STANT

70TH

TACTICAL FIGHTER SQUADRON

STANDARDS

6 FEB 1980

70TFS 6 FEB 1980

STANDARDS

Introduction

This guide provides a common reference for all aircrews flying with the 70TFS. It details procedural items which have become "70th Standards" and, as such, need not specifically be briefed on every mission.

The judicious use of "70th Standards" should permit more briefing time to be spent on tactics and techniques - two critical areas of tactical fighter operations.

Suggestions concerning this guide are solicited and should be brought to the attention of 70TFS/B Flt, extension 3370.

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STANDARDS

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STANDARDS

SECTION I

GROUND OPERATIONS - T/O

SECTION I

GROUND OPERATIONS - T/O

1. All flights will normally step one hour prior to T/O time. Flights of three or less will start engines 25 minutes prior to T/O time. Four-ship flights will start engines 30 minutes prior to T/O time.

2. Aux 6 will be checked for ATIS; Aux 16 and guard frequencies will always be monitored except taxi back during surges (see Surge ROEs).

3. Normal start, taxi, takeoff channelization sequence will be as follows:

7, (1), 2, 7, 2, 3 and 4.

AGENCY	PRESET	MANUAL	CODE NAME
347th Command Post (RAYMOND 17/RAMROD)	CH 1	381.3	RAYMOND
Ground Control	CH 2	275.8	DIRT
Moody Tower	CH 3	289.6	DONNA
VAD Dept Control	CH 4	306.3	GOOD BYE
Casino Ops	CH 7	379.5	BOBBY

4. Check-ins will be on CH 7 at start engines time. Lead will then send the flight directly to ground control frequency. Flight leader will go to Command Post frequency to check for any changes before going to ground for engine start and placing the clearance on request. Once on internal power, aircrews will automatically return to CH 7. After flight has been checked-in, if no delays are requested, lead will send them back to ground control to request taxi.

5. Taxi will be on ground frequency into the arming area. Once departure clearance has been received, lead will send the flight to tower frequency and request clearance for takeoff.

6. Before taxiing out of the arming area, during day operations, lead will give the visual signal (Head Nod) to lower the canopies. During night operations, canopies will be lowered when the flight is sent to CH 3.

7. After runway lineup and T/O clearance is received, lead will send the flight to CH 4 and initiate a check-in.

NOTE: In bad weather, canopies will be lowered at leader's discretion.

SECTION II

Radio Procedures

SECTION II

RADIO PROCEDURES

1. No check-ins or check-outs unless requested by lead. Lead will ask for a check-in on CH 7 (BOBBY) and on CH 4 (GOOD BYE). All radio changes will be directed as follows:

REX . . . Channel 2 or
REX . . . DIRT

2. Do not use the term "GO" or "PUSH".

3. In the case of manual frequencies which are commonly used, lead can substitute the agency name: (e.g., REX 1; JAX).

4. During normal operations, wingman would expect to hear lead make a radio transmission on a new frequency within 30 seconds of the command to change frequencies. If this does not occur, the wingman should ask for a radio check. If there is no response, the wingman should attempt to determine the frequency lead is on by:

a. asking the last controlling agency to which frequency the flight was sent.
b. Aux 16
c. guard
d. joining up for hand signals

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SECTION III

DEPARTURES

SECTION III

DEPARTURES

1. TACTICAL SPLITS:

a. Two-ship: At 1,000 feet MSL and 300 KIAS, both aircraft split 30° away from runway heading, roll out and terminate afterburner. After 4-6 seconds, both aircraft return to runway heading. Initiate comm-out turns as required.

b. Three-ship: Lead will roll alone, followed in 10 seconds by 2 and 3 making a formation take-off and tactical split. Should formation take-offs not be feasible for 2 and 3, all aircraft will take 10 or 20 second spacing. This procedure is covered in paragraph 2.

c. Four-ship: Standard two-ship take-offs with 10 second spacing between elements. Lead element should make a slightly steep climb to allow the second element to remain below the jetwash.

2. TEN- SECOND SPACING BETWEEN AIRCRAFT:

a. Two-ship - Option 1: At 1,000 feet, 300 KIAS in afterburner, lead turns 90° from runway heading then immediately back to runway heading, terminating burner at 350 KIAS. Wingman continues straight ahead for tactical formation.

Option 2: Both aircraft maintain runway heading. At 2NM from end of runway, lead initiates an in-place turn in the desired direction.

b. Three-ship: All aircraft take 10 second spacing with 2 and 3 achieving tactical formation as per 2a above.

c. Four-ship: All aircraft take 10 second spacing with elements achieving tactical formation as per 2a above.

NOTE: Rejoins with 10 second spacing will be made with lead holding 350 KIAS and 30° of bank for turns. Straight ahead rejoins will be as per TACR 55-4 unless otherwise briefed.

3. IFR-20 SECOND RADAR TRAIL: The 70 TFS standard will be as per TACR 55-4. All flight members will call "TIED". "VISUAL" will be called when a visual on the preceeding aircraft can be maintained. Flights will not join until cleared by the leader.

4. DEPLOYING TO TACTICAL: Except for preplanned tactical splits, the flight lead will signal the wingman to go tactical with a radio call or by fishtailing the aircraft. Whenever possible, the wingman should deploy down-sun or looking in the direction of the threat.

5. CHANGE OF LEAD: Wingman will never automatically assume the lead of a flight (such as during a system check). The flight lead will always initiate a change of lead with a prebriefed signal or over the radio. The aircraft assuming the new lead will always acknowledge that he has the lead.

6. SYSTEMS CHECKS: Systems checks will be initiated by lead and will not be accomplished during departure until above 7,000 feet AGL (to maximize mid-air collision avoidance lookout).

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SECTION IV

TANKER RENDEZVOUS PROCEDURES

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TANKER RENDEZVOUS PROCEDURES

1. All aircrew members must be thoroughly prepared for any AAR mission prior to the briefing.

2. The rendezvous is the "Lead Gib's" job. It is also the responsibility of the wingmen to monitor the rendezvous and be prepared to run it themselves in the event that lead is "Bent Gadget", aborts, etc. The tanker must be advised that the fighters will run the rendezvous and that the tanker should not initiate his turn until directed by the fighters.

3. Lead will avoid maneuvering to the tanker at the onset of "Tally-Ho" unless it is necessary to expedite the mission. Rather, the pilot should monitor the "Gib's" intercept through classic FOX-2 parameters.

4. Standard T.O. -8 radio calls will be made to the tanker commander with regards to armament, offloads, range and bearing throughout the intercept.

5. A/A Tacan channels should be prebriefed. Channelization is in Flip.

6. Lead will ask for the tanker's mode and code upon initial contact.

7. Care should be exercised when receiving the tanker beacon. Request the tanker to "Go Stby" and back on again to assure positive ID.

8. Any member of the flight may call information on the tanker's position in the following order of precedence (e.g., "TACAN" call implies "Flash" or "Beacon" is no longer needed). Other flight members DO NOT REPEAT CALL already made.

   a. BEACON - Ex. -"2's 'BEACON' on the nose for 40 miles."
   b. APX-80 - Ex. -"3's got a 'Flash' 20° left for 30 miles."
   c. A/A TACAN - Ex. -"4's 'TACAN' - 38 miles."
   d/ CONTACT (radar) - Ex. -"Lead's got a contact 20° left for 26 miles."

9. If lead does not acknowledge a wingman's call, wingmen should continue to give advisories. Acknowledgement indicates lead has the Beacon, Flash, etc., and needs no further advisories in that mode.

10. If lead fails to obtain a contact prior to 30 NM Range, he will normally designate the aircraft with the most reliable information to direct the rendezvous.

11. All WSOs will be familiar with alternate means of effecting the rendezvous; e.g., relative TACAN Radial/DME positions, ADF, A/A TACAN, etc.

12. Flight leads should anticipate being cleared for 4 consecutive flight levels (3000' block: e.g., 190, 200, 210, 220) during AAR. If the clearance does not include the 4th level, flight lead should request it. However, the mission may be continued using 3 flight levels (2000' block).

13. Lead will acknowledge the boomer's radio check with his call sign and "loud and clear". Each succeeding flight member will acknowledge with call sign only. Example: "REX 1, loud and clear"...2, 3, 4.

AIR-TO-AIR TACAN RENDEZVOUS

1. Establish compatible TACAN channels with the tanker (63 digits apart). Flip lists channels to be used for most AAR tracks. Use AA X or Y channel between 1 and 126. Max A/A range is 200 NM.

NOTE: Channels 1-11, 58-74 and 121-126 ARE NOT USABLE.

2. After lock-on, the tanker will require a 10-second hold-down for ADF confirmation.

3. Range calls and relative position calls/check points are the same as for point parallel radar rendezvous.

REFUELING PROCEDURES

1. Wingmen will be cleared to the observation position when lead opens his IFR door or when cleared verbally.

2. Observation position will be no further aft than a line through the tanker's wingtips and stacked level with the top of the tanker's vertical stabilizer. Move forward to a position line abreast with the tanker's in-board engine when an aircraft is moving off the boom to your side.

3. Refueling order will be 1, 3, 2, 4, (UNLESS OTHERWISE BRIEFED).

4. Min comm procedures may be requested. The only thing you have to know is your offload.

5. Upon completion of air refueling, the flight will back off and down for rejoin.

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SECTION V

BASIC INTERCEPTS

SECTION V

BASIC INTERCEPTS

The following are possible setups and are not all inclusive. All turns are 45° of bank. During setups, maintain 350 KIAS. During attack, target maintains 350 KIAS and fighter maintains 400 KIAS.

TWO SHIP

180°

a. From route formation, turn away 90°. Go outbound for two minutes. One aircraft does a 180° right turn and the other does a 180° left turn. Maintain 2000' altitude separation until visual. Accomplish straight through or ID pass.

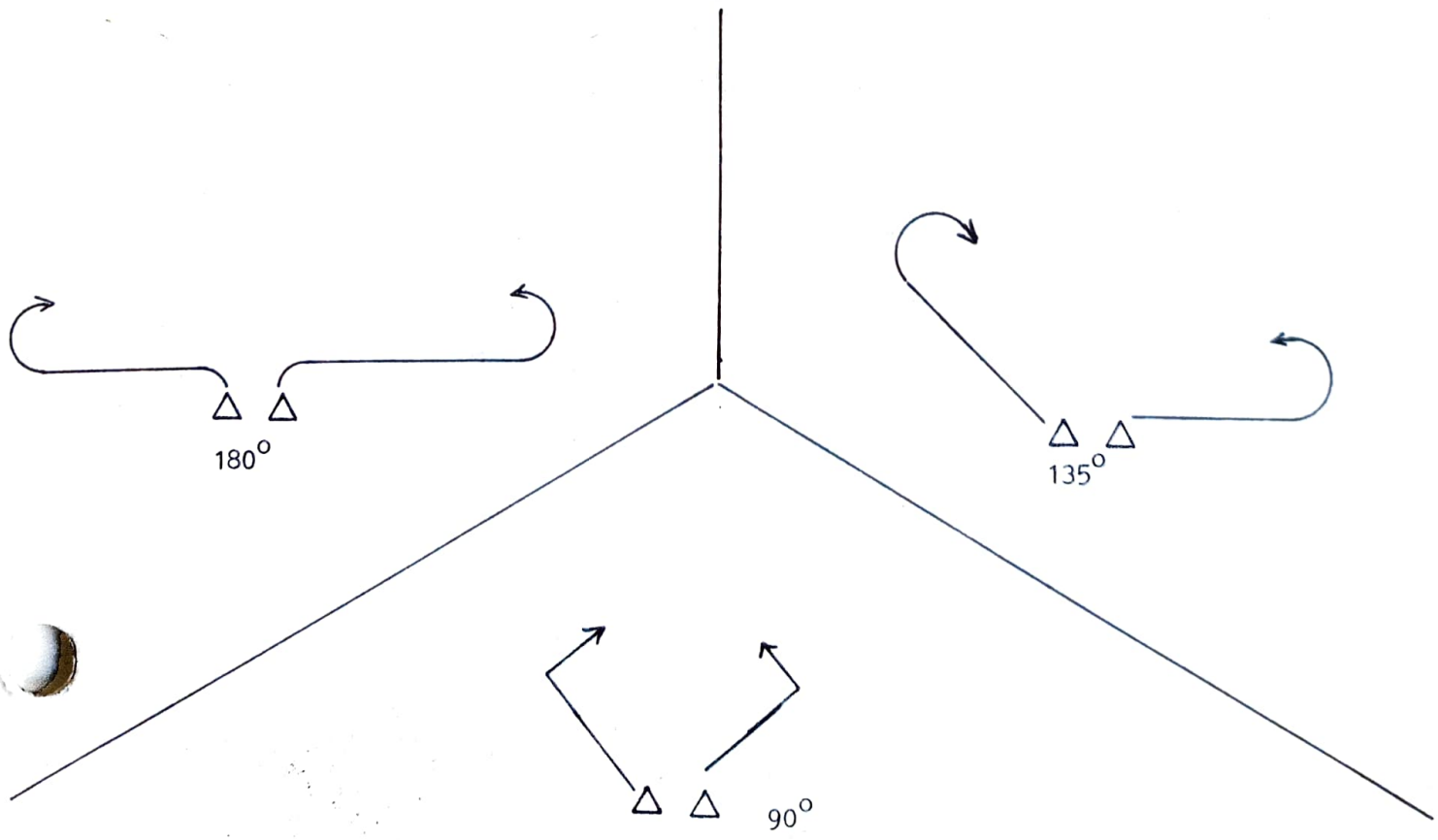
b. Each aircraft maneuvers to one end of the area; turn toward each other on radio call. Accomplish straight through or ID pass.

135°

From route formation, lead turns 45° away, #2 turns 90° away. Go outbound for 2 minutes. One aircraft turns left 180°; the other turns right 180°. Maintain 2000' altitude separation until visual. Accomplish straight through or ID.

90°

From route formation, both aircraft turn away 45°. Go outbound for 2 minutes. One aircraft turns right 90°; the other turns left 90°. Maintain 2000' altitude separation until visual. Accomplish straight through or ID.



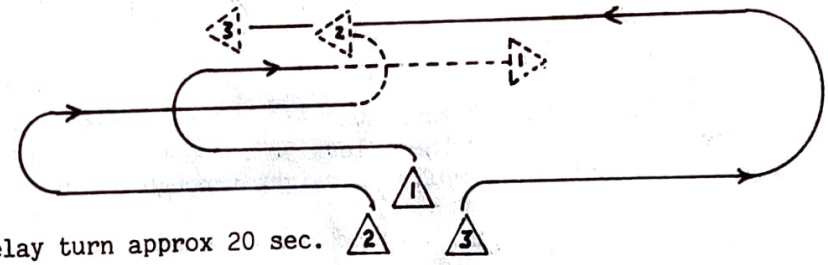
THREE SHIP

a. Three-ship intercepts will be accomplished with two aircraft attacking and one aircraft as a target.

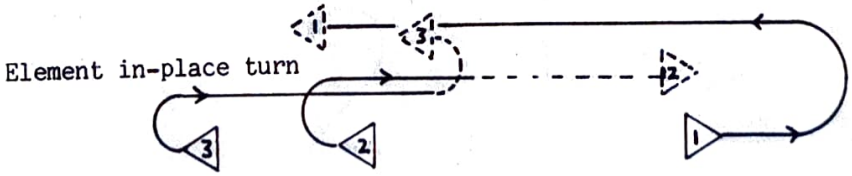
b. From fingertip/route formation at a known point (e.g., radial/DME), #1 and #2 turn 90° left or right. #3 turns 90° in the opposite direction. Proceed outbound for 2 minutes (or until flight lead directs), then complete a 180° turn leading back to the starting point with #2 going in trail by 3-4 miles. Each aircraft maintains a prebriefed hard altitude (2000' minimum spacing) throughout the mission, regardless of the role being played.

c. #1 accomplishes a straight-through, while #2 completes a stern conversion. Switch roles; #1 now becomes the target, while #2 and #3 are the attackers. Continue switching roles so each aircraft has an opportunity to be the target, accomplish a straight-through, and do a stern conversion.

d. All aircraft should be co-speed; target non-maneuvering. The last set-up can be run with both attackers doing a stern, thereby preparing for the rejoin.



INITIAL SET-UP/ ATTACK



SUBSEQUENT ATTACKS

FOUR SHIP

Split into two-ships and obtain two seperate areas.

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SECTION VI

RECOVERY

SECTION VI

RECOVERY

1. The primary means of recovery will be vectors to initial for tactical overheads. The options follow:

a. Two Ship - Line abreast #1 on the east side. Lead pitches first.

b. Three Ship - Point spread #2 on the east side. Pitch in order 1, 2, 3. If #3 is acting as element lead, his wing flash will be the signal of execution for #2 to pitch.

c. Four Ship - Battle box #1 and #3 on the east side. Pitch in order 1, 2,3, 4.

NOTE: Since #2 cannot fly west of the control tower, spacing on initial will be much closer than normal line-abreast--approximately 2000'. The wingman should plan accordingly and "collapse" the formation prior to initial.

2. The alternate recovery will be vectors for VFR straight-ins. The options follow:

a. 90^{o} turns to final

(1) Two Ship - Line abreast #1 closest to the field. In-place turn to final.

(2) Three Ship - Point spread #2 closest to the field. Element in-place turn to final at same place #2 turns.

(3) Four Ship - Battle box #1 and #3 closest to the field. In-place turn to final.

b. Straight-in Drags: Drag #4 at 15 NM, #3 at 12 NM, #2 at 9 NM, #1 at 6NM. To drag, go idle, speed brakes, configure the aircraft, and slow to approach speed. Follow lead's flight path.

IFR

1. The primary means of recovery will be single-ship precision approaches letting RAPCON accomplish the split up. Give RAPCON the order of recovery and which side the wingman is on.

2. The alternate recovery will be a TACAN approach accomplishing your own split up. If wet runway, you need six miles separation between aircraft instead of three.

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SECTION VII

LANDING

SECTION VII

LANDING

1. Max fuel for landing will normally be 6000 lbs.

2. If airspeed on landing rollout is 110 knots or more at the 4000' marker, and normal deceleration is not felt, lower the hook--then continue solving the problem (at 110 knots, it takes approximately 1000 feet to get the hook down).

3. De-arming is not necessary if no ordnance was carried initially (cold gun does not require dearming). During surges it may be necessary to pick up pins by going through de-arm (check surge ROE).

4. When leaving ground frequency, Aux 11 will be monitored.

5. Report aircraft status (Code 1, 2, or 3), sortie time, and mission effectiveness to Command Post (RAYMOND 17) on CH 1.

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SECTION VIII

COMBAT QUICK TURN PROCEDURES (CQTs)

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COMBAT QUICK TURN PROCEDURES (CQTs)

GENERAL: The CQT is a procedure used to load your aircraft with 20mm, bombs and gas within a specified time period (normally 45 minutes). As an aircrew, you play a vital role in insuring the success of this procedure by accomplishing your portion of the CQT correctly. Following is a step-by-step checklist to be used for CQTs after landing or CQTs originating from the chocks.

a. CQTs after a flight:

(1) Accomplish step 1 of Combat Turnaround Checklist on pp. 2-7 of local aircrew aid immediately after landing.

(2) Complete normal aircraft de-arm.

(3) While taxiing back, accomplish quick turn checklist, p. N-17 of Dash 1 checklist. (Since the right engine is not shut down, a right spoiler check cannot be accomplished.)

(4) Accomplish remaining items of combat turnaround checklist in aircrew aid.

(5) Proceed to the CQT area located between T-3 and T-4 at the north end of the field. (See diagram)

(6) Follow the marshalling of the turnaround supervisor! Expect to receive a cursory aircraft inspection prior to entering the actual CQT area.

(7) The critical 45-minute timing criteria begins after the roll-over tire inspection in the CQT area.

(8) Follow turnaround supervisor's voice instructions while the gun is being reloaded.

(9) After engine shutdown, remain in the cockpit. You will act as the brake rider while the aircraft is being backed into the simulated revetment.

(10) Remain in the vicinity of the aircraft while the aircraft is being loaded with bombs and gas.

(11) WSO - After a TER is completely loaded with bombs, begin the weapons preflight in accordance with the -34 checklist.

(12) PILOT - Begin preflight inspection of aircraft ASAP after refueling is complete.

(13) When both WSO and Pilot are satisfied with the preflight, the pilot will make a 781A entry indicating aircraft acceptance. After this is done, the CQT timing ends.

b. CQTs originating From the Aircraft Parking Area

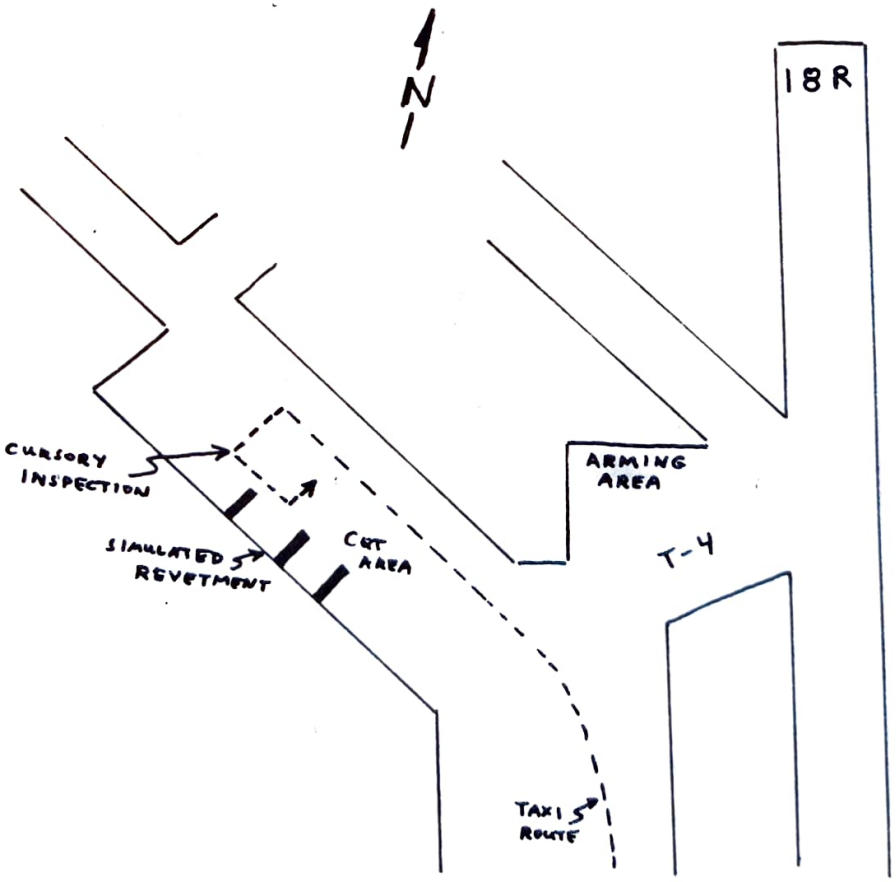
(1) The time posted on the scheduling board is your expected time of arrival at the quick-check area. Step one hour prior to this time to allow for start/taxi.

(2) Contact RAYMOND 17 prior to engine start; e.g., "Aircraft 423, cranking one for Combat Quick Turn."

(3) Contact ground for permission to start/taxi to CQT area.

(4) Start both engines and accomplish normal after start checks IAW the -1 checklist.

(5) Accomplish steps 3-13 on section "a" above.



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SECTION IX

SURGE ROE

SECTION IX

SURGE ROE

1. Maximize realistic training--Don't get into a rut.

2. Plan well in advance of your brief time--AM crews plan day prior.

3. Brief 2½ hours prior to takeoff time--Step early.

4. Brief max of 2 ranges plus 1 alternate mission--be prepared.

5. Minimize turn times--Don't wait for a "STEP" call. Keep up with your own aircraft--Don't depend on a call from the Baron.

6. Make your landing times--The range you save may be your own!

7. Bring your lunch or make other arrangements to eat properly--Nutrition is important.

8. Call aircraft status to CASINO OPS prior to landing. (Approximately 50 NM out). If CASINO doesn't reply, transmit "in the blind".

9. Follow-up by contacting CASINO when in the de-arm area and confirm status.

10. If Aux receiver works, taxi back on CH 7 while monitoring Aux 11 (ground).

11. De-arm even if no bombs were carried to bring pins back.

12. Know and do not exceed the capabilities of your flight.

13. Stay flexible!

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STANDARDS

SECTION X

DAY EMERGENCY PROCEDURES

SECTION X

DAY EMERGENCY PROCEDURES **

** NIGHT EMERGENCY PROCEDURES WILL BE SPECIFICALLY BRIEFED IN DETAIL BY THE FLIGHT LEAD.

1. EMERGENCY:

If separated, the flight will rejoin as soon as practical and all changes of lead and the appropriate recovery will be coordinated on the UHF. The distressed aircraft has the option to be led back or be chased.

2. NORDO: (No other problems)

If separated from the flight, proceed to the prebriefed rendezvous point. If unable to rejoin, use the NORDO IFF/SIF procedures found in the enroute supplement or aircrew aid. The NORDO aircraft will be led back to VFR straight-in (VMC) or GCA final (IMC). Landing gear will be confirmed down and locked by a "THUMBS UP" signal immediately after gear extension. When cleared to land and in VMC conditions, the lead aircraft will offer the NORDO aircraft the lead and perform a go around. Lead will make sure that the NORDO aircraft is aligned with the active runway.

3. NORDO AND EMERGENCY:

If in formation, the lead will be offered to the distressed aircraft to accomplish all checklist procedures. If separated from the flight and considerations for rejoining the flight outweigh an immediate RTB, proceed to the prebriefed rendezvous point and orbit. Otherwise, proceed directly to the appropriate landing base and the flight will rejoin enroute. Once joined, pass appropriate HEFOE signals including (if required) the signal desiring to land on the wing. The distressed aircraft will retain the lead after join up until he passes the lead to the chase aircraft. The flight will set up on a VFR straight-in (VMC) or GCA final (IMC). Maintain at least 250 Kts until aligned on final. If an engine or hydraulic HEFOE signal is indicated, a minimum of 230 Kts will be flown until the gear is down and locked and the "THUMBS UP" signal is received. (This ensures compliance with airspeed requirements for engine or PC failure and subsequent hydraulic failure upon lowering the gear). The lead aircraft will fly a 17 unit approach for the highest fuel aircraft and the appropriate configuration. When cleared to land and in VMC conditions, the lead aircraft will offer the emergency aircraft the lead. If the emergency aircraft shakes off the change of lead signal, the lead aircraft will lead the emergency aircraft to the flare and execute a go around. Lead will make sure the emergency aircraft is aligned with the active runway before offering the lead.