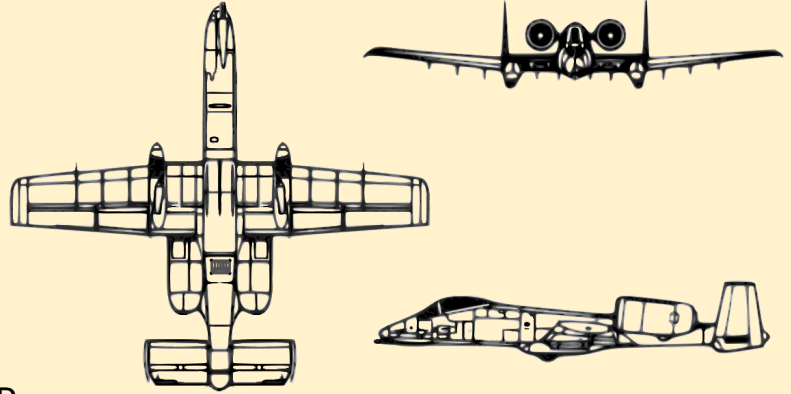


A-10C II Quick Reference Kneeboard

Startup Checklist

- **Battery** – PWR
- **Inverter** – STBY
- **APU** – START
- **CDU, EGI** – ON
- **CICU, JTRS, IFFCC** – ON
- **MFC D L/R** – ON
- **(Once APU 100%) APU GEN** – PWR
- ***Armament and Fuel** if not already loaded
- **Cockpit** – Closed
- **Comms** – ON x3
- **Seat** – Armed
- **SAS** – ALL ON
- **Takeoff Trim** – SET
- **Boost Pumps** – ALL ON
- **Anti Skid** – ON
- **SAI** – Uncage
- **Countermeasures** – On & Armed
- **Oxygen** – ON
- **Pitot Heat** – ON
- **Lights** – As Required
- **Left Throttle** – Idle
- **DTS Upload** – Load All
- **TGP** – ON
- **MAV** – EO ON
- **(Once “Engine Start Cycle” off) Right Throttle** – Idle
- **DSMS** – Weapon Profiles Set
- **TAD** – Group/Own ID Set
- **(Once Both Engines Started) AC GEN L/R** – PWR
- **APU GEN** – OFF/Reset
- **APU** – OFF
- **ILS** – SET
- **TACAN** – SET
- **Flaps** – Takeoff
- **Landing Lights** – Taxi
- **Once INS T= 4.0 0.8** – NAV Softkey
- **Page Dial** – Steer
- **Steer Pt Dial** – FLT Plan
- **NAV Mode** – EGI



- **RDR ALTM** – Norm
- **EAC** – ARM
- **NWS** – ON

Shutdown Checklist

- **HMCS Power** – OFF
- **Seat** – SAFE
- **Canopy** – OPEN
- **Pitot Heat** – OFF
- **Flaps** – UP
- **IFF Master** – OFF
- **SAI** – Caged
- **Master Arm, Gun/PAC, Laser** – SAFE
- **TGP, CICU, JTRS, IFFCC** – OFF
- **MFCD L/R** – OFF
- **EGI, CDU** – OFF
- **Left Throttle** – OFF
- **(Once Left Engine RPM < 5%) Right Throttle** – OFF
- **Inverter, Battery** – OFF
- **AM, UHF, FM Radios** – OFF
- **Oxygen Supply Lever** – OFF
- **Lights** – OFF

F-E-N-C-E (Fence in checklist)

- **Fire Control**
 - AHCP Switches (ON)
 - DSMS (LOADED & SET)
 - Laser Codes (SET)
 - MAV Prep (EO ON)
- **Engines**
 - Gauges (GREEN)
 - Fuel (ABOVE BINGO)
- **Navigation**
 - AAP Knobs (SET)
 - NMSP, HSI (CONFIGURED)
- **Comms**
 - Radios (ON & SET)

● Emitters

- Exterior Lights (OFF)
- IFF (SET)
- TACAN (SET)
- ECM (CONFIGURED & RDY)
- Chaff, Flare (ARMED)

A2A Refueling

1. Hot Armament Check

- Master Arm, Gun/PAC, Laser - SAFE
- DSMS - Deselect All

2. Precontact Check

- IFF/TACAN/ECM - STBY/A/A REC/ OFF
- Refueling Lights - ON
- Exterior Lights - As Required
- Fill Disable Switch - As Required
- Air Refuel Control - OPEN
- READY Light - Verify ON

**If disconnected and want to recontact, press the NWS button.*

3. Post Refueling

- Air Refuel Control - CLOSED
- IFF/TACAN/ECM/Lights - As Required

Useful Formulas

Speed/Time/Distance

- Ground Speed required (knots) = (Distance/Minutes) x 60
- Time of Flight (mins) = (Distance/Ground Speed) x 60

Fuel/Endurance

- Bingo Fuel (lbs) = (Time of Flight/60) x Fuel Burn (lb/hr)
- Objective Time (mins) = ([Total Fuel - Bingo] ÷ Fuel lb/hr) x 60

Latitude/Longitude Conversion

- DDD-MM-SS.SS to DDD-MM.MMM
 - SS.SS/60 = .MMM
- DDD-MM.MMM to DDD-MM-SS.SS
 - .MMM x 60 = SS.SS

9-Line Assistant

1. **IP/BP:_____** - Initial Point or Battle Point
2. **Heading:_____Offset:L_____R_____** - HDG(mag) from IP to TGT
3. **Distance:_____** - From IP to BP given in NM
4. **Target Elevation:_____** - In feet above MSL
5. **Target Description:_____** - Detailed description of area
6. **Target Location:_____** - UTM/MGRS/LatLong/Navaid/Visual
7. **Mark Type:_____Code:_____LTL:_____** - LTL= Laser Target Line
8. **Friendlylies:_____** - Location of nearest friendlylies
9. **Egress:_____** - Direction to depart after attack
- **Remarks:_____**
 - Troops in contact or danger close
 - Airspace coordination: final attack heading (FAH) or altitude restrictions
 - Threat
 - SEAD support in effect
 - Active gun target lines
 - Ordnance Requested
 - Hazards
 - Weather
- **TOT:_____ or TTT:_____**
 - Time Over Target- Specific time ordnance will hit target
 - Time To Target- Countdown timer started with "HACK!"

L = LONG PRESS			TAD	TGP	HUD	AIM-9	MAV	HMCS
D M S	FWD		ZOOM+	ZOOM+	NEXT STEERPOINT	NEXT STEERPOINT	ADJ BORESIGHT RETICLE UP	BRT+
		L	MAP TOGGLE				GYRO STAB (HOLD)	
	AFT		ZOOM-	ZOOM-	PREV STEERPOINT	PREV STEERPOINT	ADJ BORESIGHT RETICLE DOWN	BRT-
		L	TAD-CTR-OPT					
	LEFT		GEN-/DEP, GNTR	RMFCD TO HMD	GUNSIGHT / PROFILE CYCLE	A-A PROFILE CYCLE	ADJ BORESIGHT RETICLE LEFT	RMFCD TO HMD
		L	HMD ON / OFF					
RIGHT		CYCLE TAD CENTRE	LASER / IR TOGGLE	GUNSIGHT / PROFILE CYCLE	A-A PROFILE CYCLE	ADJ BORESIGHT RETICLE RIGHT	CYCLE HMCS PROFILES	
	L	SLAVE TGP TO HMCS LOS				SLAVE MAV TO HMCS	SLAVE TGP TO HMCS	
T M S	FWD		HOOK SYMBOL	AREA / POINT TRACK	TDC GROUND STABILIZE	CONIC SCAN	TRACK	HOOK SYMBOL
		L	MAKE SPI at crosshair or from hooked symbol					
	AFT		UNHOOK SYMBOL	FLIR AUTOFOCUS	**SET SPI SUBMODE	BREAK LOCK	GROUND STAB	UNHOOK SYMBOL
		L	RESET SPI TO STEERPOINT					
	LEFT		ACKNOWLEDGE WCN (warnings, cautions, notes) on HUD & MFCDs					
		L	BROADCAST SPI					
RIGHT		CREATE MARKPOINT						
	L	MAKE LAST MARKPOINT SPI						
			TAD	TGP	HUD	AIM-9	MAV	HMCS
C H I N A	FWD		**FOV EXP	FOV	**SET MAV AS SOI	**UNCAGE	**FOV	FOV
		L	SLAVE ALL TO SPI			**SLAVE AIM-9 TO TGP LOS	SLAVE ALL TO SPI	
	AFT		RESET CURSOR	LSS TOGGLE	CAGE TDC TO TVV	RE-CAGE / MANUAL SEQUENCE		CAGE HDC TO ⚡
		L	SLAVE TGP TO STEERPOINT					
B O A T	FWD		TGP FLIR BHOT				BLACK HOT LMAV: CODE	
	AFT		TGP FLIR WHOT				WHITE HOT LMAV: CURSOR	
	CTR		TGP CCD				HOLD 2s FORCE CORRELATE	

CMS

◀ LEFT
6 FLARES

LONG – NEXT PROG
▲ FWD – 1 FLARE

PRESS (Z) –
RUN/STOP PROG
LONG – ECM TOGGLE

▼ AFT – 1 CHAFF
LONG – PREV PROG

RIGHT ▶
6 CHAFF

COOLIE

UP

DOWN

LEFT

RIGHT

L

L

L

L

SOI HUD

MSG QUICKLOOK

SOI HMCS

DSMS QUICKLOOK

CYCLE LMFCDD

SOI LMFCDD

CYCLE RMFCDD

SOI RMFCDD

PINKY

FWD

AFT

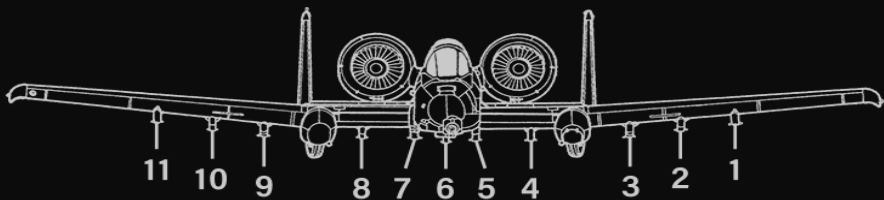
CTR

EXTERIOR
LIGHTS
DEFAULT

EXT. LIGHTS
MANUAL

EXTERIOR
LIGHTS
OFF

** This is the actually assigned function that differs from the one in the manual.
~~MAP TOGGLE~~ The function is mentioned in the manual, but not yet implemented.



BOMBS

- Mk-82 500 lbs
- Mk-82 AIR ballute 500 lbs
- Mk-84 2000 lbs
- GBU-12 laser 500 lbs
- GBU-10 laser 2000 lbs
- GBU-38 JDAM 500 lbs
- GBU-54B JDAM + laser 500 lbs
- GBU-31(V)1/B JDAM 2000 lbs
- GBU-31(V)3/B JDAM 2000 lbs
- penetrator warhead

CLUSTER:

- CBU-87 soft targets
- CBU-97 anti-armour seeker
- CBU-103 WCMD soft targets
- CBU-105 WCMD anti-armour skr

MISC / TRAINING:

- LUU-2 parachute flares
- BDU-33 025 lbs
- BDU-50LD 500 lbs
- BDU-50HD ballute 500 lbs
- BDU-50LGB laser 500 lbs

A-G MISSILES

- M151 HE APKWS laser soft targets
- M282 MPP APKWS laser penetrator

MAVERICK:

- AGM-65D IIR 125 lbs, no FC
- AGM-65G IIR 300 lbs
- AGM-65H CCD 125 lbs
- AGM-65K CCD 300 lbs

- AGM-65L CCD laser 300 lbs

MISC / TRAINING:

- TGM-65D (IIR)
- TGM-65G (IIR)
- TGM-65H (CCD)
- CATM-65K (CCD)

A-A MISSILES

- AIM-9L Sidewinder
- AIM-9M Sidewinder

MISC / TRAINING:

- Captive AIM-9M

ROCKETS

- M151 HE soft targets
- MK5 HE(AT) anti-armour

MISC / TRAINING:

- M257 parachute flares
- M274 smoke
- M156 white phosphorus
- Mk1 practice
- Mk 61 practice
- WTU-1/B practice

PODS / TANKS

- AN/AAQ-28 Litening (St 2, 10)
- ALQ-131 Jammer (St 1, 11)
- ALQ-184 Jammer (St 1, 11)
- Fuel tank FT600 (St 4, 6, 8)

MISC / TRAINING:

- AN/ASQ-T50 ACMI pod (St 1, 11)
- MXU-648 Travel pod
- Smokewinder

* A-10C II ONLY

CONVERTING NAV WIND (BRIEFING) TO METEO

BRIEFING LAYER EXAMPLE:

At 2000m 4 m/s, 115°. Ground temp +10°C

(2000m × 3) + 10% = 6600 feet, round up to 7000

(4 m/s × 2) = 08 knots

(To 115° true +/- 180°) - 6° magvar* = From 289° mag

(2°C for every 1000 feet of altitude) × 7 = 14°C

+10°C - 14°C = -4°C at 7000 ft

CONVERSION RESULT:

Layer at 7000ft: 289° / 08 kts / -4°C

A-10C: APPLYING WIND CORRECTION LAYER

CDU > SYS > "LASTE" > "WIND":

ALT 07 WIND 28908 TEMP 4 (LSK to change to -4)

* Caucasus -6° Nevada -10° Normandy +1°

Persian Gulf 0° Syria -4° The Channel 0°






Note: due to DCS interpolation, wind at 500m / 1700 ft is twice as strong as at the ground level





CMS PROGRAMS

- | | | | | | |
|---|----|-------|------|----------|-----|
| A | 20 | CHAFF | SLOW | OLD | RDR |
| B | 20 | CHAFF | FAST | NEW | RDR |
| C | 40 | FLARE | SLOW | INFRARED | |
| D | 20 | CHAFF | SLOW | MIXED OR | |
| | 20 | FLARE | SLOW | UNKNOWN | |
| E | 20 | CHAFF | FAST | | |
| | 20 | FLARE | FAST | | |
| F | 40 | CHAFF | SLOW | | |
| | 40 | FLARE | SLOW | | |
| G | 40 | CHAFF | FAST | | |
| | 40 | FLARE | FAST | | |
| H | 1 | CHAFF | | | |
| I | 2 | CHAFF | | | |
| J | 1 | FLARE | | | |
| K | 2 | FLARE | | | |
| L | 20 | CHAFF | SLOW | | |
| M | 20 | FLARE | SLOW | | |

JAMMER MODES

- | |
|-----------------------|
| AIR |
| AIR-TO-AIR |
| RADARS |
| SAM 1 |
| OLDER |
| RADAR SAMs |
| SA-3, SA-6, SA-8 etc. |
| SAM 2 |
| NEWER |
| RADAR SAMs |
| SA-10, SA-11, SA-15, |
| SA-19 etc. |
| AAA |
| ANTI-AIRCRAFT |
| GUNS |
| SHILKA, GEPARD etc. |

AIRBORNE		 AIRBORNE	 TRACKING	 MISSILE	 PRIMARY THREAT	 NEWEST THREAT
11 <i>F</i> F-111	24 <i>B</i> Su-24	52 <i>B</i> B-52	F2 <i>F</i> F-2			
13 <i>T</i> C-130	25 <i>F</i> MiG-25	76 <i>T</i> IL-76	F4 <i>F</i> F-4E			
14 <i>F</i> F-14	29 <i>F</i> MiG-29	78 <i>T</i> IL-78	F5 <i>F</i> F-5E			
15 <i>F</i> F-15	<i>F</i> Su-27, Su-33 <i>F</i> J-11A	95 <i>B</i> Tu-95	JF <i>F</i> JF-17			
16 <i>F</i> F-16		AN <i>T</i> An-26, An-30	KC <i>T</i> KC-10			
17 <i>T</i> C-17		AV <i>B</i> AV-8B	<i>T</i> KC-135			
18 <i>F</i> F/A-18	31 <i>F</i> MiG-31	B1 <i>B</i> B-1	M2 <i>F</i> Mirage			
19 <i>F</i> MiG-19	34 <i>F</i> Su-34	BJ <i>B</i> Tu-160	S3 <i>B</i> S-3B			
21 <i>F</i> MiG-21	39 <i>B</i> Su-25	E2 <i>A</i> E-2C	Tu <i>B</i> Tu-142			
22 <i>B</i> Tu-22	50 <i>A</i> A-50	E3 <i>A</i> E-3				
23 <i>F</i> MiG-23	<i>A</i> KJ-2000	E6 <i>B</i> EA-6B				
A – AWACS B – BOMBER/EW F – FIGHTER/MULTIROLE T – TRANSPORT/TANKER						

GROUND		 TRACKING	 MISSILE	 PRIMARY THREAT	 NEWEST THREAT
WATCHING					
S	Unknown search radar				
	1L13 EWR / 55G6 EWR				
	[2], [3] Flat Face B (P-19)				
BB	[10] Big Bird SR				
CS	[10] Clam Shell low-alt SR				
DE	[13] Dog Ear 9S80M1 SR				
HQ	[7] HQ-7 SR				
SD	[11] Snow Drift SR				
TS	[5] Tin Shield ST-68U SR				
ENGAGING		JAMMER MODE			
2	CH 28/++	SA-2 Guideline (Dvina)	SAM1		
3	CH 13/++	SA-3 Goa (Pechora)	SAM1		
5	CH 73/++	SA-5 Gammon (S-200)			
6	CH 22/26	SA-6 Gainful (Kub)	SAM1		
7	EV 10/18	HQ-7 Launcher			
8	CH 09/16	SA-8 Gecko (Osa)	SAM1		
10	CH 46/++	SA-10 S-300PS	SAM2		
11	CH 23/++	SA-11 Gadfly (Buk)	SAM2		
13	FL 05/12	SA-13 Gopher (Strela)			
15	CH 09/20	SA-15 Gauntlet (Tor)	SAM2		
19	EV 05/12	SA-19 Grison (Tunguska)	SAM2		
A	EV 02/10	Gepard	AAA		
	EV 02/05	M163 Vulcan	AAA		
	EV 02/07	ZSU-23-4 Shilka	AAA		
HK	CH 25/++	Hawk SR/TR/CWAR	SAM1		
NS	CH 06/35	NASAMS AIM-120C			
	06/30	NASAMS AIM-120B			
P	CH 48/++	Patriot MIM-104	SAM2		
RO	CH 06/20	Roland ADS/SR	SAM1		
RP	-- --/--	[RT] Rapier Blindfire			
RT	EV 07/10	Rapier Launcher			

NAVAL		(REFER TO GROUND SYMBOLOGY)
40	CV Tarawa	FL 08/13
49	FR Perry	CH 50/++
AE	DE Arleigh Burke IIa	CH 57/++
	CR Ticonderoga	CH 55/++
HN	DE 052C Haikou	CH 64/++
	CR Pyotr Velikiy	CH 74/++
HP	VE Grisha / Albatros	CH 08/17
MR	DE 052B Guandgzhou	CH 27/48
	FR 054A Yantai	CH 35/++
PS	TT 071 Amphib. dock	EV 04/09
	VE Molniya	EV 04/09
SS	CV CVN-70 Vinson	CH 14/35
	CV CVN-71 Roosevelt	CH 14/35
	CV CVN-72 Lincoln	CH 14/35
	CV CVN-73 Washington	CH 14/35
	CV CVN-74 Stennis	CH 14/35
	CV CVN-75 Truman	CH 14/35
SW	CV Kuznetsov 2017	CH 09/20
	CV Kuznetsov old	CH 09/20
T2	CR Moskva	CH 47/++
TP	FR Neustrashimy	CH 09/20
	FR Rezky	CH 08/17
U	Unknown (usually naval)	
CV – CARRIER CR – CRUISER DE – DESTROYER		
FR – FRIGATE TT – TRANSPORT VE – CORVETTE		

[10] – USUALLY LINKED TO [THIS] LAUNCHER

COUNTERMEASURES: CH – CHAFF FL – FLARES
EV – EVASIVE MANEUVERING ONLY (OPTICAL SAM/AAA)
22/26 – MAX LAUNCH RANGE (nm) & ALT (x1000 ft AGL)
++ MEANS THE MISSILE CAN REACH YOU ABOVE 50.000 ft
LAUNCH RANGES WERE MEASURED FOR THE F/A-18C,
AND SHOULD BE TREATED AS A ROUGH ESTIMATE.