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Squadron Aviator  
Qualifications (ENCL 5), 26  
Nov 06

E-I



**DEPARTMENT OF THE NAVY**  
 STRIKE FIGHTER SQUADRON ONE THREE ONE  
 UNIT NUMBER 60145  
 FPO AE 09504-6229

Canc frp: Jan 07

VFA131NOTE 3740  
 TRAINING  
 26 Nov 06

STRIKE FIGHTER SQUADRON ONE THREE ONE NOTICE 3740

From: Commanding Officer, Strike Fighter Squadron 131

Subj: SQUADRON AVIATOR QUALIFICATIONS

- Purpose. To establish the squadron aeronautical organization and designate aviators qualified to perform aviation duties.
- Aeronautical Qualifications. Individual pilot qualifications are as follows:

PILOT	SFWT	STRK LD	DIV LD	SXN LD	NVG	JHMCS	FCF	NATOPS CHKR	INST CHKR	LSO
L4	X	X	X	X	H(I)	X	X		X	
L4	UI	X	X	X	H(I)	X	X		X	
L4	UI	X	X	X	H(I)	X	X	X	X	
L4(I)	X	X	X	X	H(I)	X(I)	X		X	
L4	UI	X	X	X	H(I)	X	X	X	X	
L4(I)	UI	X	X	X	H(I)	X			X	
L4(I)	X	X	X	X	H(I)	X	X		X	
L4		X	X	X	H(I)	X				S
L3				X	H	X				
L2				UI	H	UI				
L2				UI	H	UI		X		F
L2				UI	H	UI				
L2					H	X				UI
L2					H	UI				
L2					H	UI				
L1										

UI - Under Instruction  
 I - Instructor

S - Squadron  
 F - Field

- Cancellation. Upon receipt of a revised notice of the same subject. Revisions will be done quarterly.

Distribution:  
 Pilots NATOPS Jackets

E-I  
 ENCL (5)  
 Pg 1 of 1

Sorties/hours Currency Report  
(ENCL 14), 8 Dec 06

# Sorties/Hours Currency Report

12/9/2006 12:23:35 AM

Criteria: (TMS = F/A-18C And Personnel Status = ACTIVE)

Yr	TMS & Organization	Personnel Det	Event Det	Total Sorties Last (Days)							Total Hours Last (Days)								
				8	7	6	5	4	3	2	1	0	8	7	6	5	4	3	2
	F/A-18C PILOT	Det 00	Det 00	4	4	7	16	24	31	47	10.4	10.4	29.2	55.5	68.0	77.7	90.3		
	F/A-18C PILOT	Det 00	Det 00	4	5	9	22	31	40	57	9.2	10.7	25.9	74.4	92.0	105.	121.		
	F/A-18C PILOT	Det 00	Det 00	3	4	7	16	20	27	43	9.3	14.8	24.0	57.1	63.2	73.9	93.2		8
	F/A-18C PILOT	Det 00	Det 00	4	5	8	17	25	33	50	14.0	15.3	24.3	41.5	52.8	66.5	79.3		
	F/A-18C PILOT	Det 00	Det 00	5	6	12	17	17	17	17	16.0	22.3	40.6	52.9	52.9	52.9	52.9		
	F/A-18C PILOT	Det 00	Det 00	0	0	0	5	12	22	38	0.0	0.0	0.0	21.6	37.1	54.7	71.8		
	F/A-18C PILOT	Det 00	Det 00	0	0	4	9	9	9	9	0.0	0.0	5.4	12.0	12.0	12.0	12.0		
	F/A-18C PILOT	Det 00	Det 00	3	4	9	20	25	32	46	8.2	9.7	27.2	72.4	84.3	95.9	110.		4
	F/A-18C PILOT	Det 00	Det 00	3	3	6	17	23	30	46	15.0	15.0	29.3	68.5	82.6	94.5	109.		
	F/A-18C PILOT	Det 00	Det 00	3	3	7	16	23	31	49	8.9	8.9	18.0	54.1	64.1	76.9	95.5		3
	F/A-18C PILOT	Det 00	Det 00	3	3	7	15	21	29	40	9.2	9.2	19.4	48.7	57.2	69.8	80.6		
	F/A-18C PILOT	Det 00	Det 00	4	5	9	20	26	34	46	10.6	16.8	27.3	72.9	87.9	100.	113.		5
	F/A-18C PILOT	Det 00	Det 00	3	4	9	21	28	37	47	14.7	16.5	31.7	72.0	88.4	103.	114.		6
	F/A-18C PILOT	Det 00	Det 00	3	4	7	15	21	30	42	13.3	14.7	29.2	53.3	62.6	77.4	86.4		
	F/A-18C PILOT	Det 00	Det 00	6	7	10	22	31	40	51	9.4	14.8	24.3	66.7	84.4	98.2	111.		0
	F/A-18C PILOT	Det 00	Det 00	3	4	9	21	27	32	48	9.4	10.7	31.7	68.1	76.6	85.6	101.		
<b>Totals:</b>				61	61	120	288	368	476	678	187.9	188.0	387.8	911.7	1086.3	1246.8	1448.1		0

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ENCL [14]  
Pg 1 of 1

Qualification and Training  
Records (

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E-III

Subj: QUALIFICATION AND TRAINING RECORD OF

e. FCF	17 NOV 04	553.5 (enclosure (5), (6))
f. NVG High	05 MAY 03	959.1 (enclosure (7),)
g. NVG High(I)	25 MAY 05	436.4 (enclosure (5), (8))
h.	26 APR 05	455.8 (118.1 JHCMS Hrs) (enclosure (9))
i.	22 FEB 06	270.0 (enclosure (5), (10))
j. Strike Lead	16 JUN 06	175.9 (enclosure(11))

2. S-3 Qualifications (enclosure (12)):

- a. CVW-3 LSO Wing Qual: 18 MAY 01
- b. See enclosure (12) for additional S-3 qualifications

3. Total military/civilian flight hours: 2761.8/0 (enclosure (13))

4. Flight hours last 30/60/90 days (enclosures (13), (14), (15)):  
74.4/105.6/121.8

a. 10 Combat (OEF) sorties = 60.8 Combat hours last 30 days. No combat sorties outside of 30 days-90 days (enclosure (16)).

b. Waiver of maximum monthly flight time granted on 20 Nov 06.  
(enclosure (17))

5. CAS training sorties past 12 months (38 Total) (enclosure (18)):

a.	1
b. OCF	1
c. CAS dry/inert	15
d. Live CAS	4 (1x250 20mm)
e. OEF Combat CAS	10
f. OEF Combat drops	5 (1xGBU-38, 1xGBU-12, 486x20mm)

6. CAS lectures last 90 days:\*

- a. OCF CAS Brief provided by 15 NOV 06 (enclosure (19))
- b. FT Bragg CAS conference: 17 AUG 06 (enclosure 20))
- c. OEF CAS brief 15 NOV 06 (enclosure (19))

\* Based on flight schedules and my personal recollection.

7. Strafe training

- a. Night strafe lecture 28 AUG 06 (see enclosure (21)).\*
- b. Night strafe simulator 19 SEP 06 (enclosure (22))
- c. Live night strafe 14 SEP 06 (250x20mm) (enclosure (23))

\* Based on flight schedule and my personal recollection.

8. SPINS/ROE training

- a. SPINS and ROE Scroll training 29 and 30 OCT 06 (see enclosures (24) and (25))
- b. SPINS and ROE Scroll Training 05 NOV 06 (see enclosure (26))

\* Based on flight schedules and my personal recollection.

Qualification and Training  
Records ( )  
p.g. 1 – 2

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17 Dec 06

MEMORANDUM

From: Commanding Officer, Strike Fighter Squadron One THREE ONE  
To: President, Interim Combined Investigation Board

Subj: QUALIFICATION AND TRAINING RECORD OF  
USN

- Encl: (1) SFWT Level II designation ltr of 2 Aug 06  
(2) SHARP Database printout of flight hours since SFWT Lvl 2 Qual earned  
(3) NVG High Qualification ltr of 1 Oct 05  
(4) SHARP Database printout of Hours since NVG High Qual earned  
(5) Copy of Aviator's Flight Log Book dtd Dec 06  
(6) SHARP Database printout of Sorties/Hours Currency Report  
(7) SHARP Database printout of CAS training sorties and STRAFE training  
(8) SHARP Database printout of Flight Events  
(9) Flight Schedule of 15 Nov 06  
(10) Copy of Aviator's Flight Log Book dtd Jan 06  
(11) Copy of Aviator's Flight Log Book dtd Jun 06  
(12) Copy of Aviator's Flight Log Book dtd Sept 06  
(13) SHARP Database printout of Flight Log dtd 13 Sep 06  
(14) SHARP Database printout to depict STW 205 A/G STRAFE  
(15) Flight Schedule of 28 Aug 06  
(16) Flight Schedule of 29 Oct 06  
(17) Flight Schedule of 30 Oct 06  
(18) Flight Schedule of 5 Nov 06  
(19) F/A-18C Total Points Report

1. Pursuant to your request of 16 Dec 06 for training records, the following information has been compiled from multiple sources as noted. Copies of source information are either enclosures to this memorandum or maintained in the aviator's flight log book or in the SHARP database.

2. F/A-18 Qualifications (enclosures (1), (2), (3), and (4)):

<u>QUALIFICATION</u>	<u>DATE</u>	<u>HOURS SINCE QUAL EARNED AS OF 6 DEC 06</u>
a. SFWT LVL2	2 Aug 06	
b. NVG High	3 Nov 05	

3. Total military/civilian flight hours as of 6 Dec 06 (enclosure (5)): 660.7\* / 180\*\*

\*Enclosure (5) also includes flight hours since 6 Dec 06.  
\*\*Estimate provided based on personal recollection.

4. Flight hours last 30/60/90 days as of 6 Dec 06 (enclosure (6)):

E-IV

\*Enclosure (6) also includes flight hours since 6 Dec 06.

5. CAS training sorties past 12 months as of 6 Dec 06 (18 sorties) (enclosures (7) and (8)):

a. OCF	5
b. CAS dry/inert	3/3
c. Live CAS	5 (6xMK-82, 2xMK-83, 1x150 20mm)
d. OEF Combat CAS	7
e. OEF Combat drops	1xGBU-12

6. CAS lectures last 90 days (enclosure (9)):

a. OCF CAS Brief provided by	15 Nov 06
b. OEF CAS brief	15 Nov 06

\*Based on flight schedule and my personal recollection.

7. Strafe training (enclosures (7), (10), (11), (12), (13), (14), and (15)):

a. Live day strafe flight	30 Jan 06
b. Live day strafe flight	15 Jun 06
c. Night strafe lecture	28 Aug 06*
d. Live night strafe flight	12 Sept. 06
e. Night strafe simulator	13 Sept 06

\*Based on flight schedule and my personal recollection.

8. SPINS / ROE training (enclosures (16), (17) and (18)):

a. SPINS and ROE Scroll training	29 and 30 Oct 06
b. SPINS and ROE Scroll Training	05 Nov 06

\* Based on flight schedules and my personal recollection.

9. CVW-7 CVN Night Strafing Guide. CVW-7 Day / Night Bomb Box Strafing Guide. (see my memo to the ICIB of 10 Dec 06)

10. Briefed strafe Z-Diagram on 05 Dec 06 (see my memo to the ICIB of 10 Dec 06)

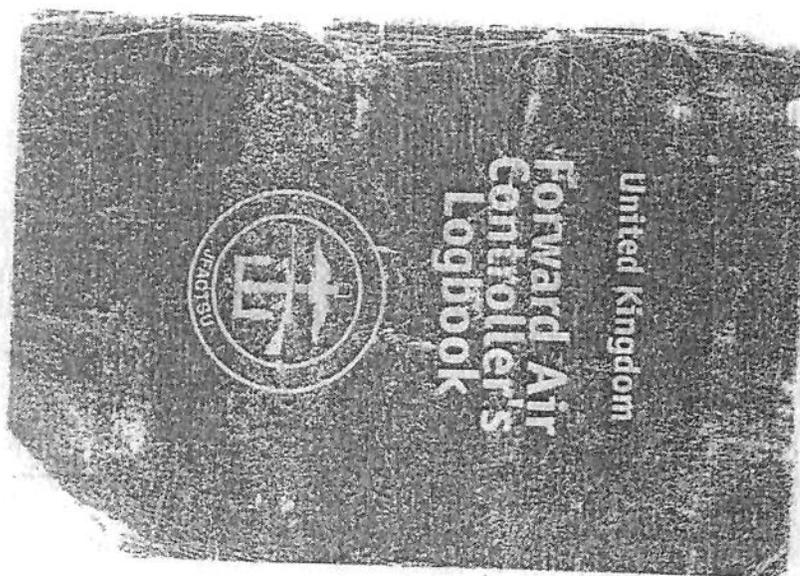
11. Individual training and readiness sheet (enclosure (19)).

# UK JTAC FAC Logbook

E-VII

Scan of Exhibit AC/1 – Photocopy of FAC Logbook relating to (12 Pages).

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COPY



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FORWARD AIR CONTROLLERS  
LOGBOOK



UNITED KINGDOM

LEAFIELD  
TRUE AND ACCURATE  
C/

INSTRUCTIONS FOR USE



**Initial Training and Qualifications** This log book is to be issued to the Forward Air Controller on successful completion of Initial Forward Air Controller training at JFACTSU.\*

Part 1 is to be completed by a FAC Instructor (FACI) appointed by HQ 1 Group RAF (normally OC JFACTSU).

**Additional Qualifications/Appointments**

Part 2 is to be completed by a FACI or Supervisory FAC (SupFAC) Instructor appointed by HQ 1 Group RAF on successful completion of the appropriate training course.

**Continuation Training/Operational Controls**

The FAC is to record all continuation training (please back link) and operational controls (see link) in Part 3. All entries for ICR FACs are to be covered, signed by a FACI or SupFAC. The currency requirement is laid down in NATO STANAG 3797.

**Annual Tests/Changes of Status**

Part 4 is to be completed by a JFACTSU Instructor or a SupFAC, authorised by the Command Headquarter to carry out annual tests and award changes of status. Status should be recorded as Combat Ready (CR), Limited Combat Ready (LCR) or Non-Combat Ready (NCR) and annotated Day, Low, High or Night as appropriate. They should also be suffixed to show whether ground (G) or Airborne (AB) qualified, e.g., LCR Day-L/ABG.

\*Initial qualification, checks and continue... training required to maintain CR. \*Criteria are laid down in STANAG 3797 and in DC's.

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**PART 1 DETAILS OF INITIAL TRAINING**

Service Number:	
Rank:	
Name:	
Qualified on FAC Course:	
Location of Course:	RAF BUCKENHAM
Course Dates:	11/11/03 - 15/11/03
Number of sorties flown: (as passenger)	1
Initial Qualification Awarded	Simulated Attacks 5

**NUMBER OF FAST JET ATTACKS SUCCESSFULLY CONTROLLED**

Successful Controls	Low Day	Med Day	Low Night	Med Night
A/C Type				
WALK	1	1		

Signature: \_\_\_\_\_ Apppt: OC JFACTSU Date: \_\_\_\_\_

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**PART 2 ADDITIONAL QUALIFICATIONS**

Qualification	Sig	Appt	Date	Sig	Appt	Date
LTMO						
Airborne FAC (When not initially qualified as such)						
Laser Safety Officer						
+ Laser Training Officer						
AWRSO						
SupFAC						
FACI						

**TRI-SERVICE QUALIFICATIONS**

	RN	ARMY	RAF
LTMO			
AbFAC			Q-J-LTMO
LSO			Q-J-AbFAC
LTO			
AWRSO			Q-J-LTO
SupFAC			Q-J-AWRSO
FACI			Q-J-SupFAC
			Q-J-FACI

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ACQUIRED  
THRU AND  
ADVANCE  
COPY

111

PART 3 RECORD OF TRAINING; AND OPERATIONAL CONTROLS

Date	Theatre	Aircraft Type	Type of track (Day/Night)	Wings used (or "Dry")	Number successful	Number unsuccessful	Ground (G) or airborne (AB)	Status of FAC	Signature: name/rank/appt date
11-22		Hammer	Day low	Dry	1				
11-22		F16 E	Day Med	Dry	1				
11-22		Harrier	Day Med	Dry	1				
11-22		F16	DAY MED	LIVE	25				
11-22		A10	DAY MED	LIVE	3				
11-22		A10	DAY MED	LIVE	3				
11-22		A10	NIGHT	LIVE	57				
11-22		A10	DAY MED	LIVE	22				
11-22		F16	DAY MED	LIVE	6				
11-22		F16	DAY MED	LIVE	6				
11-22		AH1	NIGHT	LIVE	5				
11-22		SOBRN	LIVE	LIVE	72				
Total controls to date					72				

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PART 3 RECORD OF TRAINING AND OPERATIONAL CONTROLS

Date	Theatre	Aircraft Type	Type of attack (Day/Night)	Wons used (or "Dry")	Number successful	Number unsuccessful	Ground (G) or airborne (AB)	Status of FAC	Signature; name/rank/app; date
25/10/05		Harrier	Missiles	Dry	3	0	G		
"		FIG (Sea)	Day Low	Dry	2	0	G		
"		FA2	Day Low	Dry	1	0	G		
26/10/05		GR7a	Day Low	Dry	1	0	G		
"		FIG (Sea)	Day Low	Dry	4	0	G		
27/10/05		FA2	Day Low	Dry	1	0	G		
31/10/05		Sea King	Day Low	Dry	6	0	G		
1/11/05		FA2	Day Low	Dry	2	0	G		
Total controls to date					14	0	G		

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LEAFLET

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PART 3 RECORD OF TRAINING AND OPERATIONAL CONTROLS

Date	Theatre	Aircraft Type	Type of attack (Day/Night)	Wps used (or "Dry")	Number successful	Number unsuccessful	Ground (G) or airborne (AB)	Status of FAC	Signature: name/rank/apppt; date
18/07/01		F16	Day Med	Dry	2	1	G	CR	
18/07/01		F16	Low	Proc bombs	3	1	G	CR	
23/07/01		F16	Med	Dry	1	1	G	CR	
28/07/01		F16	Med	Dry	1	1	G	CR	
28/07/01		F16	Med	Dry	2	1	G	CR	
28/07/01		F16	Low Day	Dry	12	1	G	CR	
28/07/01		F16	Night Low	Dry	4	1	G	CR	
29/07/01		F16	Night M	Dry	7	1	G	CR	

Total controls to date

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3-04

PART 3 RECORD OF TRAINING AND OPERATIONAL CONTROLS

Date	Theatre	Aircraft Type	Type of attack (Day/Night)	Wors used (or "Dry")	Number successful	Number unsuccessful	Ground (G) or airborne (AB)	Status of FAC	Signature name/rank/app: date
28/02/06		Hawker	Evening		4	0	G	CR	
"		Apache	"		2	0	G	CR	
02/02/06		F18	Day		1	0	G	CR	
04/02/06		B1	Day		4	1	G	CR	
10/02/06		F18	Day		2	0	G	CR	
13/02/06		A10	Night		2	0	G	CR	
19/02/06		Apache	Night		2	0	G	CR	
22/02/06		Apache	Night		2	0	G	CR	
Total controls to date									

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PART 3 RECORD OF TRAINING AND OPERATIONAL CONTROLS

Date	Theatre	Aircraft Type	Type of attack (Day/Night)	Wops used (or "Dry")	Number successful	Number unsuccessful	Ground (G) or airborne (AB)	Status of FAC	Signature/ name/rank/appt; date
21/1/06		Harrier	Day		2	0	G	CR	
1/10/06		Harrier	Day		2	0	G	CR	
30/4/06		Harrier	Day		2	0	G	CR	
09/12/06	OS	BS1	Day		2	0	G	CR	
11	11	GR7	Day		1	0	G	CR	
11	11	Agosta	Day		4	0	G	CR	
11	11	PLB	Day		3	1	G	CR	
11	11	AKD	Day		6	0	G	CR	
Total controls to date									

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III-VII

**PART 3 RECORD OF TRAINING AND OPERATIONAL CONTROLS**

Date	Theatre	Aircraft Type	Type of attack (Day/Night)	Wips used (or "Dry")	Number		Ground (G) or airborne (AB)	Status of FAC	Signature: name; rank; aptt; date
					successful	unsuccessful			
08/22/06		AUD	Day	1	4	0	G	CR	
08/24/06		Apache	Day	2	8	0	G	CR	
08/24/06		F-19	Night	1	1	0	G	CR	
Total controls to date									

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Flight Crew Info File (Special  
Interest Item 06-02: Combat  
Strafe), 19 Dec 06

E-VIII

## FLIGHT CREW INFORMATION FILE

FROM  
CFACC

TO  
ALL CENTAF FIGHTER/ATTACK ASSETS

DATE  
20061219

SUBJECT

FCIF 06-033 (Special Interest Item 06-02: Combat Strafe)

1. **OVERVIEW:** In the CENTCOM AOR, fighter aircraft have employed the gun in over \_\_\_\_\_ year, \_\_\_\_\_ events in \_\_\_\_\_. Aircrew have employed over \_\_\_\_\_ rounds of \_\_\_\_\_ and over \_\_\_\_\_ rounds of \_\_\_\_\_. The gun is a valuable weapon in support of ground operations against a variety of targets; however, the nature of gun employment in our AOR combat environment demands proper preparation, vigilance, awareness and precise employment to achieve the desired results.

2. **GENERAL GUIDANCE:** Strafe training is often accomplished on a controlled range, against a well-marked stationary target, at the end of the range time and in a lightweight training configured aircraft. In combat, pilots often employ the gun in a heavyweight, combat-loaded aircraft in dynamic scenarios and must immediately adjust to new challenges. Aircraft performance will not be as responsive as in a normal training scenario. Combat targets may not be well-defined or may be moving, making precise corrections difficult. To offset these challenges, the CFACC wants to ensure aircrew arrive in the AOR prepared for combat strafe, fully understand its employment considerations and always cover combat strafe as a Special Interest Item (SII) in your mission briefs.

a. **Day Employment Considerations** – During high angle strafe (HAS), strive to arrive at a proper base position and tactical airspeed before commencing an attack. Be aware of the potential “mothball” effect while searching for and acquiring small or moving targets. If required, extend away from the target for adequate separation.

Use all available cues learned in peacetime training such as ATP, HUD, target marks, ground references, altimeter and cockpit references to establish a good roll-in. During the roll-in, use all tools in your respective aircraft and HUD (gun cross for example) for initial attack line-up then transition to computed gun symbology for final adjustments. Always remain aware of dive angle, airspeed, altitude and slant range to the target. During low angle strafe (LAS) attacks, the above procedures remain the same, but are even more critical. Going through dry for “safety of flight,” vice trying to salvage your pass, must always be in your game plan.

b. **Night Strafe** – Night strafe is a highly demanding and challenging attack and aircrew must consider all factors before ever committing to a night strafe run. Lack of visual cues make night gun employment an instrument-like procedure with very deliberate actions.

Use every aid in your aircraft and your wingman for mutual support.

c. **Aircrew** will thoroughly brief strafe events during all pre-mission briefings to include: parameters, desired burst length, heavyweight procedures/techniques and target engagement procedures.

Although aircraft performance may not be the same as it was during spin-up training, the procedures remain identical. Aircrew should make every effort to maximize in-theater training opportunities (in Iraq) by performing Combat Rehearsal strafing at Shadow Range. Our mission is to provide maximum support to our coalition ground forces. Well executed and timely strafe attacks can have an immediate and tremendous impact for the ground battle. Strafe is a combat multiplier and a viable and critical combat skill. To employ your aircraft in a combat strafing event requires you bring your “A” game. Strafe will remain an AOR SII until we redeploy for good. So get “back to basics” on combat strafe.

3. **COMPLIANCE.** Compliance with this guidance is mandatory.

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## FLIGHT CREW INFORMATION FILE

FROM DCFACC	TO ALL FIGHTER/BOMBER/PREDATOR AIRCREW	DATE 20061206
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SUBJECT  
FCIF 06-032 (Target Area Awareness)

1. ) OVERVIEW: JTACs and aircrews must communicate with each other, exercise sound judgment, and utilize all available means to ensure positive ID of enemy targets and to differentiate friendly forces and non-combatants.

2. DISCUSSION:

a. Recently, friendly Green unit was in the target area and had been initially misidentified as enemy forces.

b. In the first two cases, JTACs and aircrew executed proper abort procedures. Each engagement had been controlled and executed correctly. The last case highlights the need to remain vigilant of the effects of our weapons in the target area and not stay focused on just the target. In addition, ...

Therefore, aircrew and JTACs need to aggressively ensure targeting information is as accurate as possible. These incidents reemphasize the absolute necessity to maintain high levels of situational awareness in an extremely complex and ever-changing combat environment.

c. Ultimately, aircrew will rely on the JTAC to confirm the location of friendly forces and the target. However, aircrew and JTACs should utilize all available sensors and actively monitor all communications to maintain situational awareness of the entire target area.

current SPINS procedures for target coordinate generation. will follow

If conditions permit, use all available sensors to monitor the target area. Aircrew and JTACs are a vital link in the mission to support the ground commander. Tactical-level impacts can generate strategic effects to the overall campaign effort. With the intensity of today's dynamic and evolving nature of the conflict, all personnel need to continue refining TTPs and employing all available asymmetric-leverages against the enemy.

3. COMPLIANCE: Compliance with this guidance is mandatory for all CFACC fighter and bomber aircrew.

4. EFFECTIVE DATE/TIME: This FCIF is effective 6 Dec 2006 at 0300Z.

5. Direct questions to the CENTAF A3 FWD Stan Eval, DSN

AUTHORITY DCFACC	TMG	POSTING DATE/TIME 20061206 0300Z	REVIEW DATE 20071206
DESIGN AIRCRAFT	INDEX NUMBER	CREW POSITION	CREW POSITION
Fighter/Bomber/Pred	06-032	ALL	

## FLIGHT CREW INFORMATION FILE

FROM	TO	DATE
CFACC	ALL FIGHTER/ATTACK ASSETS	20061017

SUBJECT  
FCIF 06-026 (SII 06-01: CAS during Dusk and Dawn)

1. OVERVIEW. This FCIF implements SII 06-01

2. BACKGROUND: Close Air Support (CAS) is the most difficult mission Airmen are called on to execute in the CENTCOM Theater. Application of lethal force in close proximity to friendly troops, in complex terrain, in the presence of non-combatants and challenging environmental conditions demands discipline, judgment and constant risk assessment by aircrew as well as ground personnel.

Many of our operations take place during periods of transition between night and day (dawn or dusk). These transition periods place added demands on aircrew. It is imperative that aircrew use all available tools at their disposal to determine that they are engaging the correct target during these transition periods.

Use of NVGs during dawn and twilight periods are particularly difficult due to rapidly changing light conditions and reduced visual acuity associated with common weather phenomena such as fog, haze and smoke. These conditions complicate the aircrew's ability to acquire targets on the ground.

When using NVGs, the human eye uses day vision due to the image intensification provided by the NVGs. Therefore, the aircrew's night vision is degraded due to the brightness of the NVG image. When the human eye is in a dark environment, it uses night vision.

There is also another form of vision known as mixed vision. Mixed vision is used when the light level is not sufficient to allow complete day vision, but is more than enough for night only vision.

With this in mind, it is crucial that aircrew use extreme caution when transitioning from night, NVG-aided operations to the naked eye while executing tactical operations.

The decision to not employ NVGs must be tempered with an assessment of the capability to accomplish the tactical mission given the limitations of mixed vision.

At dawn and dusk, aircrew must adapt to rapidly changing light conditions, and visual acuity limitations when transitioning from NVGs to optical vision (or vice versa). Therefore, use all available means to ensure correct target identification.

Coordinate with appropriate C2 agencies such as the ASOC or JTAC to alter attack geometry to mitigate the negative effects of increasing or decreasing ambient light conditions.

Individual aircrew will have to determine the urgency of the ground situation and the level of response required to protect ground forces.

A previous attack with the use of deadly force does not prevent the aircrew from using other graduated options until the lighting conditions improve.

3. PROCEDURES: Prior to each mission, aircrews will brief dawn and dusk CAS considerations to include:

1. Physiological factors (vision, circadian rhythm and fatigue)
2. Transition to and from NVGs in the attack phase
3. Use of all available tools for target ID and confirmation
4. Changing attack geometry and/or timing to facilitate target ID

4. COMPLIANCE. Compliance with this guidance is mandatory for all fighter and attack units operating in OIF/OEF/HOA.

5. EFFECTIVE DATE/TIME. 17 Oct 06 / 0300Z

E-VIII

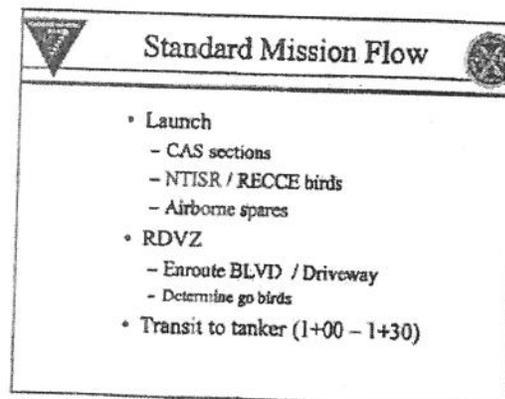
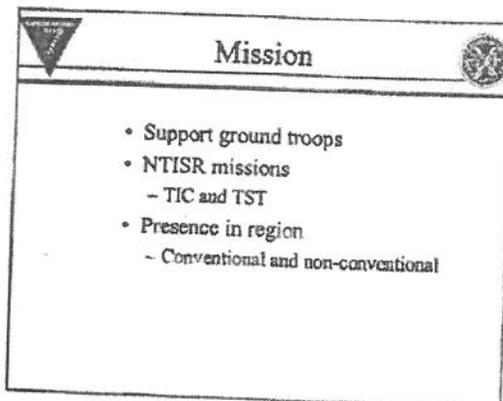
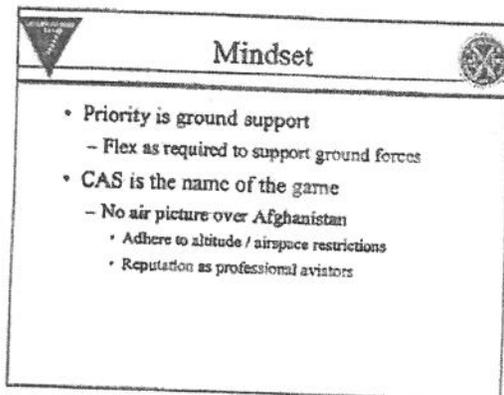
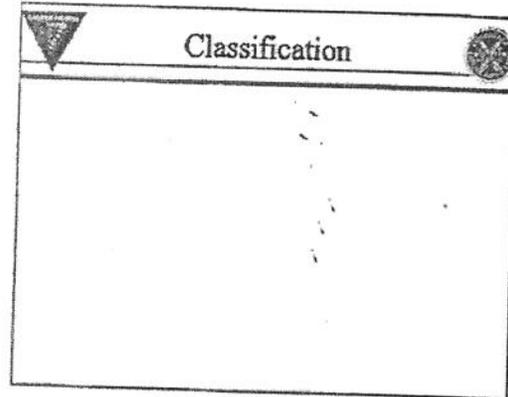
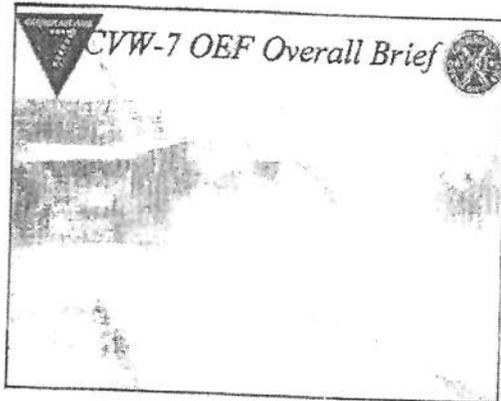
ISAF – OEF ROE Comparison  
Brief, 1 Nov 06

E-IX

**6 Pages  
Redacted**

# CVW-7 OEF Overall Brief

E-X



### Standard Mission Flow

- Tank
- Execute CAS or NTISR per ATO
- Tank
- Execute second ATO mission
- Tank
- In-flight Report (Trumpcard, Tiger, XP)
- RTB

### Mission Planning

- XPNSIAC Week Officer will download
  - ASRs
    - Intel will download and create products
    - Products will be ready for Intel brief
    - Intel will download share drive location prior to 1 NOV
  - ATOMALO
    - EDP/VA/OPS/Week/Day / EDP/VA/OPS/Week/Day
  - Standing, Weekly, Daily SPINS
    - Monday SPINS
    - E-Cycle/Weekly
    - Weekly SPINS
    - EDP/Weekly SPINS/Link
    - Daily SPINS
    - EDP/Weekly SPINS/Link
- Review your applicable ASR
  - ASR number listed on ATO
- OEF Smart Kneeboard Card Location
  - S: CVW/OPS/SPINS/OPS/OPF Card
  - Save Cards to output folder
  - XP will clear out folder

### Mission Planning

- Kneeboard Card generation
  - Smart Kneeboard Card Maker
    - One per section, quick process to produce
    - Verify data (ATO, ACO, ASRs)
  - SMEs trained
    - CAG OPS provides training to ready rooms
  - Overall SME
    - T-Bone / TBD
- Mission Products (CVW-7 Intel)
  - Laid out on tables by Mission / Call Sign
    - Mission details
    - ASR imagery
    - Sunday Papers (Not OEF)

### Brief Timeline

- EPA
  - Due 4+00 prior
- Briefs occur
  - 3+00 prior (2+30)
- Brief Sequence
  - XP
  - Weather
  - Intel
  - Overall
  - Element
    - Tactics

### Post Brief

- Flight Preparation
  - Eat something
  - Hydrate
- Stay in your bubble
- Study ASR imagery
- Review Ground Commander's Mission
- EPA / ISOPREP review

E-8

### Walk Timeline

- 1+15 - Chart Check from XP in CVIC
- 1+00 - NLT walk
- Will need extra time
  - Tapes/SSR
  - 9MM / 2 clips
  - Blood Chit
  - Authenticator
  - Camera / Binos / NVD's / LEP
  - Cockpit organization
  - Radio checks

### Cockpit Organization

- All the basics plus:
  - Water bottle / Camelback / Food
  - Tapes / SSR
  - Extra piddle packs
  - Weapon and ammo
  - Blood Chit / Authenticator / Airplan
  - Camera / Binos / NVD's / LEP
  - ID / Creditcard / Money

### Element Checks / Comm

- Element comm checks with Strike
  - 0+20 Prior To Launch
    - "Secure" comm
    - "Active" comm
    - "J-Voice B" (within element)
    - Alpha check to
- NTR -5 Zulu (CVN)
  - Zulu in Country

### XP Checks

- Xray Papa (XP) checks
  - 0+15 prior to launch
  - Initiated by first OEF mission on airplan
    - Button 8
    - Mimic Mass Brief Roll Call
    - "J-Voice A Ch 12"
      - Secure Voice Backup
  - XP will pass updates if required
- Spares monitor XP
  - Alternate mission or shutdown

### Launch

- Launch sequence plan
  - Go birds
  - Airborne spares
  - XR coordinate with handler
- Airborne spare
  - Monitor XP / J-voice Ch 12
  - Join appropriate go bird if filling
    - Come up element TAC frequency
    - Ensure you walk with all event KBCs

### Post Launch

- Tac Admin complete BLVD / Driveway
  - Stores check
  - FLIR check
  - G-warm
  - Expendables check
  - Weapons systems

## Spare Aircraft

- Rendezvous in the CV Climb Box
  - Monitor XP / J-voice, Ch 12
- Once go birds proceed
  - Contact XP for alternate mission specifics
    - DCA / SSC / Sea Dragon
    - Make scheduled recovery

## Post RDVZ

- Set 29.92 passing 14,000' MSL
- Enter the route via the CV Climb Box
  - Tunis or Cairo
- Climb to ingress alt (IFR or VFR)
  - Watch for coalition A/C
- Make call on AOR self reporting freq
  - Example: "Paounder 21, Mario, BLYD Northbound, FL 250, 400 TAS"
  - Avoid Iran
  - Refer to IFG

## Airspace Considerations

- Pakistani ADIZ (Karachi FIR)
  - CVOA's overlap Karachi FIR
  - 16k floor
  - Proceed to the CVOA climb box
  - Enter appropriate beach road or BLVD
- **Do NOT** Fly into Iran's Sovereign Airspace!
  - 5nm minimum standoff

E-X



## En-route To AAR



- Get FLIR check inbound to tanker
  - FLIR update point
    - Tapes On
    - Verify coordinates to known point
    - Verify POV and Track Modes
    - Fire LASER (Unpopulated Area)
    - FLIR back to Standby for transit
- Link-16
  - In Accordance with L-16 Stan
  - Feet Dry, switch to OEF Link-16 time (Z)

E-~~X~~

## AAR Track

- Must meet fragged AAR start time
  - Contact "Trumpcard" if late
- Minimum tanking altitude 15k AGL
- Standard Air Force tanking procedures
  - 1k below joining Port side
  - 1nm Climb to Port observation
  - 4 ship already joined establish 1nm trail
  - Depart 1k above
- Know closest divert and Bingo fuel

## Post AAR

- Contact "Trumpcard" (CRC)
  - 5-minutes prior to coordinate route
  - Request direct Killbox
  - Example: "Trumpcard, Pounder 41, complete AR with Texaco 21 at Beaker, proceeding 37CM at FL230."
- Lead contact "Tombstone" (ASOC)
  - Post tanking for updates to ASR
  - Tasking / Killbox assignment
  - CVW 7 Ops will confirm COMM procedure

## Post AAR

- "Trumpcard" will hand off to JTAC
  - Request working block altitude
    - JTAC will deconflict
  - Monitor "Trumpcard" J-Voice A Ch 2 if able
- Do not leave assigned altitudes until cleared by "Trumpcard"
- Combat Checks Complete
  - ATFLIR to Operate

E-X

**Arriving in Killbox**

- Do ATFLIR Video Cal
  - When established in block
- Detach wingman to assigned altitude
- Set aircraft lighting
- Separate Killboxes
  - Mutual support via JV B and TAC frequency
  - Rejoin for ordnance delivery if required

**Killboxes**

- Killbox assignments
  - Fragged by ATO for ASR
  - Fragged by ATO for JTAC training
    - ATO will provide ASR, call sign, and frequency
  - Pulled from mission to support a TIC
    - Closest asset to TIC with playtime

**Missions**

- NTISR
- CAS / XCAS
  - Troops in Contact (TIC)
  - High Value Target / Individual (HVT / HVI)
  - Time Sensitive Strike (TST)
  - Show of Force (SoF)

E-8

### CAS / XCAS Mission

- Refer to OEF/OIF CAS lecture
- Be aware of who you are working with
  - Regular Army/USMC
  - OCF
- Check-in with JTAC
  - Courtesy Check-in, MNPOPA (Actual Ordinance)
  - SITREP
  - Amplifying remarks
    - ATFLIR / never frequency
    - Yo-yo capable, etc.
  - Be prepared for
    - Immediate targeting
    - NTISR

### CAS / XCAS Mission

- Standard check-in example:
  - VFA-83 lead checks in with Antidote 41 by saying:
    - "Antidote 41, Pounds 31 checking in"
  - Allow JTAC to solicit a full check-in or amplifying remarks
    - "Antidote 41, Pounds 31, Mission Number 5011, 2 x F/A-18C, overhead ESCI, keypad 3 block 12-43,000, 1 x GBU-38, 2 x CBU-12 and 500 rads 20 SAM each, please time is 0+55, advise when ready for amplifying remarks."

### CAS / XCAS Mission

- Get mission brief
  - SITREP updates
  - 9-Line
    - Not all JTACs are using 9 lines
- Talk On
  - FLIR / Visual / Rover
  - Be familiar with ASR imagery
  - GRGs
- Standard JCAS procedures

### CAS / XCAS Mission

- Airspace crowded
  - Utilize ref WYPT / SEQ for Killbox
  - Maintain assigned altitude block
  - Request 1-2 kft for wingman de-confliction / FLIR employment
- Brief tactics
  - KISS principle applies
  - STAN CVW7 tactics (Buddy Lase)
    - New kneeboard cards posted on CAS website
  - Yo-yo options based on wingman experience, CVW-7 Stan, and OEF SPINS

### CAS / XCAS Mission

- Verify with JTAC
  - Who is controlling and type of CAS
  - Friendly positions
  - Desired weapon effects
  - Coordinate read back
- Politically sensitive environment
  - Be meticulous with weapons employment
  - If something seems wrong, it probably is
  - When in doubt ask for clarification, don't assume

### CAS / XCAS Mission

- High Value Target (HVT)
  - Other Coalition Forces (OCF)
  - Minimize communications
- High Value Individual (HVI)
  - Dynamic environment
  - Filling both NTISR and CAS roles
  - Tactics for strafe and moving targets

E-X

 **Mid-Cycle Tanking** 

- You are responsible for meeting AAR time
  - Coordinate with "Trumpcard" 5-min prior
    - J-voice A Ch 2
- If supporting TIC
  - "Yo-Yo" to Tanker
- May be different ASR post AAR
  - Professional Procedures

## Exiting Pakistan / Feet Wet

- Use caution crossing Pong
  - Inbound coalition aircraft
- Must fly to Tunis or Cairo at altitude
- Contact Red Crown 100nm out
- Feet wet and in contact with Morn
  - Fence Out
  - Proceed to CVN climb/descent point
  - Descend to medium holding altitude
  - Switch back CVN L-16 feet wet (Zulu -5)
- Pass In-flight Report to XP

## Compartmentalize

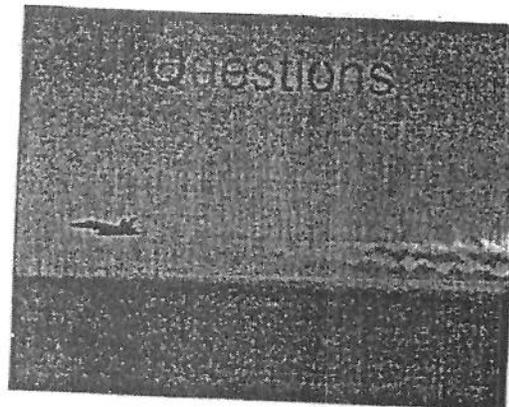
- Launch
- Mission
- RTB
  - Focus on a safe pass
  - Get aboard the first time
    - Safely
- CVIC debrief

## Contingencies

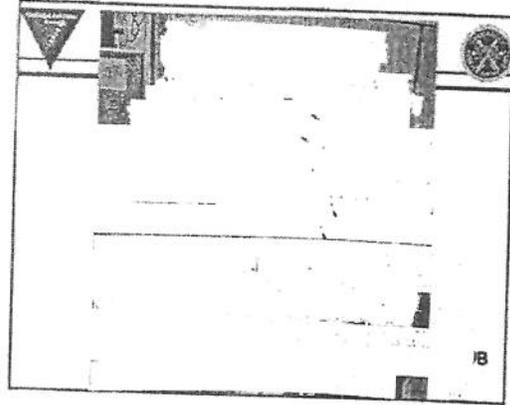
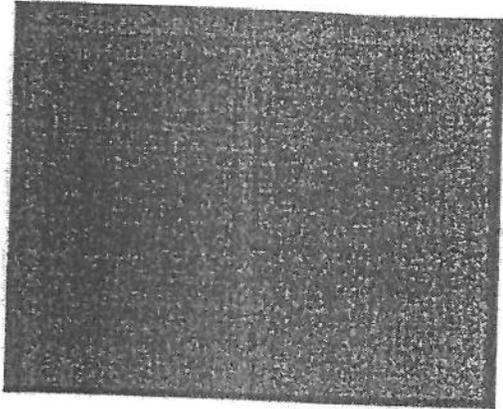
- CVOA operations
- Sour / no tanker
  - Utilize A/C specific Min RTF fuel and/or divert fuel
- Emergencies
  - Immediate landing required
  - Land as soon as practical
  - NORDO

## ORM

- Terrain
- Lack of divers
- Crew rest, hydration
- Tanker tracks (mid-air potential)
- Fuel awareness
- Expending weapons
- RTF and CVN Ops
- Current vs. Proficient

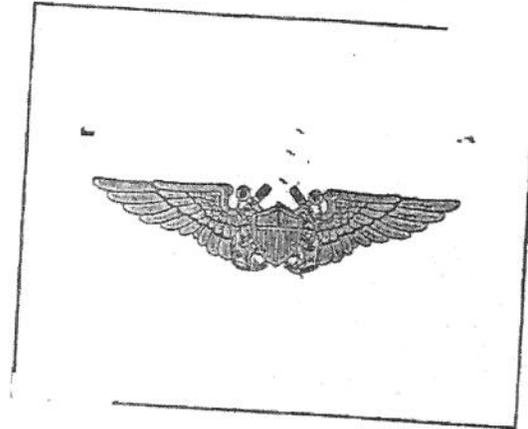
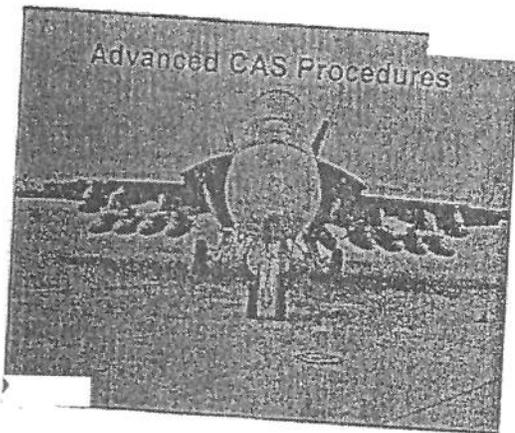


E-8



E-2

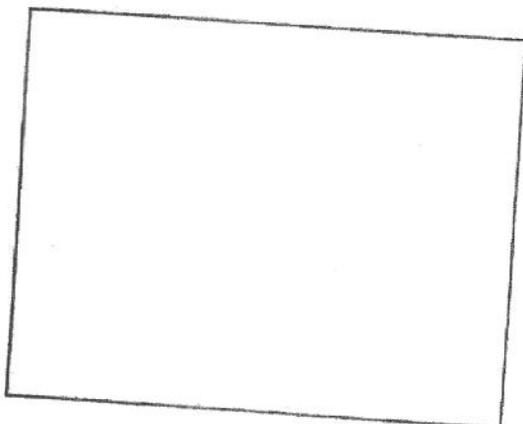
CVW-7 Advanced CAS  
Procedures Brief



**This Lecture is Classified:**

\_\_\_\_\_

- Lecture Overview**
- CAS Procedures & Comm Review
  - Rover Utilization
  - L16 TXDSG Procedures
  - GGW CAS Procedures
  - DCS / StrikeLink CAS Utilization
  - L16 CAS Page
  - Urban CAS



- CAS Procedures & Comm** UNCLASSIFIED
- Terminal Control Definitions
  - Check-in Comm
  - Laser Comm
  - IR Comm
  - Keyhole Technique

### Type 1 Terminal Control

- JTAC Must Visually Acquire the Attacking Aircraft and the Target Under Attack
- Higher Risk Assessment
  - » Fratricide / Troops in Contact
  - » Platform Confidence
  - » Aircrew Capability
  - » Language Barriers
- JTAC Provides Either "Cleared Hot" or "Abort"

### Type 2 Terminal Control

- JTAC Controls Individual Attacks But...
  - » The Attacking aircraft may not see target
  - » JTAC may not see Aircraft and / or target
  - » Primarily used with Standoff Weapons / Night or Adverse Weather situations
  - » Quality coordinates / sensor usage necessary
- JTAC Provides Either "Cleared Hot" or "Abort"

### Type 3 Terminal Control

- Low Fratricide Risk
- JTAC Grants a Weapons Release Clearance Using the Term, "Cleared to Engage" to an Aircraft or Flight, Allowing Them to Attack Targets Which Meet Prescribed Restrictions Set By the JTAC
- JTAC Retains Abort Authority But Does Not Provide a "Cleared Hot" For Individual Attacks

### Terminal Control Summary

- Commanders Assess Risk and Issue Guidance to JTACs
- JTACs Determine Type of Control
  - Must be stated prior to each attack
  - Control Type is Not Ordnance Specific
  - Simultaneous Methods of Control

### CAS Comm Review

- Check-in Format
- Sitrep Format
- Standard CAS Communications

### CAS Communications Check - In Format

- Mission Number
- Number and Type of Aircraft
- Position
- Ordnance
- Playtime
- Amplifying Remarks

### CAS Communications SITREP Format

- Targets Being Attacked
- Threats
- Friendly Units Being Supported
- Artillery Units (Call signs / Frequencies)
- Clearance Authority
- Ordnance Desired / Restricted
- Restrictions

### Example: JTAC Check - In

"Tiger 5B, This is Viper 11."

"Viper 11, this is Tiger 5B, go Ahead With Your Check - In."

"Viper 11, Mission Number 115, Flight of 2 F-18Fs, 30 South of CP Sperm at Base Plus 10. We Have 1 GBU-12, 1 Laser Maverick, 1 GBU-38, and 400 Rounds of 20mm Each. 0+45 Playtime. Viper 11 has an ATFLIR and is FAC(A) and Rover Capable. Viper 12 Has a ATFLIR Pod. Viper 11's GBU - 12 is Laser Code 1678, Viper 12's is Laser Code 1675. We have Sitrep D and JTAR's 15-01 and 03 On Board."

### Communications

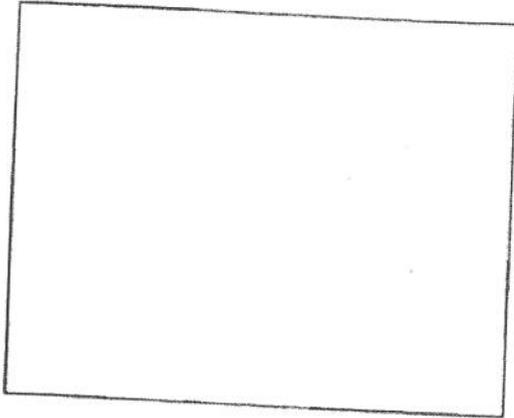
- "Contact"
- "Visual"
- "Tally" / "Tally Target Area"
- "Not in Sight. I Do See..."
- "Mark's on Deck"
  - "Contact the Mark"
  - "Negative Mark"
  - Correction From the Mark

### Communications

- Mandatory
  - "In From..."
- Discretionary
  - "Pushing" or "Pushed on Time"
  - "IP Inbound"
  - "Popping"

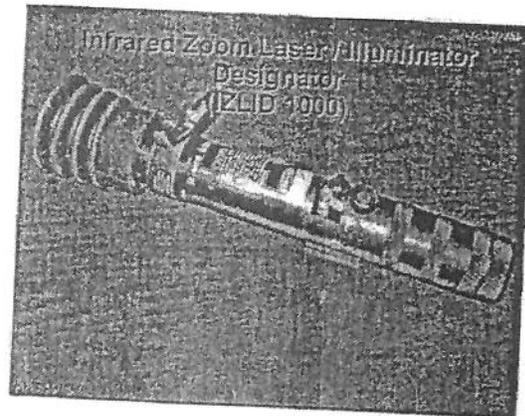
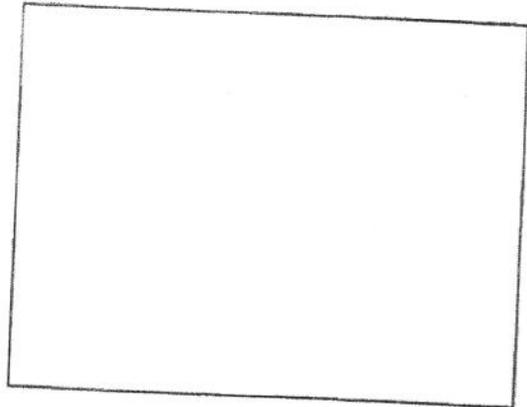
### Communications

- JTAC / FAC(A) Only
  - "Cleared Ho"
  - "Cleared to Engage"
- CAS Assets Never Use
  - "Cleared" or "Hot"



### Joint Laser Comm

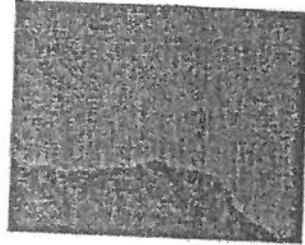
- "10 Seconds"
- "Laser On"
- "Spot"
- "Negative Laser"
- "Shift"
- "Terminate"



### IR Pointer Terminology

- "Sparkle"
- "Snake"
- "Pulse"
- "Steady"
- "Stop"
- "Rope"

### IR Pointer



### Keyhole Technique

- Aircraft Hold Relative to Target  
– Given Target Location, Direction, Altitude and Distance to Hold

"Viper 11, The Target is N 33 45.5 W 119 43.6, Hold 130 / 10 Nil at Base Plus 15. Report Established."

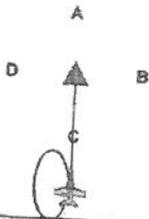
"Viper 11."



### Keyhole Technique

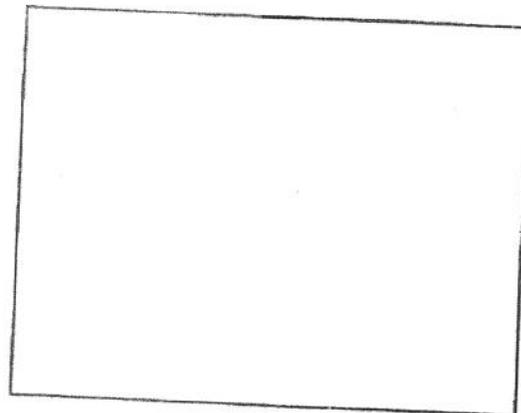
"Viper 11, The Target is N 33 45.5 W 119 43.6, Hold at Charlie / 10 at Base Plus 15. Report Established."

"Viper 11."



## ROVER Overview

- What It is
- What it does
- How to use it
  - Turn it on
  - Know your ROVER Freq
  - Tell the JTAC you have it



E-XI

### L16 Transmit Designation

- What it is
- What it does
- How to use it
  - Have a MIDS A/C

### L16 Transmit Designation

- Accepting another platforms A/G designation.
  - Allows you to look at a target without inputting coordinates
  - Allows the platform to slew your sensors via the A/G Designation until you slew the designation yourself

E-XI

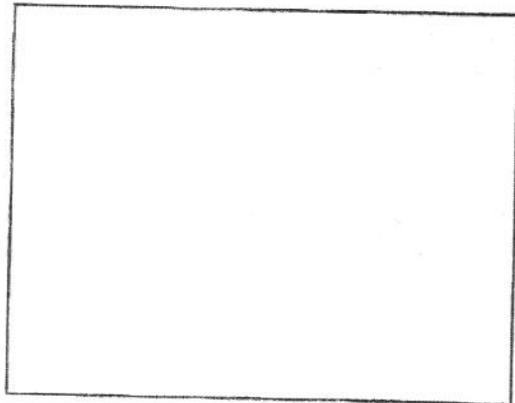
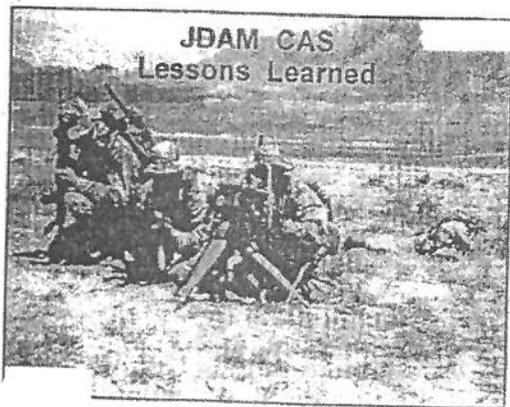
### Transmit Designation

- Comm involved – Not standard
- "Lets Transmit designate. Take my designation and tell me what you see...." (to confirm the target).
- Think of it as ROVER in reverse from the air.

### GGW CAS

- GBU - 31
- GBU - 32 / GBU - 35
- GBU - 38
- JSOW

E - XI



E-XI

### Digital Communications Suite (DCS)

- Hardware Requirements
- What it can do
- Recommended Set - Up / Usage
- Employment Example

### DCS Hardware Requirements

- MIDS ACI Panel Installation
  - Not a MIDS System!
- AN / ARC - 210 (RT - 1824)
  - May Only Be Installed as Comm 2
  - Every FA-18E/F has it, most C's
- Designed to Work With the Ground based Strikelink Station

### DCS Capabilities

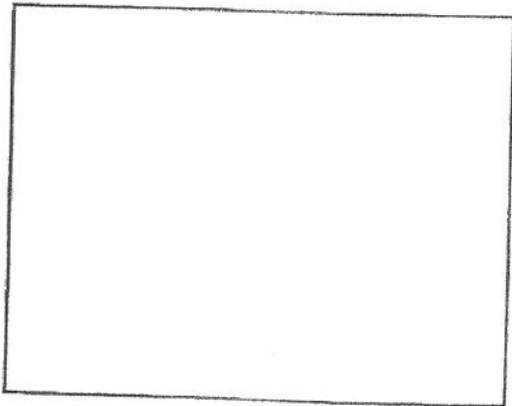
- Digital Transmission of
  - CAS Page
  - OSR (On Station Report)
  - FTXT (Free Text Messages)
  - Wilco / Cantco / DPIP Messages
  - Images (E/F) - Either stand-alone or as part of a CAS Mission

E-XI

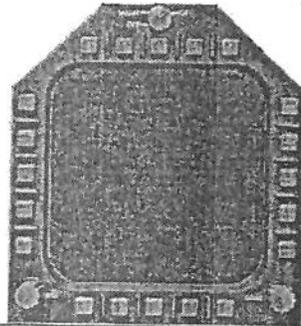
E-XI

**Remember....**

- You must have JTAC Freq on Comm 2...



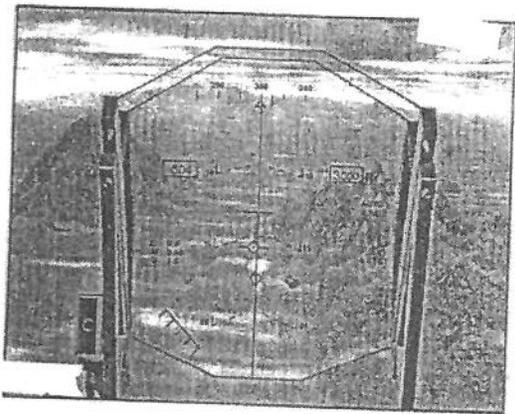
Lead sends JTAC OSR



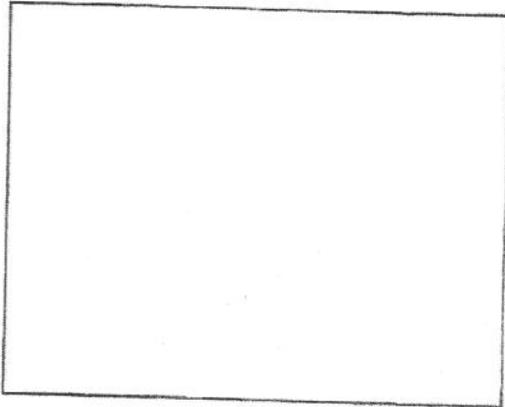
DCS EMPLOYMENT

E-XI

E-XI



**Limitations**



### L16 CAS Transmissions

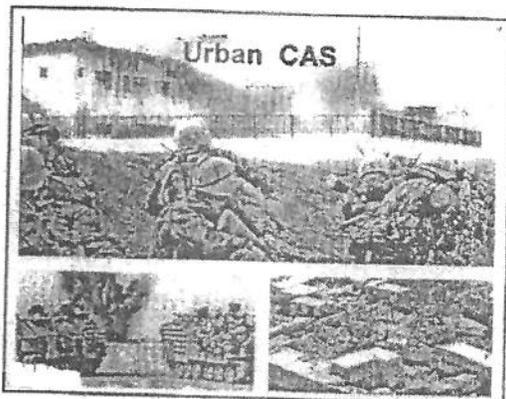
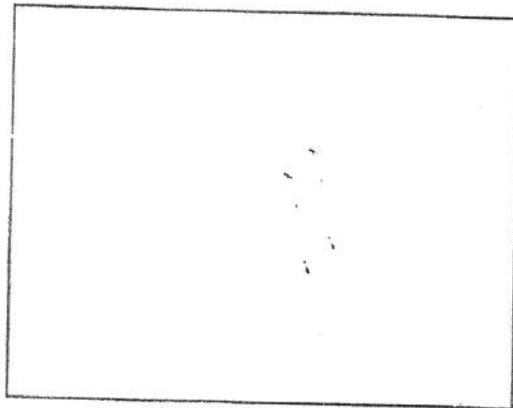
- Hardware Requirements / Set-up
- What it can do

### L16 CAS Hardware

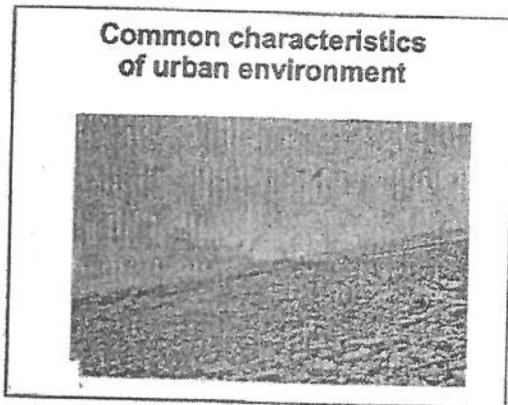
- Have MIDS
- Have it turned on
- Have it selected

### What it can do

- L16 Transmissions of truncated CAS Page
  - Only Bearing, Elevation, Description, Location, Egress Bearing, TOT, and Target Image Transmitted



- Urban CAS**
- Urban CAS Environment
  - Mission Planning Products / Target Acquisition
  - Weapon Selection
  - Threats

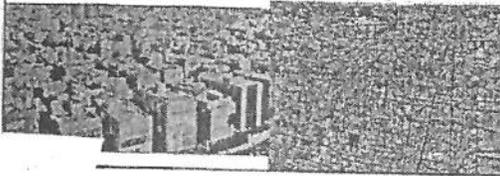


- Common characteristics of urban environment**
- Overload of visual cues
  - Uniformity of structural environment
  - Disparity in Perspective
  - Omnidirectional threat
  - Urban Canyon
  - Presence of non-combatants
  - Closer proximity of friendly troops

## Overload of Visual Cues

**Characteristics**

- Sprawling nature of urban environments
- Many buildings look alike, many streets look alike
- Vast number of visual references
- Fixed wing assets at medium/high altitude have "too much perspective"

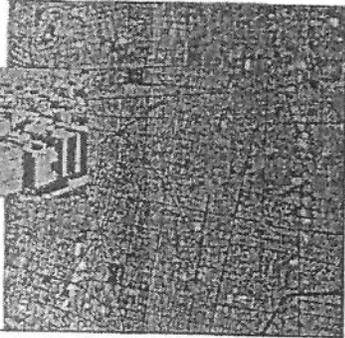


## Overload of Visual Cues

Where would you start a mission in these cities?

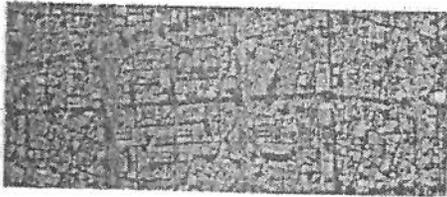


Hard to seek "big-to-small" when there is no obvious "big"  
Difficult even for airborne FAC



## Typical Problem

"You see the blue roof building?"  
"Affirm. I see 60 blue roof buildings..."



## Uniformity of Structural Environment



## Typical Problem



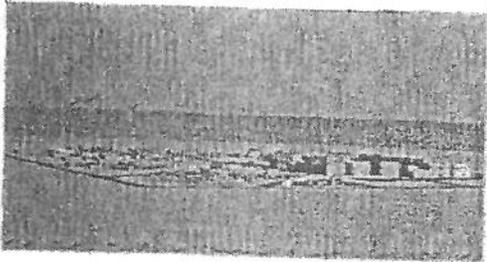
## Disparity in Perspective

**Characteristics**

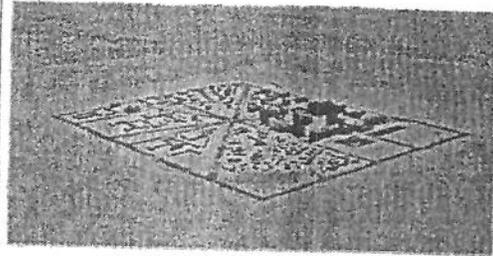
- Inherent problem with all CAS
- Lack of perspective for JTAC
- Too much perspective for airborne assets



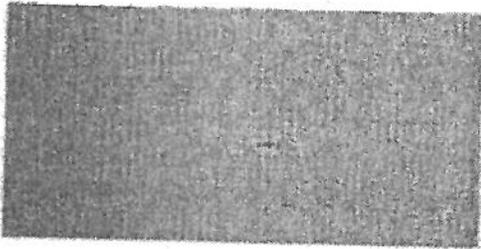
RW Perspective (Low Altitude)



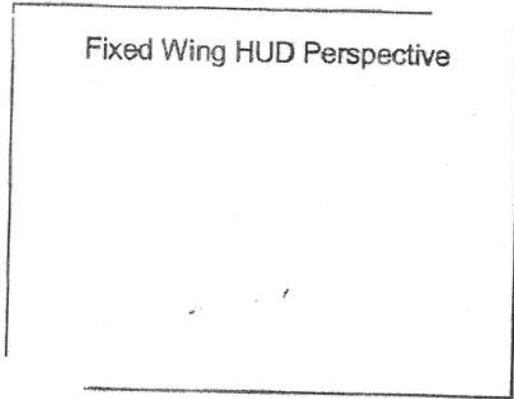
RW Perspective (Medium Altitude)



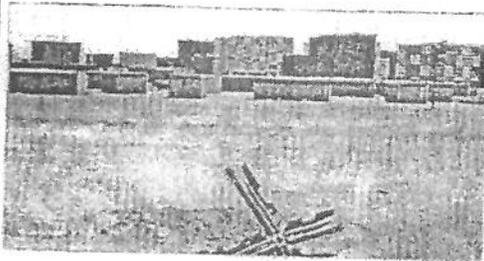
FW Perspective



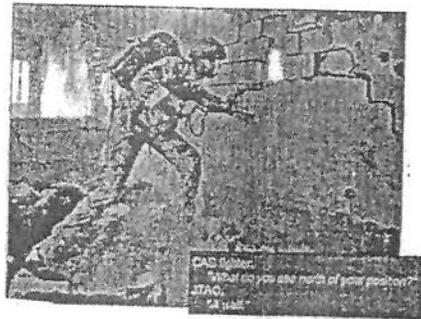
Fixed Wing HUD Perspective



JTAC Perspective 1



Typical Problem



E - XI

### Urban Canyon

- Characteristics
  - Vertical structures create "urban canyons" between buildings

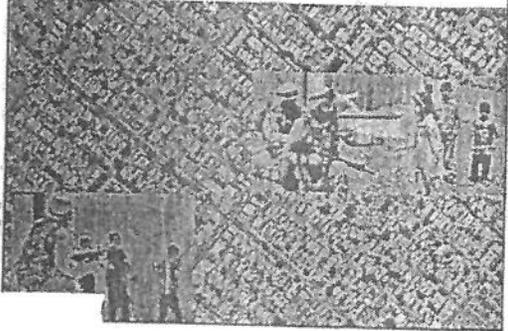


### Omnidirectional Threat

- Characteristics
  - Every building and structure in an urban area is a potential enemy position



### Presence of Non-Combatants



### Proximity of Friendly Forces

*"Historical studies prove that 90% of all urban engagements occur where friendly and enemy forces are within 50 meters of each other, and that urban engagements using supporting arms occur with less than 250 meters between the same."*

JP 3-09.3 ch.1, V-48



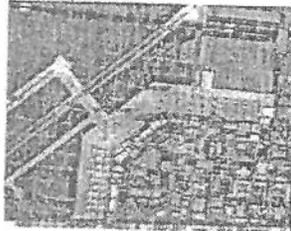
### Summary of Urban Environment

- Urban environment characteristics...
  - Overload of visual cues
  - Uniformity of structural environment
  - Disparity in Ground -vs- Air perspective
  - Omnidirectional Threat
  - Urban Canyon
  - Presence of non-combatants
  - Closer proximity of friendly troops

### Mission Planning Products

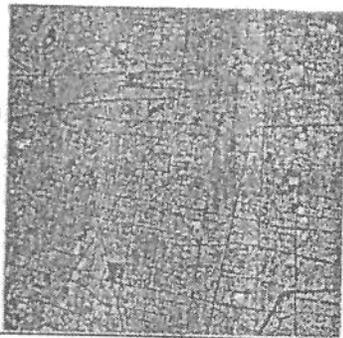
## Available Maps

- JOG Air / Ground
- 1:250,000
- 1:50,000
- Street Maps
- Tourist Maps
- Photos
- Hand Drawn Documents



## Unaided Talk-On

Where would you start a talk-on in this city?



Talk-on with common geographic reference (Urban Grid)

Easier if JTAC, FAC, and CAS assets all had this map?

Talk-on with common geographic reference (Urban Grid)

"Call contact collection of white-roof buildings in SW corner of Area Delta."

## Common Geographic Reference Material

- General Concept
  - Designed to provide common reference system to aid geolocation
  - Overlay system used on imagery and/or maps
- Examples
  - Urban Grid
  - Keyboard/Keypad
  - Gridded Reference Graphic
  - Street naming
  - Building numbering
  - Target Reference Points (TRPs)

## Transferring map SA to Eyes/Sensors

- Techniques
  - Slave sensor to Helmet LOS?
  - "Dip check" on coordinates  
(pointing nose at target to view HUD symbology superimposed over target)
  - HUD mark / designation
  - Preplanned coordinates
    - List of rough coordinates for all sectors
    - List of coordinates for all buildings in city
- Take some time to consider how you will do this

## Weapon Selection

- Rules of Engagement
- Limit Collateral Damage
- Accuracy

## Urban CAS Weapons

- GBU - 12
- AGM-65E Laser Maverick
- GBU - 38
- 20 mm

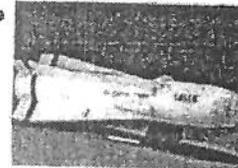
## GBU-12



- Paveway 2 Guidance Kit
- 500 Pound Warhead
- Retractable Airfoil Assembly
- FMU - 139 Electrical Fuze
  - Inflight selectable w/ MK-122

## AGM-65E Laser Maverick

- Excellent Urban Choice
- Relatively Low Yield
- Moderate Frag
- Good Penetration



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### Urban Lasing Considerations

- Spot size
  - Distance to target
  - Graze angle
  - Sensor capabilities
- Over/under spill
- Spot placement
  - Top or side of building
  - Will bomb/missile see laser energy?
    - » Urban canyon
    - » Podium effect
    - » Ground vs airborne base
    - » Impact angle

### GBU-38 JDAM

- Bomb on coordinate
  - No need for talk-on
  - Preplanned mensurated coordinates
    - » Detailed planning time
  - Reactive targeting
    - » Level of accuracy of coordinate derivation

### M61 20MM Gun

- Low Yield/Frag
- Psychological Impact
- Very Responsive
- Impact of Short/Long hits
- Exposure/threat considerations

### Fixed Wing Attacks

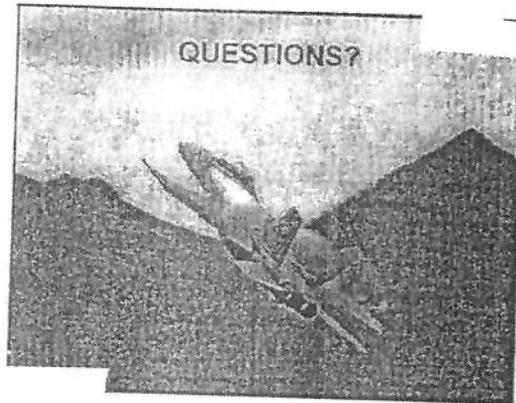
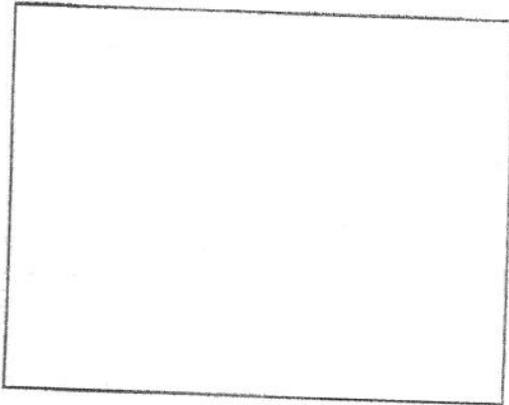
- Diving deliveries
  - Friendly position and target may both reside in HUD
- Night Considerations: Lighting, Expendables
- Low releases = Weapon accuracy / FAC acquisition
  - Risk is higher
  - Short gun burst

### Urban Lessons Learned

- Avoid prolonged exposure over urban areas
  - Horizontal / vertical offset
- Precision munitions are the rule
- Grid references extremely effective when standardized

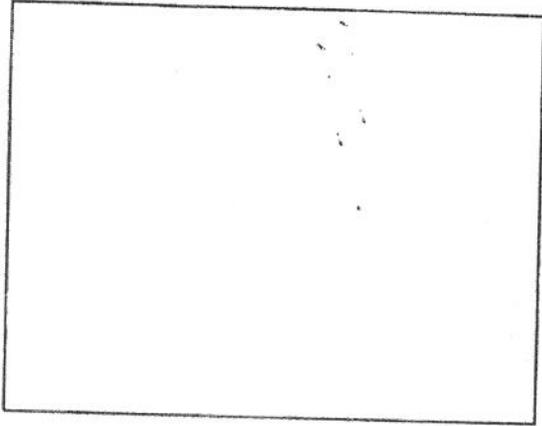
### Threats in Urban Terrain

- Cover and Concealment
- AAA
- MANPADS
- SAMs



VFA-131 Advanced /OCF  
CAS Brief

E-XII



UNCLASSIFIED

Current Operations

- ◆ OIF / OEF
- ◆ High Value Individuals (HVI)
- ◆ Political environment
- ◆ TF 615 / TF 3/52 vs CJTF 76

UNCLASSIFIED

UNCLASSIFIED

Background

- ◆ Other Coalition Forces (OCF)
- ◆ Basic Tactics, Techniques, Procedures (TTP)
- ◆ Operate mainly at night
- ◆ Discretion is key

UNCLASSIFIED

### Pre-arrival Requirements

- ◆ Thorough familiarity with JP 3-09.3
- ◆ Time sensitive calls for fire
  - ◆ Strafe in close proximity to friendly forces
  - ◆ Engage stationary or moving targets with non-coordinate dependent weapons
- ◆ NTISR and CAS

### Equipment

- ◆ Carry about 75 pounds of basic kit
- ◆ Secure radio (FM secure preferred)
- ◆ Targeting system for coordinates (PSS-SOF)
- ◆ Grid Reference Graphic (GRG)
  - ◆ Prefer WGS grid to Lat / Long
- ◆ ROVER

## Assault

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- ◆ Recce / fix target
  - Be prepared to provide NTISR to locate and provide updates on target disposition
  - Do not fixate on objective
- ◆ Fires integration
  - Pre-assault, TOT, or on call

## Check-in Procedures

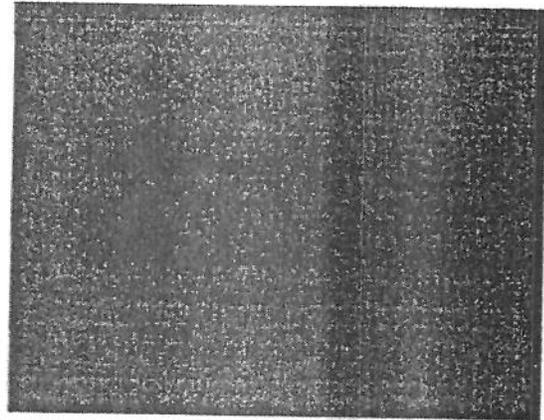
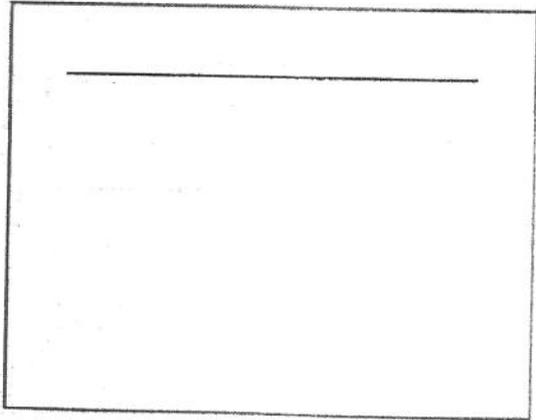
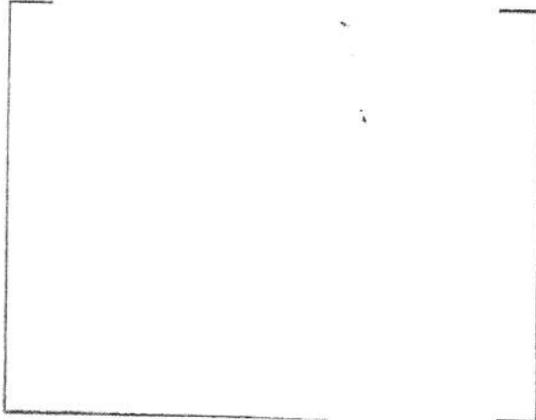
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- ◆ Minimize communications
- ◆ JTAC positioning
  - Going through breach
  - In predator trailer at Nellis AFB
- ◆ Talk to fires support officer in JOC
  - Passed off to JTAC



Additional Assault Considerations

- ◆ Laser Codes
- ◆ Laser Comm
- ◆ "Cleared Hot"
- ◆ Moving Targets / BHA Reporting!



Carrier Air Wing Seven Box  
Strafing Guide

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**7 Pages Redacted**

ISAF Standard Operating  
Procedure 311

**1 Page Redacted**