

## CLOSE AIR SUPPORT

### REQUEST COMMUNICATIONS

<b>Agencies:</b>	TACP to ASOC (USAF), DASC/FSCC, TACC/SACC (USMC/USN)
<b>Nomenclature:</b>	Tactical air request net (USMC/USN) Air Force air request net (USAF)
<b>Frequency:</b>	2 to 30 Mhz, HF
<b>Secondary:</b>	30.00 to 75.95 Mhz, VHF-FM
<b>Compatible Equipment:</b>	USA-GRC-106, PRC-77, PRC-104, GRC-193 USMC-PRC-104, GRC-193, MRC-110, VRC-12 MRC-138, PRC-77 USAF-PRC-104/119, VRC-46, PRC-77, GRC-206, MRC-107/108/144

## CONTROL COMMUNICATIONS

<b>Agencies:</b>	ALO/AO/FAC to fighter/attack aircraft
<b>Nomenclature:</b>	Tactical air direction net
<b>Frequency:</b>	225.0 to 399.975 MHz, UHF
<b>Secondary:</b>	30.00 to 75.95 MHz, FM (Unusable by F-111, A-6, USN F-14)
<b>Secondary:</b>	121 to 143.95 MHz, VHF (Usable by OV-10, A/OA-10, F-16, F-18)
<b>Compatible Equipment:</b>	USA aviation unit - VRC-12, PRC-77, VRC-24 USMC - PRC-75, PRC-77, PRC-113, VRC-12/83/85 USAF - PRC-66, MRC-107/108/144, PRC-77, GRC-119, PRC-113, VRC-46

## CLOSE AIR SUPPORT PLANNING

Supporting TACP: \_\_\_\_\_

**NOTE:** If this TACP or direct communications are unavailable, indicate the unit through which support will be requested:

Call sign: \_\_\_\_\_

Frequency: \_\_\_\_\_

Period effective from: \_\_\_\_\_ to: \_\_\_\_\_

# **IMMEDIATE CLOSE AIR SUPPORT REQUEST**

(This format is also used to request USMC close-in fire support and may be used to request USAF AC-130 gunship support.)

1. TACP: "\_\_\_\_\_, this is \_\_\_\_\_ with an  
(ASOC/DASC/AOC/SACC) (TACP's ID)

***Immediate CAS request."***

**NOTE:** Await acknowledgment.

2. ***"Immediate."***

3. Target description: "\_\_\_\_\_"

4. Target location: <sup>3</sup>"\_\_\_\_\_, elevation  
(UTM grid coordinates)  
\_\_\_\_\_ feet"

5. Time on target: "\_\_\_\_\_"

6. Desired ordnance/results: "\_\_\_\_\_"

<sup>3</sup> USMC/USN A-6 aircraft require latitude and longitude coordinates for target location.

**NOTE:** When identifying position coordinates for joint operations, include the map data that location coordinates are based on. Desert Storm operations have shown that simple conversion to latitude/ longitude is not sufficient. The location may be referenced on several different data bases, for example, land-based versus sea-based data).

7. Final control.

*"Call sign: \_\_\_\_\_"*

*"Frequency: \_\_\_\_\_"*

*"Contact point or IP: \_\_\_\_\_"*

8. Remarks, such as—

*"Friendly location \_\_\_\_\_"*

*"Weather \_\_\_\_\_"*

*"Threats \_\_\_\_\_"*

**NOTE:** The appropriate agency will approve or disapprove as well as request additional data required to execute the mission.

## US AIRCRAFT CHECK-IN BRIEFING

(Aircraft transmits to controller)

Aircraft: " \_\_\_\_\_ , *this is* \_\_\_\_\_ "  
(controller call sign) (aircraft call sign)

1. Identification/mission number: " \_\_\_\_\_ "

**NOTE:** Authentication and appropriate response suggested here.

2. Number and type of aircraft " \_\_\_\_\_ "

3. Ordnance: " \_\_\_\_\_ "

4. Play time: " \_\_\_\_\_ "

5. Abort code: " \_\_\_\_\_ "  
(from applicable communications authentication tables)

## US FORWARD-AIR-CONTROLLER-TO-ATTACK AIRCRAFT BRIEFING (9-Line)

(Omit data not required; do not transmit line numbers.

Units of measure are standard unless otherwise specified.)

US FAC: " \_\_\_\_\_ , *this is* \_\_\_\_\_ "  
(aircraft call sign) (US FAC call sign)

1. Initial point (IP)/attack point (AP):<sup>4</sup> " \_\_\_\_\_ "

<sup>4</sup> Minimum essential in limited communications environment .

**Close Air Support** \_\_\_\_\_

2. Heading:<sup>4</sup> “ \_\_\_\_\_ ” (magnetic).  
(IP to target)  
“Offset \_\_\_\_\_ feet”  
(left/right)
3. Distance:<sup>4</sup> “ \_\_\_\_\_ ”  
(IP to target in nautical miles/AP to target in meters)
4. Target elevation:<sup>4</sup> “ \_\_\_\_\_ ” in feet—MSL
5. Target description:<sup>4</sup> “ \_\_\_\_\_ ”
6. Target location:<sup>4</sup> “ \_\_\_\_\_ ”  
(latitude and longitude or grid coordinates or offsets or visual)

(See note on page 24.)

7. Type mark: “ \_\_\_\_\_ ” Code: “ \_\_\_\_\_ ”  
(WP, beacon, laser) (actual code)

(For USAF laser target marking, include laser-to-target line.)

“ \_\_\_\_\_ degrees”

(For USMC laser procedures, include laser-to-target information in the Remarks section.)

Remarks: “ \_\_\_\_\_ ”

<sup>4</sup> Minimum essential in limited communications environment .

**NOTE:** USMC laser target-marking operations require the laser-to-target line to be the first item passed to the aircrew.

8. Location of friendlies: " \_\_\_\_\_ "

9. "Egress" \_\_\_\_\_ "

In the event of a beacon bombing request, insert beacon bombing chart line numbers here. (See pages 28 and 29.)

Remarks: \_\_\_\_\_ "

(such as attack clearance, J-SEAD, threats,

\_\_\_\_\_ "

restrictions, abort codes, hazards)

Time on target: "TOT" \_\_\_\_\_ "

or

Time to target (TTT): "Stand by" \_\_\_\_\_

plus \_\_\_\_\_ hack."

**BEACON BOMBING CHART**

Different aircraft require different information on beacon bombing. Select the appropriate line numbers. Transmit only after confirming the aircraft type. Follow this information with TOT or TTT.

☐ **A-6 (USMC, USN) Line Numbers**

10. "Bearing \_\_\_\_\_" magnetic or  
(beacon to target)  
"Beacon grid \_\_\_\_\_"  
(coordinates)
11. "Range \_\_\_\_\_" in feet or  
(beacon to target)  
"Target grid \_\_\_\_\_"  
(coordinates)
12. "Beacon elevation \_\_\_\_\_" in feet—MSL

☐ **F-111 Line Numbers**

F-111A/E requires lines 10 and 11.<sup>5</sup>

F-111D/F requires lines 10, 11, and 14 or lines 12, 13, and 14.

10. "Bearing \_\_\_\_\_" true (beacon to target)
11. "Range \_\_\_\_\_" in feet (beacon to target)

<sup>5</sup> F-111A/E (Avionics Modification Program [AMP]) requires offsets from target to beacon.



12. **"Beacon grid** \_\_\_\_\_ **"** (latitude, longitude)  
(See note on page 24)

13. **"Target grid** \_\_\_\_\_ **"** (latitude, longitude)  
(See note on page 24)

14. **"Beacon delay** \_\_\_\_\_ **"** (in milliseconds)

15. **"Beacon elevation** \_\_\_\_\_ **"** (feet MSL)

16. **"Target elevation** \_\_\_\_\_ **"** (feet MSL) **"** \_\_\_\_\_ **"**

☐ **F-16 Line Numbers**

10. **"Bearing** \_\_\_\_\_ **"** (true)  
(beacon to target)

11. **"Range** \_\_\_\_\_ **"** (feet)  
(beacon to target)

12. **"Beacon Elevation** \_\_\_\_\_ **"** (feet-MSL)

13. **"Target Elevation** \_\_\_\_\_ **"** (feet-MSL)

14. **"Beacon Time Delay** \_\_\_\_\_ **"** (milliseconds)

## NATO FORMATS

### NATO Fighter Check-In Briefing

(Use this format with NATO forces only.)

Aircraft transmits to controller

1. FAC/controller call sign: " \_\_\_\_\_ *this is* \_\_\_\_\_ "
- 2.. Fighter call sign/mission number: " \_\_\_\_\_ "
3. Authentication: " \_\_\_\_\_ "
4. FAC authentication response: " \_\_\_\_\_ "

The following may be requested after initial check-in.


- a. Number and type of aircraft: " \_\_\_\_\_ "
  - b. Armament: " \_\_\_\_\_ "
  - c. Position and altitude: " \_\_\_\_\_ "
  - d. Time on station: " \_\_\_\_\_ "
  - e. Target allocation: " \_\_\_\_\_ "
  - f. Additional information: " \_\_\_\_\_ "
- \_\_\_\_\_

**NATO Format Only**

## NATO Forward-Air-Controller-to-Attack Aircraft Briefing

(Use this format with NATO forces only.)

Controller transmits to aircraft.

1. Initial point (IP):<sup>6</sup> " \_\_\_\_\_ "
2. Target location:<sup>6</sup> (See note on page 24)
  - a. If requested, 6-digit UTM grid coordinates: " \_\_\_\_\_ "
  - b. Latitude/longitude: " \_\_\_\_\_ "
  - c. Bearing: " \_\_\_\_\_ " magnetic  
(IP/offsets to target)
  - d. Distance: " \_\_\_\_\_ *nautical miles* "   
(IP/offsets to target)
3. Target description:<sup>6</sup>
  - a. Description: " \_\_\_\_\_ "
  - b. Best attack heading : " \_\_\_\_\_ " magnetic
  - c. Weather (if clearly a factor): " \_\_\_\_\_ "
4. Friendly forces:<sup>6</sup> "Nil" or "Within \_\_\_\_\_ " in meters

Attack aircraft will read back IP and target location.

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<sup>6</sup> Minimum essential in a limited communications environment.

**NATO Format Only**

**Close Air Support** \_\_\_\_\_

5. Attack clearance:<sup>6</sup>
- a. "ASAP" or "TOT In \_\_\_\_\_ minutes"
  - b. "Hold at \_\_\_\_\_"
  - c. "Cleared hot."

Add the following information as required.

6. Navigation details:
- a. Bearing : " \_\_\_\_\_ " magnetic
  - b. Distance: " \_\_\_\_\_ nautical miles"
  - c. Elevation: " \_\_\_\_\_ feet-MSL"
7. Target indication/identification: " \_\_\_\_\_ "  
(such as smoke, light, laser)
8. Threats: "None" or " \_\_\_\_\_ "
9. Hazards: "None" or " \_\_\_\_\_ "
10. Local altimeter setting, wind:
- a. " \_\_\_\_\_ millibars" or " \_\_\_\_\_ inches"
  - b. " \_\_\_\_\_ / \_\_\_\_\_ knots"  
(wind direction) (velocity)
11. Other items as required.

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<sup>6</sup> Minimum essential in a limited communications environment.

**NATO Format Only**

**NOTE:** Read-backs of additional items not required; pilot acknowledges with "Roger."

**NATO Fighter Departing Initial Point**

(Information sent to coordinating element as a one-line transmission)

"\_\_\_\_\_ *departing IP*, \_\_\_\_\_"  
(mission number) (abort code)

**NATO Format Only**

## JOINT AIR ATTACK TEAM

### Communications

**Nomenclature:** FM 1 - Ground to air  
FM 2 - Air to air  
UHF - Air to air,<sup>7</sup>  
AM - Air to air

**Agencies:** 30.00 to 75.95 MHz, VHF-FM

**Frequency:** 121 to 143.95 MHz, VHF-AM  
225 to 400 MHz, UHF

**Compatible Equipment:** USA - PRC-77, VRC-12, VRC-24  
USMC - PRC-77, VRC-12,  
PRC-75, PRC-113  
USAF - PRC-77/119, VRC-46,  
PRC-66, PRC-113,  
MRC-107/106/144

### Briefings

#### JAAT AMC to the TACP/FAC/TAC-A

(Omit data not required; do not transmit line numbers.)

JAAT AMC: "\_\_\_\_\_, *this is* \_\_\_\_\_"  
(FAC call sign) (JAAT AMC call sign)

1. Target description: "\_\_\_\_\_"

<sup>7</sup> Not all Army helicopters have two FM radios.

2. Target location: " \_\_\_\_\_ "  
(grid coordinates [See note on page 24] )
  3. Type mark: " \_\_\_\_\_ " Code: " \_\_\_\_\_ "  
(WP, beacon, laser) (beacon, laser)
- For laser target marking, include laser-to-target line.
4. Location of friendlies: " \_\_\_\_\_ "
  5. Time over target: "**TOT** \_\_\_\_\_ "  
or  
Time to target (TTT): "**Hack time will be** \_\_\_\_\_ "
  6. Attack sectors/timing: " \_\_\_\_\_ "
  7. Threats: " \_\_\_\_\_ "  
(type and location)
  8. Restrictions: " \_\_\_\_\_ "

After initial contact with the attack aircraft, the TACP/FAC/TAC-A will brief the flight lead using the appropriate standardized J-Fire briefing format (9-line or NATO). In the Remarks section of the brief, the TACP/FAC/TAC-A will provide the AMC's call sign and radio frequency, then direct the flight lead to contact the AMC.

### JAAT AMC to the Attack Aircraft Flight Lead

(Format is flexible and depends on TACP/FAC/TAC-A availability)

JAAT AMC: " \_\_\_\_\_ , *this is* \_\_\_\_\_ "

1. Target description: " \_\_\_\_\_ "

2. Target location: " \_\_\_\_\_ "  
(grid coordinates and visual reference, if possible)

3. Threats: " \_\_\_\_\_ "  
(type and location)

4. Attack sectors/timing: " \_\_\_\_\_ "

5. Time over target: "**TOT** \_\_\_\_\_ "  
or

Time to target (TTT): "**Stand by** \_\_\_\_\_  
(minutes )

**plus** \_\_\_\_\_ , **hack.**"  
(seconds)

6. Restrictions: " \_\_\_\_\_ "

7. Coordination call: "**Call** \_\_\_\_\_ **seconds.**"

8. Remarks: " \_\_\_\_\_ "  
(specific attack roles, laser codes)

### Attack Aircraft Flight Lead to JAAT AMC

1. Departing IP: " \_\_\_\_\_ , *departing IP.*"





**Close Air Support** \_\_\_\_\_

1. AC-130 call sign: " \_\_\_\_\_ "
2. Friendly location: " \_\_\_\_\_ "
3. Friendly location marked by: " \_\_\_\_\_ "
4. Threats: " \_\_\_\_\_ "
5. Target elevation (optional): " \_\_\_\_\_ " in feet.
6. Beacon type and code (if used): " \_\_\_\_\_ "
7. Magnetic bearing from your position to TGT: " \_\_\_\_\_ "
8. Distance in meters from your position to TGT: " \_\_\_\_\_ "
9. Target description: " \_\_\_\_\_ "

**Table 6. AC-130 Data**

Recommended Safe Distance (Peacetime)	AC-130 Available Radios	Armament-AC-130 (Refuelable)
20-mm-500 meters	Two UHF's	Two 20-mm miniguns - HE, HEI, mesh, metal
40-mm-500 meters	Two HF's	One 40-mm gun - HE, mesh, metal
105-mm-650 meters	Two FM's	One 105-mm howitzer - WP, HE, VT
	One VHF AM	
	One SATCOM	

**Table 7. Risk-Estimate Distance for Aircraft-Delivered Ordnance**
**WARNING: See pages 54 through 56 for factors in determining these distances.**

Item	Description	Risk-Estimate 10 % PI	Distance 0.1 % PI
MK-82 LD	500-lb bomb	250	425
MK-82 HD	500-lb bomb (retarded)	100	375
MK-82 LGB	500-lb bomb (GBU-12)	250 <sup>11</sup>	425 <sup>11</sup>
MK-83 HD	1,000-lb bomb	275	475
MK-83 LD	1,000-lb bomb	275	475
MK-83 LGB	1,000-lb bomb (GBU-16)	275 <sup>11</sup>	475 <sup>11</sup>
MK-84 HD/LD	2,000-lb bomb	325	500
MK-84 LGB	2,000-lb bomb (GBU-10/22)	225 <sup>11</sup>	500 <sup>11</sup>
MK-20 <sup>12</sup>	Rockeye (antiarmor CBU)	150	225
MK-77	500-lb napalm (FAE)	100	150
CBU-55/77 <sup>12</sup>	Fuel-air explosive (FAE)	11	11
CBU-52 <sup>12</sup>	CBUs (all types)	275	450
CBU-58/71 <sup>12,13</sup>	CBUs (all types)	350	525
CBU-87 <sup>12</sup>	CBUs (all types)	175	275
CBU-89/78 <sup>14</sup>	CBUs (all types)	175	275
2.75 FFAR	Rocket with various warheads	160	200

<sup>11</sup> Risk-estimate distances are to be determined. For LGBs, the values shown are for weapons that do not guide and that follow a ballistic trajectory similar to GP bombs.

<sup>12</sup> Not recommended for use near troops in contact.

<sup>13</sup> CBU-71/CBU-84 bombs contain time-delay fuzes that detonate at random times after impact. CBU-89 bombs are antitank and antipersonnel mines and are not recommended for use near troops in contact.

**Table 7. Risk-Estimate Distances for Aircraft-Delivered Ordnance (continued)**

Item	Description	Risk-Estimate 10 % PI	Distance 0.1 % PI
5.00 FFAR	Zuni with various warheads	150	200
SUU-11	7.62-mm minigun	11	11
M4, M12 SUU-23, M61	20-mm Gatling gun	100	150
GAU-12	25-mm gun	100	150
GPU-5A GAU-8	30-mm Gatling gun	100	150
AGM-65 <sup>14</sup>	Maverick (TV, IIR, laser-guided)	25	100
MK-1/MK-21	Walleye II (1,000-lb TV-guided bomb)	275	500
MK-5/MK-23	Walleye II (2,400-lb TV-guided bomb)	11	11
AGM-123A	Skipper (1,000-lb laser-guided, rocket-boosted bomb)	275 <sup>11</sup>	500 <sup>11</sup>
AC-130	105-mm cannon	500 <sup>15</sup>	500 <sup>15</sup>

<sup>14</sup>

The data listed applies only to AGM-65A, B, C, and D models. AGM-65E and G models contain a larger warhead and risk-estimate distances are not currently available.

<sup>15</sup>

This distance is used for all AC-130 engagements as it has the largest fragmentation pattern for the largest weapon system on board.