to DCS AI limitations, FL may direct each member to check in individually in cases such as boat recovery or tanking. It is important to understand that when operating as a flight, that flight is considered one entity to external players (ATC, C2, etc) and FL will self-announce position and intentions for the flight as a whole, unless directed otherwise (Tanking, ATC inbound, etc).

However, in situations such as Case I recovery at the boat after KISS OFF, members will automatically transition to being an individual aircraft with the associated comms (<Board number>, “Call the Ball,” etc.). Be aware of when you are operating as a flight or individually as to how or if you should communicate externally.

At least one of the two radios will be set to GUARD RECEIVE at all times. At least one radio per flight will be tuned to the unencrypted Squadron Common Frequency (SCF) frequency. Members may determine which radio is used for which task.

During tactical operations, each member will call their shots over the Big Voice frequency with the intended target and other pertinent info to maximize situational awareness.

CHAPTER 3 External Lights

External lighting will be used IAW USN procedures. To ensure good SA of those procedures:

3.1 SHORE. Position and Formation Lights are used during periods of darkness. They will be on 30 minutes prior to sunset until 30 minutes after sunrise. Strobe Lights are used from engine start to engine shutdown. The Taxi Light is used when taxiing and for takeoff.

Table 3: Shore Operations

	Day	Night
Position	OFF	ON
Formation	OFF	ON
Strobe	ON while engine running	ON while engine running
Taxi	ON when Taxiing, Takeoff, and Landing	ON when Taxiing, Takeoff, and Landing

3.2 CARRIER. Position, Formation, and Strobe Lights are off until they are turned on to signal ready for launch when on the catapult. Taxi Lights are not used on the Carrier.

Table 4: Carrier Operations

	Day	Night
Position	OFF	ON when Ready to Launch
Formation	OFF	ON when Ready to Launch
Strobe	OFF	ON when Ready to Launch
Taxi	OFF	OFF

NOTE:

Turning on your lights at night while on the flight deck communicates that an aircraft has lost brakes and the ground crew should react accordingly.

3.3 TACTICAL OPERATIONS. The Lights Master switch should be used to secure all lights when Fencing In. The lights are re-engaged when Fencing Out.

3.4 METEOROLOGICAL CONDITIONS. During night, or when in clouds, Strobe Lights may be turned off to avoid disorientation.

CHAPTER 4 Carrier Operations

4.1 SPAWNING. Spawning more than 12 aircraft on deck in DCS will often cause server issues, to include airplanes colliding on deck. To prevent this, The Stingrays will spawn no more than 3 flights at one time. Further flights will wait until another flight has taxied forward to spawn in. Spawn order will be included in the mission plan.

4.2 FUEL. Minimum fuel at Case I commence should not be lower than 3500 lb, in order to allow for a ramp arrival of 2000 lb.

Minimum fuel at Case III commence should not be lower than 5000 lb.

4.3 READY 5. Aircraft will be preflighted and ready to launch within 5 minutes of the go command.

For Hornets, the standard loadout will be SR_AA_B.

For Tomcats, the standard loadout will be TC_SR_AA_B.

Aircraft will maintain cradle status on Cats 1 & 2, with the second flight element positioned behind the JBDs.

CHAPTER 5 Tactical operations

5.1 TAXI/TAKEOFF. Squadron standard takeoff will be 10-second intervals. Non-standard takeoff intervals shall be briefed accordingly.

5.2 INGRESS. Stingrays standard formation will be Combat Cruise unless briefed differently. Flight Lead will otherwise determine the formation when entering the Area of Operations (AO). Temporary Lead changes are encouraged to build experience for students and CRM considerations.

5.3 FENCE IN/OUT. Upon entering the working area and prior to the IP or Hold Point, the Flight Lead shall direct the flight to FENCE IN. FENCE IN shall be accomplished per the checklist.

Upon completion of the final BFM engagement, Lead will direct the flight to FENCE OUT upon leaving the AO. The “Fence out” call will include a “Weapons safe” call for verification of MASTER ARM switch setting to SAFE.

5.4 BATTLE DAMAGE CHECK. Lead will initiate a BDC en route to HOME PLATE after exiting the AO. Do not delay as issues can be dealt with without rushing, and support can be coordinated if required.

5.5 LANDING. For carrier landings, members will follow NATOPS doctrine. For shore landings the squadron will follow published arrival procedures and/or ATC instructions. An overhead break at Initial is otherwise authorized.

5.6 AAR/TANKER. Members will approach the tanker at least 1000’ below tanker altitude until Military Accepts Responsibility for Separation of Aircraft (MARSAs) conditions are met.

Members will initially take up the observation position. When transiting from observation to refueling positions. Aircrews will follow the “Down, Aft, Over, Up, Forward” technique.

Flight Members should normally refuel from lowest fuel state to highest. Flights will exit the Tanker’s airspace taking care to deconflict the tanker and other flights inbound or on station. See Tanker Training lesson for details.

5.7 AWACS/GCI. AWACS comms will be in accordance with section 2.8. Flight members will not request picture, unless otherwise instructed by the FL.

5.8 TARGET SORTING. In order to quickly prepare for engagement and to ensure that no two fighters engage the same bandit (unless intended) the following standard shall apply: when presented with targets separated by azimuth, sort left-to-right. When separated by range, sort near-to-far.



